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Part 1 SAR TEST REPORT

Applicant Name: **SAMSUNG Electronics Co., Ltd.** 129, Samsung-ro, Yeongtong-gu, Suwon-Si, Gyeonggi-do, 16677 Rep. of Korea	**Date of Issue: Mar. 03, 2021** **Test Report No.: HCT-SR-2102-FC011-R1** **Test Site: HCT CO., LTD.**

FCC ID: **A3LSMA526U**

Equipment Type:	**Mobile Phone**
Application Type	**Certification**
FCC Rule Part(s):	**CFR §2.1093**
Model Name:	**SM-A526U**
Additional Model Name:	**SM-A526U1**
Date of Test:	**Jan. 28. 2021 ~ Feb. 24. 2021**

This device has been shown to be capable of compliance for localized specific absorption rate (SAR) for uncontrolled environment/general population exposure limits specified in FCC KDB procedures and had been tested in accordance with the measurement procedures specified in FCC KDB procedures.

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

Tested By

Moon-pyung Choi
Test Engineer
SAR Team
Certification Division

Reviewed By

Yun-jeang, Heo
Technical Manager
SAR Team
Certification Division

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REVISION HISTORY

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

Revision No.	Date of Issue	Description
0	Feb. 25, 2021	Initial Release
1	Mar. 03, 2021	Revised sec.4.2 and 4.8.2

This test results were applied only to the test methods required by the standard.

The above Test Report is not related to the accredited test result by (KS Q) ISO/IEC 17025 and KOLAS(Korea Laboratory Accreditation Scheme), which signed the ILAC-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 SAR 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 (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 2018 TCBC Workshop Notes (LTE 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-A526U
Additional Model Name	SM-A526U1
Equipment Type	Mobile Phone
FCC ID	A3LSMA526U
Application Type	Certification
Applicant	SAMSUNG Electronics Co., Ltd.

3.2 Attestation of test result of device under test

The Highest Reported 1g SAR						
Band	Tx. Frequency	Equipment Class	Reported SAR (W/kg)			
			1g Head	1g Body-Worn	1g Hotspot	10g Extremity
CDMA/EVDO BC10	817.90 MHz~ 823.10 MHz	PCE	0.28	0.43	0.46	N/A
CDMA/EVDO BC0	824.70 MHz~ 848.31 MHz	PCE	0.50	0.45	0.42	N/A
PCS CDMA/EVDO	1 851.25 MHz~ 1 908.75 MHz	PCE	0.29	0.40	0.57	N/A
GSM/GPRS/EDGE 850	824.2 MHz ~ 848.8 MHz	PCE	0.31	0.53	0.47	N/A
GSM/GPRS/EDGE 1900	1 850.2 MHz ~ 1 909.8 MHz	PCE	0.18	0.29	0.32	N/A
UMTS 850	826.4 MHz ~ 846.6 MHz	PCE	0.21	0.35	0.35	N/A
UMTS 1700	1 712.4 MHz ~ 1 752.6 MHz	PCE	0.28	0.25	0.34	N/A
UMTS 1900	1 852.4 MHz ~ 1 907.6 MHz	PCE	0.29	0.20	0.38	N/A
LTE Band 2 (PCS)	1 850.7 MHz ~ 1 909.3 MHz	PCE	N/A	N/A	N/A	N/A
LTE Band 4 (AWS)	1 710.7 MHz ~ 1 754.3 MHz	PCE	N/A	N/A	N/A	N/A
LTE Band 5 (Cell)	824.7 MHz ~ 848.3 MHz	PCE	N/A	N/A	N/A	N/A
LTE Band 7	2 502.5 MHz~ 2 567.5 MHz	PCE	0.34	0.27	0.38	N/A
LTE Band 12	699.7 MHz ~ 715.3 MHz	PCE	0.17	0.23	0.26	N/A
LTE Band 13	779.5 MHz ~ 784.5 MHz	PCE	0.28	0.41	0.44	N/A
LTE Band 14	790.5 MHz~ 795.5 MHz	PCE	0.21	0.34	0.38	N/A
LTE Band 25 (PCS)	1 850.7 MHz~ 1 914.3 MHz	PCE	0.29	0.41	0.48	N/A
LTE Band 26 (Cell)	814.7 MHz ~ 848.3 MHz	PCE	0.25	0.36	0.38	N/A
LTE Band 30	2 307.5 MHz ~ 2 312.5 MHz	PCE	0.25	0.26	0.39	N/A
LTE TDD Band 38	2 572.5 MHz ~ 2 617.5 MHz	PCE	N/A	N/A	N/A	N/A
LTE TDD Band 40	2 302.5 MHz ~ 2 397.5 MHz	PCE	<0.10	<0.10	<0.10	N/A
LTE TDD Band 41	2 498.5 MHz ~ 2 687.5 MHz	PCE	0.32	0.32	0.41	N/A
LTE TDD Band 48	3 552.5 MHz~ 3697.5 MHz	PCE	0.52	<0.10	0.31	N/A
LTE Band 66 (AWS)	1 710.7 MHz ~ 1 779.3 MHz	PCE	0.27	0.29	0.47	N/A
LTE Band 71	665.5 MHz~ 695.5 MHz	PCE	0.26	0.41	0.48	N/A
NR Band n2	1 852.5 MHz~ 1 907.5 MHz	PCE	N/A	N/A	N/A	N/A
NR Band n5	826.5 MHz~ 846.5 MHz	PCE	0.24	0.36	0.39	N/A
NR Band n12	701.5 MHz~713.5 MHz	PCE	0.26	0.36	0.38	N/A
NR Band n25	1 852.5 MHz ~ 1 912.5 MHz	PCE	0.25	0.34	0.57	N/A
NR Band n41	2 506.02 MHz~ 2 679.99 MHz	PCE	0.74	0.29	0.72	N/A
NR Band n66	1 712.5 MHz~ 1 777.5 MHz	PCE	0.17	0.25	0.54	N/A
NR Band n71	665.5 MHz ~ 695.5 MHz	PCE	0.24	0.35	0.39	N/A
NR Band n77	3 710 MHz ~ 3 969.99 MHz	PCE	0.31	<0.10	0.33	N/A
802.11b	2 412 MHz ~ 2 462 MHz	DTS	0.53	0.28	0.67	N/A
U-NII-1	5 180 MHz ~ 5 240 MHz	NII	N/A	N/A	N/A	N/A
U-NII-2A	5 260 MHz ~ 5 320 MHz	NII	0.46	0.21	N/A	1.34
U-NII-2C	5 500 MHz ~ 5 720 MHz	NII	0.25	0.24	N/A	1.06
U-NII-3	5 745 MHz ~ 5 825 MHz	NII	0.23	0.24	0.45	N/A
Bluetooth	2 402 MHz ~ 2 480 MHz	DSS	0.30	<0.10	0.22	N/A
Simultaneous SAR per KDB 690783 D01v01r03			**1.51**	**0.84**	**1.39**	N/A
Date(s) of Tests:	**Jan. 28. 2021 ~ Feb. 24. 2021**					

4. Device Under Test Description

4.1 DUT specification

Device Wireless specification overview		
Band & Mode	**Operating Mode**	**Tx Frequency**
CDMA/EVDO BC10	Voice / Data	817.90 MHz~ 823.10 MHz
CDMA/EVDO BC0	Voice / Data	824.70 MHz~ 848.31 MHz
PCS CDMA/EVDO	Voice / Data	1 851.25 MHz~ 1 908.75 MHz
GSM850	Voice / Data	824.2 MHz~ 848.8 MHz
GSM1900	Voice / Data	1 850.2 MHz~ 1 909.8 MHz
UMTS 850	Voice / Data	826.4 MHz~ 846.6 MHz
UMTS 1700	Voice / Data	1 712.4 MHz~ 1 752.6 MHz
UMTS 1900	Voice / Data	1 852.4 MHz~ 1 907.6 MHz
LTE Band 2 (PCS)	Voice / Data	1 850.7 MHz~ 1 909.3 MHz
LTE Band 4 (AWS)	Voice / Data	1 710.7 MHz~ 1 754.3 MHz
LTE Band 5 (Cell)	Voice / Data	824.7 MHz~ 848.3 MHz
LTE Band 7	Voice / Data	2 502.5 MHz~ 2 567.5 MHz
LTE Band 12	Voice / Data	699.7 MHz~ 715.3 MHz
LTE Band 13	Voice / Data	779.5 MHz~ 784.5 MHz
LTE Band 14	Voice / Data	790.5 MHz~ 795.5 MHz
LTE Band 25	Voice / Data	1 850.7 MHz~ 1 914.3 MHz
LTE Band 26	Voice / Data	814.7 MHz~ 848.3 MHz
LTE Band 30	Voice / Data	2 307.5 MHz ~ 2 312.5 MHz
LTE TDD Band 38	Voice / Data	2 572.5 MHz ~ 2 617.5 MHz
LTE TDD Band 40	Voice / Data	2 302.5 MHz ~ 2 397.5 MHz
LTE TDD Band 41	Voice / Data	2 498.5 MHz~ 2 687.5 MHz
LTE TDD Band 48	Voice / Data	3 552.5 MHz~ 3697.5 MHz
LTE Band 66 (AWS)	Voice / Data	1 710.7 MHz ~ 1 779.3 MHz
LTE Band 71	Voice / Data	665.5 MHz~ 695.5 MHz
NR Band n2	Data	1 852.5 MHz~ 1 907.5 MHz
NR Band n5	Data	826.5 MHz~ 846.5 MHz
NR Band n12	Data	701.5 MHz~713.5 MHz
NR Band n25	Data	1852.5 MHz ~ 1912.5 MHz
NR Band n41	Data	2 506.02 MHz~ 2 679.99 MHz
NR Band n66	Data	1 712.5 MHz~ 1 777.5 MHz
NR Band n71	Data	665.5 MHz - 695.5 MHz
NR Band n77	Data	3710 MHz~3969.99 MHz
U-NII-1	Voice / Data	5 180 MHz ~ 5 240 MHz
U-NII-2A	Voice / Data	5 260 MHz ~ 5 320 MHz
U-NII-2C	Voice / Data	5 500 MHz ~ 5 720 MHz
U-NII-3	Voice / Data	5 745 MHz ~ 5 825 MHz
2.4 GHz WLAN	Voice / Data	2 412 MHz ~ 2 462 MHz
Bluetooth / LE 5.0	Data	2 402 MHz ~ 2 480 MHz
NFC	Data	13.56 MHz

Device Description		
H/W	REV1.0	
S/W	A526.001	
Device Serial Numbers	**Mode**	**Serial Number**
	CDMA0/10, UMTS 1700/ 1900 LTE B12/B13/B14/B25/B26/B48/B71	UAB0667M
	UMTS 850, GSM850, GSM1900	UAB1027M
	NR B5/B12/B25/B66/B71	UAB0673M
	NR B77, PCS CDMA	UAB0996M / UAB0673M
	BT/ 5 ㎓ WLAN	UAQ2770M
	2.4 ㎓ WLAN	UAQ2648M
	LTE B7/ B30/ B40/ B41/ B66	UAB1027M UAB099M
	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 equipment contains the Qualcomm SM8350 modem supporting 2G/3G/4G WWAN technologies and Sub6/ mmW 5G NR bands. This modems are enabled with Qualcomm Smart Transmit feature to control and manage transmitting power in real time and to ensure at all times the time-averaged RF exposure is incompliance with the FCC requirement.
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. Refer to Compliance Summary document for detailed description of Qualcomm® Smart Transmit feature.

This feature performs time averaging algorithm in real time to control and manage transmitting power and ensure the time-averaged RF exposure is incompliance with FCC requirements all the time. Refer to Compliance Summary document for detailed description of Qualcomm® Smart Transmit feature.

WLAN/BT operations are not enabled with Smart Transmit.

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 EFS settingsand maximum tune up output power Pmax configured for this EUT for various transmit conditions (Device StateIndex DSI). Note that the device uncertainty for sub-6GHz WWAN is 1.0dB for this EUT.

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

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

SAR Exposure Configurations			Body-Worn	Phablet	Head	Hotspot	Ear jack	Phablet	Burst Average Power [dBm]	Frame Averaged Power [dBm]	UL:DL Ratio	Max reduction [dBm]
Averaging volume			1g	10g	1g	1g	10g	10g				
Spacing (mm)			15 mm	9,11,5mm	0 mm	10 mm	0 mm	0 mm				
DSI			0		1	2	3	4				
Mode	Band	Antenna	Plimt						Pmax			
CDMA	BC10	Main#1	25.0		25.0	25.0	25.0	25.0	25.0	FDD	100%	N/A
CDMA	BC0	Main#1	24.5		24.5	24.5	24.5	24.5	24.5	FDD	100%	N/A
CDMA	PCS	Main#2	24.0		24.0	22.5	24.0	22.5	24.0	FDD	100%	1.5
GSM 1-slot	850	Main#1	26.0		26.0	26.0	26.0	26.0	33.0	24.0	12.5%	N/A
GSM 2-slot	850	Main#1							32.0	26.0	25.0%	N/A
GSM 3-slot	850	Main#1							29.0	24.7	37.5%	N/A
GSM 4-slot	850	Main#1							27.5	24.5	50.0%	N/A
GSM 1-slot	1900	Main#2	23.0		23.0	20.5	23.0	20.5	30.0	21.0	12.5%	0.5
GSM 2-slot	1900	Main#2							29.0	23.0	25.0%	2.5
GSM 3-slot	1900	Main#2							26.5	22.2	37.5%	1.7
GSM 4-slot	1900	Main#2							25.0	22.0	50.0%	1.5
UMTS	5	Main#1	24.0		24.0	24.0	24.0	24.0	24.0	FDD	100%	N/A
UMTS	4	Main#2	24.5		24.5	22.5	24.5	22.5	24.5	FDD	100%	2.0
UMTS	2	Main#2	24.0		24.0	22.5	24.0	22.5	24.0	FDD	100%	1.5
LTE FDD	12	Main#1	23.5		23.5	23.5	23.5	23.5	23.5	FDD	100%	N/A
LTE FDD	13	Main#1	24.8		24.8	24.8	24.8	24.8	24.8	FDD	100%	N/A
LTE FDD	14	Main#1	24.3		24.3	24.3	24.3	24.3	24.3	FDD	100%	N/A
LTE FDD	26	Main#1	24.5		24.5	24.5	24.5	24.5	24.5	FDD	100%	N/A
LTE FDD	5	Main#1	24.5		24.5	24.5	24.5	24.5	24.5	FDD	100%	N/A
LTE FDD	66	Main#2	24.5		24.5	22.0	24.5	22.0	24.5	FDD	100%	2.5
LTE FDD	4	Main#2	24.5		24.5	22.0	24.5	22.0	24.5	FDD	100%	2.5
LTE FDD	2	Main#2	24.5		24.5	22.0	24.5	22.0	24.5	FDD	100%	2.5
LTE FDD	25	Main#2	24.5		24.5	22.0	24.5	22.0	24.5	FDD	100%	2.5
LTE FDD	71	Main#1	24.5		24.5	24.5	24.5	24.5	24.5	FDD	100%	N/A
LTE FDD	7	Main#2	23.5		23.5	22.0	23.5	22.0	23.5	FDD	100%	1.5
LTE FDD	30	Main#2	23.5		23.5	22.0	23.5	22.0	23.5	FDD	100%	1.5
LTE TDD	40	Main#2	9.5		9.5	9.5	9.5	9.5	11.5	9.5	63.3%	N/A
LTE TDD	48	Sub#3	19.5		17.0	19.5	19.5	19.5	21.5	19.5	63.3%	2.5
LTE TDD PC3	41	Main#2	22.0		22.0	22.0	22.0	22.0	24.0	22.0	63.3%	N/A
LTE TDD PC2	41	Main#2	22.9		22.9	22.9	22.9	22.9	26.5	22.9	43.3%	N/A
LTE TDD	38	Main#2	21.5		21.5	21.5	21.5	21.5	23.5	21.5	63.3%	N/A
NR FDD	5	Main#1	23.5		23.5	23.5	23.5	23.5	23.5	FDD	100%	N/A
NR FDD	12	Main#1	24.8		24.8	24.8	24.8	24.8	24.8	FDD	100%	N/A
NR FDD	71	Main#1	23.5		23.5	23.5	23.5	23.5	23.5	FDD	100%	N/A
NR FDD	66	Main#2	24.5		24.5	23.0	24.5	23.0	24.5	FDD	100%	1.5
NR FDD	2	Main#2	23.5		23.5	22.5	23.5	22.5	23.5	FDD	100%	1.0
NR FDD	25	Main#2	23.5		23.5	22.5	23.5	22.5	23.5	FDD	100%	1.0
NR TDD	77	Sub#3	18.2		14.2	18.2	18.2	18.2	24.2	18.2	25%	4.0
NR TDD (PC3)	41	Sub#2	18.0		16.0	18.0	18.0	18.0	24.0	18.0	25%	2.0
NR TDD (PC2)	41	Sub#2	19.0		16.0	19.0	19.0	19.0	25.0	19.0	25%	3.0
NR TDD (PC3)	41	Main#2	17.0		17.0	17.0	17.0	17.0	23.0	17.0	25%	N/A
NR TDD (PC2)	41	Main#2	20.5		20.5	20.5	20.5	20.5	26.5	20.5	25%	N/A

*Note all P_{limit} EFS and maximum tune up output power P_{max} levels entered in above Table correspond to average power levels after accounting for duty cycle in the case of TDD modulation schemes (for e.g., GSM,TDD).
*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 EFS" 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 Publication447498 D01v06.

4.2 Power Reduction for SAR

This device utilizes power reduction mechanisms for some wireless modes and bands for SAR compliance under hotspot conditions and under some conditions when the device is being used in close proximity to the user's hand. All hotspot SAR evaluations for this device were performed at the maximum allowed output power when Hotspot is enabled. FCC KDB Publication 616217 D04v01r02 Sec.6 was used as a guideline for selection SAR test distances for device when being used in phablet use conditions.

This device uses an independent fixed level power reduction mechanism for some wireless modes during held-to-ear scenarios. Per FCC Guidance, the held-to-ear exposure conditions were evaluated at reduced power according to the head SAR Positions described in IEEE1528-2013. Detailed descriptions of the power reduction mechanism are included in the operational description.

Detailed descriptions of the power reduction mechanism are included in the operational description.
Please refer to Appendix H for detailed power reduction verification.

The reduced powers for the power reduction mechanisms were conformed via conducted power measurements at the RF Port.

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.
The contents of DSI are as follows.
DSI: 0 Body worn or Phablet (max Power)
DSI 1: Head
DSI 2 HOTSPOT
DSI 3 : EarJack
DSI 4 :Phablet Reduced Power(GRIP ON)

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 Maximum PCE Output Power

The maximum output power declared in this section is burst average and not time or frame average.

Mode / Band			Modulated Average (dBm)	
			CDMA	EVDO EVDO Rev 0,A
DSI 0,1,2,3,4	**CDMA BC0**	Maximum	25.5	25.5
		Nominal	24.5	24.5
DSI 0,1,3	**PCS CDMA**	Maximum	25.0	25.0
		Nominal	24.0	24.0
DSI 0,1,2,3,4	**CDMA BC10**	Maximum	26.0	26.0
		Nominal	25.0	25.0

Mode / Band			Voice	Burst Average GMSK (dBm)				Burst Average 8-PSK (dBm)			
			1 Tx Slot	1 Tx Slot	2 Tx Slot	3 Tx Slot	4 Tx Slot	1 Tx Slot	2 Tx Slot	3 Tx Slot	4 Tx Slot
DSI 0,1,2,3,4	GSM/GPRS/EDGE850	Maximum	34.0	34.0	33.0	30.0	28.5	28.0	26.5	24.0	23.0
		Nominal	33.0	33.0	32.0	29.0	27.5	27.0	25.5	23.0	22.0
DSI 0,1,3	GSM/GPRS/EDGE1900	Maximum	31.0	31.0	30.0	27.5	26.0	27.0	26.0	24.0	22.5
		Nominal	30.0	30.0	29.0	26.5	25.0	26.0	25.0	23.0	21.5

Mode / Band			Modulated Average (dBm)			
			3GPP UMTS	3GPP HSDPA	3GPP HSUPA	DC-HSDPA
DSI 0,1,2,3,4	**UMTS Band 5 (850 MHz)**	Maximum	25.0	24.5	24.5	24.5
		Nominal	24.0	23.5	23.5	23.5
DSI 0,1,3	**UMTS Band 4 (1700 MHz)**	Maximum	25.5	24.0	24.0	24.0
		Nominal	24.5	23.0	23.0	23.0
DSI 0,1,3	**UMTS Band 2 (1900 MHz)**	Maximum	25.0	24.5	24.5	24.5
		Nominal	24.0	23.5	23.5	23.5

	Mode / Band		Modulated Average (dBm)
			Max
DSI 0,1,3	**LTE Band 2**	Maximum	25.5
		Nominal	24.5
DSI 0,1,3	**LTE Band 4**	Maximum	25.5
		Nominal	24.5
DSI 0,1,2,3,4	**LTE Band 5**	Maximum	25.5
		Nominal	24.5
DSI 0,1,3	**LTE Band 7**	Maximum	24.5
		Nominal	23.5
DSI 0,1,2,3,4	**LTE Band 12**	Maximum	24.5
		Nominal	23.5
DSI 0,1,2,3,4	**LTE Band 13**	Maximum	25.8
		Nominal	24.8
DSI 0,1,2,3,4	**LTE Band 14**	Maximum	25.3
		Nominal	24.3
DSI 0,1,3	**LTE Band 25**	Maximum	25.5
		Nominal	24.5
DSI 0,1,2,3,4	**LTE Band 26**	Maximum	25.5
		Nominal	24.5
DSI 0,1,3	**LTE Band 30**	Maximum	24.5
		Nominal	23.5
DSI 0,1,2,3,4	**LTE TDD Band 38**	Maximum	24.5
		Nominal	23.5
DSI 0,1,2,3,4	**LTE TDD Band 40**	Maximum	12.5
		Nominal	11.5
DSI 0,1,2,3,4	**LTE TDD Band 41 (PC 3) UL CA**	Maximum	25.0
		Nominal	24.0
DSI 0,1,2,3,4	**LTE TDD Band 41 (PC 2) UL CA**	Maximum	27.5
		Nominal	26.5
DSI 0,2,3,4	**LTE TDD Band 48**	Maximum	22.5
		Nominal	21.5
DSI 0,1,3	**LTE Band 66**	Maximum	25.5
		Nominal	24.5
DSI 0,1,2,3,4	**LTE Band 71**	Maximum	25.5
		Nominal	24.5

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Mode / Band			Modulated Average (dBm)
			Max
DSI 0,1,3	NR Band n2	Maximum	24.5
		Nominal	23.5
DSI 0,1,2,3,4	NR Band n5	Maximum	24.5
		Nominal	23.5
DSI 0,1,2,3,4	NR Band n12	Maximum	25.8
		Nominal	24.8
DSI 0,1,3	NR Band n25	Maximum	24.5
		Nominal	23.5
DSI 0,2,3,4	Sub 2 Ant NR Band n41 (PC3)	Maximum	25.0
		Nominal	24.0
DSI 0,2,3,4	Sub 2 Ant NR Band n41 (PC2)	Maximum	26.0
		Nominal	25.0
DSI 0,2,3,4	Main2 Ant NR Band n41 SA only (PC3)	Maximum	24.0
		Nominal	23.0
DSI 0,2,3,4	Main2 Ant NR Band n41 SA only (PC2)	Maximum	27.5
		Nominal	26.5
DSI 0,1,3	NR Band n66	Maximum	25.5
		Nominal	24.5
DSI 0,1,2,3,4	NR Band n71	Maximum	24.5
		Nominal	23.5
DSI 0,2,3,4	NR Band n77	Maximum	25.2
		Nominal	24.2

4.3.2 Reduced PCE Power (RCV On Mode / Hotspot Mode / Grip Sensor on)

Mode / Band			Voice	Burst Average GMSK (dBm)				Burst Average 8-PSK (dBm)			
			1 Tx Slot	1 Tx Slot	2 Tx Slot	3 Tx Slot	4 Tx Slot	1 Tx Slot	2 Tx Slot	3 Tx Slot	4 Tx Slot
DSI 2	GSM/GPRS/EDGE1900 Hotspot Mode	Maximum	29.0	29.0	27.5	25.5	23.5	25.5	23.5	21.5	20.5
		Nominal	28.0	28.0	26.5	24.5	22.5	24.5	22.5	20.5	19.5
DSI 4	GSM/GPRS/EDGE1900 Grip Sensor on	Maximum	29.0	29.0	27.5	25.5	23.5	25.5	23.5	21.5	20.5
		Nominal	28.0	28.0	26.5	24.5	22.5	24.5	22.5	20.5	19.5

Mode / Band			Modulated Average (dBm)	
			CDMA	EVDO EVDO Rev 0,A
DSI 2	PCS CDMA Hotspot Mode	Maximum	23.5	23.5
		Nominal	22.5	22.5
DSI 4	PCS CDMA Grip Sensor on	Maximum	23.5	23.5
		Nominal	22.5	22.5

Mode / Band			Modulated Average (dBm)			
			3GPP UMTS	3GPP HSDPA	3GPP HSUPA	DC-HSDPA
DSI 2	UMTS Band 4 (1700 ㎒) Hotspot Mode	Maximum	23.5	23.0	23.0	22.5
		Nominal	22.5	22.0	22.0	21.5
DSI 4	UMTS Band 4 (1700 ㎒) Grip Sensor on	Maximum	23.5	23.0	23.0	22.5
		Nominal	22.5	22.0	22.0	21.5
DSI 2	UMTS Band 2 (1900 ㎒) Hotspot Mode	Maximum	23.5	23.0	23.0	22.5
		Nominal	22.5	22.0	22.0	21.5
DSI 4	UMTS Band 2 (1900 ㎒) Grip Sensor on	Maximum	23.5	23.0	23.0	22.5
		Nominal	22.5	22.0	22.0	21.5

Mode / Band		Modulated Average (dBm)		
		Hotspot Mode DSI 2	**Grip Sensor on DSI 4**	**RCV on Mode DSI 1**
LTE Band 2	Maximum	23.0	23.0	
	Nominal	22.0	22.0	
LTE Band 4	Maximum	23.0	23.0	
	Nominal	22.0	22.0	
LTE Band 7	Maximum	23.0	23.0	
	Nominal	22.0	22.0	
LTE Band 25	Maximum	23.0	23.0	
	Nominal	22.0	22.0	
LTE Band 30	Maximum	23.0	23.0	
	Nominal	22.0	22.0	
LTE Band 48	Maximum			20.0
	Nominal			19.0
LTE Band 66	Maximum	23.0	23.0	
	Nominal	22.0	22.0	

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Mode / Band		Modulated Average (dBm)		
		Hotspot Mode DSI 2	Grip Sensor on DSI 4	RCV on Mode DSI 1
NR Band n2	Maximum	23.5	23.5	
	Nominal	22.5	22.5	
NR Band n25	Maximum	23.5	23.5	
	Nominal	22.5	22.5	
Sub 2 Ant NR Band n41 (PC3)	Maximum			23.0
	Nominal			22.0
Sub 2 Ant NR Band n41 (PC2)	Maximum			23.0
	Nominal			22.0
NR Band n66	Maximum	24.0	24.0	
	Nominal	23.0	23.0	
NR Band n77	Maximum			21.2
	Nominal			20.2

4.3.3 Maximum 2.4 GHz, 5 GHz WIFI output power

Mode	Band	IEEE 802.11 (in dBm)				
		a	b	g	n	ac
2.4 GHz WIFI	2.45 GHz		20	6~18M:18 (1,11ch:17) 24~54M:17 (1,11ch:16)	MCS0~3:18, (1,11ch:16) MCS4~7:17 (1,11ch:15)	
5 GHz WIFI (20MHz BW)	5200 MHz	6~18M:18, 24~54M:16			MCS0~3:18, MCS4~7:16.5	MCS0~3:16, MCS4~8:15
	5300 MHz	6~18M:18, 24~54M:16			MCS0~3:18, MCS4~7:16.5	MCS0~3:16, MCS4~8:15
	5500 MHz	6~18M:18, 24~54M:16			MCS0~3:18, MCS4~7:16.5	MCS0~3:16, MCS4~8:15
	5800 MHz	6~18M:18, 24~54M:16			MCS0~3:18, MCS4~7:16.5	MCS0~3:16, MCS4~8:14
5 GHz WIFI (40MHz BW)	5200 MHz				MCS0~3:14.5 (38ch:13), MCS4~7:13.5 (38ch:12.5),	MCS0~4:14.5 (38ch:12), MCS5~9:13.5 (38ch:12)
	5300 MHz				MCS0~3:14 (62ch:11), MCS4~7:13 (62ch:10)	MCS0~4:14 (62ch:10.5), MCS5~9:13 (62ch:10.5)
	5500 MHz				MCS0~3:14, MCS4~7:13	MCS0~4:14 (102ch:13), MCS5~9:13
	5800 MHz				MCS0~3:14, MCS4~7:13	MCS0~4:14, MCS5~9:13
5 GHz WIFI (80MHz BW)	5200 MHz					MCS0~4:12 (42ch:10), MCS5~9:11 (42ch:10)
	5300 MHz					MCS0~4:12 (58ch:8), MCS5~9:11 (58ch:8)
	5500 MHz					MCS0~4:12, MCS5~9:11
	5800 MHz					MCS0~4:12, MCS5~9:11

(Tolerance: -1.5dB ~ 1dB)

4.3.4 Reduced 2.4 GHz, 5 GHz WIFI output power

Mode	Band	IEEE 802.11 (in dBm)				
		a	b	g	n	ac
2.4 GHz WIFI	2.45 GHz		16	16	16	
5 GHz WIFI (20MHz BW)	5200 MHz	12.5			12.5	12.5
	5300 MHz	12.5			12.5	12.5
	5500 MHz	12.5			12.5	12.5
	5800 MHz	12.5			12.5	12.5
5 GHz WIFI (40MHz BW)	5200 MHz				12.5	12.5 (38ch:12)
	5300 MHz				12.5 (62ch MCS0~3:11 MCS4~7:10)	12.5 (62ch:10.5)
	5500 MHz				12.5	12.5
	5800 MHz				12.5	12.5
5 GHz WIFI (80MHz BW)	5200 MHz					MCS0~4:12 (42ch:10), MCS5~9:11 (42ch:10)
	5300 MHz					MCS0~4:12 (58ch:7), MCS5~9:11 (58ch:7)
	5500 MHz					MCS0~4:12, MCS5~9:11
	5800 MHz					MCS0~4:12, MCS5~9:11

(Tolerance: -1.5dB ~ 1dB)

4.3.5 Maximum Bluetooth Power

Mode / Band			Modulated Average (dBm)
BR	0ch	Maximum	16.5
		Nominal	15.5
	39ch	Maximum	16.0
		Nominal	15.0
	78ch	Maximum	15.0
		Nominal	14.0
EDR		Maximum	12.0
		Nominal	11.0
LE	0ch	Maximum	5
		Nominal	4
	19ch	Maximum	6
		Nominal	5
	39ch	Maximum	6
		Nominal	5

4.4 LTE Information

Item.		Description
Frequency Range	LTE Band 2 (PCS)	1 850.7 MHz~ 1 909.3 MHz
	LTE Band 4 (AWS)	1 710.7 MHz~ 1 754.3 MHz
	LTE Band 5 (Cell)	824.7 MHz~ 848.3 MHz
	LTE Band 7	2 502.5 MHz~ 2 567.5 MHz
	LTE Band 12	699.7 MHz~ 715.3 MHz
	LTE Band 13	779.5 MHz~ 784.5 MHz
	LTE Band 14	790.5 MHz~ 795.5 MHz
	LTE Band 25(PCS)	1 850.7 MHz~ 1 914.3 MHz
	LTE Band 26 (Cell)	814.7 MHz~ 848.3 MHz
	LTE Band 30	2 307.5 MHz ~ 2 312.5 MHz
	LTE TDD Band 38	2 572.5 MHz ~ 2 617.5 MHz
	LTE TDD Band 40	2 302.5 MHz ~ 2 397.5 MHz
	LTE TDD Band 41	2 498.5 MHz ~ 2 687.5 MHz
	LTE TDD Band 48	3 552.5 MHz ~ 3 697.5 MHz
	LTE Band 66 (AWS)	1 710.7 MHz ~ 1 779.3 MHz
	LTE Band 71	665.5 MHz~ 695.5 MHz
	NR Band n2 (PCS)	1 852.5 MHz~ 1 907.5 MHz
	NR Band n5 (Cell)	826.5 MHz~ 846.5 MHz
	NR Band n12	701.5 MHz~713.5 MHz
	NR Band n25	1852.5 MHz ~ 1912.5 MHz
	NR Band n41	2 506.02 MHz~ 2 679.99 MHz
	NR Band n66 (AWS)	1 712.5 MHz~ 1 777.5 MHz
	NR Band n71	665.5 MHz - 695.5 MHz
	NR Band n77	3 710 MHz~3 969.99 MHz
Channel Bandwidths	LTE Band 2 (PCS)	1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz
	LTE Band 4 (AWS)	1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz
	LTE Band 5 (Cell)	1.4 MHz, 3 MHz, 5 MHz, 10 MHz
	LTE Band 7	5 MHz, 10 MHz, 15 MHz, 20 MHz
	LTE Band 12	1.4 MHz, 3 MHz, 5 MHz, 10 MHz
	LTE Band 13	5 MHz, 10 MHz
	LTE Band 14	5 MHz, 10 MHz
	LTE Band 25 (PCS)	1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz
	LTE Band 26 (Cell)	1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz
	LTE Band 30	5 MHz, 10 MHz
	LTE TDD Band 38	5 MHz, 10 MHz, 15 MHz, 20 MHz
	LTE TDD Band 40	5 MHz, 10 MHz
	LTE TDD Band 41	5 MHz, 10 MHz, 15 MHz, 20 MHz
	LTE TDD Band 48	5 MHz, 10 MHz, 15 MHz, 20 MHz
	LTE Band 66 (AWS)	1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz
	LTE Band 71	5 MHz, 10 MHz, 15 MHz, 20 MHz
	NR Band n2 (PCS)	5 MHz, 10 MHz, 15 MHz, 20 MHz
	NR Band n5 (Cell)	5 MHz, 10 MHz, 15 MHz, 20 MHz
	NR Band n12	5 MHz, 10 MHz, 15 MHz
	NR Band n25	5 MHz, 10 MHz, 15 MHz, 20 MHz, 25 MHz, 30 MHz, 40 MHz
	NR Band n41	20 MHz, 30 MHz, 40 MHz, 50 MHz, 60 MHz, 80 MHz, 90 MHz, 100 MHz
	NR Band n66(AWS)	5 MHz, 10 MHz, 15 MHz, 20 MHz, 25 MHz, 30 MHz, 40 MHz
	NR Band n71	5 MHz, 10 MHz, 15 MHz, 20 MHz
	NR Band n77	20 MHz, 30 MHz, 40 MHz, 50 MHz, 60 MHz, 70 MHz, 80 MHz, 90 MHz, 100 MHz

Ch. No.& Freq.(MHz)		Low - MHz (Ch.)	Mid - MHz (Ch.)	High- MHz (Ch.)
LTE Band 2 (PCS)	1.4 MHz	1 850.7 (18607)	1 880.0 (18900)	1 909.3 (19193)
	3 MHz	1 851.5 (18615)	1 880.0 (18900)	1 908.5 (19185)
	5 MHz	1 852.5 (18625)	1 880.0 (18900)	1 907.5 (19175)
	10 MHz	1 855.0 (18650)	1 880.0 (18900)	1 905.0 (19150)
	15 MHz	1 857.5 (18675)	1 880.0 (18900)	1 902.5 (19125)
	20 MHz	1 860.0 (18700)	1 880.0 (18900)	1 900.0 (19100)
LTE Band 4 (AWS)	1.4 MHz	1 710.7 (19957)	1 732.5 (20175)	1 754.3 (20393)
	3 MHz	1 711.5 (19965)	1 732.5 (20175)	1 753.5 (20385)
	5 MHz	1 712.5 (19975)	1 732.5 (20175)	1 752.5 (20375)
	10 MHz	1 715.0 (20000)	1 732.5 (20175)	1 750.0 (20350)
	15 MHz	1 717.5 (20025)	1 732.5 (20175)	1 747.5 (20325)
	20 MHz	1 720.0 (20050)	1 732.5 (20175)	1 745.0 (20300)
LTE Band 5 (Cell)	1.4 MHz	824.7 (20407)	836.5 (20525)	848.3 (20643)
	3 MHz	825.5 (20415)	836.5 (20525)	847.5 (20635)
	5 MHz	826.5 (20425)	836.5 (20525)	846.5 (20625)
	10 MHz	829.0 (20450)	836.5 (20525)	844.0 (20600)
LTE Band 7	5 MHz	2502.5 (20775)	2535 (21100)	2567.5 (21425)
	10 MHz	2505 (20800)	2535 (21100)	2565 (21400)
	15 MHz	2507.5 (20825)	2535 (21100)	2562.5 (21375)
	20 MHz	2510 (20850)	2535 (21100)	2560 (21350)
LTE Band 12	1.4 MHz	699.7 (23017)	707.5 (23095)	715.3 (23173)
	3 MHz	700.5 (23025)	707.5 (23095)	714.5 (23165)
	5 MHz	701.5 (23035)	707.5 (23095)	713.5 (23155)
	10 MHz	704.0 (23060)	707.5 (23095)	711.0 (23130)
LTE Band 13	5 MHz	779.5 (23205)	782 (23230)	784.5 (23255)
	10 MHz		782 (23230)	
LTE Band 14	5 MHz	790.5 (23305	793 (23330)	795.5 (23355)
	10 MHz		793 (23330)	
LTE Band 25(PCS)	1.4 MHz	1 850.7 (26047)	1 882.5 (26365)	1 914.3 (26683)
	3 MHz	1 851.5 (26055)	1 882.5 (26365)	1 913.5 (26675)
	5 MHz	1 852.5 (26065)	1 882.5 (26365)	1 912.5 (26665)
	10 MHz	1 855 (26090)	1 882.5 (26365)	1 910 (26640)
	15 MHz	1 857.5 (26115)	1 882.5 (26365)	1 907.5 (26615)
	20 MHz	1 860 (26140)	1 882.5 (26365)	1 905 (26590)
LTE Band 26 (Cell)	1.4 MHz	814.7 (26697)	831.5 (26865)	848.3 (27033)
	3 MHz	815.5 (26705)	831.5 (26865)	847.5 (27025)
	5 MHz	816.5 (26715)	831.5 (26865)	846.5 (27015)
	10 MHz	819.0 (26740)	831.5 (26865)	844.0 (26990)
	15 MHz	821.5 (26765)	831.5 (26865)	841.5 (26965)
LTE Band 30	5 MHz	2 307.5 (27685)	2 310 (27710)	2 312.5 (27735)
	10 MHz		2 310 (27710)	
LTE TDD Band 38	5 MHz	2572.5 (37775)	2 595 (38000)	2617.5 (38225)
	10 MHz	2575 (37800)	2 595 (38000)	2615 (38200)
	15 MHz	2577.5 (37825)	2 595 (38000)	2612.5 (38175)
	20 MHz	2580 (37850)	2 595 (38000)	2610 (38150)
LTE TDD Band 40	5 MHz	2 302.5 (38675)	2 350 (39150)	2 397.5 (39625)
	10 MHz	2 305 (38700)	2 350 (39150)	2 395 (39600)

Ch. No.& Freq.(㎒)		Low- MHz (Ch.)	Mid- MHz (Ch.)	High- MHz (Ch.)
LTE Band 66 (AWS)	1.4 ㎒	1 710.7 (131979)	1 745 (132322)	1 779.3 (132665)
	3 ㎒	1 711.5 (131987)	1 745 (132322)	1 778.5 (132657)
	5 ㎒	1 712.5 (131997)	1 745 (132322)	1 777.5 (132647)
	10 ㎒	1 715.0 (132022)	1 745 (132322)	1 775.0 (132622)
	15 ㎒	1 717.5 (132047)	1 745 (132322)	1 772.5 (132597)
	20 ㎒	1 720.0 (132072)	1 745 (132322)	1 770.0 (132572)
LTE Band 71	5 ㎒	665.5 (133147)	680.5 (133297)	695.5 (133447)
	10 ㎒	668 (133172)	680.5 (133297)	693 (133422)
	15 ㎒	670.5 (133197)	680.5 (133297)	690.5 (133397)
	20 ㎒	673 (133222)	680.5 (133297)	688 (133372)

LTE TDD Band 41	5 ㎒	2498.5(39675)	2545.8(40148)	2593.0(40620)	2640.3(41093)	2687.5(41565)
	10 ㎒	2501.0(39700)	2547.0(40160)	2593.0(40620)	2639.0(41080)	2685.0(41540)
	15 ㎒	2503.5(39725)	2548.3(41073)	2593.0(40620)	2637.8(41068)	2682.5(41515)
	20 ㎒	2506.0(39750)	2549.5(40185)	2593.0(40620)	2636.5(41055)	2680.0(41490)

LTE TDD Band 48	5 ㎒	3 552.5(55265)	3 600.8(55748)	3 649.2(56232)	3 697.5(56715)
	10 ㎒	3 555(55290)	3 601.7(55757)	3 648.3(56223)	3 695(56690)
	15 ㎒	3 557.5(55315)	3 602.5(55765)	3 647.5(56215)	3 692.5(56665)
	20 ㎒	3 560(55340)	3 603.3(55773)	3 646.7(56207)	3 690(56640)

UE Category	LTE Rel.15, DL: Category 18, UL: Category 13
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
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 Detaled information of Down-Link CA are included in the Appendix.I
LTE Release information	This device does not support full CA features on 3GPP Release 15. It supports carrieraggregation, downlink MIMO. All other uplink communications are identical to te release 8 specifications. The following LTE Release 15 Features are not supported: Relay, Hetnet, Enhanced elCl, MDH, cross-carrier Scheduling, Enhanced SC-FDMA.

Ch. No.& Freq.(㎒)		Low / Low-Mid - MHz (Ch.)		Mid- MHz (Ch.)		Mid-High / High- MHz (Ch.)	
NR Band n2 (PCS)	5 ㎒	1852.5 (370500)		1880 (376000)		1907.5 (381500)	
	10 ㎒	1855 (371000)		1880 (376000)		1905 (381000)	
	15 ㎒	1857.5 (371500)		1880 (376000)		1902.5 (380500)	
	20 ㎒	1860 (372000)		1880 (376000)		1900 (380000)	
NR Band n5 (Cell)	5 ㎒	826.5 (165300)		836.5 (167300)		846.5 (169300)	
	10 ㎒	829 (165800)				844 (168800)	
	15 ㎒	831.5 (166300)		836.5 (167300)		841.5 (168300)	
	20 ㎒	834 (166800)		836.5 (167300)		839 (167800)	
NR Band n12	5 ㎒	701.5 (140300)		707.5 (141500)		713.5 (142700)	
	10 ㎒			707.5 (141500)			
	15 ㎒			707.5 (141500)			
NR Band n25	5 ㎒	1852.5(370500)		1882.5(376500)		1912.5(382500)	
	10 ㎒	1855(371000)		1882.5(376500)		1910(382000)	
	15 ㎒	1857.5(371500)		1882.5(376500)		1907.5(381500)	
	20 ㎒	1860(372000)		1882.5(376500)		1905(381000)	
	25 ㎒	1862.5 (372500)				1902.5 (380500)	
	30 ㎒	1865 (373000)				1900 (380000)	
	40 ㎒			1882.5 (376500)			
NR Band n71	5 ㎒	665.5 (133100)		680.5 (136100)		695.5 (139100)	
	10 ㎒	668 (133600)		680.5 (136100)		693 (138600)	
	15 ㎒	670.5 (134100)				690.5 (138100)	
	20 ㎒	673 (134600)		680.5 (136100)		688 (137600)	
NR Band n66(AWS)	5 ㎒	1712.5 (342500)	1734.1 (346820)	1755.8 (351160)		1777.5 (355500)	
	10 ㎒	1715 (343000)	1735 (347000)	1755 (351000)		1775 (355000)	
	15 ㎒	1717.5 (343500)	1735.8 (347160)	1754.1 (350820)		1772.5 (354500)	
	20 ㎒	1720 (344000)	1745 (349000)			1770 (354000)	
	30 ㎒	1725 (345000)				1765 (353000)	
	40 ㎒		1745 (349000)				
NR Band n41	20 ㎒	2506.02 (501204)	2549.49 (509898)	2592.99 (518598)	2636.49 (527298)	2679.99 (535998)	
	30 ㎒	2511 502200	2567.34 513468	2592.99 518598	2618.67 523734	2675 535000	
	40 ㎒	2516.01 (503202)	2567.34 (513468)		2618.67 (523734)	2670 (534000)	
	50 ㎒	2521.02 (504204)	2592.99 (518598)	2664.99 (532998)			
	60 ㎒	2526 (505200)		2592.99 (518598)		2659.98 (531996)	
	80 ㎒	2536.02 (507204)				2649.99 (529998)	
	90 ㎒	2541 (508200)				2644.98 (528996)	
	100 ㎒			2592.99 (518598)			
NR Band n77	20 ㎒	3710 (647333)	3762 (650800)	3814 (654266)	3866 (657733)	3918 (661200)	3969.99 (664666)
	30 ㎒	3714.99(647666)	3765 (651000)	3815.01 (654334)	3864.99 (657666)	3915 (661000)	3965.01 (664334)
	40 ㎒	3720 (648000)	3768 (651200)	3816 (654400)	3864 (657600)	3912 (660800)	3960 (664000)
	50 ㎒	3725 (648334)	3782 (652134)	3839 (655934)		3896 (659800)	3955 (663666)
	60 ㎒	3730 (648666)	3730 (648666)	3840 (656000)		3895 (659666)	3950 (663334)
	70 ㎒	3735 (649000)	3805.01 (654334)			3875.01(658334)	3945 (663000)
	80 ㎒	3740 (662666)	3807 (653800)			3873 (658200)	3940 (662666)
	90 ㎒	3745 (649666)		3840 (656000)		3935 (662334)	
	100 ㎒	3750 (650000)		3840 (656000)		3930 (662000)	

Item.	Description
NR Band n2/n5/n12/n25/n66/n71 SCS	15 kHz
NR Band n41/n77 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. More detailed specifications of the 5G NR bands are contained in the Technical description document.	
EN-C Carrier Aggregation Possible Combinations	The technical description includes all the possible carrier aggregation combinations
LTE Anchor Bands for NR Bands n2	LTE B5/12/13/14
LTE Anchor Bands for NR Band n5	LTE B2/7/20/48
LTE Anchor Bands for NR Band n12	LTE B2/66
LTE Anchor Bands for NR Band n25	LTE B12
LTE Anchor Bands for NR Band n66	LTE B5/12/13/14/48/71
LTE Anchor Bands for NR Band n71	LTE B2/7/66
LTE Anchor Bands for NR Band n 41	LTE B2/12/66
LTE Anchor Bands for NR Bands n77	LTE B2/5/12/13/14/30/66

4.5 DUT Antenna Locations

The overall dimensions of this device are > 9 X 5 cm. A diagram showing device antenna can be found in SAR_setup_photos. Since the diagonal dimension of this device is > 160 mm and < 200 mm, it is considered a "phablet".

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 BR tethering applications.

Mode	Antenna	Rear	Front	Left	Right	Bottom	Top
EVDO BC10 (§90S)	Main 1 ANT	Yes	Yes	No	Yes	Yes	No
EVDO BC0 (§22H)	Main 1 ANT	Yes	Yes	No	Yes	Yes	No
PCS EVDO	Main 2 ANT	Yes	Yes	Yes	No	Yes	No
GSM/GPRS/EDGE 850	Main 1 ANT	Yes	Yes	No	Yes	Yes	No
GSM/GPRS/EDGE 1900	Main 2 ANT	Yes	Yes	Yes	No	Yes	No
UMTS 850	Main 1 ANT	Yes	Yes	No	Yes	Yes	No
UMTS 1700	Main 2 ANT	Yes	Yes	Yes	No	Yes	No
UMTS 1900	Main 2 ANT	Yes	Yes	Yes	No	Yes	No
LTE Band 2 (PCS)	Main 2 ANT	Yes	Yes	Yes	No	Yes	No
LTE Band 4 (AWS)	Main 2 ANT	Yes	Yes	Yes	No	Yes	No
LTE Band 5 (Cell)	Main 1 ANT	Yes	Yes	No	Yes	Yes	No
LTE Band 7	Main 2 ANT	Yes	Yes	Yes	No	Yes	No
LTE Band 12	Main 1 ANT	Yes	Yes	No	Yes	Yes	No
LTE Band 13	Main 1 ANT	Yes	Yes	No	Yes	Yes	No
LTE Band 14	Main 1 ANT	Yes	Yes	No	Yes	Yes	No
LTE Band 25	Main 2 ANT	Yes	Yes	Yes	No	Yes	No
LTE Band 26	Main 1 ANT	Yes	Yes	No	Yes	Yes	No
LTE Band 30	Main 2 ANT	Yes	Yes	Yes	No	Yes	No
LTE TDD Band 38	Main 2 ANT	Yes	Yes	Yes	No	Yes	No
LTE TDD Band 40	Main 2 ANT	Yes	Yes	Yes	No	Yes	No
LTE TDD Band 41	Main 2 ANT	Yes	Yes	Yes	No	Yes	No
LTE TDD Band 48	Sub 3 ANT	Yes	Yes	Yes	No	No	Yes
LTE Band 66 (AWS)	Main 2 ANT	Yes	Yes	Yes	No	Yes	No
LTE Band 71	Main 1 ANT	Yes	Yes	No	Yes	Yes	No
NR Band n2	Main 2 ANT	Yes	Yes	Yes	No	Yes	No
NR Band n5	Main 1 ANT	Yes	Yes	No	Yes	Yes	No
NR Band n12	Main 1 ANT	Yes	Yes	No	Yes	Yes	No
NR Band n25	Main 2 ANT	Yes	Yes	Yes	No	Yes	No
NR Band n41	Sub 2 ANT	Yes	Yes	Yes	No	No	Yes
NR Band n41	Main 2 ANT	Yes	Yes	Yes	No	Yes	No
NR Band n66	Main 2 ANT	Yes	Yes	Yes	No	Yes	No
NR Band n71	Main 1 ANT	Yes	Yes	No	Yes	Yes	No
NR Band n77	Sub 3 ANT	Yes	Yes	Yes	No	No	Yes
2.4 GHz WLAN	WiFi/BT	Yes	Yes	Yes	No	No	Yes
5 GHz WLAN	WiFi/BT	Yes	Yes	Yes	No	No	Yes
Bluetooth	WiFi/BT	Yes	Yes	Yes	No	No	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.

4.6 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.

4.7 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.

Simultaneous Transmission Scenarios				
Applicable Combination	Head	Body-Worn	Hotspot	Extremity
1x CDMA Voice+ 2.4 GHz WiFi	Yes	Yes	N/A	Yes
1x CDMA Voice+ 5 GHz WiFi	Yes	Yes	N/A	Yes
1x CDMA Voice+ Bluetooth	Yes^	Yes	N/A	Yes
GSM Voice + 2.4 GHz WiFi	Yes	Yes	N/A	Yes
GSM Voice + 5 GHz WiFi	Yes	Yes	N/A	Yes
GSM Voice + Bluetooth	Yes^	Yes	N/A	Yes
GSM Voice + 5 GHz WiFi + Bluetooth	Yes^	Yes	N/A	Yes
CDMA/EVDO + 2.4 GHz WiFi	Yes*	Yes	Yes	Yes
CDMA/EVDO+ 5 GHz WiFi	Yes*	Yes	Yes	Yes
CDMA/EVDO+ Bluetooth	Yes*^	Yes	Yes^	Yes
CDMA/EVDO + 5 GHz WiFi + Bluetooth	Yes*^	Yes	Yes^	Yes
GSMGPRS/EDGE + 2.4 GHz WiFi	Yes*	Yes	Yes	Yes
GSMGPRS/EDGE + 5 GHz WiFi	Yes*	Yes	Yes	Yes
GSMGPRS/EDGE + Bluetooth	Yes*^	Yes	Yes^	Yes
GSMGPRS/EDGE + 5 GHz WiFi + Bluetooth	Yes*^	Yes	Yes^	Yes
UMTS + 2.4 GHz WiFi	Yes	Yes	Yes	Yes
UMTS + 5 GHz WiFi	Yes	Yes	Yes	Yes
UMTS + Bluetooth	Yes^	Yes	Yes^	Yes
UMTS + 5 GHz WiFi + Bluetooth	Yes^	Yes	Yes^	Yes
LTE + 2.4 GHz WiFi	Yes*	Yes	Yes	Yes
LTE + 5 GHz WiFi	Yes*	Yes	Yes	Yes
LTE+ Bluetooth	Yes^	Yes	Yes^	Yes
LTE + 5 GHz WiFi + Bluetooth	Yes^	Yes	Yes^	Yes
LTE+ 5GNR	Yes	Yes	N/A	Yes
LTE+ 5GNR + 2.4 GHz WiFi	Yes*	Yes	Yes	Yes
LTE+ 5GNR + 5 GHz WiFi	Yes*	Yes	Yes	Yes
LTE+ 5GNR+ Bluetooth	Yes^	Yes	Yes^	Yes
LTE+ 5GNR + 5 GHz WiFi + Bluetooth	Yes^	Yes	Yes^	Yes
5GNR + 2.4 GHz WiFi	Yes*	Yes	Yes	Yes
5GNR + 5 GHz WiFi	Yes*	Yes	Yes	Yes
5GNR+ Bluetooth	Yes*^	Yes	Yes^	Yes
5GNR + 5 GHz WiFi + Bluetooth	Yes*^	Yes	Yes^	Yes

Note:
1. Bluetooth cannot transmit simultaneously with 2.4GHz WLAN.
2. 5GHz WLAN can transmit simultaneously with Bluetooth
3. UMTS +WLAN scenario also represents the UMTS Voice/DATA + WLAN hotspot scenario.
4. VoIP is supported in GPRS/EDGE and EVDO RevA.
5. The highest reported SAR for each exposure condition is used for SAR summation purpose.
6. Wi-Fi Hotspot is supported for 2.4 GHz/ UNII-3 of 5 GHz WLAN.
7. Per the manufacture, WIFI Direct is not expected to be used in conjunction with a held to ear or body-worn accessory voice call. Therefore, there are no simultaneous transmission scenarios involving WIFI direct beyond that listed in the above table
8. This device supports Bluetooth tethering. ^ BluetoothTetheringis considered.
9. * Pre-installed VOIP applications areconsidered.
10. This device supports VoLTE/ VoWiFi.
11. LTE + 5G NR FR1 Scenarios are LTE Anchor Bands, LTE Band 2/5/12/13/14/25/30/48/66.
12. NR implementation supports SA and NAS mode. SAR test for NR bands and LTE Anchors bands were performed separately due to limitations in SAR Probe calibration factors. In EN-DC mode, NR operates with the LTE bands shown in the NR FR1 checklist acting as anchor band

4.8 SAR Test Considerations

4.8.1 WiFi

Since wireless router operations are not allowed by the chipset firmware using U-NII-1, U-NII-2A & U-NII-2C 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 802.11 ac with the following features:

a) Up to 80 MHz Bandwidth only
b) No aggregate channel configurations
c) 1Tx Antenna output
d) 256 QAM is supported
e) TDWR and Band gap channels are supported.
f) Straddle channels are supported.

Per FCC KDB Publication 648474 D04v01r03, this device is considered a "phablet" since the diagonal dimension is greater than 160mm and less than 200mm. 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.

4.8.2 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 mm and less than 200 mm. 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 on the uplink for LTE Operations. Conducted powers for 64QAM uplink configurations were measured per section 5.1 of FCC KDB 941225 D05v02r05. SAR was not required for 64QAM sins the highest maximum output power for 64QAM 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 support both Power class 2(PC2) and Power Class 3 (PC3) for LTE 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 device supports LTE/NR capabilities with overlapping transmission frequency ranges. When the supported frequency range of LTE/NR Band falls completely within an LTE/NR Band with a larger transmission frequency range, both LTE/NR bands have the same target power or the band with the larger transmission frequency range has a higher target power and both LTE/NR bands share the same transmission path and signal characteristics, SAR was only tested for the band with the larger transmission frequency range.

LTE Band 2 (1 850.7 ㎒ ~ 1 909.3 ㎒) is covered by LTE Band 25 (1 850.7 ㎒~ 1 914.3 ㎒) each both LTE bands have the same target powers
LTE Band 4 (1 710.7 ㎒ ~ 1 754.3 ㎒) is covered by LTE Band 66 (1 710.7 ㎒ ~ 1 779.3 ㎒) each both LTE bands have the same target powers
LTE Band 5 (824.7 ㎒~ 848.3 ㎒) is covered by LTE Band 26(814.7 ㎒ ~848.3 ㎒) each both LTE bands have the same target powers
Since LTE band 41 has the higher target power and wider frequency band than LTE band 38, LTE band 38 (2 572.5MHz ~ 2 617.5MHz) is covered by LTE band 41 (2 498.5MHz ~ 2 687.5MHz).
NR Band n2 (1 852.5 ㎒~ 1 907.5 ㎒) is covered by NR Band n25 (1852.5 ㎒ ~ 1912.5 ㎒) 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 LTE Carrier Aggregation(CA) in Uplink for LTE 41 with two component carriers in the uplink. SAR measurements and conducted powers were evaluated per Fall 2017 TCBC Workshop notes (LTE Carrier aggregation).
Because the maximum output for UL CA of LTE 41 is ≤ standalone LTE mode (without CA),
SAR for LTE B41 Up link CA was performed at the highest standalone SAR configuration without CA and also UL CA SAR is not required for all required test channels, Because the reported SAR for UL CA configuration is > 1.2 W/kg, .

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

This device supports Power Class 2 and Power Class 3 operations for LTE Band 41. The Highest available duty cycle for Power Class 2 operations is 43.3% using UL-DL configuration 1. Per May TCB Workshop notes, all SAR tests were performed using Power Class 3. SAR with power class 2 at the available duty factor was additionally performed for the power class 3 configuration with the highest SAR configuration for each exposure conditions.
NR implementation supports SA and NAS mode. SAR test for NR bands and LTE Anchors bands were performed separately due to limitations in SAR Probe calibration factors. In EN-DC mode, NR operates with the LTE bands shown in the NR FR1 checklist acting as anchor band

This device supports NSA(Non-standalone) only for 5G FR1 Bands
RF Exposure assessment and simultaneous transmission analysis for these bands can be found in the Part 2 RF exposure Report.

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.

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

Based on the highest Reported SAR, the secondary mode is not required.
Per FCC KDB 690783 1 D01 SAR Listings on Grants v01r03 and KDB 447498 D01 General RF Exposure Guidance v06 The SAR numbers listed must be consistent with the highest reported test results required by the published RF exposure KDB procedures. When the measured SAR is not at the maximum tune-up tolerance limit or maximum output power allowed for production units, the measured results are scaled to the maximum conditions to determine compliance; the scaled results are referred to as the reported SAR.

The Reported SAR = The Measured SAR x-$\frac{Maximum\ \ tune-up\ \ (mW)}{Measured\ \ Conducted\ \ Power(mW)}$

The Reported SAR for WLAN and Bluetooth
The Reported SAR = The Measured SAR x-$\frac{Maximum\ \ tune-up\ \ (mW)}{Measured\ \ Conducted\ \ Power(mW)}$ x Duty factor

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 ㎓. 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.

$$SAR = \frac{d}{d\ t}\left(\frac{d\ U}{d\ m}\right)$$

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/㎥)
= 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 is working with SAR Measurement system DASY4 & DASY5, 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.

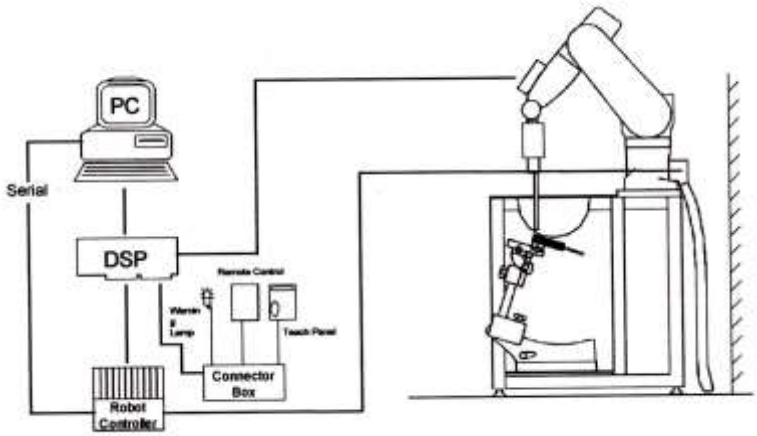


Figure 2. HCT SAR Lab. Test Measurement Set-up

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.

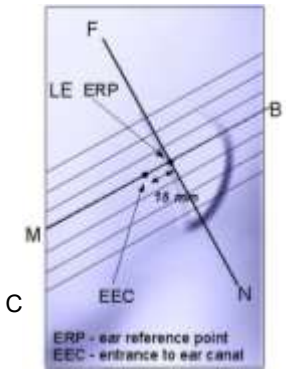
Area scan and zoom scan resolution setting follow KDB 865664 D01v01r04 quoted below.

<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: Δx_{Area}, Δy_{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: Δx_{zoom}, Δy_{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>$\Delta z_{zoom}(1)$: between 1 st two Points closest to phantom surface</td><td>≤ 4 mm</td><td>3-4 GHz: ≤3 mm
4-5 GHz: ≤2.5 mm
5-6 GHz: ≤2 mm</td></tr>
<tr><td>$\Delta z_{zoom}(n>1)$: between subsequent Points</td><td colspan="2">≤1.5·$\Delta z_{zoom}(n-1)$</td></tr>
<tr><td>Minimum zoom scan volume</td><td colspan="2">x, y, z</td><td>≥ 30 mm</td><td>3-4 GHz: ≥28 mm
4-5 GHz: ≥25 mm
5-6 GHz: ≥22 mm</td></tr>
<tr><td colspan="5">Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.
* When zoom scan is required and the 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.



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

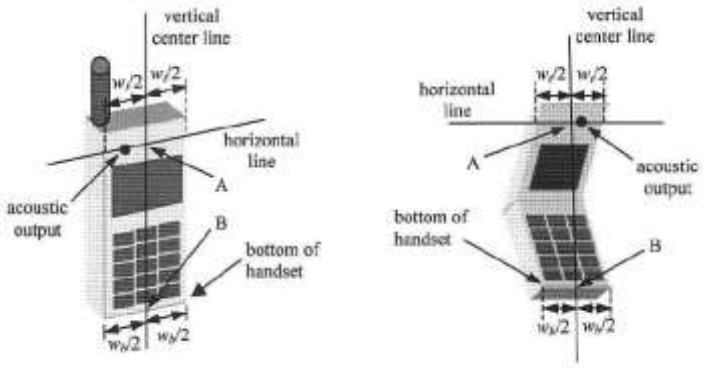


Figure 6-3. Handset vertical and horizontal reference lines

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.

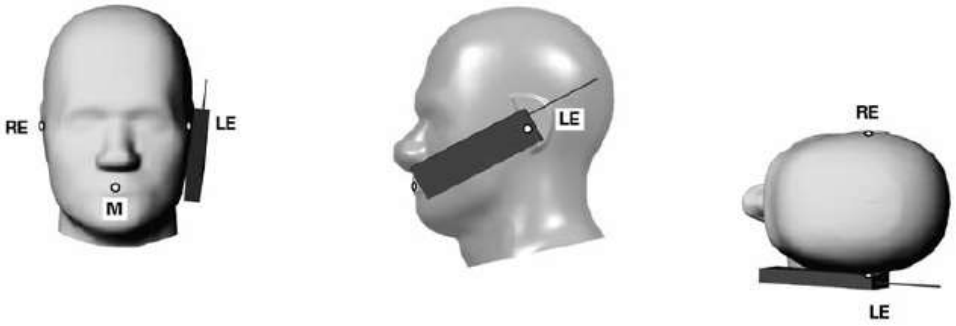


Figure 8.4 Cheek/ Touch position of the wireless device

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.

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 Additional Test Positions due to Proximity Conditions

This device uses a sensor to reduce output powers in extremity (hand-held) use conditions.

When the sensor detects a user is touching the device on or near to the antenna the device reduces the maximum allowed output power However, the proximity sensor is not active when the device is moved beyond the sensor triggering distance and the maximum output power is no longer limited. Therefore, an additional exposure condition is needed in the vicinity of the triggering distance to ensure SAR is compliant when the device is allowed to operate at a non-reduced output power level.

FCC KDB 616217 D04 v01r02 Section 6 was used as a guideline for selecting SAR test distances for this device at these additional exposure conditions. The smallest separation distance determined by the sensor triggering and sensor coverage for each applicable edge, minus 1 mm. was used as the test separation distance for SAR testing. Sensor triggering distance summary data is included in below table.

Wireless technologies	Position	§6.2 Triggering Distance	§6.3 Coverage	§6.4 Tilt Angle	Worst case distance for Phablet SAR
GSM1900/PCS CDMA /UMTS 1900/1700 LTEB2/B4/B7/B25/B30/B66 SUB6 n2/n25/n66	Rear	10	N/A	N/A	9
	Front	6	N/A	N/A	5
	Bottom	12	N/A	N/A	11

8.10 Bluetooth tethering Configurations

Per May 2017 TCBC Workshop documents 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 BR tethering applications.

9. RF Exposure Limits

HUMAN EXPOSURE	UNCONTROLLED ENVIRONMENT General Population (W/kg) or (mW/g)	CONTROLLED ENVIRONMENT Occupational (W/kg) or (mW/g)
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. If conducted Power deviations of more than 5 % occurred, the tests were repeated.

10.3 SAR Measurement Conditions for CDMA2000

The following procedures were performed according to FCC KDB Publication 941225 D01v03r01 “3G SAR Measurement Procedures.”

10.3.1 Output Power Verification

See 3GPP2 C.S0011/TIA-98-E as recommended by FCC KDB Publication 941225 D01v03r01 “3G SAR Measurement Procedures.” Maximum output power is verified on the High, Middle and Low channels according to procedures in section 4.4.5.2 of 3GPP2 C.S0011/TIA-98-E. SO55 tests were measured with power control bits in the “All Up” condition.

1. If the mobile station (MS) supports Reverse TCH RC 1 and Forward TCH RC 1, set up a call using Fundamental Channel Test Mode 1 (RC=1/1) with 9600 bps data rate only.
2. Under RC1, C.S0011 Table 4.4.5.2-1, Table 8-1 parameters were applied.
3. If the MS supports the RC 3 Reverse FCH, RC3 Reverse SCH_0 and demodulation of RC 3,4, or 5, set up a call using Supplemental Channel Test Mode 3 (RC 3/3) with 9600 bps Fundamental Channel and 9600 bps SCH0 data rate.
4. Under RC3, C.S0011 Table 4.4.5.2-2, Table 8-2 was applied.
5. FCHs were configured at full rate for maximum SAR with “All Up” power control bits.

Parameters for Max. Power for RC1

Parameter	Units	Value
I_{or}	dBm/1.23 MHz	-104
$\frac{\text{Pilot } E_c}{I_{or}}$	dB	-7
$\frac{\text{Traffic } E_c}{I_{or}}$	dB	-7.4

Parameters for Max. Power for RC3

Parameter	Units	Value
I_{or}	dBm/1.23 MHz	-86
$\frac{\text{Pilot } E_c}{I_{or}}$	dB	-7
$\frac{\text{Traffic } E_c}{I_{or}}$	dB	-7.4

10.3.2 Head SAR Measurements

SAR for next to the ear head exposure is measured in RC3 with the handset configured to transmit at fullrate in SO55. The 3G SAR test reduction procedure is applied to RC1 with RC3 as the primary mode; otherwise, SAR is required for the channel with maximum measured output in RC1 using the head exposure configuration that results in the highest reported SAR in RC3.

Head SAR is additionally evaluated using EVDO Rev. A to support compliance for VoIP operations. See Section 8.4.5 for EVDO Rev. A configuration parameters

10.3.3 Body-worn SAR Measurements

SAR for body-worn exposure configurations is measured in RC3 with the DUT configured to transmit at full rate on FCH with all other code channels disabled using TDSO / SO32. The 3G SAR test reduction procedure is applied to the multiple code channel configuration (FCH+SCHn), with FCH only as the primary mode. Otherwise, SAR is required for multiple code channel configuration (FCH + SCHn), with FCH at full rate and SCH0 enabled at 9600 bps, using the highest reported SAR configuration for FCH only. When multiple code channels are enabled, the transmitter output can shift by more than 0.5 dB and may lead to higher SAR drifts and SCH dropouts.

The 3G SAR test reduction procedure is applied to body-worn accessory SAR in RC1 with RC3 as the primary mode. Otherwise, SAR is required for RC1, with SO55 and full rate, using the highest reported SAR configuration for body-worn accessory exposure in RC3.

10.3.4 Body-worn SAR Measurements for EVDO Devices

For handsets with EVDO capabilities, the 3G SAR test reduction procedure is applied to EVDO Rev. 0 with 1x RTT RC3 as the primary mode to determine body-worn accessory test requirements. Otherwise, body-worn accessory SAR is required for Rev. 0, at 153.6 kbps, using the highest reported SAR configuration for body-worn accessory exposure in RC3.

The 3G SAR test reduction procedure is applied to Rev. A, with Rev. 0 as the primary mode to determine body-worn accessory SAR test requirements. When SAR is not required for Rev. 0, the 3G SAR test reduction is applied with 1x RTT RC3 as the primary mode.

When SAR is required for EVDO Rev. A, SAR is measured with a Reverse Data Channel payload size of 4096 bits and a Termination Target of 16 slots defined for Subtype 2 Physical Layer configurations, using the highest reported SAR configuration for body-worn accessory exposure in Rev. 0 or 1x RTT RC3, as appropriate.

10.3.4 Body SAR Measurements for EVDO Hotspot

Hotspot Body SAR is measured using Subtype 0/1 Physical Layer configurations for Rev. 0. The 3G SAR test reduction procedure is applied to Rev. A, Subtype 2 Physical layer configuration, with Rev. 0 as the primary mode; otherwise, SAR is measured for Rev. A using the highest reported SAR configuration for body-worn accessory exposure in Rev. 0. The AT is tested with a Reverse Data Channel rate of 153.6 kbps in Subtype 0/1 Physical Layer configurations; and a Reverse Data Channel payload size of 4096 bits and Termination Target of 16 slots in Subtype 2 Physical Layer configurations.

For EVDO data devices that also support 1x RTT voice and/or data operations, the 3G SAR test reduction procedure is applied to 1x RTT RC3 and RC1 with EVDO Rev. 0 and Rev. A as the respective primary modes. Otherwise, the ‘Body-Worn Accessory SAR’ procedures in the ‘3GPP2 CDMA 2000 1x Handsets’ section are applied.

10.3.5 CDMA2000 1x Advanced

This device additionally supports 1x Advanced. Conducted powers are measured using SO75 with RC8 on the uplink and RC11 on the downlink per FCC KDB Publication 941225 D01v03r01. Smart blanking is disabled for all measurements. The EUT is configured with forward power control Mode 000 and reverse power control at 400 bps. Conducted powers are measured on an Agilent 8960 Series 10 Wireless Communications Test Set, Model E5515C using the CDMA2000 1x Advanced application, Option E1962B-410.

The 3G SAR test reduction procedure is applied to the 1x-Advanced transmission mode with 1x RTT RC3 as the primary mode. When SAR measurement is required, the 1x-Advanced power measurement configurations are used. The1x Advanced SAR procedures are applied separately to head, body-worn accessory and other exposure conditions.

10.4 SAR Measurement Conditions for UMTS

10.4.1 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.

10.4.2 Body SAR measurements

SAR for body exposure configurations is measured using the 12.2 kbps 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 12.2 kbps RMC.

10.4.3 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.

10.4.4 SAR Measurements with Rel. 6 HSUPA

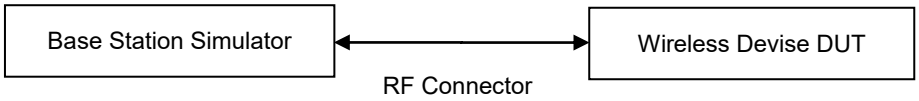
The 3G SAR test reduction procedure is applied to HSPA (HSUPA/HSDPA with RMC) body configurations with 12.2 kbps RMC as the primary mode. Otherwise, Body SAR for HSPA is measured with E-DCH Sub-test 5, using H-Set1 and QPSK for FRC and a 12.2 kbps RMC configured in Test Loop Mode 1 and power control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

10.4.5 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.



10.5 SAR Measurement Conditions for LTE

LTE modes are tested according to FCC KDB 941225 D05v02r05 publication. 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).

10.5.1 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.

10.5.2 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.

10.5.3 A-MPR

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

10.5.4 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.

10.5.5 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.

10.5.6 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 and the single carrier LTE 41. Both Uplink carrier aggregation and single carrier are operating with Power class 3.
This device support intra-band contiguous UL CA: LTE CA_41C with a maximum of 20 ㎒ component carriers
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.

This device does not have any operating restrictions, Power reduction or variations among the different LTE operating mode configurations on single carrier LTE 41 and intra-band contiguous up-link LTE CA_41C operations.

The measured power results of single carrier LTE41 and intra-band contiguous up-link LTE CA_41C 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.

Because the maximum output for UL CA of LTE 41 is ≤ standalone LTE mode (without CA),
SAR for LTE B41 Up link CA was performed at the highest standalone SAR configuration without CA and also UL CA SAR is not required for all required test channels, Because the reported SAR for UL CA configuration is > 1.2 W/kg

10.5.7 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.
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.

