Appendix B

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: UVC decontamination chamber

Trade Mark: CelerPurus, Inc.

Test Model: CP101

Environmental Conditions

Temperature:	26.0℃
Relative Humidity:	54.0%
ATM Pressure:	100.0 kPa
Test Engineer:	Kay Hu
Supervised by:	Li Huan

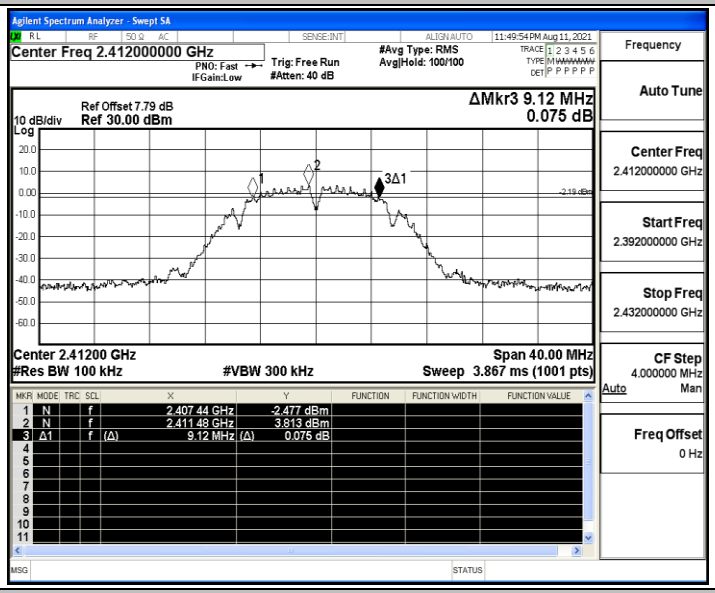
Appendix B.1: DTS Bandwidth

Test Result

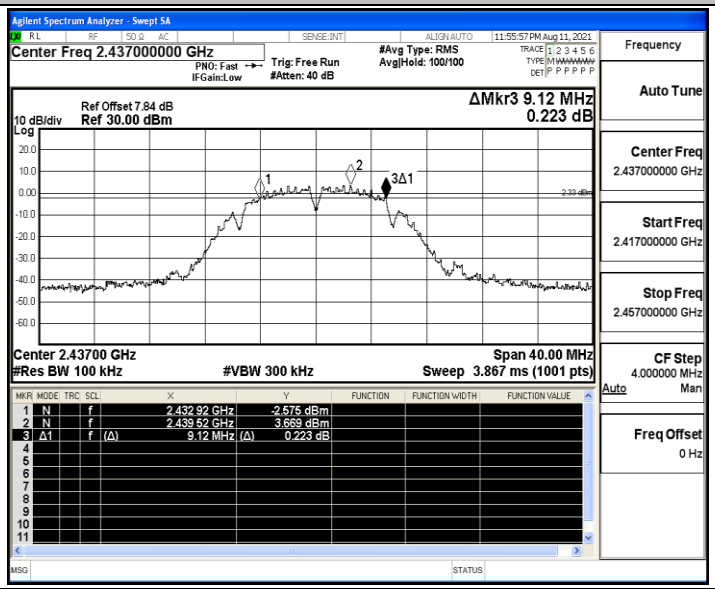
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	9.120	2407.440	2416.560	0.5	PASS
		2437	9.120	2432.920	2442.040	0.5	PASS
		2462	9.600	2456.960	2466.560	0.5	PASS
11G	Ant1	2412	15.800	2404.120	2419.920	0.5	PASS
		2437	15.200	2429.400	2444.600	0.5	PASS
		2462	15.800	2453.800	2469.600	0.5	PASS
11N20SISO	Ant1	2412	17.320	2403.240	2420.560	0.5	PASS
		2437	16.120	2429.480	2445.600	0.5	PASS
		2462	16.320	2453.200	2469.520	0.5	PASS
11N40SISO	Ant1	2422	35.520	2404.320	2439.840	0.5	PASS
		2437	34.000	2420.600	2454.600	0.5	PASS
		2452	35.280	2434.320	2469.600	0.5	PASS

Test Graphs

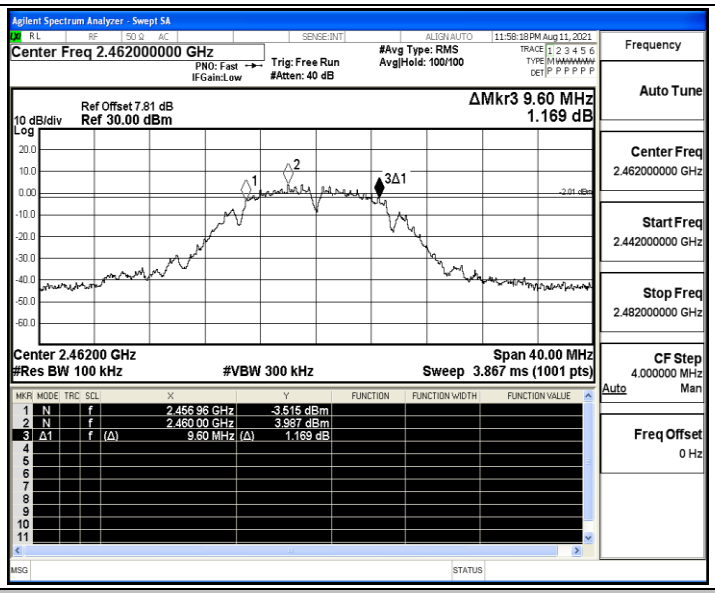
11B_Ant1_2412



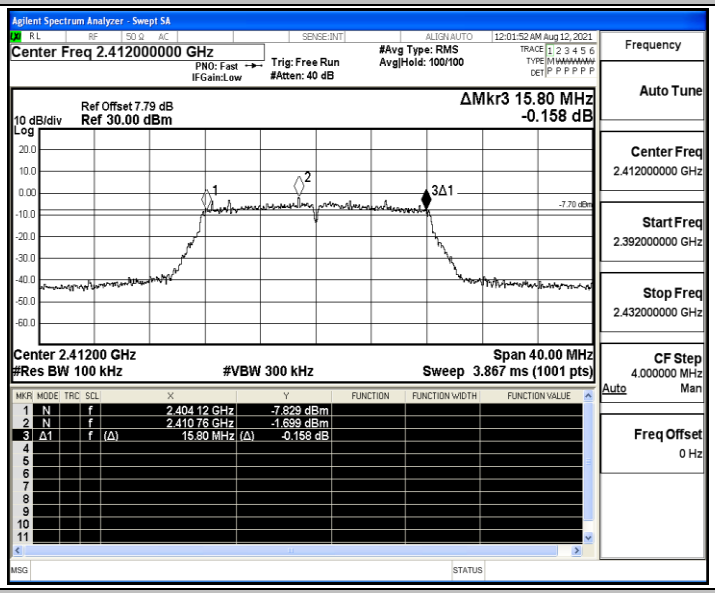
11B_Ant1_2437



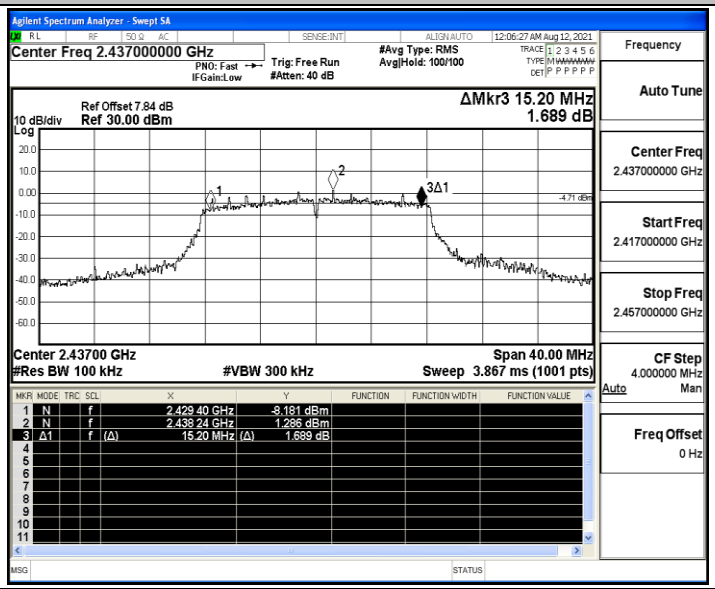
11B_Ant1_2462

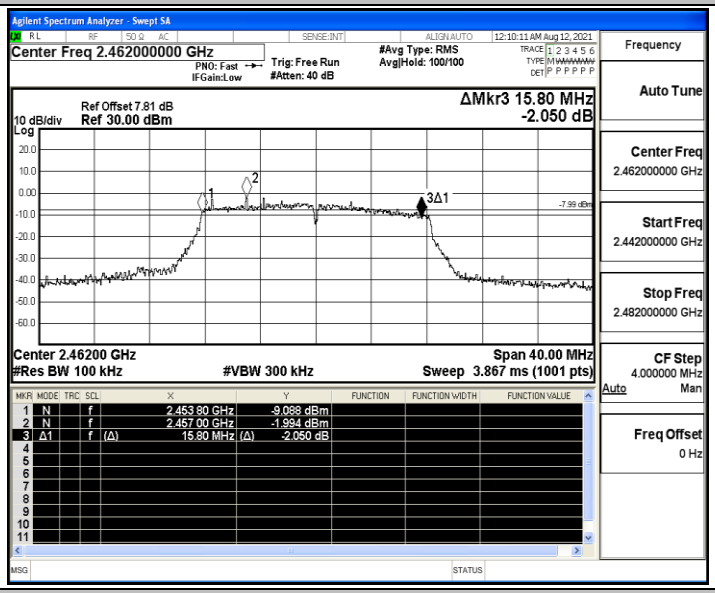
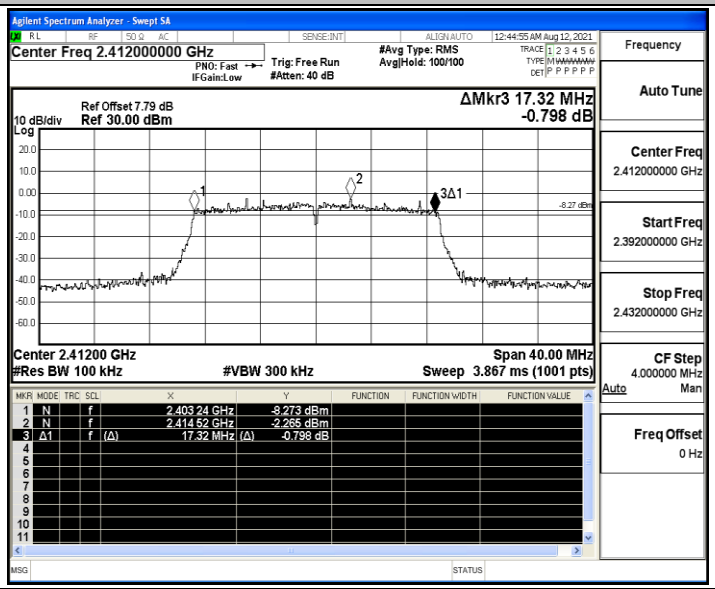


