

Case No. : <u>GTS20250314012-2-03</u>	
Ambient Condition: <u>22</u> °C, <u>53</u> %RH,	
Test Date: <u>2025.4.21</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	Ant1	2412	8.040	2407.960	2416.000	0.5	PASS
		2437	7.520	2433.480	2441.000	0.5	PASS
		2462	7.600	2458.440	2466.040	0.5	PASS
11G	Ant1	2412	15.240	2404.600	2419.840	0.5	PASS
		2437	16.040	2429.120	2445.160	0.5	PASS
		2462	14.400	2455.120	2469.520	0.5	PASS
11N20SISO	Ant1	2412	15.400	2404.520	2419.920	0.5	PASS
		2437	13.800	2430.680	2444.480	0.5	PASS
		2462	15.080	2454.480	2469.560	0.5	PASS
11N40SISO	Ant1	2422	35.040	2404.480	2439.520	0.5	PASS
		2437	35.120	2419.480	2454.600	0.5	PASS
		2452	33.840	2434.480	2468.320	0.5	PASS

Test Graphs

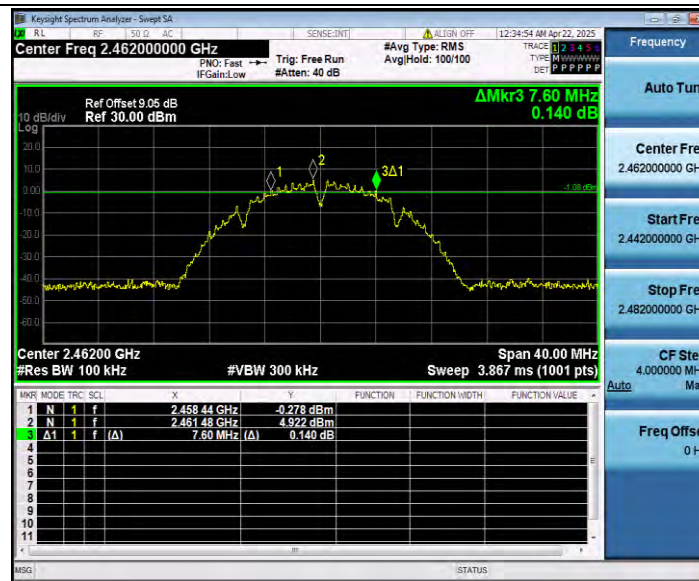
11B_Ant1_2412



11B_Ant1_2437



11B_Ant1_2462



11G_Ant1_2412



11G_Ant1_2437



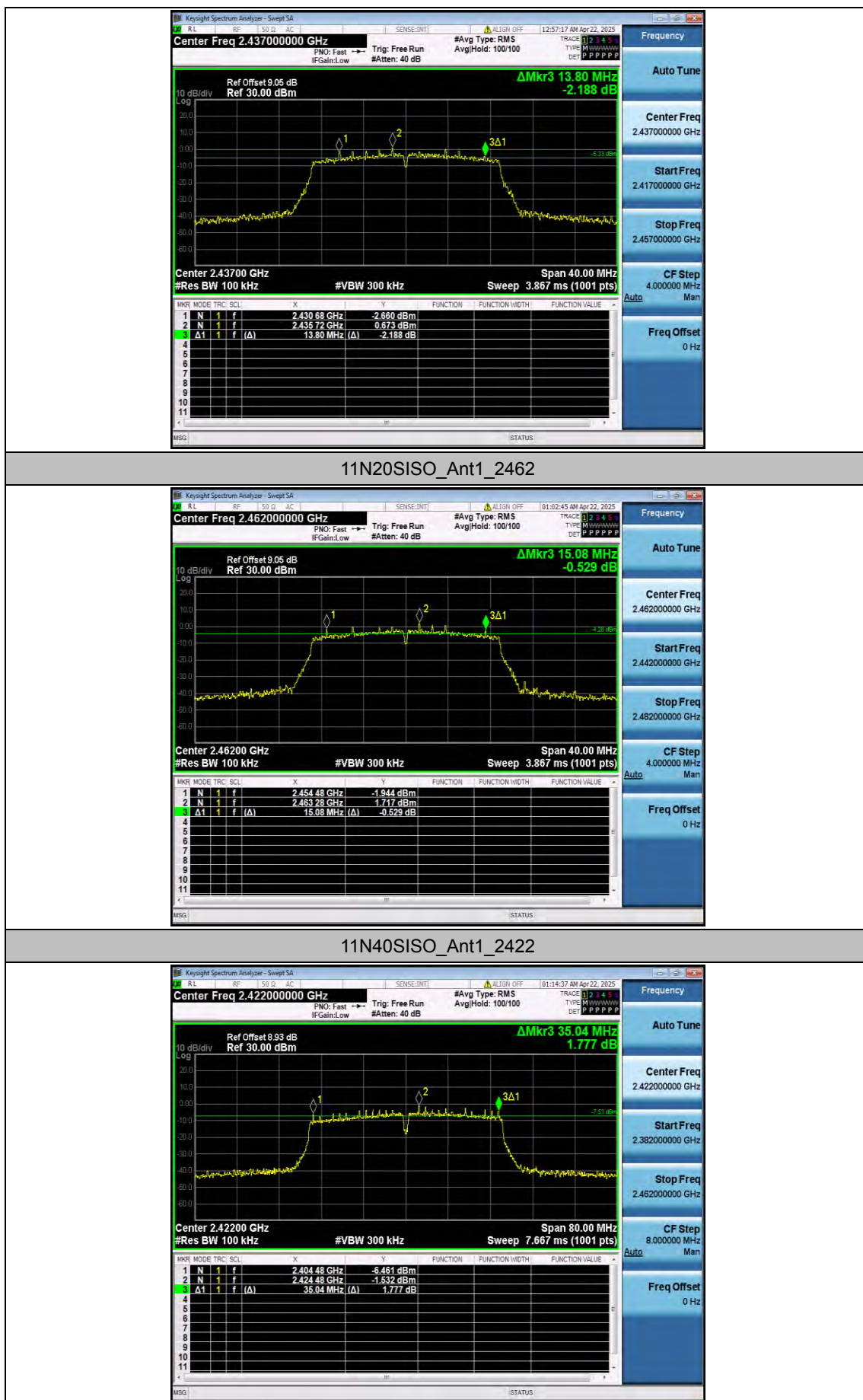
11G_Ant1_2462



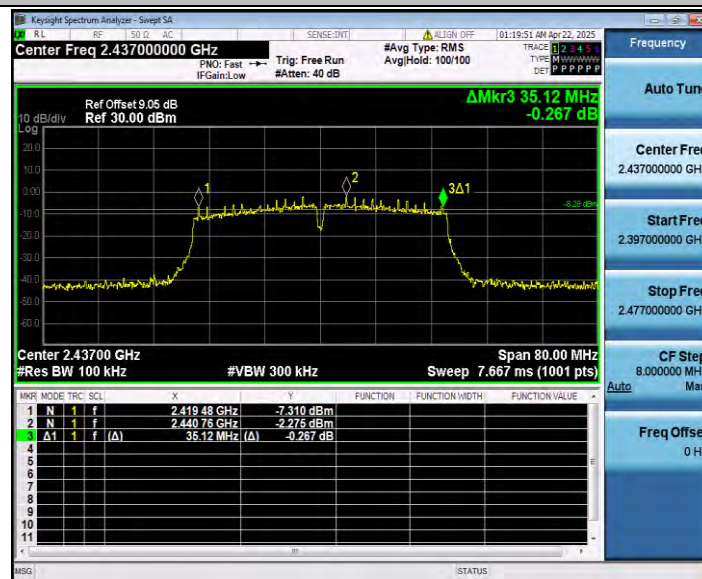
11N20SISO_Ant1_2412



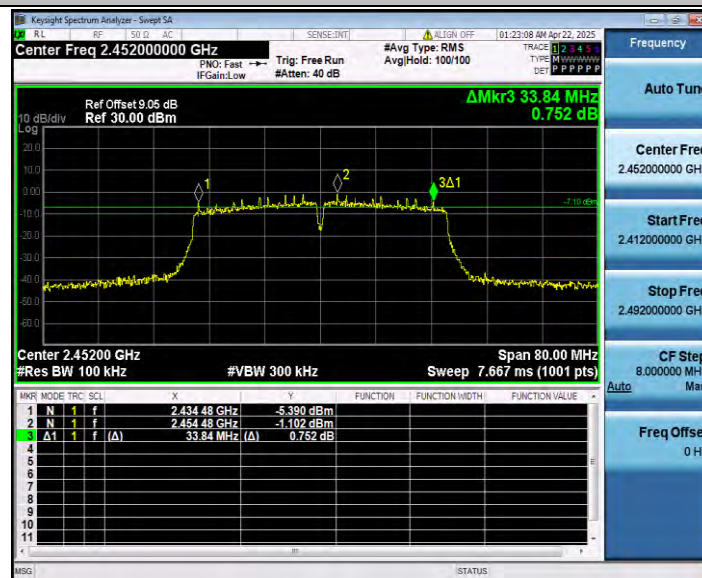
11N20SISO_Ant1_2437



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



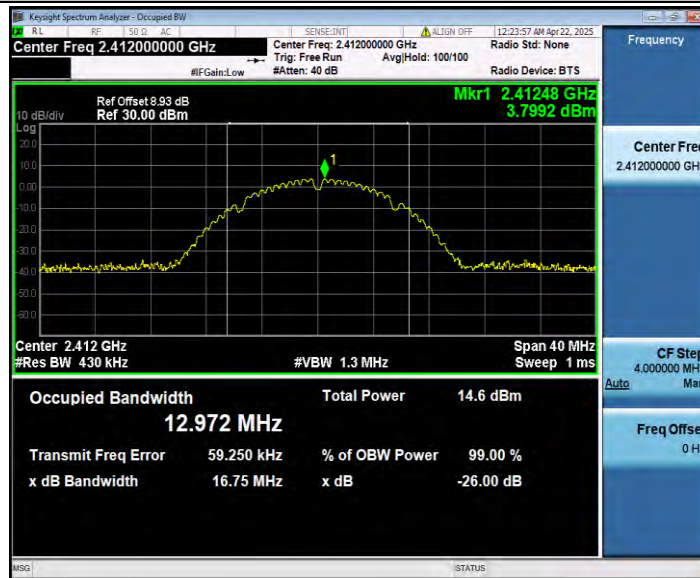
Appendix C.2: Occupied Channel Bandwidth

Test Result

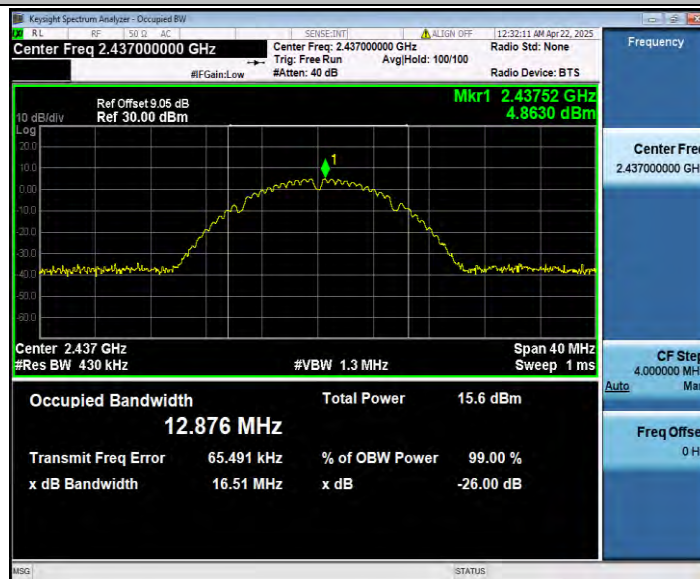
TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	12.972	2405.5733	2418.5453	---	---
		2437	12.876	2430.6275	2443.5035	---	---
		2462	12.873	2455.6026	2468.4756	---	---
11G	Ant1	2412	16.873	2403.6255	2420.4985	---	---
		2437	16.715	2428.6885	2445.4035	---	---
		2462	16.843	2453.5881	2470.4311	---	---
11N20SISO	Ant1	2412	17.848	2403.1239	2420.9719	---	---
		2437	17.817	2428.1590	2445.9760	---	---
		2462	17.776	2453.1313	2470.9073	---	---
11N40SISO	Ant1	2422	36.191	2404.0475	2440.2385	---	---
		2437	36.027	2419.1264	2455.1534	---	---
		2452	36.126	2434.0388	2470.1648	---	---

