



BUREAU
VERITAS

Test Report No.: PSU-QSZ2504270113RF03



Certificate #6613.01

FCC TEST REPORT

(PART 27)

Applicant:	Shenzhen Jimi IoT Co., Ltd.
Address:	3-4/F, Block A, Building #7, Shenzhen International Innovation Valley, Dashi 1st Road, Nanshan District, Shenzhen, Guangdong, China

Manufacturer or Supplier:	Shenzhen Jimi IoT Co., Ltd.
Address:	3-4/F, Block A, Building #7, Shenzhen International Innovation Valley, Dashi 1st Road, Nanshan District, Shenzhen, Guangdong, China
Product:	Positioning Fuel Level Sensor
Brand Name:	jimiidot
Model Name:	KL100
FCC ID	2AMLF-KL100
Date of tests	Jun. 05, 2025 ~ Jun. 12, 2025

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

<input checked="" type="checkbox"/> FCC Part 27	<input checked="" type="checkbox"/> ANSI/TIA/EIA-603-E
<input checked="" type="checkbox"/> ANSI/TIA/EIA-603-D	<input checked="" type="checkbox"/> ANSI C63.26-2015
<input checked="" type="checkbox"/> 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: Jun. 12, 2025	Date: Jun. 12, 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-QSZ2504270113RF03	Original release	Jun. 12, 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	See note	/
§27.50(d)(4) §27.50(h)(2)	Equivalent Isotropically Radiated Power	Compliance	A
§2.1055 §27.54	Frequency Stability	See note	/
§2.1049	Occupied Bandwidth	See note	/
§2.1051 §27.53(c)(2) §27.53(g) §27.53(h) §27.53(m)(4)	Conducted Band Edge Measurements	See note	/
§2.1051 §27.53(g) §27.53(c)(2) §27.53(f) §27.53(h) §27.53(m)(4)	Conducted Spurious Emissions	See note	/
§2.1053 §27.53(c)(2) §27.53(f) §27.53(g) §27.53(h) §27.53(m)(4)	Radiated Spurious Emissions	See note	A
§27.50	Peak to average ratio*	Compliance	/

NOTE: Please Refer to Module report BL-SZ2270935-501, FCC ID: 2AMLFXQ600-LA



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***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.

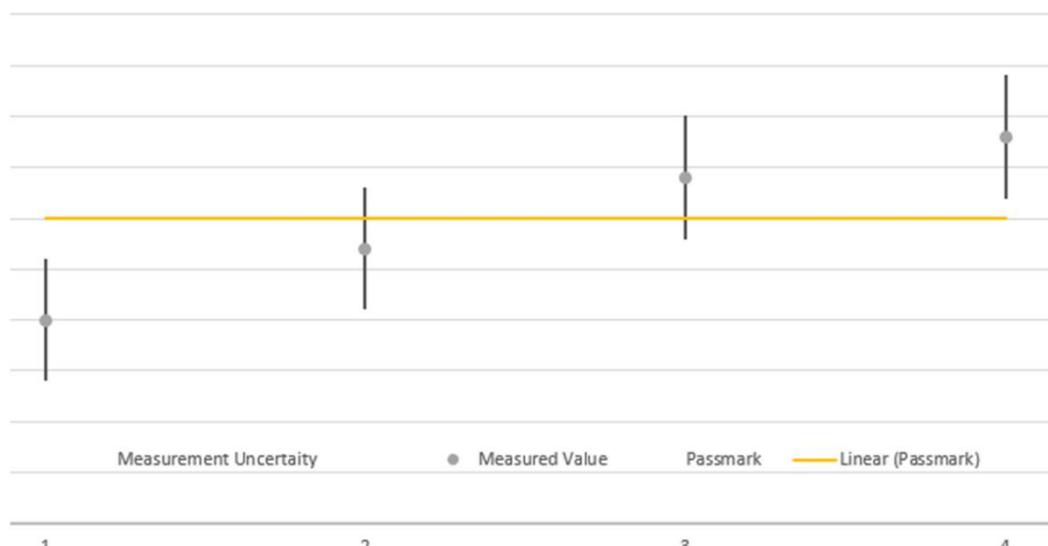


1.1 MEASUREMENT UNCERTAINTY

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

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Pre-Amplifier	R&S	SCU18F1	100815	Aug.30,23	Aug.29,25
Pre-Amplifier	R&S	SCU08F1	101028	Jan.22,24	Jan.21,26
Vector Signal Generator	R&S	SMBV100B	102176	Mar.29,24	Mar.28,26
Signal Generator	R&S	SMB100A	182185	Mar.29,24	Mar.28,26
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	Mar.28,24	Mar.27,26
EMI TEST Receiver	R&S	ESW44	101973	Mar.28,24	Mar.27,26
Bilog Antenna	SCHWARZBECK	VULB 9163	1264	Dec.26,23	Dec.25,25
Horn Antenna	ETS-LINDGREN	3117	227836	Aug.22,23	Aug.21,25
Horn Antenna (18GHz-40GHz)	Steatite Q-par Antennas	QMS 00880	23486	Jul.15,24	Jul.14,26
Horn Antenna	Steatite Q-par Antennas	QMS 00208	23485	Aug.22,23	Aug.21,25
Loop Antenna	SCHWARZ	HFH2-Z2/Z2E	100976	Feb.23,23	Feb.22,25
WIDEBANDRADIO COMMUNICATION TESTER	R&S	CMW500	169399	Jun.19,24	Jun.18,26
Radio Communication Tester	Rohde&Schwarz	CMX500	101446	Mar.21,25	Mar.20,27
Test Software	EMC32	EMC32	N/A	N/A	N/A
6DB attenuator	Tonscend Technology Co., Ltd	N/A	23062787	N/A	N/A
Test Software	ELEKTRA	ELEKTRA4.32	N/A	N/A	N/A
Open Switch and Control Unit	R&S	OSP220	101964	N/A	N/A
DC Source	HYELEC	HY3010B	551016	Aug.31,23	Aug.30,25
Hygrothermograph	DELI	20210528	SZ014	Sep.06,23	Sep.05,25
PC	LENOVO	E14	HRSW0024	N/A	N/A
TMC-AMI18843A(CABLE)	R&S	HF290-NMNM-7.00M	N/A	N/A	N/A
TMC-AMI18843A(CABLE)	R&S	HF290-NMNM-4.00M	N/A	N/A	N/A
CABLE	R&S	W13.02	N/A	Apr.26,25	Apr.25.26
CABLE	R&S	W12.14	N/A	Apr.26,25	Apr.25.26
CABLE	R&S	J12J103539-00-1	SEP-03-20-069	Apr.26,25	Apr.25.26
CABLE	R&S	J12J103539-00-1	SEP-03-20-070	Apr.26,25	Apr.25.26
Temperature Chamber	votsch	VT4002	58566078100050	May.30,24	May.29,26



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NOTE:

1. The calibration interval of the above test instruments is 12 months or 24 months or 36 months and the calibrations are traceable to CEPREI/CHINA, GRRG/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*	Positioning Fuel Level Sensor	
BRAND NAME*	jimiiot	
MODEL NAME*	KL100	
NOMINAL VOLTAGE*	12 Vdc	
MODULATION TECHNOLOGY	LTE	QPSK,16QAM
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 7 Channel Bandwidth: 5MHz	2502.5MHz ~ 2567.5MHz
	LTE Band 7 Channel Bandwidth: 10MHz	2505MHz ~ 2565MHz
	LTE Band 7 Channel Bandwidth: 15MHz	2507.5MHz ~ 2562.5MHz
	LTE Band 7 Channel Bandwidth: 20MHz	2510MHz ~ 2560MHz
MAX. EIRP/ERP POWER	LTE Band 4 Channel Bandwidth: 1.4MHz	194.98mW
	LTE Band 4 Channel Bandwidth: 3MHz	194.09mW
	LTE Band 4 Channel Bandwidth: 5MHz	192.75mW
	LTE Band 4 Channel Bandwidth: 10MHz	193.64mW
	LTE Band 4 Channel Bandwidth: 15MHz	192.31mW
	LTE Band 4 Channel Bandwidth: 20MHz	195.43mW
	LTE Band 7 Channel Bandwidth: 5MHz	313.33mW



EMISSION DESIGNATOR	LTE Band 7 Channel Bandwidth: 10MHz	314.77mW
	LTE Band 7 Channel Bandwidth: 15MHz	316.96mW
	LTE Band 7 Channel Bandwidth: 20MHz	319.15mW
EMISSION DESIGNATOR	LTE Band 4 Channel Bandwidth: 1MHz	QPSK: 1M09G7D 16QAM: 1M09W7D
	LTE Band 4 Channel Bandwidth: 3MHz	QPSK: 2M70G7D 16QAM: 2M69W7D
	LTE Band 4 Channel Bandwidth: 5MHz	QPSK: 4M50G7D 16QAM: 4M50W7D
	LTE Band 4 Channel Bandwidth: 10MHz	QPSK: 8M96G7D
	LTE Band 4 Channel Bandwidth: 15MHz	QPSK: 13M5G7D
	LTE Band 4 Channel Bandwidth: 20MHz	QPSK: 17M9G7D
	LTE Band 7 Channel Bandwidth: 5MHz	QPSK: 4M50G7D 16QAM: 4M50W7D
	LTE Band 7 Channel Bandwidth: 10MHz	QPSK: 8M96G7D
	LTE Band 7 Channel Bandwidth: 15MHz	QPSK: 13M4G7D
	LTE Band 7 Channel Bandwidth: 20MHz	QPSK: 17M9G7D
ANTENNA GAIN*	LTE Band 4	-1.41dBi
	LTE Band 7	3.07dBi
ANTENNA TYPE*	PIFA Antenna	
HW VERSION*	KL100_MB_V1.1	
SW VERSION*	KL100_KL100_WEBI_V1.2_250318.2028	
I/O PORTS*	Refer to user's manual	
CABLE SUPPLIED*	N/A	
EXTREME TEMPERATURE*	Tmin = -20°C Tmax = 70°C	
EXTREME VOLTAGE*	Vmin = 9V Vmax = 30V	

NOTE:

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

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conclusions of this report are only made for these data and/or information , Test Lab is not responsible for the authenticity, integrity and results of the data and information and/or the validity of the conclusion.

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

MODULATION MODE	TX FUNCTION
LTE	1TX/1RX

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

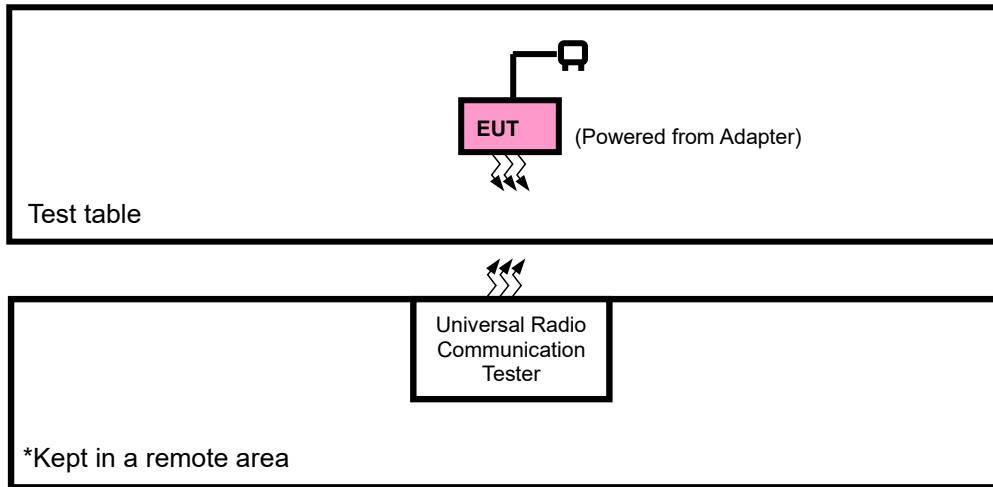
5. List of Accessory:

ACCESSORIES	BRAND	MANUFACTURER	MODEL	SPECIFICATION
Battery	N/A	Huizhou SRE Technology Co., LTD.	432033	Capacity: 3.7Vdc, 270mAh



2.2 CONFIGURATION OF SYSTEM UNDER TEST

FOR RADIATION EMISSION TEST





2.3 DESCRIPTION OF SUPPORT UNITS

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

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	DC Source	HYELEC	HY3010B	551016	N/A

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



2.4 TEST ITEM AND TEST CONFIGURATION

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

EUT CONFIGURE MODE	DESCRIPTION
A	EUT + DC Supply with LTE link

LTE BAND 4 MODE						
EUT CONFIGURE MODE	TEST ITEM	Available Channel	Tested Channel	Channel bandwidth	modulation	mode
A	EIRP	19957 to 20393	19957, 20175, 20393	1.4MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		19965 to 20385	19965, 20175, 20385	3MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		19975 to 20375	19975, 20175, 20375	5MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		20000 to 20350	20000, 20175, 20350	10MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		20025 to 20325	20025, 20175, 20325	15MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		20050 to 20300	20050, 20175, 20300	20MHz	QPSK, 16QAM	1 RB / 0 RB Offset

