



Test Report No.: W7L-231123W001RF04



FCC TEST REPORT (PART 90)



Applicant:	Borqs BeiJing Ltd.
Address:	Tower A, Building B23, Universal Business Park, No. 10 Jiuxianqiao Road, Chaoyang District Beijing, 100015 China

Manufacturer or Supplier	Borqs BeiJing Ltd.
Address	Tower A, Building B23, Universal Business Park, No. 10 Jiuxianqiao Road, Chaoyang District Beijing, 100015 China
Product	SKYBOX
Brand Name	SkyCentrics
Model Name	MA01-WBNA (Low Voltage with LTE), MA01-EP-WBNA (High Voltage with LTE)
FCC ID	2ABDK-MA01
Date of tests	Nov. 27, 2023 ~ Dec. 05, 2023

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

- FCC Part 90, Subpart R, S ANSI/TIA/EIA-603- D
- FCC Part 2 ANSI/TIA/EIA-603-E ANSI C63.26-2015

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

Prepared by Chao Wu Engineer / Mobile Department	Approved by Peibo Sun Manager / Mobile Department
 Date: Dec. 05, 2023	 Date: Dec. 05, 2023

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



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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
W7L-231123W001RF04	Original release	Dec. 05, 2023



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1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 90 & Part 2			
STANDARD SECTION	TEST TYPE AND LIMIT	RESULT	LAB
§2.1046 §90.635(b)	Conducted Output Power	PASS	A
§2.1055 §90.213	Frequency Stability	See Note	-
§2.1049 §90.209	Occupied Bandwidth	See Note	-
§2.1051 §90.691	Emission Masks	See Note	-
§2.1051 §90.691	Conducted Spurious Emissions	See Note	-
§2.1053 §90.691	Radiated Spurious Emissions	PASS	A

Note: please refer to the module report R2006A0379-R3 (FCC-ID: XMR202008EG91NAXD).

Test Lab Information Reference:

Lab A:

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

Lab Address:

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

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

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



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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.10,23	May.09,24
Loop Antenna	Schwarzbeck	FMZB 1519B	00173	Sep.02,23	Sep.01,24
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.03, 23	Sep.02, 24
Radio Communication Analyzer	ANRITSU	MT8820C	6201465426	Feb. 14,23	Feb. 13,24
Signal Pre-Amplifier	EMSI	EMC 9135	980249	May. 06,23	May. 05,24
Signal Pre-Amplifier	EMSI	EMC 012645B	980257	May.10,23	May.09,24
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. 22, 23	May. 21,26
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. 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. 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.10,23	May.09,24
DC Source	Kikusui/JP	PMX18-5A	N/A	Aug. 11,23	Aug. 10,24

NOTE: 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 GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT	SKYBOX	
BRAND NAME	SkyCentrics	
MODEL NAME	MA01-WBNA (Low Voltage with LTE), MA01-EP-WBNA (High Voltage with LTE)	
NOMINAL VOLTAGE	24Vac (MA01-WBNA) 120Vac (MA01-EP-WBNA)	
MODULATION TECHNOLOGY	LTE	QPSK, 16QAM
FREQUENCY RANGE	LTE Band 26 (Channel Bandwidth: 1.4MHz)	814.7MHz ~ 823.3MHz
	LTE Band 26 (Channel Bandwidth: 3MHz)	815.5MHz ~ 822.5MHz
	LTE Band 26 (Channel Bandwidth: 5MHz)	816.5MHz ~ 821.5MHz
	LTE Band 26 (Channel Bandwidth: 10MHz)	819MHz
EMISSION DESIGNATOR	LTE Band 26 (Channel Bandwidth: 1.4MHz)	QPSK: 1M10G7D
		16QAM: 1M10W7D
		64QAM: /
	LTE Band 26 (Channel Bandwidth: 3MHz)	QPSK: 2M72G7D
		16QAM: 2M70W7D
		64QAM: /
	LTE Band 26 (Channel Bandwidth: 5MHz)	QPSK: 4M52G7D
		16QAM: 4M53W7D
64QAM: /		
LTE Band 26 (Channel Bandwidth: 10MHz)	QPSK: 8M96G7D	
	16QAM: 4M72W7D	
	64QAM: /	
MAX. EIRP POWER	LTE Band 26 (Channel Bandwidth: 1.4MHz)	50.35mW
	LTE Band 26 (Channel Bandwidth: 3MHz)	50.12mW
	LTE Band 26 (Channel Bandwidth: 5MHz)	50.35mW
	LTE Band 26 (Channel Bandwidth: 10MHz)	50.23mW
ANTENNA TYPE	Internal Antenna with -3.94 dBi gain for LTE B26	
HW VERSION	DVT	
SW VERSION	fft_PICO_KITE_20230828	



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I/O PORTS	Refer to user's manual
DATA CABLE	Power cable: non-shielded cable, with w/o ferrite core, 1.8 meter
EXTREME TEMPERATURE	-20-50 °C
EXTREME VOLTAGE	110V - 240V (MA01-EP-WBNA) 18V - 30V (MA01-WBNA)

NOTE:

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

MODULATION MODE	TX FUNCTION
LTE	1TX/1RX

3. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.
4. Antenna gain and EUT conducted cable loss are provided by the customer, and the laboratory will record the results based on these items that involve these two parameters.
5. The difference of MA01-WBNA and MA01-EP-WBNA is as follows :

No	Model	Difference Description
1	MA01-EP-WBNA	High Voltage: 120 VAC through Power Entry Module
2	MA01-WBNA	Low Voltage: 24 VAC through terminal block header

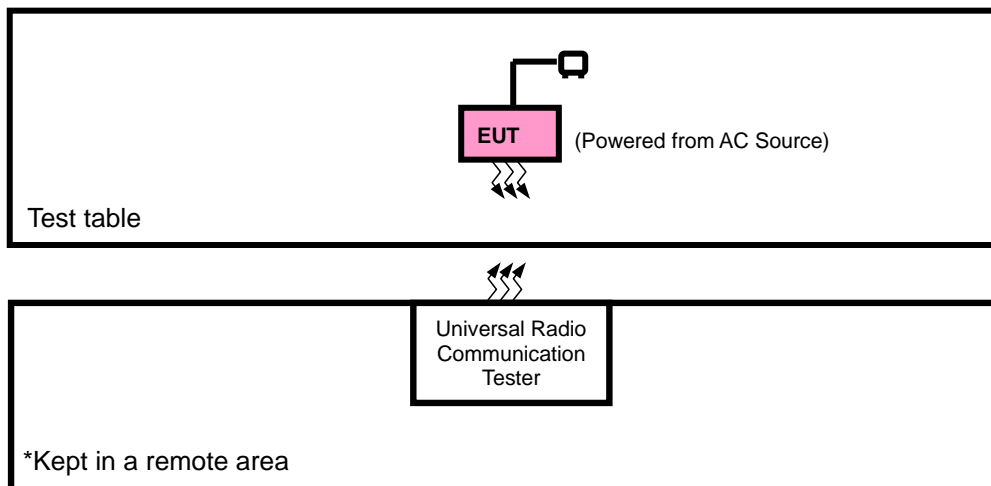
The main test model is MA01-EP-WBNA, and MA01-WBNA verified the worst-case mode of MA01-EP-WBNA. Only the data of MA01-EP-WBNA was reported in the report, because of its worse data.

