



Appendix B

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: Stick Logger(WiFi)

Test Model: LSW-5

Environmental Conditions

Temperature:	23.5 ° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	 Mark Chen
Supervised by:	 Li Huan



B.1 DTS Bandwidth

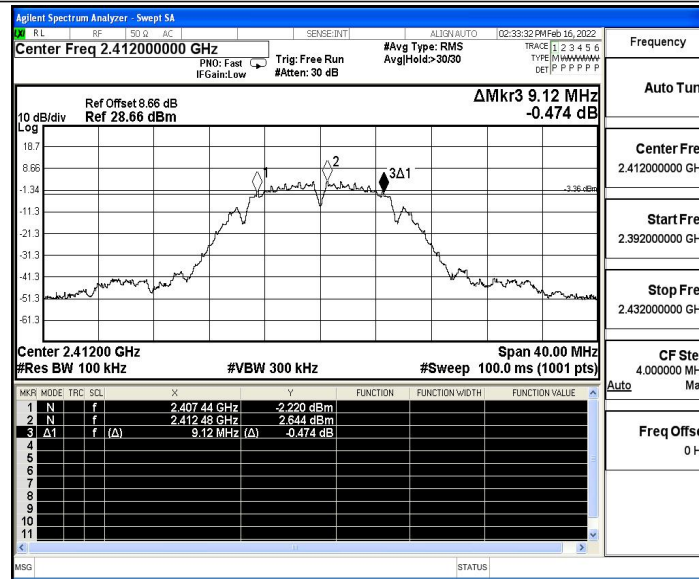
Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	9.120	2407.440	2416.560	0.5	PASS
		2437	9.120	2432.440	2441.560	0.5	PASS
		2462	9.120	2457.440	2466.560	0.5	PASS
11G	Ant1	2412	16.320	2403.840	2420.160	0.5	PASS
		2437	16.320	2428.840	2445.160	0.5	PASS
		2462	16.320	2453.840	2470.160	0.5	PASS
11N20SISO	Ant1	2412	17.560	2403.200	2420.760	0.5	PASS
		2437	17.600	2428.200	2445.800	0.5	PASS
		2462	17.560	2453.200	2470.760	0.5	PASS

