Appendix Test Data

Report No.:	18220WC20195201	Test Sample No.:	1-2-2
Start Test Date:	2022.8.22	Finish Test Date:	2022.8.26
Test Engineer:	Tony.He	Auditor:	Edward.Pan
Temperature:	26.3℃	Relative Humidity:	47 %
Pressure:	1012 hPa		

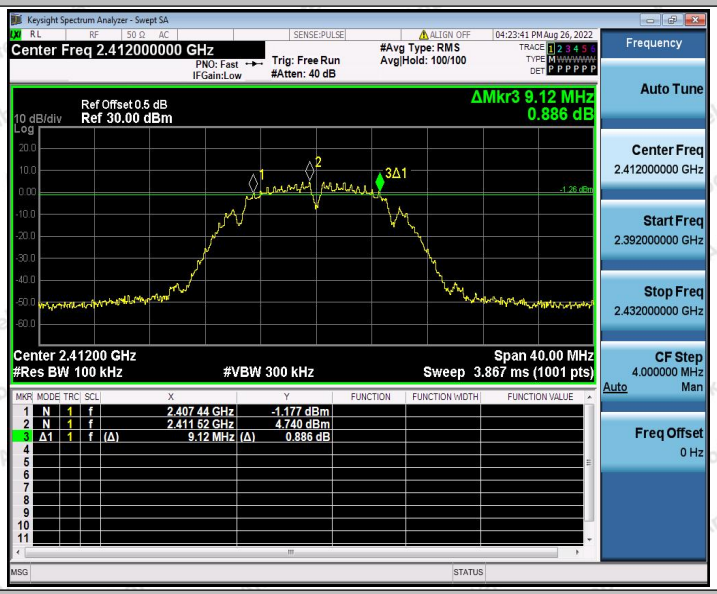
Appendix A: DTS Bandwidth

Test Result

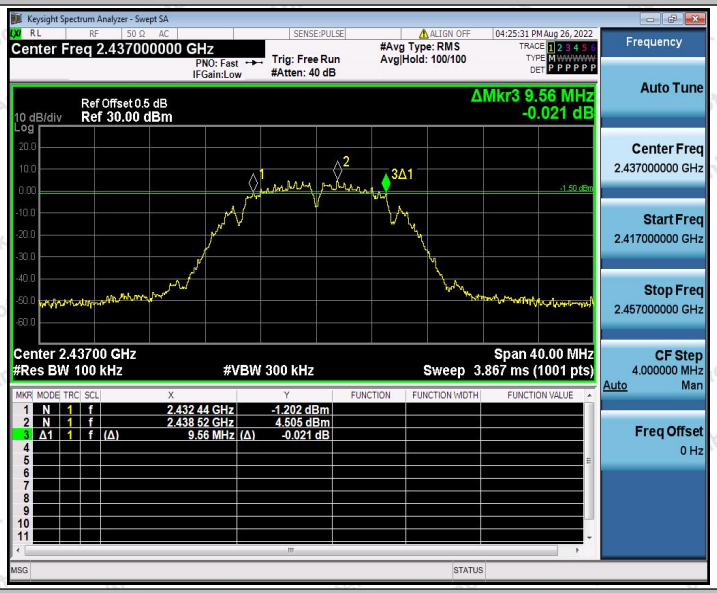
TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	9.120	2407.440	2416.560	0.5	PASS
		2437	9.560	2432.440	2442.000	0.5	PASS
		2462	9.080	2457.480	2466.560	0.5	PASS
11G	Ant1	2412	16.360	2403.840	2420.200	0.5	PASS
		2437	16.320	2428.840	2445.160	0.5	PASS
		2462	16.360	2453.840	2470.200	0.5	PASS
11N20SISO	Ant1	2412	17.600	2403.200	2420.800	0.5	PASS
		2437	17.640	2428.200	2445.840	0.5	PASS
		2462	17.600	2453.200	2470.800	0.5	PASS

