FCC TEST REPORT

(PART 27)

Applicant:	HMD Global Oy
Address:	Bertel Jungin aukio 9,02600 Espoo, Finland

Manufacturer or Supplier:	HMD Global Oy
Address:	Bertel Jungin aukio 9,02600 Espoo, Finland
Product:	Smart phone
Brand Name:	HMD
Model Name:	TA-1600/TA-1688
FCC ID:	2AJOTTA-1600
Date of tests:	Apr. 08, 2024 ~ May. 31, 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: May. 31, 2024	Luke Lu Date: May. 31, 2024

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5 MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB. 185

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
PSU-NQN2403180115RF06	Original release	May. 31, 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**	**TEST LAB***
§2.1046	Conducted Output Power	Compliance	B
§27.50(d)(4) §27.50(h)(2)	Equivalent Isotropically Radiated Power (Band 4) (Band 38) (Band 41) (Band 66)	Compliance	B
§2.1055 §27.54	Frequency Stability	Compliance	A
§2.1049	Occupied Bandwidth	Compliance	A
§2.1051 §27.53(h) §27.53(m)(4)(6)	Conducted Band Edge Measurements (Band 4) (Band 38) (Band 41) (Band 66)	Compliance	A
§2.1051 §27.53(h) §27.53(m)(4)(6)	Conducted Spurious Emissions (Band 4) (Band 38) (Band 41) (Band 66)	Compliance	A
§2.1053 §27.53(h) §27.53(m)(4)(6)	Radiated Spurious Emissions (Band 4) (Band 38) (Band 41) (Band 66)	Compliance	B
§27.50(d)(5)	Peak to average ratio	Compliance	A

***Test Lab Information Reference**

Lab A:
BV 7Layers Communications Technology (Shenzhen) Co. Ltd
Lab Address:
Room B37, Warehouse A5, No.3 Chiwan 4th Road, Zhaoshang Street, Nanshan District Shenzhen, Guangdong, People's Republic of China
Accredited Test Lab Cert 3939.01

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

Lab B:
Huarui 7Layers High Technology (Suzhou) Co., Ltd.
Lab Address:
Tower N, Innovation Center, 88 Zhuyi Road, High-tech District, Suzhou City, Anhui Province
Accredited Test Lab Cert 6613.01

The FCC Site Registration No. is 434559; The Designation No. is CN1325.

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. 28,23	Mar. 27,24
MXE EMI Receiver	KEYSIGHT	N9038A-544	MY54450026	Mar. 27,24	Mar. 26,25
EXA Signal Analyzer	KEYSIGHT	N9010A-544	MY54510355	May. 10,23	May. 09,24
EXA Signal Analyzer	KEYSIGHT	N9010A-544	MY54510355	May. 09,24	May. 08,25
Loop Antenna	Schwarzbeck	FMZB 1519B	00173	Sep. 02,23	Sep. 01,24
Bilog Antenna	ETS-LINDGREN	3143B	00161965	Feb. 17,24	Feb. 16,25
Horn Antenna	ETS-LINDGREN	3117	00168692	Feb. 17,24	Feb. 16,25
Horn Antenna (18GHz-40GHz)	N/A	QWH-SL-18-40-K-SG/QMS-00361	15433	Sep. 03,23	Sep. 03,24
Radio Communication Analyzer	ANRITSU	MT8820C	6201465426	Feb. 13,24	Feb. 12,25
Signal Pre-Amplifier	EMSI	EMC 9135	980249	May. 06,23	May. 05,24
Signal Pre-Amplifier	EMSI	EMC 9135	980249	May. 05,24	May. 04,25
Signal Pre-Amplifier	EMSI	EMC 012645B	980257	May. 10,23	May.09,24
Signal Pre-Amplifier	EMSI	EMC 012645B	980257	May. 09,24	May.08,25
Signal Pre-Amplifier	EMSI	EMC 184045B	980259	Feb. 16,24	Feb. 15,25
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. 06,23	May. 05,24
10dB Attenuator	JFW/USA	50HF-010-SMA	50HF-010-SMA	May. 05,24	May. 04,25
Power Meter	Anritsu	ML2495A	1506002	Feb. 13,24	Feb. 12,25
Power Sensor	Anritsu	MA2411B	1339352	Feb. 13,24	Feb. 12,25
Temperature Chamber	ESPEC	SH-242	93000855	May. 06,23	May. 05,24
Temperature Chamber	ESPEC	SH-242	93000855	May. 05,24	May. 04,25
MXG Analog Microvave Signal Generator	KEYSIGHT	N5183A	MY50143024	Feb. 13,24	Feb. 12,25
Base station R&S CMW500	Rohde&Schwarz	CMW500	153085	May.10,23	May.09,24
Base station R&S CMW500	Rohde&Schwarz	CMW500	153085	May. 09,24	May.08,25
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.

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Pre-Amplifier	R&S	SCU18F1	100815	Aug.30,22	Aug.29,24
Pre-Amplifier	R&S	SCU08F1	101028	Sep.16,22	Sep.15,24
Vector Signal Generator	R&S	SMBV100B	102176	Feb.15,24	Feb.14,26
Signal Generator	R&S	SMB100A	182185	Feb.15,24	Feb.14,26
3m Fully-anechoic Chamber	TDK	9m*6m*6m	HRSW-SZ-EMC-01Chamber	Nov.25,22	Nov.24,25
3m Semi-anechoic Chamber	TDK	9m*6m*6m	HRSW-SZ-EMC-02Chamber	Nov.25,22	Nov.24,25
EMI TEST Receiver	R&S	ESR26	101734	Feb.24,24	Feb.23,26
EMI TEST Receiver	R&S	ESW44	101973	Feb.24,24	Feb.23,26
Bilog Antenna	SCHWARZBECK	VULB 9163	1264	Feb.27,24	Feb.26,26
Horn Antenna	ETS-LINDGREN	3117	227836	Aug.22,22	Aug.21,24
Horn Antenna (18GHz-40GHz)	Steatite Q-par Antennas	QMS 00880	23486	Feb.22,24	Feb.21,26
Horn Antenna	Steatite Q-par Antennas	QMS 00208	23485	Aug.22,22	Aug.21,24
Loop Antenna	SCHWARZ	HFH2-Z2/Z2E	100976	Feb.22,24	Feb.21,26
WIDEBANDRADIO COMMUNICATION TESTER	R&S	CMW500	169399	Jun.27,22	Jun.26,24
Test Software	EMC32	EMC32	N/A	N/A	N/A
Test Software	ELEKTRA	ELEKTRA4.32	N/A	N/A	N/A
Open Switch and Control Unit	R&S	OSP220	101964	Oct.01,22	Sep.30,24
DC Source	HYELEC	HY3010B	551016	Aug.31,22	Aug.30,24
Hygrothermograph	DELI	20210528	SZ014	Sep.06,22	Sep.05,24
PC	LENOVO	E14	HRSW0024	N/A	N/A
TMC-AMI18843A(CABLE)	R&S	HF290-NMNM-7.00M	N/A	N/A	N/A
TMC-AMI18843A(CABLE)	R&S	HF290-NMNM-4.00M	N/A	N/A	N/A
CABLE	R&S	W13.02	N/A	Apr.28,23	Apr.27,24
CABLE	R&S	W13.02	N/A	Apr.27,24	Apr.26,25
CABLE	R&S	W12.14	N/A	Apr.28,23	Apr.27,24
CABLE	R&S	W12.14	N/A	Apr.27,24	Apr.26,25
CABLE	R&S	J12J103539-00-1	SEP-03-20-069	Apr.28,23	Apr.27,24
CABLE	R&S	J12J103539-00-1	SEP-03-20-069	Apr.27,24	Apr.26,25
CABLE	R&S	J12J103539-00-1	SEP-03-20-070	Apr.28,23	Apr.27,24
CABLE	R&S	J12J103539-00-1	SEP-03-20-070	Apr.27,24	Apr.26,25
Temperature Chamber	votsch	VT4002	585660781000050	May.31,22	May.30,24

Temperature Chamber	votsch	VT4002	5856607810 0050	May.30,24	May.29,26

NOTE: 1. The calibration interval of the above test instruments is 12/ 24 / 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 434559; The Designation No. is CN1325.

2 GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Smart phone	
BRAND NAME	HMD	
MODEL NAME	TA-1600/TA-1688	
NOMINAL VOLTAGE	5.0Vdc/9.0Vdc /12.0Vdc(adapter) 3.89Vdc (battery)	
MODULATION TECHNOLOGY	**LTE**	QPSK, 16QAM, 64QAM
FREQUENCY RANGE	**LTE Band 4 Channel Bandwidth: 1.4MHz**	1710.7MHz ~ 1754.3MHz
	LTE Band 4 Channel Bandwidth: 3MHz	1711.5MHz ~ 1753.5MHz
	LTE Band 4 Channel Bandwidth: 5MHz	1712.5MHz ~ 1752.5MHz
	LTE Band 4 Channel Bandwidth: 10MHz	1715MHz ~ 1750MHz
	LTE Band 4 Channel Bandwidth: 15MHz	1717.5MHz ~ 1747.5 MHz
	LTE Band 4 Channel Bandwidth: 20MHz	1720MHz ~ 1745MHz
	LTE Band 38 Channel Bandwidth: 5MHz	2572.5MHz ~ 2617.5MHz
	LTE Band 38 Channel Bandwidth: 10MHz	2575MHz ~ 2615MHz
	LTE Band 38 Channel Bandwidth: 15MHz	2577.5MHz ~ 2612.5MHz
	LTE Band 38 Channel Bandwidth: 20MHz	2580MHz ~ 2610MHz
	LTE Band 41 Channel Bandwidth: 5MHz	2498.5MHz ~ 2687.5MHz
	LTE Band 41 Channel Bandwidth: 10MHz	2501MHz ~ 2685MHz
	LTE Band 41 Channel Bandwidth: 15MHz	2503.5MHz ~ 2682.5MHz
	LTE Band 41 Channel Bandwidth: 20MHz	2506MHz ~ 2680MHz

FREQUENCY RANGE	**LTE Band 66 Channel Bandwidth: 1.4MHz**	1710.7MHz ~ 1779.3MHz
	LTE Band 66 Channel Bandwidth: 3MHz	1711.5MHz ~ 1778.5MHz
	LTE Band 66 Channel Bandwidth: 5MHz	1712.5MHz ~ 1777.5MHz
	LTE Band 66 Channel Bandwidth: 10MHz	1715MHz ~ 1775MHz
	LTE Band 66 Channel Bandwidth: 15MHz	1717.5MHz ~ 1772.5MHz
	LTE Band 66 Channel Bandwidth: 20MHz	1720MHz ~ 1770MHz
	LTE CA	CA_2A_4A/ CA_2A-66A/ CA_5A-66A/ CA_12A-66A/ CA_13A-66A/
MAX. EIRP POWER	**LTE Band 4 Channel Bandwidth: 1.4MHz**	154.88mW
	LTE Band 4 Channel Bandwidth: 3MHz	157.04mW
	LTE Band 4 Channel Bandwidth: 5MHz	154.17mW
	LTE Band 4 Channel Bandwidth: 10MHz	154.88mW
	LTE Band 4 Channel Bandwidth: 15MHz	155.6mW
	LTE Band 4 Channel Bandwidth: 20MHz	157.76mW
	LTE Band 38 Channel Bandwidth: 5MHz	149.28mW
	LTE Band 38 Channel Bandwidth: 10MHz	148.25mW
	LTE Band 38 Channel Bandwidth: 15MHz	147.57mW
	LTE Band 38 Channel Bandwidth: 20MHz	152.05mW
	LTE Band 41 Channel Bandwidth: 5MHz	119.4mW
	LTE Band 41 Channel Bandwidth: 10MHz	118.3mW
	LTE Band 41 Channel Bandwidth: 15MHz	120.78mW
	LTE Band 41 Channel Bandwidth: 20MHz	121.62mW

MAX. EIRP POWER	**LTE Band 41(HPUE) Channel Bandwidth: 5MHz**	241.55mW
	LTE Band 41(HPUE) Channel Bandwidth: 10MHz	242.1mW
	LTE Band 41(HPUE) Channel Bandwidth: 15MHz	239.33mW
	LTE Band 41(HPUE) Channel Bandwidth: 20MHz	243.22mW
	LTE Band 66 Channel Bandwidth: 1.4MHz	150.31mW
	LTE Band 66 Channel Bandwidth: 3MHz	148.59mW
	LTE Band 66 Channel Bandwidth: 5MHz	148.94mW
	LTE Band 66 Channel Bandwidth: 10MHz	150.66mW
	LTE Band 66 Channel Bandwidth: 15MHz	147.57mW
	LTE Band 66 Channel Bandwidth: 20MHz	151.36mW
EMISSION DESIGNATOR	**LTE Band 41 Channel Bandwidth: 5MHz**	QPSK: 4M53G7D
		16QAM: 4M54W7D
	LTE Band 41 Channel Bandwidth: 10MHz	QPSK: 9M02G7D
		16QAM: 9M02W7D
	LTE Band 41 Channel Bandwidth: 15MHz	QPSK: 13M6G7D
		16QAM: 13M5W7D
	LTE Band 41 Channel Bandwidth: 20MHz	QPSK: 18M0G7D
		16QAM: 18M0W7D
	LTE Band 66 Channel Bandwidth: 1.4MHz	QPSK: 1M10G7D
		16QAM: 1M10W7D
	LTE Band 66 Channel Bandwidth: 3MHz	QPSK: 2M71G7D
		16QAM: 2M71W7D

EMISSION DESIGNATOR	**LTE Band 66 Channel Bandwidth: 5MHz**	QPSK: 4M53G7D
		16QAM: 4M53W7D
	LTE Band 66 Channel Bandwidth: 10MHz	QPSK: 9M01G7D
		16QAM: 9M03W7D
	LTE Band 66 Channel Bandwidth: 15MHz	QPSK: 13M5G7D
		16QAM: 13M5W7D
	LTE Band 66 Channel Bandwidth: 20MHz	QPSK: 18M0G7D
		16QAM: 18M0W7D
ANTENNA TYPE	ANT0: PIFA Antenna with -1.63dBi gain for LTE B38 PIFA Antenna with -1.63dBi gain for LTE B41 ANT1: PIFA Antenna with -1.74dBi gain for LTE B4 PIFA Antenna with -1.74dBi gain for LTE B66 ANT2: PIFA Antenna with -1.97dBi gain for LTE B41 ANT3: PIFA Antenna with -2.56dBi gain for LTE B4 PIFA Antenna with -2.61dBi gain for LTE B41 PIFA Antenna with -2.56dBi gain for LTE B66 ANT5: PIFA Antenna with -4.1dBi gain for LTE B41	
HW VERSION	V2	
SW VERSION	00WW_0_340	
I/O PORTS	Refer to user's manual	
CABLE SUPPLIED	N/A	
EXTREME TEMPERATURE	-10-55℃	
EXTREME VOLTAGE	3.5V - 4.48V	

NOTE:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
2. The EUT incorporates a SISO function. Physically, the EUT provides one completed transmitter and four receivers.

MODULATION MODE	TX FUNCTION
LTE	1TX/4RX

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.
5. 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, 64QAM, and 256QAM modulations, and tests other than output power are performed only in worse-case QPSK and 16QAM modulations.