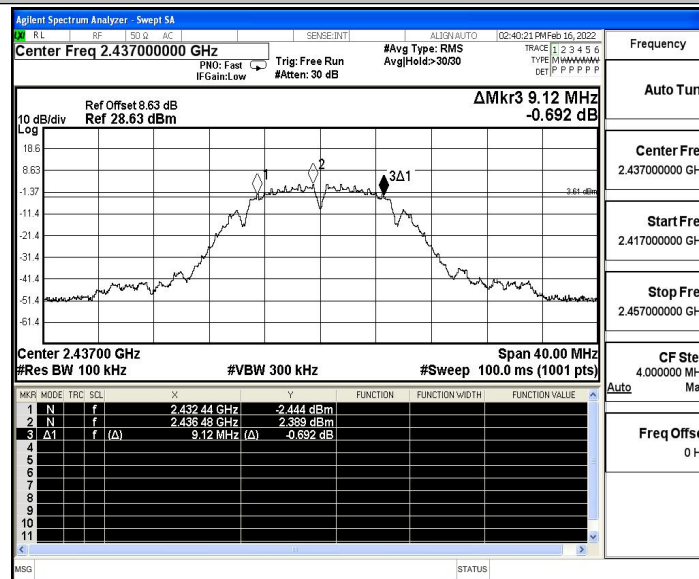


Test Graphs

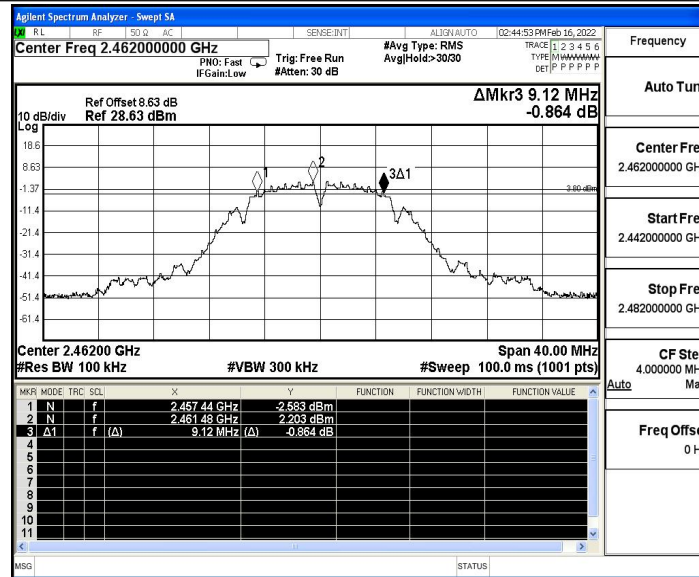
11B_Ant1_2412



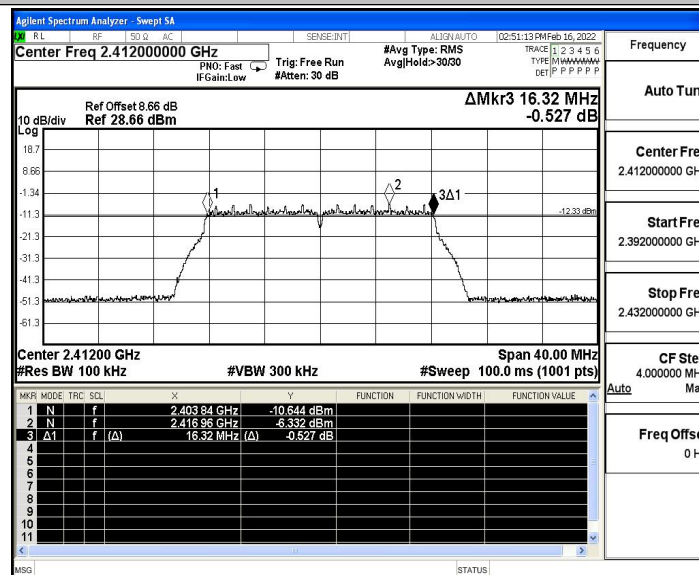
11B_Ant1_2437



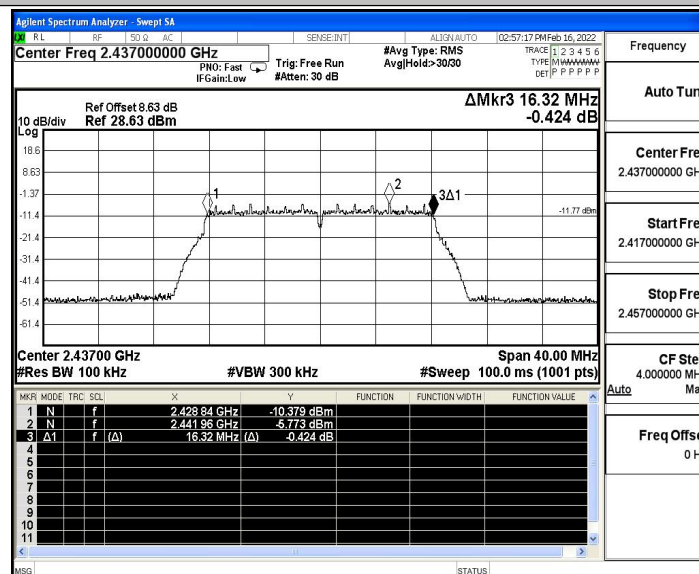
11B_Ant1_2462



11G_Ant1_2412

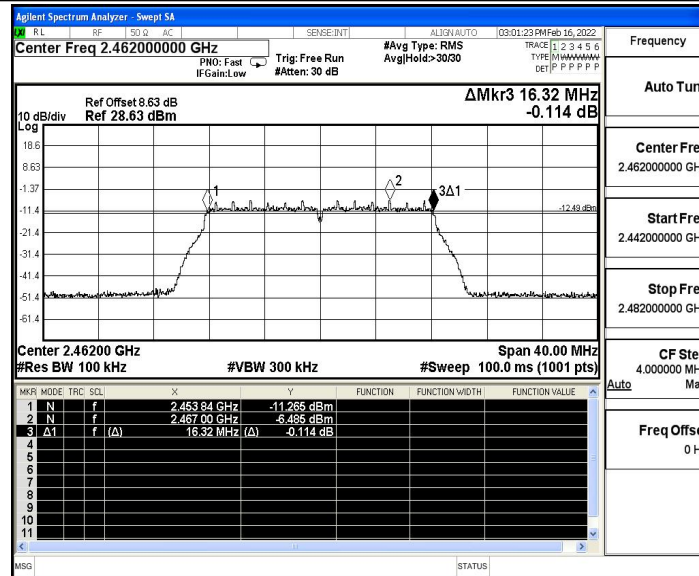


11G_Ant1_2437

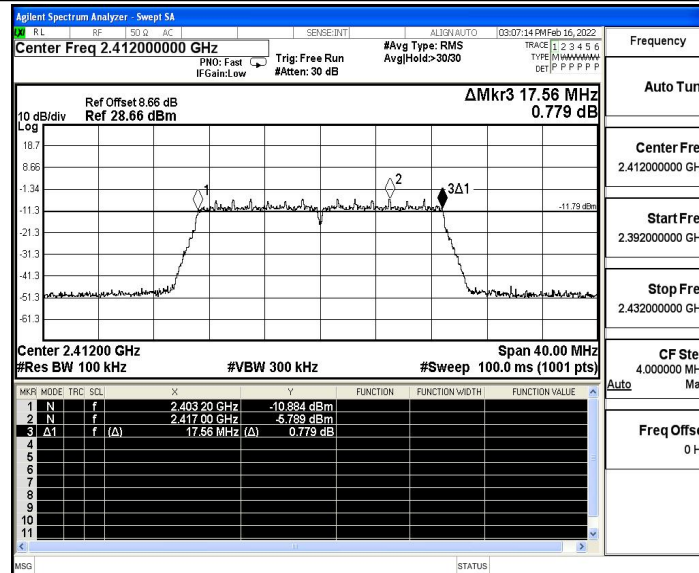




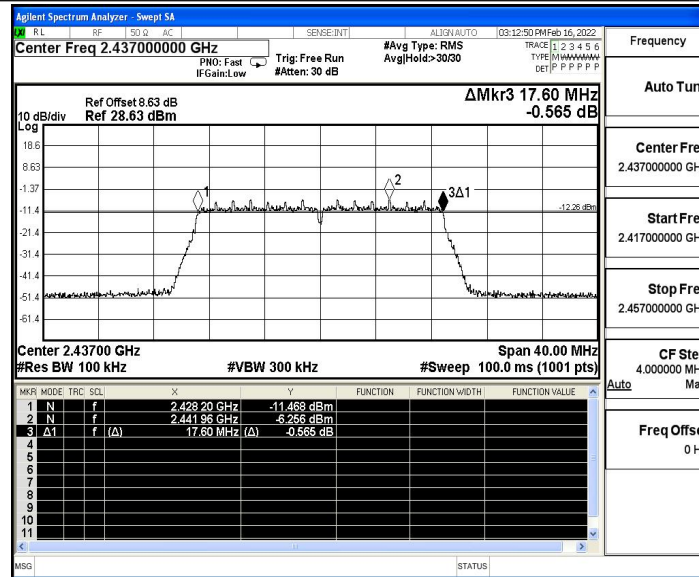
11G_Ant1_2462



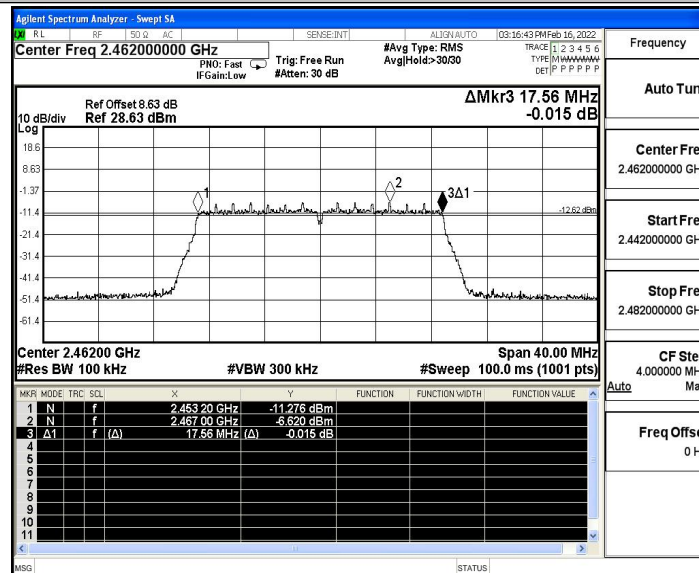
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



