Test Report No.: RF260413B004

FCC TEST REPORT

(PART 27)

Applicant:	Astronomy Data Processing Corporation
Address:	2228 Cotner Ave Los Angeles, CA 90064

Manufacturer or Supplier:	Astronomy Data Processing Corporation
Address:	2228 Cotner Ave Los Angeles, CA 90064
Product:	Edge Controller 01
Model Name:	EC-01
FCC ID	2BM4513EA
Date of tests	Dec. 22, 2025 - Feb. 05, 2026

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 Carl Xie Engineer / Mobile Department	Approved by Simon Wang Manager / Mobile Department
Carl Xie	Simon Wang
Date: Feb. 05, 2026	Date: Feb. 05, 2026

BOOMWAVE TEST (SHENZHEN) CO., LTD. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report. The results documented in this report apply only the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility assure that additional production units of the model are manufactured with identical electrical and mechanical components. All sample tested were in good operating condition throughout the entire test program. Measurement Uncertainties are published for informational purposes only and were not taken into account unless noted otherwise. without written approval of BOOMWAVE TEST (SHENZHEN) CO., LTD., the test report shall not be reproduced except in full.

Boomwave Test (Shenzhen) Co., Ltd.

Rm B38, Warehouse A5(Chiwan #1), #3 Chiwan 4th Rd, Chiwan Comm, Zhaoshang St, Nanshan Dist, Shenzhen, Guangdong, Shenzhen, China

Mobile: +86 15118052731
Email:shimin.wang@boomwavelab.com

TABLE OF CONTENTS

RELEASE CONTROL RECORD 4

1 SUMMARY OF TEST RESULTS 5

1.1 MEASREMENT UNCERTAINTY 6
1.2 TEST SITE AND INSTRUMENTS 7

2 GENERAL INFORMATION 9

2.1 GENERAL DESCRIPTION OF EUT 9
2.2 CONFIGURATION OF SYSTEM UNDER TEST 13
2.3 DESCRIPTION OF SUPPORT UNITS 14
2.4 TEST ITEM AND TEST CONFIGURATION 15
2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS 18

3 TEST TYPES AND RESULTS 19

3.1 OUTPUT POWER MEASUREMENT 19
3.1.1 LIMITS OF OUTPUT POWER MEASUREMENT 19
3.1.2 TEST PROCEDURES 19
3.1.3 TEST SETUP 20
3.1.4 TEST RESULTS 21
3.2 FREQUENCY STABILITY MEASUREMENT 50
3.2.1 LIMITS OF FREQUENCY STABILIITY MEASUREMENT 50
3.2.2 TEST PROCEDURE 50
3.2.3 TEST SETUP 50
3.2.4 TEST RESULTS 50
3.3 OCCUPIED BANDWIDTH MEASUREMENT 51
3.3.1 LIMITS OF OCCUPIED BANDWIDTH MEASUREMENT 51
3.3.2 TEST SETUP 51
3.3.3 TEST PROCEDURES 51
3.3.4 TEST RESULTS 51
3.4 BAND EDGE MEASUREMENT 52
3.4.1 LIMITS OF BAND EDGE MEASUREMENT 52
3.4.2 TEST SETUP 53
3.4.3 TEST PROCEDURES 54
3.4.4 TEST RESULTS 54
3.5 CONDUCTED SPURIOUS EMISSIONS 55
3.5.1 LIMITS OF CONDUCTED SPURIOUS EMISSIONS MEASUREMENT 55
3.5.2 TEST PROCEDURE 55
3.5.3 TEST SETUP 55

3.5.4 TEST RESULTS 56
3.6 RADIATED EMISSION MEASUREMENT 57
3.6.1 LIMITS OF RADIATED EMISSION MEASUREMENT 57
3.6.2 TEST PROCEDURES 57
3.6.3 DEVIATION FROM TEST STANDARD 57
3.6.4 TEST SETUP 58
3.6.5 TEST RESULTS 60
3.7 PEAK TO AVERAGE RATIO 118
3.7.1 LIMITS OF PEAK TO AVERAGE RATIO MEASUREMENT 118
3.7.2 TEST SETUP 118
3.7.3 TEST PROCEDURES 118
3.7.4 TEST RESULTS 118
4 INFORMATION ON THE TESTING LABORATORIES 119
5 MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB 120

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF260413B004	Original release	Feb. 05, 2026

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***
§27.50(d)(4) §27.50(k)(3) §27.50(h)(2) §27.50(j)(3)	Equivalent Isotropically Radiated Power (Band 4) (Band 38)(Band 42) (Band 43)	Compliance	A
§2.1053 §27.53(h) §27.53(n)(2) §27.53(m)(4)(6) §27.53(l)(2)	Radiated Spurious Emissions (Band 4) (Band 38)(Band 42) (Band 43)	Compliance	A

* Refer to KDB 971168 D01 Power Meas License Digital Systems v03r01.

***Test Lab Information Reference**

Lab A:

Boomwave Test (Shenzhen) Co., Ltd.

Lab Address:

Rm B38, Warehouse A5(Chiwan #1), #3 Chiwan 4th Rd, Chiwan Comm, Zhaoshang St, Nanshan Dist, Shenzhen, Guangdong, Shenzhen, China

Accredited Test Lab Cert 7607.01

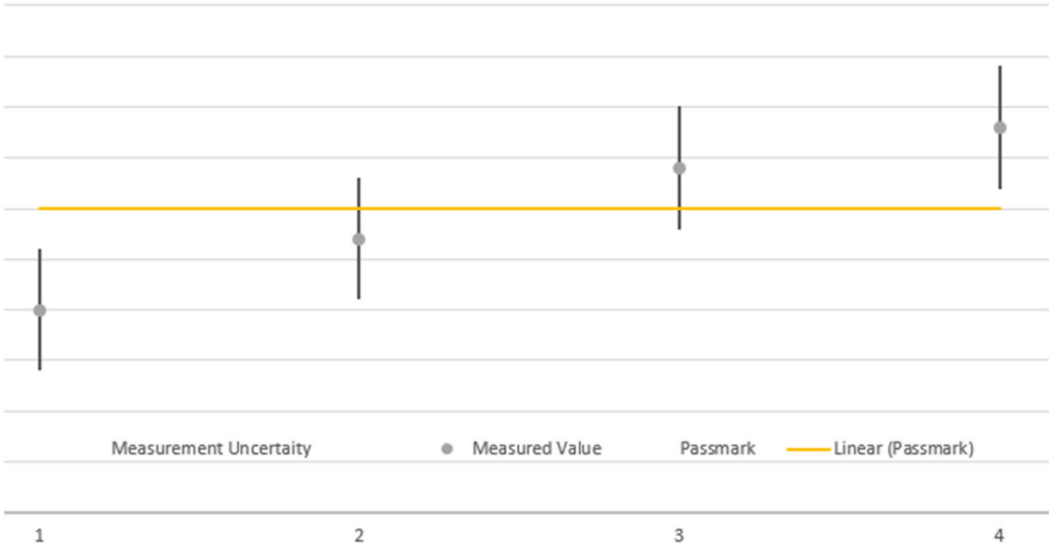
The FCC Site Registration No. is 646781; The Designation No. is CN1429.

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.



The verdicts in this test report are given according the above diagram:

Case	Measured Value	Uncertainty Range	Verdict
1	below pass mark	below pass mark	Passed
2	below pass mark	within pass mark	Passed
3	above pass mark	within pass mark	Failed
4	above pass mark	above pass mark	Failed

That means, the laboratory applies, as decision rule (see ISO/IEC 17025:2017), the so-called shared risk principle.

1.2 TEST SITE AND INSTRUMENTS

1. Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
3m Semi-anechoic Chamber	ETS-LINDGREN	9m*6m*6m	Euroshieldpn-CT0001143-1216	2025/7/3	2026/7/2
BiConiLog Antenna	ETS-LINDGREN	3143B	161965	2025/7/17	2026/7/16
Horn Antenna	SCHWARZBECK	BBHA9120D	3297	2025/9/27	2026/9/26
Horn Antenna	STEATITE	QWH-SL-18-40-K-SG QMS-00361	15433	2025/7/19	2026/7/18
Preamplifier	Tonscend	TPA184045	AP24L8060388	2025/7/3	2026/7/2
MXE EMI Receiver	keysight	N9038B	MY50018017	2025/7/1	2026/6/30
MXG Vector Signal Generator	Keysight	N5183B	MY59100137	2025/6/30	2026/6/29
Preamplifier	Tonscend	TPA001330	806JSAPO40804251015	2025/6/30	2026/6/29
Preamplifier	Tonscend	TPA011845	AP24L8060392	2025/6/30	2026/6/29
Attenuator 6DB	SHX	TS2-6-6-A	230927166	2025/6/30	2026/6/29
Attenuator 6DB	SHX	TS2-6-6-A	230927165	2025/6/30	2026/6/29
Active Receive Loop Antenna	SCHWARZBECK	FMZB 1519 B	00173	2025/6/30	2026/6/29
Temp. & Humi. Recorder	Kejian	HTC-01	157246	2025/7/2	2026/7/1
HIGH pass FILTER_1-18	EWT	EWT-57-0222	EWT-57-0222	2025/6/30	2026/6/29
HIGH pass FILTER_7-18	EWT	EWT-57-0223	EWT-57-0223	2025/6/30	2026/6/29
HIGH pass FILTER_3-18	EWT	EWT-57-0221	EWT-57-0221	2025/6/30	2026/6/29
DC~1GHz Lowpass Filter	EWT	EWT-56-0649	EWT-56-0649	2025/7/3	2026/7/2
Cable 1	N/A	N/A	N/A	2025/9/28	2026/9/27
Cable 2	N/A	N/A	N/A	2025/9/28	2026/9/27
Cable 3	N/A	N/A	N/A	2025/9/28	2026/9/27
Wireless communication integrated tester	Rohde&Schwarz	CMW500	182016	2025/6/30	2026/6/29
EXA Signal Analyzer	KEYSIGHT	N9010B	MY62170156	2025/6/30	2026/6/29
RF Control Unit	Tonscend	JS0806-1	21K8060504	2025/6/16	2026/6/15
DC Power Supply	AGILENT	HMP2020	100598	2025/7/1	2026/6/30
10dB attenuator	JFW INDUSTRIES INC	50HF-010-SMA	50HF-010-SMA-1	2025/6/30	2026/6/29
10dB attenuator	JFW INDUSTRIES INC	50HF-010-SMA	50HF-010-SMA-2	2025/6/30	2026/6/29
hygrothermograph	Anymetrers	----	TH101B	2025/7/22	2026/7/21
Temperature Box	zhongkemeiqi	MA22040172	MQ-DTH50F-2	2025/7/1	2026/6/30
power divider	WOKEN	71688	204-003180-01	2025/6/30	2026/6/29

NOTE:

1. The calibration interval of the above test instruments is 12 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 646781; The Designation No. is CN1429.

2 GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT*	Edge Controller 01	
MODEL NAME*	EC-01	
NOMINAL VOLTAGE*	19Vdc	
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 42 Channel Bandwidth: 5MHz	3452.5 MHz ~ 3547.5MHz
	LTE Band 42 Channel Bandwidth: 10MHz	3455MHz ~ 3545MHz
	LTE Band 42 Channel Bandwidth: 15MHz	3457.5MHz ~ 3542.5MHz
	LTE Band 42 Channel Bandwidth: 20MHz	3460MHz ~ 3540MHz
	LTE Band 43 Channel Bandwidth: 5MHz	3702.5MHz ~ 3797.5MHz
	LTE Band 43 Channel Bandwidth: 10MHz	3705MHz ~ 3795MHz
	LTE Band 43 Channel Bandwidth: 15MHz	3707.5MHz ~ 3792.5MHz
	LTE Band 43 Channel Bandwidth: 20MHz	3710MHz ~ 3790MHz
EMISSION DESIGNATORGOGN	**LTE Band 4 Channel Bandwidth: 1.4MHz**	QPSK: 1M11G7D
		16QAM: 1M11W7D

		64QAM: 1M11W7D
	LTE Band 4 Channel Bandwidth: 3MHz	QPSK: 2M70G7D
		16QAM: 2M71W7D
		64QAM: 2M70W7D
	LTE Band 4 Channel Bandwidth: 5MHz	QPSK: 4M48G7D
		16QAM: 4M48W7D
		64QAM: 4M48W7D
	LTE Band 4 Channel Bandwidth: 10MHz	QPSK: 8M97G7D
		16QAM: 8M97W7D
		64QAM: 8M96W7D
	LTE Band 4 Channel Bandwidth: 15MHz	QPSK: 13M5G7D
		16QAM: 13M5W7D
		64QAM: 13M5W7D
	LTE Band 4 Channel Bandwidth: 20MHz	QPSK: 17M9G7D
		16QAM: 18M0W7D
		64QAM: 18M0W7D
	LTE Band 38 Channel Bandwidth: 5MHz	QPSK: 4M48G7D
		16QAM: 4M48W7D
		64QAM: 4M48W7D
	LTE Band 38 Channel Bandwidth: 10MHz	QPSK: 8M96G7D
		16QAM: 8M95W7D
		64QAM: 8M94W7D
	LTE Band 38 Channel Bandwidth: 15MHz	QPSK: 13M5G7D
		16QAM: 13M5W7D
		64QAM: 13M5W7D
	LTE Band 38 Channel Bandwidth: 20MHz	QPSK: 17M9G7D
		16QAM: 17M9W7D
		64QAM: 17M9W7D
	LTE Band 42 Channel Bandwidth: 5MHz	QPSK: 4M51G7D
		16QAM: 4M52W7D
		64QAM: 4M51W7D
	LTE Band 42 Channel Bandwidth: 10MHz	QPSK: 9M00G7D
		16QAM: 9M01W7D
		64QAM: 9M02W7D
	LTE Band 42 Channel Bandwidth: 15MHz	QPSK: 13M5G7D
		16QAM: 13M5W7D
		64QAM: 13M5W7D
	LTE Band 42	QPSK: 18M0G7D

	Channel Bandwidth: 20MHz	16QAM: 18M1W7D
		64QAM: 18M1W7D
	LTE Band 43 Channel Bandwidth: 5MHz	QPSK: 4M51G7D
		16QAM: 4M52W7D
		64QAM: 4M52W7D
	LTE Band 43 Channel Bandwidth: 10MHz	QPSK: 9M02G7D
		16QAM: 9M02W7D
		64QAM: 9M00W7D
	LTE Band 43 Channel Bandwidth: 15MHz	QPSK: 13M5G7D
		16QAM: 13M5W7D
		64QAM: 13M5W7D
	LTE Band 43 Channel Bandwidth: 20MHz	QPSK: 18M1G7D
		16QAM: 18M1W7D
		64QAM: 18M1W7D
MAX. EIRP POWER	**LTE Band 4 Channel Bandwidth: 1.4MHz**	440.55mW
	LTE Band 4 Channel Bandwidth: 3MHz	465.59mW
	LTE Band 4 Channel Bandwidth: 5MHz	460.26mW
	LTE Band 4 Channel Bandwidth: 10MHz	457.09mW
	LTE Band 4 Channel Bandwidth: 15MHz	447.71mW
	LTE Band 4 Channel Bandwidth: 20MHz	457.09mW
	LTE Band 38 Channel Bandwidth: 5MHz	905.73mW
	LTE Band 38 Channel Bandwidth: 10MHz	905.73 mW
	LTE Band 38 Channel Bandwidth: 15MHz	891.25mW
	LTE Band 38 Channel Bandwidth: 20MHz	901.57mW
	LTE Band 42 Channel Bandwidth: 5MHz	843.33mW
	LTE Band 42 Channel Bandwidth: 10MHz	853.10mW
	LTE Band 42 Channel Bandwidth: 15MHz	851.14mW
	LTE Band 42 Channel Bandwidth: 20MHz	862.98mW
	LTE Band 43 Channel Bandwidth: 5MHz	159.96mW
	LTE Band 43 Channel Bandwidth: 10MHz	160.32mW

	LTE Band 43 Channel Bandwidth: 15MHz	161.06mW
	LTE Band 43 Channel Bandwidth: 20MHz	163.31mW
ANTENNA GAIN*	☒Provided by client	
	LTE B4	2.5dBi
	LTE B38	3.5dBi
	LTE B42	5.0dBi
	LTE BAND43	5.0dBi
ANTENNA TYPE*	PIFA Antenna	
HW VERSION*	1.0	
SW VERSION*	V1	
I/O PORTS*	Refer to user's manual	
CABLE SUPPLIED*	N/A	
EXTREME TEMPERATURE*	-20℃-60℃	
EXTREME VOLTAGE*	15V-20V	

NOTE:

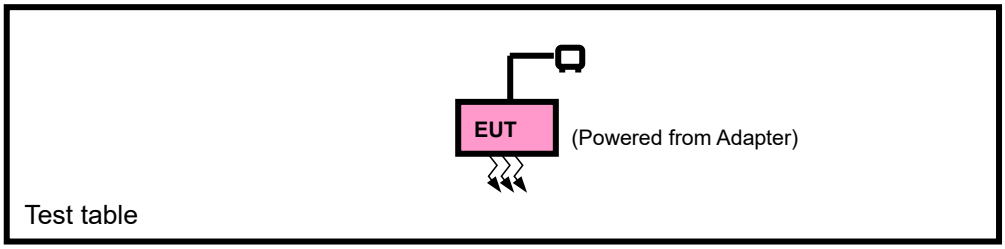
1. *Since the above data and/or information is provided by the client relevant results or conclusions of this report are only made for these data and/or information, Test Lab is not responsible for the authenticity, integrity and results of the data and information and/or the validity of the conclusion.
2. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
3. The EUT incorporates a SISO function. Physically, the EUT provides one completed transmitter and one receiver.

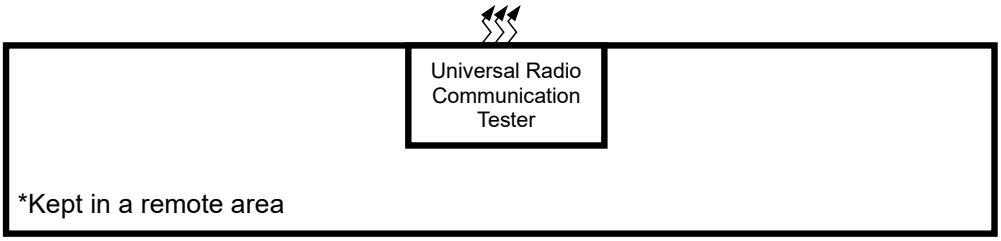
MODULATION MODE	TX FUNCTION
LTE	1TX/1RX

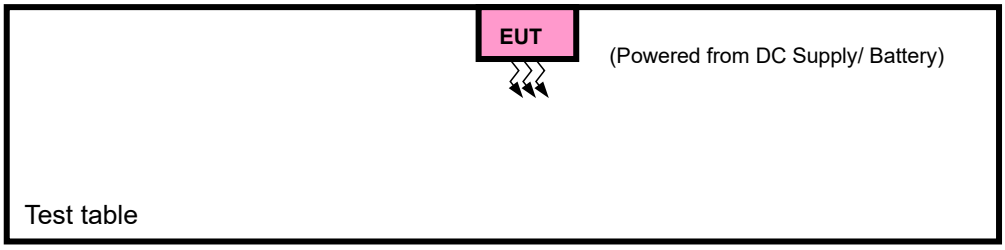
4. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.

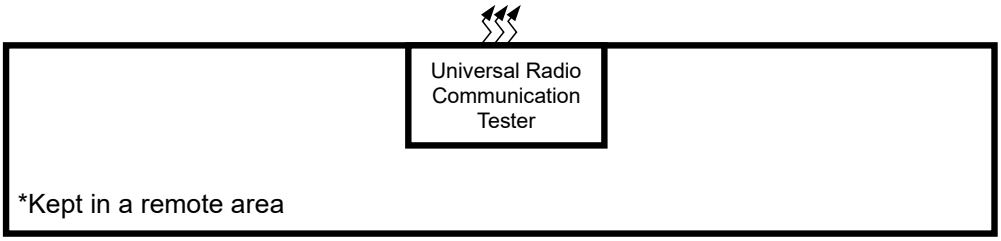
2.2 CONFIGURATION OF SYSTEM UNDER TEST

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	Laptop	Lenovo	ThinkPad E14	HRSW00024	N/A

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	N/A

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 with LTE link
B	EUT + DC Supply with LTE link

LTE BAND 4

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
A	EIRP	19957 to 20393	20175	1.4MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		19965 to 20385	20175	3MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		19975 to 20375	20175	5MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		20000 to 20350	20000, 20175, 20350	10MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		20025 to 20325	20175	15MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		20050 to 20300	20175	20MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
A	RADIATED EMISSION	19957 to 20393	20175	1.4MHz	QPSK	1 RB / 0 RB Offset
		19965 to 20385	20175	3MHz	QPSK	1 RB / 0 RB Offset
		19975 to 20375	20175	5MHz	QPSK	1 RB / 0 RB Offset
		20000 to 20350	20000, 20175, 20350	10MHz	QPSK	1 RB / 0 RB Offset
		20025 to 20325	20175	15MHz	QPSK	1 RB / 0 RB Offset
		20050 to 20300	20175	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 38 MODE						
EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
A	EIRP	37775 to 38225	38000	5MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		37800 to 38200	37800, 38000, 38200	10MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		37825 to 38175	38000	15MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		37850 to38150	37850, 38000, 38150	20MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
A	RADIATED EMISSION	37775 to 38225	38000	5MHz	QPSK	1 RB / 0 RB Offset
		37800 to 38200	37800, 38000, 38200	10MHz	QPSK	1 RB / 0 RB Offset
		37825 to 38175	38000	15MHz	QPSK	1 RB / 0 RB Offset
		37850 to38150	38000	20MHz	QPSK	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.

LTE band 42						
EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
A	EIRP	42190 to 42990	42190,42590,42990	20MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		42115 to 43065	42590	5MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		42140 to 43040	42140,42590,43040	10MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		42165 to 43015	42590	15MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
A	RADIATED EMISSION	42115 to 43065	42590	5MHz	QPSK	1 RB / 0 RB Offset
		42140 to 43040	42140,42590,43040	10MHz	QPSK	1 RB / 0RB Offset
		42165 to 43015	42590	15MHz	QPSK	1 RB / 0 RB Offset
		42190 to 42990	42590	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 43						
EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
A	EIRP	43690 to 44490	43690 (3710.0MHz), 44090 (3750.0MHz), 44490 (3790.0MHz)	20MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
A	RADIATED EMISSION	43615 to 44565	44090 (3750.0MHz)	5MHz	QPSK	1 RB / 0 RB Offset
		43640 to 44540	44090 (3750.0MHz)	10MHz	QPSK	1 RB / 0RB Offset
		43665 to 44515	43665 (3707.5MHz), 44090 (3750.0MHz), 44515 (3792.5MHz)	15MHz	QPSK	1 RB / 0 RB Offset
		43690 to 44490	44090 (3750.0MHz)	20MHz	QPSK	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.

TEST CONDITION			
TEST ITEM	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
EIRP	23deg. C, 70%RH	DC 19V By Battery	Carl Xie
RADIATED EMISSION	23deg. C, 70%RH	AC 120V/60Hz	Carl Xie

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 average 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 (k)(3)Mobile devices are limited to 1Watt (30 dBm) EIRP, Mobile devices operating inl these bands must employ a means for limiting power to the minimum necessary for successful communications

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);

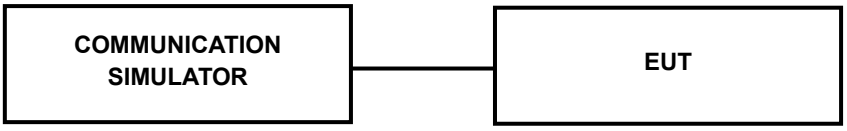
L_C = signal attenuation in the connecting cable between the transmitter and antenna, in dB.

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

We have verified power (except LTE Band 30/ LTE Band43). The test data is better than module report, so power test data please refer to module report(No.: SEWM2304000122RG01, FCC ID: XMR2023RM520NGL)

Considering antenna gain is changed compared with module, so we so we update EIRP.

