TEST REPORT

Report No.	CISRR250107032
Project No.	CISR250107032
FCC ID	2BH95-AM350
Applicant	Shenzhen Aomosur Technology Co., Ltd
Address	501, Building 5, No. 2 Rongshu Road, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, China
Manufacturer	Shenzhen Aomosur Technology Co., Ltd
Address	501, Building 5, No. 2 Rongshu Road, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, China
Product Name	RV Leveling System
Trade Mark	N/A
Model/Type reference	AM350
Listed Model(s)	AM350-PRO, AM350-MAX, AM350-Super, AM350-Plus, AM350-X, AM350-Elite, AM350-Ultimate, AM350-Classic, AM350-Mini, AM350-Genesis
Standard	Part 15 Subpart C Section 15.249
Test date	January 7, 2025 to March 20, 2025
Issue date	March 20, 2025
Test result	**Complied**

Rory Huang

Prepared by: Rory Huang

Genry Long

Approved by: Genry Long

The test results relate only to the tested samples.

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1. REPORT VERSION

Version No.	Issue date	Description
00	March 20, 2025	Original

2. SUMMARY OF TEST RESULT

Report clause	Test Item	Standard Requirement	Result
5.1	Antenna Requirement	15.203	PASS
5.2	AC Conducted Emission	15.207	N/A
5.3	20 dB Bandwidth	15.215 (c)	PASS
5.4	Radiated Spurious Emission	15.249(a)(c)(e)/15.205/15.209	PASS

Note:

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

– N/A: Not Applicable.

3. SUMMARY

3.1. Product Description

Main unit information:	
Product Name:	RV Leveling System
Trade Mark:	N/A
Model No.:	AM350
Listed Model(s):	AM350-PRO, AM350-MAX, AM350-Super, AM350-Plus, AM350-X, AM350-Elite, AM350-Ultimate, AM350-Classic, AM350-Mini, AM350-Genesis
Model difference:	The difference between different models is that in this application, due to different sales channels and different model names.
Power supply:	Type-C 5V
Hardware version:	N/A
Software version:	N/A
Accessory unit (AU) information:	
Battery:	DC 3.7V

3.2. Radio Specification Description

Modulation:	ASK
Operation frequency:	915M
Channel number:	1
Antenna type:	Spring antenna
Antenna gain:	0.5dBi

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 (dBuV/m) = RA (dBuV) + AF (dB/m) + CL (dB) – AG (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 (dBuV) = RA (dBuV) + PL (dB) + CL (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)
CH1	915

4.2. Test mode

For RF test items:		
The engineering prototype is provided with key switching channel to realize EUT continuous transmission..Power setting Default.		
Test No	Test Mode	Modulation
TM1	TX CH1	GFSK
TM2	Normal link	--
TM3	Charging mode	Keep the EUT in charging status
Remark: – Only the worst case data recorded in the report.All patterns have predictions, and the report only shows the worst pattern data.		

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	receiver	Shenzhen Aomosur Technology Co., Ltd	--
2	Adapter	Guangdong Sangu Technology Co. ltd	SG-0501000AU

4.4. Test sample information

Type	sample no.
Engineer sample	CISR250107032--S01
Normal sample	CISR250107032--S02

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	Peak Output Power	1.34dB
3	Power Spectral Density	1.34dB
4	6dB Bandwidth	0.002%
5	99% Occupied Bandwidth	0.002%
6	Duty cycle	-
7	Conducted Band Edge and Spurious Emission	1.93dB
8	Radiated Band Edge Emission	3.76dB for 30MHz-1GHz 3.80dB for above 1GHz
9	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

20dB 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
4	Power Meter	WCS	WCS-PM	WCSPM230405A	2025-01-08	2026-01-07

Radiated Spurious Emission
Band edge emissions

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	NSLK8127	/	2025-01-08	2026-01-07

14	L.I.S.N.#2	ROHDE&SCHWARZ	ENV216	/	2025-01-08	2026-01-07
15	Horn Antenna	SCHWARZBECK	BBHA9170	1130	2023-01-09	2026-01-08
16	Preamplifier	Tonscend	TAP18040048	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	AT2021040101-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 response-ble 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 Spring antenna (0.5dBi), 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

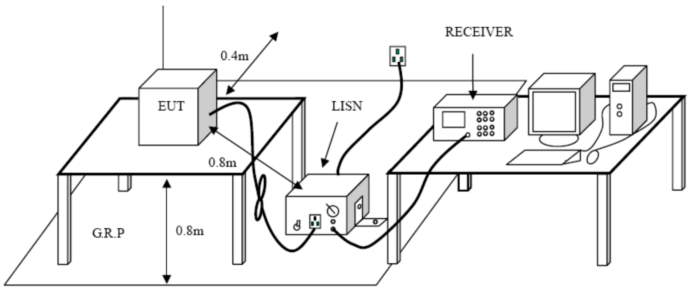
Limit:

FCC CFR Title 47 Part 15 Subpart C Section 15.207

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 configuration:



Test 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.

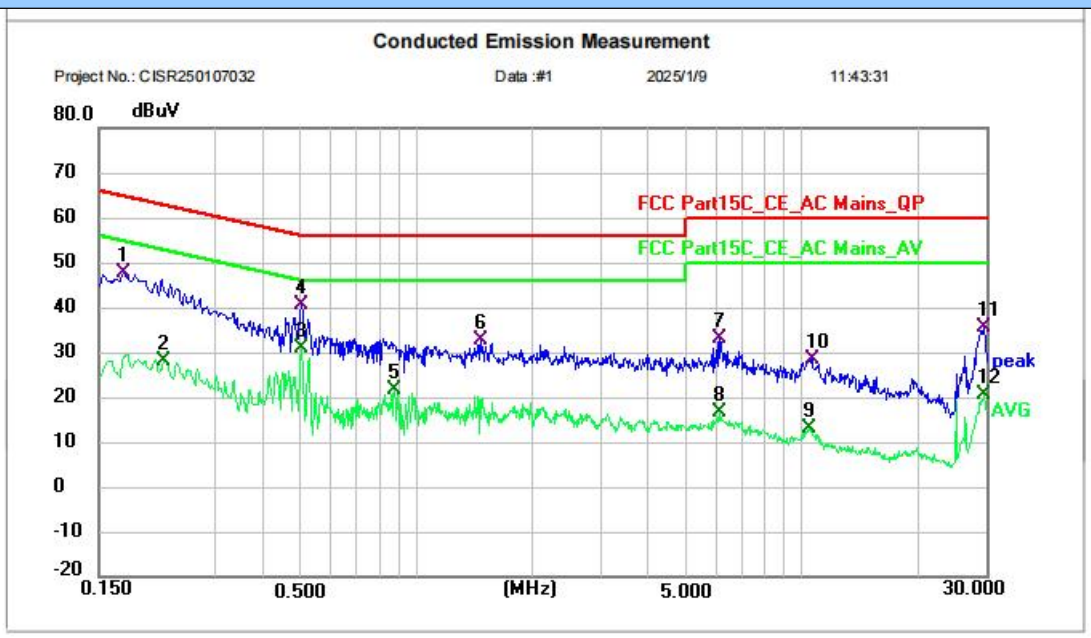
Test mode: TM1, TM2, TM3

Result: Pass

Note:

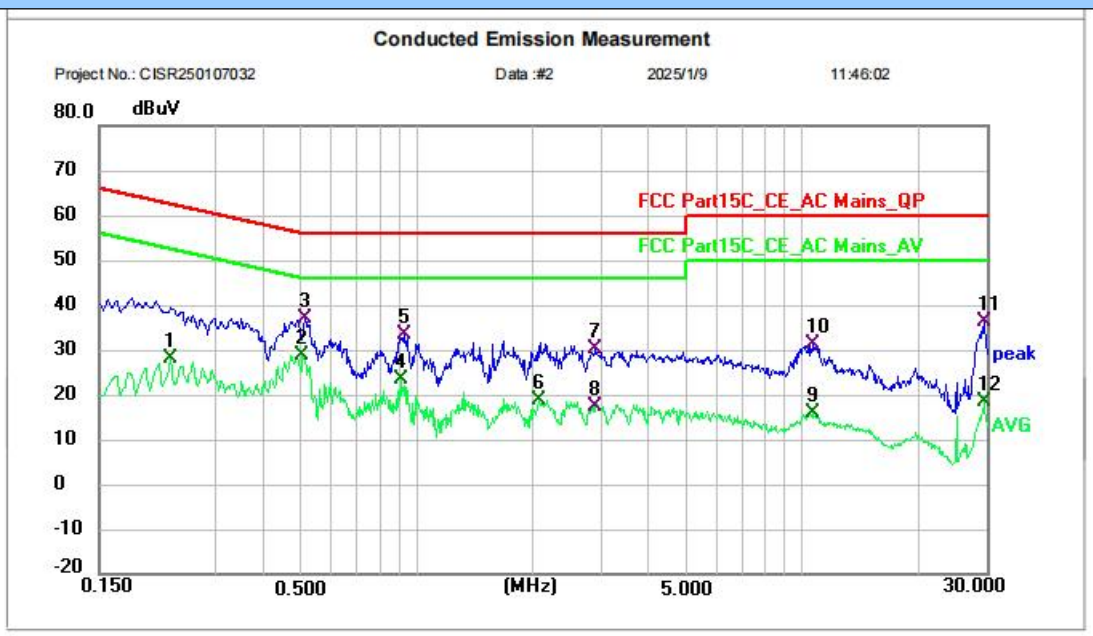
Have pre-scan all test mode, found TM3 mode which it was worst case, so only show the worst case's data on this report.

TM3 / Line: Line



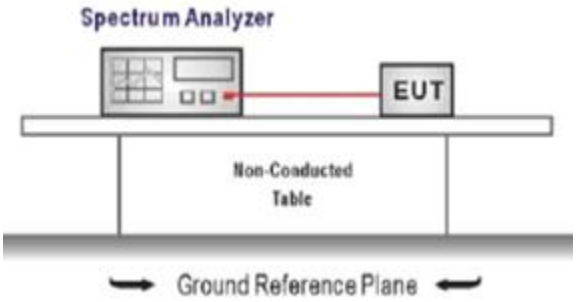
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.174	47.42	0.32	47.74	64.77	-17.03	QP
2	0.222	27.89	0.32	28.21	52.74	-24.53	AVG
3 *	0.502	30.42	0.37	30.79	46.00	-15.21	AVG
4	0.506	40.16	0.37	40.53	56.00	-15.47	QP
5	0.878	21.19	0.42	21.61	46.00	-24.39	AVG
6	1.466	32.26	0.56	32.82	56.00	-23.18	QP
7	6.102	30.61	2.31	32.92	60.00	-27.08	QP
8	6.102	14.25	2.31	16.56	50.00	-33.44	AVG
9	10.418	9.14	3.82	12.96	50.00	-37.04	AVG
10	10.622	24.53	3.93	28.46	60.00	-31.54	QP
11	29.726	30.90	4.74	35.64	60.00	-24.36	QP
12	29.726	15.87	4.74	20.61	50.00	-29.39	AVG

TM3 / Line: Neutral



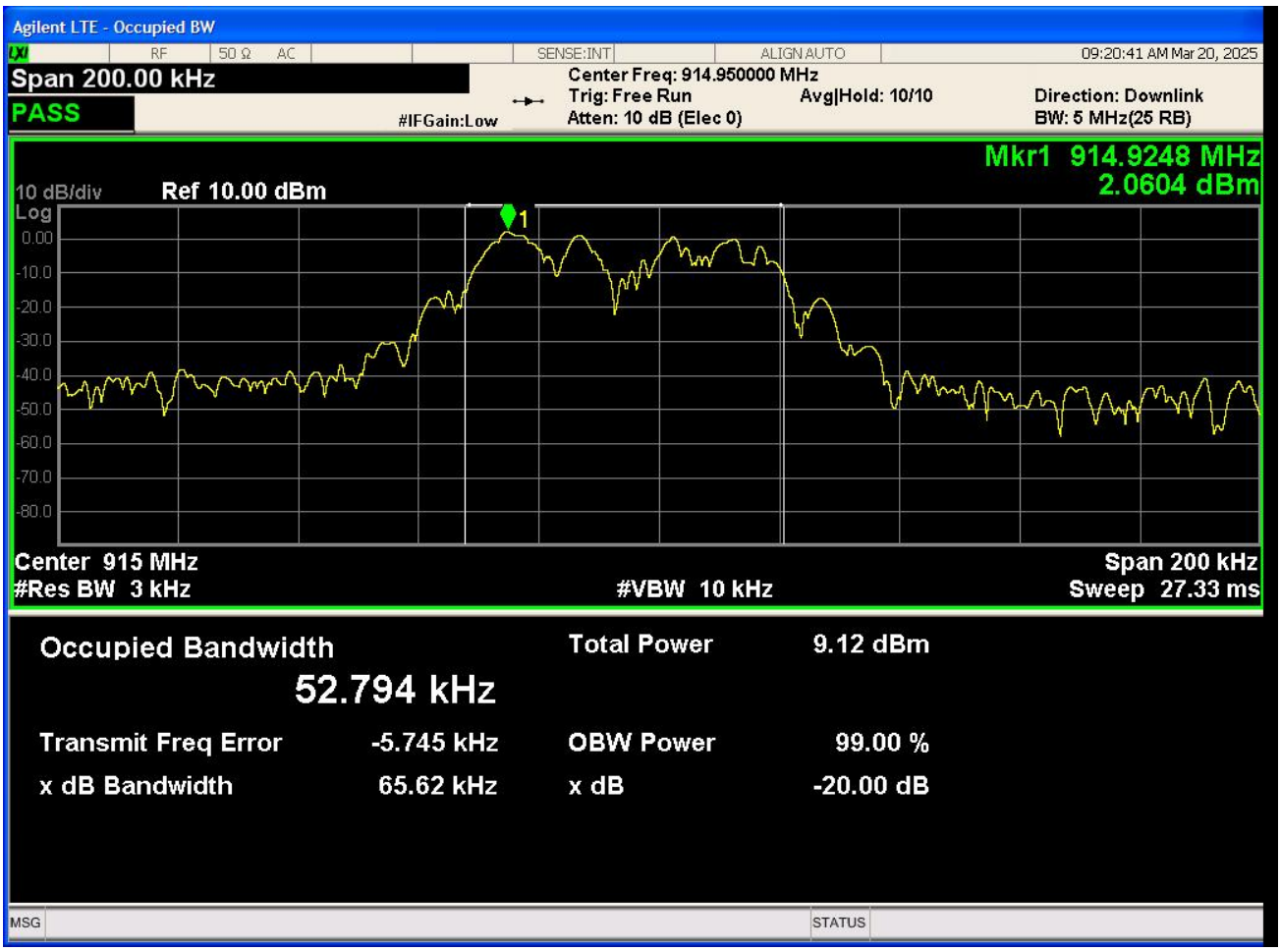
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.230	27.80	0.33	28.13	52.45	-24.32	AVG
2 *	0.506	28.31	0.38	28.69	46.00	-17.31	AVG
3	0.514	36.51	0.38	36.89	56.00	-19.11	QP
4	0.910	22.82	0.42	23.24	46.00	-22.76	AVG
5	0.926	32.92	0.42	33.34	56.00	-22.66	QP
6	2.074	18.00	0.73	18.73	46.00	-27.27	AVG
7	2.910	29.28	0.97	30.25	56.00	-25.75	QP
8	2.910	16.45	0.97	17.42	56.00	-38.58	QP
9	10.630	11.92	3.87	15.79	50.00	-34.21	AVG
10	10.702	27.47	3.90	31.37	60.00	-28.63	QP
11	29.626	31.32	4.82	36.14	60.00	-23.86	QP
12	29.626	13.63	4.82	18.45	50.00	-31.55	AVG

