

FCC TEST REPORT

(PART 27)

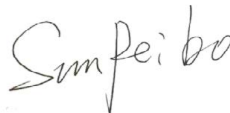
Applicant:	TCL Communication Ltd.
Address:	5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong

Manufacturer or Supplier:	TCL Communication Ltd.
Address:	5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong
Product:	TCL LINKPORT IK511
Brand Name:	TCL
Model Name:	IK511US
FCC ID	2ACCJSCD004
Date of tests	Apr. 17, 2025 ~May. 30, 2025

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

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

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

Prepared by Hanwen Xu Engineer / Mobile Department	Approved by Peibo Sun Manager / Mobile Department
	
Date: May. 30, 2025	Date: May. 30, 2025

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
PSU-QSU2504140116RF04	Original release	May. 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 42) (Band 66)	Compliance	A
§2.1055 §27.54	Frequency Stability	Compliance	A
§2.1049	Occupied Bandwidth	Compliance	A
§2.1051 §27.53(h) §27.53(n)(2) §27.53(m)(4)(6)	Conducted Band Edge Measurements (Band 4) (Band 38) (Band 41) (Band 42) (Band 66)	Compliance	A
§2.1051 §27.53(h) §27.53(n)(2) §27.53(m)(4)(6)	Conducted Spurious Emissions (Band 4) (Band 38) (Band 41) (Band 42) (Band 66)	Compliance	A
§2.1053 §27.53(h) §27.53(n)(2) §27.53(m)(4)(6)	Radiated Spurious Emissions (Band 4) (Band 38) (Band 41) (Band 42) (Band 66)	Compliance	A
§27.50(d)(5) §27.50(k)(4)	Peak to average ratio	Compliance	A

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

*Test Lab Information Reference

Lab A:

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

Lab Address:

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

Accredited Test Lab Cert 6613.01

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

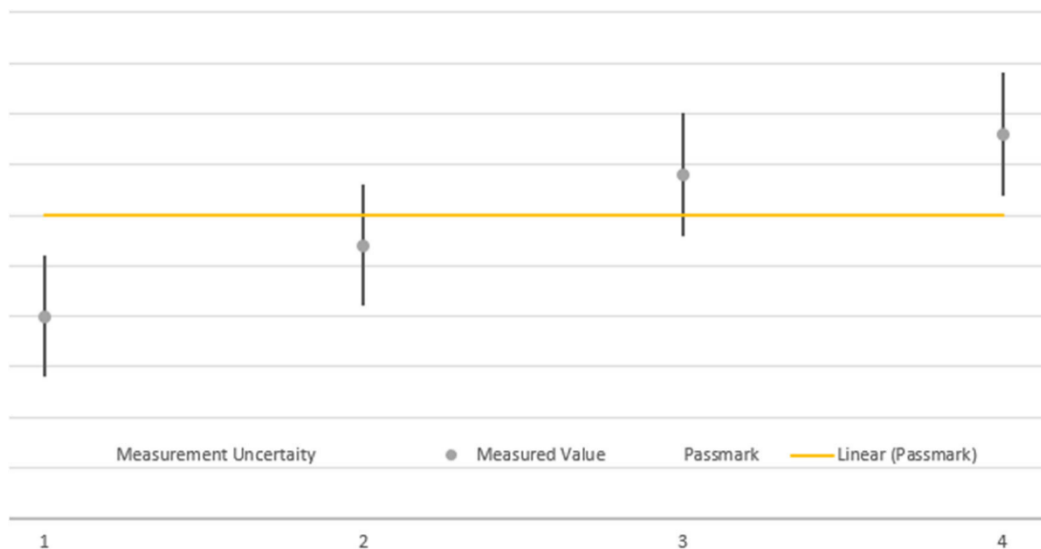


1.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

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

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



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

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

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



1.2 TEST SITE AND INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Pre-Amplifier	R&S	SCU18F1	100815	Aug.30,23	Aug.29,25
Pre-Amplifier	R&S	SCU08F1	101028	Jan.22,24	Jan.21,26
Vector Signal Generator	R&S	SMBV100B	102176	Mar.29,24	Mar.28,26
Signal Generator	R&S	SMB100A	182185	Mar.29,24	Mar.28,26
3m Fully-anechoic Chamber	TDK	9m*6m*6m	HRSW-SZ-EMC-01Chamber	Nov.25,22	Nov.24,25
3m Semi-anechoic Chamber	TDK	9m*6m*6m	HRSW-SZ-EMC-02Chamber	Nov.25,22	Nov.24,25
EMI TEST Receiver	R&S	ESR26	101734	Mar.28,24	Mar.27,26
EMI TEST Receiver	R&S	ESW44	101973	Mar.28,24	Mar.27,26
Bilog Antenna	SCHWARZBECK	VULB 9163	1264	Dec.26,23	Dec.25,25
Horn Antenna	ETS-LINDGREN	3117	227836	Aug.22,23	Aug.21,25
Horn Antenna (18GHz-40GHz)	Steatite Q-par Antennas	QMS 00880	23486	Jul.15,24	Jul.14,26
Horn Antenna	Steatite Q-par Antennas	QMS 00208	23485	Aug.22,23	Aug.21,25
Loop Antenna	SCHWARZ	HFH2-Z2/Z2E	100976	Feb.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	Sep.06,23	Sep.05,25
PC	LENOVO	E14	HRSW0024	N/A	N/A
TMC-AMI18843A(CABLE)	R&S	HF290-NMNM-7.00M	N/A	N/A	N/A
TMC-AMI18843A(CABLE)	R&S	HF290-NMNM-4.00M	N/A	N/A	N/A
CABLE	R&S	W13.02	N/A	Apr.27,24	Apr.26,25
CABLE	R&S	W13.02	N/A	Apr.26,25	Apr.25,26
CABLE	R&S	W12.14	N/A	Apr.27,24	Apr.26,25
CABLE	R&S	W12.14	N/A	Apr.26,25	Apr.25,26
CABLE	R&S	J12J103539-00-1	SEP-03-20-069	Apr.27,24	Apr.26,25
CABLE	R&S	J12J103539-00-1	SEP-03-20-069	Apr.26,25	Apr.25,26
CABLE	R&S	J12J103539-00-1	SEP-03-20-070	Apr.27,24	Apr.26,25
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, GREGT/CHINA and NIM/CHINA.
2. The test was performed in 3m Semi-anechoic Chamber and RF Oven Room.
3. The horn antenna is used only for the measurement of emission frequency above 1GHz if tested.
4. The FCC Site Registration No. is 434559; The Designation No. is CN1325.



2 GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT*	TCL LINKPORT IK511	
BRAND NAME*	TCL	
MODEL NAME*	IK511US	
NOMINAL VOLTAGE*	DC 5V	
MODULATION TECHNOLOGY	LTE	QPSK, 16QAM, 64QAM, 256QAM
FREQUENCY RANGE	LTE Band 4 Channel Bandwidth: 1.4MHz	1710.7MHz ~ 1754.3MHz
	LTE Band 4 Channel Bandwidth: 3MHz	1711.5MHz ~ 1753.5MHz
	LTE Band 4 Channel Bandwidth: 5MHz	1712.5MHz ~ 1752.5MHz
	LTE Band 4 Channel Bandwidth: 10MHz	1715MHz ~ 1750MHz
	LTE Band 4 Channel Bandwidth: 15MHz	1717.5MHz ~ 1747.5 MHz
	LTE Band 4 Channel Bandwidth: 20MHz	1720MHz ~ 1745MHz
	LTE Band 38 Channel Bandwidth: 5MHz	2572.5MHz ~ 2617.5MHz
	LTE Band 38 Channel Bandwidth: 10MHz	2575MHz ~ 2615MHz
	LTE Band 38 Channel Bandwidth: 15MHz	2577.5MHz ~ 2612.5MHz
	LTE Band 38 Channel Bandwidth: 20MHz	2580MHz ~ 2610MHz
	LTE Band 41 Channel Bandwidth: 5MHz	2498.5MHz ~ 2687.5MHz
	LTE Band 41 Channel Bandwidth: 10MHz	2501MHz ~ 2685MHz
	LTE Band 41 Channel Bandwidth: 15MHz	2503.5MHz ~ 2682.5MHz
	LTE Band 41 Channel Bandwidth: 20MHz	2506MHz ~ 2680MHz
	LTE Band 42 Channel Bandwidth: 5MHz	3452.5 MHz ~ 3547.5MHz
	LTE Band 42 Channel Bandwidth: 10MHz	3455MHz ~ 3545MHz
	LTE Band 42 Channel Bandwidth: 15MHz	3457.5MHz ~ 3542.5MHz
	LTE Band 42 Channel Bandwidth: 20MHz	3460MHz ~ 3540MHz



FREQUENCY RANGE	LTE Band 66 Channel Bandwidth: 1.4MHz	1710.7MHz ~ 1779.3MHz
	LTE Band 66 Channel Bandwidth: 3MHz	1711.5MHz ~ 1778.5MHz
	LTE Band 66 Channel Bandwidth: 5MHz	1712.5MHz ~ 1777.5MHz
	LTE Band 66 Channel Bandwidth: 10MHz	1715MHz ~ 1775MHz
	LTE Band 66 Channel Bandwidth: 15MHz	1717.5MHz ~ 1772.5MHz
	LTE Band 66 Channel Bandwidth: 20MHz	1720MHz ~ 1770MHz
MAX. EIRP POWER	LTE Band 4 Channel Bandwidth: 1.4MHz	192.31mW
	LTE Band 4 Channel Bandwidth: 3MHz	195.43mW
	LTE Band 4 Channel Bandwidth: 5MHz	195.88mW
	LTE Band 4 Channel Bandwidth: 10MHz	195.88mW
	LTE Band 4 Channel Bandwidth: 15MHz	193.64mW
	LTE Band 4 Channel Bandwidth: 20MHz	196.34mW
	LTE Band 38 Channel Bandwidth: 5MHz	247.17mW
	LTE Band 38 Channel Bandwidth: 10MHz	248.31mW
	LTE Band 38 Channel Bandwidth: 15MHz	247.74mW
	LTE Band 38 Channel Bandwidth: 20MHz	252.35mW
	LTE Band 41 Channel Bandwidth: 5MHz	221.31mW
	LTE Band 41 Channel Bandwidth: 10MHz	216.77mW
	LTE Band 41 Channel Bandwidth: 15MHz	217.27mW
	LTE Band 41 Channel Bandwidth: 20MHz	222.84mW
	LTE Band 42 Channel Bandwidth: 5MHz	221.31mW
	LTE Band 42 Channel Bandwidth: 10MHz	216.77mW
	LTE Band 42 Channel Bandwidth: 15MHz	217.27mW
	LTE Band 42 Channel Bandwidth: 20MHz	222.84mW



MAX. EIRP POWER	LTE Band 66 Channel Bandwidth: 1.4MHz	206.54mW
	LTE Band 66 Channel Bandwidth: 3MHz	202.77mW
	LTE Band 66 Channel Bandwidth: 5MHz	202.30mW
	LTE Band 66 Channel Bandwidth: 10MHz	205.59mW
	LTE Band 66 Channel Bandwidth: 15MHz	203.70mW
	LTE Band 66 Channel Bandwidth: 20MHz	206.54mW
EMISSION DESIGNATOR	LTE Band 41 Channel Bandwidth: 5MHz	QPSK: 4M50G7D
		16QAM: 4M49W7D
		64QAM: 4M49W7D
		256QAM: 4M49W7D
	LTE Band 41 Channel Bandwidth: 10MHz	QPSK: 8M95G7D
		16QAM: 8M96W7D
		64QAM: 8M98W7D
		256QAM: 8M96W7D
	LTE Band 41 Channel Bandwidth: 15MHz	QPSK: 13M5G7D
		16QAM: 13M5W7D
		64QAM: 13M5W7D
		256QAM: 13 M5W7D
	LTE Band 41 Channel Bandwidth: 20MHz	QPSK: 17M9G7D
		16QAM: 17M9W7D
		64QAM: 17M9W7D
		256QAM: 17M9W7D
	LTE Band 42 Channel Bandwidth: 5MHz	QPSK: 4M49G7D
		16QAM: 4M49W7D
		64QAM: 4M48W7D
		256QAM: 4M50W7D
	LTE Band 42 Channel Bandwidth: 10MHz	QPSK: 8M96G7D
		16QAM: 8M98W7D
		64QAM: 8M98W7D
		256QAM: 8M96W7D
	LTE Band 42 Channel Bandwidth: 15MHz	QPSK: 13M5G7D
		16QAM: 13M5W7D
		64QAM: 13M5W7D
		256QAM: 13M5W7D



EMISSION DESIGNATOR	LTE Band 42 Channel Bandwidth: 20MHz	QPSK: 17M9G7D
		16QAM: 17M9W7D
		64QAM: 17M9W7D
		256QAM: 17M9W7D
	LTE Band 66 Channel Bandwidth: 1.4MHz	QPSK: 1M09G7D
		16QAM: 1M10W7D
		64QAM: 1M10W7D
		256QAM: 1M10W7D
	LTE Band 66 Channel Bandwidth: 3MHz	QPSK: 2M70G7D
		16QAM: 2M70W7D
		64QAM: 2M70W7D
		256QAM: 2M70W7D
	LTE Band 66 Channel Bandwidth: 5MHz	QPSK: 4M50G7D
		16QAM: 4M50W7D
		64QAM: 4M49W7D
		256QAM: 4M49W7D
	LTE Band 66 Channel Bandwidth: 10MHz	QPSK: 8M96G7D
		16QAM: 8M98W7D
		64QAM: 8M98W7D
		256QAM: 8M96W7D
	LTE Band 66 Channel Bandwidth: 15MHz	QPSK: 13M5G7D
		16QAM: 13M5W7D
		64QAM: 13M5W7D
		256QAM: 13M5W7D
	LTE Band 66 Channel Bandwidth: 20MHz	QPSK: 17M9G7D
		16QAM: 17M9W7D
		64QAM: 17M9W7D
		256QAM: 17M9W7D
ANTENNA GAIN*	LTE B4	0.2dBi
	LTE B38	1.2dBi
	LTE B41	1.4dBi
	LTE B42	2.0dBi
	LTE B66	0.4dBi
ANTENNA TYPE*	Fixed Internal Antenna	
HW VERSION*	V3.0	
SW VERSION*	IK511USV1_ZZ_01.00_01	
I/O PORTS*	Refer to user's manual	



CABLE SUPPLIED*	USB cable: non-shielded cable, with w/o ferrite core, 0.15 meter
EXTREME TEMPERATURE*	-20℃~55℃
EXTREME VOLTAGE*	4.75V~5.25V

NOTE:

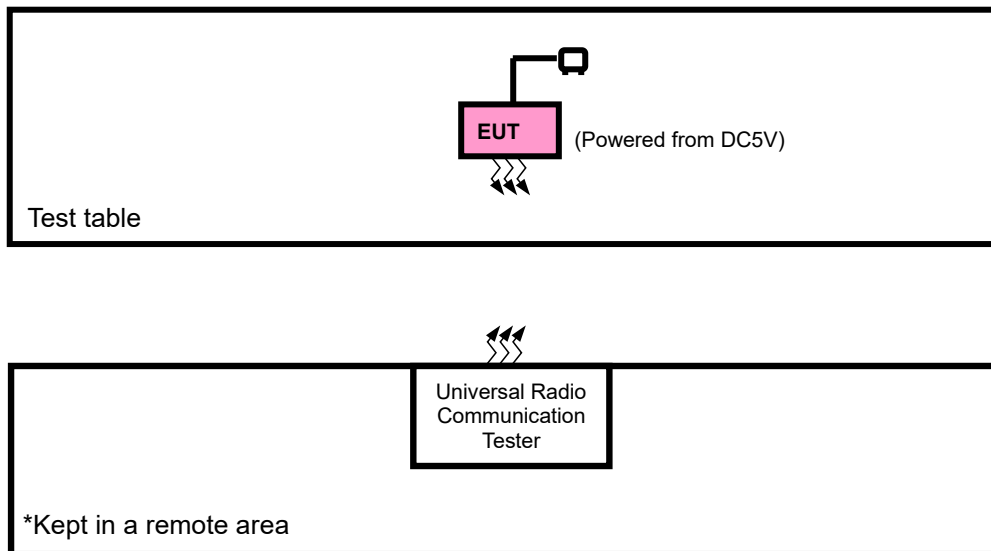
1. *Since the above data and/or information is provided by the client relevant results or conclusions of this report are only made for these data and/or information, Test Lab is not responsible for the authenticity, integrity and results of the data and information and/or the validity of the conclusion.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

MODULATION MODE	TX FUNCTION
LTE	1TX/1RX

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

2.2 CONFIGURATION OF SYSTEM UNDER TEST

FOR RADIATION EMISSION TEST





2.3 DESCRIPTION OF SUPPORT UNITS

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

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Laptop	Lenovo	ThinkPad E14	HRSW00024	N/A

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	USB Line: non-shielded, Detachable 0.15m



2.4 TEST ITEM AND TEST CONFIGURATION

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

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

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

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

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

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

Note:



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

LTE BAND 41 MODE						
EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
A	EIRP	39675 to 41565	39675, 40620, 41565	5MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset
		39700 to 41540	39700, 40620, 41540	10MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0RB Offset
		39725 to 41515	39725, 40620, 41515	15MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset
		39750 to 41490	39750, 40620, 41490	20MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset
A	FREQUENCY STABILITY	39750 to 41490	39750, 40620, 41490	20MHz	QPSK	1 RB / 0 RB Offset
A	OCCUPIED BANDWIDTH	39675 to 41565	39675, 40620, 41565	5MHz	QPSK, 16QAM, 64QAM 256QAM	25 RB / 0 RB Offset
		39700 to 41540	39700, 40620, 41540	10MHz	QPSK, 16QAM, 64QAM 256QAM	50 RB / 0 RB Offset
		39725 to 41515	39725, 40620, 41515	15MHz	QPSK, 16QAM, 64QAM 256QAM	75 RB / 0 RB Offset
		39750 to 41490	39750, 40620, 41490	20MHz	QPSK, 16QAM, 64QAM 256QAM	100 RB / 0 RB Offset
A	PEAK TO AVERAGE RATIO	39675 to 41565	39675, 40620, 41565	5MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset 25 RB / 0 RB Offset
		39700 to 41540	39700, 40620, 41540	10MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset 50 RB / 0 RB Offset
		39725 to 41515	39725, 40620, 41515	15MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset 75 RB / 0 RB Offset
		39750 to 41490	39750, 40620, 41490	20MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset 100 RB / 0 RB Offset
A	BAND EDGE	39675 to 41565	39675	5MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset 25 RB / 0 RB Offset
			41565	5MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 24 RB Offset 25 RB / 0 RB Offset
		39700 to 41540	39700	10MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset 50 RB / 0 RB Offset



			41540	10MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 49 RB Offset
						50 RB / 0 RB Offset
		39725 to 41515	39725	15MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset
						75 RB / 0 RB Offset
		39750 to 41490	41515	15MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 74 RB Offset
						75 RB / 0 RB Offset
			39750	20MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset
						100 RB / 0 RB Offset
A	CONDCUDE TED EMISSION	39675 to 41565	39675, 40620, 41565	5MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset
		39700 to 41540	39700, 40620,41540	10MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0RB Offset
		39725 to 41515	39725, 40620, 41515	15MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset
		39750 to 41490	39750, 40620, 41490	20MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset
A	RADIATED EMISSION	39675 to 41565	40620	5MHz	QPSK	1 RB / 0 RB Offset
		39700 to 41540	40620	10MHz	QPSK	1 RB / 0RB Offset
		39725 to 41515	40620	15MHz	QPSK	1 RB / 0 RB Offset
		39750 to 41490	39750,40620,4149 0	20MHz	QPSK	1 RB / 0 RB Offset

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

LTE band 42						
EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
A	EIRP	42115 to 43065	42115,42590,43065	5MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset
		42140 to 43040	42140,42590,43040	10MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset
		42165 to 43015	42165,42590,43015	15MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset
		42190 to 42990	42190,42590,42990	20MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset
A	FREQUENCY STABILITY	42190 to 42990	42190,42590,42990	20MHz	QPSK	100 RB / 0 RB Offset
A	OCCUPIED BANDWIDTH	42115 to 43065	42115,42590,43065	5MHz	QPSK, 16QAM, 64QAM 256QAM	25 RB / 0 RB Offset



		42140 to 43040	42140,42590,43040	10MHz	QPSK, 16QAM, 64QAM 256QAM	50 RB / 0 RB Offset
		42165 to 43015	42165,42590,43015	15MHz	QPSK, 16QAM, 64QAM 256QAM	75 RB / 0 RB Offset
		42190 to 42990	42190,42590,42990	20MHz	QPSK, 16QAM, 64QAM 256QAM	100 RB / 0 RB Offset
A	PEAK TO AVERAGE RATIO	42190 to 42990	42190,42590,42990	20MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset 100 RB / 0 RB Offset
A	BAND EDGE	42115 to 43065	42115	5MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset 25 RB / 0 RB Offset
			43065	5MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 24 RB Offset 25 RB / 0 RB Offset
		42140 to 43040	42140	10MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset 50 RB / 0 RB Offset
			43040	10MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 49 RB Offset 50 RB / 0 RB Offset
		42165 to 43015	42165	15MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset 75 RB / 0 RB Offset
			43015	15MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 74 RB Offset 75 RB / 0 RB Offset
		42190 to 42990	42190	20MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset 100 RB / 0 RB Offset
			42990	20MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 99 RB Offset 100 RB / 0 RB Offset
A	CONDCUETED EMISSION	42115 to 43065	42115,42590,43065	5MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset
		42140 to 43040	42140,42590,43040	10MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0RB Offset
		42165 to 43015	42165,42590,43015	15MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset
		42190 to 42990	42190,42590,42990	20MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset
A	RADIATED EMISSION	42115 to 43065	42590	5MHz	QPSK	1 RB / 0 RB Offset
		42140 to 43040	42590	10MHz	QPSK	1 RB / 0RB Offset
		42165 to 43015	42590	15MHz	QPSK	1 RB / 0 RB Offset
		42190 to 42990	42190,42590,42990	20MHz	QPSK	1 RB / 0 RB Offset

Note: This device was tested under all bandwidths, RB configurations and modulations. The worst



case was found in QPSK modulation.

