



# FCC TEST REPORT (PART 27)

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

Manufacturer or Supplier:	Xiaomi Communications Co., Ltd.
Address:	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085
Product:	Mobile Phone
Brand Name:	REDMI
Model Name:	2510DRA23L
FCC ID	2AFZZRA23L
Date of tests	Aug. 11, 2025 ~ Aug. 30, 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: Aug. 30, 2025	Date: Aug. 30, 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.



# TABLE OF CONTENTS

<b>RELEASE CONTROL RECORD</b> .....	<b>3</b>
<b>1 SUMMARY OF TEST RESULTS</b> .....	<b>4</b>
1.1 MEASUREMENT UNCERTAINTY .....	5
1.2 TEST SITE AND INSTRUMENTS .....	6
<b>2 GENERAL INFORMATION</b> .....	<b>8</b>
2.1 GENERAL DESCRIPTION OF EUT .....	8
2.2 CONFIGURATION OF SYSTEM UNDER TEST .....	12
2.3 DESCRIPTION OF SUPPORT UNITS .....	13
2.4 TEST ITEM AND TEST CONFIGURATION .....	14
2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS .....	19
<b>3 TEST TYPES AND RESULTS</b> .....	<b>20</b>
3.1 OUTPUT POWER MEASUREMENT .....	20
3.1.1 LIMITS OF OUTPUT POWER MEASUREMENT .....	20
3.1.2 TEST PROCEDURES .....	20
3.1.3 TEST SETUP .....	21
3.1.4 TEST RESULTS .....	22
3.2 FREQUENCY STABILITY MEASUREMENT .....	64
3.2.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT .....	64
3.2.2 TEST PROCEDURE .....	64
3.2.3 TEST SETUP .....	64
3.2.4 TEST RESULTS .....	64
3.3 OCCUPIED BANDWIDTH MEASUREMENT .....	65
3.3.1 LIMITS OF OCCUPIED BANDWIDTH MEASUREMENT .....	65
3.3.2 TEST SETUP .....	65
3.3.3 TEST PROCEDURES .....	65
3.3.4 TEST RESULTS .....	65
3.4 BAND EDGE MEASUREMENT .....	66
3.4.1 LIMITS OF BAND EDGE MEASUREMENT .....	66
3.4.2 TEST SETUP .....	66
3.4.3 TEST PROCEDURES .....	67
3.4.4 TEST RESULTS .....	67
3.5 CONDUCTED SPURIOUS EMISSIONS .....	68
3.5.1 LIMITS OF CONDUCTED SPURIOUS EMISSIONS MEASUREMENT .....	68
3.5.2 TEST PROCEDURE .....	68
3.5.3 TEST SETUP .....	68
3.5.4 TEST RESULTS .....	69
3.6 RADIATED EMISSION MEASUREMENT .....	70
3.6.1 LIMITS OF RADIATED EMISSION MEASUREMENT .....	70
3.6.2 TEST PROCEDURES .....	70
3.6.3 DEVIATION FROM TEST STANDARD .....	70
3.6.4 TEST SETUP .....	71
3.6.5 TEST RESULTS .....	73
3.7 PEAK TO AVERAGE RATIO .....	107
3.7.1 LIMITS OF PEAK TO AVERAGE RATIO MEASUREMENT .....	107
3.7.2 TEST SETUP .....	107
3.7.3 TEST PROCEDURES .....	107
3.7.4 TEST RESULTS .....	107
<b>4 INFORMATION ON THE TESTING LABORATORIES</b> .....	<b>108</b>
<b>5 MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB</b> <b>109</b>	



## RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
PSU-QBJ2508070215RF04	Original release	Aug. 30, 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 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 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 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 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.**

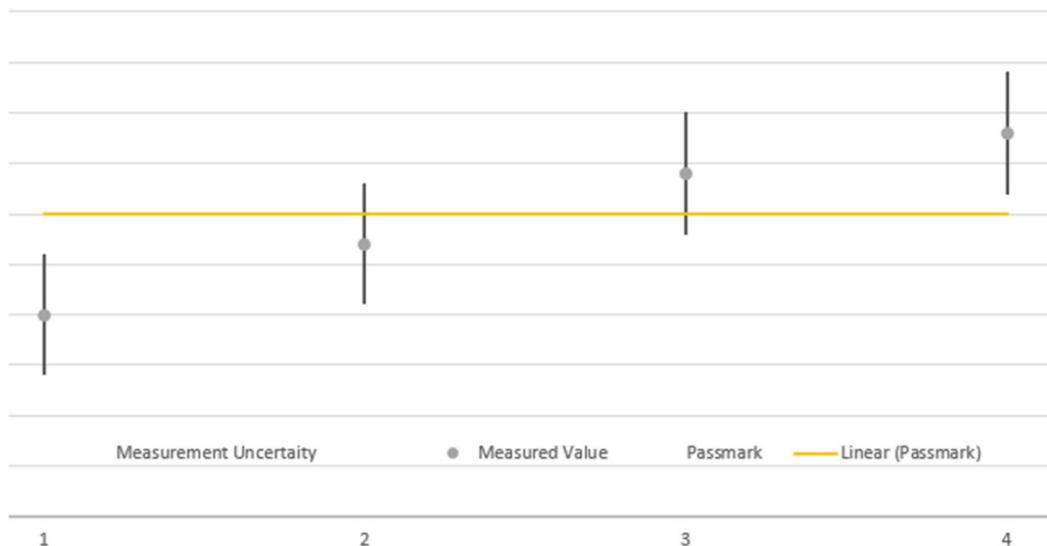


### 1.1 MEASUREMENT UNCERTAINTY

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

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



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

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

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



## 1.2 TEST SITE AND INSTRUMENTS

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	Aug.20,25	Aug.19,28
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	Jul.04,25	Jul.03,27
Horn Antenna	ETS-LINDGREN	3117	227836	Aug.20,25	Aug.19,27
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	Mar.22,25	Mar.21,27
Loop Antenna	SCHWARZ	HFH2-Z2/Z2E	100976	Feb.22,25	Feb.21,27
WIDEBANDRADIO COMMUNICATION TESTER	R&S	CMW500	169399	Jun.19,24	Jun.18,26
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	Mar.18,25	Mar.17,27
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



**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

<b>PRODUCT*</b>	Mobile Phone	
<b>BRAND NAME*</b>	REDMI	
<b>MODEL NAME*</b>	2510DRA23L	
<b>NOMINAL VOLTAGE*</b>	5/3.6-11V dc (adapter or host equipment) 3.92Vdc (Li-ion, battery)	
<b>MODULATION TECHNOLOGY</b>	<b>LTE</b>	QPSK, 16QAM, 64QAM
<b>FREQUENCY RANGE</b>	<b>LTE Band 4 Channel Bandwidth: 1.4MHz</b>	1710.7MHz ~ 1754.3MHz
	<b>LTE Band 4 Channel Bandwidth: 3MHz</b>	1711.5MHz ~ 1753.5MHz
	<b>LTE Band 4 Channel Bandwidth: 5MHz</b>	1712.5MHz ~ 1752.5MHz
	<b>LTE Band 4 Channel Bandwidth: 10MHz</b>	1715MHz ~ 1750MHz
	<b>LTE Band 4 Channel Bandwidth: 15MHz</b>	1717.5MHz ~ 1747.5 MHz
	<b>LTE Band 4 Channel Bandwidth: 20MHz</b>	1720MHz ~ 1745MHz
	<b>LTE Band 38 Channel Bandwidth: 5MHz</b>	2572.5MHz ~ 2617.5MHz
	<b>LTE Band 38 Channel Bandwidth: 10MHz</b>	2575MHz ~ 2615MHz
	<b>LTE Band 38 Channel Bandwidth: 15MHz</b>	2577.5MHz ~ 2612.5MHz
	<b>LTE Band 38 Channel Bandwidth: 20MHz</b>	2580MHz ~ 2610MHz
	<b>LTE Band 41 Channel Bandwidth: 5MHz</b>	2498.5MHz ~ 2687.5MHz
	<b>LTE Band 41 Channel Bandwidth: 10MHz</b>	2501MHz ~ 2685MHz
	<b>LTE Band 41 Channel Bandwidth: 15MHz</b>	2503.5MHz ~ 2682.5MHz
	<b>LTE Band 41 Channel Bandwidth: 20MHz</b>	2506MHz ~ 2680MHz
	<b>LTE Band 66 Channel Bandwidth: 1.4MHz</b>	1710.7MHz ~ 1779.3MHz
	<b>LTE Band 66 Channel Bandwidth: 3MHz</b>	1711.5MHz ~ 1778.5MHz
	<b>LTE Band 66 Channel Bandwidth: 5MHz</b>	1712.5MHz ~ 1777.5MHz
	<b>LTE Band 66 Channel Bandwidth: 10MHz</b>	1715MHz ~ 1775MHz
	<b>LTE Band 66 Channel Bandwidth: 15MHz</b>	1717.5MHz ~ 1772.5MHz
	<b>LTE Band 66 Channel Bandwidth: 20MHz</b>	1720MHz ~ 1770MHz



<b>MAX. EIRP POWER</b>	LTE Band 4 Channel Bandwidth: 1.4MHz	ANT0: 155.60mW
		ANT1: 210.38mW
	LTE Band 4 Channel Bandwidth: 3MHz	ANT0: 156.31mW
		ANT1: 211.35mW
	LTE Band 4 Channel Bandwidth: 5MHz	ANT0: 153.11mW
		ANT1: 214.78mW
	LTE Band 4 Channel Bandwidth: 10MHz	ANT0: 155.24mW
		ANT1: 211.84mW
	LTE Band 4 Channel Bandwidth: 15MHz	ANT0: 154.17mW
		ANT1: 211.35mW
	LTE Band 4 Channel Bandwidth: 20MHz	ANT0: 156.68mW
		ANT1: 215.77mW
	LTE Band 38 Channel Bandwidth: 5MHz	ANT0: 147.57mW
		ANT1: 109.14mW
	LTE Band 38 Channel Bandwidth: 10MHz	ANT0: 146.55mW
		ANT1: 110.41mW
	LTE Band 38 Channel Bandwidth: 15MHz	ANT0: 146.22mW
		ANT1: 110.92mW
	LTE Band 38 Channel Bandwidth: 20MHz	ANT0: 148.59mW
		ANT1: 111.69mW
LTE Band 41 Channel Bandwidth: 5MHz	ANT0: 207.49mW	
	ANT1: 150.66mW	
LTE Band 41 Channel Bandwidth: 10MHz	ANT0: 201.37mW	
	ANT1: 152.05mW	
LTE Band 41 Channel Bandwidth: 15MHz	ANT0: 203.24mW	
	ANT1: 149.62mW	
LTE Band 41 Channel Bandwidth: 20MHz	ANT0: 207.97mW	
	ANT1: 154.17mW	
LTE Band 66 Channel Bandwidth: 1.4MHz	ANT0: 162.18mW	
	ANT1: 227.51mW	
LTE Band 66 Channel Bandwidth: 3MHz	ANT0: 164.06mW	
	ANT1: 230.67mW	
LTE Band 66 Channel Bandwidth: 5MHz	ANT0: 161.81mW	
	ANT1: 231.74mW	
LTE Band 66 Channel Bandwidth: 10MHz	ANT0: 163.68mW	
	ANT1: 225.94mW	
LTE Band 66 Channel Bandwidth: 15MHz	ANT0: 159.59mW	
	ANT1: 229.09mW	
LTE Band 66 Channel Bandwidth: 20MHz	ANT0: 164.82mW	
	ANT1: 232.27mW	
<b>EMISSION DESIGNATOR</b>	LTE Band 41 Channel Bandwidth: 5MHz	QPSK: 4M51G7D
		16QAM: 4M50W7D
		64QAM: 4M52W7D
	LTE Band 41	QPSK: 8M98G7D



	Channel Bandwidth: 10MHz	16QAM: 8M99W7D
		64QAM: 8M99W7D
	LTE Band 41 Channel Bandwidth: 15MHz	QPSK: 13M5G7D
		16QAM: 13M5W7D
		64QAM: 13M5W7D
	LTE Band 41 Channel Bandwidth: 20MHz	QPSK: 17M9G7D
		16QAM: 17M9W7D
		64QAM: 18M0W7D
	LTE Band 66 Channel Bandwidth: 1.4MHz	QPSK: 1M10G7D
		16QAM: 1M10W7D
		64QAM: 1M10W7D
	LTE Band 66 Channel Bandwidth: 3MHz	QPSK: 2M69G7D
		16QAM: 2M69W7D
		64QAM: 2M69W7D
	LTE Band 66 Channel Bandwidth: 5MHz	QPSK: 4M51G7D
		16QAM: 4M51W7D
64QAM: 4M50W7D		
LTE Band 66 Channel Bandwidth: 10MHz	QPSK: 8M99G7D	
	16QAM: 8M98W7D	
	64QAM: 8M98W7D	
LTE Band 66 Channel Bandwidth: 15MHz	QPSK: 13M5G7D	
	16QAM: 13M5W7D	
	64QAM: 13M5W7D	
LTE Band 66 Channel Bandwidth: 20MHz	QPSK: 18M0G7D	
	16QAM: 18M0W7D	
	64QAM: 18M0W7D	
ANTENNA GAIN*	LTE Band 4	ANT0:-2.4dBi
		ANT1: -0.5dBi
	LTE Band 38	ANT0: -2.7dBi
		ANT1: -2.9dBi
	LTE Band 41	ANT0: -1.7dBi
		ANT1: -2.1dBi
	LTE Band 66	ANT0: -2.4dBi
		ANT1: -0.5dBi
ANTENNA TYPE*	PIFA Antenna	
HW VERSION*	99007_1_12	
SW VERSION*	Xiaomi HyperOS 2.2	
I/O PORTS*	Refer to user's manual	



<b>CABLE SUPPLIED*</b>	USB cable1: non-shielded cable, with w/o ferrite core, 1.0 meter USB cable2: non-shielded cable, with w/o ferrite core, 1.0 meter USB cable3: non-shielded cable, with w/o ferrite core, 1.0 meter USB cable4: non-shielded cable, with w/o ferrite core, 1.0 meter
<b>EXTREME TEMPERATURE*</b>	0~40°C
<b>EXTREME VOLTAGE*</b>	3.6~4.5V

**NOTE:**

- \*Since the above data and/or information is provided by the client relevant results or conclusions of this report are only made for these data and/or information, Test Lab is not responsible for the authenticity, integrity and results of the data and information and/or the validity of the conclusion.
- 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 transmitters and two receivers.

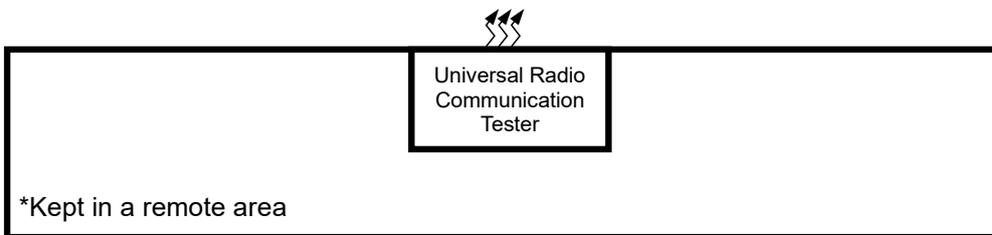
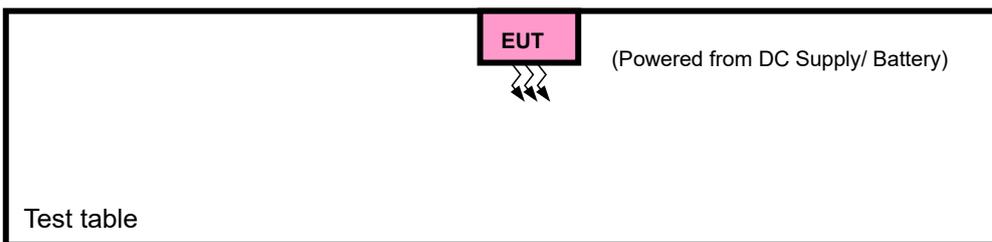
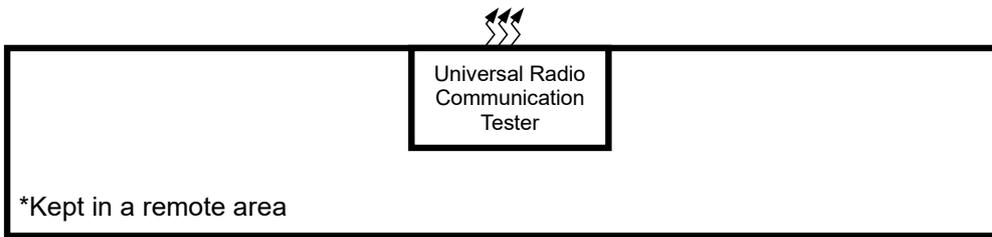
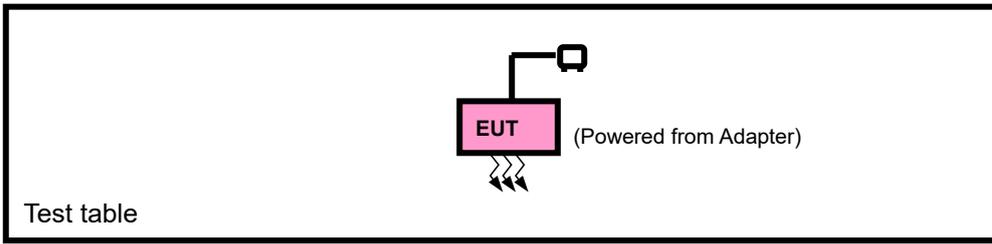
<b>MODULATION MODE</b>	<b>TX FUNCTION</b>
<b>LTE 4/38/41/66</b>	<b>2TX/2RX</b>

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



## 2.2 CONFIGURATION OF SYSTEM UNDER TEST

### FOR RADIATION EMISSION TEST





### 2.3 DESCRIPTION OF SUPPORT UNITS

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

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Laptop	Lenovo	ThinkPad E14	HRSW00024	N/A
2	DC Source	HYELEC	HY3010B	551016	N/A
3	Adapter	N/A	N/A	N/A	N/A
4	USB Cable	N/A	N/A	N/A	N/A

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



## 2.4 TEST ITEM AND TEST CONFIGURATION

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

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

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

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

2. LTE Band 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	1 RB / 0 RB Offset
		37800 to 38200	37800, 38000, 38200	10MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		37825 to 38175	37825, 38000, 38175	15MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		37850 to 38150	37850, 38000, 38150	20MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset



**Note:**

1. This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.
2. LTE Band 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	1 RB / 0 RB Offset
		39700 to 41540	39700, 40620, 41540	10MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		39725 to 41515	39725, 40620, 41515	15MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		39750 to 41490	39750, 40620, 41490	20MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
B	FREQUENCY STABILITY	39700 to 41540	39700, 41540	10MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
A	OCCUPIED BANDWIDTH	39675 to 41565	39675, 40620, 41565	5MHz	QPSK, 16QAM, 64QAM	25 RB / 0 RB Offset
		39700 to 41540	39700, 40620, 41540	10MHz	QPSK, 16QAM, 64QAM	50 RB / 0 RB Offset
		39725 to 41515	39725, 40620, 41515	15MHz	QPSK, 16QAM, 64QAM	75 RB / 0 RB Offset
		39750 to 41490	39750, 40620, 41490	20MHz	QPSK, 16QAM, 64QAM	100 RB / 0 RB Offset
A	PEAK TO AVERAGE RATIO	39750 to 41490	39750, 40620, 41490	20MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset 100 RB / 0 RB Offset
A	BAND EDGE	39675 to 41565	39675	5MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset 25 RB / 0 RB Offset
			41565	5MHz	QPSK, 16QAM, 64QAM	1 RB / 24 RB Offset 25 RB / 0 RB Offset
		39700 to 41540	39700	10MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset 50 RB / 0 RB Offset
			41540	10MHz	QPSK, 16QAM, 64QAM	1 RB / 49 RB Offset 50 RB / 0 RB Offset
		39725 to 41515	39725	15MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset 75 RB / 0 RB Offset



			41515	15MHz	QPSK, 16QAM, 64QAM	1 RB / 74 RB Offset
						75 RB / 0 RB Offset
		39750 to 41490	39750	20MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
			41490	20MHz	QPSK, 16QAM, 64QAM	100 RB / 0 RB Offset
A	CONDCUDED EMISSION	39675 to 41565	39675, 40620, 41565	5MHz	QPSK	1 RB / 0 RB Offset
		39700 to 41540	39700, 40620, 41540	10MHz	QPSK	1 RB / 0RB 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 / 0RB 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 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	1 RB / 0 RB Offset
		131987 to 132657	131987,132322,132657	3MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset
		131997 to 132647	131997,132322,132647	5MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset
		132022 to 132622	132022,132322,132622	10MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset
		132047 to 132597	132047,132322,132597	15MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset
		132072 to 132572	132072,132322,132572	20MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset
B	FREQUENCY STABILITY	132022 to 132622	132022,132622	10MHz	QPSK	100 RB / 0 RB Offset
A	OCCUPIED BANDWIDTH	131979 to 132665	131979,132322,132665	1.4MHz	QPSK,16QAM,64QAM	6 RB / 0 RB Offset
		131987 to 132657	131987,132322,132657	3MHz	QPSK,16QAM,64QAM	15 RB / 0 RB Offset
		131997 to 132647	131997,132322,132647	5MHz	QPSK,16QAM,64QAM	25 RB / 0 RB Offset
		132022 to 132622	132022,132322,132622	10MHz	QPSK,16QAM,64QAM	50 RB / 0 RB Offset
		132047 to 132597	132047,132322,132597	15MHz	QPSK,16QAM,64QAM	75 RB / 0 RB Offset
		132072 to 132572	132072,132322,132572	20MHz	QPSK,16QAM,64QAM	100 RB / 0 RB Offset
A	BAND EDGE	131979 to	131979	1.4MHz	QPSK,16QAM,64QAM	1 RB / 0 RB Offset



**BUREAU VERITAS** Test Report No.: PSU-QBJ2508070215RF04

		132322				6 RB / 0 RB Offset		
			132322	1.4MHz	QPSK,16QAM, 64QAM	1 RB / 5 RB Offset		
		131987 to 132657	131987	3MHz	QPSK,16QAM, 64QAM	6 RB / 0 RB Offset	1 RB / 0 RB Offset	
			132657	3MHz	QPSK,16QAM, 64QAM	15 RB / 0 RB Offset	1 RB / 14 RB Offset	
		131997 to 132647	131997	5MHz	QPSK,16QAM, 64QAM	15 RB / 0 RB Offset	1 RB / 0 RB Offset	
			132647	5MHz	QPSK,16QAM, 64QAM	25 RB / 0 RB Offset	1 RB / 24 RB Offset	
		132022 to 132622	132022	10MHz	QPSK,16QAM, 64QAM	25 RB / 0 RB Offset	1 RB / 0 RB Offset	
			132622	10MHz	QPSK,16QAM, 64QAM	50 RB / 0 RB Offset	1 RB / 49 RB Offset	
		132047 to 132597	132047	15MHz	QPSK,16QAM, 64QAM	50 RB / 0 RB Offset	1 RB / 0 RB Offset	
			132597	15MHz	QPSK,16QAM, 64QAM	75 RB / 0 RB Offset	1 RB / 74 RB Offset	
		132072 to 132572	132072	20MHz	QPSK,16QAM, 64QAM	75 RB / 0 RB Offset	1 RB / 0 RB Offset	
			132572	20MHz	QPSK,16QAM, 64QAM	100 RB / 0 RB Offset	1 RB / 99 RB Offset	
		<b>A</b>	CONDCUETED EMISSION	131979 to 132665	131979,132322,132665	1.4MHz	QPSK	100 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		
<b>A</b>	PEAK TO AVERAGE RATIO	132072 to 132572	132072,132322,132572	20MHz	QPSK,16QAM, 64QAM	1 RB / 0 RB Offset 100 RB / 0 RB Offset		
<b>A</b>	RADIATED EMISSION	131979 to 132665	132322	1.4MHz	QPSK	1 RB / 0 RB Offset		
		131987 to 132657	132322	3MHz	QPSK	1 RB / 0 RB Offset		



		131997 to 132647	132322	5MHz	QPSK	1 RB / 0 RB Offset
		132022 to 132622	132022,132322,132622	10MHz	QPSK	1 RB / 0 RB Offset
		132047 to 132597	132322	15MHz	QPSK	1 RB / 0 RB Offset
		132072 to 132572	132322	20MHz	QPSK	1 RB / 0 RB Offset

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

<b>TEST CONDITION</b>			
<b>TEST ITEM</b>	<b>ENVIRONMENTAL CONDITIONS</b>	<b>INPUT POWER</b>	<b>TESTED BY</b>
EIRP	23deg. C, 70%RH	DC 3.92V By Battery	Hanwen Xu
FREQUENCY STABILITY	23deg. C, 70%RH	DC 3.6V/ 3.92V/ 4.5V By DC Source	Hanwen Xu
OCCUPIED BANDWIDTH	23deg. C, 70%RH	DC 3.92V By Battery	Hanwen Xu
BAND EDGE	23deg. C, 70%RH	DC 3.92V By Battery	Hanwen Xu
CONDCUDED EMISSION	23deg. C, 70%RH	DC 3.92V By Battery	Hanwen Xu
RADIATED EMISSION	23deg. C, 70%RH	AC 120V/60Hz	Hanwen Xu
PEAK TO AVERAGE RATIO	23deg. C, 70%RH	DC 3.92V By Battery	Hanwen Xu



**BUREAU VERITAS** Test Report No.: PSU-QBJ2508070215RF04

## **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  $P_{\text{Meas}}$ , typically dBW or dBm);

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

$G_{\text{T}}$  = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);

$L_{\text{C}}$  = signal attenuation in the connecting cable between the transmitter and antenna, in dB.