Test Graphs

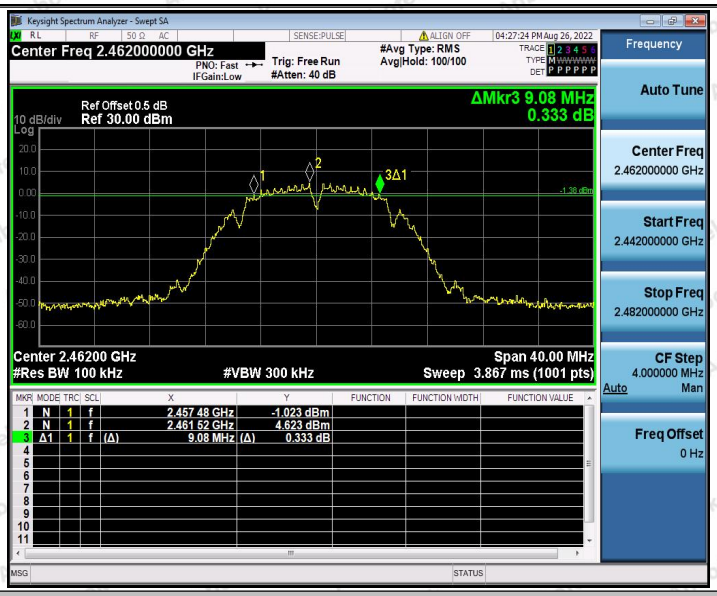
11B_Ant1_2412



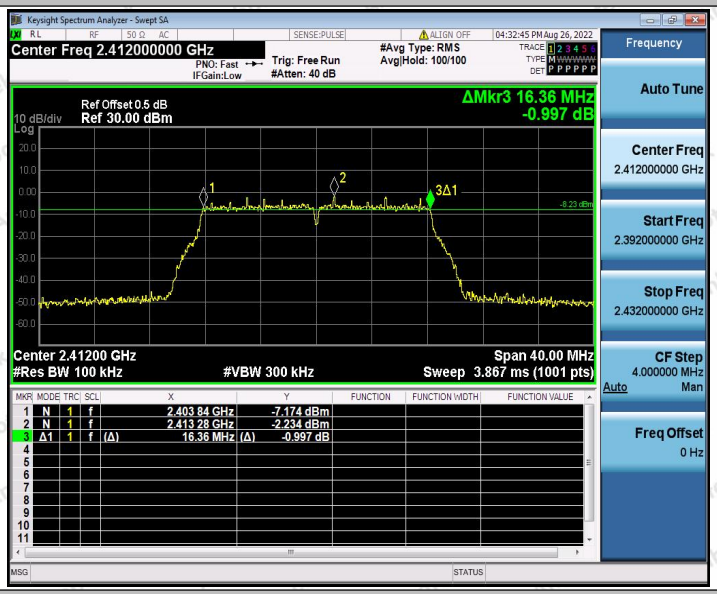
11B_Ant1_2437



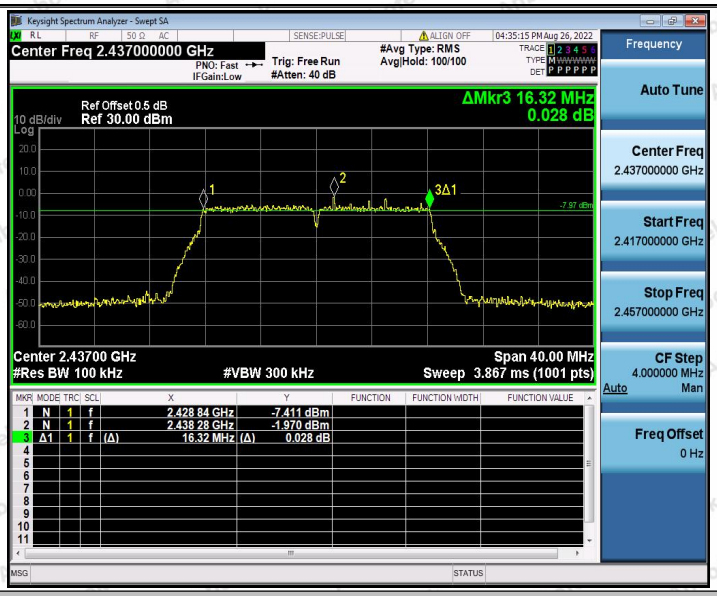
11B_Ant1_2462



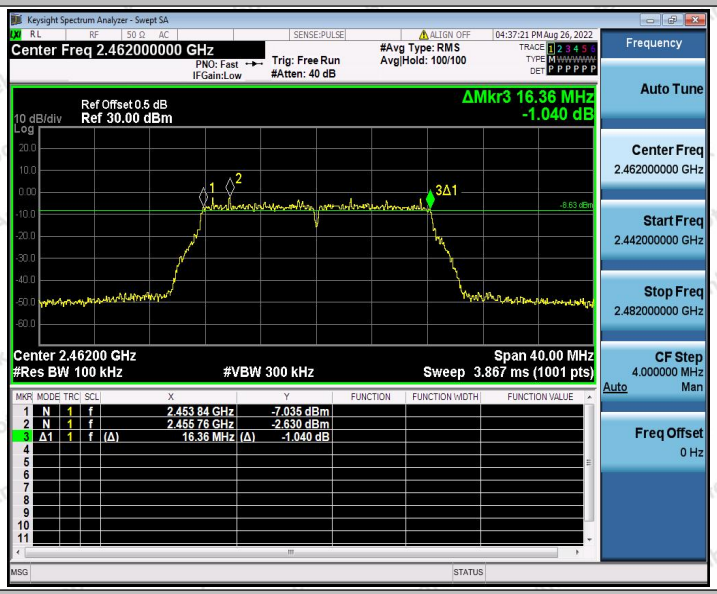
11G_Ant1_2412



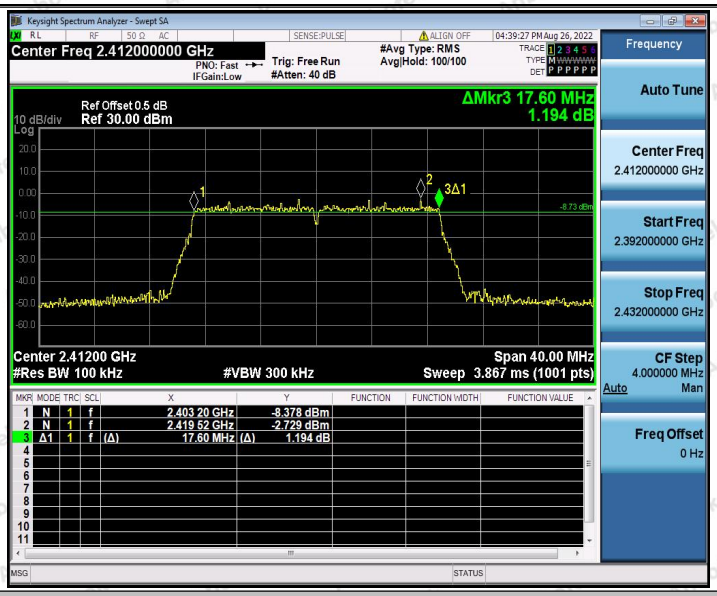
11G_Ant1_2437



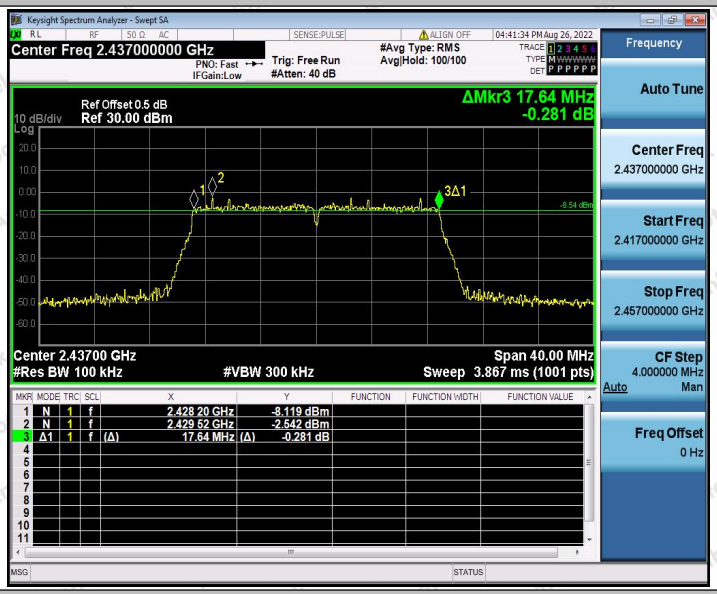
11G_Ant1_2462



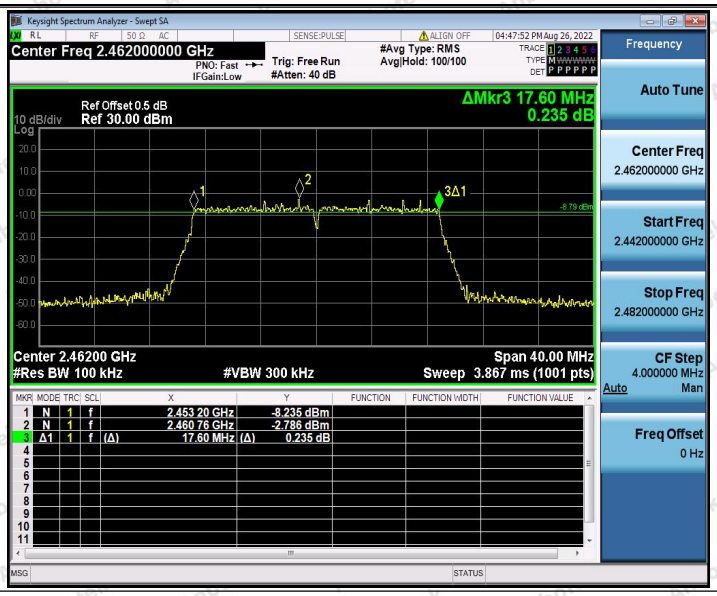
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



11N20SISO_Ant1_2462


Keysight Spectrum Analyzer - Swept SA
Center Freq 2.462000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
#Avg Type: RMS
Avg|Hold: 100/100
04:47:52 PM Aug 26, 2022
Ref Offset 0.5 dB
10 dB/div
Ref 30.00 dBm
Log
ΔMkr3 17.60 MHz
0.235 dB
-8.79 dBm