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



						50 RB / 0 RB Offset
		132047 to 132597	132047	15MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset
			132597	15MHz	QPSK, 16QAM, 64QAM 256QAM	75 RB / 0 RB Offset
		132072 to 132572	132072	20MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 74 RB Offset
						75 RB / 0 RB Offset
			132572	20MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset
						100 RB / 0 RB Offset
						1 RB / 99 RB Offset
A	CONDCUETED EMISSION	131979 to 132665	131979,132322,132665	1.4MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset
		131987 to 132657	131987,132322,132657	3MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset
		131997 to 132647	131997,132322,132647	5MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset
		132022 to 132622	132022,132322,132622	10MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset
		132047 to 132597	132047,132322,132597	15MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset
		132072 to 132572	132072,132322,132572	20MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset
A	PEAK TO AVERAGE RATIO	131979 to 132665	131979,132322,132665	1.4MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset 6 RB / 0 RB Offset
		131987 to 132657	131987,132322,132657	3MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset 15 RB / 0 RB Offset
		131997 to 132647	131997,132322,132647	5MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset 25 RB / 0 RB Offset
		132022 to 132622	132022,132322,132622	10MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset 50 RB / 0 RB Offset
		132047 to 132597	132047,132322,132597	15MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset 75 RB / 0 RB Offset
		132072 to 132572	132072,132322,132572	20MHz	QPSK, 16QAM, 64QAM 256QAM	1 RB / 0 RB Offset 100 RB / 0 RB Offset
A	RADIATED EMISSION	131979 to 132665	132322	1.4MHz	QPSK	1 RB / 0 RB Offset
		131987 to 132657	132322	3MHz	QPSK	1 RB / 0 RB Offset
		131997 to 132647	131997,132322,132647	5MHz	QPSK	1 RB / 0 RB Offset
		132022 to 132622	132322	10MHz	QPSK	1 RB / 0 RB Offset
		132047 to 132597	132322	15MHz	QPSK	1 RB / 0 RB Offset
		132072 to 132572	132322	20MHz	QPSK	1 RB / 0 RB Offset

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



TEST CONDITION			
TEST ITEM	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
EIRP	23deg. C, 70%RH	DC 5V	Hanwen Xu
FREQUENCY STABILITY	23deg. C, 70%RH	DC 4.75V/5V/5.25V	Hanwen Xu
OCCUPIED BANDWIDTH	23deg. C, 70%RH	DC 5V	Hanwen Xu
BAND EDGE	23deg. C, 70%RH	DC 5V	Hanwen Xu
CONDCUDED EMISSION	23deg. C, 70%RH	DC 5V	Hanwen Xu
RADIATED EMISSION	23deg. C, 70%RH	DC 5V	Hanwen Xu
PEAK TO AVERAGE RATIO	23deg. C, 70%RH	DC 5V	Hanwen Xu



2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

FCC 47 CFR Part 2

FCC 47 CFR Part 27

KDB 971168 D01 Power Meas License Digital Systems v03r01

ANSI/TIA/EIA-603-D

ANSI/TIA/EIA-603-E

ANSI C63.26-2015

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

3 TEST TYPES AND RESULTS

3.1 OUTPUT POWER MEASUREMENT

3.1.1 LIMITS OF OUTPUT POWER MEASUREMENT

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

Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP.

According to the specific rule Part 27.50 (k)(3) Mobile devices are limited to 1Watt (30 dBm) EIRP, Mobile devices operating inl these bands must employ a means for limiting power to the minimum necessary for successful communications

3.1.2 TEST PROCEDURES

EIRP MEASUREMENT:

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

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

Where:

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

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

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

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

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

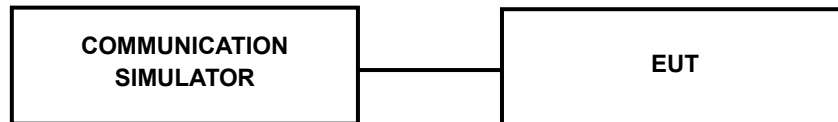
CONDUCTED POWER MEASUREMENT:

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



3.1.3 TEST SETUP

CONDUCTED POWER MEASUREMENT:



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



3.1.4 TEST RESULTS

CONDUCTED OUTPUT POWER (dBm)

LTE Band 4						
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	22.15	22.19	22.48
		1	2	22.14	22.34	22.37
		1	5	22.41	22.49	22.64
		3	0	22.34	22.30	22.47
		3	1	22.30	22.36	22.59
		3	3	22.51	22.39	22.61
		6	0	21.26	21.19	21.39
	16QAM	1	0	21.30	21.27	21.40
		1	2	21.33	21.45	21.47
		1	5	21.46	21.55	21.91
		3	0	21.21	21.28	21.32
		3	1	21.24	21.41	21.43
		3	3	21.48	21.44	21.60
		6	0	20.11	20.28	20.54
	64QAM	1	0	20.23	20.54	20.55
		1	2	20.62	20.56	20.78
		1	5	20.25	20.40	20.77
		3	0	20.18	20.37	20.36
		3	1	20.42	20.30	20.75
		3	3	20.30	20.40	20.72
		6	0	19.17	19.46	19.55
	256QAM	1	0	17.13	17.27	17.39
		1	2	17.28	17.42	17.35
		1	5	17.55	17.23	17.43
		3	0	17.03	17.17	17.21
		3	1	17.17	17.26	17.29
		3	3	17.53	17.09	17.38
		6	0	17.28	17.47	17.46



LTE Band 4						
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	22.16	22.25	22.36
		1	7	22.32	22.34	22.53
		1	14	22.44	22.51	22.71
		8	0	21.20	21.27	21.46
		8	3	21.28	21.39	21.49
		8	7	21.49	21.46	21.62
		15	0	21.23	21.32	21.43
	16QAM	1	0	21.32	21.29	21.55
		1	7	21.36	21.34	21.54
		1	14	21.49	21.54	21.87
		8	0	20.38	20.23	20.39
		8	3	20.18	20.34	20.46
		8	7	20.52	20.44	20.64
		15	0	20.23	20.29	20.50
	64QAM	1	0	20.18	20.42	20.57
		1	7	20.58	20.58	20.78
		1	14	20.45	20.49	20.61
		8	0	19.30	19.36	19.46
		8	3	19.35	19.35	19.72
		8	7	19.20	19.52	19.73
		15	0	19.11	19.38	19.52
	256QAM	1	0	17.21	17.41	17.58
		1	7	17.37	17.28	17.46
		1	14	17.50	17.39	17.49
		8	0	17.27	17.27	17.63
		8	3	17.34	17.46	17.79
		8	7	17.41	17.44	17.59
		15	0	17.24	17.55	17.44



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	22.21	22.15	22.43
		1	12	22.21	22.23	22.46
		1	24	22.31	22.41	22.72
		12	0	21.25	21.44	21.52
		12	6	21.44	21.32	21.57
		12	13	21.41	21.36	21.64
		25	0	21.25	21.31	21.39
	16QAM	1	0	21.36	21.42	21.46
		1	12	21.30	21.49	21.47
		1	24	21.45	21.70	21.77
		12	0	20.26	20.33	20.49
		12	6	20.31	20.34	20.48
		12	13	20.41	20.42	20.63
		25	0	20.35	20.27	20.39
	64QAM	1	0	20.14	20.43	20.68
		1	12	20.70	20.64	20.74
		1	24	20.26	20.42	20.77
		12	0	19.24	19.46	19.46
		12	6	19.37	19.35	19.68
		12	13	19.29	19.46	19.55
		25	0	19.23	19.50	19.57
	256QAM	1	0	17.17	17.30	17.59
		1	12	17.22	17.42	17.31
		1	24	17.15	17.29	17.51
		12	0	17.24	17.39	17.59
		12	6	17.49	17.49	17.68
		12	13	17.39	17.48	17.63
		25	0	17.31	17.56	17.48



LTE Band 4						
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	22.17	22.19	22.49
		1	24	22.27	22.24	22.52
		1	49	22.47	22.46	22.72
		25	0	21.26	21.42	21.58
		25	12	21.39	21.33	21.51
		25	25	21.51	21.42	21.69
		50	0	21.24	21.29	21.55
	16QAM	1	0	21.34	21.48	21.46
		1	24	21.34	21.35	21.65
		1	49	21.41	21.69	21.86
		25	0	20.33	20.30	20.40
		25	12	20.18	20.40	20.54
		25	25	20.45	20.44	20.77
		50	0	20.23	20.28	20.54
	64QAM	1	0	20.33	20.42	20.59
		1	24	20.52	20.61	20.75
		1	49	20.34	20.54	20.71
		25	0	19.19	19.36	19.54
		25	12	19.32	19.37	19.61
		25	25	19.20	19.36	19.72
		50	0	19.16	19.42	19.37
	256QAM	1	0	17.20	17.39	17.37
		1	24	17.22	17.34	17.50
		1	49	17.49	17.32	17.35
		25	0	17.45	17.28	17.65
		25	12	17.39	17.38	17.76
		25	25	17.26	17.44	17.57
		50	0	17.28	17.47	17.50



Band/BW	Modulation	RB Size	RB Offset	Low CH 20025	Mid CH 20175	High CH 20325
				Frequency 1717.5 MHz	Frequency 1732.5 MHz	Frequency 1747.5 MHz
4/ 15	QPSK	1	0	22.27	22.20	22.52
		1	37	22.20	22.39	22.44
		1	74	22.48	22.30	22.67
		36	0	21.33	21.28	21.48
		36	19	21.36	21.37	21.48
		36	39	21.45	21.45	21.50
		75	0	21.27	21.33	21.59
	16QAM	1	0	21.38	21.36	21.45
		1	37	21.34	21.39	21.63
		1	74	21.33	21.54	21.89
		36	0	20.31	20.28	20.42
		36	19	20.17	20.32	20.46
		36	39	20.39	20.51	20.63
		75	0	20.12	20.24	20.40
	64QAM	1	0	20.22	20.40	20.66
		1	37	20.70	20.62	20.67
		1	74	20.32	20.42	20.69
		36	0	19.32	19.37	19.44
		36	19	19.43	19.39	19.80
		36	39	19.34	19.37	19.68
		75	0	19.21	19.48	19.42
	256QAM	1	0	17.30	17.37	17.45
		1	37	17.35	17.40	17.46
		1	74	17.18	17.28	17.43
		36	0	17.29	17.35	17.48
		36	19	17.41	17.38	17.66
		36	39	17.21	17.38	17.53
		75	0	17.36	17.54	17.46



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	22.29	22.31	22.55
		1	50	22.36	22.39	22.59
		1	99	22.48	22.51	22.73
		50	0	21.41	21.43	21.60
		50	25	21.44	21.45	21.62
		50	50	21.52	21.54	21.71
		100	0	21.36	21.39	21.59
	16QAM	1	0	21.38	21.50	21.60
		1	50	21.48	21.51	21.67
		1	99	21.49	21.69	21.92
		50	0	20.40	20.39	20.55
		50	25	20.34	20.53	20.65
		50	50	20.51	20.58	20.80
		100	0	20.22	20.42	20.58
	64QAM	1	0	20.34	20.55	20.68
		1	50	20.69	20.68	20.81
		1	99	20.44	20.54	20.80
		50	0	19.36	19.48	19.59
		50	25	19.50	19.53	19.79
		50	50	19.33	19.51	19.74
		100	0	19.28	19.49	19.56
	256QAM	1	0	17.29	17.40	17.58
		1	50	17.39	17.44	17.50
		1	99	17.20	17.40	17.54
		50	0	17.45	17.44	17.64
		50	25	17.55	17.59	17.78
		50	50	17.41	17.54	17.71
		100	0	17.38	17.55	17.64



LTE Band 38						
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	22.73	22.62	22.66
		1	12	22.61	22.68	22.71
		1	24	22.51	22.45	22.52
		12	0	21.55	21.53	21.57
		12	6	21.67	21.53	21.53
		12	13	21.74	21.74	21.71
		25	0	21.72	21.70	21.49
	16QAM	1	0	21.77	21.78	21.91
		1	12	21.72	21.80	21.75
		1	24	21.67	21.75	21.77
		12	0	20.45	20.55	20.50
		12	6	20.83	20.73	20.69
		12	13	20.63	20.72	20.64
		25	0	20.60	20.50	20.53
	64QAM	1	0	21.02	21.12	21.09
		1	12	21.11	21.22	21.07
		1	24	20.81	21.00	20.89
		12	0	19.68	19.75	19.71
		12	6	19.82	19.77	19.71
		12	13	19.75	19.53	19.66
		25	0	19.59	19.52	19.78
	256QAM	1	0	17.64	17.54	17.62
		1	12	17.65	17.69	17.51
		1	24	17.49	17.59	17.54
		12	0	17.49	17.59	17.45
		12	6	17.63	17.84	17.72
		12	13	17.60	17.62	17.56
		25	0	17.70	17.78	17.70



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	22.63	22.55	22.72
		1	24	22.75	22.60	22.54
		1	49	22.62	22.60	22.61
		25	0	21.67	21.63	21.55
		25	12	21.53	21.56	21.69
		25	25	21.82	21.69	21.68
		50	0	21.66	21.73	21.63
	16QAM	1	0	21.85	21.89	21.89
		1	24	21.58	21.67	21.82
		1	49	21.63	21.67	21.74
		25	0	20.47	20.71	20.48
		25	12	20.85	20.73	20.64
		25	25	20.53	20.77	20.79
		50	0	20.53	20.57	20.53
	64QAM	1	0	21.11	20.98	20.87
		1	24	21.04	21.11	21.13
		1	49	20.99	21.02	20.86
		25	0	19.61	19.62	19.65
		25	12	19.65	19.68	19.62
		25	25	19.73	19.51	19.60
		50	0	19.60	19.65	19.80
	256QAM	1	0	17.68	17.62	17.72
		1	24	17.49	17.72	17.56
		1	49	17.56	17.59	17.51
		25	0	17.51	17.61	17.52
		25	12	17.84	17.83	17.63
		25	25	17.63	17.57	17.65
		50	0	17.69	17.79	17.59



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	22.65	22.58
		1	37	22.68	22.72	22.55
		1	74	22.61	22.51	22.72
		36	0	21.65	21.69	21.64
		36	19	21.67	21.66	21.59
		36	39	21.65	21.68	21.73
		75	0	21.69	21.78	21.57
	16QAM	1	0	21.75	21.90	21.81
		1	37	21.76	21.83	21.73
		1	74	21.70	21.66	21.70
		36	0	20.65	20.53	20.46
		36	19	20.85	20.57	20.61
		36	39	20.61	20.62	20.73
		75	0	20.67	20.67	20.49
	64QAM	1	0	21.12	21.11	21.04
		1	37	21.11	21.22	21.09
		1	74	20.90	20.96	20.95
		36	0	19.66	19.59	19.75
		36	19	19.77	19.67	19.73
		36	39	19.72	19.62	19.72
		75	0	19.65	19.64	19.62
	256QAM	1	0	17.57	17.61	17.67
		1	37	17.46	17.57	17.67
		1	74	17.63	17.55	17.62
		36	0	17.47	17.53	17.49
		36	19	17.85	17.73	17.77
		36	39	17.81	17.62	17.72
		75	0	17.83	17.75	17.65



Band/BW	Modulation	RB Size	RB Offset	Low CH (37850)	Low Mid CH (38000)	Mid CH (38150)
				Frequency (2580)MHz	Frequency (2595)MHz	Frequency (2610)MHz
38/ 20	QPSK	1	0	22.78	22.75	22.73
		1	50	22.82	22.78	22.75
		1	99	22.61	22.64	22.71
		50	0	21.72	21.71	21.67
		50	25	21.69	21.70	21.72
		50	50	21.82	21.80	21.74
		100	0	21.80	21.77	21.70
	16QAM	1	0	21.85	21.93	21.91
		1	50	21.79	21.86	21.85
		1	99	21.77	21.85	21.80
		50	0	20.66	20.71	20.60
		50	25	20.85	20.75	20.80
		50	50	20.70	20.81	20.79
		100	0	20.72	20.69	20.58
	64QAM	1	0	21.20	21.11	21.08
		1	50	21.22	21.21	21.20
		1	99	21.01	21.03	20.98
		50	0	19.81	19.79	19.76
		50	25	19.82	19.81	19.81
		50	50	19.79	19.71	19.78
		100	0	19.77	19.73	19.81
	256QAM	1	0	17.69	17.74	17.75
		1	50	17.66	17.73	17.67
		1	99	17.66	17.72	17.64
		50	0	17.59	17.63	17.64
		50	25	17.84	17.85	17.83
		50	50	17.80	17.73	17.75
		100	0	17.84	17.80	17.77



LTE Band 41						
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	22.53	22.70	22.64
		1	12	22.55	22.80	22.63
		1	24	22.59	22.78	22.60
		12	0	21.32	21.67	21.51
		12	6	21.52	21.65	21.69
		12	13	21.73	21.86	21.66
		25	0	21.55	21.80	21.69
	16QAM	1	0	21.67	21.88	21.83
		1	12	21.89	22.05	21.78
		1	24	21.72	21.97	21.71
		12	0	20.46	20.73	20.48
		12	6	20.61	20.76	20.66
		12	13	20.43	20.74	20.52
		25	0	20.69	20.81	20.46
	64QAM	1	0	20.87	21.07	20.97
		1	12	20.84	21.20	20.84
		1	24	20.92	21.14	20.93
		12	0	19.60	19.74	19.44
		12	6	19.51	19.81	19.57
		12	13	19.62	19.75	19.38
		25	0	19.67	19.67	19.49
	256QAM	1	0	17.49	17.75	17.62
		1	12	17.44	17.74	17.59
		1	24	17.45	17.56	17.50
		12	0	17.27	17.72	17.56
		12	6	17.59	17.65	17.70
		12	13	17.44	17.66	17.48
		25	0	17.59	17.70	17.53



Band/BW	Modulation	RB Size	RB Offset	Low CH (39700)	Mid CH (40620)	High CH (41540)
				Frequency (2501)MHz	Frequency (2593)MHz	Frequency (2685)MHz
41/ 10	QPSK	1	0	22.44	22.63	22.68
		1	24	22.51	22.68	22.71
		1	49	22.42	22.64	22.72
		25	0	21.51	21.60	21.51
		25	12	21.53	21.69	21.54
		25	25	21.51	21.70	21.78
		50	0	21.68	21.83	21.74
	16QAM	1	0	21.60	21.86	21.87
		1	24	21.79	22.08	21.88
		1	49	21.67	21.89	21.75
		25	0	20.51	20.68	20.49
		25	12	20.79	20.77	20.70
		25	25	20.61	20.87	20.65
		50	0	20.61	20.66	20.50
	64QAM	1	0	20.88	21.05	21.07
		1	24	21.02	21.10	20.99
		1	49	20.86	21.04	21.00
		25	0	19.47	19.75	19.64
		25	12	19.47	19.82	19.65
		25	25	19.59	19.74	19.53
		50	0	19.47	19.58	19.44
	256QAM	1	0	17.45	17.76	17.44
		1	24	17.29	17.61	17.42
		1	49	17.56	17.59	17.48
		25	0	17.21	17.70	17.58
		25	12	17.56	17.66	17.61
		25	25	17.58	17.70	17.43
		50	0	17.48	17.70	17.52



Band/BW	Modulation	RB Size	RB Offset	Low CH (39725)	Mid CH (40620)	High CH(41515)
				Frequency (2503.5)MHz	Frequency (2593)MHz	Frequency (2682.5)MHz
41/ 15	QPSK	1	0	22.52	22.74	22.64
		1	37	22.49	22.79	22.74
		1	74	22.60	22.57	22.67
		36	0	21.37	21.73	21.48
		36	19	21.55	21.80	21.69
		36	39	21.53	21.76	21.64
		75	0	21.57	21.61	21.59
	16QAM	1	0	21.61	22.00	21.85
		1	37	21.78	22.15	21.81
		1	74	21.67	22.02	21.65
		36	0	20.57	20.70	20.49
		36	19	20.67	20.89	20.73
		36	39	20.55	20.74	20.73
		75	0	20.69	20.78	20.52
	64QAM	1	0	20.83	21.14	20.93
		1	37	20.91	21.25	20.88
		1	74	20.94	20.99	20.92
		36	0	19.52	19.84	19.49
		36	19	19.53	19.85	19.74
		36	39	19.45	19.73	19.33
		75	0	19.50	19.62	19.52
	256QAM	1	0	17.42	17.74	17.60
		1	37	17.36	17.75	17.41
		1	74	17.41	17.64	17.64
		36	0	17.23	17.57	17.59
		36	19	17.52	17.76	17.62
		36	39	17.41	17.62	17.50
		75	0	17.61	17.78	17.34



Band/BW	Modulation	RB Size	RB Offset	Low CH(39750)	Mid CH(40620)	High CH(41490)
				Frequency (2506)MHz	Frequency (2593)MHz	Frequency (2680)MHz
41/ 20	QPSK	1	0	22.61	22.80	22.71
		1	50	22.69	22.84	22.78
		1	99	22.61	22.78	22.72
		50	0	21.53	21.78	21.67
		50	25	21.64	21.83	21.68
		50	50	21.72	21.86	21.80
		100	0	21.68	21.82	21.75
	16QAM	1	0	21.74	22.05	21.97
		1	50	21.95	22.15	21.94
		1	99	21.79	22.01	21.77
		50	0	20.59	20.82	20.56
		50	25	20.78	20.91	20.86
		50	50	20.62	20.89	20.73
		100	0	20.74	20.85	20.67
	64QAM	1	0	20.93	21.19	21.13
		1	50	21.01	21.26	21.03
		1	99	20.94	21.20	21.13
		50	0	19.61	19.86	19.65
		50	25	19.63	19.86	19.73
		50	50	19.66	19.77	19.53
		100	0	19.67	19.78	19.54
	256QAM	1	0	17.59	17.78	17.63
		1	50	17.49	17.76	17.59
		1	99	17.61	17.75	17.64
		50	0	17.40	17.71	17.58
		50	25	17.61	17.83	17.72
		50	50	17.59	17.72	17.50
		100	0	17.60	17.79	17.53



