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TEST REPORT

SAR Test for certification of SM-M356B

APPLICANT
Samsung Electronics. Co., Ltd.

REPORT NO.
HCT-SR-2403-FC004-R1

DATE OF ISSUE
Apr. 15 2024

Tested by Chan Min, Ko	(signature)	
Technical Manager Yun Jeang, Heo	(signature)	

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TEST REPORT

FCC SAR Test for certification

REPORT NO.
HCT-SR-2403-FC004-R1

DATE OF ISSUE
Apr. 15. 2024

FCC ID
A3LSMM356B

Applicant	SAMSUNG Electronics Co., Ltd 129, Samsung-ro, Yeongtong-gu, Suwon-Si, Gyeonggi-do, 16677, Korea
Product Name Model Name	Mobile Phone SM-M356B/DS
Date of Test	Feb. 13, 2024 ~ Mar. 19, 2024
Location of Test	■ Permanent Testing Lab ☐ On Site Testing Lab (Address: 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si,
FCC Rule Part(s)	CFR §2.1093
Test Results	PASS (SAR Limit: 1.6 W/kg) Refer to the clause 3.2 Attestation of test result

REVISION HISTORY

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

Revision No.	Date of Issue	Description
0	Mar. 22, 2024	Initial Release
1	Apr. 15, 2024	Typo Revised Page 17

Notice

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

CONTENTS

1. Test Regulations

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

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

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

- October 2013 TCB Workshop Notes (GPRS testing criteria)
- October 2014 TCB Workshop Notes (Overlapping LTE Bands)
- April 2015 TCB Workshop Notes (Overlapping LTE Bands Test exclusion)
- April 2015 TCB Workshop Notes (Simultaneous transmission summation clarified)
- October 2016 TCB Workshop Notes (Bluetooth Duty Factor)
- November 2017 TCBC Workshop Notes (LTE Carrier Aggregation)
- April 2018 TCBC Workshop Notes (LTE UL CA, DL CA SAR Test Exclusion)
- November 2019 TCBC Workshop Notes (SPLSR Hotspot Combination)
- April 2022 TCBC Workshop Notes (Sum-Peak Location Separation Ratio)

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-M356B/DS
Equipment Type	Mobile Phone
FCC ID	A3LSMM356B
Application Type	Certification
Applicant	SAMSUNG Electronics Co., Ltd.

3.2 Attestation of test result of device under test

The Highest Reported SAR						
Band	Tx. Frequency	Equipment Class	Reported SAR (W/kg)			
			1 g Head	1 g Body Worn	1 g Body/ Hotspot	10 g Extremity
GSM/GPRS/EDGE 850	824.2 ㎒ ~ 848.8 ㎒	PCE	0.31	**0.94**	**0.94**	N/A
GSM/GPRS/EDGE 1900	1 850.2 ㎒ ~ 1 909.8 ㎒	PCE	0.17	0.50	0.50	N/A
UMTS Band 5	826.4 ㎒ ~ 846.6 ㎒	PCE	0.24	0.80	0.80	N/A
UMTS Band 4	1 712.4 ㎒ ~ 1 752.6 ㎒	PCE	0.14	0.42	0.47	N/A
UMTS Band 2	1 852.4 ㎒ ~ 1 907.6 ㎒	PCE	0.25	0.35	0.48	N/A
LTE FDD Band 2 (PCS)	1 850.7 ㎒ ~ 1 909.3 ㎒	PCE	**0.57**	0.54	0.54	N/A
LTE FDD Band 4 (AWS)	1 710.7 ㎒ ~ 1 754.3 ㎒	PCE	N/A	N/A	N/A	N/A
LTE FDD Band 5 (Cell)	824.7 ㎒ ~ 848.3 ㎒	PCE	N/A	N/A	N/A	N/A
LTE FDD Band 12	699.7 ㎒ ~ 715.3 ㎒	PCE	0.17	0.47	0.47	N/A
LTE FDD Band 17	706.5 ㎒ ~ 713.5 ㎒	PCE	N/A	N/A	N/A	N/A
LTE FDD Band 26 (Cell)	814.7 ㎒ ~ 848.3 ㎒	PCE	0.21	0.87	0.87	N/A
LTE TDD Band 41	2 498.5 ㎒ ~ 2 687.5 ㎒	PCE	0.24	0.24	0.24	N/A
LTE FDD Band 66 (AWS)	1 710.7 ㎒ ~ 1 779.3 ㎒	PCE	0.38	0.39	0.54	N/A
NR FDD Band n5	826.5 ㎒ ~ 846.5 ㎒	PCE	0.20	0.69	0.69	N/A
NR TDD Band n41	2 506.02 ㎒ ~ 2 679.99 ㎒	PCE	0.20	0.30	0.31	N/A
NR FDD Band n66	1 712.5 ㎒ ~ 1 777.5 ㎒	PCE	0.26	0.33	0.39	N/A
NR TDD Band n77	3 705 ㎒ ~ 3 975 ㎒	PCE	0.37	0.39	0.39	N/A
NR TDD Band n77 DoD	3 455.04 ㎒ ~ 3 544.98 ㎒	PCE	0.55	0.56	0.56	N/A
802.11b	2 412 ㎒ ~ 2 472 ㎒	DTS	**0.67**	**0.51**	**0.51**	N/A
U-NII-1	5 180 ㎒ ~ 5 240 ㎒	NII	N/A	N/A	N/A	N/A
U-NII-2A	5 260 ㎒ ~ 5 320 ㎒	NII	0.37	0.34	N/A	**0.82**
U-NII-2C	5 500 ㎒ ~ 5 720 ㎒	NII	0.19	0.38	N/A	0.61
U-NII-3	5 745 ㎒ ~ 5 825 ㎒	NII	<0.10	0.16	0.16	N/A
Bluetooth	2 402 ㎒ ~ 2 480 ㎒	DSS	0.23	0.20	0.20	N/A
NFC	13.56 ㎒	DXX	N/A	N/A	N/A	<0.10
Simultaneous SAR per KDB 690783 D01v01r03			**1.55**	**1.53**	**1.53**	**0.85**
Date(s) of Tests:	Feb. 13, 2024 ~ Mar. 19, 2024					

4. Device Under Test Description

4.1 DUT specification

Device Wireless specification overview		
Band & Mode	Operating Mode	Tx Frequency
GSM850	Voice / Data	824.2 ㎒ ~ 848.8 ㎒
GSM1900	Voice / Data	1 850.2 ㎒ ~ 1 909.8 ㎒
UMTS Band 2	Voice / Data	1 852.4 ㎒ ~ 1 907.6 ㎒
UMTS Band 4	Voice / Data	1 712.4 ㎒ ~ 1 752.6 ㎒
UMTS Band 5	Voice / Data	826.4 ㎒ ~ 846.6 ㎒
LTE FDD Band 2 (PCS)	Voice / Data	1 850.7 ㎒ ~ 1 909.3 ㎒
LTE FDD Band 4 (AWS)	Voice / Data	1 710.7 ㎒ ~ 1 754.3 ㎒
LTE FDD Band 5 (Cell)	Voice / Data	824.7 ㎒ ~ 848.3 ㎒
LTE FDD Band 12	Voice / Data	699.7 ㎒ ~ 715.3 ㎒
LTE FDD Band 17	Voice / Data	706.5 ㎒ ~ 713.5 ㎒
LTE FDD Band 26	Voice / Data	814.7 ㎒ ~ 848.3 ㎒
LTE TDD Band 41	Voice / Data	2 498.5 ㎒ ~ 2 687.5 ㎒
LTE FDD Band 66 (AWS)	Voice / Data	1 710.7 ㎒ ~ 1 779.3 ㎒
NR FDD Band n5	Voice / Data	826.5 ㎒ ~ 846.5 ㎒
NR TDD Band n41	Voice / Data	2 506.02 ㎒ ~ 2 679.99 ㎒
NR FDD Band n66	Voice / Data	1 712.5 ㎒ ~ 1 777.5 ㎒
NR TDD Band n77	Voice / Data	3 705 ㎒ ~ 3 975 ㎒
NR TDD Band n77 DoD	Voice / Data	3 455.04 ㎒ ~ 3 544.98 ㎒
U-NII-1	Voice / Data	5 180 ㎒ ~ 5 240 ㎒
U-NII-2A	Voice / Data	5 260 ㎒ ~ 5 320 ㎒
U-NII-2C	Voice / Data	5 500 ㎒ ~ 5 720 ㎒
U-NII-3	Voice / Data	5 745 ㎒ ~ 5 825 ㎒
2.4 ㎓ WLAN	Voice / Data	2 412 ㎒ ~ 2 472 ㎒
Bluetooth / LE 5.3	Data	2 402 ㎒ ~ 2 480 ㎒
NFC	Data	13.56 ㎒

Device Description		
S/W Version	M356B.001	
H/W Version	REV1.0	
Battery	EB-BM156ABY(ATL)	
Device Serial Numbers	Mode	Serial Number
	GSM 850,1900 UMTS 2,4,5	XB20788M
	LTE 12,26 LTE 2_Upper NR n5	XC40717M
	LTE 2_Lower, LTE 66_Lower, NR n66	XB20789M
	LTE 41, NR n41, n77	XB20788M
	NR n41 SRS #1, #3	XB20794M
	NR n41 SRS #2	XC40610M
	WLAN 2.4G, 5G, BT, NFC	XB50860M
	The manufacturer has confirmed that the devices tested have the same physical, mechanical and thermal characteristics are within operational tolerances expected for production units.	

4.2 Time-Averaging Algorithm for RF Exposure Compliance

This device is enabled with the Samsung S.LSI proprietary TAS (Time Average SAR) algorithm to control and manage transmitting power in real time and to ensure that the time-averaged RF exposure from 2G/3G/4G/5G NR WWAN except WLAN/BT is in compliance with FCC requirements.

This SAR Char. Report shows SAR characterization of WWAN radios for 2G/3G/4G and 5G Sub-6 NR respectively. Characterization is achieved by determining Plimit for 2G/3G/4G and 5G Sub-6 NR except WLAN/BT correspond to the exposure design targets after accounting for all device design related uncertainties, i.e. SAR_design_target (< FCC SAR limit) for sub-6 radio. The SAR characterization is denoted as SAR Char in this report. Section 2.3 includes a nomenclature of the specific terms used in this report.

The compliance test under the static transmission scenario and simultaneous transmission analysis are reported in Part 1 report. The validation of the time-averaging algorithm and compliance under the dynamic (time- varying) transmission scenario for WWAN technologies are reported in Part 2 report.

This WWAN Mode of DUT is equipped with an S.LSI chipset to which the Samsung S.LSI proprietary TAS (Time Average SAR) algorithm is applied.
This DUT is enabled with the Samsung S.LSI proprietary TAS (Time Average SAR) algorithm for WWAN Mode in real time and to ensure at all times the time-averaged RF exposure is incompliance with the FCC requirement

FCC RF exposure limit is based on time averaged RF exposure. The SAR regulatory specification is defined over certain measurement duration allowing for time-averaging. The Samsung S.LSI proprietary TAS (Time Average SAR) algorithm has been designed to meet the compliance limits over the required duration, while still allowing dynamic control of transmit power to satisfy the performance of the system.

This feature performs time averaging SAR algorithm in real time to control and manage transmitting power and ensure the time-averaged RF exposure is in compliance with FCC requirements all the time.

The WLAN mode are not controlled by The Samsung S.LSI proprietary TAS (Time Average SAR) algorithm.
This feature performs time averaging algorithm in real time to control and manage transmitting power and ensure the time-averaged RF exposure is in compliance with FCC requirements all the time.

The Samsung S.LSI TAS algorithm allow 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 NV settings and maximum tune up output power Pmax configured for this DUT for various transmit conditions (Radio SAR indicator RSI for Head /Body SAR of WWAN Mode, Device State Index RSI for WLAN mode).
Note that the device uncertainty for sub-6GHz WLAN/WWAN is 1.0dB for this DUT.

The purpose of this report is to demonstrate that the DUT meets FCC SAR limits when transmitting in static transmission configurations at Plimit specified by manufacturer.

Measurement Condition: All conducted power and SAR measurements in this report were performed by Plimit in static Power condition.

Plim values in green indicate Plimit < Pmax			Plimit values in grey indicate Plimit > Pmax			
Plimit corresponding to 1 W/kg (1g) 2.5W/kg(10g) SAR_Design_target						Pmax
SAR Exposure Position			Head (RCV ON)	Body Phablet		Maximum Tune-up Output Power (Burst Average Power)
Averaging volume			1g	1g	10g	
seperation Distance			0 mm	10 mm	0 mm	
Mode	Band	Antenna	RSI = 1	RSI =0,2		
GSM/GPRS/EDGE	850	MAIN 1	31.4	27.2		28.5
GSM/GPRS/EDGE	1900	MAIN 2	32.0	20.5		26.5
UMTS	2	MAIN 2	30.0	20.0		23.0
UMTS	4	MAIN 2	32.4	20.0		23.0
UMTS	5	MAIN 1	31.2	26.0		24.0
LTE FDD	2	MAIN 2	30.5	20.0		23.0
LTE FDD	2	MAIN 3	26.4	20.0		23.0
LTE FDD	66(4)	MAIN 2	29.7	20.0		23.0
LTE FDD	66(4)	MAIN 3	28.2	20.0		23.0
LTE FDD	12(17)	MAIN 1	33.2	28.7		24.5
LTE FDD	26(5)	MAIN 1	32.2	26.1		24.5
LTE TDD PC3	41	MAIN 2	28.2	20.0		23.0
NR FDD	5	MAIN 1	32.6	27.1		24.5
NR FDD	66	MAIN 2	30.3	20.0		23.5
NR TDD	41 (SRS 0)	MAIN 2	17.0	17.0		23.5
NR TDD	41 (SRS 1)	Sub 1	12.0	12.0		16.0
NR TDD	41 (SRS 2)	MAIN 3	13.5	13.5		18.5
NR TDD	41 (SRS 3)	Sub 4	14.5	14.5		20.0
NR TDD	77	Sub 3	17.0	17.0		25.5

*Note all Plimit and maximum tune up output power Pmax levels entered in above Table correspond to average power levels after accounting for duty cycle in the case of TDD modulation schemes (for e.g., GSM, LTE TDD, 5G NR TDD).
*The maximum time-averaged output power (dBm) for any 2G/3G/4G/5G WWAN technology, band, and SAR Exposure condition=minimum of "Plimit" and "Maximum tune up output power: "Pmax" + 1dB device uncertainty.
The maximum time averaged output power means Plimit for each modes SAR values in this report were scaled to the maximum allowed output power to determine compliance per KDB Publication 447498 D01v06.

4.3 Power Reduction for SAR

In this model, except for WLAN/BT, the output Power of the DUT in WWAN mode is controlled by the application of The Samsung S.LSI proprietary TAS (Time Average SAR) algorithm, with the output Power depending on the RSI of the predefined DUT.

This device uses an independent fixed level power reduction mechanism for WLAN operations when during all voice or VoIP 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 IEEE 1528-2013.
Detailed descriptions of the power reduction mechanism are included in the operational description.
The reduced powers for the power reduction mechanisms were conformed via conducted power measurements at the RF Port.

4.4 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.

4.4.1 2G/3G/4G/5G Nominal Output Power

A. GSM Modes

(Tolerance: Nominal Power -1.5 dB ~ Nominal Power +1.0 dB)

GSM/GPRS/EDGE 850 (Main 1) : Nominal Power									
Power Level	Voice (in dBm)	Data - Burst Average GMSK (in dBm)				Data - Burst Average 8-PSK (in dBm)			
	1 TX Slot	1 TX Slots	2 TX Slots	3 TX Slots	4 TX Slots	1 TX Slots	2 TX Slots	3 TX Slots	4 TX Slots
Pmax	33.0	33.0	31.5	29.5	28.5	27.0	25.0	23.5	22.5
Free (RSI 0)=RCV(RSI 1) =HOTSPOT(RSI 2)	33.0	33.0	31.5	29.5	28.5	27.0	25.0	23.5	22.5
Power Level	Voice (in dBm)	Data - Frame Average GMSK (in dBm)				Data - Frame Average 8-PSK (in dBm)			
	1 TX Slot	1 TX Slots	2 TX Slots	3 TX Slots	4 TX Slots	1 TX Slots	2 TX Slots	3 TX Slots	4 TX Slots
Pmax	23.97	23.97	25.48	25.24	25.49	17.97	18.98	19.24	19.49
Free (RSI 0)=RCV(RSI 1) =HOTSPOT(RSI 2)	23.97	23.97	25.48	25.24	25.49	17.97	18.98	19.24	19.49
GSM/GPRS/EDGE 1900(Main 2) : Nominal Power									
Power Level	Voice (in dBm)	Data - Burst Average GMSK (in dBm)				Data - Burst Average 8-PSK (in dBm)			
	1 TX Slot	1 TX Slots	2 TX Slots	3 TX Slots	4 TX Slots	1 TX Slots	2 TX Slots	3 TX Slots	4 TX Slots
Pmax=RCV (RSI 1)	30.0	30.0	29.0	27.5	26.5	26.5	24.0	23.0	22.0
Free (RSI 0)= HOTSPOT(RSI 2)	29.5	29.5	26.5	24.5	23.0	26.5	24.0	23.0	22.0
Power Level	Voice (in dBm)	Data - Frame Average GMSK (in dBm)				Data - Burst Average 8-PSK (in dBm)			
	1 TX Slot	1 TX Slots	2 TX Slots	3 TX Slots	4 TX Slots	1 TX Slots	2 TX Slots	3 TX Slots	4 TX Slots
Pmax=RCV (RSI 1)	20.97	20.97	22.98	23.24	23.49	17.47	17.98	18.74	18.99
Free (RSI 0)= HOTSPOT(RSI 2)	20.47	20.47	20.48	20.24	19.99	17.47	17.98	18.74	18.99

B. UMTS Modes

(Tolerance: Nominal Power -1.5 dB ~ Nominal Power +1.0 dB)

UMTS Band 5 (850 MHz) (Main 1) : Nominal Power				
Mode / Band	Modulated Average Output Power (in dBm)			
	Pmax	Free (RSI 0)	RCV (RSI 1)	HOTSPOT (RSI 2)
3GPP WCDMA Rel 99	24.0	24.0	24.0	24.0
3GPP HSDPA Rel 5	23.0	23.0	23.0	23.0
3GPP HSUPA Rel 6	23.0	23.0	23.0	23.0
3GPP DC-HSDPA Rel 8	22.5	22.5	22.5	22.5
UMTS Band 4 (1750 MHz) (Main 2) : Nominal Power				
Mode / Band	Modulated Average Output Power (in dBm)			
	Pmax	Free (RSI 0)	RCV (RSI 1)	HOTSPOT (RSI 2)
3GPP WCDMA Rel 99	23.0	20.0	23.0	20.0
3GPP HSDPA Rel 5	22.5	19.0	22.5	19.0
3GPP HSUPA Rel 6	22.5	18.5	22.5	18.5
3GPP DC-HSDPA Rel 8	22.5	19.0	22.5	19.0
UMTS Band 2 (1900 MHz) (Main 2) : Nominal Power				
Mode / Band	Modulated Average Output Power (in dBm)			
	Pmax	Free (RSI 0)	RCV (RSI 1)	HOTSPOT (RSI 2)
3GPP WCDMA Rel 99	23.0	20.0	23.0	20.0
3GPP HSDPA Rel 5	22.0	18.5	22.0	18.5
3GPP HSUPA Rel 6	22.0	17.5	22.0	17.0
3GPP DC-HSDPA Rel 8	21.5	18.5	21.5	18.5

C. LTE Modes

(Tolerance: Nominal Power -1.5 dB ~ Nominal Power +1.0 dB)

Mode / Band	Modulated Average Output Power (in dBm) Nominal Power			
	Pmax	Free (RSI 0)	RCV (RSI 1)	HOTSPOT (RSI 2)
LTE FDD Band 12 (Main 1)	24.5	24.5	24.5	24.5
LTE FDD Band 17 (Main 1)	24.5	24.5	24.5	24.5
LTE FDD Band 26 (Main 1)	24.5	24.5	24.5	24.5
LTE FDD Band 5 (Main 1)	24.5	24.5	24.5	24.5
LTE FDD Band 66 (Main 2)	23.0	20.0	23.0	20.0
LTE FDD Band 66 (Main 3)	23.0	20.0	23.0	20.0
LTE FDD Band 4 (Main 2)	23.0	20.0	23.0	20.0
LTE FDD Band 4 (Main 3)	23.0	20.0	23.0	20.0
LTE FDD Band 2 (Main 2)	23.0	20.0	23.0	20.0
LTE FDD Band 2 (Main 3)	23.0	20.0	23.0	20.0
LTE TDD Band 41 (Main 2)	23.0	22.0	23.0	22.0

D. 5G NR SUB 6

(Tolerance: Nominal Power -1.5 dB ~ Nominal Power +1.0 dB)

Mode / Band	Modulated Average Output Power (in dBm) Nominal Power			
	Pmax	Free (RSI 0)	RCV (RSI 1)	HOTSPOT (RSI 2)
NR FDD Band 5 (Main 1)	24.5	24.5	24.5	24.5
NR FDD Band 66 (Main 2)	23.5	20.0	23.5	20.0
Mode / Band	Frame Average Output Power (in dBm) Nominal Power			
	TAS Off	TAS On - 100% duty Plimit		
	Pmax	Free (RSI 0)	RCV (RSI 1)	HOTSPOT (RSI 2)
NR TDD Band 41 (Main 2, SRS0)	23.5	17.0	17.0	17.0
NR TDD Band 41 (Sub 1, SRS1)	16.0	12.0	12.0	12.0
NR TDD Band 41 (Main 3, SRS2)	18.5	13.5	13.5	13.5
NR TDD Band 41 (Sub 4, SRS3)	20.0	14.5	14.5	14.5
NR TDD Band 77 PC3 (Sub 3)	24.0	17.0	17.0	17.0
NR TDD Band 77 PC2 (Sub 3)	25.5	17.0	17.0	17.0

4.4.2 Maximum 2.4 GHz, 5 GHz WIFI output power

a. Maximum Power

Mode	Band	SISO(ANT1 /ANT2)						MIMO					
		a	b	g	n	ac	ax(SU)	a	b	g	n	ac	ax(SU)
2.4GHz	1-11Ch		18	15	15		15		21	18	18		18
	12Ch		7	7	7		7		10	10	10		10
	13Ch		0	0	0		0		3	3	3		3
5GHz (20MHz)	5200MHz	15			15	15	15	18			18	18	18
	5300MHz	15			15	15	15	18			18	18	18
	5500MHz	15			15	15	15	18			18	18	18
	5800MHz	15			15	15	15	18			18	18	18
5GHz (40MHz)	5200MHz				14	14	14				17	17	17
	5300MHz				14	14	14				17	17	17
	5500MHz				14	14	14				17	17	17
	5800MHz				14	14	14				17	17	17
5GHz (80MHz)	5200MHz					12	13					15	16
	5300MHz					13	13					16	16
	5500MHz					13	13					16	16
	5800MHz					13	13					16	16

(Tolerance: target -1.5 dB, +1 dB)

b. Reduced Power – Receiver Active

Mode	Band	SISO(ANT1 /ANT2)						MIMO					
		a	b	g	n	ac	ax(SU)	a	b	g	n	ac	ax(SU)
2.4GHz	1-11Ch		15	15	15		15		18	18	18		18
	12Ch		7	7	7		7		10	10	10		10
	13Ch		0	0	0		0		3	3	3		3
5GHz (20MHz)	5200MHz	12			12	12	12	15			15	15	15
	5300MHz	12			12	12	12	15			15	15	15
	5500MHz	12			12	12	12	15			15	15	15
	5800MHz	12			12	12	12	15			15	15	15
5GHz (40MHz)	5200MHz				12	12	12				15	15	15
	5300MHz				12	12	12				15	15	15
	5500MHz				12	12	12				15	15	15
	5800MHz				12	12	12				15	15	15
5GHz (80MHz)	5200MHz					12	12					15	15
	5300MHz					12	12					15	15
	5500MHz					12	12					15	15
	5800MHz					12	12					15	15

(Tolerance: target -1.5dB, +1dB)

4.4.3 Maximum Bluetooth Power

a. Maximum Target Power

Mode	ANT1
Bluetooth(1Mbps)	16 dBm
Bluetooth (EDR)	11.5 dBm
Bluetooth LE	8 dBm

(tolerance: target: -1.5dB ~ +1 dB)

4.5 LTE Information

Item.		Description
Frequency Range	LTE FDD Band 2 (PCS)	1 850.7 ㎒ ~ 1 909.3 ㎒
	LTE FDD Band 4 (AWS)	1 710.7 ㎒ ~ 1 754.3 ㎒
	LTE FDD Band 5 (Cell)	824.7 ㎒ ~ 848.3 ㎒
	LTE FDD Band 12	699.7 ㎒ ~ 715.3 ㎒
	LTE FDD Band 17	706.5 ㎒ ~ 713.5 ㎒
	LTE FDD Band 26 (Cell)	814.7 ㎒ ~ 848.3 ㎒
	LTE TDD Band 41	2 498.5 ㎒ ~ 2 687.5 ㎒
	LTE FDD Band 66 (AWS)	1 710.7 ㎒ ~ 1 779.3 ㎒
Channel Bandwidths	LTE FDD Band 2 (PCS)	1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	LTE FDD Band 4 (AWS)	1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	LTE FDD Band 5 (Cell)	1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒
	LTE FDD Band 12	1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒
	LTE FDD Band 17	5 ㎒, 10 ㎒
	LTE FDD Band 26 (Cell)	1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒, 15 ㎒
	LTE TDD Band 41	5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	LTE FDD Band 66 (AWS)	1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒

Ch. No.& Freq.(㎒)		Low	Mid	High
LTE FDD Band 2(PCS)	1.4 ㎒	1 850.7 (18607)	1 880.0 (18900)	1 909.3 (19193)
	3 ㎒	1 851.5 (18615)	1 880.0 (18900)	1 908.5 (19185)
	5 ㎒	1 852.5 (18625)	1 880.0 (18900)	1 907.5 (19175)
	10 ㎒	1 855.0 (18650)	1 880.0 (18900)	1 905.0 (19150)
	15 ㎒	1 857.5 (18675)	1 880.0 (18900)	1 902.5 (19125)
	20 ㎒	1 860.0 (18700)	1 880.0 (18900)	1 900.0 (19100)
LTE FDD Band 4(AWS)	1.4 ㎒	1 710.7 (19957)	1 732.5 (20175)	1 754.3 (20393)
	3 ㎒	1 711.5 (19965)	1 732.5 (20175)	1 753.5 (20385)
	5 ㎒	1 712.5 (19975)	1 732.5 (20175)	1 752.5 (20375)
	10 ㎒	1 715.0 (20000)	1 732.5 (20175)	1 750.0 (20350)
	15 ㎒	1 717.5 (20025)	1 732.5 (20175)	1 747.5 (20325)
	20 ㎒		1 732.5 (20175)	
LTE FDD Band 5(Cell)	1.4 ㎒	824.7 (20407)	836.5 (20525)	848.3 (20643)
	3 ㎒	825.5 (20415)	836.5 (20525)	847.5 (20635)
	5 ㎒	826.5 (20425)	836.5 (20525)	846.5 (20625)
	10 ㎒		836.5 (20525)	
LTE FDD Band 12	1.4 ㎒	699.7 (23017)	707.5 (23095)	715.3 (23173)
	3 ㎒	700.5 (23025)	707.5 (23095)	714.5 (23165)
	5 ㎒	701.5 (23035)	707.5 (23095)	713.5 (23155)
	10 ㎒		707.5 (23095)	
LTE FDD Band 17	5 ㎒		710.0(23790)	
	10 ㎒		710.0(23790)	

Ch. No.& Freq.(㎒)		Low / Low-Mid		Mid	Mid-High / High	
LTE FDD Band 26(Cell)	1.4 ㎒	814.7 (26697)		831.5 (26865)	848.3 (27033)	
	3 ㎒	815.5 (26705)		831.5 (26865)	847.5 (27025)	
	5 ㎒	816.5 (26715)		831.5 (26865)	846.5 (27015)	
	10 ㎒	819.0 (26740)		831.5 (26865)	844.0 (26990)	
	15 ㎒			831.5 (26865)		
LTE FDD Band 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 TDD Band 41	5 ㎒	2 506 (39750)	2 549.5 (40185)	2 593 (40620)	2 636.5 (41055)	2 680 (41490)
	10 ㎒	2 506 (39750)	2 549.5 (40185)	2 593 (40620)	2 636.5 (41055)	2 680 (41490)
	15 ㎒	2 506 (39750)	2 549.5 (40185)	2 593 (40620)	2 636.5 (41055)	2 680 (41490)
	20 ㎒	2 506 (39750)	2 549.5 (40185)	2 593 (40620)	2 636.5 (41055)	2 680 (41490)

Item.	Description
UE Category	LTE Rel.14, DL: Category 18, UL: Category 18
HPUE Power Class	LTE TDD 41 Power Class 3 :(Duty: 63.3%)
Modulations Supported in UL	QPSK, 16QAM, 64QAM, 256 QAM
LTE MPR Permanently implemented per 3GPP TS 36.101 section 6.2.3	Yes
A-MPR disabled for SAR Testing.	Yes
LTE Carrier Aggregation	This device supports Inter-Band & Intra-Band DL-link Carrier aggregations. Detailed information of Down-Link CA are included in the Appendix.I and Technical Description document.
LTE Release information	It supports only DL carrier aggregation. All other uplink communications are identical to the release 8 specifications. The following LTE Rel.14 Features are not supported: Relay, Hetnet, Enhanced elCl, MDH, cross-carrier Scheduling, Enhanced SC-FDMA,UL-CA.