11N20SISO_Ant1_2462





B.2 Maximum peak conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	2412	16.03	≤30.00	PASS
		2437	15.77	≤30.00	PASS
		2462	15.58	≤30.00	PASS
11G	Ant1	2412	13.14	≤30.00	PASS
		2437	13.70	≤30.00	PASS
		2462	13.01	≤30.00	PASS
11N20SISO	Ant1	2412	13.69	≤30.00	PASS
		2437	13.22	≤30.00	PASS
		2462	12.89	≤30.00	PASS



B.3 Maximum power spectral density

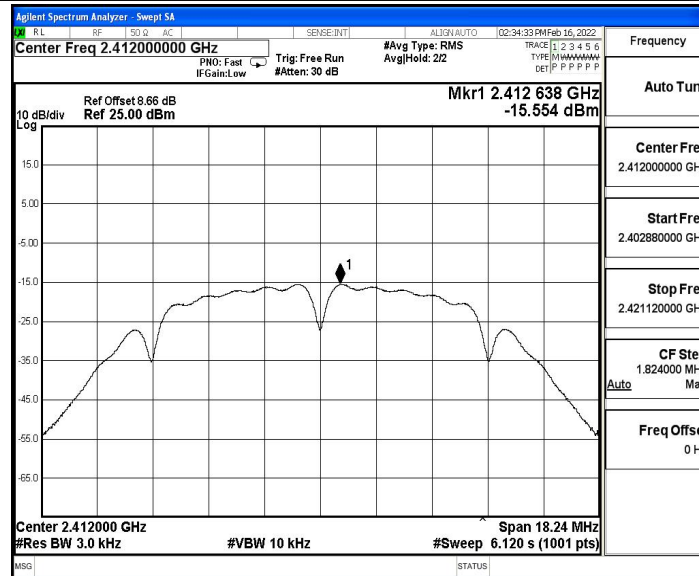
Test Result

TestMode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-15.55	≤8.00	PASS
		2437	-15.65	≤8.00	PASS
		2462	-15.86	≤8.00	PASS
11G	Ant1	2412	-20.98	≤8.00	PASS
		2437	-20.15	≤8.00	PASS
		2462	-21.15	≤8.00	PASS
11N20SISO	Ant1	2412	-20.13	≤8.00	PASS
		2437	-20.55	≤8.00	PASS
		2462	-21.17	≤8.00	PASS