LTE band 42 Part 27Q						
Band/BW	Modulation	RB Size	RB Offset	Low CH (42115)	Mid CH (42590)	High CH (43065)
				Frequency (3452.5)MHz	Frequency (3500)MHz	Frequency (3547.5)MHz
42/ 5	QPSK	1	0	21.45	21.18	20.90
		1	12	21.22	21.02	20.89
		1	24	21.12	21.01	20.88
		12	0	20.42	20.15	19.82
		12	6	20.40	20.20	20.17
		12	13	20.08	20.00	19.75
		25	0	20.48	20.06	20.08
	16QAM	1	0	20.67	20.42	20.32
		1	12	20.70	20.34	20.34
		1	24	20.74	20.23	20.17
		12	0	19.36	19.11	18.97
		12	6	19.37	19.15	18.85
		12	13	19.48	19.24	19.08
		25	0	19.27	19.07	18.95
	64QAM	1	0	19.66	19.40	19.28
		1	12	19.69	19.40	19.37
		1	24	19.65	19.35	19.24
		12	0	18.56	18.13	18.09
		12	6	18.38	18.11	18.15
		12	13	18.33	18.17	18.09
		25	0	18.23	18.04	17.91
	256QAM	1	0	16.46	16.38	16.27
		1	12	16.45	16.26	16.28
		1	24	16.51	16.40	16.28
		12	0	16.49	16.45	16.18
		12	6	16.37	16.29	16.12
		12	13	16.63	16.30	16.25
		25	0	16.43	16.30	16.25



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Band/BW	Modulation	RB Size	RB Offset	Low CH (42140)	Mid CH (42590)	High CH (43040)
				Frequency (3455)MHz	Frequency (3500)MHz	Frequency (3545)MHz
42/ 10	QPSK	1	0	21.36	20.99	21.02
		1	24	21.32	21.17	20.98
		1	49	21.21	20.88	20.82
		25	0	20.26	20.09	19.89
		25	12	20.41	20.06	19.98
		25	25	20.13	20.01	19.90
		50	0	20.29	19.95	20.08
	16QAM	1	0	20.67	20.37	20.31
		1	24	20.60	20.34	20.19
		1	49	20.73	20.24	20.33
		25	0	19.41	19.18	18.88
		25	12	19.36	19.16	18.77
		25	25	19.52	19.24	19.15
		50	0	19.23	19.03	18.95
	64QAM	1	0	19.68	19.49	19.39
		1	24	19.80	19.40	19.33
		1	49	19.77	19.48	19.24
		25	0	18.42	18.06	18.15
		25	12	18.42	18.21	18.07
		25	25	18.29	18.10	17.91
		50	0	18.28	18.00	17.96
	256QAM	1	0	16.52	16.29	16.21
		1	24	16.63	16.18	16.23
		1	49	16.51	16.45	16.27
		25	0	16.58	16.38	16.14
		25	12	16.40	16.20	16.02
		25	25	16.45	16.42	16.30
		50	0	16.44	16.43	16.32



Band/BW	Modulation	RB Size	RB Offset	Low CH (42165)	Mid CH (42590)	High CH (43015)
				Frequency (3457.5)MHz	Frequency (3500)MHz	Frequency (3542.5)MHz
42/ 15	QPSK	1	0	21.37	20.99	20.98
		1	37	21.34	21.02	20.83
		1	74	21.15	20.89	20.88
		36	0	20.37	19.95	19.97
		36	19	20.52	20.26	20.11
		36	39	20.09	19.96	19.79
		75	0	20.36	20.06	19.96
	16QAM	1	0	20.61	20.41	20.35
		1	37	20.57	20.30	20.31
		1	74	20.66	20.28	20.18
		36	0	19.42	19.04	19.02
		36	19	19.29	19.00	18.84
		36	39	19.44	19.09	19.21
		75	0	19.21	19.11	18.90
	64QAM	1	0	19.54	19.41	19.33
		1	37	19.69	19.40	19.47
		1	74	19.72	19.45	19.23
		36	0	18.51	18.03	18.11
		36	19	18.36	18.19	18.00
		36	39	18.40	18.06	18.01
		75	0	18.23	18.04	17.87
	256QAM	1	0	16.54	16.36	16.32
		1	37	16.54	16.29	16.23
		1	74	16.50	16.46	16.35
		36	0	16.64	16.38	16.13
		36	19	16.47	16.15	16.07
		36	39	16.48	16.36	16.19
		75	0	16.55	16.47	16.17



Band/BW	Modulation	RB Size	RB Offset	Low CH (42190)	Mid CH (42590)	High CH (42990)
				Frequency (3460)MHz	Frequency (3500)MHz	Frequency (3540)MHz
42/ 20	QPSK	1	0	21.48	21.20	21.07
		1	50	21.34	21.19	20.97
		1	99	21.27	21.00	21.01
		50	0	20.43	20.16	20.01
		50	25	20.55	20.25	20.16
		50	50	20.26	20.11	19.96
		100	0	20.48	20.14	20.08
	16QAM	1	0	20.71	20.45	20.37
		1	50	20.74	20.51	20.39
		1	99	20.78	20.44	20.33
		50	0	19.55	19.24	19.07
		50	25	19.36	19.19	18.98
		50	50	19.64	19.29	19.25
		100	0	19.35	19.18	19.05
	64QAM	1	0	19.75	19.50	19.45
		1	50	19.89	19.54	19.53
		1	99	19.79	19.53	19.32
		50	0	18.58	18.23	18.16
		50	25	18.45	18.20	18.16
		50	50	18.42	18.17	18.12
		100	0	18.41	18.17	18.06
	256QAM	1	0	16.58	16.39	16.31
		1	50	16.63	16.32	16.31
		1	99	16.71	16.48	16.47
		50	0	16.69	16.46	16.26
		50	25	16.48	16.32	16.15
		50	50	16.64	16.49	16.32
		100	0	16.61	16.46	16.33



LTE Band 66						
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	22.33	22.26	22.39
		1	2	22.44	22.54	22.73
		1	5	22.34	22.49	22.60
		3	0	22.18	22.29	22.55
		3	1	22.33	22.59	22.75
		3	3	22.38	22.51	22.50
		6	0	21.39	21.51	21.70
	16QAM	1	0	21.45	21.59	21.61
		1	2	21.57	21.52	21.69
		1	5	21.10	21.44	21.54
		3	0	21.41	21.44	21.49
		3	1	21.37	21.55	21.67
		3	3	21.30	21.52	21.75
		6	0	20.40	20.46	20.70
	64QAM	1	0	20.41	20.57	20.69
		1	2	20.51	20.61	20.73
		1	5	20.45	20.49	20.68
		3	0	20.49	20.49	20.50
		3	1	20.34	20.53	20.63
		3	3	20.41	20.45	20.57
		6	0	19.43	19.51	19.55
	256QAM	1	0	17.46	17.38	17.49
		1	2	17.16	17.23	17.41
		1	5	17.48	17.37	17.58
		3	0	17.40	17.43	17.67
		3	1	17.40	17.35	17.43
		3	3	17.37	17.43	17.51
		6	0	17.22	17.44	17.46



Band/BW	Modulation	RB Size	RB Offset	Low CH 131987	Mid CH 132322	High CH 132657
				Frequency 1711.5MHz	Frequency 1745MHz	Frequency 1778.5MHz
66/ 3	QPSK	1	0	22.21	22.43	22.49
		1	7	22.33	22.54	22.61
		1	14	22.37	22.43	22.67
		8	0	21.31	21.46	21.65
		8	3	21.31	21.65	21.75
		8	7	21.46	21.39	21.70
		15	0	21.38	21.53	21.67
	16QAM	1	0	21.61	21.62	21.57
		1	7	21.48	21.59	21.73
		1	14	21.18	21.45	21.50
		8	0	20.41	20.43	20.56
		8	3	20.50	20.53	20.70
		8	7	20.36	20.42	20.60
		15	0	20.54	20.56	20.77
	64QAM	1	0	20.42	20.63	20.58
		1	7	20.52	20.62	20.79
		1	14	20.47	20.55	20.83
		8	0	19.35	19.50	19.67
		8	3	19.39	19.50	19.46
		8	7	19.30	19.41	19.68
		15	0	19.45	19.45	19.63
	256QAM	1	0	17.49	17.53	17.49
		1	7	17.33	17.44	17.53
		1	14	17.46	17.58	17.67
		8	0	17.32	17.38	17.53
		8	3	17.42	17.32	17.41
		8	7	17.33	17.37	17.69
		15	0	17.19	17.31	17.27



LTE Band 66						
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	22.24	22.32	22.46
		1	12	22.33	22.43	22.66
		1	24	22.23	22.45	22.55
		12	0	21.27	21.35	21.49
		12	6	21.39	21.65	21.60
		12	13	21.40	21.46	21.70
		25	0	21.50	21.69	21.81
	16QAM	1	0	21.50	21.51	21.48
		1	12	21.52	21.51	21.61
		1	24	21.31	21.35	21.47
		12	0	20.44	20.56	20.62
		12	6	20.42	20.51	20.80
		12	13	20.47	20.37	20.65
		25	0	20.47	20.46	20.77
	64QAM	1	0	20.54	20.67	20.65
		1	12	20.48	20.78	20.76
		1	24	20.30	20.64	20.83
		12	0	19.53	19.48	19.61
		12	6	19.31	19.50	19.65
		12	13	19.36	19.37	19.61
		25	0	19.33	19.48	19.70
	256QAM	1	0	17.32	17.38	17.61
		1	12	17.17	17.40	17.34
		1	24	17.44	17.42	17.64
		12	0	17.27	17.45	17.53
		12	6	17.32	17.44	17.52
		12	13	17.49	17.38	17.61
		25	0	17.19	17.31	17.28



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	22.24	22.42	22.46
		1	24	22.46	22.65	22.63
		1	49	22.24	22.53	22.73
		25	0	21.25	21.45	21.50
		25	12	21.44	21.62	21.77
		25	25	21.42	21.50	21.67
		50	0	21.52	21.48	21.80
	16QAM	1	0	21.63	21.48	21.46
		1	24	21.59	21.52	21.61
		1	49	21.27	21.45	21.54
		25	0	20.31	20.36	20.55
		25	12	20.38	20.55	20.71
		25	25	20.36	20.56	20.70
		50	0	20.53	20.60	20.81
	64QAM	1	0	20.45	20.60	20.69
		1	24	20.48	20.68	20.75
		1	49	20.40	20.63	20.83
		25	0	19.47	19.36	19.52
		25	12	19.40	19.51	19.57
		25	25	19.39	19.49	19.49
		50	0	19.53	19.40	19.66
	256QAM	1	0	17.34	17.35	17.64
		1	24	17.26	17.30	17.53
		1	49	17.34	17.39	17.73
		25	0	17.40	17.50	17.57
		25	12	17.21	17.33	17.57
		25	25	17.35	17.35	17.56
		50	0	17.11	17.30	17.34



LTE Band 66						
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	22.23	22.39	22.47
		1	37	22.50	22.65	22.69
		1	74	22.25	22.38	22.67
		36	0	21.23	21.33	21.44
		36	19	21.51	21.62	21.72
		36	39	21.44	21.47	21.52
		75	0	21.32	21.66	21.72
	16QAM	1	0	21.61	21.59	21.45
		1	37	21.40	21.43	21.71
		1	74	21.23	21.53	21.40
		36	0	20.38	20.43	20.53
		36	19	20.32	20.64	20.65
		36	39	20.36	20.56	20.75
		75	0	20.46	20.56	20.64
	64QAM	1	0	20.56	20.59	20.58
		1	37	20.63	20.67	20.78
		1	74	20.36	20.58	20.76
		36	0	19.49	19.41	19.60
		36	19	19.37	19.58	19.64
		36	39	19.51	19.46	19.66
		75	0	19.32	19.54	19.66
	256QAM	1	0	17.48	17.39	17.50
		1	37	17.29	17.36	17.42
		1	74	17.28	17.44	17.73
		36	0	17.26	17.38	17.51
		36	19	17.42	17.53	17.51
		36	39	17.44	17.36	17.69
		75	0	17.17	17.32	17.30



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	22.36	22.49	22.60
		1	50	22.49	22.64	22.75
		1	99	22.38	22.58	22.72
		50	0	21.41	21.52	21.65
		50	25	21.51	21.65	21.78
		50	50	21.47	21.59	21.73
		100	0	21.53	21.68	21.81
	16QAM	1	0	21.62	21.63	21.65
		1	50	21.58	21.63	21.73
		1	99	21.33	21.54	21.57
		50	0	20.43	20.57	20.70
		50	25	20.49	20.67	20.86
		50	50	20.46	20.58	20.79
		100	0	20.55	20.64	20.82
	64QAM	1	0	20.55	20.74	20.76
		1	50	20.63	20.80	20.82
		1	99	20.51	20.66	20.84
		50	0	19.52	19.53	19.71
		50	25	19.45	19.62	19.64
		50	50	19.51	19.52	19.70
		100	0	19.52	19.56	19.71
	256QAM	1	0	17.48	17.52	17.69
		1	50	17.37	17.43	17.55
		1	99	17.49	17.60	17.77
		50	0	17.47	17.58	17.72
		50	25	17.42	17.52	17.62
		50	50	17.52	17.55	17.69
		100	0	17.31	17.45	17.47



EIRP

LTE Band 4							
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20M-QPSK	20050	1720	22.48	0.2	22.68	185.35	1
	20175	1732.5	22.51	0.2	22.71	186.64	1
	20300	1745	22.73	0.2	22.93	196.34	1
20M- 16QAM	20050	1720	21.49	0.2	21.69	147.57	1
	20175	1732.5	21.69	0.2	21.89	154.53	1
	20300	1745	21.92	0.2	22.12	162.93	1
20M- 64QAM	20050	1720	20.69	0.2	20.89	122.74	1
	20175	1732.5	20.68	0.2	20.88	122.46	1
	20300	1745	20.81	0.2	21.01	126.18	1
20M- 256QAM	20050	1720	17.55	0.2	17.75	59.57	1
	20175	1732.5	17.59	0.2	17.79	60.12	1
	20300	1745	17.78	0.2	17.98	62.81	1
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
15M-QPSK	20025	1717.5	22.48	0.2	22.68	185.35	1
	20175	1732.5	22.39	0.2	22.59	181.55	1
	20325	1747.5	22.67	0.2	22.87	193.64	1
15M- 16QAM	20025	1717.5	21.38	0.2	21.58	143.88	1
	20175	1732.5	21.54	0.2	21.74	149.28	1
	20325	1747.5	21.89	0.2	22.09	161.81	1
15M- 64QAM	20025	1717.5	20.70	0.2	20.90	123.03	1
	20175	1732.5	20.62	0.2	20.82	120.78	1
	20325	1747.5	20.69	0.2	20.89	122.74	1
15M- 256QAM	20025	1717.5	17.41	0.2	17.61	57.68	1
	20175	1732.5	17.54	0.2	17.74	59.43	1
	20325	1747.5	17.66	0.2	17.86	61.09	1



BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
10M-QPSK	20000	1715	22.47	0.2	22.67	184.93	1
	20175	1732.5	22.46	0.2	22.66	184.50	1
	20350	1750	22.72	0.2	22.92	195.88	1
10M- 16QAM	20000	1715	21.41	0.2	21.61	144.88	1
	20175	1732.5	21.69	0.2	21.89	154.53	1
	20350	1750	21.86	0.2	22.06	160.69	1
10M- 64QAM	20000	1715	20.52	0.2	20.72	118.03	1
	20175	1732.5	20.61	0.2	20.81	120.50	1
	20350	1750	20.75	0.2	20.95	124.45	1
10M- 256QAM	20000	1715	17.49	0.2	17.69	58.75	1
	20175	1732.5	17.47	0.2	17.67	58.48	1
	20350	1750	17.76	0.2	17.96	62.52	1
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
5M-QPSK	19975	1712.5	22.31	0.2	22.51	178.24	1
	20175	1732.5	22.41	0.2	22.61	182.39	1
	20375	1752.5	22.72	0.2	22.92	195.88	1
5M-16QAM	19975	1712.5	21.45	0.2	21.65	146.22	1
	20175	1732.5	21.70	0.2	21.90	154.88	1
	20375	1752.5	21.77	0.2	21.97	157.40	1
5M-64QAM	19975	1712.5	20.70	0.2	20.90	123.03	1
	20175	1732.5	20.64	0.2	20.84	121.34	1
	20375	1752.5	20.77	0.2	20.97	125.03	1
5M- 256QAM	19975	1712.5	17.49	0.2	17.69	58.75	1
	20175	1732.5	17.56	0.2	17.76	59.70	1
	20375	1752.5	17.68	0.2	17.88	61.38	1



BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
3M-QPSK	19965	1711.5	22.44	0.2	22.64	183.65	1
	20175	1732.5	22.51	0.2	22.71	186.64	1
	20385	1753.5	22.71	0.2	22.91	195.43	1
3M-16QAM	19965	1711.5	21.49	0.2	21.69	147.57	1
	20175	1732.5	21.54	0.2	21.74	149.28	1
	20385	1753.5	21.87	0.2	22.07	161.06	1
3M-64QAM	19965	1711.5	20.58	0.2	20.78	119.67	1
	20175	1732.5	20.58	0.2	20.78	119.67	1
	20385	1753.5	20.78	0.2	20.98	125.31	1
3M- 256QAM	19965	1711.5	17.50	0.2	17.70	58.88	1
	20175	1732.5	17.55	0.2	17.75	59.57	1
	20385	1753.5	17.79	0.2	17.99	62.95	1
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
1.4M-QPSK	19957	1710.7	22.51	0.2	22.71	186.64	1
	20175	1732.5	22.49	0.2	22.69	185.78	1
	20393	1754.3	22.64	0.2	22.84	192.31	1
1.4M- 16QAM	19957	1710.7	21.48	0.2	21.68	147.23	1
	20175	1732.5	21.55	0.2	21.75	149.62	1
	20393	1754.3	21.91	0.2	22.11	162.55	1
1.4M- 64QAM	19957	1710.7	20.62	0.2	20.82	120.78	1
	20175	1732.5	20.56	0.2	20.76	119.12	1
	20393	1754.3	20.78	0.2	20.98	125.31	1
1.4M- 256QAM	19957	1710.7	17.55	0.2	17.75	59.57	1
	20175	1732.5	17.47	0.2	17.67	58.48	1
	20393	1754.3	17.46	0.2	17.66	58.34	1



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BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20M-QPSK	37850	2580	22.82	1.2	24.02	252.35	2
	38000	2595	22.78	1.2	23.98	250.03	2
	38150	2610	22.75	1.2	23.95	248.31	2
20M- 16QAM	37850	2580	21.85	1.2	23.05	201.84	2
	38000	2595	21.93	1.2	23.13	205.59	2
	38150	2610	21.91	1.2	23.11	204.64	2
20M- 64QAM	37850	2580	21.22	1.2	22.42	174.58	2
	38000	2595	21.21	1.2	22.41	174.18	2
	38150	2610	21.20	1.2	22.40	173.78	2
20M- 256QAM	37850	2580	17.84	1.2	19.04	80.17	2
	38000	2595	17.85	1.2	19.05	80.35	2
	38150	2610	17.83	1.2	19.03	79.98	2
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
15M-QPSK	37825	2577.5	22.74	1.2	23.94	247.74	2
	38000	2595	22.72	1.2	23.92	246.60	2
	38175	2612.5	22.72	1.2	23.92	246.60	2
15M- 16QAM	37825	2577.5	21.76	1.2	22.96	197.70	2
	38000	2595	21.90	1.2	23.10	204.17	2
	38175	2612.5	21.81	1.2	23.01	199.99	2
15M- 64QAM	37825	2577.5	21.12	1.2	22.32	170.61	2
	38000	2595	21.22	1.2	22.42	174.58	2
	38175	2612.5	21.09	1.2	22.29	169.43	2
15M- 256QAM	37825	2577.5	17.85	1.2	19.05	80.35	2
	38000	2595	17.75	1.2	18.95	78.52	2
	38175	2612.5	17.77	1.2	18.97	78.89	2



BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
10M-QPSK	37800	2575	22.75	1.2	23.95	248.31	2
	38000	2595	22.60	1.2	23.80	239.88	2
	38200	2615	22.72	1.2	23.92	246.60	2
10M- 16QAM	37800	2575	21.85	1.2	23.05	201.84	2
	38000	2595	21.89	1.2	23.09	203.70	2
	38200	2615	21.89	1.2	23.09	203.70	2
10M- 64QAM	37800	2575	21.11	1.2	22.31	170.22	2
	38000	2595	21.11	1.2	22.31	170.22	2
	38200	2615	21.13	1.2	22.33	171.00	2
10M- 256QAM	37800	2575	17.84	1.2	19.04	80.17	2
	38000	2595	17.83	1.2	19.03	79.98	2
	38200	2615	17.72	1.2	18.92	77.98	2
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
5M-QPSK	37775	2572.5	22.73	1.2	23.93	247.17	2
	38000	2595	22.68	1.2	23.88	244.34	2
	38225	2617.5	22.71	1.2	23.91	246.04	2
5M-16QAM	37775	2572.5	21.77	1.2	22.97	198.15	2
	38000	2595	21.80	1.2	23.00	199.53	2
	38225	2617.5	21.91	1.2	23.11	204.64	2
5M-64QAM	37775	2572.5	21.11	1.2	22.31	170.22	2
	38000	2595	21.22	1.2	22.42	174.58	2
	38225	2617.5	21.09	1.2	22.29	169.43	2
5M- 256QAM	37775	2572.5	17.70	1.2	18.90	77.62	2
	38000	2595	17.84	1.2	19.04	80.17	2
	38225	2617.5	17.72	1.2	18.92	77.98	2



