



11G-Ant1-2437-PASS



11G-Ant1-2462-PASS



11N20SISO-Ant1-2412-PASS



11N20SISO-Ant1-2437-PASS



11N20SISO-Ant1-2462-PASS



11N40SISO-Ant1-2422-PASS



11N40SISO-Ant1-2437-PASS



11N40SISO-Ant1-2452-PASS



11AX20SISO-Ant1-2412-PASS



11AX20SISO-Ant1-2437-PASS



Report No.: PTC26050616701E-FC01



11AX20SISO-Ant1-2462-PASS



11AX40SISO-Ant1-2422-PASS



11AX40SISO-Ant1-2437-PASS



11AX40SISO-Ant1-2452-PASS



10 Maximum conducted output power

Test Requirement : FCC CFR47 Part 15 Section 15.247

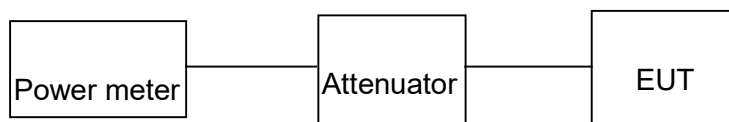
Test Method : ANSI C63.10-2020

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.

10.1 Test Procedure

1. According to ANSI C63.10-2020 clause 11.9.2.3 Measurement using a power meter (PM). The maximum conducted output power may be measured using a broadband peak RF power meter. The power meter shall have a video bandwidth that is greater than or equal to the DTS bandwidth and shall use a fast-responding diode detector.

10.2 Test Setup



10.3 Test Result

Test Mode	Antenna	Frequency[M Hz]	Set Power	Average power [dBm]	Duty Cycle [%]	DC Factor [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	NA	13.52	98.71	0.06	13.58	≤30.00	PASS
11B	Ant1	2437	NA	14.55	98.47	0.07	14.62	≤30.00	PASS
11B	Ant1	2462	NA	13.89	99.03	0.04	13.93	≤30.00	PASS
11G	Ant1	2412	NA	13.83	95.75	0.19	14.02	≤30.00	PASS
11G	Ant1	2437	NA	15.01	96.21	0.17	15.18	≤30.00	PASS
11G	Ant1	2462	NA	14.47	92.69	0.33	14.80	≤30.00	PASS
11N20SISO	Ant1	2412	NA	14.84	90.00	0.46	15.30	≤30.00	PASS
11N20SISO	Ant1	2437	NA	14.84	93.10	0.31	15.15	≤30.00	PASS
11N20SISO	Ant1	2462	NA	14.32	94.50	0.25	14.57	≤30.00	PASS
11N40SISO	Ant1	2422	NA	13.21	84.68	0.72	13.93	≤30.00	PASS
11N40SISO	Ant1	2437	NA	14.23	76.86	1.14	15.37	≤30.00	PASS
11N40SISO	Ant1	2452	NA	15.16	80.17	0.96	16.12	≤30.00	PASS
11AX20SISO	Ant1	2412	NA	14.64	94.81	0.23	14.87	≤30.00	PASS
11AX20SISO	Ant1	2437	NA	14.10	94.81	0.23	14.33	≤30.00	PASS
11AX20SISO	Ant1	2462	NA	14.43	89.57	0.48	14.91	≤30.00	PASS
11AX40SISO	Ant1	2422	NA	14.10	86.36	0.64	14.74	≤30.00	PASS
11AX40SISO	Ant1	2437	NA	15.07	81.91	0.87	15.94	≤30.00	PASS
11AX40SISO	Ant1	2452	NA	14.88	80.00	0.97	15.85	≤30.00	PASS



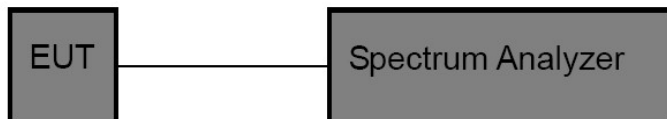
11 Power Spectral density

Test Requirement : FCC CFR47 Part 15 Section 15.247
 Test Method : ANSI C63.10-2020
 Test Limit : Regulation 15.247(e) 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