Center 2.46200 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 40.00 MHz
Sweep 3.867 ms (1001 pts)
1 N 1 f 2.453 20 GHz -8.235 dBm
2 N 1 f 2.460 76 GHz -2.786 dBm
3 Δ1 1 f (Δ) 17.60 MHz (Δ) 0.235 dB
Frequency
Auto Tune
Center Freq
2.462000000 GHz
Start Freq
2.442000000 GHz
Stop Freq
2.482000000 GHz
CF Step
4.000000 MHz
Auto Man
Freq Offset
0 Hz

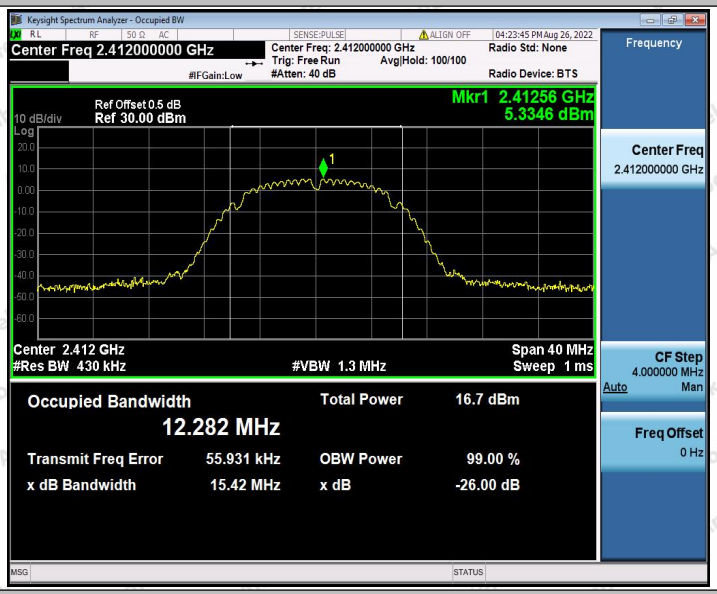
Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]
11B	Ant1	2412	12.282	2405.9149	2418.1969
		2437	12.306	2430.8930	2443.1990
		2462	12.299	2455.8886	2468.1876
11G	Ant1	2412	17.128	2403.4637	2420.5917
		2437	17.057	2428.5063	2445.5633
		2462	17.025	2453.5001	2470.5251
11N20SISO	Ant1	2412	17.942	2403.0694	2421.0114
		2437	18.015	2428.0522	2446.0672
		2462	17.930	2453.0525	2470.9825