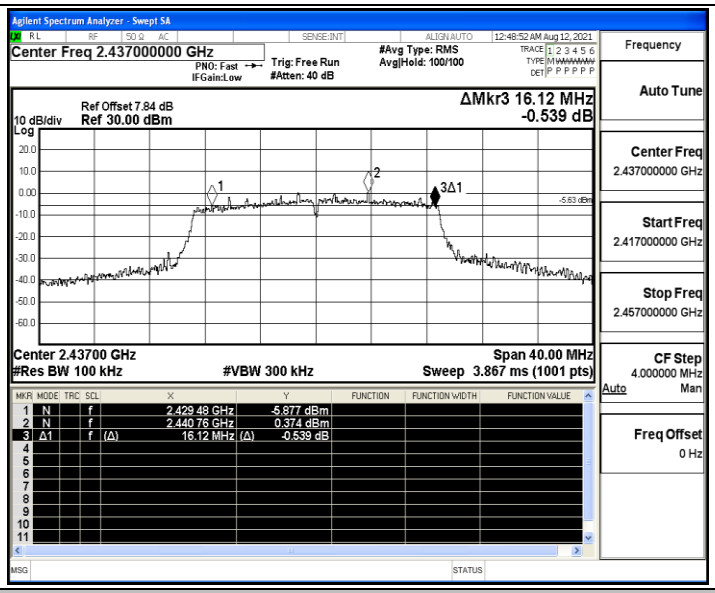
11G_Ant1_2412



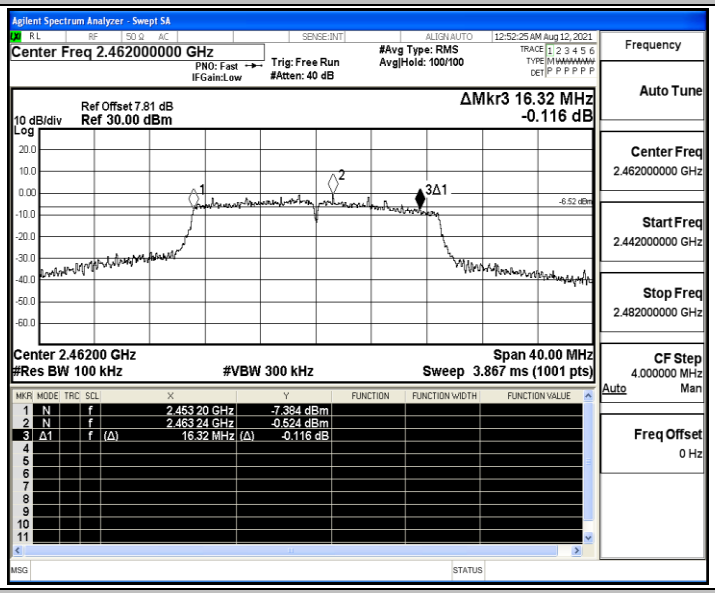
11G_Ant1_2437



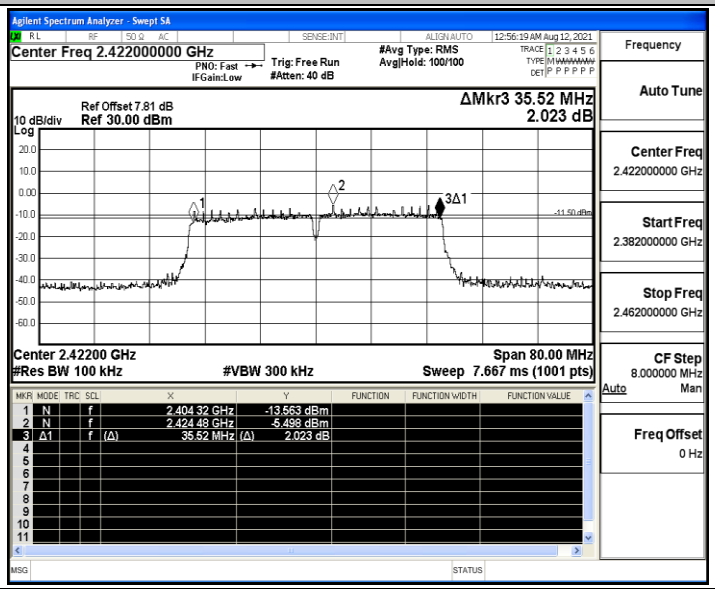
11G_Ant1_2462

11N20SISO_Ant1_2412

11N20SISO_Ant1_2437

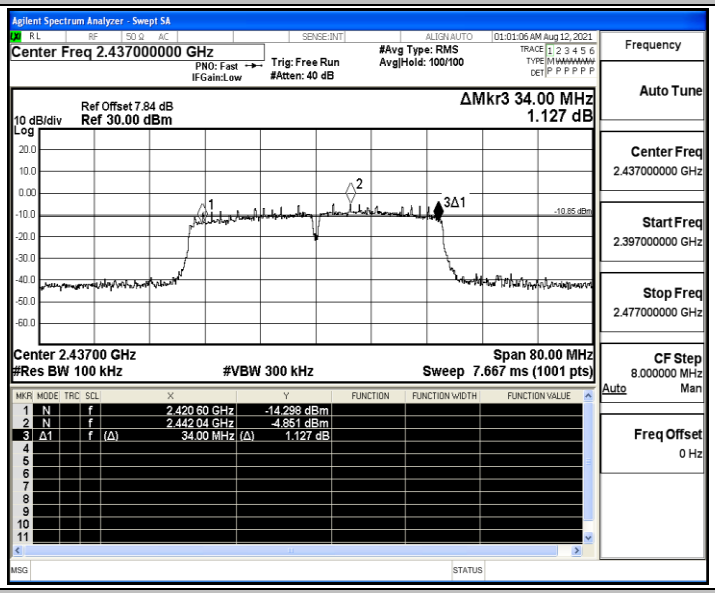


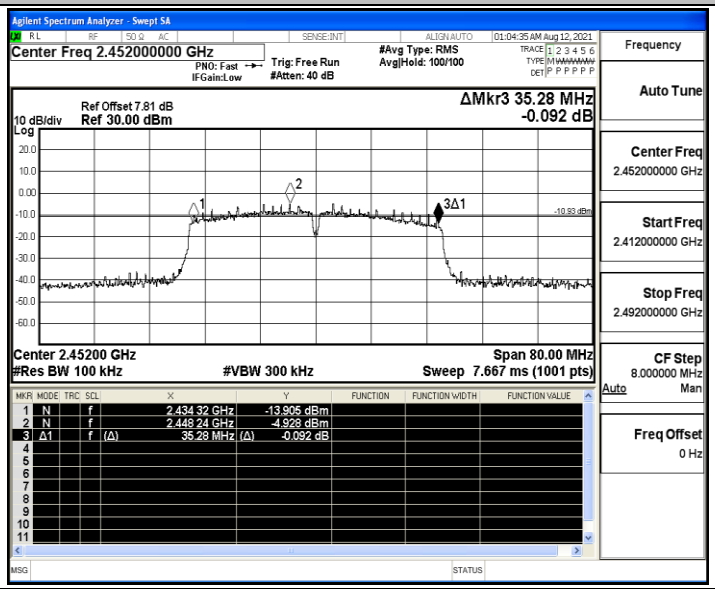
11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



11N40SISO_Ant1_2437


11N40SISO_Ant1_2452


Appendix B.2: Maximum peak conducted output power

Test Result

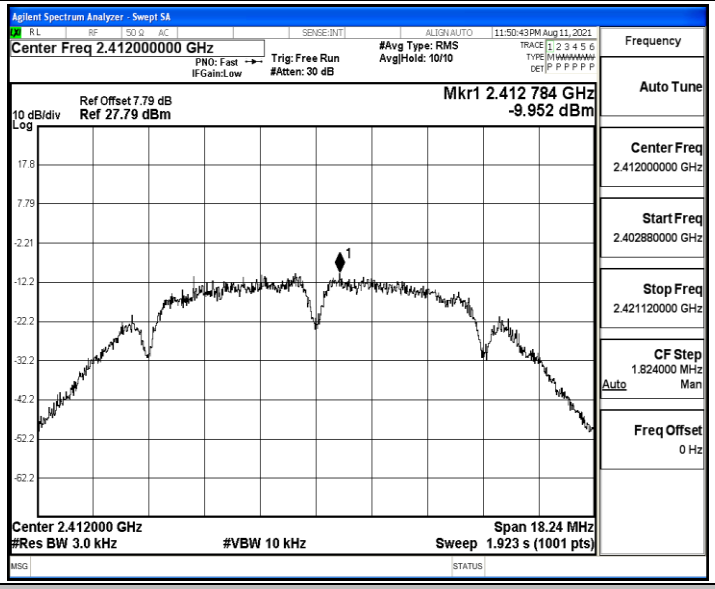
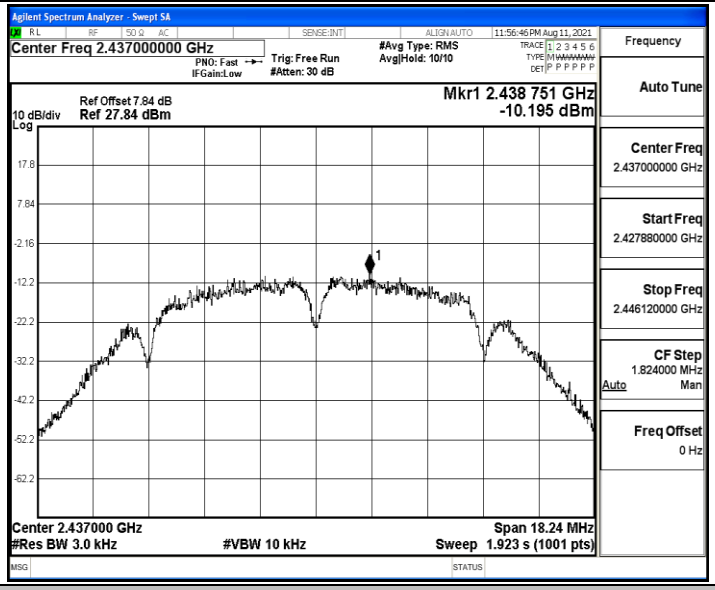
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	2412	15.96	≤30	PASS
		2437	15.97	≤30	PASS
		2462	15.69	≤30	PASS
11G	Ant1	2412	16.46	≤30	PASS
		2437	16.31	≤30	PASS
		2462	16.07	≤30	PASS
11N20SISO	Ant1	2412	16.30	≤30	PASS
		2437	16.24	≤30	PASS
		2462	17.70	≤30	PASS
11N40SISO	Ant1	2422	15.45	≤30	PASS
		2437	15.68	≤30	PASS
		2452	15.54	≤30	PASS

