



FCC 47 CFR § 2.1093
IEEE Std 1528-2013

SAR EVALUATION REPORT

FOR

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

MODEL NUMBER: SM-A546U, SM-A546U1, SM-S546VL

FCC ID: A3LSMA546U

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Prepared for
SAMSUNG ELECTRONICS CO., LTD.
129 SAMSUNG-RO, YEONGTONG-GU, SUWON-SI,
GYEONGGI-DO, 16677, KOREA

Prepared by
UL Korea, Ltd.

26th floor, 152, Teheran-ro, Gangnam-gu Seoul, 06236, Korea

Suwon Test Site: UL Korea, Ltd. Suwon Laboratory
218 Maeyeong-ro, Yeongtong-gu,
Suwon-si, Gyeonggi-do, 16675, Korea
TEL: (031) 337-9902
FAX: (031) 213-5433



Testing Laboratory

TL-637

Revision History

Rev.	Date	Revisions	Revised By
V1	1/20/2023	Initial Issue	--
V2	1/25/2023	Revised Pmax target of NR Band n77 SRS2 PC2 in Section.6.3 & 6.4. Revised RSI=3 Maximum tune-up limit of WCDMA Band II & IV in Sec.6.5 Revised WLAN Antenna in Sec.7 Revised RSI of LTE Band 41 (Power class 2) in Sec.9.3 Revised NR Band n41 (Power class 2) in Sec 10.25 Revised description of algorithm in Sec.12	Jeongyeon Won
V3	2/1/2023	Added DTS & UNII Duty Plot in Sec.9.5 and 9.6	Jeongyeon Won

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1. Attestation of Test Results

Applicant Name	SAMSUNG ELECTRONICS CO.,LTD.							
FCC ID	A3LSMA546U							
Model Number	SM-A546U, SM-A546U1, SM-S546VL							
Applicable Standards	FCC 47 CFR § 2.1093 IEEE Std 1528-2013 Published RF exposure KDB procedures							
	SAR Limits (W/Kg)							
Exposure Category	Peak spatial-average (1g of tissue)				Product Specific 10g (10g of tissue)			
General population / Uncontrolled exposure	1.6				4.0			
RF Exposure Conditions	Equipment Class - The Highest <u>Reported</u> SAR (W/kg)							
	PCE	CBE	DTS	NII	DSS	DXX		
Head	0.68	0.81	0.26	0.14	0.12	N/A		
Body-worn	0.67	0.17	0.24	0.23	0.03	N/A		
Hotspot	1.06	0.41	0.46	0.16	0.08	N/A		
Product Specific 10g	2.60	N/A	N/A	1.39	N/A	0.03		
Simultaneous TX	Head	1.28		1.28	1.12	1.12		
	Body-worn	1.05		0.97	1.05	1.05		
	Hotspot	1.44		1.44	1.14	1.14		
	Product Specific 10g	2.60		N/A	2.60	N/A		
Date Tested	12/1/2022 to 1/20/2023							
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 Results

Equipment Class	Band	Antenna	The Highest Reported SAR (W/kg) of RF exposure conditions			
			1g of tissue			10g of tissue
			Head Exposure	Body-worn Exposure	Hotspot Exposure	
PCE	GSM 850	Main.1 Ant	0.448	0.372	0.838	N/A
	GSM 1900	Main.2 Ant	0.211	0.375	0.912	N/A
	WCDMA Band II	Main.2 Ant	0.395	0.664	0.602	N/A
	WCDMA Band IV	Main.2 Ant	0.425	0.666	0.491	N/A
	WCDMA Band V	Main.1 Ant	0.338	0.338	0.673	N/A
	LTE Band 2	Sub.2 Ant	0.534	0.103	0.391	N/A
	LTE Band 7	Main.2 Ant	0.249	0.408	0.533	N/A
	LTE Band 12	Main.1 Ant	0.263	0.330	0.457	N/A
	LTE Band 13	Main.1 Ant	0.283	0.372	0.565	N/A
	LTE Band 14	Main.1 Ant	0.259	0.325	0.464	N/A
	LTE Band 25	Main.2 Ant	0.317	0.557	0.703	N/A
	LTE Band 26	Main.1 Ant	0.361	0.372	0.620	N/A
	LTE Band 30	Main.2 Ant	0.124	0.306	0.588	N/A
	LTE Band 38	Main.2 Ant	N/A	N/A	0.529	N/A
	LTE Band 40	Main.2 Ant	0.008	0.009	0.037	N/A
	LTE Band 41	Main.2 Ant	0.217	0.270	0.406	N/A
	LTE Band 66	Main.2 Ant	0.372	0.565	1.058	2.603
	LTE Band 66	Sub.2 Ant	0.680	0.200	0.504	N/A
	LTE Band 71	Main.1 Ant	0.282	0.349	0.407	N/A
	NR Band n5	Main.1 Ant	0.324	0.324	0.610	N/A
	NR Band n12	Main.1 Ant	0.217	0.275	0.394	N/A
	NR Band n25	Main.2 Ant	0.311	0.537	0.715	N/A
	NR Band n30	Main.2 Ant	0.160	0.263	0.717	N/A
	NR Band n41	Main.2 Ant	0.229	0.335	0.308	N/A
	NR Band n66	Main.2 Ant	0.281	0.560	0.858	1.897
	NR Band n71	Main.1 Ant	0.253	0.367	0.414	N/A
	NR Band n77 (Voice/Data/SRS0)	Sub.3 Ant	0.545	0.123	0.436	N/A
	NR Band n77-SRS1	Main.2 Ant	0.005	0.023	0.134	N/A
	NR Band n77-SRS2	Sub.5 Ant	0.405	0.066	0.400	N/A
	NR Band n77-SRS3	Sub.8 Ant	0.269	<0.001	0.007	N/A
CBE	LTE Band 48	Sub.3 Ant	0.811	0.170	0.413	N/A
	NR Band n48 (Voice/Data/SRS0)	Sub.3 Ant	0.441	0.049	0.206	N/A
	NR Band n48-SRS1	Main.2 Ant	0.004	0.051	0.151	N/A
	NR Band n48-SRS2	Sub.5 Ant	0.182	0.019	0.085	N/A
	NR Band n48-SRS3	Sub.8 Ant	0.182	0.078	0.136	N/A
DTS	2.4GHz WLAN	WiFi/BT Ant.	0.259	0.244	0.463	N/A
UNII	5GHz WLAN	WiFi/BT Ant.	0.137	0.225	0.163	1.387
DSS	Bluetooth	WiFi/BT Ant.	0.121	0.030	0.080	N/A
DXX	NFC	NFC Ant.	N/A	N/A	N/A	0.026

Note(s):

The Highest Reported SAR Results were listed for each RF exposure conditions for each supported bands based on SAR test results of Section.10.

2. Test Specification, Methods and Procedures

The tests documented in this report were performed in accordance with FCC 47 CFR § 2.1093, IEEE STD 1528-2013, ANSI C63.26-2015 the following FCC Published RF exposure [KDB](#) procedures:

- 248227 D01 802.11 Wi-Fi SAR v02r02
- 447498 D04 Interim General RF Exposure Guidance v01
- 648474 D04 Handset SAR v01r03
- 690783 D01 SAR Listings on Grants v01r03
- 865664 D01 SAR measurement 100 MHz to 6 GHz v01r04
- 865664 D02 RF Exposure Reporting v01r02
- 941225 D01 3G SAR Procedures v03r01
- 941225 D05 SAR for LTE Devices v02r05
- 941225 D05A LTE Rel.10 KDB Inquiry Sheet v01r02
- 941225 D06 Hotspot Mode v02r01
- 941225 D07 UMPCT Mini Tablet v01r02
- 971168 D01 Power Meas License Digital System v03r01

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

- [TCB workshop](#) October, 2014; RF Exposure Procedures Update (Overlapping LTE Bands)
- [TCB workshop](#) October, 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](#) November, 2017; RF Exposure Procedures (LTE UL/DL Carrier Aggregation SAR)
- [TCB workshop](#) April, 2018; RF Exposure Procedures (LTE DL CA SAR Test Exclusion Update)
- [TCB workshop](#) April, 2019; RF Exposure Procedures (Tissue Simulating Liquids (TSL))
- [TCB workshop](#) October, 2020; 5G RFX Policies (Intra-band and Inter-band NSA-EN-DC evaluation)
- [TCB workshop](#) April, 2022; RF Exposure Procedures (5G NR FR1 Measurement)

3. Facilities and Accreditation

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

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

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

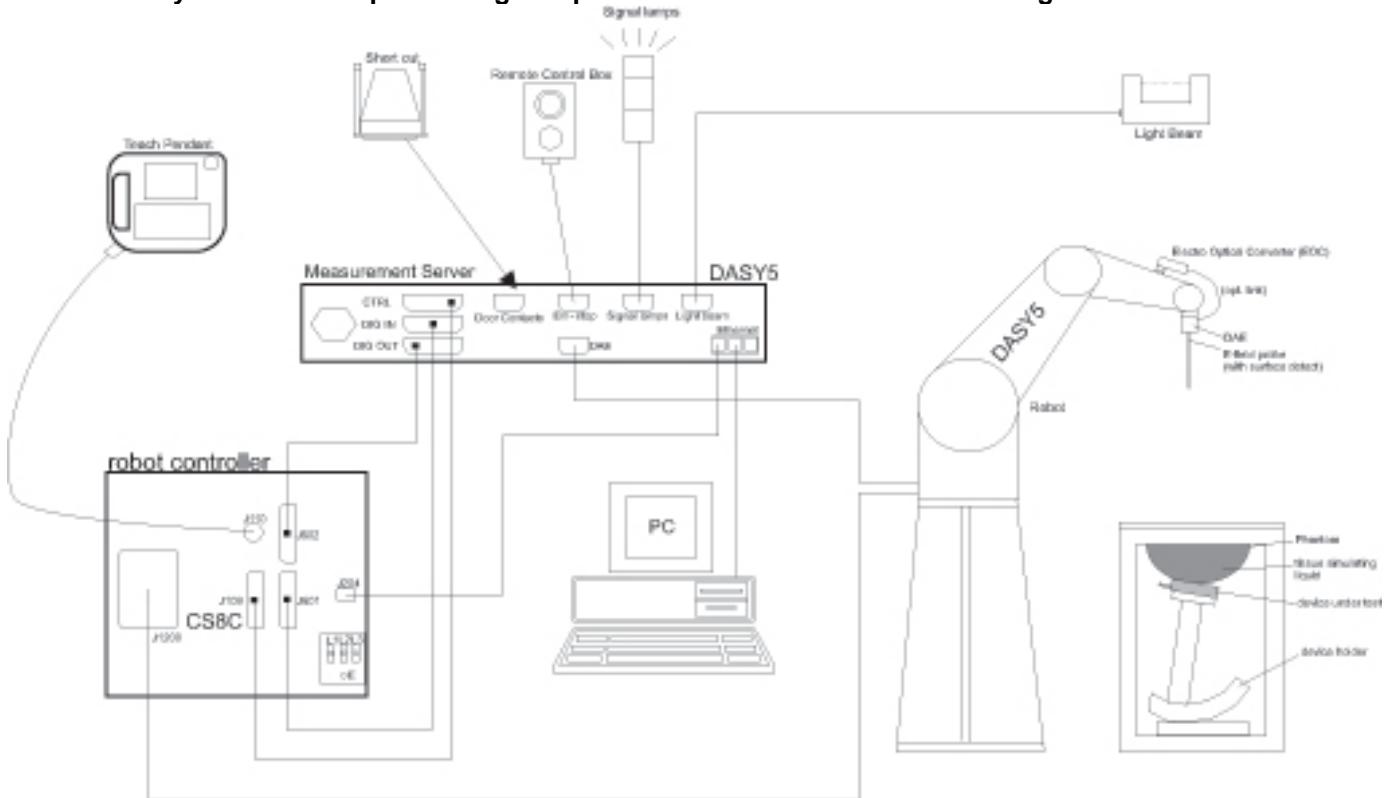
The full scope of accreditation can be viewed at;

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

4. SAR Measurement System & Test Equipment

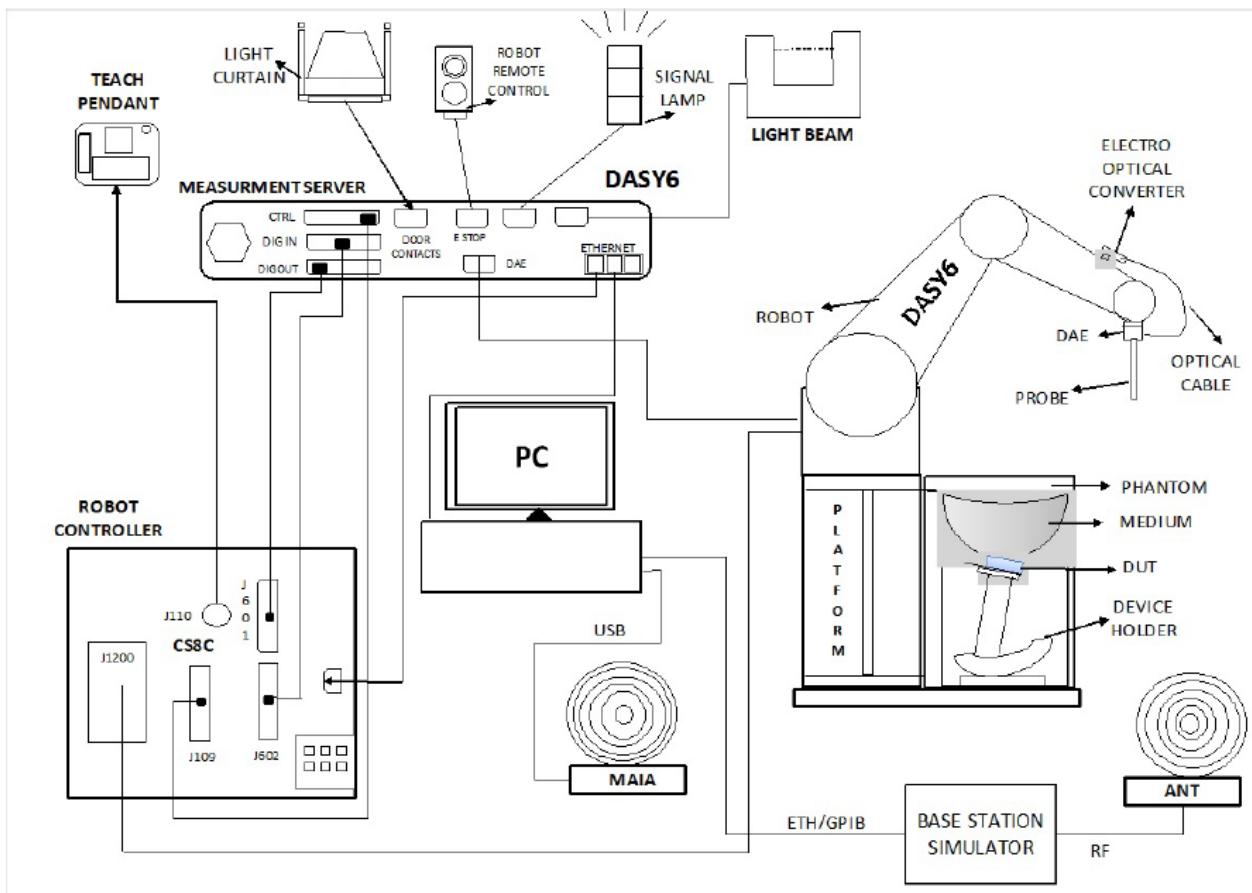
4.1. SAR Measurement System

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



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

The DASY6 & 8 system used for performing compliance tests consists of the following items:



- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic Field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running Win10 and the DASY6 or 8 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

4.2. SAR Scan Procedures

Step 1: Power Reference Measurement

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

Step 2: Area Scan

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

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

	$\leq 3 \text{ GHz}$	$> 3 \text{ GHz}$
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

		≤ 3 GHz	> 3 GHz
Maximum zoom scan spatial resolution: Δx_{Zoom} , Δy_{Zoom}		≤ 2 GHz: ≤ 8 mm $2 - 3$ GHz: ≤ 5 mm*	$3 - 4$ GHz: ≤ 5 mm* $4 - 6$ GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$ graded grid	≤ 5 mm	$3 - 4$ GHz: ≤ 4 mm $4 - 5$ GHz: ≤ 3 mm $5 - 6$ GHz: ≤ 2 mm
		≤ 4 mm	$3 - 4$ GHz: ≤ 3 mm $4 - 5$ GHz: ≤ 2.5 mm $5 - 6$ GHz: ≤ 2 mm
Minimum zoom scan volume	x, y, z	≥ 30 mm	$3 - 4$ GHz: ≥ 28 mm $4 - 5$ GHz: ≥ 25 mm $5 - 6$ GHz: ≥ 22 mm

Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.

* When zoom scan is required and the *reported* SAR from the *area scan based 1-g SAR estimation* procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.

Step 4: Power drift measurement

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

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	MY61060004	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	2-15-2023 1-6-2024
Power Amplifier	EXODUS	AMP2027ADB	10002	3-30-2023 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	02836	8-3-2023
Directional Coupler	MINI-CIRCUITS	ZMDC-30-1+	SF569102123	8-3-2023
Low Pass Filter	FILTRON	L14012FL	1410003S	8-3-2023
Low Pass Filter	MICROLAB	LA-60N	3942	8-3-2023
Low Pass Filter	MINI-CIRCUITS	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	8-2-2023
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

Test Equipment (Continued)

E-Field Probe	SPEAG	EX3DV4	7313	3-2-2023
E-Field Probe	SPEAG	EX3DV4	7330	1-28-2023
E-Field Probe	SPEAG	EX3DV4	7376	7-27-2023
E-Field Probe	SPEAG	EX3DV4	7314	5-31-2023
E-Field Probe	SPEAG	EX3DV4	7645	11-15-2023
E-Field Probe	SPEAG	EX3DV4	7651	5-30-2023
E-Field Probe	SPEAG	EX3DV4	7652	4-28-2023
E-Field Probe	SPEAG	EX3DV4	7646	3-29-2023
Data Acquisition Electronics	SPEAG	DAE4	1447	3-25-2023
Data Acquisition Electronics	SPEAG	DAE4	1468	8-18-2023
Data Acquisition Electronics	SPEAG	DAE4	1494	7-18-2023
Data Acquisition Electronics	SPEAG	DAE4	1670	6-7-2023
Data Acquisition Electronics	SPEAG	DAE4	1671	5-31-2023
Data Acquisition Electronics	SPEAG	DAE4	1667	4-27-2023
Data Acquisition Electronics	SPEAG	DAE4	1343	2023-0823
System Validation Dipole	SPEAG	D750V3	1205	4-27-2023
System Validation Dipole	SPEAG	D835V2	4d174	9-21-2023
System Validation Dipole	SPEAG	D1750V2	1125	11-30-2023
System Validation Dipole	SPEAG	D1750V2	1180	9-21-2023
System Validation Dipole	SPEAG	D1900V2	5d190	11-16-2023
System Validation Dipole	SPEAG	D1900V2	5d199	3-25-2023
System Validation Dipole	SPEAG	D2300V2	1115	4-23-2023
System Validation Dipole	SPEAG	D2450V2	960	3-24-2023
System Validation Dipole	SPEAG	D2600V2	1178	4-23-2023
System Validation Dipole	SPEAG	D2600V2	1097	9-29-2023
System Validation Dipole	SPEAG	D3500V2	1121	4-21-2023
System Validation Dipole	SPEAG	D3700V2	1036	5-21-2023
System Validation Dipole	SPEAG	D3900V2	1069	4-21-2023
System Validation Dipole	SPEAG	D5GHzV2	1184	11-23-2023
System Validation Dipole	SPEAG	CLA-13	1015	8-23-2023
Thermometer	Lutron	MHB-382SD	AH.91463	8-4-2023 1-11-2024
Thermometer	Lutron	MHB-382SD	AH.50215	8-9-2023 1-9-2024
Thermometer	Lutron	MHB-382SD	AH.50213	8-4-2023 1-11-2024
Thermometer	Lutron	MHB-382SD	AH.45903	8-9-2023 1-9-2024
Thermometer	Lutron	MHB-382SD	AK.12123	8-9-2023 1-9-2024
Thermometer	Lutron	MHB-382SD	AK.18789	8-9-2023
Thermometer	Lutron	MHB-382SD	AK.12103	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	169801	1-5-2024
Base Station Simulator	R & S	CMW500	150314	8-2-2023
Base Station Simulator	R & S	CMW500	162790	8-2-2023
Base Station Simulator	R & S	CMW500	169803	5-27-2023 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	MY59150850	12-13-2022 1-9-2024
UXM 5G Wireless Test Platform	Keysight	E7515B	MY58120110	1-7-2023 1-10-2024
UXM 5G Wireless Test Platform	Keysight	E7515B	MY57510596	8-5-2023
Radio Communication Test Station	Anritsu	MT8000A	6272466165	9-8-2023
Radio Communication Analyzer	Anritsu	MT8821C	6161094351	9-8-2023

Note(s):

- 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)

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

5. Measurement Uncertainty

Measurement Uncertainty of 100MHz to 6GHz

Per KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg and the measured 10-g SAR within a frequency band is < 3.75 W/kg. The expanded SAR measurement uncertainty must be $\leq 30\%$, 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.

Measurement Uncertainty of 9MHz to 19MHz

Measurement uncertainty for 9 MHz to 19 MHz

(According to IEEE 62209-1528)

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

5.1. DECISION RULE

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

6. Device Under Test (DUT) Information

6.1. DUT Description

Device Dimension	Refer to Appendix A.					
Back Cover	<input checked="" type="checkbox"/> The Back Cover is not removable.					
Battery Options	<input checked="" type="checkbox"/> The rechargeable battery is not user accessible					
Wireless Router (Hotspot)	Wi-Fi Hotspot mode permits the device to share its cellular data connection with other Wi-Fi-enabled devices. <input checked="" type="checkbox"/> Mobile Hotspot (Wi-Fi 2.4 GHz) <input checked="" type="checkbox"/> Mobile Hotspot (Wi-Fi 5.8 GHz)					
Wi-Fi Direct	Wi-Fi Direct enabled devices transfer data directly between each other <input checked="" type="checkbox"/> Wi-Fi Direct (Wi-Fi 2.4 GHz) <input checked="" type="checkbox"/> Wi-Fi Direct (Wi-Fi 5.2 GHz_UNII-1, Wi-Fi 5.8 GHz_UNII-3)					
Test Sample Information	No.	S/N	Notes	No.	S/N	Notes
	1	R3CTA0LSXSX	Main Conducted	13	653ca5bcfa357ece	SAR
	2	R3CTA0LSXEE	Main Conducted	14	R3CTB0F5XPA	SAR
	3	R3CTB0F5X3M	Main Conducted			
	4	R3CTB0F65VJ	Main Conducted			
	5	R3CTB0F585X	Main Conducted			
	6	R3CTA0LX0FT	Wi-Fi & BT Conducted			
	7	R3CTB0F5SYJ	Wi-Fi & BT Conducted			
	8	R3CTB0F5WLA	SAR			
	9	R3CTA0LT18W	SAR			
	10	R3CTA0LT0QW	SAR			
	11	R3CTA0LT0NE	SAR			
	12	R3CTA0LT1AZ	SAR			

6.2. Wireless Technologies

Wireless technologies	Frequency bands	Operating mode	Duty Cycle used for SAR testing	
GSM	850 1900	Voice (GMSK) GPRS (GMSK) EGPRS (8PSK)	GPRS Multi-Slot Class: <input type="checkbox"/> Class 8 - 1 Up, 4 Down <input type="checkbox"/> Class 10 - 2 Up, 4 Down <input type="checkbox"/> Class 12 - 4 Up, 4 Down <input checked="" type="checkbox"/> Class 33 - 4 Up, 5 Down	GSM Voice: 12.5% (E)GPRS: 1 Slot: 12.5% 2 Slots: 25% 3 Slots: 37.5% 4 Slots: 50%
Does this device support DTM (Dual Transfer Mode)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
W-CDMA (UMTS)	Band II Band IV Band V	UMTS Rel. 99 (Voice & Data) HSDPA (Category 14) HSUPA (Category 6) DC-HSDPA (Category 14) HSPA+ (DL only)	100%	
LTE	FDD Bands : 2, 4, 5, 7, 12, 13, 14, 25 26, 30, 66, 71 TDD Bands 38, 40, 41-PC3, 41-PC2, 48	QPSK 16QAM 64QAM 256QAM Rel. 16 Carrier Aggregation (2 Uplink and 4 Downlinks) <u>Uplink Carrier Aggregation(2CC)</u> CA_41C & CA_48C	100% (FDD) 63.3% (TDD) 43.3% (TDD)	
Does this device support SV-LTE (1xRTT-LTE)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
5G NR (Sub 6)	FDD Bands : n2, n5, n12, n25, n30, n66, n71 TDD Bands n41-PC3, n41-PC2, n48 n77-PC3, n77-PC2	DFT-s-OFDM: <input checked="" type="checkbox"/> π/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM CP-OFDM: <input checked="" type="checkbox"/> QPSK, 16QAM, 64QAM, 256QAM	100%	
Wi-Fi	2.4 GHz	802.11b, 802.11g, 802.11n (HT20), 802.11ax (HE20)	98.7% (802.11b)	
	5 GHz	802.11a / 802.11n (HT20/40) 802.11ac (VHT20/40/80) 802.11ax (HE20/40/80)	96.0% (802.11a) 95.2% (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	77.1%	
NFC	13.56 MHz	Type A/B/F	100%	

Notes:

- The Bluetooth protocol is considered source-based averaging. Bluetooth GFSK (DH5) was verified to have the highest duty cycle and was considered and used for SAR Testing.
- This device supports Power Class 2(HPUE) and Power Class 3.
- This device supports UL CA Intra-band Continues.
- NR TDD Band n48 & n77 has support SRS (Sounding Reference Signal) 0/1/2/3 operates.

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 & mmW). these 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		Body-Worn	Product Specific 10-g Without triggering sensor	Product Specific 10-g With triggering sensor	Head (RCV)	Hotspot	Ear-jack	P _{max} (Maximum tune-up Power) (dBm)
Spatial-average		1g	10g	10g	1g	1g	10g	
Test distance (mm)		15	11/7/0/13	0	0	10	0	
RSI:		0	0	2	4	3	1	
RF Air Interface		Antenna	P _{limit} (all values are time averaged)					
GSM 850	Main.1	24.98	24.98	24.98	24.98	24.98	21.48	24.98
GSM 1900	Main.2	20.99	20.99	20.99	20.99	20.99	20.99	20.99
WCDMA Band II	Main.2	23.00	23.00	21.00	23.00	21.00	21.00	23.00
WCDMA Band IV	Main.1	23.00	23.00	20.50	23.00	20.50	20.50	23.00
WCDMA Band V	Main.1	24.00	24.00	24.00	24.00	24.00	24.00	24.00
LTE Band 2	Sub.2	21.00	21.00	21.00	20.00	21.00	21.00	21.00
LTE Band 5	Main.1	24.50	24.50	24.50	24.50	24.50	24.50	24.50
LTE Band 7	Main.2	23.00	23.00	20.00	23.00	20.00	20.00	23.00
LTE Band 12	Main.1	24.00	24.00	24.00	24.00	24.00	24.00	24.00
LTE Band 13	Main.1	24.00	24.00	24.00	24.00	24.00	24.00	24.00
LTE Band 14	Main.1	24.00	24.00	24.00	24.00	24.00	24.00	24.00
LTE Band 25(2)	Main.2	24.00	24.00	22.00	24.00	22.00	22.00	24.00
LTE Band 26	Main.1	24.50	24.50	24.50	24.50	24.50	24.50	24.50
LTE Band 30	Main.2	23.00	23.00	23.00	23.00	23.00	23.00	23.00
LTE Band 38	Main.2	21.00	21.00	21.00	21.00	21.00	21.00	21.00
LTE Band 40	Main.2	11.00	11.00	11.00	11.00	11.00	11.00	11.00
LTE Band 41-PC3	Main.2	21.00	21.00	19.00	21.00	19.00	19.00	21.00
LTE Band 41-PC2	Main.2	22.40	22.40	18.40	22.40	18.40	18.40	22.40
LTE Band 48	Sub.3	18.00	18.00	18.00	17.50	18.00	18.00	21.00
LTE Band 66(4)	Main.2	24.00	24.00	22.00	24.00	22.00	22.00	24.00
LTE Band 66	Sub.2	20.50	20.50	20.50	19.50	20.50	20.50	20.50
LTE Band 71	Main.1	24.50	24.50	24.50	24.50	24.50	24.50	24.50
NR Band n5	Main.1	24.50	24.50	24.50	24.50	24.50	24.50	24.50
NR Band n12	Main.1	24.00	24.00	24.00	24.00	24.00	24.00	24.00
NR Band n25(2)	Main.2	24.00	24.00	22.00	24.00	22.00	22.00	24.00
NR Band n30	Main.2	23.00	23.00	23.00	23.00	23.00	23.00	23.00
NR Band n66	Main.2	24.00	24.00	22.00	24.00	22.00	22.00	24.00
NR Band n71	Main.1	24.50	24.50	24.50	24.50	24.50	24.50	24.50
NR Band n41(PC3)	Main.2	17.00	17.00	16.00	17.00	16.00	16.00	23.00
NR Band n41(PC2)	Main.2	20.00	20.00	16.00	20.00	16.00	16.00	26.00
NR Band n48 -SRS 0-	Sub.3	14.00	14.00	14.00	13.00	14.00	14.00	23.00
NR Band n48 -SRS 1-	Main.2	14.50	14.50	14.50	13.50	14.50	14.50	23.00
NR Band n48 -SRS 2-	Sub.5	14.00	14.00	14.00	13.00	14.00	14.00	22.50
NR Band n48 -SRS 3-	Sub.8	14.00	14.00	14.00	12.00	14.00	14.00	22.00
NR Band n77 -SRS 0-PC3/PC2	Sub.3	15.00	15.00	15.00	15.00	15.00	15.00	22.20 / 27.00
NR Band n77 -SRS 1-PC3/PC2 (DoD)	Main.2	13.00	13.00	13.00	13.00	13.00	13.00	19.50
NR Band n77 -SRS 1-PC3/PC2	Main.2	15.00	15.00	15.00	15.00	15.00	15.00	19.50
NR Band n77 -SRS 2-PC3/PC2	Sub.5	15.00	15.00	15.00	15.00	15.00	15.00	21.00
NR Band n77 -SRS 3-PC3/PC2	Sub.8	15.00	15.00	15.00	15.00	15.00	15.00	18.50

Notes:

- All P_{limit} EFS and maximum tune up output P_{max} levels entered in above Table correspond to average power levels after accounting for duty cycle in the case of TDD modulation schemes (for e.g., GSM/LTE TDD). NR TDD's P_{max} was listed as burst power.
- Maximum tune up output power P_{max} is used to configure EUT during RF tune up procedures. The maximum allowed output power is equal to maximum tune up output power + 1dB device design uncertainty.
- Measurement Condition : All conducted power and SAR measurements in this SAR report were performed by setting static Power condition.
- If P_{limit} is higher than P_{max} for some modes / bands, The modes/bands will operate at a power level up to P_{max} .
- The 2G/3G technologies are not controlled by the TAS algorithm. But SAR test were considered to determine which P_{limit} satisfies *SAR_design_target* in each RSIs.

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	Time Slots	Maximum allowed output power (dBm)											
				Pmax		Plimit								RSI = 1 (Earjack)	
						RSI = 0 (Body-worn & Sensor Off)		RSI = 2 (Proximity sensor On)		RSI = 4 (Head-RCV On)		RSI = 3 (Hotspot)			
				Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr
GSM850	Main.1 Ant.	Voice	1	33.50	24.47	33.50	24.47	33.50	24.47	33.50	24.47	33.50	24.47	30.00	20.97
		GRPS	1	33.50	24.47	33.50	24.47	33.50	24.47	33.50	24.47	33.50	24.47	30.00	20.97
		GRPS	2	32.00	25.98	32.00	25.98	32.00	25.98	32.00	25.98	32.00	25.98	28.50	22.48
		GRPS	3	30.00	25.74	30.00	25.74	30.00	25.74	30.00	25.74	30.00	25.74	26.50	22.24
		GRPS	4	28.00	24.99	28.00	24.99	28.00	24.99	28.00	24.99	28.00	24.99	24.50	21.49
		EGPRS	1	27.50	18.47	27.50	18.47	27.50	18.47	27.50	18.47	27.50	18.47	27.00	17.97
		EGPRS	2	26.00	19.98	26.00	19.98	26.00	19.98	26.00	19.98	26.00	19.98	25.50	19.48
		EGPRS	3	24.00	19.74	24.00	19.74	24.00	19.74	24.00	19.74	24.00	19.74	23.50	19.24
		EGPRS	4	22.50	19.49	22.50	19.49	22.50	19.49	22.50	19.49	22.50	19.49	22.00	18.99
GSM1900	Main.2 Ant.	Voice	1	31.00	21.97	31.00	21.97	31.00	21.97	31.00	21.97	31.00	21.97	31.00	21.97
		GRPS	1	31.00	21.97	31.00	21.97	31.00	21.97	31.00	21.97	31.00	21.97	31.00	21.97
		GRPS	2	28.00	21.98	28.00	21.98	28.00	21.98	28.00	21.98	28.00	21.98	28.00	21.98
		GRPS	3	26.00	21.74	26.00	21.74	26.00	21.74	26.00	21.74	26.00	21.74	26.00	21.74
		GRPS	4	25.00	21.99	25.00	21.99	25.00	21.99	25.00	21.99	25.00	21.99	25.00	21.99
		EGPRS	1	27.00	17.97	27.00	17.97	27.00	17.97	27.00	17.97	27.00	17.97	27.00	17.97
		EGPRS	2	25.50	19.48	25.50	19.48	25.50	19.48	25.50	19.48	25.50	19.48	25.50	19.48
		EGPRS	3	23.00	18.74	23.00	18.74	23.00	18.74	23.00	18.74	23.00	18.74	23.00	18.74
		EGPRS	4	22.00	18.99	22.00	18.99	22.00	18.99	22.00	18.99	22.00	18.99	22.00	18.99

RF Air interface	Antenna	Mode	Maximum allowed output power (dBm)											
			Pmax		Plimit								RSI = 1 (Earjack)	
					RSI = 0 (Body-worn & Sensor Off)		RSI = 2 (Proximity sensor On)		RSI = 4 (Head-RCV On)		RSI = 3 (Hotspot)			
			R99	24.00	24.00	22.00		24.00		22.00		22.00		22.00
W-CDMA Band II	Main.2 Ant.	HSDPA		23.50	23.50	22.00		23.50		22.00		22.00		22.00
		HSUPA		23.50	23.50	22.00		23.50		22.00		22.00		22.00
		DC-HSDPA		23.50	23.50	22.00		23.50		22.00		22.00		22.00
		R99		24.00	24.00	21.50		24.00		21.50		21.50		21.50
W-CDMA Band IV	Main.2 Ant.	HSDPA		23.50	23.50	21.50		23.50		21.50		21.50		21.50
		HSUPA		23.50	23.50	21.50		23.50		21.50		21.50		21.50
		DC-HSDPA		23.50	23.50	21.50		23.50		21.50		21.50		21.50
		R99		25.00	25.00	25.00		25.00		25.00		25.00		25.00
W-CDMA Band V	Main.1 Ant.	HSDPA		23.50	23.50	23.50		23.50		23.50		23.50		23.50
		HSUPA		23.50	23.50	23.50		23.50		23.50		23.50		23.50
		DC-HSDPA		23.00	23.00	23.00		23.00		23.00		23.00		23.00
		R99		24.00	24.00	21.50		24.00		21.50		21.50		21.50

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	Plimit				
				RSI = 0 (Body-worn & Sensor Off)	RSI = 2 (Proximity sensor On)	RSI = 4 (Head-RCV On)	RSI = 3 (Hotspot)	RSI = 1 (Earjack)
LTE Band 2	Main.2 Ant	QPSK	25.00	25.00	23.00	25.00	23.00	23.00
LTE Band 2	Sub.2 Ant	QPSK	22.00	22.00	22.00	21.00	22.00	22.00
LTE Band 4	Main.2 Ant	QPSK	25.00	25.00	23.00	25.00	23.00	23.00
LTE Band 5	Main.1 Ant	QPSK	25.50	25.50	25.50	25.50	25.50	25.50
LTE Band 7	Main.2 Ant	QPSK	24.00	24.00	21.00	24.00	21.00	21.00
LTE Band 12	Main.1 Ant	QPSK	25.00	25.00	25.00	25.00	25.00	25.00
LTE Band 13	Main.1 Ant	QPSK	25.00	25.00	25.00	25.00	25.00	25.00
LTE Band 14	Main.1 Ant	QPSK	25.00	25.00	25.00	25.00	25.00	25.00
LTE Band 25	Main.2 Ant	QPSK	25.00	25.00	23.00	25.00	23.00	23.00
LTE Band 26	Main.1 Ant	QPSK	25.50	25.50	25.50	25.50	25.50	25.50
LTE Band 30	Main.2 Ant	QPSK	24.00	24.00	24.00	24.00	24.00	24.00
LTE Band 38	Main.2 Ant	QPSK	24.00	24.00	24.00	24.00	24.00	24.00
LTE Band 40	Main.2 Ant	QPSK	14.00	14.00	14.00	14.00	14.00	14.00
LTE Band 41-PC3	Main.2 Ant	QPSK	24.00	24.00	22.00	24.00	22.00	22.00
LTE Band 41-PC2	Main.2 Ant	QPSK	27.00	27.00	23.00	27.00	23.00	23.00
LTE Band 48	Sub.3 Ant	QPSK	24.00	21.00	21.00	20.50	21.00	21.00
LTE Band 66	Main.2 Ant	QPSK	25.00	25.00	23.00	25.00	23.00	23.00
LTE Band 66	Sub.2 Ant	QPSK	21.50	21.50	21.50	20.50	21.50	21.50
LTE Band 71	Main.1 Ant	QPSK	25.50	25.50	25.50	25.50	25.50	25.50

Note(s):

1. Detail of RSI(Radio SAR Index) conditions, please refer to Sec.6.5.
2. LTE Band 41, 48 has support UL CA intra-band-continues mode with same target power in each standalone LTE bands. Details of configuration are refer to Appendix.H.

RF Air interface	Antenna	Mode	Maximum allowed output power (dBm)					
			Pmax	Plimit				
				RSI = 0 (Body-worn & Sensor Off)	RSI = 2 (Proximity sensor On)	RSI = 4 (Head-RCV On)	RSI = 3 (Hotspot)	RSI = 1 (Earjack)
NR Band n2	Main.2 Ant	DFT-s-OFDM	25.00	25.00	23.00	25.00	23.00	23.00
NR Band n5	Main.1 Ant	DFT-s-OFDM	25.50	25.50	25.50	25.50	25.50	25.50
NR Band n12	Main.1 Ant	DFT-s-OFDM	25.00	25.00	25.00	25.00	25.00	25.00
NR Band n25	Main.2 Ant	DFT-s-OFDM	25.00	25.00	23.00	25.00	23.00	23.00
NR Band n30	Main.2 Ant	DFT-s-OFDM	24.00	24.00	24.00	24.00	24.00	24.00
NR Band n41-PC3	Main.2 Ant	DFT-s-OFDM	24.00	18.00	17.00	18.00	17.00	17.00
NR Band n41-PC2	Main.2 Ant	DFT-s-OFDM	27.00	21.00	17.00	21.00	17.00	17.00
NR Band n48 (Voice/Data/SRS0)	Sub.3 Ant	DFT-s-OFDM	24.00	15.00	15.00	14.00	15.00	15.00
NR Band n48 (SRS1)	Main.2 Ant	SRS CW	24.00	15.50	15.50	14.50	15.50	15.50
NR Band n48 (SRS2)	Sub.5 Ant.	SRS CW	23.50	15.00	15.00	14.00	15.00	15.00
NR Band n48 (SRS3)	Sub.8 Ant	SRS CW	23.00	15.00	15.00	13.00	15.00	15.00
NR Band n66	Main.2 Ant	DFT-s-OFDM	25.00	25.00	23.00	25.00	23.00	23.00
NR Band n71	Main.1 Ant	DFT-s-OFDM	25.50	25.50	25.50	25.50	25.50	25.50
NR Band n77-PC3 (Voice/Data/SRS0)	Sub.3 Ant	DFT-s-OFDM	23.20	16.00	16.00	16.00	16.00	16.00
NR Band n77-(DoD)-PC3 (SRS1)	Main.2 Ant	SRS CW	20.50	14.00	14.00	14.00	14.00	14.00
NR Band n77-PC3 (SRS1)	Main.2 Ant	SRS CW	20.50	16.00	16.00	16.00	16.00	16.00
NR Band n77-PC3 (SRS2)	Sub.5 Ant.	SRS CW	22.00	16.00	16.00	16.00	16.00	16.00
NR Band n77-PC3 (SRS3)	Sub.8 Ant	SRS CW	19.50	16.00	16.00	16.00	16.00	16.00
NR Band n77-PC2 (Voice/Data/SRS0)	Sub.3 Ant	DFT-s-OFDM	28.00	16.00	16.00	16.00	16.00	16.00
NR Band n77-(DoD)-PC2 (SRS1)	Main.2 Ant	SRS CW	20.50	14.00	14.00	14.00	14.00	14.00
NR Band n77-PC2 (SRS1)	Main.2 Ant	SRS CW	20.50	16.00	16.00	16.00	16.00	16.00
NR Band n77-PC2 (SRS2)	Sub.5 Ant.	SRS CW	22.00	16.00	16.00	16.00	16.00	16.00
NR Band n77-PC2 (SRS3)	Sub.8 Ant	SRS CW	19.50	16.00	16.00	16.00	16.00	16.00

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/BT output power**Max output power**

RF Air interface	Band	Max. RF Output Power (dBm)																
		SISO(Ant 1/2)						MIMO (Ant1 + Ant2)										
		802.11 mode						802.11 mode										
		a	b	g	n	ac	ax	a	b	g	n	ac	ax					
WiFi 2.4 GHz	DTS	19 1ch:18.0 11ch:18.0	16.5 1ch:15.0 11ch:15.0	16.5 1ch:15.0 11ch:15.0		16.5 1ch:15.0 11ch:15.0		22 1ch:21.0 11ch:21.0	19.5 1ch:18.0 11ch:18.0	19.5 1ch:18.0 11ch:18.0		19.5 1ch:18.0 11ch:18.0						
WiFi 5 GHz (BW: 20MHz)	UNII-1 & 2A	17.5			17.5	17.5	17.0	20.5		20.5	20.5	20.0						
	UNII-2C	64ch:16.0			64ch:16.0	64ch:16.0	64ch:16.0	64ch:19.0		64ch:19.0	64ch:19.0	64ch:19.0						
	UNII-3	100ch:16.0			100ch:16.0	100ch:16.0	100ch:16.0	100ch:19.0		100ch:19.0	100ch:19.0	100ch:19.0						
WiFi 5 GHz (BW: 40MHz)	UNII-1 & 2A				14.5	14.5	14.5			17.5	17.5	17.5						
	UNII-2C				62ch:13.5	62ch:13.5	62ch:13.5			62ch:16.5	62ch:16.5	62ch:16.5						
	UNII-3																	
WiFi 5 GHz (BW: 80MHz)	UNII-1 & 2A					12.5	12.5					15.5						
	UNII-2C																	
	UNII-3																	
RF Air interface	Max. RF Output Power (dBm)																	
	BDR	EDR	LE															
Bluetooth	15.5	13.0	14.0															

Reduced output power

RF Air interface	Band	Reduced. RF Output Power (dBm)											
		SISO(Ant 1/2)						MIMO (Ant1 + Ant2)					
		802.11 mode						802.11 mode					
		a	b	g	n	ac	ax	a	b	g	n	ac	ax
WiFi 2.4 GHz	DTS	13	13	13		13		16	16	16		16	
WiFi 5 GHz (BW: 20MHz)	UNII Bands	11.0			11.0	11.0	11.0	14.0			14.0	14.0	14.0
WiFi 5 GHz (BW: 40MHz)	UNII Bands				11.0	11.0	11.0				14.0	14.0	14.0
WiFi 5 GHz (BW: 80MHz)	UNII Bands					11.0	11.0				14.0	14.0	14.0
RF Air interface	Reduced. RF Output Power (dBm)												
	BDR	EDR	LE										
Bluetooth	12.0	13.0	9.0										

Note(s):

- This device uses an independent fixed level power reduction mechanism for WLAN & BT mode operations during RCV operation. Detailed descriptions of the power reduction mechanism are included in the operational description.
- For MIMO mode, each Antennas operated same target power.

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

Note(s):

RSI Scenarios priority: RSI=4 → RSI=3 → RSI=1 → RSI=2 → RSI=0

Product Specific 10g Adjusted SAR Calculation

Wireless technologies	Antenna	Worst RSI's Maximum tune-up limit (dBm)	RSI = 3 Maximum tune-up limit (dBm)	Power Factor	Reported SAR Limit (W/kg)
WCDMA Band II	Main.2	24.00	22.00	1.58	0.757
WCDMA Band IV	Main.2	24.00	21.50	1.78	0.675
LTE Band 25(2)	Main.2	25.00	23.00	1.58	0.757
LTE Band 66(4)	Main.2	25.00	23.00	1.58	0.757
LTE Band 7	Main.2	24.00	21.00	2.00	0.601
LTE Band 41-PC3	Main.2	24.00	22.00	1.58	0.757
LTE Band 41-PC2	Main.2	27.00	23.00	2.51	0.478
NR Band n25/n2	Main.2	25.00	23.00	1.58	0.757
NR Band n41-PC3	Main.2	18.00	17.00	1.26	0.953
NR Band n41-PC2	Main.2	21.00	17.00	2.51	0.478
NR Band n66	Main.2	25.00	23.00	1.58	0.757

Note(s):

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

6.6. General LTE SAR Test and Reporting Considerations

Item	Description					
Frequency range, Channel Bandwidth, Numbers and Frequencies	Band 2	Frequency range: 1850 - 1910 MHz				
		Channel Bandwidth				
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low	18700/ 1860	18675/ 1857.5	18650/ 1855	18625/ 1852.5	18615/ 1851.5
	Mid	18900/ 1880	18900/ 1880	18900/ 1880	18900/ 1880	18900/ 1880
	High	19100/ 1900	19125/ 1902.5	19150/ 1905	19175/ 1907.5	19185/ 1908.5
	Band 4	Frequency range: 1710 - 1755 MHz				
		Channel Bandwidth				
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low	20050/ 1720	20025/ 1717.5	20000/ 1715	19975/ 1712.5	19965/ 1711.5
	Mid	20175/ 1732.5	20175/ 1732.5	20175/ 1732.5	20175/ 1732.5	20175/ 1732.5
	High	20300/ 1745	20325/ 1747.5	20350/ 1750	20375/ 1752.5	20385/ 1753.5
	Band 5	Frequency range: 824 - 849 MHz				
		Channel Bandwidth				
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low			20450/ 829	20425/ 826.5	20415/ 825.5
	Mid			20525/ 836.5	20525/ 836.5	20525/ 836.5
	High			20600/ 844	20625/ 846.5	20635/ 847.5
	Band 7	Frequency range: 2500 - 2570 MHz				
		Channel Bandwidth				
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low	20850/ 2510	20825/ 2507.5	20800/ 2505	20775/ 2502.5	
	Mid	21100/ 2535	21100/ 2535	21100/ 2535	21100/ 2535	
	High	21350/ 2560	21375/ 2562.5	21400/ 2565	21425/ 2567.5	
	Band 12	Frequency range: 699 - 716 MHz				
		Channel Bandwidth				
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low			23060/ 704	23035/ 701.5	23025/ 700.5
	Mid			23095/ 707.5	23095/ 707.5	23095/ 707.5
	High			23130/ 711	23155/ 713.5	23165/ 714.5
	Band 13	Frequency range: 777 - 787 MHz				
		Channel Bandwidth				
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low				23205/ 779.5	
	Mid			23230/ 782	23230/ 782	
	High				23255/ 784.5	
	Band 14	Frequency range: 788 - 798 MHz				
		Channel Bandwidth				
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low				23305/ 790.5	
	Mid			23330/ 793	23330/ 793	
	High				23355/ 795.5	
	Band 25	Frequency range: 1850 - 1915 MHz				
		Channel Bandwidth				
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low	26140/ 1860	26115/ 1857.5	26090/ 1855	26065/ 1852.5	26055/ 1851.5
	Mid	26365/ 1882.5	26365/ 1882.5	26365/ 1882.5	26365/ 1882.5	26365/ 1882.5
	High	26590/ 1905	26615/ 1907.5	26640/ 1910	26665/ 1912.5	26675/ 1913.5

General LTE SAR Test and Reporting Considerations (Continued)

Frequency range, Channel Bandwidth, Numbers and Frequencies	Band 26	Frequency range: 814 - 849 MHz									
		Channel Bandwidth									
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz				
	Low		26765/ 821.5	26740/ 819	26715/ 816.5	26705/ 815.5	26697/ 814.7				
	Mid		26865/ 831.5	26865/ 831.5	26865/ 831.5	26865/ 831.5	26865/ 831.5				
	High		26965/ 841.5	26990/ 844	27015/ 846.5	27025/ 847.5	27033/ 848.3				
Band 30	Frequency range: 2305 - 2315 MHz										
	Channel Bandwidth										
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz					
	Low				27685/ 2307.5						
	Mid			27710/ 2310	27710/ 2310						
	High				27735/ 2312.5						
Band 38	Frequency range: 2570 - 2620 MHz										
	Channel Bandwidth										
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz					
	Low	37850/ 2580	37825/ 2577.5	37800/ 2575	37775/ 2572.5						
	Mid	38000/ 2595	38000/ 2595	38000/ 2595	38000/ 2595						
	High	38150/ 2610	38175/ 2612.5	38200/ 2615	38225/ 2617.5						
Band 40 -Lower-	Frequency range: 2305 - 2315 MHz										
	Channel Bandwidth										
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz					
	Low				38725/ 2307.5						
	Mid			38750/ 2310	38750/ 2310						
	High				38775/ 2312.5						
Band 40 -Upper-	Frequency range: 2350 - 2360 MHz										
	Channel Bandwidth										
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz					
	Low				39175/ 2352.5						
	Mid			39200/ 2355	39200/ 2355						
	High				39225/ 2357.5						
Band 41	Frequency range: 2496 - 2690 MHz										
	Channel Bandwidth										
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz					
	Low	39750 / 2506.0									
	Low-Mid	40185 / 2549.5									
	Mid	40620 / 2593.0									
	Mid-High	41055 / 2636.5									
	High	41490 / 2680.0									
Band 48	Frequency range: 3550 - 3700 MHz										
	Channel Bandwidth										
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz					
	Low	55340/ 3560	55315/ 3557.5	55290/ 3555	55265/ 3552.5						
	Mid	55990/ 3625	55990/ 3625	55990/ 3625	55990/ 3625						
	High	56640/ 3690	56665/ 3692.5	56690/ 3695	56715/ 3697.5						
Band 66	Frequency range: 1710 - 1780 MHz										
	Channel Bandwidth										
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz					
	Low	132072/ 1720	132047/ 1717.5	132022/ 1715	131997/ 1712.5	131987/ 1711.5	131979/ 1710.7				
	Mid	132322/ 1745	132322/ 1745	132322/ 1745	132322/ 1745	132322/ 1745	132322/ 1745				
	High	132572/ 1770	132597/ 1772.5	132622/ 1775	132647/ 1777.5	132657/ 1778.5	132665/ 1779.3				
Band 71	Frequency range: 663 - 698 MHz										
	Channel Bandwidth										
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz					
	Low	133222/ 673	133197/ 670.5	133172/ 668	133147/ 665.5						
	Mid	133297/ 680.5	133297/ 680.5	133297/ 680.5	133297/ 680.5						
	High	133372/ 688	133397/ 690.5	133422/ 693	133447/ 695.5						

General LTE SAR Test and Reporting Considerations (Continued)

LTE transmitter and antenna implementation	Refer to Appendix A.																																																														
Maximum power reduction (MPR)	<p>Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3</p> <table border="1"> <thead> <tr> <th rowspan="2">Modulation</th> <th colspan="6">Channel bandwidth / Transmission bandwidth (NRB)</th> <th rowspan="2">MPR (dB)</th> </tr> <tr> <th>1.4 MHz</th> <th>3.0 MHz</th> <th>5 MHz</th> <th>10 MHz</th> <th>15 MHz</th> <th>20 MHz</th> </tr> </thead> <tbody> <tr> <td>QPSK</td> <td>> 5</td> <td>> 4</td> <td>> 8</td> <td>> 12</td> <td>> 16</td> <td>> 18</td> <td>≤ 1</td> </tr> <tr> <td>16 QAM</td> <td>≤ 5</td> <td>≤ 4</td> <td>≤ 8</td> <td>≤ 12</td> <td>≤ 16</td> <td>≤ 18</td> <td>≤ 1</td> </tr> <tr> <td>16 QAM</td> <td>> 5</td> <td>> 4</td> <td>> 8</td> <td>> 12</td> <td>> 16</td> <td>> 18</td> <td>≤ 2</td> </tr> <tr> <td>64 QAM</td> <td>≤ 5</td> <td>≤ 4</td> <td>≤ 8</td> <td>≤ 12</td> <td>≤ 16</td> <td>≤ 18</td> <td>≤ 2</td> </tr> <tr> <td>64 QAM</td> <td>> 5</td> <td>> 4</td> <td>> 8</td> <td>> 12</td> <td>> 16</td> <td>> 18</td> <td>≤ 3</td> </tr> <tr> <td>256 QAM</td> <td></td> <td></td> <td></td> <td></td> <td>≥ 1</td> <td></td> <td>≤ 5</td> </tr> </tbody> </table> <p>MPR Built-in by design The manufacturer MPR values are always within the 3GPP maximum MPR allowance but may not follow the default MPR values. A-MPR (additional MPR) was disabled during SAR testing</p>	Modulation	Channel bandwidth / Transmission bandwidth (NRB)						MPR (dB)	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1	16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1	16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2	64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2	64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3	256 QAM					≥ 1		≤ 5
Modulation	Channel bandwidth / Transmission bandwidth (NRB)						MPR (dB)																																																								
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz																																																									
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1																																																								
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1																																																								
16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2																																																								
64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2																																																								
64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3																																																								
256 QAM					≥ 1		≤ 5																																																								
Power reduction	Yes.																																																														
Spectrum plots for RB configurations	A properly configured base station simulator was used for the SAR and power measurements; therefore, spectrum plots for each RB allocation and offset configuration are not included in the SAR report.																																																														

Notes:

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

6.7. LTE (TDD) Considerations

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

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

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

Special subframe configuration	Normal cyclic prefix in downlink			Extended cyclic prefix in downlink		
	DwPTS	UpPTS		DwPTS	UpPTS	
		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
0	$6592 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$	$7680 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$
1	$19760 \cdot T_s$			$20480 \cdot T_s$		
2	$21952 \cdot T_s$			$23040 \cdot T_s$		
3	$24144 \cdot T_s$			$25600 \cdot T_s$		
4	$26336 \cdot T_s$			$7680 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
5	$6592 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$20480 \cdot T_s$		
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			$12800 \cdot T_s$		
8	$24144 \cdot T_s$			-		
9	$13168 \cdot T_s$			-		

Calculated Duty Cycle

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

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

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

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

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 in power class 3. Power class 2 was used configuration 1 at 43.3% duty cycle for SAR testing.

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

Item	Description														
Frequency range, Channel Bandwidth, Numbers and Frequencies	Band n2	Frequency range: 1850 - 1910 MHz													
		Channel Bandwidth													
		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						374000/ 1870	373000/ 1865	372500/ 1862.5	372000/ 1860	371500/ 1857.5	371000/ 1855	370500/ 1852.5	
		Mid						376000/ 1880	376000/ 1880	376000/ 1880	376000/ 1880	376000/ 1880	376000/ 1880	376000/ 1880	
		High						378000/ 1890	379000/ 1895	379500/ 1897.5	380000/ 1900	380500/ 1902.5	381000/ 1905	381500/ 1907.5	
	Band n5	Frequency range: 824 - 849 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										166800/ 834	166300/ 831.5	165800/ 829	165300/ 826.5
	Band n12	Mid										167300/ 836.5	167300/ 836.5	167300/ 836.5	167300/ 836.5
		High										167800/ 839	168300/ 841.5	168800/ 844	169300/ 846.5
		Frequency range: 699 - 716 MHz													
Band n25	Band n12	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											141300/ 706.5	140800/ 704	140300/ 701.5
		Mid											141500/ 707.5	141500/ 707.5	141500/ 707.5
		High											141700/ 708.5	142200/ 711	142700/ 713.5
	Band n25	Frequency range: 1850 - 1915 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							37400/ 1870	373000/ 1865	372500/ 1862.5	372000/ 1860	371500/ 1857.5	371000/ 1855	370500/ 1852.5
	Band n30	Mid							376500/ 1882.5	376500/ 1882.5	376500/ 1882.5	376500/ 1882.5	376500/ 1882.5	376500/ 1882.5	376500/ 1882.5
		High						379000/ 1895	380000/ 1900	380500/ 1902.5	381000/ 1905	381500/ 1907.5	382000/ 1910	382500/ 1912.5	382500/ 1912.5
		Frequency range: 2305 - 2315 MHz													
Band n66	Band n30	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												461500/ 2307.5	461500/ 2307.5
		Mid												462000/ 2310	462000/ 2310
		High												462500/ 2312.5	462500/ 2312.5
	Band n66	Frequency range: 1710 - 1780 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						346000/ 1730	345000/ 1725	344500/ 1722.5	344000/ 1720	343500/ 1717.5	343000/ 1715	342500/ 1712.5	342500/ 1712.5
	Band n41	Mid						349000/ 1745	349000/ 1745	349000/ 1745	349000/ 1745	349000/ 1745	349000/ 1745	349000/ 1745	349000/ 1745
		High						352000/ 1760	353000/ 1765	353500/ 1767.5	354000/ 1770	354500/ 1772.5	355000/ 1775	355500/ 1777.5	355500/ 1777.5
		Frequency range: 2496 - 2690 MHz													
Band n41	Band n41	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	509202/ 2546.01	508200/ 2541	507204/ 2536.02	506202/ 2531.01	505200/ 2526	504204/ 2512.02	503202/ 2516.01	552200/ 2511			501204/ 2506.02	500700/ 2503.5	500202/ 2501.01
		Low-Mid						516468/ 2567.34	510402/ 2552.01			509898/ 2549.49	509652/ 2548.26	509400/ 2547	
	Mid-High	Mid	518598/ 2592.99				518598/ 2592.99		518598/ 2592.99			518598/ 2592.99	518598/ 2592.99		
		Mid-High	528000/ 2640	528996/ 2644.98	529998/ 2649.99	531000/ 2655	529998/ 2649.99	523734/ 2618.67	526800/ 2634			527298/ 2636.49	527550/ 2637.75	527802/ 2639.01	
		High						534000/ 2670	534996/ 2674.98			535998/ 2679.99	536496/ 2682.48	537000/ 2685	

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

Frequency range, Channel Bandwidth, Numbers and Frequencies	Band n48	Frequency range: 3550 - 3700 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					638000/ 3570				637334/ 3560.01	637168/ 3557.52	637000/ 3555			
	Low-Mid										640222/ 3603.33	640166/ 3602.49	640110/ 3601.65		
	Mid						641666/ 3624.99								
	Mid-High										643112/ 3646.68	643166/ 3647.49	643222/ 3648.33		
	High						645332/ 3679.98				646000/ 3690	646166/ 3692.49	646332/ 3694.98		
	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	
	Band n77 -DoD-	High									137600/ 688	138100/ 690.5	138600/ 693	133447/ 695.5	
		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	633334/ 3500.01	633334/ 3500.01	633334/ 3500.01	633334/ 3500.01	633334/ 3500.01	631668/ 3475.02	631334/ 3470.01	631000/ 3465	630866/ 3462.99	630668/ 3460.02	630500/ 3457.5	630334/ 3455.01	
	Band n77	Mid	633334/ 3500.01	633334/ 3500.01	633334/ 3500.01	633334/ 3500.01	633334/ 3500.01		633334/ 3500.01	633334/ 3500.01	633334/ 3500.01	633334/ 3500.01	633334/ 3500.01		
		High						635000/ 3525	635332/ 3529.98	635666/ 3534.99	635800/ 3537	636000/ 3540	636166/ 3542.49	636332/ 3544.98	
		Frequency range: 3700 - 3980 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	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/ 3802.49	651200/ 3768	651000/ 3765	650900/ 3763.5	650800/ 3762	650700/ 3760.5	650600/ 3759		
	Mid-A		656000/ 3840	656000/ 3840			656000/ 3816	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/ 3864.5	657766/ 3866.01	657780/ 3866.49	657800/ 3867		
	Mid-High	662000/ 3930	662332/ 3934.98	662666/ 3939.99	658334/ 3875.01	658444/ 3876.66	659834/ 3897.51	660800/ 3912	661000/ 3915	661100/ 3916.5	661200/ 3918	661300/ 3919.5	661400/ 3921		
	High				663000/ 3945	663332/ 3949.98	663666/ 3954.99	664000/ 3960	664332/ 3964.98	664500/ 3967.5	664666/ 3969.99	664832/ 3972.48	665000/ 3975		
SCS	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 5/12/13/14/48														
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 2/66														
LTE Anchor Bands for NR Band n48	LTE Band 2														
LTE Anchor Bands for NR Band n66	LTE Band 5/7/12/13/14/48														
LTE Anchor Bands for NR Band n71	LTE Band 2/7/48/66														
LTE Anchor Bands for NR Band n77	LTE Band 2/5/7/12/14/30/66														

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.

WWAN

Wireless technologies	RF Exposure Conditions	Antenna	DUT-to-User Separation	Test Position	Antenna-to-edge/surface	SAR Required	Note
WWAN	Head	All Main Antennas	0 mm	Left Touch	N/A	Yes	
				Left Tilt (15°)	N/A	Yes	
				Right Touch	N/A	Yes	
				Right Tilt (15°)	N/A	Yes	
	Body	All Main Antennas	15 mm	Rear	N/A	Yes	
				Front	N/A	Yes	
	Hotspot	Main 1 Ant.	10 mm	Rear	< 25 mm	Yes	
				Front	< 25 mm	Yes	
				Edge 1 (Top)	> 25 mm	No	1
				Edge 2 (Right)	< 25 mm	Yes	
				Edge 3 (Bottom)	< 25 mm	Yes	
				Edge 4 (Left)	> 25 mm	No	1
				Rear	< 25 mm	Yes	
				Front	< 25 mm	Yes	
	Hotspot	Main 2 Ant.	10 mm	Edge 1 (Top)	> 25 mm	No	1
				Edge 2 (Right)	> 25 mm	No	1
				Edge 3 (Bottom)	< 25 mm	Yes	
				Edge 4 (Left)	< 25 mm	Yes	
				Rear	< 25 mm	Yes	
				Front	< 25 mm	Yes	
				Edge 1 (Top)	< 25 mm	Yes	
				Edge 2 (Right)	> 25 mm	No	1
	Hotspot	Sub.2 Ant.	10 mm	Edge 3 (Bottom)	> 25 mm	No	1
				Edge 4 (Left)	< 25 mm	Yes	
				Rear	< 25 mm	Yes	
				Front	< 25 mm	Yes	
				Edge 1 (Top)	< 25 mm	Yes	
				Edge 2 (Right)	> 25 mm	No	1
				Edge 3 (Bottom)	> 25 mm	No	1
				Edge 4 (Left)	< 25 mm	Yes	
	Hotspot	Sub.5 Ant.	10 mm	Rear	< 25 mm	Yes	
				Front	< 25 mm	Yes	
				Edge 1 (Top)	< 25 mm	Yes	
				Edge 2 (Right)	> 25 mm	No	1
				Edge 3 (Bottom)	> 25 mm	No	1
				Edge 4 (Left)	< 25 mm	Yes	
				Rear	< 25 mm	Yes	
				Front	< 25 mm	Yes	
	Hotspot	Sub.8 Ant.	10 mm	Edge 1 (Top)	< 25 mm	Yes	
				Edge 2 (Right)	> 25 mm	No	1
				Edge 3 (Bottom)	> 25 mm	No	1
				Edge 4 (Left)	< 25 mm	Yes	
				Rear	Refer to notes 2 & 3		
				Front			
				Edge 1 (Top)			
				Edge 2 (Right)			
				Edge 3 (Bottom)			
				Edge 4 (Left)			
	Product Specific 10-g	All Main Antennas	0 mm	Rear			
				Front			
				Edge 1 (Top)			
				Edge 2 (Right)			
				Edge 3 (Bottom)			
				Edge 4 (Left)			

Notes:

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

WLAN&BT

Wireless technologies	RF Exposure Conditions	Antenna	DUT-to-User Separation	Test Position	Antenna-to-edge/surface	SAR Required	Note
2.4GHz WLAN & BT & 5GHz WLAN	Head	All Main Antennas	0 mm	Left Touch	N/A	Yes	
				Left Tilt (15°)	N/A	Yes	
				Right Touch	N/A	Yes	
				Right Tilt (15°)	N/A	Yes	
	Body		15 mm	Rear	N/A	Yes	
				Front	N/A	Yes	
	Hotspot	WiFi2.4G (Sub.2 & Sub.5) 5G (Sub.3 & Sub.9)	10 mm	Rear	< 25 mm	Yes	
				Front	< 25 mm	Yes	
				Edge 1 (Top)	< 25 mm	Yes	
				Edge 2 (Right)	> 25 mm	No	1
				Edge 3 (Bottom)	> 25 mm	No	1
				Edge 4 (Left)	< 25 mm	Yes	
	Product Specific 10-g	All Main Antennas	0 mm	Rear	Refer to notes 2 & 4		
				Front			
				Edge 1 (Top)			
				Edge 2 (Right)			
				Edge 3 (Bottom)			
				Edge 4 (Left)			

NFC

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

Notes:

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

8. Dielectric Property Measurements & System Check

8.1. Dielectric Property Measurements

The temperature of the tissue-equivalent medium used during measurement must also be within 18°C to 25°C and within $\pm 2^\circ\text{C}$ 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 (9MHz to 19MHz). The parameters must be measured before 24 hours.