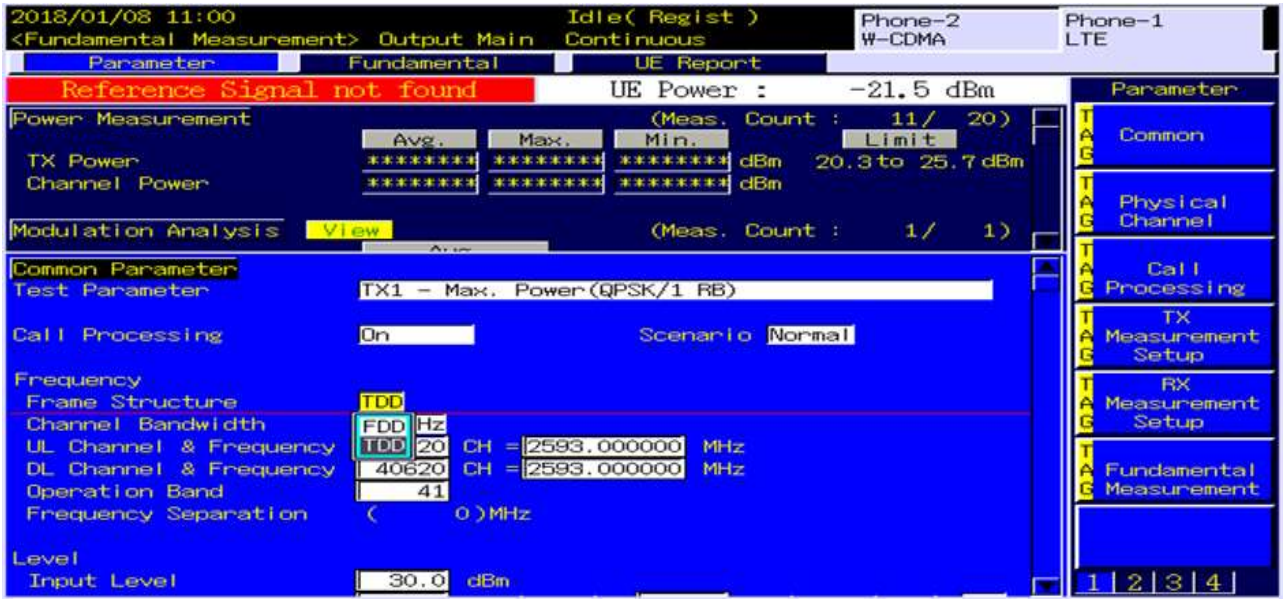
Uplink-downlink configuration	Downlink-to-Uplink Switch-point periodicity	Subframe number									
		0	1	2	3	4	5	6	7	8	9
0	5 ms	D	S	U	U	U	D	S	U	U	U
1	5 ms	D	S	U	U	D	D	S	U	U	D
2	5 ms	D	S	U	D	D	D	S	U	D	D
3	10 ms	D	S	U	U	U	D	D	D	D	D
4	10 ms	D	S	U	U	D	D	D	D	D	D
5	10 ms	D	S	U	D	D	D	D	D	D	D
6	5 ms	D	S	U	U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

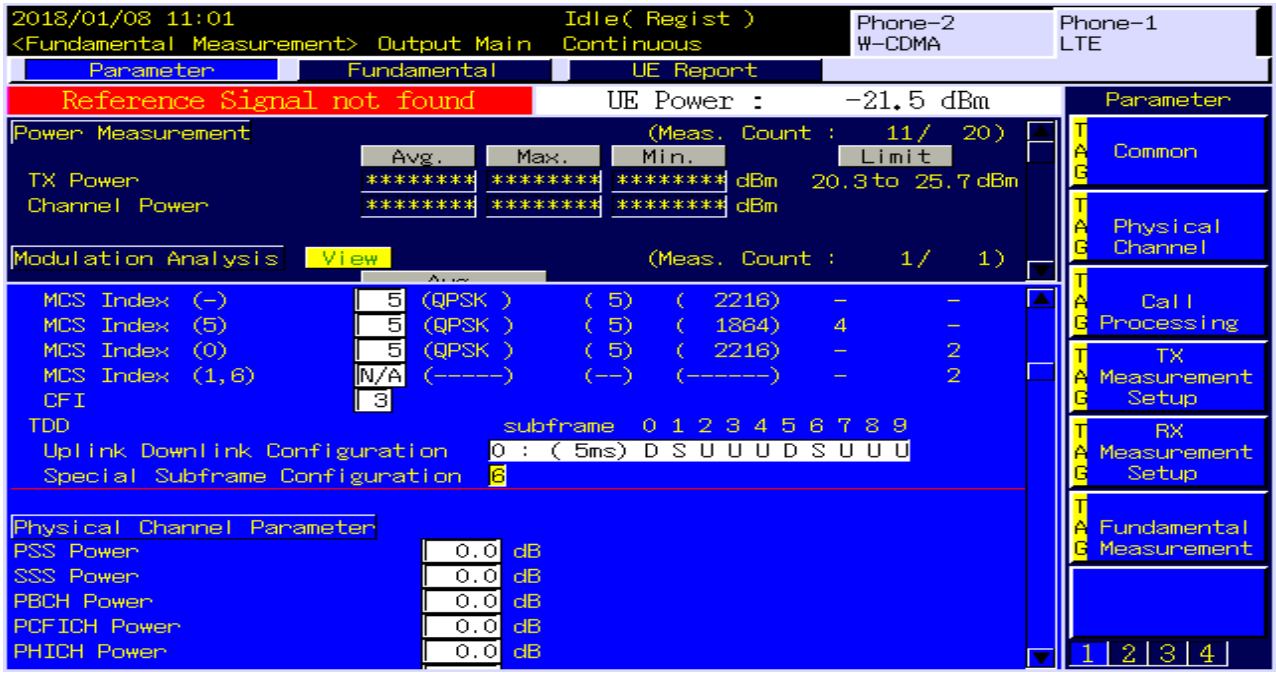
Example for calculated Duty Cycle for Uplink-Downlink Configuration 0:
Calculated Duty Cycle = (5120 x (1/(15000 x 2048)) x 2 + 0.006)/0.01 = 63.33 %
Where
T_s = 1/(15000 x 2048) seconds

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

10.5.8 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.





10.6 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.

10.6.1 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.

10.6.2 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.

10.6.3 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.

10.6.4 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.

10.6.5 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.

10.6.6 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.

10.6.7 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.

10.6.8 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.

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

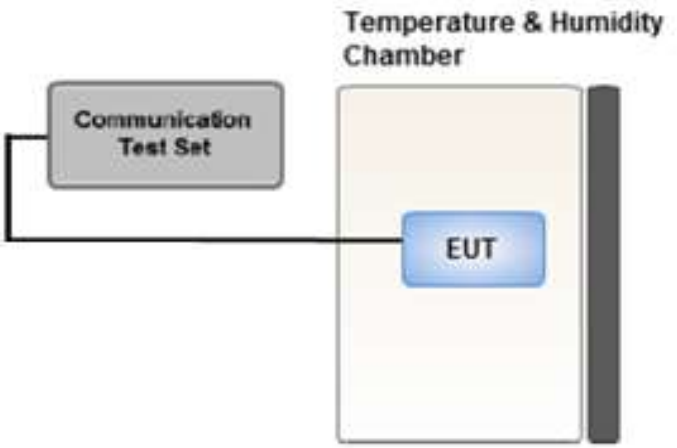
According to ANSI C63.26-2015 Section 5.2.1 when measuring the maximum RF output power from such devices, control over the EUT must be provided either through special test software (provided by manufacturer specifically for compliance testing, but not accessible by an end user) or through use of a base 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 CDMA

11.1.1 CDMA Maximum Conducted Output Power

Band	Ch.	SO2 RC1/1 (dBm)	SO2 RC3/3 (dBm)	SO55 RC1/1 (dBm)	SO55 RC3/3 (dBm)	TDSO SO32 RC3/3 (dBm)	1xEvDO Rev.0 FTAP (dBm)	1xEvDO Rev.0 RTAP (dBm)	1xEvDO Rev.A FETAP (dBm)	1xEvDO Rev.A RETAP (dBm)
CDMA(BC0) Main 1 ANT	1013	24.32	24.33	24.32	24.31	24.30	24.96	24.97	24.96	24.95
	384	24.09	24.10	24.06	24.07	24.09	24.66	24.68	24.63	24.65
	777	23.86	23.87	23.85	23.85	23.87	24.49	24.50	24.48	24.46
PCS(BC1) Main 2 ANT	25	24.17	24.14	24.19	24.18	24.18	23.66	23.67	23.66	23.68
	600	23.94	23.92	23.99	23.92	23.94	23.47	23.42	23.42	23.43
	1175	23.99	23.96	23.98	23.92	23.96	23.44	23.46	23.45	23.43
Secondary (BC10) Main 1 ANT	450	24.86	24.85	24.87	24.86	24.83	24.93	24.91	24.84	24.86
	560	24.88	24.90	24.93	24.91	24.88	24.96	24.93	24.90	24.91
	670	24.88	24.90	24.89	24.92	24.86	24.95	24.94	24.88	24.88

CDMA Avergae Conducted output powers (dBm)

11.1.2 CDMA Reduced Conducted Output Power (Hotspot mode activated)

Band	Ch.	SO2 RC1/1 (dBm)	SO2 RC3/3 (dBm)	SO55 RC1/1 (dBm)	SO55 RC3/3 (dBm)	TDSO SO32 RC3/3 (dBm)	1xEvDO Rev.0 FTAP (dBm)	1xEvDO Rev.0 RTAP (dBm)	1xEvDO Rev.A FETAP (dBm)	1xEvDO Rev.A RETAP (dBm)
PCS(BC1) Main 2 ANT	25	22.72	22.67	22.73	22.68	22.66	22.66	22.67	22.66	22.69
	600	22.44	22.41	22.46	22.44	22.42	22.44	22.43	22.43	22.43
	1175	22.50	22.43	22.47	22.43	22.46	22.52	22.50	22.46	22.45

CDMA Avergae Conducted output powers (dBm)

11.1.3 CDMA Reduced Conducted Output Power (Grip/ Earjack back off Activated)

Band	Ch.	SO2 RC1/1 (dBm)	SO2 RC3/3 (dBm)	SO55 RC1/1 (dBm)	SO55 RC3/3 (dBm)	TDSO SO32 RC3/3 (dBm)	1xEvDO Rev.0 FTAP (dBm)	1xEvDO Rev.0 RTAP (dBm)	1xEvDO Rev.A FETAP (dBm)	1xEvDO Rev.A RETAP (dBm)
PCS(BC1) Main 2 ANT	25	22.74	22.68	22.76	22.71	22.69	22.68	22.70	22.68	22.70
	600	22.45	22.42	22.49	22.46	22.44	22.47	22.44	22.46	22.44
	1175	22.52	22.45	22.49	22.45	22.49	22.54	22.52	22.47	22.48

CDMA Avergae Conducted output powers (dBm)

11.2 GSM

11.2.1 GSM Maximum Conducted Output Power

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		**34.0**	**34.0**	**33.0**	**30.0**	**28.5**	**28.0**	**26.5**	**24.0**	**23.0**
Nominal		**33.0**	**33.0**	**32.0**	**29.0**	**27.5**	**27.0**	**25.5**	**23.0**	**22.0**
GSM 850 Main 1 ANT	128	32.32	32.28	31.15	28.98	26.92	26.28	24.75	22.56	21.85
	190	32.10	32.08	31.13	29.26	26.90	26.28	24.69	22.50	21.59
	251	32.17	32.20	30.83	28.72	26.79	25.81	24.47	22.37	21.37
Maximum		**31.0**	**31.0**	**30.0**	**27.5**	**26.0**	**27.0**	**26.0**	**24.0**	**22.5**
Nominal		**30.0**	**30.0**	**29.0**	**26.5**	**25.0**	**26.0**	**25.0**	**23.0**	**21.5**
GSM 1900 Main 2 ANT	512	29.20	29.19	28.60	25.94	24.32	25.17	24.14	22.05	21.04
	661	29.60	29.58	28.39	25.93	24.27	24.99	24.05	22.10	21.03
	810	29.51	29.51	28.43	25.79	24.30	25.13	24.18	22.11	21.10

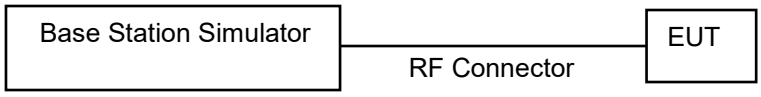
GSM Conducted output powers (Burst-Average)

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		**24.97**	**24.97**	**26.98**	**25.74**	**25.49**	**18.97**	**20.48**	**19.74**	**19.99**
Nominal		**23.97**	**23.97**	**25.98**	**24.74**	**24.49**	**17.97**	**19.48**	**18.74**	**18.99**
GSM 850 Main 1 ANT	128	23.29	23.25	25.13	24.72	23.91	17.25	18.73	18.30	18.84
	190	23.07	23.05	25.11	25.00	23.89	17.25	18.67	18.24	18.58
	251	23.14	23.17	24.81	24.46	23.78	16.78	18.45	18.11	18.36
Maximum		**21.97**	**21.97**	**23.98**	**23.24**	**22.99**	**17.97**	**19.98**	**19.74**	**19.49**
Nominal		**20.97**	**20.97**	**22.98**	**22.24**	**21.99**	**16.97**	**18.98**	**18.74**	**18.49**
GSM 1900 Main 2 ANT	512	20.17	20.16	22.58	21.68	21.31	16.14	18.12	17.79	18.03
	661	20.57	20.55	22.37	21.67	21.26	15.96	18.03	17.84	18.02
	810	20.48	20.48	22.41	21.53	21.29	16.10	18.16	17.85	18.09

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

GSM Class : B
GSM voice/GPRS VOIP: Head SAR , Body worn SAR
GPRS/EDGE Multi-slots 33 : Hotspot SAR with GPRS/EDGE
Multi-slot Class 33 with CS 1 (GMSK)



11.2.2 GSM Reduced Conducted Output Power (Hotspot mode activated)

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		**29.0**	**29.0**	**27.5**	**25.5**	**23.5**	**25.5**	**23.5**	**21.5**	**20.5**
Nominal		**28.0**	**28.0**	**26.5**	**24.5**	**22.5**	**24.5**	**22.5**	**20.5**	**19.5**
GSM 1900 Main 2 ANT	512	28.10	28.09	26.65	24.55	22.88	24.33	22.54	20.23	19.52
	661	28.02	28.02	26.45	24.53	22.89	24.83	22.87	20.63	19.71
	810	28.04	28.04	26.34	24.54	23.12	24.58	22.67	20.81	19.88

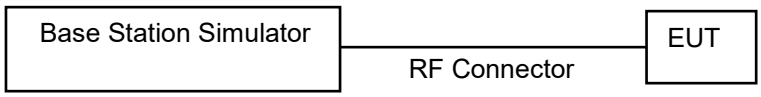
GSM Conducted output powers (Burst-Average)

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**	**21.48**	**21.24**	**20.49**	**16.47**	**17.48**	**17.24**	**17.49**
Nominal		**18.97**	**18.97**	**20.48**	**20.24**	**19.49**	**15.47**	**16.48**	**16.24**	**16.49**
GSM 1900 Main 2 ANT	512	19.07	19.06	20.63	20.29	19.87	15.30	16.52	15.97	16.51
	661	18.99	18.99	20.43	20.27	19.88	15.80	16.85	16.37	16.70
	810	19.01	19.01	20.32	20.28	20.11	15.55	16.65	16.55	16.87

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

GSM Class : B
GSM voice/GPRS VOIP: Head SAR , Body worn SAR
GPRS/EDGE Multi-slots 33 : Hotspot SAR with GPRS/EDGE
Multi-slot Class 33 with CS 1 (GMSK)



11.2.3 GSM Reduced Conducted Output Power (Grip back activated)

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		**29.0**	**29.0**	**27.5**	**25.5**	**23.5**	**25.5**	**23.5**	**21.5**	**20.5**
Nominal		**28.0**	**28.0**	**26.5**	**24.5**	**22.5**	**24.5**	**22.5**	**20.5**	**19.5**
GSM 1900 Main 2 ANT	512	28.10	28.12	26.67	24.55	22.90	24.35	22.54	20.25	19.54
	661	28.03	28.02	26.47	24.55	22.92	24.86	22.88	20.65	19.73
	810	28.06	28.05	26.35	24.56	23.14	24.58	22.69	20.81	19.89

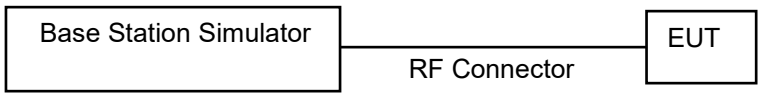
GSM Conducted output powers (Burst-Average)

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**	**21.48**	**21.24**	**20.49**	**16.47**	**17.48**	**17.24**	**17.49**
Nominal		**18.97**	**18.97**	**20.48**	**20.24**	**19.49**	**15.47**	**16.48**	**16.24**	**16.49**
GSM 1900 Main 2 ANT	512	19.07	19.09	20.65	20.29	19.89	15.32	16.52	15.99	16.53
	661	19.00	18.99	20.45	20.29	19.91	15.83	16.86	16.39	16.72
	810	19.03	19.02	20.33	20.30	20.13	15.55	16.67	16.55	16.88

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

GSM Class : B
GSM voice/GPRS VOIP: Head SAR , Body worn SAR
GPRS/EDGE Multi-slots 33 : Hotspot SAR with GPRS/EDGE
Multi-slot Class 33 with CS 1 (GMSK)



11.3 UMTS

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.

11.3.1 UMTS Maximum Conducted Output Power

UMTS Band 5 Maximum Conducted Output Power Main 1 ANT

3GPP Release Version	Mode	3GPP 34.121 Subtest	UMTS Band 5 [dBm] UL 4132 DL 4357	UL 4183 DL 4408	UL 4233 DL 4458	3GPP MPR
99	UMTS	12.2 kbps RMC	23.90	23.71	23.52	-
99		12.2 kbps AMR	23.88	23.70	23.53	-
5	HSDPA	Subtest 1	22.72	22.54	22.32	0
5		Subtest 2	22.70	22.52	22.36	0
5		Subtest 3	22.20	22.03	21.83	0.5
5		Subtest 4	22.19	22.02	21.82	0.5
6	HSUPA	Subtest 1	22.69	22.54	22.35	0
6		Subtest 2	20.71	20.54	20.37	2
6		Subtest 3	21.71	21.52	21.36	1
6		Subtest 4	20.72	20.53	20.34	2
6		Subtest 5	22.71	22.53	22.37	0
8	DC-HSDPA	Subtest 1	22.74	22.61	22.41	0
8		Subtest 2	22.72	22.60	22.42	0
8		Subtest 3	22.25	22.11	21.90	0.5
8		Subtest 4	22.24	22.10	21.91	0.5

UMTS Average Conducted output powers

UMTS Band 4 Maximum Conducted Output Power Main 2 ANT

3GPP Release Version	Mode	3GPP 34.121 Subtest	UMTS Band 4 [dBm] UL 1312 DL 1537	UL 1412 DL 1637	UL 1513 DL 1738	3GPP MPR
99	UMTS	12.2 kbps RMC	24.25	24.00	24.15	-
99		12.2 kbps AMR	24.26	24.01	24.16	-
5	HSDPA	Subtest 1	23.11	22.87	23.02	0
5		Subtest 2	23.09	22.84	23.01	0
5		Subtest 3	22.58	22.30	22.49	0.5
5		Subtest 4	22.57	22.31	22.47	0.5
6	HSUPA	Subtest 1	23.07	22.82	22.98	0
6		Subtest 2	21.05	20.80	20.96	2
6		Subtest 3	22.06	21.82	21.96	1
6		Subtest 4	21.05	20.85	20.99	2
6		Subtest 5	23.03	22.80	22.96	0
8	DC-HSDPA	Subtest 1	22.85	22.59	22.73	0
8		Subtest 2	22.88	22.61	22.76	0
8		Subtest 3	22.35	22.09	22.23	0.5
8		Subtest 4	22.36	22.09	22.22	0.5

UMTS Average Conducted output powers

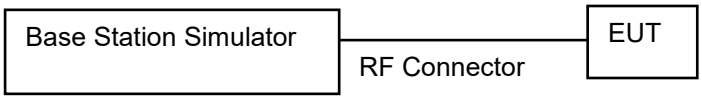
UMTS Band 2 Maximum Conducted Output Power- Main 2 ANT

3GPP Release Version	Mode	3GPP 34.121	UMTS Band 2 [dBm]			3GPP MPR
		Subtest	UL 9262 DL 9662	UL 9400 DL 9800	UL 9538 DL 9938	
99	UMTS	12.2 kbps RMC	24.17	23.98	23.99	-
99		12.2 kbps AMR	24.20	23.99	23.98	-
5	HSDPA	Subtest 1	23.10	22.94	22.96	0
5		Subtest 2	23.09	22.94	22.98	0
5		Subtest 3	22.58	22.43	22.45	0.5
5		Subtest 4	22.55	22.40	22.42	0.5
6	HSUPA	Subtest 1	23.07	22.93	22.95	0
6		Subtest 2	21.02	20.90	20.93	2
6		Subtest 3	22.05	21.92	21.93	1
6		Subtest 4	21.04	20.94	20.93	2
6		Subtest 5	23.03	22.93	22.90	0
8	DC-HSDPA	Subtest 1	22.75	22.78	22.73	0
8		Subtest 2	22.76	22.77	22.71	0
8		Subtest 3	22.26	22.29	22.25	0.5
8		Subtest 4	22.25	22.30	22.24	0.5

UMTS Average Conducted output powers

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.



11.3.2 UMTS Reduced Conducted Output Power (Hotspot mode activated)

UMTS Band 4 Hotspot Back-off Power- Main 2 ANT

3GPP Release Version	Mode	3GPP 34.121 Subtest	UMTS Band 4 [dBm] UL 1312 DL 1537	UL 1412 DL 1637	UL 1513 DL 1738	3GPP MPR
99	UMTS	12.2 kbps RMC	22.79	22.53	22.68	-
99		12.2 kbps AMR	22.81	22.55	22.68	-
5	HSDPA	Subtest 1	21.61	21.36	21.51	0
5		Subtest 2	21.58	21.35	21.48	0
5		Subtest 3	21.07	20.84	20.96	0.5
5		Subtest 4	21.05	20.84	20.99	0.5
6	HSUPA	Subtest 1	21.59	21.35	21.47	0
6		Subtest 2	19.60	19.34	19.49	2
6		Subtest 3	20.55	20.31	20.44	1
6		Subtest 4	19.55	19.31	19.45	2
6		Subtest 5	21.56	21.35	21.49	0
8	DC-HSDPA	Subtest 1	21.35	21.08	21.18	0
8		Subtest 2	21.36	21.08	21.15	0
8		Subtest 3	20.85	20.56	20.67	0.5
8		Subtest 4	20.87	20.56	20.68	0.5

UMTS Average Conducted output powers

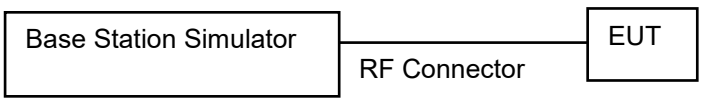
UMTS Band 2 Hotspot Back-off Power - Main 2 ANT

3GPP Release Version	Mode	3GPP 34.121 Subtest	UMTS Band 2 [dBm] UL 9262 DL 9662	UL 9400 DL 9800	UL 9538 DL 9938	3GPP MPR
99	UMTS	12.2 kbps RMC	22.76	22.52	22.50	-
99		12.2 kbps AMR	22.75	22.51	22.49	-
5	HSDPA	Subtest 1	21.58	21.44	21.47	0
5		Subtest 2	21.56	21.44	21.46	0
5		Subtest 3	21.06	20.92	20.96	0.5
5		Subtest 4	21.05	20.95	20.95	0.5
6	HSUPA	Subtest 1	21.57	21.45	21.48	0
6		Subtest 2	19.57	19.43	19.45	2
6		Subtest 3	20.52	20.41	20.42	1
6		Subtest 4	19.55	19.44	19.46	2
6		Subtest 5	21.55	21.44	21.46	0
8	DC-HSDPA	Subtest 1	21.32	21.35	21.24	0
8		Subtest 2	21.29	21.33	21.22	0
8		Subtest 3	20.81	20.83	20.74	0.5
8		Subtest 4	20.82	20.82	20.73	0.5

UMTS Average Conducted output powers

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.



11.3.3 UMTS Reduced Conducted Output Power (Grip back activated)

UMTS Band 4 Grip Back-off Power - Main 2 ANT

3GPP Release Version	Mode	3GPP 34.121 Subtest	UMTS Band 4 [dBm] UL 1312 DL 1537	UL 1412 DL 1637	UL 1513 DL 1738	3GPP MPR
99	UMTS	12.2 kbps RMC	22.82	22.56	22.72	-
99		12.2 kbps AMR	22.85	22.57	22.72	-
5	HSDPA	Subtest 1	21.65	21.37	21.55	0
5		Subtest 2	21.62	21.37	21.50	0
5		Subtest 3	21.09	20.86	20.98	0.5
5		Subtest 4	21.07	20.88	21.02	0.5
6	HSUPA	Subtest 1	21.62	21.36	21.48	0
6		Subtest 2	19.61	19.39	19.54	2
6		Subtest 3	20.60	20.33	20.45	1
6		Subtest 4	19.60	19.35	19.49	2
6		Subtest 5	21.60	21.38	21.52	0
8	DC-HSDPA	Subtest 1	21.40	21.11	21.23	0
8		Subtest 2	21.37	21.11	21.19	0
8		Subtest 3	20.87	20.60	20.68	0.5
8		Subtest 4	20.92	20.58	20.69	0.5

UMTS Average Conducted output powers

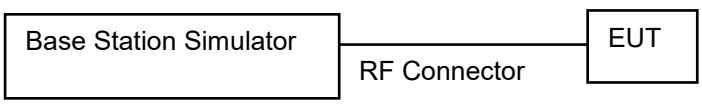
UMTS Band 4 Grip Back-off Power - Main 2 ANT

3GPP Release Version	Mode	3GPP 34.121 Subtest	UMTS Band 2 [dBm] UL 9262 DL 9662	UL 9400 DL 9800	UL 9538 DL 9938	3GPP MPR
99	UMTS	12.2 kbps RMC	22.79	22.55	22.54	-
99		12.2 kbps AMR	22.80	22.53	22.53	-
5	HSDPA	Subtest 1	21.60	21.46	21.52	0
5		Subtest 2	21.58	21.49	21.47	0
5		Subtest 3	21.07	20.94	21.01	0.5
5		Subtest 4	21.07	20.97	20.98	0.5
6	HSUPA	Subtest 1	21.58	21.47	21.52	0
6		Subtest 2	19.62	19.47	19.48	2
6		Subtest 3	20.53	20.43	20.43	1
6		Subtest 4	19.58	19.46	19.48	2
6		Subtest 5	21.57	21.49	21.47	0
8	DC-HSDPA	Subtest 1	21.34	21.37	21.26	0
8		Subtest 2	21.30	21.38	21.27	0
8		Subtest 3	20.85	20.86	20.79	0.5
8		Subtest 4	20.83	20.86	20.76	0.5

UMTS Average Conducted output powers

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.



11.4 LTE Maximum Output Power

LTE B4/5/12/13/14/30/38/40/71 at 10 ㎒/15 ㎒/ 20 ㎒ 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.

11.4.1 LTE Maximum Conducted Power

[LTE Band 2 Conducted Power] Main 2 ANT

LTE Band 2 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18607 Ch. 1850.7 ㎒	18900 Ch. 1880 ㎒	19193 Ch. 1909.3 ㎒		
1.4 ㎒	QPSK	1	0	24.13	24.16	24.22	0	0
		1	3	24.19	24.29	24.24	0	0
		1	5	24.06	24.13	24.08	0	0
		3	0	24.12	24.19	24.20	0	0
		3	1	24.15	24.20	24.20	0	0
		3	3	24.10	24.13	24.14	0	0
		6	0	23.27	23.35	23.40	0-1	1
	16QAM	1	0	23.54	23.65	23.56	0-1	1
		1	3	23.69	23.89	23.65	0-1	1
		1	5	23.45	23.76	23.46	0-1	1
		3	0	23.32	23.31	23.27	0-1	1
		3	1	23.34	23.34	23.34	0-1	1
		3	3	23.25	23.39	23.26	0-1	1
		6	0	22.46	22.47	22.39	0-2	2
	64QAM	1	0	22.38	22.37	22.48	0-2	2
		1	3	22.49	22.37	22.41	0-2	2
		1	5	22.31	22.35	22.40	0-2	2
		3	0	22.54	22.43	22.45	0-2	2
		3	1	22.44	22.48	22.48	0-2	2
		3	3	22.40	22.36	22.42	0-2	2
		6	0	21.35	21.40	21.37	0-3	3

LTE Band 2 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18615 Ch. 1851.5 ㎒	18900 Ch. 1880 ㎒	19185 Ch. 1908.5 ㎒		
3 ㎒	QPSK	1	0	24.24	24.31	24.30	0	0
		1	7	24.18	24.34	24.35	0	0
		1	14	24.21	24.36	24.32	0	0
		8	0	23.39	23.39	23.45	0-1	1
		8	3	23.41	23.45	23.48	0-1	1
		8	7	23.36	23.45	23.36	0-1	1
		15	0	23.48	23.43	23.46	0-1	1
	16QAM	1	0	23.76	23.74	23.75	0-1	1
		1	7	23.60	23.46	23.75	0-1	1
		1	14	23.64	23.67	23.58	0-1	1
		8	0	22.55	22.60	22.52	0-2	2
		8	3	22.48	22.50	22.57	0-2	2
		8	7	22.46	22.48	22.47	0-2	2
		15	0	22.42	22.48	22.46	0-2	2
	64QAM	1	0	22.48	22.51	22.51	0-2	2
		1	7	22.52	22.57	22.39	0-2	2
		1	14	22.46	22.62	22.47	0-2	2
		8	0	21.55	21.52	21.51	0-3	3
		8	3	21.58	21.58	21.56	0-3	3
		8	7	21.56	21.49	21.47	0-3	3
		15	0	21.49	21.47	21.48	0-3	3

LTE Band 2 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18625 Ch. 1852.5 ㎒	18900 Ch. 1880 ㎒	19175 Ch. 1907.5 ㎒		
5 ㎒	QPSK	1	0	24.14	24.16	24.23	0	0
		1	12	24.25	24.40	24.33	0	0
		1	24	24.10	24.35	24.15	0	0
		12	0	23.41	23.41	23.48	0-1	1
		12	6	23.40	23.41	23.44	0-1	1
		12	11	23.43	23.40	23.41	0-1	1
		25	0	23.43	23.43	23.45	0-1	1
	16QAM	1	0	23.58	23.69	23.46	0-1	1
		1	12	23.72	23.49	23.55	0-1	1
		1	24	23.58	23.72	23.61	0-1	1
		12	0	22.55	22.51	22.51	0-2	2
		12	6	22.48	22.55	22.51	0-2	2
		12	11	22.45	22.49	22.41	0-2	2
		25	0	22.42	22.45	22.43	0-2	2
	64QAM	1	0	22.45	22.41	22.49	0-2	2
		1	12	22.55	22.53	22.44	0-2	2
		1	24	22.53	22.59	22.36	0-2	2
		12	0	21.50	21.56	21.54	0-3	3
		12	6	21.51	21.58	21.47	0-3	3
		12	11	21.40	21.47	21.54	0-3	3
		25	0	21.46	21.51	21.44	0-3	3

LTE Band 2 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18650 Ch. 1855 ㎒	18900 Ch. 1880 ㎒	19150 Ch. 1905 ㎒		
10 ㎒	QPSK	1	0	24.07	23.92	24.28	0	0
		1	24	24.22	24.10	24.16	0	0
		1	49	23.84	23.83	24.13	0	0
		25	0	23.34	23.29	23.35	0-1	1
		25	12	23.47	23.49	23.43	0-1	1
		25	24	23.32	23.36	23.37	0-1	1
		50	0	23.40	23.32	23.29	0-1	1
	16QAM	1	0	23.11	23.25	23.50	0-1	1
		1	24	23.62	23.61	23.68	0-1	1
		1	49	23.36	23.37	24.03	0-1	1
		25	0	22.42	22.42	22.34	0-2	2
		25	12	22.58	22.49	22.55	0-2	2
		25	24	22.43	22.43	22.40	0-2	2
		50	0	22.41	22.44	22.42	0-2	2
	64QAM	1	0	22.16	22.13	22.56	0-2	2
		1	24	22.57	22.50	22.70	0-2	2
		1	49	22.57	22.54	22.53	0-2	2
		25	0	21.39	21.44	21.43	0-3	3
		25	12	21.50	21.52	21.48	0-3	3
		25	24	21.41	21.44	21.44	0-3	3
		50	0	21.36	21.39	21.45	0-3	3

LTE Band 2 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18675 Ch. 1857.5 ㎒	18900 Ch. 1880 ㎒	19125 Ch. 1902.5 ㎒		
15 ㎒	QPSK	1	0	24.00	24.08	24.22	0	0
		1	36	24.14	23.87	24.08	0	0
		1	74	24.16	24.09	24.11	0	0
		36	0	23.20	23.23	23.20	0-1	1
		36	18	23.26	23.27	23.25	0-1	1
		36	39	23.33	23.28	23.29	0-1	1
		75	0	23.25	23.24	23.23	0-1	1
	16QAM	1	0	23.29	23.52	23.51	0-1	1
		1	36	23.59	23.59	23.69	0-1	1
		1	74	23.42	23.47	23.57	0-1	1
		36	0	22.16	22.14	22.23	0-2	2
		36	18	22.45	22.28	22.26	0-2	2
		36	39	22.29	22.28	22.28	0-2	2
		75	0	22.25	22.32	22.28	0-2	2
	64QAM	1	0	22.12	22.30	22.38	0-2	2
		1	36	22.49	22.50	22.46	0-2	2
		1	74	22.41	22.51	22.43	0-2	2
		36	0	21.25	21.23	21.18	0-3	3
		36	18	21.39	21.28	21.32	0-3	3
		36	39	21.31	21.35	21.26	0-3	3
		75	0	21.31	21.30	21.26	0-3	3

LTE Band 2 _ 20 ㎒ Bandwidth

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	24.19	24.15	24.14	0	0
		1	49	24.04	23.91	24.09	0	0
		1	99	24.13	24.00	24.14	0	0
		50	0	23.09	23.07	23.15	0-1	1
		50	25	23.31	23.23	23.28	0-1	1
		50	49	23.34	23.21	23.23	0-1	1
		100	0	23.23	23.12	23.24	0-1	1
	16QAM	1	0	23.46	23.58	23.53	0-1	1
		1	49	23.50	23.45	23.44	0-1	1
		1	99	23.49	23.54	23.57	0-1	1
		50	0	22.19	22.17	22.17	0-2	2
		50	25	22.28	22.26	22.30	0-2	2
		50	49	22.25	22.21	22.27	0-2	2
		100	0	22.25	22.09	22.22	0-2	2
	64QAM	1	0	22.41	22.47	22.51	0-2	2
		1	49	22.50	22.39	22.47	0-2	2
		1	99	22.25	22.53	22.38	0-2	2
		50	0	21.11	21.10	21.17	0-3	3
		50	25	21.31	21.27	21.29	0-3	3
		50	49	21.30	21.23	21.28	0-3	3
		100	0	21.23	21.16	21.20	0-3	3

[LTE Band 4 Conducted Power] Main 2 ANT

LTE Band 4 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				19957 Ch. 1710.7 ㎒	20175 Ch. 1732.5 ㎒	20393 Ch. 1754.3 ㎒		
1.4 ㎒	QPSK	1	0	24.22	24.01	24.23	0	0
		1	3	24.28	24.33	24.42	0	0
		1	5	24.24	24.27	24.32	0	0
		3	0	24.24	24.05	24.24	0	0
		3	1	24.34	24.02	24.28	0	0
		3	3	24.25	24.01	24.18	0	0
		6	0	23.45	23.26	23.47	0-1	1
	16QAM	1	0	23.68	23.40	23.68	0-1	1
		1	3	23.70	23.73	23.59	0-1	1
		1	5	23.75	23.66	23.58	0-1	1
		3	0	23.37	23.33	23.35	0-1	1
		3	1	23.41	23.18	23.39	0-1	1
		3	3	23.40	23.22	23.29	0-1	1
		6	0	22.64	22.28	22.53	0-2	2
	64QAM	1	0	22.22	22.42	22.54	0-2	2
		1	3	22.34	22.42	22.66	0-2	2
		1	5	22.31	22.37	22.53	0-2	2
		3	0	22.26	22.38	22.51	0-2	2
		3	1	22.35	22.45	22.54	0-2	2
		3	3	22.26	22.37	22.45	0-2	2
		6	0	21.31	21.27	21.45	0-3	3

LTE Band 4 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				19965 Ch. 1711.5 ㎒	20175 Ch. 1732.5 ㎒	20385 Ch. 1753.5 ㎒		
3 ㎒	QPSK	1	0	24.24	24.16	24.24	0	0
		1	7	24.37	24.26	24.22	0	0
		1	14	24.41	24.19	24.38	0	0
		8	0	23.58	23.32	23.43	0-1	1
		8	3	23.49	23.34	23.45	0-1	1
		8	7	23.46	23.34	23.50	0-1	1
		15	0	23.50	23.25	23.44	0-1	1
	16QAM	1	0	23.81	23.59	23.83	0-1	1
		1	7	23.65	23.63	23.74	0-1	1
		1	14	23.53	23.69	23.84	0-1	1
		8	0	22.61	22.34	22.59	0-2	2
		8	3	22.54	22.37	22.54	0-2	2
		8	7	22.43	22.35	22.52	0-2	2
		15	0	22.49	22.32	22.43	0-2	2
	64QAM	1	0	22.63	22.41	22.56	0-2	2
		1	7	22.48	22.46	22.63	0-2	2
		1	14	22.44	22.40	22.55	0-2	2
		8	0	21.63	21.38	21.58	0-3	3
		8	3	21.54	21.37	21.54	0-3	3
		8	7	21.54	21.39	21.58	0-3	3
		15	0	21.55	21.36	21.51	0-3	3

LTE Band 4 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				19975 Ch. 1712.5 ㎒	20175 Ch. 1732.5 ㎒	20375 Ch. 1752.5 ㎒		
5 ㎒	QPSK	1	0	24.37	24.12	24.12	0	0
		1	12	24.42	24.30	24.37	0	0
		1	24	24.37	24.29	24.32	0	0
		12	0	23.53	23.36	23.46	0-1	1
		12	6	23.49	23.28	23.58	0-1	1
		12	11	23.40	23.22	23.41	0-1	1
		25	0	23.48	23.30	23.48	0-1	1
	16QAM	1	0	23.84	23.51	23.70	0-1	1
		1	12	23.75	23.51	23.55	0-1	1
		1	24	23.74	23.55	23.78	0-1	1
		12	0	22.57	22.28	22.43	0-2	2
		12	6	22.53	22.31	22.55	0-2	2
		12	11	22.46	22.36	22.55	0-2	2
		25	0	22.48	22.27	22.49	0-2	2
	64QAM	1	0	22.59	22.52	22.46	0-2	2
		1	12	22.48	22.45	22.52	0-2	2
		1	24	22.45	22.36	22.52	0-2	2
		12	0	21.60	21.33	21.47	0-3	3
		12	6	21.53	21.36	21.56	0-3	3
		12	11	21.51	21.31	21.45	0-3	3
		25	0	21.44	21.31	21.48	0-3	3

LTE Band 4 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20000 Ch. 1715 ㎒	20175 Ch. 1732.5 ㎒	20350 Ch. 1750 ㎒		
10 ㎒	QPSK	1	0	24.06	24.03	24.05	0	0
		1	24	24.31	24.14	24.33	0	0
		1	49	23.88	23.77	23.90	0	0
		25	0	23.45	23.27	23.29	0-1	1
		25	12	23.56	23.28	23.50	0-1	1
		25	24	23.30	23.21	23.41	0-1	1
		50	0	23.44	23.25	23.38	0-1	1
	16QAM	1	0	23.27	23.25	23.23	0-1	1
		1	24	23.79	23.71	23.54	0-1	1
		1	49	23.37	23.28	23.43	0-1	1
		25	0	22.50	22.29	22.36	0-2	2
		25	12	22.62	22.37	22.56	0-2	2
		25	24	22.41	22.25	22.41	0-2	2
		50	0	22.44	22.31	22.45	0-2	2
	64QAM	1	0	22.20	22.12	22.18	0-2	2
		1	24	22.63	22.51	22.55	0-2	2
		1	49	22.43	22.26	22.25	0-2	2
		25	0	21.49	21.30	21.43	0-3	3
		25	12	21.53	21.32	21.55	0-3	3
		25	24	21.39	21.19	21.52	0-3	3
		50	0	21.44	21.33	21.43	0-3	3

LTE Band 4 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20025 Ch. 1717.5 ㎒	20175 Ch. 1732.5 ㎒	20325 Ch. 1747.5 ㎒		
15 ㎒	QPSK	1	0	24.03	23.95	23.91	0	0
		1	36	24.19	24.01	23.88	0	0
		1	74	24.07	23.97	24.09	0	0
		36	0	23.27	23.17	23.17	0-1	1
		36	18	23.25	23.14	23.25	0-1	1
		36	39	23.24	23.22	23.32	0-1	1
		75	0	23.23	23.17	23.19	0-1	1
	16QAM	1	0	23.38	23.27	23.41	0-1	1
		1	36	23.62	23.64	23.79	0-1	1
		1	74	23.61	23.48	23.55	0-1	1
		36	0	22.27	22.15	22.12	0-2	2
		36	18	22.26	22.18	22.27	0-2	2
		36	39	22.27	22.23	22.28	0-2	2
		75	0	22.22	22.21	22.17	0-2	2
	64QAM	1	0	22.31	22.17	22.14	0-2	2
		1	36	22.53	22.40	22.49	0-2	2
		1	74	22.36	22.45	22.46	0-2	2
		36	0	21.32	21.18	21.19	0-3	3
		36	18	21.31	21.25	21.24	0-3	3
		36	39	21.25	21.28	21.39	0-3	3
		75	0	21.22	21.25	21.14	0-3	3

LTE Band 4 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				20175 Ch. 1732.5 ㎒		
20 ㎒	QPSK	1	0	23.76	0	0
		1	49	24.01	0	0
		1	99	23.98	0	0
		50	0	23.08	0-1	1
		50	25	23.24	0-1	1
		50	49	23.21	0-1	1
		100	0	23.18	0-1	1
	16QAM	1	0	23.11	0-1	1
		1	49	23.59	0-1	1
		1	99	23.39	0-1	1
		50	0	22.13	0-2	2
		50	25	22.18	0-2	2
		50	49	22.18	0-2	2
		100	0	22.12	0-2	2
	64QAM	1	0	22.02	0-2	2
		1	49	22.24	0-2	2
		1	99	22.34	0-2	2
		50	0	21.15	0-3	3
		50	25	21.25	0-3	3
		50	49	21.22	0-3	3
		100	0	21.17	0-3	3

[LTE Band 5 Conducted Power] Main 1 ANT

LTE Band 5 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20407 Ch. 824.7 ㎒	20525 Ch. 836.5 ㎒	20643 Ch. 848.3 ㎒		
1.4 ㎒	QPSK	1	0	24.01	23.84	23.65	0	0
		1	3	24.08	23.98	23.68	0	0
		1	5	23.95	23.85	23.67	0	0
		3	0	24.03	23.91	23.64	0	0
		3	1	24.06	23.95	23.72	0	0
		3	3	24.08	23.86	23.69	0	0
		6	0	23.24	23.04	22.80	0-1	1
	16QAM	1	0	23.32	23.23	23.08	0-1	1
		1	3	23.50	23.28	23.11	0-1	1
		1	5	23.41	23.28	22.91	0-1	1
		3	0	23.26	22.95	22.69	0-1	1
		3	1	23.15	23.01	22.81	0-1	1
		3	3	23.20	23.00	22.79	0-1	1
		6	0	22.26	22.13	21.80	0-2	2
	64QAM	1	0	22.37	22.20	21.90	0-2	2
		1	3	22.44	22.23	21.95	0-2	2
		1	5	22.23	22.20	21.93	0-2	2
		3	0	22.31	22.13	21.83	0-2	2
		3	1	22.36	22.27	22.03	0-2	2
		3	3	22.31	22.14	21.92	0-2	2
		6	0	21.28	21.06	20.82	0-3	3

LTE Band 5 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20415 Ch. 825.5 ㎒	20525 Ch. 836.5 ㎒	20635 Ch. 847.5 ㎒		
3 ㎒	QPSK	1	0	24.31	24.02	23.82	0	0
		1	7	24.05	23.94	23.68	0	0
		1	14	24.14	23.97	23.74	0	0
		8	0	23.25	23.09	22.83	0-1	1
		8	3	23.34	23.18	22.92	0-1	1
		8	7	23.29	23.15	22.89	0-1	1
		15	0	23.33	23.08	22.91	0-1	1
	16QAM	1	0	23.49	23.27	23.07	0-1	1
		1	7	23.34	23.19	23.04	0-1	1
		1	14	23.46	23.32	23.06	0-1	1
		8	0	22.35	22.16	21.97	0-2	2
		8	3	22.34	22.18	21.93	0-2	2
		8	7	22.31	22.16	21.90	0-2	2
		15	0	22.29	22.13	21.87	0-2	2
	64QAM	1	0	22.36	22.26	21.92	0-2	2
		1	7	22.36	22.24	22.05	0-2	2
		1	14	22.37	22.20	22.12	0-2	2
		8	0	21.35	21.15	20.91	0-3	3
		8	3	21.44	21.23	20.95	0-3	3
		8	7	21.30	21.20	20.91	0-3	3
		15	0	21.30	21.11	20.91	0-3	3

LTE Band 5 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20425 Ch. 826.5 ㎒	20525 Ch. 836.5 ㎒	20625 Ch. 846.5 ㎒		
5 ㎒	QPSK	1	0	24.18	23.83	23.87	0	0
		1	12	24.19	24.00	23.80	0	0
		1	24	23.99	23.91	23.75	0	0
		12	0	23.23	23.07	22.87	0-1	1
		12	6	23.26	23.13	22.91	0-1	1
		12	11	23.12	23.10	22.85	0-1	1
		25	0	23.15	23.11	22.89	0-1	1
	16QAM	1	0	23.48	23.27	23.24	0-1	1
		1	12	23.36	23.33	23.19	0-1	1
		1	24	23.18	23.41	23.07	0-1	1
		12	0	22.25	22.08	21.85	0-2	2
		12	6	22.25	22.15	21.96	0-2	2
		12	11	22.22	22.13	21.91	0-2	2
		25	0	22.19	22.15	21.86	0-2	2
	64QAM	1	0	22.41	22.25	22.14	0-2	2
		1	12	22.35	22.22	22.09	0-2	2
		1	24	22.18	22.17	22.04	0-2	2
		12	0	21.30	21.11	20.93	0-3	3
		12	6	21.36	21.17	21.03	0-3	3
		12	11	21.22	21.23	20.96	0-3	3
		25	0	21.21	21.13	20.89	0-3	3

LTE Band 5 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				20525 Ch. 836.5 ㎒		
10 ㎒	QPSK	1	0	24.04	0	0
		1	24	23.91	0	0
		1	49	23.92	0	0
		25	0	23.14	0-1	1
		25	12	23.09	0-1	1
		25	24	23.05	0-1	1
		50	0	23.01	0-1	1
	16QAM	1	0	23.16	0-1	1
		1	24	23.12	0-1	1
		1	49	23.38	0-1	1
		25	0	22.18	0-2	2
		25	12	22.21	0-2	2
		25	24	22.18	0-2	2
		50	0	22.06	0-2	2
	64QAM	1	0	22.30	0-2	2
		1	24	22.41	0-2	2
		1	49	22.22	0-2	2
		25	0	21.18	0-3	3
		25	12	21.16	0-3	3
		25	24	21.25	0-3	3
		50	0	21.09	0-3	3

[LTE Band 7 Conducted Power] Main 2 ANT

LTE Band 7 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20775 Ch. 2502.5 ㎒	21100 Ch. 2535 ㎒	21425 Ch. 2567.5 ㎒		
5 ㎒	QPSK	1	0	23.57	23.73	24.20	0	0
		1	12	23.64	23.72	24.22	0	0
		1	24	23.62	23.66	24.15	0	0
		12	0	22.66	22.79	23.24	0-1	1
		12	6	22.68	22.91	23.26	0-1	1
		12	11	22.78	22.84	23.22	0-1	1
		25	0	22.71	22.82	23.18	0-1	1
	16QAM	1	0	23.06	23.08	23.48	0-1	1
		1	12	22.88	22.95	23.43	0-1	1
		1	24	23.10	23.11	23.38	0-1	1
		12	0	21.70	21.85	22.24	0-2	2
		12	6	21.75	21.89	22.29	0-2	2
		12	11	21.76	21.85	22.25	0-2	2
		25	0	21.77	21.82	22.20	0-2	2
	64QAM	1	0	21.89	22.04	22.47	0-2	2
		1	12	21.89	21.98	22.37	0-2	2
		1	24	21.98	22.03	22.33	0-2	2
		12	0	20.74	20.83	21.24	0-3	3
		12	6	20.79	20.88	21.26	0-3	3
		12	11	20.71	20.92	21.30	0-3	3
		25	0	20.70	20.86	21.26	0-3	3

LTE Band 7_ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20800 Ch. 2505 ㎒	21100 Ch. 2535 ㎒	21400 Ch. 2565 ㎒		
10 ㎒	QPSK	1	0	23.46	23.63	24.30	0	0
		1	24	23.46	23.69	23.99	0	0
		1	49	23.52	23.70	23.94	0	0
		25	0	22.68	22.83	23.13	0-1	1
		25	12	22.76	22.82	23.13	0-1	1
		25	24	22.71	22.81	23.18	0-1	1
		50	0	22.63	22.76	23.04	0-1	1
	16QAM	1	0	22.83	22.88	23.32	0-1	1
		1	24	22.72	23.12	23.44	0-1	1
		1	49	22.82	23.13	23.46	0-1	1
		25	0	21.74	21.83	22.20	0-2	2
		25	12	21.75	21.91	22.27	0-2	2
		25	24	21.77	21.84	22.21	0-2	2
		50	0	21.64	21.77	22.16	0-2	2
	64QAM	1	0	21.85	21.97	22.30	0-2	2
		1	24	22.02	21.94	22.36	0-2	2
		1	49	21.93	22.04	22.39	0-2	2
		25	0	20.75	20.84	21.21	0-3	3
		25	12	20.74	20.89	21.23	0-3	3
		25	24	20.78	20.95	21.25	0-3	3
		50	0	20.71	20.81	21.14	0-3	3

LTE Band 7 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20825 Ch. 2507.5 ㎒	21100 Ch. 2535 ㎒	21375 Ch. 2562.5 ㎒		
15 ㎒	QPSK	1	0	23.46	23.56	24.06	0	0
		1	36	23.41	23.49	23.96	0	0
		1	74	23.40	23.62	23.96	0	0
		36	0	22.57	22.70	23.09	0-1	1
		36	18	22.65	22.71	22.97	0-1	1
		36	39	22.62	22.73	23.15	0-1	1
		75	0	22.61	22.71	23.07	0-1	1
	16QAM	1	0	22.96	22.93	23.30	0-1	1
		1	36	23.04	23.10	23.40	0-1	1
		1	74	22.80	23.07	23.47	0-1	1
		36	0	21.63	21.66	22.08	0-2	2
		36	18	21.64	21.77	22.04	0-2	2
		36	39	21.65	21.79	22.12	0-2	2
		75	0	21.63	21.70	22.00	0-2	2
	64QAM	1	0	21.75	21.76	22.27	0-2	2
		1	36	21.79	21.89	22.22	0-2	2
		1	74	21.91	21.88	22.36	0-2	2
		36	0	20.71	20.81	21.09	0-3	3
		36	18	20.71	20.78	21.14	0-3	3
		36	39	20.67	20.84	21.12	0-3	3
		75	0	20.65	20.72	21.04	0-3	3

LTE Band 7 _ 20 ㎒ Bandwidth

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	23.52	23.55	23.88	0	0
		1	49	23.42	23.45	23.97	0	0
		1	99	23.58	23.74	23.85	0	0
		50	0	22.67	22.64	22.98	0-1	1
		50	25	22.65	22.73	23.14	0-1	1
		50	49	22.68	22.76	23.15	0-1	1
		100	0	22.59	22.67	22.97	0-1	1
	16QAM	1	0	22.84	22.91	23.39	0-1	1
		1	49	22.98	22.87	23.46	0-1	1
		1	99	22.82	23.03	23.40	0-1	1
		50	0	21.65	21.67	22.09	0-2	2
		50	25	21.69	21.80	22.17	0-2	2
		50	49	21.67	21.85	22.13	0-2	2
		100	0	21.56	21.62	21.96	0-2	2
	64QAM	1	0	21.76	21.59	22.08	0-2	2
		1	49	21.82	21.85	22.22	0-2	2
		1	99	21.90	21.83	22.18	0-2	2
		50	0	20.62	20.72	21.07	0-3	3
		50	25	20.73	20.76	21.21	0-3	3
		50	49	20.72	20.79	21.12	0-3	3
		100	0	20.63	20.69	20.94	0-3	3

[LTE Band 12 Conducted Power] Main 1 ANT

LTE Band 12 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				23017 Ch. 699.7 ㎒	23095 Ch. 707.5 ㎒	23173 Ch. 715.3 ㎒		
1.4 ㎒	QPSK	1	0	23.99	24.06	24.30	0	0
		1	3	23.98	24.14	24.36	0	0
		1	5	23.90	24.15	24.25	0	0
		3	0	23.83	24.02	24.27	0	0
		3	1	24.00	24.13	24.26	0	0
		3	3	23.87	24.19	24.27	0	0
		6	0	22.99	23.22	23.37	0-1	1
	16QAM	1	0	23.07	23.36	23.46	0-1	1
		1	3	23.36	23.44	23.48	0-1	1
		1	5	23.22	23.43	23.46	0-1	1
		3	0	23.01	23.11	23.46	0-1	1
		3	1	22.92	23.28	23.46	0-1	1
		3	3	22.89	23.15	23.38	0-1	1
		6	0	22.07	22.33	22.49	0-2	2
	64QAM	1	0	22.07	22.36	22.46	0-2	2
		1	3	22.12	22.44	22.44	0-2	2
		1	5	22.12	22.36	22.41	0-2	2
		3	0	22.06	22.30	22.44	0-2	2
		3	1	22.14	22.48	22.40	0-2	2
		3	3	22.11	22.43	22.47	0-2	2
		6	0	21.05	21.24	21.43	0-3	3

LTE Band 12 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				23025 Ch. 700.5 ㎒	23095 Ch. 707.5 ㎒	23165 Ch. 714.5 ㎒		
3 ㎒	QPSK	1	0	23.98	24.14	24.40	0	0
		1	7	24.01	24.21	24.38	0	0
		1	14	24.07	24.27	24.47	0	0
		8	0	23.12	23.28	23.42	0-1	1
		8	3	23.19	23.40	23.47	0-1	1
		8	7	23.11	23.40	23.48	0-1	1
		15	0	23.19	23.34	23.47	0-1	1
	16QAM	1	0	23.27	23.40	23.46	0-1	1
		1	7	23.24	23.34	23.47	0-1	1
		1	14	23.35	23.38	23.42	0-1	1
		8	0	22.07	22.38	22.48	0-2	2
		8	3	22.22	22.41	22.46	0-2	2
		8	7	22.18	22.42	22.44	0-2	2
		15	0	22.16	22.31	22.43	0-2	2
	64QAM	1	0	22.19	22.45	22.46	0-2	2
		1	7	22.41	22.45	22.45	0-2	2
		1	14	22.29	22.39	22.49	0-2	2
		8	0	21.11	21.34	21.49	0-3	3
		8	3	21.21	21.46	21.44	0-3	3
		8	7	21.23	21.41	21.47	0-3	3
		15	0	21.14	21.40	21.43	0-3	3

LTE Band 12 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				23035 Ch. 701.5 ㎒	23095 Ch. 707.5 ㎒	23155 Ch. 713.5 ㎒		
5 ㎒	QPSK	1	0	23.97	24.14	24.29	0	0
		1	12	24.00	24.23	24.38	0	0
		1	24	24.11	24.26	24.45	0	0
		12	0	23.11	23.28	23.46	0-1	1
		12	6	23.18	23.40	23.48	0-1	1
		12	11	23.17	23.40	23.46	0-1	1
		25	0	23.25	23.37	23.30	0-1	1
	16QAM	1	0	23.31	23.43	23.39	0-1	1
		1	12	23.45	23.41	23.42	0-1	1
		1	24	23.48	23.49	23.41	0-1	1
		12	0	22.13	22.30	22.38	0-2	2
		12	6	22.21	22.46	22.45	0-2	2
		12	11	22.18	22.37	22.41	0-2	2
		25	0	22.17	22.35	22.47	0-2	2
	64QAM	1	0	22.22	22.40	22.43	0-2	2
		1	12	22.34	22.42	22.49	0-2	2
		1	24	22.33	22.47	22.44	0-2	2
		12	0	21.12	21.40	21.47	0-3	3
		12	6	21.28	21.39	21.46	0-3	3
		12	11	21.27	21.38	21.47	0-3	3
		25	0	21.22	21.35	21.49	0-3	3

LTE Band 12 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				23095 Ch. 707.5 ㎒		
10 ㎒	QPSK	1	0	24.21	0	0
		1	24	24.17	0	0
		1	49	24.26	0	0
		25	0	23.17	0-1	1
		25	12	23.40	0-1	1
		25	24	23.24	0-1	1
		50	0	23.26	0-1	1
	16QAM	1	0	23.22	0-1	1
		1	24	23.49	0-1	1
		1	49	23.46	0-1	1
		25	0	22.21	0-2	2
		25	12	22.40	0-2	2
		25	24	22.48	0-2	2
		50	0	22.22	0-2	2
	64QAM	1	0	22.44	0-2	2
		1	24	22.44	0-2	2
		1	49	22.47	0-2	2
		25	0	21.16	0-3	3
		25	12	21.42	0-3	3
		25	24	21.40	0-3	3
		50	0	21.26	0-3	3

[LTE Band 13 Conducted Power] Main 1 ANT

LTE Band 13 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 23230 Ch. 782 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
5 ㎒	QPSK	1	0	24.22	0	0
		1	24	24.13	0	0
		1	49	23.95	0	0
		25	0	23.37	0-1	1
		25	12	23.35	0-1	1
		25	24	23.25	0-1	1
		50	0	23.27	0-1	1
	16QAM	1	0	23.70	0-1	1
		1	24	23.61	0-1	1
		1	49	23.34	0-1	1
		25	0	22.37	0-2	2
		25	12	22.39	0-2	2
		25	24	22.27	0-2	2
		50	0	22.31	0-2	2
	64QAM	1	0	22.52	0-2	2
		1	24	22.42	0-2	2
		1	49	22.35	0-2	2
		25	0	21.50	0-3	3
		25	12	21.44	0-3	3
		25	24	21.28	0-3	3
		50	0	21.38	0-3	3

LTE Band 13 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 23230 Ch. 782 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	24.26	0	0
		1	24	24.18	0	0
		1	49	24.03	0	0
		25	0	23.42	0-1	1
		25	12	23.33	0-1	1
		25	24	23.22	0-1	1
		50	0	23.28	0-1	1
	16QAM	1	0	23.37	0-1	1
		1	24	23.48	0-1	1
		1	49	23.38	0-1	1
		25	0	22.44	0-2	2
		25	12	22.40	0-2	2
		25	24	22.31	0-2	2
		50	0	22.28	0-2	2
	64QAM	1	0	22.44	0-2	2
		1	24	22.53	0-2	2
		1	49	22.30	0-2	2
		25	0	21.46	0-3	3
		25	12	21.37	0-3	3
		25	24	21.30	0-3	3
		50	0	21.27	0-3	3

[LTE Band 14 conducted Power] Main 1 ANT

LTE Band 14 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				23305 Ch. 790.5 ㎒	23330 Ch. 793 ㎒	23355 Ch. 795.5 ㎒		
5 ㎒	QPSK	1	0	24.00	23.92	24.00	0	0
		1	12	23.83	23.91	23.88	0	0
		1	24	23.91	23.86	23.80	0	0
		12	0	23.09	23.01	23.07	0-1	1
		12	6	23.02	23.08	23.08	0-1	1
		12	11	22.92	22.97	22.96	0-1	1
		25	0	23.08	22.95	23.01	0-1	1
	16QAM	1	0	23.41	23.27	23.24	0-1	1
		1	12	23.15	23.19	23.41	0-1	1
		1	24	23.13	23.24	23.09	0-1	1
		12	0	22.09	21.97	22.05	0-2	2
		12	6	22.04	21.95	22.13	0-2	2
		12	11	21.98	21.99	21.98	0-2	2
		25	0	21.97	22.01	21.98	0-2	2
	64QAM	1	0	22.19	22.21	22.19	0-2	2
		1	12	22.12	22.10	22.10	0-2	2
		1	24	22.19	22.10	22.10	0-2	2
		12	0	21.14	20.97	21.14	0-3	3
		12	6	21.05	21.07	21.13	0-3	3
		12	11	21.01	20.95	21.04	0-3	3
		25	0	21.03	20.99	21.06	0-3	3

LTE Band 14 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				23330 Ch. 793 ㎒		
10 ㎒	QPSK	1	0	24.07	0	0
		1	24	23.94	0	0
		1	49	23.92	0	0
		25	0	22.73	0-1	1
		25	12	22.91	0-1	1
		25	24	22.90	0-1	1
		50	0	22.88	0-1	1
	16QAM	1	0	23.10	0-1	1
		1	24	23.32	0-1	1
		1	49	23.21	0-1	1
		25	0	21.89	0-2	2
		25	12	22.06	0-2	2
		25	24	21.95	0-2	2
		50	0	21.96	0-2	2
	64QAM	1	0	22.16	0-2	2
		1	24	22.35	0-2	2
		1	49	22.13	0-2	2
		25	0	20.95	0-3	3
		25	12	21.04	0-3	3
		25	24	20.92	0-3	3
		50	0	20.91	0-3	3

[LTE Band 25 Conducted Power] Main 2 ANT

LTE Band 25 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26047 Ch. 1850.7 ㎒	26365 Ch. 1882.5 ㎒	26683 Ch. 1914.3 ㎒		
1.4 ㎒	QPSK	1	0	24.05	24.11	24.17	0	0
		1	3	24.46	24.30	24.30	0	0
		1	5	24.29	24.22	24.22	0	0
		3	0	24.13	24.21	24.19	0	0
		3	1	24.14	24.22	24.22	0	0
		3	3	24.14	24.16	24.17	0	0
		6	0	23.22	23.33	23.33	0-1	1
	16QAM	1	0	23.65	23.55	23.41	0-1	1
		1	3	23.87	23.66	23.77	0-1	1
		1	5	23.55	23.80	23.61	0-1	1
		3	0	23.18	23.40	23.34	0-1	1
		3	1	23.29	23.41	23.37	0-1	1
		3	3	23.32	23.24	23.30	0-1	1
		6	0	22.43	22.44	22.42	0-2	2
	64QAM	1	0	22.37	22.38	22.38	0-2	2
		1	3	22.64	22.55	22.62	0-2	2
		1	5	22.52	22.67	22.52	0-2	2
		3	0	22.30	22.36	22.51	0-2	2
		3	1	22.44	22.55	22.53	0-2	2
		3	3	22.39	22.44	22.41	0-2	2
		6	0	21.26	21.37	21.39	0-3	3

LTE Band 25 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26055 Ch. 1851.5 ㎒	26365 Ch. 1882.5 ㎒	26675Ch. 1913.5 ㎒		
3 ㎒	QPSK	1	0	24.18	24.25	24.15	0	0
		1	7	24.21	24.34	24.41	0	0
		1	14	24.36	24.43	24.52	0	0
		8	0	23.30	23.45	23.43	0-1	1
		8	3	23.38	23.42	23.49	0-1	1
		8	7	23.42	23.45	23.44	0-1	1
		15	0	23.46	23.52	23.45	0-1	1
	16QAM	1	0	23.55	23.75	23.75	0-1	1
		1	7	23.63	23.70	23.61	0-1	1
		1	14	23.78	23.74	23.59	0-1	1
		8	0	22.42	22.57	22.40	0-2	2
		8	3	22.58	22.51	22.55	0-2	2
		8	7	22.46	22.50	22.55	0-2	2
		15	0	22.41	22.56	22.43	0-2	2
	64QAM	1	0	22.37	22.44	22.53	0-2	2
		1	7	22.37	22.59	22.56	0-2	2
		1	14	22.52	22.67	22.63	0-2	2
		8	0	21.47	21.51	21.51	0-3	3
		8	3	21.48	21.59	21.56	0-3	3
		8	7	21.44	21.54	21.55	0-3	3
		15	0	21.47	21.46	21.46	0-3	3

LTE Band 25 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26065 Ch. 1852.5 ㎒	26365 Ch. 1882.5 ㎒	26665 Ch. 1912.5 ㎒		
5 ㎒	QPSK	1	0	24.14	24.21	24.25	0	0
		1	12	24.21	24.18	24.21	0	0
		1	24	24.15	24.29	24.26	0	0
		12	0	23.34	23.35	23.29	0-1	1
		12	6	23.28	23.43	23.35	0-1	1
		12	11	23.33	23.44	23.42	0-1	1
		25	0	23.35	23.37	23.40	0-1	1
	16QAM	1	0	23.53	23.58	23.68	0-1	1
		1	12	23.60	23.51	23.62	0-1	1
		1	24	23.80	23.74	23.72	0-1	1
		12	0	22.31	22.43	22.39	0-2	2
		12	6	22.41	22.54	22.38	0-2	2
		12	11	22.33	22.43	22.48	0-2	2
		25	0	22.41	22.37	22.37	0-2	2
	64QAM	1	0	22.40	22.46	22.60	0-2	2
		1	12	22.60	22.49	22.48	0-2	2
		1	24	22.66	22.51	22.44	0-2	2
		12	0	21.39	21.42	21.43	0-3	3
		12	6	21.37	21.40	21.43	0-3	3
		12	11	21.40	21.45	21.43	0-3	3
		25	0	21.36	21.42	21.42	0-3	3

LTE Band 25 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26090 Ch. 1855 ㎒	26365 Ch. 1882.5 ㎒	26640 Ch. 1910 ㎒		
10 ㎒	QPSK	1	0	23.94	24.09	24.33	0	0
		1	24	24.07	24.33	24.24	0	0
		1	49	23.90	23.91	24.17	0	0
		25	0	23.22	23.35	23.34	0-1	1
		25	12	23.39	23.41	23.43	0-1	1
		25	24	23.39	23.40	23.37	0-1	1
		50	0	23.27	23.35	23.35	0-1	1
	16QAM	1	0	23.33	23.25	23.66	0-1	1
		1	24	23.61	23.71	23.58	0-1	1
		1	49	23.43	23.47	23.68	0-1	1
		25	0	22.28	22.38	22.37	0-2	2
		25	12	22.41	22.53	22.47	0-2	2
		25	24	22.41	22.45	22.43	0-2	2
		50	0	22.32	22.33	22.44	0-2	2
	64QAM	1	0	22.05	22.24	22.42	0-2	2
		1	24	22.52	22.62	22.45	0-2	2
		1	49	22.29	22.42	22.63	0-2	2
		25	0	21.35	21.43	21.37	0-3	3
		25	12	21.41	21.46	21.48	0-3	3
		25	24	21.41	21.51	21.44	0-3	3
		50	0	21.35	21.37	21.35	0-3	3

LTE Band 25 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26115 Ch. 1857.5 ㎒	26365 Ch. 1882.5 ㎒	26615 Ch. 1907.5 ㎒		
15 ㎒	QPSK	1	0	23.97	24.41	24.25	0	0
		1	36	24.24	24.45	24.06	0	0
		1	74	24.01	24.11	24.06	0	0
		36	0	23.24	23.26	23.25	0-1	1
		36	18	23.36	23.34	23.32	0-1	1
		36	39	23.37	23.28	23.33	0-1	1
		75	0	23.28	23.26	23.26	0-1	1
	16QAM	1	0	23.44	23.47	23.65	0-1	1
		1	36	23.57	23.38	23.94	0-1	1
		1	74	23.59	23.75	23.61	0-1	1
		36	0	22.23	22.30	22.25	0-2	2
		36	18	22.34	22.34	22.36	0-2	2
		36	39	22.39	22.29	22.35	0-2	2
		75	0	22.31	22.13	22.33	0-2	2
	64QAM	1	0	22.15	22.50	22.41	0-2	2
		1	36	22.56	22.46	22.49	0-2	2
		1	74	22.39	22.45	22.54	0-2	2
		36	0	21.24	21.26	21.22	0-3	3
		36	18	21.25	21.42	21.37	0-3	3
		36	39	21.33	21.30	21.40	0-3	3
		75	0	21.28	21.25	21.34	0-3	3

LTE Band 25 _ 20 ㎒ Bandwidth

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	24.10	24.22	24.26	0	0
		1	49	24.25	24.12	24.11	0	0
		1	99	24.14	24.14	24.06	0	0
		50	0	23.26	23.35	23.33	0-1	1
		50	25	23.36	23.34	23.37	0-1	1
		50	49	23.30	23.32	23.33	0-1	1
		100	0	23.22	23.15	23.30	0-1	1
	16QAM	1	0	23.47	23.59	23.54	0-1	1
		1	49	23.62	23.80	23.67	0-1	1
		1	99	23.68	23.59	23.64	0-1	1
		50	0	22.36	22.34	22.34	0-2	2
		50	25	22.38	22.42	22.35	0-2	2
		50	49	22.35	22.25	22.37	0-2	2
		100	0	22.25	22.13	22.27	0-2	2
	64QAM	1	0	22.38	22.45	22.43	0-2	2
		1	49	22.55	22.34	22.33	0-2	2
		1	99	22.48	22.45	22.49	0-2	2
		50	0	21.32	21.39	21.34	0-3	3
		50	25	21.33	21.39	21.36	0-3	3
		50	49	21.29	21.31	21.32	0-3	3
		100	0	21.21	21.24	21.27	0-3	3

[LTE Band 26 Conducted Power] Main 1 ANT

LTE Band 26 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26697 Ch. 814.7 ㎒	26865 Ch. 831.5 ㎒	27033 Ch. 848.3 ㎒		
1.4 ㎒	QPSK	1	0	23.90	23.93	23.53	0	0
		1	3	24.22	23.89	23.84	0	0
		1	5	24.21	23.95	23.74	0	0
		3	0	24.10	23.94	23.65	0	0
		3	1	24.15	23.94	23.58	0	0
		3	3	24.07	23.94	23.67	0	0
		6	0	23.16	23.13	22.78	0-1	1
	16QAM	1	0	23.34	23.32	22.81	0-1	1
		1	3	23.37	23.43	23.13	0-1	1
		1	5	23.37	23.24	23.04	0-1	1
		3	0	23.15	23.12	22.80	0-1	1
		3	1	23.23	23.05	22.81	0-1	1
		3	3	23.21	23.00	22.74	0-1	1
		6	0	22.38	22.18	21.81	0-2	2
	64QAM	1	0	22.17	22.17	21.72	0-2	2
		1	3	22.27	22.27	21.92	0-2	2
		1	5	22.28	22.15	21.82	0-2	2
		3	0	22.34	22.13	21.85	0-2	2
		3	1	22.43	22.26	21.91	0-2	2
		3	3	22.29	22.17	21.92	0-2	2
		6	0	21.30	21.10	20.78	0-3	3

LTE Band 26 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26705 Ch. 815.5 ㎒	26865 Ch. 831.5 ㎒	27025 Ch. 847.5 ㎒		
3 ㎒	QPSK	1	0	23.97	24.04	23.76	0	0
		1	7	24.20	24.09	23.68	0	0
		1	14	24.17	23.98	23.89	0	0
		8	0	23.30	23.06	22.81	0-1	1
		8	3	23.36	23.14	22.85	0-1	1
		8	7	23.32	23.07	22.83	0-1	1
		15	0	23.33	23.11	22.89	0-1	1
	16QAM	1	0	23.51	23.36	22.90	0-1	1
		1	7	23.51	23.25	22.91	0-1	1
		1	14	23.44	23.25	22.94	0-1	1
		8	0	22.37	22.19	21.91	0-2	2
		8	3	22.36	22.21	21.93	0-2	2
		8	7	22.33	22.12	21.91	0-2	2
		15	0	22.42	22.21	21.93	0-2	2
	64QAM	1	0	22.44	22.22	21.99	0-2	2
		1	7	22.35	22.22	22.07	0-2	2
		1	14	22.41	22.10	21.94	0-2	2
		8	0	21.39	21.17	20.92	0-3	3
		8	3	21.43	21.25	20.97	0-3	3
		8	7	21.42	21.16	20.95	0-3	3
		15	0	21.37	21.11	20.84	0-3	3

LTE Band 26 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26715 Ch. 816.5 ㎒	26865 Ch. 831.5 ㎒	27015 Ch. 846.5 ㎒		
5 ㎒	QPSK	1	0	24.24	24.00	23.80	0	0
		1	12	24.20	24.07	23.71	0	0
		1	24	24.21	23.96	23.80	0	0
		12	0	23.30	23.09	22.80	0-1	1
		12	6	23.27	23.14	22.91	0-1	1
		12	11	23.27	23.11	22.85	0-1	1
		25	0	23.27	23.07	22.80	0-1	1
	16QAM	1	0	23.58	23.40	23.22	0-1	1
		1	12	23.47	23.17	23.06	0-1	1
		1	24	23.62	23.22	22.95	0-1	1
		12	0	22.27	22.10	21.86	0-2	2
		12	6	22.38	22.12	21.94	0-2	2
		12	11	22.39	22.15	21.90	0-2	2
		25	0	22.28	22.12	21.97	0-2	2
	64QAM	1	0	22.21	22.25	22.02	0-2	2
		1	12	22.39	22.36	21.94	0-2	2
		1	24	22.42	22.19	22.03	0-2	2
		12	0	21.32	21.15	20.95	0-3	3
		12	6	21.38	21.15	20.93	0-3	3
		12	11	21.40	21.09	20.89	0-3	3
		25	0	21.34	21.05	20.83	0-3	3

LTE Band 26 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26740 Ch. 819 ㎒	26865 Ch. 831.5 ㎒	26990 Ch. 844 ㎒		
10 ㎒	QPSK	1	0	24.17	24.09	23.92	0	0
		1	24	24.14	23.98	23.68	0	0
		1	49	23.96	24.08	23.55	0	0
		25	0	23.18	22.99	22.93	0-1	1
		25	12	23.30	23.05	22.85	0-1	1
		25	24	23.28	22.92	22.76	0-1	1
		50	0	23.28	22.99	22.96	0-1	1
	16QAM	1	0	23.38	23.38	23.28	0-1	1
		1	24	23.35	23.15	23.08	0-1	1
		1	49	23.45	23.34	23.27	0-1	1
		25	0	22.26	22.06	21.89	0-2	2
		25	12	22.41	22.16	21.99	0-2	2
		25	24	22.30	22.14	21.89	0-2	2
		50	0	22.31	22.04	21.89	0-2	2
	64QAM	1	0	22.51	22.22	22.04	0-2	2
		1	24	22.79	22.15	22.27	0-2	2
		1	49	22.41	22.37	22.13	0-2	2
		25	0	21.29	21.07	20.92	0-3	3
		25	12	21.42	21.17	21.02	0-3	3
		25	24	21.33	21.05	20.93	0-3	3
		50	0	21.37	21.06	20.90	0-3	3

LTE Band 26 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26775 822.5 ㎒	26865Ch. 831.5 ㎒	26965 841.5 ㎒		
15 ㎒	QPSK	1	0	24.05	24.06	23.97	0	0
		1	36	24.04	23.70	23.69	0	0
		1	74	24.01	23.83	23.60	0	0
		36	0	22.85	22.89	22.88	0-1	1
		36	18	22.83	22.84	22.85	0-1	1
		36	39	22.84	22.88	22.81	0-1	1
		75	0	22.85	22.92	23.02	0-1	1
	16QAM	1	0	22.83	23.18	23.33	0-1	1
		1	36	22.86	23.34	23.16	0-1	1
		1	74	22.89	23.16	23.29	0-1	1
		36	0	22.36	21.88	21.97	0-2	2
		36	18	22.43	21.96	22.01	0-2	2
		36	39	22.38	21.83	21.91	0-2	2
		75	0	22.37	21.95	21.96	0-2	2
	64QAM	1	0	22.57	22.30	22.10	0-2	2
		1	36	22.82	22.21	22.35	0-2	2
		1	74	22.44	22.04	22.20	0-2	2
		36	0	21.35	20.94	20.97	0-3	3
		36	18	21.47	20.89	21.11	0-3	3
		36	39	21.36	20.87	20.94	0-3	3
		75	0	21.42	20.90	20.91	0-3	3

[LTE Band 30 Conducted Power] Main 2 ANT

LTE Band 30 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				27685 Ch. 2307.5 ㎒	27710 Ch. 2310 ㎒	27735 Ch. 2312.5 ㎒		
5 ㎒	QPSK	1	0	24.18	23.97	23.91	0	0
		1	12	23.94	23.95	23.98	0	0
		1	24	23.99	23.97	23.97	0	0
		12	0	23.15	23.14	23.10	0-1	1
		12	6	23.12	23.14	23.10	0-1	1
		12	11	23.13	23.08	23.01	0-1	1
		25	0	23.11	23.13	23.05	0-1	1
	16QAM	1	0	23.35	23.47	23.33	0-1	1
		1	12	23.20	23.19	23.40	0-1	1
		1	24	23.27	23.18	23.26	0-1	1
		12	0	22.17	22.13	22.12	0-2	2
		12	6	22.18	22.24	22.10	0-2	2
		12	11	22.15	22.07	22.14	0-2	2
		25	0	22.07	22.15	22.11	0-2	2
	64QAM	1	0	22.40	22.27	22.31	0-2	2
		1	12	22.22	22.26	22.24	0-2	2
		1	24	22.17	22.18	22.29	0-2	2
		12	0	21.24	21.20	21.13	0-3	3
		12	6	21.18	21.20	21.21	0-3	3
		12	11	21.15	21.12	21.07	0-3	3
		25	0	21.11	21.13	21.10	0-3	3

