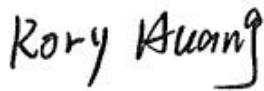


TEST REPORT

Report No.	CISRR25030605107
Project No.	CISR250306051
FCC ID	2ARCP-WP-3
Applicant	Sinco Intelligent Technology Co., Ltd.
Address	Room 805-807, No.17, Wenheng Street, Sanzao Town, Jinwan District, Zhuhai City, China
Manufacturer	Sinco Intelligent Technology Co., Ltd.
Address	Room 805-807, No.17, Wenheng Street, Sanzao Town, Jinwan District, Zhuhai City, China
Product Name	5.8GHz Wireless Audio Transceiver
Trade Mark	M-VAVE, CUVAVE, LEKATO, Btuty, HOEREV, AMMOON, Muslady, Yuimer, Getaria, Asmuse, UTIMO, KOKKO, CASON, DONNER, WAVE AUDIO, D'CRUZ, K.W.S, KMISE
Model/Type reference	WP-3 Wireless System
Listed Model(s)	WS-90
Standard	Part 15 Subpart C Section 15.249
Test date	March 6, 2025 to April 25, 2025
Issue date	April 25, 2025
Test result	Complied



Prepared by: Rory Huang



Approved by: Genry Long

The test results relate only to the tested samples.

The test report should not be reproduced except in full without the written approval of Shenzhen Bangce Testing Technology Co., Ltd.

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1. REPORT VERSION

Version No.	Issue date	Description
00	April 25, 2025	Original

2. SUMMARY OF TEST RESULT

Report clause	Test Item	Standard Requirement	Result
5.1	Antenna Requirement	15.203/15.247 (c)	PASS
5.2	AC Conducted Emission	15.207	PASS
5.3	20 dB Bandwidth	15.215 (c)	PASS
5.4	Radiated Band Edge Emission	15.205/15.209	PASS
5.5	Radiated Spurious Emission (below 1GHz)	47 CFR 15.247(d), 15.209, 15.205	Pass
5.6	Radiated Spurious Emission (Above 1GHz)	47 CFR 15.247(d), 15.209, 15.205	Pass

Note:

- The measurement uncertainty is not included in the test result.

3. SUMMARY

3.1. Product Description

Main unit information:	
Product Name:	5.8GHz Wireless Audio Transceiver
Trade Mark:	M-VAVE, CUVAVE, LEKATO, Btuty, HOEREV, AMMOON, Muslady, Yuimer, Getaria, Asmuse, UTIMO, KOKKO, CASON, DONNER, WAVE AUDIO, D'CRUZ, K.W.S, KMISE
Model No.:	WP-3 Wireless System
Listed Model(s):	WS-90
Model difference:	The series model is the same product, but the appearance and screen printing font lead to different model names.
Power supply:	input: DC 5V
Hardware version:	N/A
Software version:	N/A
Accessory unit (AU) information:	
Battery:	DC 3.7V

3.2. Radio Specification Description

Technology:	5.8G
Modulation:	FSK
Operation frequency:	5726MHz~5820MHz
Channel number:	95
Antenna type:	PCB
Antenna gain:	1.54dBi

Channel list:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	5726	25	5750	49	5774	73	5798
2	5727	26	5751	50	5775	74	5799
3	5728	27	5752	51	5776	75	5800
4	5729	28	5753	52	5777	76	5801
5	5730	29	5754	53	5778	77	5802
6	5731	30	5755	54	5779	78	5803
7	5732	31	5756	55	5780	79	5804
8	5733	32	5757	56	5781	80	5805
9	5734	33	5758	57	5782	81	5806
10	5735	34	5759	58	5783	82	5807

11	5736	35	5760	59	5784	83	5808
12	5737	36	5761	60	5785	84	5809
13	5738	37	5762	61	5786	85	5810
14	5739	38	5763	62	5787	86	5811
15	5740	39	5764	63	5788	87	5812
16	5741	40	5765	64	5789	88	5813
17	5742	41	5766	65	5790	89	5814
18	5743	42	5767	66	5791	90	5815
19	5744	43	5768	67	5792	91	5816
20	5745	44	5769	68	5793	92	5817
21	5746	45	5770	69	5794	93	5818
22	5747	46	5771	70	5795	94	5819
23	5748	47	5772	71	5796	95	5820
24	5749	48	5773	72	5797		

3.3. Modification of EUT

No modifications are made to the EUT during all test items.

3.4. Testing Site

Laboratory Name	Shenzhen Bangce Testing Technology Co., Ltd.
Laboratory Location	101, building 10, Yunli Intelligent Park, Shutianpu community, Matian Street, Guangming District, Shenzhen, Guangdong, China
FCC registration number	736346

3.5. Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$FS \text{ (dBuV/m)} = RA \text{ (dBuV)} + AF \text{ (dB/m)} + CL \text{ (dB)} - AG \text{ (dB)}$$

Where FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
RA = Reading Amplitude	AG = Amplifier Gain
AF = Antenna Factor	

3.6. DISTURBANCE Calculation

The AC mains conducted disturbance is calculated by adding the 10dB Pulse Limiter and Cable Factor and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$CD \text{ (dBuV)} = RA \text{ (dBuV)} + PL \text{ (dB)} + CL \text{ (dB)}$$

Where CD = Conducted Disturbance	CL = Cable Attenuation Factor (Cable Loss)
RA = Reading Amplitude	PL = 10 dB Pulse Limiter Factor

4. TEST CONFIGURATION

All measurements contained in this report were conducted with ANSI C63.10-2013, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.

4.1. Test frequency list

Channel	Frequency (MHz)
CH-L	5726
CH-M	5772
CH-H	5820

4.2. Test mode

No	Test mode	Description
TM1	TX mode	Keep the EUT in continuously transmitting mode with GFSK modulation at lowest, middle and highest channel.
TM2	Link mode	Keep the EUT in Bluetooth linking mode with AE.
TM3	Charging mode	Keep the EUT in charging status

4.3. Support unit used in test configuration and system

The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application.

The following peripheral devices and interface cables were connected during the measurement:

Item	Equipment name	Trade Name	Model No.
1	PC	Lenovo	ThinkPad
2	Adapter	Guangdong Sangu Technology Co. Ltd	SG-0501000AU

4.4. Test sample information

Type	sample no.
Engineer sample	CISRR250306051--S01
Normal sample	CISRR250306051--S01

4.5. Testing environmental condition

Type	Requirement	Actual
Temperature:	15~35°C	25°C
Relative Humidity:	25~75%	50%
Air Pressure:	860~1060mbar	1000mbar

4.6. Statement of the measurement uncertainty

No.	Test Items	Measurement Uncertainty
-----	------------	-------------------------

1	AC Conducted Emission	1.63dB
2	20dB Bandwidth	0.002%
3	Radiated Band Edge Emission	3.76dB for 30MHz-1GHz 3.80dB for above 1GHz
4	Radiated Spurious Emission	3.76dB for 30MHz-1GHz 3.80dB for above 1GHz

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=1.96.

4.7. Equipment Used during the Test

AC Conducted Emission						
Item	Equipment name	Manufacturer	Model	Serial No.	Calibration date	Due date
1	EMI Test Receiver	Rohde&schwarz	ESCI7	100853	2025-01-08	2026-01-07
2	Artificial power network	Schwarzbeck	NSLK8127	8127-01096	2025-01-08	2026-01-07
3	8-wire Impedance Stabilization Network	Schwarzbeck	NTFM 8158	8158-00337	2025-01-08	2026-01-07
4	Artificial power network	Schwarzbeck	ENV216	/	2025-01-08	2026-01-07

20 dB Bandwidth						
Item	Equipment name	Manufacturer	Model	Serial No.	Calibration date	Due date
1	MXG RF Signal Generator	Agilent	N5181A	MY50145362	2025-01-08	2026-01-07
2	Spectrum analyzer	R&S	FSV-40N	102130	2025-01-08	2026-01-07
3	Vector Signal Generator	Agilent	N5182A	MY50142364	2025-01-08	2026-01-07

Radiated Band Edge Emission Radiated Spurious Emission						
Item	Equipment name	Manufacturer	Model	Serial No.	Calibration date	Due date
1	EMI Test Receiver	Rohde&schwarz	ESCI7	100853	2025-01-08	2026-01-07
2	Amplifier	Tonscend	TAP9K3G40	AP23A8060270	2025-01-08	2026-01-07
3	Prime amplifier	Tonscend	TAP01018050	AP23A8060280	2025-01-08	2026-01-07
4	9*6*6 anechoic chamber	SKET	9.3*6.3*6	N/A	2024-09-02	2027-09-01
5	Spectrum analyzer	Agilent	N9020A	MY50530263	2025-01-08	2026-01-07
6	Spectrum analyzer	R&S	FSV-40N	102130	2025-01-08	2026-01-07
7	Bilog Antenna	Schwarzbeck	VULB 9163	1463	2023-01-09	2026-01-08

8	Horn Antenna	SCHWARZBECK	BBHA 9120 D	2487	2023-01-09	2026-01-08
9	Active Loop Antenna	SCHWARZBECK	FMZB 1519B	/	2023-01-09	2026-01-08
10	RF Cable	Tonscend	Cable 1	/	2025-01-08	2026-01-07
11	RF Cable	Tonscend	Cable 2	/	2025-01-08	2026-01-07
12	RF Cable	SKET	Cable 3	/	2025-01-08	2026-01-07
13	L.I.S.N.#1	Schwarzbeck	NSLK812 7	/	2025-01-08	2026-01-07
14	L.I.S.N.#2	ROHDE&SCHWA RZ	ENV216	/	2025-01-08	2026-01-07
15	Horn Antenna	SCHWARZBECK	BBHA917 0	1130	2023-01-09	2026-01-08
16	Preamplifier	Tonscend	TAP1804 0048	AP21C806126	2025-01-08	2026-01-07
17	Variable-frequency power source	Pinhong	PH1110	/	2025-01-08	2026-01-07
18	6dB Attenuator	SKET	DC-6G	/	2025-01-08	2026-01-07
19	Antenna tower	SKT	Bk-4AT- BS	AT202104010 1-V1	2025-01-08	2026-01-07

5. TEST CONDITIONS AND RESULTS

5.1. Antenna Requirement

Standard Applicable

FCC CFR Title 47 Part 15 Subpart C Section 15.203:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

Description

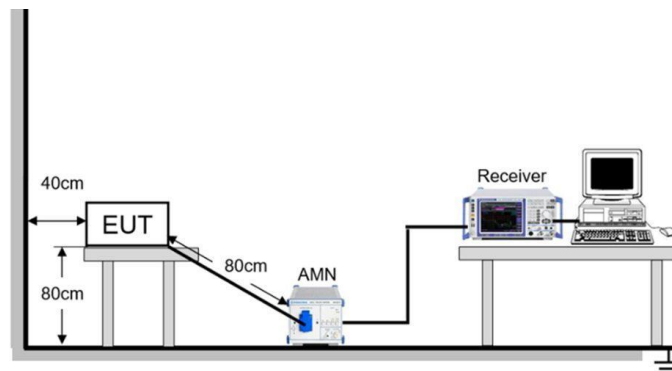
The EUT antenna is PCB(1.54dBi), the directional gain of the antenna less than 6dBi. It comply with the standard requirement. In case of replacement of broken antenna the same antenna type must be used. Antenna structure please refer to the EUT internal photographs antenna photo.