List of Accessory:

ACCESSORIES	BRAND	MODEL	SPECIFICATION
Power cable	YuanSong	YS-301+SVT18/ 3CBK+ YS-302	1.8M

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	AC power supply	N/A	JS-AC2410	N/A	N/A

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	N/A

2.4 DESCRIPTION OF TEST MODES

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/EIRP and radiated emission was found when positioned on X-plane for LTE. Following channel(s) was (were) selected for the final test as listed below:

EUT CONFIGURE MODE	DESCRIPTION
A	EUT + Adapter with LTE link



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LTE BAND 26 MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
A	ERP	26697 to 26783	26697, 26740, 26783	1.4MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		26705 to 26775	26705, 26740, 26775	3MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		26715 to 26765	26715, 26740, 26765	5MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		26740	26740	10MHz	QPSK, 16QAM	1 RB / 0 RB Offset
A	RADIATED EMISSION	26697 to 26783	26740	1.4MHz	QPSK	1 RB / 0 RB Offset
		26705 to 26775	26705, 26740, 26775	3MHz	QPSK	1 RB / 0 RB Offset
		26715 to 26765	26740	5MHz	QPSK	1 RB / 0 RB Offset
		26740	26740	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.



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TEST CONDITION:

TEST ITEM	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
ERP	25deg. C, 70%RH	AC 120V	Jace Hu
RADIATED EMISSION	25deg. C, 70%RH	AC 120V	Jace Hu

2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is an 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 90

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

Per FCC Part 90.635(a)(b)

The maximum output power of the transmitter for mobile stations is 100 watts (20 dBw).

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:

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

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).

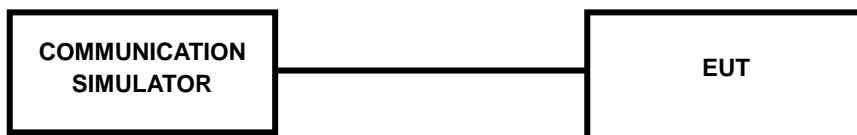
L_{C} = signal attenuation in the connecting cable between the transmitter and antenna, in dB

CONDUCTED POWER MEASUREMENT:

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

3.1.3 TEST SETUP

CONDUCTED POWER MEASUREMENT:



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

3.1.4 TEST RESULTS

CONDUCTED OUTPUT POWER (dBm)

LTE Band 26

Band/BW	Modulation	RB Size	RB Offset	Low CHG 26697	Mid CH 26740	High CH 26783
				Frequency 814.7 MHz	Frequency 819 MHz	Frequency 823.3 MHz
26/ 1.4	QPSK	1	0	23.11	23.04	23.04
		1	2	22.98	22.97	22.87
		1	5	22.97	22.91	22.97
		3	0	22.59	22.46	22.47
		3	1	22.56	22.52	22.43
		3	3	22.61	22.66	22.48
		6	0	21.76	21.63	21.63
	16QAM	1	0	21.75	21.68	21.67
		1	2	21.61	21.60	21.53
		1	5	21.58	21.63	21.54
		3	0	22.25	22.23	22.19
		3	1	22.16	22.10	22.03
		3	3	22.26	22.09	22.25
		6	0	20.90	20.84	20.84



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Band/BW	Modulation	RB Size	RB Offset	Low CHG 26705	Mid CH 26740	High CH 26775
				Frequency 815.5 MHz	Frequency 819 MHz	Frequency 822.5 MHz
26/ 3	QPSK	1	0	23.09	23.06	23.01
		1	7	22.95	22.84	22.86
		1	14	22.98	22.86	22.95
		8	0	21.92	21.83	21.87
		8	3	21.88	21.71	21.75
		8	7	21.99	21.98	21.83
		15	0	21.68	21.62	21.66
	16QAM	1	0	21.88	21.77	21.64
		1	7	21.75	21.58	21.54
		1	14	21.59	21.57	21.57
		8	0	22.00	21.92	21.88
		8	3	21.76	21.76	21.74
		8	7	22.01	21.88	21.97
		15	0	20.89	20.78	20.82

Band/BW	Modulation	RB Size	RB Offset	Low CHG 26715	Mid CH 26740	High CH 26765
				Frequency 816.5 MHz	Frequency 819 MHz	Frequency 821.5 MHz
26/ 5	QPSK	1	0	23.11	22.97	22.94
		1	12	22.94	22.86	22.93
		1	24	23.02	22.82	22.97
		12	0	21.86	21.77	21.82
		12	6	21.78	21.68	21.66
		12	13	22.02	22.01	21.88
		25	0	21.77	21.62	21.56
	16QAM	1	0	21.85	21.69	21.73
		1	12	21.75	21.60	21.51
		1	24	21.62	21.64	21.58
		12	0	21.99	21.88	21.94
		12	6	21.88	21.76	21.66
		12	13	21.95	21.88	21.92
		25	0	20.95	20.81	20.85



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Band/BW	Modulation	RB Size	RB Offset	/	Mid CH 26740	/
				/	Frequency 819 MHz	/
26/ 10	QPSK	1	0	/	23.10	/
		1	24	/	22.99	/
		1	49	/	22.94	/
		25	0	/	21.90	/
		25	12	/	21.83	/
		25	25	/	22.05	/
		50	0	/	21.69	/
	16QAM	1	0	/	21.80	/
		1	24	/	21.70	/
		1	49	/	21.69	/
		12	0	/	22.01	/
		12	17	/	21.86	/
		12	36	/	21.90	/
		27	0	/	20.93	/

ERP

LTE BAND 26

CHANNEL BANDWIDTH: 1.4MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26697	814.7	23.11	-3.94	17.02	50.35	100
26740	819	23.04	-3.94	16.95	49.55	100
26783	823.3	23.04	-3.94	16.95	49.55	100

CHANNEL BANDWIDTH: 1.4MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26697	814.7	22.26	-3.94	16.17	41.4	100
26740	819	22.23	-3.94	16.14	41.11	100
26783	823.3	22.25	-3.94	16.16	41.3	100

CHANNEL BANDWIDTH: 3MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26705	815.5	23.09	-3.94	17	50.12	100
26740	819	23.06	-3.94	16.97	49.77	100
26775	822.5	23.01	-3.94	16.92	49.2	100

CHANNEL BANDWIDTH: 3MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26705	815.5	22.01	-3.94	15.92	39.08	100
26740	819	21.92	-3.94	15.83	38.28	100
26775	822.5	21.97	-3.94	15.88	38.73	100



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CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26715	816.5	23.11	-3.94	17.02	50.35	100
26740	819	22.97	-3.94	16.88	48.75	100
26765	821.5	22.97	-3.94	16.88	48.75	100

CHANNEL BANDWIDTH: 5MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26715	816.5	21.99	-3.94	15.9	38.9	100
26740	819	21.88	-3.94	15.79	37.93	100
26765	821.5	21.94	-3.94	15.85	38.46	100

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
-	-	-	-	-	-	-
26740	819	23.1	-3.94	17.01	50.23	100
-	-	-	-	-	-	-

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
-	-	-	-	-	-	-
26740	819	22.01	-3.94	15.92	39.08	100
-	-	-	-	-	-	-

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 a licensee's frequency block shall be attenuated below the transmitter power (P) by at least $43 + 10 \log_{10}(P)$ dB. The limit of emission equal to -13dBm

3.2.2 TEST PROCEDURES

- a. The substitute 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 exports the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved the 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 from E.I.R.P power by subtracting the gain of dipole, $\text{E.R.P power} = \text{E.I.P.R power} - 2.15\text{dBi}$.

