



FCC Part 15B TEST REPORT

Report No.: STS2109215E03

Issued for

Shanghai Unihertz E-Commerce Co., Ltd

Room 308, Building C, 508 Chundong Rd, Minhang district
Shanghai, China 201108

Product Name:	Smart phone
Brand Name:	Unihertz
Model Name:	TickTock
Series Model:	N/A
Test Standard:	FCC 47 CFR Part 15: Subpart B

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**TEST RESULT CERTIFICATION**

Applicant's Name: Shanghai Unihertz E-Commerce Co., Ltd
Address: Room 308, Building C, 508 Chundong Rd, Minhang district
Shanghai, China 201108
Manufacture's Name: OBLUE Communication Technology Co.,Ltd.
Address: 7th floor, building B, dayou industrial and trade industrial park, heping
yonghe road, fuyong street, baoan district, shenzhen, China.
Product Description:
Product Name.....: Smart phone
Brand Name: Unihertz
Model Name: TickTock
Series Model: N/A
Standards: FCC 47 CFR Part 15: Subpart B
Test Procedure.....: ANSI C63.4-2014
This device described above has been tested by STS, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.
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Date of Test:
Date of Receipt of Test Item.....: 27 Oct. 2021
Date of Performance of Tests: 27 Oct. 2021 ~ 21 Dec. 2021
Date of Issue: 21 Dec. 2021
Test Result.....: **Pass**

Testing Engineer :

Jane Zeng

(Jane Zeng)

Technical Manager :

Bulun

(Bulun)

Authorized Signatory :

Vita Li

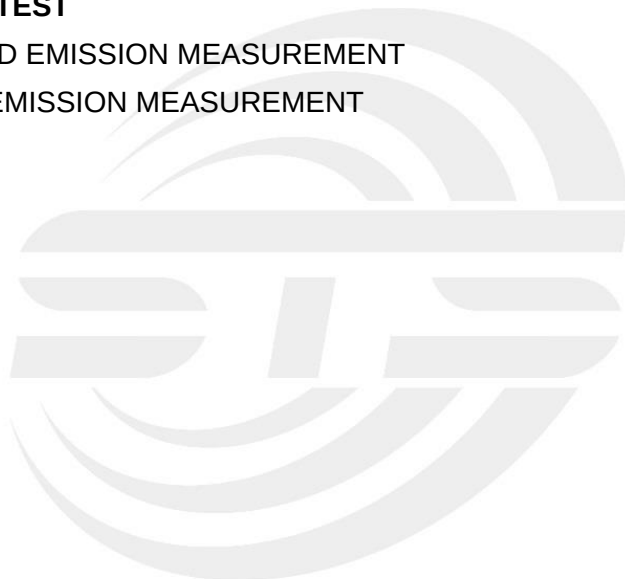
(Vita Li)





Table of Contents

1. SUMMARY OF THE TEST RESULTS	5
1.1 TEST FACTORY	5
1.2 MEASUREMENT UNCERTAINTY	5
2. GENERAL INFORMATION	6
2.1 GENERAL DESCRIPTION OF THE EUT	6
2.2 DESCRIPTION OF THE TEST MODES	8
2.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF THE SYSTEM TESTED	10
2.4 DESCRIPTION OF THE SUPPORT UNITS	11
2.5 EQUIPMENTS LIST FOR ALL TEST ITEMS	12
3. EMC EMISSION TEST	13
3.1 CONDUCTED EMISSION MEASUREMENT	13
3.2 RADIATED EMISSION MEASUREMENT	19



**Revision History**

Rev.	Issue Date	Report No.	Effect Page	Contents
00	21 Dec. 2021	STS2109215E03	ALL	Initial Issue





1. SUMMARY OF THE TEST RESULTS

Test procedures according to the technical standards:

EMISSION			
Standard	Item	Result	Remarks
FCC 47 CFR Part 15: Subpart B	Conducted Emission	PASS	Meet Class B limit
	Radiated Emission	PASS	Meet Class B limit

NOTE:

(1) N/A=Not Applicable.

1.1 TEST FACTORY

Company Name:	SHENZHEN STS TEST SERVICES CO.,LTD.
Address:	A 1/F, Building B, Zhuoke Science Park, No.190 Chongqing Road, HepingShequ, Fuyong Sub-District, Bao'an District, Shenzhen, Guang Dong, China
Telephone:	+86-755 3688 6288
Fax:	+86-755 3688 6277
Registration No.:	FCC test Firm Registration Number: 625569
	IC test Firm Registration Number: 12108A
	A2LA Certificate No.: 4338.01

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95 %.

No.	Item	Uncertainty
1	Conducted Emission (9KHz-30MHz)	$\pm 2.73\text{dB}$
2	All emissions,radiated(<1G) 30MHz-1000MHz	$\pm 4.09\text{dB}$
3	All emissions,radiated(>1G) 1GHz-6GHz	$\pm 1.92\text{dB}$
4	All emissions,radiated(>1G) 6GHz-18GHz	$\pm 5.49\text{dB}$



2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF THE EUT

Product Name	Smart phone	
Brand Name	Unihertz	
Model Name	TickTock	
Series Model	N/A	
Model Difference	N/A	
Product Description	The EUT is a Smart phone ITE equipment having a primary function of either (or a combination of) entry, storage, display, retrieval, transmission, processing, switching, or control of data and/or telecommunication messages and which may be equipped with one or more ports typically for information transfer.	
Frequency Bands	GSM	850:824~849MHz 1900:1850~1910MHz
	WCDMA	Band 2:1850~1910MHz Band 4:1710~1755MHz Band 5:824~849MHz
	CDMA	BC0: 820~860MHz BC1: 1850~1910MHz
	LTE	Band 2: 1850~1910MHz Band 4: 1710 ~1755MHz Band 5: 824~849MHz Band 7: 2500~2570MHz Band 12: 690~720MHz Band 13: 770~790MHz Band 17: 700~720MHz Band 25: 1850~1930MHz Band 26: 810~850MHz Band 40: 2305~2315MHz Band 41: 2496~2690MHz Band 66: 1710~1780MHz
	5G NR	5G n2: 1850-1910 MHz 5G n5: 824-849 MHz 5G n7: 2500-2570 MHz 5G n41: 2496-2690 MHz 5G n77: 3450-3550 MHz, 3700-3980 MHz
	Bluetooth	2402~ 2480MHz
	2.4G WLAN	802.11b/g/n20: 2412 MHz ~ 2462 MHz 802.11n40: 2422 MHz ~ 2452 MHz
	5G WLAN	WLAN 802.11a/n20/n40/ac20/ac40/ac80: 5150 ~ 5250 MHz WLAN 802.11a/n20/n40/ac20/ac40/ac80: 5250 ~ 5350 MHz WLAN 802.11a/n20/n40/ac20/ac40/ac80:



		5470 ~ 5725 MHz WLAN 802.11a/n20/n40/ac20/ac40/ac80: 5725 ~ 5850 MHz
	NFC	13.56 MHz
Modulation Mode	GSM	GSM, GPRS, EGPRS
	WCDMA	QPSK; HSDPA:QPSK/16QAM; HSUPA:BPSK
	CDMA	QPSK/16QAM
	LTE	QPSK/16QAM
	5G NR	DFT-s-OFDM, CP-OFDM ($\pi/2$ shift BPSK, QPSK, 16QAM, 64QAM, 256QAM)
	Bluetooth	V5.1 (GFSK, $\pi/4$ DQPSK, 8DPSK) ;
	BLE	GFSK
	WLAN	802.11b(DSSS):CCK,DQPSK,DBPSK 802.11g/a/n(OFDM): BPSK,QPSK,16-QAM,64-QAM 802.11ac(OFDM): BPSK,QPSK,16-QAM,64-QAM,256-QAM
	NFC	FSK
Adapter	Model: UF82PD3002 Brand: Unihertz Input: AC 100-240V 50/60Hz 0.8A Output: DC 5V 3A 15.0W or 9V 3.0A 27.0W or 10.0V 3.0A 30.0W Model: HJ-PD33W-US Brand: Unihertz Input: AC 100-240V 50/60Hz 0.8A Output: DC 5V 3A or 9V 3.0A or 12.0V 2.75A 33.0W MAX	
Battery	Rated Voltage: 3.85V Charge Limit Voltage: 4.4V Capacity: 6000mAh	
Hardware Version Number	G85_V1.1	
Software Version Number	Unihertz_TickTock_EEA_2021015	

Note: For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.