LTE Band4

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Gain(dBi)	EIRP(dBm)	EIRP(mW)	Limit(W)	Verdict
Band4	1.4MHz	QPSK	19957	1RB#0	23.91	2.5	26.41	437.52	1	PASS
Band4	1.4MHz	QPSK	19957	1RB#2	23.87	2.5	26.37	433.51	1	PASS
Band4	1.4MHz	QPSK	19957	1RB#5	23.94	2.5	26.44	440.55	1	PASS
Band4	1.4MHz	QPSK	19957	6RB#0	22.91	2.5	25.41	347.54	1	PASS
Band4	1.4MHz	QPSK	20175	1RB#0	23.69	2.5	26.19	415.91	1	PASS
Band4	1.4MHz	QPSK	20175	1RB#2	23.90	2.5	26.40	436.52	1	PASS
Band4	1.4MHz	QPSK	20175	1RB#5	23.83	2.5	26.33	429.54	1	PASS
Band4	1.4MHz	QPSK	20175	6RB#0	22.92	2.5	25.42	348.34	1	PASS
Band4	1.4MHz	QPSK	20393	1RB#0	23.79	2.5	26.29	425.60	1	PASS
Band4	1.4MHz	QPSK	20393	1RB#2	23.80	2.5	26.30	426.58	1	PASS
Band4	1.4MHz	QPSK	20393	1RB#5	23.74	2.5	26.24	420.73	1	PASS
Band4	1.4MHz	QPSK	20393	6RB#0	22.83	2.5	25.33	341.19	1	PASS
Band4	1.4MHz	16QAM	19957	1RB#0	22.96	2.5	25.46	351.56	1	PASS
Band4	1.4MHz	16QAM	19957	1RB#2	23.12	2.5	25.62	364.75	1	PASS
Band4	1.4MHz	16QAM	19957	1RB#5	23.01	2.5	25.51	355.63	1	PASS
Band4	1.4MHz	16QAM	19957	6RB#0	22.09	2.5	24.59	287.74	1	PASS
Band4	1.4MHz	16QAM	20175	1RB#0	23.02	2.5	25.52	356.45	1	PASS
Band4	1.4MHz	16QAM	20175	1RB#2	23.10	2.5	25.60	363.08	1	PASS
Band4	1.4MHz	16QAM	20175	1RB#5	23.10	2.5	25.60	363.08	1	PASS
Band4	1.4MHz	16QAM	20175	6RB#0	22.00	2.5	24.50	281.84	1	PASS
Band4	1.4MHz	16QAM	20393	1RB#0	22.96	2.5	25.46	351.56	1	PASS
Band4	1.4MHz	16QAM	20393	1RB#2	23.02	2.5	25.52	356.45	1	PASS

Band4	1.4MHz	16QAM	20393	1RB#5	22.91	2.5	25.41	347.54	1	PASS
Band4	1.4MHz	16QAM	20393	6RB#0	21.87	2.5	24.37	273.53	1	PASS
Band4	1.4MHz	64QAM	19957	1RB#0	22.05	2.5	24.55	285.10	1	PASS
Band4	1.4MHz	64QAM	19957	1RB#2	22.05	2.5	24.55	285.10	1	PASS
Band4	1.4MHz	64QAM	19957	1RB#5	21.97	2.5	24.47	279.90	1	PASS
Band4	1.4MHz	64QAM	19957	6RB#0	20.97	2.5	23.47	222.33	1	PASS
Band4	1.4MHz	64QAM	20175	1RB#0	22.01	2.5	24.51	282.49	1	PASS
Band4	1.4MHz	64QAM	20175	1RB#2	22.15	2.5	24.65	291.74	1	PASS
Band4	1.4MHz	64QAM	20175	1RB#5	21.98	2.5	24.48	280.54	1	PASS
Band4	1.4MHz	64QAM	20175	6RB#0	20.93	2.5	23.43	220.29	1	PASS
Band4	1.4MHz	64QAM	20393	1RB#0	21.96	2.5	24.46	279.25	1	PASS
Band4	1.4MHz	64QAM	20393	1RB#2	22.14	2.5	24.64	291.07	1	PASS
Band4	1.4MHz	64QAM	20393	1RB#5	22.01	2.5	24.51	282.49	1	PASS
Band4	1.4MHz	64QAM	20393	6RB#0	20.95	2.5	23.45	221.31	1	PASS
Band4	3MHz	QPSK	19965	1RB#0	24.10	2.5	26.60	457.09	1	PASS
Band4	3MHz	QPSK	19965	1RB#8	24.18	2.5	26.68	465.59	1	PASS
Band4	3MHz	QPSK	19965	1RB#14	23.83	2.5	26.33	429.54	1	PASS
Band4	3MHz	QPSK	19965	15RB#0	22.91	2.5	25.41	347.54	1	PASS
Band4	3MHz	QPSK	20175	1RB#0	23.97	2.5	26.47	443.61	1	PASS
Band4	3MHz	QPSK	20175	1RB#8	23.89	2.5	26.39	435.51	1	PASS
Band4	3MHz	QPSK	20175	1RB#14	23.85	2.5	26.35	431.52	1	PASS
Band4	3MHz	QPSK	20175	15RB#0	22.83	2.5	25.33	341.19	1	PASS
Band4	3MHz	QPSK	20385	1RB#0	23.87	2.5	26.37	433.51	1	PASS
Band4	3MHz	QPSK	20385	1RB#8	23.95	2.5	26.45	441.57	1	PASS
Band4	3MHz	QPSK	20385	1RB#14	23.83	2.5	26.33	429.54	1	PASS
Band4	3MHz	QPSK	20385	15RB#0	22.90	2.5	25.40	346.74	1	PASS

Band4	3MHz	16QAM	19965	1RB#0	23.06	2.5	25.56	359.75	1	PASS
Band4	3MHz	16QAM	19965	1RB#8	23.11	2.5	25.61	363.92	1	PASS
Band4	3MHz	16QAM	19965	1RB#14	23.07	2.5	25.57	360.58	1	PASS
Band4	3MHz	16QAM	19965	15RB#0	21.99	2.5	24.49	281.19	1	PASS
Band4	3MHz	16QAM	20175	1RB#0	22.95	2.5	25.45	350.75	1	PASS
Band4	3MHz	16QAM	20175	1RB#8	23.00	2.5	25.50	354.81	1	PASS
Band4	3MHz	16QAM	20175	1RB#14	22.98	2.5	25.48	353.18	1	PASS
Band4	3MHz	16QAM	20175	15RB#0	21.87	2.5	24.37	273.53	1	PASS
Band4	3MHz	16QAM	20385	1RB#0	23.03	2.5	25.53	357.27	1	PASS
Band4	3MHz	16QAM	20385	1RB#8	22.91	2.5	25.41	347.54	1	PASS
Band4	3MHz	16QAM	20385	1RB#14	23.01	2.5	25.51	355.63	1	PASS
Band4	3MHz	16QAM	20385	15RB#0	21.90	2.5	24.40	275.42	1	PASS
Band4	3MHz	64QAM	19965	1RB#0	23.71	2.5	26.21	417.83	1	PASS
Band4	3MHz	64QAM	19965	1RB#8	22.21	2.5	24.71	295.80	1	PASS
Band4	3MHz	64QAM	19965	1RB#14	22.03	2.5	24.53	283.79	1	PASS
Band4	3MHz	64QAM	19965	15RB#0	20.92	2.5	23.42	219.79	1	PASS
Band4	3MHz	64QAM	20175	1RB#0	22.12	2.5	24.62	289.73	1	PASS
Band4	3MHz	64QAM	20175	1RB#8	22.10	2.5	24.60	288.40	1	PASS
Band4	3MHz	64QAM	20175	1RB#14	22.04	2.5	24.54	284.45	1	PASS
Band4	3MHz	64QAM	20175	15RB#0	20.84	2.5	23.34	215.77	1	PASS
Band4	3MHz	64QAM	20385	1RB#0	21.95	2.5	24.45	278.61	1	PASS
Band4	3MHz	64QAM	20385	1RB#8	22.00	2.5	24.50	281.84	1	PASS
Band4	3MHz	64QAM	20385	1RB#14	21.91	2.5	24.41	276.06	1	PASS
Band4	3MHz	64QAM	20385	15RB#0	20.94	2.5	23.44	220.80	1	PASS
Band4	5MHz	QPSK	19975	1RB#0	23.85	2.5	26.35	431.52	1	PASS
Band4	5MHz	QPSK	19975	1RB#12	24.13	2.5	26.63	460.26	1	PASS

Band4	5MHz	QPSK	19975	1RB#24	24.01	2.5	26.51	447.71	1	PASS
Band4	5MHz	QPSK	19975	25RB#0	22.97	2.5	25.47	352.37	1	PASS
Band4	5MHz	QPSK	20175	1RB#0	23.95	2.5	26.45	441.57	1	PASS
Band4	5MHz	QPSK	20175	1RB#12	24.00	2.5	26.50	446.68	1	PASS
Band4	5MHz	QPSK	20175	1RB#24	23.85	2.5	26.35	431.52	1	PASS
Band4	5MHz	QPSK	20175	25RB#0	22.95	2.5	25.45	350.75	1	PASS
Band4	5MHz	QPSK	20375	1RB#0	23.83	2.5	26.33	429.54	1	PASS
Band4	5MHz	QPSK	20375	1RB#12	24.04	2.5	26.54	450.82	1	PASS
Band4	5MHz	QPSK	20375	1RB#24	23.95	2.5	26.45	441.57	1	PASS
Band4	5MHz	QPSK	20375	25RB#0	22.83	2.5	25.33	341.19	1	PASS
Band4	5MHz	16QAM	19975	1RB#0	22.91	2.5	25.41	347.54	1	PASS
Band4	5MHz	16QAM	19975	1RB#12	23.29	2.5	25.79	379.31	1	PASS
Band4	5MHz	16QAM	19975	1RB#24	22.83	2.5	25.33	341.19	1	PASS
Band4	5MHz	16QAM	19975	25RB#0	21.95	2.5	24.45	278.61	1	PASS
Band4	5MHz	16QAM	20175	1RB#0	23.09	2.5	25.59	362.24	1	PASS
Band4	5MHz	16QAM	20175	1RB#12	22.97	2.5	25.47	352.37	1	PASS
Band4	5MHz	16QAM	20175	1RB#24	23.04	2.5	25.54	358.10	1	PASS
Band4	5MHz	16QAM	20175	25RB#0	21.92	2.5	24.42	276.69	1	PASS
Band4	5MHz	16QAM	20375	1RB#0	23.00	2.5	25.50	354.81	1	PASS
Band4	5MHz	16QAM	20375	1RB#12	23.15	2.5	25.65	367.28	1	PASS
Band4	5MHz	16QAM	20375	1RB#24	23.11	2.5	25.61	363.92	1	PASS
Band4	5MHz	16QAM	20375	25RB#0	21.89	2.5	24.39	274.79	1	PASS
Band4	5MHz	64QAM	19975	1RB#0	22.01	2.5	24.51	282.49	1	PASS
Band4	5MHz	64QAM	19975	1RB#12	22.17	2.5	24.67	293.09	1	PASS
Band4	5MHz	64QAM	19975	1RB#24	22.07	2.5	24.57	286.42	1	PASS
Band4	5MHz	64QAM	19975	25RB#0	20.94	2.5	23.44	220.80	1	PASS

Band4	5MHz	64QAM	20175	1RB#0	22.01	2.5	24.51	282.49	1	PASS
Band4	5MHz	64QAM	20175	1RB#12	22.19	2.5	24.69	294.44	1	PASS
Band4	5MHz	64QAM	20175	1RB#24	22.02	2.5	24.52	283.14	1	PASS
Band4	5MHz	64QAM	20175	25RB#0	20.93	2.5	23.43	220.29	1	PASS
Band4	5MHz	64QAM	20375	1RB#0	22.02	2.5	24.52	283.14	1	PASS
Band4	5MHz	64QAM	20375	1RB#12	22.09	2.5	24.59	287.74	1	PASS
Band4	5MHz	64QAM	20375	1RB#24	22.11	2.5	24.61	289.07	1	PASS
Band4	5MHz	64QAM	20375	25RB#0	20.84	2.5	23.34	215.77	1	PASS
Band4	10MHz	QPSK	20000	1RB#0	24.10	2.5	26.60	457.09	1	PASS
Band4	10MHz	QPSK	20000	1RB#24	23.93	2.5	26.43	439.54	1	PASS
Band4	10MHz	QPSK	20000	1RB#49	23.84	2.5	26.34	430.53	1	PASS
Band4	10MHz	QPSK	20000	50RB#0	22.97	2.5	25.47	352.37	1	PASS
Band4	10MHz	QPSK	20175	1RB#0	23.89	2.5	26.39	435.51	1	PASS
Band4	10MHz	QPSK	20175	1RB#24	23.92	2.5	26.42	438.53	1	PASS
Band4	10MHz	QPSK	20175	1RB#49	23.89	2.5	26.39	435.51	1	PASS
Band4	10MHz	QPSK	20175	50RB#0	22.95	2.5	25.45	350.75	1	PASS
Band4	10MHz	QPSK	20350	1RB#0	23.71	2.5	26.21	417.83	1	PASS
Band4	10MHz	QPSK	20350	1RB#24	23.97	2.5	26.47	443.61	1	PASS
Band4	10MHz	QPSK	20350	1RB#49	23.87	2.5	26.37	433.51	1	PASS
Band4	10MHz	QPSK	20350	50RB#0	22.90	2.5	25.40	346.74	1	PASS
Band4	10MHz	16QAM	20000	1RB#0	23.11	2.5	25.61	363.92	1	PASS
Band4	10MHz	16QAM	20000	1RB#24	23.03	2.5	25.53	357.27	1	PASS
Band4	10MHz	16QAM	20000	1RB#49	23.20	2.5	25.70	371.54	1	PASS
Band4	10MHz	16QAM	20000	50RB#0	22.03	2.5	24.53	283.79	1	PASS
Band4	10MHz	16QAM	20175	1RB#0	22.95	2.5	25.45	350.75	1	PASS
Band4	10MHz	16QAM	20175	1RB#24	23.11	2.5	25.61	363.92	1	PASS

Band4	10MHz	16QAM	20175	1RB#49	23.01	2.5	25.51	355.63	1	PASS
Band4	10MHz	16QAM	20175	50RB#0	21.94	2.5	24.44	277.97	1	PASS
Band4	10MHz	16QAM	20350	1RB#0	22.84	2.5	25.34	341.98	1	PASS
Band4	10MHz	16QAM	20350	1RB#24	23.01	2.5	25.51	355.63	1	PASS
Band4	10MHz	16QAM	20350	1RB#49	22.96	2.5	25.46	351.56	1	PASS
Band4	10MHz	16QAM	20350	50RB#0	21.95	2.5	24.45	278.61	1	PASS
Band4	10MHz	64QAM	20000	1RB#0	22.12	2.5	24.62	289.73	1	PASS
Band4	10MHz	64QAM	20000	1RB#24	22.24	2.5	24.74	297.85	1	PASS
Band4	10MHz	64QAM	20000	1RB#49	22.23	2.5	24.73	297.17	1	PASS
Band4	10MHz	64QAM	20000	50RB#0	21.03	2.5	23.53	225.42	1	PASS
Band4	10MHz	64QAM	20175	1RB#0	22.28	2.5	24.78	300.61	1	PASS
Band4	10MHz	64QAM	20175	1RB#24	22.22	2.5	24.72	296.48	1	PASS
Band4	10MHz	64QAM	20175	1RB#49	22.09	2.5	24.59	287.74	1	PASS
Band4	10MHz	64QAM	20175	50RB#0	20.92	2.5	23.42	219.79	1	PASS
Band4	10MHz	64QAM	20350	1RB#0	22.02	2.5	24.52	283.14	1	PASS
Band4	10MHz	64QAM	20350	1RB#24	22.14	2.5	24.64	291.07	1	PASS
Band4	10MHz	64QAM	20350	1RB#49	22.03	2.5	24.53	283.79	1	PASS
Band4	10MHz	64QAM	20350	50RB#0	20.94	2.5	23.44	220.80	1	PASS
Band4	15MHz	QPSK	20025	1RB#0	23.54	2.5	26.04	401.79	1	PASS
Band4	15MHz	QPSK	20025	1RB#38	23.96	2.5	26.46	442.59	1	PASS
Band4	15MHz	QPSK	20025	1RB#74	23.88	2.5	26.38	434.51	1	PASS
Band4	15MHz	QPSK	20025	75RB#0	22.89	2.5	25.39	345.94	1	PASS
Band4	15MHz	QPSK	20175	1RB#0	23.84	2.5	26.34	430.53	1	PASS
Band4	15MHz	QPSK	20175	1RB#38	23.75	2.5	26.25	421.70	1	PASS
Band4	15MHz	QPSK	20175	1RB#74	23.88	2.5	26.38	434.51	1	PASS
Band4	15MHz	QPSK	20175	75RB#0	22.73	2.5	25.23	333.43	1	PASS

Band4	15MHz	QPSK	20325	1RB#0	23.94	2.5	26.44	440.55	1	PASS
Band4	15MHz	QPSK	20325	1RB#38	23.81	2.5	26.31	427.56	1	PASS
Band4	15MHz	QPSK	20325	1RB#74	24.01	2.5	26.51	447.71	1	PASS
Band4	15MHz	QPSK	20325	75RB#0	22.80	2.5	25.30	338.84	1	PASS
Band4	15MHz	16QAM	20025	1RB#0	22.90	2.5	25.40	346.74	1	PASS
Band4	15MHz	16QAM	20025	1RB#38	22.85	2.5	25.35	342.77	1	PASS
Band4	15MHz	16QAM	20025	1RB#74	22.89	2.5	25.39	345.94	1	PASS
Band4	15MHz	16QAM	20025	75RB#0	21.88	2.5	24.38	274.16	1	PASS
Band4	15MHz	16QAM	20175	1RB#0	22.75	2.5	25.25	334.97	1	PASS
Band4	15MHz	16QAM	20175	1RB#38	22.94	2.5	25.44	349.95	1	PASS
Band4	15MHz	16QAM	20175	1RB#74	22.90	2.5	25.40	346.74	1	PASS
Band4	15MHz	16QAM	20175	75RB#0	21.78	2.5	24.28	267.92	1	PASS
Band4	15MHz	16QAM	20325	1RB#0	22.75	2.5	25.25	334.97	1	PASS
Band4	15MHz	16QAM	20325	1RB#38	22.81	2.5	25.31	339.63	1	PASS
Band4	15MHz	16QAM	20325	1RB#74	23.03	2.5	25.53	357.27	1	PASS
Band4	15MHz	16QAM	20325	75RB#0	21.75	2.5	24.25	266.07	1	PASS
Band4	15MHz	64QAM	20025	1RB#0	21.87	2.5	24.37	273.53	1	PASS
Band4	15MHz	64QAM	20025	1RB#38	21.99	2.5	24.49	281.19	1	PASS
Band4	15MHz	64QAM	20025	1RB#74	22.10	2.5	24.60	288.40	1	PASS
Band4	15MHz	64QAM	20025	75RB#0	20.89	2.5	23.39	218.27	1	PASS
Band4	15MHz	64QAM	20175	1RB#0	21.90	2.5	24.40	275.42	1	PASS
Band4	15MHz	64QAM	20175	1RB#38	22.07	2.5	24.57	286.42	1	PASS
Band4	15MHz	64QAM	20175	1RB#74	21.89	2.5	24.39	274.79	1	PASS
Band4	15MHz	64QAM	20175	75RB#0	20.73	2.5	23.23	210.38	1	PASS
Band4	15MHz	64QAM	20325	1RB#0	21.97	2.5	24.47	279.90	1	PASS
Band4	15MHz	64QAM	20325	1RB#38	21.80	2.5	24.30	269.15	1	PASS

Band4	15MHz	64QAM	20325	1RB#74	21.85	2.5	24.35	272.27	1	PASS
Band4	15MHz	64QAM	20325	75RB#0	20.80	2.5	23.30	213.80	1	PASS
Band4	20MHz	QPSK	20050	1RB#0	23.66	2.5	26.16	413.05	1	PASS
Band4	20MHz	QPSK	20050	1RB#49	23.82	2.5	26.32	428.55	1	PASS
Band4	20MHz	QPSK	20050	1RB#99	23.87	2.5	26.37	433.51	1	PASS
Band4	20MHz	QPSK	20050	100RB#0	22.90	2.5	25.40	346.74	1	PASS
Band4	20MHz	QPSK	20175	1RB#0	23.69	2.5	26.19	415.91	1	PASS
Band4	20MHz	QPSK	20175	1RB#49	23.69	2.5	26.19	415.91	1	PASS
Band4	20MHz	QPSK	20175	1RB#99	23.95	2.5	26.45	441.57	1	PASS
Band4	20MHz	QPSK	20175	100RB#0	22.75	2.5	25.25	334.97	1	PASS
Band4	20MHz	QPSK	20300	1RB#0	23.72	2.5	26.22	418.79	1	PASS
Band4	20MHz	QPSK	20300	1RB#49	23.70	2.5	26.20	416.87	1	PASS
Band4	20MHz	QPSK	20300	1RB#99	24.10	2.5	26.60	457.09	1	PASS
Band4	20MHz	QPSK	20300	100RB#0	22.78	2.5	25.28	337.29	1	PASS
Band4	20MHz	16QAM	20050	1RB#0	22.73	2.5	25.23	333.43	1	PASS
Band4	20MHz	16QAM	20050	1RB#49	23.29	2.5	25.79	379.31	1	PASS
Band4	20MHz	16QAM	20050	1RB#99	22.96	2.5	25.46	351.56	1	PASS
Band4	20MHz	16QAM	20050	100RB#0	21.85	2.5	24.35	272.27	1	PASS
Band4	20MHz	16QAM	20175	1RB#0	22.78	2.5	25.28	337.29	1	PASS
Band4	20MHz	16QAM	20175	1RB#49	22.85	2.5	25.35	342.77	1	PASS
Band4	20MHz	16QAM	20175	1RB#99	22.89	2.5	25.39	345.94	1	PASS
Band4	20MHz	16QAM	20175	100RB#0	21.80	2.5	24.30	269.15	1	PASS
Band4	20MHz	16QAM	20300	1RB#0	22.89	2.5	25.39	345.94	1	PASS
Band4	20MHz	16QAM	20300	1RB#49	22.80	2.5	25.30	338.84	1	PASS
Band4	20MHz	16QAM	20300	1RB#99	23.00	2.5	25.50	354.81	1	PASS
Band4	20MHz	16QAM	20300	100RB#0	21.73	2.5	24.23	264.85	1	PASS

Band4	20MHz	64QAM	20050	1RB#0	21.77	2.5	24.27	267.30	1	PASS
Band4	20MHz	64QAM	20050	1RB#49	22.07	2.5	24.57	286.42	1	PASS
Band4	20MHz	64QAM	20050	1RB#99	22.01	2.5	24.51	282.49	1	PASS
Band4	20MHz	64QAM	20050	100RB#0	20.92	2.5	23.42	219.79	1	PASS
Band4	20MHz	64QAM	20175	1RB#0	22.05	2.5	24.55	285.10	1	PASS
Band4	20MHz	64QAM	20175	1RB#49	21.95	2.5	24.45	278.61	1	PASS
Band4	20MHz	64QAM	20175	1RB#99	22.03	2.5	24.53	283.79	1	PASS
Band4	20MHz	64QAM	20175	100RB#0	20.78	2.5	23.28	212.81	1	PASS
Band4	20MHz	64QAM	20300	1RB#0	21.96	2.5	24.46	279.25	1	PASS
Band4	20MHz	64QAM	20300	1RB#49	22.15	2.5	24.65	291.74	1	PASS
Band4	20MHz	64QAM	20300	1RB#99	22.13	2.5	24.63	290.40	1	PASS
Band4	20MHz	64QAM	20300	100RB#0	20.69	2.5	23.19	208.45	1	PASS

LTE Band38

Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dBm)	Gain(dBi)	EIRP(dBm)	EIRP(mW)	Limit(W)	Verdict
Band38	5MHz	QPSK	37775	1RB#0	25.72	3.5	29.22	835.60	2	PASS
Band38	5MHz	16QAM	37775	1RB#0	24.80	3.5	28.30	676.08	2	PASS
Band38	5MHz	64QAM	37775	1RB#0	24.04	3.5	27.54	567.54	2	PASS
Band38	5MHz	QPSK	37775	1RB#12	25.81	3.5	29.31	853.10	2	PASS
Band38	5MHz	16QAM	37775	1RB#12	24.83	3.5	28.33	680.77	2	PASS
Band38	5MHz	64QAM	37775	1RB#12	24.15	3.5	27.65	582.10	2	PASS
Band38	5MHz	QPSK	37775	1RB#24	25.75	3.5	29.25	841.40	2	PASS
Band38	5MHz	16QAM	37775	1RB#24	24.94	3.5	28.44	698.23	2	PASS
Band38	5MHz	64QAM	37775	1RB#24	24.09	3.5	27.59	574.12	2	PASS
Band38	5MHz	QPSK	37775	25RB#0	24.83	3.5	28.33	680.77	2	PASS
Band38	5MHz	16QAM	37775	25RB#0	23.86	3.5	27.36	544.50	2	PASS
Band38	5MHz	64QAM	37775	25RB#0	22.83	3.5	26.33	429.54	2	PASS
Band38	5MHz	QPSK	38000	1RB#0	26.01	3.5	29.51	893.31	2	PASS
Band38	5MHz	16QAM	38000	1RB#0	25.15	3.5	28.65	732.82	2	PASS
Band38	5MHz	64QAM	38000	1RB#0	24.48	3.5	27.98	628.06	2	PASS
Band38	5MHz	QPSK	38000	1RB#12	26.07	3.5	29.57	905.73	2	PASS
Band38	5MHz	16QAM	38000	1RB#12	25.24	3.5	28.74	748.17	2	PASS
Band38	5MHz	64QAM	38000	1RB#12	24.55	3.5	28.05	638.26	2	PASS
Band38	5MHz	QPSK	38000	1RB#24	25.97	3.5	29.47	885.12	2	PASS
Band38	5MHz	16QAM	38000	1RB#24	25.15	3.5	28.65	732.82	2	PASS
Band38	5MHz	64QAM	38000	1RB#24	24.53	3.5	28.03	635.33	2	PASS
Band38	5MHz	QPSK	38000	25RB#0	25.03	3.5	28.53	712.85	2	PASS
Band38	5MHz	16QAM	38000	25RB#0	24.06	3.5	27.56	570.16	2	PASS

Band38	5MHz	64QAM	38000	25RB#0	23.06	3.5	26.56	452.90	2	PASS
Band38	5MHz	QPSK	38225	1RB#0	25.63	3.5	29.13	818.46	2	PASS
Band38	5MHz	16QAM	38225	1RB#0	24.77	3.5	28.27	671.43	2	PASS
Band38	5MHz	64QAM	38225	1RB#0	24.01	3.5	27.51	563.64	2	PASS
Band38	5MHz	QPSK	38225	1RB#12	25.56	3.5	29.06	805.38	2	PASS
Band38	5MHz	16QAM	38225	1RB#12	24.63	3.5	28.13	650.13	2	PASS
Band38	5MHz	64QAM	38225	1RB#12	24.02	3.5	27.52	564.94	2	PASS
Band38	5MHz	QPSK	38225	1RB#24	25.47	3.5	28.97	788.86	2	PASS
Band38	5MHz	16QAM	38225	1RB#24	24.60	3.5	28.10	645.65	2	PASS
Band38	5MHz	64QAM	38225	1RB#24	23.88	3.5	27.38	547.02	2	PASS
Band38	5MHz	QPSK	38225	25RB#0	24.63	3.5	28.13	650.13	2	PASS
Band38	5MHz	16QAM	38225	25RB#0	23.67	3.5	27.17	521.19	2	PASS
Band38	5MHz	64QAM	38225	25RB#0	22.68	3.5	26.18	414.95	2	PASS
Band38	10MHz	QPSK	37800	1RB#0	25.70	3.5	29.20	831.76	2	PASS
Band38	10MHz	16QAM	37800	1RB#0	24.78	3.5	28.28	672.98	2	PASS
Band38	10MHz	64QAM	37800	1RB#0	24.17	3.5	27.67	584.79	2	PASS
Band38	10MHz	QPSK	37800	1RB#24	25.81	3.5	29.31	853.10	2	PASS
Band38	10MHz	16QAM	37800	1RB#24	24.86	3.5	28.36	685.49	2	PASS
Band38	10MHz	64QAM	37800	1RB#24	24.25	3.5	27.75	595.66	2	PASS
Band38	10MHz	QPSK	37800	1RB#49	25.83	3.5	29.33	857.04	2	PASS
Band38	10MHz	16QAM	37800	1RB#49	25.03	3.5	28.53	712.85	2	PASS
Band38	10MHz	64QAM	37800	1RB#49	24.23	3.5	27.73	592.93	2	PASS
Band38	10MHz	QPSK	37800	50RB#0	24.90	3.5	28.40	691.83	2	PASS
Band38	10MHz	16QAM	37800	50RB#0	23.90	3.5	27.40	549.54	2	PASS
Band38	10MHz	64QAM	37800	50RB#0	22.93	3.5	26.43	439.54	2	PASS
Band38	10MHz	QPSK	38000	1RB#0	26.05	3.5	29.55	901.57	2	PASS