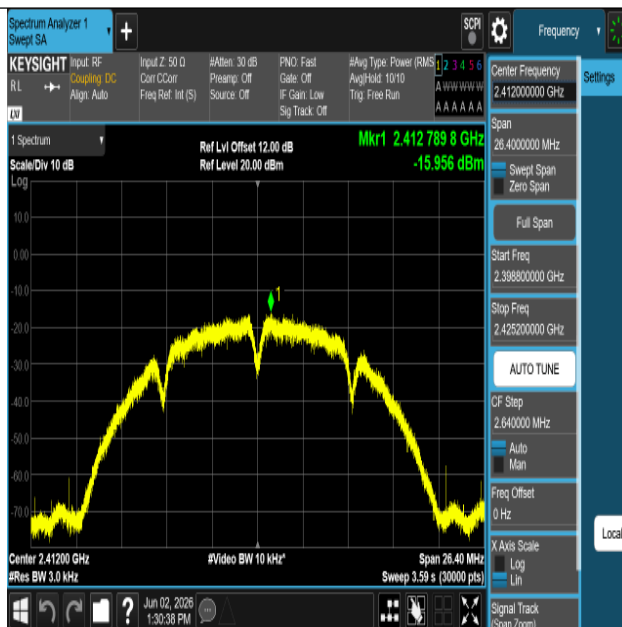


11.3 Test Result

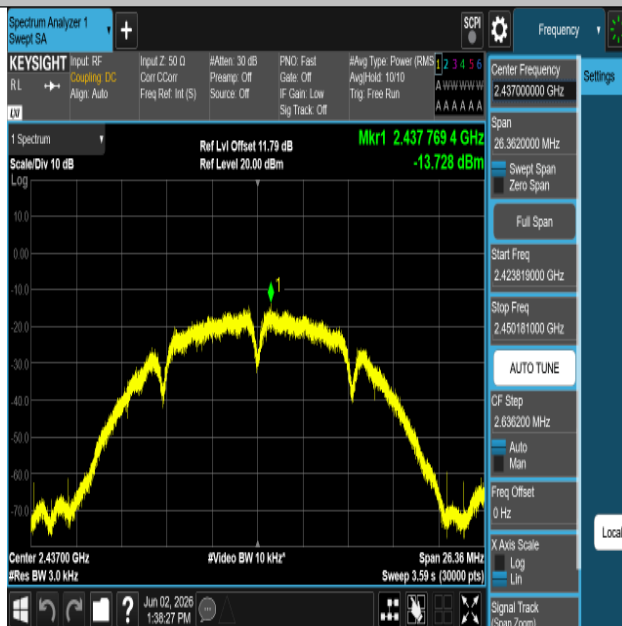
TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-15.90	≤8.00	PASS
11B	Ant1	2437	-13.66	≤8.00	PASS
11B	Ant1	2462	-15.15	≤8.00	PASS
11G	Ant1	2412	-18.26	≤8.00	PASS
11G	Ant1	2437	-17.01	≤8.00	PASS
11G	Ant1	2462	-17.08	≤8.00	PASS
11N20SISO	Ant1	2412	-17.32	≤8.00	PASS
11N20SISO	Ant1	2437	-16.03	≤8.00	PASS
11N20SISO	Ant1	2462	-16.14	≤8.00	PASS
11N40SISO	Ant1	2422	-20.04	≤8.00	PASS
11N40SISO	Ant1	2437	-18.15	≤8.00	PASS
11N40SISO	Ant1	2452	-19.13	≤8.00	PASS
11AX20SISO	Ant1	2412	-18.63	≤8.00	PASS
11AX20SISO	Ant1	2437	-17.46	≤8.00	PASS
11AX20SISO	Ant1	2462	-16.22	≤8.00	PASS
11AX40SISO	Ant1	2422	-20.16	≤8.00	PASS
11AX40SISO	Ant1	2437	-18.99	≤8.00	PASS
11AX40SISO	Ant1	2452	-19.46	≤8.00	PASS