2.2 DESCRIPTION OF THE TEST MODES

To investigate the maximum EMI emission characteristics generated from EUT, the test system was pre-scanning tested based on the consideration of following EUT operation mode or test configuration mode which possibly have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	PC+USB Transmitting+SD Card
Mode 2	Adapter + Back camera on + BT Link+ GPS Rx
Mode 3	GSM850 Link + Adapter + USB cable + BT Link + GPS Rx+NFC
Mode 4	DCS1900 Idle + Adapter + USB cable + BT Link + GPS Rx+NFC
Mode 5	WCDMA850 Link + Adapter + USB cable + BT Link + WLAN Link + GPS Rx+NFC
Mode 6	WCDMA1700 Link + Adapter + USB cable + BT Link + WLAN Link + GPS Rx+NFC
Mode 7	WCDMA1900 Link + Adapter + USB cable + BT Link + WLAN Link + GPS Rx+NFC
Mode 8	CDMA BC0 Link + Adapter + USB cable + BT Link + WLAN Link + GPS Rx+NFC
Mode 9	CDMA BC1 Link + Adapter + USB cable + BT Link + WLAN Link + GPS Rx+NFC
Mode 10	LTE B2 Link + Adapter + USB cable + BT Link + WLAN Link + GPS Rx+NFC
Mode 11	LTE B4 Link + Adapter + USB cable + BT Link + WLAN Link + GPS Rx
Mode 12	LTE B5 Link + Adapter + USB cable + BT Link + WLAN Link + GPS Rx+NFC
Mode 13	LTE B7 Link + Adapter + USB cable + BT Link + WLAN Link + GPS Rx+NFC
Mode 14	LTE B12 Link + Adapter + USB cable + BT Link + WLAN Link + GPS Rx+NFC
Mode 15	LTE B13 Link + Adapter + USB cable + BT Link + WLAN Link + GPS Rx+NFC
Mode 16	LTE B17 Link + Adapter + USB cable + BT Link + WLAN Link + GPS Rx+NFC
Mode 17	LTE B41 Link + Adapter + USB cable + BT Link + WLAN Link + GPS Rx+NFC
Mode 18	LTE B25 Link + Adapter + USB cable + BT Link + WLAN Link + GPS Rx+NFC
Mode 19	LTE B26 Link + Adapter + USB cable + BT Link + WLAN Link + GPS Rx+NFC
Mode 20	LTE B40 Link + Adapter + USB cable + BT Link + WLAN Link + GPS Rx+NFC
Mode 21	LTE B66 Link + Adapter + USB cable + BT Link + WLAN Link + GPS Rx+NFC
Mode 22	NR N2 Link + Adapter + USB cable + BT Link + WLAN Link + GPS Rx+NFC
Mode 23	NR N5 Link + Adapter + USB cable + BT Link + WLAN Link + GPS Rx+NFC



Mode 24	NR N7 Link + Adapter + USB cable + BT Link + WLAN Link + GPS Rx+NFC
Mode 25	NR N41 Link + Adapter + USB cable + BT Link + WLAN Link + GPS Rx+NFC
Mode 26	NR N77 Link + Adapter + USB cable + BT Link + WLAN Link + GPS Rx+NFC

For Conducted Test	
Final Test Mode	Description
Mode 1	PC+USB Transmitting+SD Card

For Radiated Test	
Final Test Mode	Description
Mode 1	PC+USB Transmitting+SD Card

Note:

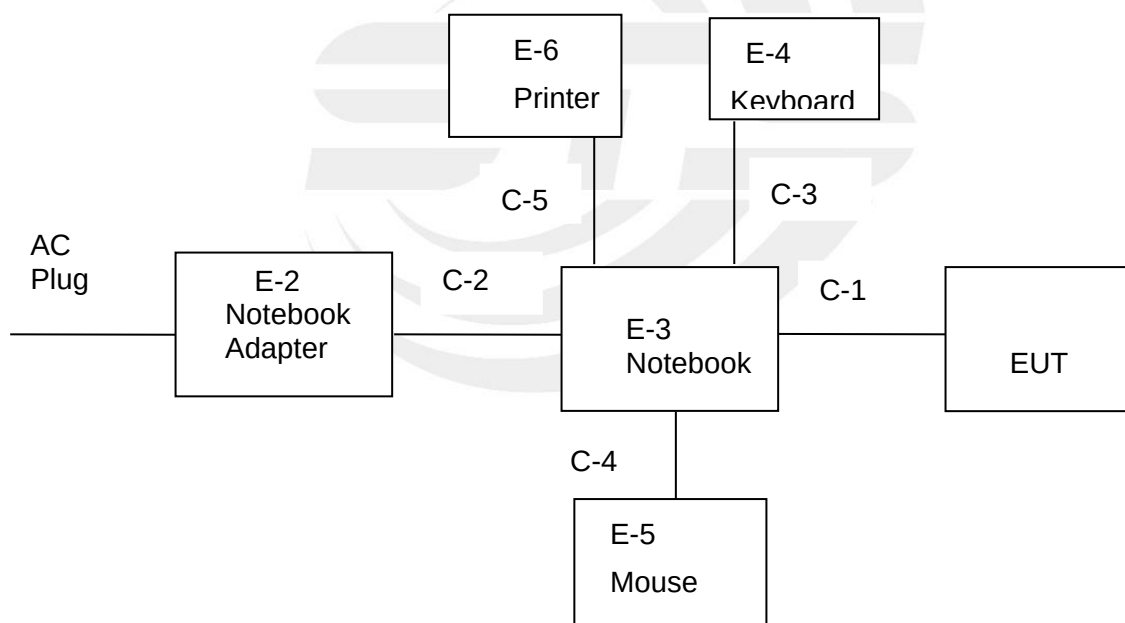
1. For conducted emission test, test mode 1 was the worst case and only this mode was presented in this report.
2. For radiated emission test, test mode 1 was the worst case and only this mode was presented in this report.
3. We have be tested for all avaiable U.S. voltage and frequencies (For 120V, 50/60Hz) for which the device is capable of operation.

2.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF THE SYSTEM TESTED

Mode 2:



Mode 1:





2.4 DESCRIPTION OF THE 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.

Necessary accessories

Item	Equipment	Mfr/Brand	Model/Type No.	Length	Note
E-1	Adapter	Unihertz	UF83PD3002	N/A	N/A
			HJ-PD33W-US	N/A	N/A
C-1	USB Cable	N/A	N/A	100cm	NO

Support units

Item	Equipment	Mfr/Brand	Model/Type No.	Length	Note
E-2	Notebook Adapter	DELL	HSTNN-CA15	N/A	N/A
E-3	Notebook	DELL	500-320cx	N/A	N/A
E-4	Keyboard	Acer	SK-9624	N/A	N/A
E-5	Mouse	HP	MODGUO	N/A	N/A
E-6	Printer	LENOVO	LJ2400L	N/A	N/A
C-2	DC Cable	N/A	N/A	110cm	NO
C-3	USB Cable	N/A	N/A	110cm	NO
C-4	USB Cable	N/A	N/A	110cm	NO
C-5	USB Cable	N/A	N/A	110cm	NO

Note:

- (1) For detachable type I/O cable should be specified the length in cm in 『Length』 column.
- (2) “YES” is means “with core”; “NO” is means “without core”.



2.5 EQUIPMENTS LIST FOR ALL TEST ITEMS

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.

Radiation Test equipment

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Calibrated Until
EMI Test Receiver	R&S	ESCI	101427	2021.09.30	2022.09.29
Bi-log Antenna	TESEQ	CBL6111D	45873	2021.10.08	2023.10.07
Horn Antenna	SCHWARZBECK	BBHA 9120D	1343	2020.10.12	2022.10.11
Pre-amplifier(1-26.5G)	Agilent	8449B	3008A02383	2021.10.09	2022.10.08
Pre-amplifier(0.1M-3GHz)	EM	EM330	060665	2021.10.09	2022.10.08
Spectrum Analyzer	Agilent	N9020A	MY49100060	2021.09.30	2022.09.29
RE Cable (9K-1G)	N/A	R01	N/A	2021.10.09	2022.10.08
RE Cable (1-26G)	N/A	R02	N/A	2021.10.09	2022.10.08
Temperature & Humidity	Mieo	HH660	N/A	2021.10.09	2022.10.08
Horn Antenna(18-40G)	A-INFO	LB-180400-K F	J211020657	2020.10.12	2022.10.11
Testing Software	EZ-EMC(Ver.STSLAB-03A1 RE)				

Conduction Test equipment

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Calibrated Until
EMI Test Receiver	R&S	ESCI	101427	2021.09.30	2022.09.29
LISN	R&S	ENV216	101242	2021.09.30	2022.09.29
LISN	ETS	3810/2NM	00023625	2021.09.30	2022.09.29
Absorbing Clamp	R&S	MDS-21	100668	2021.04.11	2022.04.10
CE Cable	N/A	C01	N/A	2021.09.30	2022.09.29
EMF Antenna	SCHWARZBECK	VDHH 9502	147	2021.09.30	2022.09.29
Temperature & Humidity	Mieo	HH660	N/A	2021.10.09	2022.10.08
Testing Software	EZ-EMC(Ver.STSLAB-03A1 CE)				



3. EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION Limits

FREQUENCY (MHz)	☐ Class A (dB μ V)		☒ Class B (dB μ V)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 ~ 0.5	79.00	66.00	66 - 56 *	56 - 46 *
0.5 ~ 5	73.00	60.00	56.00	46.00
5 ~ 30	73.00	60.00	60.00	50.00