LTE Band 30 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				27710 Ch. 2310 ㎒		
10 ㎒	QPSK	1	0	24.02	0	0
		1	24	23.84	0	0
		1	49	23.64	0	0
		25	0	23.06	0-1	1
		25	12	23.15	0-1	1
		25	24	22.97	0-1	1
		50	0	23.04	0-1	1
	16QAM	1	0	23.26	0-1	1
		1	24	23.30	0-1	1
		1	49	23.23	0-1	1
		25	0	22.16	0-2	2
		25	12	22.24	0-2	2
		25	24	22.07	0-2	2
		50	0	22.14	0-2	2
	64QAM	1	0	22.21	0-2	2
		1	24	22.47	0-2	2
		1	49	22.25	0-2	2
		25	0	21.13	0-3	3
		25	12	21.19	0-3	3
		25	24	21.04	0-3	3
		50	0	21.10	0-3	3

[LTE TDD Band 38 Conducted Power] Main 2 ANT

LTE Band 38 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				37775 Ch. 2572.5 ㎒	38000 Ch. 2595 ㎒	38225 Ch. 2617.5 ㎒		
5 ㎒	QPSK	1	0	23.06	23.09	22.69	0	0
		1	12	23.10	23.11	22.63	0	0
		1	24	23.11	22.96	22.67	0	0
		12	0	22.29	22.20	21.82	0-1	1
		12	6	22.33	22.15	21.79	0-1	1
		12	11	22.30	22.10	21.79	0-1	1
		25	0	22.26	22.15	21.80	0-1	1
	16QAM	1	0	22.36	22.29	21.91	0-1	1
		1	12	22.45	22.41	21.94	0-1	1
		1	24	22.35	22.26	21.89	0-1	1
		12	0	21.26	21.18	20.76	0-2	2
		12	6	21.29	21.15	20.81	0-2	2
		12	11	21.28	21.13	20.81	0-2	2
		25	0	21.32	21.12	20.81	0-2	2
	64QAM	1	0	20.93	20.80	20.48	0-2	2
		1	12	20.99	20.85	20.45	0-2	2
		1	24	20.96	20.75	20.43	0-2	2
		12	0	20.35	20.26	19.87	0-3	3
		12	6	20.40	20.21	19.90	0-3	3
		12	11	20.38	20.21	19.87	0-3	3
		25	0	20.35	20.20	19.85	0-3	3

LTE Band 38 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				37800 Ch. 2575 ㎒	38000 Ch. 2595 ㎒	38200 Ch. 2615 ㎒		
10 ㎒	QPSK	1	0	22.92	23.14	22.83	0	0
		1	24	23.21	23.04	22.72	0	0
		1	49	22.96	22.98	22.68	0	0
		25	0	22.21	22.06	21.79	0-1	1
		25	12	22.31	22.11	21.85	0-1	1
		25	24	22.20	22.05	21.78	0-1	1
		50	0	22.25	22.06	21.81	0-1	1
	16QAM	1	0	22.08	22.30	21.99	0-1	1
		1	24	22.31	22.20	21.85	0-1	1
		1	49	22.05	22.17	21.85	0-1	1
		25	0	21.19	21.03	20.79	0-2	2
		25	12	21.30	21.14	20.89	0-2	2
		25	24	21.22	21.03	20.77	0-2	2
		50	0	21.28	21.12	20.86	0-2	2
	64QAM	1	0	20.71	20.86	20.62	0-2	2
		1	24	20.99	20.89	20.48	0-2	2
		1	49	20.66	20.76	20.42	0-2	2
		25	0	20.30	20.15	19.86	0-3	3
		25	12	20.40	20.20	19.94	0-3	3
		25	24	20.30	20.15	19.83	0-3	3
		50	0	20.30	20.14	19.85	0-3	3

LTE Band 38 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				37825 Ch. 2507.5 ㎒	38000 Ch. 2595 ㎒	38175 Ch. 2612.5 ㎒		
15 ㎒	QPSK	1	0	23.19	23.10	22.80	0	0
		1	36	23.02	22.98	22.67	0	0
		1	74	23.00	22.89	22.57	0	0
		36	0	22.16	22.00	21.77	0-1	1
		36	18	22.22	22.09	21.82	0-1	1
		36	39	22.13	21.96	21.63	0-1	1
		75	0	22.13	22.00	21.76	0-1	1
	16QAM	1	0	22.35	22.25	22.02	0-1	1
		1	36	22.19	22.13	21.83	0-1	1
		1	74	22.23	22.07	21.76	0-1	1
		36	0	21.10	20.96	20.75	0-2	2
		36	18	21.19	21.02	20.80	0-2	2
		36	39	21.12	20.91	20.59	0-2	2
		75	0	21.18	21.04	20.82	0-2	2
	64QAM	1	0	20.90	20.74	20.50	0-2	2
		1	36	20.77	20.75	20.38	0-2	2
		1	74	20.71	20.48	20.18	0-2	2
		36	0	20.18	20.05	19.84	0-3	3
		36	18	20.23	20.08	19.81	0-3	3
		36	39	20.12	19.95	19.60	0-3	3
		75	0	20.21	20.03	19.80	0-3	3

LTE Band 38 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				37850 Ch. 2580 ㎒	38000 Ch. 2595 ㎒	38150 Ch. 2610 ㎒		
20 ㎒	QPSK	1	0	23.15	23.10	22.91	0	0
		1	49	23.07	22.96	22.72	0	0
		1	99	22.99	22.79	22.56	0	0
		50	0	22.09	21.94	21.78	0-1	1
		50	25	22.21	22.02	21.83	0-1	1
		50	49	22.09	21.90	21.65	0-1	1
		100	0	22.11	21.94	21.74	0-1	1
	16QAM	1	0	22.36	22.29	22.10	0-1	1
		1	49	22.28	22.15	21.90	0-1	1
		1	99	22.17	22.02	21.75	0-1	1
		50	0	21.16	21.00	20.84	0-2	2
		50	25	21.24	21.11	20.86	0-2	2
		50	49	21.12	20.94	20.65	0-2	2
		100	0	21.13	20.97	20.76	0-2	2
	64QAM	1	0	20.83	20.77	20.60	0-2	2
		1	49	20.75	20.66	20.40	0-2	2
		1	99	20.66	20.41	20.19	0-2	2
		50	0	20.16	19.97	19.83	0-3	3
		50	25	20.24	20.07	19.91	0-3	3
		50	49	20.13	19.94	19.68	0-3	3
		100	0	20.10	19.93	19.75	0-3	3

[LTE Band 40 Low Side (MCC310) Conducted Power] Main 2 ANT
LTE Band 40 Low Sdie (MCC310) _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				38725 Ch. 2307.5 ㎒	38750 Ch. 2310 ㎒	38775 Ch. 2312.5 ㎒		
5 ㎒	QPSK	1	0	11.95	11.93	11.92	0	0
		1	12	11.91	11.94	11.98	0	0
		1	24	11.86	11.86	11.84	0	0
		12	0	11.95	12.00	11.98	0-1	0
		12	6	12.06	12.06	12.04	0-1	0
		12	11	12.06	12.06	12.05	0-1	0
		25	0	11.99	12.00	12.06	0-1	0
	16QAM	1	0	12.05	12.06	12.01	0-1	0
		1	12	12.16	12.14	12.15	0-1	0
		1	24	12.04	12.02	12.00	0-1	0
		12	0	11.98	11.98	11.96	0-2	0
		12	6	12.02	12.01	12.03	0-2	0
		12	11	12.03	12.05	12.04	0-2	0
		25	0	12.04	12.03	12.01	0-2	0
	64QAM	1	0	11.79	11.82	11.80	0-2	0
		1	12	11.70	11.75	11.77	0-2	0
		1	24	11.73	11.73	11.75	0-2	0
		12	0	12.00	12.00	12.01	0-3	0
		12	6	12.06	12.07	12.06	0-3	0
		12	11	12.07	12.06	12.05	0-3	0
		25	0	11.99	12.00	12.00	0-3	0

LTE Band 40 Low Sdie (MCC310) 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				38750 Ch. 2310 ㎒		
10 ㎒	QPSK	1	0	11.70	0	0
		1	24	11.90	0	0
		1	49	11.67	0	0
		25	0	11.79	0-1	0
		25	12	11.98	0-1	0
		25	24	11.93	0-1	0
		50	0	11.73	0-1	0
	16QAM	1	0	11.89	0-1	0
		1	24	12.07	0-1	0
		1	49	11.81	0-1	0
		25	0	11.89	0-2	0
		25	12	12.03	0-2	0
		25	24	12.06	0-2	0
		50	0	11.86	0-2	0
	64QAM	1	0	11.66	0-2	0
		1	24	11.84	0-2	0
		1	49	11.59	0-2	0
		25	0	11.91	0-3	0
		25	12	12.04	0-3	0
		25	24	12.13	0-3	0
		50	0	11.68	0-3	0

[LTE Band 40 Upper Side (MCC310) Conducted Power] Main 2 ANT
LTE Band 40 Upper Side (MCC310) _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				39175 Ch. 2352.5 ㎒	39200 Ch. 2355 ㎒	39225 Ch. 2357.5 ㎒		
5㎒	QPSK	1	0	11.75	11.74	11.75	0	0
		1	12	11.87	11.80	11.79	0	0
		1	24	11.71	11.70	11.72	0	0
		12	0	11.79	11.82	11.78	0-1	0
		12	6	11.85	11.87	11.93	0-1	0
		12	11	11.93	11.92	11.90	0-1	0
		25	0	11.80	11.83	11.87	0-1	0
	16QAM	1	0	11.88	11.90	11.88	0-1	0
		1	12	12.04	12.00	12.01	0-1	0
		1	24	11.89	11.91	11.93	0-1	0
		12	0	11.74	11.79	11.77	0-2	0
		12	6	11.82	11.84	11.91	0-2	0
		12	11	11.93	11.91	11.87	0-2	0
		25	0	11.83	11.81	11.89	0-2	0
	64QAM	1	0	11.65	11.62	11.59	0-2	0
		1	12	11.60	11.61	11.63	0-2	0
		1	24	11.60	11.61	11.62	0-2	0
		12	0	11.77	11.76	11.79	0-3	0
		12	6	11.83	11.88	11.94	0-3	0
		12	11	11.89	11.92	11.91	0-3	0
		25	0	11.80	11.76	11.86	0-3	0

LTE Band 40 Upper Side (MCC310) _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				39200Ch. 2355 ㎒		
10 ㎒	QPSK	1	0	11.60	0	0
		1	24	11.71	0	0
		1	49	11.48	0	0
		25	0	11.66	0-1	0
		25	12	11.77	0-1	0
		25	24	11.87	0-1	0
		50	0	11.55	0-1	0
	16QAM	1	0	11.73	0-1	0
		1	24	11.83	0-1	0
		1	49	11.65	0-1	0
		25	0	11.75	0-2	0
		25	12	11.84	0-2	0
		25	24	11.94	0-2	0
		50	0	11.71	0-2	0
	64QAM	1	0	11.53	0-2	0
		1	24	11.67	0-2	0
		1	49	11.45	0-2	0
		25	0	11.79	0-3	0
		25	12	11.86	0-3	0
		25	24	11.97	0-3	0
		50	0	11.52	0-3	0

[LTE Band 41 Conducted Power] - Power Class 3 Main 2 ANT

LTE Band 41 _ 5 ㎒ Bandwidth

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per GPP [dB]	MPR [dB]
				39675 Ch. 2498.5 ㎒	40148 Ch. 2545.8 ㎒	40620 Ch. 2593.0 ㎒	41093 Ch. 2640.3 ㎒	41565 Ch. 2687.5 ㎒		
5 ㎒	QPSK	1	0	23.43	23.87	23.95	23.75	23.68	0	0
		1	12	23.40	23.91	24.00	23.78	23.66	0	0
		1	24	23.45	23.95	23.97	23.75	23.65	0	0
		12	0	22.58	23.08	23.15	22.85	22.89	0-1	1
		12	6	22.59	23.14	23.17	22.91	22.90	0-1	1
		12	11	22.58	23.10	23.12	22.87	22.88	0-1	1
		25	0	22.59	23.10	23.18	22.88	22.87	0-1	1
	16QAM	1	0	22.76	23.11	23.17	22.92	22.98	0-1	1
		1	12	22.74	23.21	23.31	23.05	23.00	0-1	1
		1	24	22.78	23.17	23.22	22.98	22.96	0-1	1
		12	0	21.57	22.04	22.16	21.83	21.87	0-2	2
		12	6	21.60	22.13	22.13	21.90	21.90	0-2	2
		12	11	21.56	22.13	22.13	21.86	21.87	0-2	2
		25	0	21.61	22.14	22.14	21.91	21.88	0-2	2
	64QAM	1	0	21.30	21.67	21.77	21.48	21.52	0-2	2
		1	12	21.22	21.71	21.78	21.54	21.50	0-2	2
		1	24	21.29	21.71	21.78	21.52	21.48	0-2	2
		12	0	20.67	21.12	21.22	20.91	20.96	0-3	3
		12	6	20.69	21.20	21.24	20.99	21.01	0-3	3
		12	11	20.67	21.20	21.23	20.97	20.96	0-3	3
		25	0	20.65	21.17	21.19	20.93	20.96	0-3	3

LTE Band 41 _ 10 ㎒ Bandwidth

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39700 Ch. 2501 ㎒	40160 Ch. 2547 ㎒	40620 Ch. 2593 ㎒	41080 Ch. 2639 ㎒	41540 Ch. 2685 ㎒		
10 ㎒	QPSK	1	0	23.54	23.70	23.77	23.55	23.50	0	0
		1	24	23.53	23.93	23.98	23.74	23.71	0	0
		1	49	23.57	23.69	23.73	23.51	23.46	0	0
		25	0	22.66	22.97	23.11	22.78	22.78	0-1	1
		25	12	22.69	23.04	23.18	22.92	22.82	0-1	1
		25	24	22.68	23.06	23.06	22.81	22.79	0-1	1
		50	0	22.59	23.02	23.14	22.85	22.78	0-1	1
	16QAM	1	0	22.75	22.84	22.97	22.72	22.67	0-1	1
		1	24	22.67	23.12	23.16	22.91	22.87	0-1	1
		1	49	22.74	22.89	22.93	22.66	22.62	0-1	1
		25	0	21.72	21.95	22.12	21.74	21.76	0-2	2
		25	12	21.69	22.11	22.20	21.95	21.88	0-2	2
		25	24	21.70	22.08	22.08	21.82	21.85	0-2	2
		50	0	21.68	22.06	22.15	21.89	21.84	0-2	2
	64QAM	1	0	21.44	21.42	21.53	21.26	21.22	0-2	2
		1	24	21.40	21.78	21.83	21.56	21.53	0-2	2
		1	49	21.41	21.51	21.51	21.27	21.26	0-2	2
		25	0	20.73	21.06	21.23	20.87	20.86	0-3	3
		25	12	20.77	21.15	21.27	21.02	20.95	0-3	3
		25	24	20.77	21.15	21.13	20.86	20.91	0-3	3
		50	0	20.70	21.05	21.16	20.90	20.84	0-3	3

LTE Band 41 _ 15 ㎒ Bandwidth

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39725 Ch. 2503.5 ㎒	40173 Ch. 2548.3 ㎒	40620 Ch. 2593.0 ㎒	41068 Ch. 2637.8 ㎒	41515 Ch. 2682.5 ㎒		
15 ㎒	QPSK	1	0	23.42	23.58	23.81	23.61	23.42	0	0
		1	36	23.42	23.82	23.90	23.67	23.60	0	0
		1	74	23.51	23.64	23.76	23.43	23.59	0	0
		36	0	22.58	22.80	22.92	22.70	22.59	0-1	1
		36	18	22.57	22.88	23.06	22.74	22.81	0-1	1
		36	39	22.59	22.85	22.98	22.69	22.75	0-1	1
		75	0	22.53	22.78	22.97	22.66	22.63	0-1	1
	16QAM	1	0	22.60	22.79	22.99	22.85	22.60	0-1	1
		1	36	22.56	22.93	23.04	22.80	22.79	0-1	1
		1	74	22.71	22.82	22.90	22.61	22.78	0-1	1
		36	0	21.53	21.79	21.85	21.69	21.56	0-2	2
		36	18	21.57	21.82	22.02	21.69	21.75	0-2	2
		36	39	21.57	21.85	21.97	21.66	21.73	0-2	2
		75	0	21.59	21.85	22.03	21.68	21.71	0-2	2
	64QAM	1	0	21.13	21.29	21.39	21.25	21.02	0-2	2
		1	36	21.19	21.53	21.64	21.39	21.36	0-2	2
		1	74	21.24	21.34	21.44	21.10	21.36	0-2	2
		36	0	20.54	20.81	20.95	20.74	20.62	0-3	3
		36	18	20.58	20.85	21.08	20.75	20.78	0-3	3
		36	39	20.60	20.86	20.98	20.67	20.77	0-3	3
		75	0	20.57	20.85	21.03	20.68	20.70	0-3	3

LTE Band 41 _ 20 ㎒ Bandwidth

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	23.40	23.80	23.55	23.47	23.26	0	0
		1	49	23.47	23.80	23.89	23.67	23.60	0	0
		1	99	23.54	23.79	23.62	23.19	23.49	0	0
		50	0	22.48	22.84	22.87	22.67	22.52	0-1	1
		50	25	22.58	22.91	23.03	22.72	22.67	0-1	1
		50	49	22.60	22.91	22.96	22.65	22.74	0-1	1
		100	0	22.53	22.75	22.94	22.61	22.61	0-1	1
	16QAM	1	0	22.64	23.01	22.83	22.68	22.44	0-1	1
		1	49	22.65	22.99	23.08	22.89	22.82	0-1	1
		1	99	22.71	22.99	22.77	22.38	22.68	0-1	1
		50	0	21.56	21.86	21.91	21.72	21.58	0-2	2
		50	25	21.64	21.97	22.08	21.76	21.75	0-2	2
		50	49	21.64	21.93	21.99	21.65	21.77	0-2	2
		100	0	21.56	21.76	21.99	21.67	21.65	0-2	2
	64QAM	1	0	21.14	21.47	21.25	21.11	21.02	0-2	2
		1	49	21.18	21.53	21.59	21.41	21.34	0-2	2
		1	99	21.26	21.49	21.26	21.01	21.26	0-2	2
		50	0	20.54	20.87	20.91	20.73	20.58	0-3	3
		50	25	20.64	20.98	21.07	20.76	20.77	0-3	3
		50	49	20.65	20.91	20.99	20.67	20.80	0-3	3
		100	0	20.56	20.74	20.94	20.65	20.61	0-3	3

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

[LTE Band 41 Conducted Power] - Power Class 2 Main 2 ANT

LTE Band 41 _ 5 ㎒ Bandwidth - Power Class 2

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per GPP [dB]	MPR [dB]
				39675 Ch. 2498.5 ㎒	40148 Ch. 2545.8 ㎒	40620 Ch. 2593.0 ㎒	41093 Ch. 2640.3 ㎒	41565 Ch. 2687.5 ㎒		
5 ㎒	QPSK	1	0	25.48	26.30	26.36	26.15	25.97	0	0
		1	12	25.56	26.33	26.39	26.18	25.64	0	0
		1	24	25.70	26.35	26.37	26.17	25.61	0	0
		12	0	24.89	25.44	25.57	25.28	25.03	0-1	1
		12	6	24.97	25.53	25.59	25.34	24.94	0-1	1
		12	11	25.00	25.50	25.54	25.32	24.87	0-1	1
		25	0	24.97	25.54	25.60	25.36	24.95	0-1	1
	16QAM	1	0	24.84	25.57	25.74	25.49	25.29	0-1	1
		1	12	24.97	25.65	25.73	25.52	24.97	0-1	1
		1	24	25.14	25.67	25.74	25.55	24.98	0-1	1
		12	0	24.11	24.54	24.63	24.36	24.18	0-2	2
		12	6	24.13	24.62	24.65	24.47	24.10	0-2	2
		12	11	24.12	24.59	24.63	24.40	24.05	0-2	2
		25	0	24.16	24.61	24.65	24.40	24.13	0-2	2
	64QAM	1	0	23.28	24.36	24.52	24.29	23.46	0-2	2
		1	12	23.38	24.22	24.61	24.36	23.14	0-2	2
		1	24	23.56	24.38	24.54	24.31	23.19	0-2	2
		12	0	22.58	23.51	23.70	23.40	22.48	0-3	3
		12	6	22.66	23.51	23.73	23.53	22.40	0-3	3
		12	11	22.70	23.52	23.72	23.44	22.36	0-3	3
		25	0	22.71	23.56	23.73	23.48	22.44	0-3	3

LTE Band 41 _ 10 ㎒ Bandwidth - Power Class 2

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39700 Ch. 2501 ㎒	40160 Ch. 2547 ㎒	40620 Ch. 2593 ㎒	41080 Ch. 2639 ㎒	41540 Ch. 2685 ㎒		
10 ㎒	QPSK	1	0	25.73	25.96	26.12	25.94	25.84	0	0
		1	24	25.81	26.26	26.32	26.17	25.87	0	0
		1	49	25.85	26.05	26.06	25.89	25.69	0	0
		25	0	25.16	25.41	25.53	25.25	25.21	0-1	1
		25	12	25.13	25.49	25.61	25.38	25.19	0-1	1
		25	24	25.15	25.47	25.48	25.26	25.05	0-1	1
		50	0	25.13	25.44	25.54	25.32	25.20	0-1	1
	16QAM	1	0	25.41	25.49	25.56	25.35	25.30	0-1	1
		1	24	25.26	25.73	25.77	25.53	25.20	0-1	1
		1	49	25.32	25.53	25.52	25.30	25.06	0-1	1
		25	0	24.22	24.46	24.63	24.28	24.26	0-2	2
		25	12	24.26	24.61	24.68	24.46	24.33	0-2	2
		25	24	24.23	24.55	24.55	24.33	24.20	0-2	2
		50	0	24.16	24.51	24.59	24.40	24.31	0-2	2
	64QAM	1	0	23.85	24.38	24.38	24.14	23.72	0-2	2
		1	24	24.06	24.41	24.76	24.43	23.32	0-2	2
		1	49	24.19	24.51	24.40	24.18	23.27	0-2	2
		25	0	23.28	23.57	23.69	23.38	22.77	0-3	3
		25	12	23.33	23.66	23.77	23.53	22.62	0-3	3
		25	24	23.32	23.61	23.64	23.43	22.52	0-3	3
		50	0	23.17	23.48	23.61	23.36	22.62	0-3	3

LTE Band 41 _ 15 ㎒ Bandwidth- Power Class 2

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39725 Ch. 2503.5 ㎒	40173 Ch. 2548.3 ㎒	40620 Ch. 2593.0 ㎒	41068 Ch. 2637.8 ㎒	41515 Ch. 2682.5 ㎒		
15 ㎒	QPSK	1	0	25.69	25.98	26.15	26.07	25.81	0	0
		1	36	25.74	26.15	26.31	26.09	25.87	0	0
		1	74	25.83	26.02	26.15	25.87	25.56	0	0
		36	0	25.04	25.27	25.34	25.19	25.06	0-1	1
		36	18	25.06	25.35	25.50	25.20	25.20	0-1	1
		36	39	25.05	25.34	25.40	25.12	25.03	0-1	1
		75	0	24.98	25.27	25.41	25.13	25.09	0-1	1
	16QAM	1	0	25.38	25.46	25.53	25.40	25.18	0-1	1
		1	36	25.43	25.70	25.74	25.47	25.24	0-1	1
		1	74	25.39	25.50	25.46	25.21	24.95	0-1	1
		36	0	24.07	24.27	24.37	24.17	24.08	0-2	2
		36	18	24.09	24.35	24.51	24.21	24.29	0-2	2
		36	39	24.08	24.39	24.44	24.14	24.14	0-2	2
		75	0	24.07	24.30	24.47	24.20	24.16	0-2	2
	64QAM	1	0	23.87	24.21	24.28	24.11	23.83	0-2	2
		1	36	24.11	24.36	24.45	24.25	23.31	0-2	2
		1	74	24.25	24.29	24.28	23.95	23.12	0-2	2
		36	0	23.08	23.32	23.43	23.25	22.66	0-3	3
		36	18	23.12	23.38	23.54	23.24	22.50	0-3	3
		36	39	23.09	23.39	23.46	23.18	22.39	0-3	3
		75	0	23.02	23.34	23.51	23.15	22.57	0-3	3

LTE Band 41 _ 20 ㎒ Bandwidth - 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	25.67	26.14	25.96	25.99	25.72	0	0
		1	49	25.72	26.14	26.28	26.13	25.92	0	0
		1	99	25.81	26.11	26.05	25.64	25.55	0	0
		50	0	25.02	25.33	25.31	25.14	25.00	0-1	1
		50	25	25.09	25.40	25.47	25.16	25.16	0-1	1
		50	49	25.07	25.37	25.36	25.12	25.08	0-1	1
		100	0	25.03	25.23	25.36	25.08	25.09	0-1	1
	16QAM	1	0	25.37	25.67	25.43	25.27	25.04	0-1	1
		1	49	25.37	25.72	25.73	25.53	25.26	0-1	1
		1	99	25.42	25.70	25.30	24.99	24.92	0-1	1
		50	0	24.03	24.36	24.38	24.17	24.07	0-2	2
		50	25	24.14	24.47	24.54	24.21	24.22	0-2	2
		50	49	24.13	24.46	24.44	24.13	24.24	0-2	2
		100	0	24.06	24.26	24.46	24.14	24.16	0-2	2
	64QAM	1	0	23.95	24.42	24.12	23.97	23.75	0-2	2
		1	49	24.24	24.42	24.46	24.25	23.33	0-2	2
		1	99	24.27	24.37	24.09	23.74	23.10	0-2	2
		50	0	23.06	23.35	23.35	23.20	22.88	0-3	3
		50	25	23.15	23.48	23.57	23.22	22.60	0-3	3
		50	49	23.13	23.41	23.42	23.16	22.46	0-3	3
		100	0	23.07	23.25	23.42	23.13	22.70	0-3	3

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

[LTE Band 48 Conducted Power] Sub 3 ANT

LTE Band 48 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]				MPR Allowed Per 3GPP [dB]	MPR [dB]
				55265 Ch. 3552.5 ㎒	55748 Ch. 3600.8 ㎒	56232 Ch. 3649.2 ㎒	56715 Ch. 3697.5 ㎒		
5 ㎒	QPSK	1	0	20.96	21.22	21.66	21.83	0	0
		1	12	21.04	21.38	21.83	21.90	0	0
		1	24	21.07	21.35	21.79	21.92	0	0
		12	0	20.16	20.40	20.80	21.00	0-1	1
		12	6	20.23	20.51	20.89	21.09	0-1	1
		12	11	20.26	20.48	20.95	21.07	0-1	1
		25	0	20.22	20.48	20.86	21.07	0-1	1
	16QAM	1	0	20.20	20.43	20.87	21.04	0-1	1
		1	12	20.35	20.65	21.08	21.19	0-1	1
		1	24	20.32	20.63	21.04	21.22	0-1	1
		12	0	19.11	19.33	19.77	19.99	0-2	2
		12	6	19.22	19.52	19.87	20.07	0-2	2
		12	11	19.22	19.51	19.94	20.06	0-2	2
		25	0	19.21	19.49	19.88	20.09	0-2	2
	64QAM	1	0	18.79	18.98	19.41	19.62	0-2	2
		1	12	18.88	19.15	19.56	19.71	0-2	2
		1	24	18.90	19.17	19.62	19.73	0-2	2
		12	0	18.23	18.44	18.85	19.07	0-3	3
		12	6	18.35	18.59	18.95	19.16	0-3	3
		12	11	18.31	18.59	19.02	19.13	0-3	3
		25	0	18.26	18.58	18.93	19.09	0-3	3

LTE Band 48 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]				MPR Allowed Per 3GPP [dB]	MPR [dB]
				55290Ch. 3555 ㎒	55757 Ch. 3601.7 ㎒	56223 Ch. 3648.3 ㎒	56690 Ch. 3695 ㎒		
10 ㎒	QPSK	1	0	21.11	21.35	21.79	21.90	0	0
		1	24	21.11	21.41	21.76	21.92	0	0
		1	49	21.17	21.44	21.83	21.93	0	0
		25	0	20.08	20.31	20.73	20.81	0-1	1
		25	12	20.20	20.51	20.95	20.97	0-1	1
		25	24	20.16	20.49	20.91	21.01	0-1	1
		50	0	20.17	20.44	20.88	20.93	0-1	1
	16QAM	1	0	20.29	20.57	20.96	21.04	0-1	1
		1	24	20.26	20.53	20.97	21.08	0-1	1
		1	49	20.39	20.64	21.04	21.11	0-1	1
		25	0	19.08	19.32	19.72	19.82	0-2	2
		25	12	19.26	19.54	19.98	20.01	0-2	2
		25	24	19.22	19.49	19.96	20.06	0-2	2
		50	0	19.20	19.50	19.93	19.94	0-2	2
	64QAM	1	0	18.97	19.18	19.63	19.75	0-2	2
		1	24	18.94	19.26	19.69	19.80	0-2	2
		1	49	19.02	19.29	19.70	19.82	0-2	2
		25	0	18.18	18.38	18.82	18.93	0-3	3
		25	12	18.33	18.62	19.03	19.08	0-3	3
		25	24	18.27	18.56	19.01	19.11	0-3	3
		50	0	18.22	18.47	18.93	18.97	0-3	3

LTE Band 48 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]				MPR Allowed Per 3GPP [dB]	MPR [dB]
				55315Ch. 3557.5 ㎒	55765 Ch. 3602.5 ㎒	56215 Ch. 3647.5 ㎒	56665 Ch. 3692.5 ㎒		
15 ㎒	QPSK	1	0	21.04	21.15	21.64	21.75	0	0
		1	36	20.98	21.20	21.67	21.74	0	0
		1	74	21.06	21.22	21.75	21.83	0	0
		36	0	19.97	20.26	20.66	20.78	0-1	1
		36	18	20.16	20.38	20.74	20.86	0-1	1
		36	39	20.09	20.30	20.80	20.87	0-1	1
		75	0	20.06	20.33	20.69	20.80	0-1	1
	16QAM	1	0	20.24	20.38	20.85	20.95	0-1	1
		1	36	20.15	20.33	20.84	20.96	0-1	1
		1	74	20.25	20.45	20.92	21.01	0-1	1
		36	0	18.99	19.23	19.63	19.78	0-2	2
		36	18	19.11	19.34	19.75	19.85	0-2	2
		36	39	19.10	19.29	19.80	19.90	0-2	2
		75	0	19.10	19.35	19.74	19.85	0-2	2
	64QAM	1	0	18.73	18.86	19.37	19.53	0-2	2
		1	36	18.78	18.93	19.44	19.57	0-2	2
		1	74	18.82	18.99	19.52	19.59	0-2	2
		36	0	18.01	18.24	18.66	18.82	0-3	3
		36	18	18.11	18.36	18.74	18.88	0-3	3
		36	39	18.09	18.29	18.81	18.87	0-3	3
		75	0	18.13	18.34	18.72	18.86	0-3	3

LTE Band 48 _ 20 ㎒ Bandwidth

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	20.97	21.08	21.63	21.74	0	0
		1	49	20.97	21.10	21.64	21.81	0	0
		1	99	21.02	21.15	21.68	21.80	0	0
		50	0	19.89	20.15	20.54	20.70	0-1	1
		50	25	20.09	20.31	20.77	20.91	0-1	1
		50	49	20.00	20.19	20.70	20.85	0-1	1
		100	0	20.01	20.22	20.68	20.73	0-1	1
	16QAM	1	0	20.17	20.31	20.79	20.97	0-1	1
		1	49	20.20	20.32	20.84	20.98	0-1	1
		1	99	20.22	20.38	20.86	21.01	0-1	1
		50	0	18.91	19.25	19.60	19.80	0-2	2
		50	25	19.14	19.39	19.80	19.97	0-2	2
		50	49	19.08	19.25	19.72	19.90	0-2	2
		100	0	19.04	19.23	19.71	19.80	0-2	2
	64QAM	1	0	18.66	18.84	19.32	19.47	0-2	2
		1	49	18.80	18.87	19.42	19.61	0-2	2
		1	99	18.77	18.91	19.44	19.59	0-2	2
		50	0	17.94	18.18	18.60	18.81	0-3	3
		50	25	18.15	18.34	18.82	18.99	0-3	3
		50	49	18.06	18.25	18.71	18.90	0-3	3
		100	0	18.03	18.24	18.70	18.81	0-3	3

[LTE Band 66 Conducted Power] Main 2 ANT

LTE Band 66 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				131979Ch. 1710.7 ㎒	132322 Ch. 1745 ㎒	132665 Ch. 1779.3 ㎒		
1.4 ㎒	QPSK	1	0	24.20	24.23	24.20	0	0
		1	3	24.23	24.37	24.53	0	0
		1	5	24.22	24.27	24.43	0	0
		3	0	24.20	24.26	24.29	0	0
		3	1	24.19	24.28	24.36	0	0
		3	3	24.18	24.22	24.30	0	0
		6	0	23.40	23.30	23.43	0-1	1
	16QAM	1	0	23.70	23.85	23.75	0-1	1
		1	3	23.82	23.99	23.92	0-1	1
		1	5	23.84	23.78	23.86	0-1	1
		3	0	23.43	23.39	23.42	0-1	1
		3	1	23.34	23.54	23.49	0-1	1
		3	3	23.28	23.40	23.34	0-1	1
		6	0	22.53	22.56	22.51	0-2	2
	64QAM	1	0	22.60	22.59	22.68	0-2	2
		1	3	22.73	22.68	22.73	0-2	2
		1	5	22.56	22.63	22.49	0-2	2
		3	0	22.60	22.60	22.46	0-2	2
		3	1	22.57	22.61	22.63	0-2	2
		3	3	22.62	22.54	22.57	0-2	2
		6	0	21.42	21.39	21.51	0-3	3

LTE Band 66 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				131987 Ch. 1711.5 ㎒	132322 Ch. 1745 ㎒	132657 Ch. 1778.5 ㎒		
3 ㎒	QPSK	1	0	24.29	24.44	24.38	0	0
		1	7	24.40	24.41	24.42	0	0
		1	14	24.19	24.33	24.43	0	0
		8	0	23.47	23.54	23.54	0-1	1
		8	3	23.48	23.53	23.55	0-1	1
		8	7	23.46	23.50	23.47	0-1	1
		15	0	23.49	23.61	23.54	0-1	1
	16QAM	1	0	23.64	23.80	23.87	0-1	1
		1	7	23.67	23.53	23.74	0-1	1
		1	14	23.78	23.89	23.77	0-1	1
		8	0	22.54	22.61	22.55	0-2	2
		8	3	22.58	22.62	22.66	0-2	2
		8	7	22.56	22.53	22.61	0-2	2
		15	0	22.46	22.55	22.56	0-2	2
	64QAM	1	0	22.56	22.61	22.56	0-2	2
		1	7	22.68	22.78	22.59	0-2	2
		1	14	22.51	22.66	22.72	0-2	2
		8	0	21.57	21.63	21.67	0-3	3
		8	3	21.62	21.64	21.67	0-3	3
		8	7	21.53	21.58	21.62	0-3	3
		15	0	21.50	21.54	21.54	0-3	3

LTE Band 66 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				131997 Ch. 1712.5 ㎒	132322Ch. 1745 ㎒	132647 Ch. 1777.5 ㎒		
5 ㎒	QPSK	1	0	24.35	24.26	24.31	0	0
		1	12	24.45	24.44	24.44	0	0
		1	24	24.27	24.26	24.39	0	0
		12	0	23.51	23.52	23.63	0-1	1
		12	6	23.52	23.53	23.55	0-1	1
		12	11	23.45	23.49	23.50	0-1	1
		25	0	23.45	23.54	23.54	0-1	1
	16QAM	1	0	23.92	23.78	23.96	0-1	1
		1	12	23.77	23.72	23.75	0-1	1
		1	24	23.65	23.79	23.65	0-1	1
		12	0	22.51	22.58	22.58	0-2	2
		12	6	22.58	22.53	22.59	0-2	2
		12	11	22.50	22.60	22.56	0-2	2
		25	0	22.53	22.49	22.57	0-2	2
	64QAM	1	0	22.48	22.66	22.71	0-2	2
		1	12	22.63	22.75	22.71	0-2	2
		1	24	22.54	22.71	22.56	0-2	2
		12	0	21.57	21.67	21.61	0-3	3
		12	6	21.56	21.59	21.57	0-3	3
		12	11	21.50	21.44	21.54	0-3	3
		25	0	21.48	21.48	21.55	0-3	3

LTE Band 66 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132022 Ch. 1715 ㎒	132322 Ch. 1745 ㎒	132622 Ch. 1775 ㎒		
10 ㎒	QPSK	1	0	23.88	24.23	24.19	0	0
		1	24	24.30	24.16	24.34	0	0
		1	49	24.07	23.91	24.27	0	0
		25	0	23.44	23.49	23.47	0-1	1
		25	12	23.48	23.53	23.55	0-1	1
		25	24	23.33	23.43	23.43	0-1	1
		50	0	23.40	23.44	23.49	0-1	1
	16QAM	1	0	23.31	23.34	23.42	0-1	1
		1	24	23.91	23.62	23.68	0-1	1
		1	49	23.56	23.60	23.60	0-1	1
		25	0	22.50	22.53	22.50	0-2	2
		25	12	22.59	22.59	22.61	0-2	2
		25	24	22.44	22.55	22.60	0-2	2
		50	0	22.39	22.48	22.50	0-2	2
	64QAM	1	0	22.26	22.28	22.32	0-2	2
		1	24	22.81	22.57	22.58	0-2	2
		1	49	22.50	22.61	22.46	0-2	2
		25	0	21.50	21.45	21.55	0-3	3
		25	12	21.50	21.64	21.60	0-3	3
		25	24	21.45	21.52	21.53	0-3	3
		50	0	21.45	21.47	21.55	0-3	3

LTE Band 66 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132047 Ch. 1717.5 ㎒	132322 Ch. 1745 ㎒	132597 Ch. 1772.5 ㎒		
15 ㎒	QPSK	1	0	24.07	24.24	24.36	0	0
		1	36	24.23	24.15	24.05	0	0
		1	74	24.06	24.16	24.14	0	0
		36	0	23.47	23.47	23.42	0-1	1
		36	18	23.33	23.43	23.51	0-1	1
		36	39	23.29	23.44	23.40	0-1	1
		75	0	23.27	23.38	23.40	0-1	1
	16QAM	1	0	23.47	23.55	23.67	0-1	1
		1	36	23.78	23.72	23.71	0-1	1
		1	74	23.51	23.62	23.87	0-1	1
		36	0	22.45	22.42	22.44	0-2	2
		36	18	22.33	22.50	22.45	0-2	2
		36	39	22.42	22.45	22.41	0-2	2
		75	0	22.41	22.44	22.47	0-2	2
	64QAM	1	0	22.31	22.43	22.38	0-2	2
		1	36	22.58	22.61	22.59	0-2	2
		1	74	22.36	22.49	22.81	0-2	2
		36	0	21.46	21.42	21.44	0-3	3
		36	18	21.35	21.48	21.46	0-3	3
		36	39	21.30	21.47	21.43	0-3	3
		75	0	21.30	21.47	21.46	0-3	3

LTE Band 66 _ 20 ㎒ Bandwidth

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	24.01	24.02	24.37	0	0
		1	49	24.15	24.16	24.20	0	0
		1	99	24.04	24.01	24.02	0	0
		50	0	23.33	23.37	23.41	0-1	1
		50	25	23.48	23.51	23.45	0-1	1
		50	49	23.33	23.32	23.44	0-1	1
		100	0	23.35	23.32	23.44	0-1	1
	16QAM	1	0	23.21	23.32	23.76	0-1	1
		1	49	23.77	23.73	23.65	0-1	1
		1	99	23.48	23.55	23.71	0-1	1
		50	0	22.32	22.36	22.42	0-2	2
		50	25	22.44	22.54	22.50	0-2	2
		50	49	22.45	22.38	22.42	0-2	2
		100	0	22.39	22.36	22.42	0-2	2
	64QAM	1	0	22.18	22.15	22.66	0-2	2
		1	49	22.51	22.37	22.66	0-2	2
		1	99	22.37	22.23	22.63	0-2	2
		50	0	21.32	21.35	21.41	0-3	3
		50	25	21.44	21.46	21.48	0-3	3
		50	49	21.37	21.34	21.42	0-3	3
		100	0	21.38	21.32	21.44	0-3	3

[LTE Band 71 Conducted Power] Main 1 ANT

LTE Band 71 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				133147 Ch. 665.5 ㎒	133297 Ch. 680.5 ㎒	133447 Ch. 695.5 ㎒		
5 ㎒	QPSK	1	0	23.94	24.07	24.03	0	0
		1	12	23.91	24.10	24.21	0	0
		1	24	24.03	24.10	24.13	0	0
		12	0	23.01	23.20	23.22	0-1	1
		12	6	23.10	23.26	23.34	0-1	1
		12	11	23.06	23.25	23.33	0-1	1
		25	0	23.22	23.18	23.31	0-1	1
	16QAM	1	0	23.40	23.49	23.39	0-1	1
		1	12	23.32	23.54	23.54	0-1	1
		1	24	23.30	23.61	23.40	0-1	1
		12	0	22.05	22.25	22.29	0-2	2
		12	6	22.09	22.25	22.35	0-2	2
		12	11	22.09	22.29	22.30	0-2	2
		25	0	22.04	22.25	22.29	0-2	2
	64QAM	1	0	22.31	22.40	22.23	0-2	2
		1	12	22.24	22.50	22.63	0-2	2
		1	24	22.17	22.30	22.45	0-2	2
		12	0	21.07	21.24	21.28	0-3	3
		12	6	21.19	21.34	21.37	0-3	3
		12	11	21.06	21.32	21.33	0-3	3
		25	0	21.08	21.22	21.29	0-3	3

LTE Band 71 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				133172 Ch. 668 ㎒	133297 Ch. 680.5 ㎒	133422 Ch. 693 ㎒		
10 ㎒	QPSK	1	0	23.96	24.12	23.98	0	0
		1	24	23.94	24.22	24.07	0	0
		1	49	24.12	24.06	24.15	0	0
		25	0	22.99	23.26	23.26	0-1	1
		25	12	23.08	23.09	23.27	0-1	1
		25	24	23.06	23.23	23.27	0-1	1
		50	0	23.00	23.12	23.21	0-1	1
	16QAM	1	0	23.31	23.62	23.41	0-1	1
		1	24	23.31	23.52	23.38	0-1	1
		1	49	23.49	23.46	23.45	0-1	1
		25	0	21.98	22.31	22.29	0-2	2
		25	12	22.08	22.24	22.33	0-2	2
		25	24	22.11	22.27	22.26	0-2	2
		50	0	22.07	22.14	22.18	0-2	2
	64QAM	1	0	22.27	22.43	22.38	0-2	2
		1	24	22.19	22.60	22.36	0-2	2
		1	49	22.53	22.49	22.31	0-2	2
		25	0	21.09	21.37	21.18	0-3	3
		25	12	21.15	21.26	21.31	0-3	3
		25	24	21.12	21.20	21.31	0-3	3
		50	0	21.15	21.15	21.21	0-3	3

LTE Band 71 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 133297 Ch. 680.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
15 ㎒	QPSK	1	0	24.09	0	0
		1	36	24.02	0	0
		1	74	23.93	0	0
		36	0	23.21	0-1	1
		36	18	23.17	0-1	1
		36	39	23.07	0-1	1
		75	0	23.05	0-1	1
	16QAM	1	0	23.41	0-1	1
		1	36	23.46	0-1	1
		1	74	23.23	0-1	1
		36	0	22.22	0-2	2
		36	18	22.13	0-2	2
		36	39	22.08	0-2	2
		75	0	22.08	0-2	2
	64QAM	1	0	22.19	0-2	2
		1	36	22.33	0-2	2
		1	74	22.13	0-2	2
		36	0	21.27	0-3	3
		36	18	21.10	0-3	3
		36	39	21.08	0-3	3
		75	0	21.08	0-3	3

LTE Band 71 _ 20 ㎒ Bandwidth

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	23.93	0	0
		1	49	24.09	0	0
		1	99	23.96	0	0
		50	0	23.21	0-1	1
		50	25	23.18	0-1	1
		50	49	23.06	0-1	1
		100	0	22.95	0-1	1
	16QAM	1	0	23.36	0-1	1
		1	49	23.41	0-1	1
		1	99	23.34	0-1	1
		50	0	22.16	0-2	2
		50	25	22.18	0-2	2
		50	49	22.04	0-2	2
		100	0	22.02	0-2	2
	64QAM	1	0	22.10	0-2	2
		1	49	22.36	0-2	2
		1	99	22.16	0-2	2
		50	0	21.24	0-3	3
		50	25	21.10	0-3	3
		50	49	21.14	0-3	3
		100	0	21.07	0-3	3

11.4.2 LTE Reduced Conducted Power (Hotspot activated)

[LTE Band 2 Conducted Power_ Hotspot activated] Main 2 ANT

LTE Band 2 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18607 Ch. 1850.7 ㎒	18900 Ch. 1880 ㎒	19193 Ch. 1909.3 ㎒		
1.4 ㎒	QPSK	1	0	21.94	21.94	21.93	0	0
		1	3	21.98	22.01	21.95	0	0
		1	5	21.93	21.91	21.88	0	0
		3	0	21.97	21.96	21.89	0	0
		3	1	21.99	21.99	21.92	0	0
		3	3	21.85	21.92	21.96	0	0
		6	0	22.01	22.09	22.00	0-1	0
	16QAM	1	0	22.36	22.29	22.11	0-1	0
		1	3	22.28	22.35	22.37	0-1	0
		1	5	22.28	22.20	22.17	0-1	0
		3	0	22.06	21.99	21.91	0-1	0
		3	1	22.12	21.92	22.11	0-1	0
		3	3	22.03	22.02	21.95	0-1	0
		6	0	21.64	21.63	21.57	0-2	0
	64QAM	1	0	22.37	22.32	22.21	0-2	0
		1	3	22.45	22.47	22.30	0-2	0
		1	5	22.18	22.13	22.13	0-2	0
		3	0	22.12	22.14	22.07	0-2	0
		3	1	22.16	22.08	22.10	0-2	0
		3	3	22.05	22.20	22.07	0-2	0
		6	0	21.54	21.54	21.55	0-3	0.5

LTE Band 2 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18615 Ch. 1851.5 ㎒	18900 Ch. 1880 ㎒	19185 Ch. 1908.5 ㎒		
3 ㎒	QPSK	1	0	22.10	22.12	22.02	0	0
		1	7	21.97	22.01	21.97	0	0
		1	14	21.99	22.01	21.94	0	0
		8	0	22.19	22.16	22.14	0-1	0
		8	3	22.18	22.15	22.18	0-1	0
		8	7	22.09	22.09	22.04	0-1	0
		15	0	22.17	22.17	22.08	0-1	0
	16QAM	1	0	22.46	22.41	22.37	0-1	0
		1	7	22.37	22.38	22.27	0-1	0
		1	14	22.27	22.29	22.21	0-1	0
		8	0	21.72	21.72	21.70	0-2	0
		8	3	21.76	21.71	21.68	0-2	0
		8	7	21.66	21.66	21.61	0-2	0
		15	0	21.68	21.69	21.65	0-2	0
	64QAM	1	0	22.40	22.37	22.27	0-2	0
		1	7	22.26	22.50	22.30	0-2	0
		1	14	22.21	22.46	22.37	0-2	0
		8	0	21.78	21.73	21.65	0-3	0.5
		8	3	21.72	21.71	21.74	0-3	0.5
		8	7	21.63	21.66	21.58	0-3	0.5
		15	0	21.68	21.70	21.60	0-3	0.5

LTE Band 2 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18625 Ch. 1852.5 ㎒	18900 Ch. 1880 ㎒	19175 Ch. 1907.5 ㎒		
5 ㎒	QPSK	1	0	22.00	21.96	21.90	0	0
		1	12	22.03	22.08	21.97	0	0
		1	24	21.99	21.98	21.94	0	0
		12	0	22.15	22.13	22.10	0-1	0
		12	6	22.19	22.21	22.17	0-1	0
		12	11	22.11	22.16	22.03	0-1	0
		25	0	22.14	22.15	22.10	0-1	0
	16QAM	1	0	22.34	22.29	22.17	0-1	0
		1	12	22.44	22.38	22.33	0-1	0
		1	24	22.27	22.16	22.26	0-1	0
		12	0	21.64	21.62	21.61	0-2	0
		12	6	21.80	21.72	21.72	0-2	0
		12	11	21.66	21.67	21.69	0-2	0
		25	0	21.68	21.63	21.63	0-2	0
	64QAM	1	0	22.38	22.32	22.24	0-2	0
		1	12	22.51	22.54	22.35	0-2	0
		1	24	22.34	22.43	22.32	0-2	0
		12	0	21.71	21.69	21.63	0-3	0.5
		12	6	21.78	21.70	21.61	0-3	0.5
		12	11	21.71	21.66	21.57	0-3	0.5
		25	0	21.64	21.66	21.58	0-3	0.5

LTE Band 2 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18650 Ch. 1855 ㎒	18900 Ch. 1880 ㎒	19150 Ch. 1905 ㎒		
10 ㎒	QPSK	1	0	21.62	21.79	22.09	0	0
		1	24	21.96	22.02	22.12	0	0
		1	49	22.03	21.89	22.02	0	0
		25	0	22.05	22.02	22.04	0-1	0
		25	12	22.25	22.13	22.14	0-1	0
		25	24	22.12	22.09	22.03	0-1	0
		50	0	22.10	22.02	21.99	0-1	0
	16QAM	1	0	22.02	21.77	22.23	0-1	0
		1	24	22.41	22.38	22.31	0-1	0
		1	49	22.16	22.14	22.35	0-1	0
		25	0	21.60	21.58	21.61	0-2	0
		25	12	21.78	21.70	21.67	0-2	0
		25	24	21.70	21.62	21.68	0-2	0
		50	0	21.69	21.53	21.60	0-2	0
	64QAM	1	0	21.98	21.82	22.36	0-2	0
		1	24	22.16	22.28	22.30	0-2	0
		1	49	22.03	22.04	22.28	0-2	0
		25	0	21.56	21.56	21.62	0-3	0.5
		25	12	21.77	21.65	21.69	0-3	0.5
		25	24	21.66	21.62	21.56	0-3	0.5
		50	0	21.50	21.55	21.52	0-3	0.5

LTE Band 2 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18675 Ch. 1857.5 ㎒	18900 Ch. 1880 ㎒	19125 Ch. 1902.5 ㎒		
15 ㎒	QPSK	1	0	21.68	21.97	21.92	0	0
		1	36	22.02	21.94	21.82	0	0
		1	74	21.92	21.86	21.98	0	0
		36	0	21.92	21.87	21.80	0-1	0
		36	18	22.05	21.97	21.90	0-1	0
		36	39	22.04	21.99	21.94	0-1	0
		75	0	22.04	21.89	21.88	0-1	0
	16QAM	1	0	22.06	22.17	22.15	0-1	0
		1	36	22.29	22.08	22.21	0-1	0
		1	74	22.20	22.28	22.20	0-1	0
		36	0	21.39	21.41	21.26	0-2	0
		36	18	21.56	21.45	21.46	0-2	0
		36	39	21.58	21.46	21.41	0-2	0
		75	0	21.49	21.41	21.44	0-2	0
	64QAM	1	0	21.92	22.05	22.02	0-2	0
		1	36	22.12	22.09	21.98	0-2	0
		1	74	22.08	22.15	22.10	0-2	0
		36	0	21.42	21.36	21.26	0-3	0.5
		36	18	21.53	21.48	21.49	0-3	0.5
		36	39	21.52	21.51	21.49	0-3	0.5
		75	0	21.47	21.45	21.39	0-3	0.5

LTE Band 2 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18700 Ch. 1860 ㎒	18900 Ch. 1880 ㎒	19100 Ch. 1900 ㎒		
20 ㎒	QPSK	1	0	21.90	21.94	21.88	0	0
		1	49	21.86	21.81	21.72	0	0
		1	99	21.87	21.80	21.87	0	0
		50	0	21.89	21.88	21.82	0-1	0
		50	25	22.00	22.01	21.95	0-1	0
		50	49	22.01	21.88	21.86	0-1	0
		100	0	21.91	21.77	21.89	0-1	0
	16QAM	1	0	22.18	22.36	22.21	0-1	0
		1	49	22.06	22.22	22.17	0-1	0
		1	99	22.22	22.17	22.05	0-1	0
		50	0	21.47	21.33	21.32	0-2	0
		50	25	21.55	21.54	21.45	0-2	0
		50	49	21.50	21.44	21.36	0-2	0
		100	0	21.39	21.39	21.38	0-2	0
	64QAM	1	0	22.11	22.05	22.09	0-2	0
		1	49	22.16	22.21	22.01	0-2	0
		1	99	22.06	22.08	22.02	0-2	0
		50	0	21.34	21.35	21.32	0-3	0.5
		50	25	21.43	21.47	21.47	0-3	0.5
		50	49	21.41	21.38	21.52	0-3	0.5
		100	0	21.43	21.29	21.40	0-3	0.5

[LTE Band 4 Conducted Power_ Hotspot activated] Main 2 ANT

LTE Band 4 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				19957 Ch. 1710.7 ㎒	20175 Ch. 1732.5 ㎒	20393 Ch. 1754.3 ㎒		
1.4 ㎒	QPSK	1	0	22.05	21.91	22.10	0	0
		1	3	22.12	22.03	22.14	0	0
		1	5	22.06	21.91	22.02	0	0
		3	0	22.09	21.82	22.02	0	0
		3	1	22.06	21.94	22.06	0	0
		3	3	22.01	21.98	22.06	0	0
		6	0	22.15	21.93	22.17	0-1	0
	16QAM	1	0	22.52	22.27	22.37	0-1	0
		1	3	22.51	22.47	22.40	0-1	0
		1	5	22.33	21.98	22.23	0-1	0
		3	0	22.15	22.01	22.21	0-1	0
		3	1	22.17	22.02	22.15	0-1	0
		3	3	22.15	22.02	22.17	0-1	0
		6	0	21.76	21.52	21.75	0-2	0
	64QAM	1	0	22.35	22.25	22.37	0-2	0
		1	3	22.41	22.03	22.42	0-2	0
		1	5	22.27	22.19	22.41	0-2	0
		3	0	22.22	22.02	22.18	0-2	0
		3	1	22.24	22.14	22.23	0-2	0
		3	3	22.24	22.02	22.10	0-2	0
		6	0	21.67	21.45	21.61	0-3	0.5

LTE Band 4 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				19965 Ch. 1711.5 ㎒	20175 Ch. 1732.5 ㎒	20385 Ch. 1753.5 ㎒		
3 ㎒	QPSK	1	0	22.22	21.99	22.14	0	0
		1	7	22.12	22.04	22.12	0	0
		1	14	22.04	22.00	22.12	0	0
		8	0	22.25	22.05	22.16	0-1	0
		8	3	22.23	22.02	22.27	0-1	0
		8	7	22.20	22.07	22.18	0-1	0
		15	0	22.22	22.05	22.18	0-1	0
	16QAM	1	0	22.59	22.29	22.46	0-1	0
		1	7	22.49	22.32	22.45	0-1	0
		1	14	22.26	22.37	22.41	0-1	0
		8	0	21.87	21.68	21.80	0-2	0
		8	3	21.73	21.63	21.81	0-2	0
		8	7	21.71	21.66	21.70	0-2	0
		15	0	21.71	21.58	21.76	0-2	0
	64QAM	1	0	22.50	22.12	22.50	0-2	0
		1	7	22.51	22.35	22.46	0-2	0
		1	14	22.46	22.28	22.33	0-2	0
		8	0	21.85	21.62	21.80	0-3	0.5
		8	3	21.77	21.61	21.77	0-3	0.5
		8	7	21.72	21.66	21.69	0-3	0.5
		15	0	21.76	21.56	21.74	0-3	0.5

LTE Band 4 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				19975 Ch. 1712.5 ㎒	20175 Ch. 1732.5 ㎒	20375 Ch. 1752.5 ㎒		
5 ㎒	QPSK	1	0	22.12	22.00	22.07	0	0
		1	12	22.20	22.06	22.06	0	0
		1	24	22.04	21.97	22.01	0	0
		12	0	22.23	22.11	22.14	0-1	0
		12	6	22.28	22.12	22.22	0-1	0
		12	11	22.16	22.08	22.14	0-1	0
		25	0	22.19	22.07	22.16	0-1	0
	16QAM	1	0	22.46	22.28	22.29	0-1	0
		1	12	22.50	22.43	22.48	0-1	0
		1	24	22.33	22.29	22.31	0-1	0
		12	0	21.75	21.54	21.74	0-2	0
		12	6	21.81	21.60	21.67	0-2	0
		12	11	21.74	21.69	21.78	0-2	0
		25	0	21.77	21.58	21.63	0-2	0
	64QAM	1	0	22.43	22.19	22.41	0-2	0
		1	12	22.57	22.41	22.47	0-2	0
		1	24	22.40	22.26	22.33	0-2	0
		12	0	21.82	21.60	21.72	0-3	0.5
		12	6	21.78	21.63	21.70	0-3	0.5
		12	11	21.70	21.61	21.75	0-3	0.5
		25	0	21.76	21.60	21.63	0-3	0.5

LTE Band 4 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20000 Ch. 1715 ㎒	20175 Ch. 1732.5 ㎒	20350 Ch. 1750 ㎒		
10 ㎒	QPSK	1	0	21.79	21.77	21.67	0	0
		1	24	22.16	22.03	22.05	0	0
		1	49	21.82	21.69	21.66	0	0
		25	0	22.17	21.95	21.95	0-1	0
		25	12	22.24	22.05	22.15	0-1	0
		25	24	22.09	22.04	22.06	0-1	0
		50	0	22.17	22.03	22.06	0-1	0
	16QAM	1	0	22.24	22.07	22.10	0-1	0
		1	24	22.44	22.25	22.34	0-1	0
		1	49	22.13	22.05	22.05	0-1	0
		25	0	21.72	21.48	21.55	0-2	0
		25	12	21.75	21.55	21.73	0-2	0
		25	24	21.55	21.50	21.62	0-2	0
		50	0	21.67	21.52	21.57	0-2	0
	64QAM	1	0	21.96	21.96	21.88	0-2	0
		1	24	22.38	22.21	22.43	0-2	0
		1	49	22.09	21.87	21.94	0-2	0
		25	0	21.70	21.39	21.57	0-3	0.5
		25	12	21.76	21.59	21.66	0-3	0.5
		25	24	21.55	21.60	21.63	0-3	0.5
		50	0	21.65	21.44	21.56	0-3	0.5

LTE Band 4 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20025 Ch. 1717.5 ㎒	20175 Ch. 1732.5 ㎒	20325 Ch. 1747.5 ㎒		
15 ㎒	QPSK	1	0	21.76	21.83	21.73	0	0
		1	36	21.93	21.94	21.78	0	0
		1	74	21.86	21.83	21.90	0	0
		36	0	21.93	21.87	21.94	0-1	0
		36	18	22.08	21.98	21.98	0-1	0
		36	39	21.89	21.99	22.03	0-1	0
		75	0	21.98	21.92	21.95	0-1	0
	16QAM	1	0	22.06	21.97	21.99	0-1	0
		1	36	22.30	22.18	22.13	0-1	0
		1	74	22.06	22.12	22.24	0-1	0
		36	0	21.45	21.34	21.34	0-2	0
		36	18	21.58	21.45	21.48	0-2	0
		36	39	21.48	21.49	21.57	0-2	0
		75	0	21.53	21.45	21.46	0-2	0
	64QAM	1	0	22.10	21.82	21.92	0-2	0
		1	36	22.15	21.86	22.04	0-2	0
		1	74	21.95	22.05	22.17	0-2	0
		36	0	21.50	21.37	21.36	0-3	0.5
		36	18	21.57	21.47	21.49	0-3	0.5
		36	39	21.42	21.41	21.55	0-3	0.5
		75	0	21.57	21.42	21.47	0-3	0.5

LTE Band 4 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				20175 Ch. 1732.5 ㎒		
20 ㎒	QPSK	1	0	21.60	0	0
		1	49	21.95	0	0
		1	99	21.71	0	0
		50	0	21.79	0-1	0
		50	25	21.98	0-1	0
		50	49	21.91	0-1	0
		100	0	21.91	0-1	0
	16QAM	1	0	21.80	0-1	0
		1	49	22.09	0-1	0
		1	99	21.88	0-1	0
		50	0	21.40	0-2	0
		50	25	21.53	0-2	0
		50	49	21.42	0-2	0
		100	0	21.35	0-2	0
	64QAM	1	0	21.71	0-2	0
		1	49	22.11	0-2	0
		1	99	21.92	0-2	0
		50	0	21.25	0-3	0.5
		50	25	21.47	0-3	0.5
		50	49	21.42	0-3	0.5
		100	0	21.37	0-3	0.5

[LTE Band 7 Conducted Power _ Hotspot activated] Main 2 ANT

LTE Band 7 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20775 Ch. 2502.5 ㎒	21100 Ch. 2535 ㎒	21425 Ch. 2567.5 ㎒		
5 ㎒	QPSK	1	0	22.18	22.02	22.41	0	0
		1	12	21.98	22.01	22.46	0	0
		1	24	22.10	22.01	22.40	0	0
		12	0	21.59	21.57	22.00	0-1	0
		12	6	21.66	21.64	22.05	0-1	0
		12	11	21.64	21.61	21.99	0-1	0
		25	0	21.60	21.58	22.03	0-1	0
	16QAM	1	0	21.84	21.88	22.43	0-1	0
		1	12	21.99	21.87	22.19	0-1	0
		1	24	21.80	21.81	22.11	0-1	0
		12	0	20.67	20.64	21.03	0-2	0.5
		12	6	20.73	20.70	21.11	0-2	0.5
		12	11	20.68	20.67	21.09	0-2	0.5
		25	0	20.70	20.65	21.08	0-2	0.5
	64QAM	1	0	20.90	20.76	21.30	0-2	0.5
		1	12	20.82	20.77	21.14	0-2	0.5
		1	24	20.83	20.74	21.14	0-2	0.5
		12	0	19.72	19.62	20.09	0-3	1.5
		12	6	19.74	19.65	20.17	0-3	1.5
		12	11	19.74	19.71	20.16	0-3	1.5
		25	0	19.67	19.64	20.08	0-3	1.5

LTE Band 7_ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20800 Ch. 2505 ㎒	21100 Ch. 2535 ㎒	21400 Ch. 2565 ㎒		
10 ㎒	QPSK	1	0	22.16	22.03	22.37	0	0
		1	24	22.03	22.07	22.46	0	0
		1	49	21.89	22.06	22.44	0	0
		25	0	21.60	21.65	21.94	0-1	0
		25	12	21.58	21.60	21.98	0-1	0
		25	24	21.57	21.68	22.11	0-1	0
		50	0	21.47	21.56	21.93	0-1	0
	16QAM	1	0	21.98	21.90	22.19	0-1	0
		1	24	22.06	21.67	22.16	0-1	0
		1	49	22.01	21.91	22.30	0-1	0
		25	0	20.67	20.60	21.00	0-2	0.5
		25	12	20.73	20.62	21.02	0-2	0.5
		25	24	20.53	20.62	21.06	0-2	0.5
		50	0	20.52	20.54	20.96	0-2	0.5
	64QAM	1	0	20.82	20.94	21.11	0-2	0.5
		1	24	20.99	20.92	21.26	0-2	0.5
		1	49	21.00	20.83	21.32	0-2	0.5
		25	0	19.71	19.62	20.06	0-3	1.5
		25	12	19.70	19.57	19.99	0-3	1.5
		25	24	19.60	19.61	20.11	0-3	1.5
		50	0	19.56	19.57	19.95	0-3	1.5

LTE Band 7 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20825 Ch. 2507.5 ㎒	21100 Ch. 2535 ㎒	21375 Ch. 2562.5 ㎒		
15 ㎒	QPSK	1	0	21.89	21.89	22.25	0	0
		1	36	22.00	21.74	22.27	0	0
		1	74	21.87	21.79	22.30	0	0
		36	0	21.52	21.44	21.81	0-1	0
		36	18	21.53	21.48	21.88	0-1	0
		36	39	21.46	21.49	21.83	0-1	0
		75	0	21.45	21.48	21.76	0-1	0
	16QAM	1	0	21.67	21.60	22.10	0-1	0
		1	36	21.96	21.68	22.04	0-1	0
		1	74	21.84	21.83	22.17	0-1	0
		36	0	20.59	20.53	20.82	0-2	0.5
		36	18	20.59	20.49	20.83	0-2	0.5
		36	39	20.51	20.47	20.79	0-2	0.5
		75	0	20.51	20.46	20.85	0-2	0.5
	64QAM	1	0	20.77	20.69	20.92	0-2	0.5
		1	36	20.70	20.38	20.90	0-2	0.5
		1	74	20.73	20.70	21.03	0-2	0.5
		36	0	19.57	19.51	19.84	0-3	1.5
		36	18	19.57	19.55	19.89	0-3	1.5
		36	39	19.52	19.52	19.88	0-3	1.5
		75	0	19.44	19.49	19.73	0-3	1.5

LTE Band 7 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20850 Ch. 2510 ㎒	21100 Ch. 2535 ㎒	21350 Ch. 2560 ㎒		
20 ㎒	QPSK	1	0	21.97	21.90	22.25	0	0
		1	49	21.87	21.82	22.31	0	0
		1	99	21.88	21.88	22.26	0	0
		50	0	21.52	21.50	21.76	0-1	0
		50	25	21.56	21.43	21.90	0-1	0
		50	49	21.45	21.39	21.84	0-1	0
		100	0	21.48	21.40	21.69	0-1	0
	16QAM	1	0	21.84	21.69	21.95	0-1	0
		1	49	21.91	21.73	22.11	0-1	0
		1	99	21.76	21.84	21.97	0-1	0
		50	0	20.62	20.52	20.77	0-2	0.5
		50	25	20.52	20.51	20.87	0-2	0.5
		50	49	20.42	20.44	20.84	0-2	0.5
		100	0	20.42	20.46	20.74	0-2	0.5
	64QAM	1	0	20.78	20.67	20.86	0-2	0.5
		1	49	20.65	20.58	20.87	0-2	0.5
		1	99	20.58	20.59	20.95	0-2	0.5
		50	0	19.59	19.49	19.82	0-3	1.5
		50	25	19.55	19.51	19.87	0-3	1.5
		50	49	19.43	19.50	19.88	0-3	1.5
		100	0	19.47	19.41	19.67	0-3	1.5

[LTE Band 25 Conducted Power_ Hotspot activated] Main 2 ANT

LTE Band 25 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26047 Ch. 1850.7 ㎒	26365 Ch. 1882.5 ㎒	26683 Ch. 1914.3 ㎒		
1.4 ㎒	QPSK	1	0	21.93	21.89	21.95	0	0
		1	3	21.94	22.01	21.94	0	0
		1	5	21.93	21.95	21.90	0	0
		3	0	21.93	21.90	21.92	0	0
		3	1	21.97	21.95	21.96	0	0
		3	3	21.90	21.90	21.88	0	0
		6	0	22.05	22.04	22.03	0-1	0
	16QAM	1	0	22.10	22.26	22.22	0-1	0
		1	3	22.32	22.24	22.27	0-1	0
		1	5	22.31	22.30	22.21	0-1	0
		3	0	21.96	22.10	22.04	0-1	0
		3	1	22.02	21.99	22.11	0-1	0
		3	3	22.06	22.00	22.07	0-1	0
		6	0	21.61	21.60	21.64	0-2	0
	64QAM	1	0	22.32	22.34	22.28	0-2	0
		1	3	22.40	22.50	22.40	0-2	0
		1	5	22.15	22.18	22.33	0-2	0
		3	0	22.04	22.04	22.11	0-2	0
		3	1	22.15	22.12	22.13	0-2	0
		3	3	22.05	22.03	22.07	0-2	0
		6	0	21.56	21.54	21.55	0-3	0.5

LTE Band 25 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26055 Ch. 1851.5 ㎒	26365 Ch. 1882.5 ㎒	26675Ch. 1913.5 ㎒		
3 ㎒	QPSK	1	0	22.05	21.96	22.09	0	0
		1	7	22.02	21.98	21.98	0	0
		1	14	22.03	22.07	22.08	0	0
		8	0	22.03	22.13	22.14	0-1	0
		8	3	22.14	22.13	22.23	0-1	0
		8	7	22.13	22.16	22.17	0-1	0
		15	0	22.12	22.12	22.19	0-1	0
	16QAM	1	0	22.28	22.37	22.42	0-1	0
		1	7	22.41	22.30	22.30	0-1	0
		1	14	22.42	22.39	22.54	0-1	0
		8	0	21.68	21.64	21.71	0-2	0
		8	3	21.71	21.67	21.75	0-2	0
		8	7	21.72	21.71	21.69	0-2	0
		15	0	21.68	21.70	21.77	0-2	0
	64QAM	1	0	22.43	22.39	22.51	0-2	0
		1	7	22.44	22.31	22.40	0-2	0
		1	14	22.46	22.55	22.56	0-2	0
		8	0	21.61	21.65	21.64	0-3	0.5
		8	3	21.66	21.66	21.70	0-3	0.5
		8	7	21.68	21.67	21.69	0-3	0.5
		15	0	21.66	21.63	21.64	0-3	0.5

LTE Band 25 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26065 Ch. 1852.5 ㎒	26365 Ch. 1882.5 ㎒	26665 Ch. 1912.5 ㎒		
5 ㎒	QPSK	1	0	22.00	22.03	22.04	0	0
		1	12	21.91	22.04	22.00	0	0
		1	24	22.02	22.10	21.98	0	0
		12	0	22.08	22.13	22.09	0-1	0
		12	6	22.13	22.14	22.09	0-1	0
		12	11	22.15	22.13	22.15	0-1	0
		25	0	22.15	22.09	22.08	0-1	0
	16QAM	1	0	22.34	22.35	22.38	0-1	0
		1	12	22.35	22.37	22.26	0-1	0
		1	24	22.51	22.47	22.41	0-1	0
		12	0	21.66	21.62	21.57	0-2	0
		12	6	21.68	21.73	21.68	0-2	0
		12	11	21.68	21.73	21.75	0-2	0
		25	0	21.62	21.61	21.67	0-2	0
	64QAM	1	0	22.24	22.19	22.35	0-2	0
		1	12	22.38	22.40	22.44	0-2	0
		1	24	22.50	22.43	22.46	0-2	0
		12	0	21.57	21.68	21.56	0-3	0.5
		12	6	21.65	21.70	21.59	0-3	0.5
		12	11	21.69	21.69	21.70	0-3	0.5
		25	0	21.62	21.64	21.57	0-3	0.5

LTE Band 25 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26090 Ch. 1855 ㎒	26365 Ch. 1882.5 ㎒	26640 Ch. 1910 ㎒		
10 ㎒	QPSK	1	0	21.77	21.76	22.08	0	0
		1	24	22.09	22.13	22.18	0	0
		1	49	21.83	21.88	22.15	0	0
		25	0	21.97	22.11	21.89	0-1	0
		25	12	22.06	22.15	22.21	0-1	0
		25	24	22.21	22.07	22.10	0-1	0
		50	0	22.00	21.99	22.10	0-1	0
	16QAM	1	0	22.10	22.03	22.37	0-1	0
		1	24	22.32	22.40	22.14	0-1	0
		1	49	22.22	22.15	22.39	0-1	0
		25	0	21.59	21.56	21.55	0-2	0
		25	12	21.66	21.74	21.77	0-2	0
		25	24	21.66	21.57	21.62	0-2	0
		50	0	21.59	21.59	21.64	0-2	0
	64QAM	1	0	21.99	22.01	22.32	0-2	0
		1	24	22.23	22.31	22.10	0-2	0
		1	49	22.10	22.02	22.31	0-2	0
		25	0	21.56	21.58	21.51	0-3	0.5
		25	12	21.54	21.66	21.74	0-3	0.5
		25	24	21.57	21.71	21.70	0-3	0.5
		50	0	21.48	21.59	21.61	0-3	0.5

LTE Band 25 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26115 Ch. 1857.5 ㎒	26365 Ch. 1882.5 ㎒	26615 Ch. 1907.5 ㎒		
15 ㎒	QPSK	1	0	21.63	21.88	21.99	0	0
		1	36	22.05	21.91	22.04	0	0
		1	74	21.81	21.98	22.04	0	0
		36	0	21.94	21.88	21.90	0-1	0
		36	18	22.09	22.03	21.98	0-1	0
		36	39	22.07	21.96	22.06	0-1	0
		75	0	21.93	21.91	21.97	0-1	0
	16QAM	1	0	22.01	22.34	22.26	0-1	0
		1	36	22.43	22.33	22.22	0-1	0
		1	74	22.17	22.32	22.32	0-1	0
		36	0	21.41	21.43	21.37	0-2	0
		36	18	21.51	21.46	21.47	0-2	0
		36	39	21.55	21.45	21.50	0-2	0
		75	0	21.54	21.42	21.44	0-2	0
	64QAM	1	0	21.88	22.16	22.20	0-2	0
		1	36	22.13	22.03	22.23	0-2	0
		1	74	22.07	22.28	22.20	0-2	0
		36	0	21.38	21.43	21.30	0-3	0.5
		36	18	21.62	21.51	21.45	0-3	0.5
		36	39	21.49	21.53	21.56	0-3	0.5
		75	0	21.54	21.41	21.40	0-3	0.5

LTE Band 25 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26140 Ch. 1860 ㎒	26365 Ch. 1882.5 ㎒	26590 Ch. 1905 ㎒		
20 ㎒	QPSK	1	0	21.93	21.88	21.87	0	0
		1	49	21.85	21.87	21.90	0	0
		1	99	21.97	21.90	21.93	0	0
		50	0	22.01	21.96	21.86	0-1	0
		50	25	22.01	22.05	22.01	0-1	0
		50	49	22.07	21.95	22.02	0-1	0
		100	0	21.94	21.90	21.91	0-1	0
	16QAM	1	0	22.33	22.11	22.20	0-1	0
		1	49	22.14	22.20	22.17	0-1	0
		1	99	22.27	22.29	22.27	0-1	0
		50	0	21.57	21.45	21.44	0-2	0
		50	25	21.55	21.54	21.64	0-2	0
		50	49	21.46	21.53	21.59	0-2	0
		100	0	21.37	21.37	21.46	0-2	0
	64QAM	1	0	22.21	22.36	22.03	0-2	0
		1	49	22.14	22.16	22.21	0-2	0
		1	99	22.10	22.06	22.31	0-2	0
		50	0	21.55	21.37	21.45	0-3	0.5
		50	25	21.56	21.47	21.53	0-3	0.5
		50	49	21.51	21.52	21.46	0-3	0.5
		100	0	21.43	21.42	21.44	0-3	0.5

[LTE Band 30 Conducted Power_ Hotspot activated] Main 2 ANT

LTE Band 30 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				27685 Ch. 2307.5 ㎒	27710 Ch. 2310 ㎒	27735 Ch. 2312.5 ㎒		
5 ㎒	QPSK	1	0	22.17	22.17	22.14	0	0
		1	12	22.16	22.07	21.99	0	0
		1	24	22.04	21.98	21.90	0	0
		12	0	21.67	21.72	21.68	0-1	0
		12	6	21.67	21.63	21.70	0-1	0
		12	11	21.66	21.60	21.62	0-1	0
		25	0	21.61	21.64	21.63	0-1	0
	16QAM	1	0	21.94	21.97	22.01	0-1	0
		1	12	21.91	21.93	21.87	0-1	0
		1	24	21.92	21.81	21.81	0-1	0
		12	0	20.71	20.67	20.68	0-2	0.5
		12	6	20.73	20.70	20.73	0-2	0.5
		12	11	20.69	20.70	20.68	0-2	0.5
		25	0	20.67	20.66	20.69	0-2	0.5
	64QAM	1	0	20.92	20.91	20.97	0-2	0.5
		1	12	20.81	20.86	20.93	0-2	0.5
		1	24	20.74	20.74	20.78	0-2	0.5
		12	0	19.72	19.74	19.73	0-3	1.5
		12	6	19.76	19.75	19.78	0-3	1.5
		12	11	19.73	19.73	19.77	0-3	1.5
		25	0	19.68	19.66	19.70	0-3	1.5

