

FCC PART 18 TEST REPORT

Report Reference No...... : **MAX25110612P01-R01**

FCC ID..... : **2BS9S-TU1228**

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Date of issue..... : November 12, 2025

Representative Laboratory Name. : **MAXLAB Testing Co.,Ltd.**

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Applicant's name..... : **Yuhuan Clangsonic Ultrasonic CO.,LTD.**

Address..... : Houwan Industrial Park, Yuhuan City, ZheJiang province, 317600 China

Test specification..... :

Standard..... : **FCC Rules and Regulations Part 18**
FCC/OET MP-5

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Test item description..... : **Ultrasonic Generator**

Trade Mark..... : CLANGSONIC

Manufacturer..... : Yuhuan Clangsonic Ultrasonic CO.,LTD.

Model/Type reference..... : TU1228

Listed Models : TU1828, TU2428, TU1240, TU1840, TU1880, TU12132, TU06200, TU06260

Operation Frequency..... : 28KHz

Rating..... : AC 120V

Result..... : **PASS**

TEST REPORT

Equipment under Test : Ultrasonic Generator

Model /Type : TU1228

Listed Models : TU1828, TU2428, TU1240, TU1840, TU1880, TU12132, TU06200, TU06260

Model Declaration : PCB board, structure and internal of these model(s) are the same,
So no additional models were tested.

Applicant : Yuhuan Clangsonic Ultrasonic CO.,LTD.

Address : Houwan Industrial Park, Yuhuan City, ZheJiang province, 317600 China

Manufacturer : Yuhuan Clangsonic Ultrasonic CO.,LTD.

Address : Houwan Industrial Park, Yuhuan City, ZheJiang province, 317600 China

Test Result:	PASS
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The test report merely corresponds to the test sample.
It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

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1 TEST STANDARDS

The tests were performed according to following standards:

[FCC Rules and Regulations Part 18:](#) Industrial, Scientific, and medical medical equipment.

[FCC/OET MP - 5](#) Methods of Measurements of Radio Noise Emissions from Industrial, Scientific and Medical equipment (February 1986)

2 SUMMARY

2.1 General Remarks

Date of receipt of test sample	:	October 29, 2025
Testing commenced on	:	October 29, 2025
Testing concluded on	:	November 11, 2025

2.2 Product Description

Product Name:	Ultrasonic Generator
Model/Type reference:	TU1228
Hardware version:	V1.0
Software version:	V1.0
Test samples ID:	MAX25110612P01-R01 -1# (Engineer sample), MAX25110612P01-R01 -2# (Normal sample)
Power supply:	AC 120V
Operation frequency:	28KHz
Equipment Description:	Ultrasonic
Power Supply:	120VAC $\pm$ 10%(50/60HZ)
Ultrasonic Frequency:	28KHz
Ultrasonic Power:	1200W

2.3 Description of the test mode

Equipment under test was operated during the measurement under the following conditions:

2.4 Modifications

No modifications were implemented to meet testing criteria.

3 TEST ENVIRONMENT

3.1 Address of the test laboratory

MAXLAB Testing Co.,Ltd.

1/F, Building B, Xinshidai GR Park, Shiyan Street, Bao'an District, Shenzhen, Guangdong, 518052, People's Republic of China

3.2 Test Facility

FCC-Registration No.: 562200 Designation Number: CN1338

BSL Testing Co.,Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform electromagnetic emissions measurements.

Industry Canada Registration Number. Is: 11093A CAB identifier: CN0019

The Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing.

A2LA-Lab Cert. No.: 4707.01

BSL Testing Co.,Ltd. has been listed by American Association for Laboratory Accreditation to perform electromagnetic emission measurement.

The 3m-Semi anechoic test site fulfils CISPR 16-1-4 according to ANSI C63.10 and CISPR 16-1-4:2010.