6 List of Accessory:

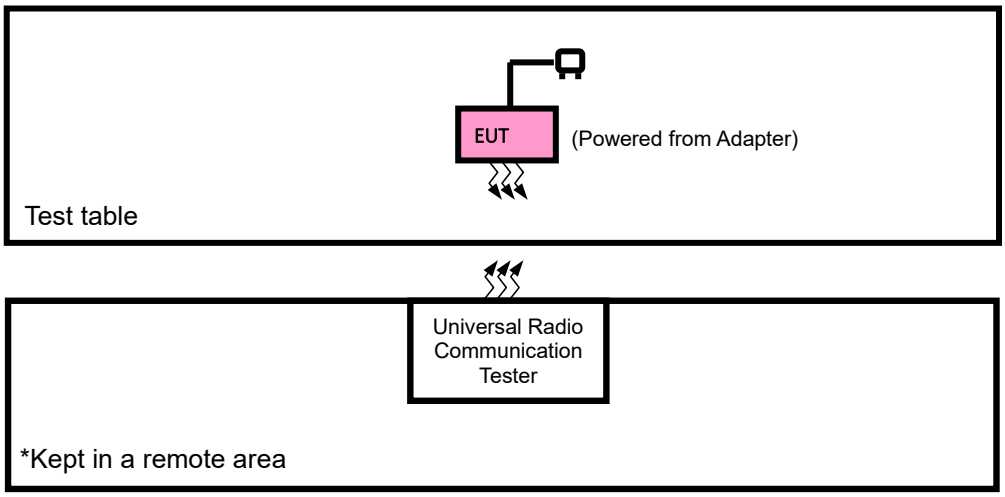
ACCESSORIES	BRAND	MANUFACTURER	MODEL	SPECIFICATION
LCD Panel	BOE	BOE	BF066XMM-TL4-F900	6.55inch, AMOLED;
Back cover	BIEL	BIEL	Panda-X	158 mm*73 mm*0.6 mm
Bezel	BIEL	BIEL	6103HG02-T6	160 mm_76 mm_8.5 mm
Photo Camera 1	AAC	AAC	P50AD01	50MP,AF
Photo Camera 2	AAC	AAC	W13FD02	13MP Ultra Wide, FF
Video Camera 1	AAC	AAC	T50AD01	50MP Tele, AF
Video Camera 2	AAC	AAC	MA8SD01	108MP+OIS, AF
CPU	Qualcomm	Qualcomm	SM-7435-1-PSP1026-TR-00-0-AB	Platform Baseband Chip_PSP_mmW_8 core_SMT
eMMC1 (=ROM1)	Samsung	Samsung	KM8L9001JM-B624T07	uMCP_254-ball FBGA_128GB_LPDD R4X_64Gb_SMT
eMMC2 (=ROM2)	Samsung	Samsung	KM8F9001JM-B813T07	uMCP_254-ball FBGA_256GB_LPDD R4X_64Gb_SMT
eMMC3 (=ROM3)	Samsung	Samsung	KM8F9001MM-B830T07	uMCP_254-ball FBGA_256GB_LPDD R4X_96Gb_SMT
Battery	HMD	Gaoyuan	HBA4633AA	RatedCapacity:4500mAh/17.51Wh

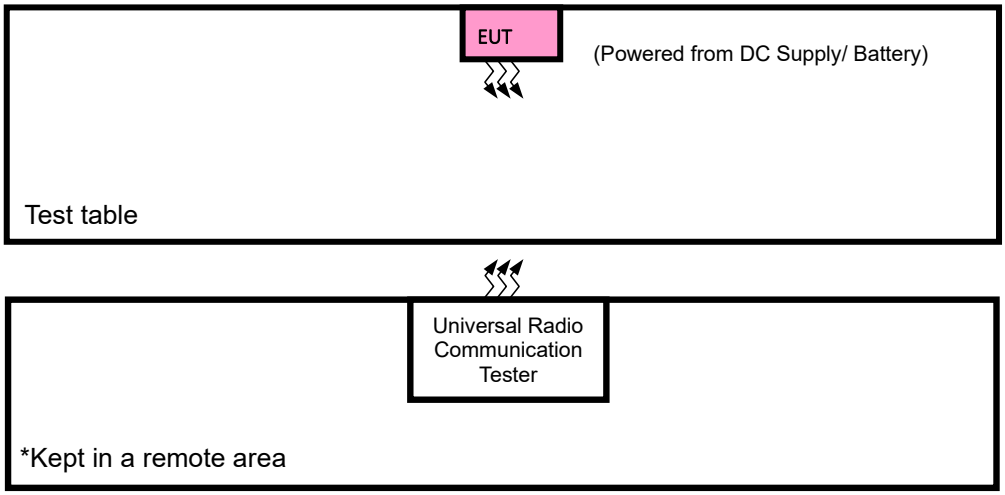
7 The differences between the first and second supply as follows and the specifications and RF parameters are the same.

Key Component list						
No.	Component	Description	First supply		Second supply	
			Supplier	Spec	Supplier	Spec
1	USB/ Analog audio headsets	Analog Audio Switch	Dioo	DIO4480WL25 Analog switch & MUX_WLCSP25_2.7-5.5V_3-Channel_1000MHz _SMT	Will	WAS4780C-25/TR Analog switch & MUX_CSP-25L_2.7-5.5V_2-Channel_950MHz_ SMT
2	Wireless charge	Load Switch	SGM	SGM2575ADYG/TR Load Switch_34 mΩ_11 W_WLCSP_SGM2575ADY G/TR_SGM	Dioo	DIO7290WL4 Load Switch_85 mΩ_11 W_WLCSP-4
3	Sensor	Barometer	Bosch	BMP580 Baroceptor _LGA-10_±0.05 hPa_48 bit_ SMT	Go er mic ro	SPL07-003 Baroceptor_10pin LGA_0.5Pa/°C_24 bit_SMT
4	Sensor	eCOMPASS	VTC	AF6837 Magnetic field sensor_WLCSP_10 LSB/μT_16 bit_I2C_SMT	Memsic	MMC5603NJL Ecompass_MMC56 03NJL_M EMSIC_MCOs
5	RF IC	LNA	Will	WS7916DF-6/TR RF_LNA_6-pin DFN_1150 MHz to 1615_SMT	Awinic	AW5005EDNR RF_LNA_AW5005 EDNR_Awi nic
6	Receiver	SP2T	Will	WS78022D-6/TR DFN-6_0.1GHz - 3.8GHz_SPDT_GPIO_SMT	Champ hill	QX8612GD 0.7 to 2.7GHz_SPDT_2 W_GPIO
7	USB connector	USB type-C connector	LETCON	15-16815-105-M1 USB TYPE C Connector_0.9 mm_16 pin_Female Head (elastic end)_Horizontal_None-waterproof_4.27 mm_Gold_SMT_480M	HRD	UC141-0B100DR0 USB TYPE C Connector_0.9 mm_16 pin_Female Head (elastic end)_Horizontal_No ne- waterproof_4.3 mm_Gold_SMT_48 0M

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	DC source	Kikusui/JP	PMX18-5A	0000001	N/A

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	DC Line: 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 LTE link
B	EUT + DC Supply with LTE link

LTE BAND 4 MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
A	EIRP	19957 to 20393	19957, 20175, 20393	1.4MHz	QPSK, 16QAM, 64QAM，256QAM	1 RB / 0 RB Offset
		19965 to 20385	19965, 20175, 20385	3MHz	QPSK, 16QAM, 64QAM，256QAM	1 RB / 0 RB Offset
		19975 to 20375	19975, 20175, 20375	5MHz	QPSK, 16QAM, 64QAM，256QAM	1 RB / 0 RB Offset
		20000 to 20350	20000, 20175, 20350	10MHz	QPSK, 16QAM, 64QAM，256QAM	1 RB / 0 RB Offset
		20025 to 20325	20025, 20175, 20325	15MHz	QPSK, 16QAM, 64QAM，256QAM	1 RB / 0 RB Offset
		20050 to 20300	20050, 20175, 20300	20MHz	QPSK, 16QAM, 64QAM，256QAM	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 4 are covered by LTE Band 66, Because it is a subset of LTE Band 66 with the same output power and supported bandwidths, So the conducted test data and RSE test data please refer to LTE Band 66

LTE BAND 38 MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
A	EIRP	37775 to 38225	37775, 38000, 38225	5MHz	QPSK,16QAM,64QAM,256QAM	1 RB / 0 RB Offset
		37800 to 38200	37800, 38000, 38200	10MHz	QPSK,16QAM,64QAM,256QAM	1 RB / 0RB Offset
		37825 to 38175	37825, 38000, 38175	15MHz	QPSK,16QAM,64QAM,256QAM	1 RB / 0 RB Offset
		37850 to38150	37850, 38000, 38150	20MHz	QPSK,16QAM,64QAM,256QAM	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 38 are covered by LTE Band 41, Because it is a subset of LTE Band 41 with the same output power and supported bandwidths, So the conducted test data and RSE test data please refer to LTE Band 41

LTE BAND 41 MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
A	EIRP	39675 to 41565	39675, 40620, 41565	5MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
		39700 to 41540	39700, 40620,41540	10MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0RB Offset
		39725 to 41515	39725, 40620, 41515	15MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
		39750 to 41490	39750, 40620, 41490	20MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
B	FREQUENCY STABILITY	39700 to 41540	39700, 40620,41540	10MHz	QPSK, 16QAM	50 RB / 0 RB Offset
A	OCCUPIED BANDWIDTH	39675 to 41565	39675, 40620, 41565	5MHz	QPSK, 16QAM	25 RB / 0 RB Offset
		39700 to 41540	39700, 40620,41540	10MHz	QPSK, 16QAM	50 RB / 0 RB Offset
		39725 to 41515	39725, 40620, 41515	15MHz	QPSK, 16QAM	75 RB / 0 RB Offset
		39750 to 41490	39750, 40620, 41490	20MHz	QPSK, 16QAM	100 RB / 0 RB Offset
A	PEAK TO AVERAGE RATIO	39750 to 41490	39750, 40620, 41490	20MHz	QPSK, 16QAM	1 RB / 0 RB Offset 100 RB / 0 RB Offset
A	BAND EDGE	39675 to 41565	39675	5MHz	QPSK, 16QAM	1 RB / 0 RB Offset
						25 RB / 0 RB Offset
			41565	5MHz	QPSK, 16QAM	1 RB / 24 RB Offset
						25 RB / 0 RB Offset
		39700 to 41540	39700	10MHz	QPSK, 16QAM	1 RB / 0 RB Offset
						50 RB / 0 RB Offset
			41540	10MHz	QPSK, 16QAM	1 RB / 49 RB Offset
						50 RB / 0 RB Offset
		39725 to 41515	39725	15MHz	QPSK, 16QAM	1 RB / 0 RB Offset
						75 RB / 0 RB Offset
			41515	15MHz	QPSK, 16QAM	1 RB / 74 RB Offset
						75 RB / 0 RB Offset
		39750 to 41490	39750	20MHz	QPSK, 16QAM	1 RB / 0 RB Offset
						100 RB / 0 RB Offset
			41490	20MHz	QPSK, 16QAM	1 RB / 99 RB Offset
						100 RB / 0 RB Offset

A	CONDUCTED EMISSION	39675 to 41565	39675, 40620, 41565	5MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		39700 to 41540	39700, 40620,41540	10MHz	QPSK, 16QAM	1 RB / 0RB Offset
		39725 to 41515	39725, 40620, 41515	15MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		39750 to 41490	39750, 40620, 41490	20MHz	QPSK, 16QAM	1 RB / 0 RB Offset
A	RADIATED EMISSION	39675 to 41565	40620	5MHz	QPSK	1 RB / 0 RB Offset
		39700 to 41540	40620	10MHz	QPSK	1 RB / 0RB Offset
		39725 to 41515	40620	15MHz	QPSK	1 RB / 0 RB Offset
		39750 to 41490	39750, 40620, 41490	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 66 MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
A	EIRP	131979 to 132665	131979,132322,132665	1.4MHz	QPSK, 16QAM, 64QAM，256QAM	1 RB / 0 RB Offset
		131987 to 132657	131987,132322,132657	3MHz	QPSK, 16QAM, 64QAM，256QAM	1 RB / 0 RB Offset
		131997 to 132647	131997,132322,132647	5MHz	QPSK, 16QAM, 64QAM，256QAM	1 RB / 0 RB Offset
		132022 to 132622	132022,132322,132622	10MHz	QPSK, 16QAM, 64QAM，256QAM	1 RB / 0 RB Offset
		132047 to 132597	132047,132322,132597	15MHz	QPSK, 16QAM, 64QAM，256QAM	1 RB / 0 RB Offset
		132072 to 132572	132072,132322,132572	20MHz	QPSK, 16QAM, 64QAM，256QAM	1 RB / 0 RB Offset
B	FREQUENCY STABILITY	132022 to 132622	132022,132322,132622	10MHz	QPSK, 16QAM	50 RB / 0 RB Offset
A	OCCUPIED BANDWIDTH	131979 to 132665	131979,132322,132665	1.4MHz	QPSK, 16QAM	6 RB / 0 RB Offset
		131987 to 132657	131987,132322,132657	3MHz	QPSK, 16QAM	15 RB / 0 RB Offset
		131997 to 132647	131997,132322,132647	5MHz	QPSK, 16QAM	25 RB / 0 RB Offset
		132022 to 132622	132022,132322,132622	10MHz	QPSK, 16QAM	50 RB / 0 RB Offset
		132047 to 132597	132047,132322,132597	15MHz	QPSK, 16QAM	75 RB / 0 RB Offset
		132072 to 132572	132072,132322,132572	20MHz	QPSK, 16QAM	100 RB / 0 RB Offset
A	PEAK TO AVERAGE RATIO	132072 to 132572	132072, 132572	20MHz	QPSK, 16QAM	1 RB / 0 RB Offset 100 RB / 0 RB Offset
A	BAND EDGE	131979 to 132322	131979	1.4MHz	QPSK, 16QAM	1 RB / 0 RB Offset
						6 RB / 0 RB Offset
			132322	1.4MHz	QPSK, 16QAM	1 RB / 5 RB Offset
						6 RB / 0 RB Offset
		131987 to 132657	131987	3MHz	QPSK, 16QAM	1 RB / 0 RB Offset
						15 RB / 0 RB Offset
			132657	3MHz	QPSK, 16QAM	1 RB / 14 RB Offset
						15 RB / 0 RB Offset
		131997 to 132647	131997	5MHz	QPSK, 16QAM	1 RB / 0 RB Offset
						25 RB / 0 RB Offset
			132647	5MHz	QPSK, 16QAM	1 RB / 24 RB Offset
						25 RB / 0 RB Offset
		132022 to 132622	132022	10MHz	QPSK, 16QAM	1 RB / 0 RB Offset
						50 RB / 0 RB Offset
			132622	10MHz	QPSK, 16QAM	1 RB / 49 RB Offset
						50 RB / 0 RB Offset
		132047 to 132597	132047	15MHz	QPSK, 16QAM	1 RB / 0 RB Offset
						75 RB / 0 RB Offset
			132597	15MHz	QPSK, 16QAM	1 RB / 74 RB Offset
						75 RB / 0 RB Offset
		132072 to 132572	132072	20MHz	QPSK, 16QAM	1 RB / 0 RB Offset
						100 RB / 0 RB Offset
			132572	20MHz	QPSK, 16QAM	1 RB / 99 RB Offset

						100 RB / 0 RB Offset
A	CONDUCTED EMISSION	131979 to 132665	131979,132322,132665	1.4MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		131987 to 132657	131987,132322,132657	3MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		131997 to 132647	131997,132322,132647	5MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		132022 to 132622	132022,132322,132622	10MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		132047 to 132597	132047,132322,132597	15MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		132072 to 132572	132072,132322,132572	20MHz	QPSK, 16QAM	1 RB / 0 RB Offset
A	RADIATED EMISSION	131979 to 132665	132322	1.4MHz	QPSK	1 RB / 0 RB Offset
		131987 to 132657	132322	3MHz	QPSK	1 RB / 0 RB Offset
		131997 to 132647	132322	5MHz	QPSK	1 RB / 0 RB Offset
		132022 to 132622	132022,132322,132622	10MHz	QPSK	1 RB / 0 RB Offset
		132047 to 132597	132322	15MHz	QPSK	1 RB / 0 RB Offset
		132072 to 132572	132322	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.

TEST CONDITION:

TEST ITEM	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
ERP&EIRP	23deg. C, 70%RH	DC 5.0V/9.0V /12.0VBy Adapter	Jace Hu
FREQUENCY STABILITY	23deg. C, 70%RH	DC 3.5V/3.89V/4.48V By DC Supply	James Fu
OCCUPIED BANDWIDTH	23deg. C, 70%RH	DC 5.0V/9.0V /12.0VBy Adapter	James Fu
BAND EDGE	23deg. C, 70%RH	DC 5.0V/9.0V /12.0VBy Adapter	James Fu
CONDUCTED EMISSION	23deg. C, 70%RH	DC 5.0V/9.0V /12.0VBy Adapter	James Fu
RADIATED EMISSION	23deg. C, 70%RH	DC 5.0V/9.0V /12.0VBy Adapter	Jace Hu
PEAK TO AVERAGE RATIO	23deg. C, 70%RH	DC 5.0V/9.0V /12.0VBy Adapter	James Fu

2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a 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.”

According to the specific rule Part 27.50(d)(4) 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

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);

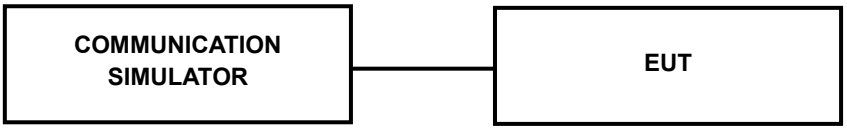
L_C = signal attenuation in the connecting cable between the transmitter and antenna, in dB.