Band38	10MHz	16QAM	38000	1RB#0	25.18	3.5	28.68	737.90	2	PASS
Band38	10MHz	64QAM	38000	1RB#0	24.38	3.5	27.88	613.76	2	PASS
Band38	10MHz	QPSK	38000	1RB#24	26.07	3.5	29.57	905.73	2	PASS
Band38	10MHz	16QAM	38000	1RB#24	25.19	3.5	28.69	739.61	2	PASS
Band38	10MHz	64QAM	38000	1RB#24	24.55	3.5	28.05	638.26	2	PASS
Band38	10MHz	QPSK	38000	1RB#49	26.01	3.5	29.51	893.31	2	PASS
Band38	10MHz	16QAM	38000	1RB#49	25.19	3.5	28.69	739.61	2	PASS
Band38	10MHz	64QAM	38000	1RB#49	24.29	3.5	27.79	601.17	2	PASS
Band38	10MHz	QPSK	38000	50RB#0	25.12	3.5	28.62	727.78	2	PASS
Band38	10MHz	16QAM	38000	50RB#0	24.11	3.5	27.61	576.77	2	PASS
Band38	10MHz	64QAM	38000	50RB#0	23.09	3.5	26.59	456.04	2	PASS
Band38	10MHz	QPSK	38200	1RB#0	25.73	3.5	29.23	837.53	2	PASS
Band38	10MHz	16QAM	38200	1RB#0	24.87	3.5	28.37	687.07	2	PASS
Band38	10MHz	64QAM	38200	1RB#0	24.11	3.5	27.61	576.77	2	PASS
Band38	10MHz	QPSK	38200	1RB#24	25.61	3.5	29.11	814.70	2	PASS
Band38	10MHz	16QAM	38200	1RB#24	24.75	3.5	28.25	668.34	2	PASS
Band38	10MHz	64QAM	38200	1RB#24	24.05	3.5	27.55	568.85	2	PASS
Band38	10MHz	QPSK	38200	1RB#49	25.45	3.5	28.95	785.24	2	PASS
Band38	10MHz	16QAM	38200	1RB#49	24.65	3.5	28.15	653.13	2	PASS
Band38	10MHz	64QAM	38200	1RB#49	23.84	3.5	27.34	542.00	2	PASS
Band38	10MHz	QPSK	38200	50RB#0	24.66	3.5	28.16	654.64	2	PASS
Band38	10MHz	16QAM	38200	50RB#0	23.63	3.5	27.13	516.42	2	PASS
Band38	10MHz	64QAM	38200	50RB#0	22.69	3.5	26.19	415.91	2	PASS
Band38	15MHz	QPSK	37825	1RB#0	25.60	3.5	29.10	812.83	2	PASS
Band38	15MHz	16QAM	37825	1RB#0	24.71	3.5	28.21	662.22	2	PASS
Band38	15MHz	64QAM	37825	1RB#0	23.92	3.5	27.42	552.08	2	PASS

Band38	15MHz	QPSK	37825	1RB#38	25.69	3.5	29.19	829.85	2	PASS
Band38	15MHz	16QAM	37825	1RB#38	24.79	3.5	28.29	674.53	2	PASS
Band38	15MHz	64QAM	37825	1RB#38	24.15	3.5	27.65	582.10	2	PASS
Band38	15MHz	QPSK	37825	1RB#74	25.84	3.5	29.34	859.01	2	PASS
Band38	15MHz	16QAM	37825	1RB#74	24.85	3.5	28.35	683.91	2	PASS
Band38	15MHz	64QAM	37825	1RB#74	24.03	3.5	27.53	566.24	2	PASS
Band38	15MHz	QPSK	37825	75RB#0	24.89	3.5	28.39	690.24	2	PASS
Band38	15MHz	16QAM	37825	75RB#0	23.84	3.5	27.34	542.00	2	PASS
Band38	15MHz	64QAM	37825	75RB#0	22.86	3.5	26.36	432.51	2	PASS
Band38	15MHz	QPSK	38000	1RB#0	25.96	3.5	29.46	883.08	2	PASS
Band38	15MHz	16QAM	38000	1RB#0	24.97	3.5	28.47	703.07	2	PASS
Band38	15MHz	64QAM	38000	1RB#0	24.31	3.5	27.81	603.95	2	PASS
Band38	15MHz	QPSK	38000	1RB#38	26.00	3.5	29.50	891.25	2	PASS
Band38	15MHz	16QAM	38000	1RB#38	25.04	3.5	28.54	714.50	2	PASS
Band38	15MHz	64QAM	38000	1RB#38	24.26	3.5	27.76	597.04	2	PASS
Band38	15MHz	QPSK	38000	1RB#74	25.72	3.5	29.22	835.60	2	PASS
Band38	15MHz	16QAM	38000	1RB#74	24.97	3.5	28.47	703.07	2	PASS
Band38	15MHz	64QAM	38000	1RB#74	24.11	3.5	27.61	576.77	2	PASS
Band38	15MHz	QPSK	38000	75RB#0	24.96	3.5	28.46	701.46	2	PASS
Band38	15MHz	16QAM	38000	75RB#0	23.98	3.5	27.48	559.76	2	PASS
Band38	15MHz	64QAM	38000	75RB#0	22.98	3.5	26.48	444.63	2	PASS
Band38	15MHz	QPSK	38175	1RB#0	25.71	3.5	29.21	833.68	2	PASS
Band38	15MHz	16QAM	38175	1RB#0	24.84	3.5	28.34	682.34	2	PASS
Band38	15MHz	64QAM	38175	1RB#0	24.01	3.5	27.51	563.64	2	PASS
Band38	15MHz	QPSK	38175	1RB#38	25.55	3.5	29.05	803.53	2	PASS
Band38	15MHz	16QAM	38175	1RB#38	24.63	3.5	28.13	650.13	2	PASS

Band38	15MHz	64QAM	38175	1RB#38	23.93	3.5	27.43	553.35	2	PASS
Band38	15MHz	QPSK	38175	1RB#74	25.24	3.5	28.74	748.17	2	PASS
Band38	15MHz	16QAM	38175	1RB#74	24.37	3.5	27.87	612.35	2	PASS
Band38	15MHz	64QAM	38175	1RB#74	23.64	3.5	27.14	517.61	2	PASS
Band38	15MHz	QPSK	38175	75RB#0	24.68	3.5	28.18	657.66	2	PASS
Band38	15MHz	16QAM	38175	75RB#0	23.70	3.5	27.20	524.81	2	PASS
Band38	15MHz	64QAM	38175	75RB#0	22.71	3.5	26.21	417.83	2	PASS
Band38	20MHz	QPSK	37850	1RB#0	25.60	3.5	29.10	812.83	2	PASS
Band38	20MHz	16QAM	37850	1RB#0	24.72	3.5	28.22	663.74	2	PASS
Band38	20MHz	64QAM	37850	1RB#0	23.90	3.5	27.40	549.54	2	PASS
Band38	20MHz	QPSK	37850	1RB#49	25.85	3.5	29.35	860.99	2	PASS
Band38	20MHz	16QAM	37850	1RB#49	24.72	3.5	28.22	663.74	2	PASS
Band38	20MHz	64QAM	37850	1RB#49	24.15	3.5	27.65	582.10	2	PASS
Band38	20MHz	QPSK	37850	1RB#99	25.84	3.5	29.34	859.01	2	PASS
Band38	20MHz	16QAM	37850	1RB#99	24.86	3.5	28.36	685.49	2	PASS
Band38	20MHz	64QAM	37850	1RB#99	24.19	3.5	27.69	587.49	2	PASS
Band38	20MHz	QPSK	37850	100RB#0	24.91	3.5	28.41	693.43	2	PASS
Band38	20MHz	16QAM	37850	100RB#0	23.93	3.5	27.43	553.35	2	PASS
Band38	20MHz	64QAM	37850	100RB#0	22.90	3.5	26.40	436.52	2	PASS
Band38	20MHz	QPSK	38000	1RB#0	25.99	3.5	29.49	889.20	2	PASS
Band38	20MHz	16QAM	38000	1RB#0	24.94	3.5	28.44	698.23	2	PASS
Band38	20MHz	64QAM	38000	1RB#0	24.12	3.5	27.62	578.10	2	PASS
Band38	20MHz	QPSK	38000	1RB#49	26.05	3.5	29.55	901.57	2	PASS
Band38	20MHz	16QAM	38000	1RB#49	25.07	3.5	28.57	719.45	2	PASS
Band38	20MHz	64QAM	38000	1RB#49	24.24	3.5	27.74	594.29	2	PASS
Band38	20MHz	QPSK	38000	1RB#99	25.68	3.5	29.18	827.94	2	PASS

Band38	20MHz	16QAM	38000	1RB#99	24.78	3.5	28.28	672.98	2	PASS
Band38	20MHz	64QAM	38000	1RB#99	24.07	3.5	27.57	571.48	2	PASS
Band38	20MHz	QPSK	38000	100RB#0	24.95	3.5	28.45	699.84	2	PASS
Band38	20MHz	16QAM	38000	100RB#0	23.97	3.5	27.47	558.47	2	PASS
Band38	20MHz	QPSK	37850	1RB#0	25.61	3.5	29.11	814.70	2	PASS
Band38	20MHz	16QAM	37850	1RB#0	24.72	3.5	28.22	663.74	2	PASS
Band38	20MHz	64QAM	37850	1RB#0	24.01	3.5	27.51	563.64	2	PASS
Band38	20MHz	QPSK	37850	1RB#49	25.75	3.5	29.25	841.40	2	PASS
Band38	20MHz	16QAM	37850	1RB#49	24.89	3.5	28.39	690.24	2	PASS
Band38	20MHz	64QAM	37850	1RB#49	24.02	3.5	27.52	564.94	2	PASS
Band38	20MHz	QPSK	37850	1RB#99	25.90	3.5	29.40	870.96	2	PASS
Band38	20MHz	16QAM	37850	1RB#99	25.01	3.5	28.51	709.58	2	PASS
Band38	20MHz	64QAM	37850	1RB#99	24.20	3.5	27.70	588.84	2	PASS
Band38	20MHz	QPSK	37850	100RB#0	24.90	3.5	28.40	691.83	2	PASS
Band38	20MHz	16QAM	37850	100RB#0	23.92	3.5	27.42	552.08	2	PASS
Band38	20MHz	64QAM	37850	100RB#0	22.93	3.5	26.43	439.54	2	PASS
Band38	20MHz	QPSK	38000	1RB#0	26.01	3.5	29.51	893.31	2	PASS
Band38	20MHz	16QAM	38000	1RB#0	25.04	3.5	28.54	714.50	2	PASS
Band38	20MHz	64QAM	38000	1RB#0	24.18	3.5	27.68	586.14	2	PASS
Band38	20MHz	QPSK	38000	1RB#49	25.95	3.5	29.45	881.05	2	PASS
Band38	20MHz	16QAM	38000	1RB#49	25.06	3.5	28.56	717.79	2	PASS
Band38	20MHz	64QAM	38000	1RB#49	24.20	3.5	27.70	588.84	2	PASS
Band38	20MHz	QPSK	38000	1RB#99	25.82	3.5	29.32	855.07	2	PASS
Band38	20MHz	16QAM	38000	1RB#99	24.72	3.5	28.22	663.74	2	PASS
Band38	20MHz	64QAM	38000	1RB#99	24.07	3.5	27.57	571.48	2	PASS
Band38	20MHz	QPSK	38000	100RB#0	24.96	3.5	28.46	701.46	2	PASS

Band38	20MHz	16QAM	38000	100RB#0	23.99	3.5	27.49	561.05	2	PASS
Band38	20MHz	64QAM	38000	100RB#0	23.00	3.5	26.50	446.68	2	PASS
Band38	20MHz	QPSK	38150	1RB#0	26.02	3.5	29.52	895.36	2	PASS
Band38	20MHz	16QAM	38150	1RB#0	25.05	3.5	28.55	716.14	2	PASS
Band38	20MHz	64QAM	38150	1RB#0	24.26	3.5	27.76	597.04	2	PASS
Band38	20MHz	QPSK	38150	1RB#49	25.64	3.5	29.14	820.35	2	PASS
Band38	20MHz	16QAM	38150	1RB#49	24.92	3.5	28.42	695.02	2	PASS
Band38	20MHz	64QAM	38150	1RB#49	23.94	3.5	27.44	554.63	2	PASS
Band38	20MHz	QPSK	38150	1RB#99	25.29	3.5	28.79	756.83	2	PASS
Band38	20MHz	16QAM	38150	1RB#99	24.40	3.5	27.90	616.60	2	PASS
Band38	20MHz	64QAM	38150	1RB#99	23.63	3.5	27.13	516.42	2	PASS
Band38	20MHz	QPSK	38150	100RB#0	24.69	3.5	28.19	659.17	2	PASS
Band38	20MHz	16QAM	38150	100RB#0	23.73	3.5	27.23	528.45	2	PASS
Band38	20MHz	64QAM	38150	100RB#0	22.73	3.5	26.23	419.76	2	PASS

We had reduced the power and EIRP of LTE Band 42 and LTE band43 as follows.

LTE Band 42						
BW [MHz]	Modulation	RB Size	RB Offset	Low	Mid	High
		Channel		42190	42590	42990
		Frequence (MHz)		3460	3500	3540
20	QPSK	1	0	24.30	**24.36**	24.24
		1	50	24.33	24.33	24.22
		1	99	24.32	24.23	24.15
		50	0	23.50	23.41	23.33
		50	25	23.45	23.46	23.35
		50	50	23.42	23.37	23.27
		100	0	23.43	23.45	23.34
	16QAM	1	0	23.62	23.58	23.52
		1	50	23.75	23.61	23.56
		1	99	23.63	23.54	23.43
		50	0	22.46	22.45	22.33
		50	25	22.47	22.47	22.37
		50	50	22.42	22.41	22.31
		100	0	22.40	22.43	22.37
	64QAM	1	0	22.50	22.61	22.62
		1	50	22.57	22.68	22.57
		1	99	22.54	22.60	22.49
		50	0	21.48	21.40	21.35
		50	25	21.43	21.43	21.37
		50	50	21.42	21.41	21.32
		100	0	21.40	21.44	21.33

LTE Band 42						
BW [MHz]	Modulation	Channel		42165	42590	43015
		Frequence (MHz)		3457.5	3500	3542.5
15	QPSK	1	0	24.15	24.30	24.22
		1	37	24.26	24.30	24.20
		1	74	24.29	24.22	24.06
		36	0	23.49	23.28	23.25
		36	19	23.39	23.32	23.24
		36	39	23.28	23.29	23.25
		75	0	23.39	23.41	23.27
	16QAM	1	0	23.48	23.55	23.40
		1	37	23.63	23.54	23.55
		1	74	23.62	23.46	23.35
		36	0	22.39	22.42	22.20
		36	19	22.34	22.38	22.28
		36	39	22.29	22.31	22.20
		75	0	22.30	22.32	22.25
	64QAM	1	0	22.47	22.52	22.54
		1	37	22.51	22.56	22.54
		1	74	22.47	22.55	22.39
		36	0	21.34	21.32	21.22
		36	19	21.31	21.35	21.23
		36	39	21.32	21.31	21.23
		75	0	21.31	21.33	21.28

LTE Band 42						
BW [MHz]	Modulation	Channel		42140	42590	43040
		Frequence (MHz)		3455	3500	3545
10	QPSK	1	0	24.15	24.23	24.18
		1	24	24.23	24.31	24.19
		1	49	24.31	24.16	24.06
		25	0	23.48	23.30	23.23
		25	12	23.44	23.38	23.21
		25	25	23.30	23.36	23.15
		50	0	23.34	23.31	23.33
	16QAM	1	0	23.57	23.55	23.39
		1	24	23.65	23.51	23.53
		1	49	23.50	23.43	23.33
		25	0	22.36	22.38	22.22
		25	12	22.41	22.35	22.22
		25	25	22.27	22.31	22.27
		50	0	22.39	22.33	22.35
	64QAM	1	0	22.44	22.49	22.52
		1	24	22.50	22.57	22.53
		1	49	22.49	22.45	22.44
		25	0	21.45	21.37	21.24
		25	12	21.28	21.30	21.26
		25	25	21.27	21.27	21.25
		50	0	21.38	21.43	21.32

LTE Band 42						
BW [MHz]	Modulation	Channel		42115	42590	43065
		Frequence (MHz)		3452.5	3500	3547.5
5	QPSK	1	0	24.17	24.22	24.10
		1	12	24.23	24.21	24.21
		1	24	24.26	24.12	24.14
		12	0	23.38	23.40	23.30
		12	6	23.34	23.43	23.23
		12	13	23.41	23.28	23.13
		25	0	23.32	23.35	23.28
	16QAM	1	0	23.54	23.49	23.41
		1	12	23.64	23.52	23.41
		1	24	23.58	23.53	23.37
		12	0	22.34	22.41	22.23
		12	6	22.34	22.45	22.27
		12	13	22.37	22.37	22.27
		25	0	22.28	22.34	22.29
	64QAM	1	0	22.43	22.58	22.55
		1	12	22.48	22.65	22.54
		1	24	22.53	22.56	22.34
		12	0	21.41	21.30	21.34
		12	6	21.30	21.42	21.27
		12	13	21.41	21.40	21.31
		25	0	21.26	21.39	21.28

LTE Band 43						
BW [MHz]	Modulation	RB Size	RB Offset	Low	Mid	High
		Channel		44690	45090	45490
		Frequence (MHz)		3710	3750	3790
20	QPSK	1	0	17.08	17.09	17.07
		1	50	17.06	**17.13**	17.05
		1	99	17.05	17.07	16.97
		50	0	16.10	16.18	16.15
		50	25	16.14	16.29	16.22
		50	50	16.21	16.24	16.18
		100	0	16.11	16.29	16.19
	16QAM	1	0	16.22	16.35	16.31
		1	50	16.31	16.40	16.51
		1	99	16.29	16.33	16.19
		50	0	15.12	15.20	15.18
		50	25	15.11	15.26	15.19
		50	50	15.22	15.27	15.20
		100	0	15.10	15.29	15.22
	64QAM	1	0	15.27	15.37	15.38
		1	50	15.38	15.39	15.36
		1	99	15.32	15.35	15.33
		50	0	14.10	14.21	14.14
		50	25	14.12	14.29	14.23
		50	50	14.16	14.27	14.18
		100	0	14.07	14.26	14.17

LTE Band 43						
BW [MHz]	Modulation	Channel		44665	45090	45515
		Frequence (MHz)		3707.5	3750	3792.5
15	QPSK	1	0	17.01	17.07	17.05
		1	37	16.93	17.06	16.98
		1	74	16.94	16.92	16.93
		36	0	16.04	16.10	16.13
		36	19	16.06	16.17	16.16
		36	39	16.15	16.23	16.08
		75	0	15.99	16.26	16.06
	16QAM	1	0	16.11	16.20	16.22
		1	37	16.20	16.34	16.50
		1	74	16.19	16.24	16.07
		36	0	15.05	15.06	15.14
		36	19	14.96	15.12	15.12
		36	39	15.16	15.24	15.10
		75	0	15.05	15.24	15.21
	64QAM	1	0	15.19	15.23	15.32
		1	37	15.23	15.38	15.26
		1	74	15.30	15.34	15.29
		36	0	14.00	14.17	13.99
		36	19	14.07	14.17	14.11
		36	39	14.04	14.24	14.13
		75	0	13.92	14.18	14.13

LTE Band 43						
BW [MHz]	Modulation	Channel		44640	45090	45540
		Frequence (MHz)		3705	3750	3795
10	QPSK	1	0	17.00	16.96	17.02
		1	24	16.99	17.05	16.99
		1	49	16.91	16.92	16.88
		25	0	16.04	16.04	16.14
		25	12	16.07	16.25	16.12
		25	25	16.06	16.20	16.07
		50	0	16.02	16.18	16.16
	16QAM	1	0	16.10	16.31	16.30
		1	24	16.20	16.34	16.50
		1	49	16.28	16.26	16.09
		25	0	15.07	15.13	15.14
		25	12	15.09	15.21	15.15
		25	25	15.16	15.14	15.16
		50	0	15.05	15.22	15.12
	64QAM	1	0	15.26	15.28	15.28
		1	24	15.31	15.24	15.28
		1	49	15.24	15.32	15.25
		25	0	13.99	14.18	14.05
		25	12	13.98	14.24	14.17
		25	25	14.10	14.24	14.12
		50	0	14.04	14.19	14.10

LTE Band 43						
BW [MHz]	Modulation	Channel		44615	45090	45565
		Frequence (MHz)		3702.5	3750	3797.5
5	QPSK	1	0	17.01	17.04	17.01
		1	12	17.04	16.99	17.03
		1	24	16.99	17.01	16.89
		12	0	15.95	16.13	16.10
		12	6	16.11	16.20	16.07
		12	13	16.08	16.23	16.08
		25	0	16.07	16.19	16.11
	16QAM	1	0	16.13	16.21	16.18
		1	12	16.17	16.36	16.39
		1	24	16.26	16.29	16.04
		12	0	15.11	15.10	15.04
		12	6	15.01	15.14	15.15
		12	13	15.17	15.17	15.07
		25	0	15.01	15.19	15.10
	64QAM	1	0	15.20	15.23	15.34
		1	12	15.31	15.26	15.28
		1	24	15.31	15.27	15.31
		12	0	14.05	14.06	14.01
		12	6	14.00	14.26	14.21
		12	13	14.13	14.16	14.09
		25	0	13.98	14.18	14.09

EIRP

LTE Band 42						
BW [MHz] Modulation	**Channel**	**Frequency (MHz)**	**Conducted Power (dBm)**	**Gain (dB)**	**EIRP (dBm)**	**EIRP (mW)**
20M-QPSK	42190	3460	24.33	5	29.33	857.04
	42590	3500	24.36	5	29.36	862.98
	42990	3540	24.24	5	29.24	839.46
20M-16QAM	42190	3460	23.75	5	28.75	749.89
	42590	3500	23.61	5	28.61	726.11
	42990	3540	23.56	5	28.56	717.79
20M-64QAM	42190	3460	22.57	5	27.57	571.48
	42590	3500	22.68	5	27.68	586.14
	42990	3540	22.62	5	27.62	578.10
BW [MHz] Modulation	**Channel**	**Frequency (MHz)**	**Conducted Power (dBm)**	**Gain (dB)**	**EIRP (dBm)**	**EIRP (mW)**
15M-QPSK	42165	3457.5	24.29	5	29.29	849.18
	42590	3500	24.30	5	29.30	851.14
	43015	3542.5	24.22	5	29.22	835.60
15M-16QAM	42165	3457.5	23.63	5	28.63	729.46
	42590	3500	23.55	5	28.55	716.14
	43015	3542.5	23.55	5	28.55	716.14
15M-64QAM	42165	3457.5	22.51	5	27.51	563.64
	42590	3500	22.56	5	27.56	570.16
	43015	3542.5	22.54	5	27.54	567.54
BW [MHz] Modulation	**Channel**	**Frequency (MHz)**	**Conducted Power (dBm)**	**Gain (dB)**	**EIRP (dBm)**	**EIRP (mW)**
10M-QPSK	42140	3455	24.31	5	29.31	853.10
	42590	3500	24.31	5	29.31	853.10
	43040	3545	24.19	5	29.19	829.85
10M-16QAM	42140	3455	23.65	5	28.65	732.82
	42590	3500	23.55	5	28.55	716.14
	43040	3545	23.53	5	28.53	712.85
10M-64QAM	42140	3455	22.50	5	27.50	562.34
	42590	3500	22.57	5	27.57	571.48
	43040	3545	22.53	5	27.53	566.24

LTE Band 42						
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)
5M-QPSK	42115	3452.5	24.26	5	29.26	843.33
	42590	3500	24.22	5	29.22	835.60
	43065	3547.5	24.21	5	29.21	833.68
5M-16QAM	42115	3452.5	23.64	5	28.64	731.14
	42590	3500	23.53	5	28.53	712.85
	43065	3547.5	23.41	5	28.41	693.43
5M-64QAM	42115	3452.5	22.53	5	27.53	566.24
	42590	3500	22.65	5	27.65	582.10
	43065	3547.5	22.55	5	27.55	568.85

LTE Band 43							
BW [MHz] Modulation	**Channel**	**Frequency (MHz)**	**Conducted Power (dBm)**	**Gain (dB)**	**EIRP (dBm)**	**EIRP (mW)**	**Limit (dBm)**
20M-QPSK	44690	3710	17.08	5	22.08	161.44	23
	45090	3750	17.13	5	22.13	163.31	23
	45490	3790	17.07	5	22.07	161.06	23
20M-16QAM	44690	3710	16.31	5	21.31	135.21	23
	45090	3750	16.40	5	21.40	138.04	23
	45490	3790	16.51	5	21.51	141.58	23
20M-64QAM	44690	3710	15.38	5	20.38	109.14	23
	45090	3750	15.39	5	20.39	109.40	23
	45490	3790	15.38	5	20.38	109.14	23
BW [MHz] Modulation	**Channel**	**Frequency (MHz)**	**Conducted Power (dBm)**	**Gain (dB)**	**EIRP (dBm)**	**EIRP (mW)**	**Limit (dBm)**
15M-QPSK	44665	3707.5	17.01	5	22.01	158.85	23
	45090	3750	17.07	5	22.07	161.06	23
	45515	3792.5	17.05	5	22.05	160.32	23
15M-16QAM	44665	3707.5	16.20	5	21.20	131.83	23
	45090	3750	16.34	5	21.34	136.14	23
	45515	3792.5	16.50	5	21.50	141.25	23
15M-64QAM	44665	3707.5	15.30	5	20.30	107.15	23
	45090	3750	15.38	5	20.38	109.14	23
	45515	3792.5	15.32	5	20.32	107.65	23

LTE Band 43							
BW [MHz] Modulation	**Channel**	**Frequency (MHz)**	**Conducted Power (dBm)**	**Gain (dB)**	**EIRP (dBm)**	**EIRP (mW)**	**Limit (dBm)**
10M-QPSK	44640	3705	17.00	5	22.00	158.49	23
	45090	3750	17.05	5	22.05	160.32	23
	45540	3795	17.02	5	22.02	159.22	23
10M-16QAM	44640	3705	16.28	5	21.28	134.28	23
	45090	3750	16.34	5	21.34	136.14	23
	45540	3795	16.50	5	21.50	141.25	23
10M-64QAM	44640	3705	15.31	5	20.31	107.40	23
	45090	3750	15.32	5	20.32	107.65	23
	45540	3795	15.28	5	20.28	106.66	23
BW [MHz] Modulation	**Channel**	**Frequency (MHz)**	**Conducted Power (dBm)**	**Gain (dB)**	**EIRP (dBm)**	**EIRP (mW)**	**Limit (dBm)**
5M-QPSK	44615	3702.5	17.04	5	22.04	159.96	23
	45090	3750	17.04	5	22.04	159.96	23
	45565	3797.5	17.03	5	22.03	159.59	23
5M-16QAM	44615	3702.5	16.26	5	21.26	133.66	23
	45090	3750	16.36	5	21.36	136.77	23
	45565	3797.5	16.39	5	21.39	137.72	23
5M-64QAM	44615	3702.5	15.31	5	20.31	107.40	23
	45090	3750	15.27	5	20.27	106.41	23
	45565	3797.5	15.34	5	20.34	108.14	23

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

3.2 FREQUENCY STABILITY MEASUREMENT

3.2.1 LIMITS OF FREQUENCY STABILIITY MEASUREMENT

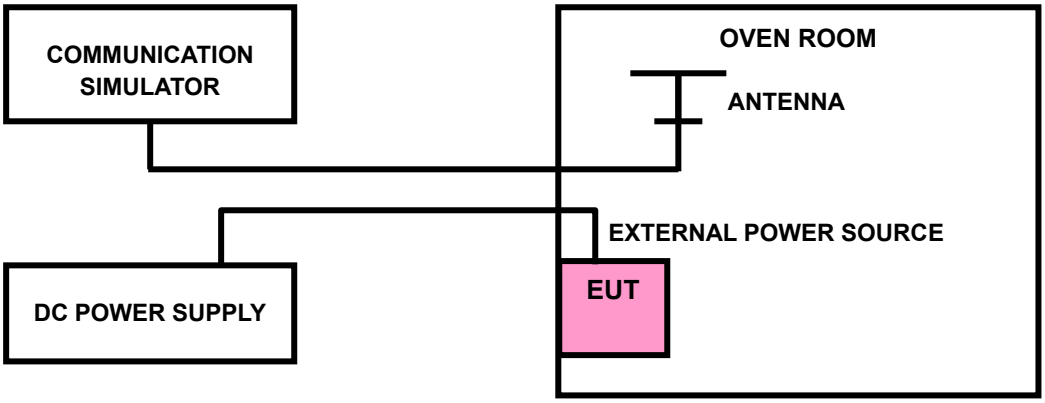
The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

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

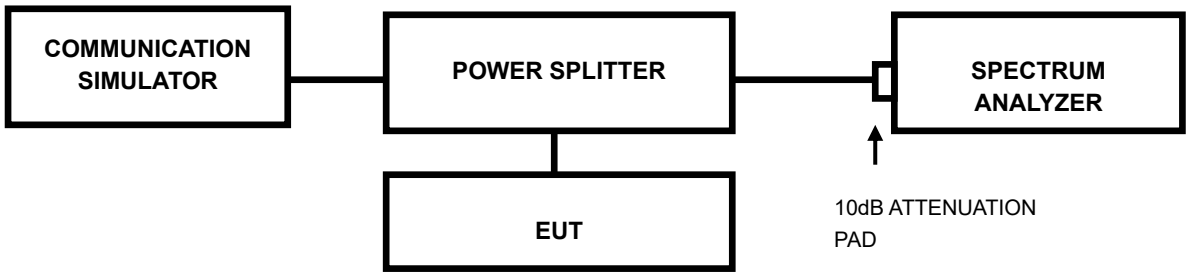
Please Refer to wwan module(model name: RM520N-GL) test report(NO.: SEWM2304000122RG01,FCC ID: XMR2023RM520NGL)

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 WWAN module(model name: RM520N-GL) test report(NO.: SEWM2304000122RG01,FCC ID: XMR2023RM520NGL).