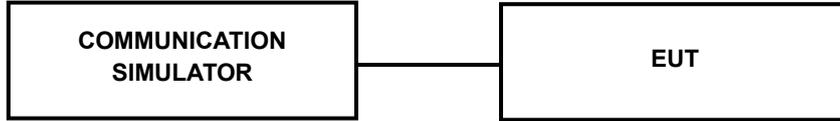
###### **CONDUCTED POWER MEASUREMENT:**

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



### 3.1.3 TEST SETUP

#### CONDUCTED POWER MEASUREMENT:



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



**3.1.4 TEST RESULTS**

**CONDUCTED OUTPUT POWER (dBm)**

LTE Band 4 ANT0						
Band/BW	Modulation	RB Size	RB Offset	Low CH 19957	Mid CH 20175	High CH 20393
				Frequency 1710.7 MHz	Frequency 1732.5 MHz	Frequency 1754.3 MHz
4/ 1.4	QPSK	1	0	24.02	24.11	24.02
		1	2	24.32	24.29	24.20
		1	5	24.16	24.10	24.10
		3	0	23.98	24.11	24.01
		3	1	24.18	24.18	24.10
		3	3	24.20	24.00	24.05
		6	0	23.26	23.22	23.20
	16QAM	1	0	23.23	23.22	23.15
		1	2	23.44	23.43	23.34
		1	5	23.26	23.23	23.29
		3	0	22.93	23.06	23.07
		3	1	23.13	23.13	23.08
		3	3	23.17	22.97	23.03
		6	0	22.30	22.22	22.28
	64QAM	1	0	22.26	22.20	22.11
		1	2	22.43	22.42	22.36
		1	5	22.16	22.27	22.22
		3	0	21.90	22.05	22.12
		3	1	22.16	22.15	22.13
		3	3	22.14	21.98	21.98
		6	0	21.24	21.29	21.16



LTE Band 4 ANTO						
Band/BW	Modulation	RB Size	RB Offset	Low CH 19965	Mid CH 20175	High CH 20385
				Frequency 1711.5 MHz	Frequency 1732.5 MHz	Frequency 1753.5 MHz
4/ 3	QPSK	1	0	24.03	24.09	24.06
		1	7	24.22	24.34	24.20
		1	14	24.09	24.17	24.09
		8	0	23.15	23.28	23.31
		8	3	23.33	23.38	23.33
		8	7	23.36	23.30	23.32
		15	0	23.18	23.30	23.24
	16QAM	1	0	23.28	23.15	23.16
		1	7	23.53	23.32	23.41
		1	14	23.28	23.31	23.36
		8	0	22.10	22.29	22.30
		8	3	22.26	22.31	22.22
		8	7	22.33	22.16	22.27
		15	0	22.27	22.21	22.27
	64QAM	1	0	22.30	22.23	22.07
		1	7	22.47	22.44	22.39
		1	14	22.16	22.35	22.10
		8	0	21.10	21.19	21.28
		8	3	21.35	21.27	21.28
		8	7	21.25	21.19	21.20
		15	0	21.17	21.30	21.21
Band/BW	Modulation	RB Size	RB Offset	Low CH 19975	Mid CH 20175	High CH 20375
				Frequency 1712.5 MHz	Frequency 1732.5 MHz	Frequency 1752.5 MHz
4/ 5	QPSK	1	0	24.00	24.05	24.01
		1	12	24.25	24.21	24.14
		1	24	24.06	24.16	24.01
		12	0	23.09	23.24	23.26
		12	6	23.38	23.32	23.26
		12	13	23.27	23.19	23.30
		25	0	23.20	23.25	23.22
	16QAM	1	0	23.25	23.12	23.03
		1	12	23.50	23.30	23.33
		1	24	23.28	23.23	23.40
		12	0	22.17	22.26	22.23
		12	6	22.33	22.28	22.26
		12	13	22.35	22.17	22.19
		25	0	22.24	22.20	22.26
	64QAM	1	0	22.33	22.20	22.15
		1	12	22.33	22.46	22.40
		1	24	22.22	22.31	22.11
		12	0	21.11	21.26	21.20
		12	6	21.29	21.34	21.21
		12	13	21.24	21.15	21.23
		25	0	21.28	21.23	21.23



LTE Band 4 ANTO						
Band/BW	Modulation	RB Size	RB Offset	Low CH 20000	Mid CH 20175	High CH 20350
				Frequency 1715 MHz	Frequency 1732.5 MHz	Frequency 1750 MHz
4/ 10	QPSK	1	0	24.10	24.05	24.03
		1	24	24.31	24.30	24.28
		1	49	24.10	24.14	24.10
		25	0	23.14	23.31	23.29
		25	12	23.29	23.38	23.24
		25	25	23.37	23.23	23.25
	16QAM	50	0	23.31	23.23	23.15
		1	0	23.21	23.22	23.07
		1	24	23.52	23.37	23.41
		1	49	23.35	23.25	23.41
		25	0	22.14	22.20	22.23
		25	12	22.29	22.31	22.30
	64QAM	25	25	22.24	22.23	22.25
		50	0	22.17	22.21	22.26
		1	0	22.32	22.19	22.20
		1	24	22.36	22.44	22.30
		1	49	22.23	22.36	22.14
		25	0	21.09	21.28	21.19
4/ 15	QPSK	25	12	21.33	21.35	21.27
		25	25	21.33	21.16	21.17
		50	0	21.19	21.19	21.15
		1	0	24.05	24.09	24.00
		1	37	24.28	24.21	24.19
		1	74	24.10	24.08	24.09
	16QAM	36	0	23.09	23.29	23.20
		36	19	23.33	23.41	23.29
		36	39	23.33	23.26	23.31
		75	0	23.30	23.29	23.20
		1	0	23.27	23.26	23.16
		1	37	23.57	23.30	23.43
	64QAM	1	74	23.36	23.34	23.34
		36	0	22.08	22.26	22.20
		36	19	22.35	22.31	22.24
		36	39	22.30	22.20	22.29
		75	0	22.18	22.15	22.29
		1	0	22.27	22.16	22.06
		1	37	22.40	22.40	22.34
		1	74	22.23	22.23	22.20
		36	0	21.07	21.25	21.30
		36	19	21.32	21.29	21.32
		36	39	21.36	21.27	21.27
		75	0	21.22	21.27	21.27



LTE Band 4 ANTO						
Band/BW	Modulation	RB Size	RB Offset	Low CH 20050	Mid CH 20175	High CH 20300
				Frequency 1720 MHz	Frequency 1732.5 MHz	Frequency 1745 MHz
4/ 20	QPSK	1	0	24.15	24.16	24.09
		1	50	<b>24.34</b>	<b>24.35</b>	<b>24.29</b>
		1	99	24.17	24.21	24.14
		50	0	23.24	23.35	23.34
		50	25	<b>23.44</b>	<b>23.46</b>	<b>23.38</b>
		50	50	23.42	23.32	23.35
		100	0	23.32	<b>23.33</b>	23.30
	16QAM	1	0	23.30	23.27	23.18
		1	50	23.58	23.44	23.46
		1	99	23.39	23.37	23.42
		50	0	22.22	22.30	22.32
		50	25	22.39	22.40	22.36
		50	50	22.39	22.27	22.31
		100	0	22.31	22.28	22.30
	64QAM	1	0	22.34	22.30	22.21
		1	50	22.48	22.47	22.43
		1	99	22.28	22.38	22.24
		50	0	21.22	21.34	21.31
		50	25	21.38	21.41	21.36
		50	50	21.38	21.29	21.31
		100	0	21.30	21.31	21.29



LTE Band 4 ANT1						
Band/BW	Modulation	RB Size	RB Offset	Low CH 19957	Mid CH 20175	High CH 20393
				Frequency 1710.7 MHz	Frequency 1732.5 MHz	Frequency 1754.3 MHz
4/ 1.4	QPSK	1	0	23.61	23.54	23.54
		1	2	23.72	23.73	23.61
		1	5	23.60	23.55	23.50
		3	0	23.36	23.49	23.52
		3	1	23.54	23.58	23.46
		3	3	23.43	23.46	23.39
		6	0	22.51	22.60	22.52
	16QAM	1	0	22.71	22.86	22.72
		1	2	22.81	22.83	22.94
		1	5	22.52	22.79	22.65
		3	0	22.26	22.48	22.41
		3	1	22.39	22.62	22.38
		3	3	22.35	22.39	22.46
		6	0	21.47	21.64	21.54
	64QAM	1	0	21.70	21.69	21.72
		1	2	21.80	21.90	21.67
		1	5	21.65	21.68	21.73
		3	0	21.36	21.42	21.42
		3	1	21.51	21.58	21.49
		3	3	21.34	21.55	21.48
		6	0	20.58	20.68	20.45



LTE Band 4 ANT1						
Band/BW	Modulation	RB Size	RB Offset	Low CH 19965	Mid CH 20175	High CH 20385
				Frequency 1711.5 MHz	Frequency 1732.5 MHz	Frequency 1753.5 MHz
4/ 3	QPSK	1	0	23.52	23.49	23.47
		1	7	23.75	23.72	23.70
		1	14	23.53	23.58	23.54
		8	0	22.61	22.66	22.65
		8	3	22.84	22.84	22.66
		8	7	22.54	22.59	22.53
		15	0	22.51	22.57	22.57
	16QAM	1	0	22.76	22.89	22.75
		1	7	22.78	22.87	22.94
		1	14	22.64	22.68	22.63
		8	0	21.45	21.58	21.56
		8	3	21.55	21.73	21.57
		8	7	21.58	21.66	21.64
		15	0	21.48	21.60	21.49
	64QAM	1	0	21.74	21.69	21.66
		1	7	21.81	21.88	21.78
		1	14	21.76	21.81	21.62
		8	0	20.63	20.66	20.67
		8	3	20.68	20.73	20.64
		8	7	20.52	20.70	20.63
		15	0	20.48	20.63	20.55
Band/BW	Modulation	RB Size	RB Offset	Low CH 19975	Mid CH 20175	High CH 20375
				Frequency 1712.5 MHz	Frequency 1732.5 MHz	Frequency 1752.5 MHz
4/ 5	QPSK	1	0	23.50	23.48	23.52
		1	12	23.68	23.82	23.62
		1	24	23.58	23.62	23.57
		12	0	22.60	22.64	22.70
		12	6	22.75	22.76	22.68
		12	13	22.54	22.67	22.63
		25	0	22.57	22.61	22.56
	16QAM	1	0	22.75	22.88	22.69
		1	12	22.84	22.78	22.85
		1	24	22.57	22.77	22.68
		12	0	21.42	21.62	21.59
		12	6	21.67	21.72	21.60
		12	13	21.58	21.62	21.54
		25	0	21.48	21.53	21.62
	64QAM	1	0	21.74	21.67	21.67
		1	12	21.88	21.83	21.76
		1	24	21.65	21.68	21.62
		12	0	20.60	20.70	20.58
		12	6	20.65	20.81	20.68
		12	13	20.65	20.62	20.60
		25	0	20.46	20.60	20.51



LTE Band 4 ANT1						
Band/BW	Modulation	RB Size	RB Offset	Low CH 20000	Mid CH 20175	High CH 20350
				Frequency 1715 MHz	Frequency 1732.5 MHz	Frequency 1750 MHz
4/ 10	QPSK	1	0	23.62	23.50	23.48
		1	24	23.75	23.76	23.71
		1	49	23.54	23.55	23.62
		25	0	22.63	22.68	22.65
		25	12	22.82	22.73	22.64
		25	25	22.52	22.62	22.59
		50	0	22.58	22.63	22.58
	16QAM	1	0	22.65	22.86	22.79
		1	24	22.83	22.80	22.94
		1	49	22.54	22.76	22.55
		25	0	21.49	21.56	21.48
		25	12	21.64	21.77	21.54
		25	25	21.53	21.53	21.51
		50	0	21.60	21.67	21.57
	64QAM	1	0	21.76	21.65	21.60
		1	24	21.86	21.90	21.67
		1	49	21.71	21.79	21.66
		25	0	20.56	20.66	20.61
25		12	20.60	20.80	20.71	
25		25	20.60	20.66	20.62	
50		0	20.52	20.62	20.47	
Band/BW	Modulation	RB Size	RB Offset	Low CH 20025	Mid CH 20175	High CH 20325
				Frequency 1717.5 MHz	Frequency 1732.5 MHz	Frequency 1747.5 MHz
4/ 15	QPSK	1	0	23.61	23.46	23.44
		1	37	23.75	23.71	23.63
		1	74	23.53	23.58	23.60
		36	0	22.63	22.67	22.59
		36	19	22.72	22.83	22.65
		36	39	22.61	22.59	22.51
		75	0	22.52	22.66	22.57
	16QAM	1	0	22.76	22.76	22.76
		1	37	22.81	22.90	22.89
		1	74	22.62	22.69	22.60
		36	0	21.49	21.57	21.58
		36	19	21.63	21.71	21.61
		36	39	21.55	21.55	21.54
		75	0	21.55	21.60	21.50
	64QAM	1	0	21.77	21.72	21.70
		1	37	21.86	21.89	21.75
		1	74	21.72	21.77	21.69
		36	0	20.61	20.68	20.66
36		19	20.58	20.76	20.76	
36		39	20.55	20.66	20.57	
75		0	20.50	20.70	20.51	



LTE Band 4 ANT1						
Band/BW	Modulation	RB Size	RB Offset	Low CH 20050	Mid CH 20175	High CH 20300
				Frequency 1720 MHz	Frequency 1732.5 MHz	Frequency 1745 MHz
4/ 20	QPSK	1	0	23.65	23.61	23.55
		1	50	<b>23.79</b>	<b>23.84</b>	<b>23.76</b>
		1	99	23.65	23.65	23.64
		50	0	22.67	22.74	22.71
		50	25	<b>22.85</b>	<b>22.87</b>	<b>22.76</b>
		50	50	22.63	22.72	22.65
		100	0	22.59	<b>22.71</b>	22.62
	16QAM	1	0	22.77	22.91	22.82
		1	50	22.85	22.93	22.95
		1	99	22.66	22.81	22.69
		50	0	21.55	21.67	21.63
		50	25	21.69	21.84	21.69
		50	50	21.62	21.67	21.66
		100	0	21.62	21.68	21.64
	64QAM	1	0	21.79	21.80	21.74
		1	50	21.90	21.92	21.79
		1	99	21.77	21.82	21.75
		50	0	20.68	20.73	20.68
		50	25	20.73	20.86	20.77
		50	50	20.67	20.74	20.68
		100	0	20.59	20.72	20.58



LTE Band 38 ANT0						
Band/BW	Modulation	RB Size	RB Offset	Low CH (37775)	Low Mid CH (38000)	Mid CH (38225)
				Frequency (2572.5)MHz	Frequency (2595)MHz	Frequency (2617.5)MHz
38/ 5	QPSK	1	0	23.22	23.20	23.14
		1	12	24.39	24.36	24.33
		1	24	24.09	24.14	24.05
		12	0	23.12	23.09	23.03
		12	6	23.24	23.27	23.16
		12	13	23.24	23.18	23.13
		25	0	23.27	23.18	23.22
	16QAM	1	0	22.27	22.27	22.09
		1	12	23.38	23.35	23.18
		1	24	23.14	23.08	23.03
		12	0	22.22	22.12	22.14
		12	6	22.32	22.26	22.13
		12	13	22.13	22.19	22.09
		25	0	22.25	22.21	22.07
	64QAM	1	0	21.16	21.02	21.02
		1	12	22.08	21.99	21.87
		1	24	21.73	21.78	21.75
		12	0	21.30	21.31	21.12
		12	6	21.34	21.37	21.18
		12	13	21.25	21.21	21.17
		25	0	21.31	21.33	21.15
Band/BW	Modulation	RB Size	RB Offset	Low CH (37800)	Low Mid CH (38000)	Mid CH (38200)
				Frequency (2575)MHz	Frequency (2595)MHz	Frequency (2615)MHz
38/ 10	QPSK	1	0	23.28	23.18	23.19
		1	24	24.28	24.33	24.36
		1	49	24.05	24.11	24.14
		25	0	23.23	23.18	23.10
		25	12	23.32	23.29	23.15
		25	25	23.20	23.17	23.04
		50	0	23.25	23.17	23.25
	16QAM	1	0	22.23	22.29	22.18
		1	24	23.31	23.35	23.19
		1	49	23.03	23.16	22.98
		25	0	22.16	22.14	22.13
		25	12	22.20	22.27	22.14
		25	25	22.15	22.07	22.03
		50	0	22.29	22.28	22.13
	64QAM	1	0	21.09	21.13	21.04
		1	24	21.99	21.93	22.00
		1	49	21.80	21.77	21.72
		25	0	21.26	21.35	21.11
		25	12	21.41	21.31	21.27
		25	25	21.25	21.13	21.11
		50	0	21.20	21.29	21.19



LTE Band 38 ANT0						
Band/BW	Modulation	RB Size	RB Offset	Low CH (37825)	Low Mid CH (38000)	Mid CH (38175)
				Frequency (2577.5)MHz	Frequency (2595)MHz	Frequency (2612.5)MHz
38/ 15	QPSK	1	0	23.32	23.18	23.10
		1	37	24.28	24.35	24.26
		1	74	24.02	24.15	24.17
		36	0	23.13	23.11	23.14
		36	19	23.32	23.16	23.25
		36	39	23.22	23.17	23.15
		75	0	23.19	23.28	23.20
	16QAM	1	0	22.36	22.23	22.12
		1	37	23.31	23.34	23.25
		1	74	23.08	23.09	23.08
		36	0	22.15	22.18	22.12
		36	19	22.33	22.19	22.10
		36	39	22.07	22.09	22.02
		75	0	22.29	22.21	22.18
	64QAM	1	0	21.10	21.10	21.04
		1	37	21.96	22.00	21.94
		1	74	21.75	21.70	21.72
		36	0	21.33	21.29	21.14
		36	19	21.38	21.31	21.25
		36	39	21.27	21.27	21.22
		75	0	21.22	21.22	21.15
Band/BW	Modulation	RB Size	RB Offset	Low CH (37850) Frequency (2580)MHz	Low Mid CH (38000) Frequency (2595)MHz	Mid CH (38150) Frequency (2610)MHz
38/ 20	QPSK	1	0	23.34	23.31	23.23
		1	50	24.40	<b>24.42</b>	24.38
		1	99	24.17	24.20	24.18
		50	0	23.26	23.22	23.17
		50	25	23.33	<b>23.35</b>	23.26
		50	50	23.31	23.23	23.16
		100	0	23.30	<b>23.34</b>	23.28
	16QAM	1	0	22.37	22.30	22.23
		1	50	23.42	23.38	23.32
		1	99	23.18	23.18	23.13
		50	0	22.28	22.22	22.15
		50	25	22.34	22.31	22.24
		50	50	22.22	22.20	22.16
		100	0	22.30	22.29	22.21
	64QAM	1	0	21.23	21.17	21.10
		1	50	22.09	22.05	22.02
		1	99	21.81	21.83	21.80
		50	0	21.36	21.36	21.23
		50	25	21.43	21.41	21.33
		50	50	21.35	21.28	21.26
		100	0	21.33	21.35	21.24



LTE Band 38 ANT1						
Band/BW	Modulation	RB Size	RB Offset	Low CH (37775)	Low Mid CH (38000)	Mid CH (38225)
				Frequency (2572.5)MHz	Frequency (2595)MHz	Frequency (2617.5)MHz
38/ 5	QPSK	1	0	22.86	22.79	22.86
		1	12	23.28	23.26	23.22
		1	24	23.18	23.11	23.22
		12	0	22.30	22.27	22.12
		12	6	22.33	22.37	22.28
		12	13	22.23	22.18	22.18
		25	0	22.33	22.31	22.35
	16QAM	1	0	21.71	21.74	21.77
		1	12	22.55	22.32	22.27
		1	24	22.15	22.18	22.08
		12	0	21.36	21.27	21.17
		12	6	21.46	21.39	21.23
		12	13	21.24	21.12	21.17
		25	0	21.31	21.24	21.23
	64QAM	1	0	20.55	20.59	20.58
		1	12	21.05	20.94	21.07
		1	24	20.92	20.85	20.80
		12	0	20.53	20.34	20.32
		12	6	20.48	20.45	20.35
		12	13	20.38	20.29	20.26
		25	0	20.36	20.29	20.37
Band/BW	Modulation	RB Size	RB Offset	Low CH (37800)	Low Mid CH (38000)	Mid CH (38200)
				Frequency (2575)MHz	Frequency (2595)MHz	Frequency (2615)MHz
38/ 10	QPSK	1	0	22.72	22.69	22.83
		1	24	23.28	23.33	23.21
		1	49	23.25	23.21	23.16
		25	0	22.31	22.22	22.09
		25	12	22.36	22.32	22.33
		25	25	22.29	22.16	22.20
		50	0	22.39	22.33	22.24
	16QAM	1	0	21.83	21.71	21.79
		1	24	22.44	22.40	22.23
		1	49	22.13	22.19	22.09
		25	0	21.39	21.24	21.16
		25	12	21.44	21.37	21.28
		25	25	21.36	21.11	21.19
		50	0	21.36	21.32	21.25
	64QAM	1	0	20.64	20.52	20.65
		1	24	21.10	20.96	21.03
		1	49	20.93	20.76	20.82
		25	0	20.51	20.32	20.18
		25	12	20.55	20.55	20.28
		25	25	20.30	20.27	20.22
		50	0	20.38	20.33	20.32



LTE Band 38 ANT1						
Band/BW	Modulation	RB Size	RB Offset	Low CH (37825)	Low Mid CH (38000)	Mid CH (38175)
				Frequency (2577.5)MHz	Frequency (2595)MHz	Frequency (2612.5)MHz
38/ 15	QPSK	1	0	22.74	22.76	22.84
		1	37	23.35	23.34	23.25
		1	74	23.21	23.17	23.19
		36	0	22.32	22.22	22.23
		36	19	22.41	22.38	22.27
		36	39	22.25	22.28	22.20
		75	0	22.42	22.32	22.30
	16QAM	1	0	21.70	21.71	21.81
		1	37	22.43	22.33	22.28
		1	74	22.09	22.12	22.11
		36	0	21.41	21.26	21.23
		36	19	21.34	21.28	21.35
		36	39	21.26	21.15	21.30
		75	0	21.26	21.31	21.19
	64QAM	1	0	20.66	20.51	20.62
		1	37	21.06	20.97	21.12
		1	74	20.83	20.77	20.81
		36	0	20.49	20.31	20.29
		36	19	20.51	20.52	20.30
		36	39	20.41	20.30	20.25
		75	0	20.47	20.39	20.29
Band/BW	Modulation	RB Size	RB Offset	Low CH (37850) Frequency (2580)MHz	Low Mid CH (38000) Frequency (2595)MHz	Mid CH (38150) Frequency (2610)MHz
38/ 20	QPSK	1	0	22.87	22.81	22.89
		1	50	<b>23.38</b>	23.36	23.34
		1	99	23.26	23.26	23.23
		50	0	22.42	22.33	22.24
		50	25	<b>22.46</b>	22.42	22.35
		50	50	22.31	22.30	22.28
		100	0	<b>22.47</b>	22.39	22.38
	16QAM	1	0	21.85	21.81	21.85
		1	50	22.57	22.45	22.31
		1	99	22.24	22.24	22.14
		50	0	21.44	21.33	21.26
		50	25	21.47	21.40	21.38
		50	50	21.37	21.26	21.31
		100	0	21.41	21.38	21.30
	64QAM	1	0	20.67	20.56	20.53
		1	50	21.16	21.09	21.13
		1	99	20.94	20.90	20.92
		50	0	20.57	20.42	20.33
		50	25	20.63	20.57	20.36
		50	50	20.44	20.37	20.35
		100	0	20.49	20.41	20.43



LTE Band 41 ANTO						
Band/BW	Modulation	RB Size	RB Offset	Low CH (39675)	Mid CH (40620)	High CH (41565)
				Frequency (2498.5)MHz	Frequency (2593)MHz	Frequency (2687.5)MHz
41/ 5	QPSK	1	0	24.69	24.40	24.31
		1	12	24.87	24.44	24.43
		1	24	24.59	24.14	24.14
		12	0	23.55	23.32	23.21
		12	6	23.62	23.48	23.24
		12	13	23.56	23.20	23.13
		25	0	23.68	23.31	23.21
	16QAM	1	0	23.62	23.46	23.30
		1	12	23.82	23.51	23.36
		1	24	23.46	23.20	23.11
		12	0	22.58	22.32	22.22
		12	6	22.62	22.37	22.29
		12	13	22.64	22.22	22.15
		25	0	22.63	22.28	22.21
	64QAM	1	0	22.39	22.43	21.82
		1	12	22.40	22.10	21.96
		1	24	22.10	22.07	21.82
		12	0	21.66	21.47	21.27
		12	6	21.71	21.54	21.33
		12	13	21.70	21.43	21.31
		25	0	21.61	21.38	21.29
Band/BW	Modulation	RB Size	RB Offset	Low CH (39700)	Mid CH (40620)	High CH (41540)
				Frequency (2501)MHz	Frequency (2593)MHz	Frequency (2685)MHz
41/ 10	QPSK	1	0	24.74	24.50	24.26
		1	24	24.73	24.44	24.38
		1	49	24.47	24.20	24.15
		25	0	23.57	23.31	23.24
		25	12	23.59	23.39	23.18
		25	25	23.63	23.20	23.18
		50	0	23.65	23.40	23.26
	16QAM	1	0	23.60	23.44	23.26
		1	24	23.81	23.54	23.41
		1	49	23.57	23.16	23.17
		25	0	22.62	22.30	22.14
		25	12	22.64	22.47	22.33
		25	25	22.52	22.30	22.20
		50	0	22.62	22.41	22.15
	64QAM	1	0	22.28	22.39	21.84
		1	24	22.41	22.18	22.06
		1	49	22.22	22.13	21.78
		25	0	21.62	21.43	21.29
		25	12	21.75	21.45	21.38
		25	25	21.75	21.39	21.25
		50	0	21.61	21.48	21.23