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

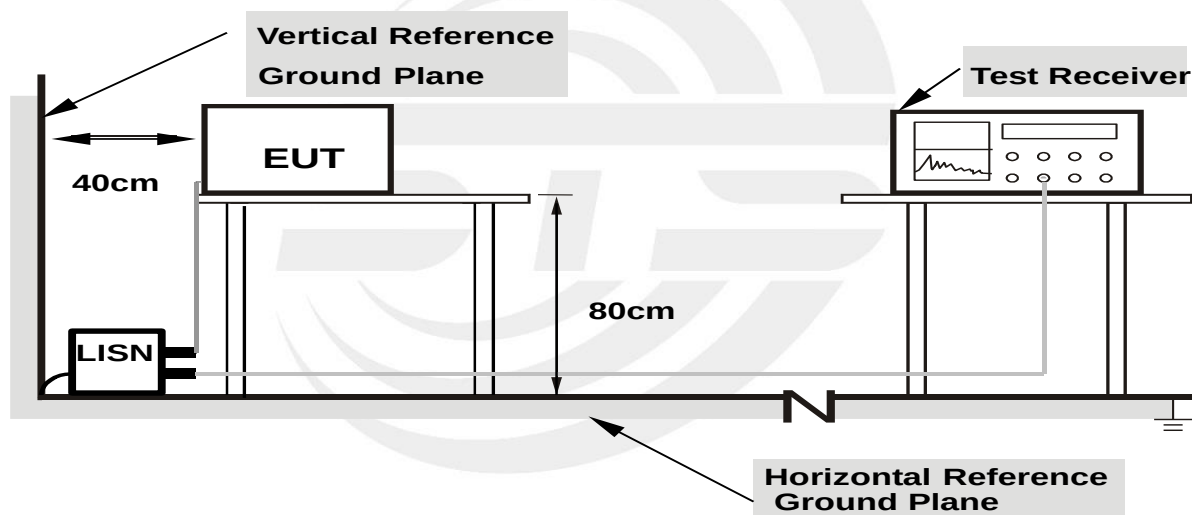
3.1.2 TEST PROCEDURE

- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.1.3 DEVIATION FROM TEST STANDARD

No deviation

3.1.4 TEST SETUP



Note: 1.Support units were connected to second LISN.

2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

3.1.5 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.



3.1.6 TEST RESULTS

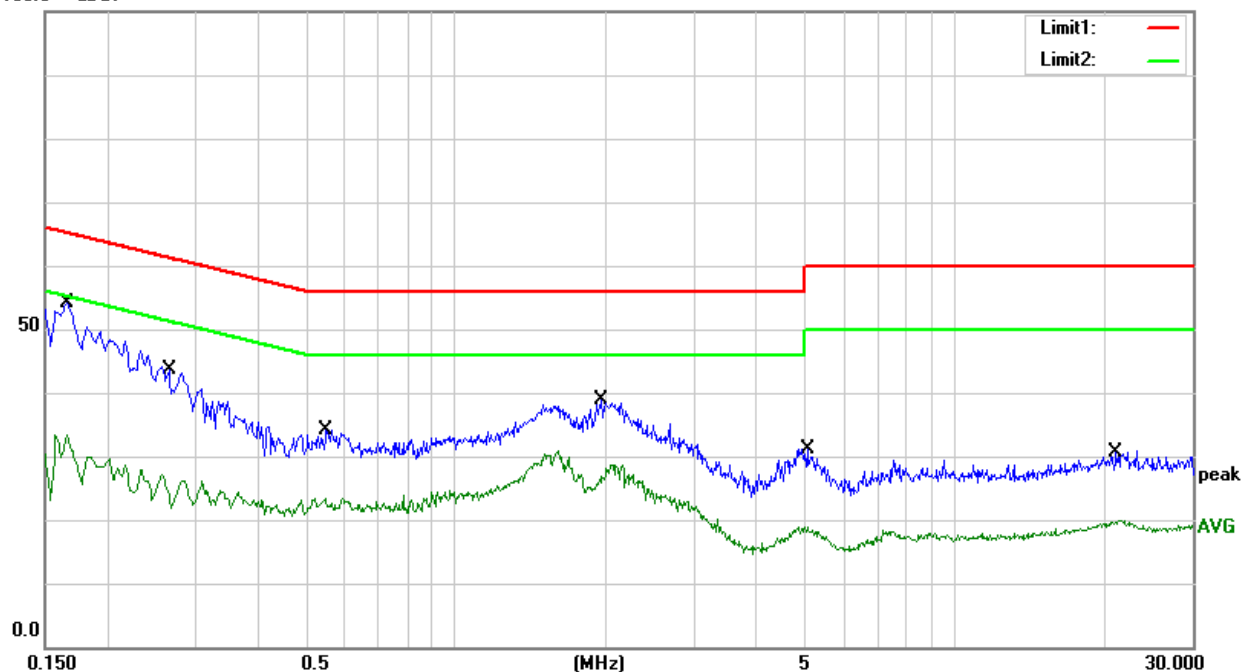
Temperature:	26.1℃	Relative Humidity:	60%
Phase:	L	Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz	Test Date:	2021.10.27
Adapter:	UF82PD3002		

No.	Frequency (MHz)	Reading (dBUV)	Correct Factor (dB)	Result (dBUV)	Limit (dBUV)	Margin (dB)	Detector
1	0.1660	33.86	20.33	54.19	65.16	-10.97	QP
2	0.1660	13.05	20.33	33.38	55.16	-21.78	AVG
3	0.2660	22.90	20.65	43.55	61.24	-17.69	QP
4	0.2660	6.55	20.65	27.20	51.24	-24.04	AVG
5	0.5500	13.67	20.46	34.13	56.00	-21.87	QP
6	0.5500	3.02	20.46	23.48	46.00	-22.52	AVG
7	1.9660	18.55	20.39	38.94	56.00	-17.06	QP
8	1.9660	8.36	20.39	28.75	46.00	-17.25	AVG
9	5.0780	10.58	20.53	31.11	60.00	-28.89	QP
10	5.0780	-1.65	20.53	18.88	50.00	-31.12	AVG
11	21.1140	7.69	22.87	30.56	60.00	-29.44	QP
12	21.1140	-2.90	22.87	19.97	50.00	-30.03	AVG

Remark:

1. All readings are Quasi-Peak and Average values
2. Margin = Result (Result = Reading + Factor) - Limit
3. Factor = Insertion loss + Cable loss

100.0 dBUV





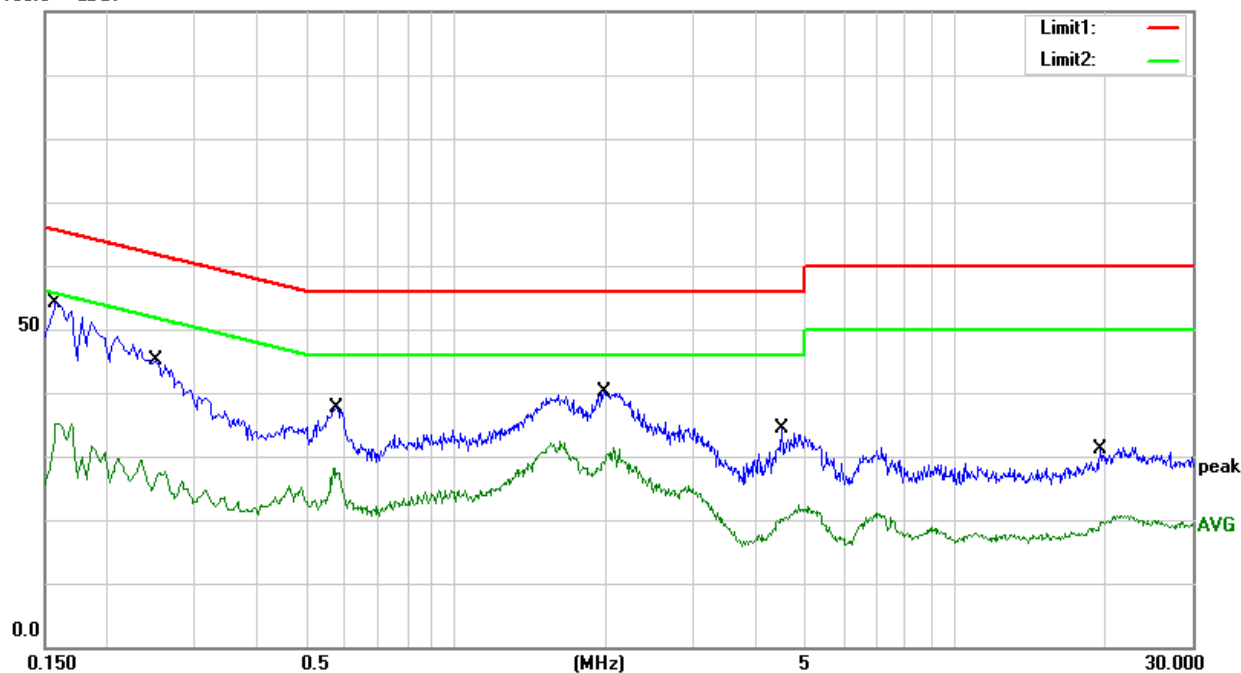
Temperature:	26.1 °C	Relative Humidity:	60%
Phase:	N	Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz	Test Date:	2021.10.27
Adapter:	UF82PD3002		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1580	33.78	20.31	54.09	65.57	-11.48	QP
2	0.1580	14.87	20.31	35.18	55.57	-20.39	AVG
3	0.2500	24.57	20.60	45.17	61.76	-16.59	QP
4	0.2500	7.11	20.60	27.71	51.76	-24.05	AVG
5	0.5780	17.07	20.44	37.51	56.00	-18.49	QP
6	0.5780	7.76	20.44	28.20	46.00	-17.80	AVG
7	1.9900	19.73	20.39	40.12	56.00	-15.88	QP
8	1.9900	10.91	20.39	31.30	46.00	-14.70	AVG
9	4.5060	13.77	20.53	34.30	56.00	-21.70	QP
10	4.5060	1.80	20.53	22.33	46.00	-23.67	AVG
11	19.6020	8.39	22.80	31.19	60.00	-28.81	QP
12	19.6020	-2.23	22.80	20.57	50.00	-29.43	AVG

