FCC Radio Test Report

FCC ID: 2AR2STAFW1RE

This report concerns: Original Grant

Project No.	:	2112C090
Equipment	:	Wireless subwoofer
Brand Name	:	PHILIPS or
Test Model	:	TAFW1/37
Series Model	:	TAFW1, TAFW1RE, TAFW1RE/10, TAFW1/10, TAFW1RE/37, TAFW1/98, TAFW1RE/98, TAFW1xx/yy(x=A-Z or blank, yy=00-99 or blank for country code)
Applicant	:	MMD Hong Kong Holding Limited
Address	:	Unit 1006, 10th Floor, C-Bons International Center, 108 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong
Manufacturer	:	MMD Hong Kong Holding Limited
Address	:	Unit 1006, 10th Floor, C-Bons International Center, 108 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong
Factory	:	Zhong Shan City Richsound Electronic Industrial Ltd.
Address	:	No.16, East Shagang Road, Gangkou, Zhongshan, Guangdong, China
Date of Receipt	:	Dec. 16, 2021
Date of Test	:	Dec. 17, 2021 ~ Mar. 10, 2022
Issued Date	:	Mar. 19, 2022
Report Version	:	R00
Test Sample	:	Engineering Sample No.: DG202112168 for Conducted, DG202112167 for radiated and AC Power Line Conducted Emissions.
Standard(s)	:	FCC CFR Title 47, Part 15, Subpart C ANSI C63.10-2013

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

Evan Yang

Prepared by : Evan Yang

Chay . Cai

Approved by : Chay Cai

TESTING CERT #5123.02

Add: No. 3 Jinshagang 1st Rd. Shixia, Dalang Town Dongguan City, Guangdong 523792 People's Republic of China

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Declaration

BTL represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

BTL's reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. **BTL** shall have no liability for any declarations, inferences or generalizations drawn by the client or others from **BTL** issued reports.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, A2LA, or any agency of the U.S. Government.

This report is the confidential property of the client. As a mutual protection to the clients, the public and ourselves, the test report shall not be reproduced, except in full, without our written approval.

BTL's laboratory quality assurance procedures are in compliance with the **ISO/IEC 17025** requirements, and accredited by the conformity assessment authorities listed in this test report.

BTL is not responsible for the sampling stage, so the results only apply to the sample as received.

The information, data and test plan are provided by manufacturer which may affect the validity of results, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements of applied standards and in all the possible configurations as representative of its intended use.

Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.
Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.

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REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Original Issue.	Mar. 19, 2022

1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC CFR Title 47, Part 15, Subpart C				
Standard(s) Section	**Test Item**	**Test Result**	**Judgment**	**Remark**
15.207(a)	AC Power Line Conducted Emissions	APPENDIX A	PASS	------
15.209 15.249(a)	Radiated Emissions	APPENDIX B APPENDIX C APPENDIX D	PASS	------
15.215(c)	Bandwidth	APPENDIX E	PASS	------

Note:

(1) “N/A” denotes test is not applicable to this device.

1.1 TEST FACILITY

The test facilities used to collect the test data in this report is at the location of No. 3 Jinshagang 1st Rd. Shixia, Dalang Town Dongguan City, Guangdong 523792 People's Republic of China.
BTL's Registration Number for FCC: 357015
BTL's Designation Number for FCC: CN1240

1.2 MEASUREMENT UNCERTAINTY

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))
The BTL measurement uncertainty as below table:

A. AC power line conducted emissions test:

Test Site	Method	Measurement Frequency Range	U,(dB)
DG-C02	CISPR	150kHz ~ 30MHz	2.60

B. Radiated emissions test:

Test Site	Method	Measurement Frequency Range	U,(dB)
DG-CB01	CISPR	9kHz ~ 30MHz	2.36

Test Site	Method	Measurement Frequency Range	Ant. H / V	U,(dB)
DG-CB03 (3m)	CISPR	30MHz ~ 200MHz	V	4.36
		30MHz ~ 200MHz	H	3.32
		200MHz ~ 1,000MHz	V	4.08
		200MHz ~ 1,000MHz	H	3.96

Test Site	Method	Measurement Frequency Range	U,(dB)
DG-CB03 (3m)	CISPR	1GHz ~ 6GHz	3.80
		6GHz ~ 18GHz	4.82

Test Site	Method	Measurement Frequency Range	U,(dB)
DG-CB03 (1m)	CISPR	18 ~ 26.5 GHz	3.62
		26.5 ~ 40 GHz	4.00

C. Other Measurement:

Test Item	Uncertainty
Bandwidth	±3.8 %
Temperature	±0.08 °C
Humidity	±1.5%

Note: Unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.

1.3 TEST ENVIRONMENT CONDITIONS

Test Item	Temperature	Humidity	Test Voltage	Tested By
AC Power Line Conducted Emissions	21°C	50%	AC 120V/60Hz	Aries Tang
Radiated Emissions-9 kHz to 30 MHz	20°C	53%	AC 120V/60Hz	Torocat Yuan
Radiated Emissions-30 MHz to 1000 MHz	20°C	59%	AC 120V/60Hz	Jakyri Wen
Radiated Emissions-Above 1000 MHz	26°C	52%	AC 120V/60Hz	Jakyri Wen Meers Zhang
Bandwidth	23.1°C	44%	AC 120V/60Hz	Nicole Chen

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	Wireless subwoofer
Brand Name	PHILIPS or
Test Model	TAFW1/37
Series Model	TAFW1, TAFW1RE, TAFW1RE/10, TAFW1/10, TAFW1RE/37, TAFW1/98, TAFW1RE/98, TAFW1xx/yy(x=A-Z or blank, yy=00-99 or blank for country code)
Model Difference(s)	Only differ in model name.
Power Source	AC Mains.
Power Rating	AC 100-240V~ 50/60Hz 50W
Operation Frequency	5742 MHz ~ 5852 MHz
Modulation Technology	GFSK
Bit Rate of Transmitter	2 Mbps
Max. Field Strength	84.91 dBuV/m(AVG) 101.07 dBuV/m(Peak)
Max. Output Power	-10.39 dBm (0.0001W) (AVG) 5.77 dBm (0.0038W) (Peak)

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

2. Channel List:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	5742	38	5779	75	5816
02	5743	39	5780	76	5817
03	5744	40	5781	77	5818
04	5745	41	5782	78	5819
05	5746	42	5783	79	5820
06	5747	43	5784	80	5821
07	5748	44	5785	81	5822
08	5749	45	5786	82	5823
09	5750	46	5787	83	5824
10	5751	47	5788	84	5825
11	5752	48	5789	85	5826
12	5753	49	5790	86	5827
13	5754	50	5791	87	5828
14	5755	51	5792	88	5829
15	5756	52	5793	89	5830
16	5757	53	5794	90	5831
17	5758	54	5795	91	5832
18	5759	55	5796	92	5833
19	5760	56	5797	93	5834
20	5761	57	5798	94	5835
21	5762	58	5799	95	5836
22	5763	59	5800	96	5837
23	5764	60	5801	97	5838
24	5765	61	5802	98	5839
25	5766	62	5803	99	5840
26	5767	63	5804	100	5841
27	5768	64	5805	101	5842
28	5769	65	5806	102	5843
29	5770	66	5807	103	5844
30	5771	67	5808	104	5845
31	5772	68	5809	105	5846
32	5773	69	5810	106	5847
33	5774	70	5811	107	5848
34	5775	71	5812	108	5849
35	5776	72	5813	109	5850
36	5777	73	5814	110	5851
37	5778	74	5815	111	5852

3. Table for Filed Antenna:

Ant.	Manufacturer	P/N	Antenna Type	Connector	Gain (dBi)
1	Wisvation Technology Co.,Ltd	N/A	PCB	N/A	0.26

Note: The antenna gain is provided by the manufacturer.

2.2 DESCRIPTION OF TEST MODES

The test system was pre-tested based on the consideration of all possible combinations of EUT operation mode.

Pretest Mode	Description
Mode 1	TX Mode_Channel 01/111
Mode 2	TX Mode_Channel 01/56/111
Mode 3	TX Mode Channel 01

Following mode(s) was (were) found to be the worst case(s) and selected for the final test.

AC Power Line Conducted Emissions	
Final Test Mode	Description
Mode 3	TX Mode Channel 01

Radiated emissions test - Below 1GHz	
Final Test Mode	Description
Mode 3	TX Mode Channel 01

Radiated emissions test - Above 1GHz	
Final Test Mode	Description
Mode 1	TX Mode_Channel 01/111

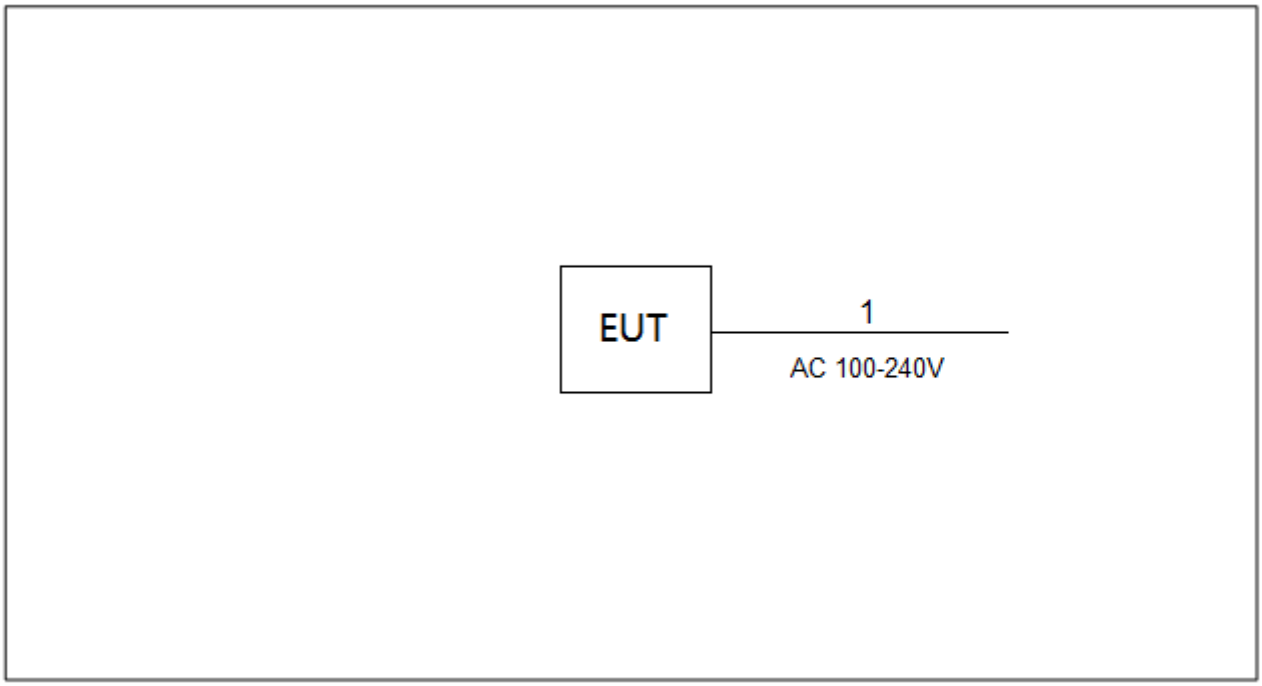
Bandwidth test	
Final Test Mode	Description
Mode 2	TX Mode_Channel 01/56/111

Note:

(1) For AC Power Line Conducted Emissions and Radiated Emission Below 1GHz test, the channel 01 was found to be the worst case and recorded.

