



Appendix C

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: Tablet

Test Model: OTTTAB1

Environmental Conditions

Temperature:	23.7℃
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	 Bill Zhu
Supervised by:	 Li Huan



C.1 DTS Bandwidth

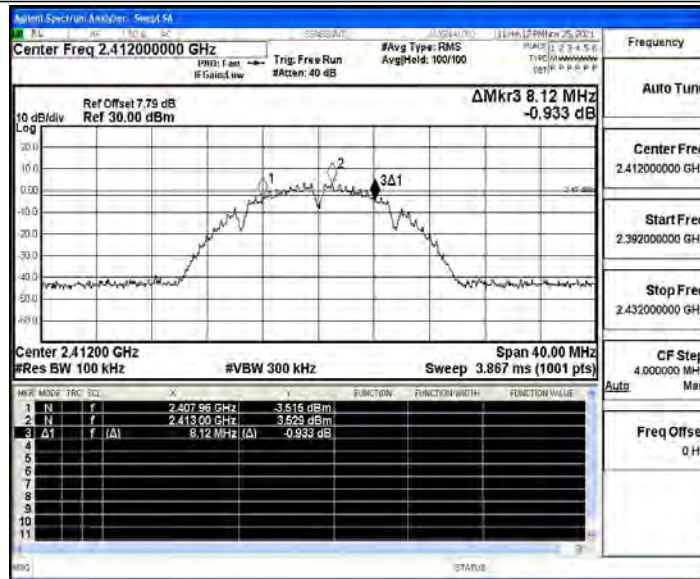
Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	8.120	2407.960	2416.080	0.5	PASS
		2437	7.640	2432.960	2440.600	0.5	PASS
		2462	7.160	2458.440	2465.600	0.5	PASS
11G	Ant1	2412	14.760	2404.800	2419.560	0.5	PASS
		2437	15.120	2429.440	2444.560	0.5	PASS
		2462	14.880	2454.720	2469.600	0.5	PASS
11N20SISO	Ant1	2412	16.400	2403.440	2419.840	0.5	PASS
		2437	15.120	2429.480	2444.600	0.5	PASS
		2462	16.080	2453.480	2469.560	0.5	PASS
11N40SISO	Ant1	2422	35.200	2404.400	2439.600	0.5	PASS
		2437	34.160	2420.440	2454.600	0.5	PASS
		2452	35.280	2434.320	2469.600	0.5	PASS

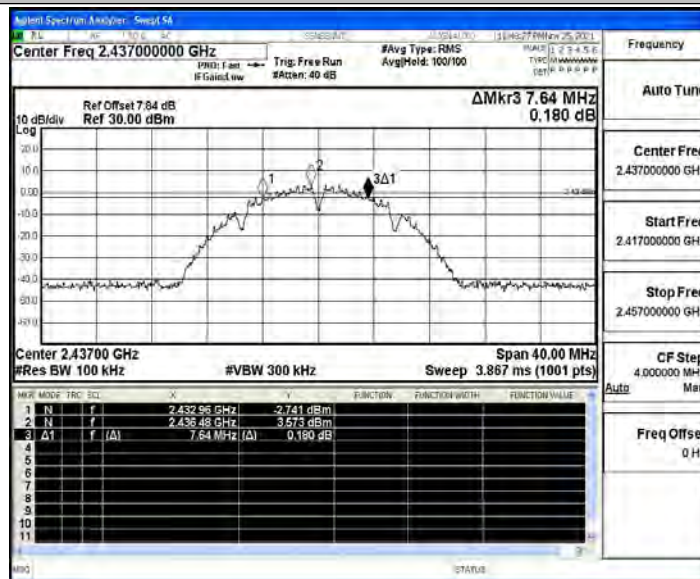


Test Graphs

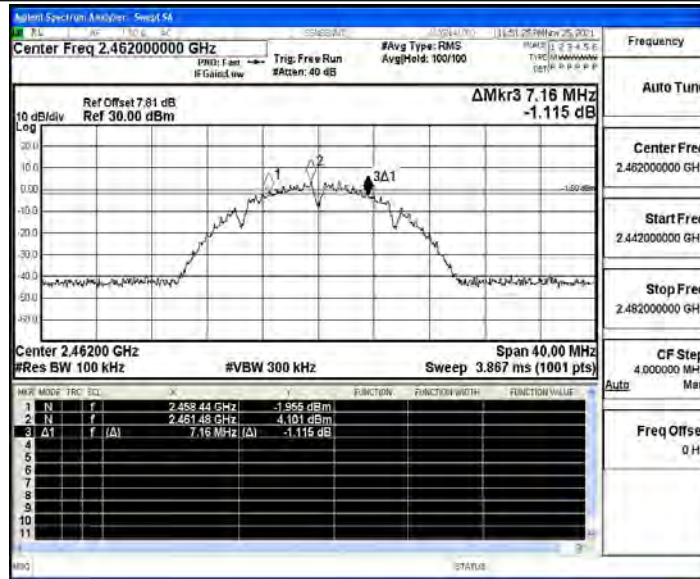
11B_Ant1_2412



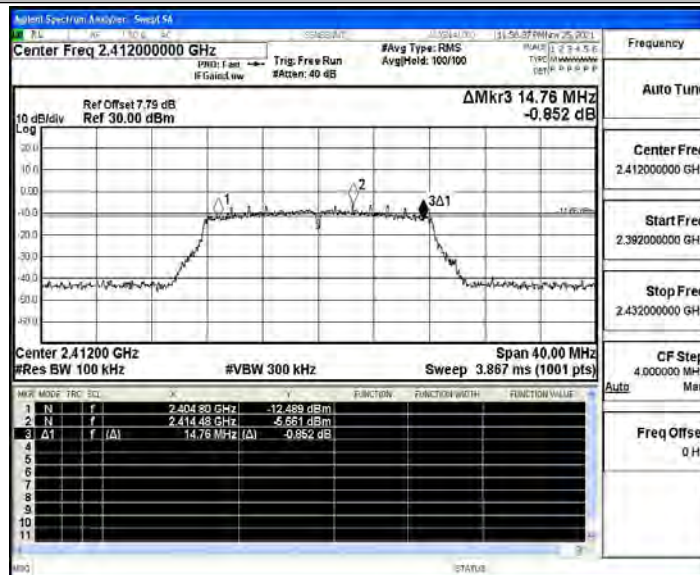
11B_Ant1_2437



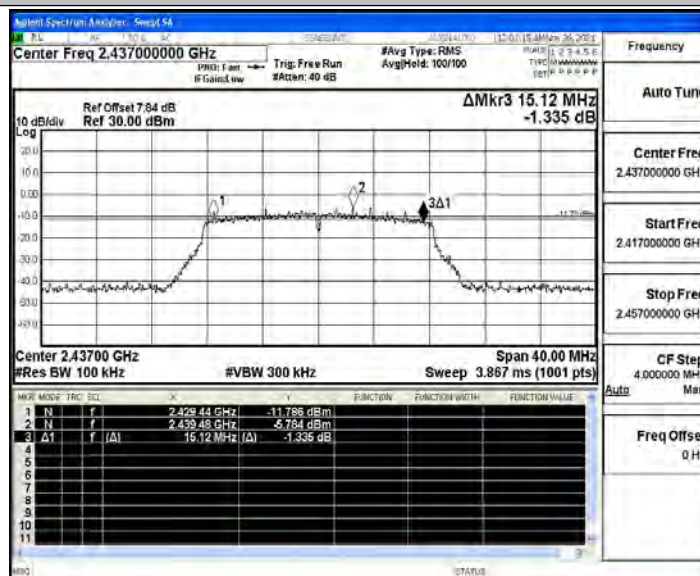
11B_Ant1_2462



11G_Ant1_2412

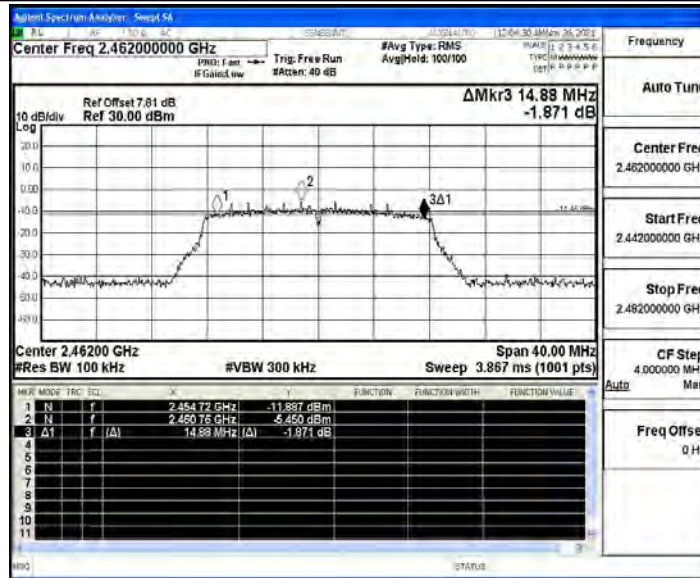


11G_Ant1_2437

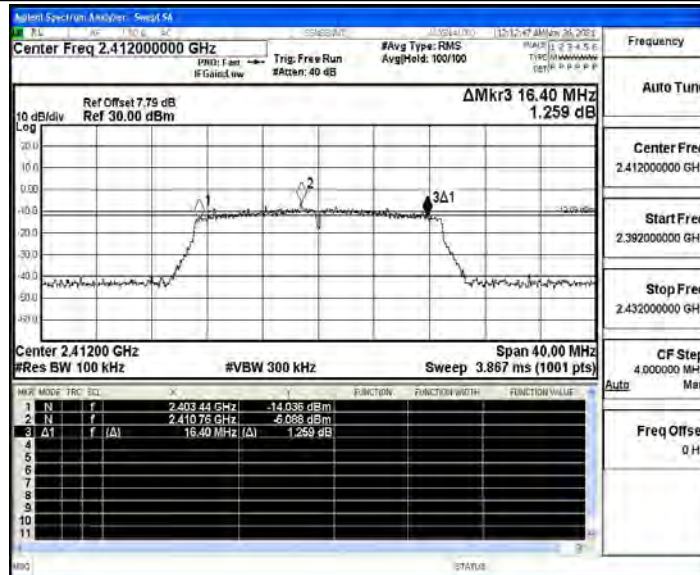




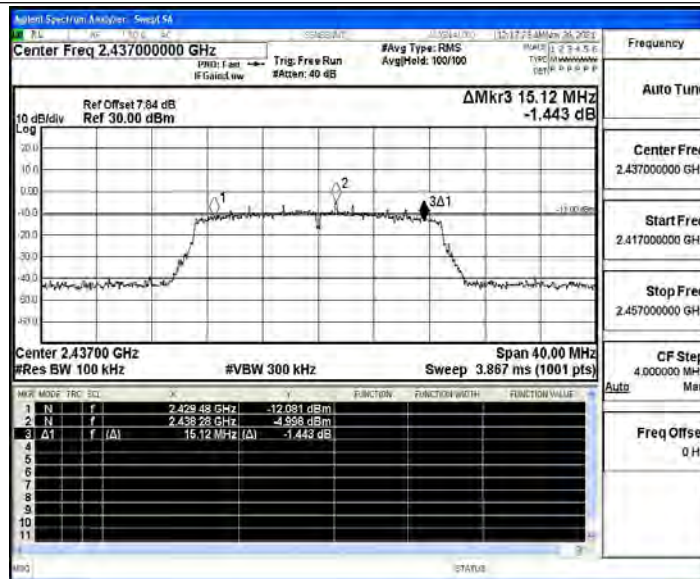
11G_Ant1_2462



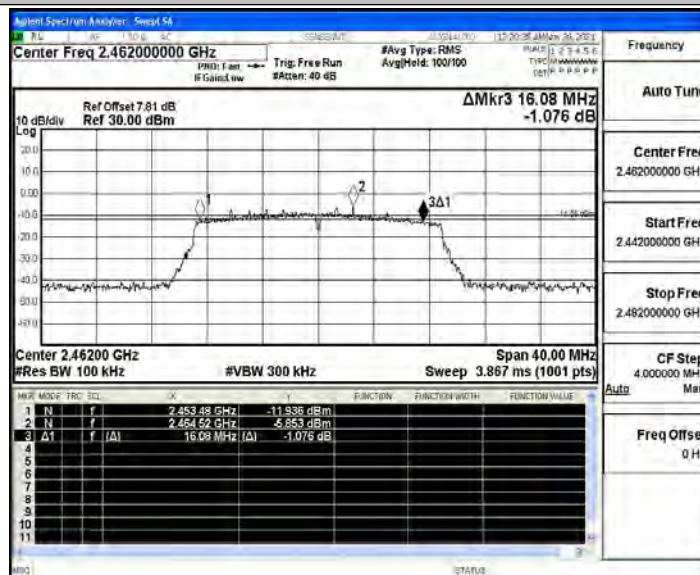
11N20SISO_Ant1_2412



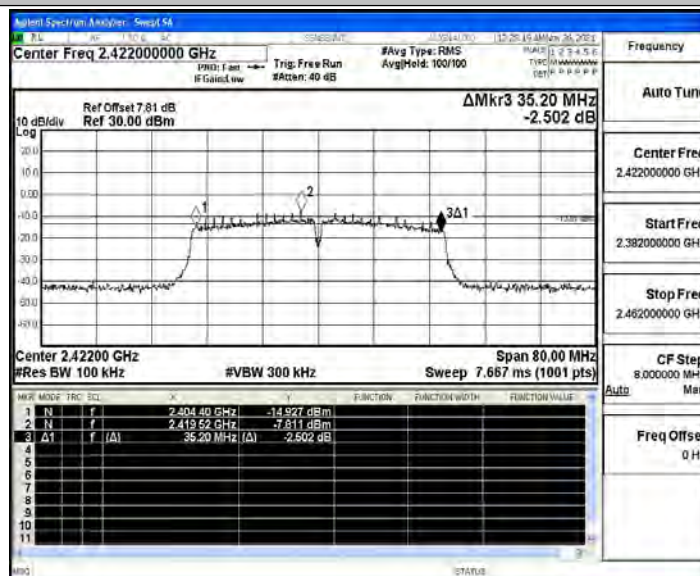
11N20SISO_Ant1_2437



11N20SISO_Ant1_2462

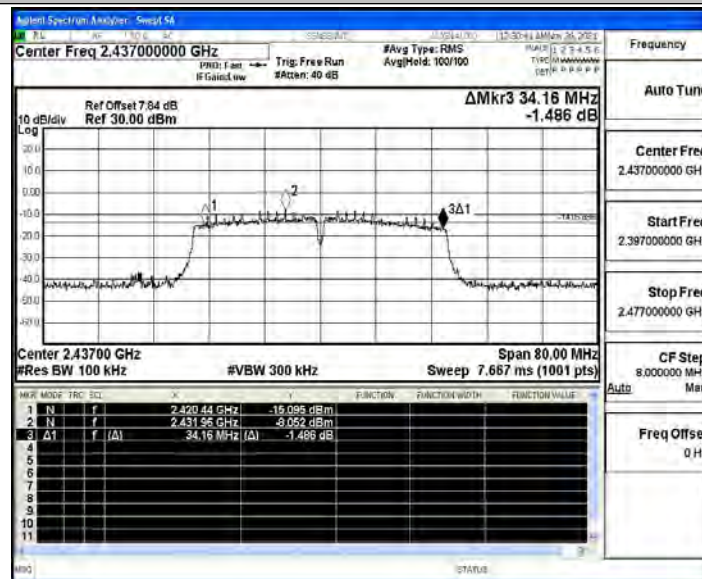


11N40SISO_Ant1_2422

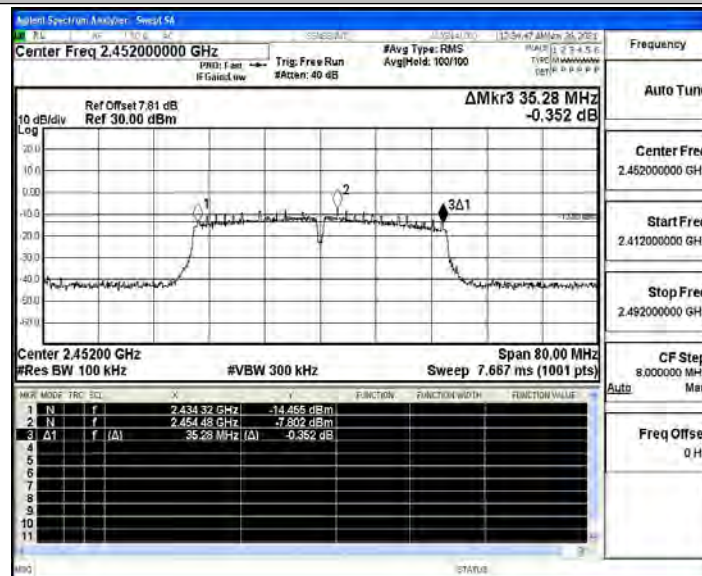




11N40SISO_Ant1_2437



11N40SISO_Ant1_2452





C.2 Maximum peak conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	2412	8.68	≤30	PASS
		2437	8.85	≤30	PASS
		2462	8.65	≤30	PASS
11G	Ant1	2412	7.80	≤30	PASS
		2437	7.91	≤30	PASS
		2462	8.01	≤30	PASS
11N20SISO	Ant1	2412	7.71	≤30	PASS
		2437	7.84	≤30	PASS
		2462	7.77	≤30	PASS
11N40SISO	Ant1	2422	8.04	≤30	PASS
		2437	8.15	≤30	PASS
		2452	8.20	≤30	PASS