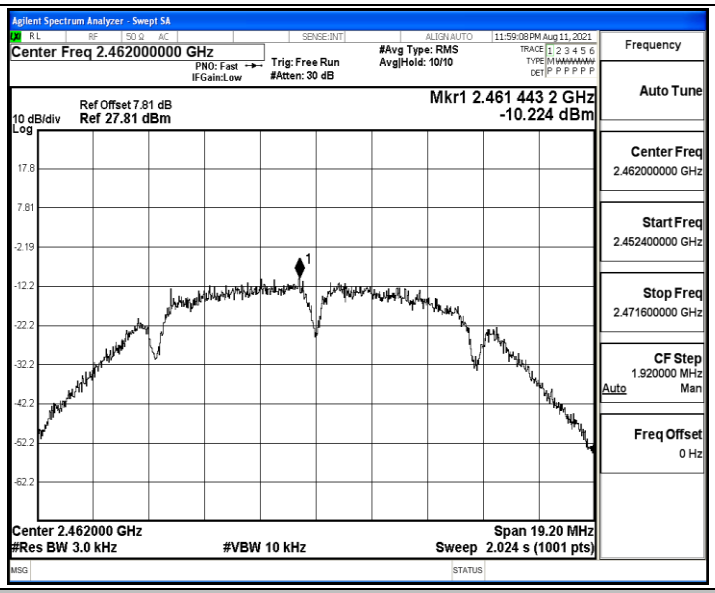
Appendix B.3: Maximum power spectral density

Test Result

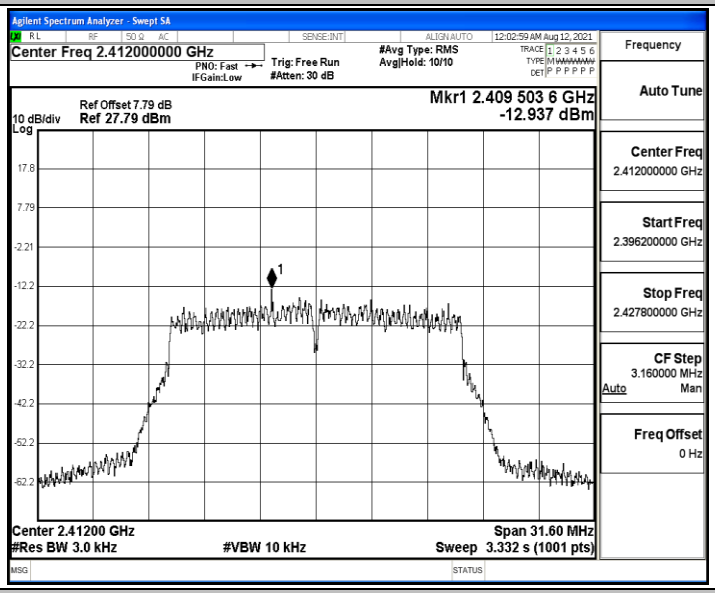
TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-9.95	≤8	PASS
		2437	-10.2	≤8	PASS
		2462	-10.22	≤8	PASS
11G	Ant1	2412	-12.94	≤8	PASS
		2437	-15.52	≤8	PASS
		2462	-15.79	≤8	PASS
11N20SISO	Ant1	2412	-15.61	≤8	PASS
		2437	-14.66	≤8	PASS
		2462	-14.38	≤8	PASS
11N40SISO	Ant1	2422	-18.88	≤8	PASS
		2437	-18.95	≤8	PASS
		2452	-19.38	≤8	PASS

Test Graphs

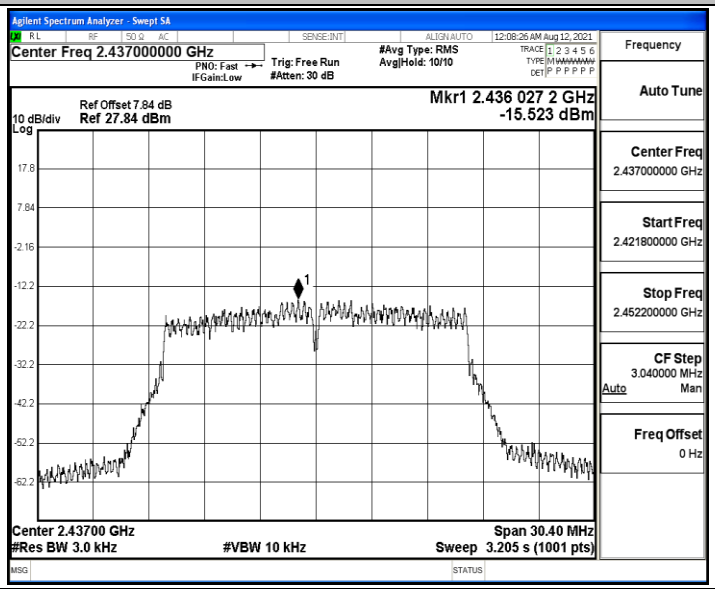
11B_Ant1_2412

11B_Ant1_2437

11B_Ant1_2462

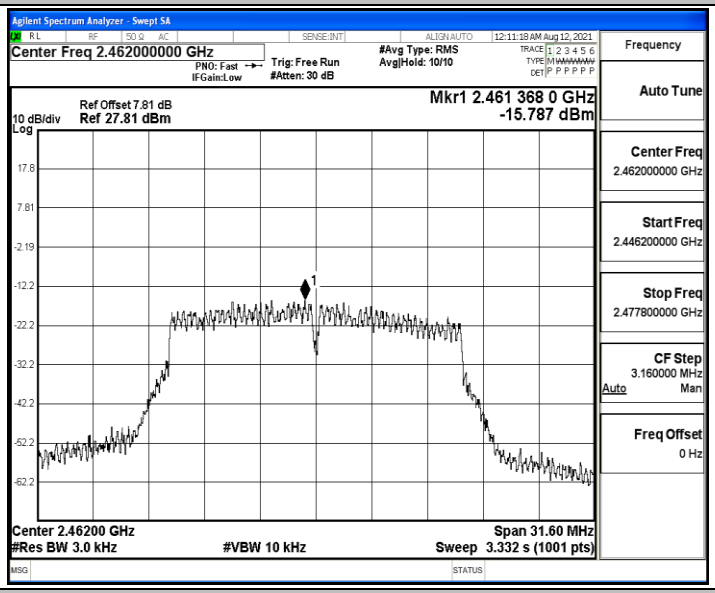
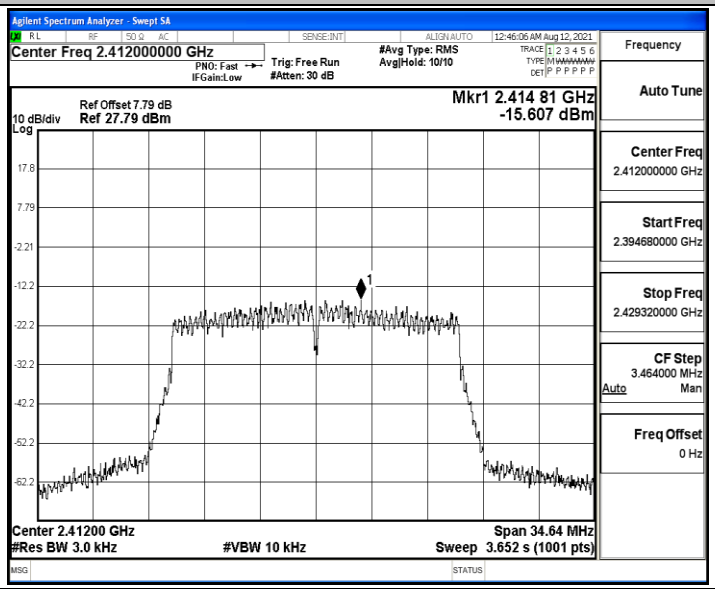


