FCC TEST REPORT

(PART 27)

Applicant:	Xiaomi Communications Co., Ltd.
Address:	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085

Manufacturer or Supplier:	Xiaomi Communications Co., Ltd.
Address:	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085
Product:	Mobile Phone
Brand Name:	Redmi
Model Name	24094RAD4G
FCC ID:	2AFZZRAD4G
Date of tests:	Jul. 12, 2024 ~ Aug. 05, 2024

The tests have been carried out according to the requirements of the following standard:

☒ **FCC Part 27** ☒ **ANSI/TIA/EIA-603-D**
☒ **FCC Part 2** ☒ **ANSI/TIA/EIA-603-E** ☒ **ANSI C63.26-2015**

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Prepared by Simon Wang Engineer / Mobile Department	Approved by Luke Lu Manager / Mobile Department
Simon Wang Date: Aug. 05, 2024	Luke Lu Date: Aug. 05, 2024

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
W7L-240618W001RF07	Original release	Aug. 05, 2024

1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 27 & PART 2		
STANDARD SECTION	**TEST TYPE AND LIMIT**	**RESULT**
§2.1046	Conducted Output Power	Compliance
§27.50(b)(10) §27.50(c)(10)	Effective Radiated Power (Band 12) (Band 13) (Band 17)	Compliance
§27.50(d)(4) §27.50(h)(2)	Equivalent Isotropically Radiated Power (WCMDA Band 4) (Band 7)	Compliance
§2.1055 §27.54	Frequency Stability	Compliance
§2.1049	Occupied Bandwidth	Compliance
§2.1051 §27.53(c)(2)(4) §27.53(h) §27.53(g) §27.53(m)(4)(6)	Conducted Band Edge Measurements (WCMDA Band 4) (Band 7) (Band 12) (Band 13) (Band 17)	Compliance
§2.1051 §27.53(c)(2)(4) §27.53(h) §27.53(g) §27.53(m)(4)(6)	Conducted Spurious Emissions (WCMDA Band 4)((Band 7) (Band 12) (Band 13) (Band 17)	Compliance
§2.1053 §27.53(c)(2)(4) §27.53(h) §27.53(f) §27.53(g) §27.53(m)(4)(6)	Radiated Spurious Emissions (WCMDA Band 4) (Band 7) (Band 12) (Band 13) (Band 17)	Compliance
NA	Peak to average ratio	Compliance

NOTE:

The worst-case scenario for all measurements is based on an engineering evaluation made on different modulations. Then, QPSK and 16QAM were observed as the worst mode to LTE bands respectively and set for all conducted and radiated. Output power measurements were measured on QPSK, 16QAM, and 64QAM modulations, and tests other than output power are performed only in worse-case QPSK and 16QAM modulations.

1.1 MEASREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

MEASUREMENT	UNCERTAINTY
Frequency Stability	±76.97Hz
Radiated emissions (9KHz~30MHz)	±2.68dB
Radiated emissions & Radiated Power (30MHz~1GHz)	±4.98dB
Radiated emissions & Radiated Power (1GHz ~6GHz)	±4.70dB
Radiated emissions (6GHz ~18GHz)	±4.60dB
Radiated emissions (18GHz ~40GHz)	±4.12dB
Conducted emissions	±4.01dB
Occupied Channel Bandwidth	±43.58KHz
Conducted Output power	±2.06dB
Band Edge Measurements	±4.70dB

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

1.2 TEST SITE AND INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
MXE EMI Receiver	KEYSIGHT	N9038A-544	MY54450026	Mar. 28,24	Mar. 27,25
EXA Signal Analyzer	KEYSIGHT	N9010A-544	MY54510355	May.10,24	May.09,25
Loop Antenna	Schwarzbeck	FMZB 1519B	00173	Sep.03,23	Sep.02,24
Bilog Antenna	ETS-LINDGREN	3143B	00161965	Feb. 18,24	Feb. 17,25
Horn Antenna	ETS-LINDGREN	3117	00168692	Feb. 18,24	Feb. 17,25
Horn Antenna (18GHz-40GHz)	N/A	QWH-SL-18-40-K-SG/QMS-00361	15433	Sep.04, 23	Sep.03, 24
Radio Communication Analyzer	ANRITSU	MT8820C	6201465426	Feb. 14,24	Feb. 13,25
Signal Pre-Amplifier	EMSI	EMC 9135	980249	May. 06,24	May. 05,25
Signal Pre-Amplifier	EMSI	EMC 012645B	980257	May.10,24	May.09,25
Signal Pre-Amplifier	EMSI	EMC 184045B	980259	Feb. 17,24	Feb.16,25
3m Semi-anechoic Chamber	ETS-LINDGREN	9m*6m*6m	Euroshieldpn-CT0001143-1216	Nov. 14,23	Nov. 13,26
Test Software	E3	V 9.160323	N/A	N/A	N/A
Test Software	JS1120	3.1.36	N/A	N/A	N/A
10dB Attenuator	JFW/USA	50HF-010-SMA	50HF-010-SMA	May. 06,24	May. 05,25
Power Meter	Anritsu	ML2495A	1506002	Feb. 14,24	Feb. 13,25
Power Sensor	Anritsu	MA2411B	1339352	Feb. 14,24	Feb. 13,25
Temperature Chamber	ESPEC	SH-242	93000855	May. 06,24	May. 05,25
MXG Analog Microvave Signal Generator	KEYSIGHT	N5183A	MY50143024	Feb. 14,24	Feb. 13,25
Base station R&S CMW500	Rohde&Schwarz	CMW500	153085	May.10,24	May.09,25
DC Source	Kikusui/JP	PMX18-5A	N/A	Aug. 11,23	Aug. 10,24

NOTE: 1. The calibration interval of the above test instruments is 12 months or 36 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.

2. The test was performed in 3m Semi-anechoic Chamber and RF Oven Room.

3. The horn antenna is used only for the measurement of emission frequency above 1GHz if tested.

4. The FCC Site Registration No. is 525120; The Designation No. is CN1171.

2 GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Mobile Phone	
BRAND NAME	Redmi	
MODEL NAME	24094RAD4G	
NOMINAL VOLTAGE	5/5~11Vdc(adapter or host equipment) 3.91Vdc (Li-ion, battery)	
MODULATION TECHNOLOGY	**WCDMA IV**	BPSK, QPSK
	LTE	QPSK, 16QAM, 64QAM
FREQUENCY RANGE	**WCDMA IV**	1712.4MHz ~ 1752.6MHz
	LTE Band 7 Channel Bandwidth: 5MHz	2502.5MHz ~ 2567.5MHz
	LTE Band 7 Channel Bandwidth: 10MHz	2505MHz ~ 2565MHz
	LTE Band 7 Channel Bandwidth: 15MHz	2507.5MHz ~ 2562.5MHz
	LTE Band 7 Channel Bandwidth: 20MHz	2510MHz ~ 2560MHz
	LTE Band 12 Channel Bandwidth: 1.4MHz	699.7MHz ~ 715.3MHz
	LTE Band 12 Channel Bandwidth: 3MHz	700.5MHz ~ 714.5MHz
	LTE Band 12 Channel Bandwidth: 5MHz	701.5MHz ~ 713.5MHz
	LTE Band 12 Channel Bandwidth: 10MHz	704MHz ~ 711MHz
	LTE Band 13 Channel Bandwidth: 5MHz	779.5MHz ~ 784.5MHz
	LTE Band 13 Channel Bandwidth: 10MHz	782MHz
	LTE Band 17 Channel Bandwidth: 5MHz	706.5MHz ~ 713.5MHz
	LTE Band 17 Channel Bandwidth: 10MHz	709MHz ~ 711 MHz
MAX. EIRP POWER	**WCDMA IV**	341.98mW
	LTE Band 7 Channel Bandwidth: 5MHz	214.78mW
	LTE Band 7 Channel Bandwidth: 10MHz	216.27mW
	LTE Band 7 Channel Bandwidth: 15MHz	217.77mW

