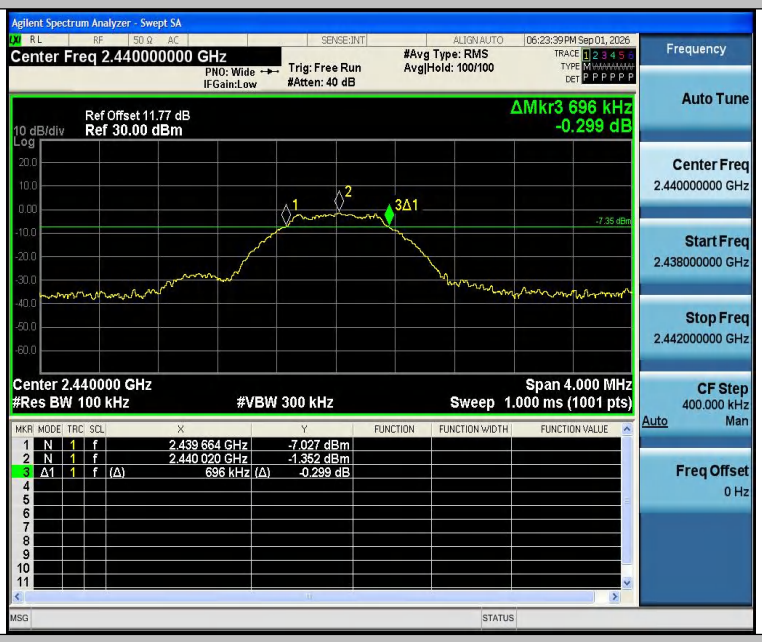
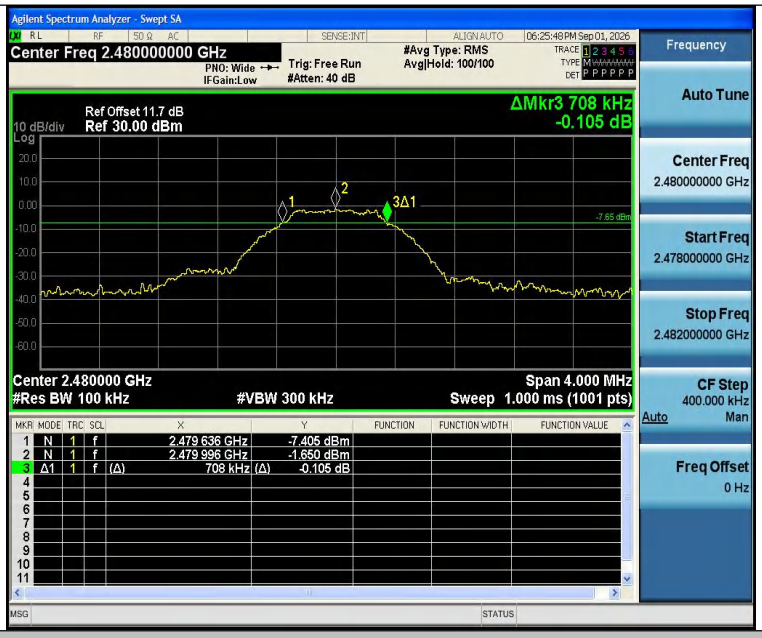
Test Graphs:

BLE_1M-Ant1-2402-PASS

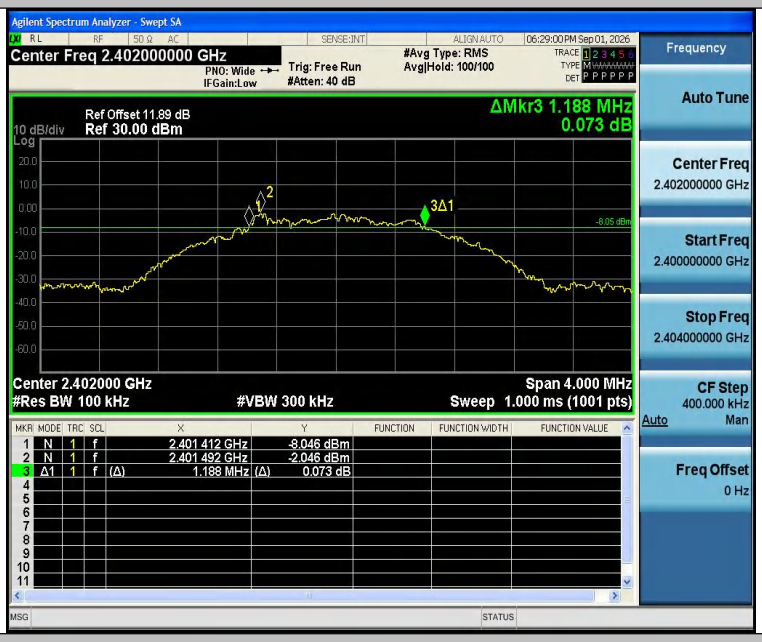
BLE_1M-Ant1-2440-PASS



BLE_1M-Ant1-2480-PASS



BLE_2M-Ant1-2402-PASS



BLE_2M-Ant1-2440-PASS

BLE_2M-Ant1-2480-PASS

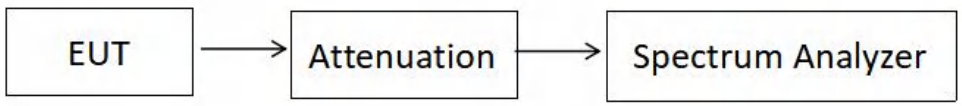
9 Maximum Peak Output Power

Test Requirement	:	FCC CFR47 Part 15 Section 15.247
Test Method	:	ANSI C63.10-2020
Test Limit	:	Regulation 15.247 (b)(3), For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power.

9.1 Test Procedure

1. The RF output of EUT was connected to the spectrum analyzer by RF cable and 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. Measure the conducted output power and record the results in the test report.

