

FCC TEST REPORT

(PART 22)

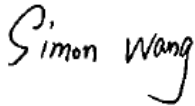
Applicant:	PAX Technology Limited
Address:	Room 2416, 24/F., Sun Hung Kai Centre, 30 Harbour, Hong Kong China

Manufacturer or Supplier:	PAX Computer Technology (Shenzhen) Co., Ltd.
Address:	401 and 402, Building 3, Shenzhen Software Park, Nanshan District, Shenzhen City, Guangdong Province, P.R.C
Product:	Smart Desktop Terminal
Brand Name:	PAX
Model Name:	A8500P, A8500N
FCC ID:	V5PA85004G
Date of tests:	May. 5, 2023 ~ May. 29, 2023

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

- ☒ FCC PART 22, Subpart H ☒ FCC Part 2
☒ ANSI/TIA/EIA-603-D ☒ ANSI C63.26-2015
☒ ANSI/TIA/EIA-603-E

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

Prepared by Simon Wang Engineer / Mobile Department	Approved by Luke Lu Manager / Mobile Department
	
Date: May. 29, 2023	Date: May. 29, 2023

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Test Report No.: W7L-P23050004RF04

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
W7L-P23050004RF04	Original release	May. 29, 2023

1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 22 & Part 2		
STANDARD SECTION	TEST TYPE	RESULT
§2.1046	Conducted Output Power	Compliance
§22.913 (a)(5)	Effective Radiated Power	Compliance
§2.1055 §22.355	Frequency Stability	SEE NOTE
§2.1049	Occupied Bandwidth	SEE NOTE
§22.913 (d)	Peak to average ratio*	SEE NOTE
§22.917(a)	Band Edge Measurements	SEE NOTE
§2.1051 §22.917(a)	Conducted Spurious Emissions	SEE NOTE
§2.1053 §22.917(a)	Radiated Spurious Emissions	Compliance

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

NOTE: Please refer to the report FG8O1914A/FG8O1914B (FCC-ID: ZMONL668AM00).

*Test Lab Information Reference

BV 7Layers Communications Technology (Shenzhen) Co., Ltd

Lab Address:

No.B102, Dazu Chuangxin Mansion, North of Beihuan Avenue, North Area, Hi-Tech Industrial Park, Nanshan District, Shenzhen, Guangdong, China

Accredited Test Lab Cert 3939.01

The FCC Site Registration No. : 525120; Designation No. : CN1171;

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
Maximum Peak Output Power	±2.06dB
Radiated emissions (9KHz~30MHz)	±2.68dB
Radiated emissions (30MHz~1GHz)	±4.98dB
Radiated emissions (1GHz ~6GHz)	±4.70dB
Radiated emissions (6GHz ~18GHz)	±4.60dB
Radiated emissions (18GHz ~40GHz)	±4.12dB

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

1.2 TEST SITE AND INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
MXE EMI Receiver	KEYSIGHT	N9038A-544	MY54450026	Mar. 28,23	Mar. 27,24
EXA Signal Analyzer	KEYSIGHT	N9010A-544	MY54510355	May.14,22	May.13,23
EXA Signal Analyzer	KEYSIGHT	N9010A-544	MY54510355	May.13,23	May.12,24
Loop Antenna	Schwarzbeck	FMZB 1519B	00173	Sep.03,22	Sep.02,23
Bilog Antenna	ETS-LINDGRE N	3143B	00161965	Feb. 18,23	Feb. 17,24
Horn Antenna	ETS-LINDGRE N	3117	00168692	Feb. 18,23	Feb. 17,24
Horn Antenna (18GHz-40GHz)	N/A	QWH-SL-18-40-K- SG/QMS-00361	15433	Sep.04, 22	Sep.03, 23
Radio Communication Analyzer	ANRITSU	MT8820C	6201465426	Feb. 14,23	Feb. 13,24
Signal Pre-Amplifier	EMSI	EMC 9135	980249	May. 07,22	May. 06,23
Signal Pre-Amplifier	EMSI	EMC 9135	980249	May. 06,23	May. 05,24
Signal Pre-Amplifier	EMSI	EMC 012645B	980257	May.12,22	May.11,23
Signal Pre-Amplifier	EMSI	EMC 012645B	980257	May.11,23	May.10,24
Signal Pre-Amplifier	EMSI	EMC 184045B	980259	Feb. 17,23	Feb.16,24
3m Semi-anechoic Chamber	ETS-LINDGRE N	9m*6m*6m	Euroshieldpn- CT0001143-121 6	May. 19,20	May. 18,23
3m Semi-anechoic Chamber	ETS-LINDGRE N	9m*6m*6m	Euroshieldpn- CT0001143-121 6	May. 18,23	May. 17,26
Test Software	E3	V 9.160323	N/A	N/A	N/A
Test Software	JS1120	3.1.36	N/A	N/A	N/A
10dB Attenuator	JFW/USA	50HF-010-SMA	50HF-010-SMA	May. 07,22	May. 06,23
10dB Attenuator	JFW/USA	50HF-010-SMA	50HF-010-SMA	May. 06,23	May. 05,24
Power Meter	Anritsu	ML2495A	1506002	Feb. 14,23	Feb. 13,24
Power Sensor	Anritsu	MA2411B	1339352	Feb. 14,23	Feb. 13,24
Temperature Chamber	ESPEC	SH-242	93000855	May. 07,22	May. 06,23
Temperature Chamber	ESPEC	SH-242	93000855	May. 06,23	May. 05,24
MXG Analog Microwave Signal Generator	KEYSIGHT	N5183A	MY50143024	Feb. 14,23	Feb. 13,24
Base station R&S CMW500	Rohde&Schwa rz	CMW500	153085	May.12,22	May.11,23
Base station R&S CMW500	Rohde&Schwa rz	CMW500	153085	May.11,23	May.10,24
DC Source	Kikusui/JP	PMX18-5A	N/A	Aug. 12,22	Aug. 11,23

- NOTE:**
1. The calibration interval of the above test instruments is 12 months or 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 525120; The Designation No. is CN1171.

2 GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Smart Desktop Terminal	
BRAND NAME	PAX	
MODEL NAME	A8500P, A8500N	
NOMINAL VOLTAGE	5.0/9.0Vdc(adapter or host equipment)	
MODULATION TYPE	WCDMA	BPSK, QPSK
	LTE	QPSK, 16QAM
FREQUENCY RANGE	WCDMA	826.4MHz ~ 846.6MHz
	LTE Band 5 (Channel Bandwidth: 1.4MHz)	824.7MHz ~ 848.3MHz
	LTE Band 5 (Channel Bandwidth: 3MHz)	825.5MHz ~ 847.5MHz
	LTE Band 5 (Channel Bandwidth: 5MHz)	826.5MHz ~ 846.5MHz
	LTE Band 5 (Channel Bandwidth: 10MHz)	829MHz ~ 844MHz
MAX. ERP POWER	WCDMA	191.87mW
	LTE Band 5 (Channel Bandwidth: 1.4MHz)	161.06mW
	LTE Band 5 (Channel Bandwidth: 3MHz)	161.81mW
	LTE Band 5 (Channel Bandwidth: 5MHz)	163.31mW
	LTE Band 5 (Channel Bandwidth: 10MHz)	163.68mW
EMISSION DESIGNATOR GOGN	WCDMA	4M31F9W
	LTE Band 5 (Channel Bandwidth: 1.4MHz)	QPSK: 1M10G7D
		16QAM: 1M10W7D
		64QAM: /
	LTE Band 5 (Channel Bandwidth: 3MHz)	QPSK: 2M73G7D
		16QAM: 2M72W7D
		64QAM: /
	LTE Band 5 (Channel Bandwidth: 5MHz)	QPSK: 4M51G7D
		16QAM: 4M51W7D



		64QAM: /
EMISSION DESIGNATOR GOGN	LTE Band 5 (Channel Bandwidth: 10MHz)	QPSK: 9M05G7D
		16QAM: 8M97W7D
		64QAM: /
ANTENNA TYPE	Fixed Internal Antenna with 1.5dBi gain for WCDMA V Fixed Internal Antenna with 1.5dBi gain for LTE B5	
HW VERSION	A8500P A8500N	
SW VERSION	V0.0.0.1	
I/O PORTS	Refer to user's manual	
CABLE SUPPLIED	USB cable: non-shielded cable, with w/o ferrite core, 1.0 meter	
EXTREME TEMPERATURE	-10-50 °C	
EXTREME VOLTAGE	8.55V – 9.9V	

NOTE:

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

MODULATION MODE	TX FUNCTION
WCDMA	1TX/1RX
LTE	1TX/1RX

3. For the test results, the EUT had been tested with all conditions. But only the worst case (A8500P) was shown in test report.