3.4 BAND EDGE MEASUREMENT

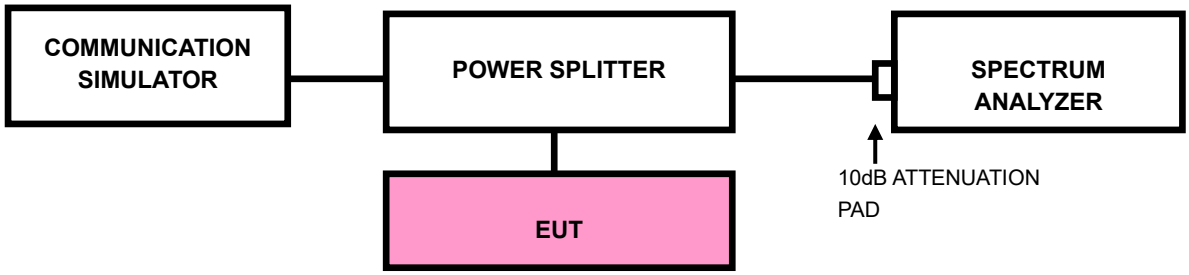
3.4.1 LIMITS OF BAND EDGE MEASUREMENT

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.

According to FCC Part 27.53 (n)(2)For mobile operations in the 3450-3550 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed-13 dBm/MHz.Compliance with this paragraph is based on the use of measurement instrumentation employing a lresolution bandwidth of 1 megahertz or greater. 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, but limited to a maximum of 200 kHz. In the bands between 1 and 5 MHz removed from the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be 500 kHz.

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 WWAN module(model name: RM520N-GL) test report(NO.: SEWM2304000122RG01,FCC ID: XMR2023RM520NGL).

3.5 CONDUCTED SPURIOUS EMISSIONS

3.5.1 LIMITS OF CONDUCTED SPURIOUS EMISSIONS MEASUREMENT

For LTE Band4/66
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 is equal to –13dBm.

For: LTE Band42
For mobile operations in the 3450–3550 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed -13 dBm/MHz.

For LTE Band38/41

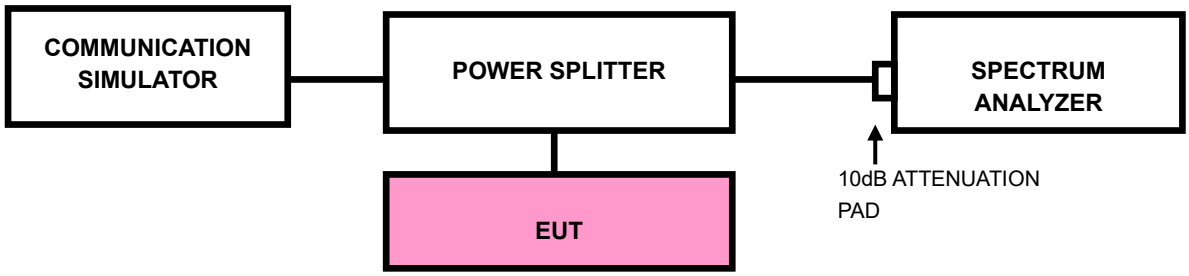
The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least 55 +10 log10(P) dB. The limit of emission is equal to -25dBm.

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 WWAN module(model name: RM520N-GL) test report(NO.: SEWM2304000122RG01,FCC ID: XMR2023RM520NGL).

3.6 RADIATED EMISSION MEASUREMENT

3.6.1 LIMITS OF RADIATED EMISSION MEASUREMENT

For LTE Band4/66
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 is equal to –13dBm.

For: LTE Band42
For mobile operations in the 3450–3550 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed -13 dBm/MHz.

For LTE Band38/41

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.

3.6.2 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.

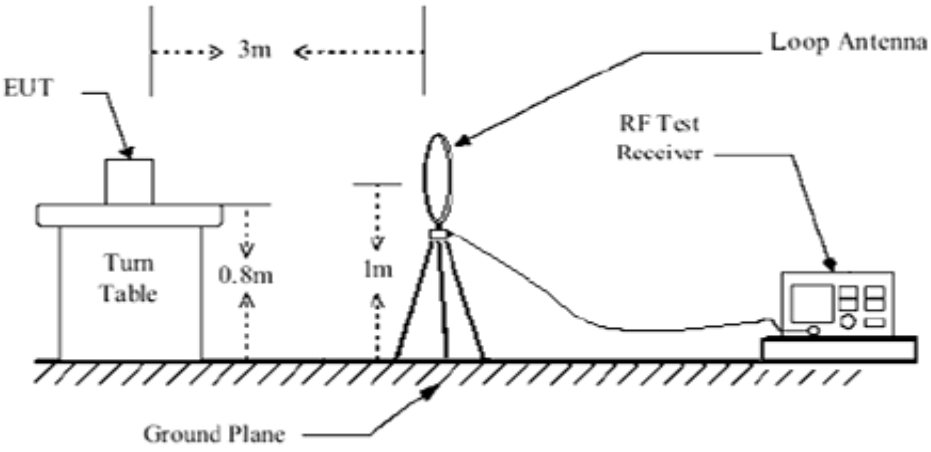
NOTE: The resolution bandwidth of spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz.

3.6.3 DEVIATION FROM TEST STANDARD

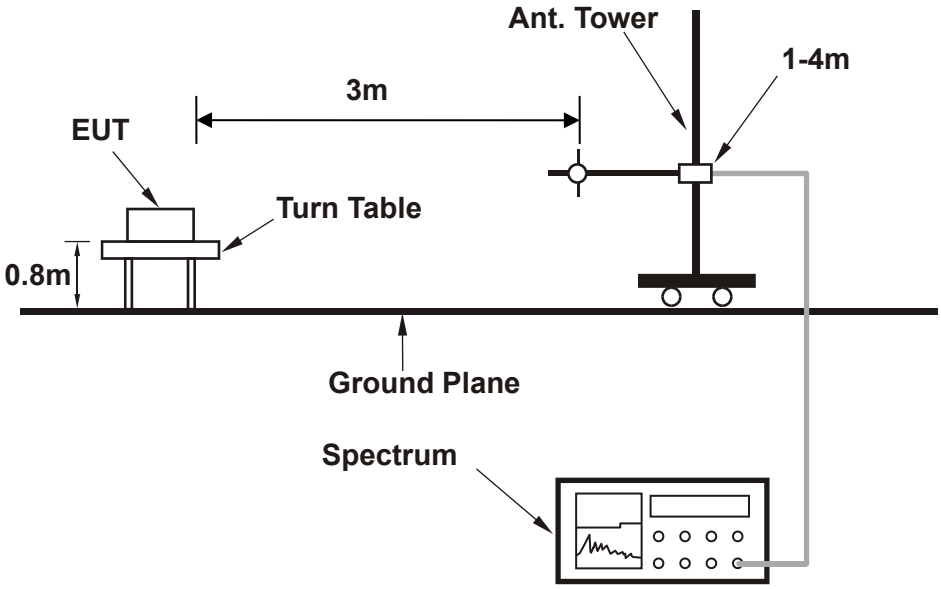
No deviation

3.6.4 TEST SETUP

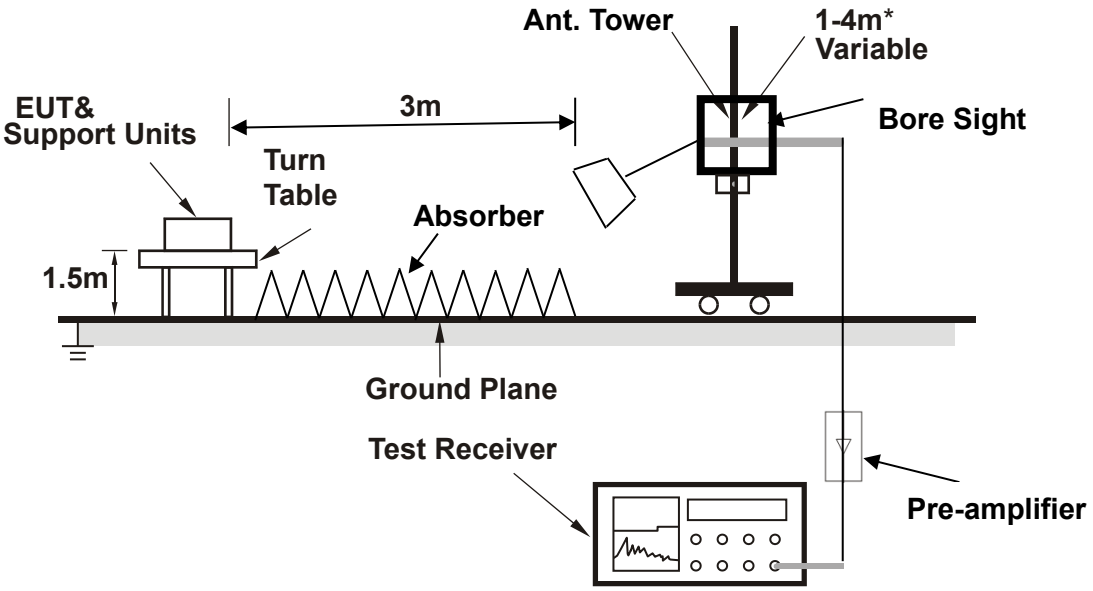
< Frequency Range below 30MHz >



< 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.

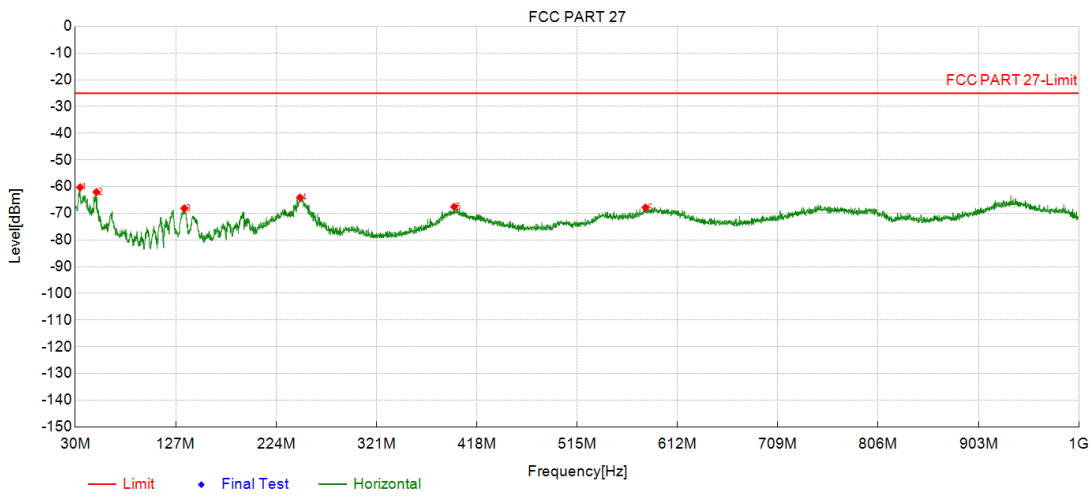
For the actual test configuration, please refer to the attached file (Test Setup Photo).

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			
LTE Band 38 CHANNEL BANDWIDTH: 10MHz / QPSK			
MODE	TX channel 338000	**FREQUENCY RANGE**	30 MHz – 1GHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	AC 120V 60HZ
TESTED BY	Carl Xie		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

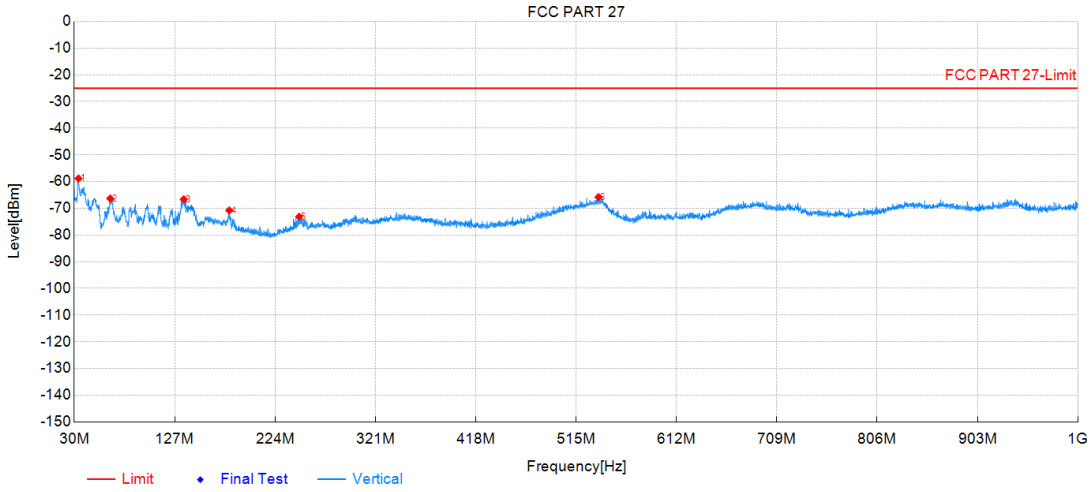
NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	34.6569	-57.00	-60.27	-3.27	-25.00	35.27	Horizontal	PK	PASS
2	50.3741	-52.49	-62.04	-9.55	-25.00	37.04	Horizontal	PK	PASS
3	135.3631	-48.79	-68.14	-19.35	-25.00	43.14	Horizontal	PK	PASS
4	247.1294	-57.29	-64.08	-6.79	-25.00	39.08	Horizontal	PK	PASS
5	396.1512	-65.05	-67.57	-2.52	-25.00	42.57	Horizontal	PK	PASS
6	581.0702	-66.30	-67.82	-1.52	-25.00	42.82	Horizontal	PK	PASS



MODE	TX channel 38000	FREQUENCY RANGE	30 MHz – 1GHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V 60HZ
TESTED BY	Carl Xie		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	34.0748	-47.14	-58.83	-11.69	-25.00	33.83	Vertical	PK	PASS
2	64.7329	-47.14	-66.31	-19.17	-25.00	41.31	Vertical	PK	PASS
3	135.7512	-57.56	-66.62	-9.06	-25.00	41.62	Vertical	PK	PASS
4	179.798	-59.98	-70.78	-10.80	-25.00	45.78	Vertical	PK	PASS
5	247.3235	-60.77	-73.17	-12.40	-25.00	48.17	Vertical	PK	PASS
6	536.6353	-65.91	-65.83	0.08	-25.00	40.83	Vertical	PK	PASS

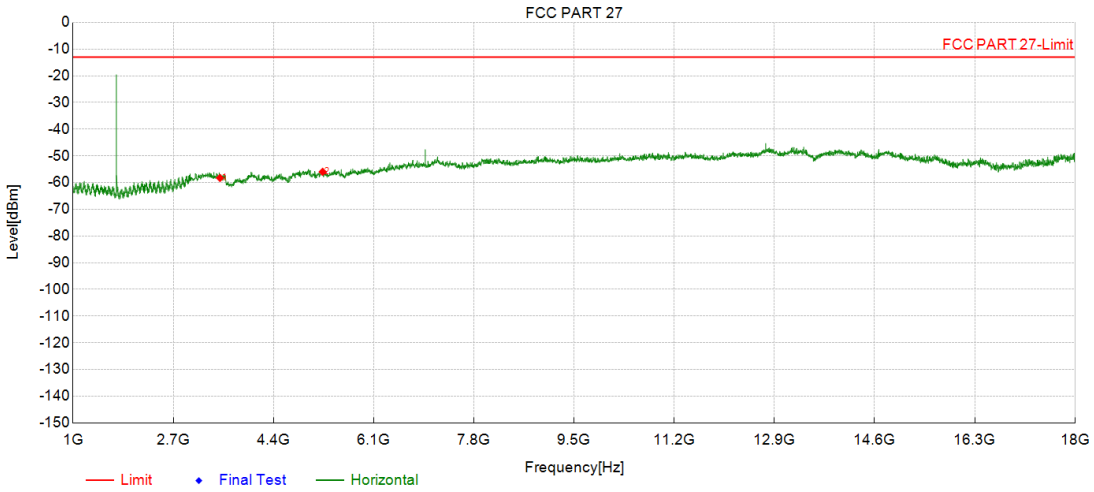


ABOVE 1GHz

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

LTE BAND 4			
CHANNEL BANDWIDTH	1.4MHz / QPSK	**MODE**	TX channel 20175
FREQUENCY RANGE	Above 1000MHz	**ENVIRONMENTAL CONDITIONS**	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	**TESTED BY**	Carl Xie
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

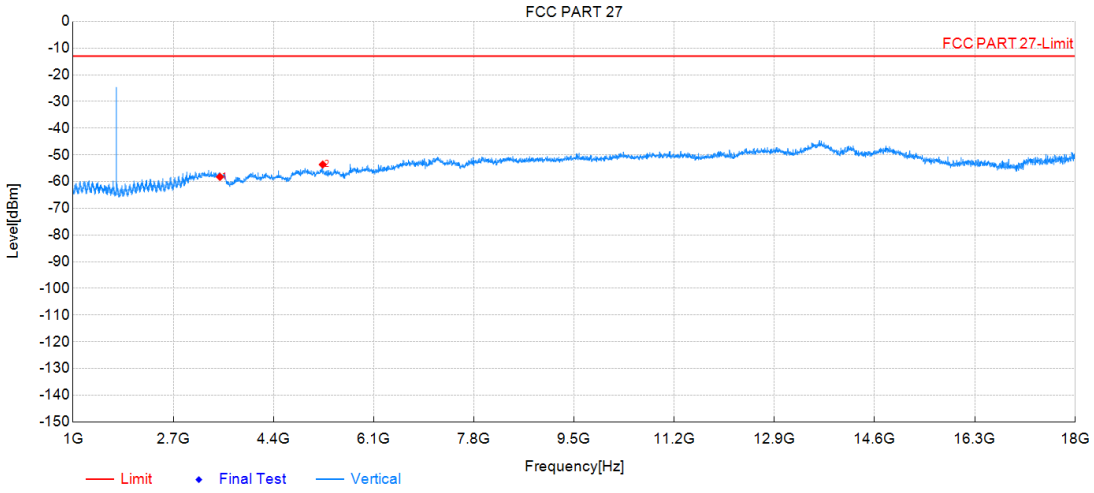
NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	3492.0984	-56.07	-58.26	-2.19	-13.00	45.26	Horizontal	PK	PASS
2	5235.4471	-59.53	-55.95	3.58	-13.00	42.95	Horizontal	PK	PASS



CHANNEL BANDWIDTH	1.4MHz / QPSK	MODE	TX channel 20175
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Carl Xie

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

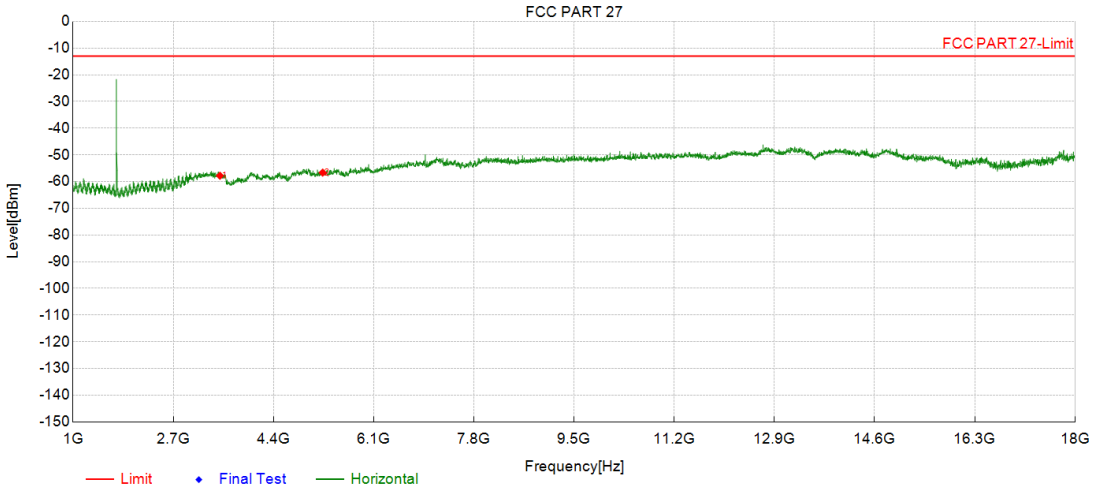
NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	3492.0984	-56.03	-58.24	-2.21	-13.00	45.24	Vertical	PK	PASS
2	5235.4471	-57.54	-53.60	3.94	-13.00	40.60	Vertical	PK	PASS



CHANNEL BANDWIDTH	3MHz / QPSK	MODE	TX channel 20175
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Carl Xie

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

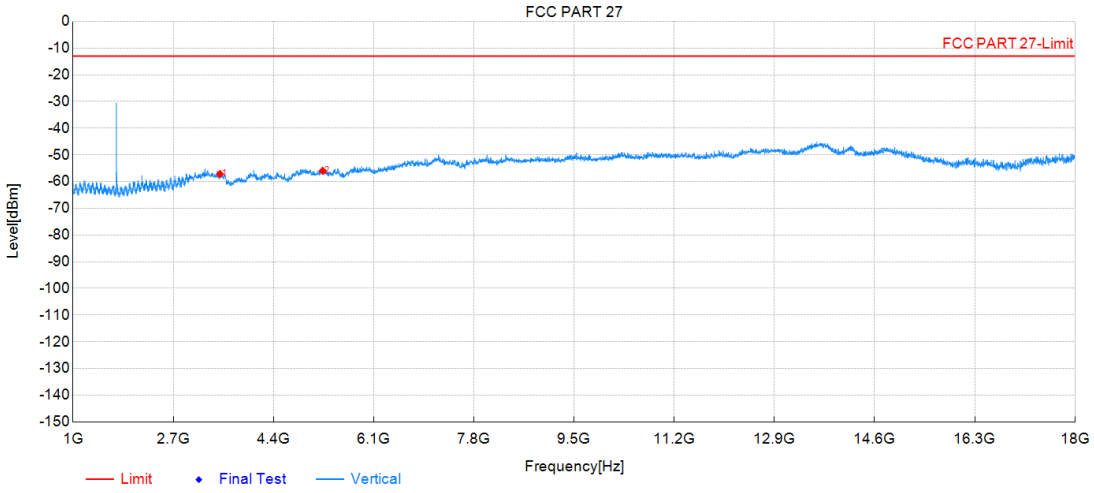
NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	3492.0984	-55.59	-57.78	-2.19	-13.00	44.78	Horizontal	PK	PASS
2	5235.4471	-60.20	-56.62	3.58	-13.00	43.62	Horizontal	PK	PASS



CHANNEL BANDWIDTH	3Hz / QPSK	**MODE**	TX channel 20175
FREQUENCY RANGE	Above 1000MHz	**ENVIRONMENTAL CONDITIONS**	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	**TESTED BY**	Carl Xie

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

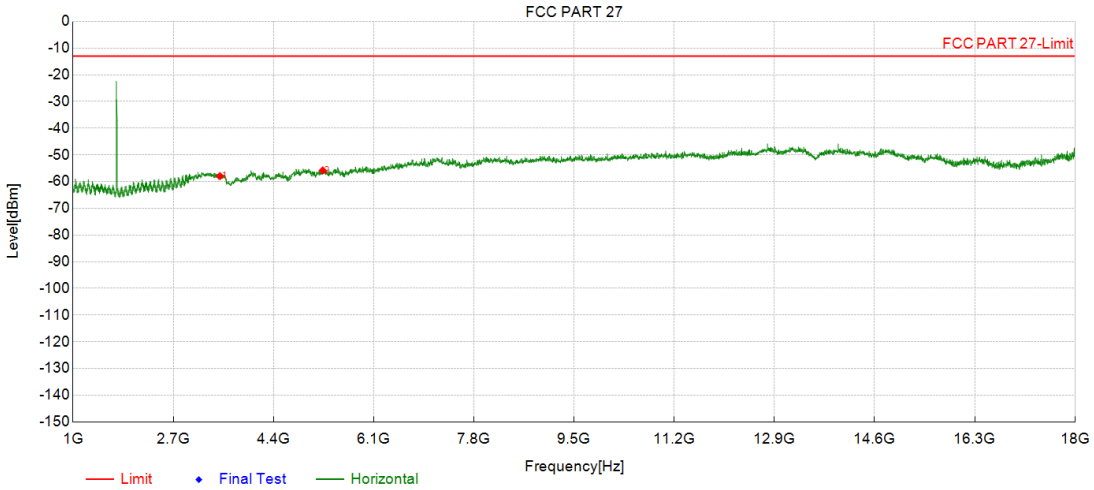
NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	3492.0984	-54.92	-57.14	-2.22	-13.00	44.14	Vertical	PK	PASS
2	5235.4471	-59.89	-55.95	3.94	-13.00	42.95	Vertical	PK	PASS



CHANNEL BANDWIDTH	5MHz / QPSK	MODE	TX channel 20175
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Carl Xie

