



Appendix B

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: Smartphone

Trade Mark: S Smooth

Test Model: Smooth 6.26 Lite

Environmental Conditions

Temperature:	21.6° C
Relative Humidity:	52.7%
ATM Pressure:	100.0 kPa
Test Engineer:	Carl Fu
Supervised by:	Li Huan



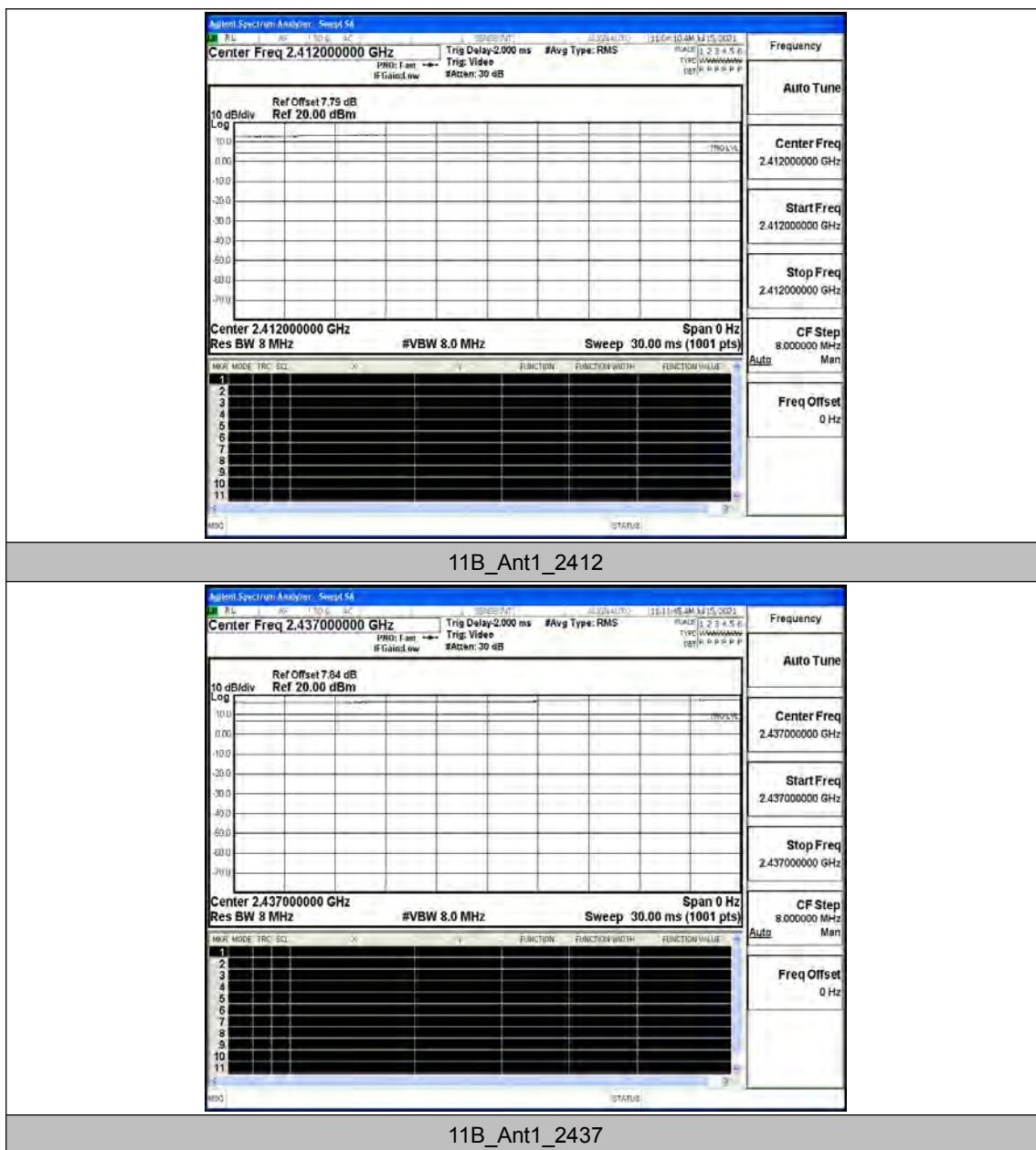
B.1 Duty Cycle

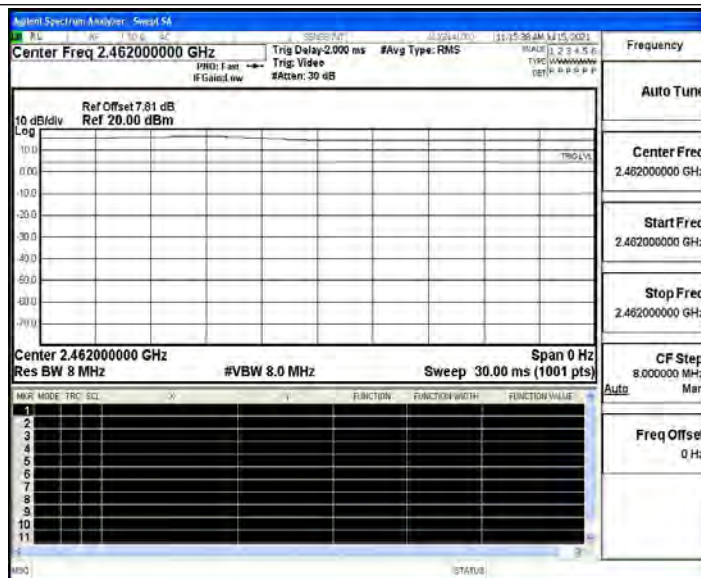
Test Result

TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Verdict
11B	Ant1	2412	30.00	30.00	100.00	PASS
		2437	30.00	30.00	100.00	PASS
		2462	30.00	30.00	100.00	PASS
11G	Ant1	2412	30.00	30.00	100.00	PASS
		2437	30.00	30.00	100.00	PASS
		2462	30.00	30.00	100.00	PASS
11N20SISO	Ant1	2412	30.00	30.00	100.00	PASS
		2437	30.00	30.00	100.00	PASS
		2462	30.00	30.00	100.00	PASS
11N40SISO	Ant1	2422	30.00	30.00	100.00	PASS
		2437	30.00	30.00	100.00	PASS
		2452	30.00	30.00	100.00	PASS

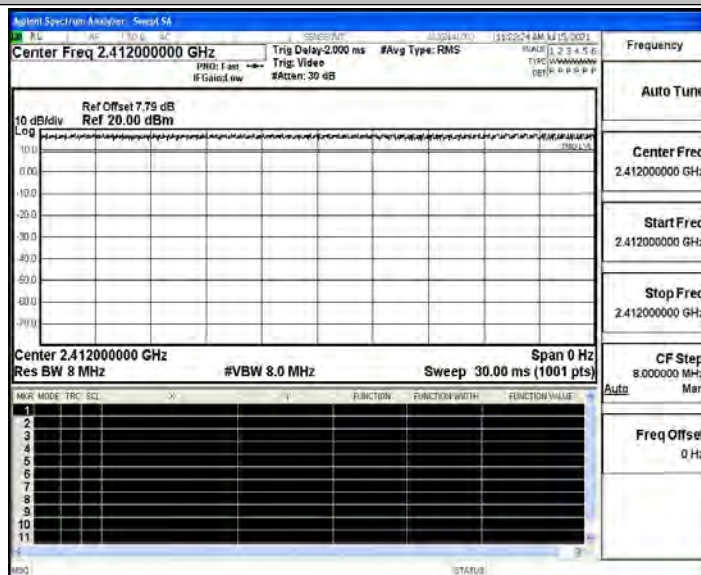


Test Graphs

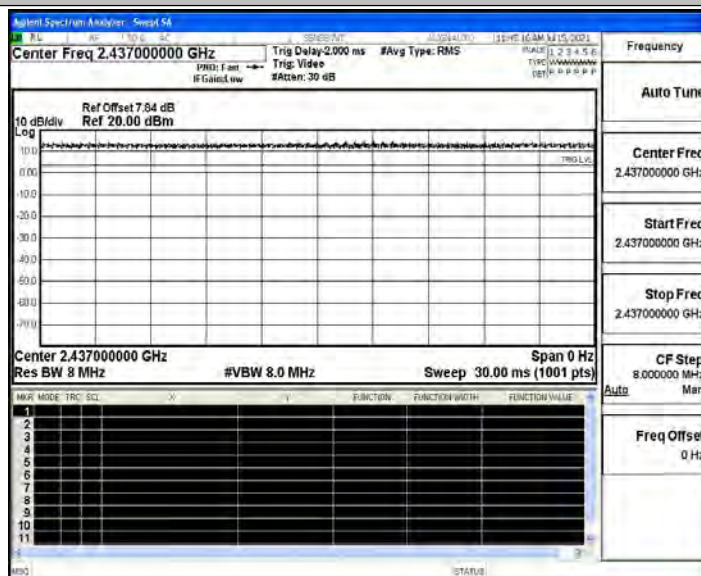




11B_Ant1_2462

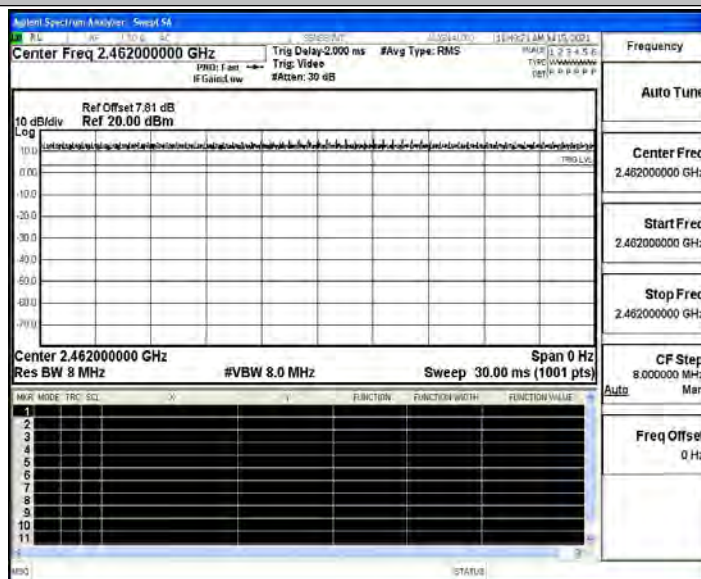


11G_Ant1_2412

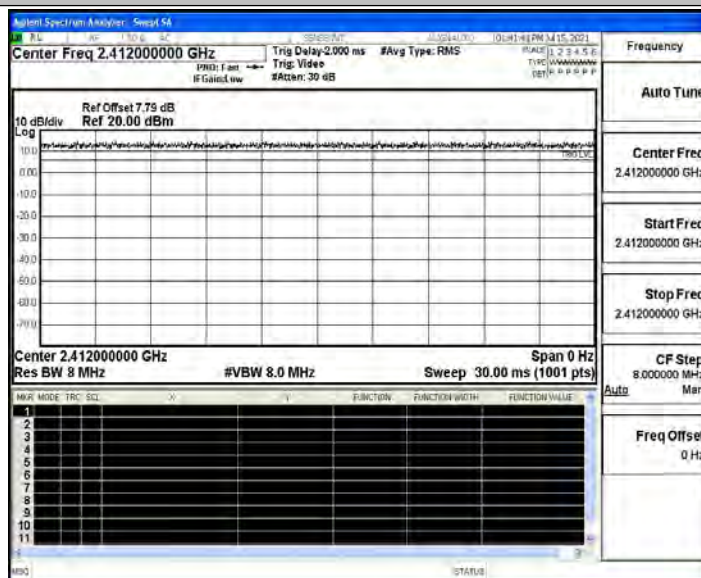




11G_Ant1_2437



11G_Ant1_2462



11N20SISO_Ant1_2412

Agilent Spectrum Analyzer - Sweep 54

Center Freq 2.422000000 GHz

Trig Delay: 2.000 ms

#Avg Type: RMS

Trig Video: 30 dB

#Sweep: 30 dB

Ref Offset 7.81 dBm

Ref 20.00 dBm

10 dB/div

Log

Center 2.422000000 GHz

Res BW 8 MHz

#VBW 8.0 MHz

Sweep 30.00 ms (1001 pts)

Span 0 Hz

CF Step 8.000000 MHz

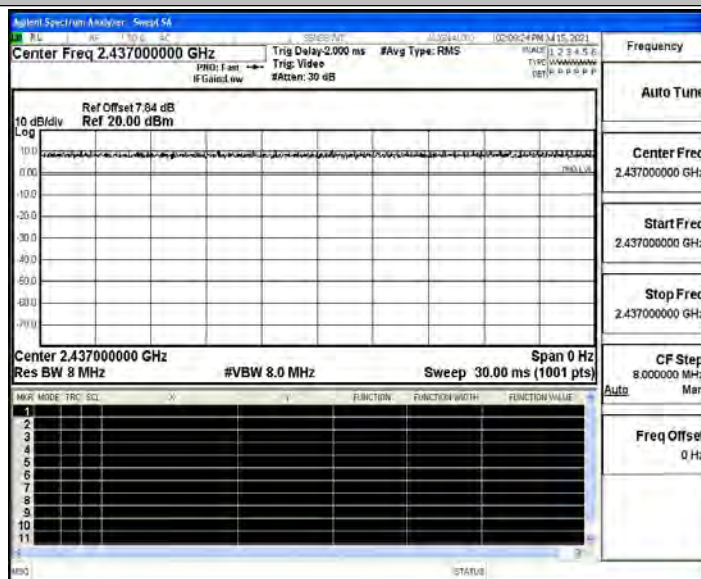
Auto

Freq Offset 0 Hz

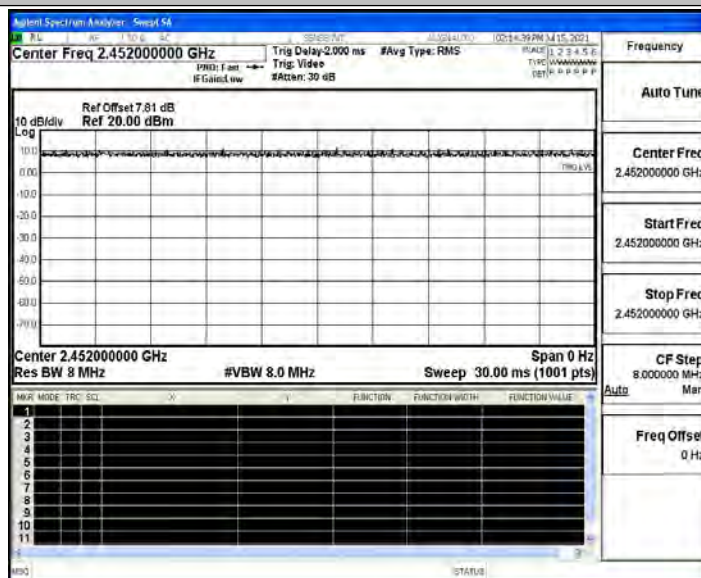
MUR	MODE	TRG	SQL	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						



11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



B.2 Maximum conducted output power

Test Result

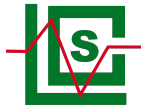
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	2412	14.61	≤30	PASS
		2437	14.67	≤30	PASS
		2462	14.18	≤30	PASS
11G	Ant1	2412	14.48	≤30	PASS
		2437	14.80	≤30	PASS
		2462	14.32	≤30	PASS
11N20SISO	Ant1	2412	14.56	≤30	PASS
		2437	14.41	≤30	PASS
		2462	13.63	≤30	PASS
11N40SISO	Ant1	2422	13.01	≤30	PASS
		2437	13.85	≤30	PASS
		2452	13.85	≤30	PASS



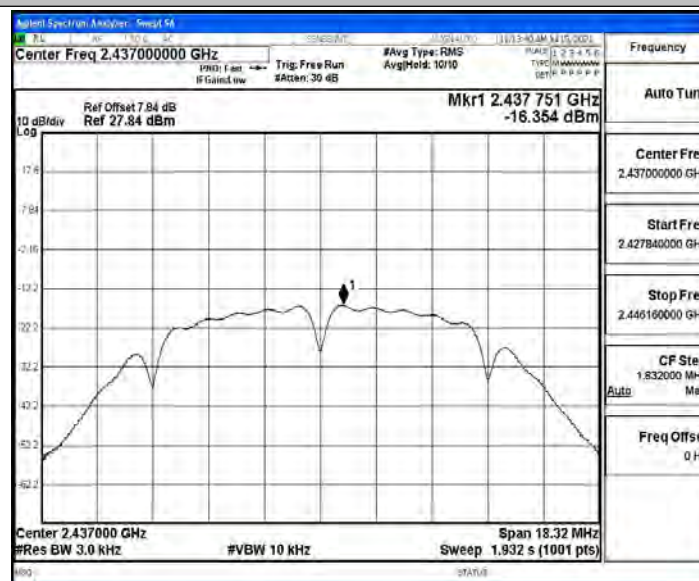
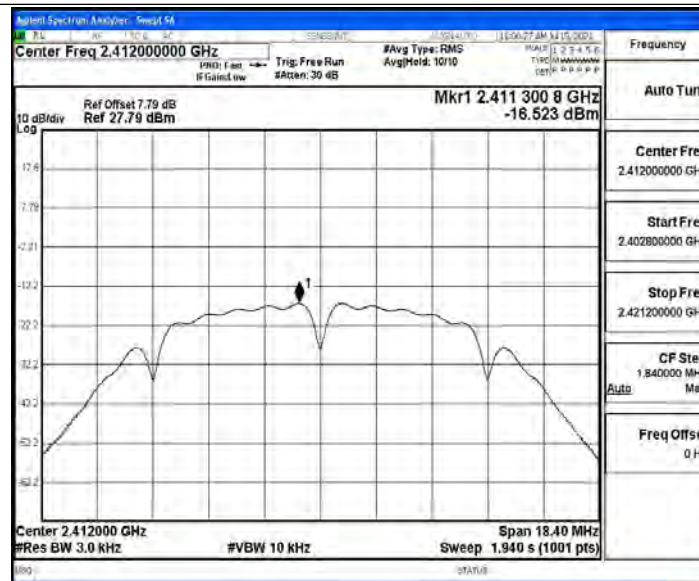
B.3 Maximum power spectral density

