# **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-Flus, AM350-Plus, 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

Kory Awang

GenryLong

Prepared by: Rory Huang

Approved by: Genry Long

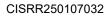
The test results relate only to the tested samples.

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	March 20, 2025	Original

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# 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.

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# 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

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# 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:

## 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:

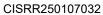
Item	Equipment name	Trade Name	Model No.
1	receiver	Shenzhen Aomosur Technology Co., Ltd	
2	Adapter	Guangdong Sangu Technology Co. ltd	SG-0501000AU

## 4.4. Test sample information

Туре	sample no.
Engineer sample	CISR250107032S01
Normal sample	CISR250107032S02

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Only the worst case data recorded in the report. All patterns have predictions, and the report only shows the worst pattern data.





# 4.5. Testing environmental condition

Туре	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
	Tradiated Band Edge Emission	3.80dB for above 1GHz
	Padiated Spurious Emission	3.76dB for 30MHz-1GHz
9	Radiated Spurious Emission	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 Co	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	NSLK812 7	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	1	2025-01-08	2026-01-07		

20dB E	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	WCSPM23040 5A	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	TAP9K3G 40	AP23A806027 0	2025-01-08	2026-01-07	
3	Prime amplifier	Tonscend	TAP0101 8050	AP23A806028 0	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	1	2023-01-09	2026-01-08	
10	RF Cable	Tonscend	Cable 1	1	2025-01-08	2026-01-07	
11	RF Cable	Tonscend	Cable 2	1	2025-01-08	2026-01-07	
12	RF Cable	SKET	Cable 3	1	2025-01-08	2026-01-07	
13	L.I.S.N.#1	Schwarzbeck	NSLK812 7	1	2025-01-08	2026-01-07	

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14	L.I.S.N.#2	ROHDE&SCHWA RZ	ENV216	1	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	1	2025-01-08	2026-01-07
18	6dB Attenuator	SKET	DC-6G	1	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 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.

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#### 5.2. AC Conducted Emission

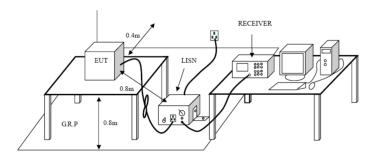
#### Limit:

### FCC CFR Title 47 Part 15 Subpart C Section 15.207

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

<sup>\*</sup> Decreases with the logarithm of the frequency.

## Test configuration:



#### Test procedure:

- 1. The EUT was setup according to ANSI C63.10 requirements.
- 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

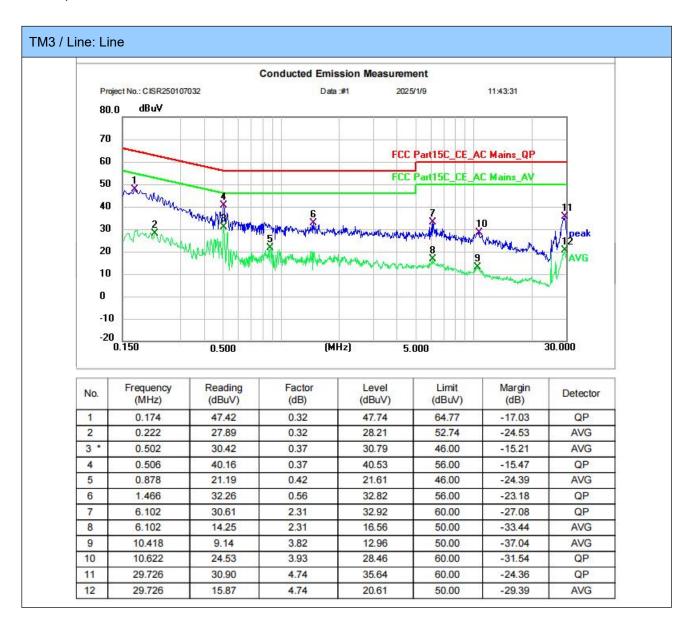
Result:

