Appendix A

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: Outdoor battery camera 2K

Test Model: LZT-10

Environmental Conditions

Temperature:	23.8° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Paddi Chen
Supervised by:	Ling Zhu

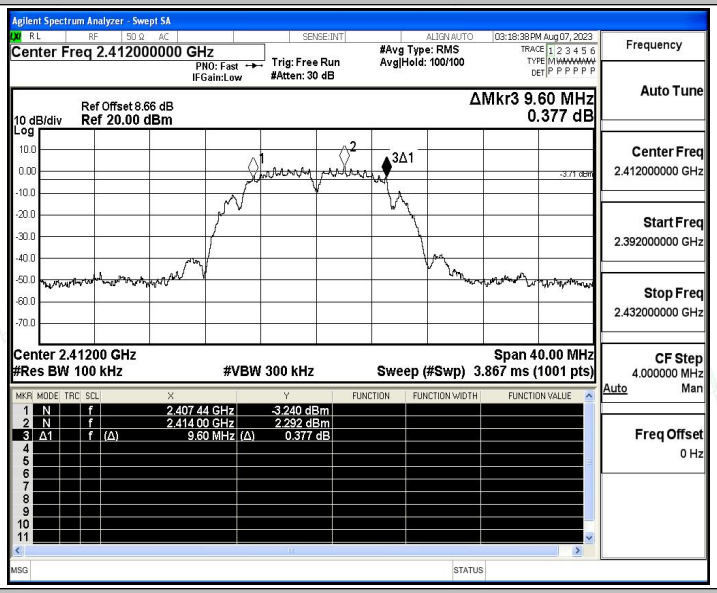
A.1 DTS Bandwidth

Test Result

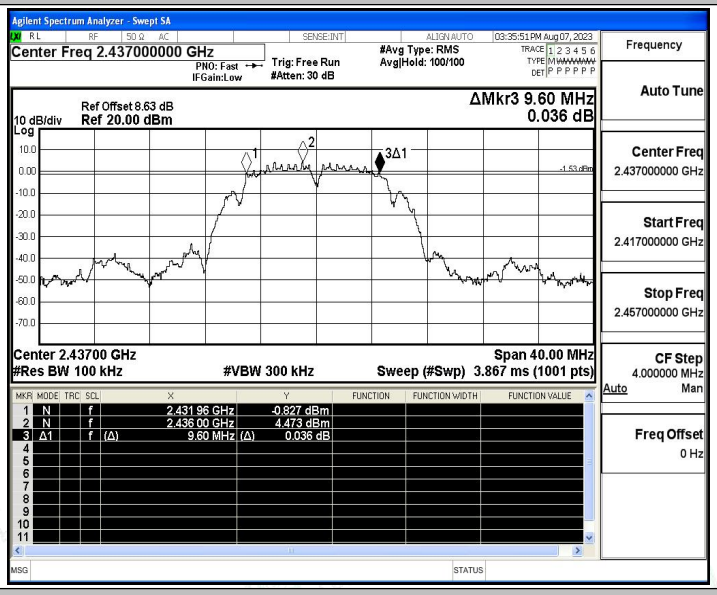
TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	9.600	2407.440	2417.040	0.5	PASS
		2437	9.600	2431.960	2441.560	0.5	PASS
		2462	9.160	2457.400	2466.560	0.5	PASS
11G	Ant1	2412	16.320	2403.840	2420.160	0.5	PASS
		2437	16.320	2428.840	2445.160	0.5	PASS
		2462	16.320	2453.840	2470.160	0.5	PASS
11N20SISO	Ant1	2412	16.880	2403.640	2420.520	0.5	PASS
		2437	16.680	2428.640	2445.320	0.5	PASS
		2462	16.680	2453.680	2470.360	0.5	PASS

