Testing and Certification

TEST REPORT

Part 1 SAR Test for certification of SM-F741U

APPLICANT

Samsung Electronics. Co., Ltd.

REPORT NO.

HCT-SR-2404-FC004-R1

DATE OF ISSUE

Apr. 29, 2024

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TEST REPORT

FCC Part 1 SAR Test for certification

REPORT NO.
HCT-SR-2404-FC004-R1

DATE OF ISSUE
Apr. 29, 2024

FCC ID
A3LSMF741U

Applicant	SAMSUNG Electronics Co., Ltd 129, Samsung-ro, Yeongtong-gu, Suwon-Si, Gyeonggi-do, 16677, Korea
Product Name	Mobile Phone
Model Name	SM-F741U
Additional Model Name	SM-F741U1
Date of Test	Feb. 28, 2024 ~ Apr. 24, 2024
Location of Test	■ Permanent Testing Lab ☐ On Site Testing Lab (Address: 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383 KOREA)
FCC Rule Part(s)	CFR §2.1093
Test Results	PASS (SAR Limit : 1.6 W/kg) Refer to the clause 3.2 Attestation of test result

REVISION HISTORY

The revision history for this test report is shown in table.

Revision No.	Date of Issue	Description
0	Apr. 26, 2024	Initial Release
1	Apr. 29, 2024	Revised Page 7,10,28,29,30,219,278,289, Appendix B Added Sec 13.5(Bluetooth Phablet)

Notice

Content
The results shown in this test report only apply to the sample(s), as received, provided by the applicant, unless otherwise stated. The test results have only been applied with the test methods required by the standard(s). The laboratory is not accredited for the test results marked *. Information provided by the applicant is marked **. Test results provided by external providers are marked ***. When confirmation of authenticity of this test report is required, please contact www.hct.co.kr The test results in this test report are not associated with the ((KS Q) ISO/IEC 17025) accreditation by KOLAS (Korea Laboratory Accreditation Scheme) / A2LA (American Association for Laboratory Accreditation) that are under the ILAC (International Laboratory Accreditation Cooperation) Mutual Recognition Agreement (MRA).

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1. Test Regulations

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

- FCC KDB Publication 941225 D01 3G SAR Procedures v03r01
- FCC KDB Publication 941225 D06 Hot Spot SAR v02r01
- FCC KDB Publication 941225 D05 SAR for LTE Devices v02r05
- FCC KDB Publication 941225 D05A LTE Rel.10 KDB Inquiry sheet v01r02
- FCC KDB Publication 248227 D01 802.11 Wi-Fi SAR v02r02
- FCC KDB Publication 447498 D01 General RF Exposure Guidance v06
- FCC KDB Publication 648474 D04 Handset SAR v01r03
- FCC KDB Publication 616217 D04 v01r02 (Proximity Sensor)
- FCC KDB Publication 865664 D01 SAR measurement 100 MHz to 6 GHz v01r04
- FCC KDB Publication 865664 D02 SAR Reporting v01r02
- FCC KDB Publication 690783 D01 SAR Listings on Grants v01r03
- FCC KDB Publication 971168 D01 Power Meas License Digital Systems v03r01

In Addition to the above, the following information was used.

- October 2013 TCB Workshop Notes (GPRS testing criteria)
- October 2014 TCB Workshop Notes (Overlapping LTE Bands)
- April 2015 TCB Workshop Notes (Overlapping LTE Bands Test exclusion)
- April 2015 TCB Workshop Notes (Simultaneous transmission summation clarified)
- October 2016 TCB Workshop Notes (Bluetooth Duty Factor)
- November 2017 TCBC Workshop Notes (LTE Carrier Aggregation)
- May 2017 TCBC Workshop Notes (LTE Band 41 Power Class 2)
- April 2019 TCBC Workshop Notes (IEEE 802.11 ax)
- April 2018 TCBC Workshop Notes (LTE UL CA, DL CA SAR Test Exclusion)

2. Test Location

2.1 Test Laboratory

Company Name	HCT Co., Ltd.
Address	74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si,Gyeonggi-do, 17383 KOREA
Telephone	031-645-6300
Fax.	031-645-6401

2.2 Test Facilities

Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025.

Korea	National Radio Research Agency (Designation No. KR0032)
	KOLAS (Testing No. KT197)

3. Information of the EUT

3.1 General Information of the EUT

Model Name	SM-F741U
Additional Model Name	SM-F741U1
Equipment Type	Mobile Phone
FCC ID	A3LSMF741U
Application Type	Certification
Applicant	SAMSUNG Electronics Co., Ltd.

3.2 Attestation of test result of device under test

The Highest Reported SAR						
Band	Tx. Frequency	Equipment Class	Reported SAR (W/kg)			
			1 g Head	1 g Body Worn	1 g /Hotspot	10 g Extremity
GSM/GPRS/EDGE 850	824.2 ㎒ ~ 848.8 ㎒	PCE	0.18	0.44	0.34	N/A
GSM/GPRS/EDGE 1900	1 850.2 ㎒ ~ 1 909.8 ㎒	PCE	<0.10	0.54	0.47	N/A
UMTS Band 5	826.4 ㎒ ~ 846.6 ㎒	PCE	0.24	0.66	0.49	N/A
UMTS Band 4	1 712.4 ㎒ ~ 1 752.6 ㎒	PCE	<0.10	0.93	1.11	N/A
UMTS Band 2	1 852.4 ㎒ ~ 1 907.6 ㎒	PCE	<0.10	1.02	0.58	1.98
LTE FDD Band 2 (PCS)	1 850.7 ㎒ ~ 1 909.3 ㎒	PCE	N/A	N/A	N/A	N/A
LTE FDD Band 4 (AWS)	1 710.7 ㎒ ~ 1 754.3 ㎒	PCE	N/A	N/A	N/A	N/A
LTE FDD Band 5 (Cell)	824.7 ㎒ ~ 848.3 ㎒	PCE	N/A	N/A	N/A	N/A
LTE FDD Band 7	2 502.5 ㎒ ~ 2 567.5 ㎒	PCE	1.05	0.61	0.95	N/A
LTE FDD Band 12	699.7 ㎒ ~ 715.3 ㎒	PCE	0.20	0.33	0.64	N/A
LTE FDD Band 13	779.5 ㎒ ~ 784.5 ㎒	PCE	0.22	0.50	0.82	N/A
LTE FDD Band 14	790.5 ㎒ ~ 795.5 ㎒	PCE	0.24	0.59	0.88	N/A
LTE FDD Band 25 (PCS)	1 850.7 ㎒ ~ 1 914.3 ㎒	PCE	0.60	1.16	0.71	**2.83**
LTE FDD Band 26 (Cell)	814.7 ㎒ ~ 848.3 ㎒	PCE	0.26	0.55	0.72	N/A
LTE FDD Band 30	2 307.5 ㎒ ~ 2 312.5 ㎒	PCE	0.94	0.84	0.80	1.32
LTE TDD Band 38	2 572.5 ㎒ ~ 2 617.5 ㎒	PCE	N/A	N/A	N/A	N/A
LTE TDD Band 41	2 498.5 ㎒ ~ 2 687.5 ㎒	PCE	0.77	0.53	0.84	N/A
LTE TDD Band 48	3 552.5 ㎒ ~ 3 697.5 ㎒	CBE	0.51	0.53	0.64	N/A
LTE FDD Band 66 (AWS)	1 710.7 ㎒ ~ 1 779.3 ㎒	PCE	0.78	0.87	0.91	2.59
LTE FDD Band 71	665.5 ㎒ ~ 695.5 ㎒	PCE	0.03	0.24	0.73	N/A
NR FDD Band n2 (PCS)	1 852.5 ㎒ ~ 1 907.5 ㎒	PCE	N/A	N/A	N/A	N/A
NR FDD Band n5	826.5 ㎒ ~ 846.5 ㎒	PCE	N/A	N/A	N/A	N/A
NR FDD Band n7	2 502.5 ㎒ ~ 2 567.5 ㎒	PCE	0.74	0.64	0.96	N/A
NR FDD Band n12	701.5 ㎒ ~ 713.5 ㎒	PCE	0.20	0.39	0.66	N/A
NR FDD Band n25 (PCS)	1 852.5 ㎒ ~ 1 912.5 ㎒	PCE	0.70	**1.19**	1.04	2.81
NR FDD Band n26	816.5 ㎒ ~ 846.5 ㎒	PCE	0.24	0.54	0.69	N/A
NR FDD Band n30	2 307.5 ㎒ ~ 2 312.5 ㎒	PCE	0.97	0.81	0.99	1.25
NR TDD Band n38	2 575 ㎒ ~ 2 615 ㎒	PCE	<0.10	0.63	0.74	2.15
NR TDD Band n41	2 506.02 ㎒ ~ 2 679.99 ㎒	PCE	0.87	0.74	0.96	N/A
NR TDD Band n48	3 555 ㎒ ~ 3 695.01 ㎒	CBE	0.99	0.38	0.64	N/A
NR FDD Band n66	1 712.5 ㎒ ~ 1 777.5 ㎒	PCE	0.98	1.03	0.96	2.82
NR FDD Band n70	1 697.5 ㎒ ~ 1 707.5 ㎒	PCE	0.71	0.78	0.69	N/A
NR FDD Band n71	665.5 ㎒ ~ 695.5 ㎒	PCE	0.20	0.35	0.62	N/A
NR TDD Band n77	3 445.01 ㎒ ~ 3 544.98 ㎒ 3 705 ㎒ ~ 3 975 ㎒	PCE	**1.10**	0.68	**1.18**	N/A
2.4 GHz WLAN	2 412 ㎒ ~ 2 462 ㎒	DTS	0.79	0.23	0.50	N/A
U-NII-1	5 180 ㎒ ~ 5 240 ㎒	NII	N/A	N/A	N/A	N/A
U-NII-2A	5 260 ㎒ ~ 5 320 ㎒	NII	0.93	0.40	N/A	1.68
U-NII-2C	5 500 ㎒ ~ 5 720 ㎒	NII	1.02	0.28	N/A	1.78
U-NII-3	5 745 ㎒ ~ 5 825 ㎒	NII	0.99	0.29	0.93	N/A
U-NII-4	5 845 ㎒ ~ 5 885 ㎒	NII	0.76	0.27	N/A	1.60
Bluetooth	2 402 ㎒ ~ 2 480 ㎒	DSS/DTS	0.78	0.11	0.58	0.79
NFC	13.56 ㎒	DXX	N/A	N/A	N/A	<0.10
Simultaneous SAR per KDB 690783 D01v01r03			1.10	1.19	1.18	**2.84**
Date(s) of Tests:	Feb. 28, 2024 ~ Apr 24, 2024					

4. Device Under Test Description

4.1 DUT specification

Device Wireless specification overview		
Band & Mode	Operating Mode	Tx Frequency
GSM850	Voice / Data	824.2 ㎒ ~ 848.8 ㎒
GSM1900	Voice / Data	1 850.2 ㎒ ~ 1 909.8 ㎒
UMTS Band 2	Voice / Data	1 852.4 ㎒ ~ 1 907.6 ㎒
UMTS Band 4	Voice / Data	1 712.4 ㎒ ~ 1 752.6 ㎒
UMTS Band 5	Voice / Data	826.4 ㎒ ~ 846.6 ㎒
LTE FDD Band 2 (PCS)	Voice / Data	1 850.7 ㎒ ~ 1 909.3 ㎒
LTE FDD Band 4 (AWS)	Voice / Data	1 710.7 ㎒ ~ 1 754.3 ㎒
LTE FDD Band 5 (Cell)	Voice / Data	824.7 ㎒ ~ 848.3 ㎒
LTE FDD Band 7	Voice / Data	2 502.5 ㎒ ~ 2 567.5 ㎒
LTE FDD Band 12	Voice / Data	699.7 ㎒ ~ 715.3 ㎒
LTE FDD Band 13	Voice / Data	779.5 ㎒ ~ 784.5 ㎒
LTE FDD Band 14	Voice / Data	790.5 ㎒ ~ 795.5 ㎒
LTE FDD Band 25	Voice / Data	1 850.7 ㎒ ~ 1 914.3 ㎒
LTE FDD Band 26	Voice / Data	814.7 ㎒ ~ 848.3 ㎒
LTE FDD Band 30	Voice / Data	2 307.5 ㎒ ~ 2 312.5 ㎒
LTE TDD Band 38	Voice / Data	2 572.5 ㎒ ~ 2 617.5 ㎒
LTE TDD Band 41	Voice / Data	2 498.5 ㎒ ~ 2 687.5 ㎒
LTE TDD Band 48	Voice / Data	3 552.5 ㎒ ~ 3 697.5 ㎒
LTE FDD Band 66 (AWS)	Voice / Data	1 710.7 ㎒ ~ 1 779.3 ㎒
LTE FDD Band 71	Voice / Data	665.5 ㎒ ~ 695.5 ㎒
NR FDD Band n2 (PCS)	Voice / Data	1 852.5 ㎒ ~ 1 907.5 ㎒
NR FDD Band n5	Voice / Data	826.5 ㎒ ~ 846.5 ㎒
NR FDD Band n7	Voice / Data	2 502.5 ㎒ ~ 2 567.5 ㎒
NR FDD Band n12	Voice / Data	701.5 ㎒ ~ 713.5 ㎒
NR FDD Band n25 (PCS)	Voice / Data	1 852.5 ㎒ ~ 1 912.5 ㎒
NR FDD Band n26	Voice / Data	816.5 ㎒ ~ 846.5 ㎒
NR FDD Band n30	Voice / Data	2 307.5 ㎒ ~ 2 312.5 ㎒
NR TDD Band n38	Voice / Data	2 575 ㎒ ~ 2 615 ㎒
NR TDD Band n41	Voice / Data	2 501.01 ㎒ ~ 2 685 ㎒
NR TDD Band n48	Voice / Data	3 555 ㎒ ~ 3 695.01 ㎒
NR FDD Band n66	Voice / Data	1 712.5 ㎒ ~ 1 777.5 ㎒
NR FDD Band n70	Voice / Data	1 697.5 ㎒ ~ 1 707.5 ㎒
NR FDD Band n71	Voice / Data	665.5 ㎒ ~ 695.5 ㎒
NR TDD Band n77	Voice / Data	3 705 ㎒ ~ 3 975 ㎒
NR TDD Band n77 DoD	Voice / Data	3 445.01 ㎒ ~ 3 544.98 ㎒
NR TDD Band n78	Voice / Data	3 705 ㎒ ~ 3 795 ㎒
NR TDD Band n78 DoD	Voice / Data	3 455.01 ㎒ ~ 3 544.98 ㎒
NR Band n258	Data	24 250 ㎒ ~ 24 450 ㎒; 24 750 ㎒ ~ 25 250 ㎒
NR Band n260	Data	37 000 ㎒ ~ 40 000 ㎒
NR Band n261	Data	27 500 ㎒ ~ 28 350 ㎒
U-NII-1	Voice / Data	5 180 ㎒ ~ 5 240 ㎒
U-NII-2A	Voice / Data	5 260 ㎒ ~ 5 320 ㎒
U-NII-2C	Voice / Data	5 500 ㎒ ~ 5 720 ㎒
U-NII-3	Voice / Data	5 745 ㎒ ~ 5 825 ㎒
U-NII-4	Voice / Data	5 845 ㎒ ~ 5 885 ㎒
U-NII-5	Voice / Data	5 925 ㎒ – 6 425 ㎒
U-NII-6	Voice / Data	6 425 ㎒ – 6 525 ㎒
U-NII-7	Voice / Data	6 525 ㎒ – 6 865 ㎒
U-NII-8	Voice / Data	6 865 ㎒ – 7 115 ㎒
2.4 ㎓ WLAN	Voice / Data	2 412 ㎒ ~ 2 462 ㎒
Bluetooth / LE 5.3	Data	2 402 ㎒ ~ 2 480 ㎒
NFC	Data	13.56 ㎒
WPC	Data	110 ㎑ ~ 148 ㎑

Device Description		
Battery	Main: EB-BF741ABY, Sub: EB-BF742ABY (Manufacture: ATL)	
Device Serial Numbers	Mode	Serial Number
	GSM850, GSM1900	XMK0318M
	WCDMA BAND 2,4,5	XMK0321M,XBK0315M
	LTE Band 12,13 Body Ant A/NR Band n12,26 Ant A NR Band n7 Ant B/NR Band n7 Ant I	XCJ1205M
	NR Band n25,66 Ant A/ NR Band n25,66 Ant I	XCJ1383M
	LTE Band 12,13 Head Ant A/LTE Band 14,26,71 Ant A	XBK0315M
	LTE Band 25,66 Ant A/LTE Band 25,66 Ant I	XBK0317M
	LTE Band 7,30 Ant B/LTE Band 7,30 Ant I/ NR Band n71 Ant A/NR Band n70 Ant A/NR Band n70 Ant I	XBK0318M
	LTE Band 41 Ant B/LTE Band 38 Ant B	XBK0320M
	LTE Band 41 Ant I/LTE Band 48/NR Band n41/ NR Band n48/NR Band n77	XBK0314M,XBK0316M, XBK0320M,XCJ1380M
	WLAN 2.4G, 5G, BT, NFC	XBK0340M,XBK0342M
	WLAN 6E	XBK0341M
	The manufacturer has confirmed that the devices tested have the same physical, mechanical and thermal characteristics are within operational tolerances expected for production units.	

4.2 Time-Averaging Algorithm for RF Exposure Compliance

This Device is enabled with the Qualcomm® Smart Transmit GEN2 feature with no antenna grouping. This feature performs time averaging algorithm in real time to control and manage transmitting power and ensure the time-averaged RF exposure is in compliance with FCC requirements all the time.

The Smart Transmit algorithm maintains the time-averaged transmit power, in turn, time-averaged RF exposure of SAR_design_target, below the predefined time-averaged power limit (i.e., Plimit for sub-6 radio and WLAN/BT), for each characterized technology and band (see SAR Part 0 Test Report). The Smart Transmit algorithm maintains the time-averaged transmit power, in turn, time-averaged RF exposure of SAR_design_target or PD_design_target, below the predefined time-averaged power limit (i.e., Plimit for sub-6 radio and WLAN/BT, and input.power.limit for 5G mmW NR), for each characterized technology and band (see SAR Part 0 Test Report). SARchar for WIFI 6GHz can be found in the 6-8 GHz RF Exposure Report

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

Note that the device uncertainty for sub-6GHz WWAN and WLAN/BT is 1.0dB for this EUT.

All MIMO Pmax and Plimit are defined per Antenna chain.
SAR values in this report were scaled to this maximum time-averaged output power to determine compliance per KDB Publication 447498 D01v06. The purpose of this report (SAR Part 1 test) is to demonstrate that the EUT meets FCC SAR limits when transmitting in static transmission scenario at maximum allowable time-averaged power levels.

Measurement Condition: All conducted power and SAR measurements in this report (SAR Part 1 test) were performed by setting Reserve_power_margin (Smart Transmit EFS entry) to 0dB

Plimit values in green indicate Plimit < Pmax			Plimit values in grey indicate Plimit > Pmax					
Plimit corresponding to 1 W/kg (1g) 2.5W/kg(10g) SAR_Design_target								Pmax
SAR Exposure Position			Body-worn	Phablet	Head (RCV ON)	Hotspot (Hotspot on)	Earjack	Maximum Tune-up Output Power (Burst Average Power) [dBm]
Averaging volume			1g	10g	1g	1g	1g/10g	
separation Distance			10 mm	0mm	0 mm	10/5 mm	10/0 mm	
Mode	Band	Antenna	DSI=0	DSI=1	DSI=2	DSI=3	DSI=4	
GSM/GPRS/EDGE	850	ANT A	24.8		31.3	19.3	24.8	26.0
GSM/GPRS/EDGE	1900	ANT A	17.3		37.7	15.6	22.5	23.5
UMTS	2	ANT A	20.0		20.9	15.5	20.0	21.5
UMTS	4	ANT A	20.0		21.4	17.5	20.0	22.0
UMTS	5	ANT A	25.8		22.4	21.5	29.5	23.0
LTE FDD	25(2)	ANT A	20.3		33.9	15.3	20.3	22.3
LTE FDD	25(2)	ANT I	20.5		15.0	15.5	20.5	24.0
LTE FDD	66(4)	ANT A	19.8		33.0	16.8	19.8	22.8
LTE FDD	66(4)	ANT I	20.5		16.5	16.5	20.5	24.5
LTE FDD	7	ANT B	19.0		36.8	16.5	19.0	21.3
LTE FDD	7	ANT I	20.5		15.0	18.5	20.5	24.0
LTE FDD	12	ANT A	22.0		31.4	22.0	22.0	23.5
LTE FDD	13	ANT A	22.0		30.8	22.0	22.0	23.3
LTE FDD	14	ANT A	26.3		30.3	24.6	28.9	23.0
LTE FDD	26(5)	ANT A	27.1		30.4	22.5	28.7	23.5
LTE FDD	30	ANT I	21.0		14.5	17.5	21.0	23.0
LTE FDD	30	ANT B	19.0		35.4	14.0	19.0	20.5
LTE TDD PC3	41(38)	ANT B	21.5		39.1	15.0	21.5	21.0
LTE TDD PC3	41(38)	ANT I	20.5		13.8	16.5	20.5	24.0
LTE TDD PC2	41	ANT B	19.5		39.2	15.0	19.5	24.0
LTE TDD PC2	41	ANT I	20.5		13.8	16.5	20.5	25.5
LTE TDD PC3	48	ANT F	19.0		13.5	15.5	19.0	23.0
LTE FDD	71	ANT A	28.2		40.6	26.4	28.2	24.0
NR FDD	25(2)	ANT A	20.3		34.5	15.3	20.3	22.0
NR FDD	25(2)	ANT I	21.0		15.5	16.0	21.0	24.0
NR FDD	7	ANT B	19.0		33.3	16.5	19.0	21.0
NR FDD	7	ANT I	20.5		15.0	18.5	20.5	23.5
NR FDD	12	ANT A	22.0		31.5	22.0	22.0	23.5
NR FDD	26(5)	ANT A	27.2		30.7	22.5	28.9	23.5
NR FDD	30	ANT I	21.0		14.5	17.5	21.0	23.0
NR FDD	30	ANT B	19.0		35.8	14.0	19.0	21.0
NR TDD	38	ANT B	21.2		34.7	17.5	21.2	21.0
NR TDD	38	ANT I	21.0		14.3	17.0	21.0	23.5
NR TDD SRS 1 PC2	41	ANT I	21.0		14.3	17.0	21.0	27.0
NR TDD SRS 2	41	ANT B	16.0		11.2	13.5	16.0	22.0
NR TDD SRS 3	41	ANT F	18.0		13.2	15.5	18.0	25.5
NR TDD SRS 4	41	ANT C	12.5		7.7	10.0	12.5	20.0
NR TDD SRS 1 PC3	48	ANT F	19.5		14.0	16.0	19.5	23.5
NR TDD SRS 2	48	ANT I	19.5		14.0	16.0	19.5	23.5
NR TDD SRS 3	48	ANT E	19.5		14.0	16.0	19.5	23.5
NR TDD SRS 4	48	ANT C	13.0		7.5	9.5	13.0	17.0
NR FDD	66	ANT A	20.3		35.5	17.3	20.3	22.5
NR FDD	66	ANT I	20.5		17.0	17.0	20.5	24.7
NR FDD	70	ANT A	20.0		38.4	17.5	20.0	22.5
NR FDD	70	ANT I	21.0		17.0	17.0	21.0	24.5
NR FDD	71	ANT A	28.5		32.1	27.3	28.5	24.0
NR TDD SRS 1 PC2	77	ANT F	18.5		14.0	16.5	18.5	26.0
NR TDD SRS 2	77/78	ANT I	18.5		14.0	16.5	18.5	26.0
NR TDD SRS 3	77/78	ANT E	18.5		14.0	16.5	18.5	26.0
NR TDD SRS 4	77/78	ANT C	12.0		7.5	10.0	12.0	16.5
NR TDD SRS 1 PC2	77 DoD	ANT F	18.5		14.0	16.5	18.5	26.0
NR TDD SRS 2	77/78 DoD	ANT I	18.5		14.0	16.5	18.5	26.0
NR TDD SRS 3	77/78 DoD	ANT E	18.5		14.0	16.5	18.5	26.0
NR TDD SRS 4	77/78 DoD	ANT C	12.0		7.5	10.0	12.0	16.5
WLAN	2.4	ANT F	19.9		20.2	22.1	19.9	18.0
WLAN	2.4	ANT H	23.1		20.1	23.0	23.1	18.0
WLAN	5	ANT F	17.8		16.3	16.6	17.8	15.0
WLAN	5	ANT H	22.8		19.7	22.7	22.8	15.0
WLAN	6	ANT F	20.9		15.0	N/A	20.9	10.0
WLAN	6	ANT H	25.3		18.7	N/A	25.3	10.0
BT	2.4	ANT F	23.1		20.3	21.4	23.1	18.0
BT	2.4	ANT H	23.0		19.1	N/A	23.0	17.0

*Note all Plimit and maximum tune up output power Pmax levels enterd in above table correspond to average power levels after accounting for duty cycle in the case of TDD, GMSK, or OFDM modulation schemes(e.g GSM,LTE TDD and WLAN//BT)

*Maximum tune up output power Pmax is used to configure EUT during RF tune up procedure. The maximum allowed output power is equal to maximum Tune up output power + 1dB device design uncertainty.

The maximum time-averaged output power (dBm) for any 2G/3G/4G/5G WWAN technology, band, and DSI =minimum of "Plimit" and "Maximum tune up output power Pmax" + 1dB device uncertainty. SAR values in this report were scaled to this maximum time-averaged output power to determine compliance per KDB Publication 447498 D01v06.

4.3 Nominal and Maximum Output Power Specifications

This device operates using the following maximum output power specifications. SAR values were scaled to the maximum allowed power to determine compliance per KDB publication 447498 D01v06.

4.3.1 2G/3G/4G/5G Nominal Output Power

A. GSM Modes

GSM/GPRS/EDGE 850									
Power Level	Voice (in dBm)	Data – Burst Average GMSK (in dBm)				Data – Burst Average 8-PSK (in dBm)			
	1 TX Slot	1 TX Slots	2 TX Slots	3 TX Slots	4 TX Slots	1 TX Slots	2 TX Slots	3 TX Slots	4 TX Slots
Pmax	30.0	30.0	29.0	27.0	26.0	24.5	22.5	22.0	22.0
DSI = 0 (free)	30.0	30.0	29.0	27.0	26.0	24.5	22.5	22.0	22.0
DSI = 1 (Phablet)	30.0	30.0	29.0	27.0	26.0	24.5	22.5	22.0	22.0
DSI = 2 (RCV)	30.0	30.0	29.0	27.0	26.0	24.5	22.5	22.0	22.0
DSI = 3 (Hotspot)	-	28.5	25.5	23.7	22.5	24.5	22.5	22.0	22.0
DSI = 4 (Earjack)	30.0	30.0	29.0	27.0	26.0	24.5	22.5	22.0	22.0
GSM/GPRS/EDGE 1900									
Power Level	Voice (in dBm)	Data – Burst Average GMSK (in dBm)				Data – Burst Average 8-PSK (in dBm)			
	1 TX Slot	1 TX Slots	2 TX Slots	3 TX Slots	4 TX Slots	1 TX Slots	2 TX Slots	3 TX Slots	4 TX Slots
Pmax	28.0	28.0	25.0	23.5	23.5	23.0	20.5	20.0	20.0
DSI = 0 (free)	26.5	26.5	23.5	21.7	20.5	23.0	20.5	20.0	20.0
DSI = 1 (Phablet)	26.5	26.5	23.5	21.7	20.5	23.0	20.5	20.0	20.0
DSI = 2 (RCV)	28.0	28.0	25.0	23.5	23.5	23.0	20.5	20.0	20.0
DSI = 3 (Hotspot)	-	24.5	21.5	20.0	18.5	23.0	20.5	19.7	18.5
DSI = 4 (Earjack)	26.5	26.5	23.5	21.7	20.5	23.0	20.5	20.0	20.0

Tolerance: -1.5 dB ~ +1.0 dB

B. UMTS Modes

UMTS Band 5 (850 MHz)						
Mode / Band	Modulated Average Output Power (in dBm)					
	Pmax	DSI 0 (free)	DSI = 1 (Phablet)	DSI = 2 (RCV)	DSI = 3 (Hotspot)	DSI = 4 (Earjack)
3GPP WCDMA Rel 99	23.0	23.0	23.0	22.4	21.5	23.0
3GPP HSDPA Rel 5	22.0	22.0	22.0	21.4	20.5	22.0
3GPP HSUPA Rel 6	22.0	22.0	22.0	21.4	20.5	22.0
3GPP DC-HSDPA Rel 8	22.0	22.0	22.0	21.4	20.5	22.0
UMTS Band 4 (1750 MHz)						
Mode / Band	Modulated Average Output Power (in dBm)					
	Pmax	DSI 0 (free)	DSI = 1 (Phablet)	DSI = 2 (RCV)	DSI = 3 (Hotspot)	DSI = 4 (Earjack)
3GPP WCDMA Rel 99	22.0	20.0	20.0	21.4	17.5	20.0
3GPP HSDPA Rel 5	21.0	19.0	19.0	20.4	16.5	19.0
3GPP HSUPA Rel 6	21.0	19.0	19.0	20.4	16.5	19.0
3GPP DC-HSDPA Rel 8	21.0	19.0	19.0	20.4	16.5	19.0
UMTS Band 2 (1900 MHz)						
Mode / Band	Modulated Average Output Power (in dBm)					
	Pmax	DSI 0 (free)	DSI = 1 (Phablet)	DSI = 2 (RCV)	DSI = 3 (Hotspot)	DSI = 4 (Earjack)
3GPP WCDMA Rel 99	21.5	20.0	20.0	20.9	15.5	20.0
3GPP HSDPA Rel 5	20.5	19.0	19.0	19.9	14.5	19.0
3GPP HSUPA Rel 6	20.5	19.0	19.0	19.9	14.5	19.0
3GPP DC-HSDPA Rel 8	20.5	19.0	19.0	19.9	14.5	19.0

Tolerance: -1.5 dB ~ +1.0 dB

C. LTE Modes

Mode / Band	Modulated Average Output Power (in dBm)					
	Pmax	DSI 0 (free)	DSI = 1 (Phablet)	DSI = 2 (RCV)	DSI = 3 (Hotspot)	DSI = 4 (Earjack)
LTE FDD Band 71	24.0	24.0	24.0	24.0	24.0	24.0
LTE FDD Band 12	23.5	22.0	22.0	23.5	22.0	22.0
LTE FDD Band 13	23.3	22.0	22.0	23.3	22.0	22.0
LTE FDD Band 14	23.0	23.0	23.0	23.0	23.0	23.0
LTE FDD Band 26	23.5	23.5	23.5	23.5	22.5	23.5
LTE FDD Band 5	23.5	23.5	23.5	23.5	22.5	23.5
LTE FDD Band 66 (ANT A)	22.8	19.8	19.8	22.8	16.8	19.8
LTE FDD Band 66 (ANT I)	24.5	20.5	20.5	16.5	16.5	20.5
LTE FDD Band 4 (ANT A)	22.3	19.8	19.8	22.3	16.8	19.8
LTE FDD Band 4 (ANT I)	24.5	20.5	20.5	16.5	16.5	20.5
LTE FDD Band 25 (ANT A)	22.3	20.3	20.3	22.3	15.3	20.3
LTE FDD Band 25 (ANT I)	24.0	20.5	20.5	15.0	15.5	20.5
LTE FDD Band 2 (ANT A)	22.3	20.3	20.3	22.3	15.3	20.3
LTE FDD Band 2 (ANT I)	24.0	20.5	20.5	15.0	15.5	20.5
LTE FDD Band 30 (ANT B)	20.5	19.0	19.0	20.5	14.0	19.0
LTE FDD Band 30 (ANT I)	23.0	21.0	21.0	14.5	17.5	21.0
LTE FDD Band 7 (ANT B)	21.3	19.0	19.0	21.3	16.5	19.0
LTE FDD Band 7 (ANT I)	24.0	20.5	20.5	15.0	18.5	20.5
LTE TDD Band 41 (PC3) (ANT B)	21.0	21.0	21.0	21.0	17.0	21.0
LTE TDD Band 41 (PC2) (ANT B)	24.0	23.1	23.1	24.0	18.6	23.1
LTE TDD Band 41 (PC3) (ANT I)	24.0	22.5	22.5	15.8	18.5	22.5
LTE TDD Band 41 (PC2) (ANT I)	25.5	24.1	24.1	17.4	20.1	24.1
LTE TDD Band 38 (ANT B)	21.0	21.0	21.0	21.0	17.0	21.0
LTE TDD Band 38 (ANT I)	24.0	22.5	22.5	15.8	18.5	22.5
LTE TDD Band 48	23.0	21.0	21.0	15.5	17.5	21.0

Tolerance: -1.5 dB ~ +1.0 dB

D. 5G NR SUB 6

Mode / Band	Modulated Average Output Power (in dBm)					
	Pmax	DSI 0 (free)	DSI = 1 (Phablet)	DSI = 2 (RCV)	DSI = 3 (Hotspot)	DSI = 4 (Earjack)
NR FDD Band 71	24.0	24.0	24.0	24.0	24.0	24.0
NR FDD Band 12	23.5	22.0	22.0	23.5	22.0	22.0
NR FDD Band 26	23.5	23.5	23.5	23.5	22.5	23.5
NR FDD Band 5	23.5	23.5	23.5	23.5	22.5	23.5
NR FDD Band 70 (ANT A)	22.5	20.0	20.0	22.5	17.5	20.0
NR FDD Band 70 (ANT I)	24.5	21.0	21.0	17.0	17.0	21.0
NR FDD Band 66 (ANT A)	22.5	20.3	20.3	22.5	17.3	20.3
NR FDD Band 66 (ANT I)	24.7	20.5	20.5	17.0	17.0	20.5
NR FDD Band 25 (ANT A)	22.0	20.3	20.3	22.0	15.3	20.3
NR FDD Band 25 (ANT I)	24.0	21.0	21.0	15.5	16.0	21.0
NR FDD Band 2 (ANT A)	22.0	20.3	20.3	22.0	15.3	20.3
NR FDD Band 2 (ANT I)	24.0	21.0	21.0	15.5	16.0	21.0
NR FDD Band 30 (ANT B)	21.0	19.0	19.0	21.0	14.0	19.0
NR FDD Band 30 (ANT I)	23.0	21.0	21.0	14.5	17.5	21.0
NR FDD Band 7 (ANT B)	21.0	19.0	19.0	21.0	16.5	19.0
NR FDD Band 7 (ANT I)	23.5	20.5	20.5	15.0	18.5	20.5
Mode / Band	Modulated Average Output Power (in dBm)					
	Pmax	DSI 0 (free) Duty 100%	DSI = 1 (Phablet) Duty 100%	DSI = 2 (RCV) Duty 100%	DSI = 3 (Hotspot) Duty 100%	DSI = 4 (Earjack) Duty 100%
NR TDD Band 41 (PC2) (ANT I)	27.0	21.0	21.0	14.3	17.0	21.0
NR TDD Band 41 (PC2) (ANT B)	22.0	16.0	16.0	11.2	13.5	16.0
NR TDD Band 41 (PC2) (ANT F)	25.5	18.0	18.0	13.2	15.5	18.0
NR TDD Band 41 (PC2) (ANT C)	20.0	12.5	12.5	7.7	10.0	12.5
NR TDD Band 38 (ANT I)	23.5	21.0	21.0	14.3	17.0	21.0
NR TDD Band 38 (ANT B)	21.0	19.5	19.5	21.0	15.0	19.5
NR TDD Band 48 (ANT F)	23.5	19.5	19.5	14.0	16.0	19.5
NR TDD Band 48 (ANT I)	23.5	19.5	19.5	14.0	16.0	19.5
NR TDD Band 48 (ANT E)	23.5	19.5	19.5	14.0	16.0	19.5
NR TDD Band 48 (ANT C)	17.0	13.0	13.0	7.5	9.5	13.0
NR TDD Band 77 (PC2) (ANT F)	26.0	18.5	18.5	14.0	16.5	18.5
NR TDD Band 77 (PC2) (ANT I)	26.0	18.5	18.5	14.0	16.5	18.5
NR TDD Band 77 (PC2) (ANT E)	26.0	18.5	18.5	14.0	16.5	18.5
NR TDD Band 77 (PC2) (ANT C)	16.5	12.0	12.0	7.5	10.0	12.0
NR TDD Band 78 (PC2) (ANT F)	26.0	18.5	18.5	14.0	16.5	18.5
NR TDD Band 78 (PC2) (ANT I)	26.0	18.5	18.5	14.0	16.5	18.5
NR TDD Band 78 (PC2) (ANT E)	26.0	18.5	18.5	14.0	16.5	18.5
NR TDD Band 78 (PC2) (ANT C)	16.5	12.0	12.0	7.5	10.0	12.0

Tolerance: -1.5 dB ~ +1.0 dB

4.3.2 Maximum 2.4 GHz, 5 GHz WIFI output power

a. Maximum Power Pmax (Plimit :0,1,2,3,4)

Frequency (Bandwidth)	Band	SISO (ANT 1)						SISO (ANT2)						MIMO					
		a	b	g	n	ac	ax (SU)	a	b	g	n	ac	ax (SU)	a	b	g	n	ac	ax (SU)
2.4 GHz (20MHz)			18	17 Ch1. 16 Ch11. 16	17 Ch1. 16 Ch11. 16	16	16 Ch11. 15		18	17 Ch1. 16 Ch11. 16	17 Ch1. 16 Ch11. 16	16	16 Ch11. 15		21	20 Ch1. 19 Ch11. 19	20 Ch1. 19 Ch11. 19	19	19 Ch11. 18
5 GHz (20MHz)	UNII 1	15			15	15	15	15			15	15	15	18			18	18	18
	UNII 2A	15			15	15	15	15			15	15	15	18			18	18	18
	UNII 2C	15			15	15	15	15			15	15	15	18			18	18	18
	UNII 3	15			15	15	15	15			15	15	15	18			18	18	18
	UNII 4	15			15	15	15	15			15	15	15	18			18	18	18
5 GHz (40MHz)	UNII 1				14	14	14				14	14	14				17	17	17
	UNII 2A				14	14	14				14	14	14				17	17	17
	UNII 2C				14	14	14				14	14	14				17	17	17
	UNII 3				14	14	14				14	14	14				17	17	17
	UNII 4				14	14	14				14	14	14				17	17	17
5 GHz (80MHz)	UNII 1					13	13					13	13					16	16
	UNII 2A					13	13					13	13					16	16
	UNII 2C					13	13					13	13					16	16
	UNII 3					13	13					13	13					16	16
	UNII 4					13	13					13	13					16	16
5 GHz (160MHz)	UNII 1/2A					12	12					12	12					15	15
	UNII 2C					12	12					12	12					15	15
	UNII 3/4					12	12					12	12					15	15

(Upper tolerance: target +1.0 dB)

b. 802.11ax RU Tx power Tables

Tones	SISO (ANT1 & ANT2)				
	2.4G/20MHz	5G/20MHz	5G/40MHz	5G/80MHz	5G/160MHz
26T	13.0	9.5	9.5	9.5	9.5
52T	14.0	12.0	12.0	12.0	12.0
106T	15.0	14.0	14.0	14.0	14.0
242T	16.0 Ch11. 14	15.0	14.0	13.0	12.0
448T			14.0	13.0	12.0
996T				13.0	12.0
2*996T					12.0

(Upper tolerance: target +1.0 dB)

(Upper tolerance: target +1.0 dB)

Tones	MIMO (ALL)				
	2.4G/20MHz	5G/20MHz	5G/40MHz	5G/80MHz	5G/160MHz
26T	16.0	12.5	12.5	12.5	12.5
52T	17.0	15.0	15.0	15.0	15.0
106T	18.0	17.0	17.0	17.0	17.0
242T	19.0 Ch11. 17	18.0	17.0	16.0	15.0
448T			17.0	16.0	15.0
996T				16.0	15.0
2*996T					15.0

(Upper tolerance: target +1.0 dB)

4.3.3 Maximum Bluetooth Power

a. Maximum Power

Mode	ANT1	ANT2	Dual Tx
Bluetooth (1Mbps) (in dBm)	18.0	17.0	17.0
Bluetooth (EDR) (in dBm)	15.5	14.5	14.0
Bluetooth (LE,1M/2M) (in dBm)	16.5	15.5	15.0
Bluetooth (LE,125k/500k) (in dBm)	8.0	8.0	-

(Upper tolerance: target +1.0dB)

4.4 LTE Information

Item.		Description
Frequency Range	LTE FDD Band 2 (PCS)	1 850.7 ㎒ ~ 1 909.3 ㎒
	LTE FDD Band 4 (AWS)	1 710.7 ㎒ ~ 1 754.3 ㎒
	LTE FDD Band 5 (Cell)	824.7 ㎒ ~ 848.3 ㎒
	LTE FDD Band 7	2 502.5 ㎒ ~ 2 567.5 ㎒
	LTE FDD Band 12	699.7 ㎒ ~ 715.3 ㎒
	LTE FDD Band 13	779.5 ㎒ ~ 784.5 ㎒
	LTE FDD Band 14	790.5 ㎒ ~ 795.5 ㎒
	LTE FDD Band 25	1 850.7 ㎒ ~ 1 914.3 ㎒
	LTE FDD Band 26	814.7 ㎒ ~ 848.3 ㎒
	LTE FDD Band 30	2 307.5 ㎒ ~ 2 312.5 ㎒
	LTE TDD Band 38	2 572.5 ㎒ ~ 2 617.5 ㎒
	LTE TDD Band 41	2 498.5 ㎒ ~ 2 687.5 ㎒
	LTE TDD Band 48	3 552.5 ㎒ ~ 3 697.5 ㎒
	LTE FDD Band 66 (AWS)	1 710.7 ㎒ ~ 1 779.3 ㎒
	LTE FDD Band 71	665.5 ㎒ ~ 695.5 ㎒
Channel Bandwidths	LTE FDD Band 2 (PCS)	1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	LTE FDD Band 4 (AWS)	1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	LTE FDD Band 5 (Cell)	1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒
	LTE FDD Band 7	5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	LTE FDD Band 12	1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒
	LTE FDD Band 13	5 ㎒, 10 ㎒
	LTE FDD Band 14	5 ㎒, 10 ㎒
	LTE FDD Band 25	1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	LTE FDD Band 26	1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒, 15 ㎒
	LTE FDD Band 30	5 ㎒, 10 ㎒
	LTE TDD Band 38	5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	LTE TDD Band 41	5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	LTE TDD Band 48	5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	LTE FDD Band 66 (AWS)	1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	LTE FDD Band 71	5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒

Ch. No.& Freq.(㎒)		Low / Low-Mid	Mid	Mid-High / High
LTE FDD Band 2 (PCS)	1.4 ㎒	1 850.7 (18607)	1 880.0 (18900)	1 909.3 (19193)
	3 ㎒	1 851.5 (18615)	1 880.0 (18900)	1 908.5 (19185)
	5 ㎒	1 852.5 (18625)	1 880.0 (18900)	1 907.5 (19175)
	10 ㎒	1 855.0 (18650)	1 880.0 (18900)	1 905.0 (19150)
	15 ㎒	1 857.5 (18675)	1 880.0 (18900)	1 902.5 (19125)
	20 ㎒	1 860.0 (18700)	1 880.0 (18900)	1 900.0 (19100)
LTE FDD Band 4 (AWS)	1.4 ㎒	1 710.7 (19957)	1 732.5 (20175)	1 754.3 (20393)
	3 ㎒	1 711.5 (19965)	1 732.5 (20175)	1 753.5 (20385)
	5 ㎒	1 712.5 (19975)	1 732.5 (20175)	1 752.5 (20375)
	10 ㎒	1 715.0 (20000)	1 732.5 (20175)	1 750.0 (20350)
	15 ㎒	1 717.5 (20025)	1 732.5 (20175)	1 747.5 (20325)
	20 ㎒		1 732.5 (20175)	
LTE FDD Band 5 (Cell)	1.4 ㎒	824.7 (20407)	836.5 (20525)	848.3 (20643)
	3 ㎒	825.5 (20415)	836.5 (20525)	847.5 (20635)
	5 ㎒	826.5 (20425)	836.5 (20525)	846.5 (20625)
	10 ㎒		836.5 (20525)	
LTE FDD Band 7	5 ㎒	2 502.5 (20775)	2 535 (21100)	2 567.5 (21425)
	10 ㎒	2 505 (20800)	2 535 (21100)	2 565 (21400)
	15 ㎒	2 507.5 (20825)	2 535 (21100)	2 562.5 (21375)
	20 ㎒	2 510 (20850)	2 535 (21100)	2 560 (21350)
LTE FDD Band 12	1.4 ㎒	699.7 (23017)	707.5 (23095)	715.3 (23173)
	3 ㎒	700.5 (23025)	707.5 (23095)	714.5 (23165)
	5 ㎒	701.5 (23035)	707.5 (23095)	713.5 (23155)
	10 ㎒		707.5 (23095)	
LTE FDD Band 13	5 ㎒		782 (23230)	
	10 ㎒		782 (23230)	
LTE FDD Band 14	5 ㎒		793 (23330)	
	10 ㎒		793 (23330)	
LTE FDD Band 25(PCS)	1.4 ㎒	1 850.7 (26047)	1 882.5 (26365)	1 914.3 (26683)
	3 ㎒	1 851.5 (26055)	1 882.5 (26365)	1 913.5 (26675)
	5 ㎒	1 852.5 (26065)	1 882.5 (26365)	1 912.5 (26665)
	10 ㎒	1 855 (26090)	1 882.5 (26365)	1 910 (26640)
	15 ㎒	1 857.5 (26115)	1 882.5 (26365)	1 907.5 (26615)
	20 ㎒	1 860 (26140)	1 882.5 (26365)	1 905 (26590)
LTE FDD Band 26 (Cell)	1.4 ㎒	814.7 (26697)	831.5 (26865)	848.3 (27033)
	3 ㎒	815.5 (26705)	831.5 (26865)	847.5 (27025)
	5 ㎒	816.5 (26715)	831.5 (26865)	846.5 (27015)
	10 ㎒	819.0 (26740)	831.5 (26865)	844.0 (26990)
	15 ㎒		831.5 (26865)	
LTE FDD Band 30	5 ㎒	2 307.5 (27685)	2 310 (27710)	2 312.5 (27735)
	10 ㎒		2 310 (27710)	
LTE TDD Band 38	5 ㎒	2 572.5 (37775)	2 595 (38000)	2 617.5 (38225)
	10 ㎒	2 575 (37800)	2 595 (38000)	2 615 (38200)
	15 ㎒	2 577.5 (37825)	2 595 (38000)	2 612.5 (38175)
	20 ㎒	2 580 (37850)	2 595 (38000)	2 610 (38150)

Ch. No.& Freq.(MHz)		Low / Low-Mid		Mid		Mid-High / High	
LTE FDD Band 66 (AWS)	1.4 MHz	1 710.7 (131979)		1 745 (132322)		1 779.3 (132665)	
	3 MHz	1 711.5 (131987)		1 745 (132322)		1 778.5 (132657)	
	5 MHz	1 712.5 (131997)		1 745 (132322)		1 777.5 (132647)	
	10 MHz	1 715.0 (132022)		1 745 (132322)		1 775.0 (132622)	
	15 MHz	1 717.5 (132047)		1 745 (132322)		1 772.5 (132597)	
	20 MHz	1 720.0 (132072)		1 745 (132322)		1 770.0 (132572)	
LTE FDD Band 71	5 MHz	665.5 (133147)		680.5 (133297)		695.5 (133447)	
	10 MHz	668 (133172)		680.5 (133297)		693 (133422)	
	15 MHz	670.5 (133197)		680.5 (133297)		690.5 (133397)	
	20 MHz			680.5 (133297)			
LTE TDD Band 41	5 MHz	2 506.0(39750)	2 549.5(40185)	2 593.0(40620)	2 636.5(41055)	2 680.0(41490)	
	10 MHz	2 506.0(39750)	2 549.5(40185)	2 593.0(40620)	2 636.5(41055)	2 680.0(41490)	
	15 MHz	2 506.0(39750)	2 549.5(40185)	2 593.0(40620)	2 636.5(41055)	2 680.0(41490)	
	20 MHz	2 506.0(39750)	2 549.5(40185)	2 593.0(40620)	2 636.5(41055)	2 680.0(41490)	
LTE TDD Band 48	5 MHz	3 552.5(55265)	3 600.8(55748)	3 649.2(56232)	3 697.5(56715)		
	10 MHz	3 555(55290)	3 601.7(55757)	3 648.3(56223)	3 695(56690)		
	15 MHz	3 557.5(55315)	3 602.5(55765)	3 647.5(56215)	3 692.5(56665)		
	20 MHz	3 560(55340)	3 603.3(55773)	3 646.7(56207)	3 690(56640)		

UE Category	LTE Rel. 16, DL: Category 20, UL: Category 18
HPUE Power Class	LTE TDD 41 Power Class 3 ☹Duty: 63.3%) Power Class 2 : (Duty:43.3%)
Modulations Supported in UL	QPSK, 16QAM, 64QAM, 256 QAM
LTE MPR Permanently implemented per 3GPP TS 36.101 section 6.2.3	Yes
A-MPR disabled for SAR Testing.	Yes
LTE Carrier Aggregation	This device supports Inter-Band & Intra-Band DL-link Carrier aggregations and intra-Band UL-link Carrier aggregations. Detailed information of Down-Link CA are included in the Appendix. I and Technical Description document.
LTE Release information	This device does not support full CA features on 3GPP Release 16. It supports carrieraggregation, downlink MIMO. All other uplink communications are identical to the release 8 specifications. The following LTE Release 16 Features are not supported: Relay, Hetnet, Enhanced elCl, MDH, cross-carrier Scheduling, Enhanced SC-FDMA.

