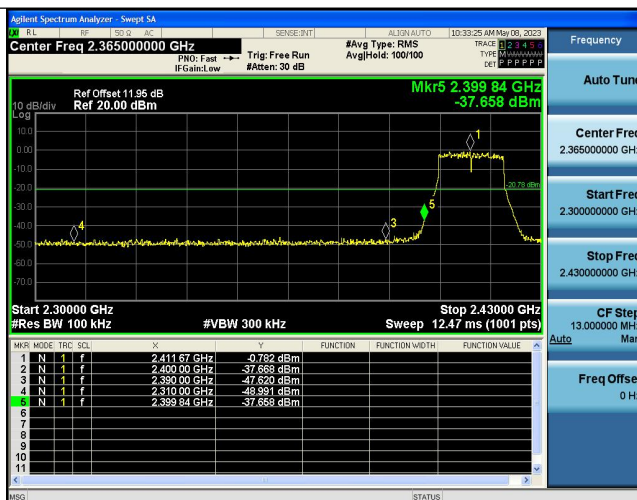
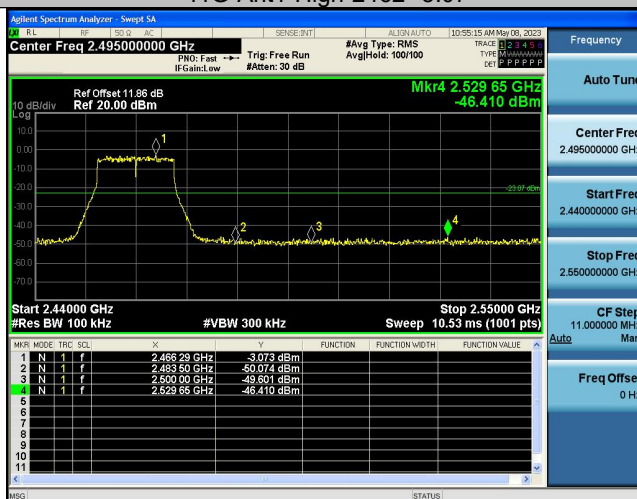
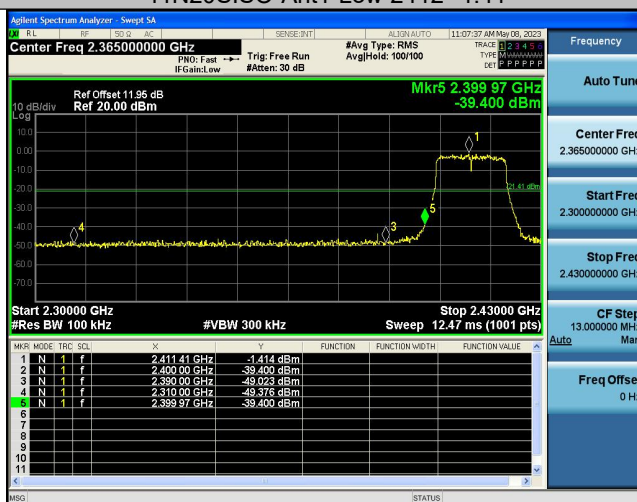




11G-Ant1-High-2462--3.07



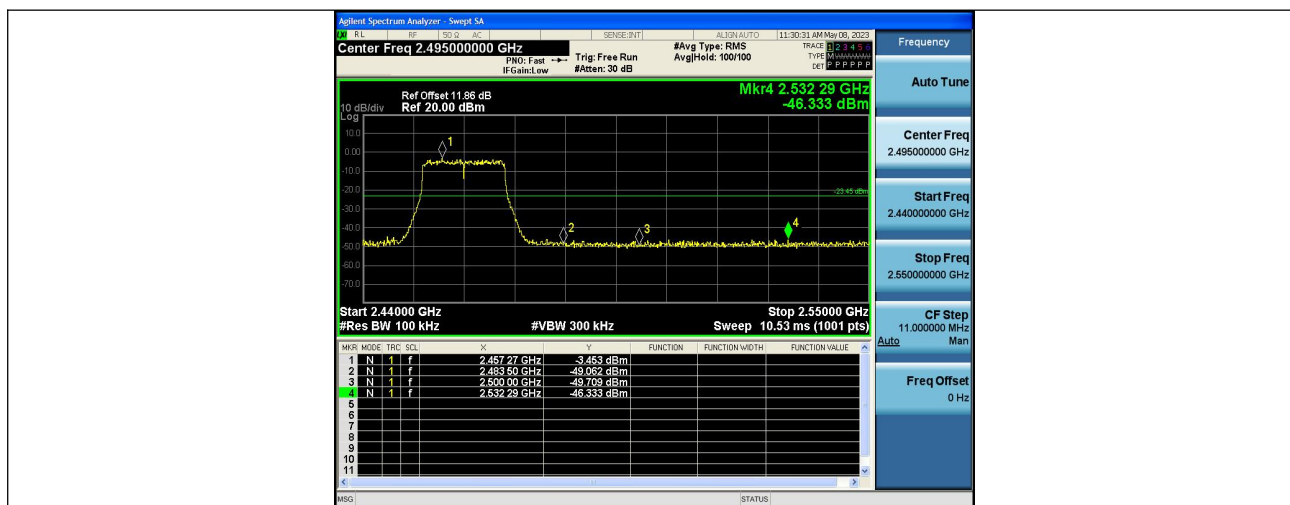
11N20SISO-Ant1-Low-2412--1.41



11N20SISO-Ant1-High-2462--3.45



Report No.: PTC23041007502E-FC01





9 6dB Bandwidth Measurement

Test Requirement : FCC CFR47 Part 15 Section 15.247

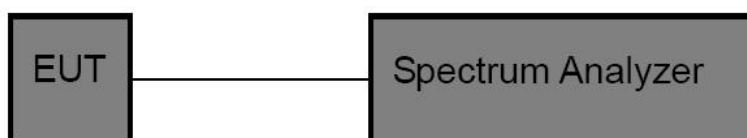
Test Method : ANSI C63.10:2013

Test Limit Systems using digital modulation techniques may operate in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

