

Case No. : <u>GTS20250116009-1-03</u>	
Ambient Condition: <u>22</u> °C, <u>53</u> %RH,	
Test Date: <u>2025.2.14</u>	Test Engineer: <u>Evan ouyang</u>

Appendix C.1: DTS Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant2	2412	10.080	2406.960	2417.040	0.5	PASS
		2437	10.080	2431.960	2442.040	0.5	PASS
		2462	10.120	2456.920	2467.040	0.5	PASS
11G	Ant2	2412	16.520	2403.720	2420.240	0.5	PASS
		2437	16.560	2428.720	2445.280	0.5	PASS
		2462	16.520	2453.720	2470.240	0.5	PASS
11N20SISO	Ant2	2412	17.640	2403.160	2420.800	0.5	PASS
		2437	17.680	2428.160	2445.840	0.5	PASS
		2462	17.640	2453.160	2470.800	0.5	PASS
11N40SISO	Ant2	2422	36.480	2403.760	2440.240	0.5	PASS
		2437	36.400	2418.760	2455.160	0.5	PASS
		2452	36.320	2433.840	2470.160	0.5	PASS

Test Graphs

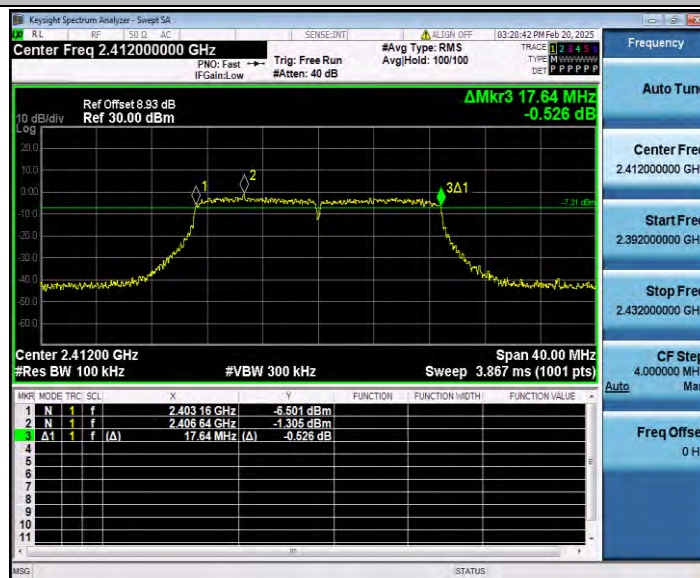




11G_Ant2_2462



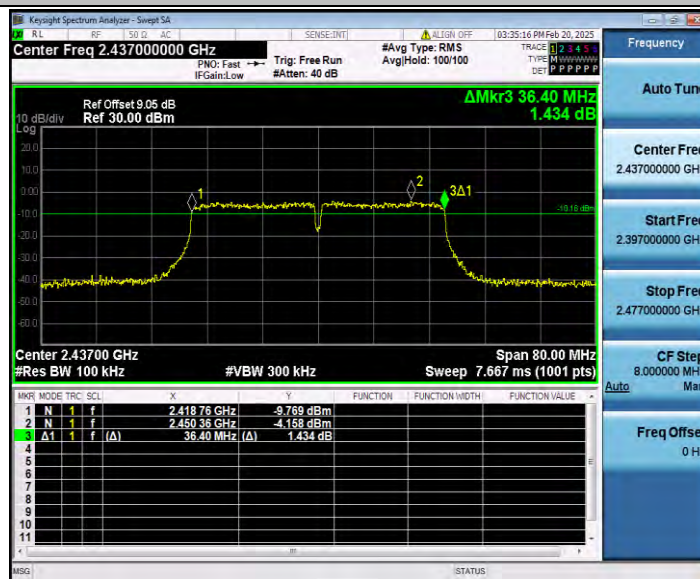
11N20SISO_Ant2_2412



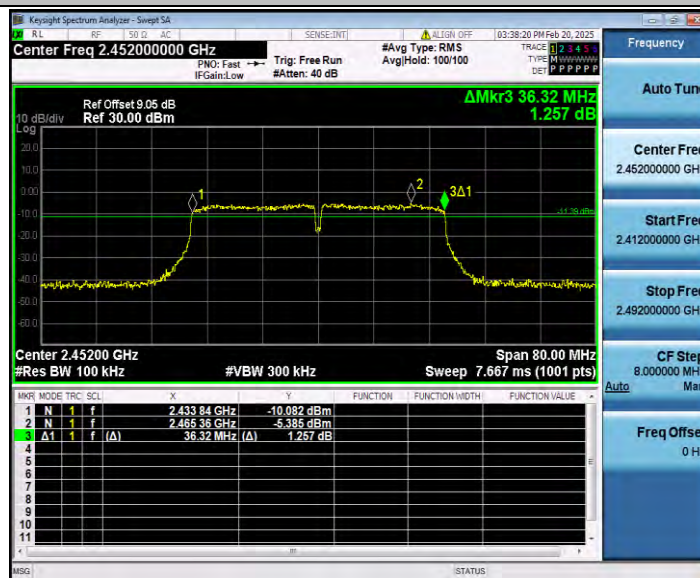
11N20SISO_Ant2_2437



11N40SISO_Ant2_2437



11N40SISO_Ant2_2452



Appendix C.2: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant2	2412	15.028	2404.4145	2419.4425	---	---
		2437	15.039	2429.4762	2444.5152	---	---
		2462	14.997	2454.4633	2469.4603	---	---
11G	Ant2	2412	16.977	2403.4027	2420.3797	---	---
		2437	16.931	2428.4664	2445.3974	---	---
		2462	16.851	2453.5102	2470.3612	---	---
11N20SISO	Ant2	2412	17.884	2403.0089	2420.8929	---	---
		2437	17.935	2428.0358	2445.9708	---	---
		2462	17.881	2453.0241	2470.9051	---	---
11N40SISO	Ant2	2422	36.568	2403.6747	2440.2427	---	---
		2437	36.391	2418.8147	2455.2057	---	---
		2452	36.356	2433.8481	2470.2041	---	---