(2) For Radiated Emissions Above 1G tested the High, Middle and Low channel, the high and low channel test data recorded in the report.

2.3 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



2.4 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.

Item	Equipment	Brand	Model No.	Series No.
-	-	-	-	-

Item	Cable Type	Shielded Type	Ferrite Core	Length
1	AC Cable	NO	NO	1.2m

3. AC POWER LINE CONDUCTED EMISSIONS

3.1 LIMIT

Frequency of Emission (MHz)	Limit (dBμ)	
	Quasi-peak	Average
0.15 - 0.5	66 to 56*	56 to 46*
0.5 - 5.0	56	46
5.0 - 30.0	60	50

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.

3.2 TEST PROCEDURE

a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipment powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
b. 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.
c. 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.
d. LISN at least 80 cm from nearest part of EUT chassis.
e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

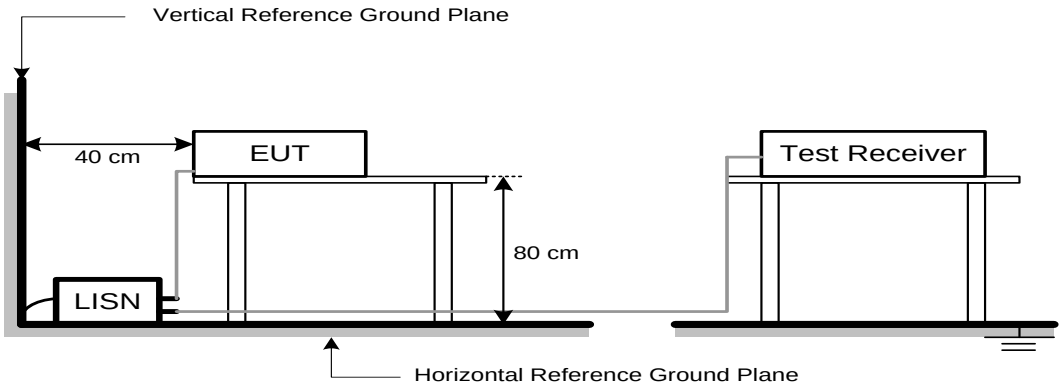
The following table is the setting of the receiver:

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

3.3 DEVIATION FROM TEST STANDARD

No deviation.

3.4 TEST SETUP



3.5 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical function (as a customer would normally use it), EUT was programmed to be in continuously transmitting data or hopping on mode.

3.6 TEST RESULTS

Please refer to the APPENDIX A.

Remark:

(1) All readings are QP Mode value unless otherwise stated AVG in column of『Note』. If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform in this case, a "*" marked in AVG Mode column of Interference Voltage Measured.

(2) Measuring frequency range from 150 kHz to 30 MHz.

4. RADIATED EMISSION TEST

4.1 LIMIT

In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

LIMITS OF RADIATED EMISSION MEASUREMENT (9 kHz-1000 MHz)

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000 MHz)

Frequency (MHz)	(dBuV/m at 3 m)	
	Peak	Average
Above 1000	74	54

Note:

(1) The limit for radiated test was performed according to FCC CFR Title 47, Part 15, Subpart C.

(2) The tighter limit applies at the band edges.

(3) Emission level (dBuV/m)=20log Emission level (uV/m).

4.2 TEST PROCEDURE

a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1 GHz)
b. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(above 1 GHz)
c. The height of the equipment or of the substitution antenna shall be 0.8m or 1.5m; the height of the test antenna shall vary between 1 m to 4 m. 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 find the maximum reading (used Bore sight function).
e. The receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz.
f. The initial step in collecting radiated emission data is a receiver peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
g. All readings are Peak unless otherwise stated QP in column of Note. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn‘t perform. (below 1 GHz)
h. All readings are Peak Mode value unless otherwise stated AVG in column of Note. If the Peak Mode Measured value compliance with the Peak Limits and lower than AVG Limits, the EUT shall be deemed to meet both Peak & AVG Limits and then only Peak Mode was measured, but AVG Mode didn‘t perform. (above 1 GHz)
i. For the actual test configuration, please refer to the related Item –EUT Test Photos.

The following table is the setting of the receiver:

Spectrum Parameters	Setting
Start ~ Stop Frequency	9 kHz~150 kHz for RBW 200 Hz
Start ~ Stop Frequency	0.15 MHz~30 MHz for RBW 9 kHz
Start ~ Stop Frequency	30 MHz~1000 MHz for RBW 100 kHz

Spectrum Parameters	Setting
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RBW / VBW (Emission in restricted band)	1 MHz / 3 MHz for PK value 1 MHz / 1/T Hz for AVG value

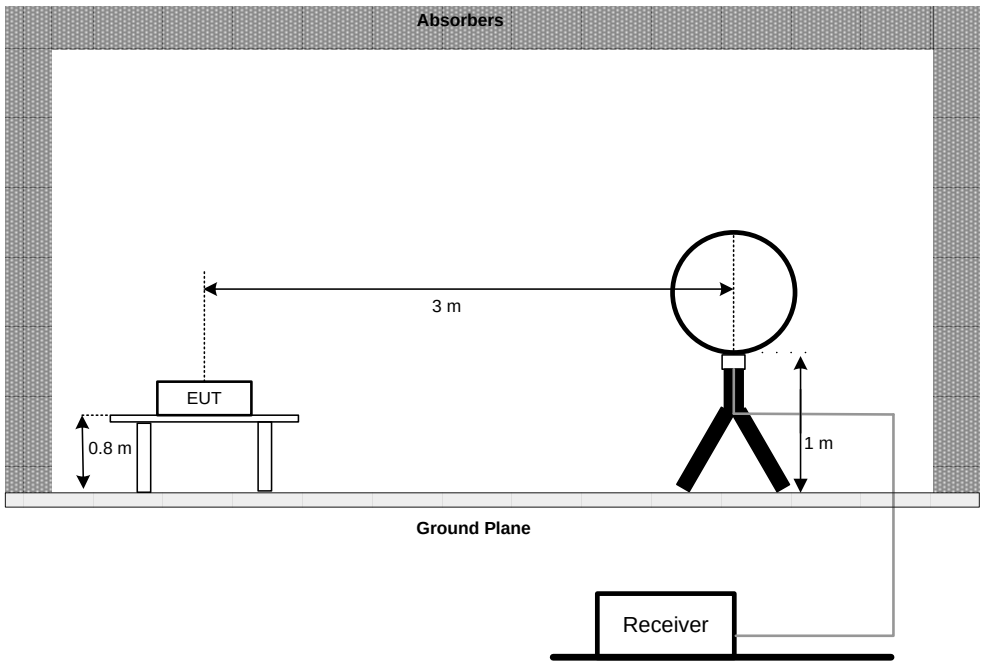
Spectrum Parameters	Setting
Start ~ Stop Frequency	9 kHz~90 kHz for PK/AVG detector
Start ~ Stop Frequency	90 kHz~110 kHz for QP detector
Start ~ Stop Frequency	110 kHz~490 kHz for PK/AVG detector
Start ~ Stop Frequency	490 kHz~30 MHz for QP detector
Start ~ Stop Frequency	30 MHz~1000 MHz for QP detector
Start ~ Stop Frequency	1 GHz~26.5 GHz for PK/AVG detector

4.3 DEVIATION FROM TEST STANDARD

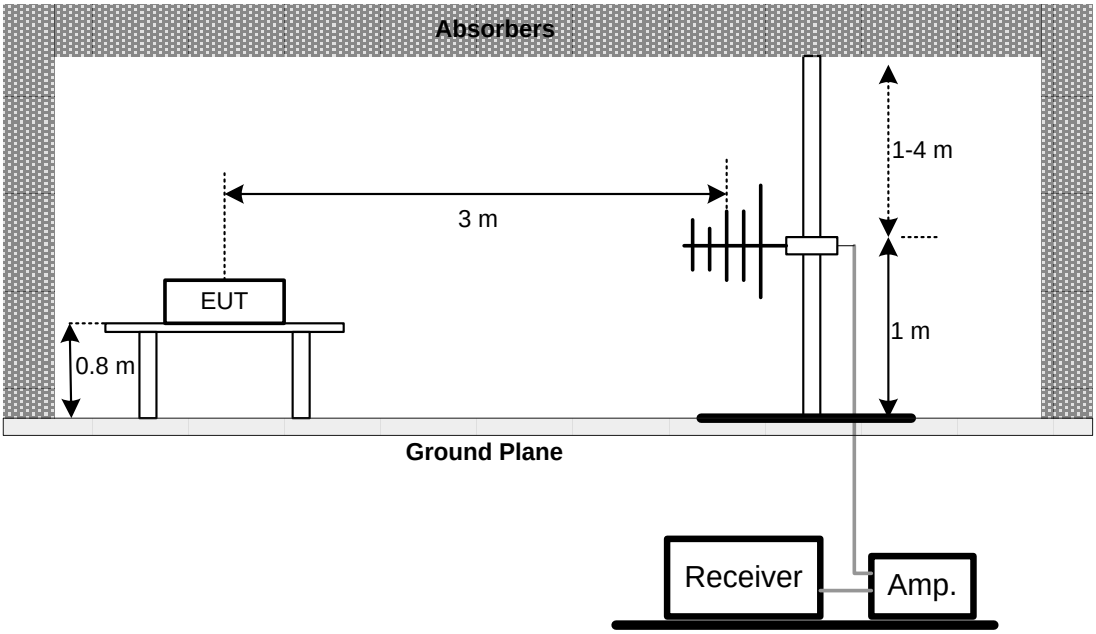
No deviation

4.4 TEST SETUP

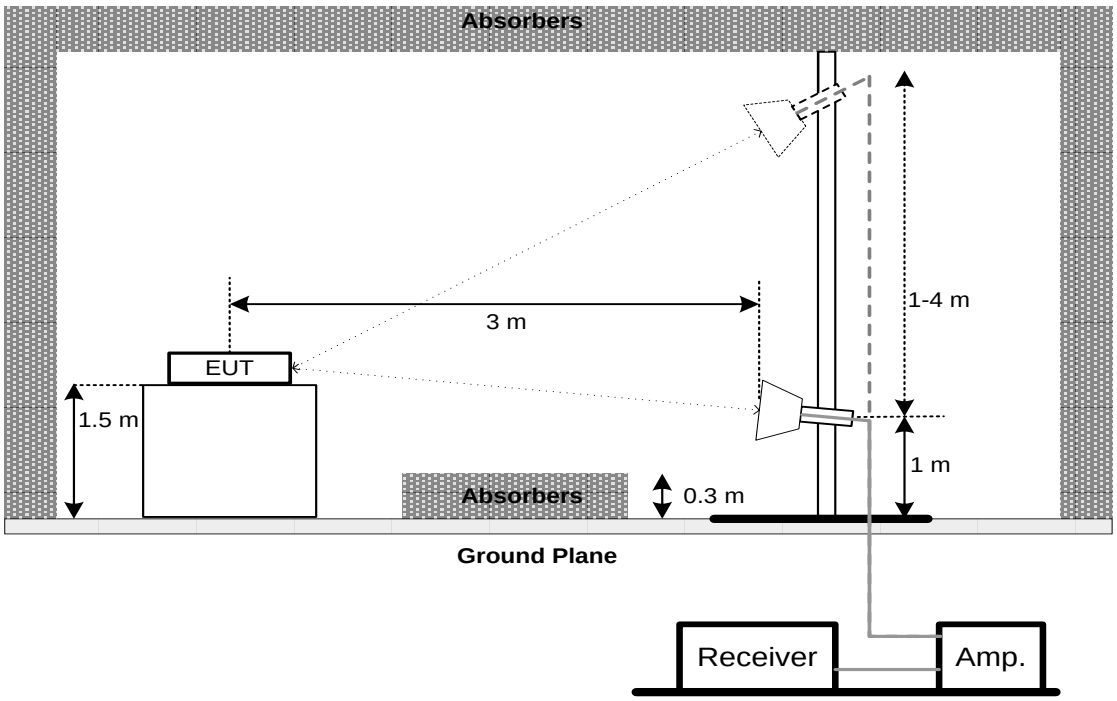
9 kHz-30 MHz



30 MHz to 1 GHz



Above 1 GHz



4.5 EUT OPERATING CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

4.6 TEST RESULT - 9 kHz TO 30 MHz

Please refer to the APPENDIX B.