**Pass** 

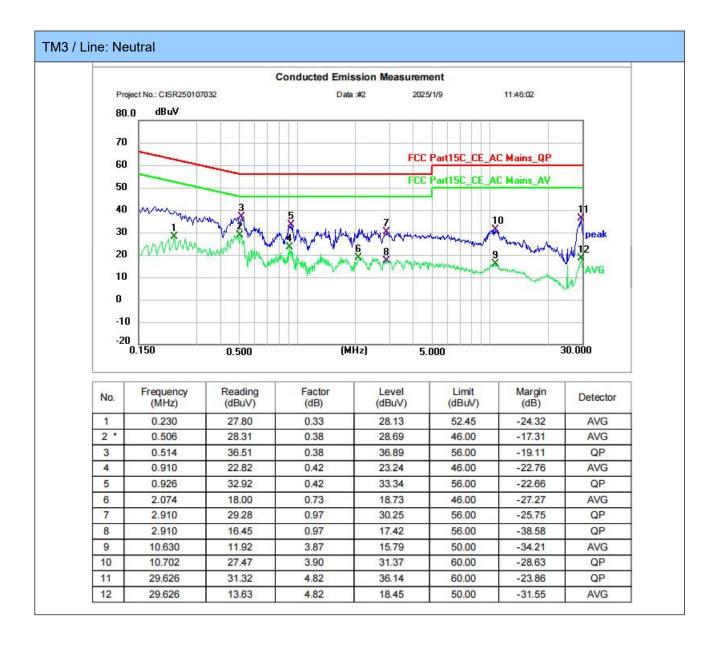


#### Note:

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.





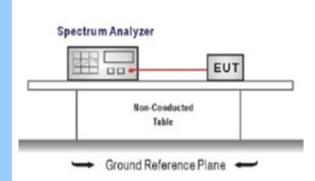




### 5.3. 20 dB Bandwidth

#### 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
- 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:

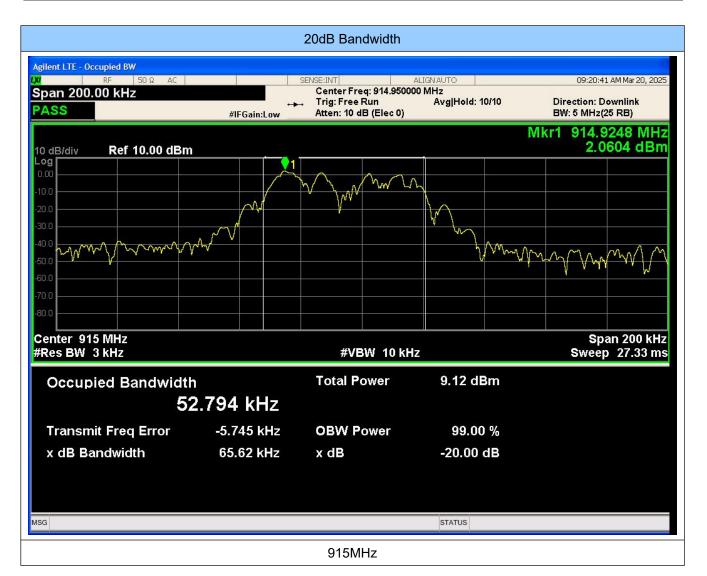
TM1

Result:

**Passed** 



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





# 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

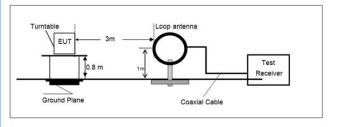
As shown in § 15.35(b), for frequencies above 1000 MHz, the field strength limits in paragraphs (a) and (b) of this section are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any 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