	LTE Band 7 Channel Bandwidth: 20MHz	219.28mW
	LTE Band 12 Channel Bandwidth: 1.4MHz	84.14mW
	LTE Band 12 Channel Bandwidth: 3MHz	83.18mW
	LTE Band 12 Channel Bandwidth: 5MHz	83.18mW
	LTE Band 12 Channel Bandwidth: 10MHz	84.33mW
	LTE Band 13 Channel Bandwidth: 5MHz	62.09mW
	LTE Band 13 Channel Bandwidth: 10MHz	62.81mW
	LTE Band 17 Channel Bandwidth: 5MHz	82.6mW
	LTE Band 17 Channel Bandwidth: 10MHz	83.37mW
EMISSION DESIGNATOR	**WCDMA IV**	4M15F9W
	LTE Band 7 Channel Bandwidth: 5MHz	QPSK: 4M51G7D
		16QAM: 4M50W7D
	LTE Band 7 Channel Bandwidth: 10MHz	QPSK:9M01G7D
		16QAM: 9M01W7D
	LTE Band 7 Channel Bandwidth: 15MHz	QPSK: 13M5G7D
		16QAM: 13M5W7D
	LTE Band 7 Channel Bandwidth: 20MHz	QPSK: 18M0G7D
		16QAM: 17M9W7D
	LTE Band 12 Channel Bandwidth: 1.4MHz	QPSK: 1M10G7D
		16QAM: 1M10W7D
	LTE Band 12 Channel Bandwidth: 3MHz	QPSK: 2M69G7D
		16QAM: 2M69W7D
	LTE Band 12 Channel Bandwidth: 5MHz	QPSK: 4M51G7D
		16QAM: 4M50W7D
	LTE Band 12 Channel Bandwidth: 10MHz	QPSK: 9M01G7D
		16QAM: 8M98W7D
	LTE Band 13 Channel Bandwidth: 5MHz	QPSK: 4M51G7D
		16QAM: 4M50W7D

	LTE Band 13 Channel Bandwidth: 10MHz	QPSK: 8M99G7D
		16QAM: 8M96W7D
ANTENNA TYPE	ANT 4(UP): PIFA Antenna with 0.3dBi gain for WCDMA IV PIFA Antenna with -1.4dBi gain for LTE B7 PIFA Antenna with -5.6dBi gain for LTE B12 PIFA Antenna with -6.5dBi gain for LTE B13 PIFA Antenna with -5.6dBi gain for LTE B17 ANT 1(DOWN): PIFA Antenna with 1.3dBi gain for WCDMA IV PIFA Antenna with -0.6dBi gain for LTE B7 PIFA Antenna with -3.1dBi gain for LTE B12 PIFA Antenna with -4.4dBi gain for LTE B13 PIFA Antenna with -3.1dBi gain for LTE B17	
HW VERSION	13510O17P	
SW VERSION	Xiaomi HyperOS 1.0	
IMEI	861781070039865	
I/O PORTS	Refer to user's manual	
CABLE SUPPLIED	USB cable1: non-shielded cable, with w/o ferrite core, 1.0 meter USB cable2: non-shielded cable, with w/o ferrite core, 1.0 meter	
EXTREME TEMPERATURE	0-40 ℃	
EXTREME VOLTAGE	3.7V - 4.3V	

NOTE:

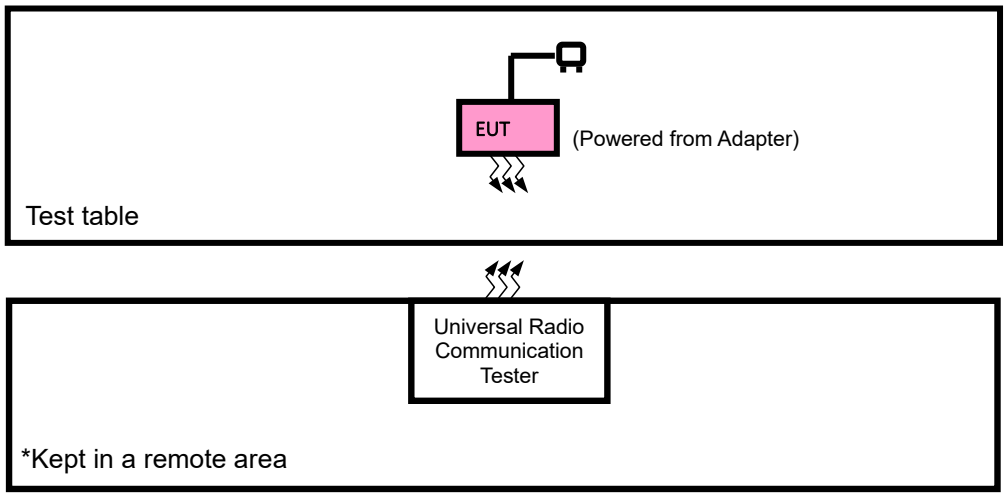
1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
2. Physically, the EUT provides two completed transmitters and two receivers.

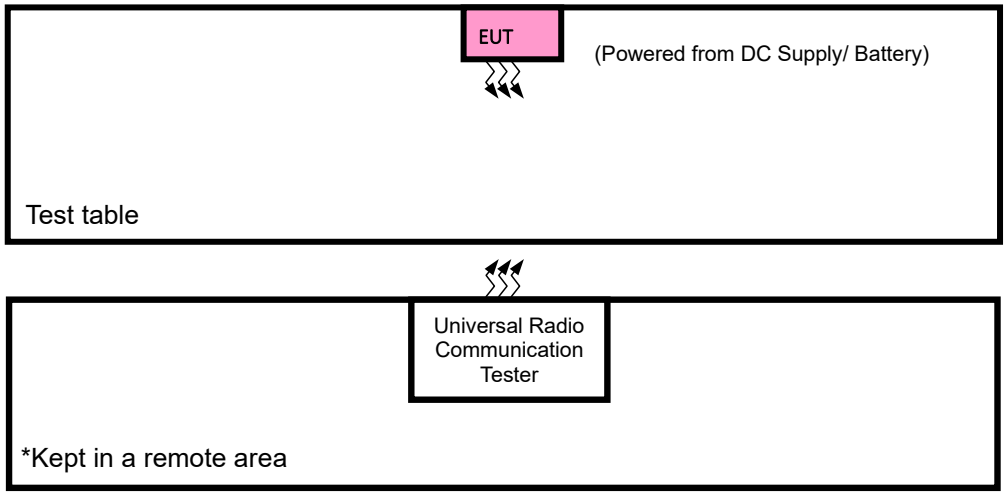
MODULATION MODE	TX FUNCTION
LTE	SISO-2TX

3. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.
4. Antenna gain and EUT conducted cable loss are provided by the customer, and the laboratory will record the results based on these items that involve these two parameters.

2.2 CONFIGURATION OF SYSTEM UNDER TEST

FOR RADIATION EMISSION TEST





2.3 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	N/A	N/A	N/A	N/A	N/A

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	USB cable: Unshielded, Detachable 1.0m

2.4 TEST ITEM AND TEST CONFIGURATION

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis and antenna ports The worst case was found when positioned on Y-plane for EIRP and X-axis for radiated emission. Following channel(s) was (were) selected for the final test as listed below:

EUT CONFIGURE MODE	DESCRIPTION
A	EUT + Adapter + USB Cable with WCDMA/LTE link
B	EUT + DC source with WCDMA/LTE link

WCDMA MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	MODE
A	EIRP	1312 to 1513	1312, 1413, 1513	WCDMA
B	FREQUENCY STABILITY	1312 to 1513	1312, 1413, 1513	WCDMA
A	OCCUPIED BANDWIDTH	1312 to 1513	1312, 1413, 1513	WCDMA
A	BAND EDGE	1312 to 1513	1312, 1513	WCDMA
A	PEAK TO AVERAGE RATIO	1312 to 1513	1312, 1413, 1513	WCDMA
A	CONDCUDETED EMISSION	1312 to 1513	1312, 1413, 1513	WCDMA
A	RADIATED EMISSION	1312 to 1513	1312, 1413, 1513	WCDMA