Test Graphs

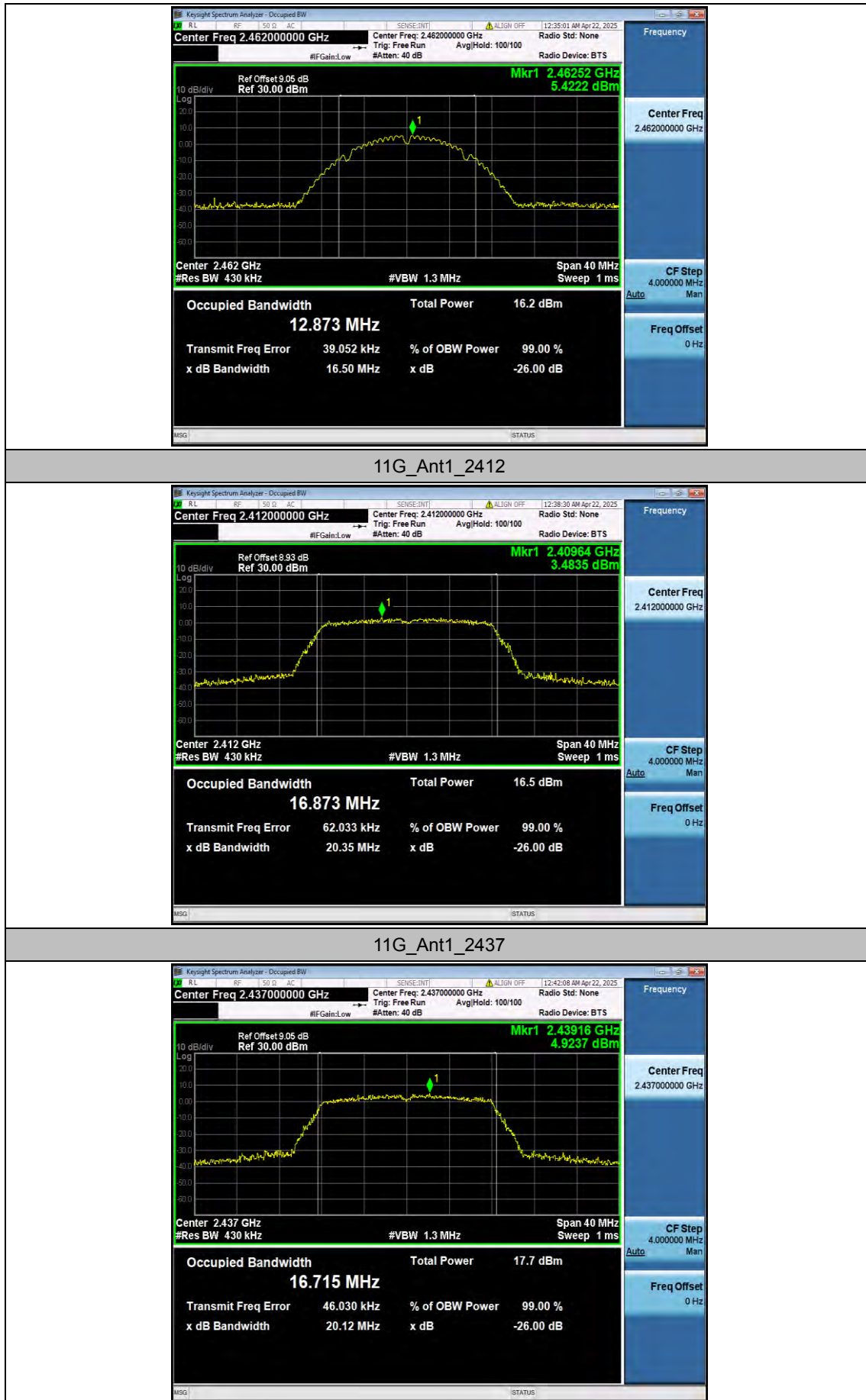
11B_Ant1_2412



11B_Ant1_2437



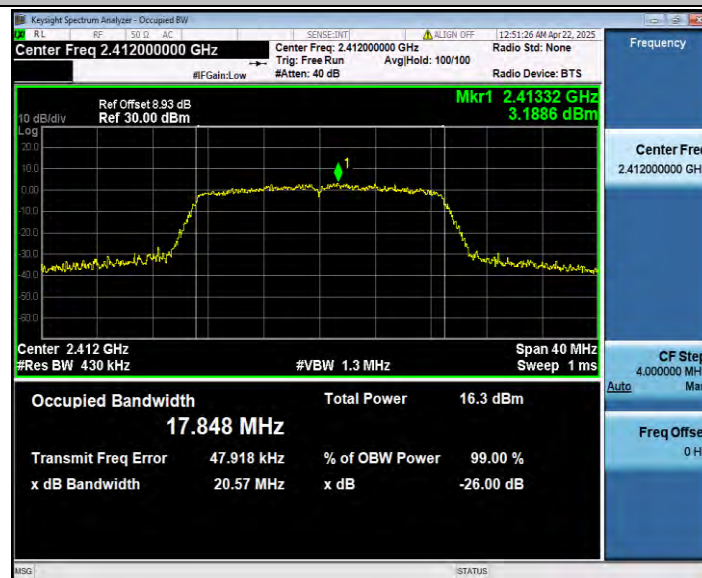
11B_Ant1_2462



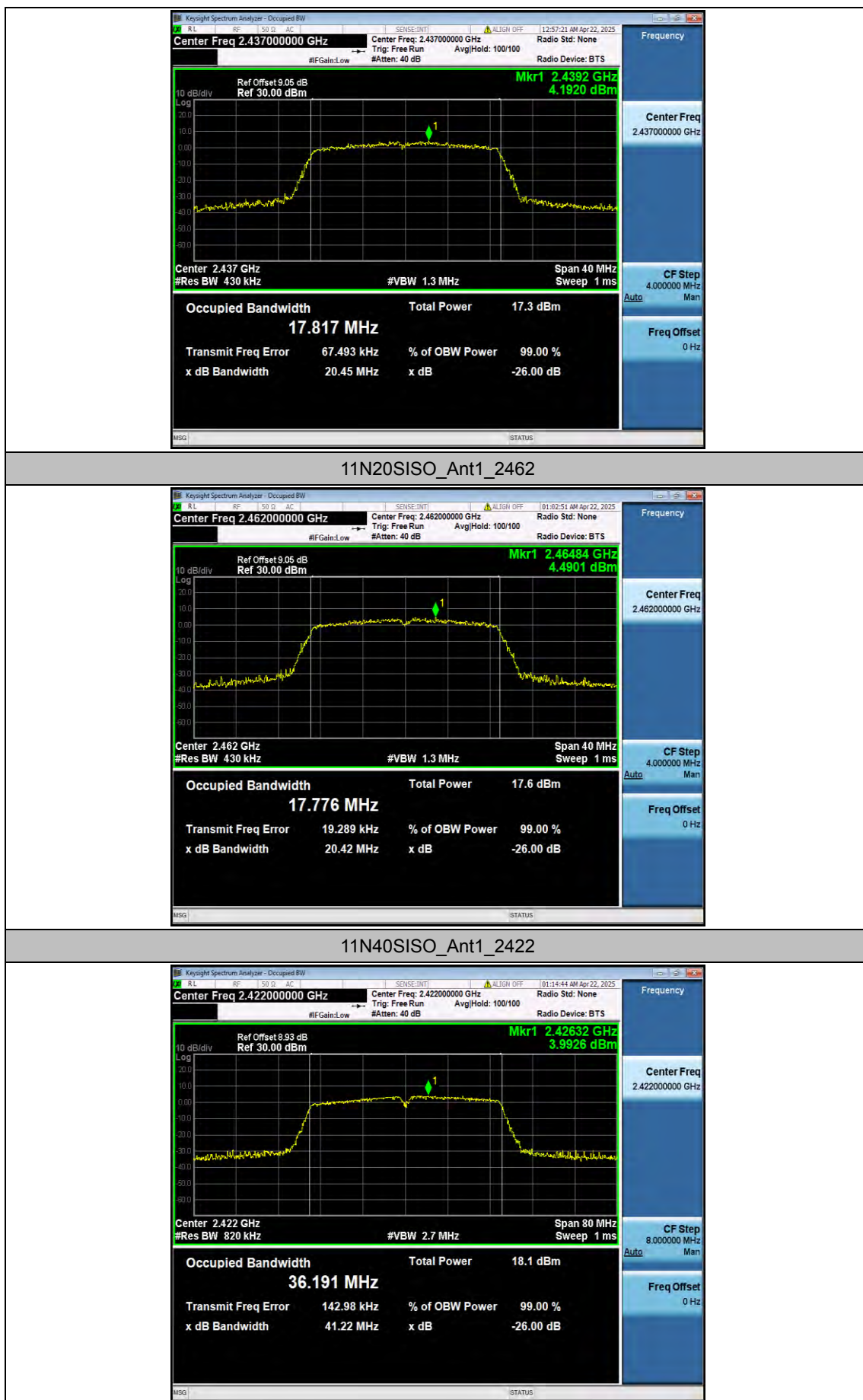
11G_Ant1_2462



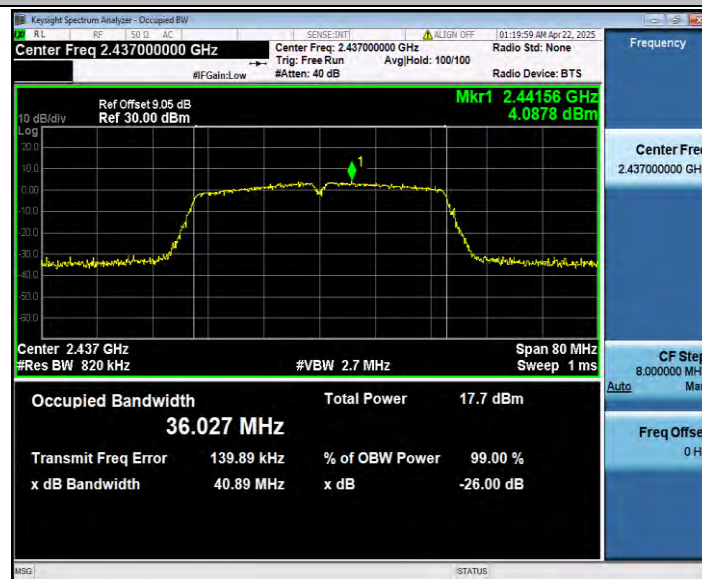
11N20SISO_Ant1_2412



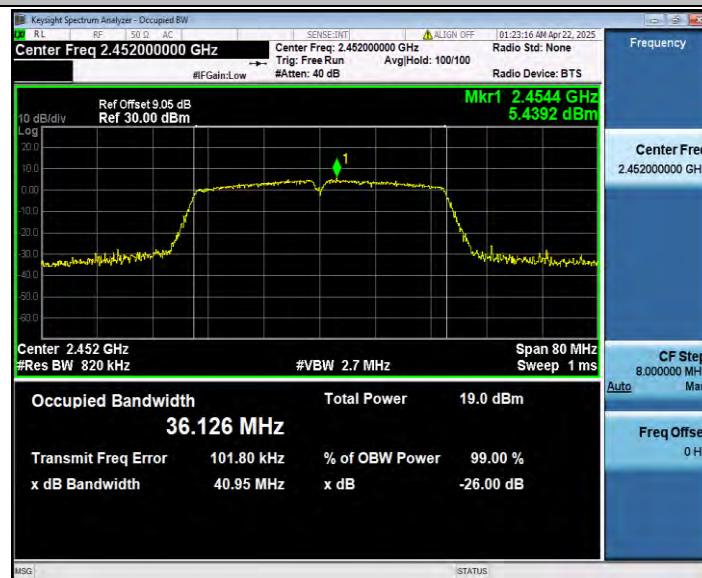
11N20SISO_Ant1_2437



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



Appendix C.3: Maximum conducted output power

Test Mode	Antenna	Frequency[MHz]	Peak power [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	14.56	≤30.00	PASS
		2437	15.62	≤30.00	PASS
		2462	16.13	≤30.00	PASS
11G	Ant1	2412	17.87	≤30.00	PASS
		2437	18.87	≤30.00	PASS
		2462	19.22	≤30.00	PASS
11N20SISO	Ant1	2412	17.50	≤30.00	PASS
		2437	18.34	≤30.00	PASS
		2462	18.80	≤30.00	PASS
11N40SISO	Ant1	2422	18.54	≤30.00	PASS
		2437	17.98	≤30.00	PASS
		2452	19.39	≤30.00	PASS