9.2Test Setup

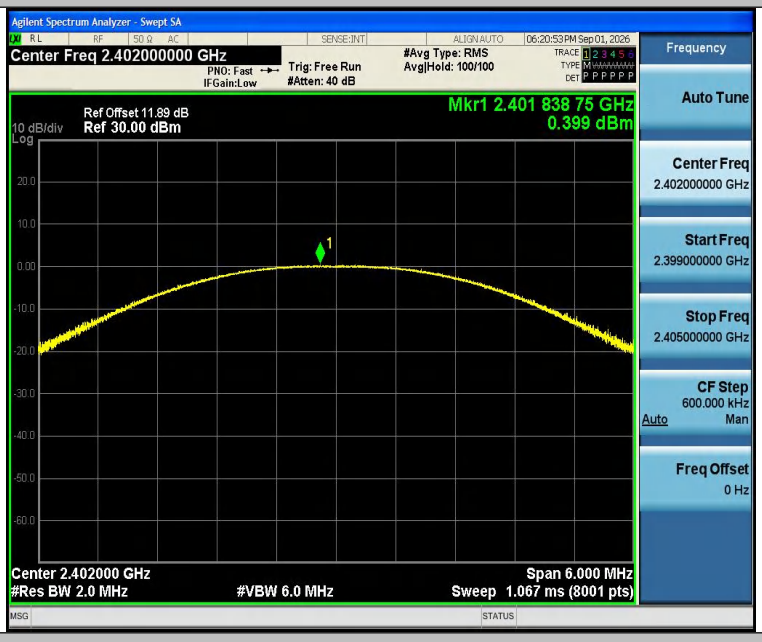


9.3 Test Result

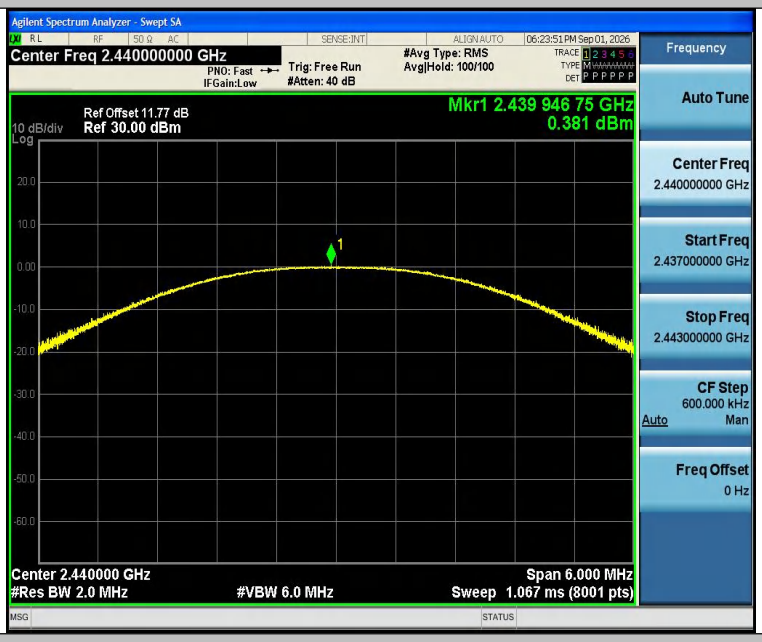
Test Mode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0.4	≤30	PASS
BLE_1M	Ant1	2440	0.38	≤30	PASS
BLE_1M	Ant1	2480	0.51	≤30	PASS
BLE_2M	Ant1	2402	0.2	≤30	PASS
BLE_2M	Ant1	2440	0.2	≤30	PASS
BLE_2M	Ant1	2480	0.26	≤30	PASS

Test Graphs:

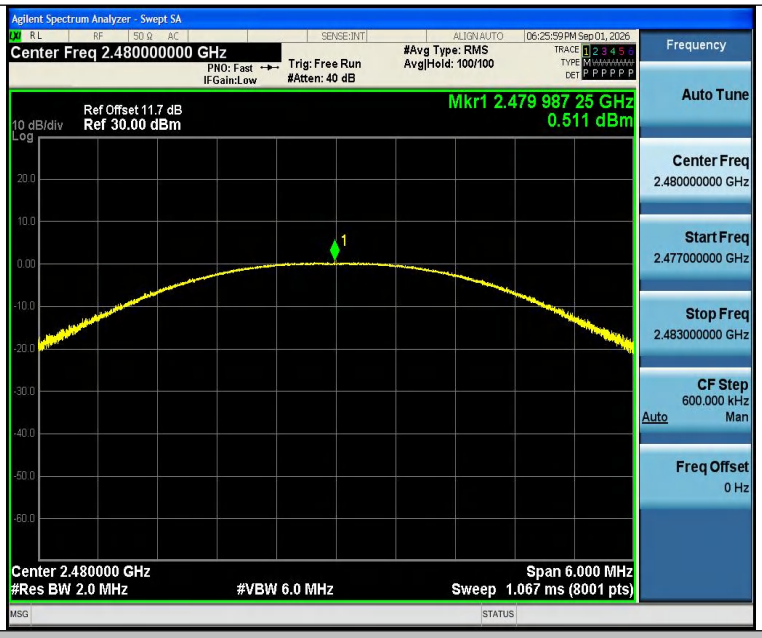
BLE_1M-Ant1-2402-PASS



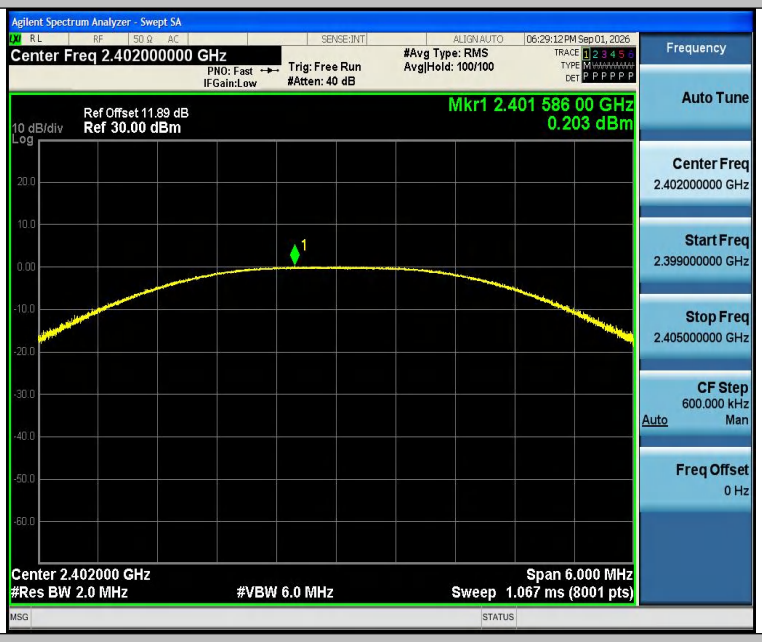
BLE_1M-Ant1-2440-PASS



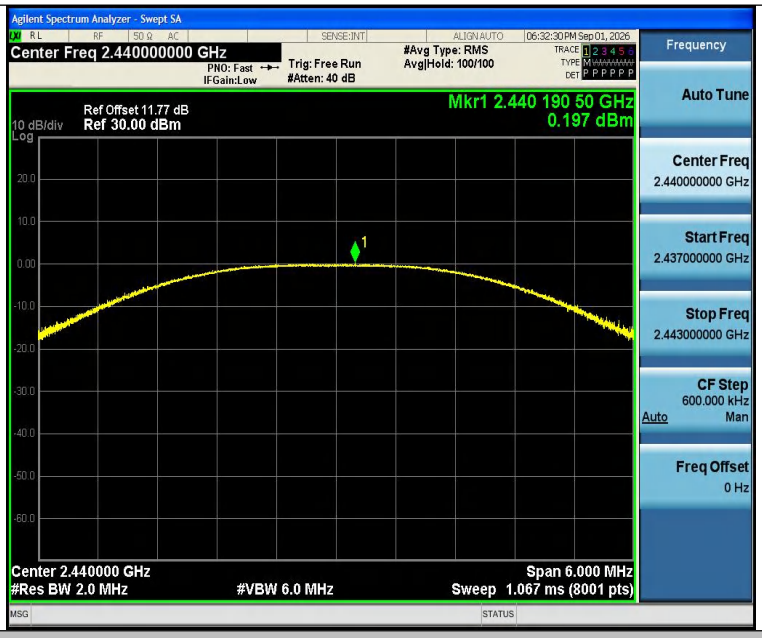
BLE_1M-Ant1-2480-PASS



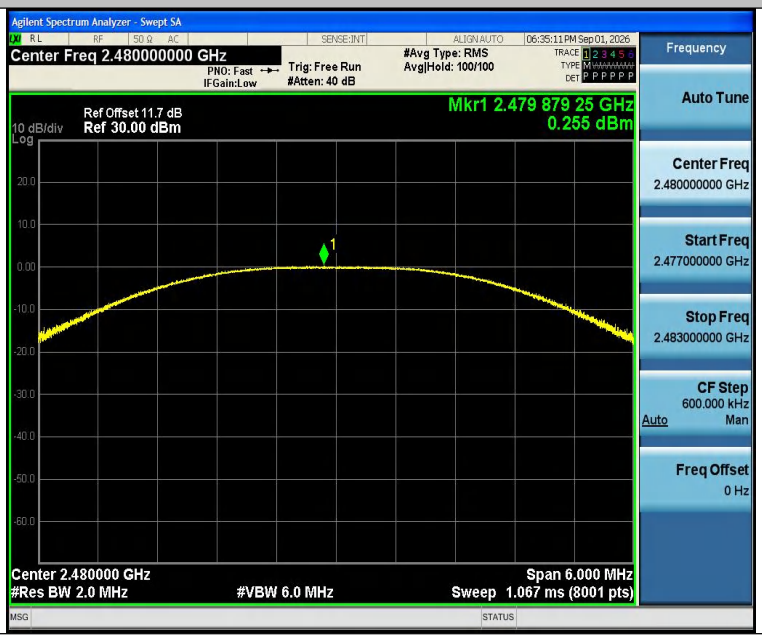
BLE_2M-Ant1-2402-PASS



BLE_2M-Ant1-2440-PASS



BLE_2M-Ant1-2480-PASS



10 Power Spectral density

Test Requirement	:	FCC CFR47 Part 15 Section 15.247
Test Method	:	ANSI C63.10-2020
Test Limit	:	Regulation 15.247(f) The power spectral density conducted from the intentional radiator to the antenna due to the digital modulation operation of the hybrid system, with the frequency hopping operation turned off, shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

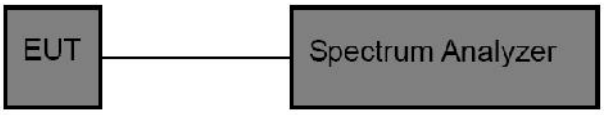
10.1 Test Procedure

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum.

2. Set the spectrum analyzer: RBW = 3kHz. VBW = 10kHz , Span = 1.5 times the DTS channel bandwidth(6 dB bandwidth). Sweep = auto; Detector Function = Peak. Trace = Max hold.

3. Allow the trace to stabilize. Use the marker-delta function to determine the separation between the peaks of the adjacent channels. The limit is specified in one of the subparagraphs of this Section Submit this plot.

10.2 Test Setup

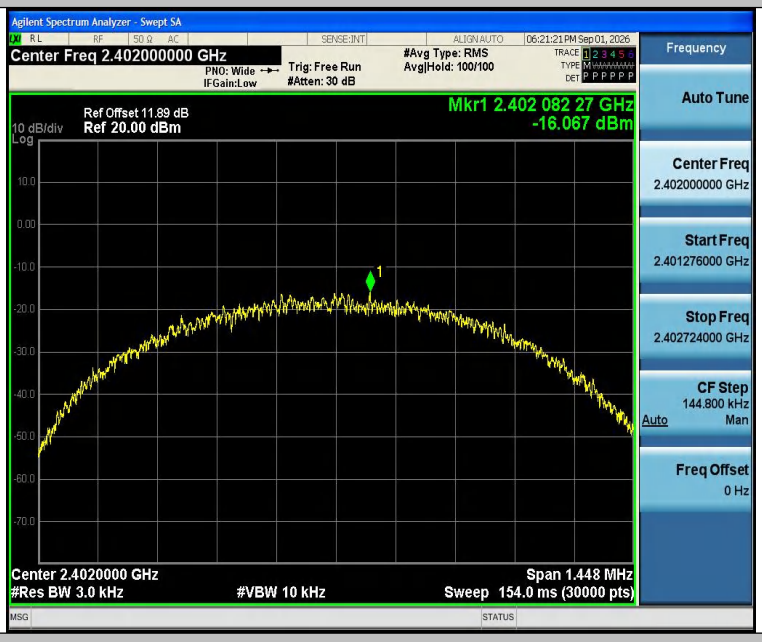


10.3 Test Result

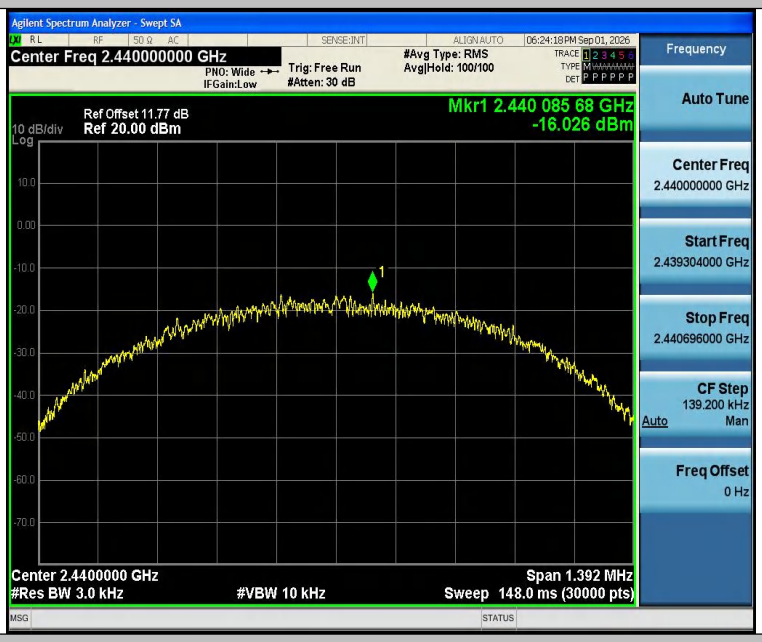
Test Mode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-16.07	≤8.00	PASS
BLE_1M	Ant1	2440	-16.03	≤8.00	PASS
BLE_1M	Ant1	2480	-15.8	≤8.00	PASS
BLE_2M	Ant1	2402	-19.11	≤8.00	PASS
BLE_2M	Ant1	2440	-19.58	≤8.00	PASS
BLE_2M	Ant1	2480	-19.6	≤8.00	PASS

Test Graphs:

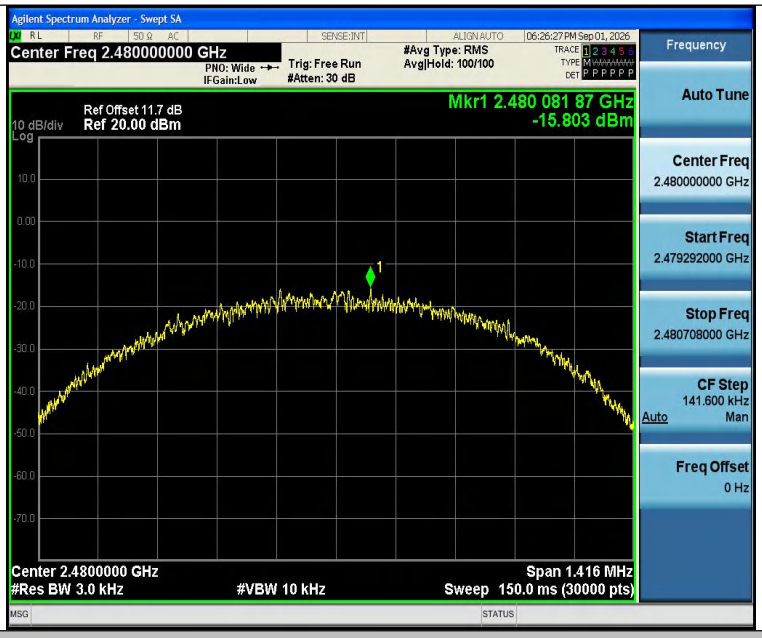
BLE_1M-Ant1-2402-PASS



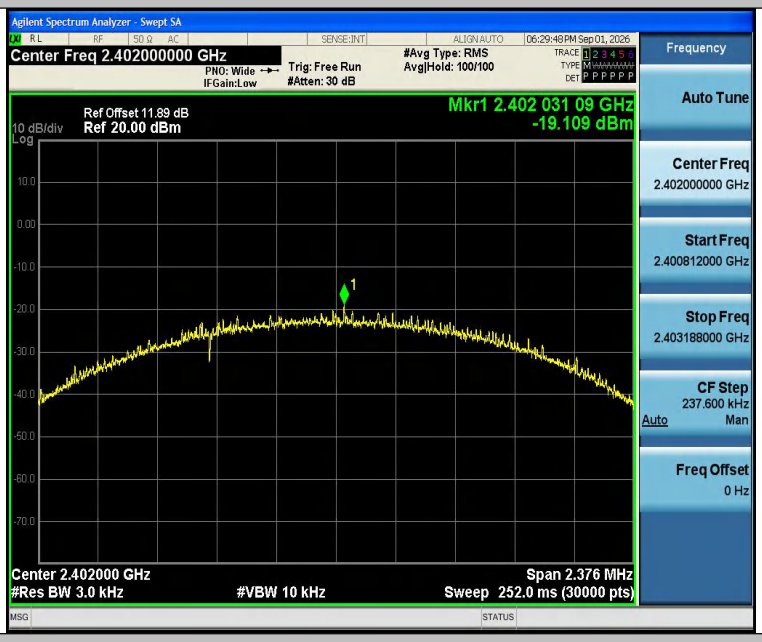
BLE_1M-Ant1-2440-PASS



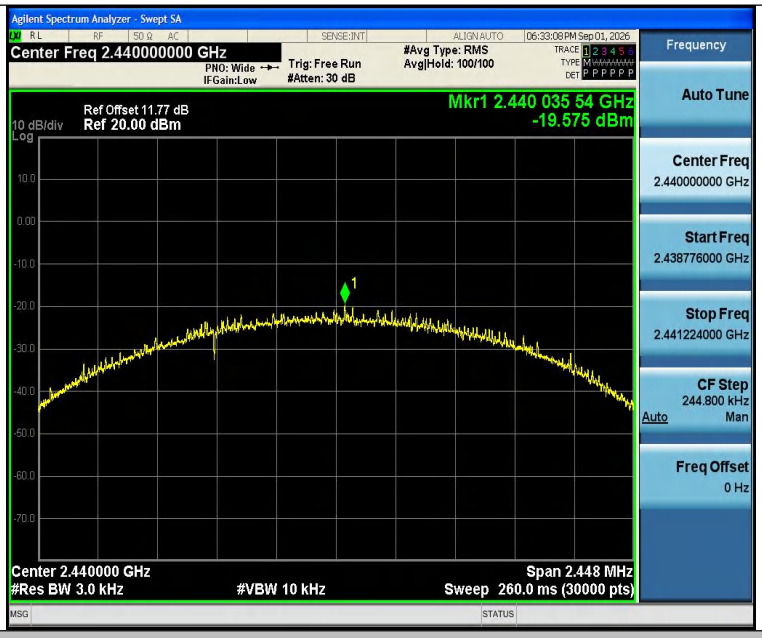
BLE_1M-Ant1-2480-PASS



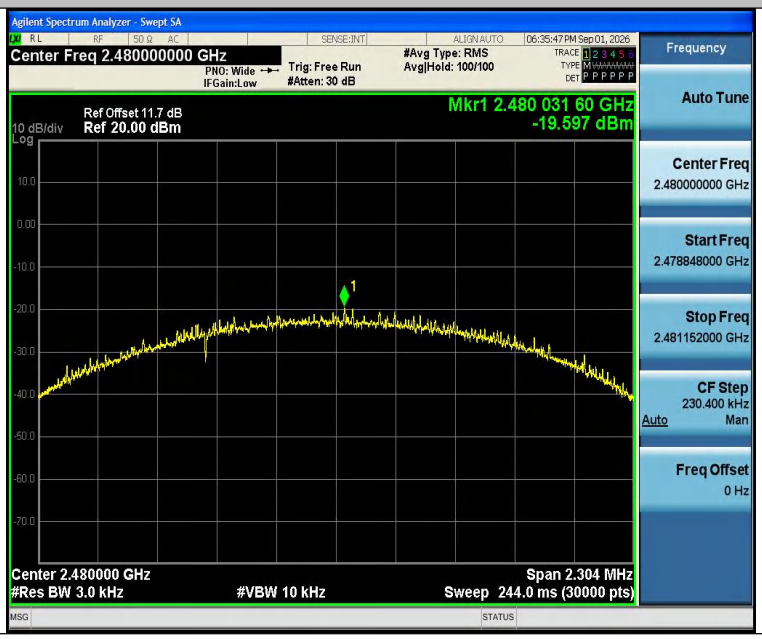
BLE_2M-Ant1-2402-PASS



BLE_2M-Ant1-2440-PASS



BLE_2M-Ant1-2480-PASS



11 Antenna Application

11.1 Antenna Requirement

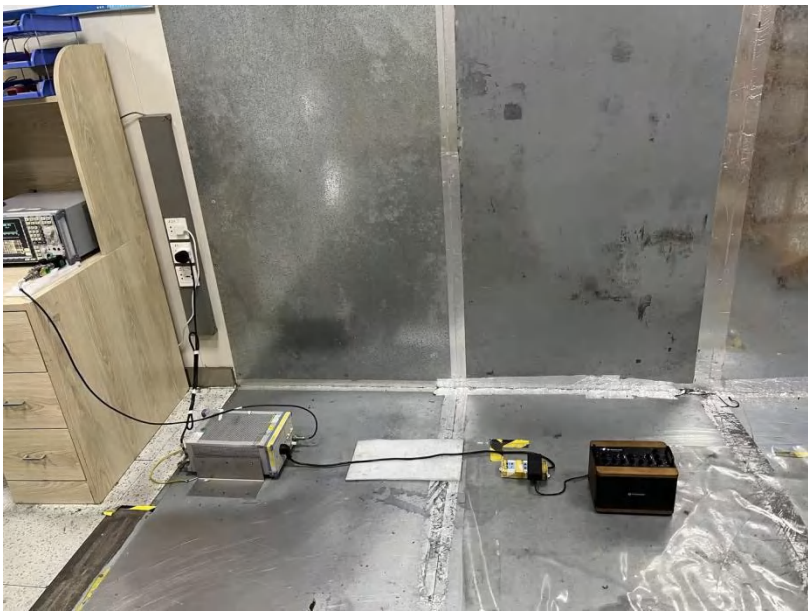
For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

11.2 Result

The EUT'S antenna, permanent attached antenna, is PCB Antenna. The antenna's gain is 2.24 dBi and meets the requirement.

