TEST REPORT

Applicant:	Shenzhen Jianhao Technology Co., Ltd.
Address of Applicant:	3rd Floor, No. 2-5 Zhengcheng Second Road, Xintian Community, Fuhai Street, Bao'an District, Shenzhen, China
Manufacturer/ Factory:	Shenzhen Jianhao Technology Co., Ltd.
Address of Manufacturer/ Factory:	3rd Floor, No. 2-5 Zhengcheng Second Road, Xintian Community, Fuhai Street, Bao'an District, Shenzhen, China
Equipment Under Test (EUT)	
Product Name:	Meat Thermometer
Model No.:	C1, C2
FCC ID:	2BHCT-C1
Applicable standards:	FCC CFR Title 47 Part 15 Subpart C Section 15.231
Date of sample receipt:	May 16, 2025
Date of Test:	May 16, 2025-June 25, 2025
Date of report issued:	June 25, 2025
Test Result :	PASS *

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:

深圳市环球众一科技有限公司 Global United Technology Services Co., Ltd. 检验检测专用章 Inspection&Testing Services

Robinson Luo
Laboratory Manager

This results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

2 Version

Version No.	Date	Description
00	*June 25, 2025*	*Original*

Prepared By: ***Date:*** *June 25, 2025*

Project Engineer

Check By: ***Date:*** *June 25, 2025*

Reviewer

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4 Test Summary

Test Item	Section in	Result
Antenna requirement	CFR 47 15.203	Pass
Conduction Emission	CFR 47 15.207	N/A
Field strength of the fundamental signal	CFR 47 15.231(e)	Pass
Spurious emissions	CFR 47 15.231(e) &15.209	Pass
Occupy Bandwidth	CFR 47 15.231(c)	Pass
Dwell time	CFR 47 15.231(e)	Pass

Remarks:

1. *Pass: The EUT complies with the essential requirements in the standard.*
2. *N/A: not applicable*

4.1 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	$\pm 7.25\times10^{-8}$
2	Duty cycle	±0.37%
3	Occupied Bandwidth	±3%
4	RF conducted power	±0.75dB
5	RF power density	±3dB
6	Conducted Spurious emissions	±2.58dB
7	AC Power Line Conducted Emission	±3.44dB (0.15MHz ~ 30MHz)
8	Radiated Spurious emission test	±3.1dB (9kHz-30MHz)
		±3.8039dB (30MHz-200MHz)
		±3.9679dB (200MHz-1GHz)
		±4.29dB (1GHz-18GHz)
		±3.30dB (18GHz-40GHz)
9	Temperature test	±1°C
10	Humidity test	±3%
11	Time	±3%

5 General Information

5.1 General Description of EUT

Product Name:	Meat Thermometer
Model No.:	C1, C2
Test Model No.:	C1
Remark: All above models are identical in the same PCB layout, interior structure and electrical circuits The only difference is model name for commercial purpose.	
S/N:	C120240707
Test sample(s) ID:	GTS2025050212-1
Sample(s) Status	Engineer sample
Operation Frequency:	433.92MHz
Modulation type:	ASK
Antenna Type:	Wire Antenna
Antenna gain:	0dBi(Declared by applicant)
Power supply:	DC 3V(2*1.5V Size“AAA” Battery)

Remark:
1. Antenna gain information provided by the customer
2. The relevant information of the sample is provided by the entrusting company, and the laboratory is not responsible for its authenticity.

5.2 Test mode

Transmitting mode	Keep the EUT in transmitting mode.

Per-test mode.

We have verified the construction and function in typical operation, The EUT was placed on three different polar directions; i.e. X axis, Y axis, Z axis. which was shown in this test report (Only show the worst case:Y axis) and defined as follows:

433.92MHz	Axis	X	Y	Z
	Field Strength(dBuV/m)	56.41	57.80	55.47

Final Test Mode:

According to ANSI C63.10 standards, the test results are both the “worst case” and “worst setup”:

Y axis (see the test setup photo)

5.3 Test Facility

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

● **FCC—Registration No.: 381383**

Designation Number: CN5029

Global United Technology Services Co., Ltd., Shenzhen EMC Laboratory 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 files.

● **ISED—Registration No.: 9079A**

CAB identifier: CN0091

The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been registered by Certification and Engineering Bureau of ISED for radio equipment testing

● **NVLAP (LAB CODE:600179-0)**

Global United Technology Services Co., Ltd., is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP).

5.4 Test Location

All tests were performed at:

Global United Technology Services Co., Ltd.
No. 123- 128, Tower A, Jinyuan Business Building, No.2, Laodong Industrial Zone,
Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102
Tel: 0755-27798480
Fax: 0755-27798960

5.5 Description of Support Units

None.

5.6 Deviation from Standards

None.

5.7 Abnormalities from Standard Conditions

None.

5.8 Other Information Requested by the Customer

None.

6 Test Instruments list

Radiated Emission:						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal.Date (mm-dd-yy)**	**Cal.Due date (mm-dd-yy)**
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)* 6.4(H)	GTS250	Apr. 11, 2025	Apr. 10, 2026
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A
3	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	Apr. 12, 2025	Apr. 11, 2026
4	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9168	GTS640	Apr. 12, 2025	Apr. 11, 2026
5	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120 D	GTS208	Apr. 11, 2025	Apr. 10, 2026
6	Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	GTS575	Jul. 02, 2024	Jul. 01, 2025
7	Loop Antenna	ZHINAN	ZN30900A	GTS534	Nov.16, 2024	Nov.15, 2025
8	Broadband Preamplifier	SCHWARZBECK	BBV9718	GTS535	Apr. 11, 2025	Apr. 10, 2026
9	Amplifier(1GHz-26.5GHz)	HP	8449B	GTS601	Apr. 11, 2025	Apr. 10, 2026
10	Horn Antenna (18GH-40GHz)	Schwarzbeck	BBHA 9170	GTS691	Apr. 11, 2025	Apr. 10, 2026
11	FSV·Signal Analyzer (10Hz-40GHz)	Keysight	FSV-40-N	GTS666	Mar. 11, 2025	Mar. 10, 2026
12	Amplifier	/	LNA-1000-30S	GTS650	Apr. 11, 2025	Apr. 10, 2026
13	CDNE M2+M3-16A	HCT	30MHz-300MHz	GTS692	Nov. 13, 2024	Nov. 12, 2025
14	Wideband Amplifier	/	WDA-01004000-15P35	GTS602	Apr. 11, 2025	Apr. 10, 2026
15	Thermo meter	JINCHUANG	GSP-8A	GTS643	Apr. 15, 2025	Apr. 14, 2026
16	RE cable 1	GTS	N/A	GTS675	Jul. 02, 2024	Jul. 01, 2025
17	RE cable 2	GTS	N/A	GTS676	Jul. 02, 2024	Jul. 01, 2025
18	RE cable 3	GTS	N/A	GTS677	Jul. 02, 2024	Jul. 01, 2025
19	RE cable 4	GTS	N/A	GTS678	Jul. 02, 2024	Jul. 01, 2025
20	RE cable 5	GTS	N/A	GTS679	Jul. 02, 2024	Jul. 01, 2025
21	RE cable 6	GTS	N/A	GTS680	Jul. 02, 2024	Jul. 01, 2025
22	RE cable 7	GTS	N/A	GTS681	Jul. 05, 2024	Jul. 04, 2025
23	RE cable 8	GTS	N/A	GTS682	Jul. 05, 2024	Jul. 04, 2025
24	EMI Test Software	AUDIX	E3-6.100614a	GTS725	N/A	N/A