4.6 5G NR SUB 6 Information

Item.		Description
Frequency Range	NR FDD Band n5 (Cell)	826.5 ㎒ ~ 846.5 ㎒
	NR TDD Band n41	2 506.02 ㎒ ~ 2 679.99 ㎒
	NR FDD Band n66 (AWS)	1 712.5 ㎒ ~ 1 777.5 ㎒
	NR TDD Band n77	3 705 ㎒ ~ 3 975 ㎒
	NR TDD Band n77 DoD	3 445.01 ㎒ ~ 3 544.98 ㎒
Channel Bandwidths	NR FDD Band n5 (Cell)	5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	NR TDD Band n41	10 ㎒, 15 ㎒, 20 ㎒, 30 ㎒, 40 ㎒, 50 ㎒, 60 ㎒, 70 ㎒, 80 ㎒, 90 ㎒, 100 ㎒
	NR FDD Band n66 (AWS)	5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	NR TDD Band n77	10 ㎒, 15 ㎒, 20 ㎒, 30 ㎒, 40 ㎒, 50 ㎒, 60 ㎒, 70 ㎒, 80 ㎒, 90 ㎒, 100 ㎒
	NR TDD Band n77 DoD	10 ㎒, 15 ㎒, 20 ㎒, 30 ㎒, 40 ㎒, 50 ㎒, 60 ㎒, 70 ㎒, 80 ㎒, 90 ㎒, 100 ㎒

Ch. No.& Freq.(㎒)		Low / Low-Mid		Mid		Mid-High / High	
NR FDD Band n5 (Cell)	5 ㎒	826.5 (165300)		836.5 (167300)		846.5 (169300)	
	10 ㎒			836.5 (167300)			
	15 ㎒			836.5 (167300)			
	20 ㎒			836.5 (167300)			
NR FDD Band n66 (AWS)	5 ㎒	1 712.5 (342500)		1 745 (349000)		1 777.5 (355500)	
	10 ㎒	1 715 (343000)		1 745 (349000)		1 775 (355000)	
	15 ㎒	1 717.5 (343500)		1 745 (349000)		1 772.5 (354500)	
	20 ㎒	1 720 (344000)		1 745 (349000)		1 770 (354000)	
NR TDD Band n41	10 ㎒	2 501.01 (500202)	2 547.00 (509400)	2 592.99 (518598)		2 639.01 (527802)	2 685.00 (537000)
	15 ㎒	2 503.50 (500700)	2 548.32 (509664)	2 592.99 (518598)		2 637.81 (527562)	2 682.48 (536496)
	20 ㎒	2 506.02 (501204)	2 549.49 (509898)	2 592.99 (518598)		2 636.49 (527298)	2 679.99 (535998)
	25 ㎒	2508.48(501696)	2550.75(510150)	2592.99(518598)		2635.23(527046)	2677.50(535500)
	30 ㎒	2 511.00 (502200)	2 552.01 (510402)	2 592.99 (518598)		2 634.00 (526800)	2 674.98 (534996)
	40 ㎒	2 516.01 (503202)	2 567.34 (513468)			2 618.67 (523734)	2 670.00 (534000)
	50 ㎒	2 521.02 (504204)		2 592.99 (518598)			2 664.99 (532998)
	60 ㎒	2 526.00 (505200)		2 592.99 (518598)			2 659.98 (531996)
	70 ㎒	2 531.04 (506208)					2 654.97 (530994)
	80 ㎒	2 536.02 (507204)					2 649.99 (529998)
	90 ㎒	2 541.00 (508200)					2 644.98 (528996)
	100 ㎒			2 592.99 (518598)			
NR TDD Band n77	10 ㎒	3 705(647000)	3 759(650600)	3 813(654200)	3 867(657800)	3 921(661400)	3 975(665000)
	15 ㎒	3 707.52(647168)	3 760.5(650700)	3 813.49(654232)	3 866.5(657766)	3 919.5(661300)	3 972.48(664832)
	20 ㎒	3 710.01(647334)	3 762(650800)	3 813.99(654266)	3 866.01(657734)	3 918(661200)	3 969.99(664666)
	25 ㎒	3712.5(647500)	3763.5(650900)	3814.5(654300)	3865.5(657700)	3916.5(661100)	3967.5(664500)
	30 ㎒	3 715.02(647668)	3 765(651000)	3 815.01(654334)	3 864.99(657666)	3 915(661000)	3 964.98(664232)
	40 ㎒	3 720(648000)	3 768(651200)	3 816(654400)	3 864(657600)	3 912(660800)	3 960(664000)
	50 ㎒	3 725.01(648334)	3 782.49(652166)	3 840(656000)		3 897.51(659834)	3 954.99(663666)
	60 ㎒	3 730.02(648668)	3 803.34(653556)			3 876.66(658444)	3 949.98(663332)
	70 ㎒	3 735(649000)	3 804.99(654336)			3 875.01(658334)	3 945(663000)
	80 ㎒	3 740.01(649334)		3 840 (656000)		3 939.99(662666)	
	90 ㎒	3 745.02(649668)		3 840 (656000)		3 934.98(662332)	
	100 ㎒	3 750(650000)				3 930(662000)	

Item.	Description
NR Band n5/n66	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. When the lower antenna Main Ant#2 is an EN-DC combination (NR n41,66), the LTE anchor bands (LTE 2/4/66) are switched to the upper antenna Main Ant#3	
EN-DC Carrier Aggregation Possible Combinations	The technical description includes all the possible carrier aggregation combinations
LTE Anchor Bands for NR Band n5 (Cell)	LTE Band 2/66
LTE Anchor Bands for NR Band n41	LTE Band 4/66
LTE Anchor Bands for NR Band n66 (AWS)	LTE Band 2/5/12
LTE Anchor Bands for NR Band n77	LTE Band 2/5/12/13/41/66

4.7 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	Ant.	Rear	Front	Left	Right	Bottom	Top
GSM/GPRS/EDGE 850	Main 1	Yes	Yes	Yes	Yes	Yes	No
GSM/GPRS/EDGE 1900	Main 2	Yes	Yes	Yes	No	Yes	No
UMTS Band 5	Main 1	Yes	Yes	Yes	Yes	Yes	No
UMTS Band 4	Main 2	Yes	Yes	Yes	No	Yes	No
UMTS Band 2	Main 2	Yes	Yes	Yes	No	Yes	No
LTE Band 2 (PCS)	Main 2	Yes	Yes	Yes	No	Yes	No
LTE Band 4 (AWS)	Main 2	Yes	Yes	Yes	No	Yes	No
LTE Band 5 (Cell)	Main 1	Yes	Yes	Yes	Yes	Yes	No
LTE Band 12	Main 1	Yes	Yes	Yes	Yes	Yes	No
LTE Band 17	Main 1	Yes	Yes	Yes	Yes	Yes	No
LTE Band 26	Main 1	Yes	Yes	Yes	Yes	Yes	No
LTE TDD Band 41	Main 2	Yes	Yes	Yes	No	Yes	No
LTE Band 66 (AWS)	Main 2	Yes	Yes	Yes	No	Yes	No
NR Band n5	Main 1	Yes	Yes	Yes	Yes	Yes	No
NR Band n41	Main 2	Yes	Yes	Yes	No	Yes	No
NR Band n41 SRS1	Sub 1	Yes	Yes	No	Yes	No	Yes
NR Band n41 SRS2	Main 3	Yes	Yes	Yes	No	No	Yes
NR Band n41 SRS3	Sub 4	Yes	Yes	No	Yes	No	Yes
NR Band n66	Main 2	Yes	Yes	Yes	No	Yes	No
NR Band n77	Sub 3	Yes	Yes	Yes	No	No	Yes
NR Band n77 DoD	Sub 3	Yes	Yes	Yes	No	No	Yes
2.4 GHz WLAN Ant. 1	Sub 2	Yes	Yes	Yes	No	No	Yes
Bluetooth Ant. 1	Sub 2	Yes	Yes	Yes	No	No	Yes
5 GHz WLAN Ant. 2	Sub 5	Yes	Yes	No	Yes	No	Yes
2.4 GHz WLAN MIMO	Sub 2+ Sub 5	Yes	Yes	Yes	Yes	No	Yes
5 GHz WLAN MIMO	Sub 2+ Sub 5	Yes	Yes	Yes	Yes	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.

4.8 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.

4.9 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.

WWAN	BT	2.4G		5G		Scenario
	Ant. 1	Ant. 1	Ant. 2	Ant. 1	Ant. 2	
O	O	X	X	X	X	WWAN + Bluetooth Ant. 1
O	O	X	X	X	O	WWAN + Bluetooth Ant. 1+ 5GHz Wi-Fi Ant.2
O	O	X	X	O	O	WWAN + Bluetooth Ant. 1+ 5GHz Wi-Fi MIMO
O	X	O	X	X	X	WWAN + 2.4GHz Wi-Fi Ant. 1
O	X	O	O	X	X	WWAN + 2.4GHz Wi-Fi MIMO
O	X	X	X	X	O	WWAN + 5GHz Wi-Fi Ant. 2
O	X	X	X	O	O	WWAN + 5GHz Wi-Fi MIMO

Note:
1. 2.4 ㎓ WLAN and 5 ㎓ WLAN share the same antenna path and cannot transmit simultaneously.
2. UMTS +WLAN scenario also represents the UMTS Voice/DATA + WLAN hotspot scenario.
3. VoIP is supported in GPRS/EDGE
4. The highest reported SAR for each exposure condition is used for SAR summation purpose.
5. Wi-Fi Hotspot is supported for 2.4 ㎓/UNII-3 of 5 ㎓ WLAN.
6. * Pre-installed VOIP applications are considered
7. Per the manufacturer, 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 2x2 MIMO Tx for WLAN 802.11a/g/n/ac/ax. 802.11a/g/n/ac/ax supports CDD and STBC and 802.11n/ac/ax additionally supports SDM. Each WLAN antenna can transmit independentlyor together when operating with MIMO.
9. This device supports VoLTE/ VoWiFi.
10. LTE + 5G NR FR1 Scenarios are supported NSA and SA Connectivity.
11. NFC was evaluated for phablet based on expected usage conditions.

4.10 SAR Test Considerations

4.10.1 WiFi

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

a) Up to 80 MHz Bandwidth only for 5 GHz
b) Up to 20 MHz Bandwidth only for 2.4 GHz
c) 2Tx antenna output
d) Up to 1024 QAM is supported
e)TDWR and Band gap channels are supported for 5 GHz

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.

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

4.8.2Licensed 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 and 256QAM on the uplink and 256QAM on the downlink for LTE Operations. Conducted powers for 64QAM and 256QAM uplink configurations were measured per section 5.1 of FCC KDB 941225 D05v02r05. SAR was not required for 64QAM or 256QAM since the highest maximum output power for 64QAM and 256QAM is ≤ 0.5dB higher than the same configuration in QPSK and the reported SAR for QPSK configuration is ≤1.45 W/Kg, per section 5.2.4 for FCC KDB941225 D05v02r05.

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

LTE capabilities with overlapping transmission frequency ranges were applied to LTE Band 5 (824.7 ㎒ ~ 848.3 ㎒) is coverd by LTE Band 26(814.7 ㎒ ~ 848.3 ㎒), LTE Band 4 (1 712.4 ㎒ ~ 1 752.6 ㎒) is coverd by LTE Band 66(1 712.5 ㎒ ~ 1 777.5 ㎒) and LTE Band 17 (706.5 ㎒ ~ 713.5 ㎒) is coverd by LTE Band 12 (699.7 ㎒ ~ 715.3 ㎒) of this model each both LTE bands have the same target powers.

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

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

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

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

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

5. Introduction

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

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

SAR Definition

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

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

Figure 1. SAR Mathematical Equation

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

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

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

6. Description of test equipment

6.1 SAR MEASUREMENT SETUP

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

A cell controller system contains the power supply, robot controller, teach pendant (Joystick), and remote control, is used to drive the robot motors. The PC with Windows XP or Windows 7 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.

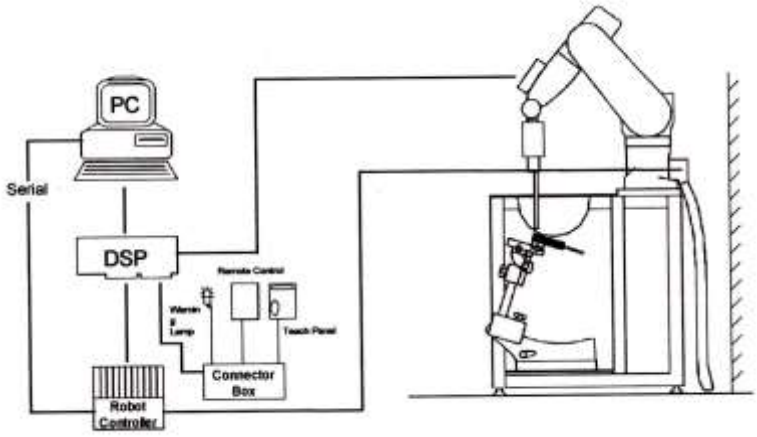


Figure 2. HCT SAR Lab. Test Measurement Set-up

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: $\Delta x_{Area}, \Delta y_{Area}$</td><td>≤ 2 GHz: ≤15 mm
2-3 GHz: ≤12 mm</td><td>3-4 GHz: ≤12 mm
4-6 GHz: ≤10 mm</td></tr>
<tr><td colspan="2">When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.</td></tr>
<tr><td colspan="3">Maximum zoom scan Spatial resolution: $\Delta x_{zoom}, \Delta y_{zoom}$</td><td>≤ 2 GHz: ≤8mm
2-3 GHz: ≤5mm*</td><td>3-4 GHz: ≤5 mm*
4-6 GHz: ≤4 mm*</td></tr>
<tr><td rowspan="3">Maximum zoom scan Spatial resolution normal to phantom surface</td><td colspan="2">uniform grid:$\Delta z_{zoom}(n)$</td><td>≤ 5 mm</td><td>3-4 GHz: ≤4 mm
4-5 GHz: ≤3 mm
5-6 GHz: ≤2 mm</td></tr>
<tr><td rowspan="2">graded grid</td><td>$\Delta z_{zoom}(1)$: between 1st 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 ears reference point and point M. The line N-F (Neck-Front), also called the Reference Pivoting Line, is not perpendicular to the reference plane (See Figure 5-1), Line B-M is perpendicular to the N-F line. Both N-F and B-M lines are marked on the external phantom shell to facilitate handset positioning.

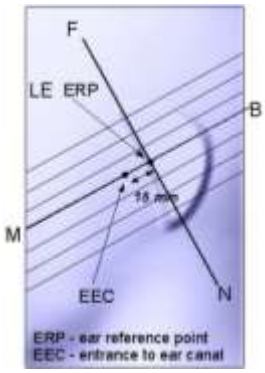


Figure 8-1
Close-up side view of ERP

8.2 HANDSET REFERENCE POINTS

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

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

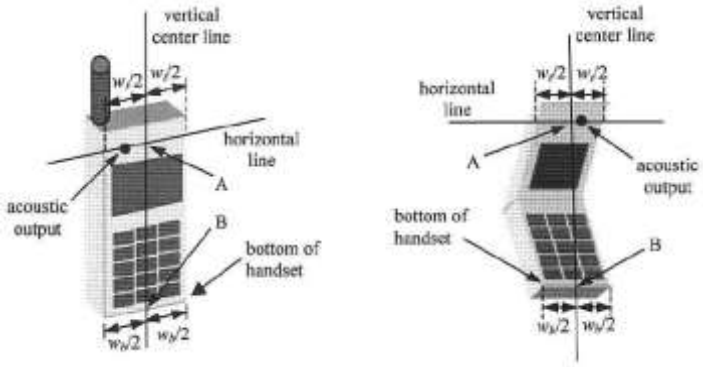


Figure 6-3. Handset vertical and horizontal reference lines

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.

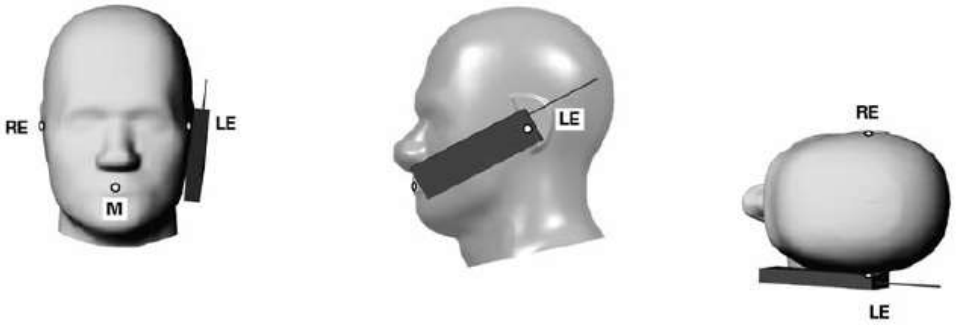


Figure 8.4 Cheek/ Touch position of the wireless device

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 using 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 Bluetooth tethering Configurations

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

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

10.3.1 Output Power Verification

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

10.3.2 Body SAR measurements

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

10.3.3 SAR Measurements with Rel. 5 HSDPA

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

10.3.4 SAR Measurements with Rel. 6 HSUPA

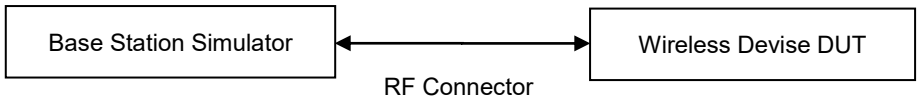
The 3G SAR test reduction procedure is applied to HSPA (HSUPA/HSDPA with RMC) body configurations with 12.2 kbps RMC as the primary mode. Otherwise, Body SAR for HSPA is measured with E-DCH Sub-test 5, using H-Set1 and QPSK for FRC and a 12.2 kbps RMC configured in Test Loop Mode 1 and power control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

10.3.5DC-HSDPA

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

DC-HSDPA Configurations

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



10.4 SAR Measurement Conditions for LTE

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

10.4.1 Spectrum Plots for RB Configurations

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

10.4.2 MPR

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

10.4.3 A-MPR

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

10.4.4 Required RB Size and RB offsets for SAR testing

According to FCC KDB 941225 D05v02r05

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

10.4.5 Downlink Carrier Aggregation

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

10.4.6 LTE(TDD) Considerations

According to KDB 941225 D05v02r05, for Time-Division Duplex (TDD) systems, SAR must be tested using a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by the defined 3GPP LTE TDD configurations.
SAR was tested with the highest transmission duty factor (63.33 %) using Uplink-downlink configuration 0 and Special subframe configuration 6. LTE TDD Band 41 supports 3GPP TS 36.211 section 4.2 for Type 2 Frame and Table 4.2-2 for uplink-downlink configurations and Table 4.2-1 for Special sub frame configurations.

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

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

Calculated Duty Cycle – Extended cyclic prefix in uplink x (T_s) x no of S + no of U

Table 4.2-2: Uplink-downlink configurations.

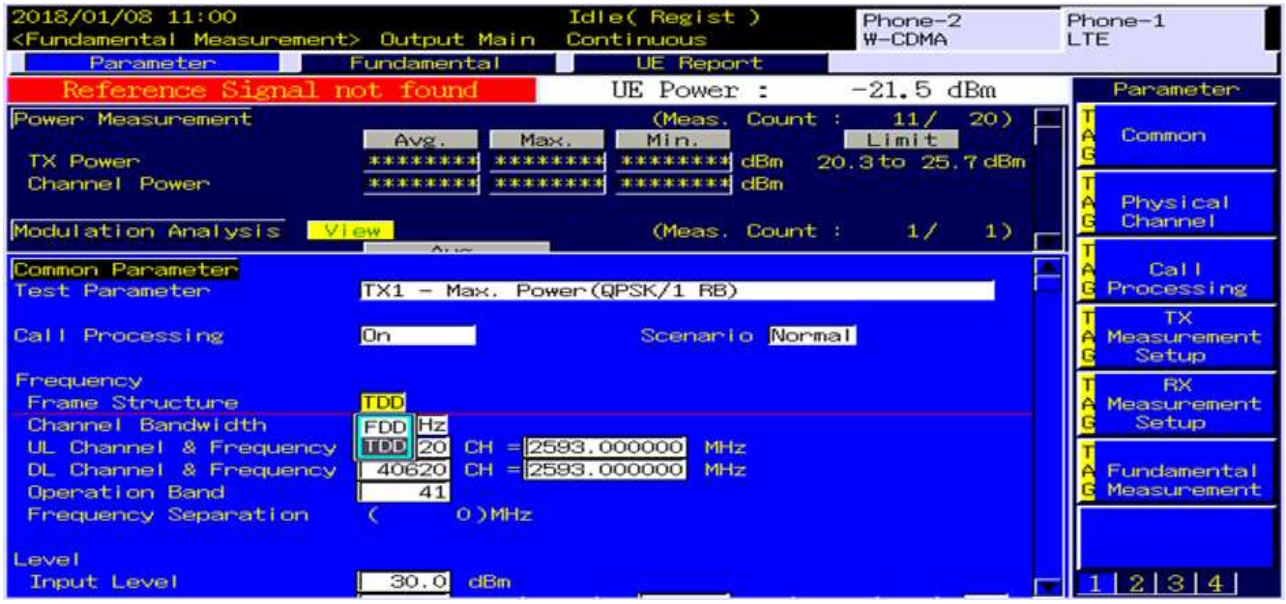
Uplink-downlink configuration	Downlink-to-Uplink Switch-point periodicity	Subframe number									
		0	1	2	3	4	5	6	7	8	9
0	5 ms	D	S	U	U	U	D	S	U	U	U
1	5 ms	D	S	U	U	D	D	S	U	U	D
2	5 ms	D	S	U	D	D	D	S	U	D	D
3	10 ms	D	S	U	U	U	D	D	D	D	D
4	10 ms	D	S	U	U	D	D	D	D	D	D
5	10 ms	D	S	U	D	D	D	D	D	D	D
6	5 ms	D	S	U	U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

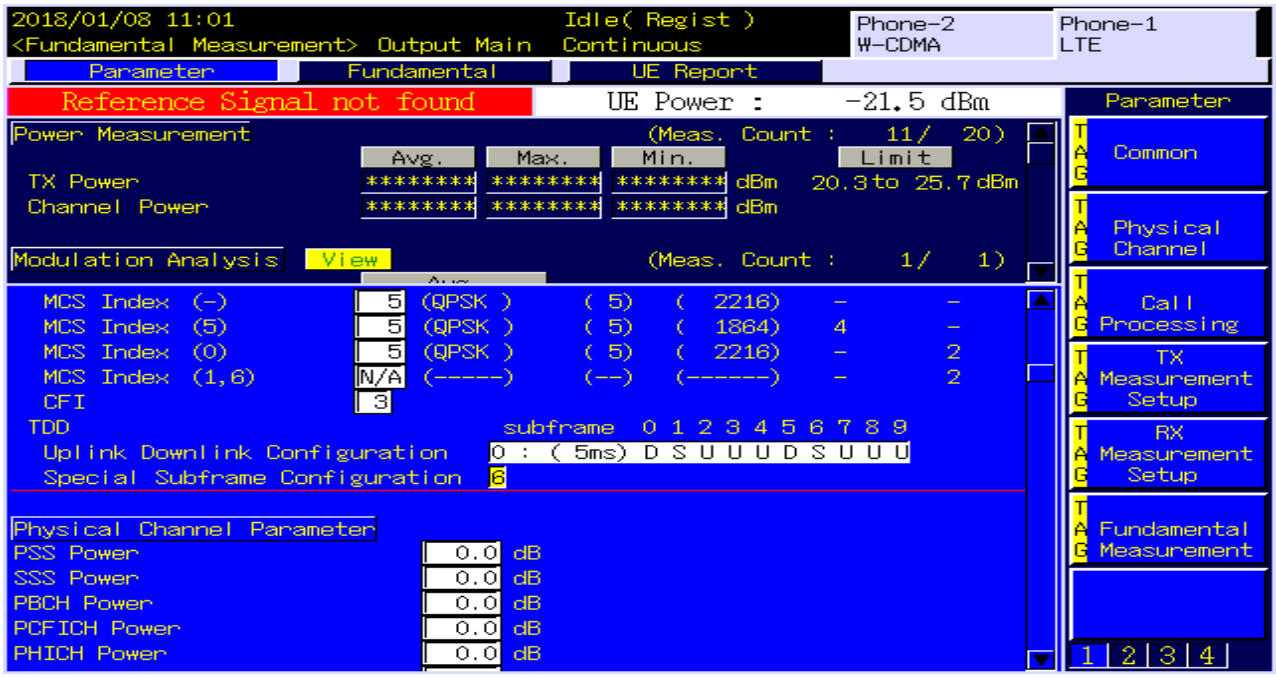
Example for calculated Duty Cycle for Uplink-Downlink Configuration 0:

Calculated Duty Cycle = (5120 x (1/(15000 x 2048)) x 2 + 0.006)/0.01 x 100 % = 63.33 %
Where
T_s = 1/(15000 x 2048) seconds

10.4.7 The Call Box Setup for LTE(TDD)

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





10.5 SAR Testing with 802.11 Transmitters

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

10.5.1 General Device Setup

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

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

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

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

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

10.5.4 Initial Test Position Procedure

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

10.5.5 2.4 ㎓ SAR test Requirements

SAR is measured for 2.4 ㎓ 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 ㎓ 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 ㎓ Band, the Initial Test Configuration Procedures should be followed.

10.5.6 OFDM Transmission Mode and SAR Test Channel Selection

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

10.5.7 Initial Test Configuration Procedure

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

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

10.5.8 Subsequent Test Configuration Procedures

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

11. Output Power Specifications

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

Licensed Bands

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

Test Overview

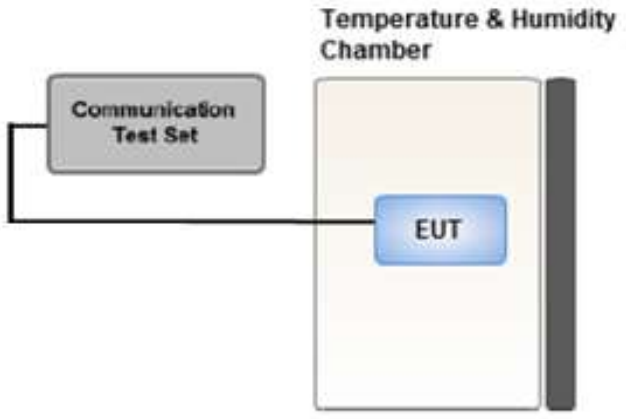
According to ANSI C63.26-2015 Section 5.2.1 when measuring the maximum RF output power from such devices, control over the EUT must be provided either through special test software (provided by manufacturer specifically for compliance testing, but not accessible by an end user) or through use of a base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

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

Test Procedure

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

Test setup



11.1 GSM Maximum Output Power

11.1.1 GSM Maximum Conducted Output Power

GSM850 – Main1 Ant.

Measured *Pmax*, Free (RSI 0) , RCV (RSI 1), Hotspot (RSI 2)

Mode / Band		Voice	GPRS(GMSK) Data – CS1(dBm)				EDGE Data (dBm)			
		GSM	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot	EDGE 1 TX Slot	EDGE 2 TX Slot	EDGE 3 TX Slot	EDGE 4 TX Slot
Maximum		34.00	34.00	32.50	30.50	29.50	28.00	26.00	24.50	23.50
Nominal		33.00	33.00	31.50	29.50	28.50	27.00	25.00	23.50	22.50
GSM 850	128	33.71	33.69	31.77	30.46	29.16	27.25	25.66	24.47	23.44
	190	33.69	33.82	31.70	30.45	29.33	27.45	25.85	24.38	23.38
	251	33.28	33.24	31.20	29.86	28.54	26.85	25.05	23.96	22.79

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	26.48	26.24	26.49	18.97	19.98	20.24	20.49
Nominal		23.97	23.97	25.48	25.24	25.49	17.97	18.98	19.24	19.49
GSM 850	128	24.68	24.66	25.75	26.20	26.15	18.22	19.64	20.21	20.43
	190	24.66	24.79	25.68	26.19	26.32	18.42	19.83	20.12	20.37
	251	24.25	24.21	25.18	25.60	25.53	17.82	19.03	19.70	19.78

GSM Conducted output powers (Frame-Average)

GSM1900 – Main2 Ant.