Remark:

1. All readings are Quasi-Peak and Average values
2. Margin = Result (Result = Reading + Factor) - Limit
3. Factor = Insertion loss + Cable loss

100.0 dBuV





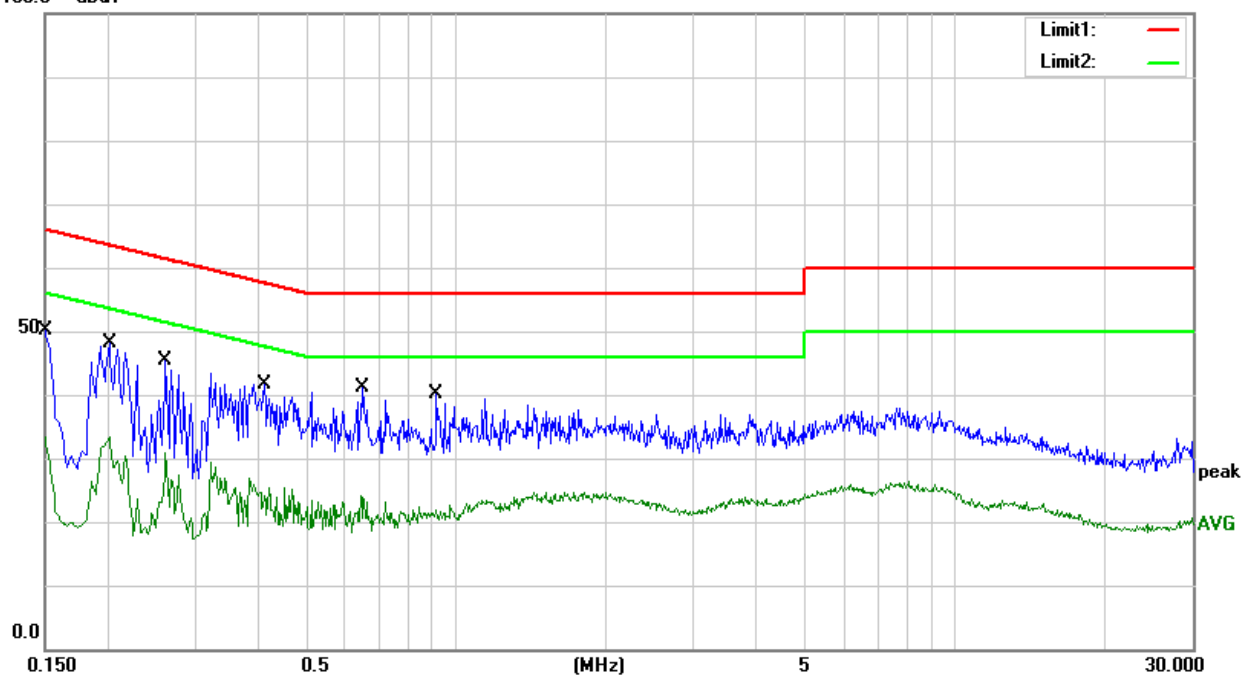
Temperature:	26.6℃	Relative Humidity:	50%
Phase:	L	Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz	Test Date:	2021.12.15
Adapter:	HJ-PD33W-US		

No.	Frequency (MHz)	Reading (dBUV)	Correct Factor (dB)	Result (dBUV)	Limit (dBUV)	Margin (dB)	Detector
1	0.1500	29.83	20.33	50.16	66.00	-15.84	QP
2	0.1500	13.12	20.33	33.45	56.00	-22.55	AVG
3	0.2020	27.72	20.32	48.04	63.53	-15.49	QP
4	0.2020	12.96	20.32	33.28	53.53	-20.25	AVG
5	0.2620	24.79	20.58	45.37	61.37	-16.00	QP
6	0.2620	10.22	20.58	30.80	51.37	-20.57	AVG
7	0.4140	21.09	20.54	41.63	57.57	-15.94	QP
8	0.4140	4.76	20.54	25.30	47.57	-22.27	AVG
9	0.6540	20.76	20.39	41.15	56.00	-14.85	QP
10	0.6540	3.75	20.39	24.14	46.00	-21.86	AVG
11	0.9140	19.78	20.31	40.09	56.00	-15.91	QP
12	0.9140	2.24	20.31	22.55	46.00	-23.45	AVG

Remark:

1. All readings are Quasi-Peak and Average values
2. Margin = Result (Result = Reading + Factor) - Limit
3. Factor = Insertion loss + Cable loss

100.0 dBUV





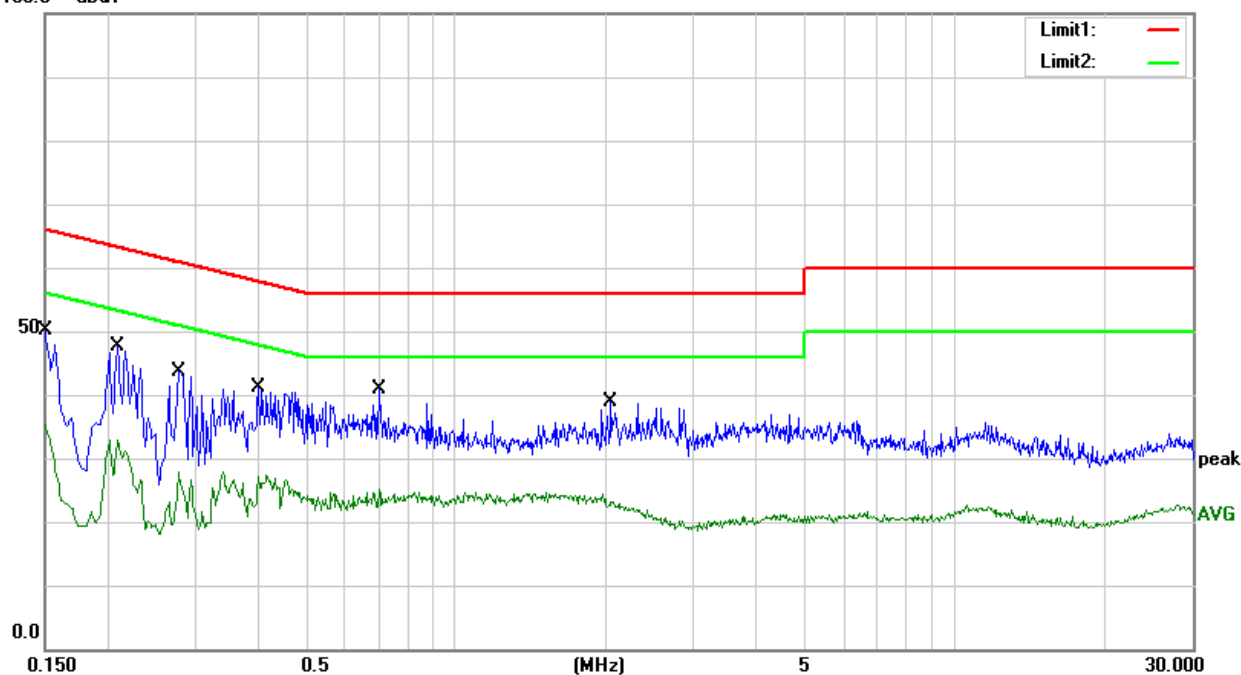
Temperature:	26.6℃	Relative Humidity:	50%
Phase:	N	Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz	Test Date:	2021.12.15
Adapter:	HJ-PD33W-US		