1. Tissue Dielectric Parameters (100MHz to 6GHz)

FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz

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

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

IEEE Std 1528-2013

Refer to Table 3 within the IEEE Std 1528-2013

2. Tissue Dielectric Parameters (9MHz to 19MHz)

Target Frequency (MHz)	Head	
	ϵ_r	σ (S/m)
9	55.0	0.75
13	55.0	0.75
19	55.0	0.75

IEC_IEEE Std 62209-1528 : 2020

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

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

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
2022-12-05	Head 1750	e'	40.2900	Relative Permittivity (ϵ_r):	40.29	40.08	0.51	5
		e"	13.7100	Conductivity (σ):	1.33	1.37	-2.55	5
	Head 1710	e'	40.2500	Relative Permittivity (ϵ_r):	40.25	40.15	0.26	5
		e"	13.9000	Conductivity (σ):	1.32	1.35	-1.84	5
2022-12-05	Head 1755	e'	40.3100	Relative Permittivity (ϵ_r):	40.31	40.08	0.58	5
		e"	13.6800	Conductivity (σ):	1.33	1.37	-2.69	5
	Head 1900	e'	40.3100	Relative Permittivity (ϵ_r):	40.31	40.00	0.78	5
		e"	13.1200	Conductivity (σ):	1.39	1.40	-0.99	5
2022-12-09	Head 1850	e'	40.4100	Relative Permittivity (ϵ_r):	40.41	40.00	1.02	5
		e"	13.2100	Conductivity (σ):	1.36	1.40	-2.94	5
	Head 1910	e'	40.2900	Relative Permittivity (ϵ_r):	40.29	40.00	0.72	5
		e"	13.0800	Conductivity (σ):	1.39	1.40	-0.78	5
2022-12-09	Head 1750	e'	39.5600	Relative Permittivity (ϵ_r):	39.56	40.08	-1.31	5
		e"	13.5400	Conductivity (σ):	1.32	1.37	-3.76	5
	Head 1710	e'	39.5800	Relative Permittivity (ϵ_r):	39.58	40.15	-1.41	5
		e"	13.5600	Conductivity (σ):	1.29	1.35	-4.24	5
2022-12-13	Head 1755	e'	39.5500	Relative Permittivity (ϵ_r):	39.55	40.08	-1.31	5
		e"	13.5400	Conductivity (σ):	1.32	1.37	-3.68	5
	Head 1900	e'	39.3500	Relative Permittivity (ϵ_r):	39.35	40.00	-1.63	5
		e"	13.2000	Conductivity (σ):	1.39	1.40	-0.39	5
2022-12-19	Head 1850	e'	39.4000	Relative Permittivity (ϵ_r):	39.40	40.00	-1.50	5
		e"	13.4200	Conductivity (σ):	1.38	1.40	-1.40	5
	Head 1910	e'	39.3300	Relative Permittivity (ϵ_r):	39.33	40.00	-1.68	5
		e"	13.1600	Conductivity (σ):	1.40	1.40	-0.17	5
2022-12-19	Head 1900	e'	39.7900	Relative Permittivity (ϵ_r):	39.79	40.00	-0.53	5
		e"	13.4000	Conductivity (σ):	1.42	1.40	1.12	5
	Head 1850	e'	40.1200	Relative Permittivity (ϵ_r):	40.12	40.00	0.30	5
		e"	13.5300	Conductivity (σ):	1.39	1.40	-0.59	5
2023-01-02	Head 1910	e'	39.7200	Relative Permittivity (ϵ_r):	39.72	40.00	-0.70	5
		e"	13.3700	Conductivity (σ):	1.42	1.40	1.42	5
	Head 1750	e'	39.7900	Relative Permittivity (ϵ_r):	39.79	40.08	-0.73	5
		e"	13.7800	Conductivity (σ):	1.34	1.37	-2.05	5
2023-01-02	Head 1710	e'	39.8600	Relative Permittivity (ϵ_r):	39.86	40.15	-0.71	5
		e"	13.9500	Conductivity (σ):	1.33	1.35	-1.49	5
	Head 1755	e'	39.7800	Relative Permittivity (ϵ_r):	39.78	40.08	-0.74	5
		e"	13.7500	Conductivity (σ):	1.34	1.37	-2.19	5
2023-01-02	Head 1900	e'	39.6500	Relative Permittivity (ϵ_r):	39.65	40.00	-0.88	5
		e"	12.9800	Conductivity (σ):	1.37	1.40	-2.05	5
	Head 1850	e'	39.6600	Relative Permittivity (ϵ_r):	39.66	40.00	-0.85	5
		e"	13.2400	Conductivity (σ):	1.36	1.40	-2.72	5
2023-01-02	Head 1910	e'	39.6500	Relative Permittivity (ϵ_r):	39.65	40.00	-0.88	5
		e"	12.9400	Conductivity (σ):	1.37	1.40	-1.84	5
	Head 1750	e'	41.4100	Relative Permittivity (ϵ_r):	41.41	40.08	3.31	5
		e"	13.5700	Conductivity (σ):	1.32	1.37	-3.55	5
2023-01-02	Head 1710	e'	41.5000	Relative Permittivity (ϵ_r):	41.50	40.15	3.37	5
		e"	13.5800	Conductivity (σ):	1.29	1.35	-4.10	5
	Head 1755	e'	41.4000	Relative Permittivity (ϵ_r):	41.40	40.08	3.30	5
		e"	13.5700	Conductivity (σ):	1.32	1.37	-3.47	5
2023-01-02	Head 1900	e'	41.0000	Relative Permittivity (ϵ_r):	41.00	40.00	2.50	5
		e"	13.4000	Conductivity (σ):	1.42	1.40	1.12	5
	Head 1850	e'	41.1400	Relative Permittivity (ϵ_r):	41.14	40.00	2.85	5
		e"	13.4700	Conductivity (σ):	1.39	1.40	-1.03	5
2023-01-02	Head 1910	e'	40.9700	Relative Permittivity (ϵ_r):	40.97	40.00	2.43	5
		e"	13.3800	Conductivity (σ):	1.42	1.40	1.50	5

SAR 1 Room (Continued)

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
2023-01-06	Head 1750	e'	41.8000	Relative Permittivity (ϵ_r):	41.80	40.08	4.28	5
		e"	13.6300	Conductivity (σ):	1.33	1.37	-3.12	5
	Head 1710	e'	41.9100	Relative Permittivity (ϵ_r):	41.91	40.15	4.39	5
		e"	13.7000	Conductivity (σ):	1.30	1.35	-3.25	5
	Head 1755	e'	41.7900	Relative Permittivity (ϵ_r):	41.79	40.08	4.27	5
		e"	13.6200	Conductivity (σ):	1.33	1.37	-3.11	5
2023-01-06	Head 1900	e'	41.5000	Relative Permittivity (ϵ_r):	41.50	40.00	3.75	5
		e"	13.5100	Conductivity (σ):	1.43	1.40	1.95	5
	Head 1850	e'	41.6400	Relative Permittivity (ϵ_r):	41.64	40.00	4.10	5
		e"	13.5900	Conductivity (σ):	1.40	1.40	-0.15	5
	Head 1910	e'	41.4700	Relative Permittivity (ϵ_r):	41.47	40.00	3.68	5
		e"	13.5000	Conductivity (σ):	1.43	1.40	2.41	5
2023-01-13	Head 3500	e'	37.8800	Relative Permittivity (ϵ_r):	37.88	37.93	-0.13	5
		e"	14.5600	Conductivity (σ):	2.83	2.91	-2.68	5
	Head 3600	e'	37.4300	Relative Permittivity (ϵ_r):	37.43	37.82	-1.02	5
		e"	14.7700	Conductivity (σ):	2.96	3.01	-1.90	5
	Head 3700	e'	37.0000	Relative Permittivity (ϵ_r):	37.00	37.70	-1.86	5
		e"	14.9000	Conductivity (σ):	3.07	3.12	-1.63	5
	Head 3800	e'	37.0400	Relative Permittivity (ϵ_r):	37.04	37.59	-1.46	5
		e"	15.0900	Conductivity (σ):	3.19	3.22	-0.94	5
	Head 3900	e'	37.0800	Relative Permittivity (ϵ_r):	37.08	37.47	-1.05	5
		e"	15.0100	Conductivity (σ):	3.25	3.32	-1.98	5
2023-01-17	Head 3950	e'	37.1400	Relative Permittivity (ϵ_r):	37.14	37.42	-0.74	5
		e"	15.0900	Conductivity (σ):	3.31	3.37	-1.71	5
	Head 3500	e'	37.5100	Relative Permittivity (ϵ_r):	37.51	37.93	-1.11	5
		e"	14.7200	Conductivity (σ):	2.86	2.91	-1.61	5
	Head 3600	e'	37.2200	Relative Permittivity (ϵ_r):	37.22	37.82	-1.57	5
		e"	14.8500	Conductivity (σ):	2.97	3.01	-1.37	5
	Head 3700	e'	36.9200	Relative Permittivity (ϵ_r):	36.92	37.70	-2.07	5
		e"	15.0000	Conductivity (σ):	3.09	3.12	-0.97	5
	Head 3800	e'	36.7000	Relative Permittivity (ϵ_r):	36.70	37.59	-2.36	5
		e"	15.1400	Conductivity (σ):	3.20	3.22	-0.61	5
	Head 3900	e'	36.5100	Relative Permittivity (ϵ_r):	36.51	37.47	-2.57	5
		e"	15.2300	Conductivity (σ):	3.30	3.32	-0.55	5
	Head 3950	e'	36.4100	Relative Permittivity (ϵ_r):	36.41	37.42	-2.69	5
		e"	15.3000	Conductivity (σ):	3.36	3.37	-0.35	5

SAR 2 Room

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
2023-01-06	Head 3500	e'	39.1300	Relative Permittivity (ϵ_r):	39.13	37.93	3.16	5
		e''	15.4100	Conductivity (σ):	3.00	2.91	3.00	5
	Head 3600	e'	38.7800	Relative Permittivity (ϵ_r):	38.78	37.82	2.55	5
		e''	15.1500	Conductivity (σ):	3.03	3.01	0.62	5
	Head 3700	e'	38.6000	Relative Permittivity (ϵ_r):	38.60	37.70	2.38	5
		e''	14.9700	Conductivity (σ):	3.08	3.12	-1.17	5
	Head 3800	e'	38.0600	Relative Permittivity (ϵ_r):	38.06	37.59	1.26	5
		e''	15.3000	Conductivity (σ):	3.23	3.22	0.44	5
	Head 3900	e'	37.3200	Relative Permittivity (ϵ_r):	37.32	37.47	-0.41	5
		e''	15.5900	Conductivity (σ):	3.38	3.32	1.80	5
2023-01-19	Head 3950	e'	37.0000	Relative Permittivity (ϵ_r):	37.00	37.42	-1.11	5
		e''	15.3800	Conductivity (σ):	3.38	3.37	0.18	5
	Head 1900	e'	39.9200	Relative Permittivity (ϵ_r):	39.92	40.00	-0.20	5
		e''	13.3300	Conductivity (σ):	1.41	1.40	0.59	5
	Head 1850	e'	39.9700	Relative Permittivity (ϵ_r):	39.97	40.00	-0.08	5
		e''	13.3400	Conductivity (σ):	1.37	1.40	-1.98	5
	Head 1910	e'	39.9100	Relative Permittivity (ϵ_r):	39.91	40.00	-0.23	5
		e''	13.3200	Conductivity (σ):	1.41	1.40	1.04	5

SAR 3 Room

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
2022-12-05	Head 1900	e'	38.7800	Relative Permittivity (ϵ_r):	38.78	40.00	-3.05	5
		e"	13.6600	Conductivity (σ):	1.44	1.40	3.08	5
	Head 1850	e'	38.7900	Relative Permittivity (ϵ_r):	38.79	40.00	-3.03	5
		e"	13.7300	Conductivity (σ):	1.41	1.40	0.88	5
2022-12-07	Head 1910	e'	38.7800	Relative Permittivity (ϵ_r):	38.78	40.00	-3.05	5
		e"	13.6600	Conductivity (σ):	1.45	1.40	3.62	5
	Head 2600	e'	40.4400	Relative Permittivity (ϵ_r):	40.44	39.01	3.66	5
		e"	13.3700	Conductivity (σ):	1.93	1.96	-1.49	5
2022-12-12	Head 2500	e'	40.5400	Relative Permittivity (ϵ_r):	40.54	39.14	3.59	5
		e"	13.4000	Conductivity (σ):	1.86	1.85	0.47	5
	Head 2700	e'	40.3300	Relative Permittivity (ϵ_r):	40.33	38.88	3.72	5
		e"	13.3800	Conductivity (σ):	2.01	2.07	-2.97	5
2022-12-13	Head 1900	e'	40.6300	Relative Permittivity (ϵ_r):	40.63	40.00	1.58	5
		e"	13.7600	Conductivity (σ):	1.45	1.40	3.83	5
	Head 1850	e'	40.5700	Relative Permittivity (ϵ_r):	40.57	40.00	1.43	5
		e"	13.9100	Conductivity (σ):	1.43	1.40	2.20	5
2023-01-12	Head 1910	e'	40.6300	Relative Permittivity (ϵ_r):	40.63	40.00	1.58	5
		e"	13.7000	Conductivity (σ):	1.45	1.40	3.93	5
	head 2250	e'	41.3900	Relative Permittivity (ϵ_r):	41.39	40.00	3.48	5
		e"	13.2700	Conductivity (σ):	1.40	1.40	0.14	5
2023-01-15	head 2300	e'	41.3900	Relative Permittivity (ϵ_r):	41.39	40.00	3.48	5
		e"	13.2400	Conductivity (σ):	1.36	1.40	-2.72	5
	head 2350	e'	41.3800	Relative Permittivity (ϵ_r):	41.38	40.00	3.45	5
		e"	13.2900	Conductivity (σ):	1.41	1.40	0.82	5
2023-01-18	Head 3500	e'	38.0500	Relative Permittivity (ϵ_r):	38.05	37.93	0.32	5
		e"	15.0100	Conductivity (σ):	2.92	2.91	0.33	5
	Head 3600	e'	37.7600	Relative Permittivity (ϵ_r):	37.76	37.82	-0.15	5
		e"	15.1100	Conductivity (σ):	3.02	3.01	0.35	5
2023-01-18	Head 3700	e'	37.2900	Relative Permittivity (ϵ_r):	37.29	37.70	-1.09	5
		e"	15.3200	Conductivity (σ):	3.15	3.12	1.14	5
	Head 3800	e'	37.0300	Relative Permittivity (ϵ_r):	37.03	37.59	-1.48	5
		e"	15.4400	Conductivity (σ):	3.26	3.22	1.36	5
2023-01-18	Head 3900	e'	36.8400	Relative Permittivity (ϵ_r):	36.84	37.47	-1.69	5
		e"	15.5600	Conductivity (σ):	3.37	3.32	1.61	5
	Head 3950	e'	36.6800	Relative Permittivity (ϵ_r):	36.68	37.42	-1.97	5
		e"	15.6900	Conductivity (σ):	3.45	3.37	2.20	5
2023-01-18	head 2250	e'	40.5700	Relative Permittivity (ϵ_r):	40.57	39.56	2.55	5
		e"	13.2700	Conductivity (σ):	1.66	1.62	2.49	5
	head 2300	e'	40.9000	Relative Permittivity (ϵ_r):	40.90	39.47	3.62	5
		e"	13.5600	Conductivity (σ):	1.73	1.66	4.23	5
2023-01-18	head 2350	e'	41.0400	Relative Permittivity (ϵ_r):	41.04	39.38	4.20	5
		e"	13.6700	Conductivity (σ):	1.79	1.71	4.60	5

SAR 4 Room

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
2022-12-13	Head 1750	e'	41.6000	Relative Permittivity (ϵ_r):	41.60	40.08	3.78	5
		e"	13.9800	Conductivity (σ):	1.36	1.37	-0.63	5
	Head 1710	e'	41.6500	Relative Permittivity (ϵ_r):	41.65	40.15	3.75	5
		e"	14.0800	Conductivity (σ):	1.34	1.35	-0.57	5
	Head 1755	e'	41.6000	Relative Permittivity (ϵ_r):	41.60	40.08	3.80	5
		e"	13.9700	Conductivity (σ):	1.36	1.37	-0.62	5
2022-12-20	Head 2600	e'	38.8200	Relative Permittivity (ϵ_r):	38.82	39.01	-0.49	5
		e"	13.1900	Conductivity (σ):	1.91	1.96	-2.82	5
	Head 2500	e'	39.0100	Relative Permittivity (ϵ_r):	39.01	39.14	-0.32	5
		e"	13.1900	Conductivity (σ):	1.83	1.85	-1.11	5
	Head 2700	e'	38.7000	Relative Permittivity (ϵ_r):	38.70	38.88	-0.47	5
		e"	13.1800	Conductivity (σ):	1.98	2.07	-4.42	5
2022-12-22	Head 1750	e'	41.0700	Relative Permittivity (ϵ_r):	41.07	40.08	2.46	5
		e"	13.9500	Conductivity (σ):	1.36	1.37	-0.84	5
	Head 1710	e'	41.1611	Relative Permittivity (ϵ_r):	41.16	40.15	2.53	5
		e"	13.9900	Conductivity (σ):	1.33	1.35	-1.20	5
	Head 1755	e'	41.0589	Relative Permittivity (ϵ_r):	41.06	40.08	2.45	5
		e"	13.9500	Conductivity (σ):	1.36	1.37	-0.77	5
2022-12-22	Head 1900	e'	40.9300	Relative Permittivity (ϵ_r):	40.93	40.00	2.33	5
		e"	13.6100	Conductivity (σ):	1.44	1.40	2.70	5
	Head 1850	e'	40.9300	Relative Permittivity (ϵ_r):	40.93	40.00	2.33	5
		e"	13.6700	Conductivity (σ):	1.41	1.40	0.44	5
	Head 1910	e'	40.9300	Relative Permittivity (ϵ_r):	40.93	40.00	2.33	5
		e"	13.6000	Conductivity (σ):	1.44	1.40	3.17	5
2022-12-26	Head 1750	e'	41.7100	Relative Permittivity (ϵ_r):	41.71	40.08	4.05	5
		e"	13.6200	Conductivity (σ):	1.33	1.37	-3.19	5
	Head 1710	e'	41.7900	Relative Permittivity (ϵ_r):	41.79	40.15	4.09	5
		e"	13.7300	Conductivity (σ):	1.31	1.35	-3.04	5
	Head 1755	e'	41.6900	Relative Permittivity (ϵ_r):	41.69	40.08	4.02	5
		e"	13.6100	Conductivity (σ):	1.33	1.37	-3.18	5
2022-12-26	Head 1900	e'	41.5400	Relative Permittivity (ϵ_r):	41.54	40.00	3.85	5
		e"	13.3900	Conductivity (σ):	1.41	1.40	1.04	5
	Head 1850	e'	41.5600	Relative Permittivity (ϵ_r):	41.56	40.00	3.90	5
		e"	13.4400	Conductivity (σ):	1.38	1.40	-1.25	5
	Head 1910	e'	41.5300	Relative Permittivity (ϵ_r):	41.53	40.00	3.83	5
		e"	13.3900	Conductivity (σ):	1.42	1.40	1.57	5
2022-12-30	Head 2250	e'	39.9500	Relative Permittivity (ϵ_r):	39.95	39.56	0.98	5
		e"	12.8400	Conductivity (σ):	1.61	1.62	-0.83	5
	Head 2300	e'	39.9100	Relative Permittivity (ϵ_r):	39.91	39.47	1.11	5
		e"	12.9300	Conductivity (σ):	1.65	1.66	-0.61	5
	Head 2350	e'	39.8400	Relative Permittivity (ϵ_r):	39.84	39.38	1.16	5
		e"	13.0100	Conductivity (σ):	1.70	1.71	-0.45	5
2023-01-03	Head 2250	e'	39.4600	Relative Permittivity (ϵ_r):	39.46	39.56	-0.25	5
		e"	13.3000	Conductivity (σ):	1.66	1.62	2.73	5
	Head 2300	e'	39.4200	Relative Permittivity (ϵ_r):	39.42	39.47	-0.13	5
		e"	13.3300	Conductivity (σ):	1.70	1.66	2.46	5
	Head 2350	e'	39.3800	Relative Permittivity (ϵ_r):	39.38	39.38	-0.01	5
		e"	13.3500	Conductivity (σ):	1.74	1.71	2.15	5
2023-01-03	Head 2600	e'	39.8900	Relative Permittivity (ϵ_r):	39.89	39.01	2.25	5
		e"	13.5600	Conductivity (σ):	1.96	1.96	-0.09	5
	Head 2500	e'	39.0500	Relative Permittivity (ϵ_r):	39.05	39.14	-0.22	5
		e"	13.4100	Conductivity (σ):	1.86	1.85	0.54	5
	Head 2700	e'	38.7900	Relative Permittivity (ϵ_r):	38.79	38.88	-0.24	5
		e"	13.6600	Conductivity (σ):	2.05	2.07	-0.94	5

SAR 4 Room (Continued)

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
2023-01-05	Head 2600	e'	40.4900	Relative Permittivity (ϵ_r):	40.49	39.01	3.79	5
		e''	13.1800	Conductivity (σ):	1.91	1.96	-2.89	5
	Head 2500	e'	40.6100	Relative Permittivity (ϵ_r):	40.61	39.14	3.76	5
		e''	13.0500	Conductivity (σ):	1.81	1.85	-2.16	5
	Head 2700	e'	40.3800	Relative Permittivity (ϵ_r):	40.38	38.88	3.85	5
		e''	13.2700	Conductivity (σ):	1.99	2.07	-3.77	5
2023-01-06	Head 2600	e'	37.6600	Relative Permittivity (ϵ_r):	37.66	39.01	-3.46	5
		e''	13.1400	Conductivity (σ):	1.90	1.96	-3.19	5
	Head 2500	e'	38.1300	Relative Permittivity (ϵ_r):	38.13	39.14	-2.57	5
		e''	13.0400	Conductivity (σ):	1.81	1.85	-2.23	5
	Head 2700	e'	37.1600	Relative Permittivity (ϵ_r):	37.16	38.88	-4.44	5
		e''	13.3700	Conductivity (σ):	2.01	2.07	-3.05	5
2023-01-10	Head 2600	e'	37.3100	Relative Permittivity (ϵ_r):	37.31	39.01	-4.36	5
		e''	13.7000	Conductivity (σ):	1.98	1.96	0.94	5
	Head 2500	e'	37.2700	Relative Permittivity (ϵ_r):	37.27	39.14	-4.77	5
		e''	13.5000	Conductivity (σ):	1.88	1.85	1.22	5
	Head 2700	e'	37.0200	Relative Permittivity (ϵ_r):	37.02	38.88	-4.80	5
		e''	13.6700	Conductivity (σ):	2.05	2.07	-0.87	5
2023-01-11	Head 2450	e'	38.4000	Relative Permittivity (ϵ_r):	38.40	39.20	-2.04	5
		e''	13.0400	Conductivity (σ):	1.78	1.80	-1.31	5
	Head 2400	e'	38.5600	Relative Permittivity (ϵ_r):	38.56	39.30	-1.87	5
		e''	12.9500	Conductivity (σ):	1.73	1.75	-1.34	5
	Head 2480	e'	38.3100	Relative Permittivity (ϵ_r):	38.31	39.16	-2.18	5
		e''	13.0800	Conductivity (σ):	1.80	1.83	-1.57	5
2023-01-16	Head 2600	e'	39.1900	Relative Permittivity (ϵ_r):	39.19	39.01	0.46	5
		e''	13.3100	Conductivity (σ):	1.92	1.96	-1.93	5
	Head 2500	e'	39.3200	Relative Permittivity (ϵ_r):	39.32	39.14	0.47	5
		e''	13.2100	Conductivity (σ):	1.84	1.85	-0.96	5
	Head 2700	e'	39.0800	Relative Permittivity (ϵ_r):	39.08	38.88	0.50	5
		e''	13.4000	Conductivity (σ):	2.01	2.07	-2.83	5
2023-01-20	Head 2600	e'	39.2900	Relative Permittivity (ϵ_r):	39.29	39.01	0.72	5
		e''	13.6500	Conductivity (σ):	1.97	1.96	0.57	5
	Head 2500	e'	39.4600	Relative Permittivity (ϵ_r):	39.46	39.14	0.83	5
		e''	13.5400	Conductivity (σ):	1.88	1.85	1.52	5
	Head 2700	e'	39.1500	Relative Permittivity (ϵ_r):	39.15	38.88	0.68	5
		e''	13.7200	Conductivity (σ):	2.06	2.07	-0.51	5

SAR 5 Room

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
2023-01-02	Head 750	e'	40.3600	Relative Permittivity (ϵ_r):	40.36	41.96	-3.82	5
		e"	21.8800	Conductivity (σ):	0.91	0.89	2.17	5
	Head 680	e'	40.5900	Relative Permittivity (ϵ_r):	40.59	42.32	-4.09	5
		e"	23.6700	Conductivity (σ):	0.89	0.89	0.82	5
2023-01-02	Head 790	e'	40.2400	Relative Permittivity (ϵ_r):	40.24	41.76	-3.63	5
		e"	21.0300	Conductivity (σ):	0.92	0.90	3.08	5
	Head 835	e'	40.1000	Relative Permittivity (ϵ_r):	40.10	41.50	-3.37	5
		e"	20.1200	Conductivity (σ):	0.93	0.90	3.79	5
2023-01-06	Head 820	e'	40.1500	Relative Permittivity (ϵ_r):	40.15	41.60	-3.49	5
		e"	20.4200	Conductivity (σ):	0.93	0.90	3.63	5
	Head 850	e'	40.0700	Relative Permittivity (ϵ_r):	40.07	41.50	-3.45	5
		e"	19.8300	Conductivity (σ):	0.94	0.92	2.43	5
2023-01-06	Head 750	e'	42.6100	Relative Permittivity (ϵ_r):	42.61	41.96	1.55	5
		e"	22.2600	Conductivity (σ):	0.93	0.89	3.94	5
	Head 700	e'	42.8300	Relative Permittivity (ϵ_r):	42.83	42.22	1.45	5
		e"	23.3400	Conductivity (σ):	0.91	0.89	2.16	5
2023-01-10	Head 790	e'	42.4800	Relative Permittivity (ϵ_r):	42.48	41.76	1.73	5
		e"	21.1700	Conductivity (σ):	0.93	0.90	3.77	5
	Head 835	e'	42.4200	Relative Permittivity (ϵ_r):	42.42	41.50	2.22	5
		e"	20.0400	Conductivity (σ):	0.93	0.90	3.38	5
2023-01-10	Head 820	e'	42.4300	Relative Permittivity (ϵ_r):	42.43	41.60	1.99	5
		e"	20.3600	Conductivity (σ):	0.93	0.90	3.32	5
	Head 850	e'	42.4200	Relative Permittivity (ϵ_r):	42.42	41.50	2.22	5
		e"	19.7900	Conductivity (σ):	0.94	0.92	2.22	5
2023-01-17	Head 750	e'	42.4200	Relative Permittivity (ϵ_r):	42.42	41.96	1.09	5
		e"	20.8900	Conductivity (σ):	0.87	0.89	-2.45	5
	Head 680	e'	42.5800	Relative Permittivity (ϵ_r):	42.58	42.32	0.61	5
		e"	23.3000	Conductivity (σ):	0.88	0.89	-0.76	5
2023-01-17	Head 790	e'	42.3500	Relative Permittivity (ϵ_r):	42.35	41.76	1.42	5
		e"	20.2100	Conductivity (σ):	0.89	0.90	-0.94	5
	Head 835	e'	42.4600	Relative Permittivity (ϵ_r):	42.46	41.50	2.31	5
		e"	19.7400	Conductivity (σ):	0.92	0.90	1.83	5
2023-01-17	Head 820	e'	42.4000	Relative Permittivity (ϵ_r):	42.40	41.60	1.92	5
		e"	19.9000	Conductivity (σ):	0.91	0.90	0.99	5
	Head 850	e'	42.5000	Relative Permittivity (ϵ_r):	42.50	41.50	2.41	5
		e"	19.5500	Conductivity (σ):	0.92	0.92	0.98	5
2023-01-17	Head 1750	e'	41.9400	Relative Permittivity (ϵ_r):	41.94	40.08	4.63	5
		e"	13.6300	Conductivity (σ):	1.33	1.37	-3.12	5
	Head 1710	e'	42.0100	Relative Permittivity (ϵ_r):	42.01	40.15	4.64	5
		e"	13.7500	Conductivity (σ):	1.31	1.35	-2.90	5
2023-01-17	Head 1755	e'	41.9300	Relative Permittivity (ϵ_r):	41.93	40.08	4.62	5
		e"	13.6200	Conductivity (σ):	1.33	1.37	-3.11	5

SAR 6 Room

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
2022-12-26	Head 2450	e'	40.3300	Relative Permittivity (ϵ_r):	40.33	39.20	2.88	5
		e"	13.0400	Conductivity (σ):	1.78	1.80	-1.31	5
	Head 2400	e'	40.0300	Relative Permittivity (ϵ_r):	40.03	39.30	1.87	5
		e"	13.0000	Conductivity (σ):	1.73	1.75	-0.96	5
2022-12-26	Head 2480	e'	40.4600	Relative Permittivity (ϵ_r):	40.46	39.16	3.31	5
		e"	13.0100	Conductivity (σ):	1.79	1.83	-2.10	5

SAR 7 Room

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
2022-12-14	Head 13	e'	54.4700	Relative Permittivity (ϵ_r):	54.47	55.00	-0.96	5
		e"	1020.0000	Conductivity (σ):	0.74	0.75	-1.69	5
	Head 12	e'	54.4700	Relative Permittivity (ϵ_r):	54.47	55.00	-0.96	5
		e"	1105.0000	Conductivity (σ):	0.74	0.75	-1.69	5
	Head 14	e'	54.3000	Relative Permittivity (ϵ_r):	54.30	55.00	-1.27	5
		e"	947.2000	Conductivity (σ):	0.74	0.75	-1.69	5
2022-12-22	Head 13	e'	55.2700	Relative Permittivity (ϵ_r):	55.27	55.00	0.49	5
		e"	1021.0000	Conductivity (σ):	0.74	0.75	-1.60	5
	Head 12	e'	55.3400	Relative Permittivity (ϵ_r):	55.34	55.00	0.62	5
		e"	1106.0000	Conductivity (σ):	0.74	0.75	-1.60	5
	Head 14	e'	55.2300	Relative Permittivity (ϵ_r):	55.23	55.00	0.42	5
		e"	948.5000	Conductivity (σ):	0.74	0.75	-1.55	5
2022-12-26	Head 5250	e'	34.6600	Relative Permittivity (ϵ_r):	34.66	35.93	-3.54	5
		e"	16.4600	Conductivity (σ):	4.80	4.70	2.19	5
	Head 5260	e'	34.6600	Relative Permittivity (ϵ_r):	34.66	35.92	-3.51	5
		e"	16.4500	Conductivity (σ):	4.81	4.71	2.10	5
	Head 5600	e'	34.7800	Relative Permittivity (ϵ_r):	34.78	35.53	-2.12	5
		e"	16.2100	Conductivity (σ):	5.05	5.06	-0.25	5
	Head 5800	e'	33.9900	Relative Permittivity (ϵ_r):	33.99	35.30	-3.71	5
		e"	16.1800	Conductivity (σ):	5.22	5.27	-0.99	5
	Head 5825	e'	33.9300	Relative Permittivity (ϵ_r):	33.93	35.30	-3.88	5
		e"	16.1900	Conductivity (σ):	5.24	5.27	-0.50	5
2023-01-02	Head 5250	e'	36.5600	Relative Permittivity (ϵ_r):	36.56	35.93	1.74	5
		e"	16.3200	Conductivity (σ):	4.76	4.70	1.32	5
	Head 5260	e'	36.4700	Relative Permittivity (ϵ_r):	36.47	35.92	1.53	5
		e"	16.2300	Conductivity (σ):	4.75	4.71	0.73	5
	Head 5600	e'	36.3700	Relative Permittivity (ϵ_r):	36.37	35.53	2.35	5
		e"	15.8800	Conductivity (σ):	4.94	5.06	-2.28	5
	Head 5800	e'	35.4000	Relative Permittivity (ϵ_r):	35.40	35.30	0.28	5
		e"	15.7200	Conductivity (σ):	5.07	5.27	-3.80	5
	Head 5825	e'	35.2600	Relative Permittivity (ϵ_r):	35.26	35.30	-0.11	5
		e"	15.9000	Conductivity (σ):	5.15	5.27	-2.28	5
2023-01-06	Head 3500	e'	39.1400	Relative Permittivity (ϵ_r):	39.14	37.93	3.19	5
		e"	14.9200	Conductivity (σ):	2.90	2.91	-0.27	5
	Head 3600	e'	39.0200	Relative Permittivity (ϵ_r):	39.02	37.82	3.19	5
		e"	14.7300	Conductivity (σ):	2.95	3.01	-2.17	5
	Head 3700	e'	38.3900	Relative Permittivity (ϵ_r):	38.39	37.70	1.83	5
		e"	14.8500	Conductivity (σ):	3.06	3.12	-1.96	5
	Head 3800	e'	37.9000	Relative Permittivity (ϵ_r):	37.90	37.59	0.83	5
		e"	15.0100	Conductivity (σ):	3.17	3.22	-1.46	5
	Head 3900	e'	37.3800	Relative Permittivity (ϵ_r):	37.38	37.47	-0.25	5
		e"	15.1400	Conductivity (σ):	3.28	3.32	-1.14	5
2023-01-10	Head 3950	e'	37.7400	Relative Permittivity (ϵ_r):	37.74	37.42	0.87	5
		e"	15.4200	Conductivity (σ):	3.39	3.37	0.44	5
	Head 3500	e'	38.9500	Relative Permittivity (ϵ_r):	38.95	37.93	2.69	5
		e"	14.8000	Conductivity (σ):	2.88	2.91	-1.08	5
	Head 3600	e'	38.7500	Relative Permittivity (ϵ_r):	38.75	37.82	2.47	5
		e"	14.9300	Conductivity (σ):	2.99	3.01	-0.84	5
	Head 3700	e'	38.5500	Relative Permittivity (ϵ_r):	38.55	37.70	2.25	5
		e"	15.0400	Conductivity (σ):	3.09	3.12	-0.71	5
	Head 3800	e'	38.3700	Relative Permittivity (ϵ_r):	38.37	37.59	2.08	5
		e"	15.1400	Conductivity (σ):	3.20	3.22	-0.61	5
	Head 3900	e'	38.2100	Relative Permittivity (ϵ_r):	38.21	37.47	1.97	5
		e"	15.1800	Conductivity (σ):	3.29	3.32	-0.87	5
	Head 3950	e'	38.1300	Relative Permittivity (ϵ_r):	38.13	37.42	1.91	5
		e"	15.2200	Conductivity (σ):	3.34	3.37	-0.87	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 9MHz to 19MHz frequency range, The System verification must be performed before 24 hours.

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

- The measurements were performed in the flat section of the TWIN SAM or ELI phantom, shell thickness: 2.0 ± 0.2 mm (bottom plate) filled with Body or Head simulating liquid of the following parameters.
- The depth of tissue-equivalent liquid in a phantom must be ≥ 15.0 cm for SAR measurements ≤ 3 GHz and ≥ 10.0 cm for measurements > 3 GHz.
- The DASY system with an E-Field Probe was used for the measurements.
- The dipole was mounted on the small tripod so that the dipole feed point was positioned below the center marking of the flat phantom section and the dipole was oriented parallel to the body axis (the long side of the phantom). The standard measuring distance was 10 mm (above 1 GHz) and 15 mm (below 1 GHz) from dipole center to the simulating liquid surface.
- The coarse grid with a grid spacing of 15 mm was aligned with the dipole.
For 5 GHz band - The coarse grid with a grid spacing of 10 mm was aligned with the dipole.
- Special 7x7x7 (below 3 GHz) and/or 8x8x7 (above 3 GHz) fine cube was chosen for the cube.
- Distance between probe sensors and phantom surface was set to 2.5 mm.
For 5 GHz band - Distance between probe sensors and phantom surface was set to 1.4 mm
- The dipole input power (forward power) was 100 mW.
- The results are normalized to 1 W input power.

System Performance Check Measurement Conditions (13MHz):

- The measurements were performed in the flat section of the TWIN SAM or ELI phantom, shell thickness: 2.0 ± 0.2 mm (bottom plate) filled with Body or Head simulating liquid of the following parameters.
- The depth of tissue-equivalent liquid in a phantom must be ≥ 15.0 cm for SAR measurements
- The DASY system with an E-Field Probe was used for the measurements.
- The CLA(Confined Loop Antennas) was mounted on the small tripod so that the CLA feed point was positioned below the center marking of the flat phantom section and the CLA was oriented parallel to the body axis (the long side of the phantom). The standard measuring distance was 0 mm separation distance from CLA center to the Phantom surface.
- The CLA input power (forward power) was 100 mW.
- The results are normalized to 1 W input power.

Reference Target SAR Values

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

System Dipole	Serial No.	Cal. Date	Cal. Due Date	Target SAR Values (W/kg)	
				1g/10g	Head
D750V3	1205	4-27-2021	4-27-2023	1g	8.66
				10g	5.65
D835V2	4d174	9-21-2022	9-21-2024	1g	9.63
				10g	6.29
D1750V2	1125	11-30-2022	11-30-2024	1g	35.60
				10g	18.90
D1750V2	1180	9-21-2022	9-21-2024	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	4-23-2021	4-23-2023	1g	49.30
				10g	23.60
D2450V2	960	3-24-2022	3-24-2024	1g	51.90
				10g	24.00
D2600V2	1097	9-29-2021	9-29-2023	1g	57.10
				10g	25.50
D2600V2	1178	4-23-2021	4-23-2023	1g	56.60
				10g	25.40
D3500V2	1121	4-21-2021	4-21-2023	1g	66.30
				10g	25.00
D3700V2	1036	5-21-2021	5-21-2023	1g	67.90
				10g	24.30
D3900V2	1069	4-21-2021	4-21-2023	1g	70.10
				10g	24.30
D5GHzV2 (5250)	1184	11-23-2022	11-23-2024	1g	79.00
D5GHzV2 (5600)				10g	22.90
D5GHzV2 (5750)				1g	81.60
				10g	23.10
				1g	80.80
				10g	23.00
CLA-13	1015	8-23-2022	8-23-2023	1g	0.55
				10g	0.34

Note(s):

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

System Check Results

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

SAR 1 Room

Date Tested	System Dipole		T.S. Liquid	Measured Results		Target (Ref. Value)	Delta ±10 %	Plot No.
	Type	Serial #		Zoom Scan to 100 mW	Normalize to 1 W			
2022-12-05	D1750V2	1180	Head	1g	3.29	32.9	35.60	-7.58
				10g	1.78	17.8	18.90	-5.82
2022-12-05	D1900V2	5d199	Head	1g	4.00	40.0	39.40	1.52
				10g	2.08	20.8	20.50	1.46
2022-12-09	D1750V2	1180	Head	1g	3.31	33.1	35.60	-7.02
				10g	1.80	18.0	18.90	-4.76
2022-12-09	D1900V2	5d199	Head	1g	4.04	40.4	39.40	2.54
				10g	2.09	20.9	20.50	1.95
2022-12-13	D1900V2	5d199	Head	1g	3.96	39.6	39.40	0.51
				10g	2.04	20.4	20.50	-0.49
2022-12-19	D1750V2	1125	Head	1g	3.48	34.8	37.40	-6.95
				10g	1.85	18.5	19.70	-6.09
2022-12-19	D1900V2	5d190	Head	1g	3.96	39.6	39.70	-0.25
				10g	2.05	20.5	20.70	-0.97
2023-01-02	D1750V2	1180	Head	1g	3.31	33.1	35.60	-7.02
				10g	1.76	17.6	18.90	-6.88
2023-01-02	D1900V2	5d199	Head	1g	3.72	37.2	39.40	-5.58
				10g	1.91	19.1	20.50	-6.83
2023-01-06	D1750V2	1180	Head	1g	3.58	35.8	35.60	0.56
				10g	1.93	19.3	18.90	2.12
2023-01-06	D1900V2	5d190	Head	1g	4.02	40.2	39.70	1.26
				10g	2.07	20.7	20.70	0.00
2023-01-13	D3500V2	1121	Head	1g	6.39	63.9	66.30	-3.62
				10g	2.50	25.0	25.00	0.00
2023-01-13	D3700V2	1036	Head	1g	6.83	68.3	67.90	0.59
				10g	2.58	25.8	24.30	6.17
2023-01-13	D3900V2	1069	Head	1g	6.77	67.7	70.10	-3.42
				10g	2.45	24.5	24.30	0.82
2023-01-17	D3500V2	1121	Head	1g	6.23	62.3	66.30	-6.03
				10g	2.42	24.2	25.00	-3.20
2023-01-17	D3700V2	1036	Head	1g	6.26	62.6	67.90	-7.81
				10g	2.36	23.6	24.30	-2.88
2023-01-17	D3900V2	1069	Head	1g	6.43	64.3	70.10	-8.27
				10g	2.33	23.3	24.30	-4.12

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			
2023-01-06	D3500V2	1121	Head	1g	6.59	65.9	66.30	-0.60
				10g	2.55	25.5	25.00	2.00
2023-01-06	D3700V2	1036	Head	1g	6.80	68.0	67.90	0.15
				10g	2.52	25.2	24.30	3.70
2023-01-06	D3900V2	1069	Head	1g	7.02	70.2	70.10	0.14
				10g	2.51	25.1	24.30	3.29
2023-01-19	D1900V2	5d190	Head	1g	3.91	39.1	39.70	-1.51
				10g	2.03	20.3	20.70	-1.93

SAR 3 Room

Date Tested	System Dipole		T.S. Liquid	Measured Results		Target (Ref. Value)	Delta ±10 %	Plot No.
	Type	Serial #		Zoom Scan to 100 mW	Normalize to 1 W			
2022-12-05	D1900V2	5d199	Head	1g	3.79	37.9	39.40	-3.81
				10g	2.03	20.3	20.50	-0.98
2022-12-07	D2600V2	1178	Head	1g	5.23	52.3	56.60	-7.60
				10g	2.34	23.4	25.40	-7.87
2022-12-12	D1900V2	5d190	Head	1g	3.84	38.4	39.70	-3.27
				10g	2.03	20.3	20.70	-1.93
2022-12-13	D1900V2	5d190	Head	1g	3.82	38.2	39.70	-3.78
				10g	2.01	20.1	20.70	-2.90
2023-01-12	D2300V2	1115	Head	1g	4.65	46.5	49.30	-5.68
				10g	2.29	22.9	23.60	-2.97
2023-01-15	D3500V2	1121	Head	1g	6.58	65.8	66.30	-0.75
				10g	2.60	26.0	25.00	4.00
2023-01-15	D3700V2	1036	Head	1g	6.73	67.3	67.90	-0.88
				10g	2.56	25.6	24.30	5.35
2023-01-15	D3900V2	1069	Head	1g	6.40	64.0	70.10	-8.70
				10g	2.34	23.4	24.30	-3.70
2023-01-18	D2300V2	1115	Head	1g	4.73	47.3	49.30	-4.06
				10g	2.25	22.5	23.60	-4.66

SAR 4 Room

Date Tested	System Dipole		T.S. Liquid	Measured Results		Target (Ref. Value)	Delta ±10 %	Plot No.
	Type	Serial #		Zoom Scan to 100 mW	Normalize to 1 W			
2022-12-13	D1750V2	1180	Head	1g	3.37	33.7	35.60	-5.34
				10g	1.83	18.3	18.90	-3.17
2022-12-20	D2600V2	1178	Head	1g	5.32	53.2	56.60	-6.01
				10g	2.38	23.8	25.40	-6.30
2022-12-22	D1750V2	1125	Head	1g	3.52	35.2	37.40	-5.88
				10g	1.87	18.7	19.70	-5.08
2022-12-22	D1900V2	5d190	Head	1g	3.68	36.8	39.70	-7.30
				10g	1.92	19.2	20.70	-7.25
2022-12-26	D1750V2	1125	Head	1g	3.63	36.3	37.40	-2.94
				10g	1.94	19.4	19.70	-1.52
2022-12-26	D1900V2	5d190	Head	1g	3.80	38.0	39.70	-4.28
				10g	1.96	19.6	20.70	-5.31
2022-12-30	D2300V2	1115	Head	1g	4.70	47.0	49.30	-4.67
				10g	2.22	22.2	23.60	-5.93
2023-01-03	D2300V2	1115	Head	1g	4.52	45.2	49.30	-8.32
				10g	2.18	21.8	23.60	-7.63
2023-01-03	D2600V2	1097	Head	1g	5.55	55.5	57.10	-2.80
				10g	2.50	25.0	25.50	-1.96
2023-01-05	D2600V2	1097	Head	1g	5.48	54.8	57.10	-4.03
				10g	2.49	24.9	25.50	-2.35
2023-01-06	D2600V2	1097	Head	1g	5.54	55.4	57.10	-2.98
				10g	2.48	24.8	25.50	-2.75
2023-01-10	D2600V2	1097	Head	1g	5.97	59.7	57.10	4.55
				10g	2.69	26.9	25.50	5.49
2023-01-11	D2450V2	960	Head	1g	4.98	49.8	51.90	-4.05
				10g	2.32	23.2	24.00	-3.33
2023-01-16	D2600V2	1097	Head	1g	5.85	58.5	57.10	2.45
				10g	2.63	26.3	25.50	3.14
2023-01-20	D2600V2	1097	Head	1g	5.70	57.0	57.10	-0.18
				10g	2.54	25.4	25.50	-0.39

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			
2023-01-02	D750V3	1205	Head	1g	0.87	8.7	8.66	0.23
				10g	0.60	6.0	5.65	5.66
2023-01-02	D835V2	4d174	Head	1g	0.99	9.9	9.63	2.49
				10g	0.67	6.7	6.29	7.15
2023-01-06	D750V3	1205	Head	1g	0.89	8.9	8.66	2.77
				10g	0.59	5.9	5.65	4.42
2023-01-06	D835V2	4d174	Head	1g	1.03	10.3	9.63	6.96
				10g	0.68	6.8	6.29	7.47
2023-01-10	D750V3	1205	Head	1g	0.81	8.1	8.66	-6.93
				10g	0.54	5.4	5.65	-5.31
2023-01-10	D835V2	4d174	Head	1g	0.89	8.9	9.63	-7.58
				10g	0.59	5.9	6.29	-7.00
2023-01-17	D1750V2	1180	Head	1g	3.59	35.9	35.60	0.84
				10g	1.92	19.2	18.90	1.59

SAR 6 Room

Date Tested	System Dipole		T.S. Liquid	Measured Results		Target (Ref. Value)	Delta ±10 %	Plot No.
	Type	Serial #		Zoom Scan to 100 mW	Normalize to 1 W			
2022-12-26	D2450V2	960	Head	1g	4.94	49.4	51.90	-4.82
				10g	2.31	23.1	24.00	-3.75

SAR 7 Room

Date Tested	System Dipole		T.S. Liquid	Measured Results		Target (Ref. Value)	Delta ±10 %	Plot No.
	Type	Serial #		Zoom Scan to 100 mW	Normalize to 1 W			
2022-12-14	CLA-13	1015	Head	1g	0.05	0.5	0.55	-1.46
				10g	0.03	0.3	0.34	-2.94
2022-12-22	CLA-13	1015	Head	1g	0.05	0.5	0.55	-1.46
				10g	0.03	0.3	0.34	-2.94
2022-12-26	D5GHzV2	1184	Head	1g	7.39	73.9	79.00	-6.46
				10g	2.10	21.0	22.90	-8.30
2022-12-26	D5GHzV2	1184	Head	1g	8.50	85.0	81.60	4.17
				10g	2.42	24.2	23.10	4.76
2022-12-26	D5GHzV2 (5800)	1184	Head	1g	8.04	80.4	79.50	1.13
				10g	2.28	22.8	22.60	0.88
2023-01-02	D5GHzV2	1184	Head	1g	7.31	73.1	79.00	-7.47
				10g	2.09	20.9	22.90	-8.73
2023-01-02	D5GHzV2	1184	Head	1g	8.55	85.5	81.60	4.78
				10g	2.42	24.2	23.10	4.76
2023-01-02	D5GHzV2 (5800)	1184	Head	1g	8.38	83.8	79.50	5.41
				10g	2.40	24.0	22.60	6.19
2023-01-06	D3500V2	1121	Head	1g	6.38	63.8	66.30	-3.77
				10g	2.47	24.7	25.00	-1.20
2023-01-06	D3700V2	1036	Head	1g	6.74	67.4	67.90	-0.74
				10g	2.52	25.2	24.30	3.70
2023-01-06	D3900V2	1069	Head	1g	7.04	70.4	70.10	0.43
				10g	2.52	25.2	24.30	3.70
2023-01-10	D3500V2	1121	Head	1g	6.28	62.8	66.30	-5.28
				10g	2.44	24.4	25.00	-2.40
2023-01-10	D3700V2	1036	Head	1g	6.94	69.4	67.90	2.21
				10g	2.59	25.9	24.30	6.58
2023-01-10	D3900V2	1069	Head	1g	7.33	73.3	70.10	4.56
				10g	2.63	26.3	24.30	8.23

9. Conducted Output Power Measurements

9.1. GSM

Per KDB 941225 D01 3G SAR Procedures:

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

GSM850 Measured Results

Mode	Coding Scheme	Time Slots	Ch No.	Freq. (MHz)	Maximum Allowed Average Power (dBm)							
					RSI = 0, 2, 3, 4				RSI = 1			
					Measured		Tune-up Limit		Measured		Tune-up Limit	
GSM (Voice)	CS1	1	128	824.2	32.22	23.19	33.50	24.47	28.53	19.50	30.00	20.97
			190	836.6	32.32	23.29			28.50	19.47		
			251	848.8	32.31	23.28			28.30	19.27		
GPRS (GMSK)	CS1	1	128	824.2	32.40	23.37	33.50	24.47	28.53	19.50	30.00	20.97
			190	836.6	32.56	23.53			28.38	19.35		
			251	848.8	32.50	23.47			28.16	19.13		
		2	128	824.2	30.73	24.71	32.00	25.98	26.71	20.69	28.50	22.48
			190	836.6	30.44	24.42			26.60	20.58		
			251	848.8	30.29	24.27			26.37	20.35		
		3	128	824.2	28.96	24.70	30.00	25.74	24.91	20.65	26.50	22.24
			190	836.6	28.89	24.63			24.79	20.53		
			251	848.8	28.71	24.45			24.86	20.60		
		4	128	824.2	27.76	24.75	28.00	24.99	23.61	20.60	24.50	21.49
			190	836.6	27.43	24.42			23.48	20.47		
			251	848.8	27.24	24.23			23.23	20.22		
EGPRS (8PSK)	MCS5	1	128	824.2	26.69	17.66	27.50	18.47	26.47	17.44	27.00	17.97
			190	836.6	26.77	17.74			26.26	17.23		
			251	848.8	26.54	17.51			26.23	17.20		
		2	128	824.2	24.40	18.38	26.00	19.98	24.35	18.33	25.50	19.48
			190	836.6	24.73	18.71			24.40	18.38		
			251	848.8	24.49	18.47			24.38	18.36		
		3	128	824.2	23.26	19.00	24.00	19.74	23.14	18.88	23.50	19.24
			190	836.6	23.11	18.85			22.98	18.72		
			251	848.8	22.77	18.51			22.71	18.45		
		4	128	824.2	22.10	19.09	22.50	19.49	21.52	18.51	22.00	18.99
			190	836.6	21.71	18.70			21.35	18.34		
			251	848.8	21.70	18.69			21.32	18.31		

Notes:

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

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

GSM1900 Measured Results

Mode	Coding Scheme	Time Slots	Ch No.	Freq. (MHz)	Maximum Allowed Average Power (dBm)			
					RSI = 0, 1, 2, 3, 4			
					Measured		Tune-up Limit	
					Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr
GSM (Voice)	CS1	1	512	1850.2	28.96	19.93	31.00	21.97
			661	1880.0	28.94	19.91		
			810	1909.8	28.97	19.94		
GPRS (GMSK)	CS1	1	512	1850.2	28.99	19.96	31.00	21.97
			661	1880.0	28.97	19.94		
			810	1909.8	28.94	19.91		
		2	512	1850.2	26.45	20.43	28.00	21.98
			661	1880.0	26.72	20.70		
			810	1909.8	26.59	20.57		
		3	512	1850.2	24.73	20.47	26.00	21.74
			661	1880.0	24.79	20.53		
			810	1909.8	24.92	20.66		
		4	512	1850.2	23.32	20.31	25.00	21.99
			661	1880.0	23.71	20.70		
			810	1909.8	23.63	20.62		
EGPRS (8PSK)	MCS5	1	512	1850.2	25.51	16.48	27.00	17.97
			661	1880.0	25.78	16.75		
			810	1909.8	25.66	16.63		
		2	512	1850.2	23.98	17.96	25.50	19.48
			661	1880.0	24.11	18.09		
			810	1909.8	24.09	18.07		
		3	512	1850.2	22.48	18.22	23.00	18.74
			661	1880.0	22.63	18.37		
			810	1909.8	22.69	18.43		
		4	512	1850.2	20.91	17.90	22.00	18.99
			661	1880.0	21.08	18.07		
			810	1909.8	21.14	18.13		

Notes:

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

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

9.2. W-CDMA

Release 99 Setup Procedures used to establish the test signals

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

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

HSDPA Setup Procedures used to establish the test signals

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

	Mode	HSDPA	HSDPA	HSDPA	HSDPA
	Subtest	1	2	3	4
W-CDMA General Settings	Loopback Mode	Test Mode 1			
	Rel99 RMC	12.2kbps RMC			
	HSDPA FRC	H-Set 1			
	Power Control Algorithm	Algorithm 2			
	β_c	2/15	11/15	15/15	15/15
	β_d	15/15	15/15	8/15	4/15
	Bd (SF)	64			
	β_c/β_d	2/15	11/15	15/8	15/4
	β_{hs}	4/15	24/15	30/15	30/15
HSDPA Specific Settings	MPR (dB)	0	0	0.5	0.5
	D _{ACK}	8			
	D _{NAK}	8			
	DCQI	8			
	Ack-Nack repetition factor	3			
	CQI Feedback (Table 5.2B.4)	4ms			
	CQI Repetition Factor (Table 5.2B.4)	2			
	Ahs= β_{hs}/β_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				
		1	2	3	4	5
WCDMA General Settings	Loopback Mode	Test Mode 1				
	Rel99 RMC	12.2 kbps RMC				
	HSDPA FRC	H-Set 1				
	HSUPA Test	HSPA				
	Power Control Algorithm	Algorithm 2				Algorithm 1
	β_c	11/15	6/15	15/15	2/15	15/15
	β_d	15/15	15/15	9/15	15/15	0
	β_{ec}	209/225	12/15	30/15	2/15	5/15
	β_c/β_d	11/15	6/15	15/9	2/15	-
	β_{hs}	22/15	12/15	30/15	4/15	5/15
HSDPA Specific Settings	β_{ed}	1309/225	94/75	47/15	56/75	47/15
	CM (dB)	1	3	2	3	1
	MPR (dB)	0	2	1	2	0
	DACK	8				0
	DNAK	8				0
	DCQI	8				0
HSUPA Specific Settings	Ack-Nack repetition factor	3				
	CQI Feedback (Table 5.2B.4)	4ms				
	CQI Repetition Factor (Table 5.2B.4)	2				
	$A_{hs} = \beta_{hs}/\beta_c$	30/15				
	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.	

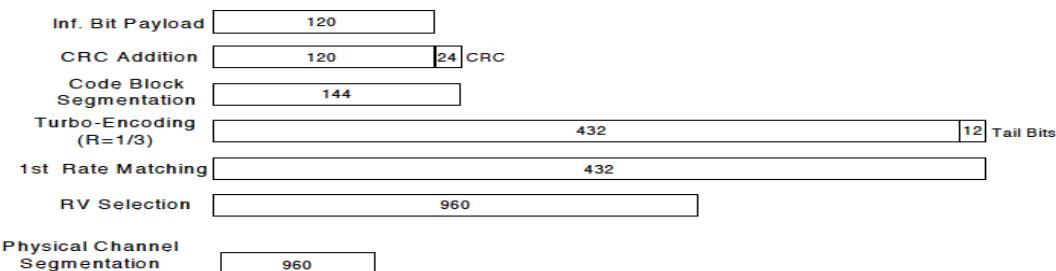


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

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			
	β_c	2/15	11/15	15/15	15/15
	β_d	15/15	15/15	8/15	4/15
	β_d (SF)	64			
	β_c/β_d	2/15	11/15	15/8	15/4
	β_{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 = β_{hs}/β_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)								
				RSI = 0, 4			RSI = 3			RSI = 1, 2		
Release 99 (Rel 99) (RMC, 12.2 kbps)	9262	1852.4	23.12	N/A	24.0	21.22	N/A	22.0	21.32	N/A	22.0	
	9400	1880.0	22.99			21.05			21.12			
	9538	1907.6	23.02			21.11			21.17			
HSDPA	Subtest 1	9262	1852.4	23.13	0	23.5	21.20	0	22.0	21.26	0	22.0
		9400	1880.0	23.06			21.06			21.11		
		9538	1907.6	22.65			21.16			21.21		
	Subtest 2	9262	1852.4	22.74	0	23.5	21.20	0	22.0	21.29	0	22.0
		9400	1880.0	22.62			21.08			21.12		
		9538	1907.6	22.27			21.14			21.23		
	Subtest 3	9262	1852.4	22.26	0.5	23.0	21.23	0.5	21.5	21.26	0.5	21.5
		9400	1880.0	22.13			21.07			21.12		
		9538	1907.6	22.20			21.17			21.23		
	Subtest 4	9262	1852.4	21.70	0.5	23.0	21.24	0.5	21.5	21.28	0.5	21.5
		9400	1880.0	21.59			21.08			21.14		
		9538	1907.6	21.73			21.16			21.20		
HSUPA	Subtest 1	9262	1852.4	22.21	0	23.5	20.18	0	22.0	20.22	0	22.0
		9400	1880.0	22.01			19.96			20.00		
		9538	1907.6	22.08			20.06			20.11		
	Subtest 2	9262	1852.4	19.63	2	21.5	19.71	2	20.0	19.75	2	20.0
		9400	1880.0	19.45			19.49			19.52		
		9538	1907.6	19.50			19.55			19.56		
	Subtest 3	9262	1852.4	22.19	1	22.5	20.14	1	21.0	20.18	1	21.0
		9400	1880.0	22.00			19.93			19.91		
		9538	1907.6	22.08			20.04			20.05		
	Subtest 4	9262	1852.4	20.09	2	21.5	19.81	0.5	21.5	19.82	0.5	21.5
		9400	1880.0	19.88			19.93			19.94		
		9538	1907.6	19.98			21.18			20.04		
	Subtest 5	9262	1852.4	22.72	0	23.5	21.41	0	22.0	21.41	0	22.0
		9400	1880.0	22.87			21.18			21.19		
		9538	1907.6	22.56			21.23			21.24		
DC-HSDPA	Subtest 1	9262	1852.4	22.76	0	23.5	21.19	0	22.0	21.15	0	22.0
		9400	1880.0	22.76			21.05			21.02		
		9538	1907.6	22.24			21.15			21.10		
	Subtest 2	9262	1852.4	22.65	0	23.5	21.20	0	22.0	21.14	0	22.0
		9400	1880.0	22.28			21.08			21.03		
		9538	1907.6	21.78			21.20			21.14		
	Subtest 3	9262	1852.4	21.77	0.5	23.0	21.20	0.5	21.5	21.18	0.5	21.5
		9400	1880.0	21.62			21.10			21.06		
		9538	1907.6	21.33			21.16			21.19		
	Subtest 4	9262	1852.4	21.75	0.5	23.0	21.18	0.5	21.5	21.20	0.5	21.5
		9400	1880.0	21.62			21.06			21.08		
		9538	1907.6	21.36			21.19			21.15		

W-CDMA Band IV Measured Results

Mode		UL Ch No.	Freq. (MHz)	Maximum Allowed Average Power (dBm)							
				RSI = 0, 4			RSI = 3			RSI = 1, 2	
Release 99 (Rel 99) (RMC, 12.2 kbps)	1312	1712.4	22.69	N/A	24.0	20.49	N/A	21.5	20.43	N/A	21.5
	1413	1732.6	22.74			20.51			20.47		
	1513	1752.6	23.16			20.98			20.94		
HSDPA	1312	1712.4	22.59	0	23.5	20.47	0	21.5	20.41	0	21.5
	1413	1732.6	22.66			20.54			20.50		
	1513	1752.6	23.10			20.96			20.94		
	1312	1712.4	22.08	0	23.5	20.45	0	21.5	20.42	0	21.5
	1413	1732.6	22.17			20.52			20.49		
	1513	1752.6	22.66			20.99			20.95		
	1312	1712.4	21.51	0.5	23.0	20.46	0.5	21.0	20.43	0.5	21.0
	1413	1732.6	21.58			20.51			20.49		
	1513	1752.6	22.11			20.99			20.95		
	1312	1712.4	21.52	0.5	23.0	20.44	0.5	21.0	20.40	0.5	21.0
	1413	1732.6	21.58			20.51			20.47		
	1513	1752.6	22.12			20.97			20.93		
HSUPA	1312	1712.4	21.50	0	23.5	19.45	0	21.5	19.44	0	21.5
	1413	1732.6	21.50			19.47			19.43		
	1513	1752.6	21.42			19.88			19.83		
	1312	1712.4	19.01	2	21.5	18.98	2	19.5	18.94	2	19.5
	1413	1732.6	19.01			18.97			18.94		
	1513	1752.6	19.45			19.41			19.39		
	1312	1712.4	21.47	1	22.5	19.43	1	20.5	19.42	1	20.5
	1413	1732.6	21.50			19.46			19.43		
	1513	1752.6	22.01			19.87			19.85		
	1312	1712.4	19.30	2	21.5	19.26	2	19.5	19.24	2	19.5
	1413	1732.6	19.32			19.26			19.24		
	1513	1752.6	19.09			19.03			19.01		
	1312	1712.4	22.72	0	23.5	20.65	0	21.5	20.62	0	21.5
	1413	1732.6	22.68			20.66			20.63		
	1513	1752.6	23.01			21.12			21.09		
DC-HSDPA	1312	1712.4	22.58	0	23.5	20.51	0	21.5	20.48	0	21.5
	1413	1732.6	22.96			20.83			20.83		
	1513	1752.6	23.13			21.00			20.95		
	1312	1712.4	22.07	0	23.5	20.47	0	21.5	20.42	0	21.5
	1413	1732.6	22.49			20.86			20.80		
	1513	1752.6	22.66			20.99			20.95		
	1312	1712.4	21.01	0.5	23.0	20.46	0.5	21.0	20.42	0.5	21.0
	1413	1732.6	21.35			20.83			20.81		
	1513	1752.6	21.55			20.97			20.95		
	1312	1712.4	21.47	0.5	23.0	20.45	0.5	21.0	20.42	0.5	21.0
	1413	1732.6	21.89			20.80			20.79		
	1513	1752.6	22.08			20.98			20.93		

W-CDMA Band V Measured Results

Mode		UL Ch No.	Freq. (MHz)	Maximum Allowed Average Power (dBm)		
				RSI = 0, 1, 2, 3, 4		
				Measured Pwr	MPR	Tune-up Limit
Release 99 HSDPA	Rel 99 (RMC, 12.2 kbps)	4132	826.4	23.74	N/A	25.0
		4183	836.6	23.73		
		4233	846.6	23.67		
HSUPA	Subtest 1	4132	826.4	22.74	0	23.5
		4183	836.6	22.76		
		4233	846.6	22.70		
	Subtest 2	4132	826.4	22.28	0	23.5
		4183	836.6	22.29		
		4233	846.6	22.22		
	Subtest 3	4132	826.4	21.86	0.5	23.0
		4183	836.6	21.85		
		4233	846.6	21.76		
	Subtest 4	4132	826.4	21.30	0.5	23.0
		4183	836.6	21.32		
		4233	846.6	21.23		
DC-HSDPA	Subtest 1	4132	826.4	21.80	0	23.5
		4183	836.6	21.74		
		4233	846.6	21.66		
	Subtest 2	4132	826.4	19.73	2	21.5
		4183	836.6	19.68		
		4233	846.6	19.58		
	Subtest 3	4132	826.4	20.72	1	22.5
		4183	836.6	20.65		
		4233	846.6	20.55		
	Subtest 4	4132	826.4	19.73	2	21.5
		4183	836.6	19.66		
		4233	846.6	19.55		
	Subtest 5	4132	826.4	22.85	0	23.5
		4183	836.6	22.81		
		4233	846.6	22.71		

9.3. LTE

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

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

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

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

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

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

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

Maximum Output Power (Tune-up Limit) for LTE

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

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

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)									
				RSI = 0, 1, 2, 3						RSI = 4			
				Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
20 MHz	QPSK	1	0	21.68	21.67	20.89	0.0	22.0	20.91	20.61	19.89	0.0	21.0
		1	49	21.70	21.69	20.72	0.0	22.0	19.98	20.52	19.69	0.0	21.0
		1	99	21.72	21.41	20.85	0.0	22.0	20.93	20.47	19.82	0.0	21.0
		50	0	21.62	21.64	21.57	0.0	22.0	20.55	20.56	20.53	0.0	21.0
		50	24	21.72	21.71	21.52	0.0	22.0	20.93	20.65	20.53	0.0	21.0
		50	50	21.73	21.57	21.51	0.0	22.0	20.94	20.51	20.49	0.0	21.0
		100	0	21.62	21.72	21.51	0.0	22.0	20.52	20.64	20.48	0.0	21.0
	16QAM	1	0	21.55	21.84	21.86	0.0	22.0	20.59	20.94	20.87	0.0	21.0
		1	49	21.57	21.95	21.95	0.0	22.0	20.32	20.69	20.69	0.0	21.0
		1	99	21.62	21.50	21.97	0.0	22.0	20.54	20.64	20.68	0.0	21.0
		50	0	21.47	21.68	21.45	0.0	22.0	20.44	20.67	20.45	0.0	21.0
		50	24	21.44	21.73	21.47	0.0	22.0	20.42	20.59	20.43	0.0	21.0
		50	50	21.41	21.56	21.43	0.0	22.0	20.37	20.52	20.42	0.0	21.0
		100	0	21.59	21.61	21.44	0.0	22.0	20.53	20.57	20.45	0.0	21.0
	64QAM	1	0	21.56	21.96	21.63	0.0	22.0	19.74	20.67	19.51	0.0	21.0
		1	49	21.76	21.38	21.65	0.0	22.0	19.45	20.46	19.55	0.0	21.0
		1	99	21.77	21.89	21.86	0.0	22.0	19.21	20.63	19.26	0.0	21.0
		50	0	20.38	20.66	20.50	1.0	21.0	20.36	20.66	20.23	0.0	21.0
		50	24	20.36	20.52	20.49	1.0	21.0	20.38	20.54	20.22	0.0	21.0
		50	50	20.39	20.61	20.45	1.0	21.0	20.36	20.49	20.18	0.0	21.0
		100	0	20.74	20.55	20.14	1.0	21.0	20.73	20.51	20.50	0.0	21.0
	256QAM	1	0	19.34	18.76	17.68	2.0	20.0	19.09	18.79	17.78	1.0	20.0
		1	49	19.27	18.54	17.76	2.0	20.0	19.33	18.57	18.20	1.0	20.0
		1	99	19.24	18.58	17.67	2.0	20.0	19.11	18.54	17.79	1.0	20.0
		50	0	18.50	18.56	18.62	2.0	20.0	18.50	18.59	18.61	1.0	20.0
		50	24	18.52	18.54	18.62	2.0	20.0	18.52	18.54	18.60	1.0	20.0
		50	50	18.49	18.53	18.57	2.0	20.0	18.52	18.55	18.54	1.0	20.0
		100	0	18.43	18.54	18.46	2.0	20.0	18.39	18.47	18.47	1.0	20.0
15 MHz	QPSK	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Measured Pwr (dBm)			MPR	Tune-up Limit	

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

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	
				18650	18900	19150			18650	18900	19150			
				1855 MHz	1880 MHz	1905 MHz			1855 MHz	1880 MHz	1905 MHz			
10 MHz	QPSK	1	0	21.24	20.95	21.31	0.0	22.0	20.23	19.96	19.90	0.0	21.0	
		1	25	21.25	20.87	21.27	0.0	22.0	20.41	19.95	19.81	0.0	21.0	
		1	49	21.18	20.84	21.32	0.0	22.0	20.38	19.95	19.89	0.0	21.0	
		25	0	21.16	21.35	21.30	0.0	22.0	20.21	20.28	20.08	0.0	21.0	
		25	12	21.19	21.38	21.27	0.0	22.0	20.13	20.25	20.09	0.0	21.0	
		25	25	21.14	21.38	21.25	0.0	22.0	20.18	20.28	20.08	0.0	21.0	
		50	0	21.11	21.32	21.39	0.0	22.0	20.15	20.29	20.15	0.0	21.0	
	16QAM	1	0	21.13	21.97	21.06	0.0	22.0	20.87	19.92	20.89	0.0	21.0	
		1	25	21.12	21.96	21.12	0.0	22.0	20.99	19.91	20.98	0.0	21.0	
		1	49	21.16	21.84	21.13	0.0	22.0	20.88	19.94	20.95	0.0	21.0	
		25	0	21.87	21.10	20.90	0.0	22.0	20.87	20.32	19.68	0.0	21.0	
		25	12	21.78	21.14	20.93	0.0	22.0	20.85	20.31	19.71	0.0	21.0	
		25	25	21.69	21.18	20.85	0.0	22.0	20.86	20.36	19.65	0.0	21.0	
		50	0	21.80	21.19	20.86	0.0	22.0	20.88	20.28	20.00	0.0	21.0	
5 MHz	64QAM	1	0	20.72	21.60	20.43	0.0	22.0	19.36	20.45	19.03	0.0	21.0	
		1	25	20.68	21.58	20.46	0.0	22.0	19.41	20.47	19.24	0.0	21.0	
		1	49	20.65	21.63	20.42	0.0	22.0	19.38	20.42	19.31	0.0	21.0	
		25	0	19.31	20.75	19.55	1.0	21.0	19.48	20.69	19.84	0.0	21.0	
		25	12	19.35	20.79	19.59	1.0	21.0	19.42	20.63	19.84	0.0	21.0	
		25	25	19.36	20.76	19.58	1.0	21.0	19.43	20.68	19.81	0.0	21.0	
		50	0	19.93	20.79	19.71	1.0	21.0	19.94	20.80	19.74	0.0	21.0	
	256QAM	1	0	17.67	17.71	18.15	2.0	20.0	18.82	17.68	18.36	1.0	20.0	
		1	25	17.63	18.13	18.13	2.0	20.0	18.82	18.43	18.38	1.0	20.0	
		1	49	18.45	17.95	17.81	2.0	20.0	18.69	18.46	18.41	1.0	20.0	
		25	0	18.79	17.65	18.03	2.0	20.0	18.76	18.45	17.67	1.0	20.0	
		25	12	18.79	18.38	17.63	2.0	20.0	18.69	18.48	17.59	1.0	20.0	
		25	25	18.76	18.40	17.60	2.0	20.0	18.73	18.53	17.82	1.0	20.0	
		50	0	18.75	18.35	17.78	2.0	20.0	18.73	18.26	17.85	1.0	20.0	
1 MHz	QPSK	Measured Pwr (dBm)				MPR	Measured Pwr (dBm)			MPR	Measured Pwr (dBm)			
		18625					18625	18900	19175		18625	18900	19175	
		1852.5 MHz					1852.5 MHz	1880 MHz	1907.5 MHz		1852.5 MHz	1880 MHz	1907.5 MHz	
		1	0	19.83	19.61	20.02	0.0	22.0	18.78	18.57	19.13	0.0	21.0	
		1	12	19.81	19.59	20.01	0.0	22.0	18.79	18.59	19.21	0.0	21.0	
		1	24	19.84	19.56	20.05	0.0	22.0	19.75	18.56	19.18	0.0	21.0	
		12	0	20.83	20.87	21.06	0.0	22.0	19.83	19.85	20.15	0.0	21.0	
	16QAM	12	7	20.81	20.91	21.09	0.0	22.0	19.81	19.81	20.14	0.0	21.0	
		12	13	20.84	20.86	21.11	0.0	22.0	19.82	19.82	20.18	0.0	21.0	
		25	0	20.77	20.91	21.15	0.0	22.0	19.83	19.93	20.13	0.0	21.0	
		1	0	21.95	20.53	21.37	0.0	22.0	20.19	19.06	19.07	0.0	21.0	
		1	12	21.96	20.51	21.21	0.0	22.0	20.18	19.12	19.11	0.0	21.0	
		1	24	21.93	20.58	21.38	0.0	22.0	20.15	19.05	19.16	0.0	21.0	
		12	0	21.20	19.94	20.94	0.0	22.0	20.24	18.95	20.10	0.0	21.0	
	64QAM	12	7	21.18	19.91	20.96	0.0	22.0	20.28	18.98	20.11	0.0	21.0	
		12	13	21.21	19.96	20.97	0.0	22.0	20.25	18.92	20.07	0.0	21.0	
		25	0	21.28	20.81	20.98	0.0	22.0	19.57	19.84	20.09	0.0	21.0	
		1	0	20.71	20.53	21.77	0.0	22.0	20.51	19.94	20.19	0.0	21.0	
		1	12	20.75	20.51	21.75	0.0	22.0	20.52	20.12	20.18	0.0	21.0	
		1	24	20.79	20.52	21.69	0.0	22.0	20.58	20.00	20.21	0.0	21.0	
		12	0	19.99	19.15	19.89	1.0	21.0	20.05	19.14	19.88	0.0	21.0	
	256QAM	12	7	19.94	19.23	19.91	1.0	21.0	20.03	19.24	19.91	0.0	21.0	
		12	13	19.96	19.36	19.91	1.0	21.0	20.09	19.28	19.92	0.0	21.0	
		25	0	19.87	19.26	19.45	1.0	21.0	19.89	19.29	19.91	0.0	21.0	
		1	0	19.73	17.81	18.85	2.0	20.0	19.52	17.90	18.53	1.0	20.0	
		1	12	19.38	17.94	18.63	2.0	20.0	19.48	17.75	18.58	1.0	20.0	
		1	24	19.41	18.00	18.71	2.0	20.0	19.53	17.75	18.61	1.0	20.0	
		12	0	17.68	17.67	17.65	2.0	20.0	17.81	17.79	17.52	1.0	20.0	

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

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit		
				18615	18900	19185			18615	18900	19185				
				1851.5 MHz	1880 MHz	1908.5 MHz			1851.5 MHz	1880 MHz	1908.5 MHz				
3 MHz	QPSK	1	0	21.28	21.15	21.38	0.0	22.0	20.24	20.50	20.31	0.0	21.0		
		1	8	21.31	21.14	21.36	0.0	22.0	20.21	20.48	20.28	0.0	21.0		
		1	14	21.26	21.50	21.41	0.0	22.0	20.25	20.45	20.34	0.0	21.0		
		8	0	21.01	21.49	21.43	0.0	22.0	20.00	20.17	20.43	0.0	21.0		
		8	4	21.04	21.48	21.41	0.0	22.0	20.10	20.18	20.38	0.0	21.0		
		8	7	21.06	21.45	21.45	0.0	22.0	20.05	20.12	20.41	0.0	21.0		
		15	0	21.00	21.20	21.36	0.0	22.0	19.99	20.15	20.43	0.0	21.0		
	16QAM	1	0	20.83	21.13	21.54	0.0	22.0	19.76	20.40	20.36	0.0	21.0		
		1	8	20.91	21.14	21.49	0.0	22.0	19.75	20.41	20.39	0.0	21.0		
		1	14	20.86	21.18	21.47	0.0	22.0	19.82	20.45	20.41	0.0	21.0		
		8	0	20.87	21.31	21.37	0.0	22.0	19.82	20.30	20.48	0.0	21.0		
		8	4	20.81	21.32	21.38	0.0	22.0	19.81	20.37	20.51	0.0	21.0		
		8	7	20.94	21.36	21.39	0.0	22.0	19.97	20.32	20.52	0.0	21.0		
		15	0	20.72	21.05	21.39	0.0	22.0	19.69	20.04	20.46	0.0	21.0		
	64QAM	1	0	20.78	21.40	21.24	0.0	22.0	20.30	20.59	20.70	0.0	21.0		
		1	8	20.81	21.38	21.29	0.0	22.0	20.28	20.51	20.69	0.0	21.0		
		1	14	20.75	21.44	21.26	0.0	22.0	20.31	20.62	20.64	0.0	21.0		
		8	0	19.36	20.39	19.98	1.0	21.0	19.24	20.63	20.71	0.0	21.0		
		8	4	19.52	20.37	19.95	1.0	21.0	19.28	20.39	19.96	0.0	21.0		
		8	7	19.90	20.39	20.01	1.0	21.0	19.56	20.41	19.98	0.0	21.0		
		15	0	19.91	20.50	20.27	1.0	21.0	19.63	20.52	20.26	0.0	21.0		
	256QAM	1	0	18.91	18.27	17.98	2.0	20.0	18.77	17.85	17.68	1.0	20.0		
		1	8	18.82	18.26	17.85	2.0	20.0	18.82	17.82	17.71	1.0	20.0		
		1	14	18.86	18.25	17.86	2.0	20.0	18.83	17.86	17.81	1.0	20.0		
		8	0	17.73	17.91	18.51	2.0	20.0	17.74	17.84	18.43	1.0	20.0		
		8	4	17.79	17.92	18.62	2.0	20.0	17.71	17.82	18.38	1.0	20.0		
		8	7	17.76	17.86	18.36	2.0	20.0	17.74	17.85	18.51	1.0	20.0		
		15	0	18.24	17.81	18.82	2.0	20.0	18.21	17.94	18.49	1.0	20.0		
1.4 MHz	QPSK	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit		
				18607	18900	19193			18607	18900	19193				
				1850.7 MHz	1880 MHz	1909.3 MHz			1850.7 MHz	1880 MHz	1909.3 MHz				
		16QAM	1	0	20.85	20.93	21.11	0.0	22.0	19.67	20.10	19.85	0.0	21.0	
			1	3	20.91	20.89	21.18	0.0	22.0	19.72	20.14	19.82	0.0	21.0	
			1	5	21.14	20.92	21.14	0.0	22.0	19.78	20.08	19.86	0.0	21.0	
			3	0	21.18	20.98	21.25	0.0	22.0	19.67	20.05	19.93	0.0	21.0	
			3	1	21.15	20.95	21.24	0.0	22.0	19.75	20.11	19.90	0.0	21.0	
			3	3	21.17	21.04	21.27	0.0	22.0	19.72	20.14	19.82	0.0	21.0	
			6	0	21.11	21.05	21.27	0.0	22.0	19.74	20.08	19.85	0.0	21.0	
	64QAM	RB Allocation	RB offset	1	0	21.07	21.23	20.92	0.0	22.0	20.04	19.70	20.35	0.0	21.0
				1	3	21.05	21.24	20.91	0.0	22.0	20.06	19.96	20.31	0.0	21.0
				1	5	21.16	21.18	21.14	0.0	22.0	20.15	20.12	20.38	0.0	21.0
		256QAM	3	0	20.42	21.23	20.13	0.0	22.0	19.45	20.32	19.83	0.0	21.0	
			3	1	20.91	21.25	21.15	0.0	22.0	19.51	20.31	19.82	0.0	21.0	
			3	3	20.85	21.29	21.15	0.0	22.0	19.62	19.95	19.87	0.0	21.0	
			6	0	20.89	21.32	21.14	0.0	22.0	19.64	19.84	20.15	0.0	21.0	
			1	0	20.58	21.27	21.07	0.0	22.0	19.47	20.12	19.89	0.0	21.0	
			1	3	20.62	21.29	21.12	0.0	22.0	19.62	20.13	19.82	0.0	21.0	
			1	5	20.69	21.34	21.14	0.0	22.0	19.58	20.05	19.85	0.0	21.0	
		QPSK	3	0	20.98	21.23	21.45	0.0	22.0	19.72	20.09	19.94	0.0	21.0	
			3	1	20.91	21.28	21.51	0.0	22.0	19.73	20.14	20.01	0.0	21.0	
			3	3	20.95	21.25	21.58	0.0	22.0	19.69	20.05	20.05	0.0	21.0	
			6	0	19.65	20.14	21.53	0.0	22.0	19.64	20.08	20.04	0.0	21.0	
			1	0	18.05	17.77	17.96	2.0	20.0	18.22	17.89	17.96	1.0	20.0	
			1	3	18.12	17.79	18.12	2.0	20.0	18.14	17.92	17.92	1.0	20.0	
			1	5	18.16	17.74	17.82	2.0	20.0	18.00	17.85	17.85	1.0	20.0	
		16QAM	3	0	17.56	17.59	18.01	2.0	20.0	17.92	18.16	17.67	1.0	20.0	
			3	1	17.82	17.60	18.12	2.0	20.0	17.96	18.11	17.72	1.0	20.0	
			3	3	17.79	17.69	17.92	2.0	20.0	17.94	18.14	17.78	1.0	20.0	
			6	0	17.92	17.97	17.86	2.0	20.0	17.92	18.15	17.64	1.0	20.0	