Measured *Pmax* =RCV (RSI 1) Calculations

Mode / Band		Voice	GPRS(GMSK) Data – CS1(dBm)				EDGE Data (dBm)			
		GSM	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot	EDGE 1 TX Slot	EDGE 2 TX Slot	EDGE 3 TX Slot	EDGE 4 TX Slot
Maximum		31.00	31.00	30.00	28.50	27.50	27.50	25.00	24.00	23.00
Nominal		30.00	30.00	29.00	27.50	26.50	26.50	24.00	23.00	22.00
GSM 1900	512	30.73	30.76	29.53	28.24	27.00	27.32	24.91	23.81	22.66
	661	30.80	30.82	29.33	27.74	26.70	26.68	24.64	23.26	22.32
	810	30.37	30.66	28.90	27.25	26.24	26.25	24.20	22.82	21.72

GSM Conducted output powers (Burst-Average)

Mode / Band		Voice	GPRS(GMSK) Data – CS1(dBm)				EDGE Data (dBm)			
		GSM	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot	EDGE 1 TX Slot	EDGE 2 TX Slot	EDGE 3 TX Slot	EDGE 4 TX Slot
Maximum		21.97	21.97	23.98	24.24	24.49	18.47	18.98	19.74	19.99
Nominal		20.97	20.97	22.98	23.24	23.49	17.47	17.98	18.74	18.99
GSM 1900	512	21.70	21.73	23.51	23.98	23.99	18.29	18.89	19.55	19.65
	661	21.77	21.79	23.31	23.48	23.69	17.65	18.62	19.00	19.31
	810	21.34	21.63	22.88	22.99	23.23	17.22	18.18	18.56	18.71

GSM Conducted output powers (Frame-Average)

GSM1900 – Main2 Ant.

Measured Free (RSI 0) = HOTSPOT (RSI 2) Calculations

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		30.50	30.50	27.50	25.50	24.00	27.50	25.00	24.00	23.00
Nominal		29.50	29.50	26.50	24.50	23.00	26.50	24.00	23.00	22.00
GSM 1900	512	29.81	29.99	27.40	25.22	23.60	26.84	24.93	23.79	22.66
	661	29.56	29.80	26.95	24.80	23.30	26.40	24.53	23.35	22.17
	810	29.12	29.34	26.62	24.20	22.96	25.94	23.98	22.84	21.78

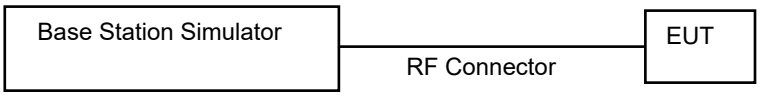
GSM Conducted output powers (Burst-Average)

Mode / Band		Voice	GPRS(GMSK) Data – CS1(dBm)				EDGE Data (dBm)			
		GSM	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot	EDGE 1 TX Slot	EDGE 2 TX Slot	EDGE 3 TX Slot	EDGE 4 TX Slot
Maximum		21.47	21.47	21.48	21.24	20.99	18.47	18.98	19.74	19.99
Nominal		20.47	20.47	20.48	20.24	19.99	17.47	17.98	18.74	18.99
GSM 1900	512	20.78	20.96	21.38	20.96	20.59	17.81	18.91	19.53	19.65
	661	20.53	20.77	20.93	20.54	20.29	17.37	18.51	19.09	19.16
	810	20.09	20.31	20.60	19.94	19.95	16.91	17.96	18.58	18.77

GSM Conducted output powers (Frame-Average)

Note:

Time slot average factor is as follows:
1 Tx slot = 9.03 dB, Frame-Average output power = Burst-Average output power – 9.03 dB
2 Tx slot = 6.02 dB, Frame-Average output power = Burst-Average output power – 6.02 dB
3 Tx slot = 4.26 dB, Frame-Average output power = Burst-Average output power – 4.26 dB
4 Tx slot = 3.01 dB, Frame-Average output power = Burst-Average output power – 3.01 dB



11.2 UMTS Maximum Output Power

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

11.2.1 UMTS Maximum Conducted Output Power

UMTS Band 5 Maximum Conducted Output Power *Pmax,* Free (RSI 0), RCV (RSI 1), Hotspot (RSI 2) – Main 1

3GPP Release Version	Mode	3GPP 34.121	UMTS Band 5 [dBm]			3GPP MPR
		Subtest	UL4132 DL4357	UL4183 DL4408	UL4233 DL4458	
99	UMTS	12.2 kbps RMC	24.45	24.48	24.18	-
99		12.2 kbps AMR	23.03	22.93	22.75	-
5	HSDPA	Subtest 1	23.39	23.39	23.08	0
5		Subtest 2	22.96	22.95	22.67	0
5		Subtest 3	22.43	22.45	22.18	0.5
5		Subtest 4	21.87	21.92	21.57	0.5
6	HSUPA	Subtest 1	22.49	22.49	22.18	0
6		Subtest 2	20.43	20.41	20.13	2
6		Subtest 3	21.41	21.43	21.13	1
6		Subtest 4	20.40	20.39	20.12	2
6		Subtest 5	23.39	23.39	23.11	0
8	DC-HSDPA	Subtest1	22.90	22.76	22.61	0
8		Subtest2	22.44	22.33	22.23	0
8		Subtest3	20.90	20.75	20.61	0.5
8		Subtest4	21.40	21.24	21.13	0.5

UMTS Average Conducted output powers

UMTS Band 4 Maximum Conducted Output Power - *Pmax*, RCV (RSI 1) – Main 2

3GPP Release Version	Mode	3GPP 34.121	UMTS Band 4 [dBm]			3GPP MPR
		Subtest	UL 1312 DL 1537	UL 1412 DL 1637	UL 1513 DL 1738	
99	UMTS	12.2 kbps RMC	23.26	23.05	22.83	-
99		12.2 kbps AMR	20.92	21.24	20.92	-
5	HSDPA	Subtest 1	23.21	22.99	22.75	0
5		Subtest 2	22.76	23.04	22.77	0
5		Subtest 3	22.25	22.04	21.82	0.5
5		Subtest 4	22.24	22.03	21.79	0.5
6	HSUPA	Subtest 1	22.21	22.01	21.25	0
6		Subtest 2	19.72	20.46	19.19	2
6		Subtest 3	22.15	22.00	21.76	1
6		Subtest 4	20.02	19.79	19.86	2
6		Subtest 5	23.05	23.01	22.77	0
8	DC-HSDPA	Subtest1	23.41	23.25	23.00	0
8		Subtest2	22.96	22.74	22.55	0
8		Subtest3	22.21	21.87	21.59	0.5
8		Subtest4	22.65	22.28	22.06	0.5

UMTS Average Conducted output powers

UMTS Band 2 Maximum Conducted Output Power - *Pmax*, RCV (RSI 1) – Main 2

3GPP Release Version	Mode	3GPP 34.121	UMTS Band 2 [dBm]			3GPP MPR
		Subtest	UL9262 DL9662	UL9400 DL9800	UL9538 DL9938	
99	UMTS	12.2 kbps RMC	22.86	22.84	22.41	-
99		12.2 kbps AMR	20.89	20.93	20.87	-
5	HSDPA	Subtest 1	22.79	22.79	22.34	0
5		Subtest 2	22.28	22.27	22.30	0
5		Subtest 3	21.76	21.74	21.36	0.5
5		Subtest 4	21.37	21.32	20.88	0.5
6	HSUPA	Subtest 1	21.80	21.76	21.31	0
6		Subtest 2	19.30	20.24	19.76	2
6		Subtest 3	21.73	21.74	21.32	1
6		Subtest 4	19.76	19.73	19.27	2
6		Subtest 5	22.77	22.72	22.25	0
8	DC-HSDPA	Subtest 1	22.31	22.17	22.16	0
8		Subtest2	21.70	21.63	21.58	0
8		Subtest3	20.95	20.73	20.66	0.5
8		Subtest4	20.89	20.72	20.64	0.5

UMTS Average Conducted output powers

UMTS Band 4 Maximum Conducted Output Power- Free(RSI 0), Hotspot (RSI 2) – Main 2

3GPP Release Version	Mode	3GPP 34.121	UMTS Band 4 [dBm]			3GPP MPR
		Subtest	UL 1312 DL 1537	UL 1412 DL 1637	UL 1513 DL 1738	
99	UMTS	12.2 kbps RMC	19.85	19.67	19.40	-
99		12.2 kbps AMR	19.81	19.53	19.30	-
5	HSDPA	Subtest 1	18.83	18.66	18.41	0
5		Subtest 2	19.28	19.08	18.85	0
5		Subtest 3	19.83	19.57	19.27	0
5		Subtest 4	19.82	19.55	19.29	0
6	HSUPA	Subtest 1	17.87	17.56	17.33	0
6		Subtest 2	17.34	17.09	17.02	0
6		Subtest 3	18.84	18.64	18.39	0
6		Subtest 4	18.67	17.38	17.11	0
6		Subtest 5	18.84	18.62	18.41	0
8	DC-HSDPA	Subtest 1	18.99	18.65	18.35	0
8		Subtest2	19.52	19.11	18.83	0
8		Subtest3	19.48	19.15	18.91	0
8		Subtest4	19.89	19.66	19.40	0

UMTS Average Conducted output powers

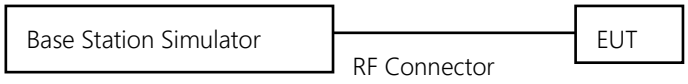
UMTS Band 2 Maximum Conducted Output Power - Free (RSI 0), Hotspot (RSI 2)- Main 2

3GPP Release Version	Mode	3GPP 34.121	UMTS Band 2 [dBm]			3GPP MPR
		Subtest	UL9262 DL9662	UL9400 DL9800	UL9538 DL9938	
99	UMTS	12.2 kbps RMC	19.42	19.39	18.98	-
99		12.2 kbps AMR	19.30	18.90	18.86	-
5	HSDPA	Subtest 1	18.34	18.34	17.89	0
5		Subtest 2	18.79	18.74	18.34	0
5		Subtest 3	19.32	19.30	18.81	0
5		Subtest 4	18.79	18.76	18.37	0
6	HSUPA	Subtest 1	17.34	17.31	17.89	0
6		Subtest 2	16.87	16.80	17.34	0
6		Subtest 3	18.36	18.34	17.89	0
6		Subtest 4	17.31	17.28	16.81	0
6		Subtest 5	18.37	18.30	17.85	0
8	DC-HSDPA	Subtest 1	17.77	17.59	17.50	0
8		Subtest2	18.18	18.01	17.97	0
8		Subtest3	18.21	18.07	17.98	0.5
8		Subtest4	18.24	18.06	17.99	0.5

UMTS Average Conducted output powers

HSDPA Configurations

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



11.3 LTE Maximum Output Power

LTE FDD B4/B5/B12/B17/B26 at Max Bandwidth does not support three non-overlapping channels. Per KDB 941225 D05v02r05 when a device supports overlapping channel assignment in a channel Bandwidth configuration, the mid channel of the group of overlapping channels should be selected for testing.

11.3.1 LTE Maximum Conducted Power

[LTE FDD Band 2 Conducted Power _ *Pmax*, RCV (RSI 1) _ Main 2]

LTE FDD Band 2 _ 1.4 ㎒ Bandwidth Conducted Power

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	22.73	22.94	23.15	0	0
		1	3	22.66	22.90	23.05	0	0
		1	5	22.77	23.00	23.17	0	0
		3	0	22.76	23.01	23.17	0	0
		3	1	22.75	23.04	23.24	0	0
		3	3	22.71	22.99	23.18	0	0
		6	0	21.85	22.11	22.30	0-1	1
	16QAM	1	0	22.01	22.14	22.40	0-1	1
		1	3	21.83	22.02	22.25	0-1	1
		1	5	21.97	22.17	22.27	0-1	1
		3	0	21.91	22.10	22.27	0-1	1
		3	1	21.86	22.05	22.30	0-1	1
		3	3	21.76	22.11	22.23	0-1	1
		6	0	20.82	21.10	21.27	0-2	2
	64QAM	1	0	20.79	21.10	21.29	0-2	2
		1	3	20.76	20.96	21.27	0-2	2
		1	5	20.87	21.06	21.26	0-2	2
		3	0	20.84	21.09	21.32	0-2	2
		3	1	20.85	21.09	21.28	0-2	2
		3	3	20.72	21.10	21.23	0-2	2
		6	0	19.82	20.10	20.28	0-3	3
	256QAM	1	0	17.99	18.22	18.46	0-5	5
		1	3	18.01	18.08	18.25	0-5	5
		1	5	18.05	18.18	18.35	0-5	5
		3	0	17.89	18.10	18.25	0-5	5
		3	1	17.89	18.07	18.25	0-5	5
		3	3	17.80	18.00	18.18	0-5	5
		6	0	17.82	18.06	18.28	0-5	5

LTE FDD Band 2 _ 3 ㎒ Bandwidth Conducted Power

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	22.77	22.97	23.07	0	0
		1	7	22.87	23.19	23.31	0	0
		1	14	22.61	22.93	23.05	0	0
		8	0	21.85	22.07	22.25	0-1	1
		8	3	21.82	22.04	22.19	0-1	1
		8	7	21.85	22.09	22.24	0-1	1
		15	0	21.83	22.13	22.24	0-1	1
	16QAM	1	0	21.85	22.24	22.18	0-1	1
		1	7	21.76	22.10	22.20	0-1	1
		1	14	21.82	22.23	22.33	0-1	1
		8	0	20.86	21.11	21.25	0-2	2
		8	3	20.91	21.03	21.25	0-2	2
		8	7	20.90	21.10	21.22	0-2	2
		15	0	20.82	21.15	21.22	0-2	2
	64QAM	1	0	20.84	21.25	21.28	0-2	2
		1	7	20.94	21.34	21.43	0-2	2
		1	14	20.91	21.24	21.39	0-2	2
		8	0	19.87	20.06	20.27	0-3	3
		8	3	19.93	20.12	20.26	0-3	3
		8	7	19.92	20.14	20.24	0-3	3
		15	0	19.89	20.13	20.23	0-3	3
	256QAM	1	0	17.87	18.23	18.25	0-5	5
		1	7	18.04	18.28	18.33	0-5	5
		1	14	17.91	18.17	18.28	0-5	5
		8	0	17.90	18.09	18.23	0-5	5
		8	3	17.88	18.08	18.20	0-5	5
		8	7	17.84	18.13	18.27	0-5	5
		15	0	17.86	18.10	18.20	0-5	5

LTE FDD Band 2 _ 5 ㎒ Bandwidth Conducted Power

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	22.70	22.93	23.03	0	0
		1	12	22.86	23.20	23.26	0	0
		1	24	22.76	23.04	23.12	0	0
		12	0	21.80	22.05	22.17	0-1	1
		12	6	21.83	22.05	22.15	0-1	1
		12	11	21.86	22.06	22.18	0-1	1
		25	0	21.99	22.14	22.31	0-1	1
	16QAM	1	0	21.94	22.20	22.20	0-1	1
		1	12	21.83	22.06	22.26	0-1	1
		1	24	21.87	22.27	22.29	0-1	1
		12	0	20.90	21.11	21.18	0-2	2
		12	6	20.91	21.15	21.15	0-2	2
		12	11	20.88	21.14	21.19	0-2	2
		25	0	20.89	21.13	21.25	0-2	2
	64QAM	1	0	21.08	21.23	21.37	0-2	2
		1	12	20.99	21.37	21.49	0-2	2
		1	24	20.97	21.29	21.29	0-2	2
		12	0	19.95	20.12	20.22	0-3	3
		12	6	19.91	20.17	20.24	0-3	3
		12	11	19.90	20.15	20.16	0-3	3
		25	0	19.89	20.08	20.22	0-3	3
	256QAM	1	0	18.03	18.16	18.22	0-5	5
		1	12	18.09	18.30	18.31	0-5	5
		1	24	18.01	18.22	18.30	0-5	5
		12	0	17.87	18.06	18.15	0-5	5
		12	6	17.85	18.05	18.17	0-5	5
		12	11	17.81	17.99	18.13	0-5	5
		25	0	17.87	18.09	18.16	0-5	5

LTE FDD Band 2 _ 10 ㎒ Bandwidth Conducted Power

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	22.84	22.98	23.04	0	0
		1	24	22.96	23.17	23.18	0	0
		1	49	22.75	22.98	22.99	0	0
		25	0	22.06	22.15	22.26	0-1	1
		25	12	22.09	22.12	22.24	0-1	1
		25	24	22.08	22.14	22.24	0-1	1
		50	0	22.19	22.19	22.28	0-1	1
	16QAM	1	0	22.08	22.11	22.05	0-1	1
		1	24	21.93	22.31	22.19	0-1	1
		1	49	21.98	22.30	22.20	0-1	1
		25	0	20.98	21.10	21.18	0-2	2
		25	12	21.00	21.12	21.14	0-2	2
		25	24	21.01	21.11	21.15	0-2	2
		50	0	21.00	21.17	21.21	0-2	2
	64QAM	1	0	20.97	21.15	21.21	0-2	2
		1	24	20.97	21.28	21.10	0-2	2
		1	49	20.90	21.28	21.23	0-2	2
		25	0	19.99	20.10	20.14	0-3	3
		25	12	19.95	20.11	20.13	0-3	3
		25	24	19.97	20.07	20.14	0-3	3
		50	0	20.01	20.12	20.16	0-3	3
	256QAM	1	0	18.15	18.20	18.14	0-5	5
		1	24	18.09	18.25	18.29	0-5	5
		1	49	18.06	18.23	18.23	0-5	5
		25	0	17.97	18.09	18.14	0-5	5
		25	12	17.93	18.10	18.13	0-5	5
		25	24	17.93	18.12	18.11	0-5	5
		50	0	17.97	18.07	18.12	0-5	5

LTE FDD Band 2 _ 15 ㎒ Bandwidth Conducted Power

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	22.82	22.93	22.99	0	0
		1	36	22.93	23.13	23.17	0	0
		1	74	22.80	23.04	23.05	0	0
		36	0	21.95	22.13	22.18	0-1	1
		36	18	21.96	22.13	22.19	0-1	1
		36	39	22.00	22.12	22.22	0-1	1
		75	0	22.05	22.11	22.25	0-1	1
	16QAM	1	0	21.91	22.11	22.21	0-1	1
		1	36	21.78	22.19	22.09	0-1	1
		1	74	21.98	22.18	22.26	0-1	1
		36	0	20.93	21.08	21.15	0-2	2
		36	18	20.93	21.06	21.13	0-2	2
		36	39	20.93	21.13	21.14	0-2	2
		75	0	20.91	21.09	21.18	0-2	2
	64QAM	1	0	21.05	21.14	21.34	0-2	2
		1	36	21.11	21.27	21.23	0-2	2
		1	74	20.96	21.33	21.26	0-2	2
		36	0	19.99	20.10	20.19	0-3	3
		36	18	19.96	20.14	20.17	0-3	3
		36	39	19.97	20.15	20.19	0-3	3
		75	0	19.94	20.08	20.15	0-3	3
	256QAM	1	0	18.08	18.15	18.22	0-5	5
		1	36	18.12	18.29	18.20	0-5	5
		1	74	18.01	18.13	18.26	0-5	5
		36	0	18.00	18.08	18.13	0-5	5
		36	18	17.96	18.11	18.14	0-5	5
		36	39	17.95	18.11	18.18	0-5	5
		75	0	17.96	18.10	18.15	0-5	5

LTE FDD Band 2 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18700 Ch. 1860 ㎒	18900 Ch. 1880 ㎒	19100 Ch. 1900 ㎒		
20 ㎒	QPSK	1	0	22.78	22.90	23.16	0	0
		1	49	22.92	23.15	**23.27**	0	0
		1	99	22.79	23.03	23.12	0	0
		50	0	22.14	22.21	22.35	0-1	1
		50	25	22.14	22.16	22.44	0-1	1
		50	49	22.14	22.19	**22.45**	0-1	1
		100	0	22.05	22.11	22.37	0-1	1
	16QAM	1	0	21.95	22.07	22.35	0-1	1
		1	49	21.92	22.22	22.22	0-1	1
		1	99	21.89	22.23	22.28	0-1	1
		50	0	21.01	21.11	21.31	0-2	2
		50	25	20.99	21.12	21.34	0-2	2
		50	49	21.02	21.15	21.34	0-2	2
		100	0	20.94	21.08	21.30	0-2	2
	64QAM	1	0	21.11	21.16	21.45	0-2	2
		1	49	21.09	21.23	21.42	0-2	2
		1	99	21.04	21.28	21.29	0-2	2
		50	0	20.00	20.17	20.34	0-3	3
		50	25	20.03	20.12	20.33	0-3	3
		50	49	20.03	20.15	20.35	0-3	3
		100	0	19.93	20.09	20.29	0-3	3
	256QAM	1	0	18.02	18.15	18.33	0-5	5
		1	49	18.02	18.15	18.47	0-5	5
		1	99	18.07	18.19	18.39	0-5	5
		50	0	17.98	18.06	18.28	0-5	5
		50	25	17.96	18.12	18.27	0-5	5
		50	49	17.97	18.06	18.29	0-5	5
		100	0	17.94	18.09	18.25	0-5	5

[LTE FDD Band 2_Upper Conducted Power _ *Pmax*, RCV (RSI 1) _ Main 3]

LTE FDD Band 2_Upper_ 1.4 ㎒ Bandwidth Conducted Power

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	22.93	22.80	23.10	0	0
		1	3	22.86	22.77	22.99	0	0
		1	5	22.96	22.82	23.06	0	0
		3	0	23.02	22.89	23.16	0	0
		3	1	22.94	22.87	23.10	0	0
		3	3	22.89	22.72	23.02	0	0
		6	0	21.97	21.85	22.10	0-1	1
	16QAM	1	0	22.25	22.09	22.23	0-1	1
		1	3	22.19	21.89	22.06	0-1	1
		1	5	22.24	21.97	22.24	0-1	1
		3	0	21.99	22.02	22.16	0-1	1
		3	1	22.00	21.90	22.17	0-1	1
		3	3	21.97	21.94	22.10	0-1	1
		6	0	21.06	20.98	21.20	0-2	2
	64QAM	1	0	21.14	21.08	21.23	0-2	2
		1	3	21.07	20.87	21.16	0-2	2
		1	5	21.07	21.02	21.28	0-2	2
		3	0	21.08	20.98	21.29	0-2	2
		3	1	21.06	20.90	21.17	0-2	2
		3	3	20.95	20.87	21.18	0-2	2
		6	0	19.95	19.88	20.17	0-3	3
	256QAM	1	0	18.13	18.04	18.31	0-5	5
		1	3	18.04	17.82	18.19	0-5	5
		1	5	18.21	17.96	18.35	0-5	5
		3	0	18.06	17.92	18.22	0-5	5
		3	1	18.09	17.99	18.27	0-5	5
		3	3	18.00	18.01	18.21	0-5	5
		6	0	18.12	17.91	18.22	0-5	5

LTE FDD Band 2_Upper _ 3 ㎒ Bandwidth Conducted Power

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	23.07	22.93	23.14	0	0
		1	7	23.02	22.92	23.10	0	0
		1	14	22.91	22.82	23.07	0	0
		8	0	22.08	21.90	22.14	0-1	1
		8	3	22.03	21.89	22.16	0-1	1
		8	7	22.07	21.95	22.20	0-1	1
		15	0	22.08	21.91	22.17	0-1	1
	16QAM	1	0	22.21	22.06	22.20	0-1	1
		1	7	22.22	22.16	22.33	0-1	1
		1	14	22.10	22.16	22.27	0-1	1
		8	0	21.10	21.01	21.21	0-2	2
		8	3	21.14	20.92	21.17	0-2	2
		8	7	21.12	21.03	21.22	0-2	2
		15	0	21.12	20.94	21.19	0-2	2
	64QAM	1	0	21.19	21.17	21.28	0-2	2
		1	7	21.22	21.06	21.31	0-2	2
		1	14	21.18	21.12	21.36	0-2	2
		8	0	20.08	19.96	20.22	0-3	3
		8	3	20.08	19.98	20.23	0-3	3
		8	7	20.12	19.97	20.27	0-3	3
		15	0	20.07	19.97	20.21	0-3	3
	256QAM	1	0	18.17	18.03	18.31	0-5	5
		1	7	18.29	18.12	18.27	0-5	5
		1	14	18.17	18.04	18.32	0-5	5
		8	0	18.21	18.04	18.34	0-5	5
		8	3	18.14	17.90	18.36	0-5	5
		8	7	18.26	18.04	18.35	0-5	5
		15	0	18.20	17.90	18.30	0-5	5

LTE FDD Band 2_Upper _ 5 ㎒ Bandwidth Conducted Power

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	22.98	22.80	23.06	0	0
		1	12	22.94	22.82	23.06	0	0
		1	24	22.99	22.88	23.10	0	0
		12	0	22.00	21.91	22.16	0-1	1
		12	6	22.03	21.93	22.15	0-1	1
		12	11	22.01	21.91	22.14	0-1	1
		25	0	22.03	21.93	22.19	0-1	1
	16QAM	1	0	22.21	22.05	22.23	0-1	1
		1	12	22.06	22.22	22.29	0-1	1
		1	24	22.24	22.09	22.18	0-1	1
		12	0	21.07	20.96	21.20	0-2	2
		12	6	21.12	20.94	21.14	0-2	2
		12	11	21.13	20.96	21.21	0-2	2
		25	0	21.06	20.95	21.20	0-2	2
	64QAM	1	0	21.25	21.25	21.36	0-2	2
		1	12	21.33	21.11	21.37	0-2	2
		1	24	21.28	20.97	21.35	0-2	2
		12	0	20.09	19.96	20.23	0-3	3
		12	6	20.07	19.95	20.19	0-3	3
		12	11	20.13	20.00	20.24	0-3	3
		25	0	20.04	19.93	20.21	0-3	3
	256QAM	1	0	18.24	18.11	18.39	0-5	5
		1	12	18.35	18.11	18.42	0-5	5
		1	24	18.24	18.26	18.44	0-5	5
		12	0	18.13	17.98	18.23	0-5	5
		12	6	18.11	17.99	18.26	0-5	5
		12	11	18.09	17.93	18.19	0-5	5
		25	0	18.10	18.00	18.27	0-5	5

LTE FDD Band 2_ Upper _ 10 ㎒ Bandwidth Conducted Power

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	23.00	22.91	23.12	0	0
		1	24	22.96	22.84	22.95	0	0
		1	49	22.89	22.82	23.00	0	0
		25	0	22.02	21.92	22.11	0-1	1
		25	12	22.01	21.90	22.13	0-1	1
		25	24	22.02	21.92	22.15	0-1	1
		50	0	22.01	21.94	22.15	0-1	1
	16QAM	1	0	22.18	22.10	22.33	0-1	1
		1	24	22.49	22.43	22.59	0-1	1
		1	49	22.20	22.01	22.22	0-1	1
		25	0	21.03	20.90	21.08	0-2	2
		25	12	21.04	20.97	21.13	0-2	2
		25	24	20.99	20.93	21.12	0-2	2
		50	0	21.04	20.94	21.13	0-2	2
	64QAM	1	0	21.21	21.08	21.36	0-2	2
		1	24	21.35	21.09	21.56	0-2	2
		1	49	21.22	21.09	21.29	0-2	2
		25	0	20.01	19.94	20.07	0-3	3
		25	12	20.03	19.97	20.15	0-3	3
		25	24	20.01	19.93	20.11	0-3	3
		50	0	20.07	20.01	20.16	0-3	3
	256QAM	1	0	18.23	18.15	18.34	0-5	5
		1	24	18.39	18.20	18.36	0-5	5
		1	49	18.29	18.15	18.40	0-5	5
		25	0	18.14	18.00	18.17	0-5	5
		25	12	18.09	18.00	18.23	0-5	5
		25	24	18.10	18.03	18.20	0-5	5
		50	0	18.08	17.99	18.22	0-5	5

LTE FDD Band 2_Upper _ 15 ㎒ Bandwidth Conducted Power

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	22.91	22.85	22.99	0	0
		1	36	22.81	22.84	22.92	0	0
		1	74	22.89	22.90	22.98	0	0
		36	0	21.92	21.90	22.04	0-1	1
		36	18	21.96	21.88	22.01	0-1	1
		36	39	21.91	21.88	22.02	0-1	1
		75	0	21.93	21.91	22.04	0-1	1
	16QAM	1	0	21.96	22.21	22.25	0-1	1
		1	36	21.92	21.96	22.33	0-1	1
		1	74	22.05	22.13	22.17	0-1	1
		36	0	20.94	20.92	21.03	0-2	2
		36	18	20.97	20.97	21.01	0-2	2
		36	39	20.91	20.94	21.04	0-2	2
		75	0	20.92	20.92	21.04	0-2	2
	64QAM	1	0	21.16	21.21	21.18	0-2	2
		1	36	21.06	21.19	21.16	0-2	2
		1	74	21.11	21.10	21.23	0-2	2
		36	0	19.99	19.95	20.10	0-3	3
		36	18	19.97	20.00	20.09	0-3	3
		36	39	19.96	20.01	20.06	0-3	3
		75	0	19.95	19.93	20.10	0-3	3
	256QAM	1	0	18.16	18.09	18.19	0-5	5
		1	36	18.21	18.10	18.12	0-5	5
		1	74	18.08	18.13	18.30	0-5	5
		36	0	18.05	18.05	18.17	0-5	5
		36	18	18.08	18.02	18.17	0-5	5
		36	39	18.00	18.03	18.15	0-5	5
		75	0	17.98	17.99	18.14	0-5	5

