Appendix A

RF Test Data for 2.4GWIFI (Conducted Measurement)

Product Name: Remote control car

Test Model: 1803

Environmental Conditions

Temperature:	23.5° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Zero QI
Supervised by:	Li huan

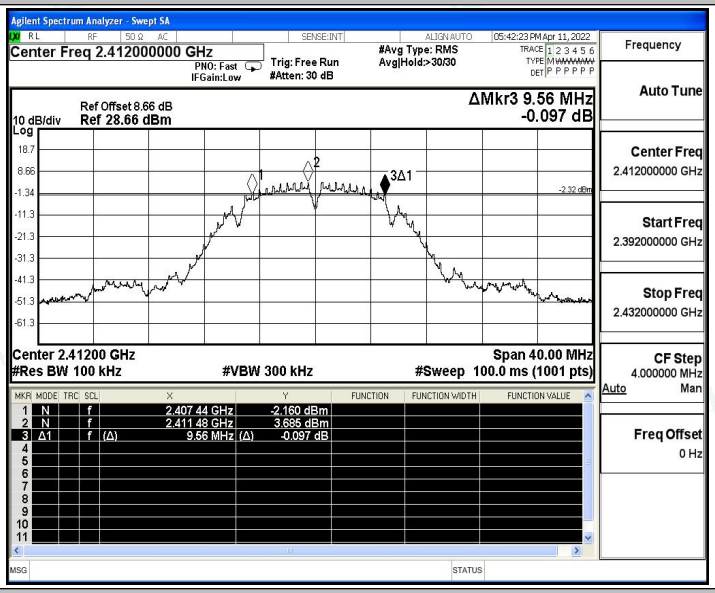
A.1 6dB Bandwidth

Test Result

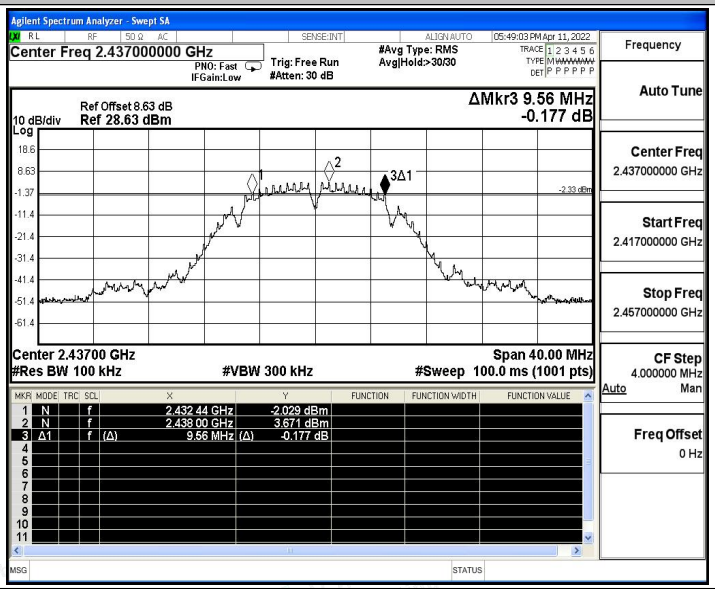
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	9.560	2407.440	2417.000	0.5	PASS
		2437	9.560	2432.440	2442.000	0.5	PASS
		2462	9.080	2457.440	2466.520	0.5	PASS
11G	Ant1	2412	16.360	2403.800	2420.160	0.5	PASS
		2437	16.320	2428.840	2445.160	0.5	PASS
		2462	16.320	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