Remark:

(1) Distance extrapolation factor = 40 log (specific distance / test distance) (dB).
(2) Limit line = specific limits (dBuV) + distance extrapolation factor.

4.7 TEST RESULT - 30 MHz TO 1000 MHz

Please refer to the APPENDIX C.

4.8 TEST RESULT - ABOVE 1000 MHz

Please refer to the APPENDIX D.

Remark:

(1) No limit: This is fundamental signal, the judgment is not applicable.
For fundamental signal judgment was referred to Peak output test.

5. BANDWIDTH TEST

5.1 LIMIT

FCC Part15, Subpart C (15.215)		
Section	Test Item	Limit
15.215(c)	20 dB Bandwidth	-

5.2 TEST PROCEDURE

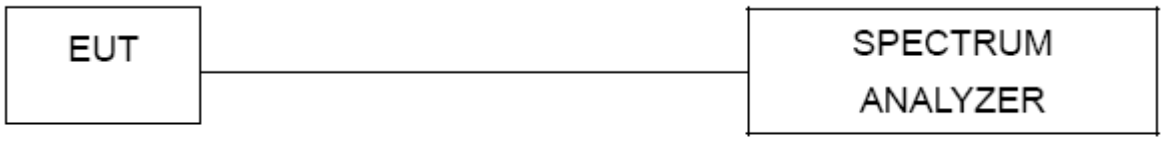
a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.

b. Spectrum Setting : RBW= 100 kHz, VBW=300 kHz, Sweep time = 300ms.

5.3 DEVIATION FROM STANDARD

No deviation.

5.4 TEST SETUP



5.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

5.6 TEST RESULTS

Please refer to the APPENDIX E.

6. MEASUREMENT INSTRUMENTS LIST

AC Power Line Conducted Emissions					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	EMI Test Receiver	R&S	ESCI	100382	Jan. 22, 2022 Jan. 22, 2023
2	LISN	EMCO	3816/2	52765	Jan. 22, 2022 Jan. 22, 2023
3	TWO-LINE V-NETWORK	R&S	ENV216	101447	Jan. 22, 2022 Jan. 22, 2023
4	50Ω Terminator	SHX	TF5-3	15041305	N/A
5	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
6	Cable	N/A	RG223	12m	Mar. 09, 2022
7	643 Shield Room	ETS	6*4*3	N/A	N/A

Radiated Emissions - 9 kHz to 30 MHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	MXE EMI Receiver	Keysight	N9038A	MY56400091	Jan. 22, 2022 Jan. 22, 2023
2*	Active Loop Antenna	R&S	HFH2-Z2	830749/020	Aug. 23, 2024
3	Cable	N/A	RG 213/U(9kHz~1GHz)	N/A	May 27, 2022
4	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
5	966 Chamber Room	ETS	9*6*6	N/A	Jul. 17, 2022

Radiated Emissions - 30 MHz to 1 GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	Schwarzbeck	VULB9160	9160-3232	Mar. 15, 2022
2	Amplifier	HP	8447D	2944A08742	Jan. 22, 2022 Jan. 22, 2023
3	Cable	emci	LMR-400	N/A	Nov. 30, 2022
4	Controller	CT	SC100	N/A	N/A
5	Controller	MF	MF-7802	MF780208416	N/A
6	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
7	Receiver	Agilent	N9038A	MY52130039	Jan. 22, 2022 Jan. 22, 2023
8	966 Chamber Room	RM	9*6*6	N/A	Jul. 24, 2022

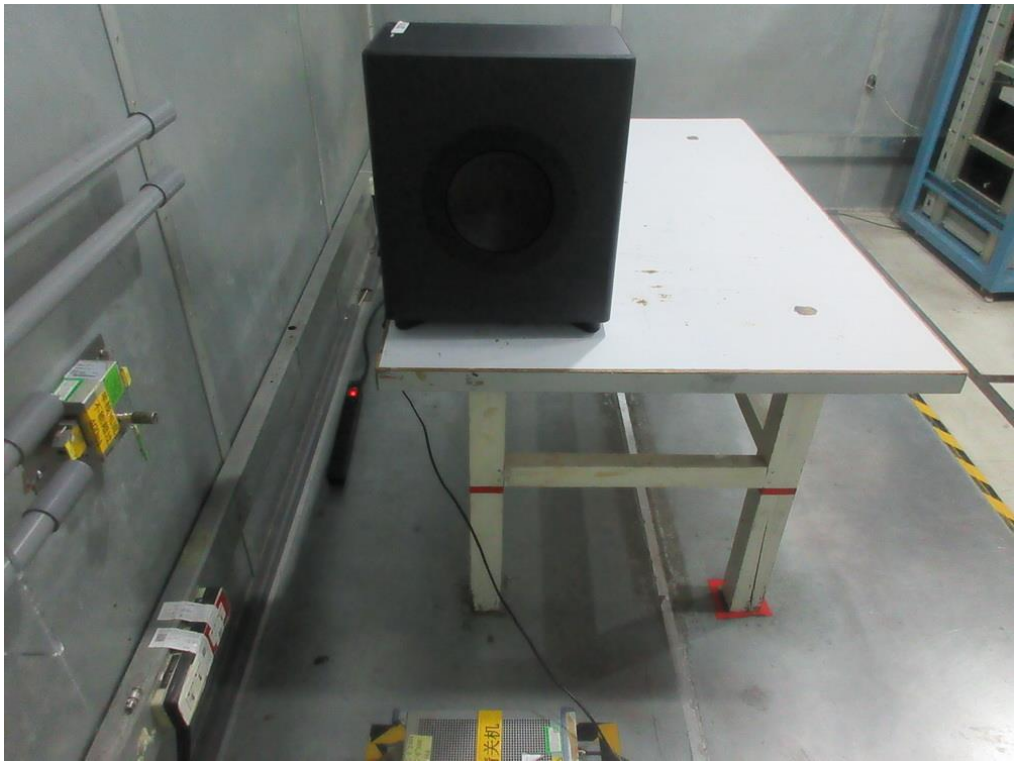
Radiated Emissions - Above 1 GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Double Ridged Horn Antenna	ARA	DRG-118A	16554	Apr. 21, 2022
2	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Jun. 30, 2022
3	Amplifier	Agilent	8449B	3008A02584	Jul. 10, 2022
4	Controller	CT	SC100	N/A	N/A
5	Controller	MF	MF-7802	MF780208416	N/A
6	Receiver	Agilent	N9038A	MY52130039	Jan. 22, 2022 Jan. 22, 2023
7	EXA Spectrum Analyzer	Keysight	N9010A	MY56480488	Jan. 22, 2022 Jan. 22, 2023
8	Low Noise Amplifier	CONNPHY	CLN-18G40G-4330-K	619413	Jul. 16, 2022
9	Cable	N/A	A81-SMAMSMAM-12.5M	N/A	Oct. 15, 2022
10	Cable	Talent microwave	A40-2.92M2.92M-2.5M	N/A	Nov. 30, 2022
11*	Band Reject Filter	Micro-Tronics	BRC50705-01	10	Feb. 27, 2024
12	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
13	966 Chamber Room	RM	9*6*6	N/A	Jul. 24, 2022

Bandwidth					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Jul. 10, 2022
2	Attenuator	WOKEN	6SM3502	VAS1214NL	N/A
3	RF Cable	Tongkaichuan	N/A	N/A	N/A
4	DC Block	Mini	N/A	N/A	N/A

Remark "N/A" denotes no model name, serial no. or calibration specified.
"*" calibration period of equipment list is three year.
Except * item, all calibration period of equipment list is one year.