Test Graphs

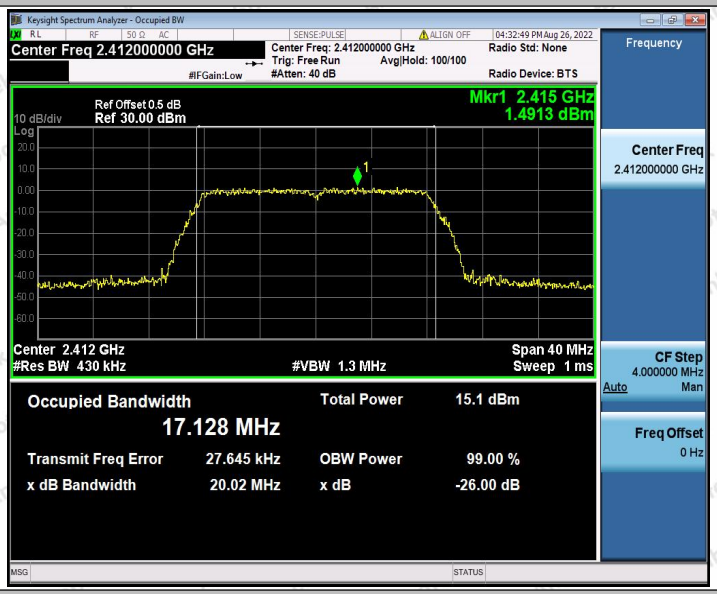
11B_Ant1_2412



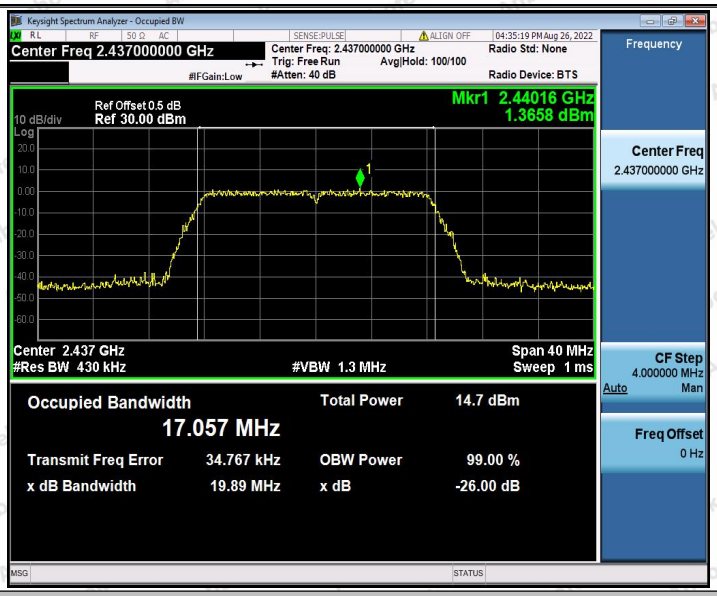
11B_Ant1_2437

11B_Ant1_2462

11G_Ant1_2412

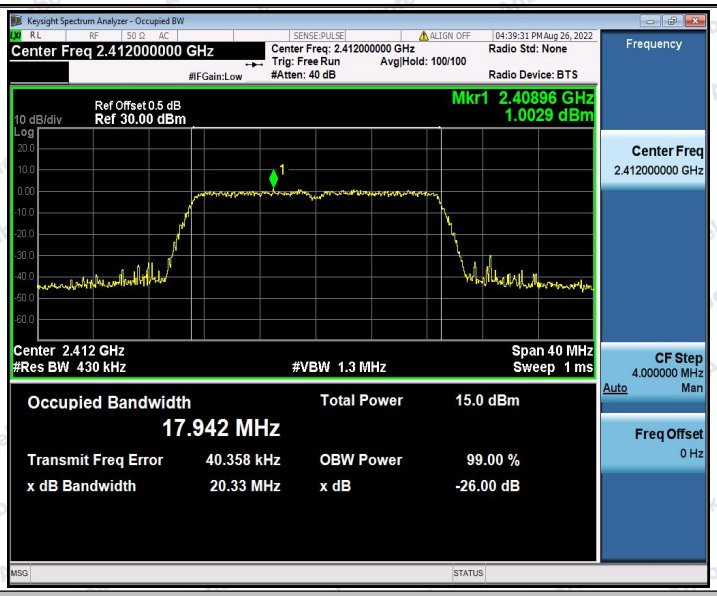


11G_Ant1_2437



11G_Ant1_2462

11N20SISO_Ant1_2412



11N20SISO_Ant1_2437

11N20SISO_Ant1_2462

Keysight Spectrum Analyzer - Occupied BW
Center Freq 2.462000000 GHz
Center Freq: 2.462000000 GHz
Trig: Free Run
Avg|Hold: 100/100
#Atten: 40 dB
Radio Std: None
Radio Device: BTS
Frequency
Ref Offset 0.5 dB
10 dB/div
Ref 30.00 dBm
Mkr1 2.46536 GHz
1.0496 dBm
Center Freq
2.462000000 GHz
Center 2.462 GHz
#Res BW 430 kHz
#VBW 1.3 MHz
Span 40 MHz
Sweep 1 ms
CF Step
4.000000 MHz
Auto
Man
Occupied Bandwidth
17.930 MHz
Total Power
14.9 dBm
Transmit Freq Error
17.514 kHz
OBW Power
99.00 %
x dB Bandwidth
20.20 MHz
x dB
-26.00 dB
Freq Offset
0 Hz

Appendix C: Maximum conducted output power

Test Result Peak

TestMode	Antenna	Frequency[MHz]	Peak Powert[dBm]	Conducted Limit[dBm]	Verdict
11B	Ant1	2412	16.42	≤30.00	PASS
		2437	16.45	≤30.00	PASS
		2462	16.45	≤30.00	PASS
11G	Ant1	2412	16.03	≤30.00	PASS
		2437	15.94	≤30.00	PASS
		2462	16.08	≤30.00	PASS
11N20SISO	Ant1	2412	16.14	≤30.00	PASS
		2437	16.10	≤30.00	PASS
		2462	16.06	≤30.00	PASS

Appendix D: Maximum power spectral density

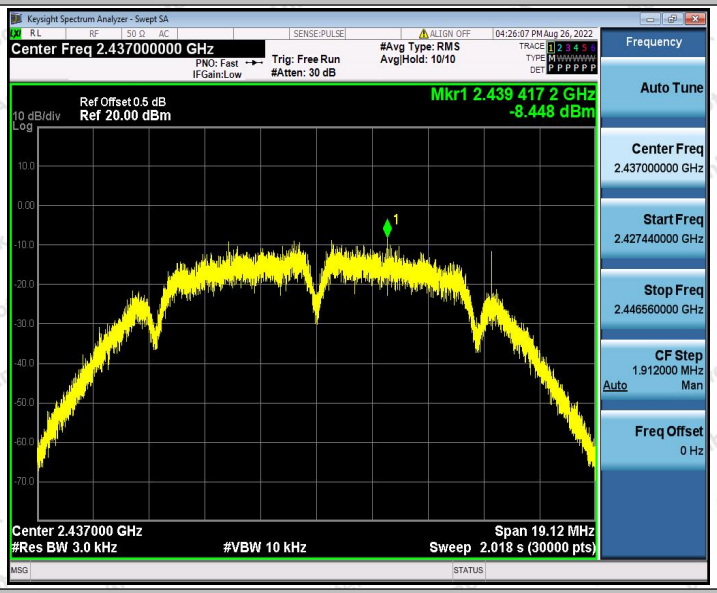
Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-8.97	≤8.00	PASS
		2437	-8.45	≤8.00	PASS
		2462	-5.17	≤8.00	PASS
11G	Ant1	2412	-16.44	≤8.00	PASS
		2437	-16.21	≤8.00	PASS
		2462	-16.04	≤8.00	PASS
11N20SISO	Ant1	2412	-16.72	≤8.00	PASS
		2437	-15.21	≤8.00	PASS
		2462	-16.45	≤8.00	PASS