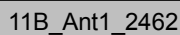
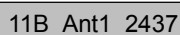


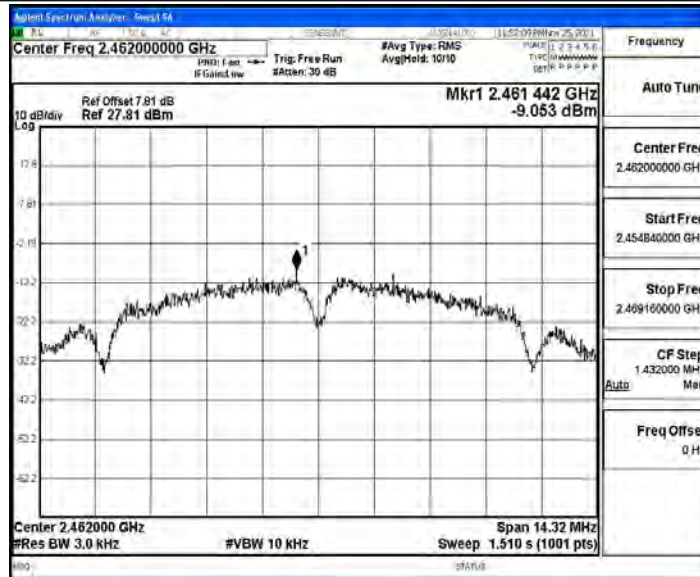
C.3 Maximum power spectral density

Test Result

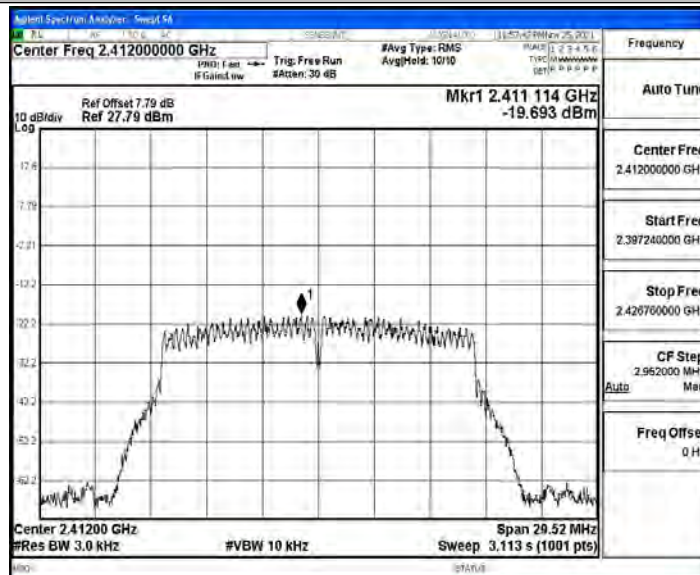
TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-9.44	≤8	PASS
		2437	-9.99	≤8	PASS
		2462	-9.05	≤8	PASS
11G	Ant1	2412	-19.69	≤8	PASS
		2437	-17.94	≤8	PASS
		2462	-17.92	≤8	PASS
11N20SISO	Ant1	2412	-20.06	≤8	PASS
		2437	-18.68	≤8	PASS
		2462	-19.7	≤8	PASS
11N40SISO	Ant1	2422	-21.49	≤8	PASS
		2437	-22.77	≤8	PASS
		2452	-21.48	≤8	PASS

11B_Ant1_2412

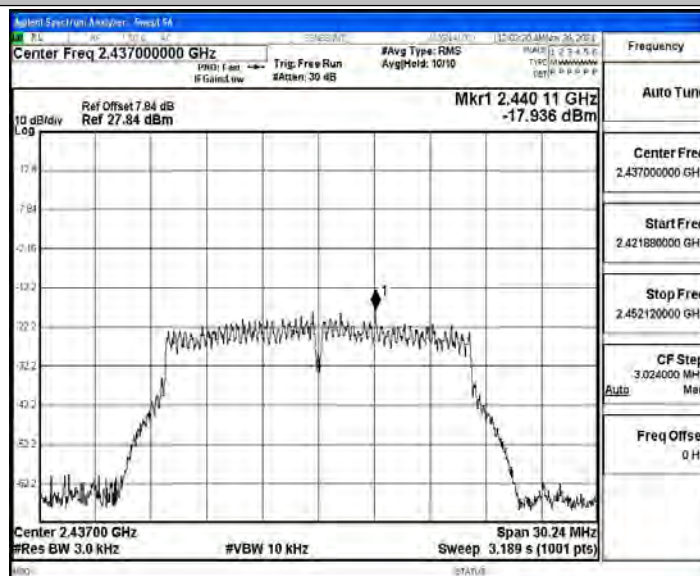


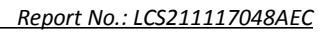


11G_Ant1_2412



11G_Ant1_2437





Agilent Spectrum Analyzer - fmeul5A

Center Freq 2.46200000 GHz

Trig: Free Run

#Avg Type: RMS

AvgHold: 10/10

Frequency

Auto Tun

Center Freq

2.46200000 GHz

Start Freq

2.44712600 GHz

Stop Freq

2.47698000 GHz

CF Step

2.976000 MHz

Auto

Me

Freq Offset

0 Hz

10 dB/div

Ref Offset 7.81 dB

Ref 27.81 dBm

Mkr1 2.463 250 GHz

-17.918 dBm

Span 29.76 MHz

Sweep 3.138 s (1001 pts)

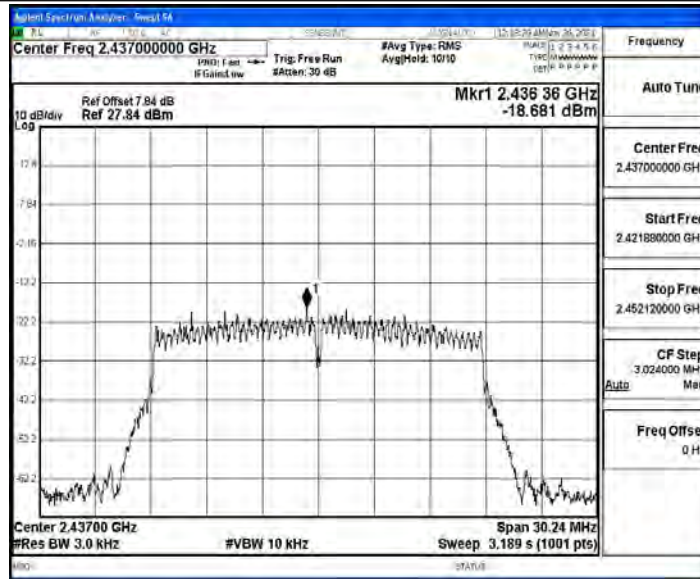
Res BW 3.0 kHz

#VBW 10 kHz

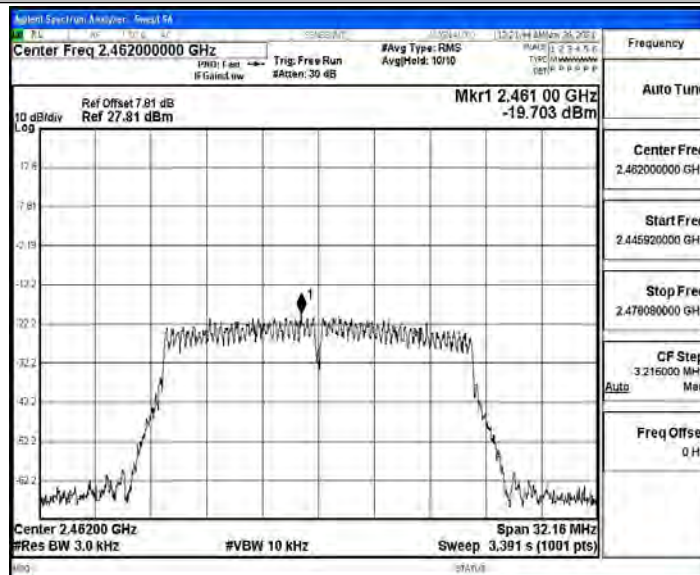
STATUS

[illegible]

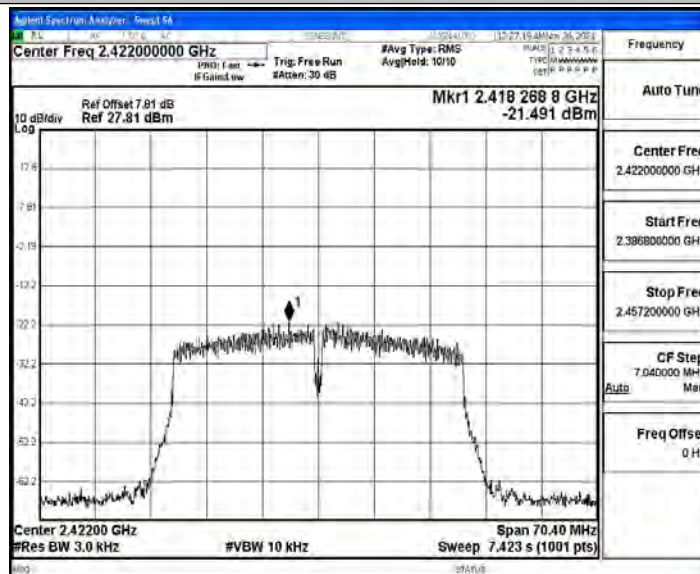
12 / 50



11N20SISO_Ant1_2462

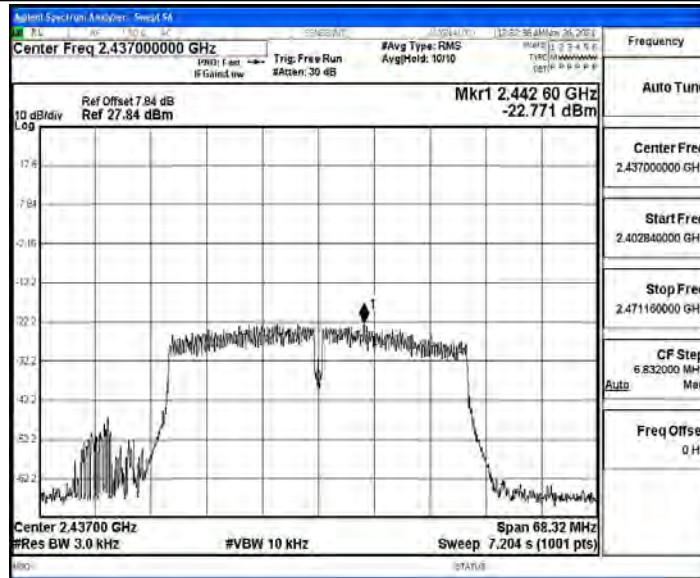


11N40SISO_Ant1_2422

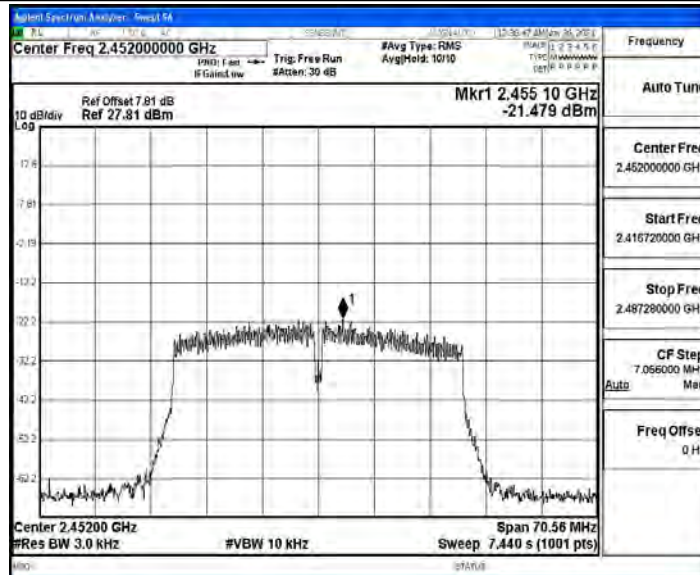




11N40SISO_Ant1_2437



11N40SISO_Ant1_2452





C.4 Band edge measurements

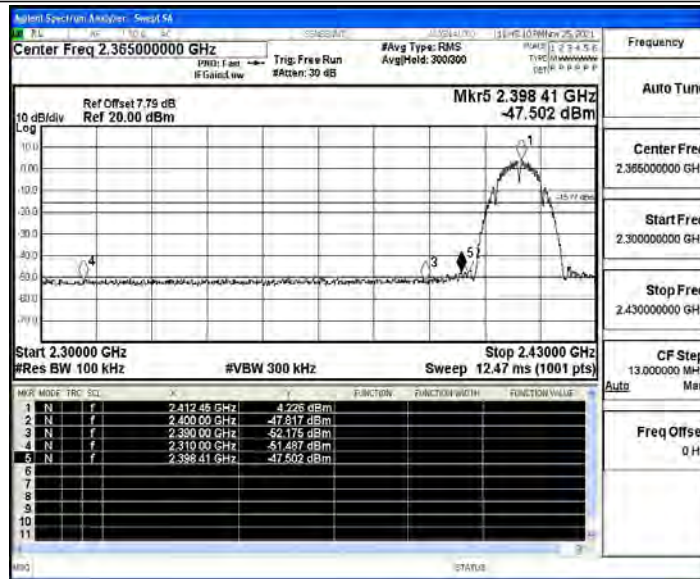
Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	4.23	-47.5	≤ -15.77	PASS
		High	2462	4.02	-48.42	≤ -15.98	PASS
11G	Ant1	Low	2412	-5.61	-48.49	≤ -25.61	PASS
		High	2462	-4.86	-48.29	≤ -24.86	PASS
11N20SISO	Ant1	Low	2412	-5.56	-47.62	≤ -25.56	PASS
		High	2462	-5.06	-48.46	≤ -25.06	PASS
11N40SISO	Ant1	Low	2422	-7.84	-47.56	≤ -27.84	PASS
		High	2452	-7.67	-48.98	≤ -27.67	PASS