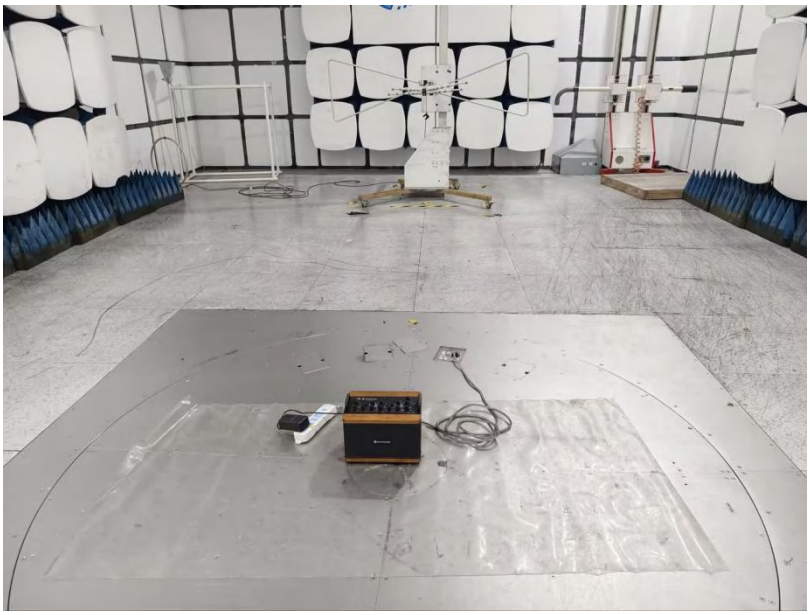
12 Test Setup

Conducted Emissions

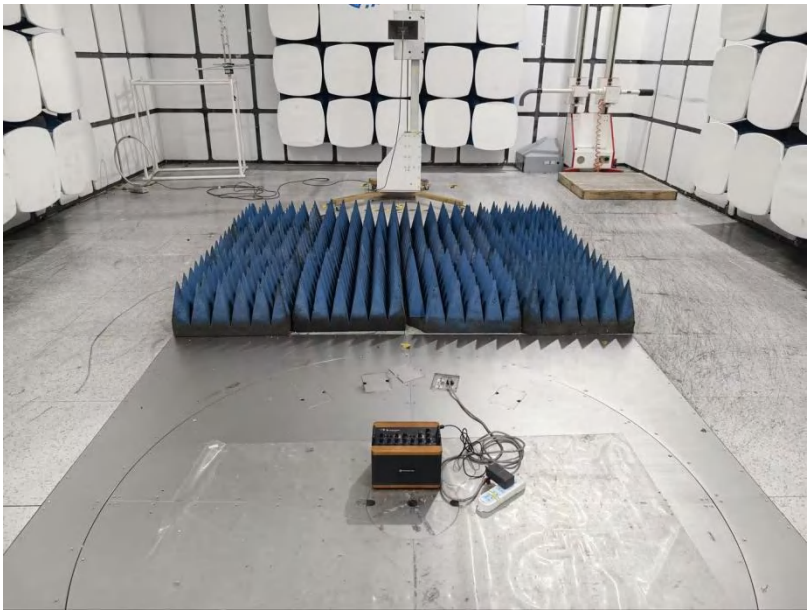


Radiated Emissions

From 30M-1GHz



Above 1GHz



13 EUT Photos

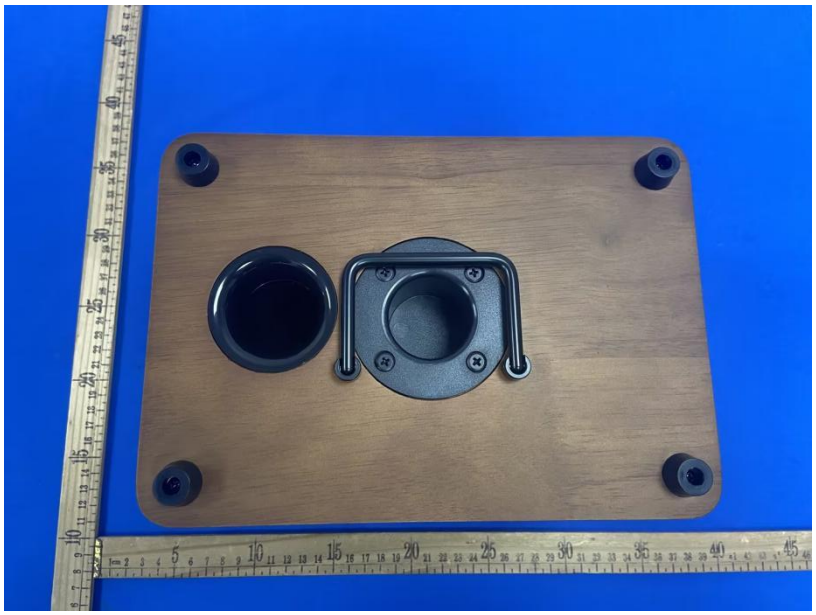
电源适配器 (Power Supply)
型号(Model):NT72-260250BZ
输入(Input): 100-240V~ 50/60Hz 1.6A Max
输出(Output):26.0V⎓ 2.50A 65.0W
LISTED
I.T.E. POWER SUPPLY
A.V. POWER SUPPLY
E494216
CAUTION:
INDOOR USE,DO NOT OPEN,
PREVENT ELECTRIC SHOCK
Made in China/中国制造 Date:Sep.2026
N-TECH ELECTRONICS.,LTD/深圳市新源鑫电器有限公司