LTE FDD Band 2_Upper _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18700 Ch. 1860 ㎒	18900 Ch. 1880 ㎒	19100 Ch. 1900 ㎒		
20 ㎒	QPSK	1	0	22.92	22.90	**23.13**	0	0
		1	49	22.81	22.83	23.09	0	0
		1	99	22.76	22.78	23.03	0	0
		50	0	21.98	22.00	22.16	0-1	1
		50	25	21.93	21.93	**22.18**	0-1	1
		50	49	21.91	21.93	22.14	0-1	1
		100	0	21.90	21.93	22.15	0-1	1
	16QAM	1	0	22.09	22.14	22.36	0-1	1
		1	49	22.31	22.26	22.48	0-1	1
		1	99	21.95	22.11	22.21	0-1	1
		50	0	20.91	20.96	21.18	0-2	2
		50	25	20.93	20.95	21.16	0-2	2
		50	49	20.91	20.94	21.18	0-2	2
		100	0	20.92	20.93	21.18	0-2	2
	64QAM	1	0	21.06	21.05	21.34	0-2	2
		1	49	21.18	21.23	21.38	0-2	2
		1	99	21.11	21.06	21.25	0-2	2
		50	0	19.97	19.97	20.18	0-3	3
		50	25	19.96	20.01	20.23	0-3	3
		50	49	19.94	20.00	20.25	0-3	3
		100	0	19.95	19.96	20.19	0-3	3
	256QAM	1	0	18.02	18.21	18.37	0-5	5
		1	49	18.24	18.15	18.53	0-5	5
		1	99	18.03	18.10	18.35	0-5	5
		50	0	18.03	18.02	18.26	0-5	5
		50	25	18.00	18.01	18.25	0-5	5
		50	49	17.98	17.98	18.26	0-5	5
		100	0	17.96	17.99	18.28	0-5	5

[LTE FDD Band 4 Conducted Power _ *Pmax,* RCV (RSI 1)_ Main 2]

LTE FDD Band 4 _ 1.4 ㎒ Bandwidth Conducted Power

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	22.78	22.50	23.03	0	0
		1	3	22.71	22.61	23.00	0	0
		1	5	22.82	22.61	23.08	0	0
		3	0	22.82	22.53	23.02	0	0
		3	1	22.87	22.54	23.17	0	0
		3	3	22.84	22.55	23.08	0	0
		6	0	21.93	21.63	22.18	0-1	1
	16QAM	1	0	21.98	21.84	22.33	0-1	1
		1	3	21.96	21.79	22.10	0-1	1
		1	5	21.90	21.90	22.30	0-1	1
		3	0	21.96	21.67	22.16	0-1	1
		3	1	21.93	21.75	22.25	0-1	1
		3	3	21.90	21.73	22.14	0-1	1
		6	0	20.91	20.87	21.20	0-2	2
	64QAM	1	0	21.06	20.88	21.25	0-2	2
		1	3	20.84	20.88	21.16	0-2	2
		1	5	20.93	21.00	21.23	0-2	2
		3	0	21.04	20.80	21.21	0-2	2
		3	1	21.06	20.84	21.21	0-2	2
		3	3	21.02	20.88	21.18	0-2	2
		6	0	19.92	19.91	20.14	0-3	3
	256QAM	1	0	17.96	18.03	18.26	0-5	5
		1	3	17.97	18.08	18.34	0-5	5
		1	5	18.17	18.16	18.32	0-5	5
		3	0	18.03	18.03	18.24	0-5	5
		3	1	17.92	18.07	18.27	0-5	5
		3	3	17.93	18.10	18.22	0-5	5
		6	0	17.93	18.00	18.14	0-5	5

LTE FDD Band 4 _ 3 ㎒ Bandwidth Conducted Power

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	22.81	23.00	23.05	0	0
		1	7	22.92	23.13	23.12	0	0
		1	14	22.77	23.01	23.05	0	0
		8	0	21.91	22.11	22.16	0-1	1
		8	3	21.89	22.13	22.14	0-1	1
		8	7	21.89	22.15	22.14	0-1	1
		15	0	21.89	22.19	22.17	0-1	1
	16QAM	1	0	22.03	22.25	22.21	0-1	1
		1	7	21.96	22.19	22.04	0-1	1
		1	14	21.88	22.28	22.17	0-1	1
		8	0	20.92	21.22	21.17	0-2	2
		8	3	20.94	21.19	21.16	0-2	2
		8	7	20.96	21.18	21.15	0-2	2
		15	0	20.91	21.19	21.20	0-2	2
	64QAM	1	0	20.96	21.38	21.38	0-2	2
		1	7	21.05	21.41	21.42	0-2	2
		1	14	20.96	21.40	21.31	0-2	2
		8	0	19.92	20.19	20.23	0-3	3
		8	3	19.95	20.23	20.15	0-3	3
		8	7	19.97	20.23	20.21	0-3	3
		15	0	19.93	20.21	20.21	0-3	3
	256QAM	1	0	18.01	18.20	18.25	0-5	5
		1	7	18.03	18.31	18.40	0-5	5
		1	14	18.11	18.26	18.26	0-5	5
		8	0	17.94	18.21	18.19	0-5	5
		8	3	17.94	18.15	18.16	0-5	5
		8	7	17.98	18.19	18.16	0-5	5
		15	0	17.96	18.19	18.24	0-5	5

LTE FDD Band 4 _ 5 ㎒ Bandwidth Conducted Power

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	22.77	22.87	23.03	0	0
		1	12	22.86	23.01	23.16	0	0
		1	24	22.84	23.06	23.05	0	0
		12	0	21.91	21.98	22.14	0-1	1
		12	6	21.90	22.05	22.14	0-1	1
		12	11	21.94	22.10	22.15	0-1	1
		25	0	21.99	22.05	22.23	0-1	1
	16QAM	1	0	21.98	21.96	22.31	0-1	1
		1	12	22.02	22.23	22.20	0-1	1
		1	24	22.03	22.19	22.26	0-1	1
		12	0	20.93	21.12	21.18	0-2	2
		12	6	20.92	21.23	21.20	0-2	2
		12	11	20.96	21.22	21.22	0-2	2
		25	0	20.98	21.21	21.21	0-2	2
	64QAM	1	0	21.05	21.09	21.32	0-2	2
		1	12	21.13	21.35	21.38	0-2	2
		1	24	21.08	21.32	21.25	0-2	2
		12	0	19.96	20.18	20.19	0-3	3
		12	6	20.00	20.22	20.18	0-3	3
		12	11	19.97	20.21	20.21	0-3	3
		25	0	19.96	20.19	20.18	0-3	3
	256QAM	1	0	17.97	18.23	18.26	0-5	5
		1	12	18.12	18.35	18.30	0-5	5
		1	24	18.11	18.30	18.20	0-5	5
		12	0	17.96	18.19	18.16	0-5	5
		12	6	17.90	18.15	18.10	0-5	5
		12	11	17.87	18.14	18.13	0-5	5
		25	0	17.95	18.18	18.16	0-5	5

LTE FDD Band 4 _ 10 ㎒ Bandwidth Conducted Power

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	22.80	22.17	23.07	0	0
		1	24	22.95	22.36	23.21	0	0
		1	49	22.83	22.63	22.99	0	0
		25	0	21.99	21.40	22.17	0-1	1
		25	12	21.99	21.52	22.18	0-1	1
		25	24	21.98	21.65	22.17	0-1	1
		50	0	22.06	21.51	22.20	0-1	1
	16QAM	1	0	21.99	21.44	22.28	0-1	1
		1	24	21.99	21.58	22.35	0-1	1
		1	49	22.13	22.04	22.19	0-1	1
		25	0	20.98	20.42	21.17	0-2	2
		25	12	20.97	20.56	21.13	0-2	2
		25	24	20.95	20.71	21.16	0-2	2
		50	0	21.00	20.58	21.18	0-2	2
	64QAM	1	0	20.98	20.52	21.44	0-2	2
		1	24	21.11	20.71	21.34	0-2	2
		1	49	21.11	21.02	21.22	0-2	2
		25	0	19.94	19.49	20.16	0-3	3
		25	12	19.93	19.62	20.14	0-3	3
		25	24	19.93	19.79	20.16	0-3	3
		50	0	19.97	19.68	20.17	0-3	3
	256QAM	1	0	18.01	17.83	18.24	0-5	5
		1	24	18.16	18.03	18.20	0-5	5
		1	49	18.01	18.21	18.10	0-5	5
		25	0	17.95	17.83	18.17	0-5	5
		25	12	17.94	17.94	18.13	0-5	5
		25	24	17.96	18.06	18.11	0-5	5
		50	0	17.93	17.94	18.12	0-5	5

LTE FDD Band 4 _ 15 ㎒ Bandwidth Conducted Power

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	22.78	23.03	23.02	0	0
		1	36	22.91	23.18	23.09	0	0
		1	74	22.89	23.12	23.00	0	0
		36	0	21.98	22.20	22.10	0-1	1
		36	18	21.99	22.21	22.11	0-1	1
		36	39	22.02	22.22	22.12	0-1	1
		75	0	22.02	22.20	22.14	0-1	1
	16QAM	1	0	22.01	22.24	22.24	0-1	1
		1	36	22.09	22.16	21.95	0-1	1
		1	74	22.19	22.25	22.19	0-1	1
		36	0	20.94	21.22	21.14	0-2	2
		36	18	20.96	21.21	21.09	0-2	2
		36	39	20.98	21.24	21.12	0-2	2
		75	0	20.96	21.23	21.14	0-2	2
	64QAM	1	0	21.00	21.34	21.30	0-2	2
		1	36	21.07	21.51	21.48	0-2	2
		1	74	21.09	21.39	21.29	0-2	2
		36	0	19.95	20.27	20.15	0-3	3
		36	18	19.98	20.24	20.15	0-3	3
		36	39	20.00	20.25	20.15	0-3	3
		75	0	19.93	20.16	20.15	0-3	3
	256QAM	1	0	18.10	18.30	18.21	0-5	5
		1	36	18.01	18.30	18.36	0-5	5
		1	74	18.04	18.33	18.27	0-5	5
		36	0	17.96	18.21	18.14	0-5	5
		36	18	17.98	18.23	18.12	0-5	5
		36	39	17.97	18.25	18.16	0-5	5
		75	0	17.98	18.24	18.13	0-5	5

LTE FDD Band 4 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 20175 ch. 1732.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
20 ㎒	QPSK	1	0	23.12	0	0
		1	49	23.29	0	0
		1	99	23.15	0	0
		50	0	22.27	0-1	1
		50	25	22.28	0-1	1
		50	49	22.28	0-1	1
		100	0	22.26	0-1	1
	16QAM	1	0	22.35	0-1	1
		1	49	22.42	0-1	1
		1	99	22.31	0-1	1
		50	0	21.28	0-2	2
		50	25	21.28	0-2	2
		50	49	21.25	0-2	2
		100	0	21.24	0-2	2
	64QAM	1	0	21.37	0-2	2
		1	49	21.38	0-2	2
		1	99	21.34	0-2	2
		50	0	20.27	0-3	3
		50	25	20.25	0-3	3
		50	49	20.26	0-3	3
		100	0	20.23	0-3	3
	256QAM	1	0	18.28	0-5	5
		1	49	18.21	0-5	5
		1	99	18.28	0-5	5
		50	0	18.19	0-5	5
		50	25	18.19	0-5	5
		50	49	18.19	0-5	5
		100	0	18.23	0-5	5

[LTE FDD Band 4_Upper Conducted Power _ *Pmax*, RCV (RSI 1) _ Main 3]

LTE FDD Band 4_Upper _ 1.4 ㎒ Bandwidth Conducted Power

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	22.91	23.17	23.16	0	0
		1	3	22.81	22.99	23.08	0	0
		1	5	22.87	23.08	23.14	0	0
		3	0	23.01	23.09	23.20	0	0
		3	1	22.91	23.06	23.18	0	0
		3	3	22.81	22.97	23.07	0	0
		6	0	21.88	22.07	22.18	0-1	1
	16QAM	1	0	22.14	22.28	22.38	0-1	1
		1	3	22.06	22.17	22.21	0-1	1
		1	5	22.22	22.17	22.33	0-1	1
		3	0	22.02	22.22	22.32	0-1	1
		3	1	21.95	22.08	22.25	0-1	1
		3	3	21.93	22.10	22.21	0-1	1
		6	0	20.93	21.11	21.27	0-2	2
	64QAM	1	0	21.11	21.37	21.28	0-2	2
		1	3	21.06	21.20	21.30	0-2	2
		1	5	21.11	21.27	21.34	0-2	2
		3	0	20.96	21.14	21.36	0-2	2
		3	1	20.98	21.19	21.22	0-2	2
		3	3	21.01	21.15	21.17	0-2	2
		6	0	19.94	20.15	20.21	0-3	3
	256QAM	1	0	18.13	18.29	18.34	0-5	5
		1	3	18.01	18.08	18.34	0-5	5
		1	5	18.08	18.27	18.46	0-5	5
		3	0	18.02	18.17	18.22	0-5	5
		3	1	18.04	18.04	18.24	0-5	5
		3	3	17.97	18.11	18.29	0-5	5
		6	0	17.90	18.14	18.22	0-5	5

LTE FDD Band 4_Upper _ 3 ㎒ Bandwidth Conducted Power

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	22.94	23.10	23.19	0	0
		1	7	22.90	23.06	23.12	0	0
		1	14	22.84	22.95	23.09	0	0
		8	0	22.00	22.11	22.25	0-1	1
		8	3	21.96	22.09	22.20	0-1	1
		8	7	21.98	22.12	22.22	0-1	1
		15	0	21.96	22.11	22.24	0-1	1
	16QAM	1	0	22.13	22.23	22.46	0-1	1
		1	7	22.10	22.32	22.42	0-1	1
		1	14	22.02	22.13	22.34	0-1	1
		8	0	21.03	21.14	21.25	0-2	2
		8	3	21.01	21.18	21.24	0-2	2
		8	7	21.02	21.18	21.21	0-2	2
		15	0	20.98	21.20	21.25	0-2	2
	64QAM	1	0	21.14	21.36	21.36	0-2	2
		1	7	21.11	21.27	21.38	0-2	2
		1	14	21.03	21.25	21.33	0-2	2
		8	0	19.94	20.15	20.22	0-3	3
		8	3	19.96	20.11	20.25	0-3	3
		8	7	20.04	20.15	20.27	0-3	3
		15	0	20.00	20.13	20.25	0-3	3
	256QAM	1	0	18.10	18.17	18.38	0-5	5
		1	7	18.13	18.40	18.34	0-5	5
		1	14	18.12	18.26	18.38	0-5	5
		8	0	18.01	18.20	18.28	0-5	5
		8	3	17.92	18.16	18.25	0-5	5
		8	7	18.07	18.18	18.28	0-5	5
		15	0	17.94	18.15	18.25	0-5	5

LTE FDD Band 4_Upper _ 5 ㎒ Bandwidth Conducted Power

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	22.87	23.05	23.25	0	0
		1	12	22.91	23.07	23.12	0	0
		1	24	22.90	23.03	23.11	0	0
		12	0	21.95	22.13	22.16	0-1	1
		12	6	21.93	22.06	22.17	0-1	1
		12	11	21.94	22.12	22.17	0-1	1
		25	0	21.94	22.11	22.17	0-1	1
	16QAM	1	0	22.16	22.28	22.36	0-1	1
		1	12	22.20	22.51	22.33	0-1	1
		1	24	21.98	22.37	22.42	0-1	1
		12	0	20.96	21.16	21.23	0-2	2
		12	6	20.95	21.15	21.19	0-2	2
		12	11	20.98	21.14	21.21	0-2	2
		25	0	20.95	21.16	21.23	0-2	2
	64QAM	1	0	21.08	21.38	21.44	0-2	2
		1	12	21.09	21.39	21.45	0-2	2
		1	24	21.02	21.28	21.30	0-2	2
		12	0	20.01	20.14	20.28	0-3	3
		12	6	19.99	20.15	20.24	0-3	3
		12	11	19.99	20.20	20.23	0-3	3
		25	0	19.96	20.14	20.23	0-3	3
	256QAM	1	0	18.02	18.31	18.32	0-5	5
		1	12	18.12	18.17	18.47	0-5	5
		1	24	18.07	18.25	18.27	0-5	5
		12	0	17.97	18.19	18.17	0-5	5
		12	6	17.93	18.16	18.19	0-5	5
		12	11	17.95	18.14	18.21	0-5	5
		25	0	18.01	18.19	18.28	0-5	5

LTE FDD Band 4_Upper _ 10 ㎒ Bandwidth Conducted Power

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	23.05	23.15	23.17	0	0
		1	24	23.02	23.13	23.16	0	0
		1	49	22.90	23.02	22.99	0	0
		25	0	22.03	22.11	22.10	0-1	1
		25	12	22.00	22.13	22.10	0-1	1
		25	24	21.97	22.13	22.10	0-1	1
		50	0	21.99	22.15	22.13	0-1	1
	16QAM	1	0	22.14	22.47	22.24	0-1	1
		1	24	22.24	22.56	22.47	0-1	1
		1	49	22.09	22.34	22.22	0-1	1
		25	0	21.01	21.15	21.16	0-2	2
		25	12	21.02	21.13	21.16	0-2	2
		25	24	20.99	21.13	21.14	0-2	2
		50	0	21.01	21.15	21.15	0-2	2
	64QAM	1	0	21.24	21.35	21.26	0-2	2
		1	24	21.30	21.45	21.59	0-2	2
		1	49	21.16	21.18	21.24	0-2	2
		25	0	20.04	20.18	20.13	0-3	3
		25	12	19.97	20.15	20.12	0-3	3
		25	24	20.00	20.15	20.11	0-3	3
		50	0	20.01	20.17	20.21	0-3	3
	256QAM	1	0	18.22	18.37	18.35	0-5	5
		1	24	18.29	18.47	18.53	0-5	5
		1	49	18.15	18.20	18.27	0-5	5
		25	0	18.06	18.24	18.20	0-5	5
		25	12	18.00	18.18	18.17	0-5	5
		25	24	18.05	18.17	18.15	0-5	5
		50	0	18.06	18.19	18.15	0-5	5

LTE FDD Band 4_Upper _ 15 ㎒ Bandwidth Conducted Power

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	23.04	23.12	23.04	0	0
		1	36	22.95	23.05	22.96	0	0
		1	74	22.92	23.06	22.96	0	0
		36	0	22.03	22.15	22.06	0-1	1
		36	18	21.97	22.15	22.07	0-1	1
		36	39	21.98	22.12	22.00	0-1	1
		75	0	22.01	22.09	22.01	0-1	1
	16QAM	1	0	22.19	22.44	22.32	0-1	1
		1	36	22.23	22.39	22.32	0-1	1
		1	74	22.10	22.31	22.21	0-1	1
		36	0	21.05	21.20	21.06	0-2	2
		36	18	21.01	21.16	21.02	0-2	2
		36	39	20.96	21.14	21.06	0-2	2
		75	0	20.97	21.14	21.06	0-2	2
	64QAM	1	0	21.24	21.46	21.36	0-2	2
		1	36	21.28	21.41	21.27	0-2	2
		1	74	21.09	21.22	21.20	0-2	2
		36	0	20.04	20.19	20.11	0-3	3
		36	18	20.03	20.17	20.06	0-3	3
		36	39	20.06	20.15	20.09	0-3	3
		75	0	20.02	20.17	20.09	0-3	3
	256QAM	1	0	18.16	18.37	18.28	0-5	5
		1	36	18.09	18.26	18.16	0-5	5
		1	74	18.17	18.22	18.15	0-5	5
		36	0	18.09	18.21	18.16	0-5	5
		36	18	18.05	18.23	18.11	0-5	5
		36	39	18.03	18.23	18.12	0-5	5
		75	0	18.07	18.18	18.10	0-5	5

LTE FDD Band 4_Upper _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 20175 Ch. 1732.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
20 ㎒	QPSK	1	0	23.20	0	0
		1	49	23.10	0	0
		1	99	22.98	0	0
		50	0	22.18	0-1	1
		50	25	22.13	0-1	1
		50	49	22.10	0-1	1
		100	0	22.13	0-1	1
	16QAM	1	0	22.38	0-1	1
		1	49	22.65	0-1	1
		1	99	22.31	0-1	1
		50	0	21.17	0-2	2
		50	25	21.17	0-2	2
		50	49	21.13	0-2	2
		100	0	21.13	0-2	2
	64QAM	1	0	21.47	0-2	2
		1	49	21.52	0-2	2
		1	99	21.24	0-2	2
		50	0	20.17	0-3	3
		50	25	20.16	0-3	3
		50	49	20.13	0-3	3
		100	0	20.15	0-3	3
	256QAM	1	0	18.36	0-5	5
		1	49	18.57	0-5	5
		1	99	18.26	0-5	5
		50	0	18.19	0-5	5
		50	25	18.19	0-5	5
		50	49	18.15	0-5	5
		100	0	18.21	0-5	5

[LTE FDD Band 5 Conducted Power _ *Pmax*, Free (RSI 0), RCV (RSI 1), Hotspot (RSI 2) _ Main 1]

LTE FDD Band 5 _ 1.4 ㎒ Bandwidth Conducted Power

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	24.28	24.33	24.49	0	0
		1	3	24.20	24.27	24.41	0	0
		1	5	24.26	24.38	24.48	0	0
		3	0	24.26	24.37	24.52	0	0
		3	1	24.09	24.29	24.39	0	0
		3	3	24.29	24.32	24.44	0	0
		6	0	23.34	23.34	23.48	0-1	1
	16QAM	1	0	23.49	23.65	23.62	0-1	1
		1	3	23.49	23.43	23.61	0-1	1
		1	5	23.53	23.48	23.66	0-1	1
		3	0	23.38	23.43	23.64	0-1	1
		3	1	23.40	23.43	23.58	0-1	1
		3	3	23.42	23.49	23.58	0-1	1
		6	0	22.37	22.47	22.59	0-2	2
	64QAM	1	0	22.48	22.64	22.65	0-2	2
		1	3	22.31	22.54	22.54	0-2	2
		1	5	22.38	22.61	22.71	0-2	2
		3	0	22.43	22.49	22.60	0-2	2
		3	1	22.34	22.39	22.58	0-2	2
		3	3	22.38	22.40	22.54	0-2	2
		6	0	21.33	21.46	21.56	0-3	3
	256QAM	1	0	19.45	19.58	19.67	0-5	5
		1	3	19.38	19.45	19.62	0-5	5
		1	5	19.46	19.50	19.73	0-5	5
		3	0	19.43	19.40	19.58	0-5	5
		3	1	19.30	19.42	19.56	0-5	5
		3	3	19.30	19.39	19.64	0-5	5
		6	0	19.31	19.38	19.52	0-5	5

LTE FDD Band 5 _ 3 ㎒ Bandwidth Conducted Power

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	24.35	24.43	24.57	0	0
		1	7	24.41	24.51	24.62	0	0
		1	14	24.29	24.34	24.47	0	0
		8	0	23.36	23.43	23.57	0-1	1
		8	3	23.35	23.44	23.60	0-1	1
		8	7	23.39	23.44	23.60	0-1	1
		15	0	23.43	23.49	23.60	0-1	1
	16QAM	1	0	23.65	23.55	23.76	0-1	1
		1	7	23.35	23.35	23.52	0-1	1
		1	14	23.51	23.58	23.66	0-1	1
		8	0	22.49	22.50	22.65	0-2	2
		8	3	22.44	22.53	22.64	0-2	2
		8	7	22.44	22.57	22.59	0-2	2
		15	0	22.50	22.48	22.62	0-2	2
	64QAM	1	0	22.56	22.68	22.67	0-2	2
		1	7	22.67	22.65	22.84	0-2	2
		1	14	22.54	22.58	22.80	0-2	2
		8	0	21.42	21.46	21.64	0-3	3
		8	3	21.47	21.46	21.62	0-3	3
		8	7	21.45	21.46	21.62	0-3	3
		15	0	21.43	21.49	21.62	0-3	3
	256QAM	1	0	19.45	19.61	19.77	0-5	5
		1	7	19.46	19.62	19.88	0-5	5
		1	14	19.33	19.45	19.69	0-5	5
		8	0	19.38	19.47	19.63	0-5	5
		8	3	19.43	19.45	19.62	0-5	5
		8	7	19.37	19.43	19.55	0-5	5
		15	0	19.35	19.41	19.62	0-5	5

LTE FDD Band 5 _ 5 ㎒ Bandwidth Conducted Power

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	24.32	24.41	24.53	0	0
		1	12	24.45	24.52	24.65	0	0
		1	24	24.33	24.38	24.55	0	0
		12	0	23.41	23.44	23.62	0-1	1
		12	6	23.38	23.46	23.61	0-1	1
		12	11	23.40	23.49	23.57	0-1	1
		25	0	23.45	23.47	23.61	0-1	1
	16QAM	1	0	23.62	23.69	23.74	0-1	1
		1	12	23.23	23.34	23.76	0-1	1
		1	24	23.62	23.61	23.77	0-1	1
		12	0	22.42	22.50	22.65	0-2	2
		12	6	22.42	22.50	22.63	0-2	2
		12	11	22.42	22.48	22.63	0-2	2
		25	0	22.39	22.46	22.62	0-2	2
	64QAM	1	0	22.64	22.69	22.82	0-2	2
		1	12	22.79	22.73	22.84	0-2	2
		1	24	22.59	22.68	22.83	0-2	2
		12	0	21.48	21.50	21.69	0-3	3
		12	6	21.47	21.50	21.67	0-3	3
		12	11	21.45	21.51	21.64	0-3	3
		25	0	21.36	21.46	21.56	0-3	3
	256QAM	1	0	19.59	19.70	19.78	0-5	5
		1	12	19.44	19.43	19.78	0-5	5
		1	24	19.51	19.54	19.71	0-5	5
		12	0	19.43	19.44	19.54	0-5	5
		12	6	19.37	19.43	19.61	0-5	5
		12	11	19.38	19.39	19.53	0-5	5
		25	0	19.41	19.42	19.60	0-5	5

LTE FDD Band 5 _ 10 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 20525 Ch. 836.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	24.46	0	0
		1	24	24.43	0	0
		1	49	24.36	0	0
		25	0	23.48	0-1	1
		25	12	23.46	0-1	1
		25	24	23.44	0-1	1
		50	0	23.48	0-1	1
	16QAM	1	0	23.54	0-1	1
		1	24	23.52	0-1	1
		1	49	23.62	0-1	1
		25	0	22.50	0-2	2
		25	12	22.47	0-2	2
		25	24	22.46	0-2	2
		50	0	22.51	0-2	2
	64QAM	1	0	22.67	0-2	2
		1	24	22.64	0-2	2
		1	49	22.62	0-2	2
		25	0	21.50	0-3	3
		25	12	21.43	0-3	3
		25	24	21.42	0-3	3
		50	0	21.48	0-3	3
	256QAM	1	0	19.66	0-5	5
		1	24	19.56	0-5	5
		1	49	19.58	0-5	5
		25	0	19.45	0-5	5
		25	12	19.43	0-5	5
		25	24	19.42	0-5	5
		50	0	19.46	0-5	5

[LTE FDD Band 12 Conducted Power_ *Pmax*, Free (RSI 0), RCV (RSI 1), Hotspot (RSI 2) _ Main 1]

LTE FDD Band 12 _ 1.4 ㎒ Bandwidth Conducted Power

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	23.98	24.04	24.00	0	0
		1	3	23.93	24.00	23.97	0	0
		1	5	24.02	24.09	24.06	0	0
		3	0	24.01	24.10	24.09	0	0
		3	1	24.06	23.95	23.95	0	0
		3	3	24.02	24.03	24.01	0	0
		6	0	23.00	23.13	23.13	0-1	1
	16QAM	1	0	23.24	23.36	23.31	0-1	1
		1	3	23.20	23.23	23.32	0-1	1
		1	5	23.27	23.14	23.20	0-1	1
		3	0	23.13	23.24	23.24	0-1	1
		3	1	23.21	23.25	23.23	0-1	1
		3	3	23.13	23.18	23.22	0-1	1
		6	0	22.14	22.14	22.17	0-2	2
	64QAM	1	0	22.31	22.29	22.40	0-2	2
		1	3	22.24	22.19	22.26	0-2	2
		1	5	22.27	22.20	22.30	0-2	2
		3	0	22.18	22.18	22.23	0-2	2
		3	1	22.21	22.16	22.18	0-2	2
		3	3	22.08	22.17	22.18	0-2	2
		6	0	21.10	21.14	21.14	0-3	3
	256QAM	1	0	19.21	19.20	19.11	0-5	5
		1	3	19.14	19.14	19.08	0-5	5
		1	5	19.24	19.28	19.14	0-5	5
		3	0	19.21	19.17	19.11	0-5	5
		3	1	19.07	19.07	19.07	0-5	5
		3	3	19.07	19.09	19.07	0-5	5
		6	0	18.99	19.08	19.06	0-5	5