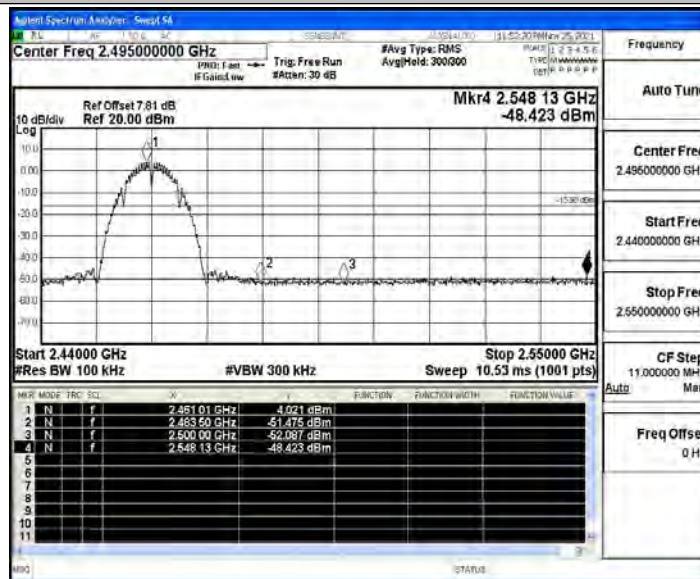


Test Graphs

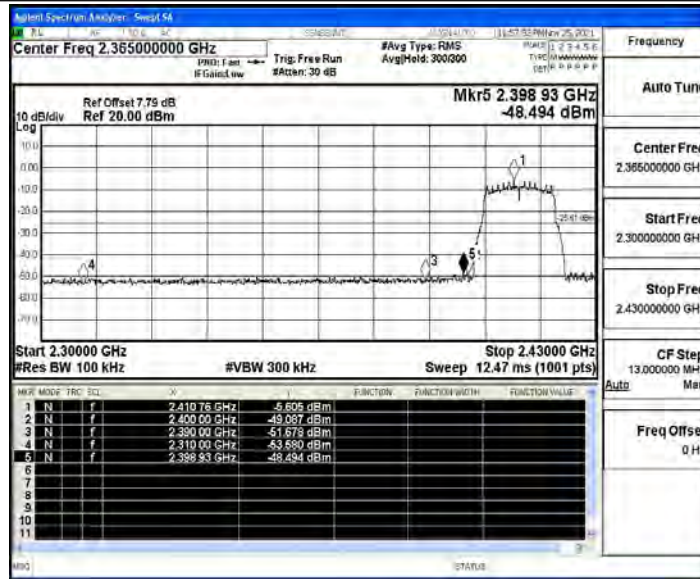
11B_Ant1_Low_2412



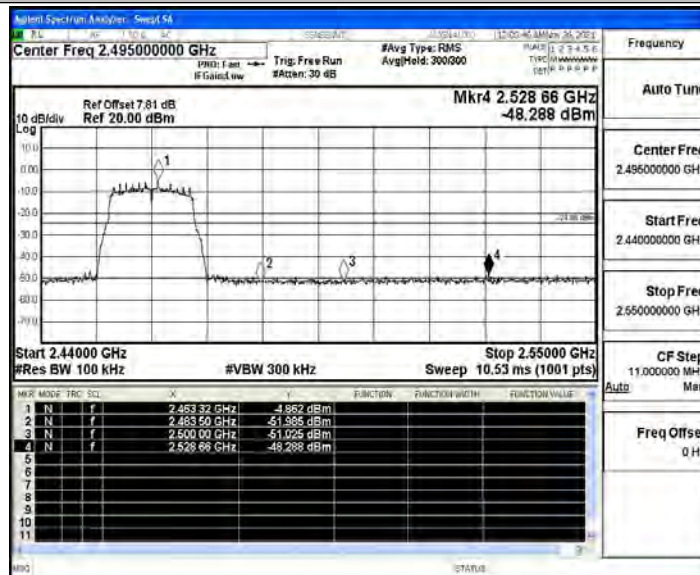
11B_Ant1_High_2462



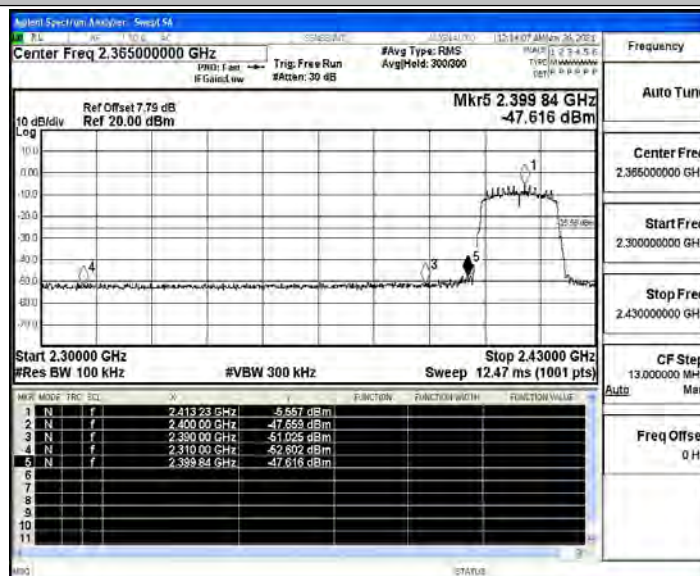
11G_Ant1_Low_2412



11G_Ant1_High_2462

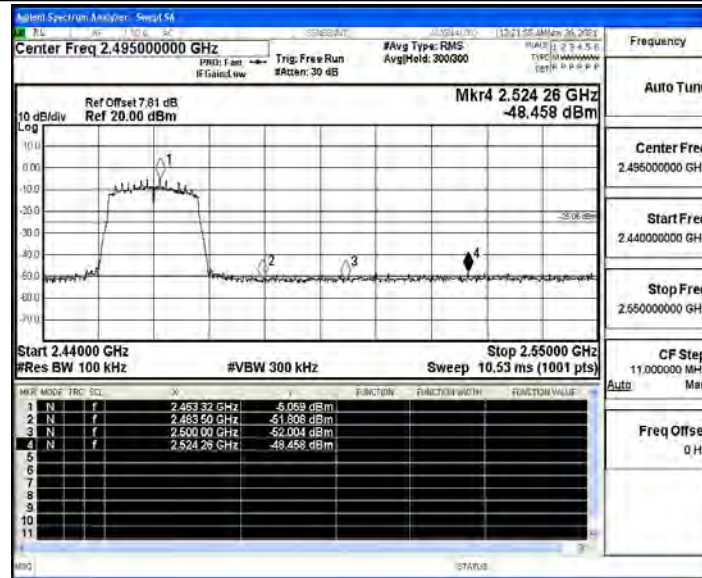


11N20SISO_Ant1_Low_2412

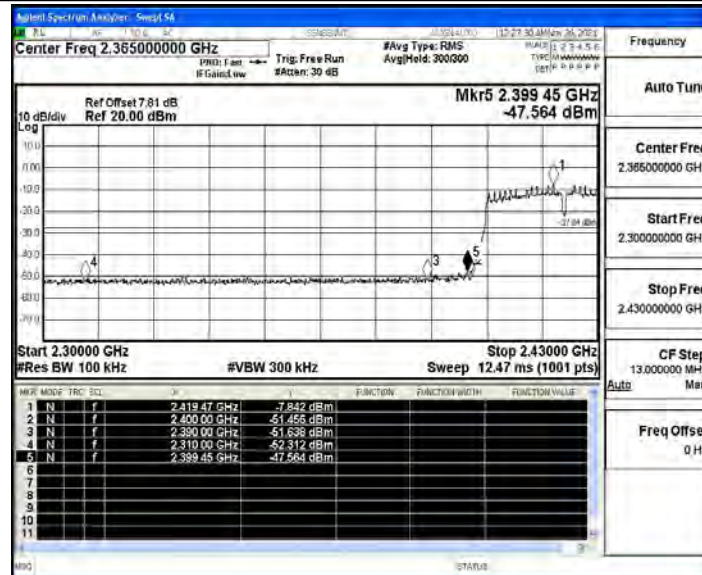




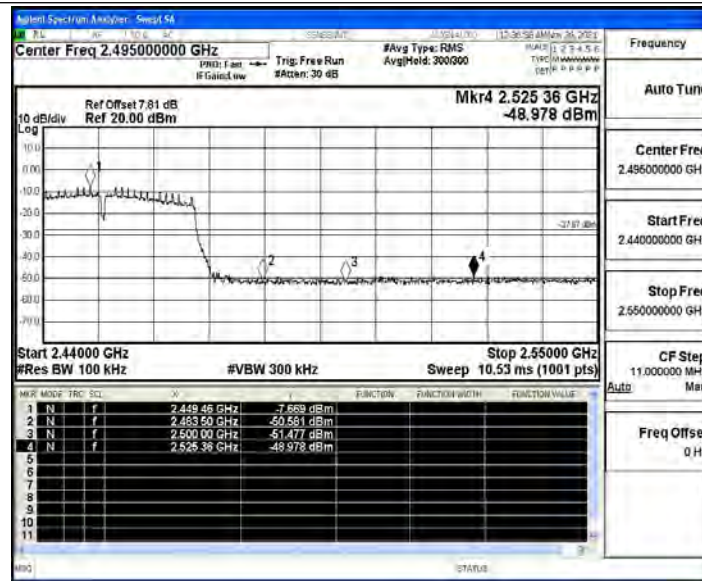
11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452





C.5 Conducted Spurious Emission

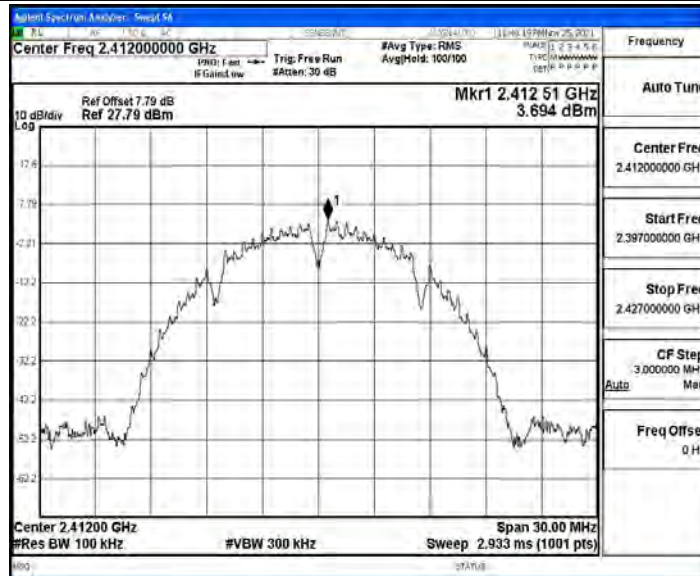
Test Result

TestMode	Antenna	Channel	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	3.69	3.69	---	PASS
			30~1000	3.69	-60.79	≤ -16.31	PASS
			1000~26500	3.69	-46.73	≤ -16.31	PASS
		2437	Reference	3.37	3.37	---	PASS
			30~1000	3.37	-59.3	≤ -16.63	PASS
			1000~26500	3.37	-47.46	≤ -16.63	PASS
		2462	Reference	3.23	3.23	---	PASS
			30~1000	3.23	-59.67	≤ -16.77	PASS
			1000~26500	3.23	-46.69	≤ -16.77	PASS
11G	Ant1	2412	Reference	-5.56	-5.56	---	PASS
			30~1000	-5.56	-58.71	≤ -25.56	PASS
			1000~26500	-5.56	-46.51	≤ -25.56	PASS
		2437	Reference	-5.96	-5.96	---	PASS
			30~1000	-5.96	-59.89	≤ -25.96	PASS
			1000~26500	-5.96	-46.54	≤ -25.96	PASS
		2462	Reference	-5.68	-5.68	---	PASS
			30~1000	-5.68	-62	≤ -25.68	PASS
			1000~26500	-5.68	-47.62	≤ -25.68	PASS
11N20SISO	Ant1	2412	Reference	-6.51	-6.51	---	PASS
			30~1000	-6.51	-61	≤ -26.51	PASS
			1000~26500	-6.51	-46.99	≤ -26.51	PASS
		2437	Reference	-5.44	-5.44	---	PASS
			30~1000	-5.44	-61.26	≤ -25.44	PASS
			1000~26500	-5.44	-45.99	≤ -25.44	PASS
		2462	Reference	-5.65	-5.65	---	PASS
			30~1000	-5.65	-61.73	≤ -25.65	PASS
			1000~26500	-5.65	-46.63	≤ -25.65	PASS
11N40SISO	Ant1	2422	Reference	-7.96	-7.96	---	PASS
			30~1000	-7.96	-60.41	≤ -27.96	PASS
			1000~26500	-7.96	-47.13	≤ -27.96	PASS
		2437	Reference	-8.14	-8.14	---	PASS
			30~1000	-8.14	-60.57	≤ -28.14	PASS
			1000~26500	-8.14	-46.07	≤ -28.14	PASS
		2452	Reference	-8.27	-8.27	---	PASS
			30~1000	-8.27	-61.11	≤ -28.27	PASS
			1000~26500	-8.27	-47.29	≤ -28.27	PASS