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

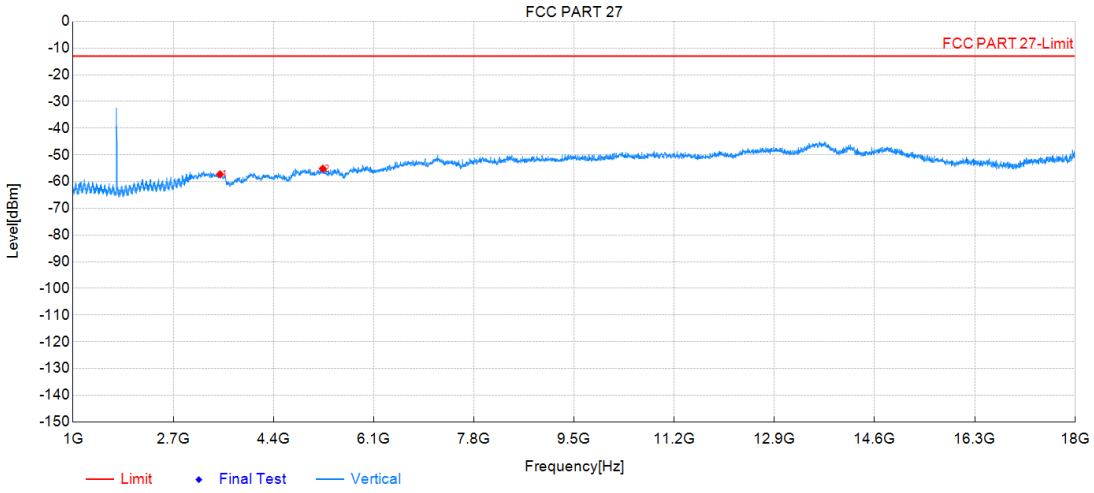
NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	3492.0984	-55.75	-57.94	-2.19	-13.00	44.94	Horizontal	PK	PASS
2	5235.4471	-59.39	-55.81	3.58	-13.00	42.81	Horizontal	PK	PASS



CHANNEL BANDWIDTH	5MHz / QPSK	MODE	TX channel 20175
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Carl Xie

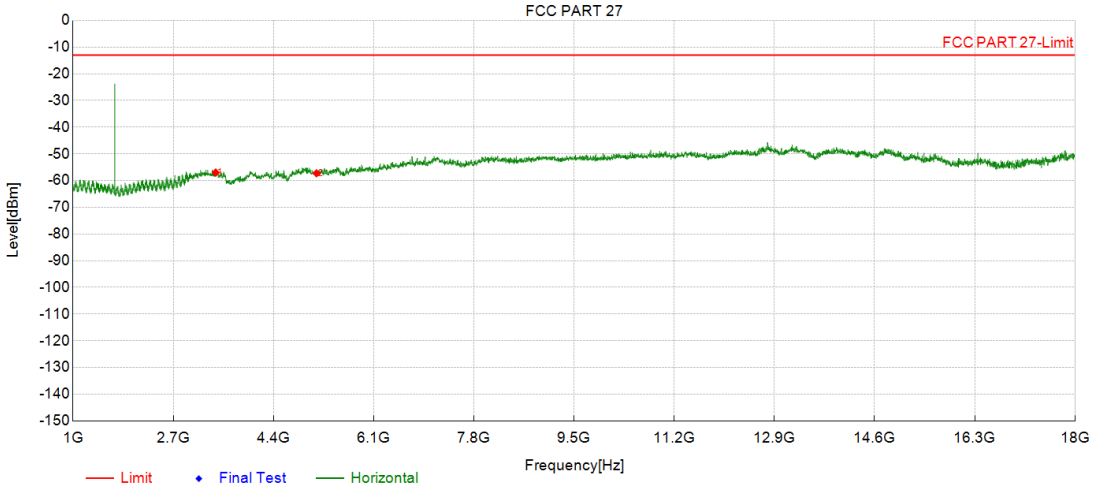
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	3492.0984	-55.04	-57.26	-2.22	-13.00	44.26	Vertical	PK	PASS
2	5235.4471	-59.09	-55.15	3.94	-13.00	42.15	Vertical	PK	PASS



CHANNEL BANDWIDTH	10MHz / QPSK	**MODE**	TX channel 20000
FREQUENCY RANGE	Above 1000MHz	**ENVIRONMENTAL CONDITIONS**	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	**TESTED BY**	Carl Xie
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

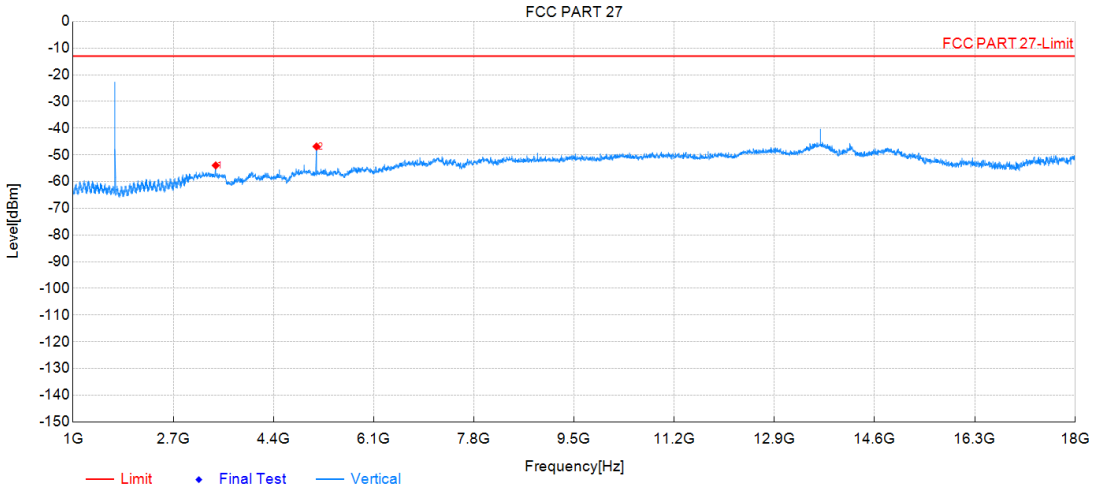
NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	3420.084	-54.80	-56.95	-2.15	-13.00	43.95	Horizontal	PK	PASS
2	5130.4261	-60.89	-57.26	3.63	-13.00	44.26	Horizontal	PK	PASS



CHANNEL BANDWIDTH	10MHz / QPSK	MODE	TX channel 20000
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Carl Xie

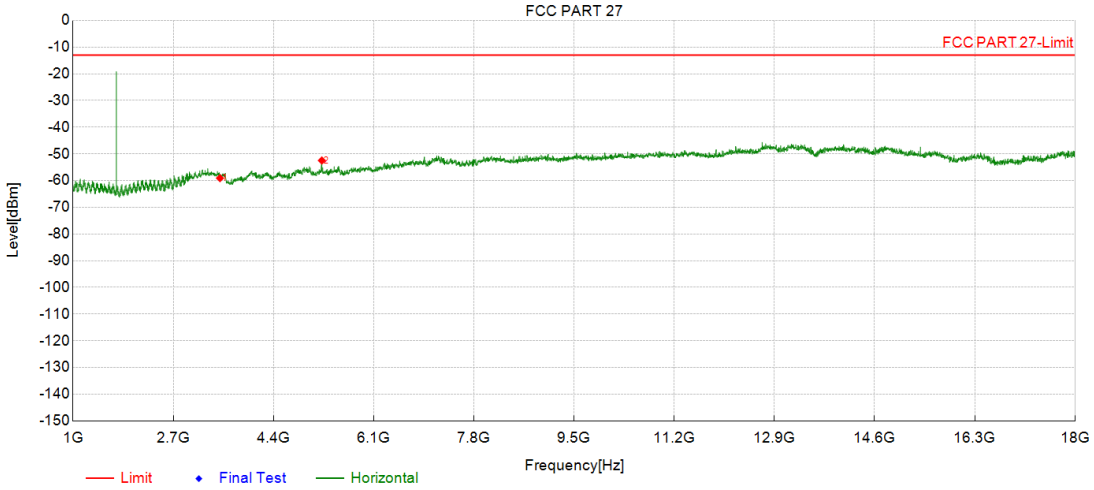
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	3420.084	-51.69	-53.93	-2.24	-13.00	40.93	Vertical	PK	PASS
2	5130.4261	-50.81	-46.86	3.95	-13.00	33.86	Vertical	PK	PASS



CHANNEL BANDWIDTH	10MHz / QPSK	**MODE**	TX channel 20175
FREQUENCY RANGE	Above 1000MHz	**ENVIRONMENTAL CONDITIONS**	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	**TESTED BY**	Carl Xie
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

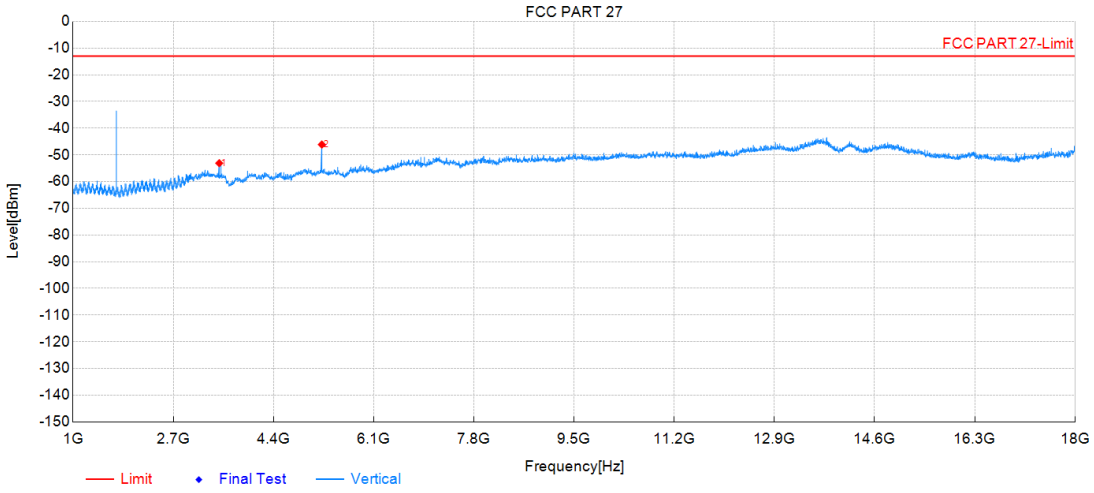
NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	3492.0984	-56.89	-59.08	-2.19	-13.00	46.08	Horizontal	PK	PASS
2	5220.4441	-55.99	-52.46	3.53	-13.00	39.46	Horizontal	PK	PASS



CHANNEL BANDWIDTH	10MHz / QPSK	MODE	TX channel 20175
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Carl Xie

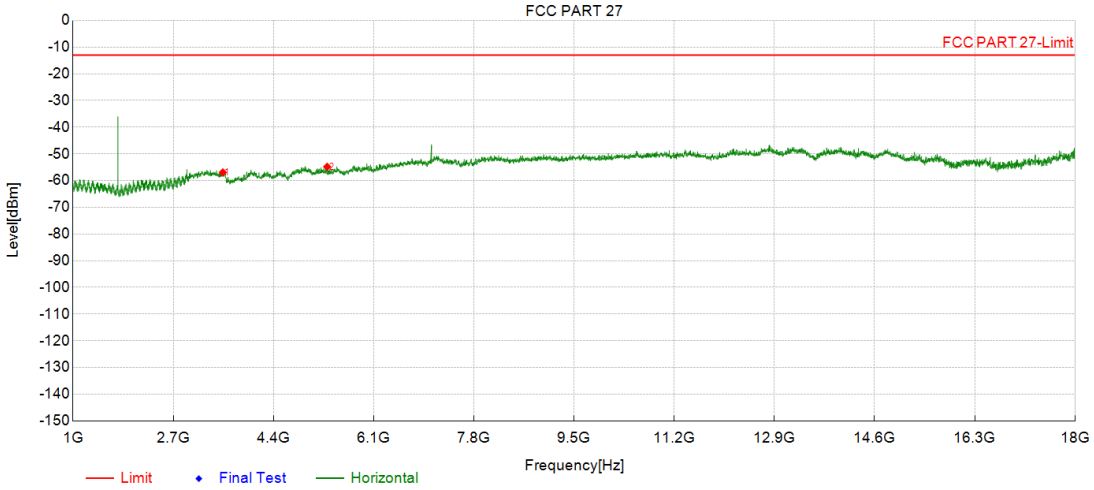
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	3480.096	-50.87	-53.09	-2.22	-13.00	40.09	Vertical	PK	PASS
2	5220.4441	-50.05	-46.11	3.94	-13.00	33.11	Vertical	PK	PASS



CHANNEL BANDWIDTH	10MHz / QPSK	MODE	TX channel 20350
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Carl Xie
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

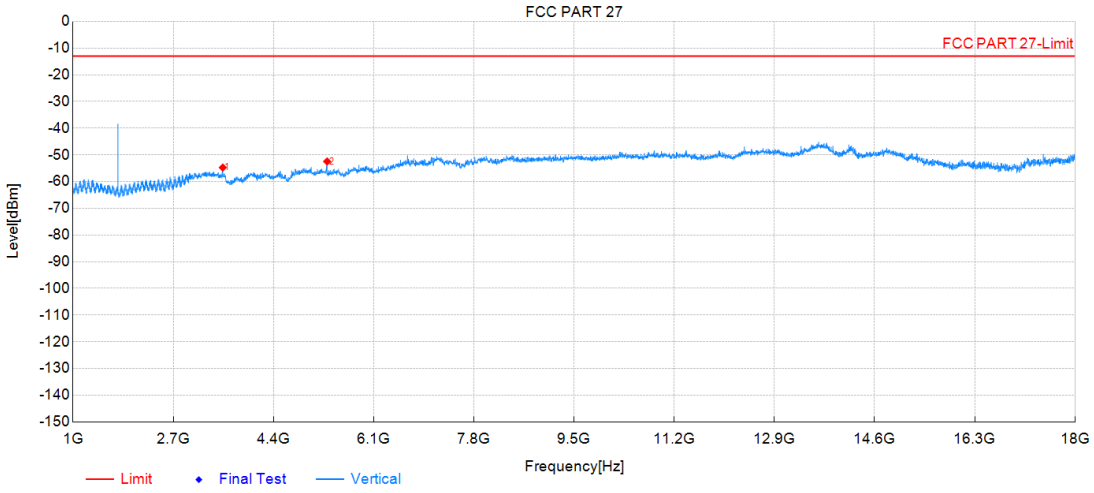
NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	3540.108	-54.70	-56.91	-2.21	-13.00	43.91	Horizontal	PK	PASS
2	5310.4621	-58.60	-54.81	3.79	-13.00	41.81	Horizontal	PK	PASS



CHANNEL BANDWIDTH	10MHz / QPSK	MODE	TX channel 20350
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Carl Xie

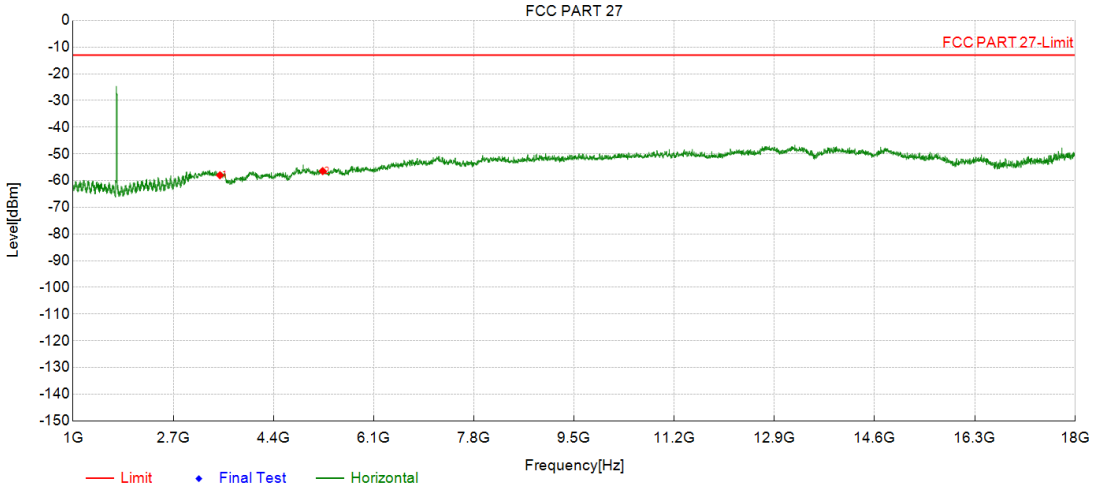
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	3540.108	-52.53	-54.72	-2.19	-13.00	41.72	Vertical	PK	PASS
2	5310.4621	-56.34	-52.44	3.90	-13.00	39.44	Vertical	PK	PASS



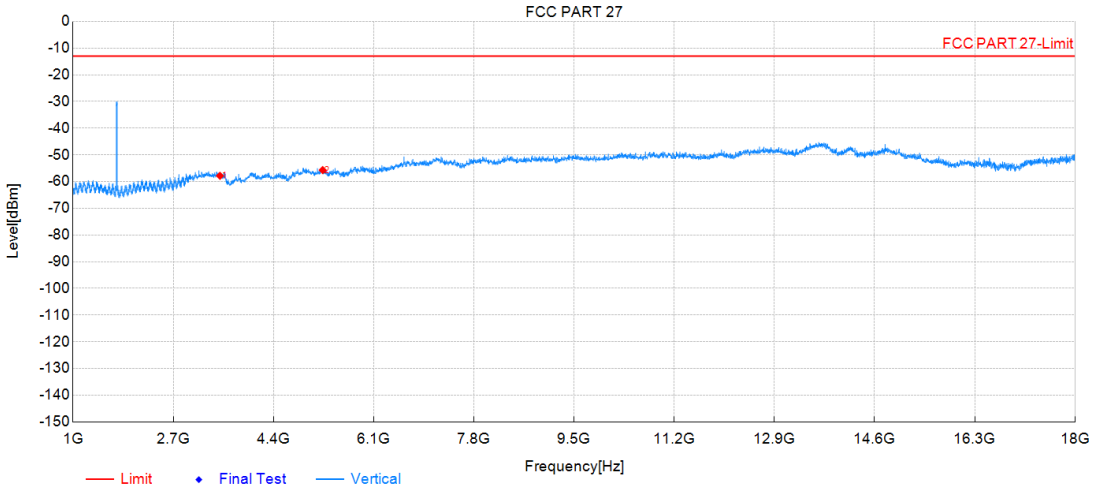
CHANNEL BANDWIDTH	15MHz / QPSK	MODE	TX channel 20175
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Carl Xie
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	3492.0984	-55.80	-57.99	-2.19	-13.00	44.99	Horizontal	PK	PASS
2	5235.4471	-60.01	-56.43	3.58	-13.00	43.43	Horizontal	PK	PASS



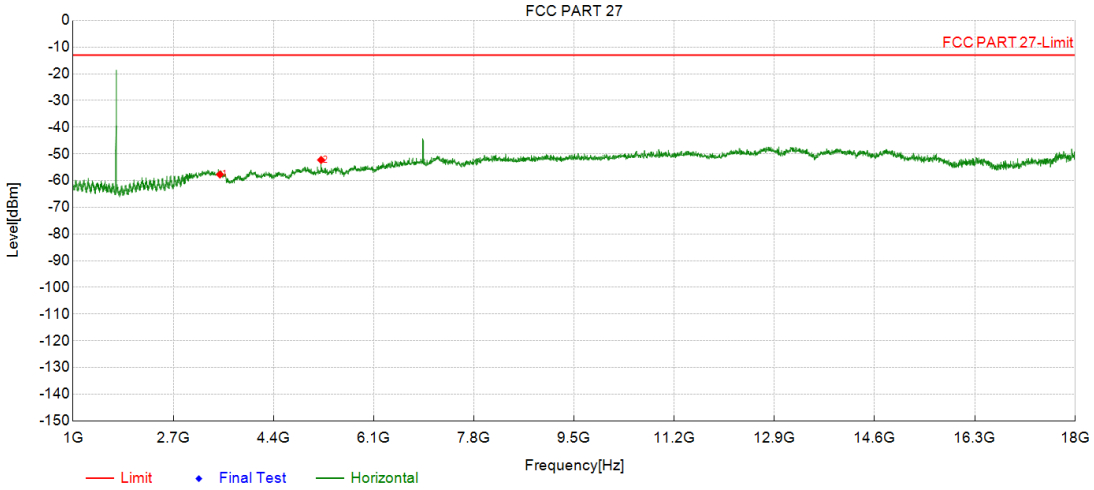
CHANNEL BANDWIDTH	15MHz / QPSK	**MODE**	TX channel 20175
FREQUENCY RANGE	Above 1000MHz	**ENVIRONMENTAL CONDITIONS**	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	**TESTED BY**	Carl Xie
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	3492.0984	-55.61	-57.82	-2.21	-13.00	44.82	Vertical	PK	PASS
2	5235.4471	-59.62	-55.68	3.94	-13.00	42.68	Vertical	PK	PASS



CHANNEL BANDWIDTH	20MHz / QPSK	MODE	TX channel 20175
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Carl Xie
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

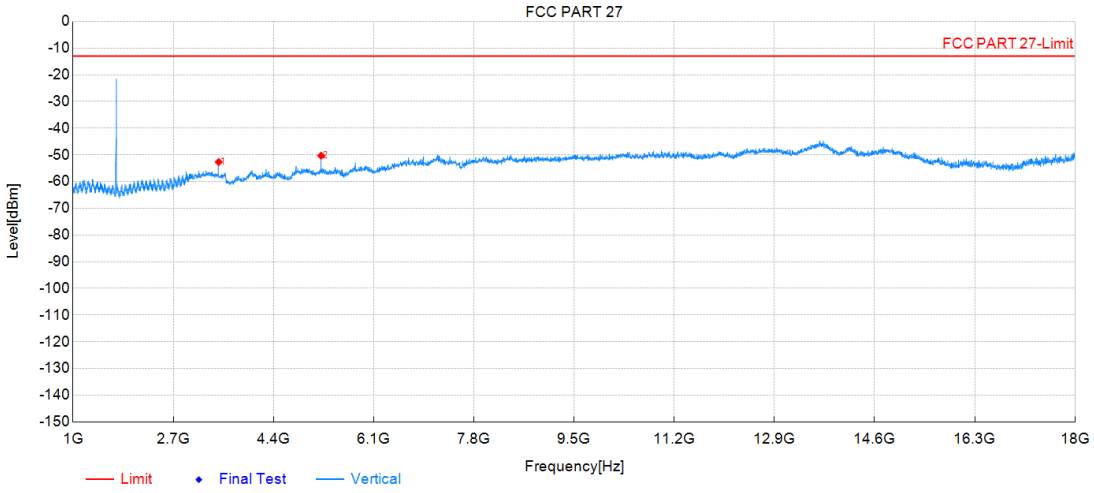
NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	3492.0984	-55.50	-57.69	-2.19	-13.00	44.69	Horizontal	PK	PASS
2	5208.4417	-55.76	-52.26	3.50	-13.00	39.26	Horizontal	PK	PASS



CHANNEL BANDWIDTH	20MHz / QPSK	MODE	TX channel 20175
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Carl Xie

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

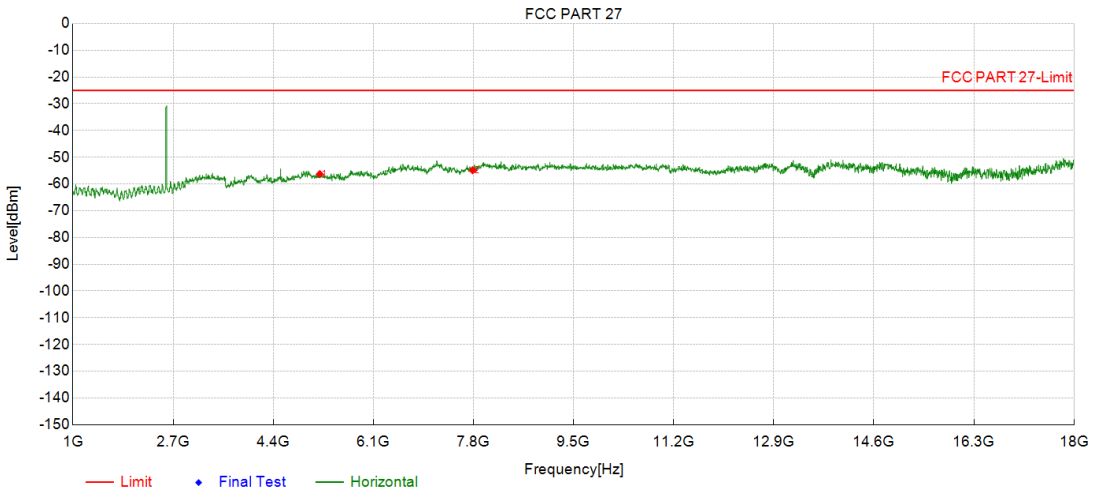
NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	3471.0942	-50.44	-52.66	-2.22	-13.00	39.66	Vertical	PK	PASS
2	5208.4417	-54.23	-50.28	3.95	-13.00	37.28	Vertical	PK	PASS



LTE BAND 38			
CHANNEL BANDWIDTH	5MHz / QPSK	**MODE**	TX channel 38000
FREQUENCY RANGE	Above 1000MHz	**ENVIRONMENTAL CONDITIONS**	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	**TESTED BY**	Carl Xie

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

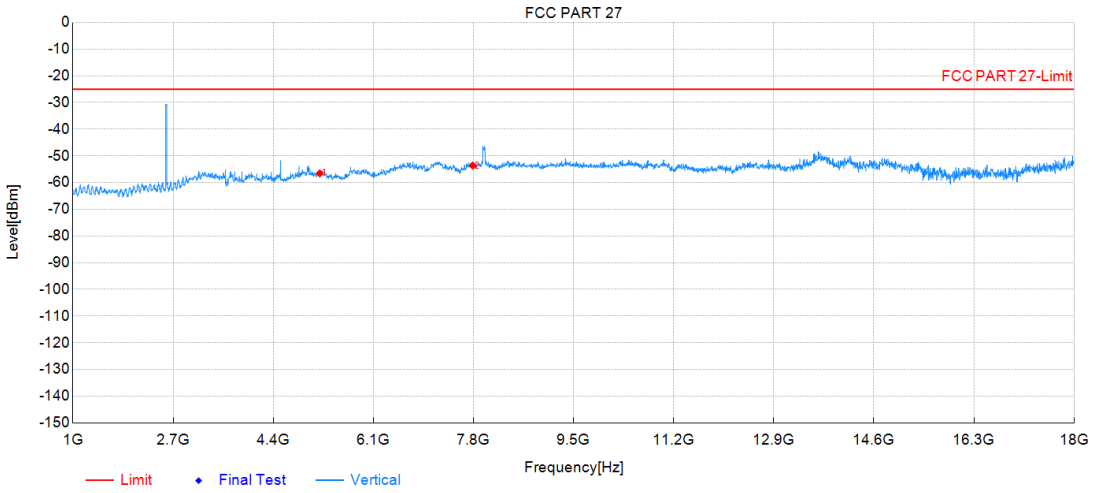
NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	5192.0384	-59.79	-56.31	3.48	-25.00	31.31	Horizontal	PK	PASS
2	7787.3575	-63.94	-54.86	9.08	-25.00	29.86	Horizontal	PK	PASS