Remark: The antenna gain is provided by the customer, if the data provided by the customer is not accurate, Shenzhen Bangce Testing Technology Co., Ltd. does not assume any responsibility.

5.2. AC Conducted Emission

Test Requirement:	Refer to 47 CFR 15.207(a), Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μ H/50 ohms line impedance stabilization network (LISN).				
Test Limit:	Frequency of emission (MHz)	Conducted limit (dB μ V)			
		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 Method:	ANSI C63.10-2020 section 6.2				
Procedure:	1. The EUT was setup according to ANSI C63.10 requirements. 2. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. 3. The EUT and simulators are connected to the main power through a line impedances stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. 4. The peripheral devices are also connected to the main power through a LISN. (Refer to the block diagram of the test setup and photographs) 5. Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source. 6. The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length. 7. Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz. 8. During the above scans, the emissions were maximized by cable manipulation.				
Operating Environment:					
Temperature :	22.5 °C	Humidity:	56.7 %	Atmospheric Pressure:	103 kPa
Pre test mode:		TM1, TM2, TM3			
Final test mode:		TM1, TM2, TM3			

Test Setup Diagram



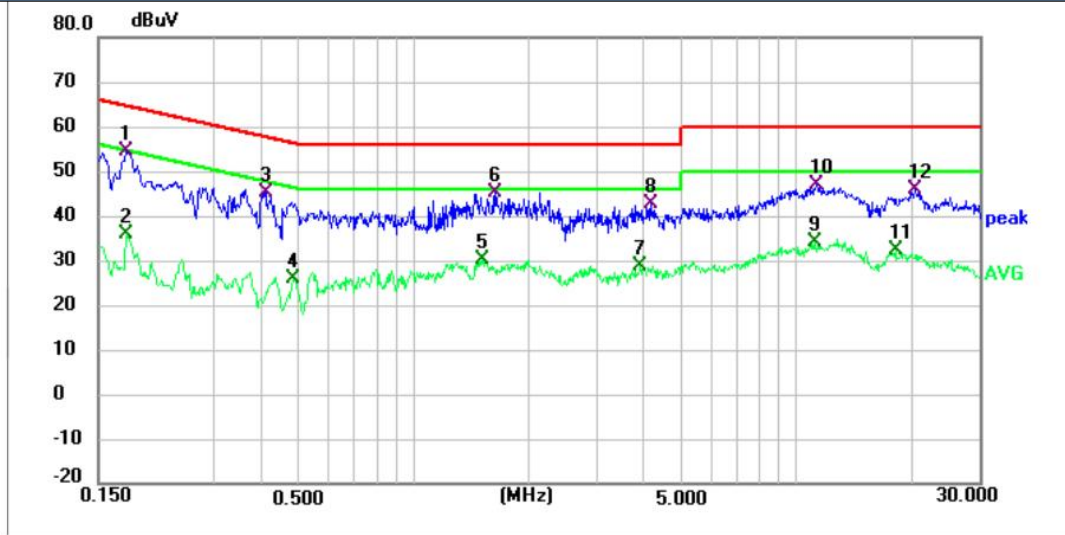
Test Result
Pass

Test Data

Note:

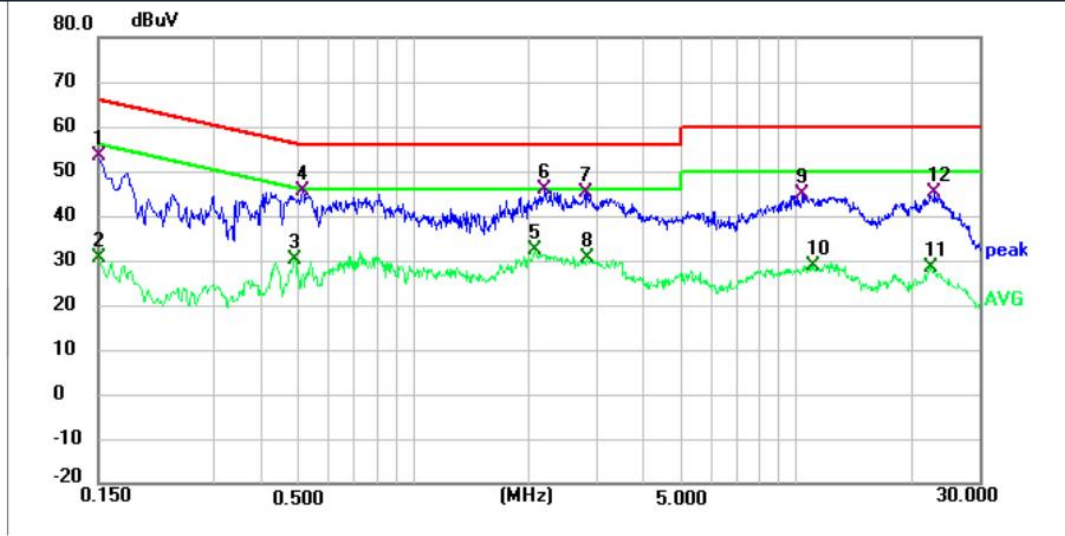
Have pre-scan all test mode, found TM3 mode which it was worst case, so only show the worst case's data on this report.

Mode3 / Line: Line



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1 *	0.178	44.21	10.31	54.52	64.58	-10.06	QP
2	0.178	25.71	10.31	36.02	54.58	-18.56	AVG
3	0.410	35.02	10.32	45.34	57.65	-12.31	QP
4	0.486	15.61	10.36	25.97	46.24	-20.27	AVG
5	1.514	19.73	10.57	30.30	46.00	-15.70	AVG
6	1.634	34.45	10.60	45.05	56.00	-10.95	QP
7	3.910	17.30	11.34	28.64	46.00	-17.36	AVG
8	4.186	31.35	11.45	42.80	56.00	-13.20	QP
9	11.166	19.84	14.22	34.06	50.00	-15.94	AVG
10	11.258	32.56	14.27	46.83	60.00	-13.17	QP
11	18.198	16.59	15.80	32.39	50.00	-17.61	AVG
12	20.290	30.27	15.52	45.79	60.00	-14.21	QP

Mode3 / Line: Neutral



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.150	42.95	10.33	53.28	66.00	-12.72	QP
2	0.150	20.18	10.33	30.51	56.00	-25.49	AVG
3	0.490	19.97	10.38	30.35	46.17	-15.82	AVG
4	0.514	35.33	10.38	45.71	56.00	-10.29	QP
5	2.078	21.44	10.73	32.17	46.00	-13.83	AVG
6 *	2.202	35.26	10.76	46.02	56.00	-9.98	QP
7	2.818	34.23	10.94	45.17	56.00	-10.83	QP
8	2.846	19.61	10.95	30.56	46.00	-15.44	AVG
9	10.394	31.18	13.77	44.95	60.00	-15.05	QP
10	11.082	14.84	14.06	28.90	50.00	-21.10	AVG
11	22.526	12.66	15.66	28.32	50.00	-21.68	AVG
12	23.006	29.47	15.60	45.07	60.00	-14.93	QP

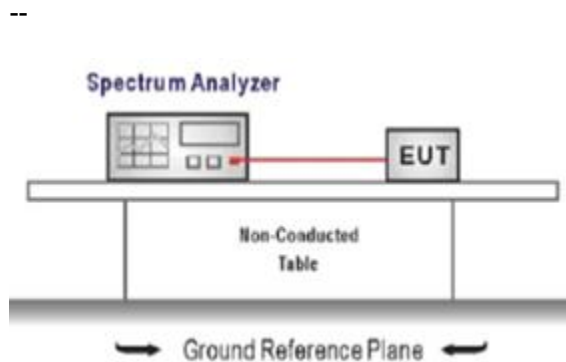
Note:

- 1). Result = Reading +Correct (Insertion Loss + Cable Loss + Attenuator Factor)
- 2). Margin = Result - Limit

5.3. 20 dB Bandwidth

Limit:

Test configuration:



Test procedure:

1. The transmitter output was connected to the spectrum analyzer through an attenuator, the path loss was compensated to the results for each measurement.
2. Set to the maximum power setting and enable the EUT transmit continuously
3. Use the following spectrum analyzer settings:
Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel
RBW $\geq$ 1% of the 20 dB bandwidth, VBW $\geq$ RBW
Sweep = auto, Detector function = peak, Trace = max hold
4. Measure and record the results in the test report.

Operating Environment:

Temperature:	22.2 °C	Humidity:	56.3 %	Atmospheric Pressure:	103 kPa
Pre test mode:	TM1				
Final test mode:	TM1				

Test Setup Diagram

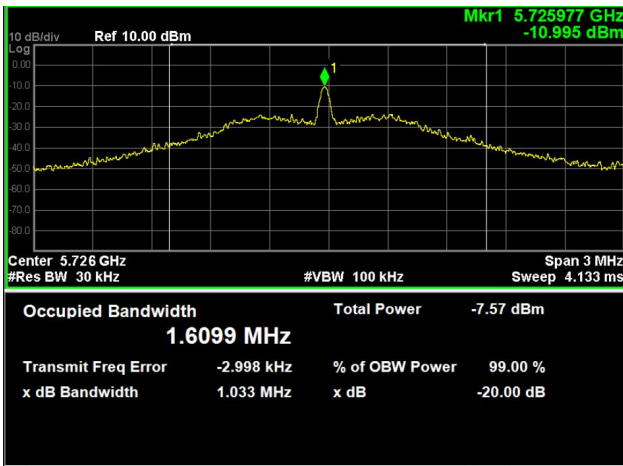
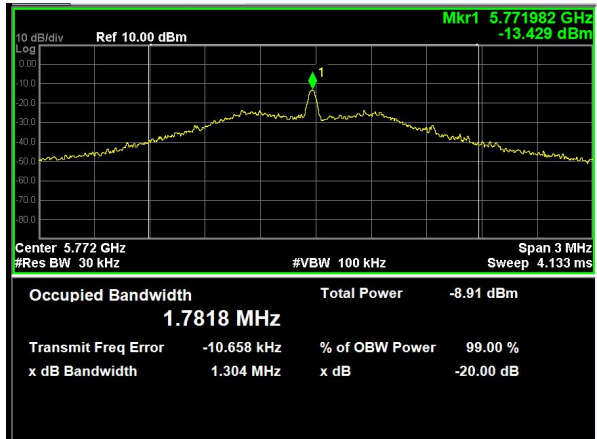
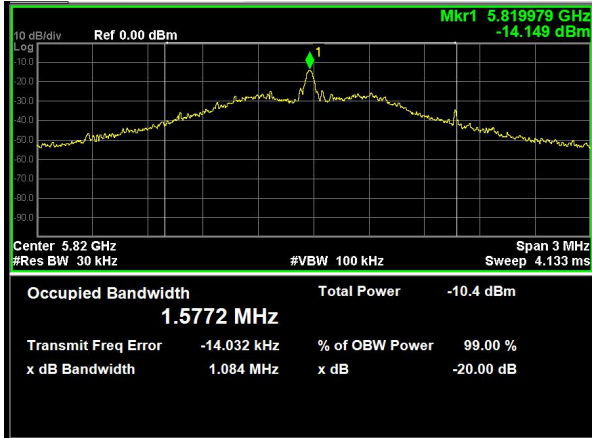


Test Result

Pass

Test Data

Test Result of 20dB Bandwidth Measurement		
Test Frequency(MHz)	20dB Bandwidth(MHz)	Limit(MHz)
5726	1.033	Non-Specified
5772	1.304	Non-Specified
5820	1.084	Non-Specified