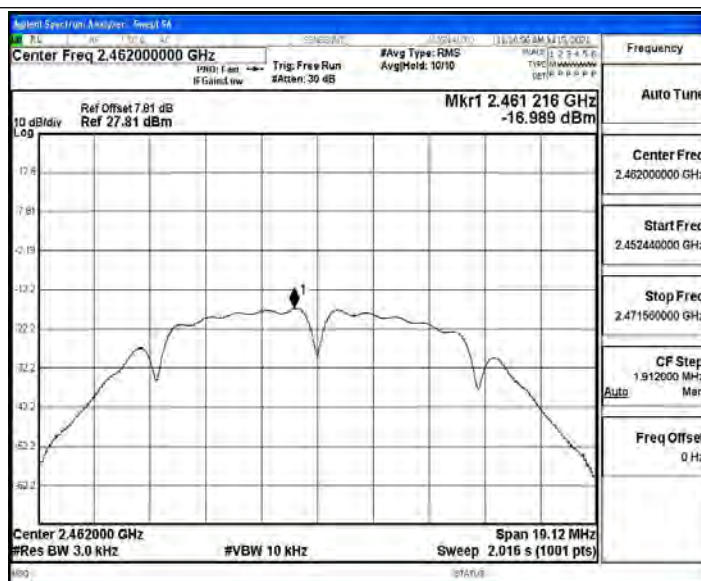
Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-16.52	≤8	PASS
		2437	-16.35	≤8	PASS
		2462	-16.99	≤8	PASS
11G	Ant1	2412	-19.59	≤8	PASS
		2437	-19.36	≤8	PASS
		2462	-19.62	≤8	PASS
11N20SISO	Ant1	2412	-19.87	≤8	PASS
		2437	-20.08	≤8	PASS
		2462	-20.76	≤8	PASS
11N40SISO	Ant1	2422	-22.81	≤8	PASS
		2437	-21.97	≤8	PASS
		2452	-21.16	≤8	PASS

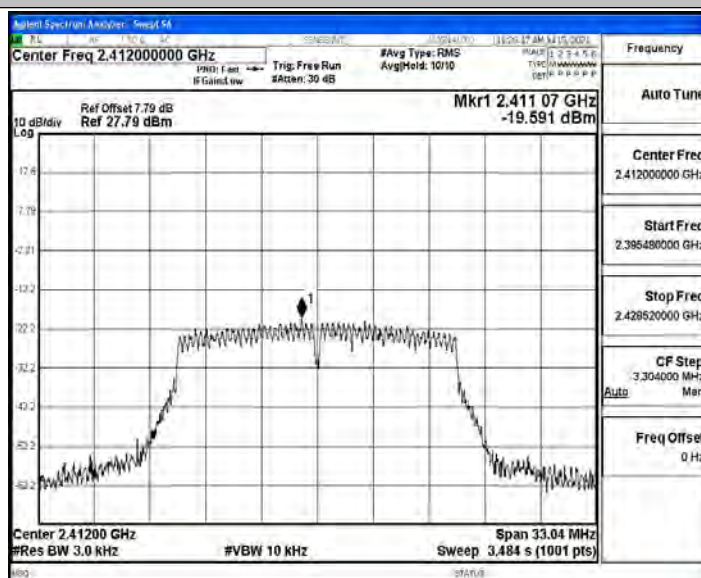


Test Graphs

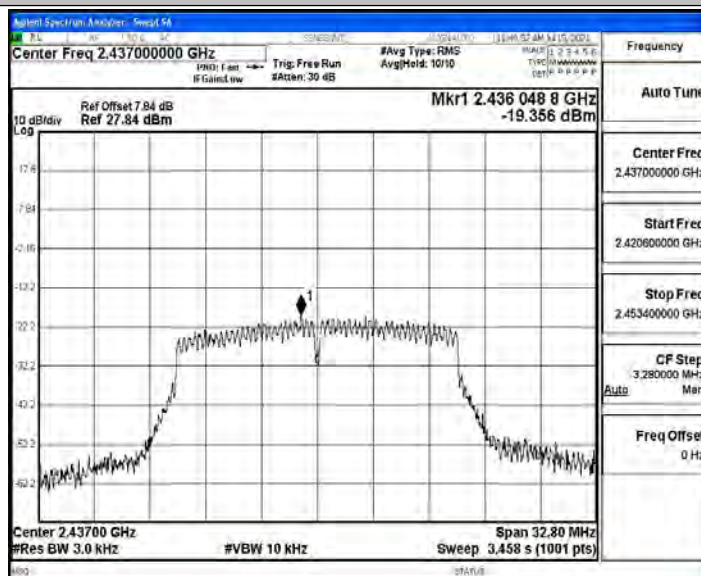




11B_Ant1_2462

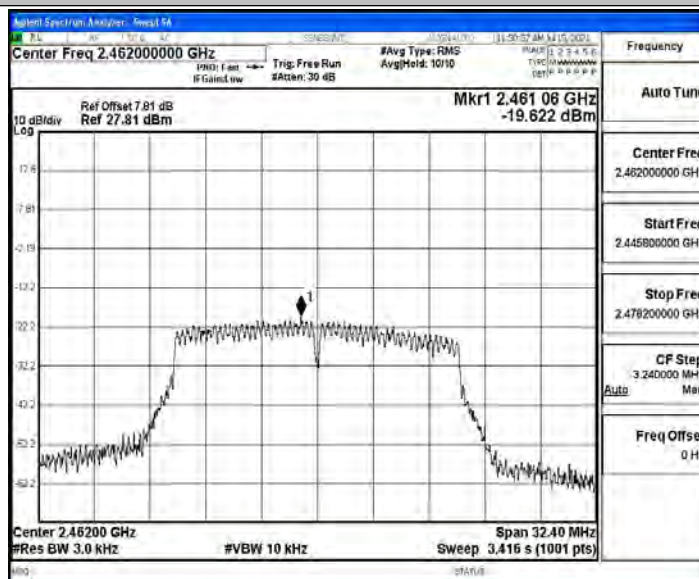


11G_Ant1_2412

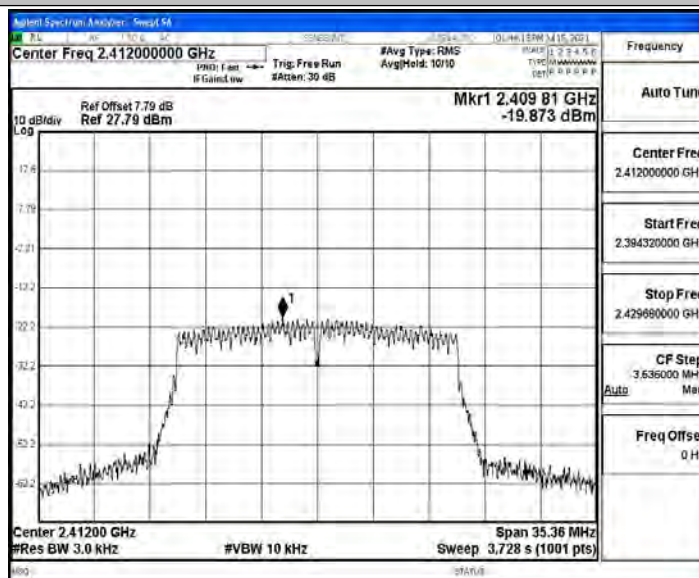




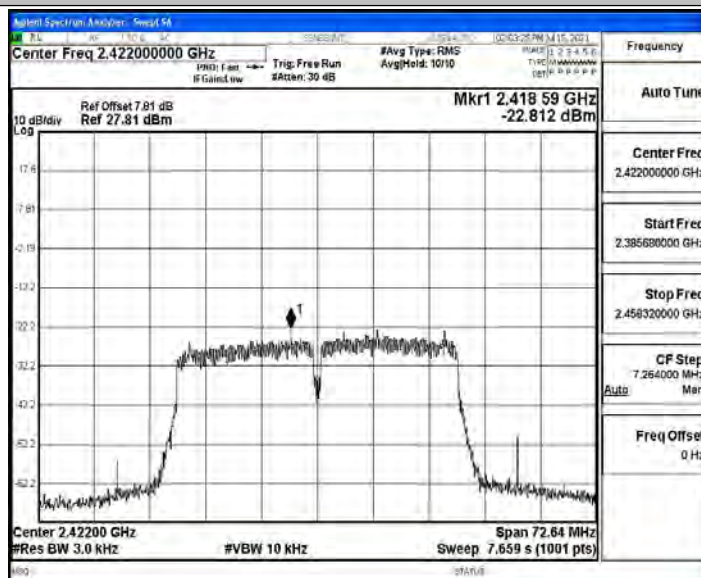
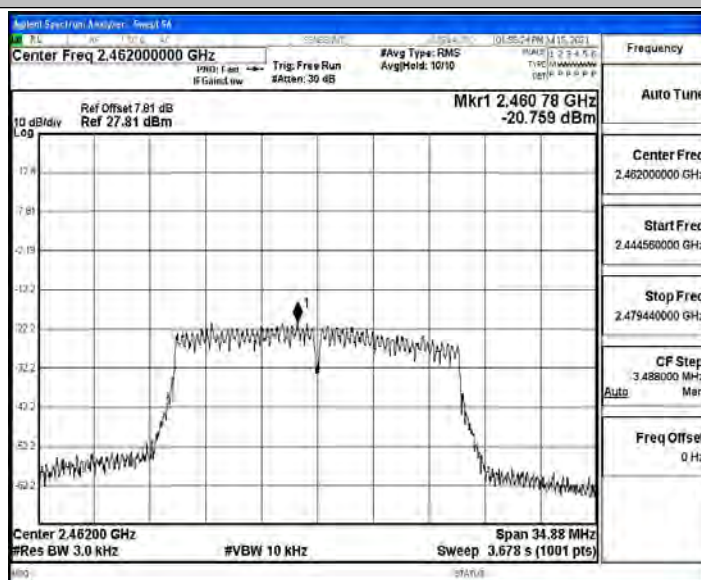
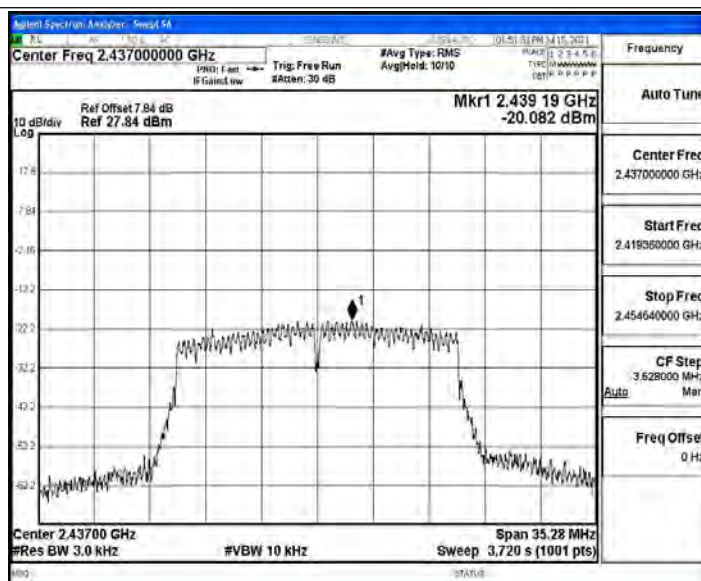
11G_Ant1_2437



11G_Ant1_2462

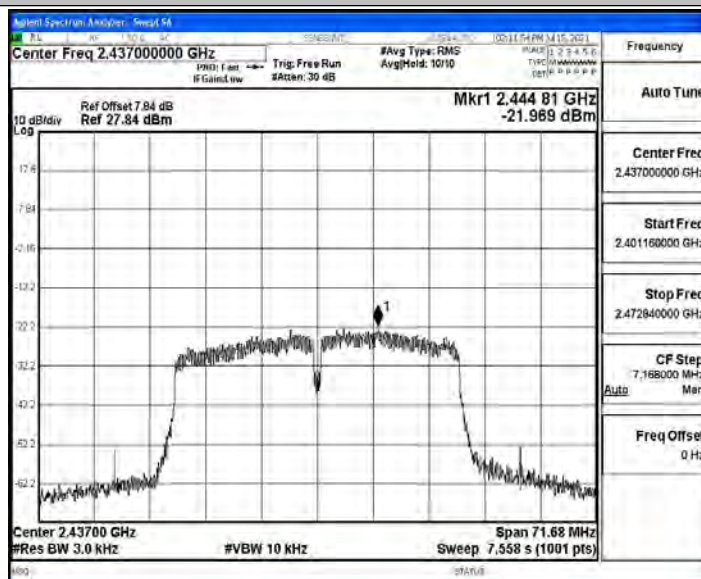


11N20SISO_Ant1_2412

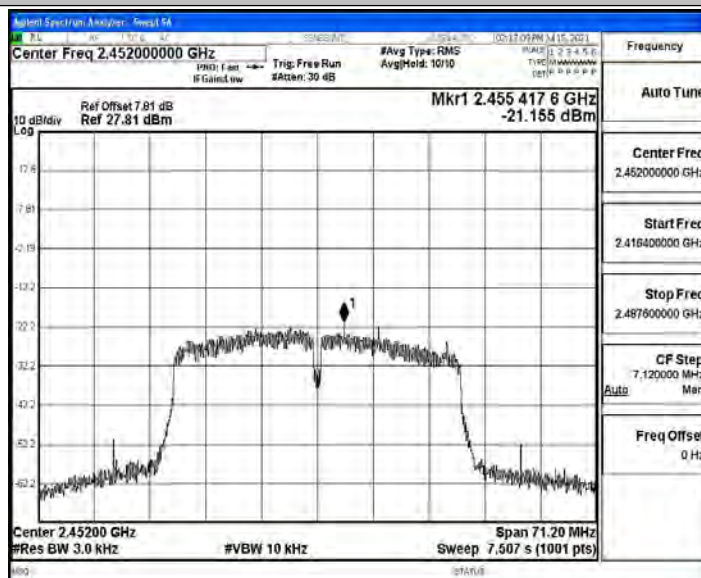




11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



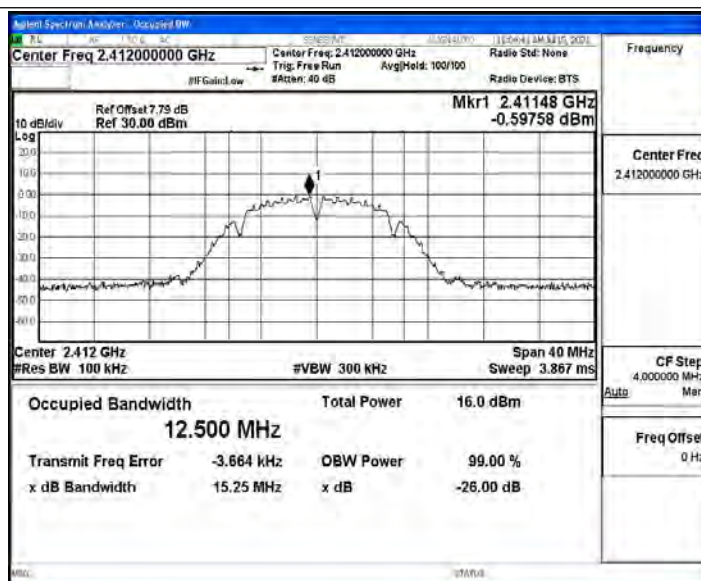
B.4 Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Verdict
11B	Ant1	2412	12.500	2405.746	2418.246	PASS
		2437	12.470	2430.900	2443.370	PASS
		2462	12.575	2455.536	2468.111	PASS
11G	Ant1	2412	16.456	2403.769	2420.225	PASS
		2437	16.438	2428.811	2445.249	PASS
		2462	16.432	2453.717	2470.149	PASS
11N20SISO	Ant1	2412	17.619	2403.201	2420.820	PASS
		2437	17.590	2428.254	2445.844	PASS
		2462	17.589	2453.158	2470.747	PASS
11N40SISO	Ant1	2422	36.074	2404.054	2440.128	PASS
		2437	35.809	2419.210	2455.019	PASS
		2452	35.763	2434.024	2469.787	PASS