RF Conducted Test:						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Serial No.**	**Cal.Date (mm-dd-yy)**	**Cal.Due date (mm-dd-yy)**
1	MXA Signal Analyzer	Agilent	N9020A	GTS566	Apr. 11, 2025	Apr. 10, 2026
2	EMI Test Receiver	R&S	ESCI 7	GTS552	Apr. 12, 2025	Apr. 11, 2026
3	PSA Series Spectrum Analyzer	Agilent	E4440A	GTS536	Apr. 11, 2025	Apr. 10, 2026
4	MXG vector Signal Generator	Agilent	N5182A	GTS567	Apr. 11, 2025	Apr. 10, 2026
5	ESG Analog Signal Generator	Agilent	E4428C	GTS568	Apr. 11, 2025	Apr. 10, 2026
6	Wideband Power Meter	Keysighte	N1924A	GTS673	Apr. 11, 2025	Apr. 10, 2026
7	USB RF Power Sensor	DARE	RPR3006W	GTS569	Apr. 11, 2025	Apr. 10, 2026
8	RF Switch Box	Shongyi	RFSW3003328	GTS571	Apr. 11, 2025	Apr. 10, 2026
9	Programmable Constant Temp & Humi Test Chamber	WEWON	WHTH-150L-40-880	GTS572	Apr. 11, 2025	Apr. 10, 2026
10	Thermo meter	JINCHUANG	GSP-8A	GTS641	Apr. 15, 2025	Apr. 14, 2026
11	EXA Signal Analyzer	Keysight	N9010B	MY60241168	Nov. 02, 2024	Nov. 01, 2025

General used equipment:						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal.Date (mm-dd-yy)**	**Cal.Due date (mm-dd-yy)**
1	Barometer	KUMAO	SF132	GTS647	Aug. 17, 2024	Aug. 16, 2025

7 Test results and Measurement Data

7.1 Antenna requirement

Standard requirement:	FCC Part15 C Section 15.203
15.203 requirement: 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.	
EUT Antenna:	
The antenna is wire antenna, reference to the EUT constructional details.	

7.2 Radiated Emission Method

Test Requirement:	FCC Part15 C Section 15.209
Test Method:	ANSI C63.10:2013
Test Frequency Range:	9kHz to 6000MHz
Test site:	Measurement Distance: 3m

Receiver setup:

Frequency	Detector	RBW	VBW	Value
9KHz-150KHz	Quasi-peak	200Hz	600Hz	Quasi-peak
150KHz-30MHz	Quasi-peak	9KHz	30KHz	Quasi-peak
30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak
Above 1GHz	Peak	1MHz	3MHz	Peak
	Peak	1MHz	10Hz	Average

Limit:
(Field strength of the fundamental signal)

Frequency	Limit (dBuV/m @3m)	Remark
433.92MHz	72.87	Average Value
	92.87	Peak Value

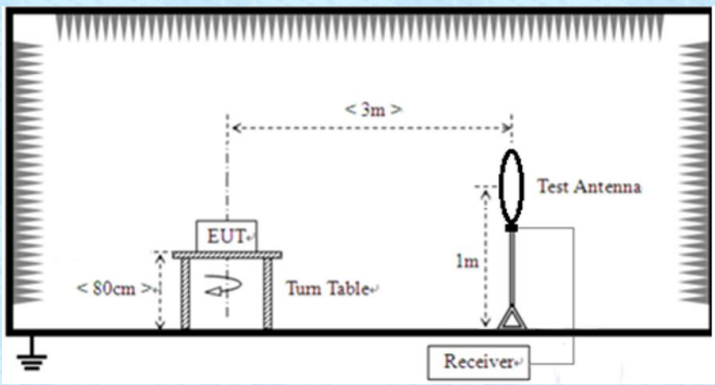
Limit:
(Spurious Emissions)

Frequency	Limit (uV/m)	Value	Measurement Distance
0.009MHz-0.490MHz	2400/F(KHz)	QP	300m
0.490MHz-1.705MHz	24000/F(KHz)	QP	30m
1.705MHz-30MHz	30	QP	30m
30MHz-88MHz	100	QP	3m
88MHz-216MHz	150	QP	
216MHz-960MHz	200	QP	
960MHz-1GHz	500	QP	
Above 1GHz	500	Average	
	5000	Peak	

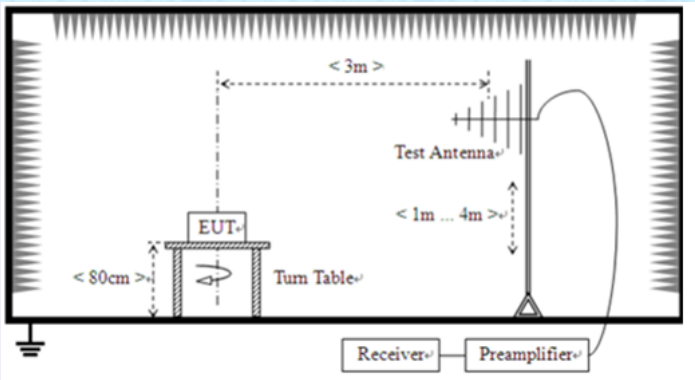
Or The maximum permitted unwanted emission level is 20 dB below the maximum permitted fundamental level whichever limit permits a higher field strength.