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 ≥ 1% of the 20 dB bandwidth, VBW ≥ RBW Sweep = auto, Detector function = peak, Trace = max hold 4. Measure and record the results in the test report.
Test mode:	TM1
Result:	**Passed**

Test Result of 20dB Bandwidth Measurement		
Test Frequency(MHz)	20dB Bandwidth(kHz)	Limit(MHz)
915	65.62	Non-Specified

20dB Bandwidth



915MHz

5.4. Radiated Spurious Emission

Limit:

FCC CFR Title 47 Part 15 Subpart C Section 15.209

Frequency	Limit (dBuV/m)	Value
0.009 MHz ~0.49 MHz	2400/F(kHz) @300m	Quasi-peak
0.49 MHz ~ 1.705 MHz	24000/F(kHz) @30m	Quasi-peak
1.705 MHz ~30 MHz	30 @30m	Quasi-peak

Limit dBuV/m @3m = Limit dBuV/m @300m + 40*log(300/3

Limit dBuV/m @3m = Limit dBuV/m @30m +40*log(30/3)

FCC CFR Title 47 Part 15 Subpart C Section 15.249

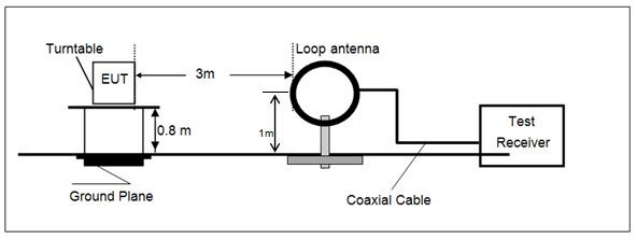
As shown in § 15.35(b), for frequencies above 1000 MHz, the field strength limits in paragraphs (a) and (b) of this section are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For point-to-point operation under paragraph (b) of this section, the peak field strength shall not exceed 2500 millivolts/meter at 3 meters along the Antenna azimuth.

Fundamental frequency	Field strength of fundamental (millivolts/meter)	Field strength of harmonics (microvolts/meter)
902-928 MHz	50	500
2400-2483.5 MHz	50	500
5725-5875 MHz	50	500
24.0-24.25 GHz	250	2500

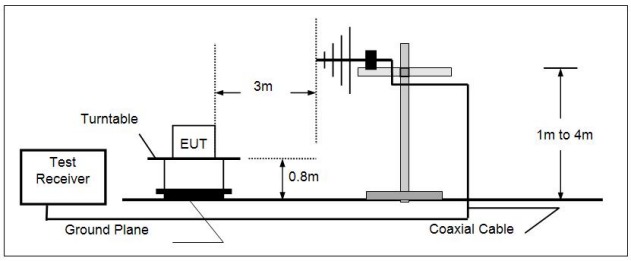
Frequency	Limit (dBuV/m @3m)	Value
30MHz~88MHz	40.00	Quasi-peak
88MHz~216MHz	43.50	Quasi-peak
216MHz~960MHz	46.00	Quasi-peak
960MHz~1GHz	54.00	Quasi-peak
Above 1GHz(Field strength of fundamental)	94.00	Average
	114.00	Peak
Above 1GHz(Field strength of harmonics)	54.00	Average
	74.00	Peak

Test configuration:

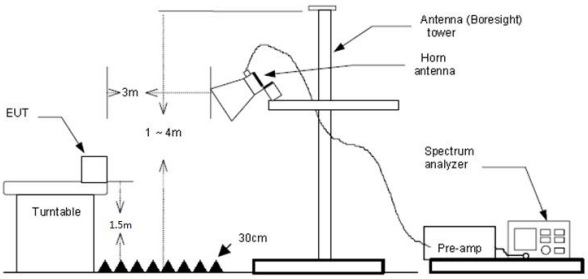
9kHz~30MHz



30 MHz ~ 1 GHz



Above 1 GHz



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 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) Below 1 GHz:

      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.
   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

Test mode: TM1, TM2, TM3

Result: **Passed**

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.