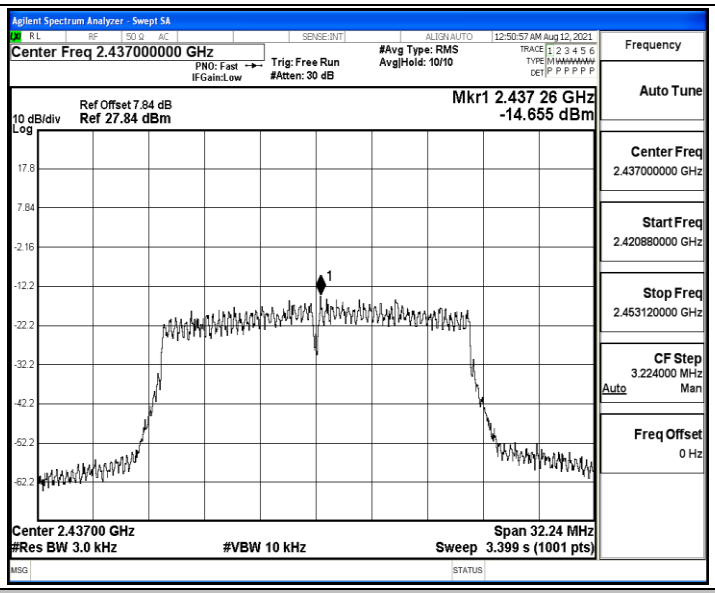
11G_Ant1_2412



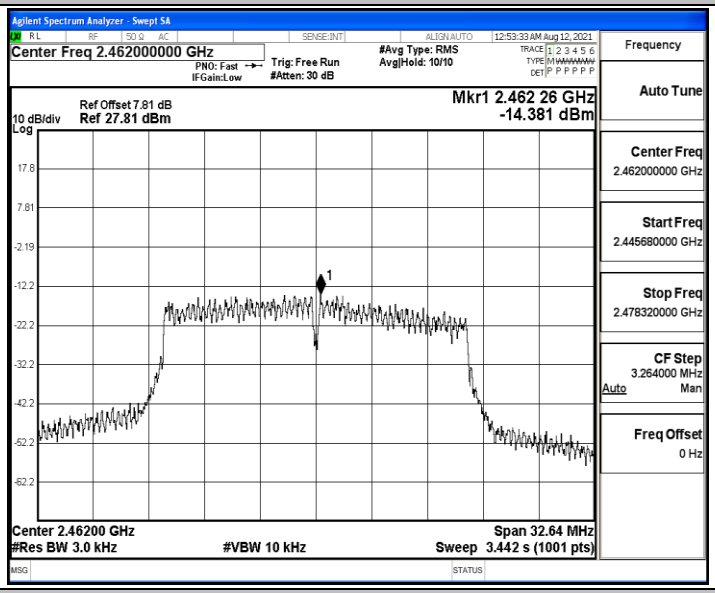
11G_Ant1_2437



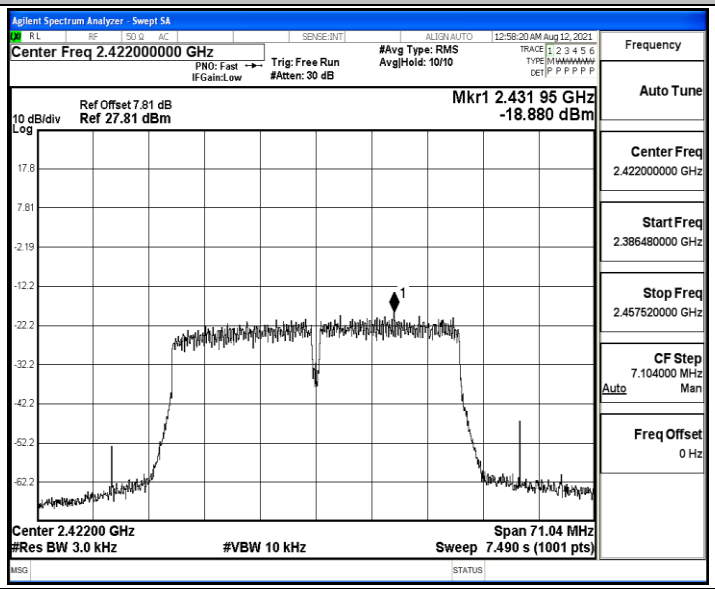
11G_Ant1_2462

11N20SISO_Ant1_2412

11N20SISO_Ant1_2437

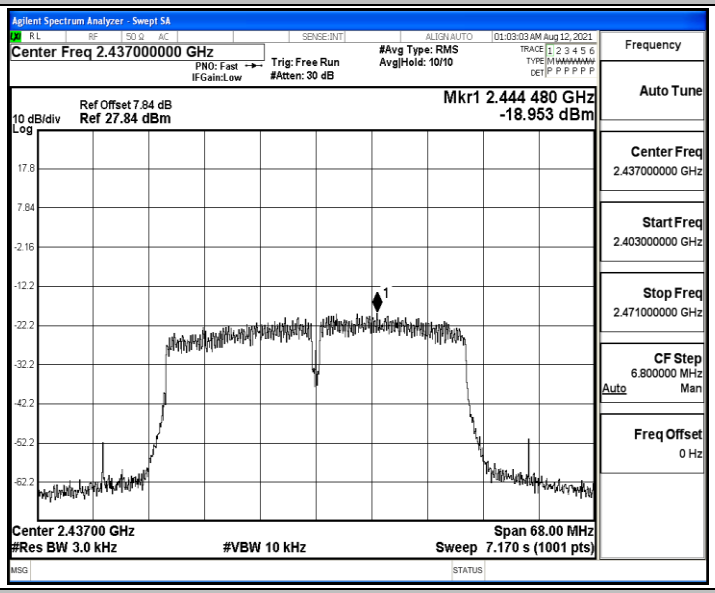
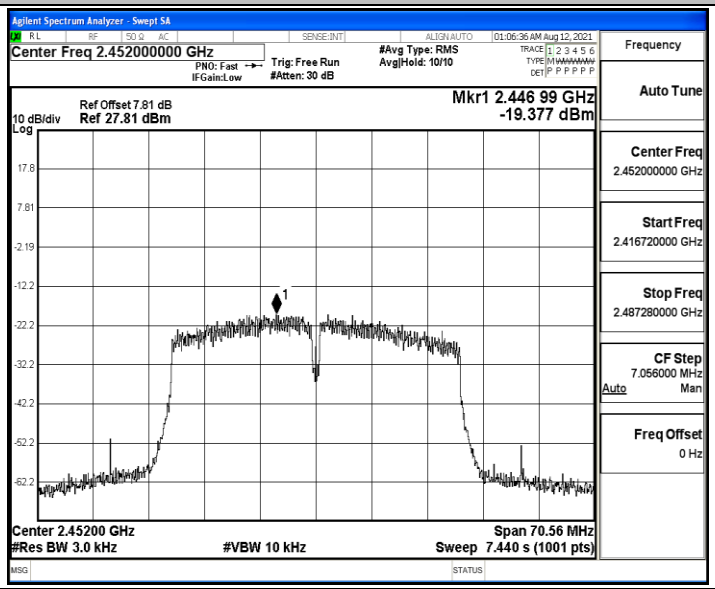


11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



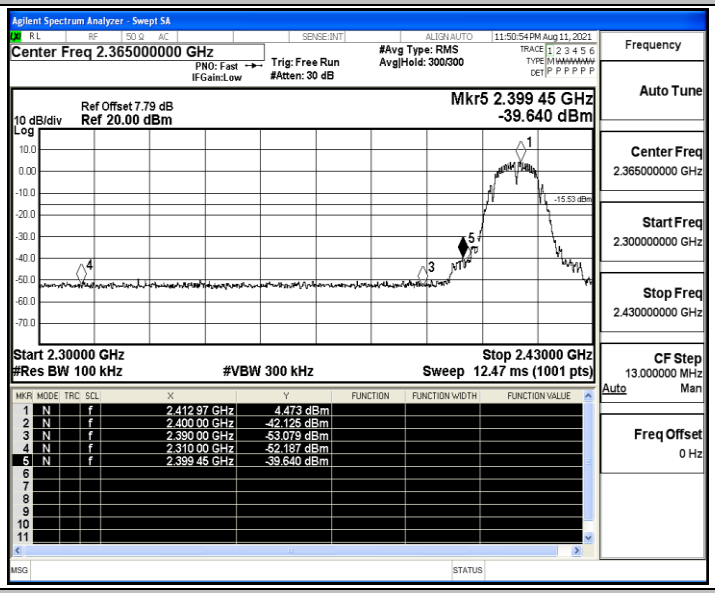
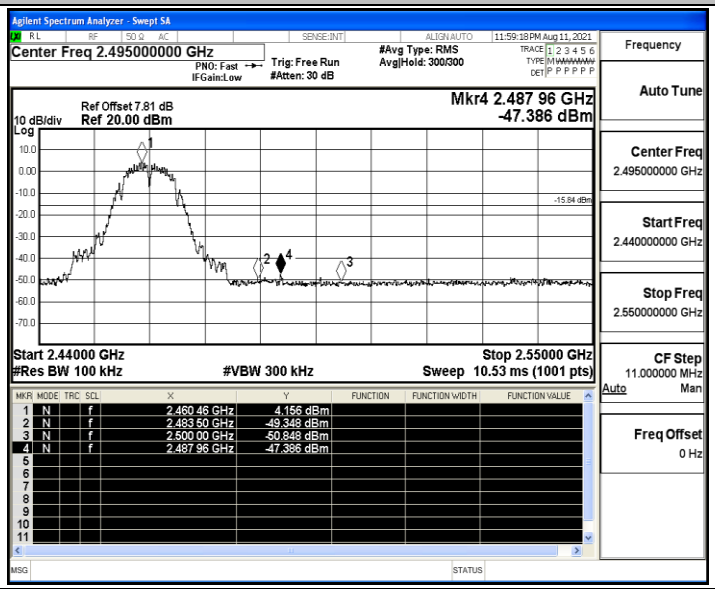
11N40SISO_Ant1_2437

11N40SISO_Ant1_2452


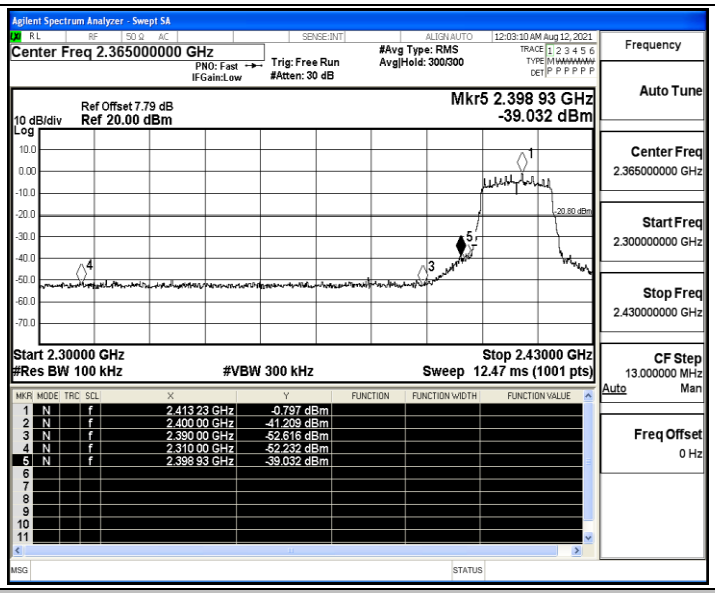
Appendix B.4: Band edge measurements

Test Result

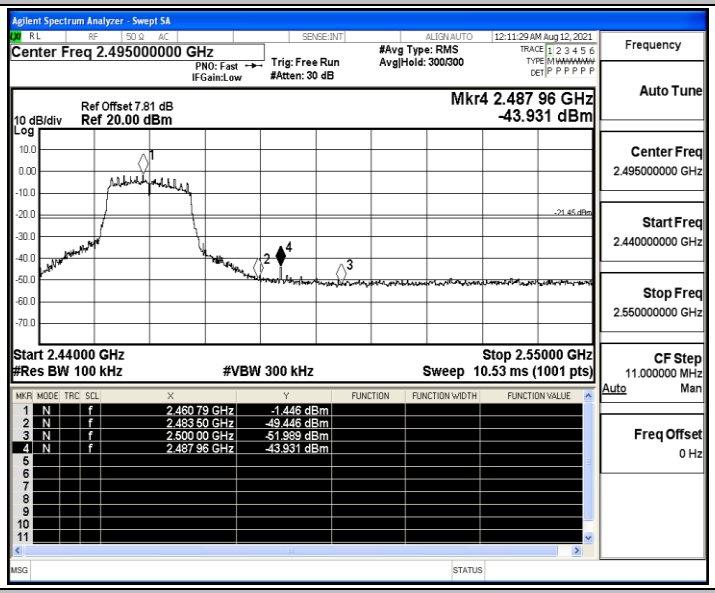
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	4.47	-39.64	≤-15.53	PASS
		High	2462	4.16	-47.39	≤-15.84	PASS
11G	Ant1	Low	2412	-0.80	-39.03	≤-20.8	PASS
		High	2462	-1.45	-43.93	≤-21.45	PASS
11N20SISO	Ant1	Low	2412	-1.12	-38.25	≤-21.12	PASS
		High	2462	0.35	-42.78	≤-19.66	PASS
11N40SISO	Ant1	Low	2422	-5.63	-41.67	≤-25.63	PASS
		High	2452	-4.48	-39.95	≤-24.48	PASS