Test setup:

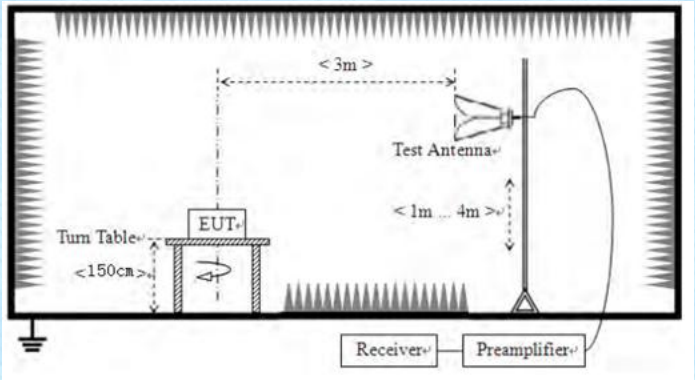
Below 30MHz



Below 1GHz



Above 1GHz



Test Procedure:	1. The EUT was placed on the top of a rotating table (0.8 meters for below 1GHz and 1.5 meters for above 1GHz) above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. 4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading. 5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. 6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test environment:	Temp.: 25 °C Humid.: 50% Press.: 1 010mbar
Test voltage:	DC 3V
Test results:	Pass

Measurement data:

7.2.1 Field Strength of The Fundamental Signal

Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
433.92	58.75	15.58	3.99	32.23	46.09	92.87	-46.78	Vertical
433.92	70.46	15.58	3.99	32.23	57.80	92.87	-35.07	Horizontal

Average value:

Frequency (MHz)	Peak Value (dBuV/m)	Duty cycle factor	Average value (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
433.92	46.09	-9.48	36.61	72.87	-36.26	Vertical
433.92	57.80	-9.48	48.32	72.87	-24.55	Horizontal

Remarks:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *PK Value under PK limit more than 20db, then pass for AV value.*

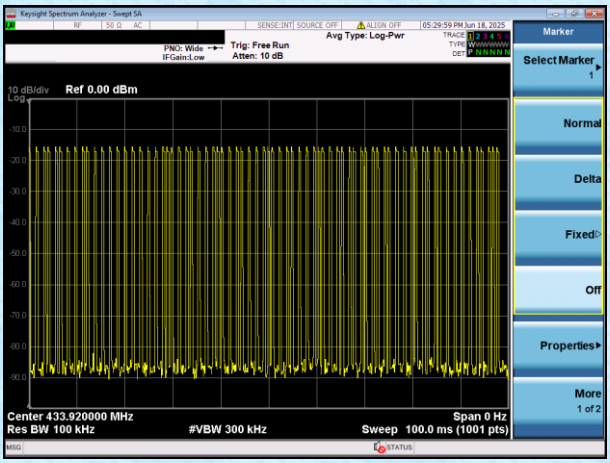
Average value:	
Calculate Formula:	Average value=Peak value + Duty Cycle Factor
	Duty cycle factor=20 log(Duty cycle)
	Duty cycle=on time/100 milliseconds or period, whichever is less
Test data:	T on time =33.58(ms)
	T period =100(ms)
	Duty cycle=0.336
	duty cycle factor=-9.48

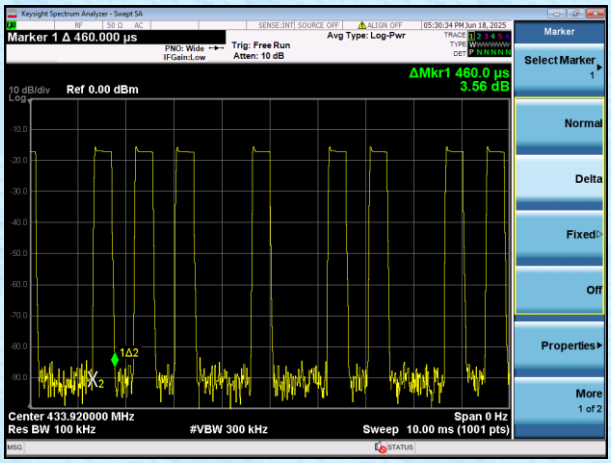
The formula as below:

T on time=0.46*73=33.58

Duty cycle= T on time/ T period=33.58/100=0.336

Test plot as follows:





7.2.2 Spurious emissions

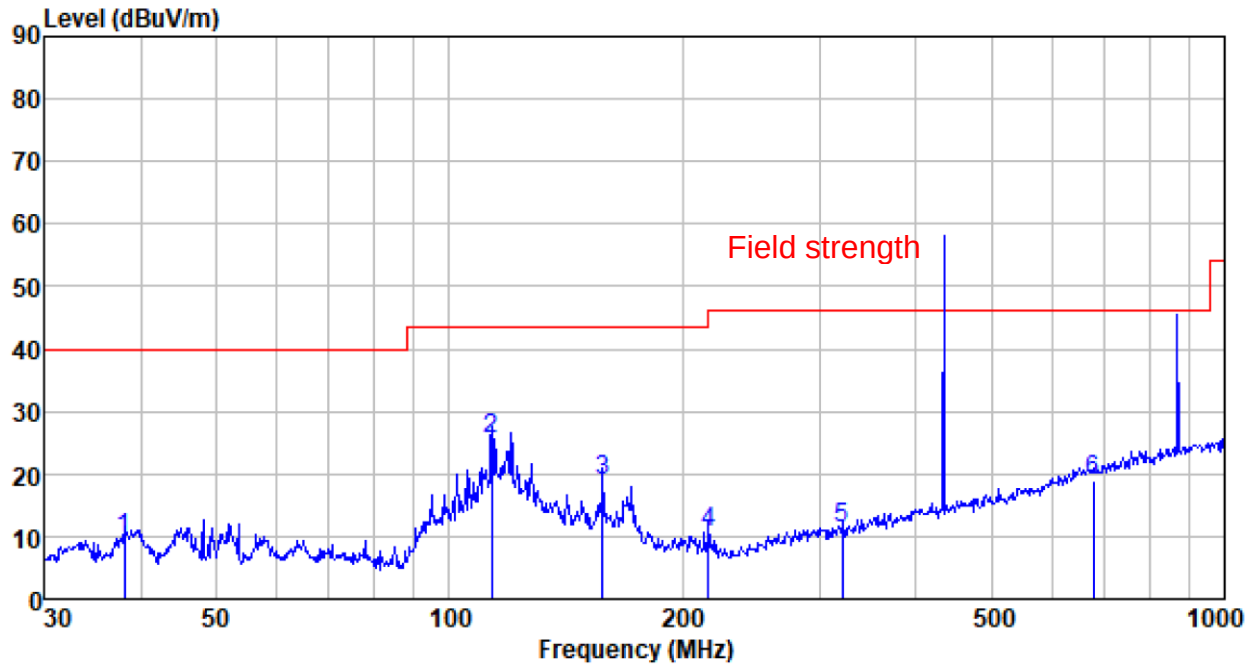
Measurement data:

9 kHz ~ 30 MHz

The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per 15.31(o) was not reported.