LTE Band 7 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)																		
				RSI = 0, 4						RSI = 3						RSI = 1, 2						
				Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit				
				20850	21100	21350			20850	21100	21350			20850	21100	21350						
20 MHz	QPSK	1	0	23.50	23.22	22.95	0.0	24.0	20.21	20.04	19.85	0.0	21.0	20.54	20.50	20.08	0.0	21.0				
		1	49	23.36	23.13	22.84	0.0	24.0	19.95	20.01	19.80	0.0	21.0	20.43	20.48	19.69	0.0	21.0				
		1	99	23.31	23.08	22.69	0.0	24.0	20.08	19.89	19.58	0.0	21.0	20.30	20.41	19.75	0.0	21.0				
		50	0	22.43	22.17	21.89	1.0	23.0	20.22	20.03	19.77	0.0	21.0	20.14	20.00	19.77	0.0	21.0				
		50	24	22.38	22.12	21.82	1.0	23.0	20.17	20.00	19.70	0.0	21.0	20.13	19.98	19.69	0.0	21.0				
		50	50	22.31	22.07	21.75	1.0	23.0	20.13	19.97	19.64	0.0	21.0	20.08	19.96	19.62	0.0	21.0				
		100	0	22.37	22.12	21.81	1.0	23.0	20.17	20.00	19.70	0.0	21.0	20.13	19.98	19.68	0.0	21.0				
	16QAM	1	0	22.90	22.55	22.12	1.0	23.0	20.66	20.30	20.04	0.0	21.0	20.10	20.00	19.80	0.0	21.0				
		1	49	22.77	22.47	21.82	1.0	23.0	20.61	20.29	19.70	0.0	21.0	19.82	19.89	19.72	0.0	21.0				
		1	99	22.64	22.42	21.80	1.0	23.0	20.47	20.20	19.71	0.0	21.0	19.98	19.83	19.52	0.0	21.0				
		50	0	21.36	21.14	20.85	2.0	22.0	20.21	20.00	19.75	0.0	21.0	20.16	19.99	19.73	0.0	21.0				
		50	24	21.30	21.07	20.76	2.0	22.0	20.18	19.97	19.68	0.0	21.0	20.11	19.96	19.66	0.0	21.0				
		50	50	21.24	21.02	20.66	2.0	22.0	20.15	19.93	19.61	0.0	21.0	20.09	19.93	19.59	0.0	21.0				
		100	0	21.32	21.07	20.73	2.0	22.0	20.21	20.01	19.68	0.0	21.0	20.16	19.99	19.68	0.0	21.0				
	64QAM	1	0	21.55	20.99	20.80	2.0	22.0	20.42	20.12	20.12	0.0	21.0	20.48	20.18	19.90	0.0	21.0				
		1	49	21.41	20.98	20.71	2.0	22.0	20.39	20.08	20.08	0.0	21.0	20.34	20.12	19.74	0.0	21.0				
		1	99	21.38	20.86	20.52	2.0	22.0	20.32	20.01	20.01	0.0	21.0	20.30	20.12	19.62	0.0	21.0				
		50	0	20.21	19.95	19.70	3.0	21.0	20.22	20.01	20.01	0.0	21.0	20.20	20.04	19.75	0.0	21.0				
		50	24	20.15	19.89	19.62	3.0	21.0	20.19	19.99	19.99	0.0	21.0	20.18	20.00	19.69	0.0	21.0				
		50	50	20.10	19.86	19.54	3.0	21.0	20.14	19.97	19.97	0.0	21.0	20.14	19.98	19.62	0.0	21.0				
		100	0	20.13	19.84	19.57	3.0	21.0	20.16	19.96	19.96	0.0	21.0	20.16	20.00	19.66	0.0	21.0				
	256QAM	1	0	18.44	18.11	17.74	5.0	19.0	18.35	18.12	18.12	2.0	19.0	18.19	18.23	17.95	2.0	19.0				
		1	49	18.39	18.09	17.59	5.0	19.0	18.20	17.85	17.85	2.0	19.0	18.04	18.23	17.70	2.0	19.0				
		1	99	18.18	17.96	17.41	5.0	19.0	18.13	18.00	18.00	2.0	19.0	18.01	18.10	17.64	2.0	19.0				
		50	0	18.12	17.85	17.60	5.0	19.0	18.14	17.95	17.95	2.0	19.0	18.15	17.95	17.69	2.0	19.0				
		50	24	18.04	17.82	17.52	5.0	19.0	18.11	17.93	17.93	2.0	19.0	18.12	17.92	17.61	2.0	19.0				
		50	50	18.00	17.76	17.45	5.0	19.0	18.06	17.88	17.88	2.0	19.0	18.07	17.89	17.55	2.0	19.0				
		100	0	18.02	17.82	17.52	5.0	19.0	18.08	17.94	17.94	2.0	19.0	18.11	17.90	17.63	2.0	19.0				
15 MHz	QPSK	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Measured Pwr (dBm)			MPR	Measured Pwr (dBm)			Measured Pwr (dBm)							
				20825	21100	21375		20825	21100	21375		20825	21100	21375	Measured Pwr (dBm)							
				2507.5 MHz	2535 MHz	2562.5 MHz		2507.5 MHz	2535 MHz	2562.5 MHz		2507.5 MHz	2535 MHz	2562.5 MHz	Measured Pwr (dBm)							
				1	0	23.38	23.15	22.89	0.0	24.0	20.25	19.95	19.68	0.0	21.0	20.30	19.99	19.65	0.0	21.0		
				1	37	23.45	22.96	22.91	0.0	24.0	20.26	20.05	19.71	0.0	21.0	20.27	20.07	19.70	0.0	21.0		
				1	74	23.32	23.08	22.61	0.0	24.0	20.11	19.80	19.45	0.0	21.0	20.14	19.83	19.42	0.0	21.0		
				36	0	22.54	22.23	21.92	1.0	23.0	20.32	19.96	19.64	0.0	21.0	20.32	19.96	19.65	0.0	21.0		
	16QAM			36	20	22.48	22.18	21.88	1.0	23.0	20.28	19.90	19.59	0.0	21.0	20.28	19.94	19.61	0.0	21.0		
				36	39	22.45	22.15	21.84	1.0	23.0	20.24	19.88	19.54	0.0	21.0	20.25	19.90	19.57	0.0	21.0		
				75	0	22.48	22.20	21.88	1.0	23.0	20.28	19.94	19.59	0.0	21.0	20.29	19.96	19.59	0.0	21.0		
				1	0	22.76	22.40	22.29	1.0	23.0	20.53	20.37	19.92	0.0	21.0	20.52	20.30	19.99	0.0	21.0		
				1	37	22.35	22.15	22.26	1.0	23.0	20.45	20.52	19.73	0.0	21.0	20.45	20.48	19.89	0.0	21.0		
				1	74	22.53	22.28	22.09	1.0	23.0	20.32	20.25	19.65	0.0	21.0	20.33	20.19	19.74	0.0	21.0		
				36	0	21.46	21.19	20.85	2.0	22.0	20.34	19.95	19.64	0.0	21.0	20.32	19.97	19.64	0.0	21.0		
				36	20	21.38	21.12	20.79	2.0	22.0	20.30	19.92	19.58	0.0	21.0	20.29	19.94	19.57	0.0	21.0		
	64QAM			36	39	21.32	21.09	20.73	2.0	22.0	20.26	19.89	19.53	0.0	21.0	20.24	19.89	19.51	0.0	21.0		
				75	0	21.40	21.11	20.78	2.0	22.0	20.25	19.94	19.60	0.0	21.0	20.27	19.93	19.59	0.0	21.0		
				1	0	21.32	20.76	20.66	2.0	22.0	20.35	20.18	19.67	0.0	21.0	20.39	20.12	19.76	0.0	21.0		
				1	37	20.95	20.41	20.85	2.0	22.0	20.41	20.06	19.63	0.0	21.0	20.39	20.24	19.65	0.0	21.0		
				1	74	21.14	20.63	20.53	2.0	22.0	20.24	20.06	19.43	0.0	21.0	20.21	20.04	19.52	0.0	21.0		
				36	0	20.19	19.94	19.55	3.0	21.0	20.25	19.99	19.67	0.0	21.0	20.33	19.96	19.66	0.0	21.0		
				36	20	20.13	19.91	19.50	3.0	21.0	20.22	19.95	19.63	0.0	21.0	20.32	19.93	19.60	0.0	21.0		
				36	39	20.08	19.89	19.44	3.0	21.0	20.16	19.91	19.58	0.0	21.0	20.27	19.88	19.56	0.0	21.0		
	256QAM			75	0	20.10	19.84	19.51	3.0	21.0	20.23	19.94	19.58	0.0	21.0	20.28	19.95	19.59	0.0	21.0		
				1	0	18.46	18.02	17.49	5.0	19.0	18.34	18.14	17.53	2.0	19.0	18.37	17.90	17.76	2.0	19.0		
				1	37	18.55	18.11	17.37	5.0	19.0	18.38	18.24	17.54	2.0	19.0</							

LTE Band 7 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				20800	21100	21400			20800	21100	21400			20800	21100	21400		
				2505 MHz	2535 MHz	2565 MHz			2505 MHz	2535 MHz	2565 MHz			2505 MHz	2535 MHz	2565 MHz		
10 MHz	QPSK	1	0	23.14	22.84	22.44	0.0	24.0	20.53	20.16	19.79	0.0	21.0	20.49	20.17	19.75	0.0	21.0
		1	25	23.21	22.90	22.51	0.0	24.0	20.66	20.16	19.90	0.0	21.0	20.64	20.16	19.84	0.0	21.0
		1	49	23.09	22.78	22.41	0.0	24.0	20.45	20.04	19.68	0.0	21.0	20.41	20.05	19.66	0.0	21.0
		25	0	22.14	21.80	21.46	1.0	23.0	20.48	20.13	19.77	0.0	21.0	20.46	20.11	19.73	0.0	21.0
		25	12	22.10	21.80	21.42	1.0	23.0	20.48	20.11	19.74	0.0	21.0	20.44	20.08	19.71	0.0	21.0
		25	25	22.05	21.78	21.38	1.0	23.0	20.44	20.07	19.70	0.0	21.0	20.39	20.05	19.66	0.0	21.0
		50	0	22.08	21.81	21.43	1.0	23.0	20.48	20.11	19.75	0.0	21.0	20.43	20.09	19.73	0.0	21.0
	16QAM	1	0	22.40	21.88	21.96	1.0	23.0	20.57	20.38	20.26	0.0	21.0	20.42	20.37	20.21	0.0	21.0
		1	25	22.07	21.53	21.88	1.0	23.0	20.24	20.16	20.19	0.0	21.0	20.24	20.07	20.17	0.0	21.0
		1	49	22.22	21.83	21.81	1.0	23.0	20.39	20.34	20.09	0.0	21.0	20.53	20.33	20.05	0.0	21.0
		25	0	21.14	20.83	20.49	2.0	22.0	20.49	20.11	19.76	0.0	21.0	20.47	20.09	19.75	0.0	21.0
		25	12	21.09	20.78	20.43	2.0	22.0	20.45	20.10	19.73	0.0	21.0	20.44	20.06	19.71	0.0	21.0
		25	25	21.05	20.75	20.40	2.0	22.0	20.42	20.06	19.69	0.0	21.0	20.39	20.03	19.67	0.0	21.0
		50	0	21.08	20.74	20.34	2.0	22.0	20.48	20.12	19.70	0.0	21.0	20.44	20.08	19.69	0.0	21.0
	64QAM	1	0	21.14	20.69	20.50	2.0	22.0	19.88	20.10	19.50	0.0	21.0	20.61	20.24	19.75	0.0	21.0
		1	25	21.16	20.74	20.28	2.0	22.0	19.93	19.95	19.52	0.0	21.0	20.55	20.18	19.78	0.0	21.0
		1	49	21.12	20.71	20.34	2.0	22.0	20.06	20.08	19.44	0.0	21.0	20.45	20.22	19.69	0.0	21.0
		25	0	20.06	19.80	19.42	3.0	21.0	19.82	19.83	19.50	0.0	21.0	20.47	20.16	19.79	0.0	21.0
		25	12	20.02	19.78	19.37	3.0	21.0	19.80	19.82	19.48	0.0	21.0	20.47	20.14	19.77	0.0	21.0
		25	25	19.98	19.75	19.33	3.0	21.0	19.78	19.79	19.42	0.0	21.0	20.43	20.12	19.72	0.0	21.0
		50	0	20.06	19.77	19.41	3.0	21.0	19.81	19.81	19.45	0.0	21.0	20.44	20.12	19.73	0.0	21.0
	256QAM	1	0	18.28	17.74	17.45	5.0	19.0	18.01	17.99	17.46	2.0	19.0	18.67	18.31	17.82	2.0	19.0
		1	25	18.21	17.66	17.33	5.0	19.0	18.08	18.06	17.50	2.0	19.0	18.66	18.29	17.81	2.0	19.0
		1	49	18.11	17.65	17.32	5.0	19.0	17.85	17.88	17.29	2.0	19.0	18.53	18.18	17.65	2.0	19.0
		25	0	18.08	17.73	17.43	5.0	19.0	17.82	17.82	17.41	2.0	19.0	18.47	18.14	17.70	2.0	19.0
		25	12	18.06	17.69	17.39	5.0	19.0	17.81	17.81	17.36	2.0	19.0	18.44	18.13	17.65	2.0	19.0
		25	25	18.02	17.67	17.36	5.0	19.0	17.77	17.77	17.30	2.0	19.0	18.40	18.09	17.59	2.0	19.0
		50	0	18.01	17.70	17.33	5.0	19.0	17.76	17.77	17.36	2.0	19.0	18.37	18.05	17.65	2.0	19.0
5 MHz	QPSK	1	0	22.96	22.61	22.27	0.0	24.0	20.04	19.73	19.33	0.0	21.0	20.02	19.74	19.31	0.0	21.0
		1	12	23.16	22.60	22.41	0.0	24.0	20.18	19.89	19.49	0.0	21.0	20.11	19.88	19.49	0.0	21.0
		1	24	23.00	22.64	22.30	0.0	24.0	20.03	19.72	19.32	0.0	21.0	20.04	19.73	19.29	0.0	21.0
		12	0	22.01	21.73	21.39	1.0	23.0	20.09	19.75	19.37	0.0	21.0	20.08	19.74	19.36	0.0	21.0
		12	7	21.99	21.71	21.36	1.0	23.0	20.10	19.74	19.34	0.0	21.0	20.08	19.75	19.35	0.0	21.0
		12	13	22.00	21.71	21.35	1.0	23.0	20.09	19.75	19.34	0.0	21.0	20.08	19.73	19.34	0.0	21.0
		25	0	22.03	21.72	21.34	1.0	23.0	20.11	19.74	19.36	0.0	21.0	20.08	19.73	19.34	0.0	21.0
	16QAM	1	0	22.25	22.12	21.53	1.0	23.0	20.46	20.12	19.64	0.0	21.0	20.30	20.16	19.85	0.0	21.0
		1	12	22.37	21.71	21.30	1.0	23.0	20.57	19.60	19.49	0.0	21.0	20.34	20.21	19.56	0.0	21.0
		1	24	22.16	22.05	21.56	1.0	23.0	20.37	20.07	19.64	0.0	21.0	20.34	20.10	19.76	0.0	21.0
		12	0	21.10	20.82	20.36	2.0	22.0	20.12	19.82	19.38	0.0	21.0	20.16	19.80	19.43	0.0	21.0
		12	7	21.06	20.78	20.32	2.0	22.0	20.12	19.81	19.36	0.0	21.0	20.15	19.78	19.42	0.0	21.0
		12	13	21.05	20.80	20.29	2.0	22.0	20.10	19.82	19.34	0.0	21.0	20.11	19.79	19.41	0.0	21.0
		25	0	21.01	20.66	20.28	2.0	22.0	20.08	19.78	19.36	0.0	21.0	20.11	19.73	19.33	0.0	21.0
	64QAM	1	0	21.19	21.03	20.52	2.0	22.0	20.24	20.10	19.22	0.0	21.0	20.21	20.01	19.28	0.0	21.0
		1	12	21.35	21.16	20.70	2.0	22.0	20.38	20.13	19.40	0.0	21.0	20.38	20.06	19.57	0.0	21.0
		1	24	21.22	20.97	20.56	2.0	22.0	20.25	20.06	19.24	0.0	21.0	20.25	19.94	19.31	0.0	21.0
		12	0	20.05	19.76	19.39	3.0	21.0	20.12	19.81	19.45	0.0	21.0	20.11	19.78	19.45	0.0	21.0
		12	7	20.01	19.74	19.36	3.0	21.0	20.11	19.78	19.41	0.0	21.0	20.11	19.77	19.42	0.0	21.0
		12	13	19.99	19.72	19.35	3.0	21.0	20.11	19.79	19.41	0.0	21.0	20.10	19.78	19.41	0.0	21.0
		25	0	20.04	19.73	19.31	3.0	21.0	20.10	19.81	19.36	0.0	21.0	20.09	19.84	19.37	0.0	21.0
	256QAM	1	0	18.02	17.98	17.39	5.0	19.0	18.32	17.98	17.37	2.0	19.0	18.13	17.96	17.38	2.0	19.0
		1	12	18.24	17.87	17.37	5.0	19.0	18.50	18.00	17.33	2.0	19.0	18.34	18.02	17.24	2.0	19.0
		1	24	17.90	17.93	17.31	5.0	19.0	18.23	17.92	17.32	2.0	19.0	18.05	17.94	17.36	2.0	19.0
		12	0	17.95	17.72	17.29	5.0	19.0	18.08	17.81	17.34	2.0	19.0	18.07	17.82	17.31	2.0	19.0
		12	7	17.94	17.66	17.26	5.0	19.0	18.08	17.74	17.31	2.0	19.0	18.06	17.76	17.28	2.0	19.0
		12	13	17.94	17.70	17.25	5.0	19.0	18.07	17.78	17.30	2.0	19.0	18.05	17.80	17.26	2.0	19.0
		25	0	17.98	17.64	17.28	5.0	19.0	18.10	17.74	17.33	2.0	19.0	18.10	17.71	17.32	2.0	19.0

LTE Band 12 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)			
				RSI = 0, 1, 2, 3, 4			
				Measured Pwr (dBm)		MPR	Tune-up Limit
10 MHz	QPSK	1	0	23095 707.5 MHz	24.22		0.0 25.0
		1	25	23095 707.5 MHz	24.24		0.0 25.0
		1	49	23095 707.5 MHz	24.15		0.0 25.0
		25	0	23095 707.5 MHz	23.21		1.0 24.0
		25	12	23095 707.5 MHz	23.16		1.0 24.0
		25	25	23095 707.5 MHz	23.14		1.0 24.0
		50	0	23095 707.5 MHz	23.16		1.0 24.0
	16QAM	1	0	23095 707.5 MHz	23.70	MPR	1.0 24.0
		1	25	23095 707.5 MHz	23.65		1.0 24.0
		1	49	23095 707.5 MHz	23.55		1.0 24.0
		25	0	23095 707.5 MHz	22.21	MPR	2.0 23.0
		25	12	23095 707.5 MHz	22.16		2.0 23.0
		25	25	23095 707.5 MHz	22.14		2.0 23.0
		50	0	23095 707.5 MHz	22.11		2.0 23.0
	64QAM	1	0	23095 707.5 MHz	22.30	MPR	2.0 23.0
		1	25	23095 707.5 MHz	22.36		2.0 23.0
		1	49	23095 707.5 MHz	22.26		2.0 23.0
		25	0	23095 707.5 MHz	21.10	MPR	3.0 22.0
		25	12	23095 707.5 MHz	21.07		3.0 22.0
		25	25	23095 707.5 MHz	21.03		3.0 22.0
		50	0	23095 707.5 MHz	21.00		3.0 22.0
	256QAM	1	0	23095 707.5 MHz	19.20	MPR	5.0 20.0
		1	25	23095 707.5 MHz	19.12		5.0 20.0
		1	49	23095 707.5 MHz	19.09		5.0 20.0
		25	0	23095 707.5 MHz	19.13	MPR	5.0 20.0
		25	12	23095 707.5 MHz	19.11		5.0 20.0
		25	25	23095 707.5 MHz	19.07		5.0 20.0
		50	0	23095 707.5 MHz	19.06		5.0 20.0
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR
				23035 701.5 MHz	23095 707.5 MHz	23155 713.5 MHz	
5 MHz	QPSK	1	0	24.17	24.18	24.21	0.0 25.0
		1	12	24.21	24.21	24.32	0.0 25.0
		1	24	24.19	24.20	24.26	0.0 25.0
		12	0	23.21	23.24	23.29	1.0 24.0
		12	7	23.19	23.23	23.29	1.0 24.0
		12	13	23.17	23.20	23.27	1.0 24.0
		25	0	23.21	23.21	23.29	1.0 24.0
	16QAM	1	0	23.40	23.57	23.55	1.0 24.0
		1	12	23.36	23.61	23.54	1.0 24.0
		1	24	23.31	23.56	23.46	1.0 24.0
		12	0	22.20	22.24	22.29	2.0 23.0
		12	7	22.16	22.22	22.27	2.0 23.0
		12	13	22.16	22.21	22.25	2.0 23.0
		25	0	22.14	22.20	22.20	2.0 23.0
	64QAM	1	0	22.22	22.11	22.07	2.0 23.0
		1	12	22.22	22.12	22.03	2.0 23.0
		1	24	22.23	22.11	22.10	2.0 23.0
		12	0	21.15	21.24	21.29	3.0 22.0
		12	7	21.12	21.22	21.26	3.0 22.0
		12	13	21.08	21.23	21.27	3.0 22.0
		25	0	21.13	21.19	21.24	3.0 22.0
	256QAM	1	0	19.25	19.32	19.38	5.0 20.0
		1	12	19.03	19.30	19.37	5.0 20.0
		1	24	19.14	19.31	19.32	5.0 20.0
		12	0	19.17	19.21	19.28	5.0 20.0
		12	7	19.16	19.22	19.25	5.0 20.0
		12	13	19.12	19.22	19.26	5.0 20.0
		25	0	19.19	19.22	19.28	5.0 20.0

LTE Band 12 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				23025	23095	23165		
				700.5 MHz	707.5 MHz	714.5 MHz		
3 MHz	QPSK	1	0	24.14	24.18	24.20	0.0	25.0
		1	8	24.16	24.16	24.24	0.0	25.0
		1	14	24.14	24.13	24.18	0.0	25.0
		8	0	23.21	23.25	23.27	1.0	24.0
		8	4	23.21	23.23	23.28	1.0	24.0
		8	7	23.21	23.23	23.29	1.0	24.0
		15	0	23.21	23.22	23.26	1.0	24.0
	16QAM	1	0	23.43	23.53	23.53	1.0	24.0
		1	8	23.42	23.53	23.52	1.0	24.0
		1	14	23.45	23.52	23.51	1.0	24.0
		8	0	22.30	22.30	22.34	2.0	23.0
		8	4	22.26	22.31	22.31	2.0	23.0
		8	7	22.23	22.30	22.31	2.0	23.0
		15	0	22.17	22.22	22.24	2.0	23.0
	64QAM	1	0	22.26	22.43	22.31	2.0	23.0
		1	8	22.21	22.37	22.23	2.0	23.0
		1	14	22.30	22.48	22.38	2.0	23.0
		8	0	21.23	21.22	21.29	3.0	22.0
		8	4	21.17	21.14	21.24	3.0	22.0
		8	7	21.17	21.19	21.27	3.0	22.0
		15	0	21.10	21.11	21.16	3.0	22.0
	256QAM	1	0	19.45	19.42	19.53	5.0	20.0
		1	8	19.31	19.34	19.45	5.0	20.0
		1	14	19.39	19.43	19.46	5.0	20.0
		8	0	19.27	19.23	19.27	5.0	20.0
		8	4	19.25	19.22	19.26	5.0	20.0
		8	7	19.25	19.21	19.27	5.0	20.0
		15	0	19.13	19.18	19.21	5.0	20.0
1.4 MHz	QPSK	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				23017	23095	23173		
				699.7 MHz	707.5 MHz	715.3 MHz		
		1	0	24.17	24.20	24.21	0.0	25.0
		1	3	24.30	23.90	24.30	0.0	25.0
		1	5	24.20	24.20	24.22	0.0	25.0
		3	0	24.20	24.23	24.19	0.0	25.0
	16QAM	3	1	24.20	24.20	24.15	0.0	25.0
		3	3	24.12	24.11	24.14	0.0	25.0
		6	0	23.25	23.28	23.32	1.0	24.0
		1	0	23.27	23.52	23.22	1.0	24.0
		1	3	23.23	23.57	23.22	1.0	24.0
		1	5	23.30	23.53	23.26	1.0	24.0
		3	0	23.31	23.05	23.31	1.0	24.0
	64QAM	3	1	23.26	23.08	23.26	1.0	24.0
		3	3	23.29	22.96	23.29	1.0	24.0
		6	0	22.29	22.24	22.33	2.0	23.0
		1	0	22.33	22.21	22.34	2.0	23.0
		1	3	22.32	22.07	22.34	2.0	23.0
		1	5	22.28	22.15	22.29	2.0	23.0
		3	0	22.17	22.31	22.15	2.0	23.0
	256QAM	3	1	22.10	22.24	22.11	2.0	23.0
		3	3	22.05	22.26	22.05	2.0	23.0
		6	0	21.16	21.25	21.16	3.0	22.0
		1	0	19.24	19.27	19.18	5.0	20.0
		1	3	19.40	19.27	19.34	5.0	20.0
		1	5	19.22	19.28	19.18	5.0	20.0
		3	0	19.20	19.22	19.25	5.0	20.0
		3	1	19.12	19.23	19.15	5.0	20.0
		3	3	19.05	19.20	19.11	5.0	20.0
		6	0	19.19	19.23	19.21	5.0	20.0

LTE Band 13 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)			
				RSI = 0, 1, 2, 3, 4			
				Measured Pwr (dBm)		MPR	Tune-up Limit
10 MHz	QPSK	1	0	23.93		0.0	25.0
		1	25	23.70		0.0	25.0
		1	49	23.86		0.0	25.0
		25	0	22.91		1.0	24.0
		25	12	22.87		1.0	24.0
		25	25	22.85		1.0	24.0
	16QAM	50	0	22.86		1.0	24.0
		1	0	23.31		1.0	24.0
		1	25	23.31		1.0	24.0
		1	49	22.96		1.0	24.0
		25	0	21.86		2.0	23.0
		25	12	21.83		2.0	23.0
	64QAM	25	25	21.86		2.0	23.0
		50	0	21.80		2.0	23.0
		1	0	21.67		2.0	23.0
		1	25	21.52		2.0	23.0
		1	49	21.70		2.0	23.0
		25	0	20.82		3.0	22.0
	256QAM	25	12	20.80		3.0	22.0
		25	25	20.78		3.0	22.0
		50	0	20.76		3.0	22.0
		1	0	18.97		5.0	20.0
		1	25	19.02		5.0	20.0
		1	49	18.88		5.0	20.0
5 MHz	QPSK	25	0	18.79		5.0	20.0
		25	12	18.77		5.0	20.0
		25	25	18.74		5.0	20.0
		50	0	18.71		5.0	20.0
	16QAM	1	0	23.83		0.0	25.0
		1	12	23.89		0.0	25.0
		1	24	23.84		0.0	25.0
		12	0	22.82		1.0	24.0
		12	7	22.82		1.0	24.0
		12	13	22.78		1.0	24.0
	64QAM	25	0	22.79		1.0	24.0
		1	0	22.99		1.0	24.0
		1	12	23.07		1.0	24.0
		1	24	22.98		1.0	24.0
		12	0	21.86		2.0	23.0
		12	7	21.85		2.0	23.0
	256QAM	12	13	21.86		2.0	23.0
		25	0	21.77		2.0	23.0
		1	0	21.77		2.0	23.0
		1	12	21.73		2.0	23.0
		1	24	21.80		2.0	23.0
		12	0	20.69		3.0	22.0

LTE Band 14 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)			
				RSI = 0, 1, 2, 3, 4			
				Measured Pwr (dBm)		MPR	Tune-up Limit
10 MHz	QPSK	1	0	23330	23.79		0.0 25.0
		1	25	793 MHz	23.55		0.0 25.0
		1	49		23.72		0.0 25.0
		25	0		22.78	1.0	24.0
		25	12		22.75	1.0	24.0
		25	25		22.72	1.0	24.0
		50	0		22.75	1.0	24.0
	16QAM	1	0	23330	23.13	1.0	24.0
		1	25	793 MHz	23.00	1.0	24.0
		1	49		23.00	1.0	24.0
		25	0		21.75	2.0	23.0
		25	12		21.72	2.0	23.0
		25	25		21.68	2.0	23.0
		50	0		21.66	2.0	23.0
	64QAM	1	0	23330	21.47	2.0	23.0
		1	25	793 MHz	21.27	2.0	23.0
		1	49		21.43	2.0	23.0
		25	0		20.76	3.0	22.0
		25	12		20.72	3.0	22.0
		25	25		20.70	3.0	22.0
		50	0		20.67	3.0	22.0
	256QAM	1	0	23330	18.78	5.0	20.0
		1	25	793 MHz	18.84	5.0	20.0
		1	49		18.66	5.0	20.0
		25	0		18.69	5.0	20.0
		25	12		18.64	5.0	20.0
		25	25		18.60	5.0	20.0
		50	0		18.63	5.0	20.0
5 MHz	QPSK	RB Allocation	RB offset	Measured Pwr (dBm)		MPR	Tune-up Limit
				23330	23.62		0.0 25.0
		1	0	793 MHz	23.76		0.0 25.0
		1	12		23.65	0.0	25.0
		1	24		22.69	1.0	24.0
		12	0		22.67	1.0	24.0
		12	7		22.66	1.0	24.0
	16QAM	12	13		22.66	1.0	24.0
		25	0		22.91	1.0	24.0
		1	0		22.97	1.0	24.0
		1	12		22.84	1.0	24.0
		1	24		21.71	2.0	23.0
		12	0		21.66	2.0	23.0
		12	7		21.67	2.0	23.0
	64QAM	12	13		21.66	2.0	23.0
		25	0		21.72	2.0	23.0
		1	0		21.64	2.0	23.0
		1	12		21.71	2.0	23.0
		1	24		20.65	3.0	22.0
		12	0		20.64	3.0	22.0
		12	7		20.63	3.0	22.0
	256QAM	12	13		20.62	3.0	22.0
		25	0		18.96	5.0	20.0
		1	0		19.00	5.0	20.0
		1	12		18.89	5.0	20.0
		1	24		18.64	5.0	20.0
		12	0		18.60	5.0	20.0
		12	7		18.57	5.0	20.0
		25	0		18.58	5.0	20.0

LTE Band 25 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)														
				RSI = 0, 4						RSI = 3						RSI = 1, 2		
				Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				26140	26365	26590			26140	26365	26590			26140	26365	26590		
20 MHz	QPSK	1	0	24.26	24.16	24.16	0.0	25.0	22.37	22.16	22.01	0.0	23.0	22.23	22.19	22.01	0.0	23.0
		1	49	24.20	24.06	24.08	0.0	25.0	22.32	21.95	21.92	0.0	23.0	22.01	22.22	21.80	0.0	23.0
		1	99	24.16	24.13	24.20	0.0	25.0	22.22	22.08	21.85	0.0	23.0	22.10	22.09	21.86	0.0	23.0
		50	0	23.24	23.20	23.23	1.0	24.0	22.26	22.19	22.01	0.0	23.0	22.18	22.15	22.00	0.0	23.0
		50	24	23.19	23.17	23.22	1.0	24.0	22.25	22.17	21.97	0.0	23.0	22.16	22.14	21.94	0.0	23.0
		50	50	23.16	23.17	23.21	1.0	24.0	22.22	22.17	21.93	0.0	23.0	22.17	22.13	21.92	0.0	23.0
		100	0	23.20	23.18	23.22	1.0	24.0	22.25	22.17	21.98	0.0	23.0	22.21	22.14	21.97	0.0	23.0
	16QAM	1	0	23.49	23.44	23.55	1.0	24.0	22.59	22.55	22.41	0.0	23.0	22.59	22.42	22.41	0.0	23.0
		1	49	23.11	23.40	23.56	1.0	24.0	22.25	22.52	22.34	0.0	23.0	22.53	22.09	22.30	0.0	23.0
		1	99	23.38	23.38	23.45	1.0	24.0	22.48	22.46	22.24	0.0	23.0	22.54	22.32	22.19	0.0	23.0
		50	0	22.20	22.18	22.20	2.0	23.0	22.25	22.14	21.99	0.0	23.0	22.22	22.14	21.97	0.0	23.0
		50	24	22.18	22.14	22.17	2.0	23.0	22.23	22.12	21.96	0.0	23.0	22.22	22.11	21.93	0.0	23.0
		50	50	22.13	22.13	22.15	2.0	23.0	22.20	22.11	21.91	0.0	23.0	22.20	22.12	21.90	0.0	23.0
		100	0	22.17	22.18	22.19	2.0	23.0	22.22	22.15	21.96	0.0	23.0	22.21	22.14	21.95	0.0	23.0
	64QAM	1	0	22.25	22.12	22.29	2.0	23.0	22.15	22.23	21.94	0.0	23.0	22.22	22.38	21.87	0.0	23.0
		1	49	22.16	21.95	22.19	2.0	23.0	22.34	22.10	21.98	0.0	23.0	22.30	22.21	21.81	0.0	23.0
		1	99	22.20	22.07	22.24	2.0	23.0	22.24	22.18	21.77	0.0	23.0	22.23	22.32	21.73	0.0	23.0
		50	0	21.20	21.19	21.22	3.0	22.0	21.16	21.11	20.94	1.0	22.0	21.25	21.13	20.98	1.0	22.0
		50	24	21.17	21.20	21.21	3.0	22.0	21.14	21.07	20.91	1.0	22.0	21.24	21.10	20.95	1.0	22.0
		50	50	21.12	21.17	21.18	3.0	22.0	21.13	21.05	20.86	1.0	22.0	21.21	21.08	20.91	1.0	22.0
		100	0	21.13	21.15	21.19	3.0	22.0	21.13	21.03	20.88	1.0	22.0	21.21	21.05	20.90	1.0	22.0
	256QAM	1	0	19.10	19.10	19.16	5.0	20.0	19.36	19.02	19.07	3.0	20.0	19.48	19.43	18.97	3.0	20.0
		1	49	19.27	19.18	19.21	5.0	20.0	19.37	19.18	19.16	3.0	20.0	19.51	19.58	18.97	3.0	20.0
		1	99	19.16	19.04	19.06	5.0	20.0	19.29	18.96	18.87	3.0	20.0	19.38	19.35	18.77	3.0	20.0
		50	0	19.09	19.12	19.13	5.0	20.0	19.10	19.03	18.84	3.0	20.0	19.16	19.06	18.89	3.0	20.0
		50	24	19.06	19.09	19.11	5.0	20.0	19.07	19.01	18.79	3.0	20.0	19.13	19.04	18.85	3.0	20.0
		50	50	19.04	19.08	19.11	5.0	20.0	19.05	18.99	18.76	3.0	20.0	19.12	19.00	18.81	3.0	20.0
		100	0	19.07	19.08	19.13	5.0	20.0	19.05	19.00	18.82	3.0	20.0	19.12	19.03	18.85	3.0	20.0
15 MHz	QPSK	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				26115	26365	26615			26115	26365	26615			26115	26365	26615		
				1857.5 MHz	1882.5 MHz	1907.5 MHz			1857.5 MHz	1882.5 MHz	1907.5 MHz			1857.5 MHz	1882.5 MHz	1907.5 MHz		
				1	0	23.24	24.46	24.09	0.0	25.0	22.42	22.67	22.52	0.0	23.0	22.52	22.36	22.21
		1	37	24.10	24.43	23.72	0.0	25.0	22.23	22.76	22.63	0.0	23.0	22.65	22.42	22.29	0.0	23.0
		1	74	24.58	24.23	23.23	0.0	25.0	22.75	22.60	22.41	0.0	23.0	22.45	22.31	22.07	0.0	23.0
		36	0	23.24	23.84	23.30	1.0	24.0	22.28	22.77	22.55	0.0	23.0	22.57	22.44	22.21	0.0	23.0
		36	20	23.72	23.88	23.32	1.0	24.0	22.87	22.71	22.50	0.0	23.0	22.56	22.43	22.18	0.0	23.0
		36	39	23.98	23.83	23.36	1.0	24.0	22.85	22.68	22.47	0.0	23.0	22.56	22.41	22.16	0.0	23.0
		75	0	23.69	23.86	23.32	1.0	24.0	22.87	22.75	22.52	0.0	23.0	22.56	22.44	22.20	0.0	23.0
	16QAM	1	0	22.92	23.82	23.65	1.0	24.0	22.56	22.73	22.73	0.0	23.0	22.33	22.60	22.51	0.0	23.0
		1	37	23.87	23.98	23.55	1.0	24.0	22.55	22.76	22.86	0.0	23.0	22.59	22.70	22.66	0.0	23.0
		1	74	23.94	23.87	23.04	1.0	24.0	22.25	22.69	22.59	0.0	23.0	22.68	22.53	22.37	0.0	23.0
		36	0	22.75	22.86	22.61	2.0	23.0	22.84	22.71	22.50	0.0	23.0	22.51	22.43	22.22	0.0	23.0
		36	20	22.92	22.81	22.54	2.0	23.0	22.82	22.70	22.46	0.0	23.0	22.50	22.41	22.19	0.0	23.0
		36	39	22.90	22.79	22.50	2.0	23.0	22.80	22.68	22.42	0.0	23.0	22.49	22.39	22.16	0.0	23.0
		75	0	22.93	22.79	22.59	2.0	23.0	22.83	22.70	22.48	0.0	23.0	22.51	22.38	22.19	0.0	23.0
	64QAM	1	0	22.56	22.54	22.29	2.0	23.0	22.44	22.69	22.16	0.0	23.0	22.47	22.27	22.01	0.0	23.0
		1	37	22.53	22.70	22.42	2.0	23.0	22.55	22.85	22.26	0.0	23.0	22.41	22.42	22.14	0.0	23.0
		1	74	22.55	22.52	22.16	2.0	23.0	22.46	22.63	22.02	0.0	23.0	22.48	22.24	21.87	0.0	23.0
		36	0	21.79	21.69	21.48	3.0	22.0	21.59	21.49	21.34	1.0	22.0	21.48	21.39	21.25	1.0	22.0
		36	20	21.75	21.65	21.44	3.0	22.0	21.57	21.46	21.30	1.0	22.0	21.46	21.36	21.21	1.0	22.0
		36	39	21.71	21.62	21.39	3.0	22.0	21.54	21.43	21.28	1.0	22.0	21.44	21.33	21.16	1.0	22.0
		75	0	21.78	21.62	21.40	3.0	22.0	21.61	21.45	21.26	1.0	22.0	21.51	21.33	21.14	1.0	22.0
	256QAM	1	0	19.75	19.78	19.42	5.0	20.0	19.61	19.68	19.17	3.0	20.0	19.64	19.62	19.13	3.0	20.0
		1	37	19.76	19.90	19.44	5.0	20.0	19.66	19.81	19.24	3.0	20.0	19.74	19.51	19.19	3.0	20.0
		1	74	19.63	19.74	19.21	5.0	20.0	19.56	19.58	19.01	3.0	20.0	19.57	19.55	18.93	3.0	20.0
		36	0	19.71	19.60	19.34	5.0	20.0	19.53	19.40	19.19	3.0	20.0	19.42	19.30	19.10</		

LTE Band 25 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit			
				26090	26365	26640			26090	26365	26640			26090	26365	26640					
				1855 MHz	1882.5 MHz	1910 MHz			1855 MHz	1882.5 MHz	1910 MHz			1855 MHz	1882.5 MHz	1910 MHz					
10 MHz	QPSK	1	0	23.65	24.57	23.82	0.0	25.0	22.83	22.68	22.38	0.0	23.0	22.51	22.43	22.13	0.0	23.0			
		1	25	23.88	24.38	23.91	0.0	25.0	22.78	22.39	22.40	0.0	23.0	22.51	22.35	22.24	0.0	23.0			
		1	49	24.29	24.20	23.43	0.0	25.0	22.79	22.58	22.30	0.0	23.0	22.52	22.36	22.04	0.0	23.0			
		25	0	23.21	23.72	23.29	1.0	24.0	22.79	22.64	22.39	0.0	23.0	22.50	22.38	22.12	0.0	23.0			
		25	12	23.45	23.67	23.41	1.0	24.0	22.78	22.61	22.36	0.0	23.0	22.48	22.34	22.09	0.0	23.0			
		25	25	23.70	23.38	1.0	24.0	22.77	22.59	22.34	0.0	23.0	22.48	22.34	22.07	0.0	23.0				
		50	0	23.50	23.67	23.39	1.0	24.0	22.78	22.60	22.35	0.0	23.0	22.50	22.36	22.10	0.0	23.0			
	16QAM	1	0	23.12	23.84	23.60	1.0	24.0	22.83	22.76	22.83	0.0	23.0	22.60	22.54	22.51	0.0	23.0			
		1	25	23.48	23.68	23.78	1.0	24.0	22.80	22.75	22.66	0.0	23.0	22.55	22.55	22.36	0.0	23.0			
		1	49	23.82	23.84	23.37	1.0	24.0	22.86	22.76	22.66	0.0	23.0	22.56	22.53	22.31	0.0	23.0			
		25	0	22.72	22.63	22.46	2.0	23.0	22.73	22.59	22.40	0.0	23.0	22.50	22.36	22.15	0.0	23.0			
		25	12	22.77	22.59	22.38	2.0	23.0	22.72	22.57	22.35	0.0	23.0	22.47	22.35	22.10	0.0	23.0			
		25	25	22.76	22.57	22.33	2.0	23.0	22.70	22.57	22.31	0.0	23.0	22.50	22.33	22.08	0.0	23.0			
		50	0	22.78	22.57	22.29	2.0	23.0	22.74	22.56	22.30	0.0	23.0	22.51	22.33	22.06	0.0	23.0			
	64QAM	1	0	22.56	22.42	22.32	2.0	23.0	22.55	22.56	22.07	0.0	23.0	22.30	22.50	21.95	0.0	23.0			
		1	25	22.76	22.48	22.14	2.0	23.0	22.55	22.59	22.09	0.0	23.0	22.48	22.53	21.79	0.0	23.0			
		1	49	22.54	22.47	22.29	2.0	23.0	22.52	22.58	22.03	0.0	23.0	22.29	22.53	21.89	0.0	23.0			
		25	0	21.72	21.51	21.33	3.0	22.0	21.59	21.45	21.26	1.0	22.0	21.48	21.33	21.14	1.0	22.0			
		25	12	21.69	21.48	21.27	3.0	22.0	21.57	21.41	21.20	1.0	22.0	21.46	21.30	21.08	1.0	22.0			
		25	25	21.68	21.47	21.20	3.0	22.0	21.58	21.41	21.14	1.0	22.0	21.46	21.29	21.02	1.0	22.0			
		50	0	21.64	21.45	21.23	3.0	22.0	21.57	21.40	21.15	1.0	22.0	21.45	21.29	21.03	1.0	22.0			
	256QAM	1	0	19.77	19.79	19.38	5.0	20.0	19.50	19.70	19.34	3.0	20.0	19.52	19.65	19.16	3.0	20.0			
		1	25	19.79	19.99	19.46	5.0	20.0	19.63	19.86	19.43	3.0	20.0	19.66	19.79	19.31	3.0	20.0			
		1	49	19.70	19.75	19.17	5.0	20.0	19.47	19.58	19.15	3.0	20.0	19.47	19.60	18.94	3.0	20.0			
		25	0	19.66	19.46	19.24	5.0	20.0	19.58	19.40	19.14	3.0	20.0	19.46	19.28	19.02	3.0	20.0			
		25	12	19.63	19.44	19.18	5.0	20.0	19.56	19.37	19.08	3.0	20.0	19.45	19.24	18.98	3.0	20.0			
		25	25	19.61	19.43	19.11	5.0	20.0	19.56	19.37	19.03	3.0	20.0	19.43	19.24	18.92	3.0	20.0			
		50	0	19.56	19.40	19.12	5.0	20.0	19.50	19.35	19.06	3.0	20.0	19.38	19.25	18.95	3.0	20.0			
5 MHz	QPSK	Measured Pwr (dBm)				MPR	Measured Pwr (dBm)			MPR	Measured Pwr (dBm)			Measured Pwr (dBm)			MPR	Tune-up Limit			
		26065					26065	26365	26665		1852.5 MHz			1852.5 MHz							
		1882.5 MHz					1882.5 MHz	1882.5 MHz	1912.5 MHz		1852.5 MHz			1882.5 MHz							
		1	0	23.42	24.44	24.04	0.0	25.0	22.38	22.27	22.02	0.0	23.0	22.08	22.07	21.73	0.0	23.0			
		1	12	23.46	24.33	24.11	0.0	25.0	22.48	22.52	22.03	0.0	23.0	22.23	22.28	21.76	0.0	23.0			
		1	24	23.54	24.28	23.32	0.0	25.0	22.42	22.27	22.02	0.0	23.0	22.15	22.09	21.70	0.0	23.0			
		12	0	23.02	23.47	23.21	1.0	24.0	22.43	22.29	22.06	0.0	23.0	22.14	22.05	21.75	0.0	23.0			
	16QAM	12	7	23.13	23.45	23.19	1.0	24.0	22.44	22.29	22.05	0.0	23.0	22.16	22.05	21.73	0.0	23.0			
		12	13	23.20	23.43	23.16	1.0	24.0	22.43	22.29	22.04	0.0	23.0	22.14	22.04	21.73	0.0	23.0			
		25	0	23.19	23.44	23.16	1.0	24.0	22.44	22.29	22.03	0.0	23.0	22.16	22.04	21.74	0.0	23.0			
		1	0	23.23	23.69	23.57	1.0	24.0	22.67	22.65	22.34	0.0	23.0	22.52	22.29	22.10	0.0	23.0			
		1	12	23.31	23.73	23.37	1.0	24.0	22.84	22.51	22.54	0.0	23.0	22.63	22.10	22.20	0.0	23.0			
		1	24	23.43	23.65	23.26	1.0	24.0	22.69	22.60	22.32	0.0	23.0	22.50	22.24	22.06	0.0	23.0			
		12	0	22.56	22.41	22.20	2.0	23.0	22.49	22.31	22.03	0.0	23.0	22.17	22.13	21.74	0.0	23.0			
	64QAM	12	7	22.55	22.39	22.17	2.0	23.0	22.50	22.31	22.01	0.0	23.0	22.17	22.14	21.73	0.0	23.0			
		12	13	22.50	22.39	22.15	2.0	23.0	22.50	22.32	21.98	0.0	23.0	22.19	22.14	21.66	0.0	23.0			
		25	0	22.56	22.33	22.11	2.0	23.0	22.47	22.29	21.98	0.0	23.0	22.16	22.04	21.69	0.0	23.0			
		1	0	22.30	22.31	21.71	2.0	23.0	22.29	22.31	21.65	0.0	23.0	22.27	21.97	21.85	0.0	23.0			
		1	12	22.57	22.21	21.78	2.0	23.0	22.51	22.37	21.72	0.0	23.0	22.24	21.91	21.96	0.0	23.0			
		1	24	22.30	22.30	21.76	2.0	23.0	22.40	22.28	21.65	0.0	23.0	22.29	22.04	21.86	0.0	23.0			
		12	0	21.27	21.15	20.95	3.0	22.0	21.24	21.13	20.87	1.0	22.0	21.14	21.03	20.66	1.0	22.0			
	256QAM	12	7	21.26	21.12	20.86	3.0	22.0	21.23	21.11	20.81	1.0	22.0	21.12	21.00	20.64	1.0	22.0			
		12	13	21.25	21.14	20.86	3.0	22.0	21.21	21.13	20.81	1.0	22.0	21.14	21.01	20.57	1.0	22.0			
		25	0	21.30	21.14	20.84	3.0	22.0	21.25	21.13	20.80	1.0	22.0	21.14	20.96	20.64	1.0	22.0			
		1	0	19.27	19.36	18.89	5.0	20.0	19.18	19.35	18.89	3.0	20.0	19.31	19.00	18.62	3.0	20.0			
		1	12	19.23	19.47	19.03	5.0	20.0	19.23	19.54	18.81	3.0	20.0	19.43	19.12	18.56	3.0	20.0			
		1	24	19.25	19.33	18.82	5.0	20.0	19.16	19.34	18.82	3.0	20.0	19.32	18.98	18.53	3.0	20.0			
		12	0	19.24	19.14	18.84	5.0	20.0</td													

LTE Band 25 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit			
				26055	26365	26675			26055	26365	26675			26055	26365	26675					
				1851.5 MHz	1882.5 MHz	1913.5 MHz			1851.5 MHz	1882.5 MHz	1913.5 MHz			1851.5 MHz	1882.5 MHz	1913.5 MHz					
3 MHz	QPSK	1	0	24.42	24.41	24.15	0.0	25.0	22.46	22.26	22.06	0.0	23.0	22.06	22.12	21.78	0.0	23.0			
		1	8	24.34	24.57	24.29	0.0	25.0	22.57	22.36	22.19	0.0	23.0	22.23	22.22	21.82	0.0	23.0			
		1	14	24.19	24.49	23.65	0.0	25.0	22.53	22.21	22.07	0.0	23.0	22.07	22.12	21.79	0.0	23.0			
		8	0	23.58	23.42	23.19	1.0	24.0	22.48	22.32	22.05	0.0	23.0	22.16	22.08	21.76	0.0	23.0			
		8	4	23.56	23.37	23.12	1.0	24.0	22.45	22.29	22.03	0.0	23.0	22.17	21.99	21.65	0.0	23.0			
		8	7	23.55	23.40	23.15	1.0	24.0	22.50	22.28	22.00	0.0	23.0	22.15	22.05	21.71	0.0	23.0			
		15	0	23.51	23.37	23.10	1.0	24.0	22.46	22.26	22.02	0.0	23.0	22.15	22.03	21.68	0.0	23.0			
	16QAM	1	0	23.67	23.66	23.22	1.0	24.0	22.60	22.57	22.31	0.0	23.0	22.38	22.30	21.76	0.0	23.0			
		1	8	23.68	23.81	23.33	1.0	24.0	22.68	22.70	22.49	0.0	23.0	22.49	22.44	21.83	0.0	23.0			
		1	14	23.68	23.62	23.12	1.0	24.0	22.56	22.63	22.25	0.0	23.0	22.42	22.26	21.64	0.0	23.0			
		8	0	22.54	22.42	22.06	2.0	23.0	22.49	22.29	22.08	0.0	23.0	22.22	22.11	21.70	0.0	23.0			
		8	4	22.49	22.34	22.07	2.0	23.0	22.45	22.26	22.02	0.0	23.0	22.17	22.07	21.68	0.0	23.0			
		8	7	22.49	22.35	22.02	2.0	23.0	22.43	22.25	22.03	0.0	23.0	22.17	22.07	21.66	0.0	23.0			
		15	0	22.48	22.29	22.02	2.0	23.0	22.46	22.27	21.97	0.0	23.0	22.17	22.02	21.69	0.0	23.0			
	64QAM	1	0	22.21	22.35	21.89	2.0	23.0	22.10	22.24	21.94	0.0	23.0	21.88	22.17	21.61	0.0	23.0			
		1	8	22.29	22.48	22.04	2.0	23.0	22.28	22.40	22.06	0.0	23.0	21.98	22.34	21.75	0.0	23.0			
		1	14	22.19	22.43	21.96	2.0	23.0	22.09	22.32	22.00	0.0	23.0	21.86	22.25	21.70	0.0	23.0			
		8	0	21.35	21.21	20.91	3.0	22.0	21.29	21.19	20.76	1.0	22.0	21.19	21.14	20.72	1.0	22.0			
		8	4	21.30	21.20	20.85	3.0	22.0	21.27	21.14	20.74	1.0	22.0	21.15	21.07	20.71	1.0	22.0			
		8	7	21.30	21.17	20.84	3.0	22.0	21.25	21.11	20.68	1.0	22.0	21.12	21.08	20.63	1.0	22.0			
		15	0	21.38	21.13	20.94	3.0	22.0	21.26	21.04	20.83	1.0	22.0	21.17	20.93	20.72	1.0	22.0			
	256QAM	1	0	19.37	19.45	19.05	5.0	20.0	19.26	19.23	18.91	3.0	20.0	19.22	19.32	18.76	3.0	20.0			
		1	8	19.48	19.55	19.04	5.0	20.0	19.26	19.31	19.05	3.0	20.0	19.31	19.29	18.75	3.0	20.0			
		1	14	19.35	19.43	18.97	5.0	20.0	19.23	19.20	18.81	3.0	20.0	19.25	19.23	18.72	3.0	20.0			
		8	0	19.31	19.16	18.84	5.0	20.0	19.28	19.14	18.75	3.0	20.0	19.11	18.95	18.68	3.0	20.0			
		8	4	19.26	19.12	18.75	5.0	20.0	19.29	19.09	18.72	3.0	20.0	19.14	18.96	18.64	3.0	20.0			
		8	7	19.29	19.13	18.82	5.0	20.0	19.28	19.13	18.78	3.0	20.0	19.16	18.96	18.67	3.0	20.0			
		15	0	19.33	19.10	18.82	5.0	20.0	19.27	19.09	18.79	3.0	20.0	19.18	18.96	18.68	3.0	20.0			
1.4 MHz	QPSK	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit			
				26047	26365	26683			26047	26365	26683			26047	26365	26683					
				1850.7 MHz	1882.5 MHz	1914.3 MHz			1850.7 MHz	1882.5 MHz	1914.3 MHz			1850.7 MHz	1882.5 MHz	1914.3 MHz					
			16QAM	1	0	24.40	24.31	24.09	0.0	25.0	22.37	22.27	0.0	23.0	22.17	22.06	21.74	0.0	23.0		
				1	3	24.41	24.23	24.06	0.0	25.0	22.28	22.18	0.0	23.0	22.24	21.92	21.69	0.0	23.0		
				1	5	24.43	24.33	23.69	0.0	25.0	22.38	22.24	0.0	23.0	22.19	22.04	21.72	0.0	23.0		
				3	0	24.32	24.39	23.94	0.0	25.0	22.33	22.31	0.0	23.0	22.25	22.18	21.72	0.0	23.0		
	64QAM			3	1	24.26	24.32	23.86	0.0	25.0	22.33	22.25	0.0	23.0	22.12	22.04	21.66	0.0	23.0		
				3	3	24.20	24.21	23.76	0.0	25.0	22.41	22.15	0.0	23.0	22.08	22.04	21.71	0.0	23.0		
				6	0	23.52	23.41	23.08	1.0	24.0	22.43	22.28	0.0	23.0	22.22	22.02	21.71	0.0	23.0		
	256QAM		1	0	23.41	23.29	23.28	1.0	24.0	22.47	22.24	0.0	23.0	22.23	22.39	21.71	0.0	23.0			
			1	3	23.25	23.55	23.31	1.0	24.0	22.30	22.47	0.0	23.0	22.44	22.46	21.67	0.0	23.0			
			1	5	23.48	23.34	23.31	1.0	24.0	22.53	22.30	0.0	23.0	22.28	22.42	21.78	0.0	23.0			
			3	0	23.63	23.19	23.09	1.0	24.0	22.55	22.21	0.0	23.0	22.19	22.18	21.76	0.0	23.0			
			3	1	23.58	23.24	22.98	1.0	24.0	22.56	22.28	0.0	23.0	22.24	22.14	21.78	0.0	23.0			
			3	3	23.55	23.27	22.99	1.0	24.0	22.54	22.35	0.0	23.0	22.35	22.11	21.74	0.0	23.0			
			6	0	22.55	22.33	21.92	2.0	23.0	22.49	22.32	0.0	23.0	22.29	21.97	21.72	0.0	23.0			
			1	0	22.41	22.22	21.50	2.0	23.0	22.06	22.22	0.0	23.0	21.77	22.22	21.58	0.0	23.0			
			1	3	22.57	21.90	21.69	2.0	23.0	22.28	22.44	0.0	23.0	22.11	22.35	21.46	0.0	23.0			
			1	5	22.41	22.21	21.62	2.0	23.0	22.18	22.21	0.0	23.0	21.90	22.19	21.57	0.0	23.0			
			3	0	22.43	22.32	21.84	2.0	23.0	22.13	22.32	0.0	23.0	22.08	22.15	21.86	0.0	23.0			
			3	1	22.36	22.28	21.80	2.0	23.0	22.08	22.32	0.0	23.0	22.06	22.06	21.76	0.0	23.0			
			3	3	22.34	22.22	21.81	2.0	23.0	22.18	22.34	0.0	23.0	22.03	22.07	21.76	0.0	23.0			
			6	0	21.30	21.22	20.81	3.0	22.0	21.24	21.15	0.0	22.0	21.12	20.98	20.66	1.0	22.0			
			1	0	19.25	19.35	18.78	5.0	20.0	19.32	19.01	0.0	20.0	19.19	18.96	18.79	3.0	20.0			
			1	3	19.38	19.43	18.79	5.0	20.0	19.35	19.03	0.0	20.0	19.30	19.08	18.96	3.0	20.0			
			1	5	19.17	19.37	18.74	5.0	20.0	19.30	18.86	0.0	20.0	19.14	18.92	18.74	3.0	20.0			
			3	0	19.20	19.15	18.74	5.0	20.0	19.20	19.06	0.0	20.0	19.07	18.93	18.51</					

LTE Band 26 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)					
				RSI = 0, 1, 2, 3, 4					
				Measured Pwr (dBm)		MPR	Tune-up Limit		
15 MHz	QPSK	1	0	26865	24.49	0.0	25.5		
		1	37	831.5 MHz	24.48	0.0	25.5		
		1	74		24.42	0.0	25.5		
		36	0		23.54	1.0	24.5		
		36	20		23.51	1.0	24.5		
		36	39		23.49	1.0	24.5		
		75	0		23.52	1.0	24.5		
	16QAM	1	0	26865	23.78	1.0	24.5		
		1	37	831.5 MHz	23.73	1.0	24.5		
		1	74		23.69	1.0	24.5		
		36	0		22.46	2.0	23.5		
		36	20		22.44	2.0	23.5		
		36	39		22.42	2.0	23.5		
		75	0		22.46	2.0	23.5		
	64QAM	1	0	26865	22.32	2.0	23.5		
		1	37	831.5 MHz	22.30	2.0	23.5		
		1	74		22.21	2.0	23.5		
		36	0		21.48	3.0	22.5		
		36	20		21.48	3.0	22.5		
		36	39		21.45	3.0	22.5		
		75	0		21.44	3.0	22.5		
	256QAM	1	0	26865	19.48	5.0	20.5		
		1	37	831.5 MHz	19.46	5.0	20.5		
		1	74		19.38	5.0	20.5		
		36	0		19.44	5.0	20.5		
		36	20		19.40	5.0	20.5		
		36	39		19.38	5.0	20.5		
		75	0		19.40	5.0	20.5		
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)		MPR	Tune-up Limit		
				26740	26865	26990			
10 MHz	QPSK	1	0	819 MHz	24.61	24.49	24.42	0.0	25.5
		1	25	831.5 MHz	24.67	24.40	24.34	0.0	25.5
		1	49		24.53	24.47	24.43	0.0	25.5
		25	0		23.59	23.48	23.40	1.0	24.5
		25	12		23.56	23.44	23.36	1.0	24.5
		25	25		23.55	23.41	23.33	1.0	24.5
		50	0		23.55	23.44	23.35	1.0	24.5
	16QAM	1	0	819 MHz	23.79	23.75	23.65	1.0	24.5
		1	25	831.5 MHz	23.89	23.56	23.75	1.0	24.5
		1	49		23.79	23.62	23.47	1.0	24.5
		25	0		22.59	22.47	22.40	2.0	23.5
		25	12		22.57	22.44	22.35	2.0	23.5
		25	25		22.57	22.41	22.32	2.0	23.5
		50	0		22.52	22.40	22.34	2.0	23.5
	64QAM	1	0	844 MHz	22.68	22.76	22.34	2.0	23.5
		1	25		22.82	22.67	22.25	2.0	23.5
		1	49		22.63	22.70	22.29	2.0	23.5
		25	0		21.69	21.59	21.48	3.0	22.5
		25	12		21.67	21.54	21.44	3.0	22.5
		25	25		21.65	21.53	21.42	3.0	22.5
		50	0		21.62	21.51	21.40	3.0	22.5
	256QAM	1	0	844 MHz	19.84	19.78	19.41	5.0	20.5
		1	25		19.83	19.86	19.49	5.0	20.5
		1	49		19.79	19.66	19.34	5.0	20.5
		25	0		19.73	19.58	19.41	5.0	20.5
		25	12		19.68	19.53	19.38	5.0	20.5
		25	25		19.66	19.50	19.35	5.0	20.5
		50	0		19.60	19.50	19.37	5.0	20.5

LTE Band 26 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				26715	26865	27015		
				816.5 MHz	831.5 MHz	846.5 MHz		
5 MHz	QPSK	1	0	24.43	24.39	24.22	0.0	25.5
		1	12	24.53	24.50	24.29	0.0	25.5
		1	24	24.49	24.42	24.26	0.0	25.5
		12	0	23.52	23.42	23.29	1.0	24.5
		12	7	23.51	23.40	23.28	1.0	24.5
		12	13	23.49	23.38	23.25	1.0	24.5
		25	0	23.50	23.39	23.23	1.0	24.5
	16QAM	1	0	23.78	23.79	23.63	1.0	24.5
		1	12	23.92	23.73	23.61	1.0	24.5
		1	24	23.86	23.70	23.52	1.0	24.5
		12	0	22.48	22.40	22.32	2.0	23.5
		12	7	22.48	22.37	22.31	2.0	23.5
		12	13	22.45	22.36	22.27	2.0	23.5
		25	0	22.48	22.34	22.21	2.0	23.5
	64QAM	1	0	22.40	22.57	22.35	2.0	23.5
		1	12	22.33	22.60	22.34	2.0	23.5
		1	24	22.45	22.55	22.30	2.0	23.5
		12	0	21.68	21.51	21.45	3.0	22.5
		12	7	21.66	21.49	21.40	3.0	22.5
		12	13	21.68	21.45	21.41	3.0	22.5
		25	0	21.61	21.49	21.38	3.0	22.5
	256QAM	1	0	19.80	19.75	19.54	5.0	20.5
		1	12	19.87	19.62	19.55	5.0	20.5
		1	24	19.75	19.72	19.49	5.0	20.5
		12	0	19.66	19.49	19.40	5.0	20.5
		12	7	19.65	19.48	19.39	5.0	20.5
		12	13	19.64	19.45	19.38	5.0	20.5
		25	0	19.63	19.50	19.38	5.0	20.5
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				26705	26865	27025		
				815.5 MHz	831.5 MHz	847.5 MHz		
3 MHz	QPSK	1	0	24.81	24.56	24.50	0.0	25.5
		1	8	24.46	24.67	24.57	0.0	25.5
		1	14	24.84	24.51	24.56	0.0	25.5
		8	0	23.79	23.61	23.48	1.0	24.5
		8	4	23.75	23.58	23.46	1.0	24.5
		8	7	23.70	23.57	23.51	1.0	24.5
		15	0	23.72	23.57	23.41	1.0	24.5
	16QAM	1	0	23.68	23.81	23.75	1.0	24.5
		1	8	23.73	23.81	23.80	1.0	24.5
		1	14	23.62	23.81	23.65	1.0	24.5
		8	0	22.70	22.64	22.47	2.0	23.5
		8	4	22.72	22.58	22.38	2.0	23.5
		8	7	22.71	22.59	22.39	2.0	23.5
		15	0	22.64	22.53	22.42	2.0	23.5
	64QAM	1	0	22.49	22.41	22.33	2.0	23.5
		1	8	22.59	22.31	22.38	2.0	23.5
		1	14	22.59	22.33	22.33	2.0	23.5
		8	0	21.46	21.25	21.26	3.0	22.5
		8	4	21.43	21.23	21.21	3.0	22.5
		8	7	21.44	21.23	21.22	3.0	22.5
		15	0	21.53	21.30	21.15	3.0	22.5
	256QAM	1	0	19.66	19.27	19.59	5.0	20.5
		1	8	19.56	19.30	19.50	5.0	20.5
		1	14	19.61	19.28	19.54	5.0	20.5
		8	0	19.58	19.34	19.31	5.0	20.5
		8	4	19.55	19.33	19.32	5.0	20.5
		8	7	19.54	19.34	19.33	5.0	20.5
		15	0	19.51	19.32	19.18	5.0	20.5

LTE Band 26 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pw r (dBm)			MPR	Tune-up Limit
				26697	26865	27033		
				814.7 MHz	831.5 MHz	848.3 MHz		
1.4 MHz	QPSK	1	0	24.44	24.37	24.26	0.0	25.5
		1	3	24.59	24.22	24.16	0.0	25.5
		1	5	24.46	24.39	24.28	0.0	25.5
		3	0	24.45	24.40	24.24	0.0	25.5
		3	1	24.40	24.36	24.20	0.0	25.5
		3	3	24.38	24.26	24.21	0.0	25.5
		6	0	23.47	23.41	23.28	1.0	24.5
	16QAM	1	0	23.48	23.56	23.23	1.0	24.5
		1	3	23.46	23.68	23.36	1.0	24.5
		1	5	23.54	23.58	23.26	1.0	24.5
		3	0	23.45	23.28	23.31	1.0	24.5
		3	1	23.38	23.30	23.18	1.0	24.5
		3	3	23.49	23.25	23.18	1.0	24.5
		6	0	22.49	22.30	22.26	2.0	23.5
	64QAM	1	0	22.52	22.35	22.17	2.0	23.5
		1	3	22.57	22.21	22.32	2.0	23.5
		1	5	22.50	22.27	22.22	2.0	23.5
		3	0	22.36	22.48	22.19	2.0	23.5
		3	1	22.33	22.39	22.19	2.0	23.5
		3	3	22.34	22.42	22.09	2.0	23.5
		6	0	21.44	21.35	21.21	3.0	22.5
	256QAM	1	0	19.42	19.35	19.13	5.0	20.5
		1	3	19.51	19.57	19.14	5.0	20.5
		1	5	19.42	19.35	19.11	5.0	20.5
		3	0	19.42	19.31	19.21	5.0	20.5
		3	1	19.33	19.36	19.19	5.0	20.5
		3	3	19.34	19.33	19.10	5.0	20.5
		6	0	19.51	19.37	19.19	5.0	20.5

LTE Band 30 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)			
				RSI = 0, 1, 2, 3, 4			
				Measured Pwr (dBm)		MPR	Tune-up Limit
10 MHz	QPSK	1	0	27710	22.89	0.0	24.0
		1	25	2310 MHz	23.41	0.0	24.0
		1	49		23.32	0.0	24.0
		25	0		22.32	1.0	23.0
		25	12		22.30	1.0	23.0
		25	25		22.26	1.0	23.0
		50	0		22.29	1.0	23.0
	16QAM	1	0	27710	21.47	1.0	23.0
		1	25	2310 MHz	22.42	1.0	23.0
		1	49		22.39	1.0	23.0
		25	0		21.34	2.0	22.0
		25	12		21.29	2.0	22.0
		25	25		21.21	2.0	22.0
		50	0		21.22	2.0	22.0
	64QAM	1	0	27710	21.36	2.0	22.0
		1	25	2310 MHz	21.39	2.0	22.0
		1	49		21.34	2.0	22.0
		25	0		20.20	3.0	21.0
		25	12		20.16	3.0	21.0
		25	25		20.09	3.0	21.0
		50	0		20.13	3.0	21.0
	256QAM	1	0	27710	18.24	5.0	19.0
		1	25	2310 MHz	18.16	5.0	19.0
		1	49		17.99	5.0	19.0
		25	0		18.13	5.0	19.0
		25	12		18.12	5.0	19.0
		25	25		18.05	5.0	19.0
		50	0		18.05	5.0	19.0
5 MHz	QPSK	RB Allocation	RB offset	Measured Pwr (dBm)		MPR	Tune-up Limit
				27710	23.48	0.0	24.0
		1	0	2310 MHz	23.53	0.0	24.0
		1	12		23.51	0.0	24.0
		1	24		22.50	1.0	23.0
		12	0		22.48	1.0	23.0
		12	7		22.48	1.0	23.0
	16QAM	12	13		22.50	1.0	23.0
		25	0		22.65	1.0	23.0
		1	0	27710	22.72	1.0	23.0
		1	12	2310 MHz	22.51	1.0	23.0
		1	24		21.52	2.0	22.0
		12	0		21.48	2.0	22.0
		12	7		21.47	2.0	22.0
	64QAM	12	13		21.42	2.0	22.0
		25	0		21.46	2.0	22.0
		1	0	27710	21.26	2.0	22.0
		1	12	2310 MHz	21.42	2.0	22.0
		1	24		20.28	3.0	21.0
		12	0		20.25	3.0	21.0
		12	7		20.22	3.0	21.0
	256QAM	12	13		20.24	3.0	21.0
		25	0		18.18	5.0	19.0
		1	0	27710	18.36	5.0	19.0
		1	12	2310 MHz	18.07	5.0	19.0
		1	24		18.20	5.0	19.0
		12	0		18.19	5.0	19.0
		12	7		18.17	5.0	19.0
		25	0		18.20	5.0	19.0

LTE Band 38 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)				
				RSI = 0, 1, 2, 3, 4				
				Measured Pwr (dBm)			MPR	Tune-up Limit
20 MHz	QPSK	1	0	38000	22.35	0.0	24.0	
		1	49	2595 MHz	22.40	0.0	24.0	
		1	99		22.33	0.0	24.0	
		50	0		21.40	1.0	23.0	
		50	24		21.36	1.0	23.0	
		50	50		21.31	1.0	23.0	
		100	0		21.36	1.0	23.0	
	16QAM	1	0	38000	21.57	1.0	23.0	
		1	49	2595 MHz	21.92	1.0	23.0	
		1	99		21.63	1.0	23.0	
		50	0		20.34	2.0	22.0	
		50	24		20.31	2.0	22.0	
		50	50		20.22	2.0	22.0	
		100	0		20.29	2.0	22.0	
	64QAM	1	0	38000	20.46	2.0	22.0	
		1	49	2595 MHz	20.15	2.0	22.0	
		1	99		20.46	2.0	22.0	
		50	0		19.29	3.0	21.0	
		50	24		19.24	3.0	21.0	
		50	50		19.22	3.0	21.0	
		100	0		19.24	3.0	21.0	
	256QAM	1	0	38000	17.34	5.0	19.0	
		1	49	2595 MHz	17.61	5.0	19.0	
		1	99		17.03	5.0	19.0	
		50	0		17.27	5.0	19.0	
		50	24		17.28	5.0	19.0	
		50	50		17.19	5.0	19.0	
		100	0		17.24	5.0	19.0	
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				37825	38000	38175		
15 MHz	QPSK	1	0	38000	22.58	22.49	0.0	24.0
		1	37	2577.5 MHz	22.82	22.81	0.0	24.0
		1	74		22.67	22.58	0.0	24.0
		36	0		21.76	21.62	1.0	23.0
		36	20		21.73	21.60	1.0	23.0
		36	39		21.71	21.58	1.0	23.0
		75	0		21.72	21.60	1.0	23.0
	16QAM	1	0	38000	21.34	21.34	1.0	23.0
		1	37	2595 MHz	21.22	21.14	2.0	22.0
		1	74		21.53	21.40	2.0	22.0
		36	0		20.75	20.55	2.0	22.0
		36	20		20.72	20.52	2.0	22.0
		36	39		20.63	20.47	2.0	22.0
		75	0		20.65	20.47	2.0	22.0
	64QAM	1	0	38000	20.83	20.68	2.0	22.0
		1	37	2595 MHz	20.70	20.75	2.0	22.0
		1	74		20.18	20.56	2.0	22.0
		36	0		19.67	19.53	3.0	21.0
		36	20		19.62	19.50	3.0	21.0
		36	39		19.60	19.45	3.0	21.0
		75	0		19.63	19.44	3.0	21.0
	256QAM	1	0	38000	17.81	17.63	5.0	19.0
		1	37	2595 MHz	17.77	17.59	5.0	19.0
		1	74		17.60	17.47	5.0	19.0
		36	0		17.55	17.48	5.0	19.0
		36	20		17.56	17.48	5.0	19.0
		36	39		17.50	17.42	5.0	19.0
		75	0		17.56	17.44	5.0	19.0

LTE Band 38 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				37800	38000	38200		
				2575 MHz	2595 MHz	2615 MHz		
10 MHz	QPSK	1	0	22.80	22.63	22.50	0.0	24.0
		1	25	22.65	22.64	22.52	0.0	24.0
		1	49	22.72	22.62	22.44	0.0	24.0
		25	0	21.76	21.62	21.43	1.0	23.0
		25	12	21.75	21.60	21.41	1.0	23.0
		25	25	21.70	21.57	21.38	1.0	23.0
		50	0	21.74	21.59	21.40	1.0	23.0
	16QAM	1	0	21.93	21.51	21.39	1.0	23.0
		1	25	22.16	21.71	21.64	1.0	23.0
		1	49	21.90	21.42	21.35	1.0	23.0
		25	0	20.72	20.59	20.38	2.0	22.0
		25	12	20.69	20.56	20.35	2.0	22.0
		25	25	20.65	20.50	20.32	2.0	22.0
		50	0	20.69	20.50	20.36	2.0	22.0
5 MHz	64QAM	1	0	20.45	19.75	19.98	2.0	22.0
		1	25	20.55	19.88	20.07	2.0	22.0
		1	49	20.43	19.77	19.89	2.0	22.0
		25	0	19.62	19.06	18.93	3.0	21.0
		25	12	19.58	19.01	18.90	3.0	21.0
		25	25	19.56	19.02	18.89	3.0	21.0
		50	0	19.61	19.06	18.89	3.0	21.0
	256QAM	1	0	17.69	17.19	16.91	5.0	19.0
		1	25	17.82	17.29	16.87	5.0	19.0
		1	49	17.61	17.09	16.86	5.0	19.0
		25	0	17.62	17.06	16.92	5.0	19.0
		25	12	17.59	17.04	16.88	5.0	19.0
		25	25	17.56	17.01	16.87	5.0	19.0
		50	0	17.59	17.04	16.88	5.0	19.0
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				37775	38000	38225		
				2572.5 MHz	2595 MHz	2617.5 MHz		
5 MHz	QPSK	1	0	22.10	22.00	22.53	0.0	24.0
		1	12	22.08	22.14	22.66	0.0	24.0
		1	24	22.06	21.95	22.51	0.0	24.0
		12	0	21.07	20.96	21.52	1.0	23.0
		12	7	21.09	20.96	21.52	1.0	23.0
		12	13	21.07	20.94	21.49	1.0	23.0
		25	0	21.07	20.93	21.49	1.0	23.0
	16QAM	1	0	20.89	21.05	21.50	1.0	23.0
		1	12	20.78	21.23	21.45	1.0	23.0
		1	24	20.91	21.06	21.44	1.0	23.0
		12	0	20.02	19.92	20.48	2.0	22.0
		12	7	19.99	19.91	20.47	2.0	22.0
		12	13	19.97	19.88	20.42	2.0	22.0
		25	0	20.45	20.28	20.84	2.0	22.0
	64QAM	1	0	20.23	20.35	20.55	2.0	22.0
		1	12	20.09	20.32	20.64	2.0	22.0
		1	24	20.16	20.40	20.49	2.0	22.0
		12	0	19.46	19.26	19.41	3.0	21.0
		12	7	19.45	19.24	19.40	3.0	21.0
		12	13	19.44	19.26	19.40	3.0	21.0
		25	0	19.43	19.27	19.33	3.0	21.0
	256QAM	1	0	17.44	17.33	17.48	5.0	19.0
		1	12	17.47	17.24	17.41	5.0	19.0
		1	24	17.39	17.31	17.43	5.0	19.0
		12	0	17.37	17.24	17.37	5.0	19.0
		12	7	17.37	17.22	17.36	5.0	19.0
		12	13	17.33	17.18	17.35	5.0	19.0
		25	0	17.38	17.19	17.30	5.0	19.0

LTE Band 40 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)					
				RSI = 0, 1, 2, 3, 4					
				Measured Pwr (dBm)			MPR	Tune-up Limit	
10 MHz	QPSK	1	0	38750	39200	2310 MHz			
		1	25	38750	39200	2310 MHz		13.34	
		1	49	38750	39200	2310 MHz		13.44	
		25	0	38750	39200	2310 MHz		13.21	
		25	12	38750	39200	2310 MHz		13.30	
		25	25	38750	39200	2310 MHz		13.29	
		50	0	38750	39200	2310 MHz		13.25	
	16QAM	1	0	38750	39200	2310 MHz	MPR	Tune-up Limit	13.27
		1	25	38750	39200	2310 MHz			0.0 14.0
		1	49	38750	39200	2310 MHz			0.0 14.0
		25	0	38750	39200	2310 MHz			0.0 14.0
		25	12	38750	39200	2310 MHz			0.0 14.0
		25	25	38750	39200	2310 MHz			0.0 14.0
		50	0	38750	39200	2310 MHz			0.0 14.0
	64QAM	1	0	38750	39200	2310 MHz	MPR	Tune-up Limit	13.31
		1	25	38750	39200	2310 MHz			0.0 14.0
		1	49	38750	39200	2310 MHz			0.0 14.0
		25	0	38750	39200	2310 MHz			0.0 14.0
		25	12	38750	39200	2310 MHz			0.0 14.0
		25	25	38750	39200	2310 MHz			0.0 14.0
		50	0	38750	39200	2310 MHz			0.0 14.0
	256QAM	1	0	38750	39200	2310 MHz	MPR	Tune-up Limit	13.31
		1	25	38750	39200	2310 MHz			0.0 14.0
		1	49	38750	39200	2310 MHz			0.0 14.0
		25	0	38750	39200	2310 MHz			0.0 14.0
		25	12	38750	39200	2310 MHz			0.0 14.0
		25	25	38750	39200	2310 MHz			0.0 14.0
		50	0	38750	39200	2310 MHz			0.0 14.0
5 MHz	QPSK	1	0	38725	38750	38775	39175	39200	39225