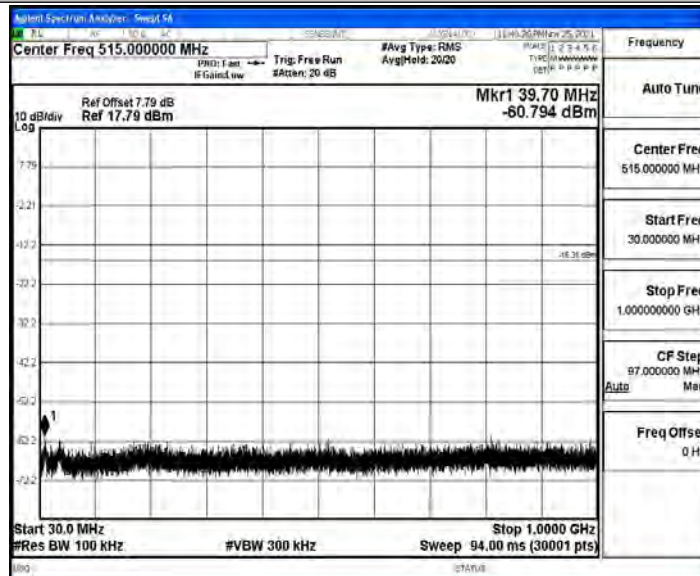


Test Graphs

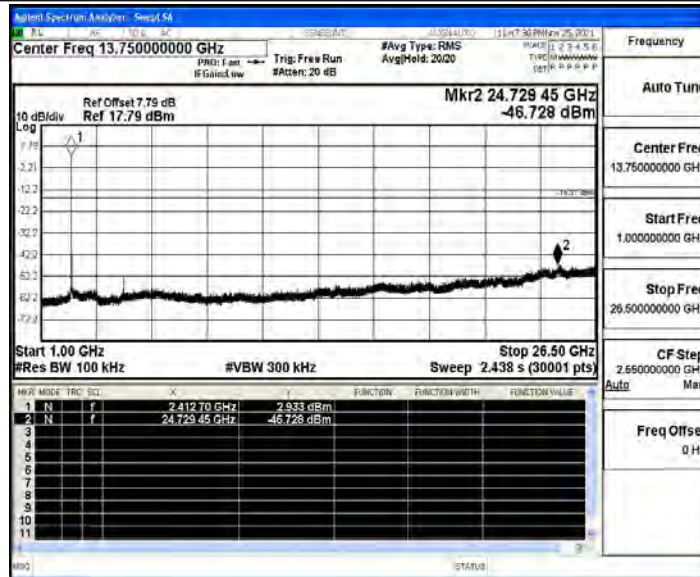
11B_Ant1_2412_0~Reference



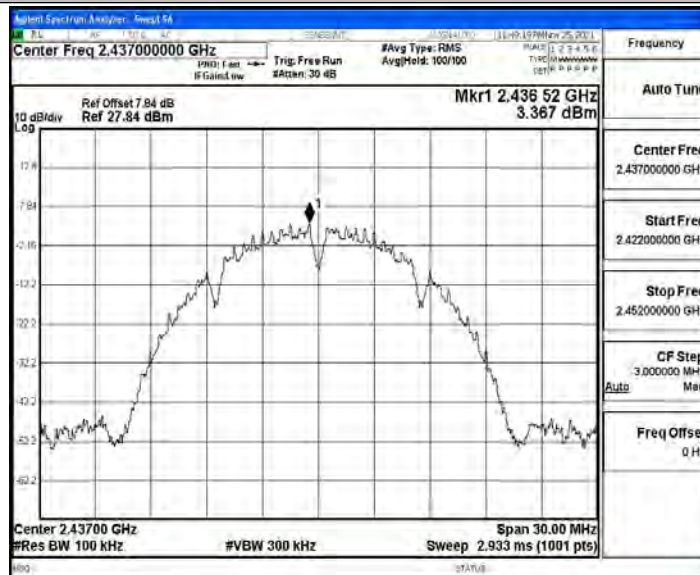
11B_Ant1_2412_30~1000



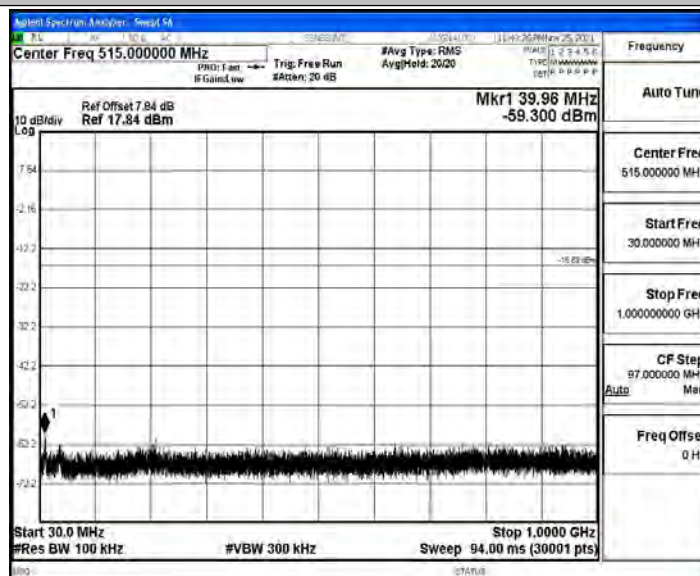
11B_Ant1_2412_1000~26500



11B_Ant1_2437_0~Reference

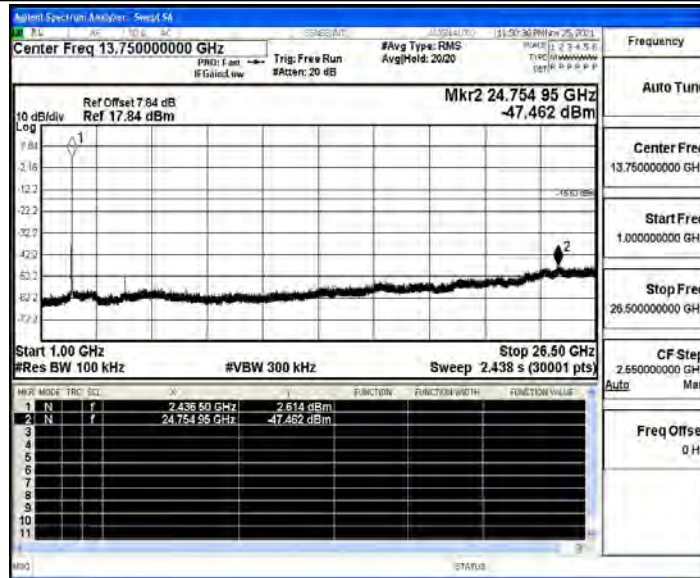


11B_Ant1_2437_30~1000

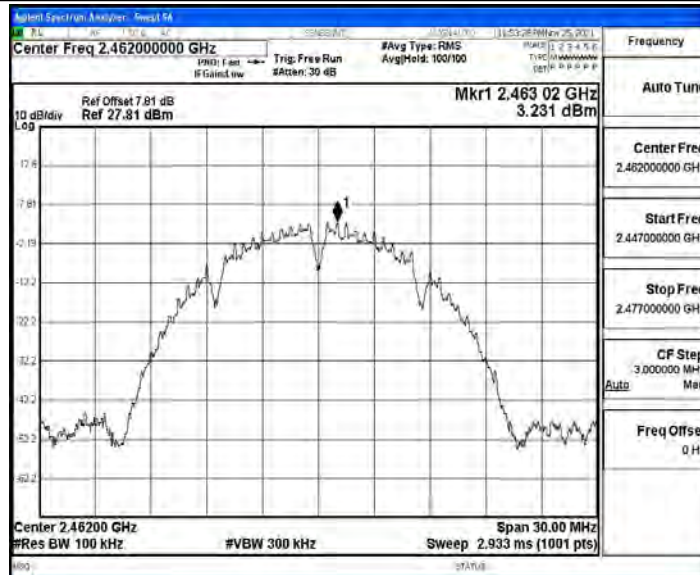




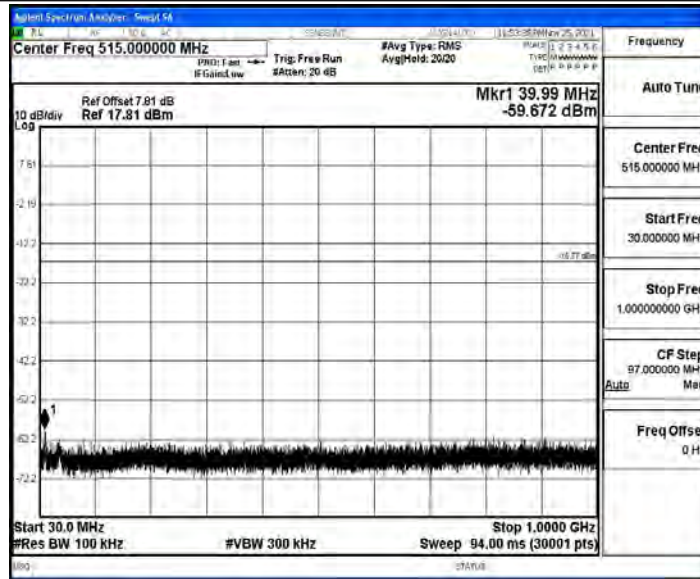
11B_Ant1_2437_1000~26500



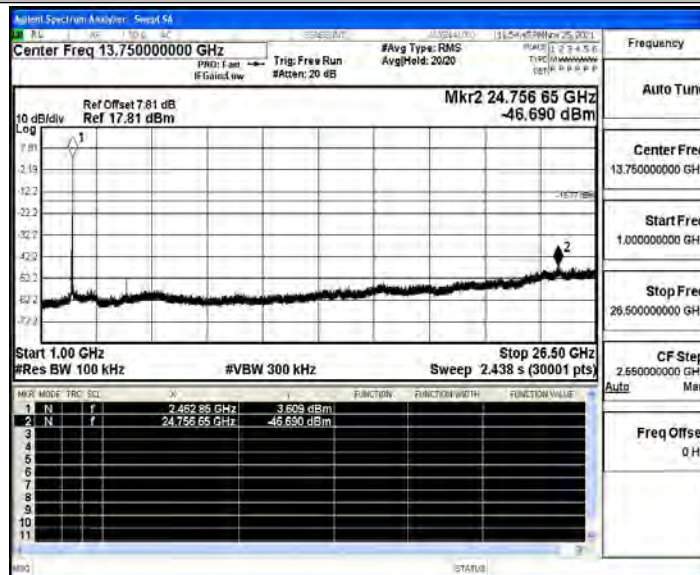
11B_Ant1_2462_0~Reference



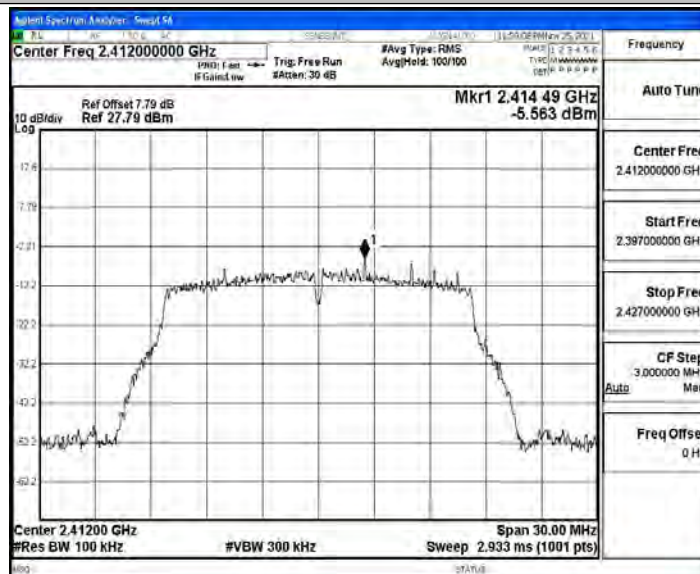
11B_Ant1_2462_30~1000



11B_Ant1_2462_1000~26500

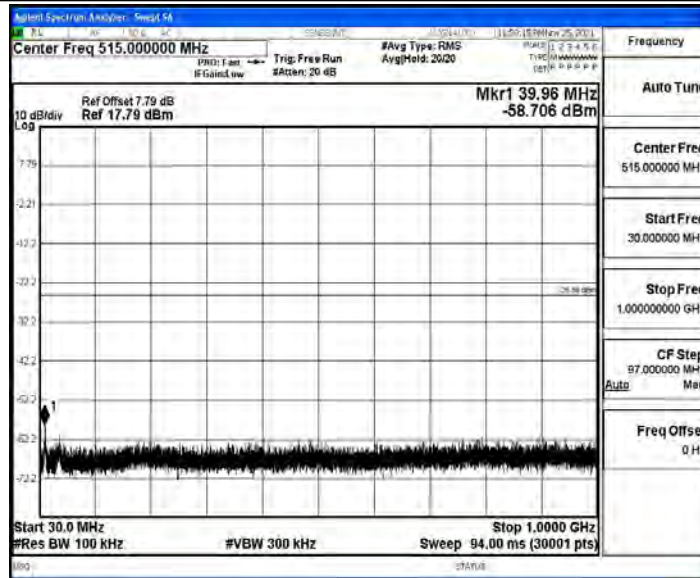


11G_Ant1_2412_0~Reference

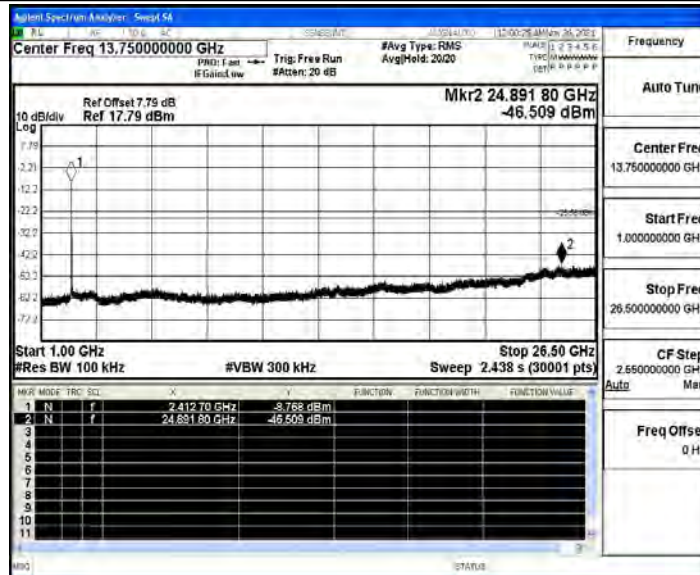




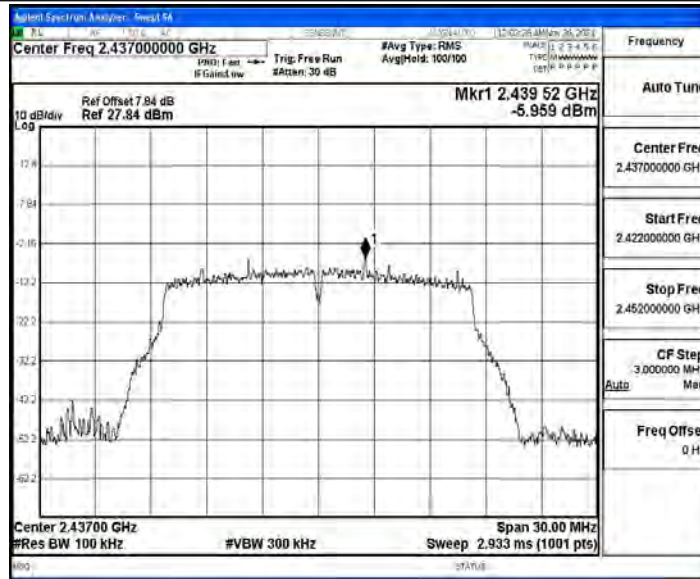
11G_Ant1_2412_30~1000



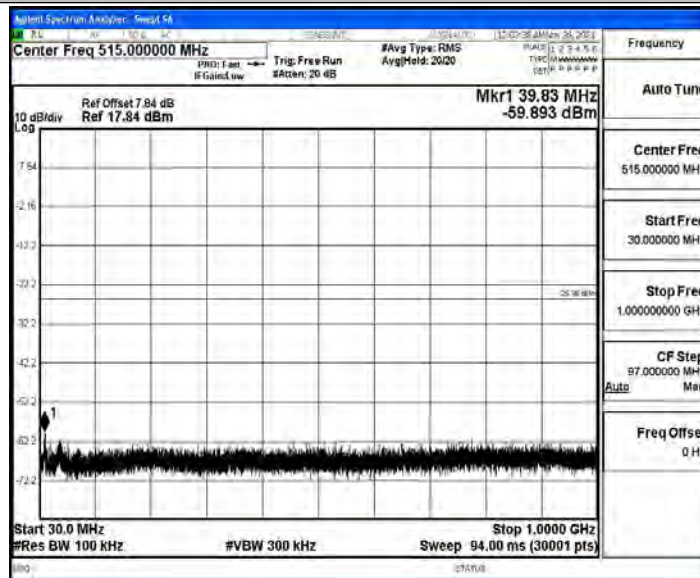
11G_Ant1_2412_1000~26500



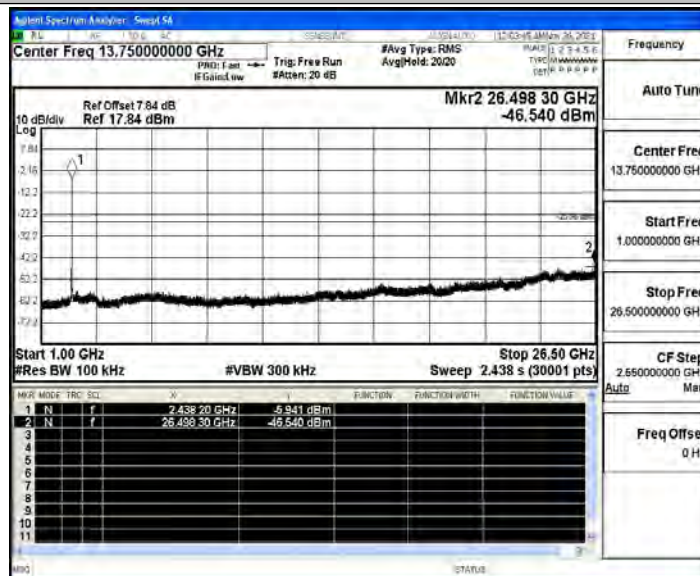
11G_Ant1_2437_0~Reference



11G_Ant1_2437_30~1000

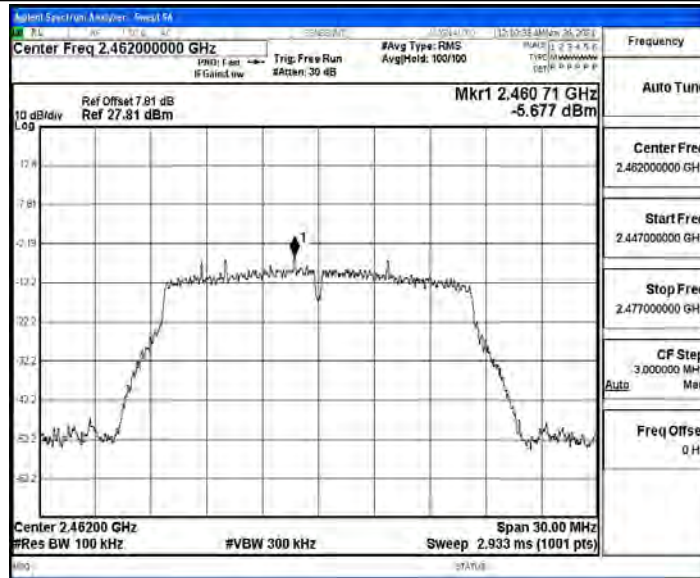


11G_Ant1_2437_1000~26500

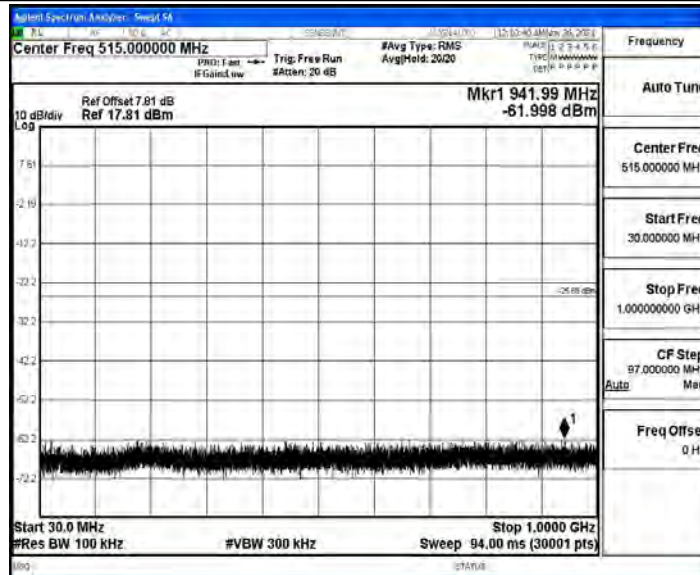




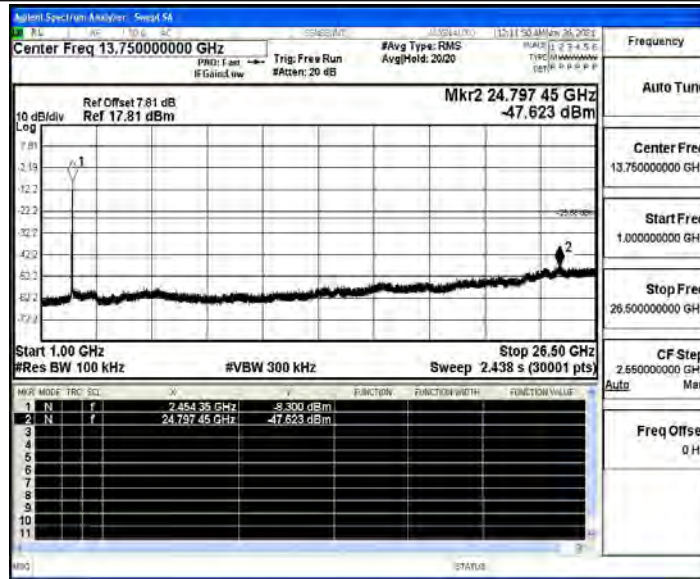
11G_Ant1_2462_0~Reference



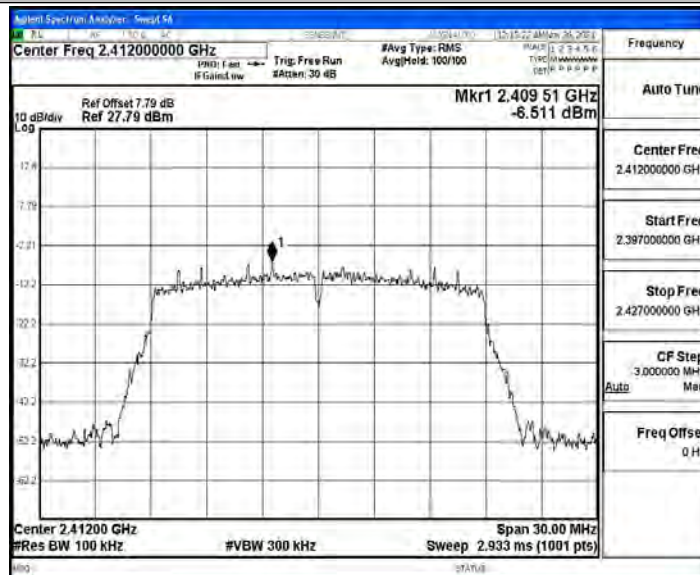
11G_Ant1_2462_30~1000



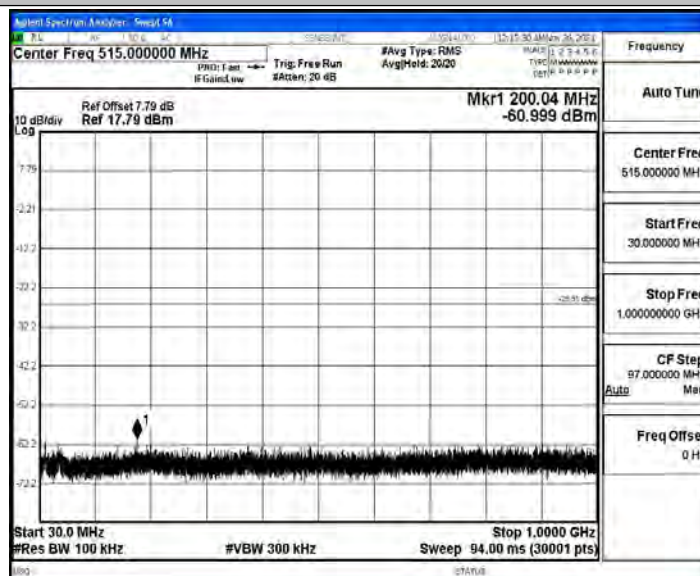