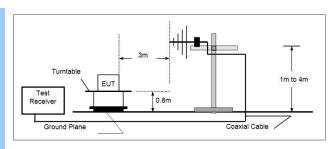
Frequency	Limit (dBuV/m @3m)	Value
30MHz~88MHz	40.00	Quasi-peak
88MHz~216MHz	43.50	Quasi-peak
216MHz~960MHz	46.00	Quasi-peak
960MHz~1GHz	54.00	Quasi-peak
Above 1GHz(Field strength	94.00	Average
of fundamental)	114.00	Peak
Above 1GHz(Field strength	54.00	Average
of harmonics)	74.00	Peak

#### Test configuration:

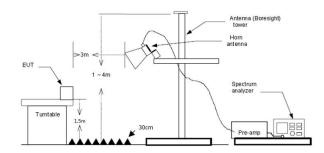
9kHz~30MHz



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:

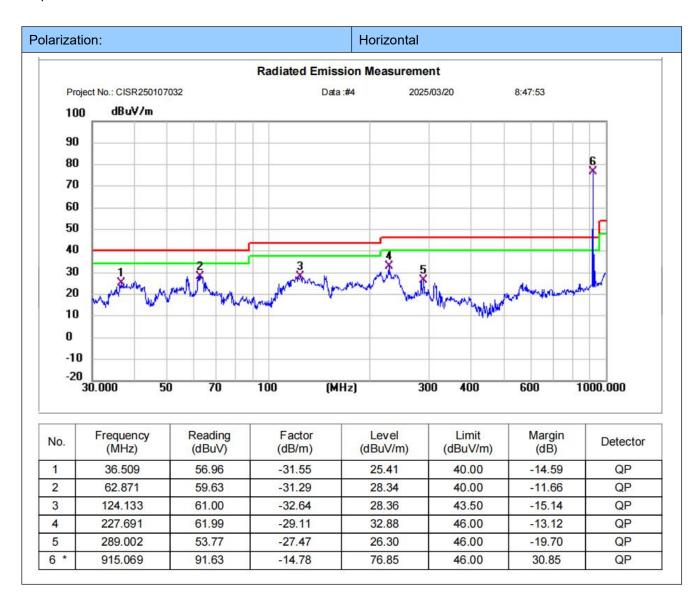
- 1) Level= Reading + Factor/Transd; Factor/Transd = Antenna Factor+ Cable Loss- Preamp Factor
- 2) Margin = Limit Level
- 3) Average measurement was not performed if peak level is lower than average limit(54 dBuV/m) for above 1GHz.
- 4) The other emission levels were very low against the limit.
- 5) 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

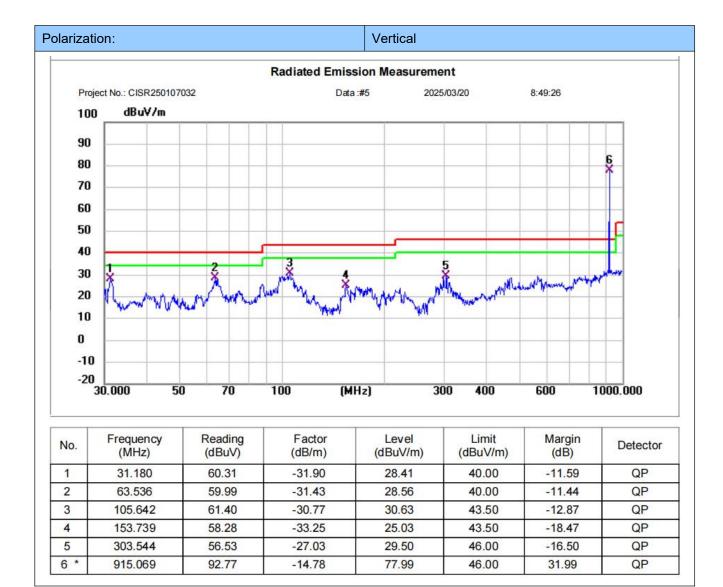
The EUT was pre-scanned this frequency band, found the radiated level 20dB lower than the limit, so don't show data on this report.