3.3 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Radiated Emission:

Temperature:	24 ° C
Humidity:	45 %
Atmospheric pressure:	950-1050mbar

AC Power Conducted Emission:

Temperature:	25 ° C
Humidity:	46 %
Atmospheric pressure:	950-1050mbar

Conducted testing:

Temperature:	25 ° C
Humidity:	44 %
Atmospheric pressure:	950-1050mbar

3.4 Summary of measurement results

FCC RULES	Description of test	Result
S18.307 (b)	Conducted emissions test	Compliant
\$18.305(b)	Radiated emission test	Compliant

3.5 Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16 - 4 „Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements“ and is documented in the MAXLAB Testing Co.,Ltd.quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for MAXLAB Testing Co.,Ltd is reported:

Test	Conditions	Measurement Uncertainty	Notes
Conducted Disturbance	Conducted	9-150kHz±3.74dB	(1)
		0.15-30MHz ±3.34dB	(1)
Radiated Emission	Radiated	30-200MHz ±4.52dB	(1)
		0.2-1GHz ±5.56dB	(1)
		1-6GHz ±3.84dB	(1)
		6-18GHz ±3.92dB	(1)

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

3.6 Equipments Used during the Test

Conducted Emission					
Test Equipment	Manufacturer	Model	Serial No.	Date of Cal.	Due Date
Shielding Room	ZhongYu Electron	7.3(L)x3.1(W)x2.9(H)	MAX252	2025-10-27	2026-10-26
EMI Test Receiver	R&S	ESCI 7	MAX552	2025-10-27	2026-10-26
Coaxial Switch	ANRITSU CORP	MP59B	MAX225	2025-10-27	2026-10-26
ENV216 2-L-V-NETZNACHB.DE	ROHDE&SCHWARZ	ENV216	MAX226	2025-10-27	2026-10-26
Coaxial Cable	MAX	N/A	MAX227	N/A	N/A
EMI Test Software	AUDIX	E3	N/A	N/A	N/A
Thermo meter	KTJ	TA328	MAX233	2025-10-27	2026-10-26
Absorbing clamp	Elektronik-Feinmechanik	MDS21	MAX229	2025-10-27	2026-10-26
LISN	R&S	ENV216	308	2025-10-27	2026-10-26
LISN	R&S	ENV216	314	2025-10-27	2026-10-26

Radiation Test equipment					
Test Equipment	Manufacturer	Model	Serial No.	Date of Cal.	Due Date
3m Semi- Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)* 6.4(H)	MAX250	2025-10-27	2026-10-26
Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	MAX251	N/A	N/A
EMI Test Receiver	Rohde & Schwarz	ESU26	MAX203	2025-10-27	2026-10-26
BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	MAX214	2025-10-27	2026-10-26
Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120 D	MAX208	2025-10-27	2026-10-26
Horn Antenna	ETS-LINDGREN	3160	MAX217	2025-10-27	2026-10-26
EMI Test Software	AUDIX	E3	N/A	N/A	N/A
Coaxial Cable	MAX	N/A	MAX213	2025-10-27	2026-10-26
Coaxial Cable	MAX	N/A	MAX211	2025-10-27	2026-10-26
Coaxial cable	MAX	N/A	MAX210	2025-10-27	2026-10-26
Coaxial Cable	MAX	N/A	MAX212	2025-10-27	2026-10-26
Amplifier(100kHz-3GHz)	HP	8347A	MAX204	2025-10-27	2026-10-26
Amplifier(2GHz-20GHz)	HP	84722A	MAX206	2025-10-27	2026-10-26
Amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	MAX218	2025-10-27	2026-10-26
Band filter	Amindeon	82346	MAX219	2025-10-27	2026-10-26
Power Meter	Anritsu	ML2495A	MAX540	2025-10-27	2026-10-26
Power Sensor	Anritsu	MA2411B	MAX541	2025-10-27	2026-10-26
Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	MAX575	2025-10-27	2026-10-26

Splitter	Agilent	11636B	MAX237	2025-10-27	2026-10-26
Loop Antenna	ZHINAN	ZN30900A	MAX534	2025-10-27	2026-10-26
Breitband hornantenne	SCHWARZBECK	BBHA 9170	MAX579	2025-10-27	2026-10-26
Amplifier	TDK	PA-02-02	MAX574	2025-10-27	2026-10-26
Amplifier	TDK	PA-02-03	MAX576	2025-10-27	2026-10-26
PSA Series Spectrum Analyzer	Rohde & Schwarz	FSP	MAX578	2025-10-27	2026-10-26