4.5 5G NR SUB 6 Information

Item.		Description
Frequency Range	NR FDD Band n2 (PCS)	1 852.5 ㎒ ~ 1 907.5 ㎒
	NR FDD Band n5	826.5 ㎒ ~ 846.5 ㎒
	NR FDD Band n7	2502.5 ㎒ ~ 2567.5 ㎒
	NR FDD Band n12	701.5 ㎒ ~ 713.5 ㎒
	NR FDD Band n25 (PCS)	1 852.5 ㎒ ~ 1 912.5 ㎒
	NR FDD Band n26	816.5 ㎒ ~ 846.5 ㎒
	NR FDD Band n30	2 307.5 ㎒ ~ 2 312.5 ㎒
	NR TDD Band n38	2 575 ㎒ ~ 2 615 ㎒
	NR TDD Band n41	2 501.01 ㎒ ~ 2 685 ㎒
	NR TDD Band n48	3 555 ㎒ ~ 3 695.01 ㎒
	NR FDD Band n66	1 712.5 ㎒ ~ 1 777.5 ㎒
	NR FDD Band n70	1 697.5 ㎒ ~ 1 707.5 ㎒
	NR FDD Band n71	665.5 ㎒ ~ 695.5 ㎒
	NR TDD Band n77	3 705 ㎒ ~ 3 975 ㎒
	NR TDD Band n77 DoD	3 445.01 ㎒ ~ 3 544.98 ㎒
	NR TDD Band n78	3 705 ㎒ ~ 3 795 ㎒
	NR TDD Band n78 DoD	3 455.01 ㎒ ~ 3 544.98 ㎒
Channel Bandwidths	NR FDD Band n2 (PCS)	5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒, 25 ㎒, 30 ㎒, 35 ㎒, 40 ㎒
	NR FDD Band n5	5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	NR FDD Band n7	5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒, 25 ㎒, 30 ㎒, 35 ㎒, 40 ㎒
	NR FDD Band n12	5 ㎒, 10 ㎒, 15 ㎒
	NR FDD Band n25 (PCS)	5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒, 25 ㎒, 30 ㎒, 35 ㎒, 40 ㎒
	NR FDD Band n26	5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	NR FDD Band n30	5 ㎒, 10 ㎒
	NR TDD Band n38	10 ㎒, 15 ㎒, 20 ㎒, 25 ㎒, 30 ㎒, 40 ㎒
	NR TDD Band n41	10 ㎒, 15 ㎒, 20 ㎒, 25 ㎒, 30 ㎒, 40 ㎒, 50 ㎒, 60 ㎒, 70 ㎒, 80 ㎒, 90 ㎒, 100 ㎒
	NR TDD Band n48	10 ㎒, 15 ㎒, 20 ㎒, 30 ㎒, 40 ㎒,
	NR FDD Band n66	5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒, 25 ㎒, 30 ㎒, 35 ㎒, 40 ㎒
	NR FDD Band n70	5 ㎒, 10 ㎒, 15 ㎒
	NR FDD Band n71	5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	NR TDD Band n77	10 ㎒, 15 ㎒, 20 ㎒, 25 ㎒, 30 ㎒, 40 ㎒, 50 ㎒, 60 ㎒, 70 ㎒, 80 ㎒, 90 ㎒, 100 ㎒
	NR TDD Band n77 DoD	10 ㎒, 15 ㎒, 20 ㎒, 25 ㎒, 30 ㎒, 40 ㎒, 50 ㎒, 60 ㎒, 70 ㎒, 80 ㎒, 90 ㎒, 100 ㎒
	NR TDD Band n78	10 ㎒, 15 ㎒, 20 ㎒, 25 ㎒, 30 ㎒, 40 ㎒, 50 ㎒, 60 ㎒, 70 ㎒, 80 ㎒, 90 ㎒, 100 ㎒
	NR TDD Band n78 DoD	10 ㎒, 15 ㎒, 20 ㎒, 25 ㎒, 30 ㎒, 40 ㎒, 50 ㎒, 60 ㎒, 70 ㎒, 80 ㎒, 90 ㎒, 100 ㎒

Ch. No.& Freq.(MHz)		Low / Low-Mid		Mid		Mid-High / High	
NR FDD Band n2 (PCS)	5 MHz	1852.5(370500)		1880(376000)		1907.5(381500)	
	10 MHz	1855(371000)		1880(376000)		1905(381000)	
	15 MHz	1857.5(371500)		1880(376000)		1902.5(380500)	
	20 MHz	1860(372000)		1880(376000)		1900(380000)	
	25 MHz	1862.5(372500)		1880(376000)		1897.5(379500)	
	30 MHz	1865(373000)		1880(376000)		1895(379000)	
	35 MHz	1867.5(373500)		1880(376000)		1892.5(378500)	
	40 MHz	1870(374000)		1880(376000)		1890(378000)	
NR FDD Band n5 (Cell)	5 MHz	826.5 (165300)		836.5(167300)		846.5 (169300)	
	10 MHz			836.5(167300)			
	15 MHz			836.5(167300)			
	20 MHz			836.5(167300)			
NR FDD Band n7	5 MHz	2502.5(500500)		2535(507000)		2567.5(513500)	
	10 MHz	2505(501000)		2535(507000)		2565(513000)	
	15 MHz	2507.5(501500)		2535(507000)		2562.5(512500)	
	20 MHz	2510(502000)		2535(507000)		2560(512000)	
	25 MHz	2512.5(502500)		2535(507000)		2557.5(511500)	
	30 MHz	2515(503000)		2535(507000)		2555(511000)	
	35 MHz	2517.5(503500)		2535(507000)		2552.5(510500)	
	40 MHz			2535(507000)			
NR FDD Band n12	5 MHz	701.5 (140300)		707.5 (141500)		713.5 (142700)	
	10 MHz			707.5 (141500)			
	15 MHz			707.5 (141500)			
NR FDD Band n25	5 MHz	1852.5(370500)		1882.5(376500)		1912.5(382500)	
	10 MHz	1855(371000)		1882.5(376500)		1910(382000)	
	15 MHz	1857.5(371500)		1882.5(376500)		1907.5(381500)	
	20 MHz	1860(372000)		1882.5(376500)		1905(381000)	
	25 MHz	1862.5(372500)		1882.5(376500)		1902.5(380500)	
	30 MHz	1865(373000)		1882.5(376500)		1900(380000)	
	35 MHz			1882.5(376500)			
	40 MHz			1882.5(376500)			
NR FDD Band n26	5 MHz	816.5(163300)		831.5(166300)		846.5(169300)	
	10 MHz	819(163800)		831.5(166300)		844(168800)	
	15 MHz	821.5(164300)		831.5(166300)		841.5(168300)	
	20 MHz			831.5(166300)		)	
NR FDD Band n30	5 MHz			2310 (462000)			
	10 MHz			2310 (462000)			
NR TDD Band n38	10 MHz	2575(515000)		2595(519000)		2615(523000)	
	15 MHz	2577.5(515500)		2595(519000)		2612.5(522500)	
	20 MHz	2580(516000)		2595(519000)		2610(522000)	
	25 MHz	2582.5(516500)				2607.5(521500)	
	30 MHz	2585(517000)				2605(521000)	
	40 MHz			2595(519000)			
NR TDD Band n48	10 MHz	3555(637000)	3602.01(640134)		3648(643200)		3695.01(646334)
	15 MHz	3557.49(637166)	3602.49(640166)		3647.49(643166)		3692.49(646166)
	20 MHz	3560.01(637334)	3603.33(640222)		3646.65(643110)		3690(646000)
	30 MHz	3565.02 (637668)	3605.01(640334)		3645(643000)		3684.99(645666)
	40 MHz	3570(638000)	3624.99(641666)				3679.98(645332)
NR TDD Band n41	10 MHz	2501.01(500202)	2547(509400)	2592.99(518598)	2639.01(527802)	2685(537000)	
	15 MHz	2503.5(500700)	2548.26(509652	2592.99(518598)	2637.75(527550)	2682.51(536502)	
	20 MHz	2506.02(501204)	2549.49(509898)	2592.99(518598)	2636.49(527298)	2679.99(535998)	
	25 MHz	2508.48(501696)	2550.75(510150)	2592.99(518598)	2635.23(527046)	2677.50(535500)	
	30 MHz	2511(502200)	2552.01(510402)	2592.99(518598)	2634(526800)	2674.98(534996)	
	40 MHz	2516.01(503202)	2567.34(513468)		2618.67(523734)	2670(534000)	
	50 MHz	2521.02(504204)		2592.99(518598)		2664.99(532998)	
	60 MHz	2526(505200)		2592.99(518598)		2659.98(531996)	
	70 MHz	2531.01(506202)				2655(531000)	
	80 MHz	2536.02(507204)				2649.99(529998)	
	90 MHz	2541(508200)				2644.98(528996)	
	100 MHz			2592.99(518598)			

Ch. No.& Freq.(MHz)		Low / Low-Mid		Mid		Mid-High / High	
NR FDD Band n66	5 MHz	1712.5(342500)		1745(349000)		1777.5(355500)	
	10 MHz	1715(343000)		1745(349000)		1775(355000)	
	15 MHz	1717.5(343500)		1745(349000)		1772.5(354500)	
	20 MHz	1720(344000)		1745(349000)		1770(354000)	
	25 MHz	1722.5(344500)		1745(349000)		1767.5(353500)	
	30 MHz			1745(349000)			
	35 MHz	1727.5(345500)		1745(349000)		1762.5(352500)	
	40 MHz	1730(346000)		1745(349000)		1760(352000)	
NR FDD Band n70	5 MHz	1697.5(339500)				1707.5(341500)	
	10 MHz	1700(340000)		1702.5(340500)		1705 (341000)	
	15 MHz			1702.5(340500)			
NR FDD Band n71	5 MHz	665.5(133100)		680.5(136100)		695.5(139100)	
	10 MHz	668(133600)		680.5(136100)		693(138600)	
	15 MHz			680.5(136100)			
	20 MHz			680.5(136100)			
NR TDD Band n77	10 MHz	3705(647000)	3759(650600)	3813(654200)	3867(657800)	3921(661400)	3975(665000)
	15 MHz	3707.52(647168)	3760.5(650700)	3813.51(654234	3866.49(657766)	3919.5(661300)	3972.48(664832)
	20 MHz	3710.01 (647334)	3762 (650800)	3813.99(654266)	3866.01 (657734)	3918 (661200)	3969.99 (664666)
	25 MHz	3712.5(647500)	3763.5(650900)	3814.5(654300)	3865.5(657700)	3916.5(661100)	3967.5(664500)
	30 MHz	3715.02 (647668)	3765 (651000)	3815.01(654334)	3864.99 (657666)	3915 (661000)	3964.98 (664332)
	40 MHz	3720 (648000)	3768 (651200)	3816 (654400)	3864 (657600)	3912 (660800)	3960 (664000)
	50 MHz	3725.01 (648334)	3782.49 (652166)	3840 (656000)		3897.51 (659834)	3954.99 (663666)
	60 MHz	3730.02 (648668)	3803.34(653556)			3876.66(658444)	3949.98 (663332)
	70 MHz	3735 (649000)	3804.99 (654336)			3875.01 (658334)	3945(663000)
	80 MHz	3740.01 (649334)		3840 (656000)			3939.99 (662666)
	90 MHz	3745.02 (649668)		3840 (656000)		3934.98 (662332)	
	100 MHz	3750 (650000)		3840 (656000)		3930 (662000)	
NR TDD Band n77 (DoD)	10 MHz	3455.01(630334)		3500.01(633334)		3544.98(636332)	
	15 MHz	3457.5(630500)		3500.01(633334)		3542.49(636166)	
	20 MHz	3460.02 (630668)		3500.01 (633334)		3540 (636000)	
	25 MHz	3462.99(630866)		3500.01(633334)		3537(635800)	
	30 MHz	3465 (631000)		3500.01 (633334)		3534.99 (635666)	
	40 MHz	3470.01 (631334)				3529.98 (635332)	
	50 MHz	3475.02 (631668)				3525 (635000)	
	60 MHz			3500.01 (633334)			
	70 MHz			3500.01 (633334)			
	80 MHz			3500.01 (633334)			
	90 MHz			3500.01 (633334)			
	100 MHz			3500.01 (633334)			
NR TDD Band n78	10 MHz	3705(647000)		3750(650000)		3795(653000)	
	15 MHz	3707.5(647166)		3750(650000)		3792.48(652832)	
	20 MHz	3710.01(647334)		3750(650000)		3789.99(652666)	
	25 MHz	3712.5(647500)		3750(650000)		3787.5(652500)	
	30 MHz	3715(647666)		3750(650000)		3784.98(652332)	
	40 MHz	3720(647800)				3780(652000)	
	50 MHz	3725.01(648334)				3774.99(651666)	
	60 MHz			3750(650000)			
	70 MHz			3750(650000)			
	80 MHz			3750(650000)			
	90 MHz			3750(650000)			
	100 MHz			3750(650000)			

Ch. No.& Freq.(MHz)		Low / Low-Mid	Mid	Mid-High / High
NR TDD Band n78 (DoD)	10 MHz	3455.01(630334)	3500.01(633334)	3544.98(636332)
	15 MHz	3457.5(630500)	3500.01(633334)	3542.49(636166)
	20 MHz	3460.02(630668)	3500.01(633334)	3540(636000)
	25 MHz	3462.99(630866)	3500.01(633334)	3537(635800)
	30 MHz	3465(631000)	3500.01(633334)	3534.99(635666)
	40 MHz	3470.01(631334)		3529.98(635332)
	50 MHz	3475.02(631668)		3525(635000)
	60 MHz		3500.01(633334)	
	70 MHz		3500.01(633334)	
	80 MHz		3500.01(633334)	
	90 MHz		3500.01(633334)	
	100 MHz		3500.01(633334)	

Item.	Description
NR FDD Band n2/n5/n7/n12/n25/n26/n30/n66/n70//n71 SCS	15 kHz
NR TDD Band n38/n41/n48/n77/n78 SCS	30 kHz
3GPP Rel.	Rel.16
A-MPR disabled for SAR Testing.	Yes
5G NR UL/DL FR1	CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM DFT-s-OFDM: π/2-BPSK(UL Only), QPSK, 16QAM, 64QAM, 256QAM
Non-Standalone & Standalone are supported. 5G NR FR1 Bands, except n7,n26,n30,n38,n48,n70,n78 are supported to NSA and SA Connectivity. N7,n26,n30,n38,n48,n70,n78 is only supported to SA connectivity More detailed specifications of the 5G NR bands are contained in the Technical description document.	
EN-DC Carrier Aggregation Possible Combinations	The technical description includes all the possible carrier aggregation combinations
LTE Anchor Bands for NR Band n2 (PCS)	LTE Band 4/5/12/13/14/30/48/66
LTE Anchor Bands for NR Band n5 (Cell)	LTE Band 2/4/30/48/66
LTE Anchor Bands for NR Band n7	N/A
LTE Anchor Bands for NR Band n12	LTE Band 2/48/66
LTE Anchor Bands for NR Band n25	LTE Band 12/66
LTE Anchor Bands for NR Band n26	N/A
LTE Anchor Bands for NR Band n30	N/A
LTE Anchor Bands for NR Band n38	N/A
LTE Anchor Bands for NR Band n41	LTE Band 2/4/5/12/66
LTE Anchor Bands for NR Band n48	N/A
LTE Anchor Bands for NR Band n66 (AWS)	LTE Band 2/5/12/13/14/30/48
LTE Anchor Bands for NR Band n70	N/A
LTE Anchor Bands for NR Band n71	LTE Band 2/48/66
LTE Anchor Bands for NR Band n77	LTE Band 2/5/12/13/14/30/66/71
LTE Anchor Bands for NR Band n78	N/A

4.6 DUT Antenna Locations

A diagram showing the location of the device antennas for both open and closed configurations can be found in SAR_setup_photos. When the device is open, The overall dimensions of this device are > 9 X 5 cm. Since the diagonal dimension of this device is > 160 mm and < 200 mm, it is considered a "phablet". In the closed configuration, only a simple display/interaction of notifications occurs and overall dimensions are <9 X 5 cm. Therefore, when the device is closed, the only testing considered is for body-worn and hotspot.

◆ Folder Open

Antenna	Mode	Rear	Front	Left	Right	Bottom	Top
MAIN1 [Ant A]	GSM/GPRS/EDGE 850	Yes	Yes	Yes	Yes	Yes	No
MAIN1 [Ant A]	GSM/GPRS/EDGE 1900	Yes	Yes	Yes	Yes	Yes	No
MAIN1 [Ant A]	UMTS Band 5	Yes	Yes	Yes	Yes	Yes	No
MAIN1 [Ant A]	UMTS Band 4	Yes	Yes	Yes	Yes	Yes	No
MAIN1 [Ant A]	UMTS Band 2	Yes	Yes	Yes	Yes	Yes	No
MAIN1 [Ant A]	LTE FDD Band 2 (PCS)	Yes	Yes	Yes	Yes	Yes	No
SUB5 [Ant I]	LTE FDD Band 2 (PCS)	Yes	Yes	No	Yes	No	Yes
MAIN1 [Ant A]	LTE FDD Band 4 (AWS)	Yes	Yes	Yes	Yes	Yes	No
SUB5 [Ant I]	LTE FDD Band 4 (AWS)	Yes	Yes	No	Yes	No	Yes
MAIN1 [Ant A]	LTE FDD Band 5	Yes	Yes	Yes	Yes	Yes	No
MAIN2 [Ant B]	LTE FDD Band 7	Yes	Yes	Yes	No	Yes	No
SUB5 [Ant I]	LTE FDD Band 7	Yes	Yes	No	Yes	No	Yes
MAIN1 [Ant A]	LTE FDD Band 12	Yes	Yes	Yes	Yes	Yes	No
MAIN1 [Ant A]	LTE FDD Band 13	Yes	Yes	Yes	Yes	Yes	No
MAIN1 [Ant A]	LTE FDD Band 14	Yes	Yes	Yes	Yes	Yes	No
MAIN1 [Ant A]	LTE FDD Band 25 (PCS)	Yes	Yes	Yes	Yes	Yes	No
SUB5 [Ant I]	LTE FDD Band 25 (PCS)	Yes	Yes	No	Yes	No	Yes
MAIN1 [Ant A]	LTE FDD Band 26 (Cell)	Yes	Yes	Yes	Yes	Yes	No
MAIN2 [Ant B]	LTE FDD Band 30	Yes	Yes	Yes	No	Yes	No
SUB5 [Ant I]	LTE FDD Band 30	Yes	Yes	No	Yes	No	Yes
MAIN2 [Ant B]	LTE TDD Band 38	Yes	Yes	Yes	No	Yes	No
SUB5 [Ant I]	LTE TDD Band 38	Yes	Yes	No	Yes	No	Yes
MAIN2 [Ant B]	LTE TDD Band 41 (PC3)	Yes	Yes	Yes	No	Yes	No
MAIN2 [Ant B]	LTE TDD Band 41 (PC2)	Yes	Yes	Yes	No	Yes	No
SUB5 [Ant I]	LTE TDD Band 41 (PC3)	Yes	Yes	No	Yes	No	Yes
SUB5 [Ant I]	LTE TDD Band 41 (PC2)	Yes	Yes	No	Yes	No	Yes
SUB2 [Ant F]	LTE TDD Band 48	Yes	Yes	Yes	No	No	Yes
MAIN1 [Ant A]	LTE FDD Band 66 (AWS)	Yes	Yes	Yes	Yes	Yes	No
SUB5 [Ant I]	LTE FDD Band 66 (AWS)	Yes	Yes	No	Yes	No	Yes
MAIN1 [Ant A]	LTE FDD Band 71	Yes	Yes	Yes	Yes	Yes	No
MAIN1 [Ant A]	NR FDD Band n2 (PCS)	Yes	Yes	Yes	Yes	Yes	No
SUB5 [Ant I]	NR FDD Band n2 (PCS)	Yes	Yes	No	Yes	No	Yes
MAIN1 [Ant A]	NR FDD Band n5	Yes	Yes	Yes	Yes	Yes	No
MAIN2 [Ant B]	NR FDD Band n7	Yes	Yes	Yes	No	Yes	No
SUB5 [Ant I]	NR FDD Band n7	Yes	Yes	No	Yes	No	Yes
MAIN1 [Ant A]	NR FDD Band n12	Yes	Yes	Yes	Yes	Yes	No
MAIN1 [Ant A]	NR FDD Band n25 (PCS)	Yes	Yes	Yes	Yes	Yes	No
SUB5 [Ant I]	NR FDD Band n25 (PCS)	Yes	Yes	No	Yes	No	Yes
MAIN1 [Ant A]	NR FDD Band n26	Yes	Yes	Yes	Yes	Yes	No
MAIN2 [Ant B]	NR FDD Band n30	Yes	Yes	Yes	No	Yes	No

Antenna	Mode	Rear	Front	Left	Right	Bottom	Top
SUB5 [Ant I]	NR FDD Band n30	Yes	Yes	No	Yes	No	Yes
SUB5 [Ant I]	NR TDD Band n38	Yes	Yes	No	Yes	No	Yes
MAIN2 [Ant B]	NR TDD Band n38	Yes	Yes	Yes	No	Yes	No
SUB5 [Ant I]	NR TDD Band n41 (PC2 only)	Yes	Yes	No	Yes	No	Yes
MAIN2 [Ant B]	NR TDD Band n41 (PC2 only)	Yes	Yes	Yes	No	Yes	No
SUB2 [Ant F]	NR TDD Band n41 (PC2 only)	Yes	Yes	Yes	No	No	Yes
MAIN3 [Ant C]	NR TDD Band n41 (PC2 only)	Yes	Yes	Yes	No	Yes	No
SUB2 [Ant F]	NR TDD Band n48	Yes	Yes	Yes	No	No	Yes
SUB5 [Ant I]	NRTDD Band n48	Yes	Yes	No	Yes	No	Yes
SUB1 [Ant E]	NR TDD Band n48	Yes	Yes	Yes	No	No	Yes
MAIN3 [Ant C]	NRTDD Band n48	Yes	Yes	Yes	No	Yes	No
MAIN1 [Ant A]	NR FDD Band n66	Yes	Yes	Yes	Yes	Yes	No
SUB5 [Ant I]	NR FDD Band n66	Yes	Yes	No	Yes	No	Yes
MAIN1 [Ant A]	NR FDD Band n70	Yes	Yes	Yes	Yes	Yes	No
SUB5 [Ant I]	NR FDD Band n70	Yes	Yes	No	Yes	No	Yes
MAIN1 [Ant A]	NR FDD Band n71	Yes	Yes	Yes	Yes	Yes	No
SUB2 [Ant F]	NR TDD Band n77 (PC2 only)	Yes	Yes	Yes	No	No	Yes
SUB5 [Ant I]	NR TDD Band n77 (PC2 only)	Yes	Yes	No	Yes	No	Yes
SUB1 [Ant E]	NR TDD Band n77 (PC2 only)	Yes	Yes	Yes	No	No	Yes
MAIN3 [Ant C]	NR TDD Band n77 (PC2 only)	Yes	Yes	Yes	No	Yes	No
SUB2 [Ant F]	NR TDD Band n77 DoD (PC2 only)	Yes	Yes	Yes	No	No	Yes
SUB5 [Ant I]	NR TDD Band n77 DoD (PC2 only)	Yes	Yes	No	Yes	No	Yes
SUB1 [Ant E]	NR TDD Band n77 DoD (PC2 only)	Yes	Yes	Yes	No	No	Yes
MAIN3 [Ant C]	NR TDD Band n77 DoD (PC2 only)	Yes	Yes	Yes	No	Yes	No
SUB2 [Ant F]	NR TDD Band n78	Yes	Yes	Yes	No	No	Yes
SUB5 [Ant I]	NR TDD Band n78	Yes	Yes	No	Yes	No	Yes
SUB1 [Ant E]	NR TDD Band n78	Yes	Yes	Yes	No	No	Yes
MAIN3 [Ant C]	NR TDD Band n78	Yes	Yes	Yes	No	Yes	No
SUB2 [Ant F]	NR TDD Band n78 DoD	Yes	Yes	Yes	No	No	Yes
SUB5 [Ant I]	NR TDD Band n78 DoD	Yes	Yes	No	Yes	No	Yes
SUB1 [Ant E]	NR TDD Band n78 DoD	Yes	Yes	Yes	No	No	Yes
MAIN3 [Ant C]	NR TDD Band n78 DoD	Yes	Yes	Yes	No	Yes	No
SUB2 [Ant F] WIFI 1	2.4 GHz WLAN	Yes	Yes	Yes	No	No	Yes
SUB4 [Ant H] WIFI2	2.4 GHz WLAN	Yes	Yes	No	Yes	No	Yes
SUB2 [Ant F] BT 1	Bluetooth	Yes	Yes	Yes	No	No	Yes
SUB4 [Ant H] BT 2	Bluetooth	Yes	Yes	No	Yes	No	Yes
SUB2 [Ant F] WIFI 1	5 GHz WLAN	Yes	Yes	Yes	No	No	Yes
SUB4 [Ant H] WIFI2	5 GHz WLAN	Yes	Yes	No	Yes	No	Yes
SUB2 [Ant F] WIFI 1	6 GHz WLAN	Yes	Yes	Yes	No	No	Yes
SUB4 [Ant H] WIFI2	6 GHz WLAN	Yes	Yes	No	Yes	No	Yes
NFC Ant	NFC	Yes	Yes	Yes	Yes	Yes	Yes

◆ Folder Close

Antenna	Mode	Rear	Front	Left	Right	Bottom	Top
MAIN1 [Ant A]	GSM/GPRS/EDGE 850	Yes	Yes	Yes	Yes	Yes	No
MAIN1 [Ant A]	GSM/GPRS/EDGE 1900	Yes	Yes	Yes	Yes	Yes	No
MAIN1 [Ant A]	UMTS Band 5	Yes	Yes	Yes	Yes	Yes	No
MAIN1 [Ant A]	UMTS Band 4	Yes	Yes	Yes	Yes	Yes	No
MAIN1 [Ant A]	UMTS Band 2	Yes	Yes	Yes	Yes	Yes	No
MAIN1 [Ant A]	LTE FDD Band 2 (PCS)	Yes	Yes	Yes	Yes	Yes	No
SUB5 [Ant I]	LTE FDD Band 2 (PCS)	Yes	Yes	No	Yes	Yes	Yes
MAIN1 [Ant A]	LTE FDD Band 4 (AWS)	Yes	Yes	Yes	Yes	Yes	No
SUB5 [Ant I]	LTE FDD Band 4 (AWS)	Yes	Yes	No	Yes	Yes	Yes
MAIN1 [Ant A]	LTE FDD Band 5	Yes	Yes	Yes	Yes	Yes	No
MAIN2 [Ant B]	LTE FDD Band 7	Yes	Yes	Yes	No	Yes	No
SUB5 [Ant I]	LTE FDD Band 7	Yes	Yes	No	Yes	Yes	Yes
MAIN1 [Ant A]	LTE FDD Band 12	Yes	Yes	Yes	Yes	Yes	No
MAIN1 [Ant A]	LTE FDD Band 13	Yes	Yes	Yes	Yes	Yes	No
MAIN1 [Ant A]	LTE FDD Band 14	Yes	Yes	Yes	Yes	Yes	No
MAIN1 [Ant A]	LTE FDD Band 25 (PCS)	Yes	Yes	Yes	Yes	Yes	No
SUB5 [Ant I]	LTE FDD Band 25 (PCS)	Yes	Yes	No	Yes	Yes	Yes
MAIN1 [Ant A]	LTE FDD Band 26 (Cell)	Yes	Yes	Yes	Yes	Yes	No
MAIN2 [Ant B]	LTE FDD Band 30	Yes	Yes	Yes	No	Yes	No
SUB5 [Ant I]	LTE FDD Band 30	Yes	Yes	No	Yes	Yes	Yes
MAIN2 [Ant B]	LTE TDD Band 38	Yes	Yes	Yes	No	Yes	No
SUB5 [Ant I]	LTE TDD Band 38	Yes	Yes	No	Yes	Yes	Yes
MAIN2 [Ant B]	LTE TDD Band 41 (PC3)	Yes	Yes	Yes	No	Yes	No
MAIN2 [Ant B]	LTE TDD Band 41 (PC2)	Yes	Yes	Yes	No	Yes	No
SUB5 [Ant I]	LTE TDD Band 41 (PC3)	Yes	Yes	No	Yes	Yes	Yes
SUB5 [Ant I]	LTE TDD Band 41 (PC2)	Yes	Yes	No	Yes	Yes	Yes
SUB2 [Ant F]	LTE TDD Band 48	Yes	Yes	Yes	No	Yes	No
MAIN1 [Ant A]	LTE FDD Band 66 (AWS)	Yes	Yes	Yes	Yes	Yes	No
SUB5 [Ant I]	LTE FDD Band 66 (AWS)	Yes	Yes	No	Yes	Yes	Yes
MAIN1 [Ant A]	LTE FDD Band 71	Yes	Yes	Yes	Yes	Yes	No
MAIN1 [Ant A]	NR FDD Band n2 (PCS)	Yes	Yes	Yes	Yes	Yes	No
SUB5 [Ant I]	NR FDD Band n2 (PCS)	Yes	Yes	No	Yes	Yes	Yes
MAIN1 [Ant A]	NR FDD Band n5	Yes	Yes	Yes	Yes	Yes	No
MAIN2 [Ant B]	NR FDD Band n7	Yes	Yes	Yes	No	Yes	No
SUB5 [Ant I]	NR FDD Band n7	Yes	Yes	No	Yes	Yes	Yes
MAIN1 [Ant A]	NR FDD Band n12	Yes	Yes	Yes	Yes	Yes	No
MAIN1 [Ant A]	NR FDD Band n25 (PCS)	Yes	Yes	Yes	Yes	Yes	No
SUB5 [Ant I]	NR FDD Band n25 (PCS)	Yes	Yes	No	Yes	Yes	Yes
MAIN1 [Ant A]	NR FDD Band n26	Yes	Yes	Yes	Yes	Yes	No
MAIN2 [Ant B]	NR FDD Band n30	Yes	Yes	Yes	No	Yes	No
SUB5 [Ant I]	NR FDD Band n30	Yes	Yes	No	Yes	Yes	Yes
SUB5 [Ant I]	NR TDD Band n38	Yes	Yes	No	Yes	Yes	Yes
MAIN2 [Ant B]	NR TDD Band n38	Yes	Yes	Yes	No	Yes	No
SUB5 [Ant I]	NR TDD Band n41 (PC2 only)	Yes	Yes	No	Yes	Yes	Yes
MAIN2 [Ant B]	NR TDD Band n41 (PC2 only)	Yes	Yes	Yes	No	Yes	No
SUB2 [Ant F]	NR TDD Band n41 (PC2 only)	Yes	Yes	Yes	No	Yes	No
MAIN3 [Ant C]	NR TDD Band n41 (PC2 only)	Yes	Yes	Yes	No	Yes	Yes

Antenna	Mode	Rear	Front	Left	Right	Bottom	Top
SUB2 [Ant F]	NR TDD Band n48	Yes	Yes	Yes	No	Yes	No
SUB5 [Ant I]	NRTDD Band n48	Yes	Yes	No	Yes	Yes	Yes
SUB1 [Ant E]	NR TDD Band n48	Yes	Yes	Yes	No	Yes	Yes
MAIN3 [Ant C]	NRTDD Band n48	Yes	Yes	Yes	No	Yes	Yes
MAIN1 [Ant A]	NR FDD Band n66	Yes	Yes	Yes	Yes	Yes	No
SUB5 [Ant I]	NR FDD Band n66	Yes	Yes	No	Yes	Yes	Yes
MAIN1 [Ant A]	NR FDD Band n70	Yes	Yes	Yes	Yes	Yes	No
SUB5 [Ant I]	NR FDD Band n70	Yes	Yes	No	Yes	Yes	Yes
MAIN1 [Ant A]	NR FDD Band n71	Yes	Yes	Yes	Yes	Yes	No
SUB2 [Ant F]	NR TDD Band n77 (PC2 only)	Yes	Yes	Yes	No	Yes	No
SUB5 [Ant I]	NR TDD Band n77 (PC2 only)	Yes	Yes	No	Yes	Yes	Yes
SUB1 [Ant E]	NR TDD Band n77 (PC2 only)	Yes	Yes	Yes	No	Yes	Yes
MAIN3 [Ant C]	NR TDD Band n77 (PC2 only)	Yes	Yes	Yes	No	Yes	Yes
SUB2 [Ant F]	NR TDD Band n77 DoD (PC2 only)	Yes	Yes	Yes	No	Yes	No
SUB5 [Ant I]	NR TDD Band n77 DoD (PC2 only)	Yes	Yes	No	Yes	Yes	Yes
SUB1 [Ant E]	NR TDD Band n77 DoD (PC2 only)	Yes	Yes	Yes	No	Yes	Yes
MAIN3 [Ant C]	NR TDD Band n77 DoD (PC2 only)	Yes	Yes	Yes	No	Yes	Yes
SUB2 [Ant F]	NR TDD Band n78	Yes	Yes	Yes	No	Yes	No
SUB5 [Ant I]	NR TDD Band n78	Yes	Yes	No	Yes	Yes	Yes
SUB1 [Ant E]	NR TDD Band n78	Yes	Yes	Yes	No	Yes	Yes
MAIN3 [Ant C]	NR TDD Band n78	Yes	Yes	Yes	No	Yes	Yes
SUB2 [Ant F]	NR TDD Band n78 DoD	Yes	Yes	Yes	No	Yes	No
SUB5 [Ant I]	NR TDD Band n78 DoD	Yes	Yes	No	Yes	Yes	Yes
SUB1 [Ant E]	NR TDD Band n78 DoD	Yes	Yes	Yes	No	Yes	Yes
MAIN3 [Ant C]	NR TDD Band n78 DoD	Yes	Yes	Yes	No	Yes	Yes
SUB2 [Ant F] WIFI 1	2.4 GHz WLAN	Yes	Yes	Yes	No	Yes	No
SUB4 [Ant H] WIFI2	2.4 GHz WLAN	Yes	Yes	No	Yes	Yes	No
SUB2 [Ant F] BT 1	Bluetooth	Yes	Yes	Yes	No	Yes	No
SUB4 [Ant H] BT 2	Bluetooth	Yes	Yes	No	Yes	Yes	No
SUB2 [Ant F] WIFI 1	5 GHz WLAN	Yes	Yes	Yes	No	Yes	No
SUB4 [Ant H] WIFI2	5 GHz WLAN	Yes	Yes	No	Yes	Yes	No
SUB2 [Ant F] WIFI 1	6 GHz WLAN	Yes	Yes	Yes	No	Yes	No
SUB4 [Ant H] WIFI2	6 GHz WLAN	Yes	Yes	No	Yes	Yes	No
NFC Ant	NFC	Yes	Yes	Yes	Yes	Yes	Yes

Particular EUT edges were not required to be evaluated for Bluetooth Tethering and Hotspot SAR if the edges were > 25 mm from the transmitting antenna according to FCC KDB 941225 D06v02r01 on page 2. The distance between the transmit antennas and the edges of the device are included in the filing.

- Note: All test configurations are based on front view position.

4.7 Near Field Communications (NFC) Antenna

This EUT has NFC operations. The NFC antenna is integrated into the device for this model. Therefore, all SAR tests were performed with the device which already incorporates the NFC antenna. A diagram showing the location of the NFC antenna can be found in SAR _ Setup_ photos.

4.8 SAR Summation Scenario

According to FCC KDB 447498 D01v06, transmitters are considered to be transmitting simultaneously when there is overlapping transmission, with the exception of transmissions during network hand-offs with maximum hand-off duration less than 30 seconds. Possible transmission paths for the EUT are shown below paths and are mode in same rectangle to indicate communication modes which share the same path. Modes which share the same transmission path cannot transmit simultaneously with one another.
This device contains multiple transmitters that may operate simultaneously, and therefore requires a simultaneous transmission analysis according to FCC KDB 447498 D01v06.

Capable Transmit Configuration	Head	Body-Worn Accessory	Wireless Router	Phablet
GSM voice + 2.4GHz Bluetooth Ant.1	Yes^	Yes	N/A	Yes
GSM voice + 2.4GHz Bluetooth Ant.2/Dual	Yes^	Yes	N/A	Yes
GSM voice + 2.4GHz WI-FI SISO/MIMO	Yes	Yes	N/A	Yes
GSM voice + 5GHz WI-FI SISO/MIMO	Yes	Yes	N/A	Yes
GSM voice + 6GHz WI-FI SISO/MIMO	Yes	Yes	N/A	Yes
GSM voice + 2.4GHz WI-FI SISO/MIMO + 5GHz WI-FI MIMO	Yes	Yes	N/A	Yes
GSM voice + 2.4GHz WI-FI SISO/MIMO + 6GHz WI-FI MIMO	Yes	Yes	N/A	Yes
GSM voice + 2.4GHz Bluetooth Ant.1 + 5GHz WI-FI SISO/MIMO	Yes^	Yes	N/A	Yes
GSM voice + 2.4GHz Bluetooth Ant.2/Dual + 5GHz WI-FI SISO/MIMO	Yes^	Yes	N/A	Yes
GSM voice + 2.4GHz Bluetooth Ant.1+ 6GHz WI-FI SISO/MIMO	Yes^	Yes	N/A	Yes
GSM voice + 2.4GHz Bluetooth Ant.2/Dual+ 6GHz WI-FI SISO/MIMO	Yes^	Yes	N/A	Yes
GSM voice + 2.4GHz Bluetooth Ant.1+ 2.4GHz WI-FI Ant 2	Yes^	Yes	N/A	Yes
GSM voice + 2.4GHz Bluetooth Ant.1+ 2.4GHz WI-FI Ant 2 + 5GHz WI-FI SISO/MIMO	Yes^	Yes	N/A	Yes
GSM voice + 2.4GHz Bluetooth Ant.1+ 2.4GHz WI-FI Ant 2 + 6GHz WI-FI SISO/MIMO	Yes^	Yes	N/A	Yes
UMTS + 2.4GHz Bluetooth Ant.1	Yes^	Yes	Yes^	Yes
UMTS + 2.4GHz Bluetooth Ant.2/Dual	Yes^	Yes	N/A	Yes
UMTS + 2.4GHz WI-FI SISO/MIMO	Yes	Yes	Yes	Yes
UMTS + 5GHz WI-FI SISO/MIMO	Yes	Yes	Yes	Yes
UMTS + 6GHz WI-FI MIMO SISO/MIMO	Yes	Yes	N/A	Yes
UMTS + 2.4GHz WI-FI SISO/MIMO + 5GHz WI-FI SISO/MIMO	Yes	Yes	Yes	Yes
UMTS + 2.4GHz WI-FI SISO/MIMO + 6GHz WI-FI SISO/MIMO	Yes	Yes	N/A	Yes
UMTS + 2.4GHz Bluetooth Ant.1 + 5GHz WI-FI SISO/MIMO	Yes^	Yes	Yes^	Yes
UMTS + 2.4GHz Bluetooth Ant.2/Dual + 5GHz WI-FI SISO/MIMO	Yes^	Yes	N/A	Yes
UMTS + 2.4GHz Bluetooth Ant.1+ 6GHz WI-FI SISO/MIMO	Yes^	Yes	N/A	Yes
UMTS + 2.4GHz Bluetooth Ant.2/Dual + 6GHz WI-FI SISO/MIMO	Yes^	Yes	N/A	Yes
UMTS + 2.4GHz Bluetooth Ant.1+ 2.4GHz WI-FI Ant 2	Yes^	Yes	Yes^	Yes
UMTS + 2.4GHz Bluetooth Ant.1+ 2.4GHz WI-FI Ant 2 + 5GHz WI-FI SISO/MIMO	Yes^	Yes	Yes^	Yes
UMTS + 2.4GHz Bluetooth Ant.1+ 2.4GHz WI-FI Ant 2 + 6GHz WI-FI SISO/MIMO	Yes^	Yes	N/A	Yes
LTE + 2.4GHz Bluetooth Ant.1	Yes^	Yes	Yes^	Yes
LTE + 2.4GHz Bluetooth Ant.2/Dual	Yes^	Yes	N/A	Yes
LTE + 2.4GHz WI-FI SISO/MIMO	Yes	Yes	Yes	Yes
LTE + 5GHz WI-FI SISO/MIMO	Yes	Yes	Yes	Yes
LTE + 6GHz WI-FI SISO/MIMO	Yes	Yes	N/A	Yes
LTE + 2.4GHz WI-FI SISO/MIMO + 5GHz WI-FI SISO/MIMO	Yes	Yes	Yes	Yes
LTE + 2.4GHz WI-FI SISO/MIMO + 6GHz WI-FI SISO/MIMO	Yes	Yes	N/A	Yes
LTE + 2.4GHz Bluetooth Ant.1+ 5GHz WI-FI SISO/MIMO	Yes^	Yes	Yes^	Yes
LTE + 2.4GHz Bluetooth Ant.2/Dual + 5GHz WI-FI SISO/MIMO	Yes^	Yes	N/A	Yes
LTE + 2.4GHz Bluetooth Ant.1 + 6GHz WI-FI SISO/MIMO	Yes^	Yes	N/A	Yes
LTE + 2.4GHz Bluetooth Ant.2/Dual + 6GHz WI-FI SISO/MIMO	Yes^	Yes	N/A	Yes
LTE + 2.4GHz Bluetooth Ant.1+ 2.4GHz WI-FI Ant 2	Yes^	Yes	Yes^	Yes
LTE + 2.4GHz Bluetooth Ant.1+ 2.4GHz WI-FI Ant 2 + 5GHz WI-FI SISO/MIMO	Yes^	Yes	Yes^	Yes

Capable Transmit Configuration	Head	Body-Worn Accessory	Wireless Router	Phablet
LTE + 2.4GHz Bluetooth Ant.1+ 2.4GHz WI-FI Ant 2 + 6GHz WI-FI SISO/MIMO	Yes^	Yes	N/A	Yes
LTE + 5GNR	Yes	Yes	Yes	Yes
LTE + 2.4GHz Bluetooth Ant.1 + 5GNR	Yes^	Yes	Yes^	Yes
LTE + 2.4GHz Bluetooth Ant.2/Dual + 5GNR	Yes^	Yes	N/A	Yes
LTE + 2.4GHz WI-FI SISO/MIMO + 5GNR	Yes	Yes	Yes	Yes
LTE + 5GHz WI-FI SISO/MIMO + 5GNR	Yes	Yes	Yes	Yes
LTE + 6GHz WI-FI SISO/MIMO + 5GNR	Yes	Yes	N/A	Yes
LTE + 2.4GHz WI-FI SISO/MIMO + 5GHz WI-FI SISO/MIMO + 5GNR	Yes	Yes	Yes	Yes
LTE + 2.4GHz WI-FI SISO/MIMO + 6GHz WI-FI SISO/MIMO + 5GNR	Yes	Yes	N/A	Yes
LTE + 2.4GHz Bluetooth Ant.1 + 5GHz WI-FI SISO/MIMO + 5GNR	Yes^	Yes	Yes^	Yes
LTE + 2.4GHz Bluetooth Ant.2/Dual + 5GHz WI-FI SISO/MIMO + 5GNR	Yes^	Yes	N/A	Yes
LTE + 2.4GHz Bluetooth Ant.1 + 6GHz WI-FI SISO/MIMO + 5GNR	Yes^	Yes	N/A	Yes
LTE + 2.4GHz Bluetooth Ant.2/Dual + 6GHz WI-FI SISO/MIMO + 5GNR	Yes^	Yes	N/A	Yes
LTE + 2.4GHz Bluetooth Ant.1+ 2.4GHz WI-FI Ant 2 + 5GNR	Yes^	Yes	Yes^	Yes
LTE + 2.4GHz Bluetooth Ant.1+ 2.4GHz WI-FI Ant 2 + 5GHz WI-FI SISO/MIMO + 5GNR	Yes^	Yes	Yes^	Yes
LTE + 2.4GHz Bluetooth Ant.1+ 2.4GHz WI-FI Ant 2 + 6GHz WI-FI SISO/MIMO + 5GNR	Yes^	Yes	N/A	Yes
GPRS/EDGE Data + 2.4GHz Bluetooth Ant.1	Yes^	Yes	Yes^	Yes
GPRS/EDGE Data + 2.4GHz Bluetooth Ant.2/Dual	Yes^	Yes	N/A	Yes
GPRS/EDGE Data + 2.4GHz WI-FI SISO/MIMO	Yes	Yes	Yes	Yes
GPRS/EDGE Data + 5GHz WI-FI SISO/MIMO	Yes	Yes	Yes	Yes
GPRS/EDGE Data + 6GHz WI-FI SISO/MIMO	Yes	Yes	N/A	Yes
GPRS/EDGE Data + 2.4GHz WI-FI SISO/MIMO + 5GHz WI-FI SISO/MIMO	Yes	Yes	Yes	Yes
GPRS/EDGE Data + 2.4GHz WI-FI SISO/MIMO + 6GHz WI-FI SISO/MIMO	Yes	Yes	N/A	Yes
GPRS/EDGE Data + 2.4GHz Bluetooth Ant.1 + 5GHz WI-FI SISO/MIMO	Yes^	Yes	Yes^	Yes
GPRS/EDGE Data + 2.4GHz Bluetooth Ant.2/Dual + 5GHz WI-FI SISO/MIMO	Yes^	Yes	N/A	Yes
GPRS/EDGE Data + 2.4GHz Bluetooth Ant.1 + 6GHz WI-FI SISO/MIMO	Yes^	Yes	N/A	Yes
GPRS/EDGE Data + 2.4GHz Bluetooth Ant.2/Dual + 6GHz WI-FI SISO/MIMO	Yes^	Yes	N/A	Yes
GPRS/EDGE Data + 2.4GHz Bluetooth Ant.1+ 2.4GHz WI-FI Ant 2	Yes^	Yes	Yes^	Yes
GPRS/EDGE Data + 2.4GHz Bluetooth Ant.1+ 2.4GHz WI-FI Ant 2 + 5GHz WI-FI SISO/MIMO	Yes^	Yes	Yes^	Yes
GPRS/EDGE Data + 2.4GHz Bluetooth Ant.1+ 2.4GHz WI-FI Ant 2 + 6GHz WI-FI SISO/MIMO	Yes^	Yes	N/A	Yes
5GNR + 2.4GHz Bluetooth Ant.1	Yes^	Yes	Yes^	Yes
5GNR + 2.4GHz Bluetooth Ant.2/Dual	Yes^	Yes	N/A	Yes
5GNR + 2.4GHz WI-FI SISO/MIMO	Yes	Yes	Yes	Yes
5GNR + 5GHz WI-FI SISO/MIMO	Yes	Yes	Yes	Yes
5GNR + 6GHz WI-FI SISO/MIMO	Yes	Yes	N/A	Yes
5GNR + 2.4GHz WI-FI SISO/MIMO + 5GHz WI-FI SISO/MIMO	Yes	Yes	Yes	Yes
5GNR + 2.4GHz WI-FI SISO/MIMO + 6GHz WI-FI SISO/MIMO	Yes	Yes	N/A	Yes
5GNR + 2.4GHz Bluetooth Ant.1+ 5GHz WI-FI SISO/MIMO	Yes^	Yes	Yes^	Yes
5GNR + 2.4GHz Bluetooth Ant.2/Dual+ 5GHz WI-FI SISO/MIMO	Yes^	Yes	N/A	Yes
5GNR + 2.4GHz Bluetooth Ant.1 + 6GHz WI-FI SISO/MIMO	Yes^	Yes	N/A	Yes
5GNR + 2.4GHz Bluetooth Ant.2/Dual + 6GHz WI-FI SISO/MIMO	Yes^	Yes	N/A	Yes
5GNR + 2.4GHz Bluetooth Ant.1+ 2.4GHz WI-FI Ant 2	Yes^	Yes	Yes^	Yes
5GNR + 2.4GHz Bluetooth Ant.1+ 2.4GHz WI-FI Ant 2 + 5GHz WI-FI SISO/MIMO	Yes^	Yes	Yes^	Yes
5GNR + 2.4GHz Bluetooth Ant.1+ 2.4GHz WI-FI Ant 2 + 6GHz WI-FI SISO/MIMO	Yes^	Yes	N/A	Yes

Note:

1. 2.4GHz WLAN and 2.4GHz bluetooth share the same antenna path. So, this DUT can only transmit together 2.4GHz WLAN Ant.2 and Bluetooth Ant.1.
2. 5 GHz WLAN and 6 GHz WLAN share the same antenna path and cannot transmit simultaneously.
3. When the user utilizes multiple services in UMTS 3G mode it uses multi-Radio Access Bearer or multi- RAB. The power control is based on a physical control channel (Dedicated Physical Control Channel [DPCCH]) and power control will be adjusted to meet the needs of both services. Therefore, the UMTS+WLAN scenario also represents the UMTS Voice/DATA + WLAN Hotspot scenario.
4. Per the manufacturer, WIFI Direct is not expected to be used in conjunction with a held-to-ear or bodyworn accessory voice call. Therefore, there are no simultaneous transmission scenarios involving WIFI direct beyond that listed in the above table.
5. 5 GHz Wireless Router is only supported for the U-NII-3 by S/W, therefore U-NII-1, U-NII-2A, U-NII-2C, and U-NII-4 were not evaluated for wireless router conditions.
6. 6 GHz Wireless Router is not supported; therefore it was not evaluated for wireless router conditions.
7. This device supports 2x2 MIMO Tx for WLAN 802.11a/b/g/n/ac/ax. 802.11a/b/g/n/ac/ax supports CDD and STBC and 802.11n/ac/ax additionally supports SDM.
8. This device supports VoWIFI/VoLTE/VoNR
9. This device supports Bluetooth Tethering in SISO Ant.1
10. LTE + 5G NR FR1 Scenarios are limited to EN-DC combinations with anchor bands as shown in the NR FR1 checklist.
11. 5G NR FR2 n258, n260, and n261 cannot transmit simultaneously.
12. LTE + 5G NR FR2 Scenarios are limited to EN-DC combinations with anchor bands as shown in the NR FR2 checklist.
13. NFC was evaluated for phablet based on expected usage conditions.