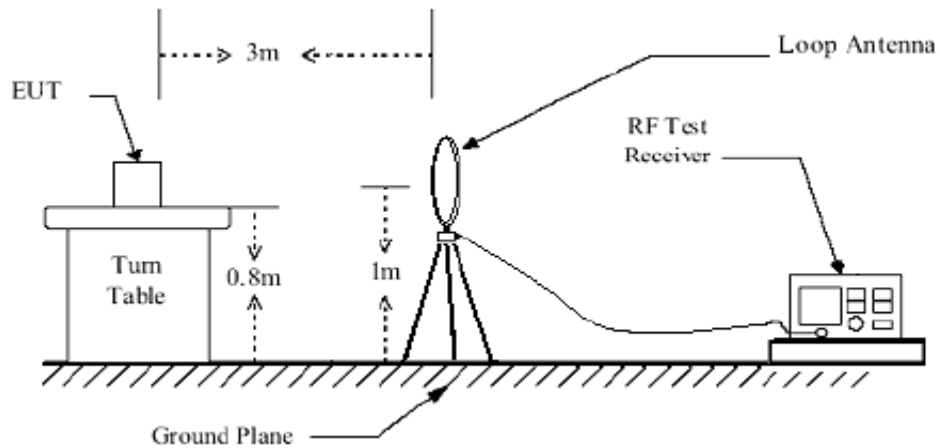
NOTE: The resolution bandwidth of spectrum analyzer is 1 MHz, and the video bandwidth is 3 MHz.

3.2.3 DEVIATION FROM TEST STANDARD

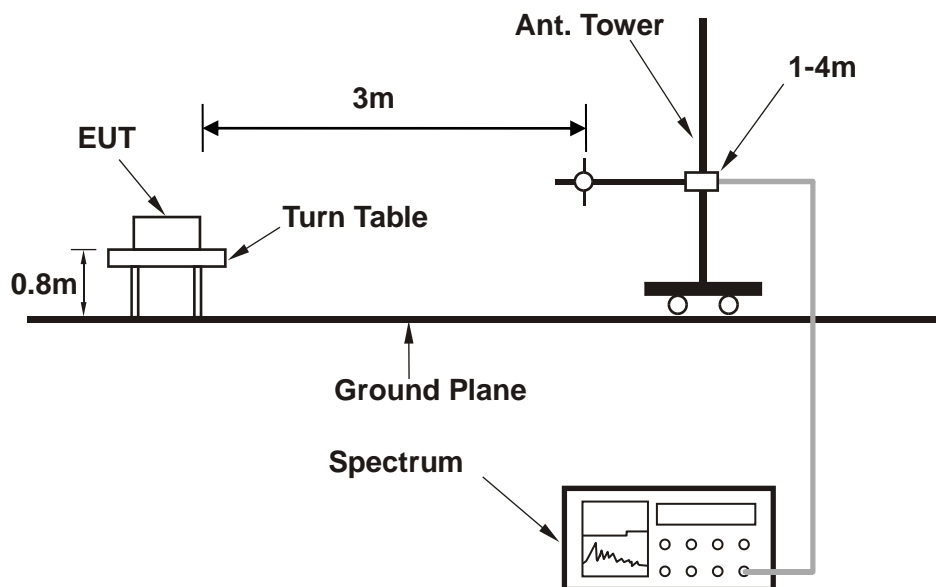
No deviation

3.2.4 TEST SETUP

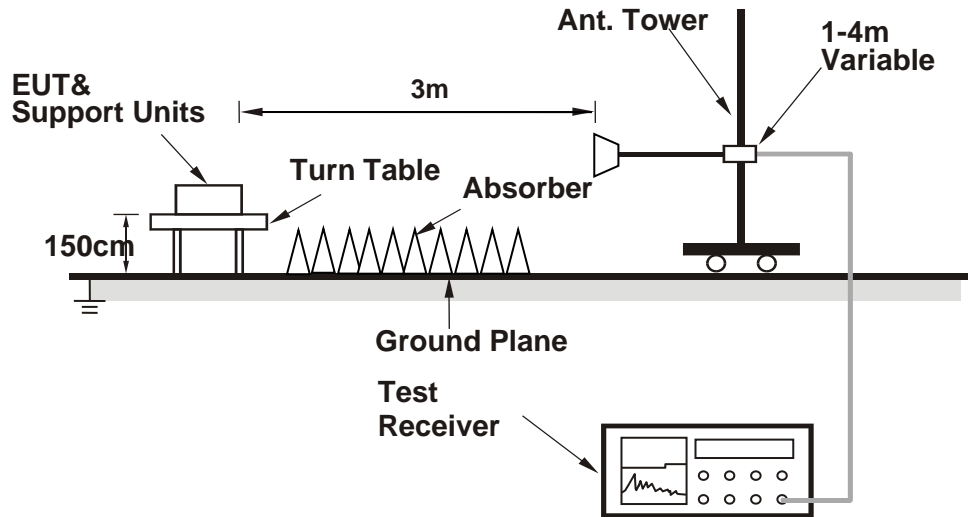
<Below 30MHz>



< Frequency Range 30MHz~1GHz >



< Frequency Range above 1GHz >



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



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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

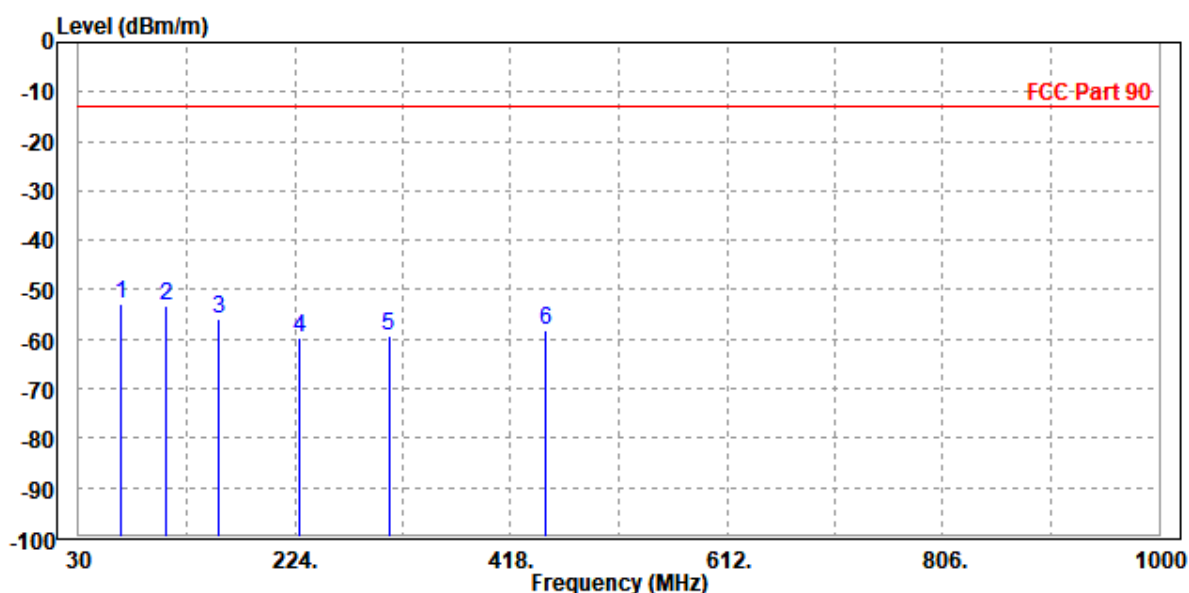
30 MHz – 1GHz data:

LTE Band 26:

CHANNEL BANDWIDTH: 3MHz / QPSK

MODE	TX channel 26740	FREQUENCY RANGE	Below 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%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	PP	67.830	-52.68	-40.41	-13.00	-39.68	-12.27	Peak	Horizontal
2		108.570	-53.39	-39.24	-13.00	-40.39	-14.15	Peak	Horizontal
3		156.100	-55.88	-40.97	-13.00	-42.88	-14.91	Peak	Horizontal
4		228.850	-59.61	-46.66	-13.00	-46.61	-12.95	Peak	Horizontal
5		308.390	-59.27	-50.63	-13.00	-46.27	-8.64	Peak	Horizontal
6		450.010	-58.08	-52.12	-13.00	-45.08	-5.96	Peak	Horizontal

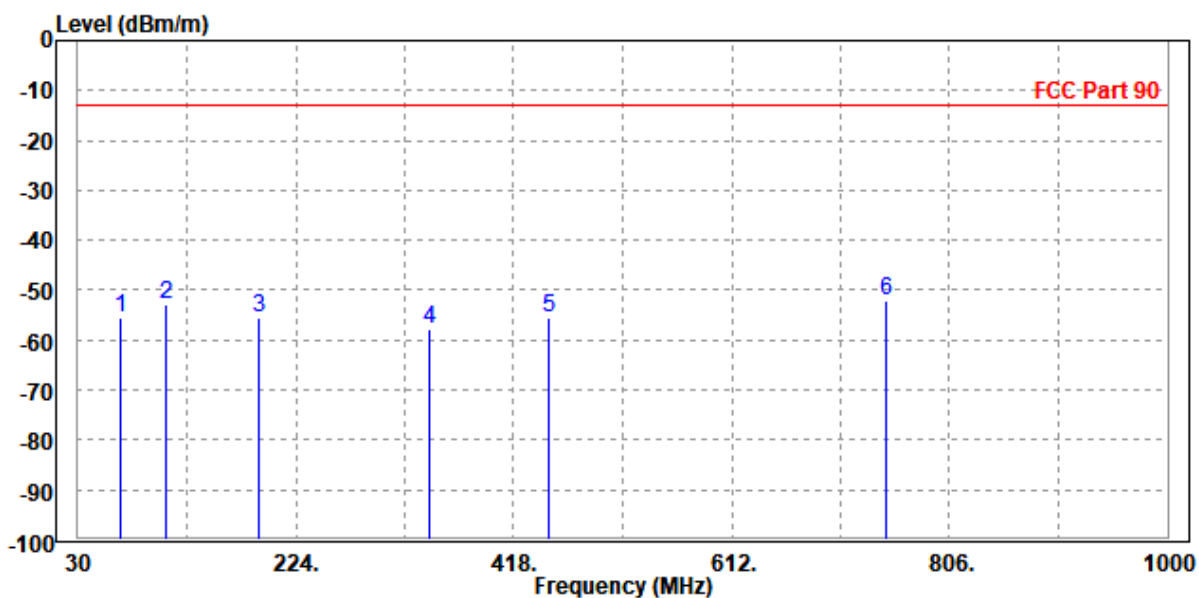




Test Report No.: W7L-231123W001RF04

MODE	TX channel 26740	FREQUENCY RANGE	Below 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%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	67.830	-55.55	-35.48	-13.00	-42.55	-20.07	Peak	Vertical
2	108.570	-52.72	-36.30	-13.00	-39.72	-16.42	Peak	Vertical
3	191.020	-55.58	-48.79	-13.00	-42.58	-6.79	Peak	Vertical
4	342.340	-57.77	-54.05	-13.00	-44.77	-3.72	Peak	Vertical
5	450.010	-55.51	-50.81	-13.00	-42.51	-4.70	Peak	Vertical
6 PP	749.740	-52.20	-54.73	-13.00	-39.20	2.53	Peak	Vertical





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Test Report No.: W7L-231123W001RF04

ABOVE 1GHz

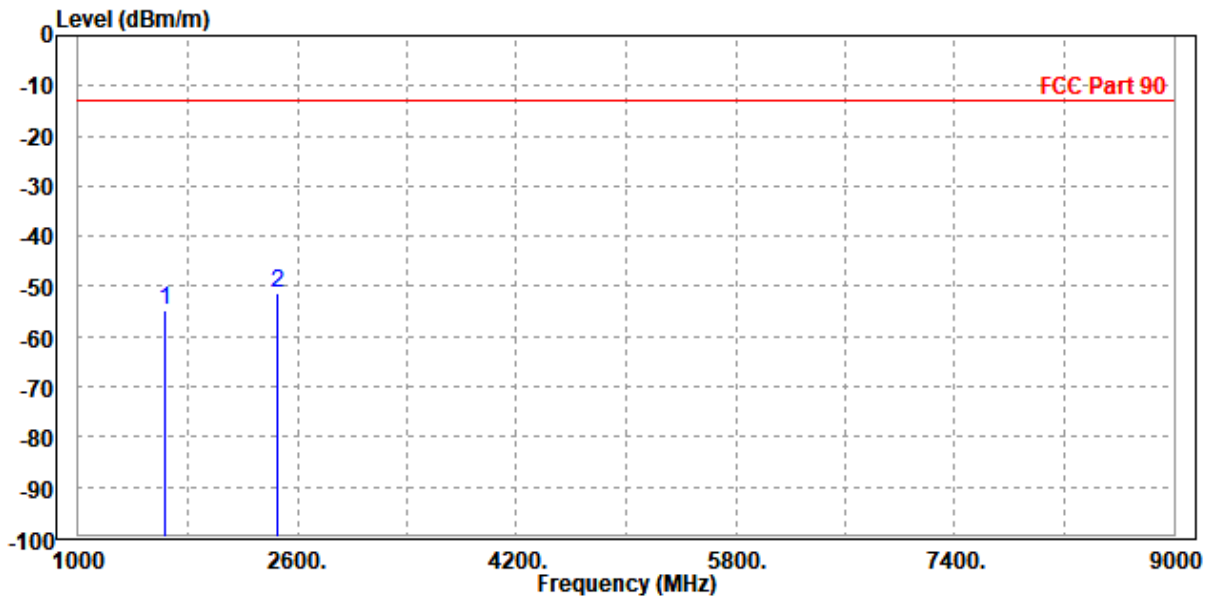
Note: For higher frequency, the emission is too low to be detected.