LTE FDD Band 12 _ 3 ㎒ Bandwidth Conducted Power

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	24.08	24.11	24.13	0	0
		1	7	24.12	24.15	24.17	0	0
		1	14	23.97	24.03	24.06	0	0
		8	0	23.05	23.14	23.12	0-1	1
		8	3	23.10	23.19	23.15	0-1	1
		8	7	23.12	23.16	23.13	0-1	1
		15	0	23.09	23.16	23.16	0-1	1
	16QAM	1	0	23.30	23.34	23.34	0-1	1
		1	7	23.03	23.29	23.16	0-1	1
		1	14	23.30	23.29	23.25	0-1	1
		8	0	22.16	22.27	22.23	0-2	2
		8	3	22.20	22.20	22.29	0-2	2
		8	7	22.17	22.21	22.22	0-2	2
		15	0	22.16	22.18	22.18	0-2	2
	64QAM	1	0	22.31	22.35	22.28	0-2	2
		1	7	22.24	22.28	22.38	0-2	2
		1	14	22.14	22.25	22.28	0-2	2
		8	0	21.10	21.17	21.22	0-3	3
		8	3	21.12	21.13	21.19	0-3	3
		8	7	21.12	21.21	21.20	0-3	3
		15	0	21.12	21.15	21.17	0-3	3
	256QAM	1	0	19.27	19.24	19.16	0-5	5
		1	7	19.08	19.15	19.19	0-5	5
		1	14	19.17	19.15	19.21	0-5	5
		8	0	19.11	19.13	19.19	0-5	5
		8	3	19.10	19.11	19.18	0-5	5
		8	7	19.06	19.07	19.14	0-5	5
		15	0	19.00	19.06	19.08	0-5	5

LTE FDD Band 12 _ 5 ㎒ Bandwidth Conducted Power

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	24.03	24.13	24.12	0	0
		1	12	24.11	24.19	24.18	0	0
		1	24	24.05	24.08	24.15	0	0
		12	0	23.05	23.15	23.20	0-1	1
		12	6	23.06	23.12	23.16	0-1	1
		12	11	23.11	23.16	23.22	0-1	1
		25	0	23.09	23.19	23.17	0-1	1
	16QAM	1	0	23.41	23.46	23.48	0-1	1
		1	12	22.99	23.15	23.20	0-1	1
		1	24	23.02	23.35	23.25	0-1	1
		12	0	22.20	22.24	22.26	0-2	2
		12	6	22.17	22.17	22.19	0-2	2
		12	11	22.14	22.18	22.16	0-2	2
		25	0	22.14	22.19	22.17	0-2	2
	64QAM	1	0	22.32	22.38	22.36	0-2	2
		1	12	22.31	22.35	22.28	0-2	2
		1	24	22.25	22.33	22.29	0-2	2
		12	0	21.17	21.23	21.22	0-3	3
		12	6	21.14	21.21	21.22	0-3	3
		12	11	21.10	21.18	21.17	0-3	3
		25	0	21.06	21.18	21.17	0-3	3
	256QAM	1	0	19.16	19.25	19.30	0-5	5
		1	12	19.18	19.12	19.29	0-5	5
		1	24	19.21	19.14	19.18	0-5	5
		12	0	19.10	19.15	19.15	0-5	5
		12	6	19.07	19.12	19.12	0-5	5
		12	11	19.04	19.11	19.09	0-5	5
		25	0	19.05	19.09	19.15	0-5	5

LTE FDD Band 12 _ 10 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 23095 Ch. 707.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	**24.17**	0	0
		1	24	24.10	0	0
		1	49	23.99	0	0
		25	0	**23.18**	0-1	1
		25	12	23.17	0-1	1
		25	24	23.12	0-1	1
		50	0	23.18	0-1	1
	16QAM	1	0	23.45	0-1	1
		1	24	23.25	0-1	1
		1	49	23.26	0-1	1
		25	0	22.21	0-2	2
		25	12	22.14	0-2	2
		25	24	22.12	0-2	2
		50	0	22.17	0-2	2
	64QAM	1	0	22.38	0-2	2
		1	24	22.39	0-2	2
		1	49	22.19	0-2	2
		25	0	21.19	0-3	3
		25	12	21.12	0-3	3
		25	24	21.12	0-3	3
		50	0	21.18	0-3	3
	256QAM	1	0	19.30	0-5	5
		1	24	19.11	0-5	5
		1	49	19.13	0-5	5
		25	0	19.17	0-5	5
		25	12	19.12	0-5	5
		25	24	19.11	0-5	5
		50	0	19.12	0-5	5

[LTE FDD Band 17 Conducted Power_ *Pmax*, Free (RSI 0), RCV (RSI 1), Hotspot (RSI 2) _ Main 1]

LTE FDD Band 17 _ 5 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				23755 706.5 ㎒	23790 710 ㎒	23825 713.5 ㎒		
5 ㎒	QPSK	1	0	24.05	24.12	24.11	0	0
		1	12	24.19	24.20	24.24	0	0
		1	24	24.10	24.09	24.11	0	0
		12	0	23.12	23.16	23.19	0-1	1
		12	6	23.15	23.12	23.18	0-1	1
		12	11	23.14	23.16	23.17	0-1	1
		25	0	23.16	23.22	23.23	0-1	1
	16QAM	1	0	23.38	23.53	23.47	0-1	1
		1	12	23.03	23.28	23.11	0-1	1
		1	24	23.34	23.29	23.30	0-1	1
		12	0	22.19	22.24	22.25	0-2	2
		12	6	22.17	22.19	22.21	0-2	2
		12	11	22.17	22.19	22.29	0-2	2
		25	0	22.16	22.21	22.17	0-2	2
	64QAM	1	0	22.42	22.35	22.34	0-2	2
		1	12	22.52	22.38	22.29	0-2	2
		1	24	22.35	22.27	22.31	0-2	2
		12	0	21.17	21.20	21.24	0-3	3
		12	6	21.17	21.20	21.17	0-3	3
		12	11	21.14	21.21	21.19	0-3	3
		25	0	21.11	21.14	21.16	0-3	3
	256QAM	1	0	19.29	19.38	19.34	0-5	5
		1	12	19.14	19.30	19.24	0-5	5
		1	24	19.23	19.30	19.24	0-5	5
		12	0	19.11	19.15	19.15	0-5	5
		12	6	19.09	19.08	19.15	0-5	5
		12	11	19.10	19.14	19.10	0-5	5
		25	0	19.14	19.14	19.14	0-5	5

LTE FDD Band 17 _ 10 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 23790 710 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	24.19	0	0
		1	24	24.15	0	0
		1	49	24.01	0	0
		25	0	23.20	0-1	1
		25	12	23.16	0-1	1
		25	24	23.14	0-1	1
		50	0	23.20	0-1	1
	16QAM	1	0	23.54	0-1	1
		1	24	23.36	0-1	1
		1	49	23.33	0-1	1
		25	0	22.24	0-2	2
		25	12	22.22	0-2	2
		25	24	22.17	0-2	2
		50	0	22.22	0-2	2
	64QAM	1	0	22.44	0-2	2
		1	24	22.46	0-2	2
		1	49	22.28	0-2	2
		25	0	21.20	0-3	3
		25	12	21.15	0-3	3
		25	24	21.12	0-3	3
		50	0	21.20	0-3	3
	256QAM	1	0	19.41	0-5	5
		1	24	19.35	0-5	5
		1	49	19.15	0-5	5
		25	0	19.16	0-5	5
		25	12	19.13	0-5	5
		25	24	19.09	0-5	5
		50	0	19.09	0-5	5

[LTE FDD Band 26 Conducted Power _ *Pmax*, Free (RSI 0), RCV (RSI 1), Hotspot (RSI 2) Main 1]

LTE FDD Band 26 _ 1.4 ㎒ Bandwidth Conducted Power

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 ㎒		
1.4 ㎒	QPSK	1	0	24.11	24.09	24.30	0	0
		1	3	24.05	24.10	24.25	0	0
		1	5	24.15	24.17	24.34	0	0
		3	0	24.13	24.19	24.30	0	0
		3	1	24.20	24.10	24.40	0	0
		3	3	24.12	24.17	24.37	0	0
		6	0	23.16	23.22	23.38	0-1	1
	16QAM	1	0	23.37	23.41	23.60	0-1	1
		1	3	23.30	23.35	23.35	0-1	1
		1	5	23.29	23.40	23.51	0-1	1
		3	0	23.31	23.33	23.39	0-1	1
		3	1	23.30	23.29	23.51	0-1	1
		3	3	23.24	23.25	23.44	0-1	1
		6	0	22.21	22.27	22.45	0-2	2
	64QAM	1	0	22.37	22.37	22.62	0-2	2
		1	3	22.36	22.35	22.45	0-2	2
		1	5	22.36	22.40	22.52	0-2	2
		3	0	22.22	22.33	22.40	0-2	2
		3	1	22.24	22.27	22.42	0-2	2
		3	3	22.27	22.24	22.35	0-2	2
		6	0	21.24	21.25	21.40	0-3	3
	256QAM	1	0	19.31	19.28	19.46	0-5	5
		1	3	19.20	19.14	19.42	0-5	5
		1	5	19.29	19.25	19.43	0-5	5
		3	0	19.18	19.27	19.40	0-5	5
		3	1	19.16	19.15	19.35	0-5	5
		3	3	19.14	19.18	19.33	0-5	5
		6	0	19.16	19.14	19.24	0-5	5

LTE FDD Band 26 _ 3 ㎒ Bandwidth Conducted Power

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	24.14	24.21	24.37	0	0
		1	7	24.23	24.28	24.45	0	0
		1	14	24.10	24.12	24.29	0	0
		8	0	23.23	23.27	23.46	0-1	1
		8	3	23.23	23.30	23.41	0-1	1
		8	7	23.24	23.27	23.42	0-1	1
		15	0	23.22	23.31	23.47	0-1	1
	16QAM	1	0	23.36	23.39	23.48	0-1	1
		1	7	23.27	23.23	23.49	0-1	1
		1	14	23.41	23.41	23.57	0-1	1
		8	0	22.26	22.35	22.47	0-2	2
		8	3	22.30	22.36	22.52	0-2	2
		8	7	22.28	22.32	22.45	0-2	2
		15	0	22.25	22.30	22.44	0-2	2
	64QAM	1	0	22.41	22.47	22.61	0-2	2
		1	7	22.46	22.46	22.61	0-2	2
		1	14	22.44	22.38	22.54	0-2	2
		8	0	21.24	21.29	21.42	0-3	3
		8	3	21.22	21.24	21.45	0-3	3
		8	7	21.26	21.29	21.44	0-3	3
		15	0	21.23	21.26	21.42	0-3	3
	256QAM	1	0	19.39	19.39	19.60	0-5	5
		1	7	19.46	19.45	19.59	0-5	5
		1	14	19.27	19.34	19.45	0-5	5
		8	0	19.21	19.25	19.41	0-5	5
		8	3	19.18	19.27	19.46	0-5	5
		8	7	19.18	19.19	19.36	0-5	5
		15	0	19.20	19.18	19.36	0-5	5

LTE FDD Band 26 _ 5 ㎒ Bandwidth Conducted Power

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	24.15	24.24	24.35	0	0
		1	12	24.23	24.31	24.46	0	0
		1	24	24.14	24.22	24.37	0	0
		12	0	23.23	23.27	23.41	0-1	1
		12	6	23.21	23.26	23.42	0-1	1
		12	11	23.17	23.27	23.44	0-1	1
		25	0	23.23	23.33	23.47	0-1	1
	16QAM	1	0	23.55	23.45	23.68	0-1	1
		1	12	23.39	23.25	23.42	0-1	1
		1	24	23.29	23.35	23.54	0-1	1
		12	0	22.29	22.39	22.47	0-2	2
		12	6	22.33	22.33	22.48	0-2	2
		12	11	22.26	22.30	22.47	0-2	2
		25	0	22.24	22.29	22.50	0-2	2
	64QAM	1	0	22.41	22.42	22.68	0-2	2
		1	12	22.44	22.33	22.66	0-2	2
		1	24	22.37	22.38	22.59	0-2	2
		12	0	21.29	21.30	21.48	0-3	3
		12	6	21.24	21.25	21.49	0-3	3
		12	11	21.21	21.27	21.47	0-3	3
		25	0	21.25	21.27	21.41	0-3	3
	256QAM	1	0	19.41	19.38	19.56	0-5	5
		1	12	19.48	19.42	19.64	0-5	5
		1	24	19.36	19.30	19.48	0-5	5
		12	0	19.15	19.21	19.41	0-5	5
		12	6	19.16	19.26	19.39	0-5	5
		12	11	19.16	19.14	19.34	0-5	5
		25	0	19.20	19.22	19.43	0-5	5

LTE FDD Band 26 _ 10 ㎒ Bandwidth Conducted Power

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	24.27	24.34	24.39	0	0
		1	24	24.27	24.29	24.40	0	0
		1	49	24.11	24.12	24.27	0	0
		25	0	23.31	23.34	23.44	0-1	1
		25	12	23.28	23.30	23.41	0-1	1
		25	24	23.24	23.28	23.42	0-1	1
		50	0	23.31	23.32	23.47	0-1	1
	16QAM	1	0	23.44	23.46	23.64	0-1	1
		1	24	23.17	23.24	23.33	0-1	1
		1	49	23.40	23.48	23.56	0-1	1
		25	0	22.32	22.36	22.49	0-2	2
		25	12	22.28	22.32	22.43	0-2	2
		25	24	22.26	22.31	22.42	0-2	2
		50	0	22.31	22.33	22.43	0-2	2
	64QAM	1	0	22.45	22.49	22.65	0-2	2
		1	24	22.39	22.42	22.61	0-2	2
		1	49	22.34	22.43	22.53	0-2	2
		25	0	21.32	21.28	21.42	0-3	3
		25	12	21.24	21.26	21.42	0-3	3
		25	24	21.24	21.22	21.36	0-3	3
		50	0	21.29	21.32	21.45	0-3	3
	256QAM	1	0	19.39	19.42	19.63	0-5	5
		1	24	19.30	19.21	19.39	0-5	5
		1	49	19.35	19.34	19.42	0-5	5
		25	0	19.30	19.27	19.41	0-5	5
		25	12	19.26	19.30	19.40	0-5	5
		25	24	19.19	19.24	19.38	0-5	5
		50	0	19.26	19.28	19.34	0-5	5

LTE FDD Band 26 _ 15 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 26865 Ch. 831.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
15 ㎒	QPSK	1	0	**24.28**	0	0
		1	36	24.27	0	0
		1	74	24.17	0	0
		36	0	**23.31**	0-1	1
		36	18	23.29	0-1	1
		36	39	23.27	0-1	1
		75	0	23.32	0-1	1
	16QAM	1	0	23.54	0-1	1
		1	36	23.22	0-1	1
		1	74	23.30	0-1	1
		36	0	22.34	0-2	2
		36	18	22.30	0-2	2
		36	39	22.22	0-2	2
		75	0	22.30	0-2	2
	64QAM	1	0	22.58	0-2	2
		1	36	22.49	0-2	2
		1	74	22.30	0-2	2
		36	0	21.34	0-3	3
		36	18	21.29	0-3	3
		36	39	21.25	0-3	3
		75	0	21.29	0-3	3
	256QAM	1	0	19.48	0-5	5
		1	36	19.33	0-5	5
		1	74	19.21	0-5	5
		36	0	19.32	0-5	5
		36	18	19.25	0-5	5
		36	39	19.18	0-5	5
		75	0	19.26	0-5	5

[LTE TDD Band 41 Conducted Power (Power Class 3)*Pmax*, RCV (RSI 1) Main 2]

LTE TDD Band 41 _ 5 ㎒ Bandwidth Conducted Power - Power Class 3

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 ㎒	40185 Ch. 2549.5 ㎒	40620 Ch. 2593.0 ㎒	41055 Ch. 2636.5 ㎒	41490 Ch. 2680.0 ㎒		
5 ㎒	QPSK	1	0	22.98	22.98	23.43	22.92	22.88	0	0
		1	12	23.10	23.18	23.54	23.09	22.77	0	0
		1	24	22.99	23.09	23.44	22.96	22.33	0	0
		12	0	22.07	22.12	22.51	22.01	21.98	0-1	1
		12	6	22.05	22.14	22.49	21.99	21.90	0-1	1
		12	11	22.06	22.14	22.50	22.00	21.75	0-1	1
		25	0	22.13	22.19	22.55	22.05	21.86	0-1	1
	16QAM	1	0	21.94	22.07	22.39	21.95	21.89	0-1	1
		1	12	21.97	22.10	22.46	22.09	21.83	0-1	1
		1	24	21.86	22.06	22.33	21.91	21.49	0-1	1
		12	0	21.02	21.11	21.47	20.98	20.92	0-2	2
		12	6	20.98	21.11	21.45	20.97	20.91	0-2	2
		12	11	20.97	21.12	21.44	20.97	20.92	0-2	2
		25	0	21.06	21.16	21.47	20.99	20.94	0-2	2
	64QAM	1	0	21.05	21.14	21.51	20.97	21.16	0-2	2
		1	12	21.04	21.16	21.51	20.86	21.17	0-2	2
		1	24	20.99	21.11	21.45	20.96	21.04	0-2	2
		12	0	20.06	20.10	20.49	19.97	19.92	0-3	3
		12	6	20.02	20.10	20.45	19.98	19.92	0-3	3
		12	11	20.01	20.11	20.44	19.95	19.91	0-3	3
		25	0	20.07	20.14	20.47	20.01	19.94	0-3	3
	256QAM	1	0	17.97	17.92	18.44	17.86	17.79	0-5	5
		1	12	17.90	18.00	18.43	17.83	17.78	0-5	5
		1	24	17.91	17.92	18.37	17.78	17.70	0-5	5
		12	0	18.10	18.10	18.49	17.98	17.94	0-5	5
		12	6	18.09	18.09	18.47	17.94	17.94	0-5	5
		12	11	18.09	18.09	18.46	17.92	17.92	0-5	5
		25	0	18.06	18.14	18.52	18.02	17.96	0-5	5

LTE TDD Band 41 _ 10 ㎒ Bandwidth Conducted Power - Power Class 3

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 ㎒	40185 Ch. 2549.5 ㎒	40620 Ch. 2593.0 ㎒	41055 Ch. 2636.5 ㎒	41490 Ch. 2680.0 ㎒		
10 ㎒	QPSK	1	0	23.07	23.06	23.53	22.97	22.96	0	0
		1	24	23.17	23.25	23.60	23.07	23.04	0	0
		1	49	22.92	23.06	23.34	22.84	22.54	0	0
		25	0	22.15	22.21	22.60	22.02	22.06	0-1	1
		25	12	22.12	22.20	22.57	22.02	22.05	0-1	1
		25	24	22.12	22.20	22.53	21.99	22.02	0-1	1
		50	0	22.16	22.22	22.59	22.02	22.09	0-1	1
	16QAM	1	0	22.04	22.11	22.55	21.86	21.87	0-1	1
		1	24	22.04	22.35	22.65	22.13	21.98	0-1	1
		1	49	21.92	22.14	22.34	21.91	21.61	0-1	1
		25	0	21.13	21.14	21.51	20.98	21.01	0-2	2
		25	12	21.08	21.15	21.49	20.97	20.97	0-2	2
		25	24	21.06	21.13	21.46	20.95	20.94	0-2	2
		50	0	21.07	21.15	21.52	20.97	20.99	0-2	2
	64QAM	1	0	21.24	21.20	21.67	21.03	21.09	0-2	2
		1	24	21.12	21.25	21.78	21.03	21.11	0-2	2
		1	49	21.10	21.15	21.56	20.98	20.90	0-2	2
		25	0	20.11	20.17	20.55	19.97	20.00	0-3	3
		25	12	20.08	20.18	20.50	19.94	19.95	0-3	3
		25	24	20.05	20.18	20.46	19.91	19.92	0-3	3
		50	0	20.12	20.18	20.54	20.00	20.02	0-3	3
	256QAM	1	0	17.86	18.04	18.50	17.82	17.89	0-5	5
		1	24	17.88	18.11	18.60	17.84	17.94	0-5	5
		1	49	17.79	18.02	18.36	17.74	17.72	0-5	5
		25	0	18.11	18.17	18.58	18.01	18.02	0-5	5
		25	12	18.07	18.15	18.51	17.97	17.99	0-5	5
		25	24	18.05	18.16	18.50	17.96	17.96	0-5	5
		50	0	18.11	18.17	18.55	18.01	18.03	0-5	5

LTE TDD Band 41 _ 15 ㎒ Bandwidth Conducted Power - Power Class 3

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 ㎒	40185 Ch. 2549.5 ㎒	40620 Ch. 2593.0 ㎒	41055 Ch. 2636.5 ㎒	41490 Ch. 2680.0 ㎒		
15 ㎒	QPSK	1	0	23.03	23.06	23.42	22.94	22.93	0	0
		1	36	23.22	23.30	23.53	23.04	22.95	0	0
		1	74	22.94	23.14	23.35	22.89	22.02	0	0
		36	0	22.14	22.21	22.57	22.03	22.05	0-1	1
		36	18	22.09	22.19	22.52	21.98	22.01	0-1	1
		36	39	22.06	22.18	22.47	21.96	21.88	0-1	1
		75	0	22.12	22.21	22.54	22.01	22.04	0-1	1
	16QAM	1	0	22.00	21.93	22.45	21.91	22.05	0-1	1
		1	36	21.96	22.00	22.40	21.91	22.07	0-1	1
		1	74	21.87	22.11	22.31	21.76	21.17	0-1	1
		36	0	21.07	21.15	21.53	20.97	21.01	0-2	2
		36	18	21.03	21.11	21.46	20.92	20.95	0-2	2
		36	39	21.00	21.13	21.41	20.90	20.91	0-2	2
		75	0	21.04	21.15	21.48	20.95	20.97	0-2	2
	64QAM	1	0	21.20	21.11	21.64	21.10	21.05	0-2	2
		1	36	21.20	21.28	21.49	21.05	21.03	0-2	2
		1	74	21.05	21.17	21.44	20.97	20.44	0-2	2
		36	0	20.08	20.15	20.53	19.99	20.02	0-3	3
		36	18	20.04	20.15	20.48	19.94	19.99	0-3	3
		36	39	19.99	20.13	20.44	19.90	19.92	0-3	3
		75	0	20.05	20.16	20.51	19.97	19.97	0-3	3
	256QAM	1	0	17.93	18.01	18.42	17.88	17.82	0-5	5
		1	36	17.86	18.04	18.39	17.82	17.85	0-5	5
		1	74	17.77	18.00	18.22	17.68	17.69	0-5	5
		36	0	18.09	18.18	18.56	17.98	18.01	0-5	5
		36	18	18.06	18.15	18.50	17.95	17.99	0-5	5
		36	39	18.02	18.16	18.45	17.92	17.94	0-5	5
		75	0	18.05	18.14	18.50	17.95	17.98	0-5	5

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

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 ㎒	40185 Ch. 2549.5 ㎒	40620 Ch. 2593.0 ㎒	41055 Ch. 2636.5 ㎒	41490 Ch. 2680.0 ㎒		
20 ㎒	QPSK	1	0	23.12	23.09	23.59	23.02	23.00	0	0
		1	49	23.18	23.27	**23.62**	23.05	23.03	0	0
		1	99	22.88	23.05	23.29	22.81	21.98	0	0
		50	0	22.21	22.24	**22.67**	22.08	22.13	0-1	1
		50	25	22.16	22.21	22.60	22.04	22.08	0-1	1
		50	49	22.11	22.21	22.53	21.98	21.82	0-1	1
		100	0	22.14	22.22	22.57	22.01	22.06	0-1	1
	16QAM	1	0	22.06	22.00	22.51	21.96	21.97	0-1	1
		1	49	22.04	22.04	22.55	22.01	21.98	0-1	1
		1	99	21.88	22.02	22.23	21.78	20.99	0-1	1
		50	0	21.17	21.19	21.59	21.03	21.07	0-2	2
		50	25	21.09	21.18	21.52	20.99	20.99	0-2	2
		50	49	21.05	21.16	21.45	20.93	20.94	0-2	2
		100	0	21.12	21.20	21.55	21.01	21.05	0-2	2
	64QAM	1	0	21.18	21.22	21.64	21.11	21.17	0-2	2
		1	49	21.13	21.23	21.48	20.95	21.11	0-2	2
		1	99	20.93	21.17	21.35	20.89	20.49	0-2	2
		50	0	20.17	20.22	20.61	20.04	20.07	0-3	3
		50	25	20.13	20.21	20.55	20.00	20.03	0-3	3
		50	49	20.06	20.17	20.47	19.94	19.96	0-3	3
		100	0	20.06	20.15	20.50	19.96	19.98	0-3	3
	256QAM	1	0	17.99	18.03	18.51	17.91	18.01	0-5	5
		1	49	17.98	18.05	18.46	17.87	17.97	0-5	5
		1	99	17.84	17.91	18.24	17.75	17.73	0-5	5
		50	0	18.17	18.22	18.64	18.05	18.09	0-5	5
		50	25	18.12	18.20	18.57	18.01	18.03	0-5	5
		50	49	18.07	18.19	18.50	17.96	17.97	0-5	5
		100	0	18.05	18.14	18.50	17.94	17.98	0-5	5

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

[LTE FDD Band 66 Conducted Power_ *Pmax*, RCV (RSI 1)Main 2]

LTE FDD Band 66 _ 1.4 ㎒ Bandwidth Conducted Power

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	22.81	22.98	23.00	0	0
		1	3	22.70	22.93	22.90	0	0
		1	5	22.83	23.04	23.01	0	0
		3	0	22.83	23.00	22.96	0	0
		3	1	22.86	23.10	23.04	0	0
		3	3	22.85	23.01	23.00	0	0
		6	0	21.94	22.12	22.12	0-1	1
	16QAM	1	0	22.02	22.25	22.29	0-1	1
		1	3	21.94	22.14	22.13	0-1	1
		1	5	21.96	22.22	22.05	0-1	1
		3	0	21.97	22.15	22.18	0-1	1
		3	1	21.91	22.22	22.12	0-1	1
		3	3	21.90	22.17	22.13	0-1	1
		6	0	20.96	20.94	21.18	0-2	2
	64QAM	1	0	20.99	21.35	21.26	0-2	2
		1	3	20.90	21.26	21.15	0-2	2
		1	5	21.01	21.32	21.23	0-2	2
		3	0	20.98	21.12	21.18	0-2	2
		3	1	21.02	21.24	21.16	0-2	2
		3	3	20.92	21.13	21.13	0-2	2
		6	0	19.97	20.05	20.17	0-3	3
	256QAM	1	0	17.98	18.20	18.27	0-5	5
		1	3	18.08	18.10	18.15	0-5	5
		1	5	18.04	18.21	18.23	0-5	5
		3	0	18.03	18.16	18.21	0-5	5
		3	1	17.91	18.16	18.11	0-5	5
		3	3	17.94	18.08	18.09	0-5	5
		6	0	17.96	18.13	18.11	0-5	5

LTE FDD Band 66 _ 3 ㎒ Bandwidth Conducted Power

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	22.84	23.06	23.05	0	0
		1	7	22.90	23.16	23.15	0	0
		1	14	22.79	23.01	22.94	0	0
		8	0	21.92	22.14	22.12	0-1	1
		8	3	21.95	22.17	22.16	0-1	1
		8	7	21.96	22.17	22.14	0-1	1
		15	0	21.97	22.15	22.17	0-1	1
	16QAM	1	0	21.96	22.33	22.32	0-1	1
		1	7	22.04	22.34	22.17	0-1	1
		1	14	22.04	22.33	22.14	0-1	1
		8	0	20.97	21.23	21.22	0-2	2
		8	3	20.91	21.17	21.21	0-2	2
		8	7	20.97	21.22	21.19	0-2	2
		15	0	20.93	21.17	21.19	0-2	2
	64QAM	1	0	21.03	21.21	21.18	0-2	2
		1	7	21.19	21.36	21.40	0-2	2
		1	14	21.10	21.28	21.29	0-2	2
		8	0	19.98	20.16	20.21	0-3	3
		8	3	19.99	20.21	20.21	0-3	3
		8	7	19.95	20.21	20.27	0-3	3
		15	0	19.99	20.13	20.18	0-3	3
	256QAM	1	0	18.12	18.22	18.35	0-5	5
		1	7	18.02	18.25	18.47	0-5	5
		1	14	18.08	18.13	18.26	0-5	5
		8	0	17.95	18.13	18.22	0-5	5
		8	3	18.01	18.14	18.19	0-5	5
		8	7	17.97	18.15	18.20	0-5	5
		15	0	17.94	18.15	18.19	0-5	5