4.9 SAR Test Considerations

4.9.1 WiFi

Since wireless router operations are not allowed by the chipset firmware using U-NII-1, U-NII-2A & U-NII-2C and U-NII-4 WiFi, WiFi Hotspot SAR test and combinations are considered only 2.4 GHz and U-NII-3 for SAR with respected to wireless router configurations according to FCC KDB 941225 D06v02r01.

Since U-NII-1 and U-NII-2A Bands have the same maximum output power and the highest reported SAR for U-NII-2A is less than 1.2 W/kg for 1g SAR and is less than 3.0 W/kg for 10g SAR, SAR is not required for U-NII-1 Band according to FCC KDB 248227D01v02r02.

This device supports IEEE 802.11ax with the following features:

a) Up to 160 MHz Bandwidth only for 5/6 GHz
b) Up to 20 MHz Bandwidth only for 2.4 GHz
c) 2Tx antenna output
d) Up to 1024 QAM is supported
e)TDWR and Band gap channels are supported for 5 GHz
f) MU-MIMO UL Operations are not supported

Per FCC KDB Publication 648474 D04v01r03, this device is considered a "phablet" since the diagonal dimension is greater than 160mm and less than 200 mm. Phablet SAR tests are required when wireless router mode does not apply or if wireless router 1g SAR > 1.2 W/kg. Because wireless router operations are not supported for U-NII-1, U-NII-2A & U-NII-2C WLAN, phablet SAR tests were performed. Phablet SAR was not evaluated for 2.4 GHz WIFI, 2.4 GHz Bluetooth, and U-NII-3 WLAN operations since wireless router 1g SAR was < 1.2 W/kg.

Per April 2019 TCB Workshop Notes, SAR testing was not required for 802.11ax when applying the initial test configuration procedures of KDB 248227, with 802.11ax considered a higher order 802.11 mode.

4.9.2 Licensed Transmitter(s)

GSM/GPRS/EDGE DTM is not supported for US Bands. Therefore, the GSM Voice modes in this report do not transmit simultaneously with GPRS/EDGE Data.

LTE SAR for the higher modulations and lower Bandwidths were not tested since the maximum average output power of all required channels and configurations was not more than 0.5 dB higher than the highest Bandwidth; and the reported LTE SAR for the highest Bandwidth was less than 1.45 W/kg for all configurations according to FCC KDB 941225 D05v02r05.

Per FCC KDB 648474 D04v01r03, this device is considered a "Phablet" since the diagonal dimension is greater than 160 ㎜ and less than 200 ㎜. Therefore, extremity SAR tests are required when wireless router mode does not apply or if wireless router 1g SAR >1.2 W/kg. When hotspot mode applies, 10g SAR required only for the surfaces and edges with hotspot mode scaled to the maximum output power (including tolerance) is 1g SAR > 1.2 W/kg.

This Device supports 64QAM and 256QAM on the uplink and 256QAM on the downlink for LTE Operations. Conducted powers for 64QAM and 256QAM uplink configurations were measured per section 5.1 of FCC KDB 941225 D05v02r05. SAR was not required for 64QAM or 256QAM since the highest maximum output power for 64QAM and 256QAM is ≤ 0.5dB higher than the same configuration in QPSK and the reported SAR for QPSK configuration is ≤1.45 W/Kg, per section 5.2.4 for FCC KDB941225 D05v02r05.

This device supports LTE capabilities with overlapping transmission frequency ranges. When the supported frequency range of LTE Band falls completely within an LTE Band with a larger transmission frequency range, both LTE Bands have the same target power or the Band with the larger transmission frequency range has a higher target power and both LTE Bands share the same transmission path and signal characteristics, SAR was only tested for the Band with the larger transmission frequency range.

LTE capabilities with overlapping transmission frequency ranges were applied to LTE Band 5 (824.7 ㎒ ~ 848.3㎒) is covered by LTE Band 26(814.7 ㎒ ~ 848.3 ㎒), LTE Band 4 (1 712.4 ㎒ ~ 1 752.6㎒) is covered by LTE Band 66(1 712.5 ㎒ ~ 1 777.5 ㎒), LTE Band 2(1 850.7 ㎒ ~ 1 909.3㎒) is covered by LTE Band 25(1 850.7 ㎒ ~ 1 914.3㎒), LTE Band 38(2 572.5 ㎒ ~ 2 617.5㎒) is covered by LTE Band 41(2 498.5 ㎒ ~ 2 687.5㎒) of this model each both LTE bands have the same target powers.
NR capabilities with overlapping transmission frequency ranges were applied to n2(1 852.5 ㎒ ~ 1 907.5㎒) is covered by n25(1 852.5 ㎒ ~ 1 912.5㎒), n5(826.5 ㎒ ~ 846.5㎒) is covered by n26(816.5 ㎒ ~ 846.5㎒), n38(2 575 ㎒ ~ 2 615㎒) is covered by n41(2 501.01 ㎒ ~ 2 685㎒), n78(3 705 ㎒ ~ 3 795㎒) is covered by n77(3 705 ㎒ ~ 3 795㎒), n78 DoD(3 455.01 ㎒ ~ 3 544.98㎒) is covered by n77 DoD(3 455.01 ㎒ ~ 3 544.98 ㎒)of this model each both NR bands have the same target powers.

This device supports LTE Carrier Aggregation (CA) in the downlink. All uplink communications are identical to Release 8 specifications. Per FCC KDB publication 941225 D05A v01r02, SAR for LTE DL CA operations was not needed since the maximum average output power in LTE CA mode was not >0.25 dB higher than the maximum output power when downlink carrier aggregation was inactive.

This device supports downlink 4x4 MIMO operations for some LTE Bands. Per May 2017 TCB Workshop Notes, SAR for 4x4 DL MIMO was not needed since the maximum average output power in 4x4 DL MIMO mode was not more than 0.25 dB higher than the maximum output power with 4x4 DL MIMO inactive. Additionally, SAR for 4x4 MIMO Downlink Carrier Aggregation was not needed since the maximum average output power in 4x4 MIMO Downlink Carrier Aggregation mode was not more than 0.25 dB higher than the maximum output power with 4x4 MIMO Downlink and downlink carrier aggregation inactive.

This device support both Power class 2(PC2) and Power Class 3 (PC3) for LTE TDD Band 41. Per May 2017 TCB workshop Notes, SAR test were performed with Power Class 3(given the specific UL/DL Limitations for Power Class 2). Additionally, SAR testing for the power class condition was evaluated for the highest configuration in Power class 3 for each test configuration to confirm he results were scalable linearly.

This product supported Intra-band LTE Carrier Aggregation for 41C, 48C, 66B, 66C with two component carriers in the uplink. SAR Measurement and conducted Powers were measured according to Nov 2019 TCBC Workshop guide.

This device supports NSA(Non-standalone) and SA(Stand alone) connectivity for 5G NR FR1 Bands, More detailed specifications of the Bands are contained in the Technical description document.

This device is only capable of QPSK HSUPA in the uplink. Therefore, no additional SAR tests are required beyond that described for devices with HSUPA in KDB 941225 D01v03r01.

Per FCC KDB 941225 D01v03r01, 12.2 kbps RMC is the primary mode and HSPA (HSUPA/HSDPA with RMC) is the secondary mode.
Per FCC KDB 941225 D01v03r01, The SAR test exclusion is applied to the secondary mode by the following equation.

$$Adjusted\ SAR = Highest\ Reported\ SAR\ x \frac{Secondary\ Max\ tune - up\ (mW)}{Primary\ Max\ tune - up(mW)} \leq 1.2\ \mathrm{W/kg}.$$

Based on the highest Reported SAR, the secondary mode is not required.

5. Introduction

The FCC has adopted the guidelines for evaluating the environmental effects of radio frequency radiation in ET Docket 93-62 on Aug. 6, 1996 to protect the public and workers from the potential hazards of RF emissions due to FCC-regulated portable devices.

The safety limits used for the environmental evaluation measurements are based on the criteria published by the American National Standards Institute (ANSI) for localized specific absorption rate (SAR) in IEEE/ANSI C95.1-1992 Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz. 1992 by the Institute of Electrical and Electronics Engineers, Inc., New York 10017. The measurement procedure described in IEEE/ANSI C95.3-1992 Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields – RF and Microwave is used for guidance in measuring SAR due to the RF radiation exposure from the Equipment Under Test (EUT). These criteria for SAR evaluation are similar to those recommended by the National Council on Radiation Protection and Measurements (NCRP) in Biological Effects and Exposure Criteria for Radio Frequency Electromagnetic Fields," NCRP Report No. 86 NCRP, 1986, Bethesda, MD 20814. SAR is a measure of the rate of energy absorption due to exposure to an RF transmitting source. SAR values have been related to threshold levels for potential biological hazards.

SAR Definition

Specific Absorption Rate (SAR) is defined as the time derivative of the incremental electromagnetic energy (d*W*) absorbed by (dissipated in) an incremental mass (d*m*) contained in a volume element (d*V*) of a given density (*r*). It is also defined as the rate of RF energy absorption per unit mass at a point in an absorbing body.

$$SAR = \frac{d}{dt}\left(\frac{dU}{dm}\right)$$

Figure 1. SAR Mathematical Equation

SAR is expressed in units of Watts per Kilogram (W/kg)

Where:
= conductivity of the tissue-simulant material (S/m)
= mass density of the tissue-simulant material (kg/m³)
= Total RMS electric field strength (V/m)

NOTE: The primary factors that control rate of energy absorption were found to be the wavelength of the incident field in relations to the dimensions and geometry of the irradiated organism, the orientation of the organism in relation to the polarity of field vectors, the presence of reflecting surfaces, and whether conductive contact is made by the organism with a ground plane.

6. Description of test equipment

6.1 SAR MEASUREMENT SETUP

These measurements are performed using the DASY4 automated dosimetric assessment system. It is made by Schmid& Partner Engineering AG (SPEAG) in Zurich, Switzerland. It consists of high precision robotics system (Staubli), robot controller, Pentium III computer, near-field probe, probe alignment sensor, and the generic twin phantom containing the brain equivalent material. The robot is a six-axis industrial robot performing precise movements to position the probe to the location (points) of maximum electromagnetic field (EMF) (see Figure.2).

A cell controller system contains the power supply, robot controller, teach pendant (Joystick), and remote control, is used to drive the robot motors. The PC with Windows XP or Windows 7 or Window 10 or Window 11 is working with SAR Measurement system DASY4 & DASY5 & DASY6 &DASY8 A/D interface card, monitor, mouse, and keyboard. The Staubli Robot is connected to the cell controller to allow software manipulation of the robot. A data acquisition electronic (DAE) circuit performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. is connected to the Electro-optical coupler (EOC). The EOC performs the conversion from the optical into digital electric signal of the DAE and transfers data to the PC plug-in card.

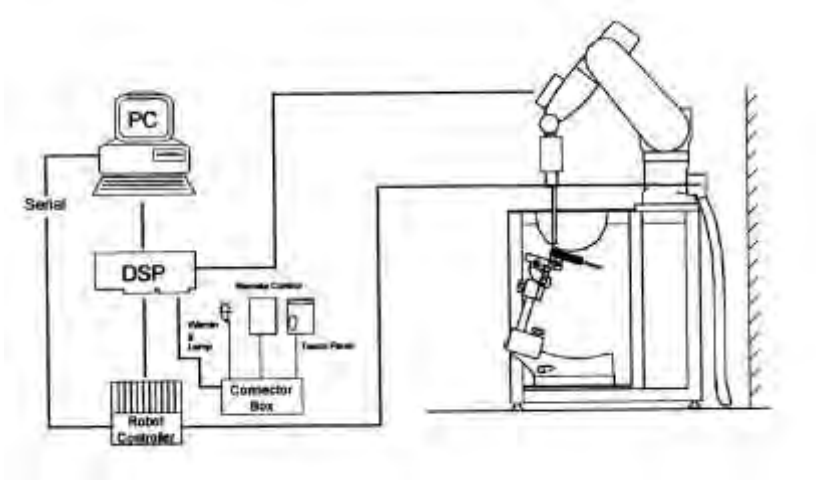


Figure 2. HCT SAR Lab. Test Measurement Set-up

The DAE consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder and control logic unit. Transmission to the PC-card is accomplished through an optical downlink for data and status information and an optical uplink for commands and clock lines. The mechanical probe mounting device includes two different sensor systems for frontal and sidewise probe contacts. They are also used for mechanical surface detection and probe collision detection. The robot uses its own controller with a built in VME-bus computer. The system is described in detail in.

7. SAR Measurement Procedure

The evaluation was performed using the following procedure compliant to FCC KDB Publication 865664 D01v01r04 and IEEE 1528-2013.

1. The SAR distribution at the exposed side of the head or body was measured at a distance no more than 5.0 mm from the inner surface of the shell. The area covered the entire dimension of the DUT's head and body area and the horizontal grid resolution was depending on the FCC KDB 865664 D01v01r04 table 4-1 & IEEE 1528-2013.

2. Based on step, the area of the maximum absorption was determined by sophisticated interpolations routines implemented in DASY software. When an Area Scan has measured all reachable point. DASY system computes the field maximal found in the scanned are, within a range of the maximum. SAR at this fixed point was measured and used as a reference value.

3. Around this point, a volume was assessed according to the measurement resolution and volume size requirements of FCC KDB 865664 D01v01r04 table 4-1 and IEEE 1528-2013. On the basis of this data set, the spatial peak SAR value was evaluated with the following procedure (reference from the DASY manual.)

   a. The data at the surface were extrapolated, since the center of the dipoles is no more than 2.7 mm away from the tip of the probe (it is different from the probe type) and the distance between the surface and the lowest measuring point is 1.2 mm. The extrapolation was based on a least square algorithm. A polynomial of the fourth order was calculated through the points in z-axes. This polynomial was then used to evaluate the points between the surface and the probe tip.

   b. The maximum interpolated value was searched with a straight-forward algorithm. Around this maximum the SAR values averaged over the spatial volumes (1 g or 10 g) were computed using the 3D-Spline interpolation algorithm. The 3D-spline is composed of three one-dimensional splines with the "Not a knot" condition (in x, y, and z directions. The volume was integrated with the trapezoidal algorithm. One thousand points (10 x 10 x 10) were interpolated to calculate the average.

   c. All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.

4. The SAR reference value, at the same location as step 2, was re-measured after the zoom scan. If the value changed by more than 5 %, the SAR evaluation and drift measurements were repeated.

Area scan and zoom scan resolution setting follow KDB 865664 D01v01r04 quoted below.

<table>
<tr><td colspan="3"></td><td>≤ 3 GHz</td><td>> 3 GHz</td></tr>
<tr><td colspan="3">Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface</td><td>5±1 mm</td><td>·δ·ln(2)±0.5 mm</td></tr>
<tr><td colspan="3">Maximum probe angle from probe axis to phantom surface normal at the measurement location</td><td>30°±1°</td><td>20°±1°</td></tr>
<tr><td colspan="3" rowspan="2">Maximum area scan Spatial resolution: $\Delta x_{Area}, \Delta y_{Area}$</td><td>≤ 2 GHz: ≤15 mm
2-3 GHz: ≤12 mm</td><td>3-4 GHz: ≤12 mm
4-6 GHz: ≤10 mm</td></tr>
<tr><td colspan="2">When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.</td></tr>
<tr><td colspan="3">Maximum zoom scan Spatial resolution: $\Delta x_{zoom}, \Delta y_{zoom}$</td><td>≤ 2 GHz: ≤8mm
2-3 GHz: ≤5mm*</td><td>3-4 GHz: ≤5 mm*
4-6 GHz: ≤4 mm*</td></tr>
<tr><td rowspan="3">Maximum zoom scan Spatial resolution normal to phantom surface</td><td colspan="2">uniform grid:$\Delta z_{zoom}(n)$</td><td>≤ 5 mm</td><td>3-4 GHz: ≤4 mm
4-5 GHz: ≤3 mm
5-6 GHz: ≤2 mm</td></tr>
<tr><td rowspan="2">graded grid</td><td>$\Delta z_{zoom}(1)$: between1st two Points closest to phantom surface</td><td>≤ 4 mm</td><td>3-4 GHz: ≤3 mm
4-5 GHz: ≤2.5 mm
5-6 GHz: ≤2 mm</td></tr>
<tr><td>$\Delta z_{zoom}(n>1)$:between subsequent Points</td><td colspan="2">$\leq 1.5 \cdot \Delta z_{zoom}(n-1)$</td></tr>
<tr><td>Minimum zoom scan volume</td><td colspan="2">x, y, z</td><td>≥ 30 mm</td><td>3-4 GHz: ≥28 mm
4-5 GHz: ≥25 mm
5-6 GHz: ≥22 mm</td></tr>
<tr><td colspan="5">Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.
* When zoom scan is required and the 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.</td></tr>
</table>

8. Description of Test Position

8.1 EAR REFERENCE POINT

Figure 8-2 shows the front, back and side views of the SAM phantom. The center-of-mouth reference point is labeled "M", the left ear reference point (ERP) is marked "LE", and the right ERP is marked "RE." Each ERP is on the B-M (back-mouth) line located 15 mm behind the entrance-to-ear-canal (EEC) point, as shown in Figure 6-1. The Reference Plane is defined as passing through the two ear reference point and point M. The line N-F (Neck-Front), also called the Reference Pivoting Line, is not perpendicular to the reference plane (See Figure 5-1), Line B-M is perpendicular to the N-F line. Both N-F and B-M lines are marked on the external phantom shell to facilitate handset positioning.

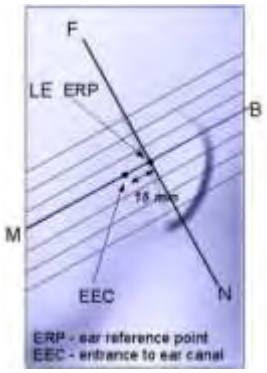


Figure 8-1
Close-up side view of ERP

8.2 HANDSET REFERENCE POINTS

Two imaginary lines on the handset were established: the vertical centerline and the horizontal line. The device under test was placed in a normal operating position with the acoustic output located along the "vertical centerline" on the front of the device aligned to the "ear reference point"(see Figure 8-3). The acoustic output was than located at the same level as the center of the ear reference point. The device under test was positioned so that the "vertical centerline" was bisecting the front surface of the handset at its top and bottom edges, positioning the "ear reference point" on the outer surface of the both the left and right head phantoms on the ear reference point.

Figure 8-2
Front, back and side views of SAM Twin Phantom

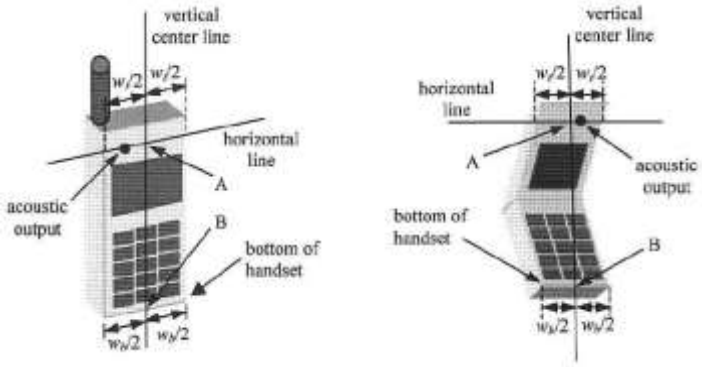


Figure 8-3. Handset vertical and horizontal reference lines

8.3 Device Holder

The device holder is made out of low-loss POM material having the following dielectric parameter; relative permittivity ε=3 and loss tangent σ =0.02.

8.4 Position for cheek

Figure 6.4. shows cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

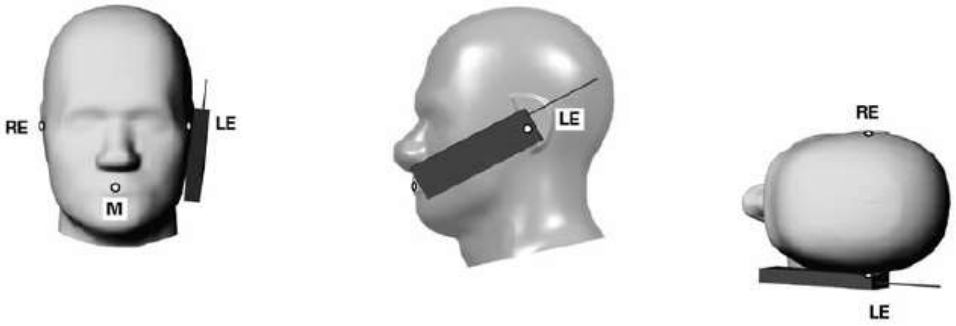


Figure 8.4 Cheek/ Touch position of the wireless device

8.5 Definition of the "tilted" position

Figure 6.5. shows tilted position. Place the device in the cheek position. Then while maintaining the orientation of the device, retract the device parallel to the reference plane far enough away from the phantom to enable a rotation of the device by 15°.

Figure 8.5. Tilt 15°position of the wireless device

8.6 Body-Worn Accessory Configurations

Body-worn operating configurations are tested with the belt-dips and holsters attached to the device and positioned against a flat phantom in a normal use configuration (see Figure 6-6). Per FCC KDB Publication 648474 D04v01r03 Body-worn accessory exposure is typically related to voice mode operations when handsets are carried in Body-worn accessories. The Body-worn accessory procedures in FCC KDB Publication 447498 D01v06 should be used to test for Body-worn accessory SAR compliance, without a headset connected to it.. When the reported SAR for a body- worn accessory, measured without a headset connected to the handset, is > 1.2 W/kg, the highest reported SAR configuration for that wireless mode and frequency Band should be repeated for that body- worn accessory with a headset attached to the handset.

Figure 8-6
Sample Body-Worn Diagram

Accessories for Body-worn operation configurations are divided into two categories: those that do not contain metallic components and those that do contain metallic components. When multiple accessories that do not contain metallic components are supplied with the device, the device is tested with only the accessory that dictates the closest spacing to the body. Then multiple accessories that contain metallic components are tested with the device with each accessory. If multiple accessories share an identical metallic component (i.e. the same metallic belt-dip used with different holsters with no other metallic components) only the accessory that dictates the closest spacing to the body is tested.

8.7 Wireless Router Configurations

Some battery-operated handsets have the capability to transmit and receive user data through simultaneous transmission of WIFI simultaneously with a separate licensed transmitter. The FCC has provided guidance in FCC KDB Publication 941225 D06v02r01 where SAR test considerations for handsets (L x W≥9cmx5 cm) are based on *a* composite test separation distance of 10 mm from the front back and edges of the device containing transmitting antennas within 2.5 cm of their edges, determined from general mixed use conditions for this type of devices. Since the hotspot SAR results may overlap with the Body-worn accessory SAR requirements, the more conservative configurations can be considered, thus excluding some Body-worn accessory SAR tests.

In the closed configuration, only a simple display/interaction of notifications occurs and overall dimensions are <9 X 5 cm. Therefore Per 941225 D06v02r01, when the device is closed, test separation for hotspot mode is 5mm.

When the user enables the personal wireless router functions for the handset actual operations include simultaneous transmission of both the WIFI transmitter and another licensed transmitter. Both transmitters often do not transmit at the same transmitting frequency and thus cannot be evaluated for SAR under actual use conditions due to the limitations of the SAR assessment probes. Therefore, SAR must be evaluated for each frequency transmission and mode separately and spatially summed with the WIFI transmitter according to FCC KDB Publication 447498 D01v06 publication procedures. The Portable Hotspot feature on the handset was NOT activated during SAR assessments, to ensure the SAR measurements were evaluated for a single transmission frequency RF signal at a time.

8.8 Extremity Exposure Configurations

Devices that are designed or intended for use on extremities or mainly operated in extremity only exposure conditions: i.e., hands, wrists, feet and ankles, may require extremity SAR evaluation. When the device also operates in close proximity to the user's body, SAR compliance for the body is also required. The 1-g body and 10-g extremity SAR Exclusion Thresholds found in KDB Publication 447498 D01v06 should be applied to determine SAR test requirements.

For smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm that provide similar mobile web access and multimedia support found in mini-tablets or UMPC mini-tablets that support voice calls next to the ear. The phablets procedures outlined in KDB Publication 648474 D04 v01r03 should be applied to evaluate SAR compliance. A device marketed as phablets, regardless of form factors and operating characteristics must be tested as a phablet to determine SAR compliance. In addition to the normally required head and body-worm accessory SAR test procedures required for handsets, the UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna ≤25 mm from that surface or edge, in direct contact with the phantom, for 10-g SAR. The UMPC mini-tablet 1-g SAR at 5 mm is not required. When hotspot mode applies, 10-g SAR is required only for the surfaces and edges with hotspot mode scaled to the maximum output power (including tolerance) is 1-g SAR > 1.2 W/kg.

8.9 Bluetooth tethering Configurations

Per May 2017 TCBC Workshop Document, When Bluetooth tethering applies, simultaneous transmission SAR needs consideration.

This model allows users to exchange data or media files with other Bluetooth enabled devices using Bluetooth, which means they can connect to other Bluetooth enabled devices via Bluetooth tethering.
Therefore, SAR test was performed for additional simultaneous transmissions.
Head and Bluetooth tethering SAR were evaluated for BT BDR tethering applications.

9. RF Exposure Limits

HUMAN EXPOSURE	UNCONTROLLED ENVIRONMENT General Population (W/kg)	CONTROLLED ENVIRONMENT Occupational (W/kg)
SPATIAL PEAK SAR * (Partial Body)	1.6	8.0
SPATIAL AVERAGE SAR ** (Whole Body)	0.08	0.4
SPATIAL PEAK SAR *** (Hands / Feet / Ankle / Wrist)	4.0	20.0

NOTES:

*The Spatial Peak value of the SAR averaged over any 1 g of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

** The Spatial Average value of the SAR averaged over the whole-body.

*** The Spatial Peak value of the SAR averaged over any 10 g of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

Uncontrolled Environments are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure. The general population/uncontrolled exposure limits are applicable to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be mad fully aware of the potential for exposure or cannot exercise control over their exposure. Members of the general public would come under this category when exposure is not employment-related; for example, in the case of a wireless transmitter that exposes persons in its vicinity.

Controlled Environments are defined as locations where there is exposure that may be incurred by persons who are aware of the potential for exposure, (i.e.as a result of employment or occupation). In general, occupational/controlled exposure limits are applicable to situations in which persons are exposed as a consequence of their employment, who have been made fully aware of the potential for exposure and can exercise control over their exposure. This exposure category is also applicable when the exposure is of a transient nature due to incidental passage through a location where the exposure levels may be higher than the general population/uncontrolled limits, but the exposed person is fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

10. FCC SAR General Measurement Procedures

Power Measurements for licensed transmitters are performed using a base simulator under digital average power.

10.1 Measured and Reported SAR

Per FCC KDB Publication 447498 D01v06, when SAR is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance. For simultaneous transmission, the measured aggregate SAR must be scaled according to the sum of the differences between the maximum tune-up tolerance and actual power used to test each transmitter. When SAR is measured at or scaled to the maximum tune-up tolerance limit, the results are referred to as Reported SAR. The highest reported SAR results are identified on the grant of equipment authorization according to procedures in KDB 690783 D01v01r03.

10.2 3G SAR Test Reduction Procedure

10.2.1 GSM, GPRS and EDGE

The following procedures may be considered for each frequency Band to determine SAR test reduction for devices operating in GSM/GPRS/EDGE modes to demonstrate RF exposure compliance. GSM voice mode transmits with 1 time-slot. GPRS and EDGE may transmit up to 4 time slots in the 8 time-slot frame according to the multi-slot class implemented in a device.

10.2.2 SAR Test Reduction

In FCC KDB 941225 D01v03r01, certain transmission modes within a frequency Band and wireless mode evaluated for SAR are defined as primary modes. The equivalent modes considered for SAR test reduction are denoted as secondary modes. When the maximum output power including tune-up tolerance specified for production units in a secondary mode is ≤ 0.25 dB higher than the primary mode or when the highest reported SAR of the primary mode, scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode, is ≤ 1.2 W/kg, SAR measurements are not required for the secondary mode. These criteria are referred to as the 3G SAR test reduction procedure. When the 3G SAR test reduction procedure is not satisfied, SAR measurements are additionally required for the secondary mode.
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

10.2.3 Procedures Used to Establish RF Signal for SAR

The following procedures are according to FCC KDB 941225 D01v03r01-3G SAR Measurement Procedures.
The handset was placed into a simulated call using a base station simulator in a shielded chamber. Such test signals offer a consistent means for testing SAR and are recommended for evaluation SAR measurements were taken with a fully charged battery. In order to verify that the device was tested and maintained at full power, this was configured with the base station simulator. The SAR measurement Software calculates a reference point at the start and end of the test to Cheek for power drifts. Lf conducted Power deviations of more than 5 % occurred, the tests were repeated.

10.3 SAR Measurement Conditions for UMTS

10.3.1 Output Power Verification

Maximum output power is verified on the High, Middle and Low channels according to the general descriptions in sec. 5.2 of 3GPP TS 34.121, using the appropriate RMC with TPC (transmit power control) set to all "1s" or applying the required inner loop power control procedures to maintain maximum output power while HSUPA is active. Results for all applicable physical channel configurations (DPCCH, DPDCHn and spreading codes, HS-DPCCH etc) are tabulated in this test report. All configurations that are not supported by the DUT or cannot be measured due to technical or equipment limitations are identified.

10.3.2 Body SAR measurements

SAR for body exposure configurations is measured using the 12.2kbps RMC with the TPC bits all "1s". the 3G SAR test reduction procedure is applied to other spreading codes and multiple DPDCHn configurations supported by the handset with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured using and applicable RMC configuration with the corresponding spreading code or DPDCHn, for the highest reported SAR configuration in 12.2kbps RMC.

10.3.3 SAR Measurements with Rel. 5 HSDPA

The 3G SAR test reduction procedure is applied to HSDPA body configurations with 12.2 kbps RMC as the primary mode. Otherwise, Body SAR for HSDPA is measured using and FRC with H-SET 1 in Sub-test and a 12.2 kbps RMC without HSDPA. Handsets with both HSDPA and HSUPA are tested according to release 6 HSPA test procedures. 8.4.5 SAR Measurement with Rel.6 HSUPA The 3G SAR test Reduction Procedure is applied to HSPA (HSUPA/HSDPA with RMC) body configurations with 12.2 kbps RMC as the primary mode. Otherwise, Body SAR for HSPA is measured with E-DCH Sub-test 5, Using H-Set 1 and QPSK for FRC and a 12.2kbps RMC configured in Test Loop Mode 1 and Power Control algorithm 2, according to the highest reported body SAR configuration in 12.2 kbps RMC without HSPA. When VOIP applies to head exposure, the 3G SAR test reduction procedure is applied with 12.2 kbps RMC as the primary mode; otherwise, the same HSPA configuration used for body SAR measurements are applied to head exposure testing.

10.3.4 SAR Measurements with Rel. 6 HSUPA

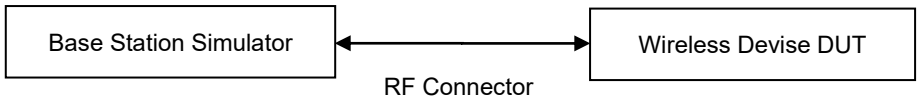
The 3G SAR test reduction procedure is applied to HSPA (HSUPA/HSDPA with RMC) body configurations with 12.2 kbps RMC as the primary mode. Otherwise, Body SAR for HSPA is measured with E-DCH Sub-test 5, using H-Set1 and QPSK for FRC and a 12.2 kbps RMC configured in Test Loop Mode 1 and power control algorithm 2, according to the highest reported body SAR configuration in 12.2 kbps RMC without HSPA.

10.3.5 DC-HSDPA

SAR is required for Rel.8 DC-HSDPA when SAR is required for Rel.5 HSDPA; otherwise, the 3G SAR test reduction procedure is applied to DC-HSDPA with 12.2 kbps RMC as the primary mode. Power is measured for DC-HSDPA according to the H-Set 12, FRC configuration in table C.8.1.12 of 3GPP TS34.121-1 to determine SAR test reduction. Primary and secondary serving HS-DSCH Cell are required to perform the power measurement and for the results to be acceptable.

DC-HSDPA Configurations

- 3GPP specification TS 34.121-1 Release 8. Was used for used for DC-HSDPA guidance.
- H-set 12(QPSK)was conformed to be used during DC-HSDPA measurements.



10.4 SAR Measurement Conditions for LTE

LTE modes are tested according to FCC KDB 941225 D05v02r05publication. Establishing connections with base station simulators ensure a consistent means for testing SAR and are recommended for evaluation SAR [4]. The R&S CMW500 or Anritsu MT8820C simulators are used for LTE output power measurements and SAR testing. Closed loop power control was used so the UE transmits with maximum output power during SAR testing. SAR tests were performed with the same number of RB and RB offsets transmitting on all TTI frames (maximum TTI).

10.4.1 Spectrum Plots for RB Configurations

A properly configured base station simulator was used for SAR tests and power measurements. Therefore, spectrum plots for RB configurations were not required to be included in this report.

10.4.2 MPR

MPR is permanently implemented for this device by the manufacturer. The specific manufacturer target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to 3GPP TS36. 101 Section 6.2.3 – 6.2.5 under Table 6.2.3-1.

10.4.3 A-MPR

A-MPR (Additional MPR) has been disabled for all SAR tests by setting NS=01 on the base station simulator.

10.4.4 Required RB Size and RB offsets for SAR testing

According to FCC KDB 941225 D05v02r05

a. Per sec 4.2.1, SAR is required for QPSK 1 RB Allocation for the largest Bandwidth
   i. The required channel and offset combination with the highest maximum output power is required for SAR.
   ii. When the reported SAR is ≤ 0.8 W/Kg, testing of the remaining RB offset configurations and required test channels is not required. Otherwise, SAR is required for the remaining required test channels using the RB offset configuration with highest output power for that channel.
   iii. When the reported SAR for a required test channel is > 1.45 W/kg, SAR is required for all RB offset configurations for that channel.
b. Per Sec 4.2.2, SAR is required for 50% RB allocation using the largest Bandwidth following the same procedures outlined in Sec 4.2.1.
c. Per Sec. 4.2.3, QPSK SAR is not required for the 100% allocation when the highest maximum output power for the 100% allocation is less than the highest maximum output power of the 1 RB and 50% RB allocations and the reported SAR for the 1 RB and 50% RB allocations is < 0.8 W/kg.
d. Per Sec. 4.2.4 and 4.3, SAR test for higher order modulations and lower Bandwidths configurations are not required when the conducted power of the required test configurations determined by Sec. 4.2.1 through 4.2.3 is less than or equal to 1/2 dB higher than the equivalent configuration using QPSK modulation and when the QPSK SAR for those configurations is < 1.45 W/Kg.

10.4.5 Downlink Carrier Aggregation

Conducted power measurements with LTE Carrier aggregation (CA) downlink only active are made in accordance to KDB publication 941225 D05Av01r02. The RRC connection is only handled by one cell, the primary component carrier (PCC) for downlink and uplink communications. After making a data connection to the PCC, the UE device adds secondary component carrier (SCC) on the downlink only. All uplink communications and acknowledgements remain identical to specifications when downlink carrier aggregation is inactive on the PCC. For every supported combination of downlink only carrier aggregation, additional conducted output Powers are measured with downlink carrier aggregation active for the configuration with highest measured maximum conducted power with the downlink carrier aggregation inactive measured among the channel Bandwidth, modulation and RB combinations in each frequency Band. Per FCC KDB Publication 941225 D05Av01r02, no SAR measurements are required for carrier aggregation configurations when the average output power with downlink only carrier aggregation active is not more than 0.25dB higher than the average output power with downlink only carrier aggregation inactive.

10.4.6 LTE Uplink Carrier Aggregation SAR Measurement Procedure

This device is specified with the same maximum output power and Tune-up tolerances for intra-band contiguous up-link LTE CA_41C/48C/66B/66C. LTE Band 41 Uplink carrier aggregation and single carrier are operating with Power class 3/2.

For intra-band contiguous carrier aggregation scenarios, 3GPP 36.101 Table 6.2.2A-1 specifies that aggregate maximum allowed output power is equivalent to the single carrier scenario.

The measured power results of single carrier LTEB41/48/66and intra-band contiguous up-link LTE CA_41C/48C/66B/66C satisfy Maximum output power and Tune-up tolerances.

Per Fall 2017 TCB Workshop Notes, the output Power with uplink CA active was measured for the configuration with the Highest Reported SAR with standalone condition.

UL CA SAR is not required for all required test channels, Because the reported SAR for UL CA configuration is > 1.2 W/kg

10.4.7 LTE(TDD) Considerations

According to KDB 941225 D05v02r05, 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.
SAR was tested with the highest transmission duty factor (63.33 %) using Uplink-downlink configuration 0 and Special subframe configuration 6. LTE TDD Band 41 supports 3GPP TS 36.211 section 4.2 for Type 2 Frame and Table 4.2-2 for uplink-downlink configurations and Table 4.2-1 for Special sub frame 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 – Extended cyclic prefix in uplink x (T_s) x no of S + no of U

Table 4.2-2: Uplink-downlink configurations.

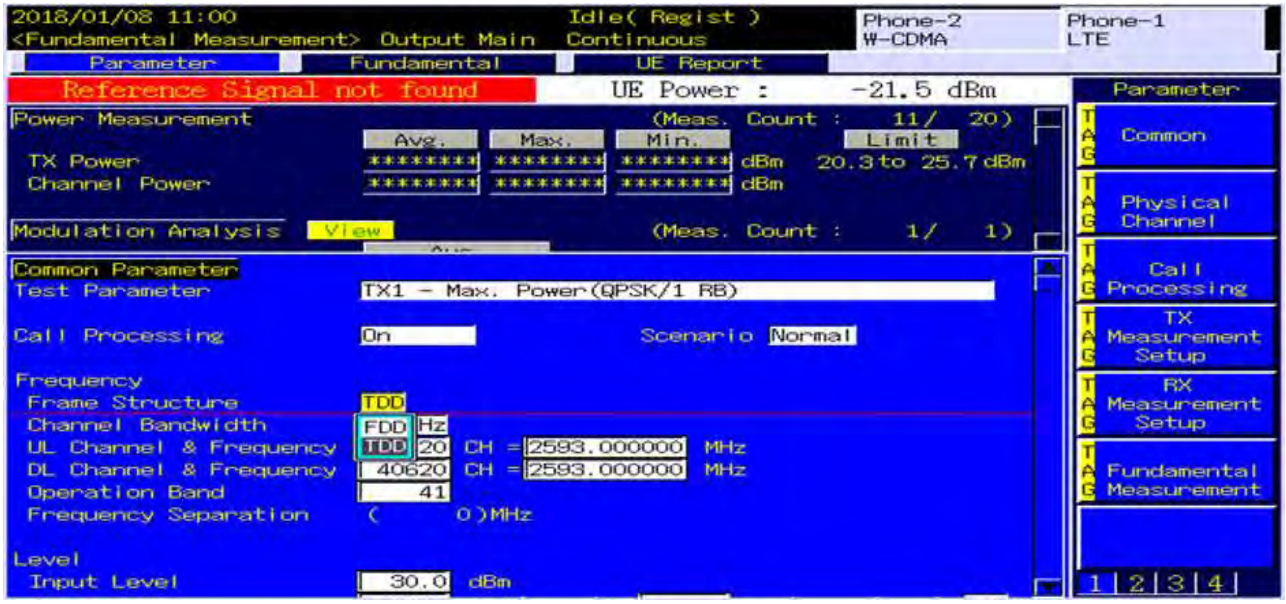
Uplink-downlink configuration	Downlink-to-Uplink Switch-point periodicity	Subframe number									
		0	1	2	3	4	5	6	7	8	9
0	5 ms	D	S	U	U	U	D	S	U	U	U
1	5 ms	D	S	U	U	D	D	S	U	U	D
2	5 ms	D	S	U	D	D	D	S	U	D	D
3	10 ms	D	S	U	U	U	D	D	D	D	D
4	10 ms	D	S	U	U	D	D	D	D	D	D
5	10 ms	D	S	U	D	D	D	D	D	D	D
6	5 ms	D	S	U	U	U	D	S	U	U	D

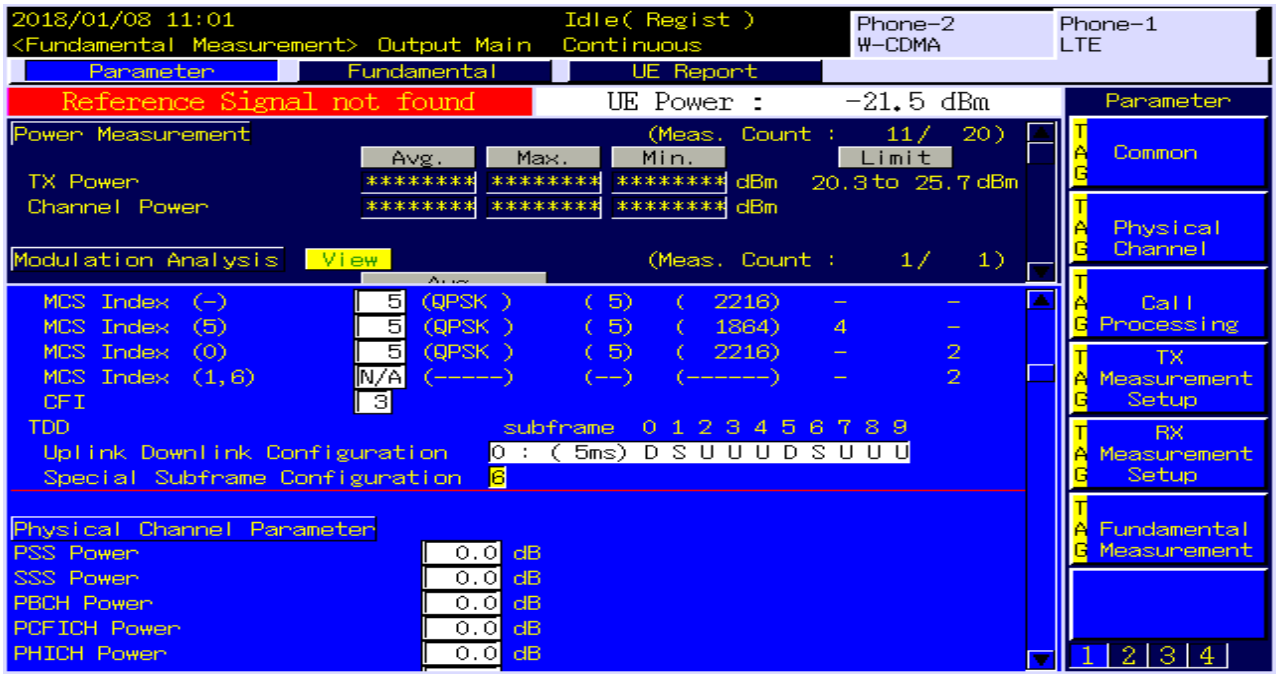
Example for calculated Duty Cycle for Uplink-Downlink Configuration 0:
Calculated Duty Cycle = (5120 x (1/(15000 x 2048)) x 2 + 0.006)/0.01 = 63.33 %
Where
T_s = 1/(15000 x 2048) seconds

HPUE :
Calculated Duty Cycle for Uplink-Downlink Configuration 1:
Calculated Duty Cycle =5120*(1/(15000*2048))*2+0.004)/0.01 = 43.33 %

10.4.8 The Call Box Setup for LTE(TDD)

When you Want to Test for LTE TDD, Please Change Frame Structure TDD and TDD Uplink Downlink Configuration 0 and Special Subframe Configuration 6.