9.1 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 = 100kHz, VBW = 300kHz

9.2 Test Setup

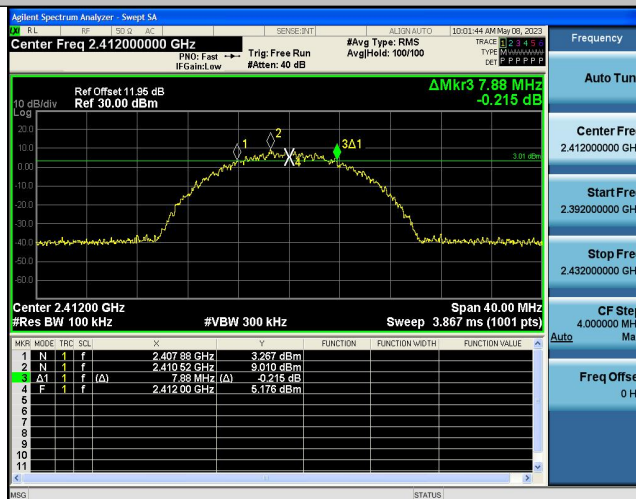


9.3 Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	7.880	2407.880	2415.760	0.5	PASS
11B	Ant1	2437	7.880	2432.880	2440.760	0.5	PASS
11B	Ant1	2462	7.840	2457.880	2465.720	0.5	PASS
11G	Ant1	2412	16.520	2403.720	2420.240	0.5	PASS
11G	Ant1	2437	16.520	2428.720	2445.240	0.5	PASS
11G	Ant1	2462	16.520	2453.720	2470.240	0.5	PASS
11N20SISO	Ant1	2412	17.680	2403.120	2420.800	0.5	PASS
11N20SISO	Ant1	2437	17.760	2428.120	2445.880	0.5	PASS
11N20SISO	Ant1	2462	17.760	2453.080	2470.840	0.5	PASS