Test Graphs

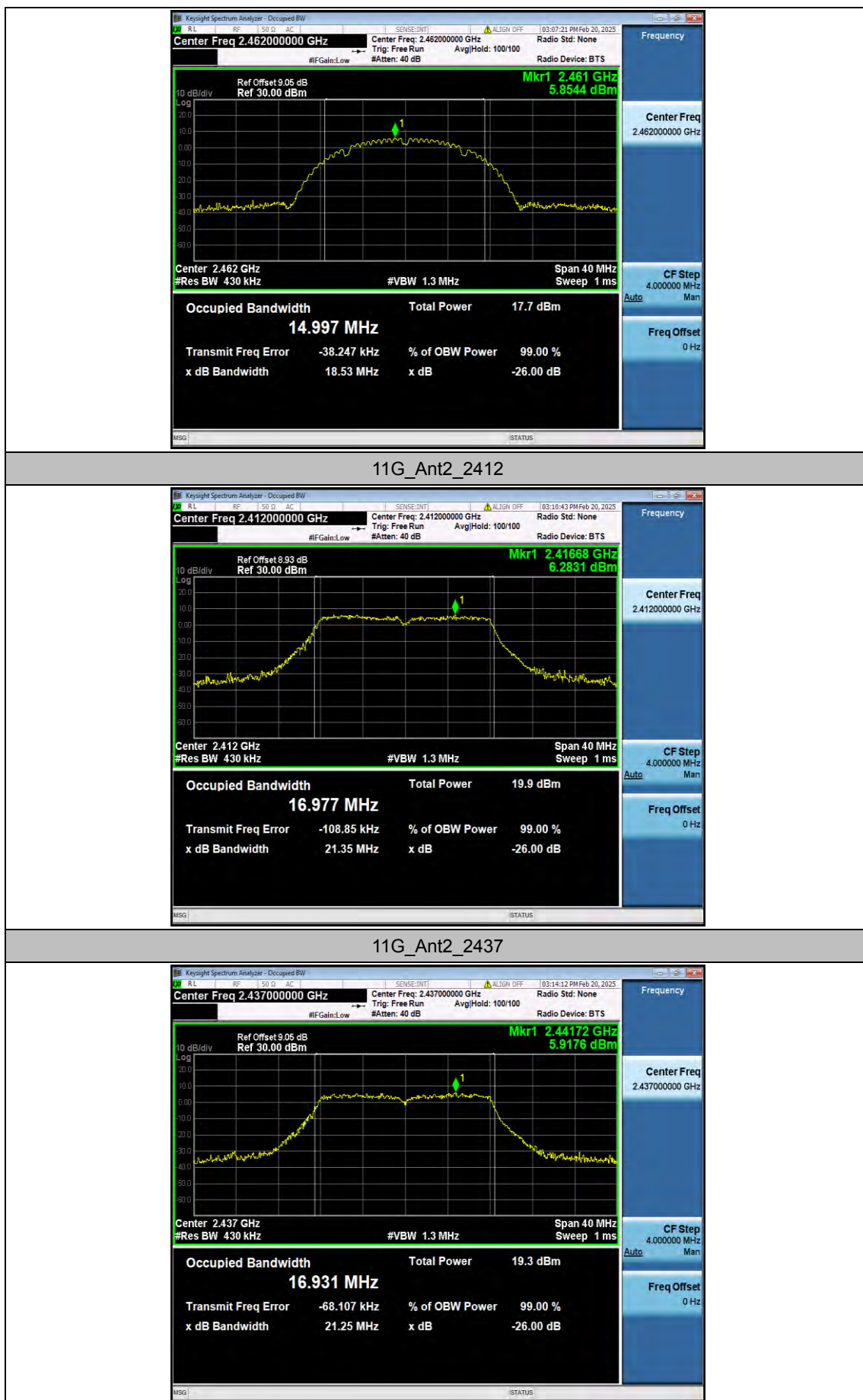
11B_Ant2_2412



11B_Ant2_2437



11B_Ant2_2462



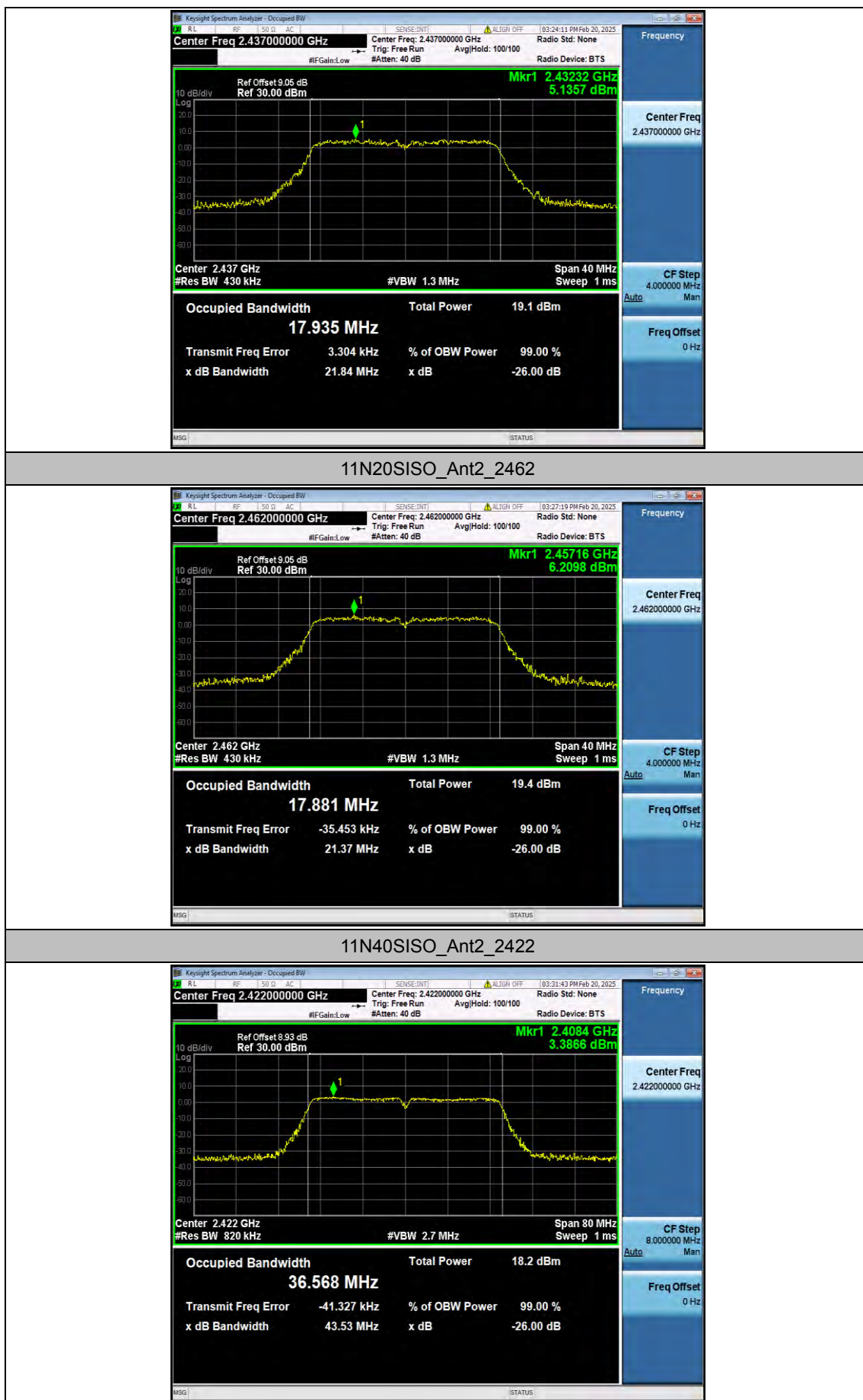
11G_Ant2_2462



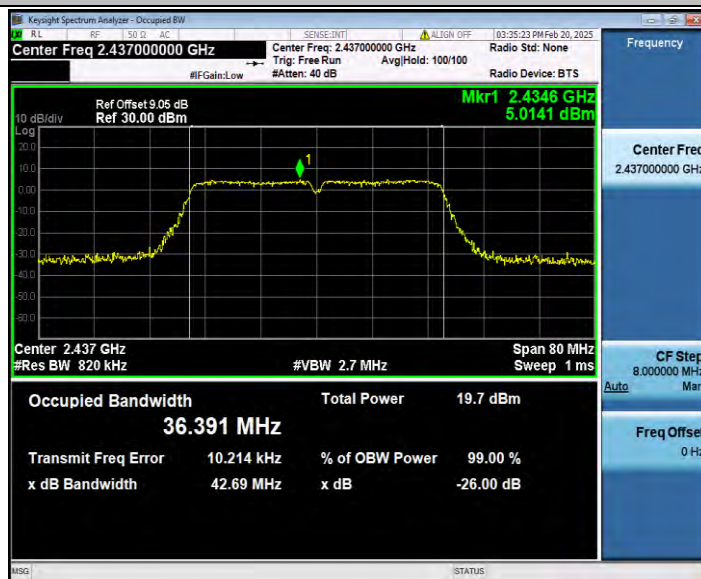
11N20SISO_Ant2_2412



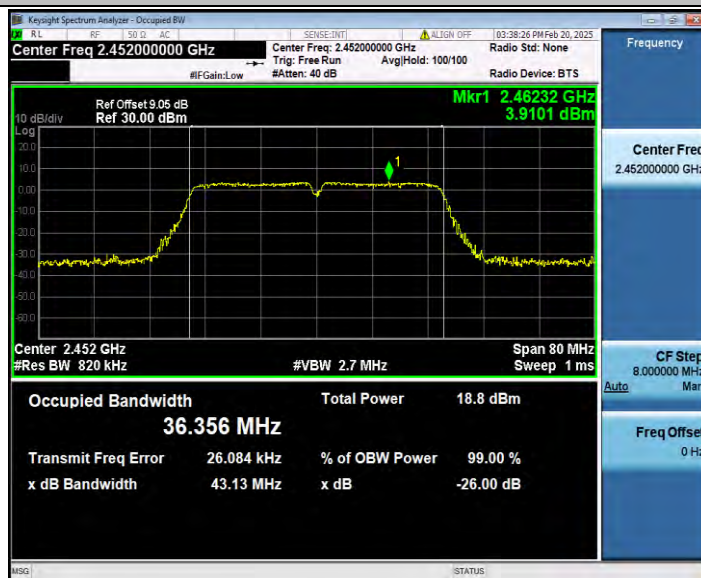
11N20SISO_Ant2_2437



11N40SISO_Ant2_2437



11N40SISO_Ant2_2452



Appendix C.3: Maximum conducted output power

Test Mode	Antenna	Frequency[MHz]	Peak power [dBm]	Limit [dBm]	Verdict
11B	Ant2	2412	17.35	≤30.00	PASS
		2437	16.67	≤30.00	PASS
		2462	17.83	≤30.00	PASS
11G	Ant2	2412	20.94	≤30.00	PASS
		2437	20.33	≤30.00	PASS
		2462	21.37	≤30.00	PASS
11N20SISO	Ant2	2412	19.43	≤30.00	PASS
		2437	20.51	≤30.00	PASS
		2462	20.69	≤30.00	PASS
11N40SISO	Ant2	2422	18.49	≤30.00	PASS
		2437	20.02	≤30.00	PASS
		2452	19.13	≤30.00	PASS

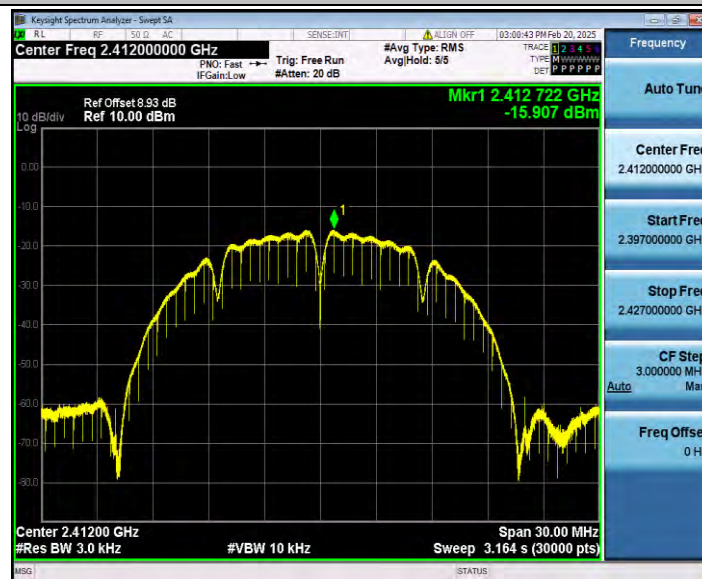
Appendix C.4: Maximum power spectral density

Test Result

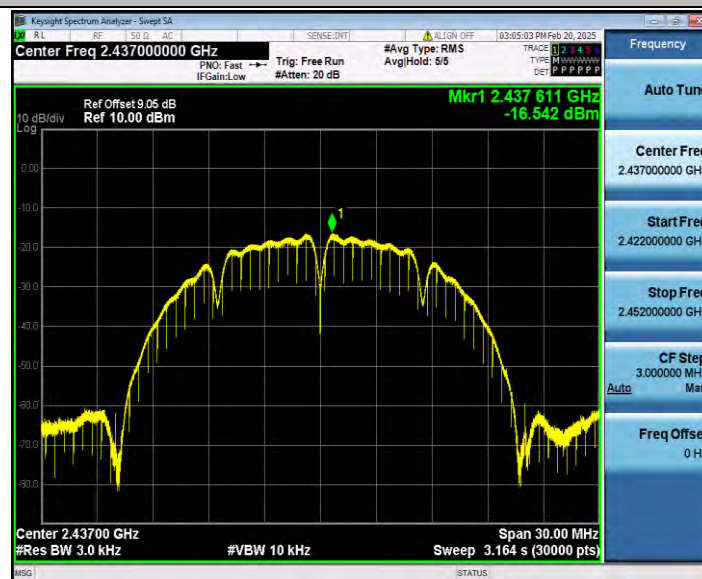
TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant2	2412	-15.91	≤8.00	PASS
		2437	-16.54	≤8.00	PASS
		2462	-15.45	≤8.00	PASS
11G	Ant2	2412	-13.53	≤8.00	PASS
		2437	-15.15	≤8.00	PASS
		2462	-14.27	≤8.00	PASS
11N20SISO	Ant2	2412	-15.54	≤8.00	PASS
		2437	-15.32	≤8.00	PASS
		2462	-13.58	≤8.00	PASS
11N40SISO	Ant2	2422	-17.66	≤8.00	PASS
		2437	-15.91	≤8.00	PASS
		2452	-17.64	≤8.00	PASS