10.5 SAR Testing with 802.11 Transmitters

The normal network operating configurations of 802.11 transmitters are not suitable for SAR measurements. Unpredictable fluctuations in network traffic and antenna diversity conditions can introduce undesirable variations in SAR results. The SAR for these devices should be measured using chipset based test mode software to ensure the results are consistent and reliable. See KDB Publication 248227 D01v02r02 for more details.

10.5.1 General Device Setup

Chipset based test mode software is hardware dependent and generally varies among manufacturers. The device operating parameters established in test mode for SAR measurements must be identical to those programmed in production units, including output power levels, amplifier gain settings and other RF performance tuning parameters.
A periodic duty factor is required for current generation SAR system to measure SAR. When 802.11 frame gaps are accounted for in the transmission, a maximum transmission duty factor of 92-96% is typically achievable in most test mode configurations. A minimum transmission duty factor of 85% is required to avoid certain hardware and device implementation issues related to wide range SAR scaling. The reported SAR is scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit.

10.5.2 U-NII-1 and U-NII-2A

For devices that operate in both U-NII-1 and U-NII2A Bands, when the same maximum output power is specified for both Bands, SAR measurement using OFDM SAR test procedures is not required for U-NII-1 unless the highest reported SAR for U-NII-2A is > 1.2 W/kg for 1g SAR or > 3.0 W/kg for 10g SAR. When different maximum output powers are specified for the Bands, SAR measurement for the U-NII Band with the lower maximum output power is not required unless the highest reported SAR for the U-NII Band with the higher maximum output power, adjusted by the ratio of lower to higher specified maximum output power for the two Bands, is > 1.2 W/kg for 1g SAR or > 3.0 W/kg for 10g SAR.

10.5.3 U-NII-2C and U-NII-3

The frequency range covered by U-NII-2C and U-NII-3 is 380 ㎒ (5.47 ㎓ – 5.85 ㎓), which requires a minimum of at least two SAR probe calibration frequency points to support SAR measurements. When Terminal Doppler Weather Radar (TDWR) restriction applies, the channels at 5.60 ㎓ – 5.65 ㎓ in U-NII-2C Band must be disabled with acceptable mechanisms and documented in the equipment certification.
Unless Band gap channels are permanently disabled, SAR must be considered for these channels.

10.5.4 Initial Test Position Procedure

For exposure conditions with multiple test positions, such as handset operating nest to the ear, devices with hotspot mode or UMPC mini-tablet, procedures for initial test position can be applied. Using the transmission mode determined by the DSSS procedure or initial test configuration, area scans are measured for all positions in an exposure condition. The test position with the highest extrapolated (peak) SAR is used as the initial test position. When reported SAR for the initial test position is ≤ 0.4 W/kg for 1g SAR and ≤ 1.0 W/kg for 10g SAR, no additional testing for the remaining test position is required. Otherwise, SAR is evaluated at the subsequent highest peak SAR positions until the reported SAR result is ≤ 0.8 W/kg for 1g SAR and ≤ 2.0 W/kg for 10g SAR or all test positions are measured.

10.5.5 2.4 GHz SAR test Requirements

SAR is measured for 2.4 GHz 802.11b DSSS using either the fixed test position or, when applicable, the initial test position procedure. SAR test reduction is determined according to the following:
1) When the reported SAR of the highest measured maximum output power channel for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required for 802.11b DSSS is that exposure configuration.
2) When the reported SAR is > 0.8 W/kg, SAR is required for that position using the next highest measured output power channel. When any reported SAR is > 1.2 W/kg, SAR is required for the third channel; i.e., all channels require testing.

2.4 GHz 802.11 g/n OFDM are additionally evaluated for SAR if the highest reported SAR for 802.11b, adjusted by the ratio of the OFDM to DSSS specified maximum output power, is > 1.2 W/kg. When SAR is required for OFDM modes in 2.4 GHz Band, the Initial Test Configuration Procedures should be followed.

10.5.6 OFDM Transmission Mode and SAR Test Channel Selection

For the 2.4 GHz and 5 GHz Bands, when the same maximum output power was specified for multiple OFDM transmission mode configurations in a frequency Band or aggregated Band, SAR is measured using the configuration with the largest channel Bandwidth, lowest order modulation and lowest data rate and lowest order 802.11 a/g/n/ac mode. When the maximum output power of a channel is the same for equivalent OFDM configurations; for example, 802.11a, 802.11n and 802.11 ac or 802.11g and 802.11n with the same channel Bandwidth, modulation and data rate etc., the lower order 802.11 mode i.2., 802.11a, then 802.11n and 802.11ac or 802.11g then 802.11n, is used for SAR measurement. When the maximum output power are the same for multiple test channels, either according to the default or additional power measurement requirements, SAR is measured using the channel closest to the middle of the frequency Band or aggregated Band. When there are multiple channels with the same maximum output power, SAR is measured using the higher number channel.

10.5.7 Initial Test Configuration Procedure

For OFDM, in both 2.4 GHz and 5 GHz Bands, an initial test configuration is determined for each frequency Band and aggregated Band, according to the transmission mode with the highest maximum output power specified for SAR measurements. When the same maximum output power is specified for multiple OFDM transmission mode configurations in a frequency Band or aggregated Band, SAR is measured using the configuration(s) with the largest channel Bandwidth, lowest order modulation, and lowest data rate. If the average RF output powers of the highest identical transmission modes are within 0.25 dB of each other, mid channel of the transmission mode with highest average RF output power is the initial test channel. Otherwise, the channel of the transmission mode with the highest average RF output conducted power will be the initial test configuration.

When the reported SAR is ≤ 0.8 W/kg, no additional measurements on other test channels are required. Otherwise, SAR is evaluated using the subsequent highest average RF output channel until the reported SAR result is 1.2 W/kg or all channels are measured. When there are multiple untested channels having the same subsequent highest average RF output power, the channel with higher frequency from the lowest 802.11 mode is considered for SAR measurements.

10.5.8 Subsequent Test Configuration Procedures

For OFDM configurations in each frequency Band and aggregated Band, SAR is evaluated for initial test configuration using the fixed test position or the initial test position on procedure. When the highest reported SAR (for the initial test configuration), adjusted by the ratio of the specified maximum output power of the subsequent test configuration to initial test configuration, is ≤ 1.2 W/kg for 1g SAR and ≤ 3.0 W/kg for 10g SAR, no additional SAR tests for the subsequent test configurations are required.

10.5.9 MIMO SAR Considerations

Per KDB Publication 248227 D01v02r02, the simultaneous SAR provisions in KDB publication 447498 D01v06. Should be applied to determine simultaneous transmission SAR test exclusion for WIFI MIMO. If the sum of 1g single transmission chain SAR measurements is <1.6 W/kg, no additional SAR Measurements for MIMO are required. Alternatively, SAR for MIMO can be measured with all antennas transmitting simultaneously at the specified maximum output power of MIMO operation.

11. Output Power Specifications

This device operates using the following maximum output power specifications. SAR values were scaled to the maximum allowed power to determine compliance per KDB publication 447498 D01v06.

Licensed Bands

Test Description	Test Procedure Used
Conducted Output Power	- KDB 971168 D01 v03r01 – Section 5.2.4 - ANSI C63.26-2015 – Section 5.2.1 & 5.2.4.2

Test Overview

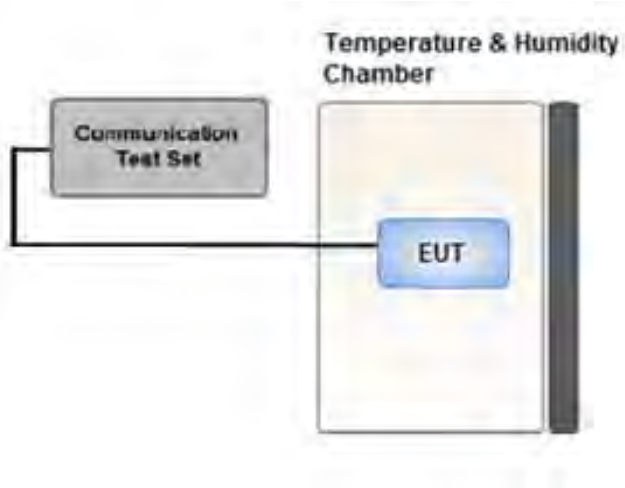
According to ANSI C63.26-2015 Section 5.2.1 when measuring the maximum RF output power from such devices, control over the EUT must be provided either through special test software (provided by manufacturer specifically for compliance testing, but not accessible by an end user) or through use of a base station emulator, communications test set, call box, or similar instrumentation that is capable of establishing a communications link with the EUT to enable control over variable parameters (e.g., output power, OBW, etc.).

In some cases, these instruments also include basic digital spectrum analyzer and/or power meter capabilities that can be utilized to measure the RF output power if the specified detectors and requirements can be realized and the measurement functions have been calibrated.

Test Procedure

1. The RF port of the EUT was connected to the Communication Tester via an RF cable.
2. Conducted average power was measured using a calibrated Radio Communication Tester.

Test setup



11.1 GSM Maximum Output Power

11.1.1 GSM Maximum Conducted Output Power

GSM850 – MAIN1 [Ant A]

Measured *Pmax*, Free (DSI 0) , Phablet (DSI 1), RCV (DSI 2), Earjack (DSI 4)

Mode / Band		Voice	GPRS(GMSK) Data – CS1(dBm)				EDGE Data (dBm)			
		GSM	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot	EDGE 1 TX Slot	EDGE 2 TX Slot	EDGE 3 TX Slot	EDGE 4 TX Slot
Maximum		31.00	32.00	30.00	28.00	27.00	25.50	23.50	23.00	23.00
Nominal		30.00	31.00	29.00	27.00	26.00	24.50	22.50	22.00	22.00
GSM 850	128	30.43	30.44	29.18	27.21	26.22	24.88	22.77	22.12	22.03
	190	30.47	30.38	29.25	27.66	26.24	25.11	23.17	22.44	22.40
	251	30.38	30.23	29.14	27.50	26.15	24.74	22.66	22.12	21.83

GSM Conducted output powers (Burst-Average)

Mode / Band		Voice	GPRS(GMSK) Data – CS1(dBm)				EDGE Data (dBm)			
		GSM	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot	EDGE 1 TX Slot	EDGE 2 TX Slot	EDGE 3 TX Slot	EDGE 4 TX Slot
Maximum		21.97	22.97	23.98	23.74	23.99	16.47	17.48	18.74	19.99
Nominal		20.97	21.97	22.98	22.74	22.99	15.47	16.48	17.74	18.99
GSM 850	128	21.40	21.41	23.16	22.95	23.21	15.85	16.75	17.86	19.02
	190	21.44	21.35	23.23	23.40	23.23	16.08	17.15	18.18	19.39
	251	21.35	21.20	23.12	23.24	23.14	15.71	16.64	17.86	18.82

GSM Conducted output powers (Frame-Average)

Measured Hotspot (DSI 3)

Mode / Band		Voice	GPRS(GMSK) Data – CS1(dBm)				EDGE Data (dBm)			
		GSM	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot	EDGE 1 TX Slot	EDGE 2 TX Slot	EDGE 3 TX Slot	EDGE 4 TX Slot
Maximum		29.50	29.50	26.50	24.70	23.50	25.50	23.50	23.00	23.00
Nominal		28.50	28.50	25.50	23.70	22.50	24.50	22.50	22.00	22.00
GSM 850	128	28.16	28.15	25.43	23.55	22.42				
	190	28.35	28.23	25.39	23.63	22.38				
	251	28.89	28.72	25.27	23.49	22.05				

GSM Conducted output powers (Burst-Average)

Mode / Band		Voice	GPRS(GMSK) Data – CS1(dBm)				EDGE Data (dBm)			
		GSM	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot	EDGE 1 TX Slot	EDGE 2 TX Slot	EDGE 3 TX Slot	EDGE 4 TX Slot
Maximum		20.47	20.47	20.48	20.44	20.49	16.47	17.48	18.74	19.99
Nominal		19.47	19.47	19.48	19.44	19.49	15.47	16.48	17.74	18.99
GSM 850	128	19.13	19.12	19.41	19.29	19.41				
	190	19.32	19.20	19.37	19.37	19.37				
	251	19.86	19.69	19.25	19.23	19.04				

GSM Conducted output powers (Frame-Average)

GSM1900 – MAIN1 [Ant A]

Measured *Pmax*, RCV (DSI 2)

Mode / Band		Voice	GPRS(GMSK) Data – CS1(dBm)				EDGE Data (dBm)			
		GSM	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot	EDGE 1 TX Slot	EDGE 2 TX Slot	EDGE 3 TX Slot	EDGE 4 TX Slot
Maximum		29.00	29.00	26.00	24.50	24.50	24.00	21.50	21.00	21.00
Nominal		28.00	28.00	25.00	23.50	23.50	23.00	20.50	20.00	20.00
GSM 1900	512	28.33	28.36	25.11	23.76	23.30	23.20	20.80	20.01	19.86
	661	28.09	28.08	25.00	23.81	23.47	23.46	21.02	20.47	20.21
	810	28.58	28.57	24.78	23.23	23.13	23.03	20.70	20.13	19.98

GSM Conducted output powers (Burst-Average)

Mode / Band		Voice	GPRS(GMSK) Data – CS1(dBm)				EDGE Data (dBm)			
		GSM	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot	EDGE 1 TX Slot	EDGE 2 TX Slot	EDGE 3 TX Slot	EDGE 4 TX Slot
Maximum		19.97	19.97	19.98	20.24	21.49	14.97	15.48	16.74	17.99
Nominal		18.97	18.97	18.98	19.24	20.49	13.97	14.48	15.74	16.99
GSM 1900	512	19.30	19.33	19.09	19.50	20.29	14.17	14.78	15.75	16.85
	661	19.06	19.05	18.98	19.55	20.46	14.43	15.00	16.21	17.20
	810	19.55	19.54	18.76	18.97	20.12	14.00	14.68	15.87	16.97

GSM Conducted output powers (Frame-Average)

Measured Free (DSI 0) , Phablet (DSI 1), Earjack (DSI 4)

Mode / Band		Voice	GPRS(GMSK) Data – CS1(dBm)				EDGE Data (dBm)			
		GSM	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot	EDGE 1 TX Slot	EDGE 2 TX Slot	EDGE 3 TX Slot	EDGE 4 TX Slot
Maximum		27.50	27.50	24.50	22.70	21.50	24.00	21.50	21.00	21.00
Nominal		26.50	26.50	23.50	21.70	20.50	23.00	20.50	20.00	20.00
GSM 1900	512	26.60	26.65	23.61	21.21	19.94				
	661	26.24	26.26	23.68	21.90	19.93				
	810	26.73	26.73	23.20	21.20	20.42				

GSM Conducted output powers (Burst-Average)

Mode / Band		Voice	GPRS(GMSK) Data – CS1(dBm)				EDGE Data (dBm)			
		GSM	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot	EDGE 1 TX Slot	EDGE 2 TX Slot	EDGE 3 TX Slot	EDGE 4 TX Slot
Maximum		18.47	18.47	18.48	18.44	18.49	14.97	15.48	16.74	17.99
Nominal		17.47	17.47	17.48	17.44	17.49	13.97	14.48	15.74	16.99
GSM 1900	512	17.57	17.62	17.59	16.95	16.93				
	661	17.21	17.23	17.66	17.64	16.92				
	810	17.70	17.70	17.18	16.94	17.41				

GSM Conducted output powers (Frame-Average)

Measured Hotspot (DSI 3)

Mode / Band		Voice	GPRS(GMSK) Data – CS1(dBm)				EDGE Data (dBm)			
		GSM	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot	EDGE 1 TX Slot	EDGE 2 TX Slot	EDGE 3 TX Slot	EDGE 4 TX Slot
Maximum		25.50	25.50	22.50	21.00	19.50	24.00	21.50	20.70	19.50
Nominal		24.50	24.50	21.50	20.00	18.50	23.00	20.50	19.70	18.50
GSM 1900	512	24.98	25.03	21.54	19.76	18.56			19.42	18.02
	661	24.85	24.84	22.08	20.27	18.21			19.77	18.43
	810	25.45	25.44	21.35	19.78	18.62			19.78	17.77

GSM Conducted output powers (Burst-Average)

Mode / Band		Voice	GPRS(GMSK) Data – CS1(dBm)				EDGE Data (dBm)			
		GSM	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot	EDGE 1 TX Slot	EDGE 2 TX Slot	EDGE 3 TX Slot	EDGE 4 TX Slot
Maximum		16.47	16.47	16.48	16.74	16.49	14.97	15.48	16.44	16.49
Nominal		15.47	15.47	15.48	15.74	15.49	13.97	14.48	15.44	15.49
GSM 1900	512	15.95	16.00	15.52	15.50	15.55			15.16	15.01
	661	15.82	15.81	16.06	16.01	15.20			15.51	15.42
	810	16.42	16.41	15.33	15.52	15.61			15.52	14.76

GSM Conducted output powers (Frame-Average)

Note:

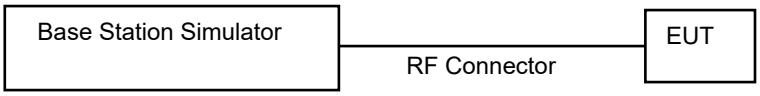
Time slot average factor is as follows:

1 Tx slot = 9.03 dB, Frame-Average output power = Burst-Average output power – 9.03 dB

2 Tx slot = 6.02 dB, Frame-Average output power = Burst-Average output power – 6.02 dB

3 Tx slot = 4.26 dB, Frame-Average output power = Burst-Average output power – 4.26 dB

4 Tx slot = 3.01 dB, Frame-Average output power = Burst-Average output power – 3.01 dB



11.2 UMTS Maximum Output Power

HSPA+
This DUT is only capable of QPSK HSPA+ in uplink. Therefore, the RF conducted power is not measured according to 941225 D01v03r01 3G SAR.

11.2.1 UMTS Maximum Conducted Output Power

UMTS Band 5 Maximum Conducted Output Power – MAIN1 [Ant A]

Measured *Pmax*, Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4)

3GPP Release Version	Mode	3GPP 34.121	UMTS Band 5 [dBm]			3GPP MPR
		Subtest	UL4132 DL4357	UL4183 DL4408	UL4233 DL4458	
99	UMTS	12.2 kbps RMC	23.31	23.36	23.45	-
99		12.2 kbps AMR	23.17	23.23	23.29	-
5	HSDPA	Subtest 1	22.22	22.31	22.35	0
5		Subtest 2	22.20	22.28	22.34	0
5		Subtest 3	21.70	21.80	21.82	0.5
5		Subtest 4	21.69	21.79	21.78	0.5
6	HSUPA	Subtest 1	22.28	22.29	22.36	0
6		Subtest 2	20.25	20.26	20.39	2
6		Subtest 3	21.23	21.28	21.37	1
6		Subtest 4	20.22	20.29	20.26	2
6		Subtest 5	22.14	22.23	22.25	0
8	DC-HSDPA	Subtest1	22.05	22.12	22.24	0
8		Subtest2	22.08	22.12	22.23	0
8		Subtest3	21.54	21.59	21.66	0.5
8		Subtest4	21.52	21.60	21.70	0.5

UMTS Average Conducted output powers

Measured RCV (DSI 2)

3GPP Release Version	Mode	3GPP 34.121	UMTS Band 5 [dBm]			3GPP MPR
		Subtest	UL4132 DL4357	UL4183 DL4408	UL4233 DL4458	
99	UMTS	12.2 kbps RMC	22.51	22.61	22.62	-
99		12.2 kbps AMR	22.50	22.62	22.65	-
5	HSDPA	Subtest 1	21.50	21.52	21.53	0
5		Subtest 2	21.47	21.52	21.54	0
5		Subtest 3	20.93	21.00	21.05	0.5
5		Subtest 4	20.98	21.01	21.08	0.5
6	HSUPA	Subtest 1	21.49	21.52	21.50	0
6		Subtest 2	19.47	19.57	19.52	2
6		Subtest 3	20.41	20.57	20.60	1
6		Subtest 4	19.43	19.48	19.55	2
6		Subtest 5	21.39	21.52	21.48	0
8	DC-HSDPA	Subtest1	21.16	21.12	21.10	0
8		Subtest2	21.21	21.16	21.17	0
8		Subtest3	21.20	21.09	21.13	0.5
8		Subtest4	21.18	21.16	21.10	0.5

UMTS Average Conducted output powers

Measured Hotspot (DSI 3)

3GPP Release Version	Mode	3GPP 34.121	UMTS Band 5 [dBm]			3GPP MPR
		Subtest	UL4132 DL4357	UL4183 DL4408	UL4233 DL4458	
99	UMTS	12.2 kbps RMC	21.64	21.72	21.74	-
99		12.2 kbps AMR	21.40	21.53	21.58	-
5	HSDPA	Subtest 1	20.57	20.62	20.75	0
5		Subtest 2	20.58	20.67	20.73	0
5		Subtest 3	20.06	20.13	20.21	0.5
5		Subtest 4	20.08	20.16	20.25	0.5
6	HSUPA	Subtest 1	20.65	20.61	20.71	0
6		Subtest 2	18.55	18.59	18.69	2
6		Subtest 3	19.57	19.67	19.77	1
6		Subtest 4	18.55	18.56	18.73	2
6		Subtest 5	20.49	20.56	20.67	0
8	DC-HSDPA	Subtest1	20.47	20.50	20.60	0
8		Subtest2	20.45	20.54	20.61	0
8		Subtest3	19.96	19.98	20.11	0.5
8		Subtest4	19.95	20.04	20.13	0.5

UMTS Average Conducted output powers

UMTS Band 4 Maximum Conducted Output Power – MAIN1 [Ant A]

Measured *Pmax*

3GPP Release Version	Mode	3GPP 34.121	UMTS Band 4 [dBm]			3GPP MPR
		Subtest	UL 1312 DL 1537	UL 1412 DL 1637	UL 1513 DL 1738	
99	UMTS	12.2 kbps RMC	22.28	22.33	22.33	-
99		12.2 kbps AMR	22.02	22.13	22.20	-
5	HSDPA	Subtest 1	21.38	21.37	21.39	0
5		Subtest 2	21.22	21.39	21.36	0
5		Subtest 3	20.69	20.84	20.90	0.5
5		Subtest 4	20.75	20.75	20.85	0.5
6	HSUPA	Subtest 1	21.21	21.28	21.34	0
6		Subtest 2	19.25	19.27	19.34	2
6		Subtest 3	20.18	20.26	20.43	1
6		Subtest 4	19.16	19.41	19.34	2
6		Subtest 5	21.25	21.33	21.29	0
8	DC-HSDPA	Subtest1	21.25	21.31	21.41	0
8		Subtest2	21.22	21.33	21.43	0
8		Subtest3	20.75	20.85	20.99	0.5
8		Subtest4	20.75	20.84	20.95	0.5

UMTS Average Conducted output powers

Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4)

3GPP Release Version	Mode	3GPP 34.121	UMTS Band 4 [dBm]			3GPP MPR
		Subtest	UL 1312 DL 1537	UL 1412 DL 1637	UL 1513 DL 1738	
99	UMTS	12.2 kbps RMC	19.78	19.76	19.94	-
99		12.2 kbps AMR	19.72	19.81	19.90	-
5	HSDPA	Subtest 1	18.79	18.76	18.97	0
5		Subtest 2	18.74	18.78	18.91	0
5		Subtest 3	18.25	18.28	18.41	0.5
5		Subtest 4	18.24	18.25	18.41	0.5
6	HSUPA	Subtest 1	18.82	18.75	18.92	0
6		Subtest 2	16.59	16.76	16.84	2
6		Subtest 3	17.69	17.83	17.91	1
6		Subtest 4	16.79	16.72	16.92	2
6		Subtest 5	18.73	18.74	18.89	0
8	DC-HSDPA	Subtest1	18.81	18.80	18.99	0
8		Subtest2	18.77	18.81	18.94	0
8		Subtest3	18.27	18.31	18.44	0.5
8		Subtest4	18.26	18.27	18.43	0.5

UMTS Average Conducted output powers

Measured RCV (DSI 2)

3GPP Release Version	Mode	3GPP 34.121	UMTS Band 4 [dBm]			3GPP MPR
		Subtest	UL 1312 DL 1537	UL 1412 DL 1637	UL 1513 DL 1738	
99	UMTS	12.2 kbps RMC	21.60	21.63	21.64	-
99		12.2 kbps AMR	21.54	21.62	21.62	-
5	HSDPA	Subtest 1	20.60	20.63	20.63	0
5		Subtest 2	20.55	20.60	20.61	0
5		Subtest 3	20.07	20.10	20.05	0.5
5		Subtest 4	19.99	20.08	20.09	0.5
6	HSUPA	Subtest 1	20.40	20.53	20.62	0
6		Subtest 2	18.57	18.53	18.53	2
6		Subtest 3	19.43	19.53	19.60	1
6		Subtest 4	18.53	18.64	18.67	2
6		Subtest 5	20.54	20.56	20.58	0
8	DC-HSDPA	Subtest1	19.88	20.00	20.21	0
8		Subtest2	19.92	20.05	20.17	0
8		Subtest3	19.93	19.96	20.12	0.5
8		Subtest4	19.85	19.95	20.15	0.5

UMTS Average Conducted output powers

Measured Hotspot (DSI 3)

3GPP Release Version	Mode	3GPP 34.121	UMTS Band 4 [dBm]			3GPP MPR
		Subtest	UL 1312 DL 1537	UL 1412 DL 1637	UL 1513 DL 1738	
99	UMTS	12.2 kbps RMC	17.59	17.60	17.66	-
99		12.2 kbps AMR	17.24	17.36	17.48	-
5	HSDPA	Subtest 1	16.54	16.67	16.68	0
5		Subtest 2	16.53	16.59	16.71	0
5		Subtest 3	15.99	16.18	16.17	0.5
5		Subtest 4	16.04	16.12	16.18	0.5
6	HSUPA	Subtest 1	16.51	16.68	16.65	0
6		Subtest 2	14.60	14.63	14.64	2
6		Subtest 3	15.42	15.64	15.56	1
6		Subtest 4	14.52	14.56	14.61	2
6		Subtest 5	16.51	16.59	16.68	0
8	DC-HSDPA	Subtest1	16.59	16.72	16.73	0
8		Subtest2	16.58	16.64	16.76	0
8		Subtest3	16.04	16.23	16.22	0
8		Subtest4	16.09	16.17	16.23	0

UMTS Average Conducted output powers

UMTS Band 2 Maximum Conducted Output Power – MAIN1 [Ant A]

Measured *Pmax*

3GPP Release Version	Mode	3GPP 34.121	UMTS Band 2 [dBm]			3GPP MPR
		Subtest	UL9262 DL9662	UL9400 DL9800	UL9538 DL9938	
99	UMTS	12.2 kbps RMC	21.84	21.84	21.91	-
99		12.2 kbps AMR	21.81	21.79	21.83	-
5	HSDPA	Subtest 1	20.88	20.82	20.85	0
5		Subtest 2	20.75	20.81	20.80	0
5		Subtest 3	20.25	20.28	20.29	0.5
5		Subtest 4	20.22	20.29	20.30	0.5
6	HSUPA	Subtest 1	20.69	20.73	20.78	0
6		Subtest 2	18.73	18.75	18.77	2
6		Subtest 3	19.71	19.79	19.85	1
6		Subtest 4	18.69	18.74	18.81	2
6		Subtest 5	20.76	20.69	20.70	0
8	DC-HSDPA	Subtest 1	20.80	20.88	20.76	0
8		Subtest2	20.77	20.87	20.80	0
8		Subtest3	20.29	20.38	20.31	0.5
8		Subtest4	20.28	20.33	20.33	0.5

UMTS Average Conducted output powers

Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4)

3GPP Release Version	Mode	3GPP 34.121	UMTS Band 2 [dBm]			3GPP MPR
		Subtest	UL9262 DL9662	UL9400 DL9800	UL9538 DL9938	
99	UMTS	12.2 kbps RMC	20.55	20.32	20.37	-
99		12.2 kbps AMR	20.26	20.35	20.40	-
5	HSDPA	Subtest 1	19.38	19.33	19.35	0
5		Subtest 2	19.24	19.33	19.30	0
5		Subtest 3	18.84	18.81	18.81	0.5
5		Subtest 4	18.79	18.85	18.78	0.5
6	HSUPA	Subtest 1	19.26	19.26	19.29	0
6		Subtest 2	17.33	17.32	17.30	2
6		Subtest 3	18.25	18.27	18.26	1
6		Subtest 4	17.26	17.27	17.32	2
6		Subtest 5	19.22	19.31	19.13	0
8	DC-HSDPA	Subtest 1	19.26	19.25	19.05	0
8		Subtest2	19.22	19.22	19.09	0
8		Subtest3	18.79	18.86	18.61	0.5
8		Subtest4	18.77	18.81	18.65	0.5

UMTS Average Conducted output powers

Measured RCV (DSI 2)

3GPP Release Version	Mode	3GPP 34.121	UMTS Band 2 [dBm]			3GPP MPR
		Subtest	UL9262 DL9662	UL9400 DL9800	UL9538 DL9938	
99	UMTS	12.2 kbps RMC	21.08	21.09	21.10	-
99		12.2 kbps AMR	21.06	21.07	21.09	-
5	HSDPA	Subtest 1	20.15	20.11	20.08	0
5		Subtest 2	20.05	19.97	20.06	0
5		Subtest 3	19.58	19.50	19.55	0.5
5		Subtest 4	19.55	19.53	19.53	0.5
6	HSUPA	Subtest 1	20.09	20.05	20.04	0
6		Subtest 2	17.99	17.97	18.11	2
6		Subtest 3	18.99	19.00	19.03	1
6		Subtest 4	18.02	18.00	18.04	2
6		Subtest 5	19.98	20.00	20.02	0
8	DC-HSDPA	Subtest 1	19.65	19.55	19.51	0
8		Subtest2	19.57	19.55	19.49	0
8		Subtest3	19.64	19.51	19.54	0.5
8		Subtest4	19.63	19.50	19.54	0.5

UMTS Average Conducted output powers

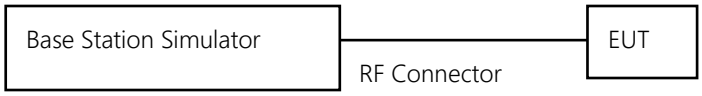
Measured Hotspot (DSI 3)

3GPP Release Version	Mode	3GPP 34.121	UMTS Band 2 [dBm]			3GPP MPR
		Subtest	UL9262 DL9662	UL9400 DL9800	UL9538 DL9938	
99	UMTS	12.2 kbps RMC	15.50	15.49	15.53	-
99		12.2 kbps AMR	15.37	15.47	15.53	-
5	HSDPA	Subtest 1	14.52	14.49	14.49	0
5		Subtest 2	14.40	14.49	14.46	0
5		Subtest 3	13.92	13.93	13.97	0.5
5		Subtest 4	13.95	13.96	13.93	0.5
6	HSUPA	Subtest 1	14.47	14.42	14.34	0
6		Subtest 2	12.43	12.39	12.39	2
6		Subtest 3	13.40	13.41	13.45	1
6		Subtest 4	12.36	12.41	12.42	2
6		Subtest 5	14.44	14.47	14.45	0
8	DC-HSDPA	Subtest 1	14.53	14.50	14.50	0
8		Subtest2	14.41	14.50	14.47	0
8		Subtest3	13.93	13.94	13.98	0.5
8		Subtest4	13.96	13.97	13.94	0.5

UMTS Average Conducted output powers

HSDPA Configurations

- 3GPP specification TS 34.121-1 Release 8. Was used for used for DC-HSDPA guidance.
- H-set 12(QPSK)was conformed to be used during DC-HSDPA measurements.



11.3 LTE Maximum Output Power

Only the Conducted Power measurement results of the maximum bandwidth, which is the SAR test condition of LTE Bands according to FCC KDB 941225 D05, are included, and the measurement results of other bandwidths are listed in Appendix K.

LTE B4/B5/B12/B13/B14/B26/B30/B71 at Max Bandwidth does not support three non-overlapping channels. Per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel Bandwidth configuration, the mid channel of the group of overlapping channels should be selected for testing.

11.3.1 LTE Maximum Conducted Power

LTE FDD Band 2 Conducted Power _ Measured *Pmax,* RCV (DSI 2) _ MAIN1 [Ant A]

LTE FDD Band 2 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18700 Ch. 1860 ㎒	18900 Ch. 1880 ㎒	19100 Ch. 1900 ㎒		
20 ㎒	QPSK	1	0	22.22	22.26	22.56	0	0
		1	49	22.32	22.28	22.37	0	0
		1	99	22.69	22.59	22.17	0	0
		50	0	21.22	21.27	21.23	0-1	1
		50	25	21.22	21.20	21.27	0-1	1
		50	49	21.21	21.29	21.17	0-1	1
		100	0	21.20	21.21	21.24	0-1	1
	16QAM	1	0	21.51	21.22	21.50	0-1	1
		1	49	21.23	21.37	21.38	0-1	1
		1	99	21.29	21.36	21.36	0-1	1
		50	0	20.15	20.26	20.27	0-2	2
		50	25	20.33	20.29	20.31	0-2	2
		50	49	20.22	20.32	20.20	0-2	2
		100	0	20.24	20.15	20.23	0-2	2
	64QAM	1	0	20.47	20.52	20.41	0-2	2
		1	49	20.18	20.36	20.25	0-2	2
		1	99	20.36	20.38	20.36	0-2	2
		50	0	19.25	19.26	19.29	0-3	3
		50	25	19.22	19.29	19.29	0-3	3
		50	49	19.20	19.28	19.15	0-3	3
		100	0	19.19	19.19	19.34	0-3	3
	256QAM	1	0	17.22	17.18	17.36	0-5	5
		1	49	17.24	17.40	17.29	0-5	5
		1	99	17.23	17.39	17.22	0-5	5
		50	0	17.11	17.23	17.18	0-5	5
		50	25	17.26	17.25	17.29	0-5	5
		50	49	17.10	17.26	17.21	0-5	5
		100	0	17.24	17.18	17.29	0-5	5

LTE FDD Band 2 Conducted Power _ Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4) _ MAIN1 [Ant A]

LTE FDD Band 2 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18700 Ch. 1860 ㎒	18900 Ch. 1880 ㎒	19100 Ch. 1900 ㎒		
20 ㎒	QPSK	1	0	19.93	20.23	20.07	0	0
		1	49	19.98	20.01	20.28	0	0
		1	99	20.16	20.18	20.08	0	0
		50	0	19.95	20.01	20.08	0-1	0
		50	25	20.05	20.02	20.15	0-1	0
		50	49	20.00	20.01	20.02	0-1	0
		100	0	20.01	20.04	20.03	0-1	0
	16QAM	1	0	20.08	20.11	20.15	0-1	0
		1	49	20.01	19.91	20.36	0-1	0
		1	99	19.97	20.19	20.25	0-1	0
		50	0	20.00	20.07	20.08	0-2	0
		50	25	20.05	20.15	20.11	0-2	0
		50	49	19.97	20.07	19.95	0-2	0
		100	0	19.98	20.02	20.06	0-2	0
	64QAM	1	0	20.10	20.17	20.24	0-2	0
		1	49	20.62	20.28	20.18	0-2	0
		1	99	20.08	20.12	20.13	0-2	0
		50	0	19.20	19.28	19.26	0-3	1
		50	25	19.23	19.32	19.32	0-3	1
		50	49	19.27	19.29	19.22	0-3	1
		100	0	19.27	19.25	19.31	0-3	1
	256QAM	1	0	17.29	17.28	17.39	0-5	3
		1	49	17.22	17.41	17.32	0-5	3
		1	99	17.29	17.23	17.29	0-5	3
		50	0	17.22	17.22	17.23	0-5	3
		50	25	17.27	17.19	17.36	0-5	3
		50	49	17.16	17.29	17.28	0-5	3
		100	0	17.21	17.24	17.27	0-5	3

LTE FDD Band 2 Conducted Power _ Measured Hotspot (DSI 3) _ MAIN1 [Ant A]

LTE FDD Band 2 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18700 Ch. 1860 ㎒	18900 Ch. 1880 ㎒	19100 Ch. 1900 ㎒		
20 ㎒	QPSK	1	0	15.76	15.56	15.82	0	0
		1	49	15.56	15.61	15.52	0	0
		1	99	15.67	15.66	15.73	0	0
		50	0	15.52	15.57	15.51	0-1	0
		50	25	15.54	15.57	15.61	0-1	0
		50	49	15.53	15.62	15.54	0-1	0
		100	0	15.55	15.57	15.59	0-1	0
	16QAM	1	0	15.62	15.75	15.97	0-1	0
		1	49	15.69	15.79	15.68	0-1	0
		1	99	15.72	15.82	16.11	0-1	0
		50	0	15.54	15.58	15.56	0-2	0
		50	25	15.59	15.58	15.69	0-2	0
		50	49	15.59	15.58	15.59	0-2	0
		100	0	15.60	15.63	15.47	0-2	0
	64QAM	1	0	15.65	15.76	15.57	0-2	0
		1	49	15.70	15.80	15.67	0-2	0
		1	99	15.77	15.68	15.72	0-2	0
		50	0	15.52	15.61	15.56	0-3	0
		50	25	15.62	15.68	15.65	0-3	0
		50	49	15.47	15.65	15.55	0-3	0
		100	0	15.56	15.45	15.53	0-3	0
	256QAM	1	0	15.62	15.66	15.62	0-5	0
		1	49	15.91	15.67	15.60	0-5	0
		1	99	15.58	15.83	15.87	0-5	0
		50	0	15.55	15.57	15.48	0-5	0
		50	25	15.67	15.58	15.51	0-5	0
		50	49	15.60	15.63	15.55	0-5	0
		100	0	15.55	15.58	15.60	0-5	0

LTE FDD Band 4 Conducted Power _ Measured *Pmax*, RCV (DSI 2) _ MAIN1 [Ant A]

LTE FDD Band 4 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 20175 ch. 1732.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
20 ㎒	QPSK	1	0	22.36	0	0
		1	49	22.35	0	0
		1	99	22.23	0	0
		50	0	21.31	0-1	1
		50	25	21.30	0-1	1
		50	49	21.28	0-1	1
		100	0	21.16	0-1	1
	16QAM	1	0	21.30	0-1	1
		1	49	21.37	0-1	1
		1	99	21.41	0-1	1
		50	0	20.29	0-2	2
		50	25	20.34	0-2	2
		50	49	20.23	0-2	2
		100	0	20.27	0-2	2
	64QAM	1	0	20.23	0-2	2
		1	49	20.59	0-2	2
		1	99	20.37	0-2	2
		50	0	19.23	0-3	3
		50	25	19.31	0-3	3
		50	49	19.20	0-3	3
		100	0	19.29	0-3	3
	256QAM	1	0	17.42	0-5	5
		1	49	17.46	0-5	5
		1	99	17.38	0-5	5
		50	0	17.23	0-5	5
		50	25	17.19	0-5	5
		50	49	17.25	0-5	5
		100	0	17.28	0-5	5

LTE FDD Band 4 Conducted Power _ Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4) _ MAIN1 [Ant A]

LTE FDD Band 4 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 20175 ch. 1732.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
20 ㎒	QPSK	1	0	19.59	0	0
		1	49	19.49	0	0
		1	99	19.49	0	0
		50	0	19.56	0-1	0
		50	25	19.62	0-1	0
		50	49	19.56	0-1	0
		100	0	19.41	0-1	0
	16QAM	1	0	19.73	0-1	0
		1	49	19.70	0-1	0
		1	99	19.76	0-1	0
		50	0	19.51	0-2	0
		50	25	19.66	0-2	0
		50	49	19.48	0-2	0
		100	0	19.45	0-2	0
	64QAM	1	0	19.72	0-2	0
		1	49	19.63	0-2	0
		1	99	19.48	0-2	0
		50	0	19.33	0-3	0.5
		50	25	19.36	0-3	0.5
		50	49	19.27	0-3	0.5
		100	0	19.19	0-3	0.5
	256QAM	1	0	17.25	0-5	2.5
		1	49	17.35	0-5	2.5
		1	99	17.25	0-5	2.5
		50	0	17.21	0-5	2.5
		50	25	17.25	0-5	2.5
		50	49	17.28	0-5	2.5
		100	0	17.21	0-5	2.5

LTE FDD Band 4 Conducted Power _ Measured Hotspot (DSI 3) _ MAIN1 [Ant A]

LTE FDD Band 4 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 20175 ch. 1732.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
20 ㎒	QPSK	1	0	16.69	0	0
		1	49	16.57	0	0
		1	99	16.72	0	0
		50	0	16.70	0-1	0
		50	25	16.69	0-1	0
		50	49	16.61	0-1	0
		100	0	16.66	0-1	0
	16QAM	1	0	16.92	0-1	0
		1	49	16.73	0-1	0
		1	99	17.00	0-1	0
		50	0	16.67	0-2	0
		50	25	16.74	0-2	0
		50	49	16.69	0-2	0
		100	0	16.61	0-2	0
	64QAM	1	0	16.87	0-2	0
		1	49	17.11	0-2	0
		1	99	17.05	0-2	0
		50	0	16.77	0-3	0
		50	25	16.86	0-3	0
		50	49	16.76	0-3	0
		100	0	16.66	0-3	0
	256QAM	1	0	16.74	0-5	0
		1	49	16.89	0-5	0
		1	99	16.52	0-5	0
		50	0	16.77	0-5	0
		50	25	16.80	0-5	0
		50	49	16.72	0-5	0
		100	0	16.65	0-5	0

LTE FDD Band 5 Conducted Power _ Measured *Pmax*, Free (DSI 0), Phablet (DSI 1), RCV (DSI 2), Earjack (DSI 4) _ MAIN1 [Ant A]

LTE FDD Band 5 _ 10 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 20525 Ch. 836.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	23.57	0	0
		1	24	23.46	0	0
		1	49	23.36	0	0
		25	0	22.32	0-1	1
		25	12	22.31	0-1	1
		25	24	22.37	0-1	1
		50	0	22.37	0-1	1
	16QAM	1	0	22.37	0-1	1
		1	24	22.49	0-1	1
		1	49	22.44	0-1	1
		25	0	21.33	0-2	2
		25	12	21.36	0-2	2
		25	24	21.35	0-2	2
		50	0	21.37	0-2	2
	64QAM	1	0	21.49	0-2	2
		1	24	21.58	0-2	2
		1	49	21.35	0-2	2
		25	0	20.31	0-3	3
		25	12	20.31	0-3	3
		25	24	20.38	0-3	3
		50	0	20.42	0-3	3
	256QAM	1	0	18.35	0-5	5
		1	24	18.35	0-5	5
		1	49	18.34	0-5	5
		25	0	18.25	0-5	5
		25	12	18.23	0-5	5
		25	24	18.36	0-5	5
		50	0	18.31	0-5	5

LTE FDD Band 5 Conducted Power _ Measured Hotspot (DSI 3) _ MAIN1 [Ant A]

LTE FDD Band 5 _ 10 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 20525 Ch. 836.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	22.51	0	0
		1	24	22.46	0	0
		1	49	22.48	0	0
		25	0	22.48	0-1	0
		25	12	22.47	0-1	0
		25	24	22.42	0-1	0
		50	0	22.51	0-1	0
	16QAM	1	0	22.75	0-1	0
		1	24	22.84	0-1	0
		1	49	22.63	0-1	0
		25	0	21.67	0-2	1
		25	12	21.74	0-2	1
		25	24	21.73	0-2	1
		50	0	21.73	0-2	1
	64QAM	1	0	21.87	0-2	1
		1	24	21.88	0-2	1
		1	49	21.85	0-2	1
		25	0	20.76	0-3	2
		25	12	20.72	0-3	2
		25	24	20.79	0-3	2
		50	0	20.80	0-3	2
	256QAM	1	0	18.73	0-5	4
		1	24	18.68	0-5	4
		1	49	18.81	0-5	4
		25	0	18.60	0-5	4
		25	12	18.67	0-5	4
		25	24	18.71	0-5	4
		50	0	18.68	0-5	4

LTE FDD Band 7 Conducted Power Measured Pmax, RCV (DSI 2) _ MAIN2 [Ant B]

LTE FDD Band 7 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20850 Ch. 2510 ㎒	21100 Ch. 2535 ㎒	21350 Ch. 2560 ㎒		
20 ㎒	QPSK	1	0	22.00	21.96	21.33	0	0
		1	49	21.88	21.72	21.45	0	0
		1	99	21.78	21.49	21.20	0	0
		50	0	20.80	20.73	20.43	0-1	1
		50	25	20.78	20.57	20.39	0-1	1
		50	49	20.73	20.55	20.27	0-1	1
		100	0	20.72	20.57	20.39	0-1	1
	16QAM	1	0	20.79	20.70	20.72	0-1	1
		1	49	20.23	20.86	20.50	0-1	1
		1	99	20.26	20.55	20.35	0-1	1
		50	0	19.72	19.72	19.41	0-2	2
		50	25	19.74	19.65	19.45	0-2	2
		50	49	19.77	19.59	19.27	0-2	2
		100	0	19.74	19.54	19.42	0-2	2
	64QAM	1	0	19.75	19.84	19.52	0-2	2
		1	49	19.34	19.78	19.40	0-2	2
		1	99	19.20	19.72	19.12	0-2	2
		50	0	18.74	18.67	18.46	0-3	3
		50	25	18.79	18.80	18.28	0-3	3
		50	49	18.78	18.53	18.19	0-3	3
		100	0	18.71	18.60	18.44	0-3	3
	256QAM	1	0	16.75	16.79	16.42	0-5	5
		1	49	16.42	16.71	16.39	0-5	5
		1	99	16.64	16.54	16.09	0-5	5
		50	0	16.72	16.65	16.42	0-5	5
		50	25	16.78	16.56	16.42	0-5	5
		50	49	16.73	16.59	16.23	0-5	5
		100	0	16.72	16.51	16.42	0-5	5

LTE FDD Band 7 Conducted Power _ Measured Free (DSI 0), Phablet (DSI 1), Ear jack (DSI 4) _ MAIN2 [Ant B]

LTE FDD Band 7 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20850 Ch. 2510 ㎒	21100 Ch. 2535 ㎒	21350 Ch. 2560 ㎒		
20 ㎒	QPSK	1	0	19.12	19.12	18.81	0	0
		1	49	19.23	18.98	18.76	0	0
		1	99	19.22	19.13	18.72	0	0
		50	0	19.17	19.18	18.96	0-1	0
		50	25	19.25	19.09	18.85	0-1	0
		50	49	19.14	18.99	18.74	0-1	0
		100	0	19.15	19.04	18.90	0-1	0
	16QAM	1	0	19.22	19.27	19.25	0-1	0
		1	49	19.34	19.38	19.04	0-1	0
		1	99	19.27	19.31	18.62	0-1	0
		50	0	19.22	19.16	19.00	0-2	0
		50	25	19.23	19.08	18.91	0-2	0
		50	49	19.28	19.09	18.72	0-2	0
		100	0	19.13	19.13	18.85	0-2	0
	64QAM	1	0	19.28	19.45	18.98	0-2	0
		1	49	19.37	19.27	18.97	0-2	0
		1	99	19.25	19.21	18.77	0-2	0
		50	0	18.67	18.74	18.44	0-3	0.7
		50	25	18.68	18.63	18.47	0-3	0.7
		50	49	18.77	18.61	18.29	0-3	0.7
		100	0	18.74	18.61	18.47	0-3	0.7
	256QAM	1	0	16.59	16.74	16.78	0-5	2.7
		1	49	16.63	16.71	16.42	0-5	2.7
		1	99	16.70	16.53	16.21	0-5	2.7
		50	0	16.73	16.73	16.40	0-5	2.7
		50	25	16.74	16.58	16.44	0-5	2.7
		50	49	16.74	16.60	16.31	0-5	2.7
		100	0	16.64	16.64	16.44	0-5	2.7