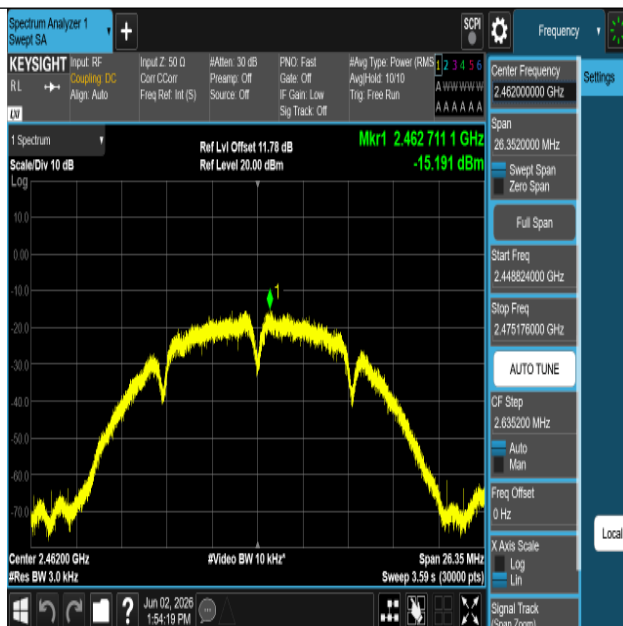
Test Graphs:



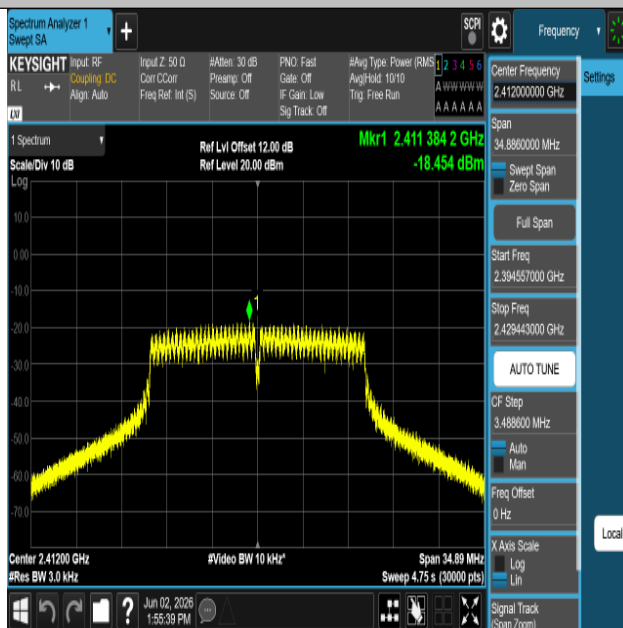
11B-Ant1-2412-PASS



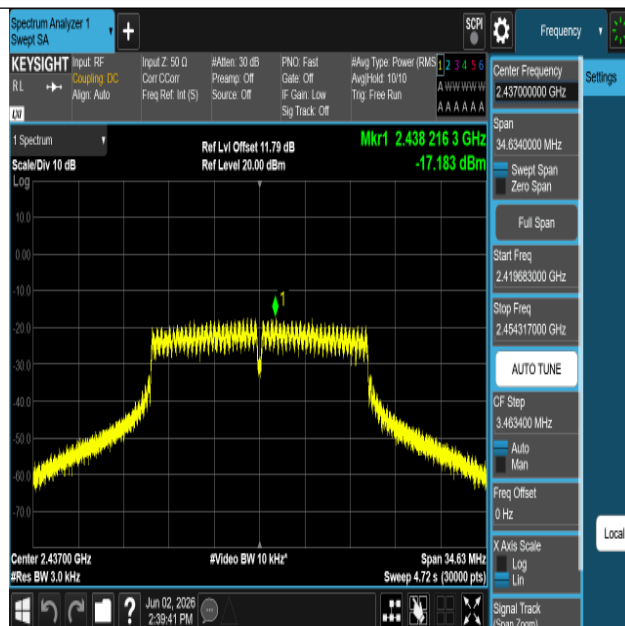
11B-Ant1-2437-PASS



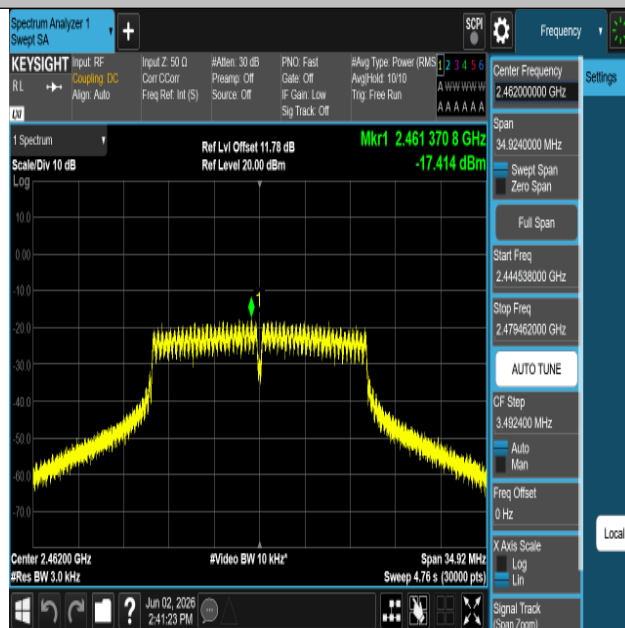
11B-Ant1-2462-PASS



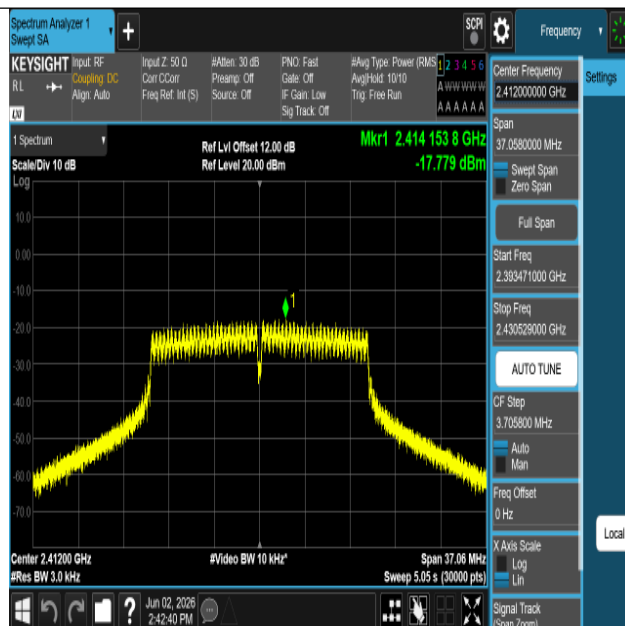
11G-Ant1-2412-PASS



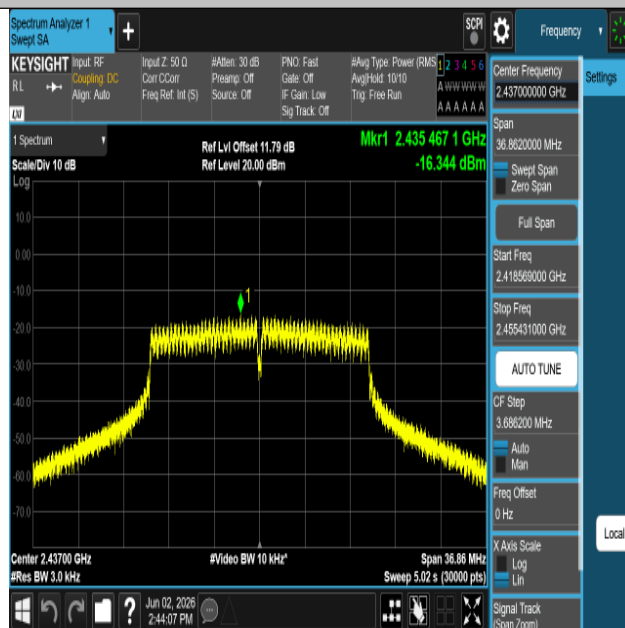
11G-Ant1-2437-PASS



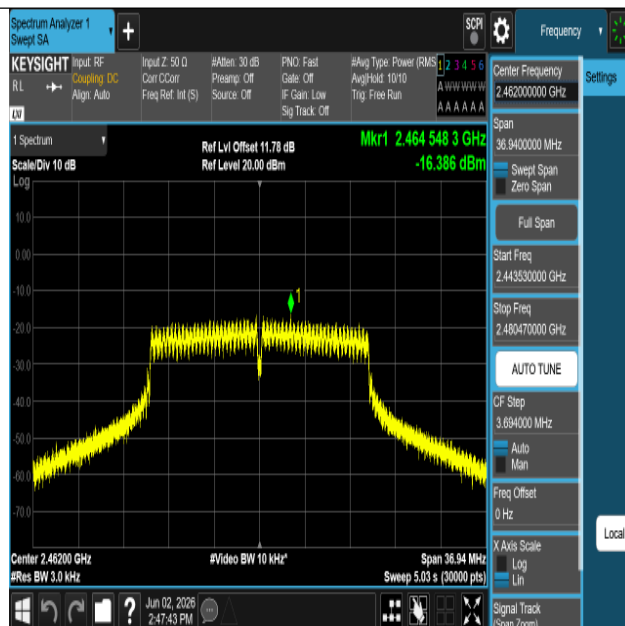
11G-Ant1-2462-PASS



