

Appendix A

RF Test Data for 2.4GWIFI (Conducted Measurement)

KTM X-BOW GT2

Test Model: KTM X-BOW GT2

Environmental Conditions	
Temperature:	24.5° C
Relative Humidity:	53.8%
ATM Pressure:	100.0 kPa
Test Engineer:	Zhang hai
Supervised by:	Fengliu Tang

A.1 DTS Bandwidth

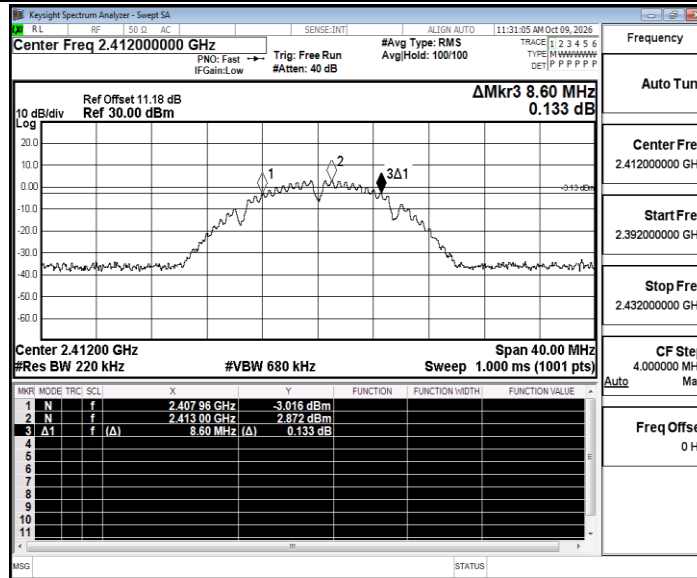
Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	8.600	2407.960	2416.560	0.5	PASS
		2437	8.120	2432.960	2441.080	0.5	PASS
		2462	8.120	2457.960	2466.080	0.5	PASS
11G	Ant1	2412	16.120	2404.080	2420.200	0.5	PASS
		2437	16.000	2428.920	2444.920	0.5	PASS
		2462	16.080	2454.040	2470.120	0.5	PASS
11N20SISO	Ant1	2412	17.360	2403.440	2420.800	0.5	PASS
		2437	17.000	2428.400	2445.400	0.5	PASS
		2462	17.120	2453.520	2470.640	0.5	PASS
11N40SISO	Ant1	2422	27.600	2411.920	2439.520	0.5	PASS
		2437	32.720	2421.720	2454.440	0.5	PASS
		2452	36.080	2433.920	2470.000	0.5	PASS
11AX20SISO	Ant1	2412	17.120	2403.680	2420.800	0.5	PASS
		2437	17.240	2428.320	2445.560	0.5	PASS
		2462	17.000	2453.640	2470.640	0.5	PASS
11AX40SISO	Ant1	2422	34.080	2406.080	2440.160	0.5	PASS
		2437	33.040	2421.560	2454.600	0.5	PASS
		2452	35.840	2434.160	2470.000	0.5	PASS

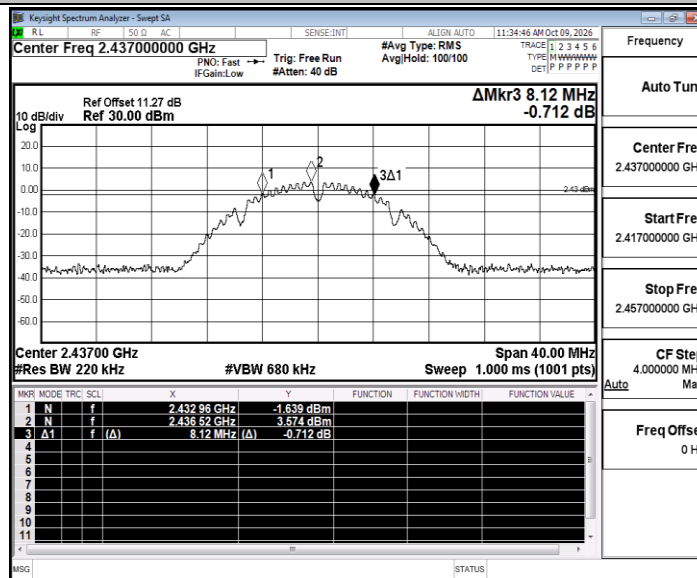
Note :offset=System attenuation +cabal loss