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)

LTE Band 4 (ANT1)

Band/BW	Modulation	RB Size	RB Offset	Low CH 19957	Mid CH 20175	High CH 20393
				Frequency 1710.7 MHz	Frequency 1732.5 MHz	Frequency 1754.3 MHz
4/ 1.4	QPSK	1	0	23.52	23.50	23.53
		1	2	23.57	23.63	23.59
		1	5	23.62	23.64	23.58
		3	0	23.45	23.45	23.48
		3	1	23.47	23.42	23.45
		3	3	23.55	23.57	23.54
		6	0	22.72	22.55	22.61
	16QAM	1	0	22.79	22.67	22.86
		1	2	22.79	22.89	22.74
		1	5	22.77	22.80	22.88
		3	0	22.43	22.36	22.49
		3	1	22.57	22.38	22.53
		3	3	22.51	22.58	22.43
		6	0	21.65	21.65	21.65
	64QAM	1	0	21.61	21.81	21.64
		1	2	21.68	21.67	21.72
		1	5	21.79	21.47	21.73
		3	0	21.51	21.53	21.43
		3	1	21.60	21.59	21.56
		3	3	21.53	21.36	21.52
		6	0	20.64	20.48	20.63

Band/BW	Modulation	RB Size	RB Offset	Low CH 19965	Mid CH 20175	High CH 20385
				Frequency 1711.5 MHz	Frequency 1732.5 MHz	Frequency 1753.5 MHz
4/ 3	QPSK	1	0	23.42	23.48	23.52
		1	7	23.57	23.57	23.56
		1	14	23.63	23.52	23.70
		8	0	22.53	22.55	22.56
		8	3	22.60	22.52	22.66
		8	7	22.68	22.64	22.75
		15	0	22.66	22.58	22.72
	16QAM	1	0	22.86	22.70	22.94
		1	7	22.85	22.90	22.75
		1	14	22.85	22.79	22.91
		8	0	21.64	21.59	21.59
		8	3	21.73	21.57	21.71
		8	7	21.69	21.72	21.62
		15	0	21.75	21.57	21.54
	64QAM	1	0	21.60	21.71	21.71
		1	7	21.71	21.66	21.76
		1	14	21.78	21.50	21.82
		8	0	20.60	20.58	20.54
		8	3	20.66	20.62	20.65
		8	7	20.67	20.43	20.60
		15	0	20.60	20.49	20.59

Band/BW	Modulation	RB Size	RB Offset	Low CH 19975	Mid CH 20175	High CH 20375
				Frequency 1712.5 MHz	Frequency 1732.5 MHz	Frequency 1752.5 MHz
4/ 5	QPSK	1	0	23.52	23.42	23.56
		1	12	23.62	23.57	23.56
		1	24	23.56	23.51	23.59
		12	0	22.55	22.49	22.60
		12	6	22.71	22.49	22.64
		12	13	22.71	22.59	22.62
		25	0	22.60	22.62	22.59
	16QAM	1	0	22.76	22.72	22.80
		1	12	22.88	22.79	22.84
		1	24	22.90	22.89	22.90
		12	0	21.56	21.51	21.55
		12	6	21.77	21.65	21.70
		12	13	21.69	21.63	21.56
		25	0	21.76	21.60	21.57
	64QAM	1	0	21.65	21.78	21.64
		1	12	21.65	21.66	21.69
		1	24	21.84	21.54	21.71
		12	0	20.54	20.61	20.65
		12	6	20.72	20.69	20.63
		12	13	20.65	20.50	20.61
		25	0	20.67	20.53	20.51

Band/BW	Modulation	RB Size	RB Offset	Low CH 20000	Mid CH 20175	High CH 20350
				Frequency 1715 MHz	Frequency 1732.5 MHz	Frequency 1750 MHz
4/ 10	QPSK	1	0	23.50	23.44	23.46
		1	24	23.62	23.58	23.58
		1	49	23.59	23.62	23.64
		25	0	22.64	22.58	22.56
		25	12	22.62	22.54	22.69
		25	25	22.75	22.62	22.70
		50	0	22.65	22.52	22.61
	16QAM	1	0	22.88	22.66	22.91
		1	24	22.88	22.83	22.82
		1	49	22.87	22.80	22.88
		25	0	21.62	21.59	21.52
		25	12	21.80	21.63	21.65
		25	25	21.57	21.67	21.61
		50	0	21.65	21.68	21.65
	64QAM	1	0	21.60	21.70	21.68
		1	24	21.78	21.70	21.74
		1	49	21.82	21.53	21.79
		25	0	20.58	20.67	20.60
		25	12	20.62	20.70	20.58
		25	25	20.65	20.45	20.69
		50	0	20.67	20.51	20.61

Band/BW	Modulation	RB Size	RB Offset	Low CH 20025	Mid CH 20175	High CH 20325
				Frequency 1717.5 MHz	Frequency 1732.5 MHz	Frequency 1747.5 MHz
4/ 15	QPSK	1	0	23.45	23.45	23.54
		1	37	23.55	23.51	23.63
		1	74	23.64	23.55	23.66
		36	0	22.54	22.51	22.60
		36	19	22.67	22.48	22.60
		36	39	22.69	22.60	22.62
		75	0	22.68	22.56	22.59
	16QAM	1	0	22.79	22.75	22.81
		1	37	22.87	22.90	22.72
		1	74	22.80	22.88	22.83
		36	0	21.54	21.57	21.62
		36	19	21.78	21.64	21.76
		36	39	21.64	21.61	21.65
		75	0	21.65	21.65	21.67
	64QAM	1	0	21.68	21.70	21.67
		1	37	21.76	21.61	21.67
		1	74	21.73	21.55	21.75
		36	0	20.65	20.66	20.66
		36	19	20.60	20.58	20.58
		36	39	20.65	20.42	20.68
		75	0	20.64	20.52	20.51

Band/BW	Modulation	RB Size	RB Offset	Low CH 20050	Mid CH 20175	High CH 20300
				Frequency 1720 MHz	Frequency 1732.5 MHz	Frequency 1745 MHz
4/ 20	QPSK	1	0	23.54	23.53	23.59
		1	50	23.63	23.65	23.64
		1	99	23.65	23.66	23.72
		50	0	22.65	22.61	22.65
		50	25	22.72	22.59	22.73
		50	50	22.76	22.72	22.77
		100	0	22.73	22.65	22.74
	16QAM	1	0	22.91	22.79	22.95
		1	50	22.94	22.92	22.86
		1	99	22.92	22.94	22.92
		50	0	21.65	21.63	21.64
		50	25	21.81	21.66	21.78
		50	50	21.72	21.76	21.68
		100	0	21.77	21.70	21.69
	64QAM	1	0	21.74	21.82	21.75
		1	50	21.79	21.71	21.77
		1	99	21.86	21.62	21.85
		50	0	20.69	20.69	20.68
		50	25	20.75	20.73	20.70
		50	50	20.76	20.56	20.74
		100	0	20.72	20.58	20.65

LTE Band 4 (ANT3)

Band/BW	Modulation	RB Size	RB Offset	Low CH 19957	Mid CH 20175	High CH 20393
				Frequency 1710.7 MHz	Frequency 1732.5 MHz	Frequency 1754.3 MHz
4/ 1.4	QPSK	1	0	23.24	23.33	23.28
		1	2	23.39	23.30	23.11
		1	5	23.27	23.35	23.37
		3	0	23.22	23.31	23.27
		3	1	23.37	23.38	23.41
		3	3	23.37	23.36	23.48
		6	0	22.46	22.35	22.51
	16QAM	1	0	22.79	22.76	22.71
		1	2	22.54	22.54	22.56
		1	5	22.75	22.85	22.56
		3	0	22.25	22.22	22.29
		3	1	22.43	22.44	22.44
		3	3	22.45	22.45	22.48
		6	0	21.42	21.42	21.45
	64QAM	1	0	21.50	21.42	21.67
		1	2	21.48	21.44	21.65
		1	5	21.34	21.54	21.55
		3	0	21.35	21.26	21.29
		3	1	21.33	21.34	21.39
		3	3	21.42	21.44	21.53
		6	0	20.41	20.32	20.47

Band/BW	Modulation	RB Size	RB Offset	Low CH 19965	Mid CH 20175	High CH 20385
				Frequency 1711.5 MHz	Frequency 1732.5 MHz	Frequency 1753.5 MHz
4/ 3	QPSK	1	0	23.23	23.31	23.26
		1	7	23.32	23.34	23.04
		1	14	23.27	23.40	23.44
		8	0	22.36	22.29	22.33
		8	3	22.38	22.45	22.54
		8	7	22.46	22.55	22.51
		15	0	22.41	22.42	22.51
	16QAM	1	0	22.71	22.80	22.73
		1	7	22.51	22.62	22.53
		1	14	22.68	22.78	22.51
		8	0	21.37	21.40	21.35
		8	3	21.53	21.51	21.55
		8	7	21.48	21.56	21.58
		15	0	21.55	21.43	21.50
	64QAM	1	0	21.62	21.42	21.60
		1	7	21.34	21.53	21.62
		1	14	21.36	21.57	21.59
		8	0	20.33	20.30	20.35
		8	3	20.47	20.45	20.48
		8	7	20.50	20.41	20.63
		15	0	20.31	20.32	20.50

Band/BW	Modulation	RB Size	RB Offset	Low CH 19975	Mid CH 20175	High CH 20375
				Frequency 1712.5 MHz	Frequency 1732.5 MHz	Frequency 1752.5 MHz
4/ 5	QPSK	1	0	23.32	23.34	23.32
		1	12	23.34	23.24	23.14
		1	24	23.41	23.36	23.48
		12	0	22.33	22.29	22.31
		12	6	22.50	22.39	22.56
		12	13	22.47	22.46	22.56
		25	0	22.50	22.41	22.51
	16QAM	1	0	22.72	22.82	22.72
		1	12	22.55	22.53	22.60
		1	24	22.62	22.88	22.60
		12	0	21.29	21.42	21.30
		12	6	21.51	21.51	21.49
		12	13	21.44	21.47	21.54
		25	0	21.45	21.44	21.48
	64QAM	1	0	21.62	21.40	21.69
		1	12	21.38	21.49	21.53
		1	24	21.32	21.55	21.57
		12	0	20.36	20.44	20.36
		12	6	20.44	20.44	20.52
		12	13	20.47	20.51	20.49
		25	0	20.40	20.34	20.41

Band/BW	Modulation	RB Size	RB Offset	Low CH 20000	Mid CH 20175	High CH 20350
				Frequency 1715 MHz	Frequency 1732.5 MHz	Frequency 1750 MHz
4/ 10	QPSK	1	0	23.25	23.29	23.25
		1	24	23.39	23.29	23.14
		1	49	23.28	23.32	23.49
		25	0	22.32	22.39	22.26
		25	12	22.42	22.36	22.42
		25	25	22.43	22.52	22.56
		50	0	22.48	22.39	22.43
	16QAM	1	0	22.74	22.68	22.61
		1	24	22.61	22.54	22.61
		1	49	22.61	22.83	22.56
		25	0	21.31	21.40	21.38
		25	12	21.54	21.41	21.50
		25	25	21.47	21.54	21.50
		50	0	21.43	21.48	21.39
	64QAM	1	0	21.51	21.41	21.68
		1	24	21.43	21.45	21.59
		1	49	21.38	21.55	21.49
		25	0	20.37	20.34	20.38
		25	12	20.54	20.32	20.55
		25	25	20.41	20.45	20.63
		50	0	20.34	20.28	20.50

Band/BW	Modulation	RB Size	RB Offset	Low CH 20025	Mid CH 20175	High CH 20325
				Frequency 1717.5 MHz	Frequency 1732.5 MHz	Frequency 1747.5 MHz
4/ 15	QPSK	1	0	23.30	23.37	23.22
		1	37	23.39	23.34	23.15
		1	74	23.32	23.34	23.48
		36	0	22.26	22.38	22.30
		36	19	22.46	22.44	22.45
		36	39	22.49	22.42	22.63
		75	0	22.40	22.33	22.55
	16QAM	1	0	22.81	22.72	22.62
		1	37	22.50	22.57	22.54
		1	74	22.73	22.75	22.53
		36	0	21.41	21.29	21.36
		36	19	21.48	21.43	21.49
		36	39	21.51	21.51	21.51
		75	0	21.48	21.48	21.45
	64QAM	1	0	21.62	21.35	21.59
		1	37	21.35	21.46	21.51
		1	74	21.42	21.64	21.48
		36	0	20.37	20.43	20.26
		36	19	20.41	20.44	20.56
		36	39	20.52	20.51	20.56
		75	0	20.35	20.33	20.53

Band/BW	Modulation	RB Size	RB Offset	Low CH 20050	Mid CH 20175	High CH 20300
				Frequency 1720 MHz	Frequency 1732.5 MHz	Frequency 1745 MHz
4/ 20	QPSK	1	0	23.38	23.38	23.33
		1	50	23.40	23.39	23.19
		1	99	23.42	23.43	**23.51**
		50	0	22.41	22.44	22.39
		50	25	22.51	22.47	22.57
		50	50	22.54	22.56	22.65
		100	0	22.52	22.46	22.58
	16QAM	1	0	22.84	22.83	22.74
		1	50	22.64	22.65	22.64
		1	99	22.76	22.89	22.66
		50	0	21.42	21.43	21.45
		50	25	21.61	21.52	21.59
		50	50	21.54	21.59	21.61
		100	0	21.56	21.49	21.53
	64QAM	1	0	21.64	21.47	21.73
		1	50	21.49	21.55	21.66
		1	99	21.45	21.67	21.62
		50	0	20.44	20.45	20.41
		50	25	20.55	20.47	20.61
		50	50	20.54	20.54	20.64
		100	0	20.44	20.42	20.55

LTE Band 38(ANT0)

Band/BW	Modulation	RB Size	RB Offset	Low CH 37775	Mid CH 38000	High CH 38225
				Frequency 2572.5 MHz	Frequency 2595 MHz	Frequency 2617.5MHz
38/ 5	QPSK	1	0	23.33	23.37	23.28
		1	12	23.28	23.24	23.02
		1	24	23.18	23.07	22.93
		12	0	22.51	22.38	22.38
		12	6	22.32	22.31	22.34
		12	13	22.32	22.22	22.18
		25	0	22.28	22.27	22.22
	16QAM	1	0	22.35	22.39	22.32
		1	12	22.22	22.29	22.00
		1	24	22.27	22.12	21.97
		12	0	21.50	21.38	21.38
		12	6	21.37	21.22	21.29
		12	13	21.25	21.25	21.26
		25	0	21.31	21.22	21.16
	64QAM	1	0	21.46	21.45	21.37
		1	12	21.13	21.30	21.34
		1	24	21.34	21.09	21.15
		12	0	20.41	20.39	20.25
		12	6	20.35	20.24	20.26
		12	13	20.34	20.26	20.20
		25	0	20.31	20.31	20.23

Band/BW	Modulation	RB Size	RB Offset	Low CH 37800	Mid CH 38000	High CH 38200
				Frequency 2575 MHz	Frequency 2595 MHz	Frequency 2615 MHz
38/ 10	QPSK	1	0	23.34	23.29	23.31
		1	24	23.33	23.16	23.11
		1	49	23.14	23.03	22.89
		25	0	22.52	22.36	22.31
		25	12	22.42	22.27	22.25
		25	25	22.33	22.32	22.14
		50	0	22.22	22.32	22.22
	16QAM	1	0	22.41	22.37	22.42
		1	24	22.24	22.26	22.01
		1	49	22.23	22.05	21.96
		25	0	21.44	21.37	21.29
		25	12	21.34	21.31	21.20
		25	25	21.31	21.17	21.25
		50	0	21.40	21.19	21.13
	64QAM	1	0	21.54	21.44	21.35
		1	24	21.11	21.32	21.39
		1	49	21.35	21.23	21.18
		25	0	20.43	20.26	20.35
		25	12	20.26	20.22	20.19
		25	25	20.31	20.27	20.15
		50	0	20.23	20.29	20.20

Band/BW	Modulation	RB Size	RB Offset	Low CH 37825	Mid CH 38000	High CH 38175
				Frequency 2577.5 MHz	Frequency 2595 MHz	Frequency 2612.5MHz
38/ 15	QPSK	1	0	23.32	23.30	23.18
		1	37	23.31	23.28	23.13
		1	74	23.09	23.04	22.98
		36	0	22.39	22.41	22.25
		36	19	22.33	22.33	22.32
		36	39	22.37	22.28	22.13
		75	0	22.25	22.21	22.29
	16QAM	1	0	22.42	22.42	22.44
		1	37	22.23	22.29	22.01
		1	74	22.26	22.01	21.93
		36	0	21.39	21.47	21.38
		36	19	21.43	21.34	21.25
		36	39	21.29	21.22	21.22
		75	0	21.26	21.27	21.19
	64QAM	1	0	21.56	21.46	21.33
		1	37	21.13	21.37	21.28
		1	74	21.25	21.14	21.17
		36	0	20.36	20.40	20.21
		36	19	20.29	20.21	20.30
		36	39	20.24	20.14	20.24
		75	0	20.22	20.31	20.12

Band/BW	Modulation	RB Size	RB Offset	Low CH 37850 Frequency 2580 MHz	Mid CH 38000 Frequency 2595 MHz	High CH 38150 Frequency 2610 MHz
38/ 20	QPSK	1	0	**23.45**	23.39	23.32
		1	50	23.38	23.31	23.16
		1	99	23.21	23.13	23.03
		50	0	22.53	22.47	22.39
		50	25	22.45	22.38	22.35
		50	50	22.38	22.33	22.26
		100	0	22.35	22.32	22.34
	16QAM	1	0	22.48	22.47	22.47
		1	50	22.36	22.33	22.15
		1	99	22.28	22.16	22.05
		50	0	21.52	21.48	21.42
		50	25	21.44	21.35	21.30
		50	50	21.34	21.29	21.27
		100	0	21.41	21.32	21.26
	64QAM	1	0	21.57	21.55	21.45
		1	50	21.26	21.40	21.41
		1	99	21.39	21.24	21.21
		50	0	20.46	20.41	20.36
		50	25	20.37	20.35	20.33
		50	50	20.35	20.29	20.26
		100	0	20.32	20.34	20.27

LTE Band 41(ANT0) PC3:

Band/BW	Modulation	RB Size	RB Offset	Low CH (39675) Frequency (2498.5)MHz	Mid CH (40620) Frequency (2593)MHz	High CH (41565) Frequency (2687.5)MHz
41/ 5	QPSK	1	0	22.12	22.33	22.36
		1	12	22.02	22.21	22.40
		1	24	22.08	22.24	22.40
		12	0	21.30	21.44	21.51
		12	6	21.15	21.40	21.49
		12	13	21.14	21.38	21.55
		25	0	21.12	21.37	21.47
	16QAM	1	0	21.33	21.43	21.41
		1	12	21.07	21.45	21.37
		1	24	21.11	21.28	21.36
		12	0	20.19	20.47	20.78
		12	6	20.10	20.52	20.50
		12	13	20.14	20.47	20.52
		25	0	20.15	20.36	20.53
	64QAM	1	0	20.28	20.56	20.57
		1	12	20.28	20.39	20.54
		1	24	20.23	20.32	20.58
		12	0	19.21	19.45	19.60
		12	6	19.10	19.44	19.71
		12	13	19.00	19.37	19.60
		25	0	19.11	19.46	19.63

Band/BW	Modulation	RB Size	RB Offset	Low CH (39700)	Mid CH (40620)	High CH (41540)
				Frequency (2501)MHz	Frequency (2593)MHz	Frequency (2685)MHz
41/ 10	QPSK	1	0	22.24	22.33	22.34
		1	24	22.05	22.20	22.36
		1	49	22.09	22.25	22.34
		25	0	21.23	21.48	21.63
		25	12	21.17	21.38	21.52
		25	25	21.03	21.33	21.60
		50	0	21.06	21.39	21.46
	16QAM	1	0	21.23	21.45	21.42
		1	24	21.09	21.40	21.33
		1	49	21.07	21.24	21.39
		25	0	20.24	20.49	20.79
		25	12	20.11	20.48	20.54
		25	25	20.08	20.46	20.58
		50	0	20.09	20.44	20.51
	64QAM	1	0	20.35	20.64	20.68
		1	24	20.19	20.48	20.53
		1	49	20.26	20.41	20.64
		25	0	19.30	19.53	19.63
		25	12	19.19	19.44	19.69
		25	25	19.05	19.44	19.53
		50	0	19.13	19.42	19.58

Band/BW	Modulation	RB Size	RB Offset	Low CH (39725)	Mid CH (40620)	High CH (41515)
				Frequency (2503.5)MHz	Frequency (2593)MHz	Frequency (2682.5)MHz
41/ 15	QPSK	1	0	22.20	22.44	22.45
		1	37	22.14	22.14	22.43
		1	74	22.10	22.23	22.32
		36	0	21.26	21.37	21.57
		36	19	21.20	21.42	21.62
		36	39	21.10	21.37	21.58
		75	0	21.11	21.47	21.56
	16QAM	1	0	21.32	21.44	21.45
		1	37	21.11	21.44	21.33
		1	74	21.07	21.35	21.37
		36	0	20.24	20.45	20.65
		36	19	20.20	20.41	20.47
		36	39	20.19	20.47	20.61
		75	0	20.10	20.38	20.61
	64QAM	1	0	20.28	20.56	20.69
		1	37	20.28	20.40	20.53
		1	74	20.21	20.39	20.63
		36	0	19.23	19.57	19.62
		36	19	19.11	19.40	19.67
		36	39	19.01	19.39	19.60
		75	0	19.19	19.34	19.54

Band/BW	Modulation	RB Size	RB Offset	Low CH (39750)	Mid CH (40620)	High CH (41490)
				Frequency (2506)MHz	Frequency (2593)MHz	Frequency (2680)MHz
41/ 20	QPSK	1	0	22.25	22.45	**22.48**
		1	50	22.15	22.29	22.44
		1	99	22.11	22.27	22.43
		50	0	21.32	21.52	21.65
		50	25	21.21	21.45	21.63
		50	50	21.16	21.46	21.61
		100	0	21.20	21.50	21.59
	16QAM	1	0	21.36	21.47	21.56
		1	50	21.21	21.55	21.46
		1	99	21.12	21.37	21.49
		50	0	20.33	20.57	20.80
		50	25	20.23	20.55	20.59
		50	50	20.22	20.49	20.62
		100	0	20.21	20.50	20.65
	64QAM	1	0	20.39	20.65	20.72
		1	50	20.31	20.52	20.55
		1	99	20.28	20.43	20.66
		50	0	19.33	19.60	19.65
		50	25	19.22	19.54	19.72
		50	50	19.15	19.50	19.61
		100	0	19.21	19.49	19.65

LTE Band 41(ANT0) PC2:

Band/BW	Modulation	RB Size	RB Offset	Low CH (39675) Frequency (2498.5)MHz	Mid CH (40620) Frequency (2593)MHz	High CH (41565) Frequency (2687.5)MHz
41/ 5	QPSK	1	0	25.22	25.34	25.46
		1	12	25.13	25.22	25.25
		1	24	25.12	25.14	25.35
		12	0	24.10	24.32	24.43
		12	6	24.12	24.30	24.41
		12	13	24.03	24.23	24.29
		25	0	24.07	24.34	24.37
	16QAM	1	0	24.37	24.53	24.59
		1	12	24.35	24.50	24.51
		1	24	24.29	24.38	24.49
		12	0	23.18	23.34	23.38
		12	6	23.13	23.39	23.37
		12	13	23.08	23.29	23.41
		25	0	23.11	23.37	23.46
	64QAM	1	0	23.56	23.68	23.75
		1	12	23.48	23.24	23.66
		1	24	23.26	23.52	23.57
		12	0	22.28	22.38	22.50
		12	6	22.12	22.32	22.39
		12	13	22.11	22.26	22.41
		25	0	22.07	22.21	22.51
	256QAM	1	0	25.22	25.34	25.46
		1	12	25.13	25.22	25.25
		1	24	25.12	25.14	25.35
		12	0	24.10	24.32	24.43
		12	6	24.12	24.30	24.41
		12	13	24.03	24.23	24.29
		25	0	24.07	24.34	24.37

Band/BW	Modulation	RB Size	RB Offset	Low CH (39700)	Mid CH (40620)	High CH (41540)
				Frequency (2501)MHz	Frequency (2593)MHz	Frequency (2685)MHz
41/ 10	QPSK	1	0	25.13	25.37	25.47
		1	24	25.12	25.25	25.36
		1	49	25.09	25.24	25.39
		25	0	24.10	24.30	24.36
		25	12	24.09	24.24	24.47
		25	25	24.13	24.19	24.37
		50	0	24.07	24.27	24.44
	16QAM	1	0	24.39	24.52	24.63
		1	24	24.32	24.54	24.45
		1	49	24.23	24.30	24.45
		25	0	23.18	23.30	23.41
		25	12	23.13	23.39	23.45
		25	25	23.09	23.23	23.42
		50	0	23.12	23.34	23.36
	64QAM	1	0	23.45	23.69	23.73
		1	24	23.37	23.27	23.55
		1	49	23.21	23.52	23.48
		25	0	22.27	22.32	22.46
		25	12	22.09	22.42	22.40
		25	25	22.11	22.22	22.35
		50	0	22.11	22.31	22.44

Band/BW	Modulation	RB Size	RB Offset	Low CH (39725)	Mid CH (40620)	High CH (41515)
				Frequency (2503.5)MHz	Frequency (2593)MHz	Frequency (2682.5)MHz
41/ 15	QPSK	1	0	25.16	25.42	25.39
		1	37	25.14	25.30	25.35
		1	74	25.15	25.22	25.33
		36	0	24.20	24.36	24.38
		36	19	24.07	24.33	24.37
		36	39	24.13	24.20	24.39
		75	0	24.09	24.27	24.41
	16QAM	1	0	24.38	24.57	24.53
		1	37	24.36	24.57	24.51
		1	74	24.29	24.40	24.49
		36	0	23.19	23.31	23.42
		36	19	23.01	23.31	23.48
		36	39	23.04	23.24	23.42
		75	0	23.15	23.30	23.32
	64QAM	1	0	23.46	23.70	23.72
		1	37	23.48	23.21	23.64
		1	74	23.34	23.50	23.53
		36	0	22.17	22.35	22.42
		36	19	22.06	22.37	22.51
		36	39	22.12	22.35	22.43
		75	0	22.06	22.24	22.43
	256QAM	1	0	25.16	25.42	25.39
		1	37	25.14	25.30	25.35
		1	74	25.15	25.22	25.33
		36	0	24.20	24.36	24.38
		36	19	24.07	24.33	24.37
		36	39	24.13	24.20	24.39
		75	0	24.09	24.27	24.41

Band/BW	Modulation	RB Size	RB Offset	Low CH (39750)	Mid CH (40620)	High CH (41490)
				Frequency (2506)MHz	Frequency (2593)MHz	Frequency (2680)MHz
41/ 20	QPSK	1	0	25.27	25.45	**25.49**
		1	50	25.20	25.35	25.39
		1	99	25.18	25.25	25.40
		50	0	24.25	24.40	24.49
		50	25	24.14	24.37	24.48
		50	50	24.18	24.31	24.43
		100	0	24.13	24.36	24.49
	16QAM	1	0	24.45	24.63	24.68
		1	50	24.39	24.60	24.59
		1	99	24.31	24.45	24.57
		50	0	23.27	23.44	23.52
		50	25	23.15	23.40	23.51
		50	50	23.18	23.35	23.46
		100	0	23.16	23.39	23.47
	64QAM	1	0	23.60	23.72	23.82
		1	50	23.51	23.28	23.69
		1	99	23.36	23.59	23.61
		50	0	22.29	22.43	22.51
		50	25	22.19	22.46	22.53
		50	50	22.16	22.36	22.50
		100	0	22.13	22.34	22.52

LTE Band 66(ANT1)

Band/BW	Modulation	RB Size	RB Offset	Low CH 131979 Frequency 1710.7MHz	Mid CH 132322 Frequency 1745MHz	High CH 132665 Frequency 1779.3MHz
66/ 1.4	QPSK	1	0	23.26	23.37	23.19
		1	2	23.35	23.37	23.35
		1	5	23.45	23.46	23.31
		3	0	23.48	23.28	23.16
		3	1	23.48	23.33	23.24
		3	3	23.51	23.43	23.31
		6	0	22.53	22.50	22.34
	16QAM	1	0	22.70	22.66	22.49
		1	2	22.57	22.71	22.53
		1	5	22.61	22.81	22.72
		3	0	22.56	22.38	22.34
		3	1	22.56	22.35	22.37
		3	3	22.54	22.48	22.34
		6	0	21.63	21.49	21.41
	64QAM	1	0	21.72	21.68	21.52
		1	2	21.77	21.70	21.49
		1	5	21.79	21.80	21.38
		3	0	21.48	21.42	21.17
		3	1	21.43	21.25	21.30
		3	3	21.60	21.49	21.36
		6	0	20.58	20.44	20.41

Band/BW	Modulation	RB Size	RB Offset	Low CH 131987 Frequency 1711.5MHz	Mid CH 132322 Frequency 1745MHz	High CH 132657 Frequency 1778.5MHz
66/ 3	QPSK	1	0	23.30	23.32	23.25
		1	7	23.38	23.46	23.30
		1	14	23.36	23.42	23.37
		8	0	22.54	22.50	22.33
		8	3	22.57	22.45	22.38
		8	7	22.48	22.56	22.38
		15	0	22.46	22.49	22.40
	16QAM	1	0	22.69	22.63	22.50
		1	7	22.59	22.80	22.64
		1	14	22.67	22.84	22.72
		8	0	21.64	21.46	21.35
		8	3	21.61	21.45	21.47
		8	7	21.73	21.54	21.46
		15	0	21.64	21.50	21.40
	64QAM	1	0	21.67	21.66	21.52
		1	7	21.71	21.67	21.46
		1	14	21.79	21.68	21.47
		8	0	20.65	20.56	20.40
		8	3	20.66	20.37	20.29
		8	7	20.67	20.58	20.55
		15	0	20.61	20.49	20.39

Band/BW	Modulation	RB Size	RB Offset	Low CH 131997 Frequency 1712.5MHz	Mid CH 132322 Frequency 1745MHz	High CH 132647 Frequency 1777.5MHz
66/ 5	QPSK	1	0	23.28	23.43	23.26
		1	12	23.44	23.39	23.31
		1	24	23.47	23.47	23.30
		12	0	22.60	22.41	22.36
		12	6	22.59	22.53	22.30
		12	13	22.54	22.53	22.38
		25	0	22.51	22.51	22.35
	16QAM	1	0	22.76	22.53	22.50
		1	12	22.57	22.70	22.52
		1	24	22.63	22.86	22.66
		12	0	21.57	21.44	21.33
		12	6	21.58	21.44	21.48
		12	13	21.77	21.63	21.39
		25	0	21.63	21.39	21.39
	64QAM	1	0	21.67	21.61	21.55
		1	12	21.66	21.61	21.46
		1	24	21.73	21.71	21.37
		12	0	20.60	20.47	20.32
		12	6	20.60	20.32	20.39
		12	13	20.71	20.55	20.41
		25	0	20.56	20.45	20.38

Band/BW	Modulation	RB Size	RB Offset	Low CH 132022 Frequency 1715MHz	Mid CH 132322 Frequency 1745MHz	High CH 132622 Frequency 1775MHz
66/ 10	QPSK	1	0	23.29	23.35	23.25
		1	24	23.42	23.42	23.34
		1	49	23.47	23.52	23.31
		25	0	22.55	22.40	22.27
		25	12	22.50	22.51	22.32
		25	25	22.51	22.55	22.40
		50	0	22.46	22.60	22.30
	16QAM	1	0	22.66	22.63	22.56
		1	24	22.61	22.73	22.64
		1	49	22.70	22.85	22.71
		25	0	21.57	21.39	21.44
		25	12	21.57	21.42	21.43
		25	25	21.67	21.54	21.39
		50	0	21.64	21.42	21.36
	64QAM	1	0	21.73	21.66	21.54
		1	24	21.75	21.59	21.47
		1	49	21.81	21.80	21.44
		25	0	20.55	20.45	20.37
		25	12	20.52	20.35	20.42
		25	25	20.68	20.57	20.53
		50	0	20.66	20.40	20.34

Band/BW	Modulation	RB Size	RB Offset	Low CH 132047 Frequency 1717.5 MHz	Mid CH 132322 Frequency 1745MHz	High CH 132597 Frequency 1772.5 MHz
66/ 15	QPSK	1	0	23.35	23.41	23.19
		1	37	23.43	23.40	23.33
		1	74	23.34	23.42	23.31
		36	0	22.56	22.39	22.37
		36	19	22.49	22.45	22.41
		36	39	22.62	22.52	22.40
		75	0	22.51	22.57	22.36
	16QAM	1	0	22.77	22.60	22.44
		1	37	22.51	22.77	22.55
		1	74	22.63	22.75	22.69
		36	0	21.57	21.47	21.33
		36	19	21.62	21.52	21.47
		36	39	21.67	21.53	21.46
		75	0	21.64	21.51	21.28
	64QAM	1	0	21.66	21.63	21.49
		1	37	21.69	21.65	21.37
		1	74	21.67	21.77	21.38
		36	0	20.66	20.46	20.35
		36	19	20.62	20.42	20.34
		36	39	20.64	20.56	20.41
		75	0	20.61	20.42	20.38

Band/BW	Modulation	RB Size	RB Offset	Low CH 132072 Frequency 1720MHz	Mid CH 132322 Frequency 1745MHz	High CH 132572 Frequency 1770MHz
66/ 20	QPSK	1	0	23.41	23.44	23.34
		1	50	23.47	23.48	23.41
		1	99	23.48	**23.54**	23.44
		50	0	22.61	22.52	22.40
		50	25	22.62	22.54	22.43
		50	50	22.63	22.65	22.47
		100	0	22.58	22.62	22.43
	16QAM	1	0	22.79	22.68	22.58
		1	50	22.65	22.83	22.65
		1	99	22.75	22.90	22.73
		50	0	21.72	21.54	21.48
		50	25	21.71	21.56	21.51
		50	50	21.79	21.67	21.53
		100	0	21.75	21.52	21.43
	64QAM	1	0	21.74	21.74	21.63
		1	50	21.79	21.73	21.51
		1	99	21.82	21.81	21.52
		50	0	20.69	20.59	20.41
		50	25	20.67	20.44	20.44
		50	50	20.73	20.64	20.56
		100	0	20.70	20.51	20.46

LTE Band 66(ANT3)

Band/BW	Modulation	RB Size	RB Offset	Low CH 131979 Frequency 1710.7MHz	Mid CH 132322 Frequency 1745MHz	High CH 132665 Frequency 1779.3MHz
66/ 1.4	QPSK	1	0	23.07	23.20	23.03
		1	2	23.23	23.24	23.18
		1	5	23.28	23.43	23.20
		3	0	23.32	23.25	23.21
		3	1	23.24	23.25	23.21
		3	3	23.26	23.41	23.27
		6	0	22.37	22.37	22.24
	16QAM	1	0	22.53	22.71	22.38
		1	2	22.59	22.74	22.55
		1	5	22.44	22.54	22.37
		3	0	22.44	22.31	22.24
		3	1	22.38	22.37	22.16
		3	3	22.32	22.33	22.24
		6	0	21.31	21.21	21.23
	64QAM	1	0	21.39	21.45	21.20
		1	2	21.44	21.45	21.28
		1	5	21.42	21.53	21.32
		3	0	21.36	21.24	21.14
		3	1	21.44	21.33	21.08
		3	3	21.35	21.37	21.29
		6	0	20.29	20.30	20.28