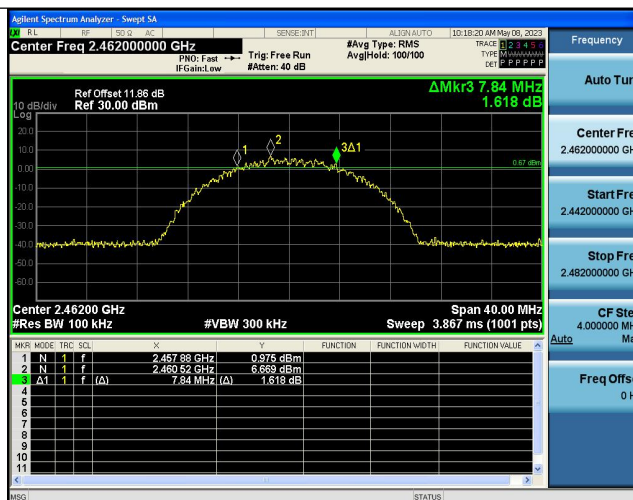
11B-Ant1-2412



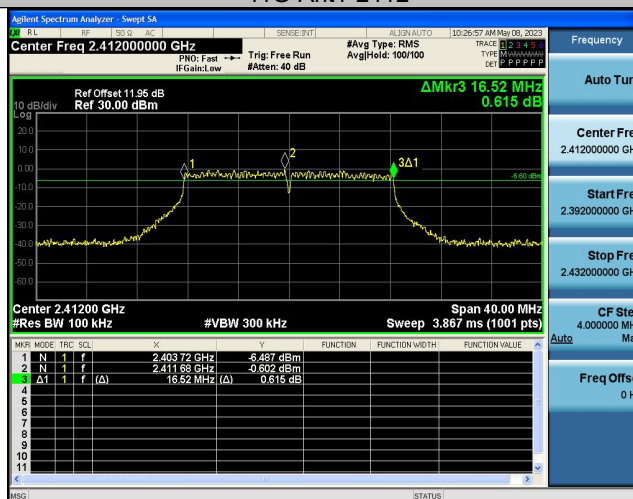
11B-Ant1-2437



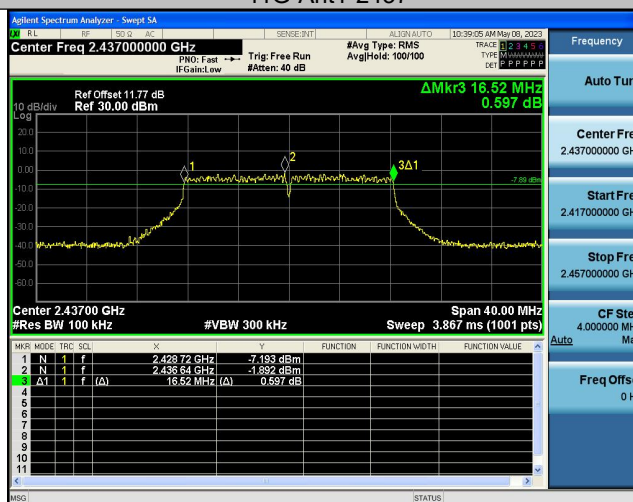
11B-Ant1-2462



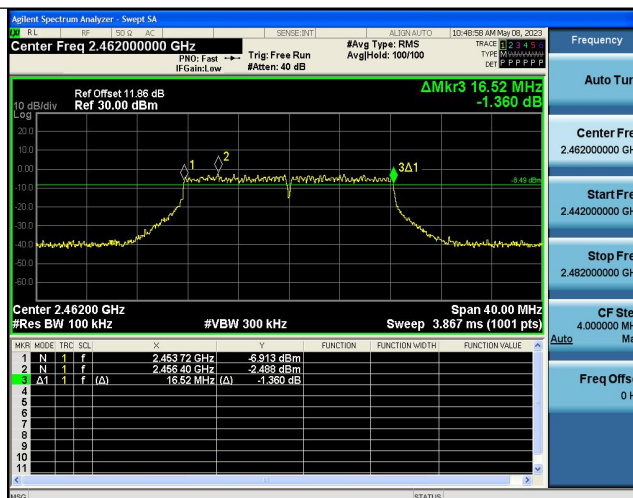
11G-Ant1-2412



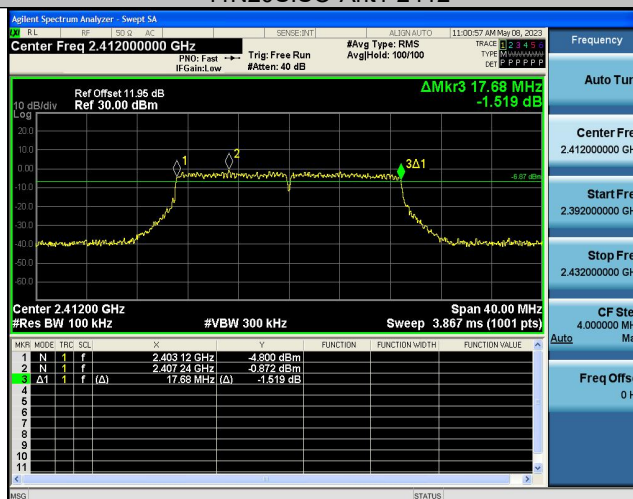
11G-Ant1-2437



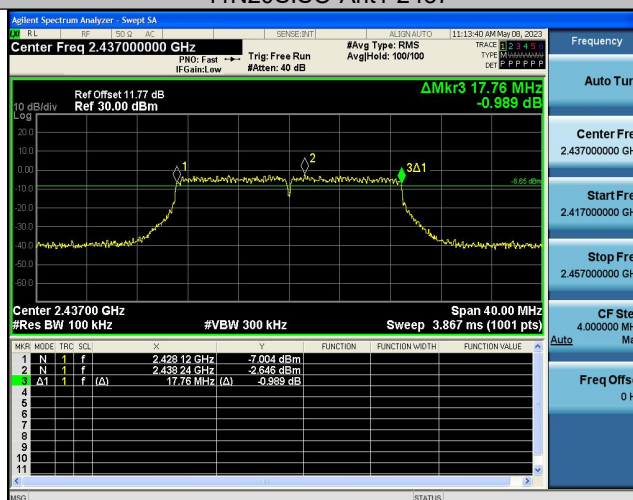
11G-Ant1-2462



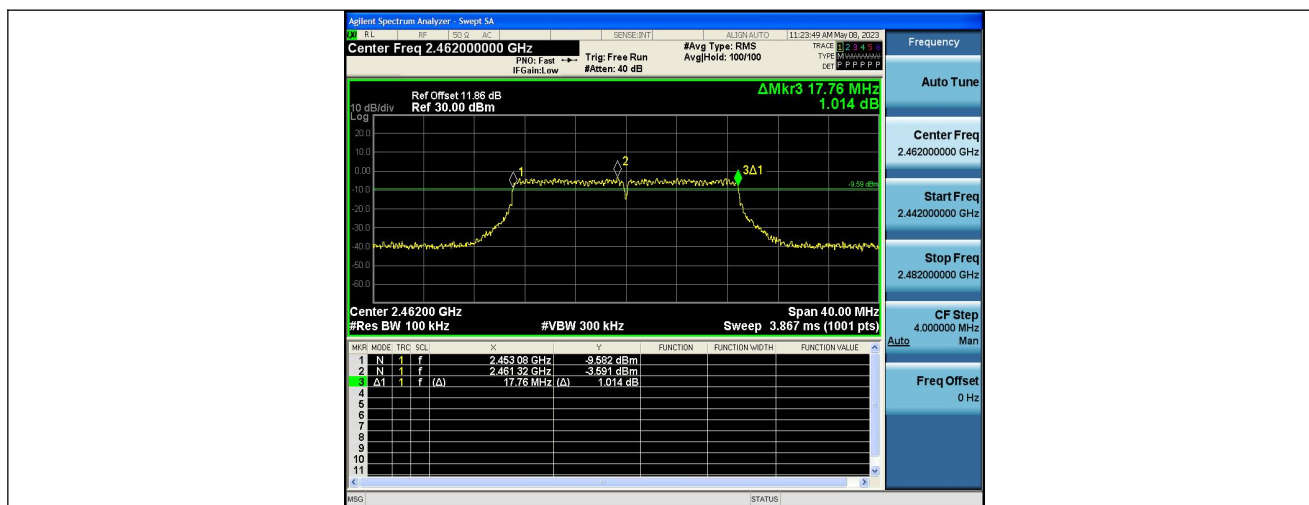
11N20SISO-Ant1-2412



11N20SISO-Ant1-2437



11N20SISO-Ant1-2462





10 Maximum Peak Output Power

Test Requirement : FCC CFR47 Part 15 Section 15.247

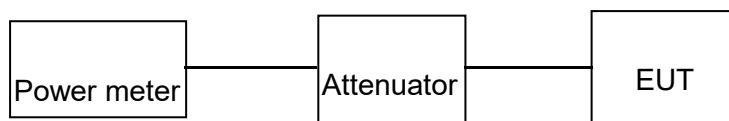
Test Method : ANSI C63.10:2013

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.