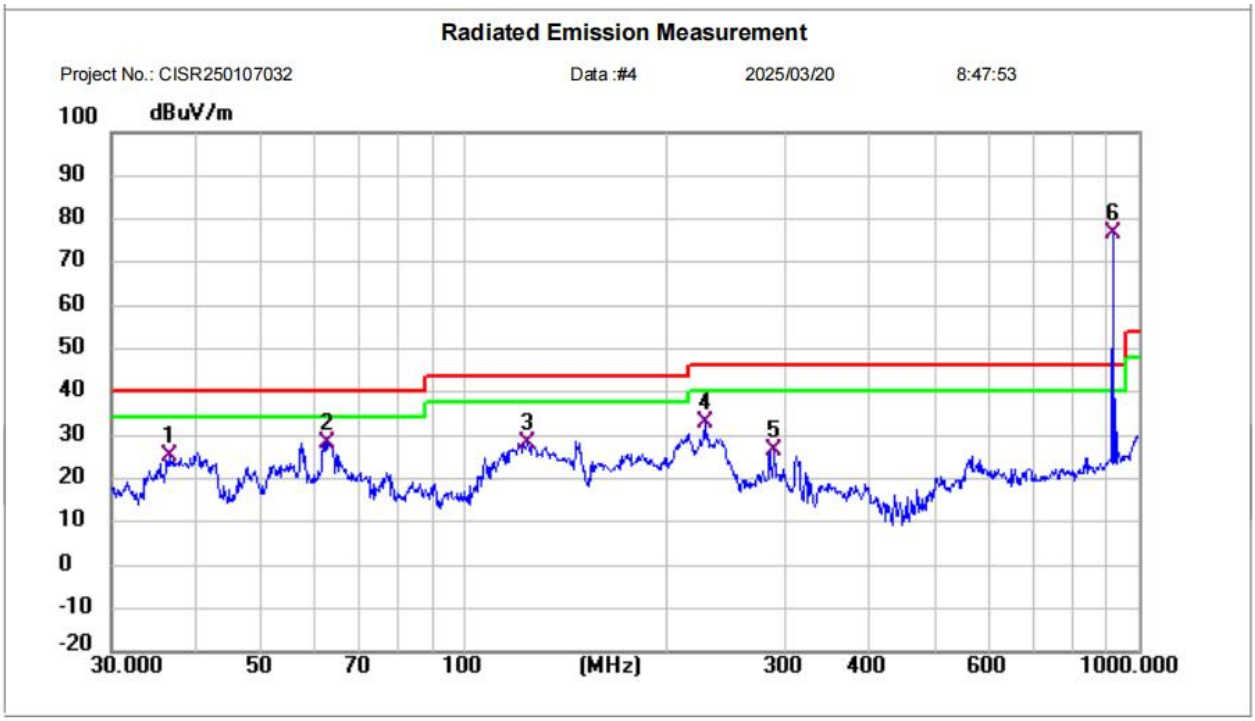
For 9 kHz ~ 30 MHz

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

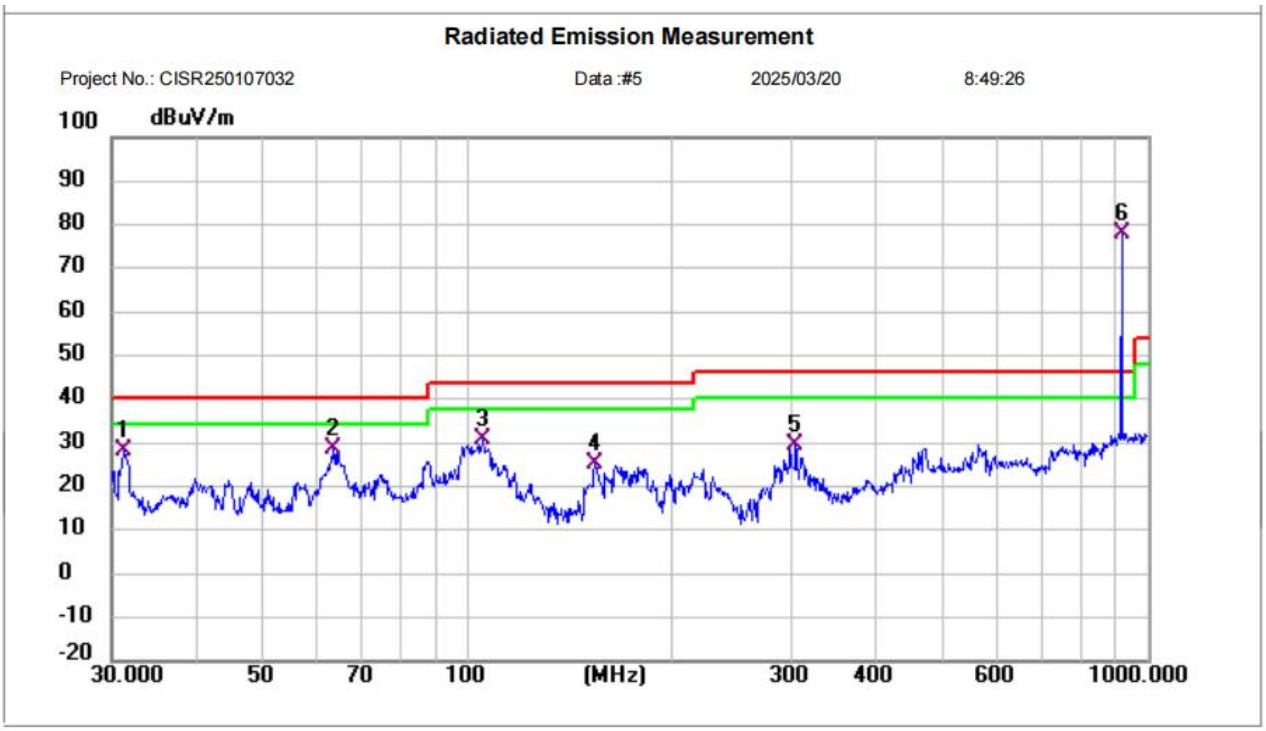
Have pre-scan all test channel, found TM1 which it was worst case, so only show the worst case's data on this report.

Polarization:	Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	36.509	56.96	-31.55	25.41	40.00	-14.59	QP
2	62.871	59.63	-31.29	28.34	40.00	-11.66	QP
3	124.133	61.00	-32.64	28.36	43.50	-15.14	QP
4	227.691	61.99	-29.11	32.88	46.00	-13.12	QP
5	289.002	53.77	-27.47	26.30	46.00	-19.70	QP
6 *	915.069	91.63	-14.78	76.85	46.00	30.85	QP

Polarization:	Vertical



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	31.180	60.31	-31.90	28.41	40.00	-11.59	QP
2	63.536	59.99	-31.43	28.56	40.00	-11.44	QP
3	105.642	61.40	-30.77	30.63	43.50	-12.87	QP
4	153.739	58.28	-33.25	25.03	43.50	-18.47	QP
5	303.544	56.53	-27.03	29.50	46.00	-16.50	QP
6 *	915.069	92.77	-14.78	77.99	46.00	31.99	QP

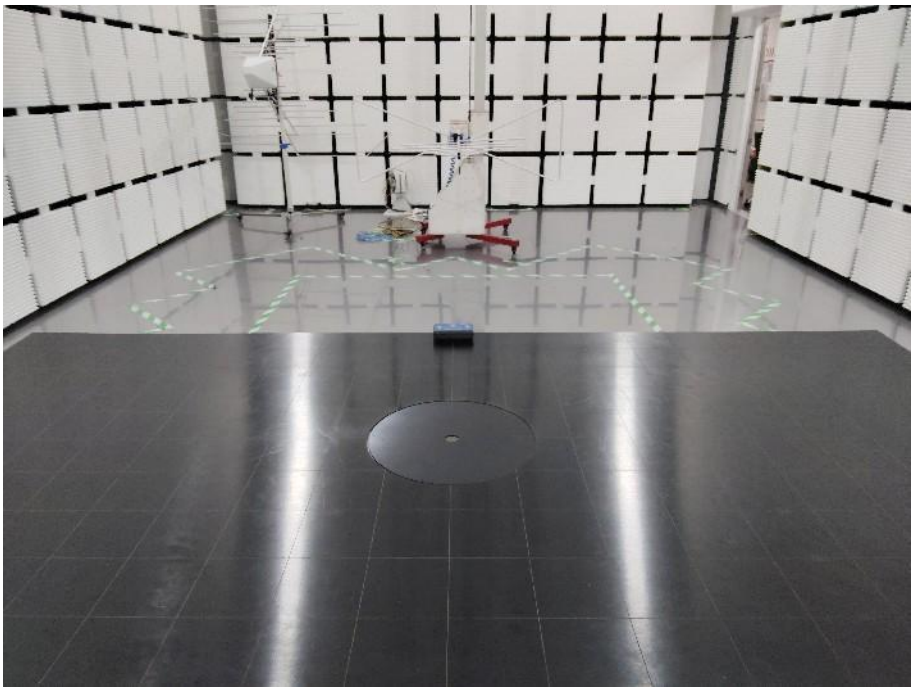
For 1 GHz ~ 25 GHz.

