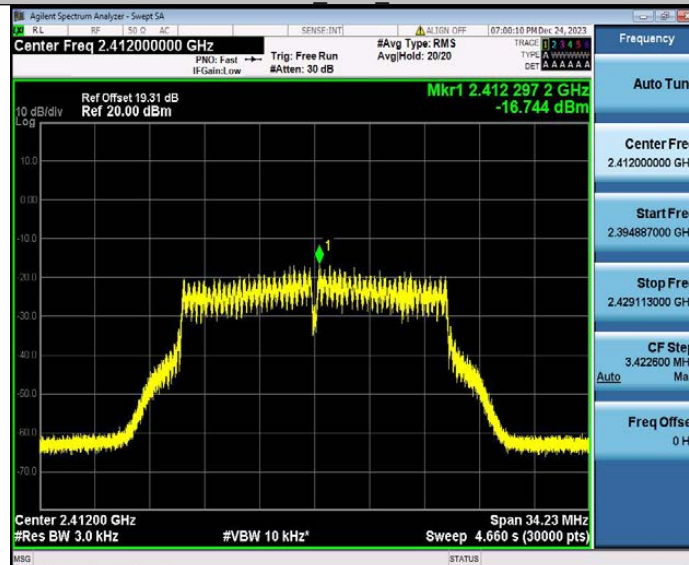
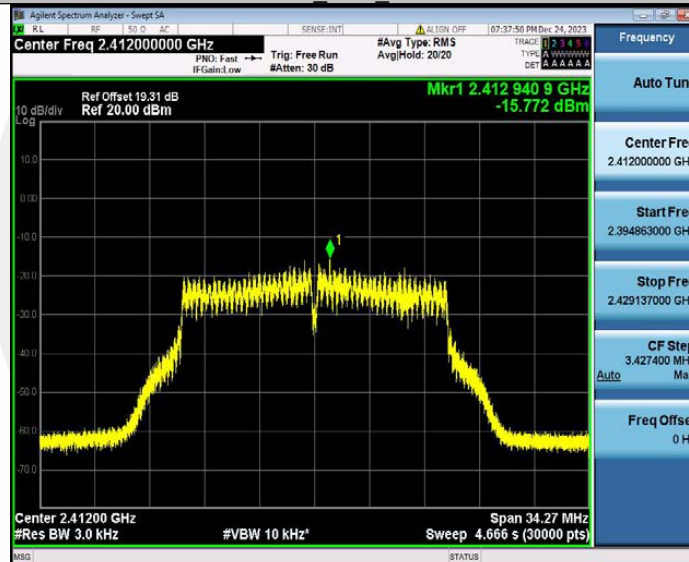