Test Graphs

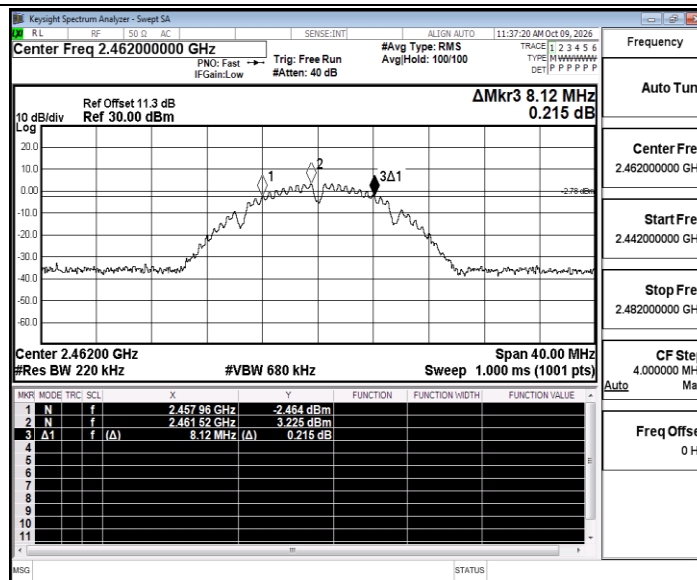
11B_Ant1_2412



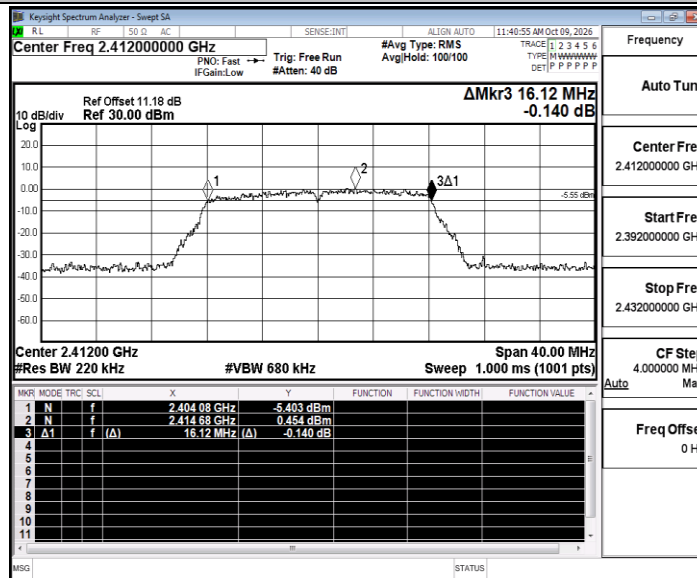
11B_Ant1_2437



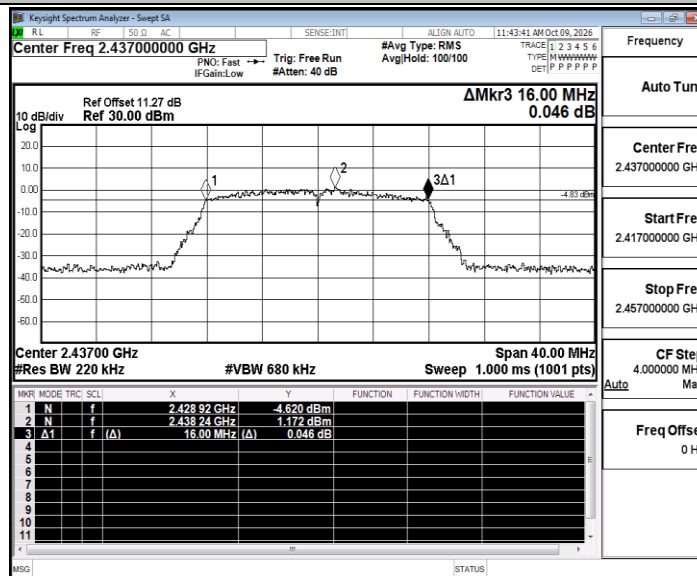
11B_Ant1_2462



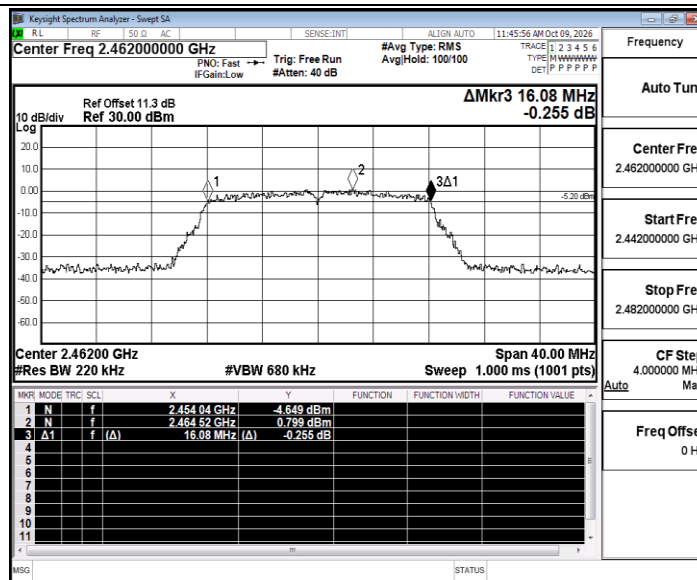
11G_Ant1_2412



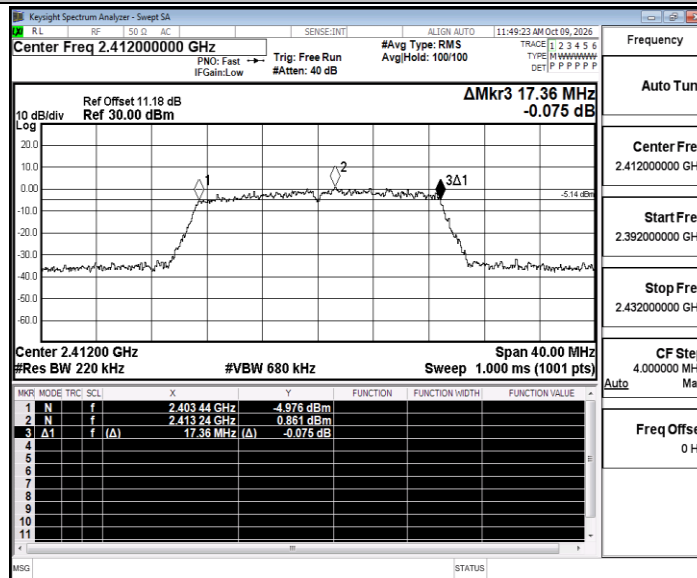
11G_Ant1_2437



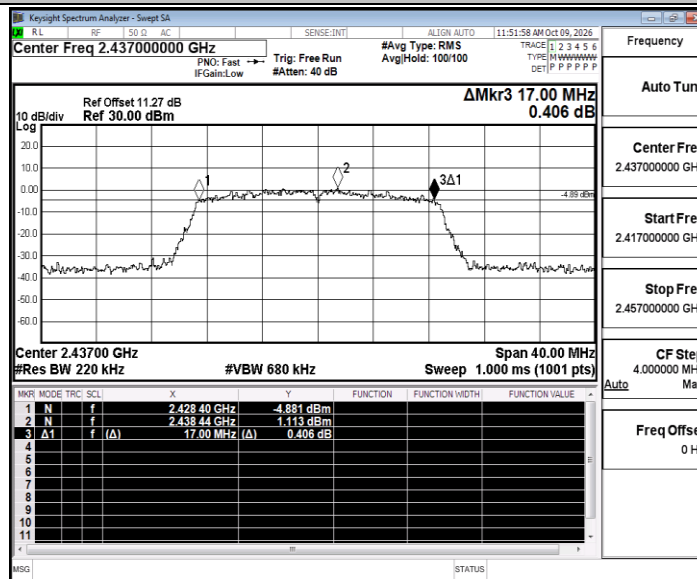
11G_Ant1_2462



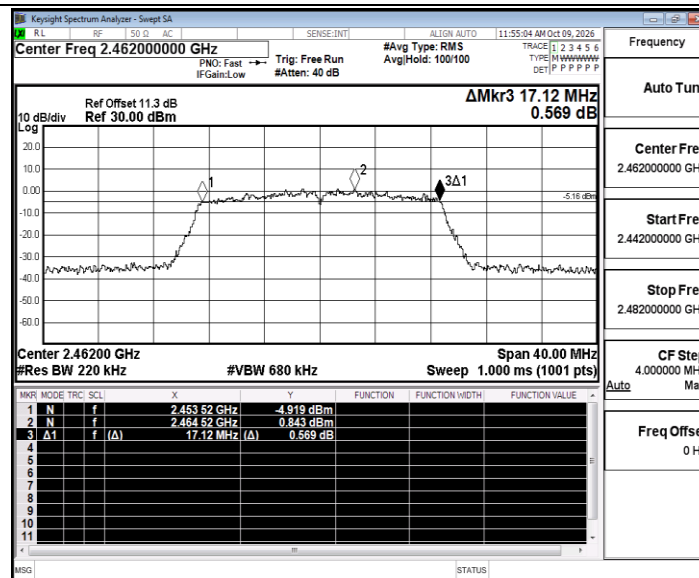
11N20SISO_Ant1_2412



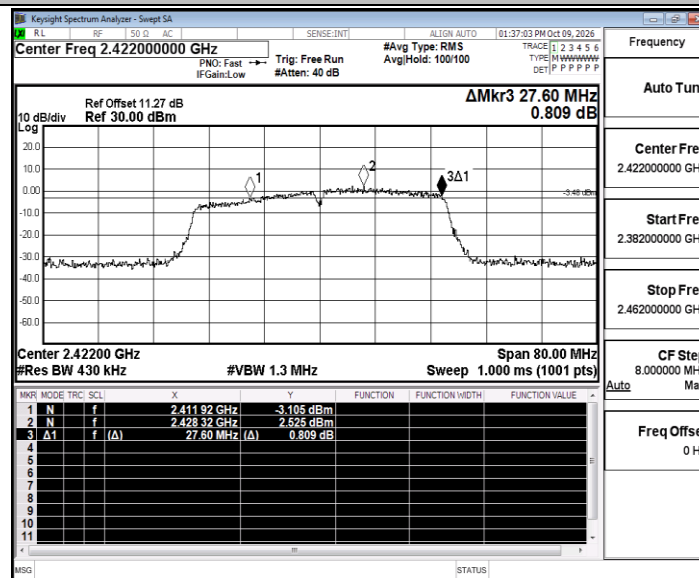
11N20SISO_Ant1_2437



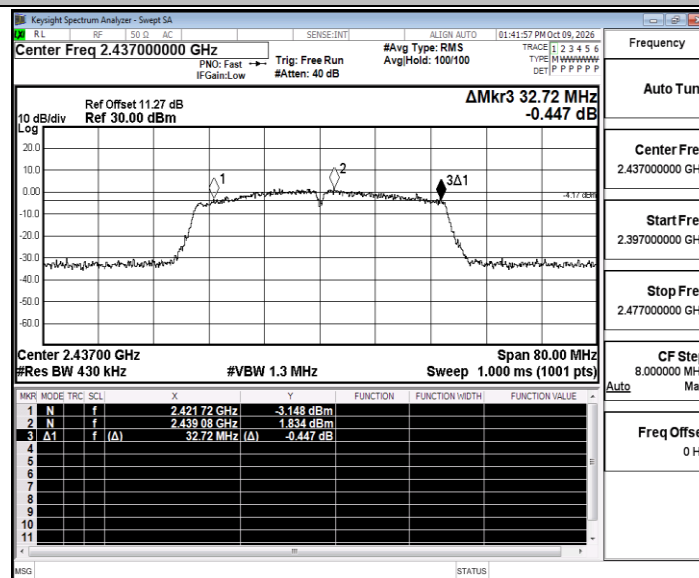
11N20SISO_Ant1_2462



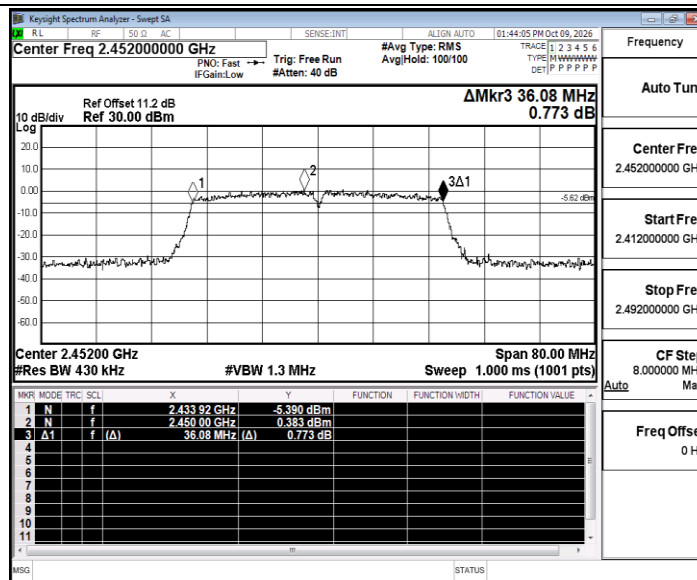
11N40SISO_Ant1_2422



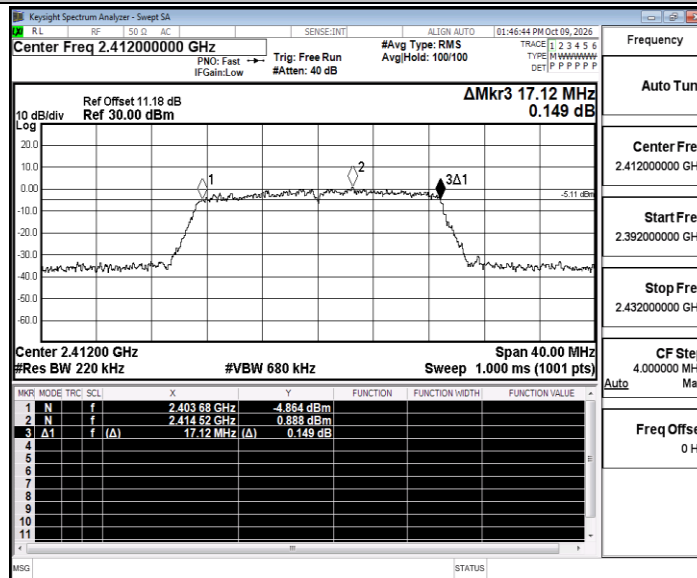
11N40SISO_Ant1_2437



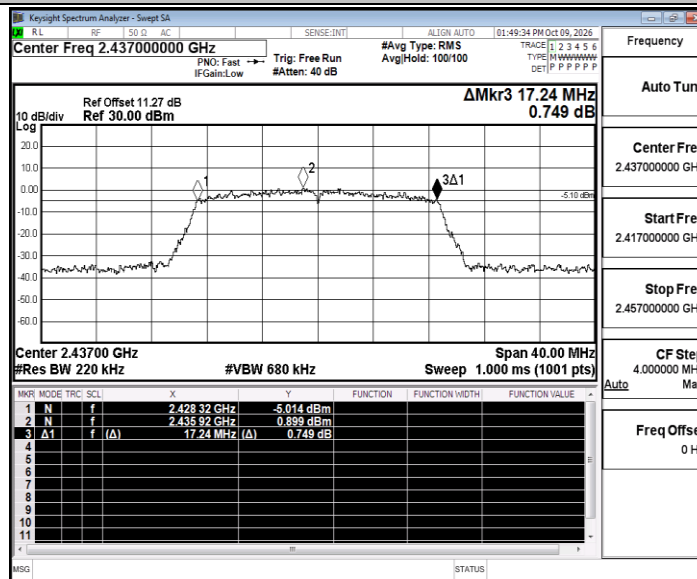
11N40SISO_Ant1_2452



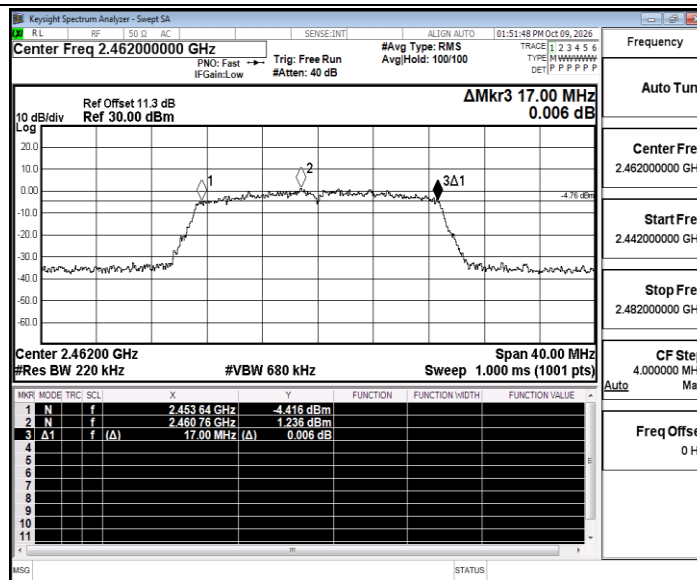
11AX20SISO_Ant1_2412



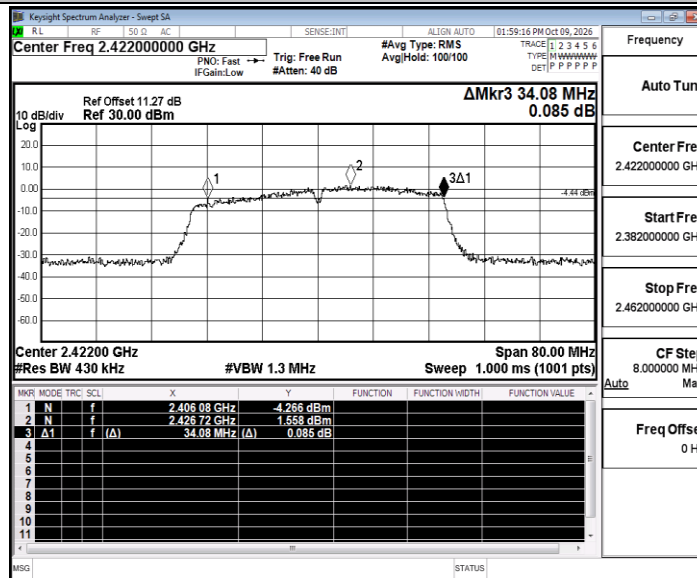
11AX20SISO_Ant1_2437



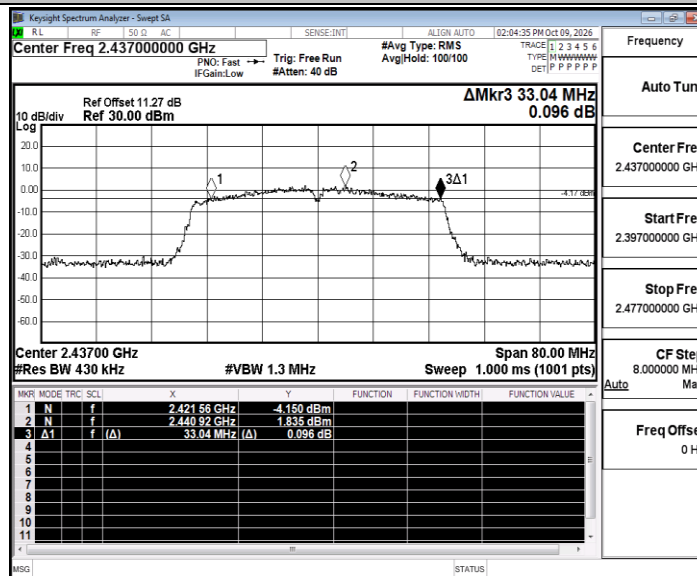
11AX20SISO_Ant1_2462



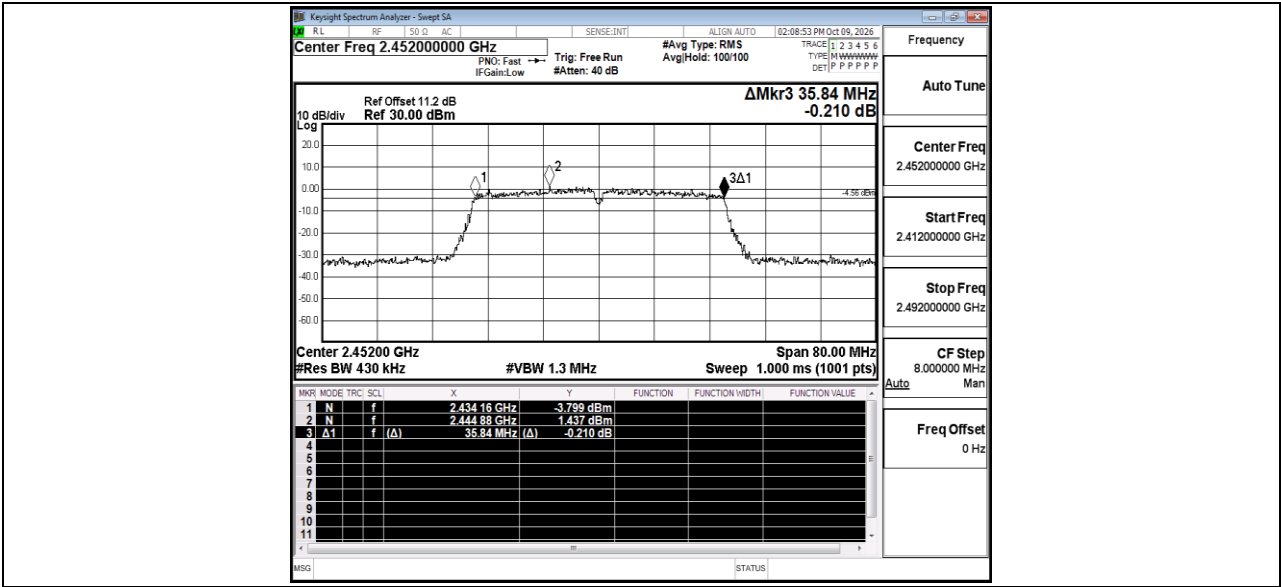
11AX40SISO_Ant1_2422



11AX40SISO_Ant1_2437



11AX40SISO_Ant1_2452



A.2 Maximum conducted output power

Test Result Average

TestMode	Antenna	Frequency [MHz]	Measured Power	DC Factor [dB]	AV Power [dBm]	Conducted Limit[dBm]	Verdict
11B	Ant1	2412	8.33	0.02	8.35	≤30.00	PASS
		2437	8.37	0.02	8.39	≤30.00	PASS
		2462	8.28	0.02	8.3	≤30.00	PASS
11G	Ant1	2412	8.24	0.12	8.36	≤30.00	PASS
		2437	8.63	0.12	8.75	≤30.00	PASS
		2462	8.34	0.12	8.46	≤30.00	PASS
11N20SISO	Ant1	2412	8.14	0.16	8.3	≤30.00	PASS
		2437	8.43	0.16	8.59	≤30.00	PASS
		2462	8.09	0.13	8.22	≤30.00	PASS
11N40SISO	Ant1	2422	8.72	0.26	8.98	≤30.00	PASS