Test Graphs

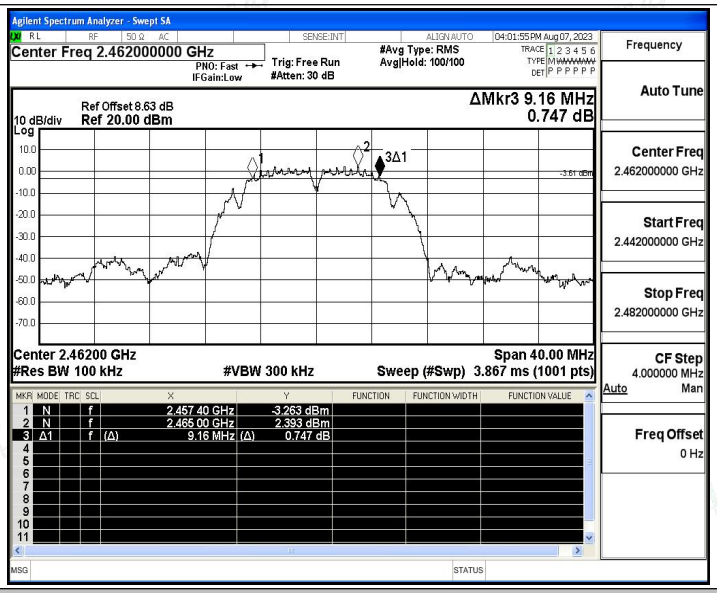
11B_Ant1_2412



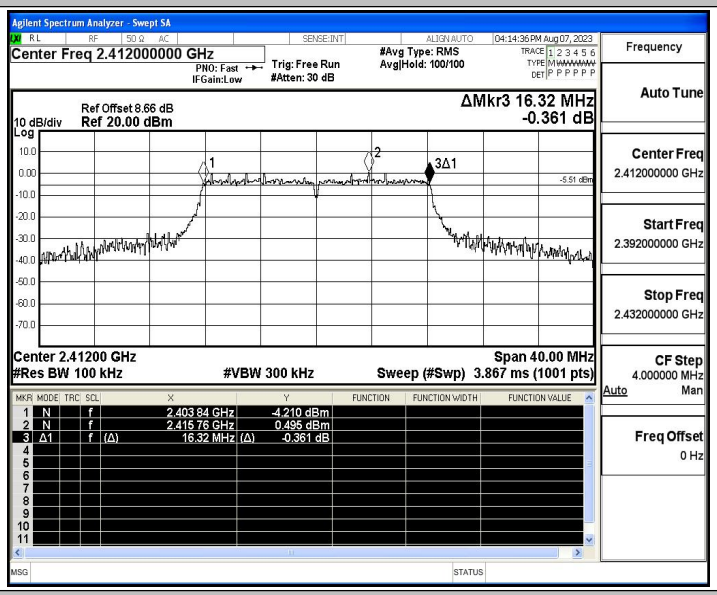
11B_Ant1_2437



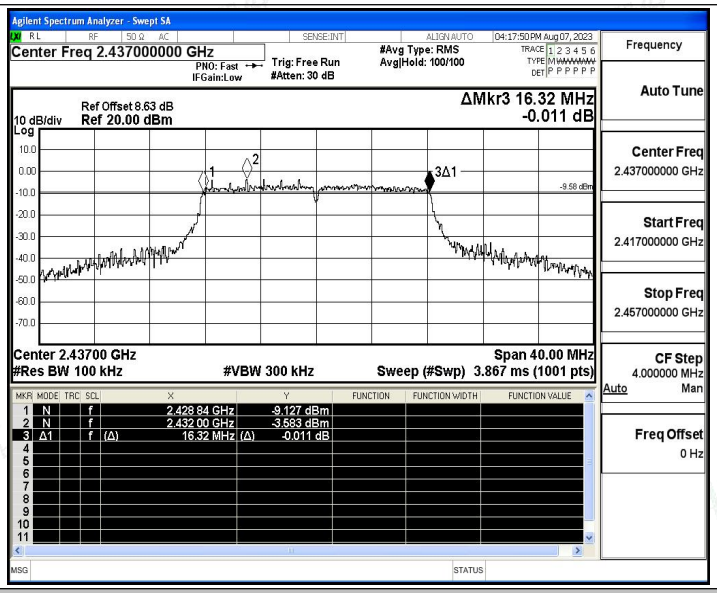
11B_Ant1_2462



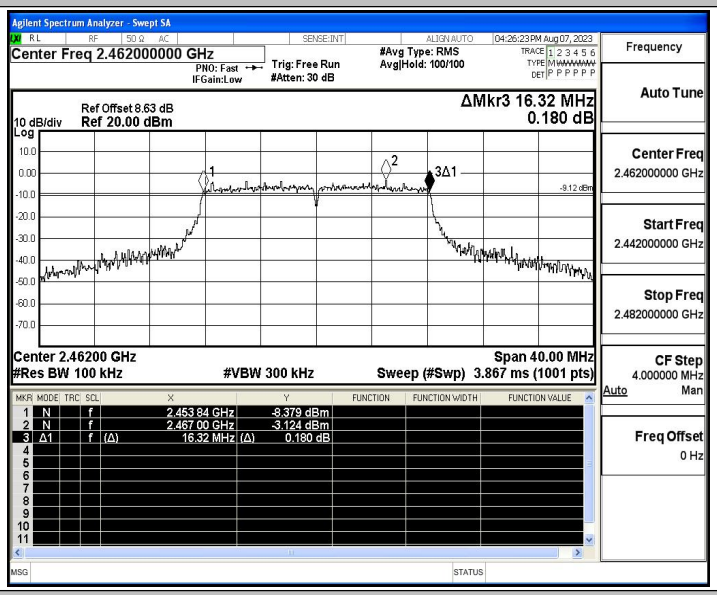
11G_Ant1_2412



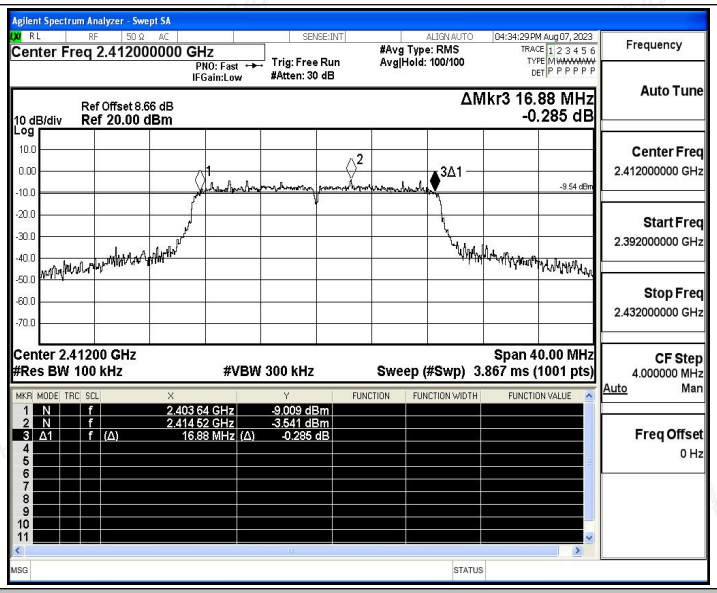
11G_Ant1_2437



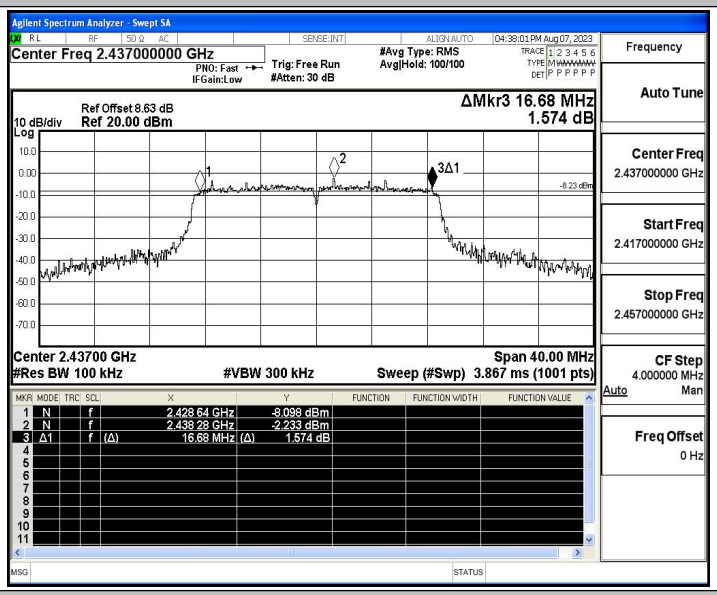
11G_Ant1_2462



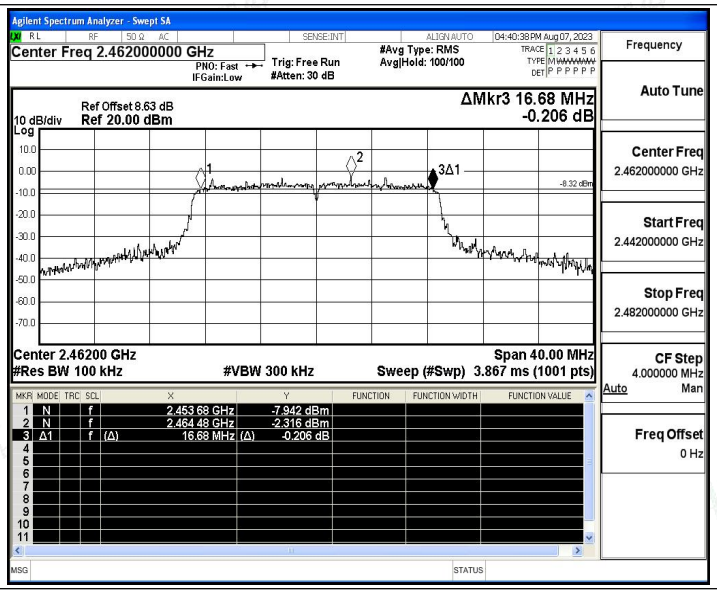
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



11N20SISO_Ant1_2462


Agilent Spectrum Analyzer - Swept SA
Center Freq 2.462000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
Avg|Hold: 100/100
04:40:38 PM Aug 07, 2023
Ref Offset 8.63 dB
10 dB/div Ref 20.00 dBm
Log
ΔMkr3 16.68 MHz
-0.206 dB
Center 2.46200 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 40.00 MHz
Sweep (#Swp) 3.867 ms (1001 pts)
1 N f 2.453 68 GHz -7.942 dBm
2 N f 2.464 48 GHz -2.316 dBm
