

TEST REPORT

Product Name : microphone
Brand Name : PYLE
Model : PPHP1599WU
Series Model : PPHP1599WU.5, PPHP1299WU, PPHP1299WU.5
FCC ID : 2A6FX-PPHP1599WU
Applicant : **Sound Around INC.**
Address : 1600, 63rd.Street,1st Floor, Brooklyn, New York, United States
Manufacturer : **NINGBO HYSOUND ELECTRONIC CO.,LTD**
Address : NO528, XIAOHE EAST ROAD, DONGQIAO TOWN, HAISHU
SECTION, NINGBO CITY, CHINA
Standard(s) : FCC CFR Title 47 Part 15 Subpart C Section 15.236
Date of Receipt : Mar. 17, 2025
Date of Test : Mar. 18, 2025~ Mar. 27, 2025
Issued Date : Mar. 28, 2025

Issued By: **Guangdong Asia Hongke Test Technology Limited**
B1/F, Building 11, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street,
Bao'an District, Shenzhen, Guangdong, China
Tel.: +86 0755-230967639 Fax.: +86 0755-230967639

Reviewed by: Leon Yi
Leon.yi

Approved by: Sean She
Sean She



Note: This device has been tested and found to comply with the standard(s) listed, this 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. This report shall not be reproduced except in full, without the written approval of Guangdong Asia Hongke Test Technology Limited. If there is a need to alter or revise this document, the right belongs to Guangdong Asia Hongke Test Technology Limited, and it should give a prior written notice of the revision document. This test report must not be used by the client to claim product endorsement.



Report Revise Record

Report Version	Issued Date	Notes
M1	Mar. 28, 2025	Initial Release

Contents

1	TEST SUMMARY.....	4
1.1	TEST STANDARDS	4
1.2	TEST SUMMARY	4
1.3	TEST FACILITY	5
1.4	MEASUREMENT UNCERTAINTY	5
2	GENGENERAL INFORMATION.....	6
2.1	ENVIRONMENTAL CONDITIONS.....	6
2.2	GENERAL DESCRIPTION OF EUT	6
2.3	DESCRIPTION OF TEST MODES AND TEST FREQUENCY	7
2.4	SPECIAL ACCESSORIES	7
2.5	EQUIPMENT LIST FOR THE TEST.....	7
3	TEST CONDITIONS AND RESULTS.....	9
3.1	CONDUCTED EMISSIONS TEST.....	9
3.2	MAXIMUM OUTPUT POWER	11
3.3	OCCUPIED BANDWIDTH.....	13
3.4	NECESSARY BANDWIDTH	15
3.5	TRANSMITTER SPURIOUS EMISSIONS	18
3.6	FREQUENCY STABILITY.....	20
4	TEST SETUP PHOTOGRAPHS OF EUT	22
5	PHOTOS OF EUT	23

1 TEST SUMMARY

1.1 Test Standards

The tests were performed according to following standards:

[FCC Rules Part 15.236](#): Operation of wireless microphones in the bands 54-72 MHz, 76-88 MHz, 174-216 MHz, 470-608 MHz and 614-698 MHz.

[ANSI C63.10: 2013](#): American National Standard for Testing Unlicensed Wireless Devices

1.2 Test Summary

Test Item	Section in 47 CFR	Result
RF Power Output	§15.236(d)	Pass
Occupied Bandwidth	§15.236(f)(2)	Pass
Necessary Bandwidth	§15.236(g)	Pass
Spurious emissions	§15.236(g)	Pass
Frequency Stability	§15.236(f)(3)	Pass
Conducted Emissions	§15.207	N/A

1.3 Test Facility

Test Laboratory:

Guangdong Asia Hongke Test Technology Limited

B1/F, Building 11, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

The test facility is recognized, certified or accredited by the following organizations:

FCC-Registration No.: 251906 Designation Number: CN1376

Guangdong Asia Hongke Test Technology Limited has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files.

IC —Registration No.: 31737 CAB identifier: CN0165

The 3m Semi-anechoic chamber of Guangdong Asia Hongke Test Technology Limited has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 31737

A2LA-Lab Cert. No.: 7133.01

Guangdong Asia Hongke Test Technology Limited has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

1.4 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 according 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 Guangdong Asia Hongke Test Technology Limited's quality system according 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 Asia Hongke laboratory is reported:

Test	Measurement Uncertainty	Notes
Power Line Conducted Emission	9KHz~30MHz ± 1.20 dB	(1)
Radiated Emission	9KHz~30MHz ± 3.10 dB	(1)
Radiated Emission	30MHz~1GHz ± 3.75 dB	(1)
Radiated Emission	1GHz~18GHz ± 3.88 dB	(1)
Radiated Emission	18GHz~40GHz ± 3.88 dB	(1)
RF power, conducted	30MHz~6GHz ± 0.16 dB	(1)
RF power density, conducted	± 0.24 dB	(1)
Spurious emissions, conducted	± 0.21 dB	(1)
Temperature	$\pm 1^{\circ}\text{C}$	(1)
Humidity	$\pm 3\%$	(1)
DC and low frequency voltages	$\pm 1.5\%$	(1)
Time	$\pm 2\%$	(1)
Duty cycle	$\pm 2\%$	(1)

The report uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty Multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95%.

2 GENGGENERAL INFORMATION

2.1 Environmental conditions

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

Normal Temperature:	25°C
Relative Humidity:	55 %
Air Pressure:	101 kPa

2.2 General Description of EUT

Product Name:	microphone
Model/Type reference:	PPHP1599WU
Serial Model:	PPHP1599WU.5, PPHP1299WU, PPHP1299WU.5
Power Supply:	DC 3.00V from battery
Hardware Version:	V4.2 20230320
Software Version:	0643 V8.1
Sample(s) Status:	AiTSZ-241218022-1(Normal sample) AiTSZ-241218022-2(Engineer sample)
Wireless microphone:	
Frequency:	600.85MHz-606.05MHz
Channel number:	27
Nominal channel bandwidth	200KHz
Modulation Type:	FM
Antenna type:	Spring antenna
Antenna gain:	1.0dBi
Remark: The above DUT's information was declared by manufacturer. For more detailed features description, please refer to the manufacturer's specifications or the User's Manual..	

2.3 Description of Test Modes and Test Frequency

The EUT has been tested under typical operating condition. The EUT will staying in continuous transmitting when switch to the specific test frequency.