10.1 Test Procedure

1. The testing follows the Measurement Procedure of FCC KDB No. 558074 D01 15.247 Meas Guidance v05 section 8.3.1.
2. The RF output of EUT was connected to the power meter by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Measure the conducted output power and record the results in the test report.

10.2 Test Setup



10.3 Test Result

TestMode	Antenna	Frequency[MHz]	Set Power	Peak Power[dBm]	Conducted Limit[dBm]	EIRP [dBm]	EIRP Limit[dBm]	Verdict
11B	Ant1	2412	---	22.90	≤30.00	25.34	≤36.00	PASS
11B	Ant1	2437	---	21.79	≤30.00	24.23	≤36.00	PASS
11B	Ant1	2462	---	20.69	≤30.00	23.13	≤36.00	PASS
11G	Ant1	2412	---	19.36	≤30.00	21.80	≤36.00	PASS
11G	Ant1	2437	---	18.20	≤30.00	20.64	≤36.00	PASS
11G	Ant1	2462	---	17.32	≤30.00	19.76	≤36.00	PASS
11N20SISO	Ant1	2412	---	19.25	≤30.00	21.69	≤36.00	PASS
11N20SISO	Ant1	2437	---	17.62	≤30.00	20.06	≤36.00	PASS
11N20SISO	Ant1	2462	---	17.02	≤30.00	19.46	≤36.00	PASS



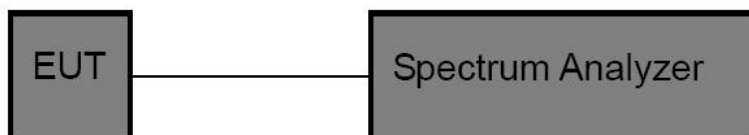
11 Power Spectral density

Test Requirement	: FCC CFR47 Part 15 Section 15.247
Test Method	: ANSI C63.10:2013
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.

11.1 Test Procedure

1. Connect the antenna port(s) to the spectrum analyzer input.
2. Configure the spectrum analyzer as shown below:
Center frequency=DTS channel center frequency
Span = 1.5 times the DTS bandwidth
RBW = 3KHz, VBW = 10KHz
Sweep time = auto couple
Detector = peak
Trace mode =max hold
3. Place the radio in continuous transmit mode, allow the trace to stabilize, view the transmitter wave form on the spectrum analyzer.
4. Use the peak marker function to determine the maximum amplitude level within the RBW.
5. If measured value exceeds limit, reduce RBW(no less than 3KHz) and repeat.

11.2 Test Setup

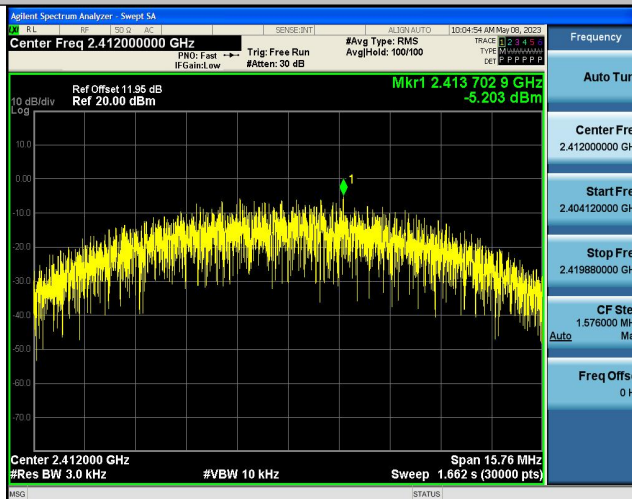


11.3 Test Result

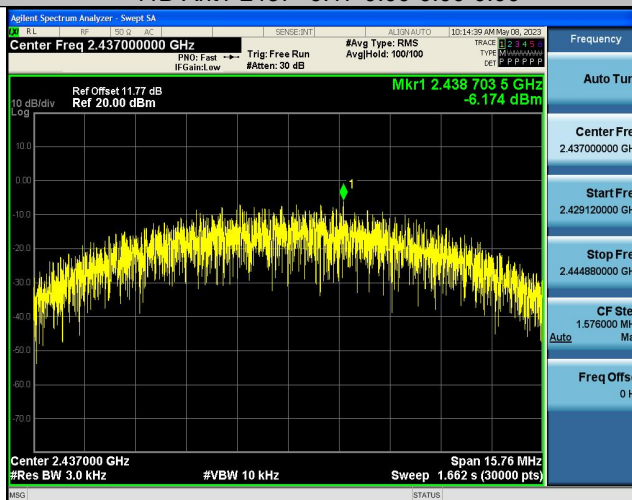
TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-5.2	≤8.00	PASS
11B	Ant1	2437	-6.17	≤8.00	PASS
11B	Ant1	2462	-7.29	≤8.00	PASS
11G	Ant1	2412	-14.5	≤8.00	PASS
11G	Ant1	2437	-15.71	≤8.00	PASS
11G	Ant1	2462	-16.71	≤8.00	PASS
11N20SISO	Ant1	2412	-14.66	≤8.00	PASS
11N20SISO	Ant1	2437	-16.04	≤8.00	PASS
11N20SISO	Ant1	2462	-16.95	≤8.00	PASS