LTE BAND 26

CHANNEL BANDWIDTH: 1.4MHz / QPSK

MODE	TX channel 26740	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%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	1638.000	-54.66	-58.29	-13.00	-41.66	3.63	Peak	Horizontal
2	PP 2456.000	-51.20	-57.18	-13.00	-38.20	5.98	Peak	Horizontal

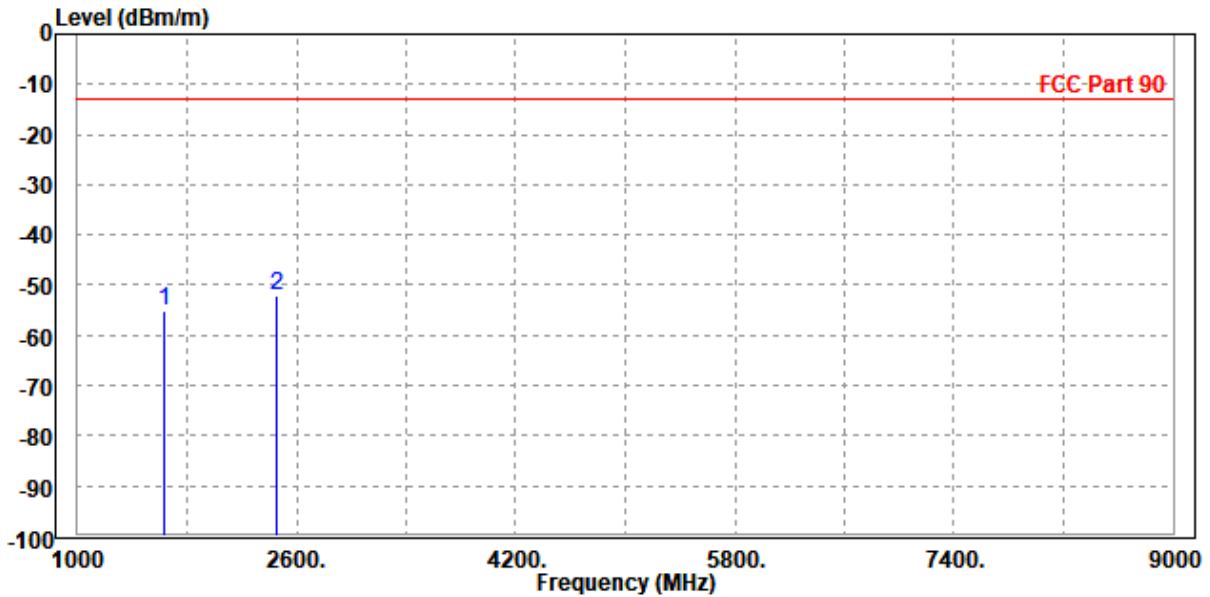




Test Report No.: W7L-231123W001RF04

MODE	TX channel 26740	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%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	1640.000	-54.96	-58.33	-13.00	-41.96	3.37	Peak	Vertical
2 PP	2457.000	-51.94	-57.57	-13.00	-38.94	5.63	Peak	Vertical





BUREAU VERITAS

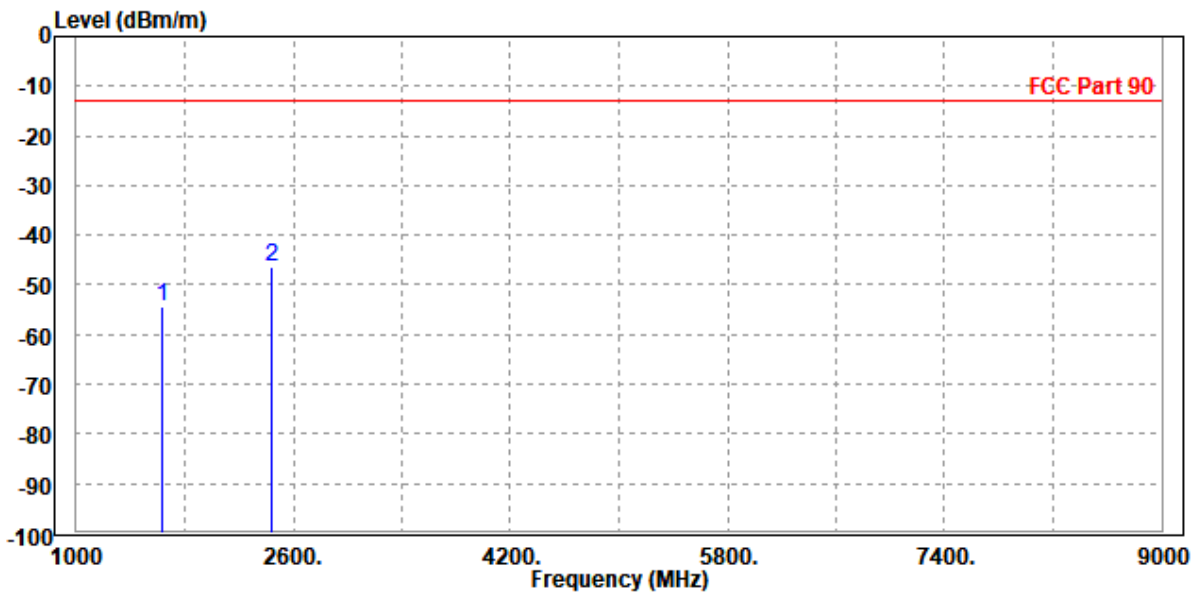
Test Report No.: W7L-231123W001RF04

CHANNEL BANDWIDTH: 3MHz / QPSK

CH 26705

MODE	TX channel 26705	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%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	1632.000	-54.21	-57.82	-13.00	-41.21	3.61	Peak	Horizontal
2 PP	2446.500	-46.22	-52.18	-13.00	-33.22	5.96	Peak	Horizontal

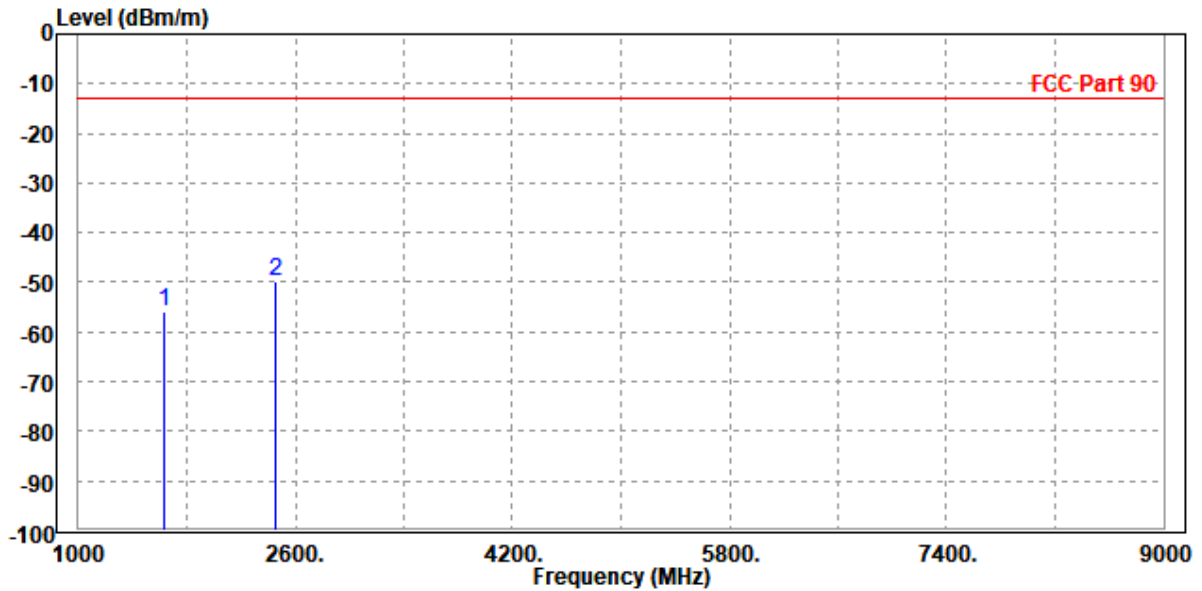




Test Report No.: W7L-231123W001RF04

MODE	TX channel 26705	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%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	1631.000	-55.76	-59.12	-13.00	-42.76	3.36	Peak	Vertical
2	PP 2448.000	-49.81	-55.40	-13.00	-36.81	5.59	Peak	Vertical