Test Graphs

11B_Ant2_2412



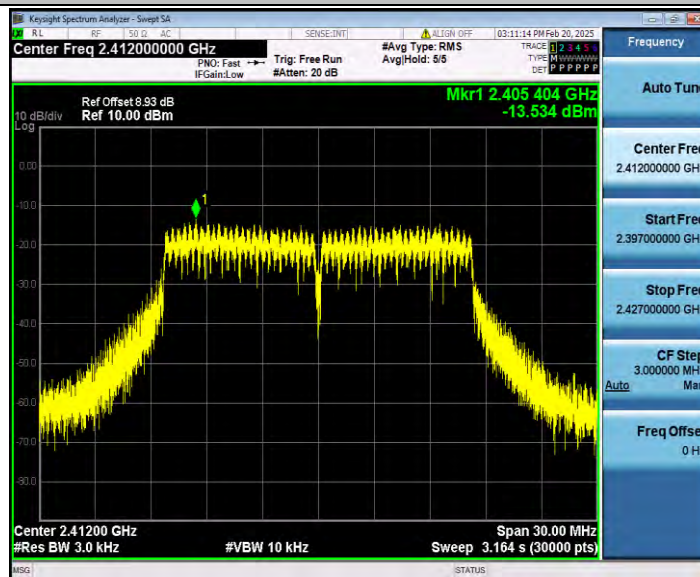
11B_Ant2_2437



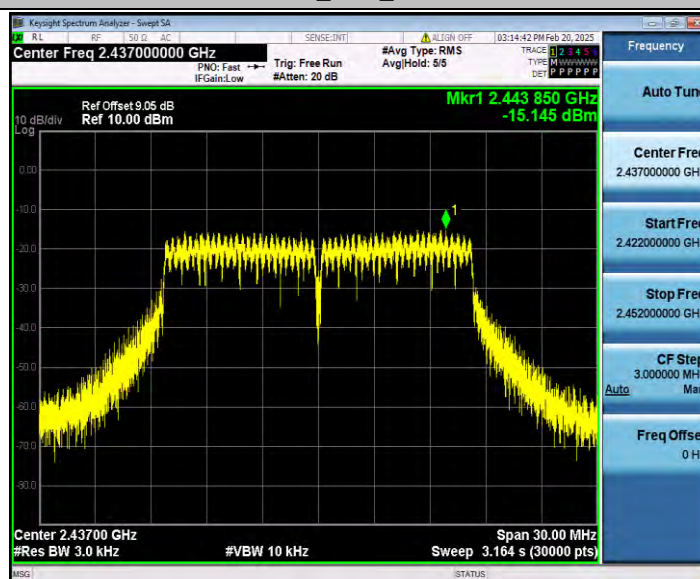
11B_Ant2_2462



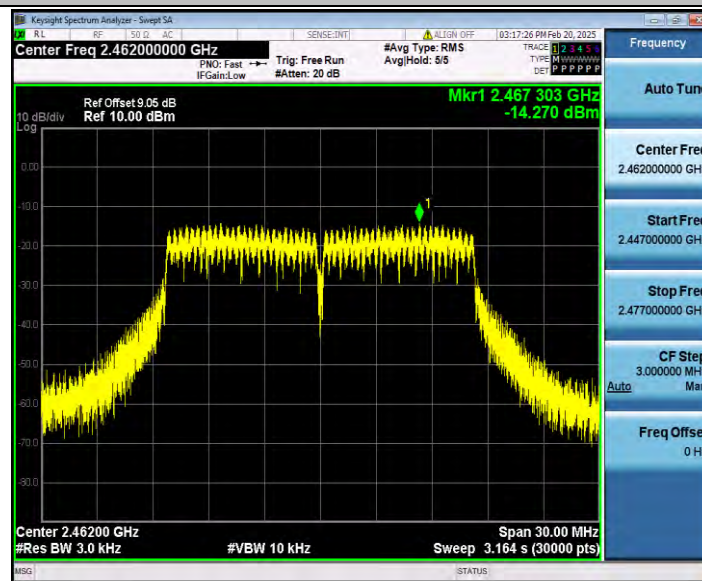
11G_Ant2_2412



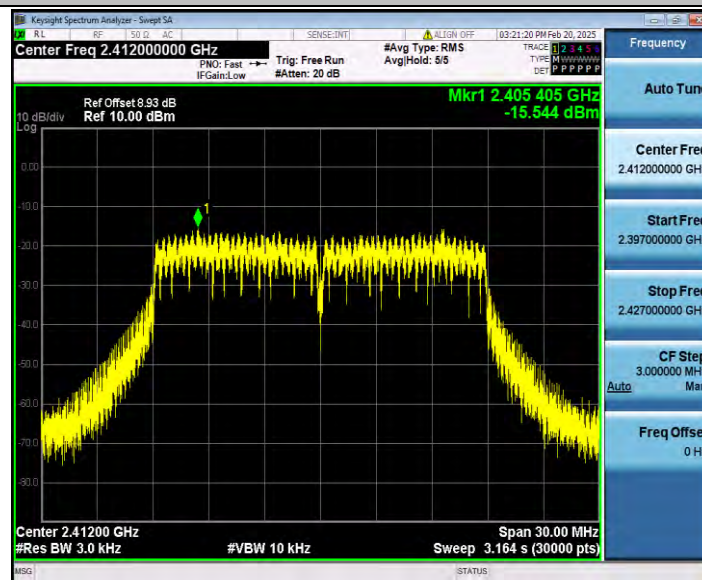
11G_Ant2_2437



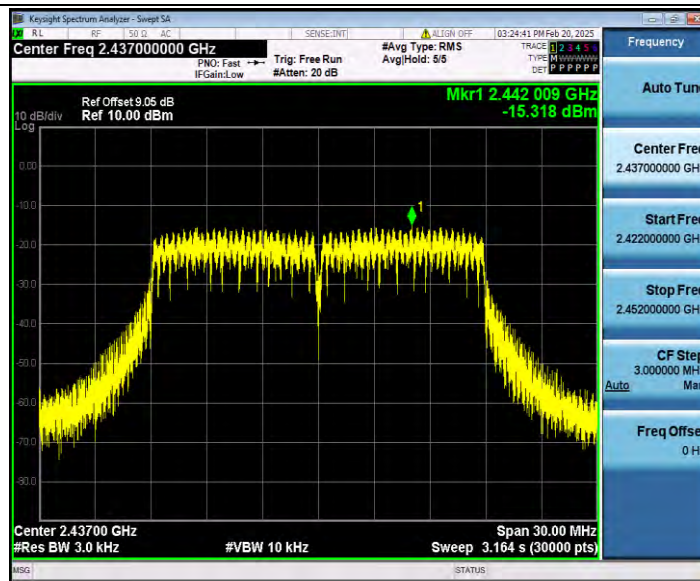
11G_Ant2_2462



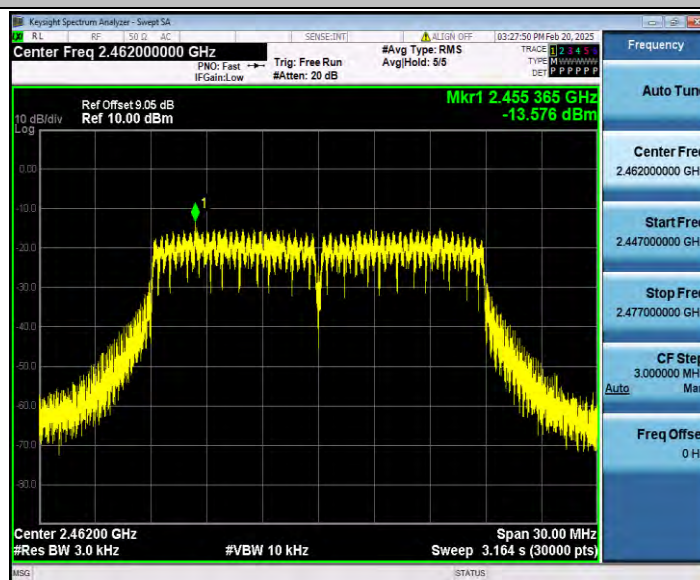
11N20SISO_Ant2_2412



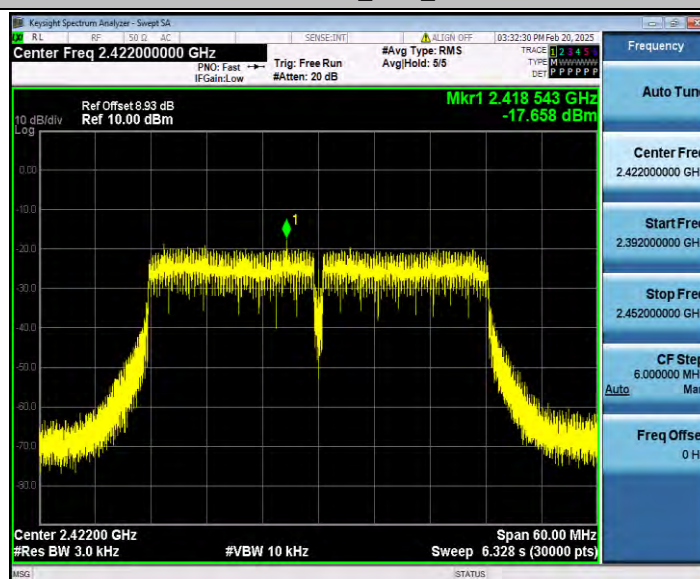
11N20SISO_Ant2_2437



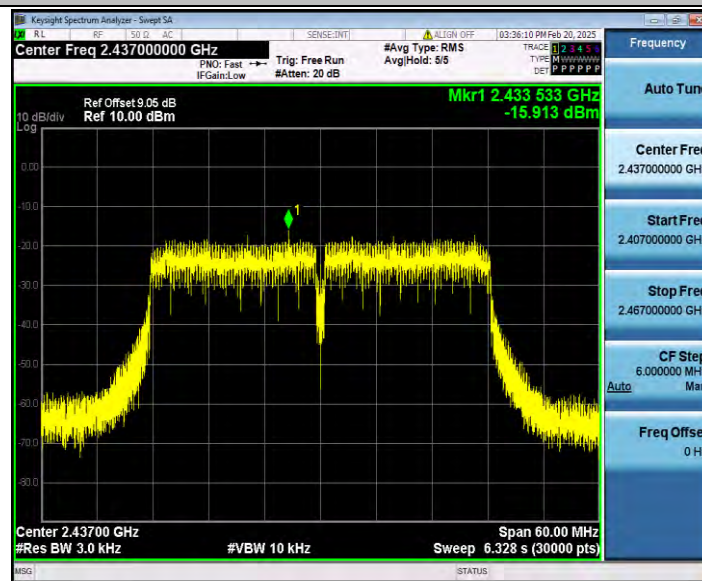
11N20SISO_Ant2_2462



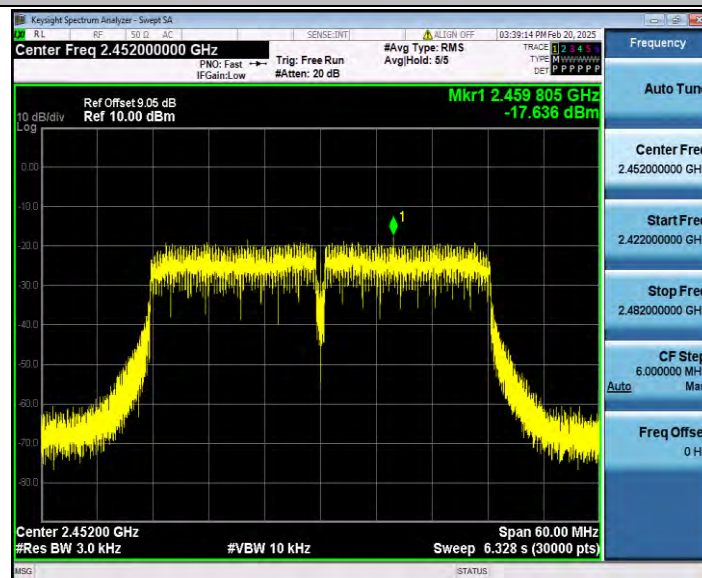
11N40SISO_Ant2_2422



11N40SISO_Ant2_2437



11N40SISO_Ant2_2452



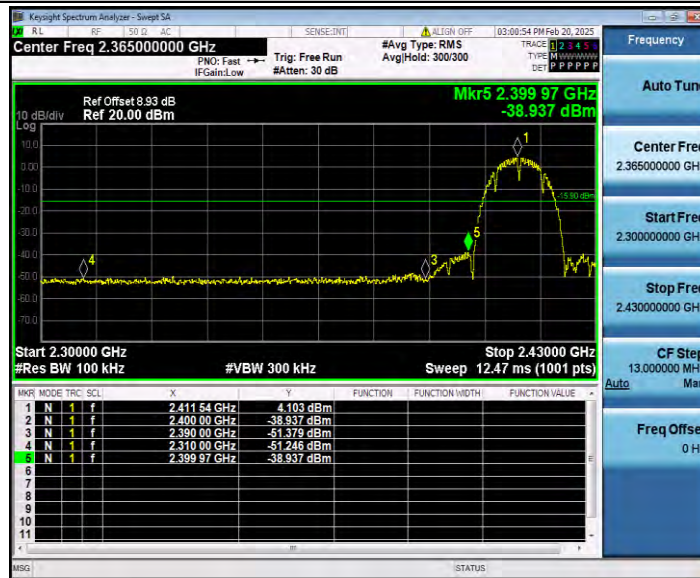
Appendix C.5: Band edge measurements

Test Result

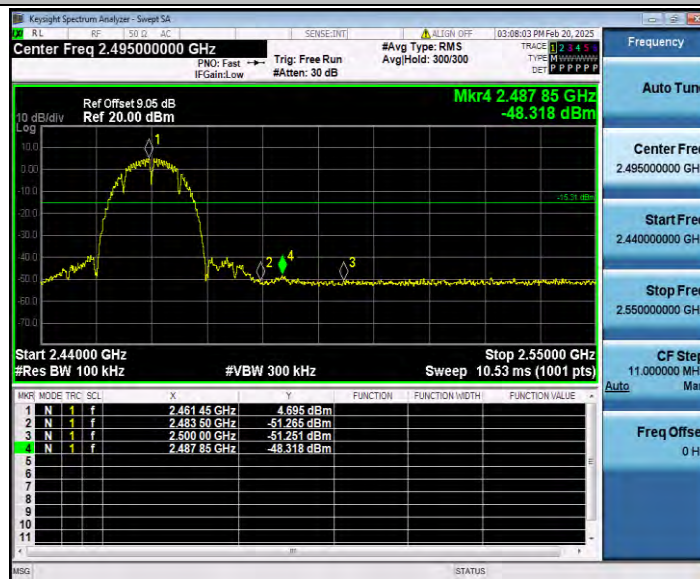
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant2	Low	2412	4.10	-38.94	≤ -15.9	PASS
		High	2462	4.70	-48.32	≤ -15.31	PASS
11G	Ant2	Low	2412	0.11	-34.14	≤ -19.9	PASS
		High	2462	0.32	-45.75	≤ -19.68	PASS
11N20SISO	Ant2	Low	2412	-1.59	-37.53	≤ -21.59	PASS
		High	2462	-0.35	-45.32	≤ -20.35	PASS
11N40SISO	Ant2	Low	2422	-5.82	-39.84	≤ -25.82	PASS
		High	2452	-5.20	-44.69	≤ -25.2	PASS