Test Graphs

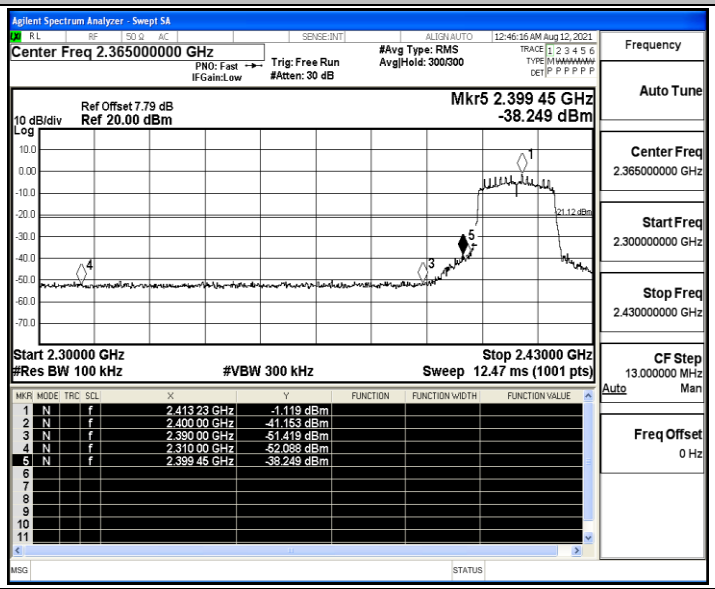
11B_Ant1_Low_2412

11B_Ant1_High_2462

11G_Ant1_Low_2412

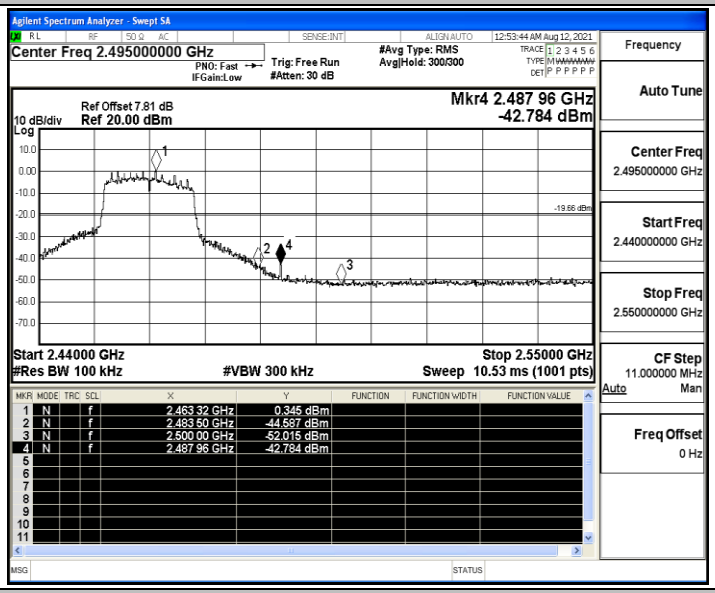
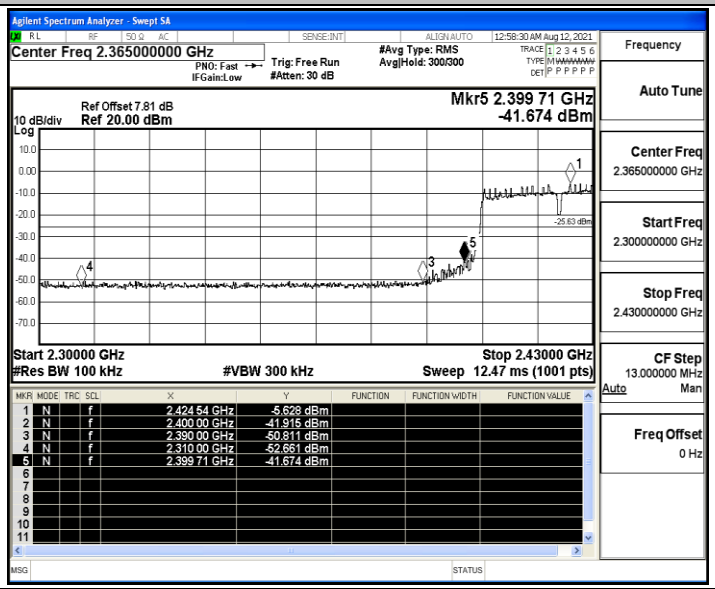


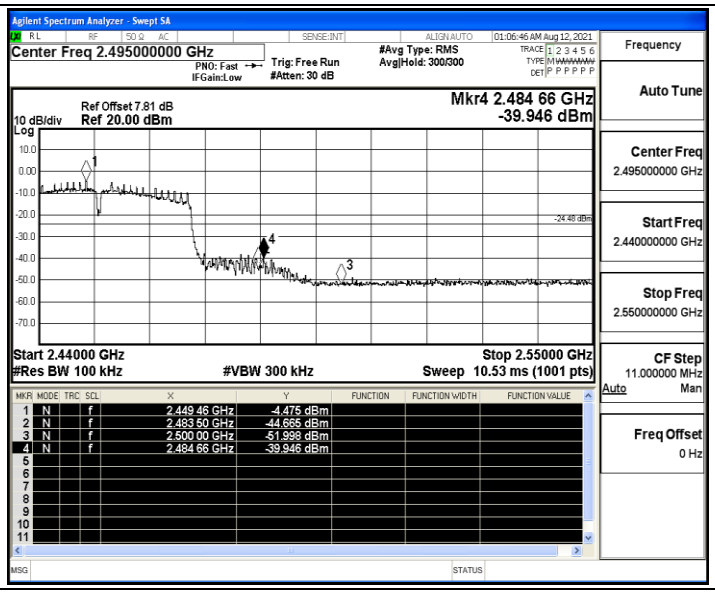
11G_Ant1_High_2462



11N20SISO_Ant1_Low_2412



11N20SISO_Ant1_High_2462

11N40SISO_Ant1_Low_2422

11N40SISO_Ant1_High_2452

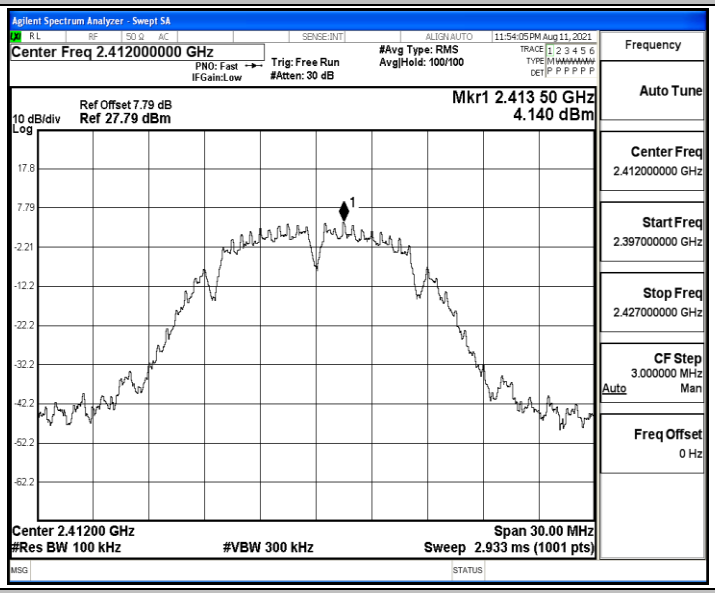
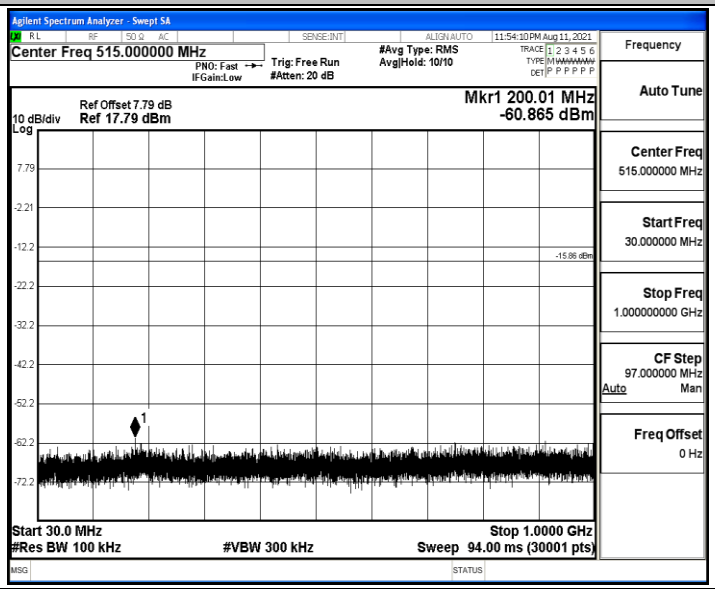

Agilent Spectrum Analyzer - Swept SA
Center Freq 2.495000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
Avg|Hold: 300/300
01:06:46 AM Aug 12, 2021
Ref Offset 7.81 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr4 2.484 66 GHz
-39.946 dBm
Start 2.44000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.55000 GHz
Sweep 10.53 ms (1001 pts)
1 N 1 f 2.449 46 GHz -4.475 dBm
2 N 1 f 2.483 50 GHz -44.665 dBm
3 N 1 f 2.500 00 GHz -51.998 dBm
4 N 1 f 2.484 66 GHz -39.946 dBm
Frequency
Auto Tune
Center Freq
2.495000000 GHz
Start Freq
2.440000000 GHz
Stop Freq
2.550000000 GHz
CF Step
11.000000 MHz
Auto
Man
Freq Offset
0 Hz