LTE Band 41 (Power Class 3) Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)																							
				RSI = 0, 4								RSI = 3								RSI = 1, 2							
				Measured Pwr (dBm)				Measured Pwr (dBm)				Measured Pwr (dBm)				Measured Pwr (dBm)				Measured Pwr (dBm)				Measured Pwr (dBm)			
20 MHz	QPSK	1	0	22.88	22.32	22.51	23.53	23.24	0.0	24.0	20.57	20.31	20.47	21.67	21.45	0.0	22.0	20.64	20.18	20.31	21.37	21.66	0.0	22.0			
			49	22.82	22.24	22.50	23.43	23.17	0.0	24.0	20.58	20.23	20.28	21.31	21.57	0.0	22.0	20.59	20.11	20.28	21.21	21.45	0.0	22.0			
			99	22.77	22.25	22.44	23.32	23.44	0.0	24.0	20.55	20.14	20.31	21.22	21.52	0.0	22.0	20.53	20.07	20.23	21.12	21.42	0.0	22.0			
			50	0	21.80	21.31	21.54	22.42	22.24	1.0	23.0	20.64	20.27	20.42	21.64	21.34	0.0	22.0	20.62	20.17	20.36	21.25	21.56	0.0	22.0		
			24	21.76	21.28	21.48	22.35	22.30	1.0	23.0	20.61	20.21	20.39	21.28	21.61	0.0	22.0	20.59	20.14	20.32	21.20	21.51	0.0	22.0			
			50	50	21.73	21.24	21.44	22.38	22.40	1.0	23.0	20.60	20.22	20.35	21.25	21.54	0.0	22.0	20.55	20.10	20.28	21.15	21.46	0.0	22.0		
			100	0	21.76	21.28	21.50	22.37	22.35	1.0	23.0	20.63	20.22	20.40	21.31	21.61	0.0	22.0	20.59	20.12	20.32	21.20	21.52	0.0	22.0		
	16QAM	1	0	21.82	21.69	21.62	22.56	22.23	1.0	23.0	20.99	20.69	20.89	21.33	21.90	0.0	22.0	20.68	20.21	20.48	21.56	21.92	0.0	22.0			
			49	21.97	21.63	21.87	22.51	22.37	1.0	23.0	21.02	20.69	20.87	21.42	21.65	0.0	22.0	20.68	20.21	20.48	21.56	21.92	0.0	22.0			
			99	21.88	21.04	21.66	22.67	22.54	1.0	23.0	20.53	20.37	20.21	21.18	21.72	0.0	22.0	20.63	20.17	20.16	21.17	21.20	0.0	22.0			
			50	0	20.75	20.28	20.56	21.35	21.50	2.0	22.0	20.63	20.25	20.41	21.29	21.65	0.0	22.0	20.61	20.18	20.37	21.23	21.54	0.0	22.0		
			24	20.70	20.23	20.44	21.31	21.59	2.0	22.0	20.60	20.23	20.35	21.24	21.59	0.0	22.0	20.59	20.14	20.32	21.19	21.47	0.0	22.0			
			50	50	20.66	20.19	20.38	21.24	21.52	2.0	22.0	20.58	20.16	20.39	21.25	21.49	0.0	22.0	20.55	20.03	20.27	21.14	21.39	0.0	22.0		
			100	0	20.68	20.20	20.43	21.28	21.60	2.0	22.0	20.62	20.20	20.40	21.23	21.52	0.0	22.0	20.55	20.11	20.30	21.15	21.45	0.0	22.0		
256QAM	64QAM	1	0	20.79	19.94	20.03	21.43	21.28	2.0	22.0	20.75	20.10	20.29	21.13	21.93	0.0	22.0	20.69	20.15	19.90	21.45	21.29	0.0	22.0			
			49	20.63	19.99	20.45	21.30	20.97	2.0	22.0	20.20	19.53	20.34	20.68	21.20	0.0	22.0	20.48	19.78	19.84	20.96	21.87	0.0	22.0			
			99	20.75	19.97	20.05	21.15	21.18	2.0	22.0	20.44	19.87	20.42	21.18	21.36	0.0	22.0	20.59	19.93	20.03	21.32	21.73	0.0	22.0			
			50	0	19.59	19.21	19.47	20.30	20.55	3.0	21.0	19.58	19.21	19.45	20.27	20.55	1.0	21.0	19.57	19.14	19.37	20.27	20.55	1.0	21.0		
			24	19.57	19.19	19.45	20.24	20.50	3.0	21.0	19.56	19.16	19.44	20.22	20.51	1.0	21.0	19.52	19.13	19.31	20.23	20.53	1.0	21.0			
			50	50	19.54	19.14	19.40	20.22	20.41	3.0	21.0	19.55	19.12	19.38	20.17	20.43	1.0	21.0	19.53	19.10	19.28	20.19	20.46	1.0	21.0		
			100	0	19.56	19.18	19.44	20.22	20.52	3.0	21.0	19.54	19.17	19.40	20.57	20.50	1.0	21.0	19.50	19.13	19.33	20.21	20.51	1.0	21.0		
	256QAM	1	0	17.36	17.30	17.60	18.07	18.81	5.0	19.0	17.68	17.04	17.58	17.66	18.42	3.0	19.0	17.40	17.39	17.60	18.57	18.26	3.0	19.0			
			49	17.41	16.85	17.47	18.50	18.65	5.0	19.0	17.82	16.71	17.07	17.49	18.66	3.0	19.0	17.36	17.01	17.48	18.16	18.38	3.0	19.0			
			99	17.54	17.15	17.68	18.15	18.57	5.0	19.0	17.49	17.12	17.25	17.62	18.16	3.0	19.0	17.31	16.87	17.42	18.29	18.39	3.0	19.0			
			50	0	17.60	17.21	17.41	18.26	18.55	5.0	19.0	17.60	17.21	17.42	17.56	18.54	3.0	19.0	17.52	17.09	17.35	18.25	18.53	3.0	19.0		
			24	17.60	17.18	17.37	18.22	18.52	5.0	19.0	17.58	17.19	17.40	17.54	18.49	3.0	19.0	17.52	17.09	17.30	18.21	18.46	3.0	19.0			
	15 MHz	QPSK	0	17.55	17.17	17.37	18.21	18.48	5.0	19.0	17.54	17.15	17.36	17.54	18.46	3.0	19.0	17.51	17.08	17.28	18.21	18.46	3.0	19.0			
			37	22.77	22.27	22.68	23.46	22.87	0.0	24.0	20.55	19.98	20.39	21.29	21.45	0.0	22.0	20.57	20.18	20.39	21.30	21.32	0.0	22.0			
			74	22.75	22.29	22.50	23.29	22.65	0.0	24.0	20.60	20.16	20.39	21.30	21.32	0.0	22.0	20.50	20.03	20.32	21.26	21.43	0.0	22.0			
			36	0	21.84	21.36	21.57	22.51	21.85	1.0	23.0	20.69	20.23	20.44	21.41	21.39	0.0	22.0	20.67	20.19	20.38	21.33	21.50	0.0	22.0		
			20	21.82	21.34	21.54	22.46	21.98	1.0	23.0	20.68	20.20	20.42	21.37	21.49	0.0	22.0	20.64	20.16	20.36	21.29	21.45	0.0	22.0			
			39	21.79	21.31	21.51	22.44	21.98	1.0	23.0	20.66	20.21	20.43	21.33	21.46	0.0	22.0	20.62	20.16	20.34	21.24	21.57	0.0	22.0			
			75	0	21.80	21.33	21.53	22.45	21.92	1.0	23.0	20.68	20.22	20.41	21.37	21.41	0.0	22.0	20.63	20.16	20.36	21.30	21.53	0.0	22.0		
	16QAM	1	0	21.62	21.23	21.58	22.09	21.64	1.0	23.0	20.81	19.97	20.26	21.35	20.92	0.0	22.0	20.45	20.08	20.11	21.10	21.45	0.0	22.0			
			37	21.29	20.92	21.40	21.91	21.78	1.0	23.0	20.53	19.92	20.24	21.15	21.17	0.0	22.0	20.26	19.94	20.05	20.88	21.28	0.0	22.0			
			74	21.58	21.34	21.25	21.97	21.55	1.0	23.0	20.60	20.04	20.33	21.22	21.21	0.0	22.0	20.64	20.18	20.34	21.31	21.45	0.0	22.0			
			0	20.81	20.32	20.50	21.45	21.11	2.0	22.0	20.73	20.21	20.41	21.43	21.34	0.0	22.0	20.66	20.18	20.34	21.31	21.45	0.0	22.0			
			20	20.80	20.24	20.47	21.38	21.26	2.0	22.0	20.71	20.22	20.39	21.33	21.39	0.0	22.0	20.65	20.19	20.33	21.32	21.54	0.0	22.0			
			39	20.72	20.22	20.37	21.34	21.27	2.0	22.0	20.63	20.19	20.35	21.32	21.39	0.0	22.0	20.63	20.11	20.25	21.25	21.47	0.0	22.0			
			75	0	20.70	20.25	20.43	21.21	21.21	2.0	22.0	20.62	20.18	20.41	21.30	21.33	0.0	22.0	20.60	20.14	20.33	21.24	21.45	0.0	22.0		
	64QAM	1	0	20.67	19.90	20.30	20.76	21.30	2.0	22.0	20.51	19.96	20.33	21.28	21.41	0.0	22.0	20.36	19.84	20.46	21.05	21.27	0.0	22.0			
			37	20.36	19.75	20.06	21.14	21.08	2.0	22.0	20.2																

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

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)								MPR	Tune-up Limit	Measured Pwr (dBm)								MPR	Tune-up Limit	
				39750 40185 40620 41055 41490				39750 40185 40620 41055 41490						39750 40185 40620 41055 41490										
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz	2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz	2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz	2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz	
10 MHz	QPSK	1	0	22.79	22.29	22.50	23.43	23.00	0.0	24.0	20.68	20.24	20.44	21.35	21.46	0.0	22.0	20.61	20.12	20.30	21.23	21.58	0.0	22.0
		1	25	22.70	22.19	22.39	23.54	22.95	0.0	24.0	20.52	20.13	20.32	21.42	21.45	0.0	22.0	20.46	20.00	20.17	21.07	21.43	0.0	22.0
		1	49	22.71	22.20	22.42	23.38	22.94	0.0	24.0	20.58	20.13	20.33	21.29	21.49	0.0	22.0	20.51	20.03	20.20	21.09	21.45	0.0	22.0
		25	0	21.71	21.23	21.45	22.36	22.00	1.0	23.0	20.64	20.22	20.41	21.30	21.45	0.0	22.0	20.59	20.15	20.34	21.23	21.57	0.0	22.0
		25	12	21.70	21.21	21.41	22.32	22.01	1.0	23.0	20.63	20.19	20.40	21.29	21.44	0.0	22.0	20.57	20.13	20.33	21.19	21.53	0.0	22.0
	16QAM	25	25	21.65	21.17	21.37	22.29	22.02	1.0	23.0	20.59	20.15	20.34	21.26	21.45	0.0	22.0	20.55	20.12	20.29	21.16	21.49	0.0	22.0
		50	0	21.68	21.19	21.40	22.31	22.02	1.0	23.0	20.61	20.19	20.38	21.28	21.45	0.0	22.0	20.56	20.13	20.32	21.19	21.52	0.0	22.0
		1	0	21.79	21.29	21.46	22.25	21.86	1.0	23.0	20.68	20.25	20.51	21.27	21.22	0.0	22.0	20.65	20.22	20.50	21.25	21.69	0.0	22.0
		1	25	21.93	21.34	21.58	22.30	21.86	1.0	23.0	20.65	20.22	20.54	21.20	21.21	0.0	22.0	20.57	20.14	20.43	21.15	21.73	0.0	22.0
		1	49	21.79	21.27	21.44	22.13	21.92	1.0	23.0	20.67	20.24	20.47	21.14	21.25	0.0	22.0	20.61	20.20	20.46	21.19	21.59	0.0	22.0
	64QAM	25	0	20.64	20.21	20.43	21.29	21.25	2.0	22.0	20.59	20.19	20.40	21.25	21.35	0.0	22.0	20.56	20.13	20.32	21.18	21.53	0.0	22.0
		25	12	20.63	20.18	20.38	21.27	21.27	2.0	22.0	20.58	20.19	20.39	21.22	21.34	0.0	22.0	20.54	20.11	20.30	21.15	21.49	0.0	22.0
		25	25	20.59	20.15	20.36	21.23	21.30	2.0	22.0	20.56	20.16	20.35	21.19	21.34	0.0	22.0	20.53	20.10	20.27	21.12	21.47	0.0	22.0
		50	0	20.64	20.20	20.37	21.23	21.31	2.0	22.0	20.61	20.20	20.40	21.24	21.39	0.0	22.0	20.55	20.13	20.32	21.16	21.50	0.0	22.0
		1	0	20.55	20.02	20.30	21.35	21.45	2.0	22.0	20.54	20.15	20.46	21.15	21.33	0.0	22.0	20.43	20.19	20.36	21.00	21.34	0.0	22.0
	256QAM	1	25	20.38	19.79	20.37	21.38	21.28	2.0	22.0	20.34	19.98	20.48	21.06	21.12	0.0	22.0	20.32	20.06	20.27	20.85	21.15	0.0	22.0
		1	49	20.54	20.00	20.22	21.25	21.42	2.0	22.0	20.51	19.89	20.39	21.13	21.34	0.0	22.0	20.48	20.12	20.26	20.98	21.32	0.0	22.0
		25	0	19.57	19.13	19.40	20.24	20.48	3.0	21.0	19.53	19.16	19.34	20.17	20.47	1.0	21.0	19.46	19.05	19.31	20.10	20.47	1.0	21.0
		25	12	19.51	19.10	19.37	20.21	20.42	3.0	21.0	19.51	19.33	19.44	20.14	20.44	1.0	21.0	19.44	19.02	19.29	20.08	20.46	1.0	21.0
		25	25	19.53	19.09	19.34	20.18	20.39	3.0	21.0	19.49	19.14	19.29	20.11	20.41	1.0	21.0	19.44	19.01	19.27	20.05	20.40	1.0	21.0
	5 MHz	1	0	17.59	17.14	17.44	18.12	18.45	5.0	19.0	17.55	17.28	17.30	18.08	18.40	3.0	19.0	17.44	16.99	17.38	18.07	18.42	3.0	19.0
		1	25	17.70	17.19	17.32	17.92	18.53	5.0	19.0	17.56	17.13	17.08	18.08	18.34	3.0	19.0	17.35	16.88	17.24	17.96	18.36	3.0	19.0
		1	49	17.51	17.05	17.34	17.99	18.33	5.0	19.0	17.45	17.13	17.18	17.96	18.27	3.0	19.0	17.34	16.94	17.27	17.95	18.27	3.0	19.0
		25	0	17.59	17.16	17.40	18.26	18.47	5.0	19.0	17.52	17.15	17.37	18.19	18.45	3.0	19.0	17.49	17.11	17.29	18.11	18.44	3.0	19.0
		25	12	17.56	17.13	17.38	18.22	18.43	5.0	19.0	17.53	17.14	17.36	18.17	18.41	3.0	19.0	17.45	17.08	17.24	18.07	18.42	3.0	19.0
	64QAM	25	25	17.54	17.13	17.34	18.17	18.42	5.0	19.0	17.51	17.13	17.29	18.16	18.40	3.0	19.0	17.44	17.07	17.37	18.06	18.40	3.0	19.0
		50	0	17.56	17.13	17.35	18.17	18.42	5.0	19.0	17.51	17.13	17.29	18.16	18.40	3.0	19.0	17.44	17.07	17.37	18.06	18.40	3.0	19.0
		1	0	22.62	22.26	22.46	23.36	23.03	0.0	24.0	20.57	20.18	20.38	21.37	21.47	0.0	22.0	20.46	20.18	20.38	21.37	21.47	0.0	22.0
		1	12	22.57	22.19	22.40	23.30	22.96	0.0	24.0	20.46	20.04	20.25	21.22	21.46	0.0	22.0	20.42	20.04	20.25	21.22	21.46	0.0	22.0
		1	24	22.62	22.22	22.43	23.30	22.89	0.0	24.0	20.51	20.09	20.31	21.29	21.43	0.0	22.0	20.42	20.09	20.31	21.29	21.43	0.0	22.0
	16QAM	12	0	21.62	21.23	21.45	22.33	22.03	1.0	23.0	20.52	20.16	20.35	21.29	21.46	0.0	22.0	20.46	20.16	20.35	21.29	21.46	0.0	22.0
		12	7	21.62	21.21	21.44	22.31	22.04	1.0	23.0	20.51	20.15	20.33	21.27	21.45	0.0	22.0	20.44	20.15	20.33	21.27	21.45	0.0	22.0
		12	13	21.61	21.20	21.42	22.31	22.04	1.0	23.0	20.53	20.14	20.33	21.28	21.43	0.0	22.0	20.47	20.14	20.33	21.28	21.43	0.0	22.0
		25	0	20.56	20.15	20.37	21.24	21.30	2.0	22.0	20.49	20.15	20.37	21.19	21.38	0.0	22.0	20.43	20.15	20.37	21.19	21.38	0.0	22.0
		1	0	20.75	20.37	20.61	21.30	21.68	2.0	22.0	20.61	20.18	20.48	21.34	21.44	0.0	22.0	20.53	20.22	20.20	21.22	21.52	0.0	22.0
	64QAM	1	12	20.83	20.44	20.46	21.21	21.60	2.0	22.0	20.53	20.16	20.39	21.26	21.43	0.0	22.0	20.33	20.16	20.39	21.26	21.43	0.0	22.0
		1	24	20.67	20.38	20.53	21.22	21.55	2.0	22.0	20.61	20.23	20.40	21.24	21.40	0.0	22.0	20.27	20.23	20.40	21.24	21.40	0.0	22.0
		12	0	19.68	19.29	19.43	20.28	20.55	3.0	21.0	19.50	19.18	19.35	20.21	20.47	1.0	21.0	19.54	19.18	19.35	20.21	20.47	1.0	21.0
		12	7	19.68	19.28	19.41	20.27	20.55	3.0	21.0	19.48	19.17	19.32	20.18	20.45	1.0	21.0	19.53	19.17	19.32	20.18	20.45	1.0	21.0
		12	13	19.64	19.25	19.41	20.25	20.51	3.0	21.0	19.49	19.15	19.30	20.16	20.42	1.0	21.0	19.51	19.15	19.30	20.16	20.42	1.0	21.0
	256QAM	25	0	19.70	19.21	19.32	20.29	20.46	3.0	21.0	19.53	19.12	19.23	20.22	20.41	1.0	21.0	19.49	19.12	19.23	20.22	20.41	1.0	21.0
		1	0	17.89	17.24																			

LTE Band 48 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)											
				RSI = 0, 1, 2, 3						RSI = 4					
				Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit		
				55340	55773	56207	56640		55340	55773	56207	56640			
				3560 MHz	3603.3 MHz	3646.7 MHz	3690 MHz		3560 MHz	3603.3 MHz	3646.7 MHz	3690 MHz			
20 MHz	QPSK	1	0	20.76	20.75	20.60	20.35	0.0	21.0	19.45	19.54	19.08	19.48	0.0	20.5
		1	49	20.81	20.85	20.66	20.36	0.0	21.0	19.56	19.57	19.17	19.35	0.0	20.5
		1	99	20.86	20.93	20.57	20.29	0.0	21.0	19.57	19.75	19.11	19.39	0.0	20.5
		50	0	20.92	20.83	20.56	20.34	0.0	21.0	19.51	19.63	19.11	19.50	0.0	20.5
		50	24	20.86	20.85	20.58	20.35	0.0	21.0	19.55	19.68	19.10	19.48	0.0	20.5
		50	50	20.87	20.94	20.59	20.30	0.0	21.0	19.59	19.71	19.10	19.49	0.0	20.5
		100	0	20.86	20.87	20.58	20.33	0.0	21.0	19.54	19.67	19.10	19.53	0.0	20.5
	16QAM	1	0	20.86	20.74	20.91	20.49	0.0	21.0	19.59	19.68	19.31	19.48	0.0	20.5
		1	49	20.92	20.75	20.63	20.25	0.0	21.0	19.37	19.77	19.22	19.46	0.0	20.5
		1	99	20.93	20.95	20.59	20.13	0.0	21.0	19.62	19.75	19.05	19.51	0.0	20.5
		50	0	20.89	20.81	20.55	20.30	0.0	21.0	19.53	19.65	19.12	19.59	0.0	20.5
		50	24	20.92	20.83	20.55	20.31	0.0	21.0	19.54	19.65	19.12	19.61	0.0	20.5
		50	50	20.93	20.90	20.57	20.28	0.0	21.0	19.62	19.69	19.07	19.57	0.0	20.5
		100	0	20.86	20.87	20.53	20.32	0.0	21.0	19.57	19.73	19.12	19.58	0.0	20.5
	64QAM	1	0	20.92	20.60	19.86	20.02	0.0	21.0	19.50	19.48	19.28	19.47	0.0	20.5
		1	49	20.93	20.71	20.12	20.36	0.0	21.0	19.68	19.41	19.41	19.22	0.0	20.5
		1	99	20.85	20.73	20.15	20.12	0.0	21.0	19.72	19.80	19.22	19.44	0.0	20.5
		50	0	20.90	20.78	20.42	20.15	0.0	21.0	19.69	19.66	19.28	19.68	0.0	20.5
		50	24	20.94	20.79	20.43	20.13	0.0	21.0	19.73	19.71	19.30	19.69	0.0	20.5
		50	50	20.86	20.84	20.44	20.14	0.0	21.0	19.78	19.70	19.29	19.65	0.0	20.5
		100	0	20.85	20.80	20.45	20.13	0.0	21.0	19.73	19.64	19.29	19.71	0.0	20.5
	256QAM	1	0	19.04	18.72	18.42	18.36	1.5	19.5	19.42	19.16	18.75	18.98	1.0	19.5
		1	49	19.09	18.68	18.38	18.61	1.5	19.5	19.21	18.94	18.91	18.93	1.0	19.5
		1	99	19.13	19.11	18.36	18.17	1.5	19.5	18.97	19.13	18.88	19.10	1.0	19.5
		50	0	19.10	18.93	18.61	18.34	1.5	19.5	19.18	19.10	18.79	19.23	1.0	19.5
		50	24	19.13	18.94	18.61	18.27	1.5	19.5	19.23	19.12	18.80	19.19	1.0	19.5
		50	50	19.16	19.00	18.60	18.31	1.5	19.5	19.28	19.13	18.79	19.18	1.0	19.5
		100	0	19.11	18.95	18.60	18.29	1.5	19.5	19.25	19.11	18.80	19.20	1.0	19.5
15 MHz	QPSK	Measured Pwr (dBm)				MPR	Tune-up Limit	Measured Pwr (dBm)				MPR	Tune-up Limit		
		55315	55765	56215	56665			55315	55765	56215	56665				
		3557.5 MHz	3602.5 MHz	3647.5 MHz	3692.5 MHz			3557.5 MHz	3602.5 MHz	3647.5 MHz	3692.5 MHz				
		1	0	20.69	20.21	20.63	19.55	0.0	21.0	19.47	19.16	19.06	19.48	0.0	20.5
		1	37	20.89	20.44	20.68	19.64	0.0	21.0	19.48	19.29	18.96	19.30	0.0	20.5
		1	74	20.84	20.40	20.66	19.44	0.0	21.0	19.60	19.21	19.06	19.42	0.0	20.5
		36	0	20.78	20.29	20.70	19.55	0.0	21.0	19.50	19.12	19.05	19.42	0.0	20.5
	16QAM	36	20	20.80	20.30	20.69	19.53	0.0	21.0	19.54	19.13	19.05	19.39	0.0	20.5
		36	39	20.82	20.36	20.70	19.53	0.0	21.0	19.54	19.13	19.03	19.37	0.0	20.5
		75	0	20.83	20.33	20.72	19.53	0.0	21.0	19.53	19.12	19.05	19.39	0.0	20.5
		1	0	20.70	19.95	20.08	19.52	0.0	21.0	19.74	18.85	18.91	19.53	0.0	20.5
		1	37	20.76	20.24	20.91	19.07	0.0	21.0	19.71	18.57	19.18	19.40	0.0	20.5
		1	74	20.25	20.37	20.73	19.50	0.0	21.0	19.66	18.88	18.91	19.08	0.0	20.5
		36	0	20.75	20.27	20.67	19.61	0.0	21.0	19.54	19.15	19.08	19.45	0.0	20.5
	64QAM	36	20	20.80	20.30	20.69	19.55	0.0	21.0	19.57	19.18	19.08	19.42	0.0	20.5
		36	39	20.84	20.29	20.68	19.52	0.0	21.0	19.62	19.20	19.08	19.40	0.0	20.5
		75	0	20.76	20.32	20.66	19.51	0.0	21.0	19.55	19.15	19.08	19.40	0.0	20.5
		1	0	20.92	20.70	20.79	19.64	0.0	21.0	19.69	19.20	18.90	19.54	0.0	20.5
		1	37	20.93	20.82	20.48	19.64	0.0	21.0	19.66	19.26	18.87	19.43	0.0	20.5
		1	74	20.94	20.56	20.30	19.41	0.0	21.0	19.80	19.18	19.18	19.22	0.0	20.5
		36	0	20.95	20.69	20.66	19.94	0.0	21.0	19.61	19.17	19.18	19.51	0.0	20.5
	256QAM	36	20	20.97	20.69	20.67	19.92	0.0	21.0	19.64	19.18	19.15	19.49	0.0	20.5
		36	39	20.96	20.73	20.66	19.88	0.0	21.0	19.66	19.17	19.18	19.47	0.0	20.5
		75	0	20.95	20.73	20.70	19.87	0.0	21.0	19.62	19.17	19.10	19.48	0.0	20.5
		1	0	19.12	19.10	18.63	17.95	1.5	19.5	18.72	18.85	18.81	19.12	1.0	19.5
		1	37	19.07	18.78	19.01	18.01	1.5	19.5	18.89	18.88	18.76	18.83	1.0	19.5
		1	74	19.11	18.73	18.79	17.83	1.5	19.5	19.17	18.85	18.51	18.97	1.0	19.5
		36	0	19.22	18.75	18.72	18.01	1.5	19.5	19.15	18.65	18.63	18.98	1.0	19.5
		36	20	19.21	18.75	18.73	18.03	1.5	19.5	19.07	18.66	18.67	18.92	1.0	19.5
		36	39	19.24	18.76	18.71	17.98	1.5	19.5	19.11	18.68	18.58	18.91	1.0	19.5
		75	0	19.19	18.77	18.73	17.98	1.5	19.5	19.11	18.68	18.61	18.97	1.0	19.5

LTE Band 48 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)				MPR	Tune-up Limit	Measured Pwr (dBm)				MPR	Tune-up Limit
				55290	55757	56223	56690			55290	55757	56223	56690		
				3555 MHz	3601.7 MHz	3648.3 MHz	3695 MHz			3555 MHz	3601.7 MHz	3648.3 MHz	3695 MHz		
10 MHz	QPSK	1	0	20.66	20.28	20.40	19.39	0.0	21.0	19.50	19.11	19.05	19.33	0.0	20.5
		1	25	20.55	20.22	20.45	19.29	0.0	21.0	19.41	19.13	18.91	19.32	0.0	20.5
		1	49	20.74	20.37	20.46	19.32	0.0	21.0	19.54	19.11	19.01	19.30	0.0	20.5
		25	0	20.68	20.31	20.40	19.33	0.0	21.0	19.53	19.13	19.05	19.34	0.0	20.5
		25	12	20.72	20.30	20.38	19.32	0.0	21.0	19.55	19.13	19.05	19.34	0.0	20.5
		25	25	20.74	20.33	20.40	19.31	0.0	21.0	19.56	19.14	19.05	19.32	0.0	20.5
		50	0	20.73	20.31	20.38	19.31	0.0	21.0	19.54	19.16	19.05	19.33	0.0	20.5
	16QAM	1	0	20.76	20.20	20.28	19.27	0.0	21.0	19.71	19.27	19.28	19.24	0.0	20.5
		1	25	20.91	20.33	20.48	19.43	0.0	21.0	19.66	19.53	19.17	19.10	0.0	20.5
		1	49	20.91	20.23	20.27	19.30	0.0	21.0	19.84	19.36	19.32	19.15	0.0	20.5
		25	0	20.74	20.31	20.38	19.29	0.0	21.0	19.54	19.17	19.05	19.36	0.0	20.5
		25	12	20.73	20.32	20.36	19.28	0.0	21.0	19.54	19.16	19.07	19.37	0.0	20.5
		25	25	20.76	20.32	20.37	19.27	0.0	21.0	19.58	19.20	19.05	19.33	0.0	20.5
		50	0	20.79	20.29	20.36	19.30	0.0	21.0	19.58	19.22	19.07	19.34	0.0	20.5
	64QAM	1	0	20.85	20.52	20.75	19.90	0.0	21.0	19.56	18.96	18.95	19.41	0.0	20.5
		1	25	20.95	20.77	20.80	19.98	0.0	21.0	19.73	19.20	18.83	19.36	0.0	20.5
		1	49	20.96	20.59	20.80	19.82	0.0	21.0	19.63	19.07	19.00	19.35	0.0	20.5
		25	0	20.92	20.68	20.54	19.57	0.0	21.0	19.64	19.17	19.13	19.37	0.0	20.5
		25	12	20.94	20.69	20.59	19.58	0.0	21.0	19.67	19.17	19.14	19.39	0.0	20.5
		25	25	20.93	20.70	20.58	19.56	0.0	21.0	19.67	19.17	19.12	19.34	0.0	20.5
		50	0	20.95	20.66	20.59	19.59	0.0	21.0	19.66	19.20	19.14	19.38	0.0	20.5
	256QAM	1	0	19.29	18.79	18.69	18.42	1.5	19.5	19.22	18.65	18.74	18.71	1.0	19.5
		1	25	19.42	18.76	18.68	18.23	1.5	19.5	19.11	18.74	18.84	18.48	1.0	19.5
		1	49	19.31	18.82	18.64	18.34	1.5	19.5	19.33	18.68	18.71	18.66	1.0	19.5
		25	0	19.32	18.84	18.76	18.89	1.5	19.5	19.14	18.70	18.65	18.92	1.0	19.5
		25	12	19.33	18.85	18.78	18.92	1.5	19.5	19.16	18.68	18.64	18.92	1.0	19.5
		25	25	19.31	18.85	18.75	18.99	1.5	19.5	19.16	18.67	18.61	18.87	1.0	19.5
		50	0	19.28	18.80	18.71	18.97	1.5	19.5	19.17	18.68	18.62	18.85	1.0	19.5
5 MHz	QPSK	1	0	20.82	20.31	20.41	19.02	0.0	21.0	19.48	19.13	19.02	19.30	0.0	20.5
		1	12	20.94	20.50	20.39	19.20	0.0	21.0	19.50	19.38	18.94	19.15	0.0	20.5
		1	24	20.80	20.32	20.43	18.99	0.0	21.0	19.50	19.12	18.97	19.24	0.0	20.5
		12	0	20.78	20.29	20.38	19.02	0.0	21.0	19.49	19.10	19.02	19.27	0.0	20.5
		12	7	20.79	20.30	20.37	19.03	0.0	21.0	19.49	19.11	19.01	19.27	0.0	20.5
		12	13	20.79	20.33	20.36	19.05	0.0	21.0	19.53	19.12	19.01	19.26	0.0	20.5
		25	0	20.77	20.31	20.39	19.04	0.0	21.0	19.54	19.11	19.04	19.28	0.0	20.5
	16QAM	1	0	20.87	20.08	20.72	18.94	0.0	21.0	19.45	19.02	19.23	19.28	0.0	20.5
		1	12	20.92	20.31	20.54	19.04	0.0	21.0	19.43	19.16	19.15	19.17	0.0	20.5
		1	24	20.94	20.16	20.63	18.91	0.0	21.0	19.53	19.09	19.25	19.23	0.0	20.5
		12	0	20.74	20.22	20.35	19.11	0.0	21.0	19.49	19.10	18.98	19.28	0.0	20.5
		12	7	20.78	20.26	20.37	19.09	0.0	21.0	19.50	19.11	18.96	19.26	0.0	20.5
		12	13	20.76	20.21	20.36	19.05	0.0	21.0	19.51	19.11	18.97	19.28	0.0	20.5
		25	0	20.77	20.22	20.37	19.03	0.0	21.0	19.56	19.14	19.02	19.34	0.0	20.5
	64QAM	1	0	20.96	20.50	20.70	19.40	0.0	21.0	19.73	19.33	19.18	19.09	0.0	20.5
		1	12	20.98	20.48	20.76	19.36	0.0	21.0	19.65	19.34	19.16	19.06	0.0	20.5
		1	24	20.92	20.53	20.69	19.41	0.0	21.0	19.73	19.43	19.23	19.05	0.0	20.5
		12	0	20.95	20.67	20.56	19.34	0.0	21.0	19.57	19.20	19.16	19.35	0.0	20.5
		12	7	20.93	20.72	20.56	19.35	0.0	21.0	19.56	19.18	19.17	19.33	0.0	20.5
		12	13	20.96	20.66	20.59	19.36	0.0	21.0	19.60	19.23	19.14	19.33	0.0	20.5
		25	0	20.97	20.70	20.52	19.37	0.0	21.0	19.56	19.21	19.10	19.31	0.0	20.5
	256QAM	1	0	19.44	18.79	18.80	17.47	1.5	19.5	19.10	18.75	18.59	19.04	1.0	19.5
		1	12	19.48	18.90	18.76	17.37	1.5	19.5	19.00	18.85	18.38	18.90	1.0	19.5
		1	24	19.41	18.80	18.76	17.39	1.5	19.5	19.15	18.78	18.56	19.02	1.0	19.5
		12	0	19.32	18.75	18.69	17.47	1.5	19.5	19.12	18.69	18.61	18.81	1.0	19.5
		12	7	19.34	18.76	18.67	17.46	1.5	19.5	19.12	18.67	18.63	18.80	1.0	19.5
		12	13	19.35	18.76	18.71	17.46	1.5	19.5	19.13	18.70	18.59	18.77	1.0	19.5
		25	0	19.31	18.77	18.69	17.43	1.5	19.5	19.08	18.66	18.54	18.77	1.0	19.5

LTE Band 66 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)															
				RSI = 0, 4						RSI = 3						RSI = 1, 2			
				Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	
				132072	132322	132572			132072	132322	132572			132072	132322	132572			
20 MHz	QPSK	1	0	23.18	23.80	23.71	0.0	25.0	21.66	21.75	21.71	0.0	23.0	21.71	21.83	21.74	0.0	23.0	
		1	49	24.14	24.22	24.11	0.0	25.0	21.47	21.76	21.61	0.0	23.0	21.59	21.96	21.86	0.0	23.0	
		1	99	23.84	23.76	23.74	0.0	25.0	21.68	21.67	21.62	0.0	23.0	21.73	21.74	21.66	0.0	23.0	
		50	0	22.53	22.84	22.81	1.0	24.0	21.73	21.75	21.68	0.0	23.0	21.77	21.78	21.70	0.0	23.0	
		50	24	22.76	22.80	22.75	1.0	24.0	21.71	21.73	21.67	0.0	23.0	21.76	21.77	21.67	0.0	23.0	
		50	50	22.83	22.79	22.71	1.0	24.0	21.74	21.71	21.66	0.0	23.0	21.77	21.73	21.65	0.0	23.0	
		100	0	22.79	22.81	22.75	1.0	24.0	21.75	21.76	21.70	0.0	23.0	21.75	21.76	21.70	0.0	23.0	
	16QAM	1	0	22.62	23.28	23.06	1.0	24.0	22.10	22.00	22.08	0.0	23.0	22.04	21.98	22.11	0.0	23.0	
		1	49	22.98	23.20	22.79	1.0	24.0	22.10	21.72	22.11	0.0	23.0	21.99	21.84	22.06	0.0	23.0	
		1	99	23.21	23.29	22.92	1.0	24.0	22.16	21.92	21.93	0.0	23.0	22.07	21.93	21.97	0.0	23.0	
		50	0	21.82	21.80	21.76	2.0	23.0	21.78	21.74	21.67	0.0	23.0	21.80	21.73	21.67	0.0	23.0	
		50	24	21.81	21.77	21.70	2.0	23.0	21.78	21.72	21.68	0.0	23.0	21.80	21.71	21.64	0.0	23.0	
		50	50	21.80	21.75	21.67	2.0	23.0	21.78	21.72	21.61	0.0	23.0	21.81	21.71	21.62	0.0	23.0	
		100	0	21.81	21.76	21.68	2.0	23.0	21.79	21.73	21.67	0.0	23.0	21.81	21.74	21.69	0.0	23.0	
	64QAM	1	0	21.85	21.94	21.59	2.0	23.0	21.87	21.97	21.74	0.0	23.0	21.77	21.84	21.77	0.0	23.0	
		1	49	22.08	21.85	21.52	2.0	23.0	22.03	21.90	21.58	0.0	23.0	21.84	21.85	21.66	0.0	23.0	
		1	99	21.90	21.91	21.53	2.0	23.0	22.00	21.93	21.65	0.0	23.0	21.90	21.83	21.68	0.0	23.0	
		50	0	20.76	20.70	20.68	3.0	22.0	20.78	20.70	20.69	1.0	22.0	20.72	20.70	20.65	1.0	22.0	
		50	24	20.74	20.68	20.63	3.0	22.0	20.77	20.68	20.64	1.0	22.0	20.73	20.69	20.62	1.0	22.0	
		50	50	20.75	20.67	20.61	3.0	22.0	20.77	20.68	20.62	1.0	22.0	20.73	20.67	20.60	1.0	22.0	
		100	0	20.72	20.65	20.61	3.0	22.0	20.74	20.66	20.63	1.0	22.0	20.71	20.63	20.60	1.0	22.0	
	256QAM	1	0	18.79	18.93	18.67	5.0	20.0	18.91	18.86	18.65	3.0	20.0	18.83	18.82	18.64	3.0	20.0	
		1	49	18.83	19.03	18.68	5.0	20.0	18.97	18.96	18.66	3.0	20.0	18.81	18.92	18.71	3.0	20.0	
		1	99	18.74	18.92	18.60	5.0	20.0	18.87	18.81	18.53	3.0	20.0	18.78	18.78	18.55	3.0	20.0	
		50	0	18.65	18.63	18.59	5.0	20.0	18.66	18.64	18.59	3.0	20.0	18.63	18.63	18.57	3.0	20.0	
		50	24	18.62	18.59	18.53	5.0	20.0	18.64	18.62	18.55	3.0	20.0	18.64	18.61	18.53	3.0	20.0	
		50	50	18.65	18.57	18.53	5.0	20.0	18.65	18.60	18.54	3.0	20.0	18.64	18.57	18.51	3.0	20.0	
		100	0	18.64	18.61	18.55	5.0	20.0	18.66	18.63	18.56	3.0	20.0	18.63	18.61	18.54	3.0	20.0	
15 MHz	QPSK	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Measured Pwr (dBm)			MPR	Measured Pwr (dBm)			Measured Pwr (dBm)			MPR	Tune-up Limit
				132047	132322	132597		132047	132322	132597	132047	132322	132597						
				1717.5 MHz	1745 MHz	1772.5 MHz		1717.5 MHz	1745 MHz	1772.5 MHz	1717.5 MHz	1745 MHz	1772.5 MHz						
				1	0	23.25	23.77	23.64	0.0	25.0	21.82	21.84	21.73	0.0	23.0	21.53	22.14	22.12	0.0
		1	37	23.69	24.17	24.21	0.0	25.0	21.99	21.86	21.91	0.0	23.0	22.16	22.22	22.19	0.0	23.0	
		1	74	23.68	23.55	23.51	0.0	25.0	21.87	21.77	21.63	0.0	23.0	22.20	22.13	22.04	0.0	23.0	
		36	0	22.86	23.35	23.29	1.0	24.0	21.93	21.83	21.74	0.0	23.0	21.88	22.23	22.12	0.0	23.0	
	16QAM	36	20	22.93	23.34	23.27	1.0	24.0	21.90	21.82	21.70	0.0	23.0	22.14	22.20	22.10	0.0	23.0	
		36	39	22.93	23.33	23.25	1.0	24.0	21.89	21.80	21.72	0.0	23.0	22.24	22.18	22.08	0.0	23.0	
		75	0	22.94	23.39	23.28	1.0	24.0	21.93	21.82	21.73	0.0	23.0	22.05	22.22	22.12	0.0	23.0	
		1	0	22.68	23.23	23.27	1.0	24.0	22.05	22.23	21.92	0.0	23.0	21.68	21.92	21.60	0.0	23.0	
		1	37	23.21	23.59	23.73	1.0	24.0	22.24	21.82	22.08	0.0	23.0	22.33	22.14	21.64	0.0	23.0	
		1	74	23.02	23.27	23.33	1.0	24.0	22.17	22.23	21.82	0.0	23.0	21.93	21.83	21.48	0.0	23.0	
		36	0	21.85	22.32	22.29	2.0	23.0	21.90	21.88	21.70	0.0	23.0	21.83	22.19	22.13	0.0	23.0	
	64QAM	36	20	21.84	22.28	22.25	2.0	23.0	21.89	21.85	21.68	0.0	23.0	21.88	22.11	22.15	0.0	23.0	
		36	39	21.82	22.28	22.21	2.0	23.0	21.90	21.83	21.65	0.0	23.0	22.21	22.17	22.12	0.0	23.0	
		75	0	21.84	22.25	22.22	2.0	23.0	21.89	21.83	21.69	0.0	23.0	22.03	22.18	22.11	0.0	23.0	
		1	0	21.94	22.25	22.01	2.0	23.0	22.08	22.24	22.05	0.0	23.0	21.99	22.22	22.07	0.0	23.0	
		1	37	22.13	22.38	22.16	2.0	23.0	22.17	21.87	22.18	0.0	23.0	22.33	22.17	22.07	0.0	23.0	
		1	74	21.98	22.27	21.98	2.0	23.0	21.69	22.24	22.00	0.0	23.0	22.22	22.22	22.02	0.0	23.0	
		36	0	20.84	21.28	21.22	3.0	22.0	21.16	21.15	21.09	1.0	22.0	21.17	21.16	21.08	1.0	22.0	
	256QAM	36	20	20.81	21.23	21.20	3.0	22.0	21.14	21.13	21.08	1.0	22.0	21.15	21.14	21.06	1.0	22.0	
		36	39	20.81	21.24	21.18	3.0	22.0	21.11	21.09	21.05	1.0	22.0	21.14	21.10	21.04	1.0	22.0	
		75	0	20.80	21.23	21.13	3.0	22.0	21.18	21.09	21.03	1.0	22.0	21.19	21.11	21.01	1.0	22.0	
		1	0	19.01	19.47	19.08	5.0	20.0	19.30	19.38	18.98	3.0	20.0	19.31	19.27	19.12	3.0	20.0	
		1	37	19.06	19.53	19.09	5.0	20.0	19.43	19.28	18.92	3.0	20.0	19.39	19.11	19.14	3.0	20.0	
		1	74	19.02	19.41	19.01	5.0	20.0	19.30	19.33	18.87	3.0	20.0	19.29	19.25	19.03	3.0	20.0	
		36	0	18.76	19.20	19.09	5.0	20.0	19.13	19.07	18.96</								

LTE Band 66 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				132022	132322	132622			132022	132322	132622			132022	132322	132622		
				1715 MHz	1745 MHz	1775 MHz			1715 MHz	1745 MHz	1775 MHz			1715 MHz	1745 MHz	1775 MHz		
10 MHz	QPSK	1	0	23.92	24.18	24.18	0.0	25.0	21.88	22.05	21.94	0.0	23.0	22.00	22.17	22.04	0.0	23.0
		1	25	23.94	24.22	24.17	0.0	25.0	22.14	22.25	22.05	0.0	23.0	22.27	22.02	22.28	0.0	23.0
		1	49	23.94	24.00	23.83	0.0	25.0	22.14	22.04	21.93	0.0	23.0	22.24	22.11	22.02	0.0	23.0
		25	0	22.93	23.31	23.20	1.0	24.0	21.93	22.03	21.92	0.0	23.0	22.09	22.15	22.03	0.0	23.0
		25	12	22.90	23.29	23.17	1.0	24.0	22.05	22.02	21.91	0.0	23.0	22.19	22.13	22.01	0.0	23.0
		25	25	22.91	23.27	23.16	1.0	24.0	22.10	22.01	21.90	0.0	23.0	22.19	22.12	22.01	0.0	23.0
		50	0	22.91	23.29	23.17	1.0	24.0	22.02	22.03	21.92	0.0	23.0	22.20	22.14	22.02	0.0	23.0
	16QAM	1	0	23.11	23.57	23.49	1.0	24.0	21.85	22.14	22.02	0.0	23.0	21.99	22.16	22.28	0.0	23.0
		1	25	23.12	23.31	23.42	1.0	24.0	22.12	22.19	21.71	0.0	23.0	22.28	22.20	22.19	0.0	23.0
		1	49	23.18	23.59	23.42	1.0	24.0	22.26	22.18	21.93	0.0	23.0	22.33	22.15	22.36	0.0	23.0
		25	0	21.92	22.29	22.15	2.0	23.0	21.87	22.00	21.94	0.0	23.0	22.04	22.13	21.99	0.0	23.0
		25	12	21.90	22.27	22.13	2.0	23.0	22.02	22.00	21.90	0.0	23.0	22.16	22.12	21.98	0.0	23.0
		25	25	21.90	22.25	22.11	2.0	23.0	22.10	21.99	21.90	0.0	23.0	22.17	22.12	21.98	0.0	23.0
		50	0	21.86	22.22	22.10	2.0	23.0	21.99	22.01	21.93	0.0	23.0	22.20	22.09	22.01	0.0	23.0
5 MHz	64QAM	1	0	21.94	22.28	22.04	2.0	23.0	22.10	22.13	21.82	0.0	23.0	21.98	22.36	21.96	0.0	23.0
		1	25	22.14	22.37	21.90	2.0	23.0	22.00	22.18	21.77	0.0	23.0	22.22	21.78	21.81	0.0	23.0
		1	49	22.08	22.34	22.10	2.0	23.0	22.11	22.19	21.86	0.0	23.0	22.00	21.72	22.02	0.0	23.0
		25	0	20.87	21.22	21.14	3.0	22.0	21.17	21.11	20.99	1.0	22.0	21.19	21.12	21.06	1.0	22.0
		25	12	20.85	21.18	21.13	3.0	22.0	21.15	21.07	20.96	1.0	22.0	21.19	21.10	21.04	1.0	22.0
		25	25	20.85	21.18	21.10	3.0	22.0	21.15	21.07	20.94	1.0	22.0	21.18	21.07	21.00	1.0	22.0
		50	0	20.84	21.17	21.09	3.0	22.0	21.13	21.06	20.96	1.0	22.0	21.16	21.09	20.99	1.0	22.0
	256QAM	1	0	19.09	19.39	19.06	5.0	20.0	19.25	19.30	18.89	3.0	20.0	19.31	19.46	19.01	3.0	20.0
		1	25	19.19	19.60	19.21	5.0	20.0	19.38	19.28	19.02	3.0	20.0	19.44	19.54	19.15	3.0	20.0
		1	49	19.08	19.34	18.98	5.0	20.0	19.27	19.23	18.83	3.0	20.0	19.30	19.41	18.93	3.0	20.0
		25	0	18.84	19.18	19.06	5.0	20.0	19.15	19.07	18.96	3.0	20.0	19.19	19.09	18.96	3.0	20.0
		25	12	18.81	19.16	19.05	5.0	20.0	19.13	19.03	18.95	3.0	20.0	19.18	19.06	18.96	3.0	20.0
		25	25	18.83	19.17	19.02	5.0	20.0	19.13	19.03	18.92	3.0	20.0	19.16	19.05	18.92	3.0	20.0
		50	0	18.78	19.15	19.00	5.0	20.0	19.07	19.00	18.88	3.0	20.0	19.10	19.01	18.91	3.0	20.0
5 MHz	QPSK	Measured Pwr (dBm)				MPR	Measured Pwr (dBm)			MPR	Measured Pwr (dBm)			Measured Pwr (dBm)			MPR	Tune-up Limit
		131997	132322	132647	1712.5 MHz		131997	132322	132647		1712.5 MHz	1745 MHz	1777.5 MHz	131997	132322	132647		
		1745 MHz	1777.5 MHz	1777.5 MHz	1777.5 MHz		1712.5 MHz	1745 MHz	1777.5 MHz		1712.5 MHz	1745 MHz	1777.5 MHz	1712.5 MHz	1745 MHz	1777.5 MHz		
		1	0	23.79	23.89	23.83	0.0	25.0	22.00	21.94	21.90	0.0	23.0	21.80	21.71	21.65	0.0	23.0
		1	12	23.81	23.94	24.07	0.0	25.0	22.25	22.06	21.93	0.0	23.0	22.03	21.71	21.77	0.0	23.0
		1	24	23.79	23.93	23.90	0.0	25.0	22.02	21.96	21.91	0.0	23.0	21.83	21.72	21.66	0.0	23.0
		12	0	23.02	22.96	22.88	1.0	24.0	22.03	21.96	21.88	0.0	23.0	21.86	21.79	21.68	0.0	23.0
	16QAM	12	7	23.02	22.94	22.85	1.0	24.0	22.02	21.95	21.88	0.0	23.0	21.86	21.77	21.68	0.0	23.0
		12	13	23.04	22.93	22.84	1.0	24.0	22.03	21.99	21.87	0.0	23.0	21.86	21.79	21.64	0.0	23.0
		25	0	23.01	22.93	22.85	1.0	24.0	22.04	21.95	21.89	0.0	23.0	21.85	21.77	21.67	0.0	23.0
		1	0	23.25	23.23	23.16	1.0	24.0	21.75	22.17	22.18	0.0	23.0	22.23	22.05	22.01	0.0	23.0
		1	12	23.29	23.29	22.74	1.0	24.0	22.21	22.23	22.23	0.0	23.0	22.18	22.22	22.14	0.0	23.0
		1	24	23.30	23.19	23.11	1.0	24.0	21.99	22.19	22.12	0.0	23.0	22.23	22.08	21.95	0.0	23.0
		12	0	21.99	21.97	21.93	2.0	23.0	22.11	21.96	21.90	0.0	23.0	21.96	21.84	21.75	0.0	23.0
	64QAM	12	7	21.98	21.95	21.91	2.0	23.0	22.13	21.95	21.89	0.0	23.0	21.97	21.83	21.74	0.0	23.0
		12	13	21.95	21.97	21.91	2.0	23.0	22.13	21.91	21.91	0.0	23.0	21.96	21.81	21.75	0.0	23.0
		25	0	21.90	21.88	21.81	2.0	23.0	22.04	21.90	21.89	0.0	23.0	21.84	21.75	21.68	0.0	23.0
		1	0	21.99	22.02	21.74	2.0	23.0	21.95	21.75	21.81	0.0	23.0	21.81	22.06	21.58	0.0	23.0
		1	12	22.27	22.01	21.75	2.0	23.0	21.84	21.81	21.97	0.0	23.0	22.03	22.01	21.49	0.0	23.0
		1	24	22.12	22.00	21.81	2.0	23.0	21.99	21.82	21.87	0.0	23.0	21.92	22.05	21.67	0.0	23.0
		12	0	20.82	20.83	20.80	3.0	22.0	20.81	20.75	20.59	1.0	22.0	20.76	20.76	20.72	1.0	22.0
	256QAM	12	7	20.83	20.80	20.78	3.0	22.0	20.79	20.73	20.58	1.0	22.0	20.76	20.71	20.69	1.0	22.0
		12	13	20.80	20.81	20.77	3.0	22.0	20.82	20.74	20.53	1.0	22.0	20.73	20.75	20.69	1.0	22.0
		25	0	20.84	20.85	20.71	3.0	22.0	20.79	20.71	20.60	1.0	22.0	20.78	20.79	20.66	1.0	22.0
		1	0	18.85	19.03	18.75	5.0	20.0	18.94	18.54	18.57	3.0	20.0	18.75	18.94	18.55	3.0	20.0
		1	12	18.80	19.21	18.92	5.0	20.0	19.01	18.58	18.49	3.0	20.0	18.75	19.04	18.54	3.0	20.0
		1	24	18.77	19.06	18.74	5.0	20.0	18.94	18.49	18.54	3.0	20.0	18.81	18.88	18.46	3.0	20.0
		12	0	18.84	18.87	18.70	5.0	20.0	18.78	18.66	18.55	3.0	20.0	18.71	18.74	18.66	3.0	20.0
		12	7	18.85	18.84	18.71	5.0	20.0	18.77</td									

LTE Band 66 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit		
				131987	132322	132657			131987	132322	132657			131987	132322	132657				
				1711.5 MHz	1745 MHz	1778.5 MHz			1711.5 MHz	1745 MHz	1778.5 MHz			1711.5 MHz	1745 MHz	1778.5 MHz				
3 MHz	QPSK	1	0	23.93	24.03	23.92	0.0	25.0	21.94	21.89	21.92	0.0	23.0	21.96	21.86	21.68	0.0	23.0		
		1	8	23.91	24.11	24.19	0.0	25.0	22.13	21.97	22.00	0.0	23.0	22.11	21.91	21.82	0.0	23.0		
		1	14	23.83	24.09	24.00	0.0	25.0	22.04	21.85	21.93	0.0	23.0	21.98	21.88	21.64	0.0	23.0		
		8	0	23.09	23.02	22.95	1.0	24.0	22.00	21.97	21.92	0.0	23.0	21.89	21.85	21.75	0.0	23.0		
		8	4	23.00	22.98	22.83	1.0	24.0	21.91	21.92	21.85	0.0	23.0	21.85	21.78	21.72	0.0	23.0		
		8	7	23.04	22.97	22.88	1.0	24.0	21.99	21.96	21.85	0.0	23.0	21.88	21.82	21.70	0.0	23.0		
		15	0	23.01	22.97	22.87	1.0	24.0	21.96	21.93	21.88	0.0	23.0	21.87	21.77	21.69	0.0	23.0		
	16QAM	1	0	23.27	23.26	23.02	1.0	24.0	22.19	22.21	22.11	0.0	23.0	22.10	21.86	22.01	0.0	23.0		
		1	8	23.35	23.46	23.20	1.0	24.0	21.89	22.01	22.12	0.0	23.0	22.20	22.02	22.11	0.0	23.0		
		1	14	23.33	23.20	22.91	1.0	24.0	22.13	22.25	22.06	0.0	23.0	22.05	21.77	22.02	0.0	23.0		
		8	0	22.07	22.02	21.91	2.0	23.0	22.00	22.07	21.97	0.0	23.0	21.90	21.80	21.82	0.0	23.0		
		8	4	22.02	21.95	21.89	2.0	23.0	22.04	22.03	21.91	0.0	23.0	21.83	21.78	21.77	0.0	23.0		
		8	7	21.99	21.99	21.88	2.0	23.0	22.00	22.00	21.93	0.0	23.0	21.89	21.76	21.77	0.0	23.0		
		15	0	21.97	21.97	21.84	2.0	23.0	21.95	21.97	21.89	0.0	23.0	21.88	21.84	21.72	0.0	23.0		
	64QAM	1	0	22.05	21.64	21.93	2.0	23.0	21.59	21.92	21.67	0.0	23.0	21.59	21.98	21.65	0.0	23.0		
		1	8	22.22	21.77	22.14	2.0	23.0	21.56	22.06	21.80	0.0	23.0	21.67	22.13	21.83	0.0	23.0		
		1	14	22.11	21.60	22.01	2.0	23.0	21.52	21.98	21.75	0.0	23.0	21.59	22.06	21.73	0.0	23.0		
		8	0	20.94	20.86	20.77	3.0	22.0	20.85	20.86	20.65	1.0	22.0	20.87	20.91	20.72	1.0	22.0		
		8	4	20.90	20.79	20.76	3.0	22.0	20.82	20.80	20.62	1.0	22.0	20.83	20.86	20.66	1.0	22.0		
		8	7	20.87	20.78	20.73	3.0	22.0	20.80	20.85	20.64	1.0	22.0	20.81	20.85	20.62	1.0	22.0		
		15	0	20.97	20.79	20.64	3.0	22.0	20.75	20.67	20.71	1.0	22.0	20.80	20.75	20.74	1.0	22.0		
	256QAM	1	0	19.00	18.92	18.95	5.0	20.0	18.77	18.97	18.69	3.0	20.0	18.84	19.10	18.80	3.0	20.0		
		1	8	19.03	19.09	18.95	5.0	20.0	18.78	18.87	18.67	3.0	20.0	19.01	19.11	18.88	3.0	20.0		
		1	14	18.98	18.93	18.91	5.0	20.0	18.74	18.94	18.60	3.0	20.0	18.84	19.06	18.73	3.0	20.0		
		8	0	18.87	18.79	18.71	5.0	20.0	18.78	18.72	18.65	3.0	20.0	18.78	18.80	18.69	3.0	20.0		
		8	4	18.83	18.79	18.72	5.0	20.0	18.80	18.74	18.62	3.0	20.0	18.81	18.82	18.65	3.0	20.0		
		8	7	18.85	18.82	18.69	5.0	20.0	18.79	18.70	18.64	3.0	20.0	18.82	18.80	18.67	3.0	20.0		
		15	0	18.88	18.79	18.64	5.0	20.0	18.80	18.70	18.63	3.0	20.0	18.82	18.78	18.68	3.0	20.0		
1.4 MHz	QPSK	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit		
				131979	132322	132665			131979	132322	132665			131979	132322	132665				
				1710.7 MHz	1745 MHz	1779.3 MHz			1710.7 MHz	1745 MHz	1779.3 MHz			1710.7 MHz	1745 MHz	1779.3 MHz				
				1	0	23.78	24.13	23.97	0.0	25.0	21.78	21.93	21.84	0.0	23.0	21.86	21.83	21.71	0.0	23.0
				1	3	23.69	24.21	23.82	0.0	25.0	21.58	21.88	21.82	0.0	23.0	21.90	21.79	21.77	0.0	23.0
				1	5	23.67	24.15	23.81	0.0	25.0	21.84	21.91	21.86	0.0	23.0	21.89	21.81	21.70	0.0	23.0
				3	0	23.60	24.12	23.72	0.0	25.0	21.91	21.82	21.88	0.0	23.0	21.87	21.89	21.79	0.0	23.0
				3	1	23.61	24.07	23.73	0.0	25.0	21.81	21.86	21.86	0.0	23.0	21.83	21.79	21.73	0.0	23.0
	16QAM	RB Allocation	RB offset	3	3	23.61	24.11	23.73	0.0	25.0	21.81	21.90	21.75	0.0	23.0	21.86	21.74	21.63	0.0	23.0
				6	0	23.01	23.19	23.04	1.0	24.0	21.91	21.90	21.86	0.0	23.0	21.87	21.81	21.73	0.0	23.0
				1	0	23.12	23.43	23.11	1.0	24.0	22.13	21.99	21.81	0.0	23.0	21.92	21.96	21.93	0.0	23.0
				1	3	23.20	23.43	22.63	1.0	24.0	22.08	21.91	22.02	0.0	23.0	21.78	22.09	21.84	0.0	23.0
				1	5	23.18	23.47	23.17	1.0	24.0	22.19	22.05	21.85	0.0	23.0	21.99	21.87	21.98	0.0	23.0
				3	0	22.85	23.20	23.02	1.0	24.0	21.98	22.07	21.83	0.0	23.0	22.01	21.68	21.82	0.0	23.0
				3	1	22.94	23.12	23.09	1.0	24.0	21.93	22.04	21.87	0.0	23.0	21.88	21.74	21.75	0.0	23.0
				3	3	23.01	23.23	23.01	1.0	24.0	21.87	22.01	21.97	0.0	23.0	21.93	21.88	21.79	0.0	23.0
	64QAM	RB Allocation	RB offset	6	0	22.09	22.03	22.02	2.0	23.0	21.85	22.01	21.95	0.0	23.0	22.00	21.93	21.69	0.0	23.0
				1	0	22.04	21.95	21.63	2.0	23.0	22.19	21.90	21.49	0.0	23.0	21.61	21.96	21.67	0.0	23.0
				1	3	22.17	21.69	21.88	2.0	23.0	22.12	21.49	21.83	0.0	23.0	21.84	22.16	21.43	0.0	23.0
				1	5	22.03	21.93	21.74	2.0	23.0	22.13	21.89	21.59	0.0	23.0	21.70	21.95	21.66	0.0	23.0
				3	0	22.07	22.06	21.65	2.0	23.0	21.99	21.97	21.60	1.0	22.0	21.70	21.90	21.80	1.0	22.0
				3	1	22.07	21.99	21.61	2.0	23.0	21.95	21.89	21.56	1.0	22.0	21.65	21.86	21.75	1.0	22.0
				3	3	22.04	22.00	21.67	2.0	23.0	21.93	21.87	21.57	1.0	22.0	21.67	21.85	21.74	1.0	22.0
				6	0	20.99	20.91	20.73	3.0	22.0	20.87	20.87	20.67	1.0	22.0	20.82	20.79	20.77	1.0	22.0
	256QAM	RB Allocation	RB offset	1	0	18.80	18.94	18.85	5.0	20.0	18.80	18.96	18.76	3.0	20.0	18.87	18.80	18.86	3.0	20.0
				1	3	18.81	19.15	18.93	5.0	20.0	18.92	19.04	18.80	3.0	20.0					

LTE Band 66 Sub.2 Ant Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)									
				RSI = 0, 1, 2, 3						RSI = 4			
				Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
20 MHz	QPSK	1	0	20.84	21.12	20.93	0.0	21.5	19.81	20.08	20.07	0.0	20.5
		1	49	20.80	21.11	20.98	0.0	21.5	19.89	20.03	19.97	0.0	20.5
		1	99	20.90	21.15	20.87	0.0	21.5	19.92	20.09	20.03	0.0	20.5
		50	0	20.89	21.14	20.94	0.0	21.5	19.96	20.14	20.07	0.0	20.5
		50	24	20.83	21.25	20.99	0.0	21.5	19.91	20.29	20.15	0.0	20.5
		50	50	20.91	21.17	21.03	0.0	21.5	20.00	20.27	20.13	0.0	20.5
		100	0	20.81	21.23	21.08	0.0	21.5	19.90	20.30	20.05	0.0	20.5
	16QAM	1	0	20.96	21.23	21.10	0.0	21.5	20.05	20.31	20.29	0.0	20.5
		1	49	21.11	21.31	20.97	0.0	21.5	19.78	20.07	19.89	0.0	20.5
		1	99	21.10	21.27	21.16	0.0	21.5	20.13	20.14	20.15	0.0	20.5
		50	0	20.95	21.15	21.04	0.0	21.5	19.91	20.18	20.11	0.0	20.5
		50	24	20.83	21.24	21.09	0.0	21.5	19.82	20.17	20.07	0.0	20.5
		50	50	20.86	21.28	20.95	0.0	21.5	19.91	20.26	20.02	0.0	20.5
		100	0	20.94	21.13	21.08	0.0	21.5	19.83	20.31	20.09	0.0	20.5
	64QAM	1	0	20.93	21.13	21.09	0.0	21.5	19.82	19.84	20.13	0.0	20.5
		1	49	20.79	21.12	20.93	0.0	21.5	20.22	20.13	20.23	0.0	20.5
		1	99	21.02	21.15	21.05	0.0	21.5	20.14	20.23	20.02	0.0	20.5
		50	0	20.37	20.72	20.55	0.0	21.5	20.02	20.22	20.19	0.0	20.5
		50	24	20.45	20.77	20.49	0.0	21.5	20.07	20.21	20.15	0.0	20.5
		50	50	20.49	20.76	20.48	0.0	21.5	20.04	20.13	20.15	0.0	20.5
		100	0	20.39	20.62	20.46	0.0	21.5	20.00	20.19	20.11	0.0	20.5
	256QAM	1	0	18.43	18.77	18.50	2.0	19.5	18.41	18.17	18.52	1.0	19.5
		1	49	18.51	18.88	18.45	2.0	19.5	18.54	18.24	18.42	1.0	19.5
		1	99	18.39	18.74	18.62	2.0	19.5	18.45	18.36	18.58	1.0	19.5
		50	0	18.28	18.64	18.37	2.0	19.5	18.42	18.24	18.61	1.0	19.5
		50	24	18.37	18.61	18.44	2.0	19.5	18.43	18.35	18.58	1.0	19.5
		50	50	18.34	18.63	18.41	2.0	19.5	18.52	18.35	18.51	1.0	19.5
		100	0	18.34	18.67	18.41	2.0	19.5	18.43	18.34	18.67	1.0	19.5
15 MHz	QPSK	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Measured Pwr (dBm)			MPR	Tune-up Limit	

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

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	
				132022	132322	132622			132022	132322	132622			
				1715 MHz	1745 MHz	1775 MHz			1715 MHz	1745 MHz	1775 MHz			
10 MHz	QPSK	1	0	20.30	20.48	19.79	0.0	21.5	19.31	20.05	19.98	0.0	20.5	
		1	25	20.28	20.47	19.82	0.0	21.5	19.27	20.08	19.97	0.0	20.5	
		1	49	20.35	20.51	19.87	0.0	21.5	19.34	20.15	19.95	0.0	20.5	
		25	0	20.63	21.14	21.40	0.0	21.5	19.60	20.15	20.13	0.0	20.5	
		25	12	20.62	21.25	21.38	0.0	21.5	19.52	20.14	20.12	0.0	20.5	
		25	25	20.68	21.31	21.32	0.0	21.5	19.58	20.17	20.10	0.0	20.5	
		50	0	20.67	21.15	21.37	0.0	21.5	19.68	18.80	20.00	0.0	20.5	
	16QAM	1	0	20.61	21.27	21.38	0.0	21.5	20.11	18.81	20.48	0.0	20.5	
		1	25	20.64	21.25	21.34	0.0	21.5	20.05	18.85	20.42	0.0	20.5	
		1	49	20.68	21.21	21.36	0.0	21.5	20.06	18.79	20.45	0.0	20.5	
		25	0	20.58	21.38	21.41	0.0	21.5	19.52	18.31	20.41	0.0	20.5	
		25	12	20.51	21.41	21.48	0.0	21.5	19.48	18.34	20.47	0.0	20.5	
		25	25	20.56	21.41	21.47	0.0	21.5	19.49	18.45	20.39	0.0	20.5	
		50	0	20.54	21.46	21.45	0.0	21.5	19.68	18.52	20.41	0.0	20.5	
	64QAM	1	0	20.99	20.93	20.38	0.0	21.5	20.13	19.62	19.63	0.0	20.5	
		1	25	20.85	20.91	20.38	0.0	21.5	20.15	19.71	19.61	0.0	20.5	
		1	49	20.82	20.98	20.36	0.0	21.5	20.16	19.68	19.62	0.0	20.5	
		25	0	20.75	19.93	20.35	0.0	21.5	20.14	20.06	19.34	0.0	20.5	
		25	12	20.69	19.95	20.32	0.0	21.5	20.18	19.92	19.41	0.0	20.5	
		25	25	20.59	19.87	20.27	0.0	21.5	20.19	19.85	19.45	0.0	20.5	
		50	0	20.66	20.52	20.29	0.0	21.5	20.19	19.81	19.47	0.0	20.5	
	256QAM	1	0	18.12	19.02	18.74	2.0	19.5	18.11	18.64	19.48	1.0	19.5	
		1	25	18.25	19.04	18.65	2.0	19.5	18.14	18.58	17.84	1.0	19.5	
		1	49	18.32	19.21	18.92	2.0	19.5	18.24	18.61	17.86	1.0	19.5	
		25	0	18.37	19.23	19.45	2.0	19.5	18.39	18.94	19.07	1.0	19.5	
		25	12	18.35	19.34	19.24	2.0	19.5	18.34	18.92	19.08	1.0	19.5	
		25	25	18.25	19.41	19.38	2.0	19.5	18.42	18.96	19.02	1.0	19.5	
		50	0	18.23	19.36	19.45	2.0	19.5	18.45	18.89	19.10	1.0	19.5	
5 MHz	QPSK	Measured Pwr (dBm)				MPR	Measured Pwr (dBm)			MPR	Measured Pwr (dBm)			
		131997					131997	132322	132647		131997	132322	132647	
		1712.5 MHz					1712.5 MHz	1745 MHz	1777.5 MHz		1712.5 MHz	1745 MHz	1777.5 MHz	
		1	0	19.92	21.13	20.52	0.0	21.5	18.55	19.96	19.49	0.0	20.5	
		1	12	20.04	21.21	20.56	0.0	21.5	18.64	19.95	19.47	0.0	20.5	
		1	24	20.06	21.31	20.48	0.0	21.5	18.69	19.92	19.41	0.0	20.5	
		12	0	20.89	21.33	21.46	0.0	21.5	19.65	19.95	20.47	0.0	20.5	
	16QAM	12	7	20.91	21.38	21.47	0.0	21.5	19.71	19.98	20.48	0.0	20.5	
		12	13	20.90	21.31	21.42	0.0	21.5	19.58	19.92	20.49	0.0	20.5	
		25	0	21.00	21.34	21.45	0.0	21.5	19.63	19.97	20.46	0.0	20.5	
		1	0	21.06	19.33	21.17	0.0	21.5	20.48	19.76	19.97	0.0	20.5	
		1	12	21.10	19.54	21.15	0.0	21.5	20.37	19.72	19.94	0.0	20.5	
		1	24	21.29	19.42	21.19	0.0	21.5	20.41	19.78	19.92	0.0	20.5	
		12	0	20.91	21.24	21.46	0.0	21.5	20.32	20.22	20.42	0.0	20.5	
	64QAM	12	7	21.10	21.29	21.35	0.0	21.5	19.61	20.25	20.48	0.0	20.5	
		12	13	21.14	21.35	21.41	0.0	21.5	19.48	20.21	20.45	0.0	20.5	
		25	0	20.95	21.46	21.22	0.0	21.5	19.38	20.27	20.49	0.0	20.5	
		1	0	20.71	20.87	20.95	0.0	21.5	20.14	19.81	20.12	0.0	20.5	
		1	12	20.78	20.83	20.89	0.0	21.5	20.12	19.85	20.24	0.0	20.5	
		1	24	20.81	20.85	20.75	0.0	21.5	20.08	19.91	20.23	0.0	20.5	
		12	0	20.83	20.83	21.04	0.0	21.5	19.58	19.73	20.49	0.0	20.5	
	256QAM	12	7	20.89	20.79	21.04	0.0	21.5	19.74	19.71	20.48	0.0	20.5	
		12	13	20.81	20.72	21.10	0.0	21.5	19.75	19.67	20.42	0.0	20.5	
		25	0	20.79	20.85	21.02	0.0	21.5	19.70	19.52	20.41	0.0	20.5	
		1	0	17.92	18.93	19.00	2.0	19.5	18.74	17.90	19.04	1.0	19.5	
		1	12	17.94	18.92	19.17	2.0	19.5	18.75	17.86	19.12	1.0	19.5	
		1	24	17.82	18.95	19.14	2.0	19.5	18.51	17.69	19.13	1.0	19.5	
		12	0	17.83	18.70	18.47	2.0	19.5	17.47	18.30	18.52	1.0	19.5	

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

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit		
				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	21.17	20.87	21.38	0.0	21.5	20.19	20.45	20.34	0.0	20.5		
		1	8	21.15	20.91	21.29	0.0	21.5	20.15	20.41	20.48	0.0	20.5		
		1	14	21.12	20.95	21.48	0.0	21.5	20.14	20.48	20.42	0.0	20.5		
		8	0	21.09	21.31	21.41	0.0	21.5	19.82	20.47	20.45	0.0	20.5		
		8	4	21.00	21.32	21.38	0.0	21.5	19.92	20.41	20.41	0.0	20.5		
		8	7	20.96	21.27	21.49	0.0	21.5	19.91	20.38	20.39	0.0	20.5		
		15	0	20.87	21.25	21.41	0.0	21.5	20.11	20.30	20.36	0.0	20.5		
	16QAM	1	0	21.24	21.13	21.39	0.0	21.5	20.06	20.39	20.41	0.0	20.5		
		1	8	21.26	21.18	21.48	0.0	21.5	20.13	20.34	20.42	0.0	20.5		
		1	14	21.36	21.28	21.42	0.0	21.5	20.19	20.28	20.38	0.0	20.5		
		8	0	20.53	20.76	21.38	0.0	21.5	19.52	20.28	20.41	0.0	20.5		
		8	4	20.68	20.57	21.41	0.0	21.5	19.67	20.31	20.46	0.0	20.5		
		8	7	20.71	20.51	21.38	0.0	21.5	19.82	20.24	20.41	0.0	20.5		
		15	0	20.65	20.68	21.28	0.0	21.5	19.91	20.21	20.36	0.0	20.5		
	64QAM	1	0	21.00	21.48	21.20	0.0	21.5	19.76	20.01	20.48	0.0	20.5		
		1	8	21.25	21.45	21.09	0.0	21.5	19.73	20.05	20.41	0.0	20.5		
		1	14	21.14	21.43	21.12	0.0	21.5	19.82	20.03	20.39	0.0	20.5		
		8	0	19.90	19.71	21.08	0.0	21.5	19.48	20.04	20.47	0.0	20.5		
		8	4	19.95	19.89	21.05	0.0	21.5	19.62	20.03	20.46	0.0	20.5		
		8	7	19.92	19.82	21.04	0.0	21.5	19.67	20.11	20.41	0.0	20.5		
		15	0	20.95	19.72	21.08	0.0	21.5	19.71	20.13	20.46	0.0	20.5		
	256QAM	1	0	18.87	18.76	19.01	2.0	19.5	18.66	18.56	18.17	1.0	19.5		
		1	8	18.86	18.59	19.02	2.0	19.5	18.62	18.42	18.52	1.0	19.5		
		1	14	18.82	18.62	19.04	2.0	19.5	18.92	18.42	18.37	1.0	19.5		
		8	0	17.68	18.43	19.08	2.0	19.5	17.70	18.32	18.45	1.0	19.5		
		8	4	17.72	18.52	18.96	2.0	19.5	17.84	18.25	18.62	1.0	19.5		
		8	7	17.71	18.61	18.95	2.0	19.5	17.82	18.31	18.58	1.0	19.5		
		15	0	17.79	18.78	18.92	2.0	19.5	17.76	18.21	18.92	1.0	19.5		
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	21.49	21.29	21.38	0.0	21.5	19.87	20.33	20.21	0.0	20.5	
			1	3	21.48	21.31	21.32	0.0	21.5	19.85	20.31	20.13	0.0	20.5	
			1	5	21.42	21.34	21.48	0.0	21.5	19.79	20.28	20.15	0.0	20.5	
			3	0	21.47	21.41	21.42	0.0	21.5	19.72	20.17	20.31	0.0	20.5	
			3	1	21.38	21.38	21.45	0.0	21.5	19.62	20.21	20.17	0.0	20.5	
			3	3	21.32	21.44	21.47	0.0	21.5	19.68	20.27	20.21	0.0	20.5	
			6	0	21.29	21.39	21.31	0.0	21.5	19.57	20.15	20.21	0.0	20.5	
	64QAM	RB Allocation	RB offset	1	0	21.06	21.09	21.35	0.0	21.5	20.12	20.48	20.28	0.0	20.5
				1	3	21.03	21.12	21.32	0.0	21.5	20.10	20.43	20.21	0.0	20.5
				1	5	21.13	21.13	21.28	0.0	21.5	20.15	20.38	20.38	0.0	20.5
		256QAM	3	0	21.18	21.47	21.31	0.0	21.5	20.21	20.37	20.31	0.0	20.5	
			3	1	21.15	21.42	21.35	0.0	21.5	20.20	20.48	20.35	0.0	20.5	
			3	3	21.27	21.43	21.41	0.0	21.5	20.25	20.41	20.31	0.0	20.5	
			6	0	21.35	21.46	21.48	0.0	21.5	20.41	20.47	20.41	0.0	20.5	
			1	0	20.87	21.21	21.18	0.0	21.5	20.03	20.28	20.21	0.0	20.5	
			1	3	20.85	21.34	21.18	0.0	21.5	20.21	20.31	20.12	0.0	20.5	
			1	5	20.71	21.38	21.21	0.0	21.5	20.13	20.37	20.18	0.0	20.5	
		3	0	20.58	21.28	21.25	0.0	21.5	20.17	20.32	20.14	0.0	20.5		
		3	1	20.71	21.41	21.24	0.0	21.5	20.14	20.35	20.13	0.0	20.5		
		3	3	20.81	21.42	21.32	0.0	21.5	20.15	20.41	20.21	0.0	20.5		
		6	0	20.57	21.47	21.31	0.0	21.5	20.25	20.31	20.15	0.0	20.5		
	256QAM	1	0	18.20	18.92	18.85	2.0	19.5	18.19	18.62	18.50	1.0	19.5		
		1	3	18.50	18.71	18.52	2.0	19.5	18.28	18.65	18.58	1.0	19.5		
		1	5	18.53	18.82	18.73	2.0	19.5	18.31	18.68	18.62	1.0	19.5		
		3	0	18.72	18.84	18.69	2.0	19.5	18.21	18.94	18.63	1.0	19.5		
		3	1	18.84	18.92	18.51	2.0	19.5	18.34	18.95	18.64	1.0	19.5		
		3	3	18.76	18.91	18.62	2.0	19.5	18.41	18.92	18.65	1.0	19.5		
		6	0	18.52	18.92	18.48	2.0	19.5	18.42	18.93	18.50	1.0	19.5		

LTE Band 71 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)			
				RSI = 0, 1, 2, 3, 4			
				Measured Pwr (dBm)		MPR	Tune-up Limit
20 MHz	QPSK	1	0	133297	24.64		0.0 25.5
		1	49	680.5 MHz	24.44		0.0 25.5
		1	99		24.35		0.0 25.5
		50	0		23.56	1.0	24.5
		50	24		23.47	1.0	24.5
		50	50		23.40	1.0	24.5
		100	0		23.47	1.0	24.5
	16QAM	1	0		23.78	1.0	24.5
		1	49		23.85	1.0	24.5
		1	99		23.51	1.0	24.5
		50	0		22.51	2.0	23.5
		50	24		22.44	2.0	23.5
		50	50		22.37	2.0	23.5
		100	0		22.40	2.0	23.5
	64QAM	1	0		22.38	2.0	23.5
		1	49		22.18	2.0	23.5
		1	99		22.18	2.0	23.5
		50	0		21.34	3.0	22.5
		50	24		21.29	3.0	22.5
		50	50		21.21	3.0	22.5
		100	0		21.26	3.0	22.5
	256QAM	1	0		19.52	5.0	20.5
		1	49		19.43	5.0	20.5
		1	99		19.24	5.0	20.5
		50	0		19.33	5.0	20.5
		50	24		19.26	5.0	20.5
		50	50		19.19	5.0	20.5
		100	0		19.28	5.0	20.5
15 MHz	QPSK	RB Allocation	RB offset	Measured Pwr (dBm)		MPR	Tune-up Limit
				133297			
		1	0	680.5 MHz			
		1	37		24.66	0.0	25.5
		1	74		24.42	0.0	25.5
		36	0		24.46	0.0	25.5
		36	20		23.75	1.0	24.5
	16QAM	36	39		23.68	1.0	24.5
		75	0		23.61	1.0	24.5
		1	0		23.68	1.0	24.5
		1	37		23.60	1.0	24.5
		1	74		23.40	1.0	24.5
		36	0		23.46	1.0	24.5
		36	20		22.45	2.0	23.5
	64QAM	36	39		22.38	2.0	23.5
		75	0		22.33	2.0	23.5
		1	0		22.44	2.0	23.5
		1	37		22.66	2.0	23.5
		1	74		22.45	2.0	23.5
		36	0		22.46	2.0	23.5
		36	20		21.58	3.0	22.5
	256QAM	36	39		21.53	3.0	22.5
		75	0		21.48	3.0	22.5
		1	0		21.49	3.0	22.5
		1	37		19.84	5.0	20.5
		1	74		19.57	5.0	20.5
		36	0		19.63	5.0	20.5
		36	20		19.56	5.0	20.5

LTE Band 71 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit		
				133172	133297	133422				
				668 MHz	680.5 MHz	693 MHz				
10 MHz	QPSK	1	0	24.82	24.28	24.45	0.0	25.5		
		1	25	24.65	24.20	24.27	0.0	25.5		
		1	49	24.66	24.15	24.37	0.0	25.5		
		25	0	23.79	23.23	23.45	1.0	24.5		
		25	12	23.74	23.18	23.40	1.0	24.5		
		25	25	23.67	23.16	23.36	1.0	24.5		
		50	0	23.71	23.21	23.38	1.0	24.5		
	16QAM	1	0	23.84	23.37	23.84	1.0	24.5		
		1	25	23.89	23.41	23.74	1.0	24.5		
		1	49	23.65	23.30	23.67	1.0	24.5		
		25	0	22.69	22.26	22.43	2.0	23.5		
		25	12	22.65	22.20	22.39	2.0	23.5		
		25	25	22.60	22.18	22.35	2.0	23.5		
		50	0	22.67	22.18	22.31	2.0	23.5		
	64QAM	1	0	22.61	22.40	22.38	2.0	23.5		
		1	25	22.60	22.43	22.24	2.0	23.5		
		1	49	22.42	22.31	22.32	2.0	23.5		
		25	0	21.73	21.23	21.39	3.0	22.5		
		25	12	21.68	21.22	21.37	3.0	22.5		
		25	25	21.64	21.18	21.30	3.0	22.5		
		50	0	21.65	21.18	21.31	3.0	22.5		
	256QAM	1	0	19.83	19.30	19.65	5.0	20.5		
		1	25	19.78	19.24	19.42	5.0	20.5		
		1	49	19.60	19.11	19.49	5.0	20.5		
		25	0	19.78	19.31	19.38	5.0	20.5		
		25	12	19.73	19.27	19.33	5.0	20.5		
		25	25	19.67	19.21	19.29	5.0	20.5		
		50	0	19.63	19.19	19.29	5.0	20.5		
5 MHz	QPSK	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit		
				133147	133297	133447				
				665.5 MHz	680.5 MHz	695.5 MHz				
				1	0	24.19	23.94	23.80		
				1	12	24.18	23.75	23.81		
				1	24	24.17	23.95	23.79		
				12	0	23.20	22.97	22.84		
	16QAM			12	7	23.18	22.95	22.81		
				12	13	23.17	22.94	22.80		
				25	0	23.18	22.94	22.80		
				1	0	23.32	23.37	23.18		
				1	12	23.27	23.24	23.19		
				1	24	23.25	23.29	23.14		
				12	0	22.17	22.03	21.82		
	64QAM			12	7	22.14	22.02	21.81		
				12	13	22.14	21.99	21.78		
				25	0	22.17	21.95	21.79		
				1	0	22.15	22.04	21.73		
				1	12	22.17	21.90	21.59		
				1	24	22.18	21.94	21.71		
				12	0	21.08	20.89	20.78		
	256QAM			12	7	21.05	20.87	20.74		
				12	13	21.02	20.84	20.72		
				25	0	21.08	20.90	20.70		
				1	0	19.17	19.09	18.70		
				1	12	18.88	19.01	18.63		
				1	24	19.06	19.04	18.66		
				12	0	19.12	18.94	18.77		

9.4. NR (Sub 6GHz)

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

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

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

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

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

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

The allowed A-MPR values specified below in Table 6.2.3.3.1-1 of 3GPP TS138.521-1 are in addition to the allowed MPR requirements. All the measurements below were performed with A-MPR disabled, by using Network Signaling Value of "NS_01"

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

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

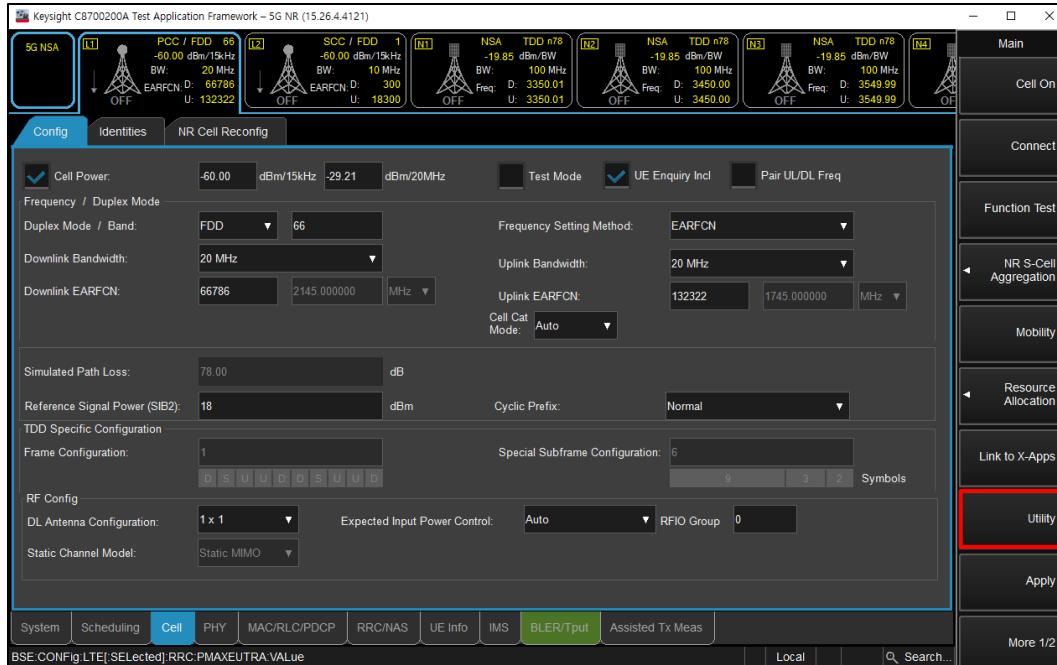
Uplink RB allocations were used to Table 6.1-1 of the 3GPP TS 138.521-1.