LTE FDD Band 66 _ 5 ㎒ Bandwidth Conducted Power

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	22.76	23.02	23.02	0	0
		1	12	22.91	23.16	23.18	0	0
		1	24	22.84	23.08	23.03	0	0
		12	0	21.90	22.12	22.12	0-1	1
		12	6	21.88	22.12	22.16	0-1	1
		12	11	21.94	22.15	22.15	0-1	1
		25	0	22.03	22.15	22.20	0-1	1
	16QAM	1	0	21.97	22.26	22.33	0-1	1
		1	12	21.85	21.99	22.12	0-1	1
		1	24	22.00	22.26	22.31	0-1	1
		12	0	20.95	21.14	21.17	0-2	2
		12	6	20.96	21.09	21.14	0-2	2
		12	11	20.96	21.15	21.14	0-2	2
		25	0	20.98	21.16	21.19	0-2	2
	64QAM	1	0	21.09	21.29	21.30	0-2	2
		1	12	21.04	21.43	21.37	0-2	2
		1	24	21.03	21.29	21.31	0-2	2
		12	0	19.94	20.16	20.20	0-3	3
		12	6	19.94	20.16	20.20	0-3	3
		12	11	20.01	20.16	20.19	0-3	3
		25	0	19.96	20.12	20.17	0-3	3
	256QAM	1	0	18.02	18.17	18.34	0-5	5
		1	12	18.18	18.33	18.42	0-5	5
		1	24	18.00	18.22	18.30	0-5	5
		12	0	17.98	18.07	18.13	0-5	5
		12	6	17.92	18.10	18.12	0-5	5
		12	11	17.89	18.06	18.14	0-5	5
		25	0	17.98	18.13	18.15	0-5	5

LTE FDD Band 66 _ 10 ㎒ Bandwidth Conducted Power

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	22.79	22.75	23.04	0	0
		1	24	22.93	23.21	23.17	0	0
		1	49	22.81	23.02	22.92	0	0
		25	0	22.01	22.15	22.13	0-1	1
		25	12	22.02	22.17	22.13	0-1	1
		25	24	22.02	22.13	22.12	0-1	1
		50	0	22.07	22.20	22.20	0-1	1
	16QAM	1	0	21.91	22.04	22.34	0-1	1
		1	24	22.00	22.30	22.38	0-1	1
		1	49	22.17	22.22	22.19	0-1	1
		25	0	20.96	21.17	21.15	0-2	2
		25	12	20.96	21.18	21.16	0-2	2
		25	24	20.92	21.13	21.14	0-2	2
		50	0	20.98	21.15	21.16	0-2	2
	64QAM	1	0	20.97	20.97	21.24	0-2	2
		1	24	21.10	21.14	21.31	0-2	2
		1	49	21.12	21.19	21.20	0-2	2
		25	0	19.95	20.18	20.13	0-3	3
		25	12	19.93	20.10	20.10	0-3	3
		25	24	19.95	20.14	20.11	0-3	3
		50	0	20.00	20.16	20.14	0-3	3
	256QAM	1	0	18.03	18.16	18.23	0-5	5
		1	24	18.15	18.30	18.29	0-5	5
		1	49	18.06	18.22	18.17	0-5	5
		25	0	17.97	18.14	18.15	0-5	5
		25	12	17.92	18.14	18.11	0-5	5
		25	24	17.99	18.16	18.12	0-5	5
		50	0	17.92	18.13	18.12	0-5	5

LTE FDD Band 66 _ 15 ㎒ Bandwidth Conducted Power

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	22.76	22.91	22.95	0	0
		1	36	22.93	23.18	23.11	0	0
		1	74	22.91	23.05	22.93	0	0
		36	0	21.97	22.18	22.09	0-1	1
		36	18	21.98	22.17	22.07	0-1	1
		36	39	21.99	22.15	22.09	0-1	1
		75	0	22.00	22.15	22.11	0-1	1
	16QAM	1	0	21.94	22.03	22.20	0-1	1
		1	36	21.97	22.24	22.19	0-1	1
		1	74	22.04	22.29	22.24	0-1	1
		36	0	20.96	21.19	21.10	0-2	2
		36	18	20.93	21.18	21.03	0-2	2
		36	39	20.98	21.15	21.10	0-2	2
		75	0	20.98	21.16	21.07	0-2	2
	64QAM	1	0	21.04	21.18	21.23	0-2	2
		1	36	21.15	21.33	21.34	0-2	2
		1	74	21.12	21.26	21.25	0-2	2
		36	0	19.97	20.20	20.11	0-3	3
		36	18	20.02	20.18	20.10	0-3	3
		36	39	20.01	20.18	20.09	0-3	3
		75	0	19.95	20.11	20.07	0-3	3
	256QAM	1	0	18.06	18.23	18.23	0-5	5
		1	36	18.02	18.26	18.31	0-5	5
		1	74	18.15	18.25	18.20	0-5	5
		36	0	18.00	18.16	18.13	0-5	5
		36	18	18.00	18.15	18.09	0-5	5
		36	39	17.99	18.15	18.06	0-5	5
		75	0	17.98	18.14	18.07	0-5	5

LTE FDD Band 66 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132072 Ch. 1720 ㎒	132322 Ch. 1745 ㎒	132572 Ch. 1770 ㎒		
20 ㎒	QPSK	1	0	22.81	22.81	22.93	0	0
		1	49	22.98	**23.24**	23.12	0	0
		1	99	22.93	22.94	22.92	0	0
		50	0	22.07	**22.21**	22.18	0-1	1
		50	25	22.09	22.17	22.16	0-1	1
		50	49	22.06	22.20	22.13	0-1	1
		100	0	22.01	22.18	22.13	0-1	1
	16QAM	1	0	21.95	22.01	22.18	0-1	1
		1	49	22.06	22.24	22.02	0-1	1
		1	99	22.19	22.24	22.20	0-1	1
		50	0	21.00	21.16	21.16	0-2	2
		50	25	21.01	21.20	21.12	0-2	2
		50	49	21.05	21.15	21.14	0-2	2
		100	0	21.00	21.11	21.07	0-2	2
	64QAM	1	0	21.03	21.09	21.21	0-2	2
		1	49	21.23	21.22	21.23	0-2	2
		1	99	21.26	21.23	21.28	0-2	2
		50	0	20.04	20.16	20.14	0-3	3
		50	25	20.04	20.19	20.13	0-3	3
		50	49	20.04	20.13	20.11	0-3	3
		100	0	19.98	20.16	20.08	0-3	3
	256QAM	1	0	18.09	18.17	18.12	0-5	5
		1	49	17.97	18.18	18.17	0-5	5
		1	99	18.08	18.29	18.10	0-5	5
		50	0	17.99	18.15	18.09	0-5	5
		50	25	17.98	18.09	18.03	0-5	5
		50	49	17.97	18.14	18.04	0-5	5
		100	0	18.01	18.14	18.11	0-5	5

[LTE FDD Band 66_Upper Conducted Power_ *Pmax*, RCV (RSI 1)Main 3]

LTE FDD Band 66_Upper 1.4 ㎒ Bandwidth Conducted Power

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	22.91	23.01	23.20	0	0
		1	3	22.85	22.83	23.04	0	0
		1	5	22.89	22.93	23.09	0	0
		3	0	22.95	22.92	23.14	0	0
		3	1	22.92	22.88	23.03	0	0
		3	3	22.82	22.82	23.04	0	0
		6	0	21.86	21.91	22.08	0-1	1
	16QAM	1	0	22.10	22.13	22.26	0-1	1
		1	3	21.94	21.87	22.20	0-1	1
		1	5	21.91	22.02	22.23	0-1	1
		3	0	22.07	22.04	22.19	0-1	1
		3	1	22.06	21.99	22.09	0-1	1
		3	3	21.96	21.98	22.06	0-1	1
		6	0	21.02	20.90	21.16	0-2	2
	64QAM	1	0	21.11	21.11	21.36	0-2	2
		1	3	21.02	20.98	21.17	0-2	2
		1	5	21.10	21.13	21.25	0-2	2
		3	0	20.99	21.07	21.25	0-2	2
		3	1	21.01	21.00	21.21	0-2	2
		3	3	20.96	20.94	21.12	0-2	2
		6	0	19.97	19.95	20.17	0-3	3
	256QAM	1	0	18.01	18.11	18.30	0-5	5
		1	3	17.98	18.05	18.11	0-5	5
		1	5	18.20	18.00	18.38	0-5	5
		3	0	17.95	17.95	18.16	0-5	5
		3	1	18.00	17.89	18.20	0-5	5
		3	3	18.01	17.92	18.18	0-5	5
		6	0	18.00	17.93	18.21	0-5	5

LTE FDD Band 66_Upper 3 ㎒ Bandwidth Conducted Power

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	22.97	22.91	23.13	0	0
		1	7	22.90	22.88	23.03	0	0
		1	14	22.84	22.83	22.99	0	0
		8	0	22.00	21.99	22.15	0-1	1
		8	3	21.97	21.92	22.14	0-1	1
		8	7	21.98	21.97	22.13	0-1	1
		15	0	21.97	21.96	22.17	0-1	1
	16QAM	1	0	22.07	22.19	22.20	0-1	1
		1	7	22.24	22.16	22.27	0-1	1
		1	14	22.18	22.21	22.20	0-1	1
		8	0	21.00	21.06	21.25	0-2	2
		8	3	20.98	21.03	21.19	0-2	2
		8	7	21.05	20.99	21.25	0-2	2
		15	0	20.99	21.08	21.23	0-2	2
	64QAM	1	0	21.12	21.10	21.32	0-2	2
		1	7	21.13	21.06	21.37	0-2	2
		1	14	21.09	21.07	21.35	0-2	2
		8	0	19.97	20.06	20.26	0-3	3
		8	3	19.98	20.02	20.25	0-3	3
		8	7	20.03	19.99	20.26	0-3	3
		15	0	19.98	20.00	20.26	0-3	3
	256QAM	1	0	18.08	18.09	18.36	0-5	5
		1	7	18.06	18.13	18.28	0-5	5
		1	14	18.08	18.13	18.33	0-5	5
		8	0	18.05	18.10	18.28	0-5	5
		8	3	17.96	17.98	18.22	0-5	5
		8	7	18.03	18.05	18.29	0-5	5
		15	0	18.00	17.97	18.18	0-5	5

LTE FDD Band 66_Upper 5 ㎒ Bandwidth Conducted Power

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	22.92	22.92	23.10	0	0
		1	12	22.91	22.83	23.06	0	0
		1	24	22.92	22.87	23.08	0	0
		12	0	21.96	21.95	22.14	0-1	1
		12	6	21.98	21.93	22.11	0-1	1
		12	11	21.96	21.92	22.12	0-1	1
		25	0	21.96	21.93	22.12	0-1	1
	16QAM	1	0	22.26	22.23	22.29	0-1	1
		1	12	22.19	22.28	22.42	0-1	1
		1	24	22.14	22.11	22.27	0-1	1
		12	0	21.01	20.99	21.20	0-2	2
		12	6	20.98	20.96	21.21	0-2	2
		12	11	20.95	20.99	21.23	0-2	2
		25	0	20.97	20.98	21.16	0-2	2
	64QAM	1	0	21.10	21.18	21.33	0-2	2
		1	12	21.14	21.19	21.23	0-2	2
		1	24	21.07	21.10	21.34	0-2	2
		12	0	20.02	19.98	20.20	0-3	3
		12	6	19.96	19.97	20.19	0-3	3
		12	11	19.98	19.98	20.18	0-3	3
		25	0	19.96	20.00	20.19	0-3	3
	256QAM	1	0	18.04	18.16	18.39	0-5	5
		1	12	18.05	18.12	18.45	0-5	5
		1	24	18.15	18.22	18.37	0-5	5
		12	0	17.99	18.05	18.24	0-5	5
		12	6	17.96	17.95	18.25	0-5	5
		12	11	17.93	17.94	18.17	0-5	5
		25	0	18.01	17.99	18.21	0-5	5

LTE FDD Band 66_Upper 10 ㎒ Bandwidth Conducted Power

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	23.05	23.00	23.15	0	0
		1	24	22.98	22.95	23.09	0	0
		1	49	22.87	22.84	23.00	0	0
		25	0	21.97	21.95	22.10	0-1	1
		25	12	22.00	21.93	22.09	0-1	1
		25	24	21.95	21.95	22.11	0-1	1
		50	0	22.03	21.95	22.15	0-1	1
	16QAM	1	0	22.12	22.16	22.33	0-1	1
		1	24	22.28	22.29	22.54	0-1	1
		1	49	22.04	22.02	22.27	0-1	1
		25	0	20.99	20.97	21.13	0-2	2
		25	12	21.03	20.98	21.13	0-2	2
		25	24	21.02	20.94	21.13	0-2	2
		50	0	21.00	20.99	21.18	0-2	2
	64QAM	1	0	21.27	21.20	21.31	0-2	2
		1	24	21.17	21.19	21.50	0-2	2
		1	49	21.11	21.14	21.33	0-2	2
		25	0	20.02	19.95	20.14	0-3	3
		25	12	20.02	20.02	20.14	0-3	3
		25	24	19.96	19.97	20.18	0-3	3
		50	0	20.00	19.99	20.19	0-3	3
	256QAM	1	0	18.19	18.23	18.35	0-5	5
		1	24	18.30	18.19	18.55	0-5	5
		1	49	18.15	18.10	18.24	0-5	5
		25	0	18.07	18.02	18.19	0-5	5
		25	12	18.02	17.99	18.21	0-5	5
		25	24	18.03	17.99	18.19	0-5	5
		50	0	18.02	17.96	18.17	0-5	5

LTE FDD Band 66_Upper 15 ㎒ Bandwidth Conducted Power

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	23.01	22.95	23.06	0	0
		1	36	22.92	22.86	22.95	0	0
		1	74	22.92	22.83	22.98	0	0
		36	0	22.00	21.98	22.10	0-1	1
		36	18	22.01	21.96	22.07	0-1	1
		36	39	21.96	21.94	22.05	0-1	1
		75	0	21.97	21.95	22.06	0-1	1
	16QAM	1	0	22.06	22.34	22.41	0-1	1
		1	36	22.22	22.27	22.25	0-1	1
		1	74	22.09	22.13	22.25	0-1	1
		36	0	21.08	21.00	21.13	0-2	2
		36	18	21.00	20.99	21.09	0-2	2
		36	39	20.98	20.97	21.10	0-2	2
		75	0	20.95	20.98	21.07	0-2	2
	64QAM	1	0	21.30	21.27	21.40	0-2	2
		1	36	21.32	21.22	21.21	0-2	2
		1	74	21.12	21.11	21.23	0-2	2
		36	0	20.06	20.04	20.16	0-3	3
		36	18	20.03	20.01	20.13	0-3	3
		36	39	20.01	20.00	20.07	0-3	3
		75	0	19.99	20.02	20.06	0-3	3
	256QAM	1	0	18.27	18.25	18.26	0-5	5
		1	36	18.25	18.22	18.28	0-5	5
		1	74	18.08	18.03	18.26	0-5	5
		36	0	18.12	18.07	18.14	0-5	5
		36	18	18.06	18.03	18.17	0-5	5
		36	39	18.02	17.99	18.15	0-5	5
		75	0	18.05	18.00	18.15	0-5	5

LTE FDD Band 66_Upper 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132072 Ch. 1720 ㎒	132322 Ch. 1745 ㎒	132572 Ch. 1770 ㎒		
20 ㎒	QPSK	1	0	23.09	23.03	**23.10**	0	0
		1	49	23.01	22.89	22.96	0	0
		1	99	22.93	22.80	22.90	0	0
		50	0	**22.12**	21.99	22.07	0-1	1
		50	25	22.07	21.93	22.07	0-1	1
		50	49	22.01	21.93	22.01	0-1	1
		100	0	22.07	21.95	22.06	0-1	1
	16QAM	1	0	22.33	22.28	22.28	0-1	1
		1	49	22.44	22.52	22.50	0-1	1
		1	99	22.22	21.95	22.14	0-1	1
		50	0	21.12	20.99	21.08	0-2	2
		50	25	21.03	20.94	21.03	0-2	2
		50	49	21.05	20.94	21.03	0-2	2
		100	0	21.05	20.95	21.03	0-2	2
	64QAM	1	0	21.15	21.21	21.22	0-2	2
		1	49	21.33	21.22	21.17	0-2	2
		1	99	21.09	21.05	21.20	0-2	2
		50	0	20.09	20.04	20.10	0-3	3
		50	25	20.08	19.98	20.05	0-3	3
		50	49	20.06	19.96	20.04	0-3	3
		100	0	20.05	19.94	20.04	0-3	3
	256QAM	1	0	18.18	18.27	18.26	0-5	5
		1	49	18.34	18.35	18.37	0-5	5
		1	99	18.14	17.98	18.16	0-5	5
		50	0	18.13	18.01	18.14	0-5	5
		50	25	18.07	17.99	18.07	0-5	5
		50	49	18.06	17.97	18.05	0-5	5
		100	0	18.09	18.02	18.10	0-5	5

11.3.2 LTE Reduced Conducted Power

[LTE FDD Band 2 Conducted Power_ Free (RSI 0), Hotspot (RSI 2)_Main 2]

LTE FDD Band 2 _ 1.4 ㎒ Bandwidth Conducted Power

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	19.02	19.33	19.52	0	0
		1	3	18.94	19.29	19.43	0	0
		1	5	19.08	19.37	19.56	0	0
		3	0	19.09	19.33	19.54	0	0
		3	1	19.15	19.40	19.59	0	0
		3	3	19.04	19.32	19.50	0	0
		6	0	19.15	19.40	19.56	0-1	0
	16QAM	1	0	19.32	19.51	19.70	0-1	0
		1	3	19.29	19.49	19.64	0-1	0
		1	5	19.37	19.46	19.69	0-1	0
		3	0	19.16	19.46	19.64	0-1	0
		3	1	19.21	19.48	19.67	0-1	0
		3	3	19.19	19.43	19.57	0-1	0
		6	0	19.15	19.41	19.58	0-2	0
	64QAM	1	0	19.21	19.51	19.69	0-2	0
		1	3	19.11	19.50	19.63	0-2	0
		1	5	19.20	19.45	19.65	0-2	0
		3	0	19.15	19.43	19.54	0-2	0
		3	1	19.13	19.42	19.59	0-2	0
		3	3	19.15	19.36	19.47	0-2	0
		6	0	19.06	19.39	19.48	0-3	0
	256QAM	1	0	17.77	18.01	18.14	0-5	2
		1	3	17.65	17.88	18.17	0-5	2
		1	5	17.74	18.03	18.16	0-5	2
		3	0	17.67	17.99	18.14	0-5	2
		3	1	17.63	18.02	18.05	0-5	2
		3	3	17.71	17.92	18.03	0-5	2
		6	0	17.66	17.98	18.01	0-5	2

LTE FDD Band 2 _ 3 ㎒ Bandwidth Conducted Power

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	19.10	19.42	19.55	0	0
		1	7	19.23	19.55	19.67	0	0
		1	14	19.06	19.40	19.51	0	0
		8	0	19.19	19.46	19.57	0-1	0
		8	3	19.18	19.47	19.60	0-1	0
		8	7	19.21	19.49	19.61	0-1	0
		15	0	19.21	19.48	19.57	0-1	0
	16QAM	1	0	19.38	19.53	19.66	0-1	0
		1	7	19.33	19.54	19.63	0-1	0
		1	14	19.35	19.62	19.83	0-1	0
		8	0	19.15	19.49	19.58	0-2	0
		8	3	19.18	19.41	19.57	0-2	0
		8	7	19.27	19.54	19.60	0-2	0
		15	0	19.19	19.45	19.57	0-2	0
	64QAM	1	0	19.33	19.56	19.61	0-2	0
		1	7	19.48	19.65	19.63	0-2	0
		1	14	19.30	19.53	19.61	0-2	0
		8	0	19.15	19.42	19.50	0-3	0
		8	3	19.21	19.43	19.56	0-3	0
		8	7	19.21	19.48	19.58	0-3	0
		15	0	19.20	19.44	19.52	0-3	0
	256QAM	1	0	17.92	17.93	18.16	0-5	2
		1	7	17.90	18.13	18.31	0-5	2
		1	14	17.82	18.17	18.19	0-5	2
		8	0	17.76	18.03	18.15	0-5	2
		8	3	17.73	17.97	18.15	0-5	2
		8	7	17.78	18.07	18.16	0-5	2
		15	0	17.75	17.96	18.10	0-5	2

LTE FDD Band 2 _ 5 ㎒ Bandwidth Conducted Power

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	19.13	19.35	19.45	0	0
		1	12	19.27	19.52	19.62	0	0
		1	24	19.20	19.42	19.54	0	0
		12	0	19.23	19.43	19.56	0-1	0
		12	6	19.25	19.45	19.55	0-1	0
		12	11	19.28	19.47	19.58	0-1	0
		25	0	19.29	19.49	19.67	0-1	0
	16QAM	1	0	19.32	19.52	19.61	0-1	0
		1	12	19.38	19.50	19.53	0-1	0
		1	24	19.32	19.63	19.70	0-1	0
		12	0	19.23	19.48	19.48	0-2	0
		12	6	19.25	19.46	19.52	0-2	0
		12	11	19.23	19.46	19.53	0-2	0
		25	0	19.28	19.48	19.59	0-2	0
	64QAM	1	0	19.37	19.52	19.53	0-2	0
		1	12	19.51	19.78	19.60	0-2	0
		1	24	19.31	19.57	19.64	0-2	0
		12	0	19.23	19.44	19.46	0-3	0
		12	6	19.24	19.46	19.53	0-3	0
		12	11	19.20	19.44	19.52	0-3	0
		25	0	19.25	19.45	19.57	0-3	0
	256QAM	1	0	17.90	18.07	18.16	0-5	2
		1	12	17.86	18.06	18.25	0-5	2
		1	24	17.90	18.16	18.22	0-5	2
		12	0	17.74	17.94	18.01	0-5	2
		12	6	17.75	17.90	18.05	0-5	2
		12	11	17.75	17.94	18.01	0-5	2
		25	0	17.76	17.96	18.07	0-5	2

LTE FDD Band 2 _ 10 ㎒ Bandwidth Conducted Power

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	19.30	19.40	19.48	0	0
		1	24	19.41	19.58	19.58	0	0
		1	49	19.20	19.41	19.44	0	0
		25	0	19.34	19.50	19.57	0-1	0
		25	12	19.36	19.50	19.60	0-1	0
		25	24	19.34	19.54	19.59	0-1	0
		50	0	19.40	19.55	19.65	0-1	0
	16QAM	1	0	19.49	19.46	19.58	0-1	0
		1	24	19.25	19.55	19.67	0-1	0
		1	49	19.38	19.56	19.67	0-1	0
		25	0	19.34	19.50	19.54	0-2	0
		25	12	19.33	19.52	19.54	0-2	0
		25	24	19.33	19.53	19.54	0-2	0
		50	0	19.38	19.51	19.51	0-2	0
	64QAM	1	0	19.43	19.52	19.58	0-2	0
		1	24	19.47	19.70	19.53	0-2	0
		1	49	19.17	19.59	19.50	0-2	0
		25	0	19.30	19.45	19.47	0-3	0
		25	12	19.32	19.46	19.48	0-3	0
		25	24	19.31	19.45	19.48	0-3	0
		50	0	19.37	19.52	19.54	0-3	0
	256QAM	1	0	17.94	18.09	18.17	0-5	2
		1	24	18.02	18.06	18.08	0-5	2
		1	49	17.96	18.08	18.13	0-5	2
		25	0	17.88	17.95	18.03	0-5	2
		25	12	17.86	18.01	18.04	0-5	2
		25	24	17.85	18.01	18.03	0-5	2
		50	0	17.82	17.99	18.05	0-5	2

LTE FDD Band 2 _ 15 ㎒ Bandwidth Conducted Power

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	19.22	19.35	19.47	0	0
		1	36	19.32	19.55	19.57	0	0
		1	74	19.25	19.45	19.50	0	0
		36	0	19.35	19.48	19.53	0-1	0
		36	18	19.35	19.50	19.57	0-1	0
		36	39	19.36	19.50	19.58	0-1	0
		75	0	19.38	19.52	19.60	0-1	0
	16QAM	1	0	19.50	19.48	19.68	0-1	0
		1	36	19.51	19.51	19.47	0-1	0
		1	74	19.43	19.65	19.65	0-1	0
		36	0	19.35	19.46	19.55	0-2	0
		36	18	19.29	19.47	19.52	0-2	0
		36	39	19.30	19.53	19.54	0-2	0
		75	0	19.32	19.47	19.49	0-2	0
	64QAM	1	0	19.42	19.46	19.67	0-2	0
		1	36	19.49	19.65	19.69	0-2	0
		1	74	19.38	19.67	19.75	0-2	0
		36	0	19.35	19.46	19.49	0-3	0
		36	18	19.35	19.51	19.52	0-3	0
		36	39	19.28	19.46	19.51	0-3	0
		75	0	19.28	19.44	19.53	0-3	0
	256QAM	1	0	17.93	18.01	18.26	0-5	2
		1	36	18.03	18.08	18.25	0-5	2
		1	74	17.87	18.24	18.15	0-5	2
		36	0	17.88	18.01	18.09	0-5	2
		36	18	17.83	17.99	18.05	0-5	2
		36	39	17.88	18.01	18.04	0-5	2
		75	0	17.83	17.98	18.03	0-5	2

LTE FDD Band 2 _ 20 ㎒ Bandwidth Conducted Power

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	19.27	19.37	19.63	0	0
		1	49	19.38	19.58	**19.79**	0	0
		1	99	19.20	19.43	19.63	0	0
		50	0	19.42	19.53	19.73	0-1	0
		50	25	19.46	19.52	19.78	0-1	0
		50	49	19.47	19.52	**19.82**	0-1	0
		100	0	19.42	19.47	19.74	0-1	0
	16QAM	1	0	19.47	19.48	19.89	0-1	0
		1	49	19.43	19.49	19.67	0-1	0
		1	99	19.41	19.66	19.87	0-1	0
		50	0	19.38	19.54	19.73	0-2	0
		50	25	19.39	19.53	19.75	0-2	0
		50	49	19.42	19.55	19.75	0-2	0
		100	0	19.31	19.47	19.68	0-2	0
	64QAM	1	0	19.46	19.56	19.82	0-2	0
		1	49	19.46	19.60	19.78	0-2	0
		1	99	19.33	19.65	19.75	0-2	0
		50	0	19.40	19.53	19.72	0-3	0
		50	25	19.36	19.53	19.78	0-3	0
		50	49	19.40	19.52	19.73	0-3	0
		100	0	19.30	19.47	19.67	0-3	0
	256QAM	1	0	17.99	18.02	18.30	0-5	2
		1	49	17.84	18.02	18.20	0-5	2
		1	99	17.90	18.19	18.29	0-5	2
		50	0	17.86	17.98	18.20	0-5	2
		50	25	17.87	17.99	18.23	0-5	2
		50	49	17.86	17.96	18.22	0-5	2
		100	0	17.83	17.99	18.19	0-5	2

[LTE FDD Band 2_Upper Conducted Power Free (RSI 0), Hotspot (RSI 2)_Main 3]

LTE FDD Band 2 _Upper _ 1.4 ㎒ Bandwidth Conducted Power

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	19.53	19.43	19.68	0	0
		1	3	19.46	19.33	19.57	0	0
		1	5	19.59	19.41	19.71	0	0
		3	0	19.61	19.41	19.75	0	0
		3	1	19.57	19.41	19.68	0	0
		3	3	19.53	19.35	19.71	0	0
		6	0	19.59	19.41	19.72	0-1	0
	16QAM	1	0	19.72	19.57	19.93	0-1	0
		1	3	19.53	19.53	19.76	0-1	0
		1	5	19.74	19.50	19.85	0-1	0
		3	0	19.67	19.44	19.78	0-1	0
		3	1	19.73	19.50	19.73	0-1	0
		3	3	19.61	19.45	19.68	0-1	0
		6	0	19.60	19.50	19.75	0-2	0
	64QAM	1	0	19.84	19.66	19.76	0-2	0
		1	3	19.72	19.56	19.76	0-2	0
		1	5	19.79	19.65	19.86	0-2	0
		3	0	19.62	19.57	19.75	0-2	0
		3	1	19.57	19.50	19.72	0-2	0
		3	3	19.52	19.43	19.66	0-2	0
		6	0	19.58	19.42	19.69	0-3	0
	256QAM	1	0	18.20	17.98	18.32	0-5	2
		1	3	18.15	18.02	18.19	0-5	2
		1	5	18.23	18.06	18.29	0-5	2
		3	0	18.05	17.94	18.15	0-5	2
		3	1	18.13	17.90	18.12	0-5	2
		3	3	18.11	17.88	18.21	0-5	2
		6	0	18.10	17.88	18.19	0-5	2