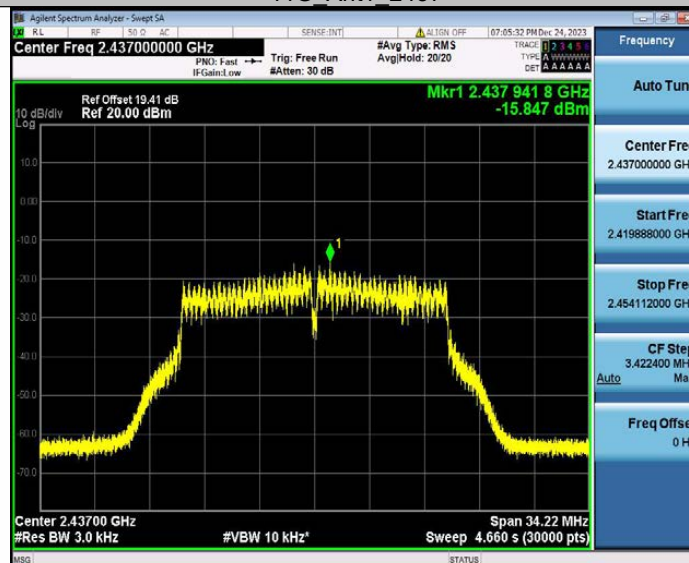
11G Ant1 2412



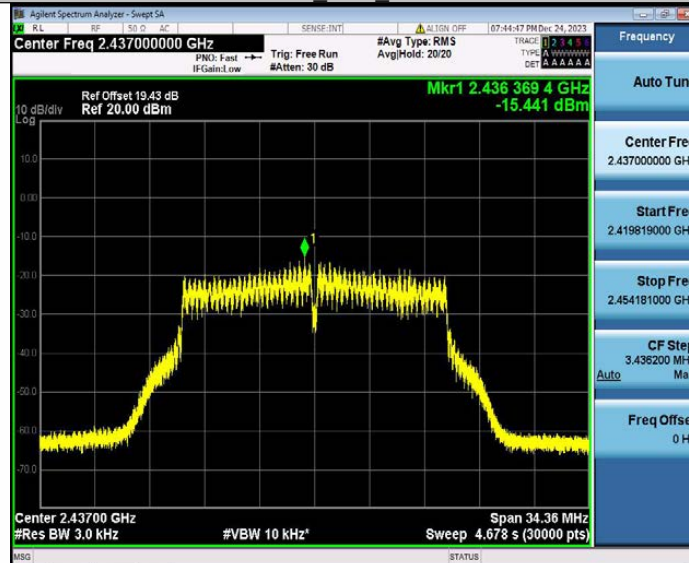
11G Ant2 2412



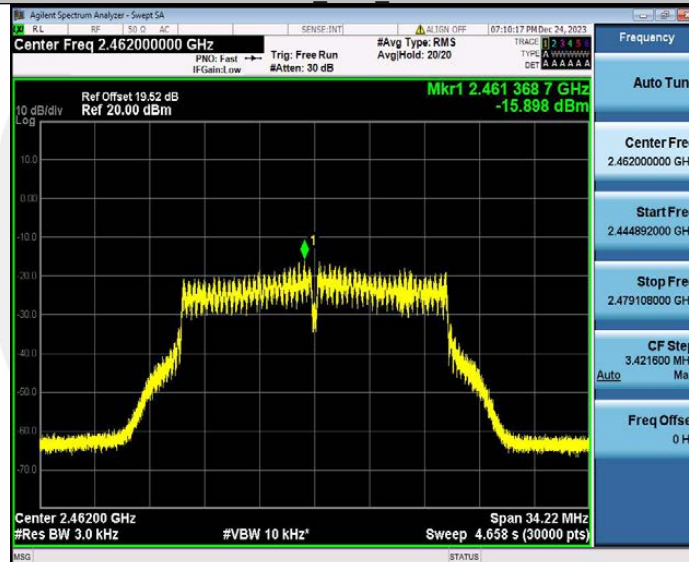
11G Ant1 2437



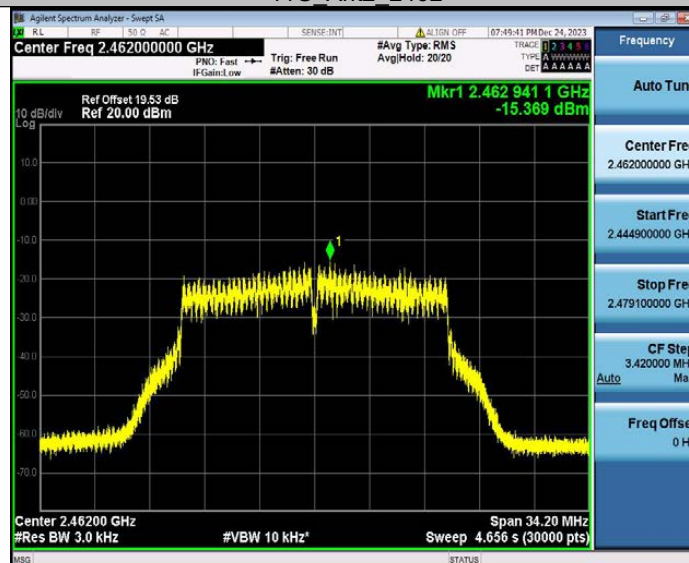
11G_Ant2_2437



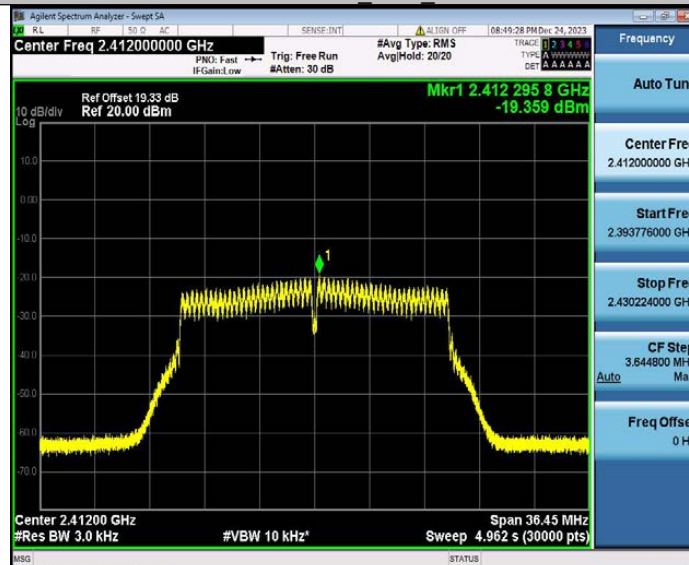
11G_Ant1_2462



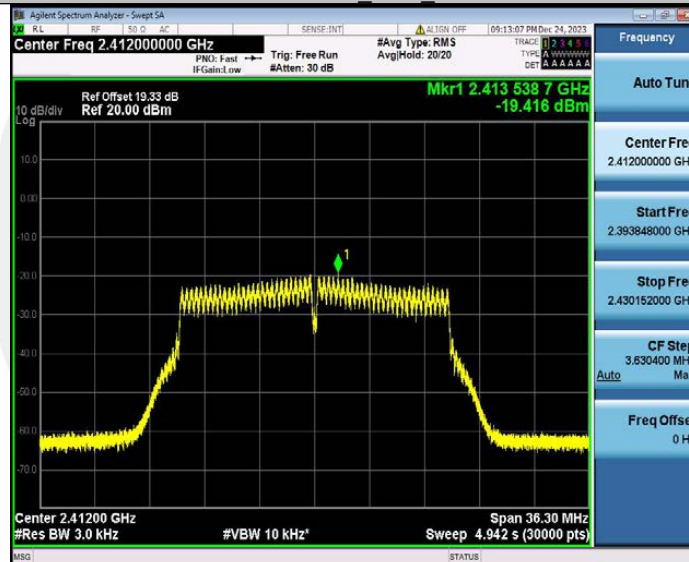
11G_Ant2_2462



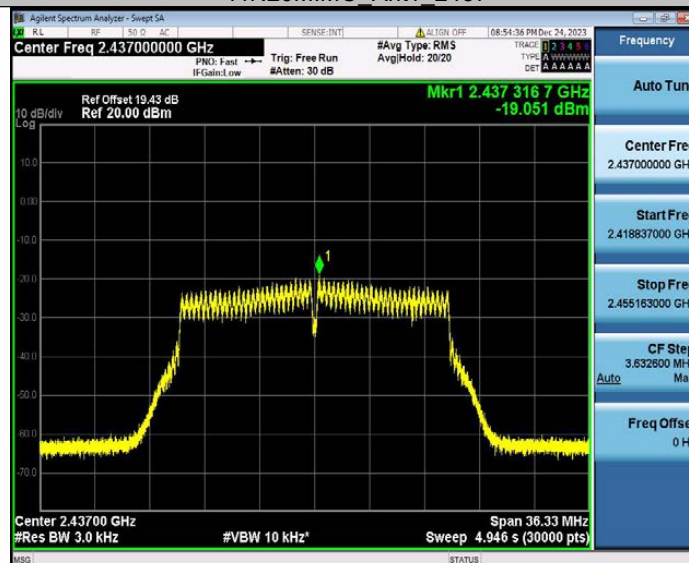
11N20MIMO Ant1 2412



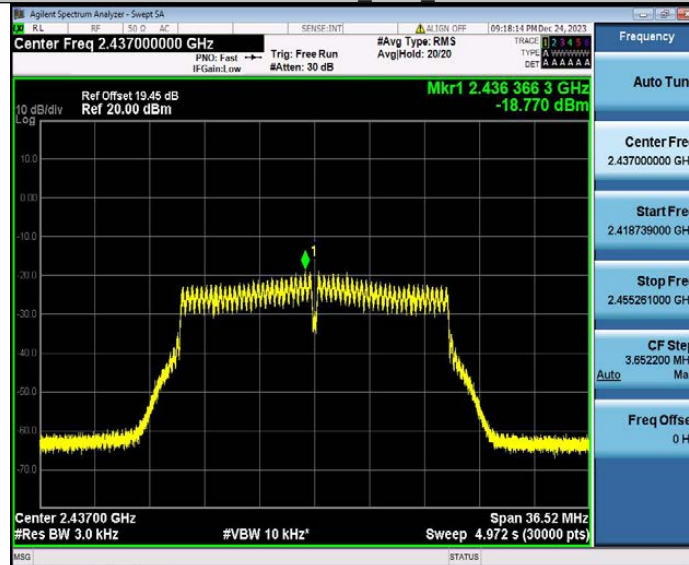
11N20MIMO Ant2 2412



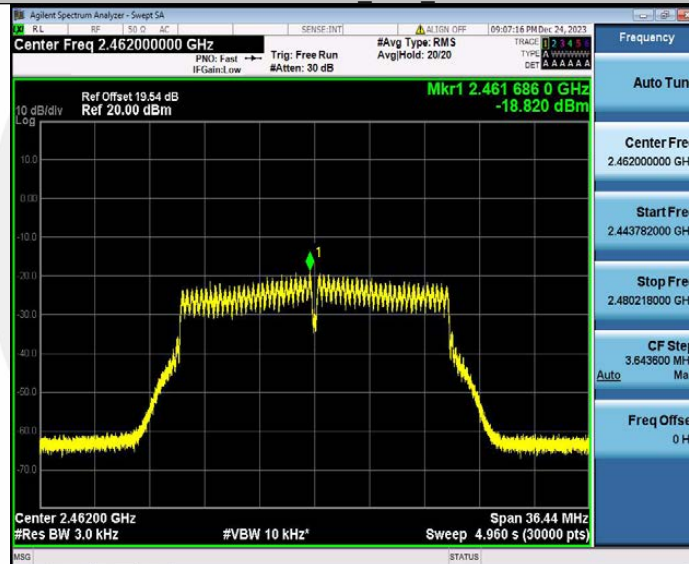
11N20MIMO Ant1 2437



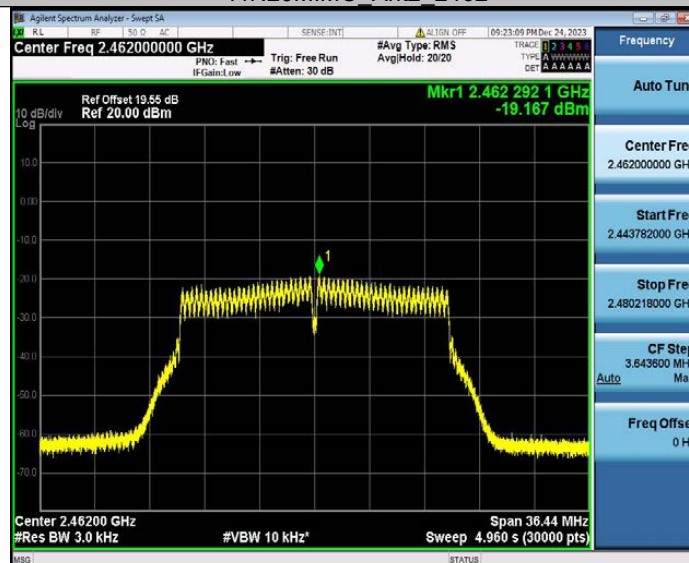
11N20MIMO Ant2 2437



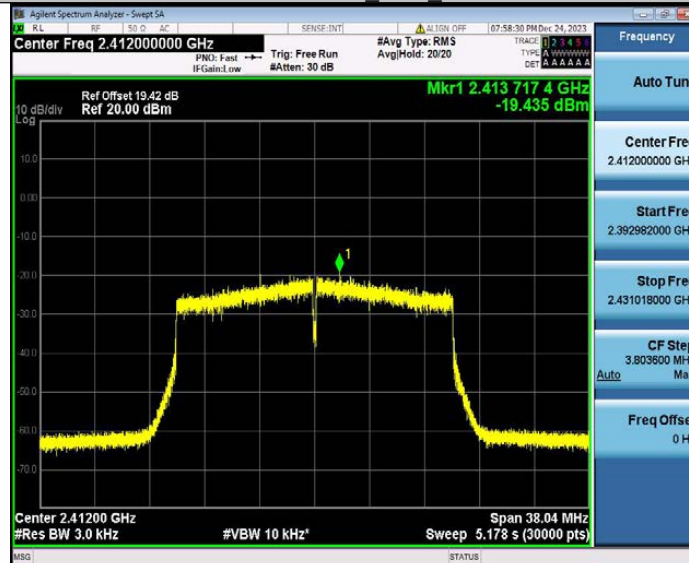
11N20MIMO Ant1 2462



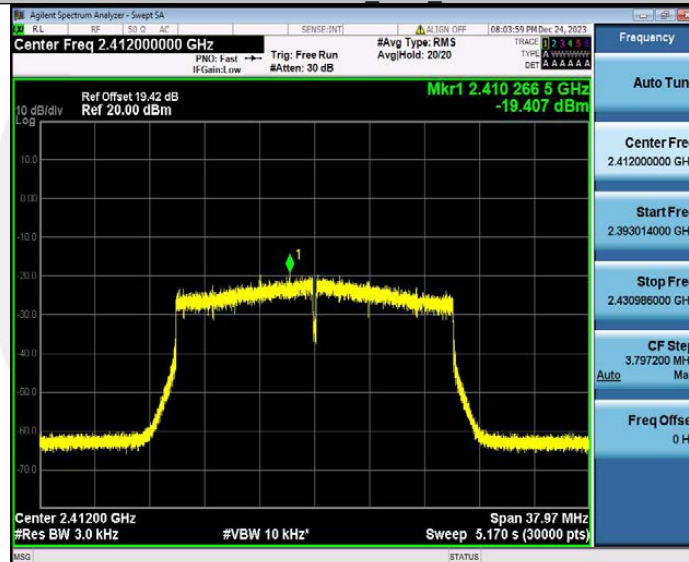
11N20MIMO Ant2 2462



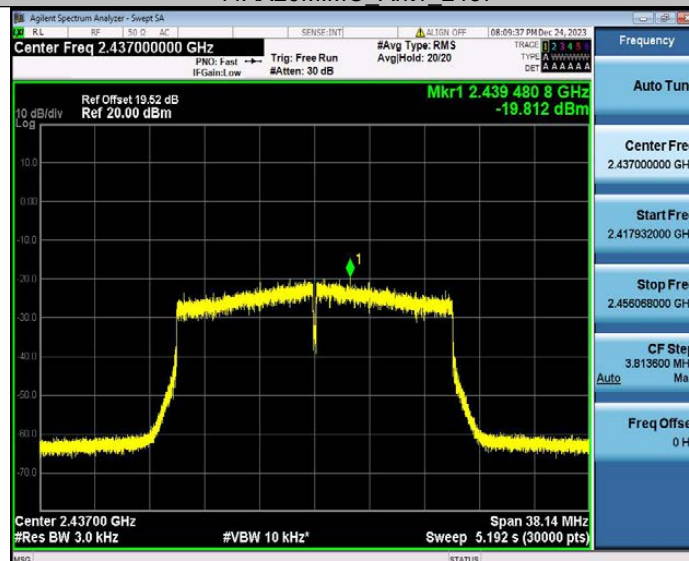
11AX20MIMO_Ant1_2412



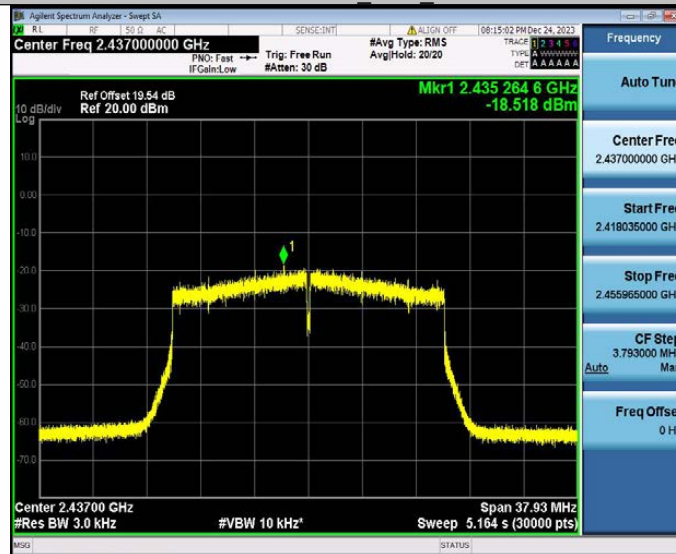
11AX20MIMO_Ant2_2412



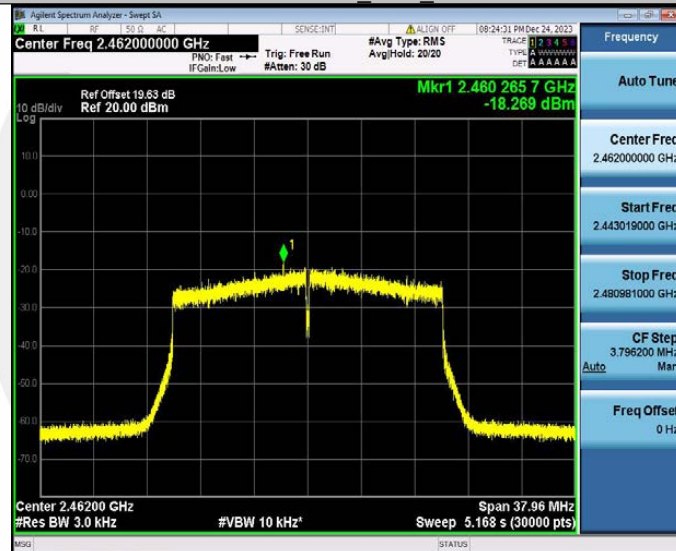
11AX20MIMO_Ant1_2437



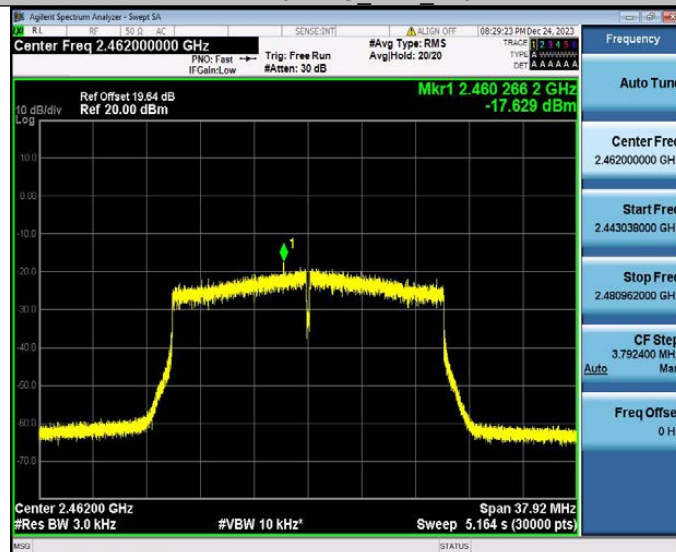
11AX20MIMO_Ant2_2437



11AX20MIMO_Ant1_2462



11AX20MIMO_Ant2_2462



7.4 UNWANTED SPURIOUS EMISSIONS

7.4.1 Applicable Standard

According to FCC Part 15.247(d) and KDB 558074 D01 15.247 Meas Guidance v05r02.

7.4.2 Conformance Limit

According to FCC Part 15.247(d):

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under section 5.4(d), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

7.4.3 Test Configuration

Test according to clause 6.1 radio frequency test setup 1.

7.4.4 Test Procedure

The transmitter output (antenna port) was connected to the spectrum analyzer.

■ Reference level measurement

Establish a reference level by using the following procedure:

Set instrument center frequency to DTS channel center frequency.

Set the span to ≥ 1.5 times the DTS bandwidth.