#### 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.







# For 1 GHz ~ 25 GHz.

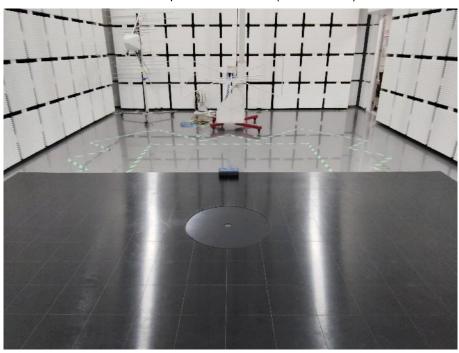
Test chan	Test channel:915MHz								
Freq. (MHz)	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
1830.00	55.81	33.06	35.04	3.94	57.77	74.00	-16.23	Peak	Horizontal
1830.00	41.79	33.06	35.04	3.94	43.75	54.00	-10.25	Average	Horizontal
1830.00	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(dB <sub>µ</sub> V/m) (QP)	Conclusion
915MHz	92.77	-14.78	77.99	94.00	PASS

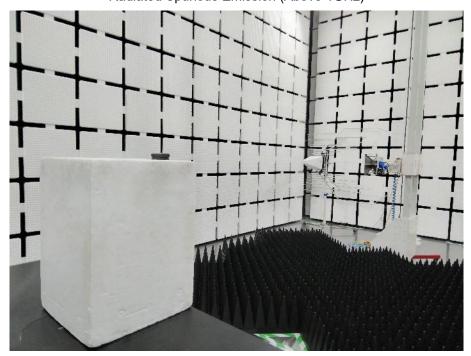


# 6. TEST SETUP PHOTOS

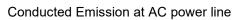




Radiated Spurious Emission (Above 1GHz)