3 Δ1 f (Δ) 16.68 MHz (Δ) -0.206 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

A.2 Maximum conducted output power

Test Result Peak

TestMode	Antenna	Freq(MHz)	Peak Power[dBm]	Conducted Limit[dBm]	Verdict
11B	Ant1	2412	14.39	≤30.00	PASS
		2437	14.68	≤30.00	PASS
		2462	14.84	≤30.00	PASS
11G	Ant1	2412	14.07	≤30.00	PASS
		2437	14.48	≤30.00	PASS
		2462	15.37	≤30.00	PASS
11N20SISO	Ant1	2412	14.06	≤30.00	PASS
		2437	14.91	≤30.00	PASS
		2462	15.21	≤30.00	PASS

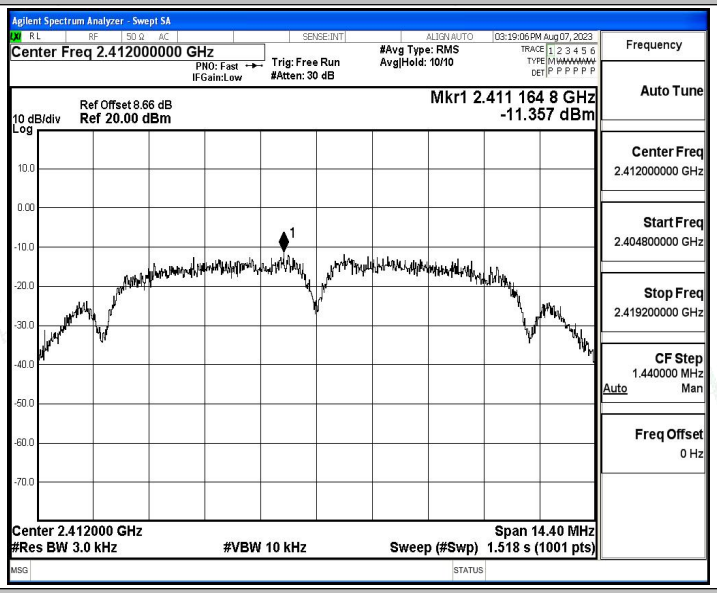
A.3 Maximum power spectral density

Test Result

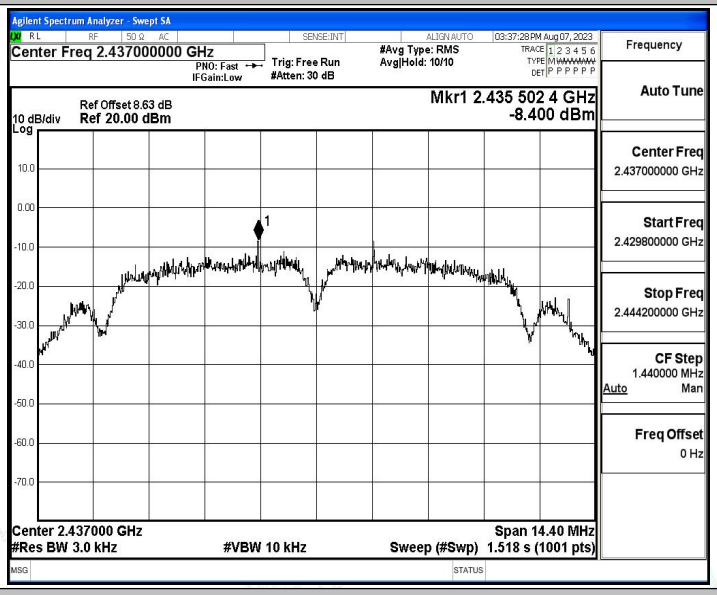
TestMode	Antenna	Freq(MHz)	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
11B	Ant1	2412	-11.36	≤8.00	PASS
		2437	-8.4	≤8.00	PASS
		2462	-8.35	≤8.00	PASS
11G	Ant1	2412	-17.76	≤8.00	PASS
		2437	-17.56	≤8.00	PASS
		2462	-17.24	≤8.00	PASS
11N20SISO	Ant1	2412	-17.4	≤8.00	PASS
		2437	-17.16	≤8.00	PASS
		2462	-16.38	≤8.00	PASS