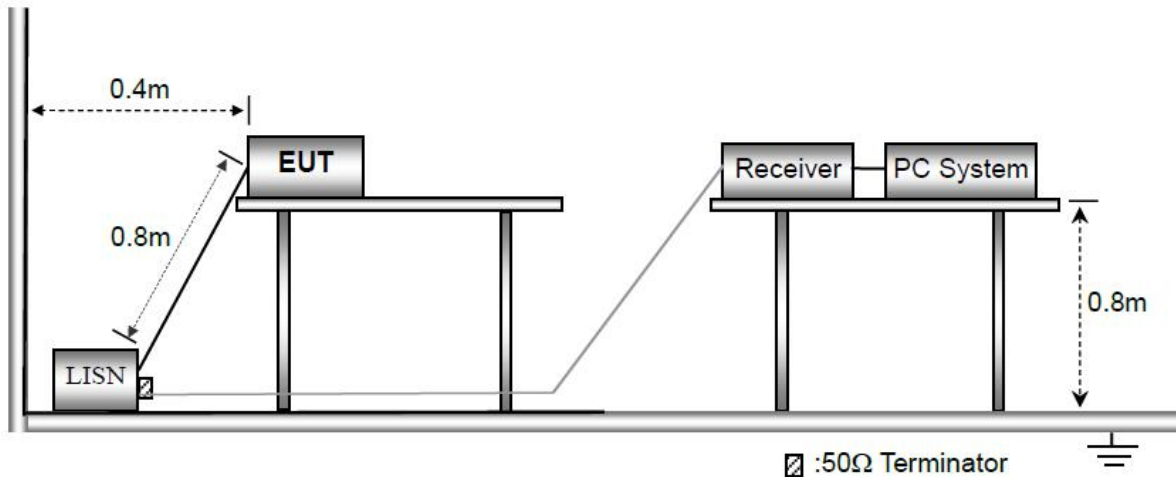
RF Conducted Test:					
Test Equipment	Manufacturer	Model	Serial No.	Date of Cal.	Due Date
MXA Signal Analyzer	Agilent	N9020A	MAX566	2025-10-27	2026-10-26
EMI Test Receiver	R&S	ESCI 7	MAX552	2025-10-27	2026-10-26
Spectrum Analyzer	Agilent	E4440A	MAX533	2025-10-27	2026-10-26
MXG vector Signal Generator	Agilent	N5182A	MAX567	2025-10-27	2026-10-26
ESG Analog Signal Generator	Agilent	E4428C	MAX568	2025-10-27	2026-10-26
USB RF Power Sensor	DARE	RPR3006W	MAX569	2025-10-27	2026-10-26
RF Switch Box	Shongyi	RFSW3003328	MAX571	2025-10-27	2026-10-26
Programmable Constant Temp & Humi Test Chamber	WEWON	WHTH-150L-40-880	MAX572	2025-10-27	2026-10-26

Note: The Cal.Interval was one year.

4 TEST CONDITIONS AND RESULTS

4.1 AC Power Conducted Emission

TEST CONFIGURATION



TEST PROCEDURE

The setup of EUT is according with per ANSI C63.4-2020 measurement procedure.

The specification used was with the FCC Part 18.307 Limit.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