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BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm)
20M-QPSK	39750	2506	22.69	1.4	24.09	256.45	2
	40620	2593	22.84	1.4	24.24	265.46	2
	41490	2680	22.78	1.4	24.18	261.82	2
20M- 16QAM	39750	2506	21.95	1.4	23.35	216.27	2
	40620	2593	22.15	1.4	23.55	226.46	2
	41490	2680	21.97	1.4	23.37	217.27	2
20M- 64QAM	39750	2506	21.01	1.4	22.41	174.18	2
	40620	2593	21.26	1.4	22.66	184.50	2
	41490	2680	21.13	1.4	22.53	179.06	2
20M- 256QAM	39750	2506	17.61	1.4	19.01	79.62	2
	40620	2593	17.83	1.4	19.23	83.75	2
	41490	2680	17.72	1.4	19.12	81.66	2
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm)
15M-QPSK	39725	2503.5	22.60	1.4	24.00	251.19	2
	40620	2593	22.79	1.4	24.19	262.42	2
	41515	2682.5	22.74	1.4	24.14	259.42	2
15M- 16QAM	39725	2503.5	21.78	1.4	23.18	207.97	2
	40620	2593	22.15	1.4	23.55	226.46	2
	41515	2682.5	21.85	1.4	23.25	211.35	2
15M- 64QAM	39725	2503.5	20.94	1.4	22.34	171.40	2
	40620	2593	21.25	1.4	22.65	184.08	2
	41515	2682.5	20.93	1.4	22.33	171.00	2
15M- 256QAM	39725	2503.5	17.61	1.4	19.01	79.62	2
	40620	2593	17.78	1.4	19.18	82.79	2
	41515	2682.5	17.64	1.4	19.04	80.17	2



BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm)
10M-QPSK	39700	2501	22.51	1.4	23.91	246.04	2
	40620	2593	22.68	1.4	24.08	255.86	2
	41540	2685	22.72	1.4	24.12	258.23	2
10M- 16QAM	39700	2501	21.79	1.4	23.19	208.45	2
	40620	2593	22.08	1.4	23.48	222.84	2
	41540	2685	21.88	1.4	23.28	212.81	2
10M- 64QAM	39700	2501	21.02	1.4	22.42	174.58	2
	40620	2593	21.10	1.4	22.50	177.83	2
	41540	2685	21.07	1.4	22.47	176.60	2
10M- 256QAM	39700	2501	17.58	1.4	18.98	79.07	2
	40620	2593	17.76	1.4	19.16	82.41	2
	41540	2685	17.61	1.4	19.01	79.62	2
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (dBm)
5M-QPSK	39675	2498.5	22.59	1.4	23.99	250.61	2
	40620	2593	22.80	1.4	24.20	263.03	2
	41565	2687.5	22.64	1.4	24.04	253.51	2
5M-16QAM	39675	2498.5	21.89	1.4	23.29	213.30	2
	40620	2593	22.05	1.4	23.45	221.31	2
	41565	2687.5	21.83	1.4	23.23	210.38	2
5M-64QAM	39675	2498.5	20.92	1.4	22.32	170.61	2
	40620	2593	21.20	1.4	22.60	181.97	2
	41565	2687.5	20.97	1.4	22.37	172.58	2
5M- 256QAM	39675	2498.5	17.59	1.4	18.99	79.25	2
	40620	2593	17.75	1.4	19.15	82.22	2
	41565	2687.5	17.70	1.4	19.10	81.28	2



Part27Q_LTE Band 42							
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20M-QPSK	42190	3460	21.48	2	23.48	222.84	1
	42590	3500	21.20	2	23.20	208.93	1
	42990	3540	21.07	2	23.07	202.77	1
20M- 16QAM	42190	3460	20.78	2	22.78	189.67	1
	42590	3500	20.51	2	22.51	178.24	1
	42990	3540	20.39	2	22.39	173.38	1
20M- 64QAM	42190	3460	19.89	2	21.89	154.53	1
	42590	3500	19.54	2	21.54	142.56	1
	42990	3540	19.53	2	21.53	142.23	1
20M- 256QAM	42190	3460	16.71	2	18.71	74.30	1
	42590	3500	16.49	2	18.49	70.63	1
	42990	3540	16.47	2	18.47	70.31	1
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
15M-QPSK	42165	3457.5	21.37	2	23.37	217.27	1
	42590	3500	21.02	2	23.02	200.45	1
	43015	3542.5	20.98	2	22.98	198.61	1
15M- 16QAM	42165	3457.5	20.66	2	22.66	184.50	1
	42590	3500	20.41	2	22.41	174.18	1
	43015	3542.5	20.35	2	22.35	171.79	1
15M- 64QAM	42165	3457.5	19.72	2	21.72	148.59	1
	42590	3500	19.45	2	21.45	139.64	1
	43015	3542.5	19.47	2	21.47	140.28	1
15M- 256QAM	42165	3457.5	16.64	2	18.64	73.11	1
	42590	3500	16.47	2	18.47	70.31	1
	43015	3542.5	16.35	2	18.35	68.39	1



BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
10M-QPSK	42140	3455	21.36	2	23.36	216.77	1
	42590	3500	21.17	2	23.17	207.49	1
	43040	3545	21.02	2	23.02	200.45	1
10M- 16QAM	42140	3455	20.73	2	22.73	187.50	1
	42590	3500	20.37	2	22.37	172.58	1
	43040	3545	20.33	2	22.33	171.00	1
10M- 64QAM	42140	3455	19.80	2	21.80	151.36	1
	42590	3500	19.49	2	21.49	140.93	1
	43040	3545	19.39	2	21.39	137.72	1
10M- 256QAM	42140	3455	16.63	2	18.63	72.95	1
	42590	3500	16.45	2	18.45	69.98	1
	43040	3545	16.32	2	18.32	67.92	1
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
5M-QPSK	42115	3452.5	21.45	2	23.45	221.31	1
	42590	3500	21.18	2	23.18	207.97	1
	43065	3547.5	20.90	2	22.90	194.98	1
5M-16QAM	42115	3452.5	20.74	2	22.74	187.93	1
	42590	3500	20.42	2	22.42	174.58	1
	43065	3547.5	20.34	2	22.34	171.40	1
5M-64QAM	42115	3452.5	19.69	2	21.69	147.57	1
	42590	3500	19.40	2	21.40	138.04	1
	43065	3547.5	19.37	2	21.37	137.09	1
5M- 256QAM	42115	3452.5	16.63	2	18.63	72.95	1
	42590	3500	16.45	2	18.45	69.98	1
	43065	3547.5	16.28	2	18.28	67.30	1



LTE Band 66							
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
20M-QPSK	132072	1720	22.49	0.4	22.89	194.54	1
	132322	1745	22.64	0.4	23.04	201.37	1
	132572	1770	22.75	0.4	23.15	206.54	1
20M- 16QAM	132072	1720	21.62	0.4	22.02	159.22	1
	132322	1745	21.63	0.4	22.03	159.59	1
	132572	1770	21.73	0.4	22.13	163.31	1
20M- 64QAM	132072	1720	20.63	0.4	21.03	126.77	1
	132322	1745	20.80	0.4	21.20	131.83	1
	132572	1770	20.84	0.4	21.24	133.05	1
20M- 256QAM	132072	1720	17.52	0.4	17.92	61.94	1
	132322	1745	17.60	0.4	18.00	63.10	1
	132572	1770	17.77	0.4	18.17	65.61	1
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
15M-QPSK	132047	1717.5	22.50	0.4	22.90	194.98	1
	132322	1745	22.65	0.4	23.05	201.84	1
	132597	1772.5	22.69	0.4	23.09	203.70	1
15M- 16QAM	132047	1717.5	21.61	0.4	22.01	158.85	1
	132322	1745	21.59	0.4	21.99	158.12	1
	132597	1772.5	21.71	0.4	22.11	162.55	1
15M- 64QAM	132047	1717.5	20.63	0.4	21.03	126.77	1
	132322	1745	20.67	0.4	21.07	127.94	1
	132597	1772.5	20.78	0.4	21.18	131.22	1
15M- 256QAM	132047	1717.5	17.48	0.4	17.88	61.38	1
	132322	1745	17.53	0.4	17.93	62.09	1
	132597	1772.5	17.73	0.4	18.13	65.01	1



BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
10M-QPSK	132022	1715	22.46	0.4	22.86	193.20	1
	132322	1745	22.65	0.4	23.05	201.84	1
	132622	1775	22.73	0.4	23.13	205.59	1
10M- 16QAM	132022	1715	21.63	0.4	22.03	159.59	1
	132322	1745	21.52	0.4	21.92	155.60	1
	132622	1775	21.61	0.4	22.01	158.85	1
10M- 64QAM	132022	1715	20.48	0.4	20.88	122.46	1
	132322	1745	20.68	0.4	21.08	128.23	1
	132622	1775	20.83	0.4	21.23	132.74	1
10M- 256QAM	132022	1715	17.40	0.4	17.80	60.26	1
	132322	1745	17.50	0.4	17.90	61.66	1
	132622	1775	17.73	0.4	18.13	65.01	1
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
5M-QPSK	131997	1712.5	22.33	0.4	22.73	187.50	1
	132322	1745	22.45	0.4	22.85	192.75	1
	132647	1777.5	22.66	0.4	23.06	202.30	1
5M-16QAM	131997	1712.5	21.52	0.4	21.92	155.60	1
	132322	1745	21.51	0.4	21.91	155.24	1
	132647	1777.5	21.61	0.4	22.01	158.85	1
5M-64QAM	131997	1712.5	20.54	0.4	20.94	124.17	1
	132322	1745	20.78	0.4	21.18	131.22	1
	132647	1777.5	20.83	0.4	21.23	132.74	1
5M- 256QAM	131997	1712.5	17.49	0.4	17.89	61.52	1
	132322	1745	17.45	0.4	17.85	60.95	1
	132647	1777.5	17.64	0.4	18.04	63.68	1



BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
3M-QPSK	131987	1711.5	22.37	0.4	22.77	189.23	1
	132322	1745	22.54	0.4	22.94	196.79	1
	132657	1778.5	22.67	0.4	23.07	202.77	1
3M-16QAM	131987	1711.5	21.61	0.4	22.01	158.85	1
	132322	1745	21.62	0.4	22.02	159.22	1
	132657	1778.5	21.73	0.4	22.13	163.31	1
3M-64QAM	131987	1711.5	20.52	0.4	20.92	123.59	1
	132322	1745	20.63	0.4	21.03	126.77	1
	132657	1778.5	20.83	0.4	21.23	132.74	1
3M- 256QAM	131987	1711.5	17.49	0.4	17.89	61.52	1
	132322	1745	17.58	0.4	17.98	62.81	1
	132657	1778.5	17.69	0.4	18.09	64.42	1
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
1.4M-QPSK	131979	1710.7	22.44	0.4	22.84	192.31	1
	132322	1745	22.59	0.4	22.99	199.07	1
	132665	1779.3	22.75	0.4	23.15	206.54	1
1.4M- 16QAM	131979	1710.7	21.57	0.4	21.97	157.40	1
	132322	1745	21.59	0.4	21.99	158.12	1
	132665	1779.3	21.75	0.4	22.15	164.06	1
1.4M- 64QAM	131979	1710.7	20.51	0.4	20.91	123.31	1
	132322	1745	20.61	0.4	21.01	126.18	1
	132665	1779.3	20.73	0.4	21.13	129.72	1
1.4M- 256QAM	131979	1710.7	17.48	0.4	17.88	61.38	1
	132322	1745	17.44	0.4	17.84	60.81	1
	132665	1779.3	17.67	0.4	18.07	64.12	1

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



3.2 FREQUENCY STABILITY MEASUREMENT

3.2.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

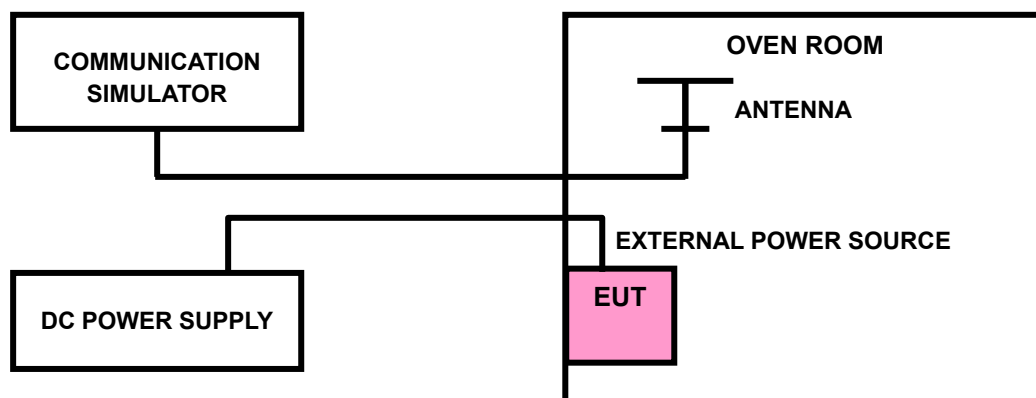
The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

3.2.2 TEST PROCEDURE

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

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

3.2.3 TEST SETUP



3.2.4 TEST RESULTS

Please Refer to Appendix Of this test report.

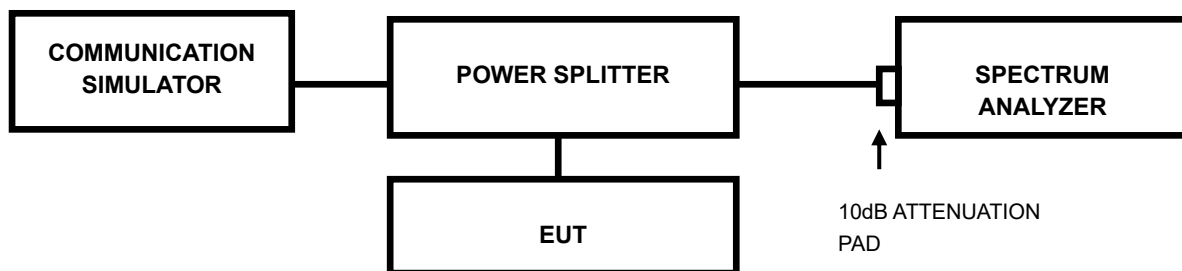


3.3 OCCUPIED BANDWIDTH MEASUREMENT

3.3.1 LIMITS OF OCCUPIED BANDWIDTH MEASUREMENT

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

3.3.2 TEST SETUP



3.3.3 TEST PROCEDURES

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

3.3.4 TEST RESULTS

Please Refer to Appendix Of this test report.

Note: VL = Low voltage(4.75V); VN/NV = Normal voltage(5V); VH = High voltage(5.25V);
NT = Normal temperature (25°C)



3.4 BAND EDGE MEASUREMENT

3.4.1 LIMITS OF BAND EDGE MEASUREMENT

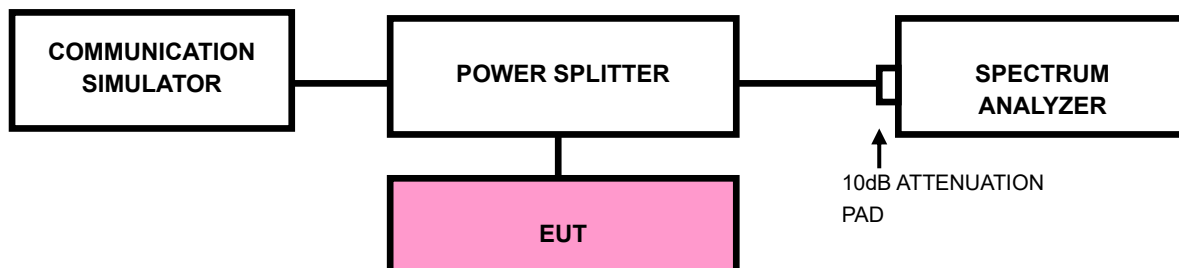
According to FCC Part 27.53(h) specified that For operations in the 1710-1755 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log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

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

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



3.4.2 TEST SETUP



3.4.3 TEST PROCEDURES

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

3.4.4 TEST RESULTS

Please Refer to Appendix Of this test report.



3.5 CONDUCTED SPURIOUS EMISSIONS

3.5.1 LIMITS OF CONDUCTED SPURIOUS EMISSIONS MEASUREMENT

For LTE Band4/66

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

For: LTE Band42

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

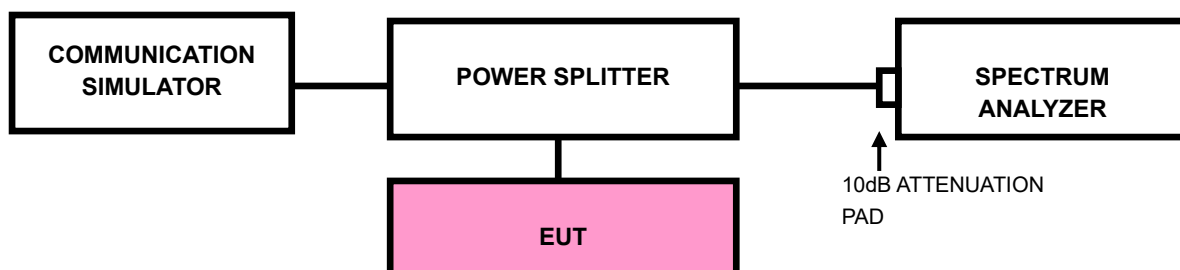
For LTE Band38/41

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

3.5.2 TEST PROCEDURE

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

3.5.3 TEST SETUP





3.5.4 TEST RESULTS

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

Please Refer to Appendix Of this test report.