Test Graphs

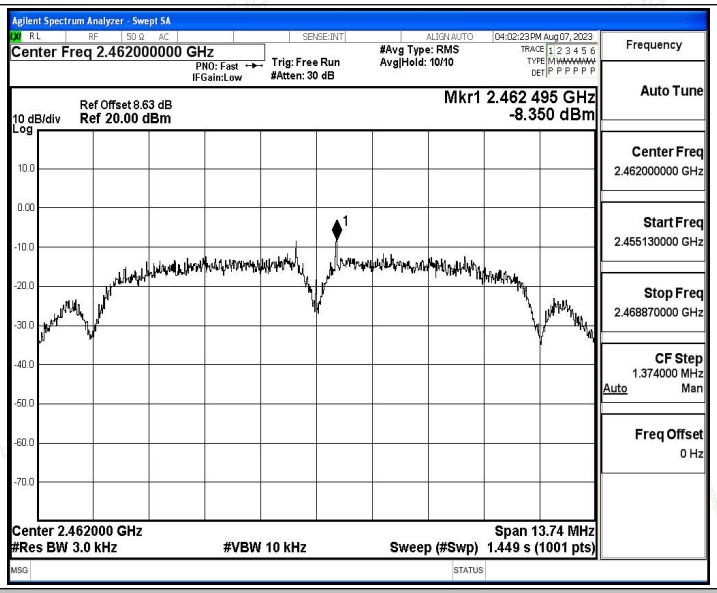
11B_Ant1_2412



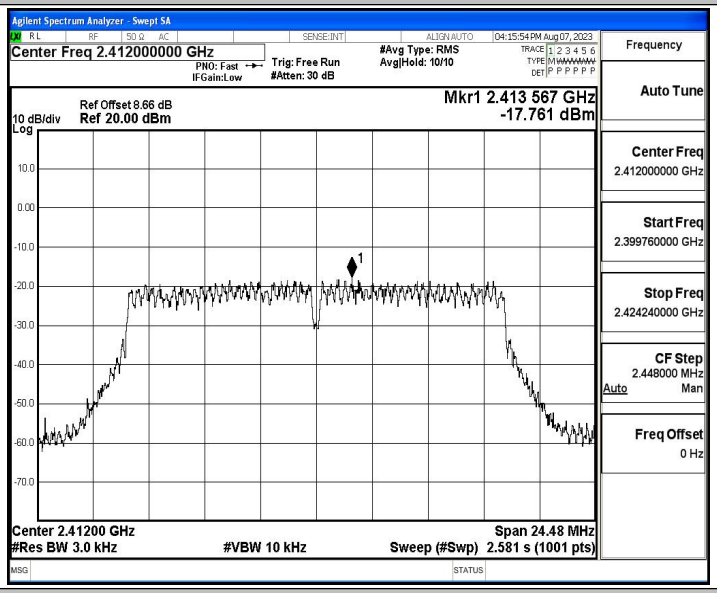
11B_Ant1_2437



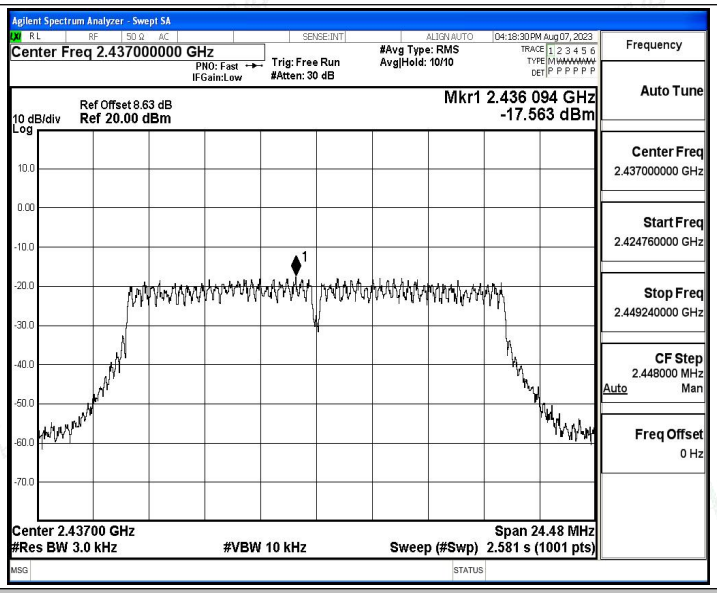
11B_Ant1_2462



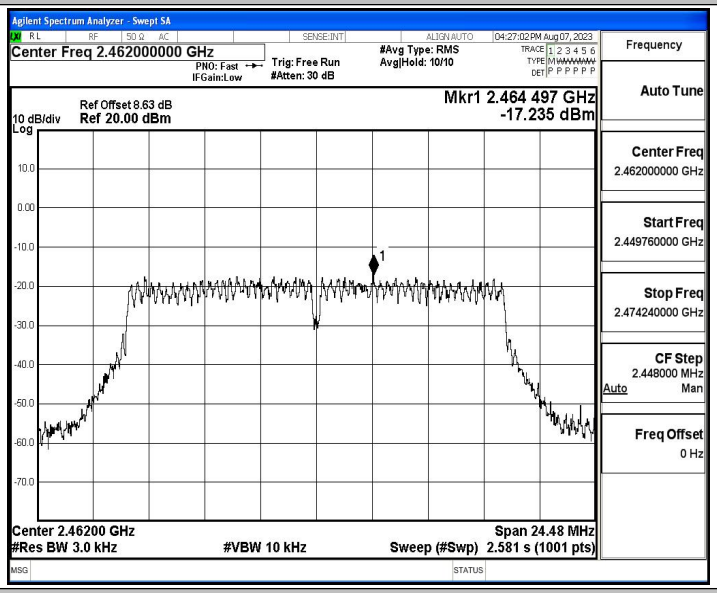
11G_Ant1_2412



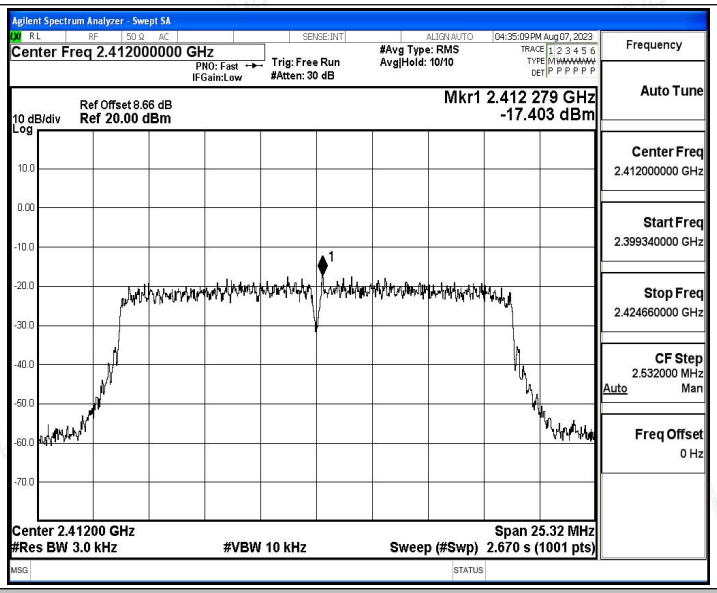
11G_Ant1_2437



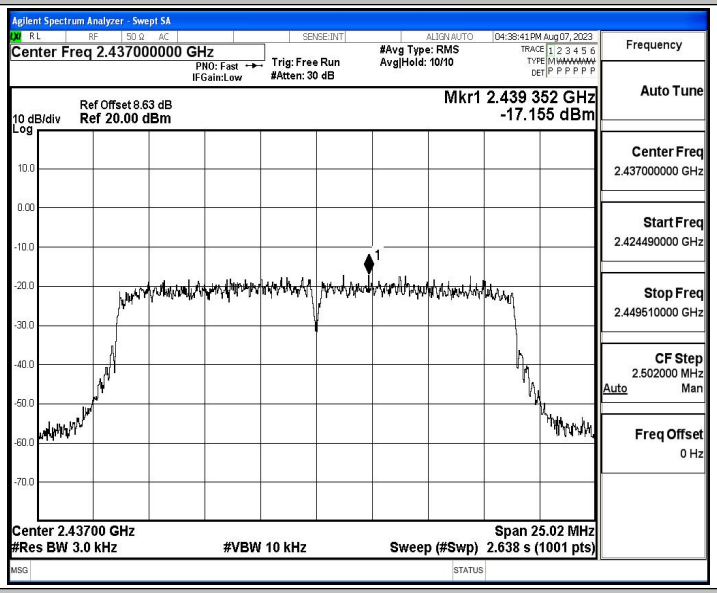
11G_Ant1_2462



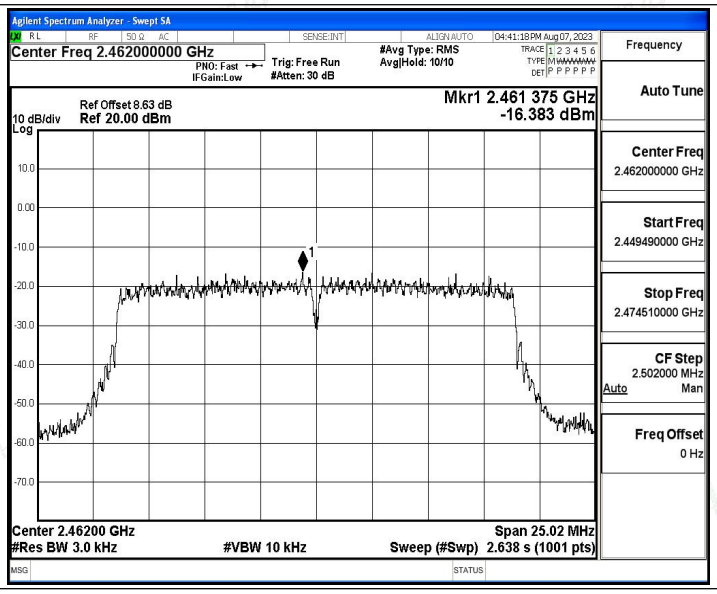
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



11N20SISO_Ant1_2462


Agilent 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
04:41:18 PM Aug 07, 2023
Ref Offset 8.63 dB
10 dB/div Ref 20.00 dBm
Log
Mkr1 2.461 375 GHz
-16.383 dBm
Center 2.46200 GHz
#Res BW 3.0 kHz
#VBW 10 kHz
Span 25.02 MHz
Sweep (#Swp) 2.638 s (1001 pts)
Frequency
Auto Tune
Center Freq
2.462000000 GHz
Start Freq
2.449490000 GHz
Stop Freq
2.474510000 GHz
CF Step
2.502000 MHz
Auto Man
Freq Offset
0 Hz