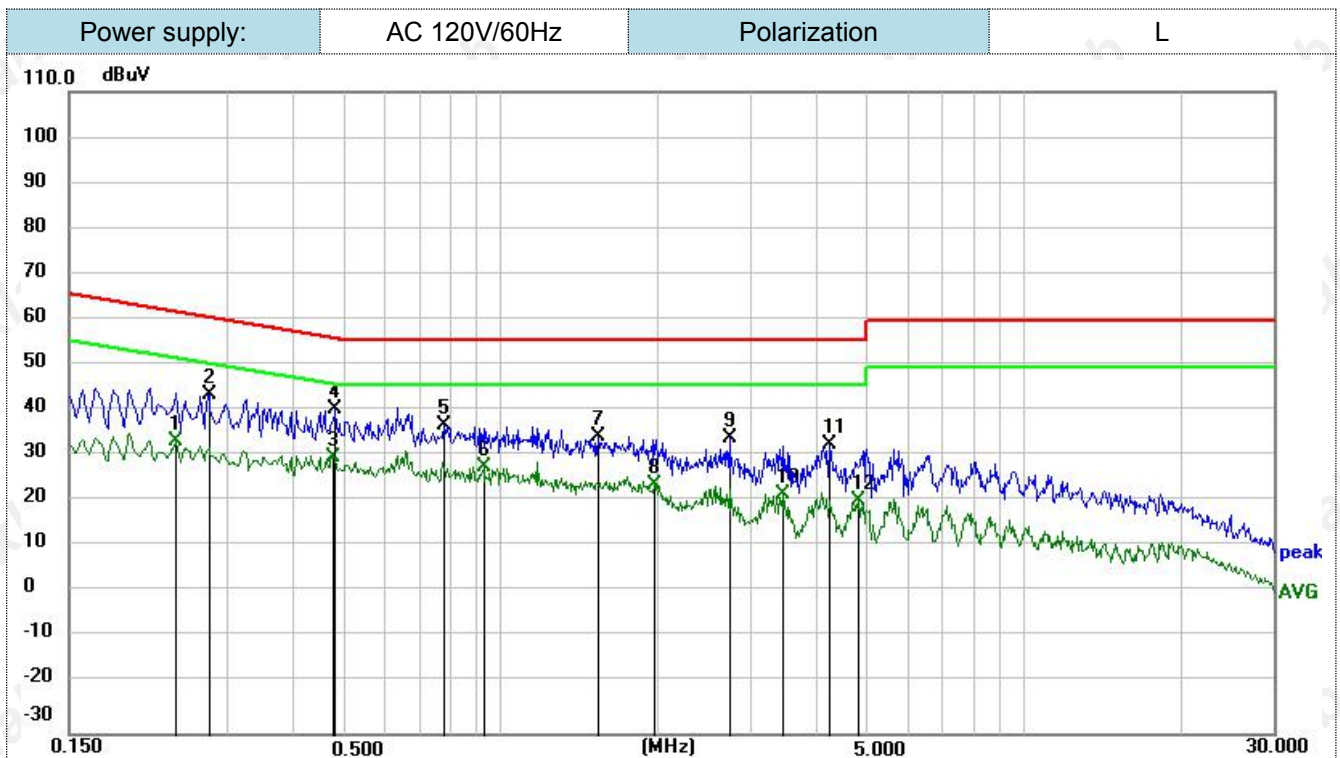
AC Power Conducted Emission Limit

According to FCC 18.307(b), the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies shall not exceed the limits in the following tables:

Frequency range (MHz)	Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

TEST RESULTS

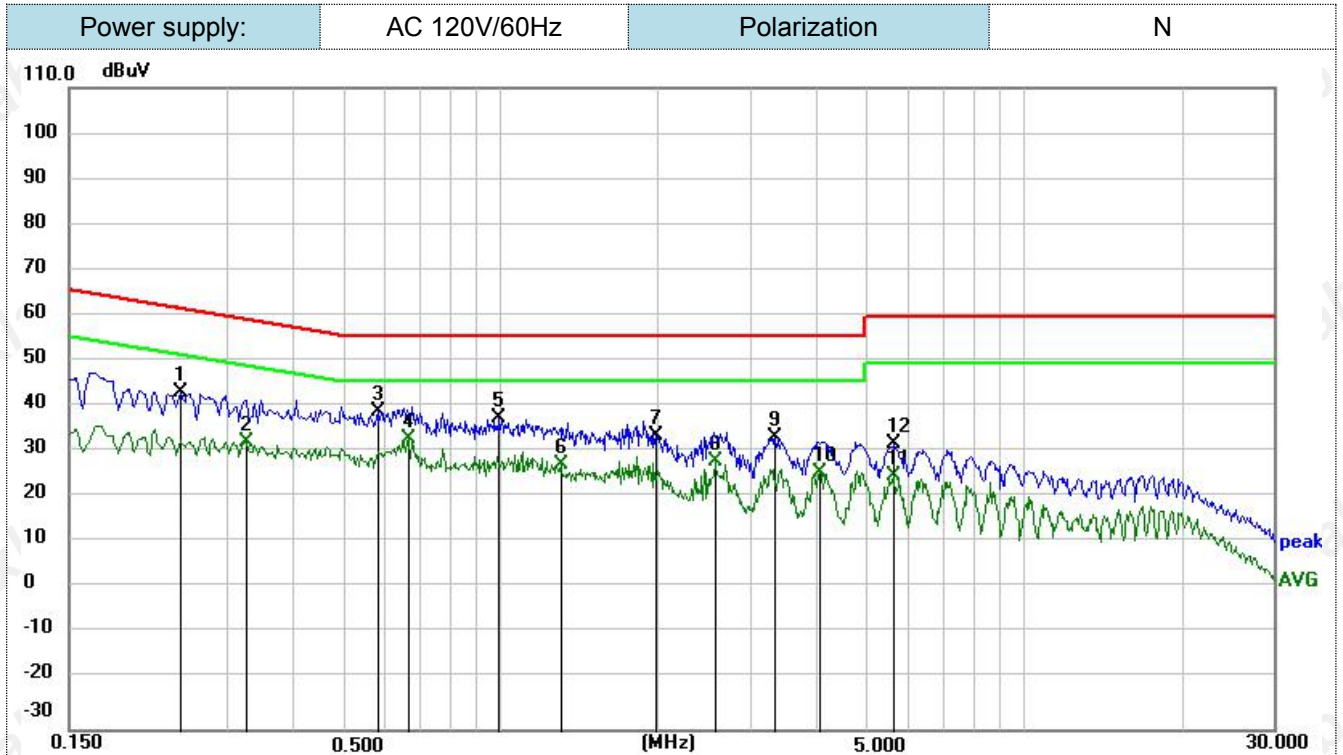


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.2400	17.31	16.72	34.03	52.10	-18.07	AVG	P
2	0.2760	27.43	16.71	44.14	60.94	-16.80	peak	P
3	0.4785	13.72	16.69	30.41	46.37	-15.96	AVG	P
4 *	0.4830	24.24	16.68	40.92	56.29	-15.37	peak	P
5	0.7800	20.77	16.65	37.42	56.00	-18.58	peak	P
6	0.9330	11.58	16.63	28.21	46.00	-17.79	AVG	P
7	1.5360	18.49	16.55	35.04	56.00	-20.96	peak	P
8	1.9770	8.07	16.49	24.56	46.00	-21.44	AVG	P
9	2.7465	18.22	16.38	34.60	56.00	-21.40	peak	P
10	3.4755	6.12	16.28	22.40	46.00	-23.60	AVG	P
11	4.2495	16.85	16.19	33.04	56.00	-22.96	peak	P
12	4.8480	4.85	16.12	20.97	46.00	-25.03	AVG	P

Note:1).Level (dBμV)= Reading (dBμV)+ Factor (dB)

2). Factor (dB)=insertion loss of LISN (dB) + Cable loss (dB)

3). Margin(dB) = Limit (dBμV) - Level (dBμV)



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.2445	26.13	17.53	43.66	61.94	-18.28	peak	P
2	0.3255	15.34	17.52	32.86	49.57	-16.71	AVG	P
3	0.5820	21.91	17.51	39.42	56.00	-16.58	peak	P
4 *	0.6675	16.17	17.51	33.68	46.00	-12.32	AVG	P
5	0.9960	20.64	17.51	38.15	56.00	-17.85	peak	P
6	1.3065	10.44	17.49	27.93	46.00	-18.07	AVG	P
7	1.9860	16.89	17.47	34.36	56.00	-21.64	peak	P
8	2.5800	11.07	17.45	28.52	46.00	-17.48	AVG	P
9	3.3585	16.35	17.43	33.78	56.00	-22.22	peak	P
10	4.0830	8.83	17.42	26.25	46.00	-19.75	AVG	P
11	5.6445	8.20	17.29	25.49	50.00	-24.51	AVG	P
12	5.6535	15.31	17.28	32.59	60.00	-27.41	peak	P

Note:1).Level (dBμV)= Reading (dBμV)+ Factor (dB)