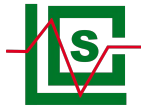
Test Graphs



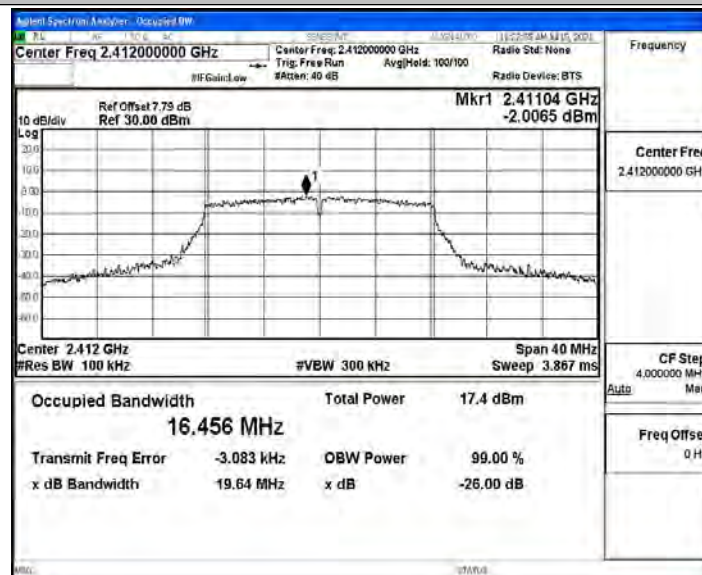
11B_Ant1_2412



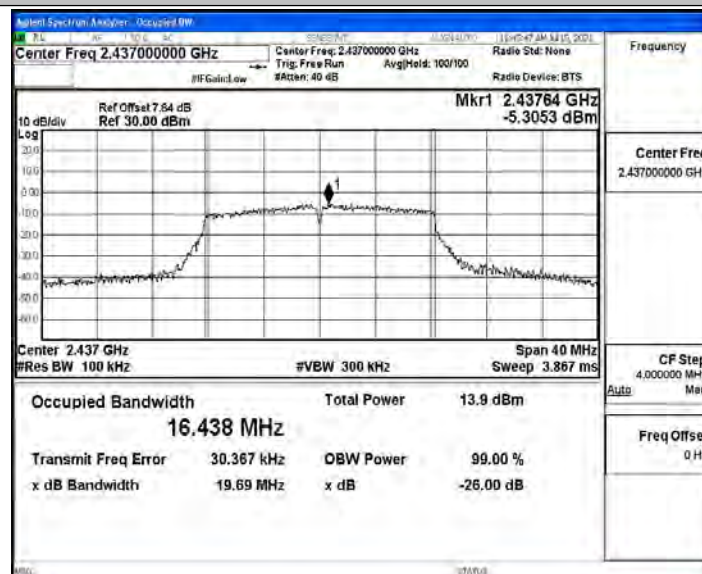
11B_Ant1_2437



11B_Ant1_2462

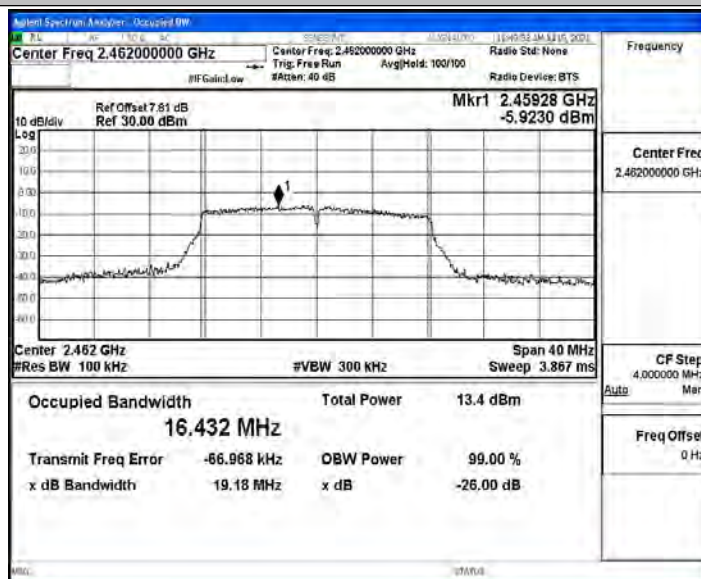


11G_Ant1_2412

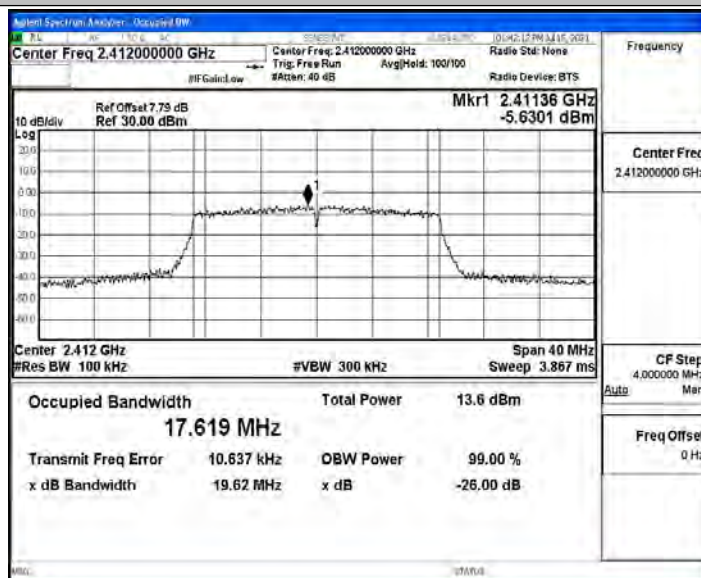




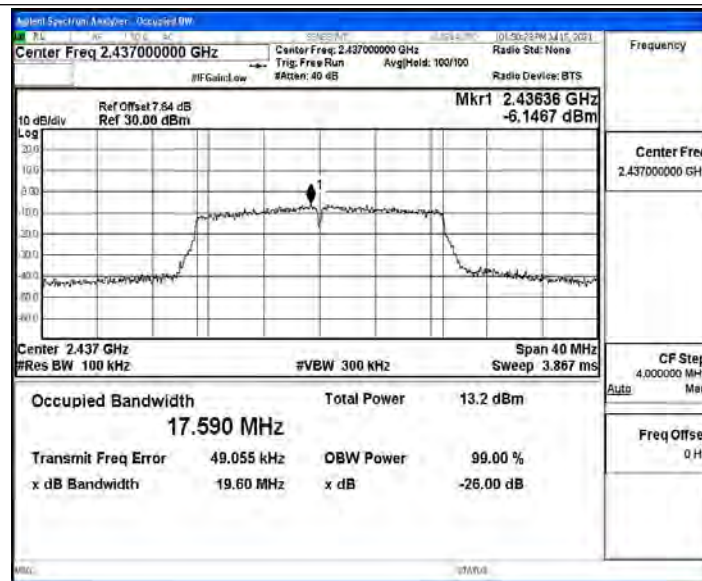
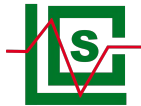
11G_Ant1_2437



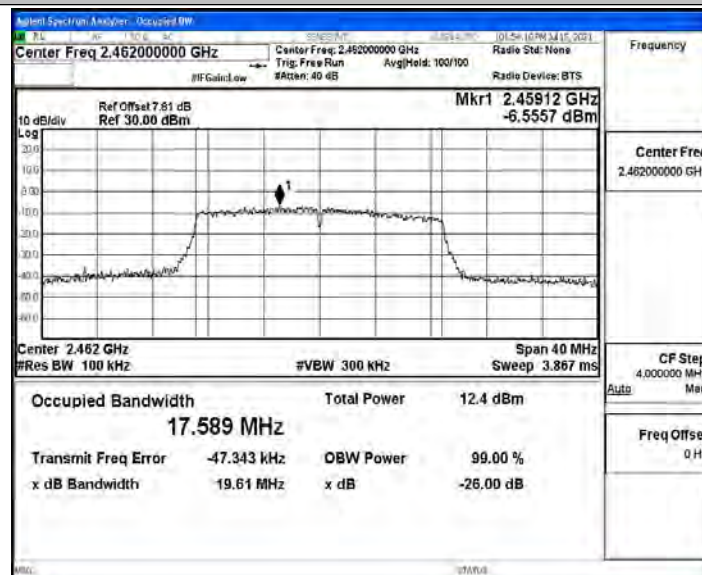
11G_Ant1_2462



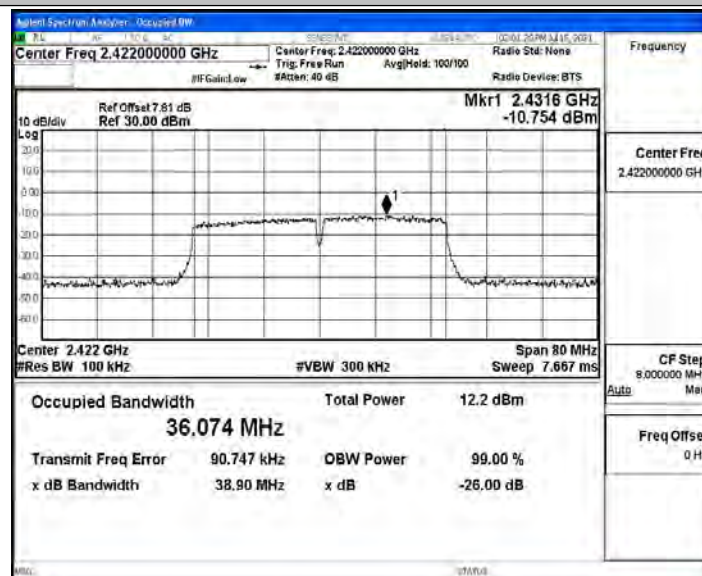
11N20SISO_Ant1_2412

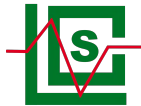


11N20SISO_Ant1_2437

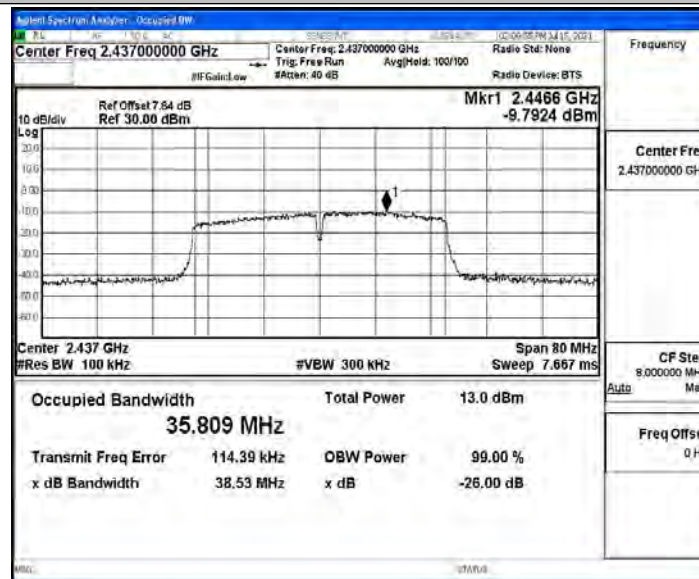


11N20SISO_Ant1_2462

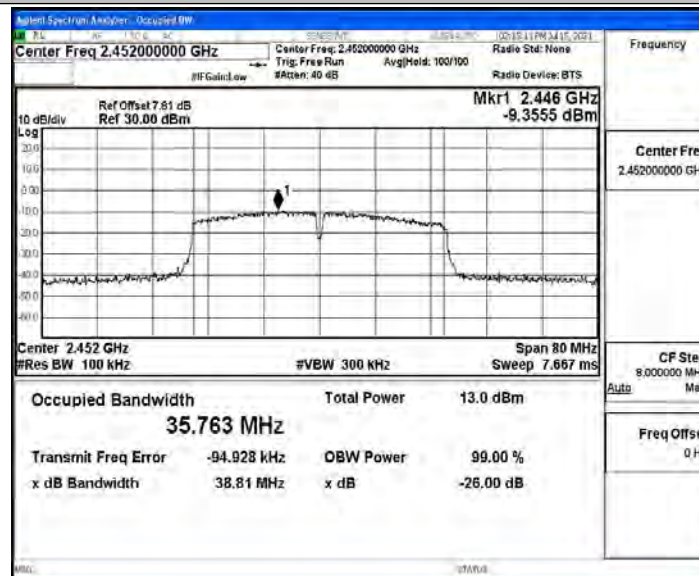




11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



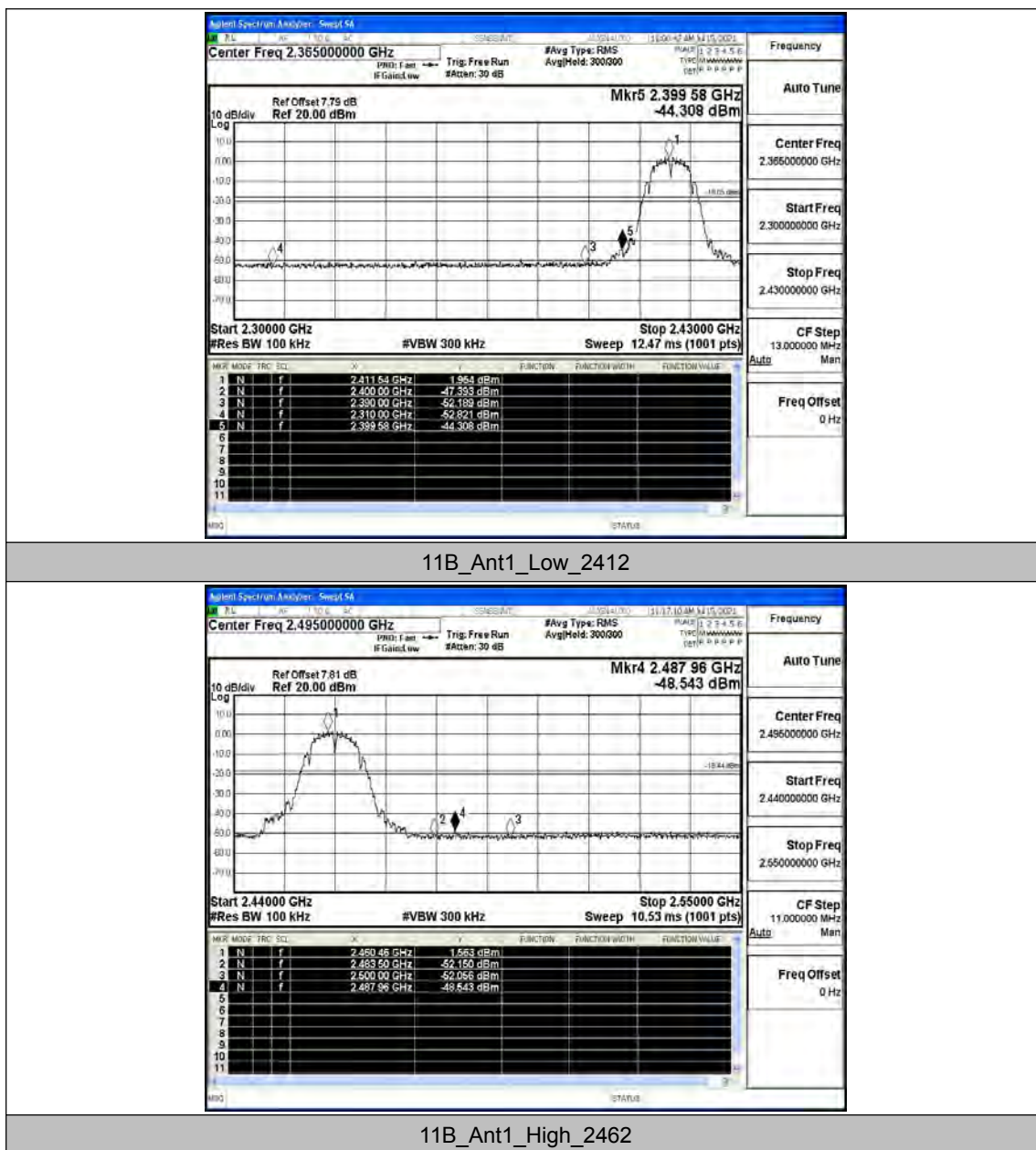
B.5 Band edge measurements

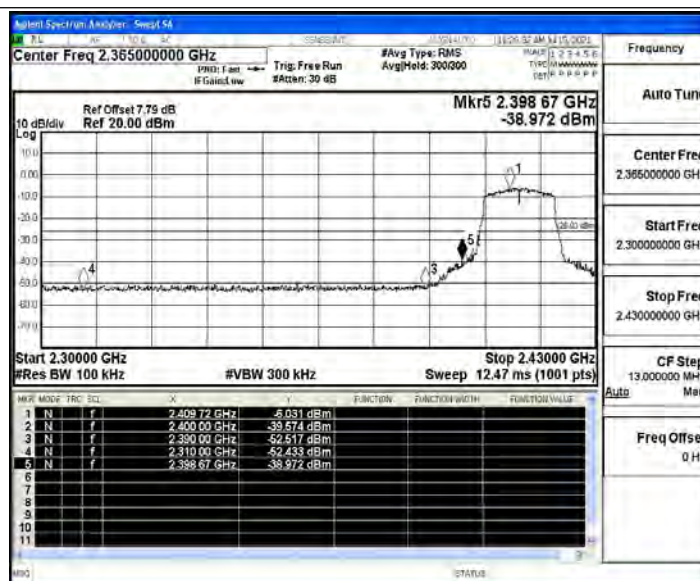
Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	1.95	-44.31	≤ -18.05	PASS
		High	2462	1.56	-48.54	≤ -18.44	PASS
11G	Ant1	Low	2412	-6.03	-38.97	≤ -26.03	PASS
		High	2462	-5.98	-46.17	≤ -25.98	PASS
11N20SISO	Ant1	Low	2412	-5.92	-39.01	≤ -25.92	PASS
		High	2462	-6.52	-46.65	≤ -26.52	PASS
11N40SISO	Ant1	Low	2422	-10.92	-47.72	≤ -30.92	PASS
		High	2452	-9.37	-44.53	≤ -29.37	PASS