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 ¹	1@1	1@9	
		CP	2@0	2@9	1@0	1@10	11@0	5@2 ¹	1@1	1@9	
	60	DFT-s	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
		CP	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
10MHz	15	DFT-s	2@0	2@50	1@0	1@51	50@0	25@12	1@1	1@50	
		CP	2@0	2@50	1@0	1@51	52@0	26@13	1@1	1@50	
	30	DFT-s	2@0	2@22	1@0	1@23	24@0	12@6	1@1	1@22	
		CP	2@0	2@22	1@0	1@23	24@0	12@6	1@1	1@22	
	60	DFT-s	2@0	2@9	1@0	1@10	10@0	5@2 ¹	1@1	1@9	
		CP	2@0	2@9	1@0	1@10	11@0	5@2 ¹	1@1	1@9	
15MHz	15	DFT-s	2@0	2@77	1@0	1@78	75@0	36@18	1@1	1@77	
		CP	2@0	2@77	1@0	1@78	79@0	39@19 ¹	1@1	1@77	
	30	DFT-s	2@0	2@36	1@0	1@37	36@0	18@9	1@1	1@36	
		CP	2@0	2@36	1@0	1@37	38@0	19@9	1@1	1@36	
	60	DFT-s	2@0	2@16	1@0	1@17	18@0	9@4	1@1	1@16	
		CP	2@0	2@16	1@0	1@17	18@0	9@4	1@1	1@16	
20MHz	15	DFT-s	2@0	2@104	1@0	1@105	100@0	50@25	1@1	1@104	
		CP	2@0	2@104	1@0	1@105	108@0	53@26	1@1	1@104	
	30	DFT-s	2@0	2@49	1@0	1@50	50@0	25@12 ¹	1@1	1@49	
		CP	2@0	2@49	1@0	1@50	51@0	25@12 ¹	1@1	1@49	
	60	DFT-s	2@0	2@22	1@0	1@23	24@0	12@6	1@1	1@22	
		CP	2@0	2@22	1@0	1@23	24@0	12@6	1@1	1@22	

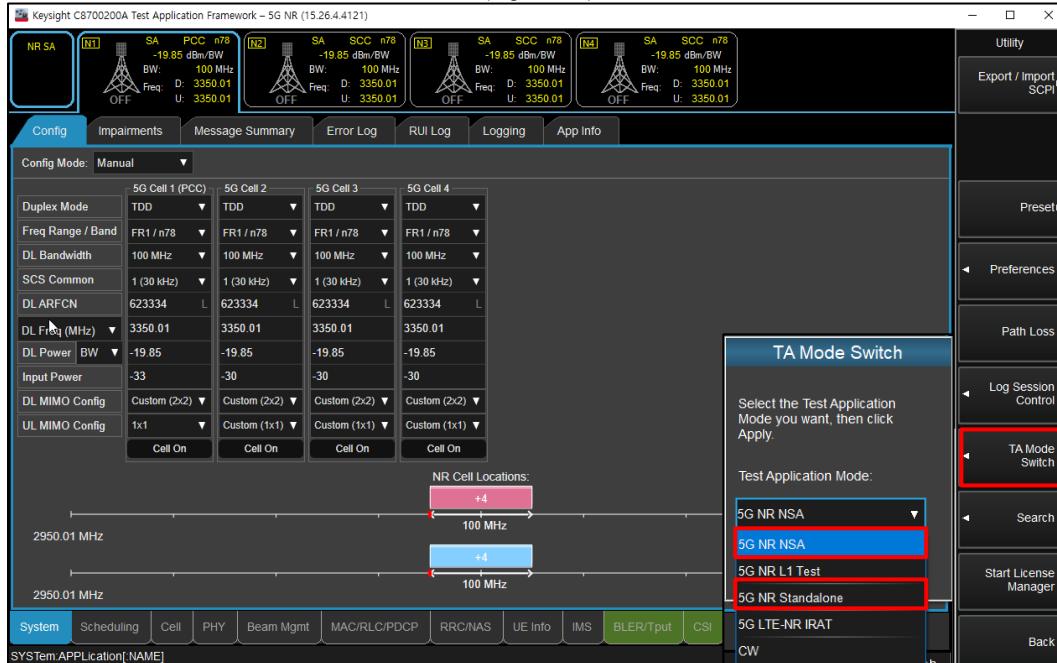
Procedures used to establish power measurement for NR Bands

Switching to NSA mode or SA mode

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



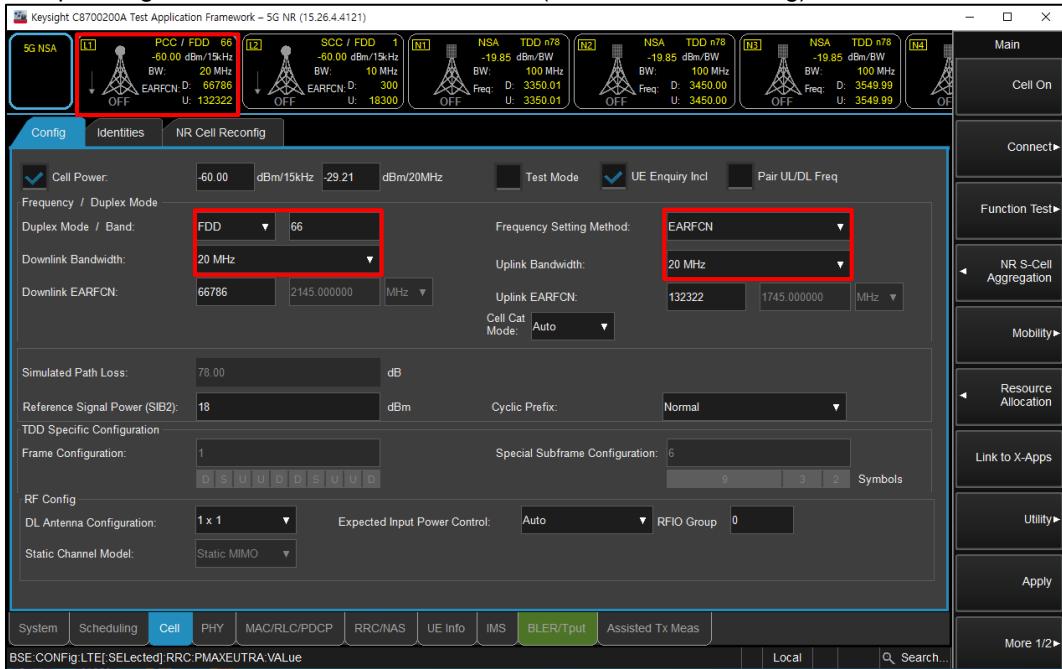
(Figure 1-1)



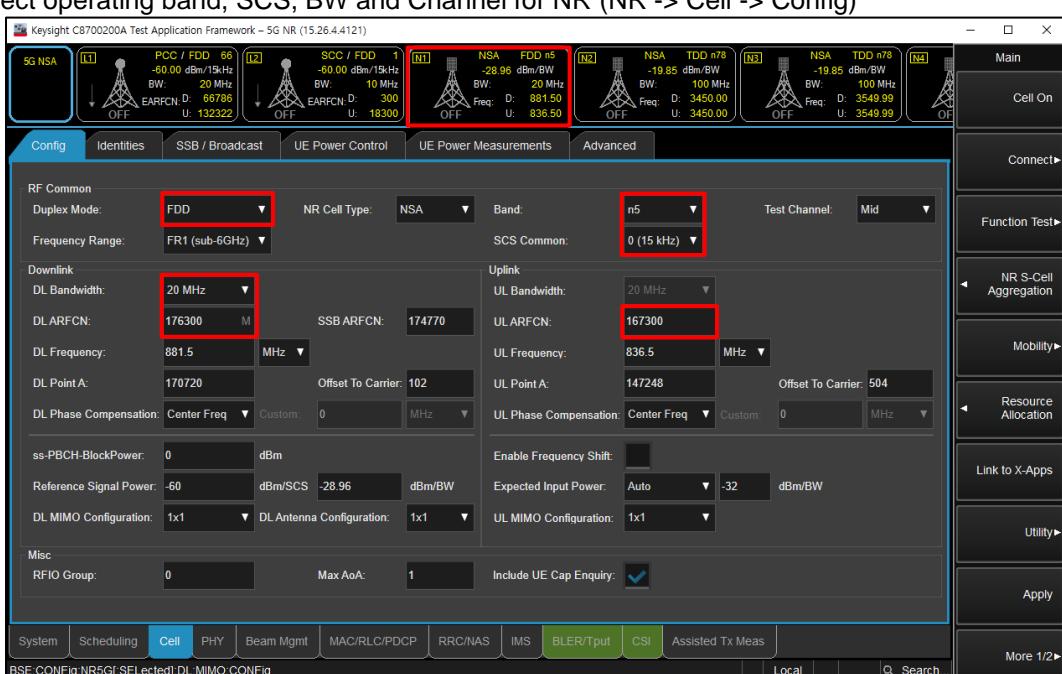
(Figure 1-2)

NSA Mode

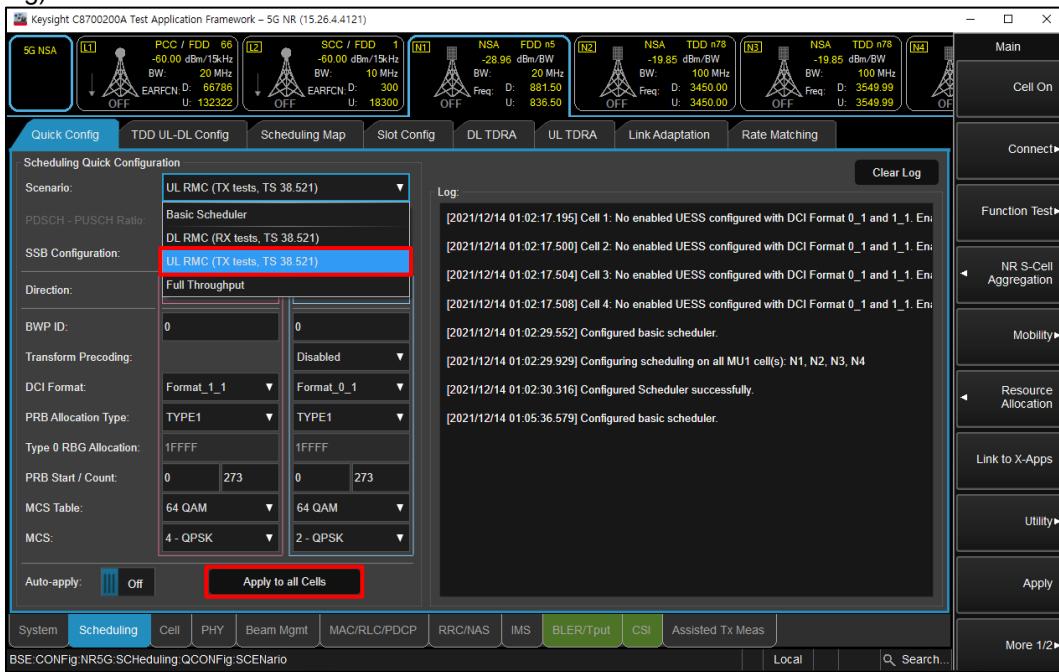
- Select operating band, BW and Channel for LTE (LTE -> Cell -> Config)



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

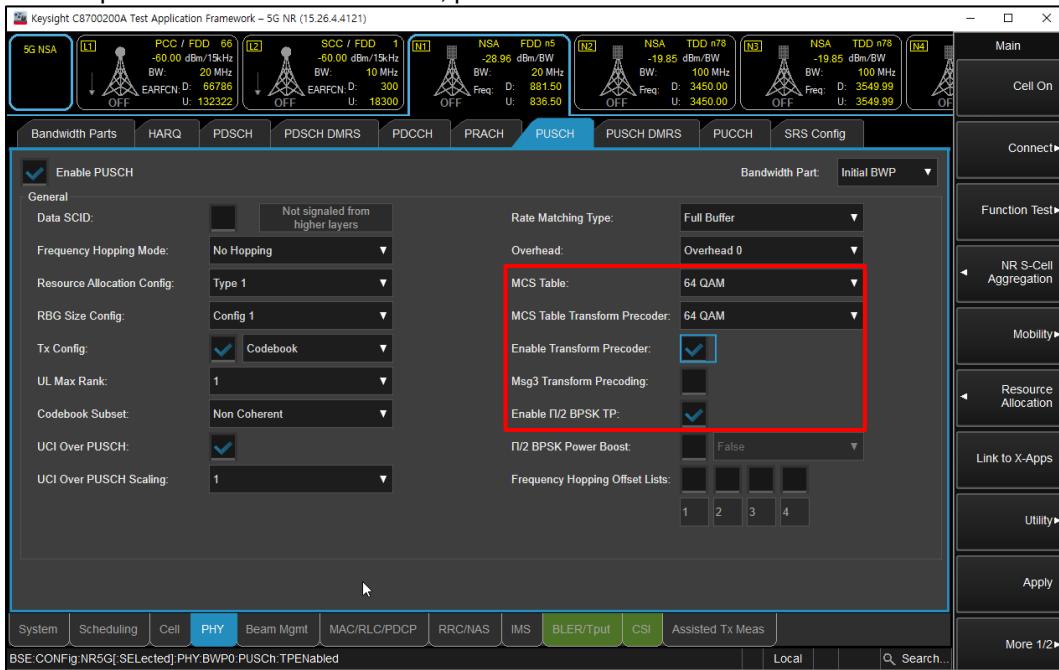


- Select “UL RMC (TX tests, TS 38.521)” for maximum power RB scheduling (NR -> Scheduling -> Quick Config)



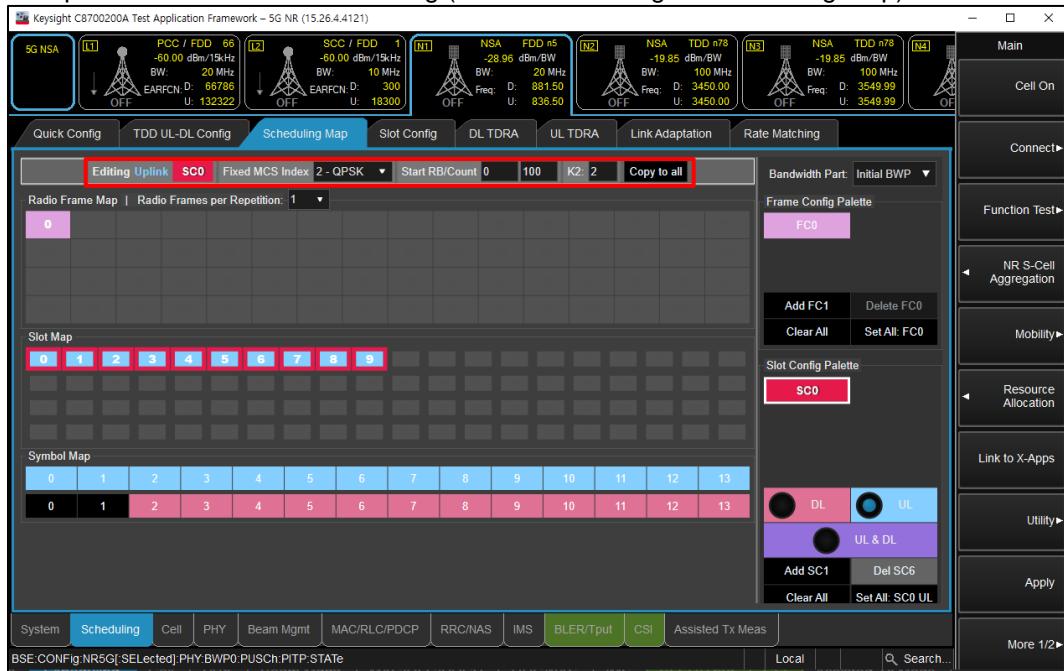
(Figure 2-3)

- 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



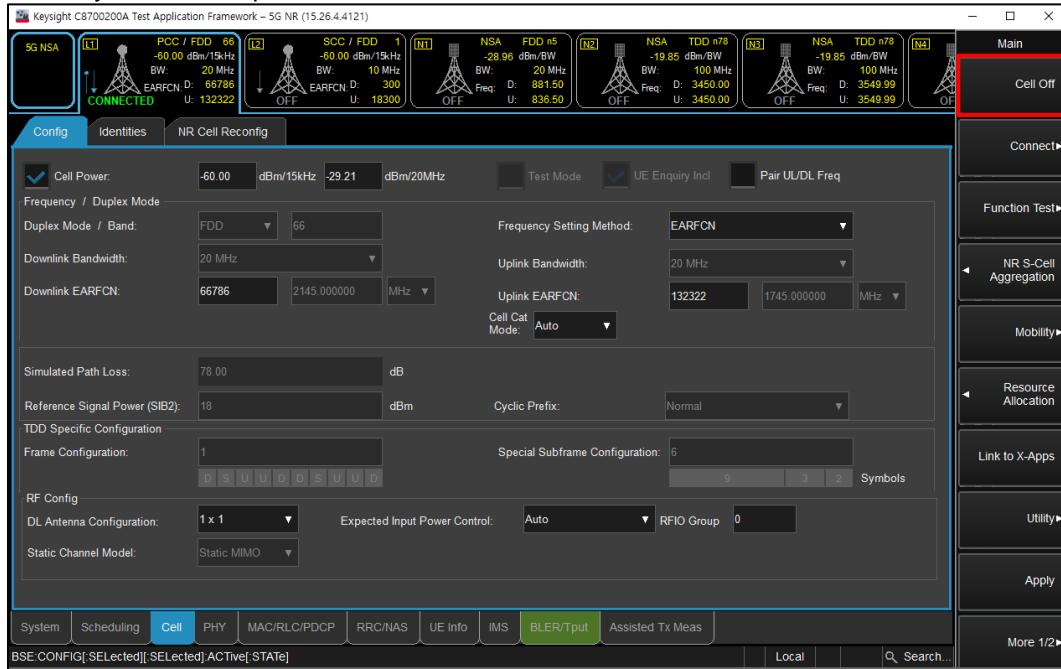
(Figure 2-4)

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



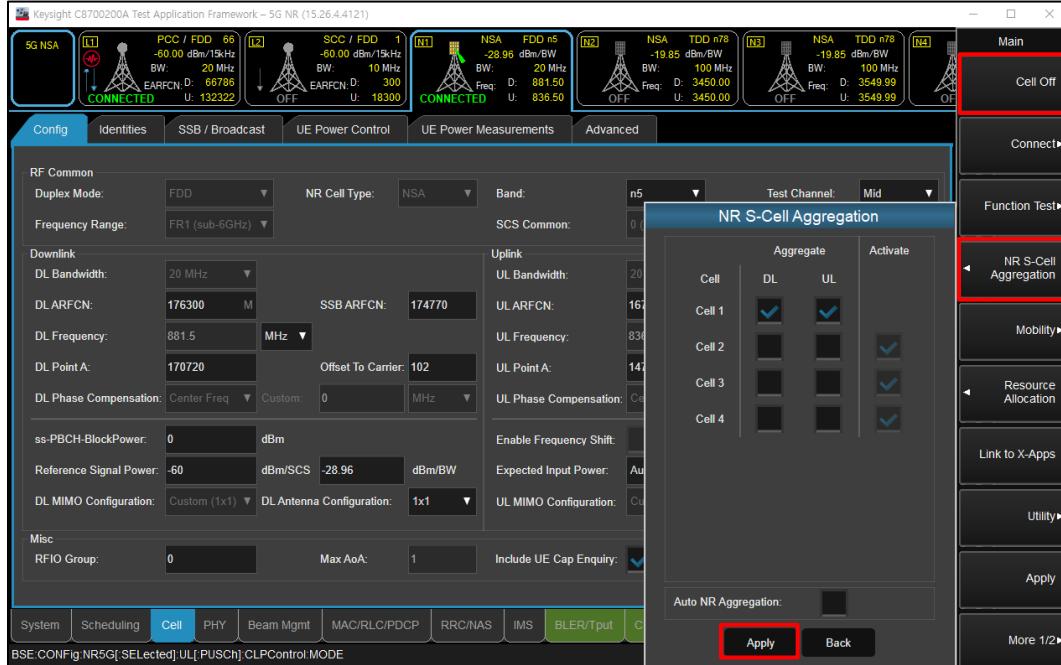
(Figure 2-5)

- 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



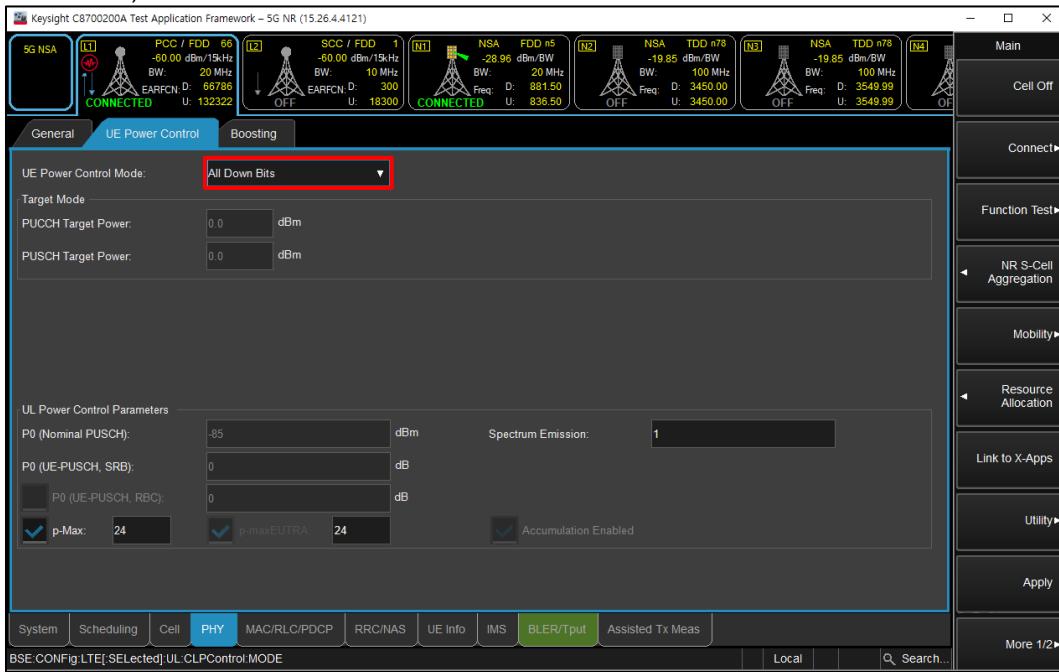
(Figure 2-6)

- 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



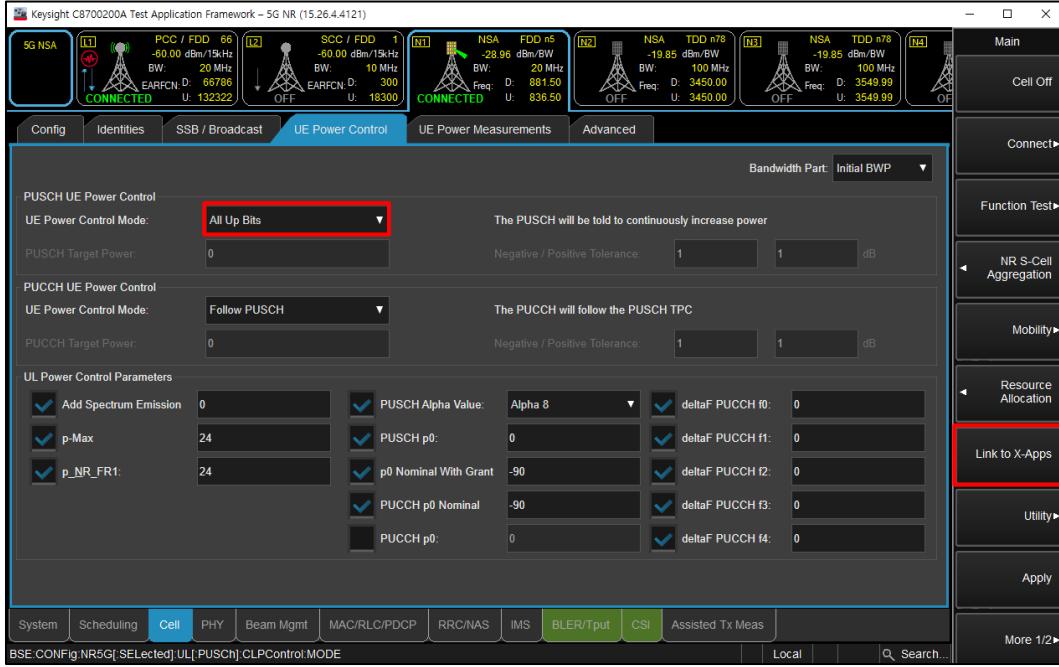
(Figure 2-7)

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



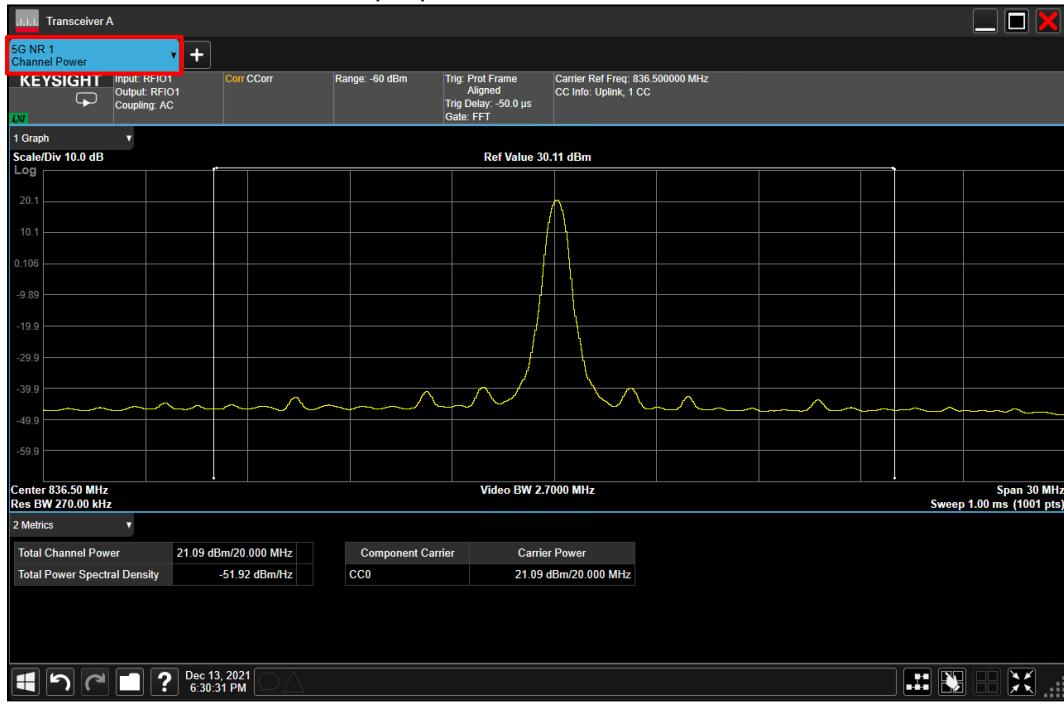
(Figure 2-8)

- 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”



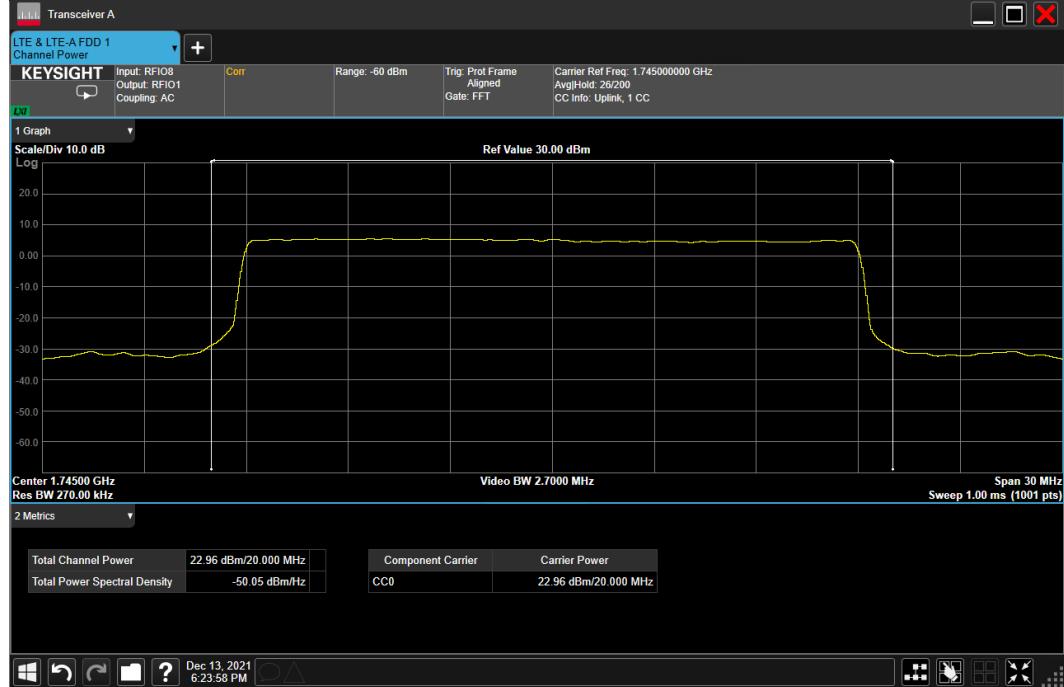
(Figure 2-9)

- Select “Channel Power” for NR output power



(Figure 2-10)

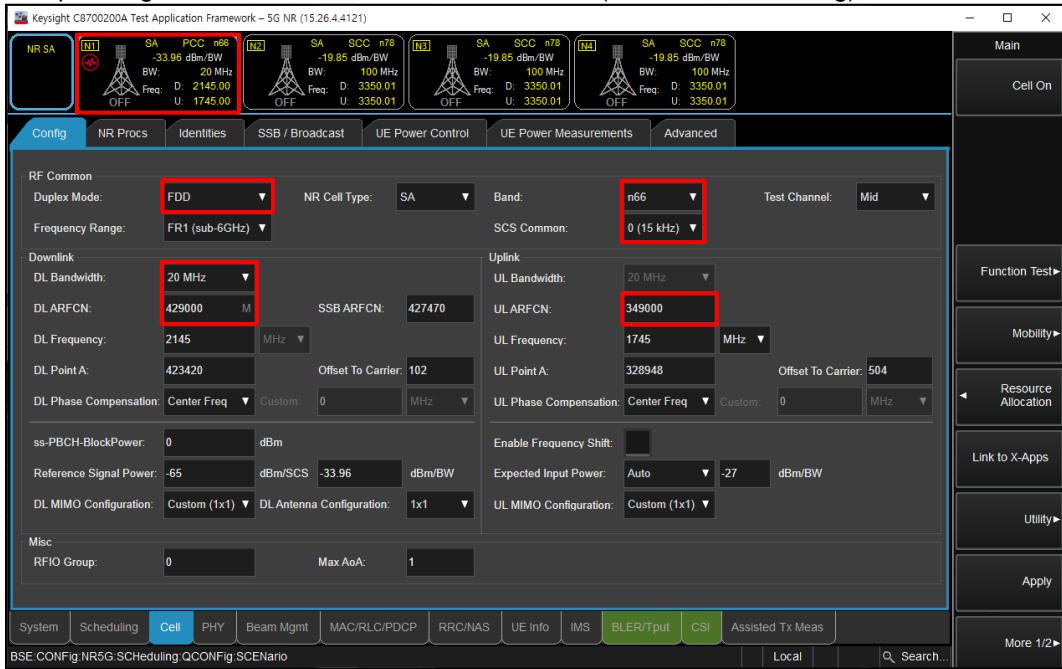
- Select “Channel Power” for LTE output power



(Figure 2-11)

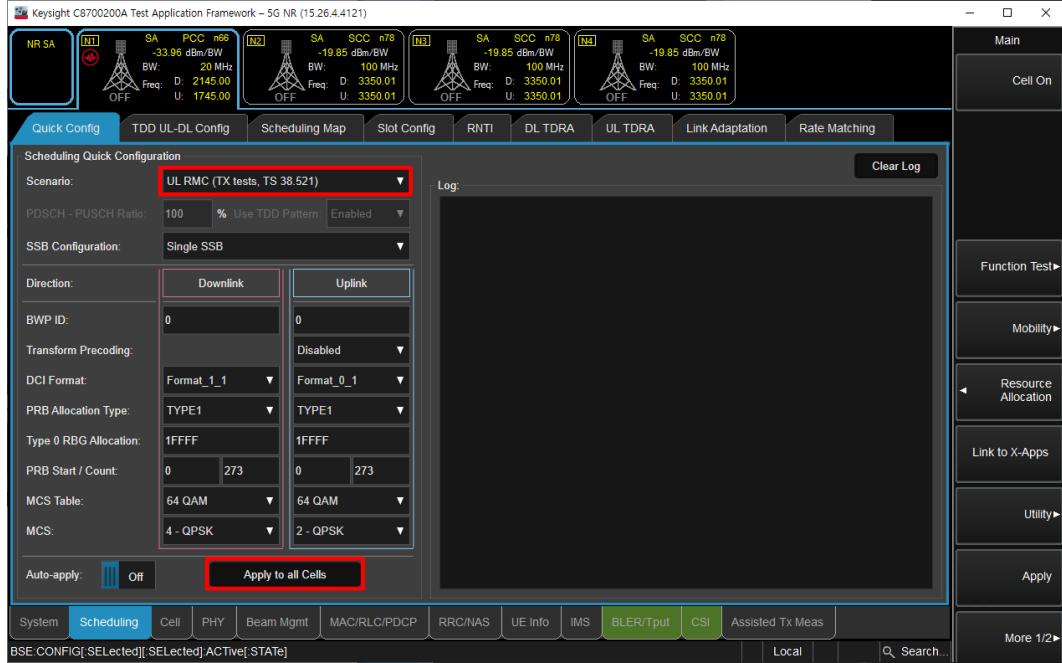
SA Mode

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



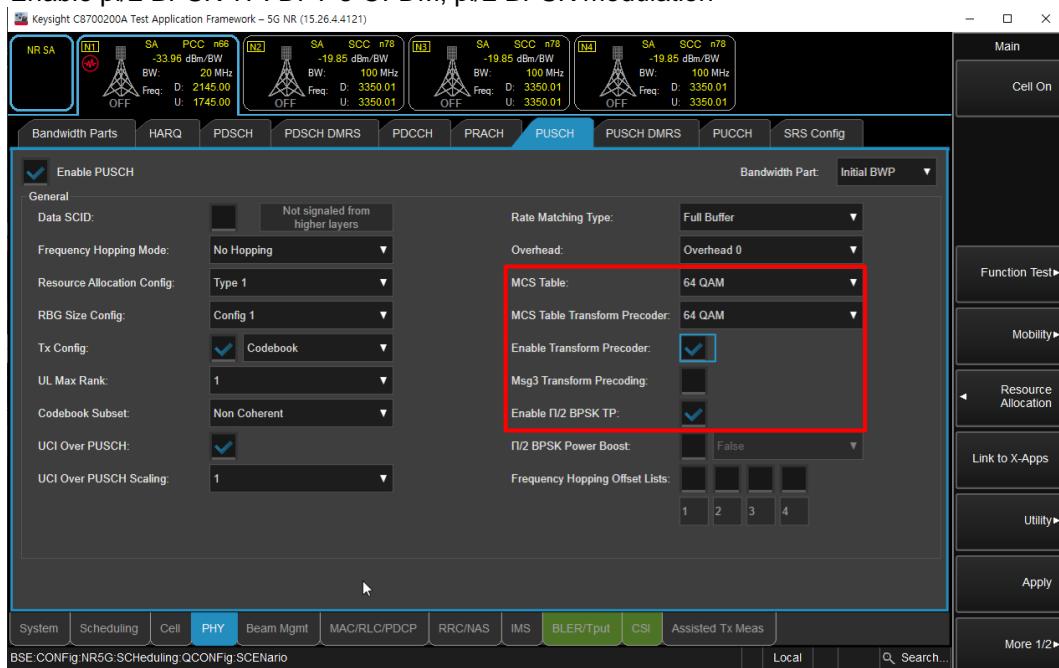
(Figure 3-1)

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



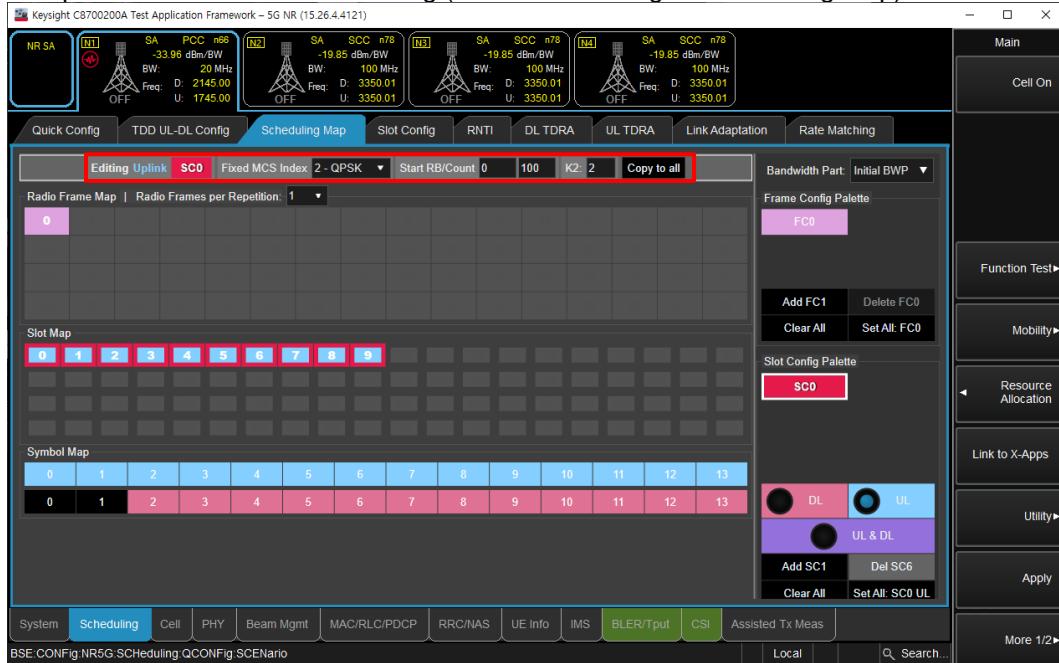
(Figure 3-2)

- 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



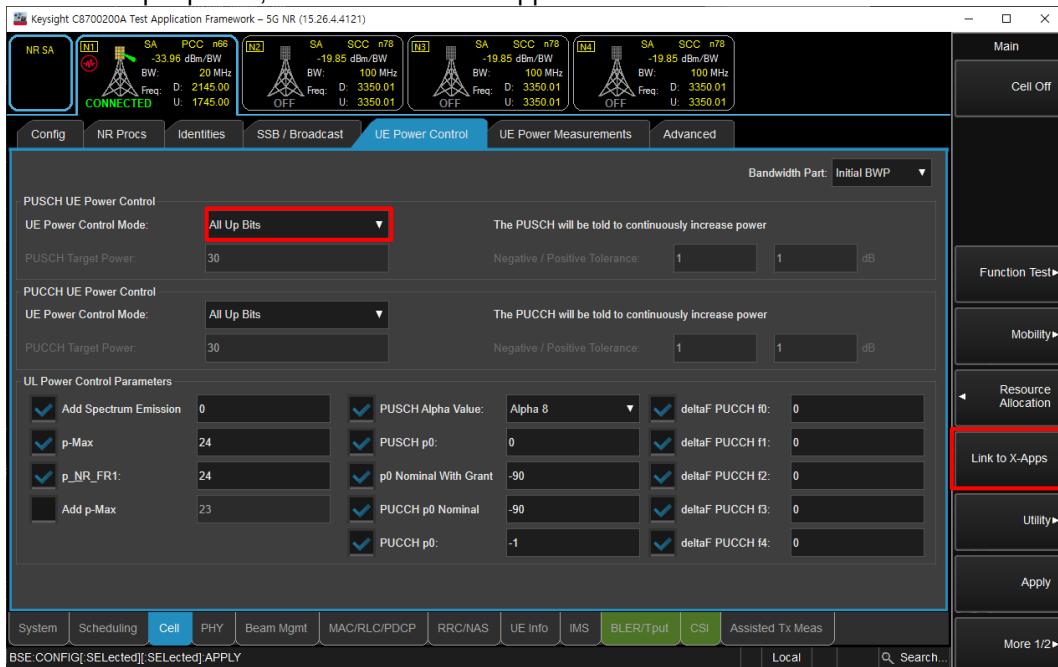
(Figure 3-3)

- 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)	Modulatio n	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)			
					RSI = 0, 1, 2, 3, 4			
					Measured Pwr (dBm)		MPR	Tune-up Limit
20 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	167300	836.5 MHz	0.0	25.5
			1	53	24.40			
			1	104	24.34			
			50	0	24.13			
			50	28	23.44		0.5	25.0
			50	56	24.34		0.0	25.5
			100	0	23.27		0.5	25.0
		QPSK	1	1	23.37	167300	0.5	25.0
			1	53	24.68			
			1	104	24.31			
			50	0	24.13			
			50	28	23.47		1.0	24.5
			50	56	24.67		0.0	25.5
			100	0	23.29		1.0	24.5
		16QAM	1	1	23.40	836.5 MHz	1.0	24.5
			1	1	23.46			
			1	1	21.98		2.5	23.0
			1	1	19.97		4.5	21.0
		CP-OFDM	QPSK	1	23.00	167300	1.5	24.0
		23.00						
15 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	167300	836.5 MHz	MPR	Tune-up Limit
			1	40	24.32			
			1	77	24.13			
		QPSK	36	0	24.11			
			36	22	23.36		0.5	25.0
			36	43	24.28		0.0	25.5
			75	0	23.24		0.5	25.0
		16QAM	1	1	23.31		0.5	25.0
			1	1	24.40	836.5 MHz	0.0	25.5
			1	40	24.18			
			1	77	24.17		0.0	25.5
			36	0	23.43		1.0	24.5
			36	22	24.34		0.0	25.5
			36	43	23.29		1.0	24.5
		64QAM	75	0	23.36	167300	1.0	24.5
			1	1	23.49			
			1	1	21.99		2.5	23.0
			1	1	19.97		4.5	21.0
		CP-OFDM	QPSK	1	22.99	836.5 MHz	1.5	24.0
		22.99						

NR Band n5 Measured Results (Continued)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					167300	836.5 MHz	826.5 MHz		
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.34			0.0	25.5
			1	26	24.31			0.0	25.5
			1	50	24.19			0.0	25.5
			25	0	23.37			0.5	25.0
			25	14	24.30			0.0	25.5
			25	27	23.30			0.5	25.0
			50	0	23.33			0.5	25.0
		QPSK	1	1	24.43			0.0	25.5
			1	26	24.39			0.0	25.5
			1	50	24.24			0.0	25.5
			25	0	23.40			1.0	24.5
			25	14	24.35			0.0	25.5
			25	27	23.31			1.0	24.5
			50	0	23.38			1.0	24.5
		16QAM	1	1	23.47			1.0	24.5
		64QAM	1	1	21.94			2.5	23.0
		256QAM	1	1	19.87			4.5	21.0
	CP-OFDM	QPSK	1	1	22.98			1.5	24.0
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					165300	167300	169300		
5 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.32	24.21	23.02	0.0	25.5
			1	13	24.27	24.09	23.98	0.0	25.5
			1	23	24.34	24.19	24.10	0.0	25.5
			12	0	23.40	23.25	23.12	0.5	25.0
			12	7	24.38	24.24	24.13	0.0	25.5
			12	13	23.41	23.23	23.15	0.5	25.0
			25	0	23.42	23.26	23.12	0.5	25.0
		QPSK	1	1	24.40	24.35	24.12	0.0	25.5
			1	13	24.32	24.22	24.05	0.0	25.5
			1	23	24.36	24.27	24.11	0.0	25.5
			12	0	23.44	23.31	23.18	1.0	24.5
			12	7	24.44	24.28	24.17	0.0	25.5
			12	13	23.44	23.28	23.17	1.0	24.5
			25	0	23.45	23.31	23.19	1.0	24.5
		16QAM	1	1	23.35	23.34	23.26	1.0	24.5
		64QAM	1	1	22.17	21.89	21.65	2.5	23.0
		256QAM	1	1	19.95	19.75	19.66	4.5	21.0
	CP-OFDM	QPSK	1	1	22.94	22.88	22.72	1.5	24.0

NR Band n12 Measured Results

BW (MHz)	Modula-	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)			
					RSI = 0, 1, 2, 3, 4			
					Measured Pw r (dBm)		MPR	Tune-up Limit
15 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	141500	24.25	0.0	25.0
			1	40	707.5 MHz	24.29		25.0
			1	77		24.37	0.0	25.0
			36	0		23.34	0.5	24.5
			36	22		24.39	0.0	25.0
			36	43		23.42	0.5	24.5
			75	0		23.40	0.5	24.5
		QPSK	1	1	141500	24.33	0.0	25.0
			1	40	707.5 MHz	24.29		25.0
			1	77		24.41	0.0	25.0
			36	0		23.41	1.0	24.0
			36	22		24.42	0.0	25.0
			36	43		23.44	1.0	24.0
			75	0		23.43	1.0	24.0
		16QAM	1	1	141500	23.48	1.0	24.0
			1	40	707.5 MHz	23.43		24.0
			1	77		23.54	1.0	24.0
			64QAM	1		21.96	2.5	22.5
		256QAM	1	1		19.89	4.5	20.5
			CP-OFDM	QPSK	141500	22.95	1.5	23.5
10 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	141500	24.35	0.0	25.0
			1	26	707.5 MHz	24.42		25.0
			1	50		24.43	0.0	25.0
			25	0		23.42	0.5	24.5
			25	14		24.43	0.0	25.0
			25	27		23.45	0.5	24.5
			50	0		23.44	0.5	24.5
		QPSK	1	1	141500	24.45	0.0	25.0
			1	26	707.5 MHz	24.48		25.0
			1	50		24.51	0.0	25.0
			25	0		23.46	1.0	24.0
			25	14		24.45	0.0	25.0
			25	27		23.48	1.0	24.0
			50	0		23.46	1.0	24.0
		16QAM	1	1	141500	23.43	1.0	24.0
			1	1	707.5 MHz	22.01		22.5
			64QAM	1		19.92	4.5	20.5
			256QAM	1		22.91	1.5	23.5
		CP-OFDM	QPSK	1		22.91		

NR Band n12 Measured Results (Continued)

BW (MHz)	Modulatio n	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					140300 701.5 MHz	141500 707.5 MHz	142700 713.5 MHz		
5 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.36	24.44	24.40	0.0	25.0
			1	13	24.32	24.39	24.33	0.0	25.0
			1	23	24.42	24.49	24.41	0.0	25.0
			12	0	23.40	23.46	23.42	0.5	24.5
			12	7	24.38	24.46	24.40	0.0	25.0
			12	13	23.41	23.46	23.43	0.5	24.5
			25	0	23.42	23.48	23.43	0.5	24.5
	QPSK	QPSK	1	1	24.38	24.48	24.40	0.0	25.0
			1	13	24.30	24.37	24.32	0.0	25.0
			1	23	24.41	24.48	24.36	0.0	25.0
			12	0	23.43	23.48	23.45	1.0	24.0
			12	7	24.40	24.48	24.43	0.0	25.0
			12	13	23.43	23.47	23.45	1.0	24.0
			25	0	23.43	23.49	23.47	1.0	24.0
	16QAM	QPSK	1	1	23.39	23.43	23.58	1.0	24.0
	64QAM	QPSK	1	1	21.94	21.91	22.06	2.5	22.5
	256QAM	QPSK	1	1	19.83	19.84	19.86	4.5	20.5
	CP-OFDM	QPSK	1	1	22.88	23.03	22.98	1.5	23.5

NR Band n25 Measured Results

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)											
					RSI = 0, 4				RSI = 3							
					Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit
					376500	1882.5 MHz			376500	1882.5 MHz			376500	1882.5 MHz		
40 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.37	0.0	25.0	22.44	0.0	23.0	22.37	0.0	23.0			
			1	108	24.39	0.0	25.0	22.39	0.0	23.0	22.32	0.0	23.0			
			1	214	24.33	0.0	25.0	22.37	0.0	23.0	22.28	0.0	23.0			
			108	0	23.51	0.5	24.5	22.52	0.0	23.0	22.45	0.0	23.0			
			108	54	24.40	0.0	25.0	22.47	0.0	23.0	22.41	0.0	23.0			
			108	108	23.46	0.5	24.5	22.48	0.0	23.0	22.42	0.0	23.0			
			216	0	23.44	0.5	24.5	22.46	0.0	23.0	22.41	0.0	23.0			
		QPSK	1	1	24.54	0.0	25.0	22.61	0.0	23.0	22.54	0.0	23.0			
			1	108	24.39	0.0	25.0	22.49	0.0	23.0	22.46	0.0	23.0			
			1	214	24.38	0.0	25.0	22.43	0.0	23.0	22.39	0.0	23.0			
			108	0	23.57	1.0	24.0	22.56	0.0	23.0	22.51	0.0	23.0			
			108	54	24.51	0.0	25.0	22.60	0.0	23.0	22.53	0.0	23.0			
			108	108	23.52	1.0	24.0	22.50	0.0	23.0	22.45	0.0	23.0			
			216	0	23.47	1.0	24.0	22.46	0.0	23.0	22.43	0.0	23.0			
		16QAM	1	1	23.49	1.0	24.0	22.56	0.0	23.0	22.52	0.0	23.0			
			1	108	23.52	1.0	24.0	22.62	0.0	23.0	22.58	0.0	23.0			
			1	214	23.40	1.0	24.0	22.52	0.0	23.0	22.48	0.0	23.0			
			64QAM	1	1	21.96	2.5	22.5	22.09	0.5	22.5	21.96	0.5	22.5		
		256QAM	1	1	19.93	4.5	20.5	20.02	2.5	20.5	19.99	2.5	20.5			
			CP-OFDM	QPSK	1	1	23.02	1.5	23.5	22.56	0.0	23.0	22.49	0.0	23.0	
30 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.27	0.0	25.0	22.24	0.0	23.0	22.41	0.0	23.0			
			1	80	24.25	0.0	25.0	22.25	0.0	23.0	22.35	0.0	23.0			
			1	158	24.32	0.0	25.0	22.24	0.0	23.0	22.35	0.0	23.0			
			80	0	23.44	0.5	24.5	22.34	0.0	23.0	22.49	0.0	23.0			
			80	40	24.38	0.0	25.0	22.29	0.0	23.0	22.46	0.0	23.0			
			80	80	23.44	0.5	24.5	22.33	0.0	23.0	22.48	0.0	23.0			
			160	0	23.39	0.5	24.5	22.30	0.0	23.0	22.44	0.0	23.0			
		QPSK	1	1	24.43	0.0	25.0	22.35	0.0	23.0	22.49	0.0	23.0			
			1	80	24.45	0.0	25.0	22.32	0.0	23.0	22.46	0.0	23.0			
			1	158	24.42	0.0	25.0	22.27	0.0	23.0	22.41	0.0	23.0			
			80	0	23.52	1.0	24.0	22.39	0.0	23.0	22.51	0.0	23.0			
			80	40	24.44	0.0	25.0	22.35	0.0	23.0	22.46	0.0	23.0			
			80	80	23.50	1.0	24.0	22.38	0.0	23.0	22.50	0.0	23.0			
			160	0	23.44	1.0	24.0	22.35	0.0	23.0	22.45	0.0	23.0			
		16QAM	1	1	23.37	1.0	24.0	22.38	0.0	23.0	22.51	0.0	23.0			
			64QAM	1	1	21.98	2.5	22.5	21.86	0.5	22.5	22.01	0.5	22.5		
			256QAM	1	1	19.88	4.5	20.5	19.81	2.5	20.5	19.89	2.5	20.5		
		CP-OFDM	QPSK	1	1	22.96	1.5	23.5	22.44	0.0	23.0	22.51	0.0	23.0		

NR Band n25 Measured Results (Continued)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit			
					376500	1882.5 MHz			376500	1882.5 MHz			376500	1882.5 MHz					
25 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	24.36		0.0	25.0	22.38		0.0	23.0	22.27		0.0	23.0			
			1	67	24.26		0.0	25.0	22.25		0.0	23.0	22.17		0.0	23.0			
			1	131	24.35		0.0	25.0	22.32		0.0	23.0	22.24		0.0	23.0			
			64	0	23.49		0.5	24.5	22.41		0.0	23.0	22.36		0.0	23.0			
			64	35	24.43		0.0	25.0	22.35		0.0	23.0	22.32		0.0	23.0			
			64	69	23.49		0.5	24.5	22.37		0.0	23.0	22.34		0.0	23.0			
		QPSK	128	0	23.46		0.5	24.5	22.36		0.0	23.0	22.33		0.0	23.0			
			1	1	24.50		0.0	25.0	22.37		0.0	23.0	22.39		0.0	23.0			
			1	67	24.38		0.0	25.0	22.23		0.0	23.0	22.25		0.0	23.0			
			1	131	24.42		0.0	25.0	22.31		0.0	23.0	22.27		0.0	23.0			
		16QAM	64	0	23.58		1.0	24.0	22.45		0.0	23.0	22.41		0.0	23.0			
			64	35	24.49		0.0	25.0	22.39		0.0	23.0	22.35		0.0	23.0			
			64	69	23.55		1.0	24.0	22.40		0.0	23.0	22.38		0.0	23.0			
			128	0	23.52		1.0	24.0	22.38		0.0	23.0	22.38		0.0	23.0			
	64QAM	1	1	23.58		1.0	24.0	22.30		0.0	23.0	22.36		0.0	23.0				
		1	1	22.09		2.5	22.5	22.16		0.5	22.5	21.96		0.5	22.5				
	256QAM	1	1	20.04		4.5	20.5	19.97		2.5	20.5	19.87		2.5	20.5				
		CP-OFDM	QPSK	1	1	23.09		1.5	23.5	22.47		0.0	23.0	22.44		0.0	23.0		
20 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	23.71	24.32	24.37	0.0	25.0	22.45	22.33	22.35	0.0	23.0	22.48	22.27	22.34	0.0	23.0
			1	53	24.49	24.28	24.24	0.0	25.0	22.46	22.27	22.44	0.0	23.0	22.48	22.24	22.44	0.0	23.0
			1	104	24.54	24.36	23.73	0.0	25.0	22.39	22.33	22.31	0.0	23.0	22.42	22.25	22.34	0.0	23.0
			50	0	23.41	23.44	23.53	0.5	24.5	22.55	22.40	22.43	0.0	23.0	22.55	22.33	22.44	0.0	23.0
			50	28	24.44	24.36	24.26	0.0	25.0	22.47	22.35	22.45	0.0	23.0	22.50	22.30	22.48	0.0	23.0
			50	56	23.65	23.41	23.40	0.5	24.5	22.47	22.37	22.46	0.0	23.0	22.50	22.32	22.46	0.0	23.0
		QPSK	100	0	23.65	23.42	23.58	0.5	24.5	22.51	22.37	22.48	0.0	23.0	22.52	22.33	22.49	0.0	23.0
			1	1	23.36	24.46	24.42	0.0	25.0	22.53	22.43	22.44	0.0	23.0	22.57	22.36	22.43	0.0	23.0
			1	53	24.23	24.36	23.89	0.0	25.0	22.53	22.39	22.54	0.0	23.0	22.54	22.32	22.46	0.0	23.0
			1	104	24.45	24.33	23.44	0.0	25.0	22.41	22.33	22.39	0.0	23.0	22.47	22.29	22.34	0.0	23.0
			50	0	23.20	23.50	23.59	1.0	24.0	22.59	22.42	22.49	0.0	23.0	22.61	22.39	22.49	0.0	23.0
			50	28	24.28	24.42	24.03	0.0	25.0	22.53	22.37	22.52	0.0	23.0	22.56	22.34	22.51	0.0	23.0
			50	56	23.68	23.48	23.22	1.0	24.0	22.51	22.39	22.49	0.0	23.0	22.53	22.38	22.50	0.0	23.0
		16QAM	100	0	23.65	23.45	23.61	1.0	24.0	22.54	22.40	22.52	0.0	23.0	22.56	22.36	22.53	0.0	23.0
			1	1	22.77	23.53	23.54	1.0	24.0	22.65	22.45	22.52	0.0	23.0	22.61	22.43	22.52	0.0	23.0
			1	53	23.68	23.43	23.45	1.0	24.0	22.53	22.43	22.43	0.0	23.0	22.67	22.42	22.65	0.0	23.0
			1	104	23.58	23.43	22.96	1.0	24.0	22.50	22.40	22.31	0.0	23.0	22.55	22.43	22.49	0.0	23.0
	64QAM	1	1	21.71	22.11	22.13	2.5	22.5	22.09	21.94	22.02	0.5	22.5	22.19	21.86	21.95	0.5	22.5	
		256QAM	1	1	20.20	19.89	19.95	4.5	20.5	20.09	19.91	19.86	2.5	20.5	20.06	19.97	19.87	2.5	20.5
	CP-OFDM	QPSK	1	1	22.46	22.95	22.97	1.5	23.5	22.61	22.51	22.42	0.0	23.0	22.58	22.38	22.47	0.0	23.0

NR Band n25 Measured Results (Continued)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	
					371500	376500	381500			371500	376500	381500			371500	376500	381500			
					1857.5 MHz	1882.5 MHz	1907.5 MHz			1857.5 MHz	1882.5 MHz	1907.5 MHz			1857.5 MHz	1882.5 MHz	1907.5 MHz			
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.94	24.41	24.31	0.0	25.0	22.44	22.28	22.39	0.0	23.0	22.40	22.29	22.28	0.0	23.0	
			1	40	24.47	24.26	24.25	0.0	25.0	22.35	22.16	22.31	0.0	23.0	22.31	22.15	22.19	0.0	23.0	
			1	77	24.54	24.17	23.92	0.0	25.0	22.39	22.29	22.35	0.0	23.0	22.33	22.28	22.21	0.0	23.0	
			36	0	23.54	23.44	23.48	0.5	24.5	22.54	22.31	22.47	0.0	23.0	22.43	22.31	22.34	0.0	23.0	
			36	22	24.53	24.41	24.43	0.0	25.0	22.52	22.30	22.45	0.0	23.0	22.40	22.27	22.29	0.0	23.0	
			36	43	23.61	23.44	23.45	0.5	24.5	22.48	22.31	22.45	0.0	23.0	22.34	22.27	22.31	0.0	23.0	
			75	0	23.67	23.44	23.48	0.5	24.5	22.54	22.31	22.47	0.0	23.0	22.41	22.27	22.34	0.0	23.0	
		QPSK	1	1	23.34	24.24	24.43	0.0	25.0	22.55	22.44	22.44	0.0	23.0	22.42	22.30	22.35	0.0	23.0	
			1	40	24.23	24.34	24.03	0.0	25.0	22.48	22.30	22.37	0.0	23.0	22.29	22.16	22.24	0.0	23.0	
	CP-OFDM	QPSK	1	77	24.39	23.88	23.49	0.0	25.0	22.53	22.38	22.40	0.0	23.0	22.35	22.28	22.28	0.0	23.0	
			36	0	23.23	23.52	23.56	1.0	24.0	22.62	22.37	22.50	0.0	23.0	22.46	22.32	22.38	0.0	23.0	
			36	22	24.26	24.36	24.11	0.0	25.0	22.58	22.35	22.45	0.0	23.0	22.43	22.28	22.34	0.0	23.0	
			36	43	23.68	23.51	23.45	1.0	24.0	22.53	22.36	22.47	0.0	23.0	22.38	22.30	22.33	0.0	23.0	
			75	0	23.58	23.50	23.55	1.0	24.0	22.58	22.37	22.48	0.0	23.0	22.42	22.28	22.36	0.0	23.0	
			16QAM	1	1	22.76	23.44	23.57	1.0	24.0	22.63	22.46	22.56	0.0	23.0	22.62	22.32	22.29	0.0	23.0
			64QAM	1	1	21.65	22.02	22.09	2.5	22.5	22.21	22.02	21.94	0.5	22.5	22.02	21.89	21.85	0.5	22.5
			256QAM	1	1	20.21	20.06	19.95	4.5	20.5	20.11	19.90	19.91	2.5	20.5	19.87	19.84	19.88	2.5	20.5
			QPSK	1	1	22.40	23.00	23.05	1.5	23.5	22.51	22.41	22.52	0.0	23.0	22.43	22.41	22.30	0.0	23.0
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.53	24.34	24.42	0.0	25.0	22.54	22.45	22.43	0.0	23.0	22.34	22.19	22.33	0.0	23.0	
			1	26	24.58	24.28	24.36	0.0	25.0	22.52	22.38	22.45	0.0	23.0	22.36	22.21	22.32	0.0	23.0	
			1	50	24.56	24.33	24.05	0.0	25.0	22.52	22.47	22.42	0.0	23.0	22.32	22.17	22.23	0.0	23.0	
			25	0	23.69	23.43	23.51	0.5	24.5	22.59	22.49	22.51	0.0	23.0	22.43	22.23	22.30	0.0	23.0	
			25	14	24.66	24.39	24.35	0.0	25.0	22.62	22.46	22.53	0.0	23.0	22.44	22.21	22.33	0.0	23.0	
			25	27	23.67	23.42	23.49	0.5	24.5	22.59	22.46	22.49	0.0	23.0	22.43	22.22	22.28	0.0	23.0	
			50	0	23.71	23.42	23.52	0.5	24.5	22.63	22.46	22.51	0.0	23.0	22.47	22.21	22.34	0.0	23.0	
		QPSK	1	1	24.27	24.41	24.03	0.0	25.0	22.61	22.51	22.53	0.0	23.0	22.46	22.28	22.37	0.0	23.0	
			1	26	24.50	24.36	24.01	0.0	25.0	22.66	22.48	22.55	0.0	23.0	22.55	22.28	22.34	0.0	23.0	
	CP-OFDM	QPSK	1	50	24.63	24.26	23.72	0.0	25.0	22.52	22.48	22.56	0.0	23.0	22.44	22.25	22.29	0.0	23.0	
			25	0	23.76	23.51	23.50	1.0	24.0	22.65	22.50	22.56	0.0	23.0	22.51	22.28	22.35	0.0	23.0	
			25	14	24.54	24.44	24.11	0.0	25.0	22.67	22.47	22.53	0.0	23.0	22.51	22.25	22.37	0.0	23.0	
			25	27	23.75	23.49	23.54	1.0	24.0	22.63	22.47	22.44	0.0	23.0	22.48	22.27	22.31	0.0	23.0	
			50	0	23.77	23.49	23.57	1.0	24.0	22.67	22.47	22.48	0.0	23.0	22.53	22.27	22.36	0.0	23.0	
			16QAM	1	1	23.60	23.55	23.49	1.0	24.0	22.55	22.61	22.56	0.0	23.0	22.57	22.20	22.38	0.0	23.0
			64QAM	1	1	22.26	22.05	22.11	2.5	22.5	22.23	22.11	22.13	0.5	22.5	22.16	21.84	21.86	0.5	22.5
			256QAM	1	1	20.16	19.90	20.03	4.5	20.5	20.13	19.93	19.92	2.5	20.5	20.15	19.73	19.86	2.5	20.5
			QPSK	1	1	23.20	22.91	23.01	1.5	23.5	22.60	22.49	22.56	0.0	23.0	22.51	22.30	22.41	0.0	23.0
5 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.54	24.38	24.36	0.0	25.0	22.44	22.34	22.31	0.0	23.0	22.35	22.05	22.18	0.0	23.0	
			1	13	24.44	24.32	24.24	0.0	25.0	22.43	22.23	22.17	0.0	23.0	22.31	21.97	22.03	0.0	23.0	
			1	23	24.45	24.43	24.08	0.0	25.0	22.54	22.34	22.26	0.0	23.0	22.41	22.09	22.11	0.0	23.0	
			12	0	23.67	23.48	23.41	0.5	24.5	22.54	22.38	22.34	0.0	23.0	22.43	22.14	22.19	0.0	23.0	
			12	7	24.38	24.44	24.37	0.0	25.0	22.55	22.38	22.33	0.0	23.0	22.45	22.13	22.20	0.0	23.0	
			12	13	23.71	23.49	23.40	0.5	24.5	22.56	22.37	22.32	0.0	23.0	22.47	22.17	22.18	0.0	23.0	
			25	0	23.69	23.48	23.41	0.5	24.5	22.59	22.39	22.34	0.0	23.0	22.47	22.16	22.21	0.0	23.0	
		QPSK	1	1	24.12	24.47	24.08	0.0	25.0	22.56	22.43	22.39	0.0	23.0	22.47	22.22	22.26	0.0	23.0	
			1	13	24.09	24.36	24.17	0.0	25.0	22.51	22.33	22.25	0.0	23.0	22.40	22.12	22.15	0.0	23.0	
	CP-OFDM	QPSK	1	23	24.13	24.29	23.68	0.0	25.0	22.59	22.41	22.31	0.0	23.0	22.53	22.21	22.22	0.0	23.0	
			12	0	23.55	23.53	23.50	1.0	24.0	22.60	22.42	22.38	0.0	23.0	22.49	22.22	22.27	0.0	23.0	
			12	7	24.15	24.43	24.19	0.0	25.0	22.61	22.41	22.37	0.0	23.0	22.50	22.21	22.24	0.0	23.0	
			12	13	23.64	23.52	23.45	1.0	24.0	22.61	22.41	22.35	0.0	23.0	22.52	22.23	22.23	0.0	23.0	
			25	0	23.64	23.52	23.47	1.0	24.0	22.62	22.42	22.38	0.0	23.0	22.53	22.23	22.25	0.0	23.0	
			16QAM	1	1	23.53	23.51	23.46	1.0	24.0	22.61	22.48	22.42	0.0	23.0	22.53	22.20	22.33	0.0	23.0
			64QAM	1	1	22.22	21.96	21.98	2.5	22.5	22.18	21.95	21.94	0.5	22.5	22.05	21.70	21.87	0.5	22.5
			256QAM	1	1	20.23	20.11	19.95	4.5	20.5	19.96	19.91	19.91	2.5	20.5	20.13	19.87	19.83	2.5	20.5

