

FCC TEST REPORT

(PART 27)

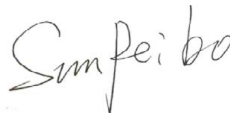
Applicant:	PepperlFuchs SE
Address:	Lilienthalstrasse 200, 68307, Mannheim, Germany

Manufacturer or Supplier:	PepperlFuchs SE
Address:	Lilienthalstrasse 200, 68307, Mannheim, Germany
Product:	Smart-Ex 203
Brand Name:	PEPPERL+FUCHS
Model Name:	Smart-Ex 203
FCC ID	2AXZAS203GR01
Date of tests	Nov. 22, 2024 ~ Jul. 31, 2025

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

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

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

Prepared by Hanwen Xu Engineer / Mobile Department	Approved by Peibo Sun Manager / Mobile Department
	
Date: Jul. 31, 2025	Date: Jul. 31, 2025

This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at <http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/> and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. Statements of conformity are based on simple acceptance criteria without taking measurement uncertainty into account, unless otherwise requested in writing. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
PSU-QSU2411180418RF05	Original release	Jul. 31, 2025



1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 27 & PART 2			
STANDARD SECTION	TEST TYPE AND LIMIT	RESULT	TEST LAB*
§2.1046	Conducted Output Power	Compliance	A
§27.50(d)(4) §27.50(k)(3) §27.50(h)(2)	Equivalent Isotropically Radiated Power (Band 4) (Band 38) (Band 41) (Band 42) (Band 66)	Compliance	A
§2.1055 §27.54	Frequency Stability	Compliance	A
§2.1049	Occupied Bandwidth	Compliance	A
§2.1051 §27.53(h) §27.53(n)(2) §27.53(m)(4)(6)	Conducted Band Edge Measurements (Band 4) (Band 38) (Band 41) (Band 42) (Band 66)	Compliance	A
§2.1051 §27.53(h) §27.53(n)(2) §27.53(m)(4)(6)	Conducted Spurious Emissions (Band 4) (Band 38) (Band 41) (Band 42) (Band 66)	Compliance	A
§2.1053 §27.53(h) §27.53(n)(2) §27.53(m)(4)(6)	Radiated Spurious Emissions (Band 4) (Band 38) (Band 41) (Band 42) (Band 66)	Compliance	A
§27.50(d)(5) §27.50(k)(4)	Peak to average ratio	Compliance	A

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

*Test Lab Information Reference

Lab A:

Huarui 7Layers High Technology (Suzhou) Co., Ltd.

Lab Address:

Tower N, Innovation Center, 88 Zuyi Road, High-tech District, Suzhou City, Anhui Province, China

Accredited Test Lab Cert 6613.01

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

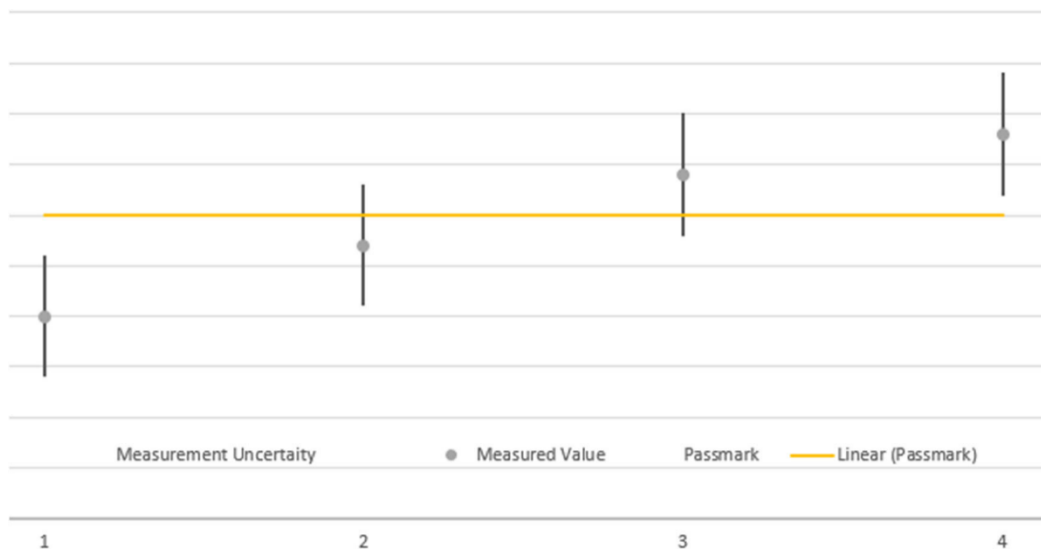


1.1 MEASUREMENT UNCERTAINTY

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	$\pm 76.97\text{Hz}$
Radiated emissions (9KHz~30MHz)	$\pm 2.68\text{dB}$
Radiated emissions & Radiated Power (30MHz~1GHz)	$\pm 4.98\text{dB}$
Radiated emissions & Radiated Power (1GHz ~6GHz)	$\pm 4.70\text{dB}$
Radiated emissions (6GHz ~18GHz)	$\pm 4.60\text{dB}$
Radiated emissions (18GHz ~40GHz)	$\pm 4.12\text{dB}$
Conducted emissions	$\pm 4.01\text{dB}$
Occupied Channel Bandwidth	$\pm 43.58\text{KHz}$
Conducted Output power	$\pm 2.06\text{dB}$
Band Edge Measurements	$\pm 4.70\text{dB}$

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.
Pre-Amplifier	R&S	SCU18F1	100815	Aug.29,24	Aug.28,26
Pre-Amplifier	R&S	SCU08F1	101028	Sep.15,24	Sep.14,26
Vector Signal Generator	R&S	SMBV100B	102176	Feb.15,24	Feb.14,26
Signal Generator	R&S	SMB100A	182185	Feb.15,24	Feb.14,26
3m Fully-anechoic Chamber	TDK	9m*6m*6m	HRSW-SZ-EMC-01Chamber	Nov.25,22	Nov.24,25
3m Semi-anechoic Chamber	TDK	9m*6m*6m	HRSW-SZ-EMC-02Chamber	Nov.25,22	Nov.24,25
EMI TEST Receiver	R&S	ESR26	101734	Feb.24,24	Feb.23,26
EMI TEST Receiver	R&S	ESW44	101973	Feb.24,24	Feb.23,26
Bilog Antenna	SCHWARZBECK	VULB 9163	1264	Feb.27,24	Feb.26,26
Horn Antenna	ETS-LINDGREN	3117	227836	Aug.21,24	Aug.20,26
Horn Antenna (18GHz-40GHz)	Steatite Q-par Antennas	QMS 00880	23486	Feb.22,24	Feb.21,26
Horn Antenna	Steatite Q-par Antennas	QMS 00208	23485	Aug.21,24	Aug.20,26
Loop Antenna	SCHWARZ	HFH2-Z2/Z2E	100976	Feb.22,24	Feb.21,26
WIDEBANDRADIO COMMUNICATION TESTER	R&S	CMW500	169399	Jun.26,24	Jun.25,26
Test Software	EMC32	EMC32	N/A	N/A	N/A
Test Software	ELEKTRA	ELEKTRA4.32	N/A	N/A	N/A
Open Switch and Control Unit	R&S	OSP220	101964	Sep.30,24	Sep.29,26
DC Source	HYELEC	HY3010B	551016	Aug.30,24	Aug.29,26
Hygrothermograph	DELI	20210528	SZ014	Sep.05,24	Sep.04,26
PC	LENOVO	E14	HRSW0024	N/A	N/A
TMC-AMI18843A(CABLE)	R&S	HF290-NMNM-7.00M	N/A	N/A	N/A
TMC-AMI18843A(CABLE)	R&S	HF290-NMNM-4.00M	N/A	N/A	N/A
CABLE	R&S	W13.02	N/A	Oct.25,24	Apr.24,25
CABLE	R&S	W13.02	N/A	Apr.24,25	Oct.23,25
CABLE	R&S	W12.14	N/A	Oct.25,24	Apr.24,25
CABLE	R&S	W12.14	N/A	Apr.24,25	Oct.23,25
CABLE	R&S	J12J103539-00-1	SEP-03-20-069	Oct.25,24	Apr.24,25
CABLE	R&S	J12J103539-00-1	SEP-03-20-069	Apr.24,25	Oct.23,25
CABLE	R&S	J12J103539-00-1	SEP-03-20-070	Oct.25,24	Apr.24,25
CABLE	R&S	J12J103539-00-1	SEP-03-20-070	Apr.24,25	Oct.23,25
Temperature Chamber	votsch	VT4002	58566078100050	May.30,24	May.29,26

#2

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
MXE EMI Receiver	KEYSIGHT	N9038A-544	MY54450026	Feb. 19,24	Feb. 18,25
MXE EMI Receiver	KEYSIGHT	N9038A-544	MY54450026	Feb. 18,25	Feb. 17,26
EXA Signal Analyzer	KEYSIGHT	N9010A-544	MY54510355	May.13,24	May.12,25

Huarui 7layers High Technology
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BUREAU VERITAS Test Report No.: PSU-QSU2411180418RF05

EXA Signal Analyzer	KEYSIGHT	N9010A-544	MY54510355	May.12,25	May.11,26
Loop Antenna	Schwarzbeck	FMZB 1519B	00173	Sep.02,24	Sep.01,25
Bilog Antenna	ETS-LINDGREN	3143B	00161965	Mar. 04,24	Mar. 03,25
Bilog Antenna	ETS-LINDGREN	3143B	00161965	Mar. 03,25	Mar. 02,26
Horn Antenna	ETS-LINDGREN	3117	00168692	Mar. 04,24	Mar. 03,25
Horn Antenna	ETS-LINDGREN	3117	00168692	Mar. 03,25	Mar. 02,26
Horn Antenna (18GHz-40GHz)	N/A	QWH-SL-18-40- K-SG/QMS- 00361	15433	Aug. 22, 24	Aug. 21, 25
Radio Communication Analyzer	ANRITSU	MT8820C	6201465426	Feb. 13,24	Feb. 12,25
Radio Communication Analyzer	ANRITSU	MT8820C	6201465426	Feb. 12,25	Feb. 11,26
Signal Pre-Amplifier	EMSI	EMC 9135	980249	May.10,24	May.09,25
Signal Pre-Amplifier	EMSI	EMC 9135	980249	May.09,25	May.08,26
Signal Pre-Amplifier	EMSI	EMC 012645B	980257	May.10,24	May.09,25
Signal Pre-Amplifier	EMSI	EMC 012645B	980257	May.09,25	May.08,26
Signal Pre-Amplifier	EMSI	EMC 184045B	980259	Feb. 19,24	Feb.18,25
Signal Pre-Amplifier	EMSI	EMC 184045B	980259	Feb. 18,25	Feb.17,26
3m Semi-anechoic Chamber	ETS-LINDGREN	9m*6m*6m	Euroshieldpn- CT0001143- 1216	May. 18,23	May. 17,26
Test Software	E3	V 9.160323	N/A	N/A	N/A
Test Software	JS1120	3.1.36	N/A	N/A	N/A
10dB Attenuator	JFW/USA	50HF-010-SMA	1505	May. 05,24	May. 04,25
10dB Attenuator	JFW/USA	50HF-010-SMA	1505	May. 04,25	May. 03,26
Power Meter	Anritsu	ML2495A	1506002	Feb. 20,24	Feb. 19,25
Power Meter	Anritsu	ML2495A	1506002	Feb. 19,25	Feb. 18,26
Power Sensor	Anritsu	MA2411B	1339352	May. 05,24	May. 04,25
Power Sensor	Anritsu	MA2411B	1339352	May. 04,25	May. 03,26
Temperature Chamber	ESPEC	SH-242	93000855	May. 10,24	May. 09,25
Temperature Chamber	ESPEC	SH-242	93000855	May. 09,25	May. 08,26
MXG Analog Microwave Signal Generator	KEYSIGHT	N5183A	MY50143024	Feb. 16,24	Feb. 15,25
MXG Analog Microwave Signal Generator	KEYSIGHT	N5183A	MY50143024	Feb. 15,25	Feb. 14,26
Base station R&S CMW500	Rohde&Schwarz	CMW500	153085	May.10,24	May.09,25
Base station R&S CMW500	Rohde&Schwarz	CMW500	153085	May.09,25	May.08,26
DC Source	Kikusui/JP	PMX18-5A	0000001	Aug. 22,24	Aug. 21,25

NOTE:

- 1 The calibration interval of the above test instruments is 12/24/36 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.
- 2 The test was performed in 3m Semi-anechoic Chamber and RF Oven Room.
- 3 The horn antenna is used only for the measurement of emission frequency above 1GHz if tested.
- 4 The FCC Site Registration No. is 434559; The Designation No. is CN1325.



2 GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT*	Smart-Ex 203	
BRAND NAME*	PEPPERL+FUCHS	
MODEL NAME*	Smart-Ex 203	
NOMINAL VOLTAGE*	5.4Vdc (adapter or host equipment) 3.8Vdc (Li-ion, battery)	
MODULATION TECHNOLOGY	LTE	QPSK, 16QAM, 64QAM, 256QAM
FREQUENCY RANGE	LTE Band 4 Channel Bandwidth: 1.4MHz	1710.7MHz ~ 1754.3MHz
	LTE Band 4 Channel Bandwidth: 3MHz	1711.5MHz ~ 1753.5MHz
	LTE Band 4 Channel Bandwidth: 5MHz	1712.5MHz ~ 1752.5MHz
	LTE Band 4 Channel Bandwidth: 10MHz	1715MHz ~ 1750MHz
	LTE Band 4 Channel Bandwidth: 15MHz	1717.5MHz ~ 1747.5 MHz
	LTE Band 4 Channel Bandwidth: 20MHz	1720MHz ~ 1745MHz
	LTE Band 38 Channel Bandwidth: 5MHz	2572.5MHz ~ 2617.5MHz
	LTE Band 38 Channel Bandwidth: 10MHz	2575MHz ~ 2615MHz
	LTE Band 38 Channel Bandwidth: 15MHz	2577.5MHz ~ 2612.5MHz
	LTE Band 38 Channel Bandwidth: 20MHz	2580MHz ~ 2610MHz
	LTE Band 41 Channel Bandwidth: 5MHz	2498.5MHz ~ 2687.5MHz
	LTE Band 41 Channel Bandwidth: 10MHz	2501MHz ~ 2685MHz
	LTE Band 41 Channel Bandwidth: 15MHz	2503.5MHz ~ 2682.5MHz
	LTE Band 41 Channel Bandwidth: 20MHz	2506MHz ~ 2680MHz
	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 66 Channel Bandwidth: 1.4MHz	1710.7MHz ~ 1779.3MHz



	LTE Band 66 Channel Bandwidth: 3MHz	1711.5MHz ~ 1778.5MHz
	LTE Band 66 Channel Bandwidth: 5MHz	1712.5MHz ~ 1777.5MHz
	LTE Band 66 Channel Bandwidth: 10MHz	1715MHz ~ 1775MHz
	LTE Band 66 Channel Bandwidth: 15MHz	1717.5MHz ~ 1772.5MHz
	LTE Band 66 Channel Bandwidth: 20MHz	1720MHz ~ 1770MHz
	CA	CA_2A_4A CA_7A_66A CA_39A_41A
MAX. EIRP POWER	LTE Band 4 Channel Bandwidth: 1.4MHz	181.13mW
	LTE Band 4 Channel Bandwidth: 3MHz	177.42mW
	LTE Band 4 Channel Bandwidth: 5MHz	179.47mW
	LTE Band 4 Channel Bandwidth: 10MHz	180.30mW
	LTE Band 4 Channel Bandwidth: 15MHz	181.13mW
	LTE Band 4 Channel Bandwidth: 20MHz	181.55mW
	LTE Band 38 Channel Bandwidth: 5MHz	293.09mW
	LTE Band 38 Channel Bandwidth: 10MHz	289.73mW
	LTE Band 38 Channel Bandwidth: 15MHz	292.42mW
	LTE Band 38 Channel Bandwidth: 20MHz	294.44mW
	LTE Band 41 Channel Bandwidth: 5MHz	389.94mW
	LTE Band 41 Channel Bandwidth: 10MHz	379.31mW
	LTE Band 41 Channel Bandwidth: 15MHz	380.19mW
	LTE Band 41 Channel Bandwidth: 20MHz	391.74mW
	LTE Band 42 Channel Bandwidth: 5MHz	191.87mW
	LTE Band 42 Channel Bandwidth: 10MHz	191.43mW
	LTE Band 42 Channel Bandwidth: 15MHz	193.64mW
	LTE Band 42 Channel Bandwidth: 20MHz	194.54mW
	LTE Band 66 Channel Bandwidth: 1.4MHz	250.03mW
	LTE Band 66 Channel Bandwidth: 3MHz	248.31mW



	LTE Band 66 Channel Bandwidth: 5MHz	250.03mW
	LTE Band 66 Channel Bandwidth: 10MHz	250.03mW
	LTE Band 66 Channel Bandwidth: 15MHz	250.03mW
	LTE Band 66 Channel Bandwidth: 20MHz	255.27mW
EMISSION DESIGNATOR	LTE Band 41 Channel Bandwidth: 5MHz	QPSK: 4M52G7D
		16QAM: 4M53W7D
		64QAM: 4M52W7D
		256QAM: 4M52W7D
	LTE Band 41 Channel Bandwidth: 10MHz	QPSK: 9M02G7D
		16QAM: 9M02W7D
		64QAM: 9M03W7D
		256QAM: 9M02W7D
	LTE Band 41 Channel Bandwidth: 15MHz	QPSK: 13M5G7D
		16QAM: 13M5W7D
		64QAM: 13M5W7D
		256QAM: 13M5W7D
	LTE Band 41 Channel Bandwidth: 20MHz	QPSK: 18M0G7D
		16QAM: 18M0W7D
		64QAM: 18M0W7D
		256QAM: 18M0W7D
	LTE Band 42 Channel Bandwidth: 5MHz	QPSK: 4M61G7D
		16QAM: 4M58W7D
		64QAM: 4M59W7D
		256QAM: 4M60W7D
	LTE Band 42 Channel Bandwidth: 10MHz	QPSK: 9M02G7D
		16QAM: 9M03W7D
		64QAM: 9M00W7D
		256QAM: 9M01W7D
	LTE Band 42 Channel Bandwidth: 15MHz	QPSK: 13M5G7D
		16QAM: 13M5W7D
		64QAM: 13M5W7D
		256QAM: 13M4W7D
	LTE Band 42 Channel Bandwidth: 20MHz	QPSK: 17M9G7D
		16QAM: 17M9W7D
		64QAM: 17M9W7D
		256QAM: 17M9W7D
	LTE Band 66 Channel Bandwidth: 1.4MHz	QPSK: 1M10G7D
		16QAM: 1M11W7D



		64QAM: 1M10W7D
		256QAM: 1M10W7D
	LTE Band 66 Channel Bandwidth: 3MHz	QPSK: 2M69G7D
		16QAM: 2M69W7D
		64QAM: 2M69W7D
		256QAM: 2M69W7D
	LTE Band 66 Channel Bandwidth: 5MHz	QPSK: 4M53G7D
		16QAM: 4M52W7D
		64QAM: 4M52W7D
		256QAM: 4M53W7D
	LTE Band 66 Channel Bandwidth: 10MHz	QPSK: 9M03G7D
		16QAM: 9M01W7D
		64QAM: 9M01W7D
		256QAM: 9M03W7D
	LTE Band 66 Channel Bandwidth: 15MHz	QPSK: 13M5G7D
		16QAM: 13M5W7D
		64QAM: 13M5W7D
		256QAM: 13M5W7D
	LTE Band 66 Channel Bandwidth: 20MHz	QPSK: 18M1G7D
		16QAM: 18M0W7D
		64QAM: 18M0W7D
		256QAM: 18M0W7D
ANTENNA TYPE*	PIFA	
ANTENNA GAIN	Band 4	Ant2:-1.2dBi
	Band 38	Ant0:0.74dBi
	Band 41	Ant0:0.74dBi
	Band 42	Ant7:-0.89dBi
	Band 66	Ant2:0.74dBi
HW VERSION*	DVT2	
SW VERSION*	S203.14.00.00.056.4_USERDEBUG	
I/O PORTS*	Refer to user's manual	
CABLE SUPPLIED*	USB cable: non-shielded cable, with w/o ferrite core, 1.2 meter	
EXTREME TEMPERATURE*	-20℃-55℃	
EXTREME VOLTAGE*	3.4V-4.35V	

NOTE:

- *Since the above data and/or information is provided by the client relevant results or conclusions

**Test Report No.: PSU-QSU2411180418RF05**

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.

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

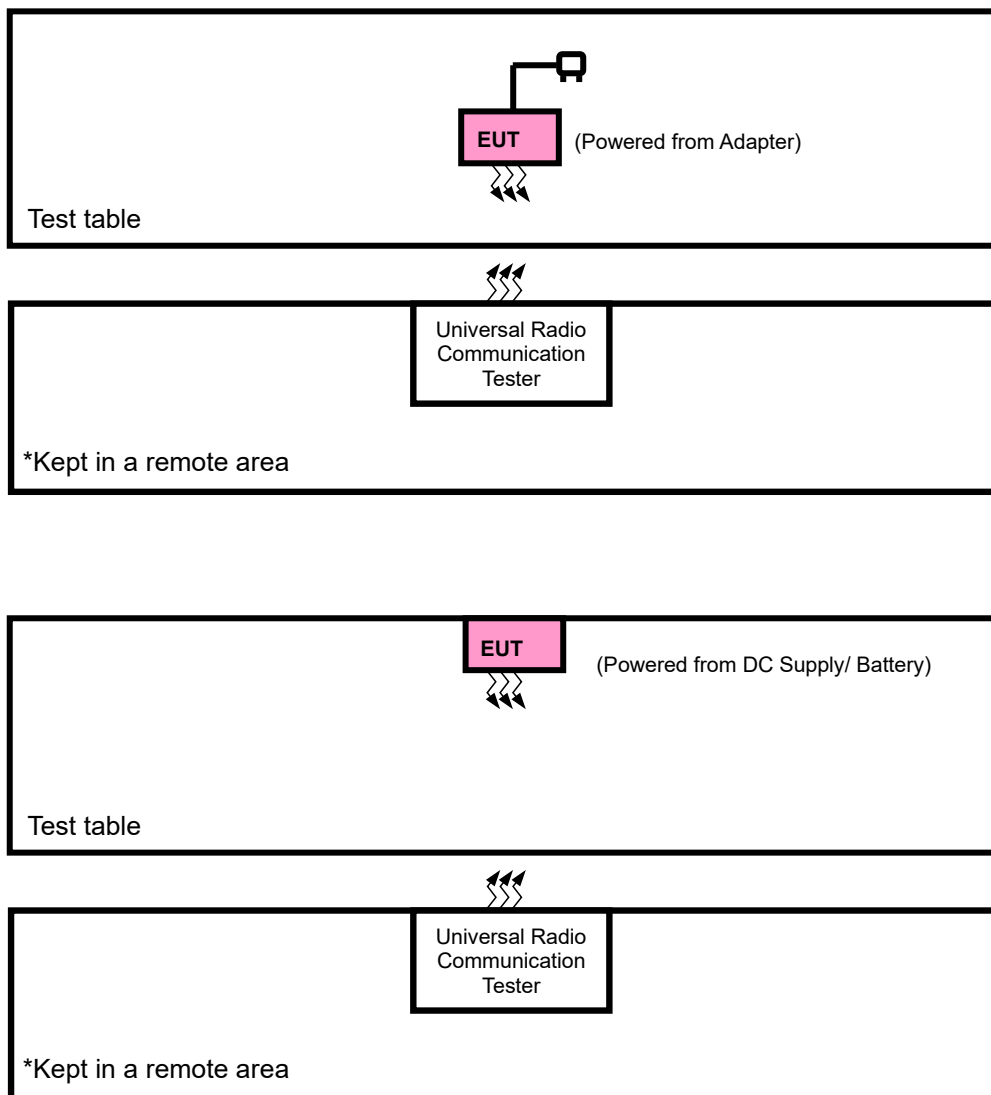
MODULATION MODE	TX FUNCTION
LTE	2TX/2RX

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

5. List of Accessory:

ACCESSORIES	BRAND	MANUFACTURER	MODEL	SPECIFICATION
AC Adapter	N/A	Shenzhen ABP Technology Co., Ltd.	NFC05B5403C	I/P: 100-240Vac, 0.5A, O/P: 5.4Vdc, 3A, 16.2W
Battery	Pepper+Fuchs	Shenzhen Cholibpower Technology Co.,Ltd.	Ex-BP S203	Capacity: 3.8Vdc, 4500mAh
USB Cable	Delock	TRAGANT Handels- und Beteiligungs GmbH	35156	Signal Line,1.2meter

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
2	DC Source	HYELEC	HY3010B	551016	N/A

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	DC Line: Unshielded, Detachable, 1.0m;
2	USB Line: Unshielded, Detachable, 1.2m;

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/ Battery with LTE link



LTE BAND 4 MODE						
EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
A	EIRP	19957 to 20393	19957, 20175, 20393	1.4MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
		19965 to 20385	19965, 20175, 20385	3MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
		19975 to 20375	19975, 20175, 20375	5MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
		20000 to 20350	20000, 20175, 20350	10MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
		20025 to 20325	20025, 20175, 20325	15MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
		20050 to 20300	20050, 20175, 20300	20MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset

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

2. LTE Band 4 are covered by LTE Band 66, Because it is a subset of LTE Band 66 with the same output power and supported bandwidths, So the conducted test data and RSE test data please refer to LTE Band 66

LTE BAND 38 MODE						
EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
A	EIRP	37775 to 38225	37775, 38000, 38225	5MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
		37800 to 38200	37800, 38000, 38200	10MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0RB Offset
		37825 to 38175	37825, 38000, 38175	15MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
		37850 to 38150	37850, 38000, 38150	20MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset

Note:

1. This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.
2. LTE Band 38 are covered by LTE Band 41, Because it is a subset of LTE Band 41 with the same output power and supported bandwidths, So the conducted test data and RSE test data please refer to LTE Band 41

LTE BAND 41 MODE						
EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
A	EIRP	39675 to 41565	39675, 40620, 41565	5MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset



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



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			41490	20MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 99 RB Offset 100 RB / 0 RB Offset
A	CONDUCTED EMISSION	39675 to 41565	39675, 40620, 41565	5MHz	QPSK	1 RB / 0 RB Offset
		39700 to 41540	39700, 40620, 41540	10MHz	QPSK	1 RB / 0 RB Offset
		39725 to 41515	39725, 40620, 41515	15MHz	QPSK	1 RB / 0 RB Offset
		39750 to 41490	39750, 40620, 41490	20MHz	QPSK	1 RB / 0 RB Offset
A	RADIATED EMISSION	39675 to 41565	40620	5MHz	QPSK	1 RB / 0 RB Offset
		39700 to 41540	39700, 40620, 41540	10MHz	QPSK	1 RB / 0 RB Offset
		39725 to 41515	40620	15MHz	QPSK	1 RB / 0 RB Offset
		39750 to 41490	40620	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 42						
EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
A	EIRP	42115 to 43065	42115, 42590, 43065	5MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
		42140 to 43040	42140, 42590, 43040	10MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
		42165 to 43015	42165, 42590, 43015	15MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
		42190 to 42990	42190, 42590, 42990	20MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
B	FREQUENCY STABILITY	42190 to 42990	42590	20MHz	QPSK	100 RB / 0 RB Offset
A	OCCUPIED BANDWIDTH	42115 to 43065	42115, 42590, 43065	5MHz	QPSK, 16QAM, 64QAM, 256QAM	25 RB / 0 RB Offset
		42140 to 43040	42140, 42590, 43040	10MHz	QPSK, 16QAM, 64QAM, 256QAM	50 RB / 0 RB Offset
		42165 to 43015	42165, 42590, 43015	15MHz	QPSK, 16QAM, 64QAM, 256QAM	75 RB / 0 RB Offset
		42190 to 42990	42190, 42590, 42990	20MHz	QPSK, 16QAM, 64QAM, 256QAM	100 RB / 0 RB Offset
A	PEAK TO AVERAGE RATIO	42190 to 42990	42190, 42590, 42990	20MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset 100 RB / 0 RB Offset
A	BAND EDGE	42115 to 43065	42115	5MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset 25 RB / 0 RB Offset
			43065	5MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 24 RB Offset 25 RB / 0 RB Offset



		42140 to 43040	42140	10MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
						50 RB / 0 RB Offset
		42165 to 43015	43040	10MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 49 RB Offset
						50 RB / 0 RB Offset
		42190 to 42990	42165	15MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
						75 RB / 0 RB Offset
		42190 to 42990	43015	15MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 74 RB Offset
						75 RB / 0 RB Offset
A	CONDCUETED EMISSION	42115 to 43065	42115, 42590, 43065	5MHz	QPSK	1 RB / 0 RB Offset
		42140 to 43040	42140, 42590, 43040	10MHz	QPSK	1 RB / 0 RB Offset
		42165 to 43015	42165, 42590, 43015	15MHz	QPSK	1 RB / 0 RB Offset
		42190 to 42990	42190, 42590, 42990	20MHz	QPSK	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 / 0 RB 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 66 MODE						
EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
A	EIRP	131979 to 132665	131979,132322,132665	1.4MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
		131987 to 132657	131987,132322,132657	3MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
		131997 to 132647	131997,132322,132647	5MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
		132022 to 132622	132022,132322,132622	10MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
		132047 to 132597	132047,132322,132597	15MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
		132072 to 132572	132072,132322,132572	20MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
B	FREQUENCY STABILITY	132022 to 132622	132022, 132622	10MHz	QPSK,	50 RB / 0 RB Offset
A	OCCUPIED BANDWIDTH	131979 to 132665	131979,132322,132665	1.4MHz	QPSK, 16QAM, 64QAM, 256QAM	6 RB / 0 RB Offset
		131987 to 132657	131987,132322,132657	3MHz	QPSK, 16QAM, 64QAM, 256QAM	15 RB / 0 RB Offset
		131997 to 132647	131997,132322,132647	5MHz	QPSK, 16QAM, 64QAM, 256QAM	25 RB / 0 RB Offset
		132022 to 132622	132022,132322,132622	10MHz	QPSK, 16QAM, 64QAM, 256QAM	50 RB / 0 RB Offset
		132047 to 132597	132047,132322,132597	15MHz	QPSK, 16QAM, 64QAM, 256QAM	75 RB / 0 RB Offset
		132072 to 132572	132072,132322,132572	20MHz	QPSK, 16QAM, 64QAM, 256QAM	100 RB / 0 RB Offset
A	BAND EDGE	131979 to 132322	131979	1.4MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
						6 RB / 0 RB Offset
			132322	1.4MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 5 RB Offset
						6 RB / 0 RB Offset
		131987 to 132657	131987	3MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
						15 RB / 0 RB Offset
			132657	3MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 14 RB Offset
						15 RB / 0 RB Offset
		131997 to 132647	131997	5MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
						25 RB / 0 RB Offset
			132647	5MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 24 RB Offset
						25 RB / 0 RB Offset
		132022 to 132622	132022	10MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
						50 RB / 0 RB Offset
			132622	10MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 49 RB Offset



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						50 RB / 0 RB Offset
		132047 to 132597	132047	15MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
			132597	15MHz	QPSK, 16QAM, 64QAM, 256QAM	75 RB / 0 RB Offset
		132072 to 132572	132072	20MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 74 RB Offset
						75 RB / 0 RB Offset
			132572	20MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset
						100 RB / 0 RB Offset
						1 RB / 99 RB Offset
A	CONDCUETED EMISSION	131979 to 132665	131979,132322,132665	1.4MHz	QPSK	1 RB / 0 RB Offset
		131987 to 132657	131987,132322,132657	3MHz	QPSK	1 RB / 0 RB Offset
		131997 to 132647	131997,132322,132647	5MHz	QPSK	1 RB / 0 RB Offset
		132022 to 132622	132022,132322,132622	10MHz	QPSK	1 RB / 0 RB Offset
		132047 to 132597	132047,132322,132597	15MHz	QPSK	1 RB / 0 RB Offset
		132072 to 132572	132072,132322,132572	20MHz	QPSK	1 RB / 0 RB Offset
A	PEAK TO AVERAGE RATIO	131979 to 132665	131979,132322,132665	1.4MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset 100 RB / 0 RB Offset
		131987 to 132657	132322	3MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset 100 RB / 0 RB Offset
		131997 to 132647	132322	5MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset 100 RB / 0 RB Offset
		132022 to 132622	132322	10MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset 100 RB / 0 RB Offset
		132047 to 132597	132322	15MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset 100 RB / 0 RB Offset
		132072 to 132572	132322	20MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB Offset 100 RB / 0 RB Offset
A	RADIATED EMISSION	131979 to 132665	132322	1.4MHz	QPSK	1 RB / 0 RB Offset
		131987 to 132657	131987,132322,132657	3MHz	QPSK	1 RB / 0 RB Offset
		131997 to 132647	132322	5MHz	QPSK	1 RB / 0 RB Offset
		132022 to 132622	132322	10MHz	QPSK	1 RB / 0 RB Offset
		132047 to 132597	132322	15MHz	QPSK	1 RB / 0 RB Offset
		132072 to 132572	132322	20MHz	QPSK	1 RB / 0 RB Offset

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

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TEST CONDITION			
TEST ITEM	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
EIRP	23deg. C, 70%RH	DC 5.4V By Adapter	Hanwen Xu
FREQUENCY STABILITY	23deg. C, 70%RH	DC 3.4/3.8/4,35V By Battery	Hanwen Xu
OCCUPIED BANDWIDTH	23deg. C, 70%RH	DC 5.4V By Adapter	Hanwen Xu
BAND EDGE	23deg. C, 70%RH	DC 5.4V By Adapter	Hanwen Xu
CONDCUDED EMISSION	23deg. C, 70%RH	DC 5.4V By Adapter	Hanwen Xu
RADIATED EMISSION	23deg. C, 70%RH	DC 5.4V By Adapter	Hanwen Xu
PEAK TO AVERAGE RATIO	23deg. C, 70%RH	DC 5.4V By Adapter	Hanwen Xu



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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:

$$\text{ERP or EIRP} = P_{\text{Meas}} + G_{\text{T}} - L_{\text{C}}$$

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.