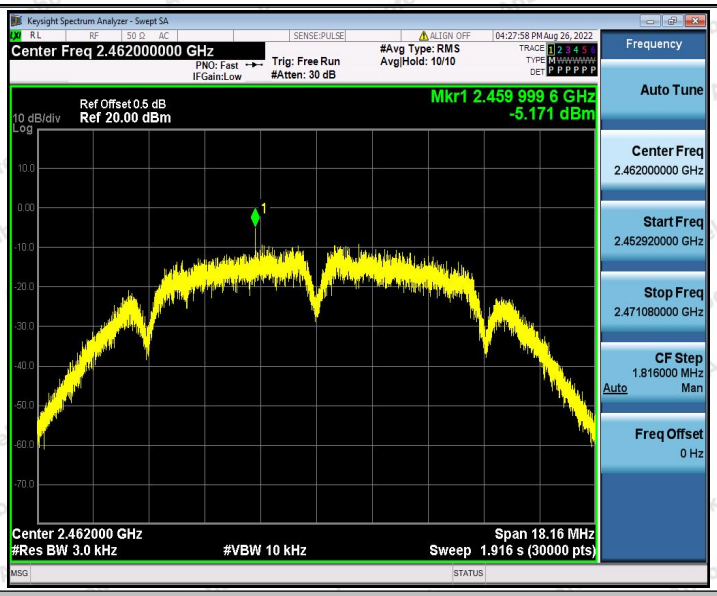
Test Graphs

11B_Ant1_2412

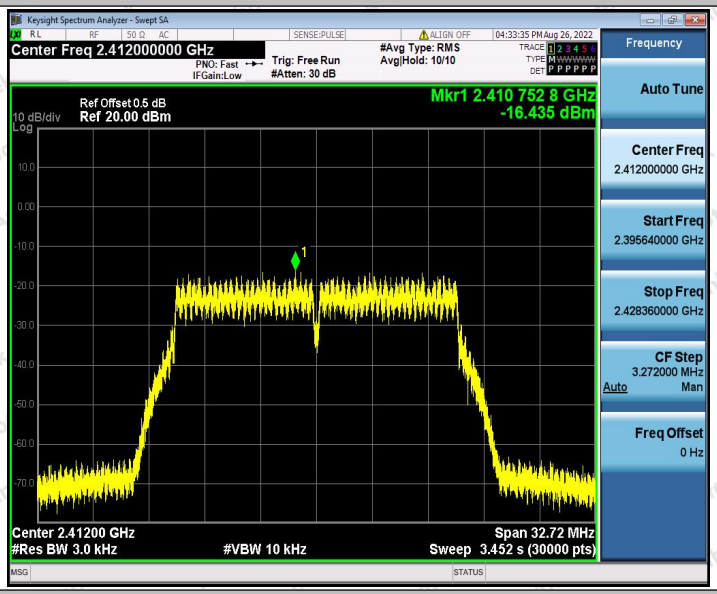
11B_Ant1_2437



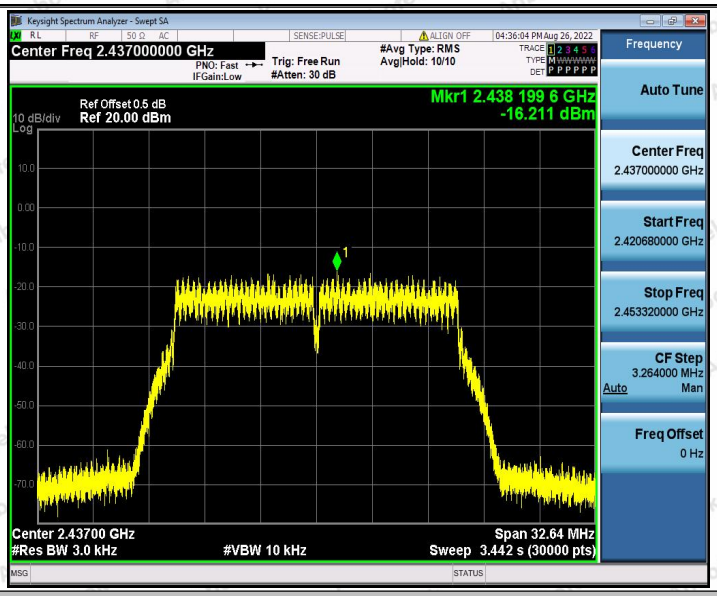
11B_Ant1_2462



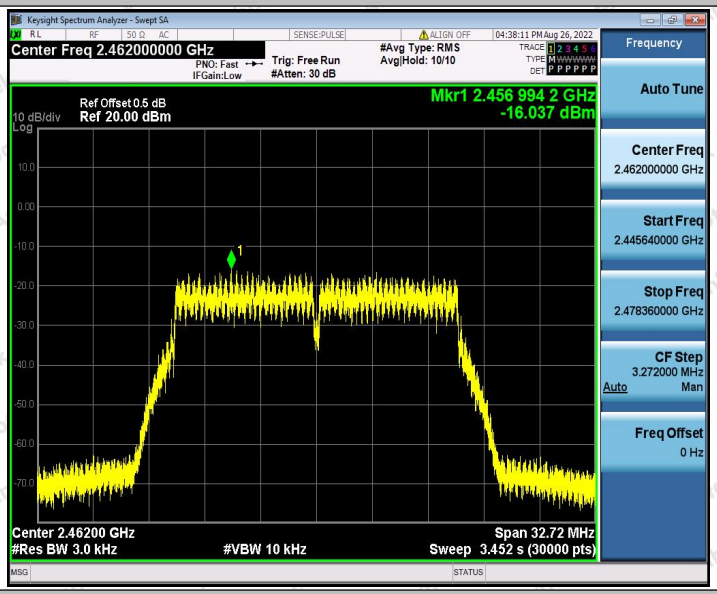
11G_Ant1_2412



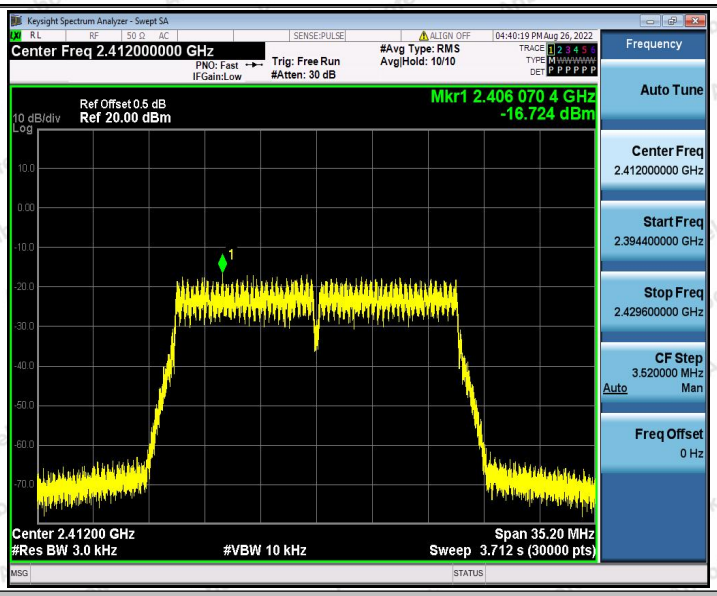
11G_Ant1_2437



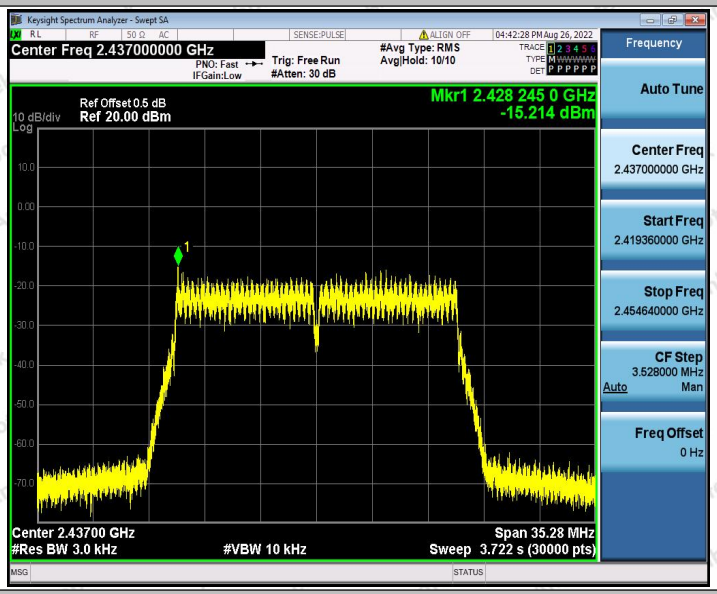
11G_Ant1_2462



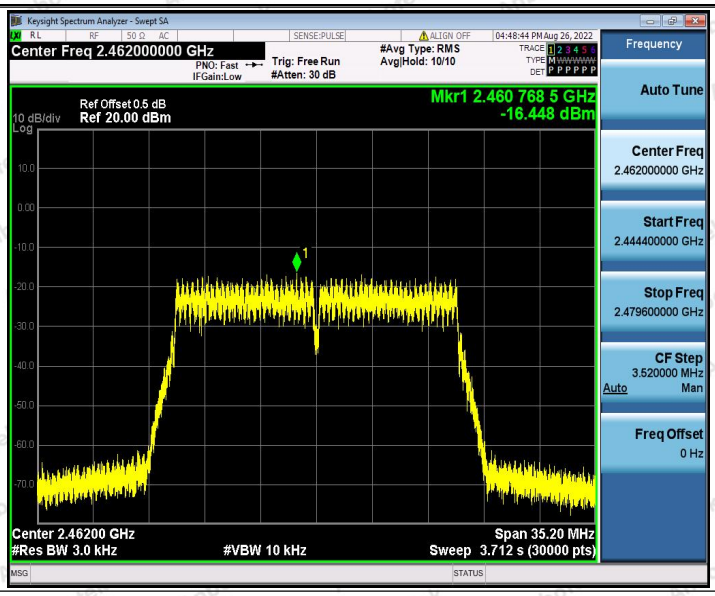
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



11N20SISO_Ant1_2462


Keysight Spectrum Analyzer - Swept SA
Center Freq 2.462000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
Avg|Hold: 10/10
04:48:44 PM Aug 26, 2022
Ref Offset 0.5 dB
10 dB/div
Log
Ref 20.00 dBm
Mkr1 2.460 768 5 GHz
-16.448 dBm
Center 2.46200 GHz
#Res BW 3.0 kHz
#VBW 10 kHz
Span 35.20 MHz
Sweep 3.712 s (30000 pts)
Frequency
Auto Tune
Center Freq
2.462000000 GHz
Start Freq
2.444400000 GHz
Stop Freq
2.479600000 GHz
CF Step
3.520000 MHz
Auto
Man
Freq Offset
0 Hz