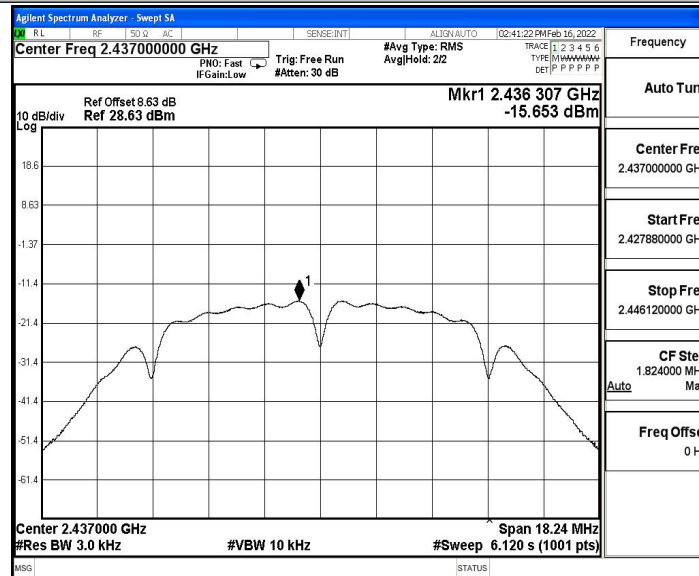


Test Graphs

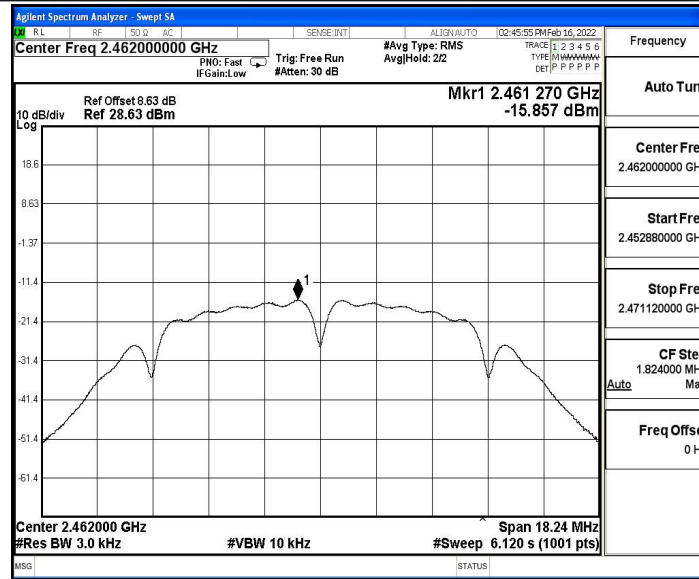
11B_Ant1_2412



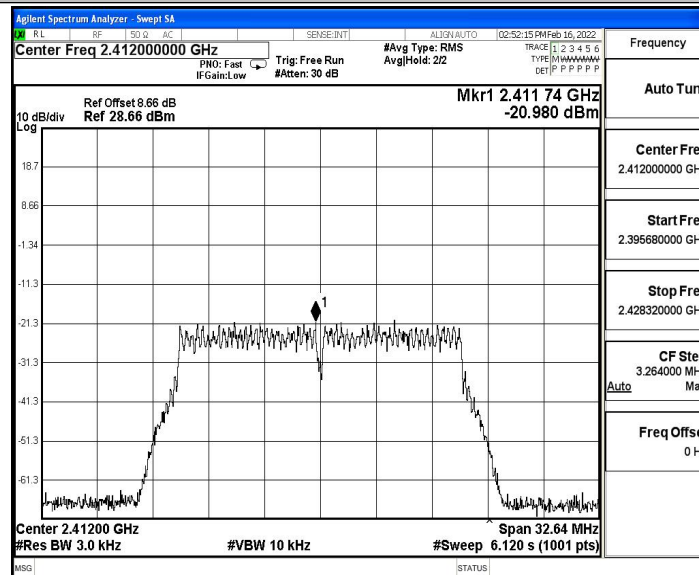
11B_Ant1_2437



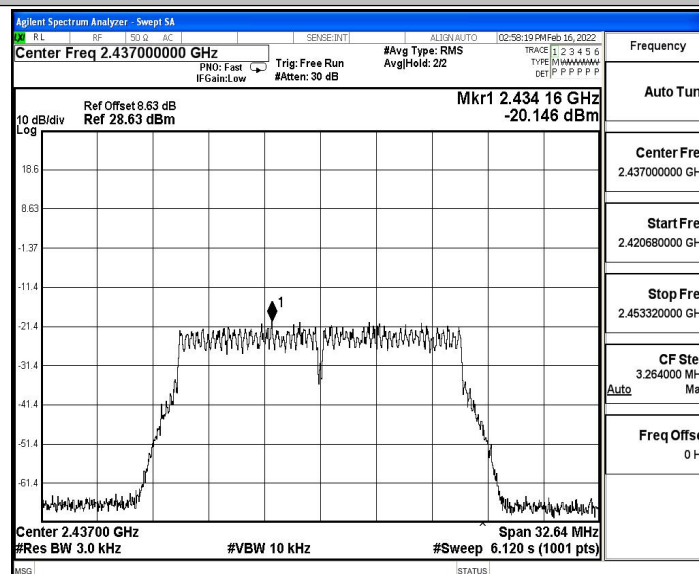
11B_Ant1_2462



11G_Ant1_2412

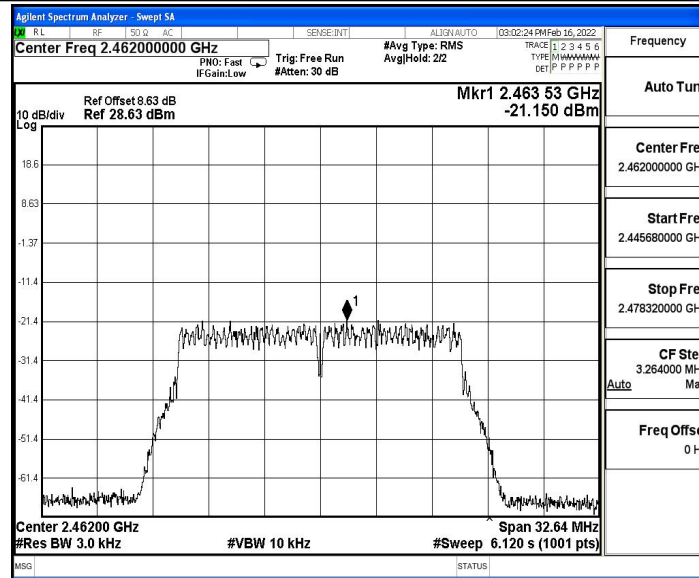


11G_Ant1_2437

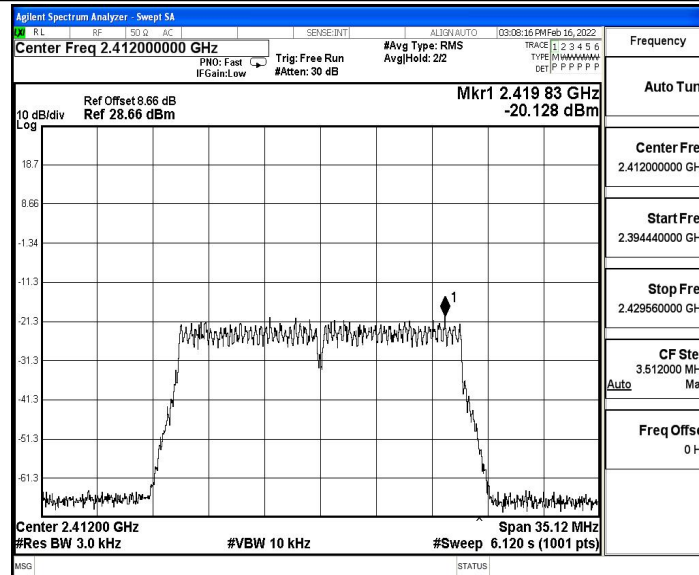




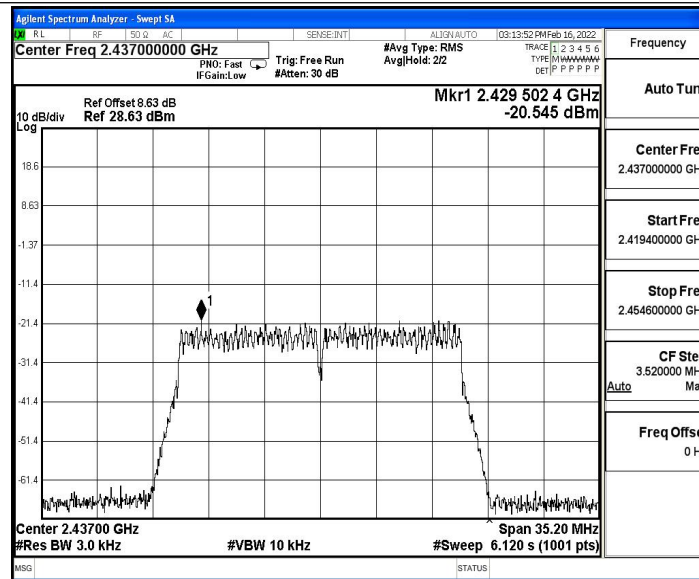
11G_Ant1_2462



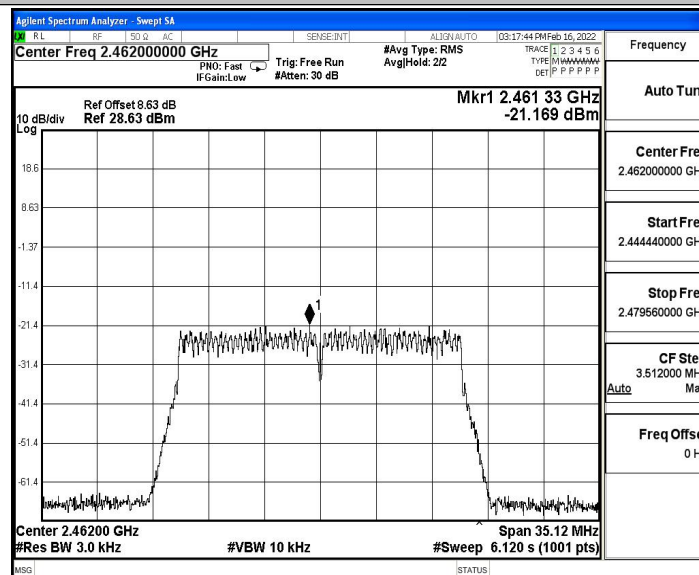
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