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

LTE BAND 7 MODE						
EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
A	EIRP	20775 to 21425	20775, 21100, 21425	5MHz	QPSK, 16QAM	1 RB / 0 RB offset
		20800 to 21400	20800, 21100, 21400	10MHz	QPSK, 16QAM	1 RB / 0 RB offset
		20825 to 21375	20825, 21100, 21375	15MHz	QPSK, 16QAM	1 RB / 0 RB offset
		20850 to 21350	20850, 21100, 21350	20MHz	QPSK, 16QAM	1 RB / 0 RB offset
A	RADIATED EMISSION	20775 to 21425	21100	5MHz	QPSK	1 RB / 0 RB offset
		20800 to 21400	21100	10MHz	QPSK	1 RB / 0 RB offset
		20825 to 21375	20825, 21100, 21375	15MHz	QPSK	1 RB / 0 RB offset
		20850 to 21350	21100	20MHz	QPSK	1 RB / 0 RB offset

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



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<u>TEST CONDITION</u>			
TEST ITEM	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
ERP	23deg. C, 70%RH	DC 9-30V By DC Source	Hanwen Xu
FREQUENCY STABILITY	23deg. C, 70%RH	DC 9-30V By DC Source	Hanwen Xu
OCCUPIED BANDWIDTH	23deg. C, 70%RH	DC 9-30V By DC Source	Hanwen Xu
BAND EDGE	23deg. C, 70%RH	DC 9-30V By DC Source	Hanwen Xu
CONDUCED EMISSION	23deg. C, 70%RH	DC 9-30V By DC Source	Hanwen Xu
RADIATED EMISSION	23deg. C, 70%RH	DC 9-30V By DC Source	Hanwen Xu
PEAK TO AVERAGE RATIO	23deg. C, 70%RH	DC 9-30V By DC Source	Hanwen Xu



2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

FCC 47 CFR Part 2

FCC 47 CFR Part 27

KDB 971168 D01 Power Meas License Digital Systems v03r01

ANSI/TIA/EIA-603-D

ANSI/TIA/EIA-603-E

ANSI C63.26-2015

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



3. TEST TYPES AND RESULTS

3.1 OUTPUT POWER MEASUREMENT

3.1.1 LIMITS OF OUTPUT POWER MEASUREMENT

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

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(c)(10) Portable stations (hand-held devices) in the 600 MHz uplink band and the 698–746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP.

Part 27.50(b)(10): Portable stations (hand-held devices) transmitting in the 746–757 MHz, 776–788 MHz, and 805–806 MHz bands are limited to 3 watts ERP.

3.1.2 TEST PROCEDURES

EIRP MEASUREMENT:

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

$$\text{ERP or EIRP} = P_{\text{Meas}} + G_T - L_c$$

Where:

ERP or EIRP = effective radiated power or equivalent isotropically radiated power, respectively

(expressed in the same units as P_{Meas} , typically dBW or dBm);

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

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

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

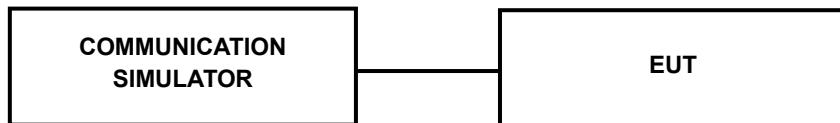
CONDUCTED POWER MEASUREMENT:

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



3.1.3 TEST SETUP

CONDUCTED POWER MEASUREMENT:



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



3.1.4 TEST RESULTS

EIRP

LTE BAND 4

1.4MHz QPSK

Channel	Frequency (MHz)	EIRP (dBm)	EIRP (mW)	Limit (W)
19957	1710.7	22.90	194.98	1
20175	1732.5	22.30	169.82	1
20393	1754.3	22.86	193.20	1

1.4MHz 16QAM

Channel	Frequency (MHz)	EIRP (dBm)	EIRP (mW)	Limit (W)
19957	1710.7	22.15	164.06	1
20175	1732.5	22.04	159.96	1
20393	1754.3	22.54	179.47	1

3MHz QPSK

Channel	Frequency (MHz)	EIRP (dBm)	EIRP (mW)	Limit (W)
19965	1711.5	22.85	192.75	1
20175	1732.5	22.30	169.82	1
20385	1753.5	22.88	194.09	1

3MHz 16QAM

Channel	Frequency (MHz)	EIRP (dBm)	EIRP (mW)	Limit (W)
19965	1711.5	21.73	148.94	1
20175	1732.5	21.85	153.11	1
20385	1753.5	22.13	163.31	1

5MHz QPSK

Channel	Frequency (MHz)	EIRP (dBm)	EIRP (mW)	Limit (W)
19975	1712.5	22.81	190.99	1
20175	1732.5	22.38	172.98	1
20375	1752.5	22.85	192.75	1



5MHz 16QAM				
Channel	Frequency (MHz)	EIRP (dBm)	EIRP (mW)	Limit (W)
19975	1712.5	21.77	150.31	1
20175	1732.5	21.88	154.17	1
20375	1752.5	22.11	162.55	1

10MHz QPSK				
Channel	Frequency (MHz)	EIRP (dBm)	EIRP (mW)	Limit (W)
20000	1715	22.79	190.11	1
20175	1732.5	22.33	171.00	1
20350	1750	22.87	193.64	1

10MHz 16QAM				
Channel	Frequency (MHz)	EIRP (dBm)	EIRP (mW)	Limit (W)
20000	1715	21.93	155.96	1
20175	1732.5	21.77	150.31	1
20350	1750	22.43	174.98	1

15MHz QPSK				
Channel	Frequency (MHz)	EIRP (dBm)	EIRP (mW)	Limit (W)
20025	1717.5	22.80	190.55	1
20175	1732.5	22.42	174.58	1
20325	1747.5	22.84	192.31	1

15MHz 16QAM				
Channel	Frequency (MHz)	EIRP (dBm)	EIRP (mW)	Limit (W)
20025	1717.5	21.94	156.31	1
20175	1732.5	21.75	149.62	1
20325	1747.5	22.44	175.39	1

20MHz QPSK				
Channel	Frequency (MHz)	EIRP (dBm)	EIRP (mW)	Limit (W)
20050	1720	22.82	191.43	1
20175	1732.5	22.44	175.39	1
20300	1745	22.91	195.43	1



20MHz 16QAM				
Channel	Frequency (MHz)	EIRP (dBm)	EIRP (mW)	Limit (W)
20050	1720	21.97	157.40	1
20175	1732.5	21.89	154.53	1
20300	1745	22.46	176.20	1

LTE BAND 7				
5MHz QPSK				
Channel	Frequency (MHz)	EIRP (dBm)	EIRP (mW)	Limit (W)
20775	2502.5	24.96	313.33	2
21100	2535	24.89	308.32	2
21425	2567.5	24.76	299.23	2

5MHz 16QAM				
Channel	Frequency (MHz)	EIRP (dBm)	EIRP (mW)	Limit (W)
20775	2502.5	24.14	259.42	2
21100	2535	24.20	263.03	2
21425	2567.5	24.15	260.02	2

10MHz QPSK				
Channel	Frequency (MHz)	EIRP (dBm)	EIRP (mW)	Limit (W)
20800	2505	24.98	314.77	2
21100	2535	24.88	307.61	2
21400	2565	24.65	291.74	2

10MHz 16QAM				
Channel	Frequency (MHz)	EIRP (dBm)	EIRP (mW)	Limit (W)
20800	2505	24.25	266.07	2
21100	2535	24.22	264.24	2
21400	2565	24.08	255.86	2



15MHz QPSK				
Channel	Frequency (MHz)	EIRP (dBm)	EIRP (mW)	Limit (W)
20825	2507.5	25.01	316.96	2
21100	2535	24.88	307.61	2
21375	2562.5	24.65	291.74	2

15MHz 16QAM				
Channel	Frequency (MHz)	EIRP (dBm)	EIRP (mW)	Limit (W)
20825	2507.5	24.22	264.24	2
21100	2535	24.22	264.24	2
21375	2562.5	24.22	264.24	2

20MHz QPSK				
Channel	Frequency (MHz)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510	25.04	319.15	2
21100	2535	25.01	316.96	2
21350	2560	24.77	299.92	2

20MHz 16QAM				
Channel	Frequency (MHz)	EIRP (dBm)	EIRP (mW)	Limit (W)
20850	2510	24.29	268.53	2
21100	2535	24.24	265.46	2
21350	2560	24.23	264.85	2

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



3.2 FREQUENCY STABILITY MEASUREMENT

3.2.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

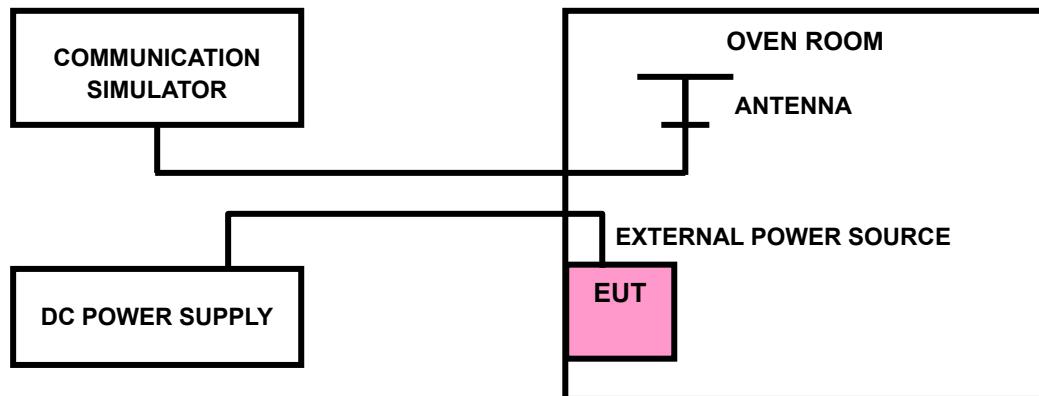
The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

3.2.2 TEST PROCEDURE

- a. Device is placed at the oven room. The oven room could control the temperatures and humidity. Power warm up is at least 15 min and power applied should perform before recording frequency error.
- b. EUT is connected the external power supply to control the DC input power. The test voltage range is from minimum to maximum working voltage. Each step shall be record the frequency error rate.
- c. The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the $\pm 0.5^{\circ}\text{C}$ 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.

3.3.3 TEST SETUP





**BUREAU
VERITAS** Test Report No.: PSU-QSZ2504270113RF03

3.2.3 TEST RESULTS

Please Refer to Module report BL-SZ2270935-501, FCC ID: 2AMLFXQ600-LA

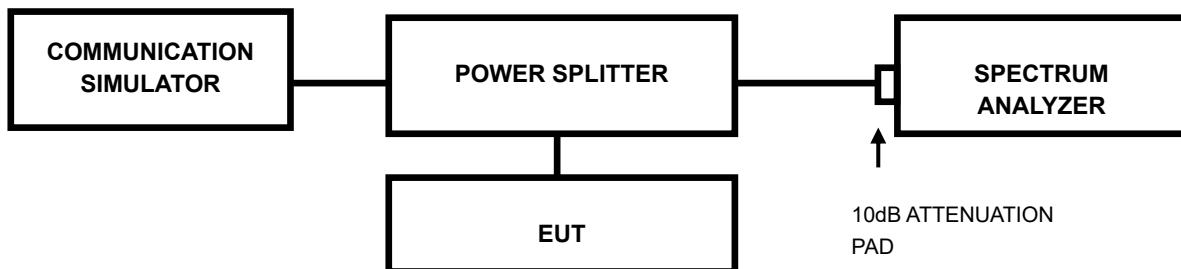


3.3 OCCUPIED BANDWIDTH MEASUREMENT

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 Module report BL-SZ2270935-501, FCC ID: 2AMLFXQ600-LA



3.4 BAND EDGE MEASUREMENT

3.4.1 LIMITS OF BAND EDGE MEASUREMENT

According to FCC 27.53(g) specified that For operations in the 600 MHz band and the 698-746 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 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

According to FCC 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.

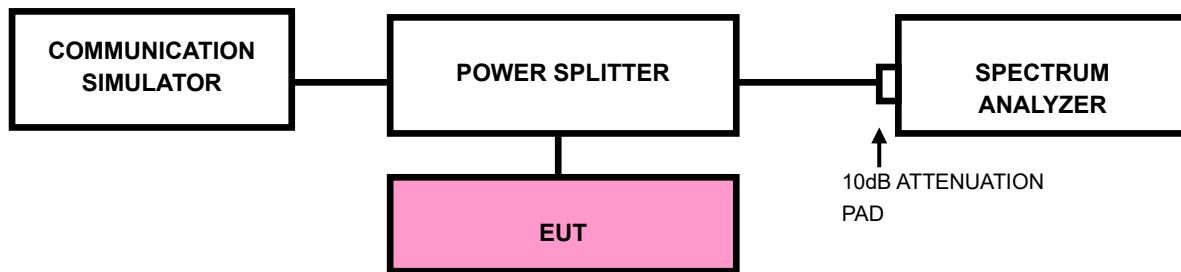
According to FCC 27.53(m)(4) specified that For mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log (P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log (P)$ dB on all frequencies between 5 megahertz and X megahertz 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 than $43 + 10 \log (P)$ 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.