LTE Band 41 ANTO						
Band/BW	Modulation	RB Size	RB Offset	Low CH (39725)	Mid CH (40620)	High CH(41515)
				Frequency (2503.5)MHz	Frequency (2593)MHz	Frequency (2682.5)MHz
41/ 15	QPSK	1	0	24.64	24.40	24.23
		1	37	24.78	24.48	24.39
		1	74	24.51	24.09	24.08
		36	0	23.60	23.28	23.15
		36	19	23.73	23.34	23.26
		36	39	23.67	23.26	23.15
		75	0	23.68	23.34	23.27
	16QAM	1	0	23.58	23.45	23.21
		1	37	23.79	23.42	23.40
		1	74	23.45	23.24	23.04
		36	0	22.64	22.31	22.23
		36	19	22.66	22.41	22.28
		36	39	22.64	22.23	22.20
		75	0	22.63	22.28	22.17
	64QAM	1	0	22.34	22.38	21.86
		1	37	22.43	22.10	21.92
		1	74	22.16	22.15	21.76
		36	0	21.64	21.41	21.24
		36	19	21.79	21.51	21.41
		36	39	21.63	21.36	21.20
		75	0	21.63	21.37	21.32
Band/BW	Modulation	RB Size	RB Offset	Low CH(39750) Frequency (2506)MHz	Mid CH(40620) Frequency (2593)MHz	High CH(41490) Frequency (2680)MHz
41/ 20	QPSK	1	0	24.78	24.52	24.33
		1	50	<b>24.88</b>	24.57	24.45
		1	99	24.61	24.24	24.20
		50	0	23.68	23.38	23.27
		50	25	<b>23.74</b>	23.49	23.33
		50	50	23.68	23.32	23.24
		100	0	<b>23.76</b>	23.45	23.36
	16QAM	1	0	23.73	23.52	23.31
		1	50	23.87	23.56	23.42
		1	99	23.60	23.29	23.19
		50	0	22.69	22.43	22.28
		50	25	22.76	22.50	22.35
		50	50	22.66	22.37	22.24
		100	0	22.71	22.42	22.29
	64QAM	1	0	22.41	22.45	22.25
		1	50	22.52	22.19	22.36
		1	99	22.24	22.21	22.14
		50	0	21.76	21.55	21.39
		50	25	21.84	21.60	21.46
		50	50	21.77	21.46	21.34
		100	0	21.75	21.50	21.36



LTE Band 41 ANT1						
Band/BW	Modulation	RB Size	RB Offset	Low CH (39675)	Mid CH (40620)	High CH (41565)
				Frequency (2498.5)MHz	Frequency (2593)MHz	Frequency (2687.5)MHz
41/ 5	QPSK	1	0	23.69	23.79	23.33
		1	12	23.83	23.88	23.38
		1	24	23.50	23.62	23.13
		12	0	22.52	22.72	22.19
		12	6	22.65	22.76	22.37
		12	13	22.58	22.62	22.34
		25	0	22.66	22.77	22.44
	16QAM	1	0	22.66	22.88	22.34
		1	12	22.79	22.83	22.37
		1	24	22.59	22.57	22.12
		12	0	21.56	21.79	21.35
		12	6	21.63	21.83	21.31
		12	13	21.59	21.65	21.27
		25	0	21.58	21.65	21.37
	64QAM	1	0	21.20	21.45	21.03
		1	12	21.49	21.43	21.01
		1	24	21.19	21.44	20.88
		12	0	20.57	20.88	20.44
		12	6	20.80	20.93	20.42
		12	13	20.69	20.78	20.35
		25	0	20.63	20.85	20.31
Band/BW	Modulation	RB Size	RB Offset	Low CH (39700)	Mid CH (40620)	High CH (41540)
				Frequency (2501)MHz	Frequency (2593)MHz	Frequency (2685)MHz
41/ 10	QPSK	1	0	23.64	23.86	23.37
		1	24	23.78	23.92	23.47
		1	49	23.51	23.63	23.24
		25	0	22.62	22.73	22.32
		25	12	22.63	22.84	22.36
		25	25	22.58	22.55	22.25
		50	0	22.67	22.83	22.31
	16QAM	1	0	22.63	22.85	22.39
		1	24	22.76	22.92	22.37
		1	49	22.56	22.59	22.13
		25	0	21.56	21.66	21.36
		25	12	21.62	21.79	21.28
		25	25	21.63	21.71	21.17
		50	0	21.60	21.77	21.33
	64QAM	1	0	21.31	21.50	21.06
		1	24	21.49	21.45	20.98
		1	49	21.11	21.43	20.91
		25	0	20.66	20.83	20.45
		25	12	20.81	20.84	20.46
		25	25	20.67	20.82	20.26
		50	0	20.64	20.78	20.32



LTE Band 41 ANT1						
Band/BW	Modulation	RB Size	RB Offset	Low CH (39725)	Mid CH (40620)	High CH (41515)
				Frequency (2503.5)MHz	Frequency (2593)MHz	Frequency (2682.5)MHz
41/ 15	QPSK	1	0	23.57	23.76	23.26
		1	37	23.72	23.85	23.42
		1	74	23.52	23.64	23.13
		36	0	22.58	22.75	22.19
		36	19	22.66	22.71	22.29
		36	39	22.63	22.59	22.20
		75	0	22.73	22.74	22.42
	16QAM	1	0	22.53	22.80	22.30
		1	37	22.72	22.79	22.38
		1	74	22.62	22.56	22.20
		36	0	21.57	21.74	21.32
		36	19	21.62	21.81	21.30
		36	39	21.57	21.67	21.26
		75	0	21.65	21.72	21.33
	64QAM	1	0	21.20	21.54	21.03
		1	37	21.36	21.55	21.02
		1	74	21.15	21.48	20.83
		36	0	20.65	20.84	20.34
		36	19	20.86	20.92	20.49
		36	39	20.68	20.75	20.35
		75	0	20.69	20.73	20.28
Band/BW	Modulation	RB Size	RB Offset	Low CH (39750)	Mid CH (40620)	High CH (41490)
				Frequency (2506)MHz	Frequency (2593)MHz	Frequency (2680)MHz
41/ 20	QPSK	1	0	23.70	23.90	23.41
		1	50	23.87	<b>23.98</b>	23.52
		1	99	23.65	23.66	23.26
		50	0	22.65	22.79	22.34
		50	25	22.77	<b>22.86</b>	22.44
		50	50	22.69	22.68	22.35
		100	0	22.76	<b>22.85</b>	22.45
	16QAM	1	0	22.67	22.89	22.43
		1	50	22.86	22.94	22.49
		1	99	22.65	22.62	22.27
		50	0	21.67	21.81	21.37
		50	25	21.70	21.86	21.43
		50	50	21.67	21.73	21.31
		100	0	21.71	21.80	21.41
	64QAM	1	0	21.33	21.55	21.42
		1	50	21.50	21.58	21.45
		1	99	21.22	21.58	21.26
		50	0	20.68	20.91	20.48
		50	25	20.88	20.98	20.57
		50	50	20.77	20.84	20.37
		100	0	20.72	20.86	20.40



LTE Band 66 ANT0						
Band/BW	Modulation	RB Size	RB Offset	Low CH 131979	Mid CH 132322	High CH 132665
				Frequency 1710.7MHz	Frequency 1745MHz	Frequency 1779.3MHz
66/ 1.4	QPSK	1	0	24.24	24.23	24.18
		1	2	24.50	24.42	24.38
		1	5	24.41	24.30	24.26
		3	0	24.24	24.26	24.14
		3	1	24.46	24.27	24.25
		3	3	24.41	24.34	24.19
	16QAM	6	0	23.48	23.40	23.39
		1	0	23.55	23.41	23.38
		1	2	23.57	23.66	23.66
		1	5	23.59	23.63	23.50
		3	0	23.20	23.25	23.14
		3	1	23.28	23.17	23.23
	64QAM	3	3	23.27	23.37	23.26
		6	0	22.40	22.40	22.45
		1	0	22.41	22.40	22.38
		1	2	22.48	22.48	22.44
		1	5	22.45	22.57	22.47
		3	0	22.15	22.33	22.30
66/ 3	QPSK	3	1	22.30	22.26	22.24
		3	3	22.36	22.28	22.36
		6	0	21.43	21.36	21.46
		1	0	24.28	24.22	24.21
		1	7	24.55	24.40	24.35
		1	14	24.36	24.23	24.26
	16QAM	8	0	23.43	23.42	23.33
		8	3	23.52	23.51	23.44
		8	7	23.58	23.49	23.43
		15	0	23.47	23.41	23.34
		1	0	23.50	23.32	23.45
		1	7	23.70	23.73	23.67
64QAM	1	14	23.50	23.54	23.49	
	8	0	22.34	22.42	22.29	
	8	3	22.50	22.43	22.41	
	8	7	22.58	22.45	22.34	
	15	0	22.40	22.38	22.43	
	1	0	22.53	22.42	22.43	
		1	7	22.45	22.40	22.44
		1	14	22.51	22.45	22.45
		8	0	21.40	21.52	21.38
		8	3	21.53	21.55	21.49
		8	7	21.50	21.41	21.51
		15	0	21.44	21.42	21.39



LTE Band 66 ANTO						
Band/BW	Modulation	RB Size	RB Offset	Low CH 131997	Mid CH 132322	High CH 132647
				Frequency 1712.5MHz	Frequency 1745MHz	Frequency 1777.5MHz
66/ 5	QPSK	1	0	24.25	24.29	24.26
		1	12	24.49	24.41	24.31
		1	24	24.29	24.33	24.16
		12	0	23.39	23.49	23.35
		12	6	23.50	23.48	23.50
		12	13	23.56	23.49	23.29
		25	0	23.39	23.36	23.28
	16QAM	1	0	23.58	23.44	23.49
		1	12	23.64	23.68	23.57
		1	24	23.52	23.59	23.56
		12	0	22.39	22.39	22.35
		12	6	22.45	22.45	22.43
		12	13	22.45	22.55	22.36
		25	0	22.39	22.39	22.47
	64QAM	1	0	22.42	22.41	22.34
		1	12	22.44	22.46	22.47
		1	24	22.48	22.51	22.45
		12	0	21.42	21.50	21.41
		12	6	21.55	21.49	21.48
		12	13	21.52	21.43	21.55
		25	0	21.45	21.43	21.35
Band/BW	Modulation	RB Size	RB Offset	Low CH 132022	Mid CH 132322	High CH 132622
66/ 10	QPSK	1	0	24.29	24.24	24.24
		1	24	24.54	24.39	24.43
		1	49	24.29	24.37	24.23
		25	0	23.30	23.50	23.35
		25	12	23.53	23.47	23.38
		25	25	23.48	23.43	23.39
		50	0	23.39	23.44	23.33
	16QAM	1	0	23.53	23.44	23.43
		1	24	23.65	23.69	23.69
		1	49	23.61	23.60	23.48
		25	0	22.39	22.42	22.41
		25	12	22.52	22.39	22.51
		25	25	22.48	22.49	22.42
		50	0	22.37	22.39	22.35
	64QAM	1	0	22.51	22.33	22.39
		1	24	22.49	22.43	22.49
		1	49	22.46	22.53	22.45
		25	0	21.34	21.45	21.52
		25	12	21.58	21.44	21.47
		25	25	21.55	21.43	21.47
		50	0	21.44	21.42	21.38



LTE Band 66 ANT0						
Band/BW	Modulation	RB Size	RB Offset	Low CH 132047	Mid CH 132322	High CH 132597
				Frequency 1717.5 MHz	Frequency 1745MHz	Frequency 1772.5 MHz
66/ 15	QPSK	1	0	24.25	24.26	24.14
		1	37	24.43	24.41	24.42
		1	74	24.39	24.37	24.22
		36	0	23.43	23.52	23.38
		36	19	23.55	23.51	23.39
		36	39	23.50	23.49	23.41
		75	0	23.49	23.34	23.38
	16QAM	1	0	23.48	23.39	23.43
		1	37	23.64	23.65	23.65
		1	74	23.48	23.64	23.52
		36	0	22.40	22.38	22.30
		36	19	22.49	22.33	22.37
		36	39	22.47	22.50	22.46
		75	0	22.38	22.39	22.43
	64QAM	1	0	22.53	22.36	22.45
		1	37	22.43	22.51	22.49
		1	74	22.54	22.45	22.39
		36	0	21.31	21.51	21.43
		36	19	21.46	21.57	21.43
		36	39	21.56	21.43	21.48
		75	0	21.45	21.47	21.42
Band/BW	Modulation	RB Size	RB Offset	Low CH 132072	Mid CH 132322	High CH 132572
				Frequency 1720MHz	Frequency 1745MHz	Frequency 1770MHz
66/ 20	QPSK	1	0	24.37	24.30	24.27
		1	50	<b>24.57</b>	<b>24.50</b>	<b>24.46</b>
		1	99	24.42	24.38	24.31
		50	0	23.44	23.54	23.41
		50	25	<b>23.65</b>	<b>23.60</b>	<b>23.53</b>
		50	50	23.63	23.55	23.44
		100	0	<b>23.52</b>	23.49	23.40
	16QAM	1	0	23.60	23.47	23.50
		1	50	23.72	23.76	23.71
		1	99	23.63	23.65	23.58
		50	0	22.41	22.50	22.42
		50	25	22.58	22.47	22.52
		50	50	22.60	22.56	22.48
		100	0	22.50	22.51	22.49
	64QAM	1	0	22.56	22.46	22.47
		1	50	22.52	22.54	22.55
		1	99	22.55	22.60	22.54
		50	0	21.43	21.55	21.53
		50	25	21.61	21.58	21.55
		50	50	21.60	21.54	21.56
		100	0	21.52	21.51	21.49



LTE Band 66 ANT1						
Band/BW	Modulation	RB Size	RB Offset	Low CH 131979	Mid CH 132322	High CH 132665
				Frequency 1710.7MHz	Frequency 1745MHz	Frequency 1779.3MHz
66/ 1.4	QPSK	1	0	23.95	23.77	23.77
		1	2	24.05	23.98	23.81
		1	5	23.87	23.81	23.73
		3	0	23.80	23.80	23.61
		3	1	24.07	23.86	23.86
		3	3	23.92	23.89	23.73
		6	0	23.10	23.07	22.99
	16QAM	1	0	23.02	22.93	22.94
		1	2	23.34	23.25	23.11
		1	5	23.04	23.15	22.91
		3	0	22.78	22.89	22.80
		3	1	22.95	22.87	22.77
		3	3	23.00	22.88	22.72
		6	0	21.99	22.04	21.91
	64QAM	1	0	22.17	21.94	22.02
		1	2	22.12	22.18	22.12
		1	5	22.16	22.01	21.91
		3	0	21.74	21.87	21.70
		3	1	21.80	21.92	21.83
		3	3	21.81	21.84	21.72
		6	0	20.97	20.95	20.93
Band/BW	Modulation	RB Size	RB Offset	Low CH 131987 Frequency 1711.5MHz	Mid CH 132322 Frequency 1745MHz	High CH 132657 Frequency 1778.5MHz
66/ 3	QPSK	1	0	23.95	23.74	23.79
		1	7	24.13	24.00	23.89
		1	14	23.89	23.88	23.68
		8	0	23.03	23.10	22.90
		8	3	23.16	23.01	22.99
		8	7	23.15	23.04	22.86
		15	0	23.02	23.01	22.92
	16QAM	1	0	23.12	22.90	23.00
		1	7	23.22	23.17	23.10
		1	14	23.09	23.07	22.91
		8	0	21.89	21.97	21.94
		8	3	22.08	21.99	21.89
		8	7	22.17	22.06	21.89
		15	0	21.95	22.02	21.86
	64QAM	1	0	22.16	21.86	21.89
		1	7	22.16	22.18	22.07
		1	14	22.13	22.01	21.98
		8	0	21.00	20.96	20.83
		8	3	21.09	21.07	20.93
		8	7	21.10	21.01	20.88
		15	0	20.97	20.91	20.91



LTE Band 66 ANT1						
Band/BW	Modulation	RB Size	RB Offset	Low CH 131997	Mid CH 132322	High CH 132647
				Frequency 1712.5MHz	Frequency 1745MHz	Frequency 1777.5MHz
66/ 5	QPSK	1	0	23.84	23.74	23.78
		1	12	24.15	23.92	23.85
		1	24	23.95	23.79	23.77
		12	0	23.04	23.01	22.82
		12	6	23.13	23.11	22.90
		12	13	23.22	23.05	22.83
		25	0	23.03	22.99	22.95
	16QAM	1	0	23.12	23.01	23.03
		1	12	23.32	23.14	23.13
		1	24	23.16	23.09	22.89
		12	0	21.88	22.05	22.02
		12	6	22.13	22.02	21.85
		12	13	22.17	21.94	21.99
		25	0	22.00	21.98	21.93
	64QAM	1	0	22.14	21.99	21.94
		1	12	22.23	22.20	22.11
		1	24	22.17	22.02	21.96
		12	0	21.00	20.95	20.89
		12	6	21.11	21.07	20.92
		12	13	21.10	20.94	20.98
		25	0	20.96	20.96	20.97
Band/BW	Modulation	RB Size	RB Offset	Low CH 132022	Mid CH 132322	High CH 132622
				Frequency 1715MHz	Frequency 1745MHz	Frequency 1775MHz
66/ 10	QPSK	1	0	23.86	23.76	23.74
		1	24	24.04	24.00	23.88
		1	49	23.98	23.88	23.71
		25	0	23.03	23.02	22.85
		25	12	23.26	23.05	22.91
		25	25	23.19	23.05	22.79
		50	0	23.02	23.04	23.03
	16QAM	1	0	23.04	23.00	23.06
		1	24	23.28	23.19	23.11
		1	49	23.06	23.10	22.98
		25	0	21.94	21.98	22.06
		25	12	22.03	22.00	21.94
		25	25	22.06	22.06	21.96
		50	0	21.99	21.94	21.91
	64QAM	1	0	22.16	21.93	21.96
		1	24	22.12	22.19	22.05
		1	49	22.07	22.07	21.97
		25	0	20.90	20.98	20.88
		25	12	21.02	21.05	21.00
		25	25	21.04	21.03	20.85
		50	0	20.98	21.04	20.90



LTE Band 66 ANT1						
Band/BW	Modulation	RB Size	RB Offset	Low CH 132047	Mid CH 132322	High CH 132597
				Frequency 1717.5 MHz	Frequency 1745MHz	Frequency 1772.5 MHz
66/ 15	QPSK	1	0	23.87	23.73	23.80
		1	37	24.10	23.99	23.89
		1	74	23.92	23.84	23.70
		36	0	23.04	23.00	22.83
		36	19	23.26	23.14	23.02
		36	39	23.18	22.97	22.83
		75	0	23.02	23.02	22.93
	16QAM	1	0	23.04	22.98	22.98
		1	37	23.22	23.14	23.14
		1	74	23.05	23.17	22.99
		36	0	21.92	22.05	21.92
		36	19	22.16	21.97	21.99
		36	39	22.14	22.01	21.86
		75	0	21.95	22.00	21.88
	64QAM	1	0	22.09	21.86	21.98
		1	37	22.19	22.13	22.16
		1	74	22.16	22.12	21.93
		36	0	20.99	20.96	20.85
		36	19	21.03	21.10	20.97
		36	39	21.00	21.04	20.96
		75	0	20.97	20.93	20.95
Band/BW	Modulation	RB Size	RB Offset	Low CH 132072	Mid CH 132322	High CH 132572
				Frequency 1720MHz	Frequency 1745MHz	Frequency 1770MHz
66/ 20	QPSK	1	0	23.97	23.88	23.81
		1	50	<b>24.16</b>	<b>24.06</b>	<b>23.96</b>
		1	99	24.00	23.93	23.82
		50	0	23.05	23.13	22.91
		50	25	<b>23.27</b>	<b>23.15</b>	<b>23.05</b>
		50	50	23.23	23.08	22.94
		100	0	<b>23.14</b>	23.09	23.05
	16QAM	1	0	23.16	23.05	23.08
		1	50	23.36	23.28	23.21
		1	99	23.18	23.19	23.02
		50	0	22.01	22.09	22.07
		50	25	22.17	22.11	22.00
		50	50	22.20	22.07	22.01
		100	0	22.10	22.06	22.01
	64QAM	1	0	22.18	22.00	22.03
		1	50	22.25	22.23	22.20
		1	99	22.18	22.13	22.04
		50	0	21.02	21.10	20.97
		50	25	21.12	21.13	21.03
		50	50	21.14	21.07	21.00
		100	0	21.10	21.06	20.98



**EIRP**

**LTE BAND 4 ANT0**

1.4MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19957	1710.7	24.32	-2.4	21.92	155.60	1
20175	1732.5	24.29	-2.4	21.89	154.53	1
20393	1754.3	24.20	-2.4	21.80	151.36	1

1.4MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19957	1710.7	23.44	-2.4	21.04	127.06	1
20175	1732.5	23.43	-2.4	21.03	126.77	1
20393	1754.3	23.34	-2.4	20.94	124.17	1

1.4MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19957	1710.7	22.43	-2.4	20.03	100.69	1
20175	1732.5	22.42	-2.4	20.02	100.46	1
20393	1754.3	22.36	-2.4	19.96	99.08	1

3MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19965	1711.5	24.22	-2.4	21.82	152.05	1
20175	1732.5	24.34	-2.4	21.94	156.31	1
20385	1753.5	24.20	-2.4	21.80	151.36	1

3MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19965	1711.5	23.53	-2.4	21.13	129.72	1
20175	1732.5	23.32	-2.4	20.92	123.59	1
20385	1753.5	23.41	-2.4	21.01	126.18	1

3MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19965	1711.5	22.47	-2.4	20.07	101.62	1
20175	1732.5	22.44	-2.4	20.04	100.93	1
20385	1753.5	22.39	-2.4	19.99	99.77	1



5MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19975	1712.5	24.25	-2.4	21.85	153.11	1
20175	1732.5	24.21	-2.4	21.81	151.71	1
20375	1752.5	24.14	-2.4	21.74	149.28	1

5MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19975	1712.5	23.50	-2.4	21.10	128.82	1
20175	1732.5	23.30	-2.4	20.90	123.03	1
20375	1752.5	23.40	-2.4	21.00	125.89	1

5MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19975	1712.5	22.33	-2.4	19.93	98.40	1
20175	1732.5	22.46	-2.4	20.06	101.39	1
20375	1752.5	22.40	-2.4	20.00	100.00	1

10MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20000	1715	24.31	-2.4	21.91	155.24	1
20175	1732.5	24.30	-2.4	21.90	154.88	1
20350	1750	24.28	-2.4	21.88	154.17	1

10MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20000	1715	23.52	-2.4	21.12	129.42	1
20175	1732.5	23.37	-2.4	20.97	125.03	1
20350	1750	23.41	-2.4	21.01	126.18	1

10MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20000	1715	22.36	-2.4	19.96	99.08	1
20175	1732.5	22.44	-2.4	20.04	100.93	1
20350	1750	22.30	-2.4	19.90	97.72	1



15MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20025	1717.5	24.28	-2.4	21.88	154.17	1
20175	1732.5	24.21	-2.4	21.81	151.71	1
20325	1747.5	24.19	-2.4	21.79	151.01	1

15MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20025	1717.5	23.57	-2.4	21.17	130.92	1
20175	1732.5	23.34	-2.4	20.94	124.17	1
20325	1747.5	23.43	-2.4	21.03	126.77	1

15MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20025	1717.5	22.40	-2.4	20.00	100.00	1
20175	1732.5	22.40	-2.4	20.00	100.00	1
20325	1747.5	22.34	-2.4	19.94	98.63	1

20MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20050	1720	24.34	-2.4	21.94	156.31	1
20175	1732.5	24.35	-2.4	21.95	156.68	1
20300	1745	24.29	-2.4	21.89	154.53	1

20MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20050	1720	23.58	-2.4	21.18	131.22	1
20175	1732.5	23.44	-2.4	21.04	127.06	1
20300	1745	23.46	-2.4	21.06	127.64	1

20MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20050	1720	22.48	-2.4	20.08	101.86	1
20175	1732.5	22.47	-2.4	20.07	101.62	1
20300	1745	22.43	-2.4	20.03	100.69	1



LTE BAND 4 ANT1						
1.4MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19957	1710.7	23.72	-0.5	23.22	209.89	1
20175	1732.5	23.73	-0.5	23.23	210.38	1
20393	1754.3	23.61	-0.5	23.11	204.64	1

1.4MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19957	1710.7	22.81	-0.5	22.31	170.22	1
20175	1732.5	22.86	-0.5	22.36	172.19	1
20393	1754.3	22.94	-0.5	22.44	175.39	1

1.4MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19957	1710.7	21.80	-0.5	21.30	134.90	1
20175	1732.5	21.90	-0.5	21.40	138.04	1
20393	1754.3	21.73	-0.5	21.23	132.74	1

3MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19965	1711.5	23.75	-0.5	23.25	211.35	1
20175	1732.5	23.72	-0.5	23.22	209.89	1
20385	1753.5	23.70	-0.5	23.20	208.93	1

3MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19965	1711.5	22.78	-0.5	22.28	169.04	1
20175	1732.5	22.89	-0.5	22.39	173.38	1
20385	1753.5	22.94	-0.5	22.44	175.39	1

3MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19965	1711.5	21.81	-0.5	21.31	135.21	1
20175	1732.5	21.88	-0.5	21.38	137.40	1
20385	1753.5	21.78	-0.5	21.28	134.28	1



5MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19975	1712.5	23.68	-0.5	23.18	207.97	1
20175	1732.5	23.82	-0.5	23.32	214.78	1
20375	1752.5	23.62	-0.5	23.12	205.12	1

5MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19975	1712.5	22.84	-0.5	22.34	171.40	1
20175	1732.5	22.88	-0.5	22.38	172.98	1
20375	1752.5	22.85	-0.5	22.35	171.79	1

5MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
19975	1712.5	21.88	-0.5	21.38	137.40	1
20175	1732.5	21.83	-0.5	21.33	135.83	1
20375	1752.5	21.76	-0.5	21.26	133.66	1

10MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20000	1715	23.75	-0.5	23.25	211.35	1
20175	1732.5	23.76	-0.5	23.26	211.84	1
20350	1750	23.71	-0.5	23.21	209.41	1

10MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20000	1715	22.83	-0.5	22.33	171.00	1
20175	1732.5	22.86	-0.5	22.36	172.19	1
20350	1750	22.94	-0.5	22.44	175.39	1

10MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20000	1715	21.86	-0.5	21.36	136.77	1
20175	1732.5	21.90	-0.5	21.40	138.04	1
20350	1750	21.67	-0.5	21.17	130.92	1



15MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20025	1717.5	23.75	-0.5	23.25	211.35	1
20175	1732.5	23.71	-0.5	23.21	209.41	1
20325	1747.5	23.63	-0.5	23.13	205.59	1

15MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20025	1717.5	22.81	-0.5	22.31	170.22	1
20175	1732.5	22.90	-0.5	22.40	173.78	1
20325	1747.5	22.89	-0.5	22.39	173.38	1

15MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20025	1717.5	21.86	-0.5	21.36	136.77	1
20175	1732.5	21.89	-0.5	21.39	137.72	1
20325	1747.5	21.75	-0.5	21.25	133.35	1

20MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20050	1720	23.79	-0.5	23.29	213.30	1
20175	1732.5	23.84	-0.5	23.34	215.77	1
20300	1745	23.76	-0.5	23.26	211.84	1

20MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20050	1720	22.85	-0.5	22.35	171.79	1
20175	1732.5	22.93	-0.5	22.43	174.98	1
20300	1745	22.95	-0.5	22.45	175.79	1

20MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20050	1720	21.90	-0.5	21.40	138.04	1
20175	1732.5	21.92	-0.5	21.42	138.68	1
20300	1745	21.79	-0.5	21.29	134.59	1



**LTE BAND 38 ANTO**

5MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37775	2572.5	24.39	-2.7	21.69	147.57	2
38000	2595.0	24.36	-2.7	21.66	146.55	2
38225	2617.5	24.33	-2.7	21.63	145.55	2

5MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37775	2572.5	23.38	-2.7	20.68	116.95	2
38000	2595.0	23.35	-2.7	20.65	116.14	2
38225	2617.5	23.18	-2.7	20.48	111.69	2

5MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37775	2572.5	22.08	-2.7	19.38	86.70	2
38000	2595	21.99	-2.7	19.29	84.92	2
38225	2617.5	21.87	-2.7	19.17	82.60	2

10MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37800	2575.0	24.28	-2.7	21.58	143.88	2
38000	2595.0	24.33	-2.7	21.63	145.55	2
38200	2615.0	24.36	-2.7	21.66	146.55	2

10MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37800	2575.0	23.31	-2.7	20.61	115.08	2
38000	2595.0	23.35	-2.7	20.65	116.14	2
38200	2615.0	23.19	-2.7	20.49	111.94	2

10MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37800	2575	21.99	-2.7	19.29	84.92	2
38000	2595	21.93	-2.7	19.23	83.75	2
38200	2615	22.00	-2.7	19.30	85.11	2



15MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37825	2577.5	24.28	-2.7	21.58	143.88	2
38000	2595.0	24.35	-2.7	21.65	146.22	2
38175	2612.5	24.26	-2.7	21.56	143.22	2

15MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37825	2577.5	23.31	-2.7	20.61	115.08	2
38000	2595.0	23.34	-2.7	20.64	115.88	2
38175	2612.5	23.25	-2.7	20.55	113.50	2

15MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37825	2577.5	21.96	-2.7	19.26	84.33	2
38000	2595	22.00	-2.7	19.30	85.11	2
38175	2612.5	21.94	-2.7	19.24	83.95	2

20MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37850	2580.0	24.40	-2.7	21.70	147.91	2
38000	2595.0	24.42	-2.7	21.72	148.59	2
38150	2610.0	24.38	-2.7	21.68	147.23	2

20MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37850	2580.0	23.42	-2.7	20.72	118.03	2
38000	2595.0	23.38	-2.7	20.68	116.95	2
38150	2610.0	23.32	-2.7	20.62	115.35	2

20MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37850	2580	22.09	-2.7	19.39	86.90	2
38000	2595	22.05	-2.7	19.35	86.10	2
38150	2610	22.02	-2.7	19.32	85.51	2



**LTE BAND 38 ANT1**

5MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37775	2572.5	23.28	-2.9	20.38	109.14	2
38000	2595.0	23.26	-2.9	20.36	108.64	2
38225	2617.5	23.22	-2.9	20.32	107.65	2

5MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37775	2572.5	22.55	-2.9	19.65	92.26	2
38000	2595.0	22.32	-2.9	19.42	87.50	2
38225	2617.5	22.27	-2.9	19.37	86.50	2

5MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37775	2572.5	21.05	-2.9	18.15	65.31	2
38000	2595	20.94	-2.9	18.04	63.68	2
38225	2617.5	21.07	-2.9	18.17	65.61	2

10MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37800	2575.0	23.28	-2.9	20.38	109.14	2
38000	2595.0	23.33	-2.9	20.43	110.41	2
38200	2615.0	23.21	-2.9	20.31	107.40	2

10MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37800	2575.0	22.44	-2.9	19.54	89.95	2
38000	2595.0	22.40	-2.9	19.50	89.13	2
38200	2615.0	22.23	-2.9	19.33	85.70	2

10MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37800	2575	21.10	-2.9	18.20	66.07	2
38000	2595	20.96	-2.9	18.06	63.97	2
38200	2615	21.03	-2.9	18.13	65.01	2



15MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37825	2577.5	23.35	-2.9	20.45	110.92	2
38000	2595.0	23.34	-2.9	20.44	110.66	2
38175	2612.5	23.25	-2.9	20.35	108.39	2

15MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37825	2577.5	22.43	-2.9	19.53	89.74	2
38000	2595.0	22.33	-2.9	19.43	87.70	2
38175	2612.5	22.28	-2.9	19.38	86.70	2

15MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37825	2577.5	21.06	-2.9	18.16	65.46	2
38000	2595	20.97	-2.9	18.07	64.12	2
38175	2612.5	21.12	-2.9	18.22	66.37	2

20MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37850	2580.0	23.38	-2.9	20.48	111.69	2
38000	2595.0	23.36	-2.9	20.46	111.17	2
38150	2610.0	23.34	-2.9	20.44	110.66	2

20MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37850	2580.0	22.57	-2.9	19.67	92.68	2
38000	2595.0	22.45	-2.9	19.55	90.16	2
38150	2610.0	22.31	-2.9	19.41	87.30	2

20MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
37850	2580	21.16	-2.9	18.26	66.99	2
38000	2595	21.09	-2.9	18.19	65.92	2
38150	2610	21.13	-2.9	18.23	66.53	2



**LTE BAND 41 ANTO**

5MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39675	2498.5	24.87	-1.7	23.17	207.49	2
40620	2593	24.43	-1.7	22.73	187.50	2
41565	2687.5	24.08	-1.7	22.38	172.98	2

5MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39675	2498.5	23.82	-1.7	22.12	162.93	2
40620	2593	23.36	-1.7	21.66	146.55	2
41565	2687.5	23.01	-1.7	21.31	135.21	2

5MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39675	2498.5	22.40	-1.7	20.70	117.49	2
40620	2593	21.96	-1.7	20.26	106.17	2
41565	2687.5	21.75	-1.7	20.05	101.16	2

10MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39700	2501	24.74	-1.7	23.04	201.37	2
40620	2593	24.38	-1.7	22.68	185.35	2
41540	2685	24.10	-1.7	22.40	173.78	2

10MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39700	2501	23.81	-1.7	22.11	162.55	2
40620	2593	23.41	-1.7	21.71	148.25	2
41540	2685	22.99	-1.7	21.29	134.59	2

10MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39700	2501	22.41	-1.7	20.71	117.76	2
40620	2593	22.06	-1.7	20.36	108.64	2
41540	2685	21.71	-1.7	20.01	100.23	2



15MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39725	2503.5	24.78	-1.7	23.08	203.24	2
40620	2593	24.39	-1.7	22.69	185.78	2
41515	2682.5	24.14	-1.7	22.44	175.39	2

15MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39725	2503.5	23.79	-1.7	22.09	161.81	2
40620	2593	23.40	-1.7	21.70	147.91	2
41515	2682.5	23.09	-1.7	21.39	137.72	2

15MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39725	2503.5	22.43	-1.7	20.73	118.30	2
40620	2593	21.92	-1.7	20.22	105.20	2
41515	2682.5	21.75	-1.7	20.05	101.16	2

20MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39750	2506	24.88	-1.7	23.18	207.97	2
40620	2593	24.45	-1.7	22.75	188.36	2
41490	2680	24.16	-1.7	22.46	176.20	2

20MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39750	2506	23.87	-1.7	22.17	164.82	2
40620	2593	23.42	-1.7	21.72	148.59	2
41490	2680	23.13	-1.7	21.43	139.00	2

20 MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39750	2506	22.52	-1.7	20.82	120.78	2
40620	2593	22.36	-1.7	20.66	116.41	2
41490	2680	22.31	-1.7	20.61	115.08	2



**LTE BAND 41 ANT1**

5MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39675	2498.5	23.83	-2.1	21.73	148.94	2
40620	2593	23.38	-2.1	21.28	134.28	2
41565	2687.5	23.10	-2.1	21.00	125.89	2

5MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39675	2498.5	22.79	-2.1	20.69	117.22	2
40620	2593	22.37	-2.1	20.27	106.41	2
41565	2687.5	22.13	-2.1	20.03	100.69	2

5MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39675	2498.5	21.49	-2.1	19.39	86.90	2
40620	2593	21.03	-2.1	18.93	78.16	2
41565	2687.5	20.78	-2.1	18.68	73.79	2

10MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39700	2501	23.78	-2.1	21.68	147.23	2
40620	2593	23.47	-2.1	21.37	137.09	2
41540	2685	23.14	-2.1	21.04	127.06	2

10MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39700	2501	22.76	-2.1	20.66	116.41	2
40620	2593	22.39	-2.1	20.29	106.91	2
41540	2685	22.25	-2.1	20.15	103.51	2

10MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39700	2501	21.49	-2.1	19.39	86.90	2
40620	2593	21.06	-2.1	18.96	78.70	2
41540	2685	20.83	-2.1	18.73	74.64	2



15MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39725	2503.5	23.72	-2.1	21.62	145.21	2
40620	2593	23.42	-2.1	21.32	135.52	2
41515	2682.5	23.14	-2.1	21.04	127.06	2

15MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39725	2503.5	22.72	-2.1	20.62	115.35	2
40620	2593	22.38	-2.1	20.28	106.66	2
41515	2682.5	22.16	-2.1	20.06	101.39	2

15MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39725	2503.5	21.36	-2.1	19.26	84.33	2
40620	2593	21.03	-2.1	18.93	78.16	2
41515	2682.5	20.76	-2.1	18.66	73.45	2

20MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39750	2506	23.87	-2.1	21.77	150.31	2
40620	2593	23.52	-2.1	21.42	138.68	2
41490	2680	23.22	-2.1	21.12	129.42	2

20MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39750	2506	22.86	-2.1	20.76	119.12	2
40620	2593	22.49	-2.1	20.39	109.40	2
41490	2680	22.27	-2.1	20.17	103.99	2

20 MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
39750	2506	21.50	-2.1	19.40	87.10	2
40620	2593	21.45	-2.1	19.35	86.10	2
41490	2680	21.18	-2.1	19.08	80.91	2



LTE BAND 66 ANTO						
1.4MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131979	1710.7	24.50	-2.4	22.10	162.18	1
132322	1745	24.42	-2.4	22.02	159.22	1
132665	1779.3	24.38	-2.4	21.98	157.76	1

1.4MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131979	1710.7	23.59	-2.4	21.19	131.52	1
132322	1745	23.66	-2.4	21.26	133.66	1
132665	1779.3	23.66	-2.4	21.26	133.66	1

1.4MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131979	1710.7	22.48	-2.4	20.08	101.86	1
132322	1745	22.57	-2.4	20.17	103.99	1
132665	1779.3	22.47	-2.4	20.07	101.62	1

3MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131987	1711.5	24.55	-2.4	22.15	164.06	1
132322	1745	24.40	-2.4	22.00	158.49	1
132657	1778.5	24.35	-2.4	21.95	156.68	1

3MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131987	1711.5	23.70	-2.4	21.30	134.90	1
132322	1745	23.73	-2.4	21.33	135.83	1
132657	1778.5	23.67	-2.4	21.27	133.97	1

3MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131987	1711.5	22.53	-2.4	20.13	103.04	1
132322	1745	22.45	-2.4	20.05	101.16	1
132657	1778.5	22.45	-2.4	20.05	101.16	1



5MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131997	1712.5	24.49	-2.4	22.09	161.81	1
132322	1745	24.41	-2.4	22.01	158.85	1
132647	1777.5	24.31	-2.4	21.91	155.24	1

5MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131997	1712.5	23.64	-2.4	21.24	133.05	1
132322	1745	23.68	-2.4	21.28	134.28	1
132647	1777.5	23.57	-2.4	21.17	130.92	1

5MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131997	1712.5	22.48	-2.4	20.08	101.86	1
132322	1745	22.51	-2.4	20.11	102.57	1
132647	1777.5	22.47	-2.4	20.07	101.62	1

10MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132022	1715	24.54	-2.4	22.14	163.68	1
132322	1745	24.39	-2.4	21.99	158.12	1
132622	1775	24.43	-2.4	22.03	159.59	1

10MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132022	1715	23.65	-2.4	21.25	133.35	1
132322	1745	23.69	-2.4	21.29	134.59	1
132622	1775	23.69	-2.4	21.29	134.59	1

10MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132022	1715	22.51	-2.4	20.11	102.57	1
132322	1745	22.53	-2.4	20.13	103.04	1
132622	1775	22.49	-2.4	20.09	102.09	1



15MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132047	1717.5	24.43	-2.4	22.03	159.59	1
132322	1745	24.41	-2.4	22.01	158.85	1
132597	1772.5	24.42	-2.4	22.02	159.22	1

15MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132047	1717.5	23.64	-2.4	21.24	133.05	1
132322	1745	23.65	-2.4	21.25	133.35	1
132597	1772.5	23.65	-2.4	21.25	133.35	1

15MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132047	1717.5	22.54	-2.4	20.14	103.28	1
132322	1745	22.51	-2.4	20.11	102.57	1
132597	1772.5	22.49	-2.4	20.09	102.09	1

20MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132072	1720	24.57	-2.4	22.17	164.82	1
132322	1745	24.50	-2.4	22.10	162.18	1
132572	1770	24.46	-2.4	22.06	160.69	1

20MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132072	1720	23.72	-2.4	21.32	135.52	1
132322	1745	23.76	-2.4	21.36	136.77	1
132572	1770	23.71	-2.4	21.31	135.21	1

20MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132072	1720	22.56	-2.4	20.16	103.75	1
132322	1745	22.60	-2.4	20.20	104.71	1
132572	1770	22.55	-2.4	20.15	103.51	1



LTE BAND 66 ANT1						
1.4MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131979	1710.7	24.07	-0.5	23.57	227.51	1
132322	1745	23.98	-0.5	23.48	222.84	1
132665	1779.3	23.86	-0.5	23.36	216.77	1

1.4MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131979	1710.7	23.34	-0.5	22.84	192.31	1
132322	1745	23.25	-0.5	22.75	188.36	1
132665	1779.3	23.11	-0.5	22.61	182.39	1

1.4MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131979	1710.7	22.17	-0.5	21.67	146.89	1
132322	1745	22.18	-0.5	21.68	147.23	1
132665	1779.3	22.12	-0.5	21.62	145.21	1

3MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131987	1711.5	24.13	-0.5	23.63	230.67	1
132322	1745	24.00	-0.5	23.50	223.87	1
132657	1778.5	23.89	-0.5	23.39	218.27	1

3MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131987	1711.5	23.22	-0.5	22.72	187.07	1
132322	1745	23.17	-0.5	22.67	184.93	1
132657	1778.5	23.10	-0.5	22.60	181.97	1

3MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131987	1711.5	22.16	-0.5	21.66	146.55	1
132322	1745	22.18	-0.5	21.68	147.23	1
132657	1778.5	22.07	-0.5	21.57	143.55	1



5MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131997	1712.5	24.15	-0.5	23.65	231.74	1
132322	1745	23.92	-0.5	23.42	219.79	1
132647	1777.5	23.85	-0.5	23.35	216.27	1

5MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131997	1712.5	23.32	-0.5	22.82	191.43	1
132322	1745	23.14	-0.5	22.64	183.65	1
132647	1777.5	23.13	-0.5	22.63	183.23	1

5MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131997	1712.5	22.23	-0.5	21.73	148.94	1
132322	1745	22.20	-0.5	21.70	147.91	1
132647	1777.5	22.11	-0.5	21.61	144.88	1

10MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132022	1715	24.04	-0.5	23.54	225.94	1
132322	1745	24.00	-0.5	23.50	223.87	1
132622	1775	23.88	-0.5	23.38	217.77	1

10MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132022	1715	23.28	-0.5	22.78	189.67	1
132322	1745	23.19	-0.5	22.69	185.78	1
132622	1775	23.11	-0.5	22.61	182.39	1

10MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132022	1715	22.16	-0.5	21.66	146.55	1
132322	1745	22.19	-0.5	21.69	147.57	1
132622	1775	22.05	-0.5	21.55	142.89	1



15MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132047	1717.5	24.10	-0.5	23.60	229.09	1
132322	1745	23.99	-0.5	23.49	223.36	1
132597	1772.5	23.89	-0.5	23.39	218.27	1

15MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132047	1717.5	23.22	-0.5	22.72	187.07	1
132322	1745	23.17	-0.5	22.67	184.93	1
132597	1772.5	23.14	-0.5	22.64	183.65	1

15MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132047	1717.5	22.19	-0.5	21.69	147.57	1
132322	1745	22.13	-0.5	21.63	145.55	1
132597	1772.5	22.16	-0.5	21.66	146.55	1

20MHz QPSK						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132072	1720	24.16	-0.5	23.66	232.27	1
132322	1745	24.06	-0.5	23.56	226.99	1
132572	1770	23.96	-0.5	23.46	221.82	1

20MHz 16QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132072	1720	23.36	-0.5	22.86	193.20	1
132322	1745	23.28	-0.5	22.78	189.67	1
132572	1770	23.21	-0.5	22.71	186.64	1

20MHz 64QAM						
Channel	Frequency (MHz)	Conducted Power (dBm)	G <sub>T</sub> -L <sub>C</sub> (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132072	1720	22.25	-0.5	21.75	149.62	1
132322	1745	22.23	-0.5	21.73	148.94	1
132572	1770	22.20	-0.5	21.70	147.91	1

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



### 3.2 FREQUENCY STABILITY MEASUREMENT

#### 3.2.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

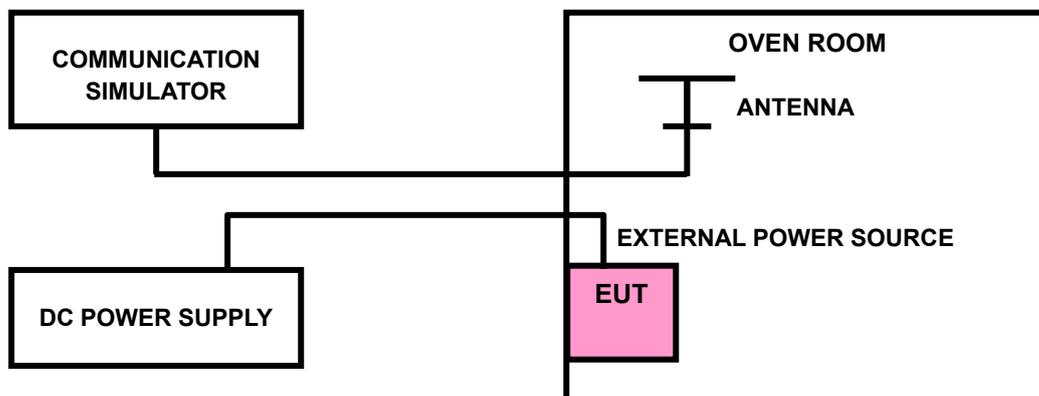
The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

#### 3.2.2 TEST PROCEDURE

- 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.

#### 3.2.3 TEST SETUP



#### 3.2.4 TEST RESULTS

Please Refer to Appendix Of this test report.

Note: VL = Low voltage(3.6V); VN/NV = Normal voltage(3.92V); VH = High voltage(4.5V); NT = Normal temperature (25°C)

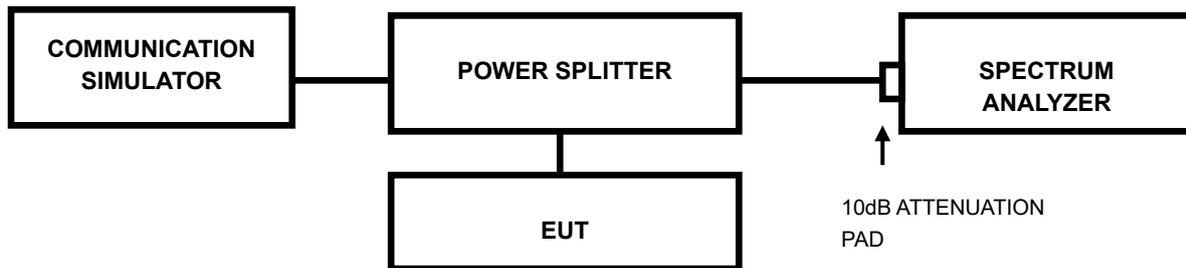


### 3.3 OCCUPIED BANDWIDTH MEASUREMENT

#### 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

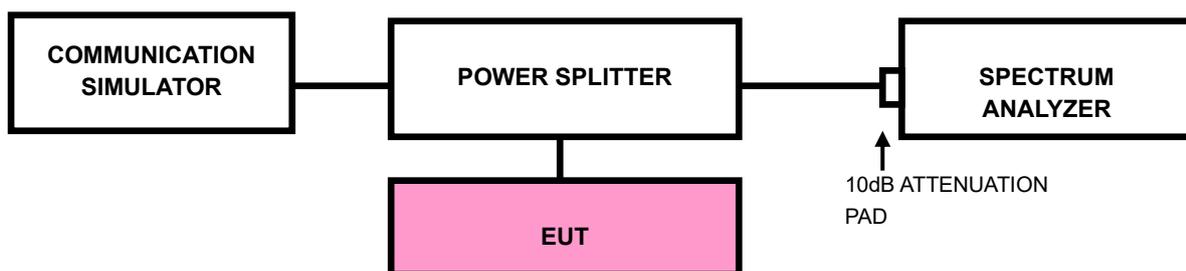
#### 3.4.1 LIMITS OF BAND EDGE MEASUREMENT

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 resolution 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  $\geq 1001$ .
- 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  $-13\text{dBm}$ .

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  $-13 \text{ dBm/MHz}$ .

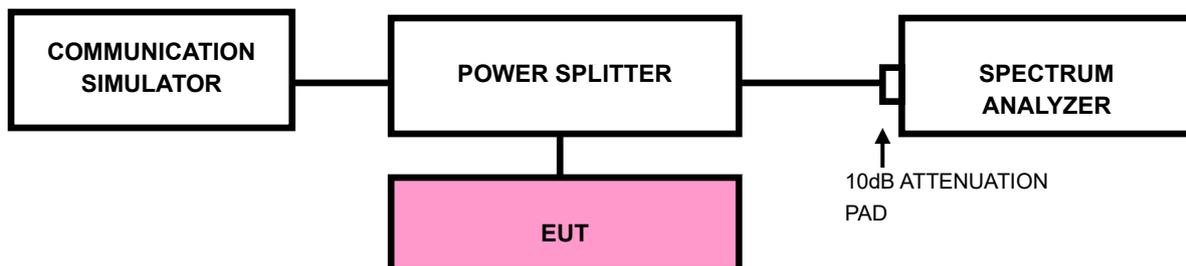
For LTE Band38/41

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  $-25\text{dBm}$ .

#### 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 10<sup>th</sup> 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  $-13\text{dBm}$ .

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  $-13 \text{ dBm/MHz}$ .

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  $-25\text{dBm}$ .