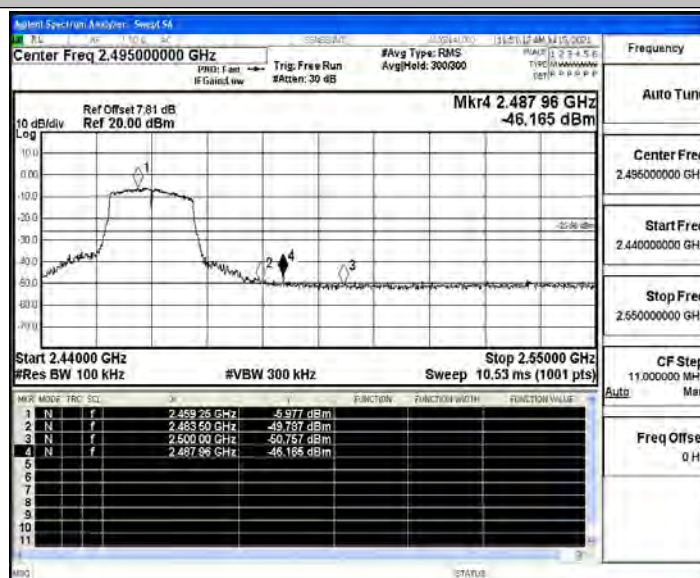


Test Graphs

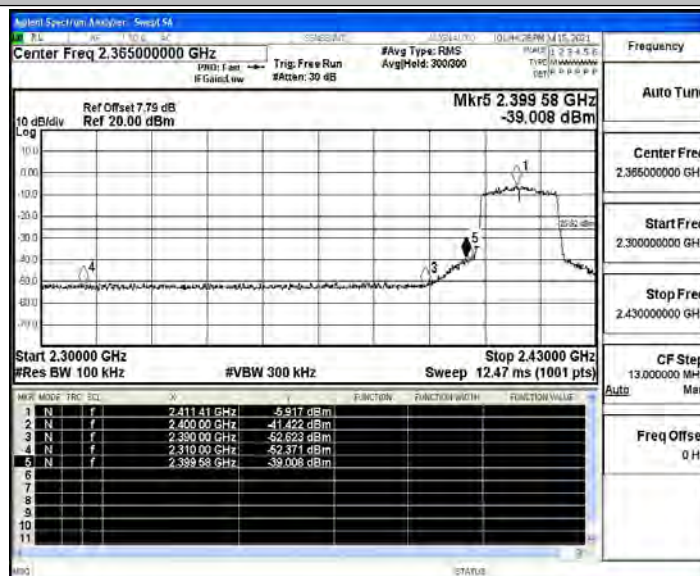




11G_Ant1_Low_2412

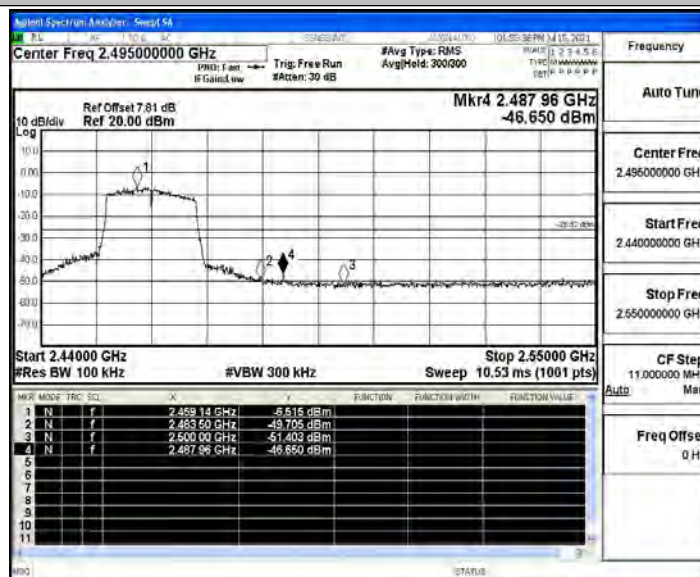


11G_Ant1_High_2462

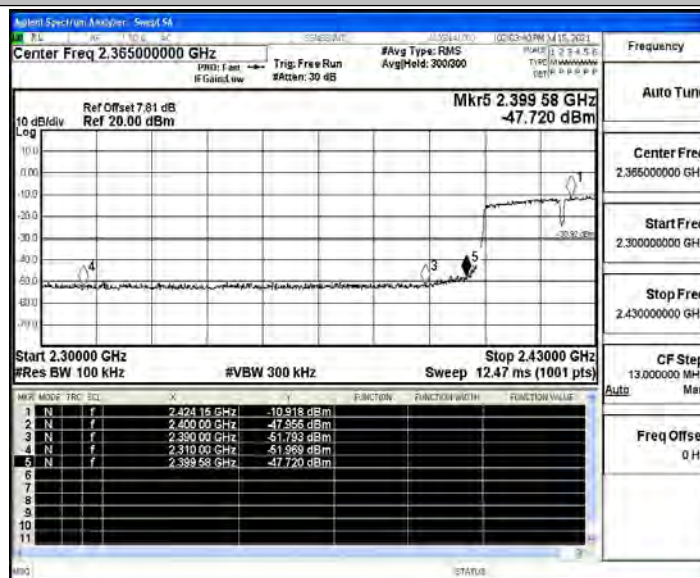




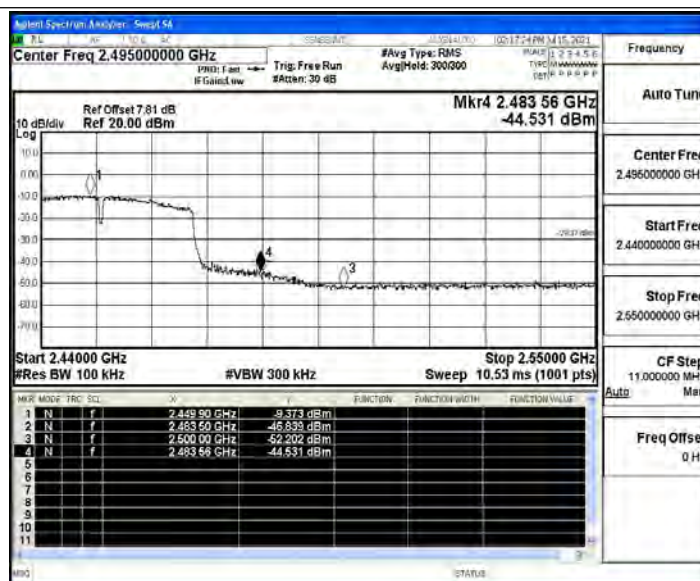
11N20SISO_Ant1_Low_2412



11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452



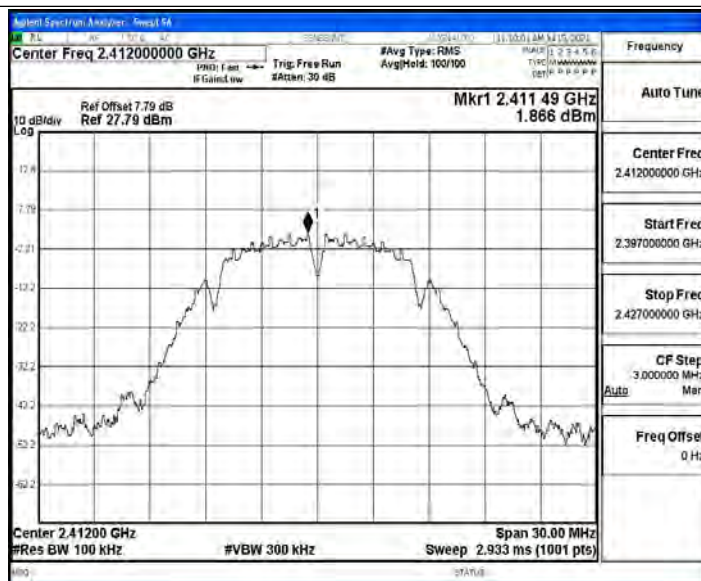
B.6 Conducted Spurious Emission

Test Result

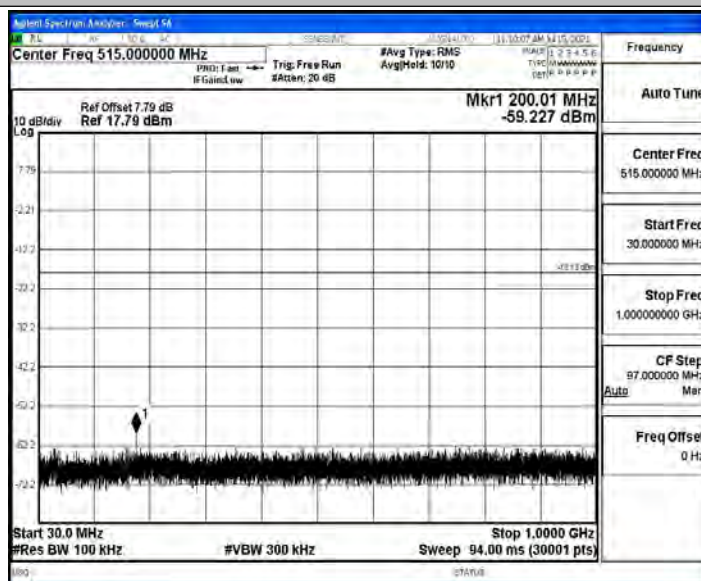
TestMode	Antenna	Channel	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	1.87	1.87	---	PASS
			30~1000	1.87	-59.23	≤-18.13	PASS
			1000~26500	1.87	-47.69	≤-18.13	PASS
		2437	Reference	1.99	1.99	---	PASS
			30~1000	1.99	-58.89	≤-18.01	PASS
			1000~26500	1.99	-47.5	≤-18.01	PASS
		2462	Reference	1.50	1.50	---	PASS
			30~1000	1.50	-59.03	≤-18.5	PASS
			1000~26500	1.50	-48	≤-18.5	PASS
11G	Ant1	2412	Reference	-6.24	-6.24	---	PASS
			30~1000	-6.24	-61.86	≤-26.24	PASS
			1000~26500	-6.24	-47.95	≤-26.24	PASS
		2437	Reference	-5.34	-5.34	---	PASS
			30~1000	-5.34	-61.69	≤-25.34	PASS
			1000~26500	-5.34	-46.71	≤-25.34	PASS
		2462	Reference	-5.94	-5.94	---	PASS
			30~1000	-5.94	-61.06	≤-25.94	PASS
			1000~26500	-5.94	-47.67	≤-25.94	PASS
11N20SISO	Ant1	2412	Reference	-6.34	-6.34	---	PASS
			30~1000	-6.34	-61.88	≤-26.34	PASS
			1000~26500	-6.34	-47.82	≤-26.34	PASS
		2437	Reference	-6.19	-6.19	---	PASS
			30~1000	-6.19	-61.93	≤-26.19	PASS
			1000~26500	-6.19	-47.56	≤-26.19	PASS
		2462	Reference	-6.75	-6.75	---	PASS
			30~1000	-6.75	-61.56	≤-26.75	PASS
			1000~26500	-6.75	-47.01	≤-26.75	PASS
11N40SISO	Ant1	2422	Reference	-11.01	-11.01	---	PASS
			30~1000	-11.01	-61.83	≤-31.01	PASS
			1000~26500	-11.01	-46.5	≤-31.01	PASS
		2437	Reference	-9.33	-9.33	---	PASS
			30~1000	-9.33	-61.85	≤-29.33	PASS
			1000~26500	-9.33	-47.66	≤-29.33	PASS
		2452	Reference	-9.41	-9.41	---	PASS
			30~1000	-9.41	-62.07	≤-29.41	PASS
			1000~26500	-9.41	-47.57	≤-29.41	PASS