11N20SISO_Ant1_2462





B.4 Band edge measurements

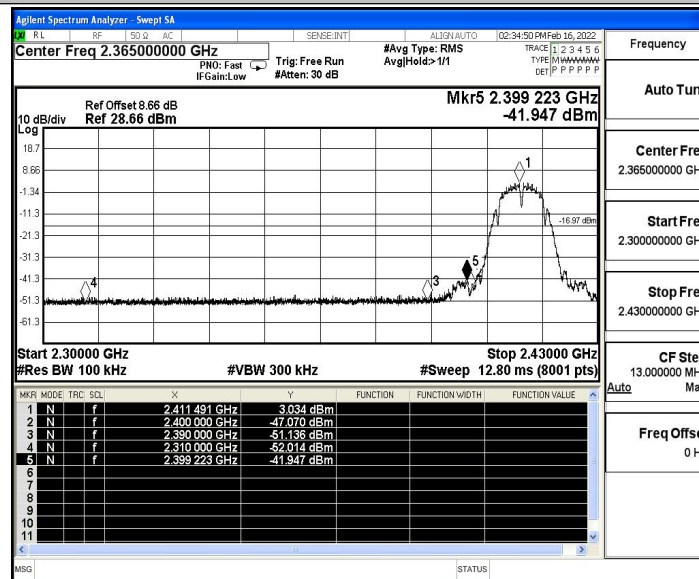
Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	3.03	-41.95	≤ -16.97	PASS
		High	2462	2.52	-46.71	≤ -17.48	PASS
11G	Ant1	Low	2412	-6.20	-48.74	≤ -26.2	PASS
		High	2462	-6.14	-47.72	≤ -26.14	PASS
11N20SISO	Ant1	Low	2412	-5.38	-47.03	≤ -25.38	PASS
		High	2462	-6.31	-47.69	≤ -26.31	PASS