20dB Bandwidth	
 Center 5.726 GHz #Res BW 30 kHz #VBW 100 kHz Span 3 MHz Sweep 4.133 ms Occupied Bandwidth 1.6099 MHz Total Power -7.57 dBm Transmit Freq Error -2.998 kHz % of OBW Power 99.00 % x dB Bandwidth 1.033 MHz x dB -20.00 dB	 Center 5.772 GHz #Res BW 30 kHz #VBW 100 kHz Span 3 MHz Sweep 4.133 ms Occupied Bandwidth 1.7818 MHz Total Power -8.91 dBm Transmit Freq Error -10.658 kHz % of OBW Power 99.00 % x dB Bandwidth 1.304 MHz x dB -20.00 dB
5726MHz	5772MHz
 Center 5.82 GHz #Res BW 30 kHz #VBW 100 kHz Span 3 MHz Sweep 4.133 ms Occupied Bandwidth 1.5772 MHz Total Power -10.4 dBm Transmit Freq Error -14.032 kHz % of OBW Power 99.00 % x dB Bandwidth 1.084 MHz x dB -20.00 dB	
5820MHz	

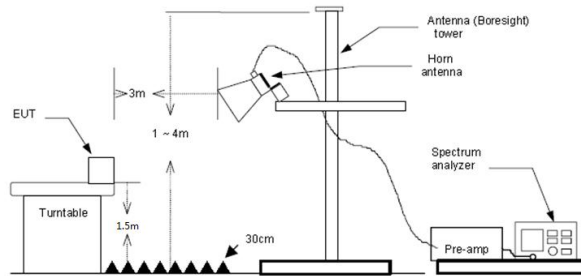
5.4. Radiated Band edge Emission

Limit:

FFCC CFR Title 47 Part 15 Subpart C Section 15.249 (d):

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in § 15.209, whichever is the lesser attenuation.

Test configuration:



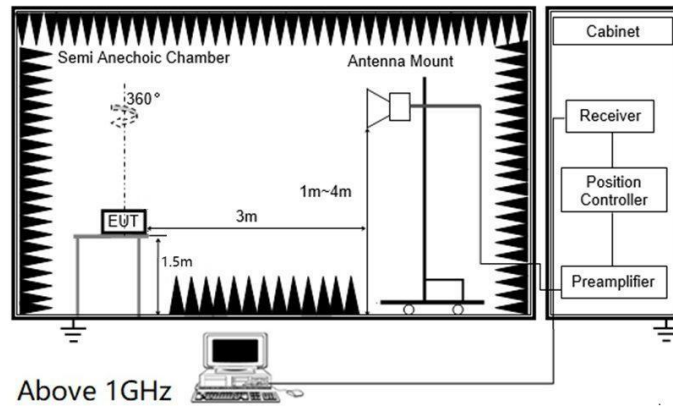
Test procedure:

1. The EUT was setup and tested according to ANSI C63.10 .
2. The EUT is placed on a turn table which is 1.5 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level.
3. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
4. The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10 on radiated measurement.
5. Use the following spectrum analyzer settings:
 - a) Span shall be wide enough to fully capture the emission being measured
 - b) Set RBW=100kHz for <1GHz, VBW=3*RBW, Sweep time=auto, Detector=peak, Trace=max hold
 - c) Set RBW=1MHz, VBW=3MHz for >1GHz, Sweep time=auto, Detector=peak, Trace=max hold for Peak measurement
 - d) Set RBW=1MHz, VBW=3MHz for >1GHz, Sweep time=auto, Detector=Average, Trace=RMS for Average measurement

Operating Environment:

Temperature:	22.2 °C	Humidity:	56.5 %	Atmospheric Pressure:	103 kPa
Pre test mode:	TM1, TM2, TM3				
Final test mode:	TM1, TM2, TM3				

Test Setup Diagram



Test Result

Pass

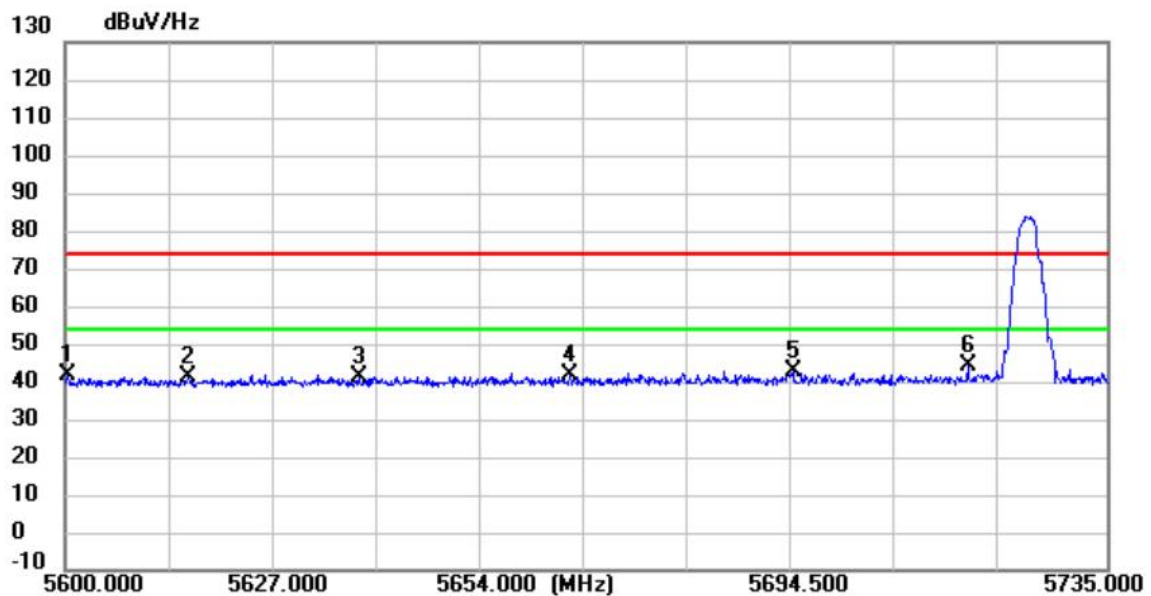
Test Data

Note:

- 1) Level= Reading + Factor; Factor =Antenna Factor+ Cable Loss- Preamp Factor
- 2) Margin = Limit - Level
- 3) Average measurement was not performed if peak level is lower than average limit
- 4) Have pre-scan all test mode, found TM1 mode which it was worst case, so only show the worst case' s data on this report.
- 5) The other emission levels were very low against the limit.

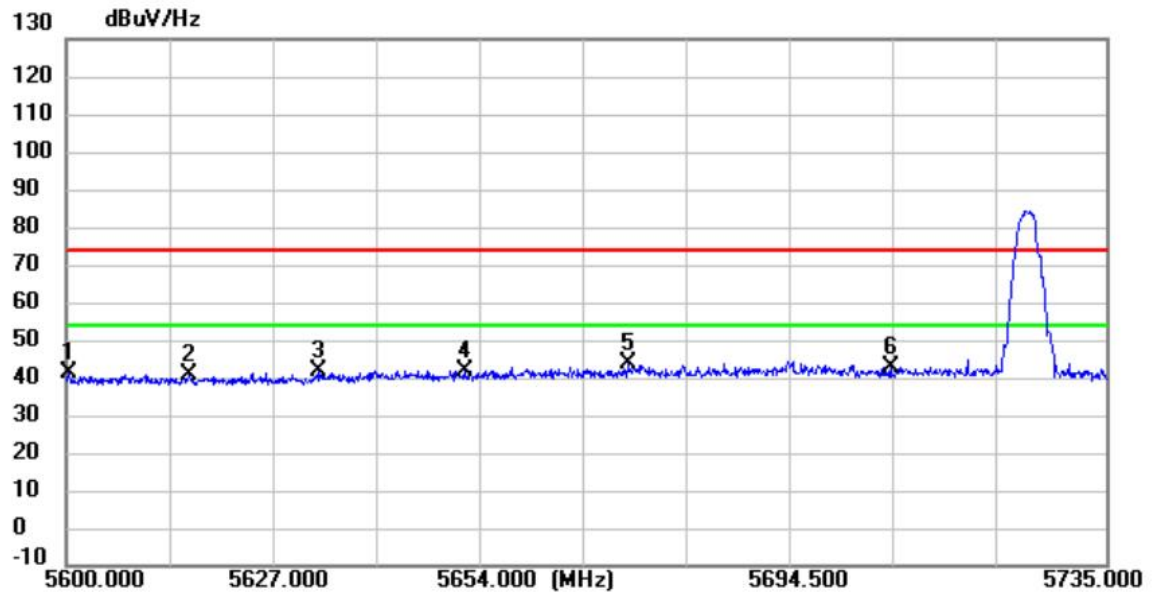
Have pre-scan all test mode, found TM1 mode which it was worst case, so only show the worst case's data on this report.

Mode1 / Polarization: Horizontal / CH: L



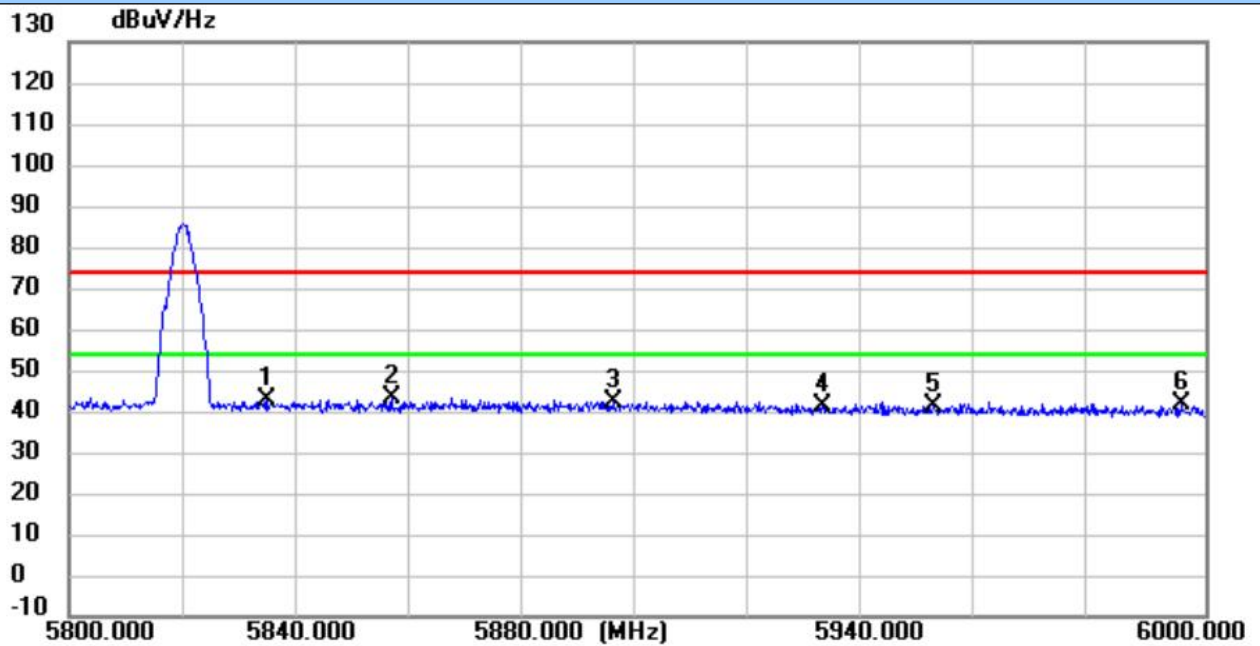
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV/Hz)	Limit (dBuV/Hz)	Margin (dB)	Detector
1	5600.4455	27.02	14.70	41.72	74.00	32.28	peak
2	5616.1595	26.34	14.77	41.11	74.00	32.89	peak
3	5638.1509	26.62	14.88	41.50	74.00	32.50	peak
4	5665.4480	26.89	14.99	41.88	74.00	32.12	peak
5	5694.4190	27.85	15.13	42.98	74.00	31.02	peak
6 *	5717.0585	29.01	15.16	44.17	74.00	29.83	peak