LTE BAND 7 MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
A	EIRP	20775 to 21425	20775, 21100, 21425	5MHz	QPSK, 16QAM, 64QAM,	1 RB / 0 RB Offset
		20800 to 21400	20800, 21100, 21400	10MHz	QPSK, 16QAM, 64QAM	1 RB / 0RB Offset
		20825 to 21375	20825, 21100, 21375	15MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		20850 to 21350	20850, 21100, 21350	20MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
B	FREQUENCY STABILITY	20800 to 21400	20800, 21100, 21400	10MHz	QPSK	50 RB / 0 RB Offset
A	OCCUPIED BANDWIDTH	20775 to 21425	20775, 21100, 21425	5MHz	QPSK,16QAM	25 RB / 0 RB Offset
		20800 to 21400	20800, 21100, 21400	10MHz	QPSK,16QAM	50 RB / 0 RB Offset
		20825 to 21375	20825, 21100, 21375	15MHz	QPSK,16QAM	75 RB / 0 RB Offset
		20850 to 21350	20850, 21100, 21350	20MHz	QPSK,16QAM	100 RB / 0 RB Offset
A	PEAK TO AVERAGE RATIO	20850 to 21350	20850, 21100, 21350	20MHz	QPSK,16QAM	1 RB / 0 RB Offset 100 RB / 0 RB Offset
A	BAND EDGE	20775 to 21425	20775	5MHz	QPSK,16QAM	1 RB / 0 RB Offset
						25 RB / 0 RB Offset
			21425	5MHz	QPSK,16QAM	1 RB / 24 RB Offset
						25 RB / 0 RB Offset
		20800 to 21400	20800	10MHz	QPSK,16QAM	1 RB / 0 RB Offset
						50 RB / 0 RB Offset
			21400	10MHz	QPSK,16QAM	1 RB / 49 RB Offset
						50 RB / 0 RB Offset
		20825 to 21375	20825	15MHz	QPSK,16QAM	1 RB / 0 RB Offset
						75 RB / 0 RB Offset
			21375	15MHz	QPSK,16QAM	1 RB / 74 RB Offset
						75 RB / 0 RB Offset
		20850 to 21350	20850	20MHz	QPSK,16QAM	1 RB / 0 RB Offset
						100 RB / 0 RB Offset
			21350	20MHz	QPSK,16QAM	1 RB / 99 RB Offset
						100 RB / 0 RB Offset
A	CONDUCTED EMISSION	20775 to 21425	20775, 21100, 21425	5MHz	QPSK	1 RB / 0 RB Offset
		20800 to 21400	20800, 21100, 21400	10MHz	QPSK	1 RB / 0RB Offset
		20825 to 21375	20825, 21100, 21375	15MHz	QPSK	1 RB / 0 RB Offset
		20850 to 21350	20850, 21100, 21350	20MHz	QPSK	1 RB / 0 RB Offset
A	RADIATED EMISSION	20775 to 21425	21100	5MHz	QPSK	1 RB / 0 RB Offset
		20800 to 21400	20800, 21100, 21400	10MHz	QPSK	1 RB / 0 RB Offset
		20825 to 21375	21100	15MHz	QPSK	1 RB / 0 RB Offset
		20850 to 21350	21100	20MHz	QPSK	1 RB / 0 RB Offset

Note: This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

LTE BAND 12 MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
A	ERP	23017 to 23173	23017, 23095, 23173	1.4MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		23025 to 23165	23025, 23095 ,23165	3MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		23035 to 23155	23035, 23095 ,23155	5MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		23060 to 23130	23060, 23095 ,23130	10MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
B	FREQUENCY STABILITY	23060 to 23130	23060, 23095 ,23130	10MHz	QPSK	50 RB / 0 RB Offset
A	OCCUPIED BANDWIDTH	23017 to 23173	23017, 23095, 23173	1.4MHz	QPSK,16QAM	6 RB / 0 RB Offset
		23025 to 23165	23025, 23095 ,23165	3MHz	QPSK,16QAM	15 RB / 0 RB Offset
		23035 to 23155	23035, 23095 ,23155	5MHz	QPSK,16QAM	25 RB / 0 RB Offset
		23060 to 23130	23060, 23095 ,23130	10MHz	QPSK,16QAM	50 RB / 0 RB Offset
A	PEAK TO AVERAGE RATIO	23060 to 23130	23060, 23095 ,23130	10MHz	QPSK,16QAM	1 RB / 0 RB Offset 50 RB / 0 RB Offset
A	BAND EDGE	23017 to 23173	23017	1.4MHz	QPSK,16QAM	1 RB / 0 RB Offset
						6 RB / 0 RB Offset
			23173	1.4MHz	QPSK,16QAM	1 RB / 5 RB Offset
						6 RB / 0 RB Offset
		23025 to 23165	23025	3MHz	QPSK,16QAM	1 RB / 0 RB Offset
						15 RB / 0 RB Offset
			23165	3MHz	QPSK,16QAM	1 RB / 14 RB Offset
						15 RB / 0 RB Offset
		23035 to 23155	23035	5MHz	QPSK,16QAM	1 RB / 0 RB Offset
						25 RB / 0 RB Offset
			23155	5MHz	QPSK,16QAM	1 RB / 24 RB Offset
						25 RB / 0 RB Offset
		23060 to 23130	23060	10MHz	QPSK,16QAM	1 RB / 0 RB Offset
						50 RB / 0 RB Offset
			23130	10MHz	QPSK,16QAM	1 RB / 49 RB Offset
						50 RB / 0 RB Offset
A	CONDUCTED EMISSION	23017 to 23173	23017, 23095, 23173	1.4MHz	QPSK	1 RB / 0 RB Offset
		23025 to 23165	23025, 23095 ,23165	3MHz	QPSK	1 RB / 0 RB Offset
		23035 to 23155	23035, 23095 ,23155	5MHz	QPSK	1 RB / 0 RB Offset
		23060 to 23130	23060, 23095 ,23130	10MHz	QPSK	1 RB / 0 RB Offset
A	RADIATED EMISSION	23017 to 23173	23017, 23095 ,23173	1.4MHz	QPSK	1 RB / 0 RB Offset
		23025 to 23165	23095	3MHz	QPSK	1 RB / 0 RB Offset
		23035 to 23155	23095	5MHz	QPSK	1 RB / 0 RB Offset
		23060 to 23130	23095	10MHz	QPSK	1 RB / 0 RB Offset

Note: This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

LTE BAND 13 MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
A	ERP	23205 to 23255	23205, 23230, 23255	5MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		23230	23230	10MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
B	FREQUENCY STABILITY	23205 to 23255	23205, 23255	5MHz	QPSK	50 RB / 0 RB Offset
A	OCCUPIED BANDWIDTH	23205 to 23255	23205, 23230, 23255	5MHz	QPSK,16QAM	25 RB / 0 RB Offset
		23230	23230	10MHz	QPSK,16QAM	50 RB / 0 RB Offset
A	PEAK TO AVERAGE RATIO	23230	23230	10MHz	QPSK,16QAM	1 RB / 0 RB Offset 50 RB / 0 RB Offset
A	BAND EDGE	23205 to 23255	23205	5MHz	QPSK,16QAM	1 RB / 0 RB Offset
						25 RB / 0 RB Offset
			23255	5MHz	QPSK,16QAM	1 RB / 24 RB Offset
						25 RB / 0 RB Offset
		23230	23230	10MHz	QPSK,16QAM	1 RB / 0 RB Offset
						1 RB / 49 RB Offset
						50 RB / 0 RB Offset
A	CONDUCTED EMISSION	23205 to 23255	23205, 23230, 23255	5MHz	QPSK	1 RB / 0 RB Offset
		23230	23230	10MHz	QPSK	1 RB / 0 RB Offset
A	RADIATED EMISSION	23205 to 23255	23205, 23230, 23255	5MHz	QPSK	1 RB / 0 RB Offset
		23230	23230	10MHz	QPSK	1 RB / 0 RB Offset

Note: This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

LTE BAND 17 MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
A	ERP	23755 to 23825	23755, 23790, 23825	5MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset
		23780 to 23800	23780, 23790, 23800	10MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset

Note: 1. This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

2. LTE Band 17 are covered by LTE Band 12, Because it is a subset of LTE Band 12 with the same output power and supported bandwidths, So the conducted test data and RSE test data please refer to LTE Band 12

TEST CONDITION:

TEST ITEM	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
ERP&EIRP	23deg. C, 70%RH	DC 5/5~11V By Adapter	Jace Hu
FREQUENCY STABILITY	23deg. C, 70%RH	DC 3.7/3.91/4.3 By DC Source	James Fu
OCCUPIED BANDWIDTH	23deg. C, 70%RH	DC 5/5~11V By Adapter	James Fu
BAND EDGE	23deg. C, 70%RH	DC 5/5~11V By Adapter	James Fu
CONDUCTED EMISSION	23deg. C, 70%RH	DC 5/5~11V By Adapter	James Fu
RADIATED EMISSION	23deg. C, 70%RH	DC 5/5~11V By Adapter	Jace Hu
PEAK TO AVERAGE RATIO	23deg. C, 70%RH	DC 5/5~11V By Adapter	James Fu

2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is an RF product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC 47 CFR Part 2

FCC 47 CFR Part 27

KDB 971168 D01 Power Meas License Digital Systems v03r01

ANSI/TIA/EIA-603-D

ANSI/TIA/EIA-603-E

ANSI C63.26-2015

NOTE: All test items have been performed and recorded as per the above standards.