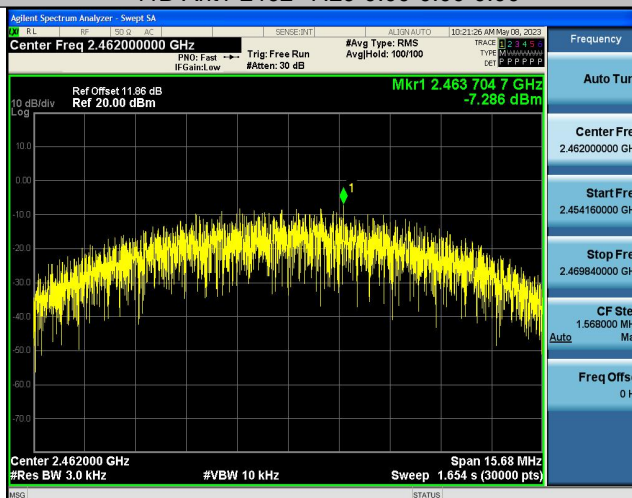
11B-Ant1-2412--5.20-0.00-0.00-0.00



11B-Ant1-2437--6.17-0.00-0.00-0.00

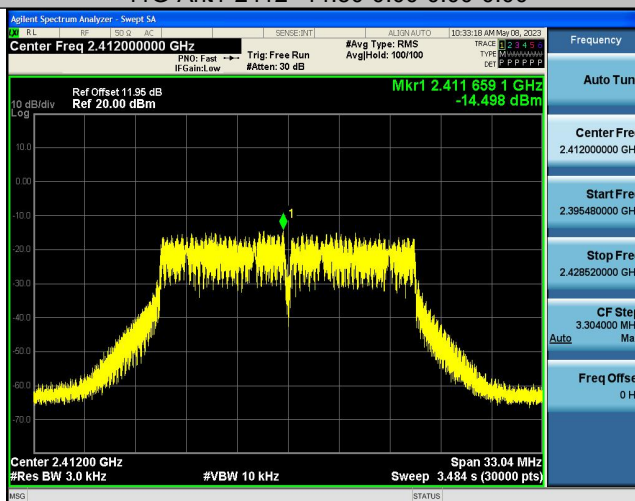


11B-Ant1-2462--7.29-0.00-0.00-0.00

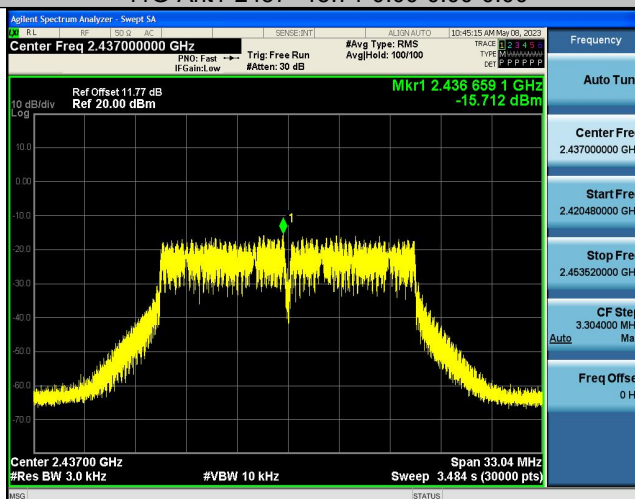




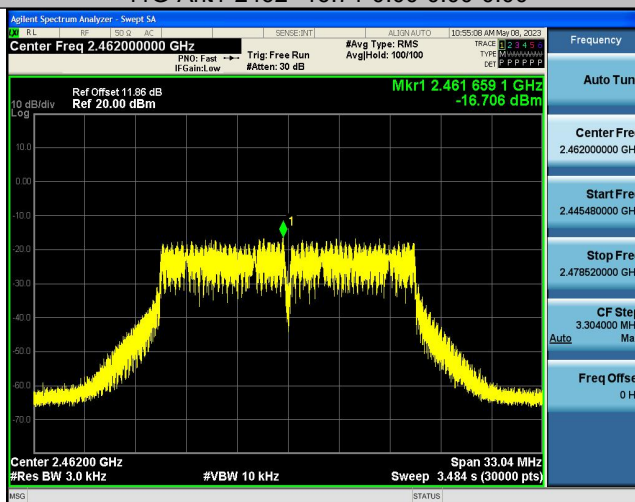
11G-Ant1-2412--14.50-0.00-0.00-0.00



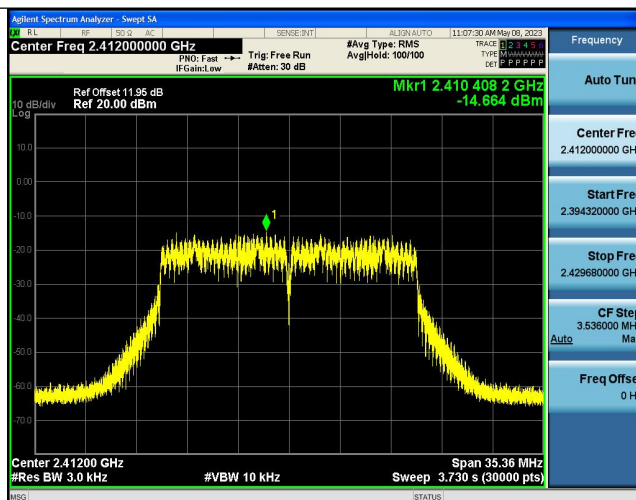
11G-Ant1-2437--15.71-0.00-0.00-0.00



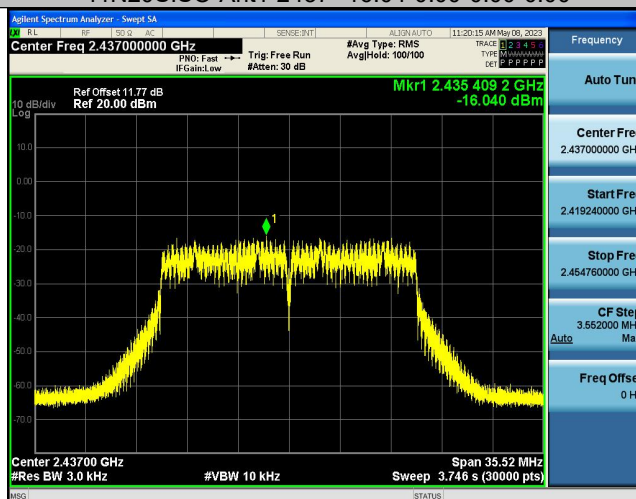
11G-Ant1-2462--16.71-0.00-0.00-0.00



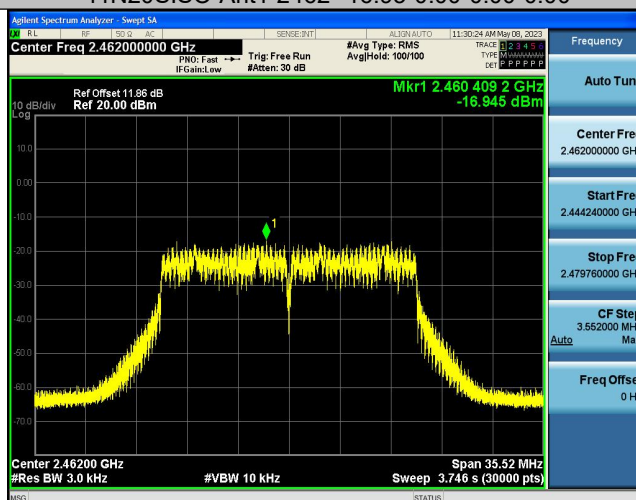