Set the RBW = 100 kHz.

Set the VBW $\geq 3 \times$ RBW.

Set Detector = peak.

Set Sweep time = auto couple.

Set Trace mode = max hold.

Allow trace to fully stabilize.

Use the peak marker function to determine the maximum PSD level.

Note that the channel found to contain the maximum PSD level can be used to establish the reference level.

■ Emission level measurement

Set the center frequency and span to encompass frequency range to be measured.

Set the RBW = 100 kHz.

Set the VBW = 300 kHz.

Set Detector = peak.

Sweep time = auto couple.

Trace mode = max hold.

Allow trace to fully stabilize.

Use the peak marker function to determine the maximum amplitude level.

Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) are attenuated by at least the minimum requirements. Report the three highest emissions relative to the limit.

7.4.5 Test Results

Temperature : 25 °C
Humidity : 60 %

ATM Pressure: 1011 mbar
Test Engineer: XXH

All modulation modes were tested, and the worst data is shown in the table below:

Band edge measurements

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	4.36	-36.77	≤-25.64	PASS
	Ant2	Low	2412	3.65	-36.13	≤-26.35	PASS
	Ant1	High	2462	5.52	-37.86	≤-24.49	PASS
	Ant2	High	2462	4.67	-37.77	≤-25.33	PASS
11G	Ant1	Low	2412	0.88	-35.97	≤-29.12	PASS
	Ant2	Low	2412	0.75	-36.08	≤-29.25	PASS
	Ant1	High	2462	2.03	-36.95	≤-27.97	PASS
	Ant2	High	2462	1.62	-37.08	≤-28.39	PASS
11N20MIMO	Ant1	Low	2412	0.40	-36.92	≤-29.6	PASS
	Ant2	Low	2412	0.27	-36.21	≤-29.73	PASS
	Ant1	High	2462	-0.06	-37.52	≤-30.06	PASS
	Ant2	High	2462	1.09	-37.37	≤-28.92	PASS
11AX20MIMO	Ant1	Low	2412	0.84	-37.37	≤-29.16	PASS
	Ant2	Low	2412	0.62	-37.44	≤-29.38	PASS
	Ant1	High	2462	1.06	-37.27	≤-28.94	PASS
	Ant2	High	2462	1.63	-37.06	≤-28.37	PASS