3 TEST TYPES AND RESULTS

3.1 OUTPUT POWER MEASUREMENT

3.1.1 LIMITS OF OUTPUT POWER MEASUREMENT

The radiated peak output power shall be according to the specific rule Part 27.50(h)(2) that “User stations are limited to 2 watts” and 27.50(i) specific that “Peak transmit power must be measure over any interval of continuous transmission using instrumentation calibration in terms of rms-equivalent voltage.”

Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1-watt EIRP

According to the specific rule Part 27.50(b)(10) and 27.50(c)(10) Fixed, mobile, and Portable stations (hand-held devices) transmitting in the 698-746 MHz, 746-757 MHz, 776-788 MHz, and 805-806 MHz bands are limited to 3 watts ERP.

3.1.2 TEST PROCEDURES

EIRP MEASUREMENT:

Per KDB 971168 D01 Power Meas License Digital Systems v03r01 or subclause 5.2.5.5 of ANSI C63.26-2015, the relevant equation for determing the ERP or EIRP from the conducted RF output power measured using the guidance provided above is:

ERP or EIRP = $P_{Meas} + G_T – L_C$

Where:

ERP or EIRP = effective radiated power or equivalent isotropically radiated power, respectively (expressed in the same units as P_{Meas}, typically dBW or dBm);

P_{Meas} = measured transmitter output power or PSD, in dBm or dBW;

G_T = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);

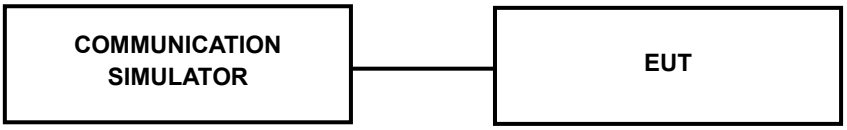
L_C = signal attenuation in the connecting cable between the transmitter and antenna, in dB.

CONDUCTED POWER MEASUREMENT:

a. The EUT was set up for the maximum power with LTE link data modulation and link up with simulator.
b. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

3.1.3 TEST SETUP

CONDUCTED POWER MEASUREMENT:



For the actual test configuration, please refer to the attached file (Test Setup Photo).

3.1.4 TEST RESULTS

CONDUCTED OUTPUT POWER (dBm)

ANT4(UP):

Band	WCDMA IV		
Channel	1312	1413	1513
Frequency (MHz)	1712.4	1732.6	1752.6
RMC 12.2K	23.09	**23.33**	23.02
HSDPA Subtest-1	22.14	22.12	22.03
HSDPA Subtest-2	22.30	22.07	21.95
HSDPA Subtest-3	21.83	21.63	21.62
HSDPA Subtest-4	21.58	21.64	21.33
DC-HSDPA Subtest-1	22.21	22.12	21.87
DC-HSDPA Subtest-2	22.18	22.09	21.99
DC-HSDPA Subtest-3	21.77	21.58	21.50
DC-HSDPA Subtest-4	21.78	21.47	21.37
HSUPA Subtest-1	20.68	20.60	20.30
HSUPA Subtest-2	20.61	20.51	20.31
HSUPA Subtest-3	20.99	21.01	20.81
HSUPA Subtest-4	19.74	19.71	19.60
HSUPA Subtest-5	21.36	21.15	20.99

LTE Band 7

Band/BW	Modulation	RB Size	RB Offset	Low CH 20775 Frequency 2502.5 MHz	Mid CH 21100 Frequency 2535 MHz	High CH 21425 Frequency 2567.5 MHz
7/ 5	QPSK	1	0	22.89	22.62	22.75
		1	12	22.87	22.85	22.88
		1	24	22.63	22.70	22.74
		12	0	21.74	21.75	21.69
		12	6	21.91	21.78	21.84
		12	13	21.91	21.84	21.62
		25	0	21.83	21.80	21.78
	16QAM	1	0	22.06	21.94	21.96
		1	12	22.08	22.05	22.06
		1	24	21.97	21.94	21.92
		12	0	20.89	20.75	20.74
		12	6	20.89	20.87	20.80
		12	13	20.87	20.81	20.70
		25	0	20.92	20.88	20.77
	64QAM	1	0	21.07	20.87	20.99
		1	12	21.15	21.05	20.99
		1	24	20.97	20.77	20.84
		12	0	19.88	19.94	19.80
		12	6	19.94	19.87	19.94
		12	13	19.85	19.83	19.78
		25	0	19.96	19.85	19.76

Band/BW	Modulation	RB Size	RB Offset	Low CH 20800	Mid CH 21100	High CH 21400
				Frequency 2505 MHz	Frequency 2535 MHz	Frequency 2565 MHz
7/ 10	QPSK	1	0	22.93	22.68	22.81
		1	24	22.90	22.86	22.82
		1	49	22.72	22.63	22.73
		25	0	21.76	21.79	21.76
		25	12	21.87	21.82	21.74
		25	25	21.87	21.82	21.63
		50	0	21.85	21.81	21.73
	16QAM	1	0	22.01	21.95	21.86
		1	24	22.16	22.10	21.98
		1	49	21.93	21.88	21.93
		25	0	20.84	20.81	20.77
		25	12	20.89	20.96	20.87
		25	25	20.98	20.84	20.73
		50	0	20.88	20.86	20.73
	64QAM	1	0	21.01	20.86	20.91
		1	24	21.14	20.99	21.08
		1	49	20.90	20.83	20.80
		25	0	19.95	19.88	19.86
		25	12	20.03	19.94	19.96
		25	25	19.95	19.94	19.81
		50	0	19.92	19.82	19.80

Band/BW	Modulation	RB Size	RB Offset	Low CH 20825 Frequency 2507.5 MHz	Mid CH 21100 Frequency 2535 MHz	High CH 21375 Frequency 2562.5 MHz
7/ 15	QPSK	1	0	22.86	22.64	22.83
		1	37	22.98	22.92	22.89
		1	74	22.73	22.73	22.77
		36	0	21.75	21.82	21.76
		36	19	21.89	21.87	21.76
		36	39	21.88	21.87	21.60
		75	0	21.88	21.79	21.75
	16QAM	1	0	22.00	22.00	21.96
		1	37	22.16	22.06	22.05
		1	74	21.97	21.95	21.84
		36	0	20.88	20.77	20.77
		36	19	20.82	20.92	20.83
		36	39	20.88	20.87	20.76
		75	0	20.91	20.84	20.68
	64QAM	1	0	21.06	20.97	21.02
		1	37	21.06	21.00	21.03
		1	74	20.96	20.88	20.86
		36	0	19.95	19.95	19.84
		36	19	19.99	19.90	19.84
		36	39	19.88	19.84	19.81
		75	0	19.84	19.86	19.75

Band/BW	Modulation	RB Size	RB Offset	Low CH 20850 Frequency 2510 MHz	Mid CH 21100 Frequency 2535 MHz	High CH 21350 Frequency 2560 MHz
7/ 20	QPSK	1	0	23.00	22.72	22.88
		1	50	**23.01**	22.97	22.94
		1	99	22.78	22.76	22.81
		50	0	21.87	21.84	21.82
		50	25	21.98	21.93	21.88
		50	50	21.96	21.89	21.73
		100	0	21.93	21.90	21.83
	16QAM	1	0	22.10	22.04	22.00
		1	50	22.18	22.15	22.08
		1	99	21.98	21.96	21.95
		50	0	20.93	20.87	20.84
		50	25	20.97	20.99	20.92
		50	50	20.99	20.96	20.79
		100	0	20.95	20.95	20.80
	64QAM	1	0	21.15	21.00	21.04
		1	50	21.17	21.12	21.09
		1	99	21.00	20.91	20.95
		50	0	19.96	19.98	19.91
		50	25	20.04	20.01	19.97
		50	50	19.97	19.95	19.82
		100	0	19.99	19.93	19.87