3.6 RADIATED EMISSION MEASUREMENT

3.6.1 LIMITS OF RADIATED EMISSION MEASUREMENT

For LTE Band4/66

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

For: LTE Band42

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

For LTE Band38/41

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

3.6.2 TEST PROCEDURES

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

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

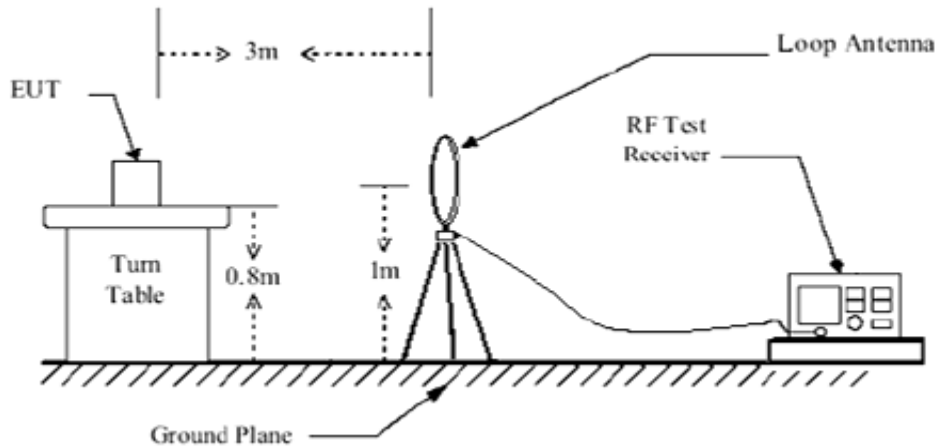
3.6.3 DEVIATION FROM TEST STANDARD

No deviation

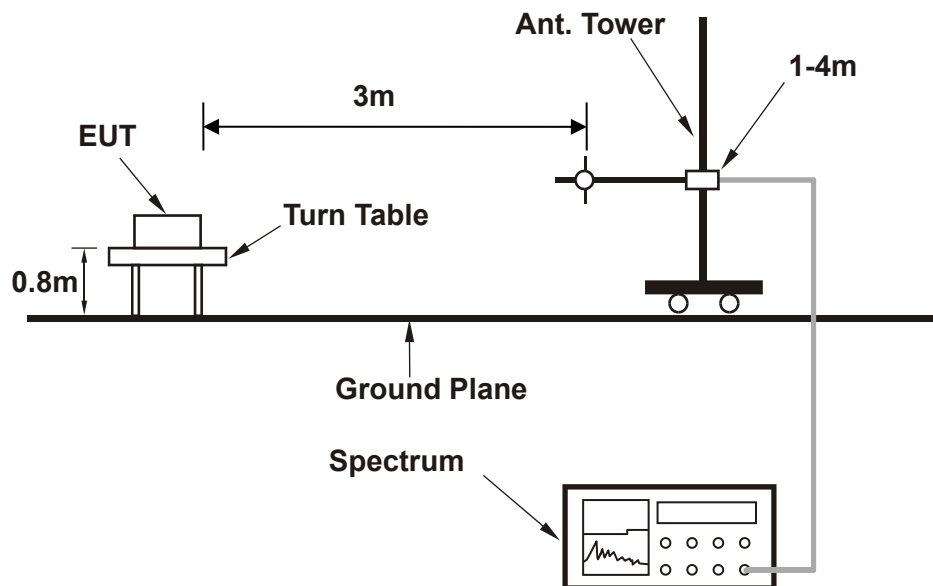


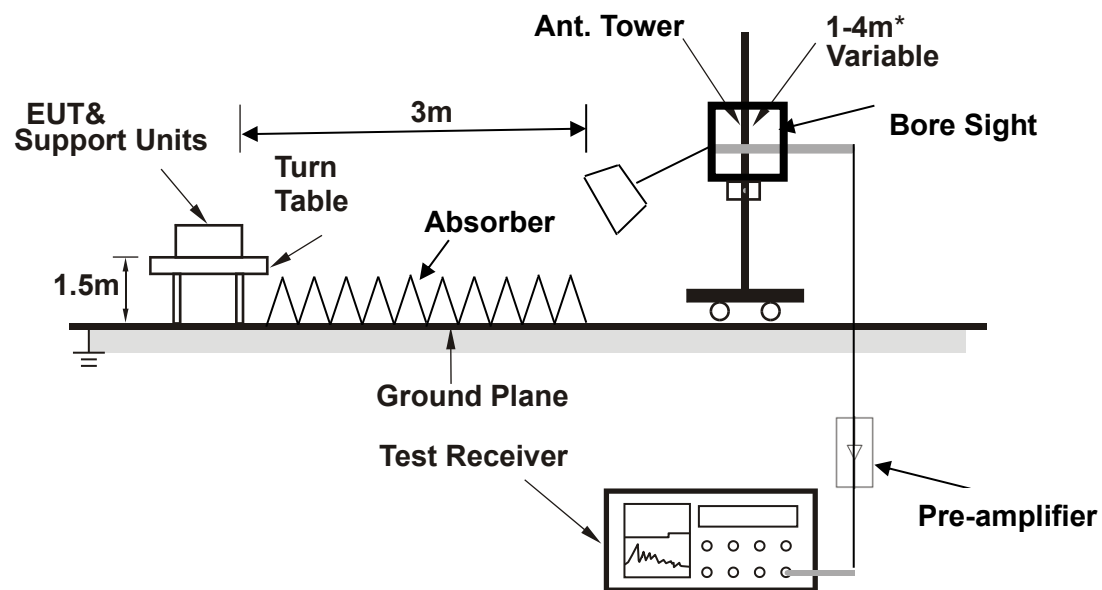
3.6.4 TEST SETUP

< Frequency Range below 30MHz >



< Frequency Range 30MHz~1GHz >





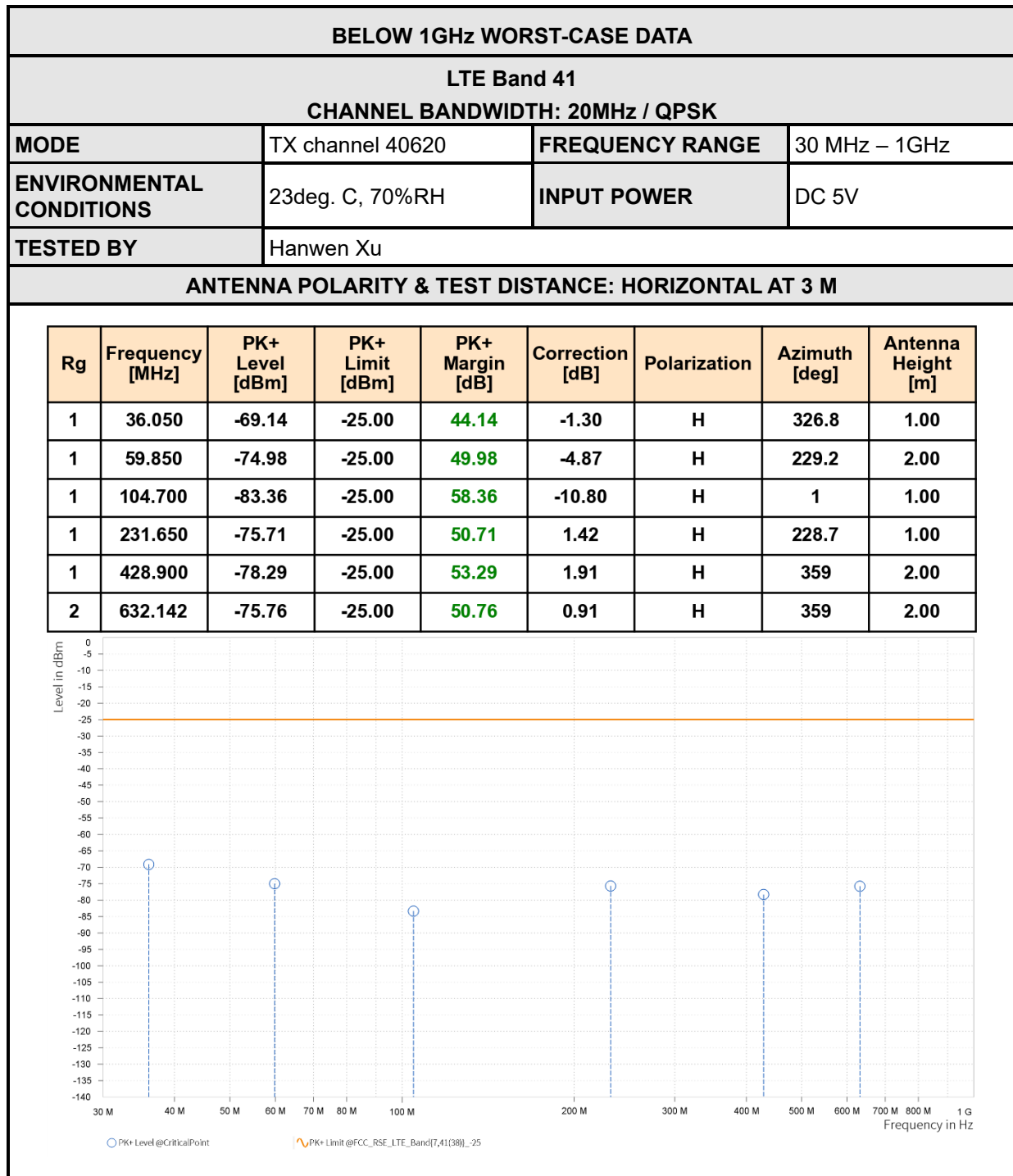
Note: Above 1G is a directional antenna depends on the EUT height and the antenna 3dB beamwidth both, refer to section 7.3 of CISPR 16-2-3.

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



3.6.5 TEST RESULTS

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

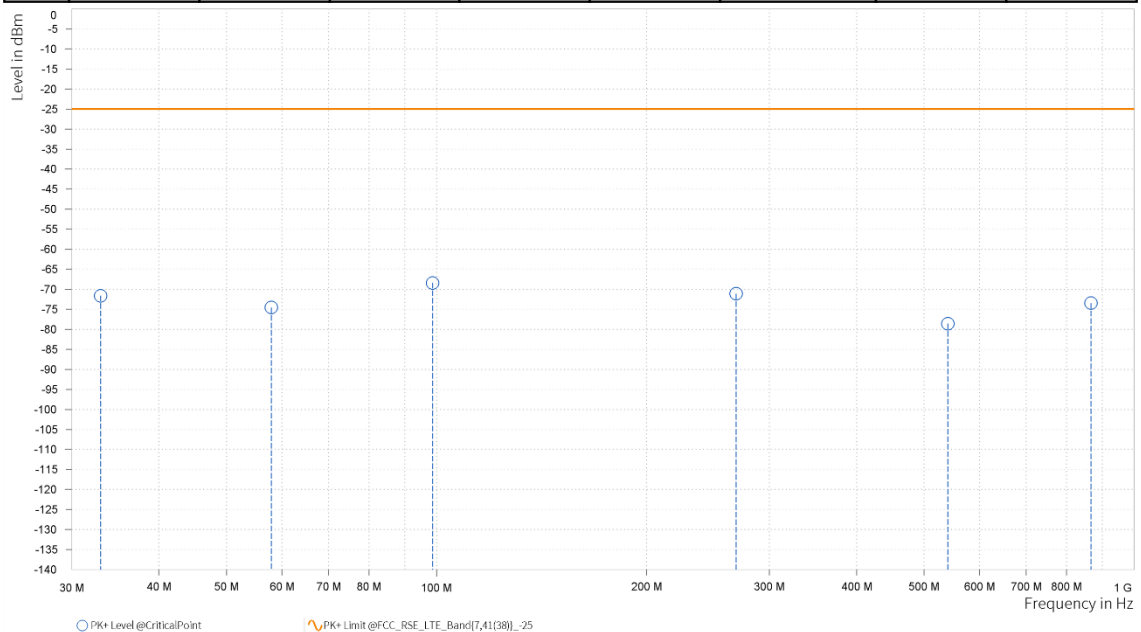




MODE	TX channel 40620	FREQUENCY RANGE	30 MHz – 1GHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5V
TESTED BY	Hanwen Xu		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	33.000	-71.62	-25.00	46.62	-6.32	V	237.5	2.00
1	57.950	-74.54	-25.00	49.54	-4.18	V	357.3	1.00
1	98.750	-68.40	-25.00	43.40	5.04	V	357.3	1.00
1	268.800	-71.12	-25.00	46.12	-3.42	V	147.9	2.00
2	540.796	-78.57	-25.00	53.57	-0.79	V	43.9	2.00
2	866.900	-73.47	-25.00	48.47	4.84	V	1	1.00





ABOVE 1GHz

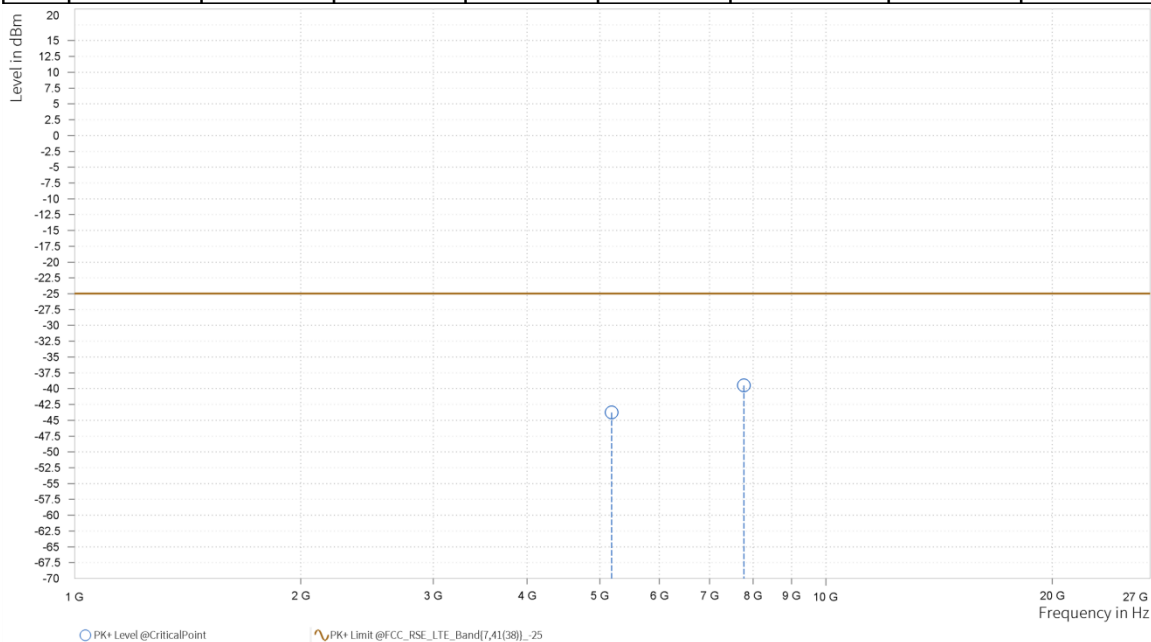
Note: For higher frequency, the emission is too low to be detected.

LTE BAND 41

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,181.500	-43.77	-25.00	18.77	31.73	H	229.1	1.00
4	7,772.250	-39.48	-25.00	14.48	36.49	H	1	1.00

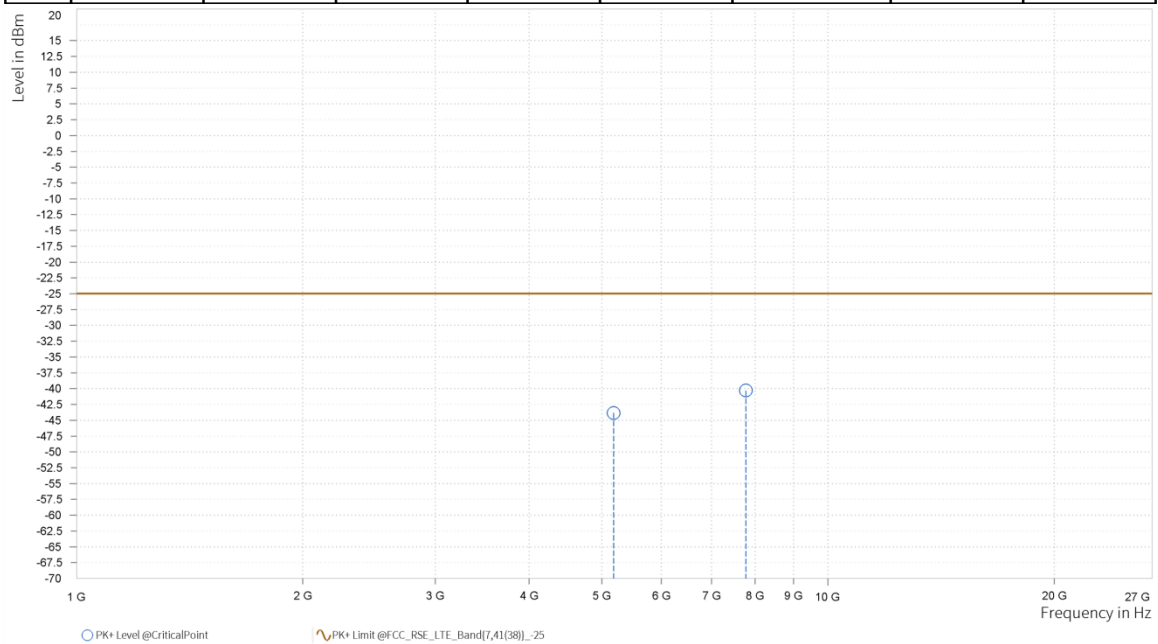




CHANNEL BANDWIDTH	5MHz / QPSK	MODE	TX channel 40620
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	DC 5V	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,181.500	-43.85	-25.00	18.85	31.67	V	359	2.00
4	7,772.250	-40.30	-25.00	15.30	36.54	V	1	2.00

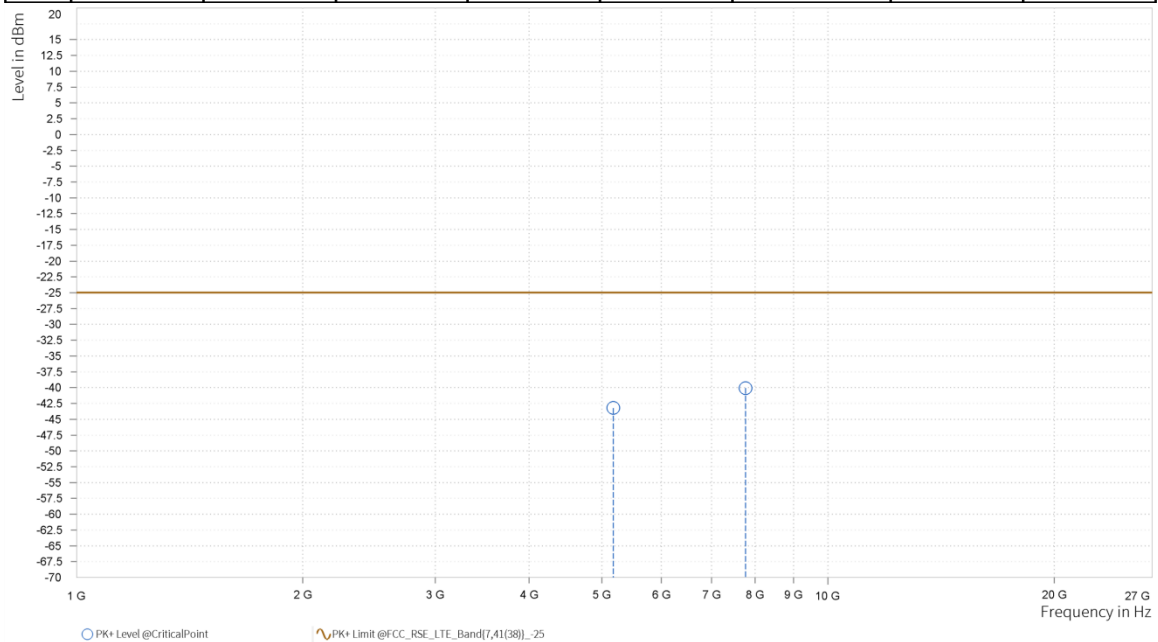




CHANNEL BANDWIDTH	10MHz / QPSK	MODE	TX channel 40620
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	DC 5V	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,177.000	-43.20	-25.00	18.20	31.83	H	359	2.00
4	7,765.500	-40.07	-25.00	15.07	36.84	H	359	1.00

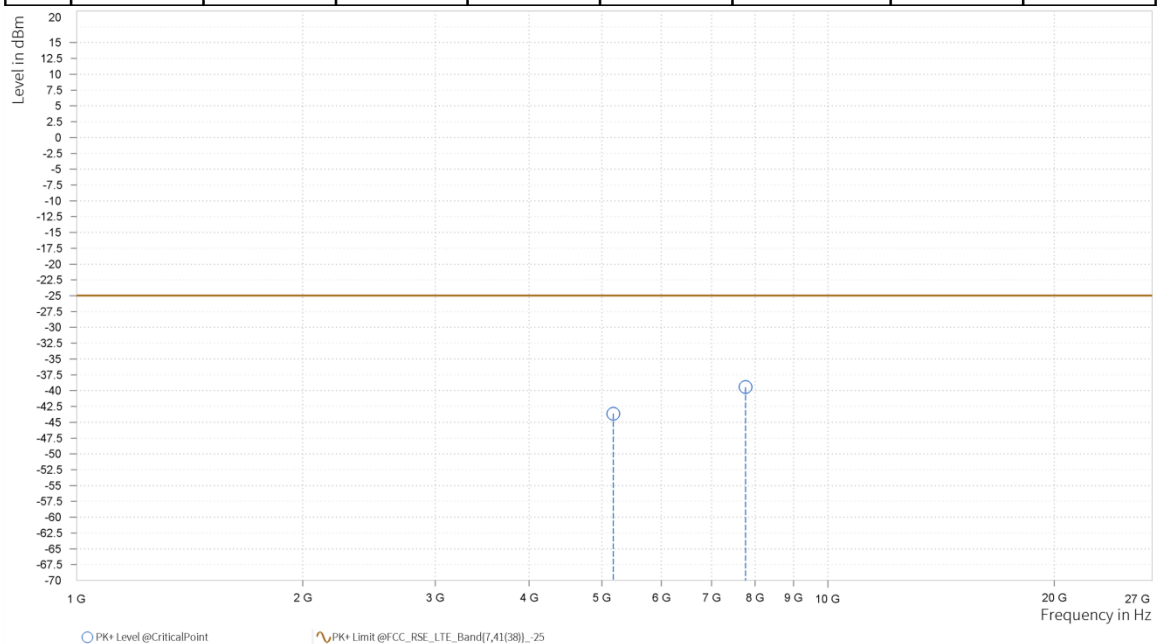




CHANNEL BANDWIDTH	10MHz / QPSK	MODE	TX channel 40620
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	DC 5V	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,177.000	-43.63	-25.00	18.63	31.76	V	1	1.00
4	7,765.500	-39.45	-25.00	14.45	36.88	V	1	1.00

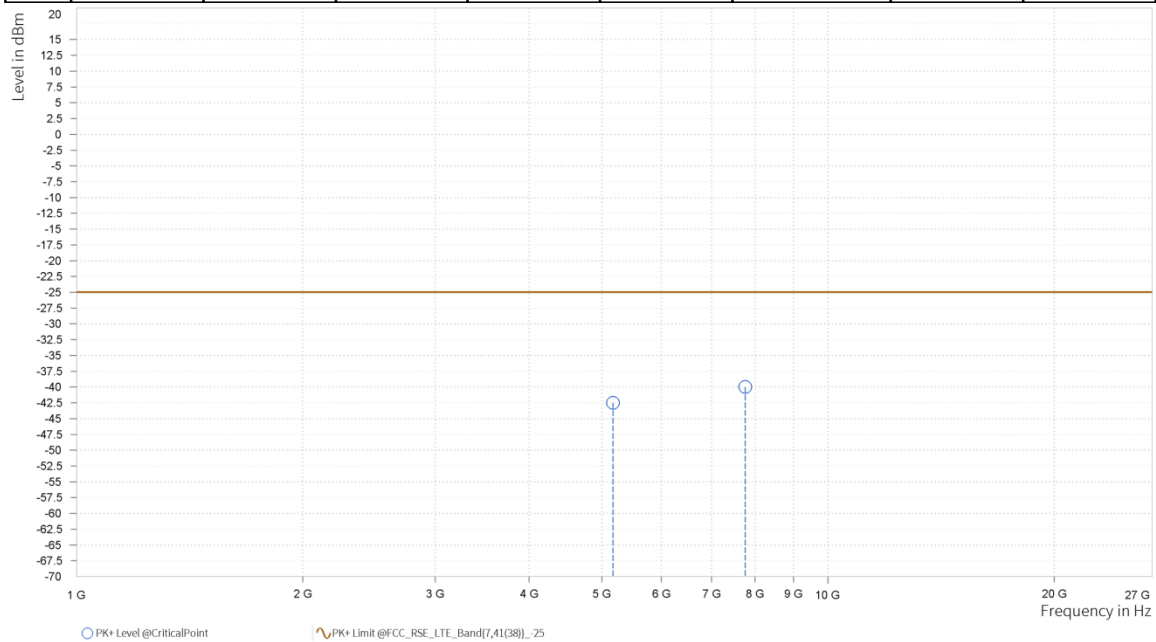




CHANNEL BANDWIDTH	15MHz / QPSK	MODE	TX channel 40620
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	DC 5V	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,172.500	-42.48	-25.00	17.48	31.90	H	359	2.00
4	7,758.750	-39.99	-25.00	14.99	37.06	H	117.8	2.00