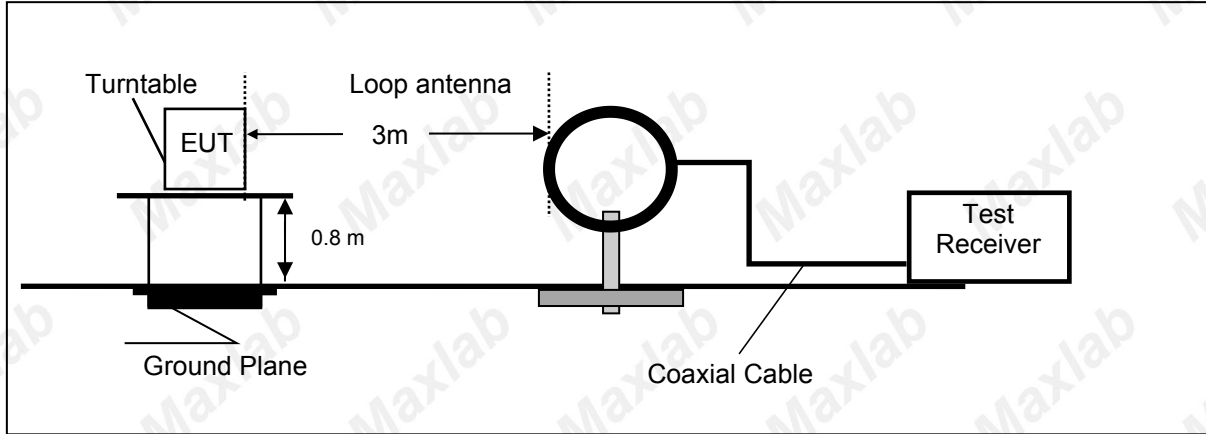
2). Factor (dB)=insertion loss of LISN (dB) + Cable loss (dB)

3). Margin(dB) = Limit (dBμV) - Level (dBμV)

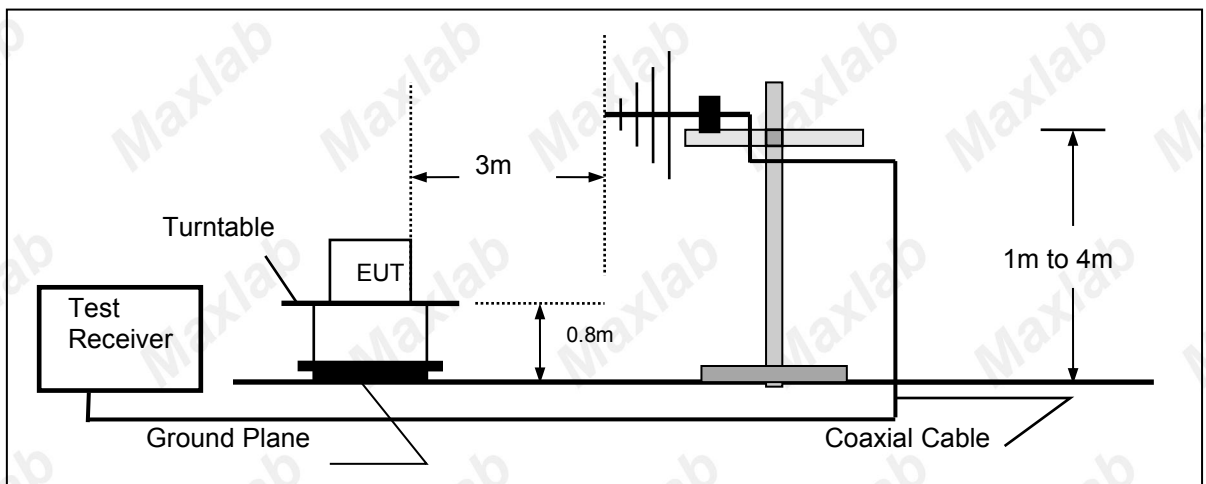
4.2 Radiated Emission

TEST CONFIGURATION

Frequency range 9 KHz – 30MHz



Frequency range 30MHz – 1000MHz



Test Procedure

The setup of EUT is according with per ANSI C63.4-2020 measurement procedure. The specification used was with the FCC Part 18.305 Limit.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

The test setup for emission measurement below 30MHz.

Equipment	Operating frequency	RF Power generated by equipment (watts)	Field strength limit (uV/m)	Distance (meters)
(miscellaneous)				
	Any non-ISM frequency	Below 500 500 or more	15 15 × SQRT(power/500)	300 1300

Remark:

- (1) Emission level dBuV/m for 0.009~30MHz = 20log (15) + 40log (300/3) dBuV/m;
- (2) Calculated according FCC 18.305.
- (3) The smaller limit shall apply at the cross point between two frequency bands.
- (4) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and the Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

$$\text{Corr. Ampl.} = \text{Indicated Reading} - \text{Corr. Factor}$$

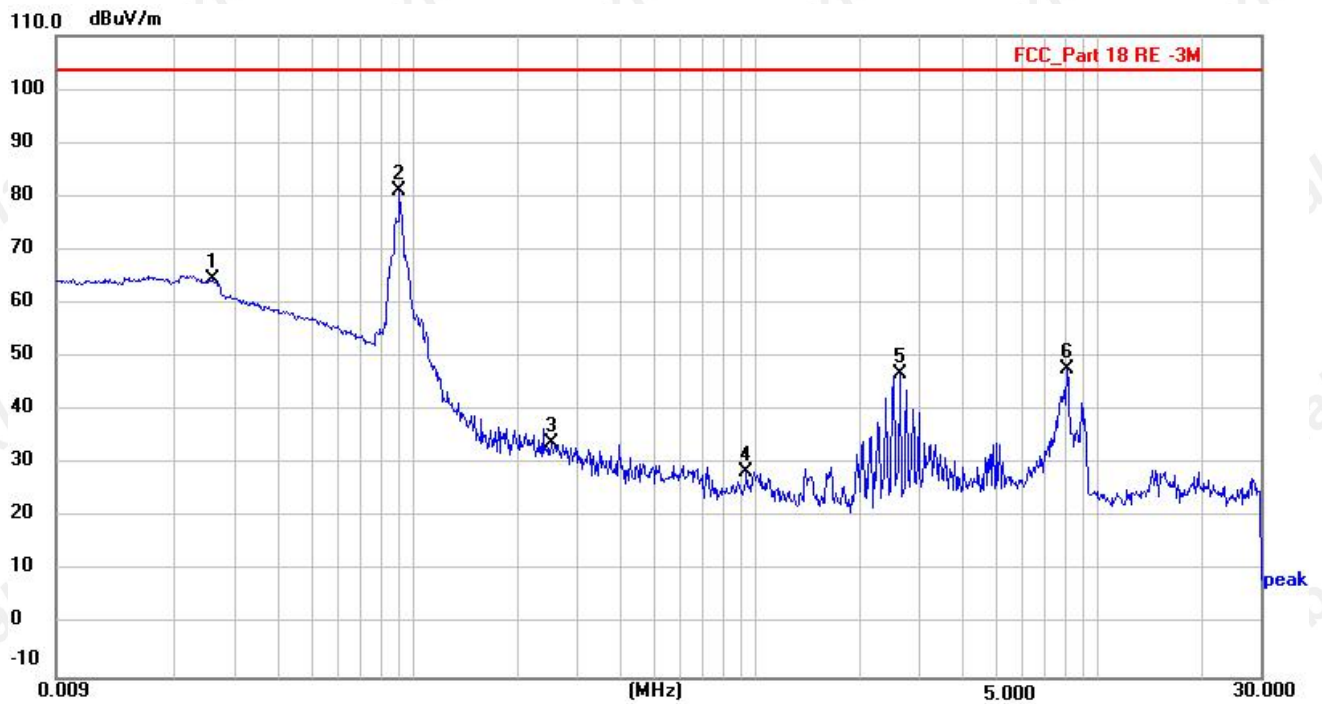
The “Margin” column of the following data tables indicates the degree of compliance with the applicable limit.

For example, a margin of -6dB μ V means the emission is 6dB μ V below the maximum limit for Any non-ISM frequency device. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Corr. Ampl.} - \text{FCC Part 18.305 Limit}$$

TEST RESULTS

For 9KHz - 30MHz



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F
1	0.0258	95.63	-31.13	64.50	103.52	-39.02	peak	-	-	P
2 *	0.0908	111.73	-30.76	80.97	103.52	-22.55	peak	-	-	P
3	0.2524	64.74	-30.68	34.06	103.52	-69.46	peak	-	-	P
4	0.9394	57.21	-28.72	28.49	103.52	-75.03	peak	-	-	P
5	2.6318	72.03	-25.33	46.70	103.52	-56.82	peak	-	-	P
6	8.1271	78.30	-30.56	47.74	103.52	-55.78	peak	-	-	P

Note:

Factor = Insertion Loss + Cable Loss.