#### 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.

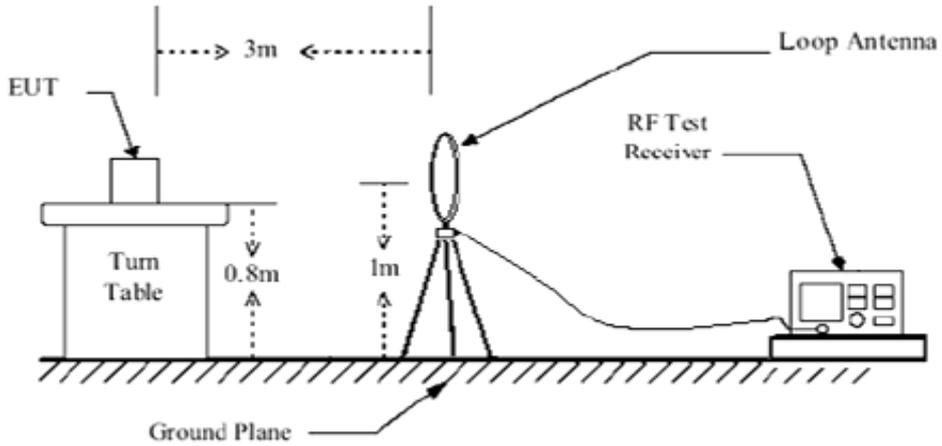
#### 3.6.3 DEVIATION FROM TEST STANDARD

No deviation

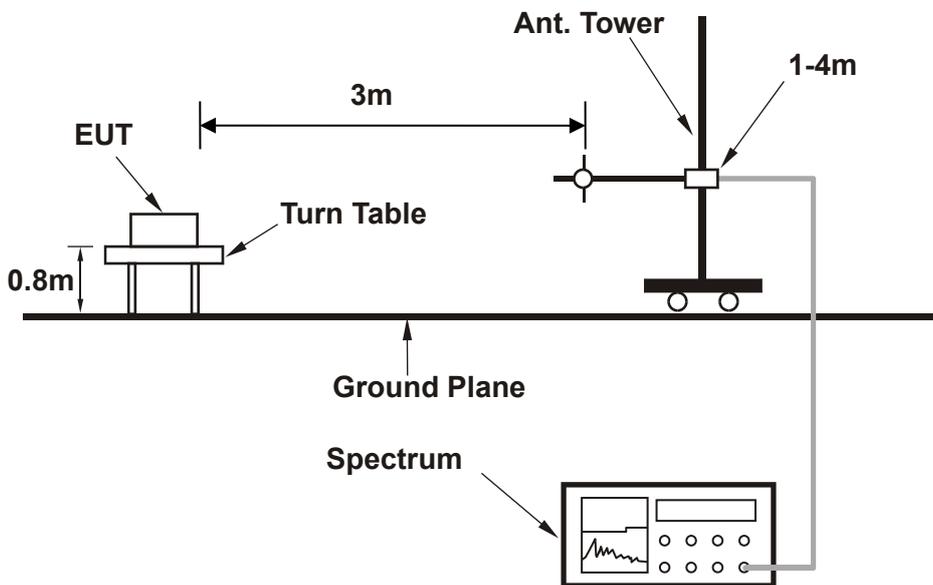


### 3.6.4 TEST SETUP

#### < Frequency Range below 30MHz >

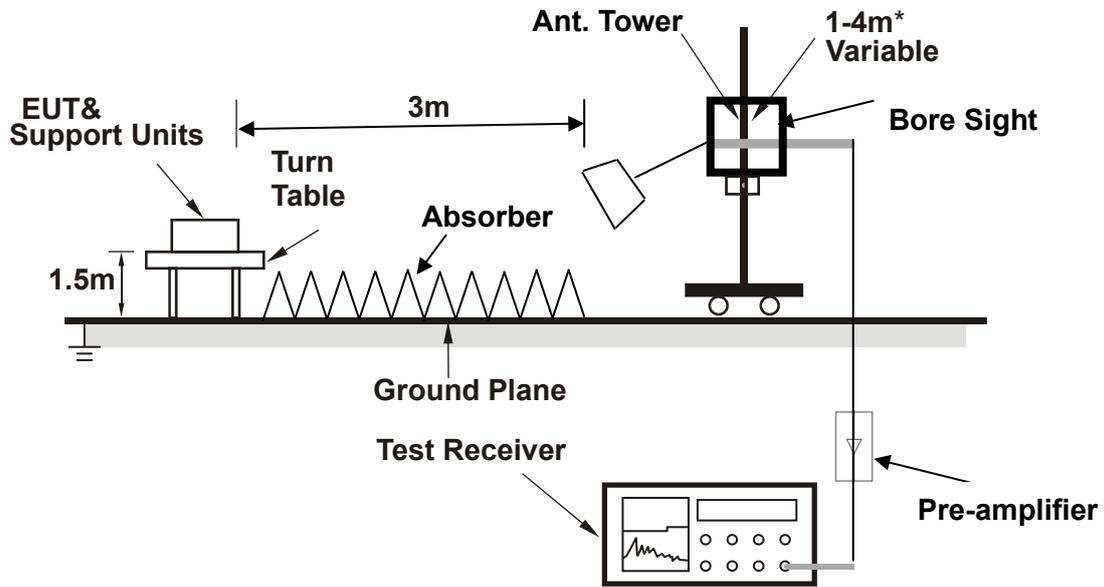


#### < Frequency Range 30MHz~1GHz >





**<Frequency Range above 1GHz>**



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

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



### 3.6.5 TEST RESULTS

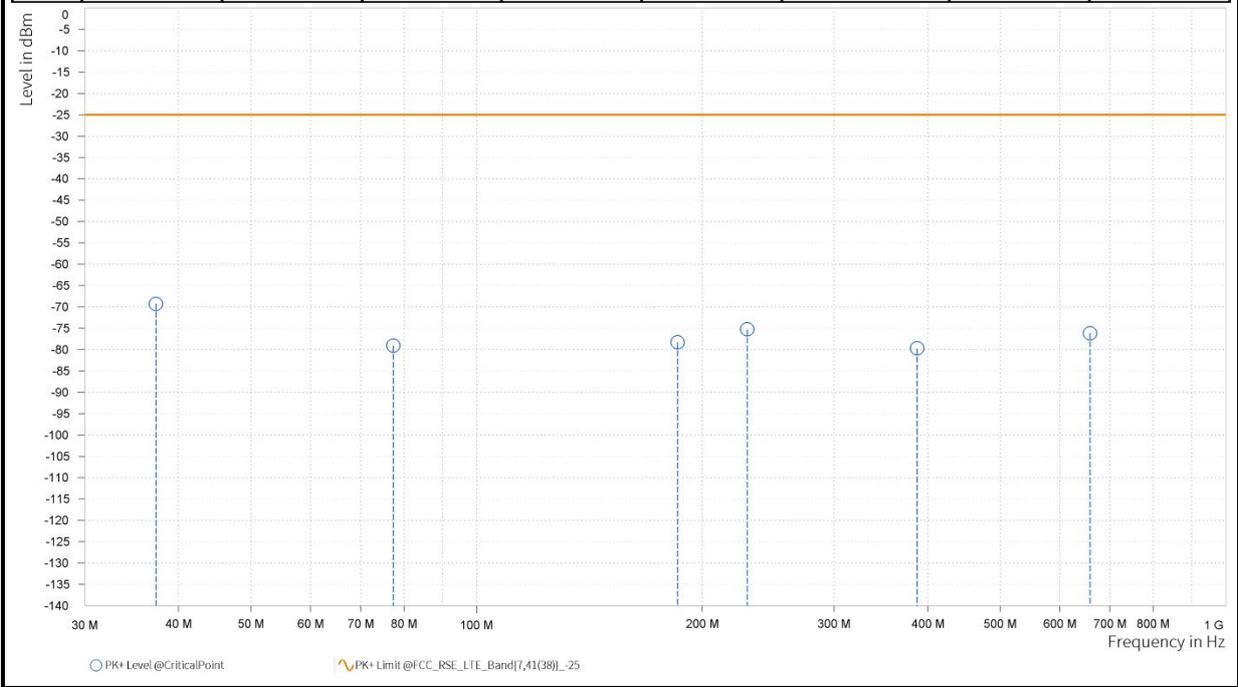
NOTE : The 9K~30MHz amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required in the report.

**BELOW 1GHz WORST-CASE DATA**

LTE Band 41 ANT1 CHANNEL BANDWIDTH: 10MHz / QPSK			
<b>MODE</b>	TX channel 40620	<b>FREQUENCY RANGE</b>	30 MHz – 1GHz
<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 70%RH	<b>INPUT POWER</b>	AC 120V 60HZ
<b>TESTED BY</b>	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	37.300	-69.29	-25.00	44.29	0.46	H	141.4	1.00
1	77.450	-79.08	-25.00	54.08	-12.58	H	217.4	2.00
1	185.450	-78.30	-25.00	53.30	-6.29	H	251.4	1.00
1	229.600	-75.28	-25.00	50.28	1.01	H	251.4	1.00
1	387.150	-79.72	-25.00	54.72	0.34	H	352.2	1.00
2	658.542	-76.15	-25.00	51.15	1.76	H	1	1.00

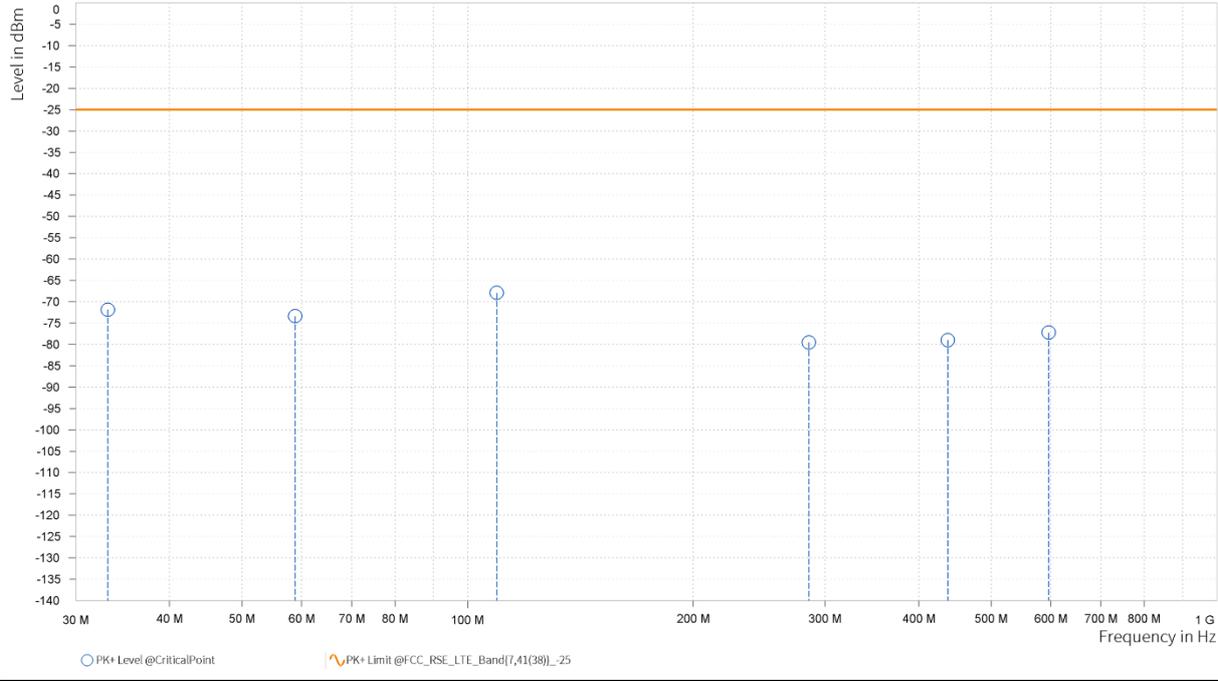




<b>MODE</b>	TX channel 40620	<b>FREQUENCY RANGE</b>	30 MHz – 1GHz
<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 70%RH	<b>INPUT POWER</b>	AC 120V 60HZ
<b>TESTED BY</b>	Hanwen Xu		

**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	33.100	-71.85	-25.00	46.85	-6.42	V	255	1.00
1	58.850	-73.39	-25.00	48.39	-3.66	V	4.2	1.00
1	109.350	-67.91	-25.00	42.91	1.30	V	217.4	2.00
1	285.300	-79.54	-25.00	54.54	-1.03	V	142.6	1.00
1	437.400	-78.97	-25.00	53.97	1.36	V	217.4	2.00
2	596.438	-77.21	-25.00	52.21	0.24	V	155.8	1.00





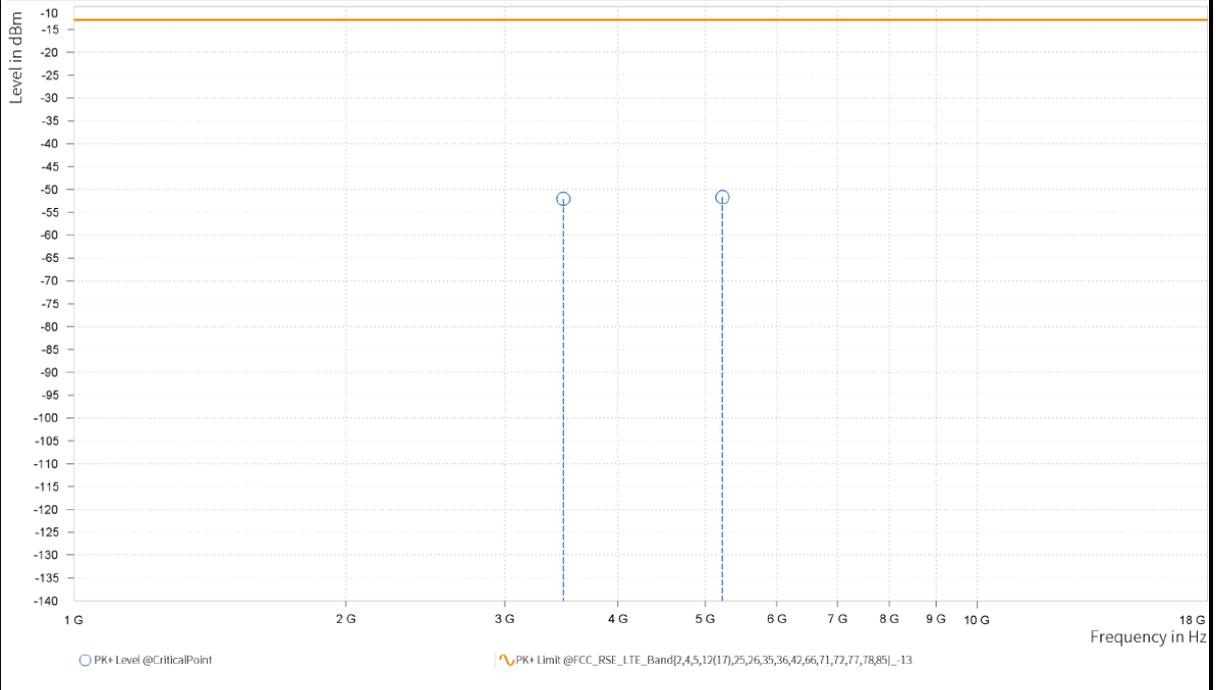
**ABOVE 1GHz**

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

LTE BAND 41 ANTO			
<b>CHANNEL BANDWIDTH</b>	10MHz / QPSK	<b>MODE</b>	TX channel 40620
<b>FREQUENCY RANGE</b>	Above 1000MHz	<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 70%RH
<b>INPUT POWER</b>	AC 120V 60HZ	<b>TESTED BY</b>	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	3,481.000	-52.06	-13.00	39.06	20.42	H	224.2	1.00
4	5,221.500	-51.67	-13.00	38.67	23.97	H	1	2.00

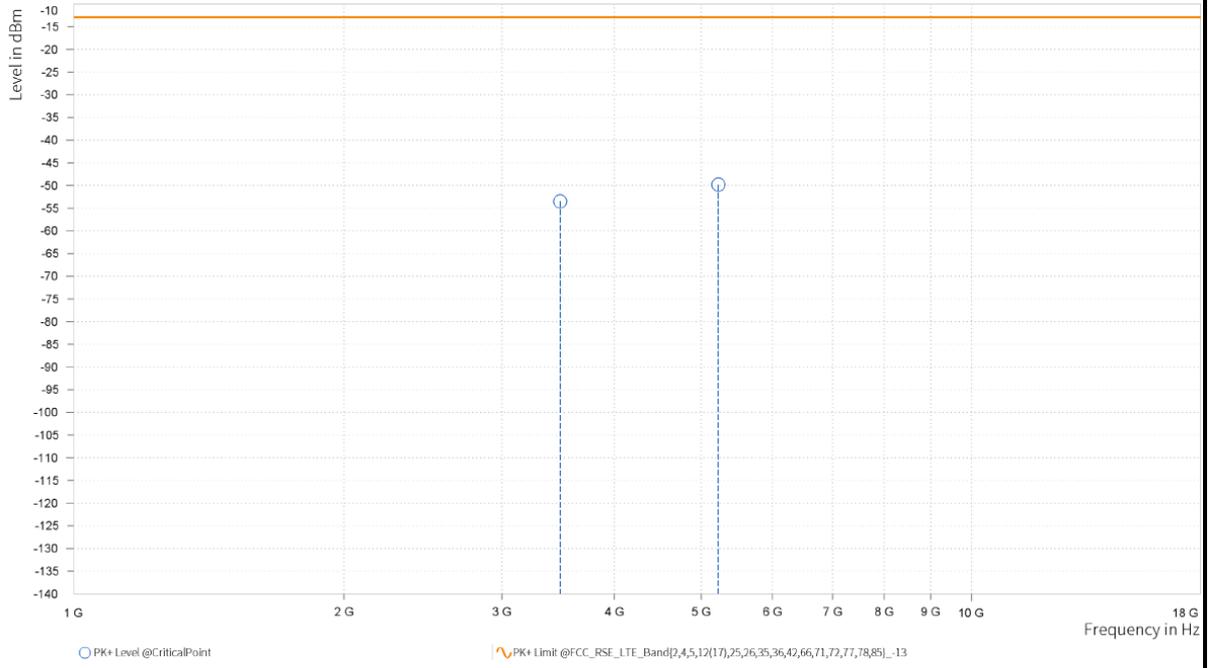




<b>CHANNEL BANDWIDTH</b>	10MHz / QPSK	<b>MODE</b>	TX channel 40620
<b>FREQUENCY RANGE</b>	Above 1000MHz	<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 70%RH
<b>INPUT POWER</b>	AC 120V 60HZ	<b>TESTED BY</b>	Hanwen Xu

**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	3,481.000	-53.49	-13.00	40.49	21.18	V	0.9	2.00
4	5,221.500	-49.81	-13.00	36.81	24.53	V	359	1.00

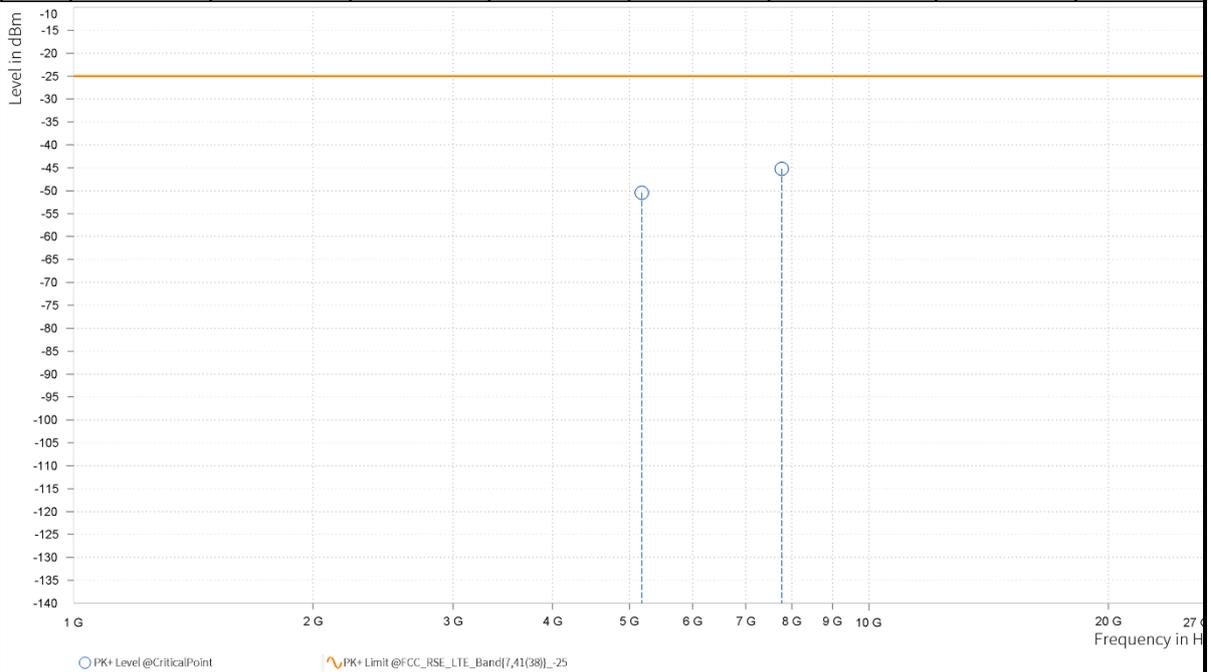




LTE BAND 41 ANT1			
<b>CHANNEL BANDWIDTH</b>	5MHz / QPSK	<b>MODE</b>	TX channel 40620
<b>FREQUENCY RANGE</b>	Above 1000MHz	<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 70%RH
<b>INPUT POWER</b>	AC 120V 60HZ	<b>TESTED BY</b>	Hanwen Xu

**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	5,181.500	-50.44	-25.00	25.44	23.77	H	1.1	2.00
5	7,772.250	-45.19	-25.00	20.19	28.09	H	359	2.00

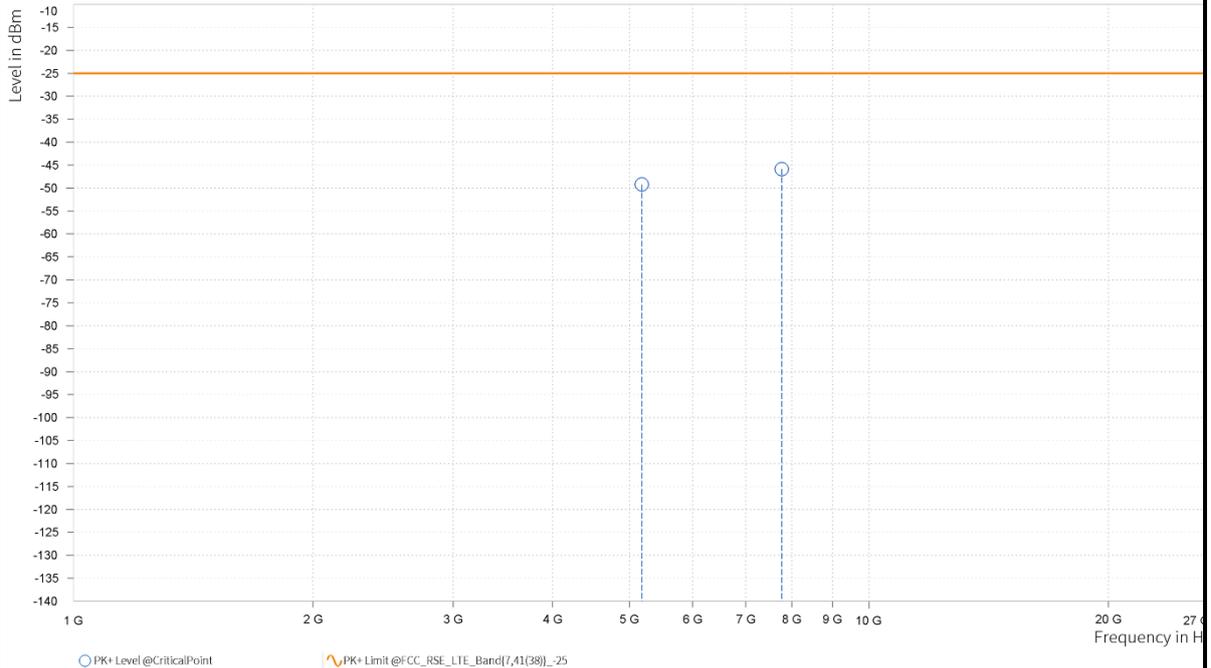




<b>CHANNEL BANDWIDTH</b>	5MHz / QPSK	<b>MODE</b>	TX channel 40620
<b>FREQUENCY RANGE</b>	Above 1000MHz	<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 70%RH
<b>INPUT POWER</b>	AC 120V 60HZ	<b>TESTED BY</b>	Hanwen Xu

**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	5,181.500	-49.24	-25.00	24.24	24.23	V	52.3	2.00
5	7,772.250	-45.87	-25.00	20.87	27.86	V	223.4	1.00

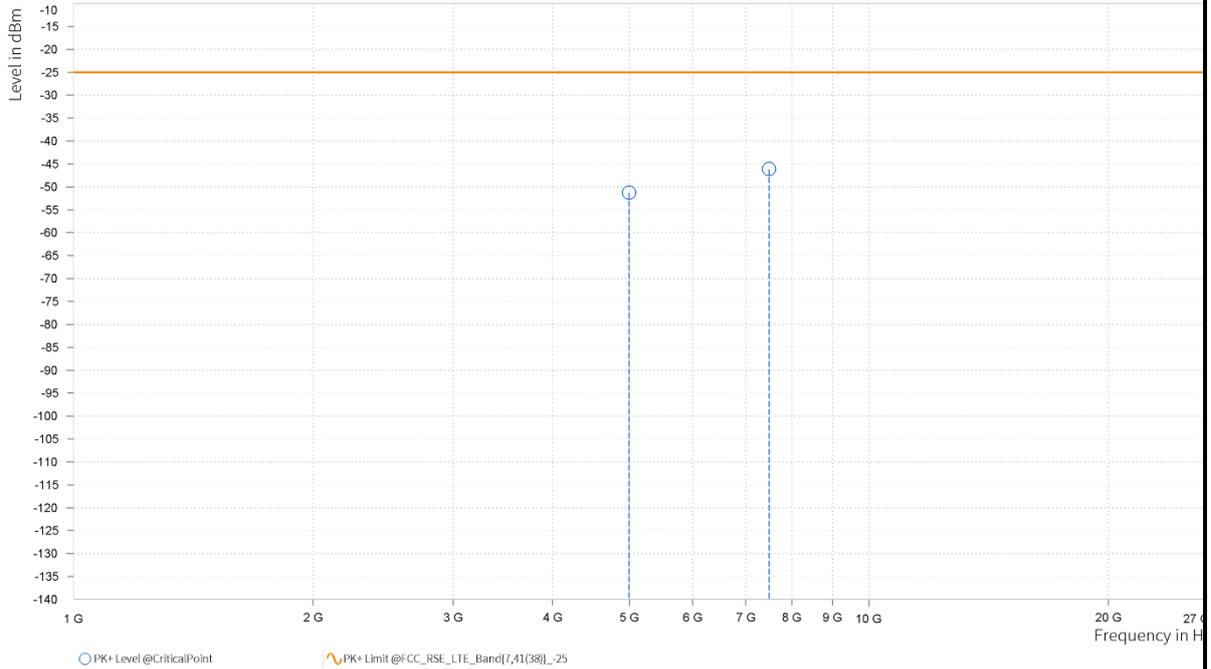




<b>CHANNEL BANDWIDTH</b>	10MHz / QPSK	<b>MODE</b>	TX channel 39700
<b>FREQUENCY RANGE</b>	Above 1000MHz	<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 70%RH
<b>INPUT POWER</b>	AC 120V 60HZ	<b>TESTED BY</b>	Hanwen Xu

**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	4,993.000	-51.26	-25.00	26.26	23.60	H	303.4	1.00
5	7,489.500	-46.13	-25.00	21.13	27.41	H	359.1	1.00

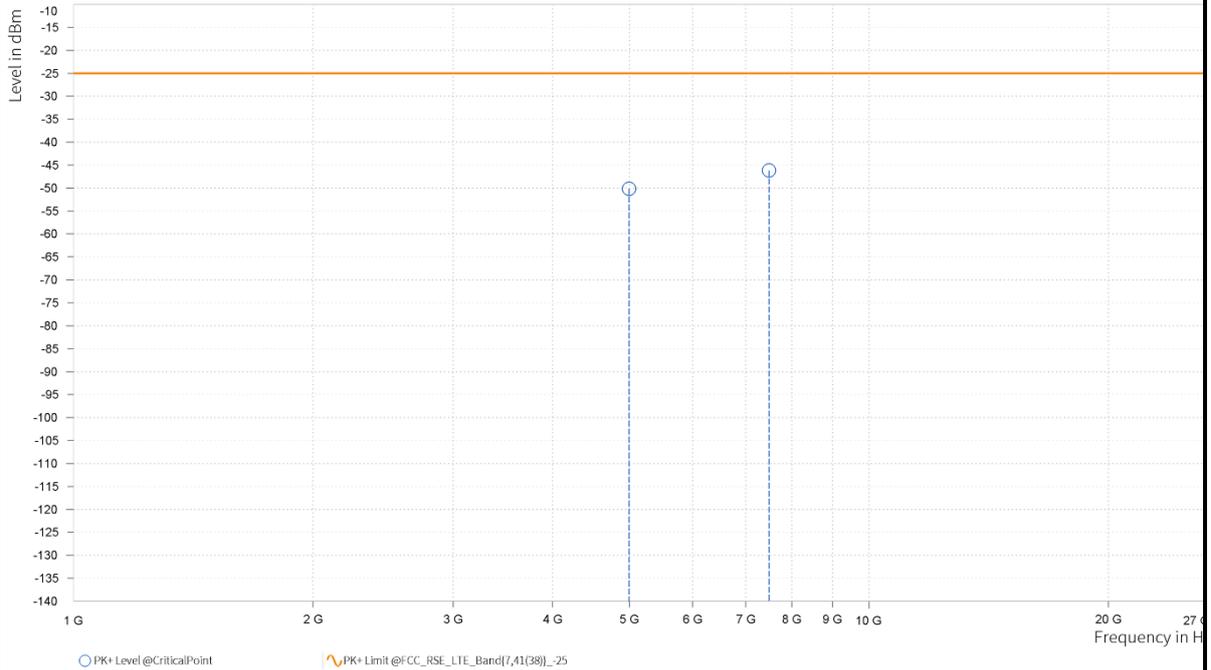




<b>CHANNEL BANDWIDTH</b>	10MHz / QPSK	<b>MODE</b>	TX channel 39700
<b>FREQUENCY RANGE</b>	Above 1000MHz	<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 70%RH
<b>INPUT POWER</b>	AC 120V 60HZ	<b>TESTED BY</b>	Hanwen Xu