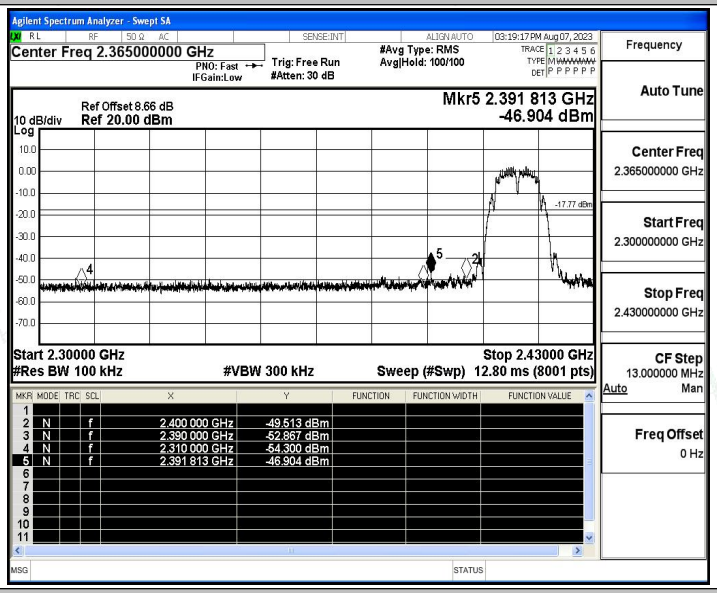
A.4 Band edge measurements

Test Result

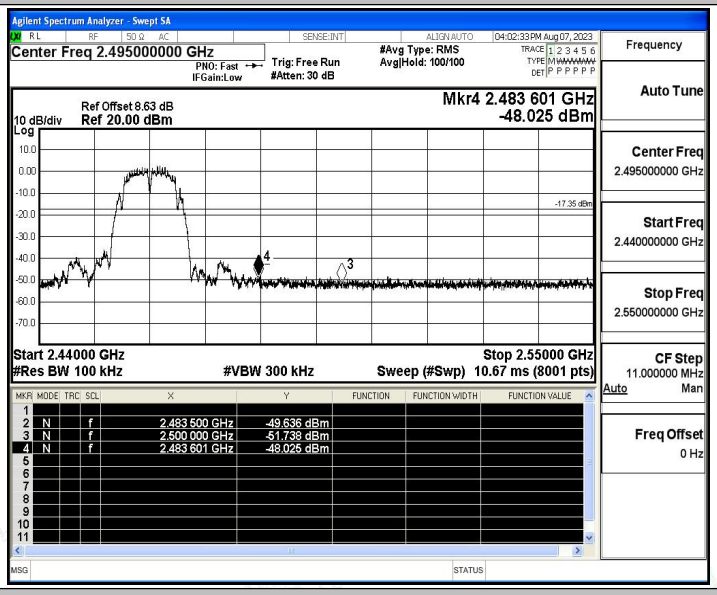
TestMode	Antenna	ChName	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	2.23	-46.9	≤-17.77	PASS
		High	2462	2.65	-48.03	≤-17.35	PASS
11G	Ant1	Low	2412	-3.19	-36.53	≤-23.19	PASS
		High	2462	-2.18	-46.76	≤-22.18	PASS
11N20SISO	Ant1	Low	2412	-3.86	-32.93	≤-23.86	PASS
		High	2462	-1.99	-46.33	≤-21.99	PASS