No.	Frequency (MHz)	Reading (dBUV)	Correct Factor (dB)	Result (dBUV)	Limit (dBUV)	Margin (dB)	Detector
1	0.1500	29.81	20.33	50.14	66.00	-15.86	QP
2	0.1500	15.01	20.33	35.34	56.00	-20.66	AVG
3	0.2100	27.18	20.35	47.53	63.21	-15.68	QP
4	0.2100	12.45	20.35	32.80	53.21	-20.41	AVG
5	0.2780	23.07	20.65	43.72	60.88	-17.16	QP
6	0.2780	7.18	20.65	27.83	50.88	-23.05	AVG
7	0.4020	20.58	20.54	41.12	57.81	-16.69	QP
8	0.4020	6.78	20.54	27.32	47.81	-20.49	AVG
9	0.7020	20.45	20.35	40.80	56.00	-15.20	QP
10	0.7020	4.78	20.35	25.13	46.00	-20.87	AVG
11	2.0500	18.53	20.30	38.83	56.00	-17.17	QP
12	2.0500	3.96	20.30	24.26	46.00	-21.74	AVG

Remark:

1. All readings are Quasi-Peak and Average values
2. Margin = Result (Result = Reading + Factor) - Limit
3. Factor = Insertion loss + Cable loss

100.0 dBUV





3.2 RADIATED EMISSION MEASUREMENT

3.2.1 RADIATED EMISSION LIMITS

Below 1 GHz

Measurement Method and Applied Limits:

ANSI C63.4:

Frequency (MHz)	☐ Class A		☒ Class B
	Field strength (dBuV/m) (at 10m)	Field strength (dBuV/m) (at 3m)	Field strength (dBuV/m) (at 3m)
30 ~ 88	39	49	40
88 ~ 216	43.5	53.5	43.5
216 ~ 960	46	56	46
Above 960	49.5	59.5	54

Above 1 GHz

Measurement Method and Applied Limits:

ANSI C63.4:

Frequency (MHz)	☐ Class A				☒ Class B	
	(dBuV/m) (at 3m)		(dBuV/m) (at 10m)		(dBuV/m) (at 3m)	
	Peak	Average	Peak	Average	Peak	Average
Above 1000	80	60	69.5	49.5	74	54

Frequency Range of Radiated Disturbance Measurement

Highest frequency generated or Upper frequency of measurement used in the device or on which the device operates or tunes (MHz)	Range (MHz)
Below 1.705	30
1.705 ~ 108	1000
108 ~ 500	2000
500 ~ 1000	5000
Above 1000	5th harmonic of the highest frequency or 40 GHz, whichever is lower

Note:

- (1) The limit for radiated test was performed in the following: FCC PART 15B.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m) = 20log Emission level (uV/m).



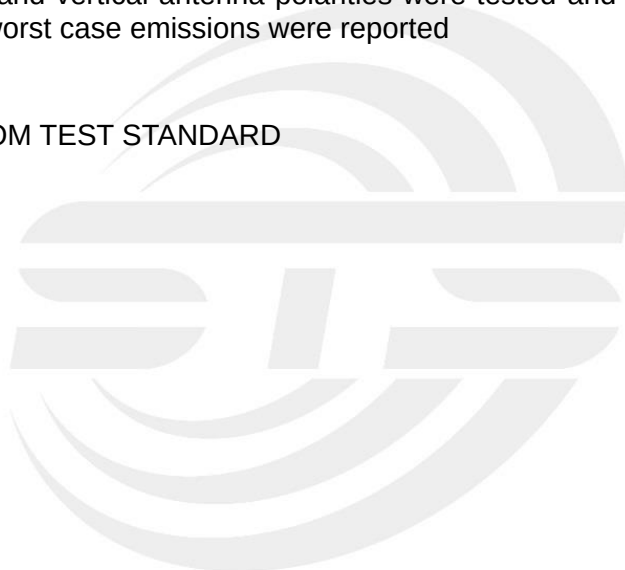
3.2.2 TEST PROCEDURE

- a. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. EUT as the center to the edge of the auxiliary device, the distance from the maximum edge to the center of the antenna is 3 meter.
- c. The height of antenna is varied from 1 meter to 4 meter above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meter and the rotatable table was turned from 0 degrees to 360 degree to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1GHz.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

Note: Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported

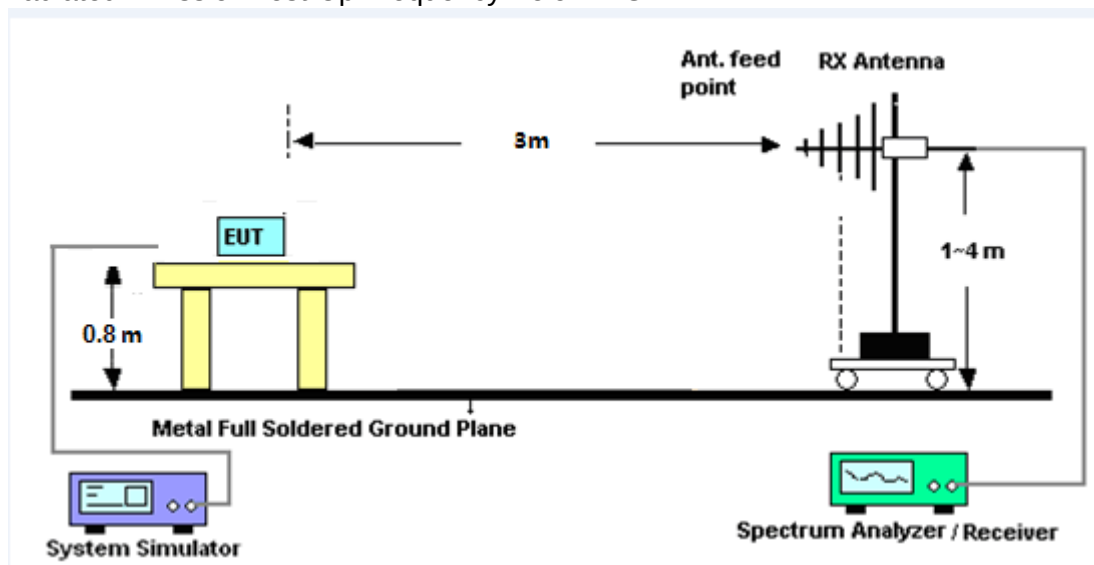
3.2.3 DEVIATION FROM TEST STANDARD

No deviation

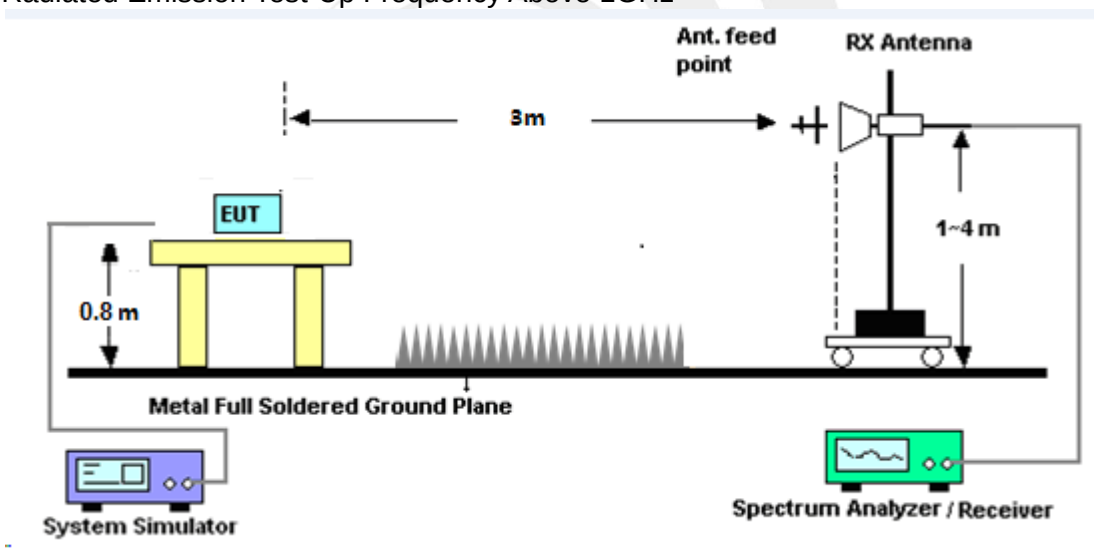


3.2.4 TEST SETUP

(A) Radiated Emission Test-Up Frequency Below 1 GHz



(B) Radiated Emission Test-Up Frequency Above 1GHz



3.2.5 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.4 described unless otherwise a special operating condition is specified in the following during the testing.