4. The difference of A8500N and A8500P is on below:

Object	A8500P	A8500N
Printer	Support	NO support
Adapter 1	Model Name : SW-0396A I/P: 100-240Vac,800mA, O/P: 9.0Vdc, 1000mA	Model Name: SW-0983 I/P: 100-240Vac, 500mA, O/P: 5.0Vdc,2000mA
Adapter 2	Model Name: G024A090100ZZUD I/P: 100-240Vac,800mA, O/P: 9.0Vdc, 1000mA	Model Name: GLH50E2000HW I/P: 100-240Vac, 500mA, O/P: 5.0Vdc,2000mA
LCD Panel 1	Supplier : Hubei Yiou Electronics Co., Ltd Model Name: YH-500BSC046C0-19A00-PTM0 Specifications : 5.0 inch/ 720*RGB*1280 Pixel	
LCD Panel 2	Supplier : Shenzhen Hongzhan Optoelectronics Co., Ltd Model Name: F6050812B-04 Specifications :5.0 inch/ 720*RGB*1280 Pixel	
Automatic operating voltage	Minimum voltage: 8.55V	Minimum voltage: 5.25V
	Normal voltage: 9V	Normal voltage: 5V
	Maximum voltage: 9.9V	Maximum voltage: 4.75V
Note: When the operating voltage changes, It does not affect RF baseband module		

List of Accessory:

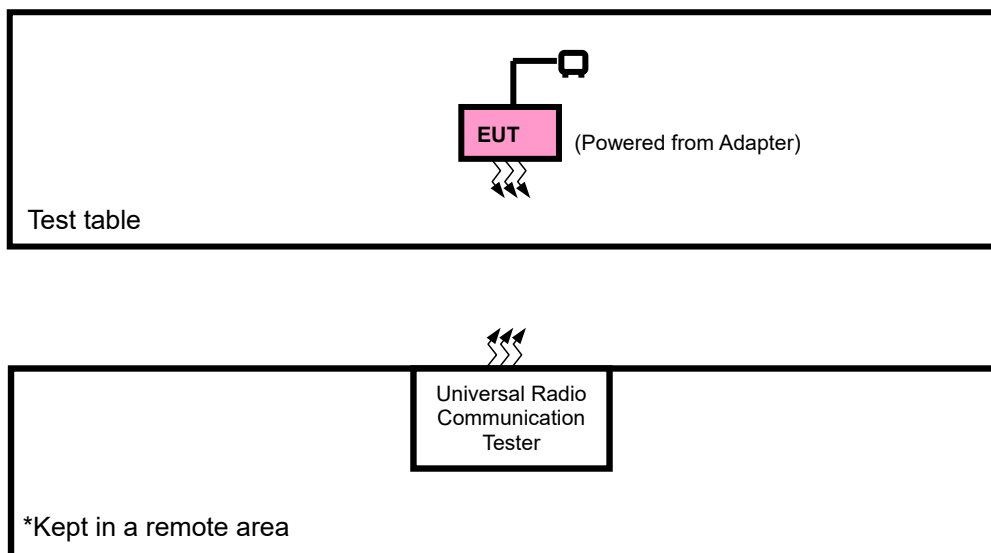
A8500N

ACCESSORIES	BRAND	MANUFACTURER	MODEL	SPECIFICATION
AC Adapter 1	PAX	XIAMEN KELI ELECTRONICS Co.,Ltd.	SW-0983	I/P: 100-240Vac, 0.5A, O/P: 5.0Vdc, 2A
AC Adapter 2	PAX	Shenzhen Sorghum Red Electronic Technology Co., Ltd	GLH50E2000HW	I/P: 100-240Vac, 0.4A, O/P: 5.0Vdc, 2A
USB Cable	N/A	N/A	N/A	Signal Line,1.0meter

A8500P

ACCESSORIES	BRAND	MANUFACTURER	MODEL	SPECIFICATION
AC Adapter 1	PAX	XIAMEN KELI ELECTRONICS Co.,Ltd.	SW-0396A	I/P: 100-240Vac, 0.5A, O/P: 9.0Vdc, 1A
AC Adapter 2	PAX	Shenzhen Sorghum Red Electronic Technology Co., Ltd	G024A090100ZZ UD	I/P: 100-240Vac, 0.8A, O/P: 9.0Vdc, 1A

2.2 CONFIGURATION OF SYSTEM UNDER TEST FOR RADIATION EMISSION



2.3 DESCRIPTION OF SUPPORT UNITS

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

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	DC source	Kikusui/JP	PMX18-5A	0000001	N/A

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

2.4 TEST ITEM AND TEST CONFIGURATION

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

EUT CONFIGURE MODE	DESCRIPTION
A	EUT + Adapter with WCDMA or LTE link

WCDMA MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	MODE
A	ERP	4132 to 4233	4132, 4182, 4233	WCDMA
A	RADIATED EMISSION	4132 to 4233	4132, 4182, 4233	WCDMA

LTE BAND 5 MODE

EUT CONFIGURE MODE	TEST ITEM	Available Channel	Tested Channel	Channel bandwidth	modulation	mode
A	ERP	20407 to 20643	20407, 20525, 20643	1.4MHz	QPSK,16QAM	1 RB / 0 RB Offset
		20415 to 20635	20415, 20525, 20635	3MHz	QPSK,16QAM	1 RB / 0 RB Offset
		20425 to 20625	20425, 20525, 20625	5MHz	QPSK,16QAM	1 RB / 0 RB Offset
		20450 to 20600	20450, 20525, 20600	10MHz	QPSK,16QAM	1 RB / 0 RB Offset
A	RADIATED EMISSION	20407 to 20643	20525	1.4MHz	QPSK	1 RB / 0 RB Offset
		20415 to 20635	20525	3MHz	QPSK	1 RB / 0 RB Offset
		20425 to 20625	20425, 20525, 20625	5MHz	QPSK	1 RB / 0 RB Offset
		20450 to 20600	20525	10MHz	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
ERP	23deg. C, 56%RH	DC 5V/9V By Adapter	Jace Hu
RADIATED EMISSION	23deg. C, 56%RH	DC 5V/9V By Adapter	Jace Hu

2.5 EUT OPERATING CONDITIONS

The EUT makes a call to the communication simulator. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency



2.6 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 22

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

Mobile / Portable station are limited to 7 watts e.r.p.

3.1.2 TEST PROCEDURES

EIRP / ERP MEASUREMENT:

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

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

Where:

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

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

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

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

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

CONDUCTED POWER MEASUREMENT:

The EUT was set up for the maximum power with WCDMA 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

EIRP / ERP Measurement:

CONDUCTED POWER MEASUREMENT:



3.1.4 TEST RESULTS

CONDUCTED OUTPUT POWER (dBm)

Band	WCDMA V		
TX Channel	4132	4182	4233
Rx Channel	4357	4407	4458
Frequency	826.4	836.4	846.6
RMC 12.2K	23.48	23.46	23.45
HSDPA Subtest-1	21.90	21.94	22.00
HSDPA Subtest-2	22.36	22.43	22.46
HSDPA Subtest-3	21.58	21.46	21.47
HSDPA Subtest-4	21.51	21.40	21.45
HSUPA Subtest-1	21.90	21.77	21.88
HSUPA Subtest-2	20.41	20.29	20.46
HSUPA Subtest-3	20.97	20.82	20.90
HSUPA Subtest-4	20.48	20.29	20.44
HSUPA Subtest-5	21.82	21.76	21.86



LTE Band 5

Band/BW	Modulation	RB Size	RB Offset	Low CH 20407	Mid CH 20525	High CH 20643
				Frequency 824.7 MHz	Frequency 836.5 MHz	Frequency 848.3 MHz
5/ 1.4	QPSK	1	0	22.53	22.52	22.61
		1	2	22.54	22.72	22.71
		1	5	22.55	22.53	22.72
		3	0	22.29	22.40	22.46
		3	1	22.39	22.48	22.59
		3	3	22.37	22.62	22.57
		6	0	21.37	21.30	21.51
	16QAM	1	0	21.14	21.28	21.26
		1	2	21.13	21.29	21.29
		1	5	21.04	21.20	21.28
		3	0	21.42	21.40	21.55
		3	1	21.47	21.59	21.68
		3	3	21.49	21.71	21.64
		6	0	20.30	20.47	20.57

Band/BW	Modulation	RB Size	RB Offset	Low CH 20415	Mid CH 20525	High CH 20635
				Frequency 825.5 MHz	Frequency 836.5 MHz	Frequency 847.5 MHz
5/ 3	QPSK	1	0	22.48	22.51	22.58
		1	7	22.52	22.74	22.74
		1	14	22.49	22.59	22.68
		8	0	21.26	21.47	21.45
		8	3	21.39	21.48	21.56
		8	7	21.37	21.62	21.60
		15	0	21.36	21.30	21.48
	16QAM	1	0	21.18	21.22	21.30
		1	7	21.12	21.30	21.26
		1	14	21.09	21.16	21.31
		8	0	20.42	20.41	20.52
		8	3	20.49	20.57	20.74
		8	7	20.54	20.71	20.62
		15	0	20.30	20.47	20.52

Band/BW	Modulation	RB Size	RB Offset	Low CH 20425	Mid CH 20525	High CH 20625
				Frequency 826.5 MHz	Frequency 836.5 MHz	Frequency 846.5 MHz
5/ 5	QPSK	1	0	22.50	22.53	22.58
		1	12	22.51	22.78	22.71
		1	24	22.53	22.56	22.73
		12	0	21.28	21.46	21.42
		12	6	21.36	21.48	21.62
		12	13	21.37	21.61	21.57
		25	0	21.39	21.27	21.50
	16QAM	1	0	21.12	21.24	21.23
		1	12	21.14	21.32	21.25
		1	24	21.05	21.17	21.31
		12	0	20.38	20.41	20.52
		12	6	20.48	20.60	20.74
		12	13	20.47	20.71	20.64
		25	0	20.27	20.54	20.56