LTE Band 30 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				27710 Ch. 2310 ㎒		
10 ㎒	QPSK	1	0	22.10	0	0
		1	24	22.01	0	0
		1	49	22.05	0	0
		25	0	21.62	0-1	0
		25	12	21.69	0-1	0
		25	24	21.46	0-1	0
		50	0	21.54	0-1	0
	16QAM	1	0	21.90	0-1	0
		1	24	21.96	0-1	0
		1	49	21.89	0-1	0
		25	0	20.67	0-2	0.5
		25	12	20.74	0-2	0.5
		25	24	20.58	0-2	0.5
		50	0	20.60	0-2	0.5
	64QAM	1	0	21.02	0-2	0.5
		1	24	21.00	0-2	0.5
		1	49	20.76	0-2	0.5
		25	0	19.70	0-3	1.5
		25	12	19.61	0-3	1.5
		25	24	19.52	0-3	1.5
		50	0	19.53	0-3	1.5

[LTE Band 66 Conducted Power_ Hotspot activated] Main 2 ANT

LTE Band 66 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				131979Ch. 1710.7 ㎒	132322 Ch. 1745 ㎒	132665 Ch. 1779.3 ㎒		
1.4 ㎒	QPSK	1	0	22.10	22.11	22.03	0	0
		1	3	22.08	22.18	22.10	0	0
		1	5	22.03	22.12	21.95	0	0
		3	0	22.05	22.07	22.01	0	0
		3	1	22.04	22.12	22.06	0	0
		3	3	22.01	22.01	21.95	0	0
		6	0	22.18	22.14	22.05	0-1	0
	16QAM	1	0	22.38	22.45	22.46	0-1	0
		1	3	22.48	22.48	22.44	0-1	0
		1	5	22.31	22.36	22.38	0-1	0
		3	0	22.26	22.26	22.18	0-1	0
		3	1	22.20	22.29	22.10	0-1	0
		3	3	22.18	22.06	22.10	0-1	0
		6	0	21.76	21.77	21.67	0-2	0
	64QAM	1	0	21.77	21.86	21.73	0-2	0
		1	3	21.83	21.85	21.76	0-2	0
		1	5	21.75	21.71	21.80	0-2	0
		3	0	21.89	21.77	21.72	0-2	0
		3	1	21.90	21.86	21.80	0-2	0
		3	3	21.76	21.84	21.83	0-2	0
		6	0	20.74	20.85	20.70	0-3	0.5

LTE Band 66 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				131987 Ch. 1711.5 ㎒	132322 Ch. 1745 ㎒	132657 Ch. 1778.5 ㎒		
3 ㎒	QPSK	1	0	22.17	22.18	22.13	0	0
		1	7	22.15	22.09	22.01	0	0
		1	14	22.08	22.10	22.05	0	0
		8	0	22.27	22.30	22.18	0-1	0
		8	3	22.29	22.30	22.18	0-1	0
		8	7	22.24	22.19	22.10	0-1	0
		15	0	22.23	22.29	22.18	0-1	0
	16QAM	1	0	22.55	22.63	22.45	0-1	0
		1	7	22.48	22.50	22.37	0-1	0
		1	14	22.48	22.50	22.48	0-1	0
		8	0	21.94	21.93	21.78	0-2	0
		8	3	21.86	21.89	21.76	0-2	0
		8	7	21.81	21.75	21.78	0-2	0
		15	0	21.82	21.84	21.74	0-2	0
	64QAM	1	0	21.87	21.98	21.89	0-2	0
		1	7	21.79	21.91	21.86	0-2	0
		1	14	21.91	21.84	21.75	0-2	0
		8	0	20.90	20.94	20.77	0-3	0.5
		8	3	20.87	20.90	20.76	0-3	0.5
		8	7	20.83	20.83	20.78	0-3	0.5
		15	0	20.84	20.87	20.75	0-3	0.5

LTE Band 66 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				131997 Ch. 1712.5 ㎒	132322Ch. 1745 ㎒	132647 Ch. 1777.5 ㎒		
5 ㎒	QPSK	1	0	22.17	22.23	22.06	0	0
		1	12	22.15	22.20	22.11	0	0
		1	24	22.06	22.08	22.09	0	0
		12	0	22.27	22.29	22.24	0-1	0
		12	6	22.28	22.32	22.20	0-1	0
		12	11	22.28	22.27	22.14	0-1	0
		25	0	22.30	22.24	22.22	0-1	0
	16QAM	1	0	22.40	22.48	22.44	0-1	0
		1	12	22.51	22.45	22.44	0-1	0
		1	24	22.50	22.44	22.32	0-1	0
		12	0	21.81	21.83	21.76	0-2	0
		12	6	21.90	21.87	21.84	0-2	0
		12	11	21.83	21.84	21.76	0-2	0
		25	0	21.76	21.83	21.80	0-2	0
	64QAM	1	0	21.94	21.87	21.79	0-2	0
		1	12	21.92	21.90	21.77	0-2	0
		1	24	21.85	21.87	21.71	0-2	0
		12	0	20.88	20.91	20.79	0-3	0.5
		12	6	20.92	20.92	20.92	0-3	0.5
		12	11	20.86	20.85	20.73	0-3	0.5
		25	0	20.88	20.78	20.81	0-3	0.5

LTE Band 66 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132022 Ch. 1715 ㎒	132322 Ch. 1745 ㎒	132622 Ch. 1775 ㎒		
10 ㎒	QPSK	1	0	21.75	21.96	21.84	0	0
		1	24	22.21	22.25	22.09	0	0
		1	49	21.95	22.01	21.76	0	0
		25	0	22.22	22.29	22.15	0-1	0
		25	12	22.23	22.29	22.20	0-1	0
		25	24	22.24	22.19	22.16	0-1	0
		50	0	22.20	22.23	22.18	0-1	0
	16QAM	1	0	22.10	22.31	22.21	0-1	0
		1	24	22.45	22.51	22.32	0-1	0
		1	49	22.35	22.36	22.19	0-1	0
		25	0	21.75	21.80	21.67	0-2	0
		25	12	21.87	21.93	21.85	0-2	0
		25	24	21.73	21.74	21.72	0-2	0
		50	0	21.72	21.73	21.74	0-2	0
	64QAM	1	0	21.64	21.67	21.45	0-2	0
		1	24	22.09	21.93	21.97	0-2	0
		1	49	21.72	21.65	21.81	0-2	0
		25	0	20.81	20.77	20.76	0-3	0.5
		25	12	20.86	20.89	20.83	0-3	0.5
		25	24	20.69	20.73	20.73	0-3	0.5
		50	0	20.80	20.79	20.69	0-3	0.5

LTE Band 66 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132047 Ch. 1717.5 ㎒	132322 Ch. 1745 ㎒	132597 Ch. 1772.5 ㎒		
15 ㎒	QPSK	1	0	21.99	22.01	22.03	0	0
		1	36	22.17	22.06	21.88	0	0
		1	74	22.04	21.94	22.14	0	0
		36	0	22.22	22.12	22.14	0-1	0
		36	18	22.25	22.20	22.16	0-1	0
		36	39	22.19	22.16	22.07	0-1	0
		75	0	22.12	22.18	22.13	0-1	0
	16QAM	1	0	22.29	22.39	22.38	0-1	0
		1	36	22.26	22.41	22.28	0-1	0
		1	74	22.35	22.18	22.20	0-1	0
		36	0	21.59	21.65	21.54	0-2	0
		36	18	21.72	21.67	21.60	0-2	0
		36	39	21.63	21.71	21.55	0-2	0
		75	0	21.63	21.64	21.60	0-2	0
	64QAM	1	0	21.60	21.55	21.71	0-2	0
		1	36	21.72	21.56	21.67	0-2	0
		1	74	21.68	21.68	21.82	0-2	0
		36	0	20.66	20.73	20.66	0-3	0.5
		36	18	20.79	20.72	20.70	0-3	0.5
		36	39	20.69	20.67	20.56	0-3	0.5
		75	0	20.69	20.63	20.59	0-3	0.5

LTE Band 66 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132072 Ch. 1720 ㎒	132322 Ch. 1745 ㎒	132572 Ch. 1770 ㎒		
20 ㎒	QPSK	1	0	21.81	21.85	22.10	0	0
		1	49	22.03	21.99	22.03	0	0
		1	99	21.85	21.86	21.97	0	0
		50	0	22.09	22.12	22.06	0-1	0
		50	25	22.19	22.14	22.10	0-1	0
		50	49	22.17	22.04	22.01	0-1	0
		100	0	22.08	22.01	22.08	0-1	0
	16QAM	1	0	22.07	22.15	22.33	0-1	0
		1	49	22.50	22.43	22.24	0-1	0
		1	99	22.31	22.09	22.29	0-1	0
		50	0	21.60	21.64	21.54	0-2	0
		50	25	21.72	21.71	21.67	0-2	0
		50	49	21.62	21.59	21.56	0-2	0
		100	0	21.60	21.49	21.55	0-2	0
	64QAM	1	0	21.49	21.53	21.80	0-2	0
		1	49	21.78	21.88	21.71	0-2	0
		1	99	21.69	21.40	21.63	0-2	0
		50	0	20.60	20.67	20.63	0-3	0.5
		50	25	20.73	20.70	20.62	0-3	0.5
		50	49	20.62	20.53	20.56	0-3	0.5
		100	0	20.58	20.50	20.57	0-3	0.5

11.4.3 LTE Reduced Conducted Power (Grip Sensor on)

[LTE Band 2 Conducted Power _ Grip Sensor on] Main 2 ANT

LTE Band 2 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18607 Ch. 1850.7 ㎒	18900 Ch. 1880 ㎒	19193 Ch. 1909.3 ㎒		
1.4 ㎒	QPSK	1	0	22.01	22.03	22.04	0	0
		1	3	22.12	22.13	22.06	0	0
		1	5	22.01	22.09	21.99	0	0
		3	0	22.06	22.02	22.04	0	0
		3	1	22.08	22.06	22.01	0	0
		3	3	22.04	21.98	21.93	0	0
		6	0	22.20	22.14	22.05	0-1	0
	16QAM	1	0	22.47	22.46	22.40	0-1	0
		1	3	22.49	22.47	22.52	0-1	0
		1	5	22.39	22.31	22.27	0-1	0
		3	0	22.16	22.15	22.08	0-1	0
		3	1	22.21	22.14	22.12	0-1	0
		3	3	22.21	22.01	22.10	0-1	0
		6	0	21.75	21.71	21.71	0-2	0
	64QAM	1	0	21.90	21.70	21.66	0-2	0
		1	3	21.84	21.82	21.77	0-2	0
		1	5	21.66	21.81	21.71	0-2	0
		3	0	21.69	21.87	21.80	0-2	0
		3	1	21.75	21.89	21.84	0-2	0
		3	3	21.83	21.79	21.67	0-2	0
		6	0	20.70	20.61	20.67	0-3	0.5

LTE Band 2 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18615 Ch. 1851.5 ㎒	18900 Ch. 1880 ㎒	19185 Ch. 1908.5 ㎒		
3 ㎒	QPSK	1	0	22.19	22.12	22.10	0	0
		1	7	22.14	22.09	21.98	0	0
		1	14	22.10	22.02	21.98	0	0
		8	0	22.24	22.23	22.19	0-1	0
		8	3	22.25	22.27	22.22	0-1	0
		8	7	22.23	22.15	22.16	0-1	0
		15	0	22.21	22.20	22.20	0-1	0
	16QAM	1	0	22.57	22.60	22.31	0-1	0
		1	7	22.37	22.42	22.36	0-1	0
		1	14	22.40	22.29	22.22	0-1	0
		8	0	21.75	21.78	21.77	0-2	0
		8	3	21.84	21.82	21.78	0-2	0
		8	7	21.76	21.77	21.72	0-2	0
		15	0	21.73	21.79	21.68	0-2	0
	64QAM	1	0	21.89	21.89	21.85	0-2	0
		1	7	21.85	21.78	21.73	0-2	0
		1	14	21.86	21.80	21.76	0-2	0
		8	0	20.81	20.76	20.74	0-3	0.5
		8	3	20.81	20.78	20.74	0-3	0.5
		8	7	20.83	20.72	20.69	0-3	0.5
		15	0	20.73	20.74	20.73	0-3	0.5

LTE Band 2 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18625 Ch. 1852.5 ㎒	18900 Ch. 1880 ㎒	19175 Ch. 1907.5 ㎒		
5 ㎒	QPSK	1	0	22.05	22.11	21.97	0	0
		1	12	22.14	22.14	22.02	0	0
		1	24	22.08	22.04	21.93	0	0
		12	0	22.20	22.25	22.20	0-1	0
		12	6	22.26	22.26	22.20	0-1	0
		12	11	22.28	22.20	22.15	0-1	0
		25	0	22.26	22.17	22.11	0-1	0
	16QAM	1	0	22.33	22.40	22.34	0-1	0
		1	12	22.55	22.57	22.46	0-1	0
		1	24	22.34	22.39	22.32	0-1	0
		12	0	21.78	21.71	21.71	0-2	0
		12	6	21.83	21.83	21.74	0-2	0
		12	11	21.76	21.78	21.70	0-2	0
		25	0	21.78	21.73	21.65	0-2	0
	64QAM	1	0	21.84	21.80	21.75	0-2	0
		1	12	21.93	21.78	21.94	0-2	0
		1	24	21.71	21.81	21.71	0-2	0
		12	0	20.85	20.77	20.71	0-3	0.5
		12	6	20.84	20.89	20.79	0-3	0.5
		12	11	20.81	20.75	20.77	0-3	0.5
		25	0	20.79	20.71	20.73	0-3	0.5

LTE Band 2 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18650 Ch. 1855 ㎒	18900 Ch. 1880 ㎒	19150 Ch. 1905 ㎒		
10 ㎒	QPSK	1	0	21.77	21.62	22.18	0	0
		1	24	22.11	22.13	22.00	0	0
		1	49	21.96	21.97	22.02	0	0
		25	0	22.20	22.13	22.11	0-1	0
		25	12	22.17	22.21	22.05	0-1	0
		25	24	22.17	22.15	22.09	0-1	0
		50	0	22.12	22.11	22.12	0-1	0
	16QAM	1	0	22.08	22.10	22.49	0-1	0
		1	24	22.48	22.52	22.31	0-1	0
		1	49	22.29	22.23	22.47	0-1	0
		25	0	21.66	21.65	21.67	0-2	0
		25	12	21.85	21.83	21.74	0-2	0
		25	24	21.70	21.65	21.76	0-2	0
		50	0	21.65	21.58	21.58	0-2	0
	64QAM	1	0	21.50	21.41	21.91	0-2	0
		1	24	22.12	22.16	22.02	0-2	0
		1	49	21.71	21.71	21.82	0-2	0
		25	0	20.73	20.69	20.60	0-3	0.5
		25	12	20.71	20.79	20.70	0-3	0.5
		25	24	20.61	20.70	20.60	0-3	0.5
		50	0	20.76	20.63	20.65	0-3	0.5

LTE Band 2 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18675 Ch. 1857.5 ㎒	18900 Ch. 1880 ㎒	19125 Ch. 1902.5 ㎒		
15 ㎒	QPSK	1	0	21.90	22.04	22.02	0	0
		1	36	22.02	22.03	21.96	0	0
		1	74	21.89	21.97	21.99	0	0
		36	0	22.00	21.93	21.88	0-1	0
		36	18	22.15	22.04	21.95	0-1	0
		36	39	22.09	22.08	21.96	0-1	0
		75	0	22.03	22.00	21.89	0-1	0
	16QAM	1	0	22.13	22.29	22.22	0-1	0
		1	36	22.27	22.31	22.12	0-1	0
		1	74	22.28	22.23	22.22	0-1	0
		36	0	21.46	21.44	21.37	0-2	0
		36	18	21.57	21.56	21.51	0-2	0
		36	39	21.57	21.56	21.50	0-2	0
		75	0	21.58	21.48	21.45	0-2	0
	64QAM	1	0	21.56	21.71	21.55	0-2	0
		1	36	21.71	21.51	21.60	0-2	0
		1	74	21.56	21.71	21.64	0-2	0
		36	0	20.53	20.46	20.51	0-3	0.5
		36	18	20.59	20.64	20.59	0-3	0.5
		36	39	20.62	20.57	20.52	0-3	0.5
		75	0	20.57	20.52	20.45	0-3	0.5

LTE Band 2 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18700 Ch. 1860 ㎒	18900 Ch. 1880 ㎒	19100 Ch. 1900 ㎒		
20 ㎒	QPSK	1	0	21.96	21.99	22.01	0	0
		1	49	22.01	21.82	21.87	0	0
		1	99	22.05	21.98	21.81	0	0
		50	0	21.94	21.92	21.87	0-1	0
		50	25	22.07	22.03	22.04	0-1	0
		50	49	22.13	21.97	21.98	0-1	0
		100	0	21.99	21.92	21.90	0-1	0
	16QAM	1	0	22.25	22.36	22.05	0-1	0
		1	49	22.18	22.24	22.20	0-1	0
		1	99	22.26	22.13	22.26	0-1	0
		50	0	21.46	21.46	21.39	0-2	0
		50	25	21.59	21.53	21.54	0-2	0
		50	49	21.53	21.47	21.55	0-2	0
		100	0	21.52	21.36	21.45	0-2	0
	64QAM	1	0	21.61	21.65	21.71	0-2	0
		1	49	21.68	21.68	21.66	0-2	0
		1	99	21.69	21.69	21.64	0-2	0
		50	0	20.53	20.38	20.39	0-3	0.5
		50	25	20.56	20.58	20.55	0-3	0.5
		50	49	20.55	20.49	20.49	0-3	0.5
		100	0	20.45	20.43	20.48	0-3	0.5

[LTE Band 4 Conducted Power _ Grip Sensor on] Main 2 ANT

LTE Band 4 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				19957 Ch. 1710.7 ㎒	20175 Ch. 1732.5 ㎒	20393 Ch. 1754.3 ㎒		
1.4 ㎒	QPSK	1	0	21.86	21.72	21.85	0	0
		1	3	21.90	21.87	21.90	0	0
		1	5	21.85	21.76	21.87	0	0
		3	0	21.87	21.66	21.83	0	0
		3	1	21.92	21.81	21.87	0	0
		3	3	21.86	21.72	21.86	0	0
		6	0	21.94	21.78	21.93	0-1	0
	16QAM	1	0	22.30	22.02	22.12	0-1	0
		1	3	22.38	22.17	22.16	0-1	0
		1	5	22.34	22.10	22.10	0-1	0
		3	0	21.92	21.84	21.99	0-1	0
		3	1	21.92	21.94	22.01	0-1	0
		3	3	21.85	21.87	21.96	0-1	0
		6	0	21.50	21.36	21.47	0-2	0
	64QAM	1	0	21.29	21.35	21.46	0-2	0
		1	3	21.26	21.43	21.50	0-2	0
		1	5	21.19	21.42	21.45	0-2	0
		3	0	21.60	21.29	21.66	0-2	0
		3	1	21.66	21.50	21.70	0-2	0
		3	3	21.58	21.53	21.65	0-2	0
		6	0	20.52	20.33	20.43	0-3	0.5

LTE Band 4 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				19965 Ch. 1711.5 ㎒	20175 Ch. 1732.5 ㎒	20385 Ch. 1753.5 ㎒		
3 ㎒	QPSK	1	0	21.95	21.75	21.89	0	0
		1	7	21.88	21.79	21.87	0	0
		1	14	21.81	21.73	21.84	0	0
		8	0	22.08	21.80	21.99	0-1	0
		8	3	22.05	21.80	22.00	0-1	0
		8	7	21.96	21.82	21.93	0-1	0
		15	0	22.02	21.80	21.99	0-1	0
	16QAM	1	0	22.37	21.76	22.12	0-1	0
		1	7	22.33	21.75	22.09	0-1	0
		1	14	22.24	21.75	22.06	0-1	0
		8	0	21.60	21.42	21.63	0-2	0
		8	3	21.58	21.44	21.63	0-2	0
		8	7	21.52	21.44	21.57	0-2	0
		15	0	21.52	21.33	21.59	0-2	0
	64QAM	1	0	21.65	21.56	21.71	0-2	0
		1	7	21.61	21.62	21.68	0-2	0
		1	14	21.54	21.59	21.67	0-2	0
		8	0	20.58	20.35	20.67	0-3	0.5
		8	3	20.56	20.35	20.70	0-3	0.5
		8	7	20.49	20.34	20.63	0-3	0.5
		15	0	20.54	20.35	20.41	0-3	0.5

LTE Band 4 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				19975 Ch. 1712.5 ㎒	20175 Ch. 1732.5 ㎒	20375 Ch. 1752.5 ㎒		
5 ㎒	QPSK	1	0	21.89	21.73	21.75	0	0
		1	12	21.90	21.71	21.84	0	0
		1	24	21.75	21.64	21.78	0	0
		12	0	21.99	21.81	21.88	0-1	0
		12	6	22.02	21.81	21.92	0-1	0
		12	11	21.88	21.84	21.92	0-1	0
		25	0	21.97	21.79	21.84	0-1	0
	16QAM	1	0	22.05	22.20	21.99	0-1	0
		1	12	22.02	22.19	22.12	0-1	0
		1	24	21.89	22.12	22.04	0-1	0
		12	0	21.51	21.29	21.43	0-2	0
		12	6	21.53	21.30	21.46	0-2	0
		12	11	21.41	21.31	21.44	0-2	0
		25	0	21.47	21.33	21.38	0-2	0
	64QAM	1	0	21.54	21.21	21.60	0-2	0
		1	12	21.65	21.21	21.69	0-2	0
		1	24	21.49	21.06	21.57	0-2	0
		12	0	20.60	20.35	20.40	0-3	0.5
		12	6	20.64	20.39	20.45	0-3	0.5
		12	11	20.49	20.38	20.41	0-3	0.5
		25	0	20.45	20.33	20.43	0-3	0.5

LTE Band 4 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20000 Ch. 1715 ㎒	20175 Ch. 1732.5 ㎒	20350 Ch. 1750 ㎒		
10 ㎒	QPSK	1	0	21.53	21.45	21.55	0	0
		1	24	21.84	21.76	21.88	0	0
		1	49	21.51	21.44	21.56	0	0
		25	0	21.86	21.73	21.76	0-1	0
		25	12	21.93	21.77	21.81	0-1	0
		25	24	21.73	21.74	21.77	0-1	0
		50	0	21.85	21.79	21.71	0-1	0
	16QAM	1	0	21.80	21.90	21.75	0-1	0
		1	24	22.02	22.23	22.06	0-1	0
		1	49	21.73	21.92	21.78	0-1	0
		25	0	21.46	21.20	21.27	0-2	0
		25	12	21.53	21.29	21.38	0-2	0
		25	24	21.28	21.22	21.31	0-2	0
		50	0	21.39	21.29	21.25	0-2	0
	64QAM	1	0	21.26	21.20	21.37	0-2	0
		1	24	21.53	21.49	21.76	0-2	0
		1	49	21.08	21.17	21.43	0-2	0
		25	0	20.44	20.23	20.30	0-3	0.5
		25	12	20.48	20.33	20.39	0-3	0.5
		25	24	20.26	20.27	20.32	0-3	0.5
		50	0	20.39	20.26	20.24	0-3	0.5

LTE Band 4 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20025 Ch. 1717.5 ㎒	20175 Ch. 1732.5 ㎒	20325 Ch. 1747.5 ㎒		
15 ㎒	QPSK	1	0	21.54	21.49	21.44	0	0
		1	36	21.67	21.61	21.58	0	0
		1	74	21.57	21.45	21.47	0	0
		36	0	21.73	21.65	21.61	0-1	0
		36	18	21.79	21.62	21.68	0-1	0
		36	39	21.65	21.65	21.71	0-1	0
		75	0	21.74	21.64	21.66	0-1	0
	16QAM	1	0	21.74	21.55	21.44	0-1	0
		1	36	21.83	21.73	21.64	0-1	0
		1	74	21.71	21.68	21.51	0-1	0
		36	0	21.26	21.14	21.13	0-2	0
		36	18	21.33	21.13	21.20	0-2	0
		36	39	21.19	21.14	21.23	0-2	0
		75	0	21.22	21.16	21.12	0-2	0
	64QAM	1	0	21.37	21.26	21.21	0-2	0
		1	36	21.48	21.37	21.27	0-2	0
		1	74	21.29	21.24	21.08	0-2	0
		36	0	20.25	20.19	20.14	0-3	0.5
		36	18	20.32	20.17	20.18	0-3	0.5
		36	39	20.16	20.19	20.24	0-3	0.5
		75	0	20.24	20.18	20.16	0-3	0.5

LTE Band 4 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				20175 Ch. 1732.5 ㎒		
20 ㎒	QPSK	1	0	21.41	0	0
		1	49	21.60	0	0
		1	99	21.35	0	0
		50	0	21.58	0-1	0
		50	25	21.71	0-1	0
		50	49	21.62	0-1	0
		100	0	21.63	0-1	0
	16QAM	1	0	21.87	0-1	0
		1	49	21.90	0-1	0
		1	99	21.82	0-1	0
		50	0	21.12	0-2	0
		50	25	21.21	0-2	0
		50	49	21.10	0-2	0
		100	0	21.12	0-2	0
	64QAM	1	0	21.23	0-2	0
		1	49	21.44	0-2	0
		1	99	21.18	0-2	0
		50	0	20.14	0-3	0.5
		50	25	20.22	0-3	0.5
		50	49	20.15	0-3	0.5
		100	0	20.14	0-3	0.5

[LTE Band 7 Conducted Power _ Grip Sensor on] Main 2 ANT

LTE Band 7 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20775 Ch. 2502.5 ㎒	21100 Ch. 2535 ㎒	21425 Ch. 2567.5 ㎒		
5 ㎒	QPSK	1	0	21.95	21.89	22.24	0	0
		1	12	21.98	21.88	22.19	0	0
		1	24	22.00	21.92	22.21	0	0
		12	0	21.52	21.39	21.81	0-1	0
		12	6	21.55	21.49	21.83	0-1	0
		12	11	21.52	21.46	21.81	0-1	0
		25	0	21.53	21.46	21.84	0-1	0
	16QAM	1	0	21.97	21.65	22.20	0-1	0
		1	12	21.94	21.66	22.25	0-1	0
		1	24	21.98	21.72	22.30	0-1	0
		12	0	20.56	20.38	20.81	0-2	0.5
		12	6	20.61	20.42	20.87	0-2	0.5
		12	11	20.59	20.42	20.83	0-2	0.5
		25	0	20.55	20.42	20.88	0-2	0.5
	64QAM	1	0	20.79	20.62	20.86	0-2	0.5
		1	12	20.74	20.63	20.89	0-2	0.5
		1	24	20.60	20.66	20.91	0-2	0.5
		12	0	19.56	19.46	19.87	0-3	1.5
		12	6	19.63	19.51	19.93	0-3	1.5
		12	11	19.61	19.49	19.93	0-3	1.5
		25	0	19.60	19.44	19.88	0-3	1.5

LTE Band 7_ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20800 Ch. 2505 ㎒	21100 Ch. 2535 ㎒	21400 Ch. 2565 ㎒		
10 ㎒	QPSK	1	0	21.96	21.93	22.22	0	0
		1	24	21.95	21.93	22.26	0	0
		1	49	21.85	22.02	22.22	0	0
		25	0	21.48	21.42	21.78	0-1	0
		25	12	21.50	21.45	21.75	0-1	0
		25	24	21.41	21.44	21.83	0-1	0
		50	0	21.37	21.41	21.71	0-1	0
	16QAM	1	0	21.83	21.57	22.20	0-1	0
		1	24	21.82	21.50	22.23	0-1	0
		1	49	21.78	21.63	22.27	0-1	0
		25	0	20.49	20.50	20.77	0-2	0.5
		25	12	20.51	20.57	20.81	0-2	0.5
		25	24	20.40	20.51	20.83	0-2	0.5
		50	0	20.39	20.43	20.74	0-2	0.5
	64QAM	1	0	20.85	20.79	20.96	0-2	0.5
		1	24	20.85	20.77	21.04	0-2	0.5
		1	49	20.77	20.84	21.06	0-2	0.5
		25	0	19.51	19.42	19.82	0-3	1.5
		25	12	19.54	19.45	19.84	0-3	1.5
		25	24	19.45	19.45	19.87	0-3	1.5
		50	0	19.37	19.45	19.73	0-3	1.5

LTE Band 7 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20825 Ch. 2507.5 ㎒	21100 Ch. 2535 ㎒	21375 Ch. 2562.5 ㎒		
15 ㎒	QPSK	1	0	21.69	21.66	22.05	0	0
		1	36	21.65	21.66	22.10	0	0
		1	74	21.67	21.80	22.13	0	0
		36	0	21.38	21.33	21.60	0-1	0
		36	18	21.31	21.36	21.62	0-1	0
		36	39	21.32	21.36	21.69	0-1	0
		75	0	21.25	21.32	21.55	0-1	0
	16QAM	1	0	21.44	21.74	21.71	0-1	0
		1	36	21.46	21.75	21.82	0-1	0
		1	74	21.49	21.81	21.88	0-1	0
		36	0	20.40	20.29	20.58	0-2	0.5
		36	18	20.32	20.35	20.60	0-2	0.5
		36	39	20.31	20.35	20.65	0-2	0.5
		75	0	20.25	20.31	20.58	0-2	0.5
	64QAM	1	0	20.36	20.49	20.78	0-2	0.5
		1	36	20.35	20.30	20.86	0-2	0.5
		1	74	20.32	20.26	20.90	0-2	0.5
		36	0	19.37	19.41	19.63	0-3	1.5
		36	18	19.32	19.43	19.67	0-3	1.5
		36	39	19.32	19.43	19.73	0-3	1.5
		75	0	19.28	19.33	19.58	0-3	1.5

LTE Band 7 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20850 Ch. 2510 ㎒	21100 Ch. 2535 ㎒	21350 Ch. 2560 ㎒		
20 ㎒	QPSK	1	0	21.73	21.75	21.92	0	0
		1	49	21.72	21.67	22.03	0	0
		1	99	21.74	21.84	22.08	0	0
		50	0	21.39	21.32	21.56	0-1	0
		50	25	21.40	21.35	21.67	0-1	0
		50	49	21.29	21.40	21.67	0-1	0
		100	0	21.28	21.27	21.49	0-1	0
	16QAM	1	0	21.79	21.66	21.72	0-1	0
		1	49	21.77	21.66	21.84	0-1	0
		1	99	21.62	21.80	21.92	0-1	0
		50	0	20.39	20.32	20.59	0-2	0.5
		50	25	20.42	20.34	20.73	0-2	0.5
		50	49	20.29	20.36	20.75	0-2	0.5
		100	0	20.31	20.31	20.52	0-2	0.5
	64QAM	1	0	20.44	20.62	20.52	0-2	0.5
		1	49	20.43	20.62	20.71	0-2	0.5
		1	99	20.37	20.77	20.73	0-2	0.5
		50	0	19.39	19.30	19.57	0-3	1.5
		50	25	19.39	19.35	19.72	0-3	1.5
		50	49	19.29	19.34	19.69	0-3	1.5
		100	0	19.34	19.29	19.55	0-3	1.5

[LTE Band 25 Conducted Power _ Grip Sensor on] Main 2 ANT

LTE Band 25 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26047 Ch. 1850.7 ㎒	26365 Ch. 1882.5 ㎒	26683 Ch. 1914.3 ㎒		
1.4 ㎒	QPSK	1	0	21.69	21.81	21.69	0	0
		1	3	21.84	21.88	21.79	0	0
		1	5	21.78	21.84	21.71	0	0
		3	0	21.74	21.74	21.72	0	0
		3	1	21.79	21.81	21.78	0	0
		3	3	21.75	21.76	21.73	0	0
		6	0	21.86	21.87	21.84	0-1	0
	16QAM	1	0	22.17	22.11	22.03	0-1	0
		1	3	22.29	22.25	22.09	0-1	0
		1	5	22.24	22.20	22.03	0-1	0
		3	0	21.84	21.83	21.92	0-1	0
		3	1	21.86	21.89	21.94	0-1	0
		3	3	21.83	21.85	21.92	0-1	0
		6	0	21.43	21.55	21.46	0-2	0
	64QAM	1	0	21.35	21.67	21.43	0-2	0
		1	3	21.42	21.71	21.48	0-2	0
		1	5	21.47	21.69	21.44	0-2	0
		3	0	21.68	21.61	21.33	0-2	0
		3	1	21.71	21.63	21.35	0-2	0
		3	3	21.67	21.62	21.28	0-2	0
		6	0	20.39	20.40	20.38	0-3	0.5

LTE Band 25 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26055 Ch. 1851.5 ㎒	26365 Ch. 1882.5 ㎒	26675Ch. 1913.5 ㎒		
3 ㎒	QPSK	1	0	21.81	21.73	21.89	0	0
		1	7	21.81	21.76	21.86	0	0
		1	14	21.80	21.80	21.93	0	0
		8	0	21.98	21.90	21.94	0-1	0
		8	3	21.98	21.93	21.99	0-1	0
		8	7	21.97	21.96	21.96	0-1	0
		15	0	22.01	21.98	21.99	0-1	0
	16QAM	1	0	22.24	21.90	22.07	0-1	0
		1	7	22.25	21.87	22.09	0-1	0
		1	14	22.19	22.01	22.13	0-1	0
		8	0	21.57	21.49	21.59	0-2	0
		8	3	21.61	21.49	21.65	0-2	0
		8	7	21.59	21.47	21.61	0-2	0
		15	0	21.53	21.42	21.63	0-2	0
	64QAM	1	0	21.64	21.47	21.75	0-2	0
		1	7	21.63	21.43	21.74	0-2	0
		1	14	21.67	21.50	21.79	0-2	0
		8	0	20.56	20.50	20.49	0-3	0.5
		8	3	20.61	20.57	20.54	0-3	0.5
		8	7	20.70	20.55	20.51	0-3	0.5
		15	0	20.48	20.50	20.53	0-3	0.5

LTE Band 25 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26065 Ch. 1852.5 ㎒	26365 Ch. 1882.5 ㎒	26665 Ch. 1912.5 ㎒		
5 ㎒	QPSK	1	0	21.93	21.82	21.81	0	0
		1	12	21.94	21.84	21.85	0	0
		1	24	22.00	21.90	21.87	0	0
		12	0	22.01	21.97	21.93	0-1	0
		12	6	22.05	21.99	21.97	0-1	0
		12	11	22.05	21.98	22.05	0-1	0
		25	0	22.01	21.97	21.91	0-1	0
	16QAM	1	0	22.17	22.21	22.23	0-1	0
		1	12	22.17	22.25	22.24	0-1	0
		1	24	22.22	22.29	22.33	0-1	0
		12	0	21.55	21.47	21.48	0-2	0
		12	6	21.57	21.51	21.54	0-2	0
		12	11	21.59	21.52	21.59	0-2	0
		25	0	21.47	21.56	21.48	0-2	0
	64QAM	1	0	21.72	21.48	21.78	0-2	0
		1	12	21.77	21.52	21.82	0-2	0
		1	24	21.74	21.57	21.77	0-2	0
		12	0	20.63	20.54	20.49	0-3	0.5
		12	6	20.67	20.57	20.55	0-3	0.5
		12	11	20.65	20.56	20.64	0-3	0.5
		25	0	20.56	20.58	20.52	0-3	0.5

LTE Band 25 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26090 Ch. 1855 ㎒	26365 Ch. 1882.5 ㎒	26640 Ch. 1910 ㎒		
10 ㎒	QPSK	1	0	21.70	21.61	21.93	0	0
		1	24	21.94	21.80	21.91	0	0
		1	49	21.71	21.59	21.90	0	0
		25	0	21.97	21.92	21.87	0-1	0
		25	12	22.05	22.01	22.04	0-1	0
		25	24	21.99	21.94	22.01	0-1	0
		50	0	22.00	21.94	21.97	0-1	0
	16QAM	1	0	21.98	22.09	22.33	0-1	0
		1	24	22.21	22.17	22.27	0-1	0
		1	49	22.03	22.05	22.30	0-1	0
		25	0	21.49	21.43	21.38	0-2	0
		25	12	21.60	21.51	21.58	0-2	0
		25	24	21.53	21.45	21.51	0-2	0
		50	0	21.56	21.48	21.49	0-2	0
	64QAM	1	0	21.43	21.41	21.79	0-2	0
		1	24	21.67	21.64	21.88	0-2	0
		1	49	21.47	21.41	21.86	0-2	0
		25	0	20.51	20.47	20.41	0-3	0.5
		25	12	20.61	20.59	20.57	0-3	0.5
		25	24	20.52	20.51	20.52	0-3	0.5
		50	0	20.53	20.43	20.45	0-3	0.5

LTE Band 25 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26115 Ch. 1857.5 ㎒	26365 Ch. 1882.5 ㎒	26615 Ch. 1907.5 ㎒		
15 ㎒	QPSK	1	0	21.71	21.90	21.73	0	0
		1	36	21.92	21.85	21.71	0	0
		1	74	21.78	21.84	21.67	0	0
		36	0	21.87	21.85	21.77	0-1	0
		36	18	21.96	21.93	21.87	0-1	0
		36	39	21.92	21.87	21.92	0-1	0
		75	0	21.91	21.84	21.81	0-1	0
	16QAM	1	0	21.90	22.12	21.96	0-1	0
		1	36	22.08	22.08	21.97	0-1	0
		1	74	21.94	22.05	21.99	0-1	0
		36	0	21.41	21.28	21.25	0-2	0
		36	18	21.51	21.40	21.35	0-2	0
		36	39	21.44	21.37	21.42	0-2	0
		75	0	21.44	21.37	21.32	0-2	0
	64QAM	1	0	21.54	21.68	21.40	0-2	0
		1	36	21.75	21.62	21.45	0-2	0
		1	74	21.62	21.64	21.44	0-2	0
		36	0	20.46	20.37	20.28	0-3	0.5
		36	18	20.52	20.47	20.40	0-3	0.5
		36	39	20.48	20.43	20.43	0-3	0.5
		75	0	20.42	20.38	20.35	0-3	0.5

LTE Band 25 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26140 Ch. 1860 ㎒	26365 Ch. 1882.5 ㎒	26590 Ch. 1905 ㎒		
20 ㎒	QPSK	1	0	21.99	21.90	21.85	0	0
		1	49	21.89	21.80	21.79	0	0
		1	99	21.79	21.80	21.78	0	0
		50	0	22.00	21.94	21.86	0-1	0
		50	25	21.97	21.95	21.94	0-1	0
		50	49	21.92	21.88	21.86	0-1	0
		100	0	21.85	21.84	21.83	0-1	0
	16QAM	1	0	22.48	22.15	22.32	0-1	0
		1	49	22.37	22.12	22.25	0-1	0
		1	99	22.28	22.11	22.26	0-1	0
		50	0	21.49	21.48	21.40	0-2	0
		50	25	21.50	21.47	21.47	0-2	0
		50	49	21.42	21.41	21.45	0-2	0
		100	0	21.38	21.36	21.39	0-2	0
	64QAM	1	0	21.39	21.53	21.45	0-2	0
		1	49	21.34	21.45	21.47	0-2	0
		1	99	21.26	21.47	21.43	0-2	0
		50	0	20.59	20.46	20.41	0-3	0.5
		50	25	20.59	20.46	20.46	0-3	0.5
		50	49	20.50	20.42	20.43	0-3	0.5
		100	0	20.40	20.33	20.39	0-3	0.5

[LTE Band 30 Conducted Power _ Grip Sensor on] Main 2 ANT

LTE Band 30 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				27685 Ch. 2307.5 ㎒	27710 Ch. 2310 ㎒	27735 Ch. 2312.5 ㎒		
5 ㎒	QPSK	1	0	21.97	22.13	21.94	0	0
		1	12	21.96	22.01	21.93	0	0
		1	24	21.87	21.97	21.81	0	0
		12	0	21.60	21.60	21.56	0-1	0
		12	6	21.57	21.60	21.60	0-1	0
		12	11	21.53	21.55	21.55	0-1	0
		25	0	21.56	21.55	21.56	0-1	0
	16QAM	1	0	21.96	21.62	21.90	0-1	0
		1	12	21.94	21.53	21.79	0-1	0
		1	24	21.90	21.49	21.61	0-1	0
		12	0	20.60	20.66	20.66	0-2	0.5
		12	6	20.59	20.66	20.71	0-2	0.5
		12	11	20.57	20.62	20.66	0-2	0.5
		25	0	20.54	20.56	20.65	0-2	0.5
	64QAM	1	0	20.78	20.96	20.90	0-2	0.5
		1	12	20.76	20.93	20.85	0-2	0.5
		1	24	20.72	20.81	20.76	0-2	0.5
		12	0	19.66	19.73	19.70	0-3	1.5
		12	6	19.65	19.73	19.76	0-3	1.5
		12	11	19.58	19.68	19.68	0-3	1.5
		25	0	19.60	19.51	19.63	0-3	1.5

LTE Band 30 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				27710 Ch. 2310 ㎒		
10 ㎒	QPSK	1	0	22.08	0	0
		1	24	22.04	0	0
		1	49	21.96	0	0
		25	0	21.56	0-1	0
		25	12	21.51	0-1	0
		25	24	21.44	0-1	0
		50	0	21.48	0-1	0
	16QAM	1	0	21.72	0-1	0
		1	24	21.62	0-1	0
		1	49	21.58	0-1	0
		25	0	20.62	0-2	0.5
		25	12	20.60	0-2	0.5
		25	24	20.45	0-2	0.5
		50	0	20.45	0-2	0.5
	64QAM	1	0	20.81	0-2	0.5
		1	24	20.86	0-2	0.5
		1	49	20.71	0-2	0.5
		25	0	19.58	0-3	1.5
		25	12	19.54	0-3	1.5
		25	24	19.47	0-3	1.5
		50	0	19.49	0-3	1.5

[LTE Band 66 Conducted Power _ Grip Sensor on] Main 2 ANT

LTE Band 66 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				131979Ch. 1710.7 ㎒	132322 Ch. 1745 ㎒	132665 Ch. 1779.3 ㎒		
1.4 ㎒	QPSK	1	0	21.94	21.93	22.01	0	0
		1	3	21.95	21.99	22.06	0	0
		1	5	21.90	21.93	21.95	0	0
		3	0	21.98	21.96	22.00	0	0
		3	1	22.04	22.02	22.05	0	0
		3	3	21.95	21.95	21.93	0	0
		6	0	22.12	22.05	22.06	0-1	0
	16QAM	1	0	22.23	22.41	22.26	0-1	0
		1	3	22.26	22.45	22.26	0-1	0
		1	5	22.18	22.41	22.20	0-1	0
		3	0	21.99	22.00	22.15	0-1	0
		3	1	22.03	22.03	22.19	0-1	0
		3	3	21.99	21.96	22.09	0-1	0
		6	0	21.67	21.64	21.78	0-2	0
	64QAM	1	0	21.60	21.41	21.82	0-2	0
		1	3	21.67	21.43	21.85	0-2	0
		1	5	21.69	21.35	21.77	0-2	0
		3	0	21.70	21.76	21.77	0-2	0
		3	1	21.75	21.80	21.84	0-2	0
		3	3	21.67	21.71	21.75	0-2	0
		6	0	20.83	20.65	20.59	0-3	0.5

LTE Band 66 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				131987 Ch. 1711.5 ㎒	132322 Ch. 1745 ㎒	132657 Ch. 1778.5 ㎒		
3 ㎒	QPSK	1	0	22.11	22.05	22.17	0	0
		1	7	21.97	22.01	22.09	0	0
		1	14	22.03	21.97	22.06	0	0
		8	0	22.17	22.23	22.18	0-1	0
		8	3	22.23	22.23	22.19	0-1	0
		8	7	22.13	22.15	22.09	0-1	0
		15	0	22.20	22.20	22.16	0-1	0
	16QAM	1	0	22.42	22.45	22.38	0-1	0
		1	7	22.37	22.47	22.33	0-1	0
		1	14	22.27	22.32	22.26	0-1	0
		8	0	21.79	21.78	21.66	0-2	0
		8	3	21.80	21.79	21.66	0-2	0
		8	7	21.72	21.73	21.60	0-2	0
		15	0	21.73	21.73	21.70	0-2	0
	64QAM	1	0	21.79	21.87	21.83	0-2	0
		1	7	21.71	21.78	21.81	0-2	0
		1	14	21.67	21.71	21.91	0-2	0
		8	0	20.71	20.75	20.82	0-3	0.5
		8	3	20.72	20.77	20.83	0-3	0.5
		8	7	20.72	20.70	20.76	0-3	0.5
		15	0	20.77	20.78	20.77	0-3	0.5

LTE Band 66 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				131997 Ch. 1712.5 ㎒	132322Ch. 1745 ㎒	132647 Ch. 1777.5 ㎒		
5 ㎒	QPSK	1	0	22.08	22.08	22.04	0	0
		1	12	22.09	22.11	21.97	0	0
		1	24	22.03	21.99	21.85	0	0
		12	0	22.21	22.22	22.19	0-1	0
		12	6	22.21	22.22	22.18	0-1	0
		12	11	22.13	22.14	22.11	0-1	0
		25	0	22.18	22.16	22.16	0-1	0
	16QAM	1	0	22.35	22.29	22.11	0-1	0
		1	12	22.31	22.27	22.06	0-1	0
		1	24	22.23	22.20	21.98	0-1	0
		12	0	21.83	21.75	21.77	0-2	0
		12	6	21.84	21.76	21.78	0-2	0
		12	11	21.76	21.66	21.70	0-2	0
		25	0	21.80	21.71	21.68	0-2	0
	64QAM	1	0	21.95	21.82	21.95	0-2	0
		1	12	21.95	21.91	21.94	0-2	0
		1	24	21.89	21.80	21.84	0-2	0
		12	0	20.88	20.84	20.82	0-3	0.5
		12	6	20.87	20.84	20.86	0-3	0.5
		12	11	20.82	20.76	20.72	0-3	0.5
		25	0	20.77	20.70	20.70	0-3	0.5

LTE Band 66 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132022 Ch. 1715 ㎒	132322 Ch. 1745 ㎒	132622 Ch. 1775 ㎒		
10 ㎒	QPSK	1	0	21.85	21.82	21.82	0	0
		1	24	22.14	22.11	22.07	0	0
		1	49	21.90	21.84	21.82	0	0
		25	0	22.12	22.14	22.12	0-1	0
		25	12	22.19	22.17	22.14	0-1	0
		25	24	22.10	22.07	22.05	0-1	0
		50	0	22.14	22.10	22.10	0-1	0
	16QAM	1	0	22.14	22.06	22.29	0-1	0
		1	24	22.46	22.26	22.46	0-1	0
		1	49	22.39	22.05	22.30	0-1	0
		25	0	21.73	21.75	21.71	0-2	0
		25	12	21.78	21.79	21.78	0-2	0
		25	24	21.66	21.69	21.65	0-2	0
		50	0	21.67	21.67	21.68	0-2	0
	64QAM	1	0	21.73	21.50	21.27	0-2	0
		1	24	21.96	21.75	21.46	0-2	0
		1	49	21.74	21.46	21.27	0-2	0
		25	0	20.77	20.72	20.72	0-3	0.5
		25	12	20.82	20.78	20.77	0-3	0.5
		25	24	20.72	20.63	20.65	0-3	0.5
		50	0	20.67	20.65	20.71	0-3	0.5

LTE Band 66 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132047 Ch. 1717.5 ㎒	132322 Ch. 1745 ㎒	132597 Ch. 1772.5 ㎒		
15 ㎒	QPSK	1	0	21.96	21.88	22.02	0	0
		1	36	22.02	21.95	21.87	0	0
		1	74	21.90	21.79	21.93	0	0
		36	0	22.10	22.11	22.54	0-1	0
		36	18	22.09	22.08	22.54	0-1	0
		36	39	22.03	22.01	22.45	0-1	0
		75	0	22.07	22.05	21.95	0-1	0
	16QAM	1	0	22.19	22.35	22.44	0-1	0
		1	36	22.26	22.42	22.34	0-1	0
		1	74	22.15	22.24	22.30	0-1	0
		36	0	21.57	21.57	21.54	0-2	0
		36	18	21.61	21.60	21.57	0-2	0
		36	39	21.56	21.50	21.46	0-2	0
		75	0	21.61	21.56	21.55	0-2	0
	64QAM	1	0	21.84	21.62	21.95	0-2	0
		1	36	21.88	21.66	21.83	0-2	0
		1	74	21.75	21.47	21.75	0-2	0
		36	0	20.61	20.63	20.58	0-3	0.5
		36	18	20.63	20.62	20.59	0-3	0.5
		36	39	20.58	20.54	20.46	0-3	0.5
		75	0	20.58	20.56	20.52	0-3	0.5

LTE Band 66 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132072 Ch. 1720 ㎒	132322 Ch. 1745 ㎒	132572 Ch. 1770 ㎒		
20 ㎒	QPSK	1	0	21.79	21.80	22.01	0	0
		1	49	22.01	22.01	21.86	0	0
		1	99	21.78	21.71	21.79	0	0
		50	0	22.03	22.03	22.06	0-1	0
		50	25	22.08	22.06	22.07	0-1	0
		50	49	22.02	21.87	21.99	0-1	0
		100	0	22.04	21.93	21.99	0-1	0
	16QAM	1	0	21.96	21.97	22.08	0-1	0
		1	49	22.22	22.21	21.98	0-1	0
		1	99	21.97	21.87	21.91	0-1	0
		50	0	21.55	21.52	21.56	0-2	0
		50	25	21.63	21.55	21.56	0-2	0
		50	49	21.49	21.36	21.43	0-2	0
		100	0	21.53	21.41	21.52	0-2	0
	64QAM	1	0	21.55	21.53	21.64	0-2	0
		1	49	21.88	21.77	21.55	0-2	0
		1	99	21.61	21.41	21.41	0-2	0
		50	0	20.59	20.58	20.55	0-3	0.5
		50	25	20.65	20.63	20.62	0-3	0.5
		50	49	20.54	20.43	20.48	0-3	0.5
		100	0	20.56	20.44	20.53	0-3	0.5

11.4.4 LTE Reduced Conducted Power (Receiver ON)

[LTE TDD Band 48 Conducted Power_Receiver ON] Sub 3 ANT

LTE Band 48 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]				MPR Allowed Per 3GPP [dB]	MPR [dB]
				55265 Ch. 3552.5 ㎒	55748 Ch. 3600.8 ㎒	56232 Ch. 3649.2 ㎒	56715 Ch. 3697.5 ㎒		
5 ㎒	QPSK	1	0	18.32	18.29	18.74	19.25	0	0
		1	12	18.31	18.47	18.92	19.36	0	0
		1	24	18.28	18.43	18.95	19.41	0	0
		12	0	18.37	18.50	18.95	19.44	0-1	0
		12	6	18.39	18.63	19.04	19.54	0-1	0
		12	11	18.42	18.57	19.09	19.54	0-1	0
		25	0	18.42	18.56	19.00	19.47	0-1	0
	16QAM	1	0	18.36	18.50	18.94	19.50	0-1	0
		1	12	18.51	18.67	19.19	19.64	0-1	0
		1	24	18.48	18.70	19.21	19.59	0-1	0
		12	0	18.29	18.47	18.92	19.44	0-2	0
		12	6	18.40	18.59	19.02	19.51	0-2	0
		12	11	18.37	18.59	19.08	19.52	0-2	0
		25	0	18.37	18.57	19.00	19.56	0-2	0
	64QAM	1	0	17.94	18.07	18.52	19.08	0-2	0
		1	12	18.06	18.28	18.73	19.18	0-2	0
		1	24	18.08	18.25	18.74	19.19	0-2	0
		12	0	17.88	18.04	18.50	19.05	0-3	0
		12	6	17.96	18.15	18.62	19.12	0-3	0
		12	11	17.97	18.15	18.67	19.13	0-3	0
		25	0	17.91	18.15	18.55	19.10	0-3	0

LTE Band 48 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]				MPR Allowed Per 3GPP [dB]	MPR [dB]
				55290Ch. 3555 ㎒	55757 Ch. 3601.7 ㎒	56223 Ch. 3648.3 ㎒	56690 Ch. 3695 ㎒		
10 ㎒	QPSK	1	0	18.26	18.41	18.92	19.49	0	0
		1	24	18.21	18.41	18.97	19.51	0	0
		1	49	18.30	18.47	19.04	19.51	0	0
		25	0	18.21	18.35	18.84	19.32	0-1	0
		25	12	18.38	18.57	18.98	19.45	0-1	0
		25	24	18.31	18.51	19.00	19.45	0-1	0
		50	0	18.31	18.49	18.90	19.37	0-1	0
	16QAM	1	0	18.43	18.61	19.05	19.57	0-1	0
		1	24	18.38	18.59	19.06	19.55	0-1	0
		1	49	18.49	18.65	19.15	19.61	0-1	0
		25	0	18.22	18.35	18.83	19.30	0-2	0
		25	12	18.38	18.60	19.02	19.47	0-2	0
		25	24	18.35	18.58	19.08	19.50	0-2	0
		50	0	18.33	18.53	18.95	19.42	0-2	0
	64QAM	1	0	18.11	18.23	18.68	19.22	0-2	0
		1	24	18.10	18.29	18.77	19.28	0-2	0
		1	49	18.12	18.35	18.82	19.29	0-2	0
		25	0	17.81	17.94	18.41	18.90	0-3	0
		25	12	17.94	18.15	18.57	19.06	0-3	0
		25	24	17.90	18.13	18.59	19.06	0-3	0
		50	0	17.81	18.07	18.45	18.91	0-3	0

LTE Band 48 _ 15 ㎒ Bandwidth

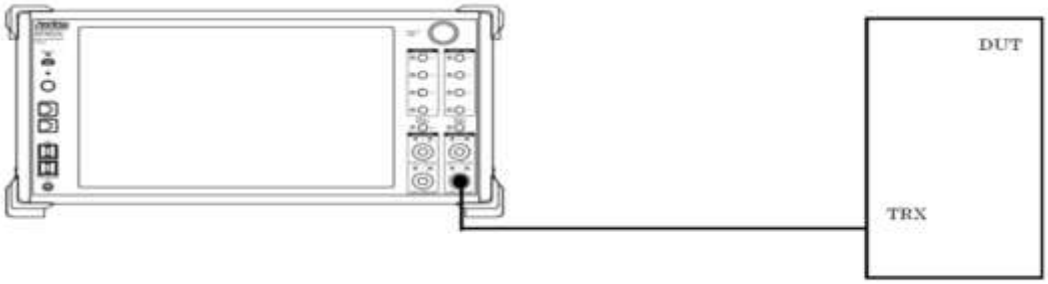
Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]				MPR Allowed Per 3GPP [dB]	MPR [dB]
				55315Ch. 3557.5 ㎒	55765 Ch. 3602.5 ㎒	56215 Ch. 3647.5 ㎒	56665 Ch. 3692.5 ㎒		
15 ㎒	QPSK	1	0	18.13	18.30	18.72	19.11	0	0
		1	36	18.14	18.21	18.74	19.24	0	0
		1	74	18.18	18.28	18.84	19.25	0	0
		36	0	18.11	18.34	18.72	19.22	0-1	0
		36	18	18.28	18.44	18.82	19.29	0-1	0
		36	39	18.25	18.37	18.91	19.29	0-1	0
		75	0	18.21	18.38	18.77	19.21	0-1	0
	16QAM	1	0	18.31	18.44	18.93	19.40	0-1	0
		1	36	18.27	18.41	18.93	19.36	0-1	0
		1	74	18.36	18.47	19.05	19.45	0-1	0
		36	0	18.06	18.36	18.69	19.21	0-2	0
		36	18	18.22	18.41	18.83	19.24	0-2	0
		36	39	18.16	18.36	18.87	19.28	0-2	0
		75	0	18.21	18.44	18.80	19.26	0-2	0
	64QAM	1	0	17.81	17.96	18.45	18.90	0-2	0
		1	36	17.87	18.03	18.56	18.99	0-2	0
		1	74	17.90	18.06	18.61	19.01	0-2	0
		36	0	17.58	17.84	18.23	18.74	0-3	0
		36	18	17.74	17.90	18.33	18.77	0-3	0
		36	39	17.70	17.85	18.36	18.80	0-3	0
		75	0	17.73	17.90	18.30	18.77	0-3	0

LTE Band 48 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced 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	18.15	18.20	18.65	19.11	0	0
		1	49	18.14	18.24	18.77	19.20	0	0
		1	99	18.23	18.33	18.93	19.15	0	0
		50	0	18.08	18.31	18.65	19.11	0-1	0
		50	25	18.27	18.44	18.79	19.26	0-1	0
		50	49	18.21	18.31	18.87	19.25	0-1	0
		100	0	18.19	18.36	18.72	19.21	0-1	0
	16QAM	1	0	18.29	18.39	18.85	19.29	0-1	0
		1	49	18.31	18.45	18.93	19.35	0-1	0
		1	99	18.42	18.51	19.09	19.40	0-1	0
		50	0	18.05	18.33	18.68	19.26	0-2	0
		50	25	18.27	18.47	18.83	19.30	0-2	0
		50	49	18.23	18.35	18.89	19.34	0-2	0
		100	0	18.19	18.40	18.75	19.20	0-2	0
	64QAM	1	0	17.83	17.90	18.40	18.86	0-2	0
		1	49	17.91	18.02	18.54	18.88	0-2	0
		1	99	17.96	18.10	18.65	19.02	0-2	0
		50	0	17.55	17.84	18.20	18.70	0-3	0
		50	25	17.81	17.99	18.38	18.81	0-3	0
		50	49	17.71	17.85	18.39	18.84	0-3	0
		100	0	17.70	17.87	18.27	18.72	0-3	0

11.4.6 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

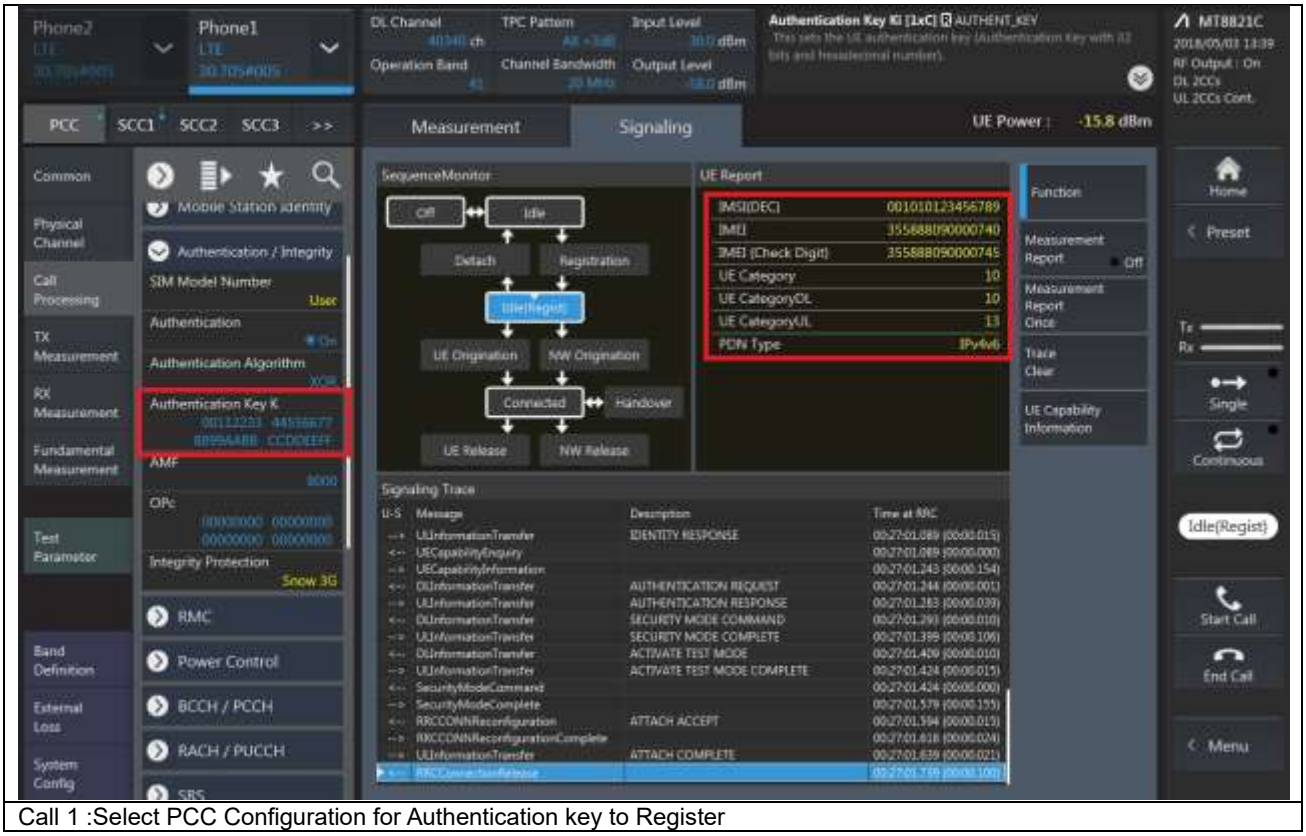
.TDD CA_41C Intra-Band Contiguous Call Connection

Set to MT8821C with following parameters:

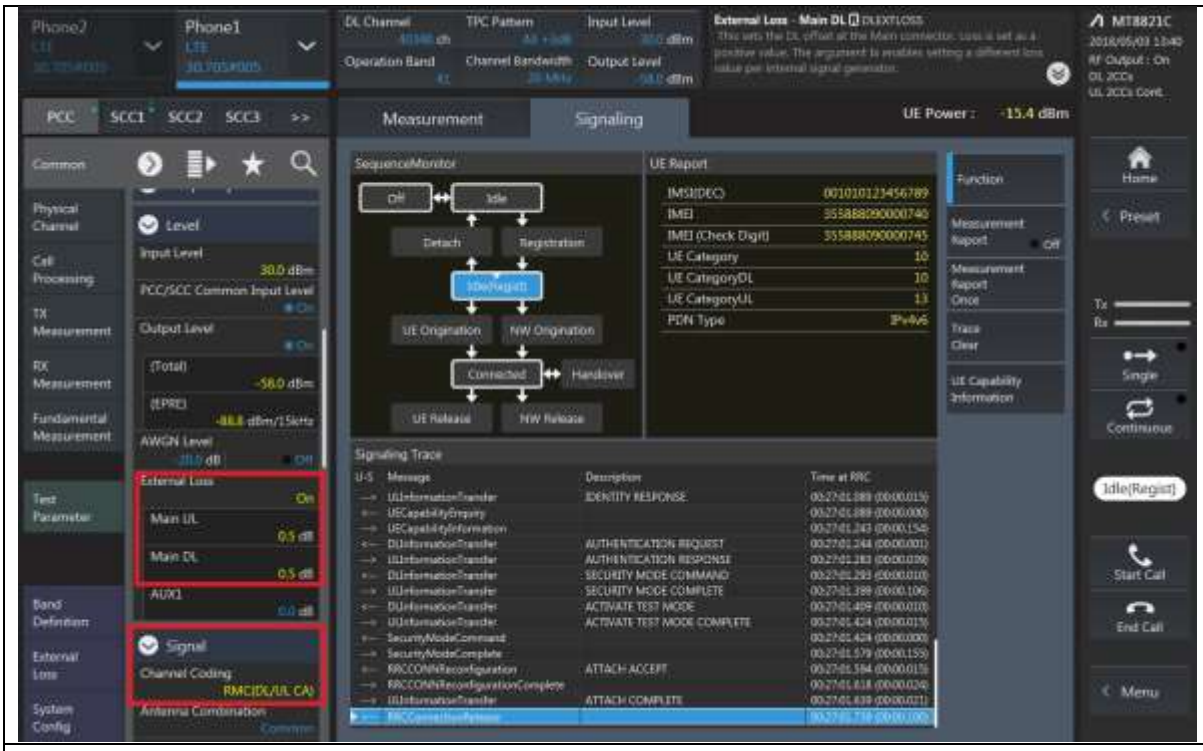
-. Set up the call box for PCC Configuration for LTE Uplink CA

-. Set up the call box for SCC Configuration for LTE Uplink CA

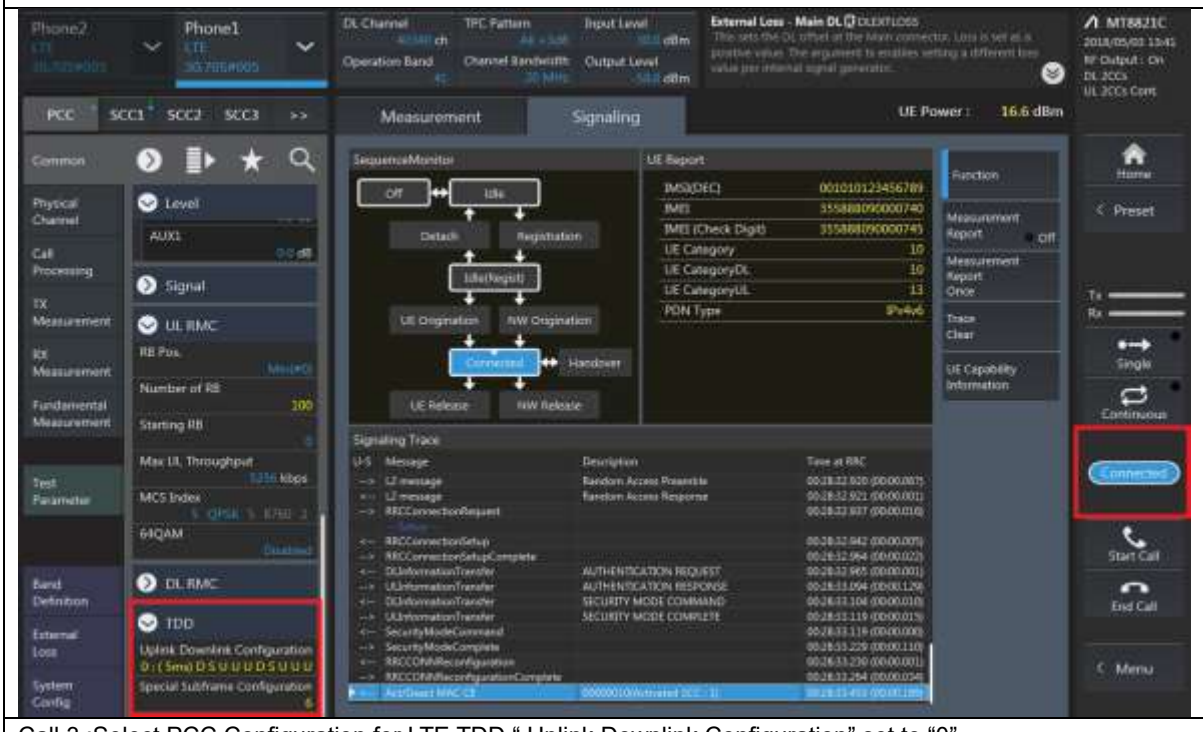
-. Measure the maximum output power in Uplink LTE CA conditions.



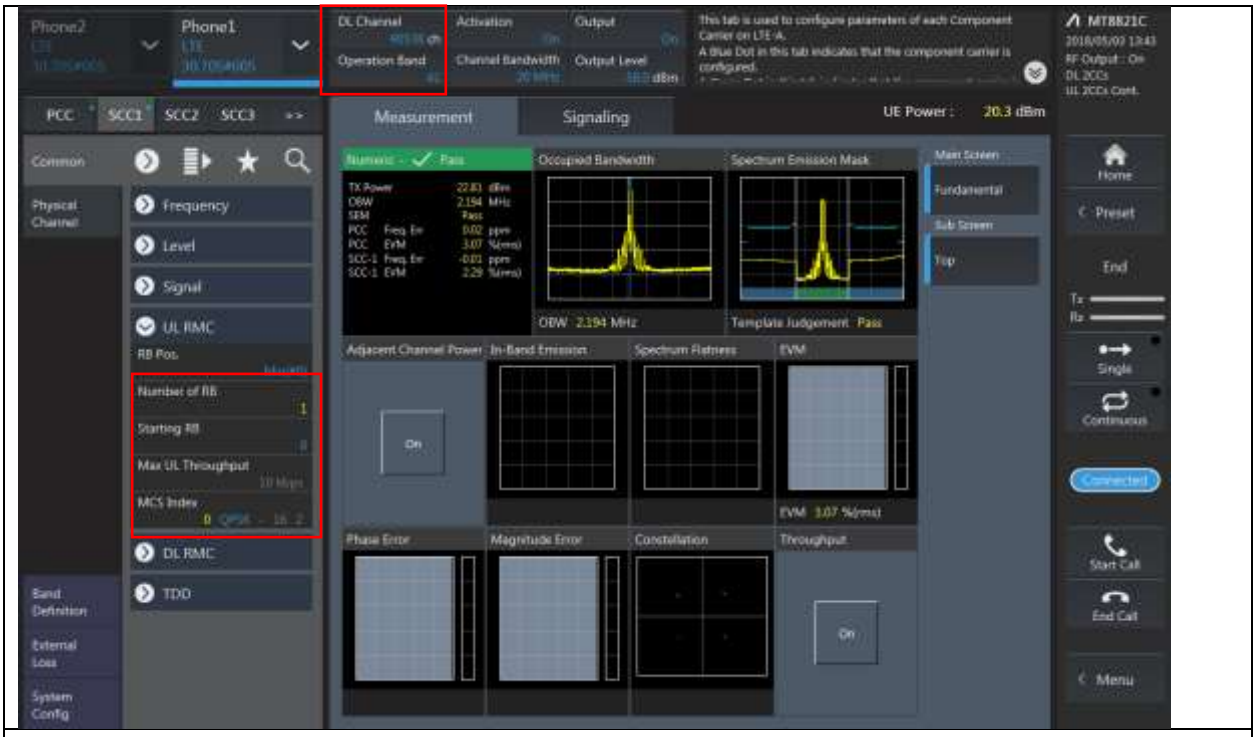
Call 1 :Select PCC Configuration for Authentication key to Register



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.

LTE Uplink Carrier Aggregation Conducted Powers

SAR test exclusion for LTE downlink Carrier Aggregation is determined by power measurements according to the number component carriers(CCs) supported by test product implementation. For those configurations required by April 2018 TCBC Workshop notes, 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(s)(SCC) on the downlink only.

Uplink Carrier aggregation:

1 This device supports uplink carrier aggregation for LTE CA_41C with a maximum of 20 MHz component carriers. For intra-band contiguous carrier aggregation scenarios, 3GPP36.101 Table 6.2.2A-1 specifies that aggregate maximum allowed output power is equivalent to the single carrier scenario. 3GPP 36.101 6.2.3A allows for several dB of MPR to be applied when non-contiguous RB allocation is implemented. The conducted Powers and MPR setting in this device are permanently implemented per the above 3GPP requirements.

2. Per Fall 2017 TCBC Workshop Notes, the output power with uplink CA active was measured for the configuration with the highest reported SAR with single carrier for each exposure condition. The power was measured with wideband signal integration over both component carriers.