3.2.6 TEST RESULTS

30MHz - 1000MHz

Temperature:	25.8°C	Relative Humidity:	47%
Phase:	Horizontal	Test Mode:	Mode 1
Test Voltage:	DC 5V	Test Date:	2021.10.27
Adapter:	UF82PD3002		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	192.4185	52.32	-21.34	30.98	43.50	-12.52	QP
2	229.2931	53.01	-18.74	34.27	46.00	-11.73	QP
3	257.4221	50.04	-15.38	34.66	46.00	-11.34	QP
4	370.7022	45.45	-14.43	31.02	46.00	-14.98	QP
5	492.4685	40.70	-10.65	30.05	46.00	-15.95	QP
6	798.9796	35.83	-4.77	31.06	46.00	-14.94	QP

Remark:

1. All readings are Quasi-Peak
2. Margin = Result (Result = Reading + Factor) - Limit
3. Factor = Cable Loss + Antenna Factor - Amplifier Gain





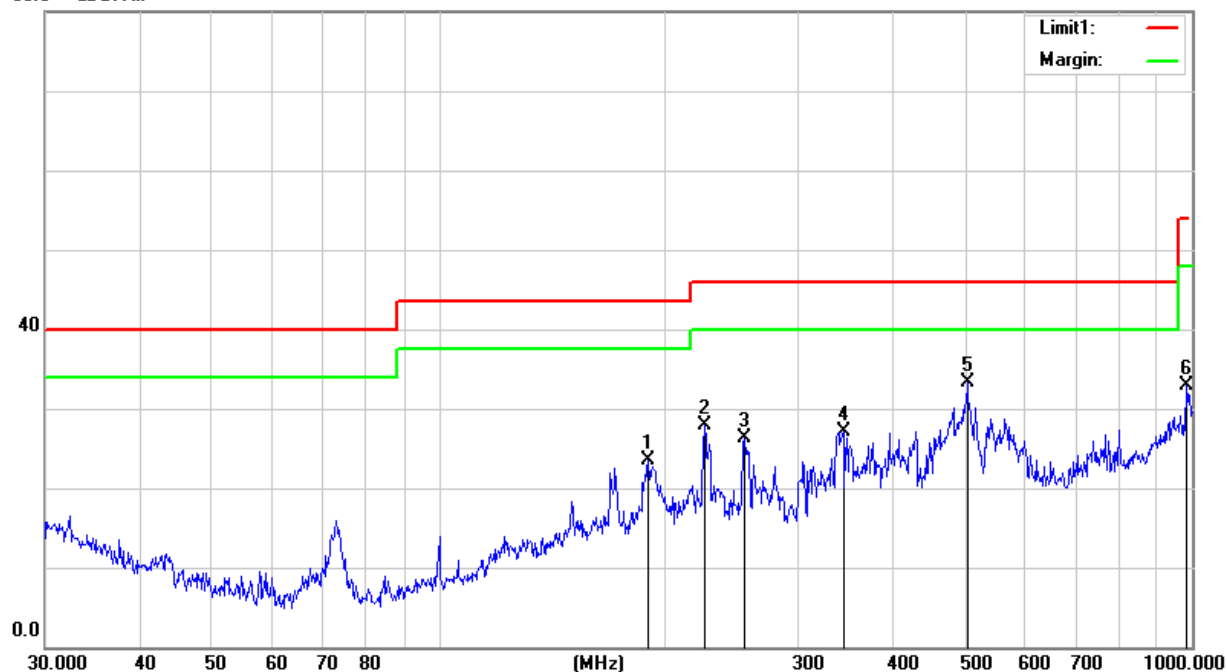
Temperature:	25.8°C	Relative Humidity:	47%
Phase:	Vertical	Test Mode:	Mode 1
Test Voltage:	DC 5V	Test Date:	2021.10.27
Adapter:	UF82PD3002		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	189.7384	44.97	-21.52	23.45	43.50	-20.05	QP
2	225.3080	46.91	-19.10	27.81	46.00	-18.19	QP
3	254.7283	42.47	-16.13	26.34	46.00	-19.66	QP
4	344.3854	42.48	-15.40	27.08	46.00	-18.92	QP
5	502.9395	43.73	-10.51	33.22	46.00	-12.78	QP
6	982.6200	34.97	-2.11	32.86	54.00	-21.14	QP

Remark:

1. All readings are Quasi-Peak
2. Margin = Result (Result = Reading + Factor) - Limit
3. Factor = Cable Loss + Antenna Factor - Amplifier Gain

80.0 dBuV/m





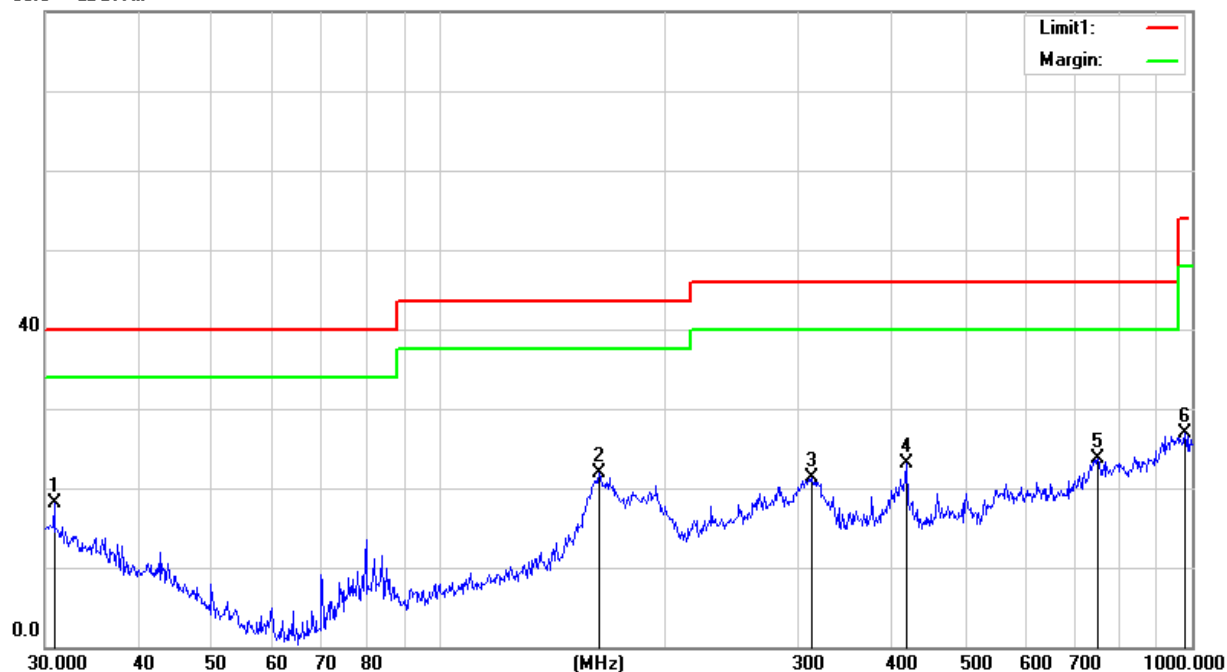
Temperature:	25.0°C	Relative Humidity:	45%
Phase:	Horizontal	Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz	Test Date:	2021.12.13
Adapter:	HJ-PD33W-US		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	30.8535	29.69	-11.50	18.19	40.00	-21.81	QP
2	163.1818	41.04	-19.06	21.98	43.50	-21.52	QP
3	312.1792	36.62	-15.33	21.29	46.00	-24.71	QP
4	417.6410	35.54	-12.48	23.06	46.00	-22.94	QP
5	750.1082	28.58	-4.93	23.65	46.00	-22.35	QP
6	979.1803	29.09	-2.09	27.00	54.00	-27.00	QP

Remark:

1. All readings are Quasi-Peak
2. Margin = Result (Result = Reading + Factor) - Limit
3. Factor = Cable Loss + Antenna Factor - Amplifier Gain

80.0 dBuV/m





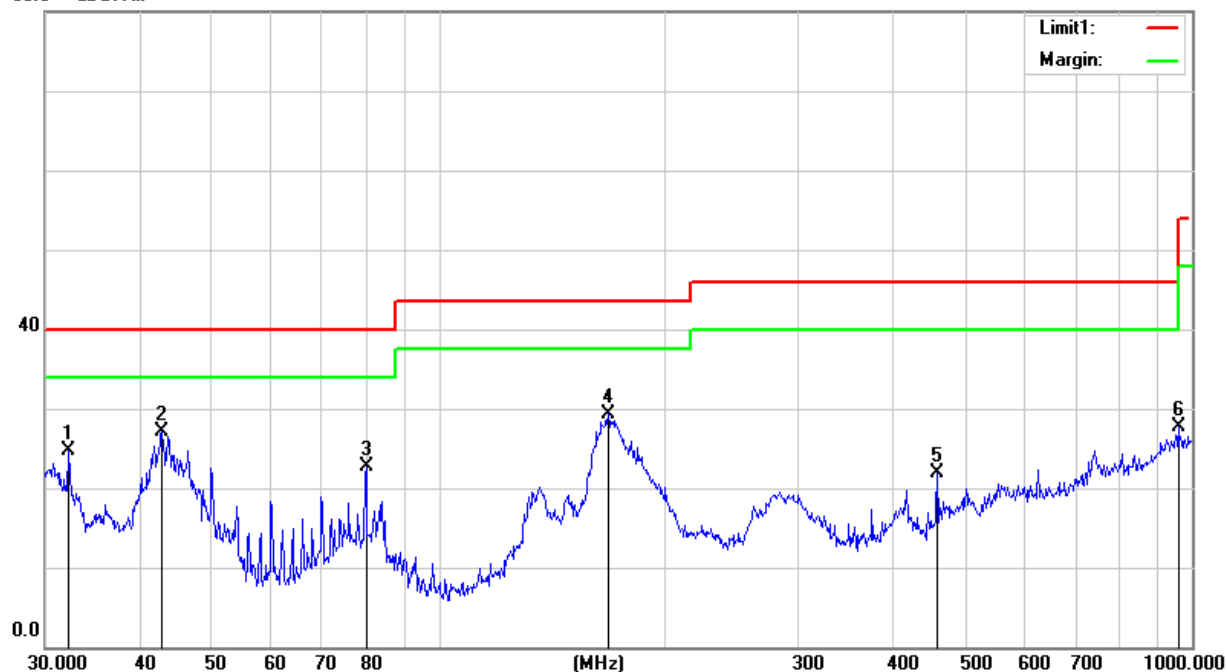
Temperature:	25.0°C	Relative Humidity:	45%
Phase:	Vertical	Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz	Test Date:	2021.12.13
Adapter:	HJ-PD33W-US		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	32.1794	36.96	-12.25	24.71	40.00	-15.29	QP
2	42.8997	45.09	-18.07	27.02	40.00	-12.98	QP
3	80.0806	45.68	-22.96	22.72	40.00	-17.28	QP
4	167.8242	48.84	-19.61	29.23	43.50	-14.27	QP
5	459.1143	33.69	-11.73	21.96	46.00	-24.04	QP
6	958.7943	29.60	-1.92	27.68	46.00	-18.32	QP