		2437	8.83	0.26	9.09	≤30.00	PASS
		2452	8.65	0.26	8.91	≤30.00	PASS
11AX20SISO	Ant1	2412	8.41	0.13	8.54	≤30.00	PASS
		2437	8.72	0.16	8.88	≤30.00	PASS
		2462	8.42	0.13	8.55	≤30.00	PASS
11AX40SISO	Ant1	2422	8.72	0.32	9.04	≤30.00	PASS
		2437	8.82	0.32	9.14	≤30.00	PASS
		2452	8.66	0.32	8.98	≤30.00	PASS

Note :offset=System attenuation +cabal loss

A.3 Maximum power spectral density

Test Result

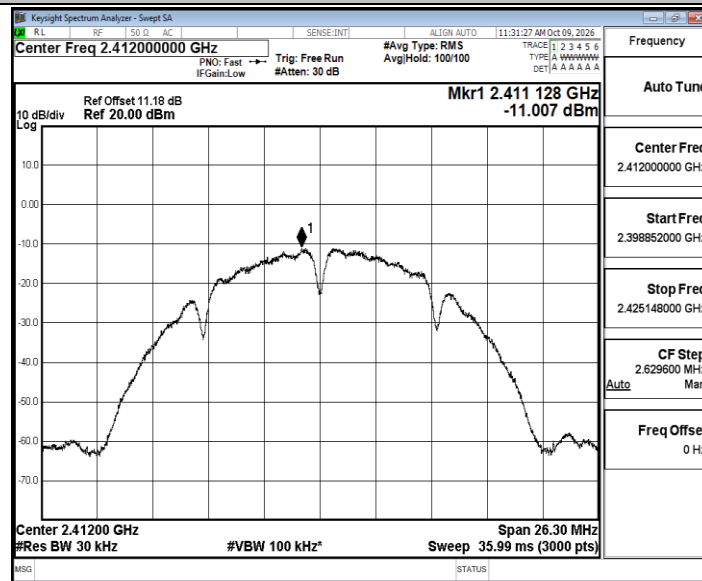
TestMode	Antenna	Frequency [MHz]	Measured PSD [dBm/30kHz]	DC Factor [dB]	Result [dBm/30 kHz]	Result [dBm/3k Hz]	Limit [dBm/3k Hz]	Verdict
11B	Ant1	2412	-11.01	0.02	-10.99	-20.99	≤8.00	PASS
		2437	-10.49	0.02	-10.47	-20.47	≤8.00	PASS
		2462	-10.23	0.02	-10.21	-20.21	≤8.00	PASS
11G	Ant1	2412	-13.76	0.12	-13.64	-23.64	≤8.00	PASS
		2437	-13.29	0.12	-13.17	-23.17	≤8.00	PASS
		2462	-13.26	0.12	-13.14	-23.14	≤8.00	PASS
11N20SISO	Ant1	2412	-13.99	0.16	-13.83	-23.83	≤8.00	PASS
		2437	-13.55	0.16	-13.39	-23.39	≤8.00	PASS
		2462	-13.49	0.13	-13.36	-23.36	≤8.00	PASS
11N40SISO	Ant1	2422	-15.46	0.26	-15.2	-25.2	≤8.00	PASS
		2437	-15.11	0.26	-14.85	-24.85	≤8.00	PASS
		2452	-16.73	0.26	-16.47	-26.47	≤8.00	PASS
11AX20SISO	Ant1	2412	-13.76	0.13	-13.63	-23.63	≤8.00	PASS
		2437	-13.25	0.16	-13.09	-23.09	≤8.00	PASS
		2462	-13.33	0.13	-13.2	-23.2	≤8.00	PASS
11AX40SISO	Ant1	2422	-15.67	0.32	-15.35	-25.35	≤8.00	PASS
		2437	-15.6	0.32	-15.28	-25.28	≤8.00	PASS
		2452	-16.69	0.32	-16.37	-26.37	≤8.00	PASS

Note :offset=System attenuation +cable loss

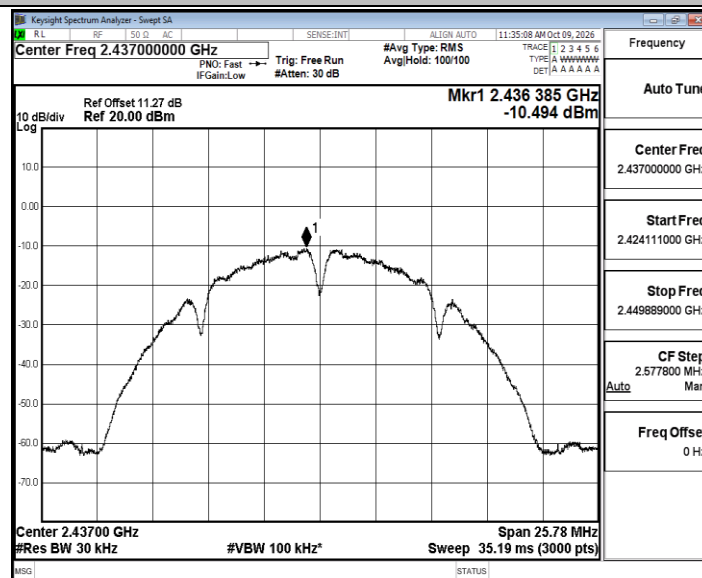
Result[dBm/3kHz]=Result[dBm/30kHz]+10*Log(3/30)