NR Band n30 Measured Results

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)				
					RSI = 0, 1, 2, 3, 4				
					Measured Pwr (dBm)		MPR	Tune-up Limit	
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	462000	2310 MHz			
			1	26	22.74		0.0	24.0	
			1	50	23.49		0.0	24.0	
			25	0	23.55		0.0	24.0	
			25	14	22.52		0.5	23.5	
			25	27	23.56		0.0	24.0	
			50	0	22.56		0.5	23.5	
		QPSK	1	1	22.55		0.5	23.5	
			1	26	22.49		0.0	24.0	
			1	50	23.52		0.0	24.0	
			25	0	23.58		0.0	24.0	
			25	14	22.58		1.0	23.0	
			25	27	23.59		0.0	24.0	
			50	0	22.62		1.0	23.0	
		16QAM	1	1	22.59		1.0	23.0	
			1	26	21.91		1.0	23.0	
			1	50	22.52		1.0	23.0	
			64QAM	1	22.59		1.0	23.0	
		256QAM	1	1	21.00		2.5	21.5	
			1	1	19.03		4.5	19.5	
	CP-OFDM	QPSK	1	1	21.55		1.5	22.5	
5 MHz	DFT-s-OFDM	π/2 BPSK	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	
					461500	462000	462500		
			QPSK	2307.5 MHz	2307.5 MHz	2310 MHz	2312.5 MHz		
					1	1	23.22	0.0	24.0
					1	13	23.45	0.0	24.0
					1	23	23.56	0.0	24.0
					12	0	22.52	0.5	23.5
			16QAM	2310 MHz	12	7	23.54	0.0	24.0
					12	13	22.59	0.5	23.5
					25	0	22.57	0.5	23.5
					1	1	22.79	0.0	24.0
		QPSK	2310 MHz	2312.5 MHz	1	13	23.46	0.0	24.0
					1	23	23.62	0.0	24.0
					12	0	22.56	1.0	23.0
					12	7	23.46	0.0	24.0
			16QAM	2312.5 MHz	12	13	22.65	1.0	23.0
					25	0	22.62	1.0	23.0
					1	1	22.26	1.0	23.0
		CP-OFDM	QPSK	1	1	64QAM	21.16	2.5	21.5
						256QAM	19.02	4.5	19.5
						CP-OFDM	21.87	1.5	22.5

NR Band n41 (Power Class 3) Measured Results

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)								
					RSI = 0, 4				RSI = 1, 2, 3				
					Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit	
100 MHz	DFT-s-OFDM	π/2 BPSK	1	1	518598	2592.99 MHz			518598	2592.99 MHz			
			1	137	16.57		0.0	18.0	15.39		0.0	17.0	
			1	271	16.55		0.0	18.0	15.42		0.0	17.0	
			135	0	16.52		0.0	18.0	15.43		0.0	17.0	
			135	69	16.57		0.0	18.0	15.45	0.5	16.5		
			135	138	16.39		0.0	18.0	15.32	0.0	17.0		
			270	0	16.44		0.0	18.0	15.28	0.0	17.0		
	DFT-s-OFDM	QPSK	1	1	16.68		0.0	18.0	15.45	0.0	17.0		
			1	137	16.46		0.0	18.0	15.40	0.0	17.0		
			1	271	16.56		0.0	18.0	15.40	0.0	17.0		
			135	0	16.60		0.0	18.0	15.48	0.0	17.0		
			135	69	16.49		0.0	18.0	15.37	0.0	17.0		
			135	138	16.55		0.0	18.0	15.42	0.0	17.0		
			270	0	16.42		0.0	18.0	15.25	0.0	17.0		
	CP-OFDM	16QAM	1	1	16.72		0.0	18.0	15.35	0.0	17.0		
			1	137	16.54		0.0	18.0	15.38	0.0	17.0		
			1	271	16.57		0.0	18.0	15.35	0.0	17.0		
			64QAM	1	1	16.88		0.0	18.0	15.28	0.0	17.0	
			256QAM	1	1	15.32		1.0	17.0	14.79	0.0	17.0	
			CP-OFDM	QPSK	1	1	16.45		0.0	18.0	15.31	0.0	17.0
90 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	

NR Band n41 (Power Class 3) Measured Results (Continued)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	
					506202		531000			506202		531000			
					2531.01 MHz		2655 MHz			2531.01 MHz		2655 MHz			
70 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	16.93		16.66	0.0	18.0	15.59		15.27	0.0	17.0	
			1	95	16.89		17.05	0.0	18.0	15.66		15.69	0.0	17.0	
			1	188	16.91		16.95	0.0	18.0	15.36		15.40	0.0	17.0	
			90	0	16.81		16.66	0.0	18.0	15.91		15.42	0.0	17.0	
			90	50	16.83		17.03	0.0	18.0	15.64		15.69	0.0	17.0	
			90	99	16.72		17.08	0.0	18.0	15.49		15.63	0.0	17.0	
			180	0	16.86		17.00	0.0	18.0	15.62		15.66	0.0	17.0	
	QPSK	1	1	16.89		16.61	0.0	18.0	15.59		15.23	0.0	17.0		
		1	95	16.85		17.01	0.0	18.0	15.61		15.64	0.0	17.0		
		1	188	16.69		16.71	0.0	18.0	15.35		15.34	0.0	17.0		
		90	0	16.84		16.63	0.0	18.0	15.90		15.38	0.0	17.0		
		90	50	16.89		17.04	0.0	18.0	15.64		15.69	0.0	17.0		
		90	99	16.67		17.07	0.0	18.0	15.48		15.61	0.0	17.0		
		180	0	16.86		17.00	0.0	18.0	15.60		15.64	0.0	17.0		
	16QAM	1	1	16.91		16.66	0.0	18.0	15.66		15.33	0.0	17.0		
	64QAM	1	1	16.85		16.59	0.0	18.0	15.66		15.26	0.0	17.0		
	256QAM	1	1	15.39		15.15	1.0	17.0	15.06		14.77	0.0	17.0		
	CP-OFDM	QPSK	1	1	16.90		16.61	0.0	18.0	15.60		15.22	0.0	17.0	
60 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	16.97	505200	518598	531996	MPR	Tune-up Limit	505200	518598	531996	MPR	Tune-up Limit
			1	40	16.92	2526 MHz	2592.99 MHz	2659.98 MHz			2526 MHz	2592.99 MHz	2659.98 MHz		
			1	77	16.66	16.84	17.14	0.0	18.0	15.56	15.65	15.86	0.0	17.0	
			36	0	16.94	16.67	16.85	0.0	18.0	15.98	15.42	15.91	0.0	17.0	
			36	22	17.01	16.62	17.15	0.0	18.0	15.83	15.56	15.92	0.0	17.0	
			36	43	16.79	16.75	17.11	0.0	18.0	15.61	15.69	15.88	0.0	17.0	
			75	0	16.78	16.60	17.12	0.0	18.0	15.79	15.52	15.91	0.0	17.0	
	QPSK	1	1	16.95	16.64	16.68	0.0	18.0	15.82	15.52	15.44	0.0	17.0		
		1	40	17.01	16.60	17.07	0.0	18.0	15.88	15.55	15.93	0.0	17.0		
		1	77	16.64	16.61	17.03	0.0	18.0	15.56	15.63	15.67	0.0	17.0		
		36	0	16.91	16.71	16.77	0.0	18.0	15.88	15.38	15.70	0.0	17.0		
		36	22	17.11	16.68	17.04	0.0	18.0	15.81	15.53	15.91	0.0	17.0		
		36	43	16.80	16.74	17.15	0.0	18.0	15.55	15.68	15.88	0.0	17.0		
		75	0	17.10	16.59	17.06	0.0	18.0	15.74	15.49	15.91	0.0	17.0		
	16QAM	1	1	17.02	16.69	16.68	0.0	18.0	15.80	15.58	15.94	0.0	17.0		
	64QAM	1	1	16.97	16.60	16.65	0.0	18.0	15.79	15.59	15.50	0.0	17.0		
	256QAM	1	1	15.48	15.10	15.45	1.0	17.0	15.29	15.01	15.01	0.0	17.0		
	CP-OFDM	QPSK	1	1	17.03	16.61	16.75	0.0	18.0	15.77	15.49	15.40	0.0	17.0	
50 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	16.50	504204	518598	532998	MPR	Tune-up Limit	504204	518598	532998	MPR	Tune-up Limit
			1	26	17.09	2512.02 MHz	2592.99 MHz	2664.99 MHz			2512.02 MHz	2592.99 MHz	2664.99 MHz		
			1	50	16.82	16.78	17.03	0.0	18.0	15.48	15.70	15.77	0.0	17.0	
			25	0	17.02	16.60	16.80	0.0	18.0	15.74	15.41	15.85	0.0	17.0	
			25	14	17.01	16.52	17.10	0.0	18.0	15.90	15.55	15.95	0.0	17.0	
			25	27	17.09	16.66	17.12	0.0	18.0	15.70	15.72	15.81	0.0	17.0	
			50	0	17.00	16.49	17.08	0.0	18.0	15.86	15.52	15.91	0.0	17.0	
	QPSK	1	1	16.39	16.57	17.15	0.0	18.0	15.76	15.51	15.66	0.0	17.0		
		1	26	17.03	16.54	17.09	0.0	18.0	15.87	15.55	15.95	0.0	17.0		
		1	50	16.76	16.71	16.99	0.0	18.0	15.46	15.68	15.70	0.0	17.0		
		25	0	17.01	16.72	16.80	0.0	18.0	15.74	15.39	15.81	0.0	17.0		
		25	14	17.01	16.50	17.07	0.0	18.0	15.89	15.57	15.94	0.0	17.0		
		25	27	17.09	16.63	17.14	0.0	18.0	15.69	15.70	15.85	0.0	17.0		
		50	0	16.98	16.45	17.09	0.0	18.0	15.84	15.54	15.89	0.0	17.0		
	16QAM	1	1	16.52	16.61	17.05	0.0	18.0	15.80	15.56	15.74	0.0	17.0		
	64QAM	1	1	16.19	16.51	17.13	0.0	18.0	15.76	15.53	15.27	0.0	17.0		
	256QAM	1	1	15.02	15.06	15.80	1.0	17.0	15.29	14.91	15.19	0.0	17.0		
	CP-OFDM	QPSK	1	1	16.01	16.53	17.17	0.0	18.0	15.77	15.48	15.64	0.0	17.0	

NR Band n41 (Power Class 3) Measured Results (Continued)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
					503202	513468	523734	534000	2516.01 MHz			503202	513468	523734	534000	2618.67 MHz	2670 MHz	
40 MHz	DFT-s-OFDM	π/2 BPSK	1	1	17.03	16.35	16.41	16.70	0.0	18.0	15.81	15.58	15.68	15.82	0.0	17.0		
			1	53	17.14	16.40	16.60	16.87	0.0	18.0	15.91	15.68	15.83	15.92	0.0	17.0		
			1	104	16.81	16.14	16.50	16.62	0.0	18.0	15.55	15.41	15.76	15.76	0.0	17.0		
			50	0	17.17	16.35	16.47	16.75	0.0	18.0	15.89	15.62	15.74	15.93	0.0	17.0		
			50	28	17.12	16.32	16.52	16.81	0.0	18.0	15.93	15.63	15.76	15.98	0.0	17.0		
			50	56	16.95	16.13	16.44	16.75	0.0	18.0	15.71	15.45	15.70	15.88	0.0	17.0		
			100	0	16.89	16.27	16.42	16.84	0.0	18.0	15.91	15.62	15.73	15.89	0.0	17.0		
	QPSK	16QAM	1	1	16.57	16.31	16.40	16.80	0.0	18.0	15.75	15.57	15.63	15.82	0.0	17.0		
			1	53	16.83	16.38	16.51	16.86	0.0	18.0	15.87	15.61	15.78	15.98	0.0	17.0		
			1	104	16.38	16.13	16.45	16.69	0.0	18.0	15.48	15.39	15.72	15.77	0.0	17.0		
			50	0	16.73	16.37	16.47	16.82	0.0	18.0	15.83	15.63	15.72	15.94	0.0	17.0		
			50	28	16.76	16.27	16.40	16.81	0.0	18.0	15.88	15.61	15.76	15.98	0.0	17.0		
			50	56	16.54	16.15	16.44	16.75	0.0	18.0	15.65	15.41	15.70	15.87	0.0	17.0		
			100	0	16.73	16.34	16.46	16.86	0.0	18.0	15.85	15.61	15.73	15.96	0.0	17.0		
	CP-OFDM	QPSK	1	1	16.52	16.22	16.33	16.64	0.0	18.0	15.71	15.56	15.58	15.79	0.0	17.0		
30 MHz	DFT-s-OFDM	π/2 BPSK	1	1	16.78	16.46	16.20	16.51	16.75	0.0	18.0	15.77	15.53	15.36	15.66	15.87	0.0	17.0
			1	39	16.92	16.56	16.40	16.58	16.81	0.0	18.0	15.89	15.47	15.55	15.75	15.90	0.0	17.0
			1	76	16.69	16.43	16.51	16.69	16.69	0.0	18.0	15.72	15.53	15.64	15.89	15.77	0.0	17.0
			36	0	16.77	16.43	16.25	16.47	16.86	0.0	18.0	15.83	15.56	15.41	15.64	15.91	0.0	17.0
			36	21	16.88	16.51	16.35	16.52	16.76	0.0	18.0	15.91	15.59	15.48	15.65	15.87	0.0	17.0
			36	42	16.80	16.51	16.44	16.57	16.74	0.0	18.0	15.81	15.61	15.64	15.79	15.82	0.0	17.0
			75	0	16.81	16.43	16.34	16.46	16.80	0.0	18.0	15.87	15.55	15.47	15.67	15.93	0.0	17.0
	QPSK	16QAM	1	1	16.76	16.42	16.17	16.48	16.81	0.0	18.0	15.72	15.52	15.33	15.68	15.83	0.0	17.0
			1	39	16.88	16.52	16.36	16.52	16.91	0.0	18.0	15.95	15.57	15.37	15.68	15.84	0.0	17.0
			1	76	16.67	16.38	16.48	16.69	16.64	0.0	18.0	15.93	15.53	15.67	15.88	15.76	0.0	17.0
			36	0	16.83	16.42	16.25	16.49	16.79	0.0	18.0	15.75	15.50	15.37	15.64	15.89	0.0	17.0
			36	21	16.88	16.42	16.33	16.51	16.73	0.0	18.0	15.86	15.55	15.47	15.68	15.90	0.0	17.0
			36	42	16.80	16.45	16.46	16.54	16.69	0.0	18.0	15.84	15.56	15.64	15.77	15.83	0.0	17.0
			75	0	16.84	16.45	16.36	16.47	16.74	0.0	18.0	15.91	15.50	15.49	15.75	15.85	0.0	17.0
	CP-OFDM	QPSK	1	1	16.74	16.44	16.14	16.41	16.72	0.0	18.0	15.72	15.45	15.27	15.67	15.92	0.0	17.0
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	16.74	16.35	16.18	16.44	16.89	0.0	18.0	15.73	15.57	15.42	15.70	15.91	0.0	17.0
			1	26	16.84	16.44	16.30	16.52	16.70	0.0	18.0	15.83	15.59	15.52	15.75	15.86	0.0	17.0
			1	49	16.88	16.44	16.46	16.67	16.98	0.0	18.0	15.87	15.61	15.69	15.91	15.79	0.0	17.0
			25	0	16.79	16.39	16.18	16.46	16.75	0.0	18.0	15.78	15.59	15.43	15.70	15.89	0.0	17.0
			25	13	16.85	16.40	16.27	16.53	16.72	0.0	18.0	15.87	15.59	15.53	15.77	15.87	0.0	17.0
			25	26	16.88	16.43	16.38	16.60	16.74	0.0	18.0	15.88	15.60	15.61	15.84	15.86	0.0	17.0
			50	0	16.81	16.42	16.30	16.49	16.77	0.0	18.0	15.87	15.59	15.52	15.77	15.88	0.0	17.0
	QPSK	16QAM	1	1	16.74	16.43	16.26	16.42	16.82	0.0	18.0	15.77	15.55	15.43	15.70	15.92	0.0	17.0
			1	26	16.86	16.43	16.33	16.52	16.71	0.0	18.0	15.83	15.56	15.51	15.72	15.87	0.0	17.0
			1	49	16.88	16.46	16.52	16.41	16.60	0.0	18.0	15.87	15.58	15.67	15.89	15.78	0.0	17.0
			25	0	16.78	16.44	16.22	16.69	16.80	0.0	18.0	15.79	15.58	15.43	15.68	15.91	0.0	17.0
			25	13	16.81	16.43	16.30	16.47	16.77	0.0	18.0	15.89	15.61	15.55	15.78	15.89	0.0	17.0
			25	26	16.89	16.44	16.37	16.52	16.67	0.0	18.0	15.91	15.58	15.60	15.82	15.87	0.0	17.0
			50	0	16.86	16.43	16.34	16.46	16.73	0.0	18.0	15.88	15.60	15.53	15.78	15.89	0.0	17.0
	CP-OFDM	QPSK	1	1	16.75	16.62	16.22	16.49	16.81	0.0	18.0	15.83	15.56	15.47	15.72	15.93	0.0	17.0

NR Band n41 (Power Class 3) Measured Results (Continued)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
					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	π/2 BPSK	1	1	16.74	16.33	16.27	16.42	16.76	0.0	18.0	15.82	15.56	15.38	15.72	15.91	0.0	17.0	
		1	19	16.87	16.45	16.44	16.52	16.80	0.0	18.0	15.84	15.64	15.55	15.92	15.93	0.0	17.0	
		1	36	16.85	16.37	16.48	16.67	16.67	0.0	18.0	15.84	15.59	15.64	15.96	15.81	0.0	17.0	
		18	0	16.70	16.37	16.26	16.45	16.74	0.0	18.0	15.88	15.56	15.45	15.77	15.90	0.0	17.0	
		18	10	16.73	16.35	16.33	16.47	16.77	0.0	18.0	15.93	15.57	15.53	15.82	15.89	0.0	17.0	
		18	20	16.87	16.38	16.36	16.58	16.71	0.0	18.0	15.90	15.58	15.57	15.89	15.87	0.0	17.0	
		36	0	16.81	16.37	16.34	16.52	16.74	0.0	18.0	15.93	15.58	15.53	15.83	15.88	0.0	17.0	
	DFT-s-OFDM	1	1	16.79	16.37	16.28	16.41	16.77	0.0	18.0	15.87	15.54	15.42	15.73	15.91	0.0	17.0	
		1	19	16.81	16.42	16.36	16.59	16.78	0.0	18.0	15.81	15.51	15.46	15.76	15.83	0.0	17.0	
		1	36	16.86	16.36	16.46	16.61	16.69	0.0	18.0	15.96	15.55	15.61	15.92	15.78	0.0	17.0	
		18	0	16.76	16.35	16.27	16.45	16.74	0.0	18.0	15.86	15.55	15.46	15.75	15.88	0.0	17.0	
		18	10	16.78	16.49	16.30	16.50	16.74	0.0	18.0	15.92	15.58	15.52	15.82	15.88	0.0	17.0	
		18	20	16.84	16.48	16.35	16.57	16.68	0.0	18.0	15.96	15.58	15.56	15.89	15.86	0.0	17.0	
		36	0	16.79	16.51	16.25	16.49	16.71	0.0	18.0	15.92	15.58	15.51	15.81	15.90	0.0	17.0	
	256QAM	1	1	16.78	16.44	16.28	16.42	16.77	0.0	18.0	15.88	15.57	15.44	15.75	15.85	0.0	17.0	
		64QAM	1	1	16.72	16.40	16.19	16.38	16.70	0.0	18.0	15.82	15.56	15.39	15.69	15.92	0.0	17.0
	CP-OFDM	1	1	15.21	14.93	14.73	14.87	15.24	1.0	17.0	15.32	14.99	14.88	15.15	15.41	0.0	17.0	
		QPSK	1	1	16.71	16.43	16.09	16.40	16.72	0.0	18.0	15.88	15.55	15.37	15.68	15.94	0.0	17.0
10 MHz	π/2 BPSK	1	1	16.77	16.55	16.28	16.51	16.74	0.0	18.0	15.88	15.62	15.42	15.81	15.89	0.0	17.0	
		1	12	16.88	16.61	16.40	16.65	16.75	0.0	18.0	15.93	15.72	15.59	15.94	15.95	0.0	17.0	
		1	22	16.91	16.52	16.43	16.68	16.67	0.0	18.0	15.96	15.65	15.60	15.94	15.88	0.0	17.0	
		12	0	16.78	16.51	16.31	16.57	16.70	0.0	18.0	15.85	15.62	15.51	15.83	15.92	0.0	17.0	
		12	6	16.77	16.51	16.37	16.55	16.68	0.0	18.0	15.88	15.64	15.55	15.85	15.89	0.0	17.0	
		12	12	16.85	16.54	16.34	16.63	16.65	0.0	18.0	15.92	15.64	15.58	15.89	15.88	0.0	17.0	
		24	0	16.83	16.56	16.35	16.55	16.64	0.0	18.0	15.86	15.63	15.56	15.85	15.91	0.0	17.0	
	DFT-s-OFDM	1	1	16.82	16.53	16.32	16.60	16.70	0.0	18.0	15.87	15.59	15.48	15.78	15.93	0.0	17.0	
		1	12	16.86	16.52	16.39	16.63	16.70	0.0	18.0	15.87	15.63	15.56	15.84	15.85	0.0	17.0	
		1	22	16.85	16.51	16.38	16.67	16.68	0.0	18.0	15.92	15.61	15.60	15.89	15.82	0.0	17.0	
		12	0	16.79	16.50	16.30	16.49	16.67	0.0	18.0	15.86	15.61	15.52	15.79	15.91	0.0	17.0	
		12	6	16.80	16.49	16.37	16.58	16.71	0.0	18.0	15.86	15.60	15.55	15.84	15.91	0.0	17.0	
		12	12	16.82	16.52	16.36	16.60	16.70	0.0	18.0	15.90	15.61	15.58	15.86	15.88	0.0	17.0	
		24	0	16.78	16.48	16.36	16.57	16.65	0.0	18.0	15.86	15.65	15.56	15.84	15.89	0.0	17.0	
	16QAM	1	1	16.83	16.53	16.26	16.50	16.77	0.0	18.0	15.95	15.57	15.51	15.74	15.94	0.0	17.0	
		64QAM	1	1	16.71	16.47	16.22	16.47	16.67	0.0	18.0	15.88	15.68	15.50	15.85	15.96	0.0	17.0
	256QAM	1	1	15.29	14.95	14.73	14.96	15.12	1.0	17.0	15.34	14.99	14.90	15.23	15.38	0.0	17.0	
		CP-OFDM	1	1	16.74	16.40	16.24	16.41	16.67	0.0	18.0	15.88	15.59	15.47	15.74	15.91	0.0	17.0

NR Band n41 (Power Class 2) Measured Results

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)									
					RSI = 0, 4				RSI = 1, 2, 3					
					Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)					
100 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	518598 2592.99 MHz	19.47		0.0	21.0	15.39				
			1	137	19.47	19.47		0.0	21.0	15.42				
			1	271	19.42	19.42		0.0	21.0	15.43				
			135	0	19.02	19.02	0.5	20.5	15.45	0.5	16.5			
			135	69	19.47	19.47	0.0	21.0	15.32	0.0	17.0			
			135	138	18.96	18.96	0.5	20.5	15.40	0.0	17.0			
			270	0	18.82	18.82	0.5	20.5	15.28	0.0	17.0			
		QPSK	1	1	19.50	19.50	0.0	21.0	15.45	0.0	17.0			
			1	137	19.43	19.43	0.0	21.0	15.40	0.0	17.0			
			1	271	19.48	19.48	0.0	21.0	15.40	0.0	17.0			
			135	0	18.61	18.61	1.0	20.0	15.48	0.0	17.0			
			135	69	19.52	19.52	0.0	21.0	15.37	0.0	17.0			
			135	138	18.47	18.47	1.0	20.0	15.42	0.0	17.0			
			270	0	18.44	18.44	1.0	20.0	15.25	0.0	17.0			
	CP-OFDM	16QAM	1	1	18.44	18.44	1.0	20.0	15.35	0.0	17.0			
			1	137	18.43	18.43	1.5	19.5	15.38	0.0	17.0			
			1	271	18.44	18.44	2.5	18.5	15.35	0.0	17.0			
			64QAM	1	1	16.81	16.81	2.5	18.5	15.28	0.0	17.0		
			256QAM	1	1	14.83	14.83	4.5	16.5	14.79	0.0	17.0		
			CP-OFDM	OPSK	1	17.86	1.5	19.5	15.31	0.0	17.0			
90 MHz	DFT-s-OFDM	$\pi/2$ BPSK	508200	RB offset	Measured Pwr (dBm)		MPR	Measured Pwr (dBm)		MPR	Tune-up Limit			
					528996 2541 MHz	19.31		0.0	21.0	15.51	15.27	0.0	17.0	
					2644.98 MHz	19.72		0.0	21.0	15.63	15.58	0.0	17.0	
					19.57	19.57	0.0	21.0	15.19	15.52	0.0	17.0		
					18.91	18.91	0.5	20.5	15.78	15.41	0.0	17.0		
					19.61	19.61	0.0	21.0	15.48	15.63	0.0	17.0		
					19.32	19.32	0.5	20.5	15.38	15.71	0.5	16.5		
		QPSK	1	1	19.13	19.21	0.5	20.5	15.38	15.45	0.0	17.0		
	CP-OFDM		1	123	19.72	19.72	0.0	21.0	15.37	15.08	0.0	17.0		
			1	243	19.20	19.20	0.0	21.0	15.58	15.55	0.0	17.0		
			120	0	19.40	18.99	1.0	20.0	15.09	15.38	0.0	17.0		
			120	63	19.68	19.59	0.0	21.0	15.49	15.33	0.0	17.0		
			120	125	19.11	18.78	1.0	20.0	15.48	15.47	0.0	17.0		
			243	0	18.62	18.48	1.0	20.0	15.51	15.67	0.0	17.0		
80 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	18.73	18.29	1.0	20.0	15.48	15.43	0.0	17.0		
			1	1	17.22	16.68	2.5	18.5	15.37	15.09	0.0	17.0		
			1	1	15.08	14.69	4.5	16.5	14.88	15.07	0.0	17.0		
			1	1	18.13	17.77	1.5	19.5	15.41	14.58	0.0	17.0		
			CP-OFDM	OPS K	1	17.77	1.5	19.5	15.41	15.09	0.0	17.0		
70 MHz	DFT-s-OFDM	$\pi/2$ BPSK	507204	RB offset	Measured Pwr (dBm)		MPR	Measured Pwr (dBm)		MPR	Tune-up Limit			
					529998 2536.02 MHz	19.45		0.0	21.0	15.63	15.32	0.0	17.0	
					19.78	19.78	0.0	21.0	15.63	15.68	0.0	17.0		
					19.52	19.52	0.0	21.0	15.23	15.43	0.0	17.0		
					19.03	19.03	0.5	20.5	15.95	15.38	0.0	17.0		
					19.83	19.83	0.0	21.0	15.60	15.69	0.0	17.0		
		QPSK	108	0	19.54	19.35	0.5	20.5	15.55	15.70	0.0	17.0		
	CP-OFDM		108	55	19.75	19.31	0.5	20.5	15.54	15.69	0.0	17.0		
			108	109	19.15	19.47	0.0	21.0	15.59	15.32	0.0	17.0		
			216	0	19.15	19.84	0.0	21.0	15.57	15.65	0.0	17.0		
			1	1	19.76	18.86	1.0	20.0	15.52	15.39	0.0	17.0		
			1	215	19.34	18.82	1.0	20.0	15.51	15.39	0.0	17.0		
			108	0	19.06	18.53	1.0	20.0	15.92	15.71	0.0	17.0		
			108	55	19.74	19.84	0.0	21.0	15.59	15.70	0.0	17.0		
			216	0	18.66	18.86	1.0	20.0	15.52	15.66	0.0	17.0		
			16QAM	1	1	18.77	18.51	1.0	20.0	15.70	15.38	0.0	17.0	
			64QAM	1	1	17.28	17.04	2.5	18.5	15.52	15.34	0.0	17.0	
			256QAM	1	1	15.18	14.91	4.5	16.5	15.08	14.83	0.0	17.0	
	CP-OFDM	OPS K	1	1	18.22	17.91	1.5	19.5	15.60	15.32	0.0	17.0		

NR Band n41 (Power Class 2) Measured Results (Continued)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit			
					506202		531000			506202		531000					
					2531.01 MHz		2655 MHz			2531.01 MHz		2655 MHz					
70 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.67		19.36	0.0	21.0	15.59		15.27	0.0	17.0			
			1	95	19.75		19.79	0.0	21.0	15.66		15.69	0.0	17.0			
			1	188	19.77		19.78	0.0	21.0	15.36		15.40	0.0	17.0			
			90	0	19.53		18.95	0.5	20.5	15.91		15.42	0.0	17.0			
			90	50	19.47		19.78	0.0	21.0	15.64		15.69	0.0	17.0			
			90	99	18.88		19.25	0.5	20.5	15.49		15.63	0.0	17.0			
			180	0	19.07		19.26	0.5	20.5	15.62		15.66	0.0	17.0			
	QPSK	1	1	19.54		19.38	0.0	21.0	15.59		15.23	0.0	17.0				
		1	95	19.64		19.79	0.0	21.0	15.61		15.64	0.0	17.0				
		1	188	19.77		19.79	0.0	21.0	15.35		15.34	0.0	17.0				
		90	0	18.88		18.48	1.0	20.0	15.90		15.38	0.0	17.0				
		90	50	19.63		19.80	0.0	21.0	15.64		15.69	0.0	17.0				
		90	99	18.46		18.75	1.0	20.0	15.48		15.61	0.0	17.0				
		180	0	18.61		18.78	1.0	20.0	15.60		15.64	0.0	17.0				
	16QAM	1	1	18.65		18.42	1.0	20.0	15.66		15.33	0.0	17.0				
	64QAM	1	1	17.14		16.91	2.5	18.5	15.66		15.26	0.0	17.0				
	256QAM	1	1	15.02		14.77	4.5	16.5	15.06		14.77	0.0	17.0				
	CP-OFDM	QPSK	1	1	18.06		17.81	1.5	19.5	15.60		15.22	0.0	17.0			
60 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.92		19.56		19.61	0.0	21.0	15.81		15.52	0.0	17.0	
			1	40	19.98		19.62		19.64	0.0	21.0	15.87		15.61	0.0	17.0	
			1	77	19.66		19.64		19.80	0.0	21.0	15.56		15.65	0.0	17.0	
			36	0	19.69		19.02		19.35	0.5	20.5	15.98		15.42	0.0	17.0	
			36	22	19.03		19.66		19.55	0.0	21.0	15.83		15.56	0.0	17.0	
			36	43	19.28		19.20		19.54	0.5	20.5	15.61		15.69	0.0	17.0	
			75	0	19.44		19.00		19.59	0.5	20.5	15.79		15.52	0.0	17.0	
	QPSK	1	1	19.96		19.55		19.62	0.0	21.0	15.82		15.52	0.0	17.0		
		1	40	19.06		19.52		19.03	0.0	21.0	15.88		15.55	0.0	17.0		
		1	77	19.67		19.63		19.78	0.0	21.0	15.56		15.63	0.0	17.0		
		36	0	19.15		18.48		19.93	1.0	20.0	15.88		15.38	0.0	17.0		
		36	22	19.98		19.52		19.97	0.0	21.0	15.81		15.53	0.0	17.0		
		36	43	18.78		18.63		19.04	1.0	20.0	15.55		15.68	0.0	17.0		
		75	0	18.93		18.48		19.03	1.0	20.0	15.74		15.49	0.0	17.0		
	16QAM	1	1	18.81		18.66		18.51	1.0	20.0	15.80		15.58	0.0	17.0		
	64QAM	1	1	17.24		17.09		16.94	2.5	18.5	15.79		15.59	0.0	17.0		
	256QAM	1	1	15.24		15.03		14.96	4.5	16.5	15.29		15.01	0.0	17.0		
	CP-OFDM	QPSK	1	1	18.23		18.08		17.97	1.5	19.5	15.77		15.49	0.0	17.0	
50 MHz	DFT-s-OFDM	π/2 BPSK	1	1	19.97		19.50		19.77	0.0	21.0	15.79		15.51	0.0	17.0	
			1	26	20.00		19.47		19.96	0.0	21.0	15.89		15.53	0.0	17.0	
			1	50	19.57		19.64		19.75	0.0	21.0	15.48		15.70	0.0	17.0	
			25	0	19.37		18.94		19.38	0.5	20.5	15.74		15.41	0.0	17.0	
			25	14	19.97		19.48		19.99	0.0	21.0	15.90		15.55	0.0	17.0	
			25	27	19.26		19.20		19.33	0.5	20.5	15.70		15.72	0.0	17.0	
			50	0	19.49		19.00		19.47	0.5	20.5	15.86		15.52	0.0	17.0	
	QPSK	1	1	19.88		19.42		19.69	0.0	21.0	15.76		15.51	0.0	17.0		
		1	26	19.93		19.55		19.92	0.0	21.0	15.87		15.55	0.0	17.0		
		1	50	19.55		19.55		19.71	0.0	21.0	15.46		15.68	0.0	17.0		
		25	0	18.83		18.26		18.90	1.0	20.0	15.74		15.39	0.0	17.0		
		25	14	19.98		19.53		19.96	0.0	21.0	15.89		15.57	0.0	17.0		
		25	27	18.77		18.63		19.01	1.0	20.0	15.69		15.70	0.0	17.0		
		50	0	18.88		18.41		18.97	1.0	20.0	15.84		15.54	0.0	17.0		
	16QAM	1	1	18.85		18.36		18.61	1.0	20.0	15.80		15.56	0.0	17.0		
	64QAM	1	1	17.30		16.81		17.01	2.5	18.5	15.76		15.53	0.0	17.0		
	256QAM	1	1	15.30		14.81		15.02	4.5	16.5	15.29		14.91	0.0	17.0		
	CP-OFDM	QPSK	1	1	18.28		17.86		18.04	1.5	19.5	15.77		15.48	0.0	17.0	

NR Band n41 (Power Class 2) Measured Results (Continued)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
					503202	513468	523734	534000	2516.01 MHz			503202	513468	523734	534000	2618.67 MHz	2670 MHz	
40 MHz	π/2 BPSK	1	1	20.05	19.68		19.75	20.03	0.0	21.0	15.81	15.58			15.68	15.82	0.0	17.0
		1	53	20.29	19.78		20.08	20.35	0.0	21.0	15.91	15.68			15.83	15.92	0.0	17.0
		1	104	19.88	19.57		19.95	20.12	0.0	21.0	15.55	15.41			15.76	15.76	0.0	17.0
		50	0	19.72	19.30		19.42	19.76	0.5	20.5	15.89	15.62			15.74	15.93	0.0	17.0
		50	28	20.26	19.76		19.95	20.35	0.0	21.0	15.93	15.63			15.76	15.98	0.0	17.0
		50	56	19.55	19.08		19.41	19.75	0.5	20.5	15.71	15.45			15.70	15.88	0.0	17.0
		100	0	19.75	19.28		19.44	19.83	0.5	20.5	15.91	15.62			15.73	15.89	0.0	17.0
	DFT-s-OFDM	1	1	20.09	19.73		19.81	20.18	0.0	21.0	15.75	15.57			15.63	15.82	0.0	17.0
		1	53	20.24	19.77		19.93	20.31	0.0	21.0	15.87	15.61			15.78	15.98	0.0	17.0
		1	104	19.82	19.56		19.90	20.13	0.0	21.0	15.48	15.39			15.72	15.77	0.0	17.0
		50	0	19.18	18.76		18.87	19.26	1.0	20.0	15.83	15.63			15.72	15.94	0.0	17.0
		50	28	20.25	19.76		19.93	20.36	0.0	21.0	15.88	15.61			15.76	15.98	0.0	17.0
		50	56	19.01	18.56		18.84	19.22	1.0	20.0	15.65	15.41			15.70	15.87	0.0	17.0
		100	0	19.20	18.72		18.87	19.31	1.0	20.0	15.85	15.61			15.73	15.96	0.0	17.0
	16QAM	1	1	19.04	18.73		18.78	19.17	1.0	20.0	15.69	15.64			15.63	15.87	0.0	17.0
		64QAM	1	1	17.51	17.15		17.25	17.59	2.5	18.5	15.70	15.56			15.65	15.86	0.0
	256QAM	1	1	15.44	15.09		15.14	15.52	4.5	16.5	15.14	15.03			15.06	15.26	0.0	17.0
		CP-OFDM	QPSK	1	1	18.49	18.11		18.23	18.57	1.5	19.5	15.71	15.56			15.58	15.79
30 MHz	π/2 BPSK	1	1	19.97	19.78	19.43	19.67	19.99	0.0	21.0	15.77	15.53	15.36	15.66	15.87	0.0	17.0	
		1	39	20.04	19.67	19.67	19.75	19.95	0.0	21.0	15.89	15.47	15.55	15.75	15.90	0.0	17.0	
		1	76	19.88	19.70	19.78	19.92	19.85	0.0	21.0	15.72	15.53	15.64	15.89	15.77	0.0	17.0	
		36	0	19.47	19.20	19.08	19.20	19.46	0.5	20.5	15.83	15.56	15.41	15.64	15.91	0.0	17.0	
		36	21	20.07	19.68	19.64	19.66	19.99	0.0	21.0	15.91	15.59	15.48	15.65	15.87	0.0	17.0	
		36	42	19.48	19.23	19.29	19.32	19.35	0.5	20.5	15.81	15.61	15.64	15.79	15.82	0.0	17.0	
		75	0	19.59	19.24	19.13	19.21	19.45	0.5	20.5	15.87	15.55	15.47	15.67	15.93	0.0	17.0	
	DFT-s-OFDM	1	1	19.94	19.66	19.49	19.71	20.08	0.0	21.0	15.72	15.52	15.33	15.68	15.83	0.0	17.0	
		1	39	20.05	19.69	19.65	19.53	20.19	0.0	21.0	15.95	15.57	15.37	15.68	15.84	0.0	17.0	
		1	76	19.84	19.66	19.82	19.89	20.03	0.0	21.0	15.93	15.53	15.67	15.88	15.76	0.0	17.0	
		36	0	19.02	18.63	18.53	18.68	19.05	1.0	20.0	15.75	15.50	15.37	15.64	15.89	0.0	17.0	
		36	21	19.98	19.65	19.67	19.67	20.05	0.0	21.0	15.86	15.55	15.47	15.68	15.90	0.0	17.0	
		36	42	18.99	18.69	18.79	18.79	18.99	1.0	20.0	15.84	15.56	15.64	15.77	15.83	0.0	17.0	
		75	0	19.04	18.63	18.66	18.69	18.92	1.0	20.0	15.91	15.50	15.49	15.75	15.85	0.0	17.0	
	16QAM	1	1	19.04	18.61	18.50	18.66	18.50	1.0	20.0	15.77	15.52	15.33	15.73	15.89	0.0	17.0	
		64QAM	1	1	17.33	17.10	16.96	17.07	17.40	2.5	18.5	15.71	14.96	15.33	15.69	15.88	0.0	17.0
	256QAM	1	1	15.36	15.05	14.91	15.04	15.46	4.5	16.5	15.22	15.40	14.79	15.18	15.45	0.0	17.0	
		CP-OFDM	QPSK	1	1	18.34	17.97	17.88	18.04	18.42	1.5	19.5	15.72	15.45	15.27	15.67	15.92	0.0
20 MHz	π/2 BPSK	1	1	19.84	19.59	19.54	19.84	20.19	0.0	21.0	15.73	15.57	15.42	15.70	15.91	0.0	17.0	
		1	26	19.99	19.71	19.66	19.94	20.24	0.0	21.0	15.83	15.59	15.52	15.75	15.86	0.0	17.0	
		1	49	20.06	19.74	19.85	20.09	20.17	0.0	21.0	15.87	15.61	15.69	15.91	15.79	0.0	17.0	
		25	0	19.44	19.19	19.07	19.35	19.78	0.5	20.5	15.78	15.59	15.43	15.70	15.89	0.0	17.0	
		25	13	20.03	19.72	19.70	19.93	20.26	0.0	21.0	15.87	15.59	15.53	15.77	15.87	0.0	17.0	
		25	26	19.56	19.20	19.27	19.48	19.72	0.5	20.5	15.88	15.60	15.61	15.84	15.86	0.0	17.0	
		50	0	19.55	19.22	19.21	19.41	19.79	0.5	20.5	15.87	15.59	15.52	15.77	15.88	0.0	17.0	
	DFT-s-OFDM	1	1	19.97	19.68	19.60	19.85	20.32	0.0	21.0	15.77	15.55	15.43	15.70	15.92	0.0	17.0	
		1	26	20.03	19.69	19.68	19.89	20.21	0.0	21.0	15.83	15.56	15.51	15.72	15.87	0.0	17.0	
		1	49	20.08	19.73	19.85	20.05	20.13	0.0	21.0	15.87	15.58	15.67	15.89	15.78	0.0	17.0	
		25	0	18.98	18.70	18.59	18.83	19.27	1.0	20.0	15.79	15.58	15.43	15.68	15.91	0.0	17.0	
		25	13	20.04	19.71	19.70	19.91	20.26	0.0	21.0	15.89	15.61	15.55	15.78	15.89	0.0	17.0	
		25	26	19.06	18.72	18.78	18.96	19.21	1.0	20.0	15.91	15.58	15.60	15.82	15.87	0.0	17.0	
		50	0	19.04	18.69	18.69	18.87	19.22	1.0	20.0	15.88	15.60	15.53	15.78	15.89	0.0	17.0	
	16QAM	1	1	18.99	18.69	18.59	18.80	19.35	1.0	20.0	15.83	15.56	15.47	15.72	15.93	0.0	17.0	
		64QAM	1	1	17.44	17.17	17.05	17.29	17.81	2.5	18.5	15.84	15.61	15.45	15.72	15.89	0.0	17.0
	256QAM	1	1	15.34	15.06	14.96	15.22	15.65	4.5	16.5	15.26	15.01	14.91	15.13	15.41	0.0	17.0	
		CP-OFDM	QPSK	1	1	18.45	18.11	17.99	18.22	18.73	1.5	19.5	15.82	15.55	15.43	15.70	15.94	0.0

NR Band n41 (Power Class 2) Measured Results (Continued)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Measured Pwr (dBm)					MPR	Tune-up Limit
					500700	509652	518598	527550	536496		2503.5 MHz	2548.26 MHz	2592.99 MHz	2637.75 MHz	2682.48 MHz		
15 MHz	π/2 BPSK	1	1	19.92	19.55	19.52	19.83	20.20	0.0	21.0	15.82	15.56	15.38	15.72	15.91	0.0	17.0
		1	19	20.11	19.64	19.69	20.03	20.27	0.0	21.0	15.84	15.64	15.55	15.92	15.93	0.0	17.0
		1	36	20.10	19.63	19.79	20.06	20.15	0.0	21.0	15.84	15.59	15.64	15.96	15.81	0.0	17.0
		18	0	19.51	19.12	19.11	19.42	19.75	0.5	20.5	15.88	15.56	15.45	15.77	15.90	0.0	17.0
		18	10	20.07	19.66	19.69	19.96	20.22	0.0	21.0	15.93	15.57	15.53	15.82	15.89	0.0	17.0
		18	20	19.81	19.16	19.23	19.53	19.69	0.5	20.5	15.90	15.58	15.57	15.89	15.87	0.0	17.0
		36	0	19.57	19.17	19.19	19.45	19.73	0.5	20.5	15.93	15.58	15.53	15.83	15.88	0.0	17.0
	DFT-s-OFDM	1	1	20.03	19.64	19.58	19.87	20.25	0.0	21.0	15.87	15.54	15.42	15.73	15.91	0.0	17.0
		1	19	19.99	19.60	19.63	19.87	20.19	0.0	21.0	15.81	15.51	15.46	15.76	15.83	0.0	17.0
		1	36	20.12	19.66	19.79	20.04	20.18	0.0	21.0	15.96	15.55	15.61	15.92	15.78	0.0	17.0
		18	0	19.02	18.63	18.59	18.89	19.22	1.0	20.0	15.86	15.55	15.46	15.75	15.88	0.0	17.0
		18	10	20.07	19.65	19.69	19.94	20.22	0.0	21.0	15.92	15.58	15.52	15.82	15.88	0.0	17.0
		18	20	19.13	18.64	18.70	18.96	19.18	1.0	20.0	15.96	15.58	15.56	15.89	15.86	0.0	17.0
		36	0	19.06	18.65	18.66	18.92	19.22	1.0	20.0	15.92	15.58	15.51	15.81	15.90	0.0	17.0
	16QAM	1	1	19.06	18.67	18.56	18.80	19.25	1.0	20.0	15.88	15.57	15.44	15.75	15.85	0.0	17.0
	64QAM	1	1	17.49	17.15	17.01	17.31	17.70	2.5	18.5	15.82	15.56	15.39	15.69	15.92	0.0	17.0
	256QAM	1	1	15.40	15.07	14.99	15.19	15.64	4.5	16.5	15.32	14.99	14.88	15.15	15.41	0.0	17.0
	CP-OFDM	QPSK	1	1	18.50	18.12	17.99	18.29	18.69	1.5	19.5	15.88	15.55	15.37	15.68	15.94	0.0
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Measured Pwr (dBm)					MPR	Tune-up Limit
					500202	509400	518598	527802	537000		2501.01 MHz	2547 MHz	2592.99 MHz	2639.01 MHz	2685 MHz		
10 MHz	π/2 BPSK	1	1	19.82	19.68	19.56	19.86	20.10	0.0	21.0	15.88	15.62	15.42	15.81	15.89	0.0	17.0
		1	12	19.96	19.78	19.75	20.06	20.23	0.0	21.0	15.93	15.72	15.59	15.94	15.95	0.0	17.0
		1	22	20.02	19.75	19.75	20.04	20.16	0.0	21.0	15.96	15.65	15.60	15.94	15.88	0.0	17.0
		12	0	19.43	19.22	19.15	19.46	19.72	0.5	20.5	15.85	15.62	15.51	15.83	15.92	0.0	17.0
		12	6	19.96	19.77	19.72	19.99	20.22	0.0	21.0	15.88	15.64	15.55	15.85	15.89	0.0	17.0
		12	12	19.53	19.24	19.23	19.52	19.69	0.5	20.5	15.92	15.64	15.58	15.89	15.88	0.0	17.0
		24	0	19.47	19.26	19.23	19.47	19.71	0.5	20.5	15.86	15.63	15.56	15.85	15.91	0.0	17.0
	DFT-s-OFDM	1	1	19.97	19.71	19.69	19.93	20.26	0.0	21.0	15.87	15.59	15.48	15.78	15.93	0.0	17.0
		1	12	19.99	19.68	19.72	19.97	20.19	0.0	21.0	15.87	15.63	15.56	15.84	15.85	0.0	17.0
		1	22	20.09	19.73	19.81	20.03	20.16	0.0	21.0	15.92	15.61	15.60	15.89	15.82	0.0	17.0
		12	0	18.98	18.74	18.70	18.94	19.22	1.0	20.0	15.86	15.61	15.52	15.79	15.91	0.0	17.0
		12	6	19.99	19.74	19.77	19.98	20.23	0.0	21.0	15.86	15.60	15.55	15.84	15.91	0.0	17.0
		12	12	19.03	18.74	18.77	19.01	19.15	1.0	20.0	15.90	15.61	15.58	15.86	15.88	0.0	17.0
		24	0	19.01	18.75	18.72	18.96	19.17	1.0	20.0	15.86	15.65	15.56	15.84	15.89	0.0	17.0
	16QAM	1	1	19.01	18.68	18.72	18.93	19.18	1.0	20.0	15.95	15.57	15.51	15.74	15.94	0.0	17.0
	64QAM	1	1	17.49	17.21	17.11	17.45	17.83	2.5	18.5	15.88	15.68	15.50	15.85	15.96	0.0	17.0
	256QAM	1	1	15.38	15.10	15.01	15.31	15.51	4.5	16.5	15.34	14.99	14.90	15.23	15.38	0.0	17.0
	CP-OFDM	QPSK	1	1	18.43	18.16	18.06	18.34	18.63	1.5	19.5	15.88	15.59	15.47	15.74	15.91	0.0

NR Band n66 Measured Results

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)									
					RSI = 0, 4				RSI = 3				RSI = 1, 2	
					Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit	Measured Pwr (dBm)	
40 MHz	DFT-s-OFDM	π/2 BPSK	1	1	349000	1745 MHz			349000	1745 MHz			349000	1745 MHz
			1	108	23.81	0.0	25.0	21.83	0.0	23.0	21.60	0.0	23.0	
			1	214	24.38	0.0	25.0	22.34	0.0	23.0	22.12	0.0	23.0	
			108	0	24.45	0.0	25.0	22.40	0.0	23.0	22.55	0.0	23.0	
			108	54	23.23	0.5	24.5	22.15	0.0	23.0	21.97	0.0	23.0	
			108	108	24.42	0.0	25.0	22.38	0.0	23.0	22.21	0.0	23.0	
			216	0	23.56	0.5	24.5	22.47	0.0	23.0	22.32	0.0	23.0	
		QPSK	1	1	23.41	0.5	24.5	22.36	0.0	23.0	22.22	0.0	23.0	
			1	108	23.57	0.0	25.0	21.89	0.0	23.0	21.75	0.0	23.0	
			1	214	24.29	0.0	25.0	22.52	0.0	23.0	22.30	0.0	23.0	
			108	0	24.40	0.0	25.0	22.56	0.0	23.0	22.45	0.0	23.0	
			108	54	23.25	1.0	24.0	22.18	0.0	23.0	22.06	0.0	23.0	
			108	108	24.30	0.0	25.0	22.51	0.0	23.0	22.51	0.0	23.0	
			216	0	23.49	1.0	24.0	22.40	0.0	23.0	22.34	0.0	23.0	
		16QAM	1	1	23.43	1.0	24.0	22.37	0.0	23.0	22.27	0.0	23.0	
			1	108	22.93	1.0	24.0	21.90	0.0	23.0	21.78	0.0	23.0	
			1	214	23.54	1.0	24.0	22.44	0.0	23.0	22.36	0.0	23.0	
			64QAM	1	1	23.56	1.0	24.0	22.50	0.0	23.0	22.41	0.0	23.0
		256QAM	1	1	21.40	2.5	22.5	21.43	0.5	22.5	21.25	0.5	22.5	
			1	1	19.43	4.5	20.5	19.35	2.5	20.5	19.37	2.5	20.5	
		CP-OFDM	QPSK	1	1	22.37	1.5	23.5	21.95	0.0	23.0	21.78	0.0	23.0
30 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	Measured Pwr (dBm)	
			1	1	349000	1745 MHz			349000	1745 MHz			349000	1745 MHz
			1	80	23.89	0.0	25.0	21.97	0.0	23.0	22.00	0.0	23.0	
			1	158	24.34	0.0	25.0	22.35	0.0	23.0	22.39	0.0	23.0	
			80	0	24.50	0.0	25.0	22.51	0.0	23.0	22.57	0.0	23.0	
			80	40	23.26	0.5	24.5	22.26	0.0	23.0	22.30	0.0	23.0	
			80	80	24.39	0.0	25.0	22.42	0.0	23.0	22.47	0.0	23.0	
		QPSK	80	80	23.54	0.5	24.5	22.55	0.0	23.0	22.59	0.0	23.0	
			160	0	23.41	0.5	24.5	22.41	0.0	23.0	22.45	0.0	23.0	
			1	1	23.94	0.0	25.0	21.99	0.0	23.0	22.06	0.0	23.0	
			1	80	24.32	0.0	25.0	22.41	0.0	23.0	22.47	0.0	23.0	
			1	158	24.52	0.0	25.0	22.58	0.0	23.0	22.63	0.0	23.0	
			80	0	23.28	1.0	24.0	22.28	0.0	23.0	22.33	0.0	23.0	
			80	40	24.40	0.0	25.0	22.45	0.0	23.0	22.48	0.0	23.0	
		16QAM	80	80	23.58	1.0	24.0	22.57	0.0	23.0	22.62	0.0	23.0	
			160	0	23.41	1.0	24.0	22.43	0.0	23.0	22.48	0.0	23.0	
			1	1	22.79	1.0	24.0	22.10	0.0	23.0	22.04	0.0	23.0	
			1	1	21.55	2.5	22.5	21.51	0.5	22.5	21.53	0.5	22.5	
		64QAM	1	1	19.36	4.5	20.5	19.40	2.5	20.5	19.63	2.5	20.5	
			1	1	22.49	1.5	23.5	22.00	0.0	23.0	22.08	0.0	23.0	

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	Measured Pwr (dBm)		MPR	Tune-up Limit				
					349000	1745 MHz			349000	1745 MHz			349000	1745 MHz						
25 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.94		0.0	25.0	22.01		0.0	23.0	22.11		0.0	23.0				
			1	67	24.17		0.0	25.0	22.25		0.0	23.0	22.35		0.0	23.0				
			1	131	24.44		0.0	25.0	22.50		0.0	23.0	22.60		0.0	23.0				
			64	0	23.24		0.5	24.5	22.26		0.0	23.0	22.36		0.0	23.0				
			64	35	24.34		0.0	25.0	22.40		0.0	23.0	22.49		0.0	23.0				
			64	69	23.48		0.5	24.5	22.53		0.0	23.0	22.62		0.0	23.0				
		QPSK	128	0	23.35		0.5	24.5	22.39		0.0	23.0	22.48		0.0	23.0				
			1	1	23.98		0.0	25.0	22.08		0.0	23.0	22.18		0.0	23.0				
			1	67	24.25		0.0	25.0	22.32		0.0	23.0	22.42		0.0	23.0				
			1	131	24.45		0.0	25.0	22.54		0.0	23.0	22.63		0.0	23.0				
	16QAM	π/2 BPSK	64	0	23.28		1.0	24.0	22.31		0.0	23.0	22.37		0.0	23.0				
			64	35	24.39		0.0	25.0	22.43		0.0	23.0	22.50		0.0	23.0				
			64	69	23.55		1.0	24.0	22.54		0.0	23.0	22.62		0.0	23.0				
		QPSK	128	0	23.40		1.0	24.0	22.42		0.0	23.0	22.48		0.0	23.0				
			1	1	23.11		1.0	24.0	22.14		0.0	23.0	22.38		0.0	23.0				
			64QAM	1	1	21.52		2.5	22.5	21.55		0.5	22.5	21.68		0.5	22.5			
	256QAM	1	1		19.55		4.5	20.5	19.62		2.5	20.5	19.58		2.5	20.5				
		CP-OFDM	QPSK	1	1	22.59		1.5	23.5	22.12		0.0	23.0	22.19		0.0	23.0			
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.72	24.17	24.45	0.0	25.0	22.21	22.24	22.50	0.0	23.0	22.22	22.15	22.51	0.0	23.0	
			1	53	24.04	24.38	24.52	0.0	25.0	21.99	22.43	22.52	0.0	23.0	22.04	22.37	22.50	0.0	23.0	
			1	104	24.01	24.51	24.49	0.0	25.0	21.93	22.62	22.49	0.0	23.0	21.96	22.55	22.47	0.0	23.0	
			50	0	23.24	23.39	23.63	0.5	24.5	22.20	22.42	22.60	0.0	23.0	22.27	22.35	22.58	0.0	23.0	
			50	28	24.15	24.44	24.60	0.0	25.0	22.08	22.51	22.59	0.0	23.0	22.14	22.45	22.58	0.0	23.0	
			50	56	23.06	23.58	23.58	0.5	24.5	21.98	22.62	22.53	0.0	23.0	22.04	22.56	22.55	0.0	23.0	
			100	0	23.16	23.46	23.62	0.5	24.5	22.10	22.50	22.59	0.0	23.0	22.16	22.45	22.59	0.0	23.0	
		QPSK	1	1	23.41	24.15	24.10	0.0	25.0	22.28	22.28	22.60	0.0	23.0	22.18	22.25	22.58	0.0	23.0	
			1	53	23.97	24.39	24.57	0.0	25.0	22.09	22.48	22.58	0.0	23.0	22.08	22.45	22.57	0.0	23.0	
			1	104	24.08	24.31	24.49	0.0	25.0	21.92	22.69	22.48	0.0	23.0	22.02	22.55	22.54	0.0	23.0	
			50	0	23.08	23.41	23.68	1.0	24.0	22.25	22.44	22.61	0.0	23.0	22.31	22.38	22.64	0.0	23.0	
			50	28	24.03	24.48	24.63	0.0	25.0	22.11	22.52	22.60	0.0	23.0	22.16	22.47	22.63	0.0	23.0	
			50	56	23.09	23.62	23.64	1.0	24.0	22.00	22.62	22.57	0.0	23.0	22.07	22.59	22.58	0.0	23.0	
			100	0	23.21	23.50	23.65	1.0	24.0	22.13	22.53	22.62	0.0	23.0	22.18	22.47	22.63	0.0	23.0	
			16QAM	1	1	22.61	23.29	23.44	1.0	24.0	22.27	22.35	22.63	0.0	23.0	22.07	22.36	22.50	0.0	23.0
			64QAM	1	1	21.67	21.79	22.17	2.5	22.5	21.85	21.75	22.10	0.5	22.5	21.68	21.84	22.14	0.5	22.5
			256QAM	1	1	19.77	19.71	20.05	4.5	20.5	19.76	19.78	19.95	2.5	20.5	19.86	19.69	20.10	2.5	20.5
		CP-OFDM	QPSK	1	1	22.33	22.76	23.07	1.5	23.5	22.23	22.27	22.53	0.0	23.0	22.04	22.28	22.66	0.0	23.0

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	Measured Pwr (dBm)			MPR	Tune-up Limit	
					343500	349000	354500			1717.5 MHz	1745 MHz	1772.5 MHz			343500	349000	354500			
					1	1	23.72	24.25	24.43	0.0	25.0	22.25	22.23	22.48	0.0	23.0	22.26	22.29	22.53	0.0
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.72	24.25	24.43	0.0	25.0	22.25	22.23	22.48	0.0	23.0	22.26	22.29	22.53	0.0	23.0	
			1	40	24.05	24.34	24.35	0.0	25.0	22.06	22.30	22.39	0.0	23.0	22.10	22.33	22.44	0.0	23.0	
			1	77	23.99	24.28	24.43	0.0	25.0	21.96	22.50	22.48	0.0	23.0	21.99	22.58	22.50	0.0	23.0	
			36	0	23.30	23.44	23.55	0.5	24.5	22.29	22.34	22.55	0.0	23.0	22.32	22.42	22.59	0.0	23.0	
			36	22	24.20	24.49	24.50	0.0	25.0	22.18	22.40	22.53	0.0	23.0	22.21	22.47	22.58	0.0	23.0	
			36	43	23.12	23.62	23.51	0.5	24.5	22.07	22.51	22.52	0.0	23.0	22.16	22.56	22.56	0.0	23.0	
			75	0	23.24	23.51	23.53	0.5	24.5	22.21	22.41	22.53	0.0	23.0	22.29	22.48	22.59	0.0	23.0	
		QPSK	1	1	23.33	24.02	24.29	0.0	25.0	22.27	22.25	22.51	0.0	23.0	21.88	22.33	22.62	0.0	23.0	
			1	40	24.10	24.37	24.45	0.0	25.0	22.14	22.31	22.41	0.0	23.0	22.20	22.40	22.50	0.0	23.0	
			1	77	23.95	24.04	24.29	0.0	25.0	22.06	22.51	22.46	0.0	23.0	22.11	22.59	22.55	0.0	23.0	
			36	0	23.09	23.47	23.61	1.0	24.0	22.33	22.38	22.57	0.0	23.0	22.40	22.42	22.63	0.0	23.0	
			36	22	24.14	24.52	24.54	0.0	25.0	22.22	22.43	22.56	0.0	23.0	22.28	22.48	22.59	0.0	23.0	
			36	43	23.16	23.65	23.58	1.0	24.0	22.11	22.52	22.52	0.0	23.0	22.16	22.59	22.58	0.0	23.0	
			75	0	23.27	23.55	23.60	1.0	24.0	22.24	22.43	22.57	0.0	23.0	22.28	22.49	22.60	0.0	23.0	
			16QAM	1	1	22.62	23.28	23.58	1.0	24.0	22.17	22.22	22.64	0.0	23.0	21.93	22.40	22.62	0.0	23.0
			64QAM	1	1	21.61	21.90	22.13	2.5	22.5	21.72	21.78	22.12	0.5	22.5	21.42	21.88	22.12	0.5	22.5
			256QAM	1	1	19.82	19.72	20.11	4.5	20.5	19.80	19.80	19.86	2.5	20.5	19.92	19.77	20.09	2.5	20.5
		CP-OFDM	QPSK	1	1	22.23	22.81	23.05	1.5	23.5	22.12	22.34	22.57	0.0	23.0	21.89	22.36	22.59	0.0	23.0
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.27	24.26	24.55	0.0	25.0	22.31	22.27	22.56	0.0	23.0	22.31	22.36	22.61	0.0	23.0	
			1	26	24.18	24.33	24.50	0.0	25.0	22.18	22.34	22.49	0.0	23.0	22.21	22.37	22.52	0.0	23.0	
			1	50	24.13	24.46	24.56	0.0	25.0	22.11	22.48	22.54	0.0	23.0	22.14	22.52	22.57	0.0	23.0	
			25	0	23.35	23.38	23.62	0.5	24.5	22.31	22.37	22.56	0.0	23.0	22.35	22.40	22.62	0.0	23.0	
			25	14	24.28	24.41	24.60	0.0	25.0	22.28	22.41	22.56	0.0	23.0	22.32	22.46	22.60	0.0	23.0	
			25	27	23.25	23.51	23.62	0.5	24.5	22.23	22.47	22.56	0.0	23.0	22.25	22.52	22.61	0.0	23.0	
			50	0	23.33	23.43	23.62	0.5	24.5	22.31	22.42	22.57	0.0	23.0	22.34	22.47	22.61	0.0	23.0	
		QPSK	1	1	23.98	24.34	24.65	0.0	25.0	22.36	22.35	22.59	0.0	23.0	22.42	22.43	22.65	0.0	23.0	
			1	26	24.26	24.40	24.59	0.0	25.0	22.28	22.43	22.55	0.0	23.0	22.35	22.49	22.56	0.0	23.0	
			1	50	24.14	24.52	24.53	0.0	25.0	22.16	22.47	22.54	0.0	23.0	22.15	22.54	22.65	0.0	23.0	
			25	0	23.41	23.43	23.67	1.0	24.0	22.34	22.39	22.62	0.0	23.0	22.39	22.44	22.65	0.0	23.0	
			25	14	24.33	24.45	24.62	0.0	25.0	22.32	22.42	22.58	0.0	23.0	22.35	22.48	22.65	0.0	23.0	
			25	27	23.32	23.54	23.67	1.0	24.0	22.25	22.48	22.61	0.0	23.0	22.29	22.54	22.64	0.0	23.0	
			50	0	23.38	23.47	23.66	1.0	24.0	22.32	22.43	22.59	0.0	23.0	22.37	22.47	22.65	0.0	23.0	
			16QAM	1	1	23.29	23.49	23.46	1.0	24.0	22.39	22.48	22.82	0.0	23.0	22.46	22.44	22.71	0.0	23.0
			64QAM	1	1	21.94	21.85	22.26	2.5	22.5	21.94	21.95	22.29	0.5	22.5	21.94	21.84	22.21	0.5	22.5
			256QAM	1	1	19.91	19.88	20.07	4.5	20.5	19.97	19.70	20.18	2.5	20.5	19.89	19.83	20.14	2.5	20.5
		CP-OFDM	QPSK	1	1	22.87	22.84	23.12	1.5	23.5	22.36	22.31	22.67	0.0	23.0	22.40	22.36	22.65	0.0	23.0
5 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.21	24.35	24.50	0.0	25.0	22.22	22.27	22.47	0.0	23.0	22.25	22.41	22.51	0.0	23.0	
			1	13	24.14	24.30	24.45	0.0	25.0	22.11	22.24	22.42	0.0	23.0	22.15	22.31	22.44	0.0	23.0	
			1	23	24.24	24.45	24.55	0.0	25.0	22.21	22.39	22.52	0.0	23.0	22.25	22.45	22.53	0.0	23.0	
			12	0	23.32	23.45	23.59	0.5	24.5	22.27	22.36	22.52	0.0	23.0	22.30	22.42	22.55	0.0	23.0	
			12	7	24.27	24.43	24.57	0.0	25.0	22.24	22.37	22.54	0.0	23.0	22.30	22.44	22.57	0.0	23.0	
			12	13	23.33	23.48	23.60	0.5	24.5	22.24	22.40	22.57	0.0	23.0	22.31	22.46	22.58	0.0	23.0	
			25	0	23.32	23.45	23.60	0.5	24.5	22.27	22.40	22.55	0.0	23.0	22.31	22.44	22.58	0.0	23.0	
		QPSK	1	1	24.01	24.38	24.55	0.0	25.0	22.31	22.39	22.56	0.0	23.0	22.35	22.44	22.62	0.0	23.0	
			1	13	24.11	24.35	24.46	0.0	25.0	22.21	22.32	22.47	0.0	23.0	22.24	22.37	22.55	0.0	23.0	
			1	23	24.22	24.43	24.42	0.0	25.0	22.27	22.45	22.51	0.0	23.0	22.23	22.44	22.63	0.0	23.0	
			12	0	23.36	23.49	23.64	1.0	24.0	22.29	22.39	22.57	0.0	23.0	22.34	22.44	22.59	0.0	23.0	
			12	7	24.21	24.47	24.55	0.0	25.0	22.28	22.41	22.58	0.0	23.0	22.31	22.45	22.58	0.0	23.0	
			12	13	23.36	23.52	23.65	1.0	24.0	22.28	22.43	22.59	0.0	23.0	22.32	22.49	22.61	0.0	23.0	
			25	0	23.34	23.50	23.64	1.0	24.0	22.29	22.43	22.58	0.0	23.0	22.35	22.48	22.60	0.0	23.0	
			16QAM	1	1	23.30	23.62	23.56	1.0	24.0	22.46	22.46	22.58	0.0	23.0	22.45	22.44	22.60	0.0	23.0
			64QAM	1	1	21.83	21.91	22.22	2.5	22.5	21.69	21.90	22.07	0.5	22.5	21.90	22.07	22.28	0.5	22.5
			256QAM	1	1	19.90	19.91	20.18	4.5	20.5	19.88	19.87								

NR Band n71 Measured Results

BW (MHz)	Modula-	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)			
					RSI = 0, 1, 2, 3, 4			
					Measured Pwr (dBm)		MPR	Tune-up Limit
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	136100	24.29	0.0	25.5
			1	53	680.5 MHz	24.58		25.5
			1	104		24.42	0.0	25.5
			50	0		23.42	0.5	25.0
			50	28		24.47	0.0	25.5
			50	56		23.49	0.5	25.0
			100	0		23.49	0.5	25.0
		QPSK	1	1	136100	24.40	0.0	25.5
			1	53	680.5 MHz	24.71		25.5
			1	104		24.42	0.0	25.5
			50	0		23.46	1.0	24.5
			50	28		24.57	0.0	25.5
			50	56		23.53	1.0	24.5
			100	0		23.53	1.0	24.5
		16QAM	1	1	136100	23.36	1.0	24.5
			1	53	680.5 MHz	23.65		24.5
			1	104		23.47	1.0	24.5
			64QAM	1		21.97	2.5	23.0
			256QAM	1		19.80	4.5	21.0
	CP-OFDM	QPSK	1	1	136100	22.90	1.5	24.0
	1	1	680.5 MHz					
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	136100	24.40	0.0	25.5
			1	40	680.5 MHz	24.42		25.5
			1	77		24.49	0.0	25.5
			36	0		23.49	0.5	25.0
			36	22		24.54	0.0	25.5
			36	43		23.56	0.5	25.0
			75	0		23.56	0.5	25.0
		QPSK	1	1	136100	24.49	0.0	25.5
			1	40	680.5 MHz	24.49		25.5
			1	77		24.54	0.0	25.5
			36	0		23.52	1.0	24.5
			36	22		24.57	0.0	25.5
			36	43		23.58	1.0	24.5
			75	0		23.59	1.0	24.5
		16QAM	1	1	136100	23.44	1.0	24.5
			1	1	680.5 MHz	22.05		24.5
			64QAM	1		19.95	2.5	23.0
			256QAM	1		19.95	4.5	21.0
	CP-OFDM	QPSK	1	1	136100	22.99	1.5	24.0
	1	1	680.5 MHz					

NR Band n71 Measured Results (Continued)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					133600	136100	138600		
10 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	24.36	24.47	24.50	0.0	25.5
			1	26	24.49	24.51	24.55	0.0	25.5
			1	50	24.47	24.51	24.42	0.0	25.5
			25	0	23.42	23.52	23.54	0.5	25.0
			25	14	24.44	24.54	24.53	0.0	25.5
			25	27	23.50	23.57	23.52	0.5	25.0
			50	0	23.46	23.57	23.55	0.5	25.0
		QPSK	1	1	24.40	24.46	24.54	0.0	25.5
			1	26	24.50	24.57	24.62	0.0	25.5
			1	50	24.52	24.57	24.48	0.0	25.5
			25	0	23.45	23.54	23.57	1.0	24.5
			25	14	24.49	24.56	24.56	0.0	25.5
			25	27	23.52	23.59	23.54	1.0	24.5
			50	0	23.49	23.59	23.57	1.0	24.5
		16QAM	1	1	23.47	23.59	23.53	1.0	24.5
		64QAM	1	1	21.90	22.00	22.14	2.5	23.0
		256QAM	1	1	19.92	20.04	20.12	4.5	21.0
	CP-OFDM	QPSK	1	1	22.90	23.09	23.13	1.5	24.0
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					133100	136100	139100		
5 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	24.40	24.49	24.53	0.0	25.5
			1	13	24.32	24.44	24.41	0.0	25.5
			1	23	24.45	24.52	24.48	0.0	25.5
			12	0	23.44	23.54	23.58	0.5	25.0
			12	7	24.44	24.54	24.53	0.0	25.5
			12	13	23.46	23.57	23.54	0.5	25.0
			25	0	23.46	23.56	23.55	0.5	25.0
		QPSK	1	1	24.46	24.53	24.57	0.0	25.5
			1	13	24.39	24.49	24.48	0.0	25.5
			1	23	24.48	24.59	24.55	0.0	25.5
			12	0	23.47	23.56	23.60	1.0	24.5
			12	7	24.47	24.57	24.56	0.0	25.5
			12	13	23.49	23.58	23.57	1.0	24.5
			25	0	23.48	23.57	23.60	1.0	24.5
		16QAM	1	1	23.43	23.66	23.57	1.0	24.5
		64QAM	1	1	21.92	22.03	22.16	2.5	23.0
		256QAM	1	1	19.89	20.08	20.06	4.5	21.0
	CP-OFDM	QPSK	1	1	22.98	23.13	23.11	1.5	24.0

NR Band n48(Voice/data/SRS0) Measured Results

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)					Reduced Average Power (dBm) Hotspot back-off								
					RSI = 0, 1, 2, 3					RSI = 4								
					Measured Pwr (dBm)		638000	641666	645332	MPR	Tune-up Limit	638000	641666	645332	MPR			
40 MHz	DFT-s-OFDM	π/2 BPSK	1	1	13.84	14.03			13.89	0.0	15.0	12.4	12.4		12.3	0.0	14.0	
			1	53	13.78	14.31			14.07	0.0	15.0	12.3	12.7		12.4	0.0	14.0	
			1	104	13.76	14.16			14.05	0.0	15.0	12.3	12.6		12.4	0.0	14.0	
			50	0	13.82	14.26			14.00	0.0	15.0	12.3	12.7		12.4	0.0	14.0	
			50	28	13.79	14.28			13.99	0.0	15.0	12.3	12.7		12.4	0.0	14.0	
			50	56	13.81	14.30			14.01	0.0	15.0	12.3	12.8		12.4	0.0	14.0	
		QPSK	100	0	13.78	14.27			13.97	0.0	15.0	12.3	12.8		12.4	0.0	14.0	
			1	1	13.79	14.06			13.84	0.0	15.0	12.4	12.5		12.4	0.0	14.0	
			1	53	13.75	14.26			13.87	0.0	15.0	12.3	12.8		12.5	0.0	14.0	
			1	104	13.77	14.17			13.94	0.0	15.0	12.3	12.6		12.4	0.0	14.0	
			50	0	13.82	14.27			13.92	0.0	15.0	12.4	12.8		12.5	0.0	14.0	
			50	28	13.77	14.31			13.93	0.0	15.0	12.3	12.8		12.5	0.0	14.0	
			50	56	13.79	14.29			13.93	0.0	15.0	12.3	12.8		12.4	0.0	14.0	
			100	0	13.77	14.27			13.92	0.0	15.0	12.3	12.8		12.4	0.0	14.0	
		16QAM	1	1	13.84	14.01			13.82	0.0	15.0	12.5	12.6		12.4	0.0	14.0	
			64QAM	1	1	13.85	14.12			13.89	0.0	15.0	12.5	12.6		12.5	0.0	14.0
			256QAM	1	1	12.40	12.59			12.36	1.0	14.0	12.0	12.1		12.0	0.0	14.0
		CP-OFDM	QPSK	1	1	13.83	14.02			13.84	0.0	15.0	12.4	12.6		12.4	0.0	14.0
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	637334.00	640222.00	643112.00	646000.00			MPR	Measured Pwr (dBm)					MPR	Tune-up Limit
			3560.01 MHz	3603.33 MHz	3646.68 MHz	3690 MHz			637334.00	640222.00	643112.00	646000.00		MPR		MPR	Tune-up Limit	
			1	26	13.71	13.90	13.86	14.24	14.19	0.0	15.0	12.1	12.4	12.5	12.9	0.0	14.0	
			1	49	13.74	13.94	14.02	14.15	14.15	0.0	15.0	12.2	12.8	12.7	12.9	0.0	14.0	
			25	0	13.83	13.86	13.89	14.26	14.26	0.0	15.0	12.3	12.6	12.7	13.0	0.0	14.0	
			25	13	13.80	13.90	13.94	14.25	14.25	0.0	15.0	12.3	12.6	12.7	13.1	0.0	14.0	
			25	26	13.77	13.92	13.94	14.21	14.21	0.0	15.0	12.2	12.6	12.7	13.0	0.0	14.0	
			50	0	13.80	13.89	13.93	14.28	14.28	0.0	15.0	12.3	12.7	12.7	13.1	0.0	14.0	
		QPSK	1	1	13.83	13.75	13.91	14.21	14.21	0.0	15.0	12.3	12.6	12.7	13.1	0.0	14.0	
			1	26	13.78	13.84	13.81	14.24	14.24	0.0	15.0	12.2	12.7	12.7	13.0	0.0	14.0	
			1	49	13.75	13.90	13.97	14.16	14.16	0.0	15.0	12.2	12.7	12.8	13.0	0.0	14.0	
			25	0	13.85	13.84	13.93	14.27	14.27	0.0	15.0	12.3	12.7	12.7	13.1	0.0	14.0	
			25	26	13.77	13.91	13.94	14.22	14.22	0.0	15.0	12.2	12.7	12.7	13.0	0.0	14.0	
			50	0	13.81	13.88	13.94	14.30	14.30	0.0	15.0	12.3	12.7	12.7	13.1	0.0	14.0	
		16QAM	1	1	13.84	13.75	13.88	14.23	14.23	0.0	15.0	12.3	12.7	12.8	13.1	0.0	14.0	
			64QAM	1	1	13.91	13.79	13.92	14.28	14.28	0.0	15.0	12.4	12.7	12.8	13.2	0.0	14.0
			256QAM	1	1	12.38	12.31	12.39	12.76	12.76	1.0	14.0	11.8	12.5	12.3	12.6	0.0	14.0
		CP-OFDM	QPSK	1	1	13.84	13.77	13.88	14.24	14.24	0.0	15.0	12.3	12.5	12.5	13.0	0.0	14.0
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	13.74	13.57	13.64	13.99	13.99	0.0	15.0	12.6	12.6	12.7	13.1	0.0	14.0	
			1	19	13.81	13.71	13.73	14.10	14.10	0.0	15.0	12.6	12.7	12.8	13.1	0.0	14.0	
			1	36	13.74	13.72	13.77	14.04	14.04	0.0	15.0	12.7	12.7	12.8	13.1	0.0	14.0	
			18	0	13.70	13.62	13.69	14.14	14.14	0.0	15.0	12.7	12.6	12.7	13.2	0.0	14.0	
			18	10	13.72	13.63	13.72	14.13	14.13	0.0	15.0	12.6	12.7	12.7	13.1	0.0	14.0	
			18	20	13.75	13.67	13.71	13.96	13.96	0.0	15.0	12.6	12.7	12.8	13.1	0.0	14.0	
		QPSK	36	0	13.77	13.65	13.70	14.04	14.04	0.0	15.0	12.7	12.7	12.7	13.2	0.0	14.0	
			1	1	13.89	13.55	13.74	14.11	14.11	0.0	15.0	12.7	12.6	12.7	13.1	0.0	14.0	
			1	19	13.77	13.68	13.77	14.15	14.15	0.0	15.0	12.7	12.7	12.8	13.2	0.0	14.0	
			1	36	13.74	13.69	13.78	14.07	14.07	0.0	15.0	12.6	12.7	12.8	13.1	0.0	14.0	
			18	0	13.65	13.64	13.72	14.17	14.17	0.0	15.0	12.6	12.6	12.7	13.2	0.0	14.0	
			18	10	13.57	13.68	13.75	13.97	13.97	0.0	15.0	12.6	12.7	12.8	13.0	0.0	14.0	
			18	20	13.55	13.69	13.81	14.00	14.00	0.0	15.0	12.6	12.7	12.8	12.9	0.0	14.0	
			36	0	13.59	13.67	13.81	14.07	14.07	0.0	15.0	12.6	12.7	12.8	13.1	0.0	14.0	
		16QAM	1	1	13.67	13.63	13.75	14.18	14.18	0.0	15.0	12.7	12.7	12.7	13.0	0.0	14.0	
			64QAM	1	1	13.63	13.56	13.82	14.23	14.23	0.0	15.0	12.6	12.6	12.7	13.0	0.0	14.0
			256QAM	1	1	12.16	12.07	12.29	12.68	12.68	1.0	14.0	12.2	12.1	12.2	12.5	0.0	14.0
		CP-OFDM	QPSK	1	1	13.66	13.58	13.76	14.17	14.17	0.0	15.0	12.6	12.6	12.7	13.0	0.0	14.0
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	13.80	13.79	13.39	14.21	14.21	0.0	15.0	12.7	12.6	12.8	13.0	0.0	14.0	
			1	12	13.86	13.91	13.42	14.22	14.22	0.0	15.0	12.7	12.7	12.8	12.9	0.0	14.0	
			1	22	13.86	13.90	13.43	14.18	14.18	0.0	15.0	12.8	12.8	12.8	12.9	0.0	14.0	
			12	0	13.87	13.85	13.39	14.23	14.23	0.0	15.0	12.8	12.7	12.8	13.0	0.0	14.0	
			12	6	13.87	13.88	13.42	14.23	14.23	0.0	15.0	12.7	12.7	12.7	12.7	0.0	14.0	
			12	12	13.85	13.91	13.46	14.20	14.20	0.0	15.0	12.7	12.8	12.8	12.8	0.0	14.0	
		QPSK	24	0	13.89	13.90	13.43	14.24	14.24	0.0	15.0	12.7	12.8	12.8	12.8	0.0	14.0	
			1	12	13.81	13.81	13.41	14.16	14.16	0.0	15.0	12.7	12.8	12.7	12.8	0.0	14.0	
			1	22	13.84	13.89	13.43	14.15	14.15	0.0	15.0	12.7	12.8	12.8	12.9	0.0	14.0	
			12	6	13.85	13.86												

NR Band n48(SRS1) Measured Results

BW (MHz)	Mode	Maximum Allowed Average Power (dBm)				Maximum Allowed Average Power (dBm)					
		RSI = 0, 1, 2, 3				RSI = 4					
		SRS 1 Measured Pwr (dBm)			Tune-up Limit	SRS 2 Measured Pwr (dBm)			Tune-up Limit		
		638000 3570 MHz	641666 3624.99 MHz	645332 3679.98 MHz		638000 3570 MHz	641666 3624.99 MHz	645332 3679.98 MHz			
40 MHz	SRS CW	14.19	14.92	14.91	15.5	13.11	13.71	13.69	14.5		
BW (MHz)	Mode	Measured Pwr (dBm)				Measured Pwr (dBm)					
		637334 3560.01 MHz	640222 3603.33 MHz	643112 3646.68 MHz	646000 3690 MHz	637334 3560.01 MHz	640222 3603.33 MHz	643112 3646.68 MHz	646000 3690 MHz		
20 MHz	SRS CW	14.11	14.84	14.87	13.86	15.5	13.15	13.78	13.88	13.53	14.5
BW (MHz)	Mode	Measured Pwr (dBm)				Measured Pwr (dBm)					
		637168 3557.52 MHz	640166 3602.49 MHz	643166 3647.49 MHz	646166 3692.49 MHz	637168 3557.52 MHz	640166 3602.49 MHz	643166 3647.49 MHz	646166 3692.49 MHz		
15 MHz	SRS CW	14.20	14.82	14.86	14.82	15.5	13.15	13.81	13.84	12.87	14.5
BW (MHz)	Mode	Measured Pwr (dBm)				Measured Pwr (dBm)					
		637000 3555 MHz	640110 3601.65 MHz	643222 3648.33 MHz	646332 3694.98 MHz	637000 3555 MHz	640110 3601.65 MHz	643222 3648.33 MHz	646332 3694.98 MHz		
10 MHz	SRS CW	14.28	14.81	14.82	13.61	15.5	13.30	13.77	13.91	12.93	14.5

Notes:

SRS1 were measured output power through FTM mode provided by manufacturer.