Below 1GHz:

Test channel:	**433.92MHz**	**Polarization:**	**Horizontal**



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
38.078	26.66	13.92	1.23	32.30	9.51	40.00	-30.49	QP
113.316	44.36	11.53	2.10	32.49	25.50	43.50	-18.00	QP
157.559	34.08	14.74	2.53	32.44	18.91	43.50	-24.59	QP
216.024	30.16	9.76	2.96	32.38	10.50	46.00	-35.50	QP
321.061	27.10	12.92	3.53	32.29	11.26	46.00	-34.74	QP
677.580	25.18	20.25	4.98	31.55	18.86	46.00	-27.14	QP

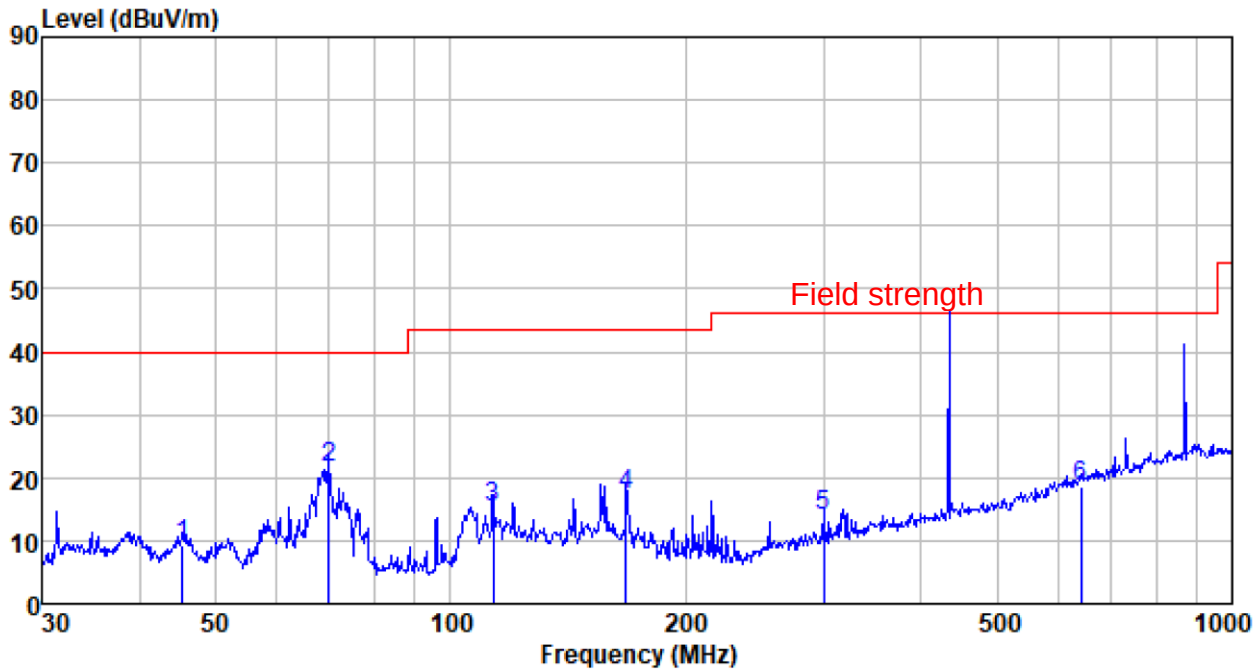
Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
867.84	48.07	22.76	5.65	31.10	45.38	72.87	-27.49	Horizontal

Average value:

Frequency (MHz)	Level (dBuV/m)	Duty cylcle factor	Average Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
867.84	45.38	-9.48	35.90	52.87	-16.97	Horizontal

Test channel:	433.92MHz	Polarization:	Vertical



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
45.375	26.83	13.46	1.33	32.30	9.32	40.00	-30.68	QP
69.845	41.36	10.82	1.65	32.38	21.45	40.00	-18.55	QP
113.316	34.20	11.53	2.10	32.49	15.34	43.50	-28.16	QP
167.824	33.43	13.62	2.62	32.43	17.24	43.50	-26.26	QP
300.367	30.39	12.41	3.42	32.30	13.92	46.00	-32.08	QP
640.611	25.80	19.80	4.82	31.68	18.74	46.00	-27.26	QP

Peak value:

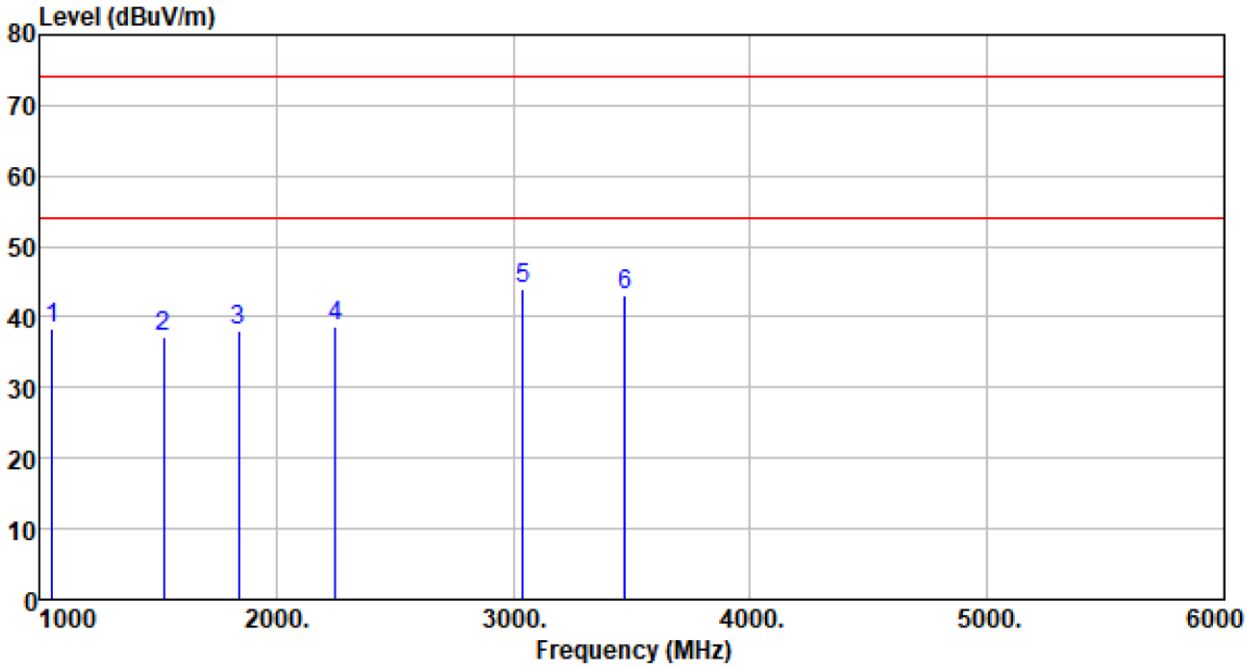
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
867.84	43.76	22.76	5.65	31.10	41.07	72.87	-31.80	Vertical