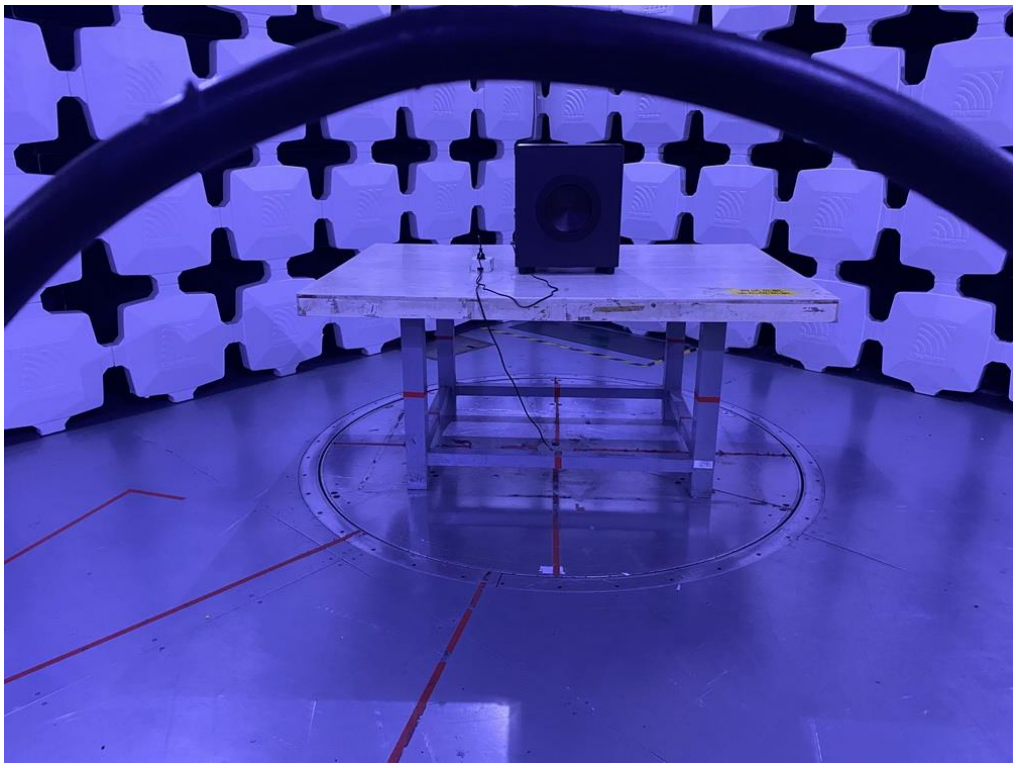
7. EUT TEST PHOTO

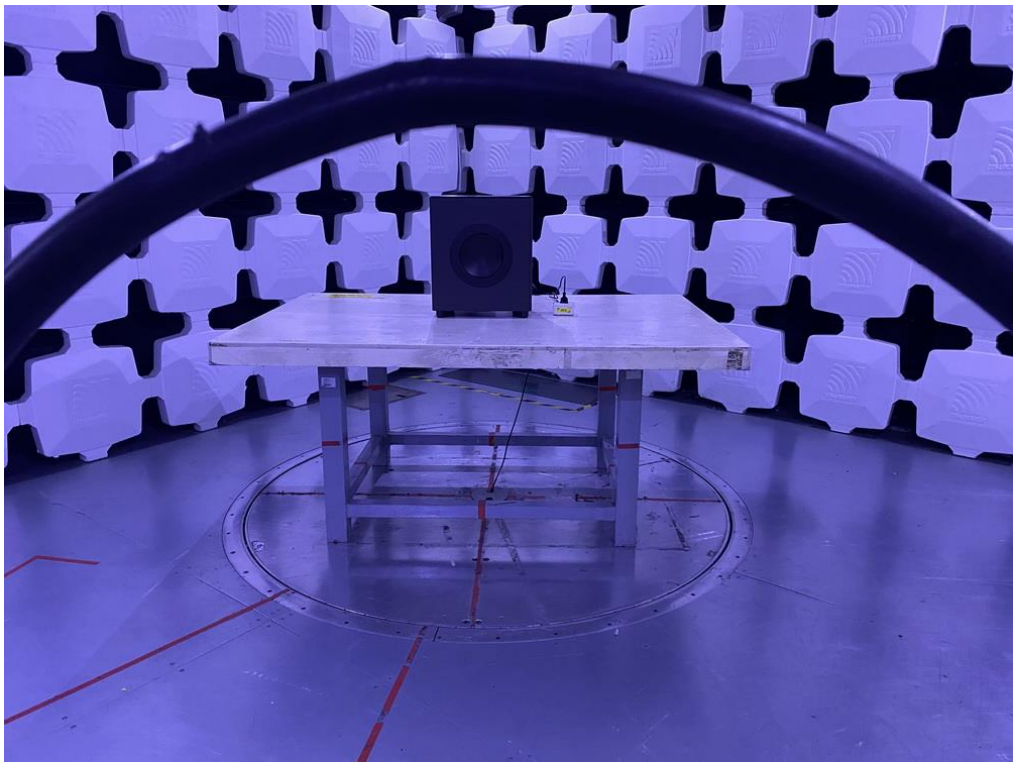
AC Power Line Conducted Emissions Test Photos