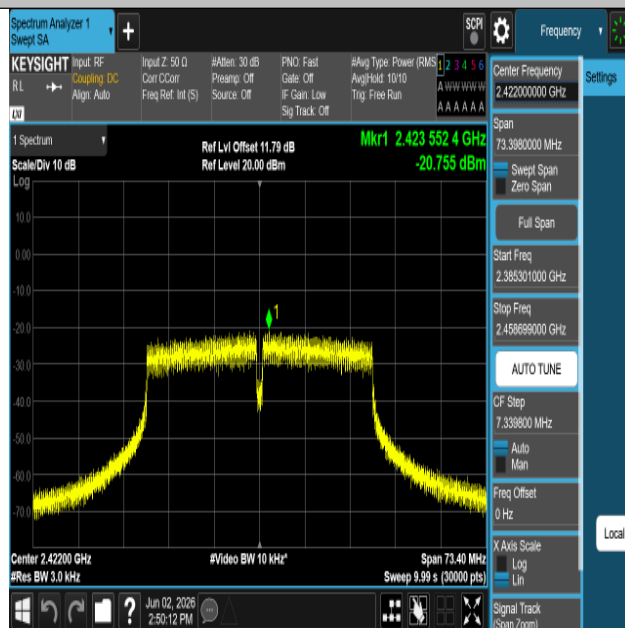
11N20SISO-Ant1-2412-PASS



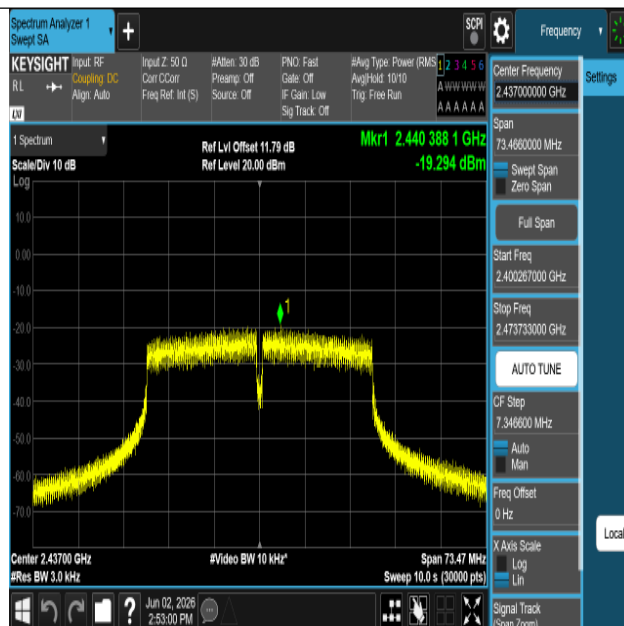
11N20SISO-Ant1-2437-PASS



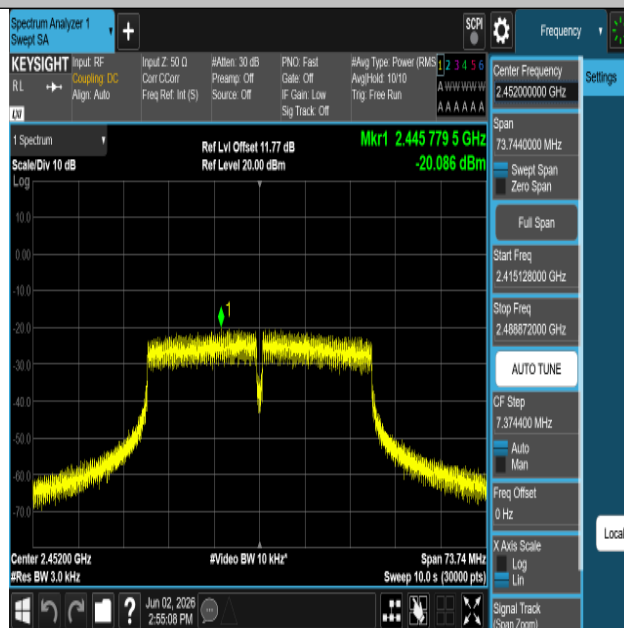
11N20SISO-Ant1-2462-PASS



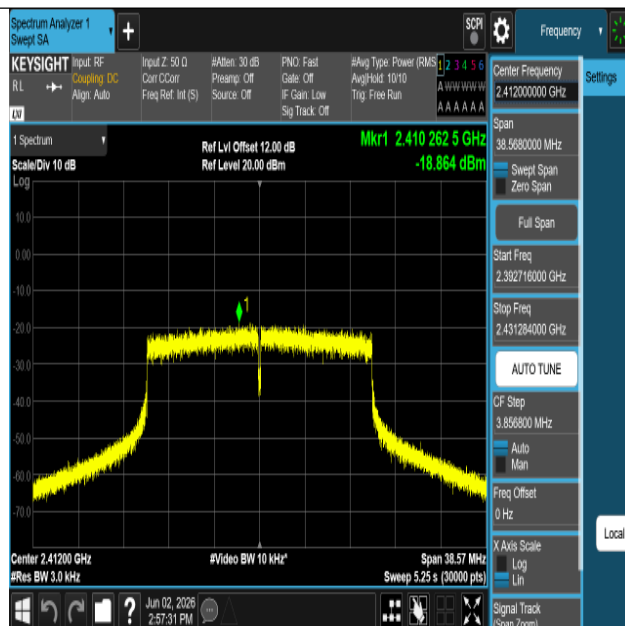
11N40SISO-Ant1-2422-PASS



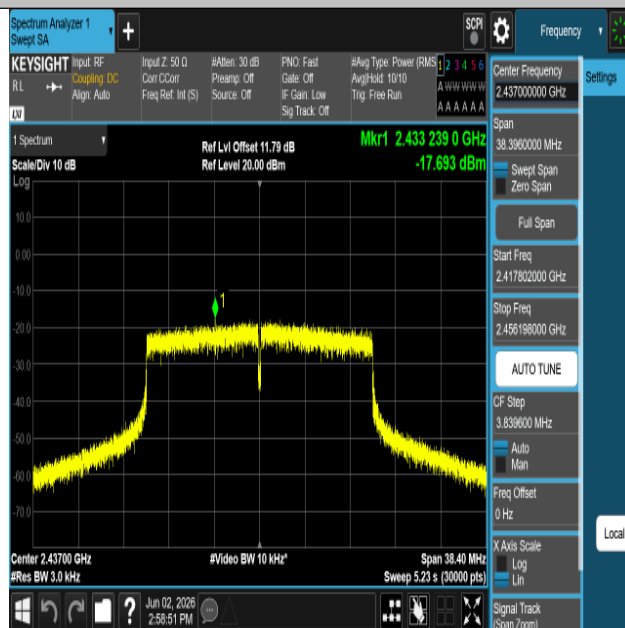
11N40SISO-Ant1-2437-PASS



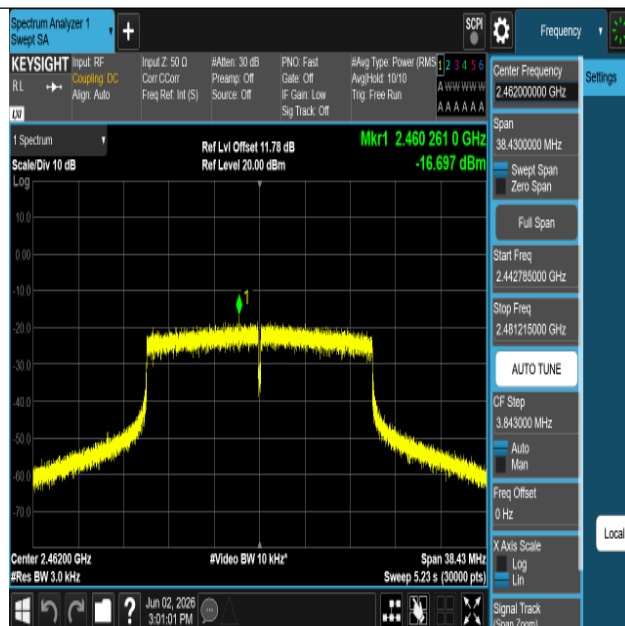