NR Band n48(SRS2) Measured Results

BW (MHz)	Mode	Maximum Allowed Average Power (dBm)				Maximum Allowed Average Power (dBm)					
		RSI = 0, 1, 2, 3				RSI = 4					
		SRS 1 Measured Pwr (dBm)			Tune-up Limit	SRS 2 Measured Pwr (dBm)			Tune-up Limit		
		638000 3570 MHz	641666 3624.99 MHz	645332 3679.98 MHz		638000 3570 MHz	641666 3624.99 MHz	645332 3679.98 MHz			
40 MHz	SRS CW	13.74	13.92	14.32	15.0	12.56	12.79	13.07	14.0		
BW (MHz)	Mode	Measured Pwr (dBm)				Measured Pwr (dBm)					
		637334 3560.01 MHz	640222 3603.33 MHz	643112 3646.68 MHz	646000 3690 MHz	637334 3560.01 MHz	640222 3603.33 MHz	643112 3646.68 MHz	646000 3690 MHz		
20 MHz	SRS CW	13.85	13.90	13.97	14.23	15.0	12.73	12.58	12.78	12.92	14.0
BW (MHz)	Mode	Measured Pwr (dBm)				Measured Pwr (dBm)					
		637168 3557.52 MHz	640166 3602.49 MHz	643166 3647.49 MHz	646166 3692.49 MHz	637168 3557.52 MHz	640166 3602.49 MHz	643166 3647.49 MHz	646166 3692.49 MHz		
15 MHz	SRS CW	13.98	13.88	13.98	14.21	15.0	12.93	12.87	12.98	13.22	14.0
BW (MHz)	Mode	Measured Pwr (dBm)				Measured Pwr (dBm)					
		637000 3555 MHz	640110 3601.65 MHz	643222 3648.33 MHz	646332 3694.98 MHz	637000 3555 MHz	640110 3601.65 MHz	643222 3648.33 MHz	646332 3694.98 MHz		
10 MHz	SRS CW	13.99	13.86	13.87	13.94	15.0	12.88	12.52	12.71	12.63	14.0

Notes:

SRS2 were measured output power through FTM mode provided by manufacturer.

NR Band n48(SRS3) Measured Results

BW (MHz)	Mode	Maximum Allowed Average Power (dBm)				Maximum Allowed Average Power (dBm)			
		RSI = 0, 1, 2, 3				RSI = 4			
		SRS 1 Measured Pwr (dBm)			Tune-up Limit	SRS 2 Measured Pwr (dBm)			Tune-up Limit
		638000 3570 MHz	641666 3624.99 MHz	645332 3679.98 MHz		638000 3570 MHz	641666 3624.99 MHz	645332 3679.98 MHz	
40 MHz	SRS CW	12.88	12.91	13.57	15.0	12.00	11.62	12.18	13.0
BW (MHz)	Mode	Measured Pwr (dBm)				Measured Pwr (dBm)			
		637334 3560.01 MHz	640222 3603.33 MHz	643112 3646.68 MHz	646000 3690 MHz	637334 3560.01 MHz	640222 3603.33 MHz	643112 3646.68 MHz	646000 3690 MHz
		13.11	13.03	12.98	13.56	15.0	12.01	11.95	11.93
BW (MHz)	Mode	Measured Pwr (dBm)				Measured Pwr (dBm)			
		637168 3557.52 MHz	640166 3602.49 MHz	643166 3647.49 MHz	646166 3692.49 MHz	637168 3557.52 MHz	640166 3602.49 MHz	643166 3647.49 MHz	646166 3692.49 MHz
		13.10	13.04	12.97	13.56	15.0	12.08	12.03	11.97
BW (MHz)	Mode	Measured Pwr (dBm)				Measured Pwr (dBm)			
		637000 3555 MHz	640110 3601.65 MHz	643222 3648.33 MHz	646332 3694.98 MHz	637000 3555 MHz	640110 3601.65 MHz	643222 3648.33 MHz	646332 3694.98 MHz
		13.24	13.03	12.98	13.35	15.0	12.37	12.01	11.89

Notes:

SRS3 were measured output power through FTM mode provided by manufacturer.

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

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)			
					RSI = 0, 1, 2, 3, 4			
					Measured Pwr (dBm)		MPR	Tune-up Limit
100 MHz	DFT-s-OFDM	π/2 BPSK	1	1	633334	14.76		0.0 16.0
			1	137	3500.01 MHz	14.72		0.0 16.0
			1	271		15.08		0.0 16.0
			135	0		14.17	0.5	15.5
			135	69		14.88	0.0	16.0
			135	138		15.12	0.0	16.0
			270	0		14.89	0.0	16.0
		QPSK	1	1	633334	15.01	0.0	16.0
			1	137	3500.01 MHz	14.92	0.0	16.0
			1	271		15.23	0.0	16.0
			135	0		14.21	1.0	15.0
			135	69		14.92	0.0	16.0
			135	138		14.93	0.0	16.0
			270	0		14.91	0.0	16.0
		16QAM	1	1	633334	15.06	0.0	16.0
			1	137	3500.01 MHz	14.97	0.0	16.0
			1	271		15.25	0.0	16.0
			64QAM	1		15.13	0.0	16.0
			256QAM	1		15.09	0.0	16.0
	CP-OFDM	QPSK	1	1	633334	15.20	0.0	16.0
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)		MPR	Tune-up Limit
90 MHz	DFT-s-OFDM	π/2 BPSK	1	1	633334	14.25	0.0	16.0
			1	123	3500.01 MHz	14.46	0.0	16.0
			1	243		14.78	0.0	16.0
			120	0		14.04	0.0	16.0
			120	63		14.77	0.0	16.0
			120	125		15.03	0.0	16.0
			243	0		14.86	0.0	16.0
		QPSK	1	1	633334	14.94	0.0	16.0
			1	123	3500.01 MHz	15.05	0.0	16.0
			1	243		15.32	0.0	16.0
			120	0		14.33	0.0	16.0
			120	63		15.01	0.0	16.0
			120	125		15.24	0.0	16.0
			243	0		14.98	0.0	16.0
		16QAM	1	1	633334	14.96	0.0	16.0
			64QAM	1	3500.01 MHz	14.95	0.0	16.0
			256QAM	1		14.86	0.0	16.0
			CP-OFDM	QPSK	633334	14.86	0.0	16.0
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)		MPR	Tune-up Limit
80 MHz	DFT-s-OFDM	π/2 BPSK	1	1	633334	14.69	0.0	16.0
			1	109	3500.01 MHz	15.09	0.0	16.0
			1	215		15.43	0.0	16.0
			108	0		14.44	0.0	16.0
			108	55		15.16	0.0	16.0
			108	109		14.42	0.0	16.0
			216	0		15.20	0.0	16.0
		QPSK	1	1	633334	14.83	0.0	16.0
			1	109	3500.01 MHz	15.20	0.0	16.0
			1	215		15.47	0.0	16.0
			108	0		14.49	0.0	16.0
			108	55		15.20	0.0	16.0
			108	109		15.43	0.0	16.0
			216	0		15.19	0.0	16.0
		16QAM	1	1	633334	14.86	0.0	16.0
			64QAM	1	3500.01 MHz	15.01	0.0	16.0
			256QAM	1		14.93	0.0	16.0
			CP-OFDM	QPSK	633334	14.78	0.0	16.0

Notes:

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

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

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)		MPR	Tune-up Limit
					633334	3500.01 MHz		
70 MHz	DFT-s-OFDM	π/2 BPSK	1	1	14.11		0.0	16.0
			1	95	14.71		0.0	16.0
			1	188	15.06		0.0	16.0
			90	0	14.15		0.0	16.0
			90	50	14.87		0.0	16.0
			90	99	15.09		0.0	16.0
			180	0	14.83		0.0	16.0
		QPSK	1	1	14.35		0.0	16.0
			1	95	14.95		0.0	16.0
			1	188	15.21		0.0	16.0
			90	0	14.27		0.0	16.0
			90	50	14.96		0.0	16.0
			90	99	15.16		0.0	16.0
			180	0	14.90		0.0	16.0
		16QAM	1	1	14.47		0.0	16.0
			1	1	14.48		0.0	16.0
			1	1	14.47		0.0	16.0
		CP-OFDM	QPSK	1	14.38		0.0	16.0
60 MHz	DFT-s-OFDM	π/2 BPSK	RB Allocation	RB offset	Measured Pwr (dBm)		MPR	Tune-up Limit
			1	1	633334			
			1	81	3500.01 MHz			
			1	160	14.21		0.0	16.0
			81	0	15.03		0.0	16.0
			81	41	15.23		0.0	16.0
			81	81	14.44		0.0	16.0
		QPSK	162	0	14.99		0.0	16.0
			1	1	15.19		0.0	16.0
			1	81	15.01		0.0	16.0
			81	41	14.32		0.0	16.0
			81	81	15.01		0.0	16.0
			162	0	15.26		0.0	16.0
			1	1	14.47		0.0	16.0
50 MHz	DFT-s-OFDM	π/2 BPSK	81	41	15.04		0.0	16.0
			81	81	15.04		0.0	16.0
			162	0	15.22		0.0	16.0
			1	1	15.02		0.0	16.0
			1	81	14.37		0.0	16.0
			1	160	14.46		0.0	16.0
			81	0	14.42		0.0	16.0
		QPSK	CP-OFDM	QPSK	14.26		0.0	16.0
			RB Allocation	RB offset	Measured Pwr (dBm)		MPR	Tune-up Limit
			1	1	631668	633334		
			1	67	3475.02 MHz	3500.01 MHz		
			1	131	14.87	15.02	0.0	16.0
			64	0	14.31	15.29	0.0	16.0
			64	35	14.99	15.25	0.0	16.0
		QPSK	64	69	14.62	15.22	0.0	16.0
			128	0	14.37	15.34	0.0	16.0
			1	1	14.59	15.33	0.0	16.0
			1	81	14.38	15.34	0.0	16.0
			1	131	14.97	15.07	0.0	16.0
			1	67	14.36	15.33	0.0	16.0
			64	0	15.03	15.26	0.0	16.0
		16QAM	64	35	14.62	15.26	0.0	16.0
			64	69	14.38	15.34	0.0	16.0
			128	0	14.62	15.36	0.0	16.0
			1	1	14.39	15.36	0.0	16.0
			16QAM	1	1	15.02	0.0	16.0
			64QAM	1	1	15.12	0.0	16.0
			256QAM	1	1	15.08	0.0	16.0
		CP-OFDM	QPSK	1	1	14.93	0.0	16.0

Notes:

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

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

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	
					631334	635332	3470.01 MHz			
					3529.98 MHz					
40 MHz	DFT-s-OFDM	π/2 BPSK	1	1	14.95			15.25	0.0	16.0
			1	53	14.45			15.38	0.0	16.0
			1	104	14.67			15.31	0.0	16.0
			50	0	14.76			15.36	0.0	16.0
			50	28	14.44			15.39	0.0	16.0
			50	56	14.39			15.37	0.0	16.0
			100	0	14.46			15.40	0.0	16.0
		QPSK	1	1	15.10			15.27	0.0	16.0
			1	53	14.56			15.34	0.0	16.0
			1	104	14.79			15.30	0.0	16.0
			50	0	14.92			15.36	0.0	16.0
			50	28	14.56			15.41	0.0	16.0
			50	56	14.51			15.39	0.0	16.0
			100	0	14.57			15.37	0.0	16.0
		16QAM	1	1	15.16			15.29	0.0	16.0
			1	1	15.24			15.35	0.0	16.0
			1	1	15.14			15.29	0.0	16.0
		CP-OFDM	QPSK	1	1	15.05		15.20	0.0	16.0
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	
					631000	633334	635666			
30 MHz	DFT-s-OFDM	π/2 BPSK	1	1	14.96	14.57	15.27	0.0	16.0	
			1	39	14.62	15.16	15.37	0.0	16.0	
			1	76	14.41	15.32	15.31	0.0	16.0	
			36	0	14.88	14.85	15.35	0.0	16.0	
			36	21	14.65	15.17	15.36	0.0	16.0	
			36	42	14.47	15.26	15.39	0.0	16.0	
			75	0	14.66	15.15	15.41	0.0	16.0	
		QPSK	1	1	15.07	14.64	15.36	0.0	16.0	
			1	39	14.63	15.14	15.36	0.0	16.0	
			1	76	14.45	15.31	15.34	0.0	16.0	
			36	0	14.91	14.86	15.41	0.0	16.0	
			36	21	14.65	15.17	15.42	0.0	16.0	
			36	42	14.48	15.26	15.39	0.0	16.0	
			75	0	14.68	15.15	15.42	0.0	16.0	
		16QAM	1	1	15.14	14.61	15.43	0.0	16.0	
			1	1	15.15	14.76	15.52	0.0	16.0	
			1	1	15.17	14.72	15.43	0.0	16.0	
		CP-OFDM	QPSK	1	1	15.02	14.60	15.34	0.0	16.0
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	
					630866	633334	635800			
25 MHz	DFT-s-OFDM	π/2 BPSK	1	1	14.49	13.92	14.69	0.0	16.0	
			1	32	14.09	14.48	14.83	0.0	16.0	
			1	63	13.80	14.59	14.74	0.0	16.0	
			32	0	14.23	14.20	14.76	0.0	16.0	
			32	17	13.99	14.45	14.78	0.0	16.0	
			32	33	13.80	14.54	14.79	0.0	16.0	
			64	0	14.03	14.46	14.82	0.0	16.0	
		QPSK	1	1	14.38	13.99	14.75	0.0	16.0	
			1	32	13.99	14.44	14.75	0.0	16.0	
			1	63	13.73	14.63	14.74	0.0	16.0	
			32	0	14.24	14.23	14.80	0.0	16.0	
			32	17	14.00	14.48	14.82	0.0	16.0	
			32	33	13.79	14.57	14.80	0.0	16.0	
			64	0	14.01	14.47	14.84	0.0	16.0	
		16QAM	1	1	14.46	14.04	14.82	0.0	16.0	
			1	1	14.40	13.94	14.65	0.0	16.0	
			1	1	14.31	13.95	14.65	0.0	16.0	
		CP-OFDM	QPSK	1	1	14.37	14.01	14.69	0.0	16.0

Notes:

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

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

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					630668 3460.02 MHz	633334 3500.01 MHz	636000 3540 MHz		
20 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	15.03	14.72	15.31	0.0	16.0
			1	26	14.77	15.10	15.34	0.0	16.0
			1	49	14.52	15.26	15.30	0.0	16.0
			25	0	14.95	14.95	15.38	0.0	16.0
			25	13	14.82	15.14	15.40	0.0	16.0
			25	26	14.66	15.22	15.37	0.0	16.0
			50	0	14.82	15.14	15.41	0.0	16.0
		QPSK	1	1	15.07	14.83	15.39	0.0	16.0
			1	26	14.77	15.13	15.37	0.0	16.0
			1	49	14.53	15.26	15.31	0.0	16.0
			25	0	14.97	14.99	15.40	0.0	16.0
			25	13	14.83	15.17	15.41	0.0	16.0
			25	26	14.66	15.24	15.39	0.0	16.0
			50	0	14.82	15.17	15.41	0.0	16.0
		16QAM	1	1	15.12	14.88	15.45	0.0	16.0
		64QAM	1	1	15.16	14.97	15.58	0.0	16.0
		256QAM	1	1	15.09	14.86	15.43	0.0	16.0
		CP-OFDM	QPSK	1	1	15.04	14.76	15.36	0.0
15 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	15.03	14.76	15.34	0.0	16.0
			1	19	14.97	15.07	15.37	0.0	16.0
			1	36	14.77	15.21	15.36	0.0	16.0
			18	0	15.07	14.94	15.38	0.0	16.0
			18	10	14.97	15.07	15.40	0.0	16.0
			18	20	14.86	15.20	15.38	0.0	16.0
			36	0	15.00	15.07	15.41	0.0	16.0
		QPSK	1	1	15.09	14.82	15.39	0.0	16.0
			1	19	14.96	15.10	15.38	0.0	16.0
			1	36	14.76	15.21	15.35	0.0	16.0
			18	0	15.08	14.96	15.40	0.0	16.0
			18	10	14.99	15.09	15.41	0.0	16.0
			18	20	14.86	15.19	15.39	0.0	16.0
			36	0	14.99	15.08	15.42	0.0	16.0
		16QAM	1	1	15.13	14.89	15.46	0.0	16.0
		64QAM	1	1	15.18	14.90	15.51	0.0	16.0
		256QAM	1	1	15.08	14.82	15.43	0.0	16.0
		CP-OFDM	QPSK	1	1	15.07	14.76	15.34	0.0
10 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	15.03	14.99	15.33	0.0	16.0
			1	12	14.96	15.13	15.34	0.0	16.0
			1	22	14.84	15.22	15.32	0.0	16.0
			12	0	15.02	15.08	15.36	0.0	16.0
			12	6	14.96	15.18	15.37	0.0	16.0
			12	12	14.91	15.22	15.37	0.0	16.0
			24	0	14.99	15.17	15.39	0.0	16.0
		QPSK	1	1	15.10	15.02	15.38	0.0	16.0
			1	12	14.97	15.15	15.35	0.0	16.0
			1	22	14.86	15.23	15.36	0.0	16.0
			12	0	15.07	15.08	15.41	0.0	16.0
			12	6	14.97	15.19	15.37	0.0	16.0
			12	12	14.92	15.20	15.37	0.0	16.0
			24	0	14.98	15.18	15.38	0.0	16.0
		16QAM	1	1	15.14	15.04	15.47	0.0	16.0
		64QAM	1	1	15.27	15.16	15.46	0.0	16.0
		256QAM	1	1	15.16	15.07	15.44	0.0	16.0
		CP-OFDM	QPSK	1	1	15.05	14.98	15.32	0.0

Notes:

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

NR Band n77 DoD -Lower Band- (SRS1/SRS2/SRS3) Measured Results

BW (MHz)	Mode	SRS1 - Maximum Allowed Average Power (dBm)			SRS2 - Maximum Allowed Average Power (dBm)			SRS3 - Maximum Allowed Average Power (dBm)			
		RSI = 0, 1, 2, 3, 4			RSI = 0, 1, 2, 3, 4			RSI = 0, 1, 2, 3, 4			
		Measured Pwr (dBm)		Tune-up Limit	Measured Pwr (dBm)		Tune-up Limit	Measured Pwr (dBm)		Tune-up Limit	
100 MHz	SRS CW	633334 3500.01 MHz	12.86	14.0	633334 3500.01 MHz	15.24	16.0	633334 3500.01 MHz	14.13	16.0	
BW (MHz)	Mode	Measured Pwr (dBm)			Measured Pwr (dBm)			Measured Pwr (dBm)			
90 MHz	SRS CW	633334 3500.01 MHz	12.66	14.0	633334 3500.01 MHz	15.32	16.0	633334 3500.01 MHz	13.77	16.0	
BW (MHz)	Mode	Measured Pwr (dBm)			Measured Pwr (dBm)			Measured Pwr (dBm)			
80 MHz	SRS CW	633334 3500.01 MHz	12.62	14.0	633334 3500.01 MHz	15.37	16.0	633334 3500.01 MHz	13.77	16.0	
BW (MHz)	Mode	Measured Pwr (dBm)			Measured Pwr (dBm)			Measured Pwr (dBm)			
70 MHz	SRS CW	633334 3500.01 MHz	12.51	14.0	633334 3500.01 MHz	15.26	16.0	633334 3500.01 MHz	13.69	16.0	
BW (MHz)	Mode	Measured Pwr (dBm)			Measured Pwr (dBm)			Measured Pwr (dBm)			
60 MHz	SRS CW	633334 3500.01 MHz	12.42	14.0	633334 3500.01 MHz	15.31	16.0	633334 3500.01 MHz	13.85	16.0	
BW (MHz)	Mode	631668 3475.02 MHz	635000 3525 MHz	Tune-up Limit	631668 3475.02 MHz	635000 3525 MHz	Tune-up Limit	631668 3475.02 MHz	635000 3525 MHz	Tune-up Limit	
50 MHz	SRS CW	12.54	13.06	14.0	14.41	15.30	16.0	13.52	13.53	16.0	
BW (MHz)	Mode	631334 3470.01 MHz	635332 3529.98 MHz	Tune-up Limit	631334 3470.01 MHz	635332 3529.98 MHz	Tune-up Limit	631334 3470.01 MHz	635332 3529.98 MHz	Tune-up Limit	
40 MHz	SRS CW	11.83	13.26	14.0	14.42	15.28	16.0	13.53	13.59	16.0	
BW (MHz)	Mode	631000 3465 MHz	633334 3500.01 MHz	635666 3534.99 MHz	Tune-up Limit	631000 3465 MHz	633334 3500.01 MHz	635666 3534.99 MHz	631000 3465 MHz	633334 3500.01 MHz	Tune-up Limit
30 MHz	SRS CW	11.98	13.13	13.34	14.0	14.44	15.28	15.32	16.0	13.61	
BW (MHz)	Mode	630866 3462.99 MHz	633334 3500.01 MHz	635800 3537 MHz	Tune-up Limit	630866 3462.99 MHz	633334 3500.01 MHz	635800 3537 MHz	630866 3462.99 MHz	633334 3500.01 MHz	Tune-up Limit
25 MHz	SRS CW	12.52	12.81	13.10	14.0	14.56	15.34	15.36	16.0	13.86	
BW (MHz)	Mode	630668 3460.02 MHz	633334 3500.01 MHz	636000 3540 MHz	Tune-up Limit	630668 3460.02 MHz	633334 3500.01 MHz	636000 3540 MHz	630668 3460.02 MHz	633334 3500.01 MHz	Tune-up Limit
20 MHz	SRS CW	12.24	13.02	13.35	14.0	14.71	15.26	15.31	16.0	13.86	
BW (MHz)	Mode	630500 3457.5 MHz	633334 3500.01 MHz	636166 3542.49 MHz	Tune-up Limit	630500 3457.5 MHz	633334 3500.01 MHz	636166 3542.49 MHz	630500 3457.5 MHz	633334 3500.01 MHz	Tune-up Limit
15 MHz	SRS CW	12.41	13.04	13.35	14.0	14.80	15.28	15.32	16.0	13.88	
BW (MHz)	Mode	630334 3455.01 MHz	633334 3500.01 MHz	636332 3544.98 MHz	Tune-up Limit	630334 3455.01 MHz	633334 3500.01 MHz	636332 3544.98 MHz	630334 3455.01 MHz	633334 3500.01 MHz	Tune-up Limit
10 MHz	SRS CW	12.36	13.02	13.28	14.0	14.84	15.29	15.23	16.0	13.97	

Notes:

SRS1/SRS2/SRS3 were measured output power through FTM mode provided by manufacturer.

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

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)										
					RSI = 0, 1, 2, 3, 4										
					Measured Pwr (dBm)					MPR	Tune-up Limit				
100 MHz	DFT-s-OFDM	π/2 BPSK	1	1	650000	656000	662000	3750 MHz	3840 MHz						
			1	137	3750 MHz	3840 MHz	3930 MHz								
			1	271	14.92	14.83	14.83								
			135	0	14.64	14.87	14.87								
			135	69	14.35	14.95	14.95								
			135	138	14.52	14.82	14.82								
			270	0	14.41	14.97	14.97								
		QPSK	1	1	14.72	14.85	14.85								
			1	137	14.28	14.81	14.81								
			1	271	14.92	14.83	14.83								
			135	0	14.64	14.87	14.87								
			135	69	14.35	14.95	14.95								
			135	138	14.52	14.82	14.82								
			270	0	14.41	14.97	14.97								
		16QAM	1	1	14.76	15.11	15.11								
			1	137	14.31	15.60	15.60								
			1	271	14.87	15.83	15.83								
			135	0	14.52	15.80	15.80								
			135	69	14.23	15.21	15.21								
			135	138	14.70	15.84	15.84								
			270	0	14.28	15.16	15.16								
		CP-OFDM	1	1	14.76	14.92	14.92								
			1	137	14.32	14.88	14.88								
		90 MHz	1	271	14.95	14.87	14.87								
			1	1	14.37	14.56	14.56								
			1	1	14.35	14.78	14.78								
			1	1	14.76	14.99	14.99								
		DFT-s-OFDM	π/2 BPSK	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit			
						649668	656000	662332	3745.02 MHz	3840 MHz					
						3745.02 MHz	3840 MHz	3934.98 MHz							
						1	1	15.45	15.50	15.37					
						1	123	15.28	15.37	15.16					
						1	243	15.54	15.46	14.91					
						120	0	15.55	15.51	15.27					
			QPSK	RB Allocation	RB offset	120	63	15.27	15.39	15.20					
						120	125	15.29	15.39	14.97					
						243	0	15.32	15.42	15.25					
						1	1	15.63	15.58	15.44					
						1	123	15.26	15.41	15.20					
						1	243	15.49	15.45	14.91					
						120	0	15.55	15.52	15.29					
			16QAM	RB Allocation	RB offset	120	63	15.26	15.39	15.21					
						120	125	15.27	15.42	14.97					
						243	0	15.30	15.42	15.22					
						1	1	15.68	15.63	15.46					
						1	1	15.72	15.70	15.53					
						1	1	15.68	15.68	15.49					
						1	1	15.60	15.51	15.40					
		80 MHz	DFT-s-OFDM	π/2 BPSK	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit		
							649334	656000	662666	3740.01 MHz	3840 MHz				
							3740.01 MHz	3840 MHz	3939.99 MHz						
							1	1	15.40	15.46	15.17				
							1	109	15.20	15.33	14.97				
							1	215	15.29	15.42	14.65				
							108	0	15.49	15.46	15.04				
		QPSK	RB Allocation	RB offset	108	55	15.28	15.39	14.96			MPR	Tune-up Limit		
					108	109	15.20	15.40	14.72						
					216	0	15.30	15.41	14.97						
					1	1	15.57	15.57	15.17						
					1	109	15.31	15.41	14.94						
					1	215	15.34	15.43	14.63						
					108	0	15.55	15.51	15.02						
		16QAM	RB Allocation	RB offset	108	55	15.35	15.42	14.95			MPR	Tune-up Limit		
					108	109	15.24	15.39	14.69						
					216	0	15.35	15.44	14.94						
					1	1	15.65	15.61	15.18						
					1	1	15.69	15.63	15.26						
					1	1	15.64	15.61	15.23						
					1	1	15.56	15.53	15.05						

Notes:

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

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

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit
					649000	653666			658334	663000		
					3735 MHz	3804.99 MHz			3875.01 MHz	3945 MHz		
70 MHz	DFT-s-OFDM	π/2 BPSK	1	1	15.21	14.98			15.04	14.83	0.0	16.0
			1	95	15.06	15.17			15.01	14.66	0.0	16.0
			1	188	15.01	15.15			14.99	14.39	0.0	16.0
			90	0	15.25	15.03			15.02	14.90	0.0	16.0
			90	50	15.14	15.21			15.08	14.78	0.0	16.0
			90	99	14.92	15.20			15.02	14.56	0.0	16.0
		QPSK	180	0	15.14	15.21			15.08	14.81	0.0	16.0
			1	1	15.26	15.01			15.10	14.98	0.0	16.0
			1	95	15.11	15.20			15.03	14.74	0.0	16.0
			1	188	15.01	15.13			15.02	14.43	0.0	16.0
			90	0	15.27	15.07			15.09	14.91	0.0	16.0
			90	50	15.16	15.21			15.02	14.81	0.0	16.0
		16QAM	90	99	14.96	15.18			14.98	14.58	0.0	16.0
			180	0	15.15	15.20			15.08	14.84	0.0	16.0
			1	1	15.26	15.05			15.12	15.00	0.0	16.0
			64QAM	1	1	15.42	15.09			15.22	15.06	0.0
		256QAM	1	1	15.32	15.09			15.08	15.01	0.0	16.0
			CP-OFDM	QPSK	1	1	15.26	14.94			15.03	14.87
60 MHz	DFT-s-OFDM	π/2 BPSK	1	1	15.17	14.95			15.00	14.76	0.0	16.0
			1	81	15.20	15.18			15.05	14.66	0.0	16.0
			1	160	14.89	15.11			15.01	14.39	0.0	16.0
			81	0	15.19	15.01			15.09	14.82	0.0	16.0
			81	41	15.11	15.17			15.04	14.69	0.0	16.0
			81	81	15.01	15.16			14.97	14.71	0.0	16.0
		QPSK	162	0	15.12	15.18			15.02	14.76	0.0	16.0
			1	1	15.19	14.93			15.04	14.94	0.0	16.0
			1	81	15.13	15.18			15.03	14.70	0.0	16.0
			1	160	14.91	15.09			14.95	14.41	0.0	16.0
			81	0	15.18	15.02			15.08	14.86	0.0	16.0
			81	41	15.17	15.18			15.10	14.70	0.0	16.0
		16QAM	81	81	14.96	15.16			15.06	14.57	0.0	16.0
			162	0	15.17	15.18			15.04	14.73	0.0	16.0
			1	1	15.23	14.98			15.08	14.96	0.0	16.0
			64QAM	1	1	15.34	15.07			15.21	15.06	0.0
		256QAM	1	1	15.28	14.98			15.13	14.95	0.0	16.0
			CP-OFDM	QPSK	1	1	15.17	14.89			15.02	14.82
50 MHz	DFT-s-OFDM	π/2 BPSK	1	1	15.07	14.80	15.06		14.89	14.79	0.0	16.0
			1	67	15.14	14.94	15.02		14.91	14.55	0.0	16.0
			1	131	14.85	15.19	15.05		14.90	14.43	0.0	16.0
			64	0	15.15	14.93	15.11		14.95	14.82	0.0	16.0
			64	35	15.17	15.01	15.07		15.02	14.61	0.0	16.0
			64	69	15.01	15.11	15.05		14.97	14.54	0.0	16.0
		QPSK	128	0	15.17	14.98	15.07		15.04	14.67	0.0	16.0
			1	1	15.18	14.87	15.16		15.01	14.92	0.0	16.0
			1	67	15.15	14.97	15.05		14.95	14.63	0.0	16.0
			1	131	14.88	15.19	15.03		14.92	14.45	0.0	16.0
			64	0	15.21	14.94	15.12		15.05	14.82	0.0	16.0
			64	35	15.19	15.00	15.08		15.04	14.64	0.0	16.0
		16QAM	64	69	15.02	15.12	15.13		14.98	14.54	0.0	16.0
			128	0	15.24	14.99	15.11		14.98	14.63	0.0	16.0
			1	1	15.23	14.91	15.16		15.08	14.86	0.0	16.0
			64QAM	1	1	15.28	15.07	15.26		15.19	15.01	0.0
		256QAM	1	1	15.24	14.98	15.18		15.05	14.89	0.0	16.0
			CP-OFDM	QPSK	1	1	15.13	14.85	15.11		14.97	14.81

Notes:

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

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

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	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		
40 MHz	DFT-s-OFDM	π/2 BPSK	1	1	14.83	14.50	14.88	14.99	15.21	15.22	0.0	16.0
			1	53	14.95	14.69	15.07	15.11	15.35	15.15	0.0	16.0
			1	104	14.71	14.71	14.98	15.07	15.32	15.09	0.0	16.0
			50	0	14.86	14.58	14.99	15.00	15.29	15.18	0.0	16.0
			50	28	14.94	14.64	15.03	15.08	15.30	15.19	0.0	16.0
			50	56	14.74	14.64	15.05	15.11	15.31	15.16	0.0	16.0
		QPSK	100	0	14.92	14.64	15.09	15.13	15.28	15.20	0.0	16.0
			1	1	14.82	14.47	14.82	15.16	15.25	15.32	0.0	16.0
			1	53	14.99	14.58	14.99	15.17	15.25	15.14	0.0	16.0
			1	104	14.72	14.67	15.04	15.23	15.37	15.10	0.0	16.0
			50	0	14.88	14.54	15.01	15.18	15.21	15.18	0.0	16.0
			50	28	14.89	14.64	15.08	15.23	15.23	15.15	0.0	16.0
		16QAM	50	56	14.82	14.60	15.02	15.27	15.26	15.11	0.0	16.0
			100	0	14.91	14.55	15.07	15.22	15.21	15.15	0.0	16.0
			1	1	14.86	14.52	14.95	15.15	15.23	15.29	0.0	16.0
		64QAM	1	1	14.77	14.45	14.83	15.11	15.15	15.25	0.0	16.0
			1	1	14.80	14.47	14.86	15.12	15.18	15.28	0.0	16.0
		CP-OFDM	QPSK	1	1	14.81	14.51	14.89	15.11	15.17	15.24	0.0
30 MHz	DFT-s-OFDM	π/2 BPSK	1	1	14.91	14.84	15.07	15.03	15.07	14.89	0.0	16.0
			1	39	15.14	14.94	15.16	15.12	15.06	14.92	0.0	16.0
			1	76	14.98	14.91	15.11	15.08	15.08	14.85	0.0	16.0
			36	0	15.04	14.81	15.00	15.01	15.04	14.88	0.0	16.0
			36	21	15.03	14.83	15.08	15.05	15.05	14.88	0.0	16.0
			36	42	15.05	14.88	15.08	15.06	15.03	14.89	0.0	16.0
		QPSK	75	0	15.07	14.82	15.05	15.01	15.04	14.78	0.0	16.0
			1	1	15.07	14.77	15.03	15.14	15.01	14.92	0.0	16.0
			1	39	15.09	14.78	15.10	15.12	15.05	14.93	0.0	16.0
			1	76	15.01	14.88	14.98	15.08	15.04	14.85	0.0	16.0
			36	0	15.08	14.78	15.01	15.06	14.96	14.94	0.0	16.0
			36	21	15.08	14.80	15.08	15.06	15.04	14.89	0.0	16.0
		16QAM	36	42	15.08	14.85	15.05	15.07	15.04	14.82	0.0	16.0
			75	0	15.06	14.76	15.03	15.02	14.98	14.89	0.0	16.0
			1	1	15.03	14.82	14.99	14.98	15.01	14.92	0.0	16.0
		64QAM	1	1	14.98	14.67	14.91	14.83	14.90	14.93	0.0	16.0
			1	1	14.00	14.74	14.93	14.82	14.93	14.85	0.0	16.0
		CP-OFDM	QPSK	1	1	14.98	14.72	14.92	14.85	14.90	14.85	0.0
25 MHz	DFT-s-OFDM	π/2 BPSK	1	1	14.62	14.64	14.97	15.01	15.15	15.08	0.0	16.0
			1	32	14.76	14.72	15.09	15.14	15.22	15.04	0.0	16.0
			1	63	14.75	14.76	15.03	15.15	15.21	15.03	0.0	16.0
			32	0	14.78	14.67	15.08	15.09	15.18	15.09	0.0	16.0
			32	17	14.82	14.69	15.08	15.14	15.28	15.04	0.0	16.0
			32	33	14.84	14.70	15.07	15.17	15.30	15.05	0.0	16.0
		QPSK	64	0	14.86	14.68	15.09	15.14	15.26	15.05	0.0	16.0
			1	1	14.78	14.66	15.02	15.09	15.19	15.08	0.0	16.0
			1	32	14.79	14.63	15.03	15.10	15.21	15.01	0.0	16.0
			1	63	14.82	14.73	15.02	15.17	15.18	15.04	0.0	16.0
			32	0	14.87	14.69	15.07	15.12	15.19	15.10	0.0	16.0
			32	17	14.91	14.70	15.09	15.15	15.27	15.05	0.0	16.0
		16QAM	32	33	14.91	14.73	15.06	15.22	15.31	15.06	0.0	16.0
			64	0	14.90	14.68	15.10	15.16	15.27	15.05	0.0	16.0
			1	1	14.92	14.76	15.06	15.20	15.22	15.18	0.0	16.0
		64QAM	1	1	14.79	14.62	15.03	15.05	15.13	15.08	0.0	16.0
			1	1	14.81	14.59	15.02	15.07	15.17	15.07	0.0	16.0
		CP-OFDM	QPSK	1	1	14.77	14.63	14.98	15.06	15.16	15.07	0.0

Notes:

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

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

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit
					647334 3710.01 MHz	650800 3762 MHz	654266 3813.99 MHz	657734 3866.01 MHz	661200 3918 MHz	664666 3969.99 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	14.91	14.89	15.24	15.23	15.26	15.08	0.0	16.0
			1	26	14.96	14.95	15.32	15.27	15.30	15.07	0.0	16.0
			1	49	15.08	15.01	15.32	15.30	15.37	15.09	0.0	16.0
			25	0	15.04	14.97	15.34	15.29	15.33	15.14	0.0	16.0
			25	13	15.06	15.00	15.35	15.32	15.36	15.11	0.0	16.0
			25	26	15.08	15.04	15.36	15.35	15.37	15.10	0.0	16.0
			50	0	15.06	15.01	15.34	15.31	15.34	15.12	0.0	16.0
		QPSK	1	1	15.26	14.89	15.20	15.27	15.32	15.14	0.0	16.0
			1	26	15.29	14.96	15.32	15.29	15.30	15.10	0.0	16.0
			1	49	15.37	15.03	15.33	15.30	15.34	15.09	0.0	16.0
			25	0	15.33	14.95	15.32	15.28	15.32	15.13	0.0	16.0
			25	13	15.34	14.99	15.33	15.31	15.33	15.10	0.0	16.0
			25	26	15.35	15.02	15.32	15.34	15.36	15.11	0.0	16.0
			50	0	15.31	14.98	15.31	15.31	15.34	15.12	0.0	16.0
		16QAM	1	1	15.27	14.96	15.29	15.23	15.38	15.20	0.0	16.0
		64QAM	1	1	15.44	15.05	15.32	15.26	15.45	15.32	0.0	16.0
		256QAM	1	1	15.28	14.97	15.32	15.24	15.36	15.18	0.0	16.0
		CP-OFDM	QPSK	1	1	15.24	14.87	15.26	15.23	15.25	15.08	0.0
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	15.21	14.90	15.16	15.14	15.17	14.98	0.0	16.0
			1	19	15.24	14.97	15.32	15.23	15.27	15.02	0.0	16.0
			1	36	15.26	15.02	15.32	15.25	15.28	15.04	0.0	16.0
			18	0	15.24	14.98	15.29	15.20	15.26	15.06	0.0	16.0
			18	10	15.27	14.97	15.33	15.23	15.28	15.04	0.0	16.0
			18	20	15.28	15.00	15.32	15.26	15.26	15.05	0.0	16.0
			36	0	15.28	14.99	15.33	15.23	15.29	15.03	0.0	16.0
		QPSK	1	1	15.18	14.94	15.27	15.21	15.27	15.07	0.0	16.0
			1	19	15.21	14.95	15.31	15.25	15.27	15.07	0.0	16.0
			1	36	15.27	15.00	15.32	15.26	15.28	15.06	0.0	16.0
			18	0	15.23	14.97	15.31	15.24	15.27	15.08	0.0	16.0
			18	10	15.24	14.98	15.35	15.23	15.29	15.06	0.0	16.0
			18	20	15.25	14.99	15.33	15.25	15.32	15.07	0.0	16.0
			36	0	15.25	14.97	15.31	15.26	15.28	15.06	0.0	16.0
		16QAM	1	1	15.25	15.01	15.29	15.27	15.31	15.10	0.0	16.0
		64QAM	1	1	15.36	15.04	15.46	15.39	15.43	15.18	0.0	16.0
		256QAM	1	1	15.28	14.92	15.35	15.29	15.29	15.15	0.0	16.0
		CP-OFDM	QPSK	1	1	15.23	14.92	15.28	15.15	15.22	15.03	0.0
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	15.11	14.88	15.11	15.16	15.21	15.04	0.0	16.0
			1	12	15.21	14.94	15.22	15.27	15.29	15.11	0.0	16.0
			1	22	15.20	14.97	15.23	15.26	15.31	15.08	0.0	16.0
			12	0	15.21	14.92	15.23	15.22	15.25	15.07	0.0	16.0
			12	6	15.22	14.95	15.22	15.26	15.32	15.07	0.0	16.0
			12	12	15.23	14.97	15.24	15.27	15.30	15.04	0.0	16.0
			24	0	15.25	14.97	15.26	15.26	15.29	15.09	0.0	16.0
		QPSK	1	1	15.21	14.89	15.19	15.22	15.27	15.08	0.0	16.0
			1	12	15.23	14.96	15.22	15.22	15.29	15.07	0.0	16.0
			1	22	15.24	14.95	15.25	15.26	15.31	15.06	0.0	16.0
			12	0	15.24	14.91	15.26	15.25	15.28	15.08	0.0	16.0
			12	6	15.25	14.94	15.24	15.24	15.28	15.08	0.0	16.0
			12	12	15.26	14.96	15.28	15.29	15.31	15.07	0.0	16.0
			24	0	15.24	14.94	15.27	15.27	15.28	15.09	0.0	16.0
		16QAM	1	1	15.26	14.92	15.24	15.28	15.32	15.10	0.0	16.0
		64QAM	1	1	15.31	14.96	15.28	15.44	15.39	15.17	0.0	16.0
		256QAM	1	1	15.28	14.97	15.34	15.32	15.31	15.16	0.0	16.0
		CP-OFDM	QPSK	1	1	15.17	14.86	15.22	15.18	15.25	15.01	0.0

Notes:

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

NR Band n77 -Upper Band- (SRS1/SRS2/SRS3) Measured Results

BW (MHz)	Mode	SRS1 - Maximum Allowed Average Power (dBm)						SRS2 - Maximum Allowed Average Power (dBm)						SRS3 - Maximum Allowed Average Power (dBm)						
		RSI = 0, 1, 2, 3, 4						RSI = 0, 1, 2, 3, 4						RSI = 0, 1, 2, 3, 4						
		Measured Pwr (dBm)			Tune-up Limit			Measured Pwr (dBm)			Tune-up Limit			Measured Pwr (dBm)			Tune-up Limit			
100 MHz	SRS CW	14.62	650000 3750 MHz	662000 3930 MHz	15.88	16.0	14.78	650000 3750 MHz	662000 3930 MHz	13.84	16.0	14.55	650000 3750 MHz	662000 3930 MHz	14.06	16.0	16.0	16.0	16.0	16.0
BW (MHz)	Mode	Measured Pwr (dBm)						Measured Pwr (dBm)						Measured Pwr (dBm)						
90 MHz	SRS CW	14.69	649668 3745.02 MHz	656000 3840 MHz	662332 3934.98 MHz	14.73	16.0	14.75	649668 3745.02 MHz	656000 3840 MHz	662332 3934.98 MHz	15.08	16.0	14.47	649668 3745.02 MHz	656000 3840 MHz	662332 3934.98 MHz	14.60	14.09	16.0
BW (MHz)	Mode	Measured Pwr (dBm)						Measured Pwr (dBm)						Measured Pwr (dBm)						
80 MHz	SRS CW	14.83	649334 3740.01 MHz	656000 3840 MHz	662666 3939.99 MHz	14.73	16.0	14.86	649334 3740.01 MHz	656000 3840 MHz	662666 3939.99 MHz	15.06	16.0	14.52	649334 3740.01 MHz	656000 3840 MHz	662666 3939.99 MHz	14.55	14.21	16.0
BW (MHz)	Mode	Measured Pwr (dBm)						Measured Pwr (dBm)						Measured Pwr (dBm)						
70 MHz	SRS CW	15.01	649000 3735 MHz	653666 3804.99 MHz	658334 3875.01 MHz	14.49	16.0	14.96	649000 3735 MHz	653666 3804.99 MHz	658334 3875.01 MHz	15.63	16.0	14.68	649000 3735 MHz	653666 3804.99 MHz	658334 3875.01 MHz	14.71	14.40	16.0
BW (MHz)	Mode	Measured Pwr (dBm)						Measured Pwr (dBm)						Measured Pwr (dBm)						
60 MHz	SRS CW	15.27	648668 3730.02 MHz	653556 3803.34 MHz	658444 3876.66 MHz	14.46	16.0	15.06	648668 3730.02 MHz	653556 3803.34 MHz	658444 3876.66 MHz	15.30	16.0	15.12	648668 3730.02 MHz	653556 3803.34 MHz	658444 3876.66 MHz	14.60	14.72	16.0
BW (MHz)	Mode	Measured Pwr (dBm)						Measured Pwr (dBm)						Measured Pwr (dBm)						
50 MHz	SRS CW	15.35	648334 3725.01 MHz	652166 3782.49 MHz	656000 3840 MHz	14.36	16.0	15.46	648334 3725.01 MHz	652166 3782.49 MHz	656000 3840 MHz	15.66	16.0	15.13	648334 3725.01 MHz	652166 3782.49 MHz	656000 3840 MHz	14.92	14.57	16.0
BW (MHz)	Mode	Measured Pwr (dBm)						Measured Pwr (dBm)						Measured Pwr (dBm)						
40 MHz	SRS CW	15.32	648000 3720 MHz	651200 3768 MHz	654400 3816 MHz	14.40	16.0	15.10	648000 3720 MHz	651200 3768 MHz	654400 3816 MHz	15.74	16.0	15.84	648000 3720 MHz	651200 3768 MHz	654400 3816 MHz	15.19	14.85	16.0
BW (MHz)	Mode	Measured Pwr (dBm)						Measured Pwr (dBm)						Measured Pwr (dBm)						
30 MHz	SRS CW	15.35	647668 3715.02 MHz	651000 3765 MHz	654334 3815.01 MHz	14.48	16.0	15.08	647668 3715.02 MHz	651000 3765 MHz	654334 3815.01 MHz	14.49	16.0	15.84	647668 3715.02 MHz	651000 3765 MHz	654334 3815.01 MHz	14.85	14.54	16.0
BW (MHz)	Mode	Measured Pwr (dBm)						Measured Pwr (dBm)						Measured Pwr (dBm)						
25 MHz	SRS CW	15.42	647500 3712.5 MHz	650900 3763.5 MHz	654300 3814.5 MHz	14.63	16.0	15.07	647500 3712.5 MHz	650900 3763.5 MHz	654300 3814.5 MHz	14.94	16.0	14.79	647500 3712.5 MHz	650900 3763.5 MHz	654300 3814.5 MHz	15.22	14.76	16.0
BW (MHz)	Mode	Measured Pwr (dBm)						Measured Pwr (dBm)						Measured Pwr (dBm)						
20 MHz	SRS CW	15.34	647334 3701.01 MHz	650800 3762 MHz	654266 3813.99 MHz	14.41	16.0	15.06	647334 3701.01 MHz	650800 3762 MHz	654266 3813.99 MHz	15.20	16.0	14.75	647334 3701.01 MHz	650800 3762 MHz	654266 3813.99 MHz	15.18	14.93	16.0
BW (MHz)	Mode	Measured Pwr (dBm)						Measured Pwr (dBm)						Measured Pwr (dBm)						
15 MHz	SRS CW	15.34	647168 3707.52 MHz	650700 3760.5 MHz	654234 3813.51 MHz	14.35	16.0	15.13	647168 3707.52 MHz	650700 3760.5 MHz	654234 3813.51 MHz	15.58	16.0	15.86	647168 3707.52 MHz	650700 3760.5 MHz	654234 3813.51 MHz	15.64	14.92	16.0
BW (MHz)	Mode	Measured Pwr (dBm)						Measured Pwr (dBm)						Measured Pwr (dBm)						
10 MHz	SRS CW	15.41	647000 3705 MHz	650600 3759 MHz	654200 3813 MHz	14.39	16.0	15.08	647000 3705 MHz	650600 3759 MHz	654200 3813 MHz	15.87	16.0	15.88	647000 3705 MHz	650600 3759 MHz	654200 3813 MHz	15.22	14.97	16.0

Notes:

SRS1/SRS2/SRS3 were measured output power through FTM mode provided by manufacturer.

9.5. Wi-Fi 2.4 GHz (DTS Band)

WLAN SISO mode output power results

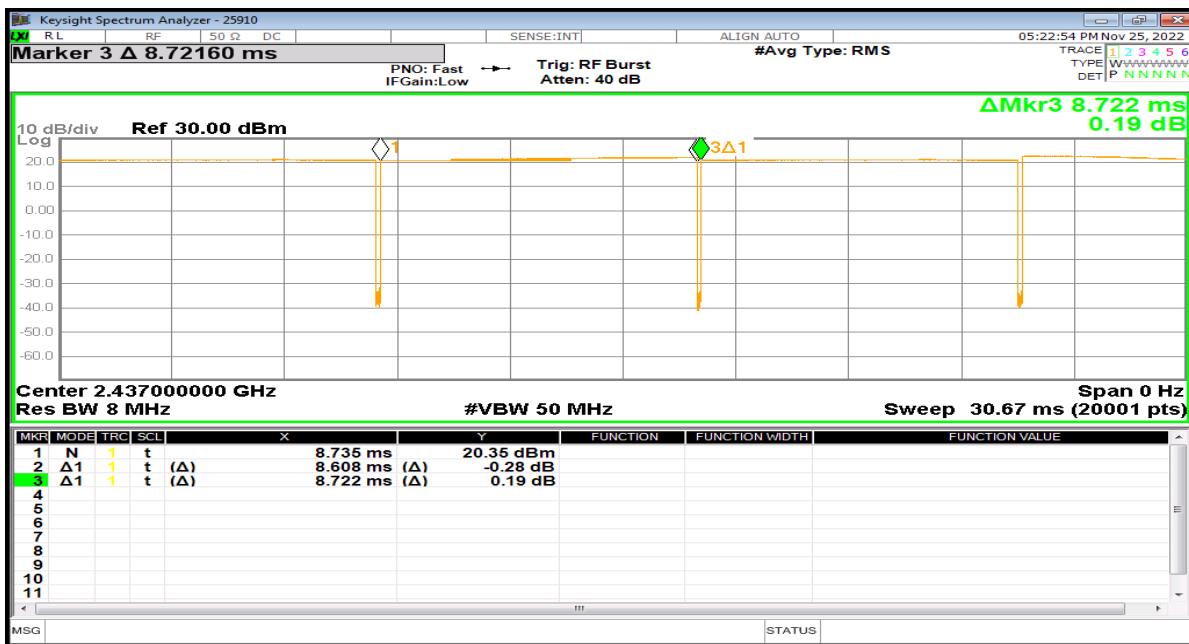
Antenna	Mode	Data Rate	Ch #	Freq. (MHz)	Max.Average Power (dBm)			Reduced.Average Power (dBm)		
					Meas. Avg Pwr	Max. Tune-up Limit	SAR Test (Yes/No)	Meas. Avg Pwr	Max. Tune-up Limit	SAR Test (Yes/No)
WiFi 2.4G SISO Ant.1	802.11b	1 Mbps	1	2412.0	17.26	18.0	Yes	11.66	13.0	Yes
			6	2437.0	18.57	19.0		12.21		
			11	2462.0	16.86	18.0		12.08		
	802.11g	6 Mbps	1 - 11	2412 - 2472	Not Required	16.5	No	Not Required	13.0	No
	802.11n	6.5 Mbps	1 - 11	2412 - 2472	Not Required	16.5	No	Not Required	13.0	No
	802.11ax	7.3 Mbps	1 - 11	2412 - 2472	Not Required	16.5	No	Not Required	13.0	No
WiFi 2.4G SISO Ant.2	802.11b	1 Mbps	1	2412.0	17.37	18.0	Yes	11.87	13.0	Yes
			6	2437.0	18.38	19.0		11.87		
			11	2462.0	16.80	18.0		11.69		
	802.11g	6 Mbps	1 - 11	2412 - 2472	Not Required	16.5	No	Not Required	13.0	No
	802.11n	6.5 Mbps	1 - 11	2412 - 2472	Not Required	16.5	No	Not Required	13.0	No
	802.11ax	7.3 Mbps	1 - 11	2412 - 2472	Not Required	16.5	No	Not Required	13.0	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	Data Rate	T on (ms)	Period (ms)	Duty Cycle	Crest Factor (1/duty cycle)
802.11b	1 Mbps	8.608	8.722	98.7%	1.01



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

WLAN SISO Ant.1 output power Results

Antenn a	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)
5.3 (UNII 2A)	WiFi 5GHz Ant.1	802.11a	6 Mbps	52	5260.0	16.15	17.5	Yes	Not Required	11.0	No
				56	5280.0	16.71					
				60	5300.0	16.69					
				64	5320.0	15.15	16.0				
		802.11n (HT20)	6.5 Mbps	Not Required			17.5	No	Not Required	11.0	No
		802.11n (HT40)	13.5 Mbps	Not Required			14.5	No	Not Required	11.0	No
		802.11ac (VHT20)	6.5 Mbps	Not Required			17.5	No	Not Required	11.0	No
		802.11ac (VHT40)	13.5 Mbps	Not Required			14.5	No	Not Required	11.0	No
		802.11ac (VHT80)	29.3 Mbps	58	5290.0	Not Required	12.5	No	10.29	11.0	Yes
		802.11ax (HE20)	7.3 Mbps	Not Required			17.0	No	Not Required	11.0	No
		802.11ax (HE40)	14.6 Mbps	Not Required			14.5	No	Not Required	11.0	No
		802.11ax (HE80)	36.0 Mbps	Not Required			12.5	No	Not Required	11.0	No
5.5 (U-NII 2C)	WiFi 5GHz Ant.1	802.11a	6 Mbps	100	5500.0	15.04	16.0	Yes	Not Required	11.0	No
				120	5600.0	16.56					
				124	5620.0	16.18					
				144	5720.0	16.57					
		802.11n (HT20)	6.5 Mbps	Not Required			17.5	No	Not Required	11.0	No
		802.11n (HT40)	13.5 Mbps	Not Required			14.5	No	Not Required	11.0	No
		802.11ac (VHT20)	6.5 Mbps	Not Required			17.5	No	Not Required	11.0	No
		802.11ac (VHT40)	13.5 Mbps	Not Required			14.5	No	Not Required	11.0	No
		802.11ac (VHT80)	29.3 Mbps	106	5530.0	Not Required	12.5	No	10.20	11.0	Yes
				122	5610.0	Not Required			9.95		
				138	5690.0	Not Required			9.79		
		802.11ax (HE20)	7.3 Mbps	Not Required			17.5	No	Not Required	11.0	No
		802.11ax (HE40)	14.6 Mbps	Not Required			14.5	No	Not Required	11.0	No
		802.11ax (HE80)	36.0 Mbps	Not Required			12.5	No	Not Required	11.0	No
5.8 (U-NII 3)	WiFi 5GHz Ant.1	802.11a	6 Mbps	149	5745.0	16.54	17.5	Yes	Not Required	11.0	No
				157	5785.0	16.77					
				165	5825.0	16.71					
		802.11n (HT20)	6.5 Mbps	Not Required			17.5	No	Not Required	11.0	No
		802.11n (HT40)	13.5 Mbps	Not Required			14.5	No	Not Required	11.0	No
		802.11ac (VHT20)	6.5 Mbps	Not Required			17.5	No	Not Required	11.0	No
		802.11ac (VHT40)	13.5 Mbps	Not Required			14.5	No	Not Required	11.0	No
		802.11ac (VHT80)	29.3 Mbps	155	5775.0	Not Required	12.5	No	10.09	11.0	Yes
		802.11ax (HE20)	7.3 Mbps	Not Required			17.5	No	Not Required	11.0	No
		802.11ax (HE40)	14.6 Mbps	Not Required			14.5	No	Not Required	11.0	No
		802.11ax (HE80)	36.0 Mbps	Not Required			12.5	No	Not Required	11.0	No

Note(s):

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

WLAN SISO Ant.2 output power Results

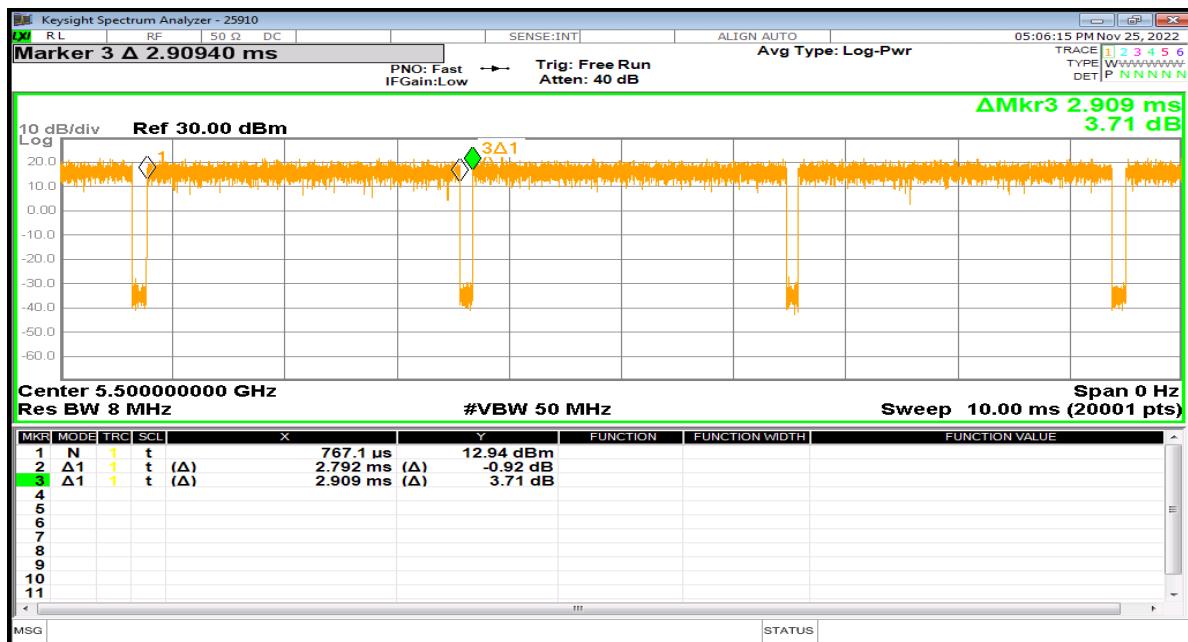
Antenn a	Band (GHz)	Mode	Data Rate	Ch #	Freq. (MHz)	WLAN mode power					
						Max. Average Power			Reduced Average Power		
						Avg Pwr (dBm)	Max. Tune-up Limit (dBm)	SAR Test (Yes/No)	Avg Pwr (dBm)	Max. Tune-up Limit (dBm)	SAR Test (Yes/No)
5.3 (UNII 2A)	5.3 (UNII 2A)	802.11a	6 Mbps	52	5260.0	16.07	17.5	Yes	Not Required	11.0	No
				56	5280.0	15.87					
				60	5300.0	16.13					
				64	5320.0	14.77	16.0				
		802.11n (HT20)	6.5 Mbps	Not Required			17.5	No	Not Required	11.0	No
		802.11n (HT40)	13.5 Mbps	Not Required			14.5	No	Not Required	11.0	No
		802.11ac (VHT20)	6.5 Mbps	Not Required			17.5	No	Not Required	11.0	No
		802.11ac (VHT40)	13.5 Mbps	Not Required			14.5	No	Not Required	11.0	No
		802.11ac (VHT80)	29.3 Mbps	58	5290.0	Not Required	12.5	No	9.94	11.0	Yes
		802.11ax (HE20)	7.3 Mbps	Not Required			17.0	No	Not Required	11.0	No
		802.11ax (HE40)	14.6 Mbps	Not Required			14.5	No	Not Required	11.0	No
		802.11ax (HE80)	36.0 Mbps	Not Required			12.5	No	Not Required	11.0	No
WiFi 5GHz Ant.2	5.5 (U-NII 2C)	802.11a	6 Mbps	100	5500.0	15.17	16.0	Yes	Not Required	11.0	No
				120	5600.0	16.54					
				124	5620.0	16.31					
				144	5720.0	16.45					
		802.11n (HT20)	6.5 Mbps	Not Required			17.5	No	Not Required	11.0	No
		802.11n (HT40)	13.5 Mbps	Not Required			14.5	No	Not Required	11.0	No
		802.11ac (VHT20)	6.5 Mbps	Not Required			17.5	No	Not Required	11.0	No
		802.11ac (VHT40)	13.5 Mbps	Not Required			14.5	No	Not Required	11.0	No
		802.11ac (VHT80)	29.3 Mbps	106	5530.0	Not Required	12.5	No	10.25	11.0	Yes
				122	5610.0	Not Required			10.03		
				138	5690.0	Not Required			10.39		
		802.11ax (HE20)	7.3 Mbps	Not Required			17.5	No	Not Required	11.0	No
		802.11ax (HE40)	14.6 Mbps	Not Required			14.5	No	Not Required	11.0	No
		802.11ax (HE80)	36.0 Mbps	Not Required			12.5	No	Not Required	11.0	No
5.8 (U-NII 3)	5.8 (U-NII 3)	802.11a	6 Mbps	149	5745.0	16.65	17.5	Yes	Not Required	11.0	No
				157	5785.0	16.78					
				165	5825.0	16.28					
		802.11n (HT20)	6.5 Mbps	Not Required			17.5	No	Not Required	11.0	No
		802.11n (HT40)	13.5 Mbps	Not Required			14.5	No	Not Required	11.0	No
		802.11ac (VHT20)	6.5 Mbps	Not Required			17.5	No	Not Required	11.0	No
		802.11ac (VHT40)	13.5 Mbps	Not Required			14.5	No	Not Required	11.0	No
		802.11ac (VHT80)	29.3 Mbps	155	5775.0	Not Required	12.5	No	10.59	11.0	Yes
		802.11ax (HE20)	7.3 Mbps	Not Required			17.5	No	Not Required	11.0	No
		802.11ax (HE40)	14.6 Mbps	Not Required			14.5	No	Not Required	11.0	No
		802.11ax (HE80)	36.0 Mbps	Not Required			12.5	No	Not Required	11.0	No

Note(s):

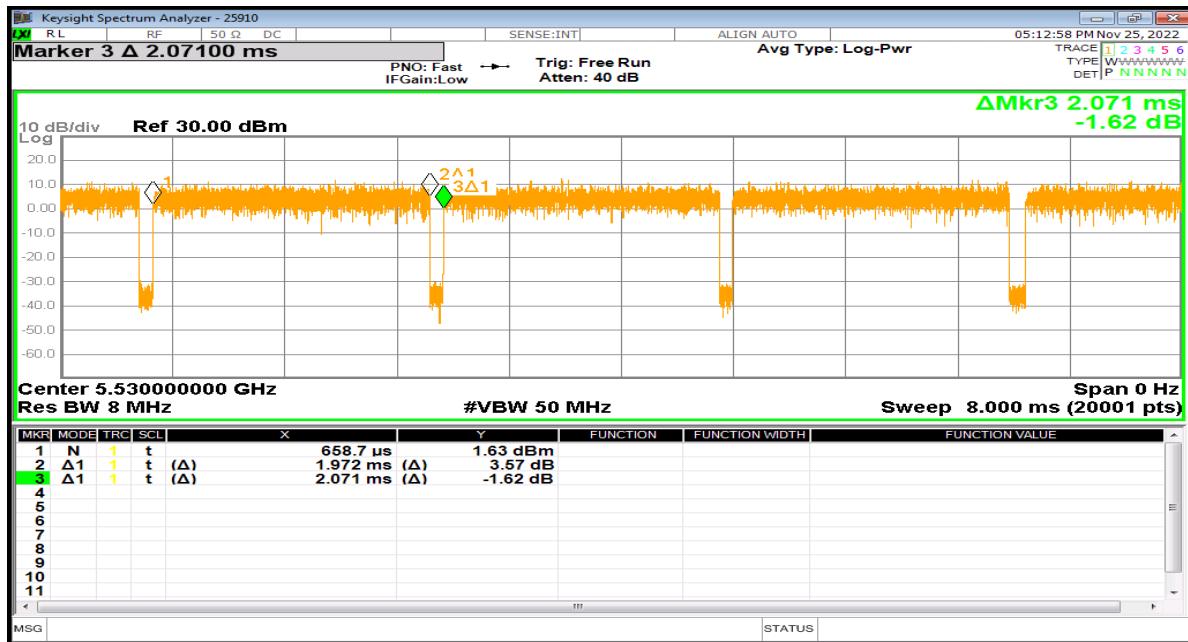
- For "Not required", SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is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

Duty Factor Measured Results

Mode	Data Rate	T on (ms)	Period (ms)	Duty Cycle	Crest Factor (1/duty cycle)
802.11a	6 Mbps	2.792	2.909	96.0%	1.04

**Duty Factor Measured Results**

Mode	Data Rate	T on (ms)	Period (ms)	Duty Cycle	Crest Factor (1/duty cycle)
802.11ac (VHT 80)	29.3 Mbps	1.972	2.071	95.2%	1.05



9.7. Bluetooth

Bluetooth output power Results

Band (GHz)	Antenna	Mode	Ch #	Freq. (MHz)	Max. Average Power (dBm)		Reduced. Average Power (dBm)	
					Meas Pwr	Tune-up Limit	Meas Pwr	Tune-up Limit
2.4	BT Ant.	GFSK (BDR)	0	2402	15.03	15.5	10.41	11.0
			39	2441	15.27		11.86	12.0
			78	2480	14.81		11.96	12.0
		EDR	0	2402	12.45	13.0	12.45	13.0
			39	2441	12.15		12.15	
			78	2480	11.43		11.43	
		LE	0	2402	13.64	14.0	8.45	9.0
			19	2440	13.71		8.35	
			39	2480	12.87		7.99	

Duty Factor Measured Results

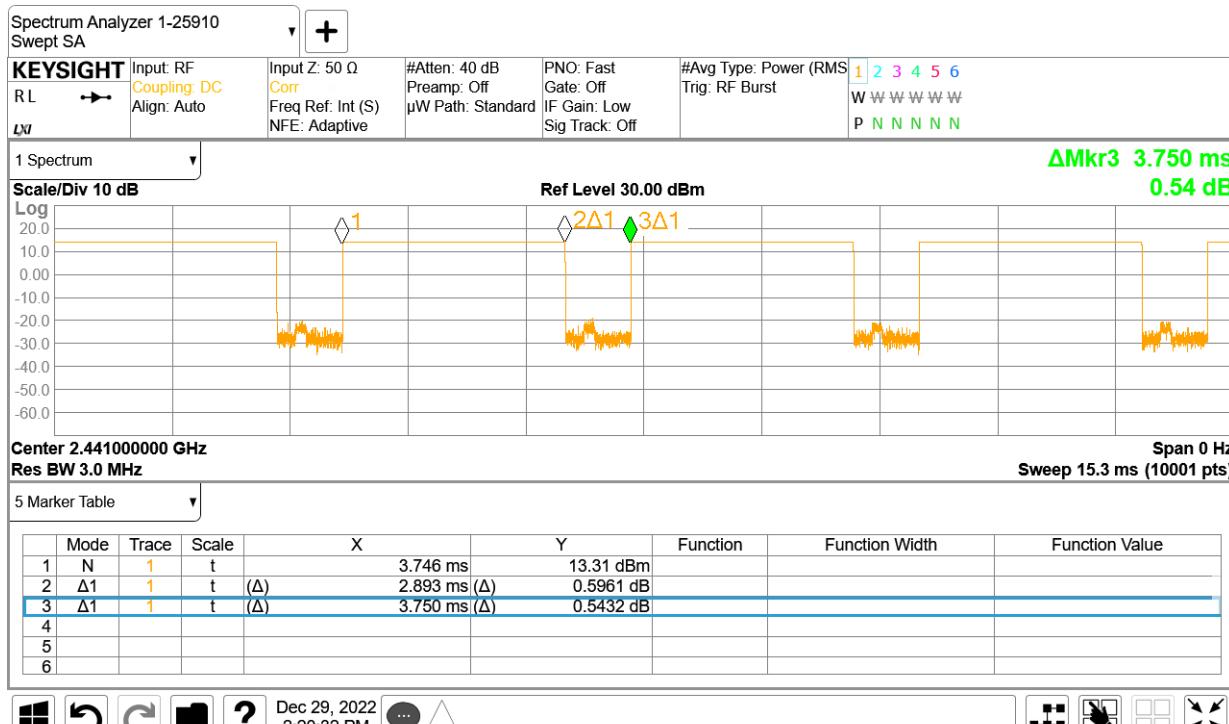
Mode	Type	T on (ms)	Period (ms)	Maximum Duty Cycle	Measured Duty Cycle	Crest Factor (maximum duty/ measured duty cycle)
GFSK	DH5	2.893	3.750	78.00%	77.10%	1.01

Note(s):

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

Duty Cycle plots

GFSK / EDR



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 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 W/kg , for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
- $\leq 0.4 \text{ W/kg}$ or 1.0 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 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 closet/smallest test separation distance and maximum coupling test position, on the highest maximum output power channel, until the reported SAR is $\leq 0.8 \text{ W/kg}$ 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. GSM 850

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)	
							Tune-up limit	Meas.	Meas.	Scaled
Main 1 Ant.	Head	GPRS 2 Slots	0	Left Touch	190	836.6	32.00	30.44	0.211	0.302
				Left Tilt	190	836.6	32.00	30.44	0.111	0.159
				Right Touch	190	836.6	32.00	30.44	0.313	0.448
				Right Tilt	190	836.6	32.00	30.44	0.140	0.201
	Body-w orn	GPRS 2 Slots	15	Rear	190	836.6	32.00	30.44	0.237	0.339
				Front	190	836.6	32.00	30.44	0.260	0.372
	Hotspot	GPRS 2 Slots	10	Rear	128	824.4	32.00	30.73	0.403	0.540
					190	836.6	32.00	30.44	0.585	0.838
					251	848.8	32.00	30.29	0.527	0.781
				Front	190	836.6	32.00	30.44	0.300	0.430
				Edge 2	190	836.6	32.00	30.44	0.322	0.461
				Edge 3	190	836.6	32.00	30.44	0.381	0.546