Test Graphs

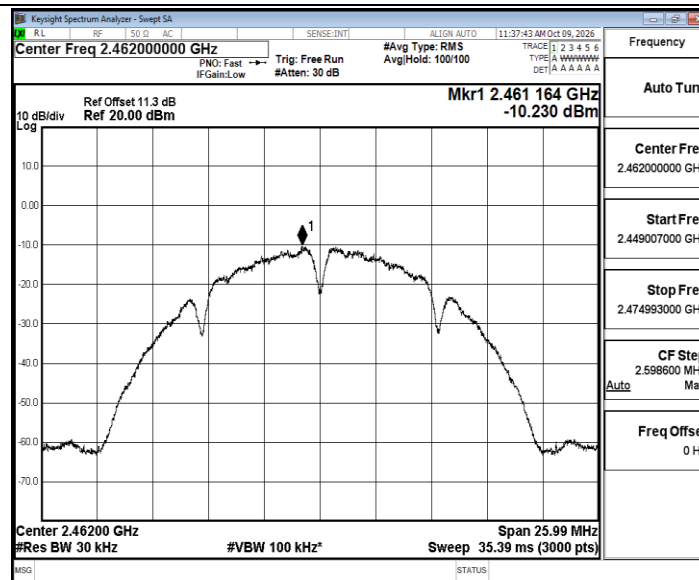
11B_Ant1_2412



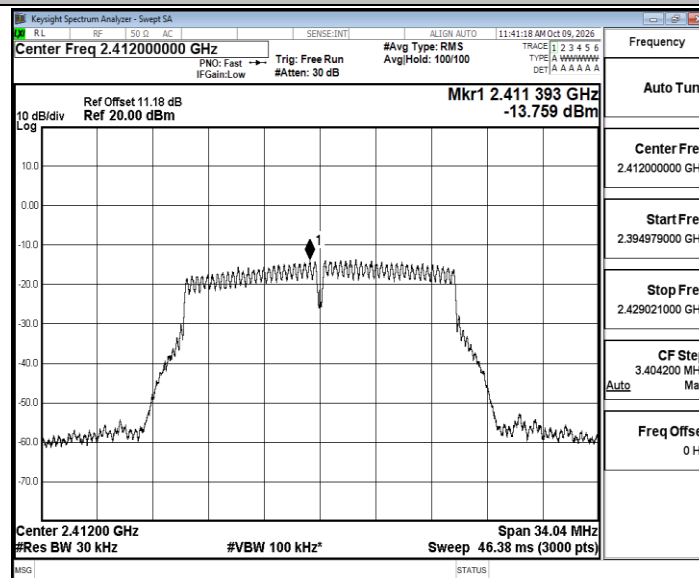
11B_Ant1_2437



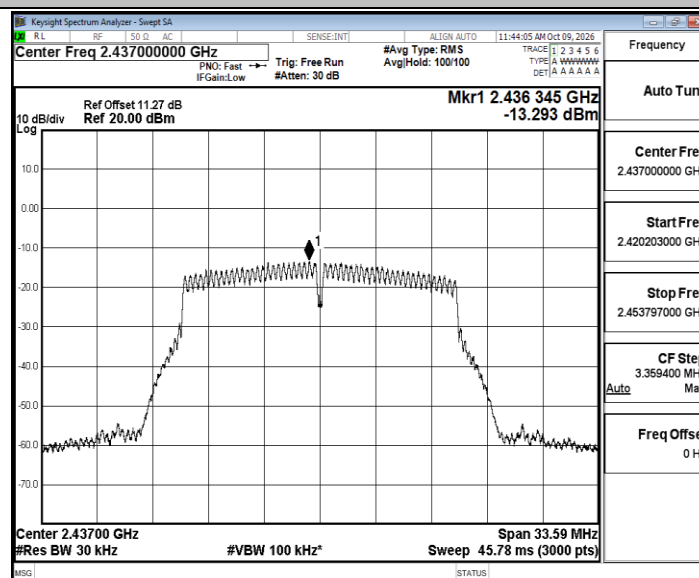
11B_Ant1_2462



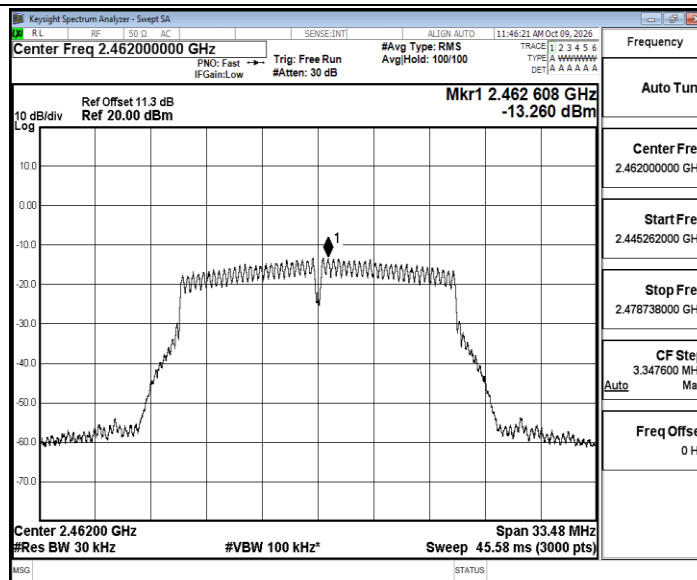
11G_Ant1_2412



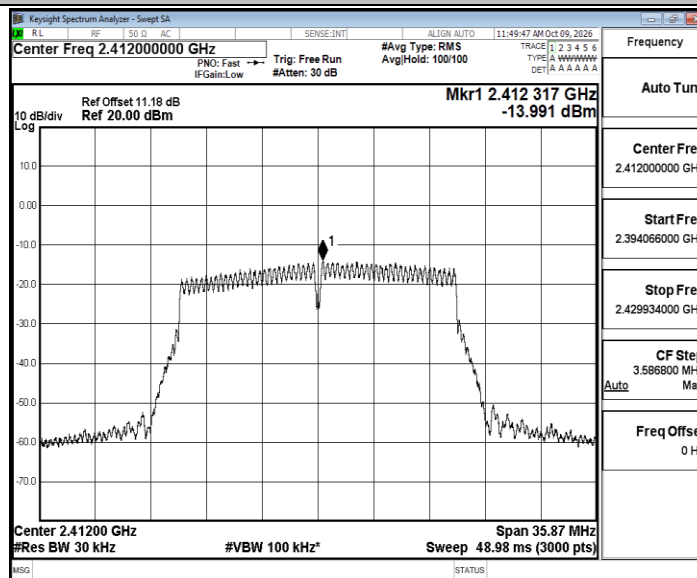
11G_Ant1_2437



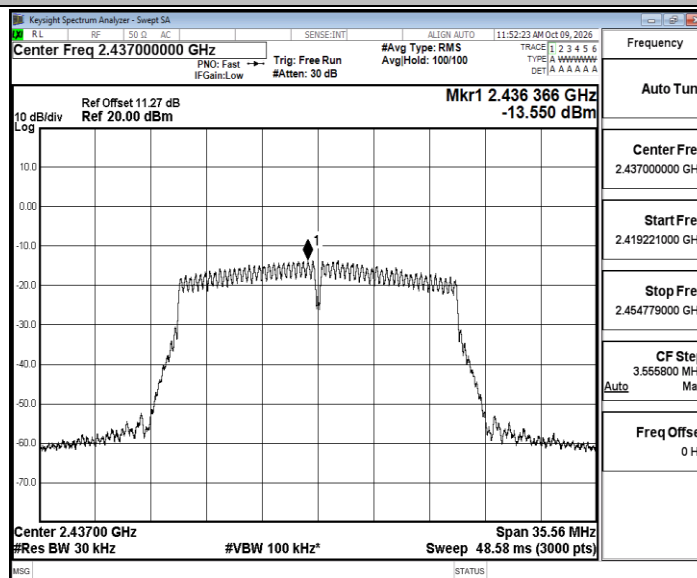
11G_Ant1_2462



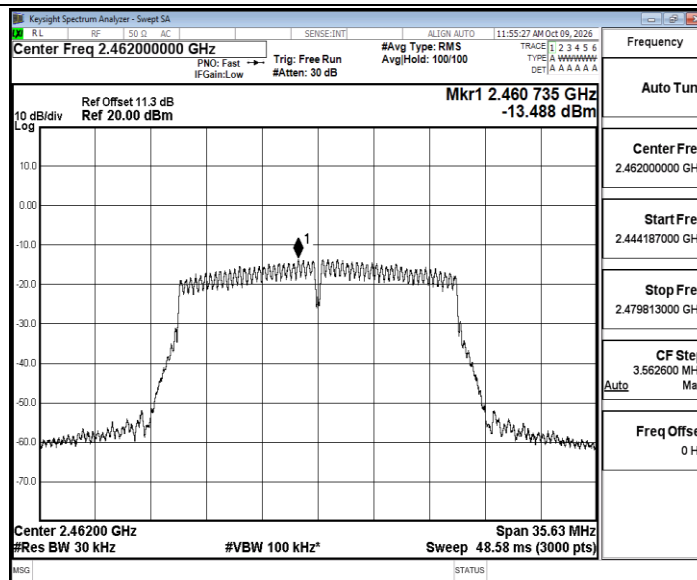
11N20SISO_Ant1_2412



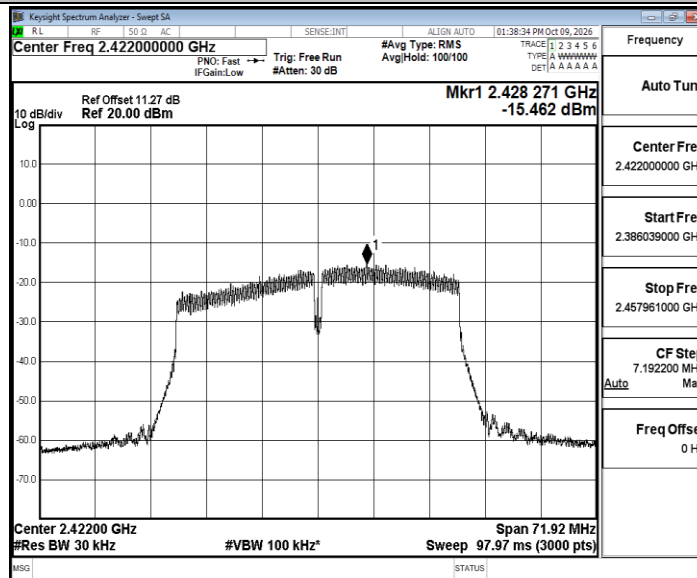
11N20SISO_Ant1_2437



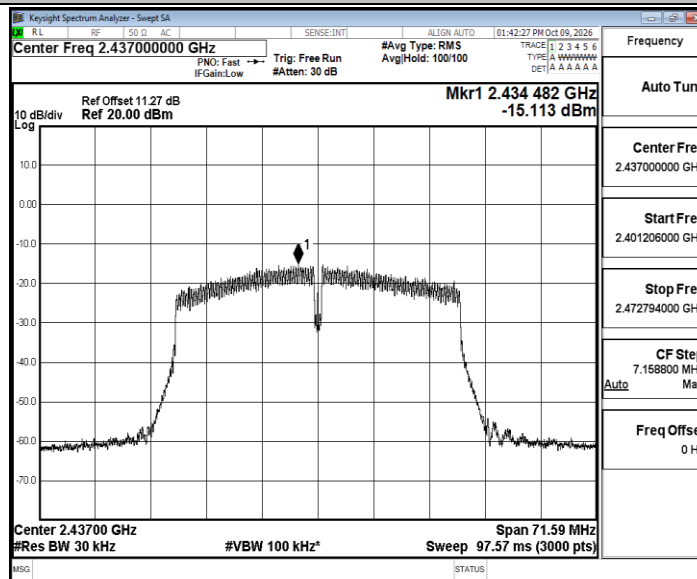
11N20SISO_Ant1_2462



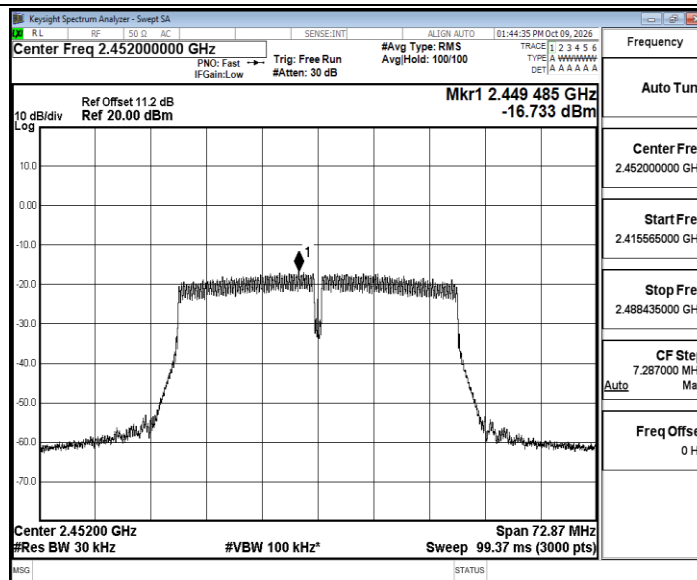
11N40SISO_Ant1_2422