Radiated Emissions Test Photos

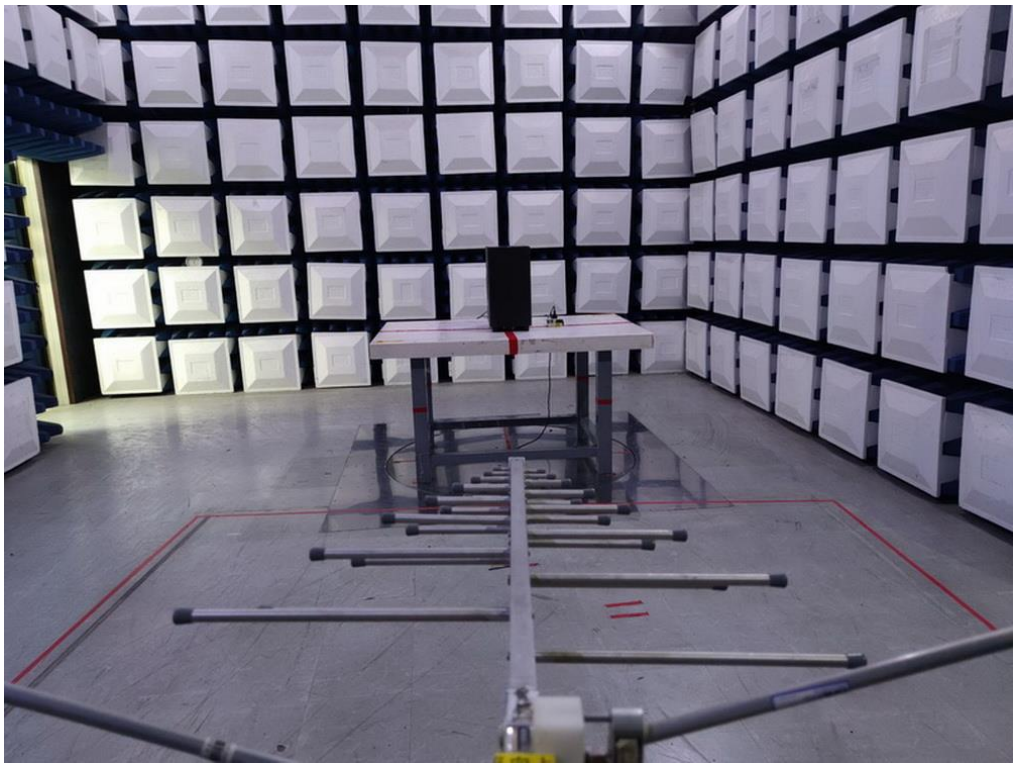
9 kHz to 30 MHz

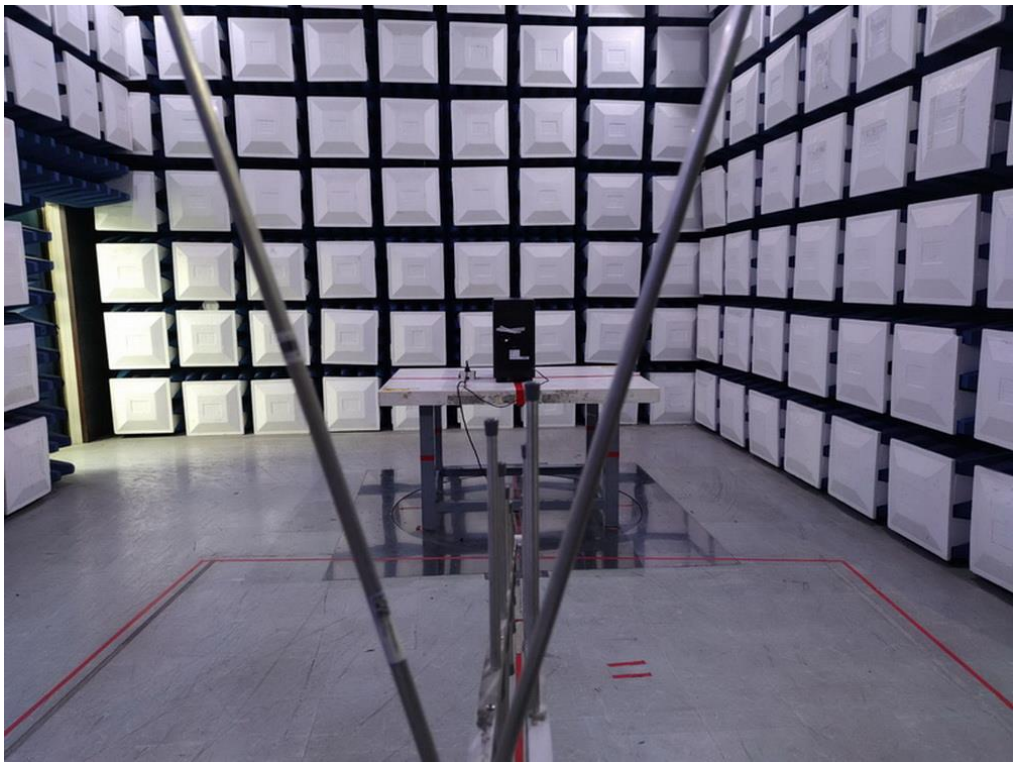




Radiated Emissions Test Photos

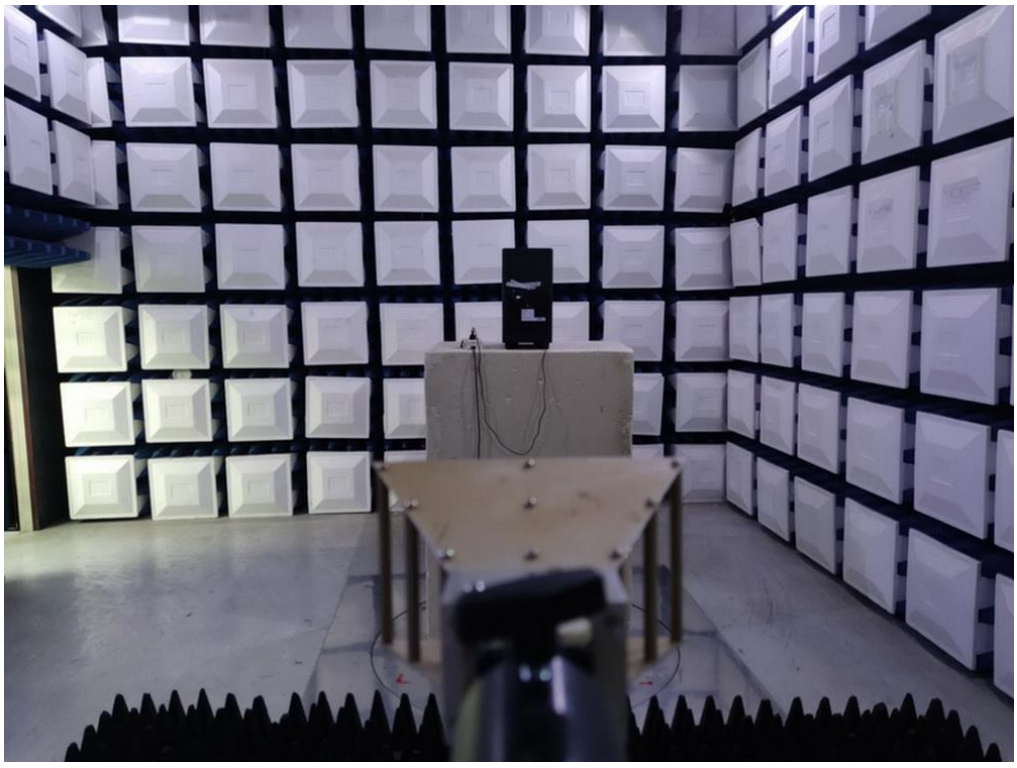
30 MHz to 1000 MHz



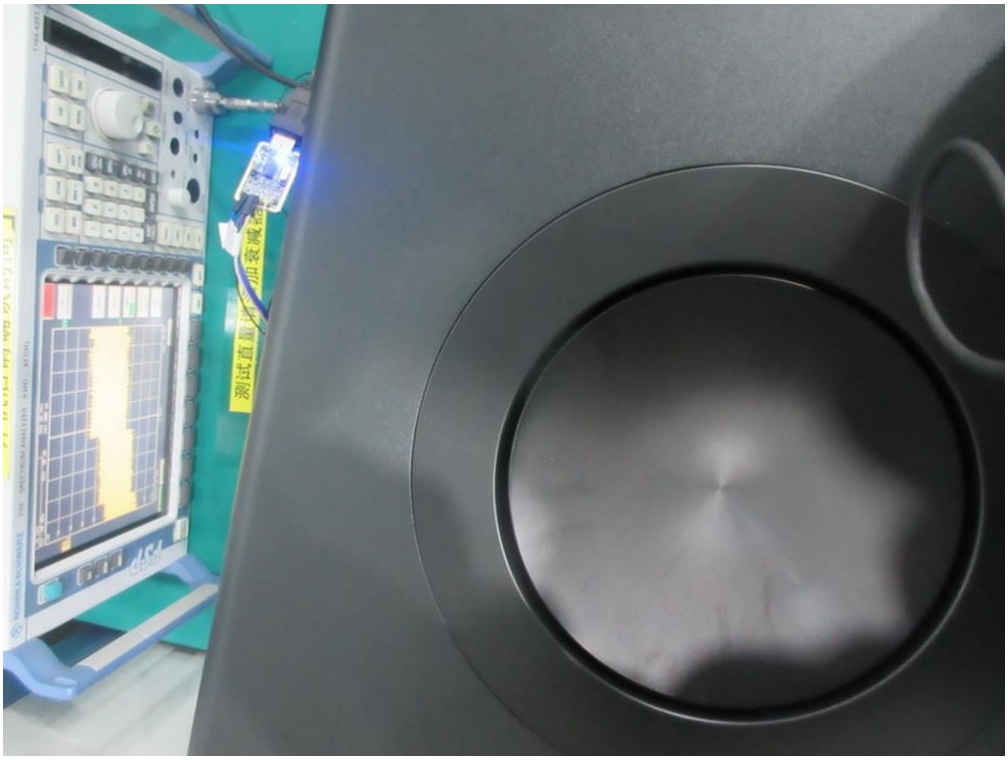


Radiated Emissions Test Photos

Above 1 GHz

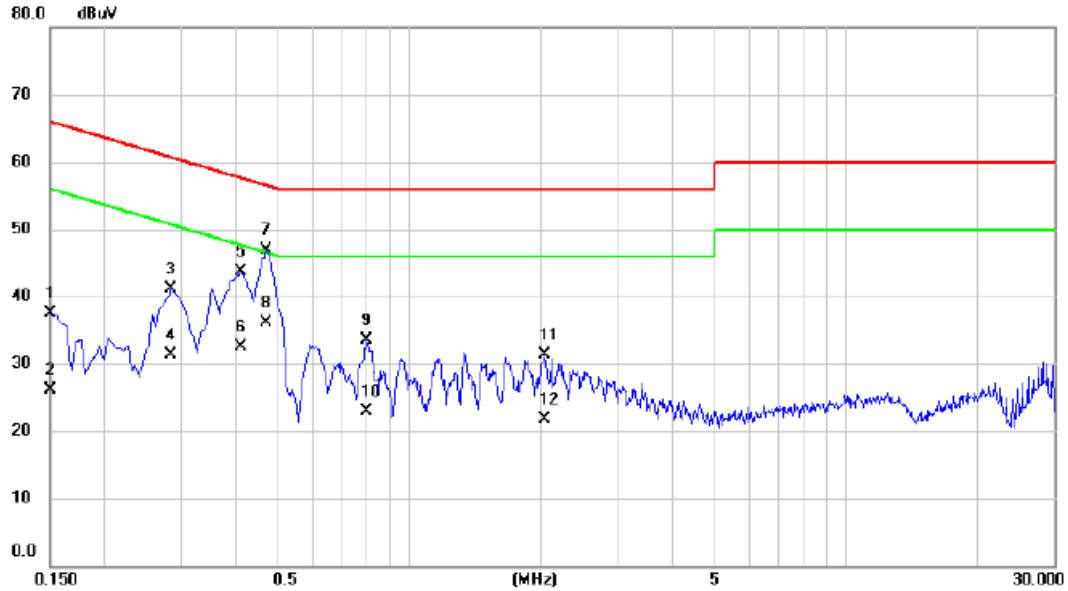


Bandwidth Test Photos



APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS

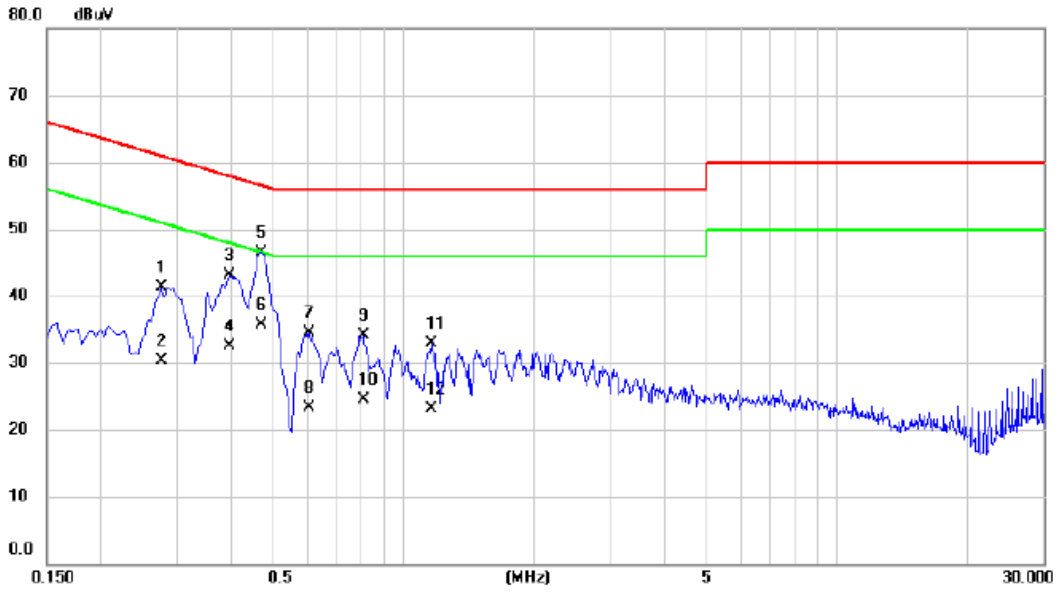
Test Mode	TX Mode_Channel 01	Phase	Line



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1500	27.64	9.78	37.42	66.00	-28.58	QP	
2		0.1500	16.40	9.78	26.18	56.00	-29.82	AVG	
3		0.2850	31.33	9.83	41.16	60.67	-19.51	QP	
4		0.2850	21.40	9.83	31.23	50.67	-19.44	AVG	
5		0.4110	33.91	9.86	43.77	57.63	-13.86	QP	
6		0.4110	22.60	9.86	32.46	47.63	-15.17	AVG	
7	*	0.4695	37.09	9.86	46.95	56.52	-9.57	QP	
8		0.4695	26.30	9.86	36.16	46.52	-10.36	AVG	
9		0.7980	23.56	9.96	33.52	56.00	-22.48	QP	
10		0.7980	13.00	9.96	22.96	46.00	-23.04	AVG	
11		2.0355	21.08	10.13	31.21	56.00	-24.79	QP	
12		2.0355	11.50	10.13	21.63	46.00	-24.37	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode	TX Mode_Channel 01	Phase	Neutral



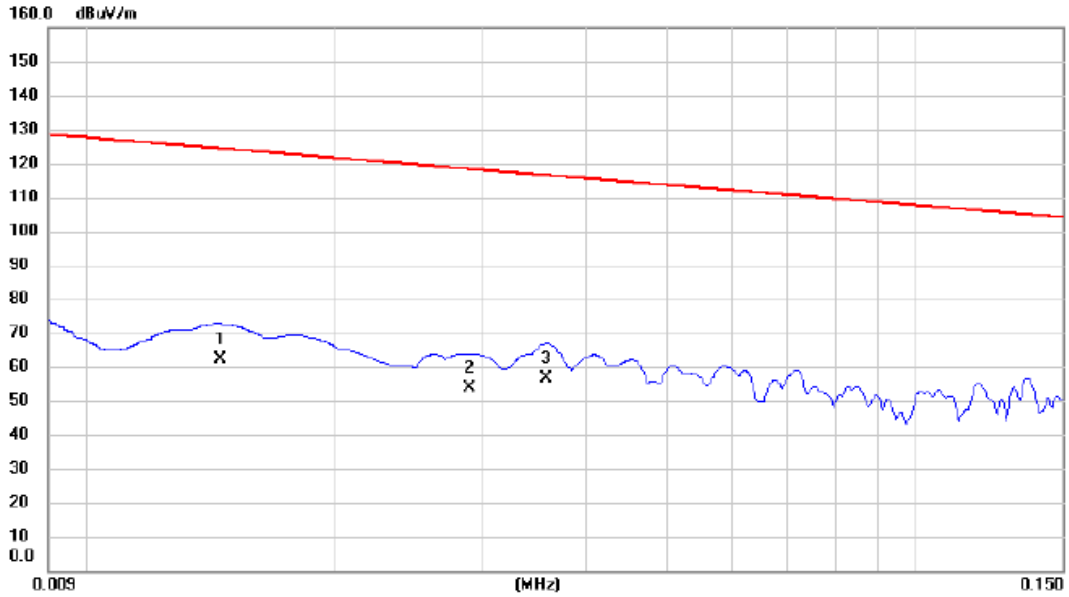
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.2760	31.51	9.87	41.38	60.94	-19.56	QP	
2		0.2760	20.50	9.87	30.37	50.94	-20.57	AVG	
3		0.3975	33.27	9.92	43.19	57.91	-14.72	QP	
4		0.3975	22.60	9.92	32.52	47.91	-15.39	AVG	
5	*	0.4695	36.59	9.94	46.53	56.52	-9.99	QP	
6		0.4695	25.70	9.94	35.64	46.52	-10.88	AVG	
7		0.6045	24.55	9.98	34.53	56.00	-21.47	QP	
8		0.6045	13.40	9.98	23.38	46.00	-22.62	AVG	
9		0.8070	24.05	10.04	34.09	56.00	-21.91	QP	
10		0.8070	14.50	10.04	24.54	46.00	-21.46	AVG	
11		1.1580	22.68	10.15	32.83	56.00	-23.17	QP	
12		1.1580	12.90	10.15	23.05	46.00	-22.95	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ

Test Mode:	TX Mode Channel 01

Ant 0°

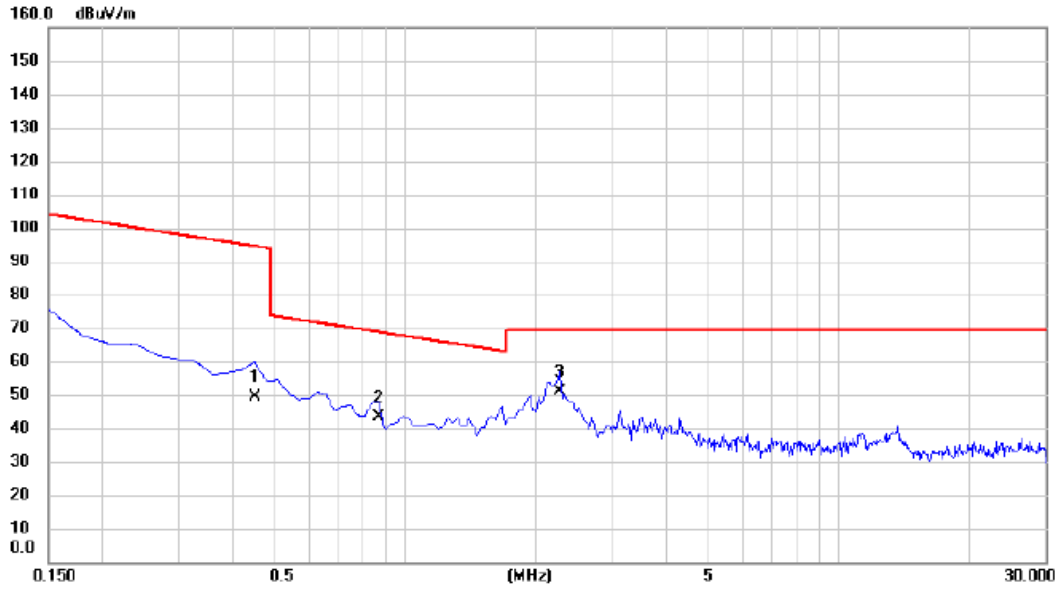


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		0.0145	46.32	16.02	62.34	124.38	-62.04	AVG			
2		0.0290	39.63	14.08	53.71	118.36	-64.65	AVG			
3	*	0.0358	42.82	13.93	56.75	116.53	-59.78	AVG			

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode:	TX Mode Channel 01

Ant 0°

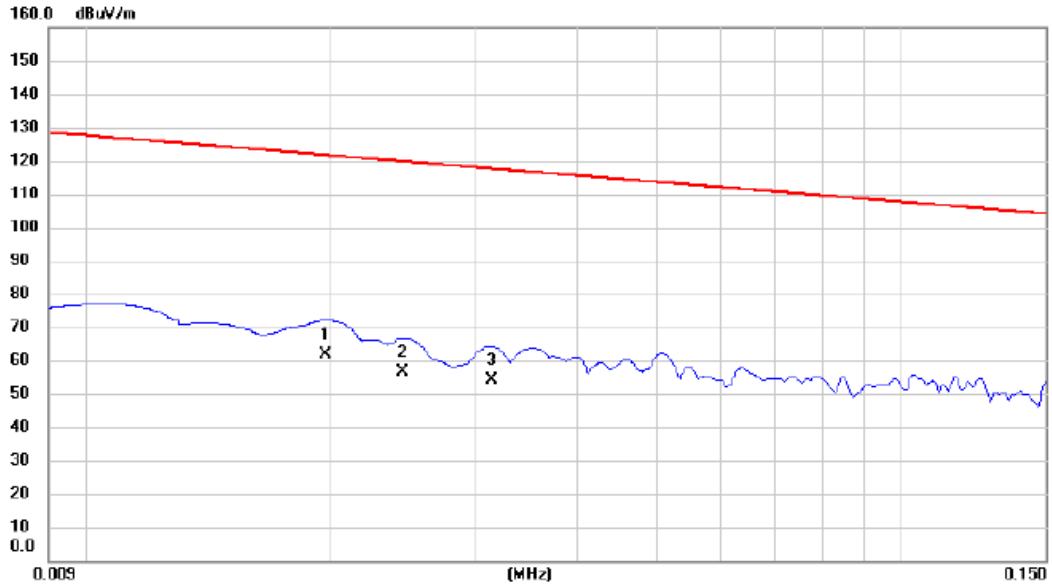


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		0.4485	36.18	13.40	49.58	94.57	-44.99	AVG			
2		0.8664	30.62	12.96	43.58	68.85	-25.27	QP			
3	*	2.2694	39.22	11.98	51.20	69.54	-18.34	QP			

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode:	TX Mode Channel 01

Ant 90°

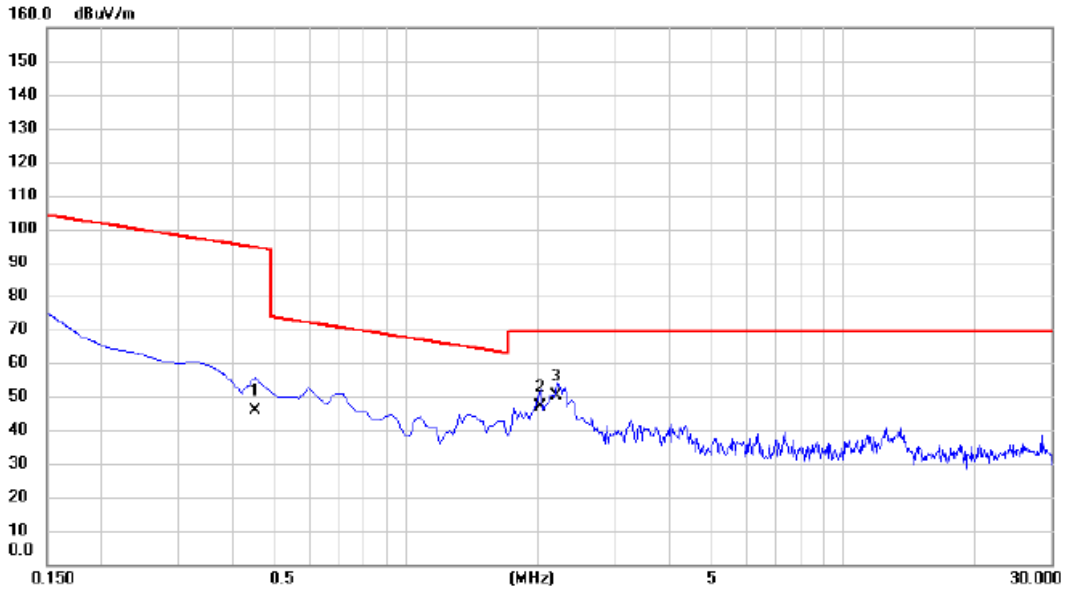


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	0.0197	47.26	14.38	61.64	121.72	-60.08	AVG			
2		0.0245	42.39	14.19	56.58	119.82	-63.24	AVG			
3		0.0314	40.12	14.03	54.15	117.67	-63.52	AVG			

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode:	TX Mode Channel 01

Ant 90°



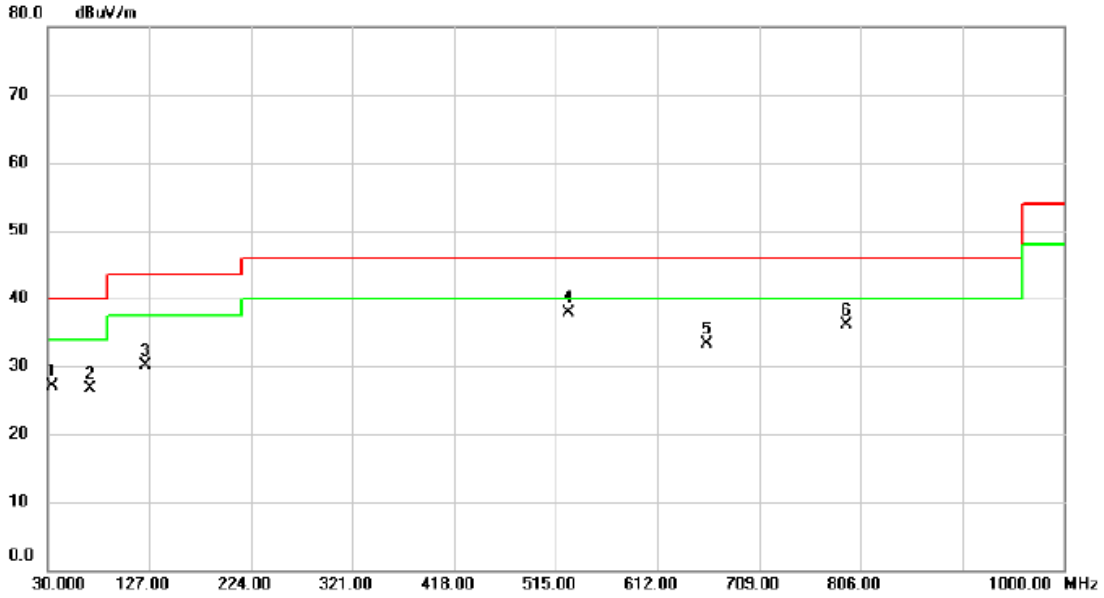
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		0.4485	32.41	13.40	45.81	94.57	-48.76	AVG			
2		2.0305	35.11	12.08	47.19	69.54	-22.35	QP			
3	*	2.2096	38.39	12.01	50.40	69.54	-19.14	QP			

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ

Test Mode:	TX Mode Channel 01

Vertical

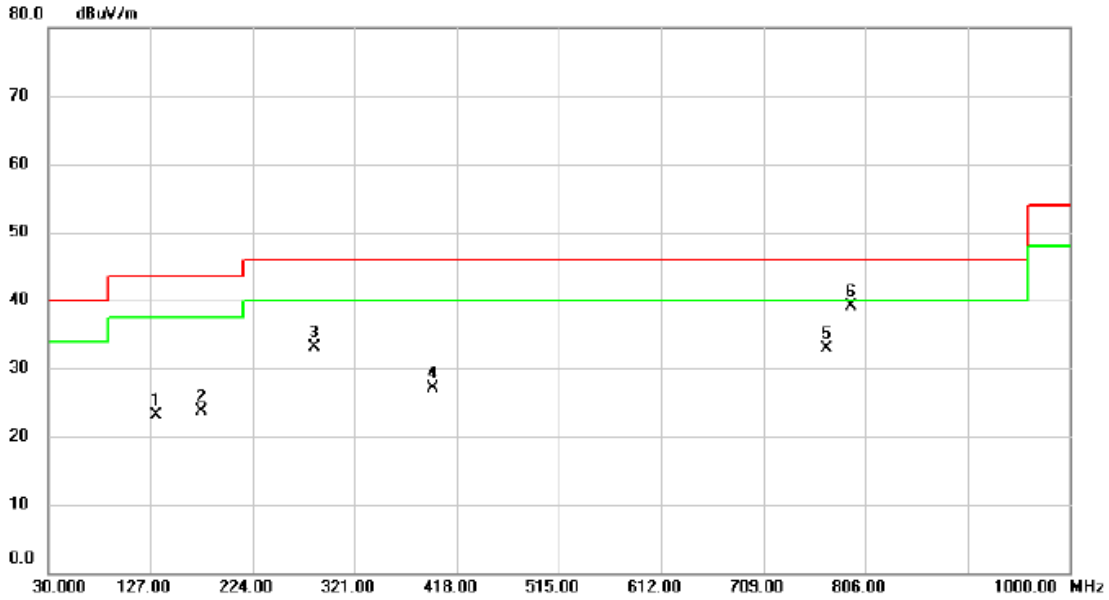


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		33.8800	42.26	-15.09	27.17	40.00	-12.83	peak	
2		70.7400	43.04	-16.37	26.67	40.00	-13.33	peak	
3		123.1200	44.12	-13.92	30.20	43.50	-13.30	peak	
4	*	527.6100	44.01	-6.19	37.82	46.00	-8.18	peak	
5		659.5300	36.85	-3.61	33.24	46.00	-12.76	peak	
6		792.4200	37.08	-0.88	36.20	46.00	-9.80	peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode:	TX Mode Channel 01