LTE Band 12

Band/BW	Modulation	RB Size	RB Offset	Low CH 23017 Frequency 699.7 MHz	Mid CH 23095 Frequency 707.5 MHz	High CH 23173 Frequency 715.3 MHz
12/ 1.4	QPSK	1	0	24.21	24.05	24.05
		1	2	24.11	24.03	24.05
		1	5	23.86	23.85	23.93
		3	0	24.01	23.84	23.80
		3	1	23.85	23.84	23.77
		3	3	23.88	23.75	23.67
		6	0	23.10	22.96	22.93
	16QAM	1	0	23.35	23.46	23.19
		1	2	23.29	23.25	23.22
		1	5	23.28	23.07	23.20
		3	0	23.00	22.83	22.78
		3	1	22.84	22.82	22.74
		3	3	22.88	22.80	22.72
		6	0	22.18	22.03	21.90
	64QAM	1	0	22.24	22.17	22.14
		1	2	22.25	22.13	22.07
		1	5	22.09	22.06	22.05
		3	0	22.02	21.89	21.74
		3	1	21.91	21.78	21.85
		3	3	21.94	21.89	21.75
		6	0	21.09	21.02	20.96

Band/BW	Modulation	RB Size	RB Offset	Low CH 23025 Frequency 700.5 MHz	Mid CH 23095 Frequency 707.5 MHz	High CH 23165 Frequency 714.5 MHz
12/ 3	QPSK	1	0	24.17	24.09	24.06
		1	7	23.97	23.96	23.93
		1	14	23.87	23.96	24.01
		8	0	23.14	23.06	23.06
		8	3	23.16	23.04	23.01
		8	7	23.02	22.93	22.92
		15	0	23.11	23.06	23.01
	16QAM	1	0	23.41	23.39	23.22
		1	7	23.37	23.17	23.15
		1	14	23.30	23.06	23.27
		8	0	22.30	21.95	21.84
		8	3	22.04	22.02	21.97
		8	7	22.13	21.97	21.94
		15	0	22.13	22.00	21.89
	64QAM	1	0	22.38	22.15	22.01
		1	7	22.17	22.12	22.15
		1	14	22.17	22.07	22.01
		8	0	21.06	20.96	20.98
		8	3	21.05	20.98	21.04
		8	7	21.06	20.93	20.95
		15	0	21.15	21.04	20.90

Band/BW	Modulation	RB Size	RB Offset	Low CH 23035 Frequency 701.5 MHz	Mid CH 23095 Frequency 707.5 MHz	High CH 23155 Frequency 713.5 MHz
12/ 5	QPSK	1	0	24.25	24.13	24.00
		1	12	24.01	24.00	23.92
		1	24	23.95	23.92	24.04
		12	0	23.13	23.04	23.02
		12	6	23.05	23.09	22.97
		12	13	23.07	22.99	22.90
		25	0	23.10	23.07	23.00
	16QAM	1	0	23.37	23.40	23.26
		1	12	23.41	23.15	23.23
		1	24	23.27	23.20	23.27
		12	0	22.30	22.05	21.88
		12	6	22.13	22.04	21.93
		12	13	22.14	22.03	21.90
		25	0	22.11	22.05	21.95
	64QAM	1	0	22.32	22.25	22.03
		1	12	22.26	22.15	22.06
		1	24	22.09	22.11	22.14
		12	0	21.08	21.02	20.93
		12	6	21.14	21.03	21.04
		12	13	21.09	21.02	20.90
		25	0	21.05	21.09	20.92

Band/BW	Modulation	RB Size	RB Offset	Low CH 23060 Frequency 704 MHz	Mid CH 23095 Frequency 707.5 MHz	High CH 23130 Frequency 711 MHz
12/ 10	QPSK	1	0	**24.28**	24.14	24.09
		1	24	24.12	24.10	24.06
		1	49	24.00	23.99	24.07
		25	0	23.26	23.11	23.08
		25	12	23.17	23.10	23.05
		25	25	23.15	23.05	23.00
		50	0	23.23	23.10	23.04
	16QAM	1	0	23.50	23.48	23.30
		1	24	23.43	23.29	23.28
		1	49	23.32	23.21	23.31
		25	0	22.31	22.09	21.98
		25	12	22.14	22.11	22.02
		25	25	22.20	22.09	22.02
		50	0	22.23	22.11	21.99
	64QAM	1	0	22.39	22.30	22.16
		1	24	22.30	22.27	22.21
		1	49	22.18	22.16	22.15
		25	0	21.21	21.09	21.00
		25	12	21.16	21.11	21.05
		25	25	21.15	21.08	21.01
		50	0	21.20	21.10	21.02

LTE Band 13

Band/BW	Modulation	RB Size	RB Offset	Low CH 23205 Frequency 779.5 MHz	Mid CH 23230 Frequency 782.0 MHz	High CH 23255 Frequency 784.5 MHz
13/ 5	QPSK	1	0	24.03	23.95	23.80
		1	12	23.75	23.95	23.67
		1	24	23.91	23.80	23.76
		12	0	23.04	22.75	22.90
		12	6	22.95	22.88	22.66
		12	13	22.93	22.70	22.62
		25	0	23.08	22.86	22.68
	16QAM	1	0	23.14	23.35	23.15
		1	12	23.28	23.02	22.99
		1	24	23.01	22.91	23.18
		12	0	22.05	21.87	21.86
		12	6	21.98	21.87	21.69
		12	13	21.97	21.85	21.79
		25	0	21.86	21.92	21.71
	64QAM	1	0	22.22	22.19	21.94
		1	12	22.16	22.20	21.97
		1	24	21.96	21.96	21.80
		12	0	21.00	20.87	20.66
		12	6	21.03	20.86	20.83
		12	13	20.84	20.83	20.91
		25	0	21.05	20.98	20.84

Band/BW	Modulation	RB Size	RB Offset	/	Mid CH 23230	/
				/	Frequency 782.0 MHz	/
13/ 10	QPSK	1	0	/	23.91	/
		1	24	/	24.01	/
		1	49	/	**24.13**	/
		25	0	/	22.94	/
		25	12	/	23.02	/
		25	25	/	22.93	/
		50	0	/	22.97	/
	16QAM	1	0	/	23.16	/
		1	24	/	23.20	/
		1	49	/	23.26	/
		25	0	/	21.94	/
		25	12	/	22.04	/
		25	25	/	21.96	/
		50	0	/	21.96	/
	64QAM	1	0	/	22.03	/
		1	24	/	22.19	/
		1	49	/	22.15	/
		25	0	/	20.93	/
		25	12	/	20.97	/
		25	25	/	20.89	/
		50	0	/	20.90	/

LTE Band 17

Band/BW	Modulation	RB Size	RB Offset	Low CH 23755 Frequency 706.5 MHz	Mid CH 23790 Frequency 710 MHz	High CH 23825 Frequency 713.5 MHz
17/ 5	QPSK	1	0	24.02	23.95	24.07
		1	12	23.92	24.01	23.84
		1	24	23.84	23.95	23.98
		12	0	22.86	23.00	22.93
		12	6	23.01	22.94	22.99
		12	13	23.00	22.90	22.89
		25	0	22.97	22.90	23.04
	16QAM	1	0	23.16	23.30	23.21
		1	12	23.17	23.23	23.12
		1	24	23.19	23.24	23.19
		12	0	21.90	21.94	21.94
		12	6	21.93	21.87	21.99
		12	13	22.02	21.78	21.91
		25	0	21.94	21.85	21.84
	64QAM	1	0	22.13	22.19	22.09
		1	12	22.12	22.15	22.03
		1	24	22.05	22.18	22.07
		12	0	20.84	20.83	20.83
		12	6	21.07	21.03	20.99
		12	13	20.90	20.89	20.79
		25	0	20.89	20.81	20.80