**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	4,993.000	-50.13	-25.00	25.13	23.85	V	222.1	1.00
5	7,489.500	-46.17	-25.00	21.17	27.39	V	359	2.00

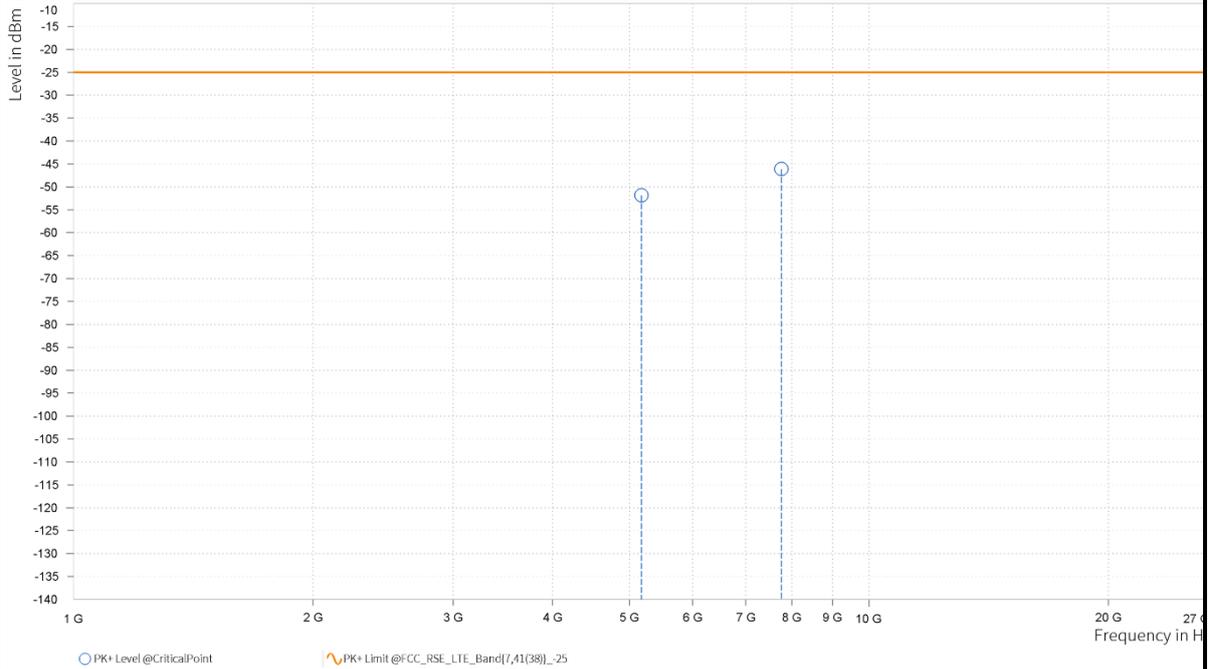




<b>CHANNEL BANDWIDTH</b>	10MHz / QPSK	<b>MODE</b>	TX channel 40620
<b>FREQUENCY RANGE</b>	Above 1000MHz	<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 70%RH
<b>INPUT POWER</b>	AC 120V 60HZ	<b>TESTED BY</b>	Hanwen Xu

**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	5,177.000	-51.84	-25.00	26.84	23.75	H	261.8	2.00
5	7,765.500	-46.12	-25.00	21.12	28.11	H	0.9	2.00

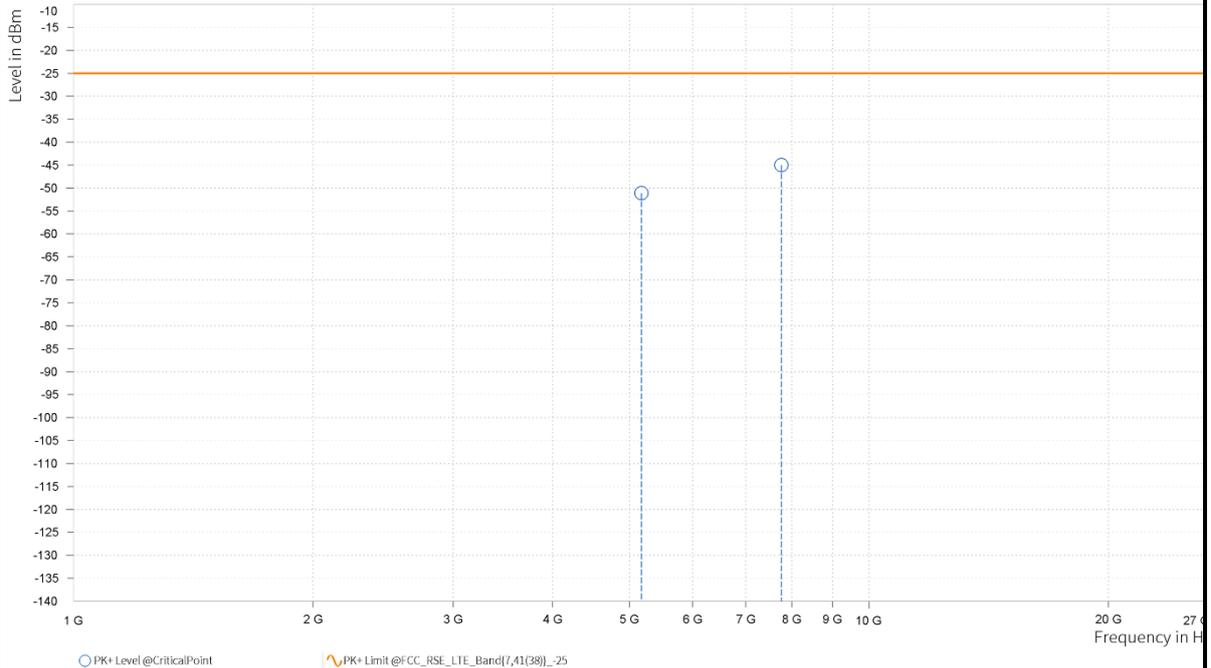




<b>CHANNEL BANDWIDTH</b>	10MHz / QPSK	<b>MODE</b>	TX channel 40620
<b>FREQUENCY RANGE</b>	Above 1000MHz	<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 70%RH
<b>INPUT POWER</b>	AC 120V 60HZ	<b>TESTED BY</b>	Hanwen Xu

**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	5,177.000	-51.12	-25.00	26.12	24.18	V	68.6	2.00
5	7,765.500	-45.01	-25.00	20.01	27.88	V	223.4	1.00

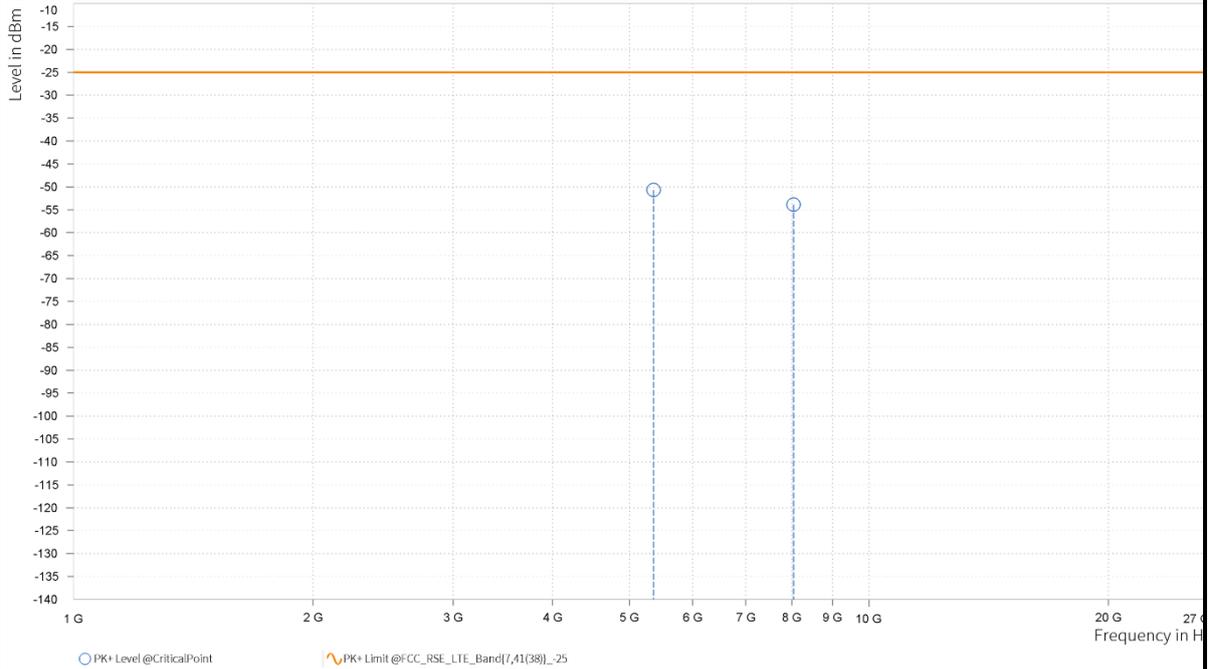




<b>CHANNEL BANDWIDTH</b>	10MHz / QPSK	<b>MODE</b>	TX channel 41540
<b>FREQUENCY RANGE</b>	Above 1000MHz	<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 70%RH
<b>INPUT POWER</b>	AC 120V 60HZ	<b>TESTED BY</b>	Hanwen Xu

**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	5,361.000	-50.68	-25.00	25.68	24.29	H	135.8	2.00
6	8,041.500	-53.87	-25.00	28.87	16.76	H	38.9	2.00

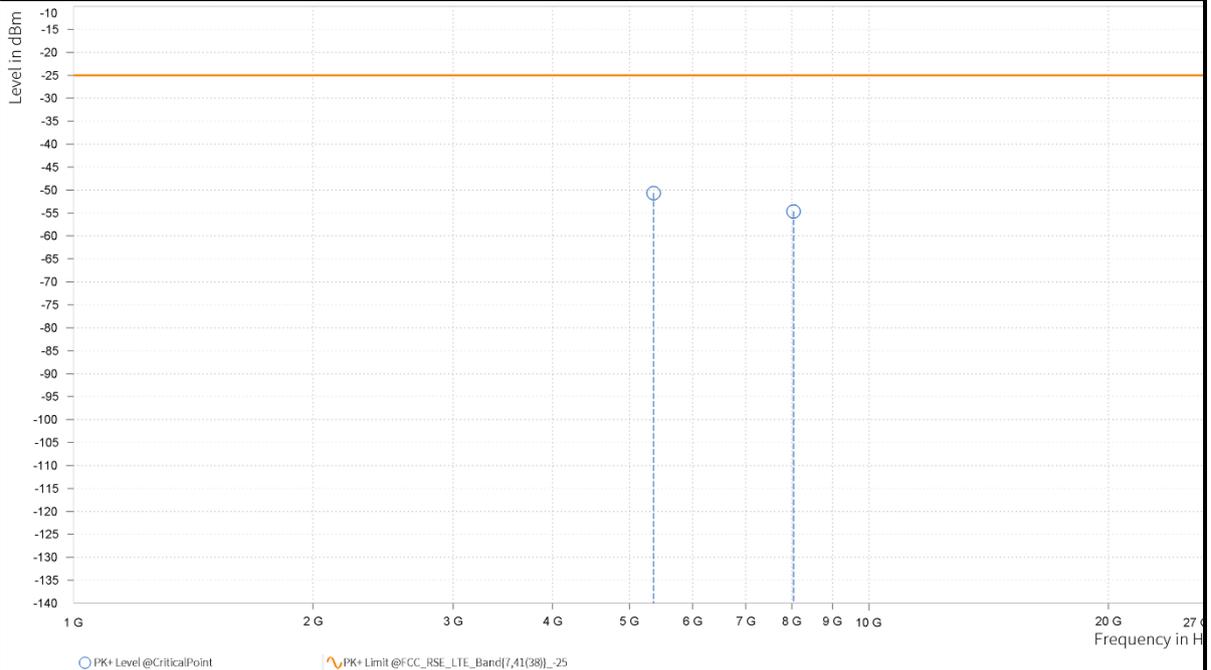




<b>CHANNEL BANDWIDTH</b>	10MHz / QPSK	<b>MODE</b>	TX channel 41540
<b>FREQUENCY RANGE</b>	Above 1000MHz	<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 70%RH
<b>INPUT POWER</b>	AC 120V 60HZ	<b>TESTED BY</b>	Hanwen Xu

**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	5,361.000	-50.66	-25.00	25.66	24.74	V	60.9	2.00
6	8,041.500	-54.64	-25.00	29.64	16.61	V	123.1	2.00

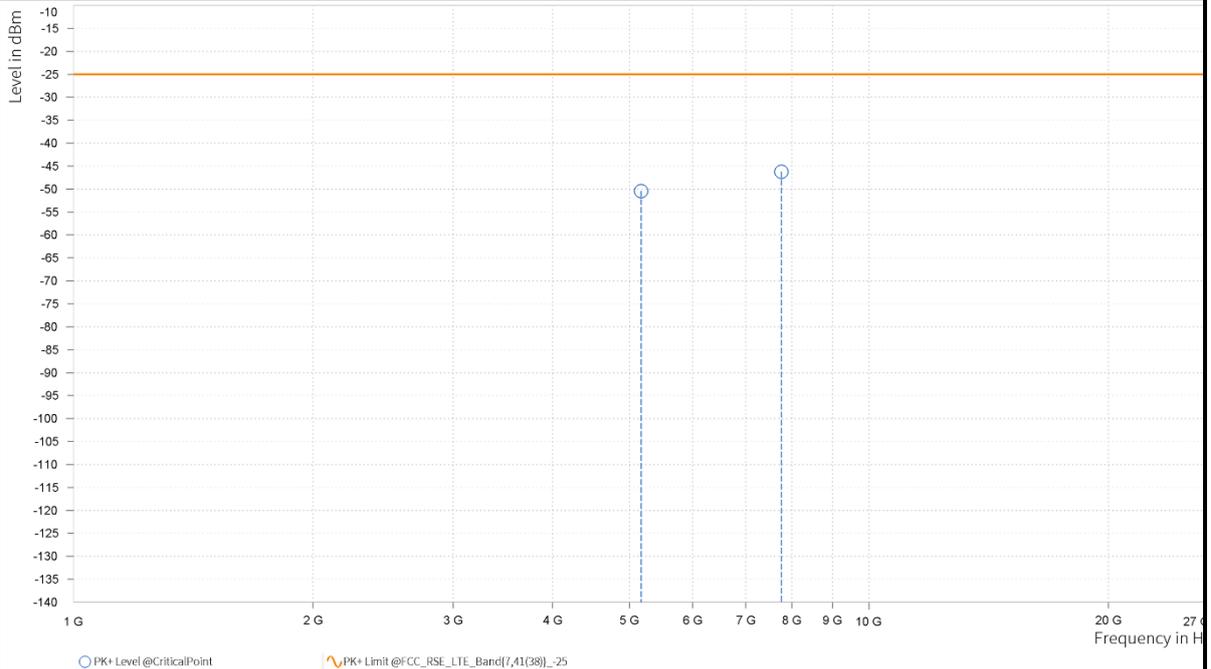




<b>CHANNEL BANDWIDTH</b>	15MHz / QPSK	<b>MODE</b>	TX channel 40620
<b>FREQUENCY RANGE</b>	Above 1000MHz	<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 70%RH
<b>INPUT POWER</b>	AC 120V 60HZ	<b>TESTED BY</b>	Hanwen Xu

**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	5,172.500	-50.42	-25.00	25.42	23.73	H	102.5	1.00
5	7,758.750	-46.22	-25.00	21.22	28.14	H	249	1.00

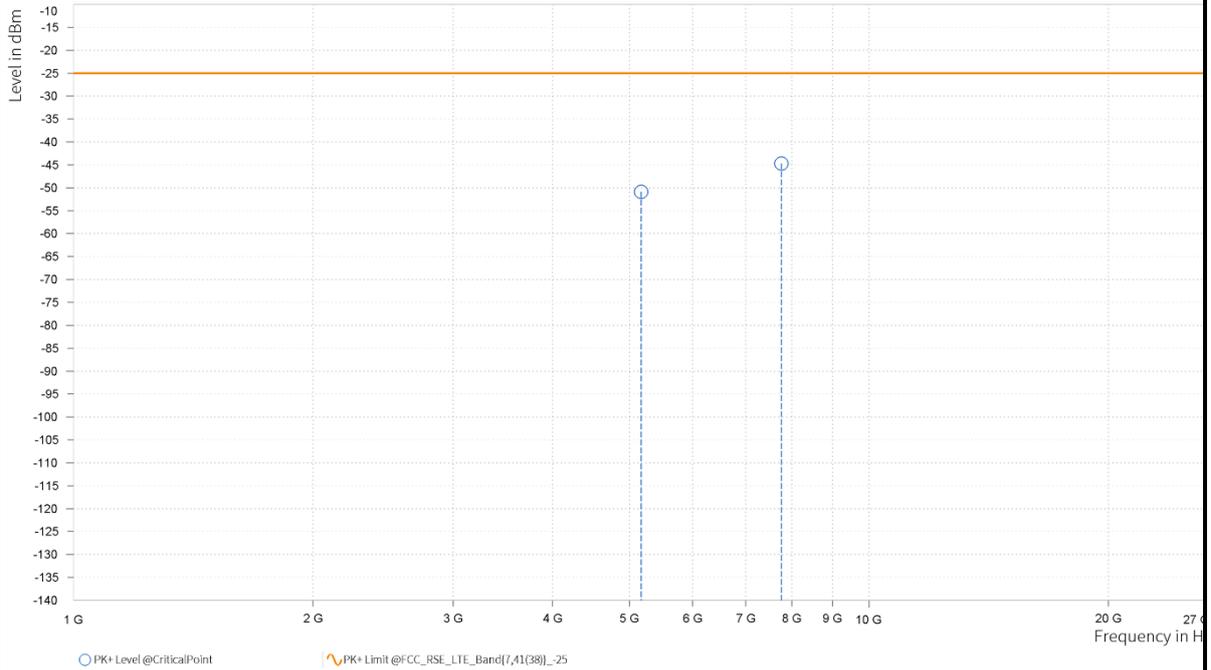




<b>CHANNEL BANDWIDTH</b>	15MHz / QPSK	<b>MODE</b>	TX channel 40620
<b>FREQUENCY RANGE</b>	Above 1000MHz	<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 70%RH
<b>INPUT POWER</b>	AC 120V 60HZ	<b>TESTED BY</b>	Hanwen Xu

**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	5,172.500	-50.86	-25.00	25.86	24.12	V	98.2	1.00
5	7,758.750	-44.69	-25.00	19.69	27.89	V	52.3	2.00

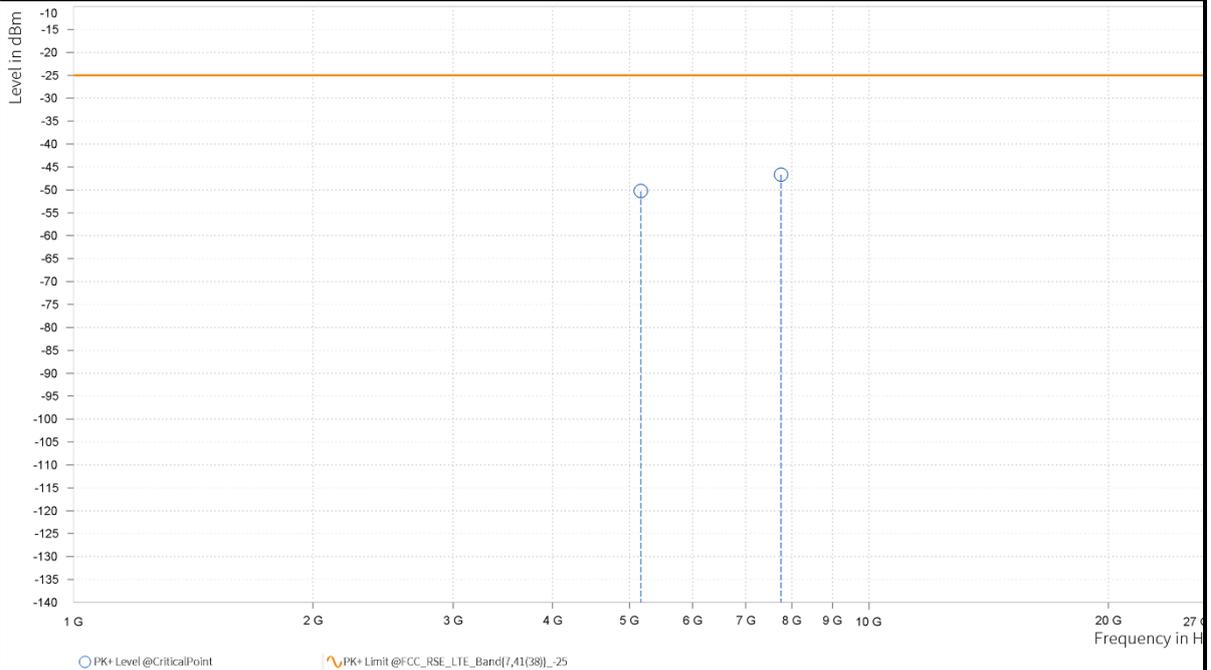




<b>CHANNEL BANDWIDTH</b>	20MHz / QPSK	<b>MODE</b>	TX channel 40620
<b>FREQUENCY RANGE</b>	Above 1000MHz	<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 70%RH
<b>INPUT POWER</b>	AC 120V 60HZ	<b>TESTED BY</b>	Hanwen Xu

**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	5,168.000	-50.24	-25.00	25.24	23.72	H	51.7	2.00
5	7,752.000	-46.68	-25.00	21.68	28.17	H	1	2.00

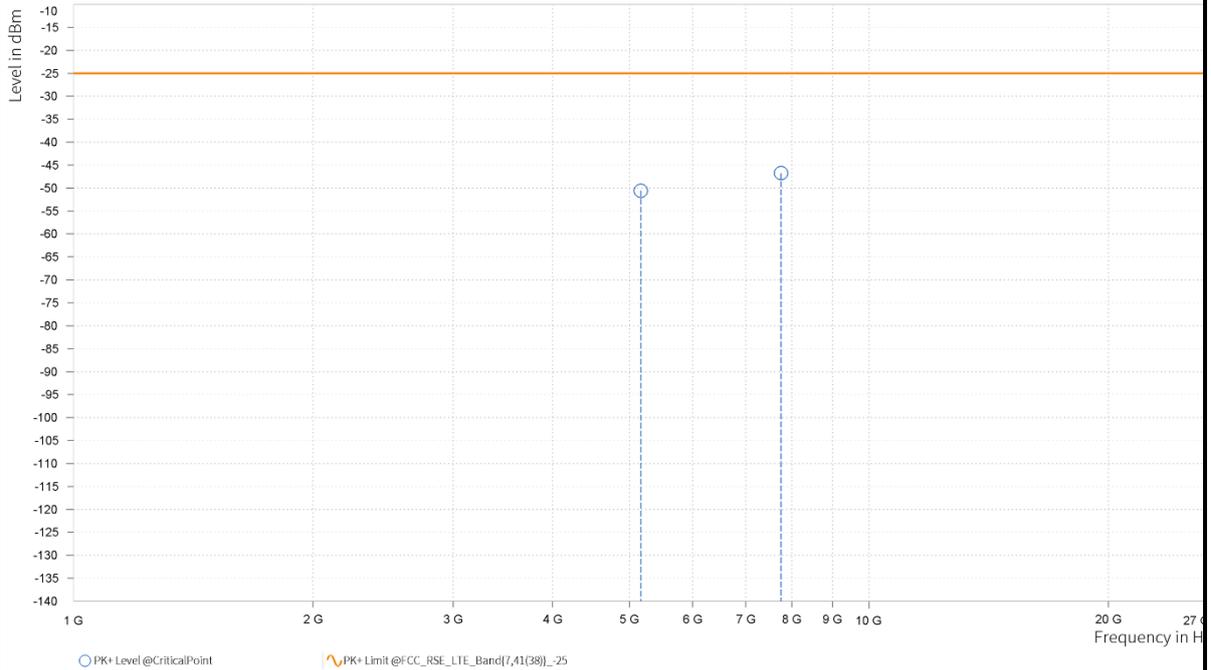




<b>CHANNEL BANDWIDTH</b>	20MHz / QPSK	<b>MODE</b>	TX channel 40620
<b>FREQUENCY RANGE</b>	Above 1000MHz	<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 70%RH
<b>INPUT POWER</b>	AC 120V 60HZ	<b>TESTED BY</b>	Hanwen Xu

**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	5,168.000	-50.60	-25.00	25.60	24.07	V	247.6	1.00
5	7,752.000	-46.76	-25.00	21.76	27.90	V	0.9	2.00