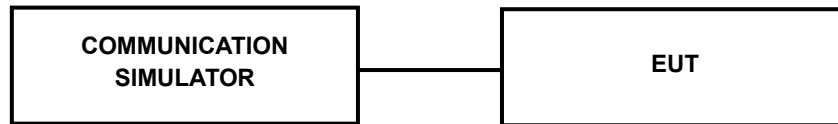
CONDUCTED POWER MEASUREMENT:

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



3.1.3 TEST SETUP

CONDUCTED POWER MEASUREMENT:



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



3.1.4 TEST RESULTS

CONDUCTED OUTPUT POWER (dBm)

LTE Band 4(ANT 2)						
BW	Modulation	RB Size	RB Offset	Low	Mid	High
		Channel		20050	20175	20300
		Frequency (MHz)		1720	1732.5	1745
20M	QPSK	1	0	23.71	23.62	23.63
		1	50	23.63	23.51	23.65
		1	99	23.79	23.64	23.70
		50	0	22.66	22.65	22.61
		50	25	22.68	22.61	22.55
		50	50	22.71	22.66	22.62
		100	0	22.63	22.56	22.60
	16QAM	1	0	22.83	22.72	22.81
		1	50	22.76	22.66	22.71
		1	99	22.91	22.86	22.83
		50	0	21.65	21.53	21.56
		50	25	21.69	21.55	21.54
		50	50	21.68	21.58	21.62
		100	0	21.61	21.54	21.63
	64QAM	1	0	21.82	21.64	21.71
		1	50	21.46	21.35	21.44
		1	99	21.77	21.69	21.72
		50	0	20.72	20.60	20.63
		50	25	20.68	20.56	20.62
		50	50	20.65	20.71	20.69
		100	0	20.61	20.67	20.71
	256QAM	1	0	18.83	18.81	18.77
		1	50	18.76	18.82	18.85
		1	99	18.87	18.84	18.86
		50	0	18.86	18.64	18.62
		50	25	18.71	18.65	18.64
		50	50	18.67	18.58	18.54
		100	0	18.72	18.67	18.66
BW	Modulation	Channel		20025	20175	20325
		Frequency (MHz)		1717.5	1732.5	1747.5
15M	QPSK	1	0	23.67	23.48	23.61
		1	37	23.55	23.48	23.57
		1	74	23.78	23.53	23.65
		36	0	22.58	22.60	22.58
		36	19	22.55	22.58	22.47
		36	39	22.56	22.64	22.53
		75	0	22.53	22.46	22.49
	16QAM	1	0	22.81	22.68	22.69



		1	37	22.64	22.62	22.59
		1	74	22.77	22.75	22.82
		36	0	21.60	21.41	21.47
		36	19	21.66	21.42	21.45
		36	39	21.62	21.44	21.60
		75	0	21.48	21.50	21.53
	64QAM	1	0	21.69	21.53	21.59
		1	37	21.39	21.23	21.29
		1	74	21.75	21.60	21.63
		36	0	20.65	20.52	20.49
		36	19	20.67	20.52	20.57
		36	39	20.57	20.70	20.63
		75	0	20.51	20.65	20.65
	256QAM	1	0	18.82	18.76	18.67
		1	37	18.64	18.81	18.82
		1	74	18.75	18.71	18.75
		36	0	18.73	18.63	18.59
		36	19	18.67	18.50	18.60
		36	39	18.56	18.57	18.51
		75	0	18.58	18.54	18.55
BW	Modulation	Channel		20000	20175	20350
		Frequency (MHz)		1715	1732.5	1750
10M	QPSK	1	0	23.58	23.50	23.62
		1	24	23.59	23.37	23.50
		1	49	23.76	23.52	23.55
		25	0	22.64	22.50	22.60
		25	12	22.56	22.54	22.48
		25	25	22.61	22.57	22.48
		50	0	22.56	22.53	22.46
	16QAM	1	0	22.75	22.63	22.69
		1	24	22.63	22.53	22.64
		1	49	22.79	22.84	22.69
		25	0	21.59	21.41	21.55
		25	12	21.56	21.44	21.43
		25	25	21.65	21.52	21.50
		50	0	21.50	21.52	21.53
	64QAM	1	0	21.67	21.52	21.68
		1	24	21.35	21.26	21.40
		1	49	21.75	21.60	21.57
		25	0	20.63	20.46	20.53
		25	12	20.61	20.42	20.61
		25	25	20.62	20.62	20.59
		50	0	20.47	20.63	20.60
	256QAM	1	0	18.75	18.69	18.75
		1	24	18.74	18.73	18.73
		1	49	18.74	18.79	18.81



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		25	0	18.80	18.50	18.60
		25	12	18.68	18.53	18.53
		25	25	18.66	18.54	18.51
		50	0	18.63	18.63	18.63
BW	Modulation	Channel		19975	20175	20375
		Frequency (MHz)		1712.5	1732.5	1752.5
5M	QPSK	1	0	23.65	23.61	23.59
		1	12	23.58	23.40	23.58
		1	24	23.74	23.57	23.56
		12	0	22.60	22.59	22.46
		12	6	22.65	22.57	22.44
		12	13	22.65	22.65	22.60
		25	0	22.55	22.44	22.52
	16QAM	1	0	22.69	22.67	22.73
		1	12	22.63	22.56	22.67
		1	24	22.76	22.84	22.71
		12	0	21.52	21.38	21.49
		12	6	21.58	21.40	21.40
		12	13	21.53	21.43	21.61
		25	0	21.46	21.50	21.61
	64QAM	1	0	21.78	21.56	21.59
		1	12	21.44	21.25	21.38
		1	24	21.62	21.54	21.68
		12	0	20.62	20.48	20.53
		12	6	20.55	20.43	20.52
		12	13	20.59	20.62	20.68
		25	0	20.48	20.59	20.65
	256QAM	1	0	18.69	18.70	18.72
		1	12	18.68	18.81	18.78
		1	24	18.79	18.71	18.79
		12	0	18.78	18.52	18.58
		12	6	18.65	18.58	18.59
		12	13	18.63	18.54	18.44
		25	0	18.66	18.59	18.59
BW	Modulation	Channel		19965	20175	20385
		Frequency (MHz)		1711.5	1732.5	1753.5
3M	QPSK	1	0	23.61	23.48	23.53
		1	7	23.57	23.44	23.51
		1	14	23.69	23.58	23.61
		8	0	22.63	22.55	22.47
		8	3	22.54	22.48	22.46
		8	7	22.57	22.61	22.47
		15	0	22.48	22.54	22.53
	16QAM	1	0	22.74	22.64	22.69
		1	7	22.63	22.62	22.63
		1	14	22.90	22.71	22.73

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		8	0	21.52	21.50	21.55
		8	3	21.65	21.52	21.39
		8	7	21.65	21.43	21.52
		15	0	21.59	21.51	21.60
	64QAM	1	0	21.80	21.60	21.59
		1	7	21.37	21.26	21.35
		1	14	21.68	21.54	21.59
		8	0	20.58	20.51	20.57
		8	3	20.55	20.51	20.56
		8	7	20.54	20.63	20.56
		15	0	20.60	20.54	20.59
	256QAM	1	0	18.70	18.74	18.74
		1	7	18.64	18.76	18.77
		1	14	18.77	18.83	18.72
		8	0	18.81	18.59	18.60
		8	3	18.67	18.59	18.55
		8	7	18.60	18.56	18.51
		15	0	18.66	18.61	18.52
BW	Modulation	Channel		19957	20175	20393
		Frequency (MHz)		1710.7	1732.5	1754.3
1.4M	QPSK	1	0	23.57	23.59	23.52
		1	2	23.57	23.46	23.63
		1	5	23.78	23.61	23.66
		3	0	23.58	23.49	23.58
		3	1	23.61	23.39	23.51
		3	3	23.65	23.57	23.61
		6	0	22.50	22.46	22.46
	16QAM	1	0	22.58	22.53	22.49
		1	2	22.59	22.60	22.40
		1	5	22.66	22.58	22.48
		3	0	22.60	22.49	22.51
		3	1	22.58	22.54	22.53
		3	3	22.53	22.52	22.43
		6	0	21.53	21.52	21.53
	64QAM	1	0	21.81	21.62	21.68
		1	2	21.32	21.32	21.34
		1	5	21.76	21.58	21.65
		3	0	21.60	21.51	21.43
		3	1	21.68	21.41	21.50
		3	3	21.53	21.49	21.49
		6	0	20.52	20.58	20.64
	256QAM	1	0	18.82	18.79	18.74
		1	2	18.68	18.80	18.70
		1	5	18.74	18.83	18.75
		3	0	18.76	18.58	18.49
		3	1	18.70	18.56	18.63



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		3	3	18.52	18.55	18.48
		6	0	18.64	18.58	18.56



LTE Band 38(ANT 0)						
BW	Modulation	RB Size	RB Offset	Low	Mid	High
		Channel		37850	38000	38150
		Frequency (MHz)		2580	2595	2610
20M	QPSK	1	0	23.95	23.88	23.83
		1	50	23.92	23.75	23.76
		1	99	23.75	23.59	23.68
		50	0	23.00	22.97	22.91
		50	25	22.91	22.84	22.93
		50	50	22.84	22.77	22.82
		100	0	22.89	22.82	22.87
	16QAM	1	0	23.01	22.95	22.87
		1	50	22.92	22.86	22.83
		1	99	22.71	22.62	22.66
		50	0	22.03	21.95	21.93
		50	25	21.95	21.87	21.91
		50	50	21.86	21.81	21.85
		100	0	21.89	21.85	21.89
	64QAM	1	0	22.05	22.11	21.80
		1	50	22.04	22.02	21.95
		1	99	21.83	21.75	21.84
		50	0	21.04	20.98	20.92
		50	25	20.95	20.90	20.85
		50	50	20.87	20.79	20.78
		100	0	20.89	20.86	20.88
	256QAM	1	0	19.11	19.03	18.92
		1	50	18.88	18.82	18.83
		1	99	18.80	18.68	18.77
		50	0	19.02	18.95	18.89
		50	25	18.95	18.86	18.78
		50	50	18.91	18.79	18.76
		100	0	18.93	18.83	18.83
BW	Modulation	Channel		37825	38000	38175
		Frequency (MHz)		2577.5	2595	2612.5
15M	QPSK	1	0	23.92	23.80	23.71
		1	37	23.78	23.61	23.66
		1	74	23.67	23.58	23.56
		36	0	22.91	22.95	22.76
		36	19	22.77	22.82	22.88
		36	39	22.71	22.72	22.80
		75	0	22.79	22.74	22.79
	16QAM	1	0	22.95	22.88	22.76
		1	37	22.83	22.84	22.82
		1	74	22.68	22.49	22.60
		36	0	22.00	21.82	21.82



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		36	19	21.92	21.82	21.81
		36	39	21.71	21.75	21.71
		75	0	21.82	21.71	21.82
	64QAM	1	0	21.91	22.09	21.77
		1	37	22.01	22.01	21.80
		1	74	21.81	21.72	21.69
		36	0	20.99	20.85	20.79
		36	19	20.83	20.83	20.76
		36	39	20.79	20.74	20.71
		75	0	20.81	20.84	20.82
	256QAM	1	0	19.07	18.90	18.86
		1	37	18.75	18.80	18.73
		1	74	18.76	18.62	18.65
		36	0	19.00	18.94	18.85
		36	19	18.81	18.82	18.68
		36	39	18.87	18.76	18.72
		75	0	18.78	18.72	18.69
BW	Modulation	Channel		37800	38000	38200
		Frequency (MHz)		2575	2595	2615
10M	QPSK	1	0	23.88	23.81	23.68
		1	24	23.77	23.69	23.75
		1	49	23.66	23.48	23.53
		25	0	22.89	22.93	22.80
		25	12	22.88	22.71	22.86
		25	25	22.80	22.62	22.67
		50	0	22.79	22.69	22.79
	16QAM	1	0	22.88	22.87	22.82
		1	24	22.80	22.72	22.82
		1	49	22.59	22.60	22.60
		25	0	22.00	21.94	21.83
		25	12	21.93	21.85	21.87
		25	25	21.85	21.74	21.75
		50	0	21.77	21.82	21.83
	64QAM	1	0	21.97	21.99	21.70
		1	24	21.95	21.96	21.82
		1	49	21.79	21.69	21.76
		25	0	21.00	20.87	20.90
		25	12	20.88	20.88	20.82
		25	25	20.80	20.68	20.74
		50	0	20.85	20.78	20.80
	256QAM	1	0	19.05	18.99	18.89
		1	24	18.83	18.78	18.78
		1	49	18.69	18.54	18.62
		25	0	19.00	18.92	18.85
		25	12	18.81	18.80	18.70
		25	25	18.85	18.66	18.62

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		50	0	18.78	18.68	18.77
BW	Modulation	Channel		37775	38000	38225
		Frequency (MHz)		2572.5	2595	2617.5
5M	QPSK	1	0	23.93	23.84	23.81
		1	12	23.87	23.67	23.75
		1	24	23.71	23.56	23.62
		12	0	22.93	22.94	22.76
		12	6	22.85	22.76	22.90
		12	13	22.83	22.71	22.73
		25	0	22.82	22.81	22.83
	16QAM	1	0	22.91	22.88	22.85
		1	12	22.78	22.80	22.81
		1	24	22.59	22.49	22.62
		12	0	21.90	21.82	21.78
		12	6	21.89	21.85	21.82
		12	13	21.85	21.67	21.77
		25	0	21.85	21.71	21.79
	64QAM	1	0	21.90	21.99	21.78
		1	12	22.03	21.98	21.82
		1	24	21.79	21.63	21.79
		12	0	20.93	20.93	20.84
		12	6	20.94	20.79	20.80
		12	13	20.86	20.73	20.77
		25	0	20.86	20.74	20.76
	256QAM	1	0	19.05	18.93	18.77
		1	12	18.77	18.76	18.70
		1	24	18.68	18.54	18.62
		12	0	18.89	18.87	18.81
		12	6	18.88	18.74	18.71
		12	13	18.82	18.71	18.63
		25	0	18.80	18.70	18.70



LTE Band 41 PC3(ANT 0)								
BW	Modulation	RB Size	RB Offset	Low	Low Mid	Mid	High Mid	High
		Channel		39750	40185	40620	41055	41490
		Frequency (MHz)		2506	2549.5	2593	2636.5	2680
20M	QPSK	1	0	22.24	22.43	22.46	22.21	22.56
		1	50	22.19	22.40	22.36	22.13	22.52
		1	99	22.13	22.34	22.29	22.19	22.49
		50	0	21.26	21.47	21.51	21.21	21.62
		50	25	21.32	21.54	21.53	21.36	21.64
		50	50	21.27	21.47	21.36	21.30	21.60
		100	0	21.29	21.42	21.38	21.26	21.56
	16QAM	1	0	21.22	21.35	21.43	21.14	21.55
		1	50	21.17	21.39	21.36	21.10	21.51
		1	99	21.06	21.28	21.30	21.23	21.44
		50	0	20.22	20.43	20.51	20.19	20.61
		50	25	20.29	20.47	20.43	20.26	20.66
		50	50	20.25	20.41	20.36	20.24	20.62
		100	0	20.26	20.38	20.40	20.27	20.60
	64QAM	1	0	20.32	20.45	20.53	20.35	20.65
		1	50	20.39	20.47	20.45	20.32	20.61
		1	99	20.19	20.40	20.38	20.27	20.66
		50	0	19.21	19.42	19.51	19.18	19.59
		50	25	19.27	19.52	19.42	19.25	19.64
		50	50	19.22	19.47	19.36	19.20	19.60
		100	0	19.26	19.38	19.39	19.26	19.56
	256QAM	1	0	17.18	17.43	17.62	17.21	17.62
		1	50	17.27	17.44	17.44	17.18	17.49
		1	99	17.23	17.38	17.27	17.28	17.56
		50	0	17.24	17.47	17.56	17.22	17.63
		50	25	17.31	17.52	17.46	17.30	17.72
		50	50	17.26	17.50	17.39	17.25	17.68
		100	0	17.32	17.43	17.42	17.31	17.61
BW	Modulation	Channel		39725	40173	40620	41068	41515
		Frequency (MHz)		2503.5	2548.3	2593	2637.8	2682.5
15M	QPSK	1	0	22.13	22.28	22.34	22.09	22.42
		1	37	22.08	22.32	22.28	22.01	22.38
		1	74	22.06	22.21	22.22	22.04	22.41
		36	0	21.13	21.38	21.46	21.11	21.52
		36	19	21.18	21.44	21.37	21.26	21.60
		36	39	21.25	21.38	21.29	21.29	21.49
		75	0	21.20	21.31	21.24	21.22	21.44
	16QAM	1	0	21.19	21.27	21.35	21.12	21.40
		1	37	21.02	21.36	21.29	21.05	21.43
		1	74	21.02	21.26	21.16	21.17	21.37
		36	0	20.09	20.39	20.48	20.06	20.53



		36	19	20.15	20.46	20.32	20.13	20.62
		36	39	20.19	20.40	20.26	20.21	20.48
		75	0	20.11	20.36	20.35	20.16	20.54
	64QAM	1	0	20.31	20.32	20.49	20.20	20.51
		1	37	20.37	20.43	20.39	20.29	20.52
		1	74	20.04	20.29	20.29	20.26	20.65
		36	0	19.15	19.36	19.37	19.11	19.56
		36	19	19.23	19.48	19.39	19.24	19.62
		36	39	19.13	19.36	19.25	19.19	19.57
		75	0	19.21	19.32	19.30	19.11	19.42
	256QAM	1	0	17.16	17.39	17.47	17.14	17.60
		1	37	17.17	17.34	17.35	17.07	17.46
		1	74	17.08	17.34	17.25	17.23	17.42
		36	0	17.19	17.43	17.54	17.13	17.50
		36	19	17.24	17.43	17.41	17.21	17.70
		36	39	17.19	17.38	17.34	17.13	17.65
		75	0	17.20	17.33	17.37	17.17	17.60
BW	Modulation	Channel		39700	40160	40620	41080	41540
		Frequency (MHz)		2501	2547	2593	2639	2685
10M	QPSK	1	0	22.15	22.41	22.31	22.07	22.53
		1	24	22.16	22.37	22.33	22.07	22.46
		1	49	22.08	22.28	22.28	22.10	22.48
		25	0	21.12	21.39	21.43	21.15	21.48
		25	12	21.21	21.46	21.36	21.33	21.52
		25	25	21.16	21.44	21.22	21.20	21.58
		50	0	21.27	21.32	21.27	21.19	21.54
	16QAM	1	0	21.07	21.27	21.36	21.12	21.43
		1	24	21.03	21.25	21.24	21.06	21.48
		1	49	21.05	21.16	21.27	21.14	21.34
		25	0	20.21	20.41	20.37	20.17	20.47
		25	12	20.21	20.44	20.29	20.25	20.52
		25	25	20.20	20.30	20.26	20.21	20.56
		50	0	20.24	20.30	20.25	20.12	20.45
	64QAM	1	0	20.18	20.44	20.46	20.22	20.57
		1	24	20.30	20.35	20.39	20.17	20.46
		1	49	20.08	20.30	20.37	20.16	20.65
		25	0	19.11	19.38	19.44	19.13	19.49
		25	12	19.12	19.41	19.31	19.11	19.49
		25	25	19.14	19.38	19.21	19.09	19.51
		50	0	19.23	19.26	19.29	19.16	19.51
	256QAM	1	0	17.14	17.35	17.55	17.11	17.47
		1	24	17.15	17.36	17.36	17.12	17.46
		1	49	17.21	17.25	17.16	17.13	17.49
		25	0	17.21	17.43	17.50	17.10	17.61
		25	12	17.20	17.46	17.36	17.19	17.68
		25	25	17.17	17.42	17.34	17.23	17.65



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		50	0	17.17	17.35	17.32	17.17	17.52
BW	Modulation	Channel		39675	40148	40620	41093	41565
		Frequency (MHz)		2498.5	2545.8	2593	2640.3	2687.5
5M	QPSK	1	0	22.15	22.36	22.34	22.20	22.52
		1	12	22.06	22.30	22.30	22.11	22.45
		1	24	22.06	22.25	22.16	22.06	22.40
		12	0	21.15	21.36	21.43	21.19	21.58
		12	6	21.27	21.47	21.33	21.25	21.63
		12	13	21.12	21.36	21.24	21.25	21.55
		25	0	21.23	21.32	21.30	21.17	21.47
	16QAM	1	0	21.07	21.25	21.32	21.08	21.47
		1	12	21.12	21.36	21.32	21.05	21.45
		1	24	21.09	21.21	21.28	21.09	21.39
		12	0	20.12	20.32	20.41	20.09	20.60
		12	6	20.26	20.44	20.35	20.15	20.65
		12	13	20.11	20.39	20.30	20.09	20.51
		25	0	20.25	20.31	20.31	20.16	20.49
	64QAM	1	0	20.30	20.35	20.44	20.32	20.57
		1	12	20.25	20.36	20.43	20.24	20.59
		1	24	20.13	20.27	20.31	20.20	20.64
		12	0	19.18	19.37	19.50	19.03	19.45
		12	6	19.22	19.43	19.41	19.21	19.54
		12	13	19.11	19.38	19.30	19.15	19.53
		25	0	19.21	19.25	19.37	19.14	19.44
	256QAM	1	0	17.15	17.35	17.49	17.14	17.50
		1	12	17.15	17.35	17.39	17.13	17.47
		1	24	17.13	17.26	17.13	17.19	17.42
		12	0	17.11	17.40	17.49	17.14	17.56
		12	6	17.23	17.41	17.41	17.26	17.63
		12	13	17.11	17.46	17.38	17.24	17.65
		25	0	17.28	17.28	17.35	17.16	17.47



LTE Band 41 PC2(ANT 0)								
BW	Modulation	RB Size	RB Offset	Low	Low Mid	Mid	High Mid	High
		Channel		39750	40185	40620	41055	41490
		Frequency (MHz)		2506	2549.5	2593	2636.5	2680
20M	QPSK	1	0	24.79	24.78	24.95	24.59	25.19
		1	50	24.75	24.75	24.83	24.51	25.08
		1	99	24.67	24.65	24.78	24.57	25.14
		50	0	23.89	23.81	24.01	23.63	24.18
		50	25	23.93	23.89	24.04	23.72	24.28
		50	50	23.89	23.88	23.86	23.68	24.25
		100	0	23.91	23.80	23.91	23.71	24.19
	16QAM	1	0	24.15	24.10	24.11	23.89	24.31
		1	50	24.02	24.08	24.04	23.83	24.36
		1	99	23.98	24.02	24.09	23.91	24.41
		50	0	22.89	22.85	23.02	22.63	23.20
		50	25	22.96	22.82	22.94	22.69	23.28
		50	50	22.91	22.87	22.88	22.73	23.26
		100	0	22.94	22.79	22.91	22.71	23.18
	64QAM	1	0	23.22	23.18	23.28	23.15	23.59
		1	50	23.19	23.16	23.24	23.09	23.53
		1	99	23.08	23.05	23.23	23.02	23.61
		50	0	21.88	21.83	21.98	21.63	22.21
		50	25	21.97	21.81	21.93	21.73	22.27
		50	50	21.92	21.86	21.94	21.71	22.24
		100	0	21.96	21.82	21.89	21.72	22.20
	256QAM	1	0	20.06	20.02	20.15	19.88	20.37
		1	50	20.08	20.12	20.10	19.83	20.45
		1	99	20.02	20.04	20.03	19.96	20.48
		50	0	19.96	19.95	20.06	19.70	20.29
		50	25	20.01	19.92	19.99	19.81	20.35
		50	50	19.99	19.97	19.94	19.69	20.33
		100	0	19.98	19.92	19.98	19.75	20.27
BW	Modulation	Channel		39725	40173	40620	41068	41515
		Frequency (MHz)		2503.5	2548.3	2593	2637.8	2682.5
15M	QPSK	1	0	24.75	24.76	24.87	24.56	25.06
		1	37	24.69	24.68	24.78	24.48	24.94
		1	74	24.61	24.56	24.70	24.49	25.02
		36	0	23.76	23.80	23.93	23.48	24.13
		36	19	23.83	23.80	23.76	23.58	24.26
		36	39	23.81	23.87	23.71	23.54	24.13
		75	0	23.85	23.78	23.82	23.62	24.04
	16QAM	1	0	24.11	24.01	24.06	23.86	24.18
		1	37	23.97	24.07	23.96	23.77	24.33
		1	74	23.88	23.92	24.07	23.81	24.33



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		36	0	22.78	22.73	22.87	22.54	23.19
		36	19	22.90	22.72	22.79	22.68	23.16
		36	39	22.90	22.78	22.87	22.71	23.13
		75	0	22.90	22.70	22.76	22.65	23.13
	64QAM	1	0	23.08	23.13	23.14	23.09	23.49
		1	37	23.17	23.11	23.15	22.94	23.52
		1	74	22.97	22.93	23.15	22.98	23.47
		36	0	21.74	21.80	21.84	21.49	22.11
		36	19	21.89	21.66	21.83	21.62	22.20
		36	39	21.80	21.74	21.83	21.66	22.15
		75	0	21.91	21.67	21.86	21.71	22.19
	256QAM	1	0	20.04	19.89	20.05	19.78	20.27
		1	37	20.06	20.02	20.00	19.78	20.41
		1	74	19.97	19.91	19.95	19.84	20.35
		36	0	19.86	19.82	19.99	19.63	20.17
		36	19	19.94	19.78	19.97	19.73	20.30
		36	39	19.89	19.89	19.93	19.56	20.21
		75	0	19.92	19.90	19.91	19.71	20.14
BW	Modulation	Channel		39700	40160	40620	41080	41540
		Frequency (MHz)		2501	2547	2593	2639	2685
10M	QPSK	1	0	24.68	24.74	24.82	24.45	25.05
		1	24	24.74	24.61	24.79	24.43	25.02
		1	49	24.57	24.64	24.73	24.50	25.01
		25	0	23.74	23.67	23.88	23.52	24.05
		25	12	23.80	23.82	23.87	23.57	24.26
		25	25	23.80	23.74	23.85	23.54	24.12
		50	0	23.83	23.75	23.83	23.68	24.05
	16QAM	1	0	24.00	24.00	23.96	23.79	24.24
		1	24	23.92	23.99	23.95	23.82	24.28
		1	49	23.92	23.93	24.06	23.84	24.35
		25	0	22.85	22.73	22.90	22.58	23.14
		25	12	22.92	22.81	22.84	22.64	23.22
		25	25	22.78	22.75	22.83	22.71	23.22
		50	0	22.82	22.77	22.89	22.58	23.16
	64QAM	1	0	23.19	23.07	23.13	23.07	23.48
		1	24	23.05	23.12	23.20	22.97	23.43
		1	49	22.99	22.91	23.09	22.91	23.57
		25	0	21.83	21.82	21.90	21.52	22.18
		25	12	21.90	21.70	21.78	21.63	22.23
		25	25	21.82	21.81	21.93	21.64	22.14
		50	0	21.84	21.70	21.84	21.59	22.15
	256QAM	1	0	19.92	19.98	20.12	19.83	20.25
		1	24	20.01	19.98	20.02	19.82	20.30
		1	49	19.99	19.96	19.93	19.81	20.34
		25	0	19.81	19.87	20.03	19.63	20.20
		25	12	20.00	19.86	19.90	19.76	20.34



		25	25	19.95	19.95	19.92	19.66	20.22
		50	0	19.94	19.91	19.96	19.67	20.20
BW	Modulation	Channel		39675	40148	40620	41093	41565
		Frequency (MHz)		2498.5	2545.8	2593	2640.3	2687.5
5M	QPSK	1	0	24.70	24.73	24.81	24.58	25.17
		1	12	24.73	24.74	24.80	24.43	25.04
		1	24	24.52	24.55	24.67	24.51	25.00
		12	0	23.79	23.71	24.00	23.53	24.16
		12	6	23.85	23.87	23.78	23.68	24.21
		12	13	23.83	23.81	23.83	23.58	24.11
		25	0	23.87	23.72	23.77	23.70	24.14
	16QAM	1	0	24.09	23.98	24.01	23.80	24.24
		1	12	23.97	23.98	23.89	23.71	24.30
		1	24	23.94	23.98	23.98	23.82	24.38
		12	0	22.77	22.75	22.87	22.61	23.09
		12	6	22.87	22.73	22.81	22.58	23.15
		12	13	22.81	22.75	22.77	22.61	23.11
		25	0	22.90	22.78	22.86	22.67	23.08
	64QAM	1	0	23.11	23.15	23.13	23.02	23.44
		1	12	23.18	23.10	23.13	22.99	23.45
		1	24	22.93	23.04	23.08	22.95	23.48
		12	0	21.83	21.82	21.85	21.53	22.14
		12	6	21.87	21.76	21.87	21.66	22.17
		12	13	21.91	21.77	21.83	21.58	22.13
		25	0	21.82	21.73	21.86	21.57	22.11
	256QAM	1	0	19.98	19.96	20.14	19.84	20.36
		1	12	20.02	20.04	20.04	19.82	20.39
		1	24	19.97	19.89	19.90	19.91	20.35
		12	0	19.89	19.87	20.04	19.67	20.14
		12	6	19.94	19.84	19.89	19.75	20.28
		12	13	19.94	19.89	19.89	19.63	20.31
		25	0	19.92	19.83	19.96	19.63	20.13



LTE band 42 Part 27Q(ANT 7)						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		42190	42590	42990
		Frequency (MHz)		3460	3500	3540
20M	QPSK	1	0	23.78	23.76	23.61
		1	50	23.57	23.74	23.53
		1	99	23.63	23.60	23.46
		50	0	22.80	22.79	22.77
		50	25	22.72	22.70	22.69
		50	50	22.60	22.75	22.68
		100	0	22.74	22.73	22.68
	16QAM	1	0	22.71	22.70	22.73
		1	50	22.65	22.79	22.54
		1	99	22.64	22.73	22.35
		50	0	21.71	21.79	21.76
		50	25	21.74	21.82	21.72
		50	50	21.62	21.82	21.67
		100	0	21.64	21.69	21.65
	64QAM	1	0	21.58	21.72	21.71
		1	50	21.44	21.84	21.61
		1	99	21.43	21.71	21.52
		50	0	20.68	20.81	20.69
		50	25	20.58	20.74	20.73
		50	50	20.63	20.83	20.69
		100	0	20.62	20.69	20.71
	256QAM	1	0	18.93	18.90	18.91
		1	50	18.84	18.88	18.89
		1	99	18.91	18.84	18.68
		50	0	18.96	18.97	19.00
		50	25	18.94	18.98	18.93
		50	50	18.92	18.96	18.87
		100	0	18.96	18.90	18.94
BW	MCS Index	Channel		42165	42590	43015
		Frequency (MHz)		3457.5	3500	3542.5
15M	QPSK	1	0	23.76	23.62	23.60
		1	37	23.46	23.72	23.48
		1	74	23.62	23.55	23.40
		36	0	22.61	22.73	22.64
		36	19	22.66	22.61	22.55
		36	39	22.53	22.74	22.61
		75	0	22.50	22.60	22.60
	16QAM	1	0	22.61	22.69	22.72
		1	37	22.63	22.76	22.42
		1	74	22.53	22.61	22.32



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		36	0	21.66	21.76	21.74
		36	19	21.64	21.73	21.68
		36	39	21.54	21.80	21.60
		75	0	21.55	21.61	21.60
	64QAM	1	0	21.43	21.63	21.67
		1	37	21.42	21.80	21.55
		1	74	21.37	21.63	21.46
		36	0	20.64	20.70	20.68
		36	19	20.47	20.71	20.68
		36	39	20.49	20.70	20.58
		75	0	20.52	20.62	20.70
		1	0	18.89	18.79	18.78
	256QAM	1	37	18.70	18.84	18.78
		1	74	18.86	18.79	18.58
		36	0	18.82	18.84	18.93
		36	19	18.93	18.87	18.85
		36	39	18.86	18.95	18.72
		75	0	18.91	18.85	18.82
BW	MCS Index	Channel		42140	42590	43040
		Frequency (MHz)		3455	3500	3545
10M	QPSK	1	0	23.71	23.62	23.46
		1	24	23.45	23.62	23.45
		1	49	23.58	23.49	23.38
		25	0	22.67	22.72	22.76
		25	12	22.68	22.62	22.60
		25	25	22.51	22.71	22.58
		50	0	22.43	22.65	22.56
	16QAM	1	0	22.66	22.69	22.59
		1	24	22.58	22.74	22.39
		1	49	22.59	22.66	22.30
		25	0	21.67	21.77	21.74
		25	12	21.59	21.71	21.71
		25	25	21.57	21.75	21.62
		50	0	21.63	21.59	21.59
	64QAM	1	0	21.54	21.61	21.70
		1	24	21.33	21.75	21.46
		1	49	21.38	21.62	21.37
		25	0	20.58	20.76	20.57
		25	12	20.52	20.67	20.64
		25	25	20.60	20.74	20.62
		50	0	20.53	20.61	20.57
	256QAM	1	0	18.86	18.80	18.85
		1	24	18.71	18.73	18.88
		1	49	18.81	18.82	18.65
		25	0	18.83	18.93	18.89
		25	12	18.81	18.89	18.80



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		25	25	18.90	18.94	18.76
		50	0	18.84	18.75	18.85
BW	MCS Index	Channel		42115	42590	43065
		Frequency (MHz)		3452.5	3500	3547.5
5M	QPSK	1	0	23.72	23.59	23.58
		1	12	23.46	23.63	23.39
		1	24	23.56	23.57	23.31
		12	0	22.75	22.72	22.74
		12	6	22.63	22.65	22.60
		12	13	22.54	22.67	22.63
		25	0	22.42	22.63	22.56
	16QAM	1	0	22.67	22.66	22.58
		1	12	22.58	22.71	22.49
		1	24	22.54	22.67	22.33
		12	0	21.57	21.65	21.74
		12	6	21.62	21.78	21.57
		12	13	21.51	21.75	21.66
		25	0	21.49	21.56	21.62
	64QAM	1	0	21.48	21.67	21.58
		1	12	21.41	21.77	21.48
		1	24	21.40	21.65	21.44
		12	0	20.56	20.80	20.64
		12	6	20.55	20.68	20.59
		12	13	20.56	20.73	20.57
		25	0	20.57	20.55	20.59
	256QAM	1	0	18.82	18.79	18.81
		1	12	18.69	18.76	18.86
		1	24	18.90	18.70	18.53
		12	0	18.95	18.92	18.86
		12	6	18.89	18.92	18.79
		12	13	18.89	18.94	18.84
		25	0	18.87	18.89	18.88



LTE Band 66(ANT 2)						
BW	Modulation	RB Size	RB Offset	Low	Mid	High
		Channel		132072	132322	132572
		Frequency (MHz)		1720	1745	1770
20M	QPSK	1	0	23.79	23.77	23.66
		1	50	23.71	23.57	23.48
		1	99	23.64	23.68	23.54
		50	0	22.69	22.68	22.51
		50	25	22.71	22.70	22.49
		50	50	22.77	22.74	22.56
		100	0	22.74	22.59	22.45
	16QAM	1	0	22.79	22.75	22.72
		1	50	22.83	22.78	22.71
		1	99	22.81	22.86	22.79
		50	0	21.71	21.74	21.72
		50	25	21.66	21.63	21.61
		50	50	21.62	21.59	21.58
		100	0	21.69	21.65	21.63
	64QAM	1	0	21.82	21.85	21.94
		1	50	21.89	21.73	21.84
		1	99	21.73	21.62	21.73
		50	0	20.89	20.81	20.83
		50	25	20.73	20.67	20.71
		50	50	20.71	20.68	20.73
		100	0	20.73	20.69	20.72
	256QAM	1	0	18.79	18.78	18.74
		1	50	18.81	18.82	18.88
		1	99	18.85	18.71	18.76
		50	0	18.81	18.73	18.84
		50	25	18.73	18.68	18.71
		50	50	18.71	18.69	18.76
		100	0	18.61	18.65	18.69
BW	Modulation	Channel		132047	132322	132597
		Frequency (MHz)		1717.5	1745	1772.5
15M	QPSK	1	0	23.70	23.64	23.52
		1	37	23.50	23.51	23.30
		1	74	23.50	23.48	23.39
		36	0	22.42	22.49	22.33
		36	19	22.49	22.53	22.28
		36	39	22.61	22.43	22.18
		75	0	22.51	22.46	22.28
	16QAM	1	0	22.68	22.67	22.59
		1	37	22.65	22.57	22.57
		1	74	22.61	22.67	22.70