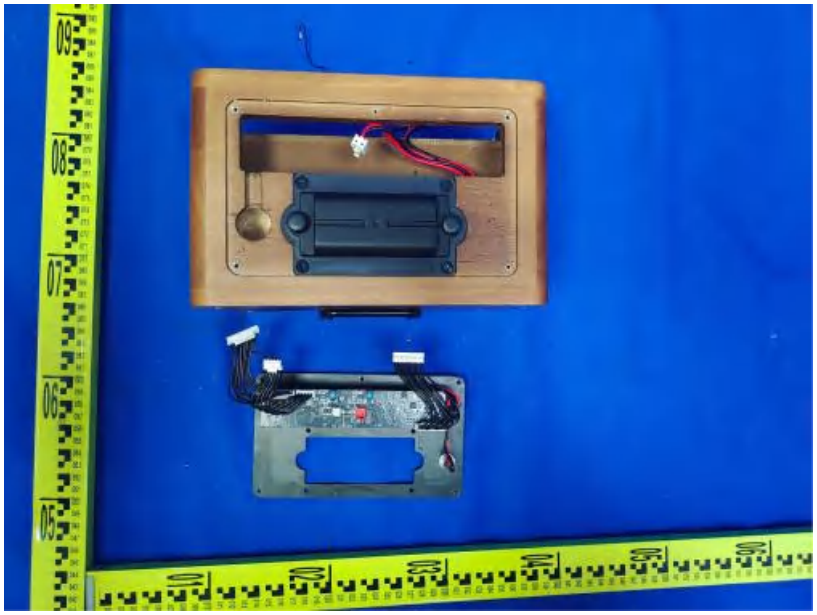
musiccube
TINY BOX
POWER
MASTER
CH1 Gain
Reverb
CH2 Gain
Reverb
Volume
Aux in
EQ
Low
Mid
High
Low
Mid
High
Usb

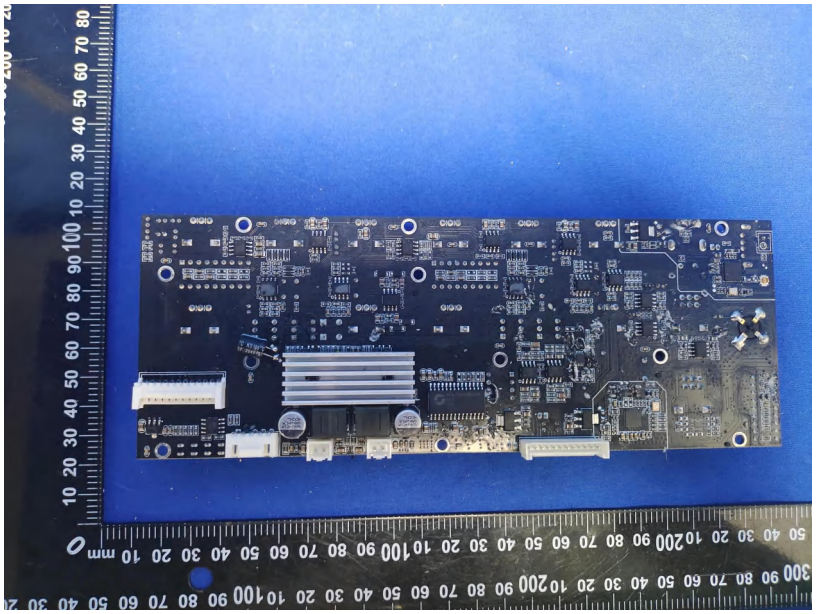
musiccube
musiccube

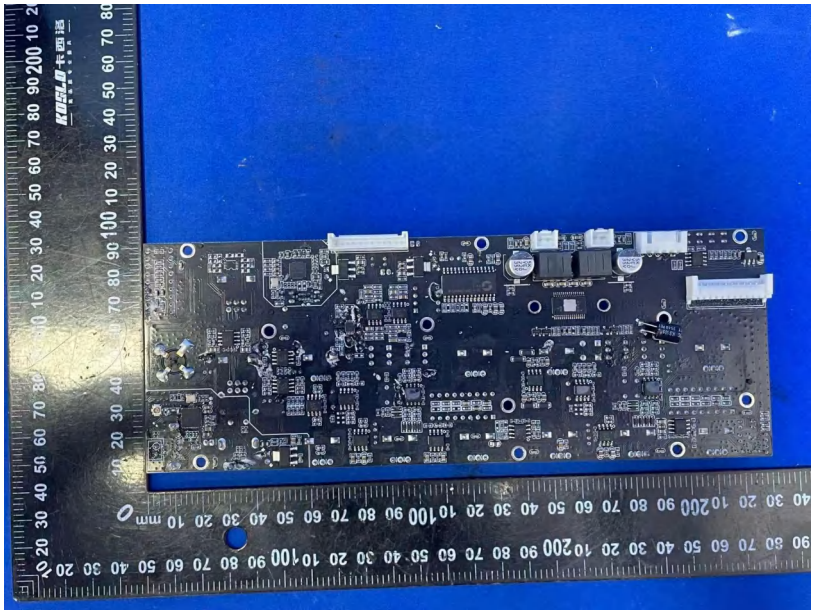
musiccube
TNY-BOX

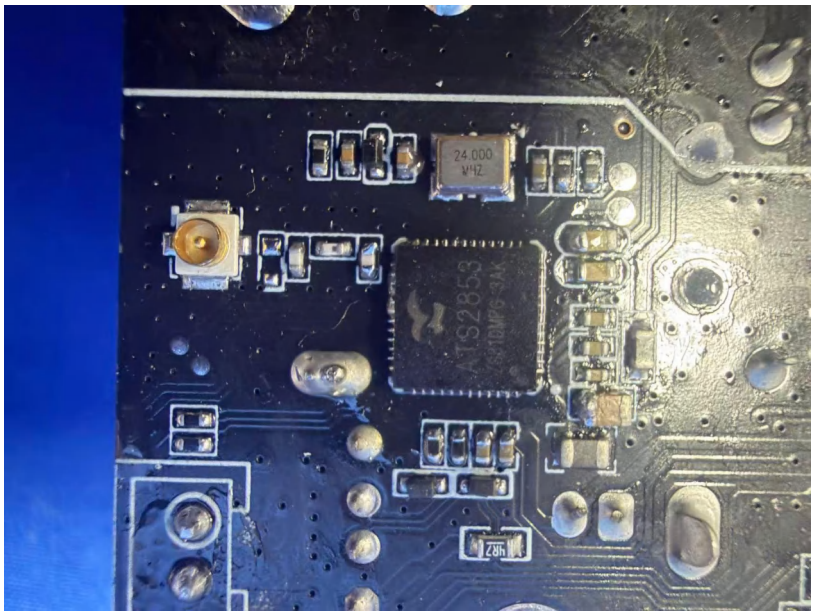
musicube
POWER
Phones
VOLUME
Line out
CH2 input
CH1 input
Model: D2 Max