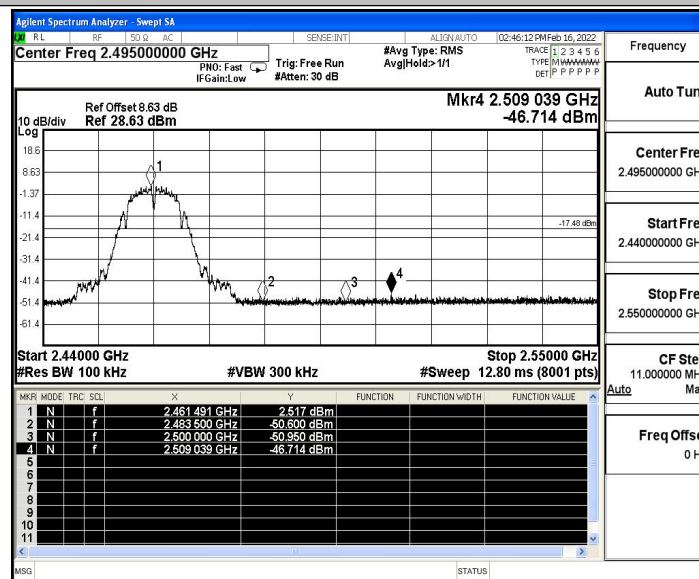


Test Graphs

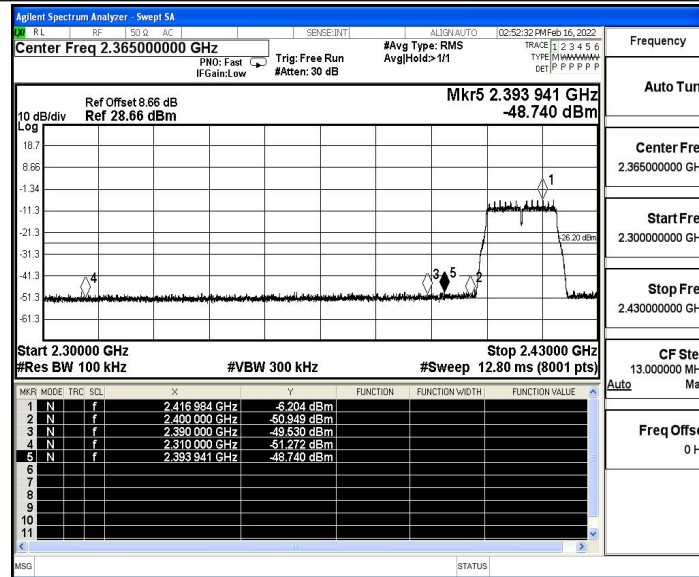
11B_Ant1_Low_2412



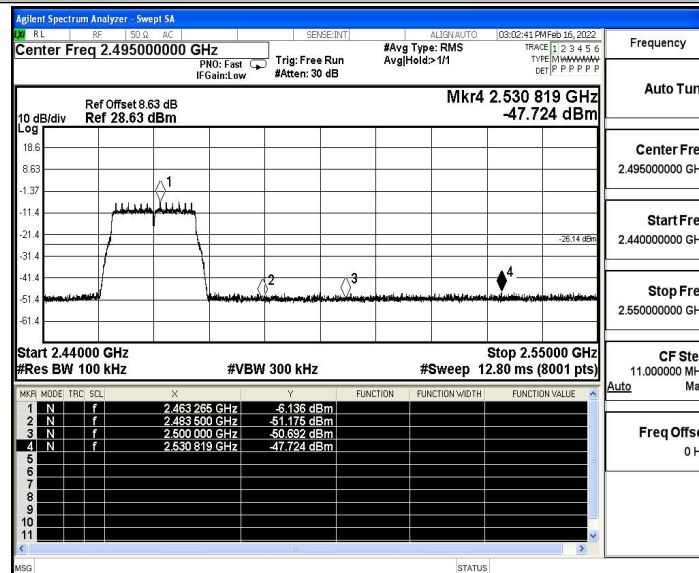
11B_Ant1_High_2462



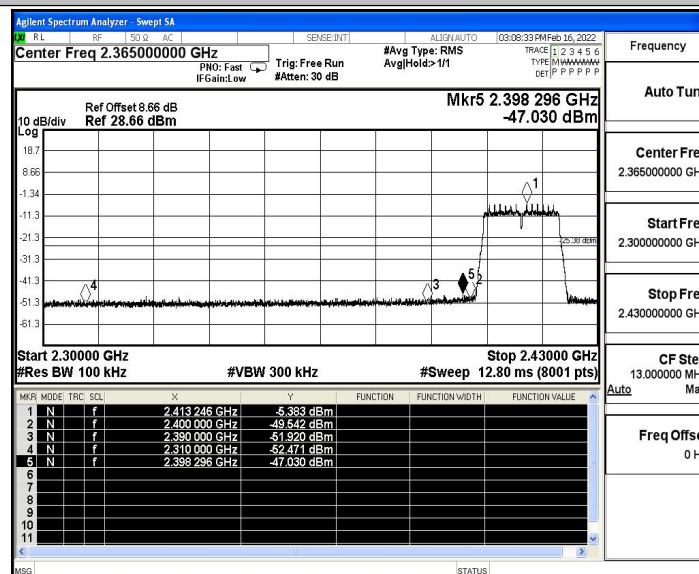
11G_Ant1_Low_2412



11G_Ant1_High_2462

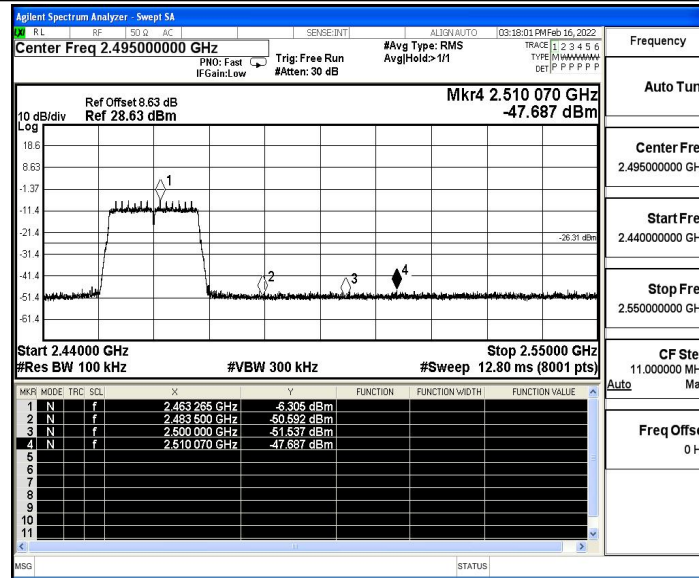


11N20SISO_Ant1_Low_2412





11N20SISO_Ant1_High_2462





B.5 Conducted Spurious Emission

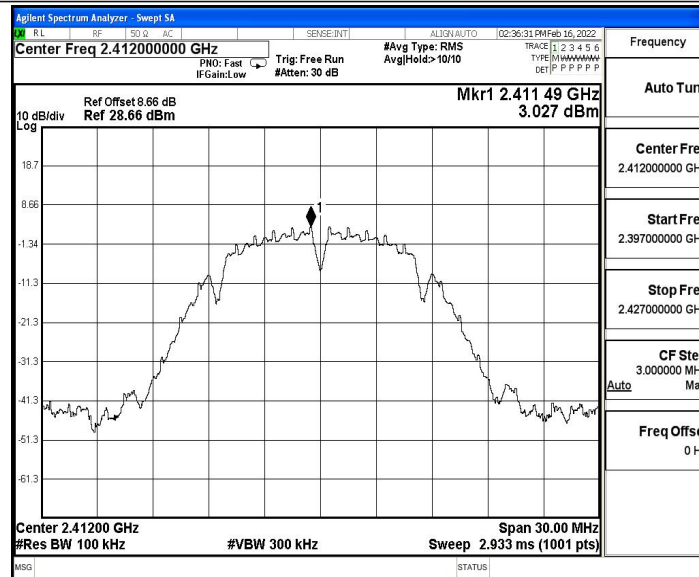
Test Result

TestMode	Antenna	Channel	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	3.03	3.03	---	PASS
			30~1000	3.03	-60.33	≤ -16.97	PASS
			1000~26500	3.03	-45.77	≤ -16.97	PASS
		2437	Reference	2.81	2.81	---	PASS
			30~1000	2.81	-60.16	≤ -17.19	PASS
			1000~26500	2.81	-45.97	≤ -17.19	PASS
		2462	Reference	2.60	2.60	---	PASS
			30~1000	2.60	-60.3	≤ -17.4	PASS
			1000~26500	2.60	-46.29	≤ -17.4	PASS
11G	Ant1	2412	Reference	-5.89	-5.89	---	PASS
			30~1000	-5.89	-60.55	≤ -25.89	PASS
			1000~26500	-5.89	-46.18	≤ -25.89	PASS
		2437	Reference	-5.45	-5.45	---	PASS
			30~1000	-5.45	-59.48	≤ -25.45	PASS
			1000~26500	-5.45	-45.14	≤ -25.45	PASS
		2462	Reference	-6.02	-6.02	---	PASS
			30~1000	-6.02	-60.7	≤ -26.02	PASS
			1000~26500	-6.02	-45.72	≤ -26.02	PASS
11N20SISO	Ant1	2412	Reference	-5.46	-5.46	---	PASS
			30~1000	-5.46	-60.87	≤ -25.46	PASS
			1000~26500	-5.46	-44.97	≤ -25.46	PASS
		2437	Reference	-6.23	-6.23	---	PASS
			30~1000	-6.23	-60.52	≤ -26.23	PASS
			1000~26500	-6.23	-45.44	≤ -26.23	PASS
		2462	Reference	-6.03	-6.03	---	PASS
			30~1000	-6.03	-59.8	≤ -26.03	PASS
			1000~26500	-6.03	-45.35	≤ -26.03	PASS