10.2. GSM 1900

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)	
							Tune-up limit	Meas.	Meas.	Scaled
Main 2 Ant.	Head	GPRS 4 Slots	0	Left Touch	661	1880.0	25.00	23.71	0.132	0.178
				Left Tilt	661	1880.0	25.00	23.71	0.092	0.124
				Right Touch	661	1880.0	25.00	23.71	0.157	0.211
				Right Tilt	661	1880.0	25.00	23.71	0.078	0.105
	Body-w orn	GPRS 4 Slots	15	Rear	661	1880.0	25.00	23.71	0.279	0.375
				Front	661	1880.0	25.00	23.71	0.197	0.265
	Hotspot	GPRS 4 Slots	10	Rear	661	1880.0	25.00	23.71	0.497	0.669
				Front	661	1880.0	25.00	23.71	0.328	0.441
				Edge 3	512	1850.2	25.00	23.32	0.532	0.783
					661	1880.0	25.00	23.71	0.603	0.812
					810	1909.8	25.00	23.63	0.665	0.912
				Edge 4	661	1880.0	25.00	23.71	0.204	0.275

10.3. WCDMA Band II

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.
							Tune-up limit	Meas.	Meas.	Scaled	
Main 2 Ant.	Head	Rel 99 RMC	0	Left Touch	9400	1880.0	24.00	22.99	0.292	0.368	
				Left Tilt	9400	1880.0	24.00	22.99	0.166	0.209	
				Right Touch	9400	1880.0	24.00	22.99	0.313	0.395	7
				Right Tilt	9400	1880.0	24.00	22.99	0.156	0.197	
	Body-w orn	Rel 99 RMC	15	Rear	9400	1880.0	24.00	22.99	0.526	0.664	8
				Front	9400	1880.0	24.00	22.99	0.472	0.596	
	Hotspot	Rel 99 RMC	10	Rear	9400	1880.0	22.00	21.05	0.441	0.549	
				Front	9400	1880.0	22.00	21.05	0.317	0.395	
				Edge 3	9400	1880.0	22.00	21.05	0.484	0.602	9
				Edge 4	9400	1880.0	22.00	21.05	0.196	0.244	

10.4. WCDMA Band IV

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.
							Tune-up limit	Meas.	Meas.	Scaled	
Main 2 Ant.	Head	Rel 99 RMC	0	Left Touch	1413	1732.6	24.00	22.74	0.256	0.342	
				Left Tilt	1413	1732.6	24.00	22.74	0.121	0.162	
				Right Touch	1413	1732.6	24.00	22.74	0.318	0.425	10
				Right Tilt	1413	1732.6	24.00	22.74	0.123	0.164	
	Body-w orn	Rel 99 RMC	15	Rear	1413	1732.6	24.00	22.74	0.498	0.666	11
				Front	1413	1732.6	24.00	22.74	0.469	0.627	
	Hotspot	Rel 99 RMC	10	Rear	1413	1732.6	21.50	20.51	0.391	0.491	12
				Front	1413	1732.6	21.50	20.51	0.351	0.441	
				Edge 3	1413	1732.6	21.50	20.51	0.251	0.315	
				Edge 4	1413	1732.6	21.50	20.51	0.105	0.132	

10.5. WCDMA Band V

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.
							Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	Rel 99 RMC	0	Left Touch	4183	836.6	25.00	23.73	0.193	0.259	
				Left Tilt	4183	836.6	25.00	23.73	0.113	0.151	
				Right Touch	4183	836.6	25.00	23.73	0.252	0.338	13
				Right Tilt	4183	836.6	25.00	23.73	0.137	0.184	
	Body-w orn	Rel 99 RMC	15	Rear	4183	836.6	25.00	23.73	0.235	0.315	
				Front	4183	836.6	25.00	23.73	0.252	0.338	14
	Hotspot	Rel 99 RMC	10	Rear	4183	836.6	25.00	23.73	0.502	0.673	15
				Front	4183	836.6	25.00	23.73	0.273	0.366	
				Edge 2	4183	836.6	25.00	23.73	0.346	0.464	
				Edge 3	4183	836.6	25.00	23.73	0.371	0.497	

10.6. LTE Band 2 (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Scaled	
Sub 2 Ant.	Head	QPSK	0	Left Touch	18700	1860.0	1	99	21.00	20.93	0.258	0.262	
				50	50	50	50	50	21.00	20.94	0.256	0.260	
				Left Tilt	18700	1860.0	1	99	21.00	20.93	0.337	0.342	
				50	50	50	50	50	21.00	20.94	0.340	0.345	
				Right Touch	18700	1860.0	1	99	21.00	20.93	0.380	0.386	
				50	50	50	50	50	21.00	20.94	0.383	0.388	
				Right Tilt	18700	1860.0	1	99	21.00	20.93	0.513	0.521	
				50	50	50	50	50	21.00	20.94	0.527	0.534	16
	Body-w orn	QPSK	15	Rear	18700	1860.0	1	99	22.00	21.72	0.092	0.098	
				50	50	50	50	50	22.00	21.73	0.097	0.103	17
	Hotspot	QPSK	10	Front	18700	1860.0	1	99	22.00	21.72	0.042	0.045	
				50	50	50	50	50	22.00	21.73	0.051	0.054	
				Rear	18700	1860.0	1	99	22.00	21.72	0.231	0.246	
				50	50	50	50	50	22.00	21.73	0.236	0.251	
				Front	18700	1860.0	1	99	22.00	21.72	0.083	0.089	
				50	50	50	50	50	22.00	21.73	0.085	0.090	
				Edge 1	18700	1860.0	1	99	22.00	21.72	0.366	0.390	
				50	50	50	50	50	22.00	21.73	0.367	0.391	18
				Edge 4	18700	1860.0	1	99	22.00	21.72	0.056	0.060	
				50	50	50	50	50	22.00	21.73	0.057	0.060	

10.7. LTE Band 7 (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Scaled	
Main 2 Ant.	Head	QPSK	0	Left Touch	20850	2510.0	1	0	24.00	23.50	0.222	0.249	19
				Left Tilt	20850	2510.0	1	0	24.00	23.50	0.062	0.070	
				Right Touch	20850	2510.0	1	0	24.00	23.50	0.152	0.171	
				Right Tilt	20850	2510.0	1	0	24.00	23.50	0.122	0.139	
				Right Tilt	20850	2510.0	50	0	23.00	22.43	0.110	0.125	
				Rear	20850	2510.0	1	0	24.00	23.50	0.364	0.408	20
	Body-w orn	QPSK	15	Front	20850	2510.0	1	0	24.00	23.50	0.310	0.348	
				Front	20850	2510.0	50	0	23.00	22.43	0.276	0.315	
				Rear	20850	2510.0	1	0	21.00	20.21	0.444	0.533	21
				Front	20850	2510.0	50	0	21.00	20.22	0.444	0.531	
	Hotspot	QPSK	10	Edge 3	20850	2510.0	1	0	21.00	20.21	0.267	0.320	
				Edge 3	20850	2510.0	50	0	21.00	20.22	0.284	0.340	
				Edge 4	20850	2510.0	1	0	21.00	20.21	0.115	0.138	
				Edge 4	20850	2510.0	50	0	21.00	20.22	0.107	0.128	

10.8. LTE Band 12 (10MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	QPSK	0	Left Touch	23095	707.5	1	25	25.00	24.24	0.167	0.199	
							25	0	24.00	23.21	0.137	0.164	
				Left Tilt	23095	707.5	1	25	25.00	24.24	0.082	0.097	
							25	0	24.00	23.21	0.061	0.073	
				Right Touch	23095	707.5	1	25	25.00	24.24	0.221	0.263	22
							25	0	24.00	23.21	0.182	0.218	
	Body-w orn	QPSK	15	Right Tilt	23095	707.5	1	25	25.00	24.24	0.102	0.122	
							25	0	24.00	23.21	0.086	0.104	
				Rear	23095	707.5	1	25	25.00	24.24	0.277	0.330	23
							25	0	24.00	23.21	0.216	0.259	
				Front	23095	707.5	1	25	25.00	24.24	0.235	0.280	
							25	0	24.00	23.21	0.189	0.227	
	Hotspot	QPSK	10	Rear	23095	707.5	1	25	25.00	24.24	0.384	0.457	24
							25	0	25.00	23.21	0.296	0.447	
				Front	23095	707.5	1	25	25.00	24.24	0.221	0.263	
							25	0	25.00	23.21	0.174	0.263	
				Edge 2	23095	707.5	1	25	25.00	24.24	0.227	0.270	
							25	0	25.00	23.21	0.188	0.284	
				Edge 3	23095	707.5	1	25	25.00	24.24	0.273	0.325	
							25	0	25.00	23.21	0.203	0.307	

10.9. LTE Band 13 (10MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	QPSK	0	Left Touch	23230	782.0	1	0	25.00	23.93	0.176	0.225	
							25	0	24.00	22.91	0.133	0.171	
				Left Tilt	23230	782.0	1	0	25.00	23.93	0.094	0.120	
							25	0	24.00	22.91	0.075	0.097	
				Right Touch	23230	782.0	1	0	25.00	23.93	0.221	0.283	25
							25	0	24.00	22.91	0.174	0.224	
	Body-w orn	QPSK	15	Right Tilt	23230	782.0	1	0	25.00	23.93	0.111	0.142	
							25	0	24.00	22.91	0.085	0.109	
				Rear	23230	782.0	1	0	25.00	23.93	0.291	0.372	26
							25	0	24.00	22.91	0.204	0.262	
				Front	23230	782.0	1	0	25.00	23.93	0.270	0.345	
							25	0	24.00	22.91	0.206	0.265	
	Hotspot	QPSK	10	Rear	23230	782.0	1	0	25.00	23.93	0.442	0.565	27
							25	0	24.00	22.91	0.316	0.406	
				Front	23230	782.0	1	0	25.00	23.93	0.235	0.301	
							25	0	24.00	22.91	0.175	0.225	
				Edge 2	23230	782.0	1	0	25.00	23.93	0.393	0.503	
							25	0	24.00	22.91	0.293	0.377	
				Edge 3	23230	782.0	1	0	25.00	23.93	0.306	0.391	
							25	0	24.00	22.91	0.224	0.288	

10.10. LTE Band 14 (10MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	QPSK	0	Left Touch	23330	793.0	1	0	25.00	23.79	0.149	0.197	
				25	0	24.00	22.78	0.098	0.130				
				Left Tilt	23330	793.0	1	0	25.00	23.79	0.084	0.111	
				25	0	24.00	22.78	0.059	0.078				
				Right Touch	23330	793.0	1	0	25.00	23.79	0.196	0.259	28
				25	0	24.00	22.78	0.161	0.213				
	Body-w orn	QPSK	15	Right Tilt	23330	793.0	1	0	25.00	23.79	0.095	0.126	
				25	0	24.00	22.78	0.079	0.105				
				Rear	23330	793.0	1	0	25.00	23.79	0.246	0.325	29
				25	0	24.00	22.78	0.195	0.258				
				Front	23330	793.0	1	0	25.00	23.79	0.238	0.314	
				25	0	24.00	22.78	0.185	0.245				
	Hotspot	QPSK	10	Rear	23330	793.0	1	0	25.00	23.79	0.303	0.400	
				25	0	24.00	22.78	0.296	0.392				
				Front	23330	793.0	1	0	25.00	23.79	0.209	0.276	
				25	0	24.00	22.78	0.163	0.216				
				Edge 2	23330	793.0	1	0	25.00	23.79	0.351	0.464	30
				25	0	24.00	22.78	0.340	0.450				
				Edge 3	23330	793.0	1	0	25.00	23.79	0.265	0.350	
				25	0	24.00	22.78	0.195	0.258				

10.11. LTE Band 25 (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Scaled	
Main 2 Ant.	Head	QPSK	0	Left Touch	26140	1860.0	1	0	25.00	24.26	0.240	0.285	
				50	0	24.00	23.24	0.195	0.232				
				Left Tilt	26140	1860.0	1	0	25.00	24.26	0.169	0.200	
				50	0	24.00	23.24	0.141	0.168				
				Right Touch	26140	1860.0	1	0	25.00	24.26	0.267	0.317	31
				50	0	24.00	23.24	0.178	0.212				
	Body-w orn	QPSK	15	Right Tilt	26140	1860.0	1	0	25.00	24.26	0.137	0.162	
				50	0	24.00	23.24	0.128	0.152				
				Rear	26140	1860.0	1	0	25.00	24.26	0.470	0.557	32
				50	0	24.00	23.24	0.410	0.488				
				Front	26140	1860.0	1	0	25.00	24.26	0.296	0.351	
				50	0	24.00	23.24	0.340	0.405				
	Hotspot	QPSK	10	Rear	26140	1860.0	1	0	23.00	22.37	0.548	0.634	
				50	0	23.00	22.26	0.546	0.647				
				Front	26140	1860.0	1	0	23.00	22.37	0.439	0.508	
				50	0	23.00	22.26	0.418	0.496				
				Edge 3	26140	1860.0	1	0	23.00	22.37	0.608	0.703	33
				50	0	23.00	22.26	0.577	0.684				
				Edge 4	26140	1860.0	1	0	23.00	22.37	0.239	0.276	
				50	0	23.00	22.26	0.246	0.292				

10.12. LTE Band 26 (15MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	QPSK	0	Left Touch	26865	831.5	1	0	25.50	24.49	0.238	0.300	
							36	0	24.50	23.54	0.188	0.235	
				Left Tilt	26865	831.5	1	0	25.50	24.49	0.125	0.158	
							36	0	24.50	23.54	0.098	0.122	
				Right Touch	26865	831.5	1	0	25.50	24.49	0.286	0.361	34
							36	0	24.50	23.54	0.254	0.317	
	Body-w orn	QPSK	15	Right Tilt	26865	831.5	1	0	25.50	24.49	0.144	0.182	
							36	0	24.50	23.54	0.129	0.161	
				Rear	26865	831.5	1	0	25.50	24.49	0.295	0.372	35
							36	0	24.50	23.54	0.232	0.289	
				Front	26865	831.5	1	0	25.50	24.49	0.293	0.370	
							36	0	24.50	23.54	0.230	0.287	
Main 2 Ant.	Hotspot	QPSK	10	Rear	26865	831.5	1	0	25.50	24.49	0.491	0.620	36
							36	0	24.50	23.54	0.414	0.516	
				Front	26865	831.5	1	0	25.50	24.49	0.292	0.368	
							36	0	24.50	23.54	0.243	0.303	
				Edge 2	26865	831.5	1	0	25.50	24.49	0.332	0.419	
							36	0	24.50	23.54	0.264	0.329	
	Body-w orn	QPSK	15	Edge 3	26865	831.5	1	0	25.50	24.49	0.350	0.442	
							36	0	24.50	23.54	0.298	0.372	
				Rear	27710	2310.0	1	25	24.00	23.41	0.108	0.124	37
							25	0	23.00	22.32	0.090	0.105	
				Left Tilt	27710	2310.0	1	25	24.00	23.41	0.057	0.065	
							25	0	23.00	22.32	0.039	0.046	
Main 2 Ant.	Hotspot	QPSK	10	Right Touch	27710	2310.0	1	25	24.00	23.41	0.090	0.104	
							25	0	23.00	22.32	0.068	0.079	
				Right Tilt	27710	2310.0	1	25	24.00	23.41	0.103	0.118	
							25	0	23.00	22.32	0.076	0.089	
				Rear	27710	2310.0	1	25	24.00	23.41	0.267	0.306	38
							25	0	23.00	22.32	0.214	0.250	
	Body-w orn	QPSK	15	Front	27710	2310.0	1	25	24.00	23.41	0.250	0.286	
							25	0	23.00	22.32	0.200	0.234	
				Rear	27710	2310.0	1	25	24.00	23.41	0.464	0.532	
							25	0	23.00	22.32	0.374	0.437	
				Front	27710	2310.0	1	25	24.00	23.41	0.333	0.381	
							25	0	23.00	22.32	0.269	0.315	
Main 3 Ant.	Hotspot	QPSK	10	Edge 3	27710	2310.0	1	25	24.00	23.41	0.513	0.588	39
							25	0	23.00	22.32	0.411	0.481	
				Edge 4	27710	2310.0	1	25	24.00	23.41	0.231	0.265	
							25	0	23.00	22.32	0.179	0.209	
				Rear	27710	2310.0	1	25	24.00	23.41	0.231	0.265	

10.13. LTE Band 30 (10MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Scaled	
Main 2 Ant.	Head	QPSK	0	Left Touch	27710	2310.0	1	25	24.00	23.41	0.108	0.124	37
							25	0	23.00	22.32	0.090	0.105	
				Left Tilt	27710	2310.0	1	25	24.00	23.41	0.057	0.065	
							25	0	23.00	22.32	0.039	0.046	
				Right Touch	27710	2310.0	1	25	24.00	23.41	0.090	0.104	
							25	0	23.00	22.32	0.068	0.079	
	Body-w orn	QPSK	15	Right Tilt	27710	2310.0	1	25	24.00	23.41	0.103	0.118	
							25	0	23.00	22.32	0.076	0.089	
				Rear	27710	2310.0	1	25	24.00	23.41	0.267	0.306	38
							25	0	23.00	22.32	0.214	0.250	
				Front	27710	2310.0	1	25	24.00	23.41	0.250	0.286	
							25	0	23.00	22.32	0.200	0.234	
Main 3 Ant.	Hotspot	QPSK	10	Edge 3	27710	2310.0	1	25	24.00	23.41	0.513	0.588	39
							25	0	23.00	22.32	0.411	0.481	
				Edge 4	27710	2310.0	1	25	24.00	23.41	0.231	0.265	
							25	0	23.00	22.32	0.179	0.209	
				Rear	27710	2310.0	1	25	24.00	23.41	0.231	0.265	

10.14. LTE Band 38 (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Scaled	
Main 2 Ant.	Hotspot	QPSK	10	Rear	38000	2595.0	1	49	24.00	22.40	0.366	0.529	40
				Front	38000	2595.0	1	49	24.00	22.40	0.215	0.311	
				Edge 3	38000	2595.0	50	0	23.00	21.40	0.164	0.237	
				Edge 4	38000	2595.0	1	49	24.00	22.40	0.353	0.510	
							50	0	23.00	21.40	0.279	0.403	
							1	49	24.00	22.40	0.083	0.120	
							50	0	23.00	21.40	0.064	0.092	

Note(s):

In the case of Head & Body-worn exposure, it is covered by LTE Band 41.

10.15. LTE Band 40 (10MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Scaled	
Main 2 Ant.	Head	QPSK	0	Left Touch	39200	2355.0	1	25	14.00	13.44	0.007	0.008	41
				Left Tilt	39200	2355.0	1	25	14.00	13.44	<0.001	<0.001	
				Right Touch	39200	2355.0	1	25	14.00	13.44	<0.001	<0.001	
				Right Tilt	39200	2355.0	1	25	14.00	13.44	<0.001	<0.001	
				Right Tilt	39200	2355.0	25	0	14.00	13.30	<0.001	<0.001	
				Rear	39200	2355.0	1	25	14.00	13.44	0.005	0.005	
	Body-w orn	QPSK	15	Front	39200	2355.0	1	25	14.00	13.44	0.006	0.007	
				Front	39200	2355.0	25	0	14.00	13.30	0.008	0.009	42
				Rear	39200	2355.0	1	25	14.00	13.44	0.023	0.026	
				Front	39200	2355.0	25	0	14.00	13.30	0.024	0.028	
	Hotspot	QPSK	10	Edge 3	39200	2355.0	1	25	14.00	13.44	0.021	0.024	
				Edge 3	39200	2355.0	25	0	14.00	13.30	0.019	0.023	
				Edge 4	39200	2355.0	1	25	14.00	13.44	0.028	0.032	
				Edge 4	39200	2355.0	25	0	14.00	13.30	0.032	0.037	43
				Edge 4	39200	2355.0	1	25	14.00	13.44	0.011	0.013	
				Edge 4	39200	2355.0	25	0	14.00	13.30	0.011	0.013	

10.16. LTE Band 41 (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Scaled	
Main 2 Ant.	Head	QPSK	0	Left Touch	41055	2636.5	1	0	24.00	23.53	0.147	0.164	
				Left Tilt	41055	2636.5	1	0	24.00	23.53	0.049	0.055	
				Right Touch	41055	2636.5	1	0	24.00	23.53	0.097	0.108	
				Right Tilt	41055	2636.5	50	0	23.00	22.42	0.059	0.067	
				Rear	41055	2636.5	1	0	24.00	23.53	0.242	0.270	44
				Front	41055	2636.5	50	0	23.00	22.42	0.180	0.206	
	Body-w orn	QPSK	15	Rear	41055	2636.5	1	0	24.00	23.53	0.211	0.235	
				Front	41055	2636.5	50	0	23.00	22.42	0.159	0.182	
				Rear	41055	2636.5	1	0	22.00	21.67	0.376	0.406	45
				Front	41055	2636.5	50	0	22.00	21.64	0.364	0.395	
				Edge 3	41055	2636.5	1	0	22.00	21.67	0.270	0.291	
				Edge 4	41055	2636.5	50	0	22.00	21.64	0.261	0.284	

LTE Band 41 (20MHz Bandwidth) (Continued)**LTE Band 41 Power Class 2**

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Scaled	
Main 2 Ant.	Head	QPSK	0	Left touch	41055	2636.5	1	0	27.00	26.87	0.211	0.217	46
	Body-worn	QPSK	15	Rear	41055	2636.5	1	0	27.00	26.87	0.251	0.259	
	Hotspot	QPSK	10	Rear	41055	2636.5	1	0	23.00	21.60	0.265	0.366	

Note(s):

From May 2017 TCB workshop, SAR tested were performed using Power Class 3. SAR test for Power Class 2 is tested using the highest SAR test configuration in Power Class 3 for each LTE configuration and exposure condition combination. According to the highest time averaged power for UL-DL configurations, configuration # 1 with duty cycle 43.3% is used for Power Class 2 SAR test.

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

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

Reported SAR vs. Output power linearly scaled

Antenna	RF Exposure Conditions	Power Class 2				Power Class 3				PC2 linearly scaled Reported SAR (W/kg)	Linearly scaled (<10%)
		Duty Cycle (%)	Tune-up Power (dBm)	Fram Avg. Power (dBm)	Reported SAR (W/kg)	Duty Cycle	Tune-up Power (dBm)	Fram Avg. Power (dBm)	Reported SAR (W/kg)		
Main 2 Ant.	Head	43.3	27.0	217.0	0.217	63.3	24.0	159.0	0.164	0.224	-2.9
	Body-worn	43.3	27.0	217.0	0.259	63.3	24.0	159.0	0.270	0.369	-29.8
	Hotspot	43.3	23.0	86.4	0.366	63.3	22.0	100.3	0.406	0.350	4.6

UL CA 41C

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	PCC UL				SCC UL				Power (dBm)		1-g SAR (W/kg)		Plot No.
					Ch #.	Freq. (MHz)	RB Allocation	RB offset	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Tune-up limit	Meas.	Meas.	Scaled	
Main 2 Ant.	Head	QPSK	0	Left Touch	41055	2636.5	1	0	40857	2616.7	1	99	24.00	23.50	0.103	0.116	47
	Body-worn	QPSK	15	Rear	41055	2636.5	1	0	40857	2616.7	1	99	24.00	23.50	0.232	0.260	48
	Hotspot	QPSK	10	Rear	41055	2636.5	1	0	40857	2616.7	1	99	22.00	21.65	0.288	0.312	49

10.17. LTE Band 48 (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Scaled	
Sub 3 Ant.	Head	QPSK	0	Left Touch	55773	3603.3	1	99	20.50	19.75	0.185	0.220	
							50	50	20.50	19.71	0.197	0.236	
				Left Tilt	55773	3603.3	1	99	20.50	19.75	0.156	0.185	
							50	50	20.50	19.71	0.154	0.185	
				Right Touch	55340	3560.0	1	99	20.50	19.57	0.601	0.745	
							50	50	20.50	19.59	0.607	0.748	
					55773	3603.3	1	99	20.50	19.75	0.666	0.792	
							50	50	20.50	19.71	0.676	0.811	50
				56207	3646.7	1	99	20.50	19.11	0.509	0.701		
						50	50	20.50	19.10	0.509	0.703		
				56640	3690.0	1	99	20.50	19.39	0.514	0.664		
						50	50	20.50	19.49	0.512	0.646		
				Right Tilt	55340	3603.3	1	99	20.50	19.75	0.449	0.534	
							50	50	20.50	19.71	0.454	0.545	
	Body-w orn	QPSK	15	Rear	55773	3603.3	1	99	21.00	20.93	0.165	0.168	
							50	50	21.00	20.94	0.168	0.170	51
				Front	55773	3603.3	1	99	21.00	20.93	0.086	0.087	
							50	50	21.00	20.94	0.078	0.079	
	Hotspot	QPSK	10	Rear	55773	3603.3	1	99	21.00	20.93	0.324	0.329	
							50	50	21.00	20.94	0.324	0.329	
				Front	55773	3603.3	1	99	21.00	20.93	0.160	0.163	
							50	50	21.00	20.94	0.157	0.159	
				Edge 1	55773	3603.3	1	99	21.00	20.93	0.190	0.193	
							50	50	21.00	20.94	0.193	0.196	
				Edge 4	55773	3603.3	1	99	21.00	20.93	0.406	0.413	52
							50	50	21.00	20.94	0.402	0.408	

UL CA 48C

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	PCC UL				SCC UL				Power (dBm)		1-g SAR (W/kg)		Plot No.
					Ch #.	Freq. (MHz)	RB Allocation	RB offset	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Tune-up limit	Meas.	Meas.	Scaled	
Sub 3 Ant.	Head	QPSK	0	Right Touch	55773	3603.3	50	50	55971	3623.1	50	0	20.50	19.55	0.484	0.602	53
	Body-w orn	QPSK	15	Rear	55773	3603.3	50	50	55971	3623.1	50	0	21.00	20.85	0.197	0.204	54
	Hotspot	QPSK	10	Edge 4	55773	3603.3	1	99	55971	3623.1	1	0	21.00	20.82	0.465	0.485	55

10.18. LTE Band 66 (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Scaled	
Main 2 Ant.	Head	QPSK	0	Left Touch	132322	1745.0	1	49	25.00	24.22	0.224	0.268	
							50	0	24.00	22.84	0.202	0.264	
				Left Tilt	132322	1745.0	1	49	25.00	24.22	0.151	0.181	
							50	0	24.00	22.84	0.130	0.170	
				Right Touch	132322	1745.0	1	49	25.00	24.22	0.311	0.372	56
							50	0	24.00	22.84	0.275	0.359	
				Right Tilt	132322	1745.0	1	49	25.00	24.22	0.106	0.127	
							50	0	24.00	22.84	0.096	0.125	
	Body-w orn	QPSK	15	Rear	132322	1745.0	1	49	25.00	24.22	0.472	0.565	57
							50	0	24.00	22.84	0.421	0.550	
				Front	132322	1745.0	1	49	25.00	24.22	0.450	0.539	
							50	0	24.00	22.84	0.407	0.532	
	Hotspot	QPSK	10	Rear	132322	1745.0	1	49	23.00	21.76	0.519	0.691	
							50	0	23.00	21.75	0.537	0.716	
				Front	132322	1745.0	1	49	23.00	21.76	0.475	0.632	
							50	0	23.00	21.75	0.509	0.679	
				132072	1720.0		1	49	23.00	21.47	0.636	0.905	
							50	0	23.00	21.73	0.675	0.904	
				132322	1745.0		1	49	23.00	21.76	0.795	1.058	58
							50	0	23.00	21.75	0.746	0.995	
				132572	1770.0		100	0	23.00	21.76	0.757	1.007	
							1	49	23.00	21.61	0.760	1.047	
				132322	1745.0		50	0	23.00	21.68	0.767	1.039	
				Edge 4	132322	1745.0	1	49	23.00	21.76	0.259	0.345	
							50	0	23.00	21.75	0.267	0.356	
Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		10-g SAR (W/kg)		Plot No.
Main 2 Ant.	Product Specific 10-g	QPSK	12	Edge 3	132322	1745.0	1	49	25.00	24.22	0.556	0.665	
							50	0	24.00	22.84	0.456	0.596	
				Edge 3	132072	1720.0	1	49	23.00	21.59	1.660	2.297	
							50	0	23.00	21.77	1.710	2.270	
					132322	1745.0	1	49	23.00	21.96	1.890	2.401	
							50	0	23.00	21.78	1.900	2.516	
					132572	1770.0	100	0	23.00	21.76	1.910	2.541	
							1	49	23.00	21.86	1.920	2.496	
							50	0	23.00	21.70	1.930	2.603	59

10.19. LTE Band 66 (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Scaled	
Sub 2 Ant.	Head	QPSK	0	Left Touch	132322	1745.0	1	99	20.50	20.09	0.343	0.377	
							50	24	20.50	20.29	0.353	0.370	
				Left Tilt	132322	1745.0	1	99	20.50	20.09	0.411	0.452	
							50	24	20.50	20.29	0.431	0.452	
				Right Touch	132322	1745.0	1	99	20.50	20.09	0.550	0.604	
							50	24	20.50	20.29	0.582	0.611	
	Body-w orn	QPSK	15	Right Tilt	132322	1745.0	1	99	20.50	20.09	0.615	0.676	
							50	24	20.50	20.29	0.648	0.680	60
				Rear	132322	1745.0	1	99	21.50	21.15	0.179	0.194	
							50	24	21.50	21.25	0.189	0.200	61
				Front	132322	1745.0	1	99	21.50	21.15	0.081	0.087	
							50	24	21.50	21.25	0.084	0.089	
Main 1 Ant.	Hotspot	QPSK	10	Rear	132322	1745.0	1	99	21.50	21.15	0.398	0.431	
							50	24	21.50	21.25	0.420	0.445	
				Front	132322	1745.0	1	99	21.50	21.15	0.138	0.150	
							50	24	21.50	21.25	0.145	0.154	
				Edge 1	132322	1745.0	1	99	21.50	21.15	0.464	0.503	
							50	24	21.50	21.25	0.476	0.504	62
	Body-w orn	QPSK	15	Edge 4	132322	1745.0	1	99	21.50	21.15	0.065	0.070	
							50	24	21.50	21.25	0.064	0.068	
				Rear	133297	680.5	1	0	25.50	24.64	0.151	0.184	
							50	0	24.50	23.56	0.123	0.153	
				Left Tilt	133297	680.5	1	0	25.50	24.64	0.083	0.102	
							50	0	24.50	23.56	0.068	0.085	
Main 1 Ant.	Hotspot	QPSK	10	Right Touch	133297	680.5	1	0	25.50	24.64	0.231	0.282	63
							50	0	24.50	23.56	0.177	0.220	
				Right Tilt	133297	680.5	1	0	25.50	24.64	0.114	0.139	
							50	0	24.50	23.56	0.085	0.106	
				Rear	133297	680.5	1	0	25.50	24.64	0.286	0.349	64
							50	0	24.50	23.56	0.234	0.291	
	Body-w orn	QPSK	15	Front	133297	680.5	1	0	25.50	24.64	0.232	0.283	
							50	0	24.50	23.56	0.186	0.231	
				Rear	133297	680.5	1	0	25.50	24.64	0.327	0.399	
							50	0	24.50	23.56	0.245	0.304	
				Front	133297	680.5	1	0	25.50	24.64	0.284	0.346	
							50	0	24.50	23.56	0.220	0.273	
Main 2 Ant.	Hotspot	QPSK	10	Edge 2	133297	680.5	1	0	25.50	24.64	0.334	0.407	65
							50	0	24.50	23.56	0.247	0.307	
				Edge 3	133297	680.5	1	0	25.50	24.64	0.213	0.260	
							50	0	24.50	23.56	0.180	0.223	
				Rear	133297	680.5	1	0	25.50	24.64	0.334	0.407	

10.20. LTE Band 71 (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	QPSK	0	Left Touch	133297	680.5	1	0	25.50	24.64	0.151	0.184	
							50	0	24.50	23.56	0.123	0.153	
				Left Tilt	133297	680.5	1	0	25.50	24.64	0.083	0.102	
							50	0	24.50	23.56	0.068	0.085	
				Right Touch	133297	680.5	1	0	25.50	24.64	0.231	0.282	63
							50	0	24.50	23.56	0.177	0.220	
	Body-w orn	QPSK	15	Right Tilt	133297	680.5	1	0	25.50	24.64	0.114	0.139	
							50	0	24.50	23.56	0.085	0.106	
				Rear	133297	680.5	1	0	25.50	24.64	0.286	0.349	64
							50	0	24.50	23.56	0.234	0.291	
				Front	133297	680.5	1	0	25.50	24.64	0.232	0.283	
							50	0	24.50	23.56	0.186	0.231	
Main 2 Ant.	Hotspot	QPSK	10	Rear	133297	680.5	1	0	25.50	24.64	0.327	0.399	
							50	0	24.50	23.56	0.245	0.304	
				Front	133297	680.5	1	0	25.50	24.64	0.284	0.346	
							50	0	24.50	23.56	0.220	0.273	
				Edge 2	133297	680.5	1	0	25.50	24.64	0.334	0.407	65
	Body-w orn	QPSK	15				50	0	24.50	23.56	0.247	0.307	
				Edge 3	133297	680.5	1	0	25.50	24.64	0.213	0.260	
							50	0	24.50	23.56	0.180	0.223	
				Rear	133297	680.5	1	0	25.50	24.64	0.334	0.407	
							50	0	24.50	23.56	0.245	0.304	

10.21. NR Band n5 (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.	
										Tune-up limit	Meas.	Meas.	Scaled		
Main 1 Ant.	Head	DFT-s-OFDM	QPSK	0	Left Touch	167300	836.5	1	1	25.50	24.68	0.214	0.258		
								50	28	25.50	24.67	0.198	0.240		
					Left Tilt	167300	836.5	1	1	25.50	24.68	0.118	0.143		
								50	28	25.50	24.67	0.111	0.134		
					Right Touch	167300	836.5	1	1	25.50	24.68	0.268	0.324	66	
								50	28	25.50	24.67	0.262	0.317		
					Right Tilt	167300	836.5	1	1	25.50	24.68	0.142	0.172		
								50	28	25.50	24.67	0.135	0.163		
					CP-OFDM	QPSK	0	Right Touch	167300	836.5	1	1	24.00	23.19	0.178
														0.214	
	Body-w orn	DFT-s-OFDM	QPSK	15	Rear	167300	836.5	1	1	25.50	24.68	0.268	0.324	67	
								50	28	25.50	24.67	0.228	0.276		
					Front	167300	836.5	1	1	25.50	24.68	0.262	0.316		
								50	28	25.50	24.67	0.241	0.292		
					CP-OFDM	QPSK	15	Rear	167300	836.5	1	1	24.00	23.19	0.170
														0.205	
	Hotspot	DFT-s-OFDM	QPSK	10	Rear	167300	836.5	1	1	25.50	24.68	0.505	0.610	68	
								50	28	25.50	24.67	0.497	0.602		
					Front	167300	836.5	1	1	25.50	24.68	0.265	0.320		
								50	28	25.50	24.67	0.260	0.315		
					Edge 2	167300	836.5	1	1	25.50	24.68	0.344	0.415		
					Edge 3	167300	836.5	1	1	25.50	24.68	0.363	0.438		
								50	28	25.50	24.67	0.362	0.438		
					CP-OFDM	QPSK	10	Rear	167300	836.5	1	1	24.00	23.19	0.357
														0.430	

Note(s):

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

10.22. NR Band n12 (15MHz Bandwidth)

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.	
										Tune-up limit	Meas.	Meas.	Scaled		
Main 1 Ant.	Head	DFT-s-OFDM	QPSK	0	Left Touch	141500	707.5	1	77	25.00	24.41	0.150	0.172		
								36	22	25.00	24.42	0.138	0.158		
					Left Tilt	141500	707.5	1	77	25.00	24.41	0.082	0.094		
								36	22	25.00	24.42	0.072	0.083		
					Right Touch	141500	707.5	1	77	25.00	24.41	0.179	0.205		
								36	22	25.00	24.42	0.190	0.217	69	
					Right Tilt	141500	707.5	1	77	25.00	24.41	0.086	0.098		
								36	22	25.00	24.42	0.094	0.108		
					CP-OFDM	QPSK	0	Right Touch	141500	707.5	1	1	23.50	22.95	0.133
														0.151	
	Body-w orn	DFT-s-OFDM	QPSK	15	Rear	141500	707.5	1	77	25.00	24.41	0.232	0.266		
								36	22	25.00	24.42	0.241	0.275	70	
					Front	141500	707.5	1	77	25.00	24.41	0.197	0.226		
								36	22	25.00	24.42	0.207	0.237		
					CP-OFDM	QPSK	15	Rear	141500	707.5	1	1	23.50	22.95	0.168
	Hotspot	DFT-s-OFDM	QPSK	10	Rear	141500	707.5	1	77	25.00	24.41	0.341	0.391		
								36	22	25.00	24.42	0.345	0.394	71	
					Front	141500	707.5	1	77	25.00	24.41	0.206	0.236		
								36	22	25.00	24.42	0.213	0.243		
					Edge 2	141500	707.5	1	77	25.00	24.41	0.270	0.309		
					Edge 3	141500	707.5	1	77	25.00	24.41	0.259	0.297		
								36	22	25.00	24.42	0.245	0.280		
					CP-OFDM	QPSK	10	Rear	141500	707.5	1	1	23.50	22.95	0.244
														0.277	

Note(s):

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

10.23. NR Band n25 (40MHz Bandwidth)

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.	
										Tune-up limit	Meas.	Meas.	Scaled		
Main 2 Ant.	Head	DFT-s-OFDM	QPSK	0	Left Touch	376500	1882.5	1	1	25.00	24.54	0.246	0.273		
								108	54	25.00	24.51	0.228	0.255		
					Left Tilt	376500	1882.5	1	1	25.00	24.54	0.129	0.143		
								108	54	25.00	24.51	0.133	0.149		
					Right Touch	376500	1882.5	1	1	25.00	24.54	0.262	0.291		
								108	54	25.00	24.51	0.278	0.311	72	
					Right Tilt	376500	1882.5	1	1	25.00	24.54	0.147	0.163		
								108	54	25.00	24.51	0.176	0.197		
					CP-OFDM	QPSK	0	Right Touch	376500	1882.5	1	1	23.50	23.02	0.179
														0.200	
	Body-w orn	DFT-s-OFDM	QPSK	15	Rear	376500	1882.5	1	1	25.00	24.54	0.431	0.479		
								108	54	25.00	24.51	0.480	0.537	73	
					Front	376500	1882.5	1	1	25.00	24.54	0.398	0.442		
								108	54	25.00	24.51	0.425	0.476		
					CP-OFDM	QPSK	15	Rear	376500	1882.5	1	1	23.50	23.02	0.304
	Hotspot	DFT-s-OFDM	QPSK	10	Rear	376500	1882.5	1	1	23.00	22.61	0.595	0.651		
								108	54	23.00	22.60	0.652	0.715	74	
					Front	376500	1882.5	1	1	23.00	22.61	0.477	0.522		
								108	54	23.00	22.60	0.520	0.570		
					Edge 3	376500	1882.5	1	1	23.00	22.61	0.524	0.573		
								108	54	23.00	22.60	0.555	0.609		
					Edge 4	376500	1882.5	1	1	23.00	22.61	0.220	0.241		
								108	54	23.00	22.60	0.232	0.254		
					CP-OFDM	QPSK	10	Rear	376500	1882.5	1	1	23.00	22.56	0.505
														0.559	

Note(s):

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

10.24. NR Band n30 (10MHz Bandwidth)

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.	
										Tune-up limit	Meas.	Meas.	Scaled		
Main 2 Ant.	Head	DFT-s-OFDM	QPSK	0	Left Touch	462000	2310.0	1	50	24.00	23.58	0.145	0.160	75	
								25	14	24.00	23.59	0.143	0.157		
					Left Tilt	462000	2310.0	1	50	24.00	23.58	0.050	0.055		
								25	14	24.00	23.59	0.048	0.053		
					Right Touch	462000	2310.0	1	50	24.00	23.58	0.099	0.109		
								25	14	24.00	23.59	0.100	0.109		
					Right Tilt	462000	2310.0	1	50	24.00	23.58	0.095	0.104		
								25	14	24.00	23.59	0.094	0.103		
					CP-OFDM	QPSK	0	Left Touch	462000	2310.0	1	1	22.50	21.55	0.100
														0.124	
	Body-w orn	DFT-s-OFDM	QPSK	15	Rear	462000	2310.0	1	50	24.00	23.58	0.230	0.253		
								25	14	24.00	23.59	0.239	0.263	76	
					Front	462000	2310.0	1	50	24.00	23.58	0.230	0.253		
								25	14	24.00	23.59	0.236	0.259		
	Hotspot	DFT-s-OFDM	QPSK	10	Rear	462000	2310.0	1	1	22.50	21.55	0.158	0.197		
								1	50	24.00	23.58	0.517	0.569		
								25	14	24.00	23.59	0.526	0.578		
					Front	462000	2310.0	1	50	24.00	23.58	0.393	0.433		
								25	14	24.00	23.59	0.410	0.451		
					Edge 3	462000	2310.0	1	50	24.00	23.58	0.651	0.717	77	
								25	14	24.00	23.59	0.587	0.645		
					Edge 4	462000	2310.0	1	50	24.00	23.58	0.236	0.260		
								25	14	24.00	23.59	0.235	0.258		
					CP-OFDM	QPSK	10	Edge 3	462000	2310.0	1	1	22.50	21.55	0.412
														0.513	

Note(s):

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

10.25. NR Band n41 (Power class 2) (100MHz Bandwidth)

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.	
										Tune-up limit	Meas.	Meas.	Scaled		
Main 2 Ant.	Head	DFT-s-OFDM	QPSK	0	Left Touch	518598	2593.0	1	1	21.00	19.50	0.105	0.148		
								135	69	21.00	19.52	0.163	0.229	78	
					Left Tilt	518598	2593.0	1	1	21.00	19.50	0.036	0.050		
								135	69	21.00	19.52	0.032	0.044		
					Right Touch	518598	2593.0	1	1	21.00	19.50	0.078	0.110		
								135	69	21.00	19.52	0.086	0.121		
					Right Tilt	518598	2593.0	1	1	21.00	19.50	0.074	0.104		
								135	69	21.00	19.52	0.076	0.106		
					CP-OFDM	QPSK	0	Left Touch	518598	2593.0	1	1	19.50	17.86	0.049
														0.071	
	Body-w orn	DFT-s-OFDM	QPSK	15	Rear	518598	2593.0	1	1	21.00	19.50	0.222	0.314		
								135	69	21.00	19.52	0.238	0.335	79	
					Front	518598	2593.0	1	1	21.00	19.50	0.177	0.250		
								135	69	21.00	19.52	0.194	0.273		
					CP-OFDM	QPSK	15	Rear	518598	2593.0	1	1	19.50	17.86	0.095
														0.139	
	Hotspot	DFT-s-OFDM	QPSK	10	Rear	518598	2593.0	1	1	17.00	15.45	0.194	0.277		
								135	69	17.00	15.48	0.217	0.308	80	
					Front	518598	2593.0	1	1	17.00	15.45	0.116	0.166		
								135	69	17.00	15.48	0.125	0.177		
					Edge 3	518598	2593.0	1	1	17.00	15.45	0.209	0.299		
								135	69	17.00	15.48	0.210	0.298		
					Edge 4	518598	2593.0	1	1	17.00	15.45	0.061	0.088		
								135	69	17.00	15.48	0.058	0.082		
					CP-OFDM	QPSK	10	Rear	518598	2592.99	1	1	17.00	15.31	0.193
														0.285	

Note(s):

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

10.26. NR Band n48 (Voice/data/SRS0) (100MHz Bandwidth)

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.	
										Tune-up limit	Meas.	Meas.	Scaled		
Sub 3 Ant.	Head	DFT-s-OFDM	QPSK	0	Left Touch	641666	3625.0	1	53	14.00	12.78	0.074	0.099		
								50	28	14.00	12.78	0.076	0.101		
					Left Tilt	641666	3625.0	1	53	14.00	12.78	0.064	0.085		
								50	28	14.00	12.78	0.071	0.094		
					Right Touch	641666	3625.0	1	53	14.00	12.78	0.299	0.396		
								50	28	14.00	12.78	0.333	0.441	81	
					Right Tilt	641666	3625.0	1	53	14.00	12.78	0.167	0.221		
								50	28	14.00	12.78	0.189	0.250		
					CP-OFDM	QPSK	0	Right Touch	641666	3625.0	1	1	14.00	12.57	0.267
														0.371	
	Body-w orn	DFT-s-OFDM	QPSK	15	Rear	641666	3625.0	1	53	15.00	14.26	0.037	0.044		
								50	28	15.00	14.31	0.042	0.049	82	
					Front	641666	3625.0	1	53	15.00	14.26	0.036	0.043		
								50	28	15.00	14.31	0.034	0.040		
					CP-OFDM	QPSK	15	Rear	641666	3625.0	1	1	15.00	14.02	0.037
														0.046	
	Hotspot	DFT-s-OFDM	QPSK	10	Rear	641666	3625.0	1	53	15.00	14.26	0.066	0.078		
								50	28	15.00	14.31	0.065	0.076		
					Front	641666	3625.0	1	53	15.00	14.26	0.065	0.077		
								50	28	15.00	14.31	0.065	0.076		
					Edge 1	641666	3625.0	1	53	15.00	14.26	0.060	0.071		
								50	28	15.00	14.31	0.116	0.136		
					Edge 4	641666	3625.0	1	53	15.00	14.26	0.160	0.190		
								50	28	15.00	14.31	0.176	0.206	83	
					CP-OFDM	QPSK	10	Edge 4	641666	3625	1	1	15.00	14.31	0.150
														0.176	

Note(s):

1. CP-OFDM mode were evaluated at worst configuration of DFT-s-OFDM in standalone exposure conditions.
2. NR Band n48 tested using FTM mode.

10.27. NR Band n48 (SRS1/SRS2/SRS3) (100MHz Bandwidth)

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	
Main.2 Ant. (SRS 1)	Head	SRS CW	QPSK	0	Left Touch	641666	3625.0	14.50	13.71	0.003	0.004	
					Left Tilt	641666	3625.0	14.50	13.71	0.000	0.000	
					Right Touch	641666	3625.0	14.50	13.71	0.001	0.001	
					Right Tilt	641666	3625.0	14.50	13.71	0.000	0.000	
	Body-w orn	SRS CW	QPSK	15	Rear	641666	3625.0	15.50	14.92	0.045	0.051	
					Front	641666	3625.0	15.50	14.92	0.033	0.038	
	Hotspot	SRS CW	QPSK	10	Rear	641666	3625.0	15.50	14.92	0.097	0.111	
					Front	641666	3625.0	15.50	14.92	0.065	0.074	
					Edge 3	641666	3625.0	15.50	14.92	0.132	0.151	84
					Edge 4	641666	3625.0	15.50	14.92	0.020	0.023	
Sub.5 Ant. (SRS 2)	Head	SRS CW	QPSK	0	Left Touch	645332	3680.0	14.00	13.07	0.045	0.056	
					Left Tilt	645332	3680.0	14.00	13.07	0.005	0.007	
					Right Touch	645332	3680.0	14.00	13.07	0.147	0.182	
					Right Tilt	645332	3680.0	14.00	13.07	0.031	0.039	
	Body-w orn	SRS CW	QPSK	15	Rear	645332	3680.0	15.00	14.32	0.016	0.019	
					Front	645332	3680.0	15.00	14.32	0.008	0.009	
	Hotspot	SRS CW	QPSK	10	Rear	645332	3680.0	15.00	14.32	0.035	0.040	
					Front	645332	3680.0	15.00	14.32	0.025	0.029	
					Edge 1	645332	3680.0	15.00	14.32	0.006	0.007	
					Edge 4	645332	3680.0	15.00	14.32	0.073	0.085	
Sub.8 Ant. (SRS 3)	Head	SRS CW	QPSK	0	Left Touch	645332	3680.0	13.00	12.18	0.067	0.080	
					Left Tilt	645332	3680.0	13.00	12.18	0.086	0.104	
					Right Touch	645332	3680.0	13.00	12.18	0.127	0.153	
					Right Tilt	645332	3680.0	13.00	12.18	0.151	0.182	85
	Body-w orn	SRS CW	QPSK	15	Rear	645332	3680.0	15.00	13.57	0.056	0.078	86
					Front	645332	3680.0	15.00	13.57	0.019	0.027	
	Hotspot	SRS CW	QPSK	10	Rear	645332	3680.0	15.00	13.57	0.098	0.136	
					Front	645332	3680.0	15.00	13.57	0.032	0.045	
					Edge 1	645332	3680.0	15.00	13.57	0.075	0.105	
					Edge 4	645332	3680.0	15.00	13.57	0.021	0.029	

Note(s):

NR Band n48(SRS1/SRS2/SRS3) tested using FTM mode.

10.28. NR Band n66 (40MHz Bandwidth)

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.	
										Tune-up limit	Meas.	Meas.	Scaled		
Main 2 Ant.	Head	DFT-s-OFDM	QPSK	0	Left Touch	349000	1745.0	1	214	25.00	24.40	0.201	0.231		
								108	54	25.00	24.30	0.217	0.255		
					Left Tilt	349000	1745.0	1	214	25.00	24.40	0.122	0.140		
								108	54	25.00	24.30	0.134	0.157		
					Right Touch	349000	1745.0	1	214	25.00	24.40	0.217	0.249		
								108	54	25.00	24.30	0.239	0.281	87	
					Right Tilt	349000	1745.0	1	214	25.00	24.40	0.107	0.123		
								108	54	25.00	24.30	0.109	0.128		
					CP-OFDM	QPSK	0	Right Touch	349000	1745.0	1	1	23.50	22.37	0.168
														0.218	
	Body-w orn	DFT-s-OFDM	QPSK	15	Rear	349000	1745.0	1	214	25.00	24.40	0.443	0.509		
								108	54	25.00	24.30	0.477	0.560	88	
					Front	349000	1745.0	1	214	25.00	24.40	0.421	0.483		
								108	54	25.00	24.30	0.467	0.549		
					CP-OFDM	QPSK	15	Rear	349000	1745.0	1	1	23.50	22.37	0.351
														0.455	
	Hotspot	DFT-s-OFDM	QPSK	10	Rear	349000	1745.0	1	214	23.00	22.56	0.560	0.620		
								108	54	23.00	22.51	0.560	0.627		
					Front	349000	1745.0	1	214	23.00	22.56	0.484	0.536		
								108	54	23.00	22.51	0.504	0.564		
					Edge 3	349000	1745.0	1	214	23.00	22.56	0.775	0.858	89	
								108	54	23.00	22.51	0.723	0.809		
					Edge 4	349000	1745.0	1	214	23.00	22.56	0.257	0.284		
								108	54	23.00	22.51	0.278	0.311		
					CP-OFDM	QPSK	10	Edge 3	349000	1745	1	1	23.00	21.95	0.672
Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		10-g SAR (W/kg)		Plot No.	
Main 2 Ant.	Product specific 10-g SAR	DFT-s-OFDM	QPSK	13	Edge 3	349000	1745.0	1	214	25.00	24.40	0.486	0.558		
								108	54	25.00	24.30	0.467	0.549		
				0	Edge 3	349000	1745.0	1	214	23.00	22.55	1.710	1.897		90
								108	54	23.00	22.51	1.320	1.478		
				CP-OFDM	QPSK	0	Edge 3	349000	1745.0	1	1	23.00	22.25	1.400	1.664

Note(s):

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

10.29. NR Band n71 (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.	
										Tune-up limit	Meas.	Meas.	Scaled		
Main 1 Ant.	Head	DFT-s-OFDM	QPSK	0	Left Touch	136100	680.5	1	53	25.50	24.71	0.181	0.217		
								50	28	25.50	24.57	0.178	0.221		
					Left Tilt	136100	680.5	1	53	25.50	24.71	0.104	0.125		
								50	28	25.50	24.57	0.101	0.125		
					Right Touch	136100	680.5	1	53	25.50	24.71	0.197	0.236		
								50	28	25.50	24.57	0.204	0.253	91	
					Right Tilt	136100	680.5	1	53	25.50	24.71	0.126	0.151		
								50	28	25.50	24.57	0.107	0.133		
					CP-OFDM	QPSK	0	Right Touch	136100	680.5	1	1	24.00	22.90	0.097
														0.125	
	Body-w orn	DFT-s-OFDM	QPSK	15	Rear	136100	680.5	1	53	25.50	24.71	0.301	0.361		
								50	28	25.50	24.57	0.296	0.367	92	
					Front	136100	680.5	1	53	25.50	24.71	0.248	0.297		
								50	28	25.50	24.57	0.241	0.299		
					CP-OFDM	QPSK	15	Rear	136100	680.5	1	1	24.00	22.90	0.156
	Hotspot	DFT-s-OFDM	QPSK	10	Rear	136100	680.5	1	53	25.50	24.71	0.290	0.348		
								50	28	25.50	24.57	0.283	0.351		
					Front	136100	680.5	1	53	25.50	24.71	0.258	0.309		
								50	28	25.50	24.57	0.250	0.310		
					Edge 2	136100	680.5	1	53	25.50	24.71	0.345	0.414	93	
								50	28	25.50	24.57	0.323	0.400		
					Edge 3	136100	680.5	1	53	25.50	24.71	0.222	0.266		
								50	28	25.50	24.57	0.183	0.227		
					CP-OFDM	QPSK	10	Edge 2	136100	680.5	1	1	24.00	22.90	0.235
														0.303	

Note(s):

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

10.30. NR Band n77 (Voice/data/SRS0) (100MHz Bandwidth)

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offset	Power (dBm)		1-g SAR (W/kg)		Plot No.	
										Tune-up limit	Meas.	Meas.	Scaled		
Sub 3 Ant.	DFT-s-OFDM	QPSK	0	Head	Left Touch	633334	3500.0	1	271	16.00	15.23	0.142	0.170		
								135	138	16.00	14.93	0.145	0.186		
					Left Tilt	633334	3500.0	1	271	16.00	15.23	0.136	0.162		
								135	138	16.00	14.93	0.141	0.180		
					Right Touch	633334	3500.0	1	271	16.00	15.23	0.403	0.481		
				Body-w orn				135	138	16.00	14.93	0.426	0.545	94	
					662000	3930.0	1	271	16.00	15.83	0.292	0.304			
								135	138	16.00	15.84	0.267	0.277		
					Right Tilt	633334	3500.0	1	271	16.00	15.23	0.257	0.307		
								135	138	16.00	14.93	0.253	0.324		
	CP-OFDM	QPSK	0	Right Touch	633334	3500.0	1	1	1	16.00	15.20	0.431	0.518		
Hotspot	DFT-s-OFDM	QPSK	15	Rear	633334	3500.0	1	271	16.00	15.23	0.089	0.106			
							135	138	16.00	14.93	0.096	0.123	95		
					662000	3930.0	1	271	16.00	15.83	0.093	0.097			
							135	138	16.00	15.84	0.093	0.096			
				Front	633334	3500.0	1	271	16.00	15.23	0.063	0.075			
							135	138	16.00	14.93	0.062	0.079			
					CP-OFDM	QPSK	15	Rear	633334	3500.0	1	1	16.00	15.20	0.098
				Edge 1	633334	3500.0	1	271	16.00	15.23	0.160	0.191			
							135	138	16.00	14.93	0.160	0.205			
					Front	633334	3500.0	1	271	16.00	15.23	0.125	0.149		
							135	138	16.00	14.93	0.112	0.143			
					Edge 4	633334	3500.0	1	271	16.00	15.23	0.105	0.125		
				Edge 4			135	138	16.00	14.93	0.120	0.154			
					633334	3500.0	1	271	16.00	15.23	0.357	0.426			
							135	138	16.00	14.93	0.341	0.436	96		
					662000	3930.0	1	271	16.00	15.83	0.313	0.325			
							135	138	16.00	15.84	0.302	0.313			
	CP-OFDM	QPSK	10	Edge 4	633334	3500	1	1	1	16.00	15.20	0.314	0.378		

Note(s):

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

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

Antenna	RF Exposure Conditions	Modulation	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	
Main.2 Ant. (SRS 1)	Head	SRS CW	QPSK	0	Left Touch	662000	3930.0	16.00	15.88	<0.001	<0.001	
					Left Tilt	662000	3930.0	16.00	15.88	<0.001	<0.001	
					Right Touch	633334	3500.0	14.00	12.86	<0.001	<0.001	
						662000	3930.0	16.00	15.88	0.005	0.005	
	Body-w orn	SRS CW	QPSK	15	Rear	633334	3500.0	14.00	12.86	0.005	0.007	
						662000	3930.0	16.00	15.88	0.023	0.023	
					Front	662000	3930.0	16.00	15.88	0.021	0.021	
	Hotspot	SRS CW	QPSK	10	Rear	662000	3930.0	16.00	15.88	0.022	0.023	
					Front	662000	3930.0	16.00	15.88	0.046	0.047	
					Edge 3	633334	3500.0	14.00	12.86	0.020	0.026	
						662000	3930.0	16.00	15.88	0.130	0.134	
					Edge 4	662000	3930.0	16.00	15.88	0.056	0.058	
Sub.5 Ant. (SRS 2)	Head	SRS CW	QPSK	0	Left Touch	633334	3500.0	16.00	15.24	0.173	0.206	
					Left Tilt	633334	3500.0	16.00	15.24	0.050	0.060	
					Right Touch	633334	3500.0	16.00	15.24	0.340	0.405	97
						650000	3750.0	16.00	14.78	0.103	0.136	
	Body-w orn	SRS CW	QPSK	15	Rear	633334	3500.0	16.00	15.24	0.076	0.091	
						650000	3750.0	16.00	14.78	0.017	0.023	
					Front	633334	3500.0	16.00	15.24	0.035	0.042	
	Hotspot	SRS CW	QPSK	10	Rear	633334	3500.0	16.00	15.24	0.136	0.162	
					Front	633334	3500.0	16.00	15.24	0.057	0.068	
					Edge 1	633334	3500.0	16.00	15.24	0.004	0.005	
						633334	3500.0	16.00	15.24	0.336	0.400	99
Sub.8 Ant. (SRS 3)	Head	SRS CW	QPSK	0	Left Touch	650000	3750.0	16.00	14.55	0.094	0.131	
						650000	3750.0	16.00	14.55	0.103	0.144	
					Right Touch	650000	3750.0	16.00	14.55	0.172	0.240	
					Right Tilt	633334	3500.0	16.00	14.13	0.078	0.120	
						650000	3750.0	16.00	14.55	0.193	0.269	
	Body-w orn	SRS CW	QPSK	15	Rear	633334	3500.0	16.00	14.13	<0.001	<0.001	
						650000	3750.0	16.00	14.55	<0.001	<0.001	
					Front	650000	3750.0	16.00	14.55	<0.001	<0.001	
	Hotspot	SRS CW	QPSK	10	Rear	633334	3500.0	16.00	14.13	<0.001	<0.001	
						650000	3750.0	16.00	14.55	0.005	0.007	
					Front	650000	3750.0	16.00	14.55	<0.001	<0.001	
					Edge 1	650000	3750.0	16.00	14.55	0.004	0.006	
						650000	3750.0	16.00	14.55	<0.001	<0.001	
					Edge 4	650000	3750.0	16.00	14.55	<0.001	<0.001	

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.

10.32. Wi-Fi (DTS Band)

DTS SISO SAR results

Antenna	Frequency Band	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Duty Cycle	Power (dBm)		1-g SAR (W/kg)		Note	Plot No.
											Tune-up limit	Meas.	Meas.	Scaled		
SISO Ant.1	2.4GHz 802.11b 1 Mbps	Head	On	0	Left Touch	6	2437.0	0.056	98.7%	13.00	12.21					
					Left Tilt	6	2437.0	0.047	98.7%	13.00	12.21					
					Right Touch	6	2437.0	0.300	98.7%	13.00	12.21	0.213	0.259	1	100	
					Right Tilt	6	2437.0	0.104	98.7%	13.00	12.21					
		Body-worn	Off	15	Rear	6	2437.0	0.243	98.7%	19.00	18.57	0.218	0.244	1	101	
					Front	6	2437.0	0.127	98.7%	19.00	18.57					
		Hotspot	Off	10	Rear	6	2437.0	0.527	98.7%	19.00	18.57	0.414	0.463		102	
					Front	6	2437.0	0.253	98.7%	19.00	18.57					
					Edge 1	6	2437.0	0.090	98.7%	19.00	18.57					
					Edge 4	6	2437.0	0.426	98.7%	19.00	18.57	0.345	0.386	2		
SISO Ant.2	2.4GHz 802.11b 1 Mbps	Head	On	0	Left Touch	6	2437.0	0.028	98.7%	13.00	11.87					
					Left Tilt	6	2437.0	0.031	98.7%	13.00	11.87					
					Right Touch	6	2437.0	0.191	98.7%	13.00	11.87	0.158	0.208	1		
					Right Tilt	6	2437.0	0.056	98.7%	13.00	11.87					
		Body-worn	Off	15	Rear	6	2437.0	0.063	98.7%	19.00	18.38	0.052	0.061	1		
					Front	6	2437.0	0.033	98.7%	19.00	18.38					
		Hotspot	Off	10	Rear	6	2437.0	0.144	98.7%	19.00	18.38	0.116	0.136	1		
					Front	6	2437.0	0.067	98.7%	19.00	18.38					
					Edge 1	6	2437.0	0.133	98.7%	19.00	18.38					
					Edge 4	6	2437.0	0.028	98.7%	19.00	18.38					

Note(s):

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

10.33. Wi-Fi (U-NII Bands)

U-NII 2A Results

Antenna	Frequency Band	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Duty Cycle (%)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Note	Plot No.
											Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled		
SISO Ant.1	802.11ac VHT 80 29.3 Mbps	Head	On	0	Left Touch	58	5290.0	0.033	95.2%	11.00	10.29							
					Left Tilt	58	5290.0	0.080	95.2%	11.00	10.29							
					Right Touch	58	5290.0	0.151	95.2%	11.00	10.29	0.111	0.137				1 103	
					Right Tilt	58	5290.0	0.064	95.2%	11.00	10.29							
	5.3 GHz U-NII 2A	Body-worn	Off	15	Rear	56	5280.0	0.236	96.0%	17.50	16.71	0.180	0.225				1 104	
					Front	56	5280.0	0.148	96.0%	17.50	16.71							
		Product Specific 10-g	Off	0	Rear	56	5280.0	2.220	96.0%	17.50	16.71				0.450	0.562	2	
					Front	56	5280.0	1.630	96.0%	17.50	16.71							
SISO Ant.2	802.11ac VHT 80 29.3 Mbps	Head	On	0	Edge 1	56	5280.0	0.620	96.0%	17.50	16.71							
					Edge 4	56	5280.0	6.920	96.0%	17.50	16.71				1.110	1.387		
					Left Touch	58	5290.0	0.009	95.2%	11.00	9.94							
					Left Tilt	58	5290.0	0.016	95.2%	11.00	9.94							
	5.3 GHz U-NII 2A	Body-worn	Off	15	Right Touch	58	5290.0	0.017	95.2%	11.00	9.94	0.005	0.007				1	
					Right Tilt	58	5290.0	0.011	95.2%	11.00	9.94							
		Product Specific 10-g	Off	0	Rear	60	5300.0	0.134	96.0%	17.50	16.13	0.093	0.133				1	
					Front	60	5300.0	0.004	96.0%	17.50	16.13							
					Rear	60	5300.0	1.700	96.0%	17.50	16.13				0.317	0.453	1	
					Front	60	5300.0	0.444	96.0%	17.50	16.13							
					Edge 1	60	5300.0	0.414	96.0%	17.50	16.13							
					Edge 4	60	5300.0	0.060	96.0%	17.50	16.13							

Note(s):

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

U-NII 2C Results

Antenna	Frequency Band	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Duty Cycle (%)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Note	Plot No.
											Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled		
SISO Ant.1	802.11ac VHT 80 29.3 Mbps	Head	On	0	Left Touch	106	5530.0	0.010	95.2%	11.00	10.20							
					Left Tilt	106	5530.0	0.021	95.2%	11.00	10.20							
					Right Touch	106	5530.0	0.096	95.2%	11.00	10.20	0.057	0.072				1 106	
					Right Tilt	106	5530.0	0.043	95.2%	11.00	10.20							
	5.5 GHz U-NII 2C	Body-worn	Off	15	Rear	144	5720.0	0.041	96.0%	17.50	16.57	0.027	0.035				1	
					Front	144	5720.0	0.030	96.0%	17.50	16.57							
		Product Specific 10-g	Off	0	Rear	144	5720.0	0.904	96.0%	17.50	16.57				0.143	0.185	2	
					Front	144	5720.0	1.050	96.0%	17.50	16.57							
					Edge 1	144	5720.0	0.422	96.0%	17.50	16.57							
					Edge 4	144	5720.0	2.430	96.0%	17.50	16.57				0.358	0.462		
SISO Ant.2	802.11ac VHT 80 29.3 Mbps	Head	On	0	Left Touch	138	5690.0	0.025	95.2%	11.00	10.39							
					Left Tilt	138	5690.0	0.016	95.2%	11.00	10.39							
					Right Touch	138	5690.0	0.044	95.2%	11.00	10.39							
					Right Tilt	138	5690.0	0.060	95.2%	11.00	10.39	0.038	0.046				1	
	5.5 GHz U-NII 2C	Body-worn	Off	15	Rear	120	5600.0	0.124	96.0%	17.50	16.54	0.095	0.123				1 107	
					Front	120	5600.0	0.032	96.0%	17.50	16.54							
		Product Specific 10-g	Off	0	Rear	120	5600.0	2.690	96.0%	17.50	16.54				0.613	0.797	1 108	
					Front	120	5600.0	0.382	96.0%	17.50	16.54							
					Edge 1	120	5600.0	0.917	96.0%	17.50	16.54							
					Edge 4	120	5600.0	0.197	96.0%	17.50	16.54							

Note(s):

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

U-NII 3 Results

Antenna	Frequency Band	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Duty Cycle (%)	Power (dBm)		1-g SAR (W/kg)		Note	Plot No.
											Tune-up limit	Meas.	Meas.	Scaled		
SISO Ant.1	5.8 GHz U-NII 3	802.11ac VHT 80 29.3 Mbps	Head	On	0	Left Touch	155	5775.0	0.018	95.2%	11.00	10.09				
						Left Tilt	155	5775.0	0.018	95.2%	11.00	10.09				
						Right Touch	155	5775.0	0.116	95.2%	11.00	10.09	0.081	0.105	1	109
						Right Tilt	155	5775.0	0.052	95.2%	11.00	10.09				
		802.11a 6 Mbps	Body-worn	Off	15	Rear	157	5785.0	0.045	96.0%	17.50	16.77	0.023	0.028	1	
						Front	157	5785.0	0.032	96.0%	17.50	16.77				
		802.11a 6 Mbps	Hotspot	Off	10	Rear	149	5745.0	0.057	96.0%	17.50	16.54	0.044	0.057	4	
						Front	149	5745.0	0.044	96.0%	17.50	16.54				
						Edge 1	149	5745.0	0.029	96.0%	17.50	16.54				
						Edge 4	149	5745.0	0.160	96.0%	17.50	16.54	0.099	0.129	1	
SISO Ant.2	5.8 GHz U-NII 3	802.11ac VHT 80 29.3 Mbps	Head	On	0	Left Touch	155	5775.0	0.021	94.9%	11.00	10.59				
						Left Tilt	155	5775.0	0.027	94.9%	11.00	10.59				
						Right Touch	155	5775.0	0.059	94.9%	11.00	10.59				
						Right Tilt	155	5775.0	0.066	94.9%	11.00	10.59	0.039	0.045	1	
		802.11a 6 Mbps	Body-worn	Off	15	Rear	157	5785.0	0.091	96.0%	17.50	16.78	0.055	0.068	1	110
						Front	157	5785.0	0.021	96.0%	17.50	16.78				
		802.11a 6 Mbps	Hotspot	Off	10	Rear	149	5745.0	0.166	96.0%	17.50	16.65	0.129	0.163	1	111
						Front	149	5745.0	0.035	96.0%	17.50	16.65				
						Edge 1	149	5745.0	0.097	96.0%	17.50	16.65				
						Edge 4	149	5745.0	0.020	96.0%	17.50	16.65				

Note(s):

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

10.34. Bluetooth

Frequency Band	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Scaled	
2.4GHz	EDR	Head	On	0	Left Touch	0	2402.0	77.1%	13.00	12.45	0.019	0.022	
					Left Tilt	0	2402.0	77.1%	13.00	12.45	0.014	0.016	
					Right Touch	0	2402.0	77.1%	13.00	12.45	0.105	0.121	112
					Right Tilt	0	2402.0	77.1%	13.00	12.45	0.055	0.063	
	Body-worn	Off	15		Rear	39	2441.0	77.1%	15.50	15.27	0.028	0.030	113
					Front	39	2441.0	77.1%	15.50	15.27	0.018	0.019	
	GFSK (BDR)	Hotspot	Off	10	Rear	39	2441.0	77.1%	15.50	15.27	0.075	0.080	114
					Front	39	2441.0	77.1%	15.50	15.27	0.039	0.041	
					Edge 1	39	2441.0	77.1%	15.50	15.27	0.014	0.015	
					Edge 4	39	2441.0	77.1%	15.50	15.27	0.075	0.080	115

10.35. NFC

Mode	RF Exposure Conditions	Dist. (mm)	Test Position	Test setup		Freq. (MHz)	10-g SAR (W/kg)		Plot No.
				Type	Bitrate		Meas.	Meas.	
PBRS	Product Specific 10-g	0	Rear	A	106	13.6	0.023		
				B	106	13.6	0.018		
				F	212	13.6	0.026	116	
				F	424	13.6	0.018		
			Front	F	212	13.6	0.000		
			Edge 1	F	212	13.6	0.000		
			Edge 4	F	212	13.6	0.000		

Note(s):

NFC SAR tested using worst configuration in all test positions.

11. SAR Measurement Variability

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

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

All measured SAR results are below 0.8 W/kg. So Repeated SAR test is not required.

12. Simultaneous Transmission SAR Analysis

Simultaneous Transmission Condition

RF Exposure Condition	Item	Simultaneous transmission scenarios		
Head & Body-worn & Hotspot & Phablet-10g	1	WWAN (2G/3G/LTE/NR)	+	(DTS Ant.1 or DTS Ant.2)
	2	WWAN (2G/3G/LTE/NR)	+	DTS MIMO
	3	WWAN (2G/3G/LTE/NR)	+	(UNII Ant.1 or UNII Ant.2)
	4	WWAN (2G/3G/LTE/NR)	+	UNII MIMO
	5	WWAN (2G/3G/LTE/NR)	+	BT
	6	WWAN (2G/3G/LTE/NR)	+	BT + (UNII Ant.1 or UNII Ant.2)
	7	WWAN (2G/3G/LTE/NR)	+	BT + UNII MIMO
	8	ENDC (LTE + NR)	+	(DTS Ant.1 or DTS Ant.2)
	9	ENDC (LTE + NR)	+	DTS MIMO
	10	ENDC (LTE + NR)	+	(UNII Ant.1 or UNII Ant.2)
	11	ENDC (LTE + NR)	+	UNII MIMO
	12	ENDC (LTE + NR)	+	BT
	13	ENDC (LTE + NR)	+	BT + (UNII Ant.1 or UNII Ant.2)
	14	ENDC (LTE + NR)	+	BT + UNII MIMO
Phablet-10g	15	Scenarios item (1-14)	+	NFC

Notes:

1. DTS supports Wi-Fi Direct, Hotspot and VoIP.
2. U-NII supports Wi-Fi Direct, Hotspot and VoIP.
3. GPRS, W-CDMA, LTE, NR supports Hotspot and VoIP
4. U-NII Radio can transmit simultaneously with Bluetooth Radio.
5. NR Radio support to both SA and NSA(ENDC) Radio.
6. BT tethering is considered about each RF exposure conditions.
7. NFC can transmit simultaneously with other Radios in Phablet-10g condition.

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 D04 Interim General RF Exposure Guidance provides two procedures for determining simultaneous transmission SAR test exclusion: Sum of SAR

Sum of SAR

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

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

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg)				
		WWAN	DTS Ant.1	DTS Ant.2	DTS MIMO	UNII Ant.1	UNII Ant.2	UNII MIMO	BT	NFC	WWAN + DTS MIMO	WWAN + UNII MIMO	WWAN + BT	WWAN + BT + UNII MIMO	WWAN + NFC + UNII MIMO
		1	2	3	4	5	6	7	8	9	1+4 (1+3)	1+7 (1+5/1+6)	1+8	1+7+8 (1+5+8/1+6+8)	1+7+9 (1+5+9/1+6+9)
Head (1-g SAR)	All positions	0.811	0.259	0.208	0.467	0.137	0.046	0.183	0.121		1.278	0.994	0.932	1.115	
Body-Worn (1-g SAR)	All positions	0.666	0.244	0.061	0.305	0.225	0.133	0.358	0.030		0.971	1.024	0.696	1.054	
Hotspot (1-g SAR)	Rear	0.838	0.463	0.136	0.599	0.057	0.163	0.220	0.080		1.437	1.058	0.918	1.138	
	Front	0.679	0.463	0.136	0.599	0.129	0.163	0.292	0.041		1.278	0.971	0.720	1.012	
	Edge 1	0.504	0.463	0.136	0.599	0.129	0.163	0.292	0.015		1.103	0.796	0.519	0.811	
	Edge 2	0.503													
	Edge 3	1.058													
Product Specific (10-g SAR)	Edge 4	0.436	0.386	0.136	0.522	0.129	0.163	0.292	0.080		0.958	0.728	0.516	0.808	
	Rear					0.562	0.797	1.359		0.026		1.359			1.385
	Front					1.387	0.797	2.184		0.000		2.184			2.184
	Edge 1					1.387	0.797	2.184		0.000		2.184			2.184
	Edge 2														
	Edge 3	2.603				1.387	0.797	2.184		0.000		2.603			2.603
	Edge 4											2.184			2.184

Note(s):

- Green value is estimated SAR value.
- Blue value is sum SAR of (DTS Ant.1+Ant.2 or UNII Ant.1 + Ant.2).
- UNII MIMO SAR are using the sum of UNII Ant.1 and UNII Ant.2 in All RF exposure conditions.
So Simultaneous transmission scenario (1+7 / 1+7+8) contains to (1+5 & 1+6) / (1+5+8 & 1+6+8) respectively.
- DTS MIMO SAR are using the sum of DTS Ant.1 and DTS Ant.2 in All RF exposure conditions.
So Simultaneous transmission scenario (1+4) contains to (1+2 & 1+3).
- WWAN SAR value used highest SAR of WWAN's SAR results for satisfy to simultaneous transmission with Wi-Fi and BT.

Conclusion:

Simultaneous Transmission SAR analysis results is satisfied the FCC Limit requirement according to follow procedures with "Sum of SAR".

Appendices

Refer to separated files for the following appendixes.

4790632108-S1 FCC Report SAR_App A_Photos & Ant. Locations

4790632108-S1 FCC Report SAR_App B_Highest SAR Test Plots

4790632108-S1 FCC Report SAR_App C_System Check Plots

4790632108-S1 FCC Report SAR_App D_SAR Tissue Ingredients

4790632108-S1 FCC Report SAR_App E_Probe Cal. Certificates

4790632108-S1 FCC Report SAR_App F_Dipole Cal. Certificates

4790632108-S1 FCC Report SAR_App G_Proximity Sensor feature

4790632108-S1 FCC Report SAR_App H_LTE Carrier Aggregation

END OF REPORT