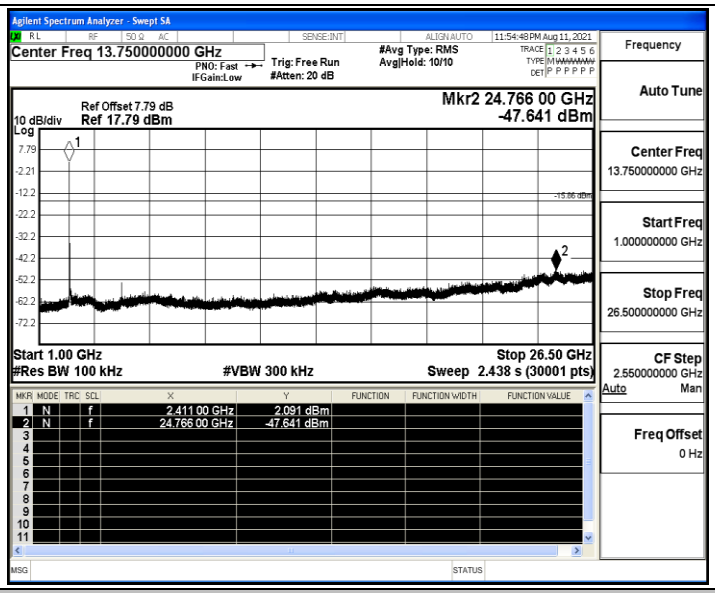
Appendix B.5: Conducted Spurious Emission

Test Result

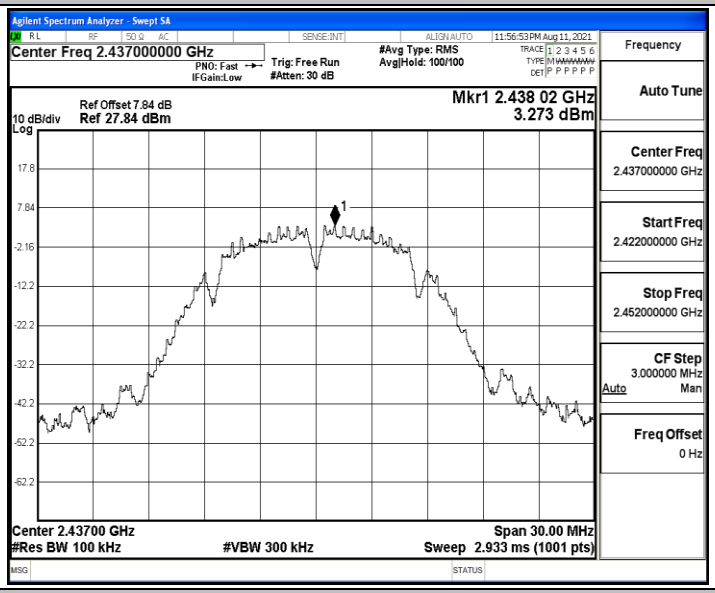
TestMode	Antenna	Channel	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	4.14	4.14	---	PASS
			30~1000	4.14	-60.87	≤-15.86	PASS
			1000~26500	4.14	-47.64	≤-15.86	PASS
		2437	Reference	3.27	3.27	---	PASS
			30~1000	3.27	-60.48	≤-16.73	PASS
			1000~26500	3.27	-46.92	≤-16.73	PASS
		2462	Reference	3.44	3.44	---	PASS
			30~1000	3.44	-59.04	≤-16.56	PASS
			1000~26500	3.44	-47.18	≤-16.56	PASS
11G	Ant1	2412	Reference	-1.48	-1.48	---	PASS
			30~1000	-1.48	-58.74	≤-21.48	PASS
			1000~26500	-1.48	-47.27	≤-21.48	PASS
		2437	Reference	-0.79	-0.79	---	PASS
			30~1000	-0.79	-58.85	≤-20.79	PASS
			1000~26500	-0.79	-47.08	≤-20.79	PASS
		2462	Reference	-2.36	-2.36	---	PASS
			30~1000	-2.36	-58.79	≤-22.36	PASS
			1000~26500	-2.36	-47.76	≤-22.36	PASS
11N20SISO	Ant1	2412	Reference	-1.75	-1.75	---	PASS
			30~1000	-1.75	-59.56	≤-21.75	PASS
			1000~26500	-1.75	-47.03	≤-21.75	PASS
		2437	Reference	-0.78	-0.78	---	PASS
			30~1000	-0.78	-57.54	≤-20.78	PASS
			1000~26500	-0.78	-46.33	≤-20.78	PASS
		2462	Reference	0.34	0.34	---	PASS
			30~1000	0.34	-58.63	≤-19.66	PASS
			1000~26500	0.34	-47.68	≤-19.66	PASS
11N40SISO	Ant1	2422	Reference	-5.49	-5.49	---	PASS
			30~1000	-5.49	-59.19	≤-25.49	PASS
			1000~26500	-5.49	-47.4	≤-25.49	PASS
		2437	Reference	-5.07	-5.07	---	PASS
			30~1000	-5.07	-58.98	≤-25.07	PASS
			1000~26500	-5.07	-47.94	≤-25.07	PASS
		2452	Reference	-5.12	-5.12	---	PASS
			30~1000	-5.12	-58.74	≤-25.12	PASS
			1000~26500	-5.12	-47.58	≤-25.12	PASS

Test Graphs

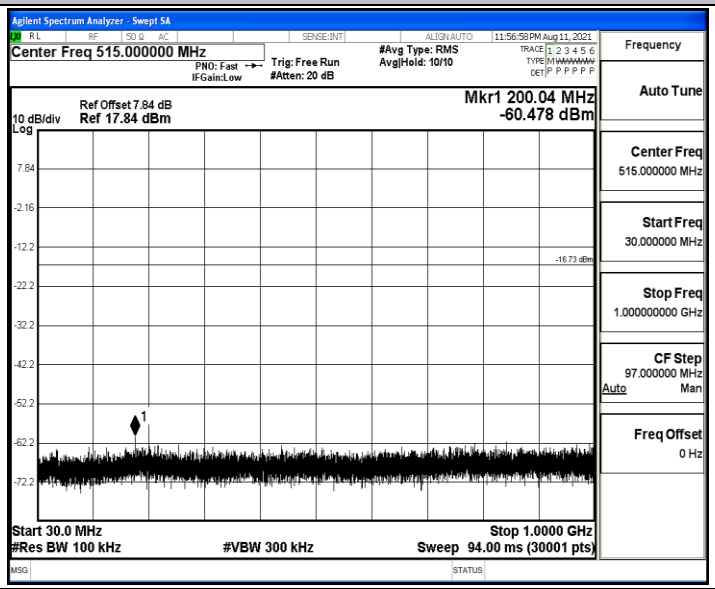
11B_Ant1_2412_0~Reference

11B_Ant1_2412_30~1000

11B_Ant1_2412_1000~26500

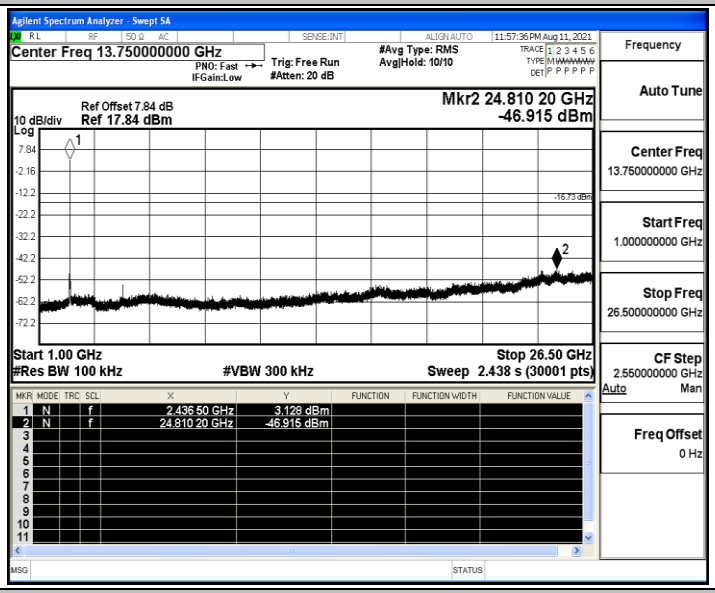
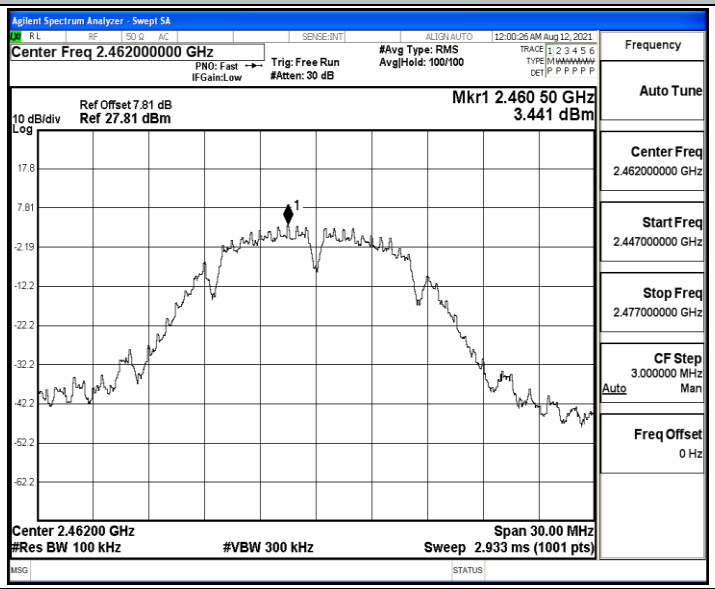