		36	0	21.55	21.53	21.55
		36	19	21.46	21.45	21.53
		36	39	21.38	21.38	21.48
		75	0	21.61	21.49	21.42
	64QAM	1	0	21.76	21.79	21.70
		1	37	21.83	21.45	21.63
		1	74	21.46	21.56	21.51
		36	0	20.75	20.51	20.72
		36	19	20.57	20.49	20.50
		36	39	20.59	20.53	20.56
		75	0	20.53	20.49	20.50
	256QAM	1	0	18.60	18.56	18.54
		1	37	18.75	18.80	18.73
		1	74	18.69	18.52	18.54
		36	0	18.59	18.53	18.61
		36	19	18.58	18.57	18.44
		36	39	18.67	18.41	18.49
		75	0	18.38	18.44	18.46
BW	Modulation	Channel		132022	132322	132622
		Frequency (MHz)		1715	1745	1775
10M	QPSK	1	0	23.70	23.58	23.63
		1	24	23.49	23.41	23.28
		1	49	23.45	23.43	23.42
		25	0	22.49	22.61	22.27
		25	12	22.48	22.54	22.26
		25	25	22.62	22.43	22.16
		50	0	22.54	22.44	22.31
	16QAM	1	0	22.58	22.65	22.57
		1	24	22.66	22.60	22.55
		1	49	22.66	22.69	22.62
		25	0	21.54	21.59	21.55
		25	12	21.44	21.49	21.50
		25	25	21.35	21.42	21.48
		50	0	21.51	21.59	21.51
	64QAM	1	0	21.79	21.76	21.79
		1	24	21.83	21.48	21.72
		1	49	21.50	21.47	21.51
		25	0	20.72	20.63	20.64
		25	12	20.47	20.56	20.49
		25	25	20.58	20.48	20.54
		50	0	20.54	20.56	20.53
	256QAM	1	0	18.63	18.61	18.65
		1	24	18.82	18.82	18.71
		1	49	18.70	18.48	18.67
		25	0	18.59	18.49	18.58
		25	12	18.51	18.53	18.47



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		25	25	18.64	18.45	18.49
		50	0	18.47	18.53	18.57
BW	Modulation	Channel		131997	132322	132647
		Frequency (MHz)		1712.5	1745	1777.5
5M	QPSK	1	0	23.70	23.56	23.50
		1	12	23.49	23.50	23.28
		1	24	23.42	23.44	23.36
		12	0	22.52	22.57	22.36
		12	6	22.47	22.63	22.34
		12	13	22.64	22.47	22.21
		25	0	22.46	22.50	22.29
	16QAM	1	0	22.60	22.61	22.54
		1	12	22.67	22.62	22.56
		1	24	22.62	22.75	22.74
		12	0	21.43	21.54	21.57
		12	6	21.49	21.53	21.52
		12	13	21.37	21.35	21.49
		25	0	21.48	21.52	21.40
	64QAM	1	0	21.76	21.79	21.77
		1	12	21.78	21.51	21.60
		1	24	21.47	21.45	21.55
		12	0	20.73	20.57	20.70
		12	6	20.49	20.54	20.51
		12	13	20.57	20.53	20.64
		25	0	20.62	20.46	20.60
	256QAM	1	0	18.60	18.55	18.56
		1	12	18.83	18.77	18.73
		1	24	18.77	18.57	18.56
		12	0	18.63	18.47	18.67
		12	6	18.55	18.58	18.45
		12	13	18.59	18.42	18.49
		25	0	18.38	18.45	18.53
BW	Modulation	Channel		131987	132322	132657
		Frequency (MHz)		1711.5	1745	1778.5
3M	QPSK	1	0	23.67	23.57	23.55
		1	7	23.43	23.43	23.35
		1	14	23.48	23.53	23.37
		8	0	22.46	22.51	22.31
		8	3	22.59	22.52	22.30
		8	7	22.58	22.49	22.28
		15	0	22.51	22.48	22.33
	16QAM	1	0	22.67	22.65	22.55
		1	7	22.70	22.62	22.58
		1	14	22.62	22.70	22.74
		8	0	21.44	21.49	21.57
		8	3	21.49	21.44	21.49

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		8	7	21.32	21.34	21.48
		15	0	21.47	21.57	21.49
	64QAM	1	0	21.85	21.81	21.81
		1	7	21.85	21.57	21.69
		1	14	21.45	21.43	21.57
		8	0	20.69	20.62	20.68
		8	3	20.48	20.59	20.53
		8	7	20.54	20.48	20.63
		15	0	20.66	20.54	20.60
	256QAM	1	0	18.56	18.50	18.57
		1	7	18.78	18.86	18.70
		1	14	18.70	18.56	18.59
		8	0	18.66	18.49	18.58
		8	3	18.47	18.58	18.51
		8	7	18.60	18.47	18.50
		15	0	18.51	18.54	18.56
BW	Modulation	Channel		131979	132322	132665
		Frequency (MHz)		1710.7	1745	1779.3
1.4M	QPSK	1	0	23.70	23.57	23.56
		1	2	23.45	23.50	23.39
		1	5	23.50	23.42	23.47
		3	0	23.32	23.35	23.15
		3	1	23.38	23.32	23.06
		3	3	23.43	23.27	22.96
		6	0	22.58	22.48	22.23
	16QAM	1	0	22.61	22.64	22.53
		1	2	22.67	22.58	22.59
		1	5	22.68	22.71	22.61
		3	0	22.34	22.32	22.35
		3	1	22.23	22.26	22.31
		3	3	22.16	22.18	22.26
		6	0	21.59	21.56	21.42
	64QAM	1	0	21.76	21.75	21.75
		1	2	21.73	21.48	21.58
		1	5	21.46	21.46	21.52
		3	0	21.52	21.31	21.42
		3	1	21.34	21.25	21.36
		3	3	21.42	21.29	21.32
		6	0	20.66	20.55	20.54
	256QAM	1	0	18.66	18.59	18.54
		1	2	18.82	18.75	18.80
		1	5	18.74	18.47	18.58
		3	0	18.33	18.43	18.42
		3	1	18.32	18.39	18.27
		3	3	18.40	18.22	18.38
		6	0	18.38	18.50	18.58



EIRP

LTE Band 4_Ant 2							
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20M-QPSK	20050	1720	23.79	-1.2	22.59	181.55	1
	20175	1732.5	23.64	-1.2	22.44	175.39	1
	20300	1745	23.70	-1.2	22.50	177.83	1
20M-16QAM	20050	1720	22.91	-1.2	21.71	148.25	1
	20175	1732.5	22.86	-1.2	21.66	146.55	1
	20300	1745	22.83	-1.2	21.63	145.55	1
20M-64QAM	20050	1720	21.82	-1.2	20.62	115.35	1
	20175	1732.5	21.69	-1.2	20.49	111.94	1
	20300	1745	21.72	-1.2	20.52	112.72	1
20M- 256QAM	20050	1720	18.87	-1.2	17.67	58.48	1
	20175	1732.5	18.84	-1.2	17.64	58.08	1
	20300	1745	18.86	-1.2	17.66	58.34	1
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
15M-QPSK	20025	1717.5	23.78	-1.2	22.58	181.13	1
	20175	1732.5	23.53	-1.2	22.33	171.00	1
	20325	1747.5	23.65	-1.2	22.45	175.79	1
15M-16QAM	20025	1717.5	22.81	-1.2	21.61	144.88	1
	20175	1732.5	22.75	-1.2	21.55	142.89	1
	20325	1747.5	22.82	-1.2	21.62	145.21	1
15M-64QAM	20025	1717.5	21.75	-1.2	20.55	113.50	1
	20175	1732.5	21.60	-1.2	20.40	109.65	1
	20325	1747.5	21.63	-1.2	20.43	110.41	1
15M- 256QAM	20025	1717.5	18.82	-1.2	17.62	57.81	1
	20175	1732.5	18.81	-1.2	17.61	57.68	1
	20325	1747.5	18.82	-1.2	17.62	57.81	1
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
10M-QPSK	20000	1715	23.76	-1.2	22.56	180.30	1
	20175	1732.5	23.52	-1.2	22.32	170.61	1
	20350	1750	23.62	-1.2	22.42	174.58	1
10M-16QAM	20000	1715	22.79	-1.2	21.59	144.21	1
	20175	1732.5	22.84	-1.2	21.64	145.88	1
	20350	1750	22.69	-1.2	21.49	140.93	1



10M-64QAM	20000	1715	21.75	-1.2	20.55	113.50	1
	20175	1732.5	21.60	-1.2	20.40	109.65	1
	20350	1750	21.68	-1.2	20.48	111.69	1
10M-256QAM	20000	1715	18.80	-1.2	17.60	57.54	1
	20175	1732.5	18.79	-1.2	17.59	57.41	1
	20350	1750	18.81	-1.2	17.61	57.68	1
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
5M-QPSK	19975	1712.5	23.74	-1.2	22.54	179.47	1
	20175	1732.5	23.61	-1.2	22.41	174.18	1
	20375	1752.5	23.59	-1.2	22.39	173.38	1
5M-16QAM	19975	1712.5	22.76	-1.2	21.56	143.22	1
	20175	1732.5	22.84	-1.2	21.64	145.88	1
	20375	1752.5	22.73	-1.2	21.53	142.23	1
5M-64QAM	19975	1712.5	21.78	-1.2	20.58	114.29	1
	20175	1732.5	21.56	-1.2	20.36	108.64	1
	20375	1752.5	21.68	-1.2	20.48	111.69	1
5M-256QAM	19975	1712.5	18.79	-1.2	17.59	57.41	1
	20175	1732.5	18.81	-1.2	17.61	57.68	1
	20375	1752.5	18.79	-1.2	17.59	57.41	1
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
3M-QPSK	19965	1711.5	23.69	-1.2	22.49	177.42	1
	20175	1732.5	23.58	-1.2	22.38	172.98	1
	20385	1753.5	23.61	-1.2	22.41	174.18	1
3M-16QAM	19965	1711.5	22.90	-1.2	21.70	147.91	1
	20175	1732.5	22.71	-1.2	21.51	141.58	1
	20385	1753.5	22.73	-1.2	21.53	142.23	1
3M-64QAM	19965	1711.5	21.80	-1.2	20.60	114.82	1
	20175	1732.5	21.60	-1.2	20.40	109.65	1
	20385	1753.5	21.59	-1.2	20.39	109.40	1
3M-256QAM	19965	1711.5	18.81	-1.2	17.61	57.68	1
	20175	1732.5	18.83	-1.2	17.63	57.94	1
	20385	1753.5	18.77	-1.2	17.57	57.15	1
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
1.4M-QPSK	19957	1710.7	23.78	-1.2	22.58	181.13	1
	20175	1732.5	23.61	-1.2	22.41	174.18	1
	20393	1754.3	23.66	-1.2	22.46	176.20	1
1.4M-16QAM	19957	1710.7	22.66	-1.2	21.46	139.96	1
	20175	1732.5	22.60	-1.2	21.40	138.04	1



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	20393	1754.3	22.53	-1.2	21.33	135.83	1
1.4M-64QAM	19957	1710.7	21.81	-1.2	20.61	115.08	1
	20175	1732.5	21.62	-1.2	20.42	110.15	1
	20393	1754.3	21.68	-1.2	20.48	111.69	1
1.4M-256QAM	19957	1710.7	18.82	-1.2	17.62	57.81	1
	20175	1732.5	18.83	-1.2	17.63	57.94	1
	20393	1754.3	18.75	-1.2	17.55	56.89	1



LTE Band 38_Ant 0							
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20M-QPSK	37850	2580	23.95	0.74	24.69	294.44	2
	38000	2595	23.88	0.74	24.62	289.73	2
	38150	2610	23.83	0.74	24.57	286.42	2
20M- 16QAM	37850	2580	23.01	0.74	23.75	237.14	2
	38000	2595	22.95	0.74	23.69	233.88	2
	38150	2610	22.87	0.74	23.61	229.61	2
20M- 64QAM	37850	2580	22.05	0.74	22.79	190.11	2
	38000	2595	22.11	0.74	22.85	192.75	2
	38150	2610	21.95	0.74	22.69	185.78	2
20M- 256QAM	37850	2580	19.11	0.74	19.85	96.61	2
	38000	2595	19.03	0.74	19.77	94.84	2
	38150	2610	18.92	0.74	19.66	92.47	2
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
15M-QPSK	37825	2577.5	23.92	0.74	24.66	292.42	2
	38000	2595	23.80	0.74	24.54	284.45	2
	38175	2612.5	23.71	0.74	24.45	278.61	2
15M- 16QAM	37825	2577.5	22.95	0.74	23.69	233.88	2
	38000	2595	22.88	0.74	23.62	230.14	2
	38175	2612.5	22.82	0.74	23.56	226.99	2
15M- 64QAM	37825	2577.5	22.01	0.74	22.75	188.36	2
	38000	2595	22.09	0.74	22.83	191.87	2
	38175	2612.5	21.80	0.74	22.54	179.47	2
15M- 256QAM	37825	2577.5	19.07	0.74	19.81	95.72	2
	38000	2595	18.94	0.74	19.68	92.90	2
	38175	2612.5	18.86	0.74	19.60	91.20	2
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
10M-QPSK	37800	2575	23.88	0.74	24.62	289.73	2
	38000	2595	23.81	0.74	24.55	285.10	2
	38200	2615	23.75	0.74	24.49	281.19	2
10M- 16QAM	37800	2575	22.88	0.74	23.62	230.14	2
	38000	2595	22.87	0.74	23.61	229.61	2
	38200	2615	22.82	0.74	23.56	226.99	2
10M- 64QAM	37800	2575	21.97	0.74	22.71	186.64	2
	38000	2595	21.99	0.74	22.73	187.50	2
	38200	2615	21.82	0.74	22.56	180.30	2
	37800	2575	19.05	0.74	19.79	95.28	2



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10M-256QAM	38000	2595	18.99	0.74	19.73	93.97	2
	38200	2615	18.89	0.74	19.63	91.83	2
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
5M-QPSK	37775	2572.5	23.93	0.74	24.67	293.09	2
	38000	2595	23.84	0.74	24.58	287.08	2
	38225	2617.5	23.81	0.74	24.55	285.10	2
5M-16QAM	37775	2572.5	22.91	0.74	23.65	231.74	2
	38000	2595	22.88	0.74	23.62	230.14	2
	38225	2617.5	22.85	0.74	23.59	228.56	2
5M-64QAM	37775	2572.5	22.03	0.74	22.77	189.23	2
	38000	2595	21.99	0.74	22.73	187.50	2
	38225	2617.5	21.82	0.74	22.56	180.30	2
5M-256QAM	37775	2572.5	19.05	0.74	19.79	95.28	2
	38000	2595	18.93	0.74	19.67	92.68	2
	38225	2617.5	18.81	0.74	19.55	90.16	2



FCC_LTE Band 41_Ant 0 (PC3)							
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20M-QPSK	39750	2506	22.24	0.74	22.98	198.61	2
	40620	2593	22.46	0.74	23.20	208.93	2
	41490	2680	22.56	0.74	23.30	213.80	2
20M-16QAM	39750	2506	21.22	0.74	21.96	157.04	2
	40620	2593	21.43	0.74	22.17	164.82	2
	41490	2680	21.55	0.74	22.29	169.43	2
20M-64QAM	39750	2506	20.39	0.74	21.13	129.72	2
	40620	2593	20.53	0.74	21.27	133.97	2
	41490	2680	20.66	0.74	21.40	138.04	2
20M-256QAM	39750	2506	17.32	0.74	18.06	63.97	2
	40620	2593	17.62	0.74	18.36	68.55	2
	41490	2680	17.72	0.74	18.46	70.15	2
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
15M-QPSK	39725	2503.5	22.13	0.74	22.87	193.64	2
	40620	2593	22.34	0.74	23.08	203.24	2
	41515	2682.5	22.42	0.74	23.16	207.01	2
15M-16QAM	39725	2503.5	21.19	0.74	21.93	155.96	2
	40620	2593	21.35	0.74	22.09	161.81	2
	41515	2682.5	21.43	0.74	22.17	164.82	2
15M-64QAM	39725	2503.5	20.37	0.74	21.11	129.12	2
	40620	2593	20.49	0.74	21.23	132.74	2
	41515	2682.5	20.65	0.74	21.39	137.72	2
15M-256QAM	39725	2503.5	17.24	0.74	17.98	62.81	2
	40620	2593	17.54	0.74	18.28	67.30	2
	41515	2682.5	17.70	0.74	18.44	69.82	2
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
10M-QPSK	39700	2501	22.16	0.74	22.90	194.98	2
	40620	2593	22.33	0.74	23.07	202.77	2
	41540	2685	22.53	0.74	23.27	212.32	2
10M-16QAM	39700	2501	21.07	0.74	21.81	151.71	2
	40620	2593	21.36	0.74	22.10	162.18	2
	41540	2685	21.48	0.74	22.22	166.72	2
10M-64QAM	39700	2501	20.30	0.74	21.04	127.06	2
	40620	2593	20.46	0.74	21.20	131.83	2
	41540	2685	20.65	0.74	21.39	137.72	2
	39700	2501	17.21	0.74	17.95	62.37	2



10M-256QAM	40620	2593	17.55	0.74	18.29	67.45	2
	41540	2685	17.68	0.74	18.42	69.50	2
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
5M-QPSK	39675	2498.5	22.15	0.74	22.89	194.54	2
	40620	2593	22.34	0.74	23.08	203.24	2
	41565	2687.5	22.52	0.74	23.26	211.84	2
5M-16QAM	39675	2498.5	21.12	0.74	21.86	153.46	2
	40620	2593	21.32	0.74	22.06	160.69	2
	41565	2687.5	21.47	0.74	22.21	166.34	2
5M-64QAM	39675	2498.5	20.30	0.74	21.04	127.06	2
	40620	2593	20.44	0.74	21.18	131.22	2
	41565	2687.5	20.64	0.74	21.38	137.40	2
5M-256QAM	39675	2498.5	17.28	0.74	18.02	63.39	2
	40620	2593	17.49	0.74	18.23	66.53	2
	41565	2687.5	17.65	0.74	18.39	69.02	2


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FCC_LTE Band 41_Ant 0 (PC2)							
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20M-QPSK	39750	2506	24.79	0.74	25.53	357.27	2
	40620	2593	24.95	0.74	25.69	370.68	2
	41490	2680	25.19	0.74	25.93	391.74	2
20M-16QAM	39750	2506	24.15	0.74	24.89	308.32	2
	40620	2593	24.11	0.74	24.85	305.49	2
	41490	2680	24.41	0.74	25.15	327.64	2
20M-64QAM	39750	2506	23.22	0.74	23.96	248.89	2
	40620	2593	23.28	0.74	24.02	252.35	2
	41490	2680	23.61	0.74	24.35	272.27	2
20M-256QAM	39750	2506	20.08	0.74	20.82	120.78	2
	40620	2593	20.15	0.74	20.89	122.74	2
	41490	2680	20.48	0.74	21.22	132.43	2
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
15M-QPSK	39725	2503.5	24.75	0.74	25.49	354.00	2
	40620	2593	24.87	0.74	25.61	363.92	2
	41515	2682.5	25.06	0.74	25.80	380.19	2
15M-16QAM	39725	2503.5	24.11	0.74	24.85	305.49	2
	40620	2593	24.07	0.74	24.81	302.69	2
	41515	2682.5	24.33	0.74	25.07	321.66	2
15M-64QAM	39725	2503.5	23.17	0.74	23.91	246.04	2
	40620	2593	23.15	0.74	23.89	244.91	2
	41515	2682.5	23.52	0.74	24.26	266.69	2
15M-256QAM	39725	2503.5	20.06	0.74	20.80	120.23	2
	40620	2593	20.05	0.74	20.79	119.95	2
	41515	2682.5	20.41	0.74	21.15	130.32	2
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
10M-QPSK	39700	2501	24.74	0.74	25.48	353.18	2
	40620	2593	24.82	0.74	25.56	359.75	2
	41540	2685	25.05	0.74	25.79	379.31	2
10M-16QAM	39700	2501	24.00	0.74	24.74	297.85	2
	40620	2593	24.06	0.74	24.80	302.00	2
	41540	2685	24.35	0.74	25.09	323.15	2
10M-64QAM	39700	2501	23.19	0.74	23.93	247.17	2
	40620	2593	23.20	0.74	23.94	247.74	2
	41540	2685	23.57	0.74	24.31	269.77	2
	39700	2501	20.01	0.74	20.75	118.85	2



10M-256QAM	40620	2593	20.12	0.74	20.86	121.90	2
	41540	2685	20.34	0.74	21.08	128.23	2
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
5M-QPSK	39675	2498.5	24.73	0.74	25.47	352.37	2
	40620	2593	24.81	0.74	25.55	358.92	2
	41565	2687.5	25.17	0.74	25.91	389.94	2
5M-16QAM	39675	2498.5	24.09	0.74	24.83	304.09	2
	40620	2593	24.01	0.74	24.75	298.54	2
	41565	2687.5	24.38	0.74	25.12	325.39	2
5M-64QAM	39675	2498.5	23.18	0.74	23.92	246.60	2
	40620	2593	23.13	0.74	23.87	243.78	2
	41565	2687.5	23.48	0.74	24.22	264.24	2
5M-256QAM	39675	2498.5	20.02	0.74	20.76	119.12	2
	40620	2593	20.14	0.74	20.88	122.46	2
	41565	2687.5	20.39	0.74	21.13	129.72	2



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BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20M-QPSK	42190	3460	23.78	-0.89	22.89	194.54	1
	42590	3500	23.76	-0.89	22.87	193.64	1
	42990	3540	23.61	-0.89	22.72	187.07	1
20M- 16QAM	42190	3460	22.71	-0.89	21.82	152.05	1
	42590	3500	22.79	-0.89	21.90	154.88	1
	42990	3540	22.73	-0.89	21.84	152.76	1
20M- 64QAM	42190	3460	21.58	-0.89	20.69	117.22	1
	42590	3500	21.84	-0.89	20.95	124.45	1
	42990	3540	21.71	-0.89	20.82	120.78	1
20M- 256QAM	42190	3460	18.96	-0.89	18.07	64.12	1
	42590	3500	18.98	-0.89	18.09	64.42	1
	42990	3540	19.00	-0.89	18.11	64.71	1
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
15M-QPSK	42165	3457.5	23.76	-0.89	22.87	193.64	1
	42590	3500	23.72	-0.89	22.83	191.87	1
	43015	3542.5	23.60	-0.89	22.71	186.64	1
15M- 16QAM	42165	3457.5	22.63	-0.89	21.74	149.28	1
	42590	3500	22.76	-0.89	21.87	153.82	1
	43015	3542.5	22.72	-0.89	21.83	152.41	1
15M- 64QAM	42165	3457.5	21.43	-0.89	20.54	113.24	1
	42590	3500	21.80	-0.89	20.91	123.31	1
	43015	3542.5	21.67	-0.89	20.78	119.67	1
15M- 256QAM	42165	3457.5	18.93	-0.89	18.04	63.68	1
	42590	3500	18.95	-0.89	18.06	63.97	1
	43015	3542.5	18.93	-0.89	18.04	63.68	1
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
10M-QPSK	42140	3455	23.71	-0.89	22.82	191.43	1
	42590	3500	23.62	-0.89	22.73	187.50	1
	43040	3545	23.46	-0.89	22.57	180.72	1
10M- 16QAM	42140	3455	22.66	-0.89	21.77	150.31	1
	42590	3500	22.74	-0.89	21.85	153.11	1
	43040	3545	22.59	-0.89	21.70	147.91	1
10M- 64QAM	42140	3455	21.54	-0.89	20.65	116.14	1
	42590	3500	21.75	-0.89	20.86	121.90	1
	43040	3545	21.70	-0.89	20.81	120.50	1
	42140	3455	18.90	-0.89	18.01	63.24	1



10M-256QAM	42590	3500	18.94	-0.89	18.05	63.83	1
	43040	3545	18.89	-0.89	18.00	63.10	1
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
5M-QPSK	42115	3452.5	23.72	-0.89	22.83	191.87	1
	42590	3500	23.63	-0.89	22.74	187.93	1
	43065	3547.5	23.58	-0.89	22.69	185.78	1
5M-16QAM	42115	3452.5	22.67	-0.89	21.78	150.66	1
	42590	3500	22.71	-0.89	21.82	152.05	1
	43065	3547.5	22.58	-0.89	21.69	147.57	1
5M-64QAM	42115	3452.5	21.48	-0.89	20.59	114.55	1
	42590	3500	21.77	-0.89	20.88	122.46	1
	43065	3547.5	21.58	-0.89	20.69	117.22	1
5M-256QAM	42115	3452.5	18.95	-0.89	18.06	63.97	1
	42590	3500	18.94	-0.89	18.05	63.83	1
	43065	3547.5	18.88	-0.89	17.99	62.95	1



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LTE Band 66_Ant 2							
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20M-QPSK	132072	1720	23.79	0.28	24.07	255.27	1
	132322	1745	23.77	0.28	24.05	254.10	1
	132572	1770	23.66	0.28	23.94	247.74	1
20M-16QAM	132072	1720	22.83	0.28	23.11	204.64	1
	132322	1745	22.86	0.28	23.14	206.06	1
	132572	1770	22.79	0.28	23.07	202.77	1
20M-64QAM	132072	1720	21.89	0.28	22.17	164.82	1
	132322	1745	21.85	0.28	22.13	163.31	1
	132572	1770	21.94	0.28	22.22	166.72	1
20M-256QAM	132072	1720	18.85	0.28	19.13	81.85	1
	132322	1745	18.82	0.28	19.10	81.28	1
	132572	1770	18.88	0.28	19.16	82.41	1
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
15M-QPSK	132047	1717.5	23.70	0.28	23.98	250.03	1
	132322	1745	23.64	0.28	23.92	246.60	1
	132597	1772.5	23.52	0.28	23.80	239.88	1
15M-16QAM	132047	1717.5	22.68	0.28	22.96	197.70	1
	132322	1745	22.67	0.28	22.95	197.24	1
	132597	1772.5	22.70	0.28	22.98	198.61	1
15M-64QAM	132047	1717.5	21.83	0.28	22.11	162.55	1
	132322	1745	21.79	0.28	22.07	161.06	1
	132597	1772.5	21.70	0.28	21.98	157.76	1
15M-256QAM	132047	1717.5	18.75	0.28	19.03	79.98	1
	132322	1745	18.80	0.28	19.08	80.91	1
	132597	1772.5	18.73	0.28	19.01	79.62	1
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
10M-QPSK	132022	1715	23.70	0.28	23.98	250.03	1
	132322	1745	23.58	0.28	23.86	243.22	1
	132622	1775	23.63	0.28	23.91	246.04	1
10M-16QAM	132022	1715	22.66	0.28	22.94	196.79	1
	132322	1745	22.69	0.28	22.97	198.15	1
	132622	1775	22.62	0.28	22.90	194.98	1
10M-64QAM	132022	1715	21.83	0.28	22.11	162.55	1
	132322	1745	21.76	0.28	22.04	159.96	1
	132622	1775	21.79	0.28	22.07	161.06	1
	132022	1715	18.82	0.28	19.10	81.28	1


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10M-256QAM	132322	1745	18.82	0.28	19.10	81.28	1
	132622	1775	18.71	0.28	18.99	79.25	1
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
5M-QPSK	131997	1712.5	23.70	0.28	23.98	250.03	1
	132322	1745	23.56	0.28	23.84	242.10	1
	132647	1777.5	23.50	0.28	23.78	238.78	1
5M-16QAM	131997	1712.5	22.67	0.28	22.95	197.24	1
	132322	1745	22.75	0.28	23.03	200.91	1
	132647	1777.5	22.74	0.28	23.02	200.45	1
5M-64QAM	131997	1712.5	21.78	0.28	22.06	160.69	1
	132322	1745	21.79	0.28	22.07	161.06	1
	132647	1777.5	21.77	0.28	22.05	160.32	1
5M-256QAM	131997	1712.5	18.83	0.28	19.11	81.47	1
	132322	1745	18.77	0.28	19.05	80.35	1
	132647	1777.5	18.73	0.28	19.01	79.62	1
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
3M-QPSK	131987	1711.5	23.67	0.28	23.95	248.31	1
	132322	1745	23.57	0.28	23.85	242.66	1
	132657	1778.5	23.55	0.28	23.83	241.55	1
3M-16QAM	131987	1711.5	22.70	0.28	22.98	198.61	1
	132322	1745	22.70	0.28	22.98	198.61	1
	132657	1778.5	22.74	0.28	23.02	200.45	1
3M-64QAM	131987	1711.5	21.85	0.28	22.13	163.31	1
	132322	1745	21.81	0.28	22.09	161.81	1
	132657	1778.5	21.81	0.28	22.09	161.81	1
3M-256QAM	131987	1711.5	18.78	0.28	19.06	80.54	1
	132322	1745	18.86	0.28	19.14	82.04	1
	132657	1778.5	18.70	0.28	18.98	79.07	1
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
1.4M-QPSK	131979	1710.7	23.70	0.28	23.98	250.03	1
	132322	1745	23.57	0.28	23.85	242.66	1
	132665	1779.3	23.56	0.28	23.84	242.10	1
1.4M-16QAM	131979	1710.7	22.68	0.28	22.96	197.70	1
	132322	1745	22.71	0.28	22.99	199.07	1
	132665	1779.3	22.61	0.28	22.89	194.54	1
1.4M-64QAM	131979	1710.7	21.76	0.28	22.04	159.96	1
	132322	1745	21.75	0.28	22.03	159.59	1
	132665	1779.3	21.75	0.28	22.03	159.59	1



BUREAU VERITAS Test Report No.: PSU-QSU2411180418RF05

1.4M- 256QAM	131979	1710.7	18.82	0.28	19.10	81.28	1
	132322	1745	18.75	0.28	19.03	79.98	1
	132665	1779.3	18.80	0.28	19.08	80.91	1

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



3.2 FREQUENCY STABILITY MEASUREMENT

3.2.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

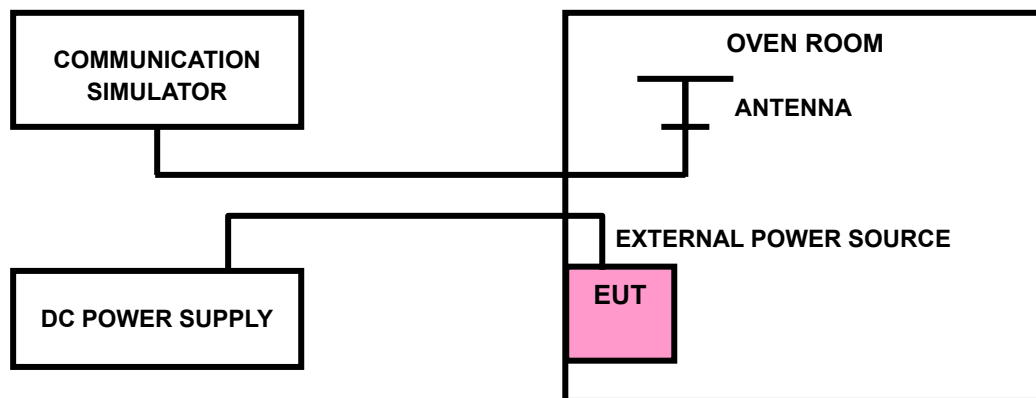
The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

3.2.2 TEST PROCEDURE

- 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.
- 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.
- The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the $\pm 0.5^{\circ}\text{C}$ during the measurement testing. The each temperature step shall be at least 0.5 hours, consider the EUT could be test under the stability condition.

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

3.2.3 TEST SETUP



3.2.4 TEST RESULTS

Please Refer to Appendix Of this test report.

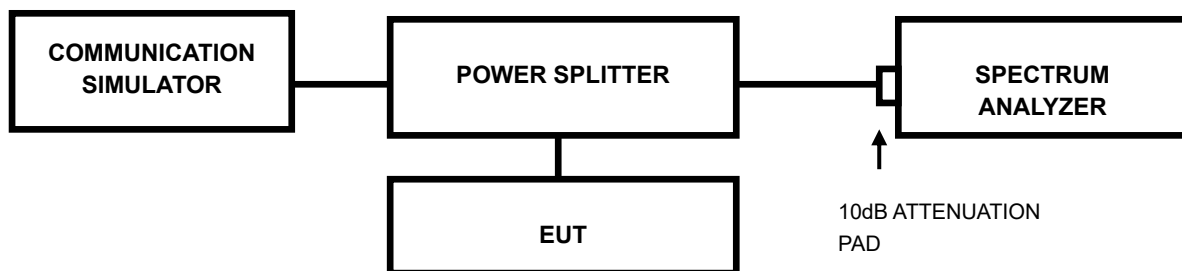


3.3 OCCUPIED BANDWIDTH MEASUREMENT

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

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

3.3.4 TEST RESULTS

Please Refer to Appendix Of this test report.



3.4 BAND EDGE MEASUREMENT

3.4.1 LIMITS OF BAND EDGE MEASUREMENT

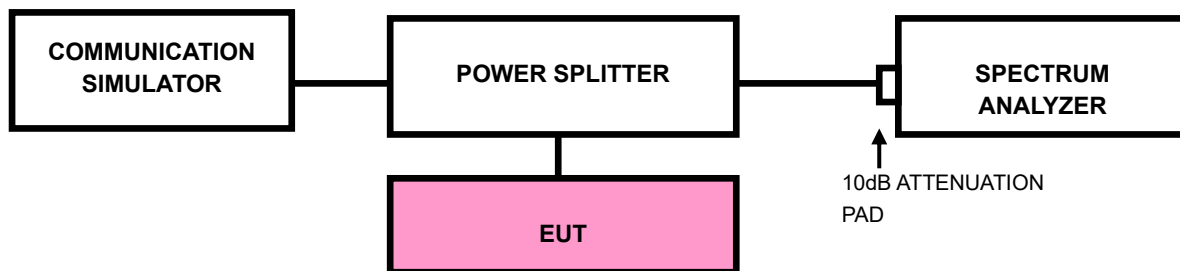
According to FCC Part 27.53(h) specified that For operations in the 1710-1755 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log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

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

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) $\geq 1\%$ 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 $\geq 3 \times$ RBW.
- f) Select the average power (RMS) display detector.
- g) Set the number of measurement points to ≥ 1001 .
- h) Use auto-coupled sweep time.
- i) Perform the measurement over an interval of time when the transmission is continuous and at its maximum power level.
- j) The RF fundamental frequency should be excluded against the limit line in the operating frequency band and use RBW is 10KHz or 100KHz.
- k) Record the max trace plot into the test report.

3.4.4 TEST RESULTS

Please Refer to Appendix Of this test report.



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 .

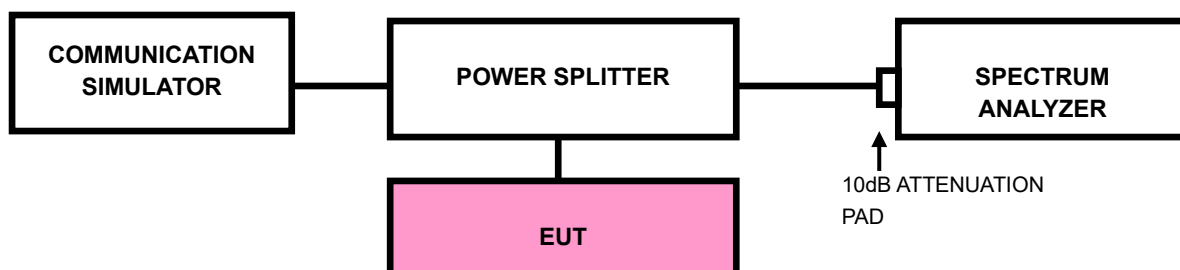
For LTE Band38/41

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

3.5.2 TEST PROCEDURE

- a. The EUT makes a phone call to the communication simulator. All measurements were done at low, middle and high operational frequency range.
- b. Measuring frequency range is from 9kHz up to a frequency including its 10th harmonic. 10dB attenuation pad is connected with spectrum. RBW=1MHz and VBW=3MHz is used for conducted emission measurement.