Band/BW	Modulation	RB Size	RB Offset	Low CH 20450	Mid CH 20525	High CH 20600
				Frequency 829 MHz	Frequency 836.5 MHz	Frequency 844 MHz
5/ 10	QPSK	1	0	22.54	22.58	22.63
		1	24	22.59	22.79	22.76
		1	49	22.57	22.61	22.74
		25	0	21.34	21.48	21.47
		25	12	21.43	21.53	21.64
		25	25	21.45	21.63	21.62
		50	0	21.41	21.35	21.52
	16QAM	1	0	21.20	21.30	21.31
		1	24	21.20	21.34	21.31
		1	49	21.12	21.22	21.33
		25	0	20.44	20.48	20.57
		25	12	20.55	20.65	20.76
		25	25	20.55	20.73	20.70
		50	0	20.35	20.55	20.58

ERP POWER (dBm)

WCDMA

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
4132	826.4	23.48	1.5	22.83	191.87	7
4182	836.4	23.46	1.5	22.81	190.99	7
4233	846.6	23.45	1.5	22.8	190.55	7

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

LTE BAND 5

CHANNEL BANDWIDTH: 1.4MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
20407	824.7	22.55	1.5	21.9	154.88	7
20525	836.5	22.72	1.5	22.07	161.06	7
20643	848.3	22.72	1.5	22.07	161.06	7

CHANNEL BANDWIDTH: 1.4MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
20407	824.7	21.49	1.5	20.84	121.34	7
20525	836.5	21.71	1.5	21.06	127.64	7
20643	848.3	21.68	1.5	21.03	126.77	7

CHANNEL BANDWIDTH: 3MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
20415	825.5	22.52	1.5	21.87	153.82	7
20525	836.5	22.74	1.5	22.09	161.81	7
20635	847.5	22.74	1.5	22.09	161.81	7

CHANNEL BANDWIDTH: 3MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
20415	825.5	21.18	1.5	20.53	112.98	7
20525	836.5	21.3	1.5	20.65	116.14	7
20635	847.5	21.31	1.5	20.66	116.41	7

CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
20425	826.5	22.53	1.5	21.88	154.17	7
20525	836.5	22.78	1.5	22.13	163.31	7
20625	846.5	22.73	1.5	22.08	161.44	7

CHANNEL BANDWIDTH: 5MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
20425	826.5	21.14	1.5	20.49	111.94	7
20525	836.5	21.32	1.5	20.67	116.68	7
20625	846.5	21.31	1.5	20.66	116.41	7

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
20450	829.0	22.59	1.5	21.94	156.31	7
20525	836.5	22.79	1.5	22.14	163.68	7
20600	844.0	22.76	1.5	22.11	162.55	7

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	ERP (dBm)	ERP (mW)	Limit (W)
20450	829.0	21.2	1.5	20.55	113.5	7
20525	836.5	21.34	1.5	20.69	117.22	7
20600	844.0	21.33	1.5	20.68	116.95	7

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

3.2 RADIATED EMISSION MEASUREMENT

3.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

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 equal to -13dBm .

3.2.2 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, $\text{E.R.P power} = \text{E.I.P.R power} - 2.15\text{dBi}$.

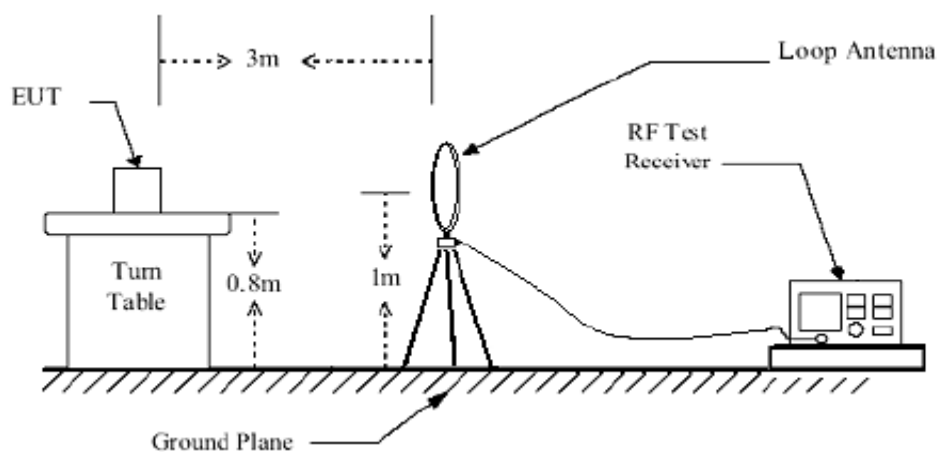
NOTE: The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1MHz/3MHz.

3.2.3 DEVIATION FROM TEST STANDARD

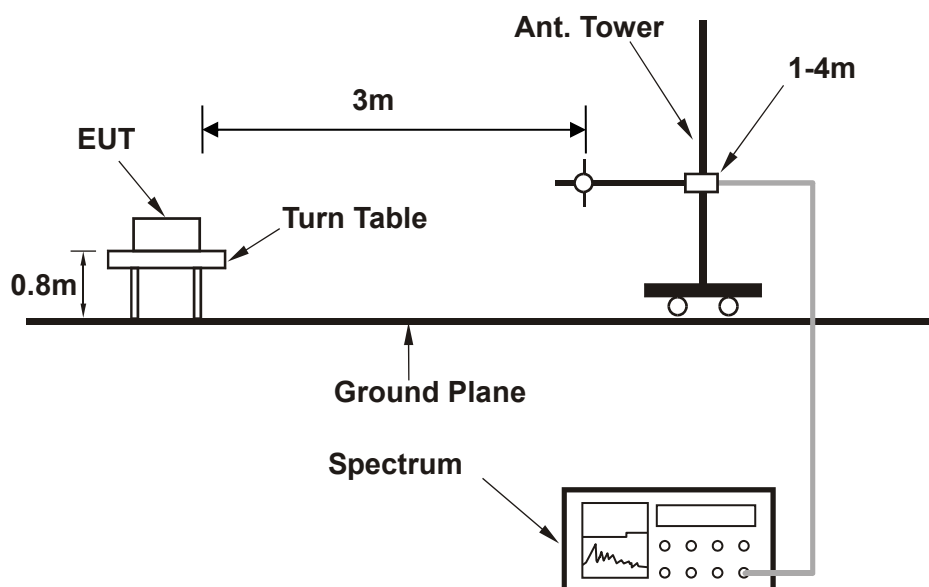
No deviation

3.2.4 TEST SETUP

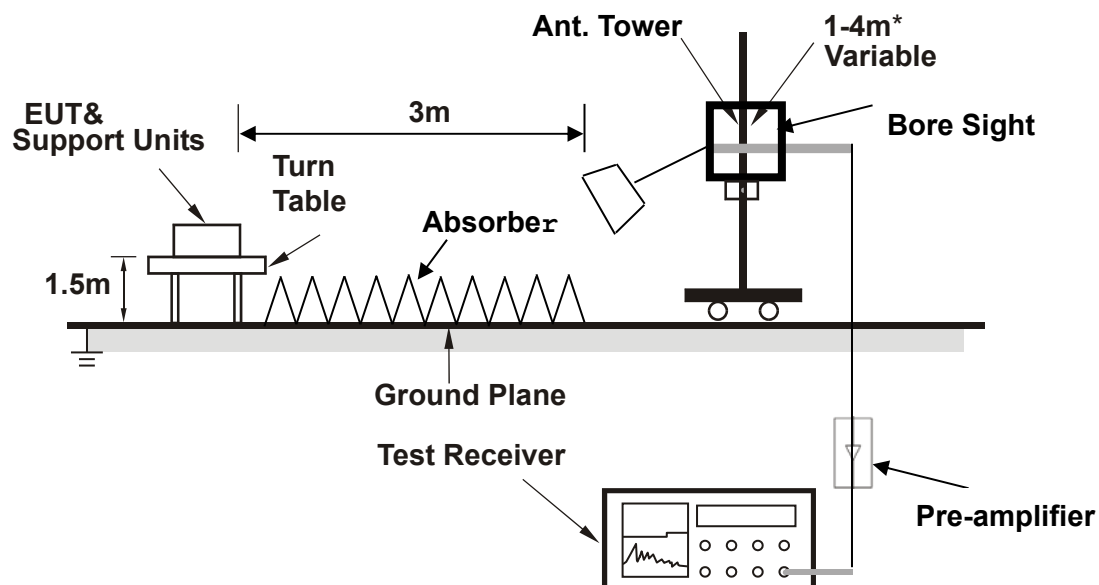
< Frequency Range below 30MHz >



< 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).