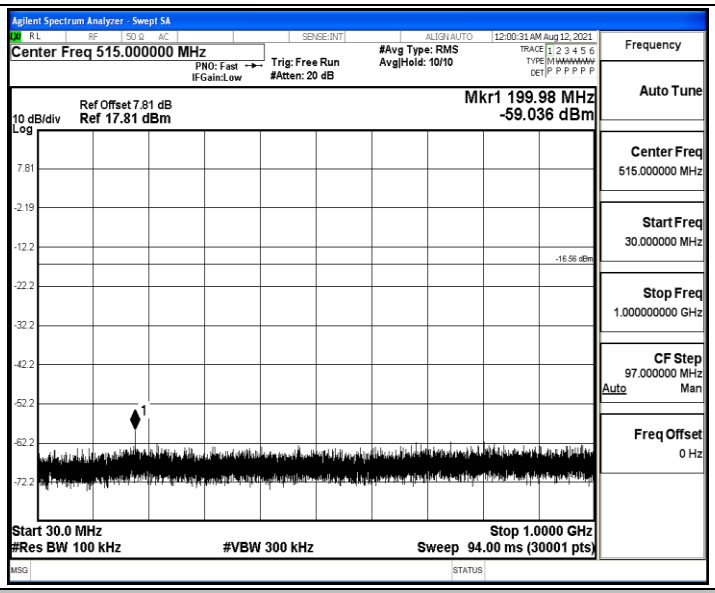
11B_Ant1_2437_0~Reference



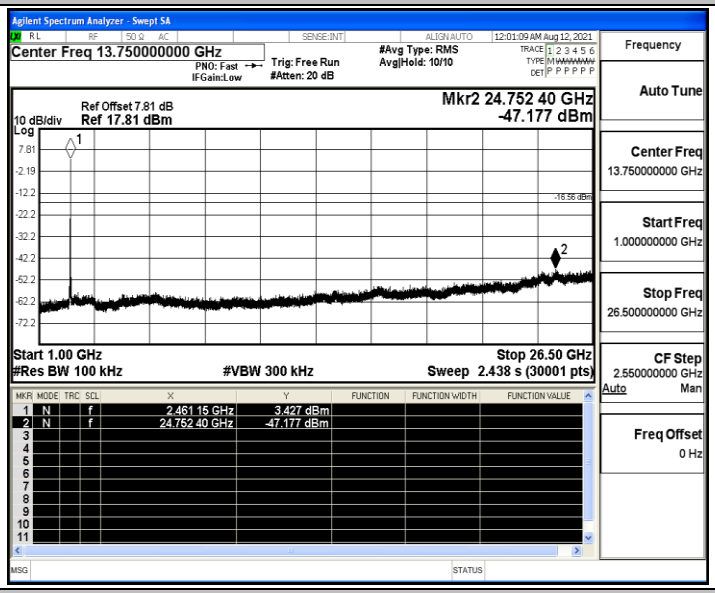
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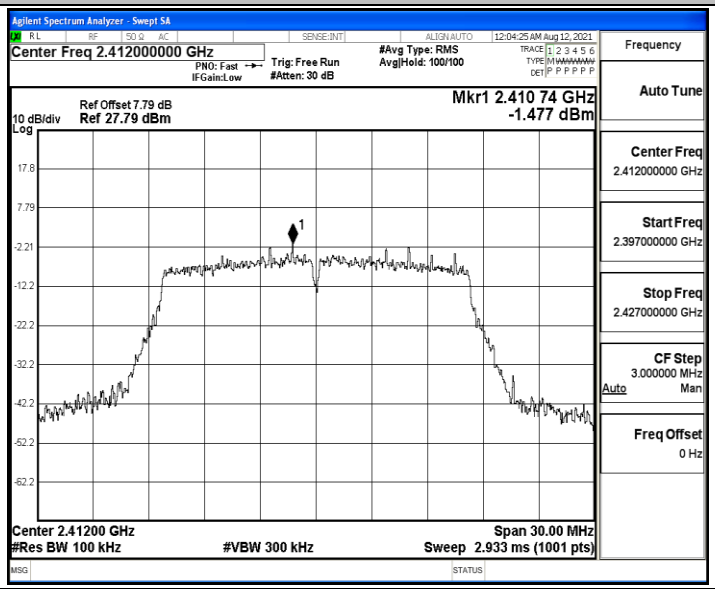
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11B_Ant1_2462_0~Reference

11B_Ant1_2462_30~1000



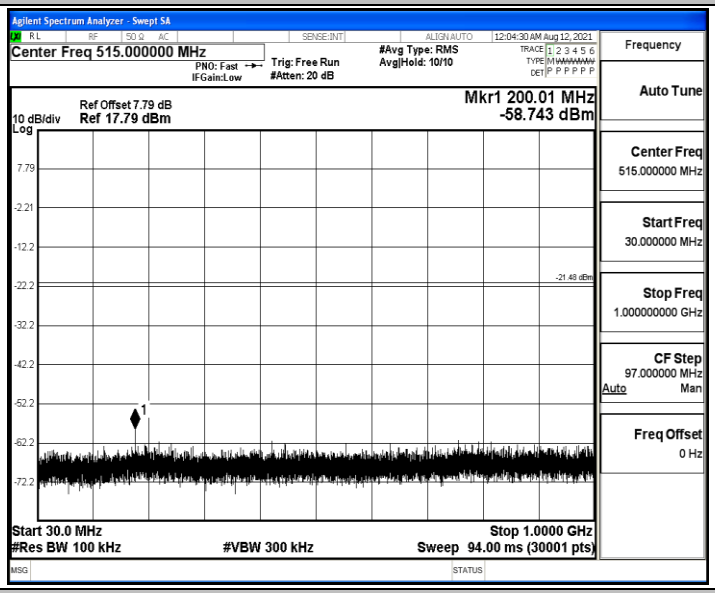
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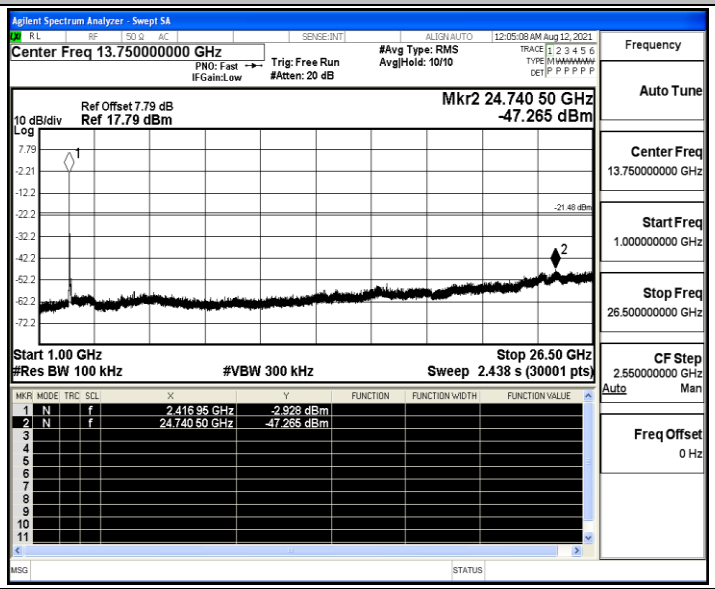
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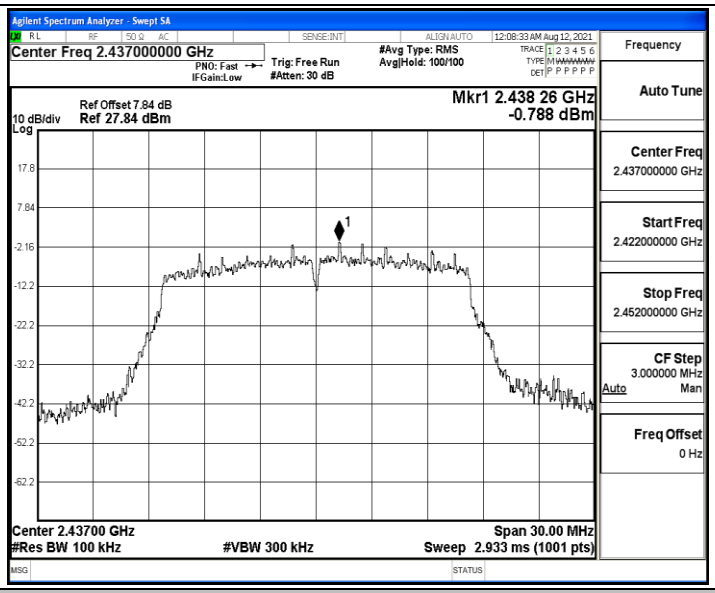
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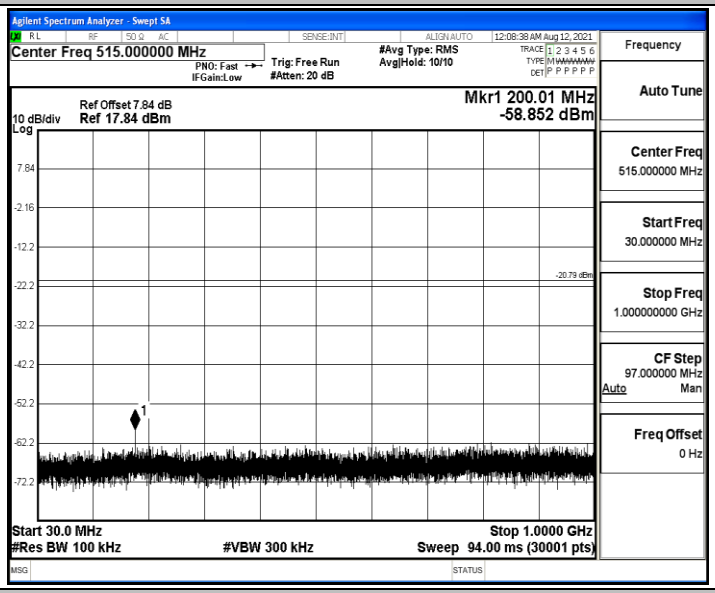
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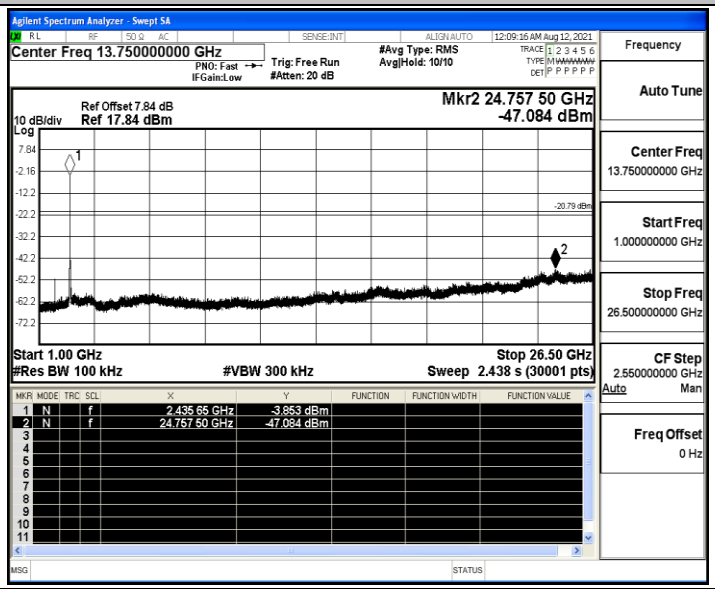
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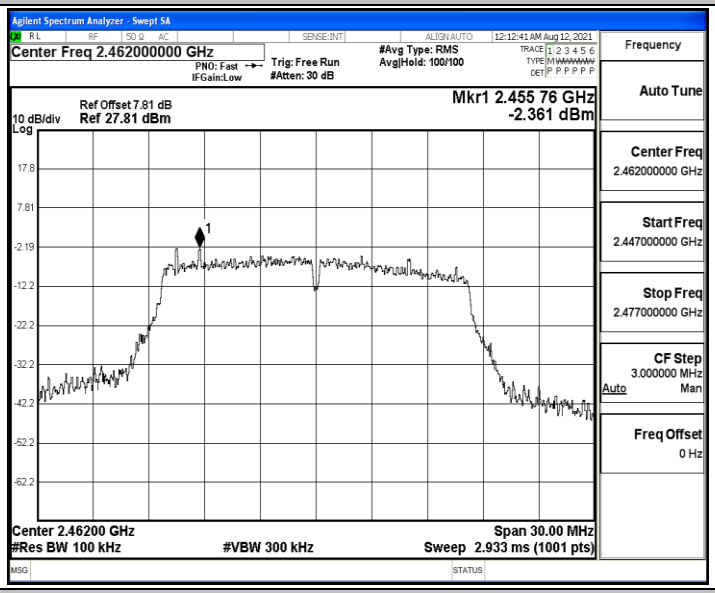
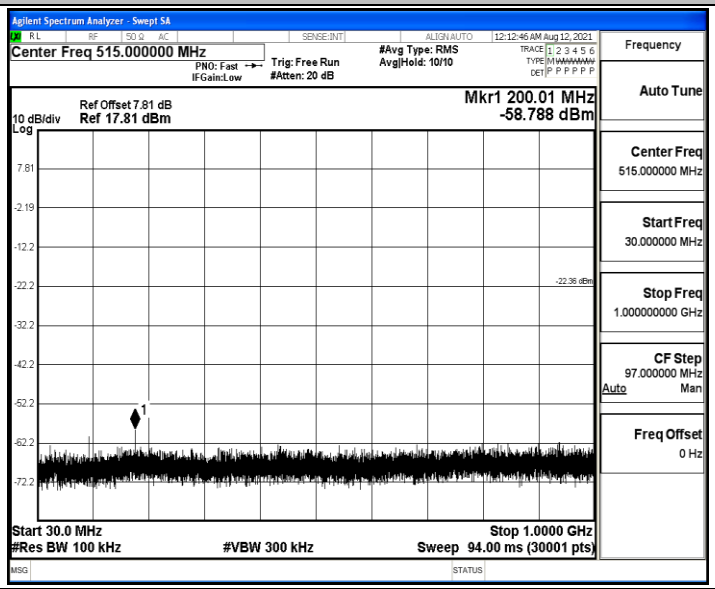