3.5.3 TEST SETUP





3.5.4 TEST RESULTS

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

Please Refer to Appendix Of this test report.

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 $55 + 10 \log_{10}(P)$ 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. $\text{EIRP} = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}$.
- d. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole, $\text{E.R.P power} = \text{E.I.P.R power} - 2.15\text{dBi}$.

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

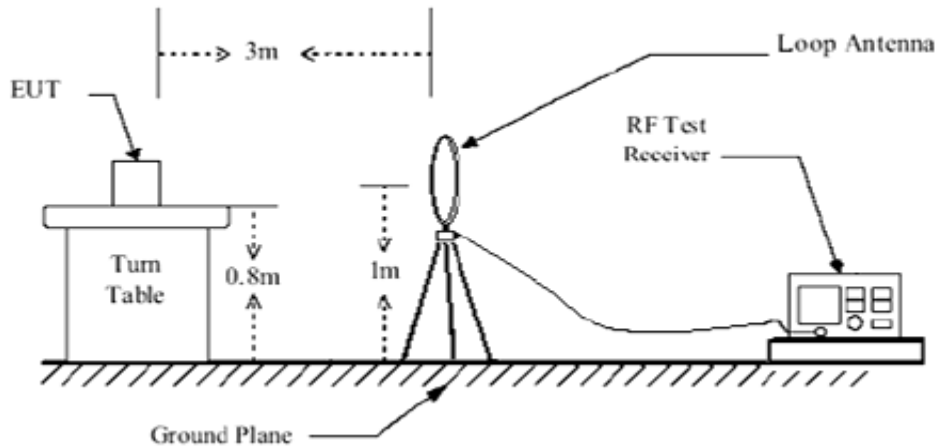
3.6.3 DEVIATION FROM TEST STANDARD

No deviation

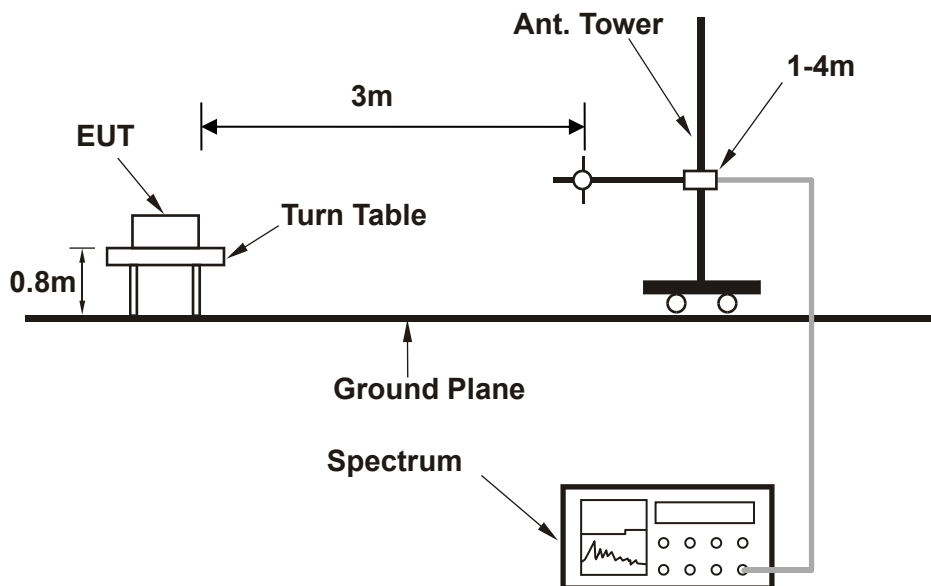


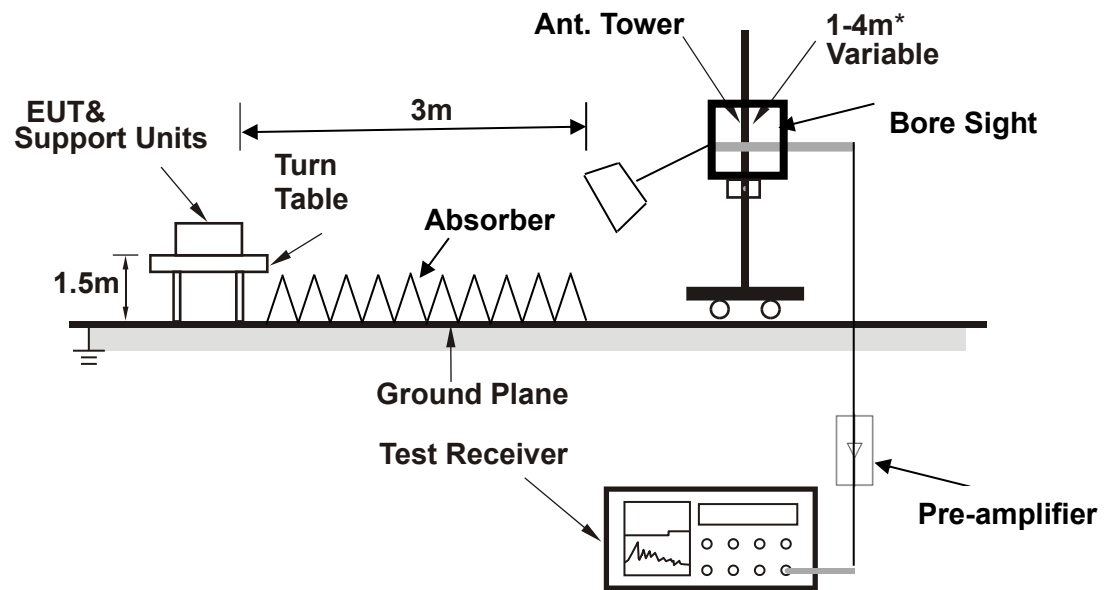
3.6.4 TEST SETUP

< Frequency Range below 30MHz >



< Frequency Range 30MHz~1GHz >





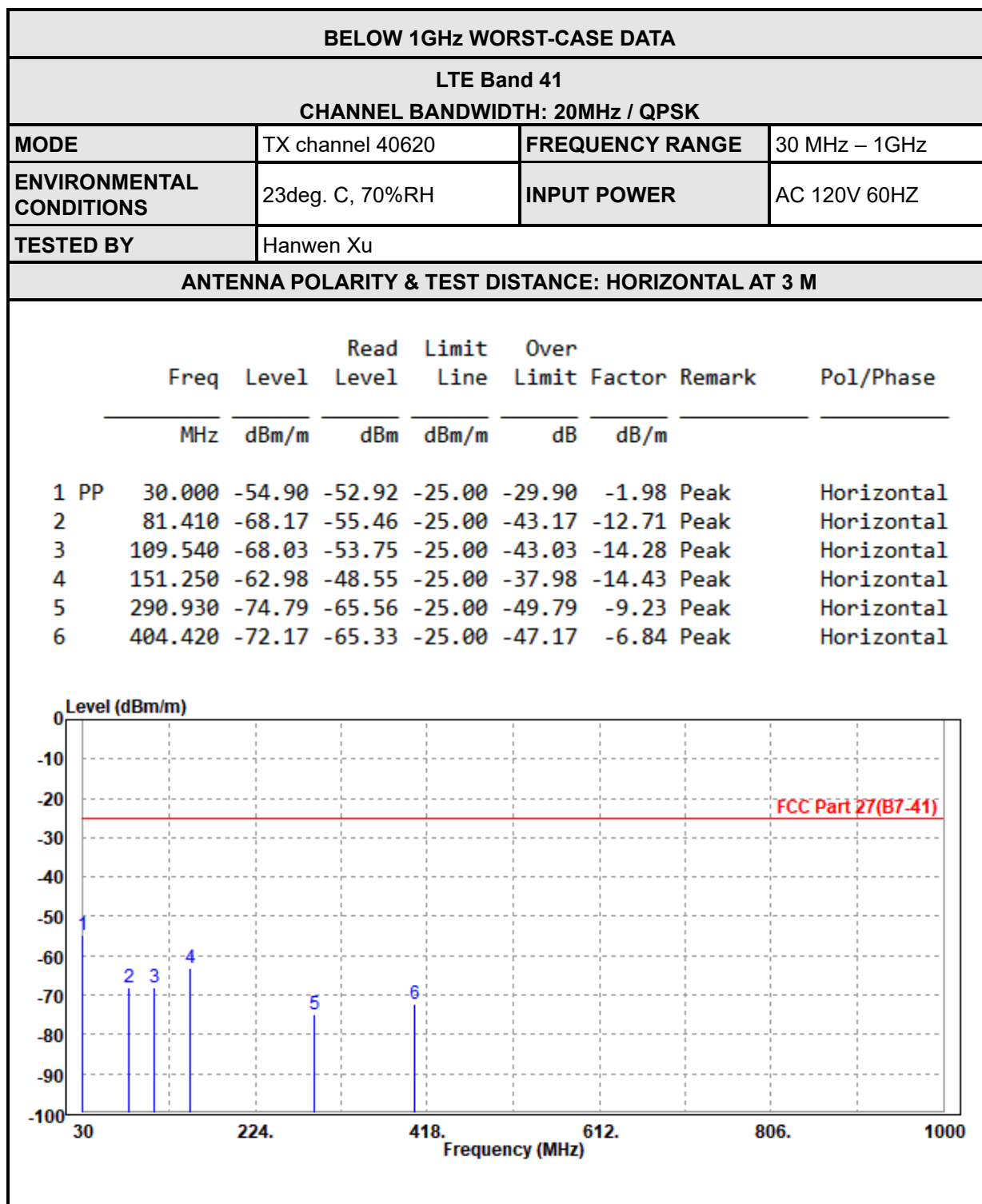
Note: Above 1G is a directional antenna depends on the EUT height and the antenna 3dB beamwidth both, refer to section 7.3 of CISPR 16-2-3.

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.

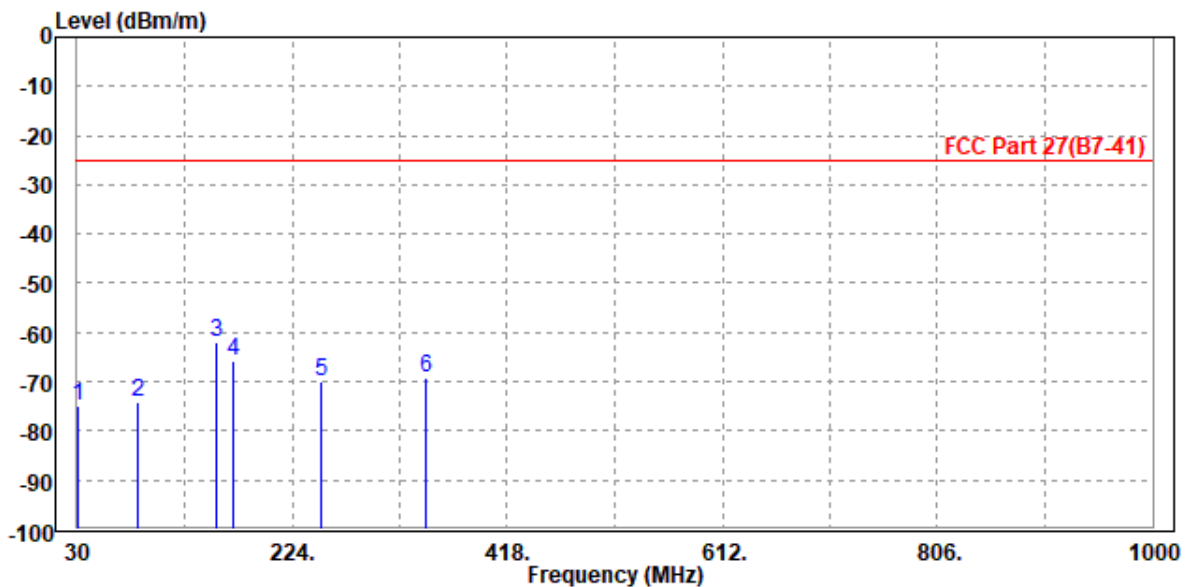




MODE	TX channel 40620	FREQUENCY RANGE	30 MHz – 1GHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V 60HZ
TESTED BY	Hanwen Xu		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	30.970	-75.00	-53.45	-25.00	-50.00	-21.55	Peak	Vertical
2	84.320	-74.24	-55.96	-25.00	-49.24	-18.28	Peak	Vertical
3 PP	156.100	-62.02	-50.50	-25.00	-37.02	-11.52	Peak	Vertical
4	171.620	-65.87	-54.94	-25.00	-40.87	-10.93	Peak	Vertical
5	250.190	-70.01	-66.27	-25.00	-45.01	-3.74	Peak	Vertical
6	344.280	-69.25	-65.51	-25.00	-44.25	-3.74	Peak	Vertical





ABOVE 1GHz

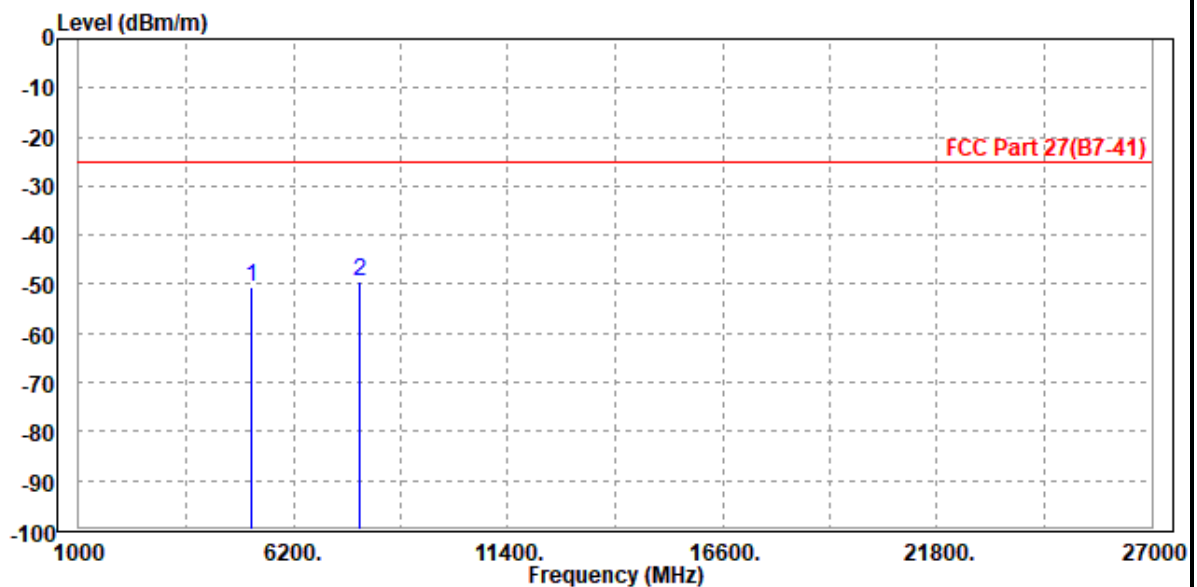
Note: For higher frequency, the emission is too low to be detected.

LTE BAND 41

CHANNEL BANDWIDTH	5MHz / QPSK	MODE	TX channel 40620
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	5186.000	-50.70	-61.35	-25.00	-25.70	10.65	Peak	Horizontal
2 PP	7786.000	-49.41	-63.55	-25.00	-24.41	14.14	Peak	Horizontal

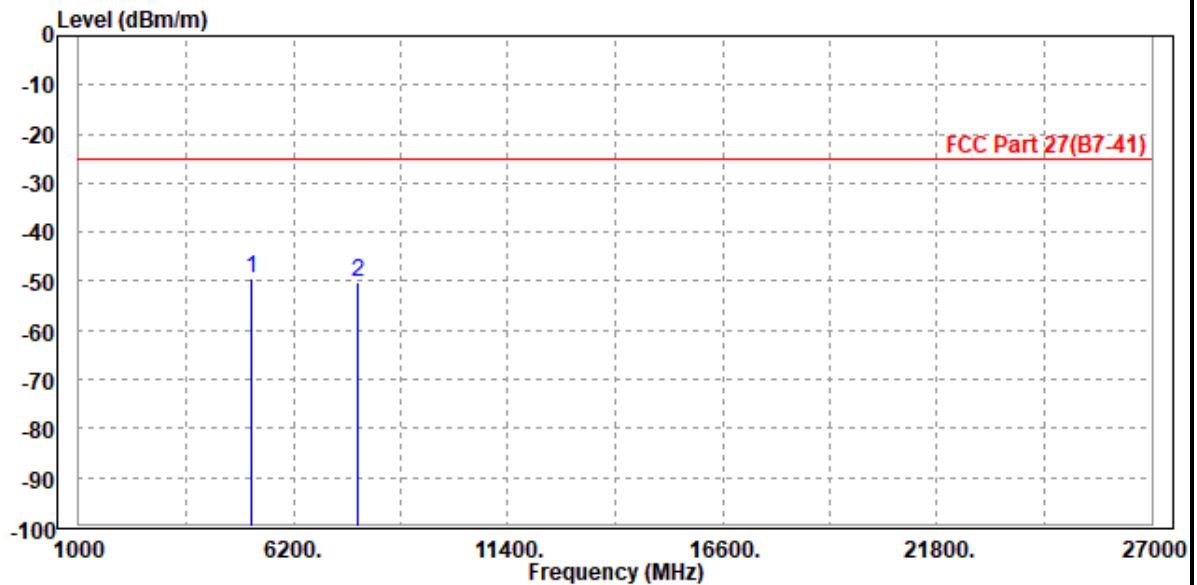




CHANNEL BANDWIDTH	5MHz / QPSK	MODE	TX channel 40620
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	5186.000	-49.35	-60.37	-25.00	-24.35	11.02	Peak	Vertical
2	7779.000	-50.12	-64.52	-25.00	-25.12	14.40	Peak	Vertical

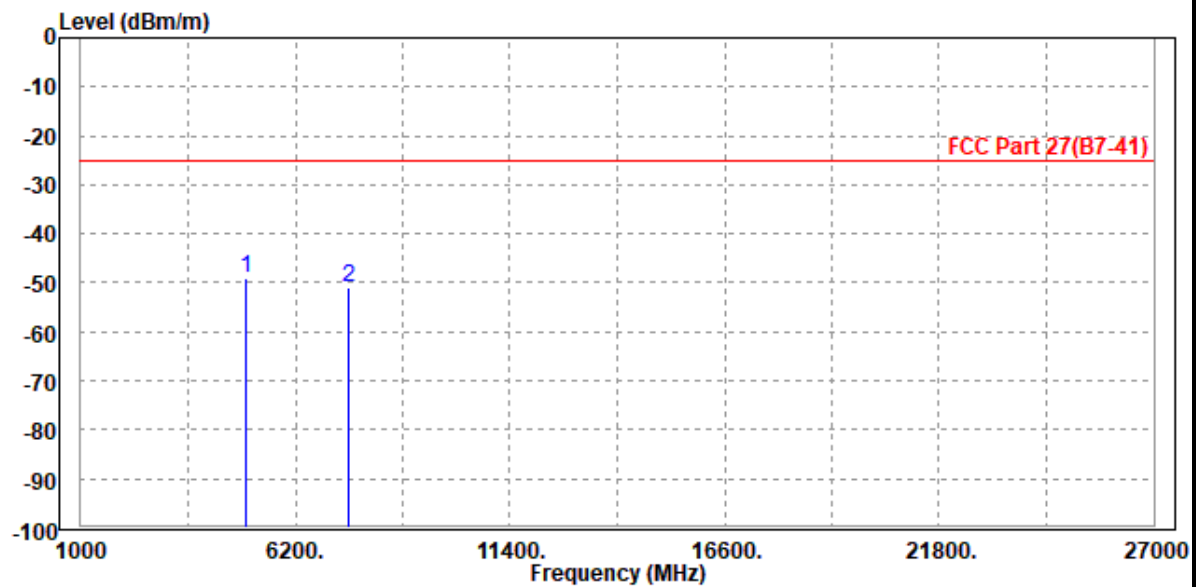




CHANNEL BANDWIDTH	10MHz / QPSK	MODE	TX channel 39700
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Freq	Level	Read	Limit	Over	Factor	Remark	Pol/Phase
		Level	Line	Limit			
MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP 5002.000	-48.96	-59.47	-25.00	-23.96	10.51	Peak	Horizontal
2 7500.000	-50.77	-64.28	-25.00	-25.77	13.51	Peak	Horizontal

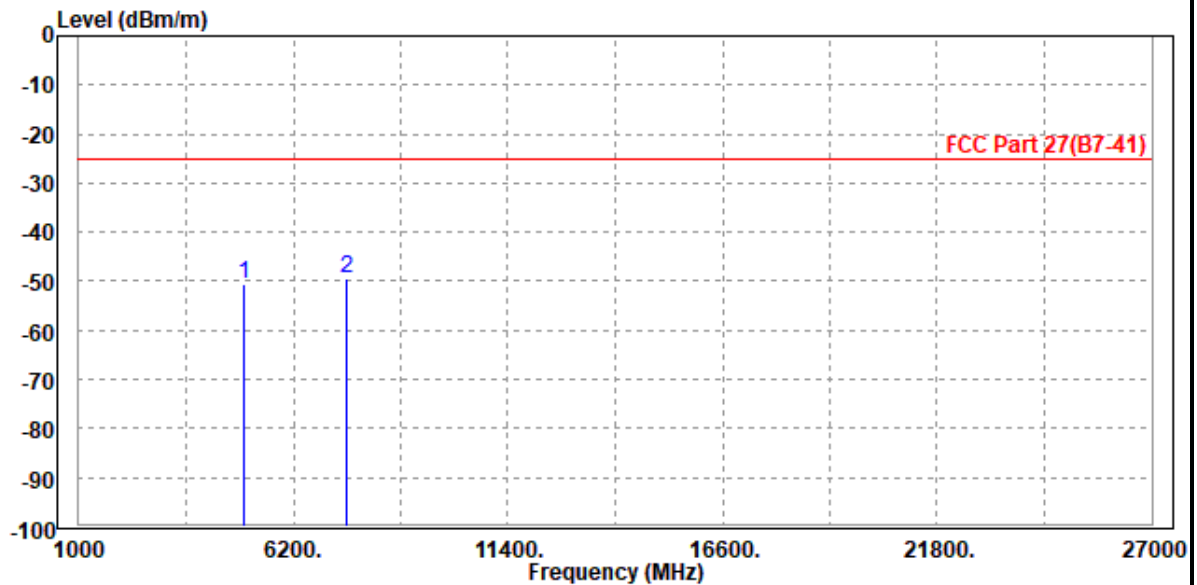




CHANNEL BANDWIDTH	10MHz / QPSK	MODE	TX channel 39700
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	5004.000	-50.56	-61.57	-25.00	-25.56	11.01	Peak	Vertical
2 PP	7503.000	-49.47	-63.72	-25.00	-24.47	14.25	Peak	Vertical

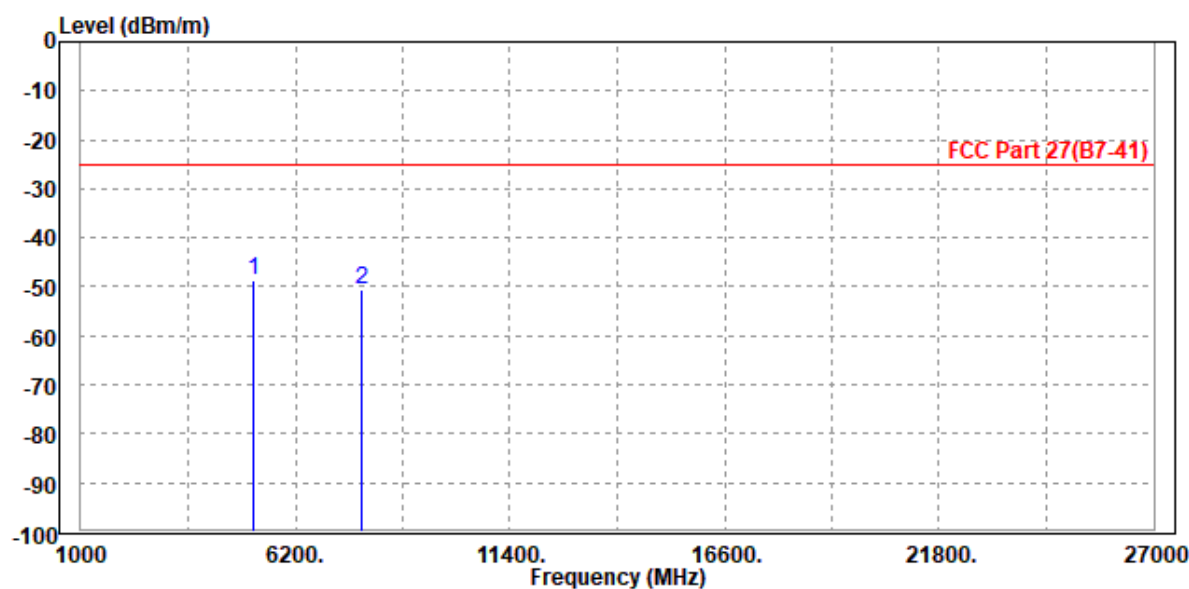




CHANNEL BANDWIDTH	10MHz / QPSK	MODE	TX channel 40620
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

	Freq	Level	Read	Limit	Over	Factor	Remark	Pol/Phase
			Level	Line	Limit			
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	5186.000	-48.85	-59.50	-25.00	-23.85	10.65	Peak	Horizontal
2	7786.000	-50.46	-64.60	-25.00	-25.46	14.14	Peak	Horizontal

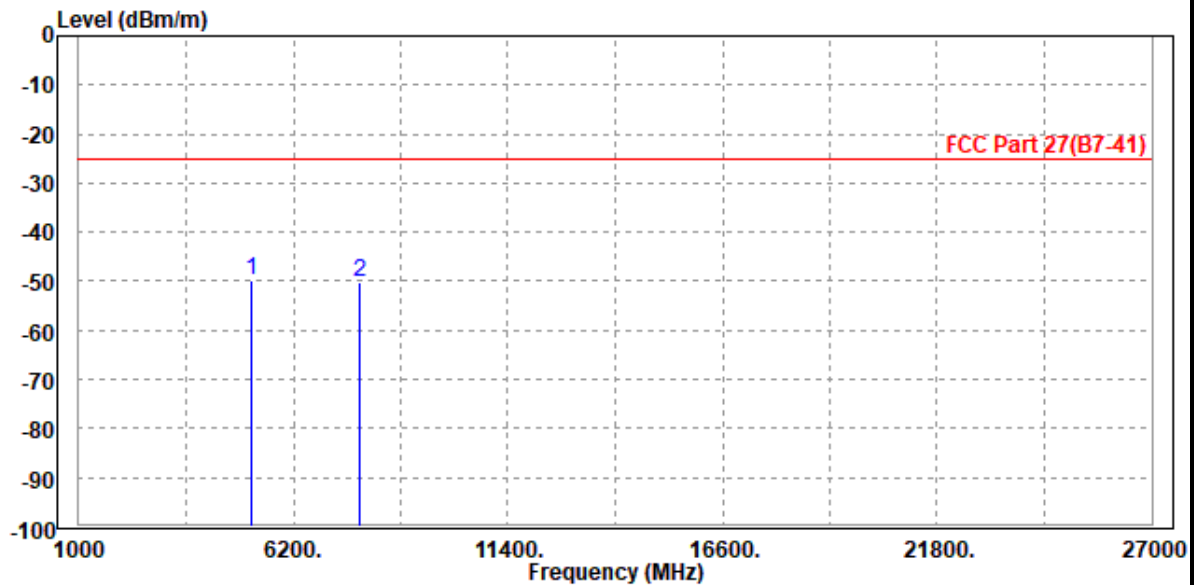




CHANNEL BANDWIDTH	10MHz / QPSK	MODE	TX channel 40620
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	5186.000	-49.76	-60.78	-25.00	-24.76	11.02	Peak	Vertical
2	7786.000	-50.01	-64.41	-25.00	-25.01	14.40	Peak	Vertical

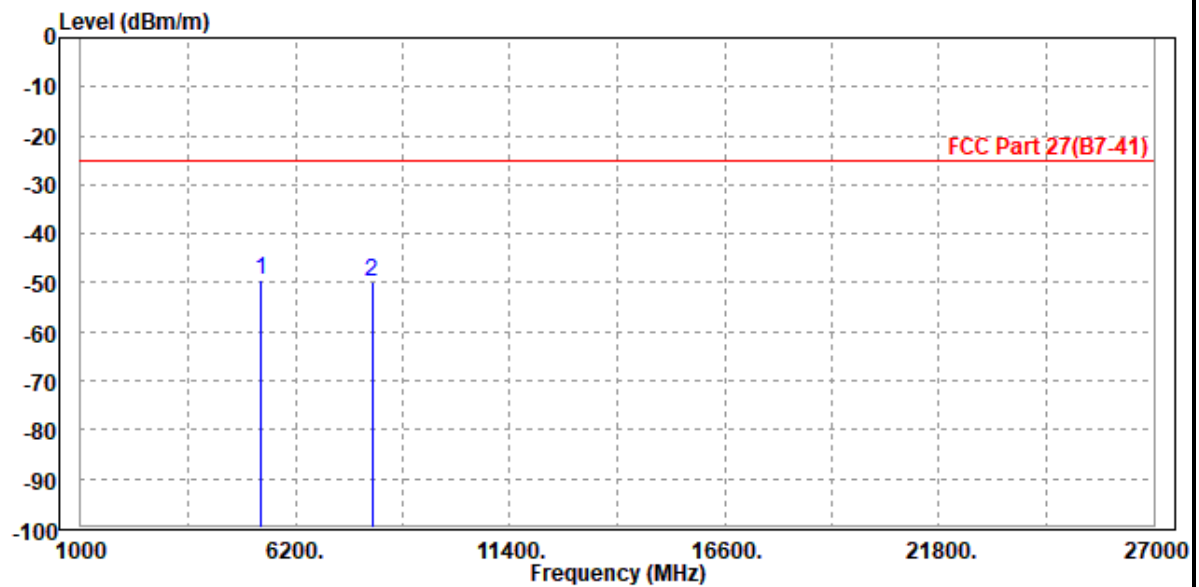




CHANNEL BANDWIDTH	10MHz / QPSK	MODE	TX channel 41540
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Freq	Level	Read	Limit	Over	Factor	Remark	Pol/Phase
		Level	Line	Limit			
MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP 5368.000	-49.55	-60.34	-25.00	-24.55	10.79	Peak	Horizontal
2 8055.000	-49.65	-64.32	-25.00	-24.65	14.67	Peak	Horizontal

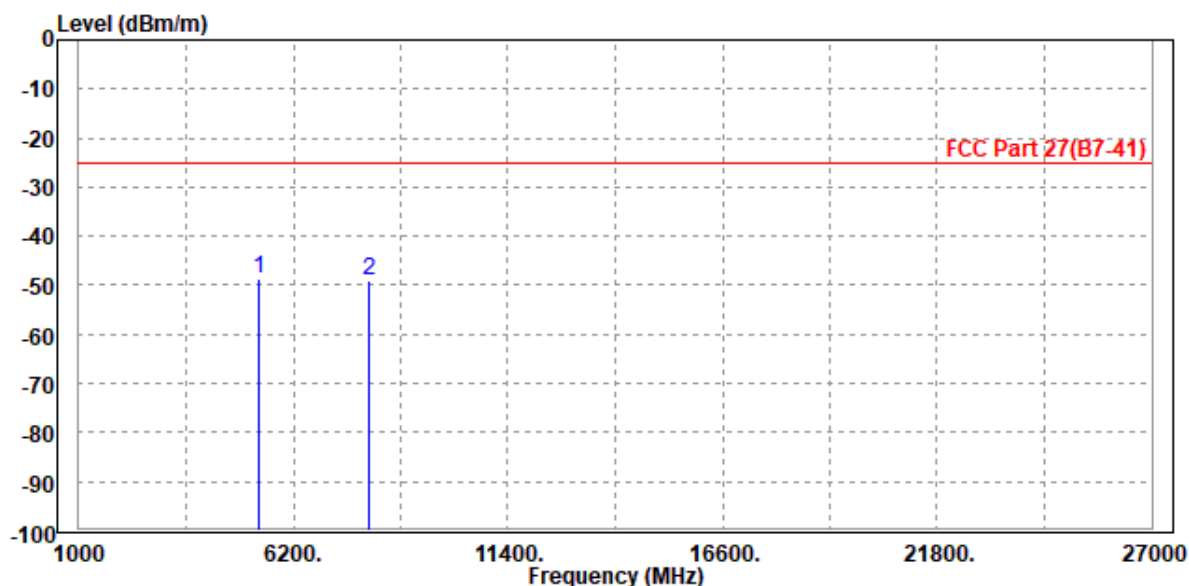




CHANNEL BANDWIDTH	10MHz / QPSK	MODE	TX channel 41540
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	5370.000	-48.78	-59.80	-25.00	-23.78	11.02	Peak	Vertical
2	8046.000	-49.23	-63.72	-25.00	-24.23	14.49	Peak	Vertical

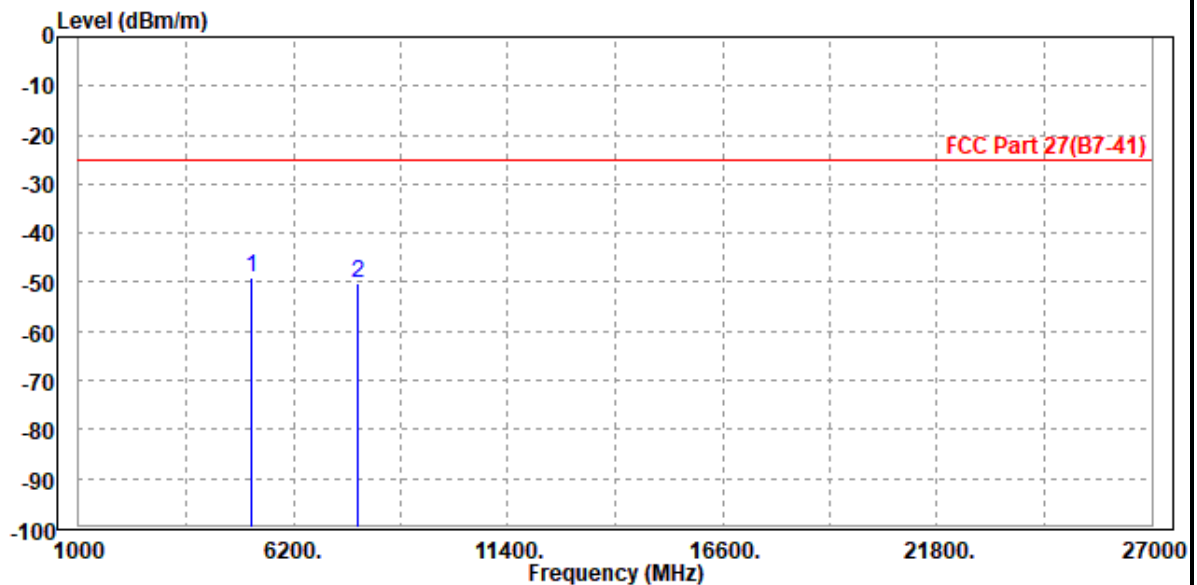




CHANNEL BANDWIDTH	15MHz / QPSK	MODE	TX channel 41540
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