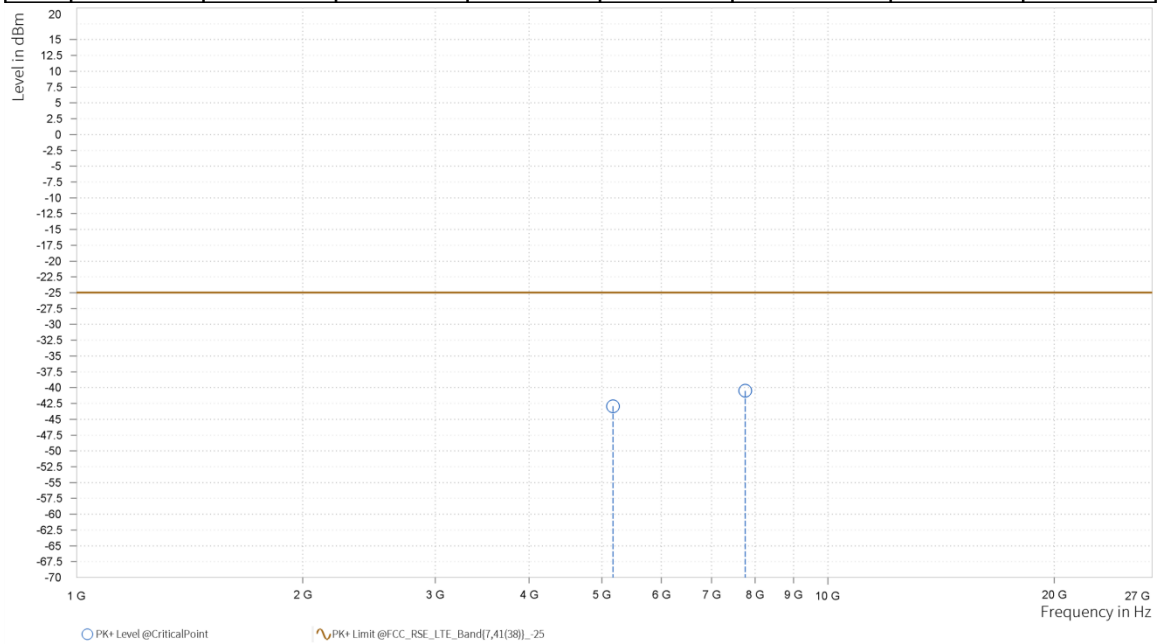




CHANNEL BANDWIDTH	15MHz / QPSK	MODE	TX channel 40620
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	DC 5V	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,172.500	-42.94	-25.00	17.94	31.82	V	233.8	1.00
4	7,758.750	-40.50	-25.00	15.50	37.09	V	1	2.00



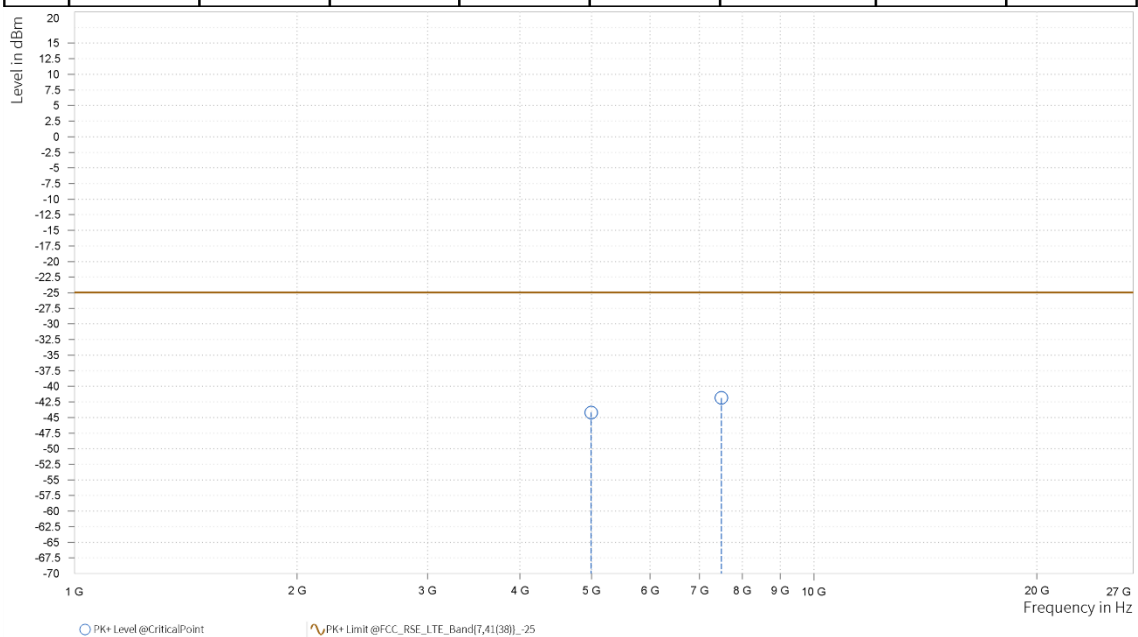


CH39750

CHANNEL BANDWIDTH	20MHz / QPSK	MODE	TX channel 39750
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	DC 5V	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	4,994.000	-44.18	-25.00	19.18	30.09	H	238.6	1.00
4	7,491.000	-41.86	-25.00	16.86	35.14	H	1	1.00

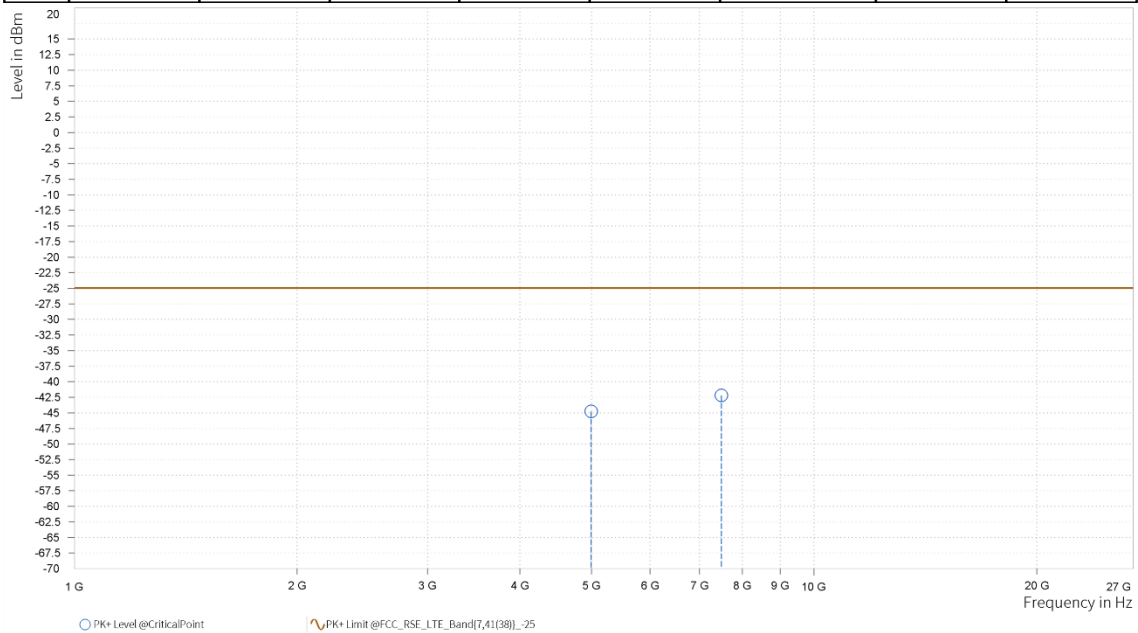




CHANNEL BANDWIDTH	20MHz / QPSK	MODE	TX channel 39750
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	DC 5V	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	4,994.000	-44.78	-25.00	19.78	29.95	V	1	1.00
4	7,491.000	-42.20	-25.00	17.20	35.33	V	359.1	1.00

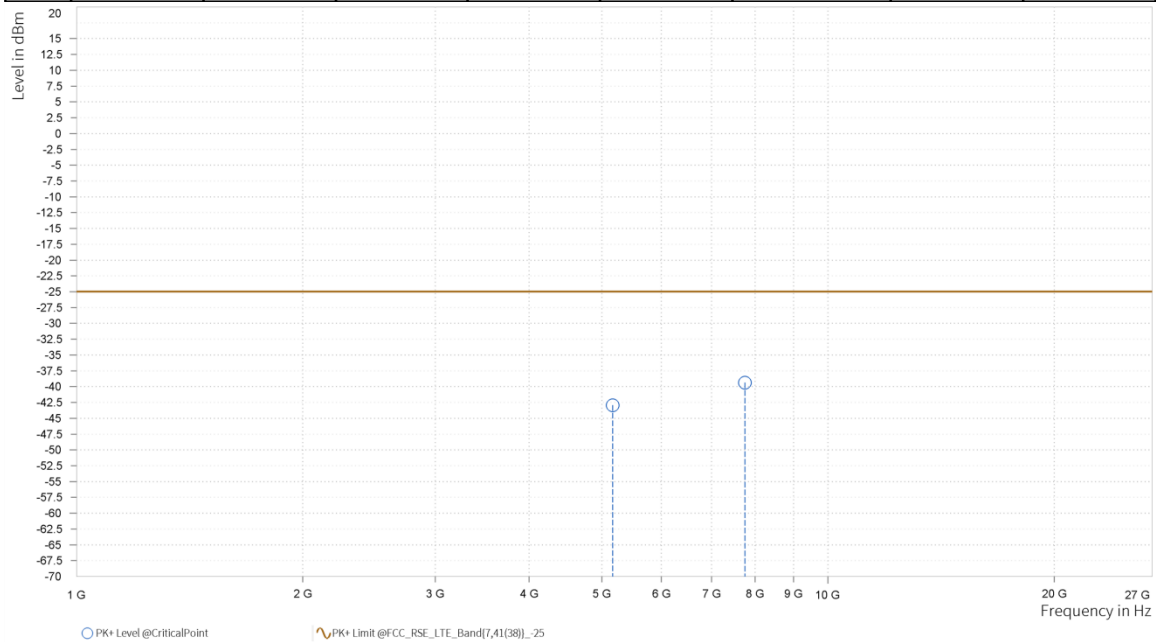




CHANNEL BANDWIDTH	20MHz / QPSK	MODE	TX channel 40620
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	DC 5V	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,168.000	-42.93	-25.00	17.93	31.98	H	351.8	1.00
4	7,752.000	-39.38	-25.00	14.38	36.47	H	359	2.00

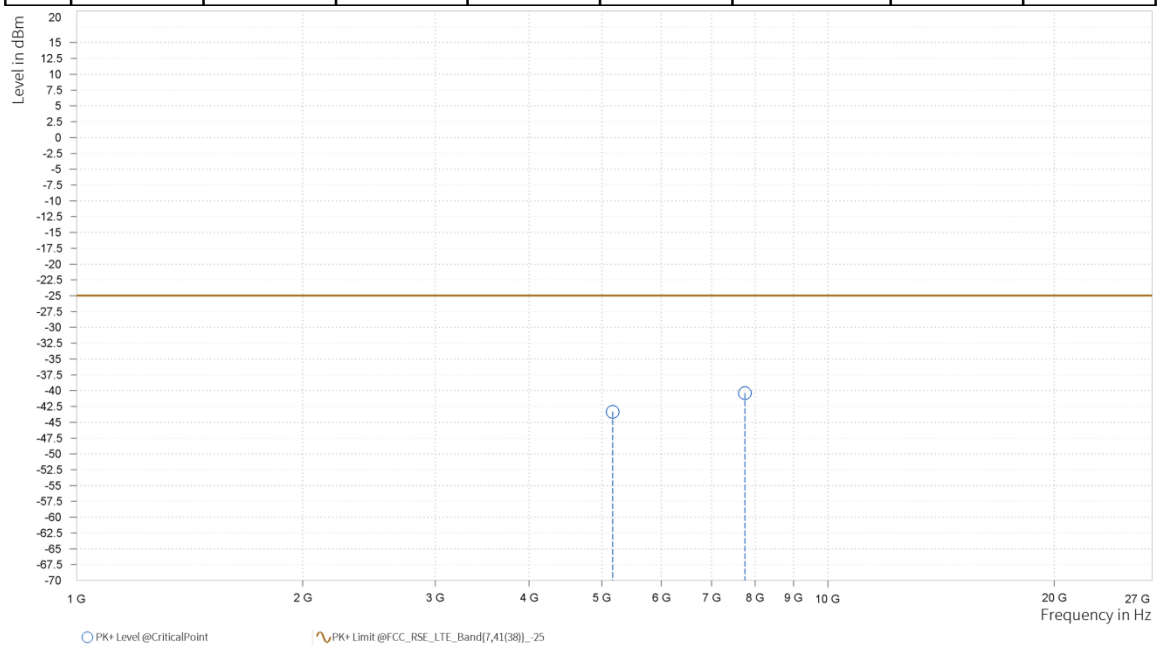




CHANNEL BANDWIDTH	20MHz / QPSK	MODE	TX channel 40620
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	DC 5V	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,168.000	-43.34	-25.00	18.34	31.90	V	359	2.00
4	7,752.000	-40.37	-25.00	15.37	36.50	V	241	1.00

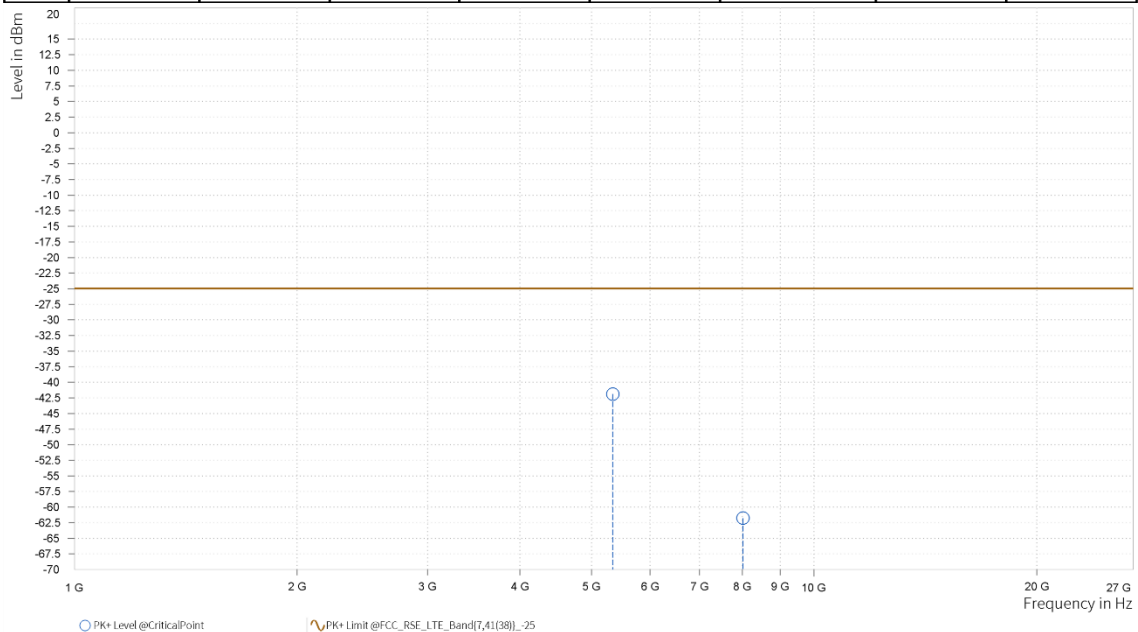




CHANNEL BANDWIDTH	20MHz / QPSK	MODE	TX channel 41490
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	DC 5V	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,342.000	-41.88	-25.00	16.88	33.13	H	359	2.00
6	8,013.000	-61.77	-25.00	36.77	21.36	H	2.2	2.00

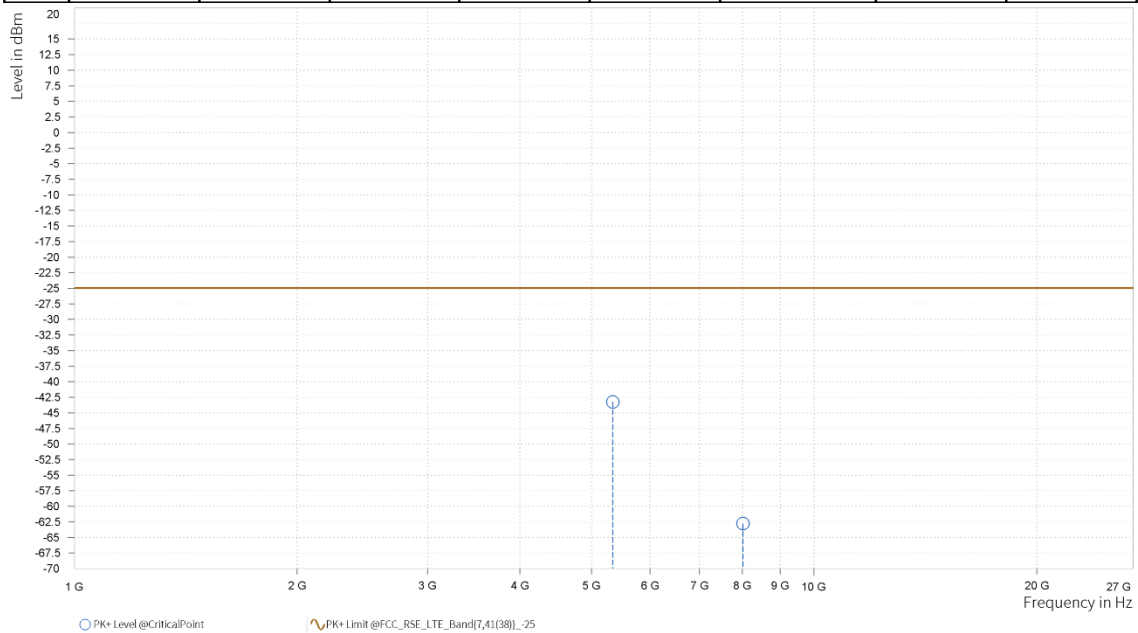




CHANNEL BANDWIDTH	20MHz / QPSK	MODE	TX channel 41490
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	DC 5V	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,342.000	-43.24	-25.00	18.24	32.98	V	113.2	2.00
6	8,013.000	-62.77	-25.00	37.77	21.36	V	1	2.00



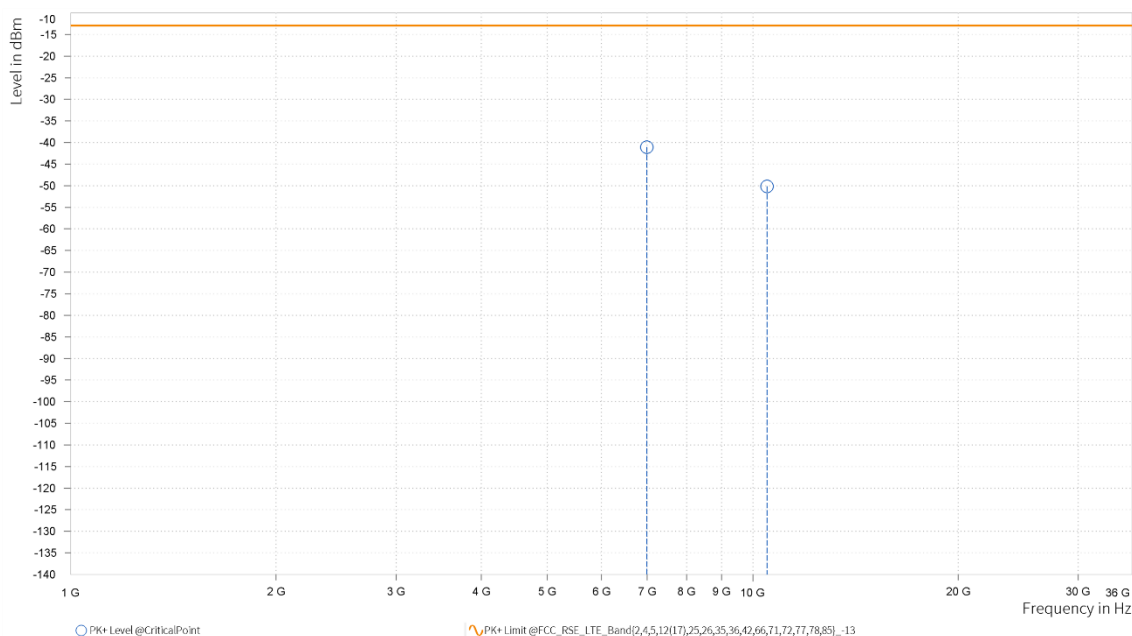


LTE BAND 42

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	6,995.500	-41.08	-13.00	28.08	32.81	H	302.1	1.00
6	10,493.000	-50.14	-13.00	37.14	18.76	H	359.1	1.00

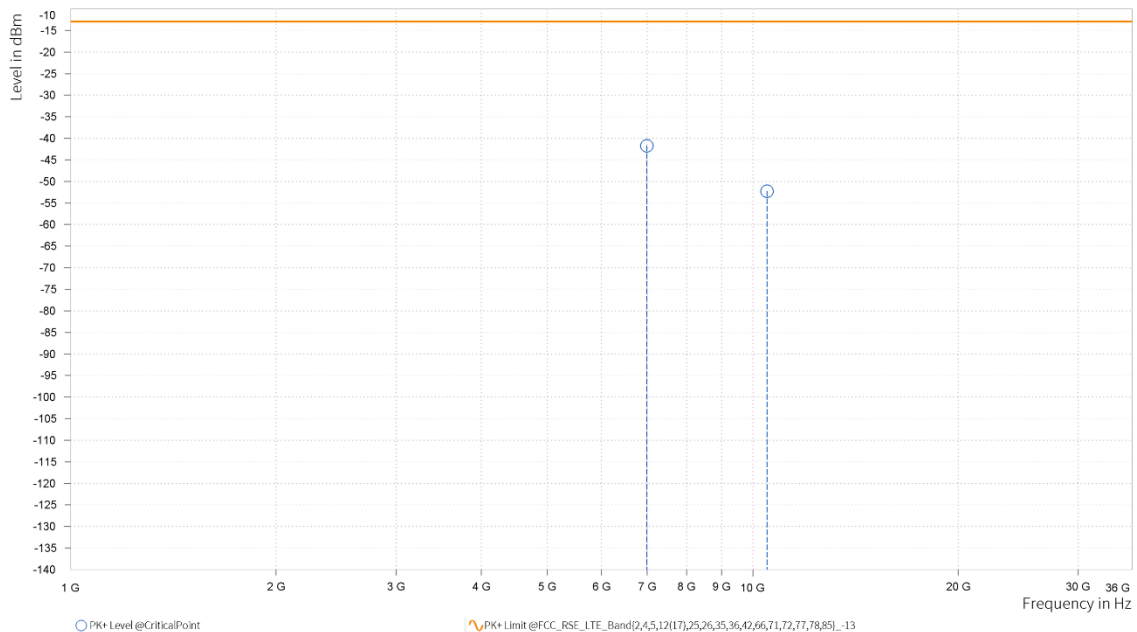




CHANNEL BANDWIDTH	5MHz / QPSK	MODE	TX channel 42590
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	DC 5V	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	6,995.500	-41.70	-13.00	28.70	32.86	V	322.6	1.00
6	10,493.250	-52.27	-13.00	39.27	18.50	V	203.8	2.00