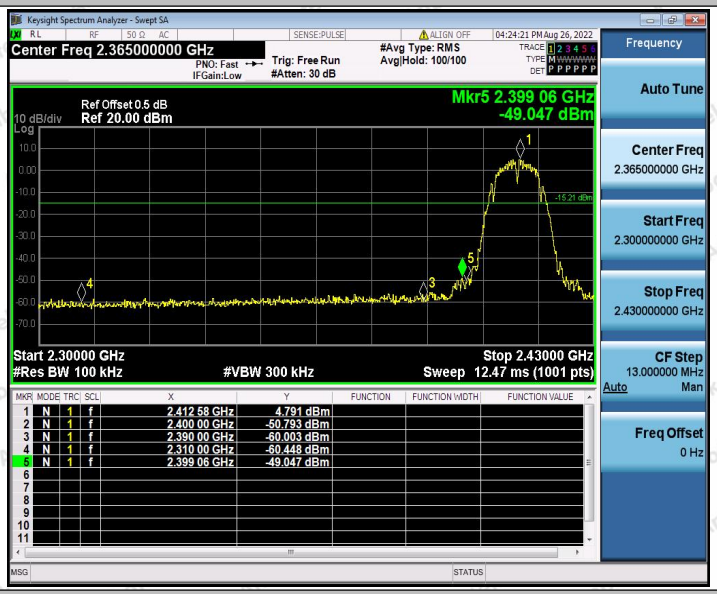
Appendix E: Band edge measurements

Test Result

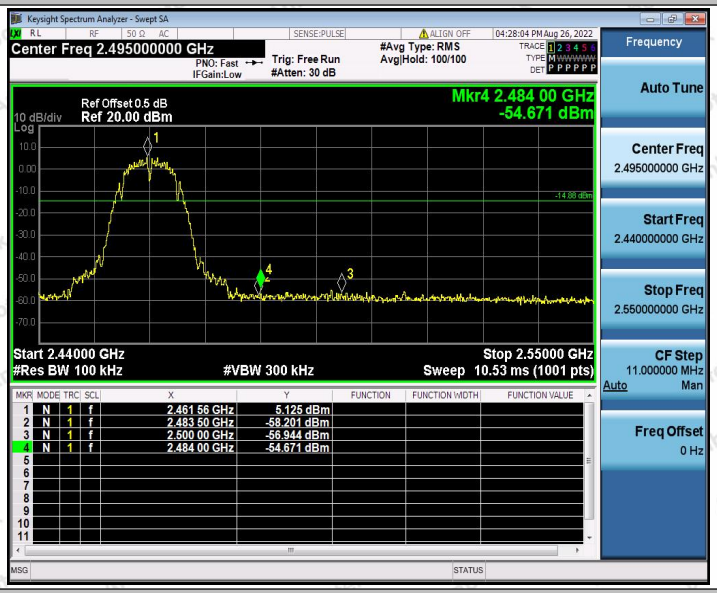
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	4.79	-49.05	≤-15.21	PASS
		High	2462	5.13	-54.67	≤-14.88	PASS
11G	Ant1	Low	2412	-1.93	-45.43	≤-21.93	PASS
		High	2462	-2.30	-53.22	≤-22.3	PASS
11N20SISO	Ant1	Low	2412	-2.53	-44.97	≤-22.53	PASS
		High	2462	-2.43	-52.39	≤-22.43	PASS