Appendix C.4: Maximum power spectral density

Test Result

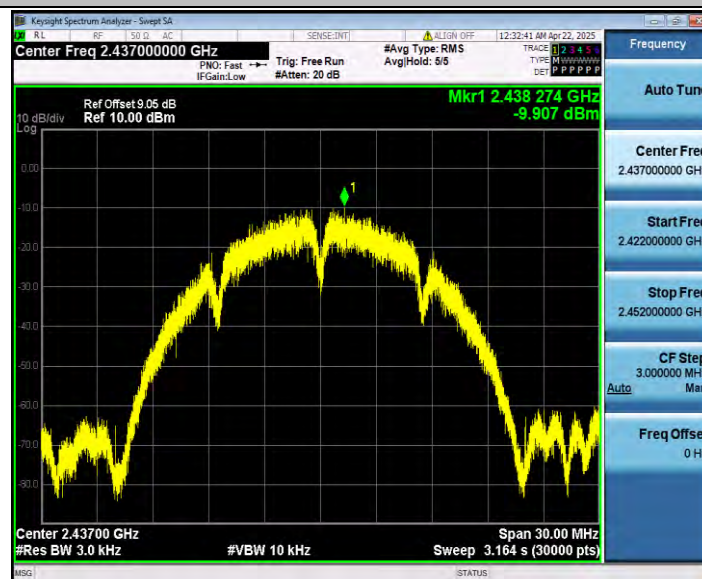
TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-10.97	≤8.00	PASS
		2437	-9.91	≤8.00	PASS
		2462	-8.40	≤8.00	PASS
11G	Ant1	2412	-14.41	≤8.00	PASS
		2437	-13.26	≤8.00	PASS
		2462	-12.30	≤8.00	PASS
11N20SISO	Ant1	2412	-14.33	≤8.00	PASS
		2437	-13.06	≤8.00	PASS
		2462	-13.42	≤8.00	PASS
11N40SISO	Ant1	2422	-16.27	≤8.00	PASS
		2437	-16.49	≤8.00	PASS
		2452	-14.79	≤8.00	PASS

Test Graphs

11B_Ant1_2412



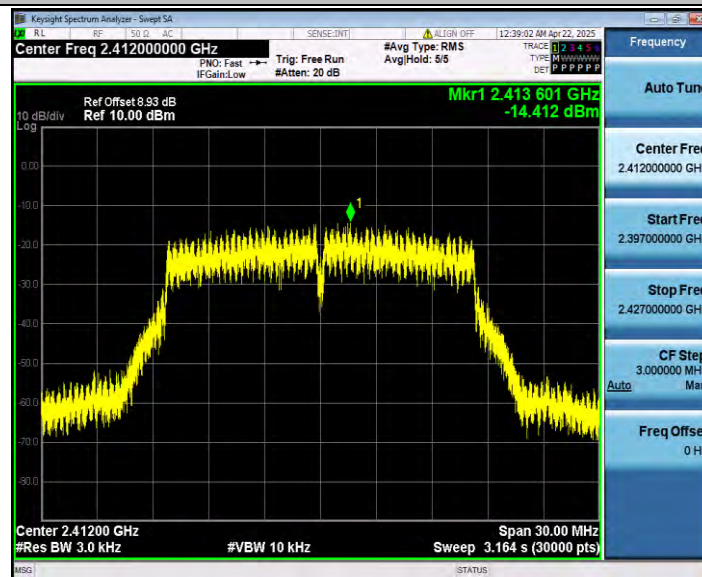
11B_Ant1_2437



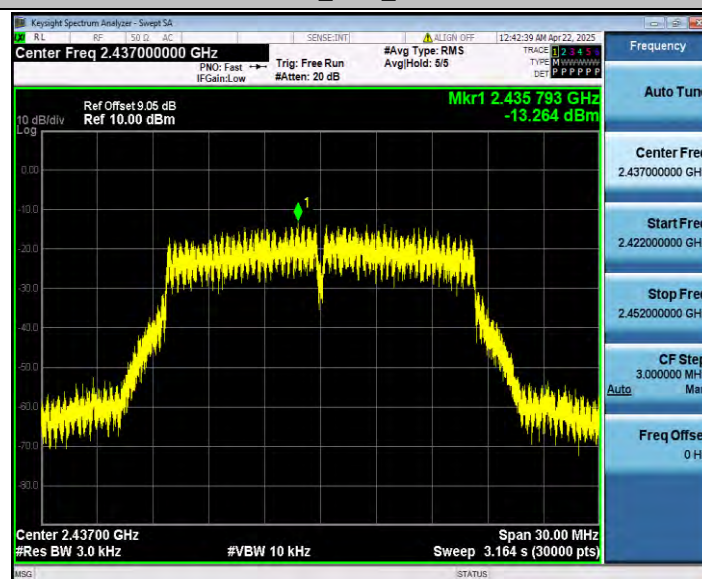
11B_Ant1_2462



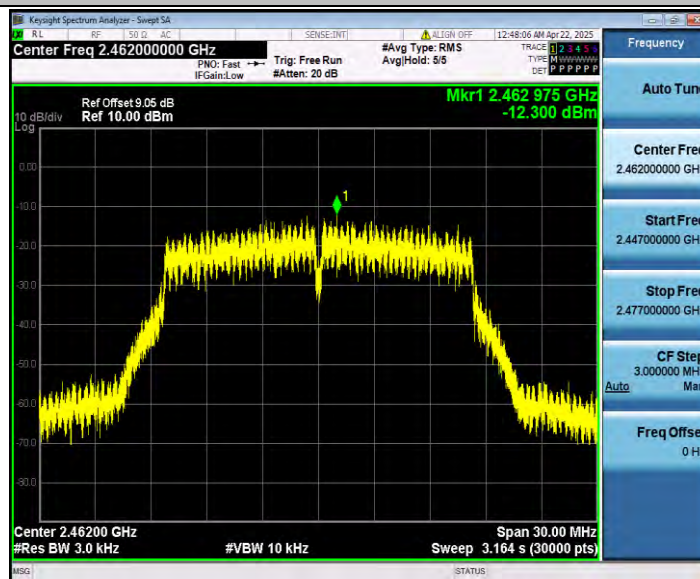
11G_Ant1_2412



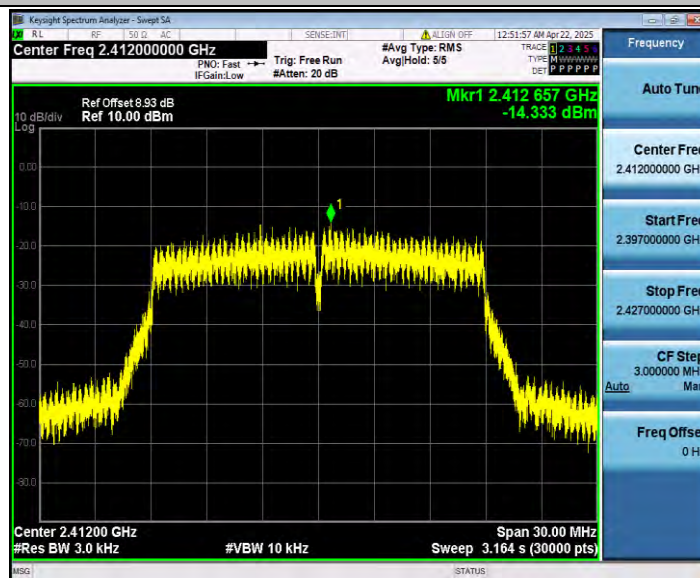
11G_Ant1_2437



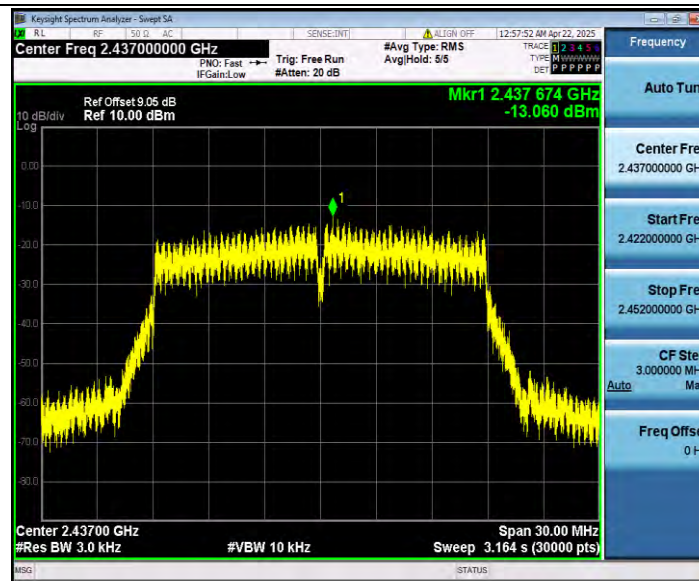
11G_Ant1_2462



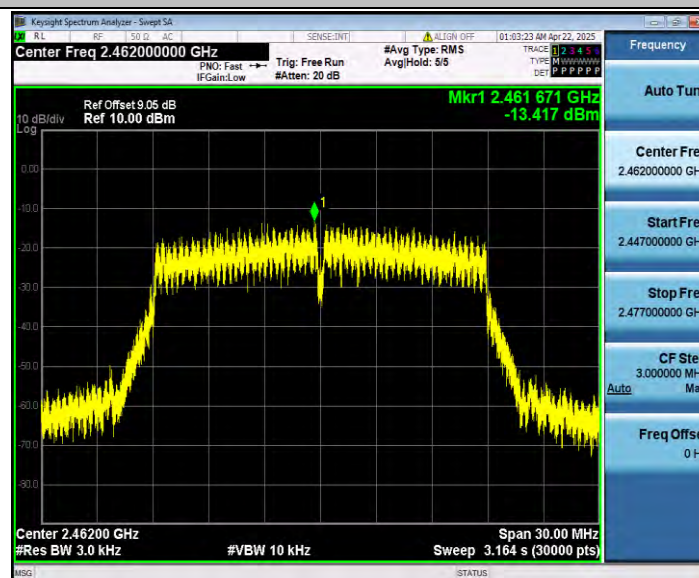
11N20SISO_Ant1_2412



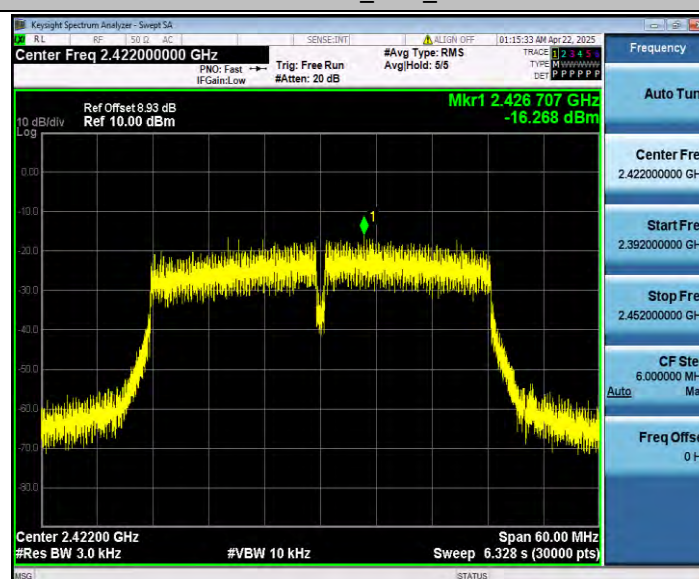
11N20SISO_Ant1_2437



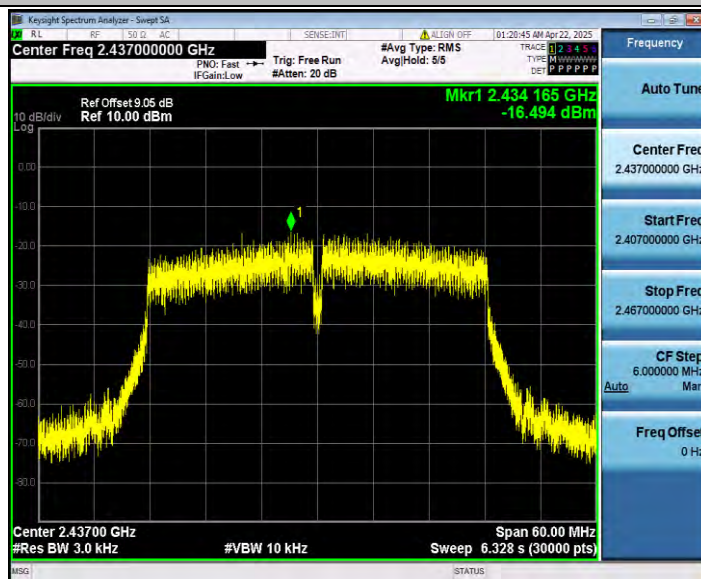
11N20SISO_Ant1_2462



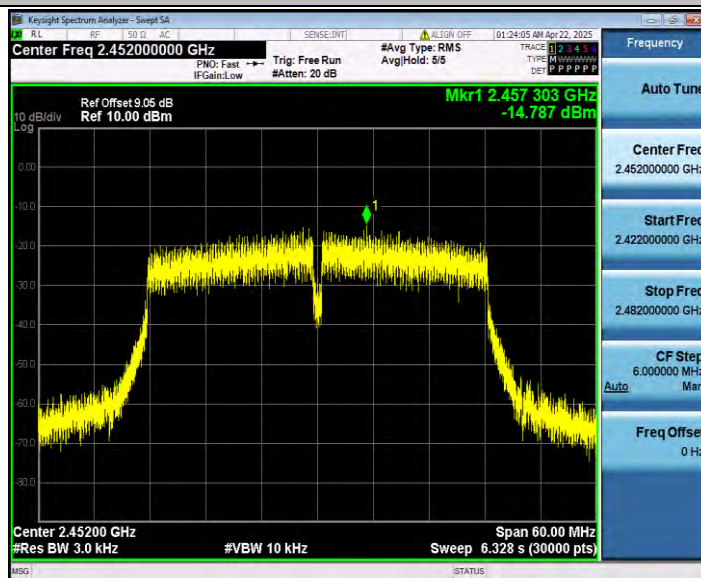
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