Power Measurement setup

2CA 41C Uplink Carrier aggregation Conducted Powers- Maximum Power Mode

Combination	PCC									SCC							Tx Power
	Band	BW	PCC UL Channel	PCC UL Frequency	PCC DL Channel	PCC DL Frequency	Modulation	RB	offset	Band	BW	SCC DL Channel	SCC DL Frequency	Modulation	RB	offset	ULCA Conducted Power[dBm]
41C [PC3]	41	20	40620	2593	40620	2593	QPSK	1	99	41	20	40818	2612.8	QPSK	1	0	24.95
41C [PC2]	41	20	40620	2593	40620	2593	QPSK	1	99	41	20	40818	2612.8	QPSK	1	0	27.25

11.5 NR Maximum Output Power

11.5.1 NR Band Maximum Conducted Power

[NR Band n2 Conducted Power] Main 2 ANT

NR Band n2 _ 5 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
						370500	376000	381500	
						1852.5 ㎒	1880 ㎒	1907.5 ㎒	
5 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	23.66	23.67	23.72	0
				1	13	23.69	23.77	23.81	0
				1	23	23.71	23.74	23.76	0
				12	0	23.37	23.42	23.42	0.5
				12	7	**23.77**	23.86	23.88	0
				12	13	**23.37**	23.39	23.43	0.5
				25	0	23.35	23.43	23.46	0.5
			QPSK	1	1	23.53	23.57	23.66	0
				1	13	23.63	23.65	23.72	0
				1	23	23.60	23.63	23.64	0
				12	0	22.86	22.93	22.95	1
				12	7	**23.78**	23.83	23.90	0
				12	13	**22.89**	22.94	22.97	1
				25	0	22.85	22.98	22.98	1
			16QAM	1	1	23.21	23.32	23.33	1
		CP	QPSK	1	1	22.25	22.33	22.38	1.5

NR Band n2 _ 10 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
						371000	376000	381000	
						1855 ㎒	1880 ㎒	1905 ㎒	
10 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	23.82	23.84	23.93	0
				1	26	23.84	23.86	23.88	0
				1	50	23.98	23.88	23.94	0
				25	0	23.49	23.50	23.61	0.5
				25	14	**23.98**	**23.98**	24.05	0
				25	27	**23.58**	**23.52**	23.63	0.5
				50	0	23.66	23.52	23.55	0.5
			QPSK	1	1	23.72	23.73	23.76	0
				1	26	23.73	23.69	23.80	0
				1	50	23.86	23.70	23.79	0
				25	0	23.02	23.03	23.11	1
				25	14	**23.97**	**24.00**	23.98	0
				25	27	**23.13**	**23.05**	23.11	1
				50	0	23.12	23.02	23.09	1
			16QAM	1	1	23.21	23.27	23.42	1
		CP	QPSK	1	1	22.51	22.46	22.55	1.5

NR Band n2 _ 15 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
						371500	376000	380500	
						1857.5 MHz	1880 MHz	1902.5 MHz	
15 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	23.85	23.77	23.70	0
				1	40	23.81	23.73	23.67	0
				1	77	23.94	23.73	23.71	0
				36	0	23.55	23.43	23.37	0.5
				36	22	**23.94**	23.84	23.73	0
				36	43	**23.58**	23.42	23.33	0.5
				75	0	23.53	23.46	23.39	0.5
			QPSK	1	1	23.68	23.66	23.63	0
				1	40	23.70	23.64	23.57	0
				1	77	23.79	23.63	23.52	0
				36	0	23.03	22.93	22.90	1
				36	22	**23.94**	23.79	23.79	0
				36	43	**23.02**	22.89	22.91	1
				75	0	23.05	22.92	22.99	1
			16QAM	1	1	23.24	23.13	23.16	1
		CP	QPSK	1	1	22.45	22.38	22.29	1.5

NR Band n2 _ 20 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
						372000	376000	380000	
						1860 MHz	1880 MHz	1900 MHz	
20 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	23.73	23.70	23.64	0
				1	53	23.81	23.64	23.69	0
				1	104	23.73	23.69	23.63	0
				50	0	23.49	23.38	23.39	0.5
				50	28	**23.94**	23.83	23.83	0
				50	56	**23.51**	23.41	23.38	0.5
				100	0	23.55	23.43	23.44	0.5
			QPSK	1	1	23.66	23.60	23.62	0
				1	53	23.67	23.67	23.96	0
				1	104	23.62	23.59	23.58	0
				50	0	23.01	22.95	22.89	1
				50	28	**23.96**	23.85	23.84	0
				50	56	**22.99**	22.92	22.95	1
				100	0	23.02	22.97	22.95	1
			16QAM	1	1	23.24	23.04	22.98	1
		CP	QPSK	1	1	22.36	22.35	22.35	1.5

[NR Band n5 Conducted Power] Main 1 ANT

NR Band n5_ 5 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
						165300	167300	169300	
						826.5 ㎒	836.5 ㎒	846.5 ㎒	
5 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	23.22	23.01	22.84	0
				1	13	23.14	22.99	22.78	0
				1	23	23.12	23.00	22.78	0
				12	0	22.77	22.58	22.40	0.5
				12	7	23.14	23.00	22.80	0
				12	13	22.72	22.59	22.37	0.5
				25	0	22.73	22.63	22.41	0.5
			QPSK	1	1	23.12	22.94	22.74	0
				1	13	23.02	22.90	22.65	0
				1	23	23.03	22.89	22.68	0
				12	0	22.26	22.11	21.92	1
				12	7	23.13	23.00	22.74	0
				12	13	22.21	22.07	21.86	1
				25	0	22.28	22.11	21.90	1
			16QAM	1	1	22.48	22.33	22.14	1
		CP	QPSK	1	1	21.84	21.65	21.50	1.5

NR Band n5_ 10 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
						165800		168800	
						829 ㎒		844 ㎒	
10 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	23.10		22.83	0
				1	26	22.97		22.79	0
				1	50	22.94		22.71	0
				25	0	22.74		22.49	0.5
				25	14	23.12		22.87	0
				25	27	22.68		22.37	0.5
				50	0	22.85		22.55	0.5
			QPSK	1	1	23.02		22.77	0
				1	26	22.89		22.65	0
				1	50	22.84		22.60	0
				25	0	22.22		21.96	1
				25	14	23.13		22.86	0
				25	27	22.12		21.91	1
				50	0	22.33		22.05	1
			16QAM	1	1	22.37		22.10	1
		CP	QPSK	1	1	21.80		21.50	1.5

NR Band n5_ 15 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
							167300		
							836.5 ㎒		
15 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1		22.82		0
				1	40		22.73		0
				1	77		22.68		0
				36	0		22.50		0.5
				36	22		22.84		0
				36	43		22.42		0.5
				75	0		22.50		0.5
			QPSK	1	1		22.75		0
				1	40		22.68		0
				1	77		22.56		0
				36	0		21.95		1
				36	22		22.82		0
				36	43		21.92		1
				75	0		21.98		1
			16QAM	1	1		22.11		1
		CP	QPSK	1	1		21.52		1.5

NR Band n5_ 20 ㎒ Bandwidth

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		22.89		0
				1	53		22.79		0
				1	104		22.57		0
				50	0		22.52		0.5
				50	28		22.91		0
				50	56		22.38		0.5
				100	0		22.51		0.5
			QPSK	1	1		22.97		0
				1	53		22.66		0
				1	104		22.45		0
				50	0		22.02		1
				50	28		22.97		0
				50	56		21.89		1
				100	0		21.98		1
			16QAM	1	1		22.11		1
		CP	QPSK	1	1		21.52		1.5

[NR Band n12 Conducted Power] Main 1 ANT

NR Band n12_ 5 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
						140300	141500	142700	
						701.5MHz	707.5 MHz	713.5 MHz	
5 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	24.43	24.56	24.63	0
				1	13	24.47	24.73	24.66	0
				1	23	24.49	24.68	24.57	0
				12	0	24.05	24.22	24.27	0.5
				12	7	24.49	24.75	24.66	0
				12	13	24.14	24.31	24.25	0.5
				25	0	24.11	24.34	24.29	0.5
			QPSK	1	1	24.36	24.54	24.57	0
				1	13	24.39	24.65	24.59	0
				1	23	24.43	24.58	24.51	0
				12	0	23.66	23.80	23.85	1
				12	7	24.48	24.74	24.67	0
				12	13	23.77	23.91	23.85	1
				25	0	23.67	23.90	23.88	1
			16QAM	1	1	23.95	24.03	24.09	1
		CP	QPSK	1	1	23.18	23.36	23.36	1.5

NR Band n12_ 10 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
							141500		
							707.5 MHz		
10 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1		24.58		0
				1	26		24.74		0
				1	50		24.76		0
				25	0		24.28		0.5
				25	14		24.82		0
				25	27		24.31		0.5
				50	0		24.36		0.5
			QPSK	1	1		24.46		0
				1	26		24.59		0
				1	50		24.62		0
				25	0		23.85		1
				25	14		24.76		0
				25	27		23.87		1
				50	0		23.92		1
			16QAM	1	1		23.98		1
		CP	QPSK	1	1		23.33		1.5

NR Band n12_ 15 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
							141500		
							707.5 MHz		
15 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1		24.38		0
				1	40		24.49		0
				1	77		24.46		0
				36	0		24.16		0.5
				36	22		24.60		0
				36	43		24.18		0.5
				75	0		24.25		0.5
			QPSK	1	1		24.25		0
				1	40		24.54		0
				1	77		24.32		0
				36	0		23.76		1
				36	22		24.68		0
				36	43		23.75		1
				75	0		23.83		1
			16QAM	1	1		23.91		1
		CP	QPSK	1	1		23.13		1.5

[NR Band n25 Conducted Power] Main 2 ANT

NR Band n25 _ 5 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
						370500	376500	382500	
						1852.5 ㎒	1882.5 ㎒	1912.5 ㎒	
5 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	23.58	23.55	23.99	0
				1	13	23.64	23.62	23.98	0
				1	23	23.64	23.60	23.76	0
				12	0	23.27	23.23	23.60	0.5
				12	7	**23.72**	23.66	23.94	0
				12	13	**23.26**	23.19	23.43	0.5
				25	0	23.29	23.21	23.60	0.5
			QPSK	1	1	23.55	23.49	23.94	0
				1	13	23.60	23.50	23.89	0
				1	23	23.57	23.50	23.84	0
				12	0	22.79	22.74	23.11	1
				12	7	**23.69**	23.61	23.98	0
				12	13	**22.80**	22.70	23.08	1
				25	0	22.77	22.72	23.12	1
			16QAM	1	1	22.91	22.93	23.28	1
		CP	QPSK	1	1	22.23	22.16	22.62	1.5

NR Band n25 _ 10 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
						371000	376500	382000	
						1855 ㎒	1882.5 ㎒	1910 ㎒	
10 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	23.65	23.58	23.72	0
				1	26	23.75	23.61	23.72	0
				1	50	23.76	23.62	23.75	0
				25	0	23.39	23.28	23.41	0.5
				25	14	**23.81**	**23.71**	23.86	0
				25	27	**23.42**	**23.30**	23.45	0.5
				50	0	23.40	23.25	23.41	0.5
			QPSK	1	1	23.63	23.48	23.67	0
				1	26	23.63	23.51	23.68	0
				1	50	23.68	23.50	23.66	0
				25	0	22.92	22.77	22.92	1
				25	14	**23.85**	**23.70**	23.84	0
				25	27	**22.95**	**22.79**	22.94	1
				50	0	22.92	22.77	22.93	1
			16QAM	1	1	23.02	22.87	23.05	1
		CP	QPSK	1	1	22.34	22.24	22.43	1.5

NR Band n25 _ 15 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
						371500	376500	381500	
						1857.5 MHz	1882.5 MHz	1907.5 MHz	
15 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	23.57	23.44	23.58	0
				1	40	23.55	23.40	23.57	0
				1	77	23.67	23.56	23.60	0
				36	0	23.29	23.20	23.30	0.5
				36	22	**23.66**	23.54	23.69	0
				36	43	**23.28**	23.2	23.31	0.5
				75	0	23.27	23.19	23.34	0.5
			QPSK	1	1	23.53	23.35	23.52	0
				1	40	23.48	23.32	23.49	0
				1	77	23.58	23.48	23.51	0
				36	0	22.82	22.68	22.81	1
				36	22	**23.68**	23.50	23.68	0
				36	43	**22.81**	22.67	22.82	1
				75	0	22.81	22.67	22.83	1
			16QAM	1	1	22.90	22.76	22.90	1
		CP	QPSK	1	1	22.25	22.13	22.25	1.5

NR Band n25 _ 20 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
						372000	376500	381000	
						1860 MHz	1882.5 MHz	1905 MHz	
20 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	23.51	23.31	23.46	0
				1	53	23.51	23.30	23.56	0
				1	104	23.50	23.33	23.54	0
				50	0	23.22	23.07	23.28	0.5
				50	28	**23.67**	23.52	23.76	0
				50	56	**23.19**	23.08	23.30	0.5
				100	0	23.23	23.07	23.34	0.5
			QPSK	1	1	23.42	23.30	23.39	0
				1	53	23.42	23.30	23.51	0
				1	104	23.40	23.34	23.49	0
				50	0	22.73	22.64	22.81	1
				50	28	**23.68**	23.58	23.73	0
				50	56	**22.74**	22.63	22.83	1
				100	0	22.75	22.62	22.82	1
			16QAM	1	1	22.72	22.74	22.75	1
		CP	QPSK	1	1	22.14	22.05	22.13	1.5

NR Band n25 _ 25 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
						372500		380500	
						1862.5 MHz		1902.5 MHz	
25 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	23.88		23.97	0
				1	66	23.98		24.02	0
				1	131	23.94		24.06	0
				64	0	23.65		23.69	0.5
				64	35	**24.08**		**24.25**	0
				64	69	**23.63**		**23.82**	0.5
				128	0	23.66		23.85	0.5
			QPSK	1	1	23.83		23.95	0
				1	66	23.86		23.96	0
				1	131	23.86		24.00	0
				64	0	23.21		23.28	1
				64	35	**24.14**		**24.32**	0
				64	69	**23.20**		**23.41**	1
				128	0	23.24		23.38	1
			16QAM	1	1	23.48		23.47	1
		CP	QPSK	1	1	22.77		22.82	1.5

NR Band n25 _ 30 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
						373000		380000	
						1865 MHz		1900 MHz	
30 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	24.03		24.09	0
				1	80	24.14		24.12	0
				1	158	24.17		23.71	0
				80	0	23.82		23.76	0.5
				80	40	**24.28**		24.17	0
				80	80	**23.81**		23.64	0.5
				160	0	23.87		23.68	0.5
			QPSK	1	1	23.96		24.05	0
				1	80	24.00		23.91	0
				1	158	24.10		23.29	0
				80	0	23.23		23.07	1
				80	40	**24.26**		23.90	0
				80	80	**23.36**		23.01	1
				160	0	23.38		23.08	1
			16QAM	1	1	23.39		23.46	1
		CP	QPSK	1	1	22.61		22.80	1.5

NR Band n25 _ 40 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
							376500		
							1882.5 MHz		
40 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1		23.91		0
				1	108		24.12		0
				1	214		24.21		0
				108	0		23.75		0.5
				108	54		24.28		0
				108	108		23.72		0.5
				216	0		23.87		0.5
			QPSK	1	1		23.65		0
				1	108		24.04		0
				1	214		23.97		0
				108	0		23.31		1
				108	54		24.32		0
				108	108		23.46		1
				216	0		23.44		1
			16QAM	1	1		22.97		1
		CP	QPSK	1	1		22.26		1.5

[NR Band n41 Conducted Power] _ Power Class 3_ Sub 2 ANT

NR Band n41 _20 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
						501204	509898	518598	527298	535998	
						2506.02 ㎒	2549.49 ㎒	2592.99 ㎒	2636.49 ㎒	2679.99 ㎒	
20 ㎒	30	DFT-s	pi/2 BPSK	1	1	23.5	24.04	24.26	23.45	23.43	0
				1	26	23.66	24.08	24.3	23.29	23.94	0
				1	49	23.91	24.16	24.24	23.31	23.69	0
				25	0	23.08	23.55	23.81	23.03	23.21	0.5
				25	13	23.76	24.18	24.23	23.42	23.93	0
				25	26	23.38	23.62	23.71	23	23.4	0.5
				50	0	23.3	23.66	23.81	22.95	23.31	0.5
			QPSK	1	1	23.42	24.09	24.14	23.48	23.41	0
				1	26	23.69	24.08	24.17	23.34	23.9	0
				1	49	23.93	24.12	24.14	23.41	23.61	0
				25	0	22.56	23.09	23.31	22.48	22.7	1
				25	13	23.74	24.16	24.23	23.4	23.92	0
				25	26	22.83	23.14	23.16	22.45	22.8	1
				50	0	22.76	23.21	23.26	22.4	22.78	1
			16QAM	1	1	22.31	23.14	23.35	22.47	22.41	1
		CP	QPSK	1	1	21.95	22.59	22.69	22.01	21.89	1.5

NR Band n41 _30 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
						502200	513468	518598	523734	535000	
						2511 MHz	2567.34 MHz	2592.99 MHz	2618.67 MHz	2675 MHz	
30 ㎒	30	DFT-s	pi/2 BPSK	1	1	23.65	24.37	24.49	23.97	23.77	0
				1	39	23.91	24.52	24.69	23.74	23.88	0
				1	76	24.37	24.84	24.62	23.90	24.20	0
				36	0	23.31	23.97	24.05	23.37	23.35	0.5
				36	21	24.01	24.53	24.65	23.80	23.90	0
				36	42	23.72	24.14	24.11	23.29	23.54	0.5
				75	0	23.53	24.01	24.10	23.31	23.40	0.5
			QPSK	1	1	23.60	24.35	24.42	23.94	23.78	0
				1	39	23.94	24.42	24.56	23.76	23.85	0
				1	76	24.37	24.69	24.54	23.88	24.18	0
				36	0	22.78	23.42	23.54	22.86	22.85	1
				36	21	23.99	24.51	24.65	23.82	23.92	0
				36	42	23.24	23.62	23.57	22.78	23.05	1
				75	0	22.99	23.56	23.53	22.82	22.91	1
			16QAM	1	1	22.75	23.43	23.59	22.98	22.82	1
		CP	QPSK	1	1	22.13	22.94	23.02	22.43	22.35	1.5

NR Band n41 _40 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
						503202	513468		523734	534000	
						2516.01 ㎒	2567.34 ㎒		2618.67 ㎒	2670 ㎒	
40 ㎒	30	DFT-s	pi/2 BPSK	1	1	23.58	24.42		24.09	23.67	0
				1	53	24.10	24.56		23.79	23.83	0
				1	104	24.43	24.84		23.81	24.20	0
				50	0	23.39	24.00		23.50	23.27	0.5
				50	28	24.14	24.57		23.82	23.84	0
				50	56	23.86	24.17		23.37	23.56	0.5
				100	0	23.62	24.05		23.50	23.41	0.5
			QPSK	1	1	23.52	24.40		24.01	23.72	0
				1	53	24.11	24.47		23.81	23.79	0
				1	104	24.48	24.70		23.81	24.13	0
				50	0	22.93	23.52		22.98	22.74	1
				50	28	24.14	24.57		23.85	23.83	0
				50	56	23.36	23.72		22.88	22.98	1
				100	0	23.16	23.63		22.94	22.81	1
			16QAM	1	1	22.71	23.43		23.16	22.72	1
		CP	QPSK	1	1	22.12	23.00		22.62	22.25	1.5

NR Band n41 _50 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
						504204		518598		532998	
						2521.02 ㎒		2592.99 ㎒		2664.99 ㎒	
50 ㎒	30	DFT-s	pi/2 BPSK	1	1	23.03		24.17		23.34	0
				1	67	23.76		24.28		23.38	0
				1	131	24.10		24.14		23.83	0
				64	0	22.97		23.67		22.80	0.5
				64	35	23.77		24.27		23.43	0
				64	69	23.46		23.76		23.12	0.5
				128	0	23.31		23.72		22.96	0.5
			QPSK	1	1	23.04		24.10		23.40	0
				1	67	23.79		24.21		23.40	0
				1	131	24.08		24.13		23.86	0
				64	0	22.48		23.13		22.34	1
				64	35	23.79		24.26		23.42	0
				64	69	22.94		23.25		22.59	1
				128	0	22.74		23.22		22.43	1
			16QAM	1	1	22.17		23.20		22.42	1
		CP	QPSK	1	1	21.64		22.72		21.90	1.5

NR Band n41 _60 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)						MPR [dB]
						505200		518598		531996		
						2526 MHz		2592.99 MHz		2659.98 MHz		
60 MHz	30	DFT-s	pi/2 BPSK	1	1	22.81		24.03		23.34		0
				1	81	23.79		24.28		23.40		0
				1	160	24.08		24.20		23.88		0
				81	0	23.09		23.68		22.93		0.5
				81	41	23.84		24.18		23.49		0
				81	81	23.56		23.71		23.19		0.5
				162	0	23.28		23.62		23.09		0.5
			QPSK	1	1	22.88		23.99		23.40		0
				1	81	23.84		24.20		23.43		0
				1	160	24.04		24.13		23.85		0
				81	0	22.59		23.19		22.47		1
				81	41	23.85		24.17		23.49		0
				81	81	23.04		23.17		22.65		1
				162	0	22.81		23.13		22.59		1
			16QAM	1	1	22.08		23.06		22.42		1
		CP	QPSK	1	1	21.39		22.61		21.92		1.5

NR Band n41 _80 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
						507204				529998	
						2536.02 MHz				2649.99 MHz	
80 MHz	30	DFT-s	pi/2 BPSK	1	1	23.07				23.44	0
				1	109	24.00				23.24	0
				1	215	24.36				23.68	0
				108	0	23.10				22.81	0.5
				108	55	24.07				23.42	0
				108	109	23.73				23.03	0.5
				216	0	23.55				22.94	0.5
			QPSK	1	1	23.11				23.50	0
				1	109	24.09				23.30	0
				1	215	24.31				23.72	0
				108	0	22.66				22.29	1
				108	55	24.07				23.37	0
				108	109	23.25				22.51	1
				216	0	23.05				22.38	1
			16QAM	1	1	22.18				22.58	1
		CP	QPSK	1	1	21.69				22.03	1.5

NR Band n41 _90 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
						508200				528996	
						2541 MHz				2644.98 MHz	
90 MHz	30	DFT-s	pi/2 BPSK	1	1	23.09				23.59	0
				1	123	23.98				23.27	0
				1	243	24.45				23.80	0
				120	0	23.18				22.89	0.5
				120	63	23.99				23.31	0
				120	125	23.78				22.97	0.5
				243	0	23.42				22.97	0.5
			QPSK	1	1	23.09				23.59	0
				1	123	24.01				23.34	0
				1	243	24.37				23.73	0
				120	0	22.67				22.35	1
				120	63	23.97				23.32	0
				120	125	23.27				22.42	1
				243	0	22.93				22.43	1
			16QAM	1	1	22.18				22.74	1
		CP	QPSK	1	1	21.68				22.09	1.5

NR Band n41 _100 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
								518598			
								2592.99 MHz			
100 MHz	30	DFT-s	pi/2 BPSK	1	1			23.90			0
				1	137			24.34			0
				1	271			23.98			0
				135	0			23.58			0.5
				135	69			24.27			0
				135	138			23.65			0.5
				270	0			23.57			0.5
			QPSK	1	1			23.95			0
				1	137			24.27			0
				1	271			24.04			0
				135	0			23.08			1
				135	69			24.22			0
				135	138			23.16			1
				270	0			23.06			1
			16QAM	1	1			22.98			1
		CP	QPSK	1	1			22.49			1.5

[NR Band n41 Conducted Power] _ Power Class 2 _Sub 2 ANT

NR Band n41 _20 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
						501204	509898	518598	527298	535998	
						2506.02 ㎒	2549.49 ㎒	2592.99 ㎒	2636.49 ㎒	2679.99 ㎒	
20 ㎒	30	DFT-s	pi/2 BPSK	1	1	24.19	24.91	25.13	24.27	24.23	0
				1	26	24.40	24.95	25.14	24.15	24.83	0
				1	49	24.66	25.03	25.08	24.19	24.54	0
				25	0	23.89	24.45	24.65	23.87	24.15	0.5
				25	13	24.44	24.94	25.02	24.19	24.75	0
				25	26	24.13	24.57	24.55	23.83	24.31	0.5
				50	0	24.05	24.56	24.67	23.83	24.28	0.5
			QPSK	1	1	24.08	24.82	24.93	24.19	24.19	0
				1	26	24.32	24.83	24.92	24.07	24.69	0
				1	49	24.55	24.88	24.89	24.11	24.44	0
				25	0	23.37	23.99	24.15	23.38	23.68	1
				25	13	24.46	24.94	25.02	24.22	24.76	0
				25	26	23.61	24.06	24.04	23.35	23.79	1
				50	0	23.55	24.09	24.12	23.32	23.71	1
			16QAM	1	1	23.30	23.99	24.15	23.30	23.38	1
		CP	QPSK	1	1	22.75	23.52	23.61	22.83	22.83	1.5

NR Band n41 _30 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
						502200	513468	518598	523734	535000	
						2511 MHz	2567.34 MHz	2592.99 MHz	2618.67 MHz	2675 MHz	
30 ㎒	30	DFT-s	pi/2 BPSK	1	1	24.63	25.33	25.46	24.88	24.68	0
				1	39	24.81	25.43	25.54	24.64	24.81	0
				1	76	25.22	25.76	25.51	24.78	25.18	0
				36	0	24.22	24.87	25.00	24.31	24.32	0.5
				36	21	24.83	25.35	25.47	24.61	24.82	0
				36	42	24.63	25.09	25.03	24.25	24.56	0.5
				75	0	24.43	24.99	25.01	24.28	24.43	0.5
			QPSK	1	1	24.42	25.17	25.37	24.74	24.63	0
				1	39	24.74	25.24	25.44	24.57	24.70	0
				1	76	25.17	25.53	25.38	24.73	25.04	0
				36	0	23.74	24.41	24.52	23.83	23.82	1
				36	21	24.85	25.39	25.50	24.64	24.82	0
				36	42	24.13	24.61	24.58	23.78	24.06	1
				75	0	23.95	24.48	24.54	23.79	23.93	1
			16QAM	1	1	23.77	24.44	24.59	24.22	23.94	1
		CP	QPSK	1	1	23.18	23.92	23.96	23.49	23.26	1.5

NR Band n41 _40 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
						503202	513468		523734	534000	
						2516.01 MHz	2567.34 MHz		2618.67 MHz	2670 MHz	
40 MHz	30	DFT-s	pi/2 BPSK	1	1	24.59	25.26		24.89	24.52	0
				1	53	24.98	25.41		24.57	24.69	0
				1	104	25.34	25.69		24.59	25.11	0
				50	0	24.39	24.90		24.34	24.19	0.5
				50	28	25.00	25.35		24.59	24.70	0
				50	56	24.81	25.07		24.22	24.51	0.5
				100	0	24.64	24.99		24.34	24.33	0.5
			QPSK	1	1	24.40	25.17		24.76	24.48	0
				1	53	24.92	25.26		24.51	24.65	0
				1	104	25.28	25.49		24.58	24.96	0
				50	0	23.87	24.40		23.85	23.70	1
				50	28	24.98	25.38		24.58	24.67	0
				50	56	24.33	24.60		23.74	24.01	1
				100	0	24.13	24.48		23.83	23.84	1
			16QAM	1	1	23.71	24.49		24.17	23.69	1
		CP	QPSK	1	1	23.19	23.95		23.50	23.20	1.5

NR Band n41 _50 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
						504204		518598		532998	
						2521.02 MHz		2592.99 MHz		2664.99 MHz	
50 MHz	30	DFT-s	pi/2 BPSK	1	1	24.01		24.93		24.13	0
				1	67	24.50		25.06		24.21	0
				1	131	24.85		24.89		24.70	0
				64	0	23.87		24.59		23.75	0.5
				64	35	24.60		25.08		24.31	0
				64	69	24.32		24.66		24.10	0.5
				128	0	24.19		24.64		23.89	0.5
			QPSK	1	1	24.00		24.84		24.21	0
				1	67	24.56		24.94		24.24	0
				1	131	24.83		24.87		24.66	0
				64	0	23.38		24.07		23.24	1
				64	35	24.60		25.05		24.30	0
				64	69	23.86		24.11		23.58	1
				128	0	23.71		24.12		23.43	1
			16QAM	1	1	23.25		24.31		23.37	1
		CP	QPSK	1	1	22.65		23.68		22.88	1.5

NR Band n41 _60 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)						MPR [dB]
						505200		518598		531996		
						2526 MHz		2592.99 MHz		2659.98 MHz		
60 MHz	30	DFT-s	pi/2 BPSK	1	1	24.11		24.78		24.08		0
				1	81	24.55		24.96		24.20		0
				1	160	24.85		24.86		24.69		0
				81	0	24.01		24.55		23.81		0.5
				81	41	24.68		24.94		24.29		0
				81	81	24.47		24.55		24.14		0.5
				162	0	24.23		24.53		24.03		0.5
			QPSK	1	1	24.15		24.71		24.14		0
				1	81	24.61		24.86		24.23		0
				1	160	24.82		24.86		24.69		0
				81	0	23.55		24.07		23.35		1
				81	41	24.71		24.97		24.29		0
				81	81	23.99		24.05		23.60		1
				162	0	23.77		24.02		23.53		1
			16QAM	1	1	23.01		24.15		23.38		1
		CP	QPSK	1	1	22.60		23.50		22.86		1.5

NR Band n41 _80 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
						507204				529998	
						2536.02 MHz				2649.99 MHz	
80 MHz	30	DFT-s	pi/2 BPSK	1	1	24.01				24.23	0
				1	109	24.66				24.01	0
				1	215	25.11				24.51	0
				108	0	23.97				23.70	0.5
				108	55	24.79				24.18	0
				108	109	24.58				23.90	0.5
				216	0	24.39				23.82	0.5
			QPSK	1	1	24.03				24.26	0
				1	109	24.83				24.10	0
				1	215	25.21				24.56	0
				108	0	23.58				23.23	1
				108	55	24.84				24.20	0
				108	109	24.13				23.48	1
				216	0	23.95				23.35	1
			16QAM	1	1	23.41				23.67	1
		CP	QPSK	1	1	22.75				23.26	1.5

NR Band n41 _90 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
						508200				528996	
						2541 MHz				2644.98 MHz	
90 MHz	30	DFT-s	pi/2 BPSK	1	1	24.05				24.29	0
				1	123	24.82				24.02	0
				1	243	25.28				24.55	0
				120	0	24.13				23.72	0.5
				120	63	24.79				24.12	0
				120	125	24.67				23.89	0.5
				243	0	24.38				23.87	0.5
			QPSK	1	1	24.02				24.38	0
				1	123	24.83				24.18	0
				1	243	25.22				24.64	0
				120	0	23.63				23.26	1
				120	63	24.80				24.12	0
				120	125	24.22				23.42	1
				243	0	23.91				23.38	1
			16QAM	1	1	23.36				23.71	1
		CP	QPSK	1	1	22.82				23.18	1.5

NR Band n41 _100 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
								518598			
								2592.99 MHz			
100 MHz	30	DFT-s	pi/2 BPSK	1	1			24.64			0
				1	137			25.07			0
				1	271			24.76			0
				135	0			24.43			0.5
				135	69			25.00			0
				135	138			24.52			0.5
				270	0			24.46			0.5
			QPSK	1	1			24.72			0
				1	137			25.08			0
				1	271			24.82			0
				135	0			23.97			1
				135	69			25.02			0
				135	138			24.03			1
				270	0			23.95			1
			16QAM	1	1			24.07			1
		CP	QPSK	1	1			23.47			1.5

[NR Band n66 Conducted Power] Main 2 ANT

NR Band n66 _5 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]				MPR [dB]
						342500	346820	351160	355500	
						1712.5 ㎒	1734.1 ㎒	1755.8 ㎒	1777.5 ㎒	
5 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	24.58	24.51	24.52	24.36	0
				1	13	24.67	24.59	24.59	24.37	0
				1	23	24.62	24.55	24.56	24.28	0
				12	0	24.22	24.13	24.19	24.00	0.5
				12	7	**24.69**	24.60	24.61	24.45	0
				12	13	**24.23**	24.26	24.18	24.02	0.5
				25	0	24.29	24.16	24.18	24.04	0.5
			QPSK	1	1	24.53	24.45	24.44	24.23	0
				1	13	24.60	24.45	24.49	24.25	0
				1	23	24.56	24.44	24.45	24.23	0
				12	0	23.80	23.68	23.65	23.53	1
				12	7	**24.68**	24.55	24.58	24.45	0
				12	13	**23.83**	23.67	23.66	23.49	1
				25	0	23.84	23.72	23.68	23.53	1
			16QAM	1	1	24.03	23.91	23.85	23.89	1
		CP	QPSK	1	1	23.36	23.22	23.15	22.98	1.5

NR Band n66 _ 10 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]				MPR [dB]
						343000	347000	351000	355000	
						1715 ㎒	1735 ㎒	1755 ㎒	1775 ㎒	
10 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	24.77	24.58	24.58	24.32	0
				1	26	24.79	24.59	24.64	24.37	0
				1	50	24.75	24.75	24.50	24.37	0
				25	0	24.45	24.34	24.25	24.00	0.5
				25	14	**24.87**	**24.87**	**24.71**	24.46	0
				25	27	**24.40**	**24.47**	**24.29**	24.06	0.5
				50	0	24.45	24.29	24.26	24.02	0.5
			QPSK	1	1	24.67	24.47	24.49	24.29	0
				1	26	24.68	24.52	24.55	24.32	0
				1	50	24.67	24.61	24.39	24.32	0
				25	0	23.98	23.84	23.74	23.55	1
				25	14	**24.85**	**24.88**	**24.72**	24.52	0
				25	27	**23.92**	**23.86**	**23.67**	23.55	1
				50	0	23.95	23.83	23.81	23.58	1
			16QAM	1	1	24.18	24.18	23.91	23.72	1
		CP	QPSK	1	1	23.46	23.34	23.24	23.05	1.5

NR Band n66 _ 15 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]				MPR [dB]
						343500	347160	350820	354500	
						1717.5 MHz	1735.8 MHz	1754.1 MHz	1772.5 MHz	
15 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	24.73	24.65	24.51	24.36	0
				1	40	24.65	24.62	24.46	24.32	0
				1	77	24.74	24.70	24.46	24.41	0
				36	0	24.42	24.33	24.20	24.08	0.5
				36	22	24.74	24.71	24.55	24.44	0
				36	43	24.39	24.39	24.12	24.10	0.5
				75	0	24.39	24.35	24.23	24.09	0.5
			QPSK	1	1	24.68	24.60	24.44	24.34	0
				1	40	24.61	24.57	24.40	24.27	0
				1	77	24.72	24.66	24.40	24.39	0
				36	0	23.87	23.88	23.69	23.58	1
				36	22	24.75	24.73	24.57	24.48	0
				36	43	23.86	23.87	23.58	23.57	1
				75	0	23.85	23.90	23.71	23.56	1
			16QAM	1	1	24.04	23.94	23.90	23.73	1
		CP	QPSK	1	1	23.33	23.10	23.15	23.06	1.5

NR Band n66 _ 20 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]				MPR [dB]
						344000	349000		354000	
						1720 MHz	1745 MHz		1770 MHz	
20 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	24.67	24.58		24.37	0
				1	53	24.60	24.56		24.34	0
				1	104	24.63	24.62		24.37	0
				50	0	24.40	24.39		24.08	0.5
				50	28	24.82	24.79		24.54	0
				50	56	24.38	24.36		24.09	0.5
				100	0	24.41	24.35		24.11	0.5
			QPSK	1	1	24.56	24.50		24.36	0
				1	53	24.51	24.44		24.31	0
				1	104	24.54	24.49		24.39	0
				50	0	23.82	23.86		23.61	1
				50	28	24.82	24.78		24.55	0
				50	56	23.79	23.86		23.58	1
				100	0	23.85	23.85		23.60	1
			16QAM	1	1	24.17	24.12		23.76	1
		CP	QPSK	1	1	23.33	23.36		23.09	1.5

NR Band n66 _ 30 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]				MPR [dB]
						345000			353000	
						1725 MHz			1765 MHz	
30 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	24.91			24.83	0
				1	80	24.88			24.75	0
				1	158	24.82			24.63	0
				80	0	24.69			24.56	0.5
				80	40	**25.11**			24.92	0
				80	80	**24.75**			24.59	0.5
				160	0	24.74			24.56	0.5
			QPSK	1	1	24.89			24.82	0
				1	80	24.85			24.70	0
				1	158	24.80			24.64	0
				80	0	24.20			24.05	1
				80	40	**25.18**			24.99	0
				80	80	**24.29**			24.07	1
				160	0	24.27			24.07	1
			16QAM	1	1	24.25			24.40	1
		CP	QPSK	1	1	23.50			23.43	1.5

NR Band n66 _ 40 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]				MPR [dB]
							349000			
							1745 MHz			
40 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1		24.90			0
				1	108		25.02			0
				1	214		24.76			0
				108	0		24.72			0.5
				108	54		25.15			0
				108	108		24.74			0.5
				216	0		24.68			0.5
			QPSK	1	1		24.85			0
				1	108		24.94			0
				1	214		24.68			0
				108	0		24.21			1
				108	54		25.16			0
				108	108		24.21			1
				216	0		24.23			1
			16QAM	1	1		24.35			1
		CP	QPSK	1	1		23.72			1.5

[NR Band n71 Conducted Power] Main 1 ANT

NR Band n71 _ 5 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
						133100	136100	139100	
						665.5 ㎒	680.5 ㎒	695.5 ㎒	
5 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	23.13	23.04	22.96	0
				1	13	23.10	23.06	22.98	0
				1	23	23.05	22.96	22.89	0
				12	0	22.70	22.72	22.63	0.5
				12	7	23.10	23.09	23.04	0
				12	13	22.65	22.65	22.56	0.5
				25	0	22.65	22.67	22.60	0.5
			QPSK	1	1	23.04	22.90	22.89	0
				1	13	22.99	22.94	22.91	0
				1	23	22.93	22.82	22.80	0
				12	0	22.24	22.20	22.12	1
				12	7	23.10	23.06	22.95	0
				12	13	22.17	22.15	22.04	1
				25	0	22.18	22.16	22.08	1
			16QAM	1	1	22.39	22.47	22.30	1
		CP	QPSK	1	1	21.74	21.66	21.56	1.5

NR Band n71 _ 10 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
						133600	136100	138600	
						668 ㎒	680.5 ㎒	693 ㎒	
10 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	23.06	22.95	22.80	0
				1	26	22.95	23.03	22.89	0
				1	50	22.99	22.96	22.80	0
				25	0	22.61	22.69	22.45	0.5
				25	14	23.00	23.06	22.91	0
				25	27	22.65	22.58	22.48	0.5
				50	0	22.60	22.60	22.55	0.5
			QPSK	1	1	22.98	22.86	22.77	0
				1	26	22.82	22.90	22.78	0
				1	50	22.91	22.87	22.69	0
				25	0	22.11	22.18	21.97	1
				25	14	23.00	23.06	22.94	0
				25	27	22.15	22.04	21.95	1
				50	0	22.13	22.12	22.05	1
			16QAM	1	1	22.37	22.20	22.10	1
		CP	QPSK	1	1	21.70	21.56	21.48	1.5

NR Band n71 _ 15 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
						134100		138100	
						670.5 ㎒		690.5 ㎒	
15 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	22.97		22.70	0
				1	40	22.80		22.60	0
				1	77	22.88		22.62	0
				36	0	22.52		22.43	0.5
				36	22	22.86		22.70	0
				36	43	22.61		22.35	0.5
				75	0	22.52		22.37	0.5
			QPSK	1	1	22.85		22.57	0
				1	40	22.69		22.52	0
				1	77	22.77		22.53	0
				36	0	21.97		21.90	1
				36	22	22.83		22.72	0
				36	43	22.09		21.85	1
				75	0	22.05		21.86	1
			16QAM	1	1	22.19		21.94	1
		CP	QPSK	1	1	21.59		21.29	1.5

NR Band n71 _ 20 ㎒ Bandwidth

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		22.69		0
				1	53		22.76		0
				1	104		22.61		0
				50	0		22.52		1
				50	28		22.87		0
				50	56		22.34		1
				100	0		22.46		1
			QPSK	1	1		22.65		0
				1	53		22.77		0
				1	104		22.55		0
				50	0		22.07		1
				50	28		22.90		0
				50	56		21.86		1
				100	0		22.00		1
			16QAM	1	1		21.97		1
		CP	QPSK	1	1		21.38		1.5

NR Band n71 at 20 ㎒ Bandwidth does not support three non-overlapping channels. Per FCC Guidance, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

[NR Band n77 Conducted Power] Sub 3 ANT

NR Band n77_ 20 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)						MPR [dB]
						347334	650800	654266	657733	661200	664666	
						3710 ㎒	3762 ㎒	3814 ㎒	3866 ㎒	3918 ㎒	3969.99 ㎒	
20 ㎒	30	DFT-s OFDM	PI/2 BPSK	1	1	23.92	23.97	24.31	24.07	23.85	24.05	0
				1	26	23.93	24.04	24.26	24.00	23.87	23.96	0
				1	49	23.97	24.14	24.36	23.98	23.97	24.05	0
				25	0	23.41	23.75	24.18	23.89	23.73	23.52	0.5
				25	13	**23.96**	**24.07**	24.38	24.01	23.91	24.00	0
				25	26	**23.53**	**23.94**	24.12	23.76	23.66	23.53	0.5
				50	0	23.47	23.89	24.18	23.84	23.72	23.53	0.5
			QPSK	1	1	23.93	24.03	24.29	24.08	23.86	24.11	0
				1	26	23.97	24.11	24.34	23.99	23.89	23.99	0
				1	49	24.04	24.18	24.37	23.99	24.00	24.12	0
				25	0	22.95	23.27	23.66	23.38	23.23	23.00	1
				25	13	**23.98**	**24.09**	24.34	23.99	23.89	24.02	0
				25	26	**23.00**	**23.46**	23.65	23.26	23.17	23.09	1
				50	0	23.03	23.41	23.70	23.38	23.24	23.02	1
			16QAM	1	1	23.00	23.32	23.60	23.40	23.24	23.11	1
		CP	QPSK	1	1	22.52	22.85	23.15	22.95	22.78	22.67	1.5

NR Band n77_30 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)						MPR [dB]
						647666	651000	654334	657666	661000	664334	
						3714.99 ㎒	3765 ㎒	3815.01 ㎒	3864.99 ㎒	3915 ㎒	3965.01 ㎒	
30 ㎒	30	DFT-s OFDM	PI/2 BPSK	1	1	24.48	24.26	24.44	24.67	24.20	24.49	0
				1	39	24.42	24.30	24.43	24.47	24.11	24.32	0
				1	76	24.38	24.35	24.37	24.33	24.11	24.41	0
				36	0	24.02	24.12	24.37	24.42	24.01	23.96	0.5
				36	21	**24.49**	**24.44**	24.55	24.51	24.15	24.46	0
				36	42	**23.97**	**24.24**	24.30	24.26	23.96	23.94	0.5
				75	0	24.03	24.19	24.38	24.34	24.03	23.96	0.5
			QPSK	1	1	24.52	24.30	24.50	24.71	24.27	24.50	0
				1	39	24.44	24.35	24.49	24.50	24.09	24.37	0
				1	76	24.41	24.43	24.44	24.36	24.13	24.39	0
				36	0	23.50	23.63	23.94	23.92	23.55	23.48	1
				36	21	**24.46**	**24.41**	24.52	24.54	24.19	24.41	0
				36	42	**23.53**	**23.73**	23.84	23.77	23.49	23.50	1
				75	0	23.55	23.72	23.88	23.87	23.57	23.45	1
			16QAM	1	1	23.52	23.64	23.90	24.08	23.65	23.57	1
		CP	QPSK	1	1	23.06	23.14	23.39	23.60	23.11	23.05	1.5

NR Band n77_40 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)						MPR [dB]
						648000	651200	654400	657600	660800	664000	
						3720 ㎒	3768 ㎒	3816 ㎒	3864 ㎒	3912 ㎒	3960 ㎒	
40 ㎒	30	DFT-s OFDM	PI/2 BPSK	1	1	24.37	24.26	24.54	24.55	24.27	24.48	0
				1	53	24.40	24.42	24.58	24.52	24.23	24.42	0
				1	104	24.30	24.48	24.48	24.28	24.15	24.39	0
				50	0	23.91	24.17	24.49	24.45	24.25	24.16	0.5
				50	28	24.47	**24.52**	24.66	24.58	24.32	24.57	0
				50	56	23.91	**24.33**	24.34	24.28	24.08	24.04	0.5
				100	0	24.02	24.29	24.41	24.42	24.18	24.03	0.5
			QPSK	1	1	24.39	24.32	24.61	24.60	24.28	24.53	0
				1	53	24.41	24.44	24.59	24.51	24.25	24.47	0
				1	104	24.33	24.51	24.51	24.30	24.17	24.44	0
				50	0	23.47	23.74	24.06	23.95	23.72	23.62	1
				50	28	24.46	**24.49**	24.65	24.60	24.36	24.57	0
				50	56	23.44	**23.84**	23.84	23.79	23.61	23.59	1
				100	0	23.51	23.80	23.93	23.93	23.69	23.59	1
			16QAM	1	1	23.42	23.65	23.91	23.98	23.67	23.57	1
		CP	QPSK	1	1	22.95	23.15	23.42	23.46	23.15	23.05	1.5

NR Band n77_ 50 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)						MPR [dB]
						648334	652134	655934		659800	663666	
						3725 ㎒	3782 ㎒	3839 ㎒		3896 ㎒	3955 ㎒	
50 ㎒	30	DFT-s OFDM	PI/2 BPSK	1	1	23.80	24.04	24.12		23.93	24.03	0
				1	67	23.78	24.23	24.17		23.71	24.12	0
				1	131	24.01	24.40	24.14		23.94	24.40	0
				64	0	23.36	23.89	24.05		23.57	23.55	0.5
				64	35	**23.85**	**24.30**	24.27		23.85	24.17	0
				64	69	**23.48**	**24.08**	24.14		23.67	23.73	0.5
				128	0	23.39	24.06	24.03		23.57	23.61	0.5
			QPSK	1	1	23.90	24.07	24.21		23.95	24.10	0
				1	67	23.83	24.28	24.19		23.74	24.17	0
				1	131	24.06	24.42	24.17		24.00	24.42	0
				64	0	22.91	23.41	23.62		23.11	23.09	1
				64	35	**23.91**	**24.29**	24.29		23.83	24.18	0
				64	69	**23.06**	**23.66**	23.64		23.18	23.22	1
				128	0	22.92	23.56	23.60		23.08	23.16	1
			16QAM	1	1	22.91	23.37	23.56		23.35	23.14	1
		CP	QPSK	1	1	22.47	22.86	23.05		22.86	22.66	1.5

NR Band n77_60 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)						MPR [dB]
						648666	652334	656000		659666	663334	
						3730 MHz	3730 MHz	3840 MHz		3895 MHz	3950 MHz	
60 MHz	30	DFT-s OFDM	PI/2 BPSK	1	1	23.87	23.90	24.21		23.67	23.58	0
				1	81	23.91	24.11	24.18		23.91	23.99	0
				1	160	24.13	24.34	24.19		23.72	24.02	0
				81	0	23.40	23.81	24.14		23.68	23.43	0.5
				81	41	**23.90**	**24.20**	24.29		23.93	24.04	0
				81	81	**23.58**	**24.11**	24.04		23.72	23.63	0.5
				162	0	23.44	23.99	24.12		23.65	23.56	0.5
			QPSK	1	1	23.95	23.95	24.26		23.70	23.64	0
				1	81	23.95	24.14	24.22		23.92	24.05	0
				1	160	24.22	24.42	24.27		23.79	24.08	0
				81	0	22.97	23.34	23.62		23.19	22.96	1
				81	41	**23.89**	**24.14**	24.25		23.97	24.05	0
				81	81	**23.13**	**23.65**	23.54		23.25	23.16	1
				162	0	23.00	23.47	23.61		23.17	23.05	1
			16QAM	1	1	22.99	23.27	23.59		23.08	22.69	1
		CP	QPSK	1	1	22.47	22.80	23.11		22.56	22.17	1.5

NR Band n77_ 70 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)						MPR [dB]
						649000	654334			658334	663000	
						3735 MHz	3805.01 MHz			3875.01 MHz	3945 MHz	
70 MHz	30	DFT-s OFDM	PI/2 BPSK	1	1	23.80	23.99			23.92	23.71	0
				1	95	23.89	24.09			23.82	23.79	0
				1	188	23.75	24.07			23.80	23.85	0
				90	0	23.38	23.98			23.73	23.63	0.5
				90	50	**23.96**	**24.10**			**23.91**	23.81	0
				90	99	**23.55**	**23.97**			**23.72**	23.69	0.5
				180	0	23.49	23.95			23.76	23.62	0.5
			QPSK	1	1	23.90	24.05			23.98	23.76	0
				1	95	23.97	24.18			23.92	23.83	0
				1	188	23.34	23.66			23.38	23.44	0
				90	0	22.88	23.48			23.25	23.12	1
				90	50	**23.94**	**24.14**			**23.97**	23.79	0
				90	99	**23.12**	**23.46**			**23.22**	23.19	1
				180	0	23.05	23.45			23.28	23.18	1
			16QAM	1	1	22.95	23.39			23.37	23.05	1
		CP	QPSK	1	1	22.46	22.89			22.89	22.59	1.5

NR Band n77_ 80 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)						MPR [dB]
						662666	653800			658200	662666	
						3740 MHz	3807 MHz			3873 MHz	3940 MHz	
80 MHz	30	DFT-s OFDM	PI/2 BPSK	1	1	23.71	23.96			24.12	23.75	0
				1	109	23.83	24.15			24.08	23.85	0
				1	215	24.10	24.32			23.96	24.10	0
				108	0	23.64	23.86			23.90	23.66	0.5
				108	55	**23.85**	**24.19**			**24.07**	23.84	0
				108	109	**23.78**	**24.10**			**23.87**	23.74	0.5
				216	0	23.72	23.99			23.93	23.68	0.5
			QPSK	1	1	23.81	24.00			24.17	23.82	0
				1	109	23.89	24.20			24.11	23.92	0
				1	215	24.15	24.40			24.05	24.12	0
				108	0	23.15	23.43			23.42	23.19	1
				108	55	**23.84**	**24.21**			**24.07**	23.87	0
				108	109	**23.25**	**23.58**			**23.34**	23.29	1
				216	0	23.20	23.49			23.41	23.24	1
			16QAM	1	1	23.21	23.33			23.54	23.18	1
		CP	QPSK	1	1	22.69	22.88			23.01	22.72	1.5

NR Band n77_ 90 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)						MPR [dB]
						649666		656000		662334		
						3745 MHz		3840 MHz		3935 MHz		
90 MHz	30	DFT-s OFDM	PI/2 BPSK	1	1	23.98		24.06		23.81		0
				1	123	24.05		24.11		23.72		0
				1	243	24.21		24.00		24.08		0
				120	0	23.48		23.99		23.52		0.5
				120	63	**24.12**		**24.16**		23.85		0
				120	125	**23.73**		**23.96**		23.68		0.5
				243	0	23.69		23.98		23.61		0.5
			QPSK	1	1	24.10		24.19		23.90		0
				1	123	24.17		24.18		23.75		0
				1	243	24.30		24.08		24.16		0
				120	0	23.02		23.48		23.10		1
				120	63	**24.11**		**24.16**		23.82		0
				120	125	**23.25**		**23.47**		23.23		1
				243	0	23.17		23.58		23.16		1
			16QAM	1	1	23.10		23.54		23.27		1
		CP	QPSK	1	1	22.60		23.03		22.80		1.5

NR Band n77_ 100 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)						MPR [dB]
						650000		656000		662000		
						3750 ㎒		3840 ㎒		3930 ㎒		
100 ㎒	30	DFT-s OFDM	PI/2 BPSK	1	1	23.99		24.10		23.82		0
				1	137	24.02		24.11		23.86		0
				1	271	24.27		24.02		24.10		0
				135	0	23.44		23.99		23.67		0.5
				135	69	**24.03**		24.18		**23.93**		0
				135	138	**23.75**		23.96		**23.75**		0.5
				270	0	23.62		24.06		23.81		0.5
			QPSK	1	1	24.06		24.22		23.90		0
				1	137	24.09		24.20		23.97		0
				1	271	24.35		24.11		24.16		0
				135	0	22.97		23.51		23.22		1
				135	69	**24.07**		24.19		**23.95**		0
				135	138	**23.23**		23.50		**23.28**		1
				270	0	23.11		23.53		23.29		1
			16QAM	1	1	23.05		23.57		23.34		1
		CP	QPSK	1	1	22.57		23.03		22.83		1.5

11.5.2 NR Band Reduced Conducted Power (Hotspot activated)

[NR Band n2 Conducted Power _ Hotspot activated] Main 2 ANT

NR Band n2 _ 5 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						370500	376000	381500	
						1852.5 ㎒	1880 ㎒	1907.5 ㎒	
5 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	22.60	22.68	22.76	0
				1	13	22.69	22.73	22.81	0
				1	23	22.64	22.69	22.78	0
				12	0	22.66	22.76	22.79	0
				12	7	**22.72**	22.77	22.85	0
				12	13	**22.67**	22.75	22.85	0
				25	0	22.70	22.74	22.82	0
			QPSK	1	1	22.55	22.55	22.64	0
				1	13	22.60	22.64	22.69	0
				1	23	22.56	22.58	22.69	0
				12	0	22.67	22.78	22.75	0
				12	7	**22.69**	22.77	22.77	0
				12	13	**22.68**	22.79	22.78	0
				25	0	22.71	22.82	22.78	0
			16QAM	1	1	22.87	23.05	23.02	0
		CP	QPSK	1	1	22.48	22.45	22.59	0.5

NR Band n2 _ 10 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						371000	376000	381000	
						1855 ㎒	1880 ㎒	1905 ㎒	
10 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	22.66	22.54	22.78	0
				1	26	22.70	22.59	22.79	0
				1	50	22.82	22.61	22.78	0
				25	0	22.79	22.65	22.82	0
				25	14	**22.83**	**22.69**	22.86	0
				25	27	**22.86**	**22.68**	22.82	0
				50	0	22.92	22.65	22.84	0
			QPSK	1	1	22.59	22.53	22.69	0
				1	26	22.60	22.58	22.72	0
				1	50	22.73	22.58	22.72	0
				25	0	22.79	22.70	22.85	0
				25	14	**22.84**	**22.75**	22.87	0
				25	27	**22.93**	**22.70**	22.86	0
				50	0	22.91	22.70	22.85	0
			16QAM	1	1	23.11	22.84	23.03	0
		CP	QPSK	1	1	22.50	22.47	22.63	0.5

NR Band n2 _ 15 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						371500	376000	380500	
						1857.5 MHz	1880 MHz	1902.5 MHz	
15 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	22.66	22.58	22.55	0
				1	40	22.62	22.53	22.53	0
				1	77	22.73	22.55	22.56	0
				36	0	22.80	22.60	22.66	0
				36	22	**22.72**	22.65	22.67	0
				36	43	**22.75**	22.63	22.69	0
				75	0	22.76	22.69	22.70	0
			QPSK	1	1	22.54	22.43	22.43	0
				1	40	22.51	22.39	22.38	0
				1	77	22.63	22.47	22.44	0
				36	0	22.78	22.62	22.59	0
				36	22	**22.71**	22.60	22.58	0
				36	43	**22.76**	22.68	22.58	0
				75	0	22.79	22.69	22.62	0
			16QAM	1	1	23.01	22.92	22.72	0
		CP	QPSK	1	1	22.36	22.41	22.31	0.5

NR Band n2 _ 20 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						372000	376000	380000	
						1860 MHz	1880 MHz	1900 MHz	
20 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	22.59	22.50	22.54	0
				1	53	22.59	22.49	22.55	0
				1	104	22.53	22.51	22.52	0
				50	0	22.73	22.61	22.64	0
				50	28	**22.77**	22.68	22.69	0
				50	56	**22.71**	22.67	22.68	0
				100	0	22.71	22.64	22.69	0
			QPSK	1	1	22.48	22.41	22.49	0
				1	53	22.51	22.43	22.46	0
				1	104	22.45	22.42	22.46	0
				50	0	22.74	22.66	22.67	0
				50	28	**22.78**	22.66	22.72	0
				50	56	**22.74**	22.66	22.70	0
				100	0	22.76	22.68	22.71	0
			16QAM	1	1	22.97	22.88	22.78	0
		CP	QPSK	1	1	22.32	22.31	22.33	0.5

[NR Band n25 Conducted Power _ Hotspot activated] Main 2 ANT

NR Band n25 _ 5 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						370500	376500	382500	
						1852.5 ㎒	1882.5 ㎒	1912.5 ㎒	
5 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	22.66	22.69	22.82	0
				1	13	22.77	22.76	22.85	0
				1	23	22.71	22.74	22.81	0
				12	0	22.76	22.72	22.84	0
				12	7	**22.81**	22.78	22.89	0
				12	13	**22.78**	22.77	22.83	0
				25	0	22.78	22.75	22.86	0
			QPSK	1	1	22.56	22.62	22.75	0
				1	13	22.66	22.68	22.74	0
				1	23	22.62	22.65	22.75	0
				12	0	22.77	22.73	22.88	0
				12	7	**22.81**	22.75	22.89	0
				12	13	**22.78**	22.74	22.87	0
				25	0	22.80	22.76	22.88	0
			16QAM	1	1	23.12	22.95	23.07	0
		CP	QPSK	1	1	22.56	22.57	22.59	0.5

NR Band n25 _ 10 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						371000	376500	382000	
						1855 ㎒	1882.5 ㎒	1910 ㎒	
10 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	22.73	22.72	22.87	0
				1	26	22.81	22.74	22.85	0
				1	50	22.84	22.76	22.86	0
				25	0	22.88	22.76	22.90	0
				25	14	**22.95**	**22.82**	22.95	0
				25	27	**22.90**	**22.77**	22.93	0
				50	0	22.91	22.76	22.91	0
			QPSK	1	1	22.69	22.63	22.80	0
				1	26	22.69	22.63	22.80	0
				1	50	22.73	22.67	22.78	0
				25	0	22.88	22.78	22.94	0
				25	14	**22.94**	**22.84**	22.94	0
				25	27	**22.90**	**22.77**	22.95	0
				50	0	22.90	22.82	22.97	0
			16QAM	1	1	23.21	22.96	23.12	0
		CP	QPSK	1	1	22.67	22.44	22.63	0.5

NR Band n25 _ 15 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						371500	376500	381500	
						1857.5 MHz	1882.5 MHz	1907.5 MHz	
15 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	22.65	22.53	22.72	0
				1	40	22.66	22.50	22.73	0
				1	77	22.79	22.64	22.68	0
				36	0	22.77	22.59	22.82	0
				36	22	**22.73**	22.60	22.77	0
				36	43	**22.78**	22.66	22.81	0
				75	0	22.82	22.68	22.83	0
			QPSK	1	1	22.63	22.48	22.64	0
				1	40	22.59	22.47	22.64	0
				1	77	22.71	22.57	22.59	0
				36	0	22.78	22.68	22.85	0
				36	22	**22.74**	22.64	22.79	0
				36	43	**22.76**	22.67	22.83	0
				75	0	22.79	22.69	22.81	0
			16QAM	1	1	22.90	22.78	22.95	0
		CP	QPSK	1	1	22.51	22.43	22.55	0.5

NR Band n25 _ 20 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						372000	376500	381000	
						1860 MHz	1882.5 MHz	1905 MHz	
20 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	22.58	22.60	22.65	0
				1	53	22.61	22.60	22.73	0
				1	104	22.62	22.59	22.70	0
				50	0	22.74	22.70	22.83	0
				50	28	**22.78**	22.70	22.90	0
				50	56	**22.72**	22.68	22.87	0
				100	0	22.75	22.69	22.90	0
			QPSK	1	1	22.56	22.53	22.60	0
				1	53	22.55	22.48	22.69	0
				1	104	22.53	22.54	22.63	0
				50	0	22.74	22.74	22.84	0
				50	28	**22.77**	22.74	22.90	0
				50	56	**22.74**	22.70	22.86	0
				100	0	22.74	22.70	22.90	0
			16QAM	1	1	22.83	22.77	22.83	0
		CP	QPSK	1	1	22.44	22.39	22.46	0.5

NR Band n25 _ 25 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						372000		381000	
						1860 MHz		1905 MHz	
25 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	22.88		23.05	0
				1	66	22.96		23.06	0
				1	131	22.94		23.08	0
				64	0	23.00		23.05	0
				64	35	**23.03**		23.22	0
				64	69	**22.99**		23.20	0
				128	0	23.00		23.20	0
			QPSK	1	1	22.76		23.00	0
				1	66	22.78		23.00	0
				1	131	22.79		23.01	0
				64	0	22.97		23.08	0
				64	35	**23.08**		23.25	0
				64	69	**23.02**		23.00	0
				128	0	23.02		23.06	0
			16QAM	1	1	23.27		23.16	0
		CP	QPSK	1	1	22.52		22.58	0.5

NR Band n25 _ 30 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						373000		380000	
						1865 MHz		1900 MHz	
30 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	22.95		23.04	0
				1	80	23.03		23.03	0
				1	158	23.09		23.08	0
				80	0	23.09		23.13	0
				80	40	**23.13**		23.15	0
				80	80	**23.09**		23.25	0
				160	0	23.12		23.21	0
			QPSK	1	1	22.86		22.98	0
				1	80	22.89		22.93	0
				1	158	23.03		22.99	0
				80	0	22.99		23.09	0
				80	40	**23.11**		23.18	0
				80	80	**23.11**		23.03	0
				160	0	23.14		23.08	0
			16QAM	1	1	23.17		23.28	0
		CP	QPSK	1	1	22.52		22.75	0.5

NR Band n25 _ 40 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
							376500		
							1882.5 MHz		
40 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1		22.95		0
				1	108		23.06		0
				1	214		23.14		0
				108	0		23.00		0
				108	54		23.19		0
				108	108		23.20		0
				216	0		23.10		0
			QPSK	1	1		22.87		0
				1	108		22.95		0
				1	214		23.05		0
				108	0		23.02		0
				108	54		23.17		0
				108	108		23.19		0
				216	0		23.13		0
			16QAM	1	1		22.91		0
		CP	QPSK	1	1		22.19		0.5

[NR Band n66 Conducted Power_ Hotspot activated] Main 2 ANT

NR Band n66 _5 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]				MPR [dB]
						342500	346820	351160	355500	
						1712.5 ㎒	1734.1 ㎒	1755.8 ㎒	1777.5 ㎒	
5 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	23.15	23.00	22.97	22.77	0
				1	13	23.20	23.06	23.05	22.83	0
				1	23	23.16	23.00	22.85	22.78	0
				12	0	23.19	23.07	23.04	22.81	0
				12	7	**23.19**	23.10	23.08	22.89	0
				12	13	**23.21**	23.07	23.01	22.84	0
				25	0	23.20	23.09	23.04	22.84	0
			QPSK	1	1	23.06	22.89	22.85	22.67	0
				1	13	23.14	22.95	22.93	22.72	0
				1	23	23.08	22.90	22.74	22.69	0
				12	0	23.22	23.06	23.04	22.86	0
				12	7	**23.22**	23.08	23.05	22.85	0
				12	13	**23.22**	23.06	23.06	22.84	0
				25	0	23.23	23.07	23.04	22.85	0
			16QAM	1	1	23.43	23.41	23.33	23.18	0
		CP	QPSK	1	1	23.11	22.95	23.01	22.74	0.5

NR Band n66 _ 10 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]				MPR [dB]
						343000	347000	351000	355000	
						1715 ㎒	1735 ㎒	1755 ㎒	1775 ㎒	
10 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	23.24	23.06	22.86	22.80	0
				1	26	23.24	23.10	22.88	22.81	0
				1	50	23.22	23.07	22.77	22.79	0
				25	0	23.28	23.15	22.96	22.89	0
				25	14	**23.33**	**23.24**	**23.04**	22.92	0
				25	27	**23.27**	**23.17**	**22.87**	22.90	0
				50	0	23.29	23.17	23.00	22.85	0
			QPSK	1	1	23.16	22.96	22.80	22.70	0
				1	26	23.11	22.97	22.80	22.70	0
				1	50	23.11	22.98	22.70	22.67	0
				25	0	23.30	23.17	23.01	22.87	0
				25	14	**23.33**	**23.21**	**23.04**	22.94	0
				25	27	**23.26**	**23.23**	**22.91**	23.02	0
				50	0	23.29	23.16	23.02	22.92	0
			16QAM	1	1	23.49	23.47	23.30	23.26	0
		CP	QPSK	1	1	23.31	23.04	22.92	22.79	0.5

NR Band n66 _ 15 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]				MPR [dB]
						343500	347160	350820	354500	
						1717.5 MHz	1735.8 MHz	1754.1 MHz	1772.5 MHz	
15 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	23.09	22.98	22.93	22.68	0
				1	40	22.99	23.03	22.75	22.64	0
				1	77	23.08	23.11	22.84	22.71	0
				36	0	23.15	23.22	23.02	22.84	0
				36	22	23.12	23.17	22.96	22.77	0
				36	43	23.13	23.19	22.88	22.81	0
				75	0	23.13	23.21	23.02	22.84	0
			QPSK	1	1	22.99	22.88	22.81	22.62	0
				1	40	22.90	22.91	22.66	22.57	0
				1	77	23.01	23.00	22.74	22.66	0
				36	0	23.19	23.17	23.00	22.91	0
				36	22	23.11	23.15	22.96	22.79	0
				36	43	23.14	23.17	22.91	22.83	0
				75	0	23.18	23.18	23.01	22.89	0
			16QAM	1	1	23.48	23.39	23.31	23.14	0
		CP	QPSK	1	1	23.18	23.05	22.87	22.71	0.5

NR Band n66 _ 20 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]				MPR [dB]
						344000	349000		354000	
						1720 MHz	1745 MHz		1770 MHz	
20 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	23.04	23.06		22.80	0
				1	53	22.95	22.97		22.77	0
				1	104	22.98	22.99		22.80	0
				50	0	23.11	23.17		22.92	0
				50	28	23.12	23.17		22.99	0
				50	56	23.07	23.16		22.90	0
				100	0	23.12	23.13		22.93	0
			QPSK	1	1	22.94	22.98		22.77	0
				1	53	22.85	22.89		22.68	0
				1	104	22.89	22.88		22.71	0
				50	0	23.12	23.10		23.03	0
				50	28	23.13	23.15		22.95	0
				50	56	23.10	23.15		22.94	0
				100	0	23.11	23.14		22.97	0
			16QAM	1	1	23.44	23.44		23.22	0
		CP	QPSK	1	1	23.01	23.00		22.78	0.5

NR Band n66 _ 30 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]				MPR [dB]
						345000			353000	
						1725 MHz			1765 MHz	
30 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	23.48			23.40	0
				1	80	23.39			23.26	0
				1	158	23.43			23.15	0
				80	0	23.55			23.36	0
				80	40	23.53			23.39	0
				80	80	23.63			23.40	0
				160	0	23.66			23.37	0
			QPSK	1	1	23.37			23.26	0
				1	80	23.26			23.17	0
				1	158	23.33			23.05	0
				80	0	23.55			23.39	0
				80	40	23.56			23.39	0
				80	80	23.68			23.43	0
				160	0	23.66			23.41	0
			16QAM	1	1	23.89			23.62	0
		CP	QPSK	1	1	23.22			23.56	0.5

NR Band n66 _ 40 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]				MPR [dB]
							349000			
							1745 MHz			
40 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1		23.37			0
				1	108		23.52			0
				1	214		23.24			0
				108	0		23.55			0
				108	54		23.61			0
				108	108		23.54			0
				216	0		23.51			0
			QPSK	1	1		23.30			0
				1	108		23.43			0
				1	214		23.16			0
				108	0		23.44			0
				108	54		23.62			0
				108	108		23.55			0
				216	0		23.56			0
			16QAM	1	1		23.83			0
		CP	QPSK	1	1		23.32			0.5

11.5.3 NR Band Reduced Conducted Power(Grip Sensor on)

[NR Band n2 Conducted Power _ Grip Sensor on] Main 2 ANT

NR Band n2 _ 5 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						370500	376000	381500	
						1852.5 ㎒	1880 ㎒	1907.5 ㎒	
5 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	22.63	22.66	22.76	0
				1	13	22.68	22.75	22.82	0
				1	23	22.64	22.70	22.80	0
				12	0	22.67	22.72	22.80	0
				12	7	**22.72**	22.78	22.86	0
				12	13	**22.67**	22.75	22.85	0
				25	0	22.72	22.74	22.82	0
			QPSK	1	1	22.49	22.61	22.69	0
				1	13	22.56	22.65	22.73	0
				1	23	22.50	22.60	22.73	0
				12	0	22.69	22.74	22.84	0
				12	7	**22.70**	22.74	22.77	0
				12	13	**22.70**	22.72	22.78	0
				25	0	22.73	22.74	22.80	0
			16QAM	1	1	23.05	22.88	23.08	0
		CP	QPSK	1	1	22.43	22.46	22.58	0.5

NR Band n2 _ 10 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						371000	376000	381000	
						1855 ㎒	1880 ㎒	1905 ㎒	
10 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	22.60	22.72	22.76	0
				1	26	22.66	22.68	22.76	0
				1	50	22.76	22.72	22.76	0
				25	0	22.72	22.71	22.82	0
				25	14	**22.79**	**22.80**	22.90	0
				25	27	**22.83**	**22.75**	22.82	0
				50	0	22.84	22.74	22.84	0
			QPSK	1	1	22.53	22.60	22.65	0
				1	26	22.58	22.61	22.68	0
				1	50	22.68	22.64	22.67	0
				25	0	22.76	22.76	22.84	0
				25	14	**22.82**	**22.80**	22.87	0
				25	27	**22.88**	**22.77**	22.86	0
				50	0	22.86	22.76	22.86	0
			16QAM	1	1	23.01	22.91	23.14	0
		CP	QPSK	1	1	22.56	22.53	22.65	0.5

NR Band n2 _ 15 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						371500	376000	380500	
						1857.5 ㎒	1880 ㎒	1902.5 ㎒	
15 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	22.66	22.53	22.57	0
				1	40	22.64	22.46	22.55	0
				1	77	22.74	22.52	22.58	0
				36	0	22.80	22.59	22.66	0
				36	22	**22.73**	22.61	22.63	0
				36	43	**22.76**	22.65	22.69	0
				75	0	22.75	22.68	22.68	0
			QPSK	1	1	22.54	22.42	22.50	0
				1	40	22.53	22.37	22.49	0
				1	77	22.64	22.43	22.49	0
				36	0	22.76	22.62	22.66	0
				36	22	**22.73**	22.61	22.71	0
				36	43	**22.77**	22.72	22.67	0
				75	0	22.78	22.66	22.68	0
			16QAM	1	1	23.02	22.87	22.69	0
		CP	QPSK	1	1	22.40	22.32	22.29	0.5

NR Band n2 _ 20 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						372000	376000	380000	
						1860 ㎒	1880 ㎒	1900 ㎒	
20 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	22.47	22.50	22.42	0
				1	53	22.49	22.47	22.45	0
				1	104	22.48	22.53	22.51	0
				50	0	22.62	22.58	22.63	0
				50	28	**22.63**	22.66	22.68	0
				50	56	**22.61**	22.63	22.63	0
				100	0	22.63	22.62	22.64	0
			QPSK	1	1	22.46	22.46	22.40	0
				1	53	22.46	22.43	22.41	0
				1	104	22.43	22.45	22.39	0
				50	0	22.64	22.65	22.65	0
				50	28	**22.71**	22.67	22.66	0
				50	56	**22.64**	22.72	22.65	0
				100	0	22.68	22.65	22.69	0
			16QAM	1	1	22.74	22.67	22.85	0
		CP	QPSK	1	1	22.29	22.34	22.36	0.5

[NR Band n25 Conducted Power _ Grip Sensor on] Main 2 ANT

NR Band n25 _ 5 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						370500	376500	382500	
						1852.5 ㎒	1882.5 ㎒	1912.5 ㎒	
5 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	22.67	22.53	22.75	0
				1	13	22.76	22.62	22.80	0
				1	23	22.71	22.59	22.78	0
				12	0	22.75	22.63	22.82	0
				12	7	**22.79**	22.66	22.79	0
				12	13	**22.75**	22.64	22.80	0
				25	0	22.74	22.63	22.85	0
			QPSK	1	1	22.62	22.52	22.68	0
				1	13	22.65	22.55	22.77	0
				1	23	22.62	22.53	22.70	0
				12	0	22.74	22.66	22.82	0
				12	7	**22.79**	22.67	22.85	0
				12	13	**22.76**	22.62	22.84	0
				25	0	22.79	22.67	22.83	0
			16QAM	1	1	22.98	22.83	23.05	0
		CP	QPSK	1	1	22.47	22.48	22.60	0.5

NR Band n25 _ 10 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						371000	376500	382000	
						1855 ㎒	1882.5 ㎒	1910 ㎒	
10 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	22.79	22.61	22.84	0
				1	26	22.86	22.68	22.82	0
				1	50	22.82	22.65	22.84	0
				25	0	22.86	22.74	22.89	0
				25	14	**22.90**	**22.80**	22.95	0
				25	27	**22.90**	**22.71**	22.90	0
				50	0	22.88	22.72	22.93	0
			QPSK	1	1	22.71	22.52	22.56	0
				1	26	22.77	22.55	22.79	0
				1	50	22.77	22.56	22.74	0
				25	0	22.87	22.74	22.91	0
				25	14	**22.89**	**22.75**	22.95	0
				25	27	**22.88**	**22.77**	22.86	0
				50	0	22.88	22.72	22.94	0
			16QAM	1	1	23.02	23.05	23.05	0
		CP	QPSK	1	1	22.62	22.49	22.68	0.5

NR Band n25 _ 15 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						371500	376500	381500	
						1857.5 MHz	1882.5 MHz	1907.5 MHz	
15 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	22.62	22.48	22.65	0
				1	40	22.63	22.45	22.66	0
				1	77	22.73	22.60	22.66	0
				36	0	22.75	22.60	22.73	0
				36	22	**22.69**	22.57	22.71	0
				36	43	**22.72**	22.61	22.73	0
				75	0	22.71	22.63	22.79	0
			QPSK	1	1	22.58	22.38	22.57	0
				1	40	22.58	22.33	22.54	0
				1	77	22.64	22.49	22.59	0
				36	0	22.76	22.62	22.75	0
				36	22	**22.59**	22.54	22.76	0
				36	43	**22.79**	22.59	22.78	0
				75	0	22.70	22.66	22.77	0
			16QAM	1	1	22.91	22.76	22.85	0
		CP	QPSK	1	1	22.43	22.24	22.51	0.5

NR Band n25 _ 20 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						372000	376500	381000	
						1860 MHz	1882.5 MHz	1905 MHz	
20 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	22.50	22.39	22.49	0
				1	53	22.54	22.36	22.62	0
				1	104	22.53	22.40	22.59	0
				50	0	22.63	22.48	22.73	0
				50	28	**22.67**	22.56	22.81	0
				50	56	**22.62**	22.54	22.78	0
				100	0	22.69	22.53	22.75	0
			QPSK	1	1	22.45	22.30	22.41	0
				1	53	22.48	22.31	22.56	0
				1	104	22.43	22.33	22.53	0
				50	0	22.65	22.54	22.77	0
				50	28	**22.72**	22.60	22.80	0
				50	56	**22.67**	22.55	22.82	0
				100	0	22.69	22.56	22.82	0
			16QAM	1	1	22.75	22.74	22.89	0
		CP	QPSK	1	1	22.39	22.19	22.34	0.5

NR Band n25 _ 15 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
						372500		380500	
						1862.5 MHz		1902.5 MHz	
25 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	22.86		22.99	0
				1	66	22.95		23.06	0
				1	131	22.92		23.06	0
				64	0	22.99		23.09	0
				64	35	23.04		23.17	0
				64	69	22.97		23.18	0
				128	0	23.01		23.17	0
			QPSK	1	1	22.77		22.90	0
				1	66	22.80		22.93	0
				1	131	22.77		22.95	0
				64	0	22.90		23.05	0
				64	35	23.04		23.23	0
				64	69	22.99		22.98	0
				128	0	23.02		23.04	0
			16QAM	1	1	23.23		23.25	0
		CP	QPSK	1	1	22.50		22.47	0.5

NR Band n25 _ 30 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						373000		380000	
						1865 MHz		1900 MHz	
30 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	22.96		23.03	0
				1	80	23.02		23.01	0
				1	158	23.07		23.06	0
				80	0	23.07		23.10	0
				80	40	23.12		23.14	0
				80	80	23.07		23.22	0
				160	0	23.09		23.17	0
			QPSK	1	1	22.85		22.93	0
				1	80	22.87		22.93	0
				1	158	22.99		22.98	0
				80	0	22.98		23.07	0
				80	40	23.10		23.16	0
				80	80	23.08		23.01	0
				160	0	23.13		23.06	0
			16QAM	1	1	23.14		23.26	0
		CP	QPSK	1	1	22.42		22.74	0.5

NR Band n25 _ 40 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
							376500		
							1882.5 MHz		
40 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1		22.93		0
				1	108		23.02		0
				1	214		23.09		0
				108	0		22.96		0
				108	54		23.20		0
				108	108		23.19		0
				216	0		23.08		0
			QPSK	1	1		22.86		0
				1	108		22.89		0
				1	214		23.01		0
				108	0		23.04		0
				108	54		23.17		0
				108	108		23.18		0
				216	0		23.16		0
			16QAM	1	1		22.94		0
		CP	QPSK	1	1		22.21		0.5

[NR Band n66 Conducted Power_ Grip Sensor on] Main 2 ANT

NR Band n66 _5 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]				MPR [dB]
						342500	346820	351160	355500	
						1712.5 ㎒	1734.1 ㎒	1755.8 ㎒	1777.5 ㎒	
5 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	23.16	23.01	22.98	22.77	0
				1	13	23.24	23.06	23.04	22.84	0
				1	23	23.17	23.01	22.88	22.82	0
				12	0	23.24	23.03	23.03	22.87	0
				12	7	23.28	23.10	23.13	22.92	0
				12	13	23.21	23.03	23.02	22.86	0
				25	0	23.24	23.07	23.07	22.91	0
			QPSK	1	1	23.03	22.88	22.85	22.69	0
				1	13	23.07	22.92	22.93	22.70	0
				1	23	23.04	22.89	22.79	22.68	0
				12	0	23.21	23.03	23.08	22.87	0
				12	7	23.27	23.05	23.05	22.88	0
				12	13	23.21	23.02	23.08	22.90	0
				25	0	23.22	23.06	23.07	22.91	0
			16QAM	1	1	23.46	23.38	23.38	23.25	0
		CP	QPSK	1	1	23.15	23.04	22.96	22.78	0.5

NR Band n66 _ 10 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]				MPR [dB]
						343000	347000	351000	355000	
						1715 ㎒	1735 ㎒	1755 ㎒	1775 ㎒	
10 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	23.22	23.06	22.96	22.86	0
				1	26	23.25	23.09	23.02	22.87	0
				1	50	23.19	23.08	22.88	22.86	0
				25	0	23.33	23.17	23.06	22.94	0
				25	14	23.39	23.25	23.15	22.95	0
				25	27	23.33	23.17	22.99	22.96	0
				50	0	23.30	23.17	23.08	22.91	0
			QPSK	1	1	23.14	23.00	22.91	22.75	0
				1	26	23.13	22.99	22.91	22.77	0
				1	50	23.11	22.98	22.81	22.74	0
				25	0	23.34	23.33	23.09	22.95	0
				25	14	23.37	23.23	23.12	22.99	0
				25	27	23.31	23.17	23.07	22.98	0
				50	0	23.35	23.19	23.12	22.94	0
			16QAM	1	1	23.45	23.46	23.42	23.24	0
		CP	QPSK	1	1	23.33	23.08	22.99	22.84	0.5

NR Band n66 _ 15 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]				MPR [dB]
						343500	347160	350820	354500	
						1717.5 MHz	1735.8 MHz	1754.1 MHz	1772.5 MHz	
15 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	23.13	23.10	23.00	22.83	0
				1	40	23.08	23.08	22.80	22.79	0
				1	77	23.13	23.23	22.90	22.88	0
				36	0	23.23	23.26	23.07	22.97	0
				36	22	23.20	23.19	23.03	22.90	0
				36	43	23.20	23.24	22.99	22.94	0
				75	0	23.19	23.24	23.08	22.97	0
			QPSK	1	1	23.07	23.00	22.88	22.74	0
				1	40	22.98	23.01	22.72	22.68	0
				1	77	23.03	23.13	22.81	22.78	0
				36	0	23.29	23.28	23.06	22.98	0
				36	22	23.17	23.20	23.01	22.93	0
				36	43	23.22	23.25	23.02	22.96	0
				75	0	23.24	23.25	23.07	22.97	0
			16QAM	1	1	23.47	23.32	23.34	23.26	0
		CP	QPSK	1	1	23.25	22.96	23.05	22.95	0.5

NR Band n66 _ 20 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]				MPR [dB]
						344000	349000		354000	
						1720 MHz	1745 MHz		1770 MHz	
20 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	23.13	23.03		22.87	0
				1	53	23.04	22.97		22.84	0
				1	104	23.08	22.95		22.88	0
				50	0	23.18	23.17		23.00	0
				50	28	23.23	23.18		23.03	0
				50	56	23.16	23.15		22.96	0
				100	0	23.20	23.17		23.03	0
			QPSK	1	1	23.02	22.98		22.80	0
				1	53	22.94	22.91		22.74	0
				1	104	22.99	22.88		22.76	0
				50	0	23.22	23.19		23.03	0
				50	28	23.23	23.23		23.03	0
				50	56	23.21	23.19		22.99	0
				100	0	23.18	23.19		23.02	0
			16QAM	1	1	23.47	23.49		23.31	0
		CP	QPSK	1	1	23.06	23.04		22.82	0.5

NR Band n66 _ 30 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]				MPR [dB]
						345000			353000	
						1725 MHz			1765 MHz	
30 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1	23.45			23.49	0
				1	80	23.46			23.35	0
				1	158	23.51			23.25	0
				80	0	23.61			23.43	0
				80	40	23.60			23.47	0
				80	80	23.74			23.45	0
				160	0	23.69			23.49	0
			QPSK	1	1	23.46			23.39	0
				1	80	23.35			23.28	0
				1	158	23.38			23.18	0
				80	0	23.64			23.48	0
				80	40	23.62			23.44	0
				80	80	23.75			23.49	0
				160	0	23.72			23.46	0
			16QAM	1	1	23.71			23.72	0
		CP	QPSK	1	1	22.90			23.68	0.5

NR Band n66 _ 40 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]				MPR [dB]
							349000			
							1745 MHz			
40 MHz	15	DFT-s OFDM	PI/2 BPSK	1	1		23.42			0
				1	108		23.58			0
				1	214		23.28			0
				108	0		23.66			0
				108	54		23.65			0
				108	108		23.63			0
				216	0		23.63			0
			QPSK	1	1		23.31			0
				1	108		23.47			0
				1	214		23.16			0
				108	0		23.64			0
				108	54		23.65			0
				108	108		23.66			0
				216	0		23.65			0
			16QAM	1	1		23.81			0
		CP	QPSK	1	1		23.36			0.5

11.5.4 NR Band Reduced Conducted Power (Receiver ON) _Sub 2 Ant.

[NR Band n41 Conducted Power] Power Class 3 _Receiver ON_Sub 2 Ant.