Operation Frequency List:

Channel	Frequency (MHz)
00	600.85
01	601.05
:	:
11	603.05
12	603.25
13	603.45
:	:
25	605.85
26	606.05

Note: The line display in grey were the channel selected for testing

2.4 Special Accessories

Follow auxiliary equipment(s) test with EUT that provided by the manufacturer or laboratory is listed as follow:

Description	Manufacturer	Model	Serial No.	Provided by	Other
/	/	/	/	/	/
/	/	/	/	/	/

2.5 Equipment List for the Test

No	Test Equipment	Manufacturer	Model No	Serial No	Cal. Date	Cal. Due Date
1	EMI Measuring Receiver	R&S	ESR	101160	2024.09.25	2025.09.24
2	Spectrum Analyzer	R&S	FSV40	101470	2024.09.23	2025.09.22
3	Low Noise Pre Amplifier	SCHWARZBECK	BBV 9745	00282	2024.09.25	2025.09.24
4	Low Noise Pre Amplifier	CESHENG	CSKJLNA23101 6A	CSKJLNA231016 A	2024.09.25	2025.09.24
5	Passive Loop	ETS	6512	00165355	2024.08.29	2027.08.28
6	TRILOG Super Broadband test Antenna	SCHWARZBECK	VULB9168	01434	2024.08.29	2027.08.28
7	Broadband Horn Antenna	Schwarzbeck	BBHA 9120D	452	2024.08.29	2027.08.28
8	Horn Antenna 15-40GHZ	SCHWARZBECK	BBHA9170	BBHA9170367	2024.08.28	2027.08.27
9	6dB Attenuator	JFW	50FPE-006	4360846-949-1	2024.09.24	2025.09.23
10	EMI Test Receiver	R&S	ESPI	100771	2024.09.25	2025.09.24
11	LISN	R&S	NNLK 8129	8130179	2024.09.24	2025.09.23
12	LISN	R&S	ESH3-Z5	892785/016	2024.09.23	2025.09.22
13	Pulse Limiter	R&S	ESH3-Z2	102789	2024.09.24	2025.09.23

14	RF Automatic Test system	TST	TSTPASS	21033016	2024.09.25	2025.09.24
15	Vector Signal Generator	Agilent	N5182A	MY50143009	2024.09.25	2025.09.24
16	Analog signal generator	Agilent	E8257	MY51554256	2024.09.25	2025.09.24
17	Spectrum Analyzer	Agilent	N9020A	MY51289843	2024.09.25	2025.09.24
18	Spectrum Analyzer	Agilent	N9020A	MY53421570	2024.09.25	2025.09.24
19	Power Sensor	Agilent	8481A	MY41097697	2024.09.25	2025.09.24
20	Wideband Radio communication tester	R&S	CMW500	1201.0002K50	2024.09.24	2025.09.23
21	DC power supply	ZHAOXIN	RXN-305D-2	28070002559	2024.09.24	2025.09.23
22	RE Software	EZ	EZ-EMC_RE	Ver.AIT-03A	N/A	N/A
23	CE Software	EZ	EZ-EMC_CE	Ver.AIT-03A	N/A	N/A
24	RF Software	TST	TSTPASS	Version 2.0	N/A	N/A
25	RF Software	cesheng	WCS-WCN	Version 2024.6.20	N/A	N/A
26	temporary antenna connector(Note)	NTS	R001	N/A	N/A	N/A

Note: The temporary antenna connector is soldered on the PCB board in order to perform conducted tests and this temporary antenna connector is listed in the equipment list.

3 TEST CONDITIONS AND RESULTS

3.1 Conducted Emissions Test

LIMIT

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 equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. The EUT is a tabletop system; a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10:2013.
2. Support equipment, if needed, was placed as per ANSI C63.10:2013.
3. All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10:2013.
4. The adapter received AC120V/60Hz power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.
5. All support equipments received AC power from a second LISN, if any.
6. The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
7. Analyzer / Receiver scanned from 150 KHz to 30MHz for emissions in each of the test modes.
8. During the above scans, the emissions were maximized by cable manipulation.

TEST RESULTS

Not applicable.

3.2 Maximum Output Power

Limit

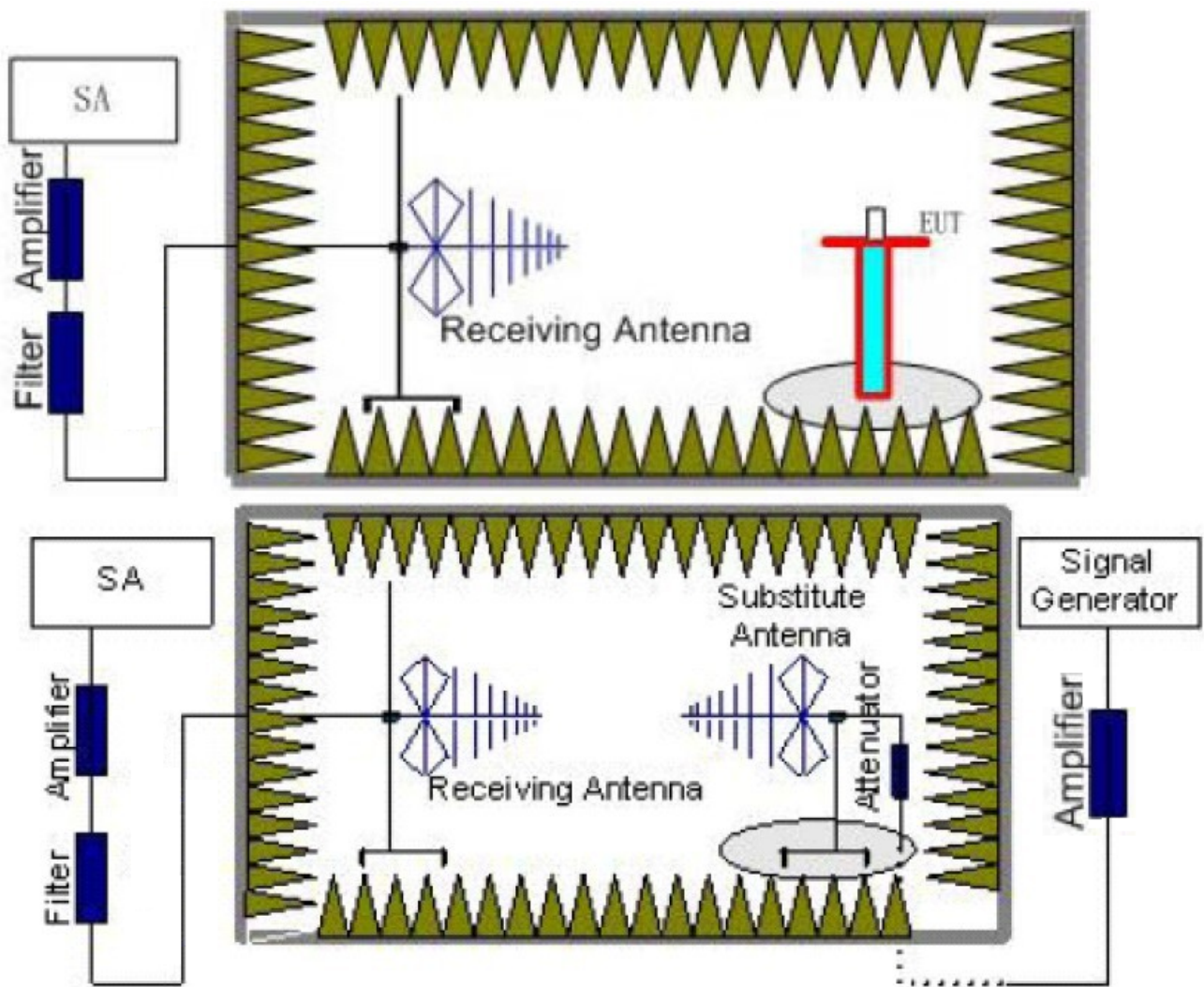
The maximum radiated power shall not exceed the following values:

- (1) In the bands allocated and assigned for broadcast television:
 - (i) Wireless microphones: 50 mW EIRP.
 - (ii) Wireless multichannel audio systems with a bandwidth up to 1 MHz: 50 mW EIRP.
 - (iii) Wireless multichannel audio systems with a bandwidth greater than 1 MHz: 100 mW EIRP.
- (2) In the 600 MHz guard band and the 600 MHz duplex gap: 20 mW EIRP.

Test Procedure

1. EUT was placed on a 1.5 meter high non-conductive stand at a 3 meter test distance from the receive antenna. A receiving antenna was placed on the antenna mast 3 meters from the EUT for emission measurements. The height of receiving antenna is 1.5m. Detected emissions were maximized at each frequency by rotating the EUT through 360° and adjusting the receiving antenna polarization. The radiated emission measurements of all test transmit frequencies were measured with peak detector.
2. A log-periodic antenna or double-ridged waveguide horn antenna shall be substituted in place of the EUT. The log-periodic antenna will be driven by a signal generator and the level will be adjusted till the same power value on the spectrum analyzer or receiver. The level of the spurious emissions can be calculated through the level of the signal generator, cable loss, the gain of the substitution antenna and the reading of the spectrum analyzer or receiver.
3. The EUT is then put into continuously transmitting mode at its maximum power level during the test. Set Test Receiver or Spectrum RBW=1MHz, VBW=3MHz, And the maximum value of the receiver should be recorded as (P_r).
4. The EUT shall be replaced by a substitution antenna. In the chamber, an substitution antenna for the frequency band of interest is placed at the reference point of the chamber. An RF Signal source for the frequency band of interest is connected to the substitution antenna with a cable that has been constructed to not interfere with the radiation pattern of the antenna. A power (P_{Mea}) is applied to the input of the substitution antenna, and adjust the level of the signal generator output until the value of the receiver reach the previously recorded (P_r). The power of signal source (P_{Mea}) is recorded. The test should be performed by rotating the test item and adjusting the receiving antenna polarization.
5. An amplifier may be connected to the Signal Source output port. And the cable should be connect between the Amplifier and the Substitution Antenna. The cable loss (P_{cl}), the Substitution Antenna Gain (G_a) and the Amplifier Gain (P_{Ag}) should be recorded after test.
The measurement results are obtained as described below:
$$\text{Power(EIRP)} = P_{Mea} + P_{Ag} - P_{cl} + G_a$$
6. This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15 dBi) and known input power.
7. ERP can be calculated from EIRP by subtracting the gain of the dipole, $ERP = EIRP - 2.15 \text{dBi}$.

Test Configuration



Test Results

Remark;

The field strength of radiation emission was measured in the following position: EUT stand-up position (Z axis), lie-down position (X, Y axis). The data show in this report only with the worst case setup.

After exploratory measurement the worst case of Z axis and receiver antenna at vertical polarization was reported.

Test Frequency (MHz)	P_{Mea} (dBm)	P_{cl} (dB)	G_a Antenna Gain(dBi)	P_{Ag} (dB)	EIRP (dBm)	EIRP (mW)	FCC Limit (mW)	Polarization
600.85	-25.12	2.76	6.21	32.25	10.58	11.429	50	V
603.25	-24.65	2.76	6.21	32.25	11.05	12.735	50	V
606.05	-24.57	2.77	6.21	32.25	11.12	12.942	50	V

Remark: $EIRP = P_{Mea}(dBm) + P_{Ag}(dB) - P_{cl}(dB) + G_a(dBi)$

3.3 Occupied Bandwidth

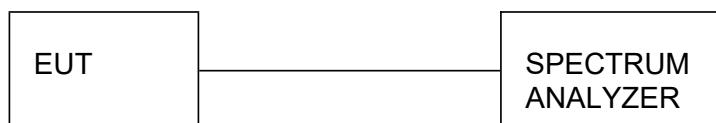
Limit

One or more adjacent 25 kHz segments within the assignable frequencies may be combined to form a channel whose maximum bandwidth shall not exceed 200 kHz. The operating bandwidth shall not exceed 200 kHz.

Test Procedure

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 3 KHz RBW and 10 KHz VBW.

Test Configuration



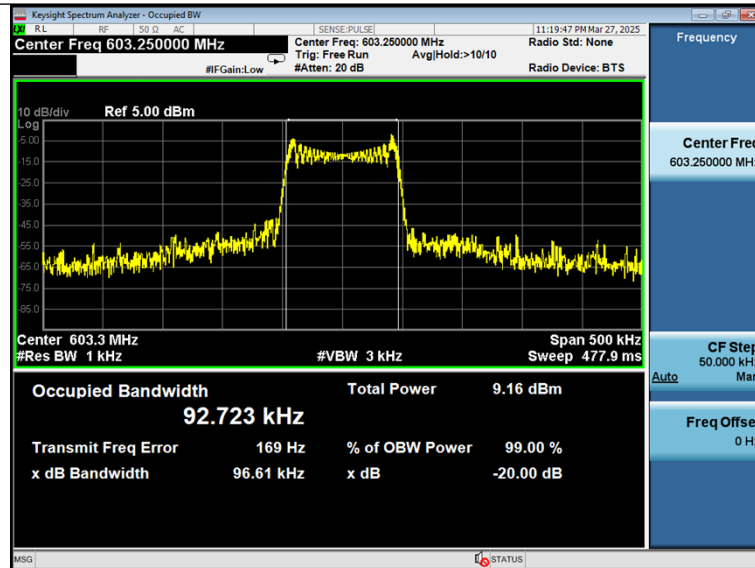
Test Results

Modulation	Frequency (MHz)	99% OBW (KHz)	Limit (KHz)	Result
FM	600.85	94.438	200	Pass
	603.25	92.723	200	
	606.05	90.428	200	