For 30MHz-1GHz

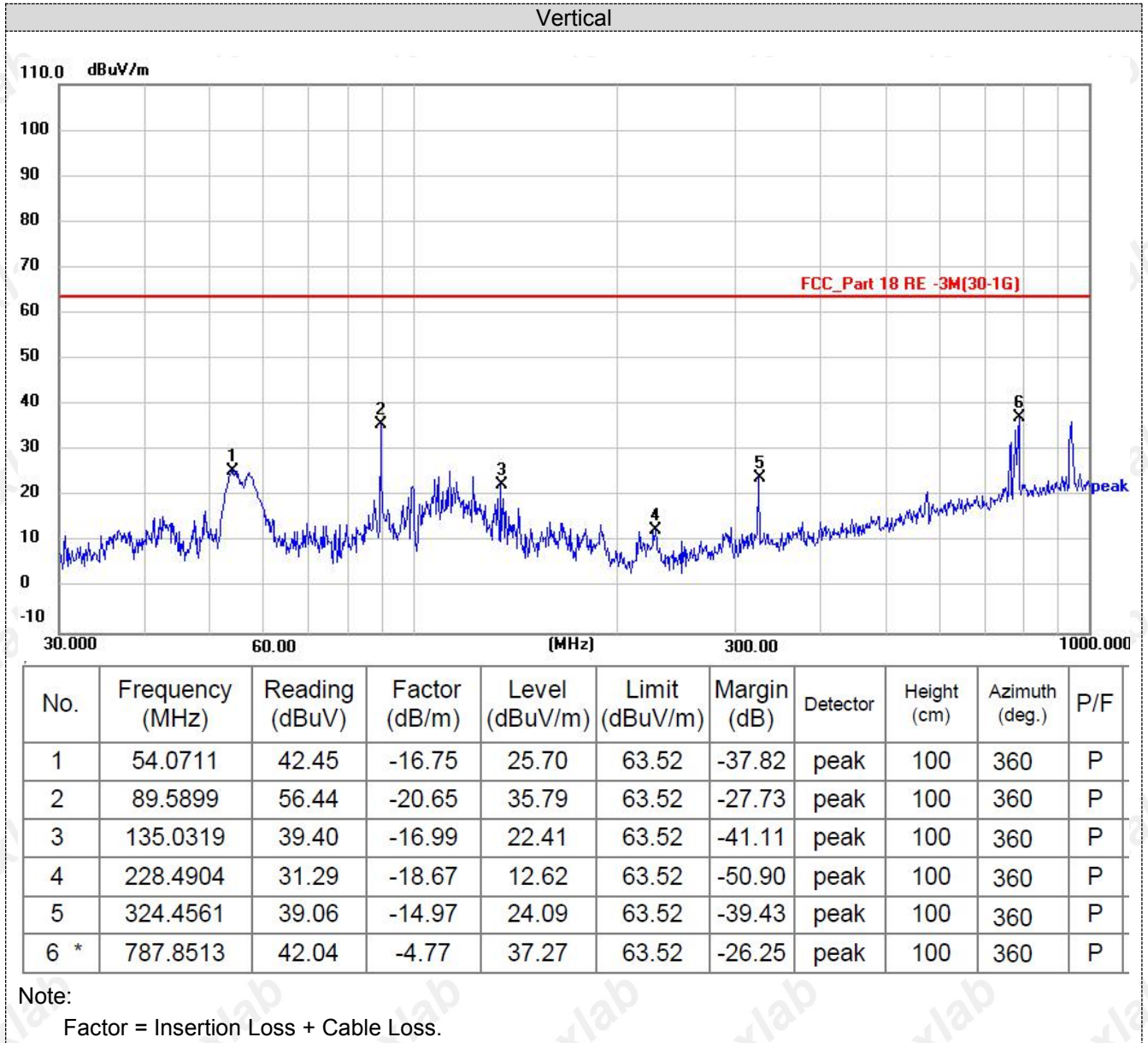
Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F
1	54.0710	44.45	-16.75	27.70	63.52	-35.82	peak	100	0	P
2	89.5899	55.44	-20.65	34.79	63.52	-28.73	peak	100	0	P
3	143.8295	32.51	-16.45	16.06	63.52	-47.46	peak	100	0	P
4	324.4560	38.06	-14.97	23.09	63.52	-40.43	peak	100	0	P
5	766.0571	35.29	-5.09	30.20	63.52	-33.32	peak	100	0	P
6 *	787.8512	41.04	-4.77	36.27	63.52	-27.25	peak	100	0	P

Note:

Factor = Insertion Loss + Cable Loss.



5 Test Setup Photos of the EUT

Reference to the appendix I for details.

6 PHOTOS OF THE EUT

Reference to the appendix II for details.

***** End of Report *****