CHANNEL BANDWIDTH	5MHz / QPSK	MODE	TX channel 38000
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Carl Xie

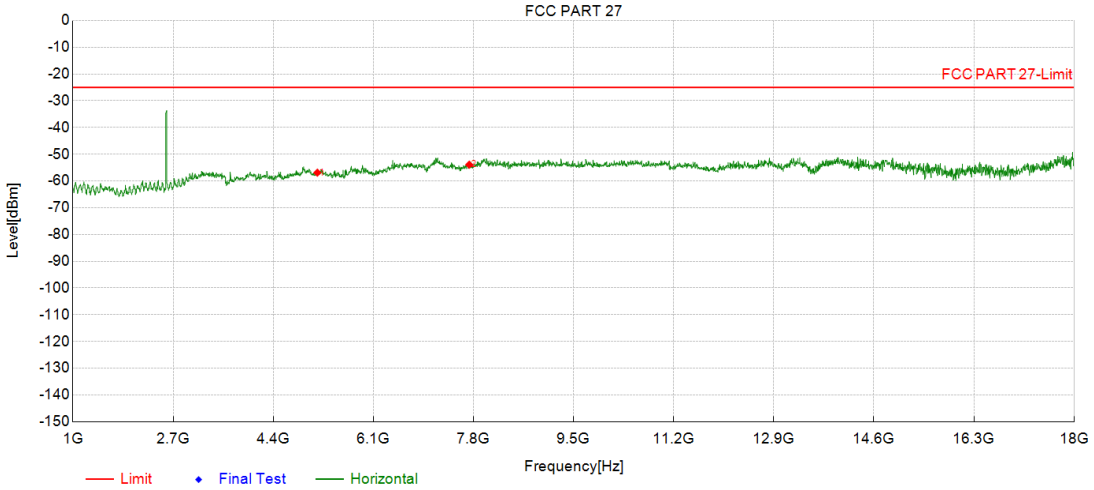
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	5192.0384	-60.50	-56.55	3.95	-25.00	31.55	Vertical	PK	PASS
2	7787.3575	-63.66	-53.64	10.02	-25.00	28.64	Vertical	PK	PASS



CHANNEL BANDWIDTH	10MHz / QPSK	**MODE**	TX channel 37800
FREQUENCY RANGE	Above 1000MHz	**ENVIRONMENTAL CONDITIONS**	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	**TESTED BY**	Carl Xie
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

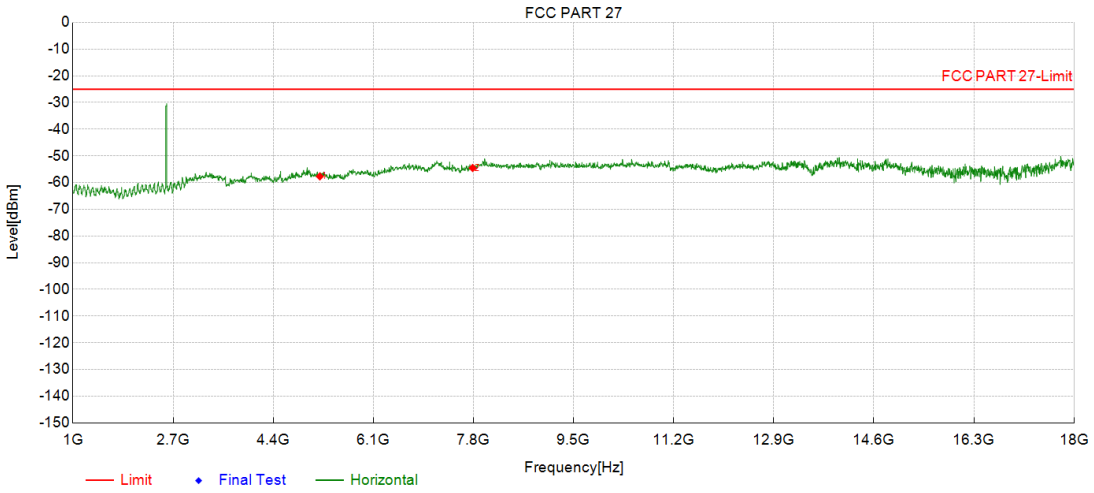
NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	5150.4301	-60.46	-56.88	3.58	-25.00	31.88	Horizontal	PK	PASS
2	7730.146	-62.85	-53.90	8.95	-25.00	28.90	Horizontal	PK	PASS



CHANNEL BANDWIDTH	10MHz / QPSK	MODE	TX channel 37800
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Carl Xie

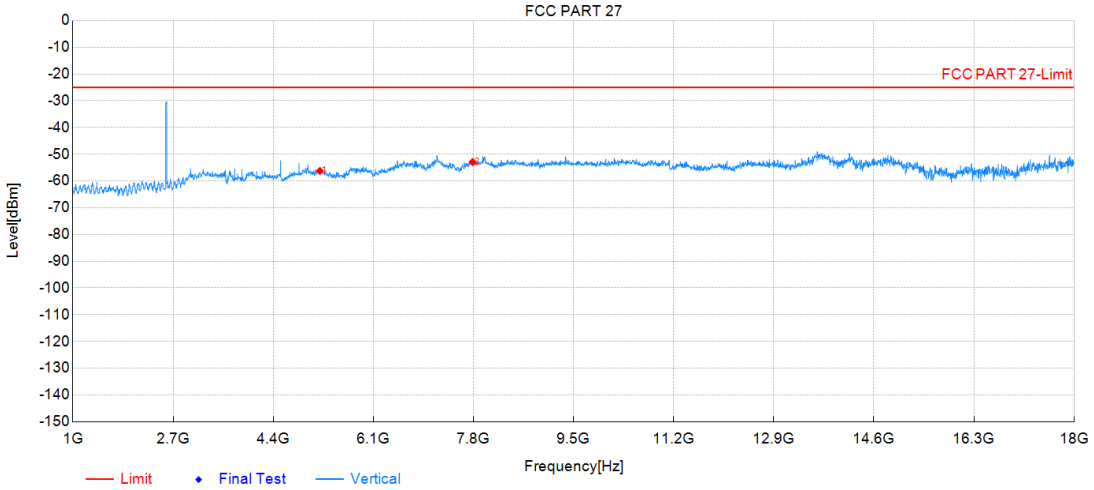
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	5192.0384	-61.16	-57.67	3.49	-25.00	32.67	Horizontal	PK	PASS
2	7787.3575	-63.60	-54.51	9.09	-25.00	29.51	Horizontal	PK	PASS



CHANNEL BANDWIDTH	10MHz / QPSK	**MODE**	TX channel 38000
FREQUENCY RANGE	Above 1000MHz	**ENVIRONMENTAL CONDITIONS**	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	**TESTED BY**	Carl Xie
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

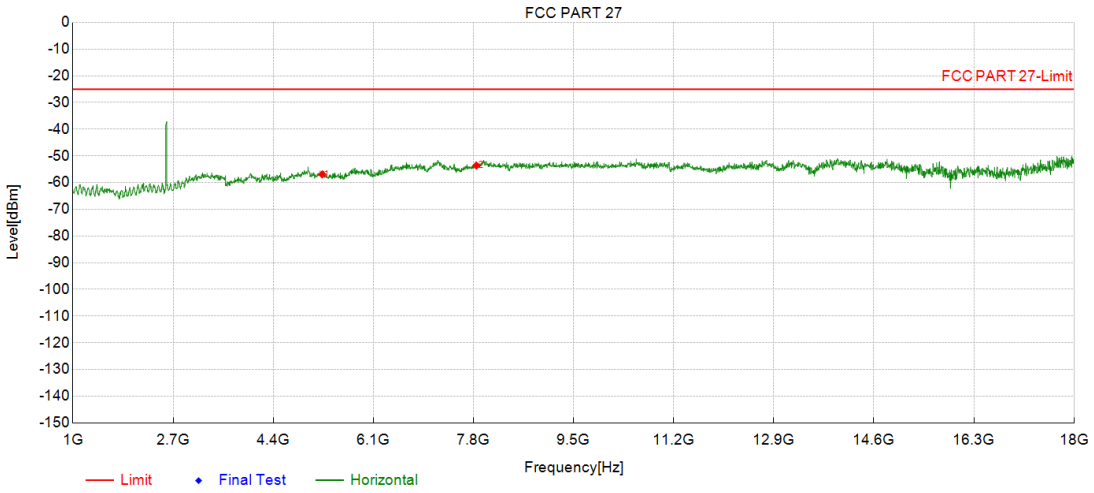
NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	5192.0384	-60.20	-56.25	3.95	-25.00	31.25	Vertical	PK	PASS
2	7787.3575	-62.95	-52.93	10.02	-25.00	27.93	Vertical	PK	PASS



CHANNEL BANDWIDTH	10MHz / QPSK	MODE	TX channel 38000
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Carl Xie

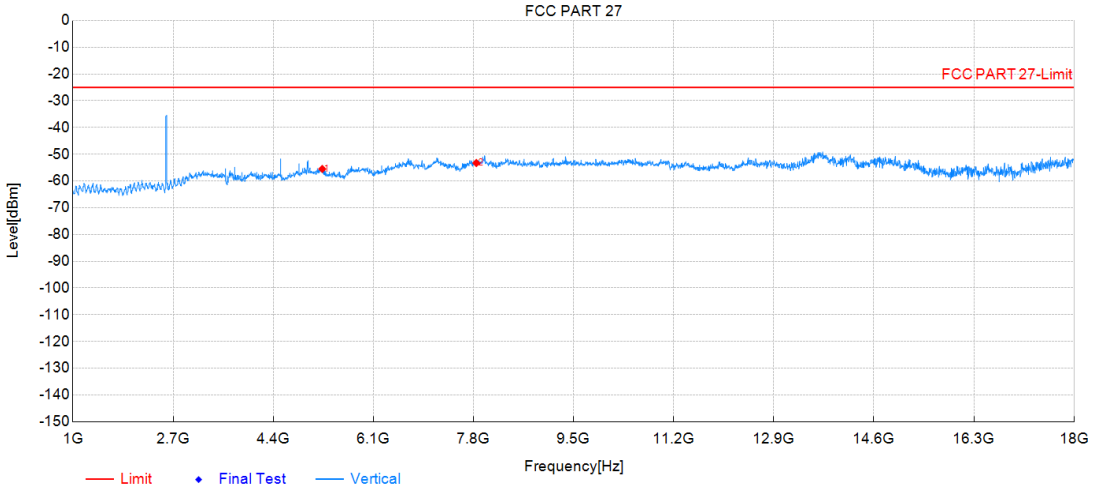
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	5233.6467	-60.49	-56.92	3.57	-25.00	31.92	Horizontal	PK	PASS
2	7849.77	-63.00	-53.60	9.40	-25.00	28.60	Horizontal	PK	PASS



CHANNEL BANDWIDTH	10MHz / QPSK	**MODE**	TX channel 38200
FREQUENCY RANGE	Above 1000MHz	**ENVIRONMENTAL CONDITIONS**	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	**TESTED BY**	Carl Xie
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

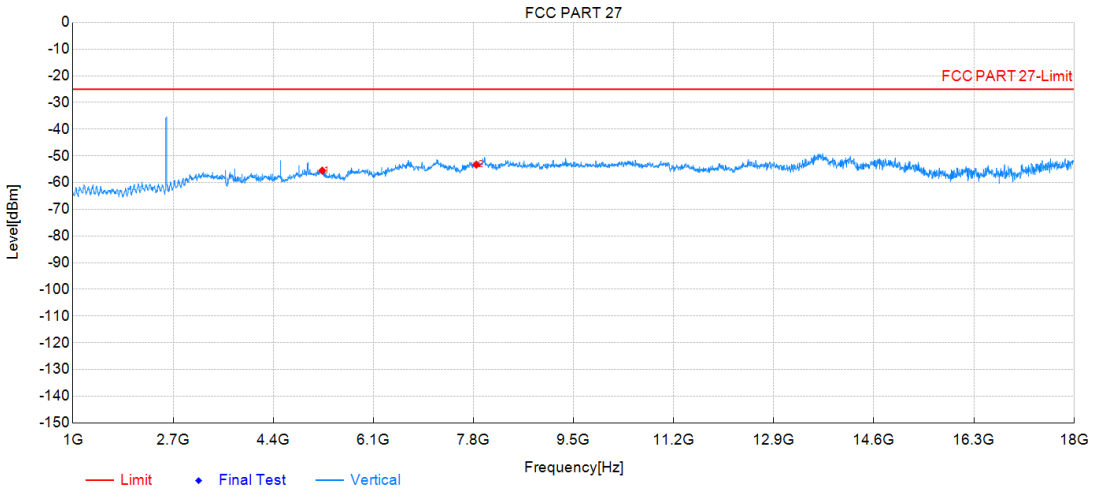
NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	5233.6467	-59.44	-55.50	3.94	-25.00	30.50	Vertical	PK	PASS
2	7849.77	-63.48	-53.27	10.21	-25.00	28.27	Vertical	PK	PASS



CHANNEL BANDWIDTH	10MHz / QPSK	MODE	TX channel 38200
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Carl Xie

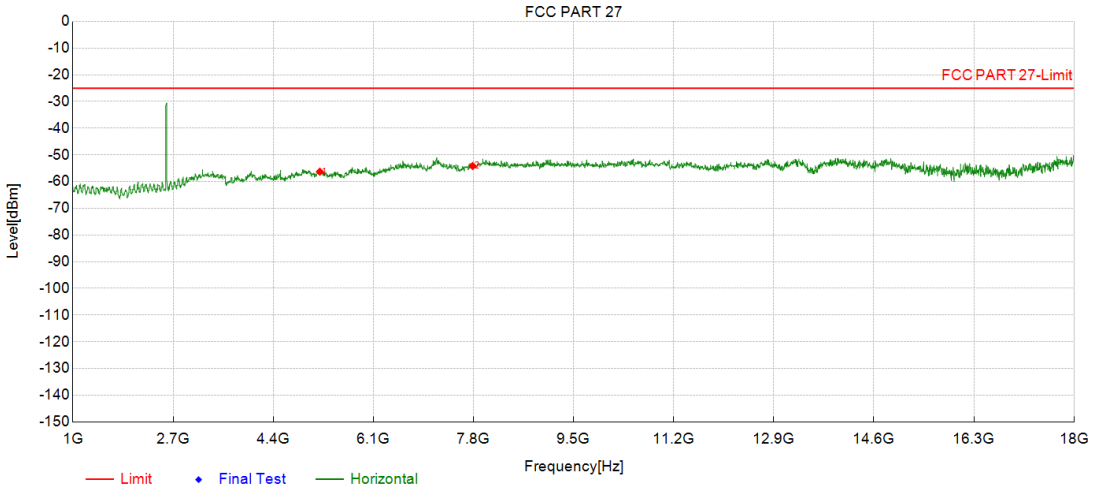
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	5233.6467	-59.44	-55.50	3.94	-25.00	30.50	Vertical	PK	PASS
2	7849.77	-63.48	-53.27	10.21	-25.00	28.27	Vertical	PK	PASS



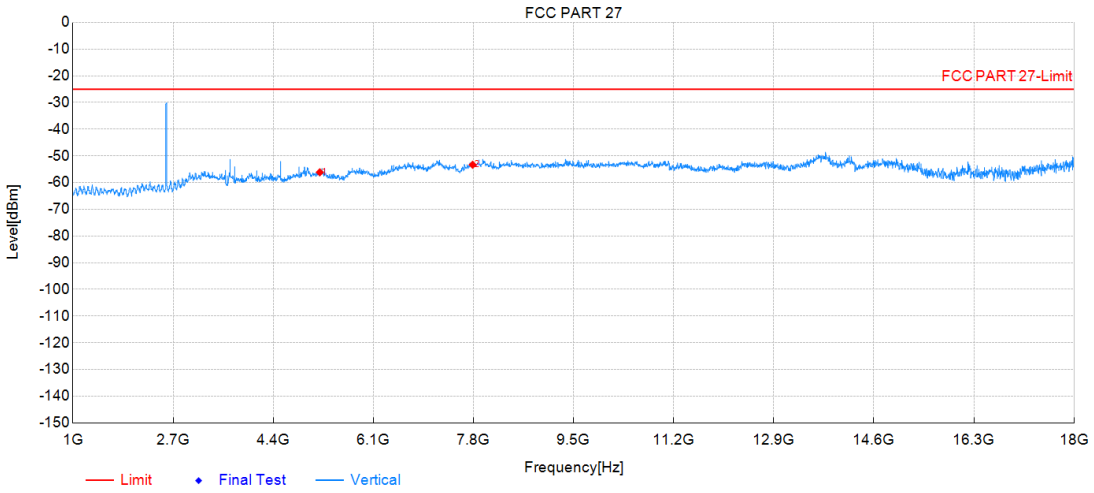
CHANNEL BANDWIDTH	15MHz / QPSK	MODE	TX channel 38000
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Carl Xie
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	5192.0384	-59.77	-56.28	3.49	-25.00	31.28	Horizontal	PK	PASS
2	7787.3575	-63.23	-54.14	9.09	-25.00	29.14	Horizontal	PK	PASS



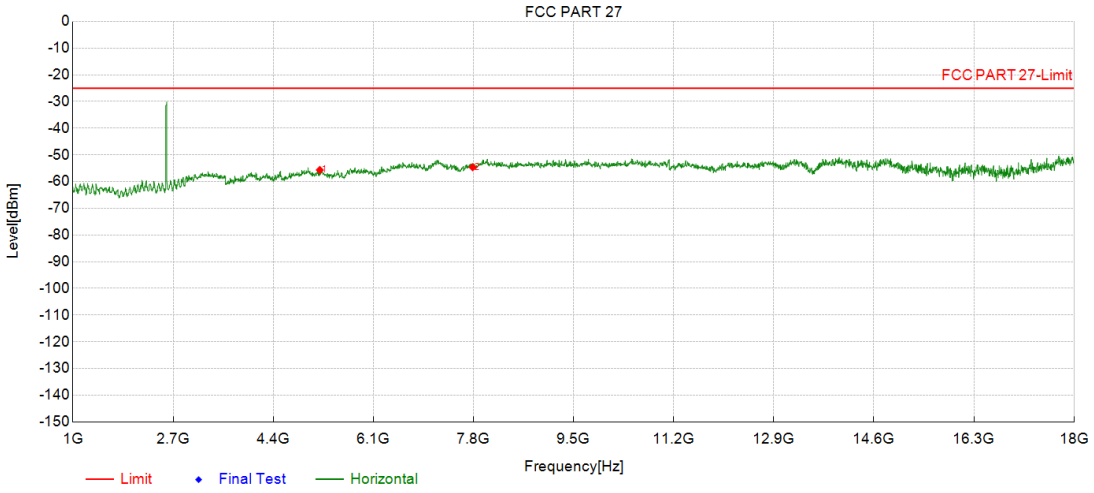
CHANNEL BANDWIDTH	15MHz / QPSK	**MODE**	TX channel 38000
FREQUENCY RANGE	Above 1000MHz	**ENVIRONMENTAL CONDITIONS**	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	**TESTED BY**	Carl Xie
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	5192.0384	-60.08	-56.13	3.95	-25.00	31.13	Vertical	PK	PASS
2	7787.3575	-63.33	-53.31	10.02	-25.00	28.31	Vertical	PK	PASS



CHANNEL BANDWIDTH	20MHz / QPSK	MODE	TX channel 38000
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Carl Xie
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

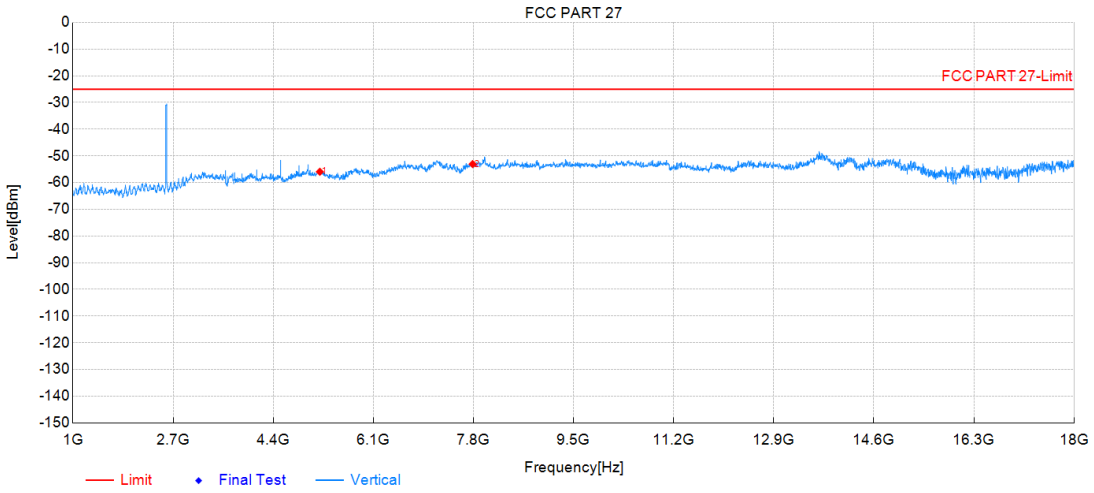
NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	5192.0384	-59.13	-55.65	3.48	-25.00	30.65	Horizontal	PK	PASS
2	7787.3575	-63.68	-54.60	9.08	-25.00	29.60	Horizontal	PK	PASS



CHANNEL BANDWIDTH	20MHz / QPSK	MODE	TX channel 38000
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Carl Xie

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

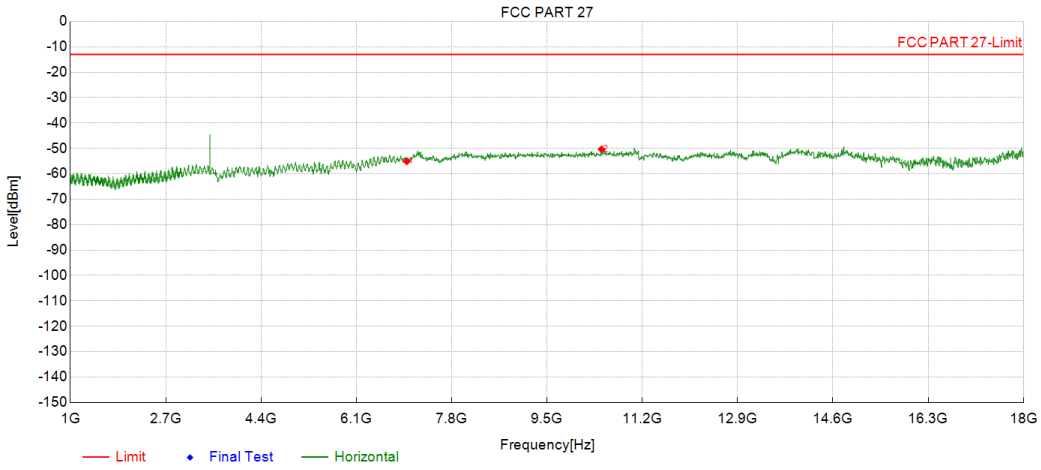
NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	5192.0384	-59.88	-55.93	3.95	-25.00	30.93	Vertical	PK	PASS
2	7787.3575	-63.11	-53.05	10.06	-25.00	28.05	Vertical	PK	PASS



LTE BAND 42			
CHANNEL BANDWIDTH	5MHz / QPSK	**MODE**	TX channel 42590
FREQUENCY RANGE	Above 1000MHz	**ENVIRONMENTAL CONDITIONS**	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	**TESTED BY**	Carl Xie

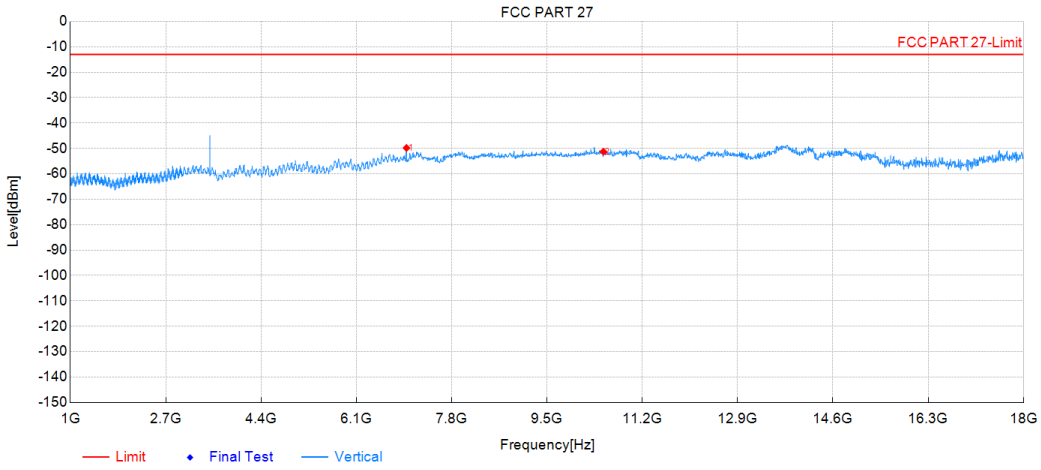
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	7000.4001	-63.34	-55.07	8.27	-13.00	42.07	Horizontal	PK	PASS
2	10472.6945	-63.71	-50.32	13.39	-13.00	37.32	Horizontal	PK	PASS



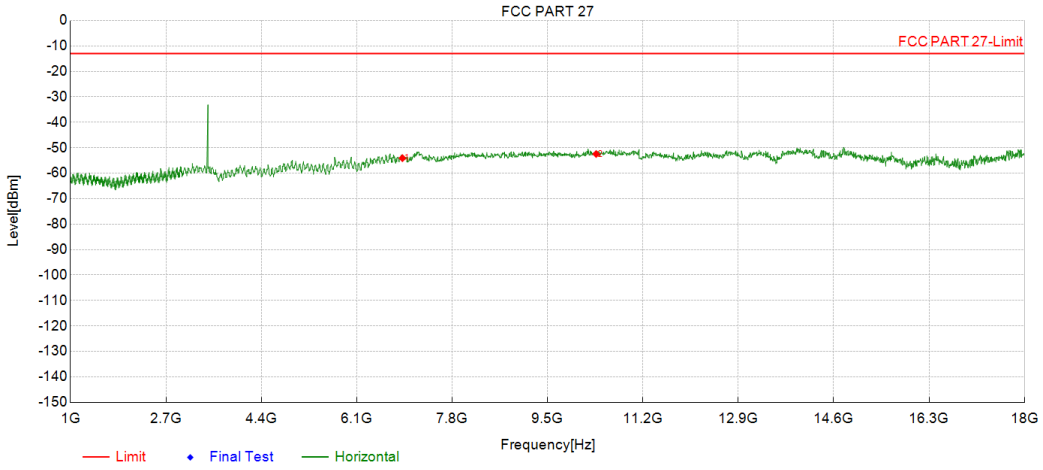
CHANNEL BANDWIDTH	5MHz / QPSK	MODE	TX channel 42590
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Carl Xie
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	6993.7988	-58.23	-49.80	8.43	-13.00	36.80	Vertical	PK	PASS
2	10505.7011	-65.05	-51.26	13.79	-13.00	38.26	Vertical	PK	PASS