LTE FDD Band 7 Conducted Power _ Measured Hotspot (DSI 3)_ MAIN2 [Ant B]

LTE FDD Band 7 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20850 Ch. 2510 ㎒	21100 Ch. 2535 ㎒	21350 Ch. 2560 ㎒		
20 ㎒	QPSK	1	0	16.98	16.75	16.62	0	0
		1	49	16.82	16.69	16.57	0	0
		1	99	16.62	16.59	16.33	0	0
		50	0	16.70	16.67	16.49	0-1	0
		50	25	16.74	16.60	16.33	0-1	0
		50	49	16.67	16.61	16.30	0-1	0
		100	0	16.71	16.57	16.43	0-1	0
	16QAM	1	0	16.80	16.86	16.66	0-1	0
		1	49	16.91	16.85	16.44	0-1	0
		1	99	16.86	16.74	16.33	0-1	0
		50	0	16.71	16.72	16.54	0-2	0
		50	25	16.74	16.72	16.44	0-2	0
		50	49	16.75	16.57	16.21	0-2	0
		100	0	16.70	16.62	16.38	0-2	0
	64QAM	1	0	16.71	16.81	16.66	0-2	0
		1	49	16.77	16.84	16.45	0-2	0
		1	99	16.99	16.65	16.36	0-2	0
		50	0	16.79	16.70	16.45	0-3	0
		50	25	16.72	16.63	16.44	0-3	0
		50	49	16.71	16.55	16.18	0-3	0
		100	0	16.69	16.63	16.39	0-3	0
	256QAM	1	0	16.60	16.71	16.61	0-5	0
		1	49	16.81	16.88	16.46	0-5	0
		1	99	16.67	16.69	16.24	0-5	0
		50	0	16.72	16.68	16.51	0-5	0
		50	25	16.77	16.64	16.32	0-5	0
		50	49	16.72	16.63	16.25	0-5	0
		100	0	16.80	16.55	16.38	0-5	0

LTE FDD Band 12 Conducted Power_ Measured *Pmax*, RCV (DSI 2) _ MAIN1 [Ant A]

LTE FDD Band 12 _ 10 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 23095 Ch. 707.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	23.85	0	0
		1	24	23.70	0	0
		1	49	23.62	0	0
		25	0	22.81	0-1	1
		25	12	22.78	0-1	1
		25	24	22.73	0-1	1
		50	0	22.65	0-1	1
	16QAM	1	0	23.08	0-1	1
		1	24	23.04	0-1	1
		1	49	22.64	0-1	1
		25	0	21.80	0-2	2
		25	12	21.78	0-2	2
		25	24	21.73	0-2	2
		50	0	21.72	0-2	2
	64QAM	1	0	21.97	0-2	2
		1	24	21.90	0-2	2
		1	49	21.83	0-2	2
		25	0	20.72	0-3	3
		25	12	20.69	0-3	3
		25	24	20.76	0-3	3
		50	0	20.73	0-3	3
	256QAM	1	0	18.76	0-5	5
		1	24	18.81	0-5	5
		1	49	18.53	0-5	5
		25	0	18.71	0-5	5
		25	12	18.71	0-5	5
		25	24	18.63	0-5	5
		50	0	18.68	0-5	5

LTE FDD Band 12 Conducted Power_ Measured Free (DSI 0), Phablet (DSI 1), Hotspot (DSI 3), Ear jack (DSI 4) _ MAIN1 [Ant A]

LTE FDD Band 12 _ 10 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 23095 Ch. 707.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	22.17	0	0
		1	24	22.06	0	0
		1	49	22.06	0	0
		25	0	22.14	0-1	0
		25	12	22.09	0-1	0
		25	24	22.10	0-1	0
		50	0	22.08	0-1	0
	16QAM	1	0	22.21	0-1	0
		1	24	22.39	0-1	0
		1	49	22.04	0-1	0
		25	0	21.89	0-2	0.5
		25	12	21.86	0-2	0.5
		25	24	21.80	0-2	0.5
		50	0	21.85	0-2	0.5
	64QAM	1	0	22.07	0-2	0.5
		1	24	22.09	0-2	0.5
		1	49	21.67	0-2	0.5
		25	0	20.77	0-3	1.5
		25	12	20.83	0-3	1.5
		25	24	20.81	0-3	1.5
		50	0	20.88	0-3	1.5
	256QAM	1	0	19.02	0-5	3.5
		1	24	19.00	0-5	3.5
		1	49	18.57	0-5	3.5
		25	0	18.83	0-5	3.5
		25	12	18.77	0-5	3.5
		25	24	18.73	0-5	3.5
		50	0	18.77	0-5	3.5

LTE FDD Band 13 Conducted Power_ Measured *Pmax*, RCV (DSI 2 _ MAIN1 [Ant A]

LTE FDD Band 13 _ 10 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 23230 Ch. 782 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	23.40	0	0
		1	24	23.49	0	0
		1	49	23.38	0	0
		25	0	22.41	0-1	1
		25	12	22.49	0-1	1
		25	24	22.42	0-1	1
		50	0	22.53	0-1	1
	16QAM	1	0	22.43	0-1	1
		1	24	22.56	0-1	1
		1	49	22.55	0-1	1
		25	0	21.48	0-2	2
		25	12	21.47	0-2	2
		25	24	21.38	0-2	2
		50	0	21.38	0-2	2
	64QAM	1	0	21.56	0-2	2
		1	24	21.45	0-2	2
		1	49	21.48	0-2	2
		25	0	20.42	0-3	3
		25	12	20.46	0-3	3
		25	24	20.50	0-3	3
		50	0	20.49	0-3	3
	256QAM	1	0	18.29	0-5	5
		1	24	18.50	0-5	5
		1	49	18.45	0-5	5
		25	0	18.29	0-5	5
		25	12	18.44	0-5	5
		25	24	18.36	0-5	5
		50	0	18.47	0-5	5

LTE FDD Band 13 Conducted Power_ Measured _ Free (DSI 0), Phablet (DSI 1), _ Hotspot (DSI 3), Ear jack (DSI 4) _ MAIN1 [Ant A]

LTE FDD Band 13 _ 10 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 23230 Ch. 782 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	21.77	0	0
		1	24	21.82	0	0
		1	49	21.73	0	0
		25	0	21.77	0-1	0
		25	12	21.88	0-1	0
		25	24	21.73	0-1	0
		50	0	21.82	0-1	0
	16QAM	1	0	21.89	0-1	0
		1	24	21.84	0-1	0
		1	49	21.95	0-1	0
		25	0	21.33	0-2	0.7
		25	12	21.40	0-2	0.7
		25	24	21.20	0-2	0.7
		50	0	21.26	0-2	0.7
	64QAM	1	0	21.34	0-2	0.7
		1	24	21.37	0-2	0.7
		1	49	21.56	0-2	0.7
		25	0	20.34	0-3	1.7
		25	12	20.30	0-3	1.7
		25	24	20.25	0-3	1.7
		50	0	20.26	0-3	1.7
	256QAM	1	0	18.34	0-5	3.7
		1	24	18.48	0-5	3.7
		1	49	18.37	0-5	3.7
		25	0	18.22	0-5	3.7
		25	12	18.36	0-5	3.7
		25	24	18.35	0-5	3.7
		50	0	18.52	0-5	3.7

LTE FDD Band 14 Conducted Power_ Measured *Pmax*, Free (DSI 0), Phablet (DSI 1), RCV (DSI 2), Hotspot (DSI 3), Ear jack (DSI 4) _ MAIN1 [Ant A]

LTE FDD Band 14 _ 10 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 23330 Ch. 793 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	23.17	0	0
		1	24	23.09	0	0
		1	49	23.06	0	0
		25	0	22.16	0-1	1
		25	12	22.08	0-1	1
		25	24	22.09	0-1	1
		50	0	22.18	0-1	1
	16QAM	1	0	22.41	0-1	1
		1	24	22.21	0-1	1
		1	49	22.17	0-1	1
		25	0	21.16	0-2	2
		25	12	21.07	0-2	2
		25	24	21.17	0-2	2
		50	0	21.19	0-2	2
	64QAM	1	0	21.40	0-2	2
		1	24	21.26	0-2	2
		1	49	21.56	0-2	2
		25	0	20.14	0-3	3
		25	12	20.11	0-3	3
		25	24	20.17	0-3	3
		50	0	20.18	0-3	3
	256QAM	1	0	18.11	0-5	5
		1	24	18.22	0-5	5
		1	49	18.12	0-5	5
		25	0	18.15	0-5	5
		25	12	18.19	0-5	5
		25	24	18.13	0-5	5
		50	0	18.13	0-5	5

LTE FDD Band 25 Conducted Power_ Measured *Pmax*, RCV (DSI 2) _ MAIN1 [Ant A]

LTE FDD Band 25 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26140 Ch. 1860 ㎒	26365 Ch. 1882.5 ㎒	26590 Ch. 1905 ㎒		
20 ㎒	QPSK	1	0	22.63	22.37	22.71	0	0
		1	49	22.50	22.53	22.19	0	0
		1	99	22.18	22.55	22.38	0	0
		50	0	21.23	21.29	21.34	0-1	1
		50	25	21.32	21.37	21.35	0-1	1
		50	49	21.24	21.40	21.41	0-1	1
		100	0	21.27	21.27	21.34	0-1	1
	16QAM	1	0	21.55	21.58	21.65	0-1	1
		1	49	21.31	21.62	21.36	0-1	1
		1	99	21.48	21.45	21.48	0-1	1
		50	0	20.19	20.29	20.31	0-2	2
		50	25	20.28	20.34	20.39	0-2	2
		50	49	20.26	20.39	20.39	0-2	2
		100	0	20.27	20.32	20.39	0-2	2
	64QAM	1	0	20.39	20.45	20.64	0-2	2
		1	49	20.50	20.58	20.66	0-2	2
		1	99	20.19	20.43	20.24	0-2	2
		50	0	19.10	19.33	19.31	0-3	3
		50	25	19.26	19.37	19.41	0-3	3
		50	49	19.18	19.38	19.31	0-3	3
		100	0	19.26	19.30	19.35	0-3	3
	256QAM	1	0	17.23	17.18	17.30	0-5	5
		1	49	17.12	17.38	17.24	0-5	5
		1	99	17.23	17.56	17.31	0-5	5
		50	0	17.19	17.30	17.28	0-5	5
		50	25	17.22	17.30	17.37	0-5	5
		50	49	17.28	17.38	17.33	0-5	5
		100	0	17.26	17.34	17.33	0-5	5

LTE FDD Band 25 Conducted Power_ Measured Free (DSI 0), Phablet (DSI 1), Ear jack (DSI 4) _ MAIN1 [Ant A]

LTE FDD Band 25 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26140 Ch. 1860 ㎒	26365 Ch. 1882.5 ㎒	26590 Ch. 1905 ㎒		
20 ㎒	QPSK	1	0	20.27	20.27	20.28	0	0
		1	49	20.16	20.32	20.29	0	0
		1	99	20.38	20.43	20.45	0	0
		50	0	20.16	20.32	20.30	0-1	0
		50	25	20.36	20.39	20.43	0-1	0
		50	49	20.27	20.35	20.44	0-1	0
		100	0	20.27	20.30	20.31	0-1	0
	16QAM	1	0	20.35	20.66	20.46	0-1	0
		1	49	20.35	20.60	20.47	0-1	0
		1	99	20.93	20.67	20.52	0-1	0
		50	0	20.25	20.38	20.39	0-2	0
		50	25	20.38	20.41	20.41	0-2	0
		50	49	20.31	20.44	20.39	0-2	0
		100	0	20.27	20.35	20.42	0-2	0
	64QAM	1	0	20.51	20.85	20.66	0-2	0
		1	49	20.57	20.50	20.52	0-2	0
		1	99	20.35	20.66	20.52	0-2	0
		50	0	19.50	19.56	19.53	0-3	1
		50	25	19.54	19.62	19.64	0-3	1
		50	49	19.58	19.68	19.59	0-3	1
		100	0	19.48	19.57	19.73	0-3	1
	256QAM	1	0	17.44	17.76	17.61	0-5	3
		1	49	17.79	17.66	17.84	0-5	3
		1	99	17.29	17.72	17.64	0-5	3
		50	0	17.38	17.55	17.63	0-5	3
		50	25	17.61	17.61	17.66	0-5	3
		50	49	17.51	17.57	17.55	0-5	3
		100	0	17.51	17.59	17.53	0-5	3

LTE FDD Band 25 Conducted Power_ Measured Hotspot (DSI 3) _ MAIN1 [Ant A]

LTE FDD Band 25 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26140 Ch. 1860 ㎒	26365 Ch. 1882.5 ㎒	26590 Ch. 1905 ㎒		
20 ㎒	QPSK	1	0	15.43	15.53	15.44	0	0
		1	49	15.63	15.55	15.57	0	0
		1	99	15.52	15.45	15.52	0	0
		50	0	15.44	15.59	15.51	0-1	0
		50	25	15.53	15.65	15.60	0-1	0
		50	49	15.44	15.54	15.59	0-1	0
		100	0	15.46	15.51	15.57	0-1	0
	16QAM	1	0	15.93	15.62	15.81	0-1	0
		1	49	15.55	15.76	15.69	0-1	0
		1	99	15.55	15.86	16.03	0-1	0
		50	0	15.46	15.53	15.55	0-2	0
		50	25	15.63	15.56	15.60	0-2	0
		50	49	15.52	15.63	15.59	0-2	0
		100	0	15.55	15.55	15.58	0-2	0
	64QAM	1	0	15.59	15.57	15.68	0-2	0
		1	49	15.63	15.86	15.70	0-2	0
		1	99	15.62	15.76	15.58	0-2	0
		50	0	15.49	15.66	15.55	0-3	0
		50	25	15.61	15.62	15.67	0-3	0
		50	49	15.48	15.63	15.52	0-3	0
		100	0	15.50	15.56	15.61	0-3	0
	256QAM	1	0	15.49	15.57	15.64	0-5	0
		1	49	15.53	15.67	15.76	0-5	0
		1	99	15.49	15.74	15.71	0-5	0
		50	0	15.60	15.63	15.54	0-5	0
		50	25	15.61	15.62	15.67	0-5	0
		50	49	15.43	15.62	15.63	0-5	0
		100	0	15.60	15.53	15.67	0-5	0

LTE FDD Band 26 Conducted Power _ Measured *Pmax*, Free (DSI 0), Phablet (DSI 1), RCV (DSI 2), Ear jack (DSI 4) _ MAIN1 [Ant A]

LTE FDD Band 26 _ 15 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 26865 Ch. 831.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
15 ㎒	QPSK	1	0	23.75	0	0
		1	36	23.87	0	0
		1	74	23.67	0	0
		36	0	22.72	0-1	1
		36	18	22.76	0-1	1
		36	39	22.65	0-1	1
		75	0	22.74	0-1	1
	16QAM	1	0	23.10	0-1	1
		1	36	22.84	0-1	1
		1	74	22.82	0-1	1
		36	0	21.83	0-2	2
		36	18	21.65	0-2	2
		36	39	21.74	0-2	2
		75	0	21.69	0-2	2
	64QAM	1	0	21.86	0-2	2
		1	36	21.93	0-2	2
		1	74	21.51	0-2	2
		36	0	20.80	0-3	3
		36	18	20.72	0-3	3
		36	39	20.68	0-3	3
		75	0	20.73	0-3	3
	256QAM	1	0	18.81	0-5	5
		1	36	18.79	0-5	5
		1	74	18.58	0-5	5
		36	0	18.75	0-5	5
		36	18	18.69	0-5	5
		36	39	18.61	0-5	5
		75	0	18.61	0-5	5

LTE FDD Band 26 Conducted Power _ Measured Hotspot (DSI 3) _ MAIN1 [Ant A]

LTE FDD Band 26 _ 15 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 26865 Ch. 831.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
15 ㎒	QPSK	1	0	22.38	0	0
		1	36	22.44	0	0
		1	74	22.36	0	0
		36	0	22.45	0-1	0
		36	18	22.47	0-1	0
		36	39	22.40	0-1	0
		75	0	22.34	0-1	0
	16QAM	1	0	22.54	0-1	0
		1	36	22.70	0-1	0
		1	74	22.73	0-1	0
		36	0	21.71	0-2	1
		36	18	21.65	0-2	1
		36	39	21.58	0-2	1
		75	0	21.66	0-2	1
	64QAM	1	0	21.84	0-2	1
		1	36	21.99	0-2	1
		1	74	21.82	0-2	1
		36	0	20.68	0-3	2
		36	18	20.64	0-3	2
		36	39	20.63	0-3	2
		75	0	20.62	0-3	2
	256QAM	1	0	18.76	0-5	4
		1	36	18.78	0-5	4
		1	74	18.47	0-5	4
		36	0	18.63	0-5	4
		36	18	18.59	0-5	4
		36	39	18.55	0-5	4
		75	0	18.61	0-5	4

LTE FDD Band 30 Conducted Power_ Measured *Pmax*, RCV (DSI 2) _MAIN2 [Ant B]

LTE FDD Band 30 _ 10 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 27710 Ch. 2310 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	20.59	0	0
		1	24	20.69	0	0
		1	49	20.48	0	0
		25	0	19.49	0-1	1
		25	12	19.48	0-1	1
		25	24	19.61	0-1	1
		50	0	19.47	0-1	1
	16QAM	1	0	19.90	0-1	1
		1	24	19.97	0-1	1
		1	49	19.86	0-1	1
		25	0	18.56	0-2	2
		25	12	18.62	0-2	2
		25	24	18.60	0-2	2
		50	0	18.67	0-2	2
	64QAM	1	0	18.79	0-2	2
		1	24	18.73	0-2	2
		1	49	18.75	0-2	2
		25	0	17.56	0-3	3
		25	12	17.57	0-3	3
		25	24	17.51	0-3	3
		50	0	17.62	0-3	3
	256QAM	1	0	15.61	0-5	5
		1	24	15.91	0-5	5
		1	49	15.55	0-5	5
		25	0	15.44	0-5	5
		25	12	15.52	0-5	5
		25	24	15.51	0-5	5
		50	0	15.54	0-5	5

LTE FDD Band 30 Conducted Power_ Measured Free (DSI 0), Phablet (DSI 1), Ear jack (DSI 4) _MAIN2 [Ant B]

LTE FDD Band 30 _ 10 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 27710 Ch. 2310 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	19.07	0	0
		1	24	19.04	0	0
		1	49	19.15	0	0
		25	0	18.87	0-1	0
		25	12	18.98	0-1	0
		25	24	19.05	0-1	0
		50	0	18.93	0-1	0
	16QAM	1	0	18.94	0-1	0
		1	24	19.32	0-1	0
		1	49	19.09	0-1	0
		25	0	18.71	0-2	0.5
		25	12	18.72	0-2	0.5
		25	24	18.83	0-2	0.5
		50	0	18.70	0-2	0.5
	64QAM	1	0	18.85	0-2	0.5
		1	24	18.96	0-2	0.5
		1	49	18.59	0-2	0.5
		25	0	17.67	0-3	1.5
		25	12	17.68	0-3	1.5
		25	24	17.77	0-3	1.5
		50	0	17.73	0-3	1.5
	256QAM	1	0	15.58	0-5	3.5
		1	24	15.96	0-5	3.5
		1	49	15.69	0-5	3.5
		25	0	15.69	0-5	3.5
		25	12	15.62	0-5	3.5
		25	24	15.77	0-5	3.5
		50	0	15.71	0-5	3.5

LTE FDD Band 30 Conducted Power_ Measured Hotspot (DSI 3) _MAIN2 [Ant B]

LTE FDD Band 30 _ 10 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 27710 Ch. 2310 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	13.98	0	0
		1	24	13.96	0	0
		1	49	13.98	0	0
		25	0	13.93	0-1	0
		25	12	14.03	0-1	0
		25	24	14.11	0-1	0
		50	0	13.87	0-1	0
	16QAM	1	0	13.94	0-1	0
		1	24	14.42	0-1	0
		1	49	14.22	0-1	0
		25	0	14.01	0-2	0
		25	12	14.02	0-2	0
		25	24	14.10	0-2	0
		50	0	14.08	0-2	0
	64QAM	1	0	14.06	0-2	0
		1	24	14.12	0-2	0
		1	49	14.09	0-2	0
		25	0	13.96	0-3	0
		25	12	14.04	0-3	0
		25	24	14.06	0-3	0
		50	0	14.04	0-3	0
	256QAM	1	0	14.09	0-5	0
		1	24	14.00	0-5	0
		1	49	13.93	0-5	0
		25	0	14.04	0-5	0
		25	12	14.00	0-5	0
		25	24	13.98	0-5	0
		50	0	13.95	0-5	0

LTE TDD Band 38 Conducted Power_ Measured *Pmax*, Free (DSI 0), Phablet (DSI 1), RCV (DSI 2), Ear jack (DSI 4) _MAIN2 [Ant B]

LTE TDD Band 38 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				37850 2580 ㎒	38000 Ch. 2595 ㎒	38150 2610 ㎒		
20 ㎒	QPSK	1	0	20.65	20.68	20.70	0	0
		1	49	20.63	20.64	20.73	0	0
		1	99	20.54	20.55	20.61	0	0
		50	0	19.74	19.69	19.71	0-1	1
		50	25	19.78	19.71	19.70	0-1	1
		50	49	19.72	19.64	19.72	0-1	1
		100	0	19.71	19.69	19.64	0-1	1
	16QAM	1	0	19.98	19.77	19.82	0-1	1
		1	49	19.72	19.70	19.72	0-1	1
		1	99	19.62	19.60	19.68	0-1	1
		50	0	18.69	18.72	18.73	0-2	2
		50	25	18.78	18.75	18.72	0-2	2
		50	49	18.71	18.64	18.73	0-2	2
		100	0	18.75	18.73	18.68	0-2	2
	64QAM	1	0	18.81	18.77	18.82	0-2	2
		1	49	18.89	18.82	18.86	0-2	2
		1	99	18.74	18.63	18.71	0-2	2
		50	0	17.71	17.67	17.73	0-3	3
		50	25	17.76	17.72	17.72	0-3	3
		50	49	17.70	17.68	17.73	0-3	3
		100	0	17.73	17.72	17.67	0-3	3
	256QAM	1	0	15.58	15.62	15.74	0-5	5
		1	49	15.70	15.73	15.73	0-5	5
		1	99	15.52	15.47	15.48	0-5	5
		50	0	15.75	15.68	15.73	0-5	5
		50	25	15.79	15.74	15.70	0-5	5
		50	49	15.68	15.65	15.73	0-5	5
		100	0	15.72	15.68	15.68	0-5	5

LTE TDD Band 38 Conducted Power_ Measured Hotspot (DSI 3)
_MAIN2 [Ant B]

LTE TDD Band 38 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				37850 2580 ㎒	38000 Ch. 2595 ㎒	38150 2610 ㎒		
20 ㎒	QPSK	1	0	17.51	17.60	17.68	0	0
		1	49	17.50	17.52	17.51	0	0
		1	99	17.40	17.44	17.46	0	0
		50	0	17.62	17.64	17.68	0-1	0
		50	25	17.71	17.64	17.63	0-1	0
		50	49	17.60	17.61	17.64	0-1	0
		100	0	17.65	17.64	17.60	0-1	0
	16QAM	1	0	17.82	17.71	17.57	0-1	0
		1	49	17.66	17.55	17.63	0-1	0
		1	99	17.58	17.64	17.55	0-1	0
		50	0	17.69	17.64	17.64	0-2	0
		50	25	17.74	17.72	17.64	0-2	0
		50	49	17.65	17.63	17.65	0-2	0
		100	0	17.66	17.64	17.61	0-2	0
	64QAM	1	0	17.72	17.71	17.77	0-2	0
		1	49	17.75	17.78	17.73	0-2	0
		1	99	17.61	17.53	17.71	0-2	0
		50	0	17.65	17.64	17.64	0-3	0
		50	25	17.69	17.71	17.61	0-3	0
		50	49	17.65	17.61	17.63	0-3	0
		100	0	17.62	17.61	17.61	0-3	0
	256QAM	1	0	15.56	15.52	15.55	0-5	1.5
		1	49	15.74	15.66	15.69	0-5	1.5
		1	99	15.49	15.45	15.52	0-5	1.5
		50	0	15.71	15.62	15.66	0-5	1.5
		50	25	15.71	15.65	15.65	0-5	1.5
		50	49	15.63	15.63	15.68	0-5	1.5
		100	0	15.68	15.64	15.60	0-5	1.5

LTE TDD Band 41 Conducted Power (Power Class 3)_Measured *Pmax*, Free (DSI 0), Phablet (DSI 1), RCV (DSI 2), Earjack (DSI 4) _MAIN2 [Ant B]

LTE TDD Band 41 _ 20 ㎒ Bandwidth Conducted Power – Power Class 3

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 ㎒	40185 Ch. 2549.5 ㎒	40620 Ch. 2593.0 ㎒	41055 Ch. 2636.5 ㎒	41490 Ch. 2680.0 ㎒		
20 ㎒	QPSK	1	0	21.14	20.77	20.78	20.79	20.70	0	0
		1	49	21.05	20.60	20.73	20.67	20.49	0	0
		1	99	20.97	20.49	20.54	20.43	20.30	0	0
		50	0	20.09	19.84	19.77	19.75	19.61	0-1	1
		50	25	20.08	19.85	19.80	19.68	19.53	0-1	1
		50	49	20.05	19.69	19.68	19.55	19.45	0-1	1
		100	0	20.06	19.78	19.77	19.70	19.54	0-1	1
	16QAM	1	0	20.20	19.80	19.70	19.72	19.65	0-1	1
		1	49	20.05	19.84	19.70	19.55	19.47	0-1	1
		1	99	20.04	19.61	19.47	19.33	19.27	0-1	1
		50	0	19.17	18.84	18.77	18.78	18.61	0-2	2
		50	25	19.12	18.83	18.77	18.71	18.54	0-2	2
		50	49	19.05	18.70	18.70	18.54	18.47	0-2	2
		100	0	19.03	18.76	18.76	18.71	18.48	0-2	2
	64QAM	1	0	19.19	18.93	18.85	18.91	18.67	0-2	2
		1	49	19.19	18.94	18.74	18.75	18.61	0-2	2
		1	99	19.11	18.82	18.66	18.52	18.41	0-2	2
		50	0	18.14	17.83	17.75	17.71	17.60	0-3	3
		50	25	18.10	17.79	17.77	17.70	17.55	0-3	3
		50	49	18.02	17.70	17.68	17.53	17.47	0-3	3
		100	0	18.07	17.82	17.72	17.71	17.55	0-3	3
	256QAM	1	0	16.12	15.59	15.80	15.74	15.53	0-5	5
		1	49	15.99	15.80	15.65	15.55	15.49	0-5	5
		1	99	15.76	15.57	15.48	15.34	15.29	0-5	5
		50	0	16.09	15.82	15.79	15.80	15.59	0-5	5
		50	25	16.06	15.83	15.82	15.77	15.56	0-5	5
		50	49	16.05	15.73	15.75	15.59	15.51	0-5	5
		100	0	16.02	15.80	15.77	15.70	15.56	0-5	5

Note; LTE Band 41 has 5 required test channels per FCC KDB 447498 D01v06.

LTE TDD Band 41 Conducted Power (Power Class 2)_Measured *Pmax*, Free (DSI 0), Phablet (DSI 1), RCV (DSI 2), Earjack (DSI 4) _MAIN2 [Ant B]

LTE TDD Band 41 _ 20 ㎒ Bandwidth Conducted Power – Power Class 2

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 ㎒	40185 Ch. 2549.5 ㎒	40620 Ch. 2593.0 ㎒	41055 Ch. 2636.5 ㎒	41490 Ch. 2680.0 ㎒		
20 ㎒	QPSK	1	0	24.34	24.23	24.51	24.09	24.66	0	0
		1	49	24.43	24.60	24.37	24.12	24.69	0	0
		1	99	24.35	24.54	24.13	24.10	24.39	0	0
		50	0	23.24	23.61	23.35	23.04	23.47	0-1	0
		50	25	23.35	23.60	23.27	23.00	23.42	0-1	0
		50	49	23.28	23.52	23.05	23.01	23.41	0-1	0
		100	0	23.31	23.61	23.21	22.99	23.44	0-1	0
	16QAM	1	0	23.55	23.89	23.71	23.31	23.69	0-1	0
		1	49	23.54	23.85	23.44	23.42	23.69	0-1	0
		1	99	23.48	23.70	23.17	23.25	23.56	0-1	0
		50	0	22.29	22.66	22.38	22.07	22.52	0-2	0.5
		50	25	22.36	22.65	22.25	22.03	22.44	0-2	0.5
		50	49	22.37	22.53	22.08	22.05	22.47	0-2	0.5
		100	0	22.31	22.57	22.27	22.08	22.43	0-2	0.5
	64QAM	1	0	22.76	22.98	22.95	22.41	22.84	0-2	0.5
		1	49	22.78	22.95	22.67	22.37	22.93	0-2	0.5
		1	99	22.61	22.71	22.27	22.39	22.58	0-2	0.5
		50	0	21.25	21.60	21.32	21.06	21.51	0-3	1.5
		50	25	21.34	21.68	21.25	21.01	21.46	0-3	1.5
		50	49	21.35	21.55	21.06	21.06	21.46	0-3	1.5
		100	0	21.32	21.59	21.23	21.00	21.44	0-3	1.5
	256QAM	1	0	19.26	19.66	19.51	19.11	19.61	0-5	3.5
		1	49	19.49	19.62	19.37	19.32	19.63	0-5	3.5
		1	99	19.38	19.62	19.17	19.14	19.47	0-5	3.5
		50	0	19.22	19.57	19.36	19.07	19.51	0-5	3.5
		50	25	19.33	19.58	19.28	19.09	19.49	0-5	3.5
		50	49	19.32	19.49	19.05	19.08	19.48	0-5	3.5
		100	0	19.25	19.59	19.23	19.06	19.44	0-5	3.5

Note; LTE Band 41 has 5 required test channels per FCC KDB 447498 D01v06.

LTE TDD Band 41 Conducted Power (Power Class 3)_ Measured Hotspot (DSI 3) _MAIN2 [Ant B]

LTE TDD Band 41 _ 20 ㎒ Bandwidth Conducted Power – Power Class 3

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 ㎒	40185 Ch. 2549.5 ㎒	40620 Ch. 2593.0 ㎒	41055 Ch. 2636.5 ㎒	41490 Ch. 2680.0 ㎒		
20 ㎒	QPSK	1	0	16.96	16.82	16.66	16.71	16.72	0	0
		1	49	16.95	16.51	16.68	16.57	16.39	0	0
		1	99	17.05	16.46	16.46	16.34	16.39	0	0
		50	0	17.11	16.84	16.79	16.79	16.59	0-1	0
		50	25	17.11	16.81	16.78	16.72	16.55	0-1	0
		50	49	17.12	16.71	16.71	16.52	16.49	0-1	0
		100	0	17.07	16.76	16.78	16.69	16.56	0-1	0
	16QAM	1	0	17.17	16.77	16.74	16.78	16.60	0-1	0
		1	49	17.16	16.70	16.70	16.62	16.50	0-1	0
		1	99	16.95	16.63	16.49	16.31	16.28	0-1	0
		50	0	17.13	16.86	16.79	16.78	16.58	0-2	0
		50	25	17.14	16.84	16.80	16.72	16.55	0-2	0
		50	49	17.06	16.78	16.73	16.54	16.50	0-2	0
		100	0	17.06	16.80	16.76	16.75	16.53	0-2	0
	64QAM	1	0	17.20	16.87	16.90	16.88	16.69	0-2	0
		1	49	17.15	16.82	16.79	16.74	16.55	0-2	0
		1	99	17.17	16.72	16.65	16.48	16.49	0-2	0
		50	0	17.11	16.87	16.76	16.77	16.62	0-3	0
		50	25	17.12	16.79	16.80	16.70	16.56	0-3	0
		50	49	17.06	16.71	16.74	16.56	16.50	0-3	0
		100	0	17.00	16.80	16.76	16.70	16.56	0-3	0
	256QAM	1	0	16.08	15.66	15.81	15.63	15.43	0-5	1
		1	49	16.06	15.83	15.67	15.69	15.47	0-5	1
		1	99	15.83	15.64	15.57	15.39	15.30	0-5	1
		50	0	16.11	15.82	15.81	15.79	15.62	0-5	1
		50	25	16.08	15.83	15.84	15.73	15.57	0-5	1
		50	49	16.02	15.71	15.72	15.55	15.49	0-5	1
		100	0	16.06	15.78	15.82	15.72	15.60	0-5	1

Note; LTE Band 41 has 5 required test channels per FCC KDB 447498 D01v06.

LTE TDD Band 41 Conducted Power (Power Class 2)_Measured Hotspot (DSI 3) _MAIN2 [Ant B]

LTE TDD Band 41 _ 20 ㎒ Bandwidth Conducted Power – Power Class 2

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 ㎒	40185 Ch. 2549.5 ㎒	40620 Ch. 2593.0 ㎒	41055 Ch. 2636.5 ㎒	41490 Ch. 2680.0 ㎒		
20 ㎒	QPSK	1	0	18.96	18.23	18.71	18.63	18.41	0	0
		1	49	18.93	18.59	18.60	18.55	18.40	0	0
		1	99	18.80	18.40	18.38	18.24	18.12	0	0
		50	0	18.84	18.56	18.50	18.53	18.34	0-1	0
		50	25	18.88	18.60	18.49	18.44	18.29	0-1	0
		50	49	18.79	18.44	18.42	18.32	18.19	0-1	0
		100	0	18.79	18.52	18.45	18.45	18.27	0-1	0
	16QAM	1	0	19.11	18.72	18.77	18.84	18.60	0-1	0
		1	49	19.02	18.80	18.69	18.67	18.52	0-1	0
		1	99	18.94	18.63	18.54	18.35	18.23	0-1	0
		50	0	18.86	18.55	18.48	18.49	18.33	0-2	0
		50	25	18.85	18.60	18.55	18.45	18.28	0-2	0
		50	49	18.82	18.46	18.46	18.28	18.18	0-2	0
		100	0	18.77	18.55	18.54	18.37	18.26	0-2	0
	64QAM	1	0	19.16	19.04	18.94	18.84	18.64	0-2	0
		1	49	19.10	18.92	18.85	18.74	18.53	0-2	0
		1	99	19.07	18.71	18.52	18.50	18.36	0-2	0
		50	0	18.89	18.63	18.51	18.50	18.34	0-3	0
		50	25	18.87	18.57	18.56	18.46	18.26	0-3	0
		50	49	18.80	18.44	18.44	18.26	18.19	0-3	0
		100	0	18.84	18.52	18.47	18.43	18.26	0-3	0
	256QAM	1	0	18.63	18.46	18.51	18.49	18.27	0-5	0
		1	49	18.74	18.47	18.46	18.35	18.11	0-5	0
		1	99	18.61	18.40	18.07	18.02	17.90	0-5	0
		50	0	18.58	18.31	18.24	18.26	18.06	0-5	0
		50	25	18.61	18.32	18.24	18.21	18.00	0-5	0
		50	49	18.53	18.21	18.16	18.05	17.95	0-5	0
		100	0	18.59	18.29	18.23	18.19	18.02	0-5	0

Note; LTE Band 41 has 5 required test channels per FCC KDB 447498 D01v06.

LTE FDD Band 66 Conducted Power_ Measured *Pmax,* RCV (DSI 2) _MAIN1 [Ant A]

LTE FDD Band 66 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132072 Ch. 1720 ㎒	132322 Ch. 1745 ㎒	132572 Ch. 1770 ㎒		
20 ㎒	QPSK	1	0	22.92	23.01	22.89	0	0
		1	49	23.32	23.26	23.09	0	0
		1	99	23.06	23.48	22.92	0	0
		50	0	21.92	22.05	21.88	0-1	1
		50	25	22.03	22.02	21.76	0-1	1
		50	49	22.03	22.06	21.82	0-1	1
		100	0	21.98	22.01	21.78	0-1	1
	16QAM	1	0	22.10	22.69	22.12	0-1	1
		1	49	22.12	22.14	22.25	0-1	1
		1	99	22.23	22.14	21.76	0-1	1
		50	0	20.96	21.04	20.87	0-2	2
		50	25	21.11	21.03	20.89	0-2	2
		50	49	21.07	21.08	20.85	0-2	2
		100	0	21.15	21.01	20.87	0-2	2
	64QAM	1	0	21.06	21.12	21.00	0-2	2
		1	49	21.31	21.14	21.09	0-2	2
		1	99	21.20	21.11	20.91	0-2	2
		50	0	19.97	19.95	19.86	0-3	3
		50	25	20.05	20.07	19.80	0-3	3
		50	49	20.02	20.06	19.82	0-3	3
		100	0	20.07	19.98	19.81	0-3	3
	256QAM	1	0	17.90	18.07	18.10	0-5	5
		1	49	18.07	18.14	18.00	0-5	5
		1	99	17.82	17.99	17.82	0-5	5
		50	0	17.90	18.01	17.85	0-5	5
		50	25	18.05	17.97	17.77	0-5	5
		50	49	17.99	18.03	17.87	0-5	5
		100	0	18.08	18.01	17.82	0-5	5

LTE FDD Band 66 Conducted Power_ Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4) _MAIN1 [Ant A]

LTE FDD Band 66 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132072 Ch. 1720 ㎒	132322 Ch. 1745 ㎒	132572 Ch. 1770 ㎒		
20 ㎒	QPSK	1	0	20.01	20.02	20.01	0	0
		1	49	19.99	20.15	19.92	0	0
		1	99	20.17	20.02	19.75	0	0
		50	0	19.95	20.10	19.91	0-1	0
		50	25	20.11	20.07	19.95	0-1	0
		50	49	20.05	20.09	19.86	0-1	0
		100	0	20.07	20.08	19.83	0-1	0
	16QAM	1	0	20.10	20.10	20.24	0-1	0
		1	49	20.11	20.10	20.24	0-1	0
		1	99	20.17	20.16	20.10	0-1	0
		50	0	19.99	20.12	19.94	0-2	0
		50	25	20.10	20.08	19.92	0-2	0
		50	49	20.09	20.17	19.87	0-2	0
		100	0	20.05	20.11	19.83	0-2	0
	64QAM	1	0	20.08	20.28	20.25	0-2	0
		1	49	20.39	20.27	20.11	0-2	0
		1	99	20.18	20.10	19.96	0-2	0
		50	0	19.76	19.85	19.65	0-3	0
		50	25	19.80	19.80	19.66	0-3	0
		50	49	19.81	19.88	19.63	0-3	0
		100	0	19.78	19.82	19.57	0-3	0
	256QAM	1	0	17.75	17.71	17.77	0-5	2
		1	49	17.82	17.95	17.69	0-5	2
		1	99	17.85	17.86	17.61	0-5	2
		50	0	17.69	17.87	17.63	0-5	2
		50	25	17.80	17.82	17.55	0-5	2
		50	49	17.71	17.84	17.65	0-5	2
		100	0	17.82	17.72	17.65	0-5	2

LTE FDD Band 66 Conducted Power_ Measured Hotspot (DSI 3) _MAIN1 [Ant A]

LTE FDD Band 66 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132072 Ch. 1720 ㎒	132322 Ch. 1745 ㎒	132572 Ch. 1770 ㎒		
20 ㎒	QPSK	1	0	16.07	16.10	16.31	0	0
		1	49	16.32	16.44	16.40	0	0
		1	99	16.40	16.27	16.25	0	0
		50	0	15.95	16.16	16.23	0-1	0
		50	25	16.15	16.22	16.30	0-1	0
		50	49	16.10	16.39	16.38	0-1	0
		100	0	16.36	16.13	16.23	0-1	0
	16QAM	1	0	15.92	16.39	16.39	0-1	0
		1	49	15.95	16.39	16.50	0-1	0
		1	99	16.34	16.56	16.48	0-1	0
		50	0	16.00	16.21	16.21	0-2	0
		50	25	16.14	16.31	16.31	0-2	0
		50	49	16.18	16.30	16.30	0-2	0
		100	0	16.10	16.19	16.32	0-2	0
	64QAM	1	0	15.88	16.28	16.32	0-2	0
		1	49	16.07	16.17	16.44	0-2	0
		1	99	16.44	16.18	16.44	0-2	0
		50	0	16.00	16.22	16.19	0-3	0
		50	25	16.09	16.23	16.39	0-3	0
		50	49	16.16	16.27	16.27	0-3	0
		100	0	16.12	16.11	16.29	0-3	0
	256QAM	1	0	16.21	16.01	16.26	0-5	0
		1	49	16.05	16.24	16.36	0-5	0
		1	99	16.34	16.26	16.06	0-5	0
		50	0	15.96	16.10	16.19	0-5	0
		50	25	16.13	16.26	16.32	0-5	0
		50	49	16.09	16.23	16.26	0-5	0
		100	0	16.07	16.21	16.24	0-5	0

LTE FDD Band 71 Conducted Power_ Measured *Pmax,* Free (DSI 0), Phablet (DSI 1), RCV (DSI 2), Hotspot (DSI 3), Earjack (DSI 4) _ MAIN1 [Ant A]

LTE FDD Band 71 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 133297 Ch. 680.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
20 ㎒	QPSK	1	0	24.00	0	0
		1	49	23.97	0	0
		1	99	24.01	0	0
		50	0	22.90	0-1	1
		50	25	22.80	0-1	1
		50	49	22.81	0-1	1
		100	0	22.78	0-1	1
	16QAM	1	0	23.40	0-1	1
		1	49	23.46	0-1	1
		1	99	22.80	0-1	1
		50	0	21.88	0-2	2
		50	25	21.81	0-2	2
		50	49	21.88	0-2	2
		100	0	21.81	0-2	2
	64QAM	1	0	21.87	0-2	2
		1	49	21.80	0-2	2
		1	99	21.95	0-2	2
		50	0	20.82	0-3	3
		50	25	20.78	0-3	3
		50	49	20.79	0-3	3
		100	0	20.79	0-3	3
	256QAM	1	0	18.72	0-5	5
		1	49	18.77	0-5	5
		1	99	18.78	0-5	5
		50	0	18.79	0-5	5
		50	25	18.72	0-5	5
		50	49	18.81	0-5	5
		100	0	18.69	0-5	5

The EUT enables maximum power reduction in accordance with 3GPP 36.101. The MPR settings are configured during the manufacture process and are not configurable by the network, carrier, or end user.