Mode1 / Polarization: Vertical / CH: L



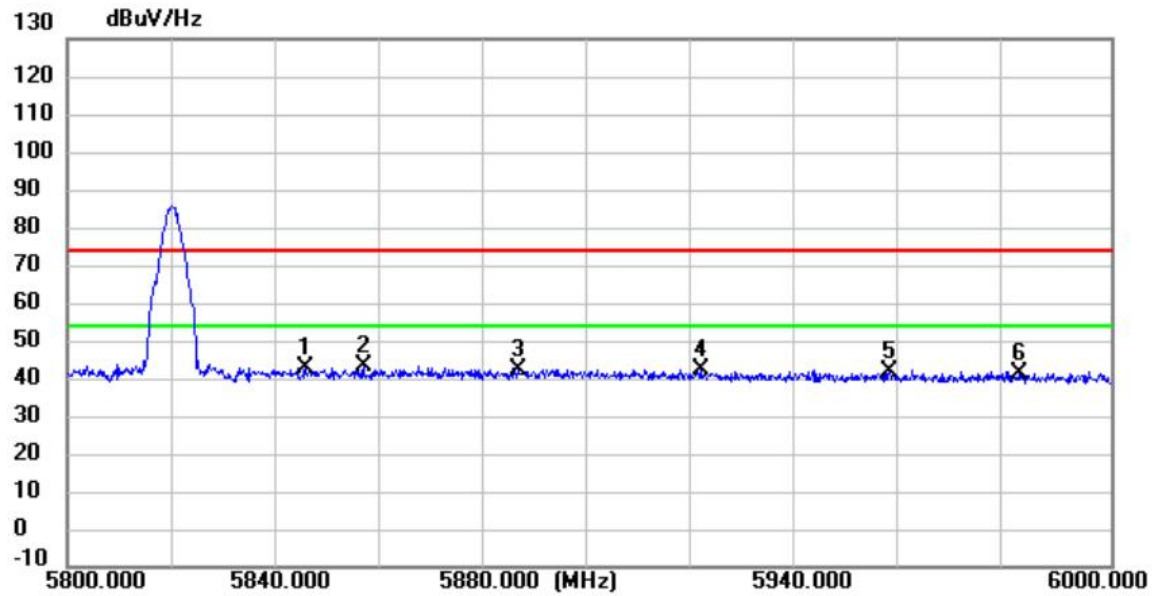
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV/Hz)	Limit (dBuV/Hz)	Margin (dB)	Detector
1	5600.4453	26.52	14.70	41.22	74.00	32.78	peak
2	5616.1594	25.84	14.77	40.61	74.00	33.39	peak
3	5632.6700	27.03	14.86	41.89	74.00	32.11	peak
4	5651.7860	26.82	14.93	41.75	74.00	32.25	peak
5 *	5673.1429	28.52	15.04	43.56	74.00	30.44	peak
6	5707.1764	27.68	15.15	42.83	74.00	31.17	peak

Mode1 / Polarization: Horizontal / CH: H



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV/Hz)	Limit (dBuV/Hz)	Margin (dB)	Detector
1	5835.1400	27.96	14.88	42.84	74.00	31.16	peak
2 *	5856.8200	28.32	14.85	43.17	74.00	30.83	peak
3	5895.8800	27.17	15.03	42.20	74.00	31.80	peak
4	5932.9000	26.55	14.93	41.48	74.00	32.52	peak
5	5952.1600	26.50	14.88	41.38	74.00	32.62	peak
6	5995.9000	26.97	14.90	41.87	74.00	32.13	peak

Mode1 / Polarization: Vertical / CH: H

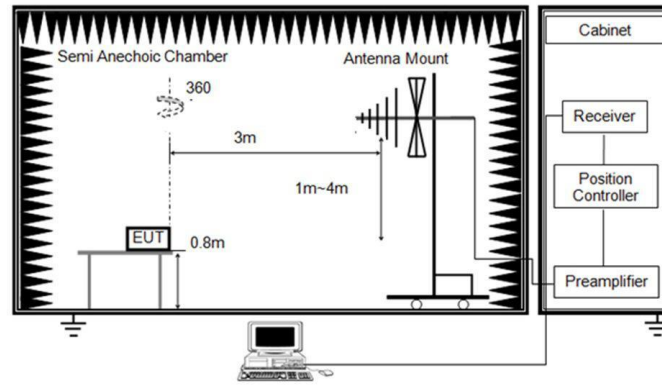


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV/Hz)	Limit (dBuV/Hz)	Margin (dB)	Detector
1	5845.8400	28.11	14.84	42.95	74.00	31.05	peak
2 *	5856.8200	28.32	14.85	43.17	74.00	30.83	peak
3	5886.5400	27.49	14.98	42.47	74.00	31.53	peak
4	5921.5200	27.12	14.98	42.10	74.00	31.90	peak
5	5957.7000	27.02	14.88	41.90	74.00	32.10	peak
6	5982.4600	26.33	14.89	41.22	74.00	32.78	peak

5.5. Radiated Spurious Emission (below 1GHz)

Test Requirement:	Refer to 47 CFR 15.247(d), In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a)(see § 15.205(c)).`				
Test Limit:	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	
** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241. In the emission table above, the tighter limit applies at the band edges. The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.					
Test Method:	ANSI C63.10-2020 section 6.6.4				
Procedure:	1. The EUT was setup and tested according to ANSI C63.10. 2. The EUT is placed on a turn table which is 0.8 meter above ground for below 1 GHz, and 1.5 m for above 1 GHz. The turn table is rotated 360 degrees to determine the position of the maximum emission level. 3. The EUT was set 3 meters from the receiving antenna, which was mounted on the top of a variable height antenna tower. 4. For each suspected emission, the EUT was arranged to its worst case and then tune the Antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level to comply with the guidelines. 5. Set to the maximum power setting and enable the EUT transmit continuously. 6. Use the following spectrum analyzer settings a) Span shall wide enough to fully capture the emission being measured; b) RBW=120 kHz, VBW=300 kHz, Sweep=auto, Detector function=peak, Trace=max hold; If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.				
Operating Environment:					
Temperature :	22.2 °C	Humidity:	56.5 %	Atmospheric Pressure:	103 kPa
Pre test mode:		TM1, TM2, TM3			
Final test mode:		TM1, TM2, TM3			

Test Setup Diagram



Below 1 GHz and above 30 MHz

Test Result
Pass

Test Data

Note:

- 1) Level= Reading + Factor/Transd; Factor/Transd =Antenna Factor+ Cable Loss- Preamp Factor
- 2) Margin = Limit – Level
- 3) Average measurement was not performed if peak level is lower than average limit(54 dBuV/m) for above 1GHz.
- 4) The other emission levels were very low against the limit.
- 5) This test was performed with EUT in X, Y, Z position and the worse case was found when EUT in X position.

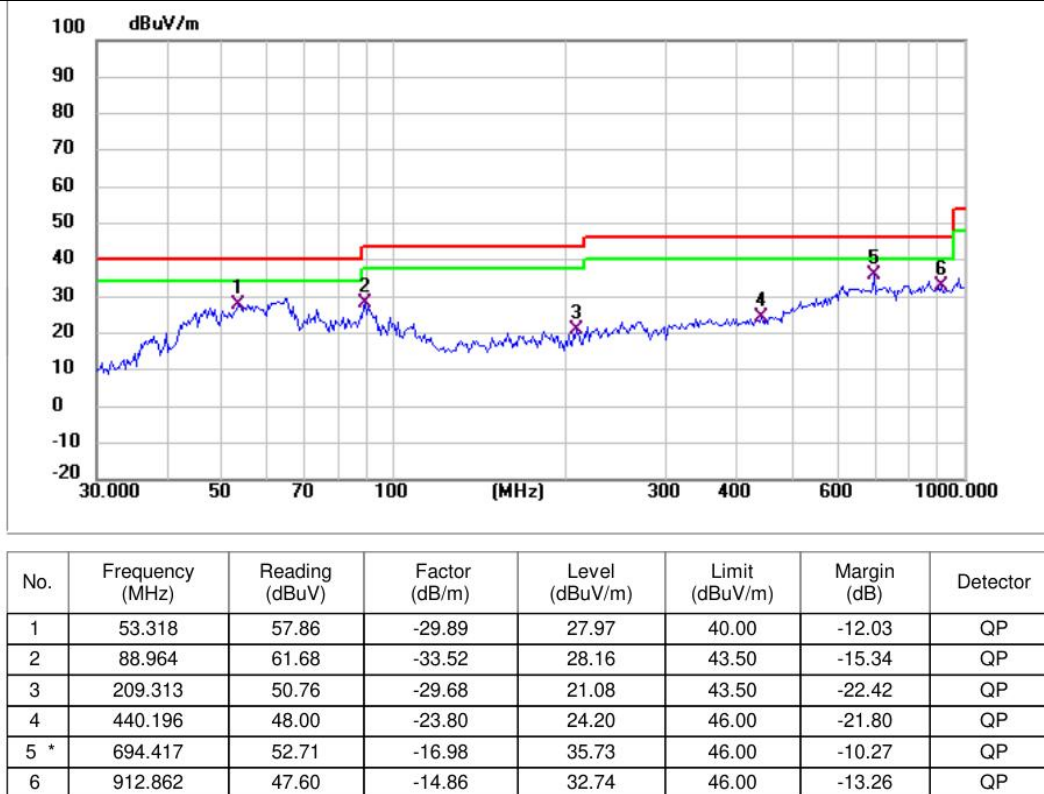
For 9 kHz ~ 30 MHz

The EUT was pre-scanned this frequency band, found the radiated level 20dB lower than the limit, so don't show data on this report.