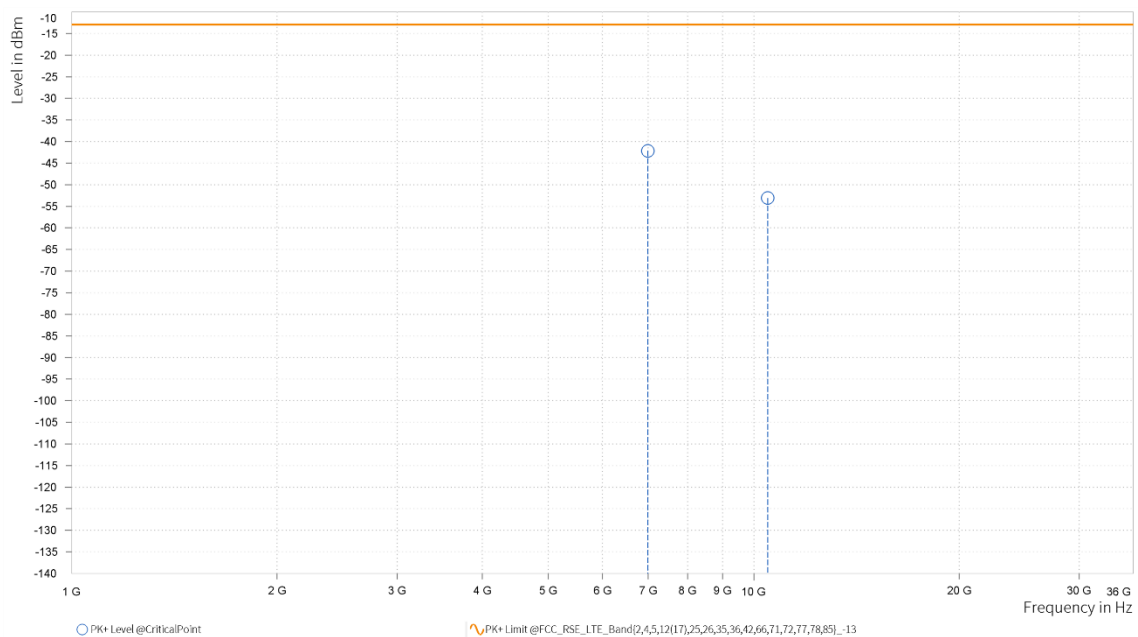




CHANNEL BANDWIDTH	10MHz / QPSK	MODE	TX channel 42590
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	DC 5V	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	6,991.000	-42.16	-13.00	29.16	32.81	H	1	1.00
6	10,486.500	-53.07	-13.00	40.07	18.72	H	261.8	1.00

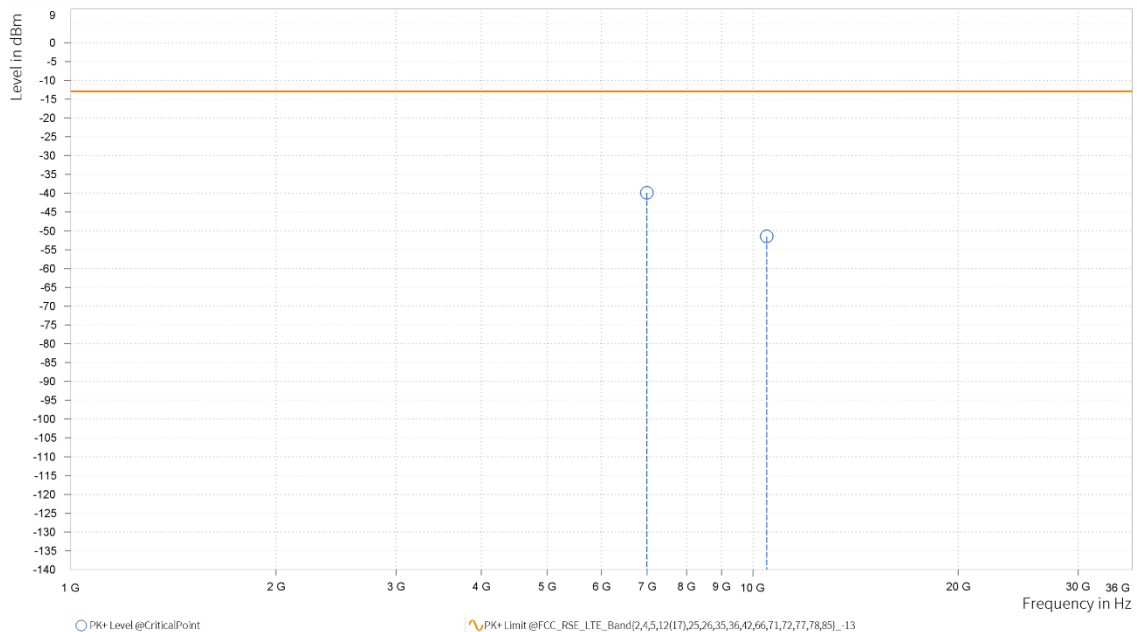


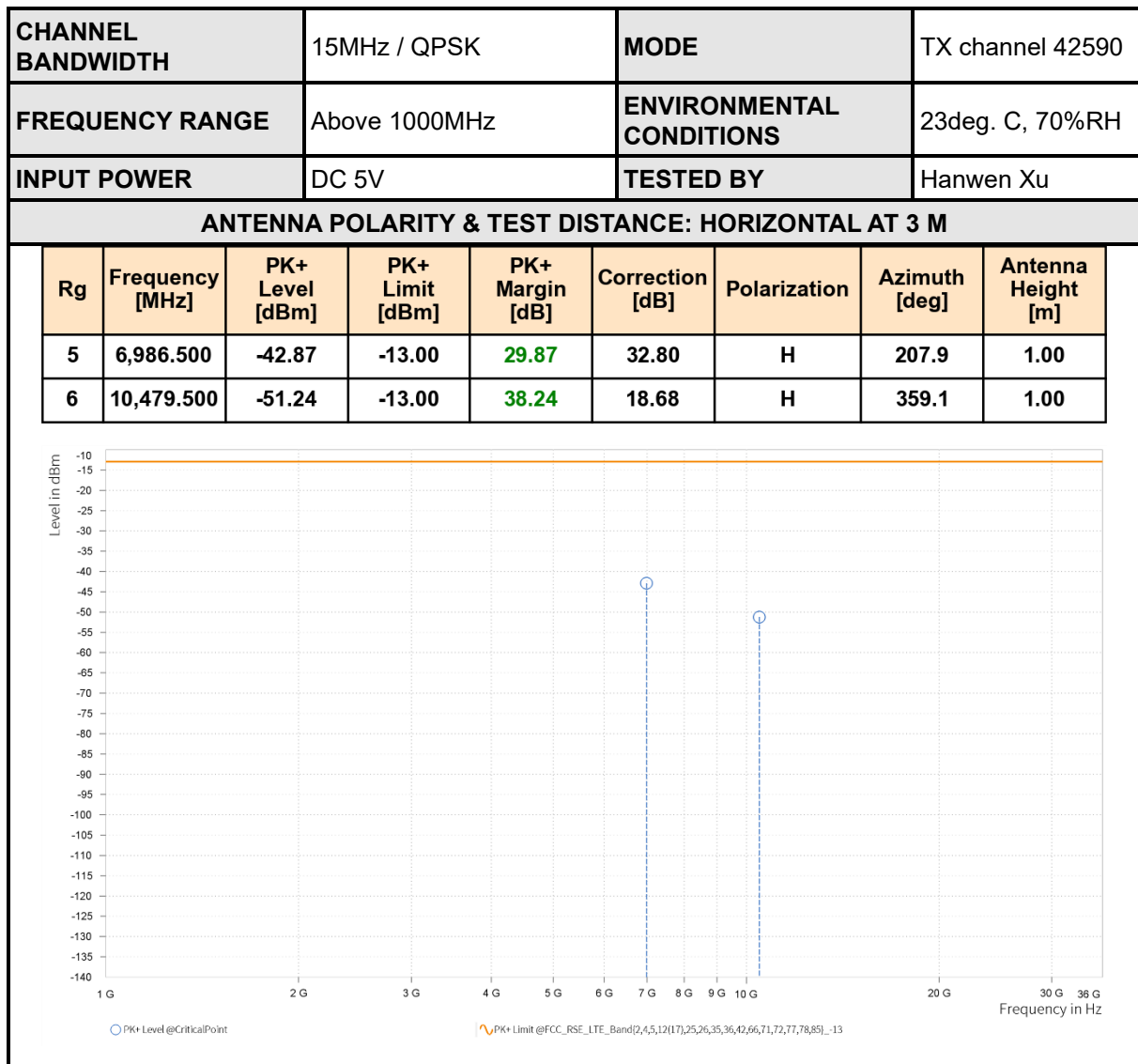


CHANNEL BANDWIDTH	10MHz / QPSK	MODE	TX channel 42590
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	DC 5V	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	6,991.000	-39.91	-13.00	26.91	32.85	V	13.3	2.00
6	10,486.500	-51.46	-13.00	38.46	18.47	V	6.4	2.00



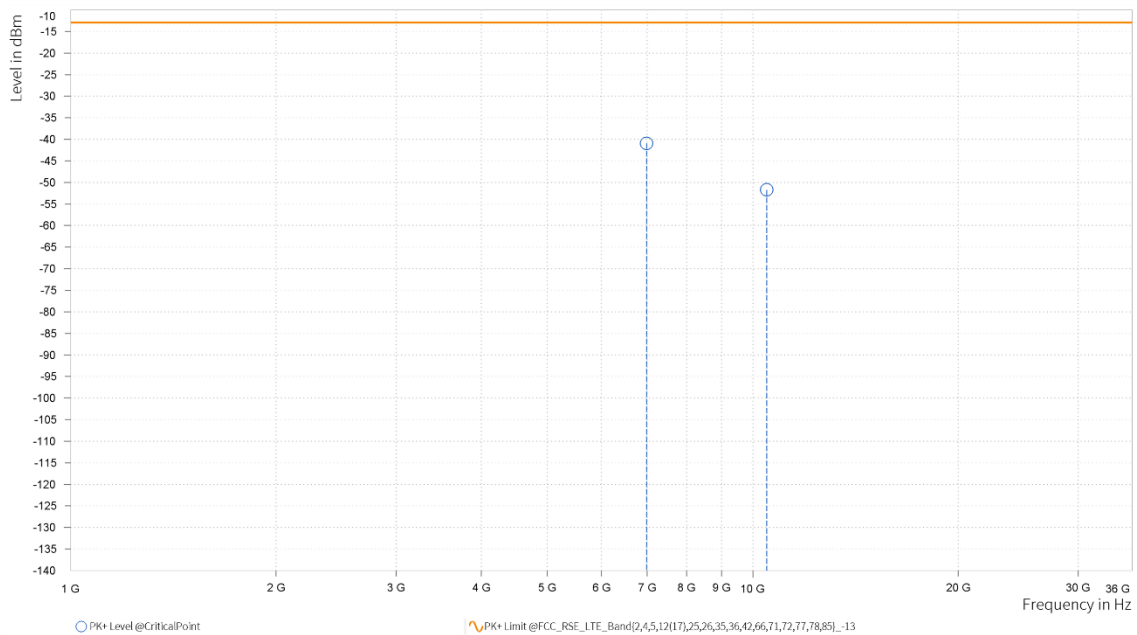




CHANNEL BANDWIDTH	15MHz / QPSK	MODE	TX channel 42590
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	DC 5V	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	6,986.500	-40.94	-13.00	27.94	32.85	V	202.3	1.00
6	10,479.500	-51.72	-13.00	38.72	18.44	V	0.9	2.00



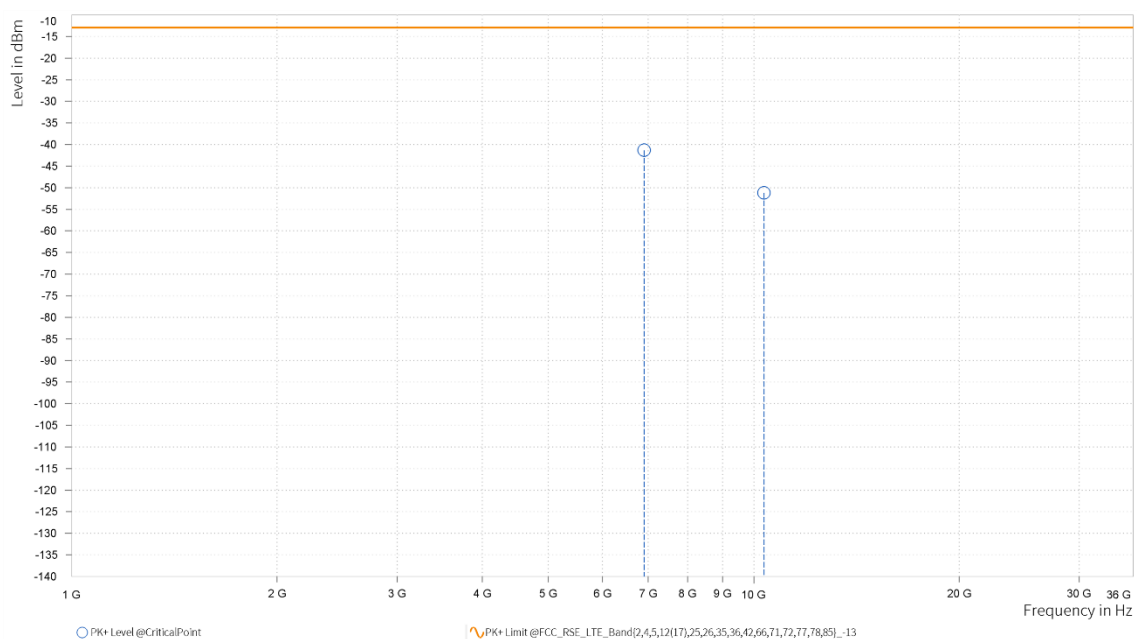


CH42190

CHANNEL BANDWIDTH	20MHz / QPSK	MODE	TX channel 42190
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	DC 5V	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	6,902.000	-41.33	-13.00	28.33	32.83	H	110.2	2.00
6	10,353.000	-51.18	-13.00	38.18	17.91	H	2.4	2.00

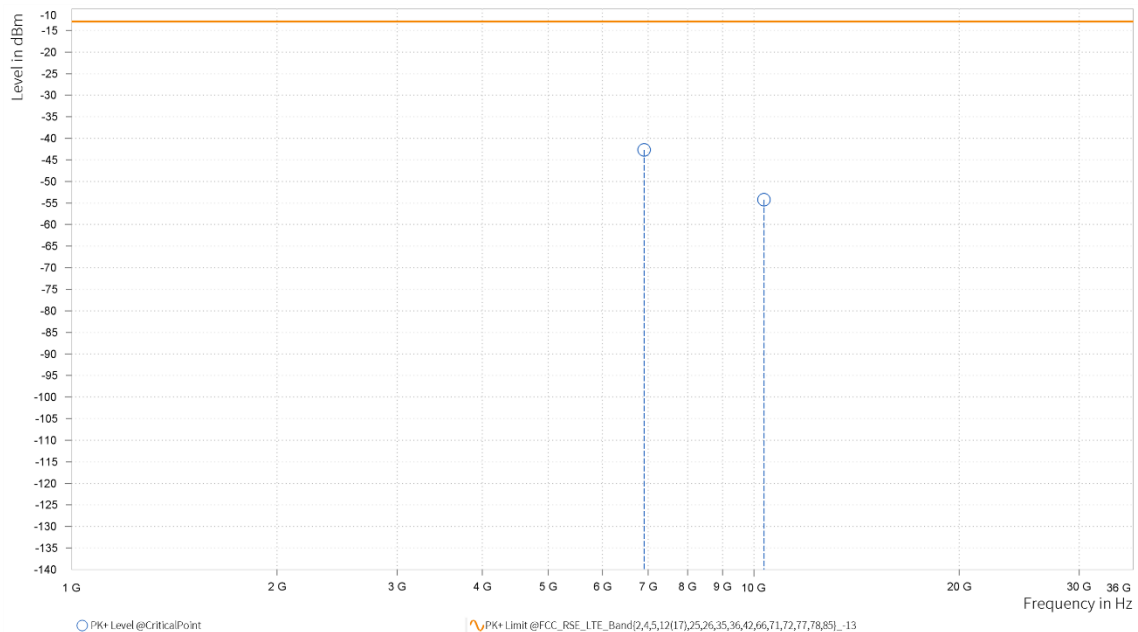


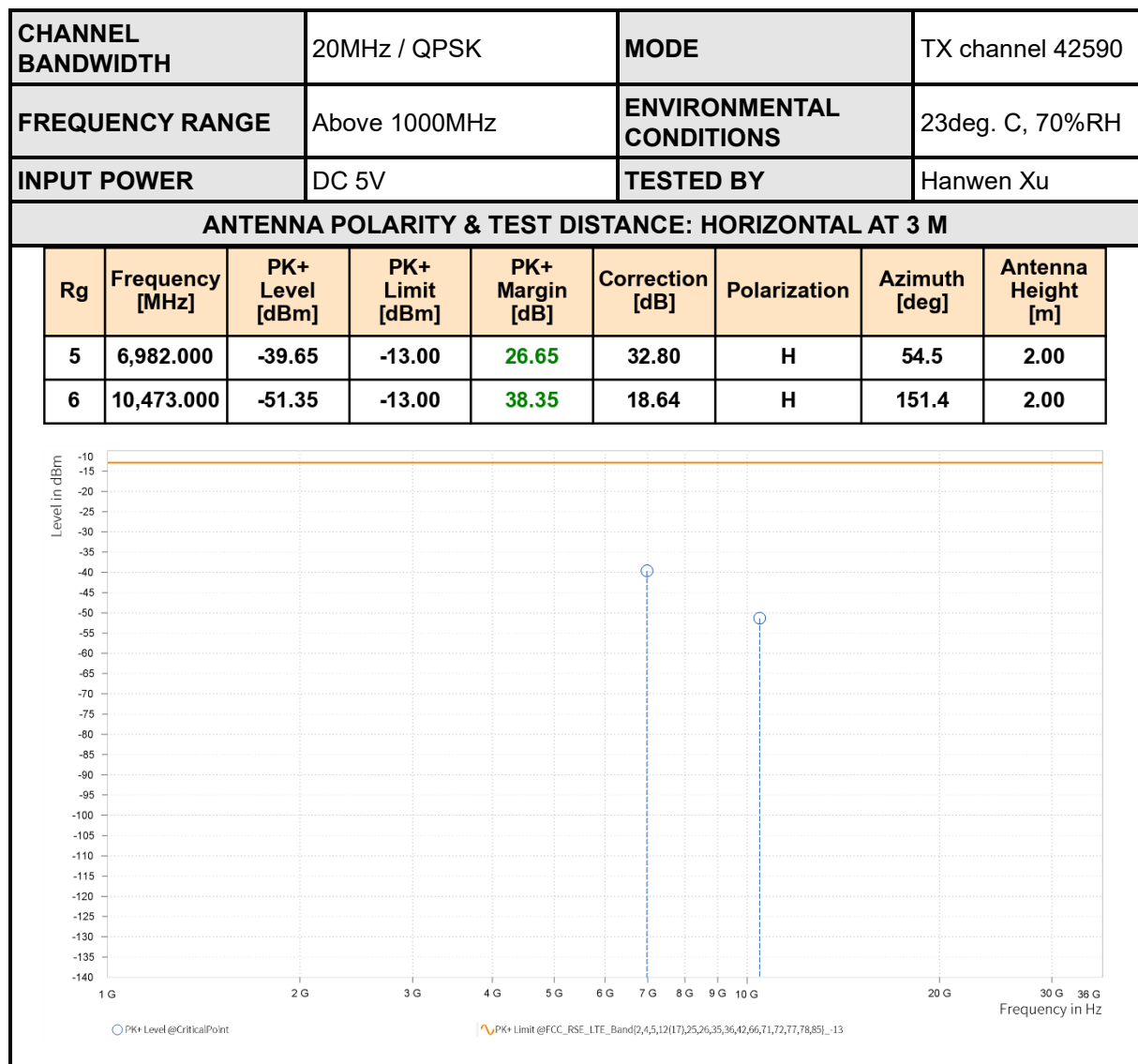


CHANNEL BANDWIDTH	20MHz / QPSK	MODE	TX channel 42190
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	DC 5V	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	6,902.000	-42.69	-13.00	29.69	32.79	V	359	2.00
6	10,353.000	-54.25	-13.00	41.25	17.63	V	357.8	1.00