Band/BW	Modulation	RB Size	RB Offset	Low CH 23780 Frequency 709 MHz	Mid CH 23790 Frequency 710 MHz	High CH 23800 Frequency 711 MHz
17/ 10	QPSK	1	0	24.06	24.07	**24.12**
		1	24	24.02	24.04	23.98
		1	49	23.99	23.98	24.02
		25	0	23.00	23.01	22.94
		25	12	23.06	23.03	23.09
		25	25	23.02	22.98	22.94
		50	0	22.98	23.02	23.05
	16QAM	1	0	23.31	23.34	23.29
		1	24	23.29	23.30	23.19
		1	49	23.21	23.27	23.32
		25	0	21.96	21.98	21.95
		25	12	22.02	22.01	22.09
		25	25	22.05	21.93	21.97
		50	0	21.98	21.98	21.96
	64QAM	1	0	22.23	22.20	22.18
		1	24	22.20	22.19	22.07
		1	49	22.13	22.20	22.22
		25	0	20.96	20.96	20.95
		25	12	21.08	21.05	21.01
		25	25	21.02	20.96	20.86
		50	0	20.99	20.95	20.94

ANT1(DOWN):

Band	WCDMA IV		
Channel	1312	1413	1513
Frequency (MHz)	1712.4	1732.6	1752.6
RMC 12.2K	23.78	**24.04**	23.80
HSDPA Subtest-1	22.24	22.56	22.22
HSDPA Subtest-2	22.42	22.43	22.06
HSDPA Subtest-3	21.79	21.90	21.94
HSDPA Subtest-4	21.74	21.66	22.08
DC-HSDPA Subtest-1	22.33	22.08	22.48
DC-HSDPA Subtest-2	22.16	22.31	22.37
DC-HSDPA Subtest-3	21.64	21.79	21.71
DC-HSDPA Subtest-4	21.78	21.89	21.67
HSUPA Subtest-1	20.77	20.58	20.75
HSUPA Subtest-2	20.70	20.53	20.75
HSUPA Subtest-3	21.23	21.12	21.55
HSUPA Subtest-4	19.87	19.99	20.04
HSUPA Subtest-5	21.33	21.26	21.38

LTE Band 7

Band/BW	Modulation	RB Size	RB Offset	Low CH 20775 Frequency 2502.5 MHz	Mid CH 21100 Frequency 2535 MHz	High CH 21425 Frequency 2567.5 MHz
7/ 5	QPSK	1	0	23.91	23.89	23.60
		1	12	23.88	23.92	23.76
		1	24	23.76	23.61	23.66
		12	0	22.80	22.91	22.69
		12	6	22.91	22.93	22.72
		12	13	22.80	22.87	22.52
		25	0	22.96	22.98	22.56
	16QAM	1	0	23.05	23.13	22.70
		1	12	23.17	22.88	22.89
		1	24	22.99	22.80	22.81
		12	0	21.86	21.81	21.79
		12	6	21.93	21.89	21.72
		12	13	22.01	21.79	21.65
		25	0	21.84	21.79	21.63
	64QAM	1	0	21.91	22.04	21.82
		1	12	22.03	22.11	21.73
		1	24	21.93	21.90	21.63
		12	0	20.99	20.92	20.79
		12	6	20.88	20.83	20.66
		12	13	20.94	20.79	20.43
		25	0	20.99	20.86	20.67

Band/BW	Modulation	RB Size	RB Offset	Low CH 20800	Mid CH 21100	High CH 21400
				Frequency 2505 MHz	Frequency 2535 MHz	Frequency 2565 MHz
7/ 10	QPSK	1	0	23.87	23.86	23.62
		1	24	23.95	23.91	23.71
		1	49	23.78	23.57	23.67
		25	0	22.87	22.84	22.67
		25	12	22.94	22.96	22.77
		25	25	22.83	22.92	22.56
		50	0	22.97	23.02	22.58
	16QAM	1	0	23.13	23.10	22.76
		1	24	23.10	22.86	22.81
		1	49	23.03	22.87	22.79
		25	0	21.83	21.81	21.80
		25	12	21.91	21.93	21.76
		25	25	22.00	21.85	21.56
		50	0	21.86	21.88	21.69
	64QAM	1	0	21.95	21.99	21.88
		1	24	22.03	22.11	21.79
		1	49	21.83	21.91	21.66
		25	0	20.92	20.86	20.81
		25	12	20.95	20.84	20.63
		25	25	21.01	20.78	20.43
		50	0	21.01	20.84	20.68

Band/BW	Modulation	RB Size	RB Offset	Low CH 20825 Frequency 2507.5 MHz	Mid CH 21100 Frequency 2535 MHz	High CH 21375 Frequency 2562.5 MHz
7/ 15	QPSK	1	0	23.84	23.81	23.59
		1	37	23.83	23.98	23.63
		1	74	23.77	23.56	23.66
		36	0	22.85	22.94	22.79
		36	19	23.00	22.98	22.69
		36	39	22.89	22.88	22.52
		75	0	22.98	23.03	22.52
	16QAM	1	0	23.07	22.99	22.77
		1	37	23.16	22.93	22.85
		1	74	23.08	22.85	22.79
		36	0	21.80	21.77	21.73
		36	19	21.99	21.92	21.64
		36	39	21.93	21.80	21.67
		75	0	21.90	21.79	21.64
	64QAM	1	0	22.01	22.07	21.82
		1	37	22.03	21.97	21.72
		1	74	21.89	21.86	21.75
		36	0	21.00	20.83	20.81
		36	19	20.89	20.83	20.73
		36	39	21.02	20.89	20.42
		75	0	20.96	20.96	20.58

Band/BW	Modulation	RB Size	RB Offset	Low CH 20850 Frequency 2510 MHz	Mid CH 21100 Frequency 2535 MHz	High CH 21350 Frequency 2560 MHz
7/ 20	QPSK	1	0	23.96	23.95	23.73
		1	50	23.98	**24.01**	23.77
		1	99	23.79	23.71	23.69
		50	0	22.94	22.95	22.80
		50	25	23.01	23.05	22.83
		50	50	22.91	23.02	22.62
		100	0	23.02	23.07	22.67
	16QAM	1	0	23.17	23.14	22.82
		1	50	23.23	23.01	22.95
		1	99	23.10	22.90	22.85
		50	0	21.92	21.90	21.86
		50	25	22.04	22.02	21.78
		50	50	22.03	21.88	21.68
		100	0	21.99	21.89	21.71
	64QAM	1	0	22.06	22.14	21.91
		1	50	22.17	22.12	21.87
		1	99	21.98	21.93	21.77
		50	0	21.01	20.94	20.83
		50	25	20.99	20.96	20.74
		50	50	21.05	20.92	20.57
		100	0	21.06	20.98	20.72

LTE Band 12

Band/BW	Modulation	RB Size	RB Offset	Low CH 23017 Frequency 699.7 MHz	Mid CH 23095 Frequency 707.5 MHz	High CH 23173 Frequency 715.3 MHz
12/ 1.4	QPSK	1	0	24.50	24.41	24.37
		1	2	24.29	24.38	24.22
		1	5	24.15	24.23	24.26
		3	0	24.21	24.14	24.09
		3	1	24.13	24.14	24.09
		3	3	24.30	24.23	24.06
		6	0	23.49	23.43	23.23
	16QAM	1	0	23.72	23.57	23.59
		1	2	23.56	23.44	23.52
		1	5	23.58	23.40	23.63
		3	0	23.35	23.12	22.98
		3	1	23.33	23.22	23.18
		3	3	23.25	23.17	23.09
		6	0	22.44	22.47	22.19
	64QAM	1	0	22.65	22.52	22.43
		1	2	22.62	22.48	22.39
		1	5	22.39	22.29	22.44
		3	0	22.27	22.13	22.04
		3	1	22.29	22.20	22.07
		3	3	22.18	22.11	22.07
		6	0	21.43	21.25	21.26