Test plot as follows:



600.85MHz



603.25MHz



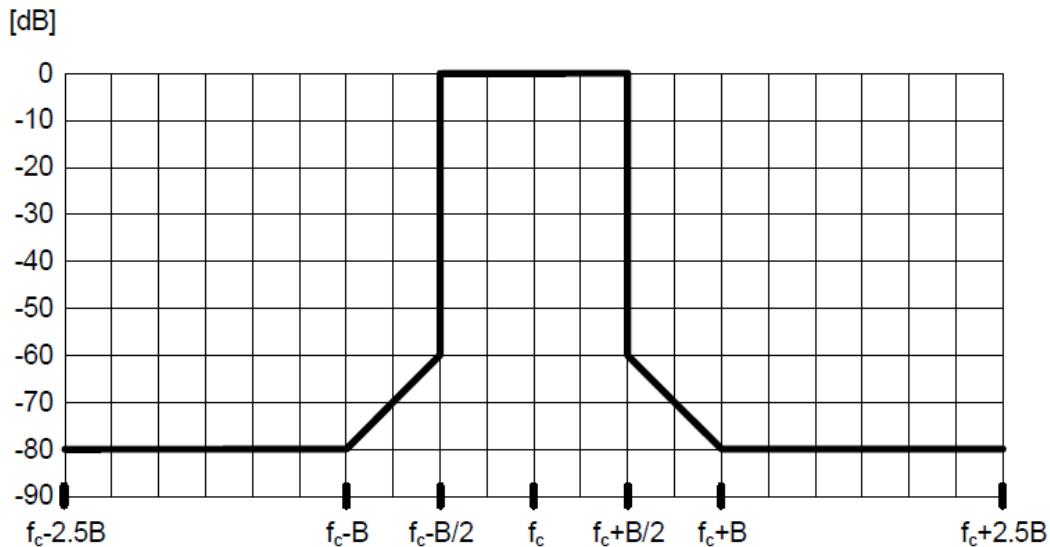
606.05MHz

3.4 Necessary Bandwidth

LIMIT

Emissions within the band from one megahertz below to one megahertz above the carrier frequency shall comply with the emission mask in §section 4.2.4.2.2 of ETSI EN 300 422-1 V2.2.1 (2021-11) as below:

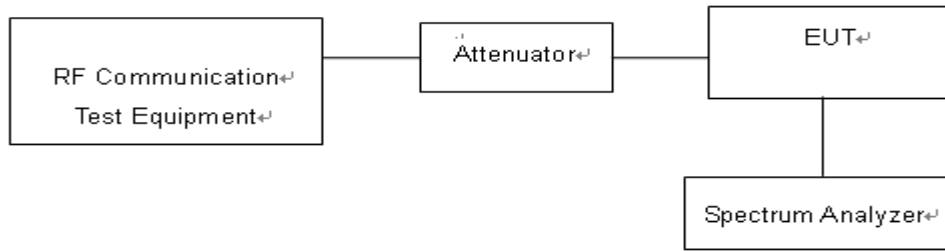
The transmitter output spectrum shall be within the mask defined in figure below where B is the declared channel bandwidth



TEST PROCEDURE

1. With the Low Frequency (LF) audio signal generator set to 500 Hz, the audio input level to the EUT shall be Adjusted to 8 dB below the limiting threshold (-8dB limit) as declared by the manufacturer.
2. The corresponding audio output level from the demodulator shall be measured and recorded.
3. The input impedance of the noise meter shall be sufficiently high to avoid more than 0.1 dB changes in input level when the meter is switched between input and output.
4. The audio input level shall be increased by 20 dB, i.e. to 12 dB (lim), and the corresponding change in output level shall be measured.
5. It shall be checked that the audio output level has increased by ≤ 10 dB.
6. If the step 5 is not met, the initial audio input level shall be increased from -8 dB (lim) in 1 dB steps until the above condition is fulfilled, and the input level recorded in the test report. This level replaces the value derived from the manufacturer's declaration and is defined as -8dB (lim).
7. Measure the input level at the transmitter required to give +12 dB (lim) and record the EUT output level test plots by the spectrum analyzer.
8. The transmitter RF output spectrum shall be measured, using a spectrum analyser with the following settings:
 - centre frequency: f_c : Transmitter (Tx) nominal frequency;
 - dispersion (Span): $f_c - 1$ MHz to $f_c + 1$ MHz;
 - Resolution BandWidth (RBW): 1 kHz;
 - Video BandWidth (VBW): 1 kHz;
 - detector: Peak hold.

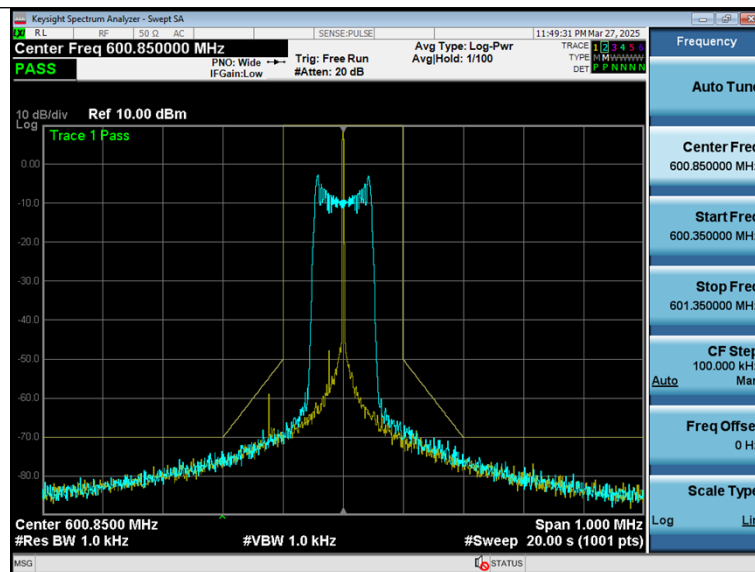
TEST CONFIGURATION



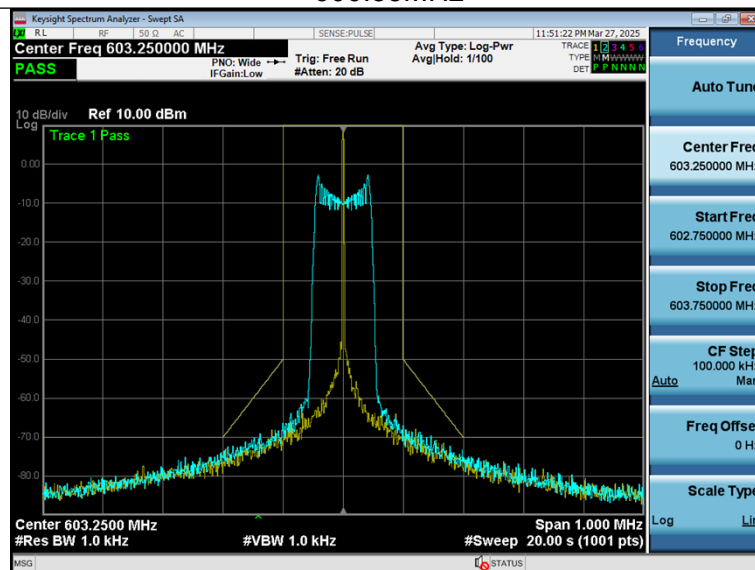
TEST RESULTS

Note:

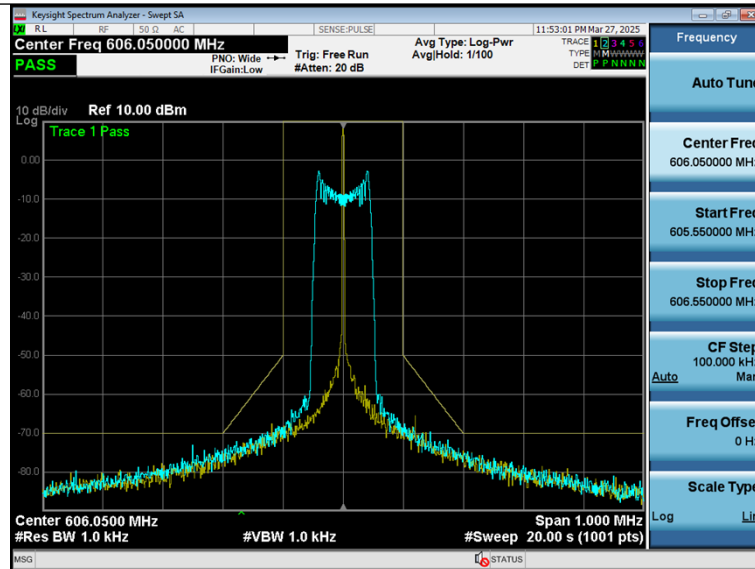
	Bandwidth(B)	B/2
Manufacturer declare	200 KHz	100KHz



600.85MHz



603.25MHz



606.05MHz

3.5 Transmitter spurious emissions

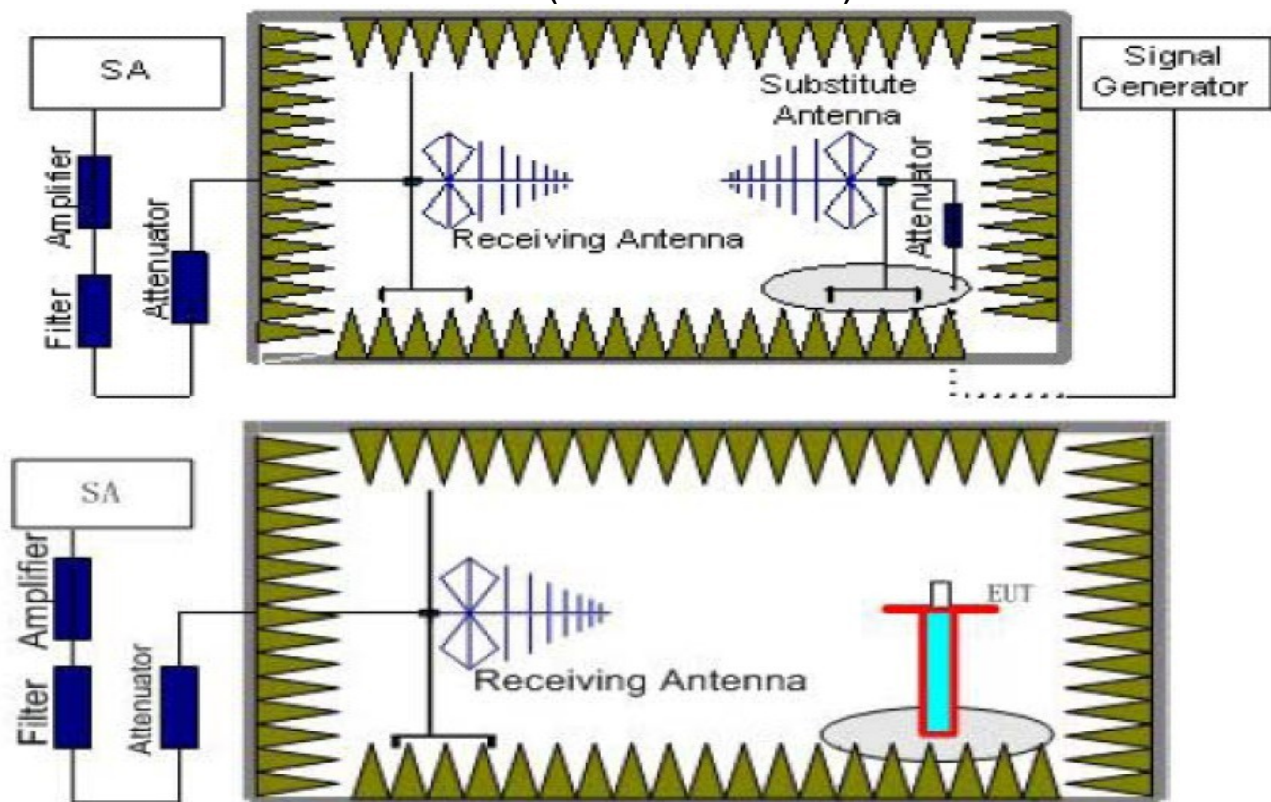
Limit

Spurious emissions are emissions outside the frequency range(s) of the equipment. The power of the spurious emissions shall not exceed the limits of table as below:

Frequency range	Maximum power	RBW
9 kHz - 150 kHz	-36 dBm	1 kHz
150 kHz - 30 MHz	-36 dBm	10 kHz
30 MHz - 1 GHz	-36 dBm	$F_c + 2,5 B \leq f \leq f_c + 4 B$: 1 kHz $F_c + 4 B < f \leq f_c + 10 B$: 10 kHz $f > f_c + 10 B$: 100 kHz $f < f_c - 10 B$: 100 kHz $f_c - 10 B \leq f < f_c - 4 B$: 10 kHz $f_c - 4 B \leq f \leq f_c - 2,5 B$: 1 kHz
except: 47 MHz - 74 MHz 87,5 MHz - 118 MHz	-54 dBm	100 kHz
174 MHz - 230 MHz 470 MHz - 862 MHz	-54 dBm	$F_c + 2,5 B \leq f \leq f_c + 4 B$: 1 kHz $F_c + 4 B < f \leq f_c + 10 B$: 10 kHz $f > f_c + 10 B$: 100 kHz $f < f_c - 10 B$: 100 kHz $f_c - 10 B \leq f < f_c - 4 B$: 10 kHz $f_c - 4 B \leq f \leq f_c - 2,5 B$: 1 kHz
$1 \text{ GHz} < f \leq F_{\text{upper}}$	-30 dBm	$F_c + 2,5 B \leq f \leq f_c + 10 B$: 30 kHz $F_c + 10 B < f \leq f_c + 12 B$: 300 kHz $f > f_c + 12 B$: 1 MHz $f < f_c - 12 B$: 1 MHz $f_c - 12 B \leq f < f_c - 10 B$: 300 kHz $f_c - 10 B \leq f \leq f_c - 2,5 B$: 30 kHz