Horizontal



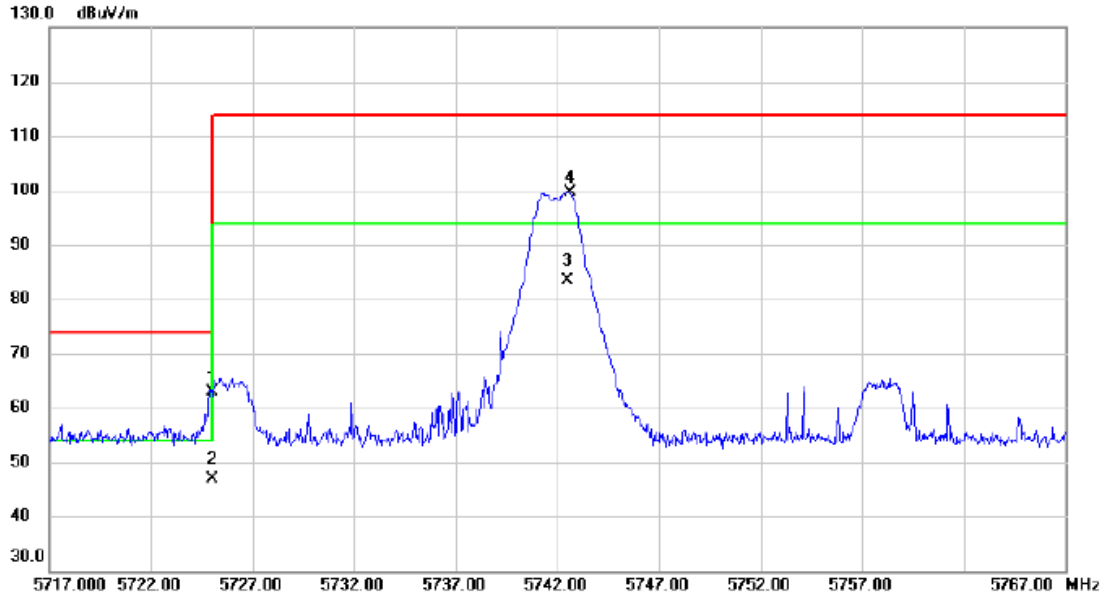
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		132.8200	36.41	-13.25	23.16	43.50	-20.34	peak	
2		175.5000	36.95	-13.16	23.79	43.50	-19.71	peak	
3		282.2000	44.65	-11.49	33.16	46.00	-12.84	peak	
4		394.7200	35.92	-8.90	27.02	46.00	-18.98	peak	
5		769.1400	34.44	-1.45	32.99	46.00	-13.01	peak	
6	*	792.4200	40.02	-0.88	39.14	46.00	-6.86	peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

APPENDIX D - RADIATED EMISSION - ABOVE 1000 MHZ

Test Mode :	TX 5742 MHz _CH01

Vertical

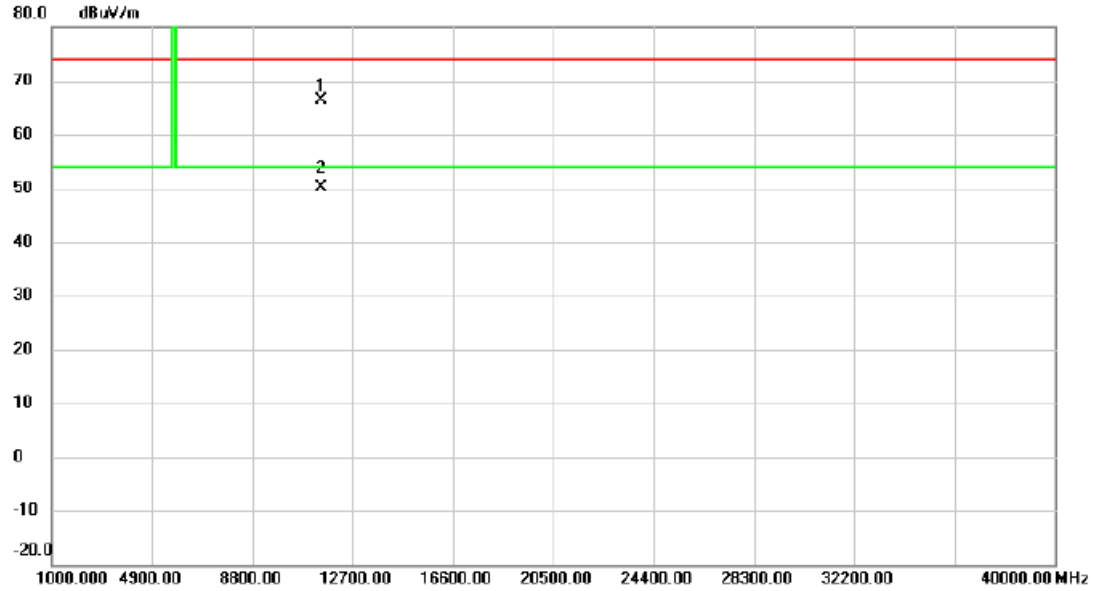


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5725.000	46.14	16.79	62.93	74.00	-11.07	peak	
2	*	5725.000	29.98	16.79	46.77	54.00	-7.23	AVG	
3		5742.500	66.59	16.80	83.39	94.00	-10.61	AVG	
4		5742.600	82.75	16.80	99.55	114.00	-14.45	peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode :	TX 5742 MHz _CH01

Vertical

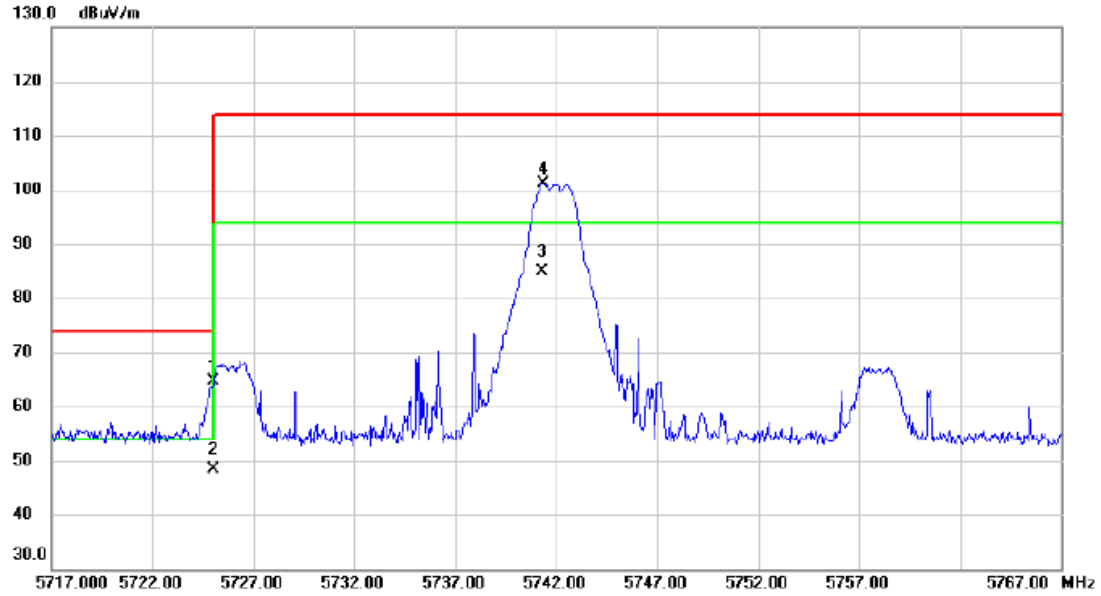


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11484.000	51.66	14.62	66.28	74.00	-7.72	peak	
2	*	11484.000	35.50	14.62	50.12	54.00	-3.88	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode :	TX 5742 MHz _CH01

Horizontal

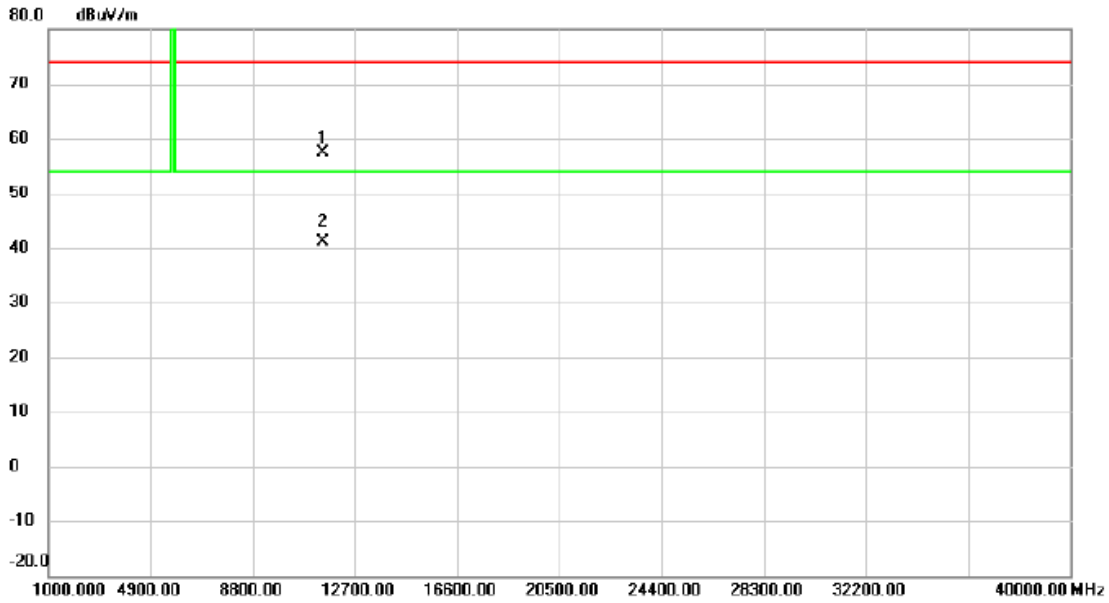


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5725.000	47.73	16.79	64.52	74.00	-9.48	peak	
2	*	5725.000	31.57	16.79	48.36	54.00	-5.64	AVG	
3		5741.300	68.11	16.80	84.91	94.00	-9.09	AVG	
4		5741.350	84.27	16.80	101.07	114.00	-12.93	peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode :	TX 5742 MHz _CH01