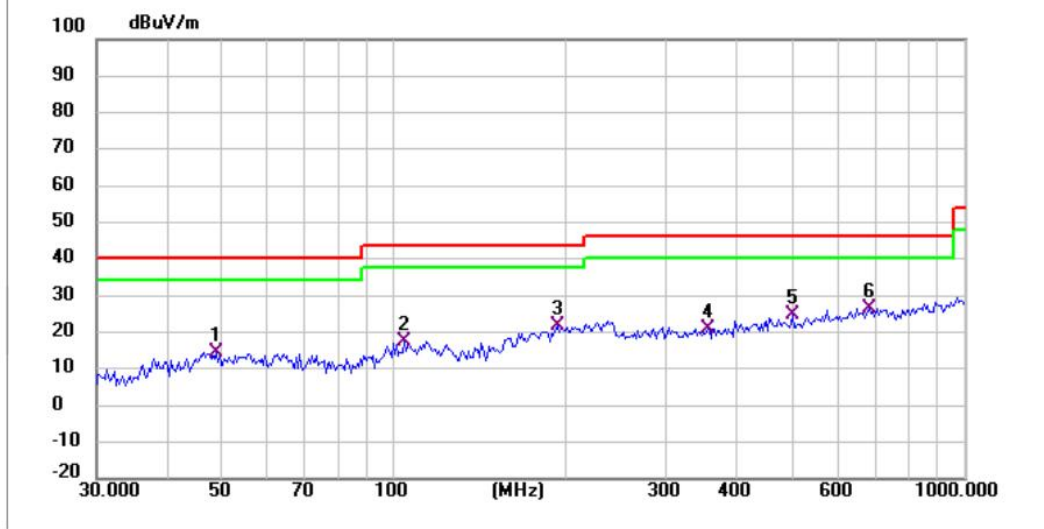
For 30 MHz ~ 1000 MHz

Have pre-scan all test mode, found TM1 mode CH00 which it was worst case, so only show the worst case's data on this report.

Mode1 / Polarization: Horizontal / CH: L



Mode1 / Polarization: Vertical / CH: L



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	48.672	43.76	-29.17	14.59	40.00	-25.41	QP
2	103.805	48.42	-30.82	17.60	43.50	-25.90	QP
3	193.773	52.12	-30.41	21.71	43.50	-21.79	QP
4	354.183	46.75	-25.77	20.98	46.00	-25.02	QP
5	499.425	46.69	-21.99	24.70	46.00	-21.30	QP
6 *	679.960	43.79	-17.45	26.34	46.00	-19.66	QP

Note:

1) For 9 kHz ~ 30 MHz Measurement

The EUT was pre-scanned this frequency band, found the radiated level 20dB lower than the limit, so don't show data on this report.

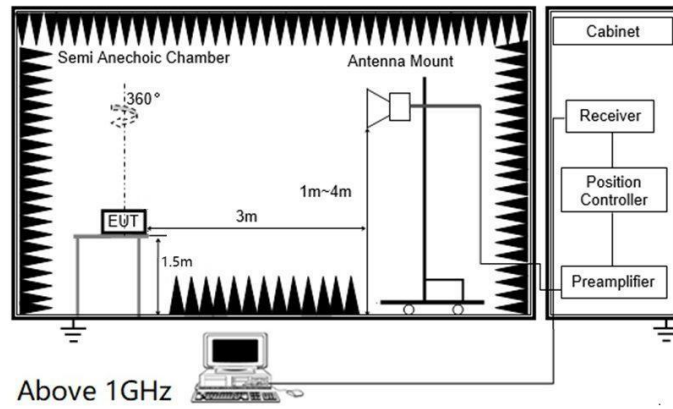
2) Level= Reading + Factor; Factor =Antenna Factor+ Cable Loss- Preamp Factor

3) Margin = Limit – Level

5.6. Radiated Spurious Emission (Above 1GHz)

Test Requirement:	In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a)(see § 15.205(c)).`				
Test Limit:	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	
	** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241.				
	In the emission table above, the tighter limit applies at the band edges. The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.				
Test Method:	ANSI C63.10-2020 section 6.6.4				
Procedure:	1. The EUT was setup and tested according to ANSI C63.10. 2. The EUT is placed on a turn table which is 0.8 meter above ground for below 1 GHz, and 1.5 m for above 1 GHz. The turn table is rotated 360 degrees to determine the position of the maximum emission level. 3. The EUT was set 3 meters from the receiving antenna, which was mounted on the top of a variable height antenna tower. 4. For each suspected emission, the EUT was arranged to its worst case and then tune the Antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level to comply with the guidelines. 5. Set to the maximum power setting and enable the EUT transmit continuously. 6. Use the following spectrum analyzer settings a) Span shall wide enough to fully capture the emission being measured; b) Set RBW=1MHz, VBW=3MHz for >1GHz, Sweep time=auto, Detector=peak, Trace=max hold for Peak measurement For average measurement: use duty cycle correction factor method (DCCF)Averager level = Peak level + DCCF				
Operating Environment:					
Temperature :	22.2 °C	Humidity:	56.5 %	Atmospheric Pressure:	103 kPa
Pre test mode:		TM1, TM2, TM3			
Final test mode:		TM1, TM2, TM3			

Test Setup Diagram



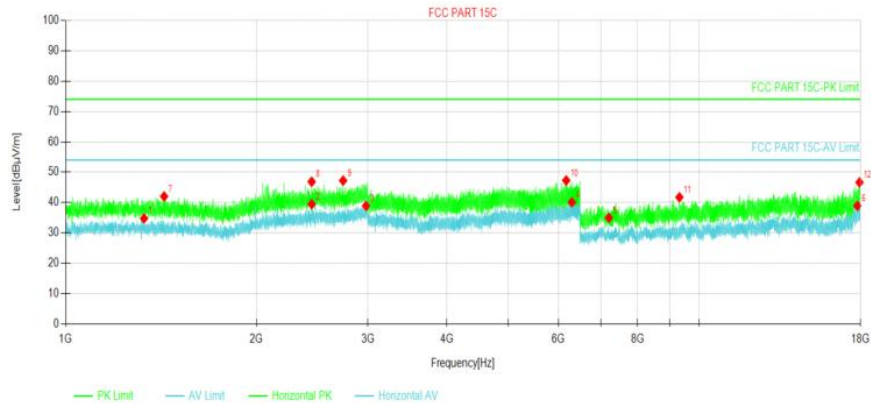
Test Result
Pass

Test Data

For 1 GHz ~ 18 GHz

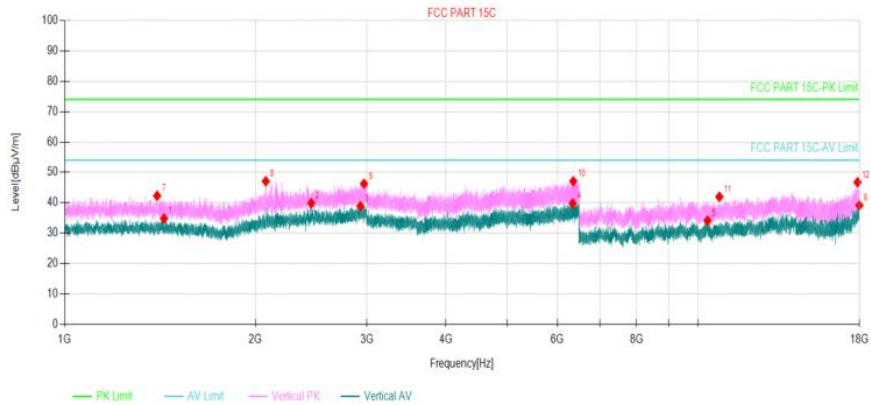
Have pre-scan all test mode, found TM1 mode which it was worst case, so only show the worst case's data on this report.

Mode1 / Polarization: Horizontal / CH: L



Suspected Data List								
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Polarity	Verdict
1	1329.6	32.22	34.78	2.56	54.00	19.22	Horizontal	PASS
2	2445.8	32.14	39.47	7.33	54.00	14.53	Horizontal	PASS
3	2980.8	29.10	38.91	9.81	54.00	15.09	Horizontal	PASS
4	6299.8	34.22	40.10	5.88	54.00	13.90	Horizontal	PASS
5	7207.25	35.33	34.97	-0.36	54.00	19.03	Horizontal	PASS
6	17791.8	25.91	38.93	13.02	54.00	15.07	Horizontal	PASS
7	1430.2	39.00	42.02	3.02	74.00	31.98	Horizontal	PASS
8	2445.6	39.54	46.87	7.33	74.00	27.13	Horizontal	PASS
9	2742	39.18	47.24	8.06	74.00	26.76	Horizontal	PASS
10	6171.7	41.72	47.29	5.57	74.00	26.71	Horizontal	PASS
11	9314.05	39.10	41.75	2.65	74.00	32.25	Horizontal	PASS
12	17931	33.56	46.65	13.09	74.00	27.35	Horizontal	PASS

Mode1 / Polarization: Vertical / CH: L



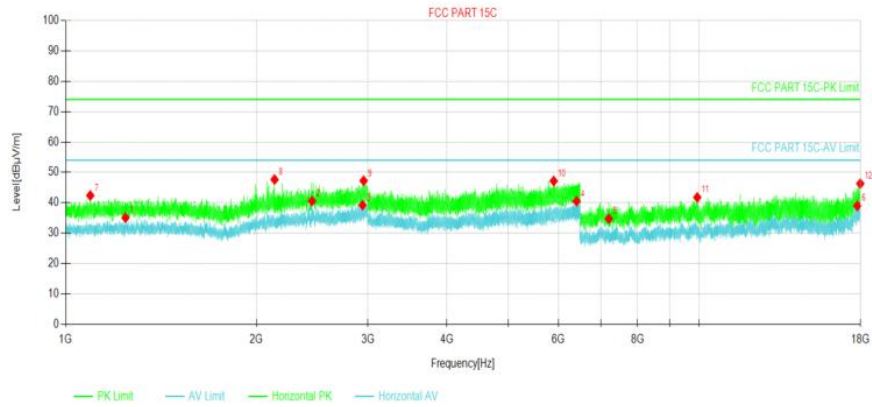
Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Polarity	Verdict
1	1434.8	31.80	34.84	3.04	54.00	19.16	Vertical	PASS
2	2451.2	32.47	39.84	7.37	54.00	14.16	Vertical	PASS
3	2930.8	29.50	38.88	9.38	54.00	15.12	Vertical	PASS
4	6343.2	33.64	39.80	6.16	54.00	14.20	Vertical	PASS
5	10353.6	29.94	34.12	4.18	54.00	19.88	Vertical	PASS
6	17986.2	25.72	39.16	13.44	54.00	14.84	Vertical	PASS
7	1399.6	39.39	42.32	2.93	74.00	31.68	Vertical	PASS
8	2077.8	41.73	47.10	5.37	74.00	26.90	Vertical	PASS
9	2969.8	36.56	46.27	9.71	74.00	27.73	Vertical	PASS
10	6356.85	40.85	47.10	6.25	74.00	26.90	Vertical	PASS
11	10811.3	37.11	41.99	4.88	74.00	32.01	Vertical	PASS
12	17867.7	33.80	46.77	12.97	74.00	27.23	Vertical	PASS

Test channel:5726MHz

Freq. (MHz)	Reading (dBuV)	Ant. Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)	Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Remark	Polarity
5726.00	91.92	29.18	4.02	38.35	-5.15	86.77	114	27.23	Peak	Horizontal
5726.00	80.95	29.18	4.02	38.35	-5.15	75.80	94	18.20	Average	Horizontal
5726.00	81.66	29.18	4.02	38.35	-5.15	76.51	114	37.49	Peak	Vertical
5726.00	67.72	29.18	4.02	38.35	-5.15	62.57	94	31.43	Average	Vertical