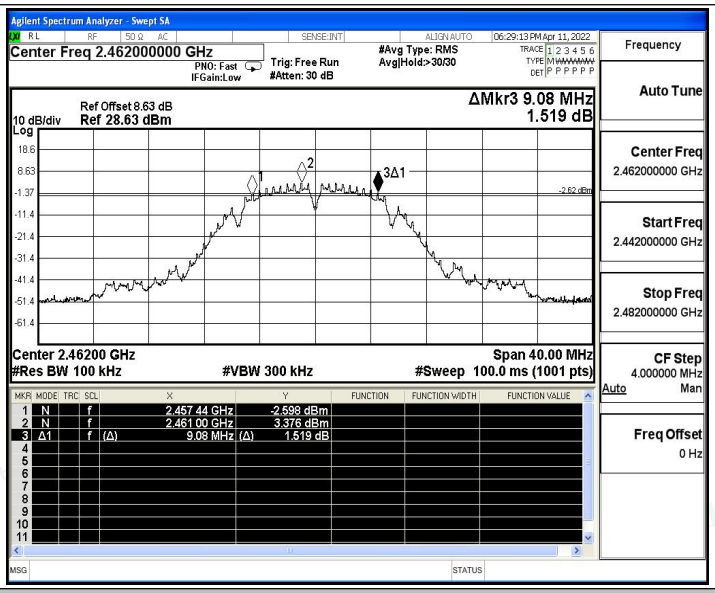
11B_Ant1_2412



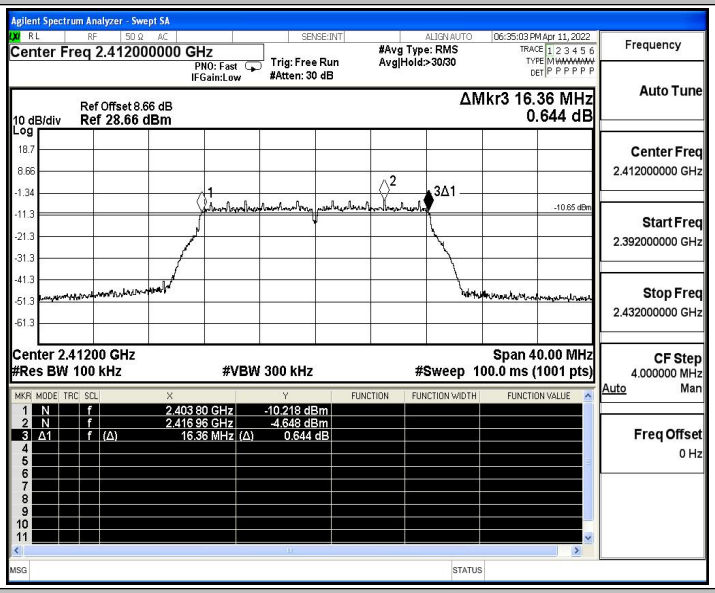
11B_Ant1_2437



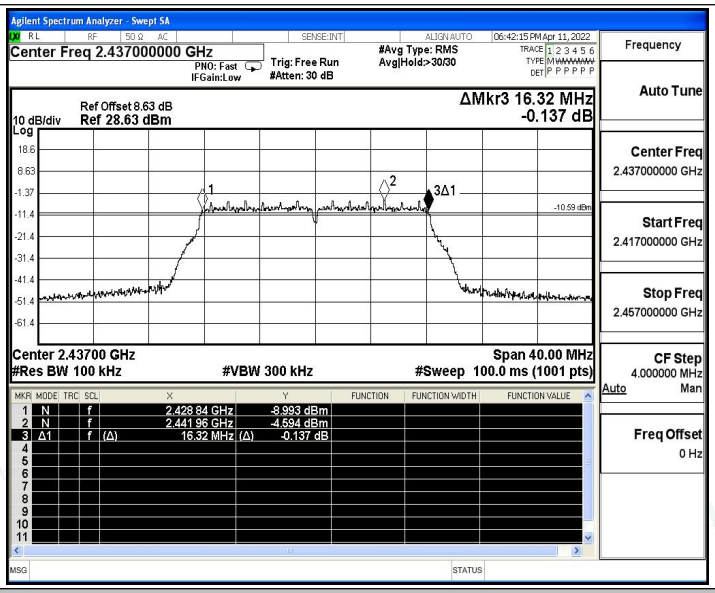
11B_Ant1_2462



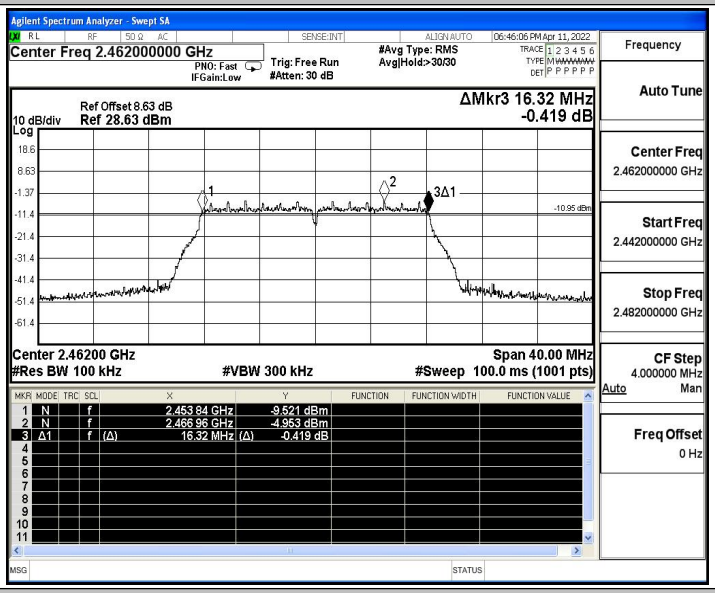
11G_Ant1_2412



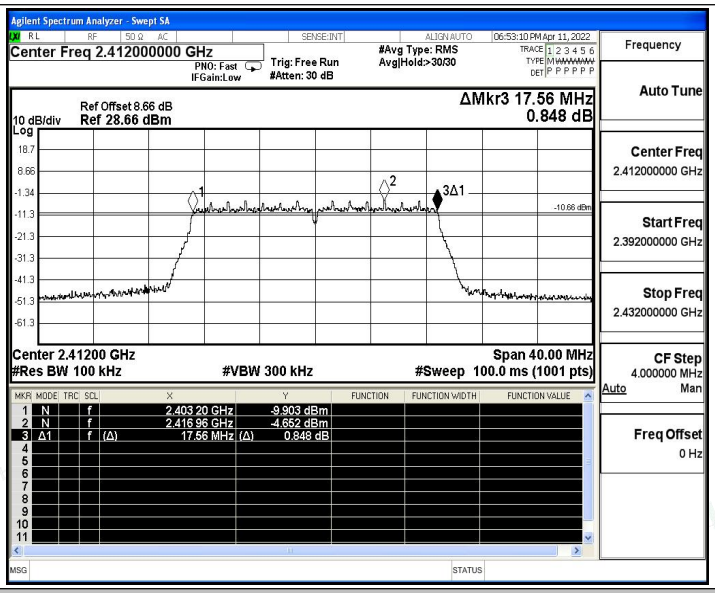
11G_Ant1_2437



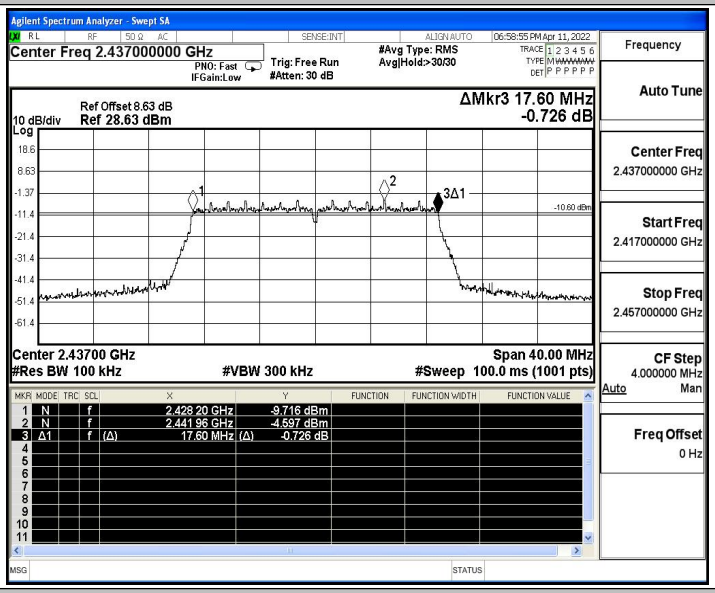
11G_Ant1_2462



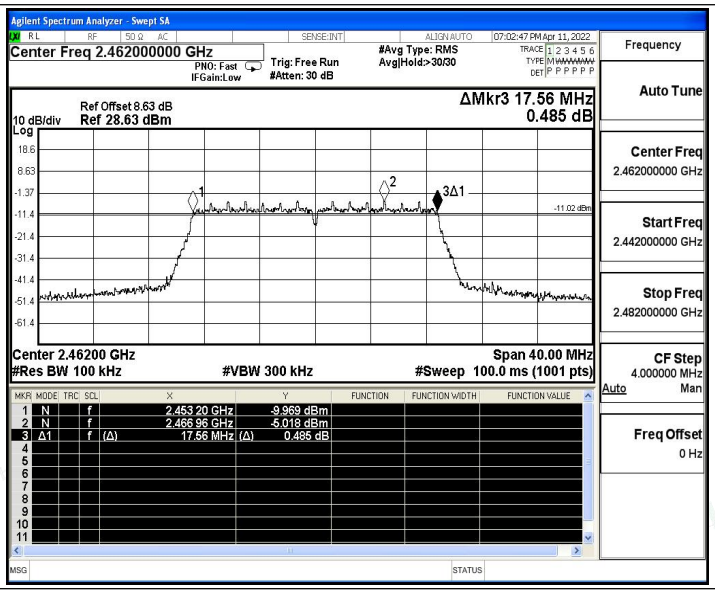
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



11N20SISO_Ant1_2462


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:>30/30
07:02:47 PM Apr 11, 2022
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
ΔMkr3 17.56 MHz
0.485 dB
Ref Offset 8.63 dB
10 dB/div Ref 28.63 dBm
Log
-11.02 dBm
Center 2.46200 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 40.00 MHz
#Sweep 100.0 ms (1001 pts)
1 N f 2.453 20 GHz -9.969 dBm
2 N f 2.466 96 GHz -5.018 dBm
3 Δ1 f (Δ) 17.56 MHz (Δ) 0.485 dB