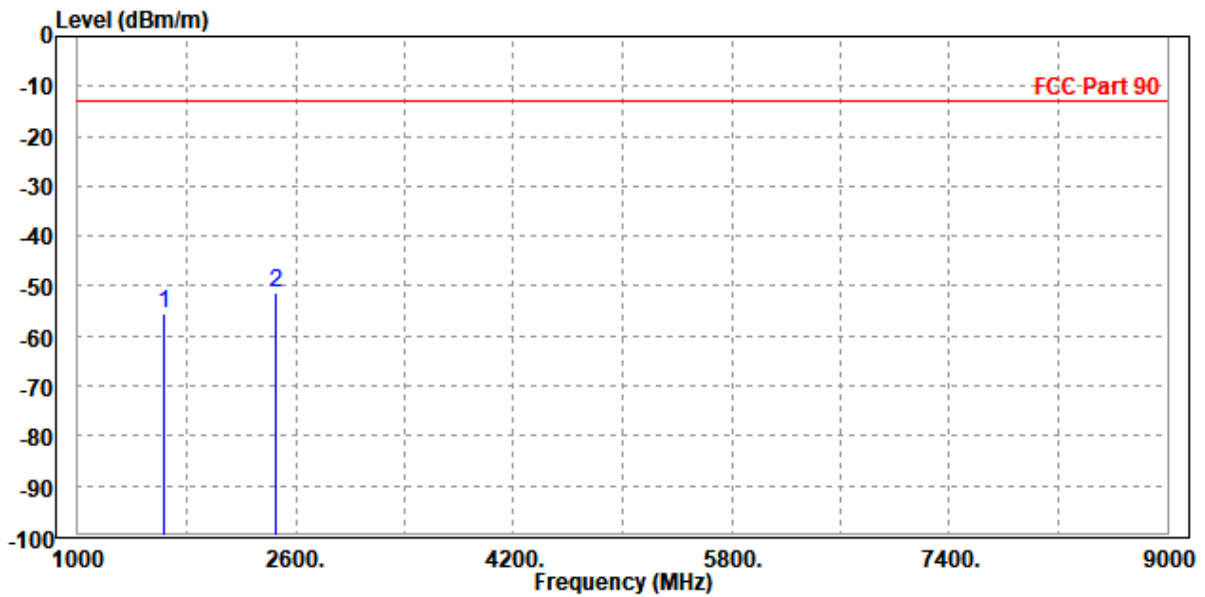


Test Report No.: W7L-231123W001RF04

CH 26740

MODE	TX channel 26740	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%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	1640.000	-55.42	-59.05	-13.00	-42.42	3.63	Peak	Horizontal
2	PP 2457.000	-51.44	-57.42	-13.00	-38.44	5.98	Peak	Horizontal

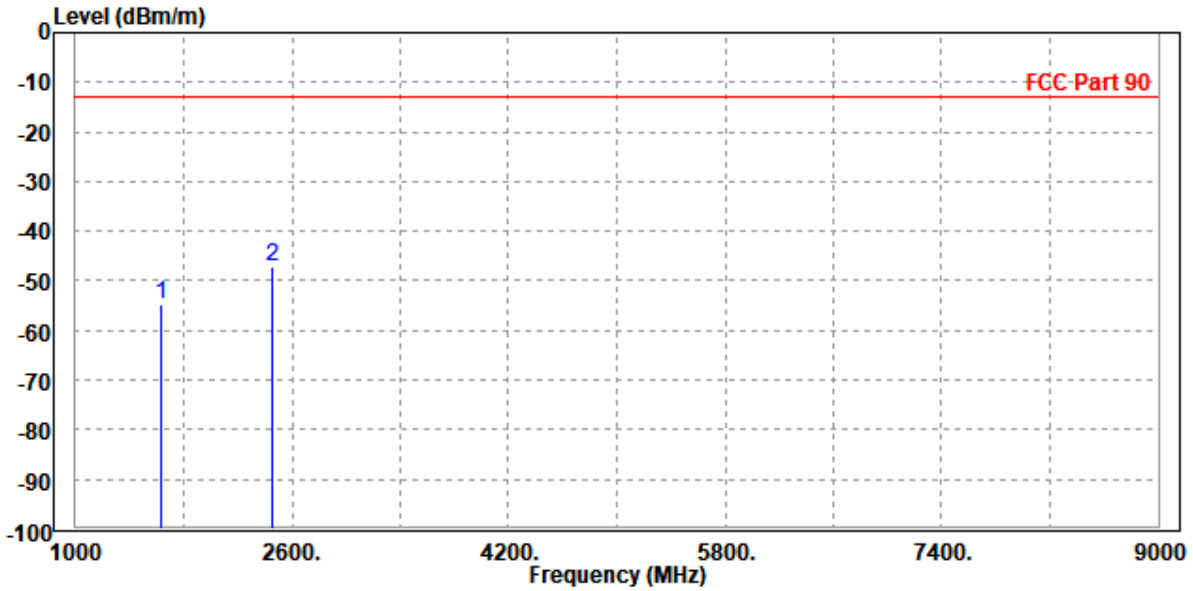




Test Report No.: W7L-231123W001RF04

MODE	TX channel 26740	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%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	1638.000	-54.57	-57.94	-13.00	-41.57	3.37	Peak	Vertical
2 PP	2456.000	-47.10	-52.72	-13.00	-34.10	5.62	Peak	Vertical





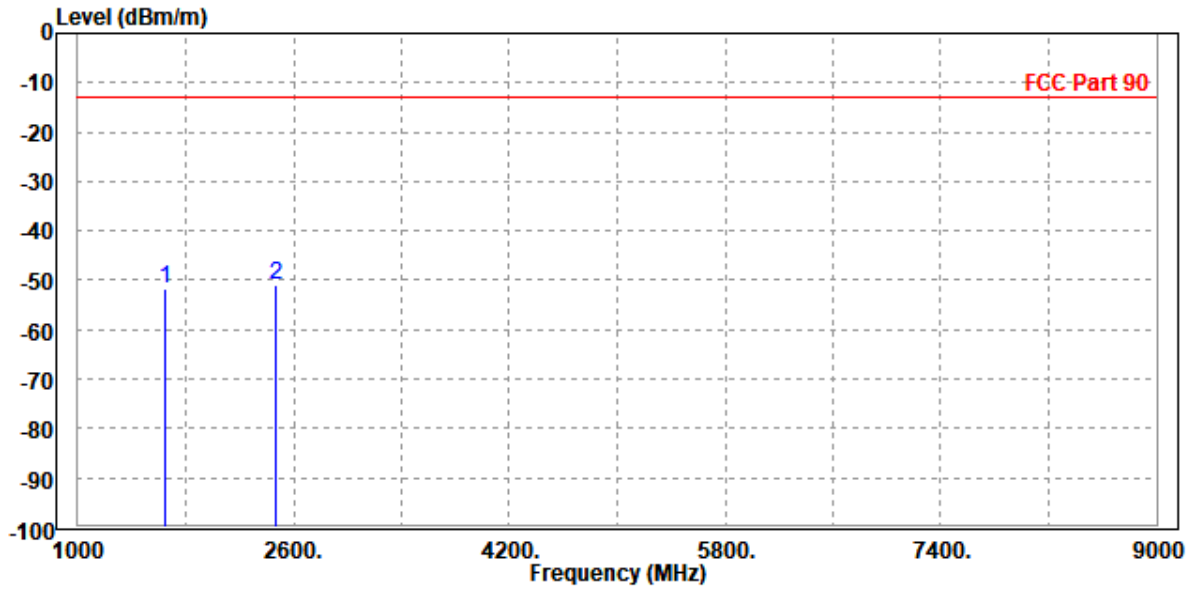
**BUREAU
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Test Report No.: W7L-231123W001RF04