11N20SISO-Ant1-2412--14.66-0.00-0.00-0.00



11N20SISO-Ant1-2437--16.04-0.00-0.00-0.00



11N20SISO-Ant1-2462--16.95-0.00-0.00-0.00





12 Antenna Application

12.1 Antenna Requirement

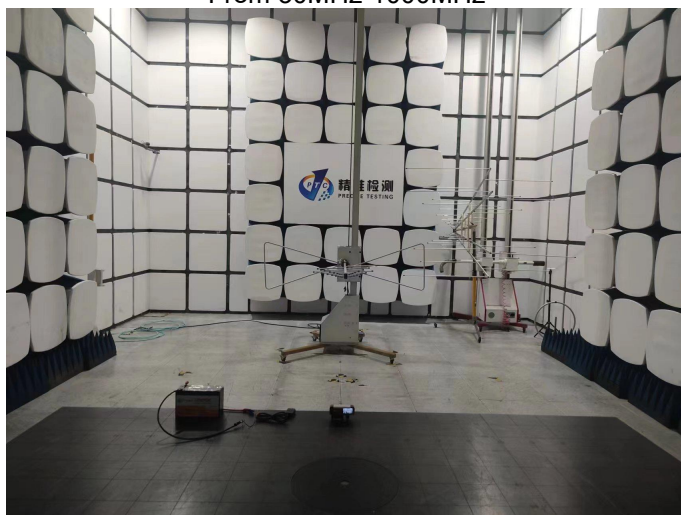
For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional 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.

12.2 Result

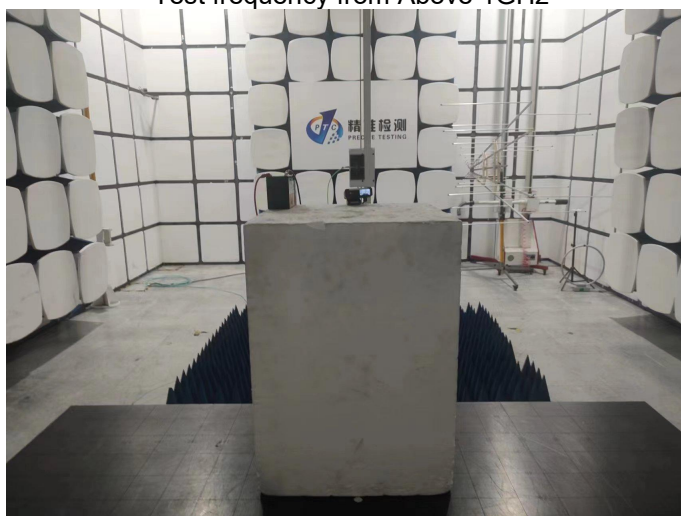
The EUT'S antenna, permanent attached antenna, is FPCB Antenna. The antenna's gain is 2.44 dBi and meets the requirement.