	Freq	Level	Read	Limit	Over	Factor	Remark	Pol/Phase
			Level	Line	Limit			
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP 5186.000	-48.96	-59.61	-25.00	-23.96	10.65	Peak	Horizontal
2	7779.000	-50.05	-64.17	-25.00	-25.05	14.12	Peak	Horizontal

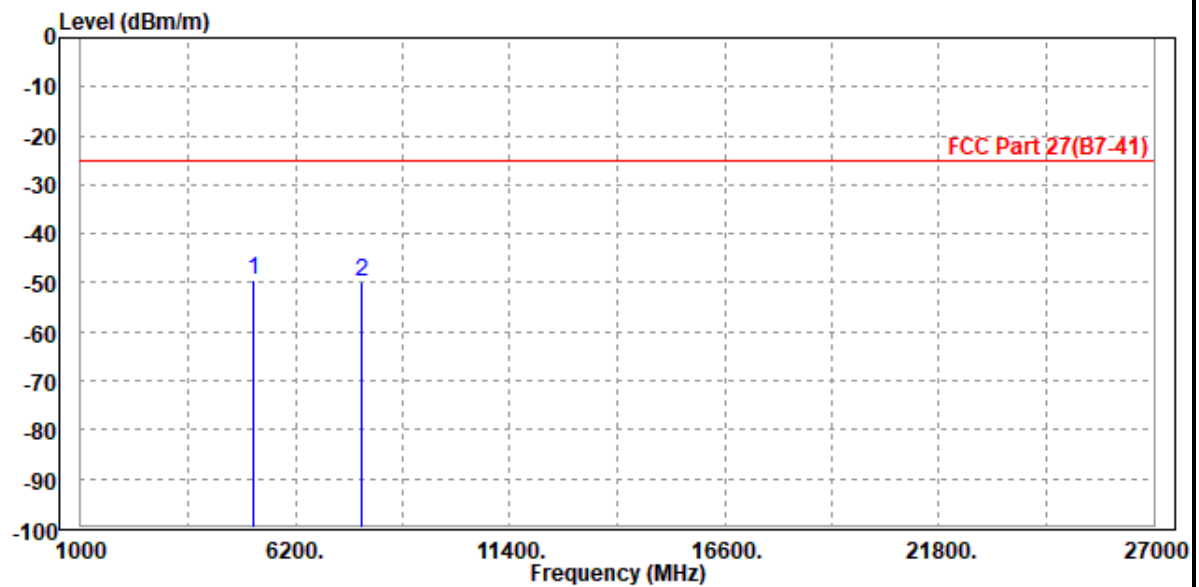




CHANNEL BANDWIDTH	15MHz / QPSK	MODE	TX channel 40620
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

			Read	Limit	Over			
	Freq	Level	Level	Line	Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP 5186.000	-49.44	-60.46	-25.00	-24.44	11.02	Peak	Vertical
2	7786.000	-49.89	-64.29	-25.00	-24.89	14.40	Peak	Vertical

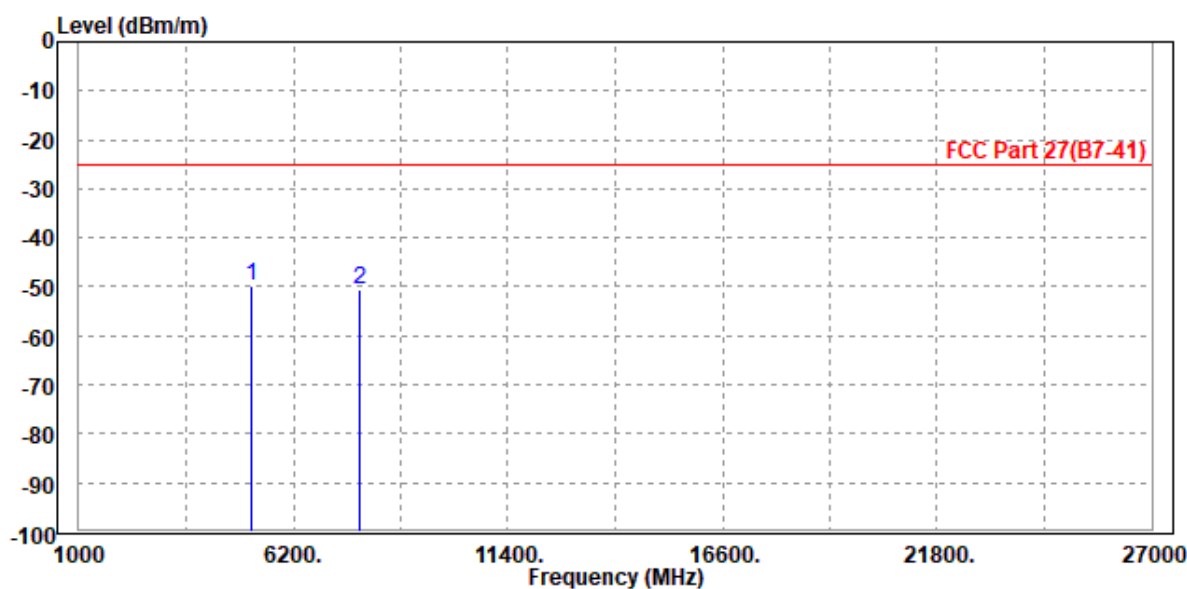




CHANNEL BANDWIDTH	20MHz / QPSK	MODE	TX channel 40620
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	5186.000	-50.00	-60.65	-25.00	-25.00	10.65	Peak	Horizontal
2	7786.000	-50.69	-64.83	-25.00	-25.69	14.14	Peak	Horizontal

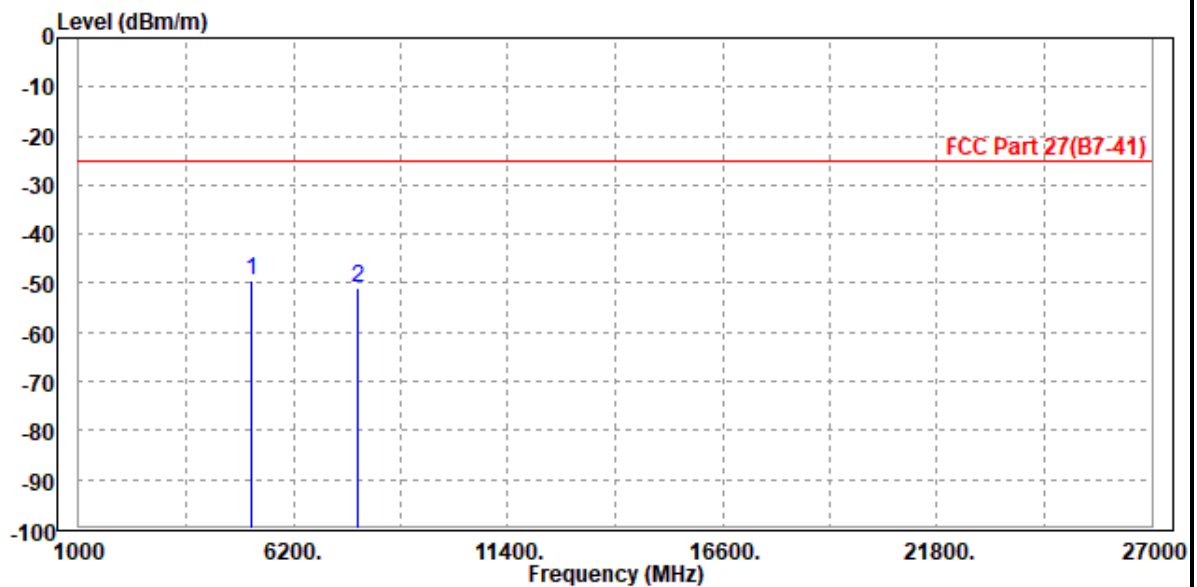


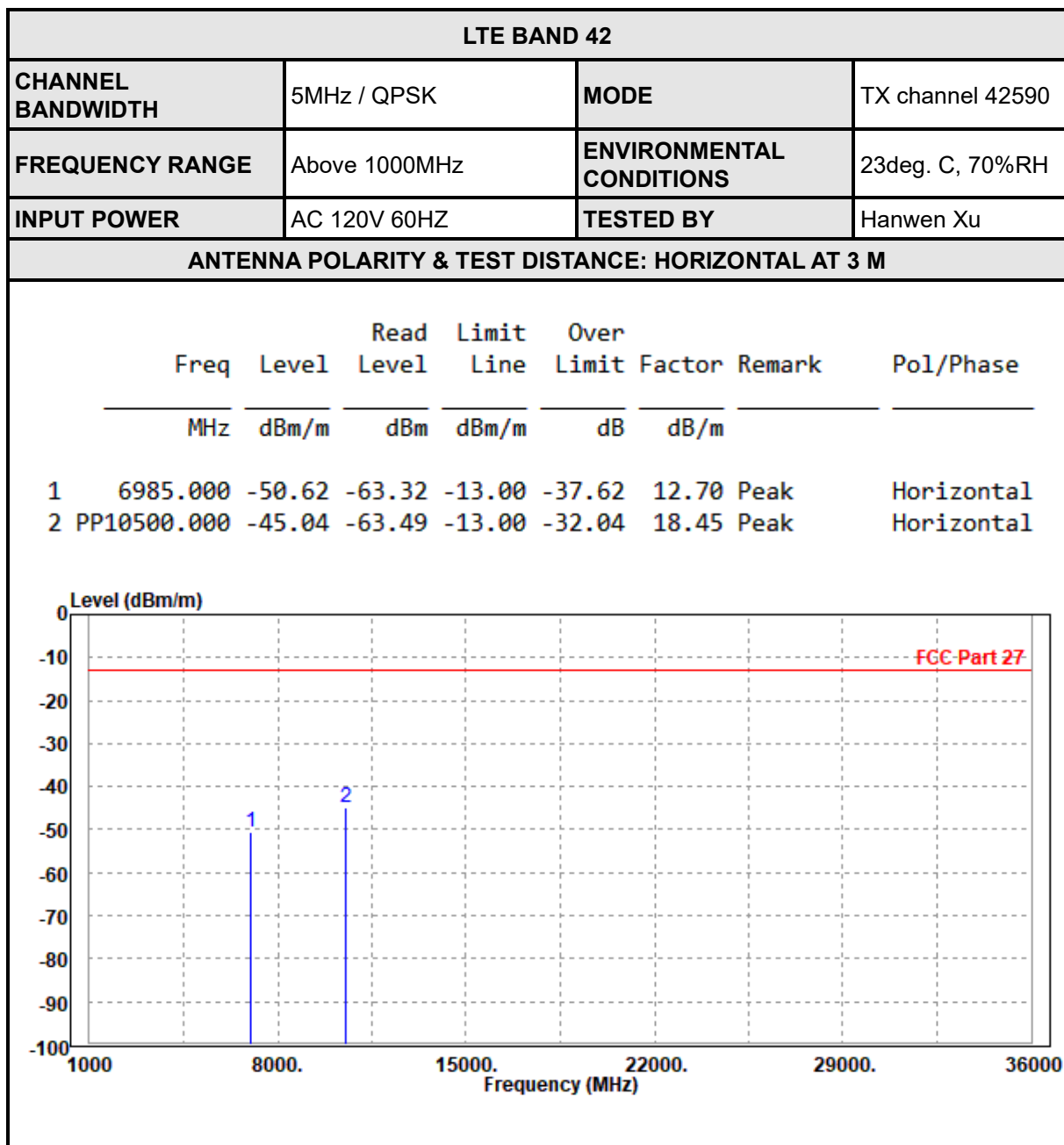


CHANNEL BANDWIDTH	20MHz / QPSK	MODE	TX channel 40620
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	5186.000	-49.32	-60.34	-25.00	-24.32	11.02	Peak	Vertical
2	7779.000	-51.05	-65.45	-25.00	-26.05	14.40	Peak	Vertical



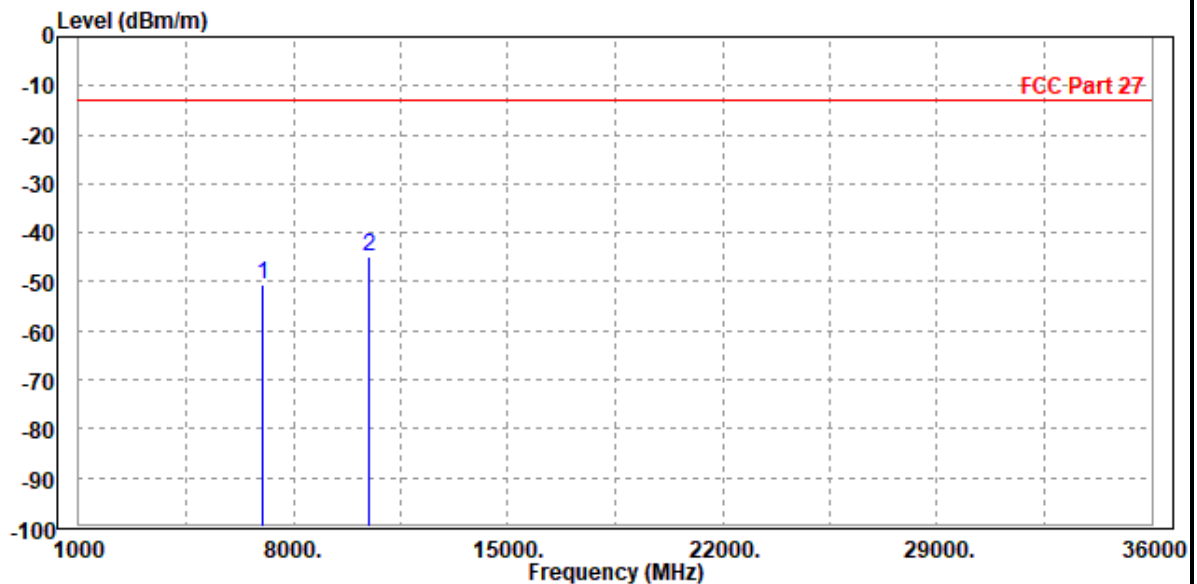




CHANNEL BANDWIDTH	5MHz / QPSK	MODE	TX channel 42590
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	7000.000	-50.63	-63.60	-13.00	-37.63	12.97	Peak	Vertical
2	PP10485.000	-44.68	-63.30	-13.00	-31.68	18.62	Peak	Vertical

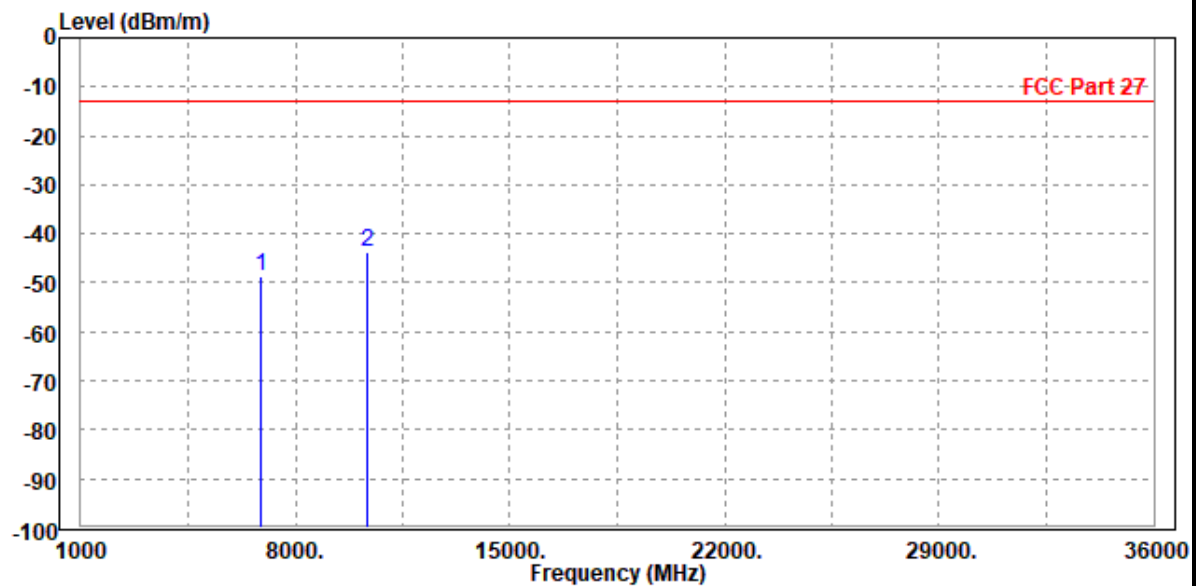




CHANNEL BANDWIDTH	10MHz / QPSK	MODE	TX channel 42090
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	6900.000	-48.76	-61.41	-13.00	-35.76	12.65	Peak	Horizontal
2	PP10345.000	-43.62	-62.12	-13.00	-30.62	18.50	Peak	Horizontal

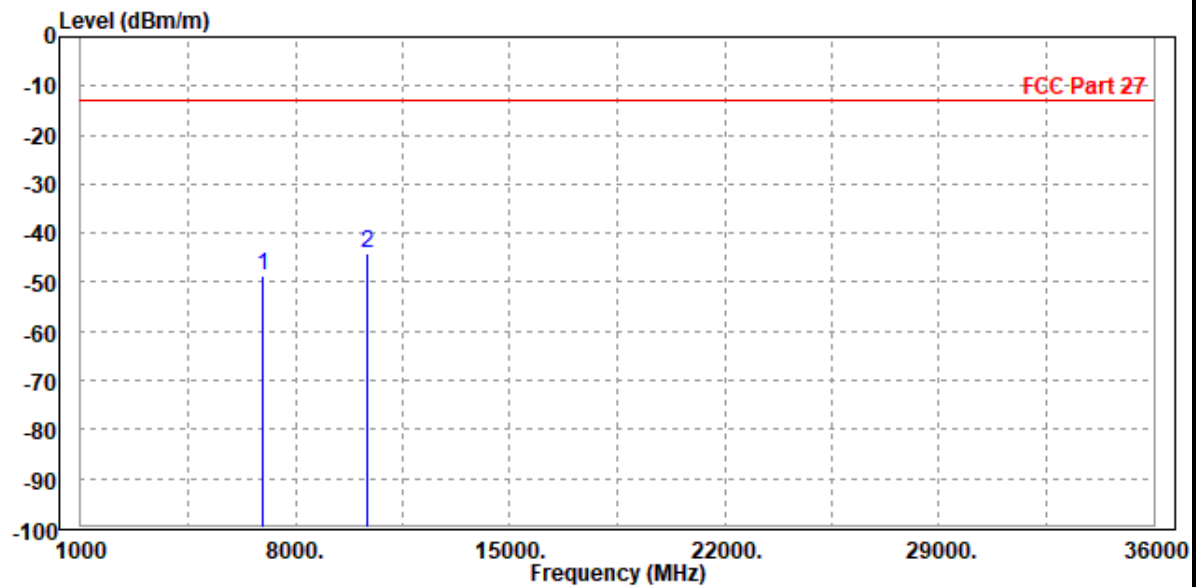




CHANNEL BANDWIDTH	10MHz / QPSK	MODE	TX channel 42090
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	6915.000	-48.71	-61.68	-13.00	-35.71	12.97	Peak	Vertical
2	PP10350.000	-44.24	-62.94	-13.00	-31.24	18.70	Peak	Vertical

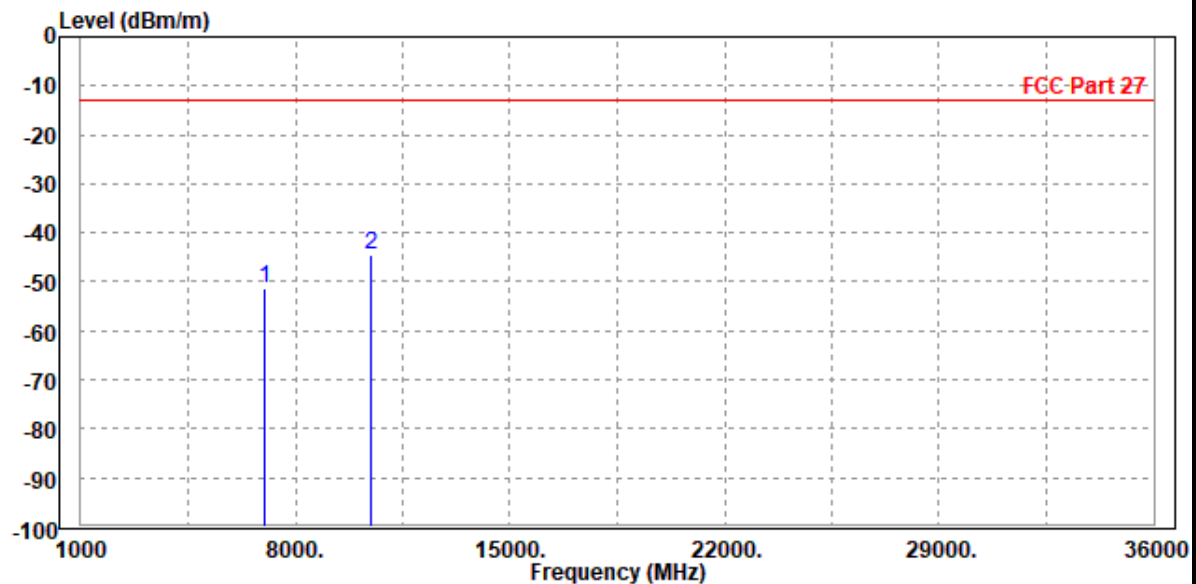




CHANNEL BANDWIDTH	10MHz / QPSK	MODE	TX channel 42590
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

	Freq	Level	Read	Limit	Over	Factor	Remark	Pol/Phase
			Level	Line	Limit			
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	7000.000	-51.25	-63.96	-13.00	-38.25	12.71	Peak	Horizontal
2	PP10485.000	-44.59	-63.04	-13.00	-31.59	18.45	Peak	Horizontal

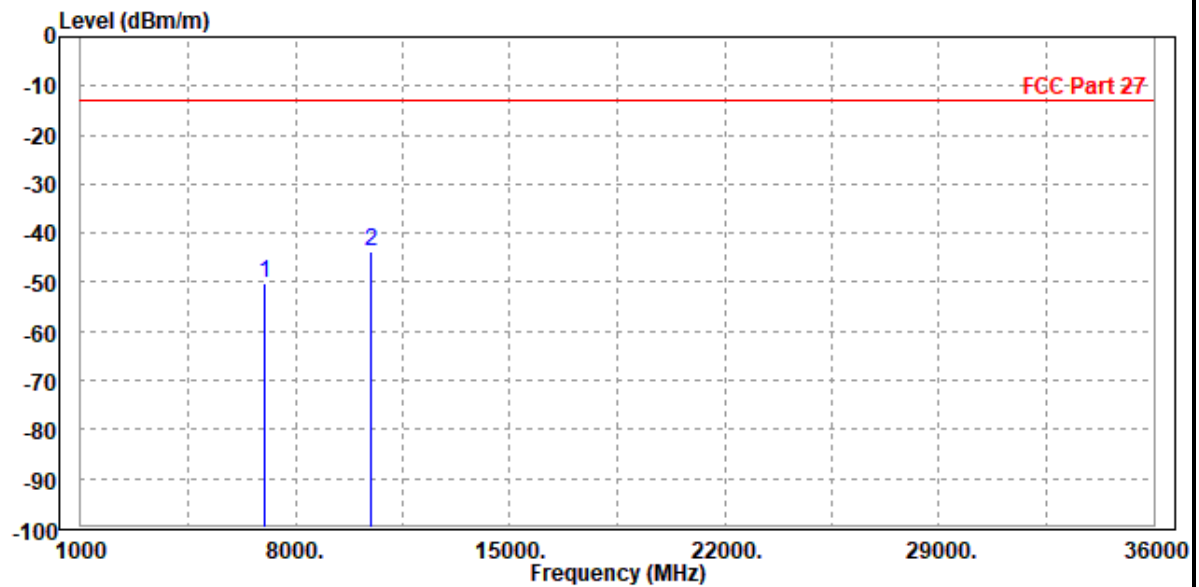




CHANNEL BANDWIDTH	10MHz / QPSK	MODE	TX channel 42590
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	7000.000	-50.35	-63.32	-13.00	-37.35	12.97	Peak	Vertical
2	PP10485.000	-43.80	-62.42	-13.00	-30.80	18.62	Peak	Vertical

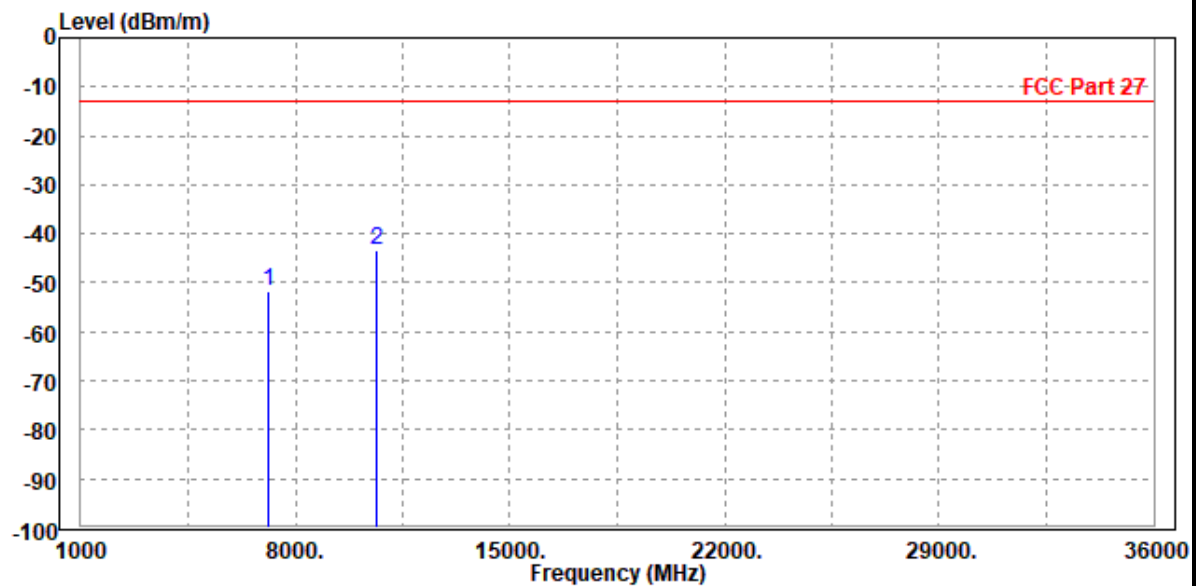




CHANNEL BANDWIDTH	10MHz / QPSK	MODE	TX channel 43090
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	7090.000	-51.86	-64.71	-13.00	-38.86	12.85	Peak	Horizontal
2	PP10650.000	-43.46	-62.39	-13.00	-30.46	18.93	Peak	Horizontal

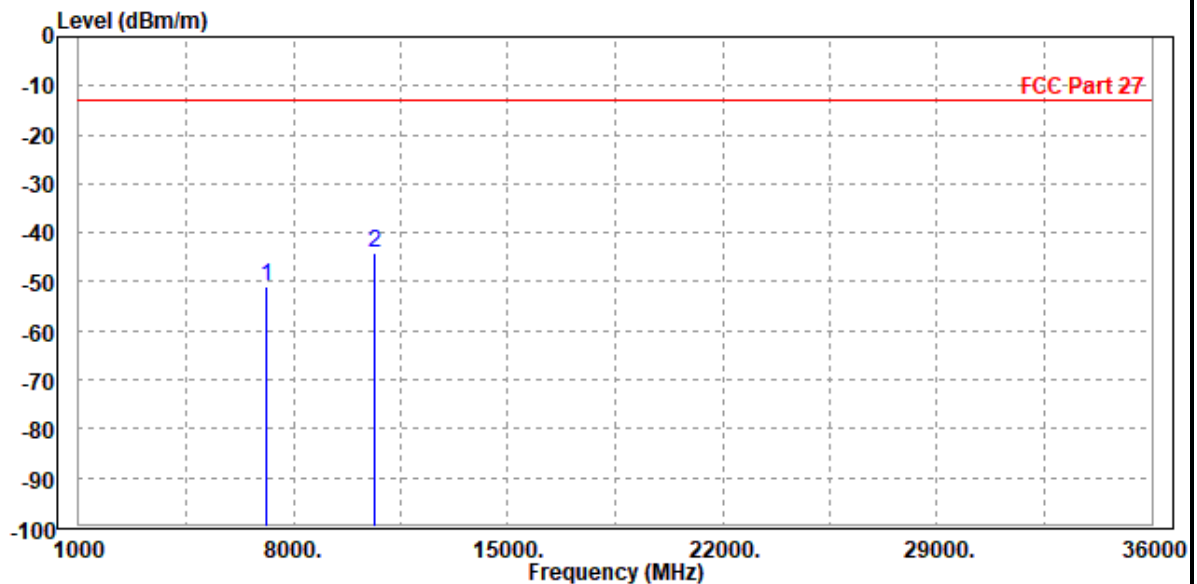




CHANNEL BANDWIDTH	10MHz / QPSK	MODE	TX channel 43090
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	7100.000	-51.12	-64.34	-13.00	-38.12	13.22	Peak	Vertical
2	PP10660.000	-44.01	-62.62	-13.00	-31.01	18.61	Peak	Vertical

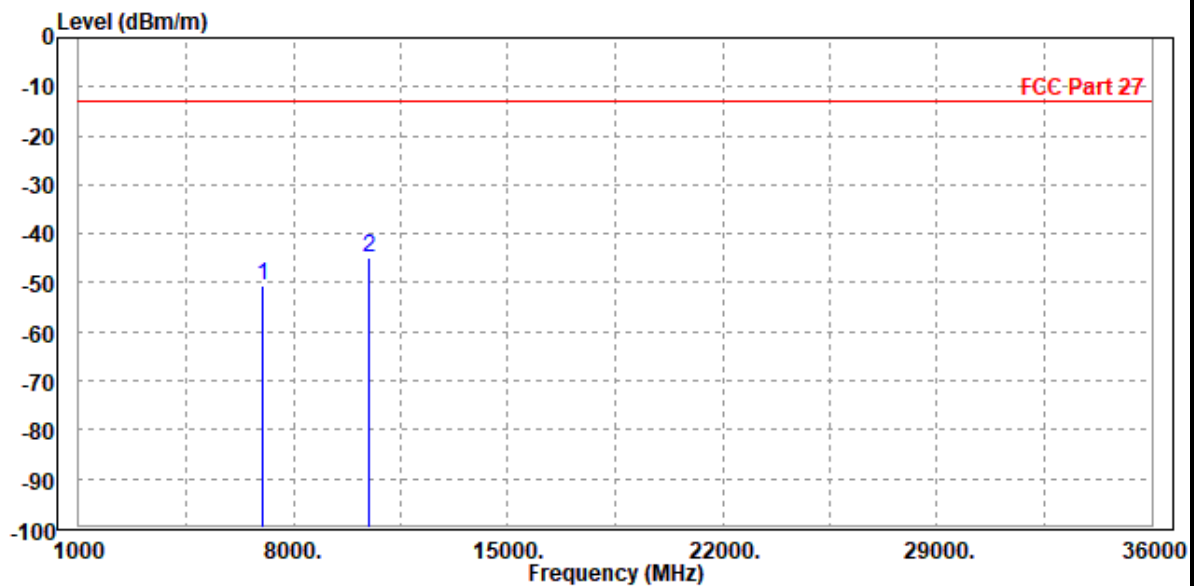




CHANNEL BANDWIDTH	15MHz / QPSK	MODE	TX channel 42590
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	7000.000	-50.50	-63.21	-13.00	-37.50	12.71	Peak	Horizontal
2	PP10485.000	-44.72	-63.17	-13.00	-31.72	18.45	Peak	Horizontal

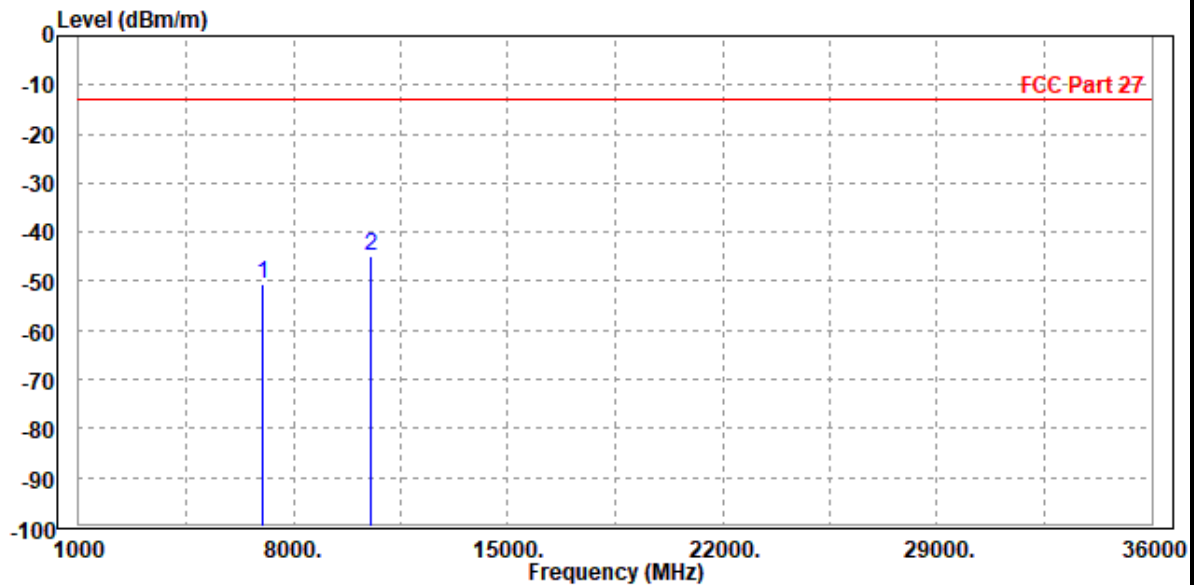




CHANNEL BANDWIDTH	15MHz / QPSK	MODE	TX channel 42590
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	7000.000	-50.43	-63.40	-13.00	-37.43	12.97	Peak	Vertical
2	PP10500.000	-44.77	-63.39	-13.00	-31.77	18.62	Peak	Vertical

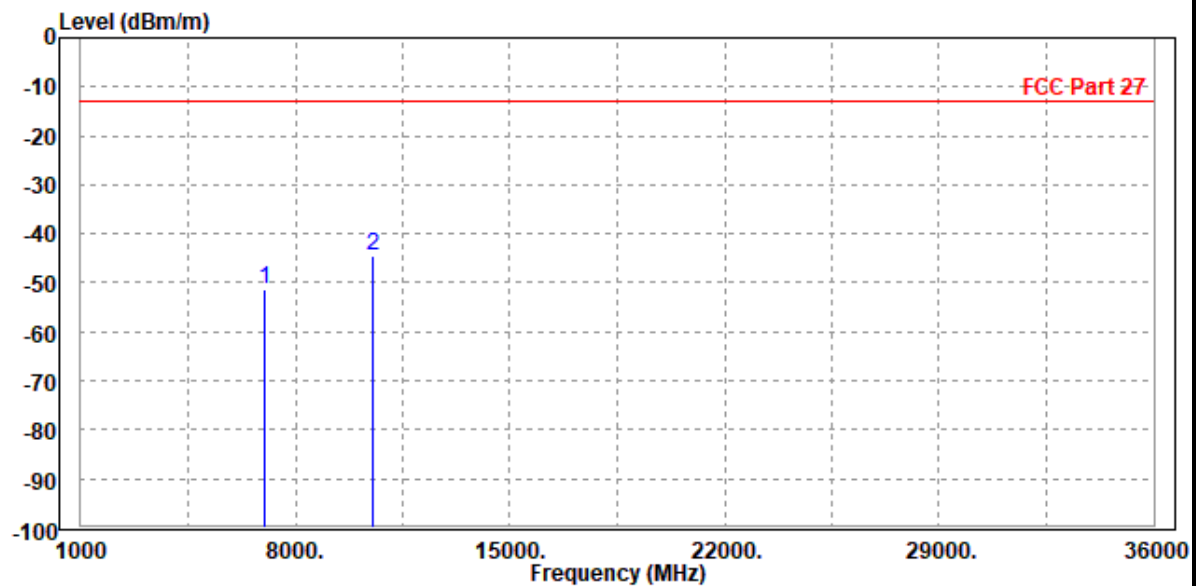




CHANNEL BANDWIDTH	20MHz / QPSK	MODE	TX channel 42590
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	6985.000	-51.34	-64.04	-13.00	-38.34	12.70	Peak	Horizontal
2	PP10500.000	-44.39	-62.84	-13.00	-31.39	18.45	Peak	Horizontal