Test Graphs

11B_Ant2_Low_2412



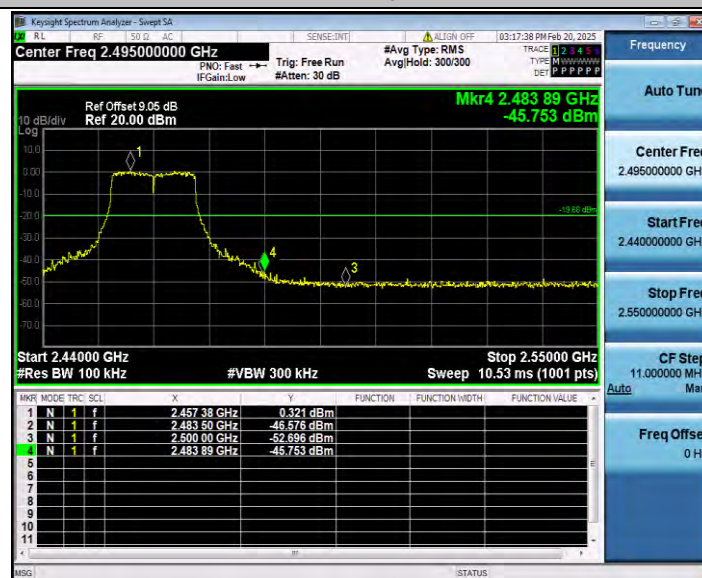
11B_Ant2_High_2462



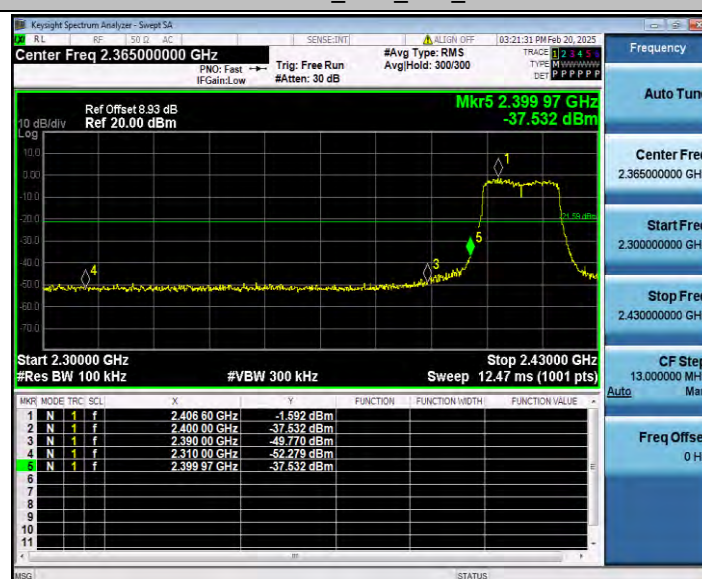
11G_Ant2_Low_2412



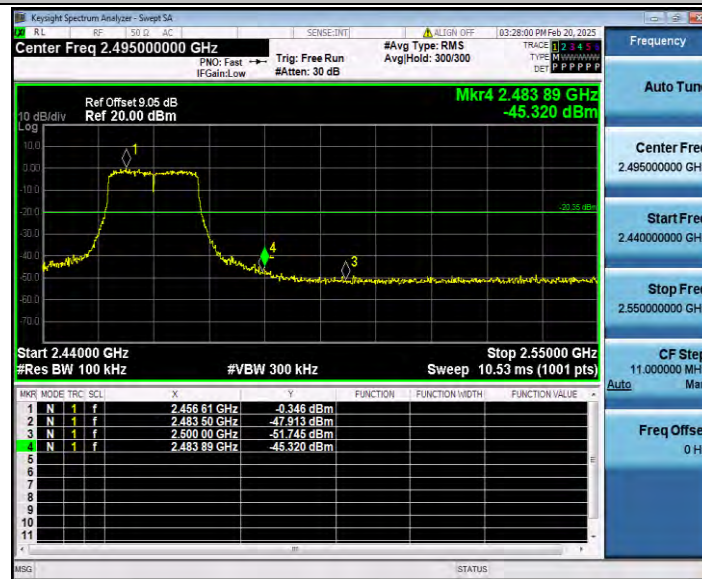
11G_Ant2_High_2462



11N20SISO_Ant2_Low_2412



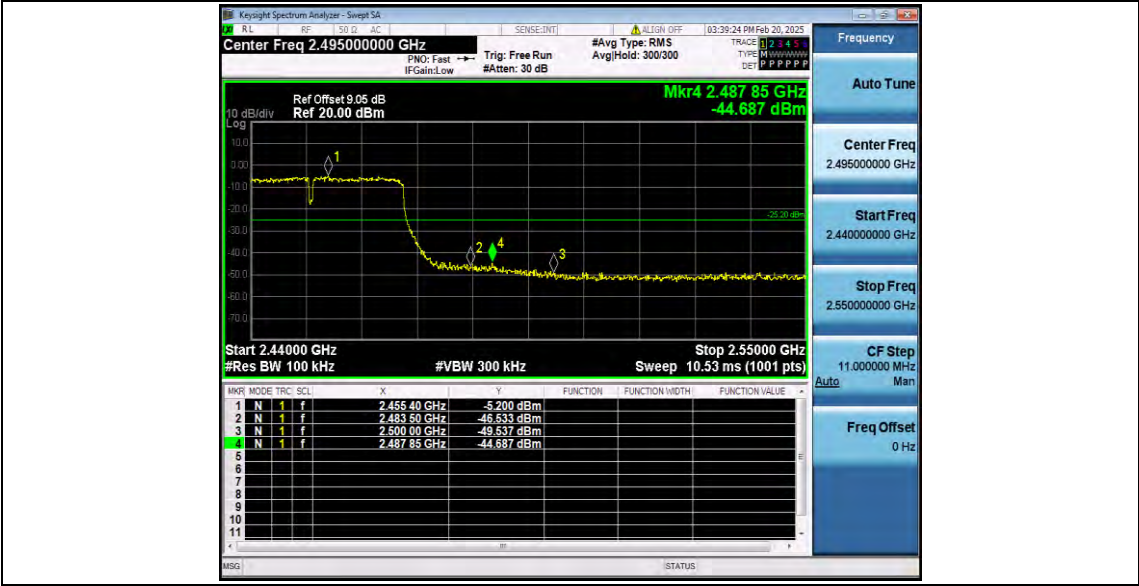
11N20SISO_Ant2_High_2462



11N40SISO_Ant2_Low_2422



11N40SISO_Ant2_High_2452

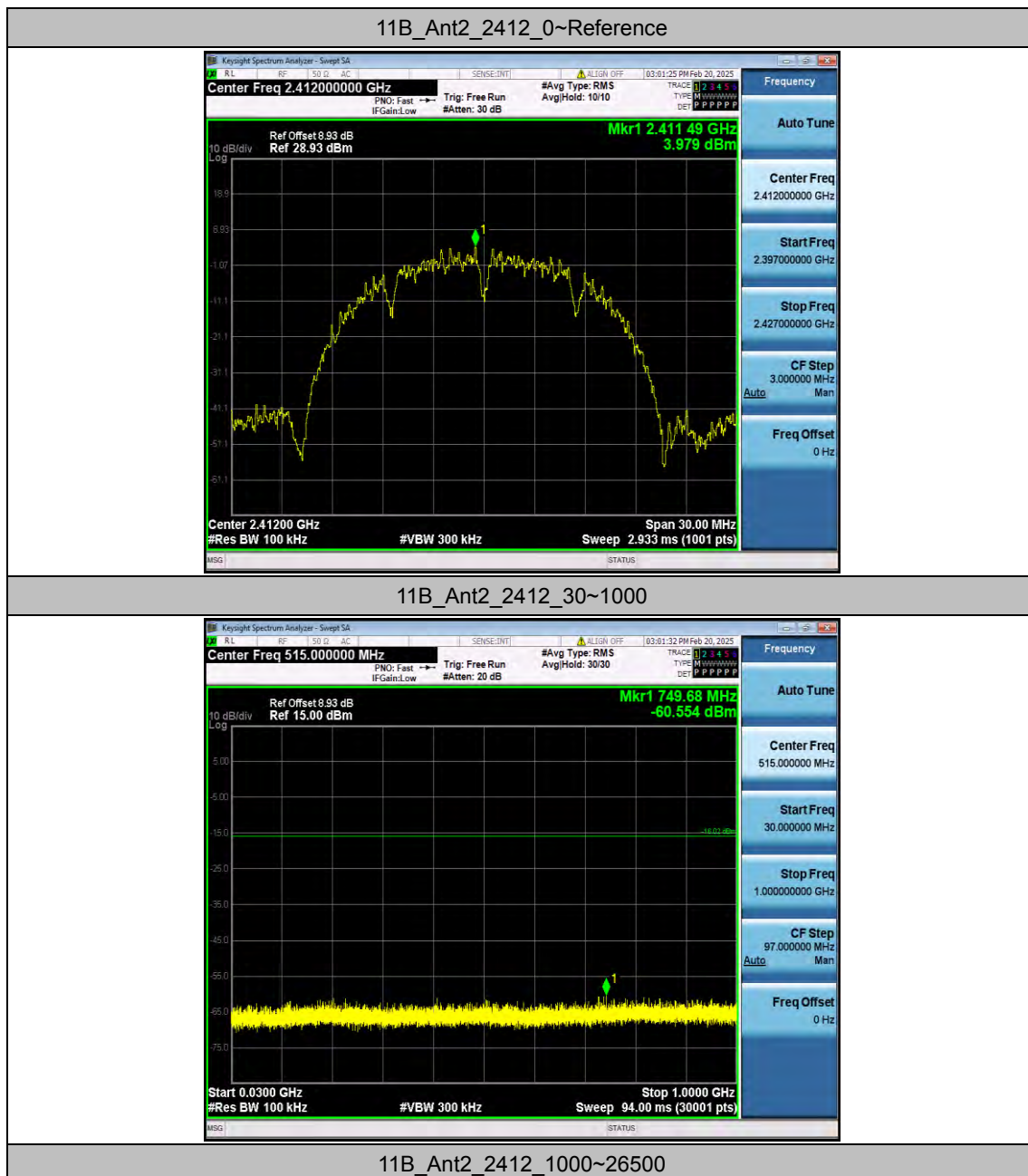


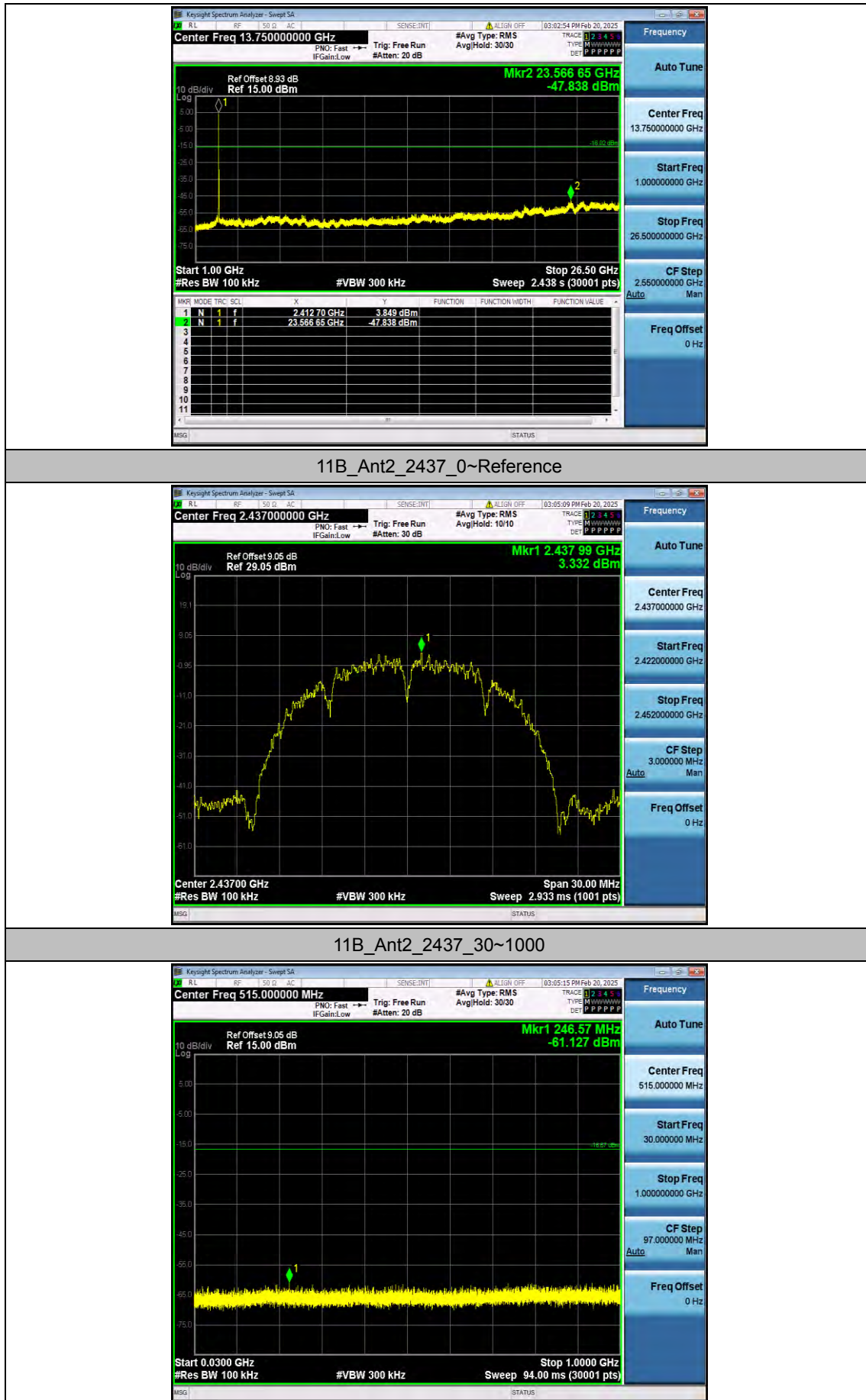
Appendix C.6: Conducted Spurious Emission

Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant2	2412	Reference	3.98	3.98	---	PASS
			30~1000	3.98	-60.55	≤ -16.02	PASS
			1000~26500	3.98	-47.84	≤ -16.02	PASS
		2437	Reference	3.33	3.33	---	PASS
			30~1000	3.33	-61.13	≤ -16.67	PASS
			1000~26500	3.33	-47.9	≤ -16.67	PASS
		2462	Reference	4.61	4.61	---	PASS
			30~1000	4.61	-60.23	≤ -15.39	PASS
			1000~26500	4.61	-47.86	≤ -15.39	PASS
11G	Ant2	2412	Reference	-0.26	-0.26	---	PASS
			30~1000	-0.26	-60.6	≤ -20.26	PASS
			1000~26500	-0.26	-47.87	≤ -20.26	PASS
		2437	Reference	-1.21	-1.21	---	PASS
			30~1000	-1.21	-60.32	≤ -21.21	PASS
			1000~26500	-1.21	-47.41	≤ -21.21	PASS
		2462	Reference	0.14	0.14	---	PASS
			30~1000	0.14	-60.47	≤ -19.86	PASS
			1000~26500	0.14	-47.59	≤ -19.86	PASS
11N20SISO	Ant2	2412	Reference	-1.67	-1.67	---	PASS
			30~1000	-1.67	-60.75	≤ -21.67	PASS
			1000~26500	-1.67	-48.03	≤ -21.67	PASS
		2437	Reference	-1.56	-1.56	---	PASS
			30~1000	-1.56	-60.5	≤ -21.56	PASS
			1000~26500	-1.56	-46.54	≤ -21.56	PASS
		2462	Reference	-1.70	-1.70	---	PASS
			30~1000	-1.70	-60.32	≤ -21.7	PASS
			1000~26500	-1.70	-47.2	≤ -21.7	PASS
11N40SISO	Ant2	2422	Reference	-6.78	-6.78	---	PASS
			30~1000	-6.78	-60.15	≤ -26.78	PASS
			1000~26500	-6.78	-47.48	≤ -26.78	PASS
		2437	Reference	-4.71	-4.71	---	PASS
			30~1000	-4.71	-60.42	≤ -24.71	PASS
			1000~26500	-4.71	-47.71	≤ -24.71	PASS
		2452	Reference	-5.36	-5.36	---	PASS
			30~1000	-5.36	-60.7	≤ -25.36	PASS
			1000~26500	-5.36	-47.37	≤ -25.36	PASS