47 CFR 27.53(c)(2) : On any frequency outside the 776–788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log (P)$ dB;

47 CFR 27.53(f) : For operations in the 746–758 MHz, 775–788 MHz, and 805–806 MHz bands, emissions in the band 1559–1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.



3.4.2 TEST SETUP





3.4.3 TEST PROCEDURES

- a) All measurements were done at low and high operational frequency range
- b) Connect the transmitter to the spectrum analyzer via coaxial cable while ensuring proper impedance matching.
- c) Tune the analyzer to the nominal center frequency of the emission bandwidth (EBW)
- d) Set the resolution bandwidth (RBW) $\geq 1\%$ EBW in the 1MHz band immediately outside and adjacent to the band edge.
- e) Beyond the 1MHz band from the band edge, RBW=1MHz was used.
- f) Set the video bandwidth (VBW) to $\geq 3 \times$ RBW.
- g) Select the average power (RMS) display detector.
- h) Set the number of measurement points to ≥ 1001 .
- i) Use auto-coupled sweep time.
- j) Perform the measurement over an interval of time when the transmission is continuous and at its maximum power level.
- k) The RF fundamental frequency should be excluded against the limit line in the operating frequency band and use RBW is 10KHz or 100KHz.
- l) Record the max trace plot into the test report.

3.4.4 TEST RESULTS

Please Refer to Module report BL-SZ2270935-501, FCC ID: 2AMLFXQ600-LA



CONDUCTED SPURIOUS EMISSIONS

3.5.1 LIMITS OF CONDUCTED SPURIOUS EMISSIONS MEASUREMENT

According to FCC 27.53(g) specified that For operations in the 600 MHz band and the 698-746 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 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

According to FCC 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 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 than $43 + 10 \log (P)$ 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.

47 CFR 27.53(c)(2) : On any frequency outside the 776–788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log (P)$ dB;

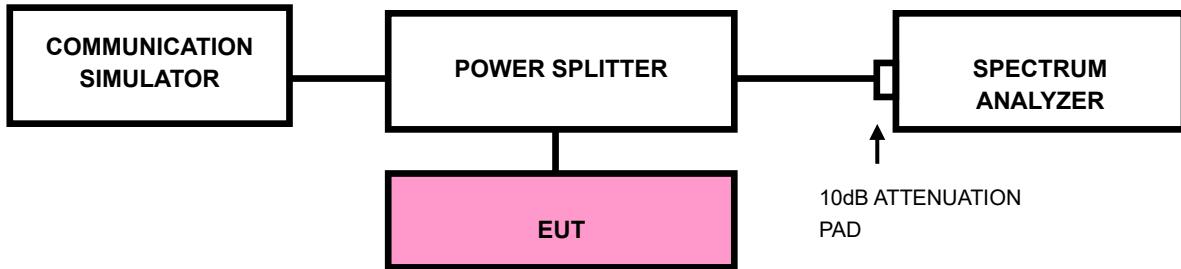
47 CFR 27.53(f) : For operations in the 746–758 MHz, 775–788 MHz, and 805–806 MHz bands, emissions in the band 1559–1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.



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 Module report BL-SZ2270935-501, FCC ID: 2AMLFXQ600-LA



3.6 RADIATED EMISSION MEASUREMENT

3.6.1 LIMITS OF RADIATED EMISSION MEASUREMENT

According to FCC 27.53(g) specified that For operations in the 600 MHz band and the 698-746 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 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

According to FCC 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 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 than $43 + 10 \log (P)$ 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.

47 CFR 27.53(c)(2) : On any frequency outside the 776–788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log (P)$ dB;

47 CFR 27.53(f) : For operations in the 746–758 MHz, 775–788 MHz, and 805–806 MHz bands, emissions in the band 1559–1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.



3.6.2 TEST PROCEDURES

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

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

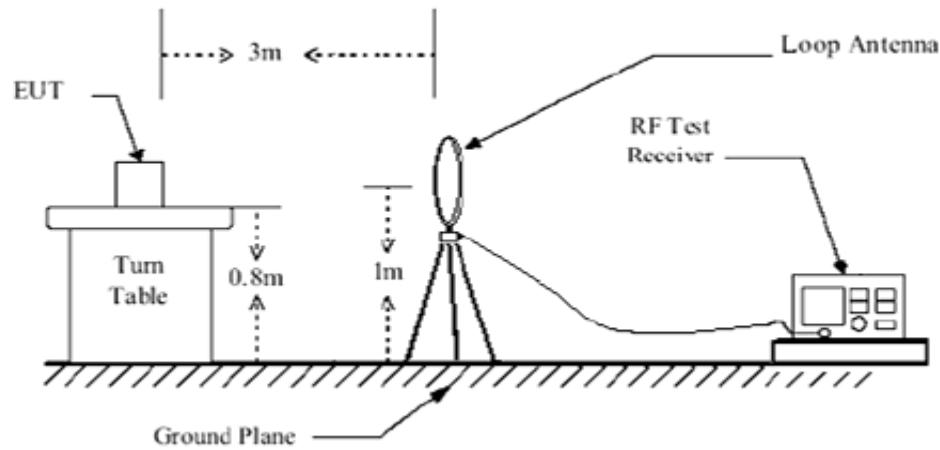
3.6.3 DEVIATION FROM TEST STANDARD

No deviation

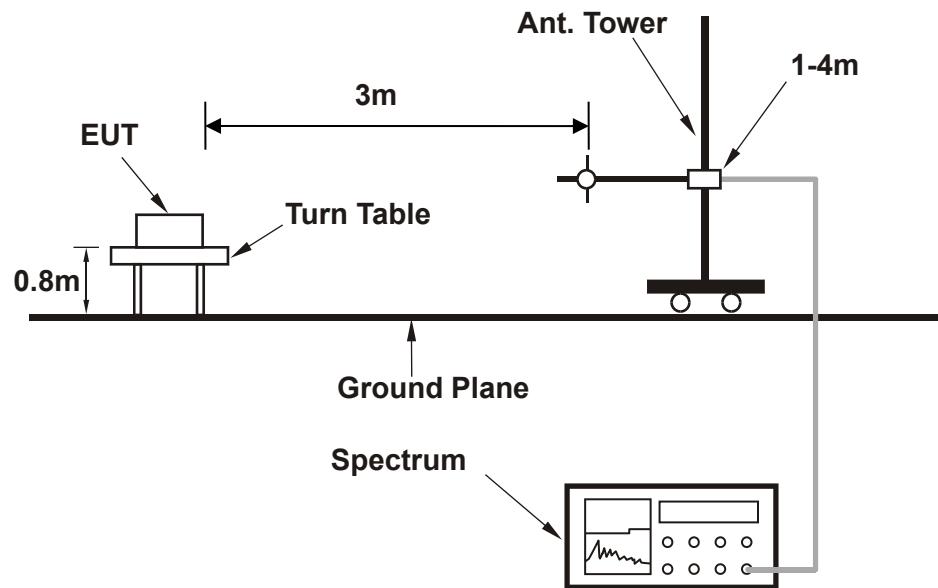


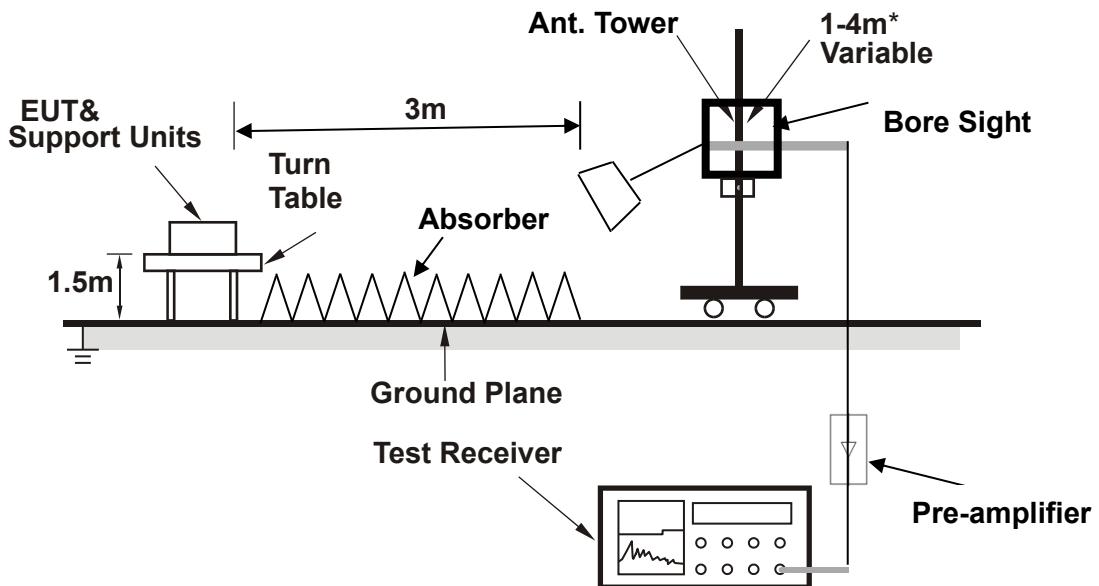
3.6.4 TEST SETUP

< Frequency Range below 30MHz >



< Frequency Range 30MHz~1GHz >





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

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



3.6.5 TEST RESULTS

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

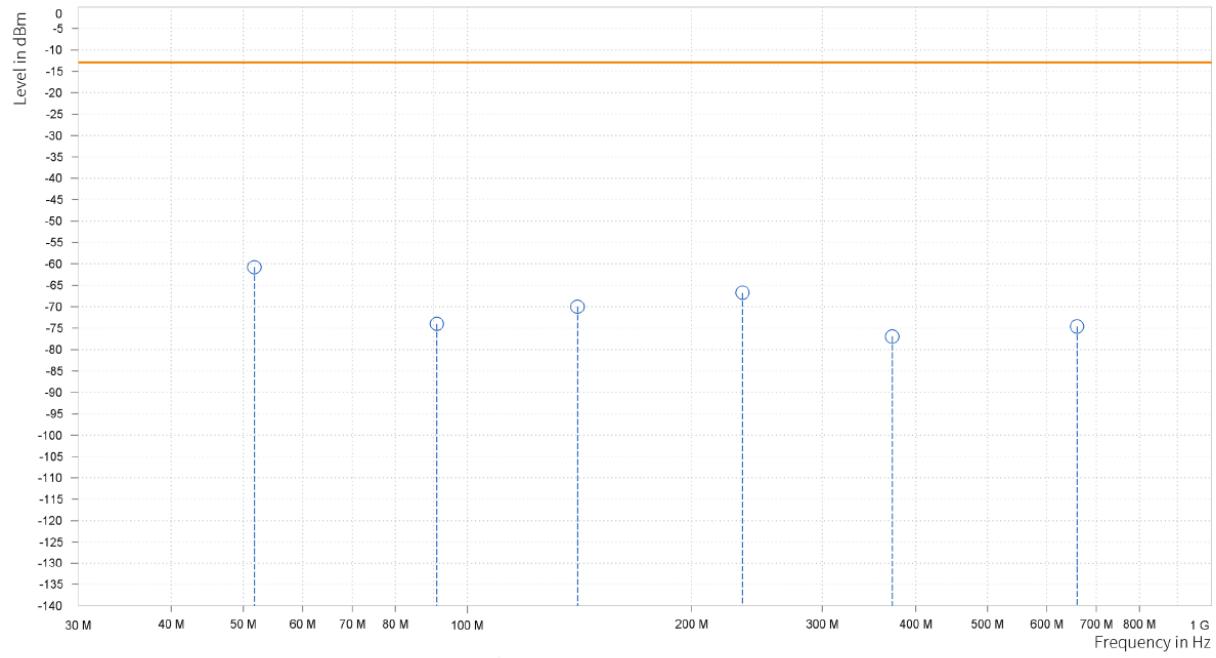
BELOW 1GHz WORST-CASE DATA

LTE Band 4 CHANNEL BANDWIDTH: 5MHz / QPSK

MODE	TX channel 20175	FREQUENCY RANGE	30MHz~1GHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 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]
1	51.750	-60.75	-13.00	47.75	-2.69	H	355.1	2.00
1	90.950	-74.02	-13.00	61.02	-11.06	H	158.7	2.00
1	140.600	-69.96	-13.00	56.96	-14.26	H	226.3	1.00
1	234.250	-66.75	-13.00	53.75	1.79	H	226.3	1.00
1	372.150	-76.95	-13.00	63.95	-1.64	H	29.1	1.00
2	659.138	-74.61	-13.00	61.61	1.55	H	219.7	2.00