13 Test Setup

Radiated Spurious Emissions
From 30MHz-1000MHz



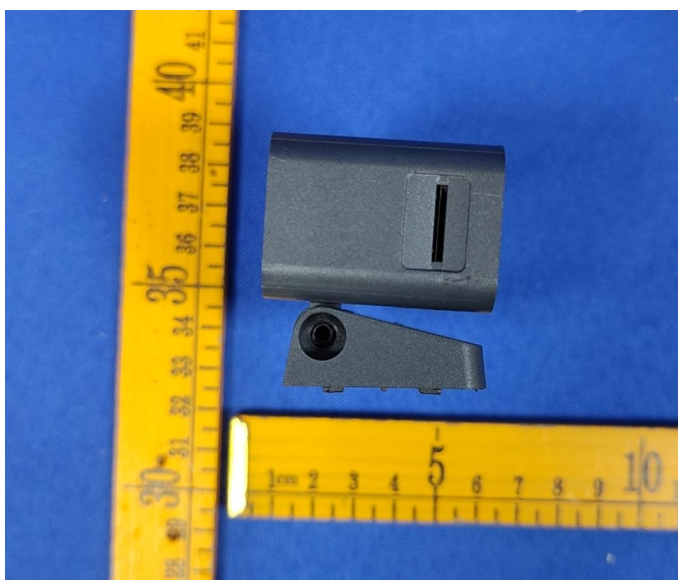
Test frequency from Above 1GHz

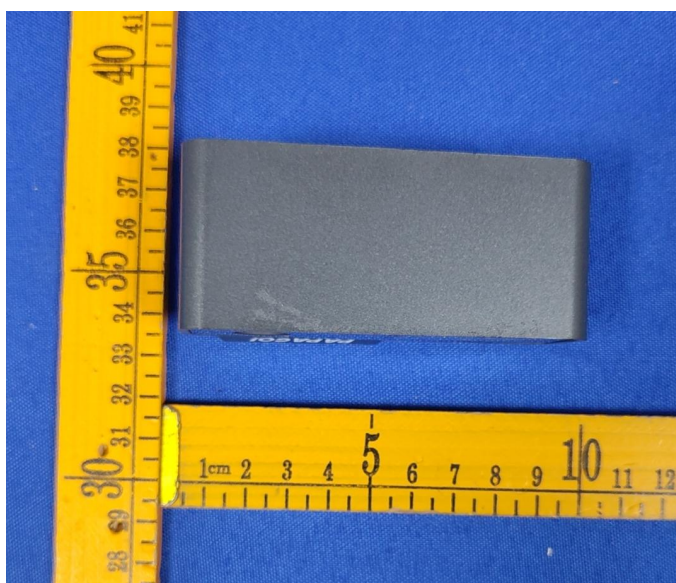
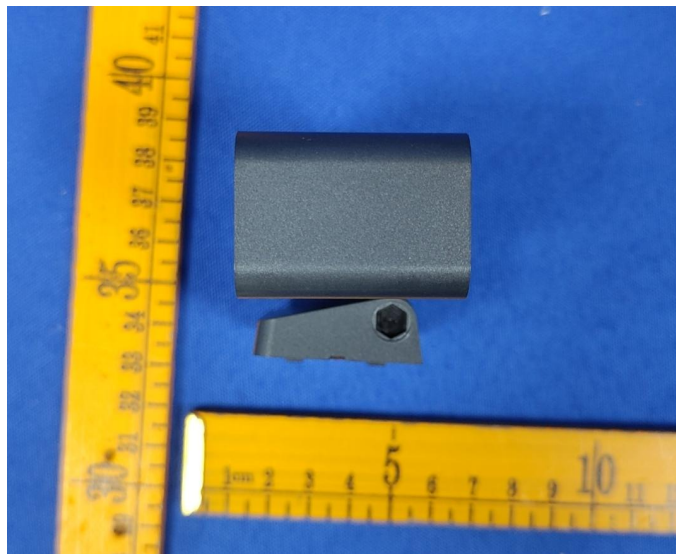