Test Graphs





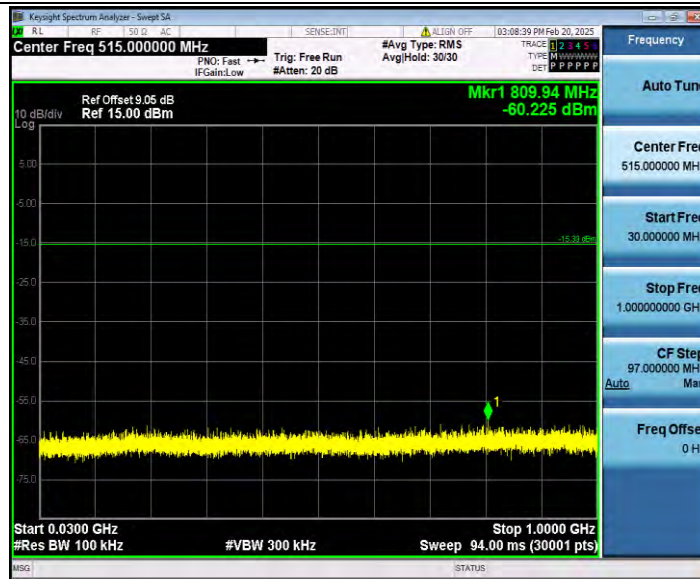
11B_Ant2_2437_1000~26500



11B_Ant2_2462_0~Reference



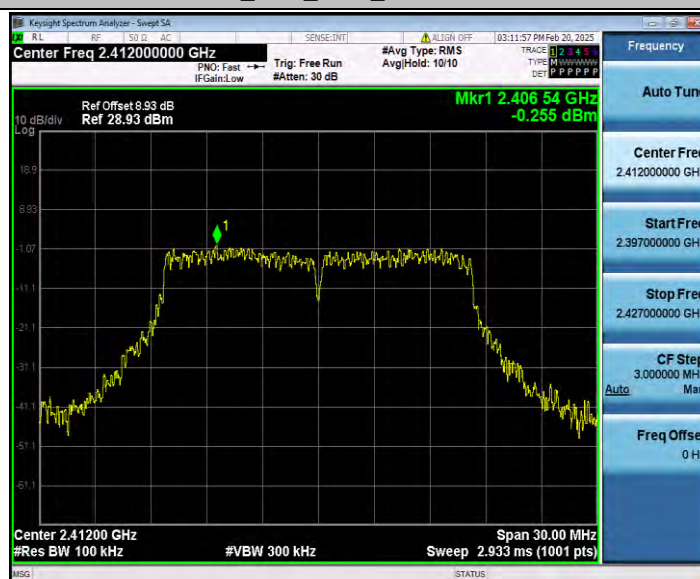
11B_Ant2_2462_30~1000



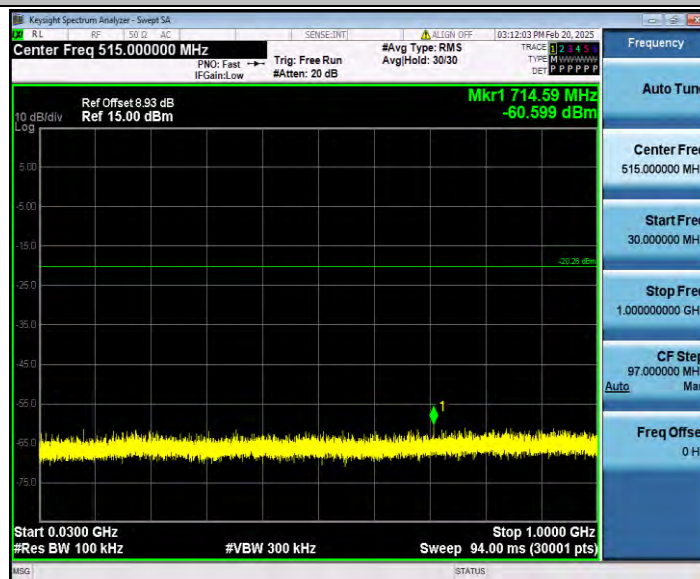
11B_Ant2_2462_1000~26500



11G_Ant2_2412_0~Reference



11G_Ant2_2412_30~1000



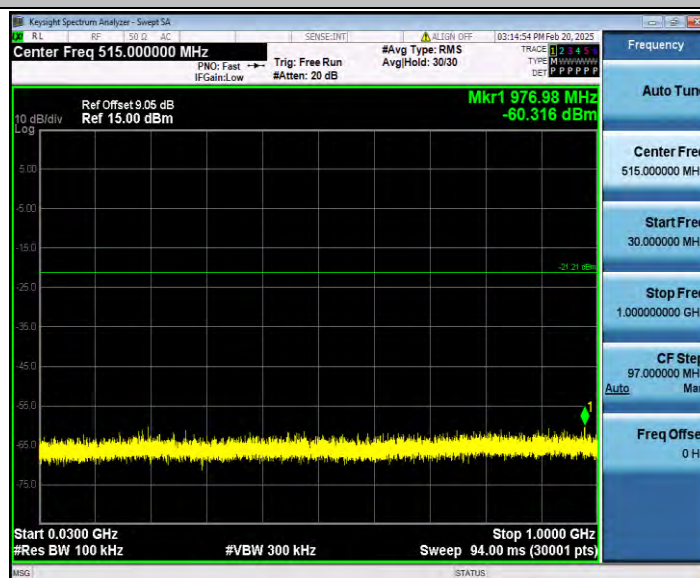
11G_Ant2_2412_1000~26500



11G_Ant2_2437_0~Reference



11G_Ant2_2437_30~1000



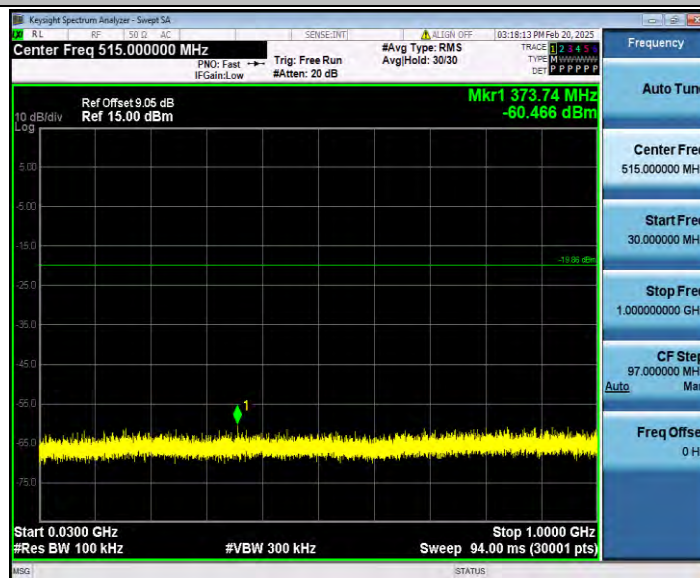
11G_Ant2_2437_1000~26500



11G_Ant2_2462_0~Reference



11G_Ant2_2462_30~1000



11G_Ant2_2462_1000~26500

Keysight Spectrum Analyzer - Swept SA

ALL ☐ FREQ ☒ SENSE:INT

03:22:02 PM Feb 20, 2025

Center Freq 2.412000000 GHz

Trig: Free Run #Atten: 30 dB

#Avg Type: RMS Avg/Hold: 10/10

TRACE 1 1 2 4 5
TYPE M W W W W W
DET P P P P P P

Ref Offset 8.93 dB
Ref 29.93 dBm

Mkr1 2.406 63 GHz
-1.673 dBm

10 dB/div
Log

18.9
8.93
-1.07
-21.1
-31.1
-41.1
-51.1
-61.1

Center 2.41200 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 2.933 ms (1001 pts)

Span 30.00 MHz

Frequency

Auto Tune

Center Freq
2.412000000 GHz

Start Freq
2.397000000 GHz

Stop Freq
2.427000000 GHz

CF Step
3.000000 MHz
Auto Man

Freq Offset
0 Hz

Keysight Spectrum Analyzer - Swept SA

ALL ☒ FREQ 50.00 MHz SENSE INT 03:22:08 PM Feb 20, 2025

Center Freq 515.000000 MHz #Avg Type: RMS Avg/Hold: 30/30 Trg: Free Run #Atten: 20 dB

PWD: Fast IFGain: low

ALIGN OFF

TRACE 1 2 3 4 5

TYPE M W W W W W W W W W

DET P P P P P P P P

Frequency

Auto Tune

Center Freq 515.000000 MHz

Start Freq 30.000000 MHz

Stop Freq 1.000000000 GHz

CF Stop 97.000000 MHz Man

Auto

Freq Offset 0 Hz

10 dB/div Log

Ref Offset 8.93 dB

Ref 15.00 dBm

Mkr1 942.64 MHz -60.754 dBm

-21.67 dBm

Start 0.0300 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 94.00 ms (30001 pts)