Average value:

Frequency (MHz)	Level (dBuV/m)	Duty cylcle factor	Average Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
867.84	41.07	-9.48	31.59	52.87	-21.28	Vertical

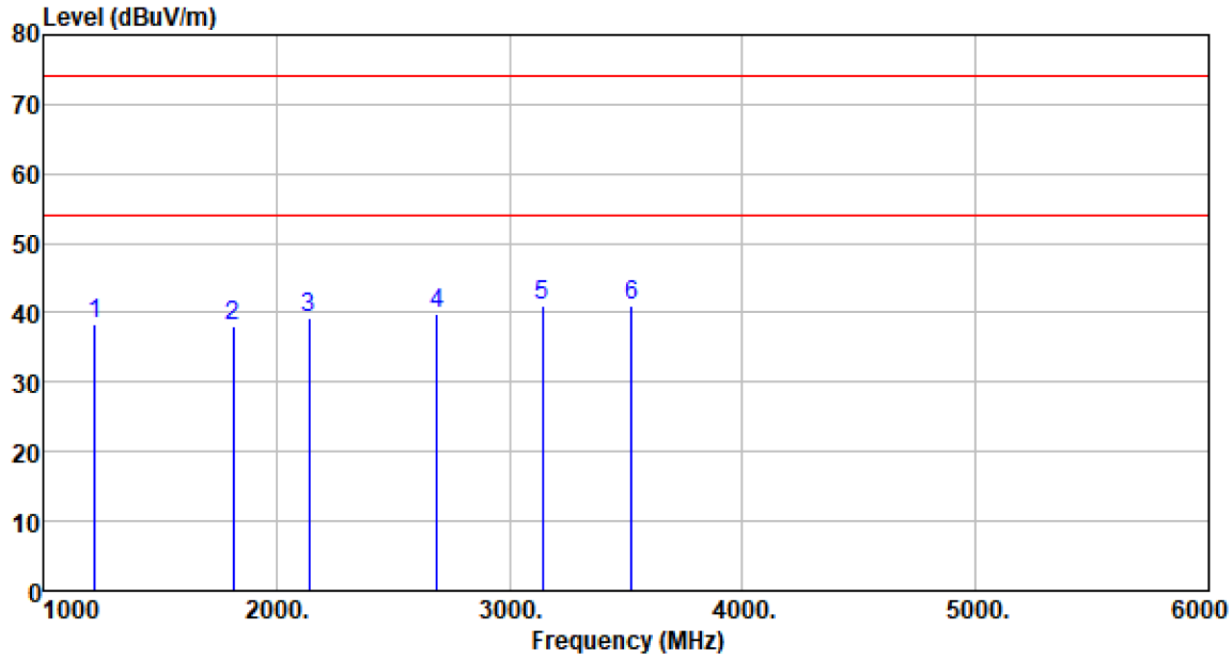
Above 1G:

Test channel:	**433.92MHz**	**Polarization:**	**Horizontal**



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
1055.000	50.81	25.30	2.94	40.67	38.38	74.00	-35.62	Peak
1525.000	47.91	24.90	3.88	39.54	37.15	74.00	-36.85	Peak
1840.000	47.16	25.16	4.59	38.78	38.13	74.00	-35.87	Peak
2250.000	46.77	26.90	4.11	39.00	38.78	74.00	-35.22	Peak
3040.000	49.40	28.80	4.66	38.98	43.88	74.00	-30.12	Peak
3470.000	47.61	29.34	5.01	38.72	43.24	74.00	-30.76	Peak

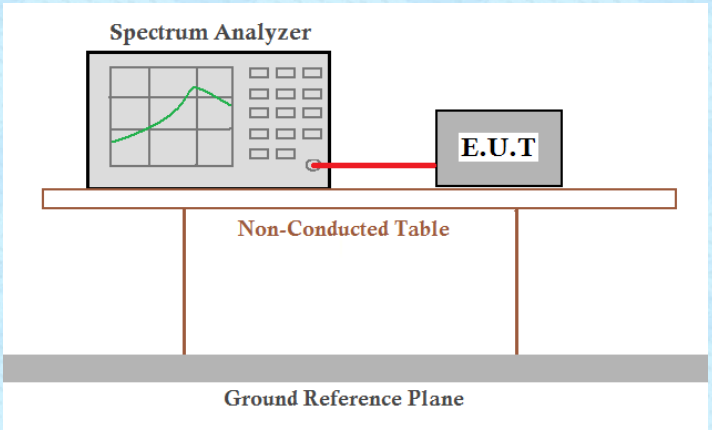
Test channel:	433.92MHz	Polarization:	Vertical



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
1220.000	49.95	25.20	3.36	40.27	38.24	74.00	-35.76	Peak
1815.000	47.19	25.06	4.63	38.84	38.04	74.00	-35.96	Peak
2140.000	47.18	26.68	4.15	38.74	39.27	74.00	-34.73	Peak
2690.000	47.31	27.88	4.11	39.37	39.93	74.00	-34.07	Peak
3140.000	46.25	28.98	4.75	38.92	41.06	74.00	-32.94	Peak
3525.000	45.37	29.45	4.99	38.68	41.13	74.00	-32.87	Peak

Remarks:
1. Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. If the average limit is met when using a Peak detector, the EUT shall be deemed to meet both peak and average limits. And measurement with the average detector is unnecessary.

7.3 Occupy Bandwidth

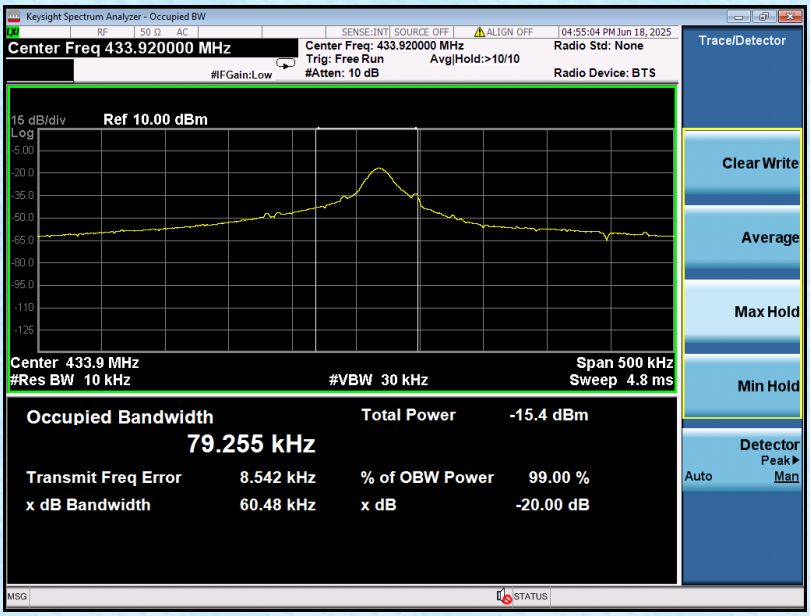
Test Requirement:	FCC Part15 C Section 15.231 (c)
Test Method:	ANSI C63.10:2013
Limit:	The bandwidth of the emission shall be no wider than 0.25% of the center frequency for devices operating above 70 MHz and below 900MHz. For devices operating above 900 MHz, the emission shall be no wider than 0.5% of the center frequency. Bandwidth is determined at the points 20 dB down from the modulated carrier.
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.3 for details
Test results:	Pass