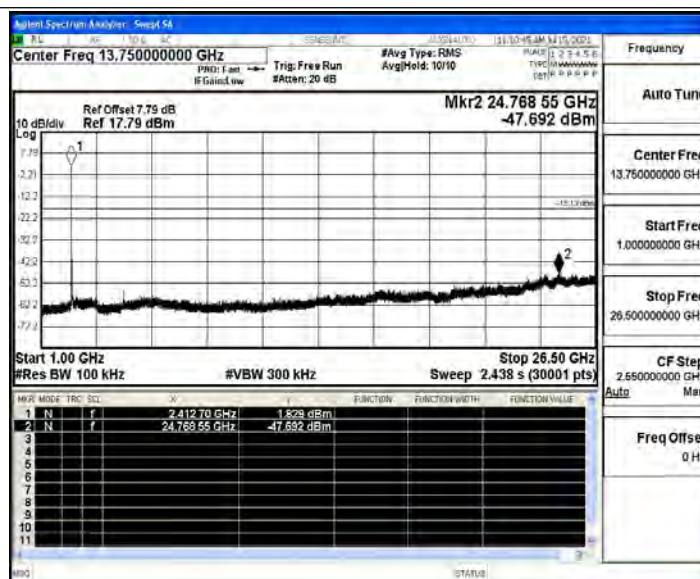
Test Graphs



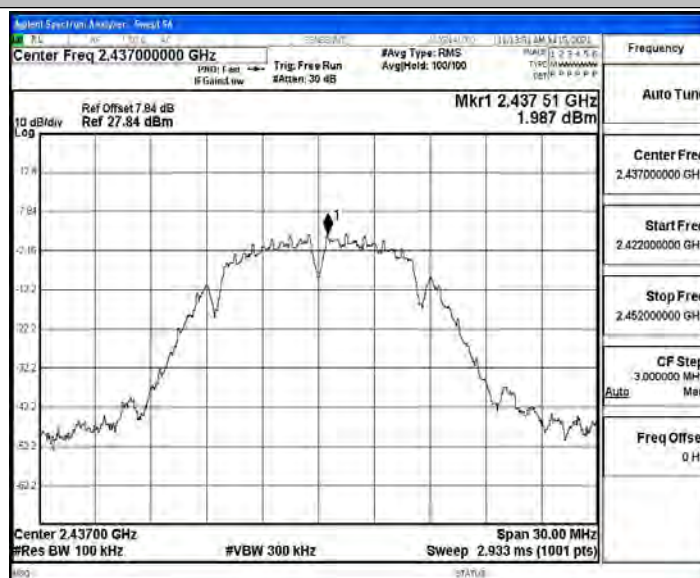
11B_Ant1_2412_0~Reference



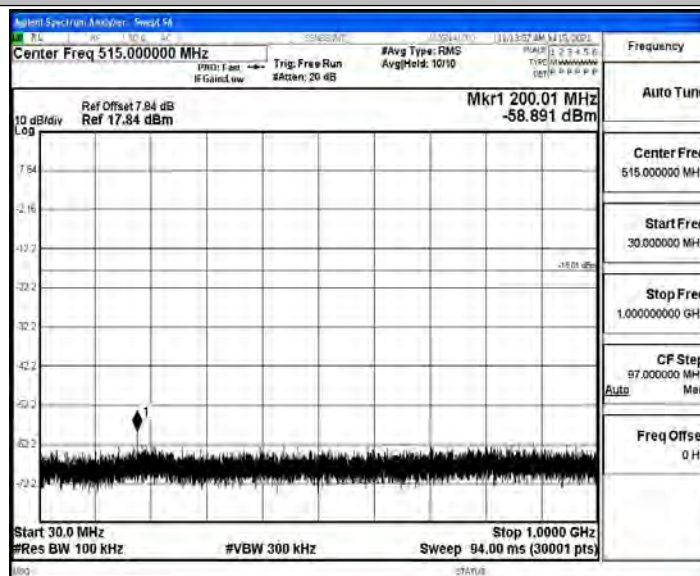
11B_Ant1_2412_30~1000



11B_Ant1_2412_1000~26500

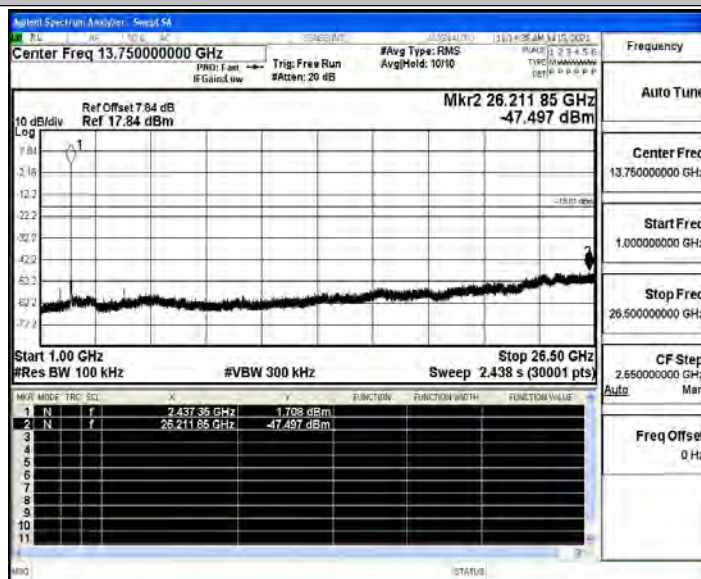


11B_Ant1_2437_0~Reference

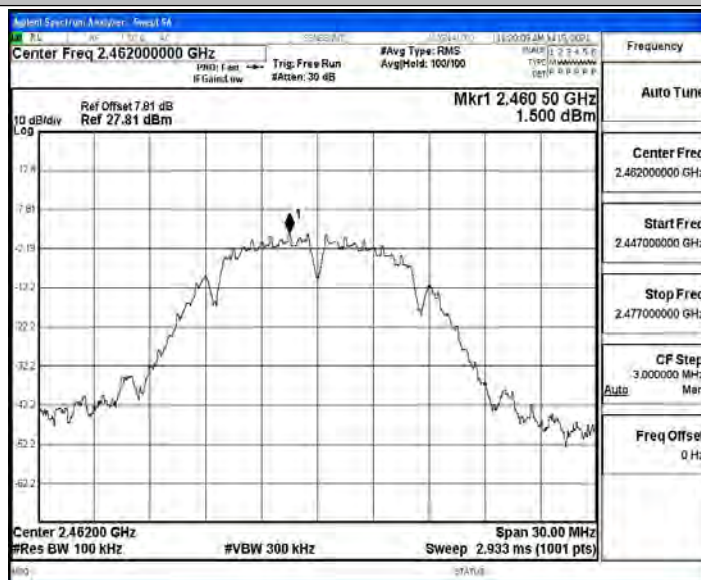




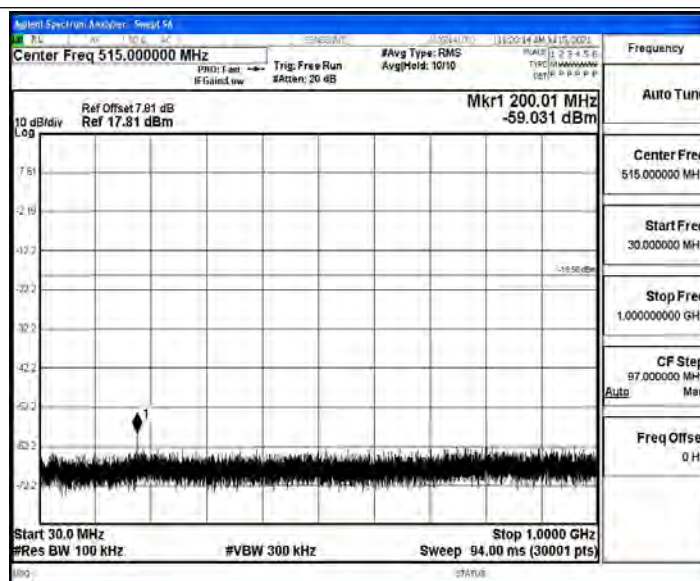
11B_Ant1_2437_30~1000



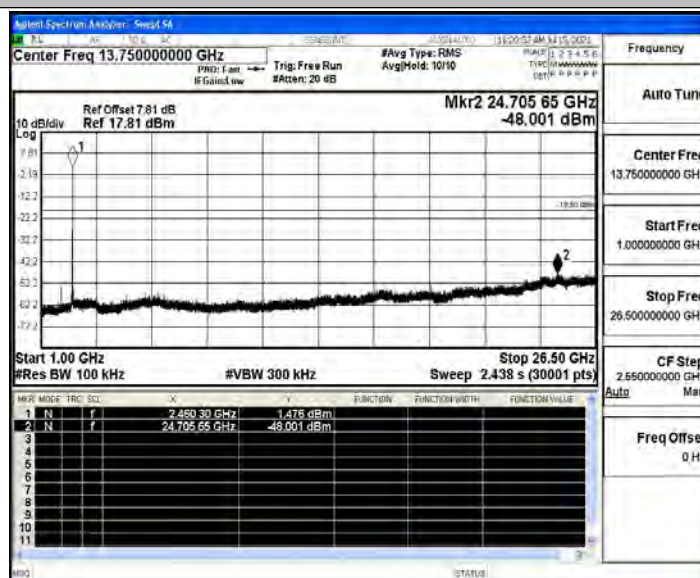
11B_Ant1_2437_1000~26500



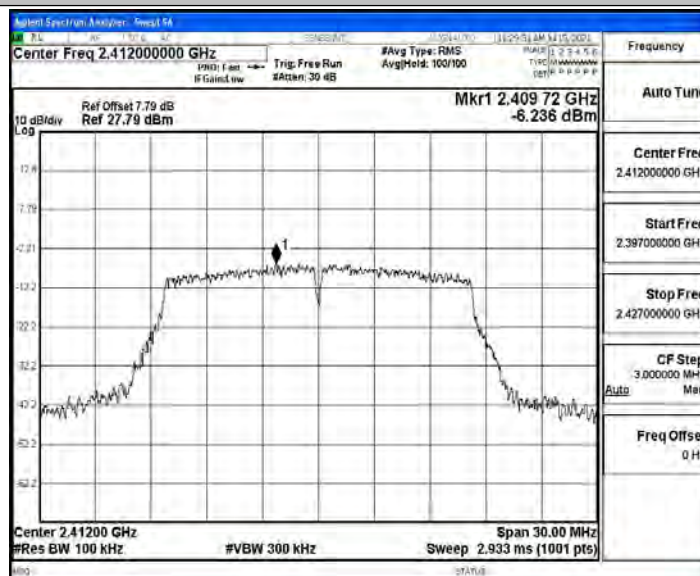
11B_Ant1_2462_0~Reference



11B_Ant1_2462_30~1000

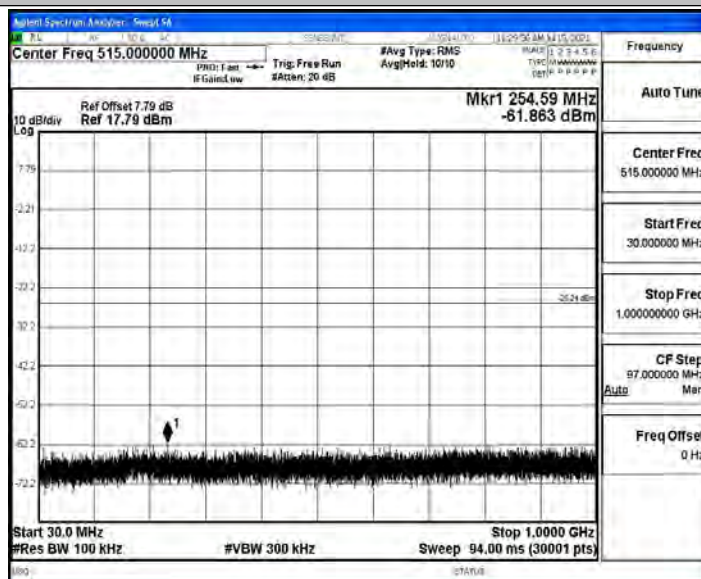


11B_Ant1_2462_1000~26500

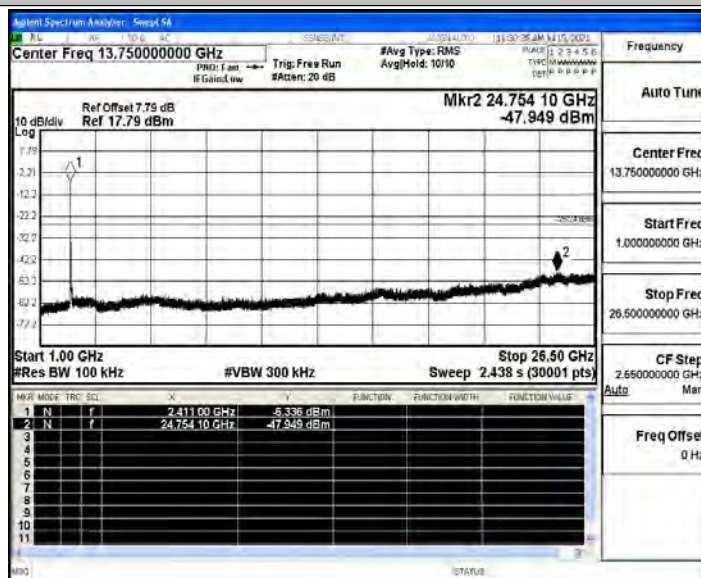




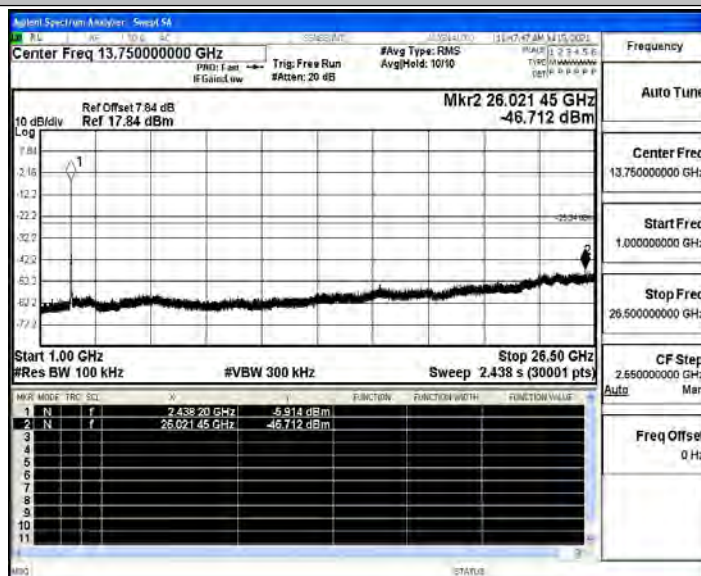
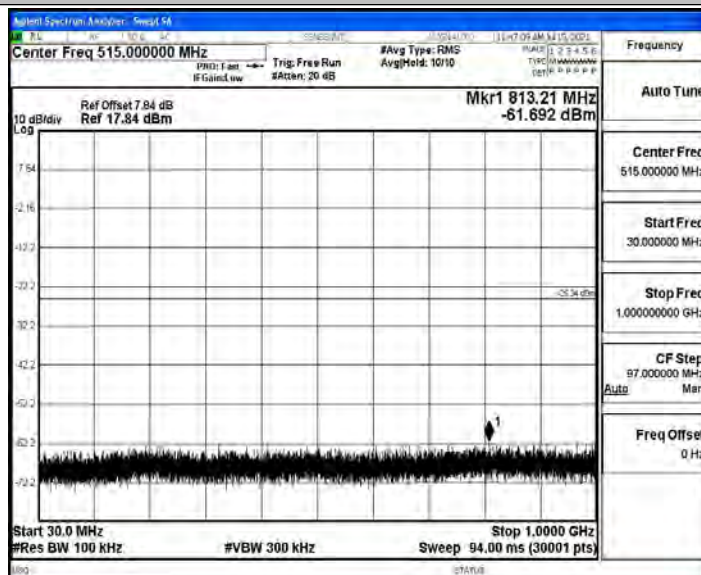
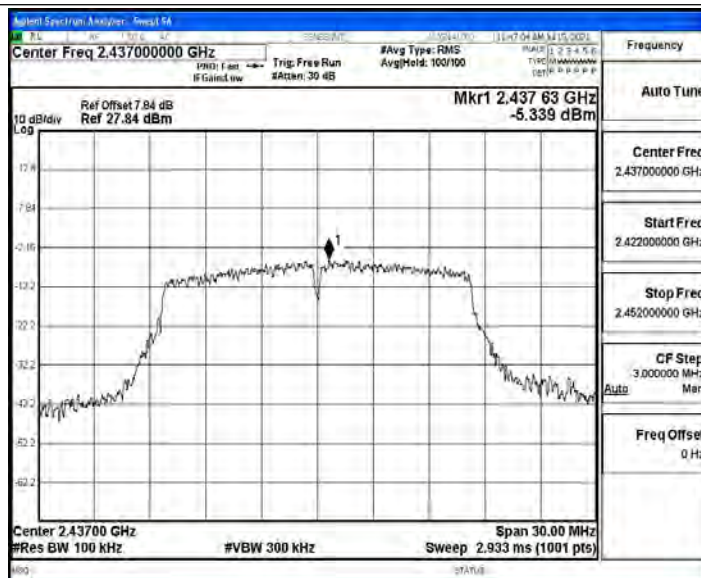
11G_Ant1_2412_0~Reference