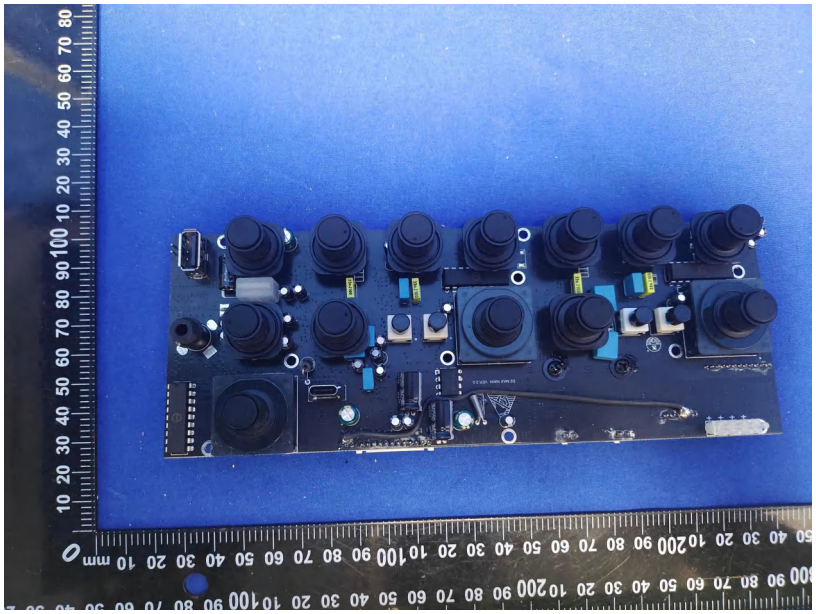


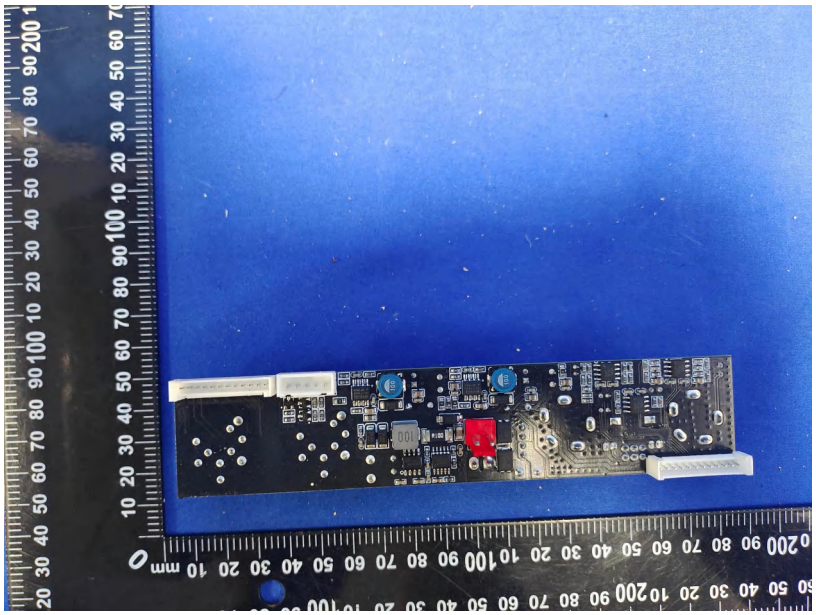


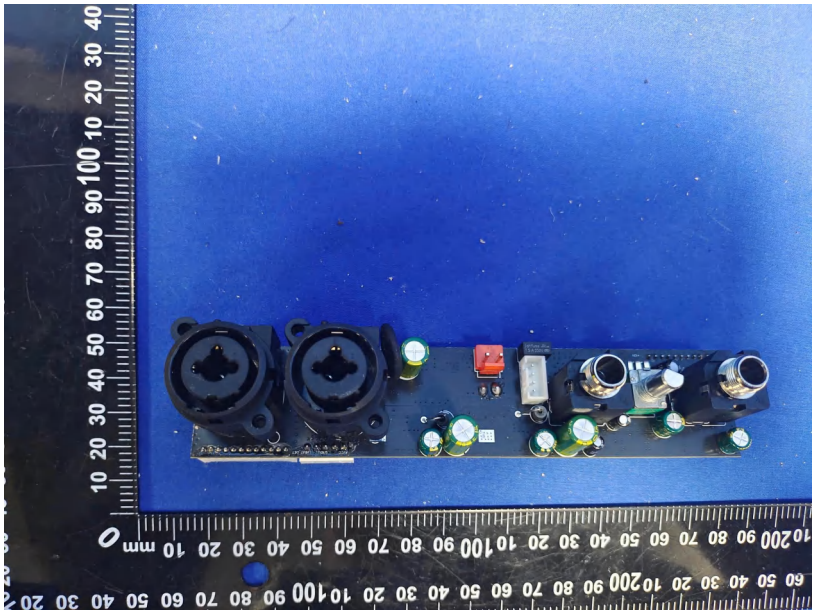


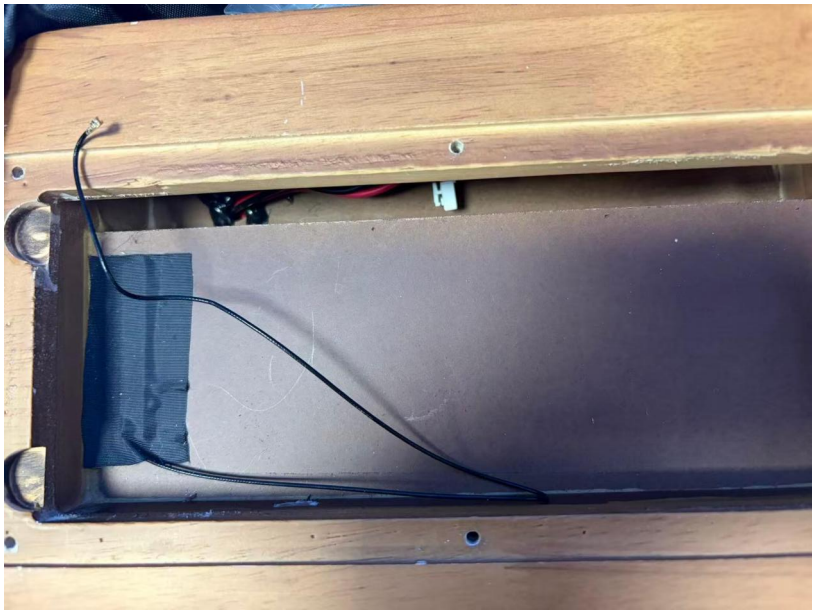


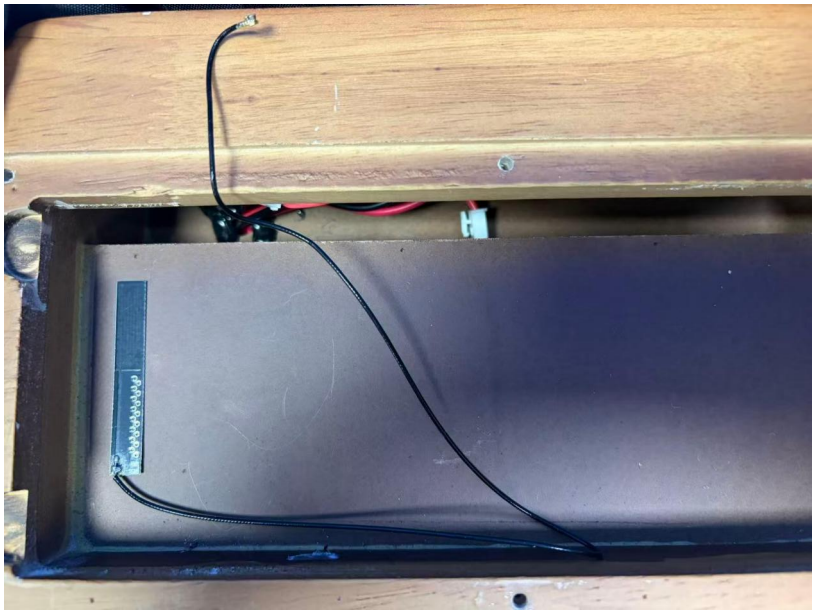

24.000
MHZ
ATS2853

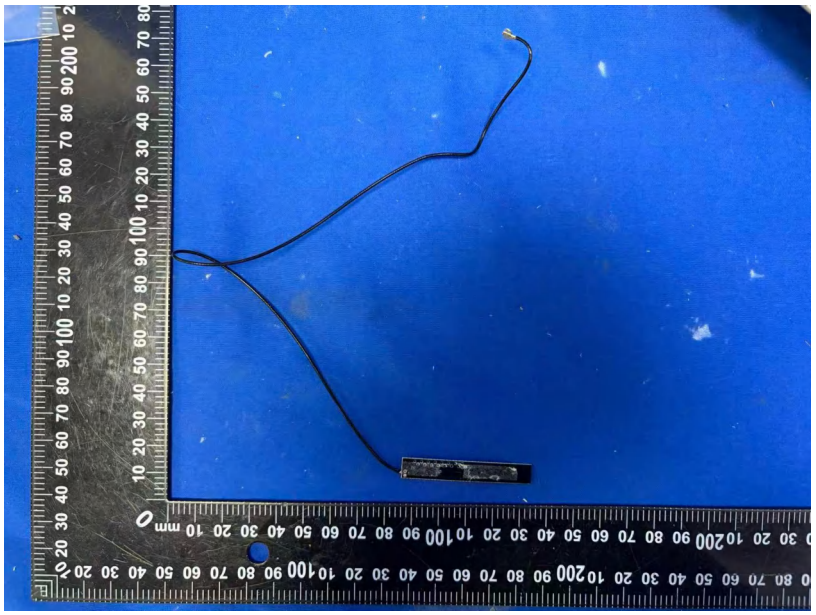