Remark:

1. All readings are Quasi-Peak
2. Margin = Result (Result = Reading + Factor) - Limit
3. Factor = Cable Loss + Antenna Factor - Amplifier Gain

80.0 dBuV/m





(1 GHz - 18GHz)

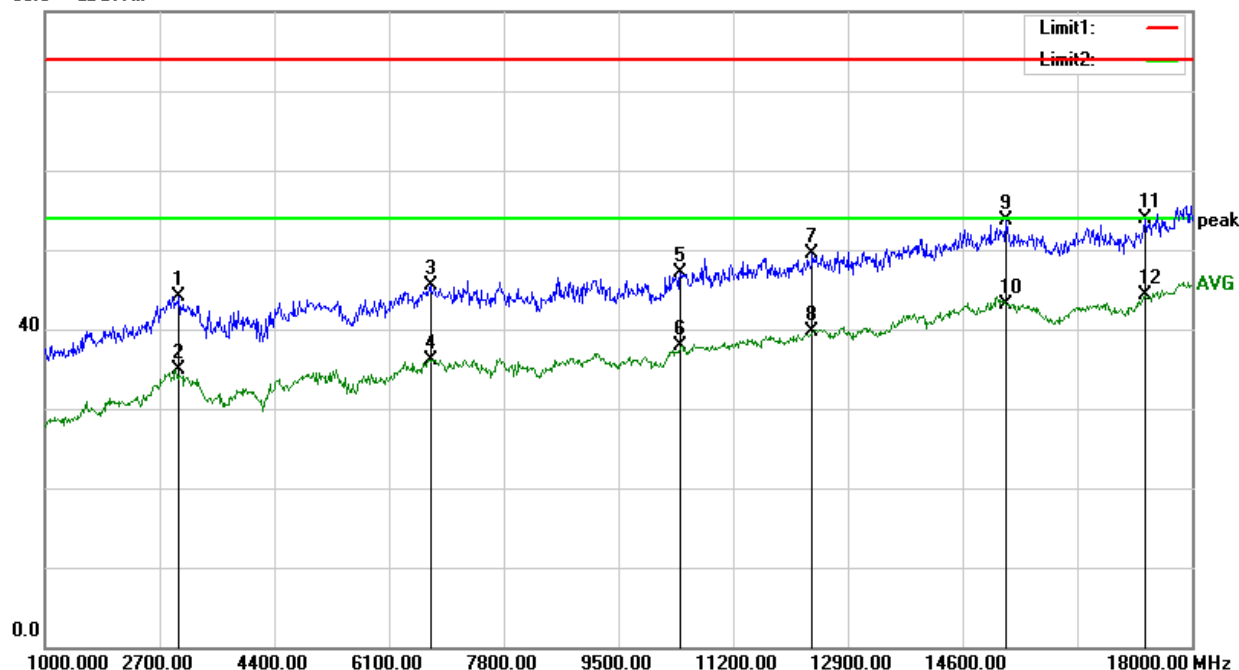
Temperature:	25.3℃	Relative Humidity:	53%
Phase:	Horizontal	Test Mode:	Mode 1
Test Voltage:	DC 5V	Test Date:	2021.10.27

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	2989.000	41.83	2.19	44.02	74.00	-29.98	Peak
2	2989.000	32.64	2.19	34.83	54.00	-19.17	AVG
3	6712.000	35.29	10.26	45.55	74.00	-28.45	Peak
4	6712.000	25.93	10.26	36.19	54.00	-17.81	AVG
5	10418.000	33.45	13.57	47.02	74.00	-26.98	Peak
6	10418.000	24.28	13.57	37.85	54.00	-16.15	AVG
7	12381.500	34.09	15.36	49.45	74.00	-24.55	Peak
8	12381.500	24.27	15.36	39.63	54.00	-14.37	AVG
9	15254.500	36.15	17.62	53.77	74.00	-20.23	Peak
10	15254.500	25.54	17.62	43.16	54.00	-10.84	AVG
11	17311.500	32.89	20.96	53.85	74.00	-20.15	Peak
12	17311.500	23.29	20.96	44.25	54.00	-9.75	AVG

Remark:

1. All readings are Peak and Average values
2. Margin = Result (Result = Reading + Factor) - Limit
3. Factor = Cable Loss + Antenna Factor - Amplifier Gain

80.0 dBuV/m





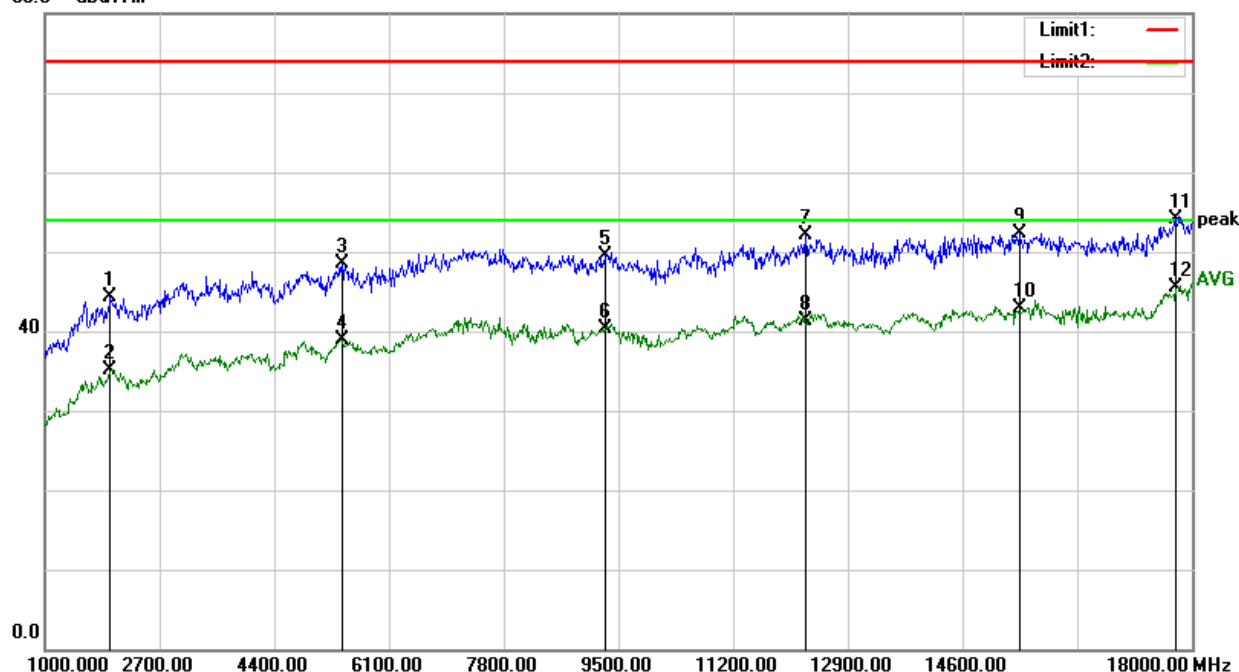
Temperature:	25.3℃	Relative Humidity:	53%
Phase:	Vertical	Test Mode:	Mode 1
Test Voltage:	DC 5V	Test Date:	2021.10.27