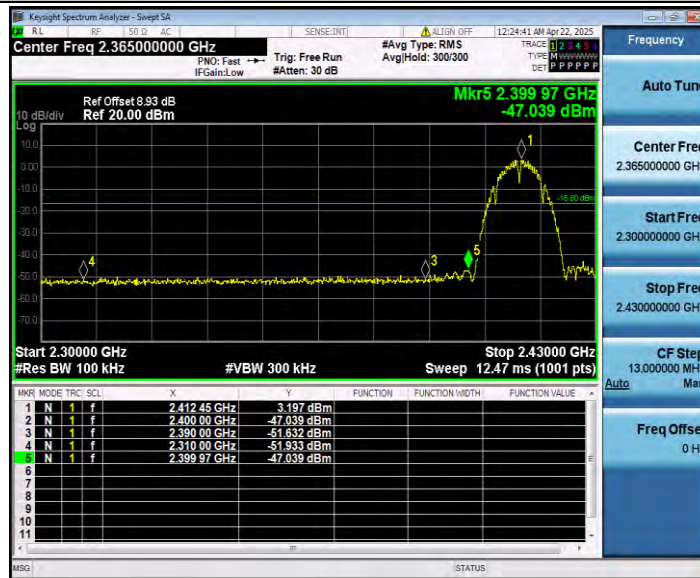
Appendix C.5: Band edge measurements

Test Result

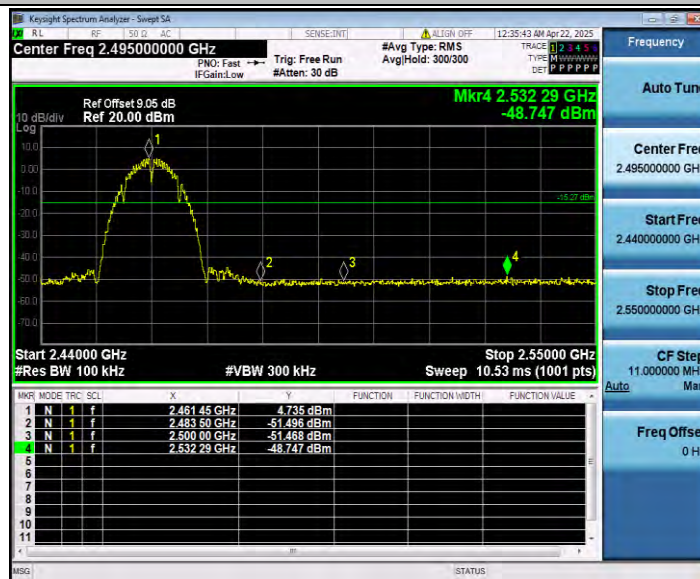
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	3.20	-47.04	≤ -16.8	PASS
		High	2462	4.74	-48.75	≤ -15.27	PASS
11G	Ant1	Low	2412	0.28	-35.68	≤ -19.72	PASS
		High	2462	1.00	-48.58	≤ -19	PASS
11N20SISO	Ant1	Low	2412	0.33	-37.25	≤ -19.67	PASS
		High	2462	1.86	-48.46	≤ -18.14	PASS
11N40SISO	Ant1	Low	2422	-1.78	-38.39	≤ -21.78	PASS
		High	2452	-0.76	-41.9	≤ -20.76	PASS

Test Graphs

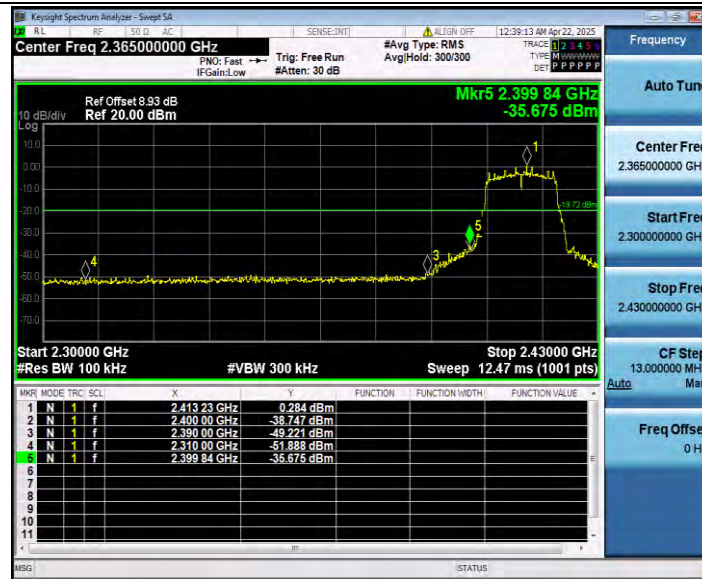
11B_Ant1_Low_2412



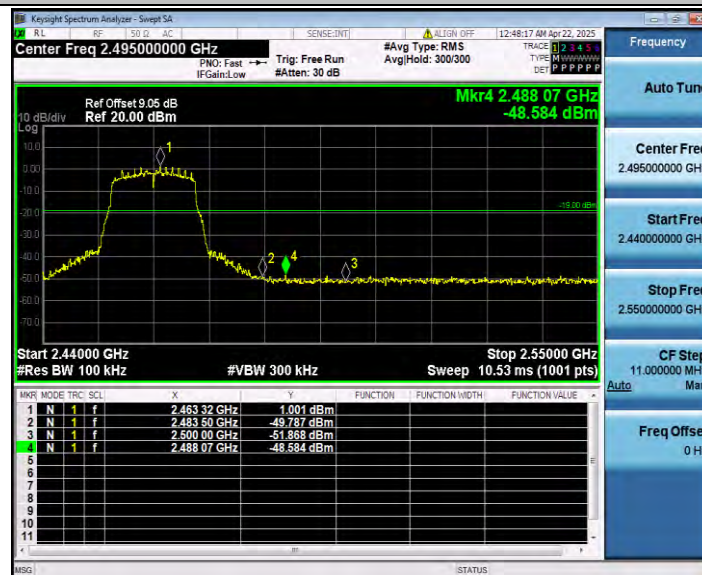
11B_Ant1_High_2462



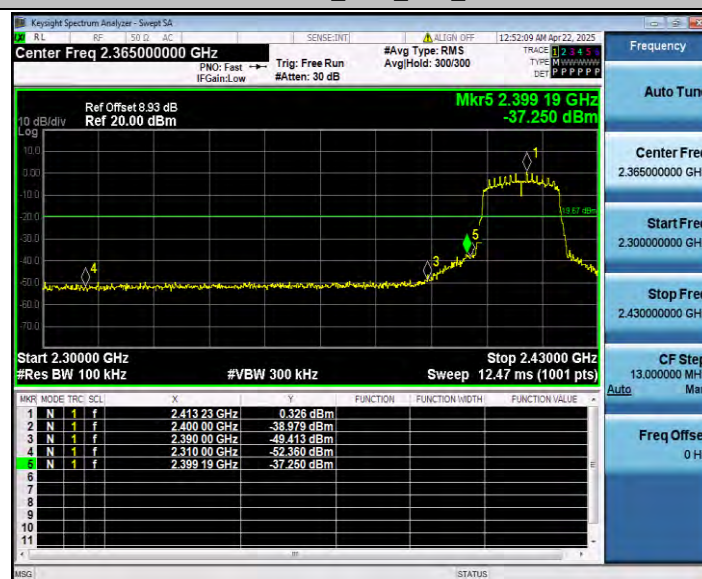
11G_Ant1_Low_2412



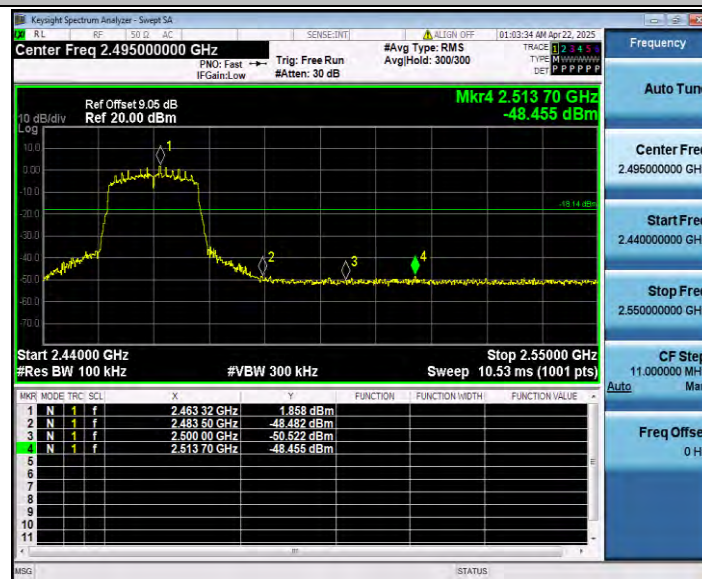
11G_Ant1_High_2462



11N20SISO_Ant1_Low_2412



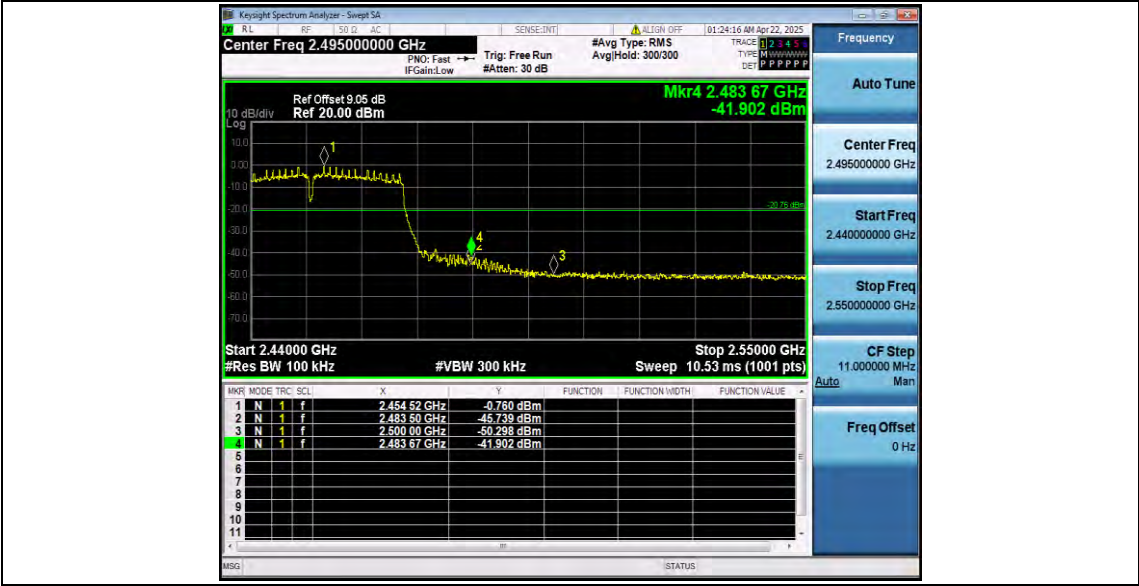
11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452