Band/BW	Modulation	RB Size	RB Offset	Low CH 23025 Frequency 700.5 MHz	Mid CH 23095 Frequency 707.5 MHz	High CH 23165 Frequency 714.5 MHz
12/ 3	QPSK	1	0	24.45	24.38	24.29
		1	7	24.34	24.36	24.32
		1	14	24.23	24.19	24.36
		8	0	23.52	23.42	23.23
		8	3	23.39	23.29	23.19
		8	7	23.40	23.36	23.24
		15	0	23.43	23.42	23.25
	16QAM	1	0	23.65	23.66	23.60
		1	7	23.62	23.52	23.58
		1	14	23.51	23.43	23.60
		8	0	22.45	22.30	22.21
		8	3	22.40	22.42	22.41
		8	7	22.54	22.32	22.23
		15	0	22.42	22.44	22.30
	64QAM	1	0	22.59	22.57	22.46
		1	7	22.62	22.58	22.40
		1	14	22.30	22.36	22.50
		8	0	21.48	21.18	21.15
		8	3	21.47	21.27	21.27
		8	7	21.32	21.38	21.30
		15	0	21.51	21.23	21.21

Band/BW	Modulation	RB Size	RB Offset	Low CH 23035 Frequency 701.5 MHz	Mid CH 23095 Frequency 707.5 MHz	High CH 23155 Frequency 713.5 MHz
12/ 5	QPSK	1	0	24.42	24.45	24.38
		1	12	24.40	24.28	24.23
		1	24	24.20	24.23	24.32
		12	0	23.51	23.44	23.32
		12	6	23.42	23.31	23.24
		12	13	23.37	23.38	23.24
		25	0	23.50	23.40	23.19
	16QAM	1	0	23.69	23.64	23.60
		1	12	23.64	23.51	23.48
		1	24	23.46	23.50	23.69
		12	0	22.53	22.28	22.28
		12	6	22.48	22.38	22.38
		12	13	22.41	22.28	22.35
		25	0	22.52	22.45	22.25
	64QAM	1	0	22.61	22.60	22.37
		1	12	22.56	22.44	22.45
		1	24	22.36	22.37	22.51
		12	0	21.48	21.27	21.16
		12	6	21.44	21.24	21.25
		12	13	21.32	21.28	21.20
		25	0	21.41	21.25	21.19

Band/BW	Modulation	RB Size	RB Offset	Low CH 23060 Frequency 704 MHz	Mid CH 23095 Frequency 707.5 MHz	High CH 23130 Frequency 711 MHz
12/ 10	QPSK	1	0	**24.51**	24.47	24.42
		1	24	24.44	24.39	24.35
		1	49	24.30	24.31	24.40
		25	0	23.54	23.45	23.37
		25	12	23.44	23.42	23.33
		25	25	23.51	23.43	23.35
		50	0	23.57	23.45	23.34
	16QAM	1	0	23.74	23.71	23.64
		1	24	23.69	23.58	23.63
		1	49	23.61	23.55	23.72
		25	0	22.58	22.42	22.31
		25	12	22.54	22.44	22.42
		25	25	22.55	22.43	22.37
		50	0	22.53	22.48	22.34
	64QAM	1	0	22.71	22.64	22.48
		1	24	22.65	22.59	22.49
		1	49	22.44	22.40	22.53
		25	0	21.53	21.33	21.30
		25	12	21.48	21.39	21.37
		25	25	21.47	21.42	21.31
		50	0	21.55	21.38	21.32

LTE Band 13

Band/BW	Modulation	RB Size	RB Offset	Low CH 23205 Frequency 779.5 MHz	Mid CH 23230 Frequency 782.0 MHz	High CH 23255 Frequency 784.5 MHz
13/ 5	QPSK	1	0	24.24	24.35	24.40
		1	12	24.33	24.39	24.46
		1	24	24.37	24.38	24.48
		12	0	23.43	23.52	23.59
		12	6	23.49	23.53	23.60
		12	13	23.50	23.47	23.53
		25	0	23.48	23.50	23.56
	16QAM	1	0	23.64	23.75	23.85
		1	12	23.76	23.78	23.82
		1	24	23.77	23.79	23.91
		12	0	22.40	22.51	22.55
		12	6	22.48	22.49	22.60
		12	13	22.51	22.48	22.49
		25	0	22.48	22.53	22.58
	64QAM	1	0	22.57	22.67	22.73
		1	12	22.68	22.74	22.71
		1	24	22.70	22.72	22.82
		12	0	21.44	21.51	21.57
		12	6	21.48	21.55	21.59
		12	13	21.51	21.50	21.53
		25	0	21.44	21.51	21.52

Band/BW	Modulation	RB Size	RB Offset	/	Mid CH 23230	/
				/	Frequency 782.0 MHz	/
13/ 10	QPSK	1	0	/	24.37	/
		1	24	/	24.47	/
		1	49	/	**24.53**	/
		25	0	/	23.44	/
		25	12	/	23.50	/
		25	25	/	23.43	/
		50	0	/	23.42	/
	16QAM	1	0	/	23.62	/
		1	24	/	23.70	/
		1	49	/	23.68	/
		25	0	/	22.40	/
		25	12	/	22.54	/
		25	25	/	22.42	/
		50	0	/	22.44	/
	64QAM	1	0	/	22.54	/
		1	24	/	22.57	/
		1	49	/	22.66	/
		25	0	/	21.37	/
		25	12	/	21.46	/
		25	25	/	21.40	/
		50	0	/	21.39	/

LTE Band 17

Band/BW	Modulation	RB Size	RB Offset	Low CH 23755 Frequency 706.5 MHz	Mid CH 23790 Frequency 710 MHz	High CH 23825 Frequency 713.5 MHz
17/ 5	QPSK	1	0	24.33	24.42	24.26
		1	12	24.27	24.29	24.18
		1	24	24.30	24.29	24.26
		12	0	23.16	23.25	23.20
		12	6	23.32	23.18	23.17
		12	13	23.30	23.31	23.28
		25	0	23.21	23.38	23.22
	16QAM	1	0	23.46	23.59	23.55
		1	12	23.44	23.51	23.47
		1	24	23.39	23.37	23.63
		12	0	22.25	22.30	22.28
		12	6	22.24	22.31	22.21
		12	13	22.35	22.29	22.30
		25	0	22.18	22.20	22.24
	64QAM	1	0	22.49	22.44	22.48
		1	12	22.38	22.51	22.35
		1	24	22.33	22.39	22.52
		12	0	21.16	21.26	21.14
		12	6	21.40	21.37	21.31
		12	13	21.27	21.18	21.19
		25	0	21.22	21.16	21.22

Band/BW	Modulation	RB Size	RB Offset	Low CH 23780 Frequency 709 MHz	Mid CH 23790 Frequency 710 MHz	High CH 23800 Frequency 711 MHz
17/ 10	QPSK	1	0	24.36	**24.46**	24.41
		1	24	24.34	24.39	24.32
		1	49	24.32	24.31	24.40
		25	0	23.25	23.27	23.27
		25	12	23.34	23.33	23.25
		25	25	23.36	23.38	23.29
		50	0	23.34	23.39	23.32
	16QAM	1	0	23.56	23.68	23.67
		1	24	23.48	23.56	23.60
		1	49	23.54	23.52	23.66
		25	0	22.27	22.38	22.29
		25	12	22.37	22.38	22.36
		25	25	22.40	22.30	22.34
		50	0	22.32	22.28	22.33
	64QAM	1	0	22.54	22.55	22.59
		1	24	22.50	22.54	22.41
		1	49	22.44	22.48	22.58
		25	0	21.27	21.30	21.28
		25	12	21.41	21.39	21.37
		25	25	21.37	21.31	21.25
		50	0	21.29	21.30	21.28

EIRP

ANT4(UP):

WCDMA IV						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
1312	1712.4	23.09	0.3	23.39	218.27	1
1413	1732.6	23.33	0.3	23.63	230.67	1
1513	1752.6	23.02	0.3	23.32	214.78	1

LTE B7 5M QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
20775	2502.5	22.89	-1.4	21.49	140.93	2
21100	2535	22.85	-1.4	21.45	139.64	2
21425	2567.5	22.88	-1.4	21.48	140.6	2

LTE B7 5M 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
20775	2502.5	22.08	-1.4	20.68	116.95	2
21100	2535	22.05	-1.4	20.65	116.14	2
21425	2567.5	22.06	-1.4	20.66	116.41	2