CH 26775

MODE	TX channel 26775	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%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	1645.000	-51.81	-55.46	-13.00	-38.81	3.65	Peak	Horizontal
2 PP	2464.000	-51.08	-57.08	-13.00	-38.08	6.00	Peak	Horizontal

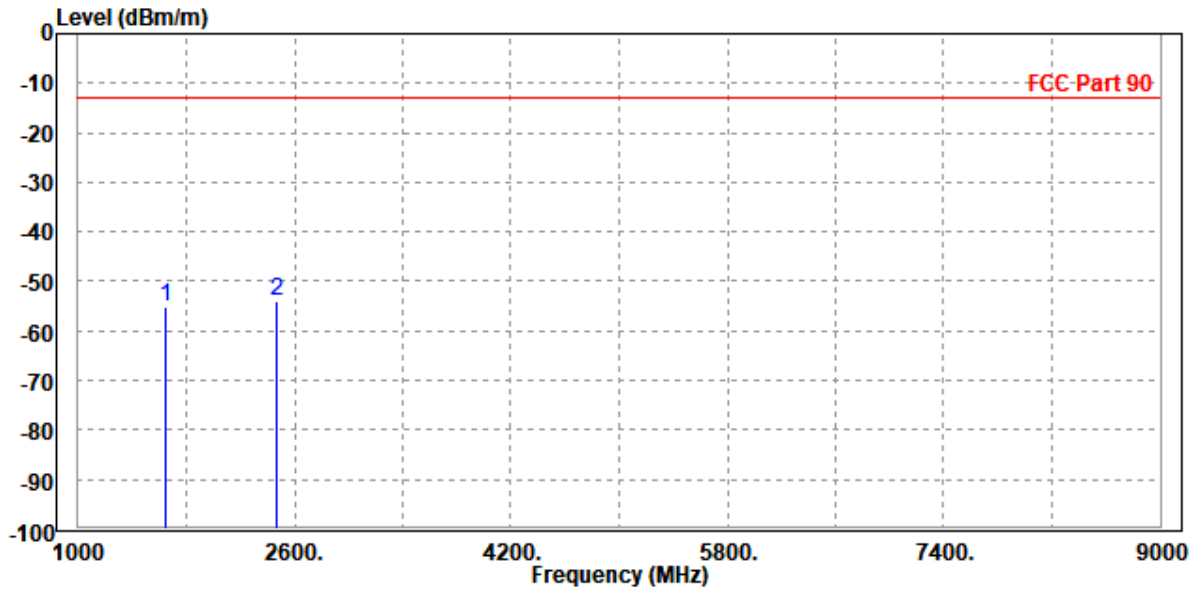




Test Report No.: W7L-231123W001RF04

MODE	TX channel 26775	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%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	1648.000	-54.99	-58.38	-13.00	-41.99	3.39	Peak	Vertical
2	PP 2467.500	-53.94	-59.60	-13.00	-40.94	5.66	Peak	Vertical



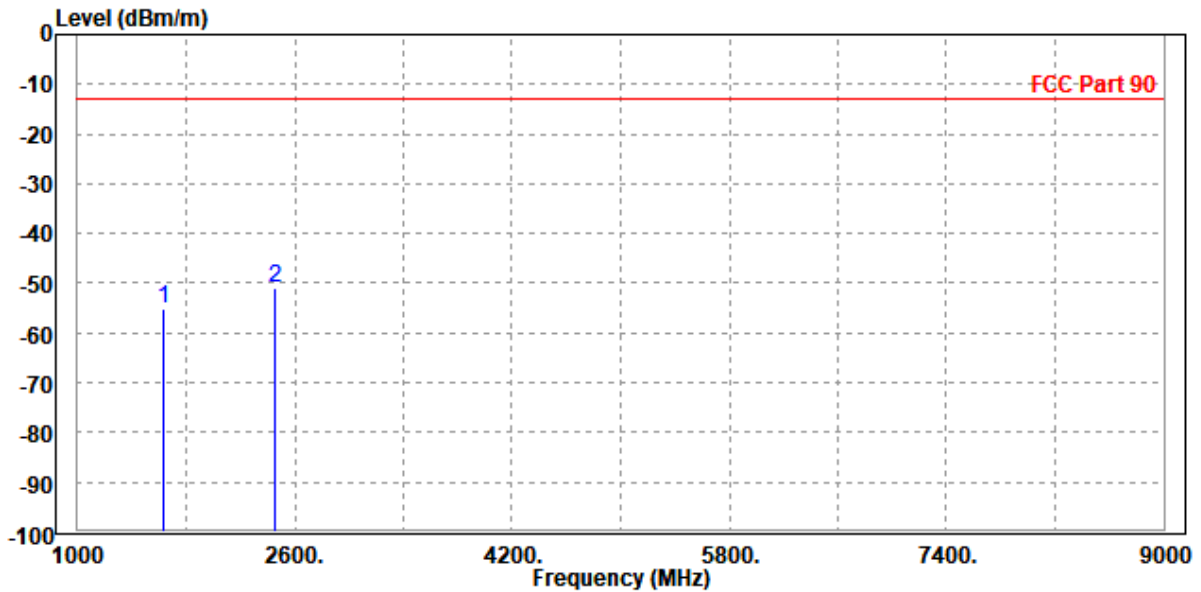


Test Report No.: W7L-231123W001RF04

CHANNEL BANDWIDTH: 5MHz / QPSK

MODE	TX channel 26740	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%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	1638.000	-55.20	-58.83	-13.00	-42.20	3.63	Peak	Horizontal
2	PP 2456.000	-51.10	-57.08	-13.00	-38.10	5.98	Peak	Horizontal