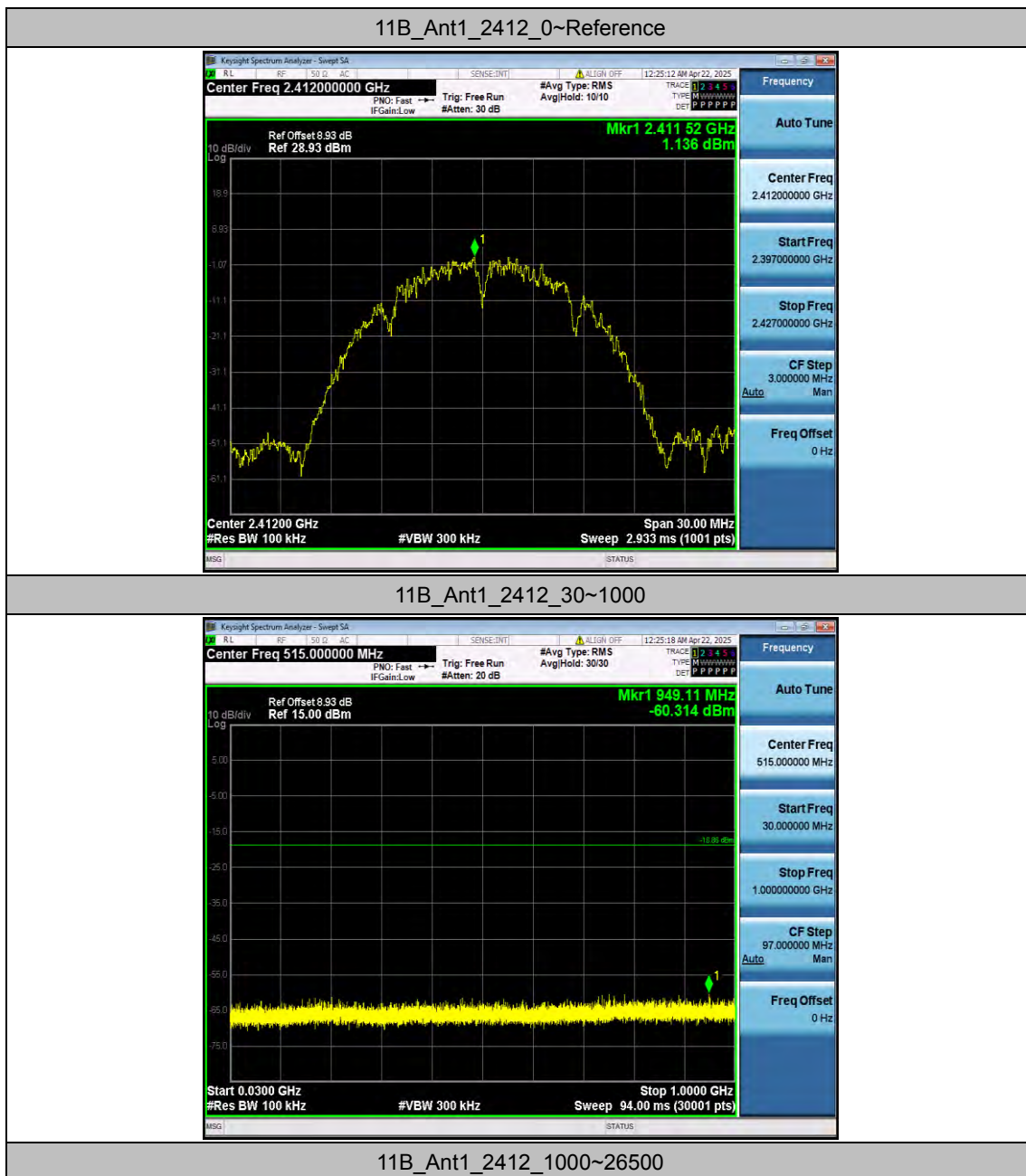


Appendix C.6: Conducted Spurious Emission

Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	1.14	1.14	---	PASS
			30~1000	1.14	-60.31	≤ -18.86	PASS
			1000~26500	1.14	-46.58	≤ -18.86	PASS
		2437	Reference	2.59	2.59	---	PASS
			30~1000	2.59	-60.69	≤ -17.41	PASS
			1000~26500	2.59	-46.88	≤ -17.41	PASS
		2462	Reference	3.23	3.23	---	PASS
			30~1000	3.23	-60.79	≤ -16.77	PASS
			1000~26500	3.23	-47.62	≤ -16.77	PASS
11G	Ant1	2412	Reference	-3.47	-3.47	---	PASS
			30~1000	-3.47	-60.57	≤ -23.47	PASS
			1000~26500	-3.47	-46.93	≤ -23.47	PASS
		2437	Reference	-1.90	-1.90	---	PASS
			30~1000	-1.90	-60.46	≤ -21.9	PASS
			1000~26500	-1.90	-47.65	≤ -21.9	PASS
		2462	Reference	-1.24	-1.24	---	PASS
			30~1000	-1.24	-60.53	≤ -21.24	PASS
			1000~26500	-1.24	-47.71	≤ -21.24	PASS
11N20SISO	Ant1	2412	Reference	-3.42	-3.42	---	PASS
			30~1000	-3.42	-60.52	≤ -23.42	PASS
			1000~26500	-3.42	-47.64	≤ -23.42	PASS
		2437	Reference	-2.60	-2.60	---	PASS
			30~1000	-2.60	-60.6	≤ -22.6	PASS
			1000~26500	-2.60	-47.83	≤ -22.6	PASS
		2462	Reference	-0.43	-0.43	---	PASS
			30~1000	-0.43	-60.08	≤ -20.43	PASS
			1000~26500	-0.43	-47.35	≤ -20.43	PASS
11N40SISO	Ant1	2422	Reference	-3.31	-3.31	---	PASS
			30~1000	-3.31	-60.71	≤ -23.31	PASS
			1000~26500	-3.31	-47.51	≤ -23.31	PASS
		2437	Reference	-3.45	-3.45	---	PASS
			30~1000	-3.45	-60.89	≤ -23.45	PASS
			1000~26500	-3.45	-47.9	≤ -23.45	PASS
		2452	Reference	-1.20	-1.20	---	PASS
			30~1000	-1.20	-60.26	≤ -21.2	PASS
			1000~26500	-1.20	-47.71	≤ -21.2	PASS

Test Graphs



Keysight Spectrum Analyzer - Swept SA

Center Freq 2.43700000 GHz

Ref Offset: 9.05 dB
Ref 29.05 dBm

Span 30.00 MHz

Center Freq 2.43700000 GHz

Start Freq 2.422000000 GHz

Stop Freq 2.452000000 GHz

CF Step 3.000000 MHz

Freq Offset 0 Hz

Auto Tune

Auto

Man

Trig: Free Run

#Att: 30 dB

#Avg Type: RMS

Avg Hold: 10/10

ALIGN OFF

12:32:48 AM Apr 22, 2025

TRACE 1 2 x 1

TYPE M WWWWWW

DET P P P P P P

19.1

9.05

0.95

-11.0

-21.0

-31.0

-41.0

-51.0

-61.0

Log

dBm

Mkr1 2.438 98 GHz

2.592 dBm

Center 2.43700 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 2.933 ms (1001 pts)

MSG STATUS

Keysight Spectrum Analyzer - Swept SA

ALL SENS: SENSE:INT 12:32:55 AM Apr 22, 2025

Center Freq 515.000000 MHz #Avg Type: RMS #Trig: Free Run #Att: 20 dB

PWD: Fast IFGain:Low

ALIGN OFF

TRACE 1 2 x 4.5

TYPE M WWWWWW

DET 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 Step 97.000000 MHz Man

Auto

Freq Offset 0 Hz

10 dB/div Log

Ref Offset 9.05 dB

Ref 15.00 dBm

Mkr1 830.15 MHz -60.694 dBm

-17.41 20

Start 0.0300 GHz

#Res BW 100 kHz

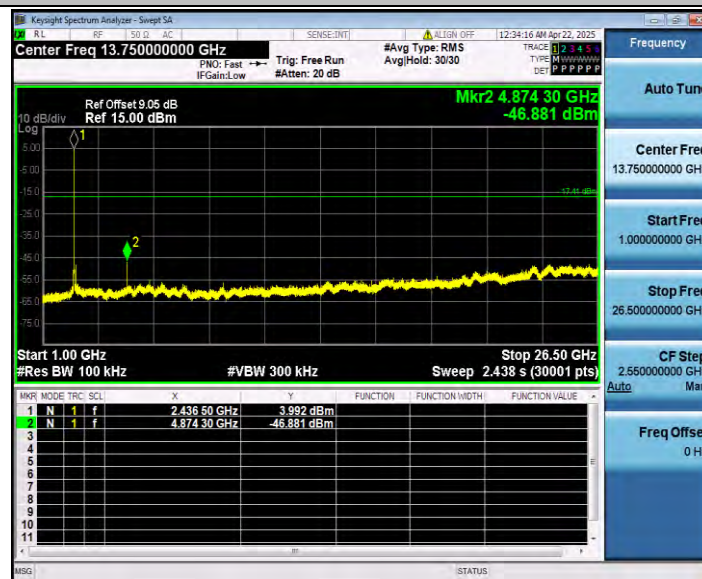
#VBW 300 kHz

Sweep 94.00 ms (30001 pts)