Band/BW	Modulation	RB Size	RB Offset	Low CH 131987 Frequency 1711.5MHz	Mid CH 132322 Frequency 1745MHz	High CH 132657 Frequency 1778.5MHz
66/ 3	QPSK	1	0	23.11	23.10	23.13
		1	7	23.16	23.26	23.18
		1	14	23.23	23.43	23.23
		8	0	22.32	22.18	22.25
		8	3	22.34	22.24	22.28
		8	7	22.35	22.41	22.25
		15	0	22.25	22.39	22.21
	16QAM	1	0	22.46	22.62	22.43
		1	7	22.64	22.76	22.50
		1	14	22.40	22.54	22.40
		8	0	21.42	21.29	21.13
		8	3	21.30	21.32	21.15
		8	7	21.35	21.44	21.27
		15	0	21.37	21.25	21.26
	64QAM	1	0	21.40	21.37	21.25
		1	7	21.39	21.51	21.23
		1	14	21.47	21.47	21.30
		8	0	20.34	20.22	20.22
		8	3	20.49	20.21	20.10
		8	7	20.40	20.36	20.23
		15	0	20.37	20.27	20.28

Band/BW	Modulation	RB Size	RB Offset	Low CH 131997 Frequency 1712.5MHz	Mid CH 132322 Frequency 1745MHz	High CH 132647 Frequency 1777.5MHz
66/ 5	QPSK	1	0	23.10	23.18	23.15
		1	12	23.13	23.20	23.09
		1	24	23.30	23.36	23.22
		12	0	22.29	22.19	22.29
		12	6	22.24	22.36	22.26
		12	13	22.30	22.33	22.29
		25	0	22.30	22.35	22.23
	16QAM	1	0	22.48	22.67	22.35
		1	12	22.58	22.75	22.58
		1	24	22.46	22.56	22.42
		12	0	21.54	21.27	21.16
		12	6	21.40	21.37	21.10
		12	13	21.34	21.33	21.23
		25	0	21.30	21.25	21.22
	64QAM	1	0	21.44	21.35	21.31
		1	12	21.37	21.48	21.27
		1	24	21.38	21.54	21.26
		12	0	20.29	20.31	20.12
		12	6	20.52	20.24	20.07
		12	13	20.32	20.42	20.31
		25	0	20.31	20.37	20.25

Band/BW	Modulation	RB Size	RB Offset	Low CH 132022 Frequency 1715MHz	Mid CH 132322 Frequency 1745MHz	High CH 132622 Frequency 1775MHz
66/ 10	QPSK	1	0	23.14	23.17	23.10
		1	24	23.19	23.15	23.11
		1	49	23.23	23.38	23.23
		25	0	22.27	22.22	22.30
		25	12	22.33	22.23	22.16
		25	25	22.35	22.31	22.24
		50	0	22.31	22.31	22.16
	16QAM	1	0	22.51	22.62	22.45
		1	24	22.53	22.73	22.46
		1	49	22.38	22.62	22.30
		25	0	21.41	21.32	21.19
		25	12	21.33	21.29	21.10
		25	25	21.42	21.36	21.25
		50	0	21.32	21.23	21.25
	64QAM	1	0	21.36	21.40	21.27
		1	24	21.45	21.59	21.29
		1	49	21.46	21.52	21.33
		25	0	20.35	20.21	20.14
		25	12	20.54	20.29	20.10
		25	25	20.41	20.36	20.29
		50	0	20.28	20.37	20.29

Band/BW	Modulation	RB Size	RB Offset	Low CH 132047	Mid CH 132322	High CH 132597
				Frequency 1717.5 MHz	Frequency 1745MHz	Frequency 1772.5 MHz
66/ 15	QPSK	1	0	23.15	23.18	23.14
		1	37	23.21	23.15	23.17
		1	74	23.24	23.37	23.26
		36	0	22.33	22.18	22.24
		36	19	22.31	22.31	22.29
		36	39	22.26	22.35	22.36
		75	0	22.38	22.35	22.19
	16QAM	1	0	22.49	22.62	22.43
		1	37	22.54	22.71	22.60
		1	74	22.47	22.57	22.39
		36	0	21.44	21.27	21.21
		36	19	21.30	21.29	21.16
		36	39	21.29	21.44	21.34
		75	0	21.35	21.29	21.28
	64QAM	1	0	21.30	21.46	21.22
		1	37	21.33	21.54	21.22
		1	74	21.49	21.48	21.30
		36	0	20.30	20.24	20.16
		36	19	20.43	20.28	20.11
		36	39	20.31	20.36	20.21
		75	0	20.35	20.32	20.32

Band/BW	Modulation	RB Size	RB Offset	Low CH 132072 Frequency 1720MHz	Mid CH 132322 Frequency 1745MHz	High CH 132572 Frequency 1770MHz
66/ 20	QPSK	1	0	23.23	23.25	23.19
		1	50	23.26	23.28	23.02
		1	99	23.34	**23.48**	23.33
		50	0	22.40	22.34	22.32
		50	25	22.39	22.38	22.31
		50	50	22.41	22.46	22.39
		100	0	22.41	22.43	22.31
	16QAM	1	0	22.61	22.73	22.51
		1	50	22.68	22.78	22.62
		1	99	22.54	22.66	22.45
		50	0	21.56	21.42	21.27
		50	25	21.43	21.44	21.19
		50	50	21.44	21.49	21.38
		100	0	21.41	21.33	21.35
	64QAM	1	0	21.46	21.50	21.33
		1	50	21.48	21.61	21.31
		1	99	21.53	21.57	21.39
		50	0	20.41	20.34	20.26
		50	25	20.56	20.36	20.23
		50	50	20.47	20.49	20.37
		100	0	20.44	20.42	20.35

EIRP
LTE BAND 4(ANT1)
CHANNEL BANDWIDTH: 1.4MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19957	1710.7	23.62	-1.74	21.88	154.17	1
20175	1732.5	23.64	-1.74	21.9	154.88	1
20393	1754.3	23.59	-1.74	21.85	153.11	1

CHANNEL BANDWIDTH: 1.4MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19957	1710.7	22.79	-1.74	21.05	127.35	1
20175	1732.5	22.89	-1.74	21.15	130.32	1
20393	1754.3	22.88	-1.74	21.14	130.02	1

CHANNEL BANDWIDTH: 1.4MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19957	1710.7	21.79	-1.74	20.05	101.16	1
20175	1732.5	21.81	-1.74	20.07	101.62	1
20393	1754.3	21.73	-1.74	19.99	99.77	1

CHANNEL BANDWIDTH: 3MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19965	1711.5	23.63	-1.74	21.89	154.53	1
20175	1732.5	23.57	-1.74	21.83	152.41	1
20385	1753.5	23.7	-1.74	21.96	157.04	1

CHANNEL BANDWIDTH: 3MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19965	1711.5	22.86	-1.74	21.12	129.42	1
20175	1732.5	22.85	-1.74	21.11	129.12	1
20385	1753.5	22.85	-1.74	21.11	129.12	1

CHANNEL BANDWIDTH: 3MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19965	1711.5	21.78	-1.74	20.04	100.93	1
20175	1732.5	21.71	-1.74	19.97	99.31	1
20385	1753.5	21.82	-1.74	20.08	101.86	1

CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19975	1712.5	23.62	-1.74	21.88	154.17	1
20175	1732.5	23.57	-1.74	21.83	152.41	1
20375	1752.5	23.59	-1.74	21.85	153.11	1

CHANNEL BANDWIDTH: 5MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19975	1712.5	22.9	-1.74	21.16	130.62	1
20175	1732.5	22.89	-1.74	21.15	130.32	1
20375	1752.5	22.9	-1.74	21.16	130.62	1

CHANNEL BANDWIDTH: 5MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19975	1712.5	21.84	-1.74	20.1	102.33	1
20175	1732.5	21.78	-1.74	20.04	100.93	1
20375	1752.5	21.71	-1.74	19.97	99.31	1

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20000	1715	23.62	-1.74	21.88	154.17	1
20175	1732.5	23.62	-1.74	21.88	154.17	1
20350	1750	23.64	-1.74	21.9	154.88	1

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20000	1715	22.88	-1.74	21.14	130.02	1
20175	1732.5	22.83	-1.74	21.09	128.53	1
20350	1750	22.91	-1.74	21.17	130.92	1

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20000	1715	21.82	-1.74	20.08	101.86	1
20175	1732.5	21.7	-1.74	19.96	99.08	1
20350	1750	21.79	-1.74	20.05	101.16	1

CHANNEL BANDWIDTH: 15MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20025	1717.5	23.64	-1.74	21.9	154.88	1
20175	1732.5	23.55	-1.74	21.81	151.71	1
20325	1747.5	23.66	-1.74	21.92	155.6	1

CHANNEL BANDWIDTH: 15MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20025	1717.5	22.87	-1.74	21.13	129.72	1
20175	1732.5	22.9	-1.74	21.16	130.62	1
20325	1747.5	22.83	-1.74	21.09	128.53	1

CHANNEL BANDWIDTH: 15MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20025	1717.5	21.76	-1.74	20.02	100.46	1
20175	1732.5	21.7	-1.74	19.96	99.08	1
20325	1747.5	21.75	-1.74	20.01	100.23	1

CHANNEL BANDWIDTH: 20MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20050	1720	23.65	-1.74	21.91	155.24	1
20175	1732.5	23.66	-1.74	21.92	155.6	1
20300	1745	23.72	-1.74	21.98	157.76	1

CHANNEL BANDWIDTH: 20MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20050	1720	22.94	-1.74	21.2	131.83	1
20175	1732.5	22.94	-1.74	21.2	131.83	1
20300	1745	22.95	-1.74	21.21	132.13	1

CHANNEL BANDWIDTH: 20MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20050	1720	21.86	-1.74	20.12	102.8	1
20175	1732.5	21.82	-1.74	20.08	101.86	1
20300	1745	21.85	-1.74	20.11	102.57	1

LTE BAND 4(ANT3)
CHANNEL BANDWIDTH: 1.4MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19957	1710.7	23.39	-2.56	20.83	121.06	1
20175	1732.5	23.38	-2.56	20.82	120.78	1
20393	1754.3	23.48	-2.56	20.92	123.59	1

CHANNEL BANDWIDTH: 1.4MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19957	1710.7	22.79	-2.56	20.23	105.44	1
20175	1732.5	22.85	-2.56	20.29	106.91	1
20393	1754.3	22.71	-2.56	20.15	103.51	1

CHANNEL BANDWIDTH: 1.4MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19957	1710.7	21.5	-2.56	18.94	78.34	1
20175	1732.5	21.54	-2.56	18.98	79.07	1
20393	1754.3	21.67	-2.56	19.11	81.47	1

CHANNEL BANDWIDTH: 3MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19965	1711.5	23.32	-2.56	20.76	119.12	1
20175	1732.5	23.4	-2.56	20.84	121.34	1
20385	1753.5	23.44	-2.56	20.88	122.46	1

CHANNEL BANDWIDTH: 3MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19965	1711.5	22.71	-2.56	20.15	103.51	1
20175	1732.5	22.68	-2.56	20.12	102.8	1
20385	1753.5	22.68	-2.56	20.12	102.8	1

CHANNEL BANDWIDTH: 3MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19965	1711.5	21.62	-2.56	19.06	80.54	1
20175	1732.5	21.57	-2.56	19.01	79.62	1
20385	1753.5	21.62	-2.56	19.06	80.54	1

CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19975	1712.5	23.41	-2.56	20.85	121.62	1
20175	1732.5	23.36	-2.56	20.8	120.23	1
20375	1752.5	23.48	-2.56	20.92	123.59	1

CHANNEL BANDWIDTH: 5MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19975	1712.5	22.72	-2.56	20.16	103.75	1
20175	1732.5	22.88	-2.56	20.32	107.65	1
20375	1752.5	22.72	-2.56	20.16	103.75	1

CHANNEL BANDWIDTH: 5MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19975	1712.5	21.62	-2.56	19.06	80.54	1
20175	1732.5	21.55	-2.56	18.99	79.25	1
20375	1752.5	21.69	-2.56	19.13	81.85	1

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20000	1715	23.39	-2.56	20.83	121.06	1
20175	1732.5	23.32	-2.56	20.76	119.12	1
20350	1750	23.49	-2.56	20.93	123.88	1

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20000	1715	22.74	-2.56	20.18	104.23	1
20175	1732.5	22.83	-2.56	20.27	106.41	1
20350	1750	22.61	-2.56	20.05	101.16	1

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20000	1715	21.51	-2.56	18.95	78.52	1
20175	1732.5	21.55	-2.56	18.99	79.25	1
20350	1750	21.68	-2.56	19.12	81.66	1

CHANNEL BANDWIDTH: 15MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20025	1717.5	23.39	-2.56	20.83	121.06	1
20175	1732.5	23.37	-2.56	20.81	120.5	1
20325	1747.5	23.48	-2.56	20.92	123.59	1

CHANNEL BANDWIDTH: 15MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20025	1717.5	22.81	-2.56	20.25	105.93	1
20175	1732.5	22.75	-2.56	20.19	104.47	1
20325	1747.5	22.62	-2.56	20.06	101.39	1

CHANNEL BANDWIDTH: 15MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20025	1717.5	21.62	-2.56	19.06	80.54	1
20175	1732.5	21.64	-2.56	19.08	80.91	1
20325	1747.5	21.59	-2.56	19.03	79.98	1

CHANNEL BANDWIDTH: 20MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20050	1720	23.42	-2.56	20.86	121.9	1
20175	1732.5	23.43	-2.56	20.87	122.18	1
20300	1745	23.51	-2.56	20.95	124.45	1

CHANNEL BANDWIDTH: 20MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20050	1720	22.84	-2.56	20.28	106.66	1
20175	1732.5	22.89	-2.56	20.33	107.89	1
20300	1745	22.74	-2.56	20.18	104.23	1

CHANNEL BANDWIDTH: 20MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20050	1720	21.64	-2.56	19.08	80.91	1
20175	1732.5	21.67	-2.56	19.11	81.47	1
20300	1745	21.73	-2.56	19.17	82.6	1

LTE BAND 38(ANT0)

CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37775	2572.5	23.33	-1.63	21.7	147.91	2
38000	2595.0	23.37	-1.63	21.74	149.28	2
38225	2617.5	23.28	-1.63	21.65	146.22	2

CHANNEL BANDWIDTH: 5MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37775	2572.5	22.35	-1.63	20.72	118.03	2
38000	2595.0	22.39	-1.63	20.76	119.12	2
38225	2617.5	22.32	-1.63	20.69	117.22	2

CHANNEL BANDWIDTH: 5MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37775	2572.5	21.46	-1.63	19.83	96.16	2
38000	2595	21.45	-1.63	19.82	95.94	2
38225	2617.5	21.37	-1.63	19.74	94.19	2

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37800	2575.0	23.34	-1.63	21.71	148.25	2
38000	2595.0	23.29	-1.63	21.66	146.55	2
38200	2615.0	23.31	-1.63	21.68	147.23	2

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37800	2575.0	22.41	-1.63	20.78	119.67	2
38000	2595.0	22.37	-1.63	20.74	118.58	2
38200	2615.0	22.42	-1.63	20.79	119.95	2

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37800	2575	21.54	-1.63	19.91	97.95	2
38000	2595	21.44	-1.63	19.81	95.72	2
38200	2615	21.39	-1.63	19.76	94.62	2

CHANNEL BANDWIDTH: 15MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37825	2577.5	23.32	-1.63	21.69	147.57	2
38000	2595.0	23.3	-1.63	21.67	146.89	2
38175	2612.5	23.18	-1.63	21.55	142.89	2

CHANNEL BANDWIDTH: 15MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37825	2577.5	22.42	-1.63	20.79	119.95	2
38000	2595.0	22.42	-1.63	20.79	119.95	2
38175	2612.5	22.44	-1.63	20.81	120.5	2

CHANNEL BANDWIDTH: 15MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37825	2577.5	21.56	-1.63	19.93	98.4	2
38000	2595	21.46	-1.63	19.83	96.16	2
38175	2612.5	21.33	-1.63	19.7	93.33	2

CHANNEL BANDWIDTH: 20MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37850	2580.0	23.45	-1.63	21.82	152.05	2
38000	2595.0	23.39	-1.63	21.76	149.97	2
38150	2610.0	23.32	-1.63	21.69	147.57	2

CHANNEL BANDWIDTH: 20MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37850	2580.0	22.48	-1.63	20.85	121.62	2
38000	2595.0	22.47	-1.63	20.84	121.34	2
38150	2610.0	22.47	-1.63	20.84	121.34	2

CHANNEL BANDWIDTH: 20MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37850	2580	21.57	-1.63	19.94	98.63	2
38000	2595	21.55	-1.63	19.92	98.17	2
38150	2610	21.45	-1.63	19.82	95.94	2

LTE BAND 41 (ANT0)PC3:

CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39675	2498.5	22.12	-1.63	20.49	111.94	2
40620	2593.0	22.33	-1.63	20.7	117.49	2
41565	2687.5	22.4	-1.63	20.77	119.4	2