Test Configuration

Effective Radiated Power measurement (30 MHz to 12.75 GHz)



TEST PROCEDURE

1. Please refer to ETSI EN 300 422-1 V2.2.1 (2021-11) clause 4.1 for the test conditions.
2. Please refer to ETSI EN 300 422-1 V2.2.1 (2021-11) clause 5.4.4 for the measurement method.

TEST RESULTS

The test frequency ranges from 30MHz to 4GHz and recorded worst at below:

Test mode: Tx (600.85MHz)					
Frequency (MHz)	Pol./Ant	Measurement EIRP (dBm)	Limit (dBm)	Margin (dB)	Result
1202.00	V	-36.25	-30	6.25	PASS
1803.00	V	-34.77	-30	4.77	
2404.00	V	-37.59	-30	7.59	
3005.00	V	-39.15	-30	9.15	
--	V	--	--	--	
1202.75	H	-37.33	-30	7.33	
1803.00	H	-35.76	-30	5.76	
2404.50	H	-38.78	-30	8.78	
3005.50	H	-39.93	-30	9.93	
--	H	--	--	--	

Test mode: Tx (603.25MHz)					
Frequency (MHz)	Pol./Ant	Measurement EIRP (dBm)	Limit (dBm)	Margin (dB)	Result
1207.25	V	-37.07	-30	7.07	PASS
1810.00	V	-34.93	-30	4.93	
2413.00	V	-37.24	-30	7.24	
3017.50	V	-38.30	-30	8.30	
--	V	--	--	--	
1207.00	H	-37.15	-30	7.15	
1810.25	H	-35.48	-30	5.48	
2413.75	H	-37.46	-30	7.46	
3017.50	H	-39.00	-30	9.00	
--	H	--	--	--	

Test mode: Tx (606.05MHz)					
Frequency (MHz)	Pol./Ant	Measurement EIRP (dBm)	Limit (dBm)	Margin (dB)	Result
1213.75	V	-36.68	-30	6.68	PASS
1819.50	V	-34.37	-30	4.37	
2425.50	V	-36.93	-30	6.93	
3031.00	V	-37.54	-30	7.54	
--	V	--	--	--	
1213.50	H	-37.67	-30	7.67	
1819.25	H	-35.34	-30	5.34	
--	H	--	--	--	

Remark:

- The test frequency range from 30MHz to 4GHz, RBW/VBW: 100 KHz/300KHz below 1GHz, RBW/VBW: 1000 KHz/3000KHz above 1GHz.
- "Other emission levels were very low against the limit and not reported.

3.6 Frequency Stability

Limit

The frequency tolerance of the carrier signal shall be maintained within $\pm 0.005\%$ of the operating frequency over a temperature variation of -20 degrees to $+50$ degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. Battery operated equipment shall be tested using a new battery.

Test Procedure

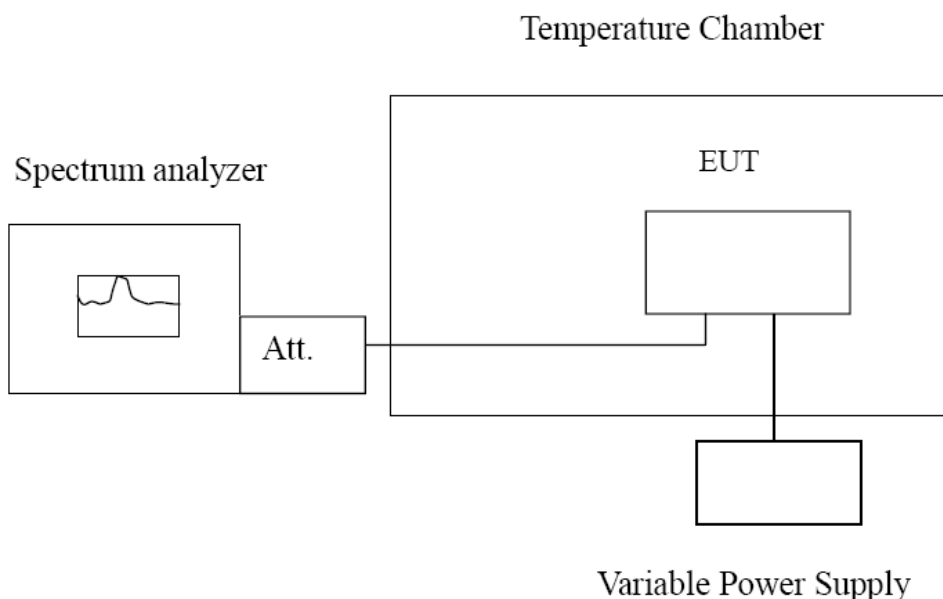
a) Frequency stability versus environmental temperature

1. Setup as Test Configuration for frequencies measured at ambient temperature if it is within 15°C to 25°C . Otherwise, an environmental chamber set for a temperature of 20°C shall be used.
2. Turn on EUT and set SA center frequency to the right frequency needs to be measured. Then set SA RBW to 3 kHz, VBW to 10kHz and frequency span to 500 kHz. Record this frequency to be a reference.
3. Set the temperature of chamber to 50°C . Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize. While maintaining a constant temperature inside the chamber, turn the EUT on and measure the EUT operating frequency.
4. Repeat step 2 with a 10°C decreased per stage until the lowest temperature -20°C is measured, record all measurement frequencies.

b) Frequency stability versus input voltage

1. Setup as Test Configuration for frequencies measured at ambient temperature if it is within 15°C to 25°C . Otherwise, an environmental chamber set for a temperature of 20°C shall be used. Install new batteries in the EUT.
2. Set SA center frequency to the right frequency needs to be measured. Then set SA RBW to 3kHz, VBW to 10kHz and frequency span to 500 kHz. Record this frequency to be a reference.
3. For non hand carried, battery operated device, supply the EUT primary voltage with 85 and 115 percent of the nominal value and record the frequency.