Test channel:915MHz									
Freq. (MHz)	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
1830.00	55.81	33.06	35.04	3.94	57.77	74.00	-16.23	Peak	Horizontal
1830.00	41.79	33.06	35.04	3.94	43.75	54.00	-10.25	Average	Horizontal
1830.00	53.80	33.06	35.04	3.94	55.76	74.00	-18.24	Peak	Vertical
1830.00	40.63	33.06	35.04	3.94	42.59	54.00	-11.41	Average	Vertical

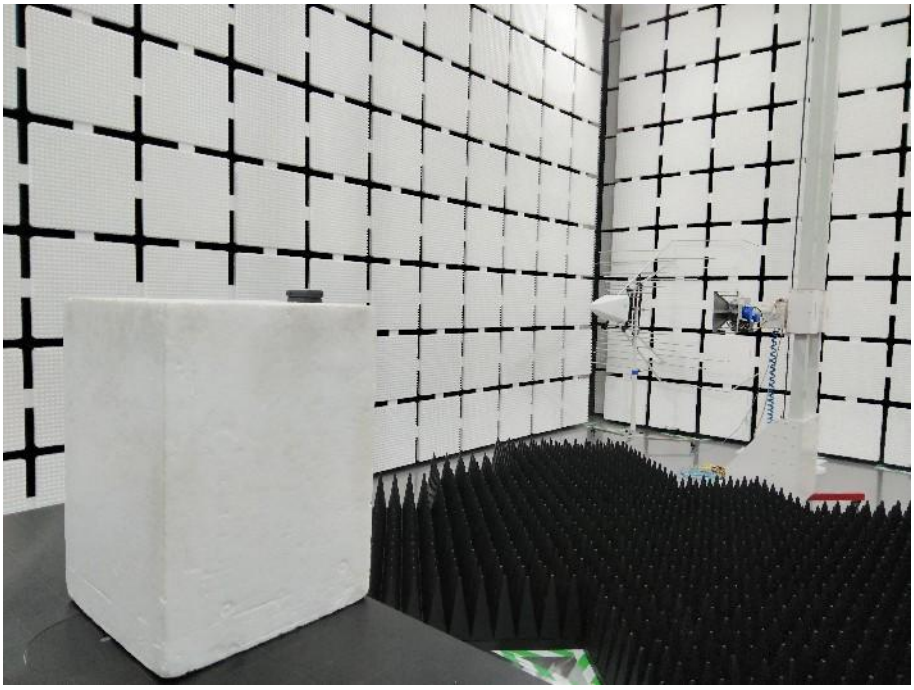
Fundamental and Harmonics Worst Result					
Freq. MHz	Reading Level (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit(dBμV/m) (QP)	Conclusion
915MHz	92.77	-14.78	77.99	94.00	PASS

6. TEST SETUP PHOTOS

Radiated Spurious Emission (below 1GHz)



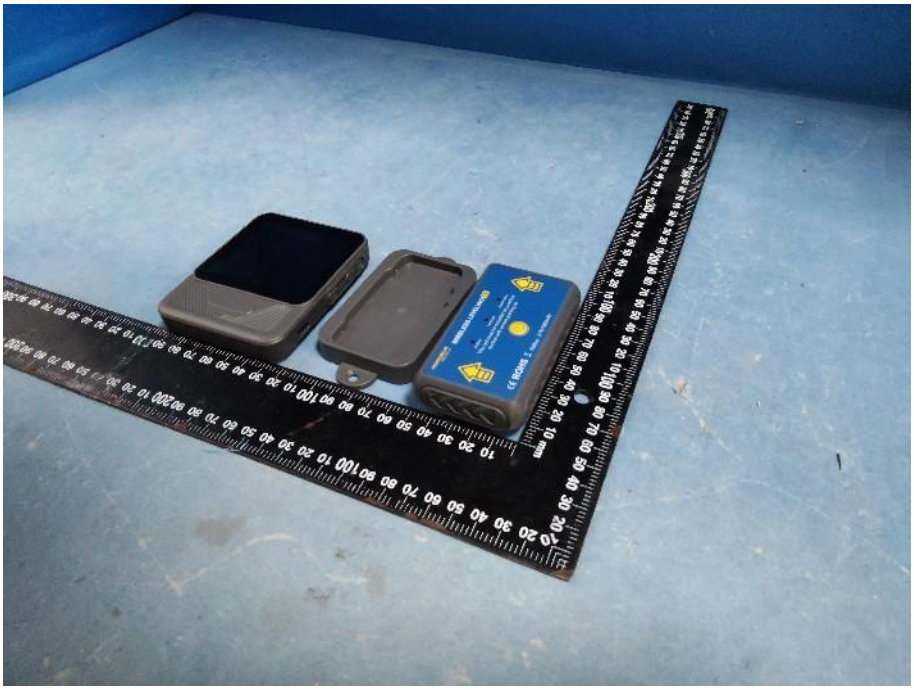
Radiated Spurious Emission (Above 1GHz)