11G_Ant1_2412_30~1000

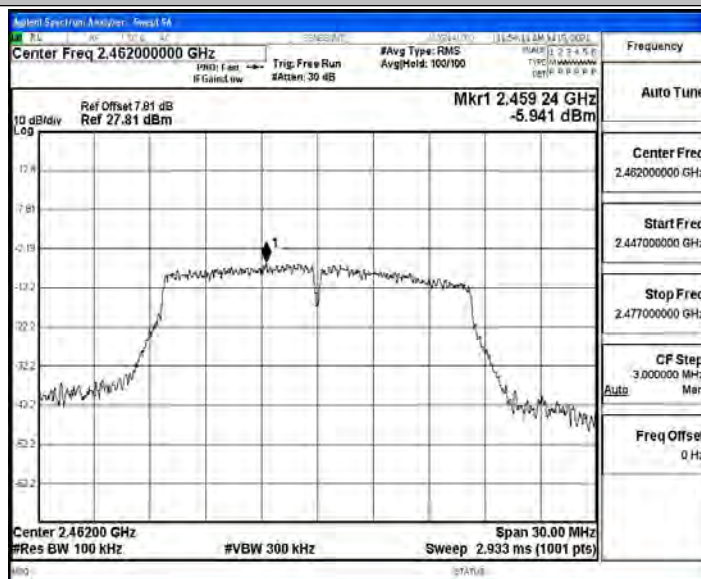


11G_Ant1_2412_1000~26500

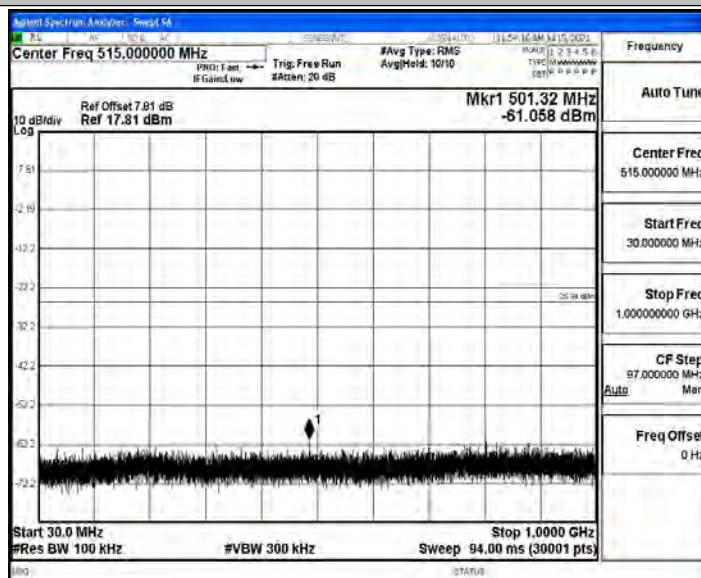




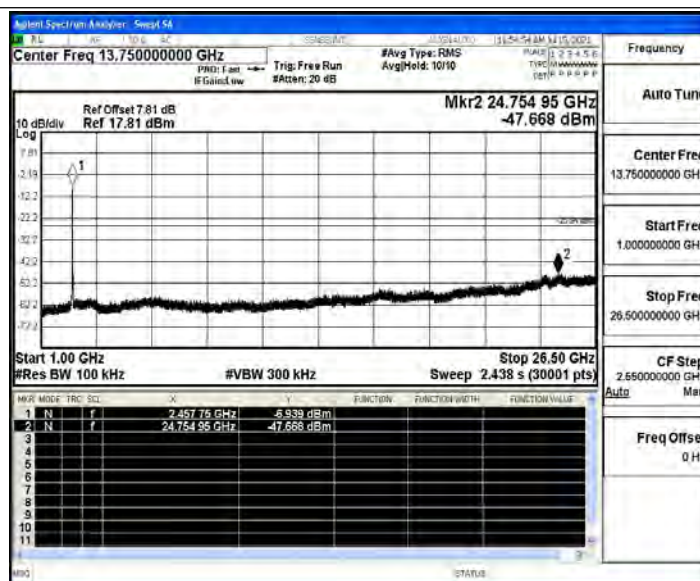
11G_Ant1_2437_1000~26500



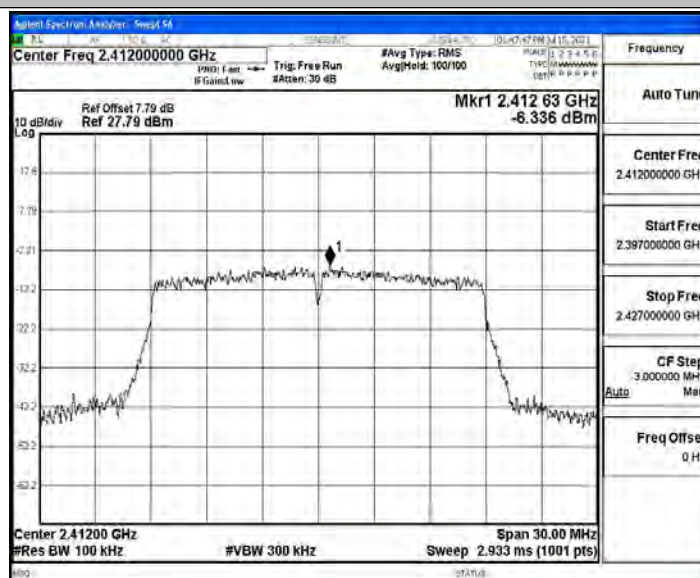
11G_Ant1_2462_0~Reference



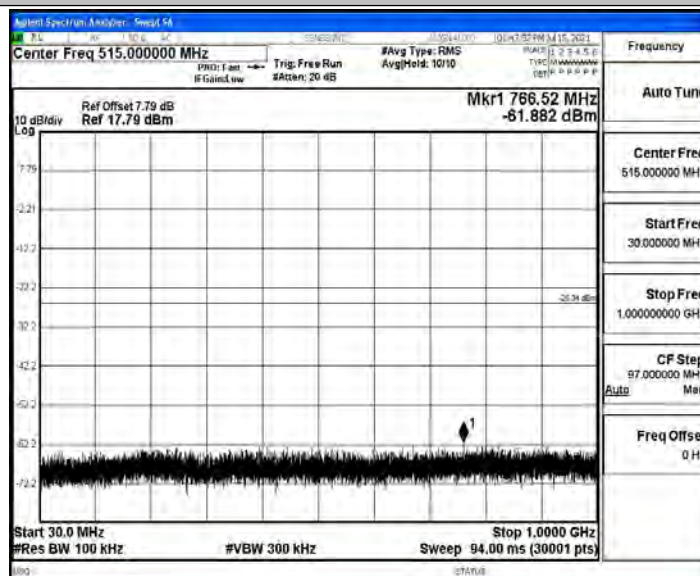
11G_Ant1_2462_30~1000



11G_Ant1_2462_1000~26500

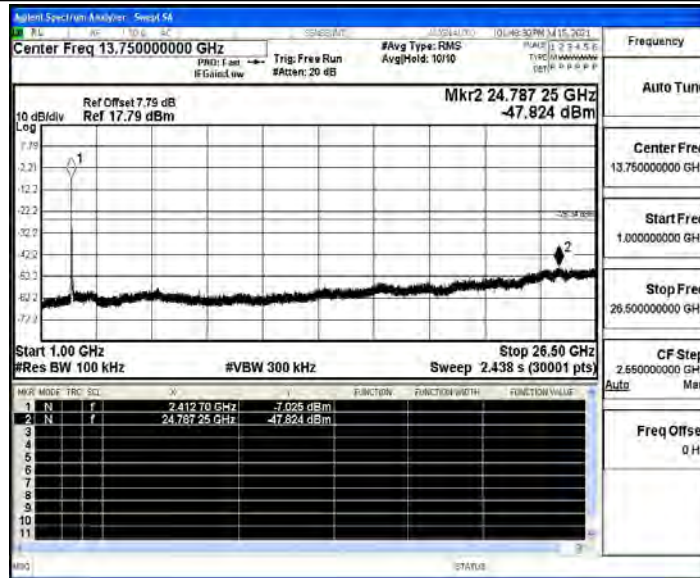


11N20SISO_Ant1_2412_0~Reference

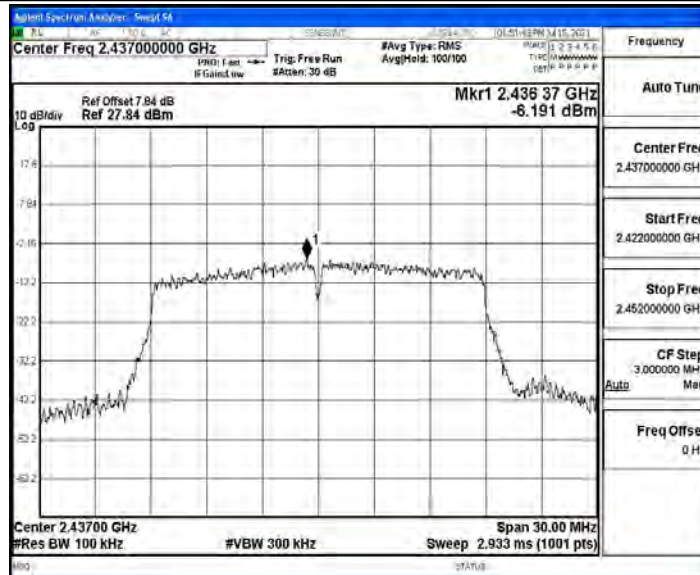




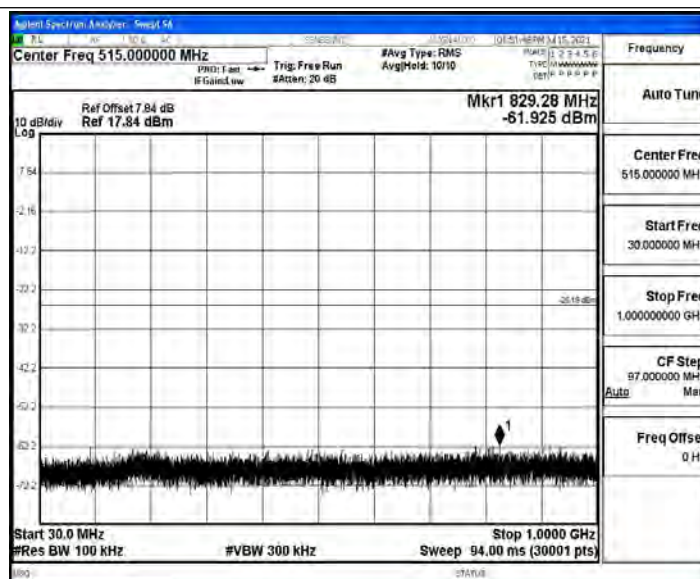
11N20SISO_Ant1_2412_30~1000



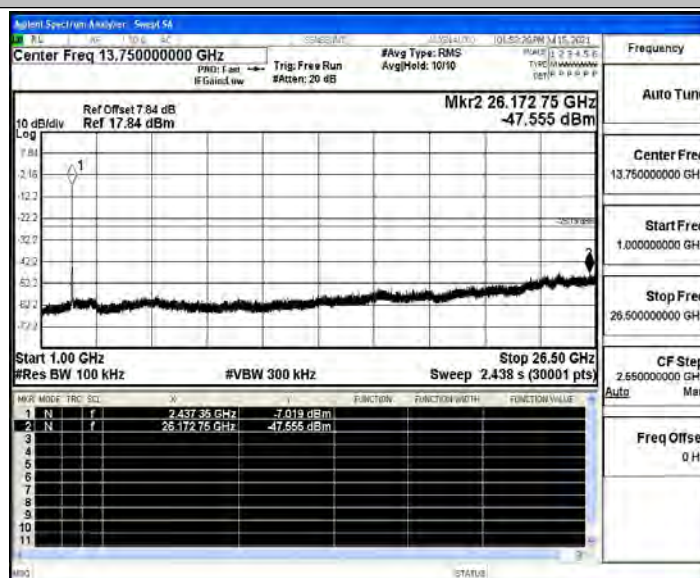
11N20SISO_Ant1_2412_1000~26500



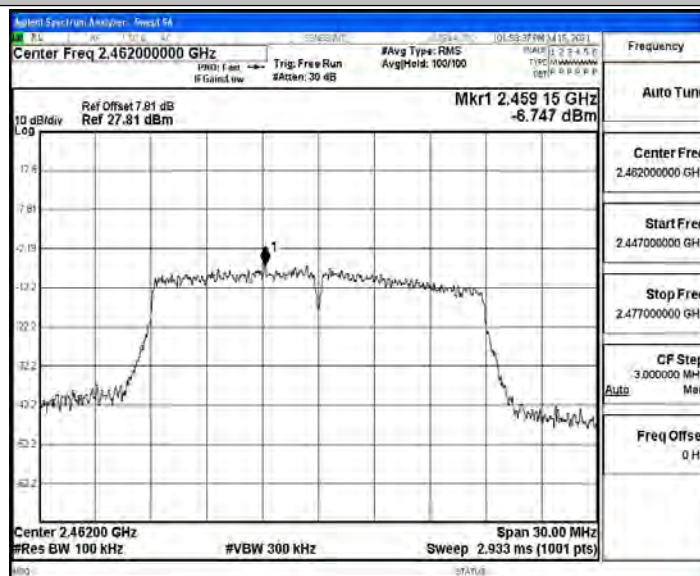
11N20SISO_Ant1_2437_0~Reference



11N20SISO_Ant1_2437_30~1000

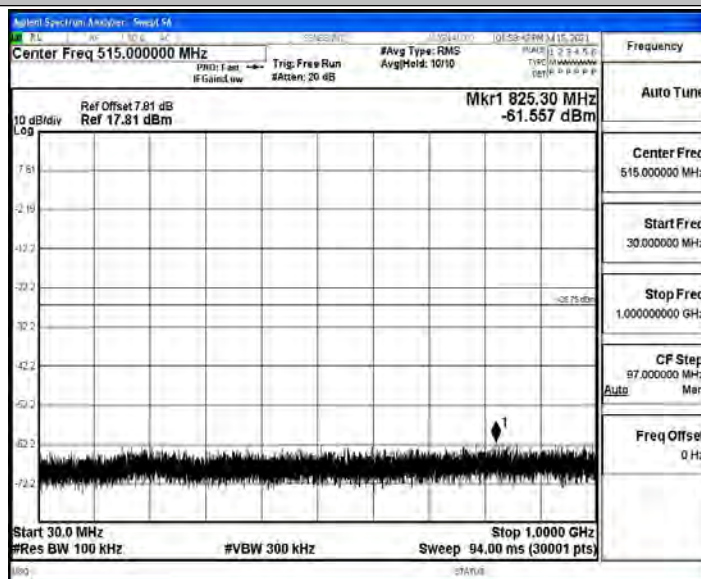


11N20SISO_Ant1_2437_1000~26500

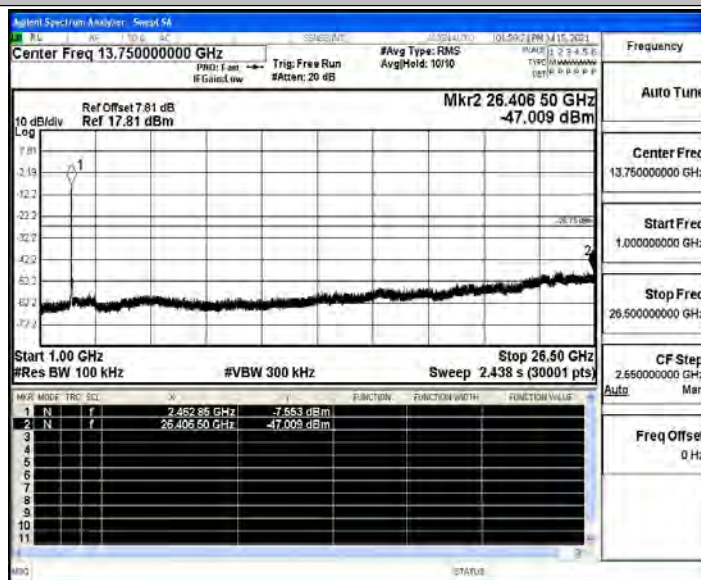




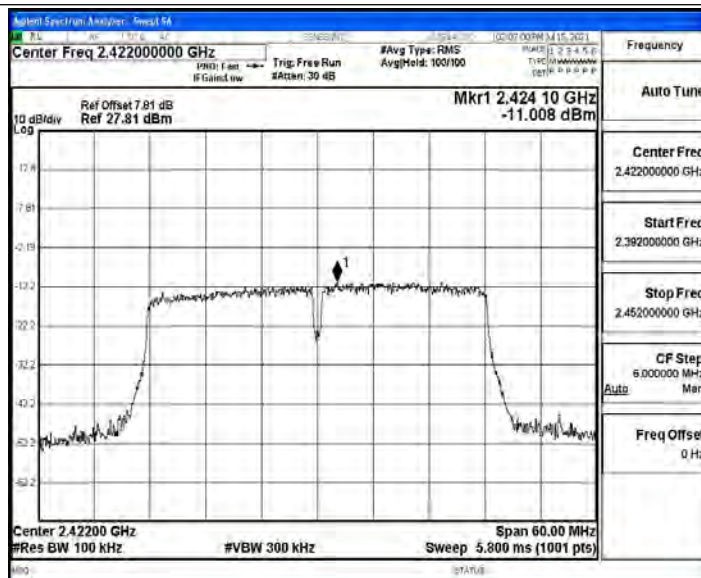
11N20SISO_Ant1_2462_0~Reference



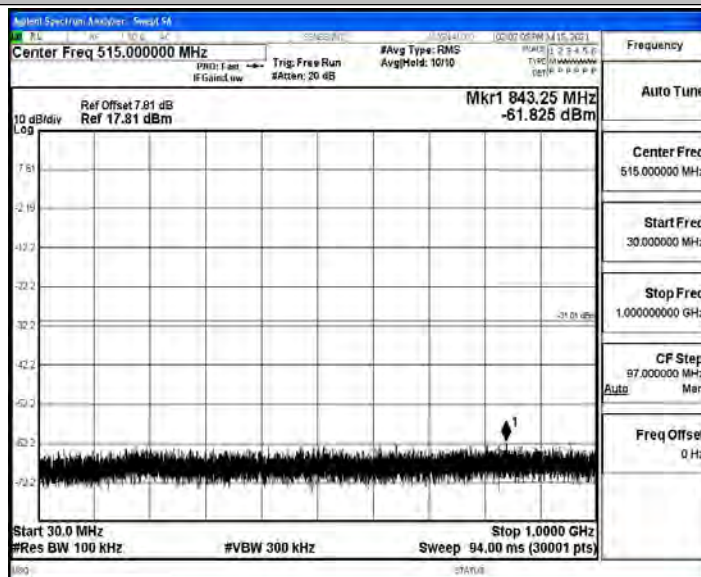
11N20SISO_Ant1_2462_30~1000



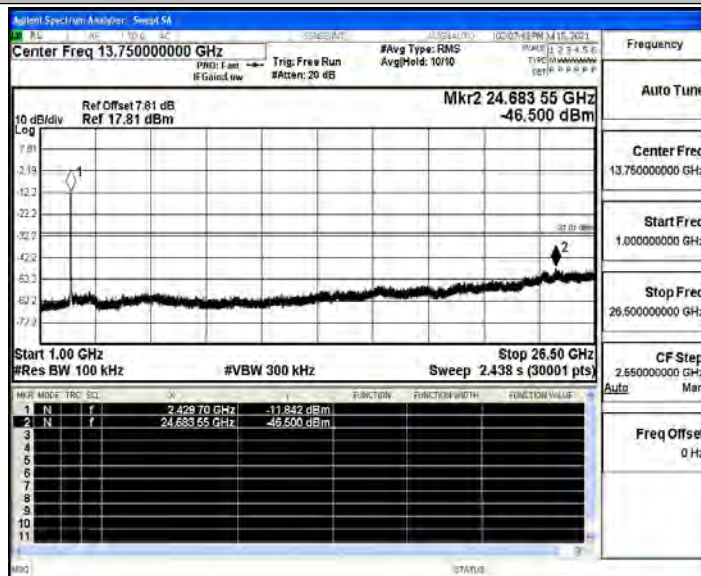
11N20SISO_Ant1_2462_1000~26500



11N40SISO_Ant1_2422_0~Reference

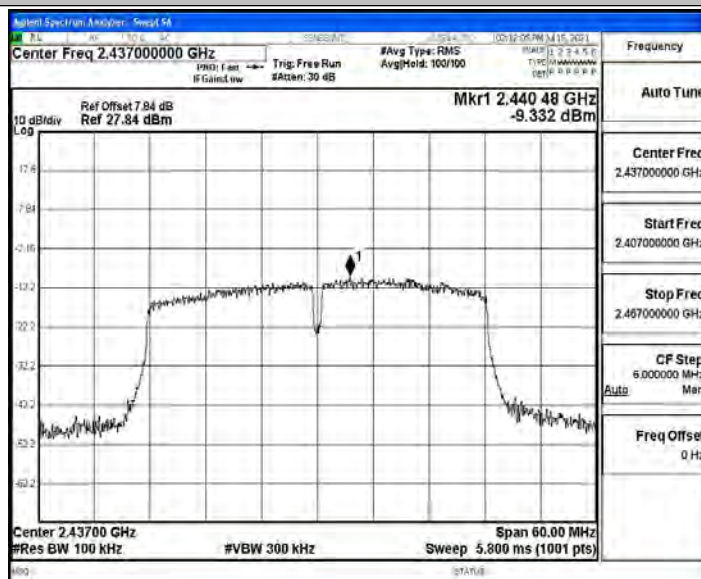


11N40SISO_Ant1_2422_30~1000

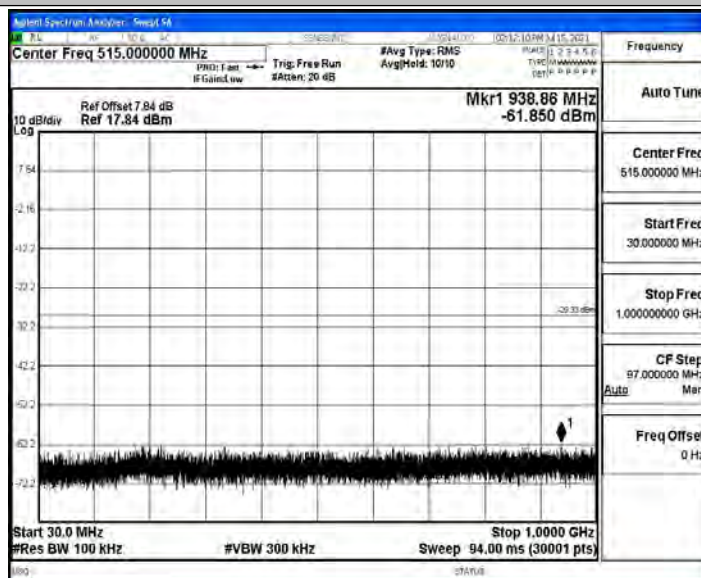




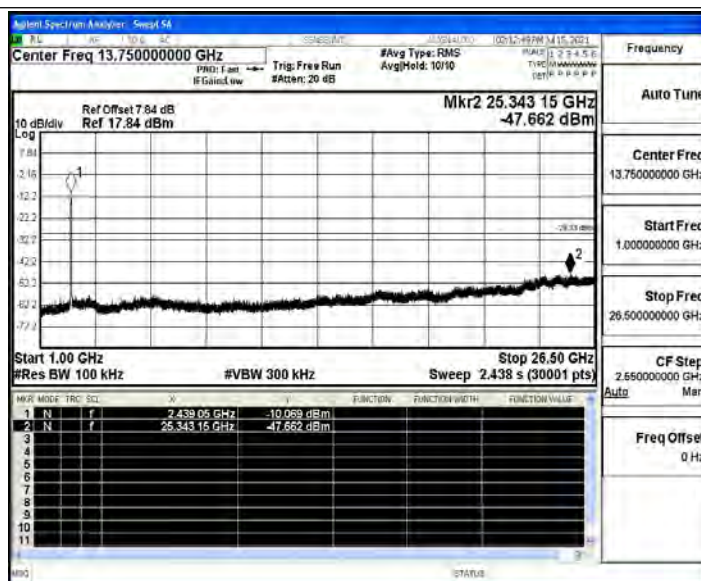
11N40SISO_Ant1_2422_1000~26500



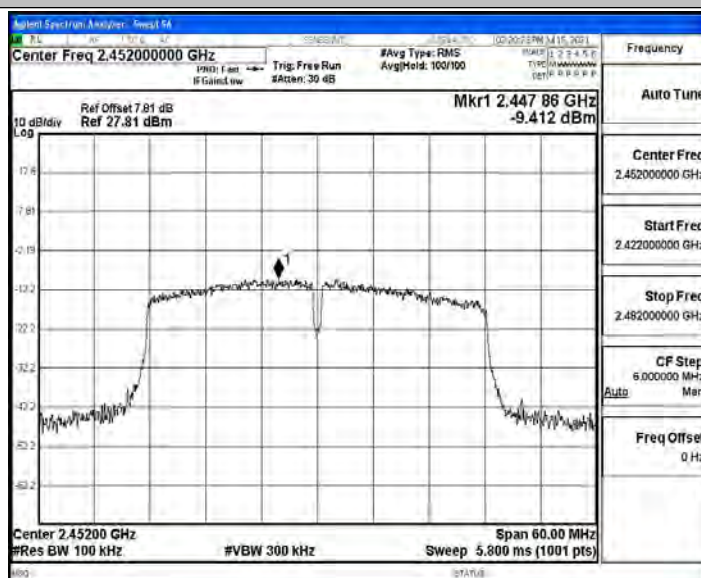
11N40SISO_Ant1_2437_0~Reference



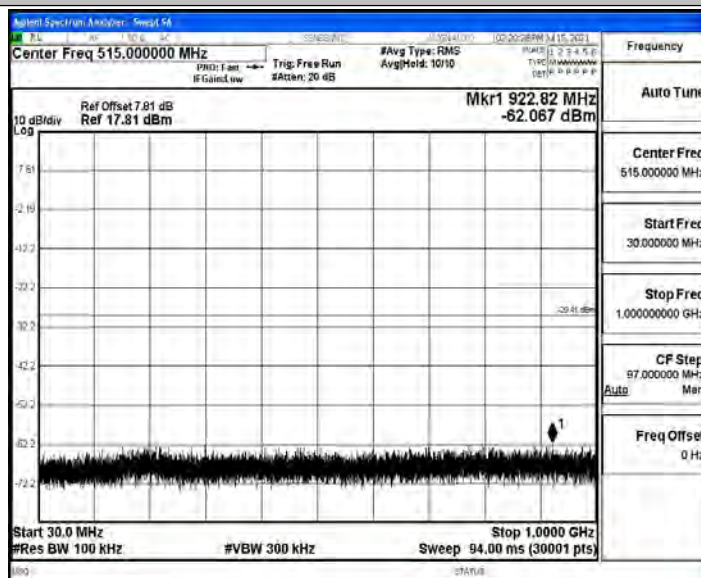
11N40SISO_Ant1_2437_30~1000



11N40SISO_Ant1_2437_1000~26500

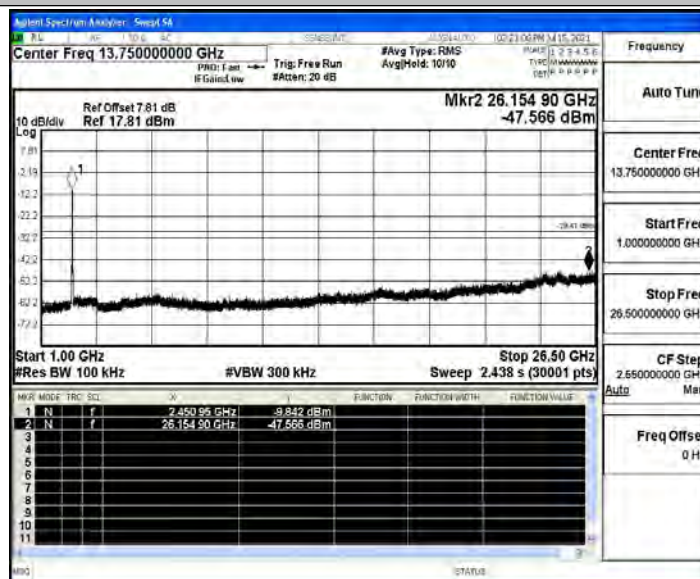


11N40SISO_Ant1_2452_0~Reference





11N40SISO_Ant1_2452_30~1000



11N40SISO_Ant1_2452_1000~26500



B.7 Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
11B	Ant1	Low	2412	AV	2310.000	-49.43	≤-41.20	45.77	≤54	PASS
				AV	2389.440	-48.93	≤-41.20	46.27	≤54	PASS
				AV	2390.000	-48.97	≤-41.20	46.23	≤54	PASS
				Peak	2310.000	-43.07	≤-21.20	52.13	≤74	PASS
				Peak	2314.430	-40.12	≤-21.20	55.08	≤74	PASS
				Peak	2390.000	-43.59	≤-21.20	51.61	≤74	PASS
		High	2462	AV	2483.500	-48.03	≤-41.20	47.17	≤54	PASS
				AV	2488.070	-47.47	≤-41.20	47.73	≤54	PASS