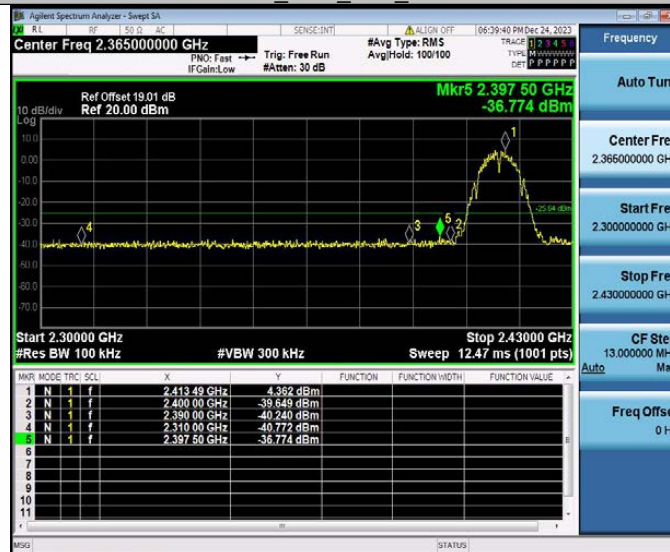
Emission level measurement

TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	4.41	4.41	---	PASS
			30~1000	4.41	-68.61	≤-25.59	PASS
			1000~26500	4.41	-53.9	≤-25.59	PASS
	Ant2	2412	Reference	4.13	4.13	---	PASS
			30~1000	4.13	-68.9	≤-25.87	PASS
			1000~26500	4.13	-53.89	≤-25.87	PASS
	Ant1	2437	Reference	4.31	4.31	---	PASS
			30~1000	4.31	-68.16	≤-25.69	PASS
			1000~26500	4.31	-53.34	≤-25.69	PASS
	Ant2	2437	Reference	4.34	4.34	---	PASS
			30~1000	4.34	-68.13	≤-25.66	PASS
			1000~26500	4.34	-53.95	≤-25.66	PASS
	Ant1	2462	Reference	3.29	3.29	---	PASS
			30~1000	3.29	-68.28	≤-26.71	PASS
			1000~26500	3.29	-53.45	≤-26.71	PASS
	Ant2	2462	Reference	5.12	5.12	---	PASS
			30~1000	5.12	-69	≤-24.88	PASS
			1000~26500	5.12	-53.19	≤-24.88	PASS
11G	Ant1	2412	Reference	0.82	0.82	---	PASS
			30~1000	0.82	-68.18	≤-29.18	PASS
			1000~26500	0.82	-53.91	≤-29.18	PASS
	Ant2	2412	Reference	0.04	0.04	---	PASS
			30~1000	0.04	-67.79	≤-29.96	PASS
			1000~26500	0.04	-52.59	≤-29.96	PASS
	Ant1	2437	Reference	0.17	0.17	---	PASS
			30~1000	0.17	-68.99	≤-29.83	PASS
			1000~26500	0.17	-53.95	≤-29.83	PASS
	Ant2	2437	Reference	0.46	0.46	---	PASS
			30~1000	0.46	-68.36	≤-29.54	PASS
			1000~26500	0.46	-53.7	≤-29.54	PASS
	Ant1	2462	Reference	1.70	1.70	---	PASS
			30~1000	1.70	-68.17	≤-28.3	PASS
			1000~26500	1.70	-53.95	≤-28.3	PASS
	Ant2	2462	Reference	0.80	0.80	---	PASS
			30~1000	0.80	-68.67	≤-29.2	PASS
			1000~26500	0.80	-52.91	≤-29.2	PASS
11N20MIMO	Ant1	2412	Reference	-1.04	-1.04	---	PASS
			30~1000	-1.04	-68.96	≤-31.04	PASS
			1000~26500	-1.04	-53.23	≤-31.04	PASS
	Ant2	2412	Reference	-0.13	-0.13	---	PASS
			30~1000	-0.13	-67.28	≤-30.13	PASS
			1000~26500	-0.13	-53.4	≤-30.13	PASS
	Ant1	2437	Reference	-1.05	-1.05	---	PASS
			30~1000	-1.05	-68.16	≤-31.05	PASS
			1000~26500	-1.05	-53.52	≤-31.05	PASS
	Ant2	2437	Reference	-0.01	-0.01	---	PASS
			30~1000	-0.01	-68.82	≤-30.01	PASS
			1000~26500	-0.01	-53.21	≤-30.01	PASS
	Ant1	2462	Reference	0.59	0.59	---	PASS
			30~1000	0.59	-68.47	≤-29.41	PASS
			1000~26500	0.59	-52.62	≤-29.41	PASS
	Ant2	2462	Reference	1.07	1.07	---	PASS
			30~1000	1.07	-67.97	≤-28.93	PASS

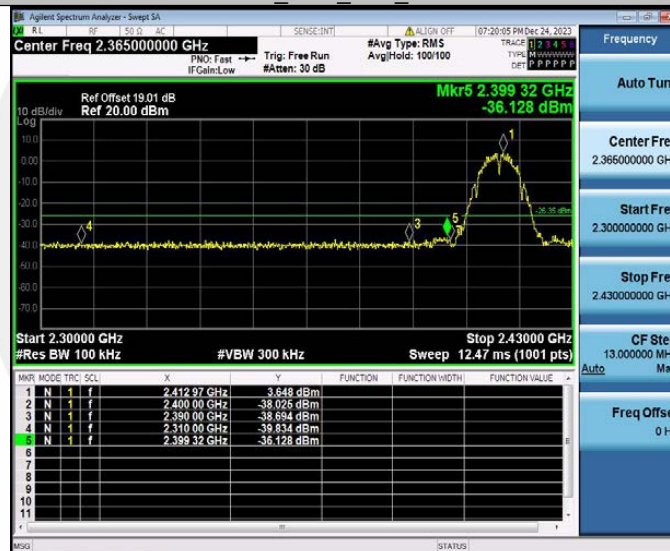
			1000~26500	1.07	-53.24	≤ -28.93	PASS
11AX20MIMO	Ant1	2412	Reference	-0.40	-0.40	---	PASS
			30~1000	-0.40	-68.9	≤ -30.4	PASS
			1000~26500	-0.40	-53.75	≤ -30.4	PASS
	Ant2	2412	Reference	-0.11	-0.11	---	PASS
			30~1000	-0.11	-57.68	≤ -30.11	PASS
			1000~26500	-0.11	-53.73	≤ -30.11	PASS
	Ant1	2437	Reference	0.11	0.11	---	PASS
			30~1000	0.11	-68.78	≤ -29.89	PASS
			1000~26500	0.11	-52.89	≤ -29.89	PASS
	Ant2	2437	Reference	0.37	0.37	---	PASS
			30~1000	0.37	-69.04	≤ -29.63	PASS
			1000~26500	0.37	-53.46	≤ -29.63	PASS
	Ant1	2462	Reference	0.95	0.95	---	PASS
			30~1000	0.95	-67.73	≤ -29.05	PASS
			1000~26500	0.95	-52.68	≤ -29.05	PASS
	Ant2	2462	Reference	1.77	1.77	---	PASS
			30~1000	1.77	-67.96	≤ -28.23	PASS
			1000~26500	1.77	-54	≤ -28.23	PASS

Band edge measurements

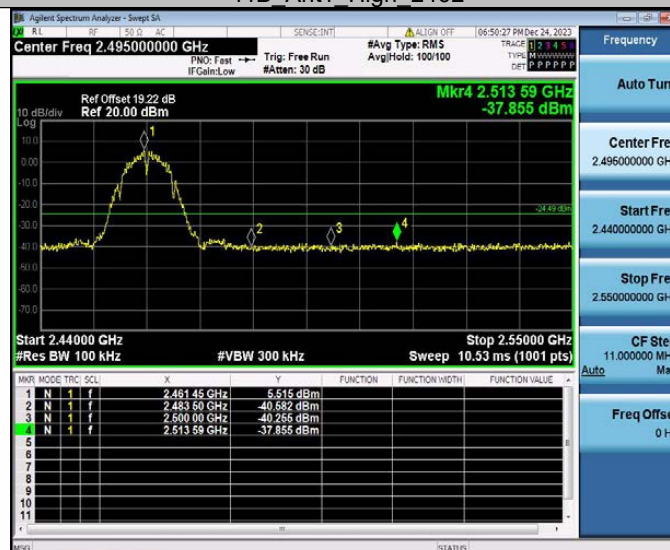
11B_Ant1_Low_2412



11B_Ant2_Low_2412



11B_Ant1_High_2462



Agilent Spectrum Analyzer - Sweep SA

Center Freq 2.495000000 GHz

Ref Offset 19.23 dB
Ref 20.00 dBm

Mkr4 2.499 95 GHz
-37.771 dBm

Start 2.440000 GHz
#Res BW 100 kHz

#VBW 300 kHz

Sweep 10.53 ms (1001 pts)

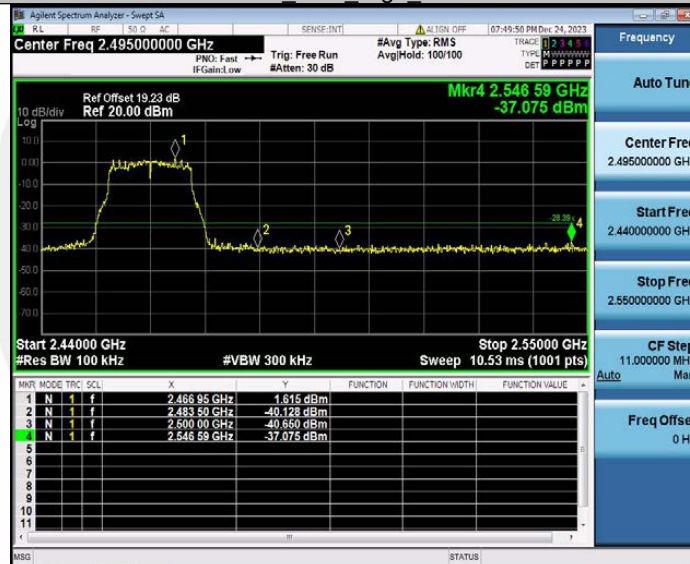
MNR	MODE	TRC	SC1	X	Y	FUNCTION	FUNCTION (WIDTH)	FUNCTION VALUE
1	N	1	f	2.461 01 GHz	4.671 dBm			
2	N	1	f	2.483 50 GHz	-41.119 dBm			
3	N	1	f	2.500 00 GHz	-37.771 dBm			
4	N	1	f	2.499 95 GHz	-37.771 dBm			

[illegible][illegible]