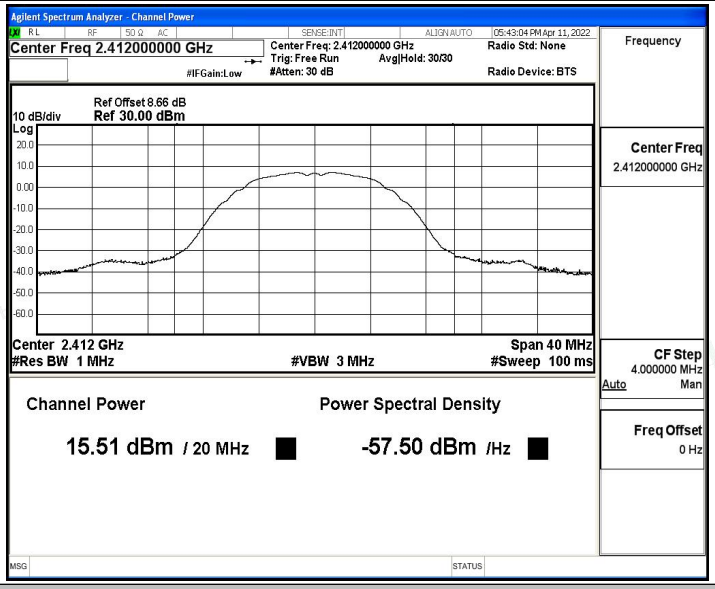
A.2 Maximum conducted output power

Test Result

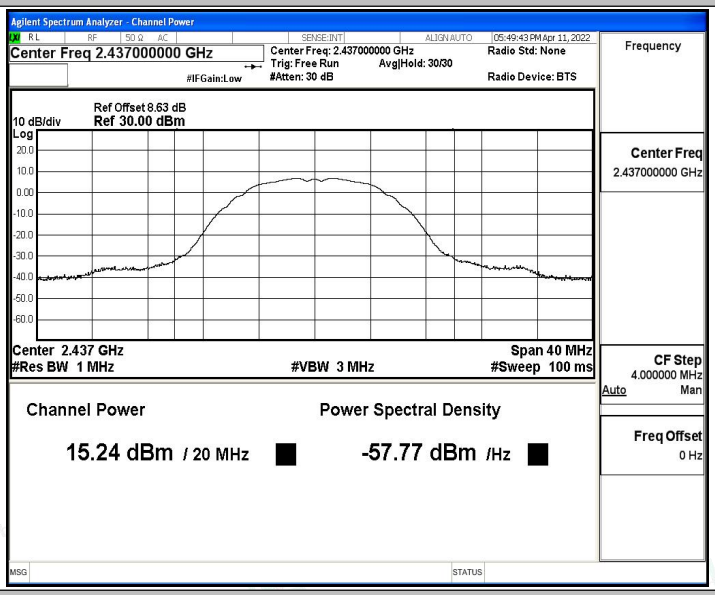
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	2412	15.51	≤30.00	PASS
		2437	15.24	≤30.00	PASS
		2462	15.04	≤30.00	PASS
11G	Ant1	2412	14.86	≤30.00	PASS
		2437	14.86	≤30.00	PASS
		2462	14.54	≤30.00	PASS
11N20SISO	Ant1	2412	14.86	≤30.00	PASS
		2437	14.86	≤30.00	PASS
		2462	14.50	≤30.00	PASS