NR Band n41 _20 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power_Receiver ON [dBm]					MPR [dB]
						501204	509898	518598	527298	535998	
						2506.02 ㎒	2549.49 ㎒	2592.99 ㎒	2636.49 ㎒	2679.99 ㎒	
20 ㎒	30	DFT-s	pi/2 BPSK	1	1	22.51	21.99	22.2	22.46	22.38	0
				1	26	22.6	21.79	22.15	22.31	22.47	0
				1	49	22.55	21.95	22.23	22.3	22.41	0
				25	0	22.69	21.97	22.29	22.49	22.52	0
				25	13	**22.69**	**21.9**	22.25	22.38	22.52	0
				25	26	**22.65**	**21.93**	22.29	22.33	22.44	0
				50	0	22.69	21.92	22.31	22.44	22.49	0
			QPSK	1	1	22.58	22.06	22.24	22.41	22.47	0
				1	26	22.68	21.9	22.21	22.28	22.53	0
				1	49	22.61	22.03	22.29	22.28	22.5	0
				25	0	22.69	22.00	22.31	22.48	22.51	0
				25	13	**22.7**	**21.90**	22.27	22.38	22.54	0
				25	26	**22.63**	**21.94**	22.25	22.34	22.49	0
				50	0	22.7	21.94	22.3	22.42	22.48	0
			16QAM	1	1	22.6	22.09	22.24	22.45	22.45	0
		CP	QPSK	1	1	22.59	22.05	22.15	22.17	22.13	0

NR Band n41 _30 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power _Receiver ON [dBm]					MPR [dB]
						502200	**513468**	**518598**	**523734**	**535000**	
						2511 MHz	**2567.34 MHz**	**2592.99 MHz**	**2618.67 MHz**	**2675 MHz**	
30 ㎒	30	DFT-s	pi/2 BPSK	1	1	22.72	22.16	22.31	22.45	22.27	0
				1	39	22.84	22.27	22.37	22.54	22.27	0
				1	76	22.7	22.48	22.5	22.64	22.43	0
				36	0	22.87	22.23	22.35	22.5	22.39	0
				36	21	**22.87**	**22.32**	**22.46**	22.56	22.37	0
				36	42	**22.82**	**22.41**	**22.49**	22.63	22.46	0
				75	0	22.83	22.37	22.51	22.55	22.41	0
			QPSK	1	1	22.69	22.25	22.26	22.51	22.38	0
				1	39	22.8	22.33	22.34	22.65	22.38	0
				1	76	22.66	22.54	22.5	22.71	22.53	0
				36	0	22.88	22.24	22.41	22.54	22.39	0
				36	21	**22.87**	**22.38**	**22.49**	22.55	22.41	0
				36	42	**22.8**	**22.41**	**22.54**	22.65	22.48	0
				75	0	22.88	22.38	22.48	22.57	22.46	0
			16QAM	1	1	22.68	22.18	22.28	22.58	22.4	0
		CP	QPSK	1	1	22.71	22.24	22.36	22.22	22.1	0

NR Band n41 _40 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power _Receiver ON [dBm]					MPR [dB]
						503202	513468		523734	534000	
						2516.01 MHz	2567.34 MHz		2618.67 MHz	2670 MHz	
40 MHz	30	DFT-s	pi/2 BPSK	1	1	22.63	22.1		22.52	22.53	0
				1	53	22.71	22.21		22.57	22.28	0
				1	104	22.46	22.53		22.63	22.49	0
				50	0	22.81	22.24		22.53	22.47	0
				50	28	**22.8**	**22.33**		22.56	22.38	0
				50	56	**22.65**	**22.47**		22.67	22.48	0
				100	0	22.75	22.22		22.64	22.4	0
			QPSK	1	1	22.76	22.19		22.54	22.61	0
				1	53	22.76	22.28		22.64	22.35	0
				1	104	22.58	22.57		22.67	22.59	0
				50	0	22.87	22.27		22.53	22.45	0
				50	28	**22.79**	**22.31**		22.59	22.38	0
				50	56	**22.67**	**22.47**		22.72	22.46	0
				100	0	22.75	22.27		22.64	22.41	0
			16QAM	1	1	22.77	22.16		22.63	22.59	0
		CP	QPSK	1	1	22.76	22.24		22.33	22.34	0

NR Band n41 _50 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power_Receiver ON [dBm]					MPR [dB]
						504204		518598		532998	
						2521.02 MHz		2592.99 MHz		2664.99 MHz	
50 MHz	30	DFT-s	pi/2 BPSK	1	1	21.88		21.99		22.23	0
				1	67	22.23		22.33		22.03	0
				1	131	21.5		22.41		22.13	0
				64	0	22.32		22.09		22.11	0
				64	35	**22.24**		22.26		22.03	0
				64	69	**21.93**		22.36		22.06	0
				128	0	22.15		22.29		22.04	0
			QPSK	1	1	22		21.9		22.16	0
				1	67	22.28		22.25		21.93	0
				1	131	21.63		22.4		22.04	0
				64	0	22.33		22.12		22.14	0
				64	35	**22.26**		22.24		22.04	0
				64	69	**21.93**		22.37		22.1	0
				128	0	22.14		22.29		22.07	0
			16QAM	1	1	21.97		21.91		22.24	0
		CP	QPSK	1	1	22.03		22.02		21.98	0

NR Band n41 _60 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power_Receiver ON [dBm]						MPR [dB]
						505200		518598		531996		
						2526 MHz		2592.99 MHz		2659.98 MHz		
60 MHz	30	DFT-s	pi/2 BPSK	1	1	21.72		21.87		22.32		0
				1	81	22.14		22.26		22.17		0
				1	160	21.4		22.34		22.12		0
				81	0	22.16		22.07		22.22		0
				81	41	**22.09**		22.19		22.14		0
				81	81	**21.71**		22.31		22.15		0
				162	0	21.95		22.12		22.16		0
			QPSK	1	1	21.82		21.8		22.27		0
				1	81	22.19		22.19		22.09		0
				1	160	21.46		22.31		22.07		0
				81	0	22.15		22.07		22.23		0
				81	41	**22.09**		22.18		22.16		0
				81	81	**21.72**		22.31		22.16		0
				162	0	21.93		22.11		22.21		0
			16QAM	1	1	21.77		21.81		22.27		0
		CP	QPSK	1	1	21.81		21.86		22.03		0

NR Band n41 _80 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power_Receiver ON [dBm]					MPR [dB]
						507204				529998	
						2536.02 MHz				2649.99 MHz	
80 MHz	30	DFT-s	pi/2 BPSK	1	1	22.15				22.05	0
				1	109	21.84				21.88	0
				1	215	21.83				21.91	0
				108	0	22.28				22.16	0
				108	55	**21.92**				22	0
				108	109	**21.8**				21.93	0
				216	0	22.07				22.04	0
			QPSK	1	1	22.21				22.14	0
				1	109	21.95				22.02	0
				1	215	21.92				22.03	0
				108	0	22.28				22.2	0
				108	55	**21.96**				22.02	0
				108	109	**21.88**				21.95	0
				216	0	22.05				22.05	0
			16QAM	1	1	22.27				22.28	0
		CP	QPSK	1	1	22.27				21.92	0

NR Band n41 _90 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power_Receiver ON [dBm]					MPR [dB]
						508200				528996	
						2541 MHz				2644.98 MHz	
90 MHz	30	DFT-s	pi/2 BPSK	1	1	22.1				22.09	0
				1	123	21.75				21.99	0
				1	243	22				22.03	0
				120	0	22.19				22.14	0
				120	63	**21.9**				22.06	0
				120	125	**21.82**				21.91	0
				243	0	22.04				22.11	0
			QPSK	1	1	22.19				22.18	0
				1	123	21.79				22.06	0
				1	243	22.1				22.12	0
				120	0	22.2				22.15	0
				120	63	**21.86**				22.05	0
				120	125	**21.82**				21.97	0
				243	0	22				22.13	0
			16QAM	1	1	22.21				22.23	0
		CP	QPSK	1	1	22.25				21.92	0

NR Band n41 _100 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power_Receiver ON [dBm]					MPR [dB]
								518598			
								2592.99 MHz			
100 MHz	30	DFT-s	pi/2 BPSK	1	1			21.71			0
				1	137			22.07			0
				1	271			22.21			0
				135	0			21.83			0
				135	69			22.05			0
				135	138			22.21			0
				270	0			22.05			0
			QPSK	1	1			21.63			0
				1	137			22.23			0
				1	271			22.12			0
				135	0			21.86			0
				135	69			22.31			0
				135	138			22.22			0
				270	0			21.98			0
			16QAM	1	1			21.68			0
		CP	QPSK	1	1			21.73			0

[NR Band n41 Conducted Power] Power Class 2 _Receiver ON_Sub 2 Ant.

NR Band n41 _20 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power_Receiver ON [dBm]					MPR [dB]
						501204	509898	518598	527298	535998	
						2506.02 ㎒	2549.49 ㎒	2592.99 ㎒	2636.49 ㎒	2679.99 ㎒	
20 ㎒	30	DFT-s	pi/2 BPSK	1	1	22.42	21.92	22.1	22.31	22.28	0
				1	26	22.49	21.68	22.06	22.17	22.38	0
				1	49	22.48	21.81	22.13	22.14	22.33	0
				25	0	22.57	21.91	22.22	22.37	22.42	0
				25	13	**22.56**	**21.81**	22.19	22.28	22.42	0
				25	26	**22.51**	**21.85**	22.2	22.22	22.39	0
				50	0	22.57	21.81	22.18	22.33	22.38	0
			QPSK	1	1	22.37	21.99	22.16	22.39	22.37	0
				1	26	22.45	21.78	22.11	22.26	22.41	0
				1	49	22.41	21.89	22.18	22.24	22.4	0
				25	0	22.56	21.93	22.19	22.36	22.42	0
				25	13	**22.58**	**21.82**	22.18	22.27	22.41	0
				25	26	**22.53**	**21.87**	22.18	22.22	22.37	0
				50	0	22.56	21.88	22.19	22.33	22.4	0
			16QAM	1	1	22.41	21.99	22.14	22.38	22.39	0
		CP	QPSK	1	1	22.49	21.97	22.17	22.36	22.34	0

NR Band n41 _30 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power _Receiver ON [dBm]					MPR [dB]
						502200	**513468**	**518598**	**523734**	**535000**	
						2511 MHz	**2567.34 MHz**	**2592.99 MHz**	**2618.67 MHz**	**2675 MHz**	
30 ㎒	30	DFT-s	pi/2 BPSK	1	1	22.56	22.02	22.24	22.43	22.33	0
				1	39	22.71	22.14	22.36	22.55	22.35	0
				1	76	22.59	22.42	22.49	22.67	22.45	0
				36	0	22.75	22.12	22.38	22.48	22.41	0
				36	21	**22.74**	**22.25**	**22.46**	22.54	22.43	0
				36	42	**22.7**	**22.35**	**22.52**	22.67	22.54	0
				75	0	22.75	22.3	22.5	22.58	22.48	0
			QPSK	1	1	22.65	22.18	22.34	22.47	22.44	0
				1	39	22.75	22.27	22.4	22.59	22.44	0
				1	76	22.65	22.46	22.53	22.74	22.55	0
				36	0	22.75	22.12	22.36	22.48	22.42	0
				36	21	**22.75**	**22.23**	**22.44**	22.52	22.43	0
				36	42	**22.71**	**22.34**	**22.5**	22.6	22.51	0
				75	0	22.73	22.32	22.5	22.56	22.46	0
			16QAM	1	1	22.66	22.1	22.31	22.59	22.42	0
		CP	QPSK	1	1	22.71	22.15	22.39	22.55	22.43	0

NR Band n41 _40 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power _Receiver ON [dBm]					MPR [dB]
						503202	513468		523734	534000	
						2516.01 MHz	2567.34 MHz		2618.67 MHz	2670 MHz	
40 MHz	30	DFT-s	pi/2 BPSK	1	1	22.63	22.09		22.47	22.48	0
				1	53	22.65	22.16		22.54	22.26	0
				1	104	22.43	22.47		22.61	22.49	0
				50	0	22.77	22.18		22.47	22.44	0
				50	28	**22.7**	**22.24**		22.51	22.32	0
				50	56	**22.61**	**22.46**		22.62	22.45	0
				100	0	22.74	22.21		22.56	22.34	0
			QPSK	1	1	22.74	22.16		22.52	22.42	0
				1	53	22.71	22.26		22.58	22.19	0
				1	104	22.51	22.52		22.61	22.41	0
				50	0	22.78	22.19		22.47	22.44	0
				50	28	**22.72**	**22.26**		22.54	22.31	0
				50	56	**22.61**	**22.46**		22.64	22.41	0
				100	0	22.72	22.25		22.58	22.38	0
			16QAM	1	1	22.73	22.1		22.58	22.49	0
		CP	QPSK	1	1	22.77	22.2		22.59	22.54	0

NR Band n41 _50 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power_Receiver ON [dBm]					MPR [dB]
						504204		518598		532998	
						2521.02 MHz		2592.99 MHz		2664.99 MHz	
50 MHz	30	DFT-s	pi/2 BPSK	1	1	21.94		21.94		22.28	0
				1	67	22.23		22.3		22.02	0
				1	131	21.58		22.4		22.19	0
				64	0	22.23		22.02		22.12	0
				64	35	**22.18**		22.18		22.05	0
				64	69	**21.84**		22.33		22.11	0
				128	0	22.11		22.21		22.06	0
			QPSK	1	1	21.88		21.82		22.2	0
				1	67	22.14		22.21		21.97	0
				1	131	21.47		22.35		22.08	0
				64	0	22.25		22.01		22.13	0
				64	35	**22.19**		22.2		22.05	0
				64	69	**21.85**		22.31		22.14	0
				128	0	22.1		22.21		22.06	0
			16QAM	1	1	21.87		21.86		22.24	0
		CP	QPSK	1	1	21.97		21.94		22.33	0

NR Band n41 _60 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power_Receiver ON [dBm]						MPR [dB]
						505200			518598		531996	
						2526 MHz			2592.99 MHz		2659.98 MHz	
60 MHz	30	DFT-s	pi/2 BPSK	1	1	21.8			21.83		22.27	0
				1	81	22.18			22.22		22.15	0
				1	160	21.46			22.33		22.1	0
				81	0	22.19			22.06		22.22	0
				81	41	**22.11**			22.19		22.15	0
				81	81	**21.69**			22.34		22.13	0
				162	0	21.99			22.16		22.2	0
			QPSK	1	1	21.73			21.88		22.34	0
				1	81	22.12			22.30		22.19	0
				1	160	21.37			22.38		22.13	0
				81	0	22.17			22.07		22.23	0
				81	41	**22.13**			22.18		22.16	0
				81	81	**21.71**			22.29		22.15	0
				162	0	21.97			22.14		22.23	0
			16QAM	1	1	21.72			21.85		22.38	0
		CP	QPSK	1	1	21.81			21.88		22.37	0

NR Band n41 _80 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power_Receiver ON [dBm]					MPR [dB]
						507204				529998	
						2536.02 MHz				2649.99 MHz	
80 MHz	30	DFT-s	pi/2 BPSK	1	1	22.24				22.14	0
				1	109	21.91				22.01	0
				1	215	21.88				22.04	0
				108	0	22.27				22.25	0
				108	55	**21.92**				22.09	0
				108	109	**21.81**				22	0
				216	0	22				22.1	0
			QPSK	1	1	22.15				22.12	0
				1	109	21.81				21.98	0
				1	215	21.81				21.98	0
				108	0	22.27				22.25	0
				108	55	**21.96**				22.06	0
				108	109	**21.83**				22.07	0
				216	0	22.02				22.13	0
			16QAM	1	1	22.2				22.19	0
		CP	QPSK	1	1	22.23				22.31	0

NR Band n41 _90 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power_Receiver ON [dBm]					MPR [dB]
						508200				528996	
						2541 MHz				2644.98 MHz	
90 MHz	30	DFT-s	pi/2 BPSK	1	1	22.16				22.1	0
				1	123	21.76				21.98	0
				1	243	22.06				22.02	0
				120	0	22.2				22.15	0
				120	63	**21.9**				22.05	0
				120	125	**21.85**				21.94	0
				243	0	22.07				22.14	0
			QPSK	1	1	22.12				22.2	0
				1	123	21.71				22.07	0
				1	243	21.99				22.14	0
				120	0	22.18				22.18	0
				120	63	**21.89**				22.07	0
				120	125	**21.8**				21.98	0
				243	0	22.01				22.17	0
			16QAM	1	1	22.2				22.28	0
		CP	QPSK	1	1	22.26				22.26	0

NR Band n41 _100 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power_Receiver ON [dBm]					MPR [dB]
								518598			
								2592.99 MHz			
100 MHz	30	DFT-s	pi/2 BPSK	1	1			21.71			0
				1	137			22.05			0
				1	271			22.18			0
				135	0			21.86			0
				135	69			22.06			0
				135	138			22.24			0
				270	0			22.04			0
			QPSK	1	1			21.74			0
				1	137			22.24			0
				1	271			22.22			0
				135	0			21.86			0
				135	69			22.3			0
				135	138			22.25			0
				270	0			21.97			0
			16QAM	1	1			21.69			0
		CP	QPSK	1	1			21.75			0

[NR Band n77 Conducted Power] _Receiver ON

NR Band n77_ 20 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power_Receiver ON [dBm]						MPR [dB]
						347334	650800	654266	657733	661200	664666	
						3710 ㎒	3762 ㎒	3814 ㎒	3866 ㎒	3918 ㎒	3969.99 ㎒	
20 ㎒	30	DFT-s OFDM	PI/2 BPSK	1	1	19.84	19.94	19.94	20.01	19.82	19.79	0
				1	26	19.85	19.98	19.95	19.93	19.83	19.65	0
				1	49	19.92	20.01	20.03	19.94	19.85	19.75	0
				25	0	19.83	19.94	20.08	20.01	19.88	19.73	0
				25	13	**19.89**	**20.01**	20.05	20.00	19.85	19.71	0
				25	26	**19.92**	**20.03**	20.03	19.92	19.81	19.74	0
				50	0	19.91	20.04	20.09	20.00	19.86	19.72	0
			QPSK	1	1	19.88	19.96	20.02	20.03	19.86	19.84	0
				1	26	19.91	19.97	20.02	19.96	19.87	19.67	0
				1	49	19.98	20.07	20.13	19.98	19.90	19.80	0
				25	0	19.81	19.93	20.06	20.00	19.88	19.69	0
				25	13	**19.87**	**20.01**	20.05	19.96	19.82	19.72	0
				25	26	**19.94**	**20.02**	20.04	19.90	19.81	19.76	0
				50	0	19.91	20.03	20.09	20.04	19.92	19.73	0
			16QAM	1	1	19.89	19.97	20.02	20.03	19.89	19.82	0
		CP	QPSK	1	1	19.89	19.98	20.03	20.02	19.90	19.85	0

NR Band n77_30 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power_Receiver ON [dBm]						MPR [dB]
						647666	651000	654334	657666	661000	664334	
						3714.99 ㎒	3765 ㎒	3815.01 ㎒	3864.99 ㎒	3915 ㎒	3965.01 ㎒	
30 ㎒	30	DFT-s OFDM	PI/2 BPSK	1	1	20.37	20.24	20.23	20.53	20.20	20.12	0
				1	39	20.36	20.18	20.18	20.32	20.03	19.97	0
				1	76	20.26	20.13	20.30	20.26	20.00	20.01	0
				36	0	20.39	20.27	20.35	20.47	20.18	20.07	0
				36	21	**20.42**	**20.25**	20.32	20.46	20.13	20.04	0
				36	42	**20.43**	**20.27**	20.27	20.33	20.06	20.06	0
				75	0	20.45	20.28	20.32	20.48	20.13	20.05	0
			QPSK	1	1	20.46	20.30	20.31	20.58	20.23	20.15	0
				1	39	20.40	20.23	20.25	20.42	20.06	19.97	0
				1	76	20.37	20.22	20.35	20.33	20.03	20.06	0
				36	0	20.40	20.24	20.33	20.45	20.15	20.08	0
				36	21	**20.45**	**20.30**	20.28	20.41	20.14	20.04	0
				36	42	**20.39**	**20.26**	20.22	20.32	20.03	20.09	0
				75	0	20.46	20.32	20.30	20.48	20.18	20.08	0
			16QAM	1	1	20.38	20.29	20.27	20.60	20.28	20.19	0
		CP	QPSK	1	1	20.41	20.33	20.29	20.58	20.26	20.15	0

NR Band n77_40 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power_Receiver ON [dBm]						MPR [dB]
						648000	651200	654400	657600	660800	664000	
						3720 MHz	3768 MHz	3816 MHz	3864 MHz	3912 MHz	3960 MHz	
40 ㎒	30	DFT-s OFDM	PI/2 BPSK	1	1	20.26	20.23	20.25	20.33	20.23	20.14	0
				1	53	20.27	20.24	20.22	20.35	20.13	20.07	0
				1	104	20.13	20.20	20.22	20.14	20.01	20.04	0
				50	0	20.31	20.29	20.33	20.46	20.38	20.25	0
				50	28	20.34	**20.33**	20.32	20.42	20.25	20.13	0
				50	56	20.26	**20.21**	20.25	20.32	20.16	20.13	0
				100	0	20.35	20.29	20.28	20.42	20.22	20.15	0
			QPSK	1	1	20.22	20.19	20.21	20.38	20.27	20.11	0
				1	53	20.24	20.18	20.18	20.38	20.19	20.00	0
				1	104	20.05	20.16	20.14	20.23	20.09	19.97	0
				50	0	20.29	20.26	20.38	20.45	20.33	20.24	0
				50	28	20.30	**20.31**	20.29	20.44	20.24	20.14	0
				50	56	20.26	**20.27**	20.28	20.33	20.15	20.11	0
				100	0	20.37	20.34	20.33	20.45	20.26	20.14	0
			16QAM	1	1	20.22	20.26	20.23	20.39	20.25	20.15	0
		CP	QPSK	1	1	20.27	20.27	20.26	20.41	20.28	20.16	0

NR Band n77_ 50 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power _Receiver ON [dBm]						MPR [dB]
						648334	652134	655934		659800	663666	
						3725 ㎒	3782 ㎒	3839 ㎒		3896 ㎒	3955 ㎒	
50 ㎒	30	DFT-s OFDM	PI/2 BPSK	1	1	19.70	19.83	19.82		19.83	19.67	0
				1	67	19.70	19.85	19.89		19.73	19.64	0
				1	131	19.82	19.95	20.02		19.80	19.89	0
				64	0	19.71	19.82	19.90		19.79	19.61	0
				64	35	**19.71**	**19.98**	19.99		19.78	19.70	0
				64	69	**19.77**	**19.93**	20.08		19.80	19.76	0
				128	0	19.69	19.93	19.94		19.73	19.65	0
			QPSK	1	1	19.63	19.87	19.76		19.72	19.70	0
				1	67	19.59	19.94	19.88		19.66	19.66	0
				1	131	19.72	20.05	19.93		19.69	19.95	0
				64	0	19.72	19.87	19.95		19.78	19.63	0
				64	35	**19.67**	**19.94**	19.95		19.79	19.65	0
				64	69	**19.80**	**19.94**	20.10		19.82	19.76	0
				128	0	19.68	19.95	19.97		19.78	19.68	0
			16QAM	1	1	19.65	19.86	19.81		19.83	19.75	0
		CP	QPSK	1	1	19.75	19.91	19.82		19.85	19.73	0

NR Band n77_60 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power _Receiver ON [dBm]						MPR [dB]
						648666	652334	656000		659666	663334	
						3730 MHz	3730 MHz	3840 MHz		3895 MHz	3950 MHz	
60 MHz	30	DFT-s OFDM	PI/2 BPSK	1	1	19.75	19.74	19.82		19.89	19.20	0
				1	81	19.83	19.76	19.89		19.81	19.58	0
				1	160	19.90	19.95	20.08		19.89	19.56	0
				81	0	19.77	19.74	19.95		19.90	19.48	0
				81	41	**19.72**	**19.84**	19.98		19.88	19.65	0
				81	81	**19.83**	**19.96**	20.04		19.85	19.71	0
				162	0	19.76	19.85	20.02		19.85	19.58	0
			QPSK	1	1	19.69	19.82	19.88		19.87	19.27	0
				1	81	19.74	19.78	19.94		19.79	19.61	0
				1	160	19.78	20.04	20.15		19.86	19.65	0
				81	0	19.73	19.77	20.00		19.92	19.51	0
				81	41	**19.73**	**19.79**	19.95		19.86	19.58	0
				81	81	**19.82**	**19.92**	20.02		19.86	19.68	0
				162	0	19.73	19.86	20.01		19.88	19.57	0
			16QAM	1	1	19.73	19.79	19.86		19.88	19.26	0
		CP	QPSK	1	1	19.78	19.83	19.88		19.95	19.26	0

NR Band n77_70 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power _Receiver ON [dBm]						MPR [dB]
						649000	654334			658334	663000	
						3735 MHz	3805.01 MHz			3875.01 MHz	3945 MHz	
70 MHz	30	DFT-s OFDM	PI/2 BPSK	1	1	19.74	19.70			19.74	19.57	0
				1	95	19.76	19.76			19.78	19.51	0
				1	188	19.85	20.10			19.92	19.86	0
				90	0	19.72	19.78			19.75	19.64	0
				90	50	**19.77**	**19.75**			**19.76**	19.64	0
				90	99	**19.75**	**19.88**			**19.80**	19.65	0
				180	0	19.75	19.79			19.82	19.62	0
			QPSK	1	1	19.62	19.68			19.66	19.52	0
				1	95	19.73	19.70			19.74	19.50	0
				1	188	19.80	20.04			19.88	19.81	0
				90	0	19.71	19.81			19.74	19.65	0
				90	50	**19.79**	**19.73**			**19.81**	19.60	0
				90	99	**19.73**	**19.86**			**19.82**	19.70	0
				180	0	19.77	19.80			19.84	19.68	0
			16QAM	1	1	19.66	19.73			19.69	19.58	0
		CP	QPSK	1	1	19.77	19.75			19.79	19.61	0

NR Band n77_ 80 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power_Receiver ON [dBm]						MPR [dB]
						662666	653800			658200	662666	
						3740 MHz	3807 MHz			3873 MHz	3940 MHz	
80 MHz	30	DFT-s OFDM	PI/2 BPSK	1	1	19.74	19.75			19.78	19.69	0
				1	109	19.68	19.78			19.91	19.64	0
				1	215	19.83	20.12			19.80	19.82	0
				108	0	19.68	19.76			19.83	19.65	0
				108	55	**19.69**	**19.81**			**19.85**	19.67	0
				108	109	**19.71**	**19.94**			**19.86**	19.68	0
				216	0	19.68	19.81			19.87	19.68	0
			QPSK	1	1	19.65	19.71			19.77	19.65	0
				1	109	19.63	19.73			19.82	19.63	0
				1	215	19.78	20.03			19.73	19.76	0
				108	0	19.67	19.75			19.81	19.68	0
				108	55	**19.69**	**19.77**			**19.90**	19.66	0
				108	109	**19.72**	**19.92**			**19.87**	19.69	0
				216	0	19.67	19.84			19.91	19.69	0
			16QAM	1	1	19.69	19.74			19.79	19.70	0
		CP	QPSK	1	1	19.71	19.81			19.79	19.72	0

NR Band n77_ 90 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Reduced Power_Receiver ON [dBm]						MPR [dB]
						649666		656000		662334		
						3745 MHz		3840 MHz		3935 MHz		
90 MHz	30	DFT-s OFDM	PI/2 BPSK	1	1	21.02		20.91		20.78		0
				1	123	21.01		21.06		20.65		0
				1	243	21.15		21.17		20.92		0
				120	0	20.73		20.84		20.5		0
				120	63	**21.11**		**21.13**		20.73		0
				120	125	**20.74**		**21.01**		20.6		0
				243	0	20.78		20.94		20.57		0
			QPSK	1	1	21.17		20.88		20.77		0
				1	123	21.03		21		20.58		0
				1	243	21.08		21.08		20.95		0
				120	0	20.28		20.35		20.1		0
				120	63	**20.98**		**21.13**		20.8		0
				120	125	**20.28**		**20.54**		20.16		0
				243	0	20.35		20.48		20.13		0
			16QAM	1	1	20.53		20.55		20.49		0
		CP	QPSK	1	1	19.81		19.78		19.86		0

NR Band n77_ 100 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power_Receiver ON [dBm]						MPR [dB]
						650000		656000		662000		
						3750 ㎒		3840 ㎒		3930 ㎒		
100 ㎒	30	DFT-s OFDM	PI/2 BPSK	1	1	21.07		20.92		20.89		0
				1	137	21.04		21.05		20.84		0
				1	271	21.02		19.76		19.54		0
				135	0	20.54		19.75		20.01		0
				135	69	**21.12**		19.45		**20.22**		0
				135	138	**20.59**		19.45		**19.22**		0
				270	0	20.64		20.97		20.7		0
			QPSK	1	1	21.13		20.95		20.8		0
				1	137	21.09		21.05		20.78		0
				1	271	21.15		20.83		20.58		0
				135	0	19.93		19.55		19.50		0
				135	69	**19.88**		20.55		**20.21**		0
				135	138	**19.54**		19.54		**20.01**		0
				270	0	20.26		20.51		20.26		0
			16QAM	1	1	20.48		20.5		20.52		0
		CP	QPSK	1	1	19.78		19.88		19.86		0

11.5.5 NR Band Maximum Conducted Power (SA Only) _ Main 2 Ant.

[NR Band n41 Conducted Power] _ Power Class 3 _ Main 2 Ant.

NR Band n41 _20 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
						501204	509898	518598	527298	535998	
						2506.02 ㎒	2549.49 ㎒	2592.99 ㎒	2636.49 ㎒	2679.99 ㎒	
20 ㎒	30	DFT-s	pi/2 BPSK	1	1	23.11	23.11	23.38	23.64	23.36	0
				1	26	23.02	23.02	23.34	23.53	23.25	0
				1	49	23.04	23.04	23.43	23.53	23.2	0
				25	0	22.68	22.68	22.91	23.2	22.89	0.5
				25	13	**23.18**	**23.18**	23.51	23.65	23.31	0
				25	26	**22.64**	**22.64**	23.02	23.13	22.83	0.5
				50	0	22.66	22.66	23.04	23.17	22.87	0.5
			QPSK	1	1	23.07	23.07	23.36	23.58	23.34	0
				1	26	22.94	22.94	23.33	23.47	23.22	0
				1	49	23.05	23.05	23.42	23.5	23.19	0
				25	0	22.17	22.17	22.45	22.71	22.38	1
				25	13	**23.15**	**23.15**	23.52	23.61	23.34	0
				25	26	**22.04**	**22.04**	22.52	22.65	22.23	1
				50	0	22.16	22.16	22.52	22.68	22.34	1
			16QAM	1	1	22.27	22.27	22.42	22.84	22.59	1
		CP	QPSK	1	1	20.89	20.89	21.76	22.1	21.92	1.5

NR Band n41 _30 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
						502200	**513468**	**518598**	**523734**	**534996**	
						2511 MHz	**2567.34 MHz**	**2592.99 MHz**	**2618.67 MHz**	**2674.98 MHz**	
30 ㎒	30	DFT-s	pi/2 BPSK	1	1	23.42	23.4	23.46	23.64	23.54	0
				1	39	23.42	23.59	23.65	23.73	23.56	0
				1	76	23.5	23.79	23.73	23.85	23.55	0
				36	0	23.03	23.01	23.12	23.29	23.10	0.5
				36	21	**23.52**	**23.68**	**23.72**	23.83	23.70	0
				36	42	**23.06**	**23.28**	**23.29**	23.34	23.20	0.5
				75	0	23.04	23.16	23.2	23.32	23.17	0.5
			QPSK	1	1	23.41	23.36	23.47	23.63	23.54	0
				1	39	23.39	23.53	23.61	23.68	23.45	0
				1	76	23.49	23.78	23.83	23.9	23.61	0
				36	0	22.53	22.51	22.62	22.86	22.54	1
				36	21	**23.53**	**23.63**	**23.72**	23.85	23.56	0
				36	42	**22.56**	**22.83**	**22.77**	22.9	22.65	1
				75	0	22.54	22.64	22.73	22.9	22.61	1
			16QAM	1	1	22.71	22.54	22.56	22.84	22.79	1
		CP	QPSK	1	1	21.95	21.72	21.81	22.03	21.99	1.5

NR Band n41 _40 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
						503202	513468		523734	534000	
						2516.01 MHz	2567.34 MHz		2618.67 MHz	2670 MHz	
40 MHz	30	DFT-s	pi/2 BPSK	1	1	23.44	23.39		23.66	23.71	0
				1	53	23.33	23.5		23.65	23.47	0
				1	104	23.42	23.88		23.74	23.45	0
				50	0	22.94	22.97		23.29	23.11	0.5
				50	28	**23.44**	**23.62**		23.82	23.56	0
				50	56	**22.98**	**23.27**		23.32	23.04	0.5
				100	0	22.94	23.14		23.33	23.11	0.5
			QPSK	1	1	23.46	23.39		23.67	23.73	0
				1	53	23.31	23.49		23.67	23.46	0
				1	104	23.39	23.83		23.77	23.46	0
				50	0	22.43	22.49		22.83	22.67	1
				50	28	**23.42**	**23.62**		23.81	23.59	0
				50	56	**22.46**	**22.79**		22.89	22.55	1
				100	0	22.46	22.63		22.86	22.62	1
			16QAM	1	1	22.53	22.5		22.92	22.88	1
		CP	QPSK	1	1	21.77	21.87		22.17	22.25	1.5

NR Band n41 _50 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
						504204		518598		532998	
						2521.02 MHz		2592.99 MHz		2664.99 MHz	
50 MHz	30	DFT-s	pi/2 BPSK	1	1	23.14		23.26		23.66	0
				1	67	23.15		23.56		23.5	0
				1	131	23.1		23.72		23.37	0
				64	0	22.7		23.04		23.13	0.5
				64	35	**23.23**		23.65		23.59	0
				64	69	**22.7**		23.27		23	0.5
				128	0	22.73		23.15		23.06	0.5
			QPSK	1	1	23.19		23.2		23.68	0
				1	67	23.14		23.56		23.51	0
				1	131	23.15		23.67		23.37	0
				64	0	22.23		22.51		22.69	1
				64	35	**23.24**		23.63		23.63	0
				64	69	**22.19**		22.73		22.52	1
				128	0	22.21		22.64		22.59	1
			16QAM	1	1	22.23		22.35		22.78	1
		CP	QPSK	1	1	21.56		21.66		22.2	1.5

NR Band n41 _60 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)						MPR [dB]
						505200		518598		531996		
						2526 MHz		2592.99 MHz		2659.98 MHz		
60 MHz	30	DFT-s	pi/2 BPSK	1	1	23.17		23.22		23.69		0
				1	81	23.23		23.56		23.57		0
				1	160	23.21		23.74		23.3		0
				81	0	22.79		22.89		23.23		0.5
				81	41	**23.28**		23.6		23.7		0
				81	81	**22.74**		23.24		23.07		0.5
				162	0	22.76		23.12		23.16		0.5
			QPSK	1	1	23.2		23.18		23.69		0
				1	81	23.22		23.58		23.56		0
				1	160	23.23		23.74		23.31		0
				81	0	22.3		22.41		22.78		1
				81	41	**23.28**		23.67		23.71		0
				81	81	**22.26**		22.75		22.57		1
				162	0	22.29		22.66		22.66		1
			16QAM	1	1	22.3		22.36		22.71		1
		CP	QPSK	1	1	21.66		21.64		21.51		1.5

NR Band n41 _80 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)]					MPR [dB]
						507204				529998	
						2536.02 MHz				2649.99 MHz	
80 MHz	30	DFT-s	pi/2 BPSK	1	1	23.01				23.19	0
				1	109	23				23.52	0
				1	215	23.24				23.16	0
				108	0	22.63				23.21	0.5
				108	55	**23.13**				23.6	0
				108	109	**22.64**				22.94	0.5
				216	0	22.62				23.1	0.5
			QPSK	1	1	23.01				23.57	0
				1	109	22.99				23.52	0
				1	215	23.2				23.17	0
				108	0	22.17				22.75	1
				108	55	**23.12**				23.64	0
				108	109	**22.18**				22.44	1
				216	0	22.1				22.56	1
			16QAM	1	1	22.04				22.61	1
		CP	QPSK	1	1	21.51				22.09	1.5

NR Band n41 _90 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)]					MPR [dB]
						508200				528996	
						2541 MHz				2644.98 MHz	
90 MHz	30	DFT-s	pi/2 BPSK	1	1	23.02				23.42	0
				1	123	22.96				23.43	0
				1	243	23.41				23.16	0
				120	0	22.61				23.17	0.5
				120	63	**23.11**				23.55	0
				120	125	**22.75**				22.91	0.5
				243	0	22.66				23.05	0.5
			QPSK	1	1	23				23.49	0
				1	123	22.95				23.45	0
				1	243	23.41				23.19	0
				120	0	22.1				22.68	1
				120	63	**23.07**				23.6	0
				120	125	**22.23**				22.43	1
				243	0	22.14				22.55	1
			16QAM	1	1	22.06				22.62	1
		CP	QPSK	1	1	21.51				21.79	1.5

NR Band n41 _100 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
								518598			
								2592.99 MHz			
100 MHz	30	DFT-s	pi/2 BPSK	1	1			22.9			0
				1	137			23.39			0
				1	271			23.62			0
				135	0			22.71			0.5
				135	69			23.52			0
				135	138			23.12			0.5
				270	0			22.93			0.5
			QPSK	1	1			23.69			0
				1	137			23.42			0
				1	271			23.63			0
				135	0			22.23			1
				135	69			23.54			0
				135	138			22.59			1
				270	0			22.45			1
			16QAM	1	1			22.07			1
		CP	QPSK	1	1			21.41			1.5

[NR Band n41 Conducted Power] _ Power Class 2 _ Main 2 Ant.

NR Band n41 _20 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
						501204	509898	518598	527298	535998	
						2506.02 ㎒	2549.49 ㎒	2592.99 ㎒	2636.49 ㎒	2679.99 ㎒	
20 ㎒	30	DFT-s	pi/2 BPSK	1	1	26.28	26.12	26.53	26.9	26.6	0
				1	26	26.2	26.18	26.48	26.76	26.43	0
				1	49	26.29	26.35	26.73	26.81	26.57	0
				25	0	25.84	25.75	26.17	26.42	26.13	0.5
				25	13	**26.27**	**26.25**	26.66	26.86	26.58	0
				25	26	**25.82**	**25.86**	26.23	26.31	26.13	0.5
				50	0	25.82	25.78	26.14	26.33	26.09	0.5
			QPSK	1	1	26.19	26.06	26.43	26.8	26.54	0
				1	26	26.09	26.13	26.44	26.7	26.42	0
				1	49	26.18	26.3	26.67	26.71	26.49	0
				25	0	25.32	25.29	25.83	25.87	25.64	1
				25	13	**25.61**	**26.26**	26.84	26.83	26.59	0
				25	26	**25.64**	**25.36**	25.7	25.78	25.66	1
				50	0	25.29	25.27	25.6	25.84	25.61	1
			16QAM	1	1	25.24	25.11	25.58	25.97	25.74	1
		CP	QPSK	1	1	25.26	25.32	25.07	25.15	25.13	1.5

NR Band n41 _30 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
						502200	513468	518598	523734	534996	
						2511 MHz	2567.34 MHz	2592.99 MHz	2618.67 MHz	2674.98 MHz	
30 ㎒	30	DFT-s	pi/2 BPSK	1	1	26.37	26.39	26.86	27.01	26.87	0
				1	39	26.33	26.57	26.91	27.07	26.98	0
				1	76	26.44	26.89	27.10	27.25	27.22	0
				36	0	25.89	26.00	26.34	26.65	26.47	0.5
				36	21	**26.43**	**26.61**	**26.95**	27.17	27.04	0
				36	42	**25.99**	**26.27**	**26.60**	26.70	26.79	0.5
				75	0	25.96	26.14	26.45	26.68	26.47	0.5
			QPSK	1	1	26.40	26.41	26.76	27.03	26.93	0
				1	39	26.37	26.60	26.86	27.07	26.87	0
				1	76	26.43	26.91	27.05	27.23	27.24	0
				36	0	25.41	25.53	25.80	26.46	25.85	1
				36	21	**26.43**	**25.86**	**25.82**	27.18	25.86	0
				36	42	**25.77**	**25.28**	**25.84**	26.19	25.92	1
				75	0	25.95	25.61	25.85	26.36	26.01	1
			16QAM	1	1	25.45	25.35	25.66	26.36	25.68	1
		CP	QPSK	1	1	24.74	24.95	25.62	25.23	25.81	1.5

NR Band n41 _40 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
						503202	513468		523734	534000	
						2516.01 MHz	2567.34 MHz		2618.67 MHz	2670 MHz	
40 MHz	30	DFT-s	pi/2 BPSK	1	1	26.42	26.4		27.1	27.1	0
				1	53	26.34	26.6		27.09	26.93	0
				1	104	26.42	26.96		27.24	27.01	0
				50	0	25.87	25.99		26.54	26.6	0.5
				50	28	**26.39**	**26.64**		27.17	27.05	0
				50	56	**25.94**	**26.29**		26.78	26.49	0.5
				100	0	25.9	26.13		26.67	26.55	0.5
			QPSK	1	1	26.39	26.39		27.09	27.17	0
				1	53	26.33	26.53		26.53	26.96	0
				1	104	26.39	26.88		27.32	27.04	0
				50	0	25.38	25.49		26.04	26.1	1
				50	28	**26.58**	**26.61**		27.12	26.01	0
				50	56	**25.41**	**25.57**		26.27	25.98	1
				100	0	25.43	25.64		26.17	26.07	1
			16QAM	1	1	25.3	25.44		26.16	26.13	1
		CP	QPSK	1	1	24.71	24.68		25.39	25.46	1.5

NR Band n41 _50 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
						504204		518598		532998	
						2521.02 MHz		2592.99 MHz		2664.99 MHz	
50 MHz	30	DFT-s	pi/2 BPSK	1	1	26.11		26.36		26.78	0
				1	67	26.14		26.74		26.60	0
				1	131	26.13		26.87		26.54	0
				64	0	25.72		26.01		26.30	0.5
				64	35	**26.18**		26.65		26.70	0
				64	69	**25.67**		26.26		26.22	0.5
				128	0	25.72		26.15		26.19	0.5
			QPSK	1	1	26.16		26.40		26.83	0
				1	67	25.93		26.76		26.69	0
				1	131	25.85		26.89		26.58	0
				64	0	25.19		26.44		25.79	1
				64	35	**26.18**		26.64		26.70	0
				64	69	**25.21**		25.77		25.71	1
				128	0	25.20		25.64		25.74	1
			16QAM	1	1	25.16		25.35		25.91	1
		CP	QPSK	1	1	24.60		24.67		25.19	1.5

NR Band n41 _60 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)						MPR [dB]
						505200		518598		531996		
						2526 MHz		2592.99 MHz		2659.98 MHz		
60 MHz	30	DFT-s	pi/2 BPSK	1	1	26.04		26.16		26.81		0
				1	81	26.09		26.7		26.68		0
				1	160	26.13		26.85		26.5		0
				81	0	25.69		25.99		26.34		0.5
				81	41	**26.17**		26.61		26.72		0
				81	81	**25.68**		26.36		26.21		0.5
				162	0	25.67		26.10		26.24		0.5
			QPSK	1	1	26.06		26.16		26.82		0
				1	81	26.1		26.66		26.67		0
				1	160	26.12		26.84		26.47		0
				81	0	25.15		25.52		25.84		1
				81	41	**26.15**		26.66		26.75		0
				81	81	**25.17**		25.86		25.71		1
				162	0	25.2		25.63		25.73		1
			16QAM	1	1	25.06		25.21		25.92		1
		CP	QPSK	1	1	24.49		24.54		24.19		1.5

NR Band n41 _80 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)]					MPR [dB]
						507204				529998	
						2536.02 MHz				2649.99 MHz	
80 MHz	30	DFT-s	pi/2 BPSK	1	1	25.87				26.67	0
				1	109	25.95				26.71	0
				1	215	26.22				26.43	0
				108	0	25.59				26.36	0.5
				108	55	**26.08**				26.82	0
				108	109	**25.62**				26.13	0.5
				216	0	25.66				26.32	0.5
			QPSK	1	1	26.02				26.69	0
				1	109	26.03				26.75	0
				1	215	26.28				26.45	0
				108	0	25.11				25.85	1
				108	55	**26.08**				26.81	0
				108	109	**25.14**				25.62	1
				216	0	25.17				25.58	1
			16QAM	1	1	24.98				25.79	1
		CP	QPSK	1	1	24.60				25.22	1.5

NR Band n41 _90 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)]					MPR [dB]
						508200				528996	
						2541 MHz				2644.98 MHz	
90 MHz	30	DFT-s	pi/2 BPSK	1	1	25.92				26.65	0
				1	123	25.95				26.75	0
				1	243	26.53				26.55	0
				120	0	25.58				26.35	0.5
				120	63	**26.07**				26.83	0
				120	125	**25.77**				26.12	0.5
				243	0	25.65				26.22	0.5
			QPSK	1	1	26.04				26.64	0
				1	123	25.98				26.75	0
				1	243	26.58				26.58	0
				120	0	25.10				25.87	1
				120	63	**26.04**				26.83	0
				120	125	**25.26**				25.62	1
				243	0	25.13				25.69	1
			16QAM	1	1	24.98				25.75	1
		CP	QPSK	1	1	24.52				24.87	1.5

NR Band n41 _100 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
								518598			
								2592.99 MHz			
100 MHz	30	DFT-s	pi/2 BPSK	1	1			25.88			0
				1	137			26.51			0
				1	271			26.78			0
				135	0			25.75			0.5
				135	69			26.51			0
				135	138			26.2			0.5
				270	0			25.98			0.5
			QPSK	1	1			25.88			0
				1	137			26.5			0
				1	271			26.81			0
				135	0			25.29			1
				135	69			26.52			0
				135	138			25.73			1
				270	0			26.42			1
			16QAM	1	1			24.95			1
		CP	QPSK	1	1			24.52			1.5

11.7 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

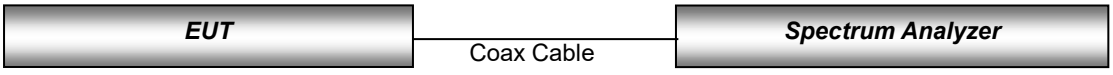
Test Procedure
1. Measure the duty cycle.
2. Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.
3. Add 10 log (1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual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

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



11.7.1 IEEE 802.11 (2.4 GHz) Maximum Conducted Power

Mode	Frequency [㎒]	Channel	IEEE 802.11 (2.4 ㎓) Average RF Conducted Power [dBm]
802.11b	2 412	1	20.49
	2 437	6	20.32
	2 462	11	20.71
802.11g	2 412	1	16.03
	2 437	6	17.05
	2 462	11	16.18
802.11n (HT20)	2 412	1	14.98
	2 437	6	16.90
	2 462	11	15.04

11.7.2 IEEE 802.11 (2.4 GHz) Reduced Conducted Power (Held to ear VOIP)

Mode	Frequency [㎒]	Channel	IEEE 802.11 (2.4 ㎓) Average RF Conducted Power [dBm]
802.11b	2 412	1	16.26
	2 437	6	16.34
	2 462	11	16.78
802.11g	2 412	1	15.90
	2 437	6	16.59
	2 462	11	16.42
802.11n (HT20)	2 412	1	16.28
	2 437	6	16.46
	2 462	11	16.25

11.7.3 IEEE 802.11 (5 GHz) Maximum Conducted Power

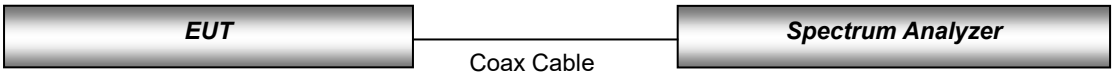
Mode	Frequency [㎒]	Channel	IEEE 802.11 (5 ㎓) Average RF Conducted Power [dBm]
802.11a (20 ㎒ BW)	5 180	36	17.68
	5 200	40	18.15
	5 220	44	18.17
	5 240	48	18.18
	5 260	52	18.16
	5 280	56	18.15
	5 300	60	18.10
	5 320	64	17.75
	5 500	100	17.32
	5 580	116	17.48
	5 600	120	17.53
	5 620	124	17.46
	5 720	144	17.97
	5 745	149	18.15
	5 785	157	17.97
	5 825	165	17.91

11.7.4 IEEE 802.11 (5 GHz) Reduced Conducted Power (Held to ear VOIP)

Mode	Frequency [㎒]	Channel	IEEE 802.11 (5 ㎓) Average RF Conducted Power [dBm]
802.11n (40 ㎒ BW)	5190	38	12.90
	5230	46	12.82
	5270	54	13.02
	5310	62	12.69
	5510	102	12.98
	5590	118	12.90
	5630	126	12.91
	5710	142	13.01
	5755	151	12.77
	5795	159	13.05

Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02:
▪ Power measurements were performed for the transmission mode configuration with the highest maximum output power specified for production units.
▪ For transmission mode with the same maximum output power specification, powers were measured for the largest channel bandwidth, lowest order modulation and lowest data rate.
▪ For transmission modes with identical maximum specified output power, channel bandwidth, modulation and data rates, power measurements were required for all identical configurations.
▪ For each transmission mode configuration, powers were measured for the highest and lowest channels; and at the mid-band channel(s) when there were at least 3 channels supported. For configurations with multiple mid-band channels, due to an even number of channels, both channels were measured.

Test Configuration



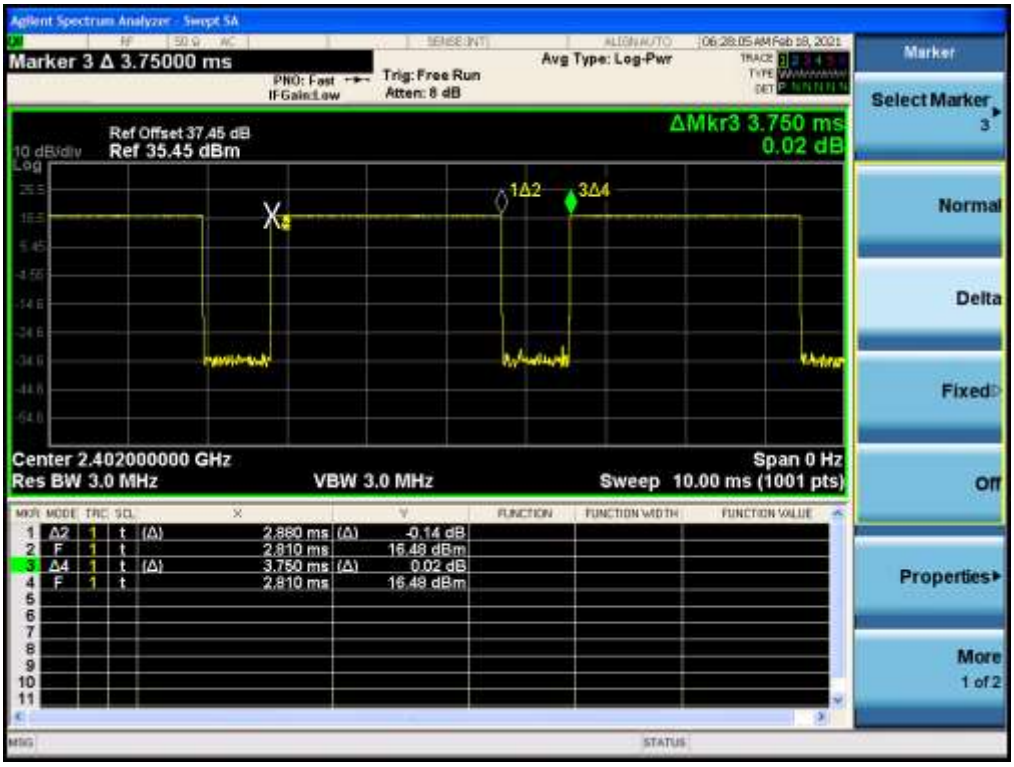
11.8 Bluetooth

11.8.1 Bluetooth Maximum Conducted Power

The Burst averaged-conducted power

Mode	Channel	Bluetooth Power [dBm]
DH5	0	16.23
	39	15.30
	78	14.29
2-DH5	0	11.66
	39	10.82
	78	9.83
3-DH5	0	11.71
	39	10.83
	78	9.85

Per October 2016 TCB Workshop Notes:
When call box and Bluetooth protocol are used for Bluetooth SAR measurement, time-domain plot is required to identify duty factor for supporting the test setup and result.
Bluetooth duty cycle was measured using Bluetooth tester equipment (CBT / R&S) with Bluetooth DH5 mode.



Bluetooth

Duty Cycle

= (BT-On time /BT-Full time) =(2.880/3.750) = 0.768 (DH5)

Duty factor= 1/Duty cycle : 1.300

12 System Verification

12.1 Tissue Verification

The body simulating material is calibrated by HCT using the DAKS 3.5 to determine the conductivity and permittivity.

Table for Head Tissue Verification									
Date of Tests	Tissue Temp. (°C)	Tissue Type	Freq. (MHz)	Measured Conductivity σ (S/m)	Measured Dielectric Constant, ε	Target Conductivity σ (S/m)	Target Dielectric Constant, ε	% dev σ	% dev ε
02/02/2021	22.2	750H	705	0.854	43.022	0.889	42.174	-3.94%	2.01%
			710	0.860	42.886	0.890	42.148	-3.37%	1.75%
			750	0.897	42.442	0.893	41.940	0.45%	1.20%
02/05/2021	20.8	750H	750	0.900	42.395	0.893	41.940	0.78%	1.08%
			785	0.932	41.952	0.896	41.758	4.02%	0.46%
02/08/2021	19.8	750H	750	0.893	42.433	0.893	41.940	0.00%	1.18%
			785	0.927	41.972	0.896	41.758	3.46%	0.51%
02/10/2021	19.9	750H	705	0.854	43.030	0.889	42.174	-3.94%	2.03%
			710	0.861	42.930	0.890	42.148	-3.26%	1.86%
			750	0.900	42.378	0.893	41.940	0.78%	1.04%
02/03/2021	21.4	835H	820	0.877	42.214	0.899	41.577	-2.45%	1.53%
			835	0.894	41.931	0.900	41.500	-0.67%	1.04%
			850	0.911	41.854	0.916	41.500	-0.55%	0.85%
02/04/2021	20.9	835H	820	0.881	42.218	0.899	41.577	-2.00%	1.54%
			835	0.895	42.009	0.900	41.500	-0.56%	1.23%
			850	0.912	41.896	0.916	41.500	-0.44%	0.95%
02/01/2021	21.6	835H	820	0.871	42.152	0.899	41.577	-3.11%	1.38%
			835	0.886	41.864	0.900	41.500	-1.56%	0.88%
			850	0.902	41.770	0.916	41.500	-1.53%	0.65%
01/29/2021	20.6	835H	820	0.867	42.066	0.899	41.577	-3.56%	1.18%
			835	0.886	41.864	0.900	41.500	-1.56%	0.88%
			850	0.898	41.667	0.916	41.500	-1.97%	0.40%
02/09/2021	19.9	835H	820	0.879	42.167	0.899	41.577	-2.22%	1.42%
			835	0.890	41.965	0.900	41.500	-1.11%	1.12%
			850	0.904	41.796	0.916	41.500	-1.31%	0.71%
01/28/2021	21.7	1800H	1710	1.304	41.799	1.348	40.144	-3.26%	4.12%
			1750	1.346	41.605	1.371	40.080	-1.82%	3.80%
			1800	1.415	41.360	1.400	40.000	1.07%	3.40%
02/17/2021	21.2	1800H	1710	1.287	41.373	1.348	40.144	-4.53%	3.06%
			1750	1.328	41.228	1.371	40.080	-3.14%	2.86%
			1800	1.391	40.968	1.400	40.000	-0.64%	2.42%
02/08/2021	22.3	1900H	1850	1.357	41.424	1.400	40.000	-3.07%	3.56%
			1900	1.417	41.172	1.400	40.000	1.21%	2.93%
			1910	1.418	41.161	1.400	40.000	1.29%	2.90%

Table for Head Tissue Verification									
Date of Tests	Tissue Temp. (°C)	Tissue Type	Freq. (MHz)	Measured Conductivity σ (S/m)	Measured Dielectric Constant, ε	Target Conductivity σ (S/m)	Target Dielectric Constant, ε	% dev σ	% dev ε
02/09/2021	21.0	1900H	1850	1.355	41.441	1.400	40.000	-3.21%	3.60%
			1900	1.417	41.190	1.400	40.000	1.21%	2.97%
			1910	1.414	41.165	1.400	40.000	1.00%	2.91%
01/28/2021	21.7	1900H	1850	1.345	41.294	1.400	40.000	-3.93%	3.23%
			1900	1.407	41.058	1.400	40.000	0.50%	2.65%
			1910	1.406	41.014	1.400	40.000	0.43%	2.54%
02/04/2021	22.0	1900H	1850	1.386	41.310	1.400	40.000	-1.00%	3.28%
			1900	1.452	41.067	1.400	40.000	3.71%	2.67%
			1910	1.447	41.055	1.400	40.000	3.36%	2.64%
02/15/2021	22.3	2300H	2300	1.695	40.828	1.667	39.470	1.68%	3.44%
			2310	1.700	40.850	1.676	39.452	1.43%	3.54%
			2350	1.747	40.716	1.711	39.380	2.10%	3.39%
			2360	1.758	40.571	1.720	39.362	2.21%	3.07%
02/21/2021	21.5	2300H	2300	1.694	40.837	1.667	39.470	1.62%	3.46%
			2310	1.699	40.860	1.676	39.452	1.37%	3.57%
			2350	1.739	40.721	1.711	39.380	1.64%	3.41%
			2360	1.766	40.593	1.720	39.362	2.67%	3.13%
02/20/2021	20.0	2300H	2300	1.695	40.859	1.667	39.470	1.68%	3.52%
			2310	1.700	40.859	1.676	39.452	1.43%	3.57%
			2350	1.749	40.718	1.711	39.380	2.22%	3.40%
			2360	1.761	40.532	1.720	39.362	2.38%	2.97%
02/19/2021	21.3	2450H	2400	1.742	38.618	1.756	39.290	-0.80%	-1.71%
			2450	1.799	38.443	1.800	39.200	-0.06%	-1.93%
			2500	1.852	38.266	1.855	39.140	-0.16%	-2.23%
02/18/2021	21.5	2450H	2400	1.712	39.313	1.756	39.290	-2.51%	0.06%
			2450	1.731	39.290	1.800	39.200	-3.83%	0.23%
			2500	1.784	39.136	1.855	39.140	-3.83%	-0.01%
02/10/2021	22.3	2600H	2500	1.923	40.849	1.855	39.140	3.67%	4.37%
			2600	2.043	40.408	1.964	39.010	4.02%	3.58%
			2690	2.142	40.226	2.062	38.894	3.88%	3.42%
02/23/2021	22.2	2600H	2500	1.894	40.132	1.855	39.140	2.10%	2.53%
			2600	2.005	39.766	1.964	39.010	2.09%	1.94%
			2690	2.109	39.340	2.062	38.894	2.28%	1.15%
02/22/2021	20.5	2600H	2500	1.924	40.830	1.855	39.140	3.72%	4.32%
			2600	2.032	40.406	1.964	39.010	3.46%	3.58%
			2690	2.112	40.14	2.062	38.894	2.42%	3.20%
02/17/2021	21.2	3500H-3700H	3500	2.978	38.085	2.913	37.930	2.23%	0.41%
			3550	2.943	37.349	2.964	37.870	-0.71%	-1.38%
			3650	3.065	37.534	3.066	37.760	-0.03%	-0.60%
			3700	3.146	37.474	3.118	37.700	0.90%	-0.60%

Table for Head Tissue Verification									
Date of Tests	Tissue Temp. (°C)	Tissue Type	Freq. (MHz)	Measured Conductivity σ (S/m)	Measured Dielectric Constant, ε	Target Conductivity σ (S/m)	Target Dielectric Constant, ε	% dev σ	% dev ε
02/09/2021	21.1	5180H-5825H	5180	4.584	37.164	4.635	36.010	-1.10%	3.20%
			5250	4.754	36.859	4.706	35.930	1.02%	2.59%
			5280	4.629	36.818	4.737	35.894	-2.28%	2.57%
			5320	4.696	37.212	4.778	35.846	-1.72%	3.81%
			5500	4.890	36.644	4.963	35.640	-1.47%	2.82%
			5600	5.054	36.810	5.065	35.530	-0.22%	3.60%
			5750	5.060	36.861	5.219	35.360	-3.05%	4.24%
			5800	5.158	36.841	5.270	35.300	-2.13%	4.37%
			5825	5.201	36.452	5.296	35.270	-1.79%	3.35%
02/15/2021	22.4	5180H-5825H	5180	4.804	36.016	4.635	36.010	3.65%	0.02%
			5250	4.900	35.863	4.706	35.930	4.12%	-0.19%
			5280	4.823	35.532	4.737	35.894	1.82%	-1.01%
			5320	4.869	35.952	4.778	35.846	1.90%	0.30%
			5500	5.087	35.860	4.963	35.640	2.50%	0.62%
			5600	5.254	35.767	5.065	35.530	3.73%	0.67%
			5750	5.359	35.765	5.219	35.360	2.68%	1.15%
			5800	5.184	35.864	5.270	35.300	-1.63%	1.60%
			5825	5.169	35.656	5.296	35.270	-2.40%	1.09%

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Table for Head Tissue Verification									
Date of Tests	Tissue Temp. (°C)	Tissue Type	Freq. (㎒)	Measured Conductivity σ (S/m)	Measured Dielectric Constant, ε	Target Conductivity σ (S/m)	Target Dielectric Constant, ε	% dev σ	% dev ε
02/172021	20.0	750H	705	0.875	43.151	0.889	42.174	-1.57%	2.32%
			710	0.880	43.033	0.890	42.148	-1.12%	2.10%
			750	0.922	42.543	0.893	41.940	3.25%	1.44%
02/19/2021	20.4	750H	705	0.857	42.711	0.889	42.174	-3.60%	1.27%
			710	0.863	42.598	0.890	42.148	-3.03%	1.07%
			750	0.908	42.038	0.893	41.940	1.68%	0.23%
02/15/2021	20.5	835H	820	0.874	42.125	0.899	41.577	-2.78%	1.32%
			835	0.890	41.845	0.900	41.500	-1.11%	0.83%
			850	0.905	41.712	0.916	41.500	-1.20%	0.51%
02/06/2021	21.4	1800H	1710	1.337	41.880	1.348	40.144	-0.82%	4.32%
			1750	1.377	41.731	1.371	40.080	0.44%	4.12%
			1800	1.438	41.520	1.400	40.000	2.71%	3.80%
02/08/2021	21.4	1800H	1710	1.336	41.989	1.348	40.144	-0.89%	4.60%
			1750	1.375	41.825	1.371	40.080	0.29%	4.35%
			1800	1.432	41.621	1.400	40.000	2.29%	4.05%
02/04/2021	20.4	1900H	1850	1.383	41.291	1.400	40.000	-1.21%	3.23%
			1900	1.449	41.053	1.400	40.000	3.50%	2.63%
			1910	1.449	41.044	1.400	40.000	3.50%	2.61%
02/15/2021	21.8	1900H	1850	1.384	41.418	1.400	40.000	-1.14%	3.55%
			1900	1.448	41.167	1.400	40.000	3.43%	2.92%
			1910	1.447	41.131	1.400	40.000	3.36%	2.83%
02/09/2021	21.2	2600H	2500	1.920	40.121	1.855	39.140	3.50%	2.51%
			2600	2.052	39.683	1.964	39.010	4.48%	1.73%
			2690	2.103	39.482	2.062	38.894	1.99%	1.51%
02/10/2021	20.2	2600H	2500	1.922	41.004	1.855	39.140	3.61%	4.76%
			2600	2.042	40.509	1.964	39.010	3.97%	3.84%
			2690	2.098	40.027	2.062	38.894	1.75%	2.91%
02/23/2021	22.2	2600H	2500	1.920	40.621	1.855	39.140	3.50%	3.78%
			2600	2.033	40.181	1.964	39.010	3.51%	3.00%
			2690	2.132	39.930	2.062	38.894	3.39%	2.66%
02/24/2021	21.1	2600H	2500	1.876	40.550	1.855	39.140	1.13%	3.60%
			2600	2.003	40.132	1.964	39.010	1.99%	2.88%
			2690	2.092	40.674	2.062	38.894	1.45%	4.58%
02/24/2021	20.9	3700H~ 3970	3700	3.146	37.364	3.118	37.700	0.90%	-0.89%
			3750	3.191	37.468	3.169	37.640	0.69%	-0.46%
			3800	3.220	37.514	3.220	37.590	0.00%	-0.20%
			3900	3.304	37.455	3.233	37.470	2.20%	-0.04%
			3970	3.293	37.219	3.394	37.390	-2.98%	-0.46%

12.2 System Verification

Input Power: 50 mW

Freq. [MHz]	Date	Probe (S/N)	Dipole (S/N)	Liquid	Amb. Temp. [°C]	Liquid Temp. [°C]	1 W Target SAR_{1g} (SPEAG) [W/kg]	50mW Measured SAR_{1g} [W/kg]	1 W Normalized SAR_{1g} [W/kg]	Deviation [%]	Limit [%]
750	02/02/2021	3903	1014	Head	22.4	22.2	8.39	0.411	8.22	- 2.03	± 10
750	02/05/2021	3903		Head	20.9	20.8	8.39	0.415	8.3	- 1.07	± 10
750	02/08/2021	3903		Head	20.0	19.8	8.39	0.414	8.28	- 1.31	± 10
750	02/10/2021	3903		Head	20.1	19.9	8.39	0.417	8.34	- 0.60	± 10
835	02/03/2021	3903	4d165	Head	21.6	21.4	9.56	0.470	9.40	- 1.67	± 10
835	02/04/2021	3903		Head	21.1	20.9	9.56	0.472	9.44	- 1.26	± 10
835	02/01/2021	3903		Head	21.8	21.6	9.56	0.462	9.24	- 3.35	± 10
835	01/29/2021	3903		Head	20.8	20.6	9.56	0.461	9.22	- 3.56	± 10
835	02/09/2021	3903		Head	20.1	19.9	9.56	0.471	9.42	- 1.46	± 10
1 800	01/28/2021	3903	2d007	Head	21.9	21.7	38.1	1.89	37.8	- 0.79	± 10
1 800	02/17/2021	7370		Head	21.3	21.2	38.1	1.92	38.4	+ 0.79	± 10
1 900	02/08/2021	7370	5d032	Head	22.4	22.3	40.0	2.01	40.2	+ 0.50	± 10
1 900	02/09/2021	7370		Head	21.2	21.0	40.0	2.02	40.4	+ 1.00	± 10
1 900	01/28/2021	3903		Head	21.9	21.7	40.0	1.95	39.0	- 2.26	± 10
1 900	02/04/2021	7370		Head	22.1	22.0	40.0	2.04	40.8	+ 2.00	± 10
2 300	02/15/2021	7370	1010	Head	22.5	22.3	48.2	2.33	46.6	- 3.32	± 10
2 300	02/21/2021	7622		Head	21.6	21.5	48.2	2.40	48.0	- 0.41	± 10
2 300	02/20/2021	7622		Head	20.1	20.0	48.2	2.40	48.0	- 0.41	± 10
2 450	02/19/2021	7622	1049	Head	21.5	21.3	51.4	2.60	52.0	+ 1.17	± 10
2 450	02/18/2021	7622		Head	21.6	21.5	51.4	2.50	50.0	- 2.72	± 10
2 600	02/10/2021	7370	1015	Head	22.4	22.3	56.7	2.77	55.4	- 2.29	± 10
2 600	02/23/2021	7370		Head	22.4	22.2	56.7	2.93	58.6	+ 3.35	± 10
2 600	02/22/2021	7370		Head	20.6	20.5	56.7	2.75	55.0	- 3.00	± 10
3 500	02/17/2021	7622	1075	Head	21.3	21.2	67.9	3.27	65.4	- 3.68	± 10
3 700	02/17/2021	7622	1019	Head	21.3	21.2	66.4	3.35	67.0	+ 0.90	± 10
5 250	02/09/2021	7622	1253	Head	21.2	21.1	79.7	4.20	84.0	+ 5.40	± 10
5 600	02/09/2021	7622		Head	21.2	21.1	82.2	4.26	85.2	+ 3.65	± 10
5 750	02/09/2021	7622		Head	21.2	21.1	79.6	3.76	75.2	- 5.53	± 10
5 250	02/15/2021	7622		Head	22.5	22.4	79.7	4.16	83.2	+ 4.39	± 10
5 600	02/15/2021	7622		Head	22.5	22.4	82.2	4.24	84.8	+ 3.16	± 10
5 750	02/15/2021	7622		Head	22.5	22.4	79.6	3.93	78.6	- 1.26	± 10

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Freq. [MHz]	Date	Probe (S/N)	Dipole (S/N)	Liquid	Amb. Temp. [°C]	Liquid Temp. [°C]	1 W Target SAR_{1g} (SPEAG) [W/kg]	50mW Measured SAR_{1g} [W/kg]	1 W Normalized SAR_{1g} [W/kg]	Deviation [%]	Limit [%]
750	02/17/2021	3903	1014	Head	20.1	20.0	8.39	0.426	8.52	+ 1.55	± 10
750	02/19/2021	3903	1014	Head	20.6	20.4	8.39	0.420	8.40	+ 0.12	± 10
835	02/15/2021	3903	4d165	Head	20.6	20.5	9.56	0.466	9.32	- 2.51	± 10
1 800	02/06/2021	3076	2d007	Head	21.5	21.4	38.1	1.94	38.8	+ 1.84	± 10
1 800	02/08/2021	3076	2d007	Head	21.5	21.4	38.1	2.02	40.4	+ 6.04	± 10
1 900	02/04/2021	3076	5d032	Head	20.5	20.4	40.0	2.00	40.0	+ 0.00	± 10
1 900	02/15/2021	3076	5d032	Head	21.9	21.8	40.0	2.11	42.2	+ 5.50	± 10
2 600	02/09/2021	3797	1015	Head	21.3	21.2	56.7	2.91	58.2	+ 2.65	± 10
2 600	02/10/2021	3797	1015	Head	20.4	20.2	56.7	2.76	55.2	- 2.65	± 10
2 600	02/23/2021	7622	1015	Head	22.4	22.2	56.7	3.01	60.2	+ 6.17	± 10
2 600	02/24/2021	3797	1015	Head	21.3	21.1	56.7	2.82	56.4	- 0.53	± 10
3 700	02/24/2021	3863	1066	Head	21.1	20.9	66.4	3.40	68.0	+ 2.41	± 10
3 900	02/24/2021	3863	1019	Head	21.1	20.9	70.7	3.55	71.0	+ 0.42	± 10

System Verification Results – Extremity SAR Input Power: 50 mW

Freq. [MHz]	Date	Probe (S/N)	Dipole (S/N)	Liquid	Amb. Temp. [°C]	Liquid Temp. [°C]	1 W Target SAR_{10g} (SPEAG) [W/kg]	50mW Measured SAR_{10g} [W/kg]	1 W Normalized SAR_{10g} [W/kg]	Deviation [%]	Limit [%]
5 250	02/15/2021	7622	1253	Head	22.5	22.4	22.8	1.18	23.6	+ 3.51	± 10
5 600	02/15/2021	7622		Head	22.5	22.4	23.5	1.23	24.6	+ 4.68	± 10

12.3 System Verification Procedure

SAR measurement was prior to assessment, the system is verified to the ± 10 % of the specifications at each frequency band by using the system verification kit. (Graphic Plots Attached)
- Cabling the system, using the verification kit equipment.
- Generate about 50 mW Input level from the signal generator to the Dipole Antenna.
- Dipole antenna was placed below the flat phantom.
- The measured one-gram SAR at the surface of the phantom above the dipole feed-point should be within 10 % of the target reference value.
- The results are normalized to 1 W input power.

Note;
SAR Verification was performed according to the FCC KDB 865664 D01v01r04.