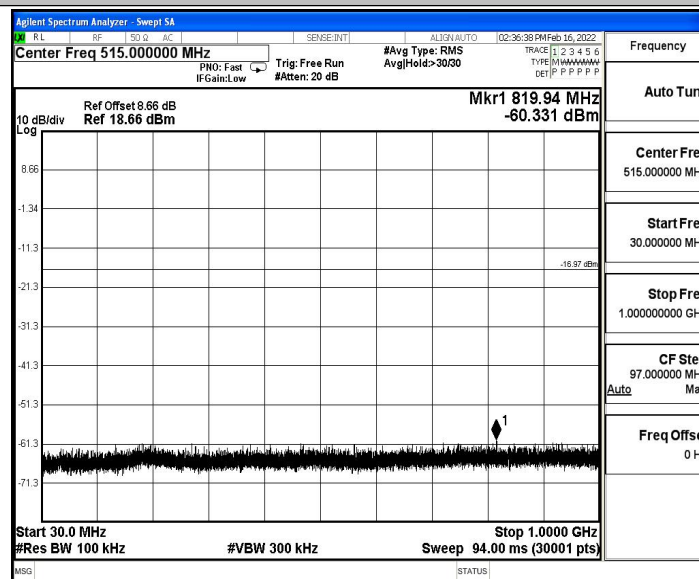


Test Graphs

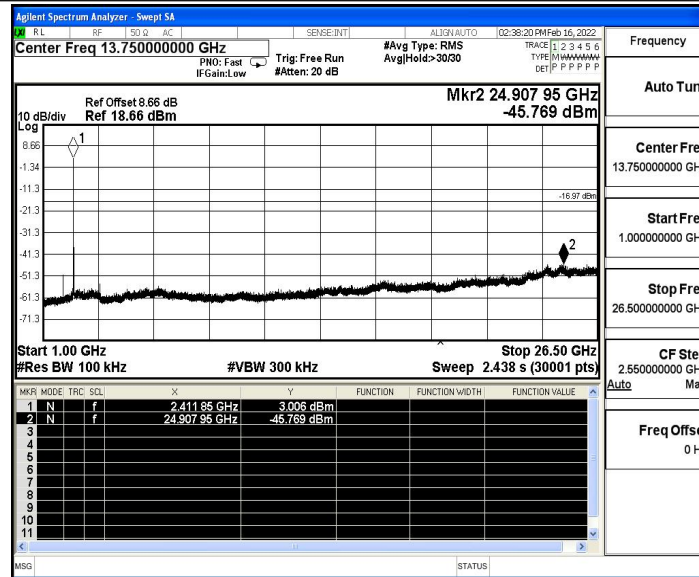
11B_Ant1_2412_0~Reference



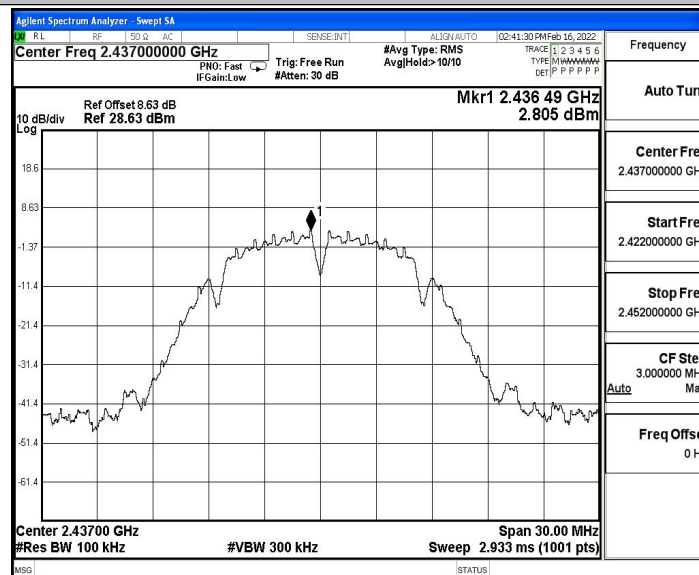
11B_Ant1_2412_30~1000



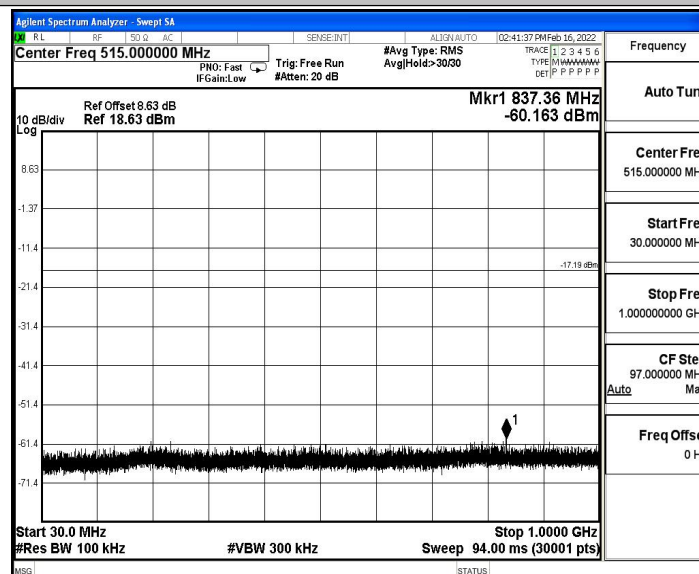
11B_Ant1_2412_1000~26500

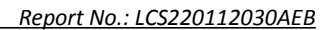


11B_Ant1_2437_0~Reference



11B_Ant1_2437_30~1000





Agilent Spectrum Analyzer - Sweep SA

RL RF SO B AC SENSE:INT ALERT: AUTO 02:43:19 PM Feb 16, 2022 TRACE 1: 2 = 4 = 5

Center Freq 13.750000000 GHz

Ref Offset 8.63 dB
Ref 18.63 dBm

Mkr2 24.856 95 GHz
-45.971 dBm

10 dB/div
Log

Start 1.00 GHz
#Res BW 100 kHz

Stop 26.50 GHz
#VBW 300 kHz
Sweep 2.438 s (30001 pts)

MKR	MODE	TRC	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N			2.437 36 GHz	2.707 dBm			
2	N	f		24.856 95 GHz	-45.971 dBm			
3								
4								
5								
6								
7								
8								
9								
10								
11								

MSG STATUS Auto

Agilent Spectrum Analyzer - Sweep SA

RL RF SSB AC SENSE:INT ALIAS/AUTO 02:47:52 PM Feb 16, 2022

Center Freq 2.462000000 GHz #Avg Type: RMS #Atten: 30 dB

PRN: Fast IF Gain: Low TRAC: [1] 2 3 4 5 6 TYPE: [M] W W W W W W W W DET: [P] P P P P P P

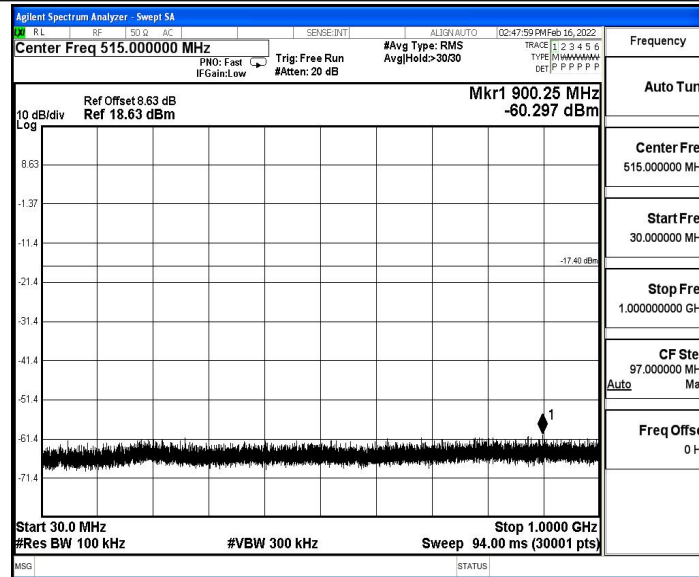
10 dB/div Ref Offset 8.63 dB Mkr1 2.46149 GHz