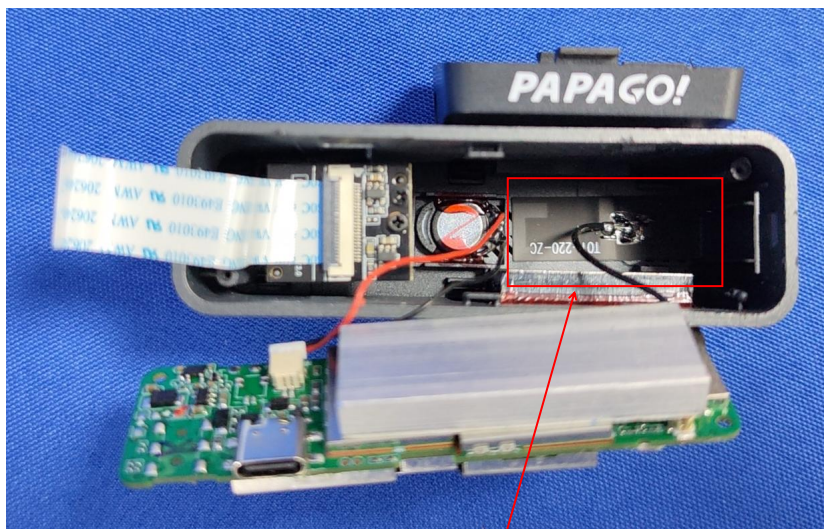
14 EUT PHOTOS



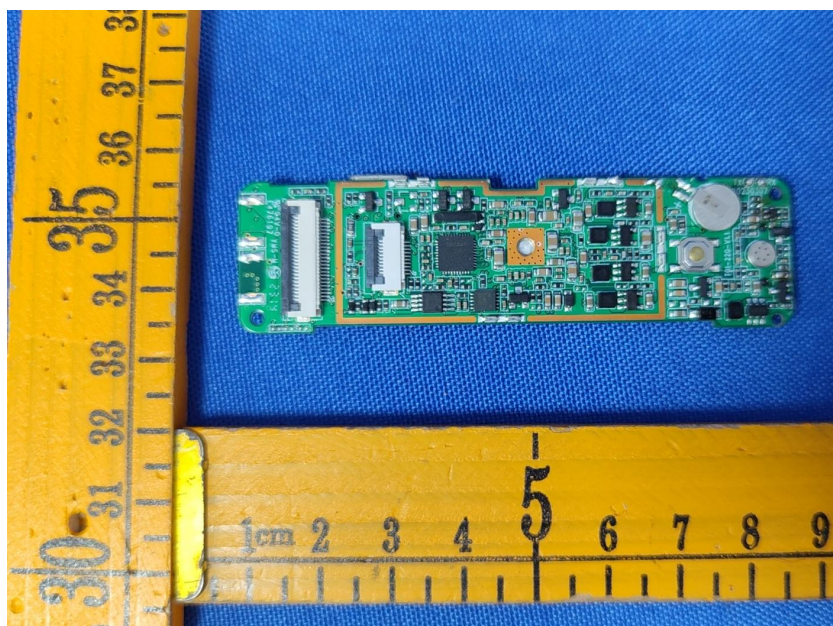


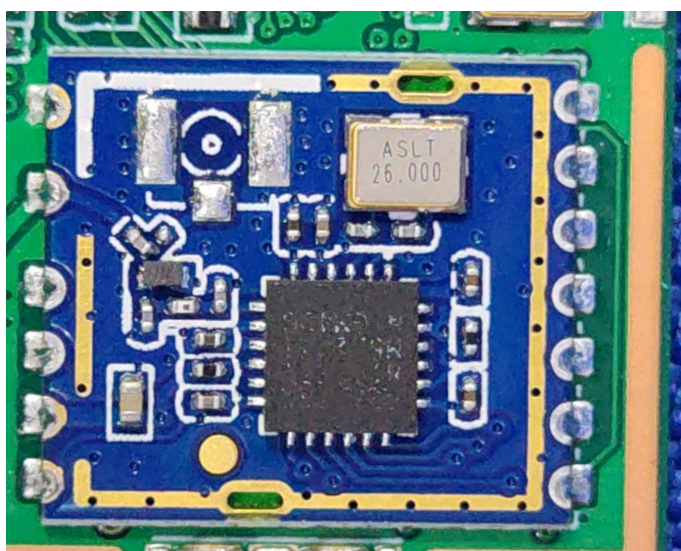
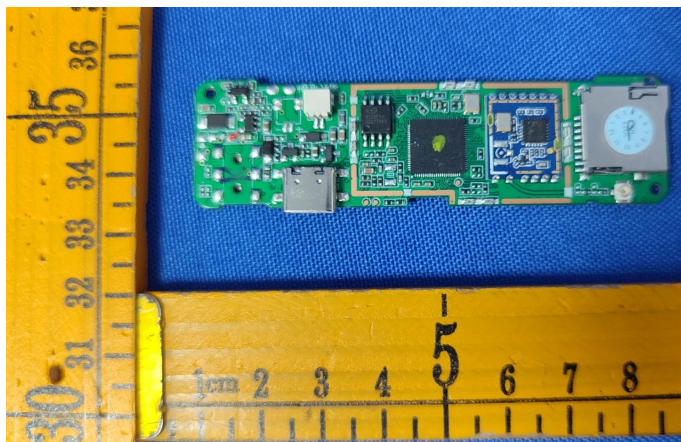


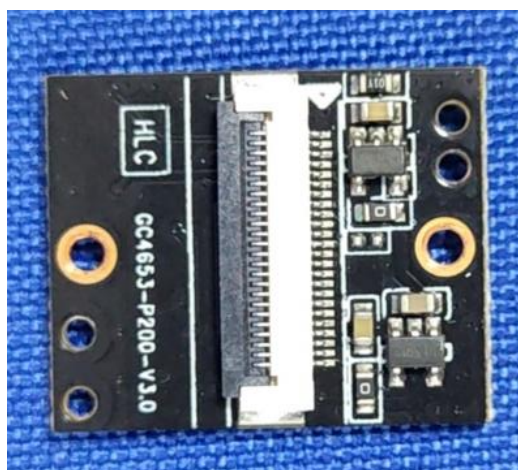
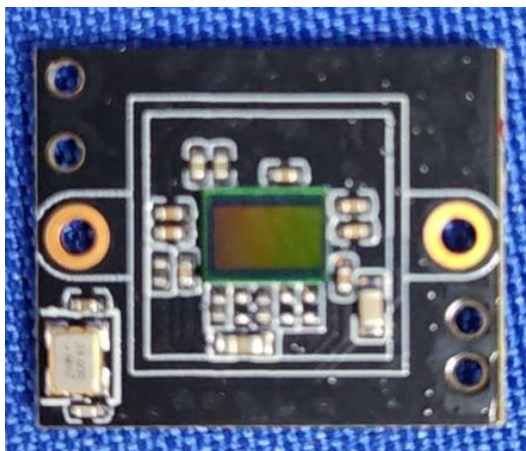




Antenna







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