11.3.2 LTE Maximum Conducted Power (Upper Antenna)

LTE FDD Band 2 Conducted Power _ Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4) _ SUB5 [Ant I]

LTE FDD Band 2 _ 20 ㎒ Bandwidth Conducted Power_ Upper Antenna

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18700 Ch. 1860 ㎒	18900 Ch. 1880 ㎒	19100 Ch. 1900 ㎒		
20 ㎒	QPSK	1	0	20.97	21.02	21.02	0	0
		1	49	20.99	21.06	21.04	0	0
		1	99	20.97	21.04	20.93	0	0
		50	0	20.95	21.08	21.03	0-1	0
		50	25	21.00	21.08	21.05	0-1	0
		50	49	20.99	21.11	21.02	0-1	0
		100	0	21.03	21.01	21.01	0-1	0
	16QAM	1	0	21.13	21.26	21.23	0-1	0
		1	49	21.19	21.23	21.15	0-1	0
		1	99	21.15	21.09	21.15	0-1	0
		50	0	20.93	20.97	21.00	0-2	0
		50	25	21.09	21.08	21.08	0-2	0
		50	49	20.96	21.05	20.95	0-2	0
		100	0	20.97	20.98	20.98	0-2	0
	64QAM	1	0	21.31	21.30	21.11	0-2	0
		1	49	21.07	21.26	21.11	0-2	0
		1	99	21.19	21.15	20.90	0-2	0
		50	0	20.92	21.05	21.01	0-3	0
		50	25	21.06	21.05	21.06	0-3	0
		50	49	21.03	21.04	20.96	0-3	0
		100	0	21.03	21.00	21.07	0-3	0
	256QAM	1	0	19.79	19.86	19.90	0-5	2
		1	49	19.77	19.85	19.82	0-5	2
		1	99	19.75	19.63	19.62	0-5	2
		50	0	19.58	19.73	19.74	0-5	2
		50	25	19.79	19.75	19.77	0-5	2
		50	49	19.63	19.79	19.66	0-5	2
		100	0	19.72	19.67	19.76	0-5	2

LTE FDD Band 2 Conducted Power _ Measured RCV (DSI 2) _ SUB5 [Ant I]

LTE FDD Band 2 _ 20 ㎒ Bandwidth Conducted Power_ Upper Antenna

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18700 Ch. 1860 ㎒	18900 Ch. 1880 ㎒	19100 Ch. 1900 ㎒		
20 ㎒	QPSK	1	0	15.28	15.27	15.30	0	0
		1	49	15.20	15.32	15.07	0	0
		1	99	15.18	15.18	15.11	0	0
		50	0	15.23	15.24	15.10	0-1	0
		50	25	15.33	15.25	15.07	0-1	0
		50	49	15.23	15.15	15.18	0-1	0
		100	0	15.20	15.15	15.08	0-1	0
	16QAM	1	0	15.56	15.44	15.45	0-1	0
		1	49	15.36	15.29	15.32	0-1	0
		1	99	15.48	15.24	15.22	0-1	0
		50	0	15.27	15.15	15.18	0-2	0
		50	25	15.29	15.25	15.15	0-2	0
		50	49	15.22	15.26	15.15	0-2	0
		100	0	15.28	15.16	15.24	0-2	0
	64QAM	1	0	15.47	15.41	15.26	0-2	0
		1	49	15.38	15.32	15.26	0-2	0
		1	99	15.37	15.33	15.24	0-2	0
		50	0	15.23	15.24	15.15	0-3	0
		50	25	15.32	15.16	15.11	0-3	0
		50	49	15.27	15.14	15.12	0-3	0
		100	0	15.24	15.20	15.17	0-3	0
	256QAM	1	0	15.30	15.43	15.22	0-5	0
		1	49	15.45	15.29	15.24	0-5	0
		1	99	15.32	15.23	15.14	0-5	0
		50	0	15.30	15.24	15.20	0-5	0
		50	25	15.30	15.22	15.12	0-5	0
		50	49	15.31	15.27	15.17	0-5	0
		100	0	15.27	15.27	15.20	0-5	0

LTE FDD Band 2 Conducted Power _ Measured Hotspot (DSI 3) _ SUB5 [Ant I]

LTE FDD Band 2 _ 20 ㎒ Bandwidth Conducted Power_ Upper Antenna

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18700 Ch. 1860 ㎒	18900 Ch. 1880 ㎒	19100 Ch. 1900 ㎒		
20 ㎒	QPSK	1	0	15.77	15.83	15.90	0	0
		1	49	15.75	15.81	15.60	0	0
		1	99	15.73	15.64	15.61	0	0
		50	0	15.64	15.61	15.63	0-1	0
		50	25	15.74	15.63	15.58	0-1	0
		50	49	15.73	15.68	15.58	0-1	0
		100	0	15.73	15.68	15.64	0-1	0
	16QAM	1	0	15.83	15.79	15.88	0-1	0
		1	49	15.89	15.78	15.80	0-1	0
		1	99	15.81	15.88	15.72	0-1	0
		50	0	15.69	15.69	15.61	0-2	0
		50	25	15.72	15.63	15.67	0-2	0
		50	49	15.73	15.77	15.67	0-2	0
		100	0	15.69	15.64	15.60	0-2	0
	64QAM	1	0	15.90	15.91	15.78	0-2	0
		1	49	15.95	15.99	15.90	0-2	0
		1	99	15.92	15.75	15.76	0-2	0
		50	0	15.77	15.70	15.69	0-3	0
		50	25	15.86	15.60	15.61	0-3	0
		50	49	15.73	15.74	15.62	0-3	0
		100	0	15.81	15.58	15.55	0-3	0
	256QAM	1	0	15.75	15.82	15.80	0-5	0
		1	49	15.92	15.74	15.77	0-5	0
		1	99	15.88	15.85	15.60	0-5	0
		50	0	15.74	15.76	15.67	0-5	0
		50	25	15.77	15.63	15.71	0-5	0
		50	49	15.82	15.76	15.68	0-5	0
		100	0	15.75	15.66	15.64	0-5	0

LTE FDD Band 4 Conducted Power _ Measured Free (DSI 0), Phablet (DSI 1), Ear jack (DSI 4) _ SUB5 [Ant I]

LTE FDD Band 4 _ 20 ㎒ Bandwidth Conducted Power_ Upper Antenna

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 20175 ch. 1732.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
20 ㎒	QPSK	1	0	20.49	0	0
		1	49	20.50	0	0
		1	99	20.49	0	0
		50	0	20.43	0-1	0
		50	25	20.59	0-1	0
		50	49	20.53	0-1	0
		100	0	20.58	0-1	0
	16QAM	1	0	20.57	0-1	0
		1	49	20.76	0-1	0
		1	99	20.85	0-1	0
		50	0	20.44	0-2	0
		50	25	20.49	0-2	0
		50	49	20.56	0-2	0
		100	0	20.59	0-2	0
	64QAM	1	0	20.47	0-2	0
		1	49	20.47	0-2	0
		1	99	20.71	0-2	0
		50	0	20.41	0-3	0
		50	25	20.58	0-3	0
		50	49	20.56	0-3	0
		100	0	20.53	0-3	0
	256QAM	1	0	19.77	0-5	1
		1	49	19.76	0-5	1
		1	99	19.91	0-5	1
		50	0	19.67	0-5	1
		50	25	19.80	0-5	1
		50	49	19.72	0-5	1
		100	0	19.74	0-5	1

LTE FDD Band 4 Conducted Power _ Measured RCV (DSI 2), Hotspot (DSI 3) _ SUB5 [Ant I]

LTE FDD Band 4 _ 20 ㎒ Bandwidth Conducted Power_ Upper Antenna

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 20175 ch. 1732.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
20 ㎒	QPSK	1	0	17.15	0	0
		1	49	17.17	0	0
		1	99	16.98	0	0
		50	0	17.01	0-1	0
		50	25	17.06	0-1	0
		50	49	17.03	0-1	0
		100	0	17.08	0-1	0
	16QAM	1	0	17.18	0-1	0
		1	49	17.36	0-1	0
		1	99	17.24	0-1	0
		50	0	17.05	0-2	0
		50	25	17.10	0-2	0
		50	49	16.96	0-2	0
		100	0	17.09	0-2	0
	64QAM	1	0	17.11	0-2	0
		1	49	17.16	0-2	0
		1	99	17.31	0-2	0
		50	0	17.06	0-3	0
		50	25	17.18	0-3	0
		50	49	17.06	0-3	0
		100	0	17.07	0-3	0
	256QAM	1	0	17.21	0-5	0
		1	49	17.18	0-5	0
		1	99	17.15	0-5	0
		50	0	17.10	0-5	0
		50	25	17.13	0-5	0
		50	49	17.08	0-5	0
		100	0	17.05	0-5	0

LTE FDD Band 7 Conducted Power_ Measured Free (DSI 0), Phablet (DSI 1), Ear jack (DSI 4) _ SUB5 [Ant I]

LTE FDD Band 7 _ 20 ㎒ Bandwidth Conducted Power_ Upper Antenna

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20850 Ch. 2510 ㎒	21100 Ch. 2535 ㎒	21350 Ch. 2560 ㎒		
20 ㎒	QPSK	1	0	20.02	20.37	20.41	0	0
		1	49	20.03	20.21	20.17	0	0
		1	99	19.97	20.30	19.98	0	0
		50	0	20.10	20.22	20.17	0-1	0
		50	25	20.14	20.25	20.28	0-1	0
		50	49	20.20	20.18	20.13	0-1	0
		100	0	20.11	20.18	20.12	0-1	0
	16QAM	1	0	20.27	20.40	20.38	0-1	0
		1	49	20.32	20.33	20.28	0-1	0
		1	99	20.16	20.48	20.23	0-1	0
		50	0	20.10	20.27	20.25	0-2	0
		50	25	20.17	20.32	20.10	0-2	0
		50	49	20.15	20.31	20.21	0-2	0
		100	0	20.19	20.23	20.16	0-2	0
	64QAM	1	0	20.13	20.35	20.39	0-2	0
		1	49	20.35	20.43	20.48	0-2	0
		1	99	20.25	20.36	20.03	0-2	0
		50	0	20.11	20.32	20.16	0-3	0
		50	25	20.11	20.29	20.18	0-3	0
		50	49	20.13	20.27	20.20	0-3	0
		100	0	20.18	20.28	20.14	0-3	0
	256QAM	1	0	18.83	19.05	19.11	0-5	1.5
		1	49	18.92	18.94	18.91	0-5	1.5
		1	99	18.97	19.04	18.67	0-5	1.5
		50	0	18.82	18.99	18.86	0-5	1.5
		50	25	18.90	18.97	18.88	0-5	1.5
		50	49	18.98	19.05	18.86	0-5	1.5
		100	0	18.93	19.00	18.88	0-5	1.5

LTE FDD Band 7 Conducted Power_ Measured RCV (DSI 2) _ SUB5 [Ant I]

LTE FDD Band 7 _ 20 ㎒ Bandwidth Conducted Power_ Upper Antenna

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20850 Ch. 2510 ㎒	21100 Ch. 2535 ㎒	21350 Ch. 2560 ㎒		
20 ㎒	QPSK	1	0	14.43	14.54	14.51	0	0
		1	49	14.44	14.40	14.31	0	0
		1	99	14.38	14.33	14.24	0	0
		50	0	14.47	14.54	14.47	0-1	0
		50	25	14.44	14.47	14.33	0-1	0
		50	49	14.38	14.45	14.39	0-1	0
		100	0	14.51	14.50	14.34	0-1	0
	16QAM	1	0	14.50	14.61	14.52	0-1	0
		1	49	14.52	14.55	14.50	0-1	0
		1	99	14.42	14.48	14.50	0-1	0
		50	0	14.45	14.53	14.41	0-2	0
		50	25	14.42	14.43	14.37	0-2	0
		50	49	14.48	14.46	14.50	0-2	0
		100	0	14.47	14.39	14.32	0-2	0
	64QAM	1	0	14.56	14.49	14.54	0-2	0
		1	49	14.55	14.56	14.45	0-2	0
		1	99	14.58	14.48	14.44	0-2	0
		50	0	14.53	14.54	14.45	0-3	0
		50	25	14.45	14.46	14.45	0-3	0
		50	49	14.42	14.50	14.44	0-3	0
		100	0	14.52	14.50	14.26	0-3	0
	256QAM	1	0	14.46	14.36	14.55	0-5	0
		1	49	14.46	14.63	14.52	0-5	0
		1	99	14.52	14.56	14.40	0-5	0
		50	0	14.37	14.49	14.44	0-5	0
		50	25	14.52	14.51	14.40	0-5	0
		50	49	14.46	14.51	14.37	0-5	0
		100	0	14.46	14.49	14.45	0-5	0

LTE FDD Band 7 Conducted Power_ Measured Hotspot (DSI 3) _ SUB5 [Ant I]

LTE FDD Band 7 _ 20 ㎒ Bandwidth Conducted Power_ Upper Antenna

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20850 Ch. 2510 ㎒	21100 Ch. 2535 ㎒	21350 Ch. 2560 ㎒		
20 ㎒	QPSK	1	0	19.01	18.74	18.97	0	0
		1	49	18.81	18.90	18.98	0	0
		1	99	18.79	18.86	18.73	0	0
		50	0	18.74	18.85	18.40	0-1	0
		50	25	18.86	18.73	18.86	0-1	0
		50	49	18.75	18.88	18.85	0-1	0
		100	0	18.90	18.80	18.84	0-1	0
	16QAM	1	0	19.15	18.93	19.05	0-1	0
		1	49	19.24	19.08	19.39	0-1	0
		1	99	18.90	18.93	18.78	0-1	0
		50	0	18.76	18.98	18.96	0-2	0
		50	25	18.85	18.90	18.81	0-2	0
		50	49	18.73	18.98	18.93	0-2	0
		100	0	18.87	18.89	18.88	0-2	0
	64QAM	1	0	18.96	18.79	18.89	0-2	0
		1	49	18.96	19.09	18.95	0-2	0
		1	99	19.03	18.96	19.00	0-2	0
		50	0	18.72	18.87	18.75	0-3	0
		50	25	19.00	18.88	18.85	0-3	0
		50	49	18.99	18.90	18.75	0-3	0
		100	0	18.94	18.93	18.79	0-3	0
	256QAM	1	0	18.90	18.80	18.83	0-5	0
		1	49	19.10	18.94	18.90	0-5	0
		1	99	18.96	18.79	18.94	0-5	0
		50	0	18.77	19.01	18.75	0-5	0
		50	25	18.81	19.08	18.99	0-5	0
		50	49	18.93	18.93	18.89	0-5	0
		100	0	18.93	18.79	18.87	0-5	0

LTE FDD Band 25 Conducted Power_ Measured Free (DSI 0), Phablet (DSI 1), Ear jack (DSI 4) _ SUB5 [Ant I]

LTE FDD Band 25 _ 20 ㎒ Bandwidth Conducted Power_ Upper Antenna

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26140 Ch. 1860 ㎒	26365 Ch. 1882.5 ㎒	26590 Ch. 1905 ㎒		
20 ㎒	QPSK	1	0	20.99	20.96	21.14	0	0
		1	49	20.96	20.89	20.70	0	0
		1	99	20.91	20.91	20.81	0	0
		50	0	20.89	20.95	20.88	0-1	0
		50	25	20.98	20.92	20.94	0-1	0
		50	49	20.99	21.00	20.97	0-1	0
		100	0	20.97	20.99	20.91	0-1	0
	16QAM	1	0	21.04	21.16	21.04	0-1	0
		1	49	21.06	21.10	21.14	0-1	0
		1	99	21.09	21.15	20.92	0-1	0
		50	0	20.91	20.93	20.90	0-2	0
		50	25	20.89	21.00	20.97	0-2	0
		50	49	20.97	21.04	20.86	0-2	0
		100	0	20.96	20.90	20.91	0-2	0
	64QAM	1	0	21.20	21.18	20.95	0-2	0
		1	49	21.07	21.03	21.14	0-2	0
		1	99	20.96	21.18	20.97	0-2	0
		50	0	20.88	20.98	20.82	0-3	0
		50	25	20.91	20.92	20.90	0-3	0
		50	49	20.91	20.99	20.82	0-3	0
		100	0	20.96	20.94	20.95	0-3	0
	256QAM	1	0	19.71	19.80	19.72	0-5	1.5
		1	49	19.76	19.80	19.69	0-5	1.5
		1	99	19.56	19.67	19.56	0-5	1.5
		50	0	19.61	19.66	19.65	0-5	1.5
		50	25	19.64	19.67	19.67	0-5	1.5
		50	49	19.65	19.64	19.56	0-5	1.5
		100	0	19.70	19.60	19.64	0-5	1.5

LTE FDD Band 25 Conducted Power_ Measured RCV (DSI 2) _ SUB5 [Ant I]

LTE FDD Band 25 _ 20 ㎒ Bandwidth Conducted Power_ Upper Antenna

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26140 Ch. 1860 ㎒	26365 Ch. 1882.5 ㎒	26590 Ch. 1905 ㎒		
20 ㎒	QPSK	1	0	15.07	15.05	15.39	0	0
		1	49	15.06	15.08	15.03	0	0
		1	99	15.06	15.02	14.91	0	0
		50	0	15.20	15.05	15.00	0-1	0
		50	25	15.16	15.06	15.05	0-1	0
		50	49	15.14	15.13	14.97	0-1	0
		100	0	15.15	15.05	15.07	0-1	0
	16QAM	1	0	15.30	15.46	15.16	0-1	0
		1	49	15.46	15.45	15.15	0-1	0
		1	99	15.30	15.22	15.12	0-1	0
		50	0	15.19	15.19	15.00	0-2	0
		50	25	15.23	15.10	15.05	0-2	0
		50	49	15.22	15.15	15.05	0-2	0
		100	0	15.17	15.09	15.03	0-2	0
	64QAM	1	0	15.23	15.30	15.23	0-2	0
		1	49	15.36	15.20	15.33	0-2	0
		1	99	15.34	15.23	15.06	0-2	0
		50	0	15.16	15.08	15.00	0-3	0
		50	25	15.18	15.07	15.08	0-3	0
		50	49	15.11	15.16	15.03	0-3	0
		100	0	15.18	15.02	15.08	0-3	0
	256QAM	1	0	15.29	15.26	15.20	0-5	0
		1	49	15.29	15.25	14.99	0-5	0
		1	99	15.33	15.20	14.99	0-5	0
		50	0	15.17	15.15	14.97	0-5	0
		50	25	15.30	15.11	15.05	0-5	0
		50	49	15.16	15.16	15.11	0-5	0
		100	0	15.24	15.01	15.04	0-5	0

LTE FDD Band 25 Conducted Power_ Measured Hotspot (DSI 3) _ SUB5 [Ant I]

LTE FDD Band 25 _ 20 ㎒ Bandwidth Conducted Power_ Upper Antenna

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26140 Ch. 1860 ㎒	26365 Ch. 1882.5 ㎒	26590 Ch. 1905 ㎒		
20 ㎒	QPSK	1	0	15.91	16.09	15.71	0	0
		1	49	15.90	15.81	15.60	0	0
		1	99	15.88	15.73	15.65	0	0
		50	0	15.81	15.86	15.68	0-1	0
		50	25	15.88	15.68	15.72	0-1	0
		50	49	15.82	15.81	15.77	0-1	0
		100	0	15.82	15.67	15.76	0-1	0
	16QAM	1	0	16.28	16.02	16.13	0-1	0
		1	49	16.08	15.97	15.95	0-1	0
		1	99	15.95	16.08	15.80	0-1	0
		50	0	15.84	15.81	15.73	0-2	0
		50	25	15.88	15.78	15.81	0-2	0
		50	49	15.83	15.79	15.77	0-2	0
		100	0	15.90	15.74	15.77	0-2	0
	64QAM	1	0	16.20	16.03	15.87	0-2	0
		1	49	16.05	16.11	15.89	0-2	0
		1	99	15.96	15.97	15.95	0-2	0
		50	0	15.80	15.81	15.78	0-3	0
		50	25	15.96	15.76	15.70	0-3	0
		50	49	15.86	15.87	15.77	0-3	0
		100	0	15.96	15.79	15.75	0-3	0
	256QAM	1	0	15.95	15.95	15.90	0-5	0
		1	49	16.01	15.83	15.88	0-5	0
		1	99	15.75	15.86	15.62	0-5	0
		50	0	15.89	15.85	15.83	0-5	0
		50	25	15.87	15.77	15.80	0-5	0
		50	49	15.86	15.76	15.76	0-5	0
		100	0	15.87	15.69	15.75	0-5	0

LTE FDD Band 30 Conducted Power_ Measured Free (DSI 0), Phablet (DSI 1), Ear jack (DSI 4) _ SUB5 [Ant I]

LTE FDD Band 30 _ 10 ㎒ Bandwidth Conducted Power_ Upper Antenna

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 27710 Ch. 2310 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	20.93	0	0
		1	24	20.79	0	0
		1	49	20.67	0	0
		25	0	20.75	0-1	0
		25	12	20.72	0-1	0
		25	24	20.73	0-1	0
		50	0	20.64	0-1	0
	16QAM	1	0	20.89	0-1	0
		1	24	20.97	0-1	0
		1	49	20.84	0-1	0
		25	0	20.78	0-2	0
		25	12	20.80	0-2	0
		25	24	20.78	0-2	0
		50	0	20.75	0-2	0
	64QAM	1	0	20.97	0-2	0
		1	24	21.05	0-2	0
		1	49	20.79	0-2	0
		25	0	20.01	0-3	1
		25	12	20.01	0-3	1
		25	24	20.04	0-3	1
		50	0	19.99	0-3	1
	256QAM	1	0	18.03	0-5	3
		1	24	18.21	0-5	3
		1	49	17.87	0-5	3
		25	0	17.98	0-5	3
		25	12	17.92	0-5	3
		25	24	17.95	0-5	3
		50	0	17.98	0-5	3

LTE FDD Band 30 Conducted Power_ Measured RCV (DSI 2) _ SUB5 [Ant I]

LTE FDD Band 30 _ 10 ㎒ Bandwidth Conducted Power_ Upper Antenna

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 27710 Ch. 2310 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	14.34	0	0
		1	24	14.15	0	0
		1	49	14.16	0	0
		25	0	14.26	0-1	0
		25	12	14.35	0-1	0
		25	24	14.33	0-1	0
		50	0	14.37	0-1	0
	16QAM	1	0	14.37	0-1	0
		1	24	14.45	0-1	0
		1	49	14.40	0-1	0
		25	0	14.18	0-2	0
		25	12	14.18	0-2	0
		25	24	14.31	0-2	0
		50	0	14.10	0-2	0
	64QAM	1	0	14.27	0-2	0
		1	24	14.45	0-2	0
		1	49	14.21	0-2	0
		25	0	14.20	0-3	0
		25	12	14.16	0-3	0
		25	24	14.24	0-3	0
		50	0	14.19	0-3	0
	256QAM	1	0	14.22	0-5	0
		1	24	14.45	0-5	0
		1	49	14.07	0-5	0
		25	0	14.22	0-5	0
		25	12	14.30	0-5	0
		25	24	14.02	0-5	0
		50	0	14.27	0-5	0

LTE FDD Band 30 Conducted Power_ Measured Hotspot (DSI 3) _ SUB5 [Ant I]

LTE FDD Band 30 _ 10 ㎒ Bandwidth Conducted Power_ Upper Antenna

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 27710 Ch. 2310 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	18.11	0	0
		1	24	17.90	0	0
		1	49	17.87	0	0
		25	0	17.88	0-1	0
		25	12	17.96	0-1	0
		25	24	18.02	0-1	0
		50	0	17.98	0-1	0
	16QAM	1	0	18.23	0-1	0
		1	24	18.13	0-1	0
		1	49	17.72	0-1	0
		25	0	17.92	0-2	0
		25	12	17.95	0-2	0
		25	24	17.90	0-2	0
		50	0	17.85	0-2	0
	64QAM	1	0	17.96	0-2	0
		1	24	18.10	0-2	0
		1	49	18.12	0-2	0
		25	0	17.90	0-3	0
		25	12	17.93	0-3	0
		25	24	17.98	0-3	0
		50	0	17.94	0-3	0
	256QAM	1	0	18.02	0-5	0
		1	24	17.96	0-5	0
		1	49	17.96	0-5	0
		25	0	18.17	0-5	0
		25	12	17.92	0-5	0
		25	24	18.06	0-5	0
		50	0	17.97	0-5	0

LTE TDD Band 41 Conducted Power (Power Class 3)_Measured Free (DSI 0), Phablet (DSI 1), Ear jack (DSI 4) _ SUB5 [Ant I]

LTE TDD Band 41 _ 20 ㎒ Bandwidth Conducted Power – Power Class 3_ Upper Antenna

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 ㎒	40185 Ch. 2549.5 ㎒	40620 Ch. 2593.0 ㎒	41055 Ch. 2636.5 ㎒	41490 Ch. 2680.0 ㎒		
20 ㎒	QPSK	1	0	22.76	22.89	22.94	23.02	23.25	0	0
		1	49	22.82	22.86	22.88	23.14	23.14	0	0
		1	99	22.78	22.83	22.67	22.93	23.15	0	0
		50	0	22.86	22.95	23.02	23.14	23.17	0-1	0
		50	25	22.96	23.06	22.99	23.03	23.05	0-1	0
		50	49	22.92	22.97	22.88	23.11	23.13	0-1	0
		100	0	22.93	22.97	22.99	23.12	23.17	0-1	0
	16QAM	1	0	22.87	23.14	23.09	23.18	23.41	0-1	0
		1	49	22.98	23.06	22.93	23.23	23.27	0-1	0
		1	99	22.90	22.84	22.69	22.91	23.00	0-1	0
		50	0	22.40	22.44	22.49	22.66	22.81	0-2	0.5
		50	25	22.52	22.51	22.52	22.79	22.88	0-2	0.5
		50	49	22.49	22.46	22.41	22.51	22.80	0-2	0.5
		100	0	22.45	22.49	22.51	22.79	22.74	0-2	0.5
	64QAM	1	0	22.52	22.49	22.52	22.63	22.82	0-2	0.5
		1	49	22.48	22.56	22.45	22.73	22.82	0-2	0.5
		1	99	22.45	22.47	22.36	22.43	22.51	0-2	0.5
		50	0	21.45	21.44	21.49	21.50	21.69	0-3	1.5
		50	25	21.53	21.53	21.50	21.53	21.79	0-3	1.5
		50	49	21.52	21.48	21.41	21.42	21.56	0-3	1.5
		100	0	21.52	21.51	21.49	21.72	21.82	0-3	1.5
	256QAM	1	0	19.36	19.43	18.49	18.56	18.77	0-5	3.5
		1	49	19.44	19.51	18.48	18.43	18.43	0-5	3.5
		1	99	19.46	19.27	18.30	18.54	18.75	0-5	3.5
		50	0	19.45	19.44	18.53	18.66	18.74	0-5	3.5
		50	25	19.56	19.55	18.25	18.53	18.69	0-5	3.5
		50	49	19.52	19.49	19.20	19.36	19.43	0-5	3.5
		100	0	19.50	19.52	19.29	19.46	19.59	0-5	3.5

Note; LTE Band 41 has 5 required test channels per FCC KDB 447498 D01v06.

LTE TDD Band 41 Conducted Power (Power Class 3)_ Measured RCV (DSI 2) _ SUB5 [Ant I]

LTE TDD Band 41 _ 20 ㎒ Bandwidth Conducted Power – Power Class 3_ Upper Antenna

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 ㎒	40185 Ch. 2549.5 ㎒	40620 Ch. 2593.0 ㎒	41055 Ch. 2636.5 ㎒	41490 Ch. 2680.0 ㎒		
20 ㎒	QPSK	1	0	16.06	16.00	15.89	16.19	16.17	0	0
		1	49	16.07	16.01	16.01	15.98	16.05	0	0
		1	99	15.91	15.84	15.72	15.76	15.84	0	0
		50	0	16.04	15.90	16.04	16.15	16.20	0-1	0
		50	25	16.13	15.97	16.15	16.25	16.29	0-1	0
		50	49	16.03	16.03	16.04	16.00	16.17	0-1	0
		100	0	16.13	15.95	15.98	15.99	15.99	0-1	0
	16QAM	1	0	15.86	15.98	16.05	16.19	16.08	0-1	0
		1	49	15.90	15.88	15.55	15.57	15.81	0-1	0
		1	99	16.16	15.75	15.64	15.66	15.65	0-1	0
		50	0	16.13	16.00	15.99	16.16	16.23	0-2	0
		50	25	16.05	15.95	16.19	16.12	16.25	0-2	0
		50	49	15.99	16.14	16.09	16.23	16.29	0-2	0
		100	0	16.12	16.03	16.09	16.08	16.16	0-2	0
	64QAM	1	0	15.90	16.15	16.15	16.10	16.21	0-2	0
		1	49	16.05	16.02	16.10	15.95	16.27	0-2	0
		1	99	16.15	16.09	15.76	15.89	15.89	0-2	0
		50	0	16.03	16.00	15.45	15.54	15.56	0-3	0
		50	25	16.02	16.06	16.13	16.13	16.31	0-3	0
		50	49	16.16	16.15	15.90	16.24	16.28	0-3	0
		100	0	15.96	15.94	15.96	15.98	16.25	0-3	0
	256QAM	1	0	15.92	16.05	16.08	16.20	16.20	0-5	0
		1	49	15.88	16.06	15.90	16.06	16.03	0-5	0
		1	99	15.92	15.88	15.71	15.69	16.06	0-5	0
		50	0	15.91	16.01	16.06	16.15	16.09	0-5	0
		50	25	16.10	16.10	15.80	15.85	15.99	0-5	0
		50	49	16.16	15.97	15.89	16.01	16.09	0-5	0
		100	0	15.95	16.16	15.92	16.11	16.36	0-5	0

Note; LTE Band 41 has 5 required test channels per FCC KDB 447498 D01v06.

LTE TDD Band 41 Conducted Power (Power Class 3)_ Measured Hotspot (DSI 3) _ SUB5 [Ant I]

LTE TDD Band 41 _ 20 ㎒ Bandwidth Conducted Power – Power Class 3_ Upper Antenna

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 ㎒	40185 Ch. 2549.5 ㎒	40620 Ch. 2593.0 ㎒	41055 Ch. 2636.5 ㎒	41490 Ch. 2680.0 ㎒		
20 ㎒	QPSK	1	0	18.65	18.72	18.72	18.85	18.87	0	0
		1	49	18.71	18.69	18.79	18.63	18.80	0	0
		1	99	18.62	18.68	18.42	18.38	18.83	0	0
		50	0	18.63	18.71	18.74	18.60	18.88	0-1	0
		50	25	18.71	18.83	18.75	18.69	18.82	0-1	0
		50	49	18.72	18.75	18.63	18.63	18.85	0-1	0
		100	0	18.69	18.81	18.81	18.70	18.86	0-1	0
	16QAM	1	0	18.69	18.73	18.85	18.79	18.88	0-1	0
		1	49	18.70	18.71	18.72	18.67	18.92	0-1	0
		1	99	18.79	18.73	18.51	18.58	18.64	0-1	0
		50	0	18.68	18.80	18.85	18.80	18.81	0-2	0
		50	25	18.76	18.84	18.75	18.70	18.90	0-2	0
		50	49	18.72	18.77	18.64	18.62	18.75	0-2	0
		100	0	18.69	18.73	18.73	18.72	18.87	0-2	0
	64QAM	1	0	18.74	18.73	18.74	18.84	18.91	0-2	0
		1	49	18.71	18.92	18.81	18.74	18.94	0-2	0
		1	99	18.94	18.67	18.56	18.51	18.69	0-2	0
		50	0	18.70	18.73	18.77	18.77	18.94	0-3	0
		50	25	18.78	18.84	18.80	18.75	18.99	0-3	0
		50	49	18.76	18.84	18.65	18.72	18.84	0-3	0
		100	0	18.80	18.85	18.73	18.73	18.93	0-3	0
	256QAM	1	0	18.62	18.73	18.83	18.81	18.78	0-5	0
		1	49	18.84	18.90	18.84	18.77	18.81	0-5	0
		1	99	18.50	18.70	18.55	18.57	18.62	0-5	0
		50	0	18.74	18.73	18.88	18.84	18.94	0-5	0
		50	25	18.86	18.93	18.82	18.92	18.91	0-5	0
		50	49	18.79	18.80	18.77	18.76	18.84	0-5	0
		100	0	18.86	18.87	18.86	18.82	18.99	0-5	0

Note; LTE Band 41 has 5 required test channels per FCC KDB 447498 D01v06.

LTE TDD Band 41 Conducted Power (Power Class 2)_Measured Free (DSI 0), Phablet (DSI 1), Ear jack (DSI 4) _ SUB5 [Ant I]

LTE TDD Band 41 _ 20 ㎒ Bandwidth Conducted Power – Power Class 2_ Upper Antenna

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 ㎒	40185 Ch. 2549.5 ㎒	40620 Ch. 2593.0 ㎒	41055 Ch. 2636.5 ㎒	41490 Ch. 2680.0 ㎒		
20 ㎒	QPSK	1	0	24.50	24.69	24.86	24.94	24.95	0	0
		1	49	24.53	24.60	24.58	24.63	24.70	0	0
		1	99	24.64	24.50	24.49	24.56	24.64	0	0
		50	0	24.58	24.57	24.64	24.75	24.79	0-1	0
		50	25	24.64	24.68	24.62	24.72	24.83	0-1	0
		50	49	24.58	24.63	24.52	24.62	24.66	0-1	0
		100	0	24.60	24.62	24.58	24.65	24.67	0-1	0
	16QAM	1	0	24.84	24.91	24.94	25.04	24.89	0-1	0
		1	49	24.76	25.05	24.89	24.98	24.87	0-1	0
		1	99	24.76	24.81	24.60	24.63	24.66	0-1	0
		50	0	24.11	24.07	24.16	24.23	24.24	0-2	0.6
		50	25	24.21	24.18	24.18	24.19	24.28	0-2	0.6
		50	49	24.15	24.17	24.00	24.09	24.17	0-2	0.6
		100	0	24.15	24.17	24.10	24.19	24.20	0-2	0.6
	64QAM	1	0	24.44	24.42	24.41	24.48	24.42	0-2	0.6
		1	49	24.40	24.36	24.41	24.44	24.49	0-2	0.6
		1	99	24.40	24.42	24.16	24.22	24.30	0-2	0.6
		50	0	22.89	22.89	22.93	22.99	23.00	0-3	1.6
		50	25	22.94	22.94	22.91	22.93	23.04	0-3	1.6
		50	49	22.96	22.91	22.80	22.82	22.89	0-3	1.6
		100	0	22.91	22.94	22.85	22.89	22.97	0-3	1.6
	256QAM	1	0	21.00	20.89	21.06	21.09	21.20	0-5	3.6
		1	49	20.86	20.96	20.97	21.01	21.02	0-5	3.6
		1	99	20.96	20.95	20.87	20.90	20.99	0-5	3.6
		50	0	20.84	20.86	20.87	20.90	20.99	0-5	3.6
		50	25	20.91	20.95	20.87	20.91	20.95	0-5	3.6
		50	49	20.86	20.88	20.77	20.80	20.86	0-5	3.6
		100	0	20.89	20.91	20.85	20.92	20.93	0-5	3.6

Note; LTE Band 41 has 5 required test channels per FCC KDB 447498 D01v06.

LTE TDD Band 41 Conducted Power (Power Class 2)_ Measured RCV (DSI 2) _ SUB5 [Ant I]

LTE TDD Band 41 _ 20 ㎒ Bandwidth Conducted Power – Power Class 2_ Upper Antenna

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 ㎒	40185 Ch. 2549.5 ㎒	40620 Ch. 2593.0 ㎒	41055 Ch. 2636.5 ㎒	41490 Ch. 2680.0 ㎒		
20 ㎒	QPSK	1	0	17.39	17.67	17.57	17.64	17.68	0	0
		1	49	17.43	17.46	17.43	17.54	17.59	0	0
		1	99	17.32	17.43	17.22	17.24	17.30	0	0
		50	0	17.45	17.40	17.46	17.49	17.57	0-1	0
		50	25	17.51	17.47	17.43	17.50	17.64	0-1	0
		50	49	17.49	17.41	17.38	17.40	17.56	0-1	0
		100	0	17.49	17.41	17.42	17.57	17.65	0-1	0
	16QAM	1	0	17.75	17.66	17.71	17.79	17.83	0-1	0
		1	49	17.72	17.71	17.73	17.71	17.80	0-1	0
		1	99	17.66	17.64	17.47	17.50	17.50	0-1	0
		50	0	17.52	17.51	17.55	17.54	17.67	0-2	0
		50	25	17.57	17.52	17.48	17.56	17.61	0-2	0
		50	49	17.51	17.49	17.36	17.43	17.50	0-2	0
		100	0	17.48	17.47	17.46	17.61	17.66	0-2	0
	64QAM	1	0	17.76	17.72	17.78	17.60	17.81	0-2	0
		1	49	17.90	17.61	17.75	17.77	17.80	0-2	0
		1	99	17.75	17.79	17.44	17.54	17.71	0-2	0
		50	0	17.54	17.46	17.50	17.51	17.67	0-3	0
		50	25	17.59	17.51	17.50	17.55	17.64	0-3	0
		50	49	17.57	17.51	17.52	17.49	17.57	0-3	0
		100	0	17.53	17.51	17.47	17.44	17.56	0-3	0
	256QAM	1	0	17.52	17.46	17.62	17.76	17.85	0-5	0
		1	49	17.66	17.56	17.67	17.64	17.72	0-5	0
		1	99	17.52	17.46	17.23	17.41	17.46	0-5	0
		50	0	17.49	17.44	17.47	17.53	17.56	0-5	0
		50	25	17.54	17.51	17.56	17.54	17.66	0-5	0
		50	49	17.46	17.43	17.42	17.52	17.57	0-5	0
		100	0	17.56	17.50	17.52	17.54	17.58	0-5	0

Note; LTE Band 41 has 5 required test channels per FCC KDB 447498 D01v06.

LTE TDD Band 41 Conducted Power (Power Class 2) _ Measured Hotspot (DSI 3) _ SUB5 [Ant I]

LTE TDD Band 41 _ 20 ㎒ Bandwidth Conducted Power – Power Class 2_ Upper Antenna

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 ㎒	40185 Ch. 2549.5 ㎒	40620 Ch. 2593.0 ㎒	41055 Ch. 2636.5 ㎒	41490 Ch. 2680.0 ㎒		
20 ㎒	QPSK	1	0	20.56	20.48	20.56	20.65	20.69	0	0
		1	49	20.40	20.52	20.47	20.45	20.44	0	0
		1	99	20.47	20.55	20.46	20.47	20.47	0	0
		50	0	20.47	20.48	20.55	20.50	20.64	0-1	0
		50	25	20.49	20.54	20.59	20.62	20.53	0-1	0
		50	49	20.51	20.56	20.48	20.50	20.57	0-1	0
		100	0	20.46	20.57	20.45	20.50	20.66	0-1	0
	16QAM	1	0	20.77	20.74	20.86	20.90	20.83	0-1	0
		1	49	20.60	20.70	20.81	20.83	20.91	0-1	0
		1	99	20.80	20.80	20.63	20.66	20.68	0-1	0
		50	0	20.44	20.47	20.61	20.70	20.68	0-2	0
		50	25	20.52	20.57	20.62	20.65	20.63	0-2	0
		50	49	20.52	20.55	20.53	20.49	20.55	0-2	0
		100	0	20.52	20.53	20.54	20.56	20.58	0-2	0
	64QAM	1	0	20.83	20.86	20.95	20.97	21.01	0-2	0
		1	49	20.88	20.83	20.73	20.80	20.87	0-2	0
		1	99	20.71	20.68	20.52	20.55	20.55	0-2	0
		50	0	20.44	20.45	20.57	20.60	20.68	0-3	0
		50	25	20.58	20.56	20.55	20.65	20.74	0-3	0
		50	49	20.53	20.52	20.49	20.51	20.51	0-3	0
		100	0	20.56	20.51	20.50	20.50	20.54	0-3	0
	256QAM	1	0	19.84	19.78	19.95	19.94	19.94	0-5	0.6
		1	49	20.00	20.05	19.83	20.01	19.98	0-5	0.6
		1	99	19.85	19.89	19.64	19.70	19.78	0-5	0.6
		50	0	19.74	19.69	19.84	19.85	19.81	0-5	0.6
		50	25	19.78	19.88	19.74	19.87	19.87	0-5	0.6
		50	49	19.80	19.79	19.68	19.75	19.78	0-5	0.6
		100	0	19.73	19.81	19.79	19.89	19.88	0-5	0.6

Note; LTE Band 41 has 5 required test channels per FCC KDB 447498 D01v06.

LTE TDD Band 48 Conducted Power_ Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4) _SUB2 [Ant F]

LTE TDD Band 48 _ 20 ㎒ Bandwidth Conducted Power _ Upper Antenna

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]				MPR Allowed Per 3GPP [dB]	MPR [dB]
				55340Ch. 3560.0 ㎒	55773 Ch. 3603.3 ㎒	56207 Ch. 3646.7 ㎒	56640 Ch. 3690.0 ㎒		
20 ㎒	QPSK	1	0	21.19	20.98	20.78	20.80	0	0
		1	49	21.41	20.78	20.86	20.86	0	0
		1	99	21.53	20.90	20.87	20.89	0	0
		50	0	21.39	20.80	21.16	21.06	0-1	0
		50	25	21.55	20.95	21.18	21.08	0-1	0
		50	49	21.59	20.97	21.15	21.10	0-1	0
		100	0	21.55	20.90	21.15	21.08	0-1	0
	16QAM	1	0	21.18	20.67	21.04	21.05	0-1	0
		1	49	21.37	20.85	21.11	20.81	0-1	0
		1	99	21.58	21.12	21.12	20.92	0-1	0
		50	0	21.38	20.85	21.14	21.04	0-2	0
		50	25	21.56	20.94	21.16	21.06	0-2	0
		50	49	21.60	20.97	21.18	21.09	0-2	0
		100	0	21.57	20.90	21.13	21.07	0-2	0
	64QAM	1	0	21.42	20.84	21.20	20.99	0-2	0
		1	49	21.72	20.90	21.26	21.10	0-2	0
		1	99	21.73	21.12	21.25	21.18	0-2	0
		50	0	20.40	19.81	20.11	20.03	0-3	1
		50	25	20.53	19.95	20.14	20.08	0-3	1
		50	49	20.64	20.00	20.19	20.12	0-3	1
		100	0	20.57	19.96	20.12	20.01	0-3	1
	256QAM	1	0	18.15	17.64	17.90	17.75	0-5	3
		1	49	18.32	17.81	17.99	18.07	0-5	3
		1	99	18.53	17.78	17.95	17.91	0-5	3
		50	0	18.40	17.81	18.09	18.05	0-5	3
		50	25	18.54	17.97	18.17	18.06	0-5	3
		50	49	18.55	17.94	18.15	18.10	0-5	3
		100	0	18.50	17.88	18.09	18.05	0-5	3

LTE TDD Band 48 Conducted Power_ Measured RCV (DSI 2) _SUB2 [Ant F]

LTE TDD Band 48 _ 20 ㎒ Bandwidth Conducted Power _ Upper Antenna

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]				MPR Allowed Per 3GPP [dB]	MPR [dB]
				55340Ch. 3560.0 ㎒	55773 Ch. 3603.3 ㎒	56207 Ch. 3646.7 ㎒	56640 Ch. 3690.0 ㎒		
20 ㎒	QPSK	1	0	15.81	15.36	15.41	15.33	0	0
		1	49	15.96	15.56	15.42	15.38	0	0
		1	99	16.11	15.62	15.42	15.29	0	0
		50	0	15.85	15.56	15.62	15.55	0-1	0
		50	25	16.03	15.69	15.67	15.51	0-1	0
		50	49	16.12	15.71	15.64	15.47	0-1	0
		100	0	16.02	15.69	15.60	15.48	0-1	0
	16QAM	1	0	15.63	15.28	15.37	15.25	0-1	0
		1	49	15.77	15.39	15.47	15.21	0-1	0
		1	99	16.02	15.60	15.44	15.18	0-1	0
		50	0	15.76	15.37	15.45	15.34	0-2	0
		50	25	15.92	15.53	15.47	15.36	0-2	0
		50	49	15.96	15.53	15.45	15.33	0-2	0
		100	0	15.90	15.51	15.43	15.39	0-2	0
	64QAM	1	0	15.68	15.35	15.48	15.33	0-2	0
		1	49	15.95	15.52	15.45	15.37	0-2	0
		1	99	16.13	15.55	15.46	15.31	0-2	0
		50	0	15.71	15.38	15.46	15.31	0-3	0
		50	25	15.91	15.55	15.49	15.33	0-3	0
		50	49	15.97	15.55	15.48	15.32	0-3	0
		100	0	15.92	15.53	15.46	15.39	0-3	0
	256QAM	1	0	15.51	15.24	15.38	15.20	0-5	0
		1	49	15.98	15.44	15.46	15.33	0-5	0
		1	99	15.85	15.40	15.38	15.08	0-5	0
		50	0	15.71	15.37	15.50	15.34	0-5	0
		50	25	15.91	15.55	15.55	15.43	0-5	0
		50	49	15.98	15.50	15.50	15.40	0-5	0
		100	0	15.86	15.49	15.54	15.41	0-5	0

LTE TDD Band 48 Conducted Power_ Measured Hotspot (DSI 3) _SUB2 [Ant F]

LTE TDD Band 48 _ 20 ㎒ Bandwidth Conducted Power _ Upper Antenna

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]				MPR Allowed Per 3GPP [dB]	MPR [dB]
				55340Ch. 3560.0 ㎒	55773 Ch. 3603.3 ㎒	56207 Ch. 3646.7 ㎒	56640 Ch. 3690.0 ㎒		
20 ㎒	QPSK	1	0	17.66	17.17	17.26	17.24	0	0
		1	49	17.93	17.29	17.30	17.27	0	0
		1	99	18.11	17.38	17.28	17.23	0	0
		50	0	17.89	17.40	17.50	17.43	0-1	0
		50	25	18.06	17.52	17.53	17.50	0-1	0
		50	49	18.09	17.53	17.64	17.48	0-1	0
		100	0	18.06	17.52	17.52	17.44	0-1	0
	16QAM	1	0	17.85	17.33	17.39	17.40	0-1	0
		1	49	18.08	17.36	17.53	17.33	0-1	0
		1	99	18.14	17.43	17.46	17.27	0-1	0
		50	0	17.90	17.35	17.57	17.41	0-2	0
		50	25	18.04	17.47	17.59	17.48	0-2	0
		50	49	18.13	17.52	17.57	17.49	0-2	0
		100	0	18.06	17.46	17.57	17.45	0-2	0
	64QAM	1	0	17.86	17.33	17.50	17.36	0-2	0
		1	49	18.08	17.49	17.60	17.43	0-2	0
		1	99	18.23	17.54	17.49	17.36	0-2	0
		50	0	17.91	17.38	17.53	17.45	0-3	0
		50	25	18.12	17.51	17.55	17.48	0-3	0
		50	49	18.15	17.55	17.53	17.45	0-3	0
		100	0	18.06	17.45	17.54	17.42	0-3	0
	256QAM	1	0	17.79	17.11	17.52	17.34	0-5	0
		1	49	17.98	17.46	17.39	17.31	0-5	0
		1	99	18.14	17.49	17.33	17.19	0-5	0
		50	0	17.92	17.42	17.55	17.46	0-5	0
		50	25	18.10	17.53	17.57	17.46	0-5	0
		50	49	18.21	17.57	17.58	17.47	0-5	0
		100	0	18.06	17.48	17.58	17.49	0-5	0

LTE FDD Band 66 Conducted Power_ Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4) _ SUB5 [Ant I]

LTE FDD Band 66 _ 20 ㎒ Bandwidth Conducted Power_ Upper Antenna

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132072 Ch. 1720 ㎒	132322 Ch. 1745 ㎒	132572 Ch. 1770 ㎒		
20 ㎒	QPSK	1	0	20.37	20.85	20.60	0	0
		1	49	20.57	20.60	20.62	0	0
		1	99	20.53	20.58	20.52	0	0
		50	0	20.51	20.75	20.57	0-1	0
		50	25	20.65	20.61	20.65	0-1	0
		50	49	20.56	20.64	20.62	0-1	0
		100	0	20.66	20.63	20.64	0-1	0
	16QAM	1	0	20.91	20.83	20.91	0-1	0
		1	49	20.78	20.92	20.85	0-1	0
		1	99	20.57	20.84	20.89	0-1	0
		50	0	20.51	20.70	20.69	0-2	0
		50	25	20.73	20.73	20.73	0-2	0
		50	49	20.58	20.78	20.72	0-2	0
		100	0	20.57	20.70	20.57	0-2	0
	64QAM	1	0	20.72	20.75	20.64	0-2	0
		1	49	20.80	20.89	20.76	0-2	0
		1	99	20.91	20.91	20.95	0-2	0
		50	0	20.58	20.72	20.65	0-3	0
		50	25	20.72	20.59	20.64	0-3	0
		50	49	20.62	20.76	20.75	0-3	0
		100	0	20.73	20.57	20.69	0-3	0
	256QAM	1	0	19.66	19.71	19.60	0-5	1
		1	49	19.73	19.75	19.77	0-5	1
		1	99	19.68	19.85	19.92	0-5	1
		50	0	19.59	19.63	19.66	0-5	1
		50	25	19.74	19.78	19.79	0-5	1
		50	49	19.77	19.69	19.77	0-5	1
		100	0	19.70	19.69	19.80	0-5	1

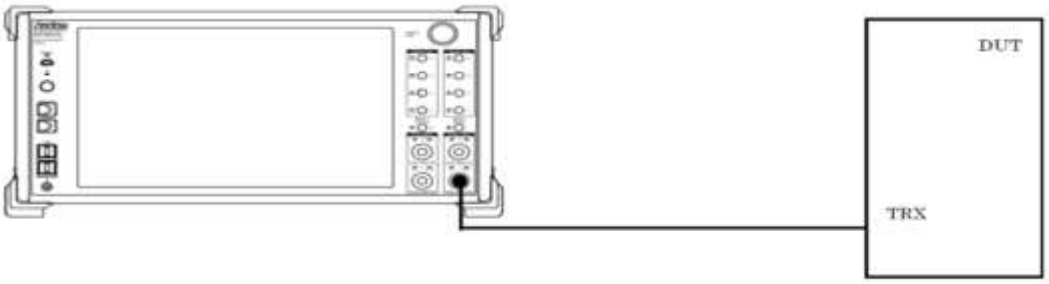
LTE FDD Band 66 Conducted Power_ Measured Measured RCV (DSI 2), Hotspot (DSI 3) _ SUB5 [Ant I]

LTE FDD Band 66 _ 20 ㎒ Bandwidth Conducted Power_ Upper Antenna

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132072 Ch. 1720 ㎒	132322 Ch. 1745 ㎒	132572 Ch. 1770 ㎒		
20 ㎒	QPSK	1	0	17.14	17.18	17.31	0	0
		1	49	17.24	17.19	17.04	0	0
		1	99	17.06	17.10	17.07	0	0
		50	0	17.08	17.10	17.07	0-1	0
		50	25	17.14	17.15	17.02	0-1	0
		50	49	17.13	17.16	17.09	0-1	0
		100	0	17.13	17.12	17.05	0-1	0
	16QAM	1	0	17.26	17.44	17.29	0-1	0
		1	49	17.16	17.41	17.16	0-1	0
		1	99	17.30	17.34	17.19	0-1	0
		50	0	17.16	17.24	17.07	0-2	0
		50	25	17.14	17.15	17.08	0-2	0
		50	49	17.17	17.19	17.10	0-2	0
		100	0	17.18	17.13	17.01	0-2	0
	64QAM	1	0	17.31	17.43	17.12	0-2	0
		1	49	17.30	17.42	17.29	0-2	0
		1	99	17.12	17.27	17.18	0-2	0
		50	0	17.04	17.11	17.09	0-3	0
		50	25	17.14	17.03	17.02	0-3	0
		50	49	17.13	17.17	17.15	0-3	0
		100	0	17.17	17.16	17.09	0-3	0
	256QAM	1	0	17.20	17.12	17.17	0-5	0
		1	49	17.36	17.26	17.21	0-5	0
		1	99	17.03	17.20	17.18	0-5	0
		50	0	17.14	17.15	17.15	0-5	0
		50	25	17.30	17.18	17.10	0-5	0
		50	49	17.23	17.18	17.13	0-5	0
		100	0	17.17	17.18	17.06	0-5	0

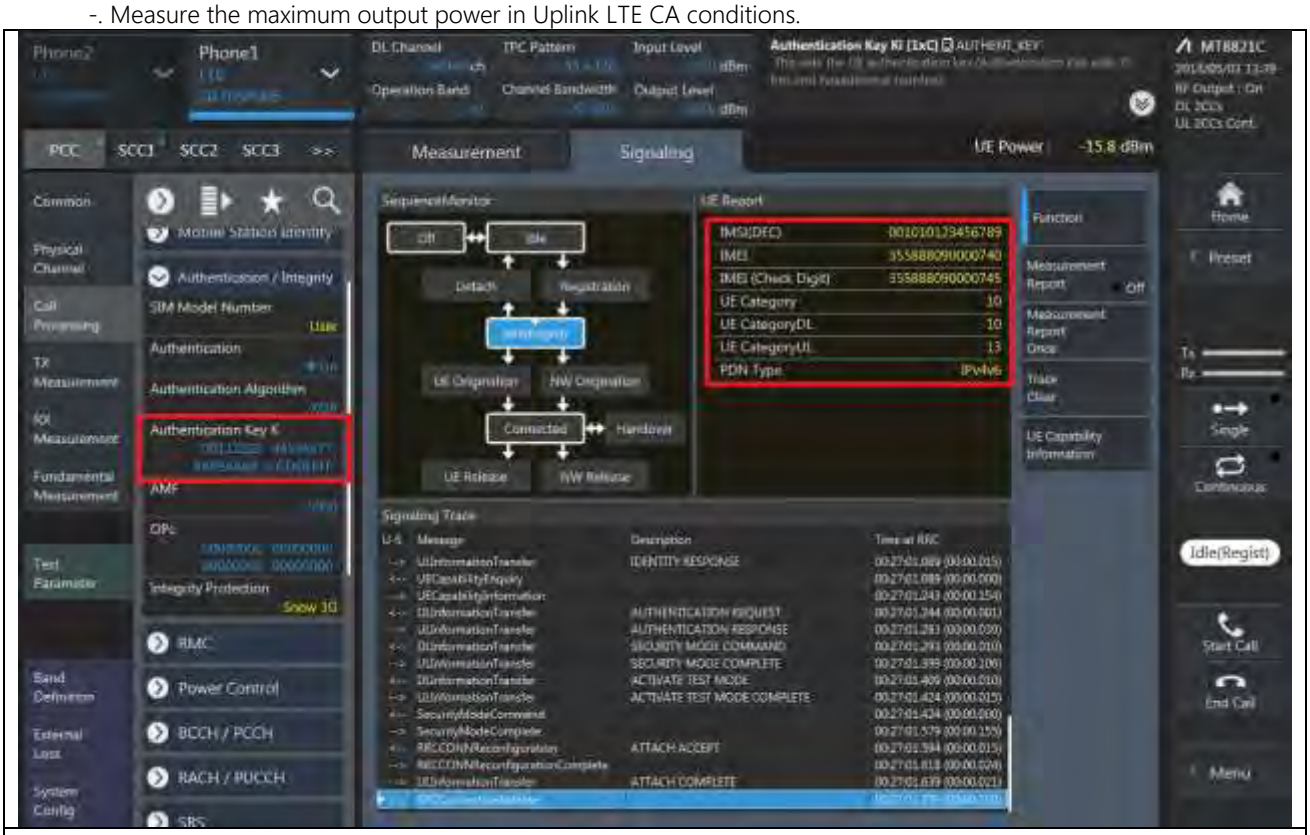
11.3.3 LTE Up-link Carrier Aggregation Conducted Powers Setup

To measure the LTE UP CA power of this device, Anritsu's MT8821C was used to check the power as follows.