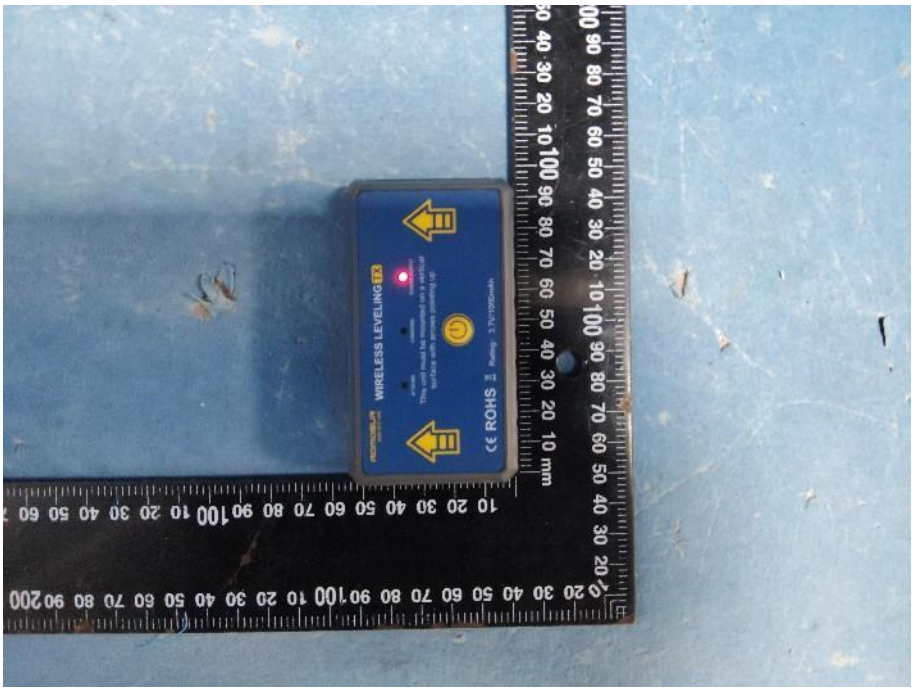


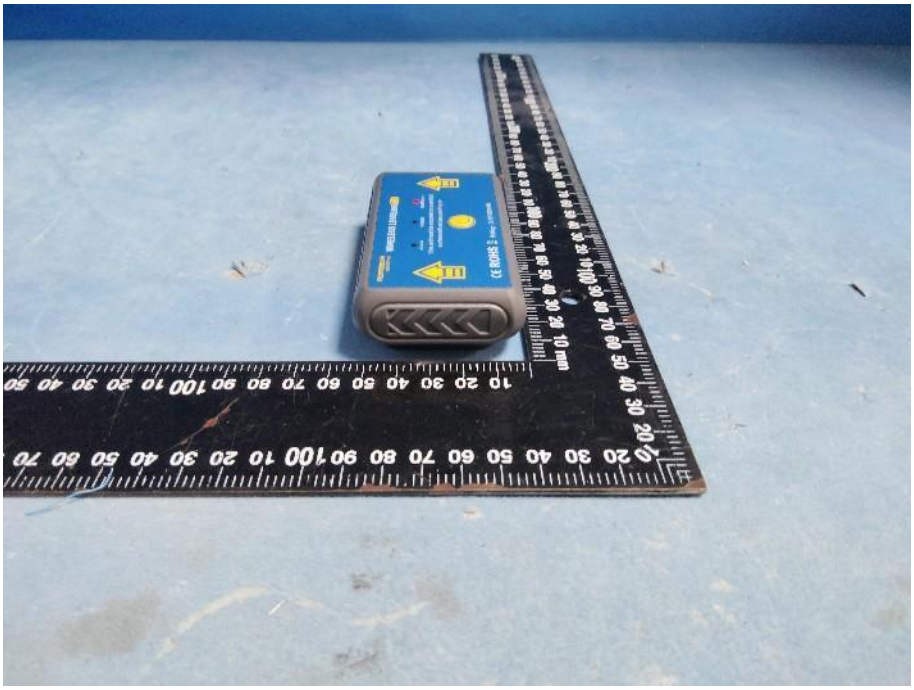
Conducted Emission at AC power line

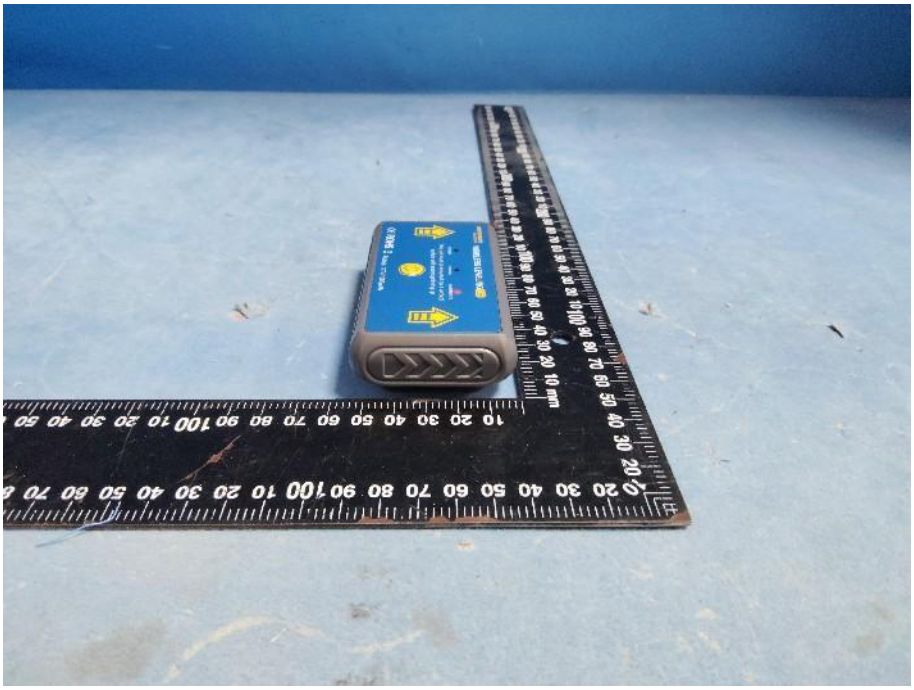
6.1. EXTERNAL AND INTERNAL PHOTOS

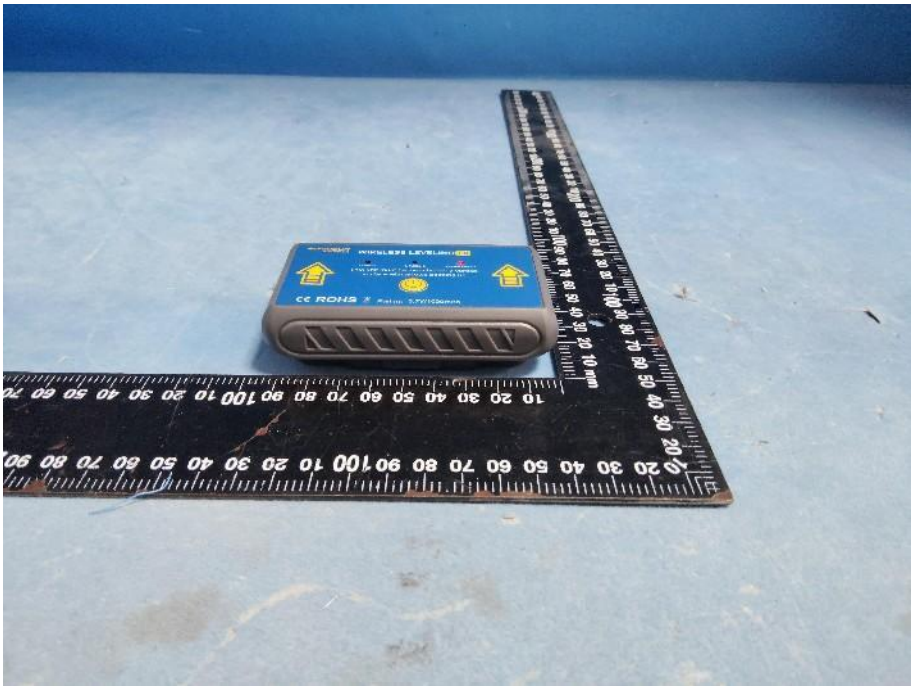