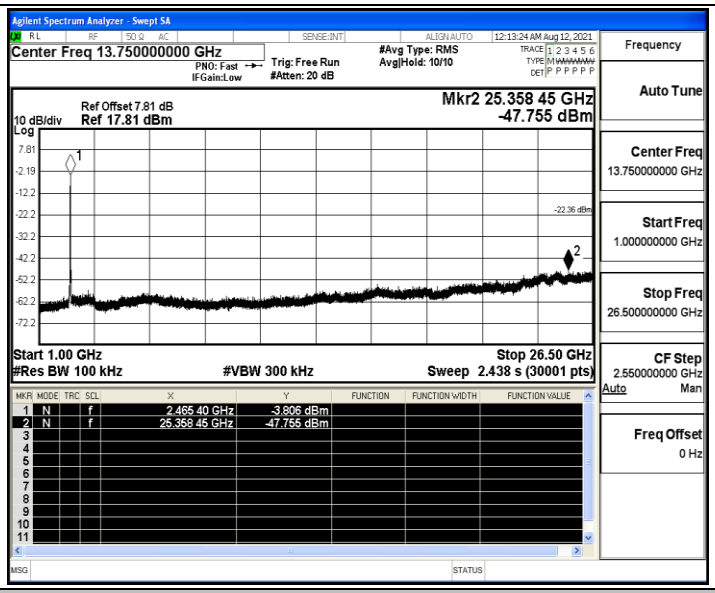
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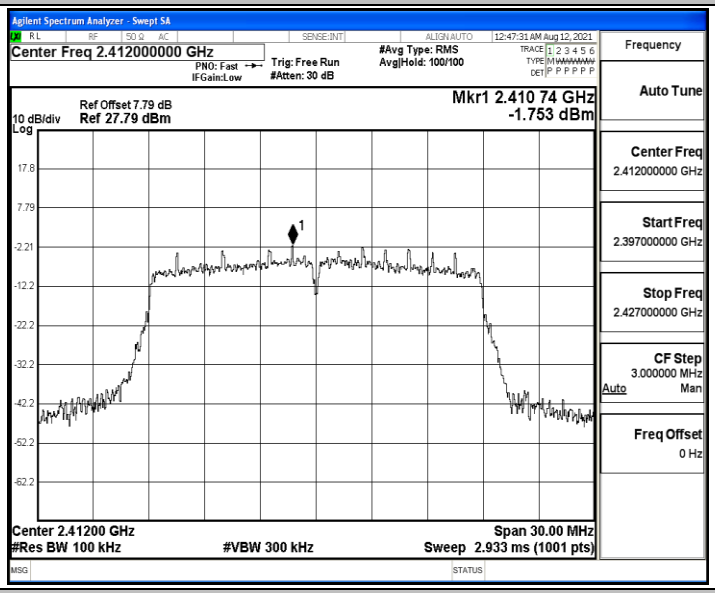
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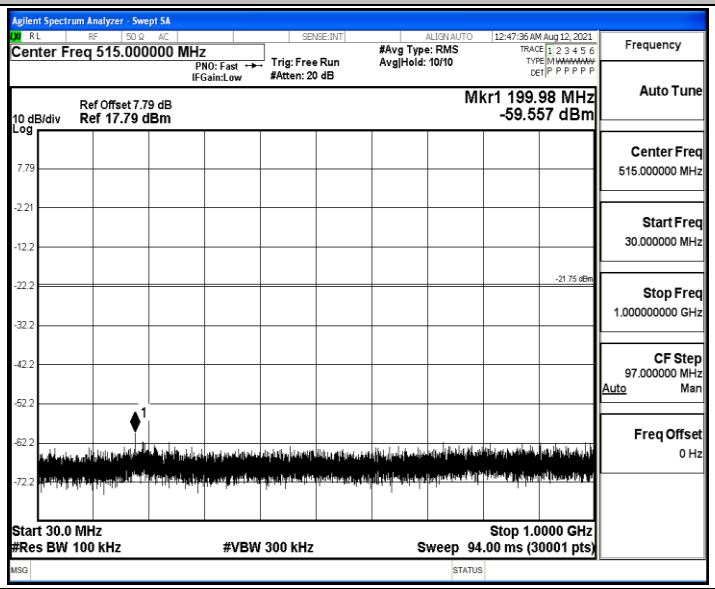
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11G_Ant1_2462_30~1000

11G_Ant1_2462_1000~26500

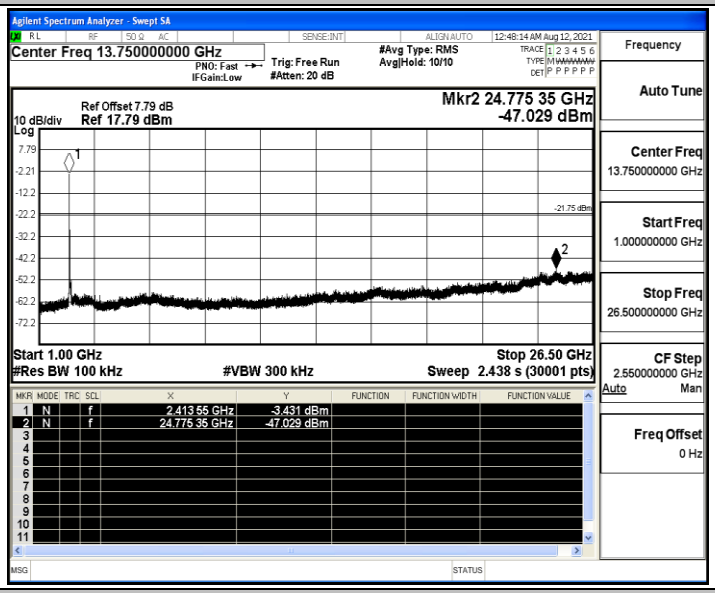
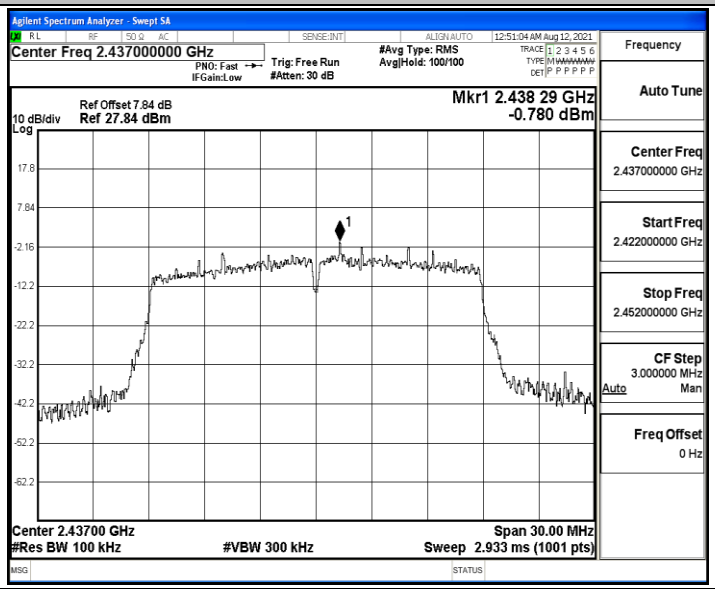


11N20SISO_Ant1_2412_0~Reference



11N20SISO_Ant1_2412_30~1000



11N20SISO_Ant1_2412_1000~26500

11N20SISO_Ant1_2437_0~Reference

11N20SISO_Ant1_2437_30~1000