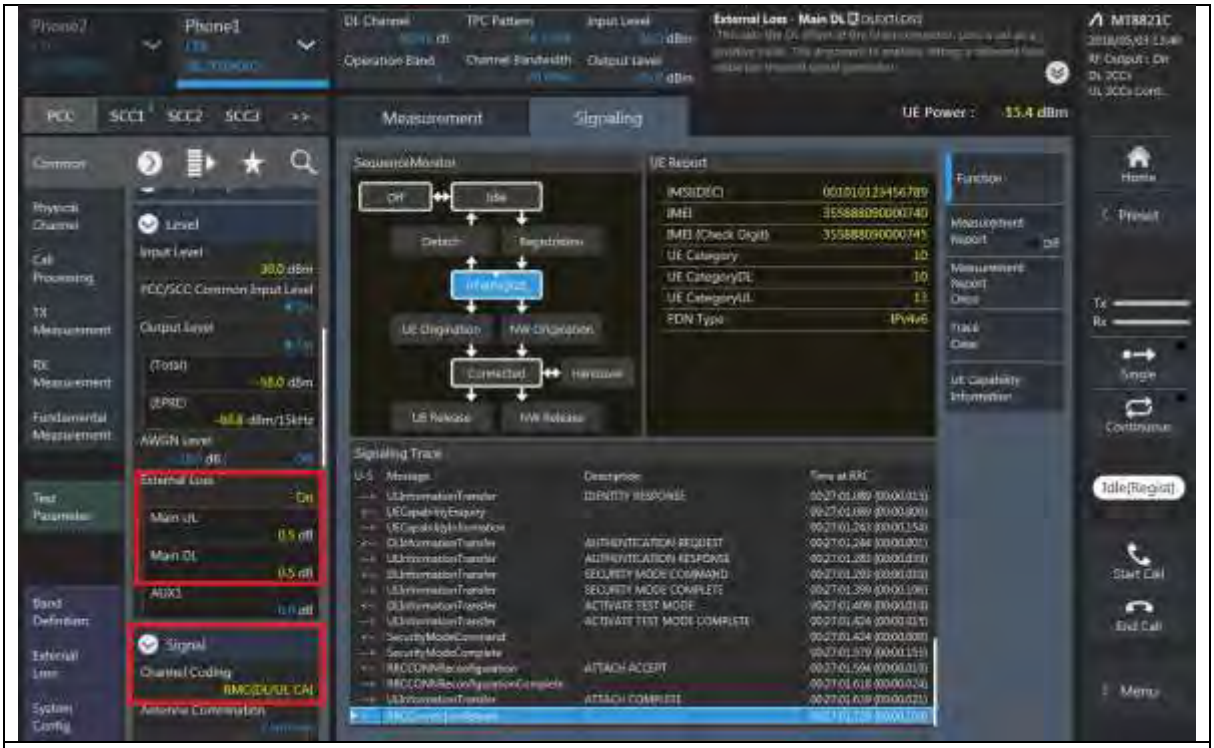


Power Measurement setup

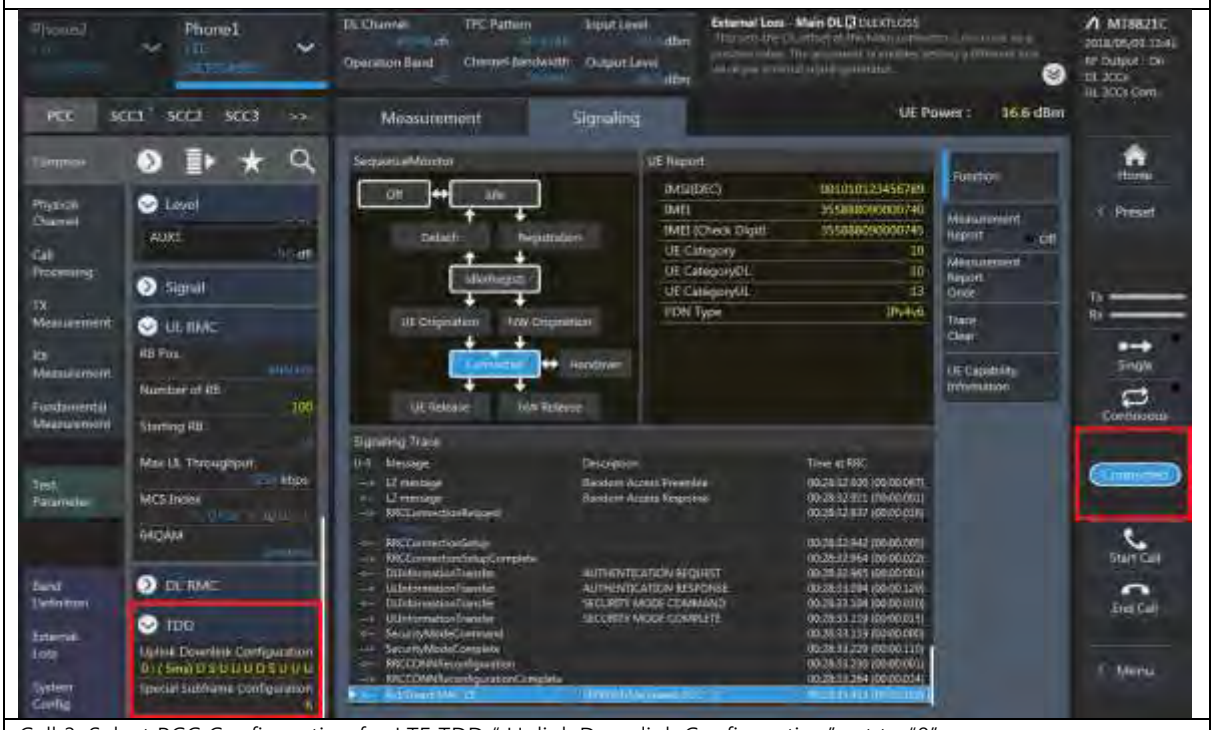
TDD CA_41C Intra-Band Contiguous Call Connection
Set to MT8821C with following parameters:
-. Set up the call box for PCC Configuration for LTE Uplink CA
-. Set up the call box for SCC Configuration for LTE Uplink CA
-. Measure the maximum output power in Uplink LTE CA conditions.



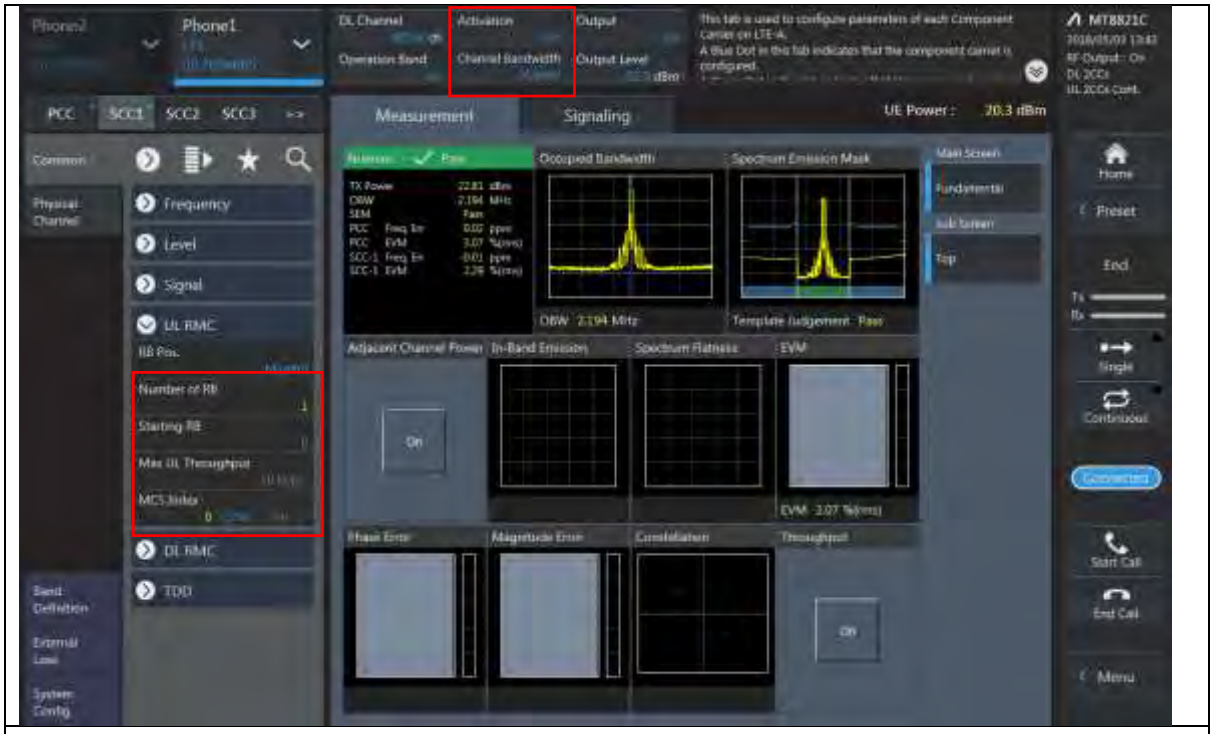
Call 1 :Select PCC Configuration for Authentication key to Register



Call 2 :Select PCC Configuration for LTE UL CA and Cable loss



Call 3 :Select PCC Configuration for LTE TDD " Uplink Downlink Configuration" set to "0"
And then Select "connect"button.



Call 4 :Set to RB, offset, BW, modulation of SCC channel.

Call 5: Set to RB, offset, BW, modulation and Max Power conditions of PCC required test channel.

Uplink Carrier aggregation Conducted Powers

LTE TDD Band 41 Conducted Power (Power Class 3)_Measured *Pmax*, Free (DSI 0), Phablet (DSI 1), RCV (DSI 2), Earjack (DSI 4) _MAIN2 [Ant B]

Combination	PCC						SCC						Tx Power	
	Band	BW	PCC UL Channel	PCC UL Frequency	RB	offset	Band	BW	SCC UL Channel	SCC UL Frequency	RB	offset	LTE Single Carrier Tx Power (dBm)	LTE Tx Power witU UL CA Enabled(dBm)
41C (PC3)	41	20	39750	2506	1	99	41	20	39948	2525.8	1	0	20.97	21.60

LTE TDD Band 41 Conducted Power (Power Class 3)_ Measured Hotspot (DSI 3) _MAIN2 [Ant B]

Combination	PCC						SCC						Tx Power	
	Band	BW	PCC UL Channel	PCC UL Frequency	RB	offset	Band	BW	SCC UL Channel	SCC UL Frequency	RB	offset	LTE Single Carrier Tx Power (dBm)	LTE Tx Power witU UL CA Enabled(dBm)
41C (PC3) Open	41	20	39750	2506	50	49	41	20	39948	2525.8	50	0	17.12	17.4
41C (PC3) Close	41	20	40620	2593	50	0	41	20	40422	2573.2	50	49	16.79	17.01

LTE TDD Band 41 Conducted Power (Power Class 2)_Measured *Pmax*, RCV (DSI 2) _MAIN2 [Ant B]

Combination	PCC						SCC						Tx Power	
	Band	BW	PCC UL Channel	PCC UL Frequency	RB	offset	Band	BW	SCC UL Channel	SCC UL Frequency	RB	offset	LTE Single Carrier Tx Power (dBm)	LTE Tx Power witU UL CA Enabled(dBm)
41C (PC2)	41	20	39750	2506	1	99	41	20	39948	2525.8	1	0	24.35	24.51

LTE TDD Band 41 Conducted Power (Power Class 2)_Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4) _MAIN2 [Ant B]

Combination	PCC						SCC						Tx Power	
	Band	BW	PCC UL Channel	PCC UL Frequency	RB	offset	Band	BW	SCC UL Channel	SCC UL Frequency	RB	offset	LTE Single Carrier Tx Power (dBm)	LTE Tx Power witU UL CA Enabled(dBm)
41C (PC2)	41	20	39750	2506	1	99	41	20	39948	2525.8	1	0	23.6	23.6

LTE TDD Band 41 Conducted Power (Power Class 2)_ Measured Hotspot (DSI 3) _MAIN2 [Ant B]

Combination	PCC						SCC						Tx Power	
	Band	BW	PCC UL Channel	PCC UL Frequency	RB	offset	Band	BW	SCC UL Channel	SCC UL Frequency	RB	offset	LTE Single Carrier Tx Power (dBm)	LTE Tx Power witU UL CA Enabled(dBm)
41C (PC2) Open	41	20	39750	2506	50	49	41	20	39948	2525.8	50	0	18.79	18.82
41C (PC2) Close	41	20	40620	2593	50	0	41	20	40422	2573.2	50	49	18.5	18.62

LTE TDD Band 41 Conducted Power (Power Class 3)_Measured Free (DSI 0), Phablet (DSI 1), Ear jack (DSI 4) _ SUB5 [Ant I]

Combination	PCC						SCC						Tx Power	
	Band	BW	PCC UL Channel	PCC UL Frequency	RB	offset	Band	BW	SCC UL Channel	SCC UL Frequency	RB	offset	LTE Single Carrier Tx Power (dBm)	LTE Tx Power witU UL CA Enabled(dBm)
41C	41	20	41490	2680	50	0	41	20	41292	2660.2	50	49	23.17	22.87
41C	41	20	41490	2680	50	0	41	20	41292	2660.2	50	49	24.79	24.26

LTE TDD Band 41 Conducted Power (Power Class 3)_ Measured RCV (DSI 2) _ SUB5 [Ant I]

Combination	PCC						SCC						Tx Power	
	Band	BW	PCC UL Channel	PCC UL Frequency	RB	offset	Band	BW	SCC UL Channel	SCC UL Frequency	RB	offset	LTE Single Carrier Tx Power (dBm)	LTE Tx Power witU UL CA Enabled(dBm)
41C	41	20	40620	2593	1	0	41	20	40422	2573.2	1	99	16.29	16.21
41C	41	20	40620	2593	1	0	41	20	40422	2573.2	1	99	17.97	17.81

LTE TDD Band 41 Conducted Power (Power Class 3)_ Measured Hotspot (DSI 3) _ SUB5 [Ant I]

Combination	PCC						SCC						Tx Power	
	Band	BW	PCC UL Channel	PCC UL Frequency	RB	offset	Band	BW	SCC UL Channel	SCC UL Frequency	RB	offset	LTE Single Carrier Tx Power (dBm)	LTE Tx Power witU UL CA Enabled(dBm)
41C	41	20	41490	2680	50	0	41	20	41292	2660.2	50	49	18.88	18.83
41C	41	20	41490	2680	50	0	41	20	41292	2660.2	50	49	20.64	20.54

LTE TDD Band 48 Conducted Power_ Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4) _SUB2 [Ant F]

Combination	PCC						SCC						Tx Power	
	Band	BW	PCC UL Channel	PCC UL Frequency	RB	offset	Band	BW	SCC UL Channel	SCC UL Frequency	RB	offset	LTE Single Carrier Tx Power (dBm)	LTE Tx Power witU UL CA Enabled(dBm)
48C	48	20	55340	3560	50	49	48	20	55538	3579.8	50	0	21.59	20.67

LTE TDD Band 48 Conducted Power_ Measured RCV (DSI 2) _SUB2 [Ant F]

Combination	PCC						SCC						Tx Power	
	Band	BW	PCC UL Channel	PCC UL Frequency	RB	offset	Band	BW	SCC UL Channel	SCC UL Frequency	RB	offset	LTE Single Carrier Tx Power (dBm)	LTE Tx Power witU UL CA Enabled(dBm)
48C	48	20	55340	3560	50	49	48	20	55538	3579.8	50	0	16.12	15.83

LTE TDD Band 48 Conducted Power_ Measured Hotspot (DSI 3) _SUB2 [Ant F]

Combination	PCC						SCC						Tx Power	
	Band	BW	PCC UL Channel	PCC UL Frequency	RB	offset	Band	BW	SCC UL Channel	SCC UL Frequency	RB	offset	LTE Single Carrier Tx Power (dBm)	LTE Tx Power witU UL CA Enabled(dBm)
48C	48	20	55340	3560	50	49	48	20	55538	3579.8	50	0	18.09	18.03

LTE FDD Band 66 Conducted Power_ Measured *Pmax,* RCV (DSI 2) _MAIN1 [Ant A]

Combination	PCC						SCC						Tx Power	
	Band	BW	PCC UL Channel	PCC UL Frequency	RB	offset	Band	BW	SCC UL Channel	SCC UL Frequency	RB	offset	LTE Single Carrier Tx Power (dBm)	LTE Tx Power witU UL CA Enabled(dBm)
66B	66	15	132047	1717.5	1	74	66	5	132140	1726.8	1	0	23.41	23.05
66C	66	20	132322	1745	1	99	66	20	132520	1764.8	1	0	23.48	23.20

LTE FDD Band 66 Conducted Power_ Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4) _MAIN1 [Ant A]

Combination	PCC						SCC						Tx Power	
	Band	BW	PCC UL Channel	PCC UL Frequency	RB	offset	Band	BW	SCC UL Channel	SCC UL Frequency	RB	offset	LTE Single Carrier Tx Power (dBm)	LTE Tx Power witU UL CA Enabled(dBm)
66B	66	15	132322	1745	1	0	66	5	132229	1735.7	1	24	20.27	19.70
66C	66	20	132072	1720	1	99	66	20	132270	1739.8	1	0	20.17	19.66

LTE FDD Band 66 Conducted Power_ Measured Hotspot (DSI 3) _MAIN1 [Ant A]

Combination	PCC						SCC						Tx Power	
	Band	BW	PCC UL Channel	PCC UL Frequency	RB	offset	Band	BW	SCC UL Channel	SCC UL Frequency	RB	offset	LTE Single Carrier Tx Power (dBm)	LTE Tx Power witU UL CA Enabled(dBm)
66B	66	15	132047	1717.5	1	74	66	5	132140	1726.8	1	0	16.43	16.38
66C	66	20	132072	1720	1	99	66	20	132270	1739.8	1	0	16.40	16.31

LTE FDD Band 66 Conducted Power_ *Pmax* _ SUB5 [Ant I]

Combination	PCC						SCC						Tx Power	
	Band	BW	PCC UL Channel	PCC UL Frequency	RB	offset	Band	BW	SCC UL Channel	SCC UL Frequency	RB	offset	LTE Single Carrier Tx Power (dBm)	LTE Tx Power witU UL CA Enabled(dBm)
66B	66	15	132322	1745	1	0	66	5	132229	1735.7	1	24	25.21	25.16
66C	66	20	132572	1770	1	0	66	20	132374	1750.2	1	99	24.85	24.84

LTE FDD Band 66 Conducted Power_ Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4) _ SUB5 [Ant I]

Combination	PCC						SCC						Tx Power	
	Band	BW	PCC UL Channel	PCC UL Frequency	RB	offset	Band	BW	SCC UL Channel	SCC UL Frequency	RB	offset	LTE Single Carrier Tx Power (dBm)	LTE Tx Power witU UL CA Enabled(dBm)
66B	66	15	132322	1745	1	0	66	5	132229	1735.7	1	24	20.89	20.81
66C	66	20	132322	1745	50	0	66	20	132124	1725.2	1	99	20.85	20.78

LTE FDD Band 66 Conducted Power_ Measured Measured RCV (DSI 2), Hotspot (DSI 3) _ SUB5 [Ant I]

Combination	PCC						SCC						Tx Power	
	Band	BW	PCC UL Channel	PCC UL Frequency	RB	offset	Band	BW	SCC UL Channel	SCC UL Frequency	RB	offset	LTE Single Carrier Tx Power (dBm)	LTE Tx Power witU UL CA Enabled(dBm)
66B	66	15	132322	1745	1	0	66	5	132229	1735.7	1	24	17.39	17.05
66C	66	20	132572	1770	1	0	66	20	132374	1750.2	1	99	17.31	16.07

11.4 NR Maximum Output Power

Only the Conducted Power measurement results of the maximum bandwidth, which is the SAR test condition of NR Bands according to FCC KDB 941225 D05, are included, and the measurement results of other bandwidths are listed in Appendix L.

11.4.1 NR Band Maximum Conducted Power

NR FDD Band n2 Conducted Power_ Measured Pmax, RCV (DSI 2) _ MAIN1 [Ant A]

NR FDD Band n2 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR [dB]
						376000	
						1880 ㎒	
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	22.41	0
				1	108	22.55	0
				1	214	22.55	0
				108	0	21.92	0.5
				108	54	22.54	0
				108	108	21.94	0.5
				216	0	21.92	0.5
			QPSK	1	1	22.51	0
				1	108	22.56	0
				1	214	22.49	0
				108	0	21.45	1
				108	54	22.56	0
				108	108	21.48	1
				216	0	21.42	1
			16QAM	1	1	21.36	1
			64QAM	1	1	20.06	2.5
			256QAM	1	1	17.23	4.5
		CP	QPSK	1	1	21.14	1.5

NR FDD Band n2 Conducted Power_ Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4) _ MAIN1 [Ant A]

NR FDD Band n2 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR [dB]
						376000	
						1880 ㎒	
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	20.57	0
				1	108	20.67	0
				1	214	20.64	0
				108	0	20.65	0
				108	54	20.71	0
				108	108	20.63	0
				216	0	20.59	0
			QPSK	1	1	20.65	0
				1	108	20.71	0
				1	214	20.65	0
				108	0	20.58	0
				108	54	20.76	0
				108	108	20.65	0
				216	0	20.64	0
			16QAM	1	1	20.59	0
			64QAM	1	1	19.34	0.8
			256QAM	1	1	17.33	2.8
		CP	QPSK	1	1	20.72	0

NR FDD Band n2 Conducted Power_ Measured Hotspot (DSI 3) _ MAIN1 [Ant A]

NR FDD Band n2 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR [dB]
						376000	
						1880 ㎒	
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	15.95	0
				1	108	15.98	0
				1	214	15.98	0
				108	0	15.90	0
				108	54	16.01	0
				108	108	15.97	0
				216	0	15.87	0
			QPSK	1	1	16.02	0
				1	108	15.93	0
				1	214	15.93	0
				108	0	15.92	0
				108	54	15.93	0
				108	108	16.04	0
				216	0	15.86	0
			16QAM	1	1	15.87	0
			64QAM	1	1	15.95	0
			256QAM	1	1	15.31	0
		CP	QPSK	1	1	16.10	0

NR FDD Band n5 Conducted Power_ Measured *Pmax,* Free (DSI 0), Phablet (DSI 1), RCV (DSI 2), Earjack (DSI 4) _ MAIN1 [Ant A]

NR FDD Band n5_ 20 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR [dB]
						167300	
						836.5 ㎒	
20 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	24.02	0
				1	53	23.99	0
				1	104	24.11	0
				50	0	23.55	0.5
				50	28	24.06	0
				50	56	23.46	0.5
				100	0	23.63	0.5
			QPSK	1	1	24.14	0
				1	53	24.07	0
				1	104	24.13	0
				50	0	22.93	1
				50	28	24.13	0
				50	56	22.97	1
				100	0	23.16	1
			16QAM	1	1	22.97	1
			64QAM	1	1	21.65	2.5
			256QAM	1	1	18.92	4.5
		CP	QPSK	1	1	22.69	1.5

NR FDD Band n5 Conducted Power_ Hotspot (DSI 3) _ MAIN1 [Ant A]

NR FDD Band n5_ 20 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR [dB]
						167300	
						836.5 ㎒	
20 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	22.65	0
				1	53	22.64	0
				1	104	22.51	0
				50	0	22.55	0
				50	28	22.69	0
				50	56	22.55	0
				100	0	22.73	0
			QPSK	1	1	22.68	0
				1	53	22.71	0
				1	104	22.62	0
				50	0	22.59	0
				50	28	22.71	0
				50	56	22.62	0
				100	0	22.76	0
			16QAM	1	1	22.51	0
			64QAM	1	1	21.47	1.5
			256QAM	1	1	18.74	3.5
		CP	QPSK	1	1	22.82	0.5

NR FDD Band n7 Conducted Power_ Measured *Pmax,* RCV (DSI 2) _ MAIN2 [Ant B]

NR FDD Band n7 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR [dB]
						507000	
						2535 ㎒	
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	21.42	0
				1	108	21.51	0
				1	214	21.36	0
				108	0	21.01	0.5
				108	54	21.55	0
				108	108	20.97	0.5
				216	0	20.95	0.5
			QPSK	1	1	21.41	0
				1	108	21.53	0
				1	214	21.44	0
				108	0	20.43	1
				108	54	21.51	0
				108	108	20.45	1
				216	0	20.41	1
			16QAM	1	1	20.36	1
			64QAM	1	1	19.08	2.5
			256QAM	1	1	16.36	4.5
		CP	QPSK	1	1	20.01	1.5

NR FDD Band n7 Conducted Power_ Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4) _ MAIN2 [Ant B]

NR FDD Band n7 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR [dB]
						507000	
						2535 ㎒	
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	19.28	0
				1	108	19.24	0
				1	214	19.11	0
				108	0	19.21	0.5
				108	54	19.26	0
				108	108	19.18	0.5
				216	0	19.23	0.5
			QPSK	1	1	19.17	0
				1	108	19.13	0
				1	214	19.02	0
				108	0	19.24	1
				108	54	19.22	0
				108	108	19.20	1
				216	0	19.25	1
			16QAM	1	1	19.00	1
			64QAM	1	1	19.02	2.5
			256QAM	1	1	16.40	4.5
		CP	QPSK	1	1	19.23	1.5

NR FDD Band n7 Conducted Power_ Measured Hotspot (DSI 3) _ MAIN2 [Ant B]

NR FDD Band n7 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR [dB]
						507000	
						2535 ㎒	
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	16.62	0
				1	108	16.51	0
				1	214	16.48	0
				108	0	16.64	0
				108	54	16.67	0
				108	108	16.49	0
				216	0	16.61	0
			QPSK	1	1	16.67	0
				1	108	16.55	0
				1	214	16.48	0
				108	0	16.66	0
				108	54	16.68	0
				108	108	16.55	0
				216	0	16.57	0
			16QAM	1	1	16.63	0
			64QAM	1	1	16.70	0
			256QAM	1	1	16.14	0
		CP	QPSK	1	1	16.80	0

NR FDD Band n12 Conducted Power_ Measured *Pmax,* RCV (DSI 2) _ MAIN1 [Ant A]

NR FDD Band n12_ 15 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR [dB]
						141500	
						707.5 ㎒	
15 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	24.22	0
				1	40	24.01	0
				1	77	23.94	0
				36	0	23.56	0.5
				36	22	24.13	0
				36	43	23.57	0.5
				75	0	23.57	0.5
			QPSK	1	1	24.23	0
				1	40	24.07	0
				1	77	24.04	0
				36	0	23.15	1
				36	22	24.18	0
				36	43	23.08	1
				75	0	23.13	1
			16QAM	1	1	23.08	1
			64QAM	1	1	21.84	2.5
			256QAM	1	1	19.03	4.5
		CP	QPSK	1	1	22.81	1.5

NR FDD Band n12 Conducted Power_ Measured Free (DSI 0), Phablet (DSI 1), Hotspot (DSI 3), Earjack (DSI 4) _ MAIN1 [Ant A]

NR FDD Band n12_ 15 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR [dB]
						141500	
						707.5 ㎒	
15 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	22.28	0
				1	40	22.11	0
				1	77	22.11	0
				36	0	22.25	0
				36	22	22.27	0
				36	43	22.18	0
				75	0	22.14	0
			QPSK	1	1	22.36	0
				1	40	22.28	0
				1	77	22.10	0
				36	0	22.25	0
				36	22	22.28	0
				36	43	22.10	0
				75	0	22.18	0
			16QAM	1	1	22.27	0
			64QAM	1	1	21.67	1
			256QAM	1	1	19.04	3
		CP	QPSK	1	1	22.38	0.5

NR FDD Band n25 Conducted Power_ Measured *Pmax,* RCV (DSI 2) _ MAIN1 [Ant A]

NR FDD Band n25 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR [dB]
						376500	
						1882.5 ㎒	
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	22.47	0
				1	108	22.55	0
				1	214	22.57	0
				108	0	21.87	0.5
				108	54	22.50	0
				108	108	21.86	0.5
				216	0	21.81	0.5
			QPSK	1	1	22.32	0
				1	108	22.46	0
				1	214	22.59	0
				108	0	21.34	1
				108	54	22.51	0
				108	108	21.38	1
				216	0	21.31	1
			16QAM	1	1	21.29	1
			64QAM	1	1	19.83	2.5
			256QAM	1	1	17.10	4.5
		CP	QPSK	1	1	20.99	1.5

NR FDD Band n25 Conducted Power_ Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4) _ MAIN1 [Ant A]

NR FDD Band n25 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR [dB]
						376500	
						1882.5 ㎒	
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	20.26	0
				1	108	20.36	0
				1	214	20.33	0
				108	0	20.39	0
				108	54	20.38	0
				108	108	20.40	0
				216	0	20.34	0
			QPSK	1	1	20.30	0
				1	108	20.50	0
				1	214	20.45	0
				108	0	20.34	0
				108	54	20.47	0
				108	108	20.36	0
				216	0	20.30	0
			16QAM	1	1	20.21	0
			64QAM	1	1	19.27	0.8
			256QAM	1	1	17.26	2.8
		CP	QPSK	1	1	20.33	0

NR FDD Band n25 Conducted Power_ Measured Hotspot (DSI 3) _ MAIN1 [Ant A]

NR FDD Band n25 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR [dB]
						376500	
						1882.5 ㎒	
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	16.07	0
				1	108	16.11	0
				1	214	16.12	0
				108	0	16.00	0
				108	54	16.06	0
				108	108	15.99	0
				216	0	15.97	0
			QPSK	1	1	16.03	0
				1	108	16.03	0
				1	214	16.15	0
				108	0	16.02	0
				108	54	16.16	0
				108	108	15.97	0
				216	0	15.99	0
			16QAM	1	1	16.02	0
			64QAM	1	1	16.04	0
			256QAM	1	1	15.72	0
		CP	QPSK	1	1	16.21	0

NR FDD Band n26 Conducted Power_ Measured *Pmax,* Free (DSI 0), Phablet (DSI 1), RCV (DSI 2), Earjack (DSI 4) _ MAIN1 [Ant A]

NR FDD Band n26 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR [dB]
						166300	
						831.5 ㎒	
20 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	23.55	0
				1	53	23.62	0
				1	104	23.51	0
				50	0	23.01	0.5
				50	28	23.61	0
				50	56	23.08	0.5
				100	0	23.11	0.5
			QPSK	1	1	23.53	0
				1	53	23.63	0
				1	104	23.54	0
				50	0	22.49	1
				50	28	23.63	0
				50	56	22.56	1
				100	0	22.71	1
			16QAM	1	1	22.36	1
			64QAM	1	1	21.07	2.5
			256QAM	1	1	18.58	4.5
		CP	QPSK	1	1	22.05	1.5

NR FDD Band n26 Conducted Power_ Measured Hotspot (DSI 3) _ MAIN1 [Ant A]

NR FDD Band n26 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR [dB]
						166300	
						831.5 ㎒	
20 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	22.79	0
				1	53	22.63	0
				1	104	22.71	0
				50	0	22.68	0
				50	28	22.79	0
				50	56	22.74	0
				100	0	22.79	0
			QPSK	1	1	22.75	0
				1	53	22.81	0
				1	104	22.79	0
				50	0	22.73	0
				50	28	22.80	0
				50	56	22.68	0
				100	0	22.77	0
			16QAM	1	1	22.57	0
			64QAM	1	1	21.43	1.5
			256QAM	1	1	18.77	3.5
		CP	QPSK	1	1	21.98	0.5

NR FDD Band n30 Conducted Power_ Measured *Pmax,* RCV (DSI 2) _ MAIN2 [Ant B]

NR FDD Band n30_ 10 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 462000 2310 ㎒	MPR [dB]
10 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	21.50	0
				1	26	21.67	0
				1	50	21.66	0
				25	0	21.13	0.5
				25	14	21.71	0
				25	27	21.22	0.5
				50	0	21.20	0.5
			QPSK	1	1	21.62	0
				1	26	21.69	0
				1	50	21.63	0
				25	0	20.67	1
				25	14	21.63	0
				25	27	20.66	1
				50	0	20.66	1
			16QAM	1	1	20.57	1
			64QAM	1	1	19.23	2.5
			256QAM	1	1	16.59	4.5
		CP	QPSK	1	1	20.18	1.5

NR FDD Band n30 Conducted Power_ Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4) _ MAIN2 [Ant B]

NR FDD Band n30_ 10 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 462000 2310 ㎒	MPR [dB]
10 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	19.01	0
				1	26	19.08	0
				1	50	19.09	0
				25	0	19.07	0
				25	14	19.16	0
				25	27	19.14	0
				50	0	19.12	0
			QPSK	1	1	19.16	0
				1	26	19.06	0
				1	50	19.08	0
				25	0	19.17	0
				25	14	19.09	0
				25	27	19.10	0
				50	0	19.12	0
			16QAM	1	1	18.63	0
			64QAM	1	1	18.64	0.5
			256QAM	1	1	16.09	2.5
		CP	QPSK	1	1	19.53	0

NR FDD Band n30 Conducted Power_ Measured Hotspot (DSI 3) _ MAIN2 [Ant B]

NR FDD Band n30_ 10 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 462000 2310 ㎒	MPR [dB]
10 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	14.06	0
				1	26	14.13	0
				1	50	14.16	0
				25	0	14.07	0
				25	14	14.09	0
				25	27	14.10	0
				50	0	14.15	0
			QPSK	1	1	14.13	0
				1	26	14.09	0
				1	50	14.17	0
				25	0	14.14	0
				25	14	14.13	0
				25	27	14.10	0
				50	0	14.13	0
			16QAM	1	1	14.16	0
			64QAM	1	1	14.14	0
			256QAM	1	1	13.64	0
		CP	QPSK	1	1	14.30	0

NR TDD Band n38 Conducted Power_ Measured *Pmax*, RCV (DSI 2) _ MAIN2 [Ant B]

NR TDD Band n38 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
							519000		
							2595 ㎒		
40 ㎒	30	DFT-s OFDM	pi/2 BPSK	1	1		20.99		0
				1	80		20.95		0
				1	158		20.99		0
				80	0		20.53		0.5
				80	40		20.92		0
				80	80		20.51		0.5
				160	0		20.47		0.5
			QPSK	1	1		21.06		0
				1	80		20.99		0
				1	158		20.96		0
				80	0		19.96		1
				80	40		20.87		0
				80	80		19.93		1
				160	0		19.98		1
			16QAM	1	1		19.95		1
			64QAM	1	1		18.45		2.5
			256QAM	1	1		15.89		4.5
		CP	QPSK	1	80		19.73		1.5

NR TDD Band n38 Conducted Power_ Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4) _ MAIN2 [Ant B]

NR TDD Band n38 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
							519000		
							2595 ㎒		
40 ㎒	30	DFT-s OFDM	pi/2 BPSK	1	1		20.30		0
				1	80		20.25		0
				1	158		20.43		0
				80	0		20.25		0
				80	40		20.26		0
				80	80		20.22		0
				160	0		20.29		0
			QPSK	1	1		20.26		0
				1	80		20.18		0
				1	158		20.25		0
				80	0		20.02		0
				80	40		20.20		0
				80	80		19.88		0
				160	0		19.94		0
			16QAM	1	1		19.98		0
			64QAM	1	1		18.40		1
			256QAM	1	1		16.00		3
		CP	QPSK	1	80		19.61		0

NR TDD Band n38 Conducted Power_ Measured Hotspot (DSI 3) _ MAIN2 [Ant B]

NR TDD Band n38 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR [dB]
						519000	
						2595 ㎒	
40 ㎒	30	DFT-s OFDM	pi/2 BPSK	1	1	15.34	0
				1	80	15.36	0
				1	158	15.32	0
				80	0	15.39	0
				80	40	15.33	0
				80	80	15.30	0
				160	0	15.39	0
			QPSK	1	1	15.31	0
				1	80	15.32	0
				1	158	15.33	0
				80	0	15.36	0
				80	40	15.25	0
				80	80	15.31	0
				160	0	15.32	0
			16QAM	1	1	15.40	0
			64QAM	1	1	15.27	0
			256QAM	1	1	14.75	0
		CP	QPSK	1	80	15.36	0

NR FDD Band n66 Conducted Power_ Measured *Pmax,* RCV (DSI 2) _ MAIN1 [Ant A]

NR FDD Band n66 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR [dB]
						349000	
						1745 ㎒	
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	22.69	0
				1	108	22.91	0
				1	214	22.89	0
				108	0	22.41	0.5
				108	54	22.95	0
				108	108	22.34	0.5
				216	0	22.31	0.5
			QPSK	1	1	22.78	0
				1	108	22.94	0
				1	214	22.85	0
				108	0	21.86	1
				108	54	22.98	0
				108	108	21.85	1
				216	0	21.92	1
			16QAM	1	1	21.77	1
			64QAM	1	1	20.41	2.5
			256QAM	1	1	17.60	4.5
		CP	QPSK	1	1	21.01	1.5

NR FDD Band n66 Conducted Power_ Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4) _ MAIN1 [Ant A]

NR FDD Band n66 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR [dB]
						349000	
						1745 ㎒	
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	20.48	0
				1	108	20.54	0
				1	214	20.40	0
				108	0	20.48	0
				108	54	20.51	0
				108	108	20.42	0
				216	0	20.45	0
			QPSK	1	1	20.55	0
				1	108	20.48	0
				1	214	20.32	0
				108	0	20.48	0
				108	54	20.59	0
				108	108	20.44	0
				216	0	20.35	0
			16QAM	1	1	20.33	0
			64QAM	1	1	19.95	0.3
			256QAM	1	1	17.41	2.3
		CP	QPSK	1	1	20.79	0

NR FDD Band n66 Conducted Power_ Measured Hotspot (DSI 3) _ MAIN1 [Ant A]

NR FDD Band n66 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR [dB]
						349000	
						1745 ㎒	
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	17.49	0
				1	108	17.46	0
				1	214	17.33	0
				108	0	17.43	0
				108	54	17.49	0
				108	108	17.42	0
				216	0	17.47	0
			QPSK	1	1	17.50	0
				1	108	17.60	0
				1	214	17.26	0
				108	0	17.43	0
				108	54	17.55	0
				108	108	17.36	0
				216	0	17.42	0
			16QAM	1	1	17.50	0
			64QAM	1	1	17.49	0
			256QAM	1	1	16.82	0
		CP	QPSK	1	1	17.62	0

NR FDD Band n70 Conducted Power_ Measured *Pmax,* Free (DSI 0), RCV (DSI 2) _ MAIN1 [Ant A]

NR FDD Band n70 _ 15 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR [dB]
						340500	
						1702.5 ㎒	
15 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	21.88	0
				1	40	22.05	0
				1	77	22.47	0
				36	0	21.99	0.5
				36	22	22.52	0
				36	43	21.97	0.5
				75	0	22.06	0.5
			QPSK	1	1	22.40	0
				1	40	22.52	0
				1	77	22.50	0
				36	0	21.44	1
				36	22	22.56	0
				36	43	21.49	1
				75	0	21.42	1
			16QAM	1	1	21.26	1
			64QAM	1	1	20.04	2.5
			256QAM	1	1	17.40	4.5
		CP	QPSK	1	1	21.07	1.5

NR FDD Band n70 Conducted Power_ Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4) _ MAIN1 [Ant A]

NR FDD Band n70 _ 15 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR [dB]
						340500	
						1702.5 ㎒	
15 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	19.64	0
				1	40	19.73	0
				1	77	19.72	0
				36	0	19.73	0
				36	22	19.73	0
				36	43	19.71	0
				75	0	19.68	0
			QPSK	1	1	19.67	0
				1	40	19.75	0
				1	77	19.72	0
				36	0	19.77	0
				36	22	19.67	0
				36	43	19.81	0
				75	0	19.69	0
			16QAM	1	1	19.42	0
			64QAM	1	1	19.76	0
			256QAM	1	1	17.36	2
		CP	QPSK	1	1	19.77	0

NR FDD Band n70 Conducted Power_ Measured Hotspot (DSI 3) _ MAIN1 [Ant A]

NR FDD Band n70 _ 15 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR [dB]
						340500	
						1702.5 ㎒	
15 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	17.16	0
				1	40	17.19	0
				1	77	17.15	0
				36	0	17.12	0
				36	22	17.17	0
				36	43	17.14	0
				75	0	17.18	0
			QPSK	1	1	17.16	0
				1	40	17.22	0
				1	77	17.15	0
				36	0	17.12	0
				36	22	17.27	0
				36	43	17.14	0
				75	0	17.21	0
			16QAM	1	1	16.94	0
			64QAM	1	1	17.17	0
			256QAM	1	1	16.65	0
		CP	QPSK	1	1	17.32	0

NR FDD Band n71 Conducted Power_ Measured *Pmax,* Free (DSI 0), Phablet (DSI 1), RCV (DSI 2), Hotspot (DSI 3), Earjack (DSI 4) _ MAIN1 [Ant A]

NR FDD Band n71 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)	MPR [dB]
						136100	
						680.5 ㎒	
20 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	24.28	0
				1	53	24.26	0
				1	104	24.31	0
				50	0	23.89	0.5
				50	28	24.48	0
				50	56	23.82	0.5
				100	0	24.09	0.5
			QPSK	1	1	24.44	0
				1	53	24.30	0
				1	104	24.38	0
				50	0	23.44	1
				50	28	24.51	0
				50	56	23.48	1
				100	0	23.57	1
			16QAM	1	1	23.11	1
			64QAM	1	1	21.90	2.5
			256QAM	1	1	19.03	4.5
		CP	QPSK	1	1	22.95	1.5

11.4.2 NR Band Maximum Conducted Power (Upper Antenna)

NR FDD Band n2 Conducted Power_ Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4) _ SUB5 [Ant I]

NR FDD Band n2 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR [dB]
						376000	
						1880 ㎒	
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	21.01	0
				1	108	20.95	0
				1	214	21.04	0
				108	0	21.05	0
				108	54	21.08	0
				108	108	20.96	0
				216	0	21.04	0
			QPSK	1	1	21.26	0
				1	108	21.05	0
				1	214	21.03	0
				108	0	21.13	0
				108	54	21.19	0
				108	108	21.01	0
				216	0	21.19	0
			16QAM	1	1	21.16	0
			64QAM	1	1	21.30	0
			256QAM	1	1	19.86	1.5
		CP	QPSK	1	1	21.35	0

NR FDD Band n2 Conducted Power_ Measured RCV (DSI 2) _ SUB5 [Ant I]

NR FDD Band n2 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR [dB]
						376000	
						1880 ㎒	
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	15.83	0
				1	108	15.89	0
				1	214	15.86	0
				108	0	15.88	0
				108	54	15.86	0
				108	108	15.76	0
				216	0	15.87	0
			QPSK	1	1	15.93	0
				1	108	15.81	0
				1	214	15.79	0
				108	0	15.91	0
				108	54	15.85	0
				108	108	15.81	0
				216	0	15.90	0
			16QAM	1	1	15.89	0
			64QAM	1	1	15.97	0
			256QAM	1	1	15.30	0
		CP	QPSK	1	1	16.03	0

NR FDD Band n2 Conducted Power_ Measured Hotspot (DSI 3) _ SUB5 [Ant I]

NR FDD Band n2 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR [dB]
						376000	
						1880 ㎒	
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	16.32	0
				1	108	16.24	0
				1	214	16.20	0
				108	0	16.31	0
				108	54	16.26	0
				108	108	16.16	0
				216	0	16.16	0
			QPSK	1	1	16.45	0
				1	108	16.30	0
				1	214	16.25	0
				108	0	16.29	0
				108	54	16.33	0
				108	108	16.21	0
				216	0	16.24	0
			16QAM	1	1	16.29	0
			64QAM	1	1	16.44	0
			256QAM	1	1	15.73	0
		CP	QPSK	1	1	16.62	0