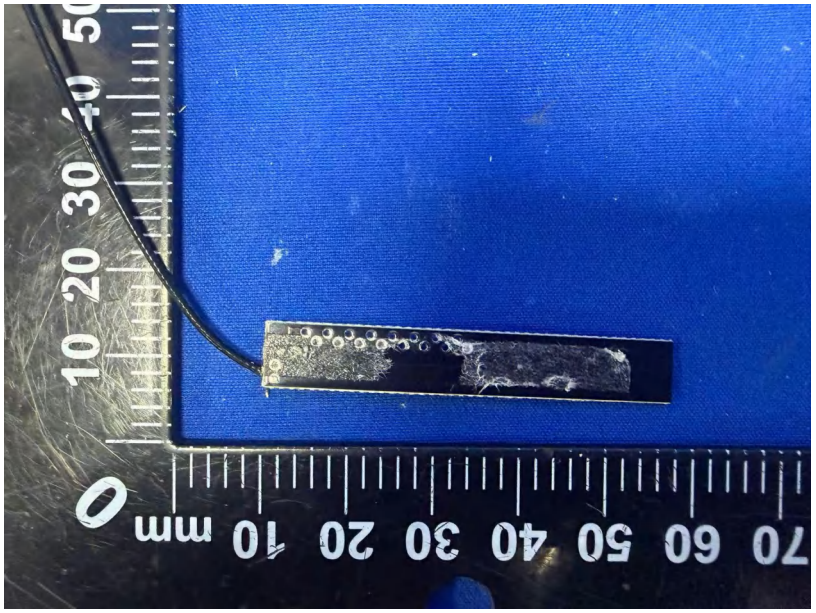








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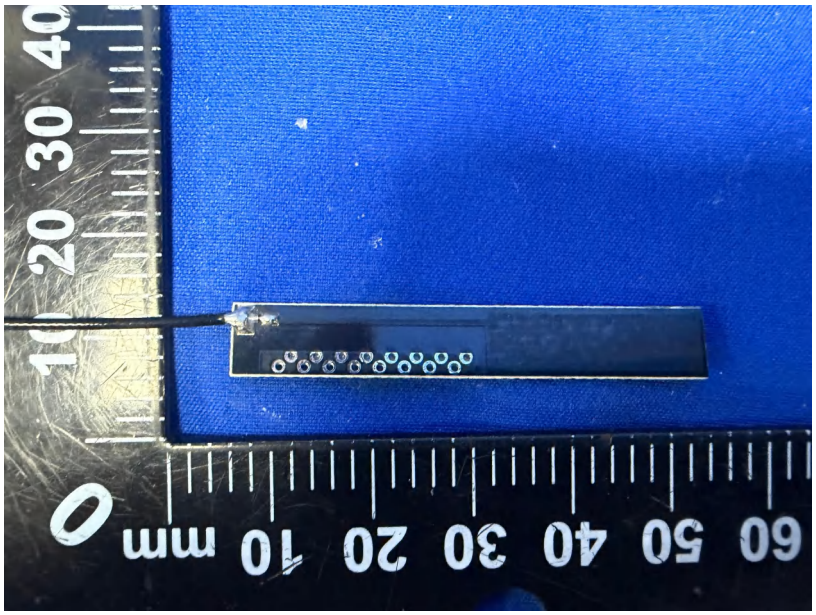
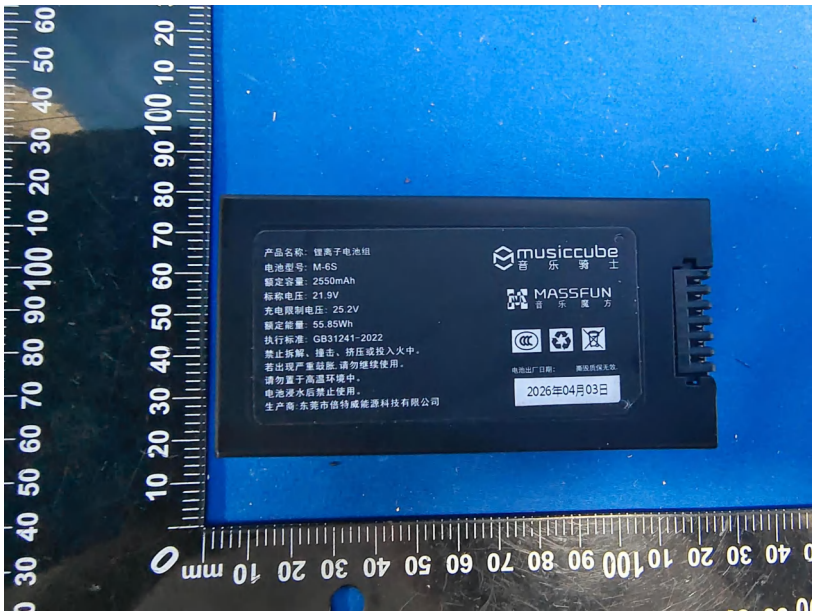
0 10 20 30 40 50


0 10 20 30 40 50 60 mm
10 20 30 40



********THE END REPORT********