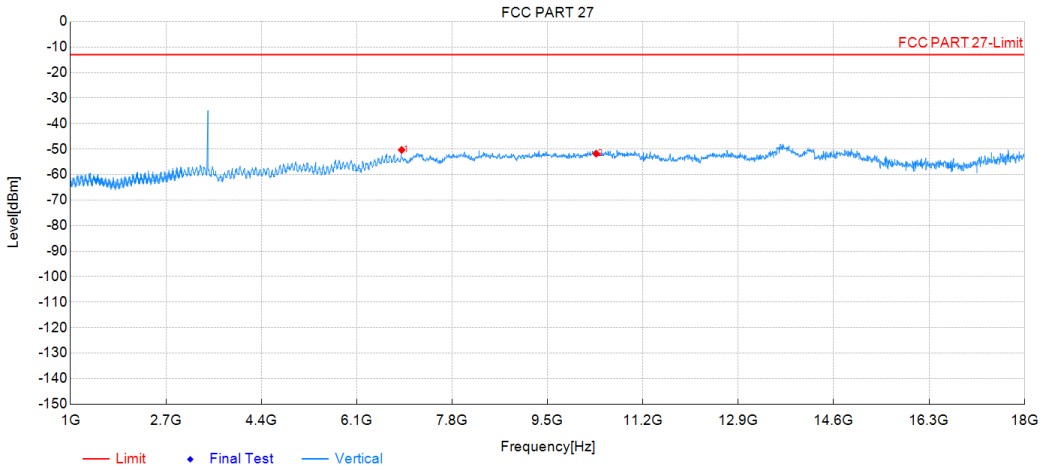
CHANNEL BANDWIDTH	10MHz / QPSK	MODE	TX channel 42140
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Carl Xie
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	6914.5829	-62.31	-54.06	8.25	-13.00	41.06	Horizontal	PK	PASS
2	10367.0734	-65.56	-52.45	13.11	-13.00	39.45	Horizontal	PK	PASS



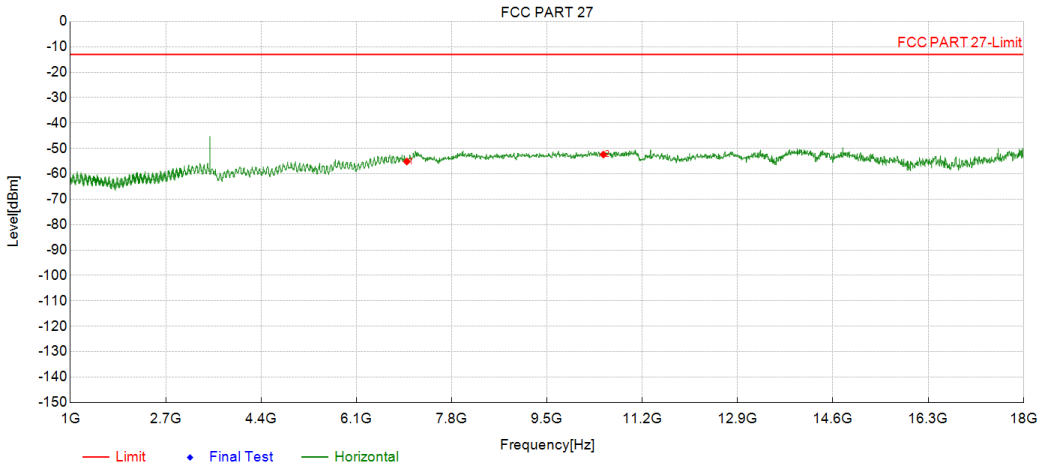
CHANNEL BANDWIDTH	10MHz / QPSK	MODE	TX channel 42140
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Carl Xie
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	6901.3803	-58.77	-50.33	8.44	-13.00	37.33	Vertical	PK	PASS
2	10367.0734	-65.49	-51.79	13.70	-13.00	38.79	Vertical	PK	PASS



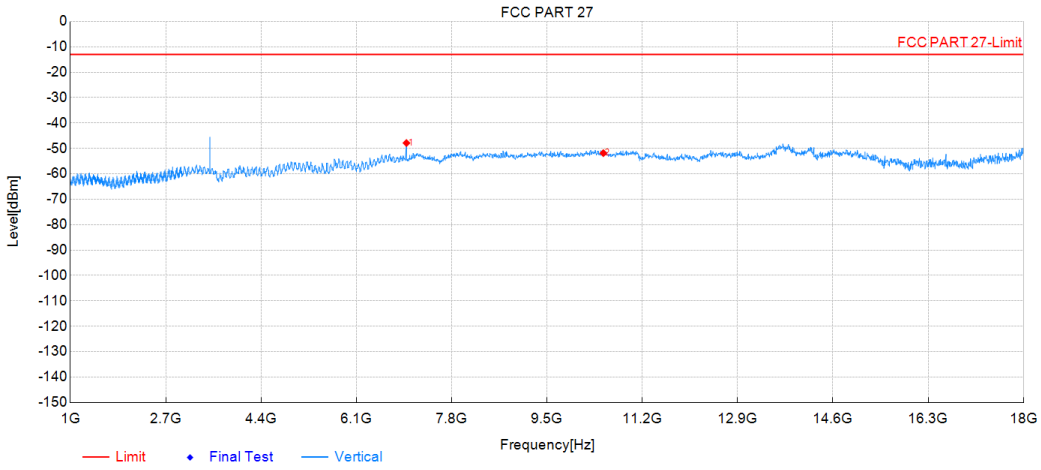
CHANNEL BANDWIDTH	10MHz / QPSK	**MODE**	TX channel 42590
FREQUENCY RANGE	Above 1000MHz	**ENVIRONMENTAL CONDITIONS**	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	**TESTED BY**	Carl Xie
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	7000.4001	-63.37	-55.15	8.22	-13.00	42.15	Horizontal	PK	PASS
2	10505.7011	-65.99	-52.40	13.59	-13.00	39.40	Horizontal	PK	PASS



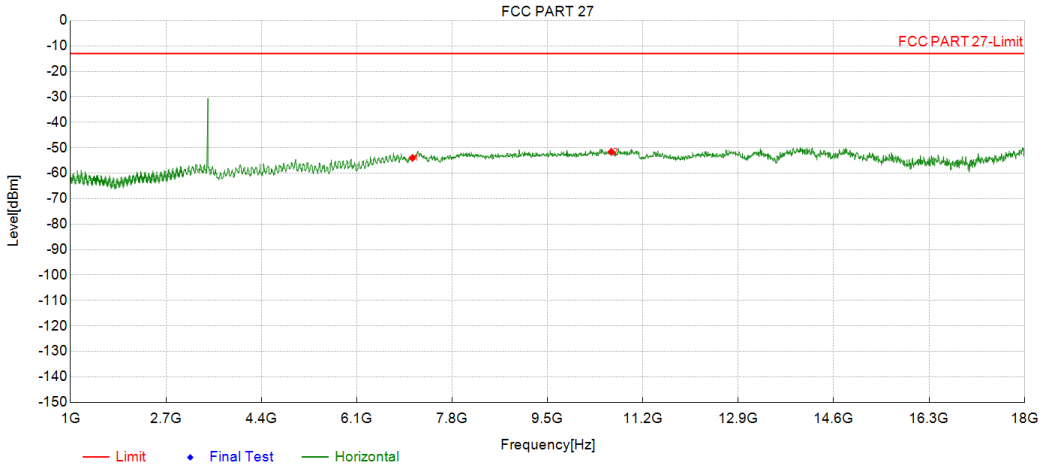
CHANNEL BANDWIDTH	10MHz / QPSK	MODE	TX channel 42590
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Carl Xie
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	6993.7988	-56.29	-47.86	8.43	-13.00	34.86	Vertical	PK	PASS
2	10505.7011	-65.62	-51.83	13.79	-13.00	38.83	Vertical	PK	PASS



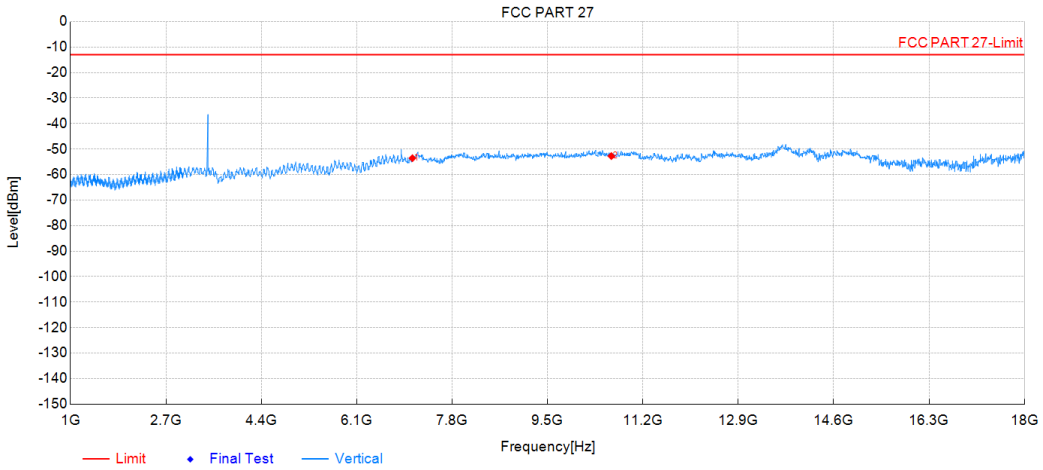
CHANNEL BANDWIDTH	10MHz / QPSK	MODE	TX channel 43040
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Carl Xie
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	7092.8186	-62.86	-54.00	8.86	-13.00	41.00	Horizontal	PK	PASS
2	10637.7275	-65.73	-51.59	14.14	-13.00	38.59	Horizontal	PK	PASS



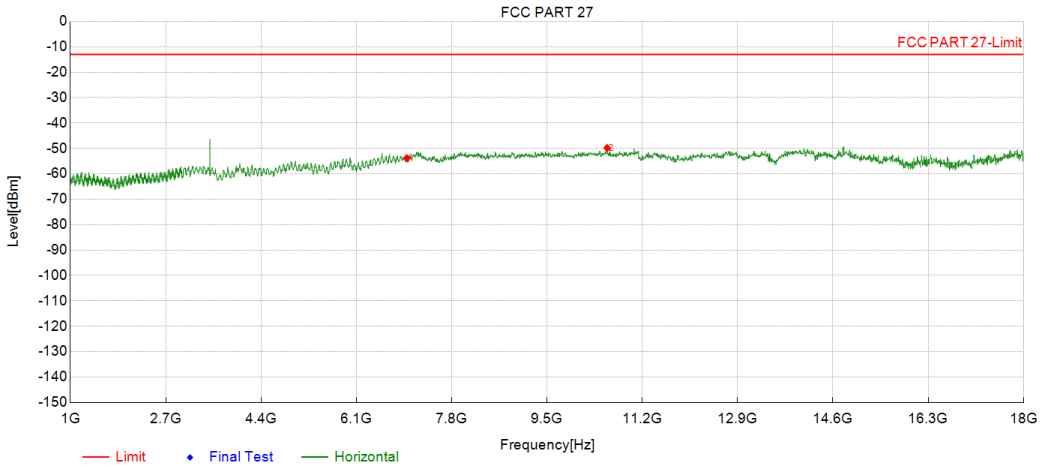
CHANNEL BANDWIDTH	10MHz / QPSK	MODE	TX channel 43040
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Carl Xie
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	7092.8186	-62.64	-53.55	9.09	-13.00	40.55	Vertical	PK	PASS
2	10637.7275	-66.78	-52.71	14.07	-13.00	39.71	Vertical	PK	PASS



CHANNEL BANDWIDTH	15MHz / QPSK	**MODE**	TX channel 42590
FREQUENCY RANGE	Above 1000MHz	**ENVIRONMENTAL CONDITIONS**	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	**TESTED BY**	Carl Xie
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

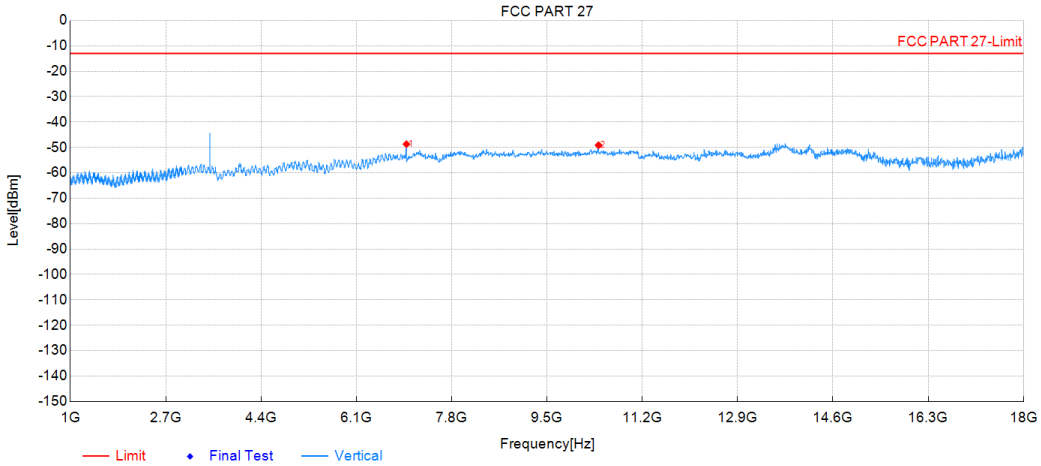
NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	7000.4001	-62.00	-53.78	8.22	-13.00	40.78	Horizontal	PK	PASS
2	10571.7143	-63.65	-49.77	13.88	-13.00	36.77	Horizontal	PK	PASS



CHANNEL BANDWIDTH	15MHz / QPSK	MODE	TX channel 42590
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Carl Xie

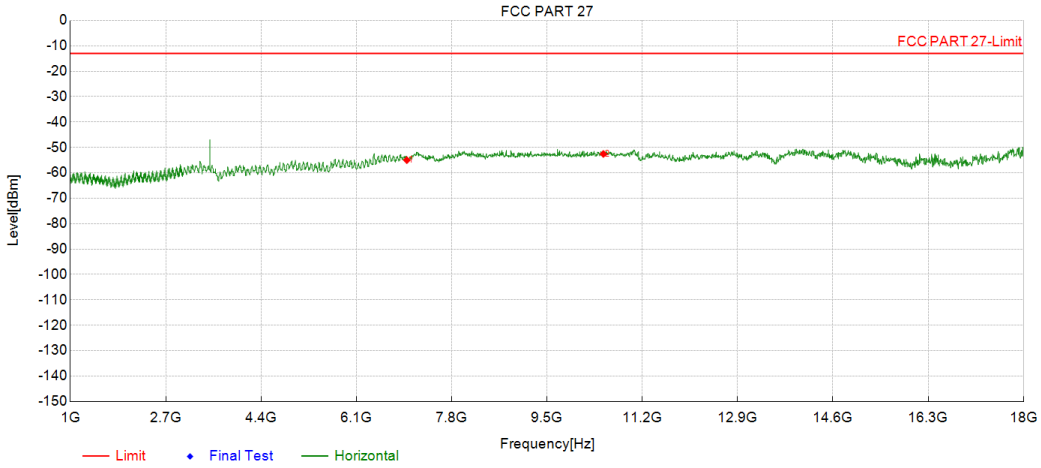
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	6993.7988	-57.14	-48.71	8.43	-13.00	35.71	Vertical	PK	PASS
2	10419.884	-62.81	-49.11	13.70	-13.00	36.11	Vertical	PK	PASS



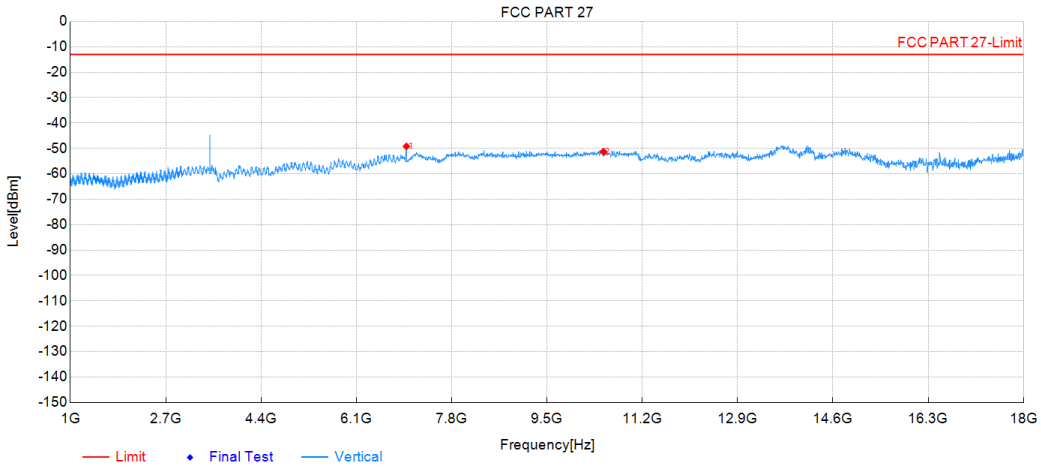
CHANNEL BANDWIDTH	20MHz / QPSK	MODE	TX channel 42590
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Carl Xie
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	7000.4001	-63.20	-54.98	8.22	-13.00	41.98	Horizontal	PK	PASS
2	10505.7011	-66.10	-52.55	13.55	-13.00	39.55	Horizontal	PK	PASS



CHANNEL BANDWIDTH	20MHz / QPSK	MODE	TX channel 42590
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Carl Xie
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	6993.7988	-57.61	-49.18	8.43	-13.00	36.18	Vertical	PK	PASS
2	10505.7011	-65.06	-51.27	13.79	-13.00	38.27	Vertical	PK	PASS

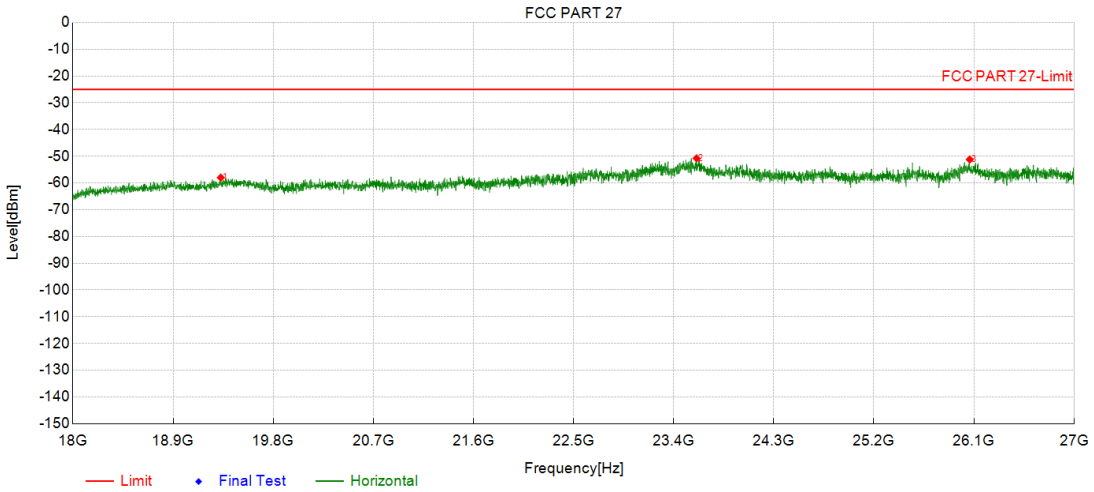


HARMONICS

LTE Band 38			
CHANNEL BANDWIDTH	10MHz / QPSK	**MODE**	TX channel 42590
FREQUENCY RANGE	Above 1000MHz	**ENVIRONMENTAL CONDITIONS**	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	**TESTED BY**	Carl Xie

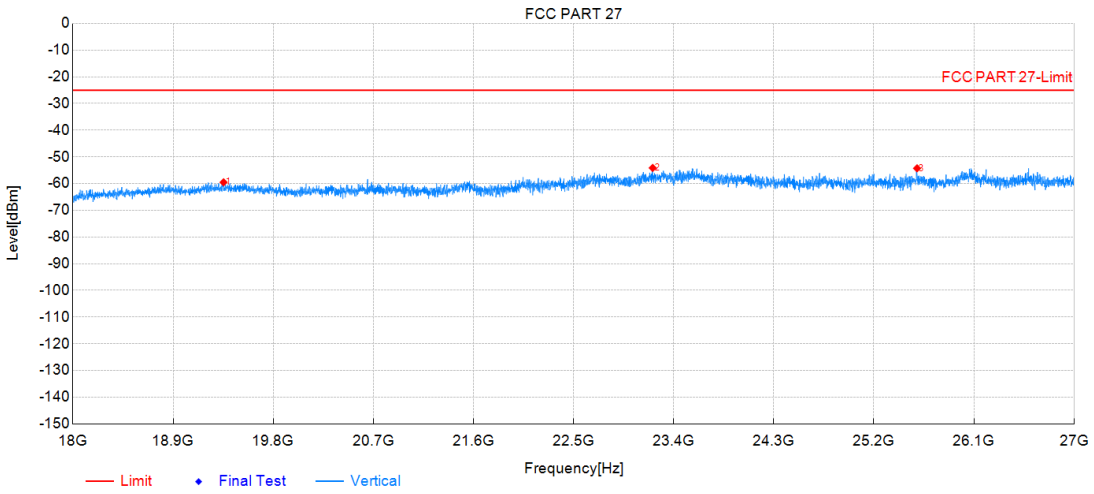
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	19328.6657	-66.97	-57.98	8.99	-25.00	32.98	Horizontal	PK	PASS
2	23606.3213	-67.68	-50.77	16.91	-25.00	25.77	Horizontal	PK	PASS
3	26062.0124	-64.15	-51.21	12.94	-25.00	26.21	Horizontal	PK	PASS



CHANNEL BANDWIDTH	10MHz / QPSK	**MODE**	TX channel 42590
FREQUENCY RANGE	Above 1000MHz	**ENVIRONMENTAL CONDITIONS**	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	**TESTED BY**	Carl Xie
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

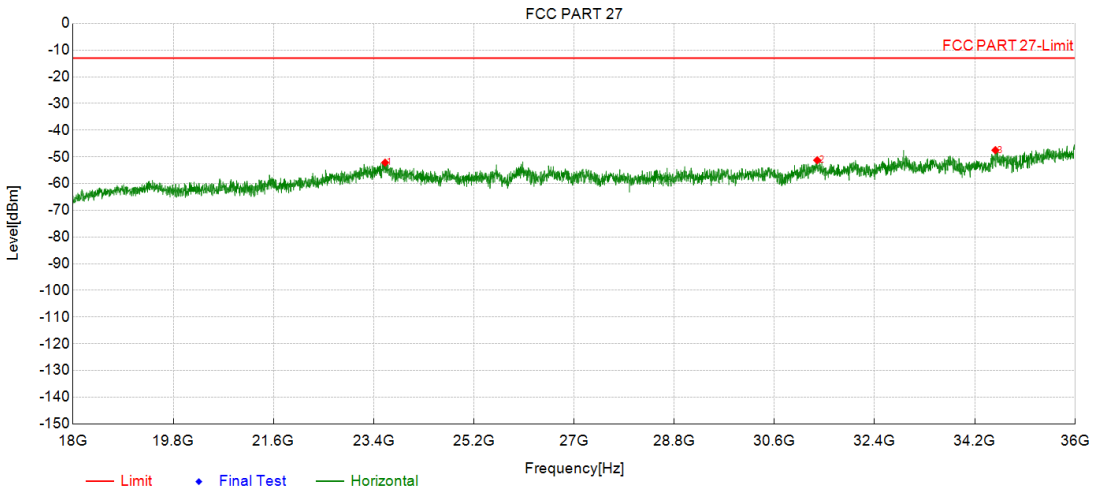
NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	19353.8708	-66.91	-59.50	7.41	-25.00	34.50	Vertical	PK	PASS
2	23212.0424	-67.35	-54.11	13.24	-25.00	29.11	Vertical	PK	PASS
3	25588.5177	-64.24	-54.26	9.98	-25.00	29.26	Vertical	PK	PASS



LTE Band 42			
CHANNEL BANDWIDTH	10MHz / QPSK	**MODE**	TX channel 42590
FREQUENCY RANGE	Above 1000MHz	**ENVIRONMENTAL CONDITIONS**	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	**TESTED BY**	Carl Xie

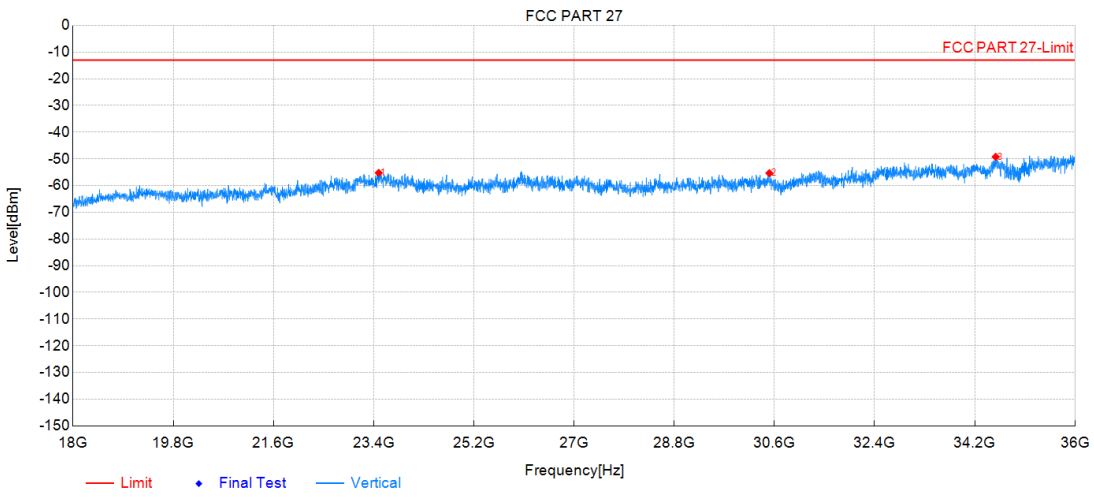
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	23606.3213	-69.04	-52.13	16.91	-13.00	39.13	Horizontal	PK	PASS
2	31369.4739	-65.01	-51.24	13.77	-13.00	38.24	Horizontal	PK	PASS
3	34570.5141	-63.02	-47.47	15.55	-13.00	34.47	Horizontal	PK	PASS



CHANNEL BANDWIDTH	10MHz / QPSK	MODE	TX channel 42590
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Carl Xie
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	23491.0982	-68.29	-55.23	13.06	-13.00	42.23	Vertical	PK	PASS
2	30508.9018	-65.57	-55.33	10.24	-13.00	42.33	Vertical	PK	PASS
3	34574.1148	-63.59	-49.23	14.36	-13.00	36.23	Vertical	PK	PASS