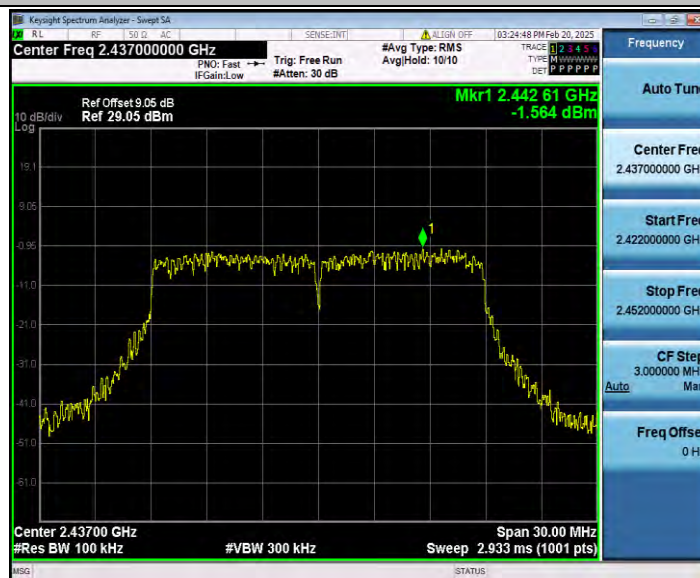
Stop 1.0000 GHz

MISQ STATUS

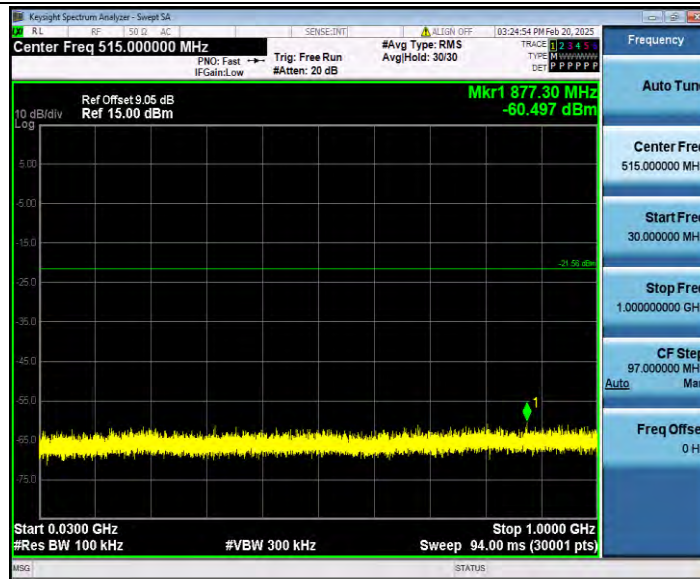
11N20SISO_Ant2_2412_1000~26500



11N20SISO_Ant2_2437_0~Reference



11N20SISO_Ant2_2437_30~1000



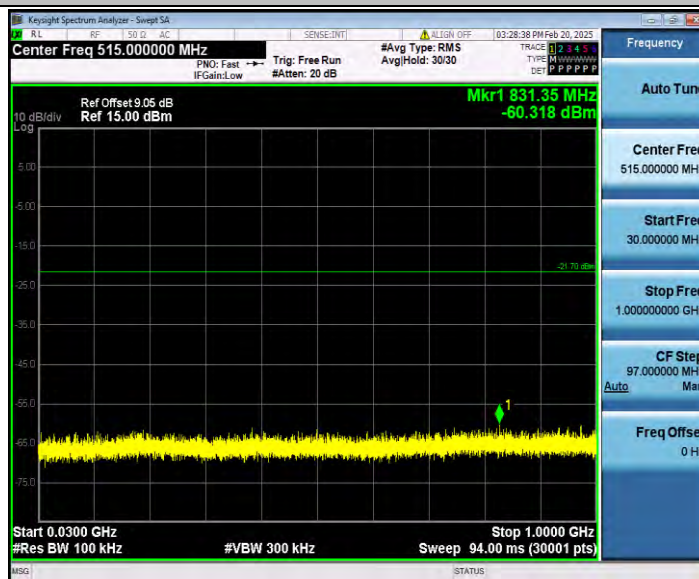
11N20SISO_Ant2_2437_1000~26500



11N20SISO_Ant2_2462_0~Reference



11N20SISO_Ant2_2462_30~1000



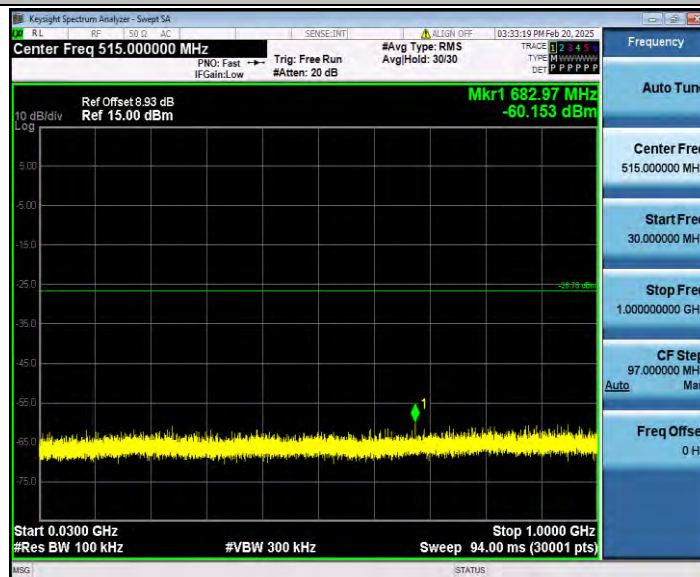
11N20SISO_Ant2_2462_1000~26500



11N40SISO_Ant2_2422_0~Reference



11N40SISO_Ant2_2422_30~1000



11N40SISO_Ant2_2422_1000~26500



11N40SISO_Ant2_2437_0~Reference



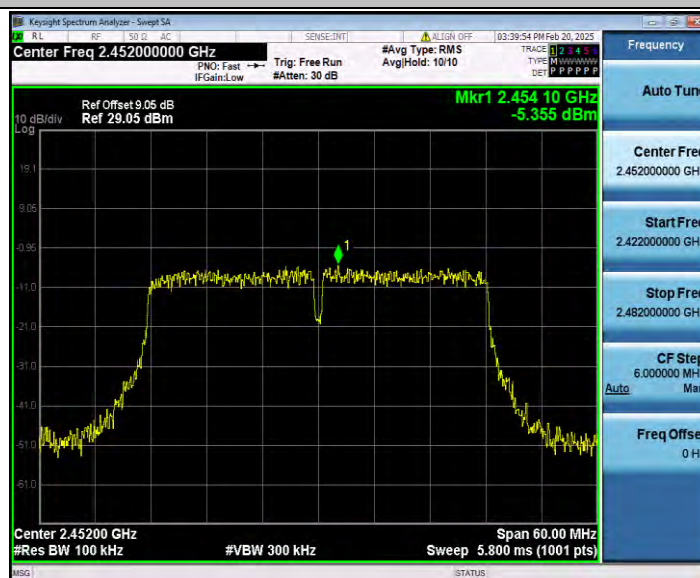
11N40SISO_Ant2_2437_30~1000



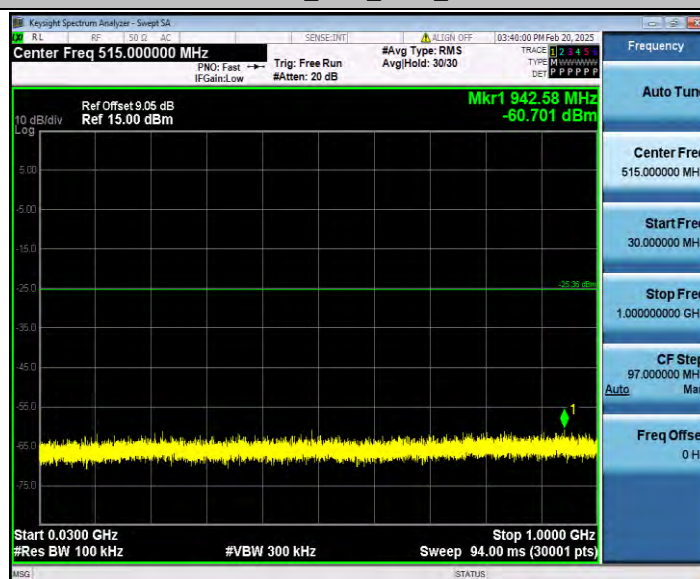
11N40SISO_Ant2_2437_1000~26500

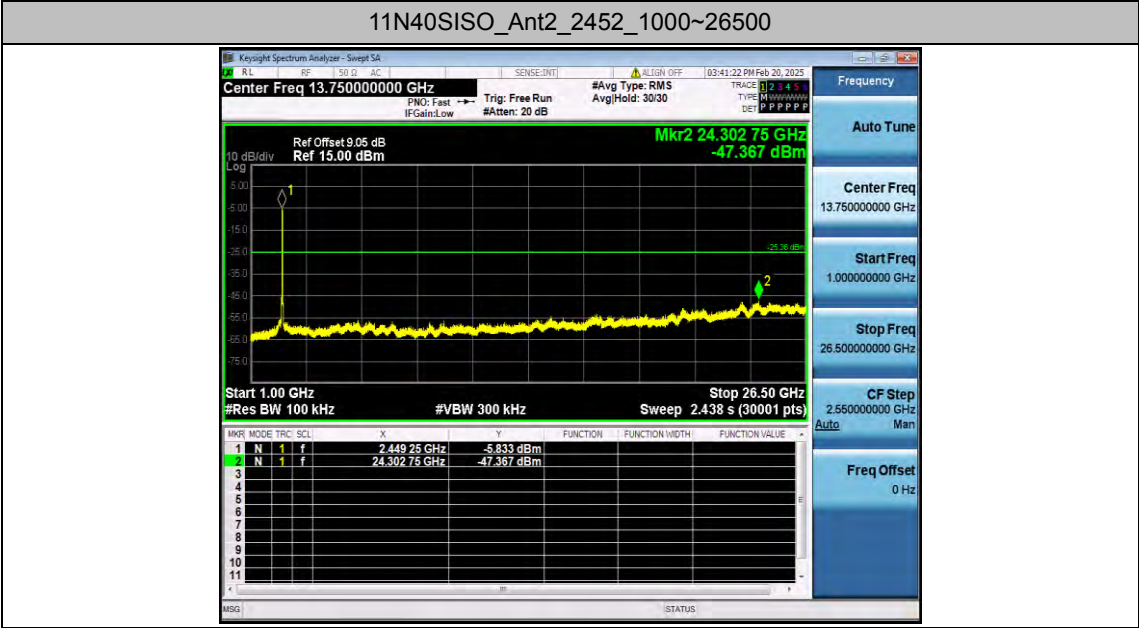


11N40SISO_Ant2_2452_0~Reference



11N40SISO_Ant2_2452_30~1000





Appendix C.7: Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Frequency [MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
11B	Ant2	Low	2412	AV	2310.000	-49.15	≤-41.20	46.05	≤54	PASS
				AV	2386.320	-46.07	≤-41.20	49.13	≤54	PASS
				AV	2390.000	-48.24	≤-41.20	46.96	≤54	PASS
				Peak	2310.000	-45.76	≤-21.20	49.44	≤74	PASS
				Peak	2343.550	-39.39	≤-21.20	55.81	≤74	PASS
				Peak	2390.000	-43.98	≤-21.20	51.22	≤74	PASS
		High	2462	AV	2483.500	-47.72	≤-41.20	47.48	≤54	PASS
				AV	2487.630	-46.09	≤-41.20	49.11	≤54	PASS
				AV	2500.000	-48.6	≤-41.20	46.60	≤54	PASS
				Peak	2483.500	-45.13	≤-21.20	50.07	≤74	PASS
				Peak	2489.940	-38.87	≤-21.20	56.33	≤74	PASS
				Peak	2500.000	-43.76	≤-21.20	51.44	≤74	PASS
11G	Ant2	Low	2412	AV	2310.000	-48.63	≤-41.20	46.57	≤54	PASS
				AV	2389.960	-43.44	≤-41.20	51.76	≤54	PASS
				AV	2390.000	-43.44	≤-41.20	51.76	≤54	PASS
				Peak	2310.000	-44.45	≤-21.20	50.75	≤74	PASS
				Peak	2389.440	-35.54	≤-21.20	59.66	≤74	PASS