Test Graphs

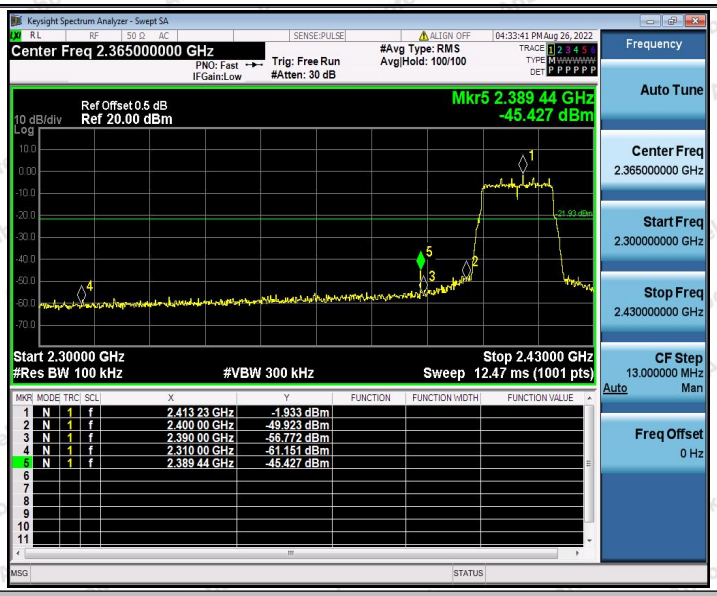
11B_Ant1_Low_2412



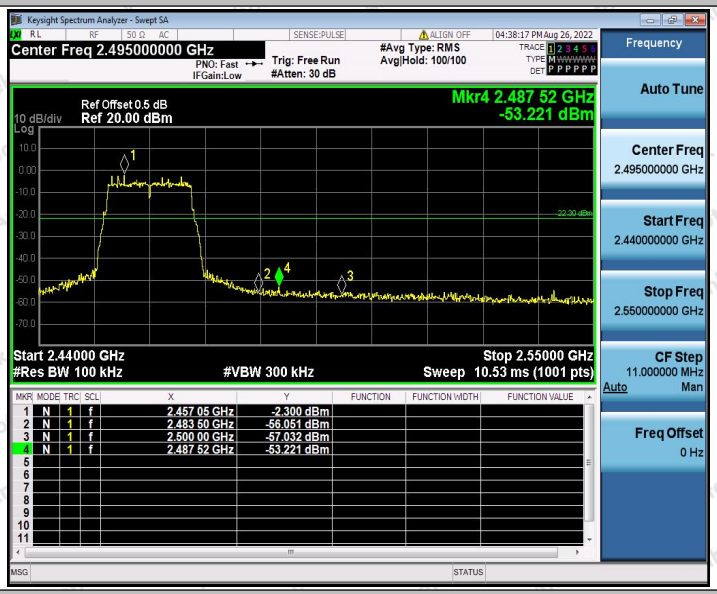
11B_Ant1_High_2462



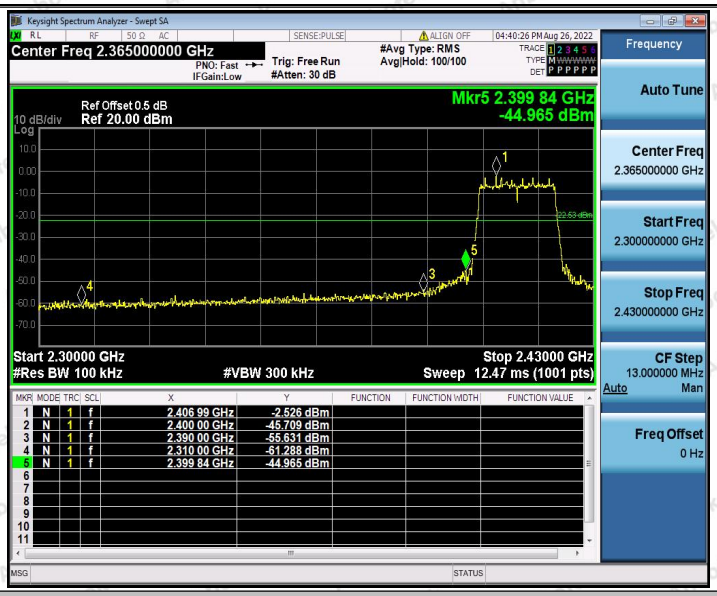
11G_Ant1_Low_2412



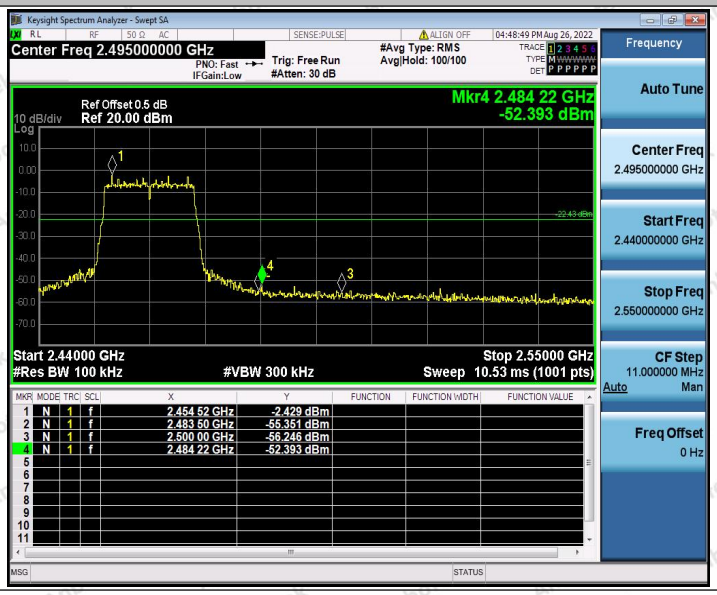
11G_Ant1_High_2462



11N20SISO_Ant1_Low_2412



11N20SISO_Ant1_High_2462



Appendix F: Conducted Spurious Emission

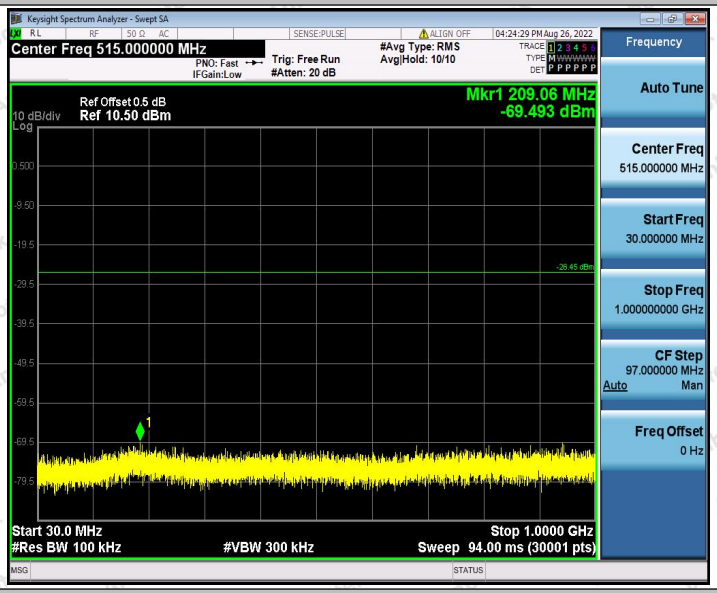
Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	3.55	3.55	---	PASS
			30~1000	3.55	-69.49	≤-26.45	PASS
			1000~26500	3.55	-54.25	≤-26.45	PASS
		2437	Reference	4.22	4.22	---	PASS
			30~1000	4.22	-69.44	≤-25.78	PASS
			1000~26500	4.22	-53.78	≤-25.78	PASS
		2462	Reference	4.19	4.19	---	PASS
			30~1000	4.19	-69.44	≤-25.81	PASS
			1000~26500	4.19	-53.85	≤-25.81	PASS
11G	Ant1	2412	Reference	-3.16	-3.16	---	PASS
			30~1000	-3.16	-69.51	≤-33.16	PASS
			1000~26500	-3.16	-53.2	≤-33.16	PASS
		2437	Reference	-5.87	-5.87	---	PASS
			30~1000	-5.87	-70.15	≤-35.87	PASS
			1000~26500	-5.87	-54.03	≤-35.87	PASS
		2462	Reference	-2.99	-2.99	---	PASS
			30~1000	-2.99	-69.88	≤-32.99	PASS
			1000~26500	-2.99	-53.99	≤-32.99	PASS
11N20SISO	Ant1	2412	Reference	-2.75	-2.75	---	PASS
			30~1000	-2.75	-69.36	≤-32.75	PASS
			1000~26500	-2.75	-54.36	≤-32.75	PASS
		2437	Reference	-6.26	-6.26	---	PASS
			30~1000	-6.26	-69.83	≤-36.26	PASS
			1000~26500	-6.26	-53.98	≤-36.26	PASS
		2462	Reference	-2.53	-2.53	---	PASS
			30~1000	-2.53	-69.81	≤-32.53	PASS
			1000~26500	-2.53	-54.33	≤-32.53	PASS

Test Graphs

11B_Ant1_2412_0~Reference

11B_Ant1_2412_30~1000



11B_Ant1_2412_1000~26500