Measurement Data

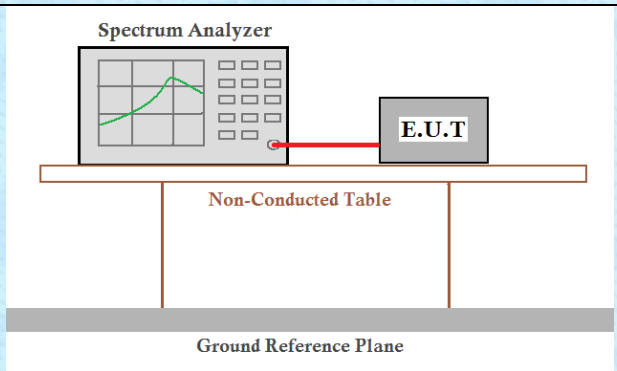
Test Frequency (MHz)	20dB bandwidth (kHz)	99% bandwidth(kHz)	Limit (MHz)	Result
433.92	60.48	79.26	1.0848	Pass

Note: Limit= Fundamental frequency×0.25%

Test plot as follows:



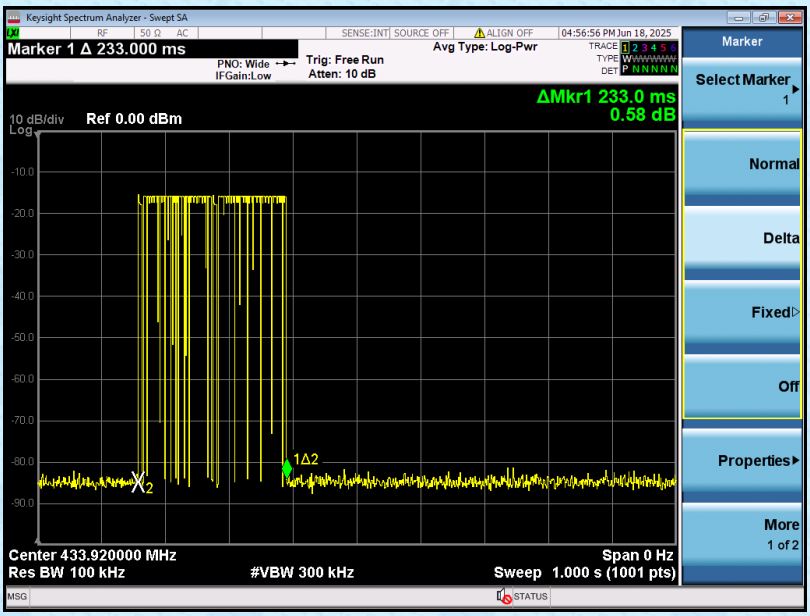
7.4 Dwell time

Test Requirement:	FCC Part15 C Section 15.231 (e)
Test Method:	ANSI C63.10:2013
Receiver setup:	RBW=1MHz, VBW=1MHz, span=0Hz, detector: Peak
Limit:	Not more than 1 seconds
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

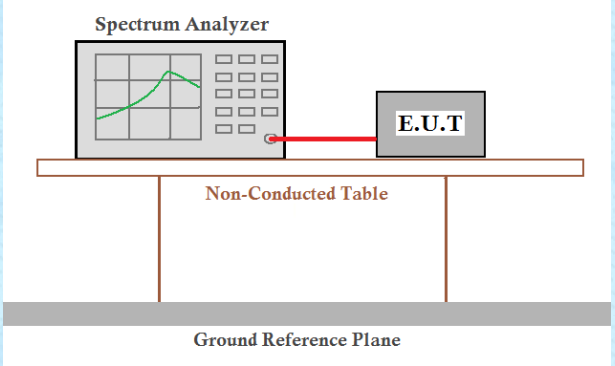
Measurement data:

Test Frequency (MHz)	Duration of each TX (second)	Limit (second)	Result
433.92	0.233	<1.0	Pass

Test plot as follows:



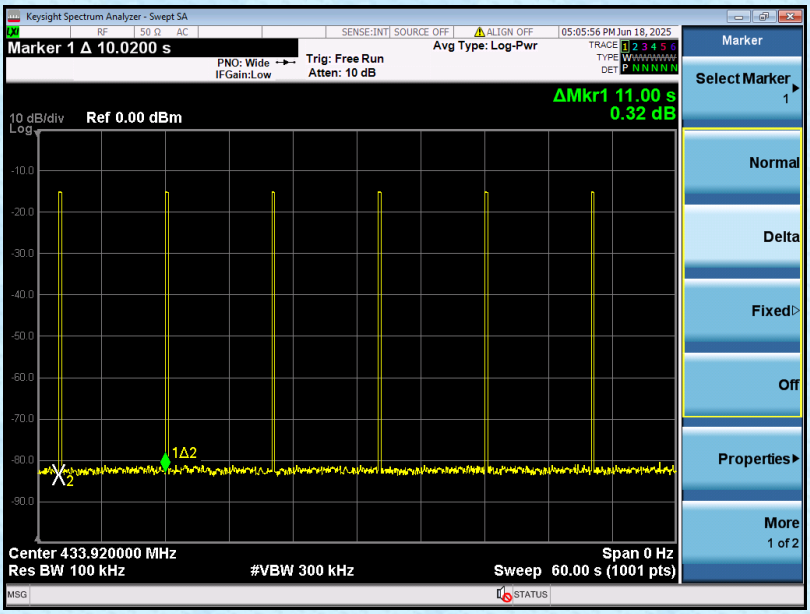
7.5 Silent period

Test Requirement:	FCC Part15 C Section 15.231 (e)
Test Method:	ANSI C63.10:2013
Receiver setup:	RBW=1MHz, VBW=1MHz, span=0Hz, detector: Peak
Limit:	at least 30 times the duration of the transmission or more than 10 seconds
Test Procedure:	1. According to the follow Test-setup, keep the relative position between the artificial antenna and the EUT. 2. Set the EUT to proper test channel. 3. Single scan the transmit, and read the transmission time.
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Measurement data:

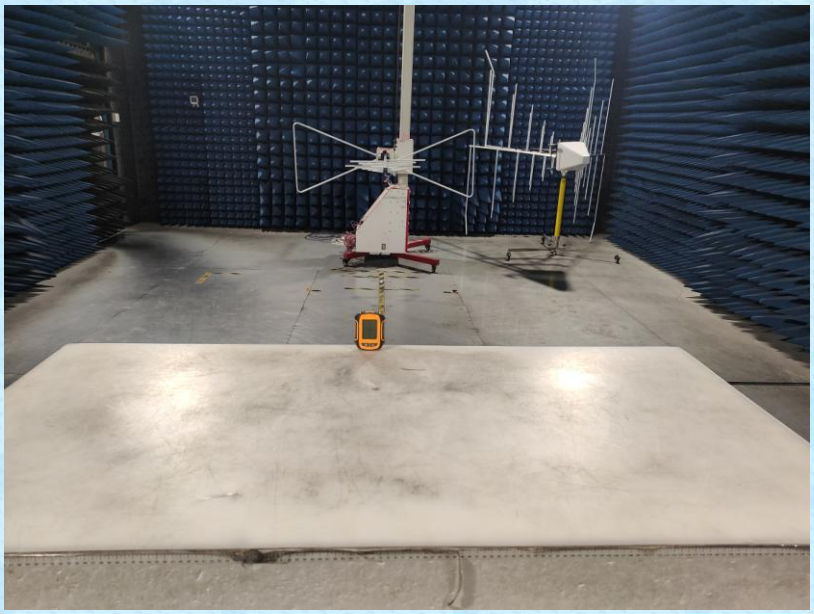
Test Frequency (MHz)	Silent period (second)	Limit (second)	Result
433.92	11.0	>10	Pass

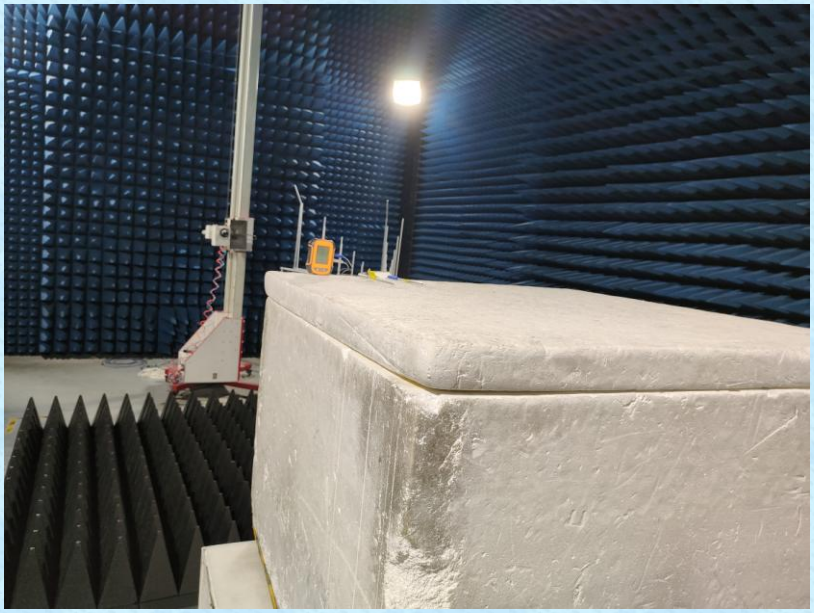
Test plot as follows:



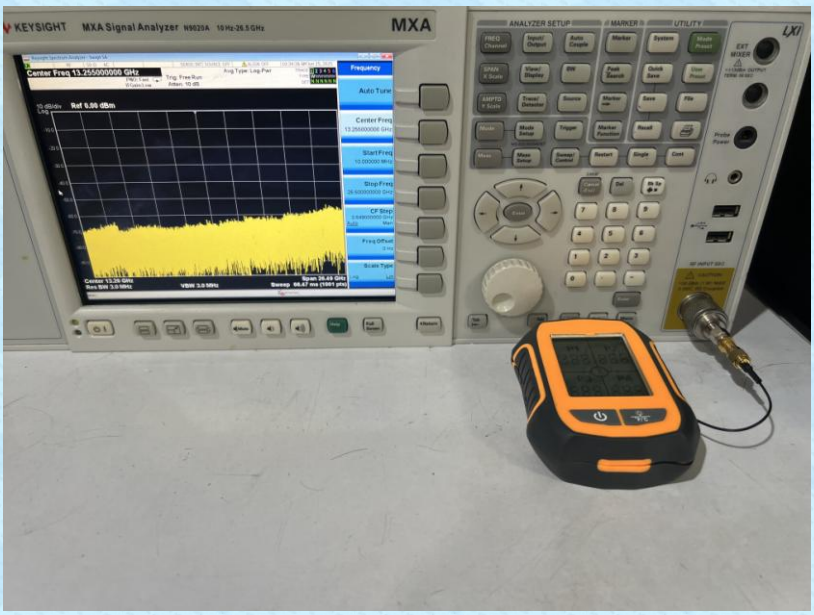
8 Test Setup Photo

Radiated Emission

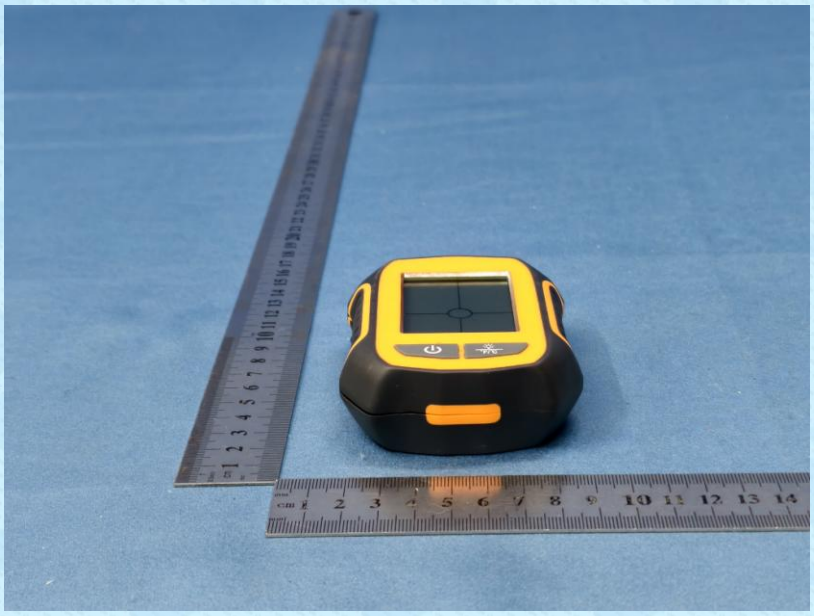


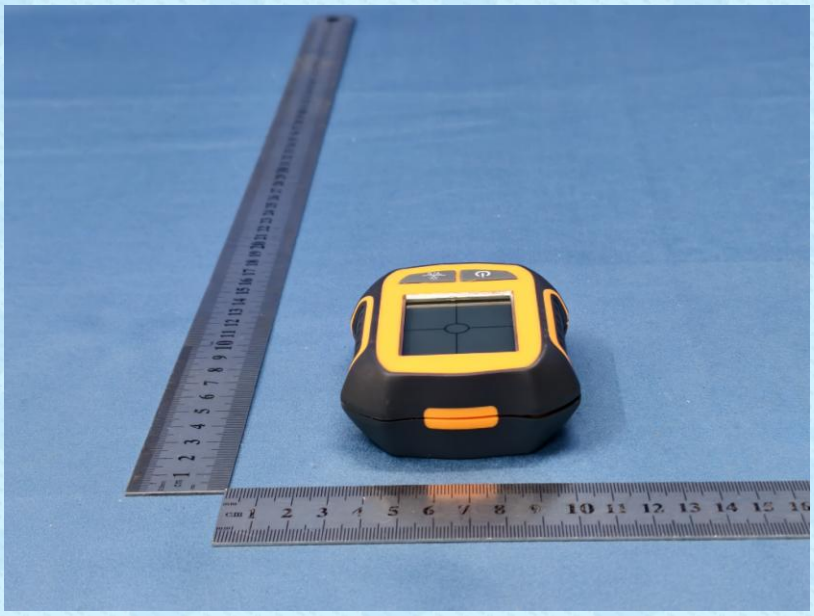


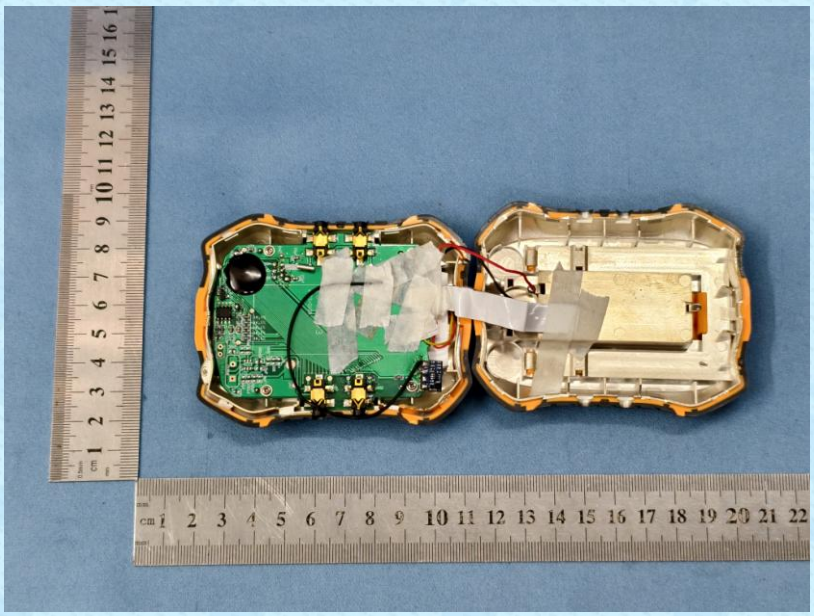
RF Conducted Test

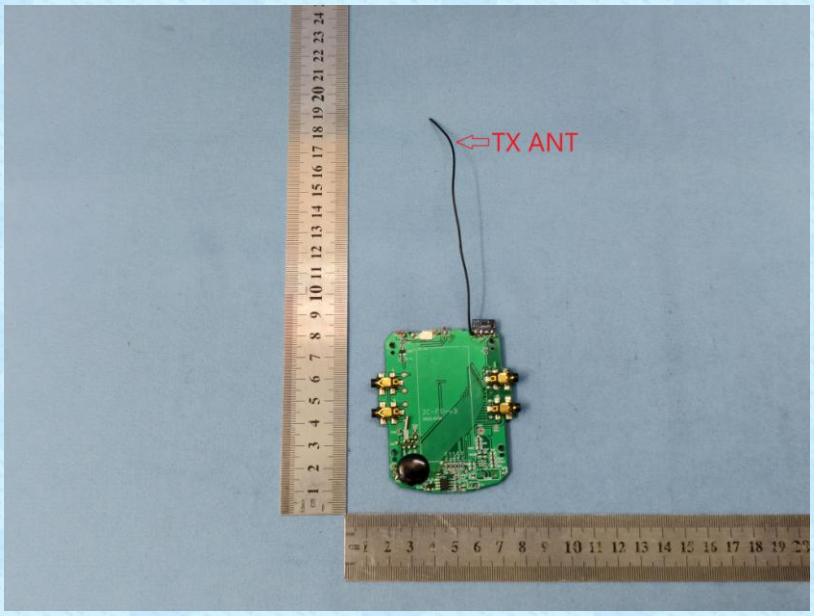


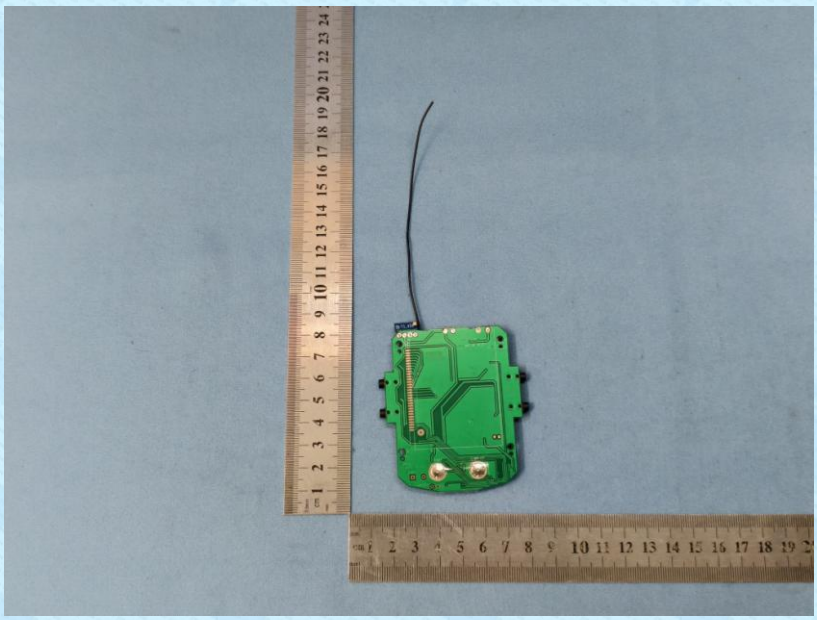
9 EUT Constructional Details











------End------