13. SAR Test Data Summary

13.1 SAR Measurement Results

CDMA BC10(§90S) Head SAR _ Main 1 Ant													
Frequency		Mode		Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.			(dB)	(dB)	(dB)			(W/kg)		(W/kg)	
820	560	CDMA BC10	RC3 / SO55	26.0	24.91	-0.17	Left Cheek	1:1	0.184	1.285	0.236	-
820	560	CDMA BC10	RC3 / SO55	26.0	24.91	0.05	Left Tilt	1:1	0.101	1.285	0.130	-
820	560	CDMA BC10	RC3 / SO55	26.0	24.91	0.02	Right Cheek	1:1	0.219	1.285	**0.281**	1
820	560	CDMA BC10	RC3 / SO55	26.0	24.91	-0.08	Right Tilt	1:1	0.108	1.285	0.139	-
820	560	CDMA BC10	EVDO Rev. A	26.0	24.91	-0.09	Left Cheek	1:1	0.171	1.285	0.220	-
820	560	CDMA BC10	EVDO Rev. A	26.0	24.91	0.07	Left Tilt	1:1	0.099	1.285	0.127	-
820	560	CDMA BC10	EVDO Rev. A	26.0	24.91	-0.03	Right Cheek	1:1	0.214	1.285	0.275	-
820	560	CDMA BC10	EVDO Rev. A	26.0	24.91	-0.01	Right Tilt	1:1	0.107	1.285	0.137	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram					

CDMA BC0(§22H) Head SAR _ Main 1 Ant.													
Frequency		Mode		Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.			(dB)	(dB)	(dB)			(W/kg)		(W/kg)	
836.52	384	CDMA BC0	RC3 / SO55	25.5	24.07	0.13	Left Cheek	1:1	0.227	1.390	0.316	-
836.52	384	CDMA BC0	RC3 / SO55	25.5	24.07	-0.15	Left Tilt	1:1	0.070	1.390	0.097	-
836.52	384	CDMA BC0	RC3 / SO55	25.5	24.07	0.01	Right Cheek	1:1	0.357	1.390	**0.496**	2
836.52	384	CDMA BC0	RC3 / SO55	25.5	24.07	0.11	Right Tilt	1:1	0.103	1.390	0.143	-
836.52	384	CDMA BC0	EVDO Rev. A	25.5	24.65	0.11	Left Cheek	1:1	0.208	1.216	0.253	-
836.52	384	CDMA BC0	EVDO Rev. A	25.5	24.65	-0.09	Left Tilt	1:1	0.124	1.216	0.151	-
836.52	384	CDMA BC0	EVDO Rev. A	25.5	24.65	-0.15	Right Cheek	1:1	0.286	1.216	0.348	-
836.52	384	CDMA BC0	EVDO Rev. A	25.5	24.65	-0.17	Right Tilt	1:1	0.135	1.216	0.164	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram					

PCS CDMA Head SAR_ Main 2 Ant.												
Frequency		Mode		Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.			(dB)	(dB)	(dB)			(W/kg)		(W/kg)	
1880.0	600	PCS CDMA	RC3 / SO55	25.0	23.92	-0.12	Left Cheek	1:1	0.222	1.282	**0.285**	3
1880.0	600	PCS CDMA	RC3 / SO55	25.0	23.92	0.16	Left Tilt	1:1	0.172	1.282	0.221	-
1880.0	600	PCS CDMA	RC3 / SO55	25.0	23.92	-0.16	Right Cheek	1:1	0.155	1.282	0.199	-
1880.0	600	PCS CDMA	RC3 / SO55	25.0	23.92	0.17	Right Tilt	1:1	0.131	1.282	0.168	-
1880.0	600	PCS CDMA	EVDO Rev. A	25.0	23.43	-0.13	Left Cheek	1:1	0.194	1.435	0.278	-
1880.0	600	PCS CDMA	EVDO Rev. A	25.0	23.43	0.15	Left Tilt	1:1	0.153	1.435	0.220	-
1880.0	600	PCS CDMA	EVDO Rev. A	25.0	23.43	-0.16	Right Cheek	1:1	0.128	1.435	0.184	-
1880.0	600	PCS CDMA	EVDO Rev. A	25.0	23.43	0.11	Right Tilt	1:1	0.123	1.435	0.177	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram					

GSM 850 Head SAR _ Main 1 Ant.											
Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(dB)	(dB)	(dB)			(W/kg)		(W/kg)	
836.6	190	GSM	34.0	32.10	0.13	Left Cheek	1:8.3	0.144	1.549	0.223	-
836.6	190	GSM	34.0	32.10	0.01	Left Tilt	1:8.3	0.083	1.549	0.129	-
836.6	190	GSM	34.0	32.10	-0.17	Right Cheek	1:8.3	0.164	1.549	0.254	-
836.6	190	GSM	34.0	32.10	-0.11	Right Tilt	1:8.3	0.085	1.549	0.132	-
836.6	190	GPRS 2Tx	33.0	31.13	0.02	Left Cheek	1:4.15	0.181	1.538	0.278	-
836.6	190	GPRS 2Tx	33.0	31.13	0.17	Left Tilt	1:4.15	0.179	1.538	0.275	-
836.6	190	GPRS 2Tx	33.0	31.13	-0.04	Right Cheek	1:4.15	0.203	1.538	**0.312**	4
836.6	190	GPRS 2Tx	33.0	31.13	0.02	Right Tilt	1:4.15	0.099	1.538	0.152	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Head 1.6 W/kg Averaged over 1 gram					

GSM 1900 Head SAR_ Main 2 Ant.											
Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(dB)	(dB)	(dB)			(W/kg)		(W/kg)	
1 880	661	GSM	31.0	29.60	0.17	Left Cheek	1:8.3	0.084	1.380	0.116	-
1 880	661	GSM	31.0	29.60	0.15	Left Tilt	1:8.3	0.070	1.380	0.097	-
1 880	661	GSM	31.0	29.60	0.17	Right Cheek	1:8.3	0.057	1.380	0.079	-
1 880	661	GSM	31.0	29.60	0.13	Right Tilt	1:8.3	0.059	1.380	0.081	-
1 880	661	GPRS 2Tx	30.0	28.39	0.15	Left Cheek	1:4.15	0.121	1.449	**0.175**	5
1 880	661	GPRS 2Tx	30.0	28.39	0.13	Left Tilt	1:4.15	0.105	1.449	0.152	-
1 880	661	GPRS 2Tx	30.0	28.39	-0.16	Right Cheek	1:4.15	0.086	1.449	0.125	-
1 880	661	GPRS 2Tx	30.0	28.39	0.10	Right Tilt	1:4.15	0.095	1.449	0.138	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Head 1.6 W/kg Averaged over 1 gram					

UMTS 850 Head SAR _ Main 1 Ant.											
Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(dB)	(dB)	(dB)			(W/kg)		**(W/kg)**	
836.6	4183	RMC	25.0	23.71	0.09	Left Cheek	1:1	0.152	1.346	**0.205**	6
836.6	4183	RMC	25.0	23.71	-0.04	Left Tilt	1:1	0.091	1.346	0.122	-
836.6	4183	RMC	25.0	23.71	-0.11	Right Cheek	1:1	0.072	1.346	0.097	-
836.6	4183	RMC	25.0	23.71	0.09	Right Tilt	1:1	0.071	1.346	0.096	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Head 1.6 W/kg Averaged over 1 gram					

UMTS 1700 Head SAR_ Main 2 Ant.											
Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(dB)	(dB)	(dB)			(W/kg)		**(W/kg)**	
1 732.4	1412	RMC	25.5	24.00	0.18	Left Cheek	1:1	0.199	1.413	**0.281**	7
1 732.4	1412	RMC	25.5	24.00	0.06	Left Tilt	1:1	0.163	1.413	0.230	-
1 732.4	1412	RMC	25.5	24.00	-0.14	Right Cheek	1:1	0.153	1.413	0.216	-
1 732.4	1412	RMC	25.5	24.00	-0.10	Right Tilt	1:1	0.134	1.413	0.189	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Head 1.6 W/kg Averaged over 1 gram					

UMTS 1900 Head SAR_ Main 2 Ant.											
Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(dB)	(dB)	(dB)			(W/kg)		**(W/kg)**	
1 880	9400	RMC	25.0	23.98	0.17	Left Cheek	1:1	0.227	1.265	**0.287**	8
1 880	9400	RMC	25.0	23.98	-0.01	Left Tilt	1:1	0.172	1.265	0.218	-
1 880	9400	RMC	25.0	23.98	-0.01	Right Cheek	1:1	0.145	1.265	0.183	-
1 880	9400	RMC	25.0	23.98	-0.01	Right Tilt	1:1	0.159	1.265	0.201	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Head 1.6 W/kg Averaged over 1 gram					

LTE Band 7 Head SAR_ Main 2 Ant.														
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
2 560	21350	QPSK	20	24.5	23.97	-0.17	Left Cheek	0	1	49	1:1	0.299	1.130	**0.338**	9
2 560	21350	QPSK	20	23.5	23.15	-0.12	Left Cheek	1	50	49	1:1	0.241	1.084	0.261	-
2 560	21350	QPSK	20	24.5	23.97	0.06	Left Tilt	0	1	49	1:1	0.105	1.130	0.119	-
2 560	21350	QPSK	20	23.5	23.15	0.10	Left Tilt	1	50	49	1:1	0.084	1.084	0.091	-
2 560	21350	QPSK	20	24.5	23.97	0.14	Right Cheek	0	1	49	1:1	0.224	1.130	0.253	-
2 560	21350	QPSK	20	23.5	23.15	0.17	Right Cheek	1	50	49	1:1	0.179	1.084	0.194	-
2 560	21350	QPSK	20	24.5	23.97	0.10	Right Tilt	0	1	49	1:1	0.171	1.130	0.193	-
2 560	21350	QPSK	20	23.5	23.15	0.19	Right Tilt	1	50	49	1:1	0.133	1.084	0.144	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

LTE Band 12 Head SAR _ Main 1 Ant.														
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
707.5	23095	QPSK	10	24.5	24.26	-0.17	Left Cheek	0	1	49	1:1	0.145	1.057	0.153	-
707.5	23095	QPSK	10	23.5	23.40	-0.10	Left Cheek	1	25	12	1:1	0.124	1.023	0.127	-
707.5	23095	QPSK	10	24.5	24.26	-0.13	Left Tilt	0	1	49	1:1	0.061	1.057	0.064	-
707.5	23095	QPSK	10	23.5	23.40	-0.07	Left Tilt	1	25	12	1:1	0.061	1.023	0.062	-
707.5	23095	QPSK	10	24.5	24.26	-0.11	Right Cheek	0	1	49	1:1	0.158	1.057	**0.167**	10
707.5	23095	QPSK	10	23.5	23.40	-0.07	Right Cheek	1	25	12	1:1	0.143	1.023	0.146	-
707.5	23095	QPSK	10	24.5	24.26	-0.15	Right Tilt	0	1	49	1:1	0.076	1.057	0.080	-
707.5	23095	QPSK	10	23.5	23.40	-0.13	Right Tilt	1	25	12	1:1	0.073	1.023	0.075	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

LTE Band 13 Head SAR _ Main 1 Ant.															
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
782	23230	QPSK	10	25.8	24.26	-0.18	Left Cheek	0	1	0	1:1	0.164	1.426	0.234	-
782	23230	QPSK	10	24.8	23.42	0.02	Left Cheek	1	25	0	1:1	0.132	1.374	0.181	-
782	23230	QPSK	10	25.8	24.26	0.09	Left Tilt	0	1	0	1:1	0.067	1.426	0.096	-
782	23230	QPSK	10	24.8	23.42	0.07	Left Tilt	1	25	0	1:1	0.079	1.374	0.109	-
782	23230	QPSK	10	25.8	24.26	-0.13	Right Cheek	0	1	0	1:1	0.194	1.426	**0.277**	11
782	23230	QPSK	10	24.8	23.42	-0.02	Right Cheek	1	25	0	1:1	0.163	1.374	0.224	-
782	23230	QPSK	10	25.8	24.26	0.01	Right Tilt	0	1	0	1:1	0.111	1.426	0.158	-
782	23230	QPSK	10	24.8	23.42	0.03	Right Tilt	1	25	0	1:1	0.088	1.374	0.121	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

LTE Band 14 Head SAR _ Main 1 Ant.															
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
793	23330	QPSK	10	25.3	24.07	0.01	Left Cheek	0	1	0	1:1	0.125	1.327	0.166	-
793	23330	QPSK	10	24.3	22.91	-0.07	Left Cheek	1	25	12	1:1	0.093	1.377	0.128	-
793	23330	QPSK	10	25.3	24.07	0.02	Left Tilt	0	1	0	1:1	0.073	1.327	0.097	-
793	23330	QPSK	10	24.3	22.91	0.02	Left Tilt	1	25	12	1:1	0.054	1.377	0.074	-
793	23330	QPSK	10	25.3	24.07	-0.06	Right Cheek	0	1	0	1:1	0.161	1.327	**0.214**	12
793	23330	QPSK	10	24.3	22.91	-0.13	Right Cheek	1	25	12	1:1	0.111	1.377	0.153	-
793	23330	QPSK	10	25.3	24.07	-0.12	Right Tilt	0	1	0	1:1	0.082	1.327	0.109	-
793	23330	QPSK	10	24.3	22.91	-0.14	Right Tilt	1	25	12	1:1	0.055	1.377	0.076	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

LTE Band 25 Head SAR_ Main 2 Ant.															
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
1 905	26590	QPSK	20	25.5	24.26	-0.11	Left Cheek	0	1	0	1:1	0.215	1.330	**0.286**	13
1 905	26590	QPSK	20	24.5	23.37	0.13	Left Cheek	1	50	25	1:1	0.179	1.297	0.232	-
1 905	26590	QPSK	20	25.5	24.26	0.09	Left Tilt	0	1	0	1:1	0.182	1.330	0.242	-
1 905	26590	QPSK	20	24.5	23.37	0.06	Left Tilt	1	50	25	1:1	0.137	1.297	0.178	-
1 905	26590	QPSK	20	25.5	24.26	0.13	Right Cheek	0	1	0	1:1	0.165	1.330	0.219	-
1 905	26590	QPSK	20	24.5	23.37	-0.17	Right Cheek	1	50	25	1:1	0.125	1.297	0.162	-
1 905	26590	QPSK	20	25.5	24.26	0.05	Right Tilt	0	1	0	1:1	0.144	1.330	0.192	-
1 905	26590	QPSK	20	24.5	23.37	0.17	Right Tilt	1	50	25	1:1	0.118	1.297	0.153	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

LTE Band 26 Head SAR _ Main 1 Ant.															
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
831.5	26865	QPSK	15	25.5	24.06	-0.10	Left Cheek	0	1	0	1:1	0.148	1.393	0.206	-
831.5	26865	QPSK	15	24.5	22.89	0.11	Left Cheek	1	36	0	1:1	0.130	1.449	0.188	-
831.5	26865	QPSK	15	25.5	24.06	0.01	Left Tilt	0	1	0	1:1	0.075	1.393	0.104	-
831.5	26865	QPSK	15	24.5	22.89	-0.08	Left Tilt	1	36	0	1:1	0.066	1.449	0.096	-
831.5	26865	QPSK	15	25.5	24.06	0.14	Right Cheek	0	1	0	1:1	0.176	1.393	**0.245**	14
831.5	26865	QPSK	15	24.5	22.89	-0.18	Right Cheek	1	36	0	1:1	0.138	1.449	0.200	-
831.5	26865	QPSK	15	25.5	24.06	-0.14	Right Tilt	0	1	0	1:1	0.082	1.393	0.114	-
831.5	26865	QPSK	15	24.5	22.89	-0.17	Right Tilt	1	36	0	1:1	0.066	1.449	0.096	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

LTE Band 30 Head SAR_ Main 2 Ant.															
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
2 310	27710	QPSK	10	24.5	24.02	0.15	Left Cheek	0	1	0	1:1	0.225	1.117	**0.251**	15
2 310	27710	QPSK	10	23.5	23.15	-0.19	Left Cheek	1	25	12	1:1	0.182	1.084	0.197	-
2 310	27710	QPSK	10	24.5	24.02	0.17	Left Tilt	0	1	0	1:1	0.104	1.117	0.116	-
2 310	27710	QPSK	10	23.5	23.15	-0.15	Left Tilt	1	25	12	1:1	0.075	1.084	0.081	-
2 310	27710	QPSK	10	24.5	24.02	0.12	Right Cheek	0	1	0	1:1	0.106	1.117	0.118	-
2 310	27710	QPSK	10	23.5	23.15	0.11	Right Cheek	1	25	12	1:1	0.111	1.084	0.120	-
2 310	27710	QPSK	10	24.5	24.02	0.09	Right Tilt	0	1	0	1:1	0.125	1.117	0.140	-
2 310	27710	QPSK	10	23.5	23.15	0.17	Right Tilt	1	25	12	1:1	0.104	1.084	0.113	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

LTE TDD Band 40 Head SAR_ Lower frequency range_ Main 2 Ant.															
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
2 310	38750	QPSK	10	12.5	11.90	0	Left Cheek	0	1	24	1:1.58	0	1.148	0	16
2 310	38750	QPSK	10	12.5	11.98	0	Left Cheek	0	25	12	1:1.58	0	1.127	0	-
2 310	38750	QPSK	10	12.5	11.90	0	Left Tilt	0	1	24	1:1.58	0	1.148	0	-
2 310	38750	QPSK	10	12.5	11.98	0	Left Tilt	0	25	12	1:1.58	0	1.127	0	-
2 310	38750	QPSK	10	12.5	11.90	0	Right Cheek	0	1	24	1:1.58	0	1.148	0	-
2 310	38750	QPSK	10	12.5	11.98	0	Right Cheek	0	25	12	1:1.58	0	1.127	0	-
2 310	38750	QPSK	10	12.5	11.90	0	Right Tilt	0	1	24	1:1.58	0	1.148	0	-
2 310	38750	QPSK	10	12.5	11.98	0	Right Tilt	0	25	12	1:1.58	0	1.127	0	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

LTE TDD Band 40 Head SAR_ Upper frequency range_ Main 2 Ant.															
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
2 355	39200	QPSK	10	12.5	11.71	0	Left Cheek	0	1	24	1:1.58	0	1.199	0	-
2 355	39200	QPSK	10	12.5	11.87	0	Left Cheek	0	25	24	1:1.58	0	1.156	0	17
2 355	39200	QPSK	10	12.5	11.71	0	Left Tilt	0	1	24	1:1.58	0	1.199	0	-
2 355	39200	QPSK	10	12.5	11.87	0	Left Tilt	0	25	24	1:1.58	0	1.156	0	-
2 355	39200	QPSK	10	12.5	11.71	0	Right Cheek	0	1	24	1:1.58	0	1.199	0	-
2 355	39200	QPSK	10	12.5	11.87	0	Right Cheek	0	25	24	1:1.58	0	1.156	0	-
2 355	39200	QPSK	10	12.5	11.71	0	Right Tilt	0	1	24	1:1.58	0	1.199	0	-
2 355	39200	QPSK	10	12.5	11.87	0	Right Tilt	0	25	24	1:1.58	0	1.156	0	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

LTE TDD Band 41 Head SAR (Power Class 3)_ Main 2 Ant.																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
2 593.0	40620	QPSK	20	25.0	23.89	-0.15	Left Cheek	0	1	49	1:1.58	0.192	1.291	0.248	-
2 593.0	40620	QPSK	20	25.0	23.62	-0.16	Left Cheek	0	1	99	1:1.58	0.185	1.374	0.254	-
2 593.0	40620	QPSK	20	24.0	23.03	-0.18	Left Cheek	1	50	25	1:1.58	0.158	1.250	0.198	-
2 593.0	40620	QPSK	20	25.0	23.89	0.19	Left Tilt	0	1	49	1:1.58	0.070	1.291	0.090	-
2 593.0	40620	QPSK	20	24.0	23.03	0.18	Left Tilt	1	50	25	1:1.58	0.054	1.250	0.068	-
2 593.0	40620	QPSK	20	25.0	23.89	-0.11	Right Cheek	0	1	49	1:1.58	0.124	1.291	0.160	-
2 593.0	40620	QPSK	20	24.0	23.03	0.13	Right Cheek	1	50	25	1:1.58	0.097	1.250	0.121	-
2 593.0	40620	QPSK	20	25.0	23.89	0.15	Right Tilt	0	1	49	1:1.58	0.112	1.291	0.145	-
2 593.0	40620	QPSK	20	24.0	23.03	0.19	Right Tilt	1	50	25	1:1.58	0.089	1.250	0.111	-
Up-link Carrier Aggregation (41C)															
2 593.0	40620	QPSK PCC	20	25.0	24.95	-0.09	Left Cheek	0	1	99	1:1.58	0.201	1.012	0.203	-
2 612.8	40818	QPSK SCC	20						1	0					
LTE TDD Band 41 Head SAR (Power Class 2)_ _ Main 2 Ant.															
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
2 593.0	40620	QPSK	20	27.5	26.28	-0.14	Left Cheek	0	1	49	1:2.31	0.227	1.324	0.301	-
2 593.0	40620	QPSK	20	27.5	26.05	-0.15	Left Cheek	0	1	99	1:2.31	0.227	1.396	**0.317**	18
Up-link Carrier Aggregation (41C) HPUE															
2 593.0	40620	QPSK PCC	20	27.5	27.25	0.19	Right Cheek	0	1	99	1:2.31	0.222	1.059	0.235	-
2 612.8	40818	QPSK SCC	20						1	0					
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

LTE TDD Band 48 Head SAR_Sub 3 Ant. (RCV-ON)															
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
3 690	56640	QPSK	20	20.0	19.20	0.15	Left Cheek	0	1	49	1:1.58	0.098	1.202	0.118	-
3 690	56640	QPSK	20	20.0	19.26	0.17	Left Cheek	0	50	25	1:1.58	0.103	1.186	0.122	-
3 690	56640	QPSK	20	20.0	19.20	0.10	Left Tilt	0	1	49	1:1.58	0.059	1.202	0.071	-
3 690	56640	QPSK	20	20.0	19.26	0.14	Left Tilt	0	50	25	1:1.58	0.063	1.186	0.075	-
3 690	56640	QPSK	20	20.0	19.20	-0.12	Right Cheek	0	1	49	1:1.58	0.422	1.202	0.507	-
3 690	56640	QPSK	20	20.0	19.26	0.10	Right Cheek	0	50	25	1:1.58	0.437	1.186	**0.518**	19
3 690	56640	QPSK	20	20.0	19.20	-0.11	Right Tilt	0	1	49	1:1.58	0.125	1.202	0.150	-
3 690	56640	QPSK	20	20.0	19.26	0.16	Right Tilt	0	50	25	1:1.58	0.132	1.186	0.157	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

* Power reduction condition during Receiver_ON

LTE Band 66 Head SAR_ Main 2 Ant.															
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
1 770	132572	QPSK	20	25.5	24.37	0.19	Left Cheek	0	1	0	1:1	0.207	1.297	**0.268**	20
1 745	132322	QPSK	20	24.5	23.51	0.03	Left Cheek	1	50	25	1:1	0.193	1.256	0.242	-
1 770	132572	QPSK	20	25.5	24.37	0.10	Left Tilt	0	1	0	1:1	0.177	1.297	0.230	-
1 745	132322	QPSK	20	24.5	23.51	0.15	Left Tilt	1	50	25	1:1	0.138	1.256	0.173	-
1 770	132572	QPSK	20	25.5	24.37	-0.12	Right Cheek	0	1	0	1:1	0.175	1.297	0.227	-
1 745	132322	QPSK	20	24.5	23.51	0.18	Right Cheek	1	50	25	1:1	0.141	1.256	0.177	-
1 770	132572	QPSK	20	25.5	24.37	0.18	Right Tilt	0	1	0	1:1	0.119	1.297	0.154	-
1 745	132322	QPSK	20	24.5	23.51	0.19	Right Tilt	1	50	25	1:1	0.100	1.256	0.126	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

LTE Band 71 Head SAR _ Main 1 Ant.															
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
680.5	133297	QPSK	20	25.5	24.09	-0.13	Left Cheek	0	1	49	1:1	0.156	1.384	0.216	-
680.5	133297	QPSK	20	24.5	23.21	-0.12	Left Cheek	1	50	0	1:1	0.128	1.346	0.172	-
680.5	133297	QPSK	20	25.5	24.09	-0.06	Left Tilt	0	1	49	1:1	0.071	1.384	0.098	-
680.5	133297	QPSK	20	24.5	23.21	-0.09	Left Tilt	1	50	0	1:1	0.058	1.346	0.078	-
680.5	133297	QPSK	20	25.5	24.09	-0.11	Right Cheek	0	1	49	1:1	0.186	1.384	**0.257**	21
680.5	133297	QPSK	20	24.5	23.21	-0.13	Right Cheek	1	50	0	1:1	0.152	1.346	0.205	-
680.5	133297	QPSK	20	25.5	24.09	-0.13	Right Tilt	0	1	49	1:1	0.081	1.384	0.112	-
680.5	133297	QPSK	20	24.5	23.21	-0.19	Right Tilt	1	50	0	1:1	0.068	1.346	0.092	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

NR Band n5(Cell) Head SAR_ Main 1 Ant.															
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
836.5	167300	DFT-s OFDM QPSK	20	24.5	22.97	-0.18	Left Cheek	0	1	1	1:1	0.150	1.422	0.213	-
836.5	167300	DFT-s OFDM QPSK	20	24.5	22.97	-0.02	Left Cheek	0	50	28	1:1	0.142	1.422	0.202	-
836.5	167300	DFT-s OFDM QPSK	20	24.5	22.97	-0.13	Left Tilt	0	1	1	1:1	0.079	1.422	0.112	-
836.5	167300	DFT-s OFDM QPSK	20	24.5	22.97	-0.03	Left Tilt	0	50	28	1:1	0.076	1.422	0.108	-
836.5	167300	DFT-s OFDM QPSK	20	24.5	22.97	-0.15	Right Cheek	0	1	1	1:1	0.161	1.422	0.229	-
836.5	167300	DFT-s OFDM QPSK	20	24.5	22.97	-0.18	Right Cheek	0	50	28	1:1	0.166	1.422	**0.236**	22
836.5	167300	DFT-s OFDM QPSK	20	24.5	22.97	-0.02	Right Tilt	0	1	1	1:1	0.083	1.422	0.118	-
836.5	167300	DFT-s OFDM QPSK	20	24.5	22.97	-0.07	Right Tilt	0	50	28	1:1	0.084	1.422	0.119	-
836.5	167300	CP QPSK	20	23.0	21.52	-0.13	Right Cheek	1.5	1	1	1:1	0.106	1.406	0.149	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

NR Band n12 Head SAR_ Main 1 Ant.															
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
707.5	141500	DFT-s OFDM QPSK	15	25.8	24.54	-0.18	Left Cheek	0	1	40	1:1	0.171	1.337	0.229	-
707.5	141500	DFT-s OFDM QPSK	15	25.8	24.68	-0.08	Left Cheek	0	36	22	1:1	0.170	1.294	0.220	-
707.5	141500	DFT-s OFDM QPSK	15	25.8	24.54	0.18	Left Tilt	0	1	40	1:1	0.095	1.337	0.127	-
707.5	141500	DFT-s OFDM QPSK	15	25.8	24.68	-0.02	Left Tilt	0	36	22	1:1	0.092	1.294	0.119	-
707.5	141500	DFT-s OFDM QPSK	15	25.8	24.54	-0.19	Right Cheek	0	1	40	1:1	0.197	1.337	**0.263**	23
707.5	141500	DFT-s OFDM QPSK	15	25.8	24.68	0.03	Right Cheek	0	36	22	1:1	0.187	1.294	0.242	-
707.5	141500	DFT-s OFDM QPSK	15	25.8	24.54	0.15	Right Tilt	0	1	40	1:1	0.097	1.337	0.130	-
707.5	141500	DFT-s OFDM QPSK	15	25.8	24.68	-0.06	Right Tilt	0	36	22	1:1	0.100	1.294	0.129	-
707.5	141500	CP QPSK	15	24.3	23.13	-0.12	Right Cheek	1.5	1	1	1:1	0.125	1.309	0.164	
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

NR Band n25 Head SAR_ Main 2 Ant.															
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
1 882.5	376500	DFT-s OFDM QPSK	40	24.5	24.04	0.18	Left Cheek	0	1	108	1:1	0.221	1.112	0.246	-
1 882.5	376500	DFT-s OFDM QPSK	40	24.5	24.32	0.18	Left Cheek	0	108	54	1:1	0.238	1.042	**0.248**	24
1 882.5	376500	DFT-s OFDM QPSK	40	24.5	24.04	-0.04	Left Tilt	0	1	108	1:1	0.134	1.112	0.149	-
1 882.5	376500	DFT-s OFDM QPSK	40	24.5	24.32	-0.02	Left Tilt	0	108	54	1:1	0.141	1.042	0.147	-
1 882.5	376500	DFT-s OFDM QPSK	40	24.5	24.04	0.10	Right Cheek	0	1	108	1:1	0.143	1.112	0.159	-
1 882.5	376500	DFT-s OFDM QPSK	40	24.5	24.32	0.10	Right Cheek	0	108	54	1:1	0.156	1.042	0.163	-
1 882.5	376500	DFT-s OFDM QPSK	40	24.5	24.04	-0.11	Right Tilt	0	1	108	1:1	0.110	1.112	0.122	-
1 882.5	376500	DFT-s OFDM QPSK	40	24.5	24.32	-0.02	Right Tilt	0	108	54	1:1	0.130	1.042	0.135	-
1 882.5	376500	CP QPSK	40	23.0	22.26	0.10	Left Cheek	1.5	1	1	1:1	0.130	1.186	0.154	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

NR Band n41 Head SAR (Power Class 3) _Sub 2 Ant. (Upper)															
Frequency		Modulation	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
2592.99	518598	DFT-s OFDM QPSK	100	23.0	22.23	-0.12	Left Cheek	0	1	137	1:1	0.285	1.194	0.340	-
2592.99	518598	DFT-s OFDM QPSK	100	23.0	22.31	0.17	Left Cheek	0	135	69	1:1	0.297	1.172	0.348	-
2592.99	518598	DFT-s OFDM QPSK	100	23.0	22.23	-0.01	Left Tilt	0	1	137	1:1	0.374	1.194	0.447	-
2592.99	518598	DFT-s OFDM QPSK	100	23.0	22.31	0.05	Left Tilt	0	135	69	1:1	0.333	1.172	0.390	-
2592.99	518598	DFT-s OFDM QPSK	100	23.0	22.23	-0.12	Right Cheek	0	1	137	1:1	0.533	1.194	0.636	-
2592.99	518598	DFT-s OFDM QPSK	100	23.0	22.31	-0.09	Right Cheek	0	135	69	1:1	0.542	1.172	0.635	-
2592.99	518598	DFT-s OFDM QPSK	100	23.0	22.23	0.06	Right Tilt	0	1	137	1:1	0.588	1.194	0.702	-
2592.99	518598	DFT-s OFDM QPSK	100	23.0	22.31	0.04	Right Tilt	0	135	69	1:1	0.634	1.172	**0.743**	25
2592.99	518598	CP QPSK	100	23.0	21.73	-0.05	Right Tilt	0	1	1	1:1	0.422	1.340	0.565	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

NR Band n41 Head SAR (Power Class 2) _ Sub 2 Ant. (Upper)															
Frequency		Modulation	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
2592.99	518598	DFT-s OFDM QPSK	100	23.0	22.24	0.19	Left Cheek	0	1	137	1:1	0.345	1.191	0.411	-
2592.99	518598	DFT-s OFDM QPSK	100	23.0	22.30	-0.01	Left Cheek	0	135	69	1:1	0.356	1.175	0.418	-
2592.99	518598	DFT-s OFDM QPSK	100	23.0	22.24	0.01	Left Tilt	0	1	137	1:1	0.403	1.191	0.480	-
2592.99	518598	DFT-s OFDM QPSK	100	23.0	22.30	0.01	Left Tilt	0	135	69	1:1	0.442	1.175	0.519	-
2592.99	518598	DFT-s OFDM QPSK	100	23.0	22.24	-0.03	Right Cheek	0	1	137	1:1	0.482	1.191	0.574	-
2592.99	518598	DFT-s OFDM QPSK	100	23.0	22.30	-0.19	Right Cheek	0	135	69	1:1	0.561	1.175	0.659	-
2592.99	518598	DFT-s OFDM QPSK	100	23.0	22.24	-0.17	Right Tilt	0	1	137	1:1	0.605	1.191	0.721	-
2592.99	518598	DFT-s OFDM QPSK	100	23.0	22.30	0.04	Right Tilt	0	135	69	1:1	0.626	1.175	**0.736**	26
2592.99	518598	CP QPSK	100	23.0	21.75	0.06	Right Tilt	0	1	1	1:1	0.490	1.334	0.654	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

NR Band n41 Head SAR (Power Class 3) Main 2 Ant. (Lower)															
Frequency		Modulation	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
2592.99	518598	DFT-s OFDM QPSK	100	24.0	23.69	0.13	Left Cheek	0	1	1	1:1	0.112	1.074	**0.120**	27
2592.99	518598	DFT-s OFDM QPSK	100	24.0	23.54	-0.17	Left Cheek	0	135	69	1:1	0.094	1.112	0.105	-
2592.99	518598	DFT-s OFDM QPSK	100	24.0	23.69	0.17	Left Tilt	0	1	1	1:1	0.039	1.074	0.042	-
2592.99	518598	DFT-s OFDM QPSK	100	24.0	23.54	0.14	Left Tilt	0	135	69	1:1	0.033	1.112	0.037	-
2592.99	518598	DFT-s OFDM QPSK	100	24.0	23.69	-0.16	Right Cheek	0	1	1	1:1	0.059	1.074	0.063	-
2592.99	518598	DFT-s OFDM QPSK	100	24.0	23.54	0.14	Right Cheek	0	135	69	1:1	0.053	1.112	0.059	-
2592.99	518598	DFT-s OFDM QPSK	100	24.0	23.69	0.17	Right Tilt	0	1	1	1:1	0.058	1.074	0.062	-
2592.99	518598	DFT-s OFDM QPSK	100	24.0	23.54	0.04	Right Tilt	0	135	69	1:1	0.054	1.112	0.060	-
2592.99	518598	CP QPSK	100	22.5	21.41	-0.11	Left Cheek	1.5	1	1	1:1	0.051	1.285	0.066	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

NR Band n41 Head SAR (Power Class 2) Main 2 Ant. (Lower)															
Frequency		Modulation	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
2592.99	518598	DFT-s OFDM QPSK	100	27.5	26.81	-0.10	Left Cheek	0	1	271	1:1	0.170	1.172	0.199	-
2592.99	518598	DFT-s OFDM QPSK	100	27.5	26.52	-0.10	Left Cheek	0	135	69	1:1	0.216	1.253	**0.271**	28-
2592.99	518598	DFT-s OFDM QPSK	100	27.5	26.81	-0.11	Left Tilt	0	1	271	1:1	0.066	1.172	0.077	-
2592.99	518598	DFT-s OFDM QPSK	100	27.5	26.52	-0.16	Left Tilt	0	135	69	1:1	0.067	1.253	0.084	-
2592.99	518598	DFT-s OFDM QPSK	100	27.5	26.81	0.07	Right Cheek	0	1	271	1:1	0.090	1.172	0.105	-
2592.99	518598	DFT-s OFDM QPSK	100	27.5	26.52	-0.16	Right Cheek	0	135	69	1:1	0.117	1.253	0.147	-
2592.99	518598	DFT-s OFDM QPSK	100	27.5	26.81	0.10	Right Tilt	0	1	271	1:1	0.071	1.172	0.083	-
2592.99	518598	DFT-s OFDM QPSK	100	27.5	26.52	0.11	Right Tilt	0	135	69	1:1	0.101	1.253	0.127	-
2592.99	518598	CP QPSK	100	26.0	24.52	0.01	Left Cheek	1.5	1	1	1:1	0.113	1.406	0.159	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

NR Band n66 Head SAR- Main 2 Ant.																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
1 745	349000	DFT-s OFDM QPSK	40	25.5	24.94	0.12	Left Cheek	0	1	108	1:1	0.099	1.138	0.113	-
1 745	349000	DFT-s OFDM QPSK	40	25.5	25.16	0.16	Left Cheek	0	108	54	1:1	0.104	1.081	0.112	-
1 745	349000	DFT-s OFDM QPSK	40	25.5	24.94	0.19	Left Tilt	0	1	108	1:1	0.111	1.138	0.126	-
1 745	349000	DFT-s OFDM QPSK	40	25.5	25.16	-0.09	Left Tilt	0	108	54	1:1	0.115	1.081	0.124	-
1 745	349000	DFT-s OFDM QPSK	40	25.5	24.94	0.19	Right Cheek	0	1	108	1:1	0.147	1.138	**0.167**	29
1 745	349000	DFT-s OFDM QPSK	40	25.5	25.16	0.12	Right Cheek	0	108	54	1:1	**0.152**	1.081	0.164	30
1 745	349000	DFT-s OFDM QPSK	40	25.5	24.94	-0.01	Right Tilt	0	1	108	1:1	0.112	1.138	0.127	-
1 745	349000	DFT-s OFDM QPSK	40	25.5	25.16	0.13	Right Tilt	0	108	54	1:1	0.105	1.081	0.114	-
1 745	349000	CP QPSK	40	24.0	23.72	0.11	Right Cheek	1	1	1	1:1	0.101	1.067	0.108	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

NR Band n71 Head SAR_ Main 1 Ant.															
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
680.5	136100	DFT-s OFDM QPSK	20	24.5	22.77	-0.07	Left Cheek	0	1	53	1:1	0.133	1.489	0.198	-
680.5	136100	DFT-s OFDM QPSK	20	24.5	22.90	-0.15	Left Cheek	0	50	28	1:1	0.141	1.445	0.204	-
680.5	136100	DFT-s OFDM QPSK	20	24.5	22.77	0.06	Left Tilt	0	1	53	1:1	0.061	1.489	0.091	-
680.5	136100	DFT-s OFDM QPSK	20	24.5	22.90	0.15	Left Tilt	0	50	28	1:1	0.066	1.445	0.095	-
680.5	136100	DFT-s OFDM QPSK	20	24.5	22.77	-0.10	Right Cheek	0	1	53	1:1	0.160	1.489	**0.238**	31
680.5	136100	DFT-s OFDM QPSK	20	24.5	22.90	-0.17	Right Cheek	0	50	28	1:1	**0.164**	1.445	0.237	32
680.5	136100	DFT-s OFDM QPSK	20	24.5	22.77	-0.09	Right Tilt	0	1	53	1:1	0.073	1.489	0.109	-
680.5	136100	DFT-s OFDM QPSK	20	24.5	22.90	-0.09	Right Tilt	0	50	28	1:1	0.074	1.445	0.107	-
680.5	136100	CP QPSK	20	23.0	21.38	-0.14	Right Cheek	1.5	1	1	1:1	0.098	1.452	0.142	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

NR Band n77 Head SAR_Sub 3 Ant.																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
3 750	650000	DFT-s OFDM QPSK	100	21.2	21.15	-0.07	Left Cheek	0	1	271	1:1	0.042	1.012	0.043	-
3 840	656000	DFT-s OFDM QPSK	100	21.2	20.55	-0.13	Left Cheek	0	135	69	1:1	0.059	1.161	0.068	-
3 750	650000	DFT-s OFDM QPSK	100	21.2	21.15	0.11	Left Tilt	0	1	271	1:1	0.028	1.012	0.028	-
3 840	656000	DFT-s OFDM QPSK	100	21.2	20.55	0.15	Left Tilt	0	135	69	1:1	0.028	1.161	0.033	-
3 750	650000	DFT-s OFDM QPSK	100	21.2	21.15	0.04	Right Cheek	0	1	271	1:1	**0.280**	1.012	0.283	33
3 840	656000	DFT-s OFDM QPSK	100	21.2	20.55	0.01	Right Cheek	0	135	69	1:1	0.264	1.161	**0.307**	34
3 750	650000	DFT-s OFDM QPSK	100	21.2	21.15	0.01	Right Tilt	0	1	271	1:1	0.104	1.012	0.105	-
3 840	656000	DFT-s OFDM QPSK	100	21.2	20.55	0.01	Right Tilt	0	135	69	1:1	0.110	1.161	0.128	-
3 840	656000	CP QPSK	100	21.2	19.88	-0.10	Right Cheek	1.5	1	1	1:1	0.222	1.355	0.301	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

DTS Head SAR															
Frequency		Mode	Band width	Data Rate	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Area Scan Peak SAR	1g Meas. SAR	Scaling Factor	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(Mbps)	(dBm)	(dBm)	(dB)			(W/kg)	(W/kg)		(Duty)	(W/kg)	
2 462	11	802.11b	20	1	17.0	16.78	-0.16	Left Cheek	98.4	0.345	0.293	1.052	1.016	0.313	-
2 462	11	802.11b	20	1	17.0	16.78	-0.13	Left Tilt	98.4	0.352	0.499	1.052	1.016	**0.533**	35
2 462	11	802.11b	20	1	17.0	16.78	-0.18	Right Cheek	98.4	0.480	0.378	1.052	1.016	0.404	-
2 462	11	802.11b	20	1	17.0	16.78	-0.02	Right Tilt	98.4	0.462	0.437	1.052	1.016	0.467	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Head 1.6 W/kg Averaged over 1 gram							

NII Head SAR															
Frequency		Mode	Band width	Data Rate	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Area Scan Peak SAR	1g Meas. SAR	Scaling Factor	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(Mbps)	(dBm)	(dBm)	(dB)			(W/kg)	(W/kg)		(Duty)	(W/kg)	
5 270	54	802.11n	40	MCS0	13.5	13.02	0.10	Left Cheek	94.8	0.221	0.071	1.117	1.055	0.084	-
5 270	54	802.11n	40	MCS0	13.5	13.02	0.12	Left Tilt	94.8	0.386	0.092	1.117	1.055	0.108	-
5 270	54	802.11n	40	MCS0	13.5	13.02	0.18	Right Check	94.8	0.881	0.393	1.117	1.055	**0.463**	36
5 270	54	802.11n	40	MCS0	13.5	13.02	0.19	Right Tilt	94.8	0.437	0.161	1.117	1.055	0.190	-
5 710	142	802.11n	40	MCS0	13.5	13.01		Left Cheek	94.8	0.202		1.119	1.055		-
5 710	142	802.11n	40	MCS0	13.5	13.01		Left Tilt	94.8	0.362		1.119	1.055		-
5 710	142	802.11n	40	MCS0	13.5	13.01	0.08	Right Cheek	94.8	1.25	0.214	1.119	1.055	0.253	-
5 710	142	802.11n	40	MCS0	13.5	13.01	0.13	Right Tilt	94.8	0.440	0.093	1.119	1.055	0.110	-
5 795	159	802.11n	40	MCS0	13.5	13.05		Left Cheek	94.8	0.445		1.109	1.055		-
5 795	159	802.11n	40	MCS0	13.5	13.05		Left Tilt	94.8	0.330		1.109	1.055		-
5 795	159	802.11n	40	MCS0	13.5	13.05	0.17	Right Cheek	94.8	0.579	0.195	1.109	1.055	0.228	-
5 795	159	802.11n	40	MCS0	13.5	13.05	0.18	Right Tilt	94.8	0.396	0.128	1.109	1.055	0.150	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Head 1.6 W/kg Averaged over 1 gram							

DSS Head SAR											
Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	1g Meas. SAR	Scaling Factor	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(dBm)	(dBm)	(dB)		(W/kg)		(Duty)	(W/kg)	
2 402	0	Bluetooth DH5	16.5	16.23	0.11	Left Cheek	0.193	1.064	1.300	0.267	-
2 402	0	Bluetooth DH5	16.5	16.23	-0.04	Left Tilt	0.192	1.064	1.300	0.266	-
2 402	0	Bluetooth DH5	16.5	16.23	-0.11	Right Cheek	0.199	1.064	1.300	0.275	-
2 402	0	Bluetooth DH5	16.5	16.23	-0.10	Right Tilt	0.220	1.064	1.300	**0.304**	37
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Head 1.6 W/kg Averaged over 1 gram					

13.2 Body-worn SAR Measurement Results

CDMA Body-Worn SAR _ Main 1 Ant./ Main 2 Ant.													
Frequency		Mode		Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dB)	(dB)	(dB)			(mm)	(W/kg)		(W/kg)	
820	560	CDMA BC10	TDSO RC32/SO55	26.0	24.88	-0.02	Rear	1:1	15	0.333	1.294	**0.431**	38
820	560	CDMA BC10	TDSO RC32/SO55	26.0	24.88	-0.04	Front	1:1	15	0.326	1.294	0.422	-
820	560	CDMA BC10	EVDO Rev.A	26.0	24.91	-0.02	Rear	1:1	15	0.323	1.285	0.415	-
820	560	CDMA BC10	EVDO Rev.A	26.0	24.91	0.01	Front	1:1	15	0.323	1.285	0.415	-
836.52	384	CDMA BC0	TDSO RC32/SO55	25.5	24.09	0.03	Rear	1:1	15	0.325	1.384	**0.450**	39
836.52	384	CDMA BC0	TDSO RC32/SO55	25.5	24.09	-0.07	Front	1:1	15	0.324	1.384	0.448	-
836.52	384	CDMA BC0	EVDO Rev. A	25.5	24.65	-0.04	Rear	1:1	15	**0.348**	1.216	0.423	40
836.52	384	CDMA BC0	EVDO Rev. A	25.5	24.65	-0.10	Front	1:1	15	0.338	1.216	0.411	-
1880.0	600	PCS CDMA	TDSO RC32/SO55	25.0	23.94	-0.11	Rear	1:1	15	0.294	1.276	0.375	-
1880.0	600	PCS CDMA	TDSO RC32/SO55	25.0	23.94	-0.10	Front	1:1	15	**0.297**	1.276	0.379	41
1880.0	600	PCS CDMA	EVDO Rev. A	25.0	23.43	-0.10	Rear	1:1	15	0.269	1.435	0.386	-
1880.0	600	PCS CDMA	EVDO Rev. A	25.0	23.43	-0.19	Front	1:1	15	0.278	1.435	**0.399**	42
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram						

GSM/UMTS Body-Worn SAR _ Main 1 Ant./ Main 2 Ant.													
Frequency		Mode		Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.			(dB)	(dB)	(dB)			(mm)	(W/kg)		(W/kg)	
836.6	190	GSM 850 Voice		34.0	32.10	0.16	Rear	1:8.3	15	0.196	1.549	0.304	-
836.6	190	GSM 850 Voice		34.0	32.10	0.06	Front	1:8.3	15	0.199	1.549	0.308	-
836.6	190	GSM 850 GPRS 2Tx		33.0	31.13	0.04	Rear	1:4.15	15	0.332	1.538	0.511	-
836.6	190	GSM 850 GPRS 2Tx		33.0	31.13	0.06	Front	1:4.15	15	0.346	1.538	**0.532**	43
1 880	661	GSM 1900 Voice		31.0	29.60	-0.06	Rear	1:8.3	15	0.140	1.380	0.193	-
1 880	661	GSM 1900 Voice		31.0	29.60	0.08	Front	1:8.3	15	0.128	1.380	0.177	-
1 880	661	GSM 1900 GPRS 2Tx		30.0	28.39	-0.02	Rear	1:4.15	15	0.199	1.449	**0.288**	44
1 880	661	GSM 1900 GPRS 2Tx		30.0	28.39	-0.02	Front	1:4.15	15	0.167	1.449	0.242	-
836.6	4183	UMTS 850	RMC	25.0	23.71	0.01	Rear	1:1	15	0.226	1.346	0.304	-
836.6	4183	UMTS 850	RMC	25.0	23.71	0.02	Front	1:1	15	0.258	1.346	**0.347**	45
1 732.4	1412	UMTS 1700	RMC	25.5	24.00	-0.08	Rear	1:1	15	0.174	1.413	**0.246**	46
1 732.4	1412	UMTS 1700	RMC	25.5	24.00	0.02	Front	1:1	15	0.046	1.413	0.065	-
1 880	9400	UMTS 1900	RMC	25.0	23.98	-0.15	Rear	1:1	15	0.156	1.265	**0.197**	47
1 880	9400	UMTS 1900	RMC	25.0	23.98	0.04	Front	1:1	15	0.035	1.265	0.044	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram						

LTE Body-Worn SAR																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
2 560	21350	LTE 7 QPSK (Main2 Ant.)	20	24.5	23.97	-0.08	Rear	0	1	49	1:1	15	0.146	1.130	0.165	-
2 560	21350		20	23.5	23.15	-0.17	Rear	1	50	49	1:1	15	0.118	1.084	0.128	-
2 560	21350		20	24.5	23.97	0.04	Front	0	1	49	1:1	15	0.239	1.130	**0.270**	48
2 560	21350		20	23.5	23.15	-0.15	Front	1	50	49	1:1	15	0.194	1.084	0.210	-
707.5	23095	LTE 12 QPSK (Main1 Ant.)	10	24.5	24.26	0.02	Rear	0	1	49	1:1	15	0.217	1.057	**0.229**	49
707.5	23095		10	23.5	23.40	-0.10	Rear	1	25	12	1:1	15	0.216	1.023	0.221	-
707.5	23095		10	24.5	24.26	-0.05	Front	0	1	49	1:1	15	0.215	1.057	0.227	-
707.5	23095		10	23.5	23.40	0.10	Front	1	25	12	1:1	15	0.205	1.023	0.210	-
782	23230	LTE 13 QPSK (Main1 Ant.)	10	25.8	24.26	-0.04	Rear	0	1	0	1:1	15	0.287	1.426	**0.409**	50
782	23230		10	24.8	23.42	-0.02	Rear	1	25	0	1:1	15	0.234	1.374	0.322	-
782	23230		10	25.8	24.26	-0.08	Front	0	1	0	1:1	15	0.271	1.426	0.386	-
782	23230		10	24.8	23.42	0.01	Front	1	25	0	1:1	15	0.228	1.374	0.313	-
793	23330	LTE 14 QPSK (Main1 Ant.)	10	25.3	24.07	-0.03	Rear	0	1	0	1:1	15	0.258	1.327	**0.342**	51
793	23330		10	24.3	22.91	-0.02	Rear	1	25	12	1:1	15	0.189	1.377	0.260	-
793	23330		10	25.3	24.07	-0.09	Front	0	1	0	1:1	15	0.243	1.327	0.322	-
793	23330		10	24.3	22.91	-0.03	Front	1	25	12	1:1	15	0.175	1.377	0.241	-
1 905	26590	LTE 25 QPSK (Main2 Ant.)	20	25.5	24.26	0.04	Rear	0	1	0	1:1	15	0.255	1.330	0.339	-
1 905	26590		20	24.5	23.37	-0.02	Rear	1	50	25	1:1	15	0.213	1.297	0.276	-
1 905	26590		20	25.5	24.26	-0.04	Front	0	1	0	1:1	15	0.306	1.330	**0.407**	52
1 905	26590		20	24.5	23.37	-0.03	Front	1	50	25	1:1	15	0.245	1.297	0.318	-
831.5	26865	LTE 26 QPSK (Main1 Ant.)	15	25.5	24.06	0.10	Rear	0	1	0	1:1	15	0.260	1.393	**0.362**	53
831.5	26865		15	24.5	22.89	-0.05	Rear	1	36	0	1:1	15	0.205	1.449	0.297	-
831.5	26865		15	25.5	24.06	-0.03	Front	0	1	0	1:1	15	0.227	1.393	0.316	-
831.5	26865		15	24.5	22.89	-0.01	Front	1	36	0	1:1	15	0.183	1.449	0.265	-
2 310	27710	LTE 30 QPSK (Main2 Ant.)	10	24.5	24.02	-0.13	Rear	0	1	0	1:1	15	0.152	1.117	0.170	-
2 310	27710		10	23.5	23.15	-0.19	Rear	1	25	12	1:1	15	0.125	1.084	0.136	-
2 310	27710		10	24.5	24.02	-0.02	Front	0	1	0	1:1	15	0.231	1.117	**0.258**	54
2 310	27710		10	23.5	23.15	0.02	Front	1	25	12	1:1	15	0.192	1.130	0.208	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

LTE Body-Worn SAR

Frequency		Mode		Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
2 310	38750	LTE TDD 40 QPSK (Low) (Main2 Ant.)		10	12.5	11.90	-0.01	Rear	0	1	24	1:1.58	15	0.00275	1.148	0.003	-
2 310	38750			10	12.5	11.98	0.01	Rear	0	25	12	1:1.58	15	0.0027	1.127	0.003	-
2 310	38750			10	12.5	11.90	0.01	Front	0	1	24	1:1.58	15	0.00391	1.148	**0.004**	55
2 310	38750			10	12.5	11.98	0.01	Front	0	25	12	1:1.58	15	0.0031	1.127	0.003	-
2 355	39200	LTE TDD 40 QPSK (Upper) (Main2 Ant.)		10	12.5	11.71	0.01	Rear	0	1	24	1:1.58	15	0.0000469	1.199	0.000	-
2 355	39200			10	12.5	11.87	0.01	Rear	0	25	24	1:1.58	15	0.000108	1.156	0.000	-
2 355	39200			10	12.5	11.71	0.10	Front	0	1	24	1:1.58	15	0.00251	1.199	0.003	-
2 355	39200			10	12.5	11.87	0.16	Front	0	25	24	1:1.58	15	0.00252	1.156	**0.003**	56
2 593.0	40620	LTE TDD 41 QPSK (PC3) (Main2 Ant.)		20	25.0	23.89	0.15	Rear	0	1	49	1:1.58	15	0.096	1.291	0.124	-
2 593.0	40620			20	24.0	23.03	0.03	Rear	1	50	25	1:1.58	15	0.079	1.250	0.099	-
2 593.0	40620			20	25.0	23.89	0.17	Front	0	1	49	1:1.58	15	0.169	1.291	0.218	-
2 593.0	40620			20	25.0	23.62	0.18	Front	0	1	99	1:1.58	15	0.127	1.374	0.174	
2 593.0	40620			20	24.0	23.03	0.15	Front	1	50	25	1:1.58	15	0.126	1.250	0.158	-
2 593.0	40620	PCC	QPSK UCA (PC3) 41C	20	25.0	24.95	0.14	Front	0	1	99	1:1.58	15	0.226	1.012	0.229	-
2 612.8	40818	SCC		20						1	0						
2 593.0	40620	LTE TDD 41 QPSK (PC2) (Main2 Ant.)		20	27.5	26.28	-0.17	Front	0	1	49	1:2.31	15	0.213	1.324	0.282	-
2 593.0	40620			20	27.5	26.05	-0.15	Front	0	1	99	1:2.31	15	0.232	1.396	**0.324**	57
2 593.0	40620	PCC	QPSK UCA (PC2) 41C	20	27.5	27.25	-0.11	Front	0	1	99	1:2.31	15	**0.273**	1.059	0.289	58
2 612.8	40818	SCC		20						1	0						
3 690	56640	LTE TDD 48 QPSK (Sub 3 Ant.)		20	22.5	21.81	-0.15	Rear	0	1	49	1:1.58	15	0.061	1.172	**0.071**	59
3 690	56640			20	21.5	20.91	0.17	Rear	1	50	49	1:1.58	15	0.048	1.146	0.055	-
3 690	56640			20	22.5	21.81	-0.16	Front	0	1	49	1:1.58	15	0.041	1.172	0.048	-
3 690	56640			20	21.5	20.91	0.10	Front	1	50	49	1:1.58	15	0.035	1.146	0.040	-
1 770	132572	LTE 66 QPSK (Main2 Ant.)		20	25.5	24.37	-0.01	Rear	0	1	0	1:1	15	0.217	1.297	0.281	-
1 745	132322			20	24.5	23.51	0.12	Rear	1	50	25	1:1	15	0.171	1.256	0.215	-
1 770	132572			20	25.5	24.37	-0.07	Front	0	1	0	1:1	15	0.221	1.297	**0.287**	60
1 745	132322			20	24.5	23.51	-0.05	Front	1	50	25	1:1	15	0.184	1.256	0.231	-
680.5	133297	LTE 71 QPSK (Main1 Ant.)		20	25.5	24.09	0.04	Rear	0	1	49	1:1	15	0.296	1.384	**0.410**	61
680.5	133297			20	24.5	23.21	-0.04	Rear	1	50	0	1:1	15	0.232	1.346	0.312	-
680.5	133297			20	25.5	24.09	-0.02	Front	0	1	49	1:1	15	0.258	1.384	0.357	-
680.5	133297			20	24.5	23.21	-0.02	Front	1	50	0	1:1	15	0.193	1.346	0.260	-

ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Body 1.6 W/kg Averaged over 1 gram

NR Body-Worn SAR																	
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance		1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)		(W/kg)		(W/kg)	
836.5	167300	NR n5	20	24.5	22.97	-0.06	Rear	0	1	1	1:1	15		0.250	1.422	0.356	-
836.5	167300	DFT-s OFDM	20	24.5	22.97	0.02	Rear	0	50	28	1:1	15		0.179	1.422	0.255	-
836.5	167300	QPSK	20	24.5	22.97	-0.05	Front	0	1	1	1:1	15		0.256	1.422	**0.364**	62
836.5	167300	(Main1 Ant.)	20	24.5	22.97	-0.01	Front	0	50	28	1:1	15		0.176	1.422	0.250	-
836.5	167300	NR n5 CP QPSK	20	23.0	21.52	-0.07	Front	1.5	1	1	1:1	15		0.147	1.406	0.207	-
707.5	141500	NR n12	15	25.8	24.54	0.01	Rear	0	1	40	1:1	15		0.238	1.337	0.318	-
707.5	141500	DFT-s OFDM	15	25.8	24.68	-0.06	Rear	0	36	22	1:1	15		0.281	1.294	**0.364**	63
707.5	141500	QPSK	15	25.8	24.54	0.02	Front	0	1	40	1:1	15		0.213	1.337	0.285	-
707.5	141500	(Main1 Ant.)	15	25.8	24.68	-0.02	Front	0	36	22	1:1	15		0.261	1.294	0.338	-
707.5	141500	NR n12 CP QPSK	15	24.3	23.13	-0.02	Rear	1.5	1	1	1:1	15		0.203	1.309	0.266	-
1 882.5	376500	NR n25	40	24.5	24.04	-0.02	Rear	0	1	108	1:1	15		0.301	1.112	**0.335**	64
1 882.5	376500	DFT-s OFDM	40	24.5	24.32	-0.04	Rear	0	108	54	1:1	15		0.301	1.042	0.314	-
1 882.5	376500	QPSK	40	24.5	24.04	0.06	Front	0	1	108	1:1	15		0.291	1.112	0.324	-
1 882.5	376500	(Main2 Ant.)	40	24.5	24.32	0.09	Front	0	108	54	1:1	15		0.298	1.042	0.311	-
1 882.5	376500	NR n25 CP QPSK	40	23.0	22.26	-0.09	Rear	1.5	1	1	1:1	15		0.205	1.186	0.243	-
2 592.99	518598	NR n41 (PC3)	100	25.0	24.27	-0.14	Rear	0	1	137	1:1	15		0.188	1.183	**0.222**	65
2 592.99	518598	DFT-s OFDM	100	25.0	24.22	-0.01	Rear	0	135	69	1:1	15		0.173	1.197	0.207	-
2 592.99	518598	QPSK	100	25.0	24.27	-0.13	Front	0	1	137	1:1	15		0.070	1.183	0.083	-
2 592.99	518598	**(Sub 2 Ant.)Upper**	100	25.0	24.22	0.13	Front	0	135	69	1:1	15		0.071	1.197	0.085	-
2 592.99	518598	NR n41 CP QPSK	100	23.5	22.49	-0.14	Rear	1.5	1	1	1:1	15		0.164	1.262	0.207	-
2 592.99	518598	NR n41 (PC2)	100	26.0	25.08	-0.17	Rear	0	1	137	1:1	15		0.230	1.236	0.284	-
2 592.99	518598	DFT-s OFDM	100	26.0	25.02	0.10	Rear	0	135	69	1:1	15		0.233	1.253	**0.292**	66
2 592.99	518598	QPSK	100	26.0	25.08	-0.11	Front	0	1	137	1:1	15		0.095	1.236	0.117	-
2 592.99	518598	**(Sub 2 Ant.)Upper**	100	26.0	25.02	0.05	Front	0	135	69	1:1	15		0.103	1.253	0.129	-
2 592.99	518598	NR n41 CP QPSK	100	24.5	23.47	-0.11	Rear	1.5	1	1	1:1	15		0.183	1.268	0.232	-
2 592.99	518598	NR n41 (PC3)	100	24.0	23.69	-0.13	Rear	0	1	1	1:1	15		0.041	1.074	0.044	-
2 592.99	518598	DFT-s OFDM	100	24.0	23.54	-0.15	Rear	0	135	69	1:1	15		0.042	1.112	0.047	-
2 592.99	518598	QPSK	100	24.0	23.69	-0.01	Front	0	1	1	1:1	15		0.076	1.074	0.082	-
2 592.99	518598	**(Main2 Ant.)Lower**	100	24.0	23.54	0.18	Front	0	135	69	1:1	15		0.084	1.112	**0.093**	67
2 592.99	518598	NR n41 CP QPSK	100	22.5	21.41	0.10	Front	1.5	1	1	1:1	15		0.050	1.285	0.064	-
2 592.99	518598	NR n41 (PC2)	100	27.5	26.81	-0.12	Rear	0	1	271	1:1	15		0.103	1.172	0.121	-
2 592.99	518598	DFT-s OFDM	100	27.5	26.52	0.17	Rear	0	135	69	1:1	15		0.128	1.253	0.160	-
2 592.99	518598	QPSK	100	27.5	26.81	0.14	Front	0	1	271	1:1	15		0.186	1.172	0.218	-
2 592.99	518598	**(Main2 Ant.)Lower**	100	27.5	26.52	0.11	Front	0	135	69	1:1	15		0.201	1.253	**0.252**	68
2 592.99	518598	NR n41 CP QPSK	100	26.0	24.52	0.10	Front	1.5	1	1	1:1	15		0.141	1.406	0.198	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram									

NR Body-Worn SAR

Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
1 745	349000	NR n66 DFT-s OFDM QPSK (Main2 Ant.)	40	25.5	24.94	0.02	Rear	0	1	108	1:1	15	0.218	1.138	**0.248**	69
1 745	349000		40	25.5	25.16	-0.04	Rear	0	108	54	1:1	15	0.181	1.081	0.196	-
1 745	349000		40	25.5	24.94	0.07	Front	0	1	108	1:1	15	0.190	1.138	0.216	-
1 745	349000		40	25.5	25.16	0.11	Front	0	108	54	1:1	15	0.184	1.081	0.199	-
1 745	349000	NR n66 CP QPSK	40	24.0	23.72	-0.08	Rear	1.5	1	1	1:1	15	0.138	1.067	0.147	-
680.5	136100	NR n71 DFT-s OFDM QPSK (Main1 Ant.)	20	24.5	22.77	-0.07	Rear	0	1	53	1:1	15	0.233	1.489	**0.347**	70
680.5	136100		20	24.5	22.90	-0.01	Rear	0	50	28	1:1	15	**0.239**	1.445	0.345	71
680.5	136100		20	24.5	22.77	0.03	Front	0	1	53	1:1	15	0.200	1.489	0.298	-
680.5	136100		20	24.5	22.90	-0.01	Front	0	50	28	1:1	15	0.210	1.445	0.304	-
680.5	136100	NR n71 CP QPSK	20	23.0	21.38	0.01	Rear	1.5	1	1	1:1	15	0.154	1.452	0.224	-
3 750	650000	NR n77 DFT-s OFDM QPSK (Sub 3 Ant.)	100	25.2	24.35	-0.13	Rear	0	1	271	1:1	15	0.065	1.216	0.079	-
3 840	656000		100	25.2	24.19	0.18	Rear	0	135	69	1:1	15	0.065	1.262	**0.082**	72
3 750	650000		100	25.2	24.35	0.15	Front	0	1	271	1:1	15	0.057	1.216	0.069	-
3 840	656000		100	25.2	24.19	0.15	Front	0	135	69	1:1	15	0.037	1.262	0.047	-
3 840	656000	NR n77 CP QPSK	100	23.7	23.03	-0.18	Rear	1.5	1	1	1:1	15	0.022	1.167	0.026	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram								

DTS Body-Worn SAR

Frequency		Mode	Band width	Data Rate	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Area Scan Peak SAR	1g Meas. SAR	Scaling Factor	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(Mbps)	(dBm)	(dBm)	(dB)			(mm)	(W/kg)	(W/kg)		(Duty)	(W/kg)	
2 462	11	802.11b	20	1	21.0	20.71	0.11	Rear	98.4	15	0.452	0.258	1.069	1.016	**0.280**	73
2 462	11	802.11b	20	1	21.0	20.71	-0.02	Front	98.4	15	0.242	0.143	1.069	1.016	0.155	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram								

NII Body-Worn SAR

Frequency		Mode	Band width	Data Rate	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Area Scan Peak SAR	1g Meas. SAR	Scaling Factor	Scaling Factor	1g Scaled SAR	Plot 5o.
MHz	Ch.		(MHz)	(Mbps)	(dBm)	(dBm)	(dB)			(mm)	(W/kg)	(W/kg)		(Duty)	(W/kg)	
5 260	52	802.11a	20	6	19.0	18.16	0.13	Rear	97.6	15	0.390	0.170	1.213	1.025	0.211	-
5 260	52	802.11a	20	6	19.0	18.16	0.11	Front	97.6	15	0.282	0.121	1.213	1.025	0.150	-
5 720	144	802.11a	20	6	19.0	17.97	-0.18	Rear	97.6	15	0.438	0.185	1.268	1.025	**0.240**	74
5 720	144	802.11a	20	6	19.0	17.97		Front	97.6	15	0.158		1.268	1.025		-
5 745	149	802.11a	20	6	19.0	18.15	0.01	Rear	97.6	15	0.461	**0.189**	1.216	1.025	0.236	75
5 745	149	802.11a	20	6	19.0	18.15		Front	97.6	15	0.243		1.216	1.025		-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram								

DSS Body-Worn SAR												
Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Distance	1g Meas. SAR	Scaling Factor	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(dBm)	(dBm)	(dB)		(mm)	(W/kg)		(Duty)	(W/kg)	
2 402	0	Bluetooth DH5	16.5	16.23	0.01	Rear	15	0.048	1.064	1.300	**0.066**	76
2 402	0	Bluetooth DH5	16.5	16.23	-0.01	Front	15	0.021	1.064	1.300	0.029	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Body 1.6 W/kg Averaged over 1 gram						

13.3 Hotspot SAR Measurement Results

CDMA BC10(§90S) Hotspot SAR_Main 1 Ant.													
Frequency		Mode		Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.			(dB)	(dB)	(dB)			(mm)	(W/kg)		(W/kg)	
820	560	CDMA BC10	EVDO Rev.0	26.0	24.93	-0.10	Rear	1:1	10	0.359	1.279	**0.459**	77
820	560	CDMA BC10	EVDO Rev.0	26.0	24.93	-0.03	Front	1:1	10	0.335	1.279	0.428	-
820	560	CDMA BC10	EVDO Rev.0	26.0	24.93	-0.05	Right	1:1	10	0.298	1.279	0.381	-
820	560	CDMA BC10	EVDO Rev.0	26.0	24.93	-0.07	Bottom	1:1	10	0.064	1.279	0.082	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram						

CDMA BC0(§22H) Hotspot SAR_ Main 1 Ant.													
Frequency		Mode		Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.			(dB)	(dB)	(dB)			(mm)	(W/kg)		(W/kg)	
836.52	384	CDMA BC0	EVDO Rev.0	25.5	24.68	-0.02	Rear	1:1	10	0.350	1.208	**0.423**	78
836.52	384	CDMA BC0	EVDO Rev.0	25.5	24.68	0.01	Front	1:1	10	0.329	1.208	0.397	-
836.52	384	CDMA BC0	EVDO Rev.0	25.5	24.68	-0.03	Right	1:1	10	0.326	1.208	0.394	-
836.52	384	CDMA BC0	EVDO Rev.0	25.5	24.68	-0.06	Bottom	1:1	10	0.095	1.208	0.115	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram						

PCS CDMA Hotspot SAR_Main 2 Ant.													
Frequency		Mode		Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.			(dB)	(dB)	(dB)			(mm)	(W/kg)		(W/kg)	
1 880	600	PCS CDMA	EVDO Rev.0	23.5	22.43	-0.10	Rear	1:1	10	0.420	1.279	0.537	-
1 880	600	PCS CDMA	EVDO Rev.0	23.5	22.43	-0.05	Front	1:1	10	0.445	1.279	**0.569**	79
1 880	600	PCS CDMA	EVDO Rev.0	23.5	22.43	-0.03	Left	1:1	10	0.308	1.279	0.394	-
1 880	600	PCS CDMA	EVDO Rev.0	23.5	22.43	-0.05	Bottom	1:1	10	0.319	1.279	0.408	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram						

GSM 850 Hotspot SAR_ Main 1 Ant.												
Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(dB)	(dB)	(dB)			(mm)	(W/kg)		(W/kg)	
836.6	190	GPRS 2Tx	33.0	31.13	0.06	Rear	1:4.15	10	0.300	1.538	0.461	-
836.6	190	GPRS 2Tx	33.0	31.13	-0.04	Front	1:4.15	10	0.305	1.538	**0.469**	80
836.6	190	GPRS 2Tx	33.0	31.13	0.15	Right	1:4.15	10	0.211	1.538	0.325	-
836.6	190	GPRS 2Tx	33.0	31.13	-0.14	Bottom	1:4.15	10	0.066	1.538	0.102	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Body 1.6 W/kg Averaged over 1 gram						

GSM 1900 Hotspot SAR_Main 2 Ant.												
Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(dB)	(dB)	(dB)			(mm)	(W/kg)		(W/kg)	
1 880	661	GPRS 2Tx	27.5	26.45	-0.10	Rear	1:4.15	10	0.249	1.274	**0.317**	81
1 880	661	GPRS 2Tx	27.5	26.45	0.10	Front	1:4.15	10	0.220	1.274	0.280	-
1 880	661	GPRS 2Tx	27.5	26.45	-0.04	Left	1:4.15	10	0.164	1.274	0.209	-
1 880	661	GPRS 2Tx	27.5	26.45	0.15	Bottom	1:4.15	10	0.237	1.274	0.302	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Body 1.6 W/kg Averaged over 1 gram						

UMTS 850 Hotspot SAR_ Main 1 Ant.												
Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(dB)	(dB)	(dB)			(mm)	(W/kg)		(W/kg)	
836.6	4183	RMC	25.0	23.71	-0.02	Rear	1:1	10	0.263	1.346	**0.354**	82
836.6	4183	RMC	25.0	23.71	0.01	Front	1:1	10	0.261	1.346	0.351	-
836.6	4183	RMC	25.0	23.71	-0.03	Right	1:1	10	0.241	1.346	0.324	-
836.6	4183	RMC	25.0	23.71	-0.11	Bottom	1:1	10	0.069	1.346	0.093	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Body 1.6 W/kg Averaged over 1 gram						

UMTS 1700 Hotspot SAR_Main 2 Ant.													
Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(dB)	(dB)	(dB)			(mm)	(W/kg)		(W/kg)	
1 732.4	1412	RMC	23.5	22.53	-0.02	Rear	1:1	10	0.248	1.250	0.310	-
1 732.4	1412	RMC	23.5	22.53	0.03	Front	1:1	10	0.200	1.250	0.250	-
1 732.4	1412	RMC	23.5	22.53	0.03	Left	1:1	10	0.200	1.250	0.250	-
1 732.4	1412	RMC	23.5	22.53	0.02	Bottom	1:1	10	0.272	1.250	**0.340**	83
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Body 1.6 W/kg Averaged over 1 gram						

UMTS1900 Hotspot SAR_Main 2 Ant.													
Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(dB)	(dB)	(dB)			(mm)	(W/kg)		(W/kg)	
1 880.0	9400	RMC	23.5	22.52	-0.14	Rear	1:1	10	0.291	1.253	0.365	-
1 880.0	9400	RMC	23.5	22.52	0.02	Front	1:1	10	0.189	1.253	0.237	-
1 880.0	9400	RMC	23.5	22.52	-0.02	Left	1:1	10	0.180	1.253	0.226	-
1 880.0	9400	RMC	23.5	22.52	-0.06	Bottom	1:1	10	0.302	1.253	**0.378**	84
ANSI/ IEEE C95.1 – 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Body 1.6 W/kg Averaged over 1 gram						

LTE Band 7 Hotspot SAR_Main 2 Ant.																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
2 560	21350	QPSK	20	23.0	22.31	0.14	Rear	0	1	49	1:1	10	0.251	1.172	0.294	-
2 560	21350	QPSK	20	23.0	21.90	-0.11	Rear	0	50	25	1:1	10	0.257	1.288	0.331	-
2 560	21350	QPSK	20	23.0	22.31	-0.13	Front	0	1	49	1:1	10	0.266	1.172	0.312	-
2 560	21350	QPSK	20	23.0	21.90	-0.03	Front	0	50	25	1:1	10	0.276	1.288	0.355	-
2 560	21350	QPSK	20	23.0	22.31	-0.07	Left	0	1	49	1:1	10	0.280	1.172	0.328	-
2 560	21350	QPSK	20	23.0	21.90	-0.06	Left	0	50	25	1:1	10	0.288	1.288	0.371	-
2 560	21350	QPSK	20	23.0	22.31	-0.17	Bottom	0	1	49	1:1	10	0.291	1.172	0.341	-
2 560	21350	QPSK	20	23.0	21.90	-0.07	Bottom	0	50	25	1:1	10	0.297	1.288	**0.383**	85
ANSI/ IEEE C95.1 – 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

LTE Band 12 Hotspot SAR_ Main 1 Ant.																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
707.5	23095	QPSK	10	24.5	24.26	0.01	Rear	0	1	49	1:1	10	0.250	1.057	**0.264**	86
707.5	23095	QPSK	10	23.5	23.40	-0.01	Rear	1	25	12	1:1	10	0.243	1.023	0.249	-
707.5	23095	QPSK	10	24.5	24.26	-0.05	Front	0	1	49	1:1	10	0.221	1.057	0.234	-
707.5	23095	QPSK	10	23.5	23.40	0.01	Front	1	25	12	1:1	10	0.208	1.023	0.213	-
707.5	23095	QPSK	10	24.5	24.26	0.10	Right	0	1	49	1:1	10	0.199	1.057	0.210	-
707.5	23095	QPSK	10	23.5	23.40	-0.04	Right	1	25	12	1:1	10	0.207	1.023	0.212	-
707.5	23095	QPSK	10	24.5	24.26	0.01	Bottom	0	1	49	1:1	10	0.043	1.057	0.045	-
707.5	23095	QPSK	10	23.5	23.40	-0.02	Bottom	1	25	12	1:1	10	0.035	1.023	0.036	-
ANSI/ IEEE C95.1 – 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

LTE Band 13 Hotspot SAR_ Main 1 Ant.																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
782	23230	QPSK	10	25.8	24.26	-0.10	Rear	0	1	0	1:1	10	0.277	1.426	0.395	-
782	23230	QPSK	10	24.8	23.42	0.01	Rear	1	25	0	1:1	10	0.229	1.374	0.315	-
782	23230	QPSK	10	25.8	24.26	0.10	Front	0	1	0	1:1	10	0.237	1.426	0.338	-
782	23230	QPSK	10	24.8	23.42	-0.02	Front	1	25	0	1:1	10	0.200	1.374	0.275	-
782	23230	QPSK	10	25.8	24.26	-0.01	Right	0	1	0	1:1	10	0.309	1.426	**0.441**	87
782	23230	QPSK	10	24.8	23.42	-0.01	Right	1	25	0	1:1	10	0.261	1.374	0.359	-
782	23230	QPSK	10	25.8	24.26	0.05	Bottom	0	1	0	1:1	10	0.092	1.426	0.131	-
782	23230	QPSK	10	24.8	23.42	-0.01	Bottom	1	25	0	1:1	10	0.069	1.374	0.095	-
ANSI/ IEEE C95.1 – 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

LTE Band 14 Hotspot SAR_ Main 1 Ant.																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
793	23330	QPSK	10	25.3	24.07	0.01	Rear	0	1	0	1:1	10	0.250	1.327	0.332	-
793	23330	QPSK	10	24.3	22.91	-0.03	Rear	1	25	12	1:1	10	0.181	1.377	0.249	-
793	23330	QPSK	10	25.3	24.07	-0.01	Front	1	1	0	1:1	10	0.216	1.327	0.287	-
793	23330	QPSK	10	24.3	22.91	-0.13	Front	0	25	12	1:1	10	0.156	1.377	0.215	-
793	23330	QPSK	10	25.3	24.07	0.01	Right	1	1	0	1:1	10	0.285	1.327	**0.378**	88
793	23330	QPSK	10	24.3	22.91	-0.18	Right	0	25	12	1:1	10	0.223	1.377	0.307	-
793	23330	QPSK	10	25.3	24.07	0.03	Bottom	1	1	0	1:1	10	0.093	1.327	0.123	-
793	23330	QPSK	10	24.3	22.91	-0.03	Bottom	0	25	12	1:1	10	0.067	1.377	0.092	-
ANSI/ IEEE C95.1 – 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

LTE Band 25 Hotspot SAR_Main 2 Ant.																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot N7.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
1 860	26140	QPSK	20	23.0	21.97	-0.16	Rear	0	1	99	1:1	10	0.356	1.268	0.451	-
1 860	26140	QPSK	20	23.0	22.07	-0.08	Rear	0	50	49	1:1	10	0.367	1.239	0.455	-
1 860	26140	QPSK	20	23.0	21.97	-0.12	Front	0	1	99	1:1	10	0.380	1.268	**0.482**	89
1 860	26140	QPSK	20	23.0	22.07	-0.15	Front	0	50	49	1:1	10	0.386	1.239	0.478	-
1 860	26140	QPSK	20	23.0	21.97	-0.17	Left	0	1	99	1:1	10	0.210	1.268	0.266	-
1 860	26140	QPSK	20	23.0	22.07	-0.16	Left	0	50	49	1:1	10	0.250	1.239	0.310	-
1 860	26140	QPSK	20	23.0	21.97	-0.01	Bottom	0	1	99	1:1	10	0.326	1.268	0.413	-
1 860	26140	QPSK	20	23.0	22.07	-0.04	Bottom	0	50	49	1:1	10	0.336	1.239	0.416	-
ANSI/ IEEE C95.1 – 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

LTE Band 26 Hotspot SAR_ Main 1 Ant.																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
831.5	26865	QPSK	15	25.5	24.06	-0.02	Rear	0	1	0	1:1	10	0.270	1.393	**0.376**	90
831.5	26865	QPSK	15	24.5	22.89	-0.01	Rear	1	36	0	1:1	10	0.215	1.449	0.312	-
831.5	26865	QPSK	15	25.5	24.06	-0.02	Front	0	1	0	1:1	10	0.239	1.393	0.333	-
831.5	26865	QPSK	15	24.5	22.89	-0.04	Front	1	36	0	1:1	10	0.192	1.449	0.278	-
831.5	26865	QPSK	15	25.5	24.06	-0.01	Right	0	1	0	1:1	10	0.245	1.393	0.341	-
831.5	26865	QPSK	15	24.5	22.89	-0.03	Right	1	36	0	1:1	10	0.195	1.449	0.283	-
831.5	26865	QPSK	15	25.5	24.06	-0.04	Bottom	0	1	0	1:1	10	0.060	1.393	0.084	-
831.5	26865	QPSK	15	24.5	22.89	0.08	Bottom	1	36	0	1:1	10	0.052	1.449	0.075	-
ANSI/ IEEE C95.1 – 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

LTE Band 30 Hotspot SAR_Main 2 Ant.																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
2 310	27710	QPSK	10	23.0	22.10	-0.01	Rear	0	1	0	1:1	10	0.239	1.230	0.294	-
2 310	27710	QPSK	10	23.0	21.69	-0.12	Rear	0	25	12	1:1	10	0.247	1.352	0.334	-
2 310	27710	QPSK	10	23.0	22.10	-0.02	Front	0	1	0	1:1	10	0.261	1.230	0.321	-
2 310	27710	QPSK	10	23.0	21.69	0.03	Front	0	25	12	1:1	10	0.266	1.352	0.360	-
2 310	27710	QPSK	10	23.0	22.10	-0.02	Left	0	1	0	1:1	10	0.225	1.230	0.277	-
2 310	27710	QPSK	10	23.0	21.69	0.02	Left	0	25	12	1:1	10	0.234	1.352	0.316	-
2 310	27710	QPSK	10	23.0	22.10	-0.05	Bottom	0	1	0	1:1	10	0.284	1.230	0.349	-
2 310	27710	QPSK	10	23.0	21.69	-0.07	Bottom	0	25	12	1:1	10	0.287	1.352	**0.388**	91
ANSI/ IEEE C95.1 – 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

LTE Band 40 Hotspot SAR_ Lower frequency range_Main 2 Ant.																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
2 310	38750	QPSK	10	12.5	11.90	0.01	Rear	0	1	24	1:1.58	10	0.012	1.148	0.014	-
2 310	38750	QPSK	10	12.5	11.98	0.01	Rear	0	25	12	1:1.58	10	0.012	1.127	0.014	-
2 310	38750	QPSK	10	12.5	11.90	0.01	Front	0	1	24	1:1.58	10	0.015	1.148	**0.017**	92
2 310	38750	QPSK	10	12.5	11.98	0.19	Front	0	25	12	1:1.58	10	0.011	1.127	0.012	-
2 310	38750	QPSK	10	12.5	11.90	-0.01	Left	0	1	24	1:1.58	10	0.0055	1.148	0.006	-
2 310	38750	QPSK	10	12.5	11.98	0.01	Left	0	25	12	1:1.58	10	0.00548	1.127	0.006	-
2 310	38750	QPSK	10	12.5	11.90	0.13	Bottom	0	1	24	1:1.58	10	0.00648	1.148	0.007	-
2 310	38750	QPSK	10	12.5	11.98	0.11	Bottom	0	25	12	1:1.58	10	0.00902	1.127	0.010	-
ANSI/ IEEE C95.1 – 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

LTE Band 40 Hotspot SAR_ Upper frequency range_Main 2 Ant.																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
2 355	39200	QPSK	10	12.5	11.71	-0.10	Rear	0	1	24	1:1.58	10	0.012	1.199	**0.014**	93
2 355	39200	QPSK	10	12.5	11.87	0.01	Rear	0	25	24	1:1.58	10	0.00713	1.156	0.008	-
2 355	39200	QPSK	10	12.5	11.71	0.01	Front	0	1	24	1:1.58	10	0.00361	1.199	0.004	-
2 355	39200	QPSK	10	12.5	11.87	0.10	Front	0	25	24	1:1.58	10	0.00869	1.156	0.010	-
2 355	39200	QPSK	10	12.5	11.71	0.18	Left	0	1	24	1:1.58	10	0.00486	1.199	0.006	-
2 355	39200	QPSK	10	12.5	11.87	0.10	Left	0	25	24	1:1.58	10	0.00416	1.156	0.005	-
2 355	39200	QPSK	10	12.5	11.71	0.15	Bottom	0	1	24	1:1.58	10	0.00833	1.199	0.010	-
2 355	39200	QPSK	10	12.5	11.87	0.18	Bottom	0	25	24	1:1.58	10	0.0096	1.156	0.011	-
ANSI/ IEEE C95.1 – 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

LTE TDD Band 41 Hotspot SAR (Power Class 3)_Main 2 Ant.																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
2 593.0	40620	QPSK	20	25.0	23.89	0.15	Rear	0	1	49	1:1.58	10	0.214	1.291	0.276	-
2 593.0	40620	QPSK	20	24.0	23.03	-0.16	Rear	1	50	25	1:1.58	10	0.178	1.250	0.223	-
2 593.0	40620	QPSK	20	25.0	23.89	0.05	Front	0	1	49	1:1.58	10	0.230	1.291	0.297	-
2 593.0	40620	QPSK	20	24.0	23.03	0.01	Front	1	50	25	1:1.58	10	0.189	1.250	0.236	-
2 593.0	40620	QPSK	20	25.0	23.89	-0.10	Left	0	1	49	1:1.58	10	0.216	1.291	0.279	-
2 593.0	40620	QPSK	20	24.0	23.03	-0.18	Left	1	50	25	1:1.58	10	0.174	1.250	0.218	-
2 593.0	40620	QPSK	20	25.0	23.89	-0.13	Bottom	0	1	49	1:1.58	10	0.258	1.291	0.333	-
2 593.0	40620	QPSK	20	25.0	23.62	-0.08	Bottom	0	1	99	1:1.58	10	0.247	1.374	0.339	-
2 593.0	40620	QPSK	20	24.0	23.03	-0.09	Bottom	1	50	25	1:1.58	10	0.211	1.250	0.264	-
Up-link Carrier Aggregation (41C)																
2 593.0	40620	QPSK PCC	20	25.0	24.95	0.11	Bottom	0	1	99	1:1.58	10	0.294	1.012	0.298	-
2 612.8	40818	QPSK SCC	20						1	0						

LTE TDD Band 41 Hotspot SAR (Power Class 2)_Main 2 Ant.																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
2 593.0	40620	QPSK	20	27.5	26.28	-0.03	Bottom	0	1	49	1:2.31	10	0.291	1.324	0.385	-
2 593.0	40620	QPSK	20	27.5	26.05	-0.10	Bottom	0	1	99	1:2.31	10	0.293	1.396	**0.409**	94
Up-link Carrier Aggregation (41C)																
2 593.0	40620	QPSK PCC	20	27.5	27.25	-0.02	Bottom	0	1	99	1:2.31	10	**0.376**	1.059	0.398	95
2 612.8	40818	QPSK SCC	20						1	0						

ANSI/ IEEE C95.1 – 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Body 1.6 W/kg Averaged over 1 gram

When Power reduction is applied to LTE B41 PC 2(HPUE), The power level of LTE B41 PC became same as the reduction power of LTE B41 PC3.