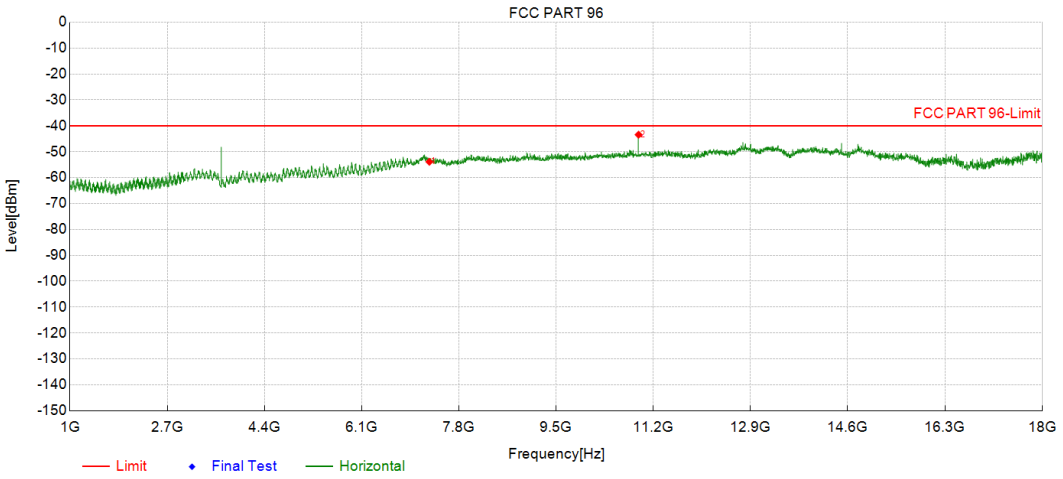
LTE BAND 48

CHANNEL BANDWIDTH: 5MHz / QPSK

MODE	TX channel 44090	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	AC 120V/60Hz
TESTED BY	Carl Xie		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

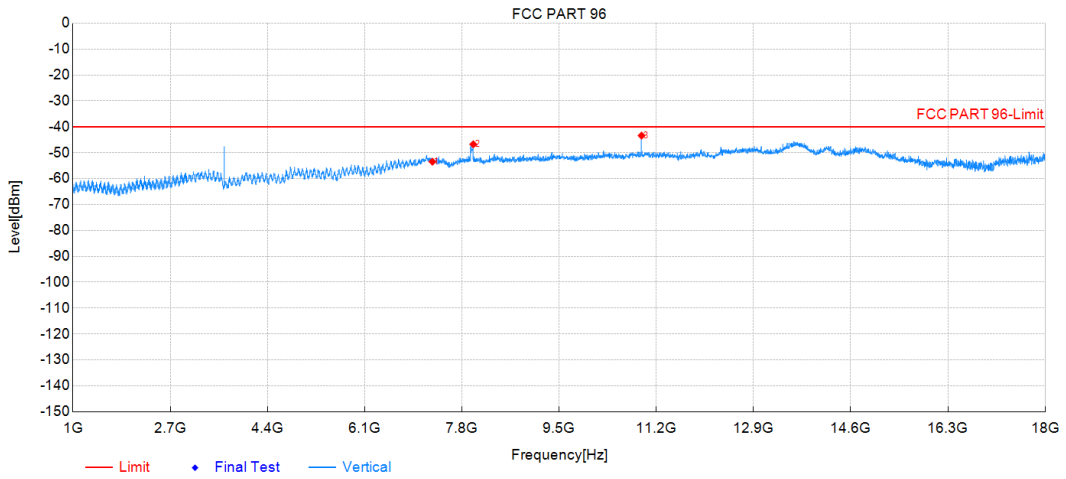
NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	7284.857	-63.13	-53.88	9.25	-40.00	13.88	Horizontal	PK	PASS
2	10942.5885	-57.94	-43.42	14.52	-40.00	3.42	Horizontal	PK	PASS



MODE	TX channel 44090	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Carl Xie		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	7284.857	-62.89	-53.46	9.43	-40.00	13.46	Vertical	PK	PASS
2	7998.9998	-57.20	-46.75	10.45	-40.00	6.75	Vertical	PK	PASS
3	10942.5885	-58.11	-43.38	14.73	-40.00	3.38	Vertical	PK	PASS

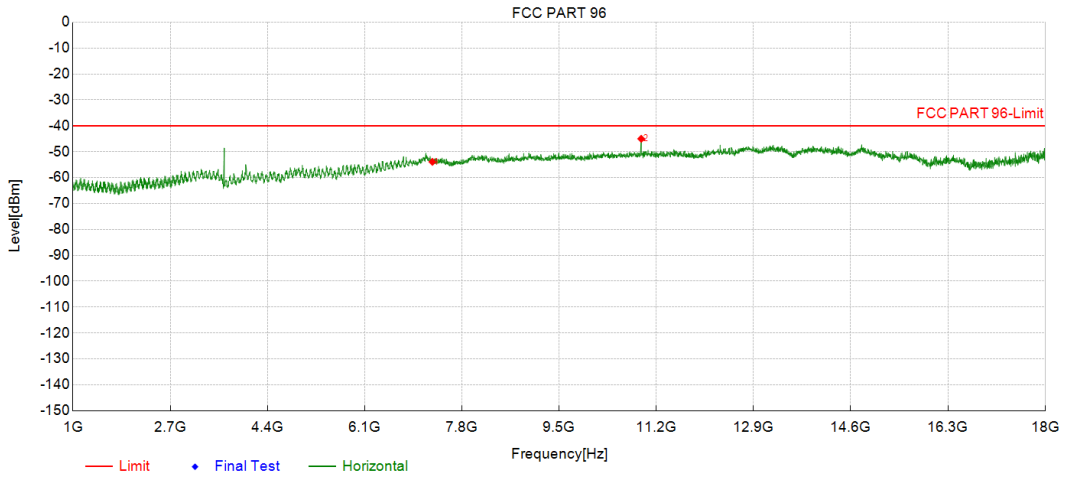


CHANNEL BANDWIDTH: 10MHz / QPSK

MODE	TX channel 44090	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	AC 120V/60Hz
TESTED BY	Carl Xie		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

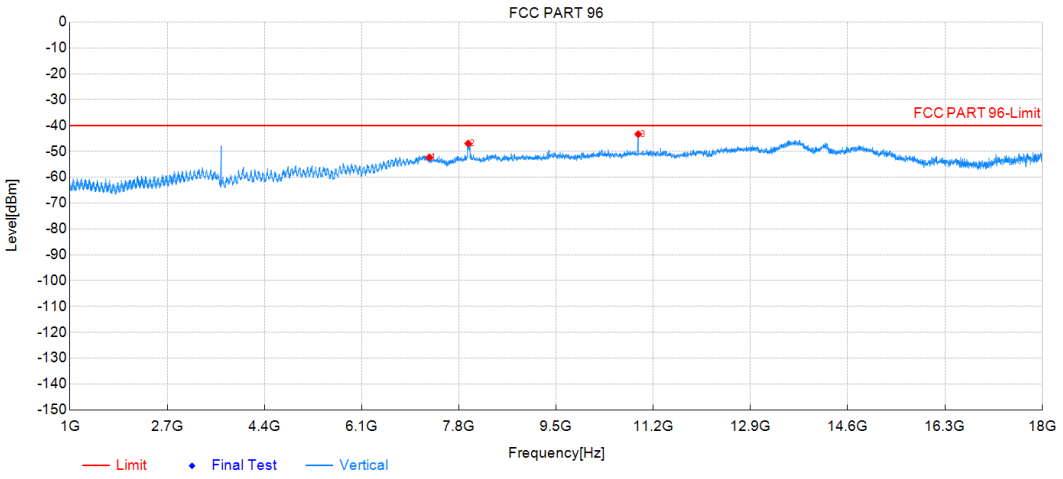
NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	7284.857	-63.17	-53.91	9.26	-40.00	13.91	Horizontal	PK	PASS
2	10936.5873	-59.53	-45.01	14.52	-40.00	5.01	Horizontal	PK	PASS



MODE	TX channel 44090	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Carl Xie		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	7284.857	-61.77	-52.33	9.44	-40.00	12.33	Vertical	PK	PASS
2	7962.9926	-57.34	-46.95	10.39	-40.00	6.95	Vertical	PK	PASS
3	10936.5873	-58.08	-43.35	14.73	-40.00	3.35	Vertical	PK	PASS



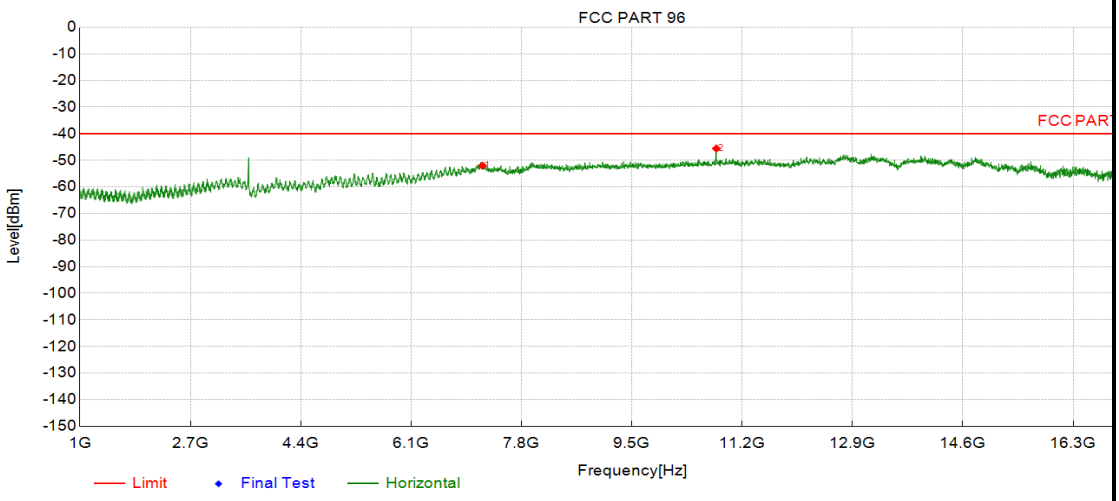
CHANNEL BANDWIDTH: 15MHz / QPSK

MODE	TX channel 43665	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	AC 120V/60Hz
TESTED BY	Carl Xie		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Data List

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	7200.8402	-61.60	-52.02	9.58	-40.00	12.02	Horizontal	PK	PASS
2	10801.5603	-60.13	-45.57	14.56	-40.00	5.57	Horizontal	PK	PASS

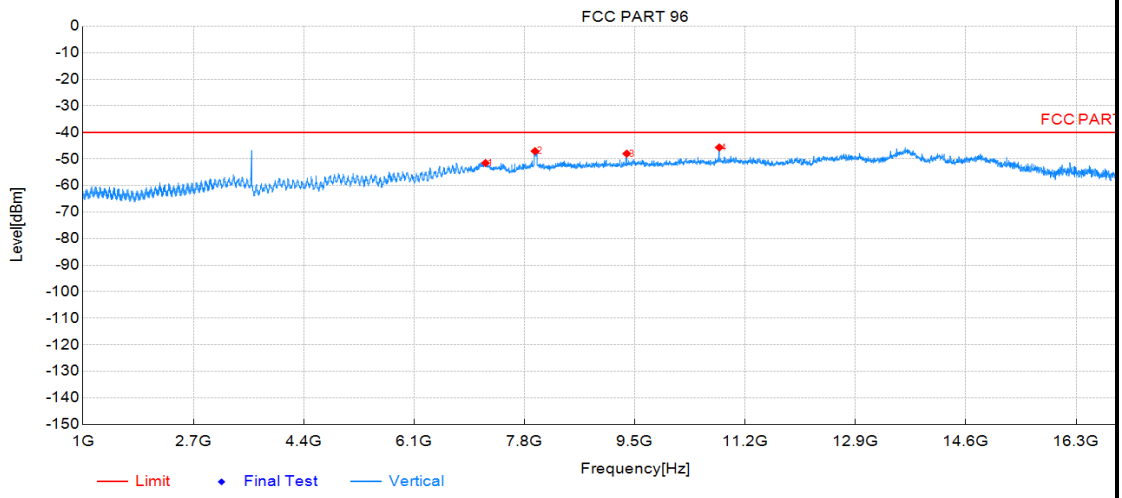


MODE	TX channel 43665	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Carl Xie		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Data List

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	7200.8402	-61.29	-51.54	9.75	-40.00	11.54	Vertical	PK	PASS
2	7962.9926	-57.46	-47.07	10.39	-40.00	7.07	Vertical	PK	PASS
3	9376.2753	-60.25	-48.00	12.25	-40.00	8.00	Vertical	PK	PASS
4	10801.5603	-60.57	-45.67	14.90	-40.00	5.67	Vertical	PK	PASS

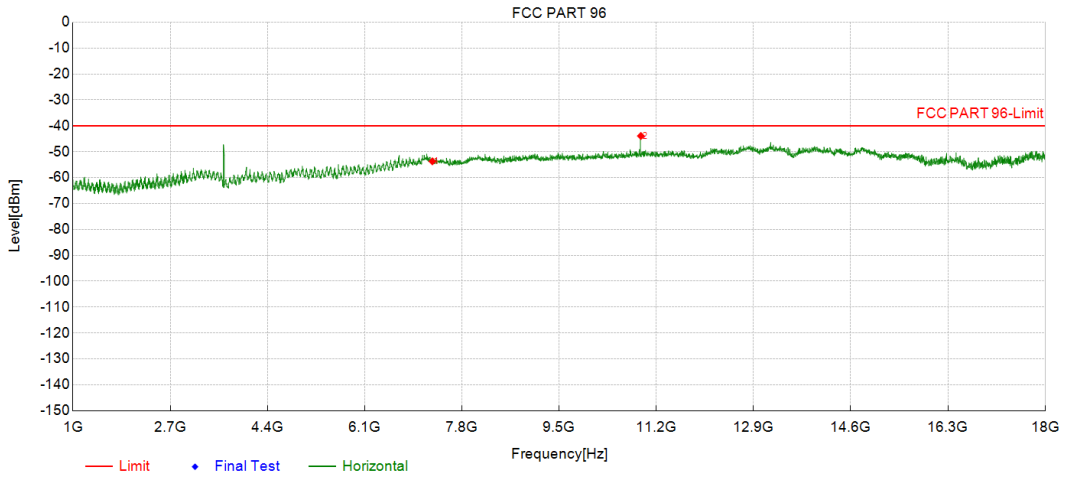


CHANNEL BANDWIDTH: 15MHz / QPSK

MODE	TX channel 44090	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	AC 120V/60Hz
TESTED BY	Carl Xie		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

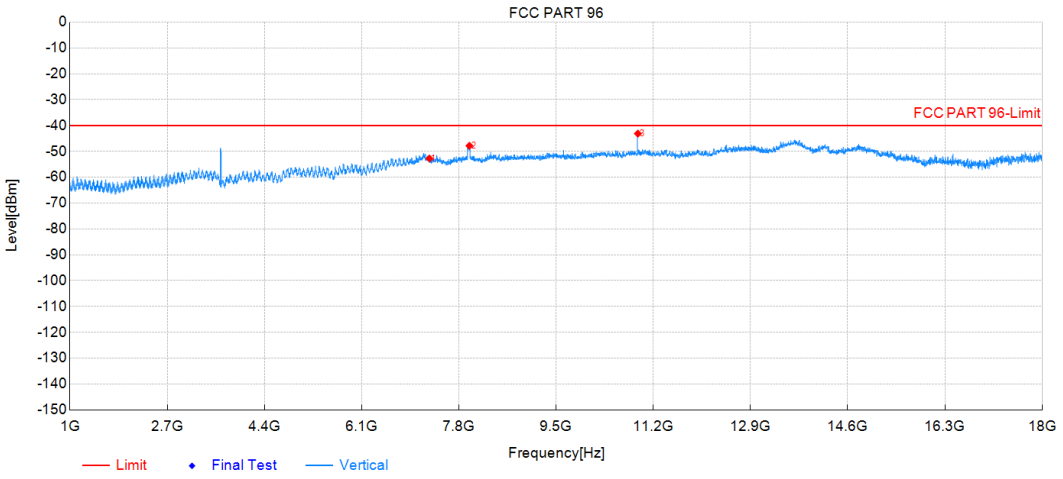
NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	7284.857	-62.96	-53.70	9.26	-40.00	13.70	Horizontal	PK	PASS
2	10930.5861	-58.44	-43.92	14.52	-40.00	3.92	Horizontal	PK	PASS



MODE	TX channel 44090	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Carl Xie		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	7284.857	-62.19	-52.75	9.44	-40.00	12.75	Vertical	PK	PASS
2	7983.9968	-58.25	-47.82	10.43	-40.00	7.82	Vertical	PK	PASS
3	10930.5861	-57.86	-43.12	14.74	-40.00	3.12	Vertical	PK	PASS



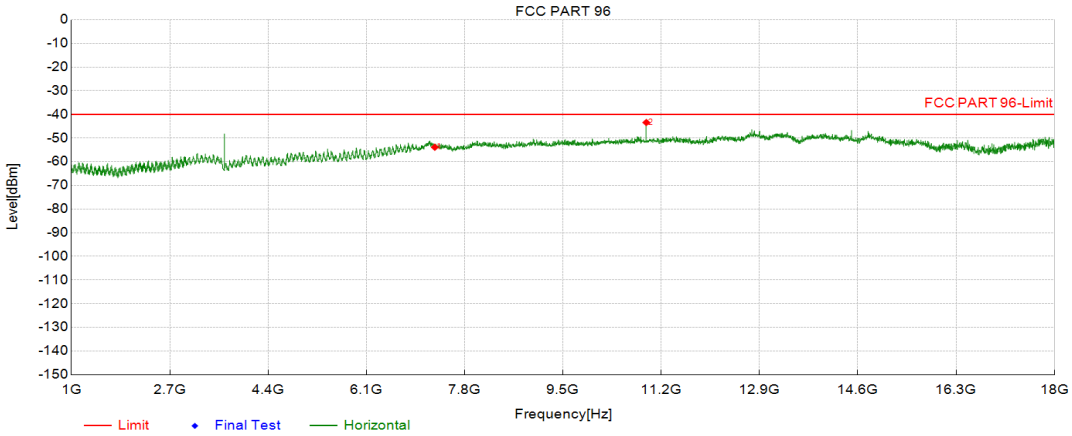
CHANNEL BANDWIDTH: 15MHz / QPSK

CH55990

MODE	TX channel 44515	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	AC 120V/60Hz
TESTED BY	Carl Xie		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Data List

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	7284.857	-63.13	-53.88	9.25	-40.00	13.88	Horizontal	PK	PASS
2	10942.5885	-57.94	-43.42	14.52	-40.00	3.42	Horizontal	PK	PASS

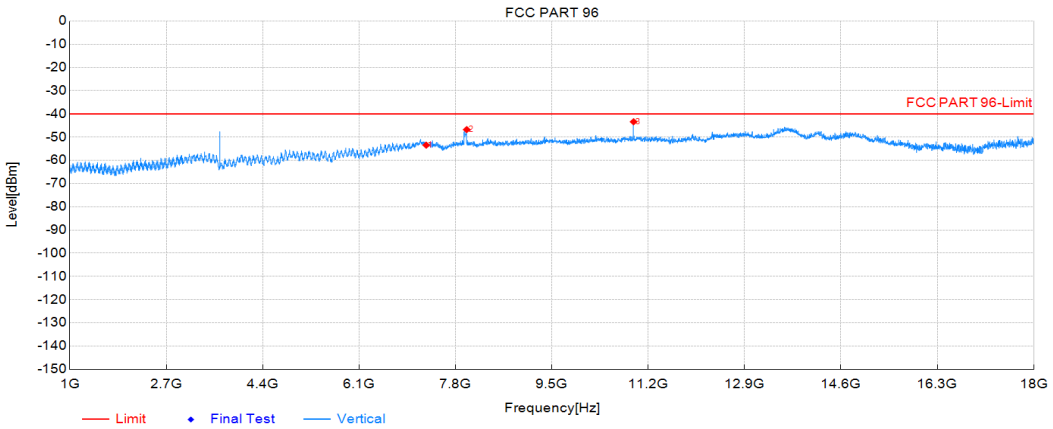


MODE	TX channel 44515	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Carl Xie		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Data List

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	7284.857	-62.89	-53.46	9.43	-40.00	13.46	Vertical	PK	PASS
2	7998.9998	-57.20	-46.75	10.45	-40.00	6.75	Vertical	PK	PASS
3	10942.5885	-58.11	-43.38	14.73	-40.00	3.38	Vertical	PK	PASS

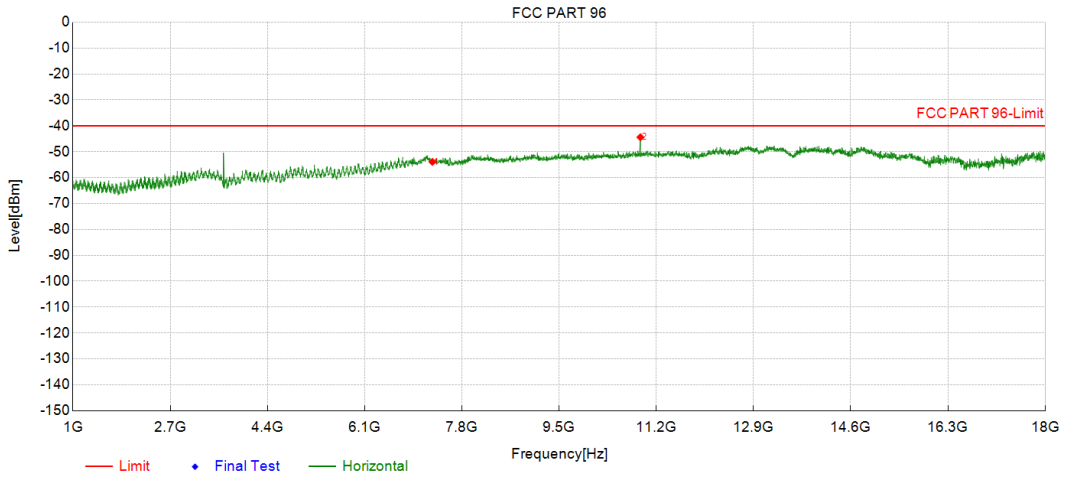


CHANNEL BANDWIDTH: 20MHz / QPSK

MODE	TX channel 44090	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	AC 120V/60Hz
TESTED BY	Carl Xie		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

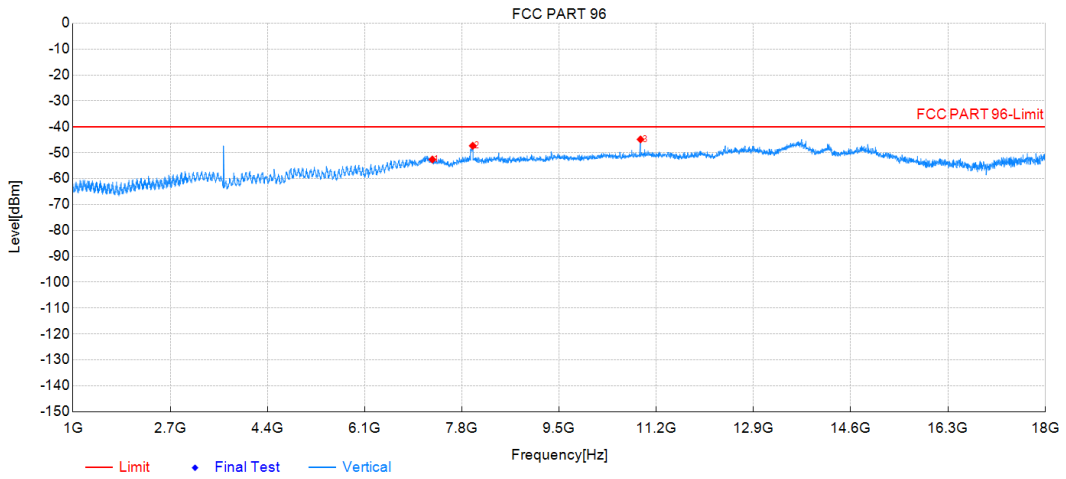
NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	7284.857	-63.18	-53.93	9.25	-40.00	13.93	Horizontal	PK	PASS
2	10921.5843	-58.93	-44.40	14.53	-40.00	4.40	Horizontal	PK	PASS



MODE	TX channel 44090	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Carl Xie		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	7284.857	-62.05	-52.62	9.43	-40.00	12.62	Vertical	PK	PASS
2	7989.998	-57.77	-47.33	10.44	-40.00	7.33	Vertical	PK	PASS
3	10924.5849	-59.60	-44.85	14.75	-40.00	4.85	Vertical	PK	PASS

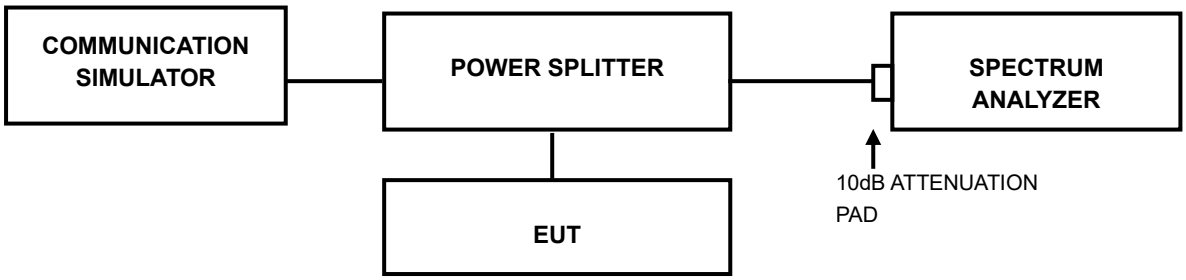


3.7 PEAK TO AVERAGE RATIO

3.7.1 LIMITS OF PEAK TO AVERAGE RATIO MEASUREMENT

In measuring transmissions in this band using an average power technique, the peak to-average ratio (PAR) of the transmission may not exceed 13 dB

3.7.2 TEST SETUP



3.7.3 TEST PROCEDURES

1. Set resolution/measurement bandwidth ≥ signal's occupied bandwidth;
2. Set the number of counts to a value that stabilizes the measured CCDF curve;
3. Record the maximum PAPR level associated with a probability of 0.1%.

3.7.4 TEST RESULTS

Please Refer to WWAN module(model name: RM520N-GL) test report(NO.: SEWM2304000122RG01,FCC ID: XMR2023RM520NGL).

4 INFORMATION ON THE TESTING LABORATORIES

We, Boomwave Test (Shenzhen) co., Ltd., were founded in 2025 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

Boomwave Test (Shenzhen) Co., Ltd.
Lab Address:
Rm B38, Warehouse A5(Chiwan #1), #3 Chiwan 4th Rd, Chiwan Comm, Zhaoshang St, Nanshan Dist, Shenzhen, Guangdong, Shenzhen, China

Accredited Test Lab Cert 7607.01

Shenzhen EMC/RF Lab:
Mobile: +86 15118052731
Email: shimin.wang@boomwavelab.com

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

No any modifications are made to the EUT by the lab during the test.