				Peak	2390.000	-38.36	≤-21.20	56.84	≤74	PASS
		High	2462	AV	2483.500	-43.28	≤-41.20	51.92	≤54	PASS
				AV	2483.560	-43.41	≤-41.20	51.79	≤54	PASS
				AV	2500.000	-48.2	≤-41.20	47.00	≤54	PASS
				Peak	2483.500	-40.28	≤-21.20	54.92	≤74	PASS
				Peak	2485.100	-35.54	≤-21.20	59.66	≤74	PASS
				Peak	2500.000	-46.08	≤-21.20	49.12	≤74	PASS
11N20SISO	Ant2	Low	2412	AV	2310.000	-48.69	≤-41.20	46.51	≤54	PASS
				AV	2389.960	-46.07	≤-41.20	49.13	≤54	PASS
				AV	2390.000	-46.07	≤-41.20	49.13	≤54	PASS
				Peak	2310.000	-45.85	≤-21.20	49.35	≤74	PASS
				Peak	2379.430	-39.5	≤-21.20	55.70	≤74	PASS
				Peak	2390.000	-39.96	≤-21.20	55.24	≤74	PASS
		High	2462	AV	2483.500	-44.41	≤-41.20	50.79	≤54	PASS
				AV	2483.560	-44.48	≤-41.20	50.72	≤54	PASS
				AV	2500.000	-48.25	≤-41.20	46.95	≤54	PASS
				Peak	2483.500	-41.78	≤-21.20	53.42	≤74	PASS
				Peak	2485.870	-37.04	≤-21.20	58.16	≤74	PASS

				Peak	2500.000	-44.96	≤ -21.20	50.24	≤ 74	PASS
11N40SIS O	Ant2	Low	2422	AV	2310.000	-48.75	≤ -41.20	46.45	≤ 54	PASS
				AV	2389.960	-45.24	≤ -41.20	49.96	≤ 54	PASS
				AV	2390.000	-45.24	≤ -41.20	49.96	≤ 54	PASS
				Peak	2310.000	-45.23	≤ -21.20	49.97	≤ 74	PASS
				Peak	2389.310	-36.32	≤ -21.20	58.88	≤ 74	PASS
				Peak	2390.000	-41.72	≤ -21.20	53.48	≤ 74	PASS
		High	2452	AV	2483.500	-43.87	≤ -41.20	51.33	≤ 54	PASS
				AV	2483.560	-43.92	≤ -41.20	51.28	≤ 54	PASS
				AV	2500.000	-47.47	≤ -41.20	47.73	≤ 54	PASS
				Peak	2483.500	-40.21	≤ -21.20	54.99	≤ 74	PASS
				Peak	2488.510	-36.59	≤ -21.20	58.61	≤ 74	PASS
				Peak	2500.000	-43.65	≤ -21.20	51.55	≤ 74	PASS

Note:

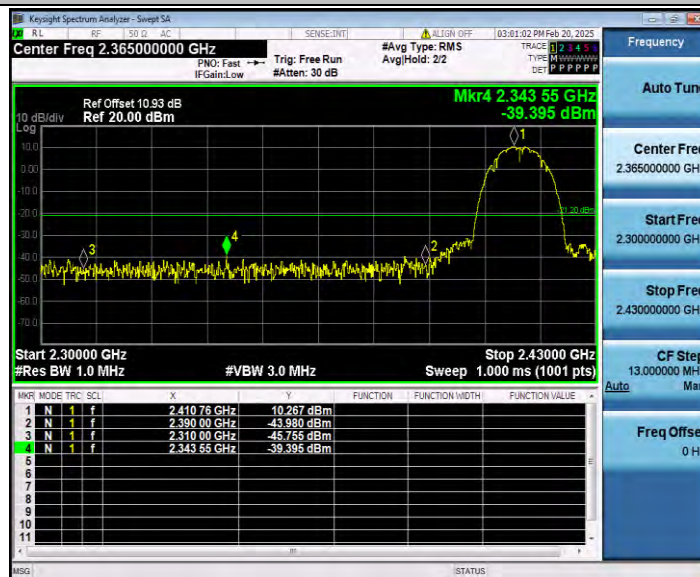
1. The Antenna Gain is compensated in the graph.
2. The Duty Cycle Factor and RBW Factor is compensated in the graph.
3. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