11N40SISO-Ant1-2452-PASS



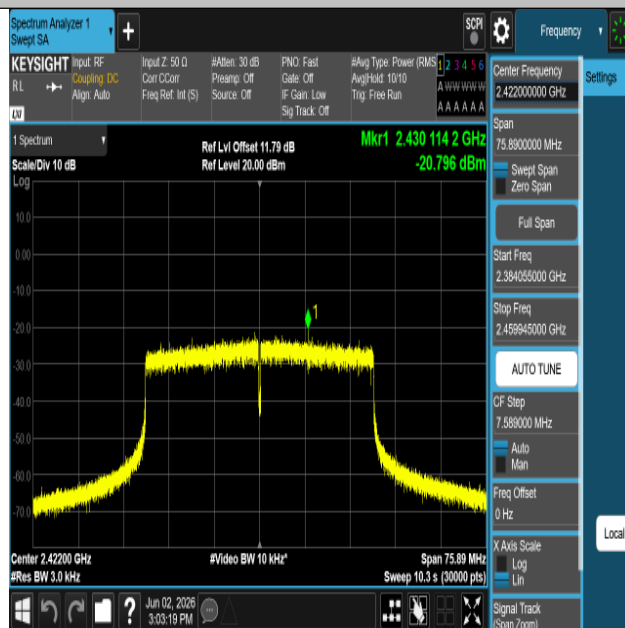
11AX20SISO-Ant1-2412-PASS



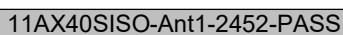
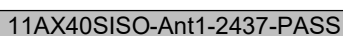
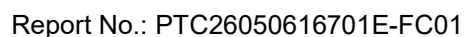
11AX20SISO-Ant1-2437-PASS



11AX20SISO-Ant1-2462-PASS



11AX40SISO-Ant1-2422-PASS





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