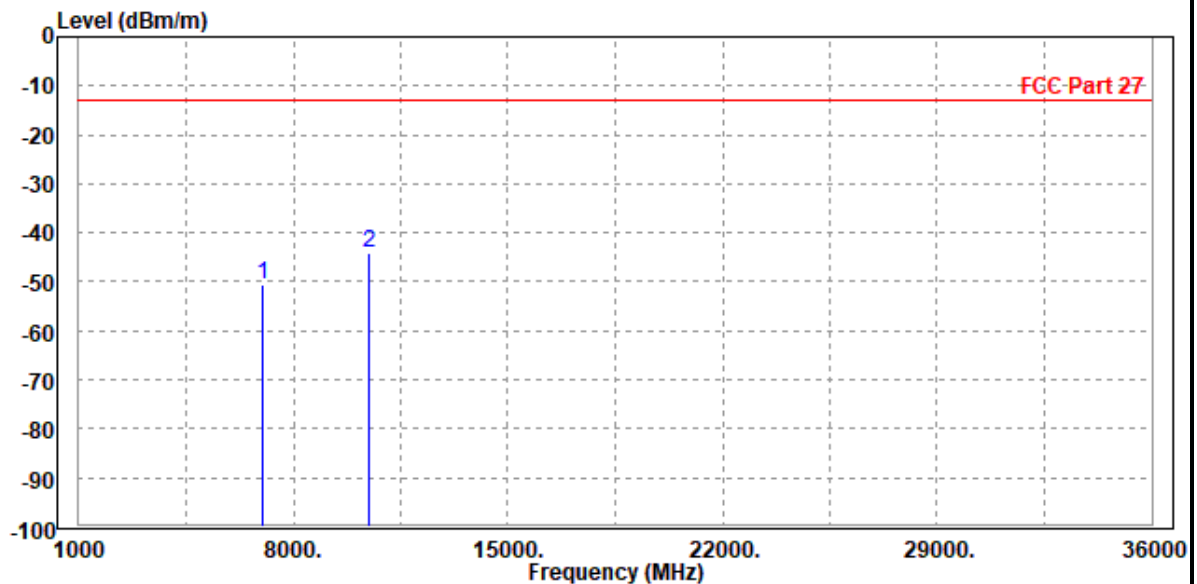




CHANNEL BANDWIDTH	20MHz / QPSK	MODE	TX channel 42590
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	7000.000	-50.45	-63.42	-13.00	-37.45	12.97	Peak	Vertical
2	PP10485.000	-44.12	-62.74	-13.00	-31.12	18.62	Peak	Vertical



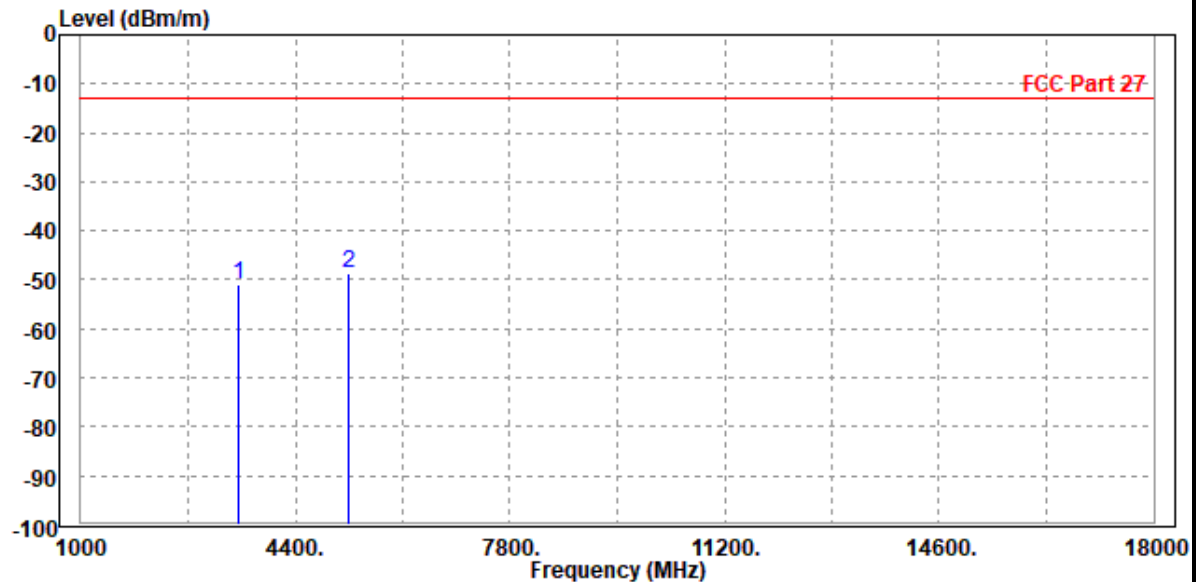


LTE Band66

CHANNEL BANDWIDTH	1.4MHz / QPSK	MODE	TX channel 132322
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3490.000	-50.95	-59.50	-13.00	-37.95	8.55	Peak	Horizontal
2 PP	5233.000	-48.67	-60.07	-13.00	-35.67	11.40	Peak	Horizontal

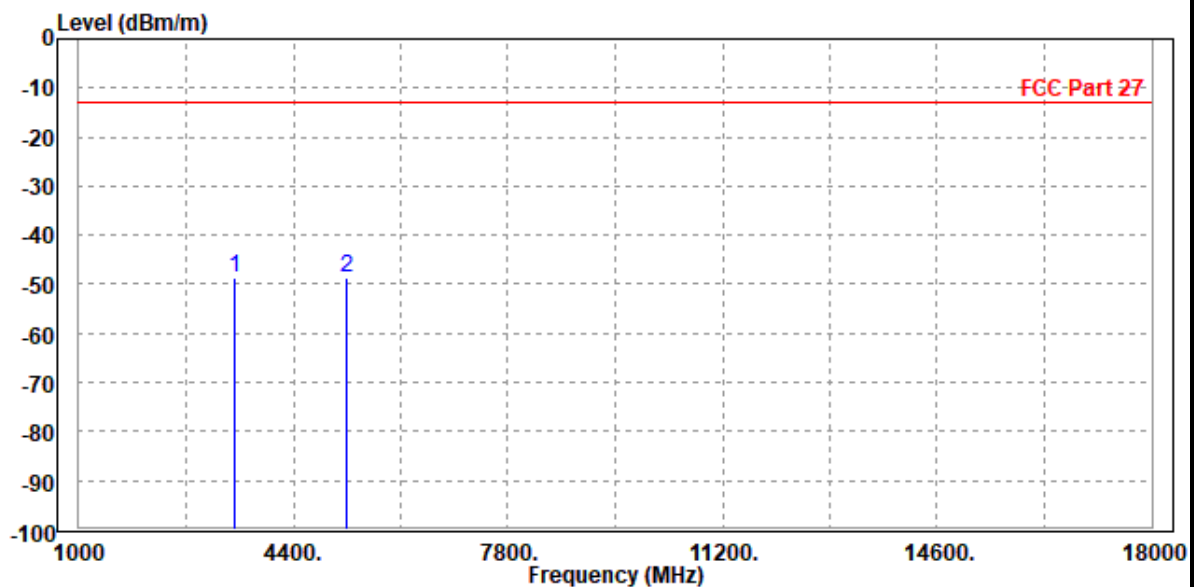




CHANNEL BANDWIDTH	1.4MHz / QPSK	MODE	TX channel 132322
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3482.000	-48.77	-57.42	-13.00	-35.77	8.65	Peak	Vertical
2 PP	5235.000	-48.61	-60.44	-13.00	-35.61	11.83	Peak	Vertical

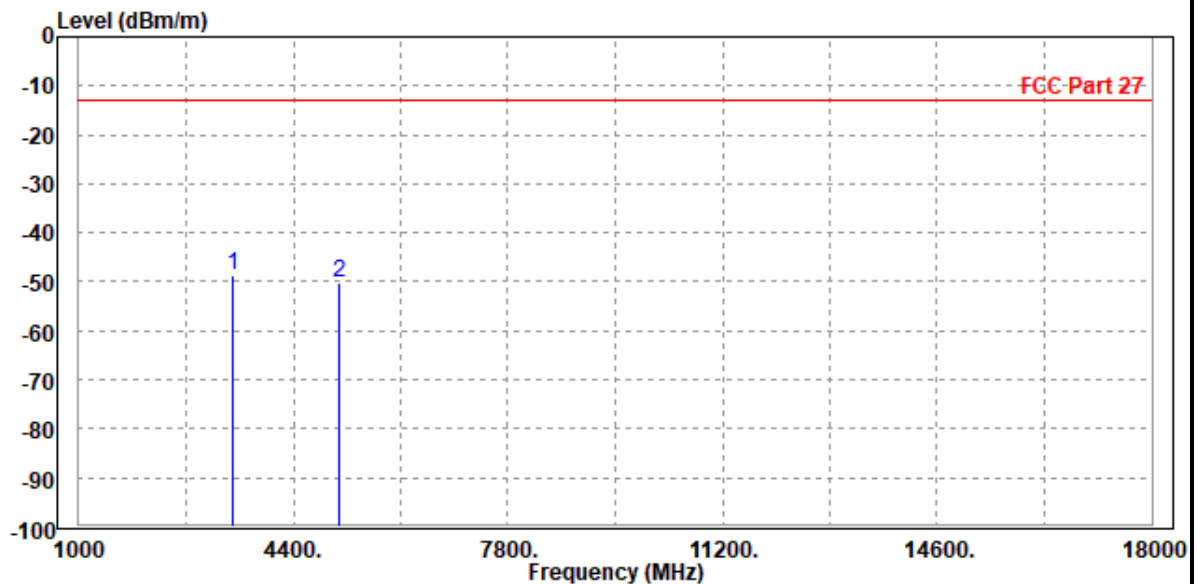




CHANNEL BANDWIDTH	3MHz / QPSK	MODE	TX channel 131987
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	3431.000	-48.62	-57.14	-13.00	-35.62	8.52	Peak	Horizontal
2	5134.500	-50.36	-61.62	-13.00	-37.36	11.26	Peak	Horizontal

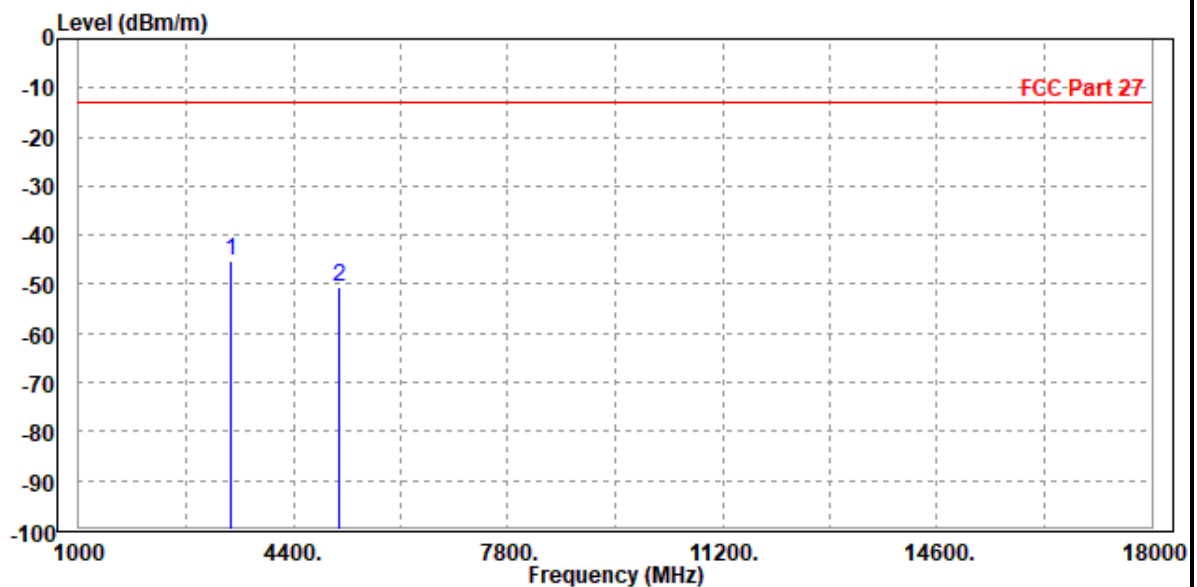




CHANNEL BANDWIDTH	3MHz / QPSK	MODE	TX channel 131987
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	3423.000	-45.36	-54.03	-13.00	-32.36	8.67	Peak	Vertical
2	5131.000	-50.71	-62.33	-13.00	-37.71	11.62	Peak	Vertical

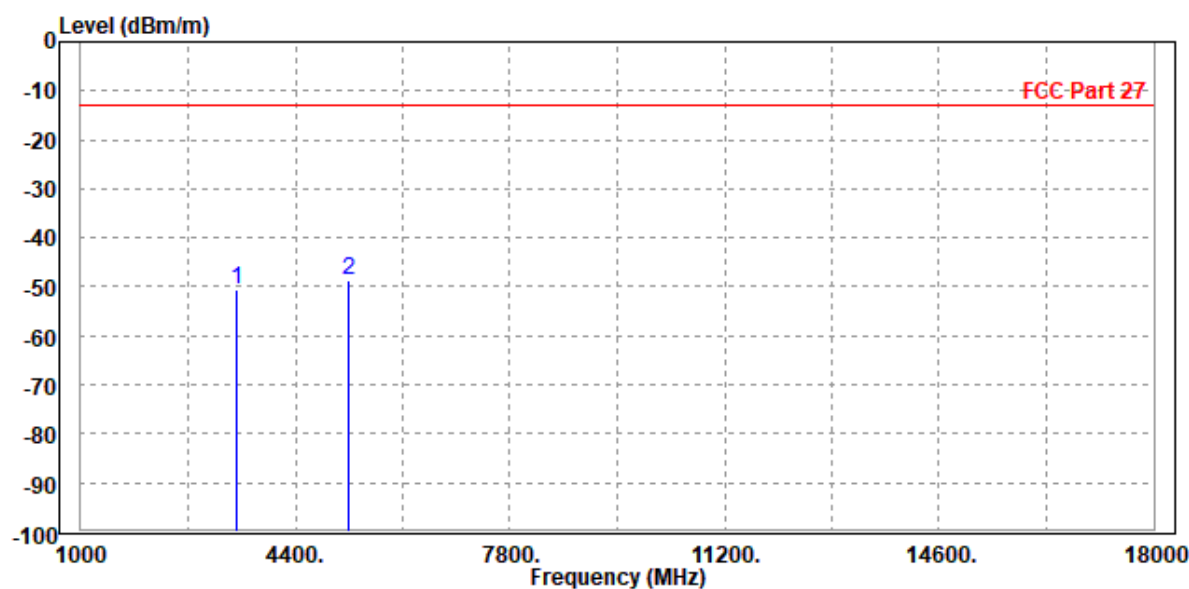




CHANNEL BANDWIDTH	3MHz / QPSK	MODE	TX channel 132322
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3482.000	-50.49	-59.04	-13.00	-37.49	8.55	Peak	Horizontal
2 PP	5235.000	-48.84	-60.25	-13.00	-35.84	11.41	Peak	Horizontal

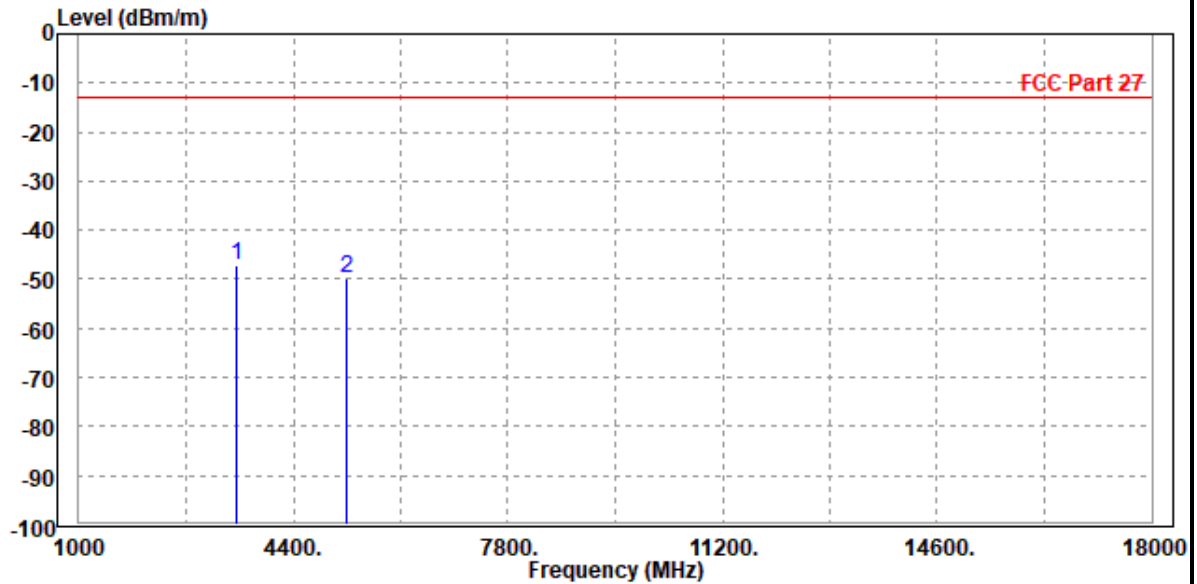




CHANNEL BANDWIDTH	3MHz / QPSK	MODE	TX channel 132322
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	3490.000	-47.29	-55.93	-13.00	-34.29	8.64	Peak	Vertical
2	5233.000	-49.64	-61.46	-13.00	-36.64	11.82	Peak	Vertical

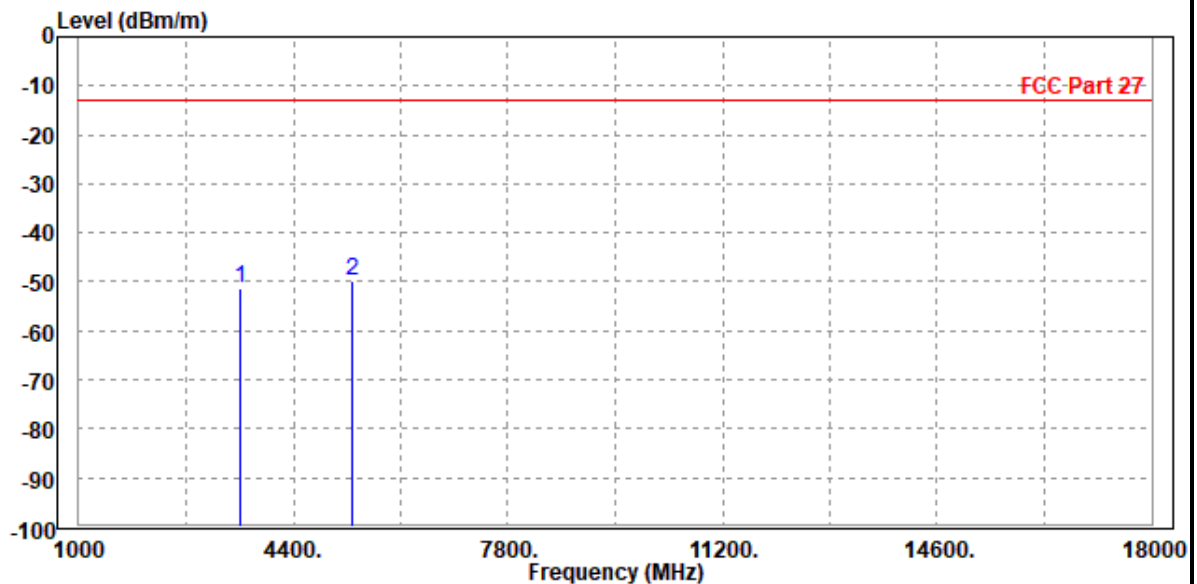




CHANNEL BANDWIDTH	3MHz / QPSK	MODE	TX channel 132657
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3557.000	-51.16	-59.67	-13.00	-38.16	8.51	Peak	Horizontal
2 PP	5335.000	-49.72	-61.28	-13.00	-36.72	11.56	Peak	Horizontal

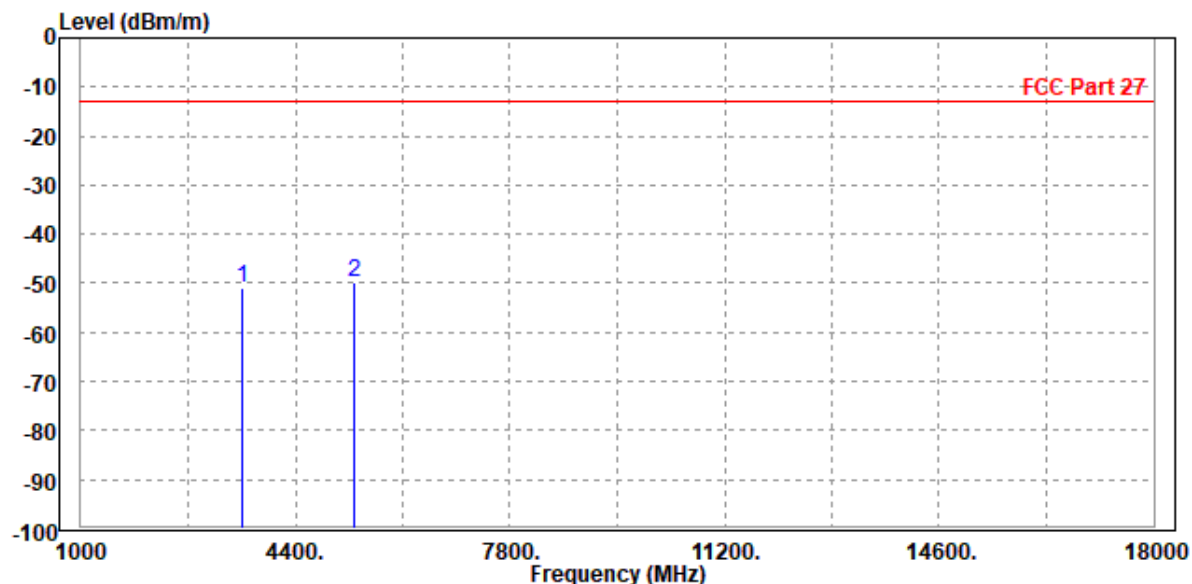




CHANNEL BANDWIDTH	3MHz / QPSK	MODE	TX channel 132657
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3550.000	-50.82	-59.46	-13.00	-37.82	8.64	Peak	Vertical
2 PP	5335.500	-49.73	-61.75	-13.00	-36.73	12.02	Peak	Vertical

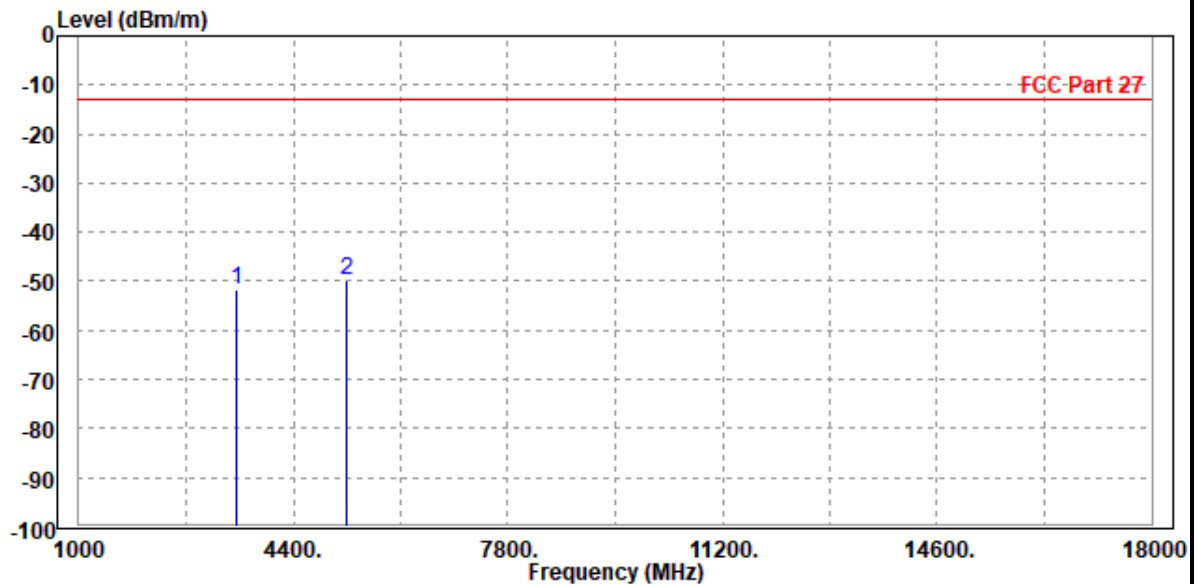




CHANNEL BANDWIDTH	5MHz / QPSK	MODE	TX channel 132322
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu
TESTED BY	Hanwen Xu		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3490.000	-51.87	-60.42	-13.00	-38.87	8.55	Peak	Horizontal
2 PP	5233.000	-49.82	-61.22	-13.00	-36.82	11.40	Peak	Horizontal

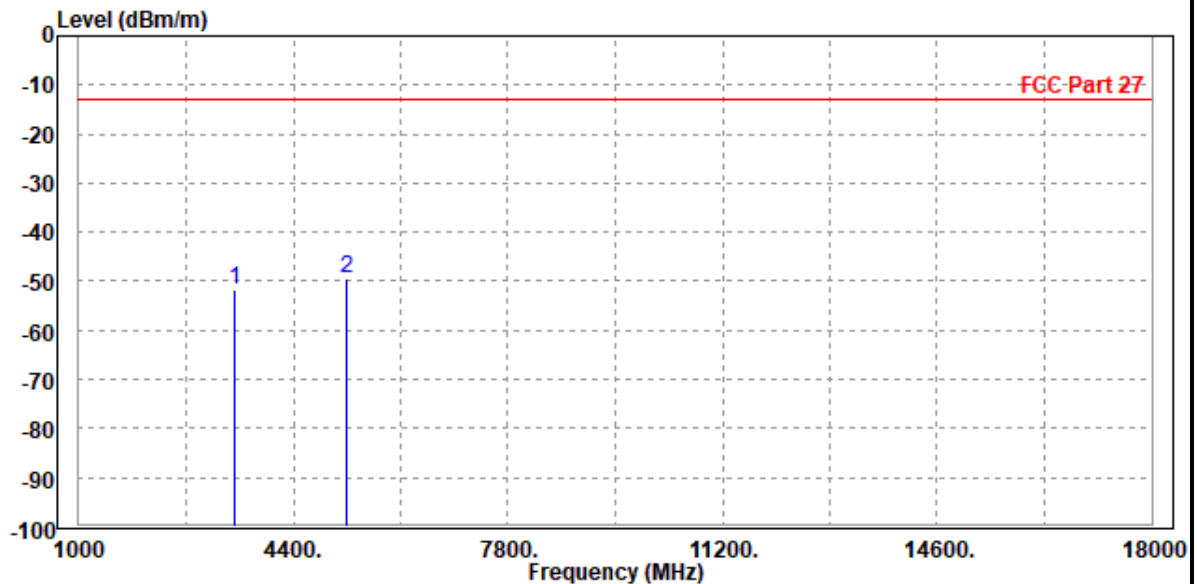




CHANNEL BANDWIDTH	5MHz / QPSK	MODE	TX channel 132322
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3482.000	-51.72	-60.37	-13.00	-38.72	8.65	Peak	Vertical
2 PP	5235.000	-49.57	-61.40	-13.00	-36.57	11.83	Peak	Vertical

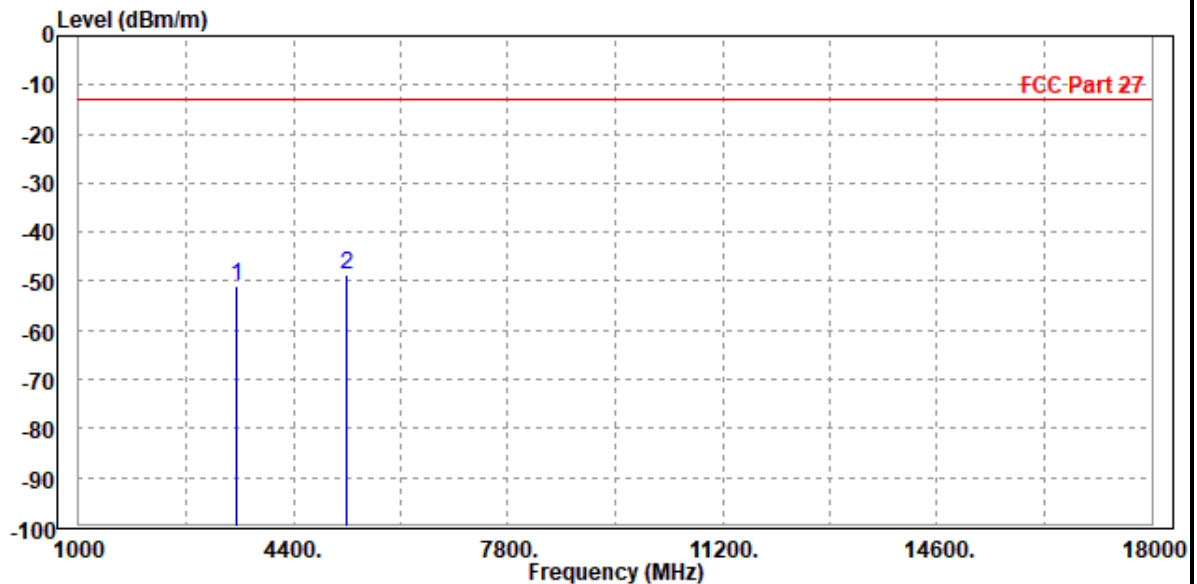




CHANNEL BANDWIDTH	10MHz / QPSK	MODE	TX channel 132322
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3490.000	-50.83	-59.38	-13.00	-37.83	8.55	Peak	Horizontal
2 PP	5233.000	-48.56	-59.96	-13.00	-35.56	11.40	Peak	Horizontal

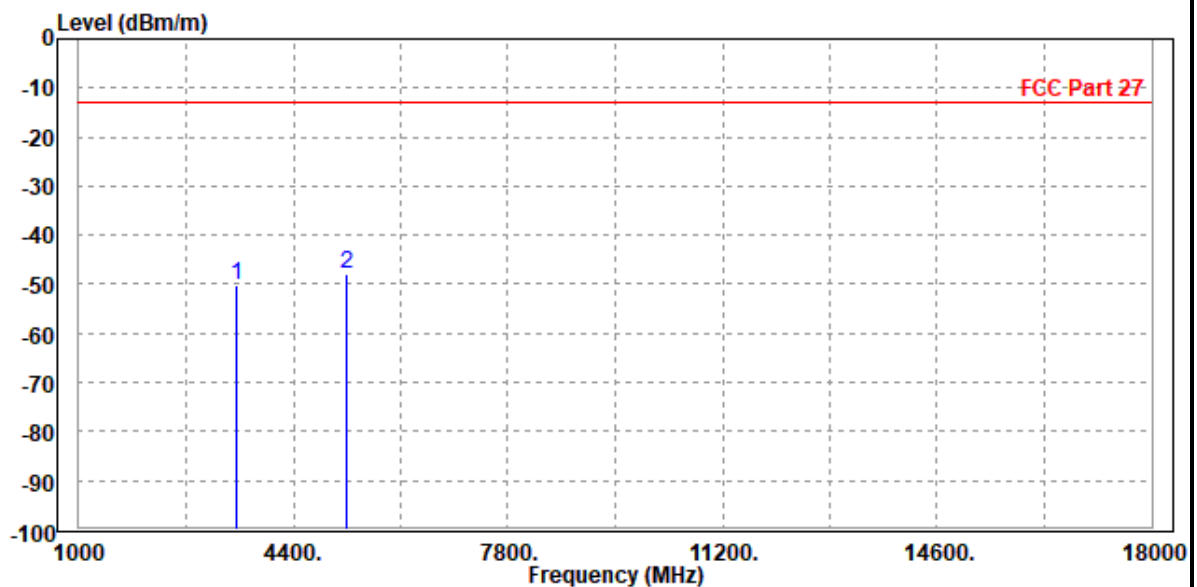




CHANNEL BANDWIDTH	10MHz / QPSK	MODE	TX channel 132322
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3490.000	-50.02	-58.66	-13.00	-37.02	8.64	Peak	Vertical
2 PP	5233.000	-47.94	-59.76	-13.00	-34.94	11.82	Peak	Vertical

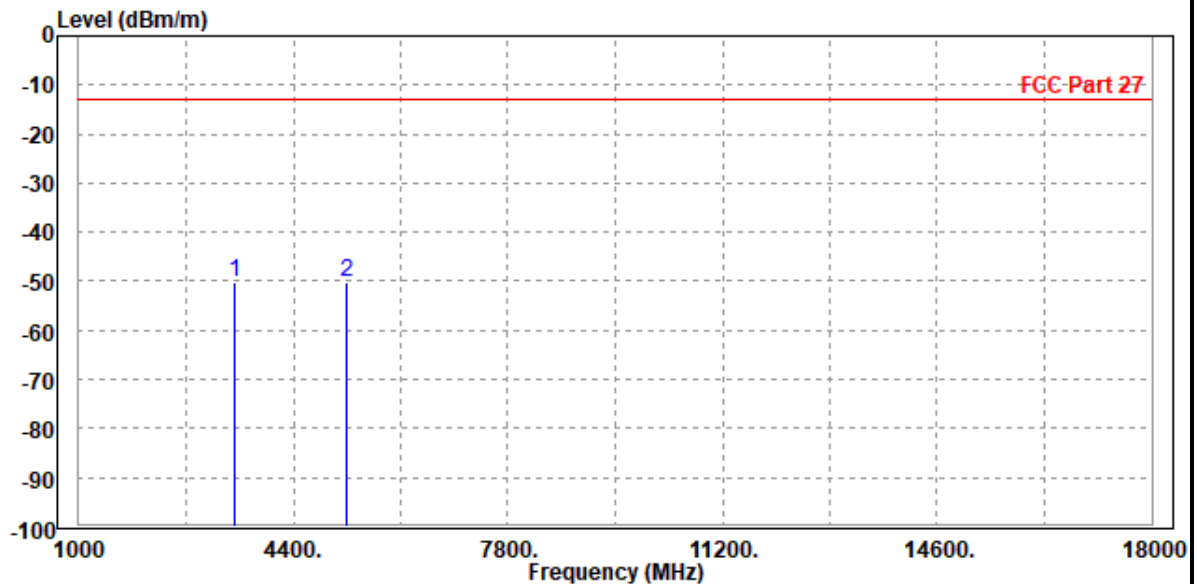




CHANNEL BANDWIDTH	15MHz / QPSK	MODE	TX channel 132322
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3482.000	-50.09	-58.64	-13.00	-37.09	8.55	Peak	Horizontal
2 PP	5235.000	-50.03	-61.44	-13.00	-37.03	11.41	Peak	Horizontal