CHANNEL BANDWIDTH: 5MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39675	2498.5	21.33	-1.63	19.7	93.33	2
40620	2593.0	21.45	-1.63	19.82	95.94	2
41565	2687.5	21.41	-1.63	19.78	95.06	2

CHANNEL BANDWIDTH: 5MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39675	2498.5	20.28	-1.63	18.65	73.28	2
40620	2593.0	20.56	-1.63	18.93	78.16	2
41565	2687.5	20.58	-1.63	18.95	78.52	2

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39700	2501.0	22.24	-1.63	20.61	115.08	2
40620	2593.0	22.33	-1.63	20.7	117.49	2
41540	2685.0	22.36	-1.63	20.73	118.3	2

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39700	2501.0	21.23	-1.63	19.6	91.2	2
40620	2593.0	21.45	-1.63	19.82	95.94	2
41540	2685.0	21.42	-1.63	19.79	95.28	2

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39700	2501.0	20.35	-1.63	18.72	74.47	2
40620	2593.0	20.64	-1.63	19.01	79.62	2
41540	2685.0	20.68	-1.63	19.05	80.35	2

CHANNEL BANDWIDTH: 15MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39725	2503.5	22.2	-1.63	20.57	114.02	2
40620	2593.0	22.44	-1.63	20.81	120.5	2
41515	2682.5	22.45	-1.63	20.82	120.78	2

CHANNEL BANDWIDTH: 15MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39725	2503.5	21.32	-1.63	19.69	93.11	2
40620	2593.0	21.44	-1.63	19.81	95.72	2
41515	2682.5	21.45	-1.63	19.82	95.94	2

CHANNEL BANDWIDTH: 15MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39725	2503.5	20.28	-1.63	18.65	73.28	2
40620	2593.0	20.56	-1.63	18.93	78.16	2
41515	2682.5	20.69	-1.63	19.06	80.54	2

CHANNEL BANDWIDTH: 20MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39750	2506.0	22.25	-1.63	20.62	115.35	2
40620	2593.0	22.45	-1.63	20.82	120.78	2
41490	2680.0	22.48	-1.63	20.85	121.62	2

CHANNEL BANDWIDTH: 20MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39750	2506.0	21.36	-1.63	19.73	93.97	2
40620	2593.0	21.55	-1.63	19.92	98.17	2
41490	2680.0	21.56	-1.63	19.93	98.4	2

CHANNEL BANDWIDTH: 20 MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39750	2506.0	20.39	-1.63	18.76	75.16	2
40620	2593.0	20.65	-1.63	19.02	79.8	2
41490	2680.0	20.72	-1.63	19.09	81.1	2

LTE BAND 41 (ANT0) PC2:

CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39675	2498.5	25.22	-1.63	23.59	228.56	2
40620	2593.0	25.34	-1.63	23.71	234.96	2
41565	2687.5	25.46	-1.63	23.83	241.55	2

CHANNEL BANDWIDTH: 5MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39675	2498.5	24.37	-1.63	22.74	187.93	2
40620	2593.0	24.53	-1.63	22.9	194.98	2
41565	2687.5	24.59	-1.63	22.96	197.7	2

CHANNEL BANDWIDTH: 5MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39675	2498.5	23.56	-1.63	21.93	155.96	2
40620	2593.0	23.68	-1.63	22.05	160.32	2
41565	2687.5	23.75	-1.63	22.12	162.93	2

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39700	2501.0	25.13	-1.63	23.5	223.87	2
40620	2593.0	25.37	-1.63	23.74	236.59	2
41540	2685.0	25.47	-1.63	23.84	242.1	2

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39700	2501.0	24.39	-1.63	22.76	188.8	2
40620	2593.0	24.54	-1.63	22.91	195.43	2
41540	2685.0	24.63	-1.63	23	199.53	2

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39700	2501.0	23.45	-1.63	21.82	152.05	2
40620	2593.0	23.69	-1.63	22.06	160.69	2
41540	2685.0	23.73	-1.63	22.1	162.18	2

CHANNEL BANDWIDTH: 15MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39725	2503.5	25.16	-1.63	23.53	225.42	2
40620	2593.0	25.42	-1.63	23.79	239.33	2
41515	2682.5	25.39	-1.63	23.76	237.68	2

CHANNEL BANDWIDTH: 15MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39725	2503.5	24.38	-1.63	22.75	188.36	2
40620	2593.0	24.57	-1.63	22.94	196.79	2
41515	2682.5	24.53	-1.63	22.9	194.98	2

CHANNEL BANDWIDTH: 15MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39725	2503.5	23.48	-1.63	21.85	153.11	2
40620	2593.0	23.7	-1.63	22.07	161.06	2
41515	2682.5	23.72	-1.63	22.09	161.81	2

CHANNEL BANDWIDTH: 20MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39750	2506.0	25.27	-1.63	23.64	231.21	2
40620	2593.0	25.45	-1.63	23.82	240.99	2
41490	2680.0	25.49	-1.63	23.86	243.22	2

CHANNEL BANDWIDTH: 20MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39750	2506.0	24.45	-1.63	22.82	191.43	2
40620	2593.0	24.63	-1.63	23	199.53	2
41490	2680.0	24.68	-1.63	23.05	201.84	2

CHANNEL BANDWIDTH: 20 MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39750	2506.0	23.6	-1.63	21.97	157.4	2
40620	2593.0	23.72	-1.63	22.09	161.81	2
41490	2680.0	23.82	-1.63	22.19	165.58	2

LTE BAND 66

CHANNEL BANDWIDTH: 1.4MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131979	1710.7	23.51	-1.74	21.77	150.31	1
132322	1745	23.46	-1.74	21.72	148.59	1
132665	1779.3	23.35	-1.74	21.61	144.88	1

CHANNEL BANDWIDTH: 1.4MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131979	1710.7	22.7	-1.74	20.96	124.74	1
132322	1745	22.81	-1.74	21.07	127.94	1
132665	1779.3	22.72	-1.74	20.98	125.31	1

CHANNEL BANDWIDTH: 1.4MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131979	1710.7	21.79	-1.74	20.05	101.16	1
132322	1745	21.8	-1.74	20.06	101.39	1
132665	1779.3	21.52	-1.74	19.78	95.06	1

CHANNEL BANDWIDTH: 3MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131987	1711.5	23.38	-1.74	21.64	145.88	1
132322	1745	23.46	-1.74	21.72	**148.59**	1
132657	1778.5	23.37	-1.74	21.63	145.55	1

CHANNEL BANDWIDTH: 3MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131987	1711.5	22.69	-1.74	20.95	124.45	1
132322	1745	22.84	-1.74	21.1	128.82	1
132657	1778.5	22.72	-1.74	20.98	125.31	1

CHANNEL BANDWIDTH: 3MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131987	1711.5	21.79	-1.74	20.05	101.16	1
132322	1745	21.68	-1.74	19.94	98.63	1
132657	1778.5	21.52	-1.74	19.78	95.06	1

CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131997	1712.5	23.47	-1.74	21.73	148.94	1
132322	1745	23.47	-1.74	21.73	148.94	1
132647	1777.5	23.31	-1.74	21.57	143.55	1

CHANNEL BANDWIDTH: 5MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131997	1712.5	22.76	-1.74	21.02	126.47	1
132322	1745	22.86	-1.74	21.12	129.42	1
132647	1777.5	22.66	-1.74	20.92	123.59	1

CHANNEL BANDWIDTH: 5MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131997	1712.5	21.73	-1.74	19.99	99.77	1
132322	1745	21.71	-1.74	19.97	99.31	1
132647	1777.5	21.55	-1.74	19.81	95.72	1

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132022	1715	23.47	-1.74	21.73	148.94	1
132322	1745	23.52	-1.74	21.78	150.66	1
132622	1775	23.34	-1.74	21.6	144.54	1

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132022	1715	22.7	-1.74	20.96	124.74	1
132322	1745	22.85	-1.74	21.11	129.12	1
132622	1775	22.71	-1.74	20.97	125.03	1

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132022	1715	21.81	-1.74	20.07	101.62	1
132322	1745	21.8	-1.74	20.06	101.39	1
132622	1775	21.54	-1.74	19.8	95.5	1

CHANNEL BANDWIDTH: 15MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132047	1717.5	23.43	-1.74	21.69	147.57	1
132322	1745	23.42	-1.74	21.68	147.23	1
132597	1772.5	23.33	-1.74	21.59	144.21	1

CHANNEL BANDWIDTH: 15MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132047	1717.5	22.77	-1.74	21.03	126.77	1
132322	1745	22.77	-1.74	21.03	126.77	1
132597	1772.5	22.69	-1.74	20.95	124.45	1

CHANNEL BANDWIDTH: 15MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132047	1717.5	21.69	-1.74	19.95	98.86	1
132322	1745	21.77	-1.74	20.03	100.69	1
132597	1772.5	21.49	-1.74	19.75	94.41	1

CHANNEL BANDWIDTH: 20MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132072	1720	23.48	-1.74	21.74	149.28	1
132322	1745	23.54	-1.74	21.8	151.36	1
132572	1770	23.44	-1.74	21.7	147.91	1

CHANNEL BANDWIDTH: 20MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132072	1720	22.79	-1.74	21.05	127.35	1
132322	1745	22.9	-1.74	21.16	130.62	1
132572	1770	22.73	-1.74	20.99	125.6	1

CHANNEL BANDWIDTH: 20MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G_T-L_C (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132072	1720	21.82	-1.74	20.08	101.86	1
132322	1745	21.81	-1.74	20.07	101.62	1
132572	1770	21.63	-1.74	19.89	97.5	1

REMARKS: EIRP Output Power (dBm) = EIRP (dBm) -2.15(dB).

3.2 FREQUENCY STABILITY MEASUREMENT

3.2.1 LIMITS OF FREQUENCY STABILIITY MEASUREMENT

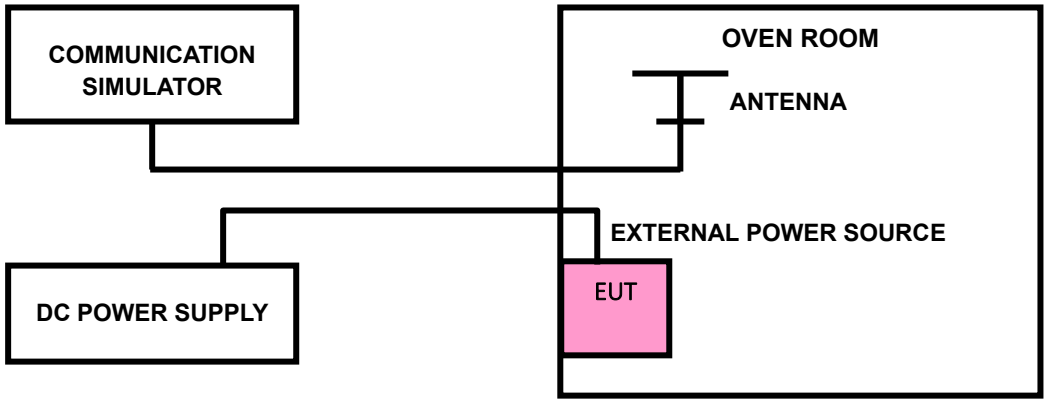
The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

3.2.2 TEST PROCEDURE

a. Device is placed at the oven room. The oven room could control the temperatures and humidity. Power warm up is at least 15 min and power applied should perform before recording frequency error.
b. EUT is connected the external power supply to control the DC input power. The test voltage range is from minimum to maximum working voltage. Each step shall be record the frequency error rate.
c. The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the ±0.5℃ during the measurement testing. The each temperature step shall be at least 0.5 hours, consider the EUT could be test under the stability condition.

NOTE: The frequency error was recorded frequency error from the communication simulator.

3.2.3 TEST SETUP



3.2.4 TEST RESULTS

Please Refer to Appendix H Of this test report.

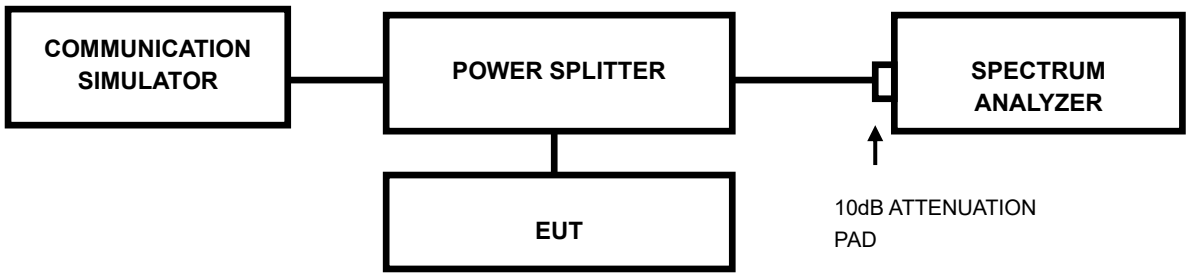
Note: VL = Low voltage(3.5V); VN/NV = Normal voltage(3.89V); VH = High voltage(4.48V);
NT = Normal temperature (25℃)

3.3 OCCUPIED BANDWIDTH MEASUREMENT

3.3.1 LIMITS OF OCCUPIED BANDWIDTH MEASUREMENT

The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 %of the total mean power of a given emission.

3.3.2 TEST SETUP



3.3.3 TEST PROCEDURES

a. The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.
b. Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth.

3.3.4 TEST RESULTS

Please Refer to Appendix H Of this test report.

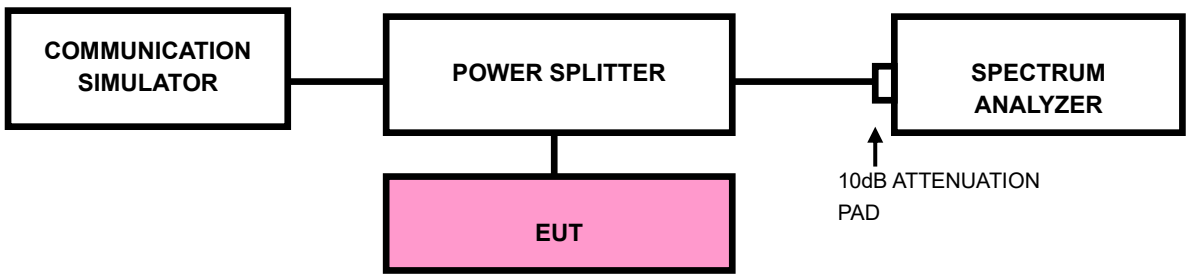
3.4 BAND EDGE MEASUREMENT

3.4.1 LIMITS OF BAND EDGE MEASUREMENT

According to FCC Part 27.53(h) specified that For operations in the 1710-1755 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

According to FCC Part 27.53(m)(4) specified that For mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees. For mobile digital stations, in the 1 megahertz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least two percent may be employed.

3.4.2 TEST SETUP



3.4.3 TEST PROCEDURES

a) Connect the transmitter to the spectrum analyzer via coaxial cable while ensuring proper impedance matching.

b) Tune the analyzer to the nominal center frequency of the emission bandwidth (EBW).

c) Set the resolution bandwidth (RBW) ≧ 1% EBW in the 1MHz band immediately outside and adjacent to the band edge.

d) Beyond the 1MHz band from the band edge, RBW=1MHz was used.

e) Set the video bandwidth (VBW) to ≧3 x RBW.

f) Select the average power (RMS) display detector.

g) Set the number of measurement points to ≧ 1001.

h) Use auto-coupled sweep time.

i) Perform the measurement over an interval of time when the transmission is continuous and at its maximum power level.

j) The RF fundamental frequency should be excluded against the limit line in the operating frequency band and use RBW is 10KHz or 100KHz.

k) Record the max trace plot into the test report.

3.4.4 TEST RESULTS

Please Refer to Appendix H Of this test report.

3.5 CONDUCTED SPURIOUS EMISSIONS

3.5.1 LIMITS OF CONDUCTED SPURIOUS EMISSIONS MEASUREMENT

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB. The emission limit equal to –13dBm.

For: Band41

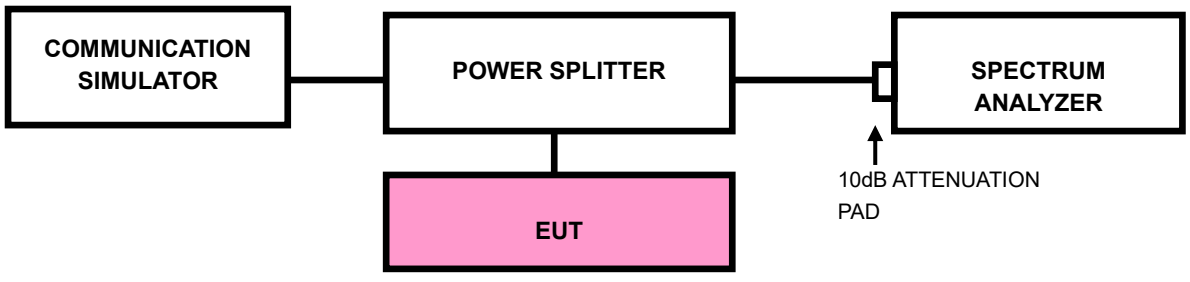
The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least 55 +10 log10(P) dB. The limit of emission is equal to -25dBm.