LTE FDD Band 2 _Upper _ 3 ㎒ Bandwidth Conducted Power

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	19.64	19.42	19.74	0	0
		1	7	19.55	19.37	19.64	0	0
		1	14	19.56	19.33	19.65	0	0
		8	0	19.61	19.52	19.72	0-1	0
		8	3	19.61	19.50	19.83	0-1	0
		8	7	19.64	19.47	19.78	0-1	0
		15	0	19.66	19.48	19.83	0-1	0
	16QAM	1	0	19.74	19.56	19.89	0-1	0
		1	7	19.79	19.71	20.00	0-1	0
		1	14	19.79	19.69	19.79	0-1	0
		8	0	19.66	19.51	19.74	0-2	0
		8	3	19.65	19.50	19.83	0-2	0
		8	7	19.66	19.58	19.88	0-2	0
		15	0	19.62	19.46	19.74	0-2	0
	64QAM	1	0	19.71	19.51	19.88	0-2	0
		1	7	19.80	19.55	19.79	0-2	0
		1	14	19.72	19.57	19.88	0-2	0
		8	0	19.65	19.51	19.73	0-3	0
		8	3	19.62	19.37	19.74	0-3	0
		8	7	19.67	19.46	19.73	0-3	0
		15	0	19.63	19.44	19.71	0-3	0
	256QAM	1	0	18.28	18.09	18.43	0-5	2
		1	7	18.29	18.12	18.40	0-5	2
		1	14	18.29	18.09	18.36	0-5	2
		8	0	18.18	18.01	18.35	0-5	2
		8	3	18.13	18.01	18.31	0-5	2
		8	7	18.24	18.07	18.35	0-5	2
		15	0	18.18	18.01	18.30	0-5	2

LTE FDD Band 2 _ Upper _ 5 ㎒ Bandwidth Conducted Power

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	19.60	19.37	19.63	0	0
		1	12	19.59	19.44	19.60	0	0
		1	24	19.60	19.45	19.70	0	0
		12	0	19.62	19.46	19.69	0-1	0
		12	6	19.58	19.45	19.73	0-1	0
		12	11	19.61	19.46	19.72	0-1	0
		25	0	19.60	19.43	19.77	0-1	0
	16QAM	1	0	19.75	19.70	19.93	0-1	0
		1	12	19.66	19.70	19.81	0-1	0
		1	24	19.74	19.61	19.88	0-1	0
		12	0	19.62	19.45	19.74	0-2	0
		12	6	19.59	19.49	19.71	0-2	0
		12	11	19.62	19.49	19.75	0-2	0
		25	0	19.60	19.47	19.79	0-2	0
	64QAM	1	0	19.83	19.51	19.80	0-2	0
		1	12	19.72	19.52	19.78	0-2	0
		1	24	19.76	19.60	19.92	0-2	0
		12	0	19.64	19.50	19.74	0-3	0
		12	6	19.64	19.48	19.71	0-3	0
		12	11	19.61	19.45	19.72	0-3	0
		25	0	19.58	19.44	19.75	0-3	0
	256QAM	1	0	18.31	18.14	18.42	0-5	2
		1	12	18.15	18.06	18.36	0-5	2
		1	24	18.24	18.19	18.33	0-5	2
		12	0	18.10	17.97	18.25	0-5	2
		12	6	18.16	17.95	18.26	0-5	2
		12	11	18.08	18.00	18.22	0-5	2
		25	0	18.14	17.97	18.26	0-5	2

LTE FDD Band 2 _Upper _ 10 ㎒ Bandwidth Conducted Power

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	19.59	19.49	19.66	0	0
		1	24	19.53	19.35	19.56	0	0
		1	49	19.50	19.42	19.56	0	0
		25	0	19.55	19.46	19.64	0-1	0
		25	12	19.56	19.45	19.70	0-1	0
		25	24	19.60	19.47	19.69	0-1	0
		50	0	19.59	19.48	19.70	0-1	0
	16QAM	1	0	19.74	19.62	19.87	0-1	0
		1	24	19.97	19.81	20.03	0-1	0
		1	49	19.72	19.64	19.83	0-1	0
		25	0	19.59	19.54	19.70	0-2	0
		25	12	19.56	19.48	19.71	0-2	0
		25	24	19.55	19.49	19.68	0-2	0
		50	0	19.55	19.49	19.70	0-2	0
	64QAM	1	0	19.73	19.60	19.86	0-2	0
		1	24	19.94	19.64	20.07	0-2	0
		1	49	19.67	19.61	19.77	0-2	0
		25	0	19.50	19.48	19.65	0-3	0
		25	12	19.59	19.50	19.68	0-3	0
		25	24	19.53	19.46	19.65	0-3	0
		50	0	19.59	19.49	19.71	0-3	0
	256QAM	1	0	18.30	18.16	18.37	0-5	2
		1	24	18.44	18.29	18.55	0-5	2
		1	49	18.13	18.13	18.36	0-5	2
		25	0	18.11	18.00	18.16	0-5	2
		25	12	18.11	17.98	18.23	0-5	2
		25	24	18.10	18.01	18.17	0-5	2
		50	0	18.06	18.01	18.20	0-5	2

LTE FDD Band 2_Upper _ 15 ㎒ Bandwidth Conducted Power

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	19.47	19.46	19.54	0	0
		1	36	19.49	19.45	19.53	0	0
		1	74	19.48	19.48	19.56	0	0
		36	0	19.52	19.51	19.61	0-1	0
		36	18	19.53	19.50	19.61	0-1	0
		36	39	19.51	19.49	19.61	0-1	0
		75	0	19.51	19.49	19.60	0-1	0
	16QAM	1	0	19.66	19.68	19.91	0-1	0
		1	36	19.78	19.62	19.83	0-1	0
		1	74	19.64	19.67	19.80	0-1	0
		36	0	19.56	19.54	19.62	0-2	0
		36	18	19.49	19.51	19.62	0-2	0
		36	39	19.49	19.49	19.64	0-2	0
		75	0	19.45	19.47	19.60	0-2	0
	64QAM	1	0	19.68	19.73	19.79	0-2	0
		1	36	19.74	19.70	19.73	0-2	0
		1	74	19.64	19.69	19.74	0-2	0
		36	0	19.53	19.47	19.64	0-3	0
		36	18	19.55	19.52	19.63	0-3	0
		36	39	19.50	19.47	19.61	0-3	0
		75	0	19.50	19.47	19.57	0-3	0
	256QAM	1	0	18.11	18.21	18.26	0-5	2
		1	36	18.04	18.08	18.23	0-5	2
		1	74	18.11	18.12	18.29	0-5	2
		36	0	18.03	18.03	18.15	0-5	2
		36	18	18.07	18.02	18.18	0-5	2
		36	39	18.00	18.05	18.17	0-5	2
		75	0	18.05	17.98	18.15	0-5	2

LTE FDD Band 2 _Upper _ 20 ㎒ Bandwidth Conducted Power

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	19.49	19.50	**19.72**	0	0
		1	49	19.38	19.40	19.65	0	0
		1	99	19.35	19.41	19.63	0	0
		50	0	19.51	19.56	19.72	0-1	0
		50	25	19.52	19.49	19.73	0-1	0
		50	49	19.49	19.48	**19.76**	0-1	0
		100	0	19.48	19.51	19.72	0-1	0
	16QAM	1	0	19.72	19.70	19.93	0-1	0
		1	49	19.78	19.82	20.04	0-1	0
		1	99	19.67	19.77	19.88	0-1	0
		50	0	19.49	19.52	19.75	0-2	0
		50	25	19.51	19.51	19.73	0-2	0
		50	49	19.43	19.50	19.73	0-2	0
		100	0	19.44	19.50	19.70	0-2	0
	64QAM	1	0	19.55	19.75	19.87	0-2	0
		1	49	19.85	19.94	20.12	0-2	0
		1	99	19.60	19.62	19.90	0-2	0
		50	0	19.52	19.50	19.74	0-3	0
		50	25	19.50	19.51	19.74	0-3	0
		50	49	19.48	19.53	19.74	0-3	0
		100	0	19.45	19.46	19.71	0-3	0
	256QAM	1	0	18.19	18.13	18.43	0-5	2
		1	49	18.39	18.32	18.52	0-5	2
		1	99	18.06	18.12	18.27	0-5	2
		50	0	18.01	18.04	18.32	0-5	2
		50	25	17.93	18.02	18.30	0-5	2
		50	49	17.98	18.00	18.28	0-5	2
		100	0	17.97	18.01	18.25	0-5	2

[LTE FDD Band 4 Conducted Powe_Free (RSI 0), Hotspot (RSI 2)_Main 2]

LTE FDD Band 4 _ 1.4 ㎒ Bandwidth Conducted Power

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	19.32	19.46	19.58	0	0
		1	3	19.22	19.43	19.50	0	0
		1	5	19.36	19.53	19.60	0	0
		3	0	19.31	19.54	19.58	0-1	0
		3	1	19.38	19.52	19.64	0-1	0
		3	3	19.32	19.47	19.57	0-1	0
		6	0	19.40	19.57	19.63	0-1	0
	16QAM	1	0	19.55	19.49	19.84	0-1	0
		1	3	19.50	19.75	19.74	0-1	0
		1	5	19.50	19.80	19.75	0-1	0
		3	0	19.53	19.68	19.75	0-2	0
		3	1	19.45	19.55	19.73	0-2	0
		3	3	19.40	19.57	19.62	0-2	0
		6	0	19.43	19.63	19.65	0-2	0
	64QAM	1	0	19.56	19.69	19.80	0-2	0
		1	3	19.41	19.66	19.71	0-2	0
		1	5	19.46	19.69	19.82	0-2	0
		3	0	19.53	19.75	19.75	0-3	0
		3	1	19.51	19.59	19.69	0-3	0
		3	3	19.15	19.38	19.71	0-3	0
		6	0	19.32	19.58	19.59	0-3	0
	256QAM	1	0	18.01	18.12	18.28	0-5	2
		1	3	17.84	18.15	18.19	0-5	2
		1	5	18.00	18.30	18.29	0-5	2
		3	0	17.99	18.17	18.16	0-5	2
		3	1	17.65	18.08	18.09	0-5	2
		3	3	17.65	18.04	18.09	0-5	2
		6	0	17.92	18.07	18.10	0-5	2

LTE FDD Band 4 _ 3 ㎒ Bandwidth Conducted Power

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	19.32	19.19	19.63	0	0
		1	7	19.38	19.28	19.75	0	0
		1	14	19.29	19.31	19.55	0	0
		8	0	19.39	19.24	19.64	0-1	0
		8	3	19.38	19.26	19.62	0-1	0
		8	7	19.45	19.29	19.64	0-1	0
		15	0	19.44	19.25	19.65	0-1	0
	16QAM	1	0	19.62	19.40	19.90	0-1	0
		1	7	19.55	19.40	19.65	0-1	0
		1	14	19.67	19.45	19.79	0-1	0
		8	0	19.45	19.24	19.69	0-2	0
		8	3	19.42	19.29	19.70	0-2	0
		8	7	19.46	19.31	19.69	0-2	0
		15	0	19.40	19.25	19.62	0-2	0
	64QAM	1	0	19.54	19.21	19.89	0-2	0
		1	7	19.63	19.34	19.94	0-2	0
		1	14	19.59	19.29	19.75	0-2	0
		8	0	19.38	19.16	19.56	0-3	0
		8	3	19.41	19.21	19.72	0-3	0
		8	7	19.39	19.26	19.64	0-3	0
		15	0	19.41	19.23	19.69	0-3	0
	256QAM	1	0	18.04	17.79	18.33	0-5	2
		1	7	18.00	18.00	18.39	0-5	2
		1	14	18.09	18.02	18.20	0-5	2
		8	0	17.90	17.75	18.19	0-5	2
		8	3	17.95	17.77	18.15	0-5	2
		8	7	17.92	17.81	18.19	0-5	2
		15	0	17.93	17.76	18.18	0-5	2

LTE FDD Band 4 _ 5 ㎒ Bandwidth Conducted Power

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	19.31	19.16	19.51	0	0
		1	12	19.40	19.29	19.71	0	0
		1	24	19.36	19.37	19.63	0	0
		12	0	19.37	19.22	19.59	0-1	0
		12	6	19.40	19.27	19.59	0-1	0
		12	11	19.40	19.32	19.62	0-1	0
		25	0	19.42	19.26	19.62	0-1	0
	16QAM	1	0	19.52	19.31	19.77	0-1	0
		1	12	19.55	19.52	19.85	0-1	0
		1	24	19.64	19.59	19.93	0-1	0
		12	0	19.41	19.19	19.68	0-2	0
		12	6	19.42	19.25	19.66	0-2	0
		12	11	19.39	19.31	19.64	0-2	0
		25	0	19.39	19.24	19.62	0-2	0
	64QAM	1	0	19.57	19.22	19.78	0-2	0
		1	12	19.64	19.32	19.88	0-2	0
		1	24	19.56	19.41	19.77	0-2	0
		12	0	19.41	19.21	19.60	0-3	0
		12	6	19.43	19.24	19.62	0-3	0
		12	11	19.43	19.28	19.60	0-3	0
		25	0	19.42	19.24	19.63	0-3	0
	256QAM	1	0	18.07	17.83	18.25	0-5	2
		1	12	18.04	17.96	18.30	0-5	2
		1	24	18.12	18.15	18.33	0-5	2
		12	0	17.89	17.68	18.11	0-5	2
		12	6	17.89	17.74	18.09	0-5	2
		12	11	17.82	17.81	18.04	0-5	2
		25	0	17.93	17.79	18.11	0-5	2

LTE FDD Band 4 _ 10 ㎒ Bandwidth Conducted Power

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	19.32	19.54	19.56	0	0
		1	24	19.49	19.72	19.67	0	0
		1	49	19.33	19.55	19.51	0	0
		25	0	19.41	19.63	19.60	0-1	0
		25	12	19.35	19.61	19.58	0-1	0
		25	24	19.42	19.62	19.61	0-1	0
		50	0	19.41	19.60	19.58	0-1	0
	16QAM	1	0	19.56	19.86	19.71	0-1	0
		1	24	19.61	19.63	19.71	0-1	0
		1	49	19.61	19.81	19.74	0-1	0
		25	0	19.39	19.69	19.62	0-2	0
		25	12	19.42	19.64	19.60	0-2	0
		25	24	19.41	19.63	19.58	0-2	0
		50	0	19.42	19.65	19.61	0-2	0
	64QAM	1	0	19.46	19.81	19.79	0-2	0
		1	24	19.59	19.94	19.88	0-2	0
		1	49	19.54	19.87	19.68	0-2	0
		25	0	19.39	19.64	19.59	0-3	0
		25	12	19.35	19.63	19.57	0-3	0
		25	24	19.39	19.63	19.57	0-3	0
		50	0	19.40	19.64	19.63	0-3	0
	256QAM	1	0	17.97	18.22	18.14	0-5	2
		1	24	18.00	18.32	18.32	0-5	2
		1	49	17.98	18.26	18.25	0-5	2
		25	0	17.91	18.12	18.12	0-5	2
		25	12	17.92	18.14	18.08	0-5	2
		25	24	17.93	18.16	18.07	0-5	2
		50	0	17.87	18.11	18.09	0-5	2

LTE FDD Band 4 _ 15 ㎒ Bandwidth Conducted Power

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	19.26	19.51	19.46	0	0
		1	36	19.37	19.68	19.58	0	0
		1	74	19.38	19.61	19.52	0	0
		36	0	19.42	19.63	19.54	0-1	0
		36	18	19.42	19.63	19.56	0-1	0
		36	39	19.39	19.63	19.56	0-1	0
		75	0	19.42	19.62	19.59	0-1	0
	16QAM	1	0	19.52	19.80	19.81	0-1	0
		1	36	19.55	19.78	19.83	0-1	0
		1	74	19.70	20.00	19.77	0-1	0
		36	0	19.42	19.64	19.58	0-2	0
		36	18	19.37	19.65	19.52	0-2	0
		36	39	19.42	19.63	19.57	0-2	0
		75	0	19.43	19.62	19.57	0-2	0
	64QAM	1	0	19.54	19.83	19.76	0-2	0
		1	36	19.63	19.82	19.84	0-2	0
		1	74	19.60	19.83	19.69	0-2	0
		36	0	19.43	19.64	19.59	0-3	0
		36	18	19.43	19.68	19.60	0-3	0
		36	39	19.45	19.69	19.55	0-3	0
		75	0	19.42	19.63	19.54	0-3	0
	256QAM	1	0	18.12	18.35	18.19	0-5	2
		1	36	18.13	18.32	18.30	0-5	2
		1	74	18.11	18.33	18.13	0-5	2
		36	0	17.92	18.18	18.06	0-5	2
		36	18	17.97	18.15	18.07	0-5	2
		36	39	17.97	18.16	18.07	0-5	2
		75	0	17.92	18.17	18.09	0-5	2

LTE FDD Band 4 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm] 20175 Ch. 1732.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
20 ㎒	QPSK	1	0	19.56	0	0
		1	49	19.76	0	0
		1	99	19.56	0	0
		50	0	19.63	0-1	0
		50	25	19.62	0-1	0
		50	49	19.60	0-1	0
		100	0	19.64	0-1	0
	16QAM	1	0	19.80	0-1	0
		1	49	19.69	0-1	0
		1	99	19.87	0-1	0
		50	0	19.63	0-2	0
		50	25	19.67	0-2	0
		50	49	19.66	0-2	0
		100	0	19.63	0-2	0
	64QAM	1	0	19.90	0-2	0
		1	49	19.88	0-2	0
		1	99	19.86	0-2	0
		50	0	19.67	0-3	0
		50	25	19.66	0-3	0
		50	49	19.65	0-3	0
		100	0	19.64	0-3	0
	256QAM	1	0	18.20	0-5	2
		1	49	18.04	0-5	2
		1	99	18.17	0-5	2
		50	0	18.12	0-5	2
		50	25	18.11	0-5	2
		50	49	18.14	0-5	2
		100	0	18.14	0-5	2

[LTE FDD Band 4_Upper Conducted Power_Free (RSI 0), Hotspot (RSI 2)_Main 3]

LTE FDD Band 4 _Upper _ 1.4 ㎒ Bandwidth Conducted Power

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	19.46	19.63	19.70	0	0
		1	3	19.37	19.52	19.60	0	0
		1	5	19.50	19.64	19.74	0	0
		3	0	19.56	19.66	19.77	0-1	0
		3	1	19.49	19.66	19.76	0-1	0
		3	3	19.43	19.58	19.69	0-1	0
		6	0	19.44	19.63	19.75	0-1	0
	16QAM	1	0	19.65	19.79	20.04	0-1	0
		1	3	19.58	19.80	19.91	0-1	0
		1	5	19.61	19.91	20.04	0-1	0
		3	0	19.66	19.73	19.83	0-2	0
		3	1	19.56	19.72	19.84	0-2	0
		3	3	19.49	19.58	19.73	0-2	0
		6	0	19.50	19.70	19.83	0-2	0
	64QAM	1	0	19.65	19.79	19.86	0-2	0
		1	3	19.54	19.63	19.69	0-2	0
		1	5	19.60	19.72	19.86	0-2	0
		3	0	19.55	19.72	19.81	0-3	0
		3	1	19.48	19.77	19.76	0-3	0
		3	3	19.48	19.68	19.85	0-3	0
		6	0	19.46	19.68	19.78	0-3	0
	256QAM	1	0	18.05	18.33	18.34	0-5	2
		1	3	18.06	18.23	18.30	0-5	2
		1	5	18.02	18.32	18.41	0-5	2
		3	0	18.06	18.13	18.25	0-5	2
		3	1	17.96	18.29	18.31	0-5	2
		3	3	17.97	18.09	18.26	0-5	2
		6	0	17.92	18.16	18.31	0-5	2

LTE FDD Band 4 _Upper _ 3 ㎒ Bandwidth Conducted Power

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	19.51	19.66	19.75	0	0
		1	7	19.42	19.62	19.69	0	0
		1	14	19.41	19.64	19.67	0	0
		8	0	19.54	19.61	19.81	0-1	0
		8	3	19.51	19.68	19.77	0-1	0
		8	7	19.54	19.67	19.76	0-1	0
		15	0	19.51	19.72	19.77	0-1	0
	16QAM	1	0	19.68	19.86	19.97	0-1	0
		1	7	19.74	19.93	19.98	0-1	0
		1	14	19.71	19.85	19.94	0-1	0
		8	0	19.53	19.75	19.83	0-2	0
		8	3	19.54	19.68	19.76	0-2	0
		8	7	19.55	19.77	19.86	0-2	0
		15	0	19.55	19.70	19.81	0-2	0
	64QAM	1	0	19.63	19.80	20.00	0-2	0
		1	7	19.68	19.80	20.05	0-2	0
		1	14	19.64	19.82	19.92	0-2	0
		8	0	19.54	19.69	19.77	0-3	0
		8	3	19.45	19.63	19.76	0-3	0
		8	7	19.52	19.69	19.85	0-3	0
		15	0	19.53	19.66	19.77	0-3	0
	256QAM	1	0	18.07	18.23	18.36	0-5	2
		1	7	18.11	18.19	18.43	0-5	2
		1	14	18.07	18.18	18.37	0-5	2
		8	0	18.01	18.26	18.30	0-5	2
		8	3	18.01	18.20	18.29	0-5	2
		8	7	18.08	18.26	18.36	0-5	2
		15	0	17.99	18.18	18.25	0-5	2

LTE FDD Band 4 _Upper _ 5 ㎒ Bandwidth Conducted Power

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	19.45	19.66	19.67	0	0
		1	12	19.46	19.62	19.72	0	0
		1	24	19.50	19.61	19.71	0	0
		12	0	19.50	19.71	19.75	0-1	0
		12	6	19.47	19.65	19.69	0-1	0
		12	11	19.45	19.68	19.75	0-1	0
		25	0	19.51	19.67	19.74	0-1	0
	16QAM	1	0	19.71	19.83	19.95	0-1	0
		1	12	19.78	19.94	20.02	0-1	0
		1	24	19.72	19.88	20.00	0-1	0
		12	0	19.53	19.73	19.76	0-2	0
		12	6	19.53	19.77	19.74	0-2	0
		12	11	19.47	19.67	19.77	0-2	0
		25	0	19.49	19.69	19.73	0-2	0
	64QAM	1	0	19.61	19.75	19.85	0-2	0
		1	12	19.67	19.95	19.96	0-2	0
		1	24	19.64	19.81	19.87	0-2	0
		12	0	19.56	19.70	19.78	0-3	0
		12	6	19.55	19.72	19.73	0-3	0
		12	11	19.49	19.68	19.77	0-3	0
		25	0	19.48	19.66	19.77	0-3	0
	256QAM	1	0	18.13	18.29	18.35	0-5	2
		1	12	18.14	18.21	18.27	0-5	2
		1	24	18.10	18.29	18.38	0-5	2
		12	0	18.01	18.21	18.22	0-5	2
		12	6	17.98	18.17	18.25	0-5	2
		12	11	17.96	18.14	18.19	0-5	2
		25	0	18.00	18.18	18.23	0-5	2

LTE FDD Band 4 _Upper _ 10 ㎒ Bandwidth Conducted Power

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	19.57	19.73	19.72	0	0
		1	24	19.53	19.61	19.67	0	0
		1	49	19.46	19.60	19.59	0	0
		25	0	19.58	19.69	19.70	0-1	0
		25	12	19.56	19.65	19.65	0-1	0
		25	24	19.48	19.62	19.63	0-1	0
		50	0	19.54	19.65	19.64	0-1	0
	16QAM	1	0	19.77	19.87	20.00	0-1	0
		1	24	19.87	20.05	20.18	0-1	0
		1	49	19.76	19.80	19.76	0-1	0
		25	0	19.57	19.69	19.68	0-2	0
		25	12	19.56	19.72	19.69	0-2	0
		25	24	19.51	19.69	19.64	0-2	0
		50	0	19.53	19.68	19.69	0-2	0
	64QAM	1	0	19.63	19.78	19.82	0-2	0
		1	24	19.79	19.99	20.07	0-2	0
		1	49	19.64	19.79	19.75	0-2	0
		25	0	19.51	19.67	19.68	0-3	0
		25	12	19.50	19.67	19.65	0-3	0
		25	24	19.48	19.61	19.63	0-3	0
		50	0	19.52	19.66	19.70	0-3	0
	256QAM	1	0	18.24	18.41	18.48	0-5	2
		1	24	18.30	18.39	18.59	0-5	2
		1	49	18.16	18.23	18.26	0-5	2
		25	0	18.06	18.22	18.19	0-5	2
		25	12	18.02	18.20	18.16	0-5	2
		25	24	18.03	18.20	18.16	0-5	2
		50	0	18.06	18.18	18.14	0-5	2

LTE FDD Band 4 _Upper _ 15 ㎒ Bandwidth Conducted Power

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	19.57	19.65	19.55	0	0
		1	36	19.52	19.60	19.54	0	0
		1	74	19.47	19.58	19.53	0	0
		36	0	19.56	19.74	19.61	0-1	0
		36	18	19.56	19.70	19.56	0-1	0
		36	39	19.52	19.63	19.55	0-1	0
		75	0	19.54	19.64	19.58	0-1	0
	16QAM	1	0	19.78	19.98	19.96	0-1	0
		1	36	19.75	19.89	19.97	0-1	0
		1	74	19.67	19.80	19.76	0-1	0
		36	0	19.54	19.71	19.64	0-2	0
		36	18	19.51	19.67	19.57	0-2	0
		36	39	19.50	19.66	19.57	0-2	0
		75	0	19.53	19.67	19.56	0-2	0
	64QAM	1	0	19.81	19.93	19.93	0-2	0
		1	36	19.63	19.78	19.68	0-2	0
		1	74	19.63	19.80	19.71	0-2	0
		36	0	19.58	19.71	19.66	0-3	0
		36	18	19.57	19.70	19.59	0-3	0
		36	39	19.50	19.64	19.56	0-3	0
		75	0	19.50	19.68	19.57	0-3	0
	256QAM	1	0	18.30	18.44	18.39	0-5	2
		1	36	18.15	18.31	18.27	0-5	2
		1	74	18.23	18.27	18.23	0-5	2
		36	0	18.08	18.24	18.13	0-5	2
		36	18	18.05	18.21	18.14	0-5	2
		36	39	18.03	18.22	18.05	0-5	2
		75	0	18.04	18.18	18.12	0-5	2

LTE FDD Band 4 _Upper _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm] 20175 Ch. 1732.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
20 ㎒	QPSK	1	0	19.71	0	0
		1	49	19.63	0	0
		1	99	19.55	0	0
		50	0	19.70	0-1	0
		50	25	19.70	0-1	0
		50	49	19.64	0-1	0
		100	0	19.65	0-1	0
	16QAM	1	0	19.99	0-1	0
		1	49	20.05	0-1	0
		1	99	19.69	0-1	0
		50	0	19.69	0-2	0
		50	25	19.68	0-2	0
		50	49	19.60	0-2	0
		100	0	19.65	0-2	0
	64QAM	1	0	19.91	0-2	0
		1	49	20.16	0-2	0
		1	99	19.75	0-2	0
		50	0	19.69	0-3	0
		50	25	19.65	0-3	0
		50	49	19.65	0-3	0
		100	0	19.70	0-3	0
	256QAM	1	0	18.35	0-5	2
		1	49	18.48	0-5	2
		1	99	18.30	0-5	2
		50	0	18.24	0-5	2
		50	25	18.19	0-5	2
		50	49	18.14	0-5	2
		100	0	18.19	0-5	2

[LTE TDD Band 41 Power Class 3_Conducted Power_Free(RSI 0), Hotspot(RSI 2)_Main 2]