3.2.5 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

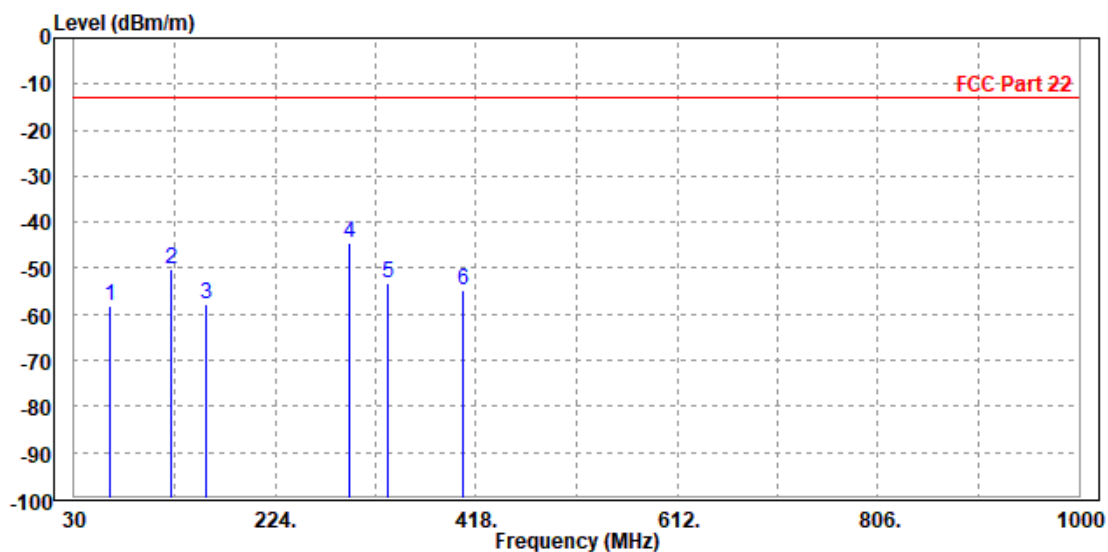
30 MHz – 1GHz data:

WCDMA V

CHANNEL BANDWIDTH:

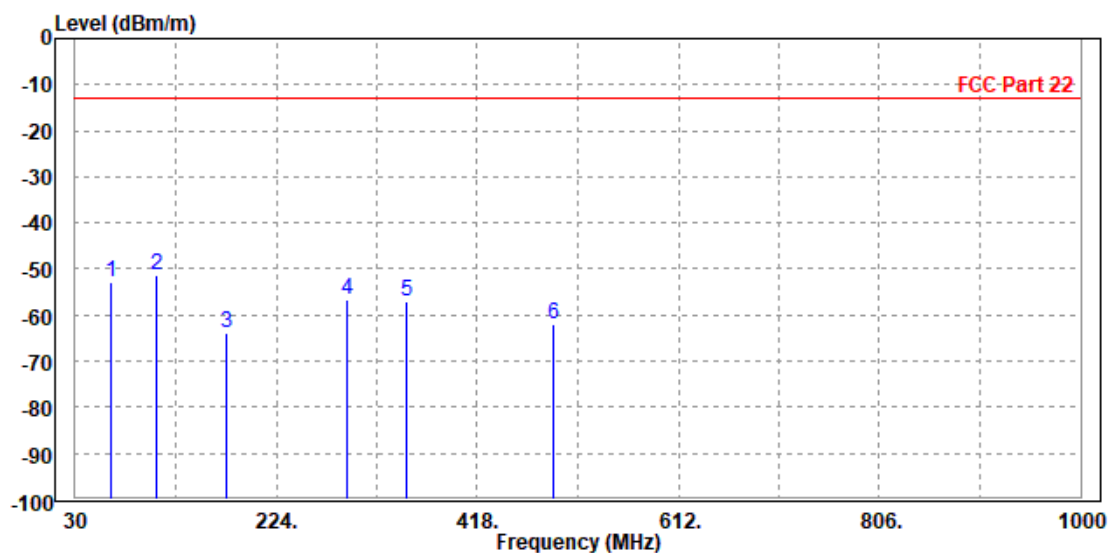
MODE	TX channel 4182	FREQUENCY RANGE	Below 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 56%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	63.950	-58.12	-38.41	-13.00	-45.12	-19.71	Peak	Horizontal
2	123.120	-50.08	-29.19	-13.00	-37.08	-20.89	Peak	Horizontal
3	157.070	-57.78	-40.98	-13.00	-44.78	-16.80	Peak	Horizontal
4 PP	295.780	-44.64	-32.26	-13.00	-31.64	-12.38	Peak	Horizontal
5	333.610	-53.35	-41.71	-13.00	-40.35	-11.64	Peak	Horizontal
6	405.390	-54.90	-44.97	-13.00	-41.90	-9.93	Peak	Horizontal



MODE	TX channel 4182	FREQUENCY RANGE	Below 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 56%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	63.950	-52.87	-29.96	-13.00	-39.87	-22.91	Peak	Vertical
2 PP	108.570	-51.42	-41.46	-13.00	-38.42	-9.96	Peak	Vertical
3	175.500	-63.86	-45.60	-13.00	-50.86	-18.26	Peak	Vertical
4	291.900	-56.54	-45.27	-13.00	-43.54	-11.27	Peak	Vertical
5	350.100	-57.16	-47.25	-13.00	-44.16	-9.91	Peak	Vertical
6	490.750	-61.94	-53.78	-13.00	-48.94	-8.16	Peak	Vertical





ABOVE 1GHz DATA

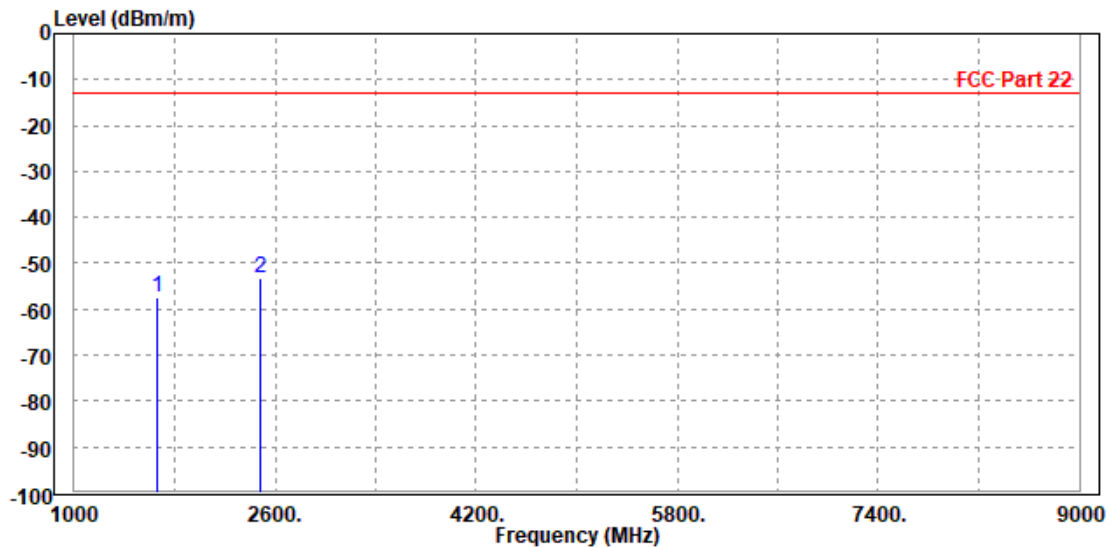
Note: For higher frequency, the emission is too low to be detected.

WCDMA Band V:

CH 4132:

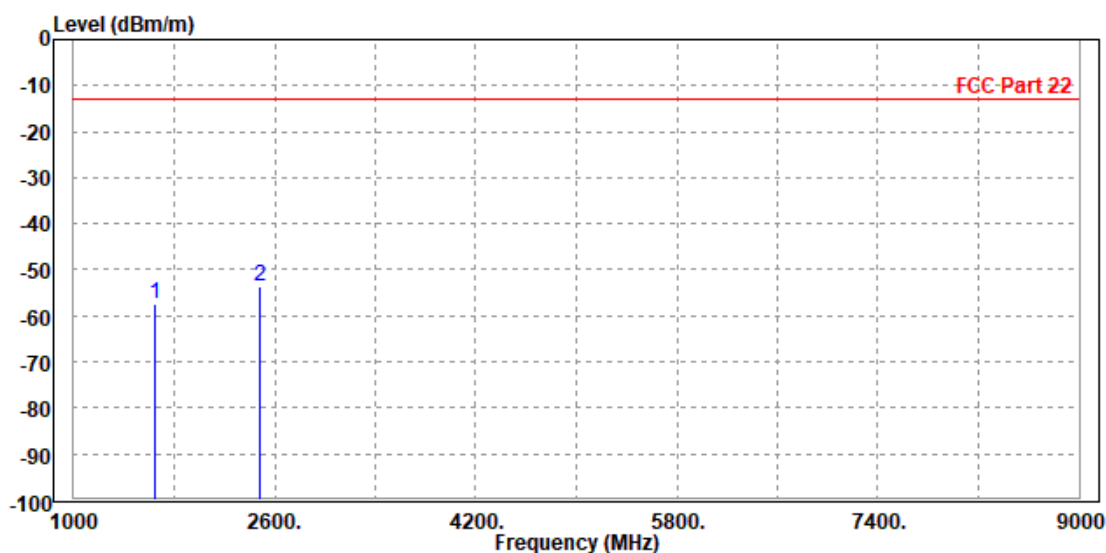
MODE	TX channel 4132	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 56%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1656.000	-57.50	-58.34	-13.00	-44.50	0.84	Peak	Horizontal
2 PP	2479.200	-53.33	-58.69	-13.00	-40.33	5.36	Peak	Horizontal



MODE	TX channel 4132	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 56%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