Test Graphs

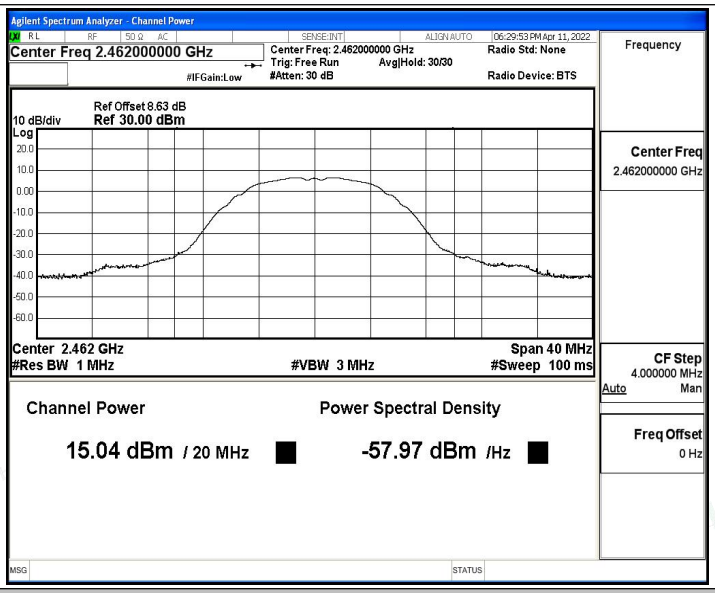
11B_Ant1_2412



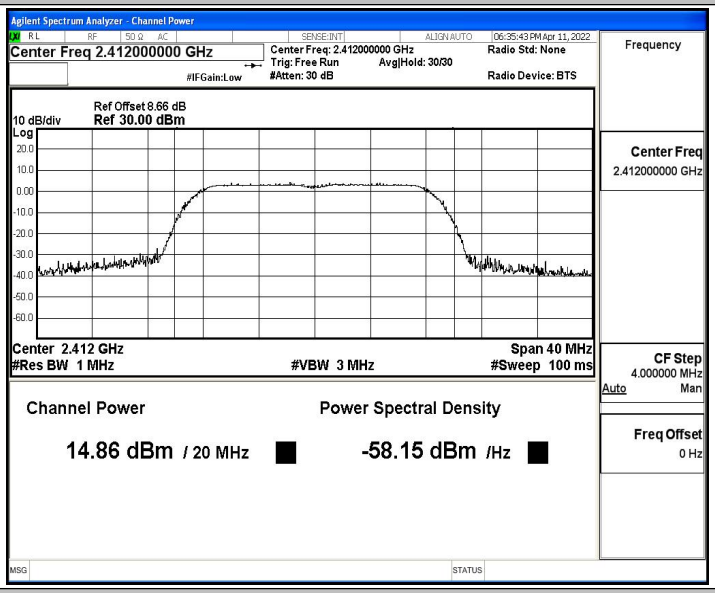
11B_Ant1_2437



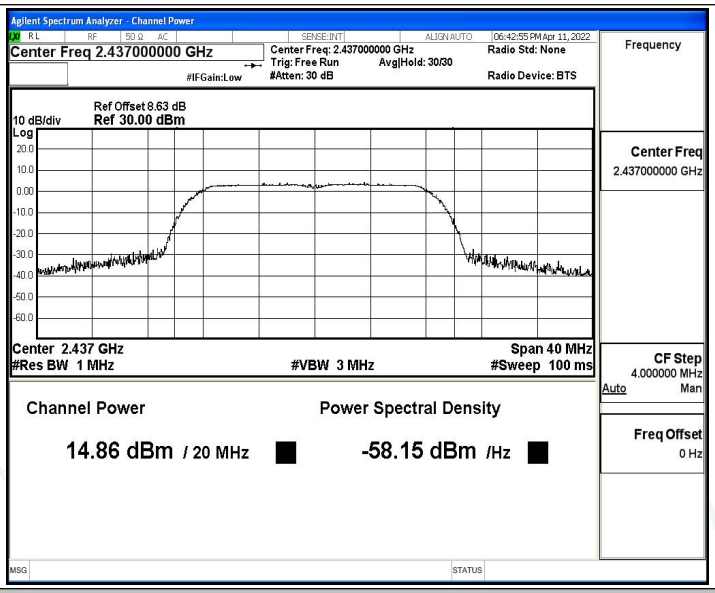
11B_Ant1_2462



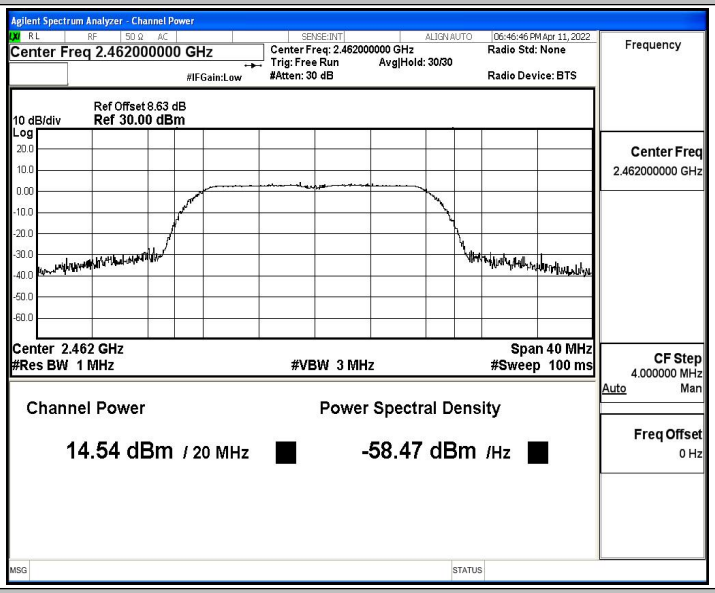
11G_Ant1_2412



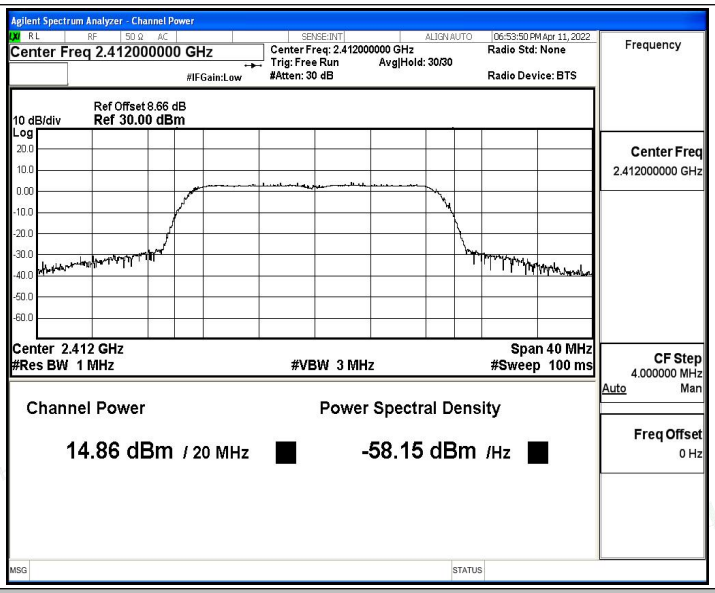
11G_Ant1_2437



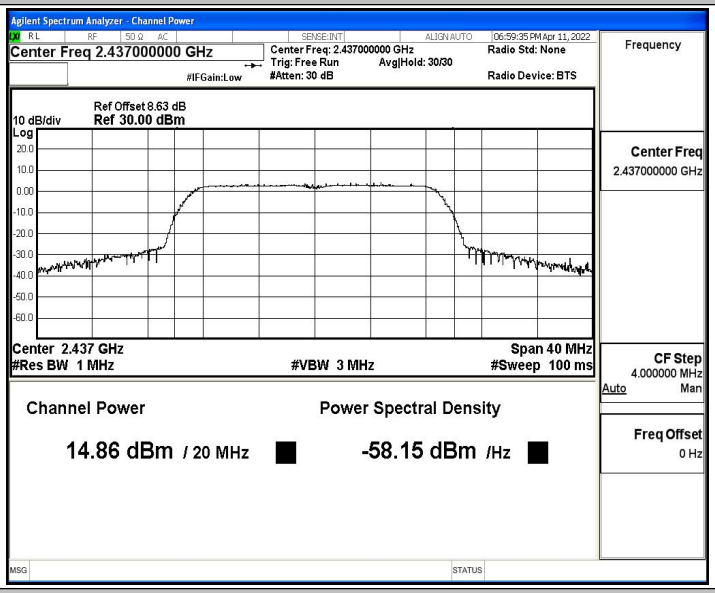