NR FDD Band n7 Conducted Power_ Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4) _ SUB5 [Ant I]

NR FDD Band n7 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR [dB]
						507000	
						2535 ㎒	
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	20.69	0
				1	108	20.62	0
				1	214	20.74	0
				108	0	20.71	0
				108	54	20.79	0
				108	108	20.77	0
				216	0	20.76	0
			QPSK	1	1	20.85	0
				1	108	20.68	0
				1	214	20.84	0
				108	0	20.76	0
				108	54	20.84	0
				108	108	20.77	0
				216	0	20.97	0
			16QAM	1	1	20.70	0
			64QAM	1	1	20.88	0
			256QAM	1	1	19.90	0.5
		CP	QPSK	1	1	20.91	0

NR FDD Band n7 Conducted Power_ Measured RCV(DSI 2) _ SUB5 [Ant I]

NR FDD Band n7 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR [dB]
						507000	
						2535 ㎒	
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	15.73	0
				1	108	15.52	0
				1	214	15.63	0
				108	0	15.62	0
				108	54	15.73	0
				108	108	15.62	0
				216	0	15.74	0
			QPSK	1	1	15.76	0
				1	108	15.57	0
				1	214	15.66	0
				108	0	15.74	0
				108	54	15.70	0
				108	108	15.64	0
				216	0	15.68	0
			16QAM	1	1	15.66	0
			64QAM	1	1	15.05	0
			256QAM	1	1	14.89	0
		CP	QPSK	1	1	15.83	0

NR FDD Band n7 Conducted Power_ Measured Hotspot (DSI 3) _ SUB5 [Ant I]

NR FDD Band n7 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR [dB]
						507000	
						2535 ㎒	
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	18.69	0
				1	108	18.58	0
				1	214	18.76	0
				108	0	18.75	0
				108	54	18.74	0
				108	108	18.70	0
				216	0	18.76	0
			QPSK	1	1	18.81	0
				1	108	18.76	0
				1	214	18.71	0
				108	0	18.74	0
				108	54	18.91	0
				108	108	18.75	0
				216	0	18.95	0
			16QAM	1	1	18.67	0
			64QAM	1	1	18.81	0
			256QAM	1	1	18.56	0
		CP	QPSK	1	1	18.89	0

NR FDD Band n25 Conducted Power_ Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4) _ SUB5 [Ant I]

NR FDD Band n25 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR [dB]
						376500	
						1882.5 ㎒	
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	20.89	0
				1	108	20.73	0
				1	214	20.82	0
				108	0	20.82	0
				108	54	20.84	0
				108	108	20.72	0
				216	0	20.77	0
			QPSK	1	1	20.79	0
				1	108	20.89	0
				1	214	20.95	0
				108	0	20.78	0
				108	54	20.85	0
				108	108	20.76	0
				216	0	20.89	0
			16QAM	1	1	20.95	0
			64QAM	1	1	20.94	0
			256QAM	1	1	19.82	1.5
		CP	QPSK	1	1	21.16	0

NR FDD Band n25 Conducted Power_ Measured RCV (DSI 2) _ SUB5 [Ant I]

NR FDD Band n25 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR [dB]
						376500	
						1882.5 ㎒	
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	15.74	0
				1	108	15.67	0
				1	214	15.71	0
				108	0	15.63	0
				108	54	15.58	0
				108	108	15.61	0
				216	0	15.73	0
			QPSK	1	1	15.76	0
				1	108	15.60	0
				1	214	15.62	0
				108	0	15.63	0
				108	54	15.67	0
				108	108	15.64	0
				216	0	15.72	0
			16QAM	1	1	15.60	0
			64QAM	1	1	15.73	0
			256QAM	1	1	15.11	0
		CP	QPSK	1	1	16.04	0

NR FDD Band n25 Conducted Power_ Measured Hotspot (DSI 3) _ SUB5 [Ant I]

NR FDD Band n25 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR [dB]
						376500	
						1882.5 ㎒	
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	16.25	0
				1	108	16.24	0
				1	214	16.14	0
				108	0	16.28	0
				108	54	16.26	0
				108	108	16.15	0
				216	0	16.14	0
			QPSK	1	1	16.37	0
				1	108	16.18	0
				1	214	16.08	0
				108	0	16.31	0
				108	54	16.30	0
				108	108	16.23	0
				216	0	16.18	0
			16QAM	1	1	16.15	0
			64QAM	1	1	16.35	0
			256QAM	1	1	15.69	0
		CP	QPSK	1	1	16.55	0

NR FDD Band n30 Conducted Power_ Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4) _ SUB5 [Ant I]

NR FDD Band n30_ 10 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 462000 2310 ㎒	MPR [dB]
10 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	20.88	0
				1	26	21.00	0
				1	50	20.97	0
				25	0	20.98	0
				25	14	21.01	0
				25	27	20.90	0
				50	0	20.87	0
			QPSK	1	1	21.05	0
				1	26	20.97	0
				1	50	21.00	0
				25	0	21.03	0
				25	14	21.00	0
				25	27	21.01	0
				50	0	20.95	0
			16QAM	1	1	20.89	0
			64QAM	1	1	20.98	0.5
			256QAM	1	1	18.30	2.5
		CP	QPSK	1	1	21.18	0

NR FDD Band n30 Conducted Power_ Measured RCV (DSI 2) _ SUB5 [Ant I]

NR FDD Band n30_ 10 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 462000 2310 ㎒	MPR [dB]
10 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	14.58	0
				1	26	14.51	0
				1	50	14.45	0
				25	0	14.46	0
				25	14	14.57	0
				25	27	14.56	0
				50	0	14.49	0
			QPSK	1	1	14.62	0
				1	26	14.63	0
				1	50	14.49	0
				25	0	14.56	0
				25	14	14.59	0
				25	27	14.52	0
				50	0	14.52	0
			16QAM	1	1	14.47	0
			64QAM	1	1	14.61	0
			256QAM	1	1	14.06	0
		CP	QPSK	1	1	14.58	0

NR FDD Band n30 Conducted Power_ Measured Hotspot (DSI 3) _ SUB5 [Ant I]

NR FDD Band n30_ 10 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 462000 2310 ㎒	MPR [dB]
10 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	17.72	0
				1	26	17.71	0
				1	50	17.67	0
				25	0	17.73	0
				25	14	17.76	0
				25	27	17.80	0
				50	0	17.73	0
			QPSK	1	1	17.84	0
				1	26	17.75	0
				1	50	17.82	0
				25	0	17.80	0
				25	14	17.76	0
				25	27	17.75	0
				50	0	17.72	0
			16QAM	1	1	17.70	0
			64QAM	1	1	17.87	0
			256QAM	1	1	17.27	0
		CP	QPSK	1	1	17.89	0

NR TDD Band n38 Conducted Power_ Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4) _ SUB5 [Ant I]

NR TDD Band n38 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
							519000		
							2595 ㎒		
40 ㎒	30	DFT-s OFDM	pi/2 BPSK	1	1		20.90		0
				1	80		20.82		0
				1	158		20.85		0
				80	0		20.78		0
				80	40		20.77		0
				80	80		20.67		0
				160	0		20.68		0
			QPSK	1	1		20.76		0
				1	80		20.67		0
				1	158		20.48		0
				80	0		20.75		0
				80	40		20.84		0
				80	80		20.74		0
				160	0		20.87		0
			16QAM	1	1		20.89		0
			64QAM	1	1		20.22		0
			256QAM	1	1		18.08		0
		CP	QPSK	1	80		20.58		0

NR TDD Band n38 Conducted Power_ RCV (DSI 2) _ SUB5 [Ant I]

NR TDD Band n38 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
							519000		
							2595 ㎒		
40 ㎒	30	DFT-s OFDM	pi/2 BPSK	1	1		14.42		0
				1	80		14.15		0
				1	158		13.94		0
				80	0		14.22		0
				80	40		14.17		0
				80	80		14.18		0
				160	0		14.25		0
			QPSK	1	1		14.42		0
				1	80		14.03		0
				1	158		14.41		0
				80	0		14.36		0
				80	40		14.30		0
				80	80		14.49		0
				160	0		14.15		0
			16QAM	1	1		14.47		0
			64QAM	1	1		14.39		0
			256QAM	1	1		13.87		0
		CP	QPSK	1	80		14.24		0

NR TDD Band n38 Conducted Power_ Hotspot (DSI 3) _ SUB5 [Ant I]

NR TDD Band n38 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
							519000		
							2595 ㎒		
40 ㎒	30	DFT-s OFDM	pi/2 BPSK	1	1		16.77		0
				1	80		16.96		0
				1	158		17.00		0
				80	0		16.87		0
				80	40		17.06		0
				80	80		16.80		0
				160	0		16.97		0
			QPSK	1	1		17.02		0
				1	80		16.80		0
				1	158		16.86		0
				80	0		17.00		0
				80	40		16.80		0
				80	80		17.00		0
				160	0		16.96		0
			16QAM	1	1		17.07		0
			64QAM	1	1		16.79		0
			256QAM	1	1		16.72		0
		CP	QPSK	1	80		17.07		0

NR TDD Band n41 (PC2 only) Conducted Power_ Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4) _ SUB5 [Ant I]

NR TDD Band n41 _100 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
								518598			
								2592.99 ㎒			
100 ㎒	30	DFT-s	pi/2 BPSK	1	1			21.41			0
				1	137			21.25			0
				1	271			21.32			0
				135	0			21.32			0
				135	69			21.36			0
				135	138			21.37			0
				270	0			21.42			0
			QPSK	1	1			21.48			0
				1	137			21.32			0
				1	271			21.47			0
				135	0			21.43			0
				135	69			21.57			0
				135	138			21.40			0
				270	0			21.37			0
			16QAM	1	1			21.39			0
			64QAM	1	1			21.45			0
			256QAM	1	1			20.82			0
		CP	QPSK	1	1			21.46			0

NR TDD Band n41 (PC2 only) Conducted Power_ Measured RCV (DSI 2) _SUB5 [Ant I]

NR TDD Band n41 _100 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
								518598			
								2592.99 ㎒			
100 ㎒	30	DFT-s	pi/2 BPSK	1	1			14.83			0
				1	137			14.81			0
				1	271			14.85			0
				135	0			14.73			0
				135	69			14.81			0
				135	138			14.91			0
				270	0			14.72			0
			QPSK	1	1			14.90			0
				1	137			14.77			0
				1	271			15.02			0
				135	0			14.72			0
				135	69			14.93			0
				135	138			14.85			0
				270	0			14.80			0
			16QAM	1	1			14.87			0
			64QAM	1	1			14.80			0
			256QAM	1	1			14.44			0
		CP	QPSK	1	1			14.92			0

NR TDD Band n41 (PC2 only) Conducted Power_ Measured Hotspot (DSI 3) _SUB5 [Ant I]

NR TDD Band n41 _100 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
								518598			
								2592.99 ㎒			
100 ㎒	30	DFT-s	pi/2 BPSK	1	1			17.50			0
				1	137			17.52			0
				1	271			17.43			0
				135	0			17.46			0
				135	69			17.63			0
				135	138			17.46			0
				270	0			17.67			0
			QPSK	1	1			17.57			0
				1	137			17.48			0
				1	271			17.66			0
				135	0			17.63			0
				135	69			17.70			0
				135	138			17.59			0
				270	0			17.56			0
			16QAM	1	1			17.63			0
			64QAM	1	1			17.65			0
			256QAM	1	1			17.14			0
		CP	QPSK	1	1			17.50			0

NR TDD Band n48 Conducted Power_ Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4) _ SUB2 [Ant F]

NR TDD Band n48 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]				MPR [dB]
						638000	641666		645332	
						3570 ㎒	3624.99 ㎒		3679.98 ㎒	
40 ㎒	30	DFT-s OFDM	pi/2 BPSK	1	1	19.40	19.72		19.51	0
				1	53	19.44	19.62		19.49	0
				1	104	19.51	19.66		19.49	0
				50	0	19.47	19.78		19.54	0
				50	28	19.45	19.83		19.46	0
				50	56	19.53	19.75		19.55	0
				100	0	19.42	19.59		19.63	0
			QPSK	1	1	19.43	19.77		19.55	0
				1	53	19.43	19.87		19.49	0
				1	104	19.52	19.88		19.45	0
				50	0	19.65	19.85		19.60	0
				50	28	19.45	19.80		19.45	0
				50	56	19.53	19.66		19.50	0
				100	0	19.39	19.68		19.64	0
			16QAM	1	1	19.50	19.77		19.60	0
			64QAM	1	1	19.52	19.64		19.69	0
			256QAM	1	1	17.20	17.38		17.26	2
		CP	QPSK	1	1	19.59	19.89		19.65	0

NR TDD Band n48 Conducted Power_ Measured RCV (DSI 2) _ SUB2 [Ant F]

NR TDD Band n48 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]				MPR [dB]
						638000	641666		645332	
						3570 ㎒	3624.99 ㎒		3679.98 ㎒	
40 ㎒	30	DFT-s OFDM	pi/2 BPSK	1	1	13.85	13.89		13.79	0
				1	53	14.08	13.94		13.66	0
				1	104	14.31	13.88		13.60	0
				50	0	13.96	14.04		13.86	0
				50	28	14.19	14.12		13.84	0
				50	56	14.19	14.00		13.71	0
				100	0	14.11	14.08		13.80	0
			QPSK	1	1	13.85	13.93		13.79	0
				1	53	13.83	13.96		13.66	0
				1	104	13.91	13.85		13.48	0
				50	0	13.93	14.04		13.88	0
				50	28	14.01	14.06		13.89	0
				50	56	14.03	13.97		13.70	0
				100	0	14.03	14.07		13.85	0
			16QAM	1	1	13.85	13.67		13.81	0
			64QAM	1	1	13.72	13.81		13.67	0
			256QAM	1	1	13.41	13.51		13.31	0
		CP	QPSK	1	1	14.00	14.11		14.01	0

NR TDD Band n48 Conducted Power_ Measured Hotspot (DSI 3) _ SUB2 [Ant F]

NR TDD Band n48 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]				MPR [dB]
						638000	641666		645332	
						3570 ㎒	3624.99 ㎒		3679.98 ㎒	
40 ㎒	30	DFT-s OFDM	pi/2 BPSK	1	1	15.75	15.96		15.95	0
				1	53	15.89	15.99		15.88	0
				1	104	16.27	15.89		15.72	0
				50	0	15.78	16.03		15.92	0
				50	28	15.92	16.07		15.81	0
				50	56	16.13	16.00		15.75	0
				100	0	15.95	16.14		15.89	0
			QPSK	1	1	15.69	15.89		15.78	0
				1	53	15.92	16.15		15.72	0
				1	104	15.83	15.85		15.55	0
				50	0	15.79	15.98		15.85	0
				50	28	15.91	16.05		15.78	0
				50	56	15.97	16.04		15.74	0
				100	0	15.90	16.03		15.79	0
			16QAM	1	1	15.75	15.97		15.90	0
			64QAM	1	1	15.61	15.85		15.81	0
			256QAM	1	1	15.50	15.44		15.41	0
		CP	QPSK	1	1	15.85	15.97		15.86	0

NR FDD Band n66 Conducted Power_ Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4) _ SUB5 [Ant I]

NR FDD Band n66 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR [dB]
						349000	
						1745 ㎒	
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	20.42	0
				1	108	20.42	0
				1	214	20.42	0
				108	0	20.44	0
				108	54	20.45	0
				108	108	20.48	0
				216	0	20.47	0
			QPSK	1	1	20.39	0
				1	108	20.48	0
				1	214	20.49	0
				108	0	20.47	0
				108	54	20.56	0
				108	108	20.46	0
				216	0	20.59	0
			16QAM	1	1	20.30	0
			64QAM	1	1	20.52	0
			256QAM	1	1	19.21	0.3
		CP	QPSK	1	1	20.54	0

NR FDD Band n66 Conducted Power_ Measured RCV (DSI 2) _ SUB5 [Ant I]

NR FDD Band n66 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 349000 1745 ㎒	MPR [dB]
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	17.40	0
				1	108	17.47	0
				1	214	17.50	0
				108	0	17.28	0
				108	54	17.45	0
				108	108	17.36	0
				216	0	17.48	0
			QPSK	1	1	17.39	0
				1	108	17.47	0
				1	214	17.61	0
				108	0	17.33	0
				108	54	17.53	0
				108	108	17.36	0
				216	0	17.55	0
			16QAM	1	1	17.43	0
			64QAM	1	1	17.47	0
			256QAM	1	1	16.66	0
		CP	QPSK	1	1	17.77	0

NR FDD Band n66 Conducted Power_ Measured Hotspot (DSI 3) _ SUB5 [Ant I]

NR FDD Band n66 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR [dB]
						349000	
						1745 ㎒	
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	16.80	0
				1	108	16.91	0
				1	214	16.97	0
				108	0	16.76	0
				108	54	16.88	0
				108	108	16.92	0
				216	0	16.99	0
			QPSK	1	1	16.86	0
				1	108	16.95	0
				1	214	17.06	0
				108	0	16.91	0
				108	54	16.97	0
				108	108	16.88	0
				216	0	17.05	0
			16QAM	1	1	16.77	0
			64QAM	1	1	16.97	0
			256QAM	1	1	16.22	0
		CP	QPSK	1	1	17.05	0

NR FDD Band n70 Conducted Power_ Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4) _ SUB5 [Ant I]

NR FDD Band n70 _ 15 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR [dB]
						340500	
						1702.5 ㎒	
15 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	20.85	0
				1	40	20.85	0
				1	77	20.92	0
				36	0	20.84	0
				36	22	20.88	0
				36	43	20.80	0
				75	0	20.85	0
			QPSK	1	1	20.80	0
				1	40	20.94	0
				1	77	20.95	0
				36	0	20.83	0
				36	22	20.91	0
				36	43	20.80	0
				75	0	20.89	0
			16QAM	1	1	20.87	0
			64QAM	1	1	21.04	0
			256QAM	1	1	19.61	1
		CP	QPSK	1	1	21.14	0

NR FDD Band n70 Conducted Power_ Measured RCV (DSI 2), Hotspot (DSI 3) _ SUB5 [Ant I]

NR FDD Band n70 _ 15 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR [dB]
						340500	
						1702.5 ㎒	
15 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	16.66	0
				1	40	16.61	0
				1	77	16.59	0
				36	0	16.59	0
				36	22	16.71	0
				36	43	16.62	0
				75	0	16.62	0
			QPSK	1	1	16.63	0
				1	40	16.59	0
				1	77	16.75	0
				36	0	16.59	0
				36	22	16.73	0
				36	43	16.63	0
				75	0	16.67	0
			16QAM	1	1	16.55	0
			64QAM	1	1	16.71	0
			256QAM	1	1	16.15	0
		CP	QPSK	1	1	16.87	0

NR TDD Band n77 (PC2 only) Conducted Power_ Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4) _ SUB2 [Ant F]

NR TDD Band n77_ 100 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)						MPR [dB]
						650000				662000		
						3750 ㎒				3930 ㎒		
100 ㎒	30	DFT-s OFDM	pi/2 BPSK	1	1	18.72				18.45		0
				1	137	18.66				18.36		0
				1	271	18.76				18.38		0
				135	0	18.79				18.45		0
				135	69	18.55				18.35		0
				135	138	18.83				18.51		0
				270	0	18.82				18.58		0
			QPSK	1	1	18.60				18.35		0
				1	137	18.60				18.40		0
				1	271	18.75				18.87		0
				135	0	18.79				18.44		0
				135	69	18.68				18.37		0
				135	138	18.81				18.83		0
				270	0	18.73				18.81		0
			16QAM	1	1	18.76				18.49		0
			64QAM	1	1	18.72				18.16		0
			256QAM	1	1	18.21				17.93		0
		CP	QPSK	1	1	18.78				18.79		0

NR TDD Band n77 DoD (PC2 only) Conducted Power_ Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4) _ SUB2 [Ant F]

NR TDD Band n77 DoD_100 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
							633334		
							3500.01 ㎒		
100㎒	30	DFT-s	pi/2 BPSK	1	1		17.79		0
				1	137		17.91		0
				1	271		18.59		0
				135	0		17.96		0
				135	69		18.01		0
				135	138		18.42		0
				270	0		18.13		0
			QPSK	1	1		17.75		0
				1	137		17.86		0
				1	271		18.57		0
				135	0		17.90		0
				135	69		17.99		0
				135	138		18.33		0
				270	0		18.10		0
			16QAM	1	1		17.74		0
			64QAM	1	1		17.85		0
			256QAM	1	1		17.72		0
		CP	QPSK	1	1		17.81		0

NR TDD Band n77 (PC2 only) Conducted Power_ Measured RCV (DSI 2) _ SUB2 [Ant F]

NR TDD Band n77_ 100 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)						MPR [dB]
						650000				662000		
						3750 ㎒				3930 ㎒		
100 ㎒	30	DFT-s OFDM	pi/2 BPSK	1	1	13.95				13.69		0
				1	137	13.96				13.71		0
				1	271	14.07				13.70		0
				135	0	13.99				13.61		0
				135	69	13.97				13.66		0
				135	138	14.05				13.71		0
				270	0	13.83				13.82		0
			QPSK	1	1	13.90				13.62		0
				1	137	13.93				13.61		0
				1	271	13.94				13.98		0
				135	0	13.94				13.67		0
				135	69	13.93				13.67		0
				135	138	14.07				14.12		0
				270	0	13.86				13.87		0
			16QAM	1	1	13.99				13.97		0
			64QAM	1	1	13.88				13.72		0
			256QAM	1	1	13.37				13.24		0
		CP	QPSK	1	1	13.83				13.91		0

NR TDD Band n77 DoD (PC2 only) Conducted Power_ Measured RCV (DSI 2), _ SUB2 [Ant F]

NR TDD Band n77 DoD_100 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
							633334		
							3500.01 ㎒		
100㎒	30	DFT-s	pi/2 BPSK	1	1		13.56		0
				1	137		13.53		0
				1	271		14.03		0
				135	0		13.42		0
				135	69		13.59		0
				135	138		14.20		0
				270	0		14.04		0
			QPSK	1	1		13.51		0
				1	137		13.53		0
				1	271		14.00		0
				135	0		13.44		0
				135	69		13.61		0
				135	138		14.11		0
				270	0		14.07		0
			16QAM	1	1		13.37		0
			64QAM	1	1		13.28		0
			256QAM	1	1		12.95		0
		CP	QPSK	1	1		13.56		0

NR TDD Band n77 (PC2 only) Conducted Power_ Measured Hotspot (DSI 3) _ SUB2 [Ant F]

NR TDD Band n77_ 100 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)						MPR [dB]
						650000				662000		
						3750 ㎒				3930 ㎒		
100 ㎒	30	DFT-s OFDM	pi/2 BPSK	1	1	16.46				16.95		0
				1	137	16.62				16.72		0
				1	271	16.72				16.88		0
				135	0	16.60				16.83		0
				135	69	16.68				16.75		0
				135	138	16.61				16.85		0
				270	0	16.63				16.73		0
			QPSK	1	1	16.61				16.29		0
				1	137	16.48				16.70		0
				1	271	16.75				16.77		0
				135	0	16.67				16.93		0
				135	69	16.60				16.70		0
				135	138	16.76				16.76		0
				270	0	16.62				16.76		0
			16QAM	1	1	16.68				17.00		0
			64QAM	1	1	16.54				16.88		0
			256QAM	1	1	16.14				16.23		0
		CP	QPSK	1	1	16.75				17.10		0

NR TDD Band n77 DoD (PC2 only) Conducted Power_ Measured Hotspot (DSI 3) _ SUB2 [Ant F]

NR TDD Band n77 DoD_100 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
							633334		
							3500.01 ㎒		
100㎒	30	DFT-s	pi/2 BPSK	1	1		15.74		0
				1	137		15.92		0
				1	271		16.90		0
				135	0		15.83		0
				135	69		15.93		0
				135	138		16.79		0
				270	0		16.80		0
			QPSK	1	1		15.73		0
				1	137		15.82		0
				1	271		16.90		0
				135	0		15.78		0
				135	69		15.95		0
				135	138		16.62		0
				270	0		16.83		0
			16QAM	1	1		15.80		0
			64QAM	1	1		15.69		0
			256QAM	1	1		15.28		0
		CP	QPSK	1	1		15.71		0

NR TDD Band n78 (PC2 only) Conducted Power_ Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4) _ SUB2 [Ant F]

NR TDD Band n78 _100 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
							650000		
							3750 ㎒		
100 ㎒	30	DFT-s	pi/2 BPSK	1	1		18.58		0
				1	137		18.48		0
				1	271		18.40		0
				135	0		18.35		0
				135	69		18.53		0
				135	138		18.42		0
				270	0		18.44		0
			QPSK	1	1		18.33		0
				1	137		18.44		0
				1	271		18.57		0
				135	0		18.52		0
				135	69		18.39		0
				135	138		18.57		0
				270	0		18.45		0
			16QAM	1	1		18.49		0
			64QAM	1	1		18.45		0
			256QAM	1	1		18.02		0
		CP	QPSK	1	1		18.55		0

NR TDD Band n78 (PC2 only) Conducted Power_ Measured RCV (DSI 2) _ SUB2 [Ant F]

NR TDD Band n78 _100 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
							650000		
							3750 ㎒		
100 ㎒	30	DFT-s	pi/2 BPSK	1	1		14.18		0
				1	137		14.18		0
				1	271		14.24		0
				135	0		14.36		0
				135	69		14.19		0
				135	138		14.46		0
				270	0		14.21		0
			QPSK	1	1		14.31		0
				1	137		14.21		0
				1	271		14.17		0
				135	0		14.26		0
				135	69		14.23		0
				135	138		14.41		0
				270	0		14.25		0
			16QAM	1	1		14.28		0
			64QAM	1	1		14.05		0
			256QAM	1	1		13.84		0
		CP	QPSK	1	1		14.44		0

NR TDD Band n78 (PC2 only) Conducted Power_ Measured Hotspot (DSI 3) _ SUB2 [Ant F]

NR TDD Band n78 _100 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
							650000		
							3750 ㎒		
100 ㎒	30	DFT-s	pi/2 BPSK	1	1		17.06		0
				1	137		16.94		0
				1	271		16.96		0
				135	0		16.79		0
				135	69		16.80		0
				135	138		16.88		0
				270	0		16.81		0
			QPSK	1	1		16.85		0
				1	137		16.68		0
				1	271		16.75		0
				135	0		16.82		0
				135	69		16.78		0
				135	138		16.95		0
				270	0		16.86		0
			16QAM	1	1		16.75		0
			64QAM	1	1		16.71		0
			256QAM	1	1		16.44		0
		CP	QPSK	1	1		16.85		0

NR TDD Band n78 DoD (PC2 only) Conducted Power_ Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4) _ SUB2 [Ant F]

NR TDD Band n78 DoD _100 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
							633334		
							3500.01 ㎒		
100 ㎒	30	DFT-s	pi/2 BPSK	1	1		17.77		0
				1	137		17.99		0
				1	271		18.17		0
				135	0		17.83		0
				135	69		18.09		0
				135	138		18.21		0
				270	0		18.17		0
			QPSK	1	1		17.73		0
				1	137		17.96		0
				1	271		18.19		0
				135	0		17.79		0
				135	69		17.97		0
				135	138		18.30		0
				270	0		18.39		0
			16QAM	1	1		17.70		0
			64QAM	1	1		17.88		0
			256QAM	1	1		17.45		0
		CP	QPSK	1	1		17.89		0

NR TDD Band n78 DoD (PC2 only) Conducted Power_ Measured RCV (DSI 2) _ SUB2 [Ant F]

NR TDD Band n78 DoD _100 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
							633334		
							3500.01 ㎒		
100 ㎒	30	DFT-s	pi/2 BPSK	1	1		13.17		0
				1	137		13.17		0
				1	271		13.20		0
				135	0		13.36		0
				135	69		13.39		0
				135	138		13.29		0
				270	0		13.52		0
			QPSK	1	1		13.37		0
				1	137		13.38		0
				1	271		13.25		0
				135	0		13.33		0
				135	69		13.26		0
				135	138		13.24		0
				270	0		13.48		0
			16QAM	1	1		13.38		0
			64QAM	1	1		13.28		0
			256QAM	1	1		12.93		0
		CP	QPSK	1	1		13.48		0

NR TDD Band n78 DoD (PC2 only) Conducted Power_ Measured Hotspot (DSI 3) _ SUB2 [Ant F]

NR TDD Band n78 DoD _100 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
							633334		
							3500.01 ㎒		
100 ㎒	30	DFT-s	pi/2 BPSK	1	1		15.50		0
				1	137		15.96		0
				1	271		16.35		0
				135	0		15.85		0
				135	69		15.88		0
				135	138		16.35		0
				270	0		16.44		0
			QPSK	1	1		15.80		0
				1	137		15.82		0
				1	271		16.23		0
				135	0		15.80		0
				135	69		16.03		0
				135	138		16.34		0
				270	0		16.37		0
			16QAM	1	1		15.84		0
			64QAM	1	1		15.70		0
			256QAM	1	1		15.31		0
		CP	QPSK	1	1		15.89		0

11.4.3 NR Band SRS Conducted Power

[NR TDD Band n41(PC2 only) SRS Conducted Power]

Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4)

NR TDD Band n41_ 100 ㎒ Bandwidth Conducted Power_ Antenna: MAIN2(Ant B), SRS2

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]			MPR [dB]
				518598		
				2592.99 ㎒		
100 ㎒	30	CW		15.6		0

NR TDD Band n41_ 100 ㎒ Bandwidth Conducted Power_ Antenna: Sub2(Ant F), SRS3

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]			MPR [dB]
				518598		
				2592.99 ㎒		
100 ㎒	30	CW		17.70		0

NR TDD Band n41_ 100 ㎒ Bandwidth Conducted Power_ Antenna: MAIN3(Ant C), SRS4

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]			MPR [dB]
				518598		
				2592.99 ㎒		
100 ㎒	30	CW		12.91		0

Measured RCV (DSI 2)

NR TDD Band n41_ 100 ㎒ Bandwidth Conducted Power_ Antenna: MAIN2(Ant B), SRS2

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]			MPR [dB]
				518598		
				2592.99 ㎒		
100 ㎒	30	CW		10.81		0

NR TDD Band n41_ 100 ㎒ Bandwidth Conducted Power _ Antenna: Sub2(Ant F), SRS3

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]			MPR [dB]
				518598		
				2592.99 ㎒		
100 ㎒	30	CW		13.03		0

NR TDD Band n41_ 100 ㎒ Bandwidth Conducted Power_ Antenna: MAIN3(Ant C), SRS4

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]			MPR [dB]
				518598		
				2592.99 ㎒		
100 ㎒	30	CW		8.18		0

Measured Hotspot (DSI 3)

NR TDD Band n41_ 100 ㎒ Bandwidth Conducted Power_ Antenna: MAIN2(Ant B), SRS2

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]			MPR [dB]
				518598		
				2592.99 ㎒		
100 ㎒	30	CW		13.02		0

NR TDD Band n41_ 100 ㎒ Bandwidth Conducted Power _ Antenna: Sub2(Ant F), SRS3

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]			MPR [dB]
				518598		
				2592.99 ㎒		
100 ㎒	30	CW		15.21		0

NR TDD Band n41_ 100 ㎒ Bandwidth Conducted Power_ Antenna: MAIN3(Ant C), SRS4

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]			MPR [dB]
				518598		
				2592.99 ㎒		
100 ㎒	30	CW		10.46		0

[NR TDD Band n48 SRS Conducted Power]

Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4)

NR TDD Band n48_ 40 ㎒ Bandwidth Conducted Power_ Antenna: Sub5(Ant I), SRS2

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]				MPR [dB]
			638000	641666		645332	
			3570 ㎒	3624.99 ㎒		3679.98 ㎒	
40 ㎒	30	CW	20.11	19.85		19.68	0

NR TDD Band n48_ 40 ㎒ Bandwidth Conducted Power_ Antenna: Sub1(Ant E), SRS3

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]				MPR [dB]
			638000	641666		645332	
			3570 ㎒	3624.99 ㎒		3679.98 ㎒	
40 ㎒	30	CW	20.18	19.70		19.45	0

NR TDD Band n48_ 40 ㎒ Bandwidth Conducted Power_ Antenna: Main3(Ant C), SRS4

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]				MPR [dB]
			638000	641666		645332	
			3570 ㎒	3624.99 ㎒		3679.98 ㎒	
40 ㎒	30	CW	13.78	13.52		13.42	0

Measured RCV (DSI 2)

NR TDD Band n48_ 40 ㎒ Bandwidth Conducted Power_ Antenna: Sub5(Ant I), SRS2

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]				MPR [dB]
			638000	641666		645332	
			3570 ㎒	3624.99 ㎒		3679.98 ㎒	
40 ㎒	30	CW	14.54	14.35		14.14	0

NR TDD Band n48_ 40 ㎒ Bandwidth Conducted Power_ Antenna: Sub1(Ant E), SRS3

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]				MPR [dB]
			638000	641666		645332	
			3570 ㎒	3624.99 ㎒		3679.98 ㎒	
40 ㎒	30	CW	14.61	14.17		13.94	0

NR TDD Band n48_ 40 ㎒ Bandwidth Conducted Power_ Antenna: Main3(Ant C), SRS4

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]				MPR [dB]
			638000	641666		645332	
			3570 ㎒	3624.99 ㎒		3679.98 ㎒	
40 ㎒	30	CW	8.37	8.03		7.91	0

Measured Hotspot (DSI 3)

NR TDD Band n48_ 40 ㎒ Bandwidth Conducted Power_ Antenna: Sub5(Ant I), SRS2

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]				MPR [dB]
			638000	641666		645332	
			3570 ㎒	3624.99 ㎒		3679.98 ㎒	
40 ㎒	30	CW	16.65	16.30		16.18	0

NR TDD Band n48_ 40 ㎒ Bandwidth Conducted Power_ Antenna: Sub1(Ant E), SRS3

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]				MPR [dB]
			638000	641666		645332	
			3570 ㎒	3624.99 ㎒		3679.98 ㎒	
40 ㎒	30	CW	16.58	16.24		16.03	0

NR TDD Band n48_ 40 ㎒ Bandwidth Conducted Power_ Antenna: Main3(Ant C), SRS4

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]				MPR [dB]
			638000	641666		645332	
			3570 ㎒	3624.99 ㎒		3679.98 ㎒	
40 ㎒	30	CW	10.31	10.02		9.96	0

[NR TDD Band n77 (PC2 Only) SRS Conducted Power]

Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4)

NR TDD Band n77_ 100 ㎒ Bandwidth Conducted Power_ Antenna: SUB5(Ant I), SRS2

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]						MPR [dB]
			650000				662000		
			3750 ㎒				3930 ㎒		
100 ㎒	30	CW	18.11				17.93		0

NR TDD Band n77_ 100 ㎒ Bandwidth Conducted Power_ Antenna: Sub1(Ant E), SRS3

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]						MPR [dB]
			650000				662000		
			3750 ㎒				3930 ㎒		
100 ㎒	30	CW	17.58				17.85		0

NR TDD Band n77_ 100 ㎒ Bandwidth Conducted Power_ Antenna: MAIN3(Ant C), SRS4

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]						MPR [dB]
			650000				662000		
			3750 ㎒				3930 ㎒		
100 ㎒	30	CW	12.40				11.84		0

Measured RCV (DSI 2)

NR TDD Band n77_ 100 ㎒ Bandwidth Conducted Power_ Antenna: SUB5(Ant I), SRS2

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]						MPR [dB]
			650000				662000		
			3750 ㎒				3930 ㎒		
100 ㎒	30	CW	13.48				13.31		0

NR TDD Band n77_ 100 ㎒ Bandwidth Conducted Power_ Antenna: Sub1(Ant E), SRS3

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]						MPR [dB]
			650000				662000		
			3750 ㎒				3930 ㎒		
100 ㎒	30	CW	13.13				13.25		0

NR TDD Band n77_ 100 ㎒ Bandwidth Conducted Power_ Antenna: MAIN3(Ant C), SRS4

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]						MPR [dB]
			650000				662000		
			3750 ㎒				3930 ㎒		
100 ㎒	30	CW	7.95				7.26		0

Measured Hotspot (DSI 3)

NR TDD Band n77_ 100 ㎒ Bandwidth Conducted Power_ Antenna: SUB5(Ant I), SRS2

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]						MPR [dB]
			650000				662000		
			3750 ㎒				3930 ㎒		
100 ㎒	30	CW	16.06				15.95		0

NR TDD Band n77_ 100 ㎒ Bandwidth Conducted Power_ Antenna: Sub1(Ant E), SRS3

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]						MPR [dB]
			650000				662000		
			3750 ㎒				3930 ㎒		
100 ㎒	30	CW	15.61				15.82		0

NR TDD Band n77_ 100 ㎒ Bandwidth Conducted Power_ Antenna: MAIN3(Ant C), SRS4

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]						MPR [dB]
			650000				662000		
			3750 ㎒				3930 ㎒		
100 ㎒	30	CW	10.38				9.83		0

[NR TDD Band n77 DoD SRS Conducted Power]

Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4)

NR TDD Band n77 DoD_ 100 ㎒ Bandwidth Conducted Power_ Antenna: SUB5(Ant I), SRS2

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm			MPR [dB]
				633334		
				3500.01 ㎒		
100 ㎒	30	CW		17.71		0

NR TDD Band n77 DoD _ 100 ㎒ Bandwidth Conducted Power_ Antenna: Sub1(Ant E), SRS3

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm			MPR [dB]
				633334		
				3500.01 ㎒		
100 ㎒	30	CW		17.56		0

NR TDD Band n77 DoD _ 100 ㎒ Bandwidth Conducted Power_ Antenna: MAIN3(Ant C), SRS4

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm			MPR [dB]
				633334		
				3500.01 ㎒		
100 ㎒	30	CW		11.65		0

Measured RCV (DSI 2)

NR TDD Band n77 DoD_ 100 ㎒ Bandwidth Conducted Power_ Antenna: SUB5(Ant I), SRS2

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm			MPR [dB]
				633334		
				3500.01 ㎒		
100 ㎒	30	CW		13.03		0

NR TDD Band n77 DoD _ 100 ㎒ Bandwidth Conducted Power_ Antenna: Sub1(Ant E), SRS3

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm			MPR [dB]
				633334		
				3500.01 ㎒		
100 ㎒	30	CW		13.08		0

NR TDD Band n77 DoD _ 100 ㎒ Bandwidth Conducted Power_ Antenna: MAIN3(Ant C), SRS4

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm			MPR [dB]
				633334		
				3500.01 ㎒		
100 ㎒	30	CW		7.16		0

Measured Hotspot (DSI 3)

NR TDD Band n77 DoD_ 100 ㎒ Bandwidth Conducted Power_ Antenna: SUB5(Ant I), SRS2

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm			MPR [dB]
				633334		
				3500.01 ㎒		
100 ㎒	30	CW		15.64		0

NR TDD Band n77 DoD _ 100 ㎒ Bandwidth Conducted Power_ Antenna: Sub1(Ant E), SRS3

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm			MPR [dB]
				633334		
				3500.01 ㎒		
100 ㎒	30	CW		15.58		0

NR TDD Band n77 DoD _ 100 ㎒ Bandwidth Conducted Power_ Antenna: MAIN3(Ant C), SRS4

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm			MPR [dB]
				633334		
				3500.01 ㎒		
100 ㎒	30	CW		9.69		0

[NR TDD Band n78 SRS Conducted Power]

Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4)

NR TDD Band n78_ 100 ㎒ Bandwidth Conducted Power_ Antenna: SUB5(Ant I), SRS2

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm			MPR [dB]
				650000		
				3750 ㎒		
100 ㎒	30	CW		18.3		0

NR TDD Band n78_ 100 ㎒ Bandwidth Conducted Power_ Antenna: Sub1(Ant E), SRS3

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm			MPR [dB]
				650000		
				3750 ㎒		
100 ㎒	30	CW		18.41		0

NR TDD Band n78_ 100 ㎒ Bandwidth Conducted Power_ Antenna: MAIN3(Ant C), SRS4

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm			MPR [dB]
				650000		
				3750 ㎒		
100 ㎒	30	CW		12.63		0

Measured RCV (DSI 2)

NR TDD Band n78_ 100 ㎒ Bandwidth Conducted Power_ Antenna: SUB5(Ant I), SRS2

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm			MPR [dB]
				650000		
				3750 ㎒		
100 ㎒	30	CW		13.7		0

NR TDD Band n78_ 100 ㎒ Bandwidth Conducted Power_ Antenna: Sub1(Ant E), SRS3

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm			MPR [dB]
				650000		
				3750 ㎒		
100 ㎒	30	CW		13.81		0

NR TDD Band n78_ 100 ㎒ Bandwidth Conducted Power_ Antenna: MAIN3(Ant C), SRS4

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm			MPR [dB]
				650000		
				3750 ㎒		
100 ㎒	30	CW		8.08		0

Measured Hotspot (DSI 3)

NR TDD Band n78_ 100 ㎒ Bandwidth Conducted Power_ Antenna: SUB5(Ant I), SRS2

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]			MPR [dB]
				650000		
				3750 ㎒		
100 ㎒	30	CW		16.39		0

NR TDD Band n78_ 100 ㎒ Bandwidth Conducted Power_ Antenna: Sub1(Ant E), SRS3

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]			MPR [dB]
				650000		
				3750 ㎒		
100 ㎒	30	CW		16.3		0

NR TDD Band n78_ 100 ㎒ Bandwidth Conducted Power_ Antenna: MAIN3(Ant C), SRS4

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]			MPR [dB]
				650000		
				3750 ㎒		
100 ㎒	30	CW		10.62		0

[NR TDD Band n78 DoD SRS Conducted Power]

Measured Free (DSI 0), Phablet (DSI 1), Earjack (DSI 4)

NR TDD Band n78_ 100 ㎒ Bandwidth Conducted Power_ Antenna: SUB5(Ant I), SRS2

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]			MPR [dB]
				633334		
				3500.01 ㎒		
100 ㎒	30	CW		17.59		0

NR TDD Band n78_ 100 ㎒ Bandwidth Conducted Power_ Antenna: Sub1(Ant E), SRS3

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]			MPR [dB]
				633334		
				3500.01 ㎒		
100 ㎒	30	CW		17.71		0

NR TDD Band n78_ 100 ㎒ Bandwidth Conducted Power_ Antenna: MAIN3(Ant C), SRS4

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]			MPR [dB]
				633334		
				3500.01 ㎒		
100 ㎒	30	CW		11.74		0

Measured RCV (DSI 2)

NR TDD Band n78_ 100 ㎒ Bandwidth Conducted Power_ Antenna: SUB5(Ant I), SRS2

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm			MPR [dB]
				633334		
				3500.01 ㎒		
100 ㎒	30	CW		13.06		0

NR TDD Band n78_ 100 ㎒ Bandwidth Conducted Power_ Antenna: Sub1(Ant E), SRS3

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm			MPR [dB]
				633334		
				3500.01 ㎒		
100 ㎒	30	CW		13.18		0

NR TDD Band n78_ 100 ㎒ Bandwidth Conducted Power_ Antenna: MAIN3(Ant C), SRS4

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm			MPR [dB]
				633334		
				3500.01 ㎒		
100 ㎒	30	CW		7.19		0

Measured Hotspot (DSI 3)

NR TDD Band n78_ 100 ㎒ Bandwidth Conducted Power_ Antenna: SUB5(Ant I), SRS2

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm			MPR [dB]
				633334		
				3500.01 ㎒		
100 ㎒	30	CW		15.55		0

NR TDD Band n78_ 100 ㎒ Bandwidth Conducted Power_ Antenna: Sub1(Ant E), SRS3

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm			MPR [dB]
				633334		
				3500.01 ㎒		
100 ㎒	30	CW		15.7		0

NR TDD Band n78_ 100 ㎒ Bandwidth Conducted Power_ Antenna: MAIN3(Ant C), SRS4

Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm			MPR [dB]
				633334		
				3500.01 ㎒		
100 ㎒	30	CW		9.76		0

11.5 WIFI Conducted Power measurement method

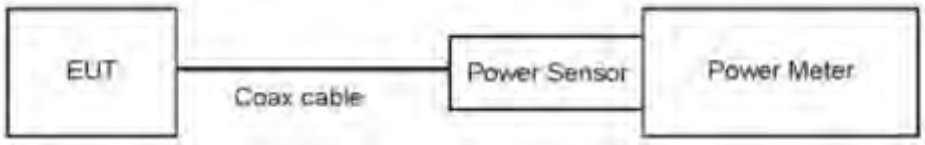
Un-Licensed Bands (DTS Band)

Test Description	Test Procedure Used
Conducted Output Power	- KDB 558074 v05 – Section 8.3.2.3 - ANSI 63.10-2013 – Section 11.9.2.3

Test Procedure

1. Measure the duty cycle.
2. Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.
3. Add 10 log (1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times.

Test setup



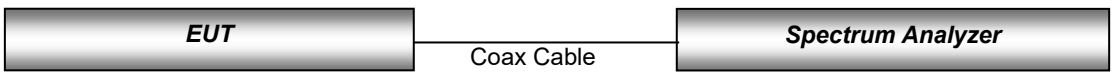
Un-Licensed Bands (NII Band)

Test Description	Test Procedure Used
Conducted Output Power	- KDB 789033 D02 v02r01 – Section E.3.a

Test Procedure

1. Measure the duty cycle.
2. Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.
3. Add 10 log (1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times.

Test setup



11.5.1 IEEE 802.11 (2.4 ㎓) Maximum and Reduced Conducted Power

Mode	Frequency [㎒]	Channel	IEEE 802.11 (2.4 ㎓) Average RF Conducted Power [dBm]		
			WIFI 1	WIFI 2	MIMO
802.11b	2 412	1	17.94	17.15	20.57
	2 437	6	17.53	17.45	20.50
	2 462	11	17.82	17.25	20.56
802.11g	2 412	1	16.30	15.73	19.04
	2 437	6	17.10	16.96	20.04
	2 462	11	16.14	15.78	18.97
802.11n (HT20)	2 412	1	16.38	15.80	19.11
	2 437	6	17.20	16.98	20.10
	2 462	11	16.26	15.82	19.06
802.11ac (HT20)	2 412	1	16.33	15.81	19.09
	2 437	6	16.07	15.91	19.00
	2 462	11	16.22	15.87	19.06
802.11ax (HT20)	2 412	1	16.64	15.89	19.29
	2 437	6	16.58	15.90	19.26
	2 462	11	16.63	15.83	19.26

11.5.2 IEEE 802.11 (5 ㎓) Maximum and Reduced Conducted Power

Mode	Frequency [㎒]	Channel	IEEE 802.11 (5 ㎓) Average RF Conducted Power [dBm]		
			WIFI 1	WIFI 2	MIMO
802.11a (20 ㎒ BW)	5 180	36	15.13	14.73	17.94
	5 200	40	15.14	14.79	17.98
	5 220	44	15.34	15.38	18.37
	5 240	48	15.06	15.10	18.09
	5 260	52	14.70	15.36	18.05
	5 280	56	14.39	14.99	17.71
	5 300	60	14.85	15.40	18.14
	5 320	64	14.66	15.28	17.99
	5 500	100	14.07	15.50	17.85
	5 600	120	14.26	15.79	18.10
	5 620	124	15.11	15.63	18.39
	5 720	144	15.10	15.78	18.46
	5 745	149	14.96	15.09	18.04
	5 785	157	15.10	15.10	18.11
	5 825	165	15.09	14.61	17.87
	5 846	169	15.24	14.53	17.91
	5 865	173	15.25	14.56	17.93
	5 885	177	14.97	13.87	17.47