7.1 External Photos



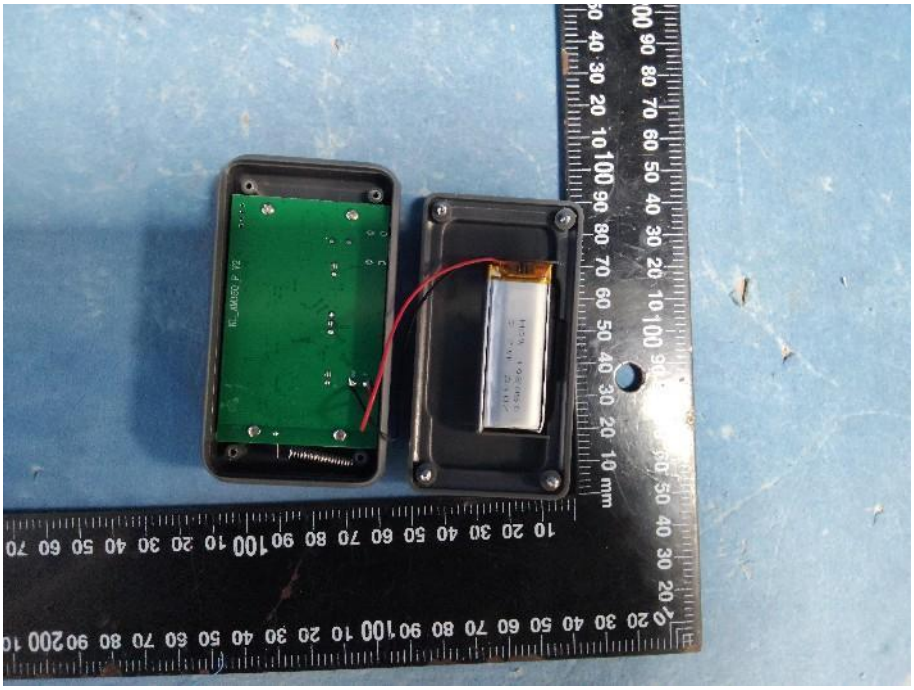


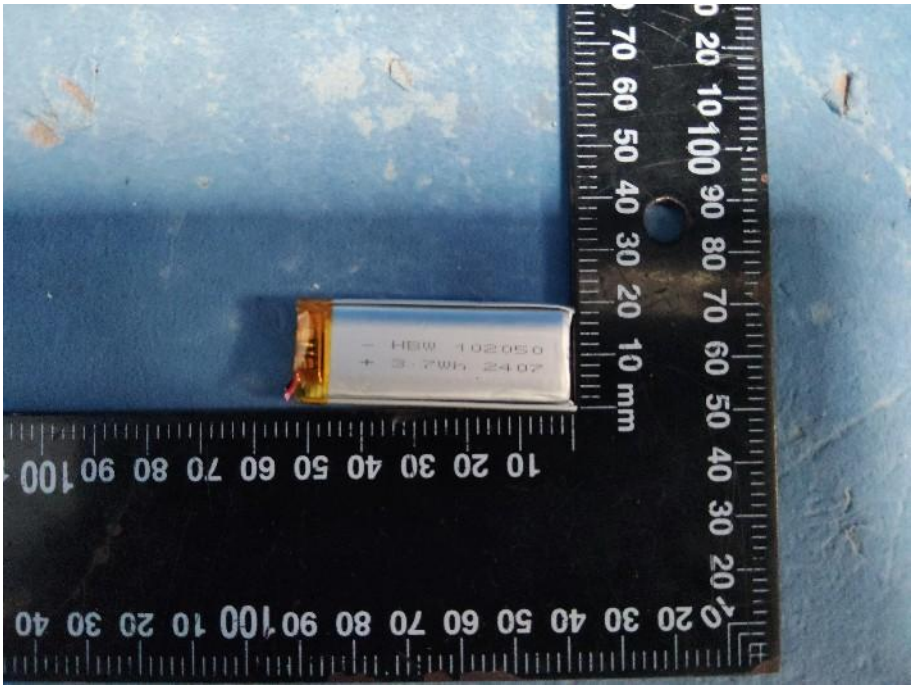


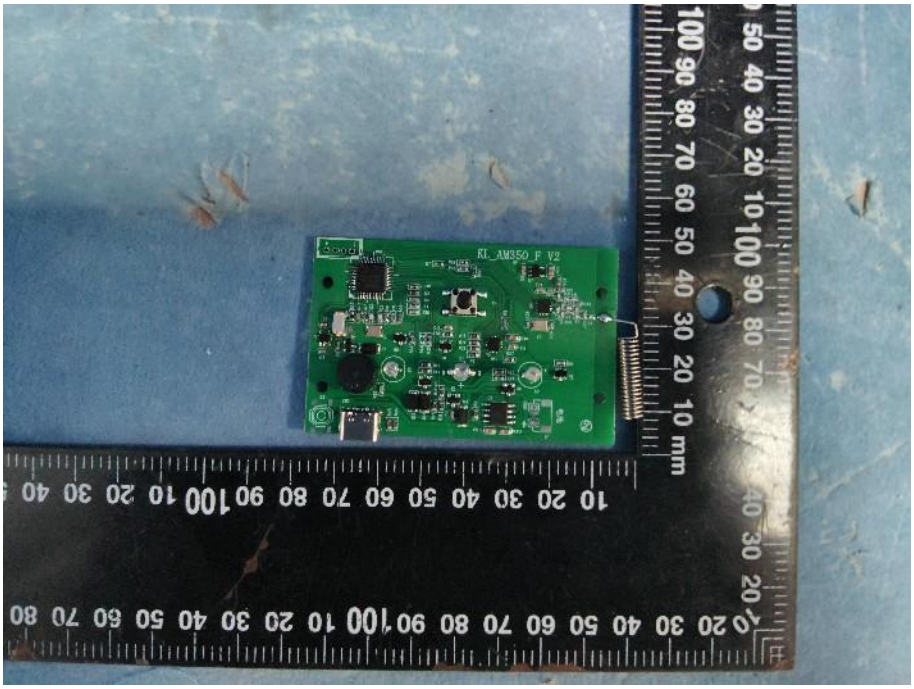


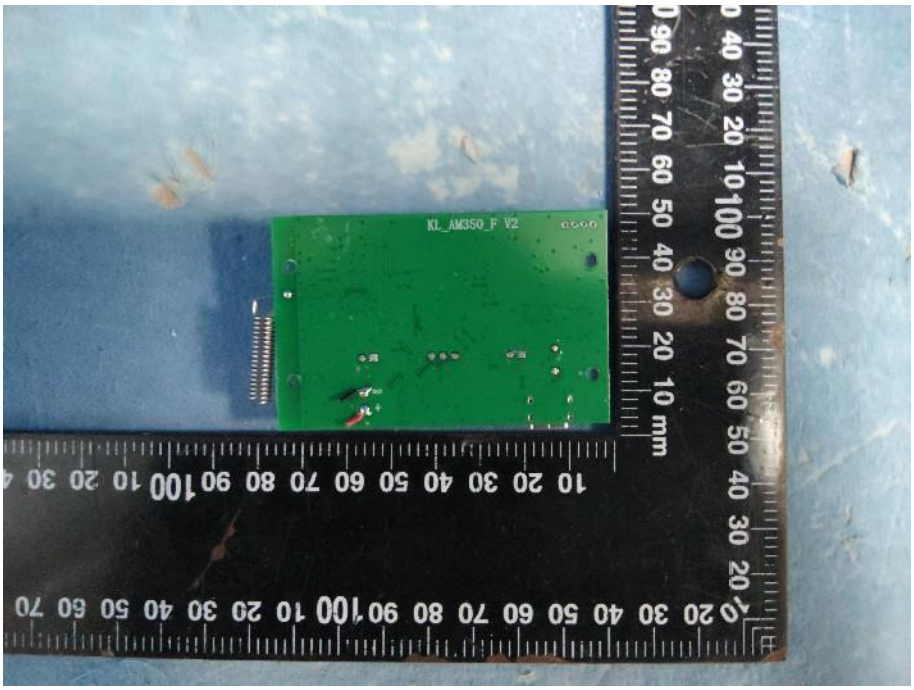

CE RoHS