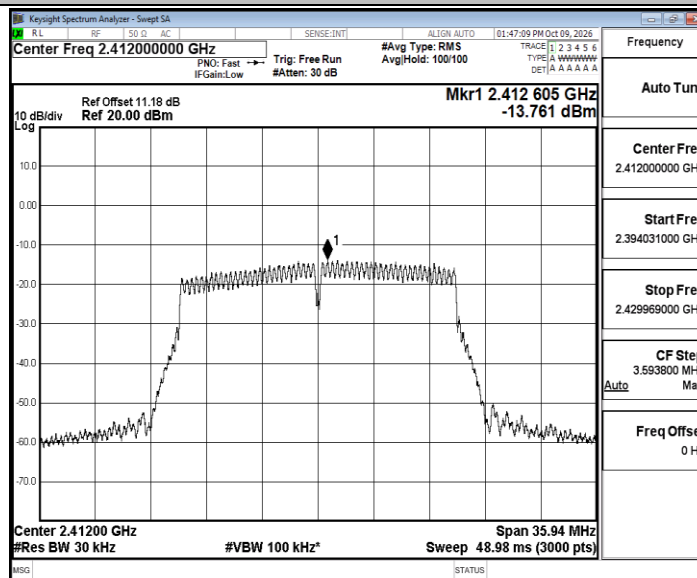
11N40SISO_Ant1_2437



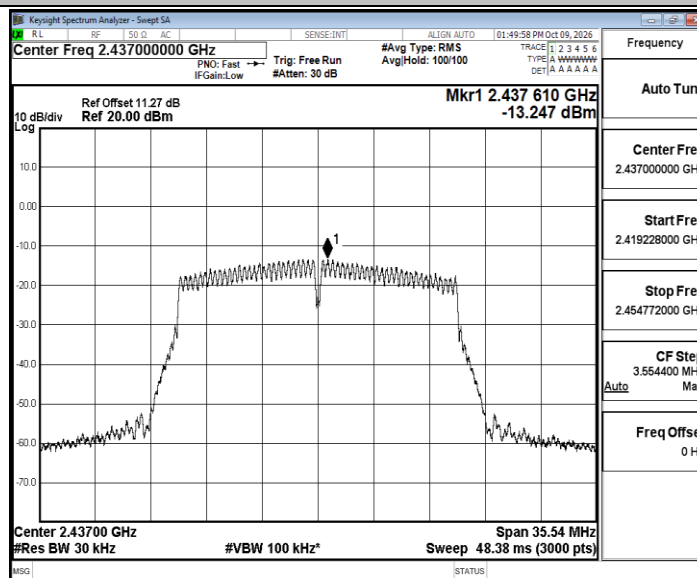
11N40SISO_Ant1_2452



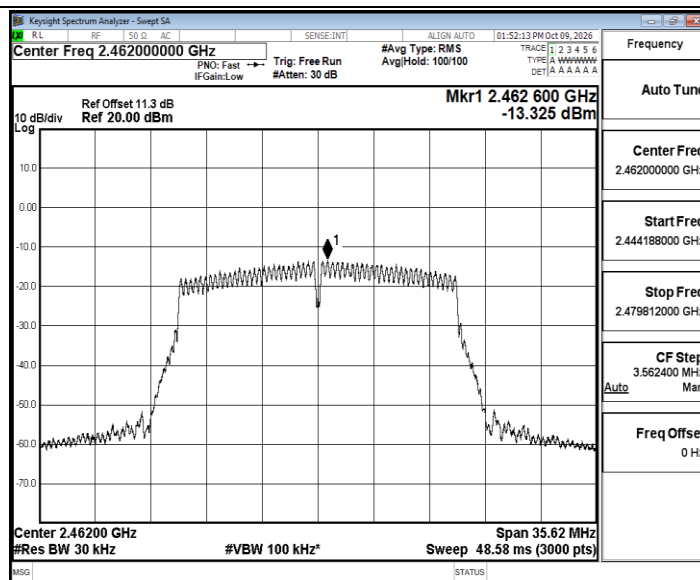
11AX20SISO_Ant1_2412



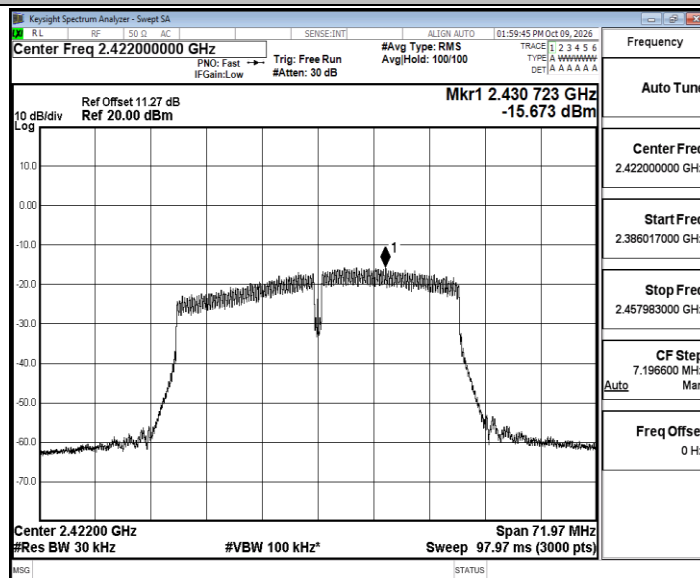
11AX20SISO_Ant1_2437



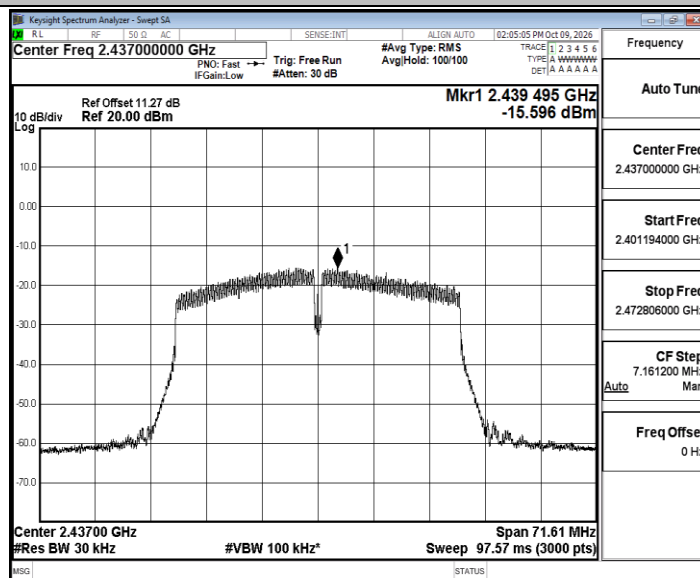
11AX20SISO_Ant1_2462



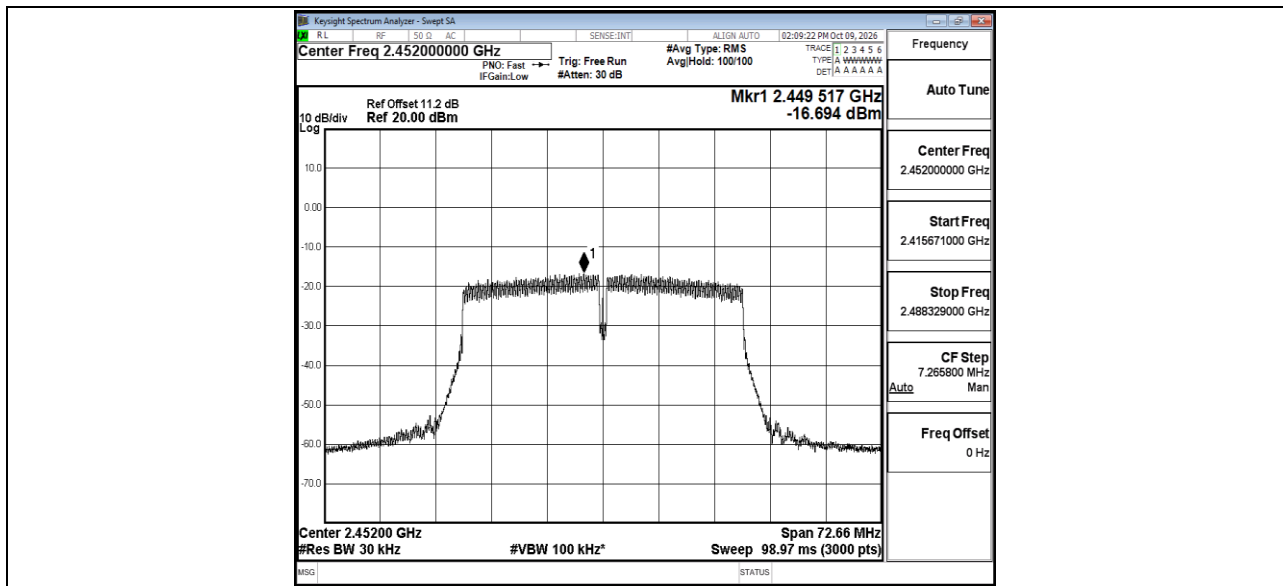
11AX40SISO_Ant1_2422



11AX40SISO_Ant1_2437



11AX40SISO_Ant1_2452



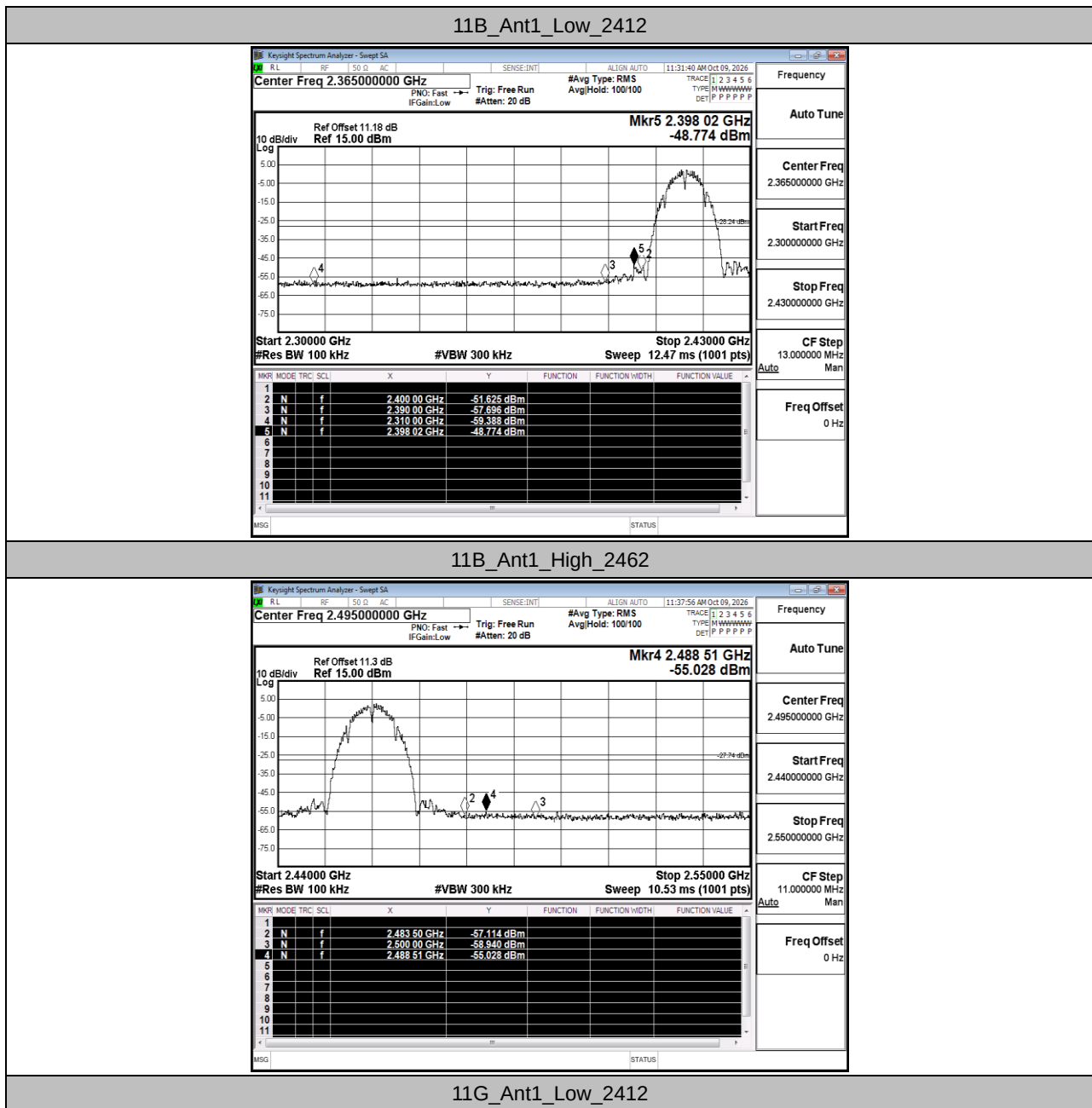
A.4 Band edge measurements

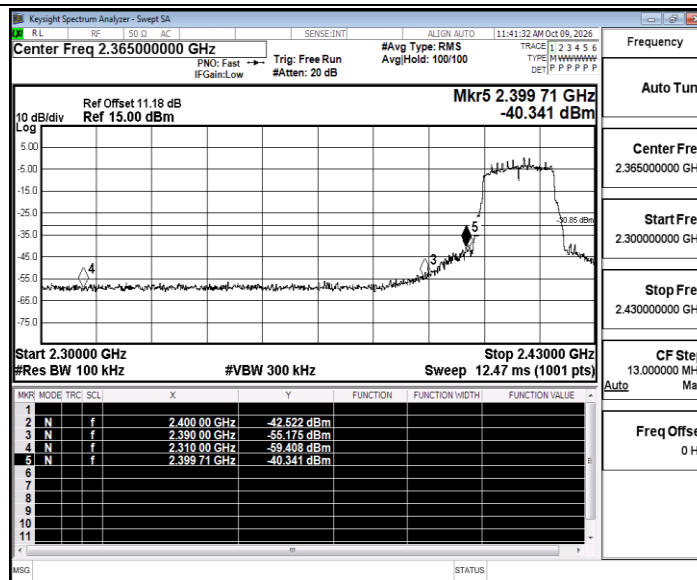
Test Result