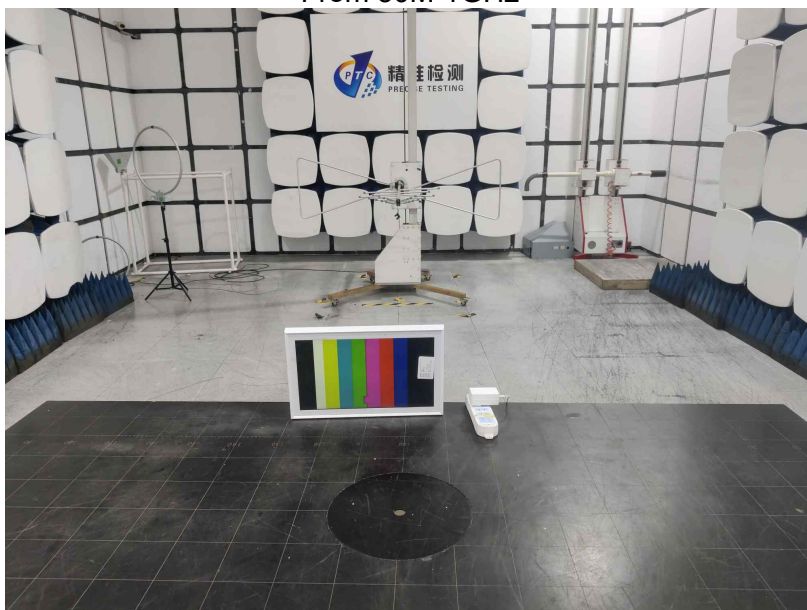
The EUT'S antenna, permanent attached antenna, is FPC Antenna. The antenna's gain is 1.89dBi and meets the requirement.

13 Test Setup

Conducted Emissions



Radiated Emissions
From 30M-1GHz



Above 1GHz





Report No.: PTC26050616701E-FC01

14 EUT PHOTOS

please reference file "EUT photos"

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