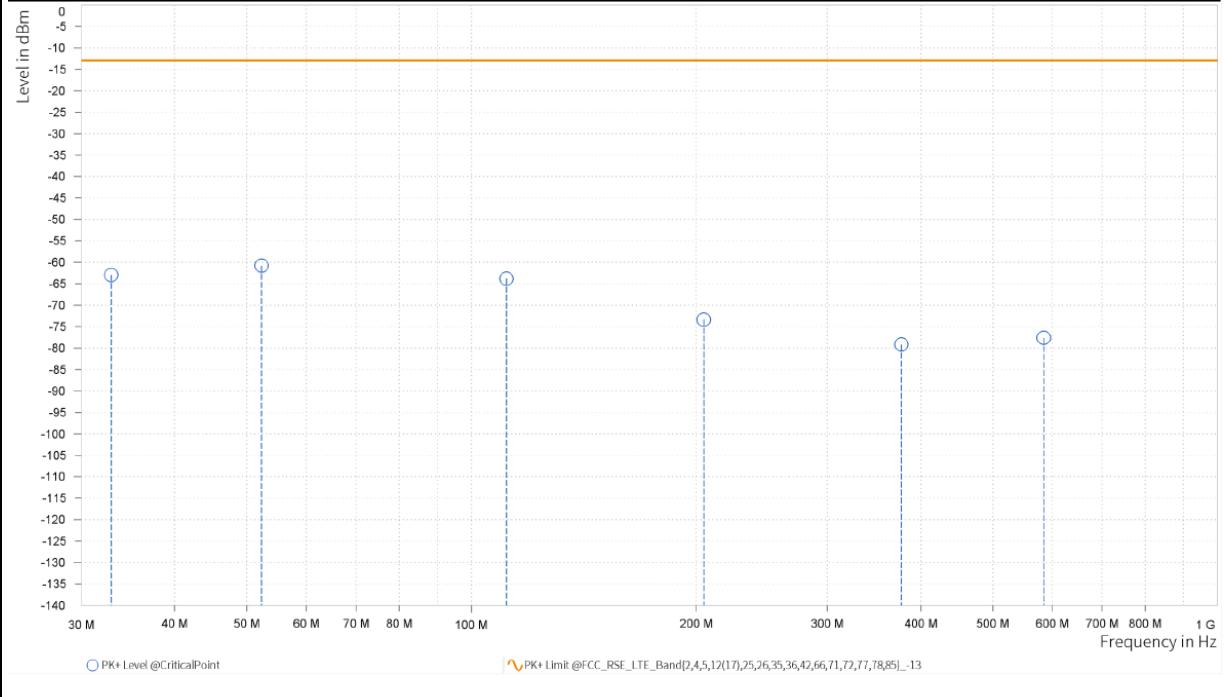




MODE	TX channel 20175	FREQUENCY RANGE	30MHz~1GHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Hanwen Xu		

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]
1	32.900	-62.93	-13.00	49.93	-6.56	V	156.3	2.00
1	52.300	-60.79	-13.00	47.79	-6.63	V	359.1	1.00
1	111.400	-63.81	-13.00	50.81	1.73	V	359.1	1.00
1	204.800	-73.33	-13.00	60.33	-7.10	V	0.9	2.00
1	376.800	-79.19	-13.00	66.19	-0.18	V	240	2.00
2	584.613	-77.62	-13.00	64.62	0.17	V	1	1.00





ABOVE 1GHz

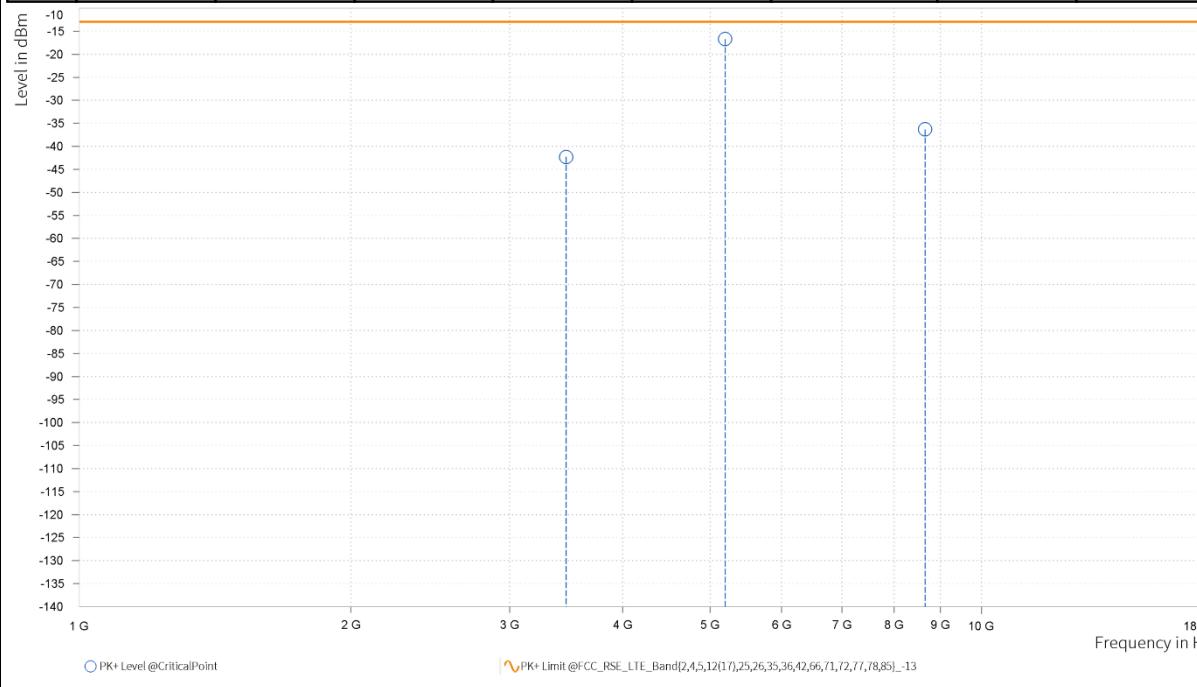
Note: For higher frequency, the emission is too low to be detected.

LTE BAND 4

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

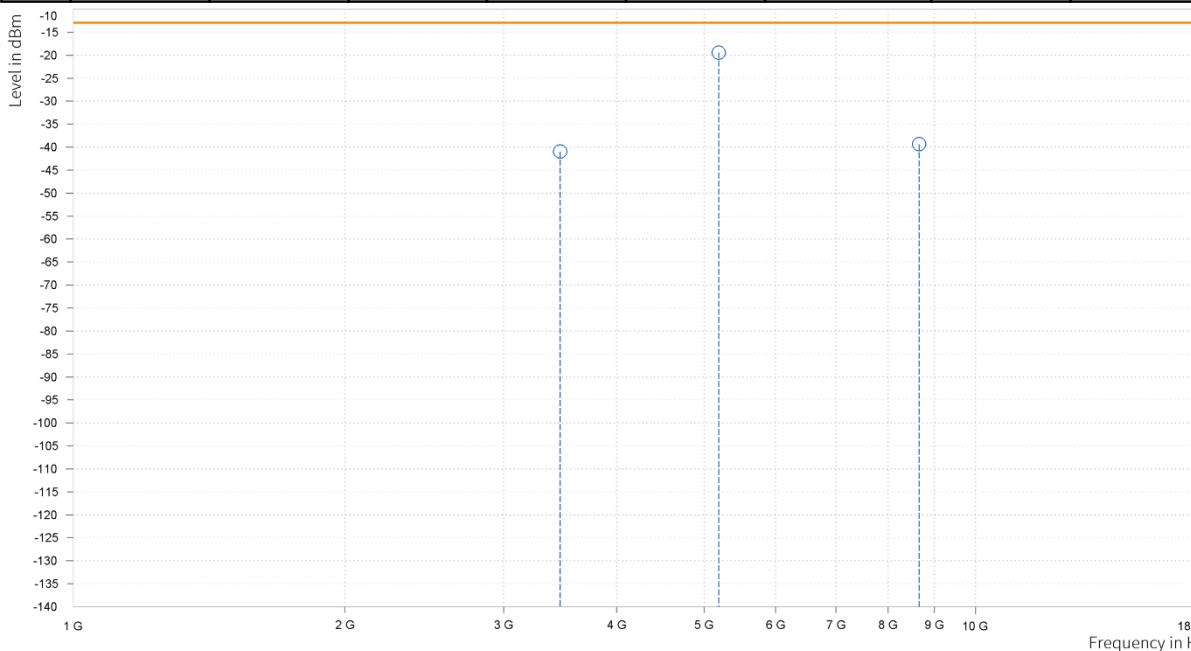
Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	3,464.000	-42.31	-13.00	29.31	20.29	H	187.4	1.00
4	5,196.500	-16.69	-13.00	3.69	23.83	H	187.4	1.00
6	8,660.000	-36.30	-13.00	23.30	16.65	H	111	2.00





CHANNEL BANDWIDTH		1.4MHz / QPSK		MODE		TX channel 20175		
FREQUENCY RANGE		Above 1000MHz		ENVIRONMENTAL CONDITIONS		23deg. C, 70%RH		
INPUT POWER		AC 120V 60HZ		TESTED BY		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	3,464.500	-42.03	-13.00	29.03	20.98	V	125.2	2.00
4	5,196.500	-23.44	-13.00	10.44	24.41	V	174.6	2.00
6	8,660.000	-43.10	-13.00	30.10	16.17	V	109.5	2.00



CHANNEL BANDWIDTH		3MHz / QPSK		MODE		TX channel 20175		
FREQUENCY RANGE		Above 1000MHz		ENVIRONMENTAL CONDITIONS		23deg. C, 70%RH		
INPUT POWER		AC 120V 60HZ		TESTED BY		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	3,462.500	-40.96	-13.00	27.96	20.28	H	237.6	1.00
4	5,194.000	-19.44	-13.00	6.44	23.82	H	186.6	1.00
6	8,656.000	-39.36	-13.00	26.36	16.66	H	253.2	1.00
								



CHANNEL BANDWIDTH		3MHz / QPSK		MODE		TX channel 20175		
FREQUENCY RANGE		Above 1000MHz		ENVIRONMENTAL CONDITIONS		23deg. C, 70%RH		
INPUT POWER		AC 120V 60HZ		TESTED BY		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	3,462.500	-40.42	-13.00	27.42	20.96	V	121.7	2.00
4	5,194.000	-25.28	-13.00	12.28	24.38	V	121.7	2.00
6	8,655.500	-43.05	-13.00	30.05	16.17	V	205.9	2.00



CHANNEL BANDWIDTH		5MHz / QPSK		MODE		TX channel 19975		
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	3,420.000	-40.21	-13.00	27.21	20.54	H	191.7	1.00
4	5,131.500	-19.62	-13.00	6.62	23.56	H	191.7	1.00
6	8,551.000	-38.98	-13.00	25.98	16.46	H	104.6	2.00



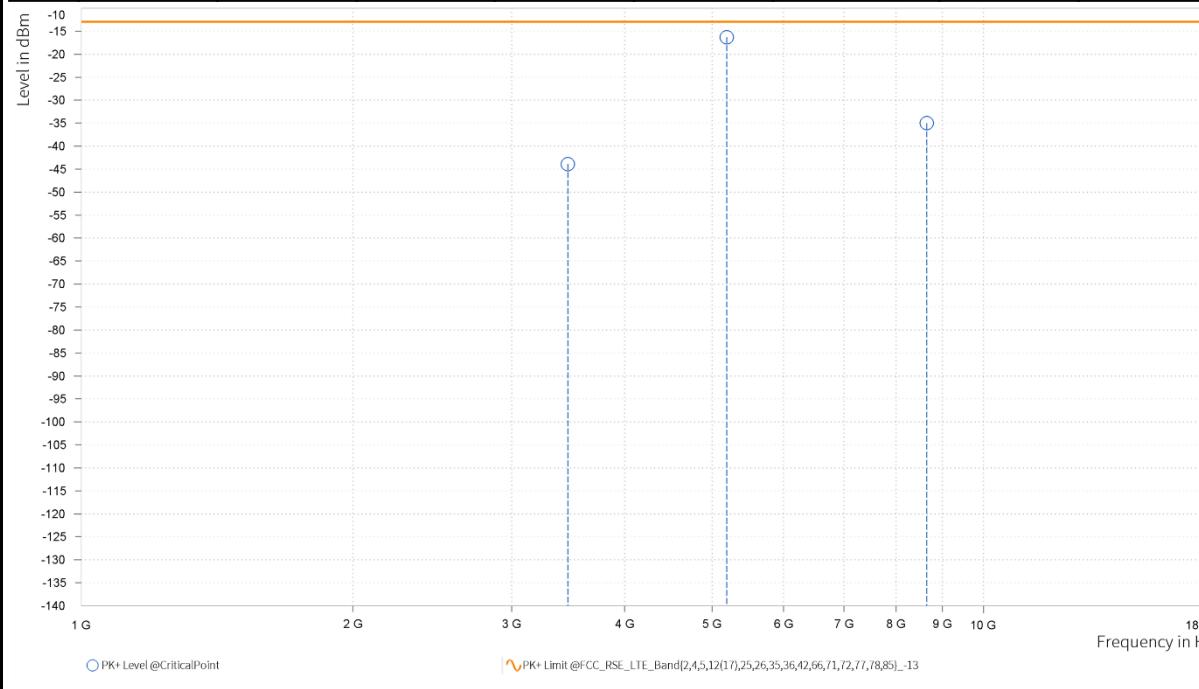
CHANNEL BANDWIDTH		5MHz / QPSK		MODE		TX channel 19975		
FREQUENCY RANGE		Above 1000MHz		ENVIRONMENTAL CONDITIONS		23deg. C, 70%RH		
INPUT POWER		AC 120V 60HZ		TESTED BY		Hanwen Xu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	3,420.500	-38.20	-13.00	25.20	20.87	V	120.2	2.00
4	5,131.000	-26.86	-13.00	13.86	23.88	V	120.2	2.00
6	8,551.000	-40.20	-13.00	27.20	16.13	V	205.1	1.00