LTE TDD Band 48 Hotspot SAR_Sub 3 Ant.																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
3 690.0	56640	QPSK	20	22.5	21.81	-0.14	Rear	0	1	49	1:1.58	10	0.167	1.172	0.196	-
3 690.0	56640	QPSK	20	21.5	20.91	-0.11	Rear	1	50	49	1:1.58	10	0.125	1.146	0.143	-
3 690.0	56640	QPSK	20	22.5	21.81	0.12	Front	0	1	49	1:1.58	10	0.097	1.172	0.114	-
3 690.0	56640	QPSK	20	21.5	20.91	-0.12	Front	1	50	49	1:1.58	10	0.070	1.146	0.080	-
3 690.0	56640	QPSK	20	22.5	21.81	0.01	Left	0	1	49	1:1.58	10	0.267	1.172	**0.313**	96
3 690.0	56640	QPSK	20	21.5	20.91	0.02	Left	1	50	49	1:1.58	10	0.208	1.146	0.238	-
3 690.0	56640	QPSK	20	22.5	21.81	0.15	Top	0	1	49	1:1.58	10	0.085	1.172	0.100	-
3 690.0	56640	QPSK	20	21.5	20.91	0.10	Top	1	50	49	1:1.58	10	0.055	1.146	0.063	-
ANSI/ IEEE C95.1 – 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

LTE Band 66 Hotspot SAR_Main 2 Ant.																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
1 770	132572	QPSK	20	23.0	22.10	-0.03	Rear	0	1	0	1:1	10	0.383	1.230	**0.471**	97
1 720	132072	QPSK	20	23.0	22.19	-0.16	Rear	0	50	25	1:1	10	0.365	1.205	0.440	-
1 770	132572	QPSK	20	23.0	22.10	0.01	Front	0	1	0	1:1	10	0.365	1.230	0.449	-
1 720	132072	QPSK	20	23.0	22.19	-0.09	Front	0	50	25	1:1	10	0.362	1.205	0.436	-
1 770	132572	QPSK	20	23.0	22.10	-0.12	Left	0	1	0	1:1	10	0.195	1.230	0.240	-
1 720	132072	QPSK	20	23.0	22.19	-0.04	Left	0	50	25	1:1	10	0.190	1.205	0.229	-
1 770	132572	QPSK	20	23.0	22.10	-0.06	Bottom	0	1	0	1:1	10	0.356	1.230	0.438	-
1 720	132072	QPSK	20	23.0	22.19	-0.04	Bottom	0	50	25	1:1	10	0.351	1.205	0.423	-
ANSI/ IEEE C95.1 – 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

LTE Band 71 Hotspot SAR_ Main 1 Ant.																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
680.5	133297	QPSK	20	25.5	24.09	-0.01	Rear	0	1	49	1:1	10	0.347	1.384	**0.480**	98
680.5	133297	QPSK	20	24.5	23.21	0.10	Rear	0	50	0	1:1	10	0.271	1.346	0.365	-
680.5	133297	QPSK	20	25.5	24.09	-0.03	Front	0	1	49	1:1	10	0.281	1.384	0.389	-
680.5	133297	QPSK	20	24.5	23.21	-0.09	Front	0	50	0	1:1	10	0.217	1.346	0.292	-
680.5	133297	QPSK	20	25.5	24.09	-0.02	Right	0	1	49	1:1	10	0.287	1.384	0.397	-
680.5	133297	QPSK	20	24.5	23.21	0.02	Right	0	50	0	1:1	10	0.217	1.346	0.292	-
680.5	133297	QPSK	20	25.5	24.09	-0.06	Bottom	0	1	49	1:1	10	0.046	1.384	0.064	-
680.5	133297	QPSK	20	24.5	23.21	-0.09	Bottom	0	50	0	1:1	10	0.040	1.346	0.054	-
ANSI/ IEEE C95.1 – 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

NR Band n5 (Cell) Hotspot SAR_ Main 1 Ant.																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
836.5	167300	DFT-s OFDM QPSK	20	24.5	22.97	-0.04	Rear	0	1	1	1:1	10	0.272	1.422	**0.387**	99
836.5	167300	DFT-s OFDM QPSK	20	24.5	22.97	-0.01	Rear	0	50	28	1:1	10	0.239	1.422	0.340	-
836.5	167300	DFT-s OFDM QPSK	20	24.5	22.97	-0.06	Front	0	1	1	1:1	10	0.242	1.422	0.344	-
836.5	167300	DFT-s OFDM QPSK	20	24.5	22.97	-0.01	Front	0	50	28	1:1	10	0.226	1.422	0.321	-
836.5	167300	DFT-s OFDM QPSK	20	24.5	22.97	0.02	Right	0	1	1	1:1	10	0.256	1.422	0.364	-
836.5	167300	DFT-s OFDM QPSK	20	24.5	22.97	0.03	Right	0	50	28	1:1	10	0.216	1.422	0.307	-
836.5	167300	DFT-s OFDM QPSK	20	24.5	22.97	0.06	Bottom	0	1	1	1:1	10	0.055	1.422	0.078	-
836.5	167300	DFT-s OFDM QPSK	20	24.5	22.97	0.03	Bottom	0	50	28	1:1	10	0.057	1.422	0.081	-
836.5	167300	CP QPSK	20	23.0	21.52	-0.05	Rear	1.5	1	1	1:1	10	0.174	1.406	0.245	-
ANSI/ IEEE C95.1 – 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

NR Band n12 Hotspot SAR_ Main 1 Ant.																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
707.5	141500	DFT-s OFDM QPSK	15	25.8	24.54	0.04	Rear	0	1	40	1:1	10	0.256	1.337	0.342	-
707.5	141500	DFT-s OFDM QPSK	15	25.8	24.68	0.01	Rear	0	36	22	1:1	10	0.297	1.294	**0.384**	100
707.5	141500	DFT-s OFDM QPSK	15	25.8	24.54	-0.01	Front	0	1	40	1:1	10	0.206	1.337	0.275	-
707.5	141500	DFT-s OFDM QPSK	15	25.8	24.68	-0.05	Front	0	36	22	1:1	10	0.249	1.294	0.322	-
707.5	141500	DFT-s OFDM QPSK	15	25.8	24.54	-0.01	Right	0	1	40	1:1	10	0.228	1.337	0.305	-
707.5	141500	DFT-s OFDM QPSK	15	25.8	24.68	0.01	Right	0	36	22	1:1	10	0.251	1.294	0.325	-
707.5	141500	DFT-s OFDM QPSK	15	25.8	24.54	-0.09	Bottom	0	1	40	1:1	10	0.057	1.337	0.076	-
707.5	141500	DFT-s OFDM QPSK	15	25.8	24.68	0.05	Bottom	0	36	22	1:1	10	0.054	1.294	0.070	-
707.5	141500	CP QPSK	15	24.3	23.13	-0.01	Rear	1.5	1	1	1:1	10	0.215	1.309	0.281	-
ANSI/ IEEE C95.1 – 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

NR Band n25 Hotspot SAR_Main 2 Ant.																
sppFrequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
1 882.5	376500	DFT-s OFDM QPSK	40	23.5	23.05	-0.04	Rear	0	1	214	1:1	10	0.466	1.109	0.517	-
1 882.5	376500	DFT-s OFDM QPSK	40	23.5	23.19	0.14	Rear	0	108	108	1:1	10	0.489	1.074	0.525	-
1 882.5	376500	DFT-s OFDM QPSK	40	23.5	23.05	0.06	Front	0	1	214	1:1	10	0.459	1.109	0.509	-
1 882.5	376500	DFT-s OFDM QPSK	40	23.5	23.19	0.08	Front	0	108	108	1:1	10	0.507	1.074	0.545	-
1 882.5	376500	DFT-s OFDM QPSK	40	23.5	23.05	-0.10	Left	0	1	214	1:1	10	0.335	1.109	0.372	-
1 882.5	376500	DFT-s OFDM QPSK	40	23.5	23.19	0.14	Left	0	108	108	1:1	10	0.337	1.074	0.362	-
1 882.5	376500	DFT-s OFDM QPSK	40	23.5	23.05	0.12	Bottom	0	1	214	1:1	10	0.518	1.109	**0.574**	101
1 882.5	376500	DFT-s OFDM QPSK	40	23.5	23.19	0.06	Bottom	0	108	108	1:1	10	0.511	1.074	0.549	-
1 882.5	376500	CP QPSK	40	23.5	23.05	-0.01	Bottom	0	1	1	1:1	10	0.421	1.109	0.467	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

NR Band n41 Hotspot SAR (Power Class 3)_Sub 2 Ant. (Upper)																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
2592.99	518598	DFT-s OFDM QPSK	100	25.0	24.27	-0.18	Rear	0	1	137	1:1	10	0.453	1.183	0.536	-
2592.99	518598	DFT-s OFDM QPSK	100	25.0	24.22	-0.10	Rear	0	135	69	1:1	10	0.476	1.197	**0.570**	102
2592.99	518598	DFT-s OFDM QPSK	100	25.0	24.27	0.01	Front	0	1	137	1:1	10	0.181	1.183	0.214	-
2592.99	518598	DFT-s OFDM QPSK	100	25.0	24.22	0.06	Front	0	135	69	1:1	10	0.186	1.197	0.223	-
2592.99	518598	DFT-s OFDM QPSK	100	25.0	24.27	-0.01	Left	0	1	137	1:1	10	0.057	1.183	0.067	-
2592.99	518598	DFT-s OFDM QPSK	100	25.0	24.22	0.11	Left	0	135	69	1:1	10	0.064	1.197	0.077	-
2592.99	518598	DFT-s OFDM QPSK	100	25.0	24.27	0.13	Top	0	1	137	1:1	10	0.318	1.183	0.376	-
2592.99	518598	DFT-s OFDM QPSK	100	25.0	24.22	0.15	Top	0	135	69	1:1	10	0.318	1.197	0.381	-
2592.99	518598	CP QPSK	100	23.5	22.49	-0.11	Rear	0	1	1	1:1	10	0.318	1.262	0.401	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

NR Band n41 Hotspot SAR (Power Class 2)_Sub 2 Ant. (Upper)																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
2592.99	518598	DFT-s OFDM QPSK	100	26.0	25.08	-0.11	Rear	0	1	137	1:1	10	0.585	1.236	**0.723**	103
2592.99	518598	DFT-s OFDM QPSK	100	26.0	25.02	0.15	Rear	0	135	69	1:1	10	0.505	1.253	0.633	-
2592.99	518598	DFT-s OFDM QPSK	100	26.0	25.08	-0.16	Front	0	1	137	1:1	10	0.175	1.236	0.216	-
2592.99	518598	DFT-s OFDM QPSK	100	26.0	25.02	-0.17	Front	0	135	69	1:1	10	0.174	1.253	0.218	-
2592.99	518598	DFT-s OFDM QPSK	100	26.0	25.08	0.18	Left	0	1	137	1:1	10	0.086	1.236	0.106	-
2592.99	518598	DFT-s OFDM QPSK	100	26.0	25.02	-0.04	Left	0	135	69	1:1	10	0.088	1.253	0.110	-
2592.99	518598	DFT-s OFDM QPSK	100	26.0	25.08	0.12	Top	0	1	137	1:1	10	0.389	1.236	0.481	-
2592.99	518598	DFT-s OFDM QPSK	100	26.0	25.02	0.19	Top	0	135	69	1:1	10	0.399	1.253	0.500	-
2592.99	518598	CP QPSK	100	24.5	23.47	-0.12	Rear	0	1	1	1:1	10	0.449	1.268	0.569	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

NR Band n41 Hotspot SAR (Power Class 3)_Main 2 Ant. (Low)																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
2592.99	518598	DFT-s OFDM QPSK	100	24.0	23.69	0.11	Rear	0	1	1	1:1	10	0.089	1.074	0.096	-
2592.99	518598	DFT-s OFDM QPSK	100	24.0	23.54	0.10	Rear	0	135	69	1:1	10	0.050	1.112	0.056	-
2592.99	518598	DFT-s OFDM QPSK	100	24.0	23.69	0.03	Front	0	1	1	1:1	10	0.131	1.074	0.141	-
2592.99	518598	DFT-s OFDM QPSK	100	24.0	23.54	0.03	Front	0	135	69	1:1	10	0.161	1.112	**0.179**	104
2592.99	518598	DFT-s OFDM QPSK	100	24.0	23.69	0.12	Left	0	1	1	1:1	10	0.111	1.074	0.119	-
2592.99	518598	DFT-s OFDM QPSK	100	24.0	23.54	0.06	Left	0	135	69	1:1	10	0.120	1.112	0.133	-
2592.99	518598	DFT-s OFDM QPSK	100	24.0	23.69	0.04	Bottom	0	1	1	1:1	10	0.104	1.074	0.112	-
2592.99	518598	DFT-s OFDM QPSK	100	24.0	23.54	-0.05	Bottom	0	135	69	1:1	10	0.105	1.112	0.117	-
2592.99	518598	CP QPSK	100	22.5	21.41	-0.16	Front	1.5	1	1	1:1	10	0.087	1.285	0.112	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

NR Band n41 Hotspot SAR (Power Class 2)_Main 2 Ant. (Low)																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
2592.99	518598	DFT-s OFDM QPSK	100	27.5	26.81	-0.19	Rear	0	1	271	1:1	10	0.204	1.172	0.239	-
2592.99	518598	DFT-s OFDM QPSK	100	27.5	26.52	0.12	Rear	0	135	69	1:1	10	0.266	1.253	0.333	-
2592.99	518598	DFT-s OFDM QPSK	100	27.5	26.81	0.18	Front	0	1	271	1:1	10	0.328	1.172	0.384	-
2592.99	518598	DFT-s OFDM QPSK	100	27.5	26.52	0.15	Front	0	135	69	1:1	10	0.363	1.253	0.455	-
2592.99	518598	DFT-s OFDM QPSK	100	27.5	26.81	0.13	Left	0	1	271	1:1	10	0.310	1.172	0.363	-
2592.99	518598	DFT-s OFDM QPSK	100	27.5	26.52	0.10	Left	0	135	69	1:1	10	0.367	1.253	**0.460**	105
2592.99	518598	DFT-s OFDM QPSK	100	27.5	26.81	0.08	Bottom	0	1	271	1:1	10	0.245	1.172	0.287	-
2592.99	518598	DFT-s OFDM QPSK	100	27.5	26.52	-0.13	Bottom	0	135	69	1:1	10	0.263	1.253	0.330	-
2592.99	518598	CP QPSK	100	26.0	24.52	-0.04	Left	0	1.5	1	1:1	10	0.199	1.406	0.280	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

NR Band n66 Hotspot SAR_Main 2 Ant.																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
1 745	349000	DFT-s OFDM QPSK	40	24.0	23.43	-0.05	Rear	0	1	108	1:1	10	0.474	1.140	**0.540**	106
1 745	349000	DFT-s OFDM QPSK	40	24.0	23.62	-0.11	Rear	0	108	54	1:1	10	0.339	1.091	0.370	-
1 745	349000	DFT-s OFDM QPSK	40	24.0	23.43	0.10	Front	0	1	108	1:1	10	0.447	1.140	0.510	-
1 745	349000	DFT-s OFDM QPSK	40	24.0	23.62	0.14	Front	0	108	54	1:1	10	0.462	1.091	0.504	-
1 745	349000	DFT-s OFDM QPSK	40	24.0	23.43	0.11	Left	0	1	108	1:1	10	0.379	1.140	0.432	-
1 745	349000	DFT-s OFDM QPSK	40	24.0	23.62	0.17	Left	0	108	54	1:1	10	0.301	1.091	0.328	-
1 745	349000	DFT-s OFDM QPSK	40	24.0	23.43	0.13	Bottom	0	1	108	1:1	10	0.419	1.140	0.478	-
1 745	349000	DFT-s OFDM QPSK	40	24.0	23.62	0.11	Bottom	0	108	54	1:1	10	0.353	1.091	0.385	-
1 745	349000	CP QPSK	40	24.0	23.43	-0.09	Rear	0	1	1	1:1	10	0.253	1.140	0.288	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

NR Band n71 Hotspot SAR_ Main 1 Ant.																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
680.5	136100	DFT-s OFDM QPSK	20	24.5	22.77	-0.01	Rear	0	1	53	1:1	10	0.258	1.489	0.384	-
680.5	136100	DFT-s OFDM QPSK	20	24.5	22.90	0.03	Rear	0	50	28	1:1	10	0.272	1.445	**0.393**	107
680.5	136100	DFT-s OFDM QPSK	20	24.5	22.77	0.02	Front	0	1	53	1:1	10	0.212	1.489	0.316	-
680.5	136100	DFT-s OFDM QPSK	20	24.5	22.90	-0.04	Front	0	50	28	1:1	10	0.222	1.445	0.321	-
680.5	136100	DFT-s OFDM QPSK	20	24.5	22.77	0.06	Right	0	1	53	1:1	10	0.209	1.489	0.311	-
680.5	136100	DFT-s OFDM QPSK	20	24.5	22.90	0.05	Right	0	50	28	1:1	10	0.229	1.445	0.331	-
680.5	136100	DFT-s OFDM QPSK	20	24.5	22.77	-0.16	Bottom	0	1	53	1:1	10	0.047	1.489	0.070	-
680.5	136100	DFT-s OFDM QPSK	20	24.5	22.90	-0.04	Bottom	0	50	28	1:1	10	0.046	1.445	0.066	-
680.5	136100	CP QPSK	20	23.0	21.38	-0.01	Rear	1.5	1	1	1:1	10	0.179	1.452	0.260	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

NR Band n77 Hotspot SAR Sub 3 Ant.																
Frequency		Modulation	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
3 750	650000	DFT-s OFDM QPSK	100	25.2	24.35	0.18	Rear	0	1	271	1:1	10	0.158	1.216	0.192	-
3 840	656000	DFT-s OFDM QPSK	100	25.2	24.19	-0.11	Rear	0	135	69	1:1	10	0.154	1.262	0.194	-
3 750	650000	DFT-s OFDM QPSK	100	25.2	24.35	0.19	Front	0	1	271	1:1	10	0.163	1.216	0.198	-
3 840	656000	DFT-s OFDM QPSK	100	25.2	24.19	-0.18	Front	0	135	69	1:1	10	0.159	1.262	0.201	-
3 750	650000	DFT-s OFDM QPSK	100	25.2	24.35	-0.01	Left	0	1	271	1:1	10	0.267	1.216	**0.325**	108
3 840	656000	DFT-s OFDM QPSK	100	25.2	24.19	-0.06	Left	0	135	69	1:1	10	0.218	1.262	0.275	-
3 750	650000	DFT-s OFDM QPSK	100	25.2	24.35	-0.17	Top	0	1	271	1:1	10	0.140	1.216	0.170	-
3 840	656000	DFT-s OFDM QPSK	100	25.2	24.19	-0.10	Top	0	135	69	1:1	10	0.122	1.262	0.154	-
3 840	656000	CP QPSK	100	23.7	23.03	-0.11	Left	1.5	1	1	1:1	10	0.186	1.167	0.217	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

DTS Hotspot SAR																
Frequency		Mode	Band width (MHz)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Duty Cycle	Distance (mm)	Area Scan Peak SAR (W/kg)	1g Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	1g Reported SAR (W/kg)	Plot No.
MHz	Ch.															
2 462	11	802.11b	20	1	21.0	20.71	-0.11	Rear	98.4	10	1.0	0.554	1.069	1.016	0.602	-
2 462	11	802.11b	20	1	21.0	20.71	0.14	Front	98.4	10	0.362	0.209	1.069	1.016	0.227	-
2 462	11	802.11b	20	1	21.0	20.71	0.04	Left	98.4	10	0.220	0.125	1.069	1.016	0.136	-
2 462	11	802.11b	20	1	21.0	20.71	0.12	Top	98.4	10	1.02	0.613	1.069	1.016	**0.666**	109
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram								

5 GHz WLAN Hotspot SAR																
Frequency		Mode	Band width (MHz)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Duty Cycle	Distance (mm)	Area Scan Peak SAR (W/kg)	1g Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	1g Reported SAR (W/kg)	Plot No.
MHz	Ch.															
5 745	149	802.11a	20	6	19.0	18.15	-0.16	Rear	97.6	10	0.882	0.357	1.216	1.025	**0.445**	110
5 745	149	802.11a	20	6	19.0	18.15		Front	97.6	10	0.309		1.216	1.025		-
5 745	149	802.11a	20	6	19.0	18.15	0.15	Left	97.6	10	0.729	0.308	1.216	1.025	0.384	-
5 745	149	802.11a	20	6	19.0	18.15		Top	97.6	10	0.0576		1.216	1.025		-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram								

DSS Tethering SAR												
Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Distance	1g Meas. SAR	Scaling Factor	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(dBm)	(dBm)	(dB)		(mm)	(W/kg)		(Duty)	(W/kg)	
2 402	0	Bluetooth DH5	16.5	16.23	-0.12	Rear	10	0.158	1.064	1.300	**0.219**	111
2 402	0	Bluetooth DH5	16.5	16.23	-0.12	Front	10	0.054	1.064	1.300	0.075	-
2 402	0	Bluetooth DH5	16.5	16.23	0.13	Left	10	0.034	1.064	1.300	0.047	-
2 402	0	Bluetooth DH5	16.5	16.23	0.10	Top	10	0.120	1.064	1.300	0.166	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Body 1.6 W/kg Averaged over 1 gram						

13.4 Phablet SAR Measurement Considerations

Per FCC KDB 648474 D04v01r03, this device is considered a “Phablet” since the diagonal dimension is greater than 160 mm and less than 200 mm. 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.

13.5 Phablet SAR Measurement Results

5 GHz WLAN Phablet SAR 10g															
Frequency		Mode	Band width (MHz)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Duty Cycle	Distance (mm)	Area Scan Peak SAR (W/kg)	10g Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	10g Scaled SAR (W/kg)	Plot No.
MHz	Ch.															
5 260	52	802.11a	20	6	19.0	18.16	-0.19	Rear	97.6	0	6.77	0.756	1.213	1.025	0.940	-
5 260	52	802.11a	20	6	19.0	18.16	0.01	Front	97.6	0	7.83	0.660	1.213	1.025	0.821	-
5 260	52	802.11a	20	6	19.0	18.16	0.14	Left	97.6	0	10.9	1.08	1.213	1.025	**1.343**	112
5 260	52	802.11a	20	6	19.0	18.16		Top	97.6	0	3.34		1.213	1.025		-
5 720	144	802.11a	20	6	19.0	17.97	-0.19	Rear	97.6	0	9.73	0.795	1.268	1.025	1.033	-
5 720	144	802.11a	20	6	19.0	17.97		Front	97.6	0	4.25		1.268	1.025		-
5 720	144	802.11a	20	6	19.0	17.97	0.11	Left	97.6	0	7.15	0.816	1.268	1.025	1.061	-
5 720	144	802.11a	20	6	19.0	17.97		Top	97.6	0	2.80		1.268	1.025		-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population											Hand 4.0 W/kg Averaged over 10 gram					

13.6 SAR Test Notes

General Notes:

1. The test data reported are the worst-case SAR values according to test procedures specified in IEEE 1528-2013, FCC KDB Procedure.
2. Batteries are fully charged at the beginning of the SAR measurements. A standard battery was used for all SAR measurements.
3. Liquid tissue depth was at least 15.0 cm for all frequencies.
4. The manufacturer has confirmed that the device(s) tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units.
5. SAR results were scaled to the maximum allowed power to demonstrate compliance per FCC KDB 447498 D01v06.
6. Device was tested using a fixed spacing for body-worn accessory testing. A separation distance of 15 mm was considered because the manufacturer has determined that there will be body-worn accessories available in the marketplace for users to support this separation distance.
7. Per FCC KDB 648474 D04v01r03, SAR was evaluated without a headset connected to the device. Since the standalone reported SAR was 1.2 W/kg, no additional SAR evaluation using a headset cable were required.
8. Per KDB 648474 D04v01r03, this device is considered a “Phablet” since the diagonal dimension is > 160 mm and < 200 mm. When hotspot mode applies, extremity SAR is required only for the surfaces and edges with hotspot mode scaled to the maximum output power (with tolerance) is 1 g SAR > 1.2 W/kg.
9. Per FCC KDB 865664 D01v01r04, variability SAR measurement were not performed when the measured SAR results for a frequency band were greater than or equal to 0.8 W/kg for 1g SAR and >2 for 10g SAR Please see Section 15 for variability analysis.
10. This device utilizes power reduction for some wireless mode and technologies, as outlined in sec. 4 The maximum output power allowed for each transmitter and exposure condition was evaluated for SAR compliance based on expected use conditions and simultaneous scenarios.
11. During SAR testing for the Hotspot conditions per KDB 941225 D06v02r01, the actual portable hotspot operation (with actual simultaneous transmission of a transmitter with WiFi) was not activated.

CDMA Notes:

1. Head SAR for CDMA2000 mode was tested under RC3/SO55 per FCC KDB Publication 941225 D01v03r01.
2. Body-Worn SAR was tested with 1x RTT with TDSO / SO32 FCH Only. EVDO Rev0 and RevA and TDSO / SO32 FCH+SCH SAR tests were not required per the 3G SAR Test Reduction Procedure in FCCKDB Publication 941225 D01v03r01.
3. CDMA Wireless Router SAR is measured using Subtype 0/1 Physical Layer configurations for Rev. 0 according to KDB 941225 D01v03r01 procedures for data devices. Wireless Router SAR tests for Subtype 2 of Rev.A and 1x RTT configurations were not required per the 3G SAR Test Reduction Policyin KDB Publication 941225 D01v03r01.
4. Head SAR was additionally evaluated using EVDO Rev. A to determine compliance for VoIP operations.
5. Per FCC KDB Publication 447498 D01v06, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg for 1g evaluations then testing at the other channels is not required for such test configuration(s). When the maximum output power variation across the required test channels is > ½ dB, instead of the middle channel, the highest outputpower channel was used.

GSM/GPRS Test Notes:

1. This EUT'S GSM and GPRS device class is B.
2. This device does not support GPRS VOIP .
3. Body-Worn accessory testing is typically associated with voice operations. Therefore, GSM voice was evaluated for body-worn SAR.
4. Justification for reduced test configurations per KDB 941225 D01v03r01: The source-based time-averaged output power was evaluated for all multi-slot operations. The multi-slot configuration with the highest frame averaged output power including tolerance was evaluated for SAR.
5. Per FCC KDB 447498 D01v06, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is 0.8 W/kg then testing at the other channels is not required for such test configuration(s). When the maximum output power variation across the required test channels is 1/2 dB, instead of the middle channel, the highest output power channel must be used.

UMTS Notes:

1. The 12.2 kbps RMC mode is the primary mode per KDB 941225 D01v03r01.
2. UMTS SAR was tested under RMC 12.2 kbps with HSPA inactive per KDB publication 941225 D01v03r01. AMR and HSPA SAR was not required per the 3G Test Reduction Procedure in KDB Publication 941225 D01v03r01.
3. Per FCC KDB 447498 D01v06, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is 0.8 W/kg then testing at the other channels is not required for such test configuration(s). When the maximum output power variation across the channel highest output power channel was used.

LTE Notes:

1. LTE Considerations: LTE test configurations are determined according to SAR Evaluation Consideration for LTE Devices in FCC KDB 941225 D05v02r05.
2. According to FCC KDB 941225 D05v02r05:
   When the reported SAR is 0.8 W/kg, testing of the 100% RB allocation and required test channels is not required. Otherwise, SAR is required for the remaining required test channels using the 1RB, 50%RB and 100%RB allocation with highest output power for that channel.
   Only one channel, and as reported SAR values for 1RB allocation and 50%RB allocation were less than 1.45 W/Kg only the highest power RB offset for each allocation was required.
3. 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 target MPR is indicated alongside the SAR results.
4. When Power reduction is applied, MPR is 0.
5. A-MPR was disabled for all SAR tests by setting NS=01 on the base station simulator.
6. Per FCC KDB Publication 447498 D01v06, if the reported (scaled) LTE TDD Band 41 SAR measured at the highest output power channel for each test configuration is 0.6 W/kg then testing at the other channels is not required for such test configurations.
7. TDD LTE B41 (Power Class 3) was tested using UL-DL configuration 0 with 6 UL sub frames and 2S sub frames using extended cyclic prefix only and special sub frame configuration 6. SAR tests were performed at maximum output power and worst-case transmission duty factor in extended cyclic prefix. Per 3GPP 36.211 Sec. 4, the duty factor using extended cyclic prefix is 0.633(cf=1.58).
8. Per KDB 941225 D05Av01r02, SAR for LTE Carrier Aggregation operations was not needed because the maximum average output power in LTE CA mode was not > 0.25 dB higher than the maximum output power when downlink CA was not activated.
9. This device supports Power Class 2 and Power Class 3 operations for LTE Band 41. The Highest available duty cycle for Power Class 2 operations is 43.3% using UL-DL configuration 1. Per May TCB

Workshop notes, all SAR tests were performed using Power Class 3. SAR with power class 2 at the available duty factor was additionally performed for the power class 3 configuration with the highest SAR configuration for each exposure conditions.

10. This device supports LTE Carrier Aggregation(CA) in Uplink for LTE 41C with two component carriers in the uplink. SAR measurements and conducted powers were evaluated per Fall 2017 TCBC Workshop notes (LTE Carrier aggregation).
    For LTE Band 41, per 2017 TCBC Workshop notes ,SAR was first measured with only a single carrier active in the uplink (carrier aggregation not active). For each exposure condition, the uplink CA scenario with two component carriers was additionally tested for the configuration with the highest SAR when carrier aggregation was not active.
    Because the maximum output for UL CA of LTE 41C is ≤ standalone LTE mode (without CA), SAR for LTE41C Up link CA was performed at the highest standalone SAR configuration without CA and also UL CA SAR is not required for all required test channels, Because the reported SAR for UL CA configuration is < 1.4 W/kg.
    The SCC was configured with the closest available contiguous channel. The two component carriers were configured so the resource blocks are physically allocated side by side to achieve the maximum output power.

NR Notes:

1. Due to Limitations of the SAR measurement equipment, SAR testing for NR was performed using test mode (FTM) software.
2. More detailed specifications of the NR bands are contained in the Technical description document.
3. This device additionally supports some EN-DC conditions where additional LTE carriers are added on the downlink only.
4. For NR modulations and RB Sizes/Offsets were selected for testing such that configurations with the highest output power were evaluated for SAR tests.
5. For final implementation, TDD NR slot configuration is synchronized using maximum duty cycle of 100%.
6. Simultaneous transmission analysis for EN-DC operations is addressed in the Part 2 RF exposure Report.

WLAN Notes:

1. For held-to-ear and hotspot operations, the initial test position procedures were applied. For initial test position, the highest extrapolated peak SAR will be used. 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 positions was required. Otherwise, SAR is evaluated at the subsequent highest peak SAR positions until the reported SAR results is ≤ 0.8 W/kg for 1g SAR and ≤ 2.0 W/kg for 10g SAR or all test position are measured.

2. Per KDB 2482227 D01v02r02 justification for test configurations of 2.4 GHz WiFi Single transmission chain operations, the highest measured maximum output power channel for DSSS was selected for SAR measurement. SAR for OFDM modes (2.4 GHz 802.11 g/n) was not required due to the maximum allowed powers and the highest reported DSSS SAR
.

3. Per KDB 2482227 D01v02r02 justification for test configurations of 5 GHz WiFi Single transmission chain operations, the initial test configuration was selected according to the transmission mode with the highest maximum allowed powers. Other transmission mode were not investigated since the highest reported SAR for initial test configuration adjusted by the ration of maximum output powers is less than 1.2 W/kg for 1g SAR and less than 3.0 W/kg for 10 g SAR.

4. When the maximum reported 1g averaged SAR is ≤ 0.8 W/kg, SAR testing on additional channels was

not required. Otherwise, SAR for the next highest output power channel was required until the reported SAR result was ≤ 1.20 W/kg or all test channels were measured.

5. The device was configured to transmit continuously at the required data rated, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools. The reported SAR was scaled to the 100% transmission duty factor to determine compliance. Procedures used to measure the duty factor are identical to that in the associated WLAN test reports.

Bluetooth Notes:

1. Bluetooth SAR was measured with the device connected to a call box with hopping disabled with DH5 operation and Tx Tests mode type. Per October 2016 TCBC Workshop Notes, the reported SAR was scaled to 100% transmission duty factor to determine compliance. Please see sec.11 for the time-domain plot and calculation for duty factor of the device.
2. Head and Bluetooth tethering SAR were evaluated for BT BR tethering applications.

14. Simultaneous SAR Analysis

14.1 Head SAR Simultaneous Transmission Analysis.

Simultaneous Transmission Summation Scenario (Head SAR)									
Band	WWAN SAR	2.4 GHz WLAN SAR	5 GHz WLAN SAR	Bluetooth SAR	∑ 1-g SAR	∑ 1-g SAR	∑ 1-g SAR	∑ 1-g SAR	SPLSR
	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(Yes/ No)
	1	2	3	4	1+2	1+3	1+4	1+3+4	
EVDO BC10 (§90S)	0.281	0.533	0.463	0.304	0.814	0.744	0.585	1.048	No
EVDO BC0 (§22H)	0.496	0.533	0.463	0.304	1.029	0.959	0.800	1.263	No
PCS CDMA/EVDO	0.285	0.533	0.463	0.304	0.818	0.748	0.589	1.052	No
GSM 850	0.254	0.533	0.463	0.304	0.787	0.717	0.558	1.021	No
GPRS 850	0.312	0.533	0.463	0.304	0.845	0.775	0.616	1.079	No
GSM 1900	0.116	0.533	0.463	0.304	0.649	0.579	0.420	0.883	No
GPRS 1900	0.175	0.533	0.463	0.304	0.708	0.638	0.479	0.942	No
UMTS 850	0.205	0.533	0.463	0.304	0.738	0.668	0.509	0.972	No
UMTS 1700	0.281	0.533	0.463	0.304	0.814	0.744	0.585	1.048	No
UMTS 1900	0.287	0.533	0.463	0.304	0.820	0.750	0.591	1.054	No
LTE Band 7	0.338	0.533	0.463	0.304	0.871	0.801	0.642	1.105	No
LTE Band 12	0.167	0.533	0.463	0.304	0.700	0.630	0.471	0.934	No
LTE Band 13	0.277	0.533	0.463	0.304	0.810	0.740	0.581	1.044	No
LTE Band 14	0.214	0.533	0.463	0.304	0.747	0.677	0.518	0.981	No
LTE Band 25	0.286	0.533	0.463	0.304	0.819	0.749	0.590	1.053	No
LTE Band 26	0.245	0.533	0.463	0.304	0.778	0.708	0.549	1.012	No
LTE Band 30	0.251	0.533	0.463	0.304	0.784	0.714	0.555	1.018	No
LTE Band 40 Low	0.000	0.533	0.463	0.304	0.533	0.463	0.304	0.767	No
LTE Band 40 Upper	0.000	0.533	0.463	0.304	0.533	0.463	0.304	0.767	No
LTE Band 41	0.317	0.533	0.463	0.304	0.850	0.780	0.621	1.084	No
LTE Band 48	0.518	0.533	0.463	0.304	1.051	0.981	0.822	1.285	No
LTE Band 66	0.268	0.533	0.463	0.304	0.801	0.731	0.572	1.035	No
LTE Band 71	0.257	0.533	0.463	0.304	0.790	0.720	0.561	1.024	No
NR Band n5	0.236	0.533	0.463	0.304	0.769	0.699	0.540	1.003	No
NR Band n12	0.263	0.533	0.463	0.304	0.796	0.726	0.567	1.030	No
NR Band n25	0.248	0.533	0.463	0.304	0.781	0.711	0.552	1.015	No
NR Band n41(PC3) Sub#2	0.743	0.533	0.463	0.304	1.276	1.206	1.047	**1.510**	No
NR Band n41(PC2) Sub#2	0.736	0.533	0.463	0.304	1.269	1.199	1.040	1.503	No
NR Band n41(PC3) Main#2	0.120	0.533	0.463	0.304	0.653	0.583	0.424	0.887	No
NR Band n41(PC2)) Main#2	0.271	0.533	0.463	0.304	0.804	0.734	0.575	1.038	No
NR Band n66	0.167	0.533	0.463	0.304	0.700	0.630	0.471	0.934	No
NR Band n71	0.238	0.533	0.463	0.304	0.771	0.701	0.542	1.005	No
NR Band n77	0.307	0.533	0.463	0.304	0.840	0.770	0.611	1.074	No

14.2 Body-Worn SAR Simultaneous Transmission Analysis.

Simultaneous Transmission Summation Scenario (Body-Worn SAR) – Distance: 15 mm									
Band	WWAN SAR	2.4 GHz WLAN SAR	5 GHz WLAN SAR	Bluetooth SAR	∑ 1-g SAR	∑ 1-g SAR	∑ 1-g SAR	∑ 1-g SAR	SPLSR
	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(Yes/ No)
	1	2	3	4	1+2	1+3	1+4	1+3+4	
EVDO BC10 (§90S)	0.431	0.280	0.240	0.066	0.711	0.671	0.497	0.737	No
EVDO BC0 (§22H)	0.450	0.280	0.240	0.066	0.730	0.690	0.516	0.756	No
PCS CDMA/EVDO	0.399	0.280	0.240	0.066	0.679	0.639	0.465	0.705	No
GSM 850	0.308	0.280	0.240	0.066	0.588	0.548	0.374	0.614	No
GPRS 850	0.532	0.280	0.240	0.066	0.812	0.772	0.598	**0.838**	No
GSM 1900	0.193	0.280	0.240	0.066	0.473	0.433	0.259	0.499	No
GPRS 1900	0.288	0.280	0.240	0.066	0.568	0.528	0.354	0.594	No
UMTS 850	0.347	0.280	0.240	0.066	0.627	0.587	0.413	0.653	No
UMTS 1700	0.246	0.280	0.240	0.066	0.526	0.486	0.312	0.552	No
UMTS 1900	0.197	0.280	0.240	0.066	0.477	0.437	0.263	0.503	No
LTE Band 7	0.270	0.280	0.240	0.066	0.550	0.510	0.336	0.576	No
LTE Band 12	0.229	0.280	0.240	0.066	0.509	0.469	0.295	0.535	No
LTE Band 13	0.409	0.280	0.240	0.066	0.689	0.649	0.475	0.715	No
LTE Band 14	0.342	0.280	0.240	0.066	0.622	0.582	0.408	0.648	No
LTE Band 25	0.407	0.280	0.240	0.066	0.687	0.647	0.473	0.713	No
LTE Band 26	0.362	0.280	0.240	0.066	0.642	0.602	0.428	0.668	No
LTE Band 30	0.258	0.280	0.240	0.066	0.538	0.498	0.324	0.564	No
LTE Band 40 Low	0.004	0.280	0.240	0.066	0.284	0.244	0.070	0.310	No
LTE Band 40 Upper	0.003	0.280	0.240	0.066	0.283	0.243	0.069	0.309	No
LTE Band 41	0.324	0.280	0.240	0.066	0.604	0.564	0.390	0.630	No
LTE Band 48	0.071	0.280	0.240	0.066	0.351	0.311	0.137	0.377	No
LTE Band 66	0.287	0.280	0.240	0.066	0.567	0.527	0.353	0.593	No
LTE Band 71	0.410	0.280	0.240	0.066	0.690	0.650	0.476	0.716	No
NR Band n5	0.364	0.280	0.240	0.066	0.644	0.604	0.430	0.670	No
NR Band n12	0.364	0.280	0.240	0.066	0.644	0.604	0.430	0.670	No
NR Band n25	0.335	0.280	0.240	0.066	0.615	0.575	0.401	0.641	No
NR Band n41(PC3) Sub#2	0.222	0.280	0.240	0.066	0.502	0.462	0.288	0.528	No
NR Band n41(PC2) Sub#2	0.292	0.280	0.240	0.066	0.572	0.532	0.358	0.598	No
NR Band n41(PC3) Main#2	0.093	0.280	0.240	0.066	0.373	0.333	0.159	0.399	No
NR Band n41(PC2)) Main#2	0.252	0.280	0.240	0.066	0.532	0.492	0.318	0.558	No
NR Band n66	0.248	0.280	0.240	0.066	0.528	0.488	0.314	0.554	No
NR Band n71	0.347	0.280	0.240	0.066	0.627	0.587	0.413	0.653	No
NR Band n77	0.082	0.280	0.240	0.066	0.362	0.322	0.148	0.388	No

14.3 Hotspot SAR Simultaneous Transmission Analysis.

Simultaneous Transmission Summation Scenario (Hotspot SAR) – Distance: 10 mm									
Band	WWAN SAR	2.4 GHz WLAN SAR	5 GHz WLAN SAR	Bluetooth SAR	∑ 1-g SAR	∑ 1-g SAR	∑ 1-g SAR	∑ 1-g SAR	SPLSR
	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(Yes/ No)
	1	2	3	4	1+2	1+3	1+4	1+3+4	
EVDO BC10 (§90S)	0.459	0.666	0.445	0.219	1.125	0.904	0.678	1.123	No
EVDO BC0 (§22H)	0.423	0.666	0.445	0.219	1.089	0.868	0.642	1.087	No
PCS CDMA/EVDO	0.569	0.666	0.445	0.219	1.235	1.014	0.788	1.233	No
GSM 850	0.469	0.666	0.445	0.219	1.135	0.914	0.688	1.133	No
GSM 1900	0.317	0.666	0.445	0.219	0.983	0.762	0.536	0.981	No
UMTS 850	0.354	0.666	0.445	0.219	1.020	0.799	0.573	1.018	No
UMTS 1700	0.340	0.666	0.445	0.219	1.006	0.785	0.559	1.004	No
UMTS 1900	0.378	0.666	0.445	0.219	1.044	0.823	0.597	1.042	No
LTE Band 7	0.383	0.666	0.445	0.219	1.049	0.828	0.602	1.047	No
LTE Band 12	0.264	0.666	0.445	0.219	0.930	0.709	0.483	0.928	No
LTE Band 13	0.441	0.666	0.445	0.219	1.107	0.886	0.660	1.105	No
LTE Band 14	0.378	0.666	0.445	0.219	1.044	0.823	0.597	1.042	No
LTE Band 25	0.482	0.666	0.445	0.219	1.148	0.927	0.701	1.146	No
LTE Band 26	0.376	0.666	0.445	0.219	1.042	0.821	0.595	1.040	No
LTE Band 30	0.388	0.666	0.445	0.219	1.054	0.833	0.607	1.052	No
LTE Band 40 Low	0.017	0.666	0.445	0.219	0.683	0.462	0.236	0.681	No
LTE Band 40 Upper	0.014	0.666	0.445	0.219	0.680	0.459	0.233	0.678	No
LTE Band 41	0.409	0.666	0.445	0.219	1.075	0.854	0.628	1.073	No
LTE Band 48	0.313	0.666	0.445	0.219	0.979	0.758	0.532	0.977	No
LTE Band 66	0.471	0.666	0.445	0.219	1.137	0.916	0.690	1.135	No
LTE Band 71	0.480	0.666	0.445	0.219	1.146	0.925	0.699	1.144	No
NR Band n5	0.387	0.666	0.445	0.219	1.053	0.832	0.606	1.051	No
NR Band n12	0.384	0.666	0.445	0.219	1.050	0.829	0.603	1.048	No
NR Band n25	0.574	0.666	0.445	0.219	1.240	1.019	0.793	1.238	No
NR Band n41(PC3) Sub#2	0.570	0.666	0.445	0.219	1.236	1.015	0.789	1.234	No
NR Band n41(PC2) Sub#2	0.723	0.666	0.445	0.219	1.389	1.168	0.942	**1.387**	No
NR Band n41(PC3) Main#2	0.179	0.666	0.445	0.219	0.845	0.624	0.398	0.843	No
NR Band n41(PC2)) Main#2	0.460	0.666	0.445	0.219	1.126	0.905	0.679	1.124	No
NR Band n66	0.540	0.666	0.445	0.219	1.206	0.985	0.759	1.204	No
NR Band n71	0.393	0.666	0.445	0.219	1.059	0.838	0.612	1.057	No
NR Band n77	0.325	0.666	0.445	0.219	0.991	0.770	0.544	0.989	No

14.4 Simultaneous Transmission Conclusion

The above numerical summed SAR Results are sufficient to determine that simultaneous transmission cases will not exceed the SAR Limit and therefore no measured volumetric simultaneous SAR summation is required per FCC KDB Publication 447498 D01v06 and IEEE1528-2013.

15. SAR Measurement Variability and Uncertainty

In accordance with KDB procedure 865664 D01v01r04 SAR measurement 100 ㎒ to 6 ㎓, SAR additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

SAR Measurement variability was assessed using the following procedures for each frequency band:

1) Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg for 1g SAR or < 2.0 W/kg for 10g SAR; steps 2) through 4) do not apply.

2) When the original highest measured 1g SAR is ≥ 0.80 W/kg or 10g SAR ≥ 2.0W/kg, repeat that measurement once.

3) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is ≥ 1.45 W/kg for 1g SAR or ≥ 3.625 W/kg for 10g SAR (~ 10% from the 1-g SAR limit).

4) Perform a third repeated measurement only if the original, first or second repeated measurement is ≥1.5 W/kg for 1g SAR or ≥3.75 W/kg for 10g SAR and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.

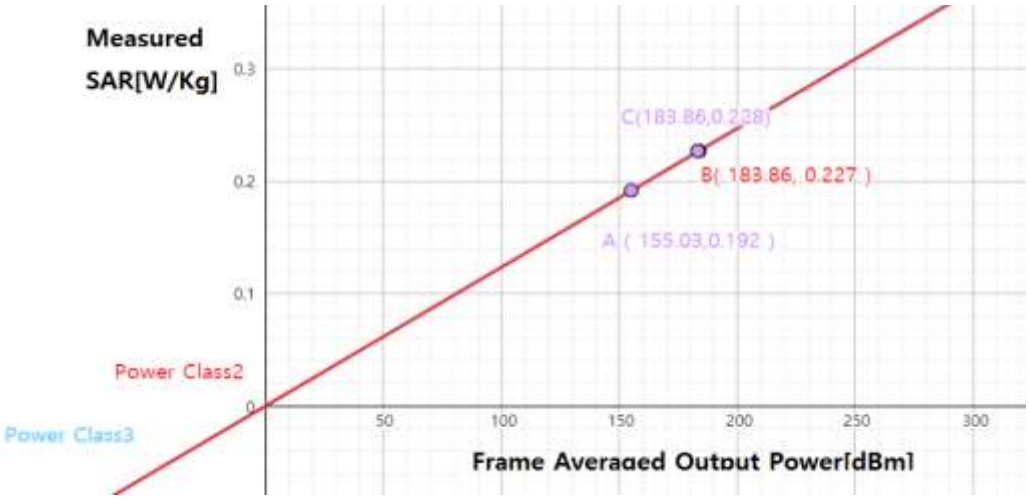
16. LTE Band 41 Power Class 2 and Power class 3 Linearity

This Device Supports Power Class 2 and Power Class 3 operations for LTE band 41. The Highest available duty cycle for Power Class 2 operations is 43.3 % using UL-DL Configuration 1. Per May 2017 TCB Workshop Notes based on the device behavior, all SAR tests were performed using Power class 3. SAR with power class 2 at the highest power and available duty factor was additionally performed for the power class 2 configuration with the Highest SAR for each exposure condition.

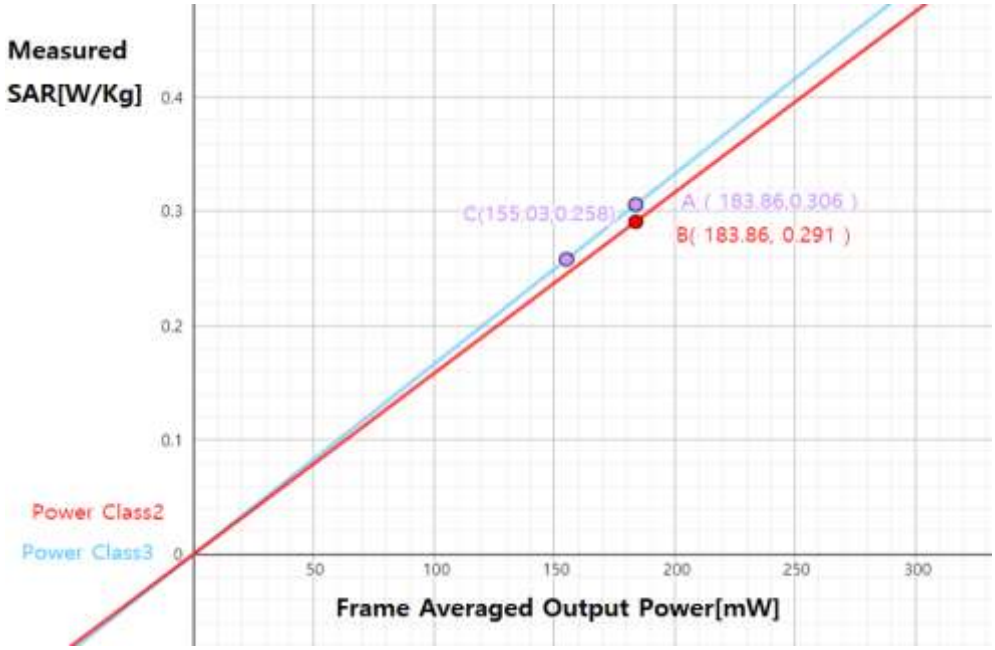
The linearity between the power class 3and Power class 2 SAR Results and the respective frame averaged powers was calculated to determine the results were linear.

Per May 2017 TCB Workshop, no additional SAR measurements were required since the linearity between power classes as less than 10 % and all reported SAR values were < 1.4 W/kg

LTE Band 41 Head Linearity Data Table		
Configurations	LTE Band41 PC3	LTE Band41 PC2
Maximum Allowed Output Power[dBm]	25	27.5
Measured Output Power[dBm]	23.89	26.28
Measured SAR[W/kg]	0.192	0.227
Measured Power[mW]	244.91	424.62
Duty Cycle	63.30%	43.30%
Frame Averaged Output Power[mW]	155.03	183.86
	0.00123847	0.001234635
		1.00310612
% deviation from expected linearity		0.31

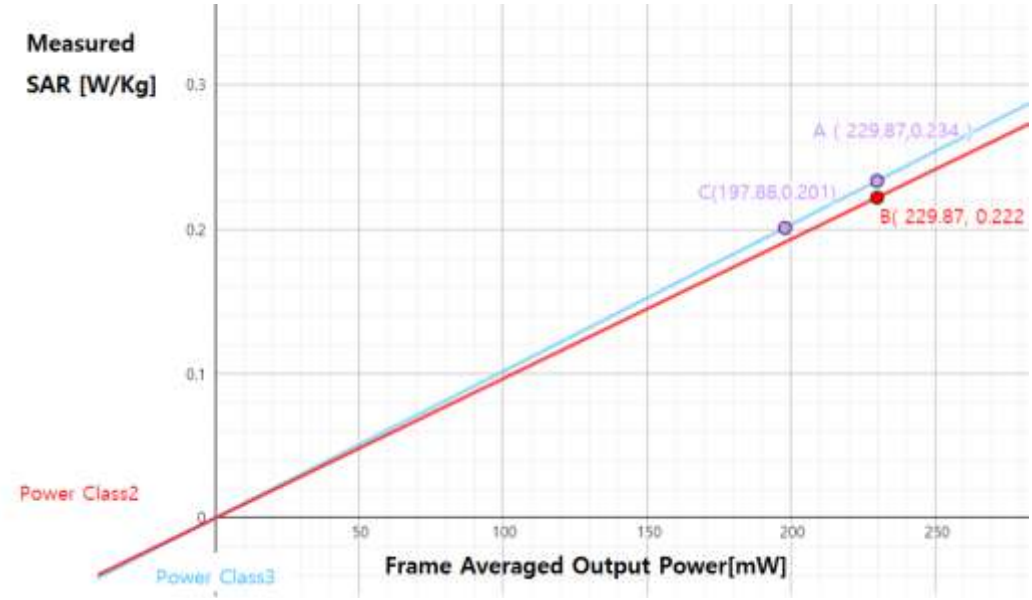


LTE Band 41 Hotspot Linearity Data Table		
Configurations	LTE Band41 PC3	LTE Band41 PC2
Maximum Allowed Output Power[dBm]	25	27.5
Measured Output Power[dBm]	23.89	26.28
Measured SAR[W/kg]	0.258	0.291
Measured Power[mW]	244.91	424.62
Duty Cycle	63.30%	43.30%
Frame Averaged Output Power[mW]	155.03	183.86
	0.001664194	0.001582726
		1.051473243
% deviation from expected linearity		5.15

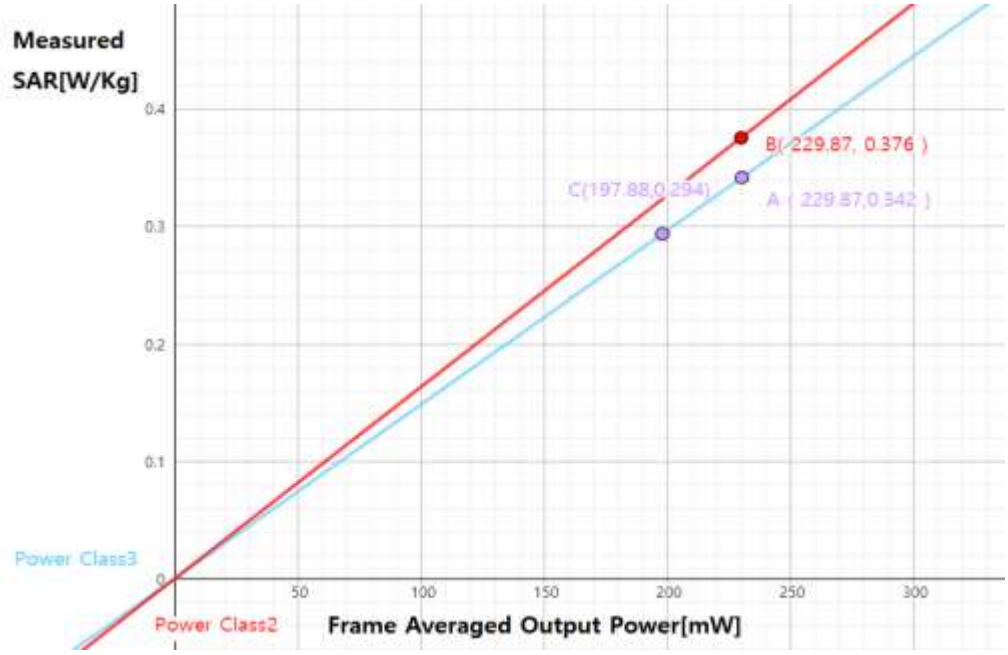


LTE Band 41 Body-Worn Linearity Data Table		
Configurations	LTE Band41 PC3	LTE Band41 PC2
Maximum Allowed Output Power[dBm]	25	27.5
Measured Output Power[dBm]	23.89	26.28
Measured SAR[W/kg]	0.169	0.213
Measured Power[mW]	244.91	424.62
Duty Cycle	63.30%	43.30%
Frame Averaged Output Power[mW]	155.03	183.86
	0.001090112	0.00115849
		0.940976137
% deviation from expected linearity		-5.90

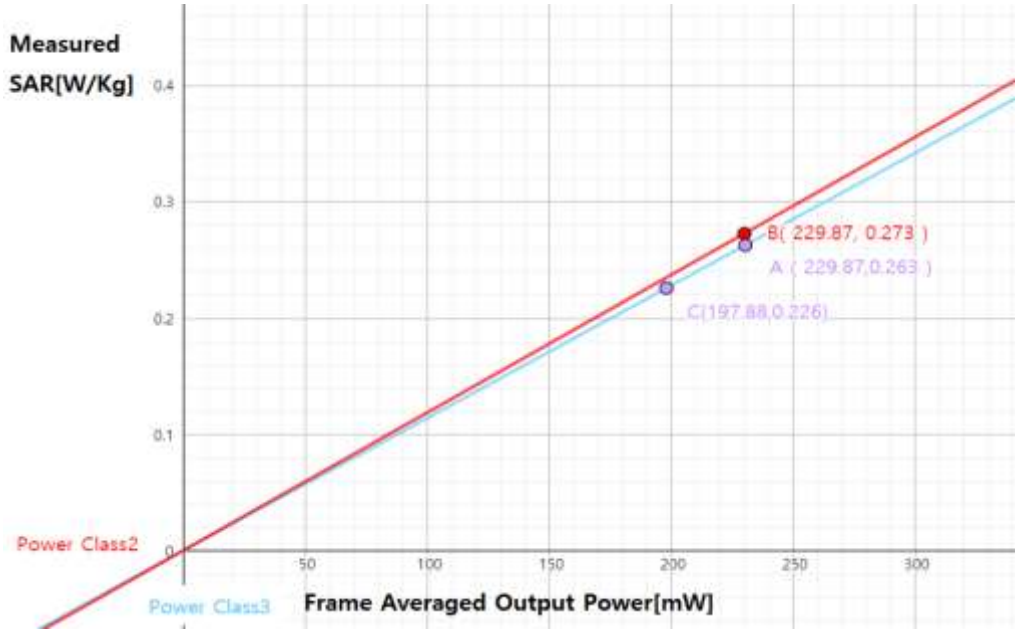
UL CA LTE Band 41 Head Linearity Data Table		
Configurations	LTE Band41 PC3	LTE Band41 PC2
Maximum Allowed Output Power[dBm]	25	27.5
Measured Output Power[dBm]	24.95	27.25
Measured SAR[W/kg]	0.201	0.222
Measured Power[mW]	312.61	530.88
Duty Cycle	63.30%	43.30%
Frame Averaged Output Power[mW]	197.88	229.87
	0.001015767	0.000965763
		1.051776534
% deviation from expected linearity		5.18



UL CA LTE Band 41 Hotspot Linearity Data Table		
Configurations	LTE Band41 PC3	LTE Band41 PC2
Maximum Allowed Output Power[dBm]	25	27.5
Measured Output Power[dBm]	24.95	27.25
Measured SAR[W/kg]	0.294	0.376
Measured Power[mW]	312.61	530.88
Duty Cycle	63.30%	43.30%
Frame Averaged Output Power[mW]	197.88	229.87
	0.001485749	0.001635707
		0.908322097
% deviation from expected linearity		-9.17



UL CA LTE Band 41 Hotspot Linearity Data Table		
Configurations	LTE Band41 PC3	LTE Band41 PC2
Maximum Allowed Output Power[dBm]	25	27.5
Measured Output Power[dBm]	24.95	27.25
Measured SAR[W/kg]	0.226	0.273
Measured Power[mW]	312.61	530.88
Duty Cycle	63.30%	43.30%
Frame Averaged Output Power[mW]	197.88	229.87
	0.001142106	0.001187628
		0.961670262
% deviation from expected linearity		-3.83



17. Measurement Uncertainty

The measured SAR was <1.5 W/Kg for 1g SAR and <3.75 W/Kg For 10g SAR for all frequency bands. Therefore, per KDB Publication 865664 D01v01r04, the extended measurement uncertainty analysis per IEEE1528-2013 was not required.

18. SAR Test Equipment

Manufacturer	Type / Model	S/N	Calib. Date	Calib.Interval	Calib.Due
SPEAG	Triple Modular Phantom	-	N/A	N/A	N/A
SPEAG	SAM Phantom	-	N/A	N/A	N/A
HP	SAR System Control PC	-	N/A	N/A	N/A
Staubli	CS8Cspeag-TX60	F10/ 5D1CA1/C/01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F12/5K9GA1/C/01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F17/59CHA1/C/01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F17/59RAA1/C/01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F13/5R4XF1/C/01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F/20/0018446/C/001	N/A	N/A	N/A
Staubli	TX60 Lspeag	F10/5D1CA1/A/01	N/A	N/A	N/A
Staubli	TX90 XLspeag	F12/5K9GA1/A/01	N/A	N/A	N/A
Staubli	TX90 XLspeag	F17/59CHA1/A/01	N/A	N/A	N/A
Staubli	TX90 XLspeag	F17/59RAA1/ A/01	N/A	N/A	N/A
Staubli	TX90 XLspeag	F13/5R4XF1/ A/01	N/A	N/A	N/A
Staubli	TX90 XLspeag	F/20/0018446/A/001	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-1206 0513	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	01010963	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	011578	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-1338 1332	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	010963	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	D21142608A	N/A	N/A	N/A
SPEAG	DAE4	869	09/28/2020	Annual	09/28/2021
SPEAG	DAE4	652	01/21/2021	Annual	01/21/2022
SPEAG	DAE4	1629	08/11/2020	Annual	08/11/2021
SPEAG	DAE4	648	05/25/2020	Annual	05/25/2021
SPEAG	DAE4	1417	02/26/2020	Annual	02/26/2021
SPEAG	DAE4	1225	08/07/2020	Annual	08/07/2021
SPEAG	E-Field Probe EX3DV4	7622	11/06/2020	Annual	11/06/2021
SPEAG	E-Field Probe EX3DV4	3797	11/25/2020	Annual	11/25/2021
SPEAG	E-Field Probe EX3DV4	3903	03/25/2020	Annual	03/25/2021
SPEAG	E-Field Probe ES3DV3	3076	07/31/2020	Annual	07/31/2021
SPEAG	E-Field Probe EX3DV4	3863	05/27/2020	Annual	05/27/2021
SPEAG	E-Field Probe EX3DV4	7370	08/31/2020	Annual	08/31/2021
SPEAG	Dipole D750V3	1014	05/19/2020	Annual	05/19/2021
SPEAG	Dipole D835V2	4d165	07/28/2020	Annual	07/28/2021
SPEAG	Dipole D1800V2	2d007	08/26/2020	Annual	08/26/2021
SPEAG	Dipole D1900V2	5d032	01/28/2021	Annual	01/28/2022
SPEAG	Dipole D2300V2	1010	08/26/2020	Annual	08/26/2021
SPEAG	Dipole D2450V2	1049	08/26/2020	Annual	08/26/2021
SPEAG	Dipole D2600V2	1015	08/26/2020	Annual	08/26/2021
SPEAG	Dipole D3500V2	1075	04/30/2019	Biannual	04/30/2021
SPEAG	Dipole D3700V2	1066	11/19/2020	Annual	11/19/2021
SPEAG	Dipole D3900V2	1019	05/22/2020	Annual	05/22/2021
SPEAG	Dipole D5GHzV2	1253	08/31/2020	Annual	08/31/2021
Agilent	Power Meter E4419B	MY41291386	10/23/2020	Annual	10/23/2021
Agilent	Power Meter N1911A	MY45101406	08/31/2020	Annual	08/31/2021
Agilent	Power Sensor 8481A	SG1091286	10/05/2020	Annual	10/05/2021
Agilent	Power Sensor 8481A	MY41090873	10/05/2020	Annual	10/05/2021
Agilent	Power Sensor N1921A	MY55220026	08/31/2020	Annual	08/31/2021
SPEAG	DAKS 3.5	1038	03/24/2020	Annual	03/24/2021
H.P	Network Analyzer /8753ES	JP39240221	01/11/2021	Annual	01/11/2022

Manufacturer	Type / Model	S/N	Calib. Date	Calib.Interval	Calib.Due
Agilent	WIRELESS COMMUNICATION E5515C	MY48360252	08/06/2020	Annual	08/06/2021
Agilent	WIRELESS COMMUNICATION E5515C	GB44051865	06/01/2020	Annual	06/01/2021
Agilent	Signal Generator N5182A	MY47070230	05/06/2020	Annual	05/06/2021
Agilent	11636B/Power Divider	58698	02/28/2020	Annual	02/28/2021
OSI	4Way Power Divider	7	07/15/2020	Annual	07/15/2021
OSI	4Way Power Divider	8	07/15/2020	Annual	07/15/2021
OSI	4Way Power Divider	9	07/15/2020	Annual	07/15/2021
OSI	4Way Power Divider	11	07/15/2020	Annual	07/15/2021
TESTO	175-H1/Thermometer	40331936309	01/26/2021	Annual	01/26/2022
TESTO	175-H1/Thermometer	40331939309	01/26/2021	Annual	01/26/2022
TESTO	175-H1/Thermometer	40331915309	01/26/2021	Annual	01/26/2022
TESTO	175-H1/Thermometer	40331922309	01/26/2021	Annual	01/26/2022
TESTO	175-H1/Thermometer	40332651310	01/26/2021	Annual	01/26/2022
TESTO	175-H1/Thermometer	44606559906	01/26/2021	Annual	01/26/2022
EMPOWER	RF Power Amplifier	1084	07/01/2020	Annual	07/01/2021
EMPOWER	RF Power Amplifier	1011	07/30/2020	Annual	07/30/2021
MICRO LAB	LP Filter / LA-15N	10453	10/05/2020	Annual	10/05/2021
MICRO LAB	LP Filter / LA-30N	-	10/05/2020	Annual	10/05/2021
MICRO LAB	LP Filter / LA-60N	32011	10/05/2020	Annual	10/05/2021
Agilent	Attenuator (3dB) 8693B	MY39260298	09/18/2020	Annual	09/18/2021
HP	Attenuator (20dB) 8493C	09271	09/18/2020	Annual	09/18/2021
Agilent	Directional Bridge	3140A03878	06/08/2020	Annual	06/08/2021
Agilent	MXA Signal Analyzer N9020A	MY50510407	10/23/2020	Annual	10/23/2021
HP	Dual Directional Coupler	16072	10/05/2020	Annual	10/05/2021
Anritsu	Radio Communication Tester MT8820C	6200695605	05/06/2020	Annual	05/06/2021
Anritsu	Radio Communication Tester MT8820C	6200628628	09/18/2020	Annual	09/18/2021
Anritsu	Radio Communication Tester MT8821C	6201502997	08/06/2020	Annual	08/06/2021
Anritsu	Radio Communication Tester MT8821C	6262044720	12/22/2020	Annual	12/22/2021
Anritsu	Radio Communication Test Station MT8000A	6262036812	12/22/2020	Annual	12/22/2021
R&S	Bluetooth CBT	100272	03/02/2020	Annual	03/02/2021

* The E-field probe was calibrated by SPEAG, by the waveguide technique procedure. Dipole Verification measurement is performed by HCT Lab. before each test. The brain/body simulating material is calibrated by HCT using the DAKS 3.5 to determine the conductivity and permittivity (dielectric constant) of the brain/body-equivalent material.

19. Conclusion

The SAR measurement indicates that the EUT complies with the RF radiation exposure limits of the ANSI/ IEEE C95.1 - 2005.

These measurements were taken to simulate the RF effects exposure under worst-case conditions. Precise laboratory measures were taken to assure repeatability of the tests. The results and statements relate only to the item(s) tested.

Please note that the abortion and distribution of electromagnetic energy in the body are very complex phenomena the depend on the mass, shape, and size of the body, the orientation of the body with respect to the field vectors, and the electrical properties of both the body and the environment. Other variables that may play a substantial role in possible biological effects are those that characterize the environment (e.g. ambient temperature, air velocity, relative humidity, and body insulation) and those that characterize the individual (e.g. age, gender, activity level, debilitation, or disease). Because various factors may interact with one another to vary the specific biological outcome of an exposure to electromagnetic fields, any protection guide should consider maximal amplification of biological effects as a result of field-body interactions, environmental conditions, and physiological variables.

20. References

[1] Federal Communications Commission, ET Docket 93-62, Guidelines for Evaluating the Environmental Effects of Radio frequency Radiation, Aug. 1996.

[2] ANSI/IEEE C95.1 - 2005 , American National Standard safety levels with respect to human exposure to radio frequency electromagnetic fields, 300 kHz to 300 GHz, New York: IEEE, Sept. 1992

[3] ANSI/IEEE C 95.1 - 2005, American National Standard safety levels with respect to human exposure to radio frequency electromagnetic fields, 3 kHz to 300 GHz, New York: IEEE, 2006

[4 ANSI/IEEE C95.3 - 2002, IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave, New York: December 2002.

[5] IEEE Standards Coordinating Committee 34 – IEEE Std. 1528-2013, IEEE Recommended Practice or Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Body from Wireless Communications Devices

[6] NCRP, National Council on Radiation Protection and Measurements, Biological Effects and Exposure Criteria for Radio Frequency Electromagnetic Fields, NCRP Report No. 86, 1986. Reprinted Feb. 1995.

[7] T. Schmid, O. Egger, N. Kuster, Automated E-field scanning system for dosimetric assessments, IEEE Transaction on Microwave Theory and Techniques, vol. 44, Jan. 1996, pp. 105-113.

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21. Appendix *A.* DUT Ant. Information & SETUP PHOTO

Please refer to test DUT Ant. Information & setup photo file no. as follows:

No.	Description
0	HCT-SR-2102-FC011-P