11G_Ant1_2462_1000~26500



11N20SISO_Ant1_2412_0~Reference

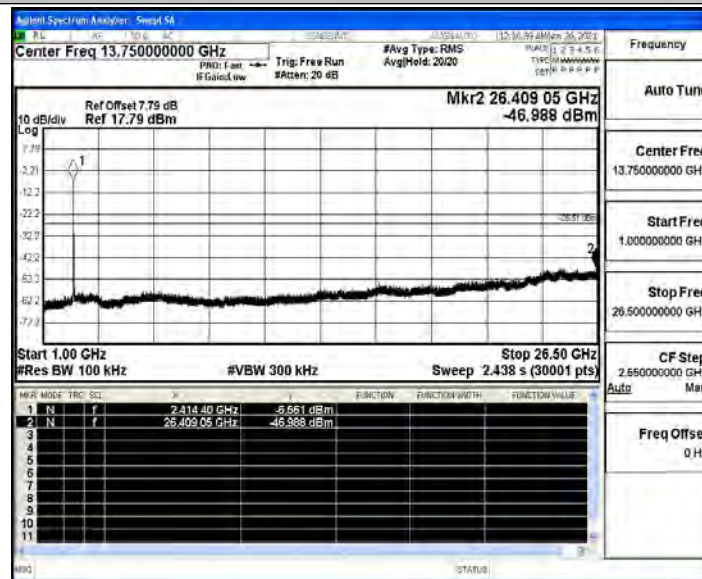


11N20SISO_Ant1_2412_30~1000

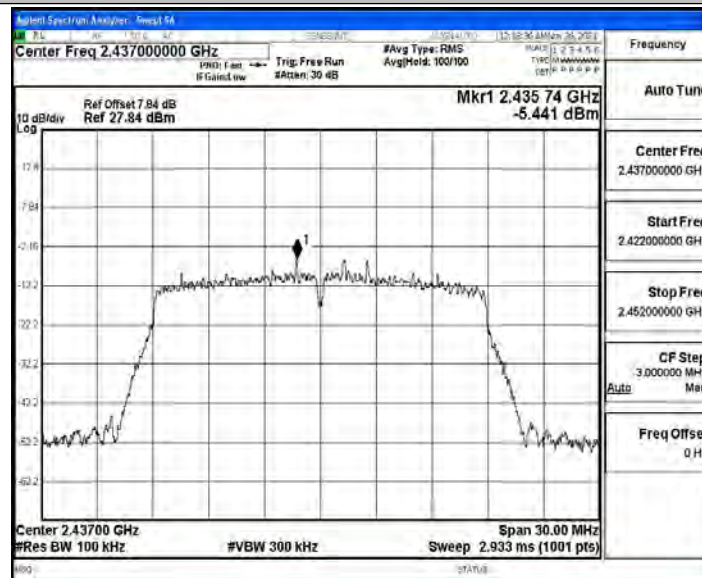




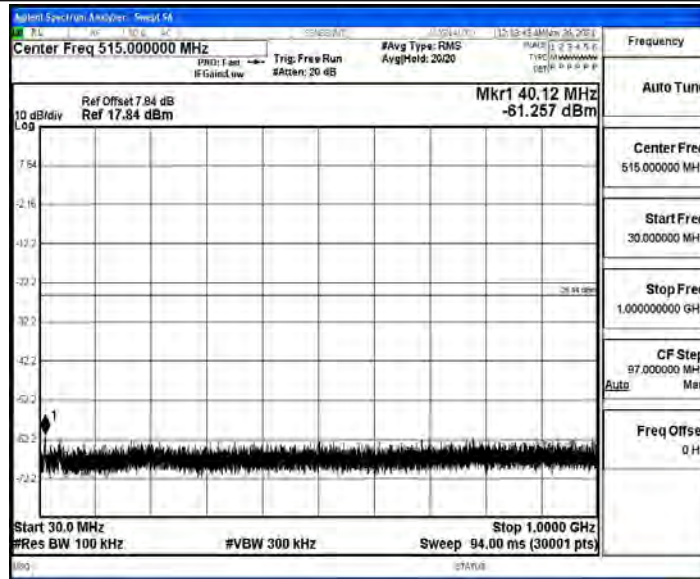
11N20SISO_Ant1_2412_1000~26500



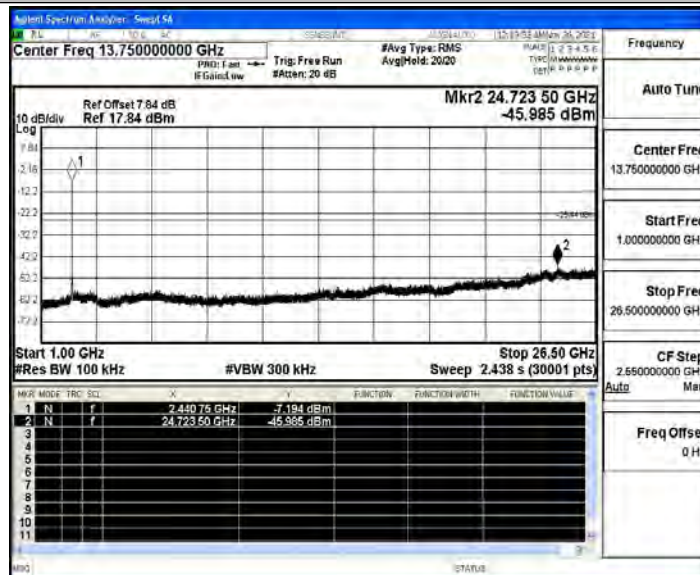
11N20SISO_Ant1_2437_0~Reference



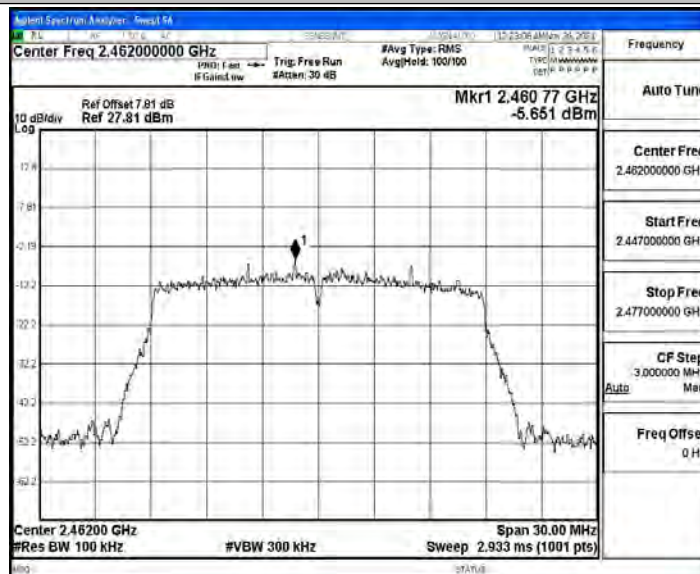
11N20SISO_Ant1_2437_30~1000



11N20SISO_Ant1_2437_1000~26500

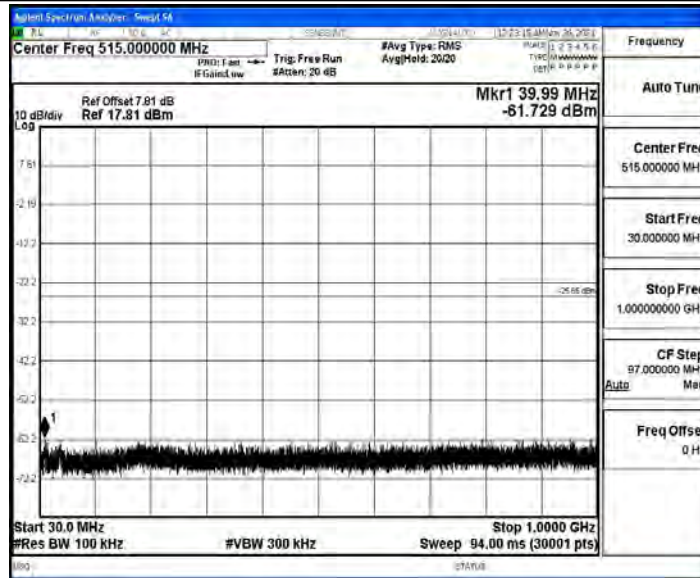


11N20SISO_Ant1_2462_0~Reference

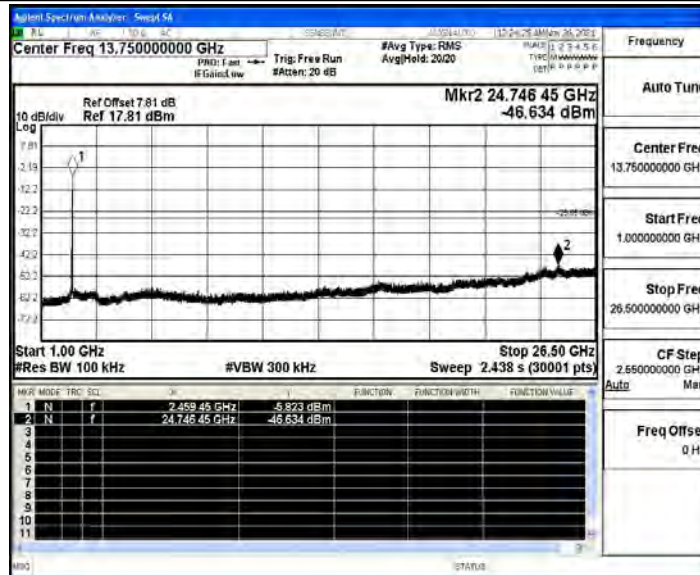




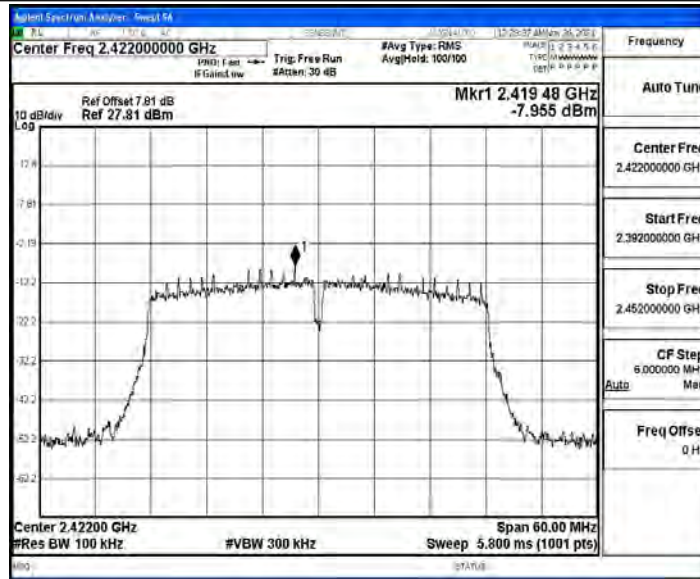
11N20SISO_Ant1_2462_30~1000



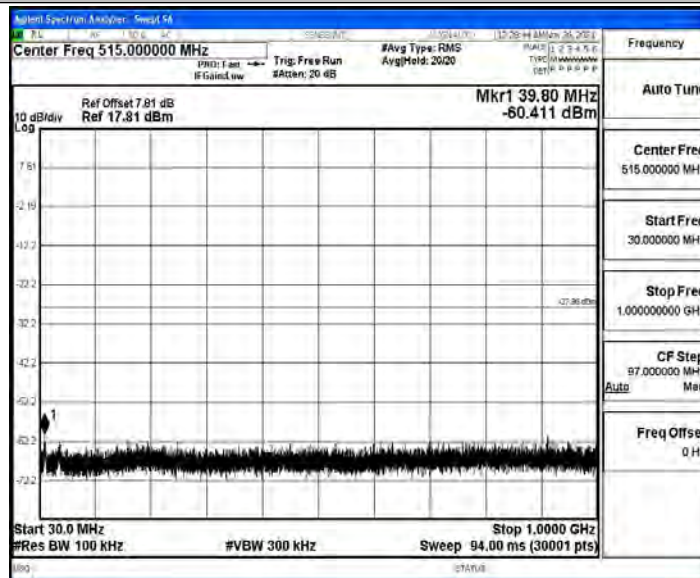
11N20SISO_Ant1_2462_1000~26500



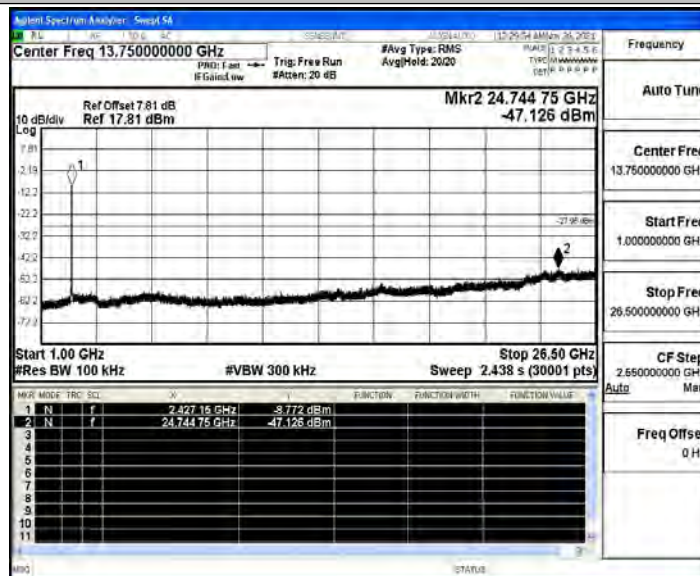
11N40SISO_Ant1_2422_0~Reference

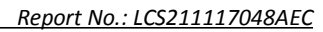


11N40SISO_Ant1_2422_30~1000



11N40SISO_Ant1_2422_1000~26500





Agilent Spectrum Analyzer - fmeul SA

Center Freq 2.437000000 GHz

Trig: Free Run

#Avg Type: RMS

AvgHold: 100/100

Frequency

Ref Offset 7.84 dB

Ref 27.84 dBm

Mkr1 2.431 96 GHz

-8.141 dBm

10 dB/div

17.6

7.84

-2.16

-12.2

72.2

72.2

43.2

43.2

23.2

23.2

Center 2.43700 GHz

#Res BW 100 kHz

#VBW 300 kHz

Span 60.00 MHz

Sweep 5.000 ms (1001 pts)