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	1.76	-48.77	≤ -28.24	PASS
		High	2462	2.26	-55.03	≤ -27.74	PASS
11G	Ant1	Low	2412	-0.85	-40.34	≤ -30.85	PASS
		High	2462	0.61	-53.11	≤ -29.39	PASS
11N20SISO	Ant1	Low	2412	-0.35	-39.95	≤ -30.35	PASS
		High	2462	0.62	-52.8	≤ -29.38	PASS
11N40SISO	Ant1	Low	2422	-1.57	-44.37	≤ -31.57	PASS
		High	2452	-3.04	-42.68	≤ -33.04	PASS
11AX20SISO	Ant1	Low	2412	-0.24	-40.43	≤ -30.24	PASS
		High	2462	0.03	-51.57	≤ -29.97	PASS
11AX40SISO	Ant1	Low	2422	-1.40	-43.45	≤ -31.4	PASS
		High	2452	-2.48	-45.95	≤ -32.48	PASS

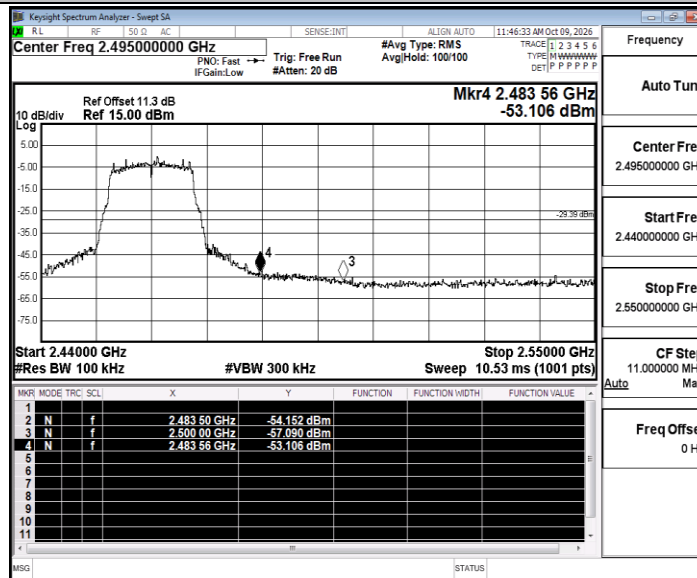
Note :offset=System attenuation +cable loss