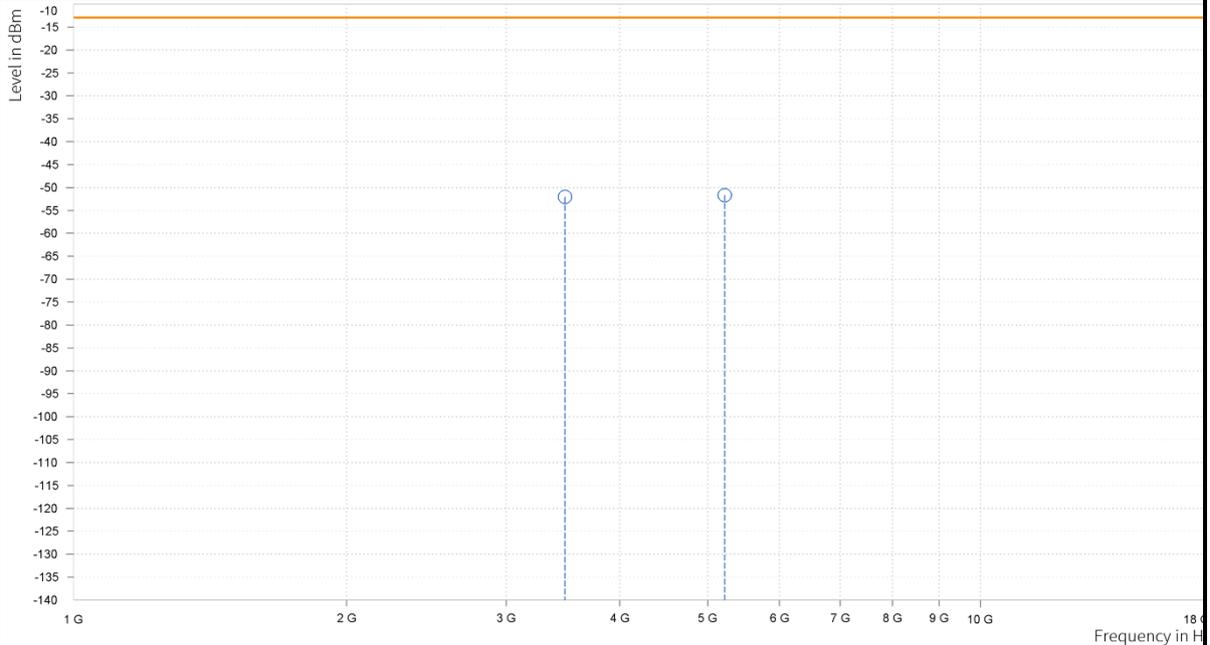


**LTE Band66 ANT0**

<b>CHANNEL BANDWIDTH</b>	10MHz / QPSK	<b>MODE</b>	TX channel 132322
<b>FREQUENCY RANGE</b>	Above 1000MHz	<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 70%RH
<b>INPUT POWER</b>	AC 120V 60HZ	<b>TESTED BY</b>	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	3,481.000	-52.06	-13.00	39.06	20.42	H	224.2	1.00
4	5,221.500	-51.67	-13.00	38.67	23.97	H	1	2.00

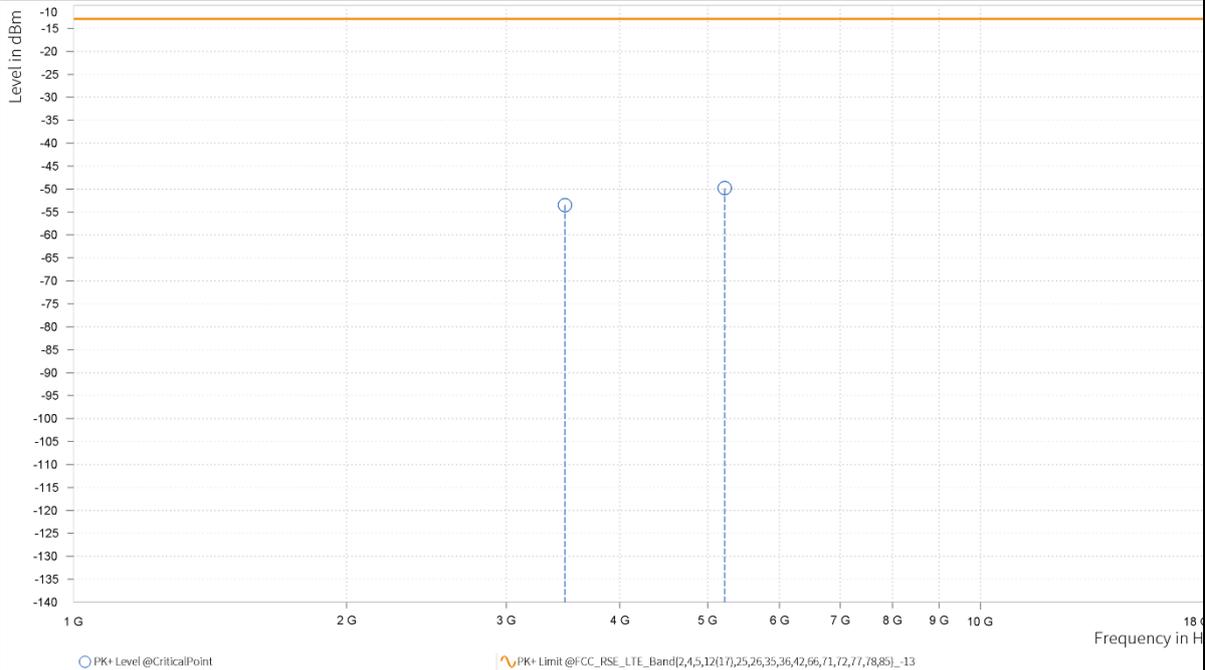




<b>CHANNEL BANDWIDTH</b>	10MHz / QPSK	<b>MODE</b>	TX channel 132322
<b>FREQUENCY RANGE</b>	Above 1000MHz	<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 70%RH
<b>INPUT POWER</b>	AC 120V 60HZ	<b>TESTED BY</b>	Hanwen Xu

**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	3,481.000	-53.49	-13.00	40.49	21.18	V	0.9	2.00
4	5,221.500	-49.81	-13.00	36.81	24.53	V	359	1.00



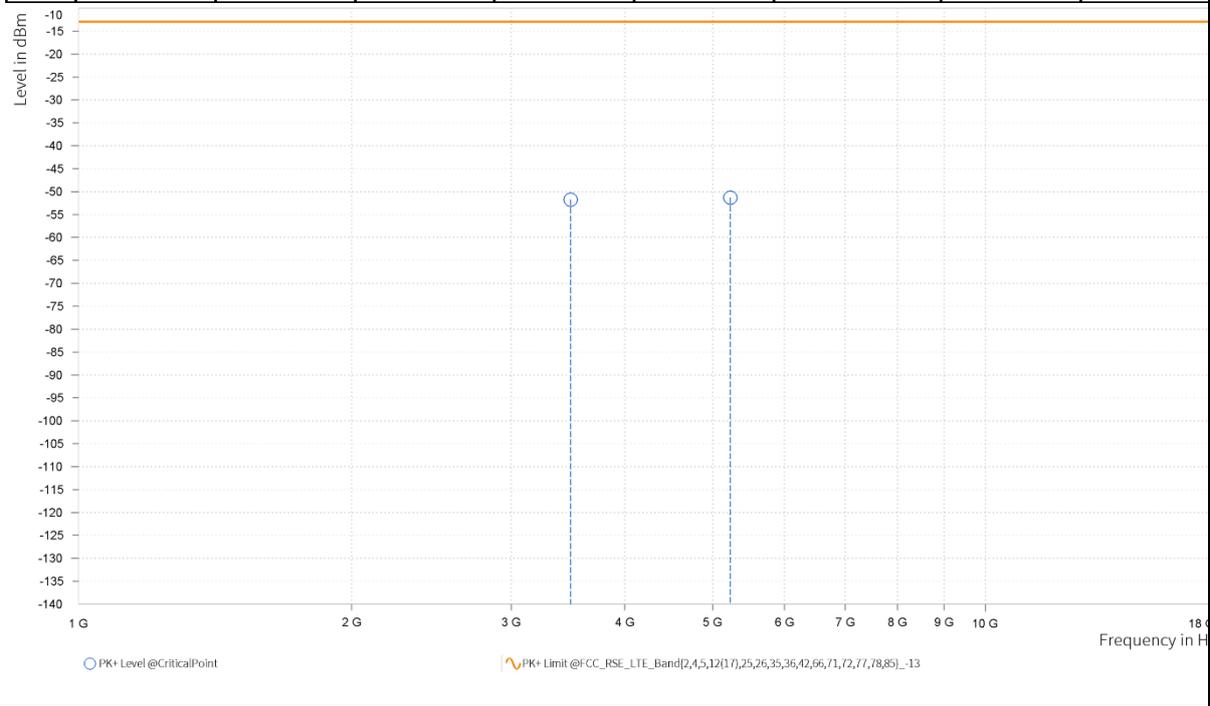


**LTE Band66 ANT1**

<b>CHANNEL BANDWIDTH</b>	1.4MHz / QPSK	<b>MODE</b>	TX channel 132322
<b>FREQUENCY RANGE</b>	Above 1000MHz	<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 70%RH
<b>INPUT POWER</b>	AC 120V 60HZ	<b>TESTED BY</b>	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	3,488.740	-51.76	-13.00	38.76	20.48	H	359.1	1.00
4	5,233.110	-51.32	-13.00	38.32	24.03	H	39.6	2.00

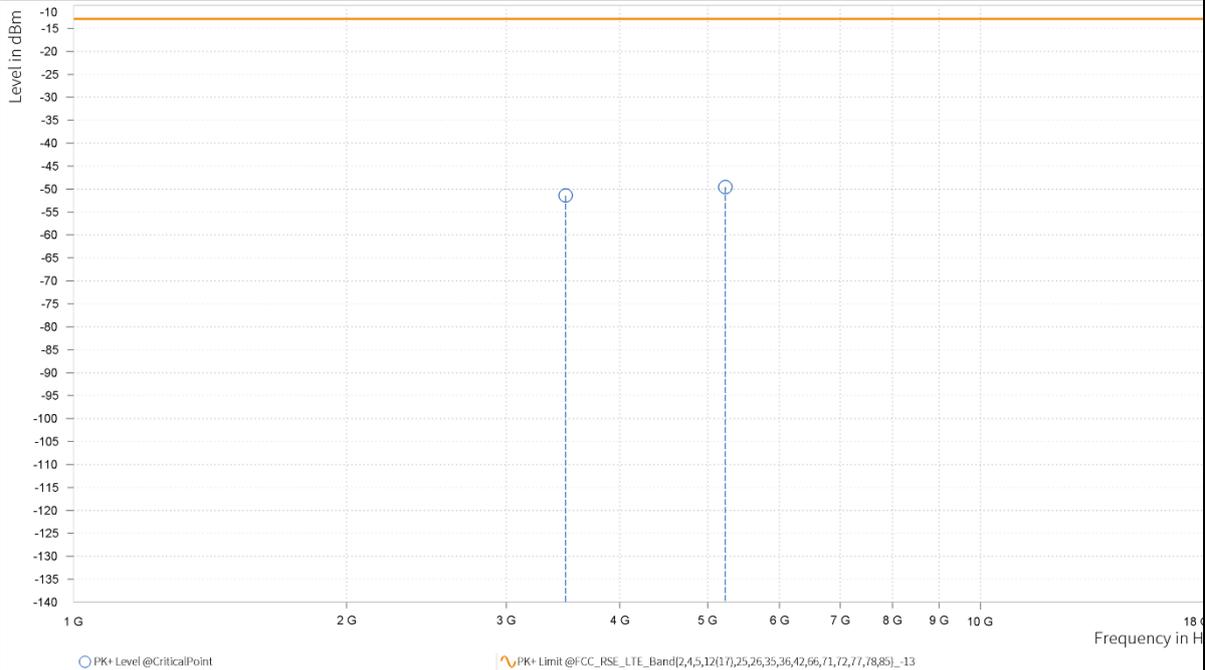




<b>CHANNEL BANDWIDTH</b>	1.4MHz / QPSK	<b>MODE</b>	TX channel 132322
<b>FREQUENCY RANGE</b>	Above 1000MHz	<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 70%RH
<b>INPUT POWER</b>	AC 120V 60HZ	<b>TESTED BY</b>	Hanwen Xu

**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	3,488.740	-51.43	-13.00	38.43	21.27	V	359.1	1.00
4	5,233.110	-49.55	-13.00	36.55	24.56	V	101	1.00

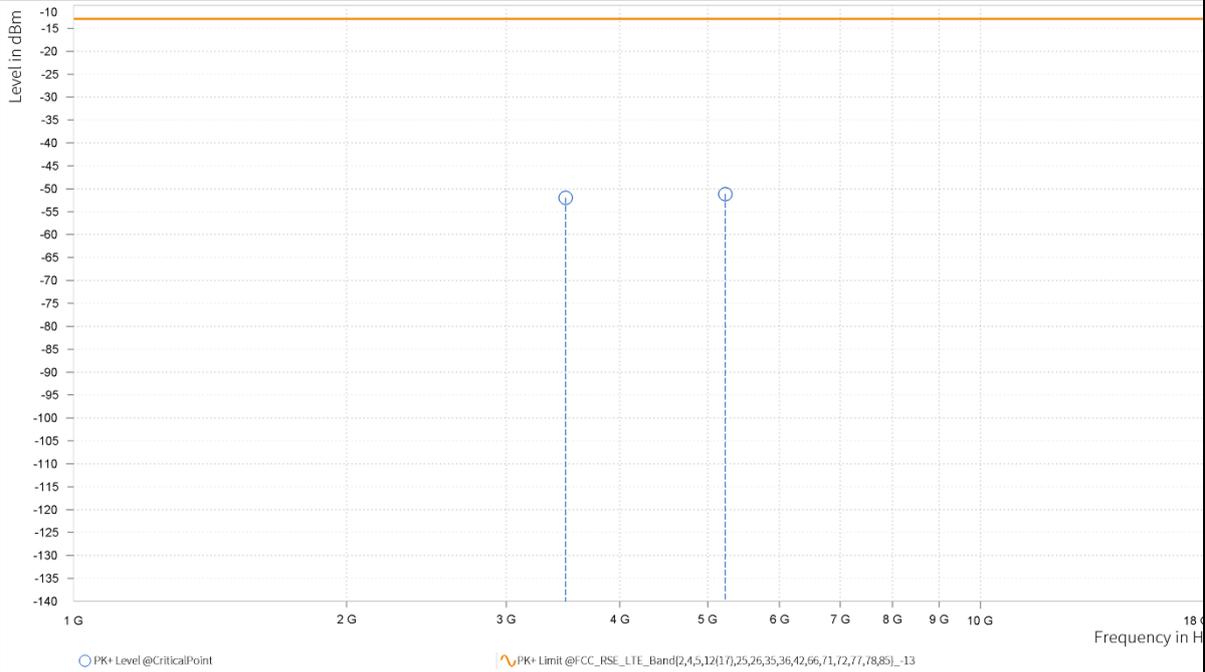




<b>CHANNEL BANDWIDTH</b>	3MHz / QPSK	<b>MODE</b>	TX channel 132322
<b>FREQUENCY RANGE</b>	Above 1000MHz	<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 70%RH
<b>INPUT POWER</b>	AC 120V 60HZ	<b>TESTED BY</b>	Hanwen Xu

**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	3,487.300	-51.97	-13.00	38.97	20.48	H	128.7	2.00
4	5,230.950	-51.17	-13.00	38.17	24.02	H	128.7	2.00

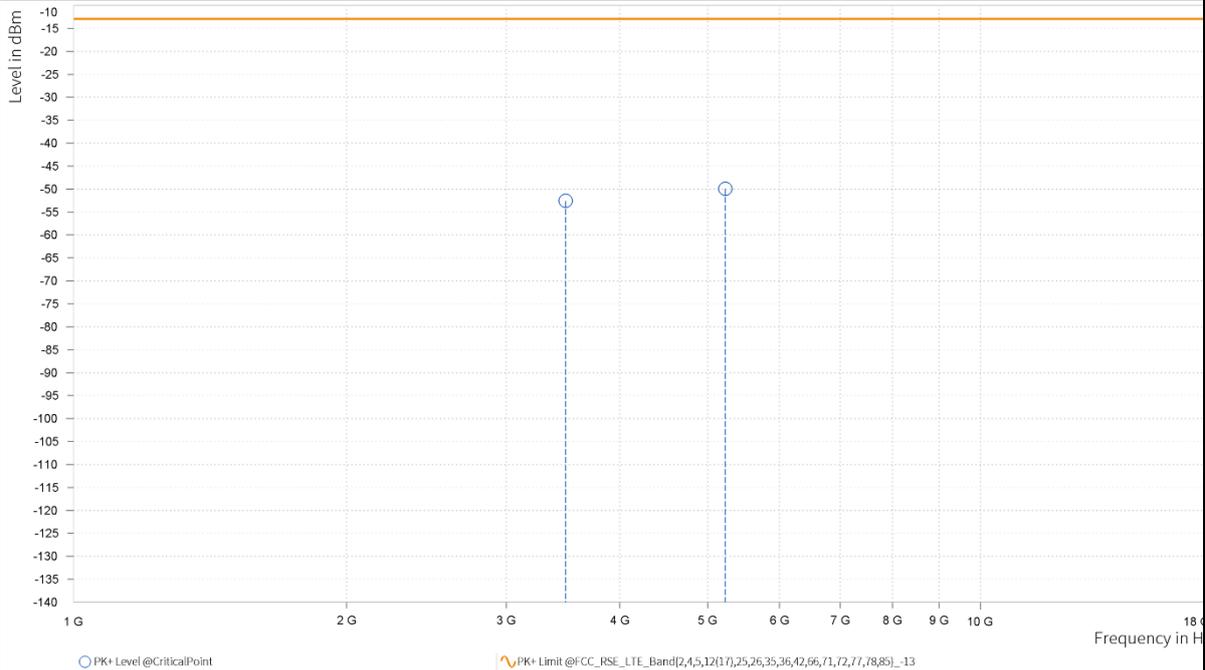




<b>CHANNEL BANDWIDTH</b>	3MHz / QPSK	<b>MODE</b>	TX channel 132322
<b>FREQUENCY RANGE</b>	Above 1000MHz	<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 70%RH
<b>INPUT POWER</b>	AC 120V 60HZ	<b>TESTED BY</b>	Hanwen Xu

**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	3,487.300	-52.58	-13.00	39.58	21.26	V	359.1	1.00
4	5,230.950	-49.97	-13.00	36.97	24.55	V	309.8	1.00

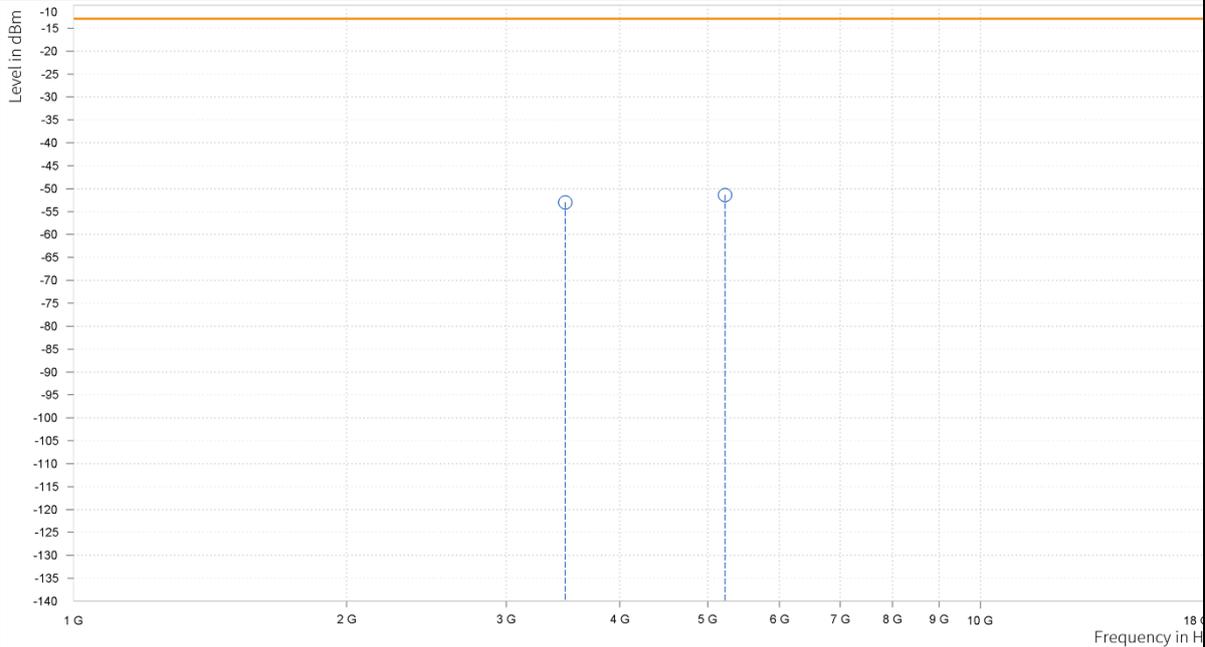




<b>CHANNEL BANDWIDTH</b>	5MHz / QPSK	<b>MODE</b>	TX channel 132322
<b>FREQUENCY RANGE</b>	Above 1000MHz	<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 70%RH
<b>INPUT POWER</b>	AC 120V 60HZ	<b>TESTED BY</b>	Hanwen Xu
<b>TESTED BY</b>	Hanwen Xu		

**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	3,485.500	-52.99	-13.00	39.99	20.46	H	230.6	1.00
4	5,228.250	-51.37	-13.00	38.37	24.00	H	119.5	2.00

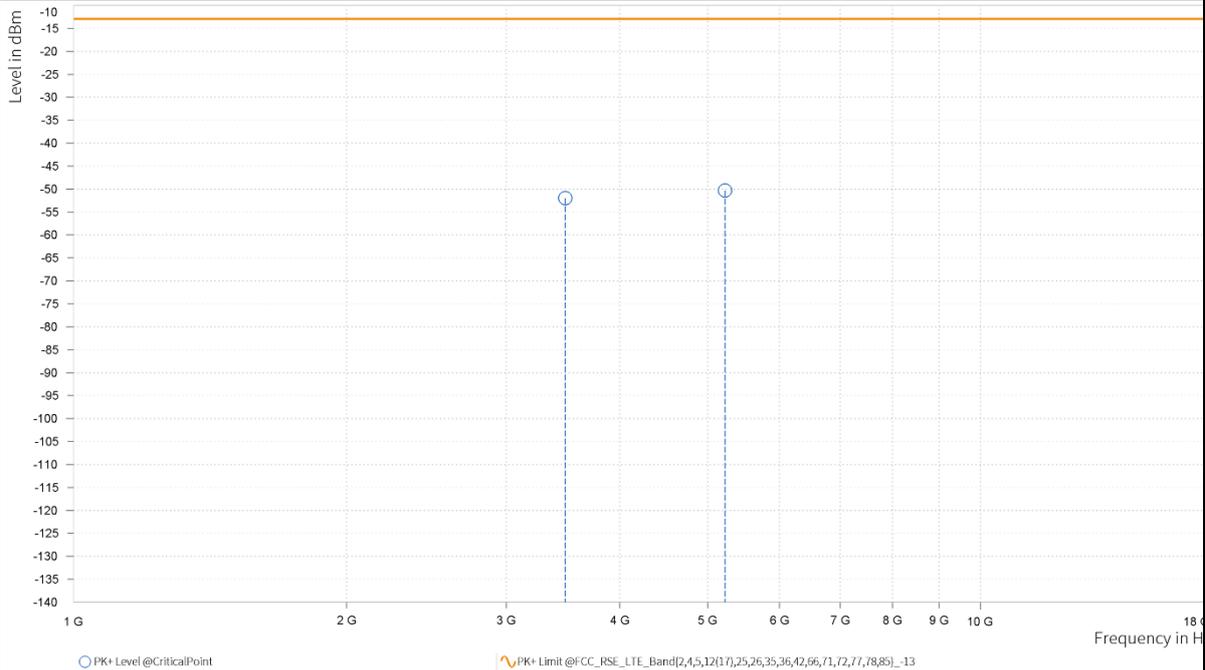




<b>CHANNEL BANDWIDTH</b>	5MHz / QPSK	<b>MODE</b>	TX channel 132322
<b>FREQUENCY RANGE</b>	Above 1000MHz	<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 70%RH
<b>INPUT POWER</b>	AC 120V 60HZ	<b>TESTED BY</b>	Hanwen Xu

**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	3,485.500	-51.98	-13.00	38.98	21.24	V	314.1	1.00
4	5,228.250	-50.34	-13.00	37.34	24.54	V	314.1	1.00

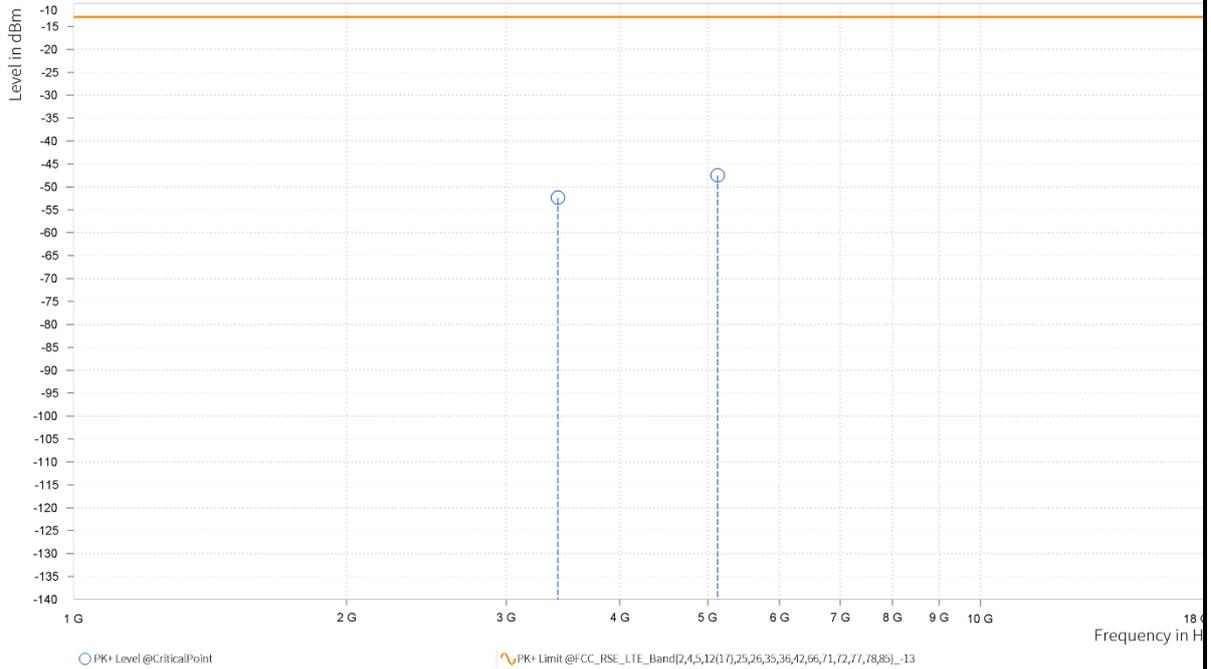




<b>CHANNEL BANDWIDTH</b>	10MHz / QPSK	<b>MODE</b>	TX channel 132022
<b>FREQUENCY RANGE</b>	Above 1000MHz	<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 70%RH
<b>INPUT POWER</b>	AC 120V 60HZ	<b>TESTED BY</b>	Hanwen Xu