Stop 1.0000 GHz

MSG STATUS

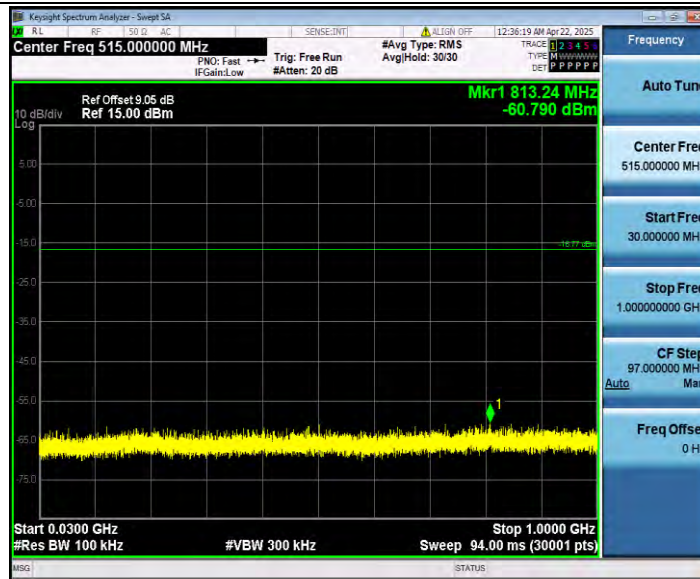
11B_Ant1_2437_1000~26500



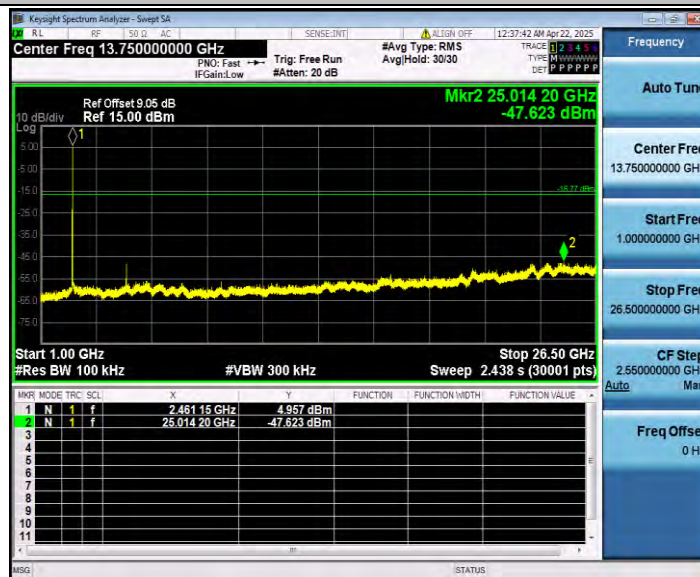
11B_Ant1_2462_0~Reference



11B_Ant1_2462_30~1000



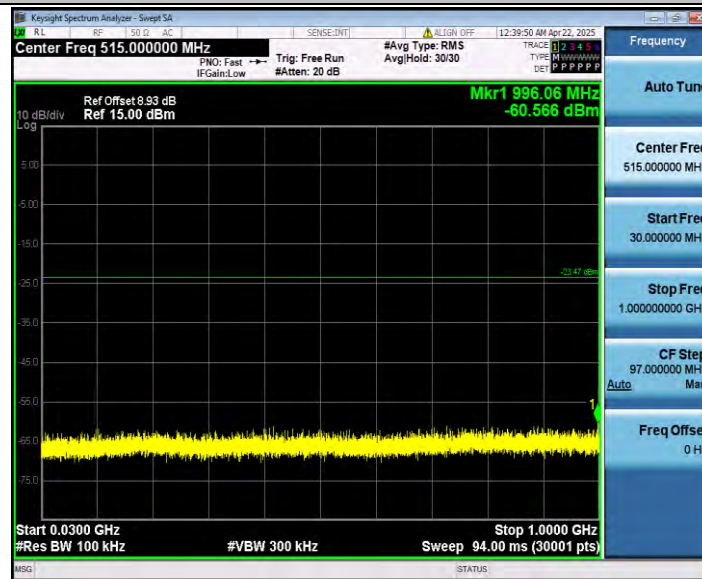
11B_Ant1_2462_1000~26500



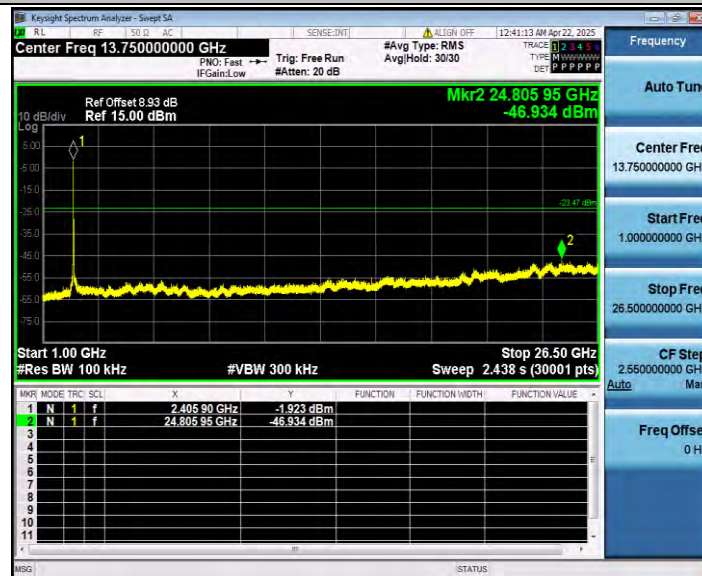
11G_Ant1_2412_0~Reference



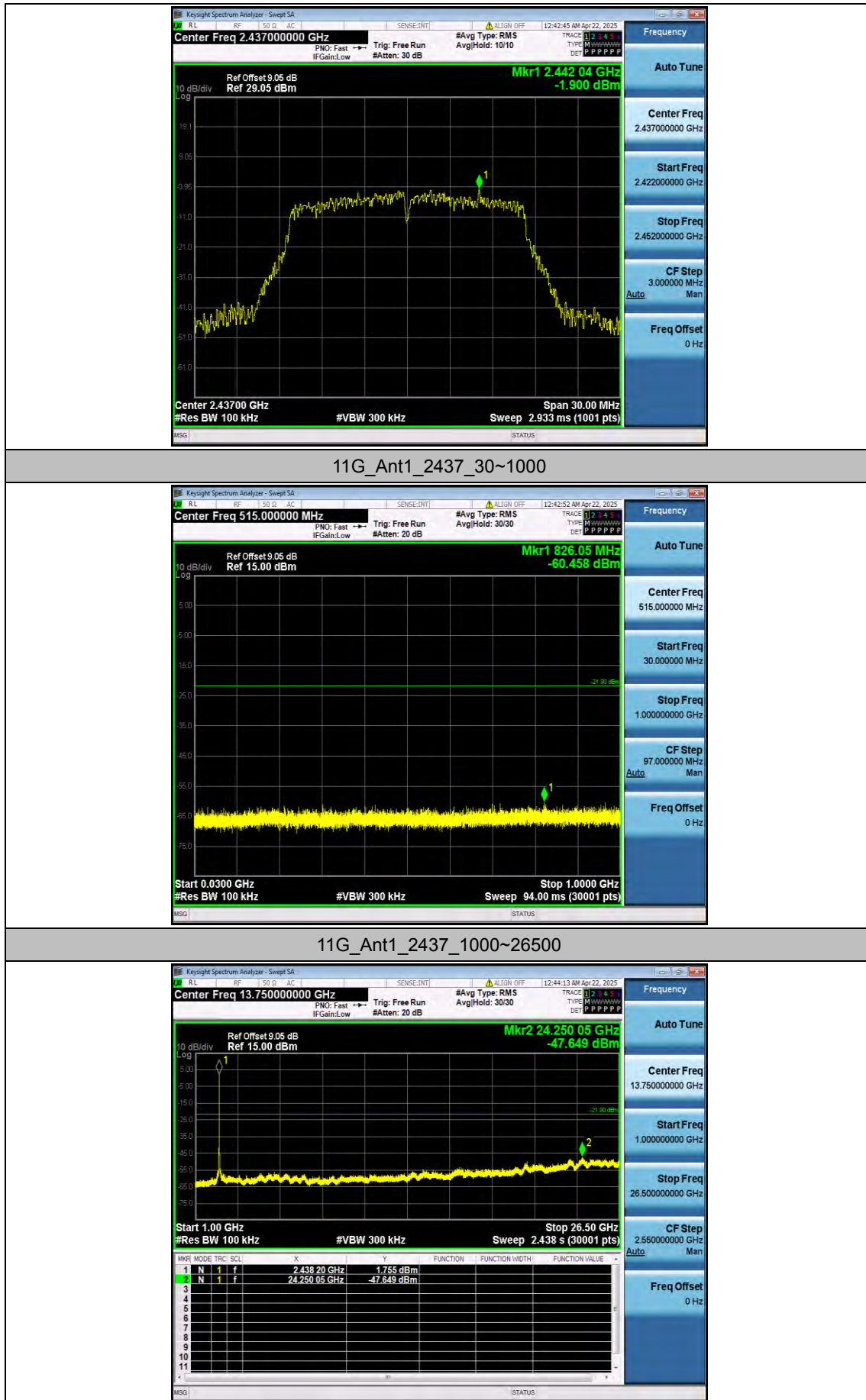
11G_Ant1_2412_30~1000



11G_Ant1_2412_1000~26500



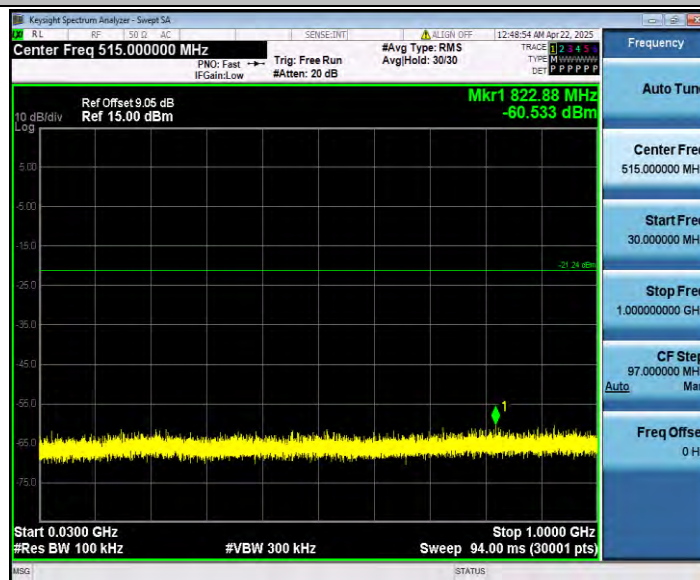
11G_Ant1_2437_0~Reference



11G_Ant1_2462_0~Reference



11G_Ant1_2462_30~1000



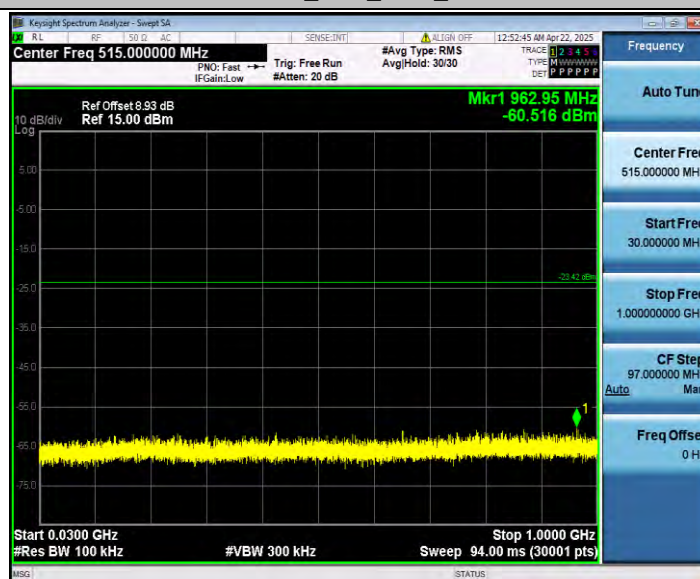
11G_Ant1_2462_1000~26500



11N20SISO_Ant1_2412_0~Reference



11N20SISO_Ant1_2412_30~1000



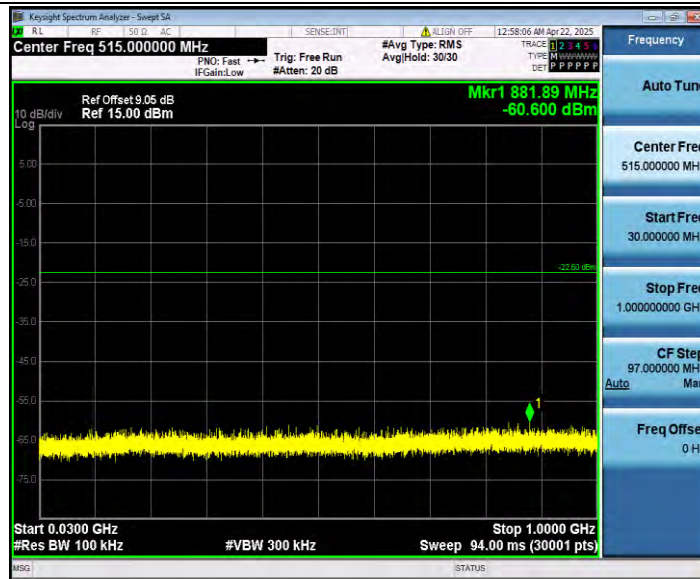
11N20SISO_Ant1_2412_1000~26500



11N20SISO_Ant1_2437_0~Reference



11N20SISO_Ant1_2437_30~1000



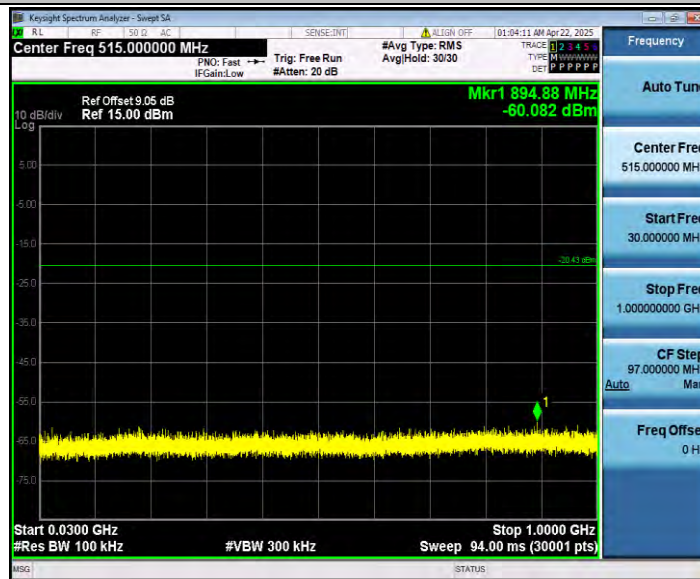
11N20SISO_Ant1_2437_1000~26500



11N20SISO_Ant1_2462_0~Reference



11N20SISO_Ant1_2462_30~1000



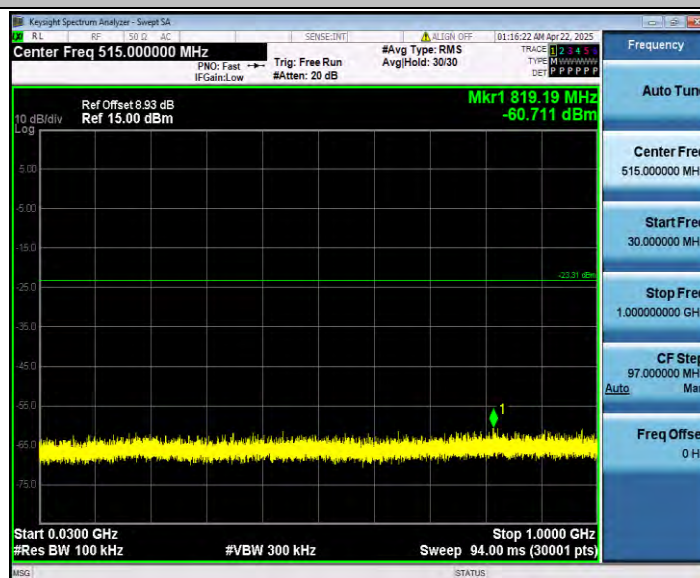
11N20SISO_Ant1_2462_1000~26500



11N40SISO_Ant1_2422_0~Reference



11N40SISO_Ant1_2422_30~1000



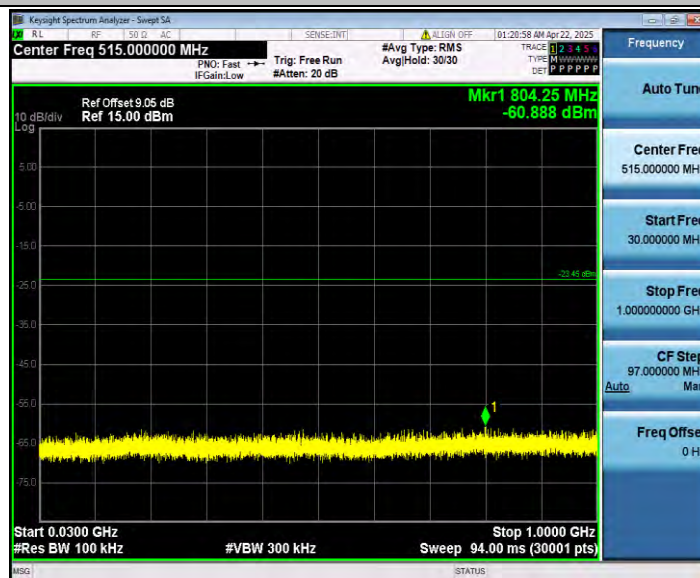
11N40SISO_Ant1_2422_1000~26500



11N40SISO_Ant1_2437_0~Reference



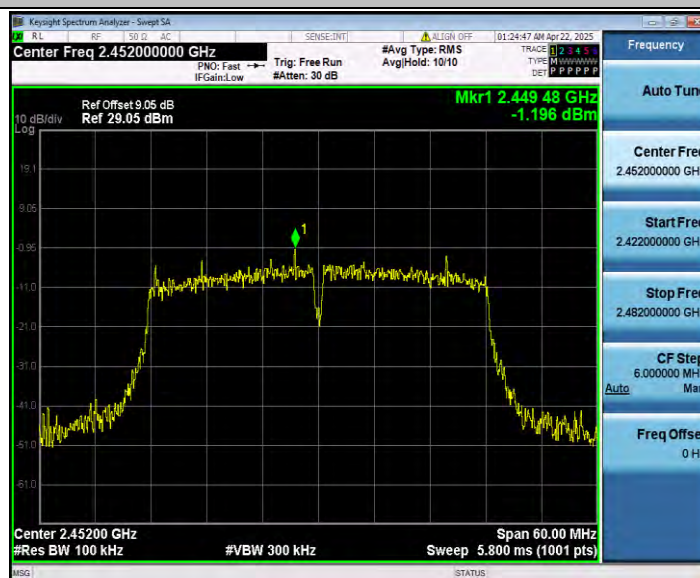
11N40SISO_Ant1_2437_30~1000



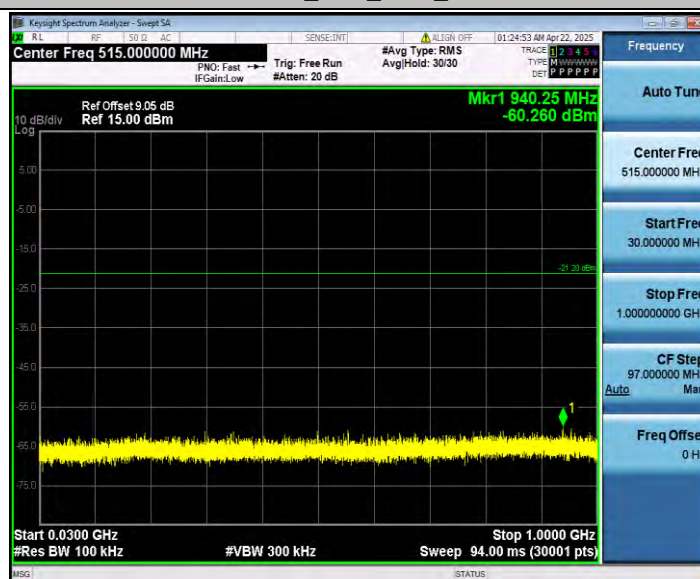
11N40SISO_Ant1_2437_1000~26500



11N40SISO_Ant1_2452_0~Reference



11N40SISO_Ant1_2452_30~1000



Appendix C.7: Emissions in Restricted Bands

Test Result

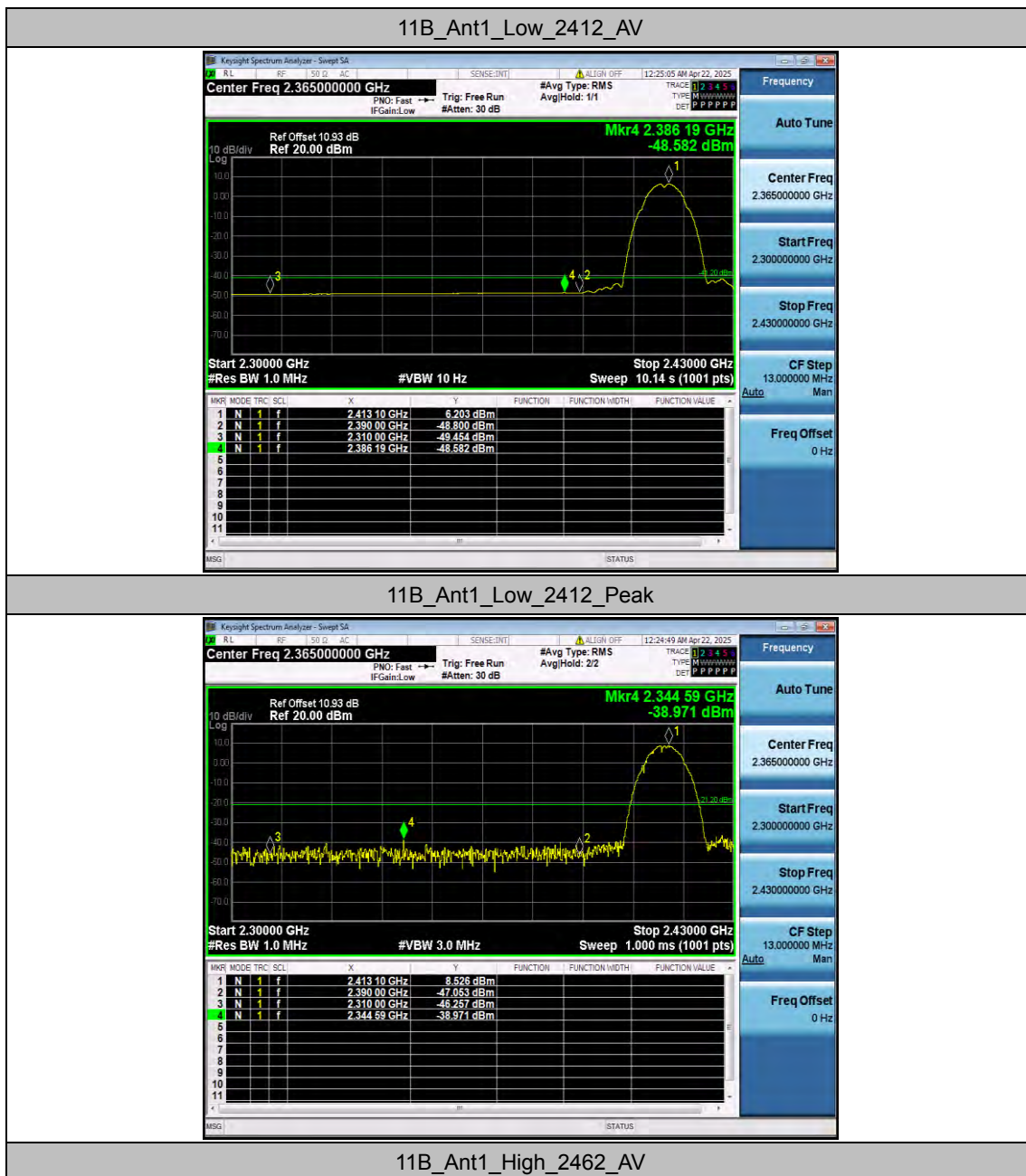
TestMode	Antenna	ChName	Frequenc y[MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
11B	Ant1	Low	2412	AV	2310.000	-49.45	≤-41.20	45.75	≤54	PASS
				AV	2386.190	-48.58	≤-41.20	46.62	≤54	PASS
				AV	2390.000	-48.8	≤-41.20	46.40	≤54	PASS
				Peak	2310.000	-46.26	≤-21.20	48.94	≤74	PASS
				Peak	2344.590	-38.97	≤-21.20	56.23	≤74	PASS
				Peak	2390.000	-47.05	≤-21.20	48.15	≤74	PASS
		High	2462	AV	2483.500	-48.66	≤-41.20	46.54	≤54	PASS
				AV	2499.730	-48.39	≤-41.20	46.81	≤54	PASS
				AV	2500.000	-48.4	≤-41.20	46.80	≤54	PASS