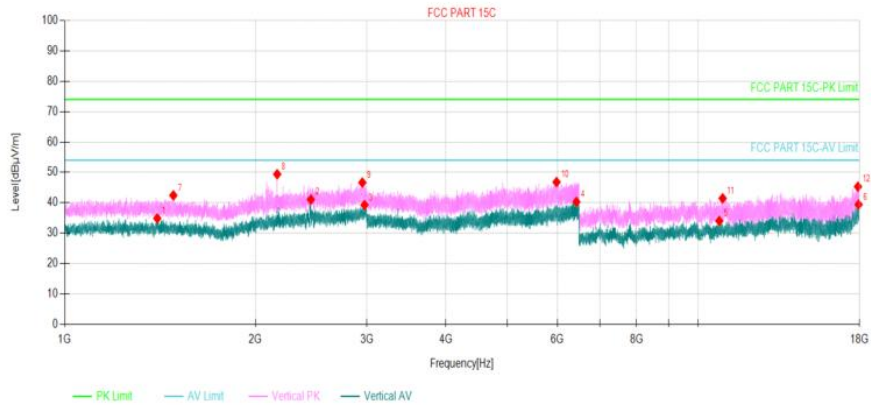
Mode1 / Polarization: Horizontal / CH: M



Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Polarity	Verdict
1	1242.8	33.03	35.07	2.04	54.00	18.93	Horizontal	PASS
2	2448.6	33.24	40.59	7.35	54.00	13.41	Horizontal	PASS
3	2943	29.72	39.21	9.49	54.00	14.79	Horizontal	PASS
4	6409	33.98	40.51	6.53	54.00	13.49	Horizontal	PASS
5	7207.25	35.15	34.79	-0.36	54.00	19.21	Horizontal	PASS
6	17789.5	26.04	39.03	12.99	54.00	14.97	Horizontal	PASS
7	1093.6	41.39	42.40	1.01	74.00	31.60	Horizontal	PASS
8	2137.4	41.92	47.66	5.74	74.00	26.34	Horizontal	PASS
9	2954.6	37.68	47.26	9.58	74.00	26.74	Horizontal	PASS
10	5898.35	42.32	47.18	4.86	74.00	26.82	Horizontal	PASS
11	9940.8	38.42	41.78	3.36	74.00	32.22	Horizontal	PASS
12	17981.6	32.91	46.32	13.41	74.00	27.68	Horizontal	PASS

Mode1 / Polarization: Vertical / CH: M



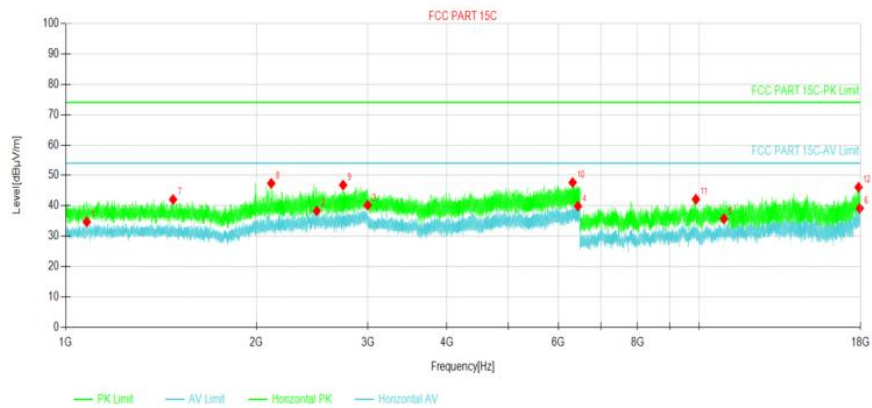
Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Polarity	Verdict
1	1400.2	31.95	34.88	2.93	54.00	19.12	Vertical	PASS
2	2447.8	33.73	41.08	7.35	54.00	12.92	Vertical	PASS
3	2975	29.50	39.26	9.76	54.00	14.74	Vertical	PASS
4	6427.55	33.78	40.31	6.53	54.00	13.69	Vertical	PASS
5	10807.9	29.16	34.04	4.88	54.00	19.96	Vertical	PASS
6	17934.4	26.30	39.41	13.11	54.00	14.59	Vertical	PASS
7	1484.6	39.25	42.44	3.19	74.00	31.56	Vertical	PASS
8	2165.6	43.49	49.40	5.91	74.00	24.60	Vertical	PASS
9	2951.4	37.09	46.65	9.56	74.00	27.35	Vertical	PASS
10	5980.95	41.64	46.83	5.19	74.00	27.17	Vertical	PASS
11	10940.1	36.80	41.47	4.67	74.00	32.53	Vertical	PASS
12	17896.5	32.41	45.31	12.90	74.00	28.69	Vertical	PASS

Test channel:5772MHz

Freq. (MHz)	Reading (dBuV)	Ant. Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)	Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Remark	Polarity
5772.00	91.19	29.23	4.02	38.2	-4.95	86.24	114	27.76	Peak	Horizontal
5772.00	80.54	29.23	4.02	38.2	-4.95	75.59	94	18.41	Average	Horizontal
5772.00	82.82	29.23	4.02	38.2	-4.95	77.87	114	36.13	Peak	Vertical
5772.00	68.69	29.23	4.02	38.2	-4.95	63.74	94	30.26	Average	Vertical

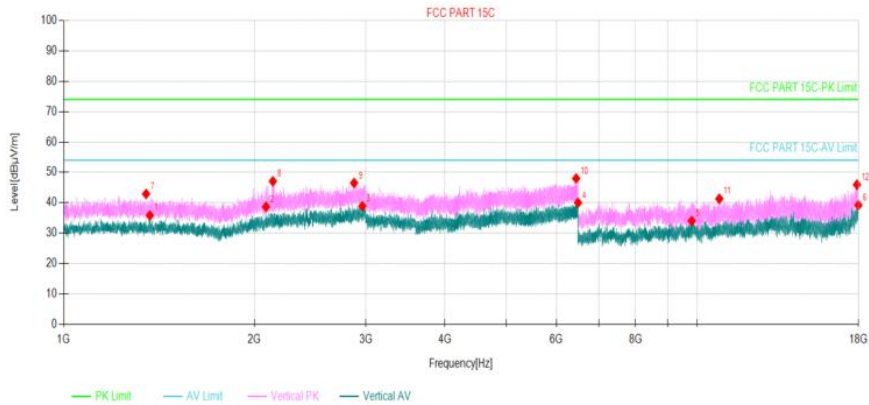
Mode1 / Polarization: Horizontal / CH: H



Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Polarity	Verdict
1	1079.6	33.85	34.69	0.84	54.00	19.31	Horizontal	PASS
2	2491.2	30.65	38.32	7.67	54.00	15.68	Horizontal	PASS
3	2998.6	30.22	40.18	9.96	54.00	13.82	Horizontal	PASS
4	6440.15	33.36	39.89	6.53	54.00	14.11	Horizontal	PASS
5	10951.6	31.07	35.71	4.64	54.00	18.29	Horizontal	PASS
6	17947.1	25.97	39.16	13.19	54.00	14.84	Horizontal	PASS
7	14777.8	38.91	42.08	3.17	74.00	31.92	Horizontal	PASS
8	2111.6	41.79	47.38	5.59	74.00	26.62	Horizontal	PASS
9	2742.2	38.76	46.83	8.07	74.00	27.17	Horizontal	PASS
10	6317.3	41.67	47.66	5.99	74.00	26.34	Horizontal	PASS
11	9890.2	38.73	42.17	3.44	74.00	31.83	Horizontal	PASS
12	17873.5	33.14	46.10	12.96	74.00	27.90	Horizontal	PASS

Mode1 / Polarization: Vertical / CH: H



Suspected Data List

NO.	Freq. [MHz]	Reading [dBuV/m]	Level [dBuV/m]	Factor [dB]	Limit [dBuV/m]	Margin [dB]	Polarity	Verdict
1	1368	33.07	35.83	2.76	54.00	18.17	Vertical	PASS
2	2086.8	33.25	38.68	5.43	54.00	15.32	Vertical	PASS
3	2962.8	29.27	38.92	9.65	54.00	15.08	Vertical	PASS
4	6489.15	33.49	40.02	6.53	54.00	13.98	Vertical	PASS
5	9813.15	30.76	34.04	3.28	54.00	19.96	Vertical	PASS
6	17989.6	25.77	39.23	13.46	54.00	14.77	Vertical	PASS
7	1349.4	40.28	42.94	2.66	74.00	31.06	Vertical	PASS
8	2139.8	41.34	47.09	5.75	74.00	26.91	Vertical	PASS
9	2874.8	37.58	46.53	8.95	74.00	27.47	Vertical	PASS
10	6445.75	41.47	48.00	6.53	74.00	26.00	Vertical	PASS
11	10847	36.49	41.32	4.83	74.00	32.68	Vertical	PASS
12	17895.3	33.06	45.97	12.91	74.00	28.03	Vertical	PASS

Test channel:5820MHz

Freq. (MHz)	Reading (dBuv)	Ant. Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correc tion Factor (dB/m)	Level (dBuv)	Limit (dBu V/m)	Margin (dB)	Remark	Polarity
5820.00	94.20	29.2	4.02	38.3	-5.08	89.12	114	24.88	Peak	Horizontal
5820.00	80.42	29.2	4.02	38.3	-5.08	75.34	94	18.66	Average	Horizontal
5820.00	83.27	29.2	4.02	38.3	-5.08	78.19	114	35.81	Peak	Vertical
5820.00	67.60	29.2	4.02	38.3	-5.08	62.52	94	31.48	Average	Vertical

Note:

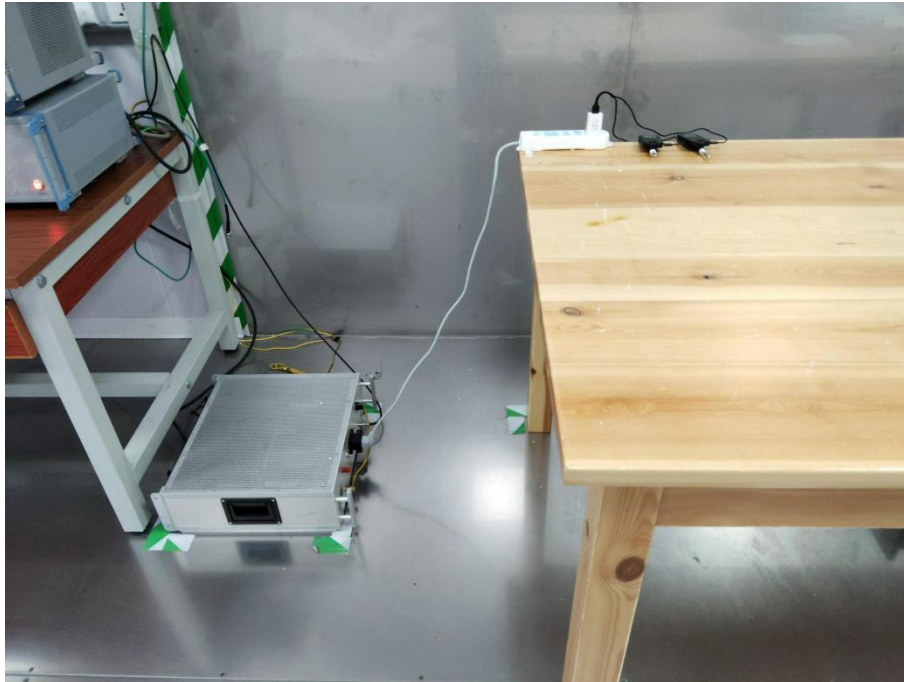
1) Level= Reading + Factor; Factor =Antenna Factor+ Cable Loss- Preamp Factor