Test Configuration



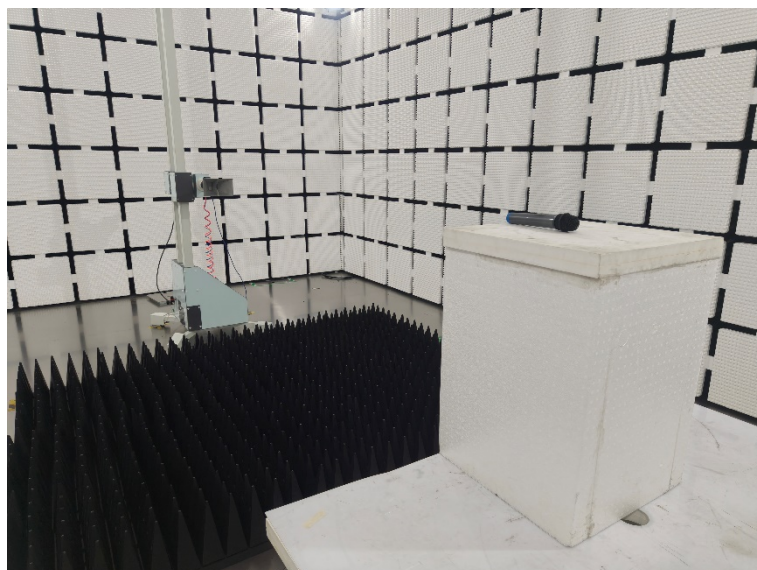
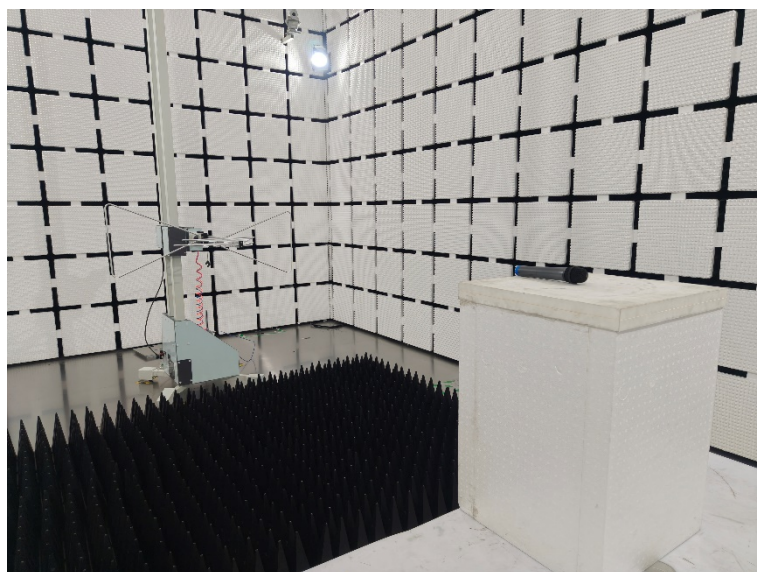
Test Results

Reference Frequency: 600.85MHz					
Voltage (V)	Temperature (°C)	Frequency error (Hz)	Frequency Tolerance (%)	Limit (%)	Result
3.0	-20	204	0.00003%	±0.005	PASS
	-10	250	0.00004%		
	0	-674	-0.00011%		
	10	-573	-0.00010%		
	20	751	0.00012%		
	30	26	0.00000%		
	40	-361	-0.00006%		
	50	-777	-0.00013%		
3.45	20	-329	-0.00005%	±0.005	PASS
2.55	20	-417	-0.00007%		

Reference Frequency: 603.45MHz					
Voltage (V)	Temperature (°C)	Frequency error (Hz)	Frequency Tolerance (%)	Limit (%)	Result
3.0	-20	-551	-0.00009%	±0.005	PASS
	-10	163	0.00003%		
	0	-41	-0.00001%		
	10	-306	-0.00005%		
	20	583	0.00010%		
	30	-503	-0.00008%		
	40	201	0.00003%		
	50	106	0.00002%		
3.45	20	-276	-0.00005%	±0.005	PASS
2.55	20	398	0.00007%		

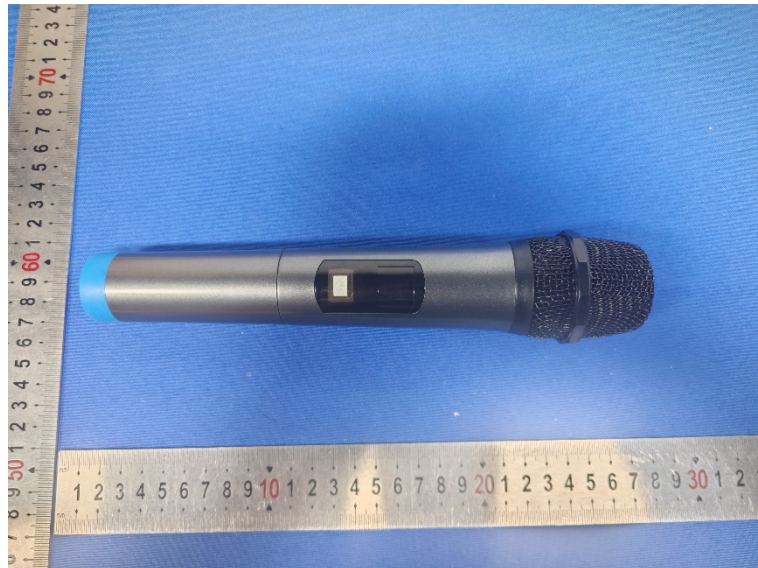
Reference Frequency: 606.05MHz					
Voltage (V)	Temperature (°C)	Frequency error (Hz)	Frequency Tolerance (%)	Limit (%)	Result
3.0	-20	388	0.00006%	±0.005	PASS
	-10	-655	-0.00011%		
	0	735	0.00012%		
	10	27	0.00000%		
	20	565	0.00009%		
	30	559	0.00009%		
	40	-405	-0.00007%		
	50	750	0.00012%		
3.45	20	-165	-0.00003%	±0.005	PASS
2.55	20	592	0.00010%		