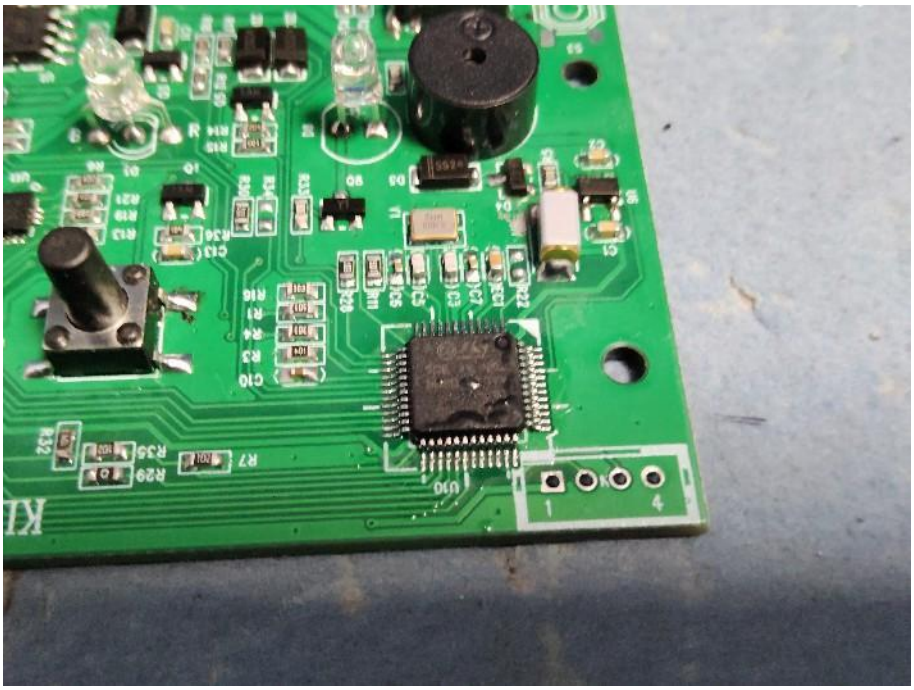
7.2 Internal Photos

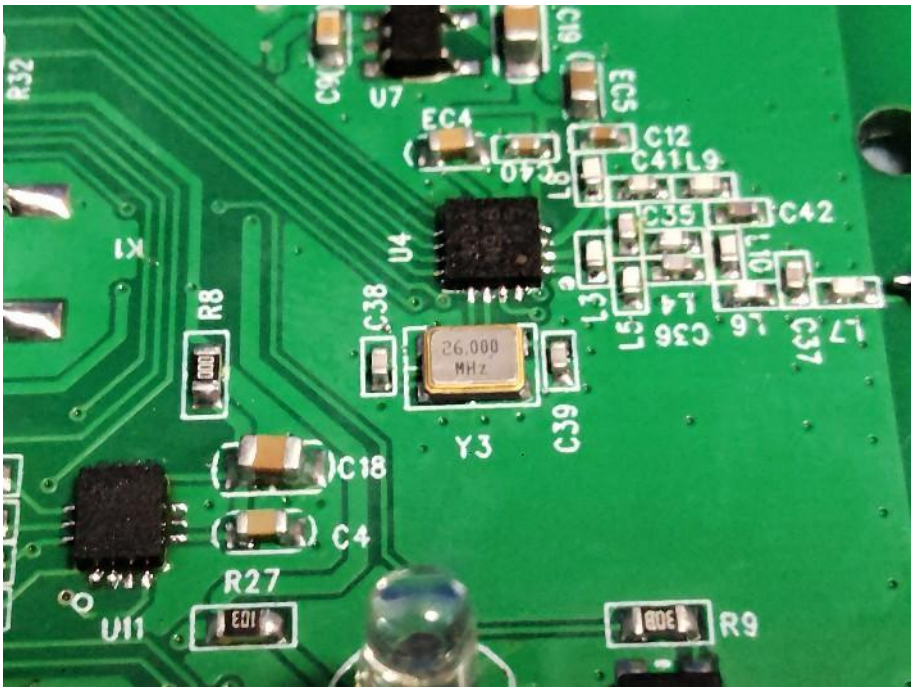


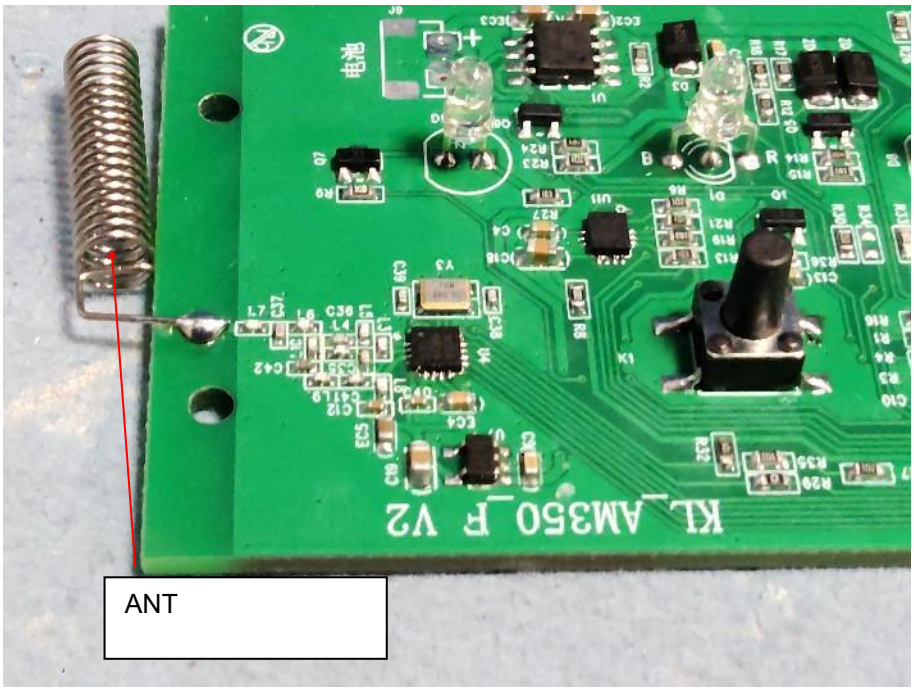



KI_AM350_F V2


KL_AM350_F V2







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