2) Margin = Limit – Level

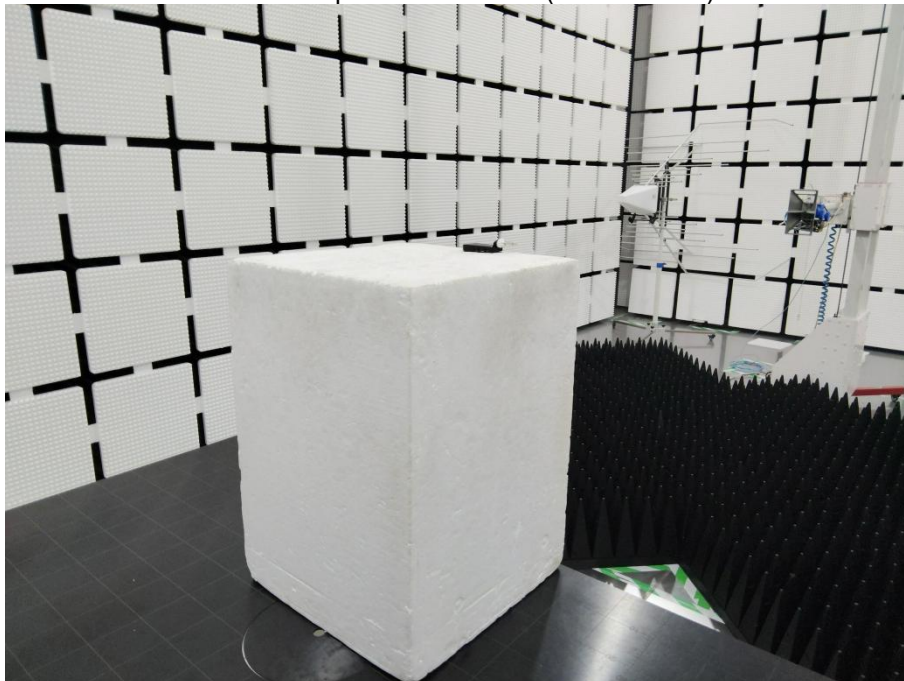
3) Average measurement was not performed if peak level is lower than average limit (54dBuV/m) for above 1GHz.

6. TEST SETUP PHOTOS

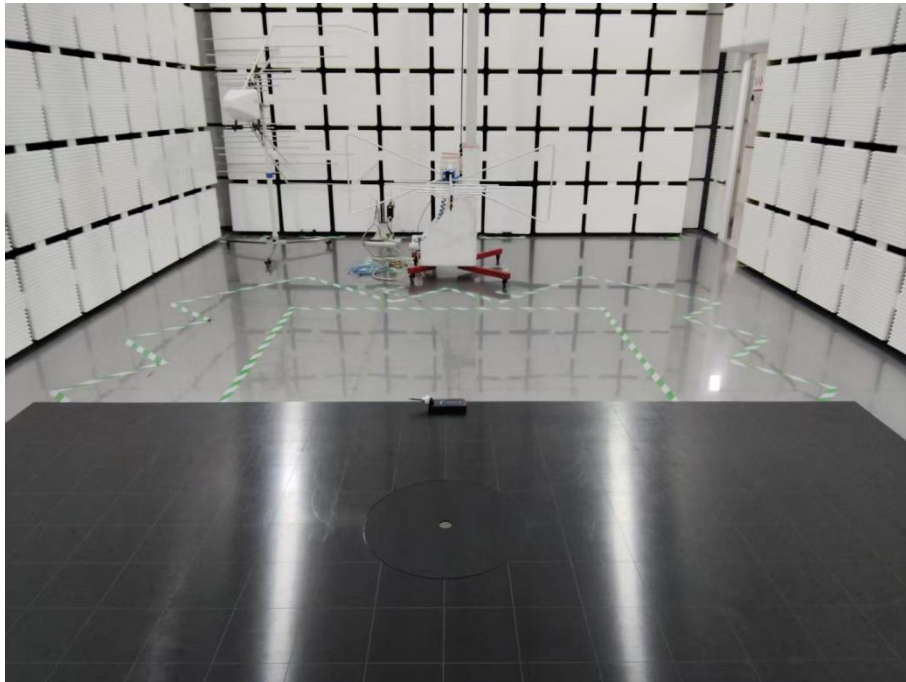
Conducted Emission at AC power line



Radiated band edge emission
Radiated Spurious Emission (Above 1GHz)



Radiated Spurious Emission (below 1GHz)

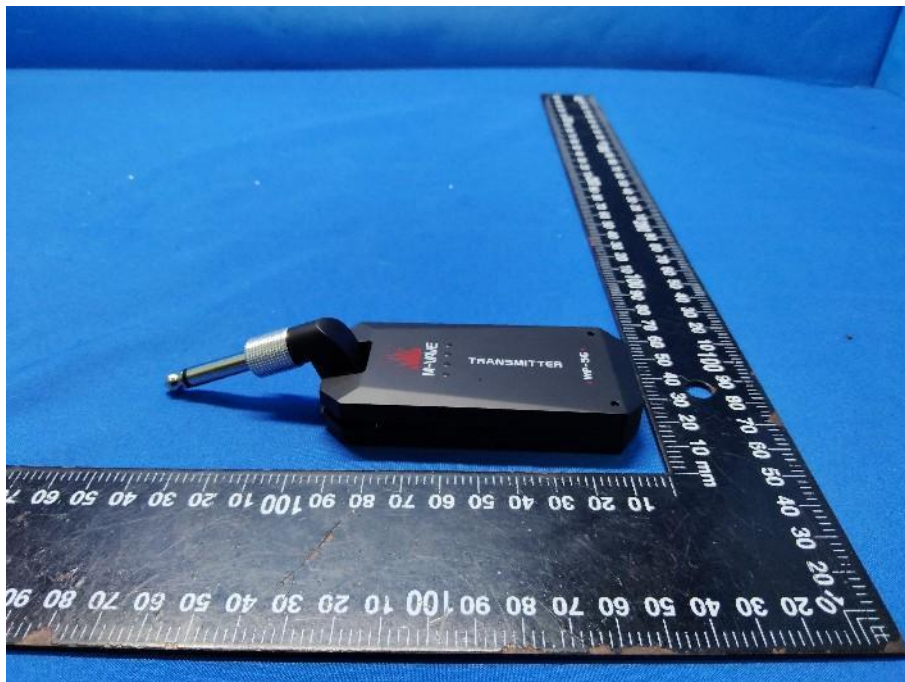
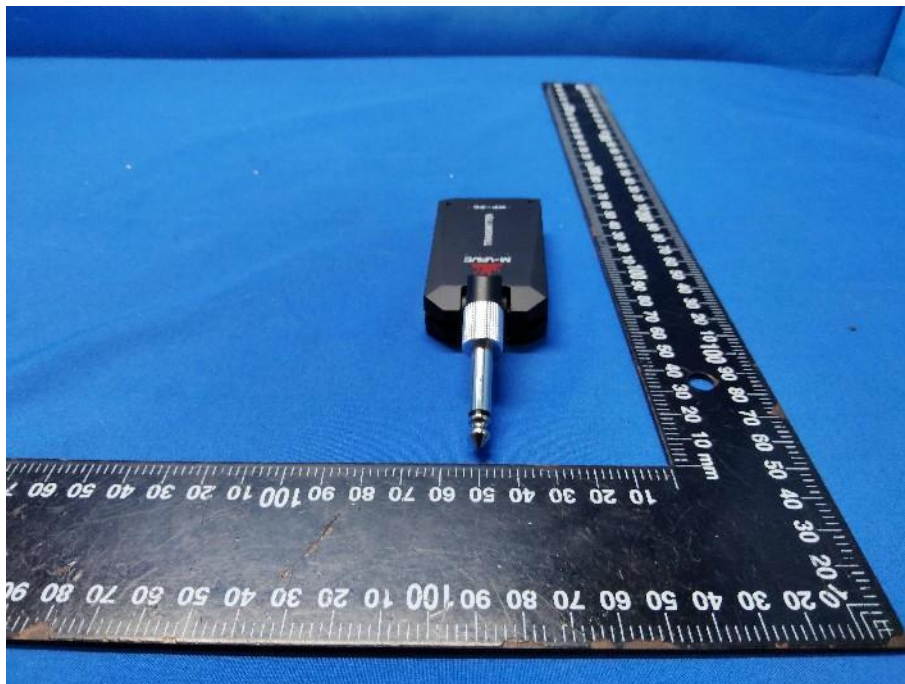