11G Ant1 High 2462



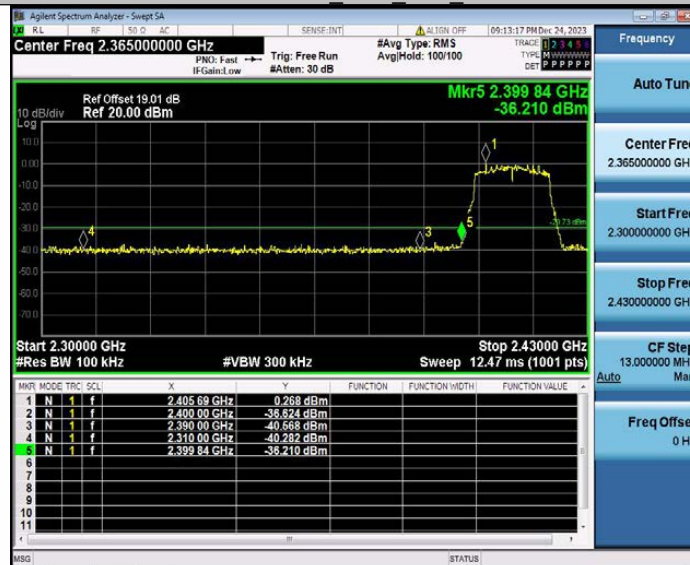
11G Ant2 High 2462



11N20MIMO Ant1 Low 2412



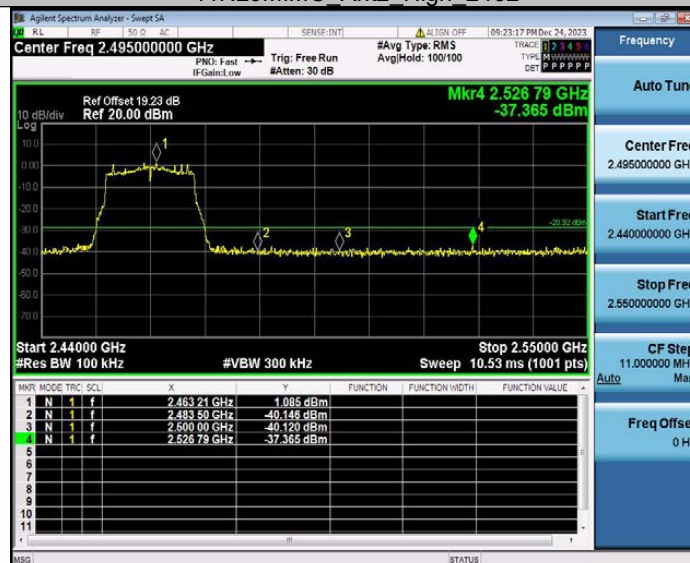
11N20MIMO Ant2 Low 2412

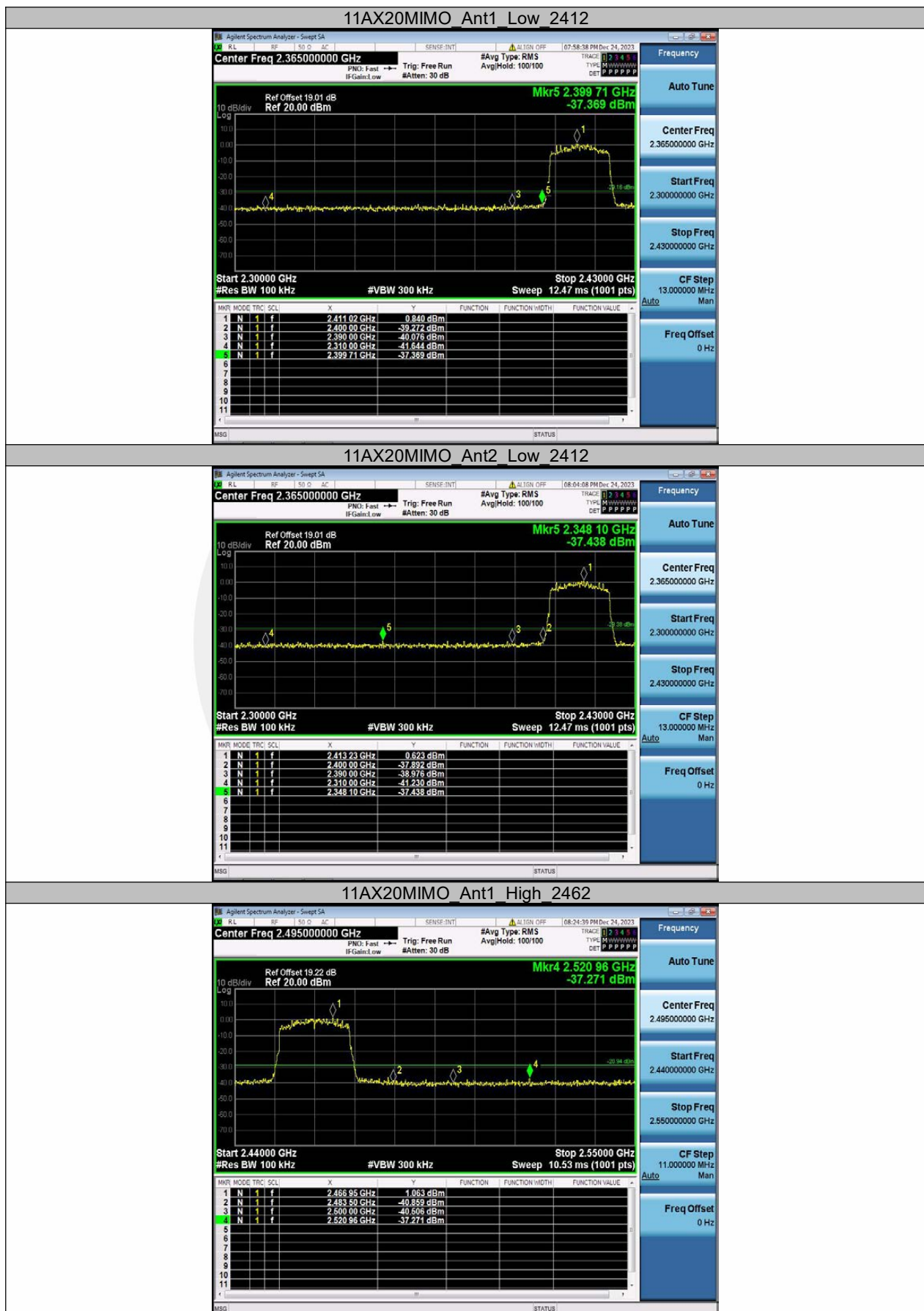


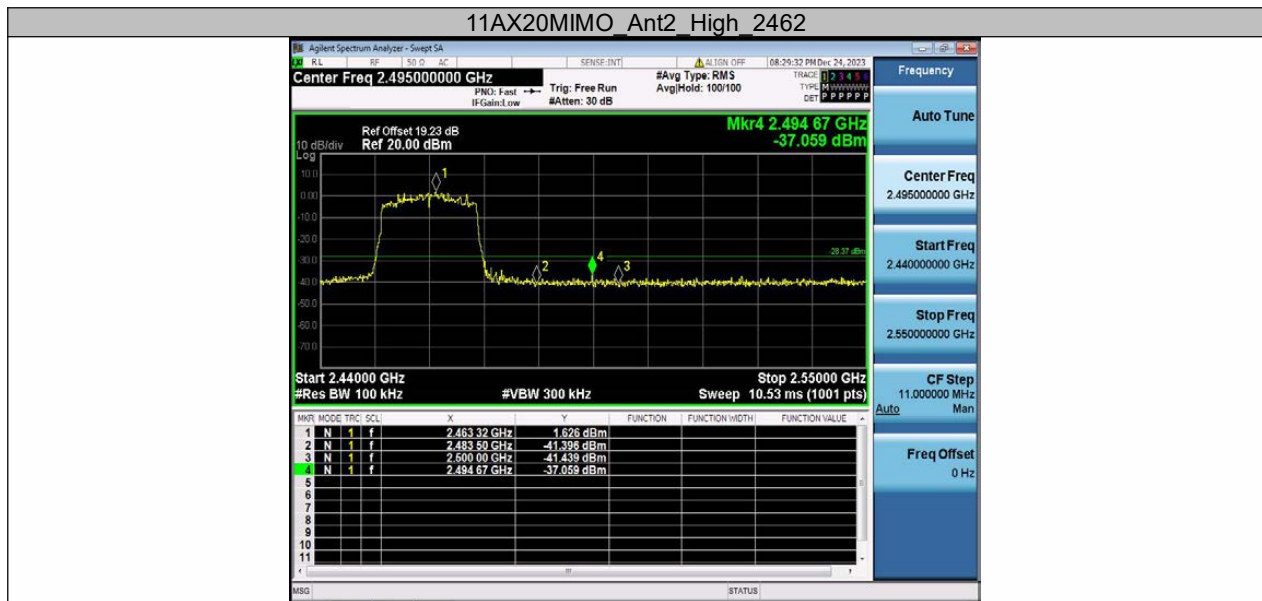
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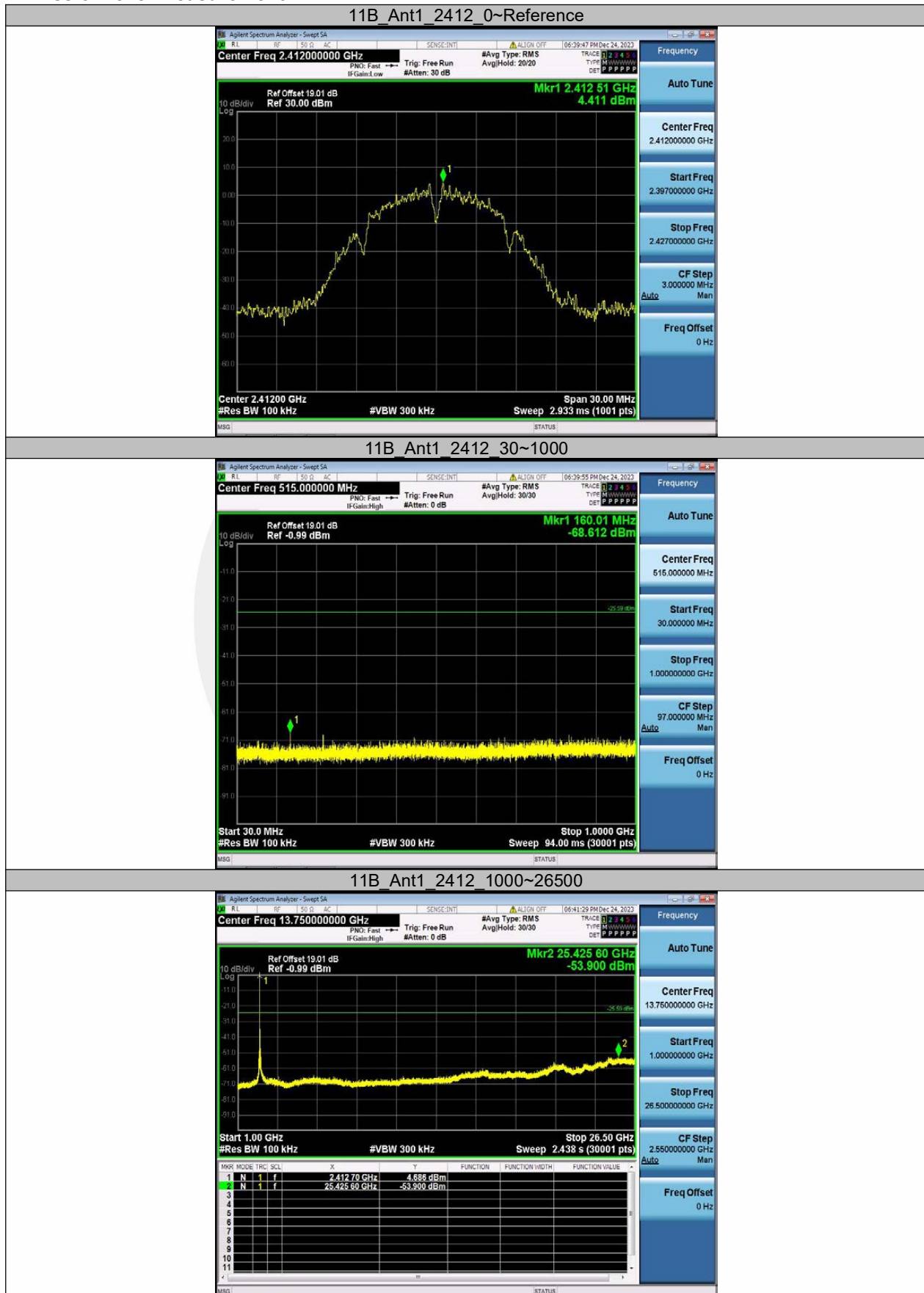
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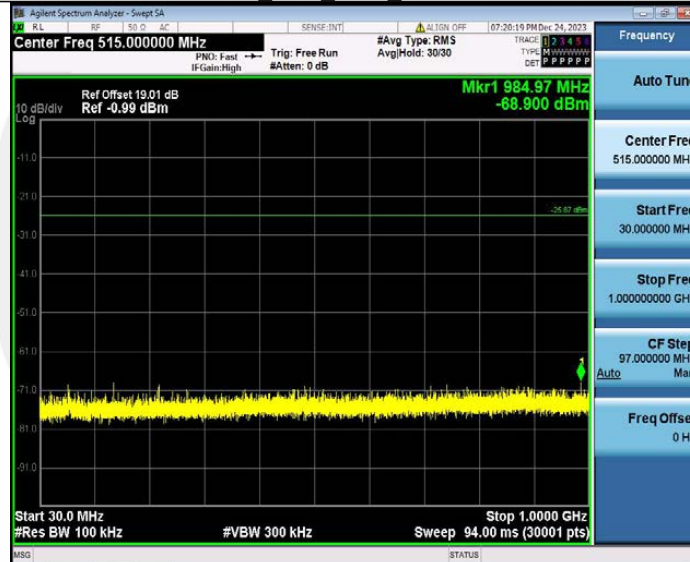
Emission level measurement