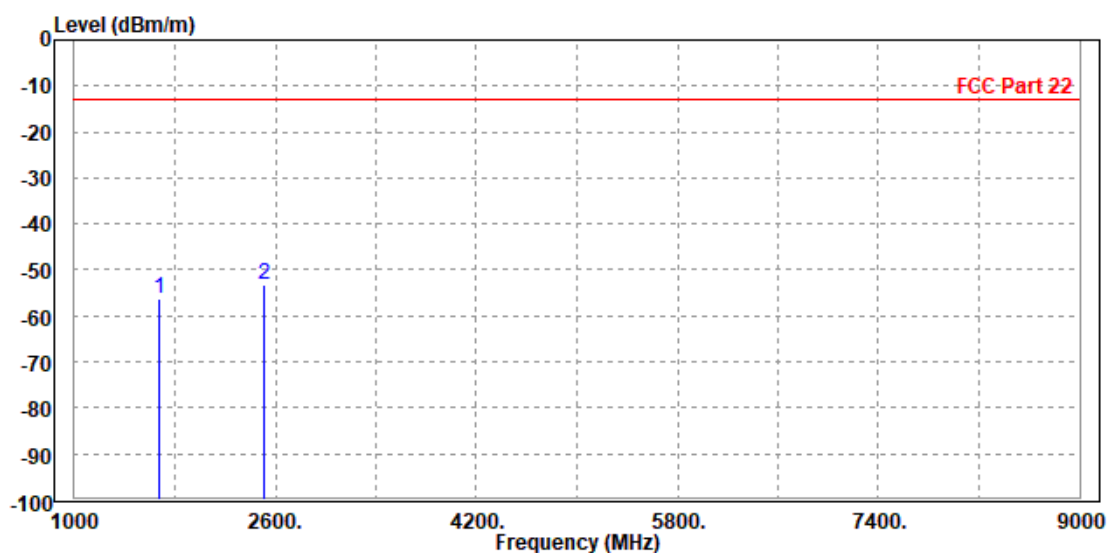
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1652.800	-57.35	-58.42	-13.00	-44.35	1.07	Peak	Vertical
2 PP	2480.000	-53.62	-58.50	-13.00	-40.62	4.88	Peak	Vertical



CH 4182:

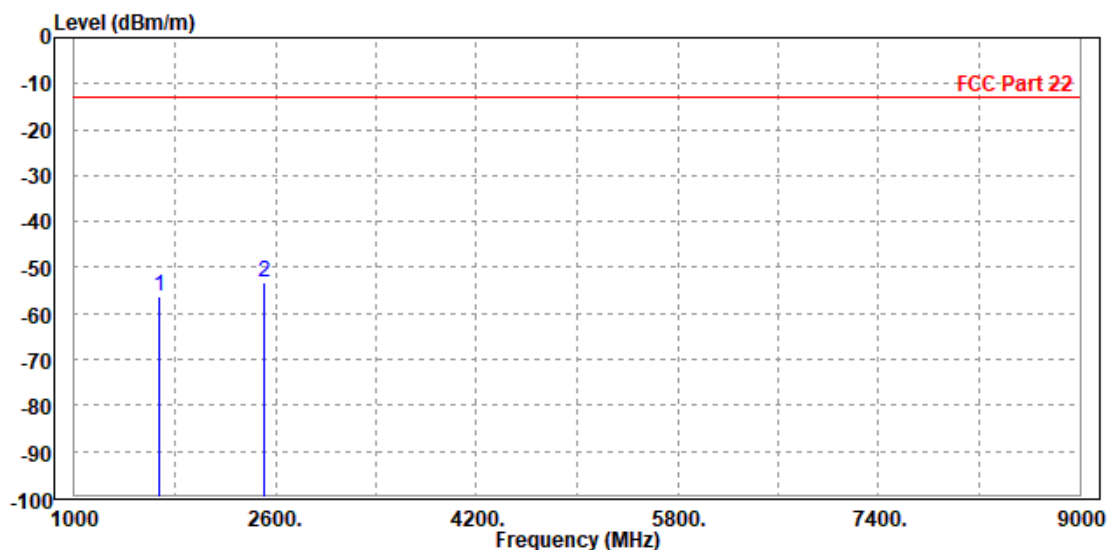
MODE	TX channel 4182	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 56%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1672.800	-56.43	-57.40	-13.00	-43.43	0.97	Peak	Horizontal
2 PP	2512.000	-53.37	-58.84	-13.00	-40.37	5.47	Peak	Horizontal



MODE	TX channel 4182	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 56%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

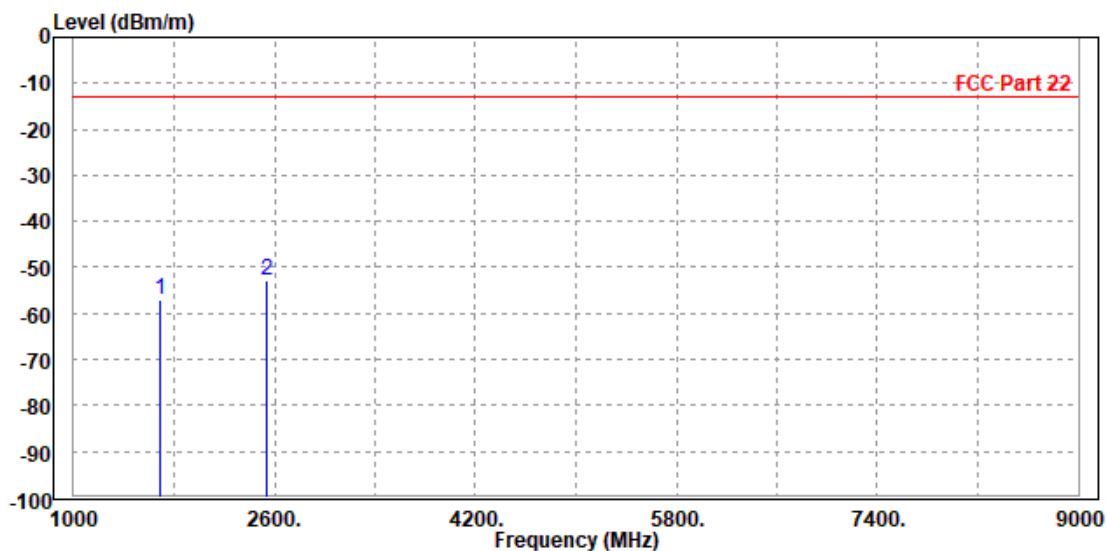
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1672.000	-56.19	-57.40	-13.00	-43.19	1.21	Peak	Vertical
2 PP	2509.200	-53.27	-58.24	-13.00	-40.27	4.97	Peak	Vertical



CH 4233:

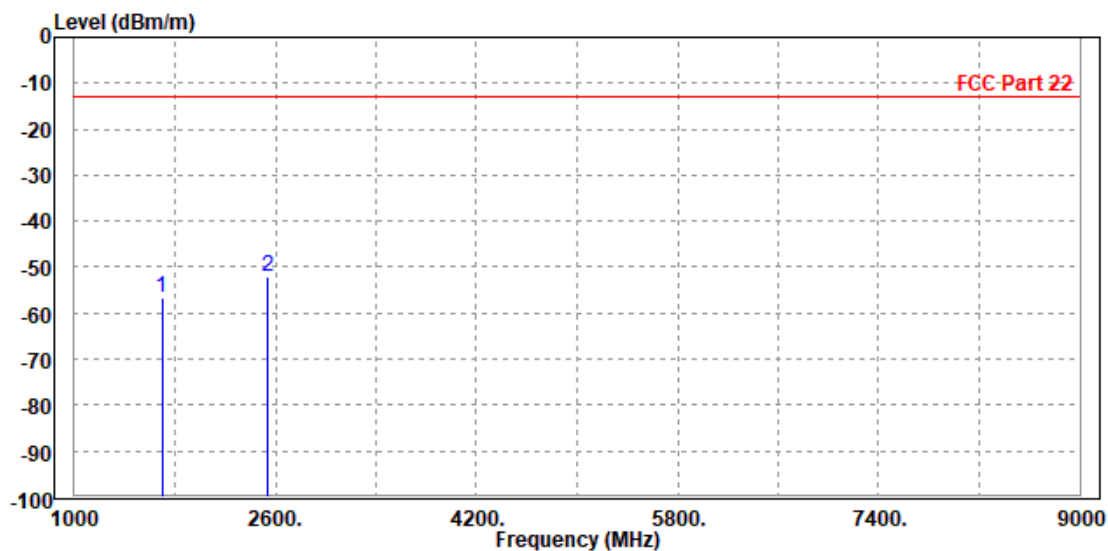
MODE	TX channel 4233	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 56%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1693.200	-57.02	-58.16	-13.00	-44.02	1.14	Peak	Horizontal
2 PP	2536.000	-52.70	-58.23	-13.00	-39.70	5.53	Peak	Horizontal



MODE	TX channel 4233	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 56%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1696.000	-56.81	-58.19	-13.00	-43.81	1.38	Peak	Vertical
2 PP	2539.800	-52.15	-57.22	-13.00	-39.15	5.07	Peak	Vertical