CF Step 5.000000 MHz

Auto

Freq Offset 0 Hz

Agilent Spectrum Analyzer - Screenshot

Center Freq 515.000000 MHz

Ref Offset 7.84 dB
Ref 17.84 dBm

Mkr1 39.60 MHz
-60.573 dBm

Start 30.0 MHz
#Res BW 100 kHz
Stop 1.0000 GHz
Sweep 94.00 ms (30001 pts)

Frequency

Auto Tun

Center Freq 515.000000 MHz

Start Freq 30.000000 MHz

Stop Freq 1.00000000 GHz

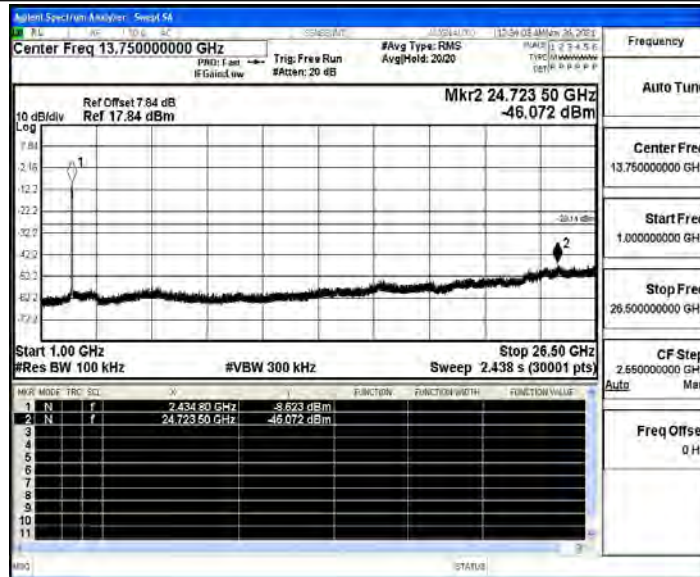
CF Step 97.000000 MHz

Auto

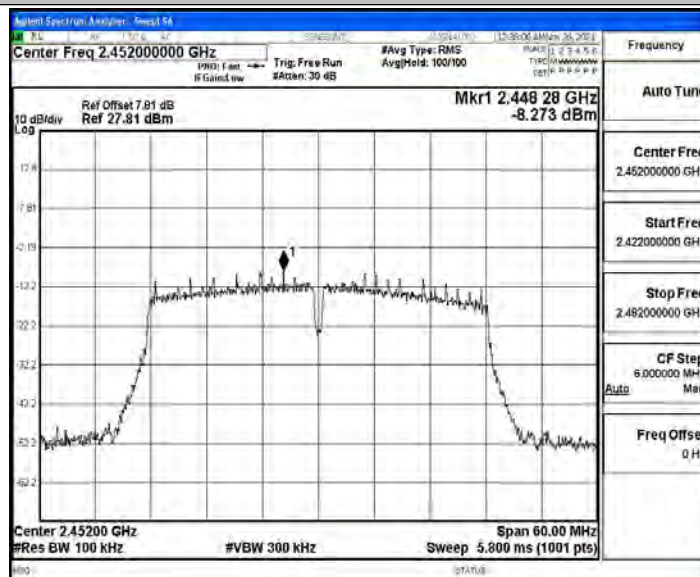
Freq Offset 0 Hz

Status

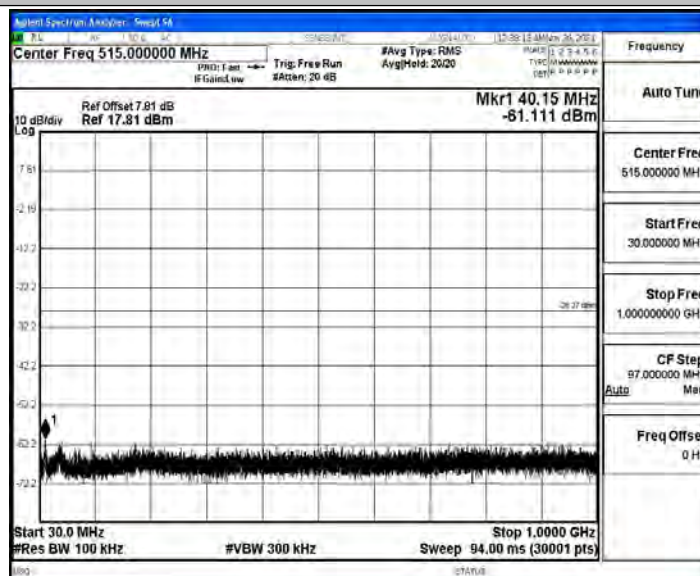
33 / 50



11N40SISO_Ant1_2452_0~Reference

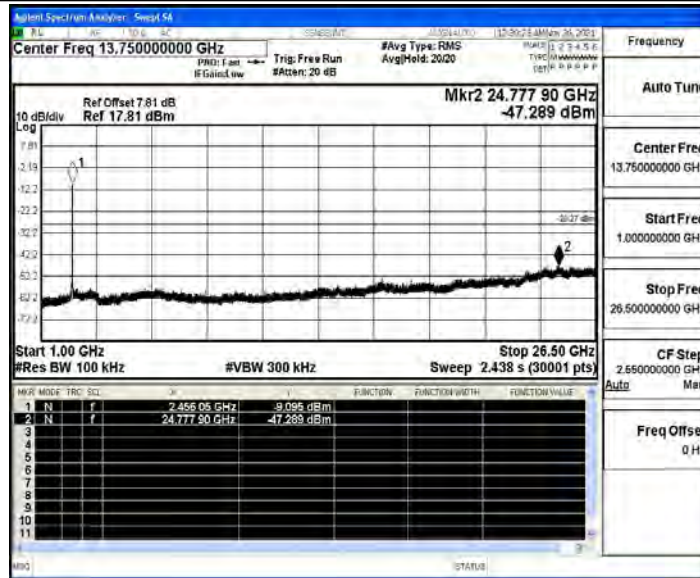


11N40SISO_Ant1_2452_30~1000





11N40SISO_Ant1_2452_1000~26500





C.6 Duty Cycle

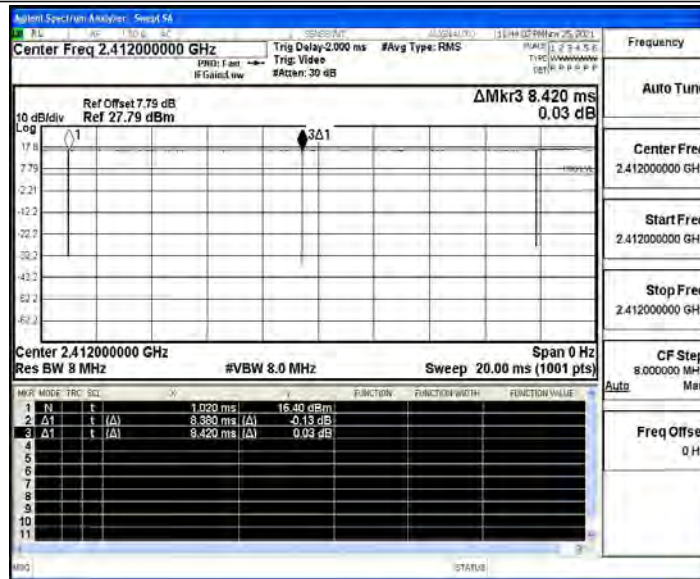
Test Result

TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Limit	Verdict
11B	Ant1	2412	8.38	8.42	99.52	---	PASS
		2437	8.38	8.42	99.52	---	PASS
		2462	8.38	8.42	99.52	---	PASS
11G	Ant1	2412	1.39	1.44	96.53	---	PASS
		2437	1.39	1.44	96.53	---	PASS
		2462	1.39	1.44	96.53	---	PASS
11N20SISO	Ant1	2412	1.30	1.35	96.30	---	PASS
		2437	1.30	1.35	96.30	---	PASS
		2462	1.30	1.35	96.30	---	PASS
11N40SISO	Ant1	2422	0.64	0.69	92.75	---	PASS
		2437	0.64	0.69	92.75	---	PASS
		2452	0.64	0.69	92.75	---	PASS