3.5.2 TEST PROCEDURE

a. The EUT makes a phone call to the communication simulator. All measurements were done at low, middle and high operational frequency range.

b. Measuring frequency range is from 9kHz up to a frequency including its 10th harmonic. 10dB attenuation pad is connected with spectrum. RBW=1MHz and VBW=3MHz is used for conducted emission measurement.

3.5.3 TEST SETUP



3.5.4 TEST RESULTS

NOTE：The 9K~30MHz amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required in the report.

Please Refer to Appendix H Of this test report.

3.6 RADIATED EMISSION MEASUREMENT

3.6.1 LIMITS OF RADIATED EMISSION MEASUREMENT

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB. The emission limit equal to –13dBm.

For: Band41

The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least 55 +10 log10(P) dB. The limit of emission is equal to -25dBm.

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3.6.2 TEST PROCEDURES

a. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The “Read Value” is the spectrum reading the maximum power value.
b. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to “Read Value “ of step a. Record the power level of S.G.
c. EIRP = Output power level of S.G – TX cable loss + Antenna gain of substitution horn.
d. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole, E.R.P power = E.I.P.R power - 2.15dBi.

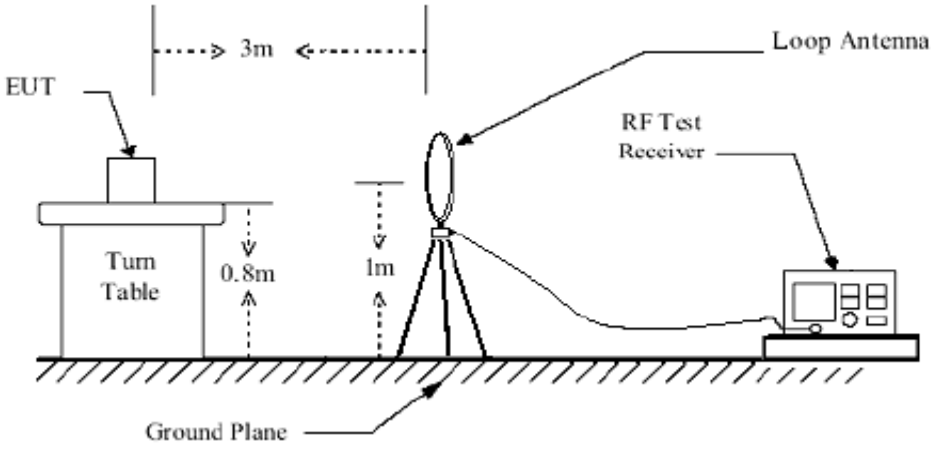
NOTE: The resolution bandwidth of spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz.

3.6.3 DEVIATION FROM TEST STANDARD

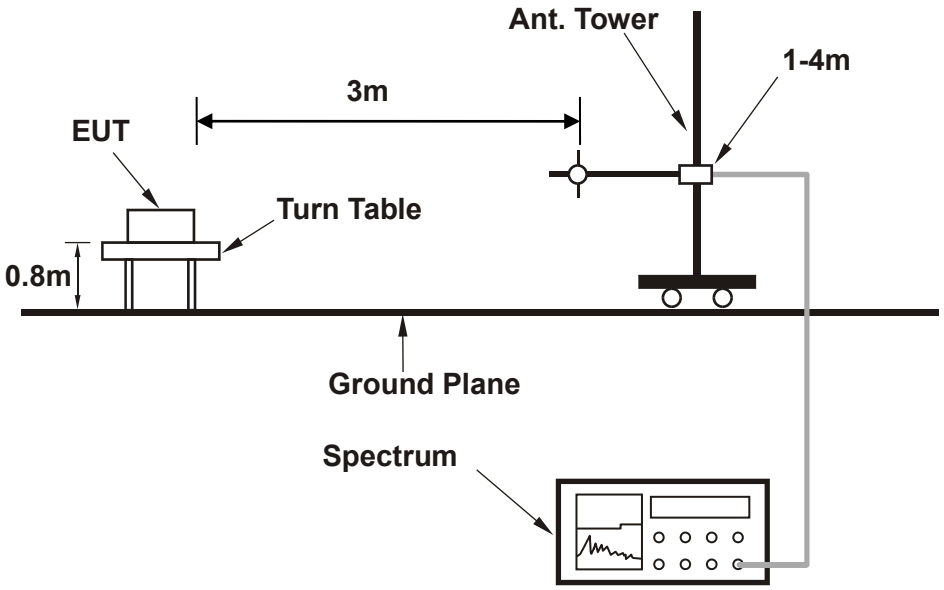
No deviation

3.6.4 TEST SETUP

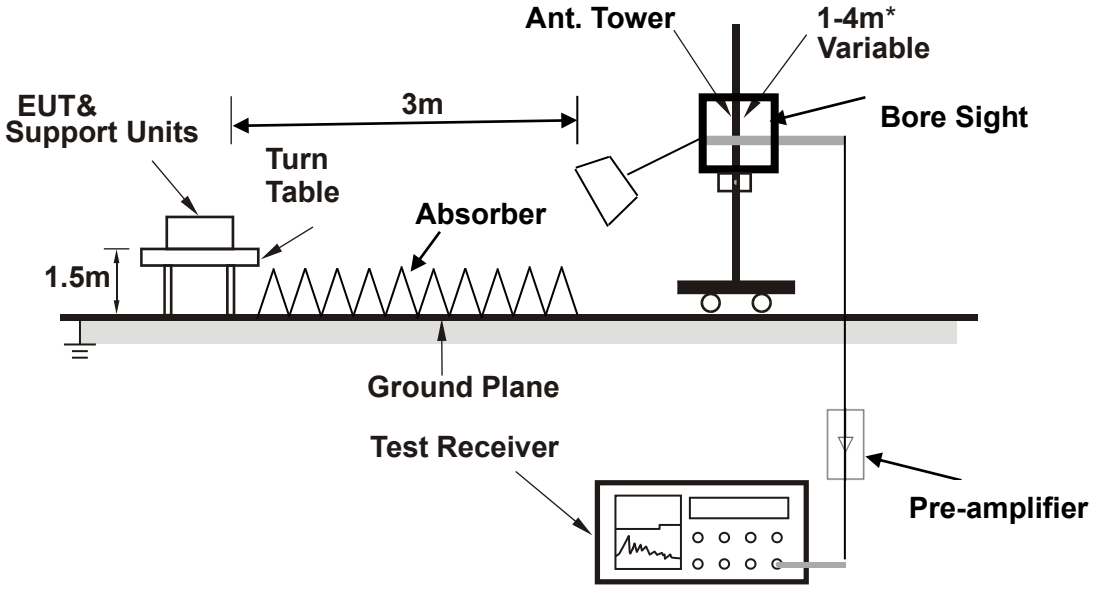
< Frequency Range below 30MHz >



< Frequency Range 30MHz~1GHz >



<Frequency Range above 1GHz>



Note: Above 1G is a directional antenna depends on the EUT height and the antenna 3dB beamwidth both, refer to section 7.3 of CISPR 16-2-3.

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

3.6.5 TEST RESULTS

NOTE： The 9K~30MHz amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required in the report.

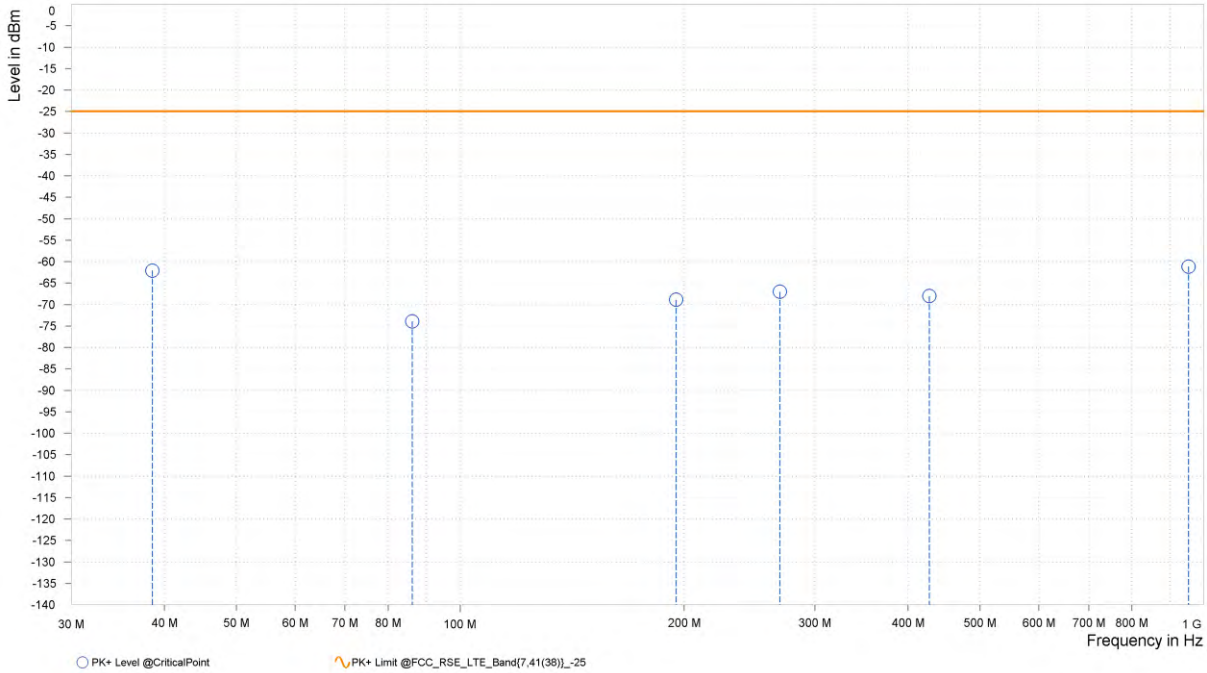
BELOW 1GHz WORST-CASE DATA

30 MHz – 1GHz data:

LTE Band 41
CHANNEL BANDWIDTH: 20MHz / QPSK

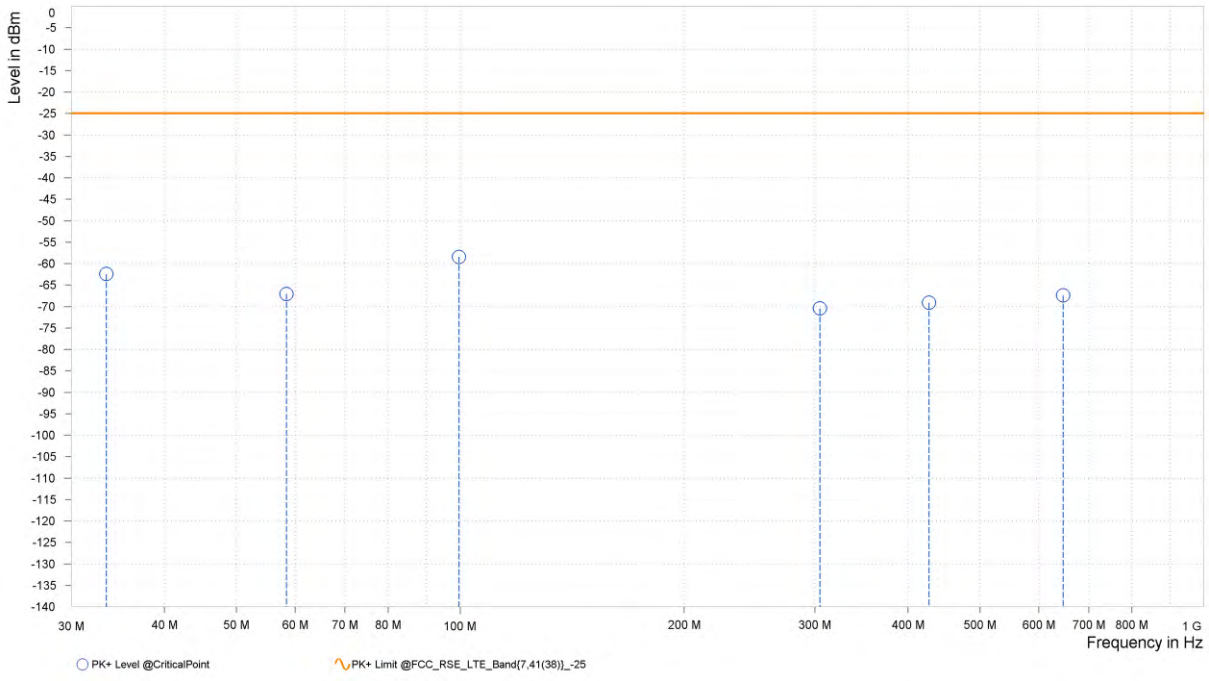
MODE	TX channel 40620	**FREQUENCY RANGE**	Below 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	38.550	-62.07	-25.00	37.07	4.53	H	181.3	2.00
1	86.200	-73.91	-25.00	48.91	-7.49	H	181.3	2.00
1	195.250	-68.90	-25.00	43.90	0.08	H	255	1.00
1	268.950	-67.04	-25.00	42.04	3.13	H	326.7	1.00
1	427.200	-68.05	-25.00	43.05	7.61	H	255	1.00
2	953.479	-61.13	-25.00	36.13	9.15	H	237.5	2.00



MODE	TX channel 40620	FREQUENCY RANGE	Below 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	33.450	-62.43	-25.00	37.43	-2.85	V	106.8	1.00
1	58.400	-67.08	-25.00	42.08	1.71	V	48.7	2.00
1	99.650	-58.43	-25.00	33.43	10.09	V	350.6	1.00
1	304.700	-70.46	-25.00	45.46	2.81	V	4.9	1.00
1	426.800	-69.12	-25.00	44.12	6.40	V	142.7	1.00
2	646.533	-67.42	-25.00	42.42	4.54	V	336.2	1.00



ABOVE 1GHz

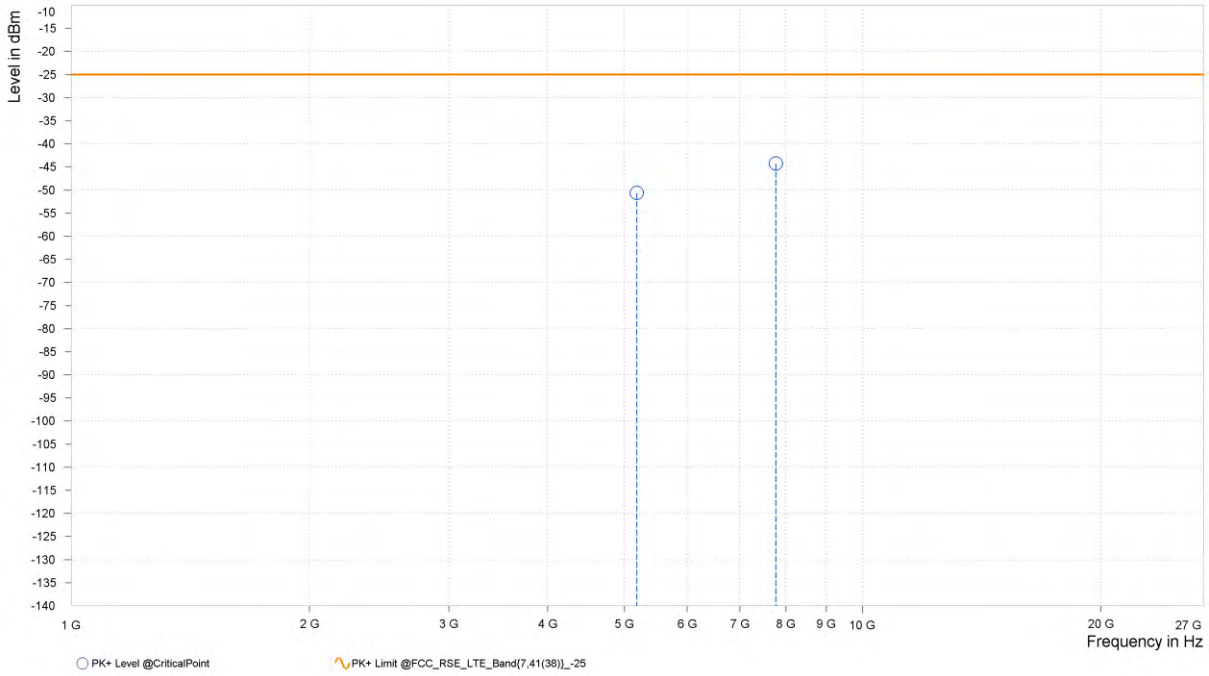
Note: For higher frequency, the emission is too low to be detected.