LTE B7 5M 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
20775	2502.5	21.15	-1.4	19.75	94.41	2
21100	2535	21.05	-1.4	19.65	92.26	2
21425	2567.5	20.99	-1.4	19.59	90.99	2

LTE B7 10M QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
20800	2505	22.93	-1.4	21.53	142.23	2
21100	2535	22.86	-1.4	21.46	139.96	2
21400	2565	22.82	-1.4	21.42	138.68	2

LTE B7 10M 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
20800	2505	22.16	-1.4	20.76	119.12	2
21100	2535	22.1	-1.4	20.7	117.49	2
21400	2565	21.98	-1.4	20.58	114.29	2

LTE B7 10M 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
20800	2505	21.14	-1.4	19.74	94.19	2
21100	2535	20.99	-1.4	19.59	90.99	2
21400	2565	21.08	-1.4	19.68	92.9	2

LTE B7 15M QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
20825	2507.5	22.98	-1.4	21.58	143.88	2
21100	2535	22.92	-1.4	21.52	141.91	2
21375	2562.5	22.89	-1.4	21.49	140.93	2

LTE B7 15M 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
20825	2507.5	22.16	-1.4	20.76	119.12	2
21100	2535	22.06	-1.4	20.66	116.41	2
21375	2562.5	22.05	-1.4	20.65	116.14	2

LTE B7 15M 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
20825	2507.5	21.06	-1.4	19.66	92.47	2
21100	2535	21	-1.4	19.6	91.2	2
21375	2562.5	21.03	-1.4	19.63	91.83	2

LTE B7 20M QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
20850	2510	23.01	-1.4	21.61	144.88	2
21100	2535	22.97	-1.4	21.57	143.55	2
21350	2560	22.94	-1.4	21.54	142.56	2

LTE B7 20M16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
20850	2510	22.18	-1.4	20.78	119.67	2
21100	2535	22.15	-1.4	20.75	118.85	2
21350	2560	22.08	-1.4	20.68	116.95	2

LTE B7 20M64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Lmit (W)
20850	2510	21.17	-1.4	19.77	94.84	2
21100	2535	21.12	-1.4	19.72	93.76	2
21350	2560	21.09	-1.4	19.69	93.11	2

LTE B12 1.4M QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	ERP (dBm)	ERP (mW)	Lmit (W)
23017	699.7	24.21	-5.6	16.46	44.26	3
23095	707.5	24.05	-5.6	16.3	42.66	3
23173	715.3	24.05	-5.6	16.3	42.66	3

LTE B12 1.4M 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	ERP (dBm)	ERP (mW)	Lmit (W)
23017	699.7	23.35	-5.6	15.6	36.31	3
23095	707.5	23.46	-5.6	15.71	37.24	3
23173	715.3	23.22	-5.6	15.47	35.24	3

LTE B12 1.4M 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	ERP (dBm)	ERP (mW)	Lmit (W)
23017	699.7	22.25	-5.6	14.5	28.18	3
23095	707.5	22.17	-5.6	14.42	27.67	3
23173	715.3	22.14	-5.6	14.39	27.48	3

LTE B12 3M QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	ERP (dBm)	ERP (mW)	Lmit (W)
23025	700.5	24.17	-5.6	16.42	43.85	3
23095	707.5	24.09	-5.6	16.34	43.05	3
23165	714.5	24.06	-5.6	16.31	42.76	3

LTE B12 3M 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	ERP (dBm)	ERP (mW)	Lmit (W)
23025	700.5	23.41	-5.6	15.66	36.81	3
23095	707.5	23.39	-5.6	15.64	36.64	3
23165	714.5	23.27	-5.6	15.52	35.65	3

LTE B12 3M 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	ERP (dBm)	ERP (mW)	Lmit (W)
23025	700.5	22.38	-5.6	14.63	29.04	3
23095	707.5	22.15	-5.6	14.4	27.54	3
23165	714.5	22.15	-5.6	14.4	27.54	3

LTE B12 5M QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	ERP (dBm)	ERP (mW)	Lmit (W)
23035	701.5	24.25	-5.6	16.5	44.67	3
23095	707.5	24.13	-5.6	16.38	43.45	3
23155	713.5	24.04	-5.6	16.29	42.56	3

LTE B12 5M 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	ERP (dBm)	ERP (mW)	Lmit (W)
23035	701.5	23.41	-5.6	15.66	36.81	3
23095	707.5	23.4	-5.6	15.65	36.73	3
23155	713.5	23.27	-5.6	15.52	35.65	3

LTE B12 5M 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	ERP (dBm)	ERP (mW)	Lmit (W)
23035	701.5	22.32	-5.6	14.57	28.64	3
23095	707.5	22.25	-5.6	14.5	28.18	3
23155	713.5	22.14	-5.6	14.39	27.48	3

LTE B12 10M QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	ERP (dBm)	ERP (mW)	Lmit (W)
23060	704	24.28	-5.6	16.53	44.98	3
23095	707.5	24.14	-5.6	16.39	43.55	3
23130	711	24.09	-5.6	16.34	43.05	3

LTE B12 10M 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	ERP (dBm)	ERP (mW)	Lmit (W)
23060	704	23.5	-5.6	15.75	37.58	3
23095	707.5	23.48	-5.6	15.73	37.41	3
23130	711	23.31	-5.6	15.56	35.97	3

LTE B12 10M 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	ERP (dBm)	ERP (mW)	Lmit (W)
23060	704	22.39	-5.6	14.64	29.11	3
23095	707.5	22.3	-5.6	14.55	28.51	3
23130	711	22.21	-5.6	14.46	27.93	3

LTE B13 5M QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	ERP (dBm)	ERP (mW)	Lmit (W)
23205	779.5	24.03	-6.5	15.38	34.51	3
23230	782	23.95	-6.5	15.3	33.88	3
23255	784.5	23.8	-6.5	15.15	32.73	3

LTE B13 5M 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	ERP (dBm)	ERP (mW)	Lmit (W)
23205	779.5	23.28	-6.5	14.63	29.04	3
23230	782	23.35	-6.5	14.7	29.51	3
23255	784.5	23.18	-6.5	14.53	28.38	3

LTE B13 5M 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	ERP (dBm)	ERP (mW)	Lmit (W)
23205	779.5	22.22	-6.5	13.57	22.75	3
23230	782	22.2	-6.5	13.55	22.65	3
23255	784.5	21.97	-6.5	13.32	21.48	3

LTE B13 10M QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	ERP (dBm)	ERP (mW)	Lmit (W)
23230	782	24.13	-6.5	15.48	35.32	3

LTE B13 10M 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	ERP (dBm)	ERP (mW)	Lmit (W)
23230	782	23.26	-6.5	14.61	28.91	3

LTE B13 10M 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	ERP (dBm)	ERP (mW)	Lmit (W)
23230	782	22.19	-6.5	13.54	22.59	3

LTE B17 5M QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	ERP (dBm)	ERP (mW)	Lmit (W)
23755	706.5	24.02	-5.6	16.27	42.36	3
23790	710	24.01	-5.6	16.26	42.27	3
23825	713.5	24.07	-5.6	16.32	42.85	3

LTE B17 5M 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	ERP (dBm)	ERP (mW)	Lmit (W)
23755	706.5	23.19	-5.6	15.44	34.99	3
23790	710	23.3	-5.6	15.55	35.89	3
23825	713.5	23.21	-5.6	15.46	35.16	3

LTE B17 5M 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	ERP (dBm)	ERP (mW)	Lmit (W)
23755	706.5	22.13	-5.6	14.38	27.42	3
23790	710	22.19	-5.6	14.44	27.8	3
23825	713.5	22.09	-5.6	14.34	27.16	3

LTE B17 10M QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	ERP (dBm)	ERP (mW)	Lmit (W)
23780	709	24.06	-5.6	16.31	42.76	3
23790	710	24.07	-5.6	16.32	42.85	3
23800	711	24.12	-5.6	16.37	43.35	3

LTE B17 10M 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	ERP (dBm)	ERP (mW)	Lmit (W)
23780	709	23.31	-5.6	15.56	35.97	3
23790	710	23.34	-5.6	15.59	36.22	3
23800	711	23.32	-5.6	15.57	36.06	3