CHANNEL BANDWIDTH	5MHz / QPSK	MODE	TX channel 20175
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	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	3,460.500	-43.89	-13.00	30.89	20.27	H	239.8	1.00
4	5,191.000	-16.31	-13.00	3.31	23.81	H	174.6	2.00
6	8,651.000	-35.02	-13.00	22.02	16.66	H	107.4	2.00





CHANNEL BANDWIDTH		5MHz / QPSK		MODE		TX channel 20175		
FREQUENCY RANGE		Above 1000MHz		ENVIRONMENTAL CONDITIONS		23deg. C, 70%RH		
INPUT POWER		AC 120V 60HZ		TESTED BY		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	3,460.500	-41.52	-13.00	28.52	20.94	V	121	2.00
4	5,191.000	-23.70	-13.00	10.70	24.35	V	121	2.00
6	8,651.500	-43.90	-13.00	30.90	16.17	V	105.4	2.00



CHANNEL BANDWIDTH		5MHz / QPSK-high		MODE		TX channel 20375		
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	3,500.500	-45.15	-13.00	32.15	20.56	H	256.8	2.00
4	5,251.000	-21.64	-13.00	8.64	24.12	H	137.9	2.00
6	8,751.500	-32.90	-13.00	19.90	16.54	H	173.9	1.00

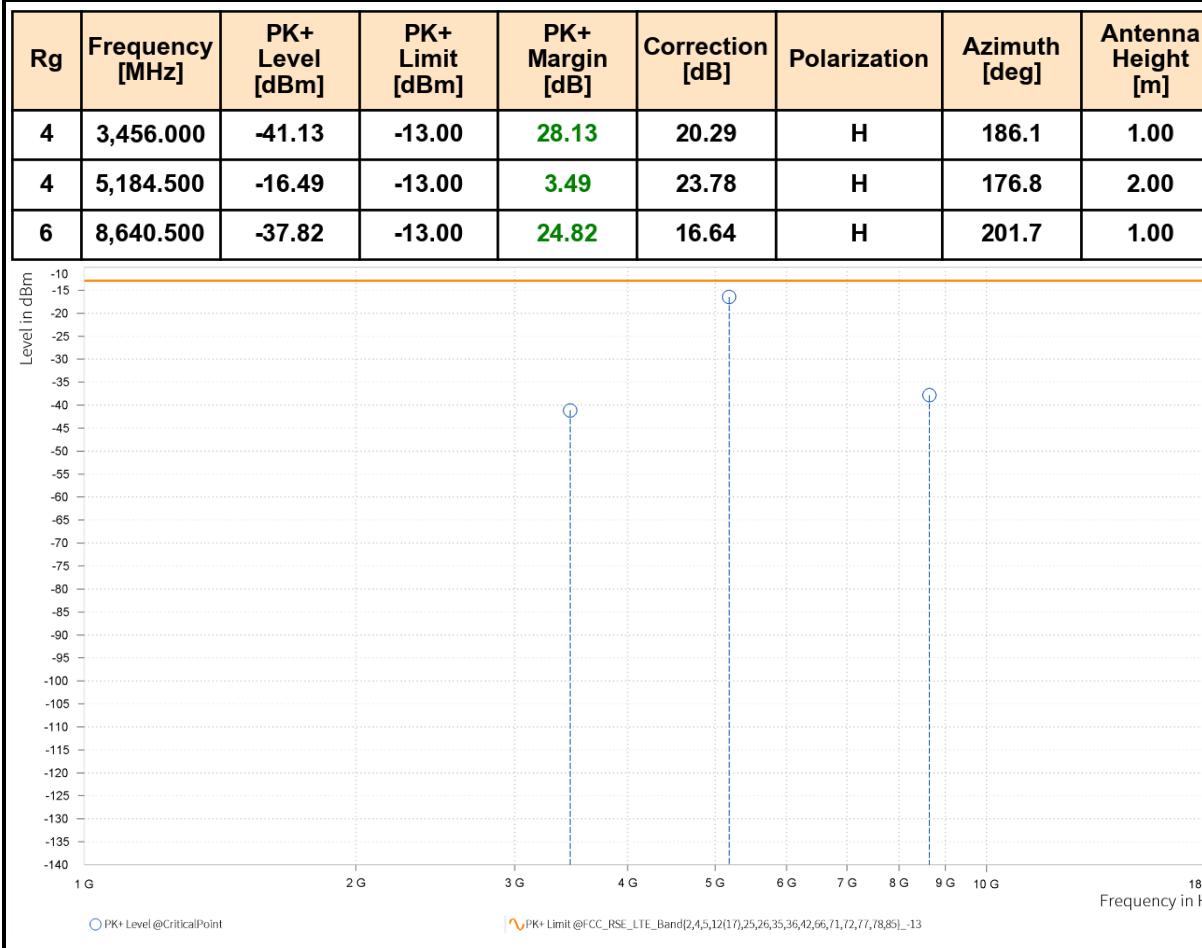


CHANNEL BANDWIDTH		5MHz / QPSK-high		MODE		TX channel 20375		
FREQUENCY RANGE		Above 1000MHz		ENVIRONMENTAL CONDITIONS		23deg. C, 70%RH		
INPUT POWER		AC 120V 60HZ		TESTED BY		Hanwen Xu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	3,500.500	-39.25	-13.00	26.25	21.34	V	118.8	2.00
4	5,251.000	-21.88	-13.00	8.88	24.60	V	172.6	2.00
6	8,751.000	-35.54	-13.00	22.54	16.12	V	103.2	2.00



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M



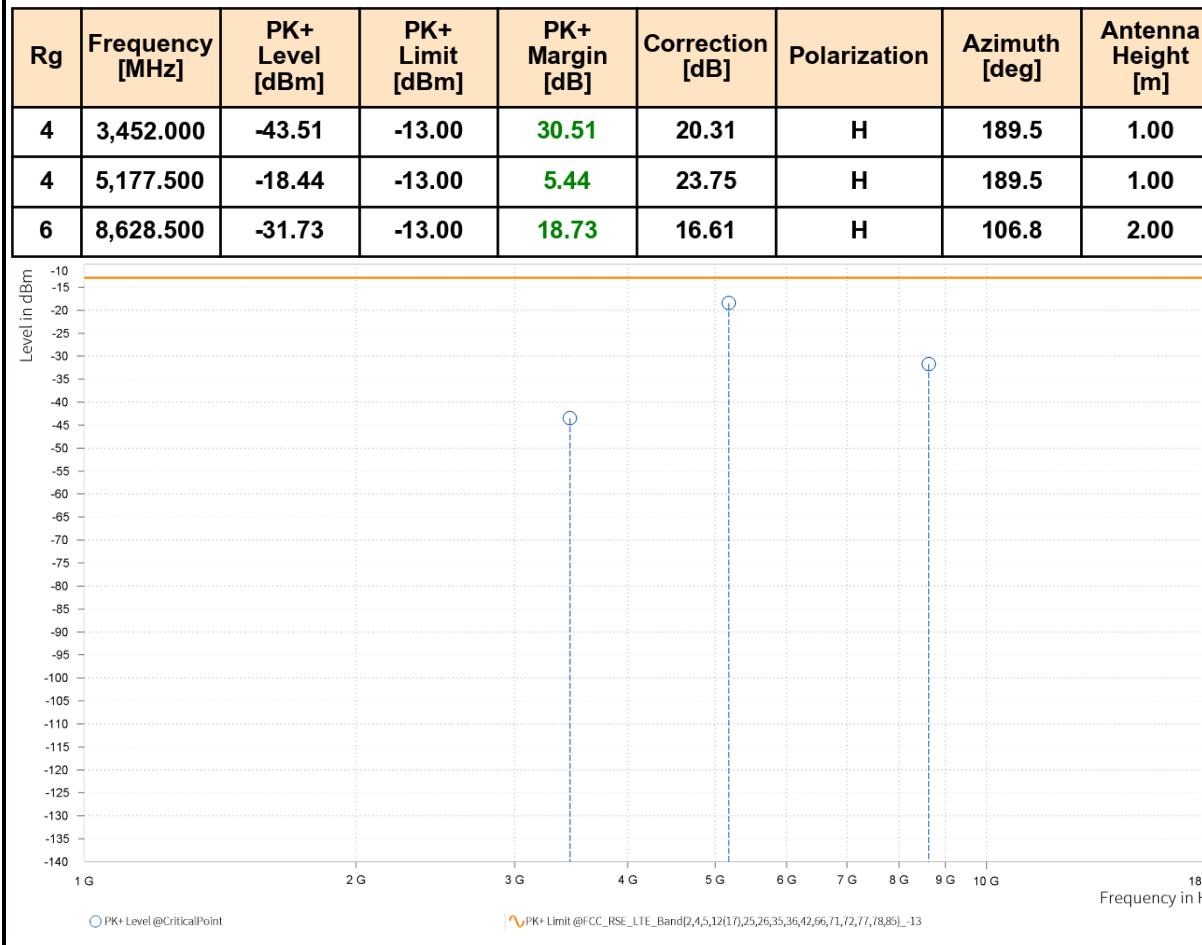


CHANNEL BANDWIDTH		10MHz / QPSK		MODE		TX channel 20175		
FREQUENCY RANGE		Above 1000MHz		ENVIRONMENTAL CONDITIONS		23deg. C, 70%RH		
INPUT POWER		AC 120V 60HZ		TESTED BY		Hanwen Xu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	3,456.000	-41.26	-13.00	28.26	20.93	V	175.4	2.00
4	5,184.500	-25.77	-13.00	12.77	24.27	V	265.3	2.00
6	8,640.000	-37.64	-13.00	24.64	16.13	V	109.5	2.00



CHANNEL BANDWIDTH	15MHz / QPSK	MODE	TX channel 20175
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M