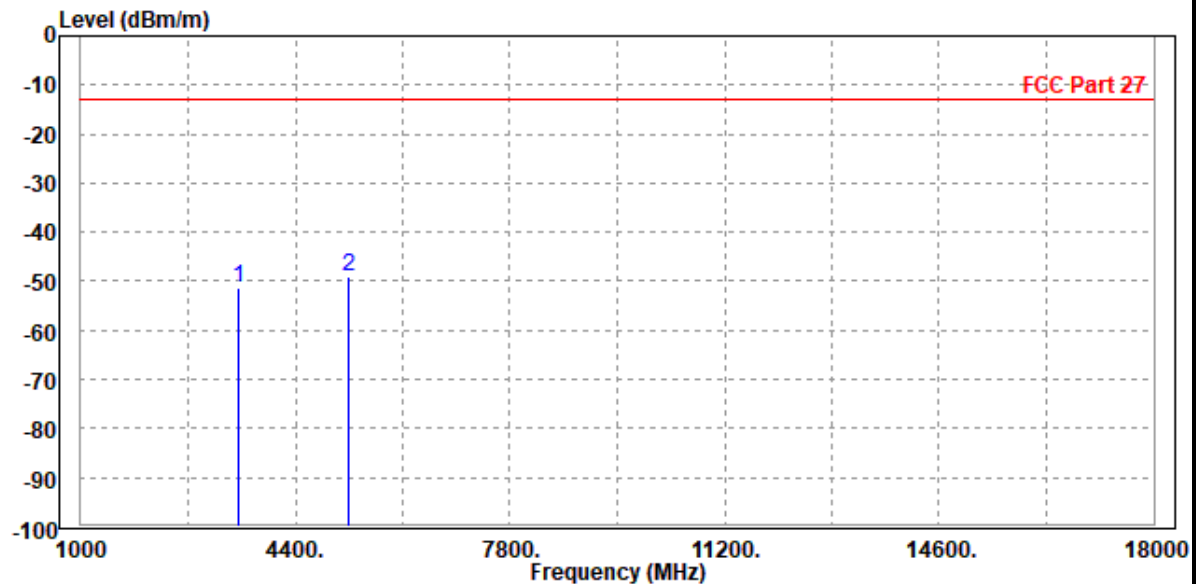




CHANNEL BANDWIDTH	15MHz / QPSK	MODE	TX channel 132322
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3490.000	-51.41	-60.05	-13.00	-38.41	8.64	Peak	Vertical
2 PP	5233.000	-49.23	-61.05	-13.00	-36.23	11.82	Peak	Vertical

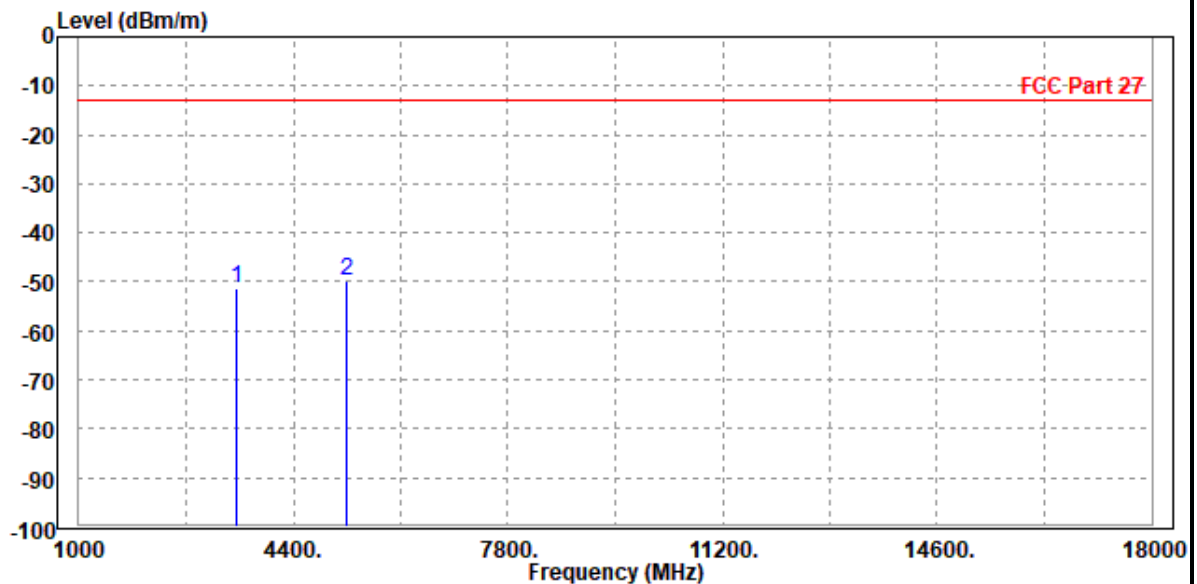




CHANNEL BANDWIDTH	20MHz / QPSK	MODE	TX channel 132322
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3490.000	-51.26	-59.81	-13.00	-38.26	8.55	Peak	Horizontal
2 PP	5233.000	-49.66	-61.06	-13.00	-36.66	11.40	Peak	Horizontal

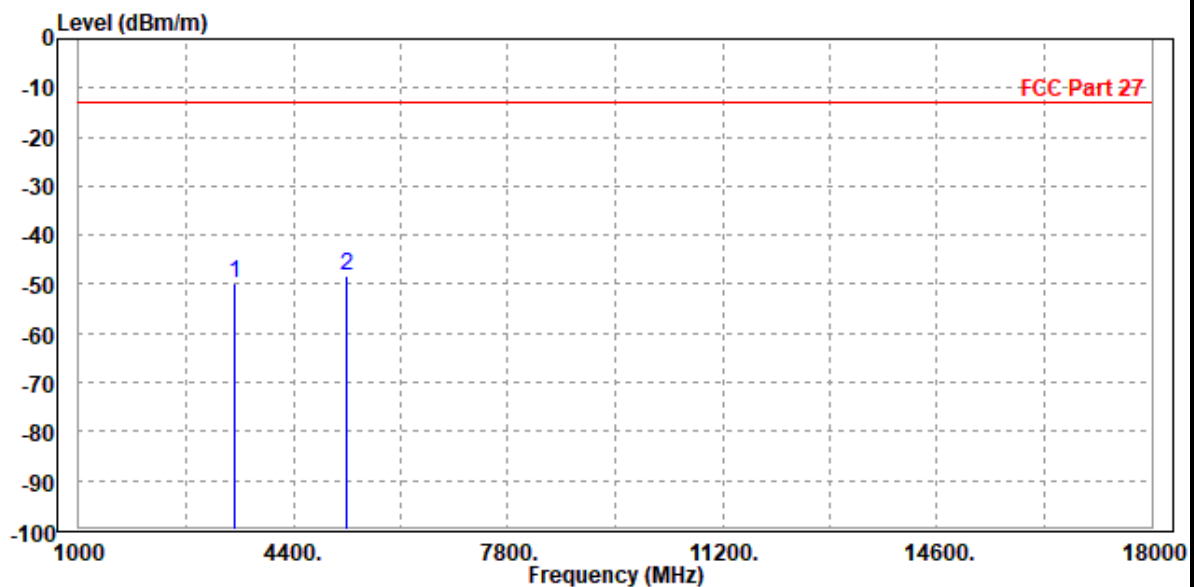




CHANNEL BANDWIDTH	20MHz / QPSK	MODE	TX channel 132322
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3482.000	-49.95	-58.60	-13.00	-36.95	8.65	Peak	Vertical
2 PP	5235.000	-48.26	-60.09	-13.00	-35.26	11.83	Peak	Vertical



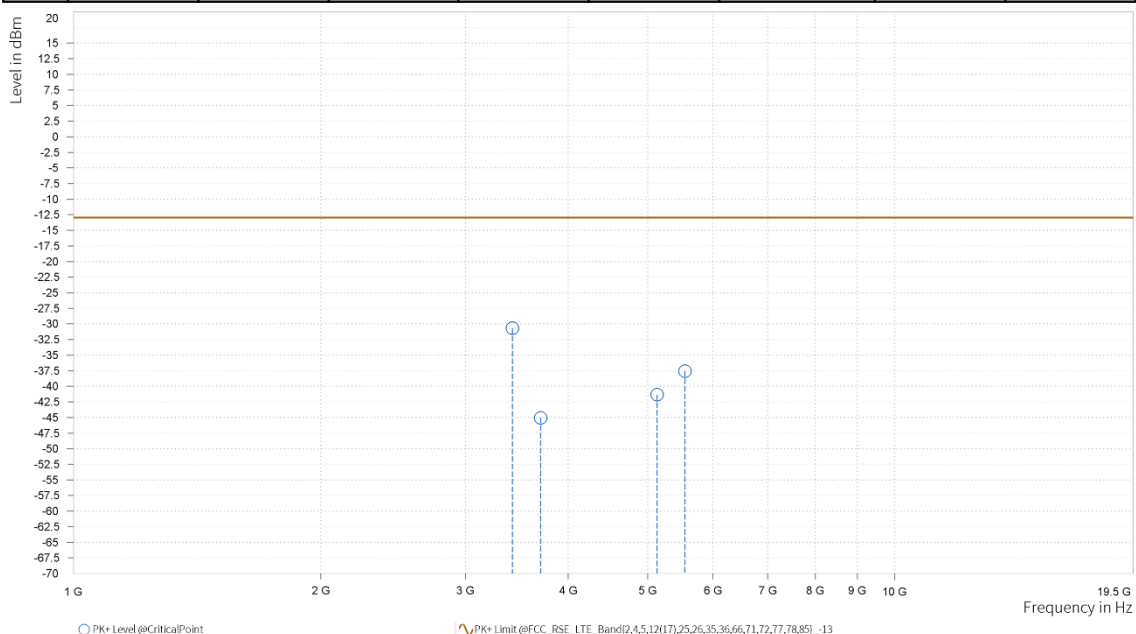


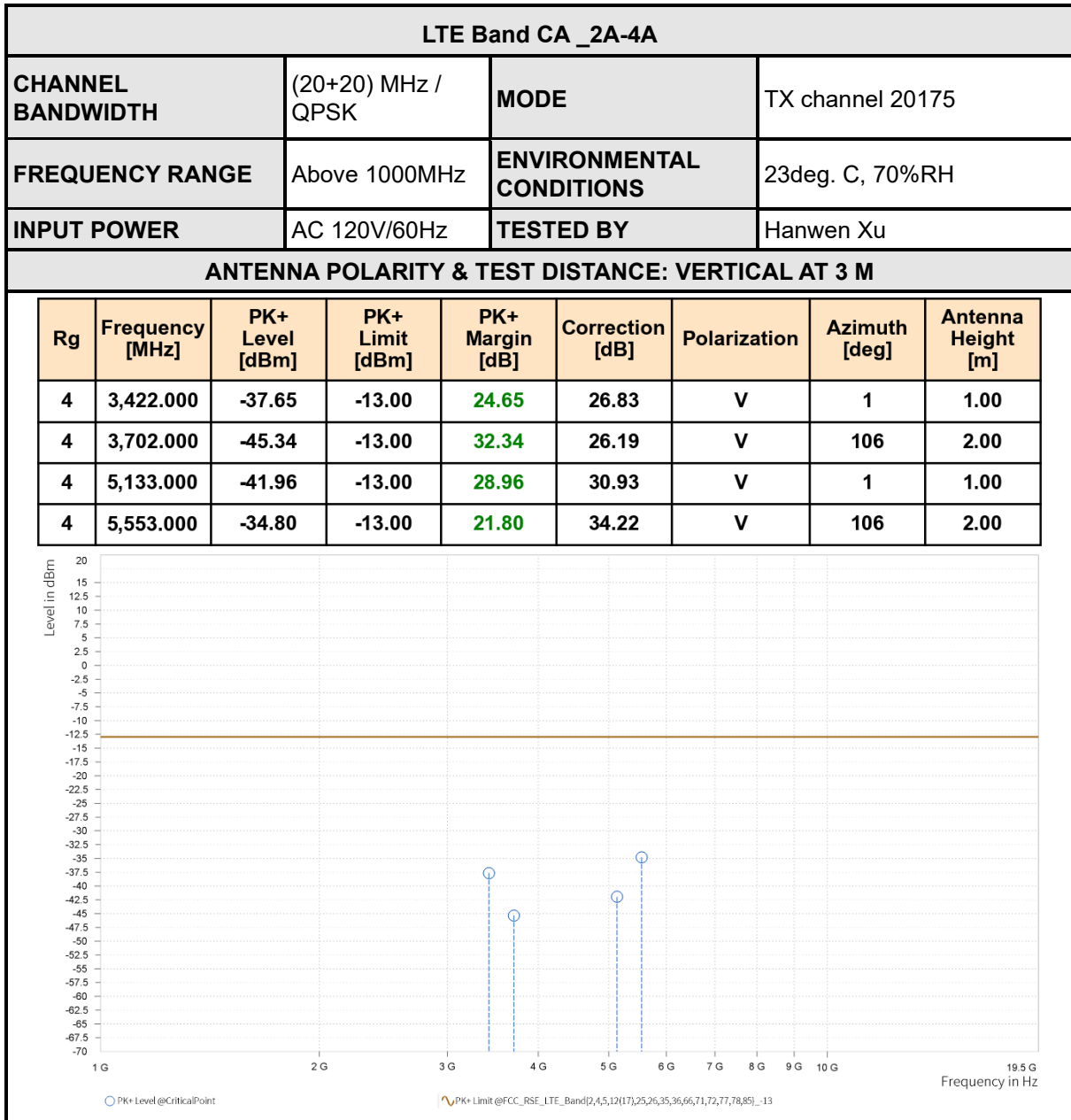
LTE Band CA_2A-4A

CHANNEL BANDWIDTH	(20+20) MHz / QPSK	MODE	TX channel 20175
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V/60Hz	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	3,422.000	-30.69	-13.00	17.69	27.03	H	359.1	1.00
4	3,702.000	-45.04	-13.00	32.04	26.37	H	107.2	2.00
4	5,133.000	-41.34	-13.00	28.34	31.06	H	1	1.00
4	5,553.000	-37.56	-13.00	24.56	34.48	H	107.2	2.00





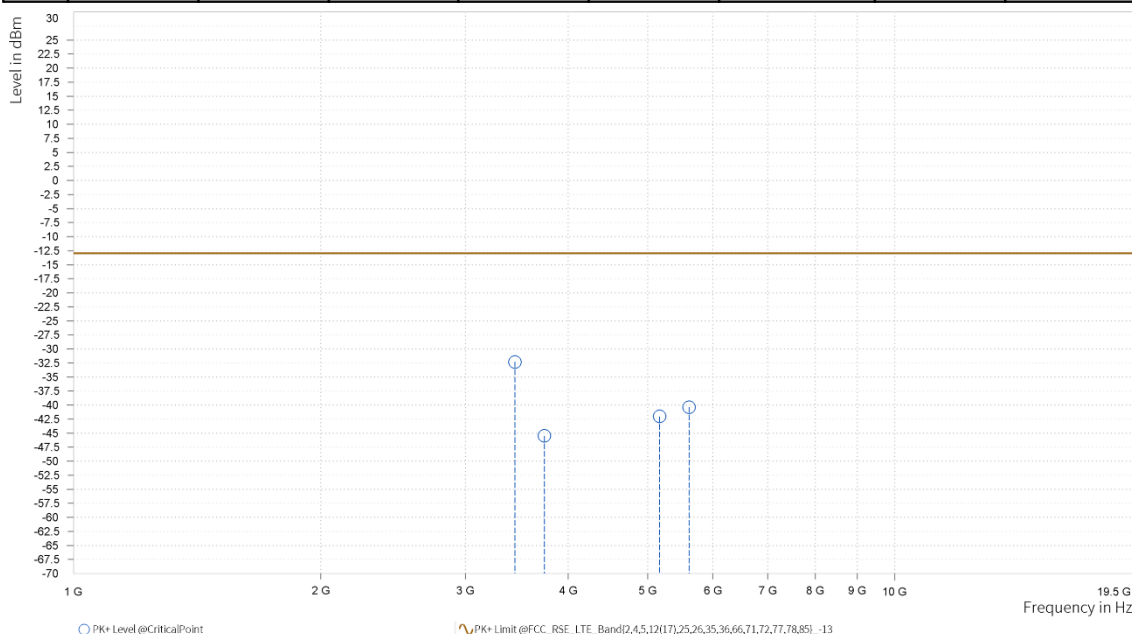


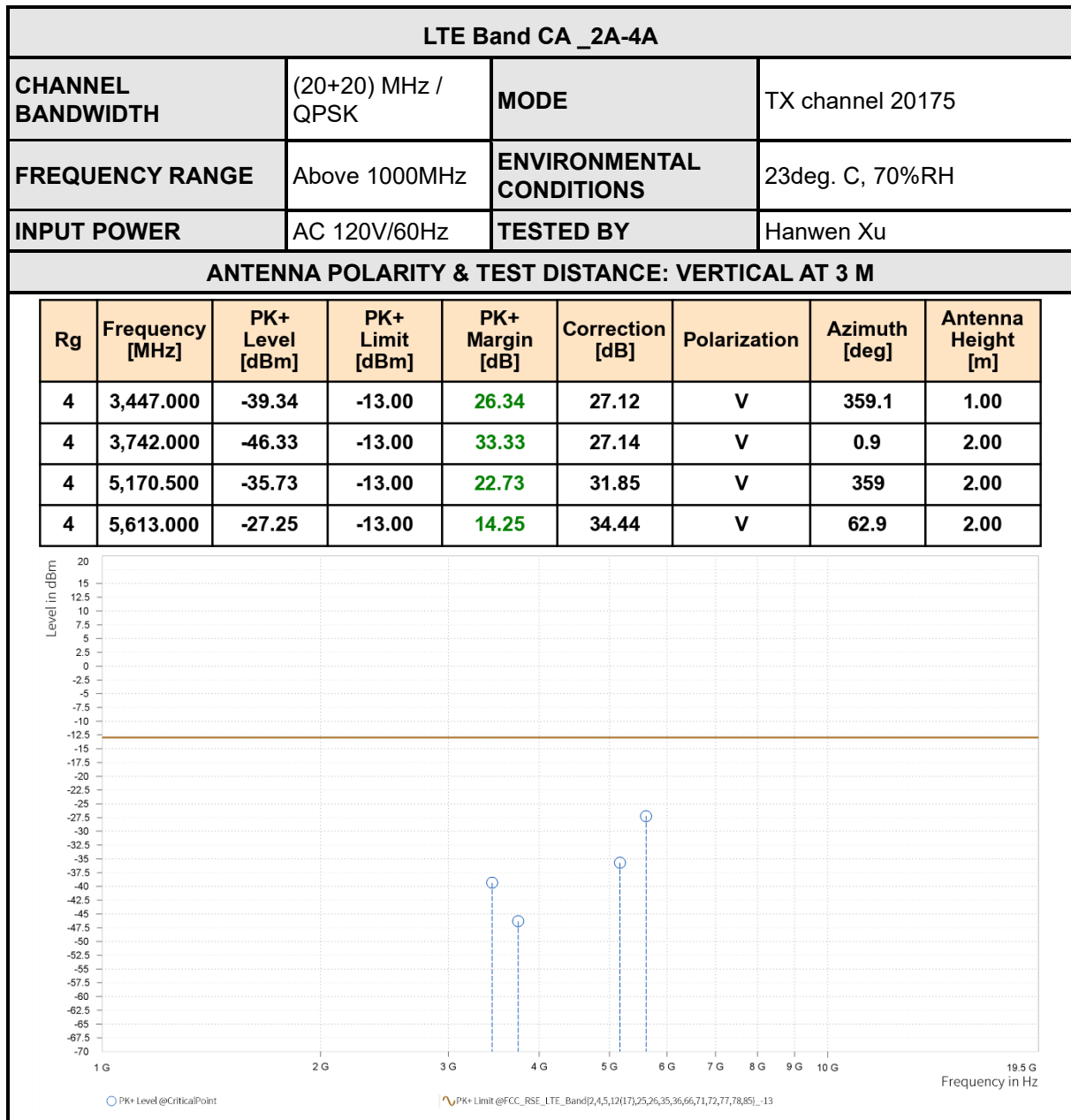
LTE Band CA_2A-4A

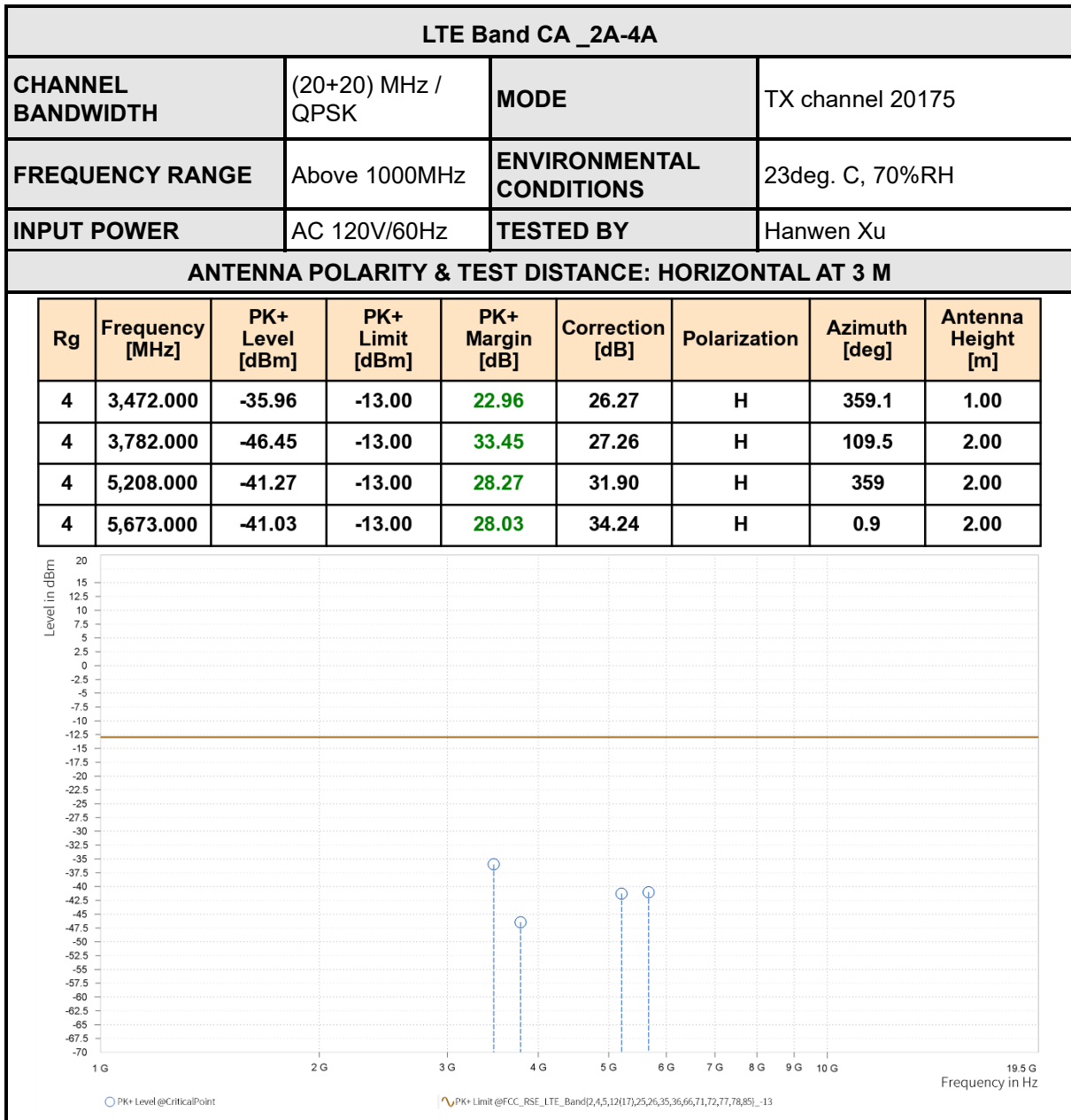
CHANNEL BANDWIDTH	(20+20) MHz / QPSK	MODE	TX channel 20175
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V/60Hz	TESTED BY	Hanwen Xu

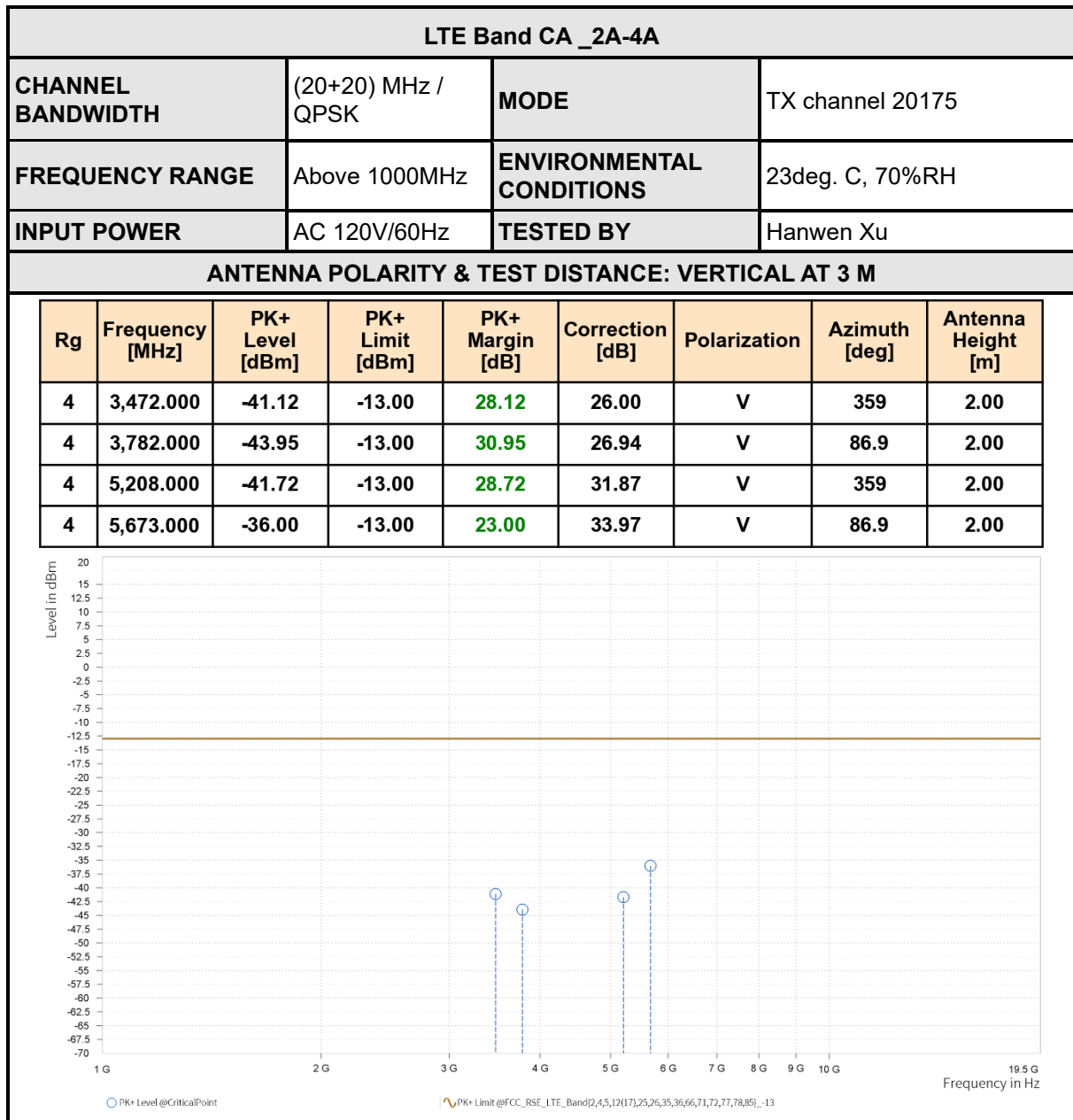
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	3,447.000	-32.33	-13.00	19.33	27.42	H	359.1	1.00
4	3,742.000	-45.49	-13.00	32.49	27.41	H	0.9	2.00
4	5,170.500	-42.02	-13.00	29.02	31.93	H	359.1	1.00
4	5,613.000	-40.39	-13.00	27.39	34.70	H	0.9	2.00







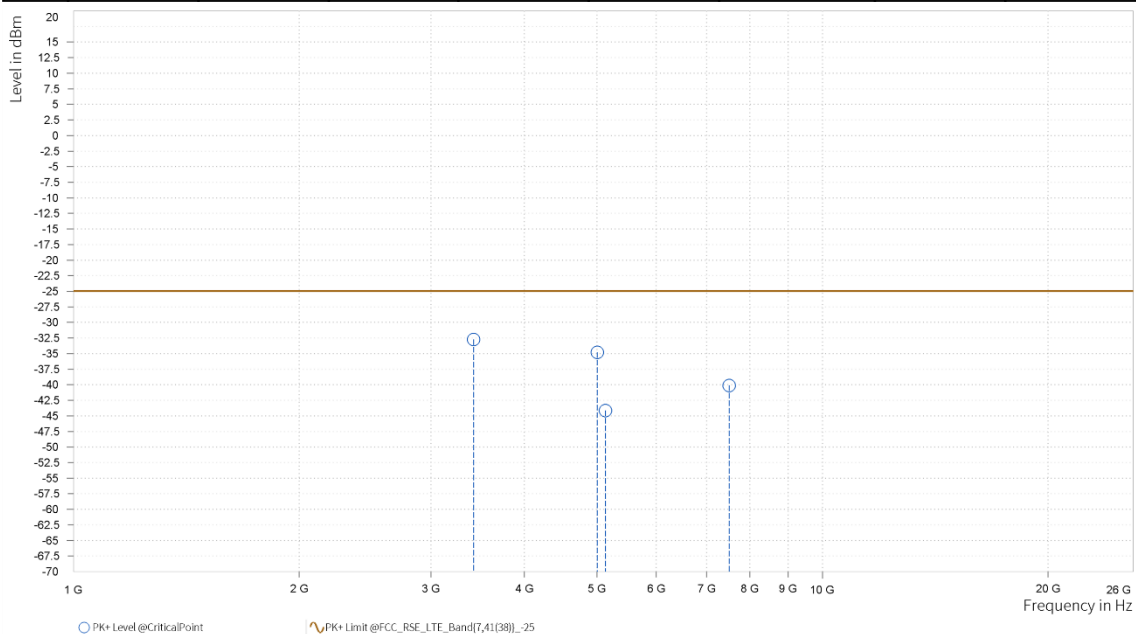




LTE Band CA_7A-66A			
CHANNEL BANDWIDTH	(20+20) MHz / QPSK	MODE	TX channel 132322
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V/60Hz	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	3,422.000	-32.74	-25.00	7.74	27.03	H	254.2	1.00
4	5,002.000	-34.80	-25.00	9.80	30.01	H	254.2	1.00
4	5,133.000	-44.15	-25.00	19.15	31.06	H	103.5	2.00
4	7,503.000	-40.12	-25.00	15.12	35.92	H	254.2	1.00



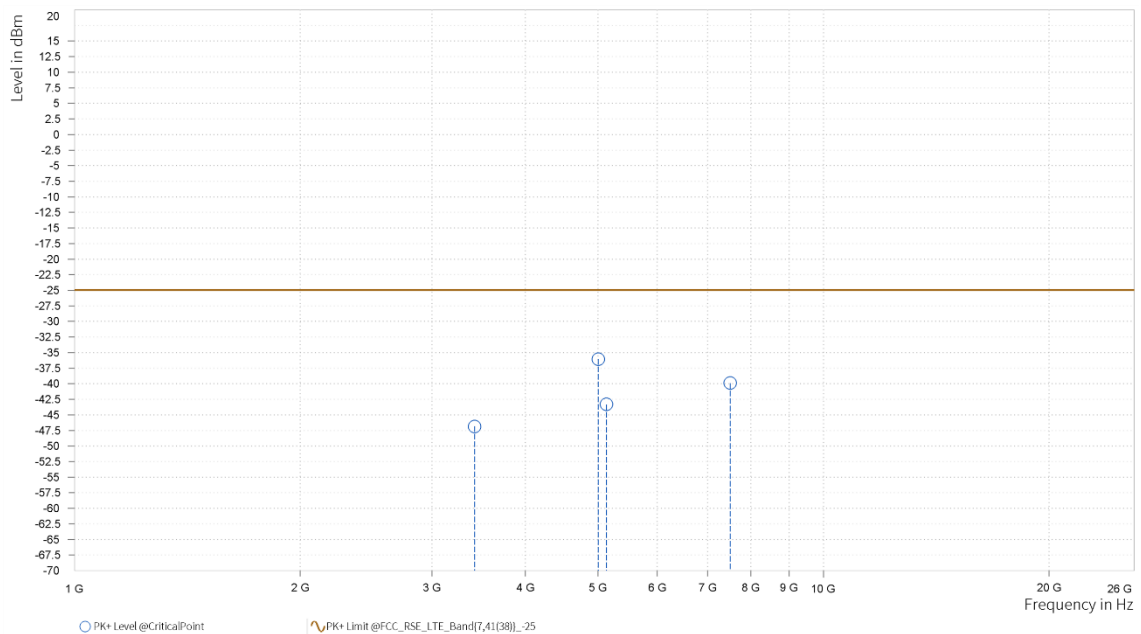


LTE Band CA_7A-66A

CHANNEL BANDWIDTH	(20+20) MHz / QPSK	MODE	TX channel 132322
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V/60Hz	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	3,422.000	-46.87	-25.00	21.87	26.83	V	327.1	1.00
4	5,002.000	-36.06	-25.00	11.06	29.87	V	107.1	2.00
4	5,133.000	-43.32	-25.00	18.32	30.93	V	327.1	1.00
4	7,503.000	-39.91	-25.00	14.91	36.09	V	107.1	2.00