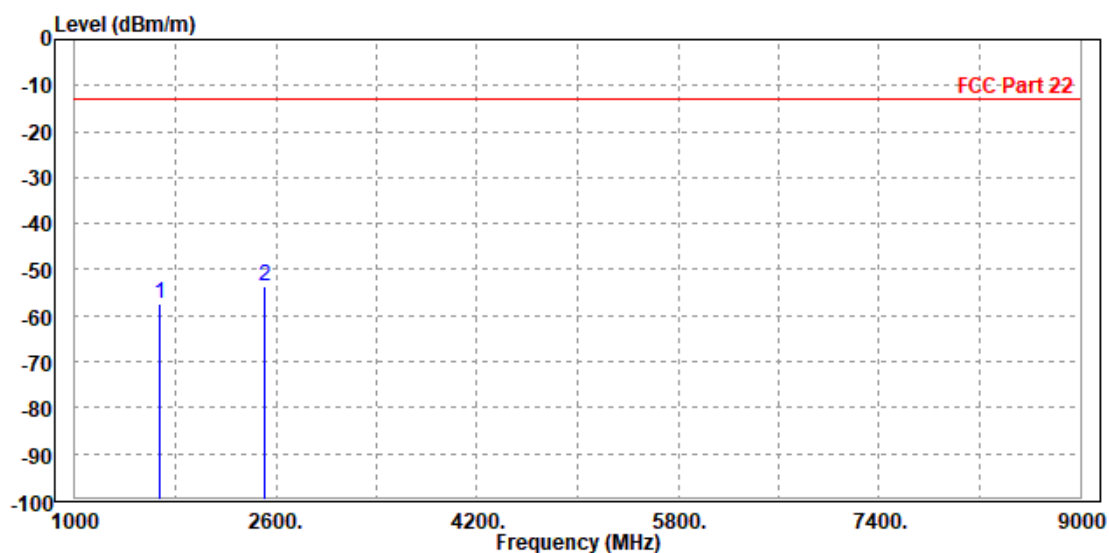
LTE Band 5

CHANNEL BANDWIDTH: 1.4MHz / QPSK

CH20525

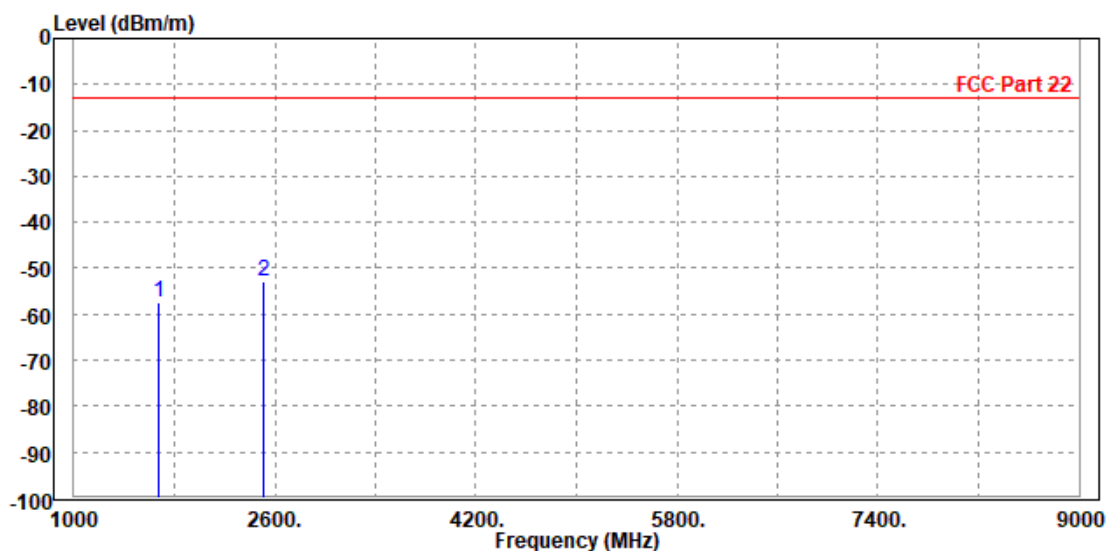
MODE	TX channel 20525	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 56%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1673.000	-57.40	-58.38	-13.00	-44.40	0.98	Peak	Horizontal
2 PP	2512.000	-53.44	-58.91	-13.00	-40.44	5.47	Peak	Horizontal



MODE	TX channel 20525	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 56%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1672.000	-57.44	-58.65	-13.00	-44.44	1.21	Peak	Vertical
2 PP	2509.500	-52.90	-57.87	-13.00	-39.90	4.97	Peak	Vertical

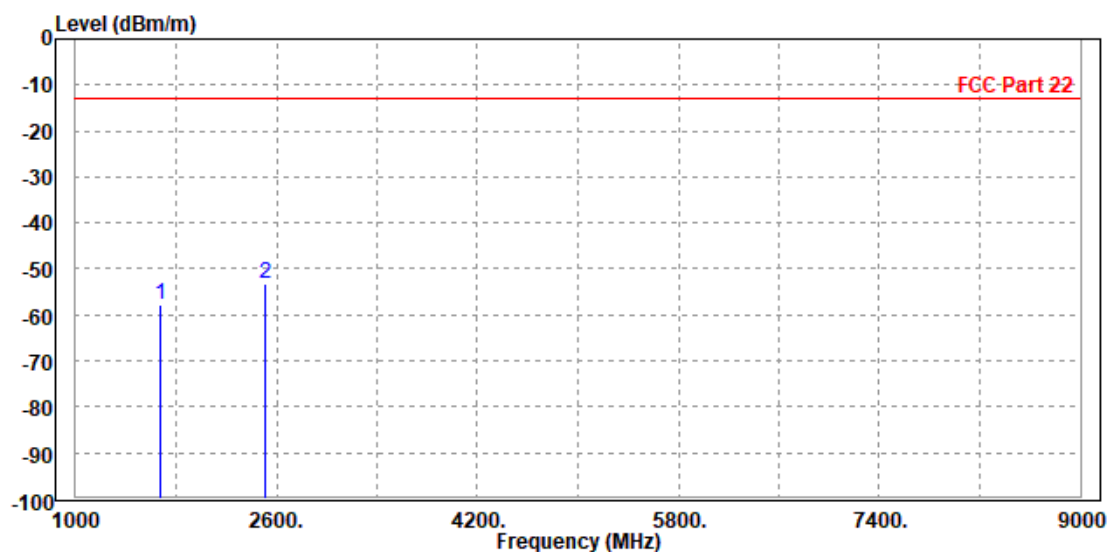


CHANNEL BANDWIDTH: 3MHz / QPSK

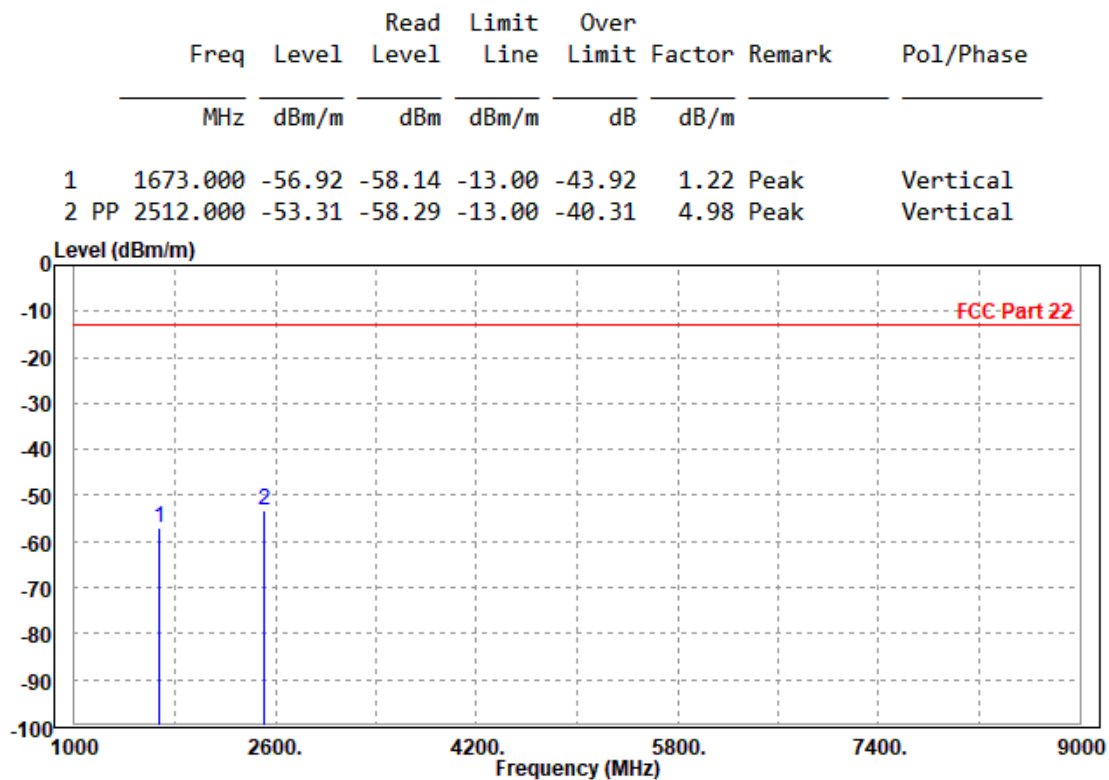
CH20525

MODE	TX channel 20525	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 56%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1672.000	-57.74	-58.71	-13.00	-44.74	0.97	Peak	Horizontal
2 PP	2509.500	-53.17	-58.63	-13.00	-40.17	5.46	Peak	Horizontal



MODE	TX channel 20525	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 56%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