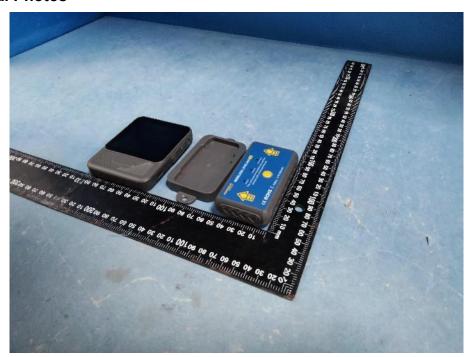


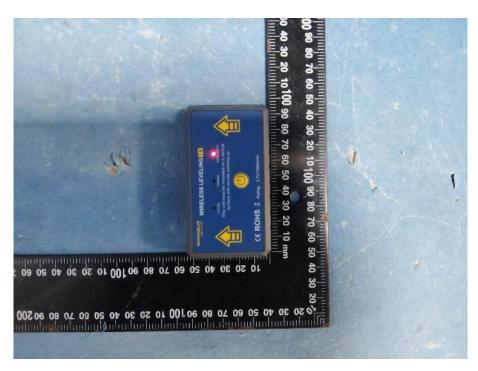




# **6.1. EXTERNAL AND INTERNAL PHOTOS**

# 7.1 External Photos



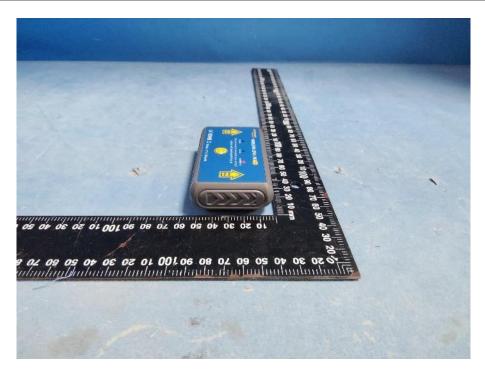






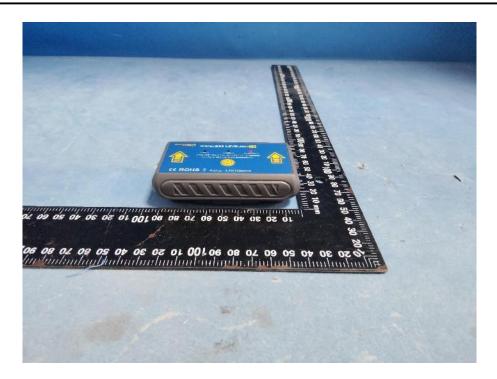












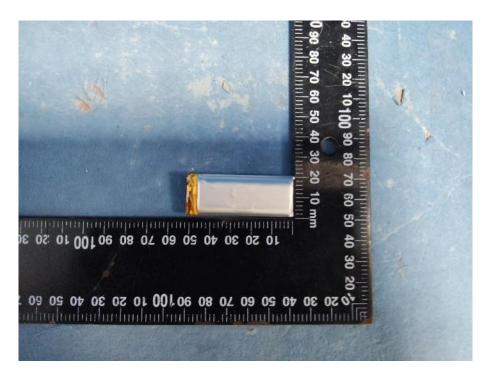


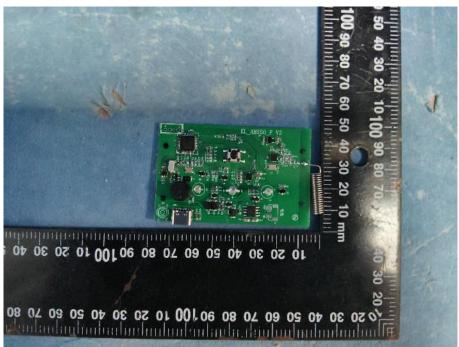
## 7.2 Internal Photos



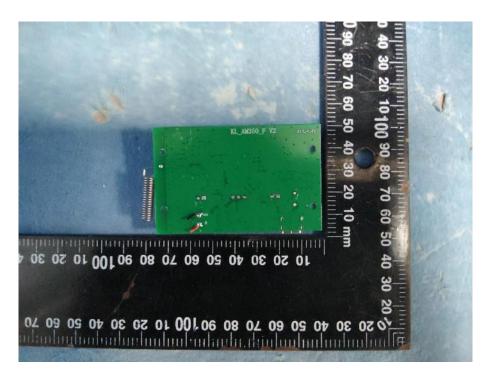


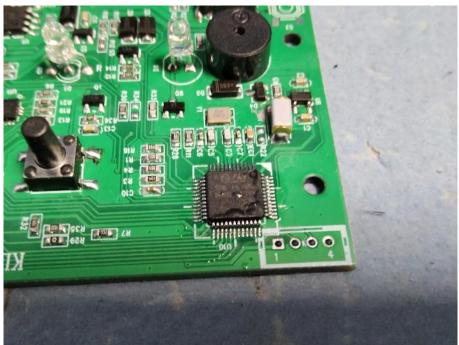




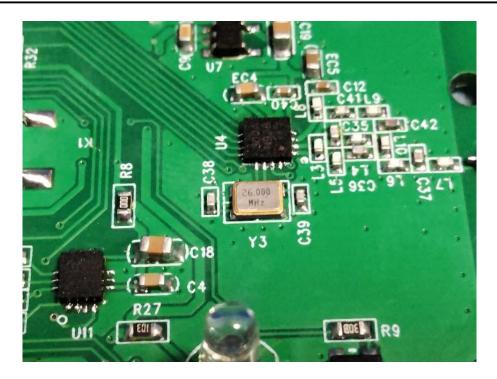


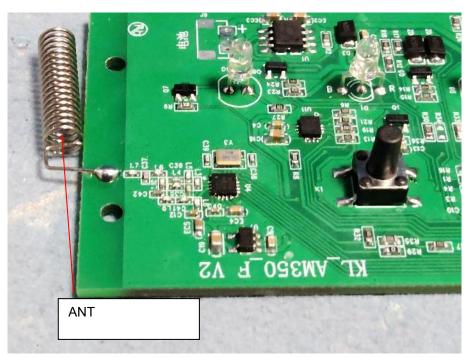












-----End of the report-----