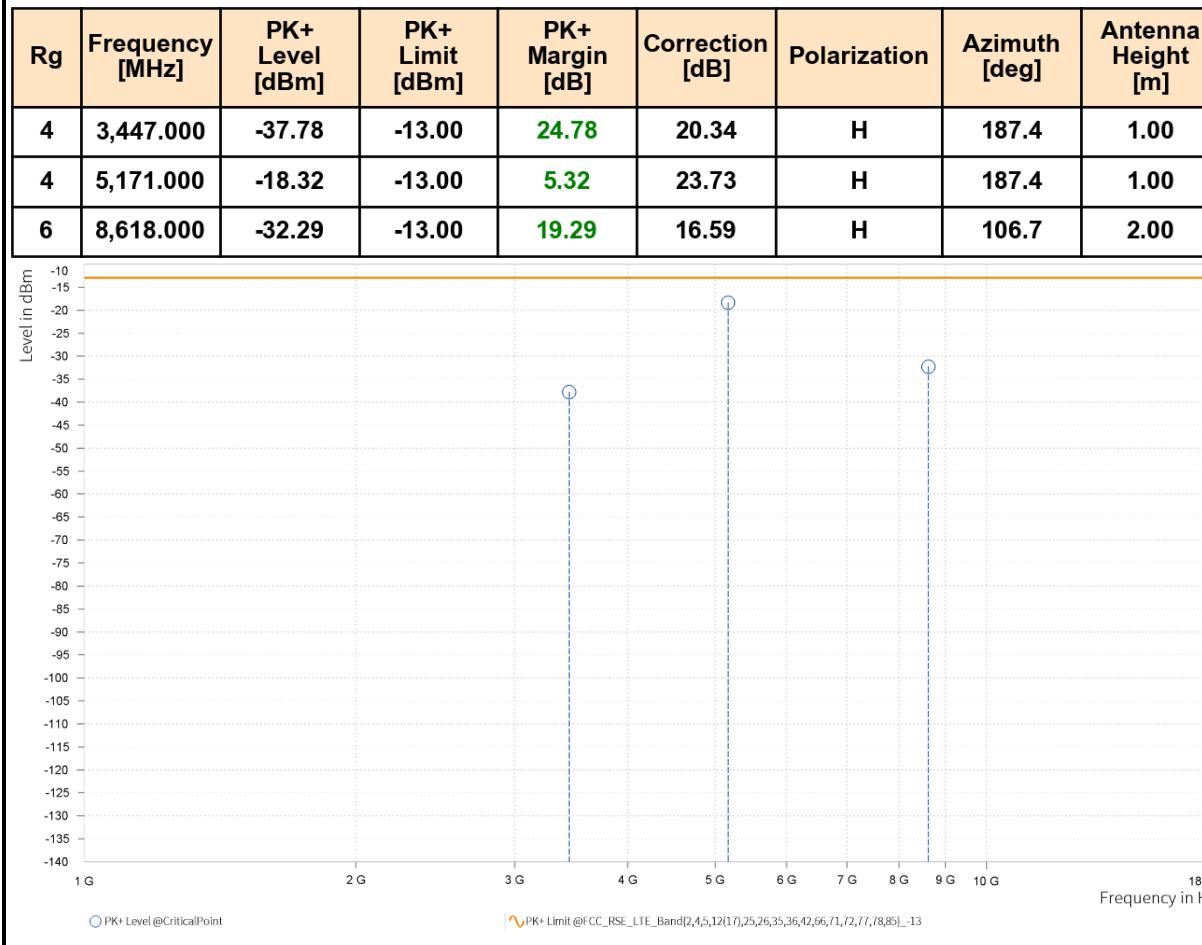


CHANNEL BANDWIDTH		15MHz / QPSK		MODE		TX channel 20175		
FREQUENCY RANGE		Above 1000MHz		ENVIRONMENTAL CONDITIONS		23deg. C, 70%RH		
INPUT POWER		AC 120V 60HZ		TESTED BY		Hanwen Xu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	3,451.500	-39.88	-13.00	26.88	20.92	V	185.3	1.00
4	5,177.500	-25.93	-13.00	12.93	24.18	V	1	1.00
6	8,629.500	-38.51	-13.00	25.51	16.09	V	105.4	2.00



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M





CHANNEL BANDWIDTH		20MHz / QPSK		MODE		TX channel 20175		
FREQUENCY RANGE		Above 1000MHz		ENVIRONMENTAL CONDITIONS		23deg. C, 70%RH		
INPUT POWER		AC 120V 60HZ		TESTED BY		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	3,447.000	-41.93	-13.00	28.93	20.91	V	173.3	2.00
4	5,170.500	-24.20	-13.00	11.20	24.10	V	173.3	2.00
6	8,618.000	-42.61	-13.00	29.61	16.10	V	359	1.00

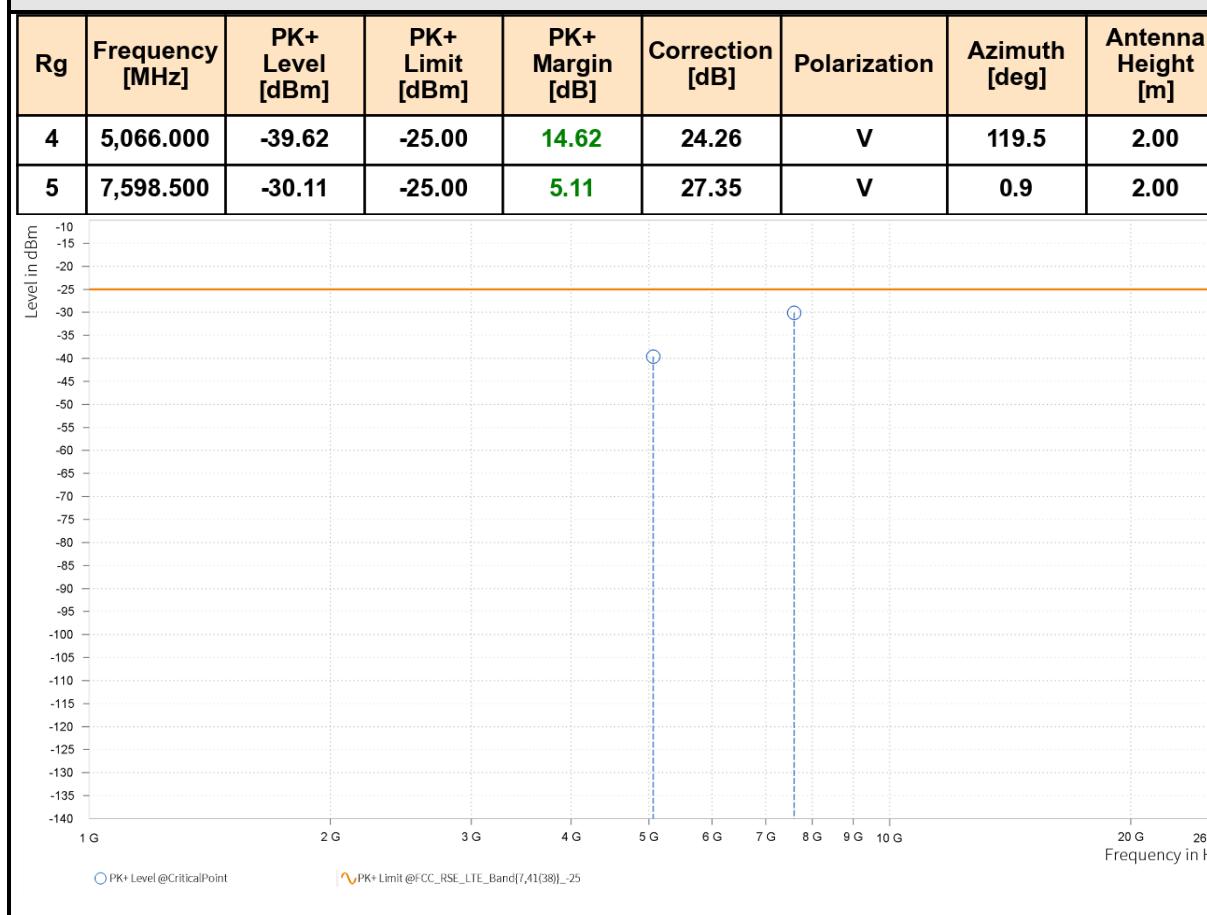


LTE Band 7								
CHANNEL BANDWIDTH		5MHz / QPSK		MODE		TX channel 21100		
FREQUENCY RANGE		Above 1000MHz		ENVIRONMENTAL CONDITIONS		23deg. C, 70%RH		
INPUT POWER		120Vac 60HZ		TESTED BY		Hanwen Xu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,066.000	-44.40	-25.00	19.40	23.80	H	125.2	2.00
5	7,598.500	-31.37	-25.00	6.37	27.56	H	167.6	2.00



CHANNEL BANDWIDTH	5MHz / QPSK	MODE	TX channel 21100
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	120Vac 60HZ	TESTED BY	Hanwen Xu

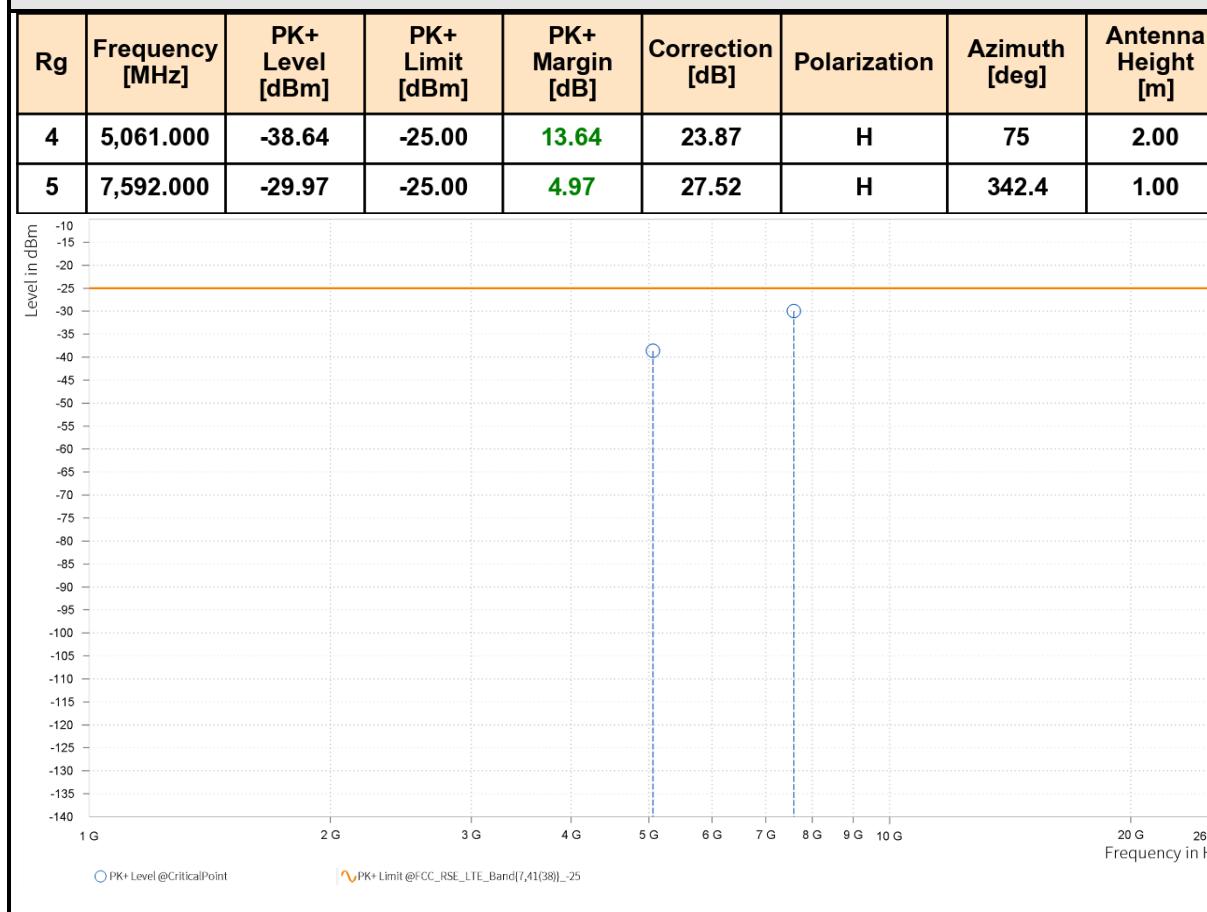
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M





CHANNEL BANDWIDTH	10MHz / QPSK	MODE	TX channel 21100
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	120Vac 60HZ	TESTED BY	Hanwen Xu

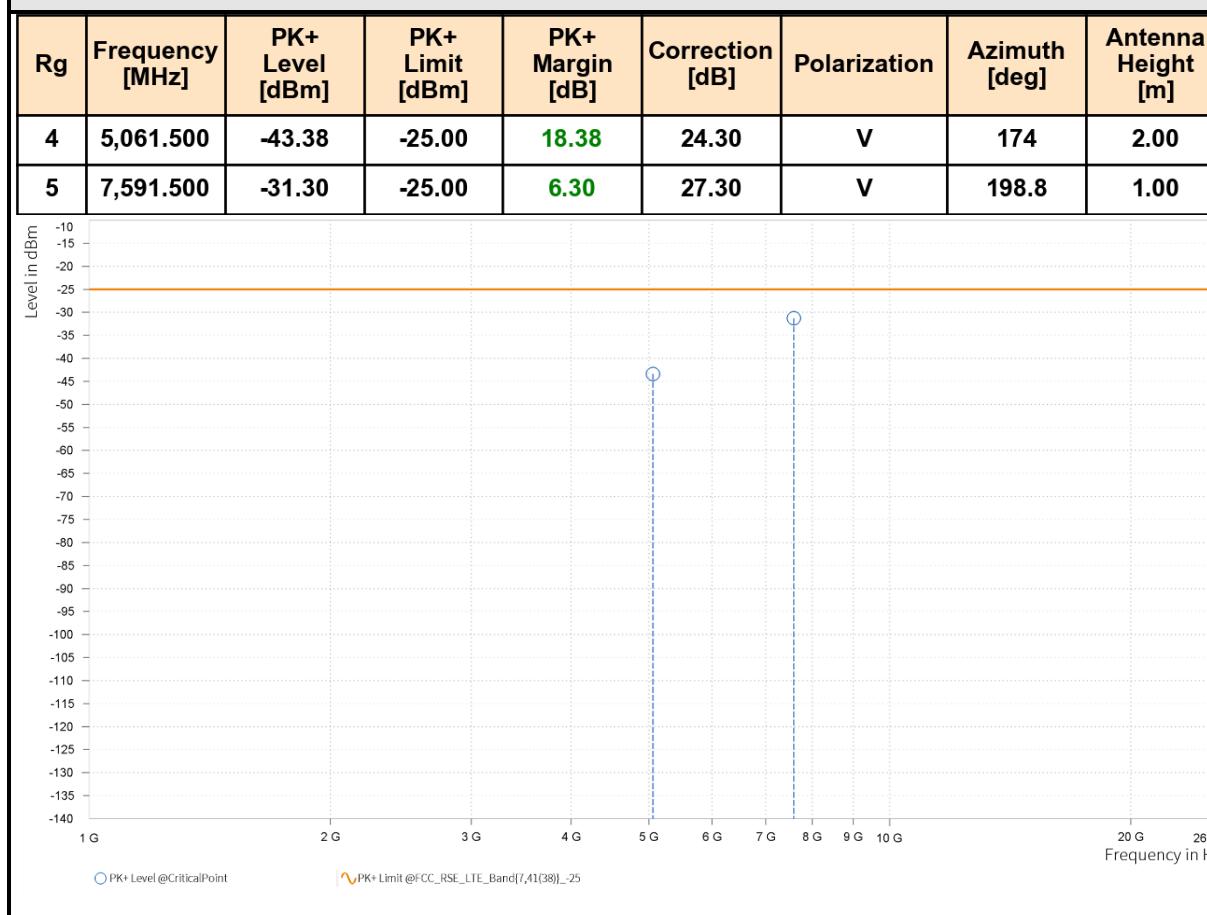
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M