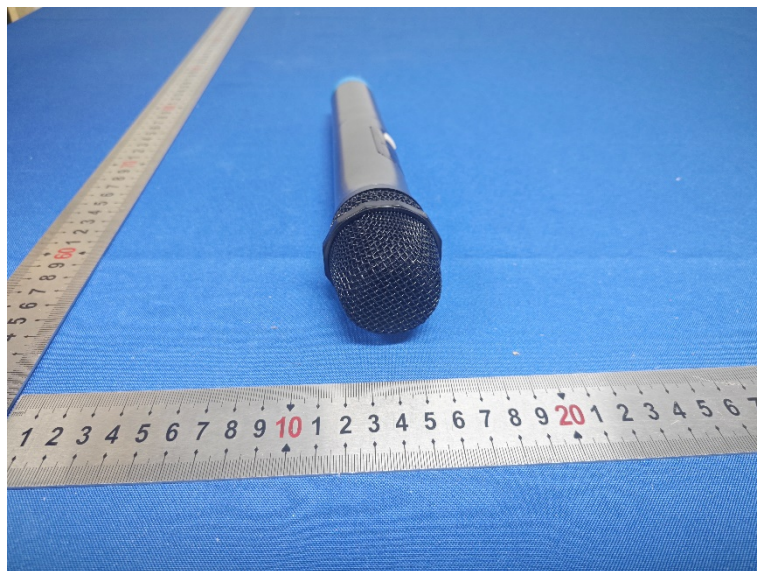
4 Test Setup Photographs of EUT

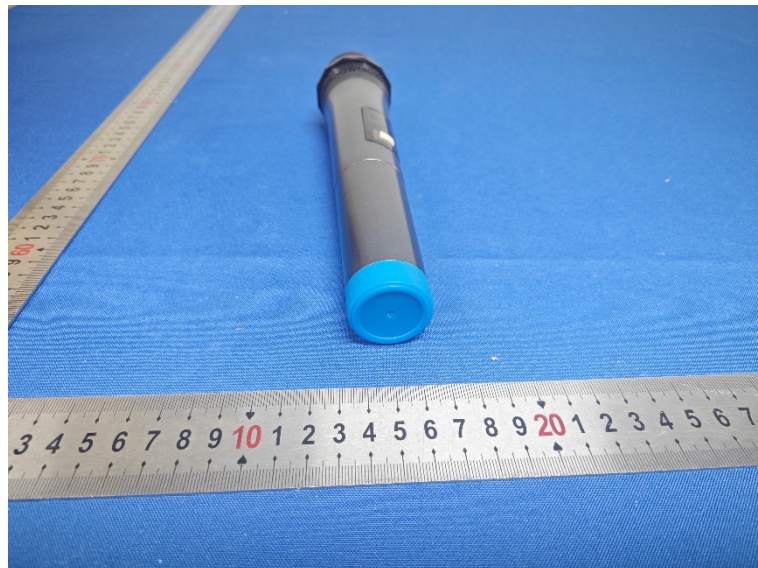


5 Photos of EUT

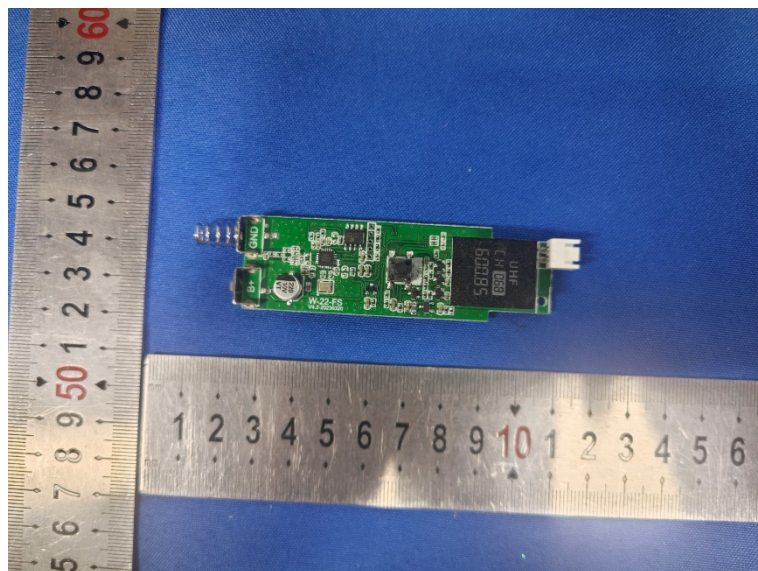
External Photos



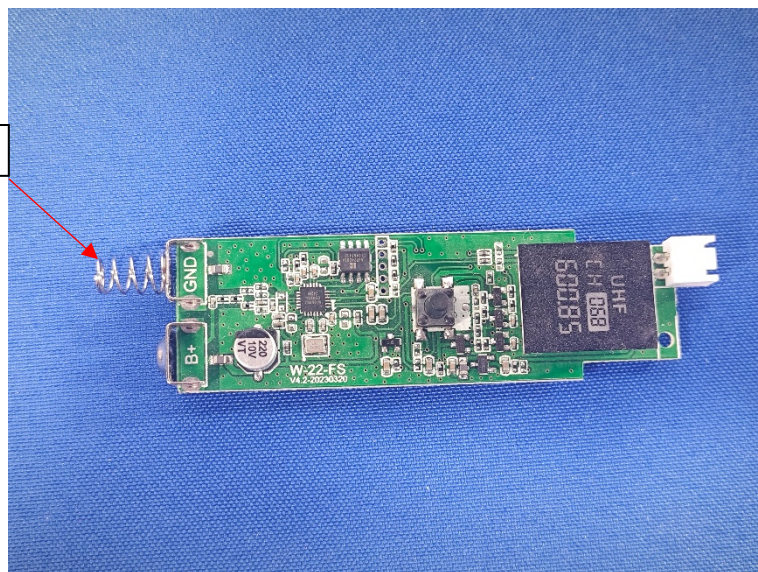


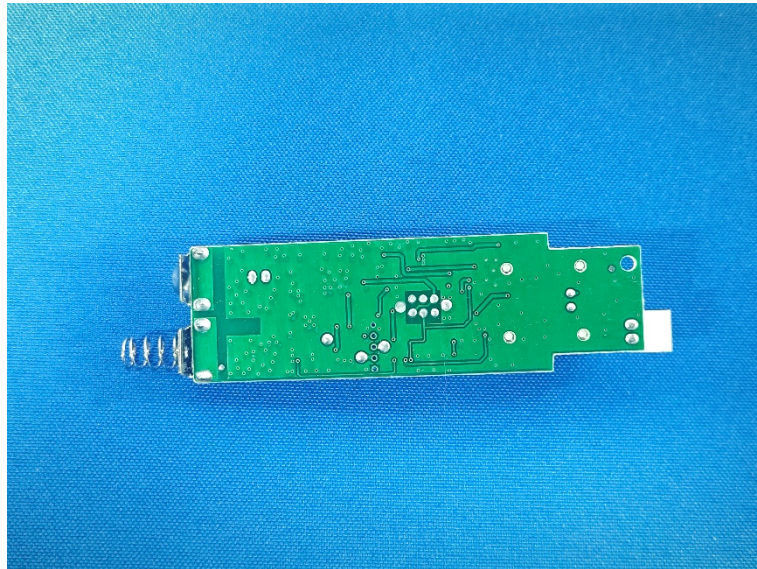


Internal photos



Antenna





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