Test Graphs

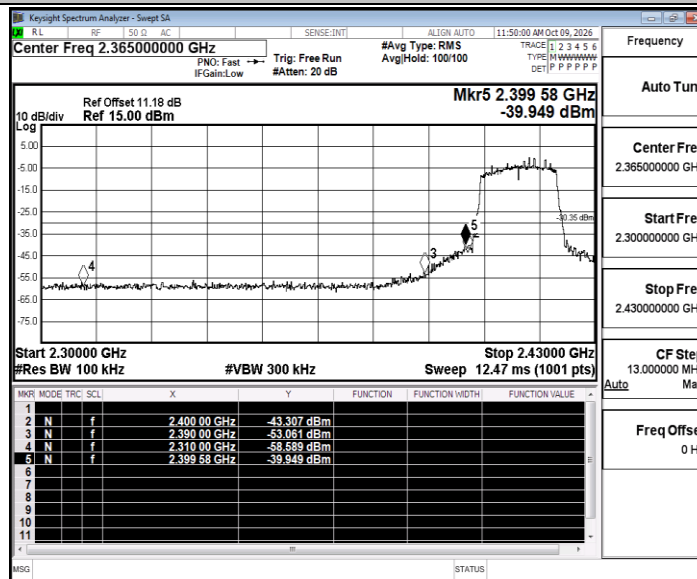




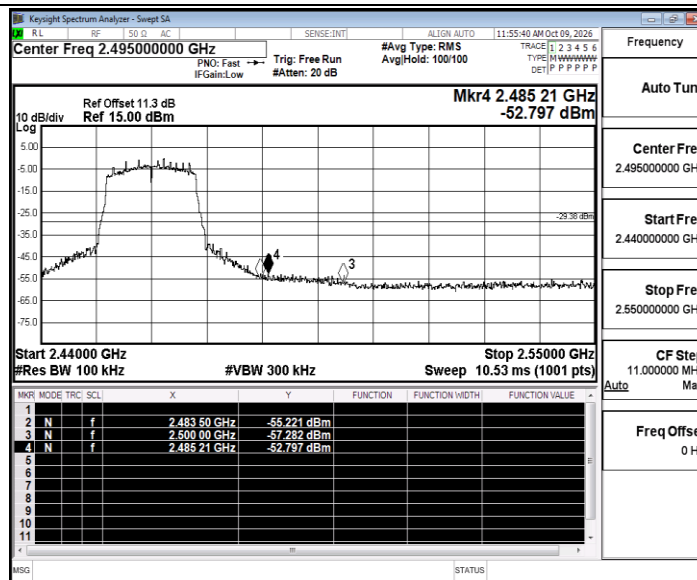
11G_Ant1_High_2462



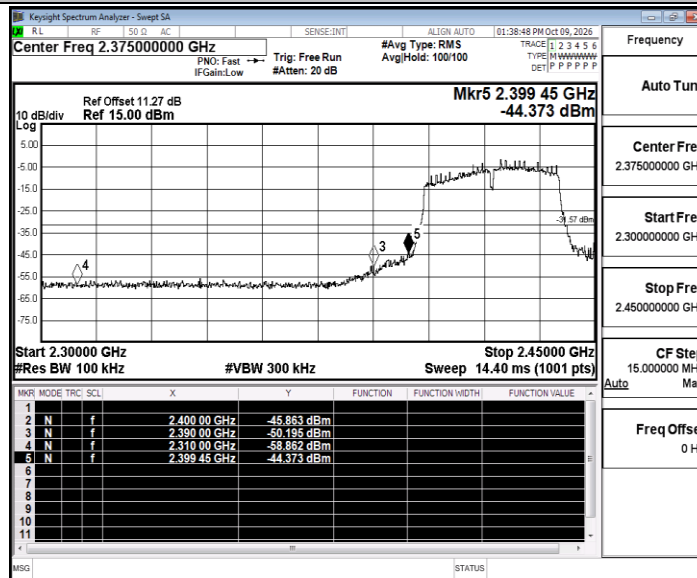
11N20SISO_Ant1_Low_2412



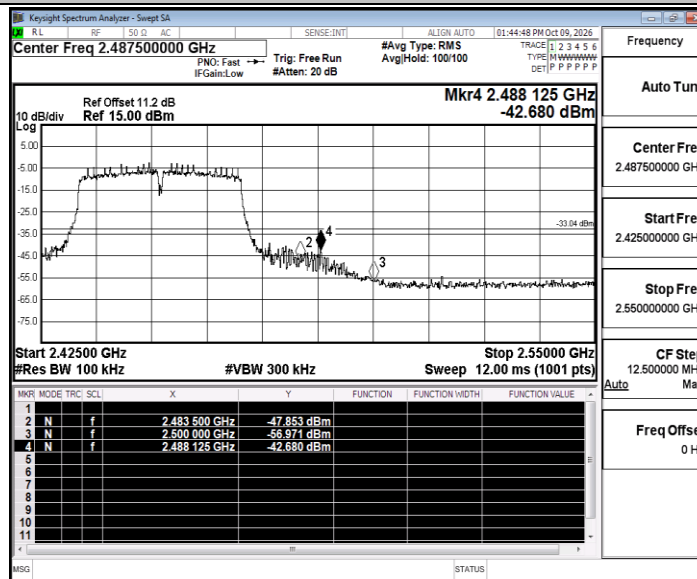
11N20SISO_Ant1_High_2462



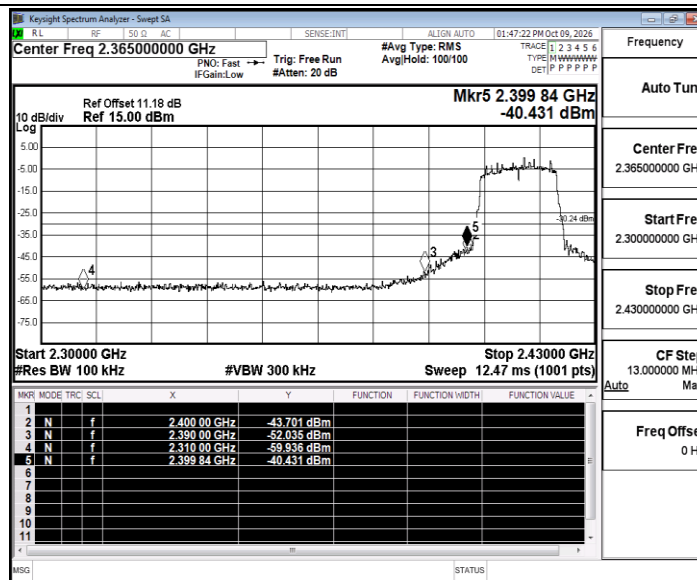
11N40SISO_Ant1_Low_2422



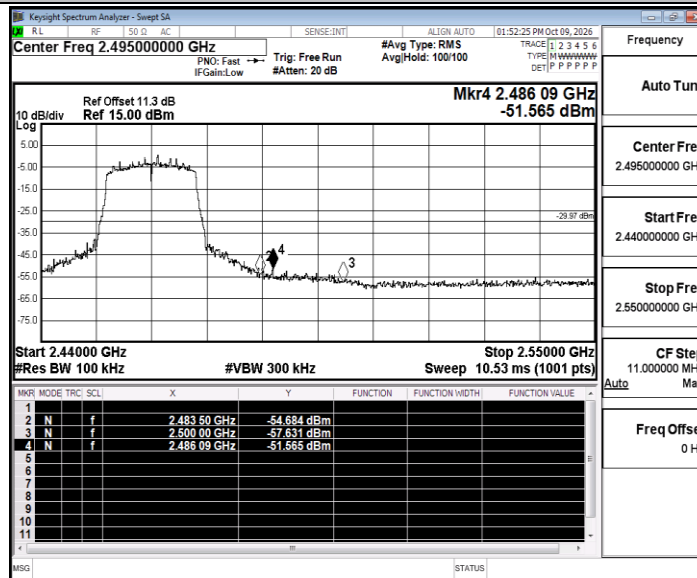
11N40SISO_Ant1_High_2452



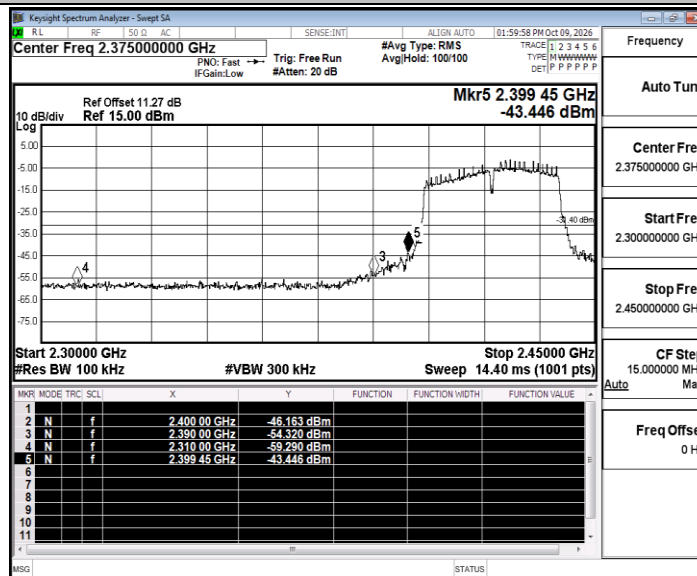
11AX20SISO_Ant1_Low_2412



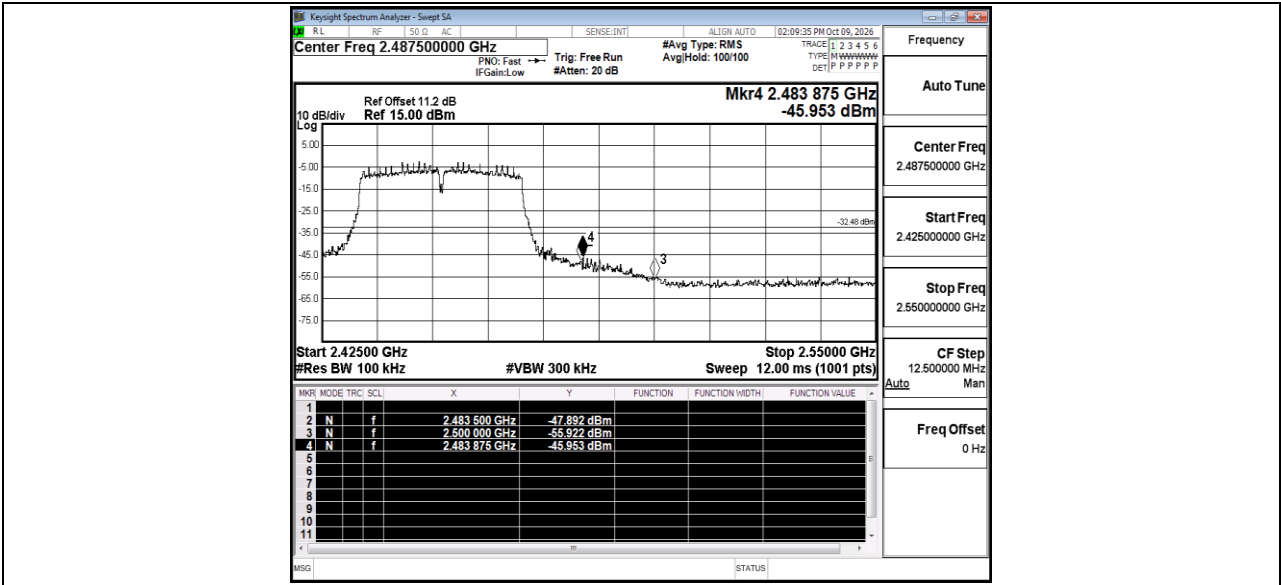
11AX20SISO_Ant1_High_2462



11AX40SISO_Ant1_Low_2422



11AX40SISO_Ant1_High_2452



A.5 Conducted Spurious Emission

Test Result

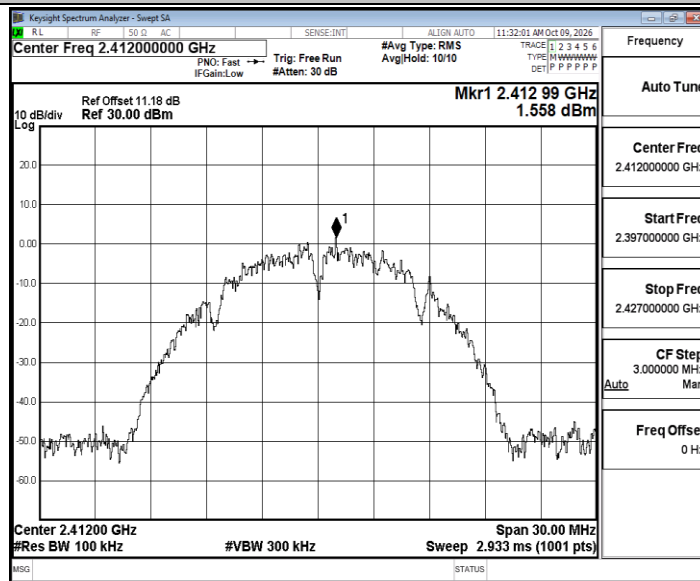
TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	1.56	1.56	---	PASS
			30~1000	1.56	-69.35	≤-28.44	PASS
			1000~26500	1.56	-44.15	≤-28.44	PASS
		2437	Reference	2.48	2.48	---	PASS
			30~1000	2.48	-69.19	≤-27.52	PASS
			1000~26500	2.48	-44.63	≤-27.52	PASS
		2462	Reference	0.79	0.79	---	PASS
			30~1000	0.79	-69.78	≤-29.21	PASS
			1000~26500	0.79	-44.76	≤-29.21	PASS
11G	Ant1	2412	Reference	-4.00	-4.00	---	PASS
			30~1000	-4.00	-69.6	≤-34	PASS
			1000~26500	-4.00	-44.3	≤-34	PASS
		2437	Reference	-2.47	-2.47	---	PASS
			30~1000	-2.47	-69.72	≤-32.47	PASS
			1000~26500	-2.47	-44.65	≤-32.47	PASS
		2462	Reference	-3.35	-3.35	---	PASS
			30~1000	-3.35	-69.9	≤-33.35	PASS
			1000~26500	-3.35	-44.28	≤-33.35	PASS
11N20SISO	Ant1	2412	Reference	-0.22	-0.22	---	PASS
			30~1000	-0.22	-70.16	≤-30.22	PASS
			1000~26500	-0.22	-44.49	≤-30.22	PASS
		2437	Reference	-1.00	-1.00	---	PASS
			30~1000	-1.00	-69.3	≤-31	PASS
			1000~26500	-1.00	-44.6	≤-31	PASS
		2462	Reference	-1.64	-1.64	---	PASS
			30~1000	-1.64	-69.84	≤-31.64	PASS
			1000~26500	-1.64	-44.71	≤-31.64	PASS
11N40SISO	Ant1	2422	Reference	-1.34	-1.34	---	PASS
			30~1000	-1.34	-69.93	≤-31.34	PASS
			1000~26500	-1.34	-44.28	≤-31.34	PASS
		2437	Reference	-3.09	-3.09	---	PASS
			30~1000	-3.09	-69.05	≤-33.09	PASS
			1000~26500	-3.09	-44.72	≤-33.09	PASS
		2452	Reference	-3.62	-3.62	---	PASS
			30~1000	-3.62	-68.57	≤-33.62	PASS
			1000~26500	-3.62	-44.38	≤-33.62	PASS
11AX20SISO	Ant1	2412	Reference	-3.49	-3.49	---	PASS
			30~1000	-3.49	-69.89	≤-33.49	PASS

			1000~26500	-3.49	-44.37	≤-33.49	PASS
		2437	Reference	-2.35	-2.35	---	PASS
			30~1000	-2.35	-69.73	≤-32.35	PASS
			1000~26500	-2.35	-43.51	≤-32.35	PASS
		2462	Reference	-3.12	-3.12	---	PASS
			30~1000	-3.12	-69.35	≤-33.12	PASS
			1000~26500	-3.12	-44	≤-33.12	PASS
11AX40SISO	Ant1	2422	Reference	-1.97	-1.97	---	PASS
			30~1000	-1.97	-70.15	≤-31.97	PASS
			1000~26500	-1.97	-44.35	≤-31.97	PASS
		2437	Reference	-3.80	-3.80	---	PASS
			30~1000	-3.80	-70.13	≤-33.8	PASS
			1000~26500	-3.80	-44.47	≤-33.8	PASS
		2452	Reference	-2.42	-2.42	---	PASS
			30~1000	-2.42	-68.9	≤-32.42	PASS
			1000~26500	-2.42	-44.46	≤-32.42	PASS

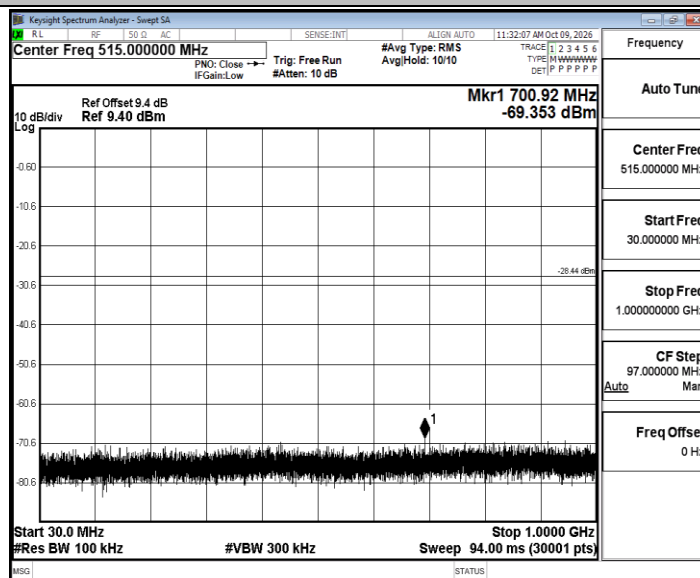
Note :Regarding the spurious emissions from 30MHz to 26.5GHz, the cable lose have been set in the CORREC' of the Spectrum Analyzer during the test.