CHANNEL BANDWIDTH	10MHz / QPSK	MODE	TX channel 21100
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	120Vac 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

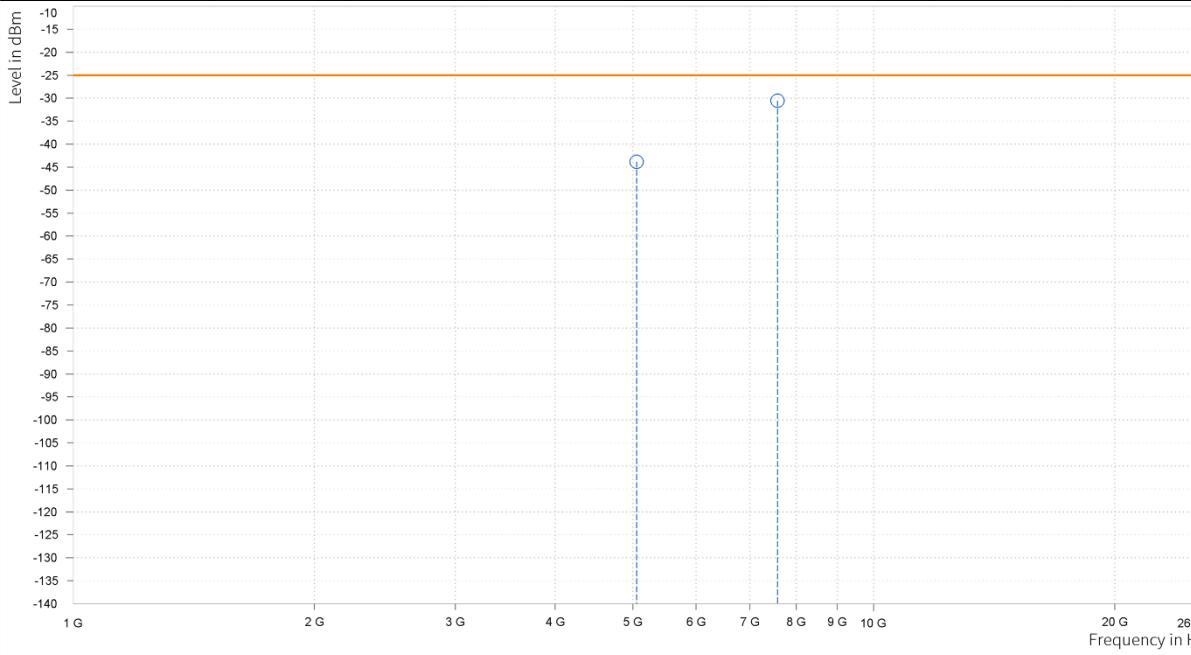




CHANNEL BANDWIDTH	15MHz / QPSK	MODE	TX channel 21100
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	120Vac 60HZ	TESTED BY	Hanwen Xu

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	5,056.500	-43.81	-25.00	18.81	23.92	H	116	2.00
5	7,584.500	-30.55	-25.00	5.55	27.48	H	161.9	2.00





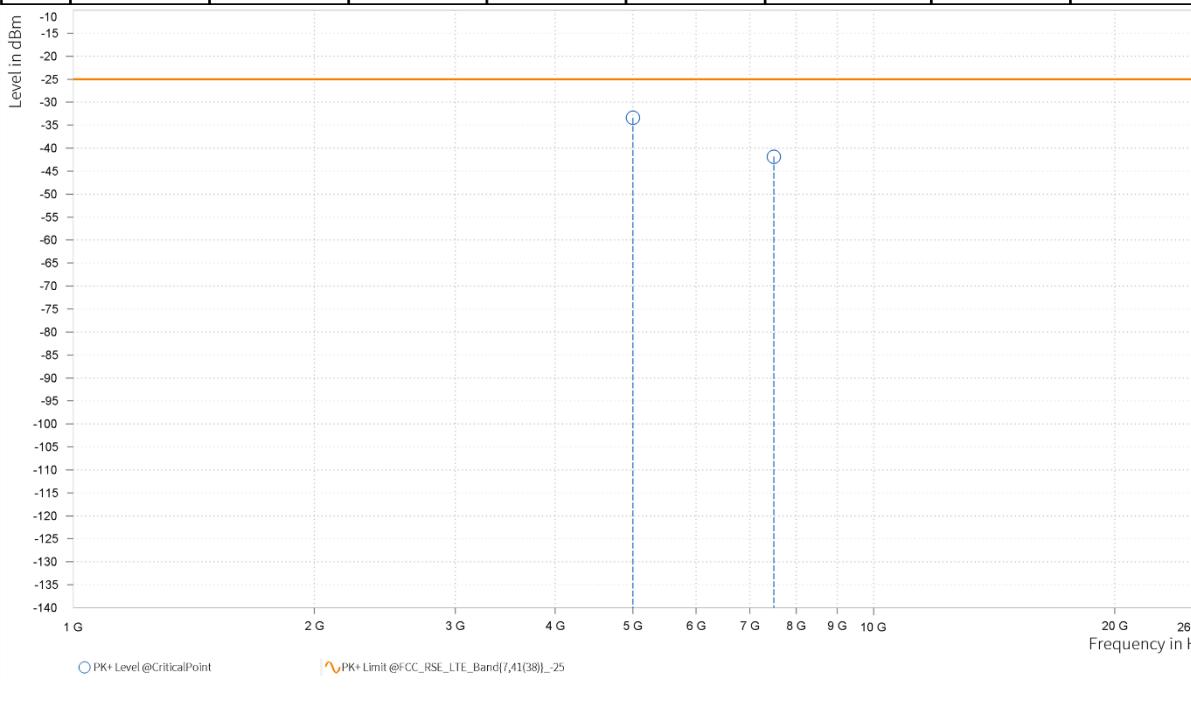
CHANNEL BANDWIDTH		15MHz / QPSK		MODE		TX channel 21100		
FREQUENCY RANGE		Above 1000MHz		ENVIRONMENTAL CONDITIONS		23deg. C, 70%RH		
INPUT POWER		120Vac 60HZ		TESTED BY		Hanwen Xu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,057.000	-41.41	-25.00	16.41	24.34	V	90.4	2.00
5	7,585.000	-29.53	-25.00	4.53	27.26	V	1	2.00



CHANNEL BANDWIDTH	20MHz / QPSK	MODE	TX channel 20850
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	120Vac 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

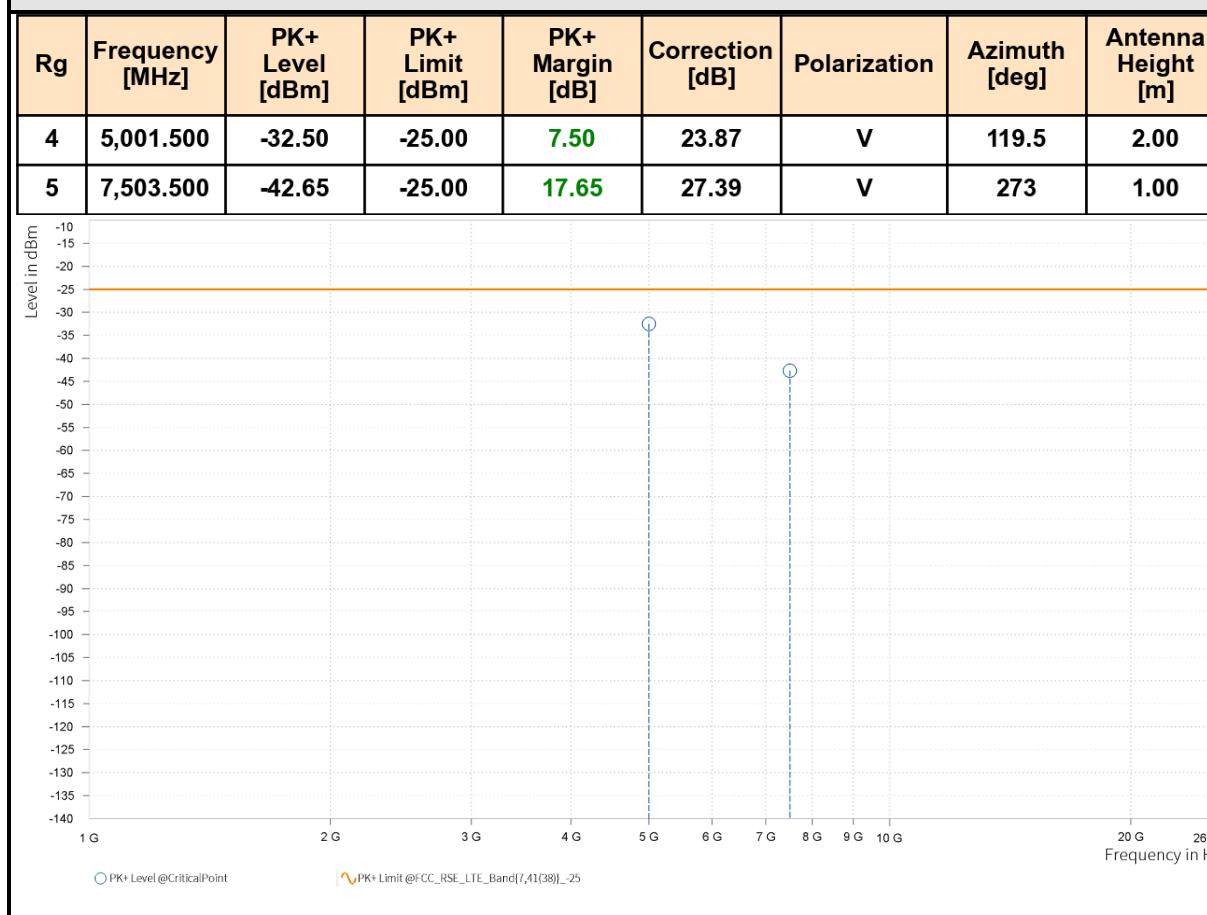
Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,002.500	-33.41	-25.00	8.41	23.67	H	122.4	2.00
5	7,503.000	-41.87	-25.00	16.87	27.41	H	299.9	1.00





CHANNEL BANDWIDTH	20MHz / QPSK	MODE	TX channel 20850
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	120Vac 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

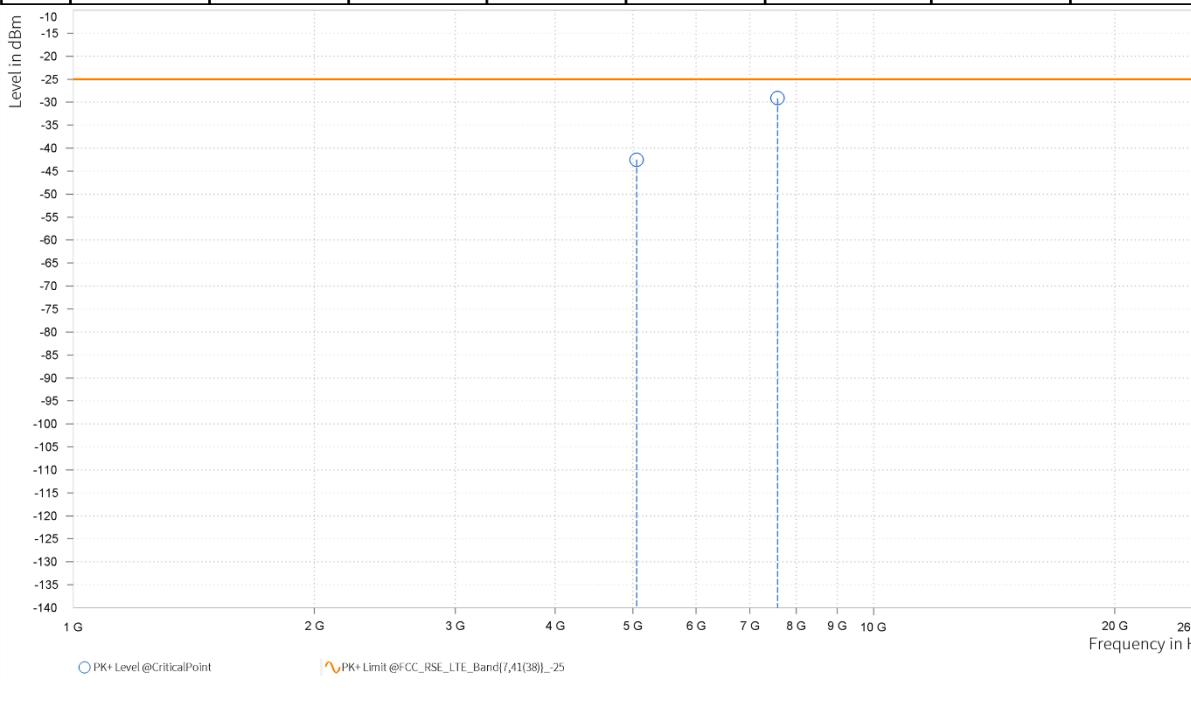




CHANNEL BANDWIDTH	20MHz / QPSK	MODE	TX channel 21100
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	120Vac 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