11G_Ant1_2462



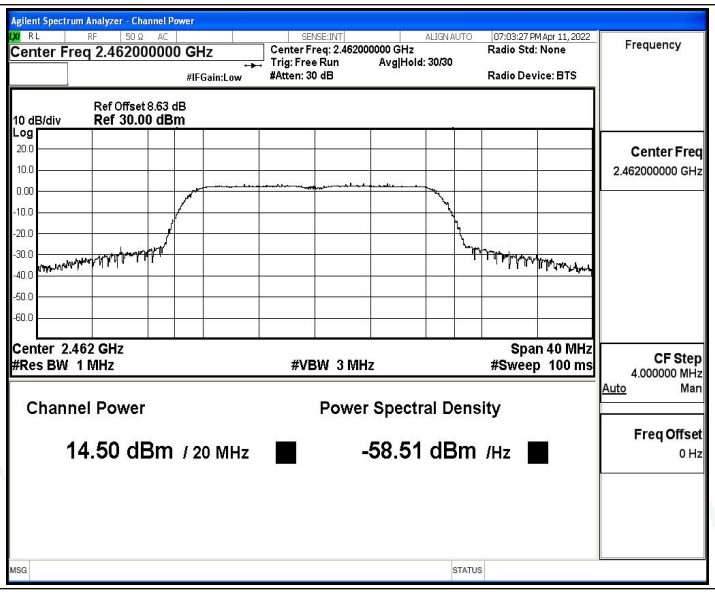
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



11N20SISO_Ant1_2462


Agilent Spectrum Analyzer - Channel Power
Center Freq 2.462000000 GHz
Center Freq: 2.462000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold: 30/30
Radio Std: None
Radio Device: BTS
07:03:27 PM Apr 11, 2022
Frequency
Ref Offset 8.63 dB
10 dB/div
Ref 30.00 dBm
Log
Center Freq
2.462000000 GHz
Center 2.462 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 40 MHz
#Sweep 100 ms
CF Step
4.000000 MHz
Auto
Man
Channel Power
14.50 dBm / 20 MHz
Power Spectral Density
-58.51 dBm /Hz
Freq Offset
0 Hz