LTE TDD Band 41 _ 5 ㎒ Bandwidth Conducted Power - Power Class 3

Band width	Modulation	RB Size	RB Offset	Reduced Power [dBm]					MPR Allowed Per GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 ㎒	40185 Ch. 2549.5 ㎒	40620 Ch. 2593.0 ㎒	41055 Ch. 2636.5 ㎒	41490 Ch. 2680.0 ㎒		
5 ㎒	QPSK	1	0	21.05	21.08	21.33	20.68	20.57	0	0
		1	12	21.15	21.27	21.37	20.92	20.80	0	0
		1	24	21.06	21.13	21.30	20.69	20.58	0	0
		12	0	21.13	21.16	21.38	20.76	20.66	0-1	0
		12	6	21.10	21.15	21.36	20.75	20.62	0-1	0
		12	11	21.10	21.13	21.35	20.75	20.62	0-1	0
		25	0	21.19	21.21	21.41	20.80	20.70	0-1	0
	16QAM	1	0	21.23	21.08	21.44	20.73	20.59	0-1	0
		1	12	21.12	21.22	21.45	20.69	20.77	0-1	0
		1	24	21.26	21.04	21.29	20.62	20.59	0-1	0
		12	0	20.48	20.49	20.75	20.09	20.05	0-2	1
		12	6	20.44	20.47	20.73	20.08	20.02	0-2	1
		12	11	20.43	20.49	20.73	20.09	20.02	0-2	1
		25	0	20.60	20.58	20.77	20.18	20.07	0-2	1
	64QAM	1	0	21.17	20.58	20.91	20.21	19.98	0-2	1
		1	12	21.32	20.67	20.93	20.23	19.97	0-2	1
		1	24	21.13	20.54	20.85	20.15	19.94	0-2	1
		12	0	20.46	19.52	19.78	19.16	19.07	0-3	2
		12	6	20.46	19.48	19.76	19.13	19.05	0-3	2
		12	11	20.45	19.48	19.76	19.16	19.02	0-3	2
		25	0	20.54	19.55	19.77	19.16	19.04	0-3	2
	256QAM	1	0	17.35	17.42	17.58	16.99	16.96	0-5	4
		1	12	17.40	17.46	17.64	17.05	17.01	0-5	4
		1	24	17.36	17.38	17.48	16.97	16.84	0-5	4
		12	0	17.54	17.55	17.78	17.17	17.05	0-5	4
		12	6	17.51	17.55	17.75	17.15	17.04	0-5	4
		12	11	17.50	17.53	17.74	17.14	17.01	0-5	4
		25	0	17.56	17.60	17.80	17.16	17.08	0-5	4

LTE TDD Band 41 _ 10 ㎒ Bandwidth Conducted Power - Power Class 3

Band width	Modulation	RB Size	RB Offset	Reduced 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 ㎒		
10 ㎒	QPSK	1	0	21.18	21.12	21.42	20.79	20.70	0	0
		1	24	21.25	21.26	21.49	20.88	20.83	0	0
		1	49	21.02	21.07	21.25	20.63	20.61	0	0
		25	0	21.22	21.23	21.50	20.83	20.81	0-1	0
		25	12	21.21	21.22	21.49	20.82	20.80	0-1	0
		25	24	21.18	21.22	21.45	20.78	20.79	0-1	0
		50	0	21.24	21.24	21.50	20.82	20.86	0-1	0
	16QAM	1	0	21.12	21.04	21.35	20.57	20.79	0-1	0
		1	24	21.18	21.25	21.51	20.67	20.97	0-1	0
		1	49	21.03	21.01	21.19	20.62	20.62	0-1	0
		25	0	20.61	20.59	20.88	20.23	20.19	0-2	1
		25	12	20.59	20.58	20.84	20.19	20.16	0-2	1
		25	24	20.55	20.59	20.82	20.16	20.13	0-2	1
		50	0	20.59	20.59	20.85	20.21	20.20	0-2	1
	64QAM	1	0	20.66	20.55	20.86	20.25	20.32	0-2	1
		1	24	20.76	20.66	20.87	20.24	20.40	0-2	1
		1	49	20.62	20.54	20.73	20.19	20.21	0-2	1
		25	0	19.61	19.61	19.89	19.22	19.21	0-3	2
		25	12	19.58	19.61	19.84	19.19	19.18	0-3	2
		25	24	19.55	19.59	19.77	19.16	19.14	0-3	2
		50	0	19.63	19.62	19.87	19.24	19.22	0-3	2
	256QAM	1	0	17.37	17.52	17.74	17.09	17.06	0-5	4
		1	24	17.41	17.51	17.76	17.04	17.14	0-5	4
		1	49	17.24	17.43	17.54	17.02	16.92	0-5	4
		25	0	17.63	17.63	17.90	17.24	17.24	0-5	4
		25	12	17.58	17.61	17.86	17.18	17.20	0-5	4
		25	24	17.57	17.61	17.83	17.17	17.19	0-5	4
		50	0	17.62	17.64	17.88	17.24	17.24	0-5	4

LTE TDD Band 41 _ 15 ㎒ Bandwidth Conducted Power - Power Class 3

Band width	Modulation	RB Size	RB Offset	Reduced 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 ㎒		
15 ㎒	QPSK	1	0	21.14	21.09	21.44	20.78	20.76	0	0
		1	36	21.18	21.33	21.51	20.86	20.80	0	0
		1	74	21.02	21.11	21.26	20.68	20.63	0	0
		36	0	21.21	21.21	21.50	20.84	20.84	0-1	0
		36	18	21.17	21.20	21.44	20.80	20.80	0-1	0
		36	39	21.13	21.17	21.38	20.76	20.76	0-1	0
		75	0	21.18	21.21	21.46	20.83	20.84	0-1	0
	16QAM	1	0	21.09	20.91	21.38	20.79	20.75	0-1	0
		1	36	21.05	21.09	21.18	20.64	20.79	0-1	0
		1	74	20.86	20.97	21.11	20.60	20.61	0-1	0
		36	0	20.56	20.57	20.85	20.22	20.21	0-2	1
		36	18	20.51	20.55	20.78	20.15	20.16	0-2	1
		36	39	20.47	20.52	20.71	20.11	20.11	0-2	1
		75	0	20.55	20.57	20.81	20.21	20.19	0-2	1
	64QAM	1	0	20.68	20.51	20.89	20.48	20.34	0-2	1
		1	36	20.60	20.71	20.84	20.37	20.23	0-2	1
		1	74	20.54	20.54	20.69	20.30	19.84	0-2	1
		36	0	19.59	19.57	19.87	19.24	19.24	0-3	2
		36	18	19.54	19.56	19.81	19.19	19.19	0-3	2
		36	39	19.49	19.55	19.73	19.13	19.12	0-3	2
		75	0	19.56	19.57	19.83	19.20	19.21	0-3	2
	256QAM	1	0	17.44	17.46	17.74	17.11	17.19	0-5	4
		1	36	17.60	17.59	17.72	17.10	17.11	0-5	4
		1	74	17.36	17.34	17.49	16.96	16.97	0-5	4
		36	0	17.58	17.60	17.89	17.24	17.24	0-5	4
		36	18	17.56	17.58	17.84	17.18	17.21	0-5	4
		36	39	17.51	17.56	17.76	17.14	17.14	0-5	4
		75	0	17.53	17.57	17.82	17.19	17.19	0-5	4

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

Band width	Modulation	RB Size	RB Offset	Reduced Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 ㎒	40185 Ch. 2549.5 ㎒	40620 Ch. 2593.0 ㎒	41055 Ch. 2636.5 ㎒	41490 Ch. 2680.0 ㎒		
20 ㎒	QPSK	1	0	21.18	21.17	21.41	20.86	20.77	0	0
		1	49	21.25	21.28	**21.42**	20.88	20.79	0	0
		1	99	20.93	21.01	21.08	20.59	20.53	0	0
		50	0	21.24	21.23	**21.47**	20.89	20.82	0-1	0
		50	25	21.19	21.20	21.40	20.84	20.75	0-1	0
		50	49	21.13	21.18	21.30	20.77	20.71	0-1	0
		100	0	21.17	21.19	21.38	20.82	20.75	0-1	0
	16QAM	1	0	21.11	21.06	21.37	20.88	20.71	0-1	0
		1	49	21.08	21.09	21.29	20.73	20.75	0-1	0
		1	99	20.93	20.92	21.07	20.62	20.62	0-1	0
		50	0	20.61	20.60	20.85	20.27	20.17	0-2	1
		50	25	20.57	20.57	20.76	20.20	20.10	0-2	1
		50	49	20.50	20.54	20.66	20.14	19.70	0-2	1
		100	0	20.58	20.61	20.79	20.25	20.15	0-2	1
	64QAM	1	0	20.61	20.63	20.93	20.36	20.15	0-2	1
		1	49	20.59	20.57	20.85	20.45	20.17	0-2	1
		1	99	20.38	20.64	20.61	20.16	20.03	0-2	1
		50	0	19.64	19.63	19.86	19.31	19.20	0-3	2
		50	25	19.58	19.61	19.79	19.22	19.15	0-3	2
		50	49	19.52	19.57	19.70	19.17	18.99	0-3	2
		100	0	19.53	19.56	19.75	19.20	19.10	0-3	2
	256QAM	1	0	17.44	17.50	17.79	17.06	17.05	0-5	4
		1	49	17.36	17.51	17.68	17.07	17.03	0-5	4
		1	99	17.24	17.34	17.37	16.83	16.77	0-5	4
		50	0	17.64	17.65	17.88	17.30	17.21	0-5	4
		50	25	17.58	17.62	17.79	17.24	17.16	0-5	4
		50	49	17.53	17.58	17.71	17.18	17.08	0-5	4
		100	0	17.50	17.54	17.74	17.19	17.10	0-5	4

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

[LTE FDD Band 66 Conducted Power_Free (RSI 0), Hotspot (RSI 2)_Main 2]

LTE FDD Band 66 _ 1.4 ㎒ Bandwidth Conducted Power

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	19.46	19.47	19.48	0	0
		1	3	19.38	19.40	19.46	0	0
		1	5	19.52	19.49	19.52	0	0
		3	0	19.48	19.53	19.46	0	0
		3	1	19.54	19.51	19.53	0	0
		3	3	19.50	19.51	19.49	0	0
		6	0	19.57	19.52	19.62	0-1	0
	16QAM	1	0	19.88	19.79	19.81	0-1	0
		1	3	19.74	19.78	19.64	0-1	0
		1	5	19.75	19.80	19.66	0-1	0
		3	0	19.62	19.64	19.74	0-1	0
		3	1	19.65	19.54	19.71	0-1	0
		3	3	19.55	19.57	19.65	0-1	0
		6	0	19.52	19.58	19.62	0-2	0
	64QAM	1	0	19.64	19.65	19.69	0-2	0
		1	3	19.55	19.51	19.65	0-2	0
		1	5	19.64	19.74	19.73	0-2	0
		3	0	19.62	19.64	19.77	0-2	0
		3	1	19.65	19.59	19.69	0-2	0
		3	3	19.67	19.56	19.61	0-2	0
		6	0	19.60	19.48	19.59	0-3	0
	256QAM	1	0	18.26	18.15	18.18	0-5	2
		1	3	18.08	18.10	18.09	0-5	2
		1	5	18.13	18.23	18.25	0-5	2
		3	0	18.12	18.06	18.19	0-5	2
		3	1	18.12	18.13	18.19	0-5	2
		3	3	18.07	18.07	18.11	0-5	2
		6	0	18.08	18.08	18.15	0-5	2

LTE FDD Band 66 _ 3 ㎒ Bandwidth Conducted Power

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	19.55	19.48	19.55	0	0
		1	7	19.65	19.61	19.65	0	0
		1	14	19.50	19.47	19.50	0	0
		8	0	19.62	19.54	19.60	0-1	0
		8	3	19.64	19.53	19.62	0-1	0
		8	7	19.61	19.58	19.57	0-1	0
		15	0	19.63	19.56	19.55	0-1	0
	16QAM	1	0	19.88	19.70	19.75	0-1	0
		1	7	19.76	19.50	19.74	0-1	0
		1	14	19.75	19.81	19.71	0-1	0
		8	0	19.65	19.64	19.62	0-2	0
		8	3	19.69	19.53	19.68	0-2	0
		8	7	19.68	19.70	19.71	0-2	0
		15	0	19.63	19.61	19.58	0-2	0
	64QAM	1	0	19.65	19.66	19.61	0-2	0
		1	7	19.72	19.58	19.68	0-2	0
		1	14	19.59	19.75	19.72	0-2	0
		8	0	19.58	19.58	19.62	0-3	0
		8	3	19.56	19.61	19.63	0-3	0
		8	7	19.61	19.56	19.62	0-3	0
		15	0	19.57	19.63	19.61	0-3	0
	256QAM	1	0	18.23	18.13	18.17	0-5	2
		1	7	18.37	18.26	18.43	0-5	2
		1	14	18.23	18.12	18.20	0-5	2
		8	0	18.12	18.12	18.18	0-5	2
		8	3	18.09	18.05	18.10	0-5	2
		8	7	18.06	18.08	18.13	0-5	2
		15	0	18.07	18.07	18.13	0-5	2

LTE FDD Band 66 _ 5 ㎒ Bandwidth Conducted Power

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	19.45	19.47	19.48	0	0
		1	12	19.58	19.67	19.62	0	0
		1	24	19.53	19.55	19.55	0	0
		12	0	19.55	19.62	19.63	0-1	0
		12	6	19.56	19.60	19.61	0-1	0
		12	11	19.58	19.60	19.60	0-1	0
		25	0	19.59	19.59	19.63	0-1	0
	16QAM	1	0	19.68	19.88	19.84	0-1	0
		1	12	19.81	19.65	19.41	0-1	0
		1	24	19.72	19.70	19.77	0-1	0
		12	0	19.59	19.65	19.61	0-2	0
		12	6	19.61	19.60	19.65	0-2	0
		12	11	19.61	19.68	19.64	0-2	0
		25	0	19.61	19.62	19.64	0-2	0
	64QAM	1	0	19.75	19.78	19.79	0-2	0
		1	12	19.85	19.91	19.96	0-2	0
		1	24	19.73	19.73	19.79	0-2	0
		12	0	19.55	19.62	19.70	0-3	0
		12	6	19.61	19.65	19.67	0-3	0
		12	11	19.61	19.62	19.65	0-3	0
		25	0	19.57	19.56	19.62	0-3	0
	256QAM	1	0	18.29	18.27	18.24	0-5	2
		1	12	18.35	18.17	18.37	0-5	2
		1	24	18.27	18.17	18.20	0-5	2
		12	0	18.08	18.10	18.09	0-5	2
		12	6	18.08	18.07	18.14	0-5	2
		12	11	18.01	18.02	18.06	0-5	2
		25	0	18.09	18.13	18.13	0-5	2

LTE FDD Band 66 _ 10 ㎒ Bandwidth Conducted Power

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	19.48	19.52	19.43	0	0
		1	24	19.60	19.62	19.54	0	0
		1	49	19.45	19.43	19.40	0	0
		25	0	19.53	19.59	19.49	0-1	0
		25	12	19.53	19.55	19.48	0-1	0
		25	24	19.52	19.52	19.48	0-1	0
		50	0	19.53	19.53	19.47	0-1	0
	16QAM	1	0	19.79	19.80	19.74	0-1	0
		1	24	19.67	19.62	19.67	0-1	0
		1	49	19.69	19.67	19.77	0-1	0
		25	0	19.56	19.57	19.54	0-2	0
		25	12	19.58	19.54	19.53	0-2	0
		25	24	19.58	19.58	19.55	0-2	0
		50	0	19.57	19.58	19.56	0-2	0
	64QAM	1	0	19.70	19.79	19.69	0-2	0
		1	24	19.71	19.82	19.61	0-2	0
		1	49	19.67	19.66	19.56	0-2	0
		25	0	19.53	19.58	19.51	0-3	0
		25	12	19.49	19.52	19.48	0-3	0
		25	24	19.51	19.54	19.53	0-3	0
		50	0	19.55	19.60	19.55	0-3	0
	256QAM	1	0	18.11	18.19	18.14	0-5	2
		1	24	18.00	18.08	18.06	0-5	2
		1	49	18.09	18.14	18.15	0-5	2
		25	0	18.05	18.09	18.02	0-5	2
		25	12	18.04	18.04	18.05	0-5	2
		25	24	18.02	18.06	18.01	0-5	2
		50	0	18.04	18.04	18.02	0-5	2

LTE FDD Band 66 _ 15 ㎒ Bandwidth Conducted Power

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	19.43	19.44	19.37	0	0
		1	36	19.50	19.52	19.40	0	0
		1	74	19.50	19.47	19.43	0	0
		36	0	19.54	19.55	19.43	0-1	0
		36	18	19.50	19.55	19.41	0-1	0
		36	39	19.56	19.51	19.44	0-1	0
		75	0	19.53	19.54	19.43	0-1	0
	16QAM	1	0	19.74	19.72	19.67	0-1	0
		1	36	19.40	19.50	19.46	0-1	0
		1	74	19.75	19.72	19.78	0-1	0
		36	0	19.53	19.59	19.44	0-2	0
		36	18	19.53	19.53	19.45	0-2	0
		36	39	19.55	19.53	19.47	0-2	0
		75	0	19.52	19.51	19.43	0-2	0
	64QAM	1	0	19.71	19.78	19.65	0-2	0
		1	36	19.79	19.84	19.82	0-2	0
		1	74	19.78	19.73	19.63	0-2	0
		36	0	19.58	19.58	19.45	0-3	0
		36	18	19.55	19.53	19.45	0-3	0
		36	39	19.54	19.52	19.52	0-3	0
		75	0	19.56	19.56	19.43	0-3	0
	256QAM	1	0	18.23	18.29	18.08	0-5	2
		1	36	18.26	18.20	18.02	0-5	2
		1	74	18.20	18.20	18.05	0-5	2
		36	0	18.09	18.10	17.97	0-5	2
		36	18	18.06	18.07	17.94	0-5	2
		36	39	18.06	18.04	17.92	0-5	2
		75	0	18.04	18.06	17.97	0-5	2

LTE FDD Band 66 _ 20 ㎒ Bandwidth Conducted Power

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	19.46	19.55	19.39	0	0
		1	49	19.58	**19.64**	19.55	0	0
		1	99	19.41	19.47	19.34	0	0
		50	0	19.51	**19.60**	19.48	0-1	0
		50	25	19.50	19.54	19.42	0-1	0
		50	49	19.50	19.50	19.43	0-1	0
		100	0	19.52	19.51	19.48	0-1	0
	16QAM	1	0	19.69	19.69	19.56	0-1	0
		1	49	19.60	19.65	19.49	0-1	0
		1	99	19.60	19.66	19.62	0-1	0
		50	0	19.58	19.58	19.47	0-2	0
		50	25	19.55	19.55	19.48	0-2	0
		50	49	19.55	19.55	19.47	0-2	0
		100	0	19.51	19.52	19.45	0-2	0
	64QAM	1	0	19.66	19.81	19.58	0-2	0
		1	49	19.69	19.73	19.46	0-2	0
		1	99	19.67	19.56	19.59	0-2	0
		50	0	19.58	19.59	19.47	0-3	0
		50	25	19.56	19.59	19.49	0-3	0
		50	49	19.52	19.56	19.49	0-3	0
		100	0	19.55	19.54	19.44	0-3	0
	256QAM	1	0	18.17	18.11	17.99	0-5	2
		1	49	18.09	18.16	17.98	0-5	2
		1	99	18.20	18.17	18.12	0-5	2
		50	0	18.05	18.07	17.95	0-5	2
		50	25	18.04	18.06	17.93	0-5	2
		50	49	17.98	18.01	17.93	0-5	2
		100	0	18.04	18.05	17.96	0-5	2

[LTE FDD Band 66_Upper Conducted Power_Free (RSI 0), Hotspot (RSI 2)_Main 3]

LTE FDD Band 66_Upper _ 1.4 ㎒ Bandwidth Conducted Power

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	19.67	19.64	19.86	0	0
		1	3	19.55	19.56	19.81	0	0
		1	5	19.70	19.67	19.88	0	0
		3	0	19.69	19.69	19.91	0	0
		3	1	19.73	19.69	19.92	0	0
		3	3	19.64	19.59	19.89	0	0
		6	0	19.73	19.67	19.94	0-1	0
	16QAM	1	0	19.95	19.79	20.06	0-1	0
		1	3	19.94	19.79	20.03	0-1	0
		1	5	19.96	19.97	20.11	0-1	0
		3	0	19.80	19.82	20.08	0-1	0
		3	1	19.72	19.81	19.96	0-1	0
		3	3	19.74	19.73	19.98	0-1	0
		6	0	19.75	19.67	19.94	0-2	0
	64QAM	1	0	20.01	19.81	20.03	0-2	0
		1	3	19.86	19.68	20.03	0-2	0
		1	5	19.99	19.74	20.05	0-2	0
		3	0	19.85	19.77	19.99	0-2	0
		3	1	19.75	19.72	19.97	0-2	0
		3	3	19.78	19.74	19.93	0-2	0
		6	0	19.72	19.63	19.94	0-3	0
	256QAM	1	0	18.25	18.18	18.48	0-5	2
		1	3	18.07	18.09	18.36	0-5	2
		1	5	18.26	18.23	18.47	0-5	2
		3	0	18.16	18.22	18.40	0-5	2
		3	1	18.25	18.21	18.42	0-5	2
		3	3	18.23	18.11	18.39	0-5	2
		6	0	18.12	18.08	18.42	0-5	2

LTE FDD Band 66_Upper _ 3 ㎒ Bandwidth Conducted Power

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	19.59	19.56	19.84	0	0
		1	7	19.78	19.72	20.02	0	0
		1	14	19.54	19.53	19.74	0	0
		8	0	19.63	19.68	19.93	0-1	0
		8	3	19.62	19.63	19.82	0-1	0
		8	7	19.64	19.65	19.88	0-1	0
		15	0	19.64	19.66	19.87	0-1	0
	16QAM	1	0	19.71	19.91	19.90	0-1	0
		1	7	19.60	19.91	20.07	0-1	0
		1	14	19.80	19.72	20.09	0-1	0
		8	0	19.71	19.71	19.91	0-2	0
		8	3	19.67	19.63	19.82	0-2	0
		8	7	19.69	19.66	19.90	0-2	0
		15	0	19.65	19.66	19.87	0-2	0
	64QAM	1	0	19.80	19.85	19.99	0-2	0
		1	7	19.96	19.87	20.06	0-2	0
		1	14	19.79	19.71	20.02	0-2	0
		8	0	19.66	19.62	19.87	0-3	0
		8	3	19.65	19.60	19.85	0-3	0
		8	7	19.63	19.58	19.90	0-3	0
		15	0	19.65	19.69	19.87	0-3	0
	256QAM	1	0	18.21	18.23	18.52	0-5	2
		1	7	18.41	18.38	18.59	0-5	2
		1	14	18.12	18.24	18.41	0-5	2
		8	0	18.12	18.16	18.39	0-5	2
		8	3	18.09	18.15	18.35	0-5	2
		8	7	18.15	18.16	18.42	0-5	2
		15	0	18.09	18.15	18.36	0-5	2

LTE FDD Band 66_Upper _ 5 ㎒ Bandwidth Conducted Power

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	19.50	19.51	19.77	0	0
		1	12	19.65	19.64	19.88	0	0
		1	24	19.55	19.54	19.81	0	0
		12	0	19.53	19.55	19.77	0-1	0
		12	6	19.56	19.57	19.81	0-1	0
		12	11	19.54	19.57	19.80	0-1	0
		25	0	19.59	19.59	19.77	0-1	0
	16QAM	1	0	19.80	19.91	20.05	0-1	0
		1	12	19.85	19.82	20.10	0-1	0
		1	24	19.74	19.77	20.00	0-1	0
		12	0	19.59	19.68	19.84	0-2	0
		12	6	19.59	19.58	19.79	0-2	0
		12	11	19.59	19.61	19.80	0-2	0
		25	0	19.54	19.61	19.80	0-2	0
	64QAM	1	0	19.79	19.73	20.01	0-2	0
		1	12	19.94	19.79	20.03	0-2	0
		1	24	19.72	19.81	20.05	0-2	0
		12	0	19.57	19.63	19.83	0-3	0
		12	6	19.60	19.57	19.82	0-3	0
		12	11	19.54	19.56	19.81	0-3	0
		25	0	19.58	19.63	19.78	0-3	0
	256QAM	1	0	18.21	18.28	18.45	0-5	2
		1	12	18.27	18.19	18.52	0-5	2
		1	24	18.28	18.22	18.54	0-5	2
		12	0	18.01	18.08	18.29	0-5	2
		12	6	18.01	18.08	18.23	0-5	2
		12	11	18.00	18.04	18.27	0-5	2
		25	0	18.09	18.08	18.32	0-5	2

LTE FDD Band 66_Upper _ 10 ㎒ Bandwidth Conducted Power

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	19.58	19.57	19.79	0	0
		1	24	19.67	19.65	19.88	0	0
		1	49	19.49	19.49	19.68	0	0
		25	0	19.59	19.62	19.76	0-1	0
		25	12	19.57	19.59	19.73	0-1	0
		25	24	19.58	19.55	19.74	0-1	0
		50	0	19.55	19.55	19.77	0-1	0
	16QAM	1	0	19.74	19.81	19.91	0-1	0
		1	24	19.83	19.82	20.11	0-1	0
		1	49	19.86	19.80	19.85	0-1	0
		25	0	19.63	19.58	19.80	0-2	0
		25	12	19.63	19.60	19.73	0-2	0
		25	24	19.61	19.57	19.75	0-2	0
		50	0	19.63	19.55	19.72	0-2	0
	64QAM	1	0	19.80	19.72	19.87	0-2	0
		1	24	19.93	19.82	19.82	0-2	0
		1	49	19.78	19.70	19.90	0-2	0
		25	0	19.54	19.54	19.76	0-3	0
		25	12	19.55	19.56	19.70	0-3	0
		25	24	19.57	19.55	19.71	0-3	0
		50	0	19.59	19.61	19.74	0-3	0
	256QAM	1	0	18.21	18.27	18.48	0-5	2
		1	24	18.45	18.35	18.63	0-5	2
		1	49	18.13	18.13	18.39	0-5	2
		25	0	18.10	18.10	18.23	0-5	2
		25	12	18.05	18.06	18.27	0-5	2
		25	24	18.08	18.04	18.29	0-5	2
		50	0	18.06	18.10	18.27	0-5	2

LTE FDD Band 66_Upper _ 15 ㎒ Bandwidth Conducted Power

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	19.51	19.55	19.68	0	0
		1	36	19.59	19.60	19.71	0	0
		1	74	19.48	19.51	19.64	0	0
		36	0	19.60	19.61	19.70	0-1	0
		36	18	19.56	19.56	19.69	0-1	0
		36	39	19.54	19.55	19.67	0-1	0
		75	0	19.60	19.59	19.70	0-1	0
	16QAM	1	0	19.86	19.90	19.90	0-1	0
		1	36	19.54	19.83	19.87	0-1	0
		1	74	19.71	19.83	19.89	0-1	0
		36	0	19.58	19.60	19.67	0-2	0
		36	18	19.58	19.56	19.65	0-2	0
		36	39	19.57	19.54	19.61	0-2	0
		75	0	19.60	19.52	19.69	0-2	0
	64QAM	1	0	19.82	19.82	19.91	0-2	0
		1	36	19.84	19.75	19.76	0-2	0
		1	74	19.76	19.77	19.74	0-2	0
		36	0	19.64	19.60	19.72	0-3	0
		36	18	19.60	19.57	19.68	0-3	0
		36	39	19.58	19.52	19.65	0-3	0
		75	0	19.55	19.56	19.69	0-3	0
	256QAM	1	0	18.32	18.33	18.38	0-5	2
		1	36	18.30	18.39	18.27	0-5	2
		1	74	18.15	18.18	18.30	0-5	2
		36	0	18.10	18.12	18.21	0-5	2
		36	18	18.10	18.05	18.18	0-5	2
		36	39	18.08	18.03	18.15	0-5	2
		75	0	18.06	18.05	18.18	0-5	2

LTE FDD Band 66_Upper _ 20 ㎒ Bandwidth Conducted Power

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	19.67	19.63	19.63	0	0
		1	49	19.73	19.63	19.69	0	0
		1	99	19.50	19.42	19.51	0	0
		50	0	19.64	19.58	19.68	0-1	0
		50	25	19.65	19.52	19.65	0-1	0
		50	49	19.65	19.48	19.56	0-1	0
		100	0	19.59	19.51	19.62	0-1	0
	16QAM	1	0	19.73	19.85	19.89	0-1	0
		1	49	20.05	20.00	20.09	0-1	0
		1	99	19.85	19.85	19.92	0-1	0
		50	0	19.67	19.59	19.66	0-2	0
		50	25	19.63	19.54	19.60	0-2	0
		50	49	19.61	19.48	19.55	0-2	0
		100	0	19.63	19.50	19.60	0-2	0
	64QAM	1	0	19.93	19.80	19.80	0-2	0
		1	49	19.86	19.70	19.87	0-2	0
		1	99	19.73	19.67	19.68	0-2	0
		50	0	19.65	19.58	19.67	0-3	0
		50	25	19.62	19.55	19.60	0-3	0
		50	49	19.55	19.50	19.62	0-3	0
		100	0	19.59	19.50	19.61	0-3	0
	256QAM	1	0	18.31	18.33	18.32	0-5	2
		1	49	18.44	18.19	18.41	0-5	2
		1	99	18.13	18.13	18.18	0-5	2
		50	0	18.15	18.10	18.12	0-5	2
		50	25	18.13	18.04	18.08	0-5	2
		50	49	18.08	17.98	18.08	0-5	2
		100	0	18.14	18.08	18.15	0-5	2