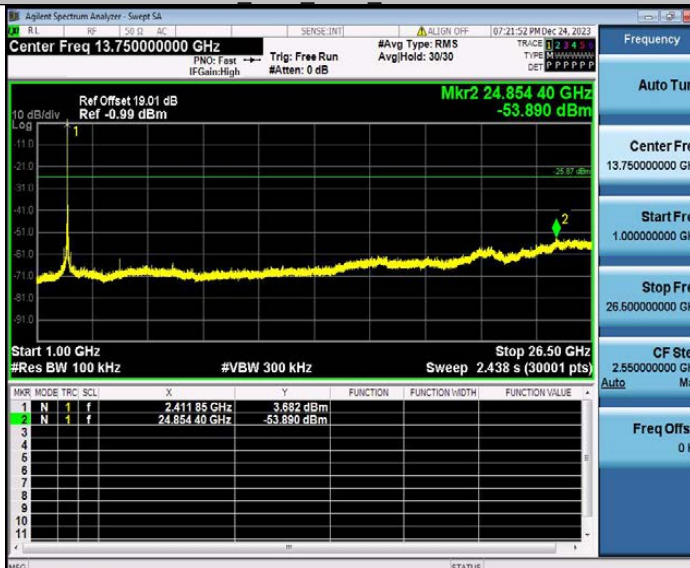
11B_Ant2_2412_0~Reference



11B_Ant2_2412_30~1000



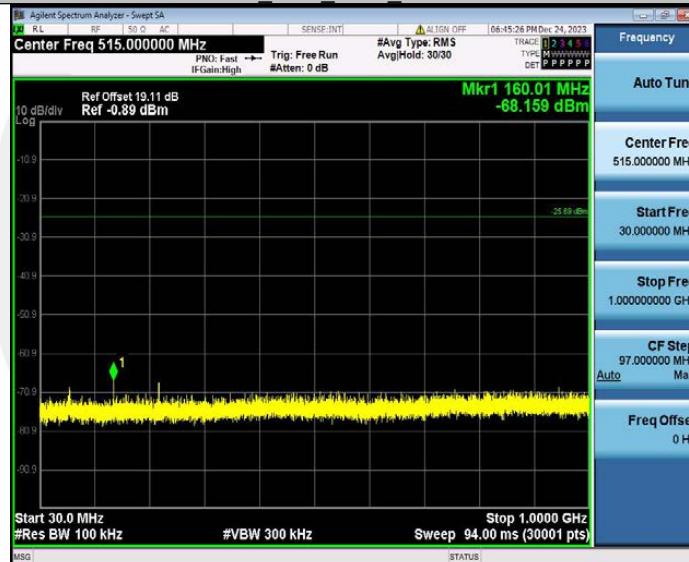
11B_Ant2_2412_1000~26500



11B_Ant1_2437_0~Reference



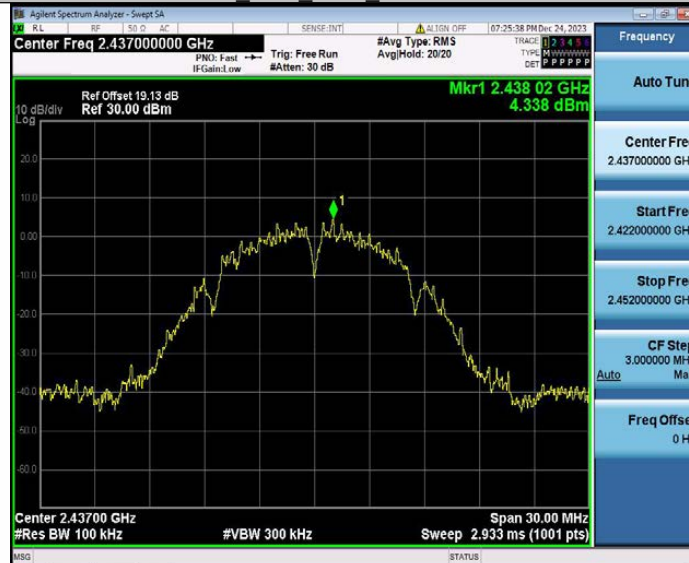
11B_Ant1_2437_30~1000



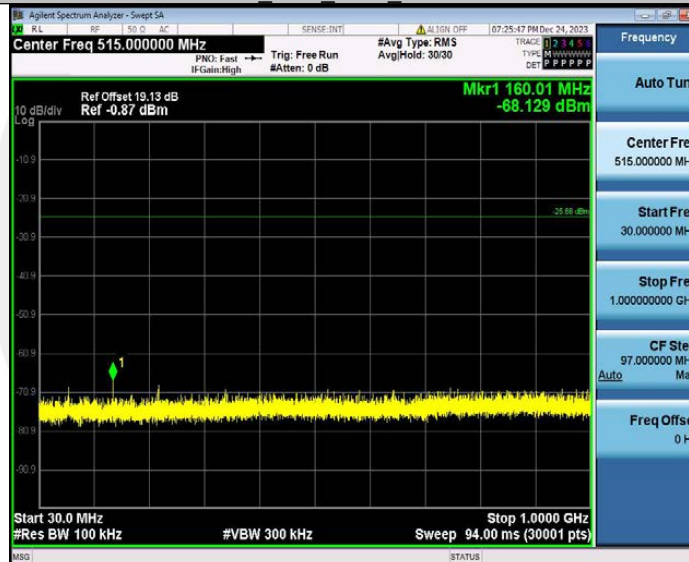
11B_Ant1_2437_1000~26500



11B_Ant2_2437_0~Reference



11B_Ant2_2437_30~1000



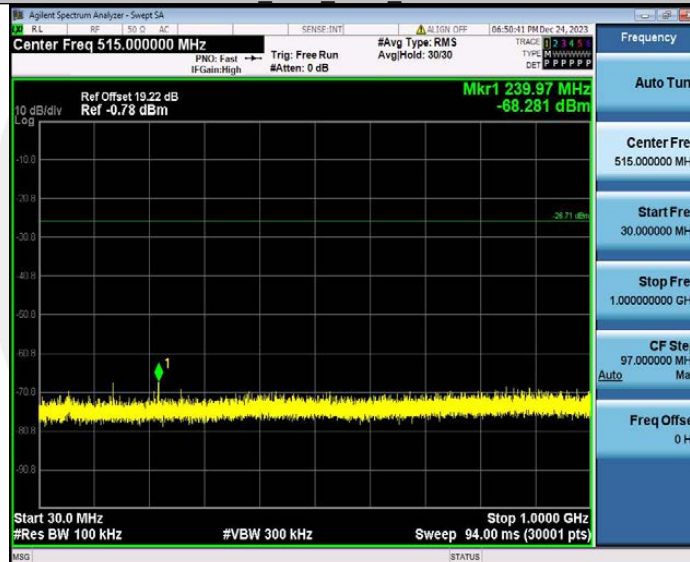
11B_Ant2_2437_1000~26500



11B_Ant1_2462_0~Reference



11B_Ant1_2462_30~1000



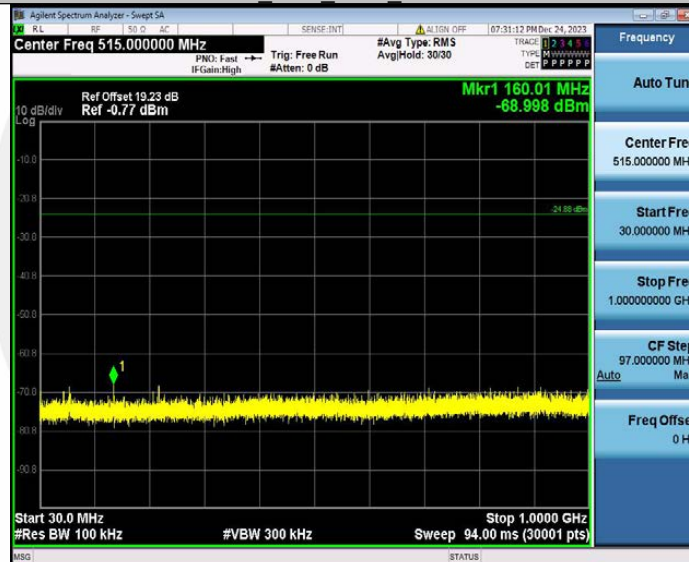
11B_Ant1_2462_1000~26500



11B_Ant2_2462_0~Reference



11B_Ant2_2462_30~1000



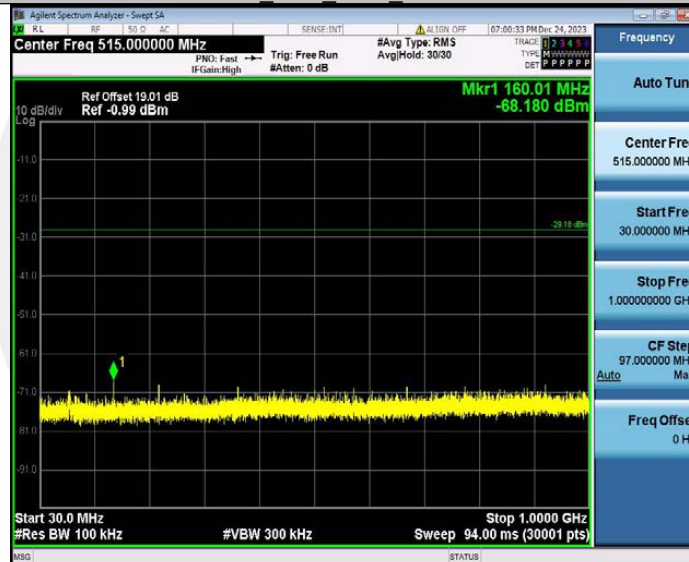
11B_Ant2_2462_1000~26500



11G Ant1_2412_0~Reference