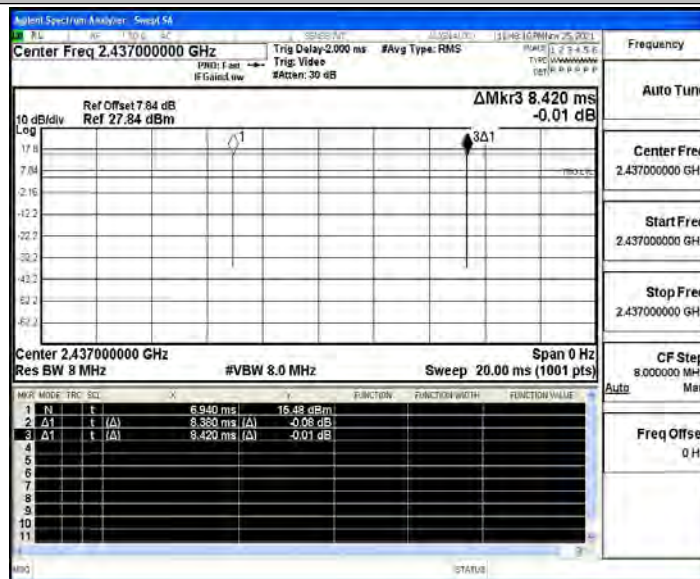


Test Graphs

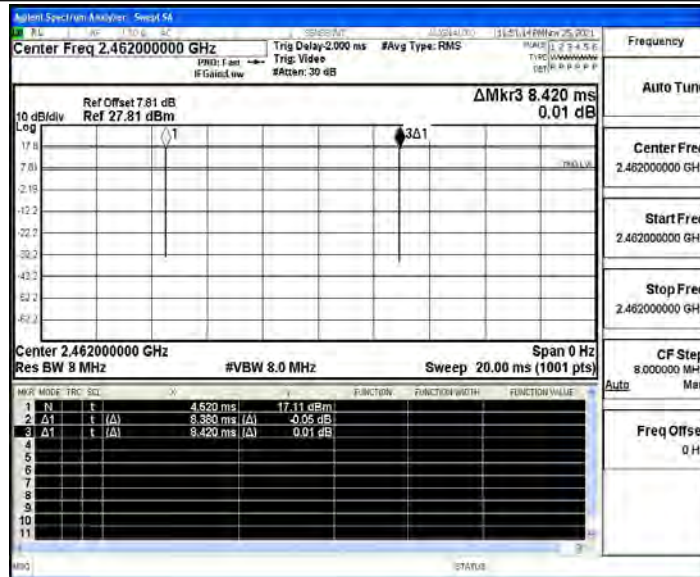
11B_Ant1_2412



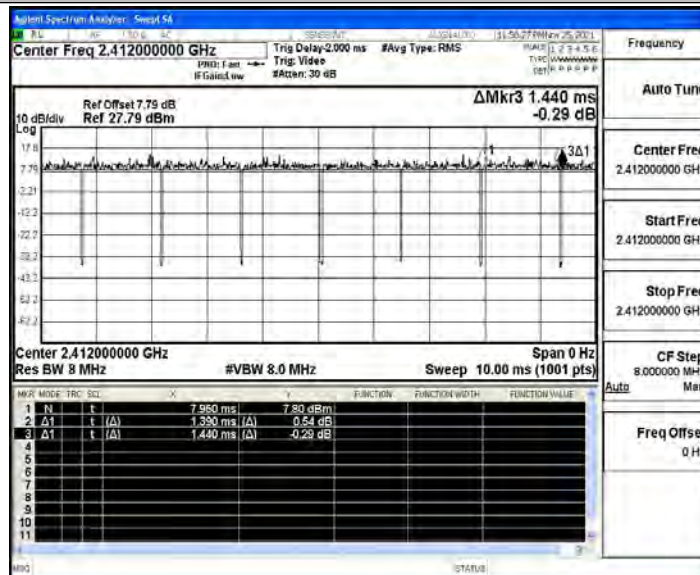
11B_Ant1_2437



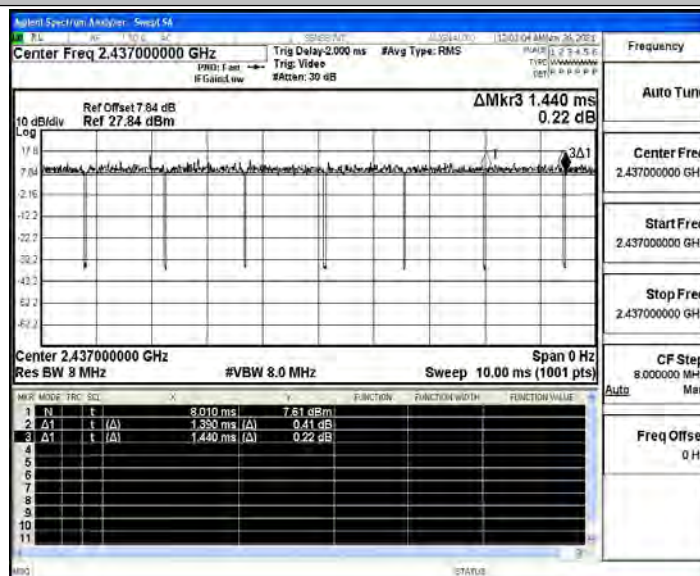
11B_Ant1_2462



11G_Ant1_2412

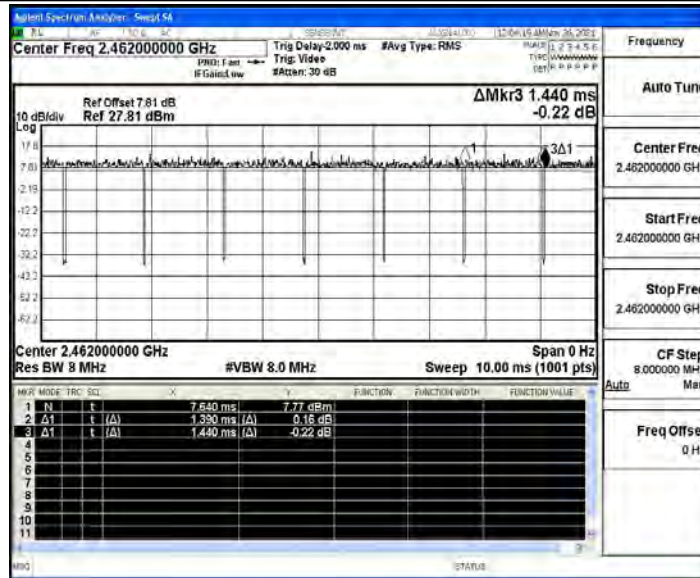


11G_Ant1_2437

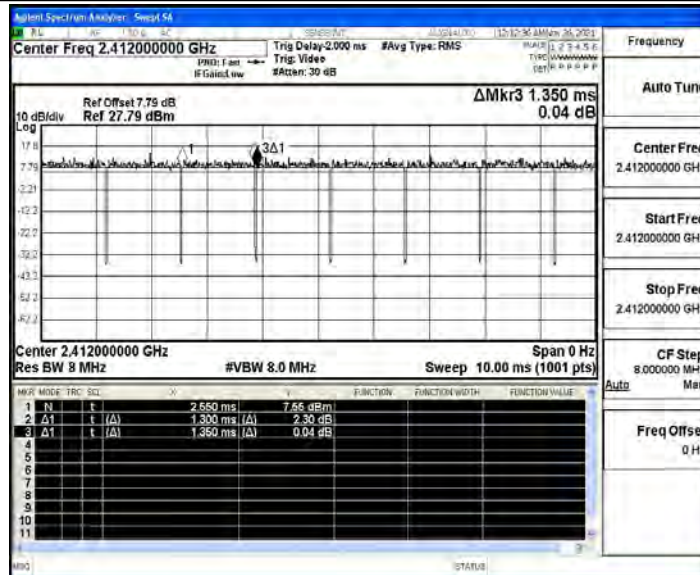




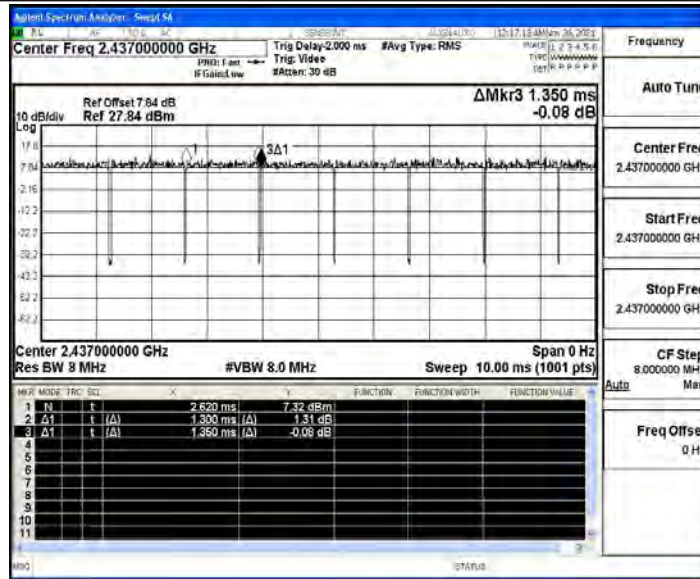
11G_Ant1_2462



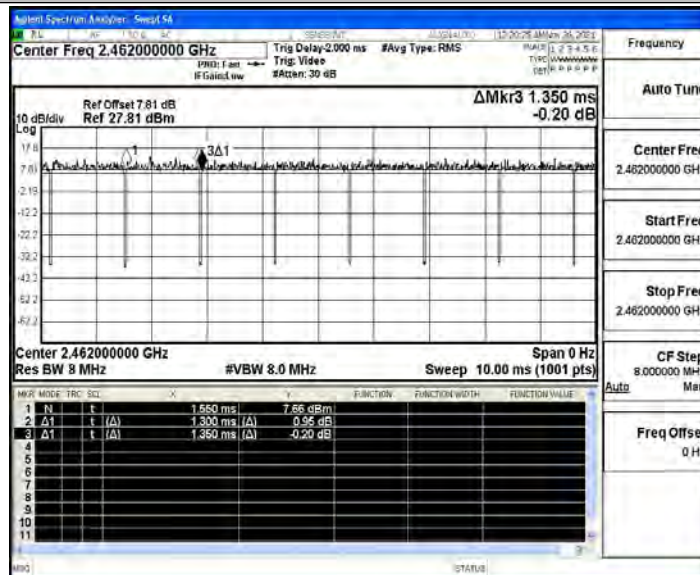
11N20SISO_Ant1_2412



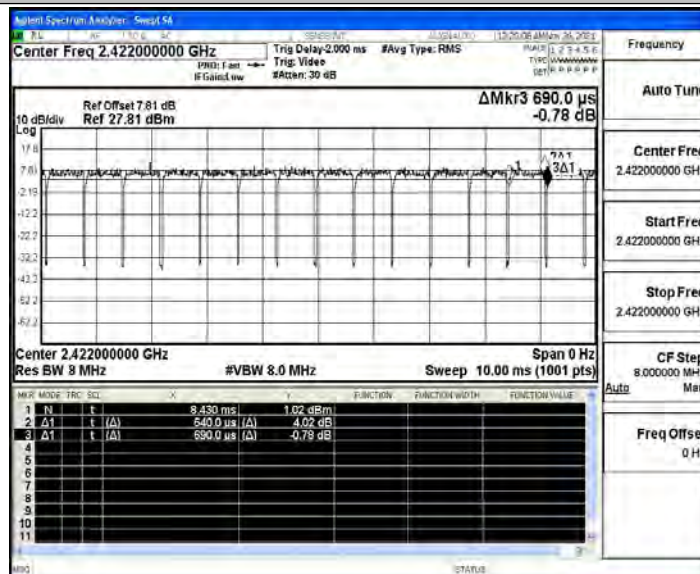
11N20SISO_Ant1_2437



11N20SISO_Ant1_2462

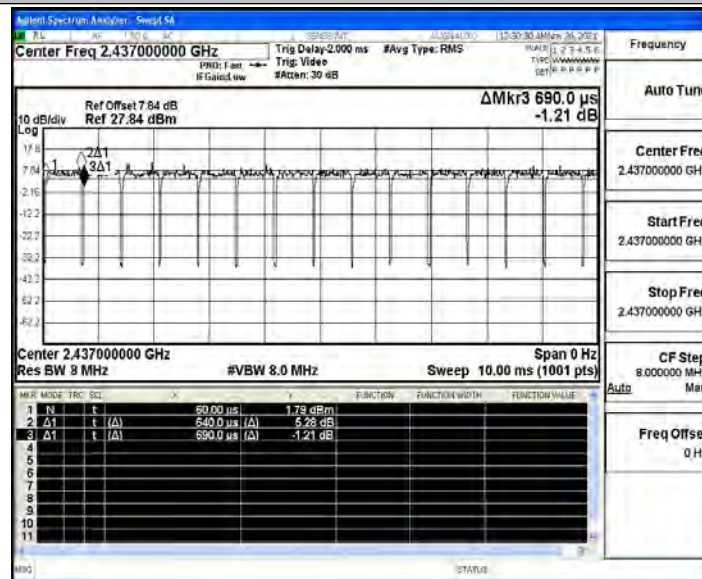


11N40SISO_Ant1_2422

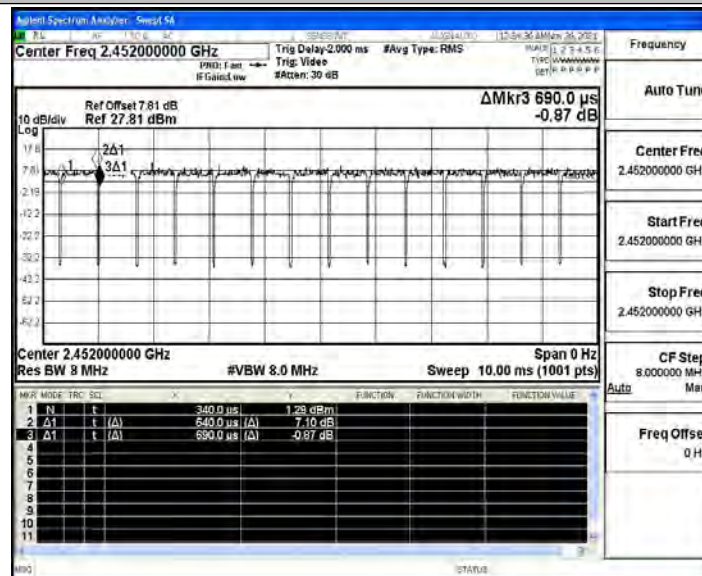




11N40SISO_Ant1_2437



11N40SISO_Ant1_2452





C.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	-49.23	≤-41.20	45.97	≤54	PASS
				AV	2388.530	-48.44	≤-41.20	46.76	≤54	PASS
				AV	2390.000	-48.45	≤-41.20	46.75	≤54	PASS
				Peak	2310.000	-46.66	≤-21.20	48.54	≤74	PASS
				Peak	2357.070	-39.47	≤-21.20	55.73	≤74	PASS
				Peak	2390.000	-44.28	≤-21.20	50.92	≤74	PASS
		High	2462	AV	2483.500	-48.11	≤-41.20	47.09	≤54	PASS
				AV	2499.840	-47.91	≤-41.20	47.29	≤54	PASS
				AV	2500.000	-47.93	≤-41.20	47.27	≤54	PASS
				Peak	2483.500	-42.59	≤-21.20	52.61	≤74	PASS
				Peak	2491.370	-39.55	≤-21.20	55.65	≤74	PASS
				Peak	2500.000	-44.27	≤-21.20	50.93	≤74	PASS
11G	Ant1	Low	2412	AV	2310.000	-48.81	≤-41.20	46.39	≤54	PASS
				AV	2389.570	-48.09	≤-41.20	47.11	≤54	PASS
				AV	2390.000	-48.12	≤-41.20	47.08	≤54	PASS
				Peak	2310.000	-42.54	≤-21.20	52.66	≤74	PASS
				Peak	2333.280	-37.82	≤-21.20	57.38	≤74	PASS
				Peak	2390.000	-40.14	≤-21.20	55.06	≤74	PASS
		High	2462	AV	2483.500	-47.8	≤-41.20	47.40	≤54	PASS
				AV	2498.300	-47.56	≤-41.20	47.64	≤54	PASS
				AV	2500.000	-47.81	≤-41.20	47.39	≤54	PASS
				Peak	2483.500	-40.04	≤-21.20	55.16	≤74	PASS
				Peak	2497.310	-38.03	≤-21.20	57.17	≤74	PASS
				Peak	2500.000	-40.23	≤-21.20	54.97	≤74	PASS
11N20SI SO	Ant1	Low	2412	AV	2310.000	-48.84	≤-41.20	46.36	≤54	PASS
				AV	2389.570	-47.98	≤-41.20	47.22	≤54	PASS
				AV	2390.000	-48.06	≤-41.20	47.14	≤54	PASS
				Peak	2310.000	-43.08	≤-21.20	52.12	≤74	PASS
				Peak	2379.560	-38.43	≤-21.20	56.77	≤74	PASS
				Peak	2390.000	-40.21	≤-21.20	54.99	≤74	PASS
		High	2462	AV	2483.500	-47.9	≤-41.20	47.30	≤54	PASS
				AV	2498.520	-47.54	≤-41.20	47.66	≤54	PASS
				AV	2500.000	-47.71	≤-41.20	47.49	≤54	PASS
				Peak	2483.500	-41.27	≤-21.20	53.93	≤74	PASS
				Peak	2485.210	-38.12	≤-21.20	57.08	≤74	PASS
				Peak	2500.000	-40.57	≤-21.20	54.63	≤74	PASS
11N40SI	Ant1	Low	2422	AV	2310.000	-48.6	≤-41.20	46.60	≤54	PASS



SO				AV	2389.440	-47.55	≤-41.20	47.65	≤54	PASS
				AV	2390.000	-47.74	≤-41.20	47.46	≤54	PASS
				Peak	2310.000	-41.36	≤-21.20	53.84	≤74	PASS
				Peak	2340.560	-38.86	≤-21.20	56.34	≤74	PASS
				Peak	2390.000	-39.36	≤-21.20	55.84	≤74	PASS
		High	2452	AV	2483.500	-47.64	≤-41.20	47.56	≤54	PASS
				AV	2484.000	-47.19	≤-41.20	48.01	≤54	PASS
				AV	2500.000	-47.5	≤-41.20	47.70	≤54	PASS
				Peak	2483.500	-40.11	≤-21.20	55.09	≤74	PASS
				Peak	2490.270	-38.79	≤-21.20	56.41	≤74	PASS
				Peak	2500.000	-40.87	≤-21.20	54.33	≤74	PASS

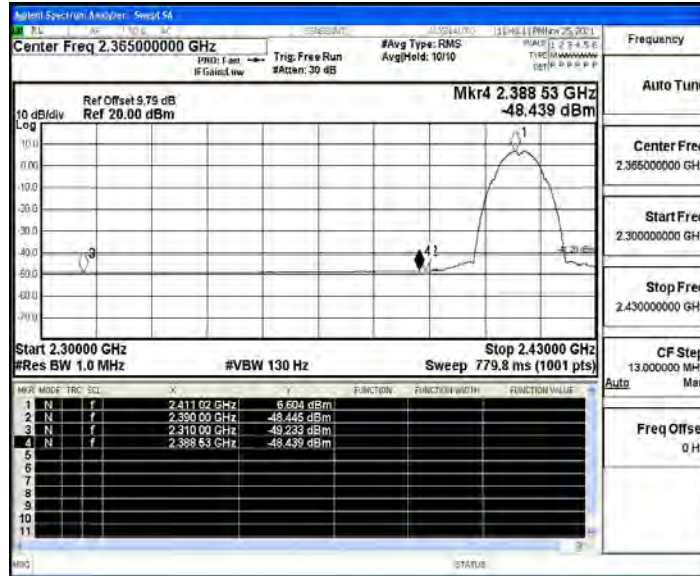
Note:

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.