				Peak	2483.500	-47.41	≤-21.20	47.79	≤74	PASS
				Peak	2490.050	-40.77	≤-21.20	54.43	≤74	PASS
				Peak	2500.000	-50.54	≤-21.20	44.66	≤74	PASS
11G	Ant1	Low	2412	AV	2310.000	-49.23	≤-41.20	45.97	≤54	PASS
				AV	2389.960	-46.72	≤-41.20	48.48	≤54	PASS
				AV	2390.000	-46.72	≤-41.20	48.48	≤54	PASS
				Peak	2310.000	-46.64	≤-21.20	48.56	≤74	PASS
				Peak	2356.680	-38.77	≤-21.20	56.43	≤74	PASS
				Peak	2390.000	-44.02	≤-21.20	51.18	≤74	PASS
		High	2462	AV	2483.500	-46.8	≤-41.20	48.40	≤54	PASS
				AV	2483.560	-46.82	≤-41.20	48.38	≤54	PASS
				AV	2500.000	-47.83	≤-41.20	47.37	≤54	PASS
				Peak	2483.500	-45.37	≤-21.20	49.83	≤74	PASS
				Peak	2495.330	-39.51	≤-21.20	55.69	≤74	PASS
				Peak	2500.000	-41.51	≤-21.20	53.69	≤74	PASS
11N20SIS O	Ant1	Low	2412	AV	2310.000	-49.21	≤-41.20	45.99	≤54	PASS
				AV	2389.960	-46.14	≤-41.20	49.06	≤54	PASS
				AV	2390.000	-46.14	≤-41.20	49.06	≤54	PASS
				Peak	2310.000	-48.38	≤-21.20	46.82	≤74	PASS
				Peak	2318.200	-39.14	≤-21.20	56.06	≤74	PASS
				Peak	2390.000	-39.42	≤-21.20	55.78	≤74	PASS
		High	2462	AV	2483.500	-46.47	≤-41.20	48.73	≤54	PASS
				AV	2483.560	-46.5	≤-41.20	48.70	≤54	PASS
				AV	2500.000	-47.86	≤-41.20	47.34	≤54	PASS
				Peak	2483.500	-46.16	≤-21.20	49.04	≤74	PASS
				Peak	2488.950	-37.62	≤-21.20	57.58	≤74	PASS

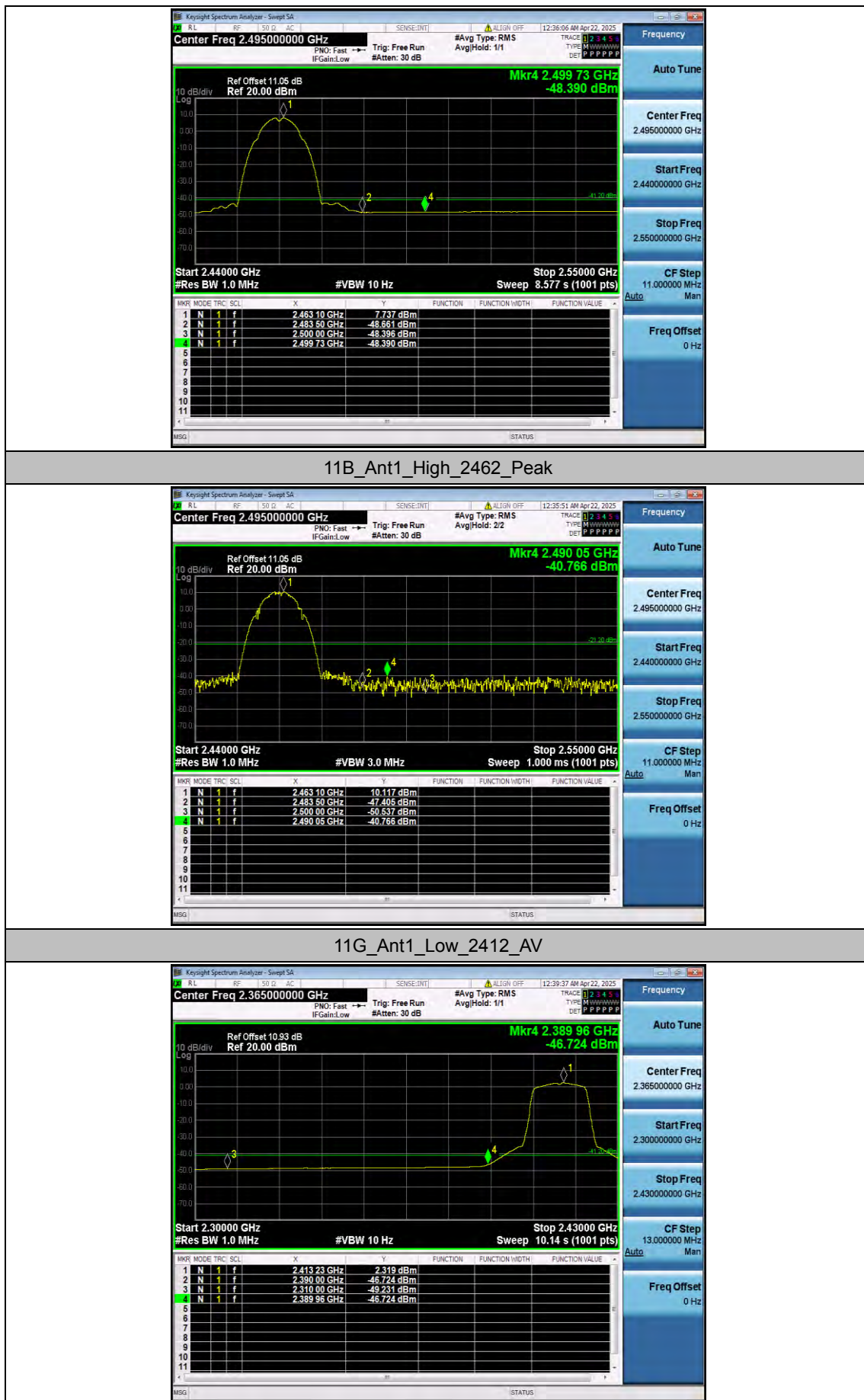
				Peak	2500.000	-40.54	≤ -21.20	54.66	≤ 74	PASS
11N40SIS O	Ant1	Low	2422	AV	2310.000	-49.22	≤ -41.20	45.98	≤ 54	PASS
				AV	2389.960	-42.07	≤ -41.20	53.13	≤ 54	PASS
				AV	2390.000	-42.08	≤ -41.20	53.12	≤ 54	PASS
				Peak	2310.000	-43.97	≤ -21.20	51.23	≤ 74	PASS
				Peak	2387.100	-35.36	≤ -21.20	59.84	≤ 74	PASS
				Peak	2390.000	-37.85	≤ -21.20	57.35	≤ 74	PASS
		High	2452	AV	2483.500	-43.37	≤ -41.20	51.83	≤ 54	PASS
				AV	2483.560	-43.37	≤ -41.20	51.83	≤ 54	PASS
				AV	2500.000	-47.03	≤ -41.20	48.17	≤ 54	PASS
				Peak	2483.500	-40.96	≤ -21.20	54.24	≤ 74	PASS
				Peak	2484.660	-33.33	≤ -21.20	61.87	≤ 74	PASS
				Peak	2500.000	-42.26	≤ -21.20	52.94	≤ 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