**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	3,421.000	-52.36	-13.00	39.36	20.53	H	0.9	2.00
4	5,132.500	-47.51	-13.00	34.51	23.56	H	359.1	1.00

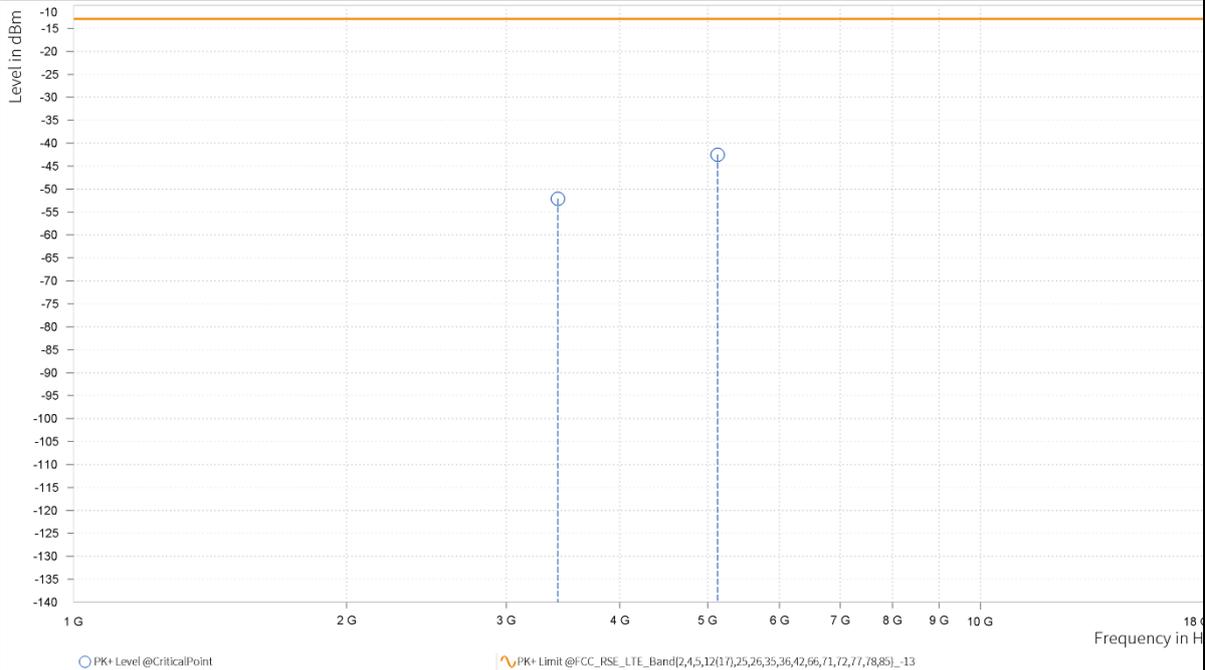




<b>CHANNEL BANDWIDTH</b>	10MHz / QPSK	<b>MODE</b>	TX channel 132022
<b>FREQUENCY RANGE</b>	Above 1000MHz	<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 70%RH
<b>INPUT POWER</b>	AC 120V 60HZ	<b>TESTED BY</b>	Hanwen Xu

**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	3,421.000	-52.10	-13.00	39.10	20.87	V	234.8	1.00
4	5,131.500	-42.53	-13.00	29.53	23.88	V	1	1.00

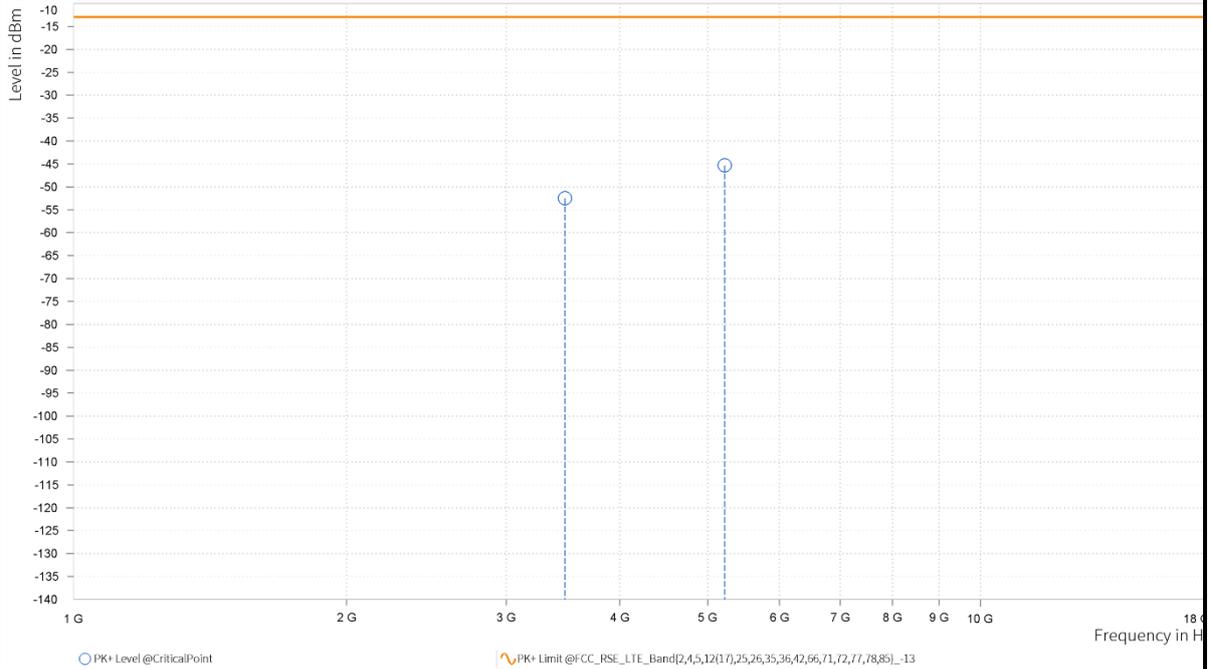




<b>CHANNEL BANDWIDTH</b>	10MHz / QPSK	<b>MODE</b>	TX channel 132322
<b>FREQUENCY RANGE</b>	Above 1000MHz	<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 70%RH
<b>INPUT POWER</b>	AC 120V 60HZ	<b>TESTED BY</b>	Hanwen Xu

**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	3,481.000	-52.51	-13.00	39.51	20.42	H	259.7	2.00
4	5,222.000	-45.31	-13.00	32.31	23.97	H	1	1.00

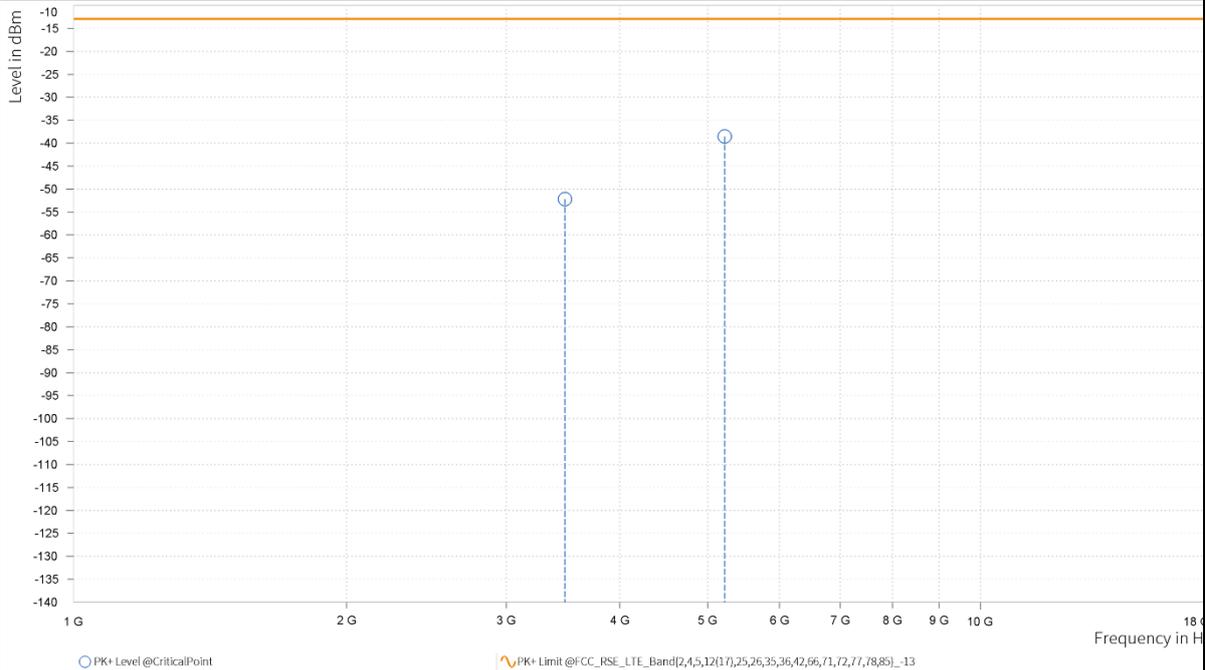




<b>CHANNEL BANDWIDTH</b>	10MHz / QPSK	<b>MODE</b>	TX channel 132322
<b>FREQUENCY RANGE</b>	Above 1000MHz	<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 70%RH
<b>INPUT POWER</b>	AC 120V 60HZ	<b>TESTED BY</b>	Hanwen Xu

**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	3,481.000	-52.19	-13.00	39.19	21.18	V	131.5	2.00
4	5,221.500	-38.57	-13.00	25.57	24.53	V	359	1.00

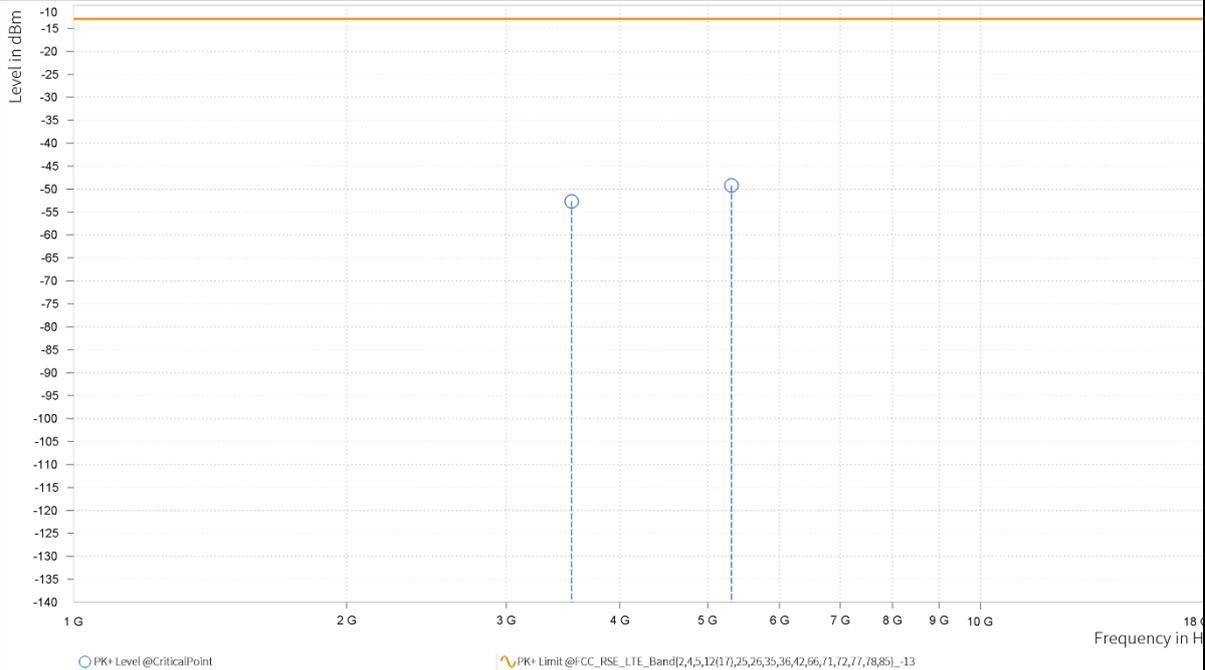




<b>CHANNEL BANDWIDTH</b>	10MHz / QPSK	<b>MODE</b>	TX channel 132622
<b>FREQUENCY RANGE</b>	Above 1000MHz	<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 70%RH
<b>INPUT POWER</b>	AC 120V 60HZ	<b>TESTED BY</b>	Hanwen Xu

**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	3,541.000	-52.68	-13.00	39.68	20.70	H	101.7	1.00
4	5,311.500	-49.24	-13.00	36.24	24.17	H	34.6	2.00

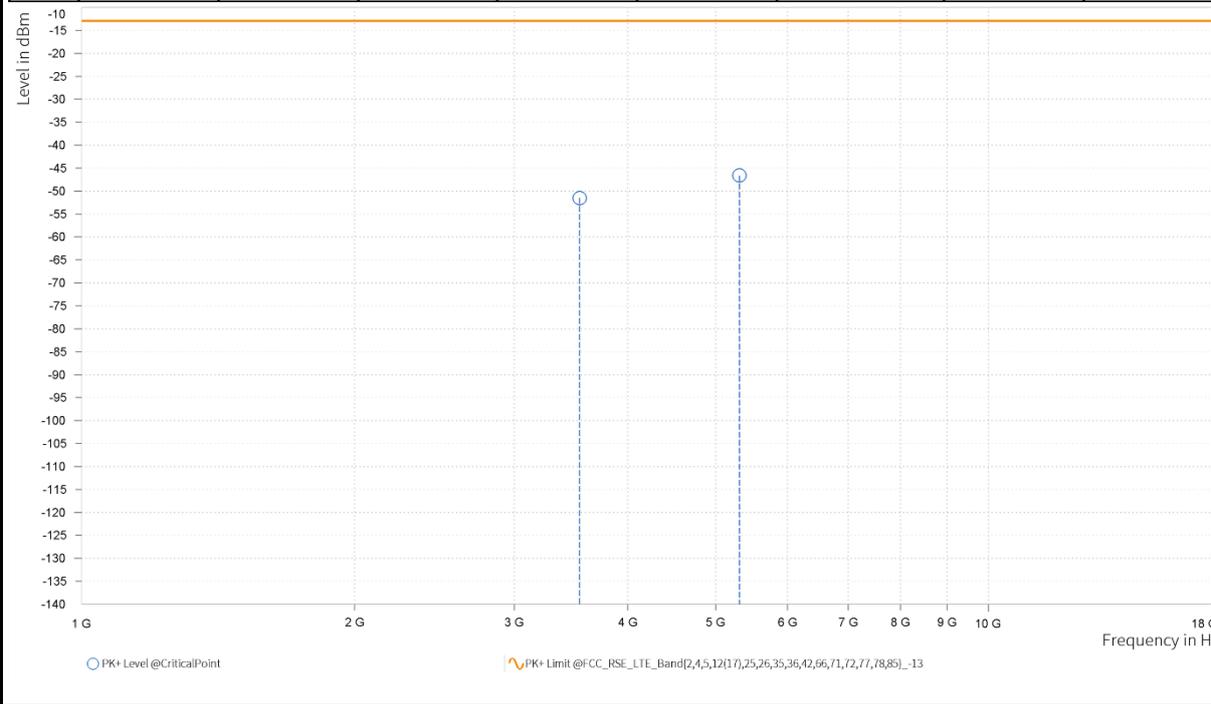




<b>CHANNEL BANDWIDTH</b>	10MHz / QPSK	<b>MODE</b>	TX channel 132622
<b>FREQUENCY RANGE</b>	Above 1000MHz	<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 70%RH
<b>INPUT POWER</b>	AC 120V 60HZ	<b>TESTED BY</b>	Hanwen Xu

**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	3,541.000	-51.51	-13.00	38.51	21.22	V	36	2.00
4	5,311.500	-46.62	-13.00	33.62	24.69	V	1	1.00

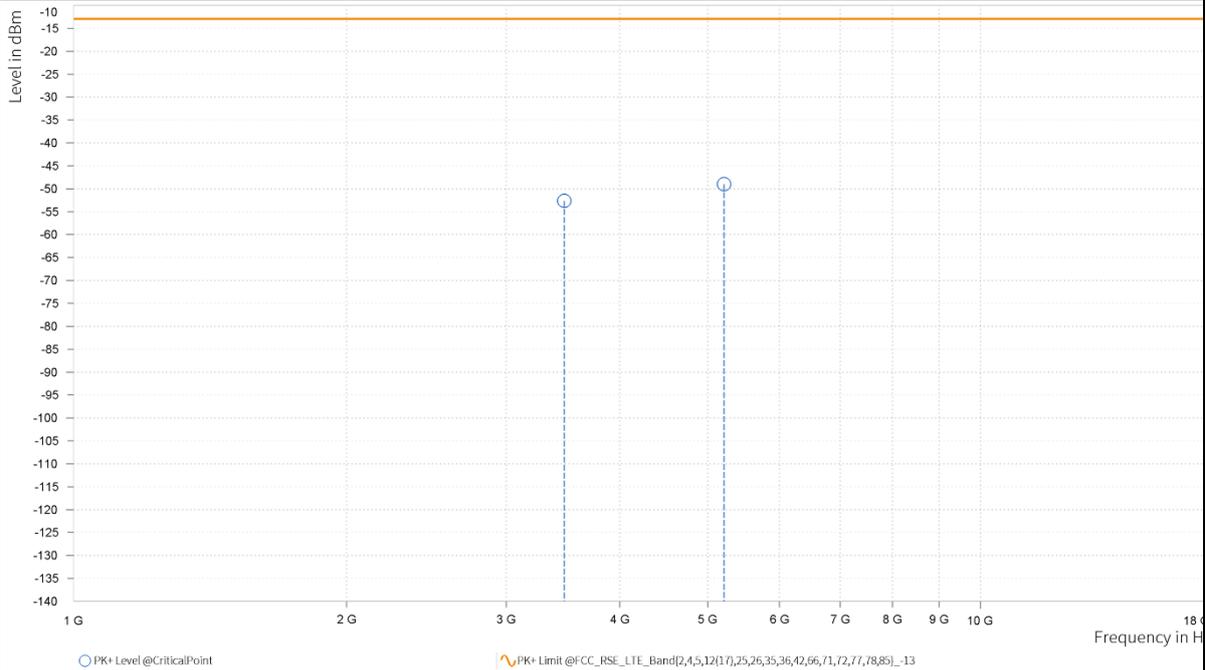




<b>CHANNEL BANDWIDTH</b>	15MHz / QPSK	<b>MODE</b>	TX channel 132322
<b>FREQUENCY RANGE</b>	Above 1000MHz	<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 70%RH
<b>INPUT POWER</b>	AC 120V 60HZ	<b>TESTED BY</b>	Hanwen Xu

**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	3,476.500	-52.66	-13.00	39.66	20.39	H	359.1	1.00
4	5,214.750	-49.03	-13.00	36.03	23.93	H	0.9	2.00

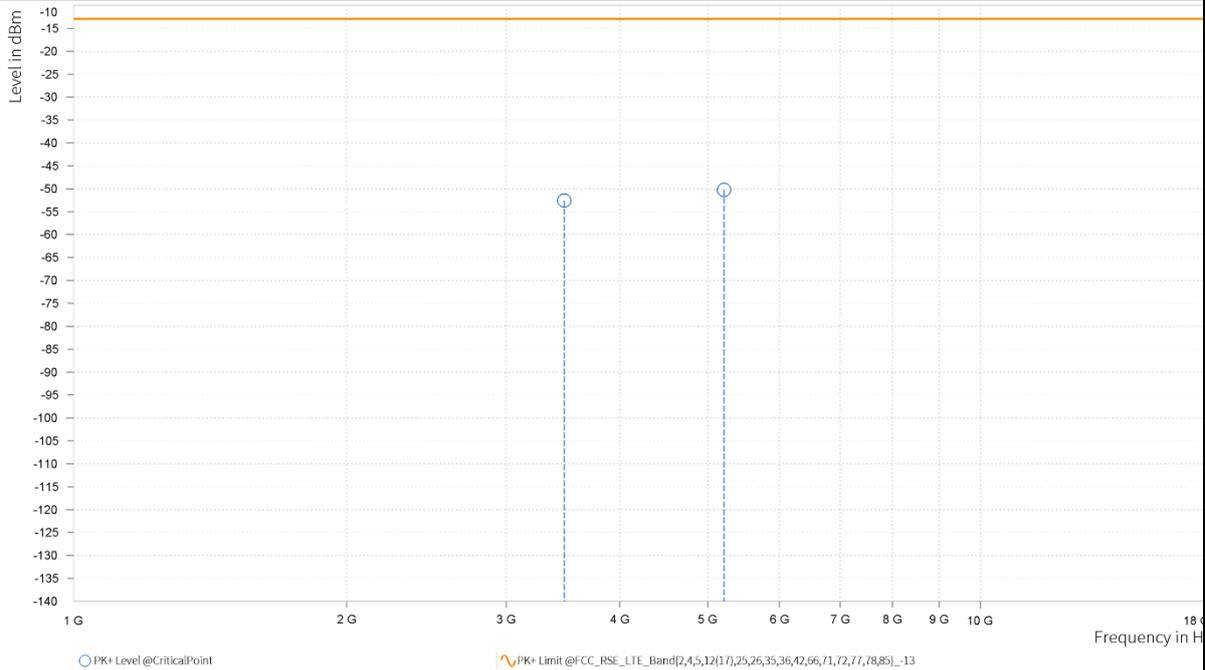




<b>CHANNEL BANDWIDTH</b>	15MHz / QPSK	<b>MODE</b>	TX channel 132322
<b>FREQUENCY RANGE</b>	Above 1000MHz	<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 70%RH
<b>INPUT POWER</b>	AC 120V 60HZ	<b>TESTED BY</b>	Hanwen Xu

**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	3,476.500	-52.56	-13.00	39.56	21.13	V	163.4	2.00
4	5,214.750	-50.20	-13.00	37.20	24.51	V	359	2.00

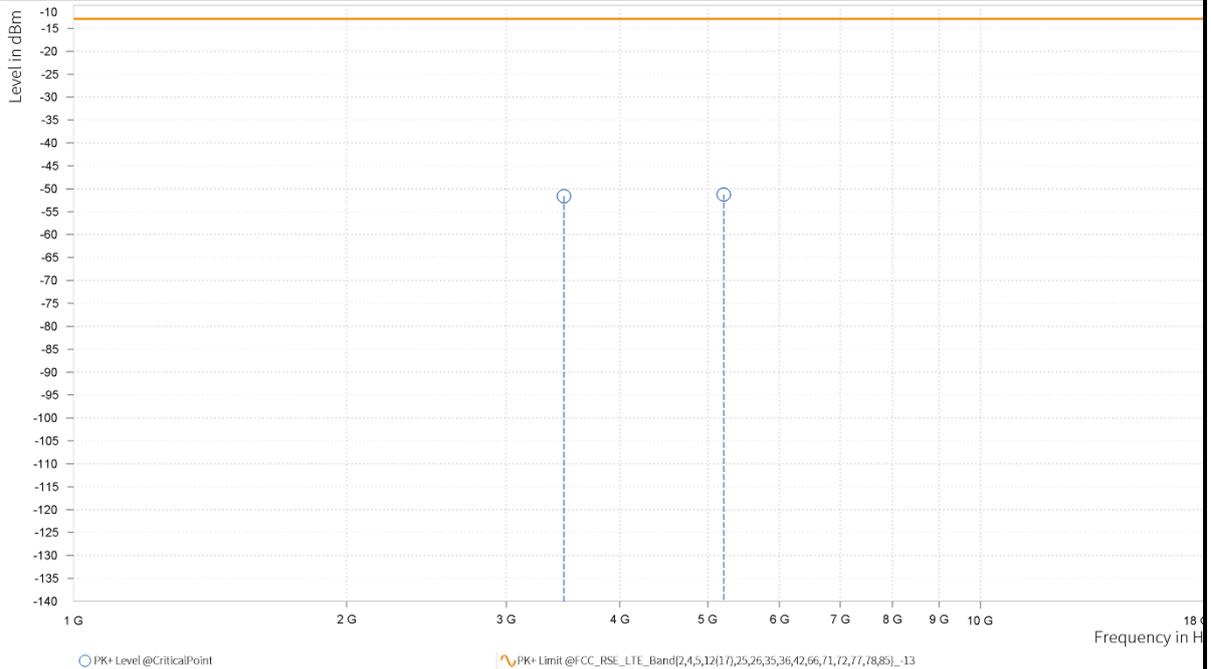




<b>CHANNEL BANDWIDTH</b>	20MHz / QPSK	<b>MODE</b>	TX channel 132322
<b>FREQUENCY RANGE</b>	Above 1000MHz	<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 70%RH
<b>INPUT POWER</b>	AC 120V 60HZ	<b>TESTED BY</b>	Hanwen Xu

**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	-51.60	-13.00	38.60	20.35	H	326.7	1.00
4	5,208.000	-51.22	-13.00	38.22	23.90	H	1	1.00





<b>CHANNEL BANDWIDTH</b>	20MHz / QPSK	<b>MODE</b>	TX channel 132322
<b>FREQUENCY RANGE</b>	Above 1000MHz	<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 70%RH
<b>INPUT POWER</b>	AC 120V 60HZ	<b>TESTED BY</b>	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	3,472.000	-52.08	-13.00	39.08	21.07	V	318.3	1.00
4	5,208.500	-45.96	-13.00	32.96	24.49	V	359.1	1.00