Test Graphs

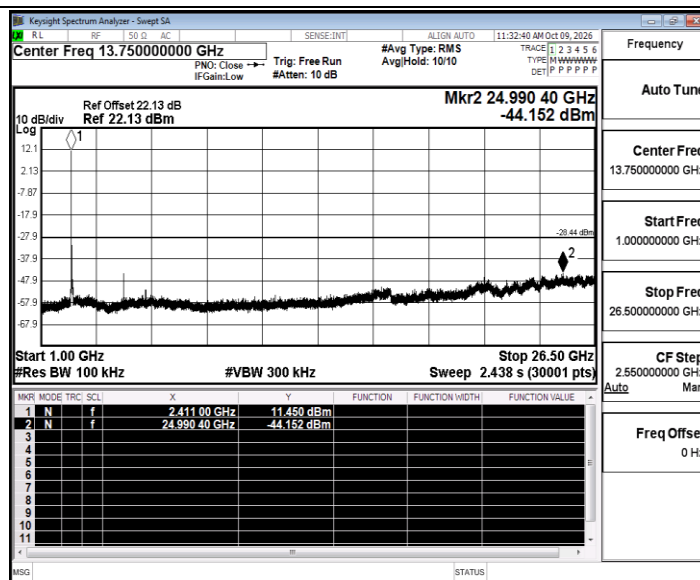
11B_Ant1_2412_0~Reference



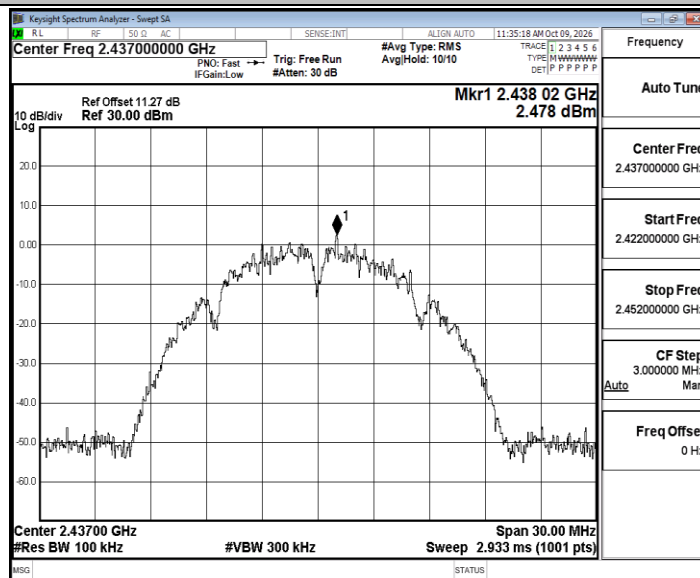
11B_Ant1_2412_30~1000



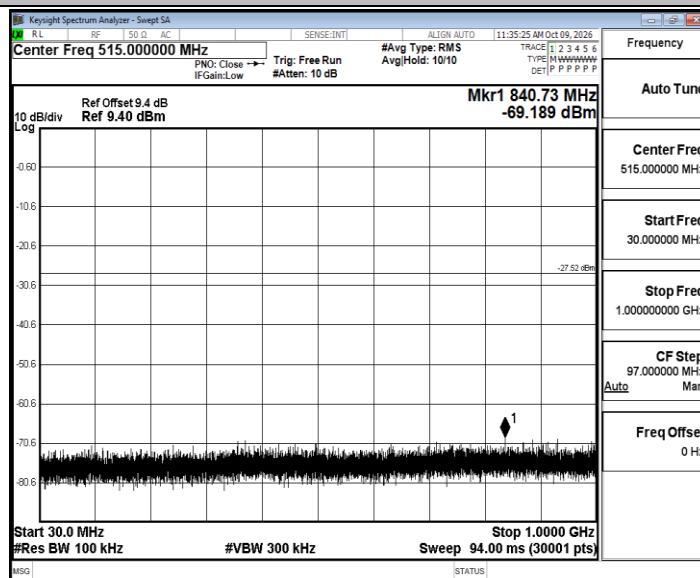
11B_Ant1_2412_1000~26500



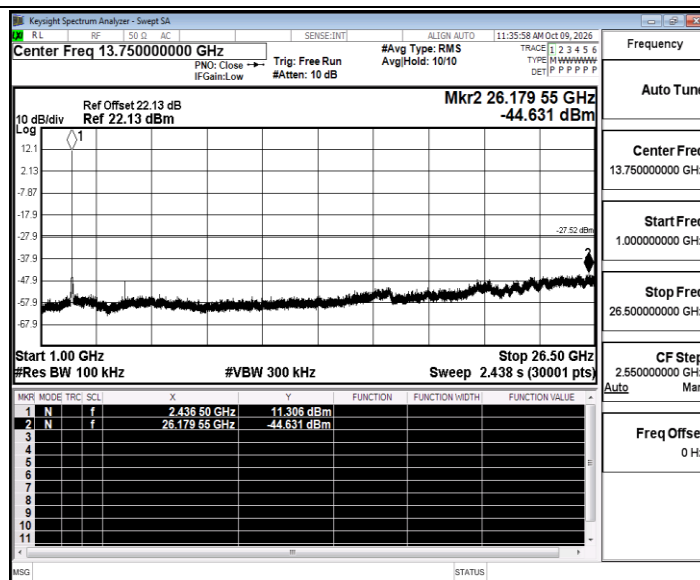
11B_Ant1_2437_0~Reference



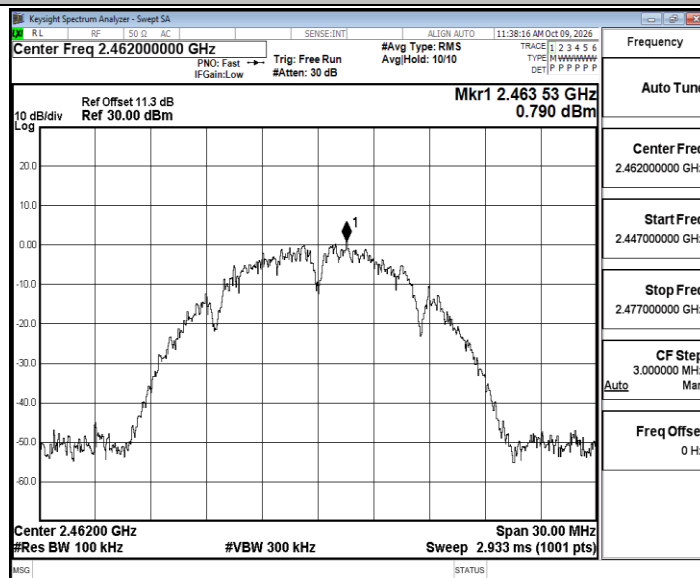
11B_Ant1_2437_30~1000



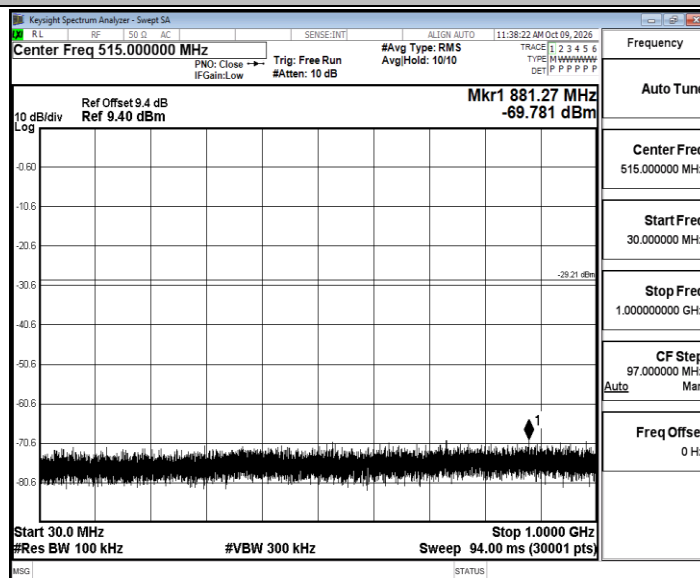
11B_Ant1_2437_1000~26500



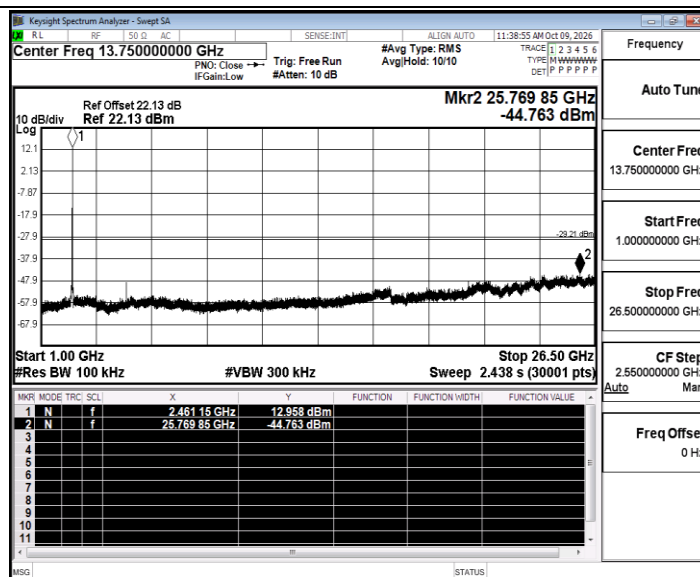
11B_Ant1_2462_0~Reference



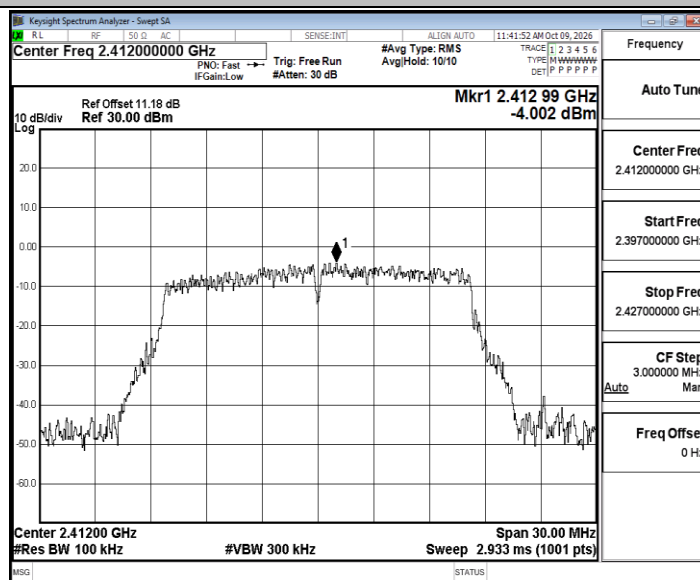
11B_Ant1_2462_30~1000



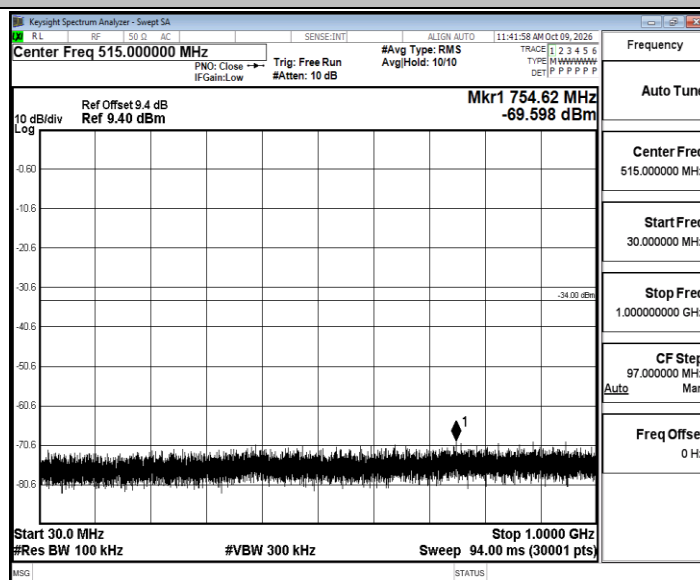
11B_Ant1_2462_1000~26500



11G_Ant1_2412_0~Reference



11G_Ant1_2412_30~1000



11G_Ant1_2412_1000~26500