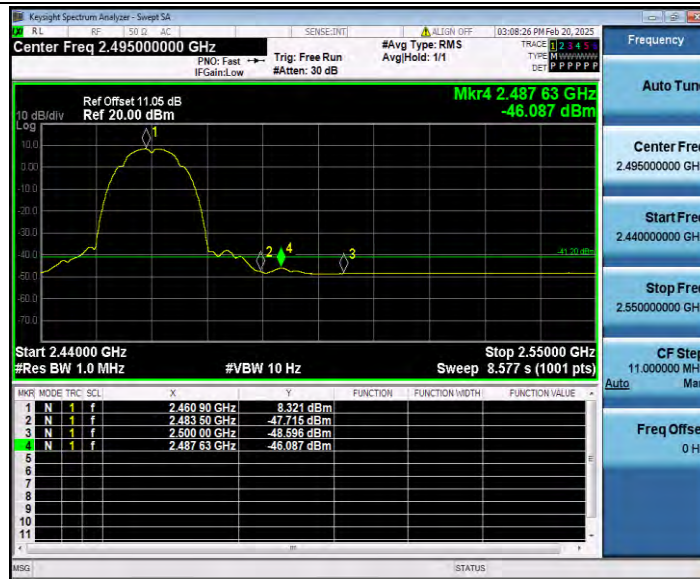
11B_Ant2_Low_2412_AV



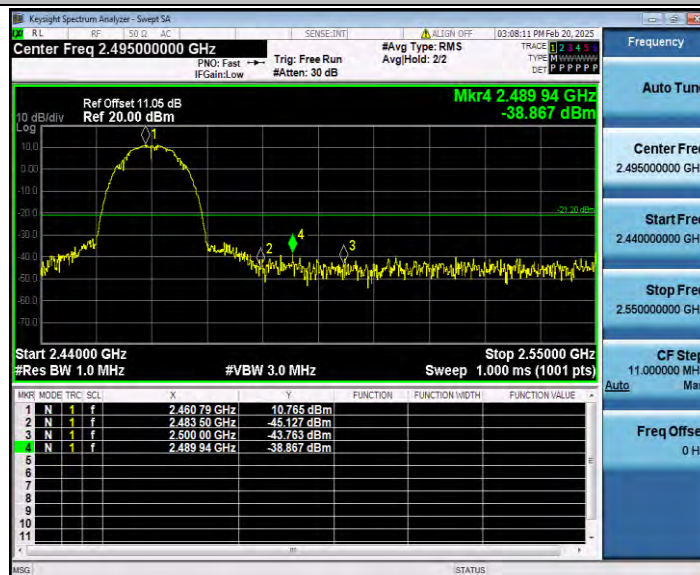
11B_Ant2_Low_2412_Peak



11B_Ant2_High_2462_AV



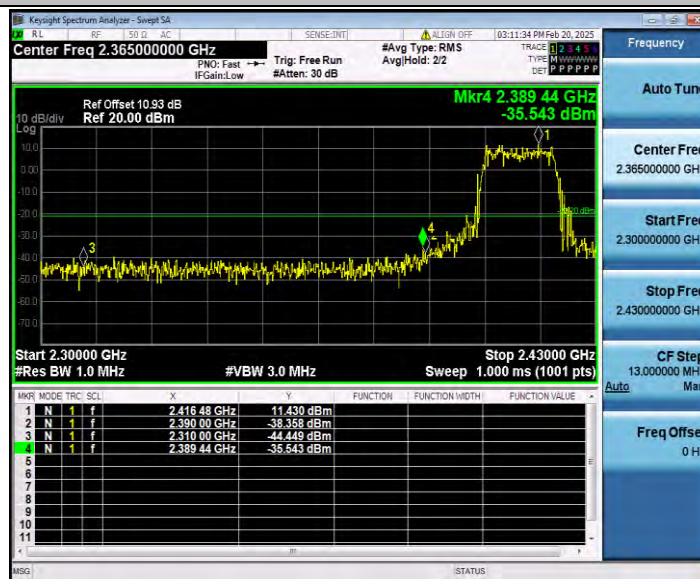
11B_Ant2_High_2462_Peak



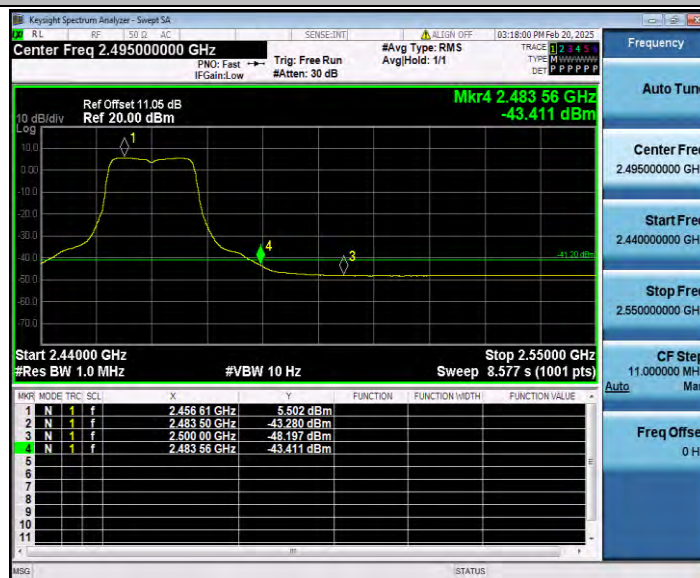
11G_Ant2_Low_2412_AV



11G_Ant2_Low_2412_Peak



11G_Ant2_High_2462_AV



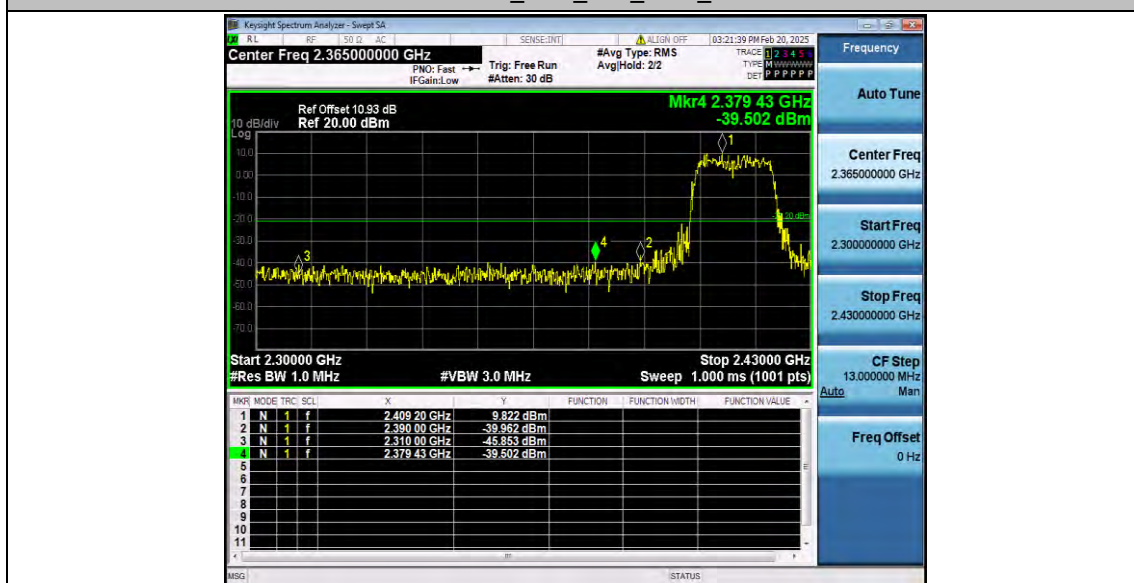
11G_Ant2_High_2462_Peak



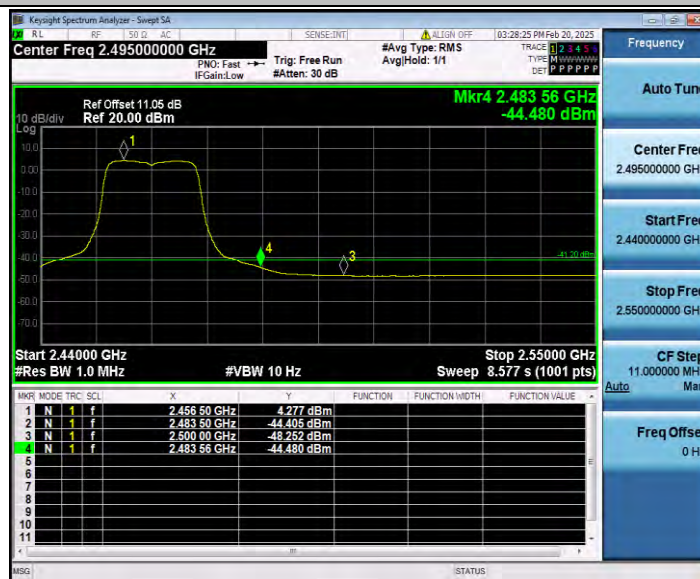
11N20SISO_Ant2_Low_2412_AV



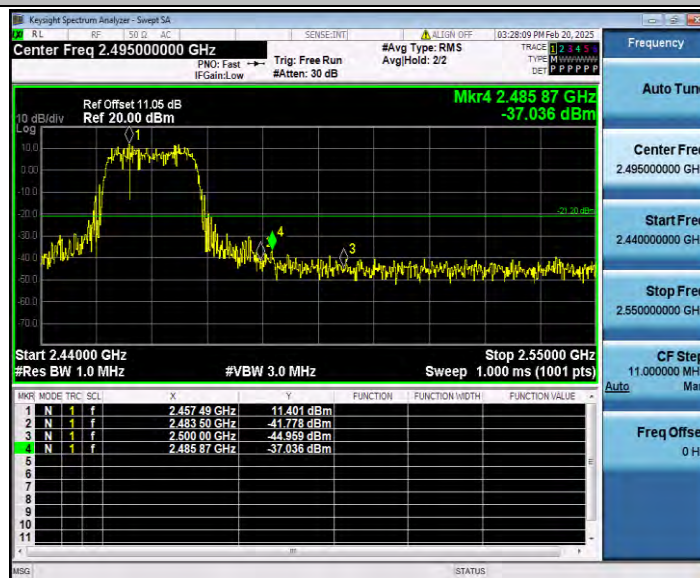
11N20SISO_Ant2_Low_2412_Peak



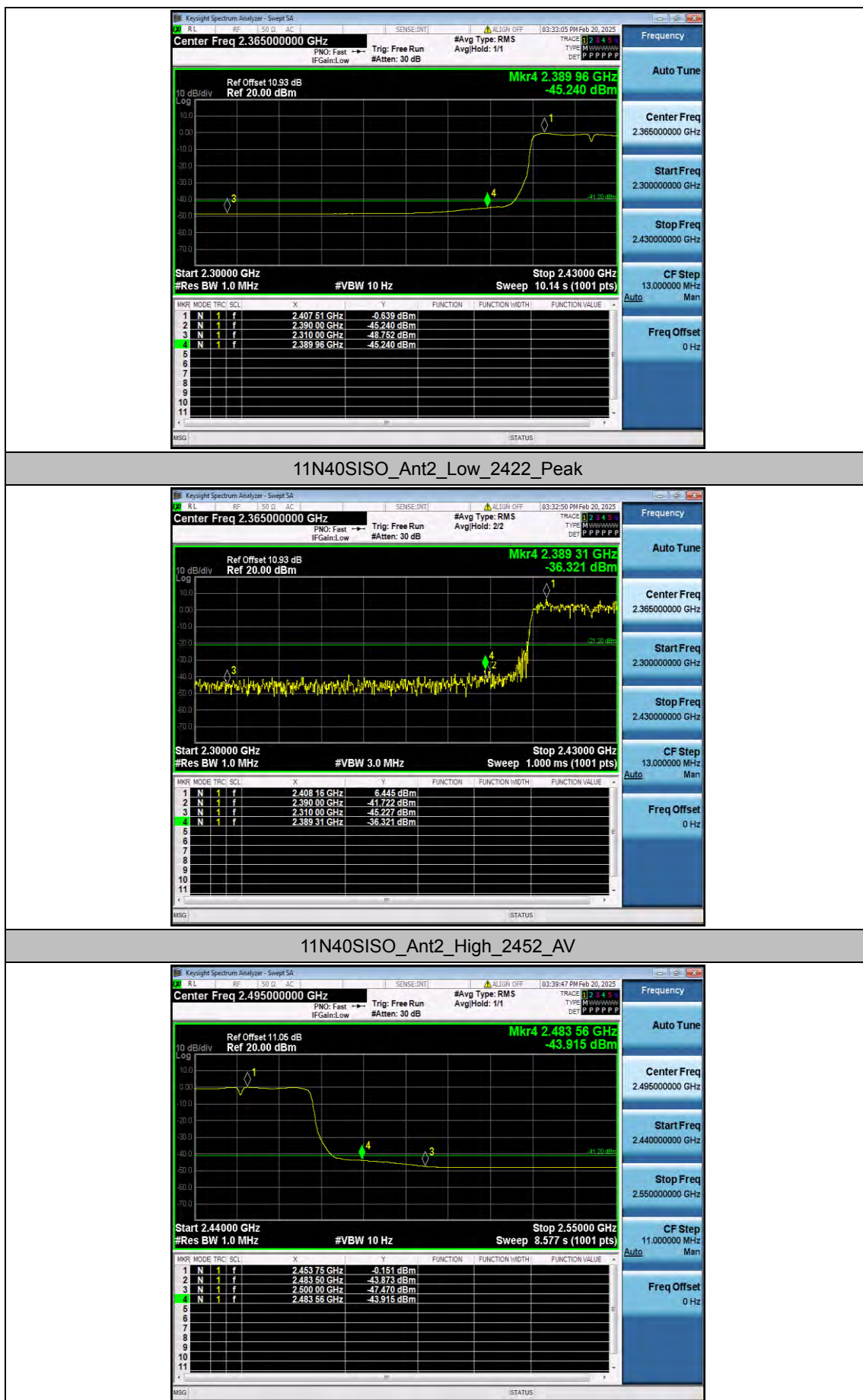
11N20SISO_Ant2_High_2462_AV



11N20SISO_Ant2_High_2462_Peak



11N40SISO_Ant2_Low_2422_AV



11N40SISO_Ant2_High_2452_Peak