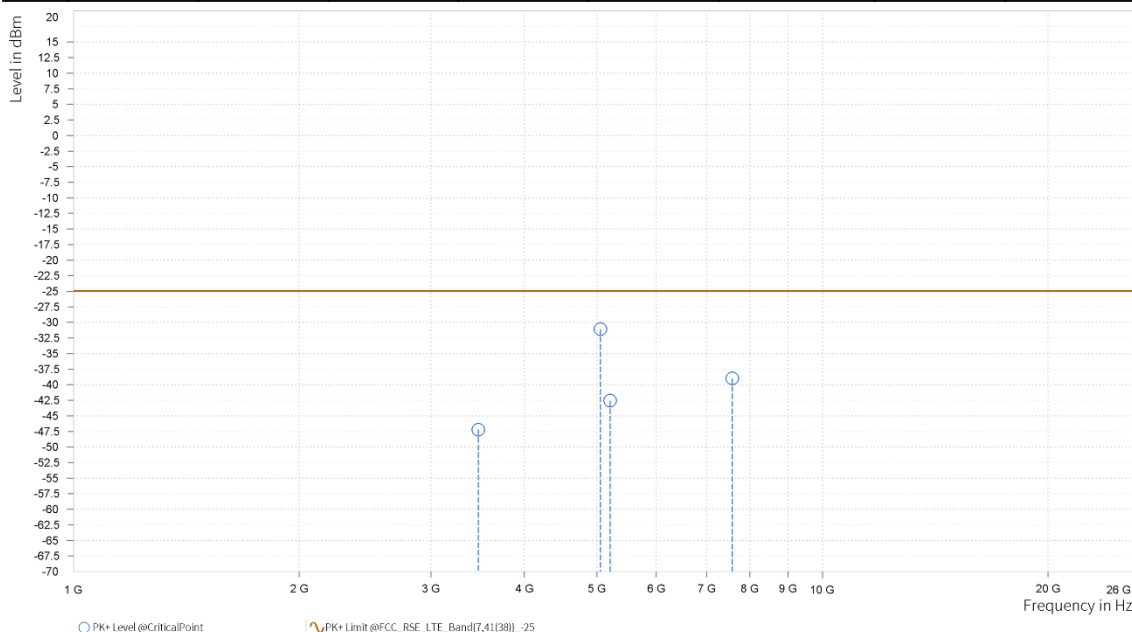


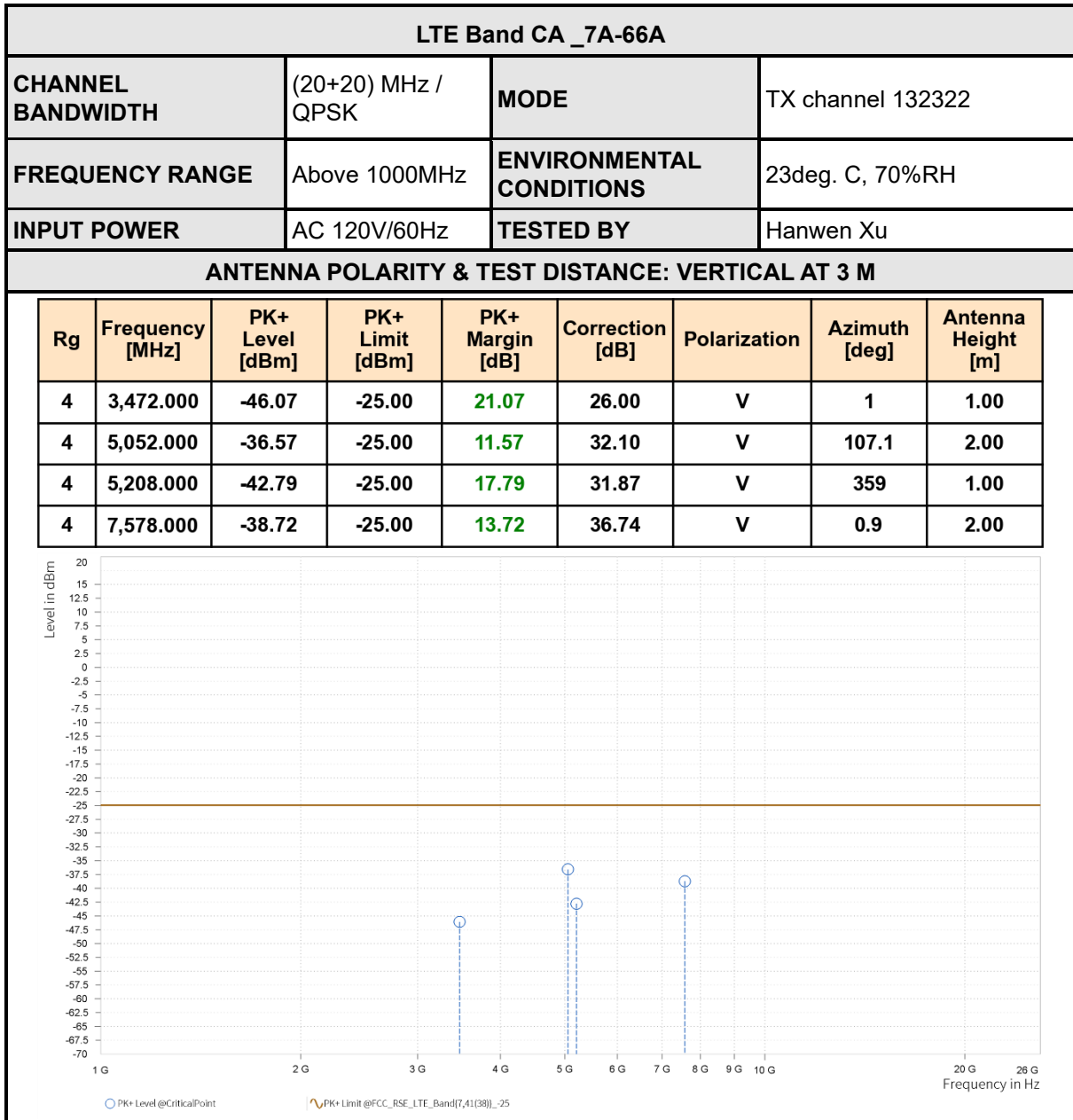
LTE Band CA_7A-66A

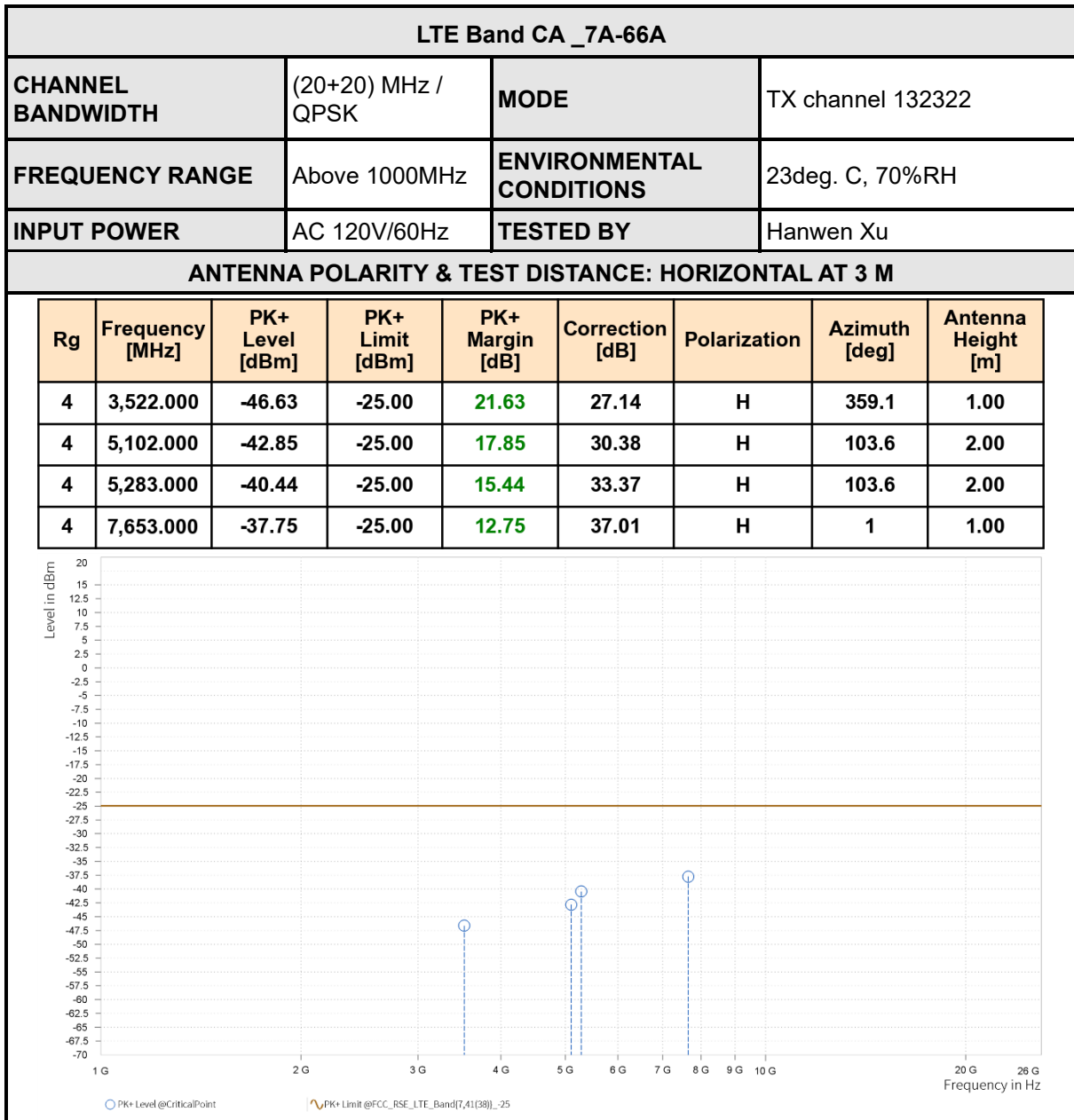
CHANNEL BANDWIDTH	(20+20) MHz / QPSK	MODE	TX channel 132322
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V/60Hz	TESTED BY	Hanwen Xu

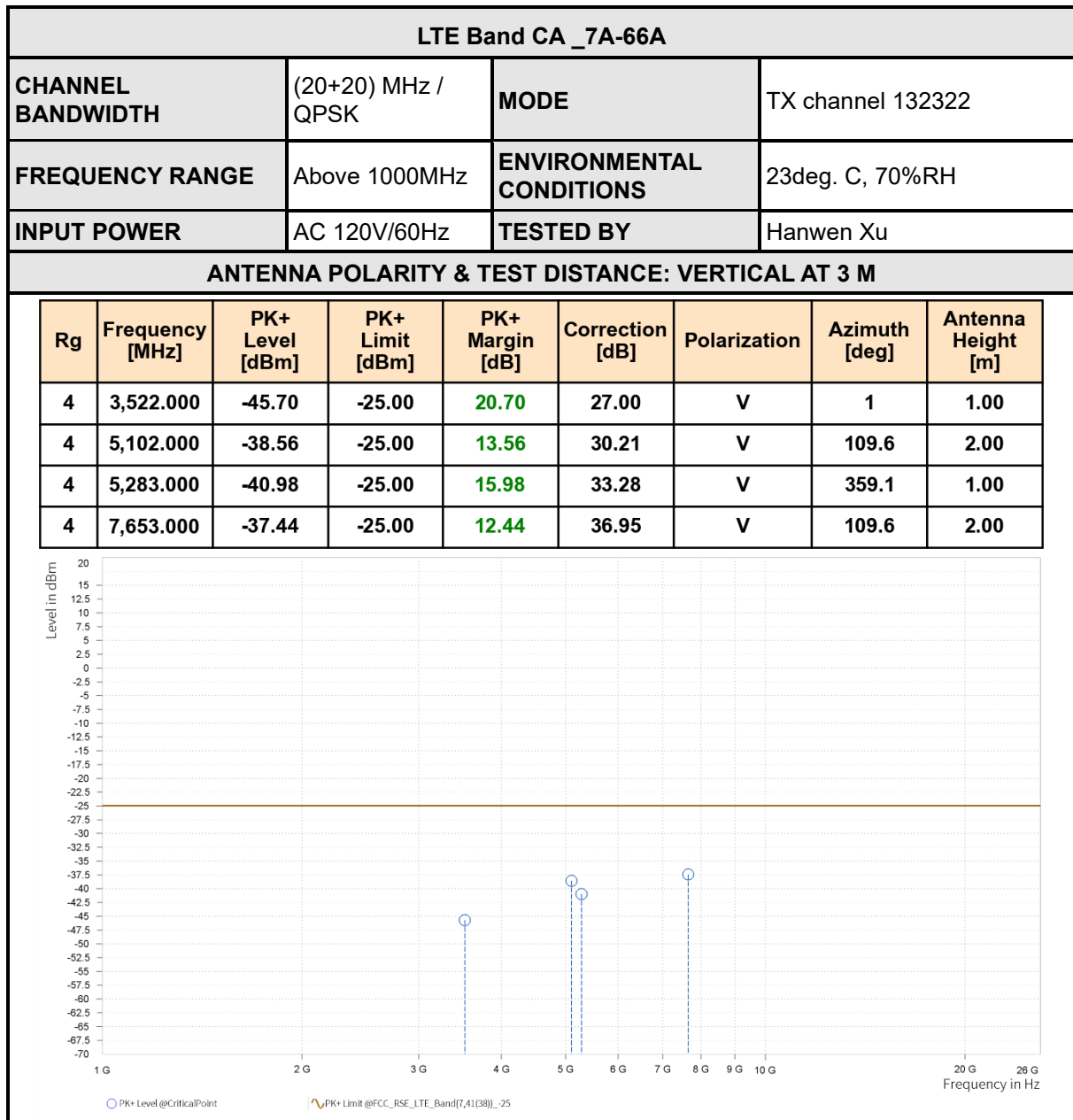
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

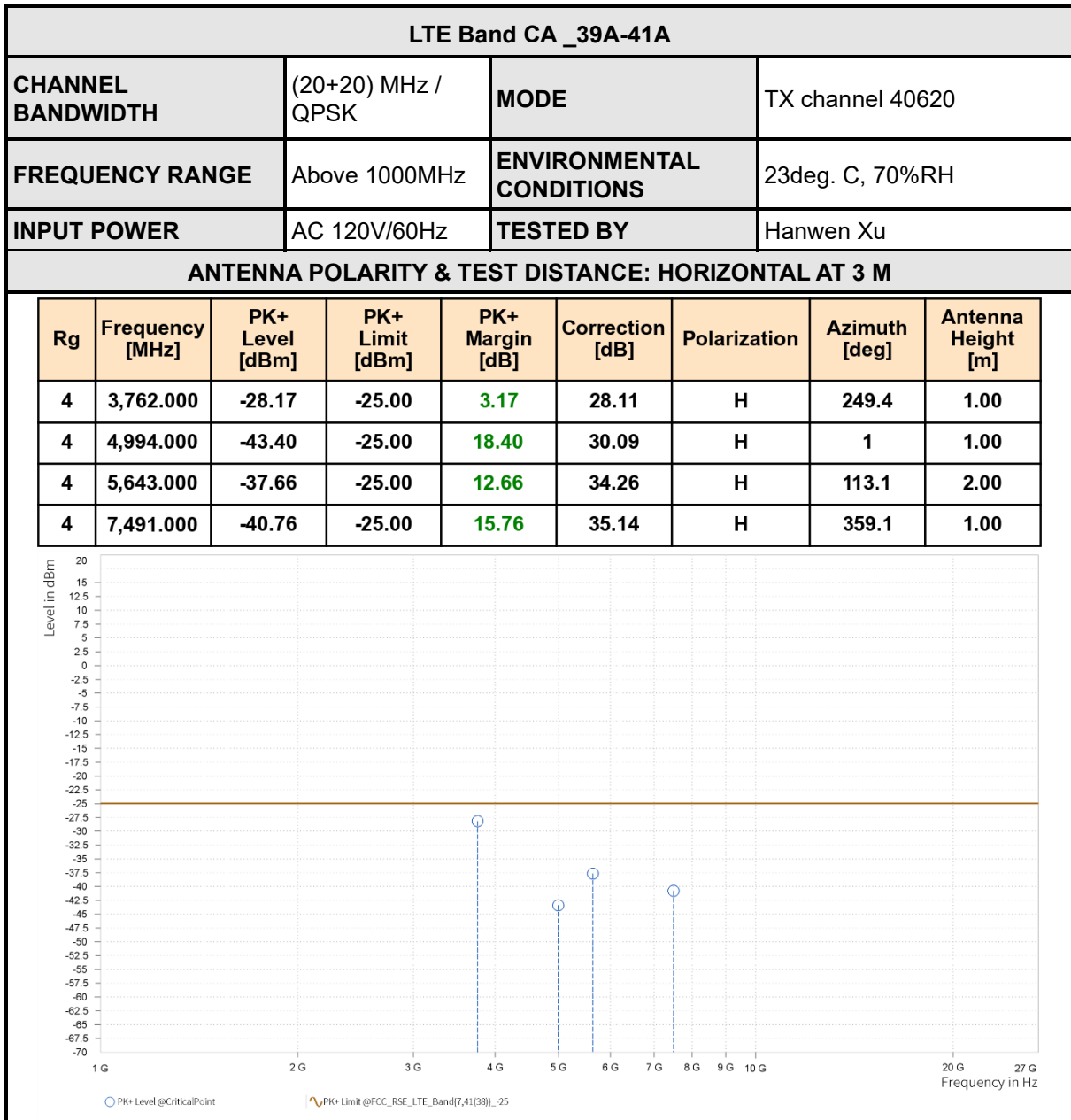
Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	3,472.000	-47.21	-25.00	22.21	26.27	H	1	1.00
4	5,052.000	-31.08	-25.00	6.08	32.31	H	103.6	2.00
4	5,208.000	-42.55	-25.00	17.55	31.90	H	103.6	2.00
4	7,578.000	-38.98	-25.00	13.98	36.69	H	359.1	1.00

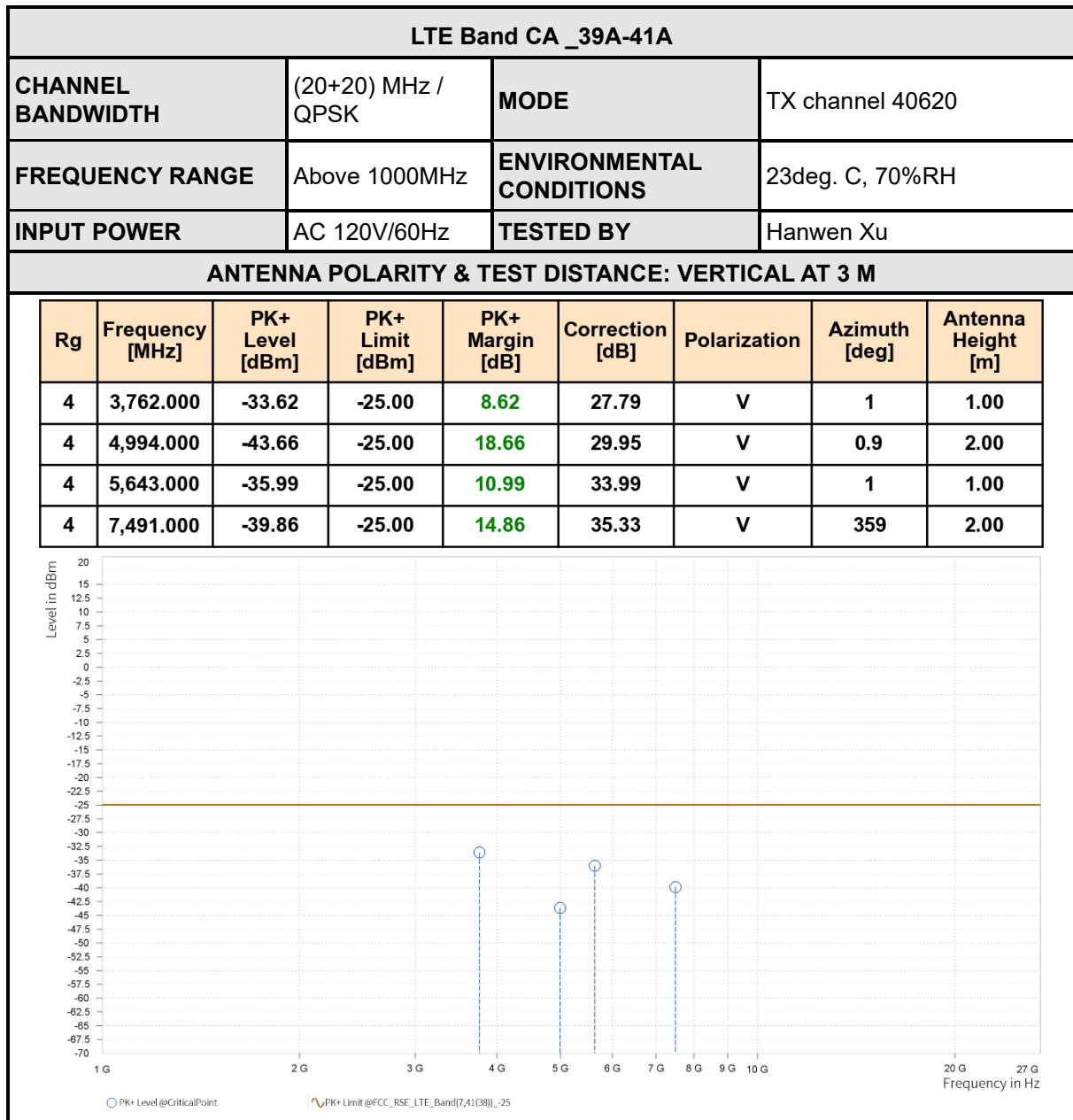












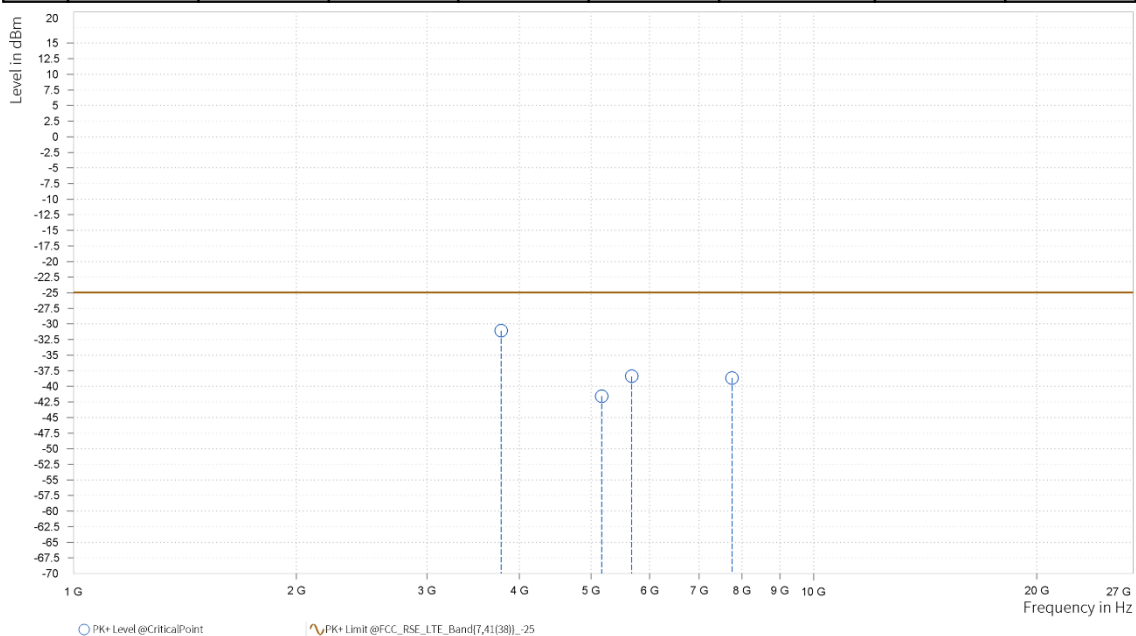


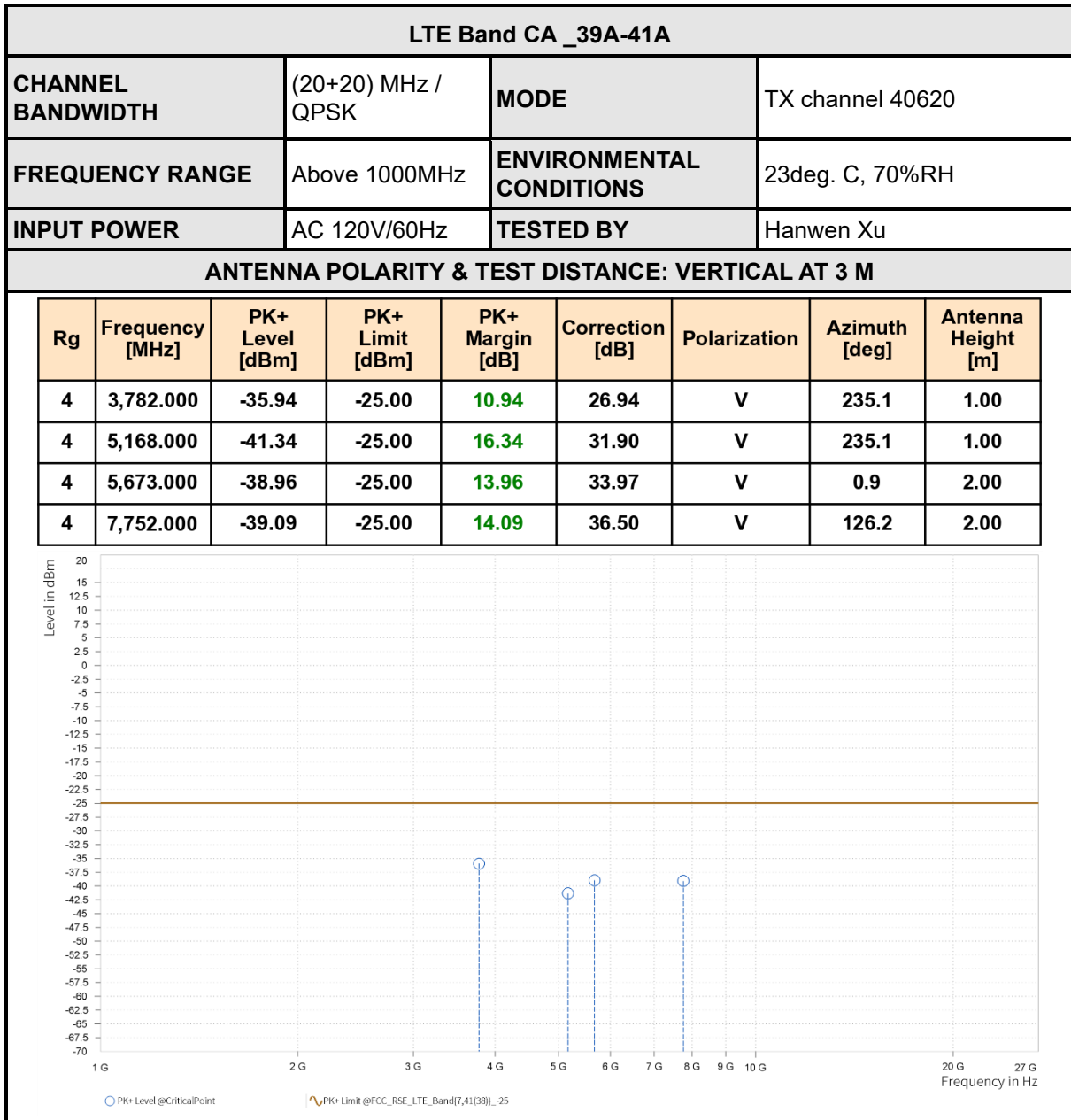
LTE Band CA_39A-41A

CHANNEL BANDWIDTH	(20+20) MHz / QPSK	MODE	TX channel 40620
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V/60Hz	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	3,782.000	-31.09	-25.00	6.09	27.26	H	285.2	1.00
4	5,168.000	-41.57	-25.00	16.57	31.98	H	285.2	1.00
4	5,673.000	-38.40	-25.00	13.40	34.24	H	1	1.00
4	7,752.000	-38.67	-25.00	13.67	36.47	H	1	1.00





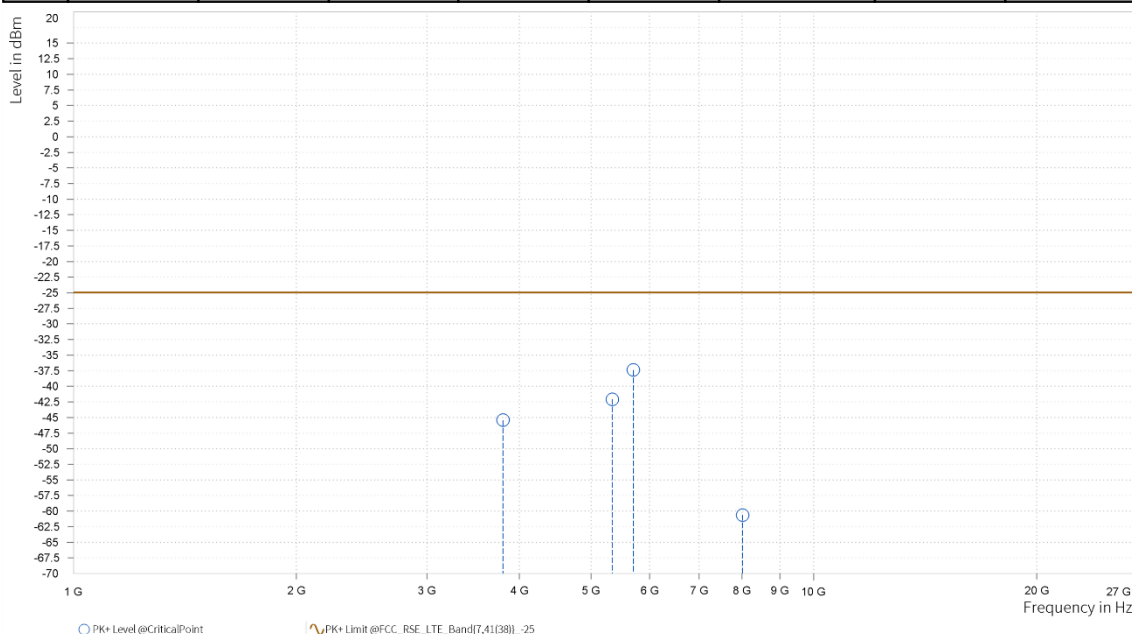


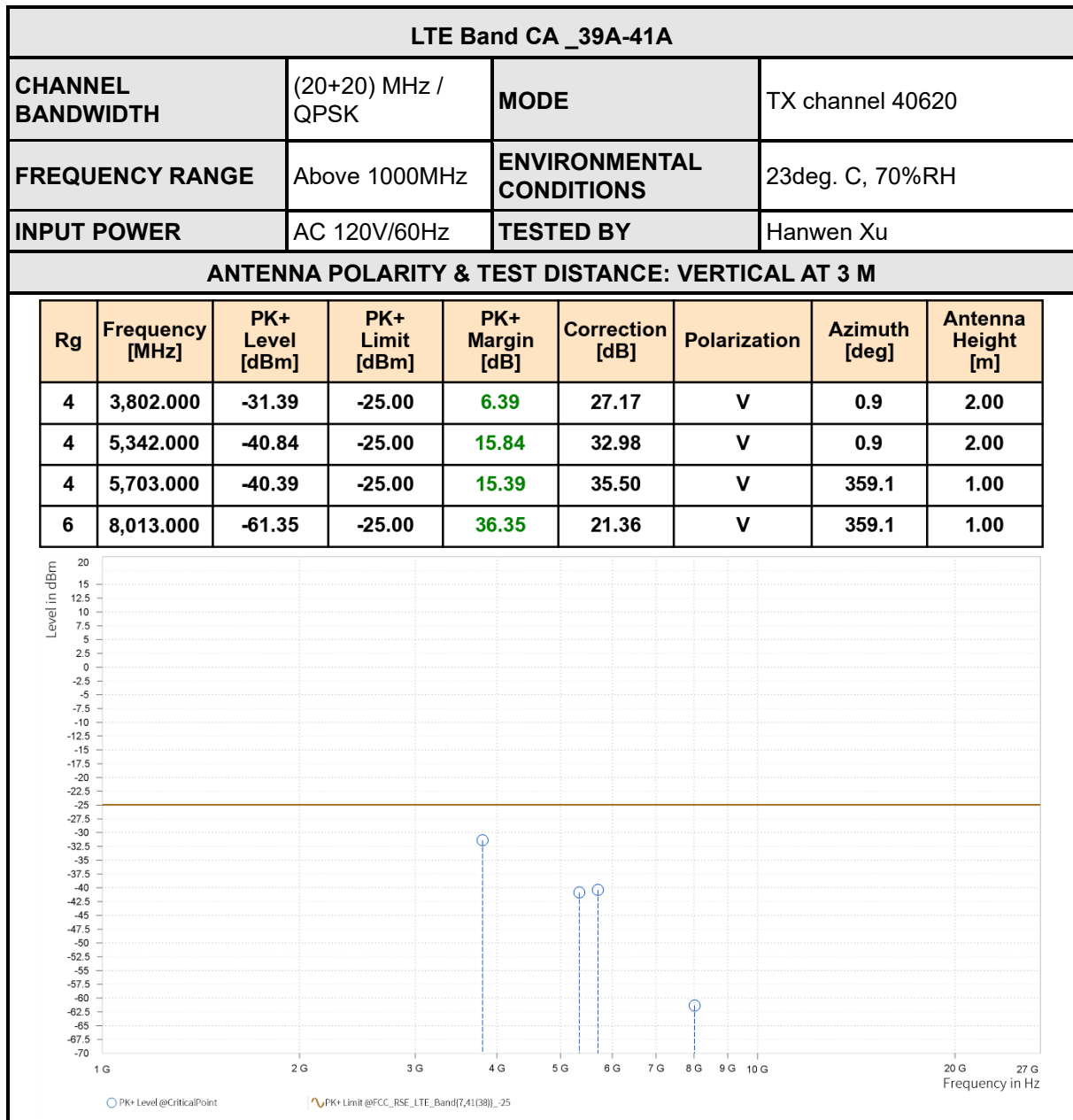
LTE Band CA_39A-41A

CHANNEL BANDWIDTH	(20+20) MHz / QPSK	MODE	TX channel 40620
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V/60Hz	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	3,802.000	-45.41	-25.00	20.41	27.48	H	1	1.00
4	5,342.000	-42.09	-25.00	17.09	33.13	H	359	2.00
4	5,703.000	-37.39	-25.00	12.39	35.77	H	0.9	2.00
6	8,013.000	-60.63	-25.00	35.63	21.36	H	0.9	2.00



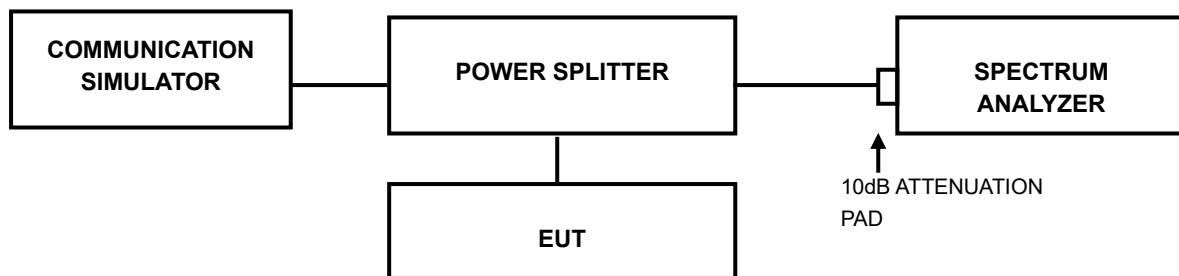


3.7 PEAK TO AVERAGE RATIO

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 $\geq$ 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 Appendix Of this test report.



4 INFORMATION ON THE TESTING LABORATORIES

We, Huarui 7layers High Technology (Suzhou) Co., Ltd. ,were founded in 2020 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

Huarui 7Layers High Technology (Suzhou) Co., Ltd.

Lab Address:

Tower N, Innovation Center, 88 Zuyi Road, High-tech District, Suzhou City, Anhui Province, China

Accredited Test Lab Cert 6613.01

If you have any comments, please feel free to contact us at the following:

Suzhou EMC/RF Lab:

Tel: +86 (0557) 368 1008



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.



6 Appendix

Please refer to Appendix C report.

--END--