7. EXTERNAL AND INTERNAL PHOTOS

7.1 External photos

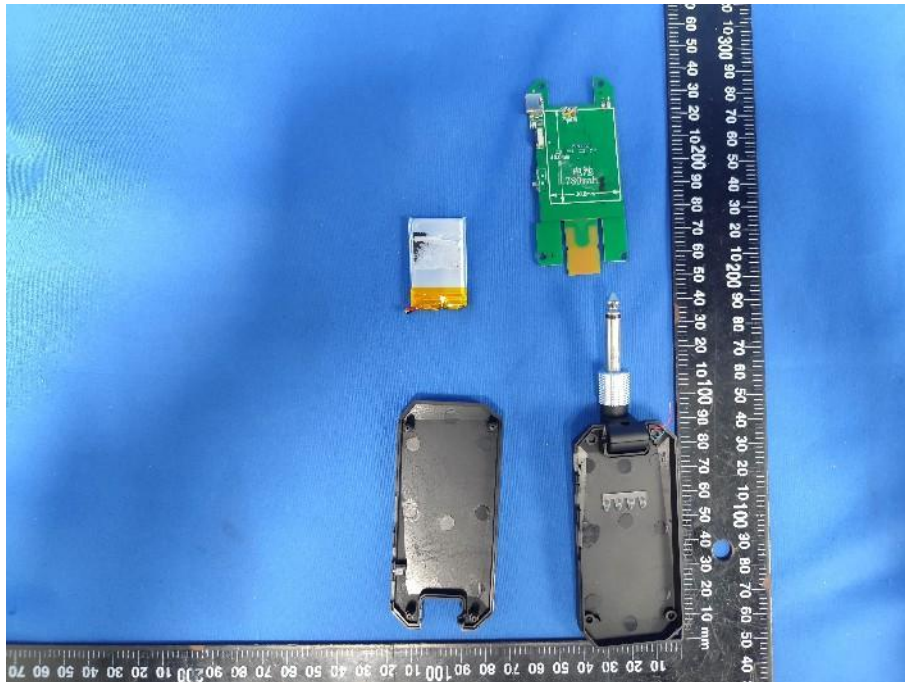


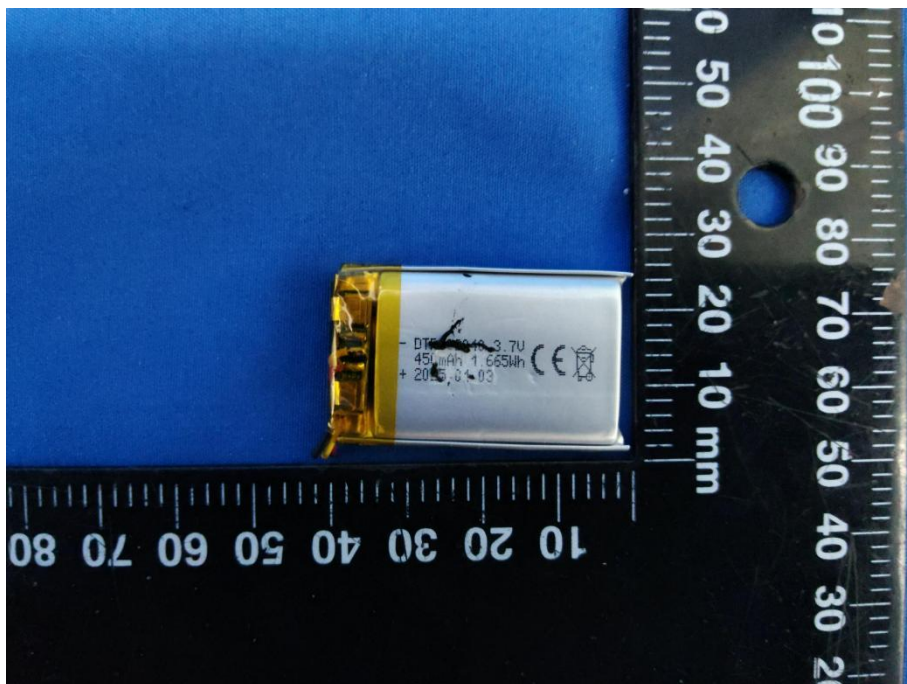
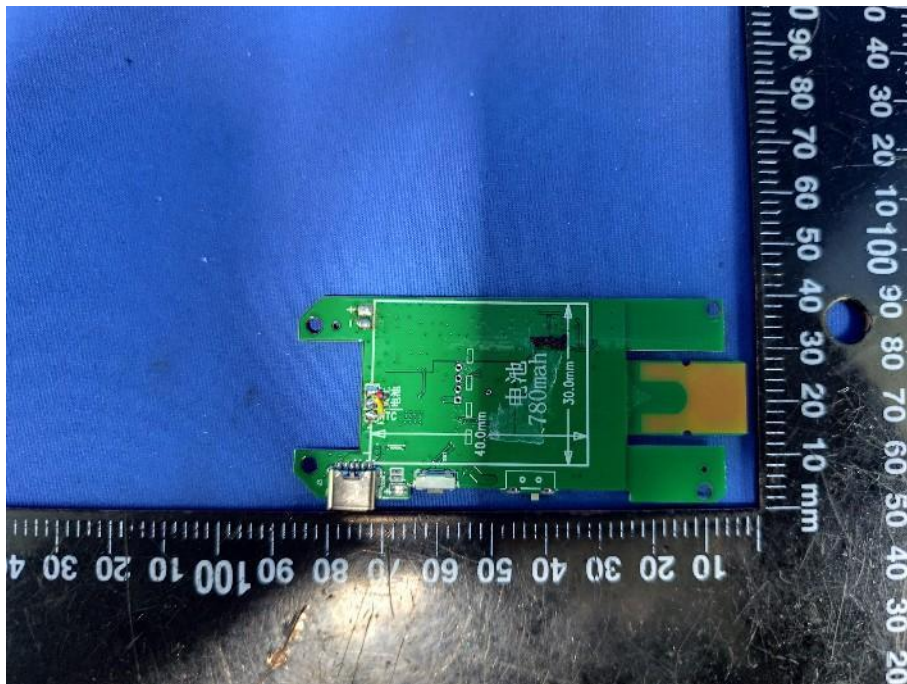


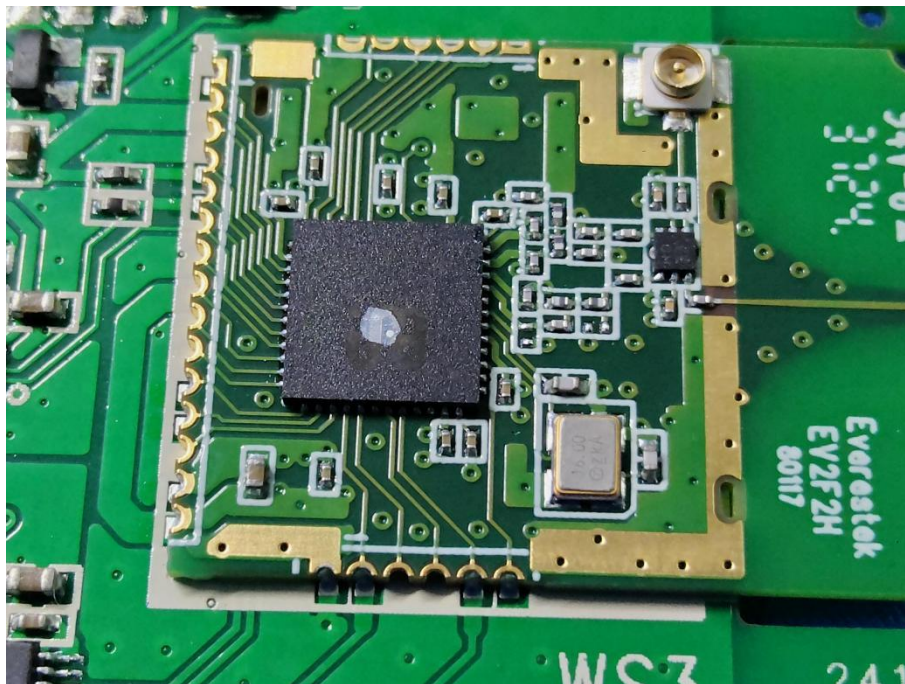
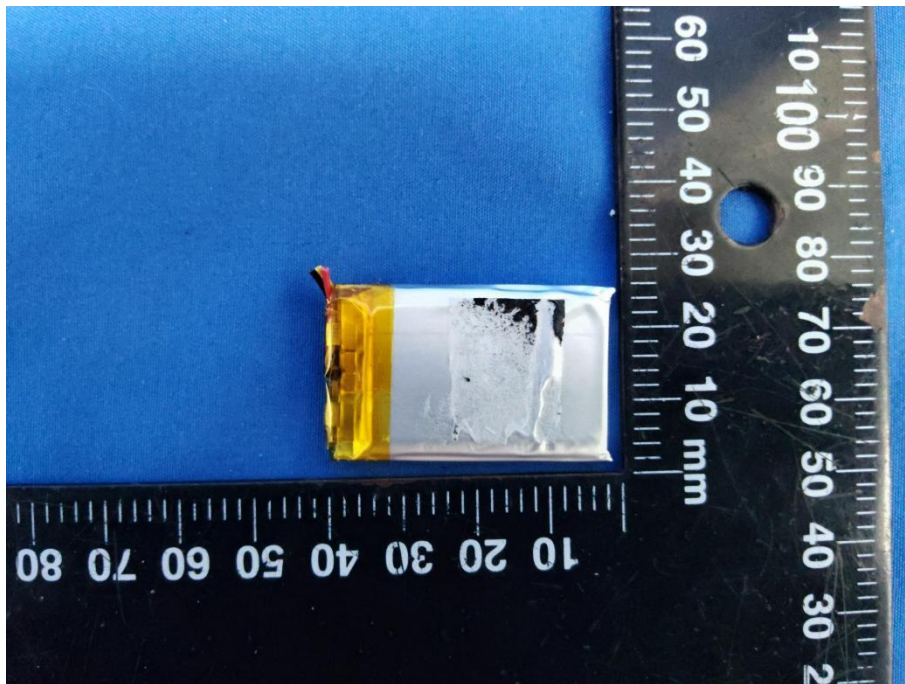


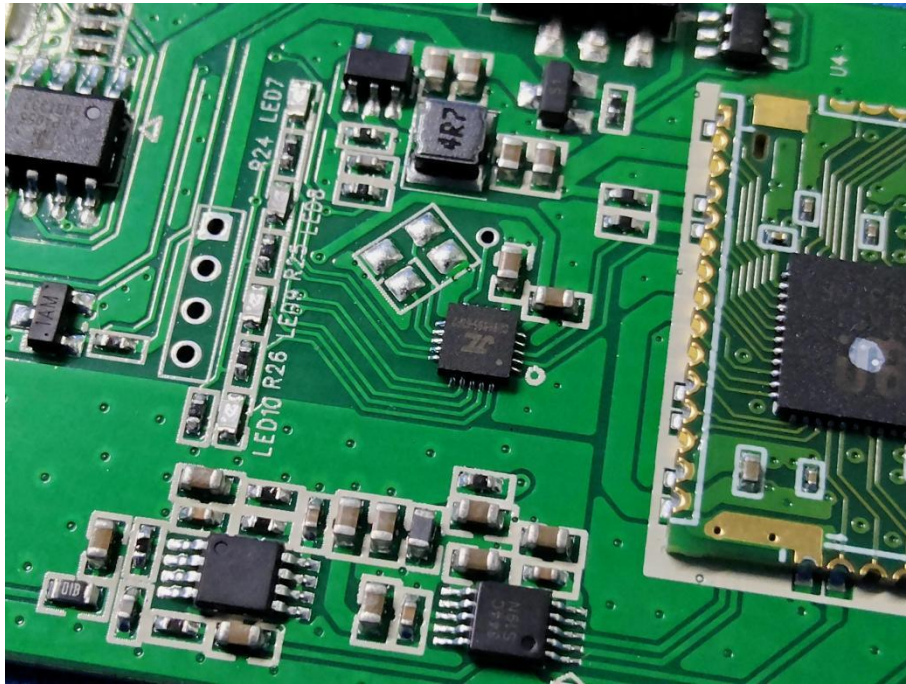


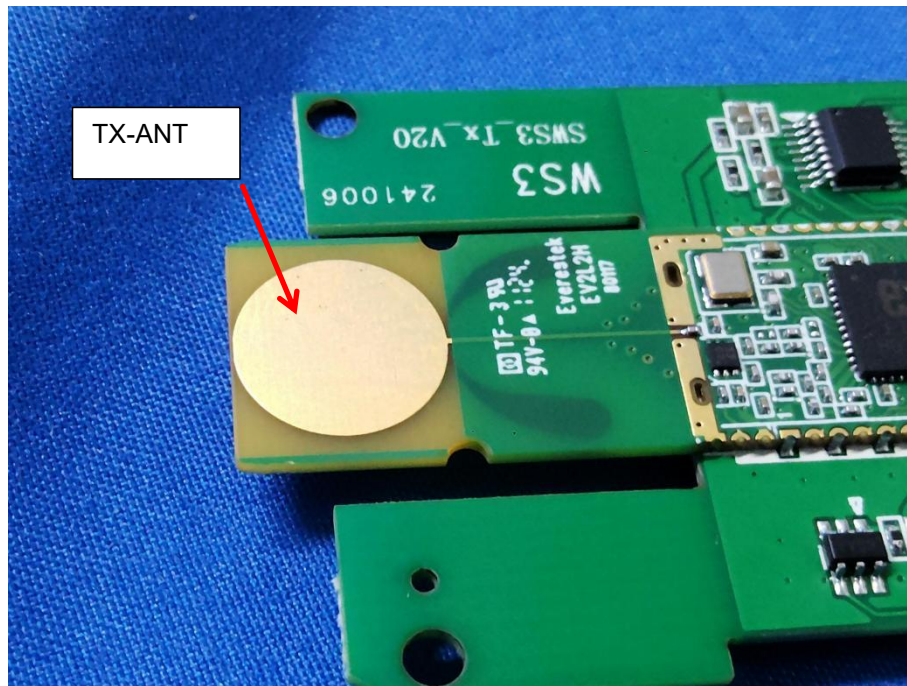
7.2 Internal photos











-----End of the report-----