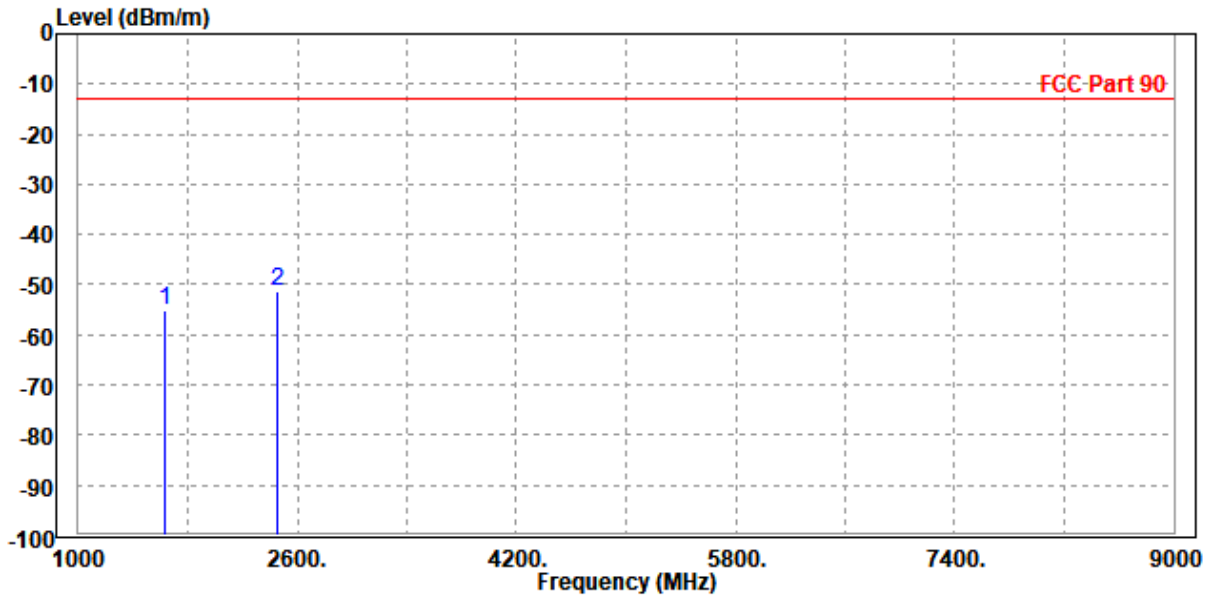




Test Report No.: W7L-231123W001RF04

MODE	TX channel 26740	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%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	1640.000	-55.09	-58.46	-13.00	-42.09	3.37	Peak	Vertical
2	PP 2457.000	-51.36	-56.99	-13.00	-38.36	5.63	Peak	Vertical





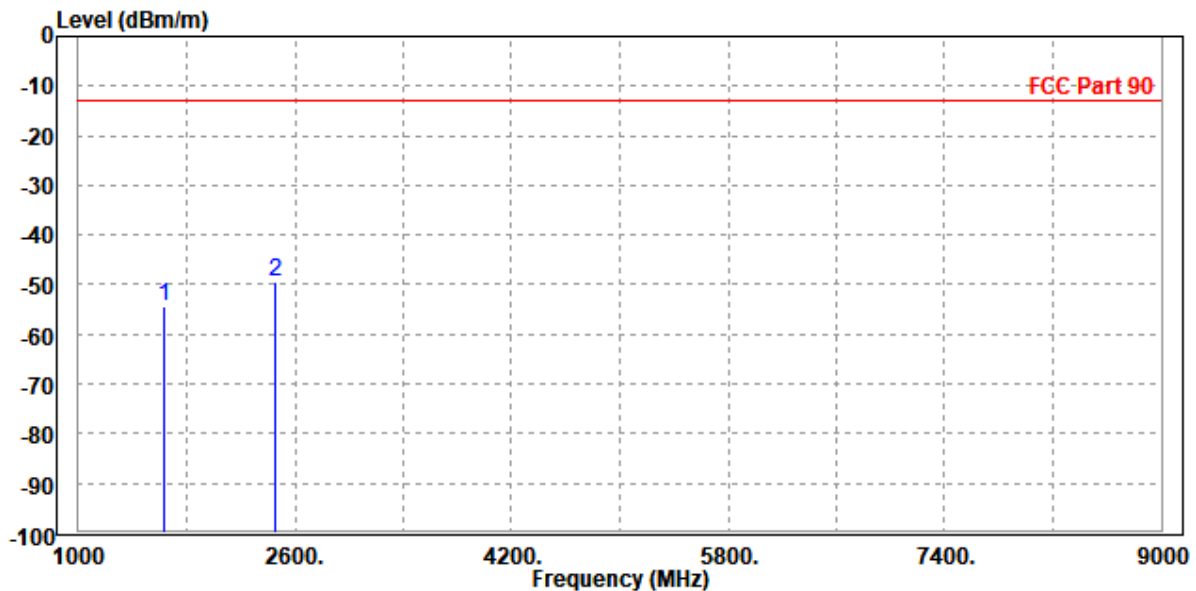
**BUREAU
VERITAS**

Test Report No.: W7L-231123W001RF04

CHANNEL BANDWIDTH: 10MHz / QPSK

MODE	TX channel 26740	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%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	1640.000	-54.23	-57.86	-13.00	-41.23	3.63	Peak	Horizontal
2	PP 2456.000	-49.49	-55.47	-13.00	-36.49	5.98	Peak	Horizontal

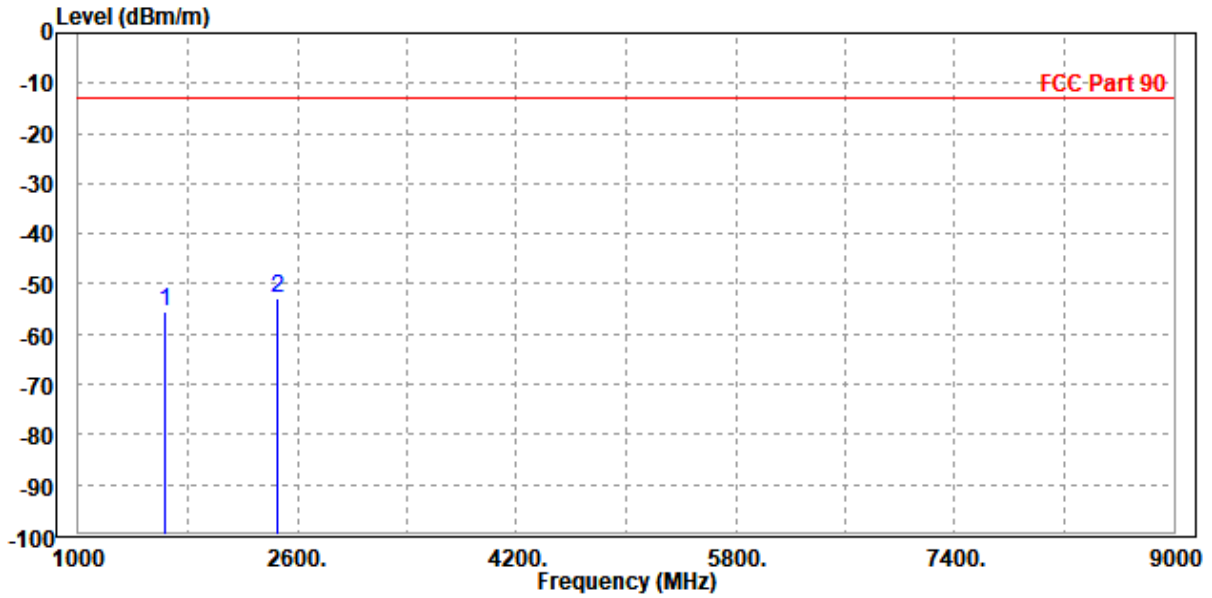




Test Report No.: W7L-231123W001RF04

MODE	TX channel 26740	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%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	1638.000	-55.60	-58.97	-13.00	-42.60	3.37	Peak	Vertical
2	PP 2456.000	-52.74	-58.36	-13.00	-39.74	5.62	Peak	Vertical





Test Report No.: W7L-231123W001RF04

4 PHOTOGRAPHS OF THE TEST CONFIGURATION

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



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Test Report No.: W7L-231123W001RF04

5 INFORMATION ON THE TESTING LABORATORIES

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

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

Suzhou EMC/RF Lab:

Tel: +86 (0557) 368 1008



Test Report No.: W7L-231123W001RF04

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

No modifications were made to the EUT by the lab during the test.

--END--