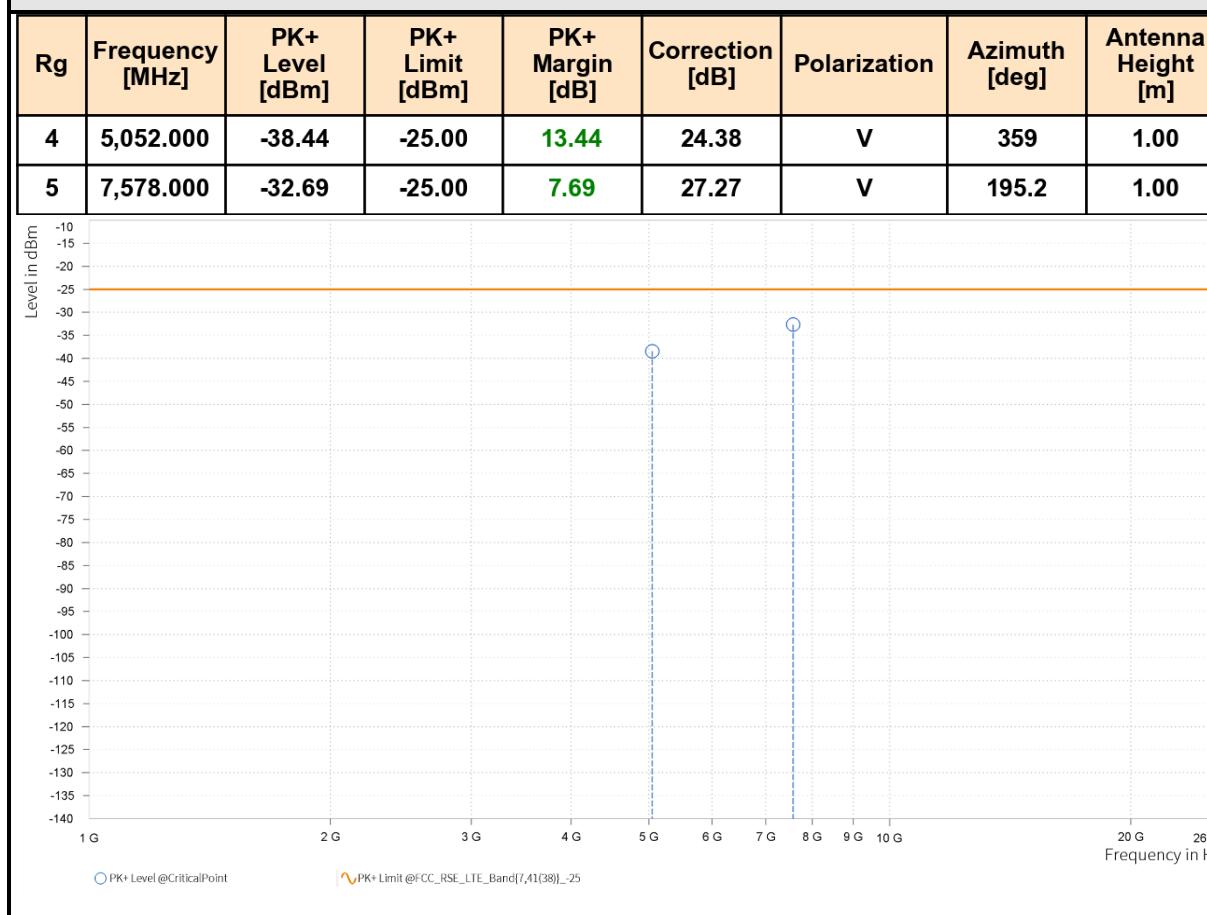
Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,053.000	-42.51	-25.00	17.51	23.96	H	190.9	1.00
5	7,578.500	-29.11	-25.00	4.11	27.48	H	125.1	1.00





CHANNEL BANDWIDTH	20MHz / QPSK	MODE	TX channel 21100
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	120Vac 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

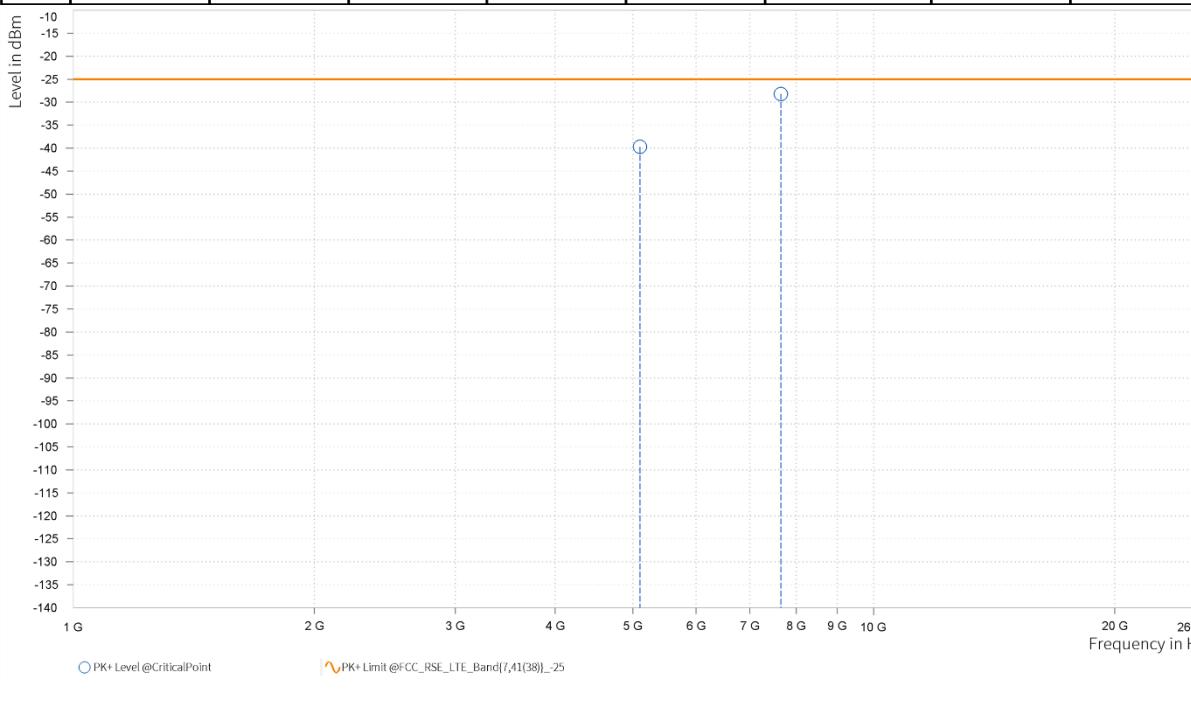




CHANNEL BANDWIDTH	20MHz / QPSK	MODE	TX channel 21350
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	120Vac 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

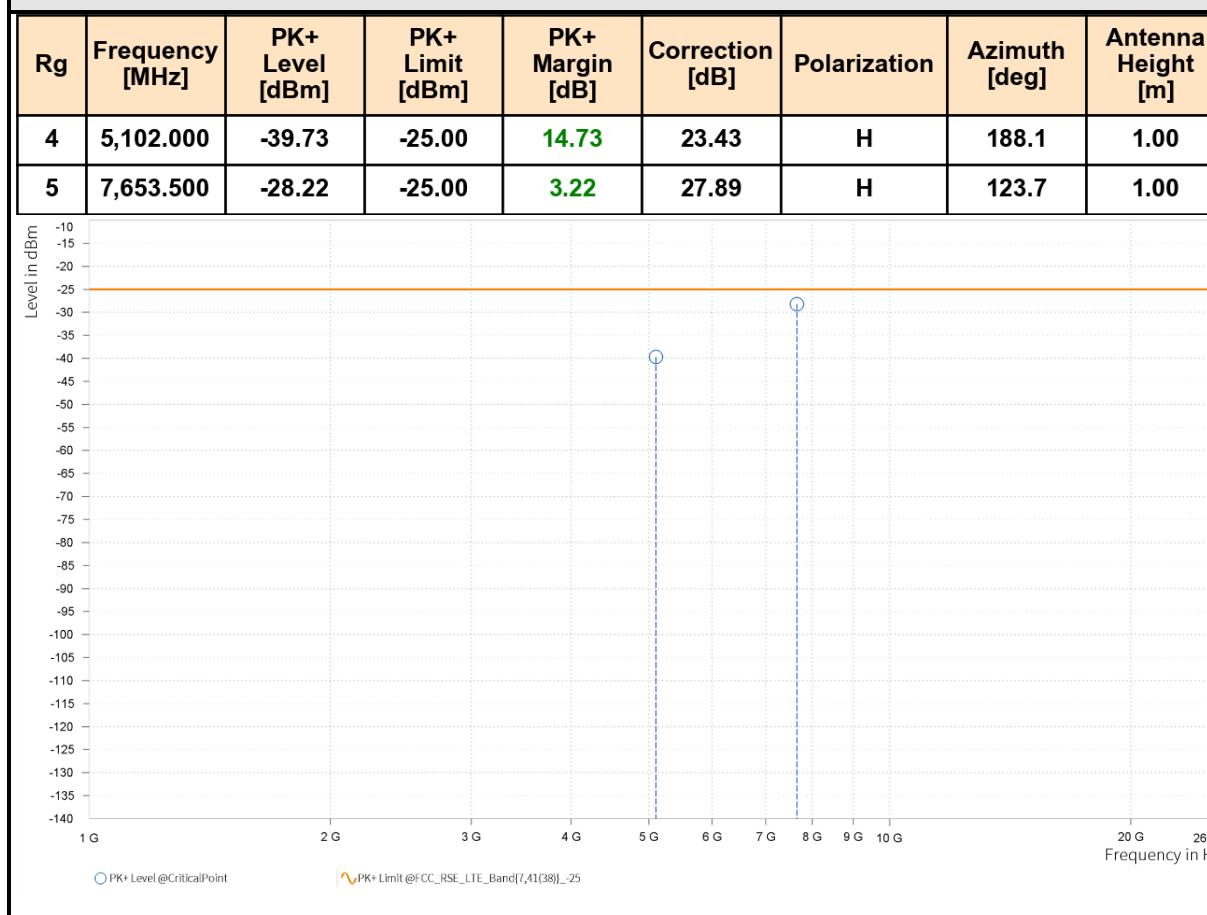
Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,102.000	-39.73	-25.00	14.73	23.43	H	188.1	1.00
5	7,653.500	-28.22	-25.00	3.22	27.89	H	123.7	1.00





CHANNEL BANDWIDTH	20MHz / QPSK	MODE	TX channel 21350
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	120Vac 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M



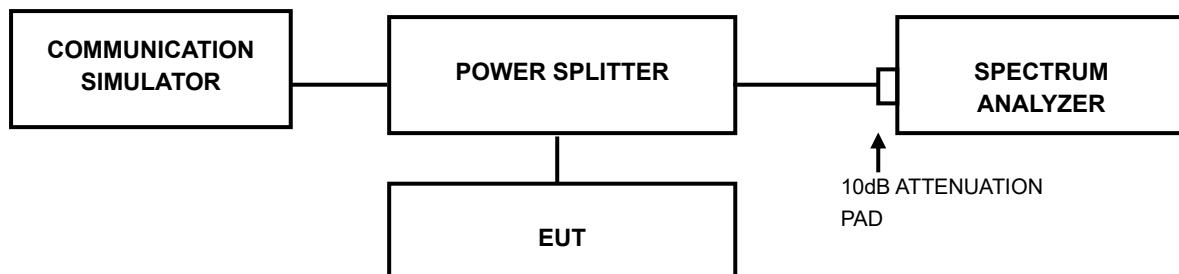


3.7 PEAK TO AVERAGE RATIO

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 Module report BL-SZ2270935-501, FCC ID: 2AMLFXQ600-LA



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.

--END--