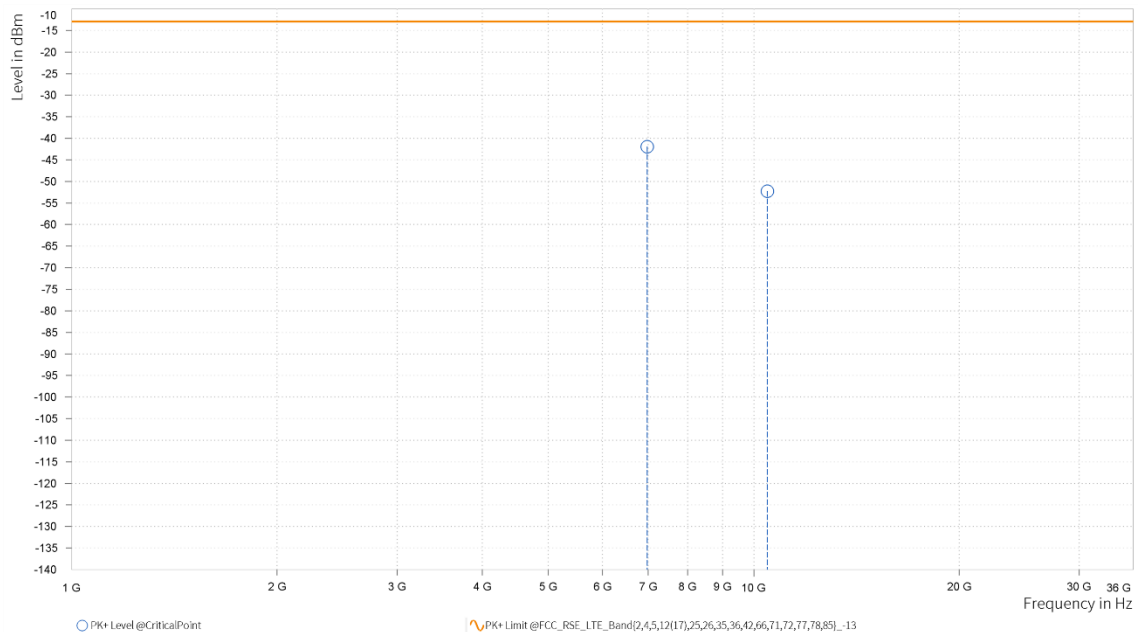


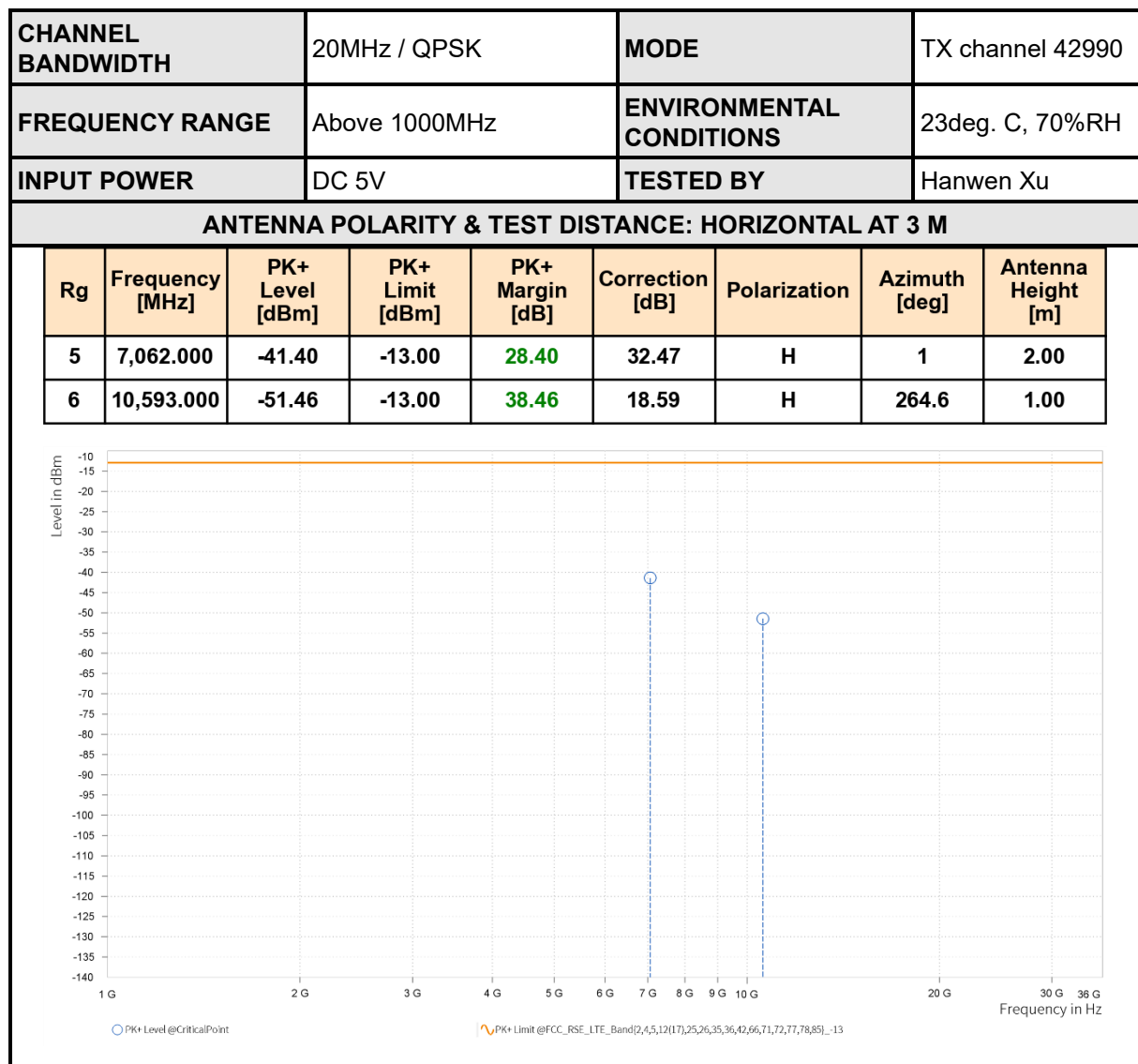


CHANNEL BANDWIDTH	20MHz / QPSK	MODE	TX channel 42590
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	DC 5V	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	6,982.000	-41.95	-13.00	28.95	32.84	V	356.9	1.00
6	10,473.000	-52.27	-13.00	39.27	18.42	V	105.3	2.00



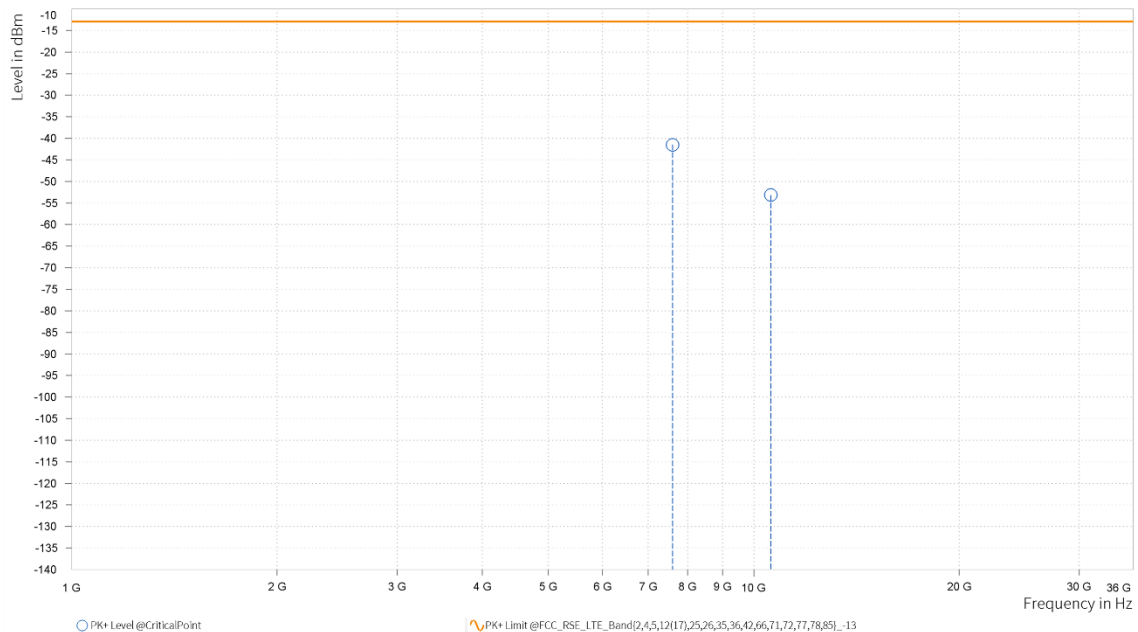




CHANNEL BANDWIDTH	20MHz / QPSK	MODE	TX channel 42990
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	DC 5V	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	7,602.000	-41.49	-13.00	28.49	32.32	V	265.3	1.00
6	10,593.000	-53.14	-13.00	40.14	18.26	V	0.9	2.00



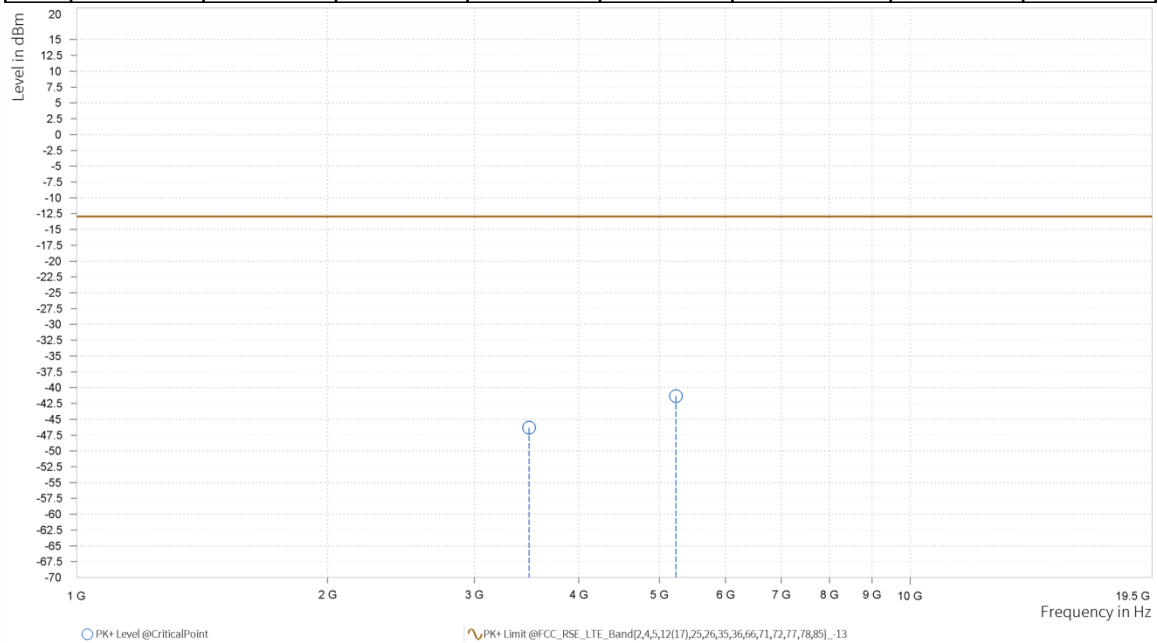


LTE Band66

CHANNEL BANDWIDTH	1.4MHz / QPSK	MODE	TX channel 132322
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	DC 5V	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	3,488.740	-46.34	-13.00	33.34	26.26	H	359.1	1.00
4	5,233.110	-41.32	-13.00	28.32	33.18	H	1	1.00

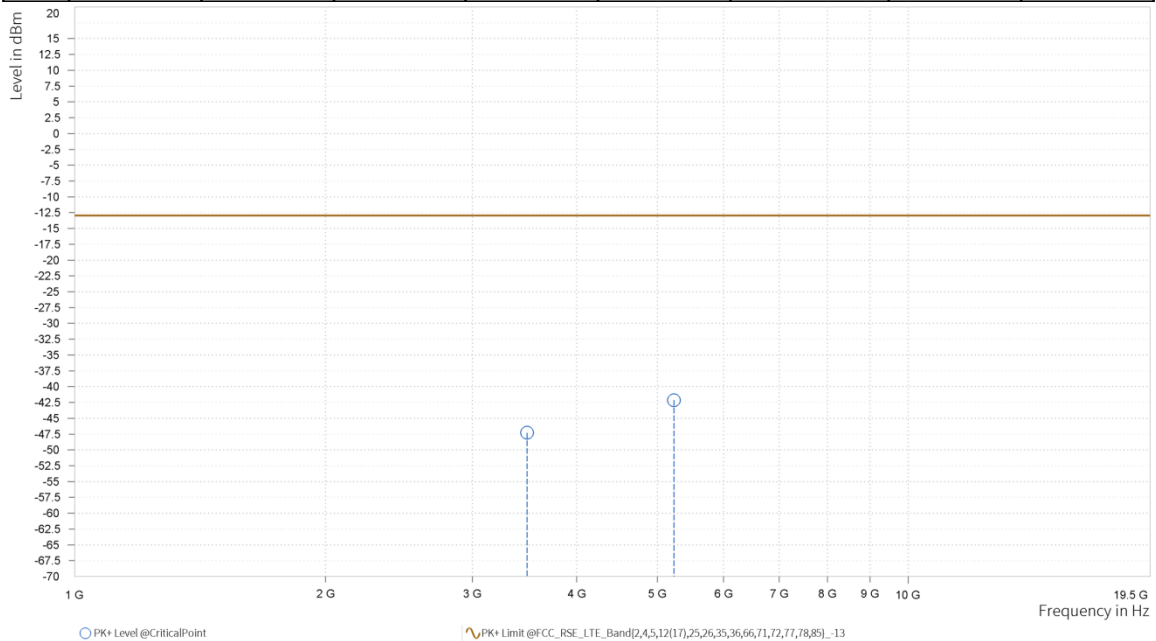




CHANNEL BANDWIDTH	1.4MHz / QPSK	MODE	TX channel 132322
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	DC 5V	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	3,488.740	-47.29	-13.00	34.29	26.03	V	106	2.00
4	5,233.110	-42.13	-13.00	29.13	33.15	V	280.4	1.00

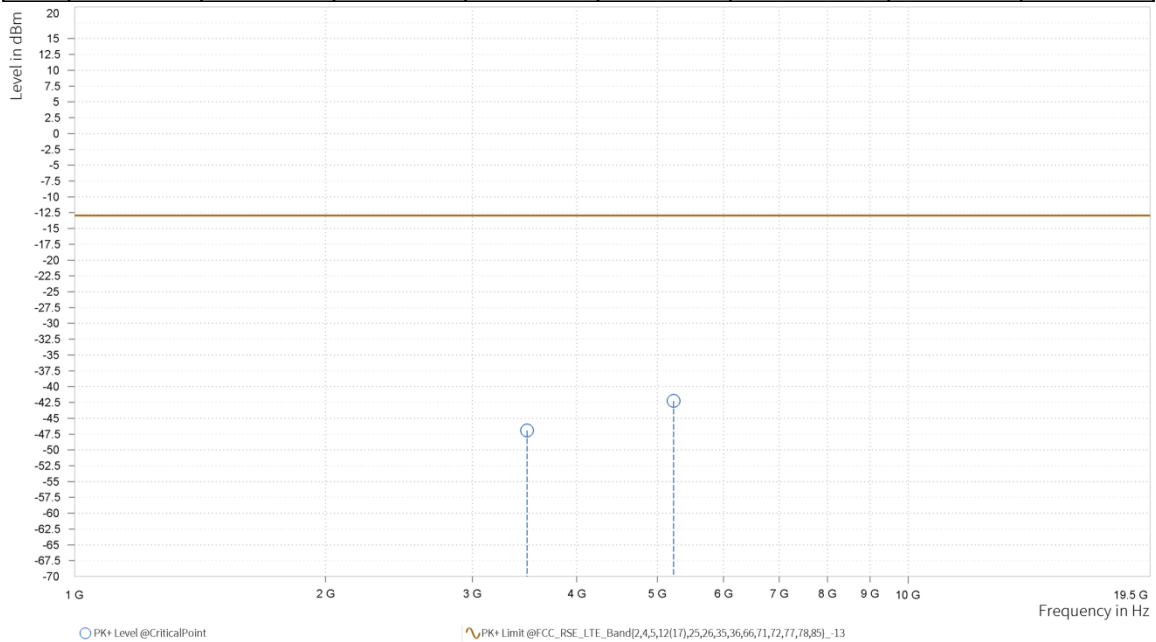




CHANNEL BANDWIDTH	3MHz / QPSK	MODE	TX channel 132322
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	DC 5V	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	3,487.300	-46.93	-13.00	33.93	26.27	H	105.9	2.00
4	5,230.950	-42.26	-13.00	29.26	33.48	H	359	2.00

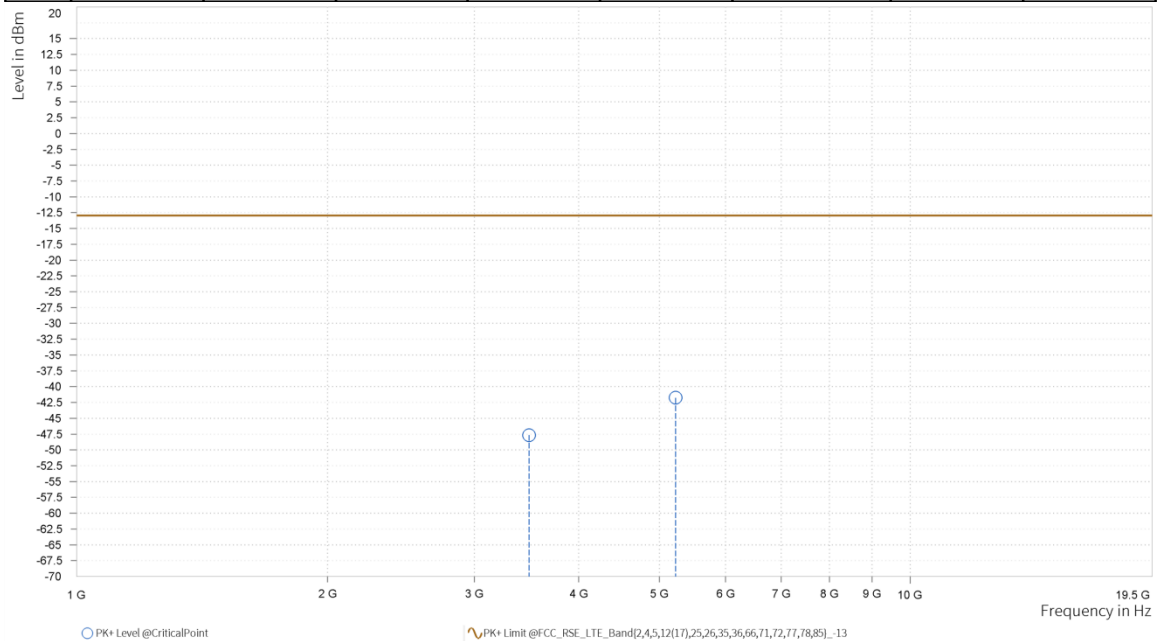




CHANNEL BANDWIDTH	3MHz / QPSK	MODE	TX channel 132322
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	DC 5V	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	3,487.300	-47.67	-13.00	34.67	26.04	V	359.1	1.00
4	5,230.950	-41.76	-13.00	28.76	33.45	V	106	2.00



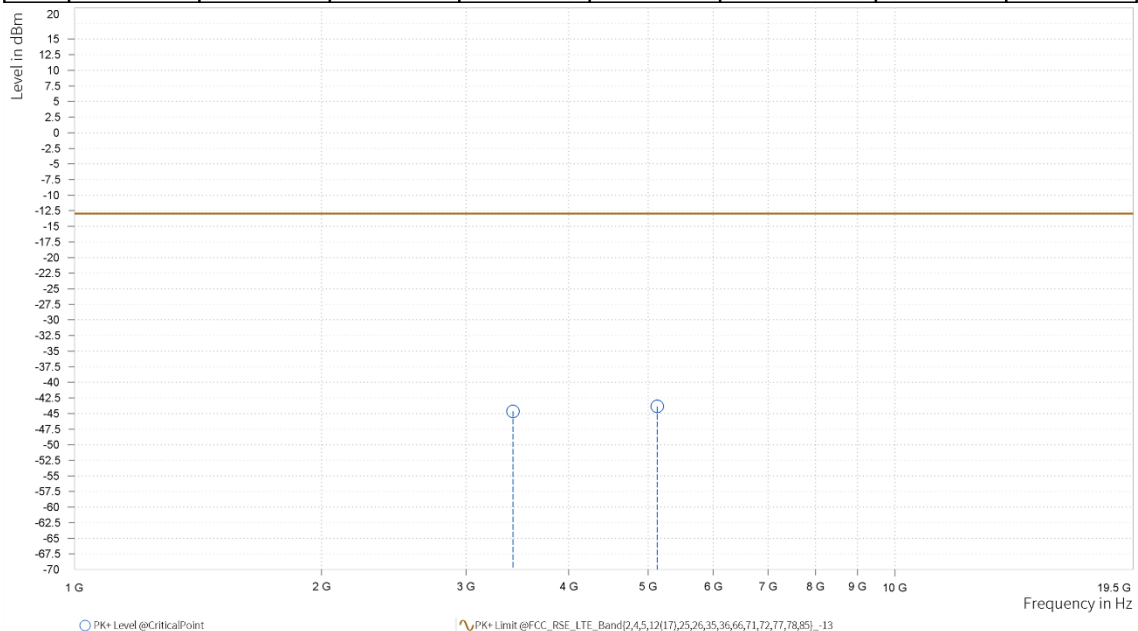


CH131997

CHANNEL BANDWIDTH	5MHz / QPSK	MODE	TX channel 131997
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	DC 5V	TESTED BY	Hanwen Xu
TESTED BY	Hanwen Xu		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	3,420.500	-44.64	-13.00	31.64	26.84	H	331.8	1.00
4	5,130.750	-43.87	-13.00	30.87	30.99	H	1	1.00





CHANNEL BANDWIDTH	5MHz / QPSK	MODE	TX channel 131997
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	DC 5V	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	3,420.500	-46.92	-13.00	33.92	26.64	V	121.4	2.00
4	5,130.750	-43.26	-13.00	30.26	30.85	V	121.4	2.00