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	1977.500	45.40	-1.19	44.21	74.00	-29.79	Peak
2	1977.500	36.20	-1.19	35.01	54.00	-18.99	AVG
3	5411.500	41.35	7.23	48.58	74.00	-25.42	Peak
4	5411.500	31.74	7.23	38.97	54.00	-15.03	AVG
5	9321.500	35.67	13.91	49.58	74.00	-24.42	Peak
6	9321.500	26.42	13.91	40.33	54.00	-13.67	AVG
7	12279.500	36.94	15.20	52.14	74.00	-21.86	Peak
8	12279.500	26.16	15.20	41.36	54.00	-12.64	AVG
9	15458.500	34.96	17.30	52.26	74.00	-21.74	Peak
10	15458.500	25.68	17.30	42.98	54.00	-11.02	AVG
11	17762.000	30.19	23.82	54.01	74.00	-19.99	Peak
12	17762.000	21.62	23.82	45.44	54.00	-8.56	AVG

Remark:

1. All readings are Peak and Average values
2. Margin = Result (Result = Reading + Factor) - Limit
3. Factor = Cable Loss + Antenna Factor - Amplifier Gain

80.0 dBuV/m





(18 GHz - 25GHz)

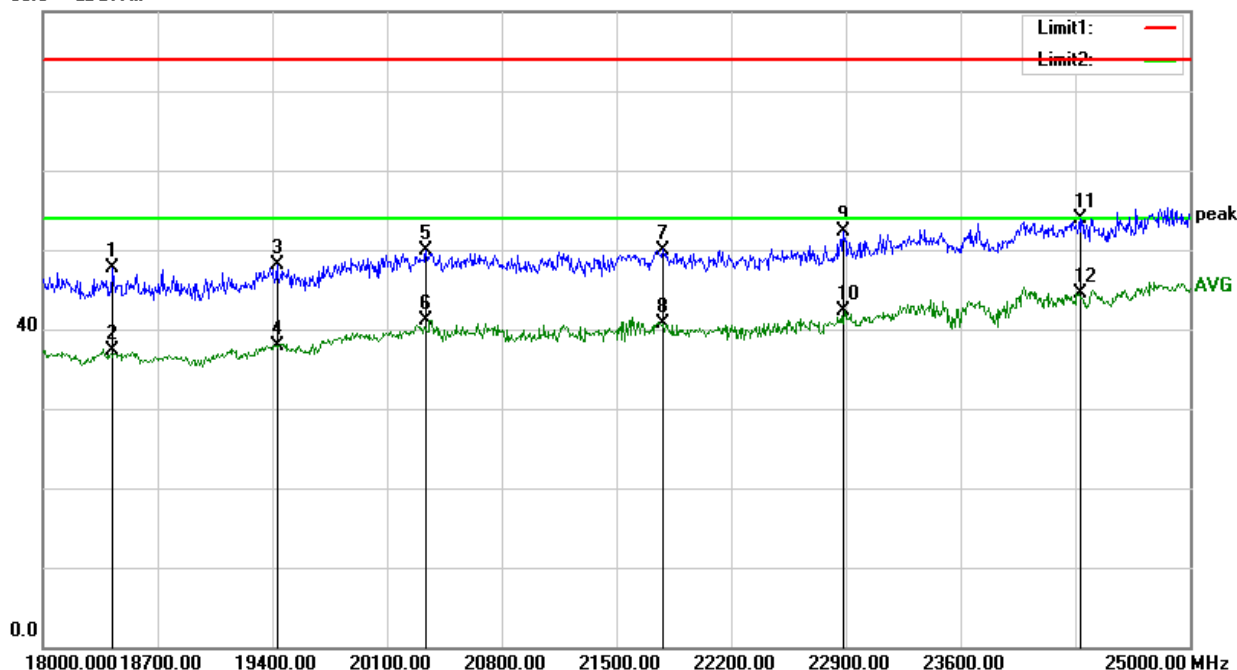
Temperature:	24.1℃	Relative Humidity:	44%
Phase:	Horizontal	Test Mode:	Mode 1
Test Voltage:	DC 5V	Test Date:	2021.10.27

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	18427.000	22.74	24.87	47.61	74.00	-26.39	Peak
2	18427.000	12.53	24.87	37.40	54.00	-16.60	AVG
3	19428.000	22.68	25.33	48.01	74.00	-25.99	Peak
4	19428.000	12.65	25.33	37.98	54.00	-16.02	AVG
5	20338.000	25.09	24.84	49.93	74.00	-24.07	Peak
6	20338.000	16.33	24.84	41.17	54.00	-12.83	AVG
7	21787.000	25.36	24.64	50.00	74.00	-24.00	Peak
8	21787.000	16.12	24.64	40.76	54.00	-13.24	AVG
9	22886.000	27.73	24.52	52.25	74.00	-21.75	Peak
10	22886.000	17.84	24.52	42.36	54.00	-11.64	AVG
11	24328.000	28.98	24.92	53.90	74.00	-20.10	Peak
12	24328.000	19.49	24.92	44.41	54.00	-9.59	AVG

Remark:

1. All readings are Peak and Average values
2. Margin = Result (Result = Reading + Factor) - Limit
3. Factor = Cable Loss + Antenna Factor - Amplifier Gain

80.0 dBuV/m





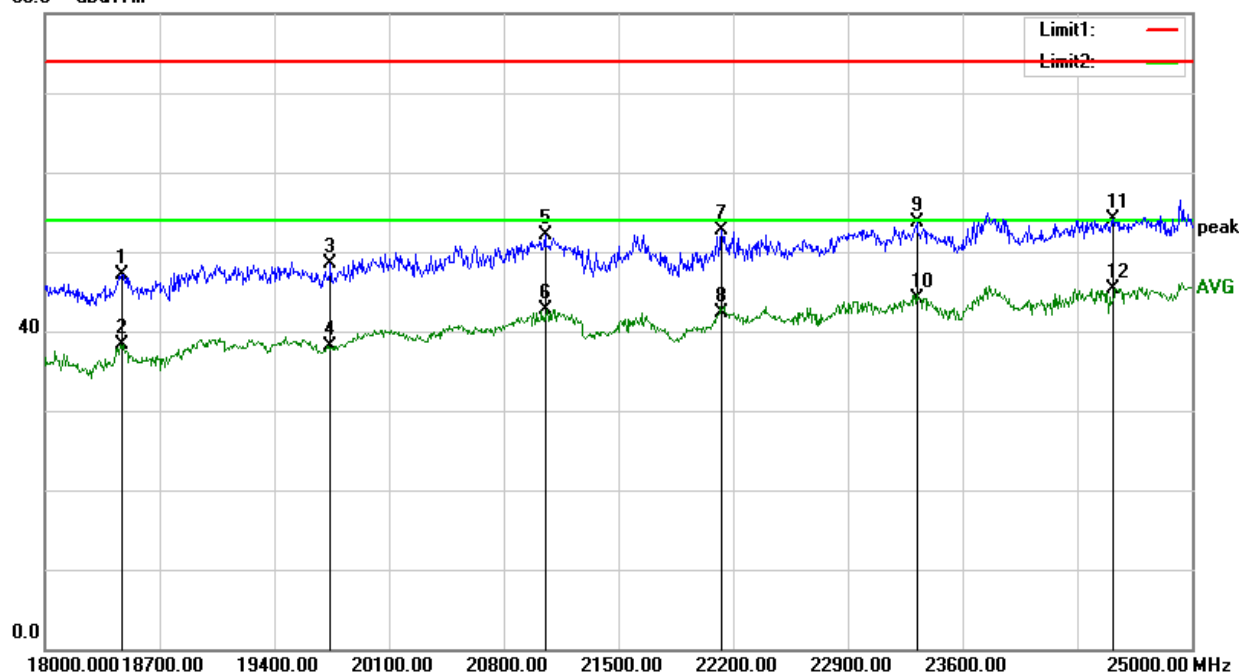
Temperature:	24.1℃	Relative Humidity:	44%
Phase:	Vertical	Test Mode:	Mode 1
Test Voltage:	DC 5V	Test Date:	2021.10.27

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	18469.000	22.37	24.80	47.17	74.00	-26.83	Peak
2	18469.000	13.49	24.80	38.29	54.00	-15.71	AVG
3	19743.000	23.70	24.74	48.44	74.00	-25.56	Peak
4	19743.000	13.46	24.74	38.20	54.00	-15.80	AVG
5	21052.000	27.13	24.89	52.02	74.00	-21.98	Peak
6	21052.000	17.86	24.89	42.75	54.00	-11.25	AVG
7	22130.000	28.14	24.53	52.67	74.00	-21.33	Peak
8	22130.000	17.85	24.53	42.38	54.00	-11.62	AVG
9	23320.000	29.09	24.67	53.76	74.00	-20.24	Peak
10	23320.000	19.52	24.67	44.19	54.00	-9.81	AVG
11	24517.000	29.15	24.96	54.11	74.00	-19.89	Peak
12	24517.000	20.27	24.96	45.23	54.00	-8.77	AVG

Remark:

1. All readings are Peak and Average values
2. Margin = Result (Result = Reading + Factor) – Limit
3. Factor = Cable Loss + Antenna Factor – Amplifier Gain

80.0 dBuV/m



Notes:

1. Measuring frequencies from 1 GHz to 25GHz.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak and average detector mode of the emission shown in Actual FS column.

END OF THE REPORT