				AV	2500.000	-48.47	≤-41.20	46.73	≤54	PASS
				Peak	2483.500	-42.6	≤-21.20	52.60	≤74	PASS
				Peak	2489.940	-39.61	≤-21.20	55.59	≤74	PASS
				Peak	2500.000	-42.83	≤-21.20	52.37	≤74	PASS
11G	Ant1	Low	2412	AV	2310.000	-49.41	≤-41.20	45.79	≤54	PASS
				AV	2389.960	-48.6	≤-41.20	46.60	≤54	PASS
				AV	2390.000	-48.6	≤-41.20	46.60	≤54	PASS
				Peak	2310.000	-43.7	≤-21.20	51.50	≤74	PASS
				Peak	2371.500	-39.6	≤-21.20	55.60	≤74	PASS
				Peak	2390.000	-42.69	≤-21.20	52.51	≤74	PASS
		High	2462	AV	2483.500	-46.15	≤-41.20	49.05	≤54	PASS
				AV	2487.960	-45.15	≤-41.20	50.05	≤54	PASS
				AV	2500.000	-48.34	≤-41.20	46.86	≤54	PASS
				Peak	2483.500	-42.7	≤-21.20	52.50	≤74	PASS
				Peak	2486.750	-38.15	≤-21.20	57.05	≤74	PASS
				Peak	2500.000	-41.39	≤-21.20	53.81	≤74	PASS
11N20SIS O	Ant1	Low	2412	AV	2310.000	-49.42	≤-41.20	45.78	≤54	PASS
				AV	2389.960	-48.54	≤-41.20	46.66	≤54	PASS
				AV	2390.000	-48.54	≤-41.20	46.66	≤54	PASS
				Peak	2310.000	-41.35	≤-21.20	53.85	≤74	PASS
				Peak	2386.060	-39.75	≤-21.20	55.45	≤74	PASS
				Peak	2390.000	-41.75	≤-21.20	53.45	≤74	PASS
		High	2462	AV	2483.500	-46.5	≤-41.20	48.70	≤54	PASS
				AV	2487.960	-45.9	≤-41.20	49.30	≤54	PASS
				AV	2500.000	-48.42	≤-41.20	46.78	≤54	PASS
				Peak	2483.500	-40.88	≤-21.20	54.32	≤74	PASS
				Peak	2490.710	-38.26	≤-21.20	56.94	≤74	PASS
				Peak	2500.000	-42.74	≤-21.20	52.46	≤74	PASS
11N40SIS	Ant1	Low	2422	AV	2310.000	-49.4	≤-41.20	45.80	≤54	PASS



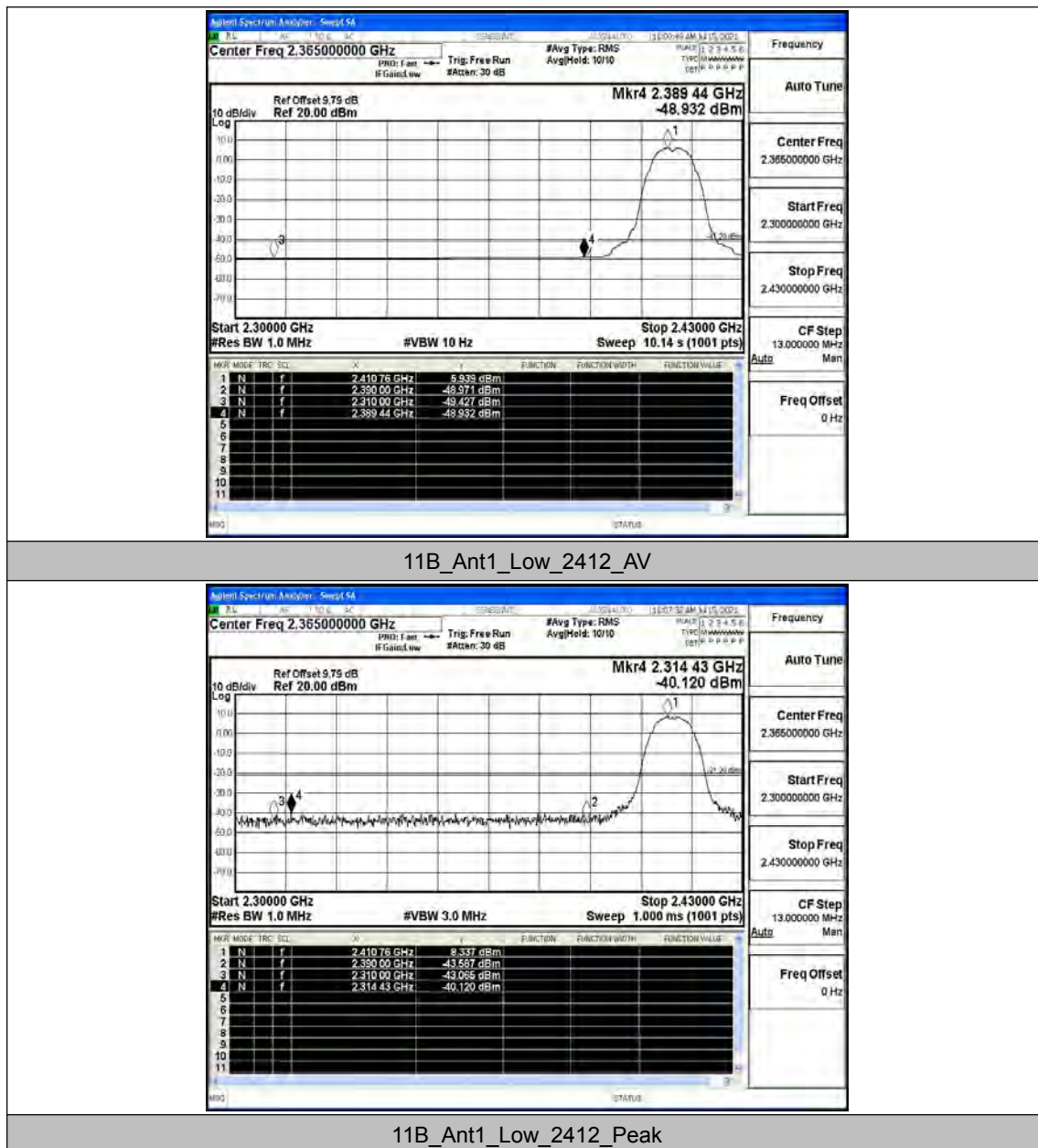
O				AV	2389.960	-48.74	≤ -41.20	46.46	≤ 54	PASS
				AV	2390.000	-48.74	≤ -41.20	46.46	≤ 54	PASS
				Peak	2310.000	-44.1	≤ -21.20	51.10	≤ 74	PASS
				Peak	2389.570	-40.39	≤ -21.20	54.81	≤ 74	PASS
				Peak	2390.000	-43.03	≤ -21.20	52.17	≤ 74	PASS
		High	2452	AV	2483.500	-42.76	≤ -41.20	52.44	≤ 54	PASS
				AV	2483.560	-42.8	≤ -41.20	52.40	≤ 54	PASS
				AV	2500.000	-48.45	≤ -41.20	46.75	≤ 54	PASS
				Peak	2483.500	-33.14	≤ -21.20	62.06	≤ 74	PASS
				Peak	2483.560	-34.26	≤ -21.20	60.94	≤ 74	PASS
				Peak	2500.000	-45.28	≤ -21.20	49.92	≤ 74	PASS

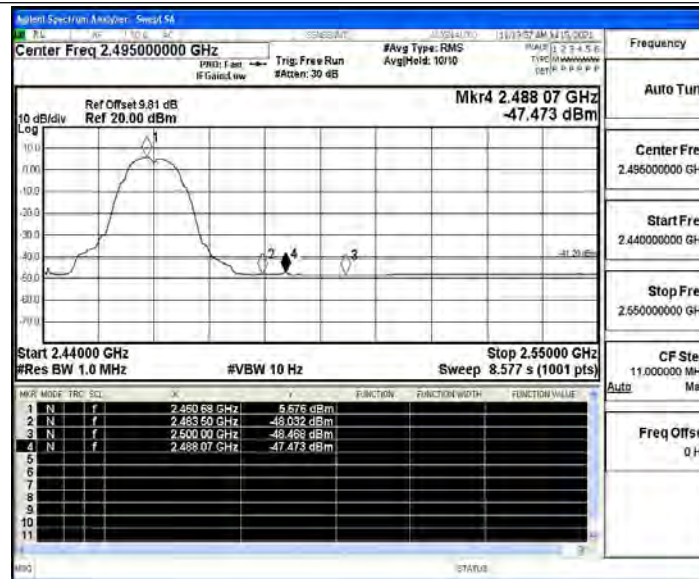
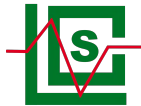
Note:

1. The Antenna Gain is compensated in the graph.
2. 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.

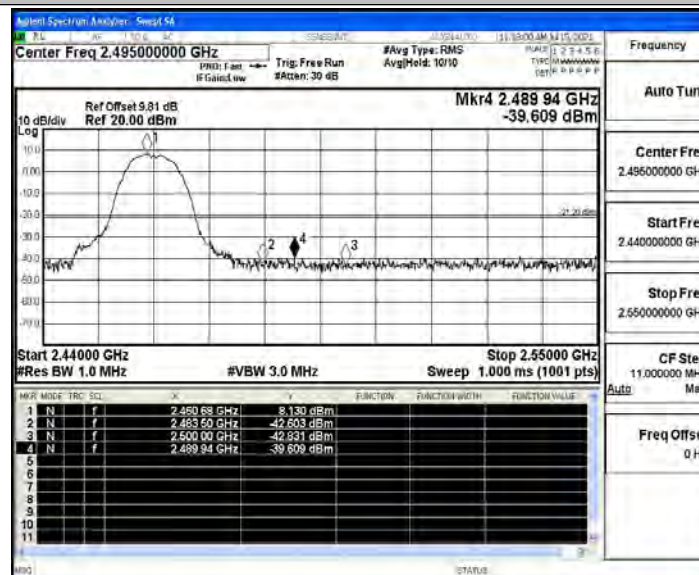


Test Graphs

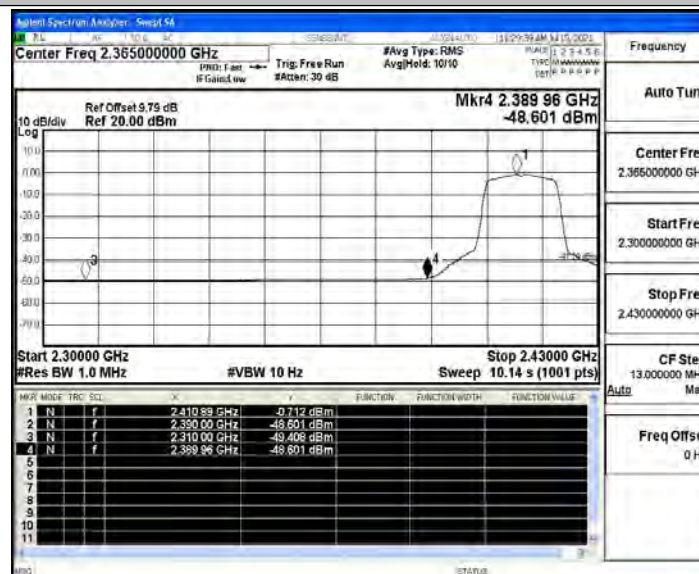




11B_Ant1_High_2462_AV

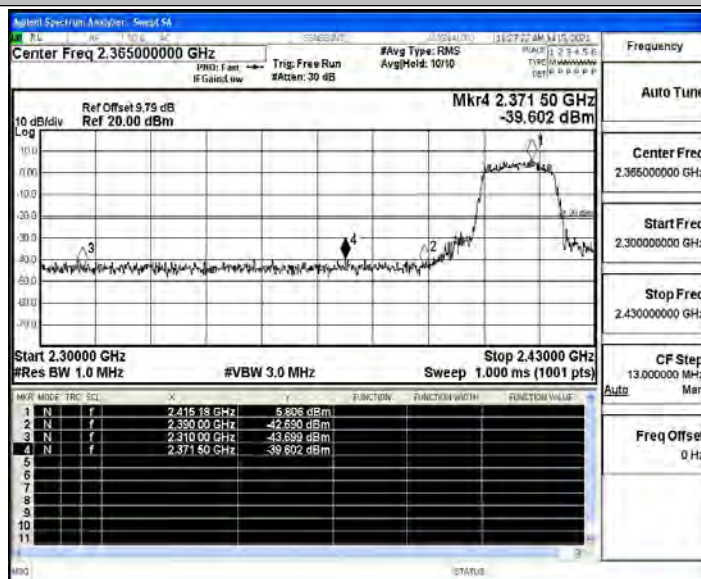


11B_Ant1_High_2462_Peak

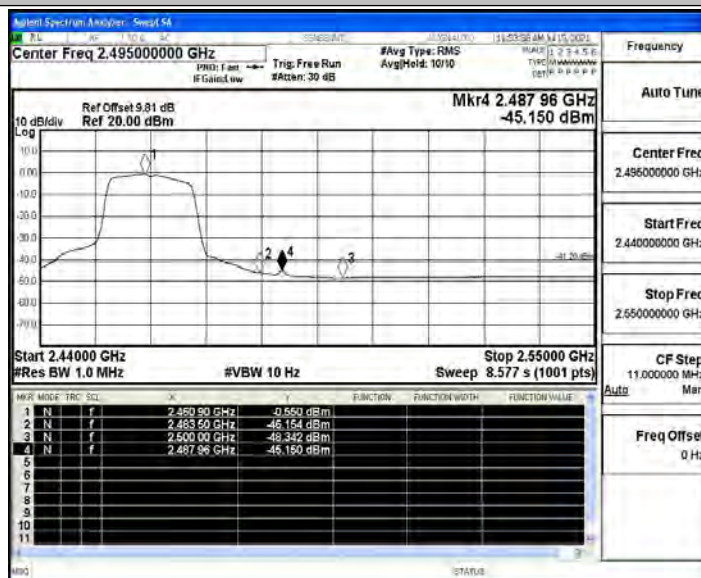




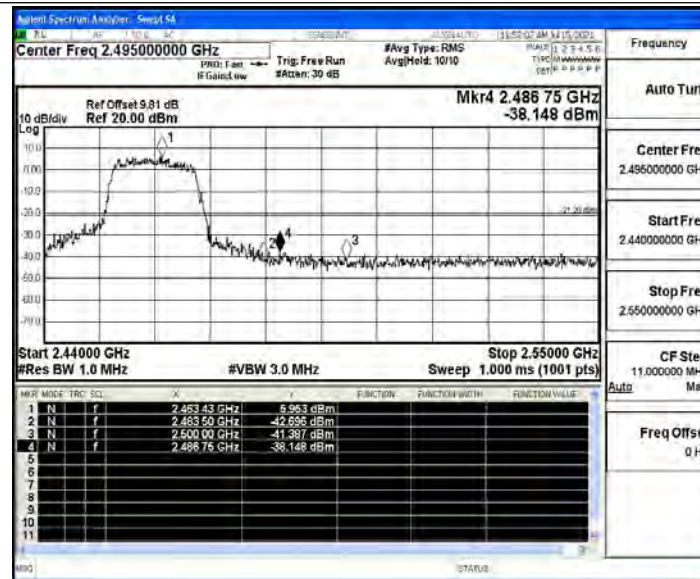
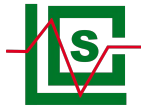
11G_Ant1_Low_2412_AV



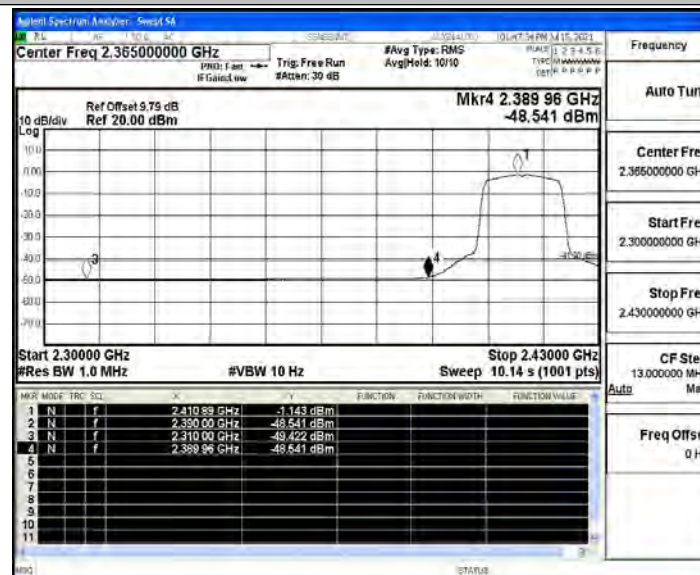
11G_Ant1_Low_2412_Peak



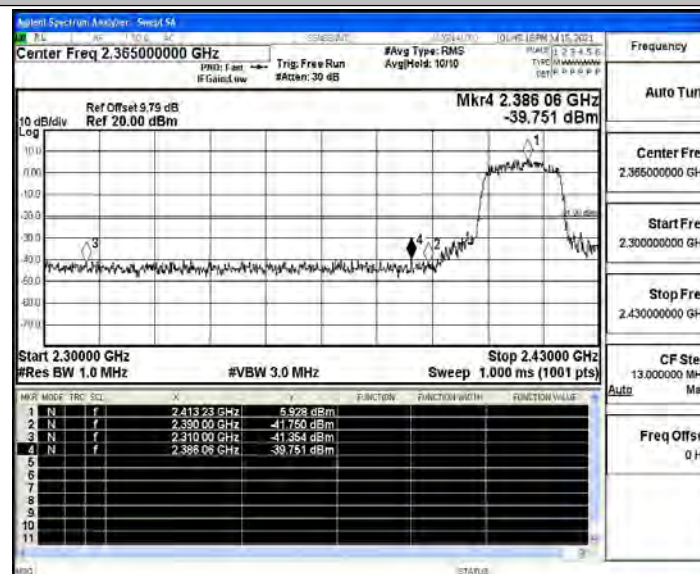
11G_Ant1_High_2462_AV

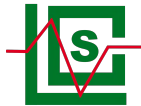


11G_Ant1_High_2462_Peak

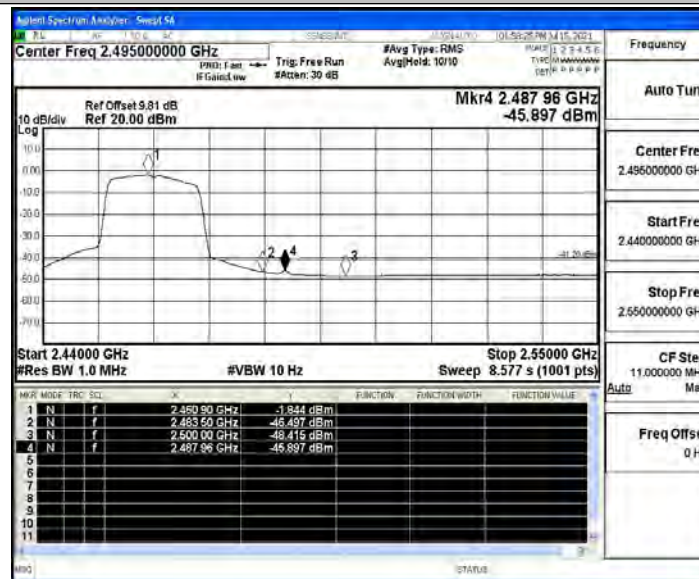


11N20SISO_Ant1_Low_2412_AV

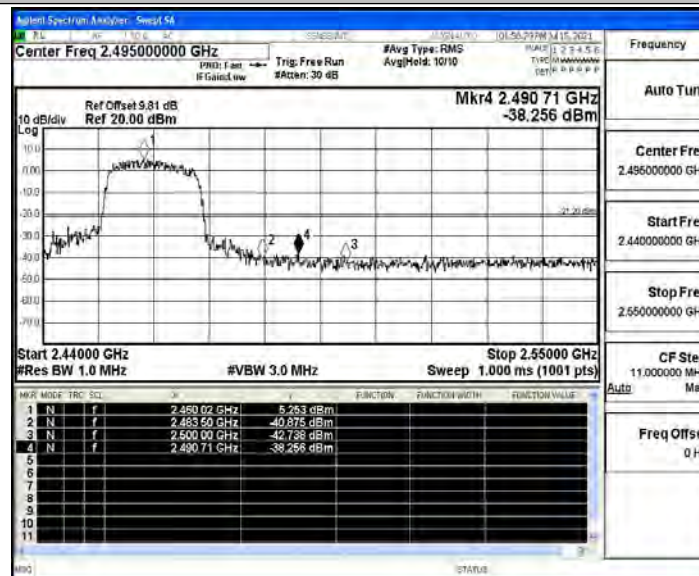




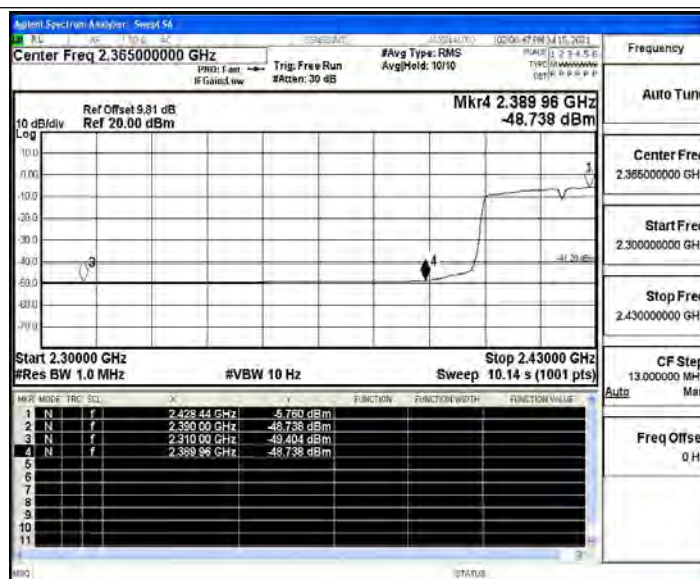
11N20SISO_Ant1_Low_2412_Peak



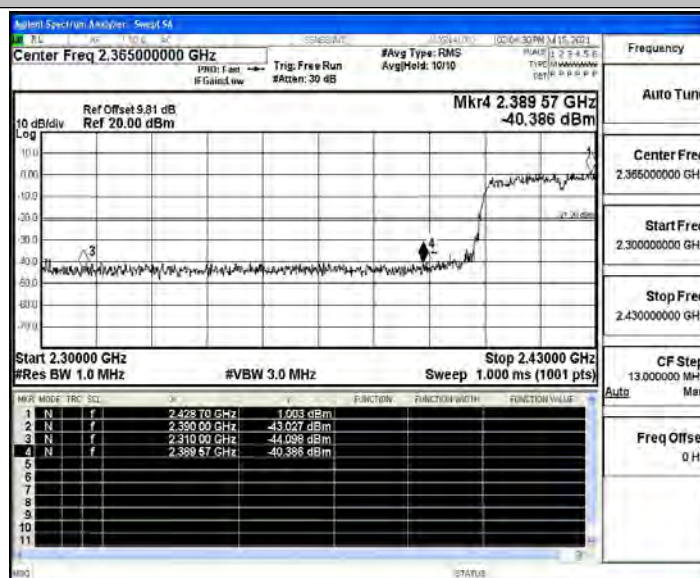
11N20SISO_Ant1_High_2462_AV



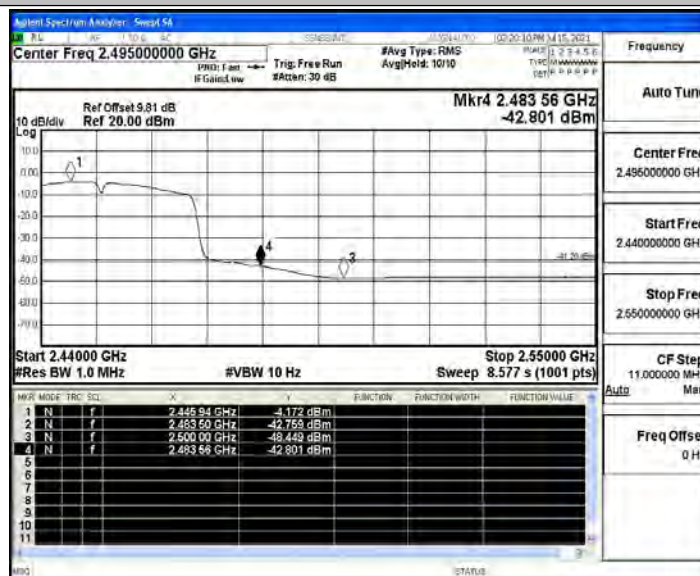
11N20SISO_Ant1_High_2462_Peak



11N40SISO_Ant1_Low_2422_AV

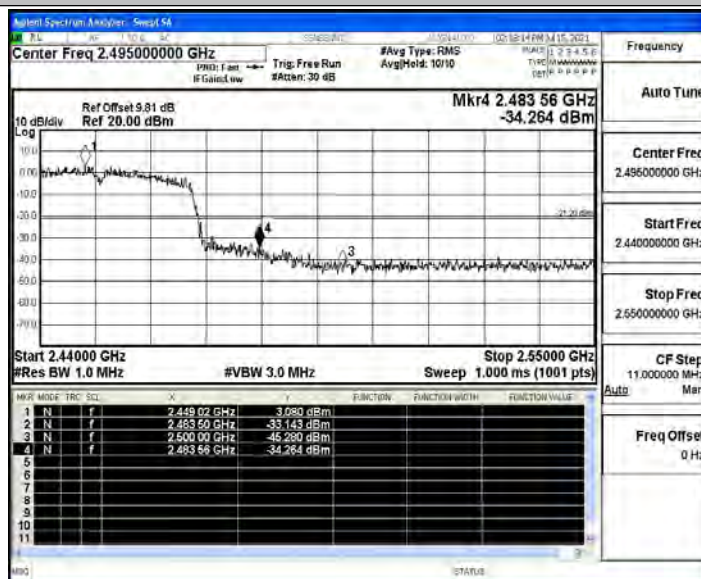


11N40SISO_Ant1_Low_2422_Peak





11N40SISO_Ant1_High_2452_AV



11N40SISO_Ant1_High_2452_Peak