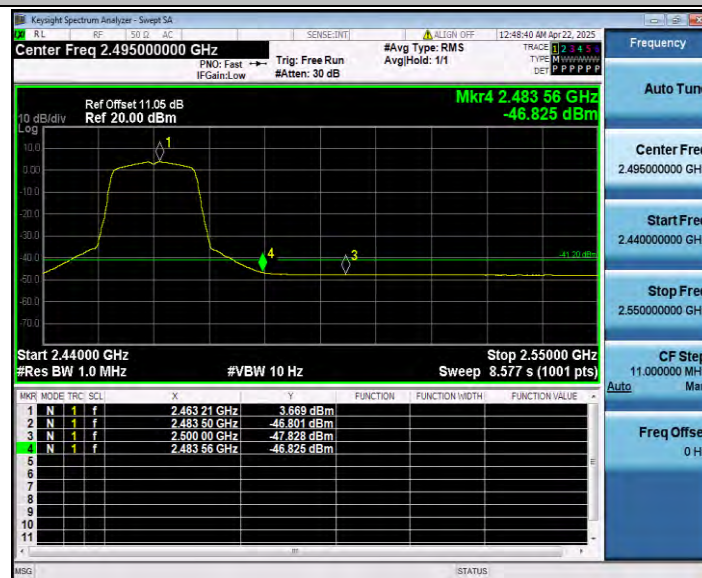




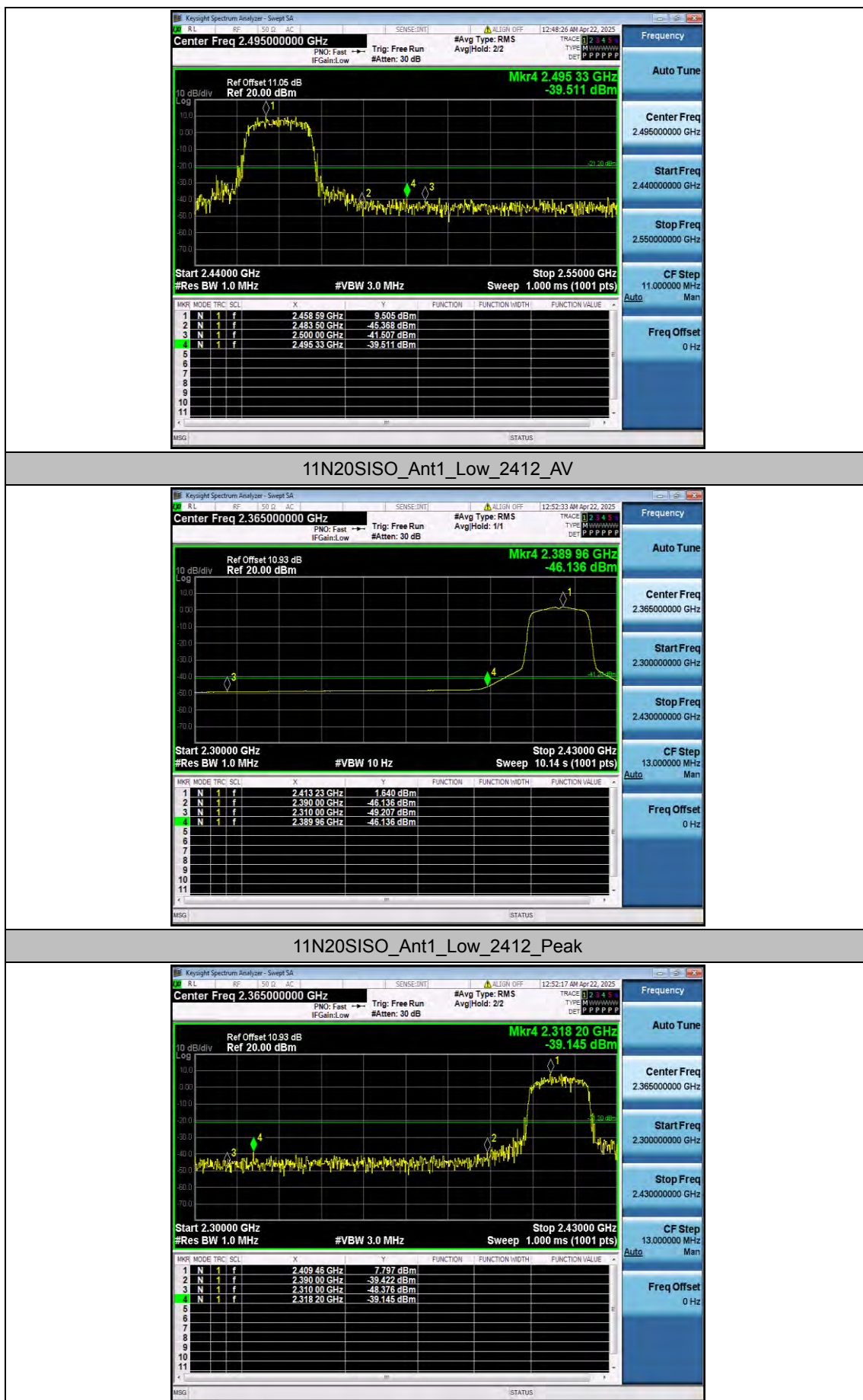
11G_Ant1_Low_2412_Peak



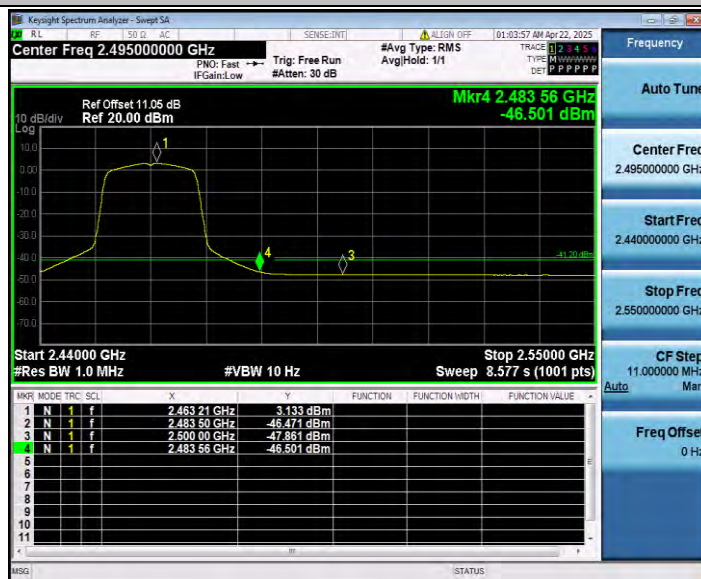
11G_Ant1_High_2462_AV



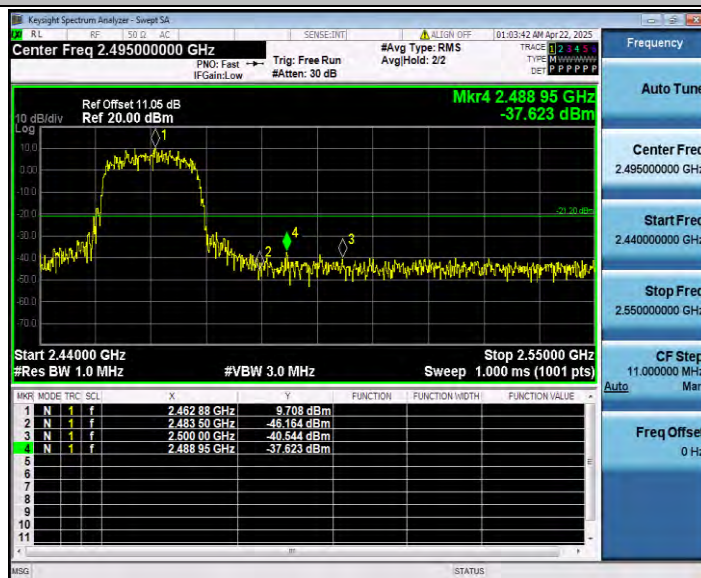
11G_Ant1_High_2462_Peak



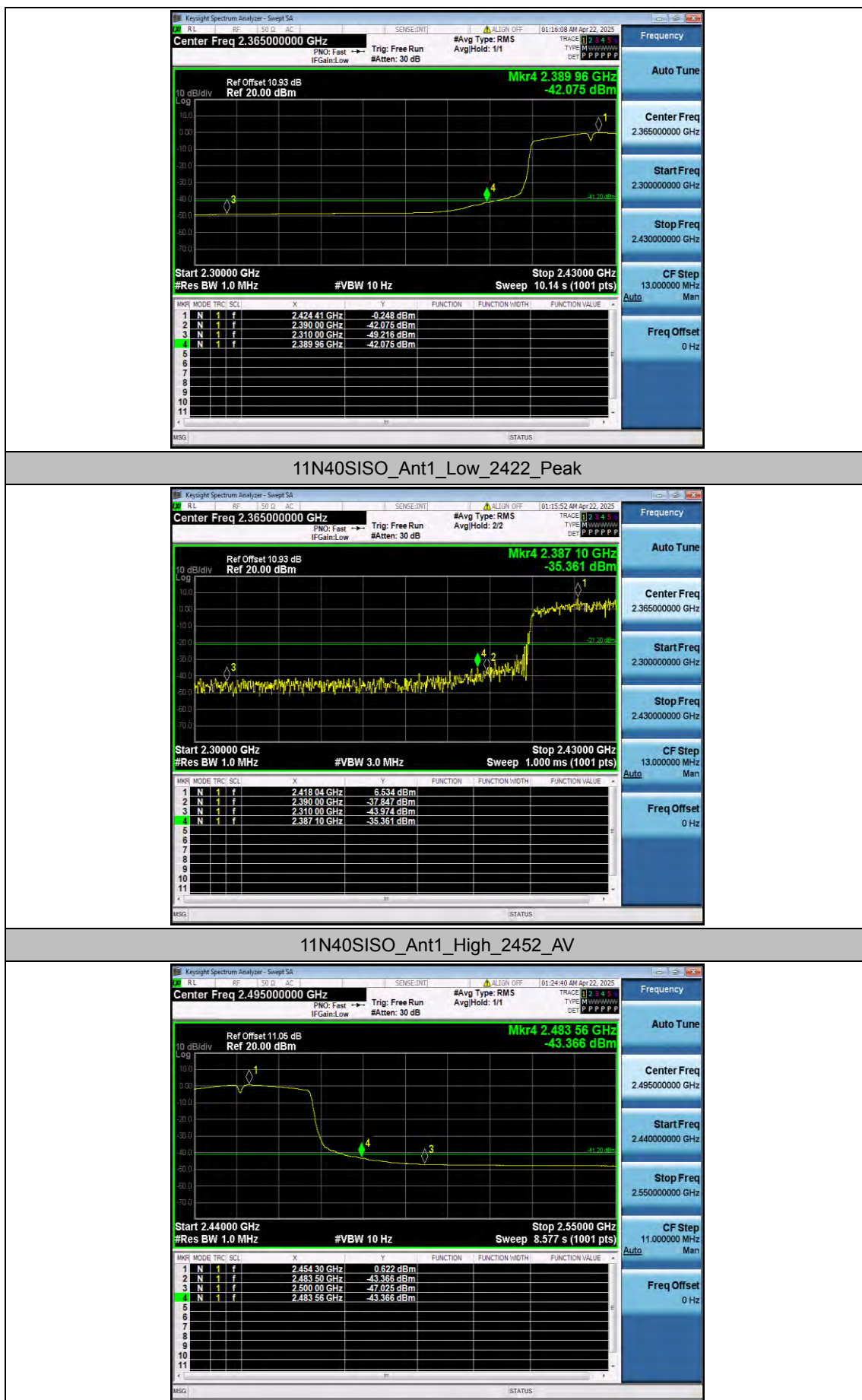
11N20SISO_Ant1_High_2462_AV



11N20SISO_Ant1_High_2462_Peak



11N40SISO_Ant1_Low_2422_AV



11N40SISO_Ant1_High_2452_Peak