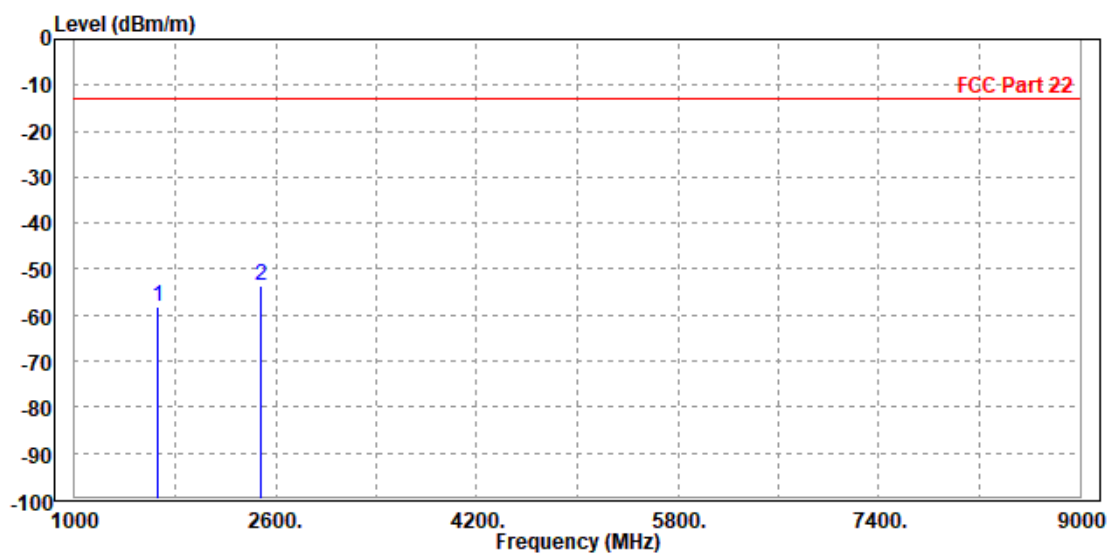


CHANNEL BANDWIDTH: 5MHz / QPSK

CH20425

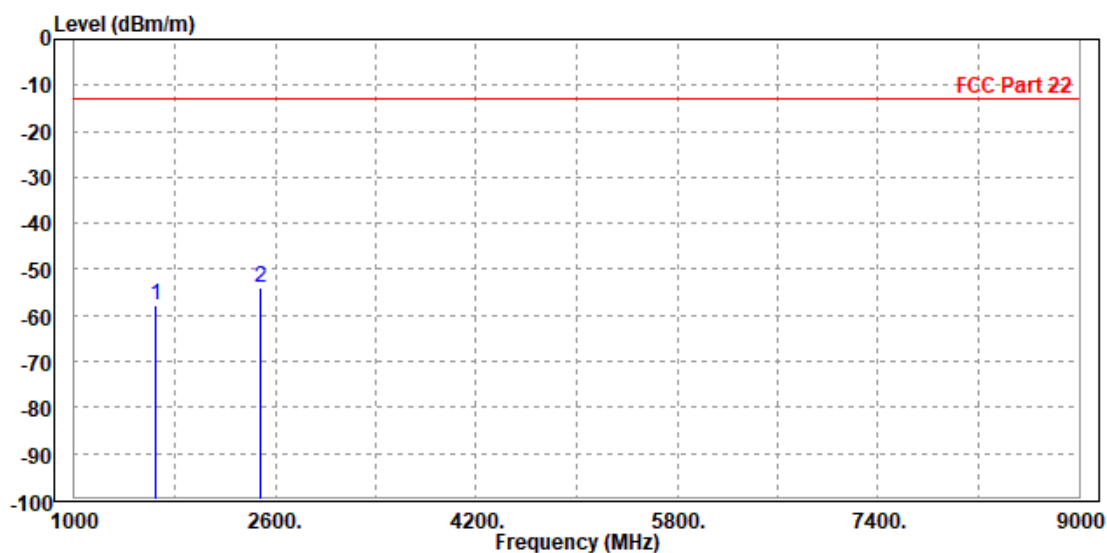
MODE	TX channel 20425	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 56%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1656.000	-58.01	-58.85	-13.00	-45.01	0.84	Peak	Horizontal
2 PP	2479.500	-53.54	-58.90	-13.00	-40.54	5.36	Peak	Horizontal



MODE	TX channel 20425	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 56%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

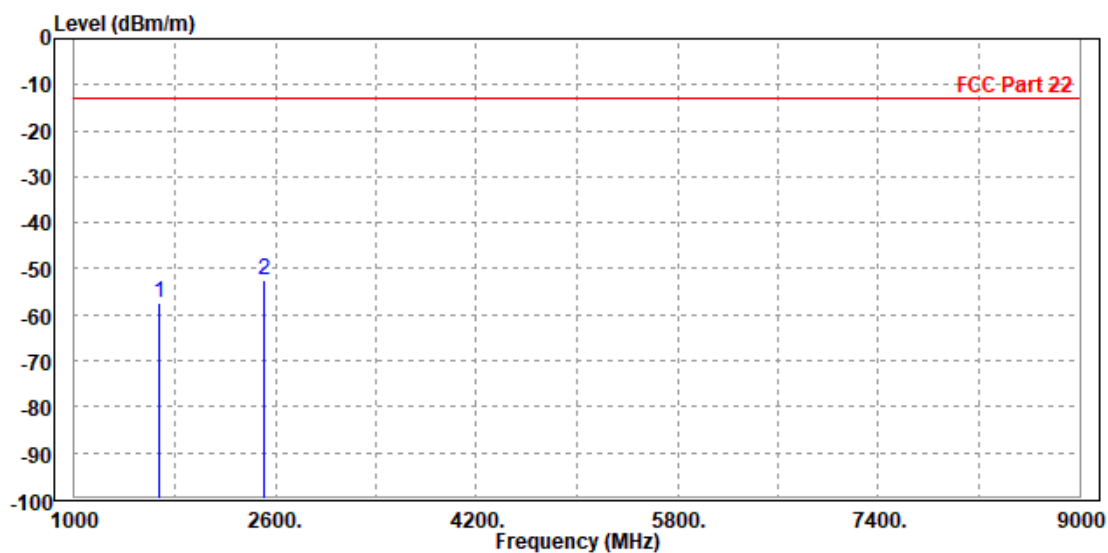
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1653.000	-57.90	-58.97	-13.00	-44.90	1.07	Peak	Vertical
2 PP	2480.000	-53.91	-58.79	-13.00	-40.91	4.88	Peak	Vertical



CH20525

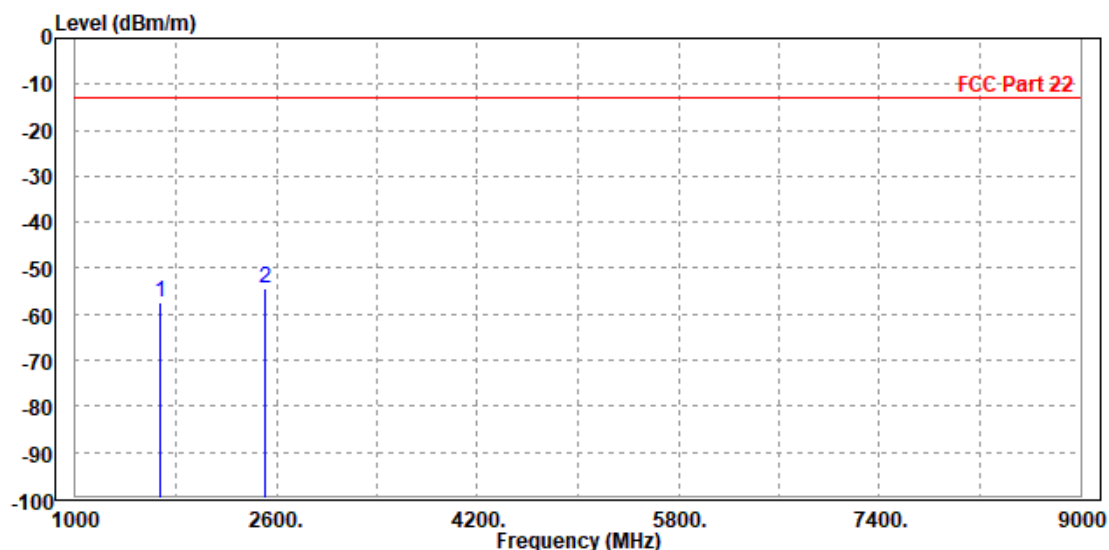
MODE	TX channel 20525	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 56%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1673.000	-57.30	-58.28	-13.00	-44.30	0.98	Peak	Horizontal
2 PP	2512.000	-52.36	-57.83	-13.00	-39.36	5.47	Peak	Horizontal



MODE	TX channel 20525	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 56%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