11G Ant1_2412_30~1000



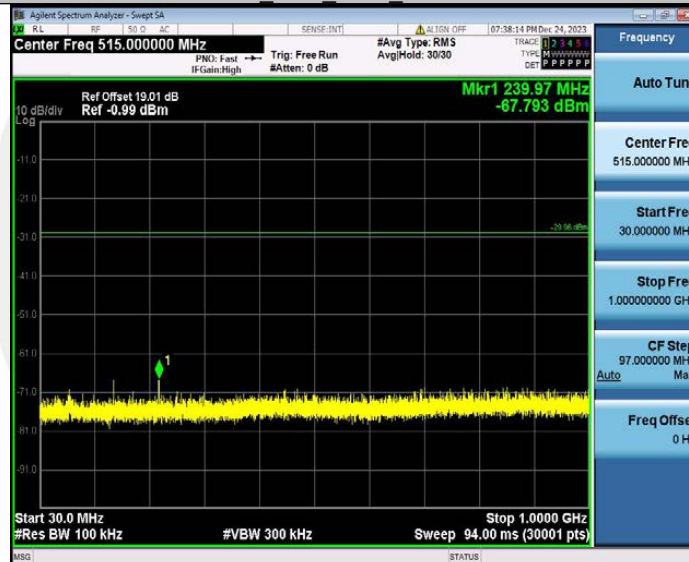
11G Ant1_2412_1000~26500



11G_Ant2_2412_0~Reference



11G_Ant2_2412_30~1000



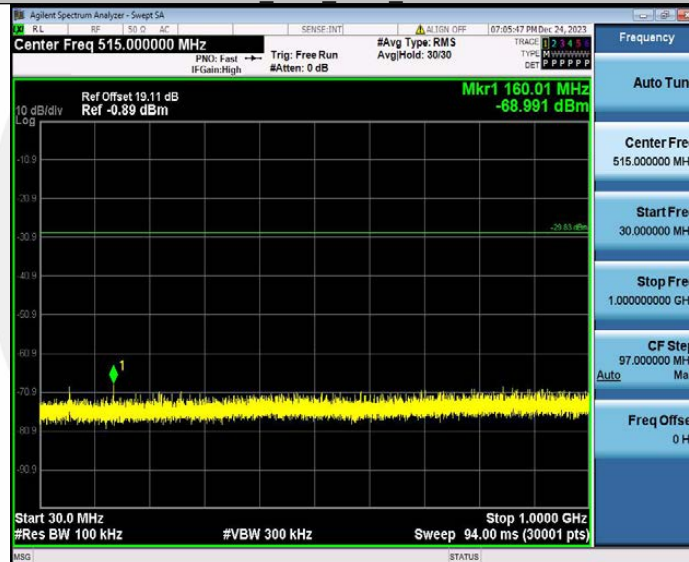
11G_Ant2_2412_1000~26500



11G Ant1_2437_0~Reference



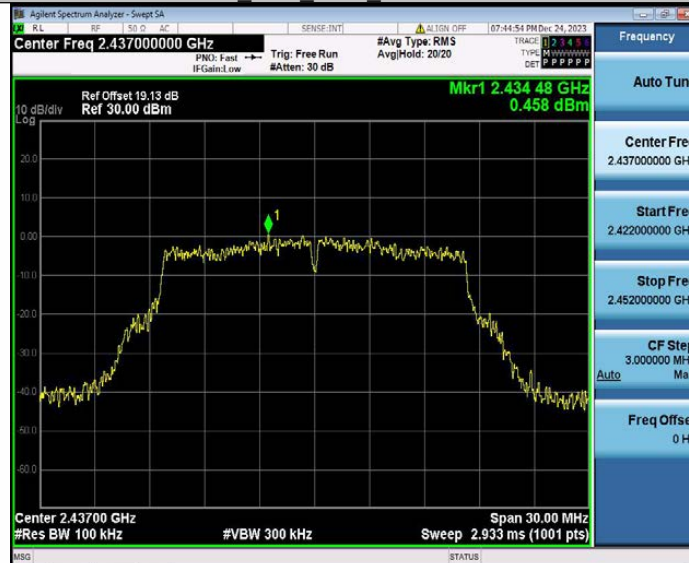
11G Ant1_2437_30~1000



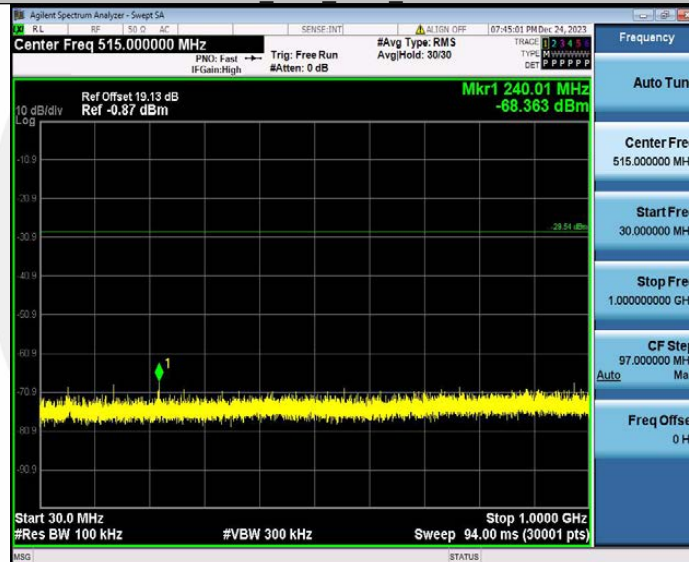
11G Ant1_2437_1000~26500



11G Ant2_2437_0~Reference



11G Ant2_2437_30~1000



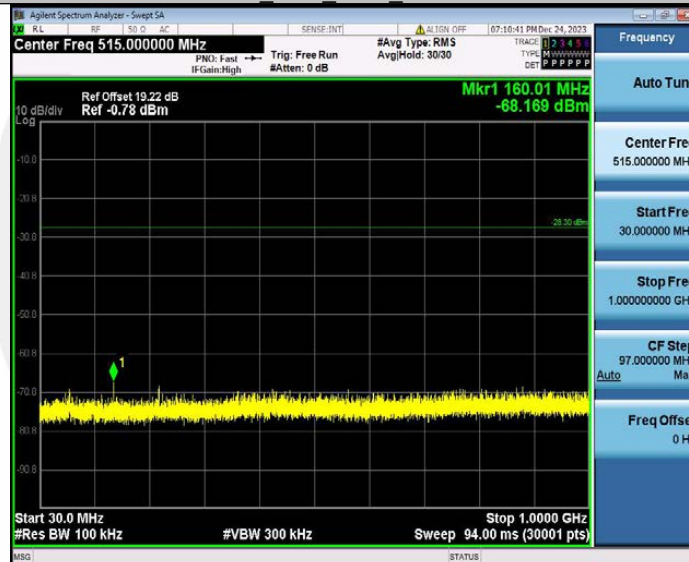
11G Ant2_2437_1000~26500



11G Ant1_2462_0~Reference



11G Ant1_2462_30~1000



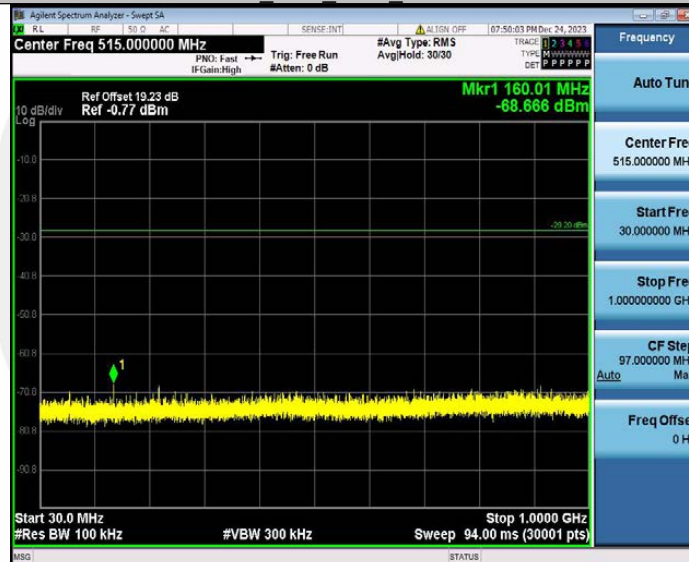
11G Ant1_2462_1000~26500



11G_Ant2_2462_0~Reference



11G_Ant2_2462_30~1000



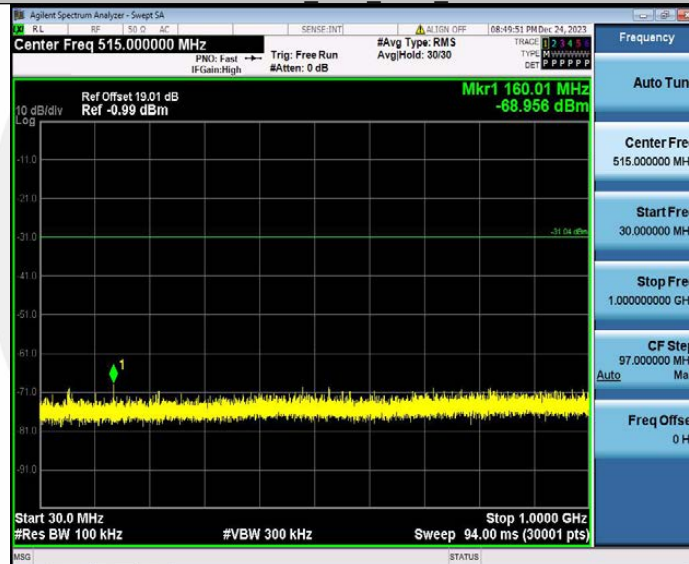