Test Graphs

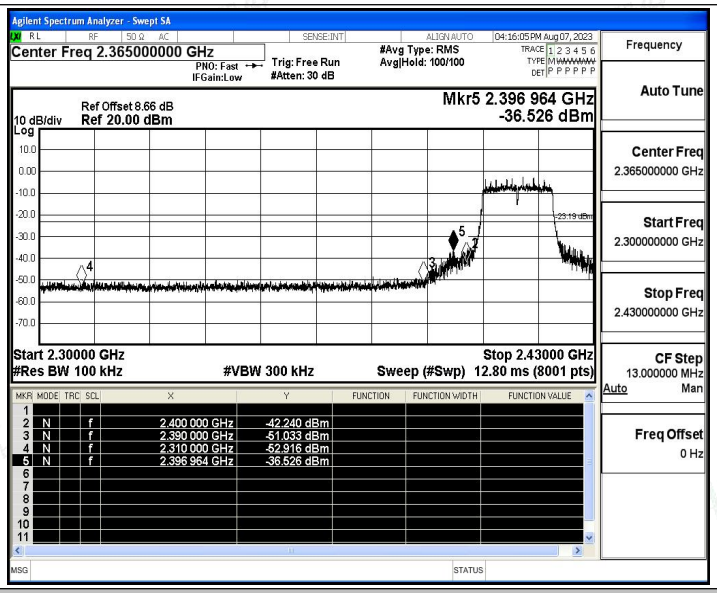
11B_Ant1_Low_2412



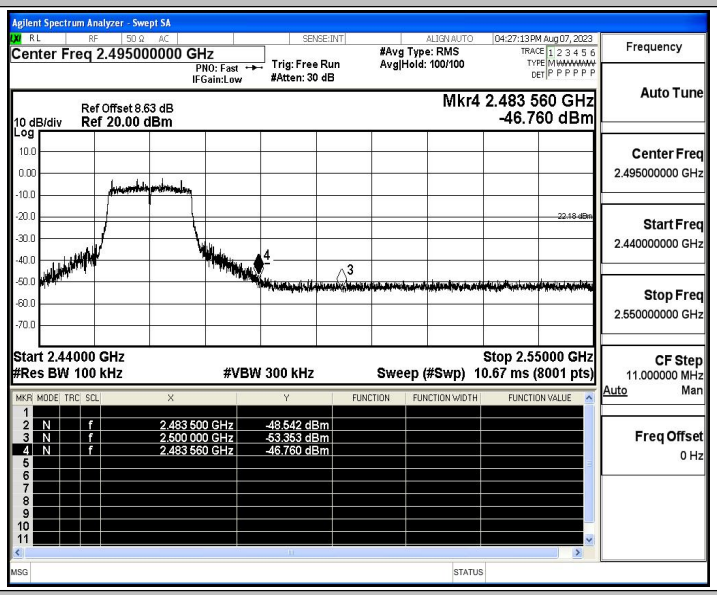
11B_Ant1_High_2462



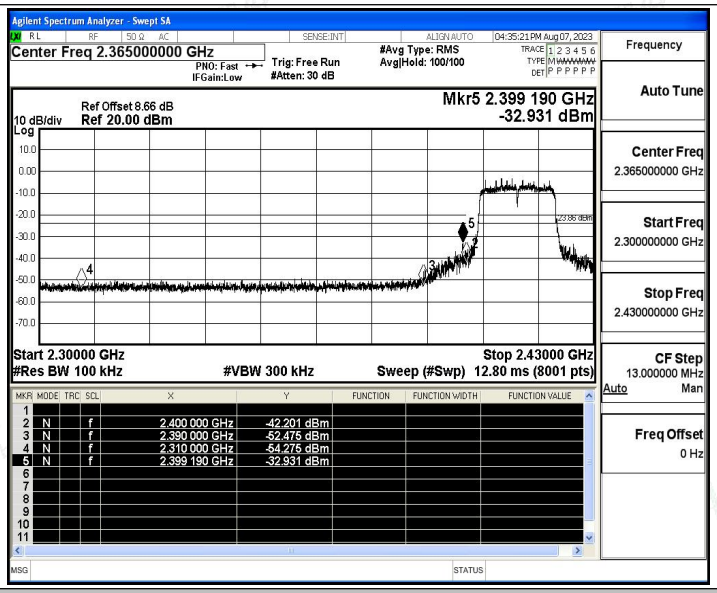
11G_Ant1_Low_2412



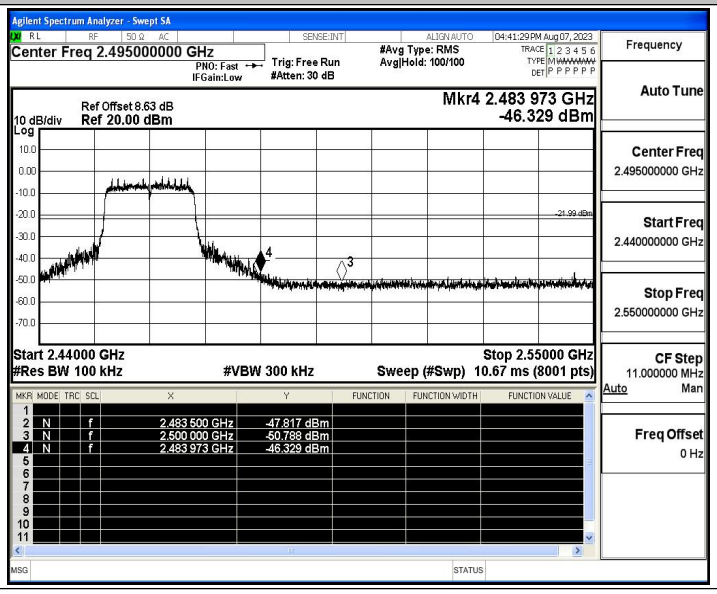
11G_Ant1_High_2462



11N20SISO_Ant1_Low_2412



11N20SISO_Ant1_High_2462



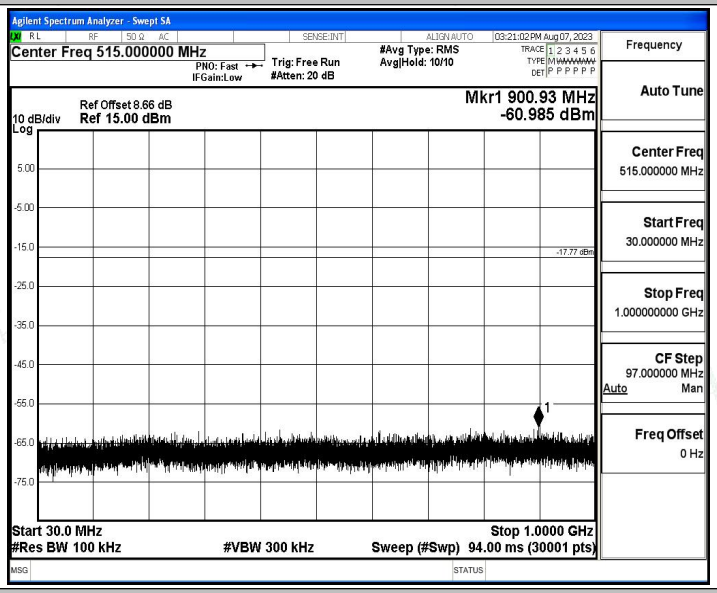
A.5 Conducted Spurious Emission

Test Result

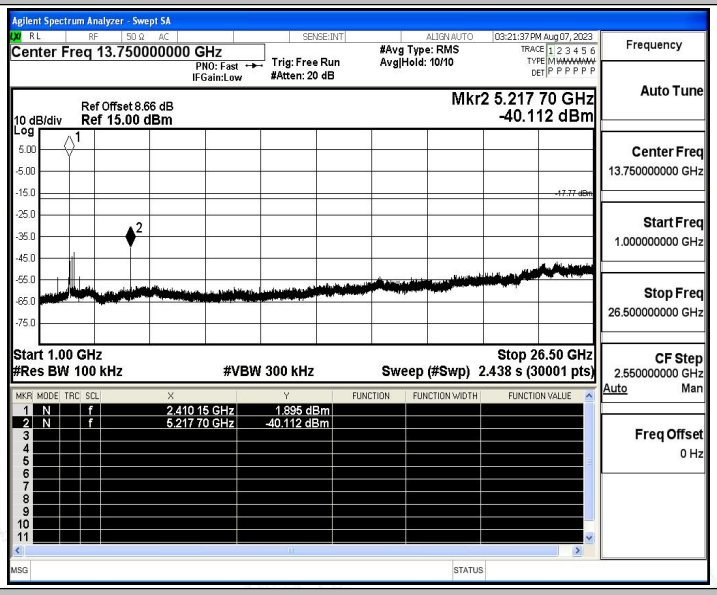
TestMode	Antenna	Freq(MHz)	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	30~1000	2.23	-60.99	≤-17.77	PASS
			1000~26500	2.23	-40.11	≤-17.77	PASS
		2437	30~1000	2.46	-60.79	≤-17.54	PASS
			1000~26500	2.46	-46.08	≤-17.54	PASS
		2462	30~1000	2.65	-60.93	≤-17.35	PASS
			1000~26500	2.65	-46.95	≤-17.35	PASS
11G	Ant1	2412	30~1000	-3.19	-60.35	≤-23.19	PASS
			1000~26500	-3.19	-46.67	≤-23.19	PASS
		2437	30~1000	-2.90	-61.09	≤-22.9	PASS
			1000~26500	-2.90	-46.53	≤-22.9	PASS
		2462	30~1000	-2.18	-59.9	≤-22.18	PASS
			1000~26500	-2.18	-46.43	≤-22.18	PASS
11N20SISO	Ant1	2412	30~1000	-3.86	-61.65	≤-23.86	PASS
			1000~26500	-3.86	-46.28	≤-23.86	PASS
		2437	30~1000	-2.83	-61.3	≤-22.83	PASS
			1000~26500	-2.83	-46.21	≤-22.83	PASS
		2462	30~1000	-1.99	-60.57	≤-21.99	PASS
			1000~26500	-1.99	-47.23	≤-21.99	PASS