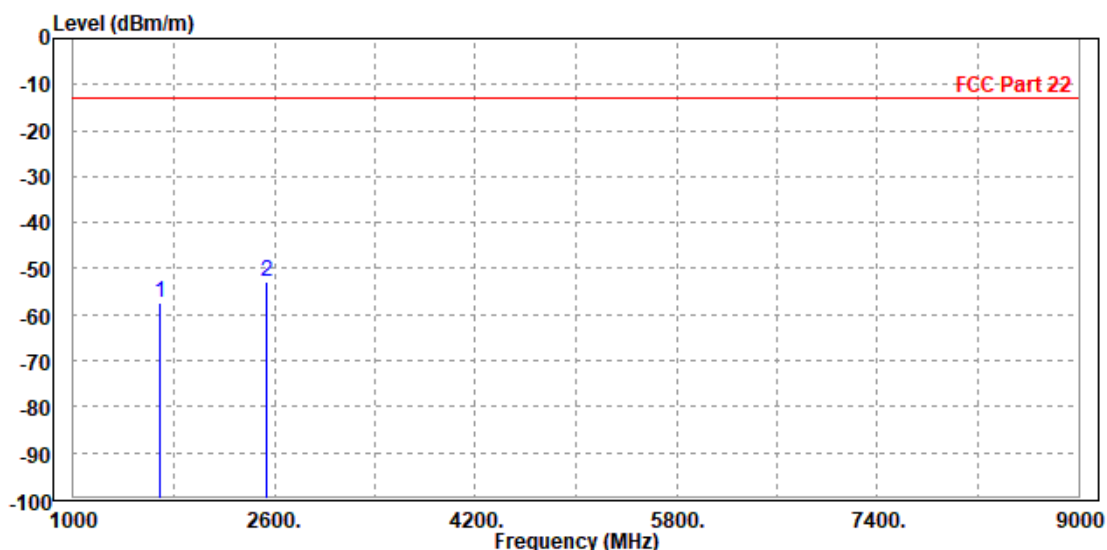
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1672.000	-57.46	-58.67	-13.00	-44.46	1.21	Peak	Vertical
2 PP	2509.500	-54.23	-59.20	-13.00	-41.23	4.97	Peak	Vertical



CH20625

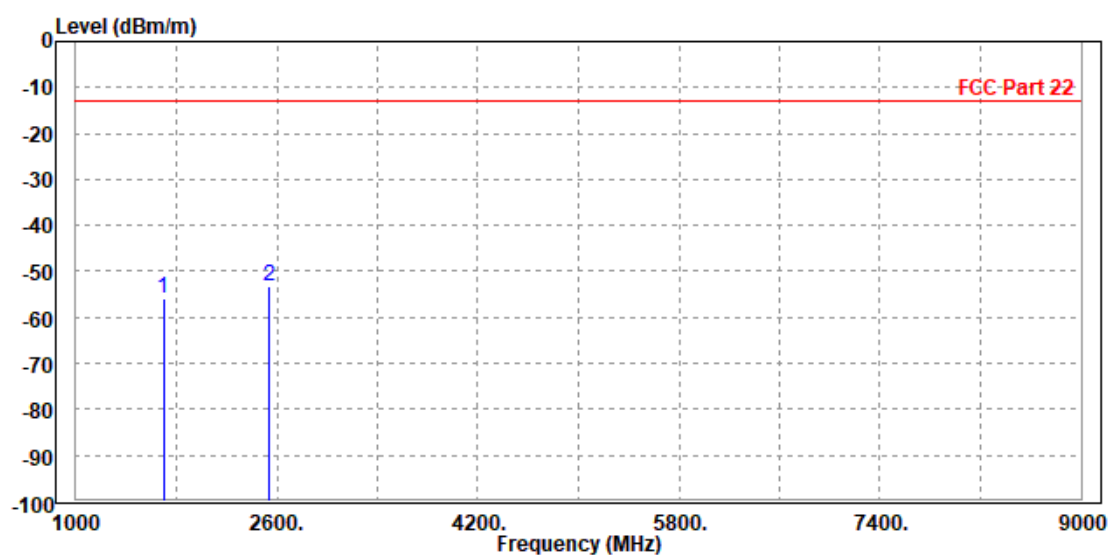
MODE	TX channel 20625	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 56%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1693.000	-57.39	-58.53	-13.00	-44.39	1.14	Peak	Horizontal
2 PP	2536.000	-52.89	-58.42	-13.00	-39.89	5.53	Peak	Horizontal



MODE	TX channel 20625	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 56%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1696.000	-55.90	-57.28	-13.00	-42.90	1.38	Peak	Vertical
2 PP	2539.500	-53.24	-58.31	-13.00	-40.24	5.07	Peak	Vertical





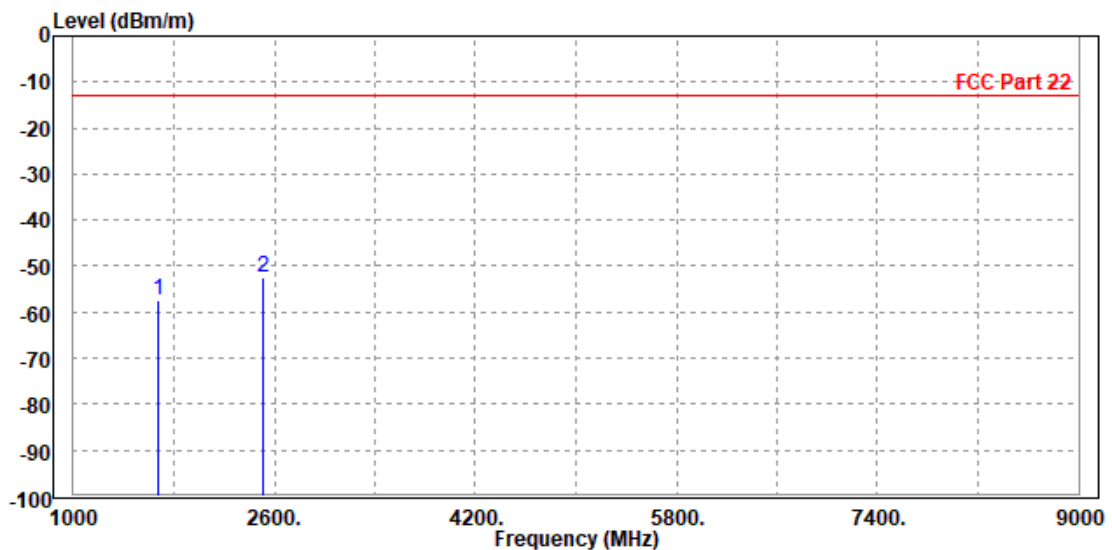
BUREAU
VERITAS

Test Report No.: W7L-P23050004RF04

CHANNEL BANDWIDTH: 10MHz / QPSK

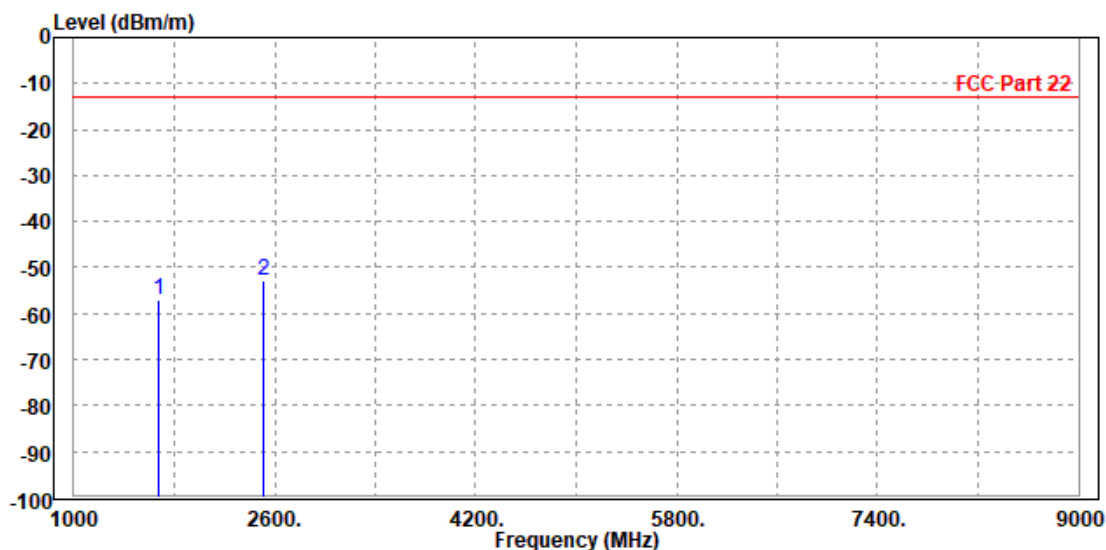
MODE	TX channel 20525	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 56%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1672.000	-57.52	-58.49	-13.00	-44.52	0.97	Peak	Horizontal
2 PP	2509.500	-52.61	-58.07	-13.00	-39.61	5.46	Peak	Horizontal



MODE	TX channel 20525	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 56%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1673.000	-56.84	-58.06	-13.00	-43.84	1.22	Peak	Vertical
2 PP	2512.000	-52.96	-57.94	-13.00	-39.96	4.98	Peak	Vertical





Test Report No.: W7L-P23050004RF04

4 PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the attached file (Test Setup Photo).



Test Report No.: W7L-P23050004RF04

5 INFORMATION ON THE TESTING LABORATORIES

We, BV 7LAYERS COMMUNICATIONS TECHNOLOGY (SHENZHEN) CO. LTD., were founded in 2015 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

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

Shenzhen EMC/RF Lab:

Tel: +86-755-88696566

Fax: +86-755-88696577

Email: customerservice.sw@bureauveritas.com

Web Site: www.adt.com.tw

The address and road map of all our labs can be found in our web site also.

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

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