11G_Ant2_2462_1000~26500



11N20MIMO Ant1_2412_0~Reference



11N20MIMO Ant1_2412_30~1000



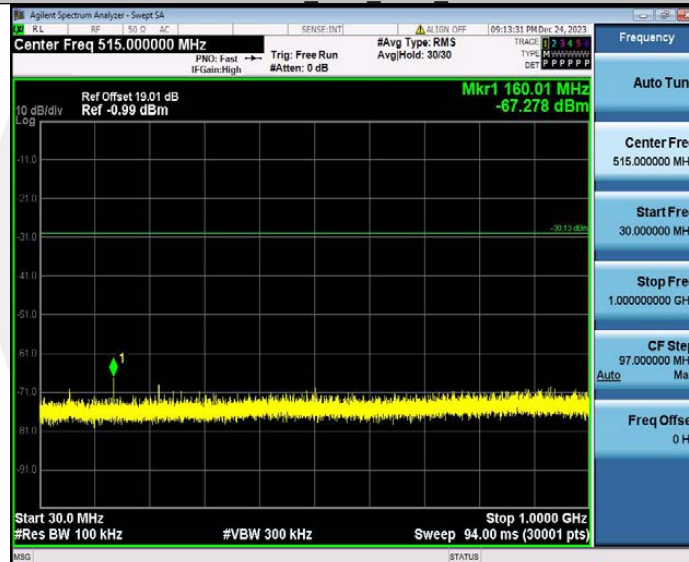
11N20MIMO Ant1_2412_1000~26500



11N20MIMO Ant2_2412_0~Reference



11N20MIMO Ant2_2412_30~1000



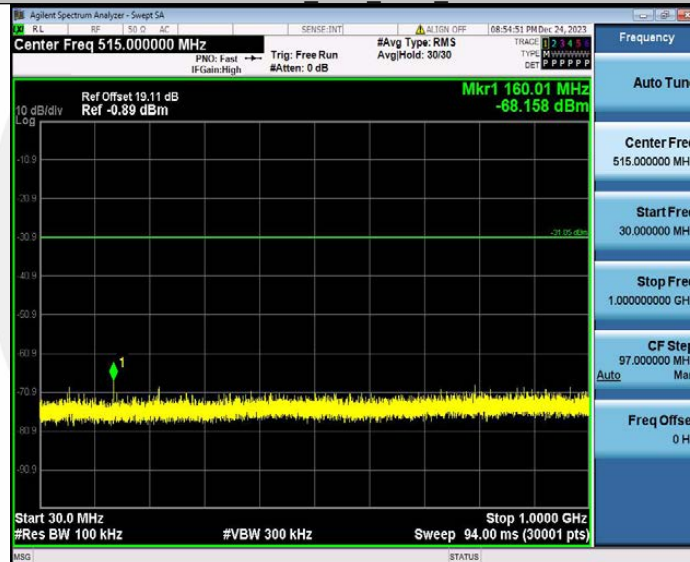
11N20MIMO Ant2_2412_1000~26500



11N20MIMO Ant1_2437_0~Reference



11N20MIMO Ant1_2437_30~1000



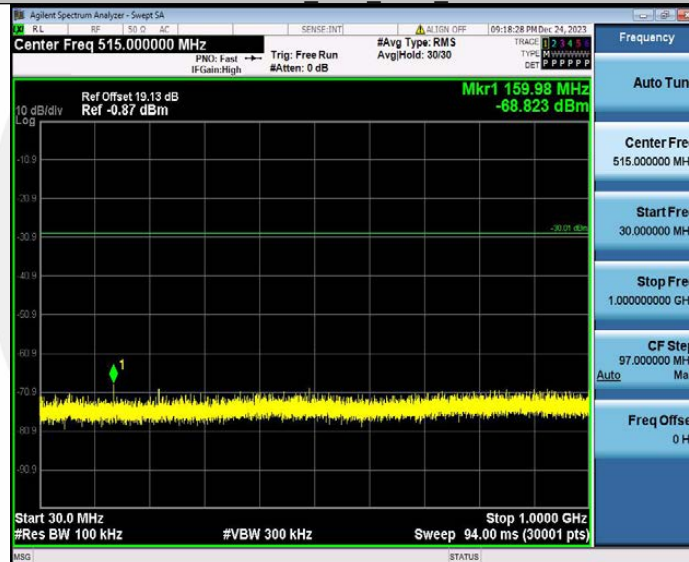
11N20MIMO Ant1_2437_1000~26500



11N20MIMO Ant2_2437_0~Reference



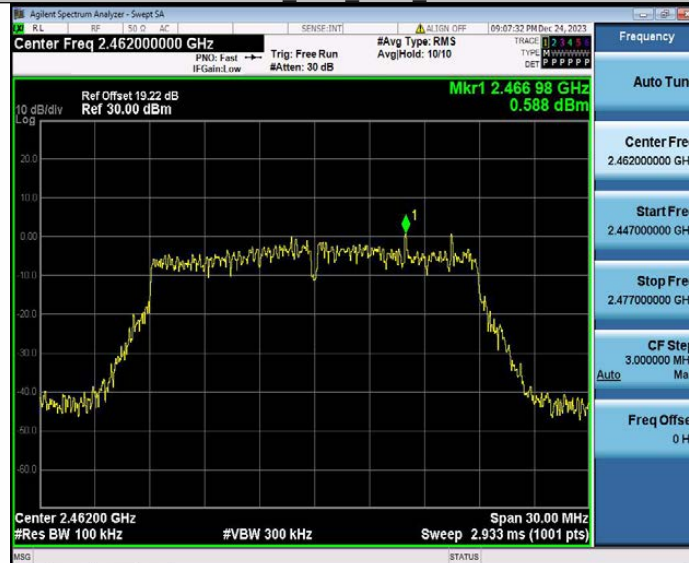
11N20MIMO Ant2_2437_30~1000



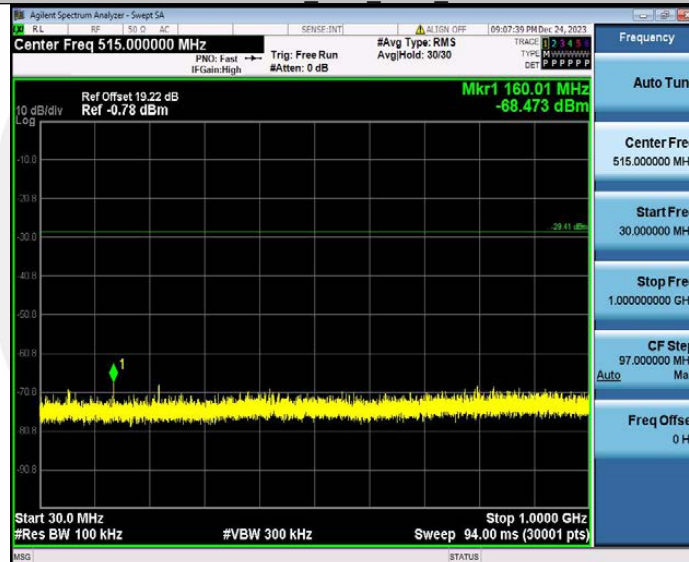
11N20MIMO Ant2_2437_1000~26500



11N20MIMO Ant1_2462_0~Reference



11N20MIMO Ant1_2462_30~1000



11N20MIMO Ant1_2462_1000~26500