Test Graphs

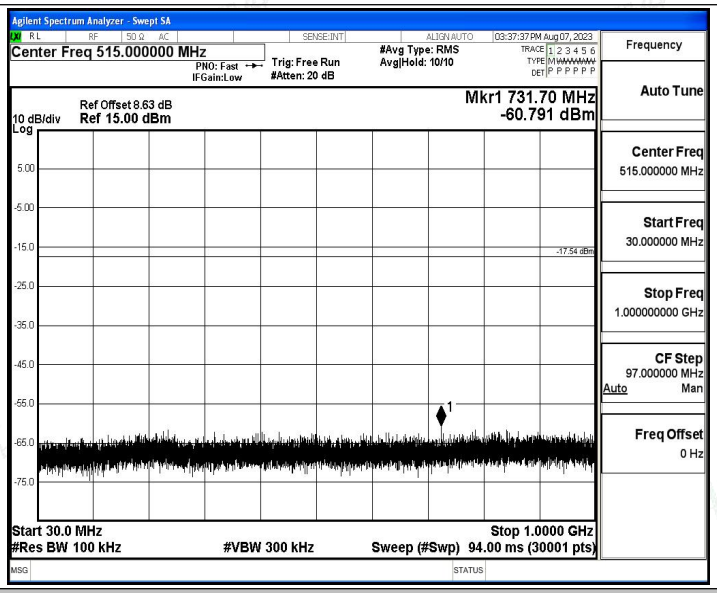
11B_Ant1_2412_30~1000



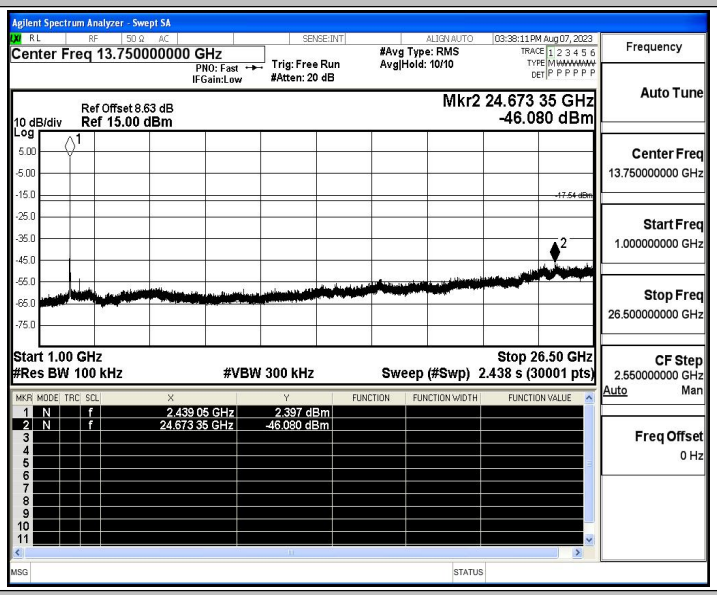
11B_Ant1_2412_1000~26500



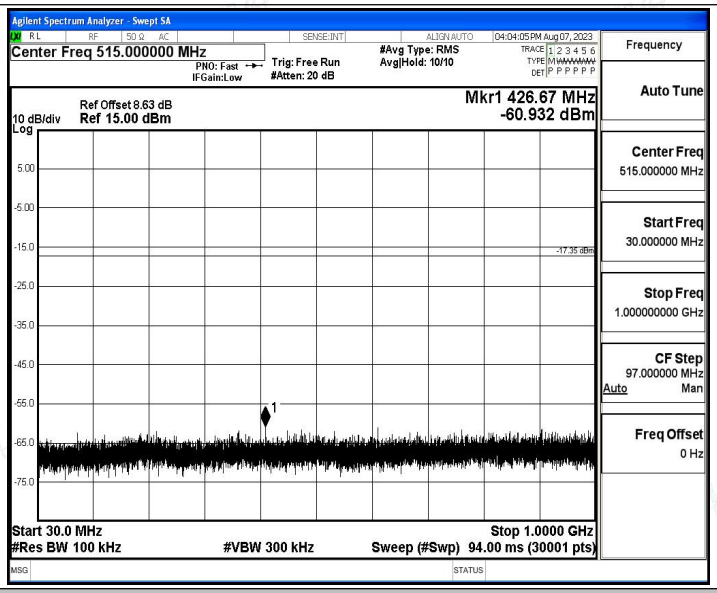
11B_Ant1_2437_30~1000



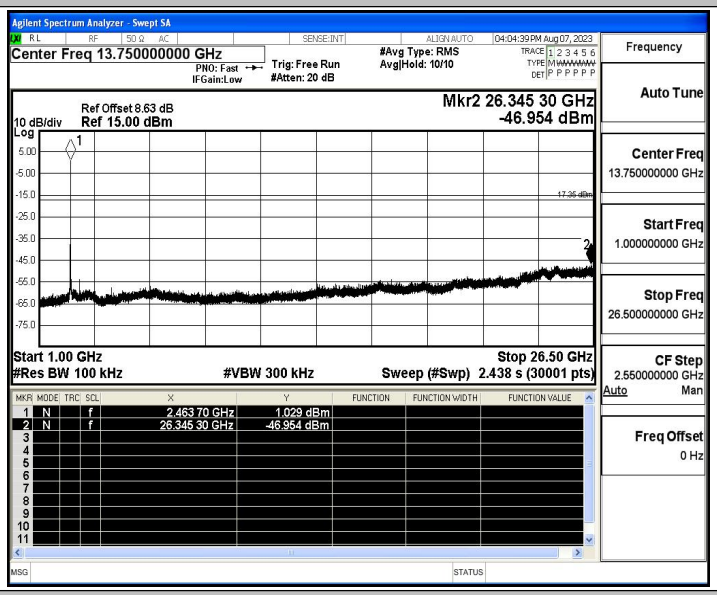
11B_Ant1_2437_1000~26500



11B_Ant1_2462_30~1000



11B_Ant1_2462_1000~26500



11G_Ant1_2412_30~1000