Log Ref 28.63 dBm 2.600 dBm

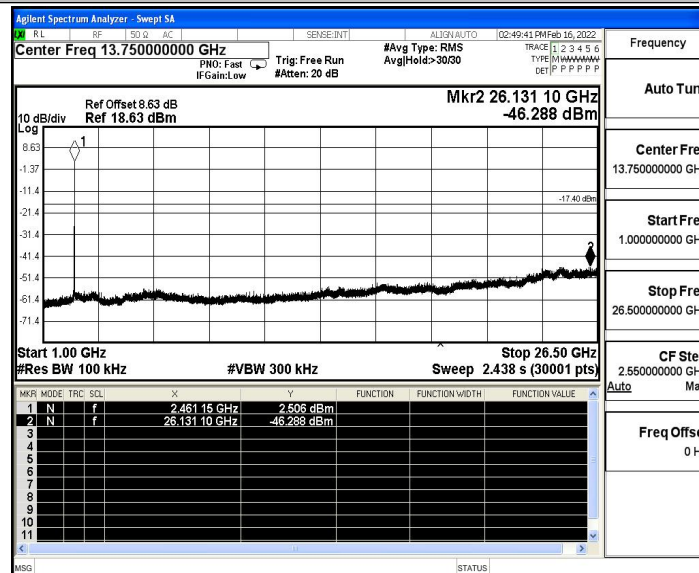
Center 2.46200 GHz Span 30.00 MHz

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

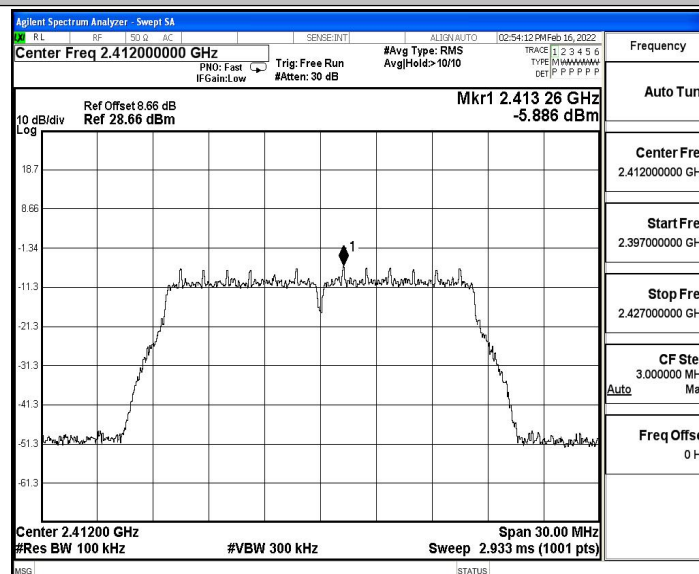
20 / 40



11B_Ant1_2462_1000~26500

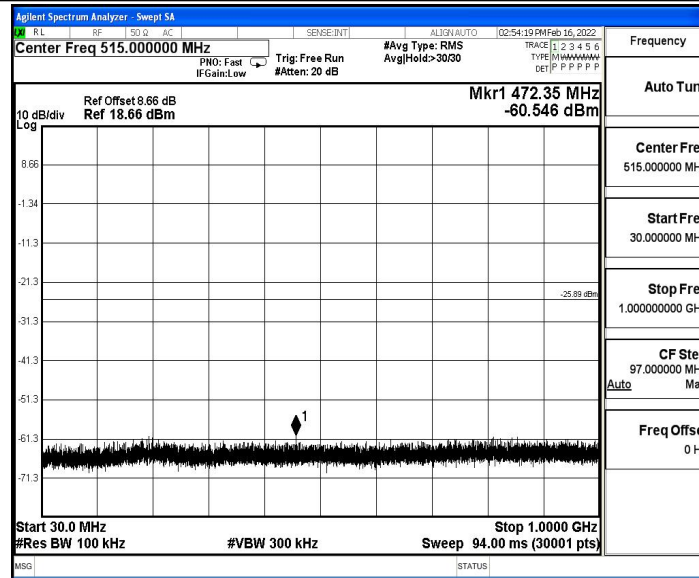


11G_Ant1_2412_0~Reference

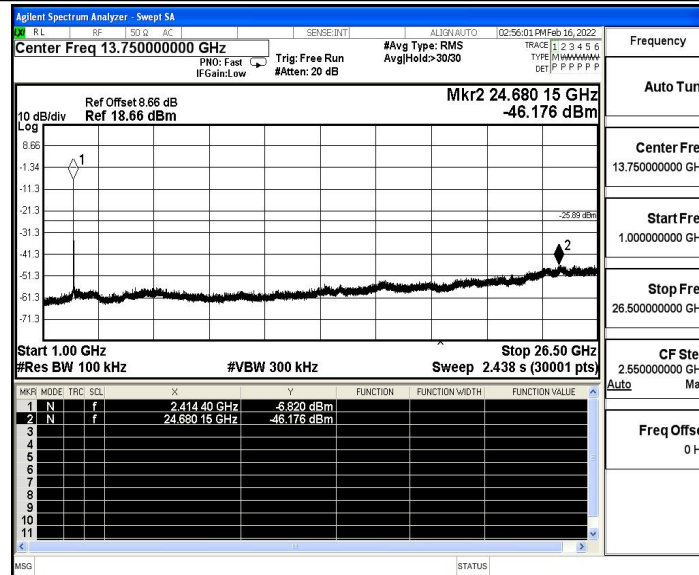




11G_Ant1_2412_30~1000



11G_Ant1_2412_1000~26500



11G_Ant1_2437_0~Reference