LTE BAND 41

CHANNEL BANDWIDTH: 5MHz / QPSK

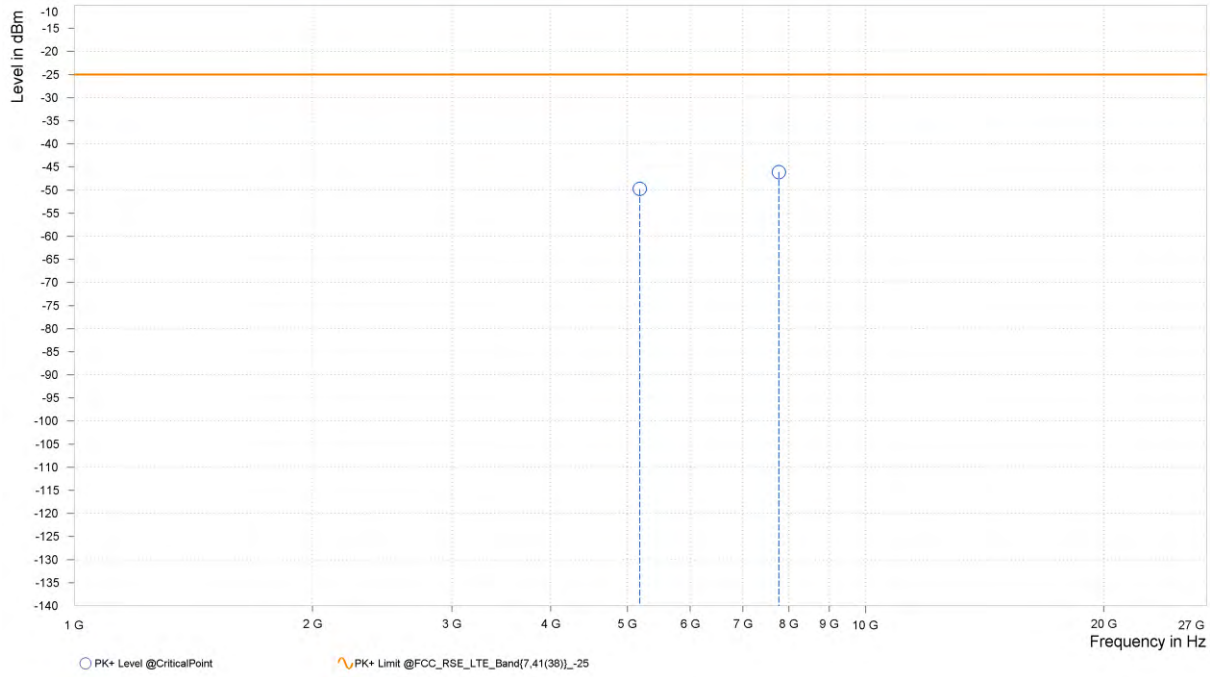
MODE	TX channel 40620	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,181.500	-50.63	-25.00	25.63	23.35	H	36.7	2.00
5	7,772.250	-44.26	-25.00	19.26	27.25	H	338.4	1.00



MODE	TX channel 40620	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

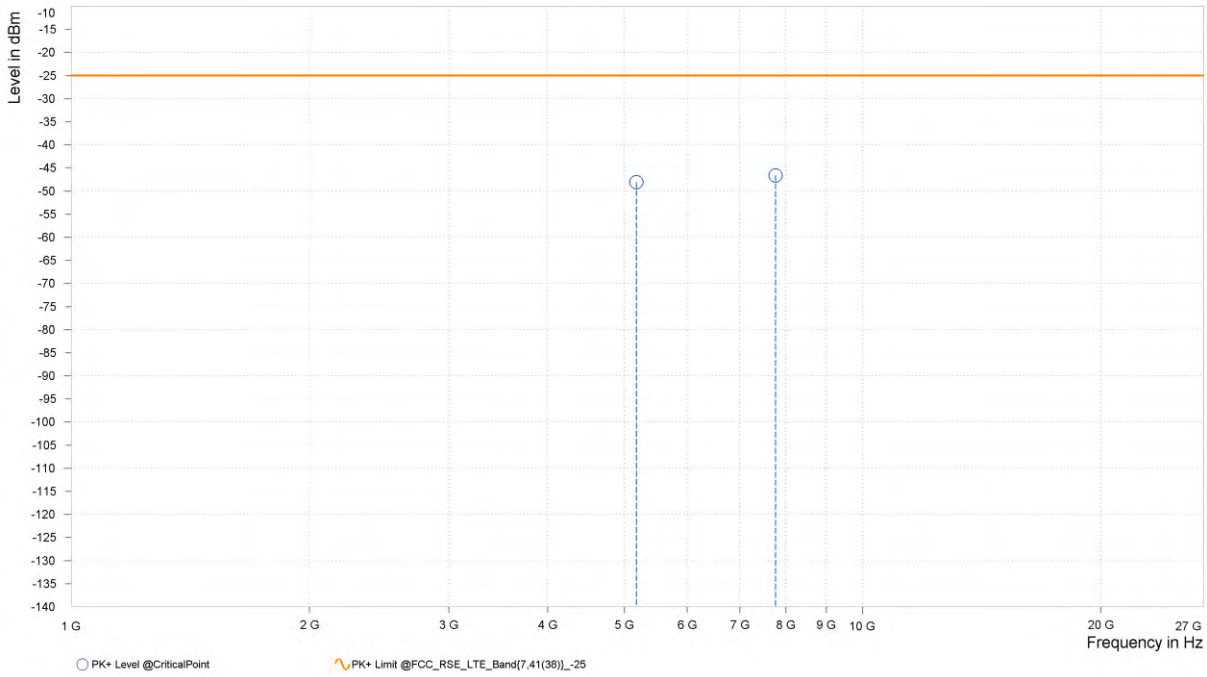
Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,181.500	-49.76	-25.00	24.76	23.81	V	359	2.00
5	7,772.250	-46.11	-25.00	21.11	27.03	V	1	1.00



CHANNEL BANDWIDTH: 10MHz / QPSK

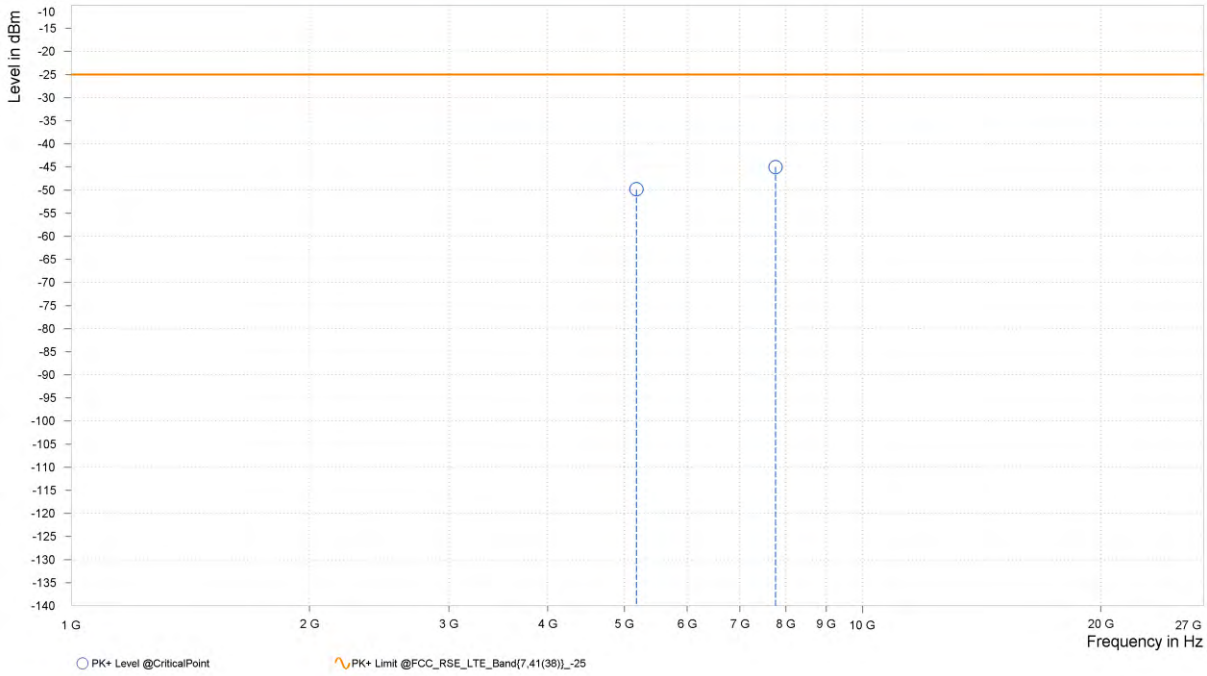
MODE	TX channel 40620	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,177.000	-48.10	-25.00	23.10	23.32	H	0.9	2.00
5	7,765.500	-46.62	-25.00	21.62	27.26	H	134.7	2.00



MODE	TX channel 40620	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

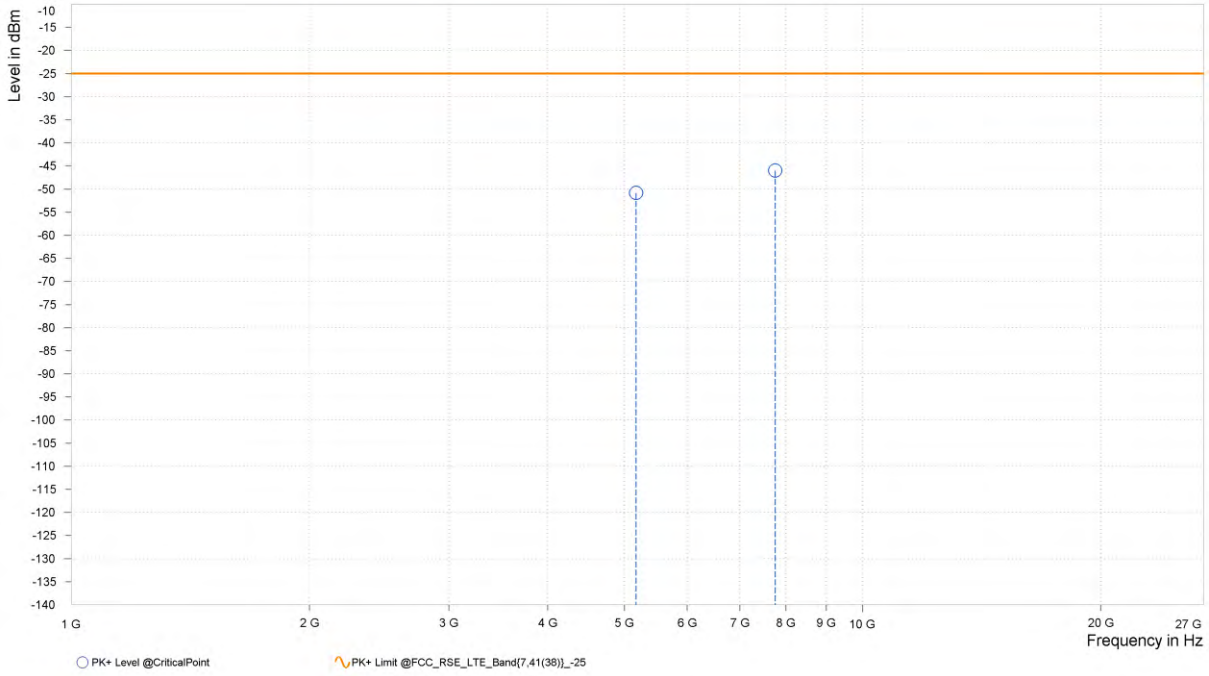
Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,177.000	-49.85	-25.00	24.85	23.75	V	350.6	1.00
5	7,765.500	-45.05	-25.00	20.05	27.02	V	224	1.00



CHANNEL BANDWIDTH: 15MHz / QPSK

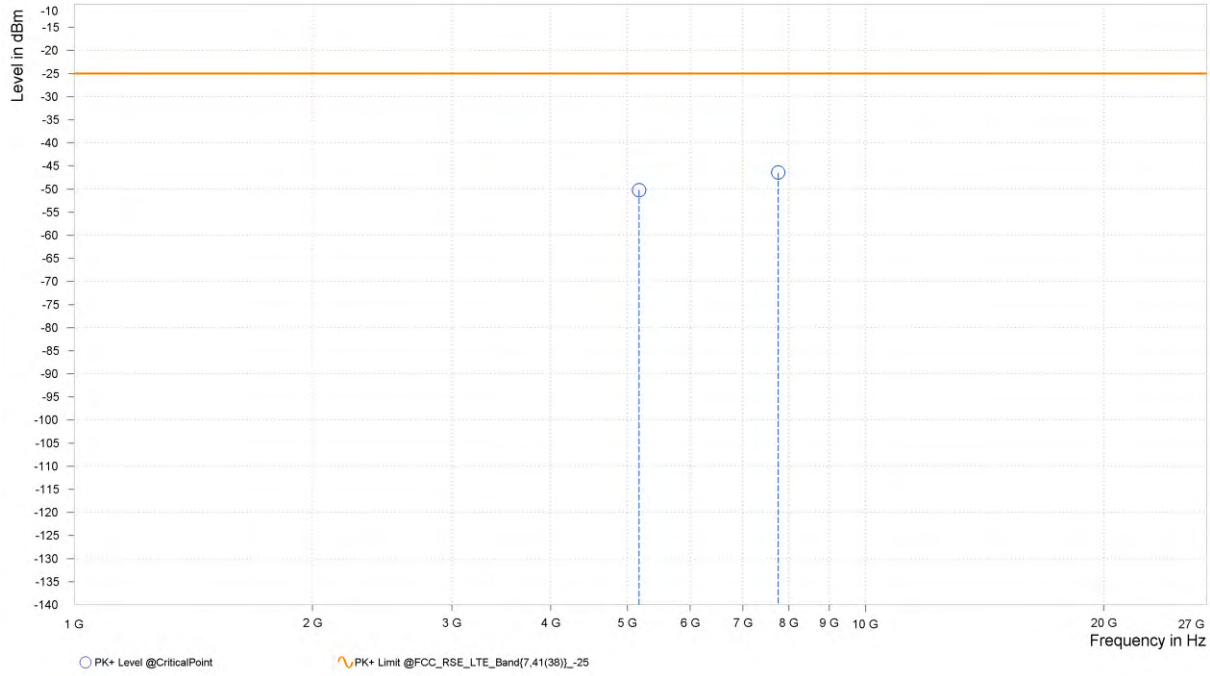
MODE	TX channel 40620	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,172.500	-50.85	-25.00	25.85	23.30	H	190.9	2.00
5	7,758.750	-46.02	-25.00	21.02	27.26	H	359	2.00



MODE	TX channel 40620	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,172.500	-50.24	-25.00	25.24	23.69	V	359.1	1.00
5	7,758.750	-46.44	-25.00	21.44	27.01	V	0.9	2.00

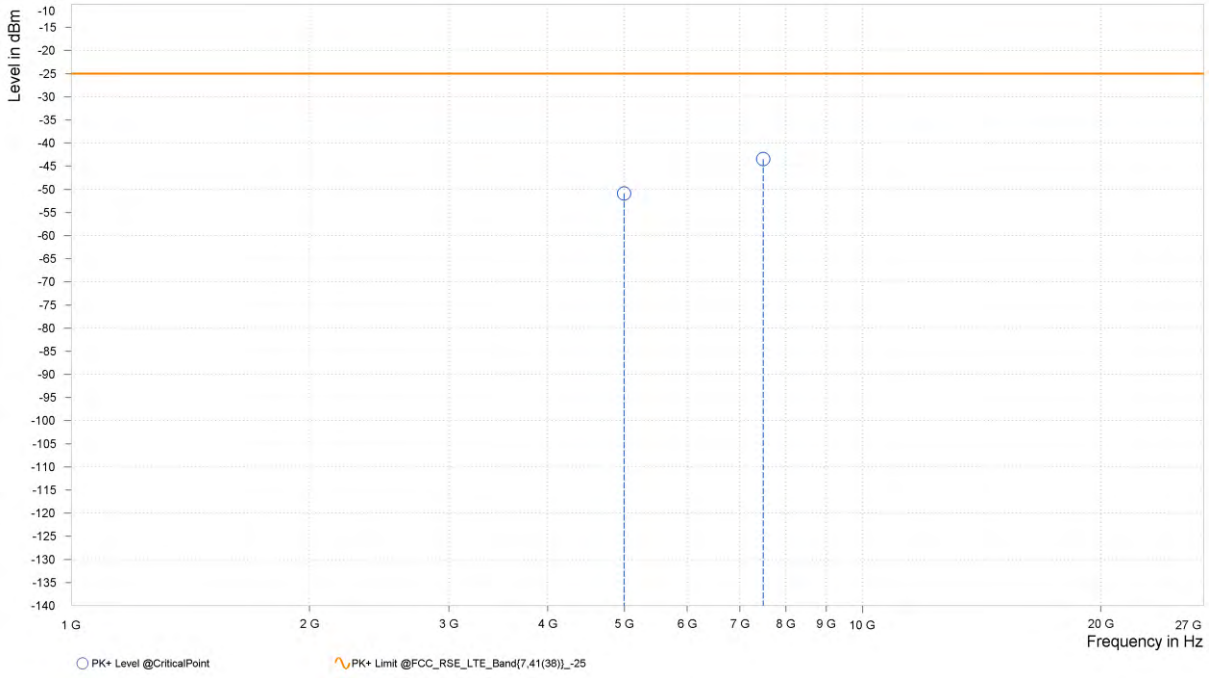


CHANNEL BANDWIDTH: 20MHz / QPSK

CH39750

MODE	TX channel 39750	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	4,994.000	-50.90	-25.00	25.90	23.36	H	206.6	2.00
5	7,491.000	-43.47	-25.00	18.47	27.02	H	359	2.00



MODE	TX channel 39750	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	4,994.000	-49.70	-25.00	24.70	23.60	V	2.1	2.00
5	7,491.000	-44.22	-25.00	19.22	27.00	V	1	1.00