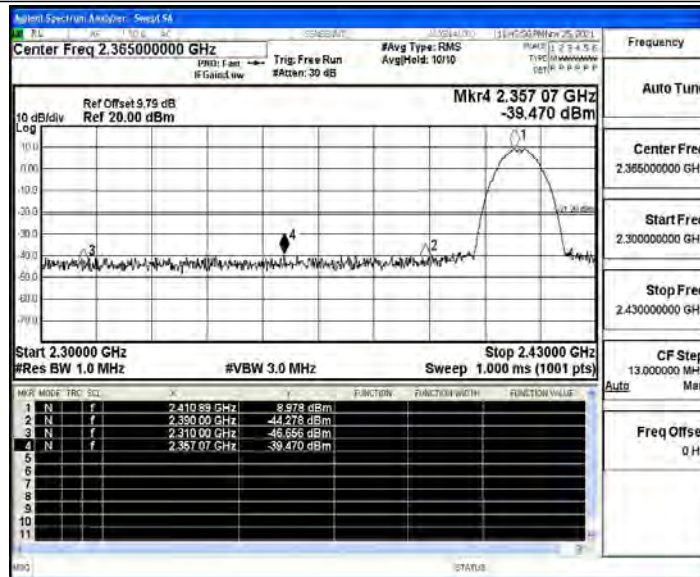


Test Graphs

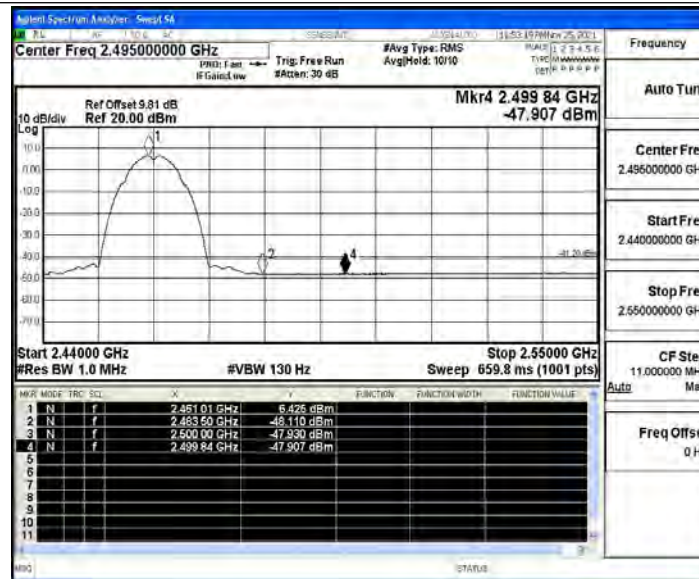
11B_Ant1_Low_2412_AV



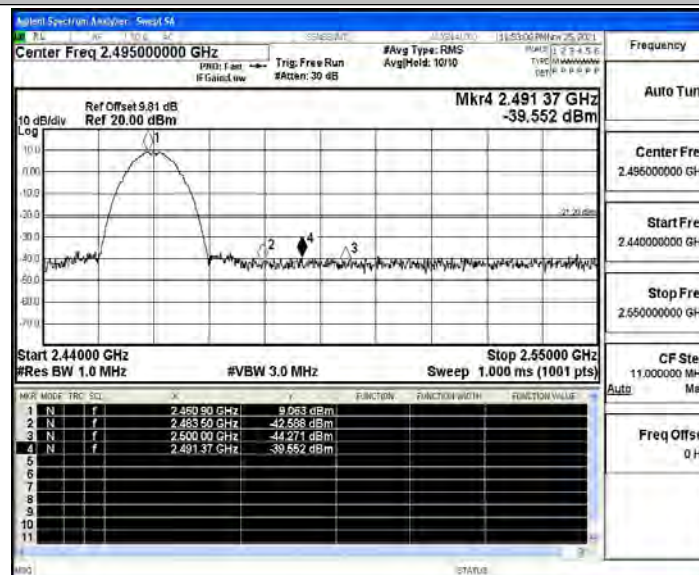
11B_Ant1_Low_2412_Peak



11B_Ant1_High_2462_AV



11B_Ant1_High_2462_Peak

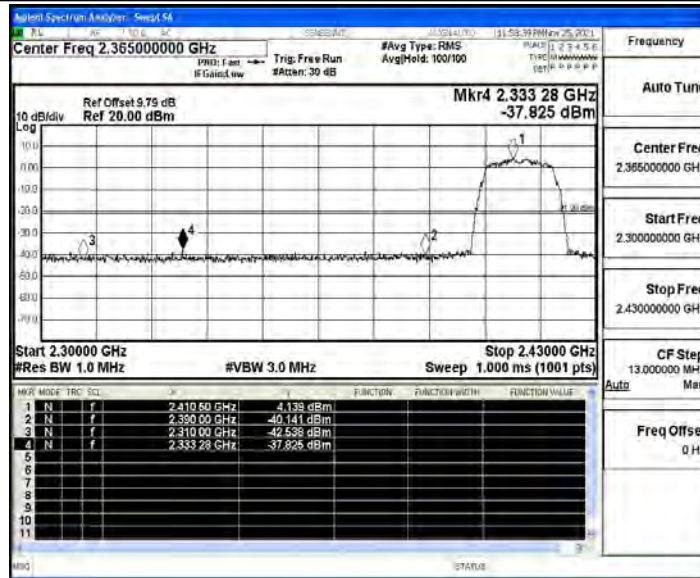


11G_Ant1_Low_2412_AV

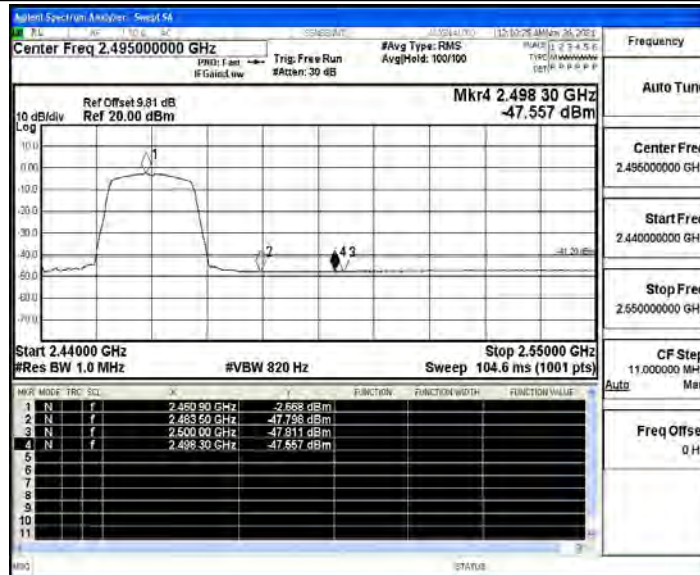




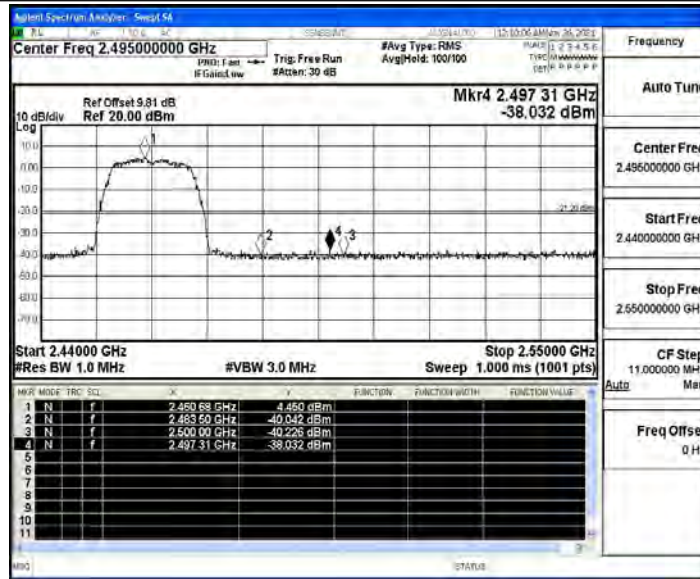
11G_Ant1_Low_2412_Peak



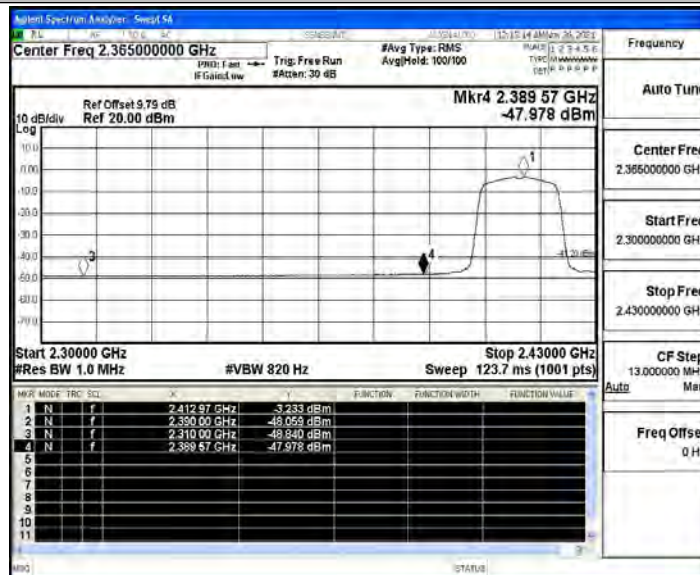
11G_Ant1_High_2462_AV



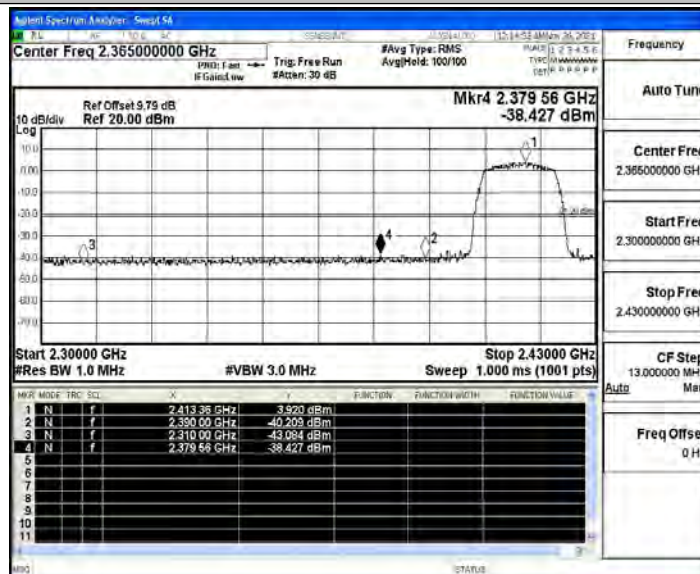
11G_Ant1_High_2462_Peak



11N20SISO_Ant1_Low_2412_AV

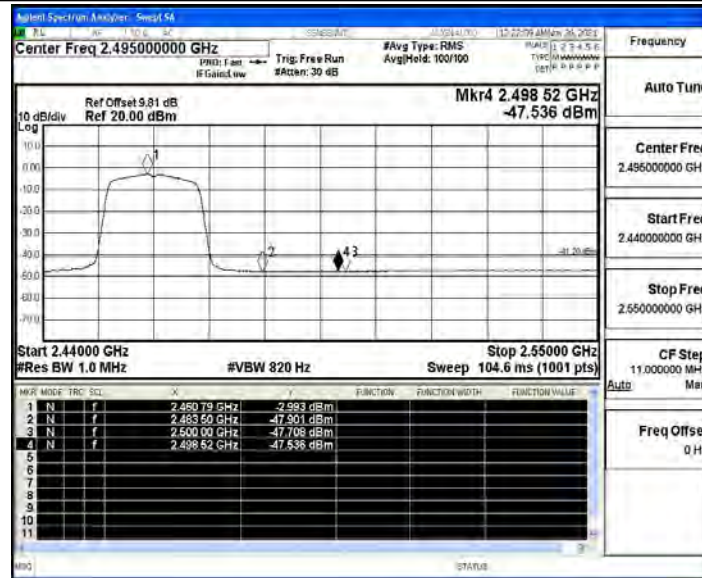


11N20SISO_Ant1_Low_2412_Peak

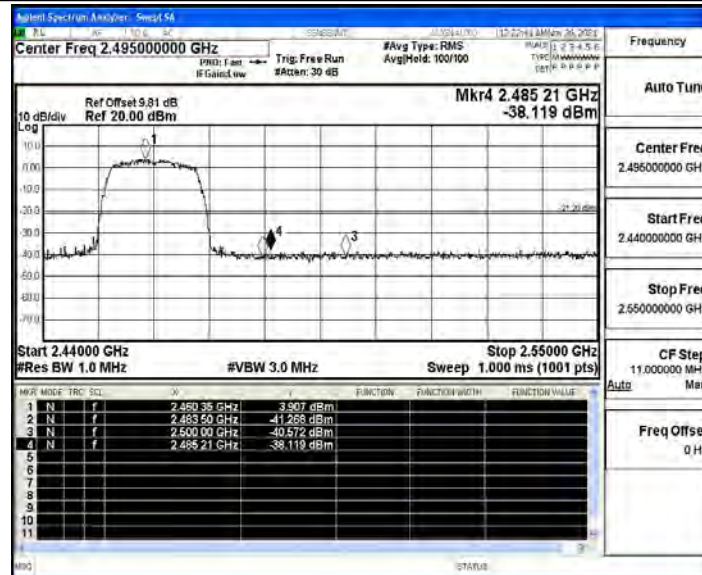




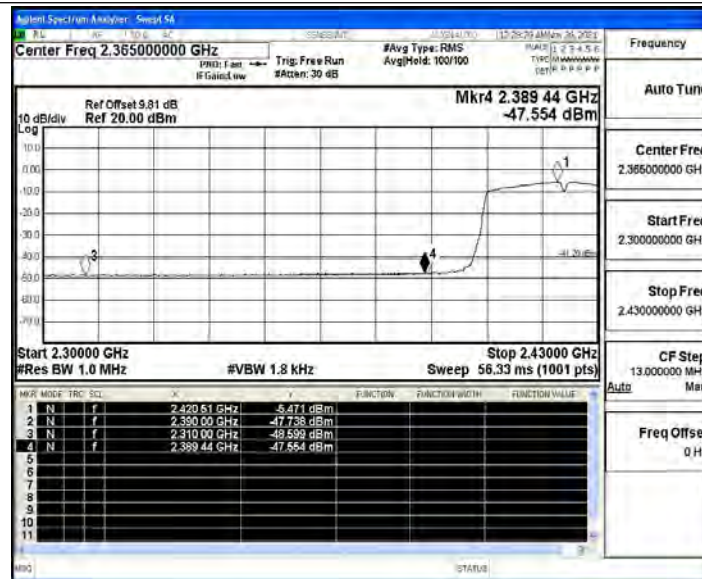
11N20SISO_Ant1_High_2462_AV



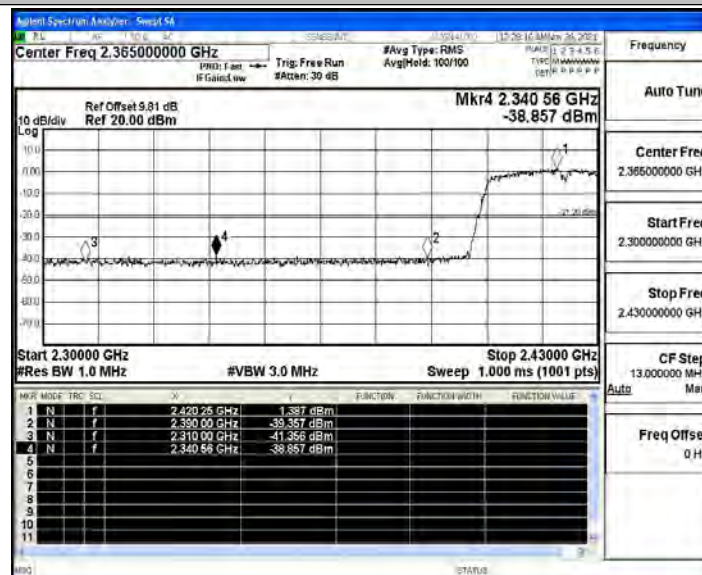
11N20SISO_Ant1_High_2462_Peak



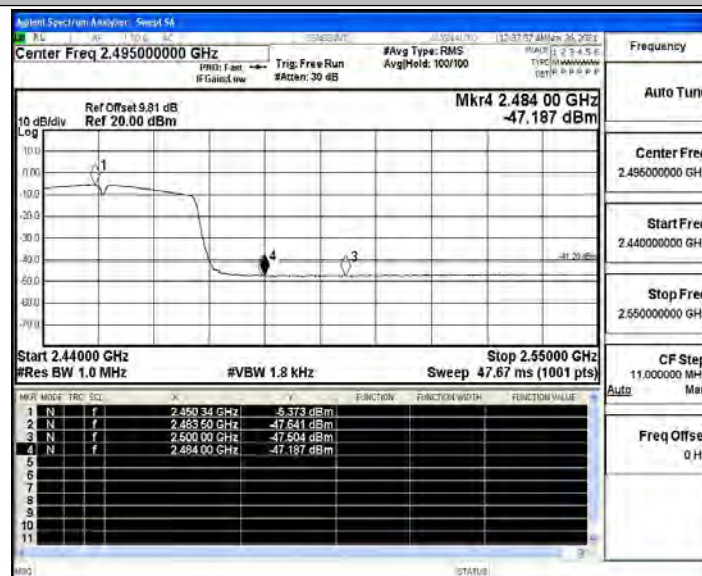
11N40SISO_Ant1_Low_2422_AV



11N40SISO_Ant1_Low_2422_Peak



11N40SISO_Ant1_High_2452_AV





11N40SISO_Ant1_High_2452_Peak