Horizontal

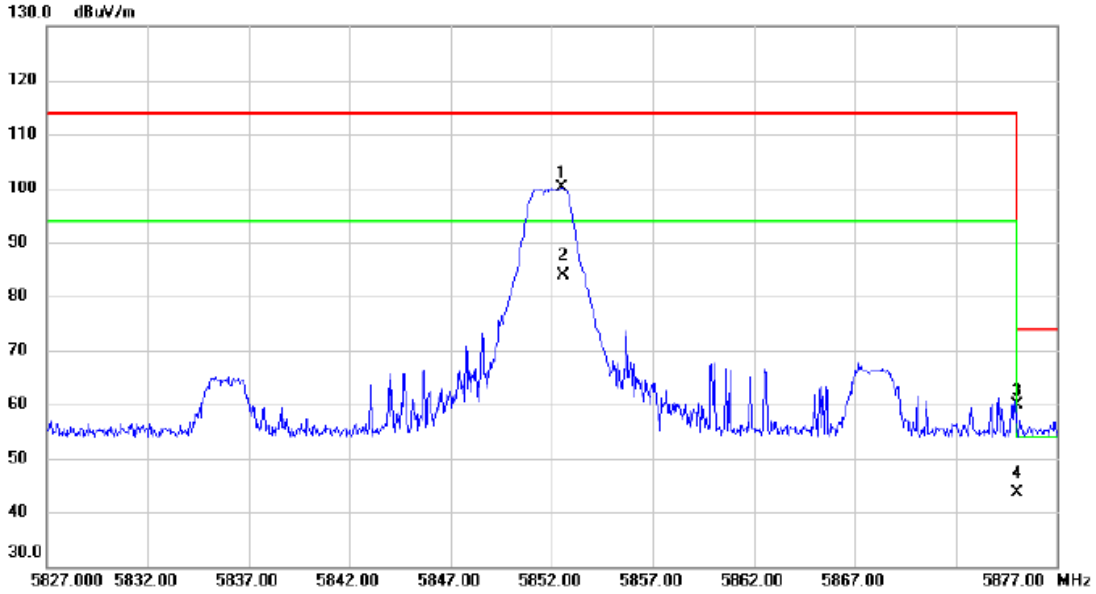


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11482.745	42.78	14.62	57.40	74.00	-16.60	peak	
2	*	11482.745	26.62	14.62	41.24	54.00	-12.76	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode :	TX 5852 MHz _CH111

Vertical

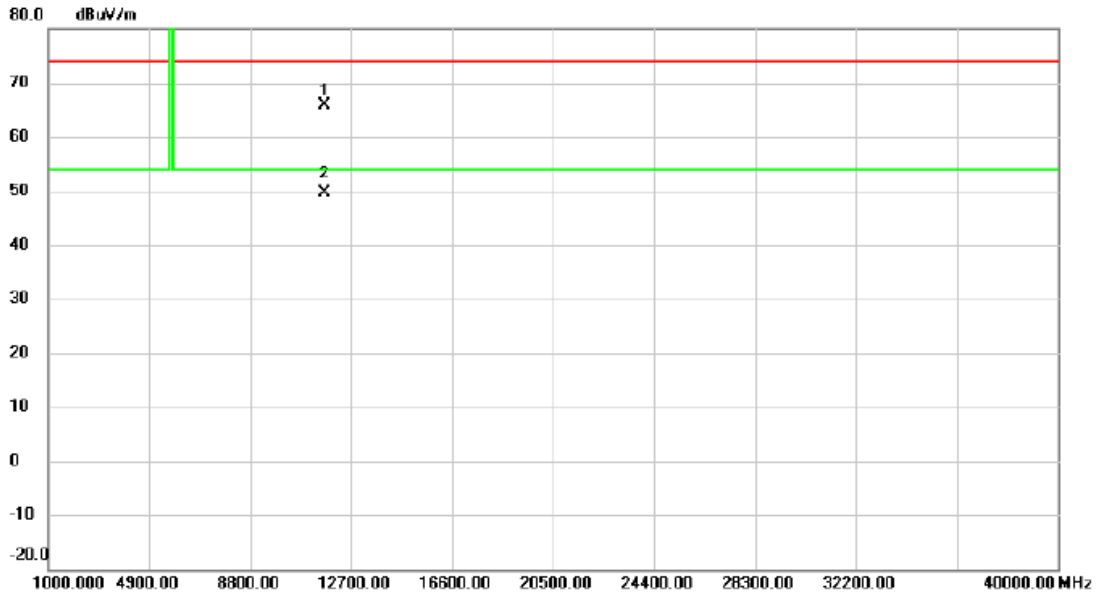


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5852.500	83.15	16.87	100.02	114.00	-13.98	peak	
2	*	5852.550	66.99	16.87	83.86	94.00	-10.14	AVG	
3		5875.000	42.92	16.89	59.81	74.00	-14.19	peak	
4		5875.000	26.76	16.89	43.65	54.00	-10.35	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode :	TX 5852 MHz _CH111

Vertical

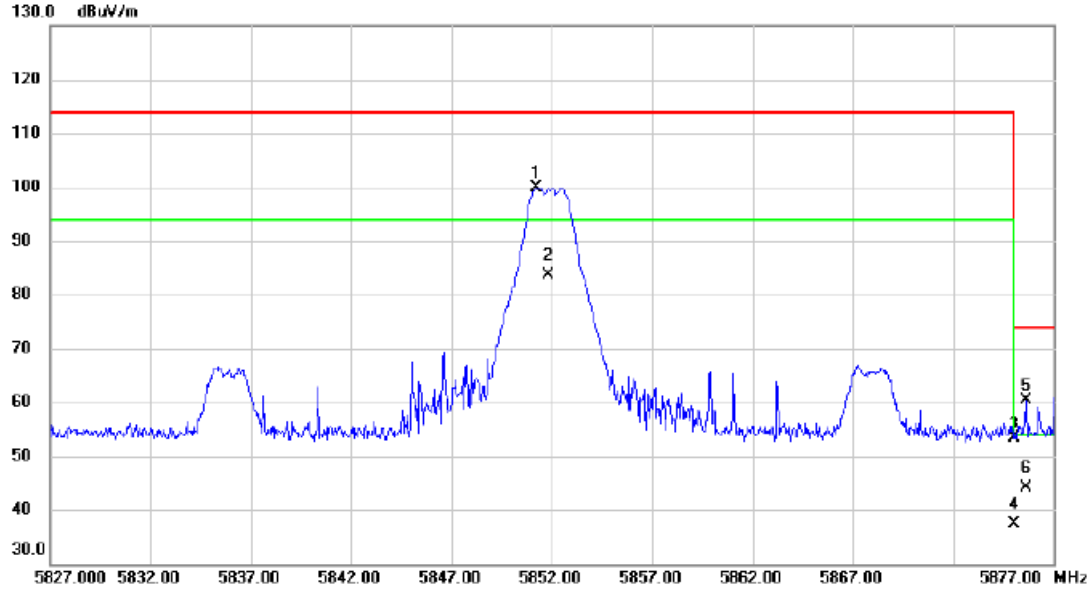


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11700.795	50.94	14.83	65.77	74.00	-8.23	peak	
2	*	11700.795	34.78	14.83	49.61	54.00	-4.39	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode :	TX 5852 MHz _CH111

Horizontal

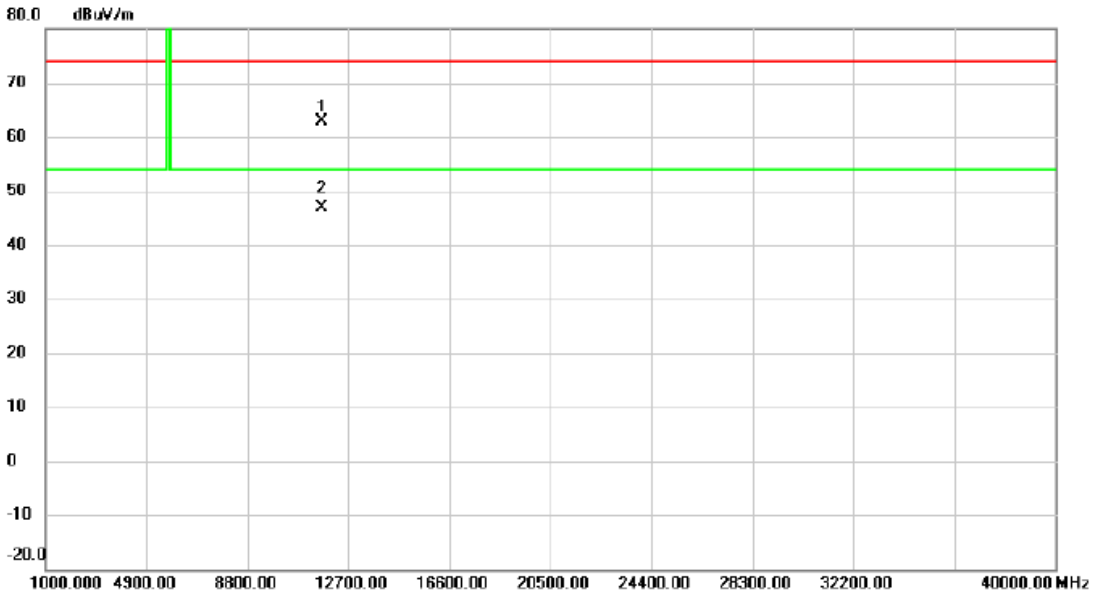


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5851.250	83.01	16.87	99.88	114.00	-14.12	peak	
2		5851.850	66.85	16.87	83.72	94.00	-10.28	AVG	
3		5875.000	36.54	16.89	53.43	74.00	-20.57	peak	
4		5875.000	20.38	16.89	37.27	54.00	-16.73	AVG	
5		5875.600	43.39	16.89	60.28	74.00	-13.72	peak	
6	*	5875.600	27.23	16.89	44.12	54.00	-9.88	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode :	TX 5852 MHz _CH111

Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11700.820	48.16	14.83	62.99	74.00	-11.01	peak	
2	*	11700.820	32.00	14.83	46.83	54.00	-7.17	AVG	

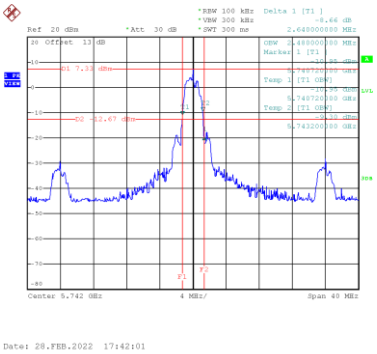
REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

APPENDIX E - BANDWIDTH

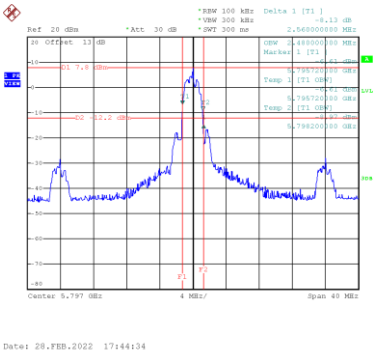
Test Mode:	CH01, CH56, CH111

Channel	Frequency (MHz)	20 dB Bandwidth (MHz)	Result
01	5742	2.640	Complies
56	5797	2.560	Complies
111	5852	2.600	Complies

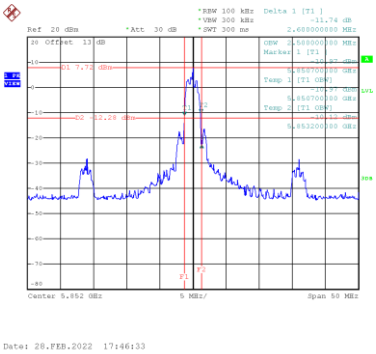
CH01



CH56



CH111



End of Test Report