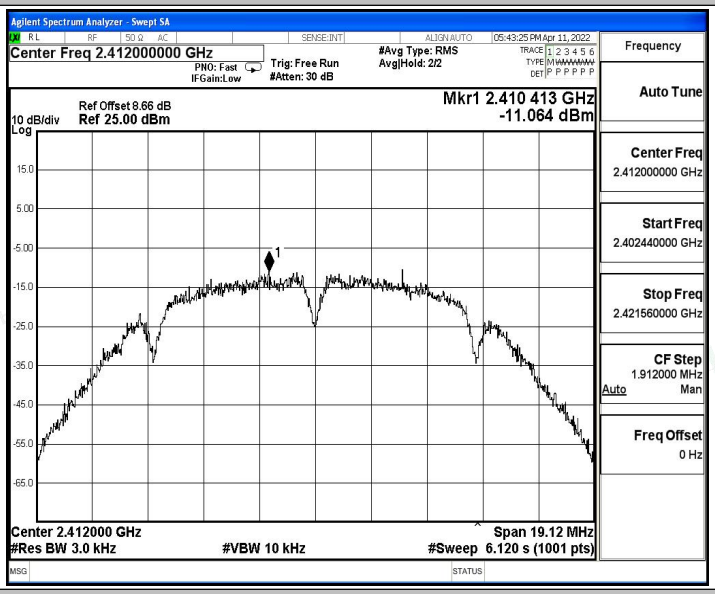
A.3 Maximum power spectral density

Test Result

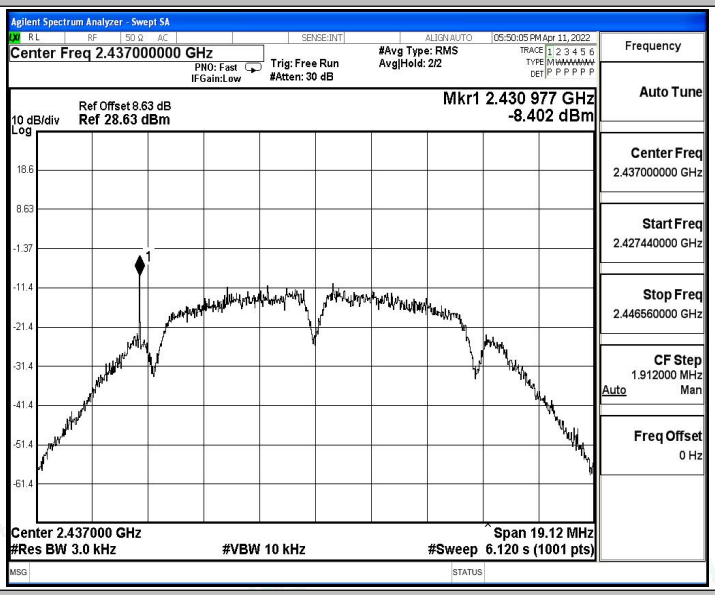
TestMode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-11.06	≤8.00	PASS
		2437	-8.4	≤8.00	PASS
		2462	-12.04	≤8.00	PASS
11G	Ant1	2412	-18.92	≤8.00	PASS
		2437	-18.7	≤8.00	PASS
		2462	-18.64	≤8.00	PASS
11N20SISO	Ant1	2412	-19.45	≤8.00	PASS
		2437	-19.02	≤8.00	PASS
		2462	-20.19	≤8.00	PASS

Test Graphs

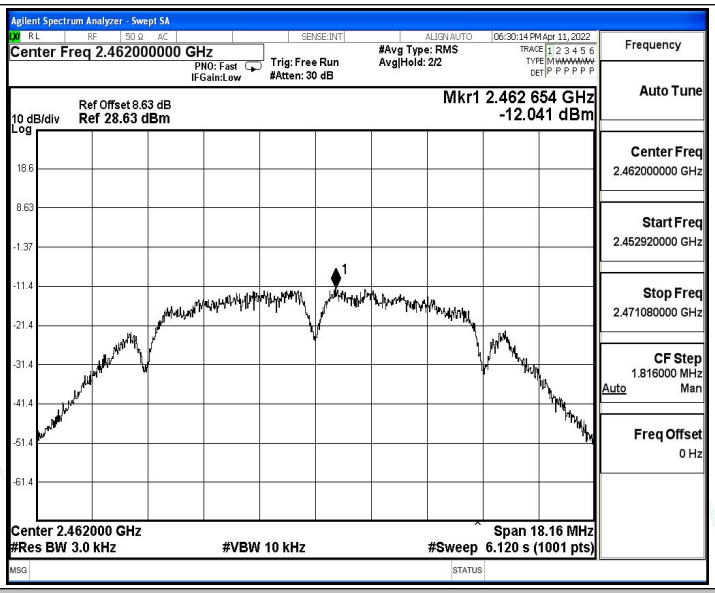
11B_Ant1_2412



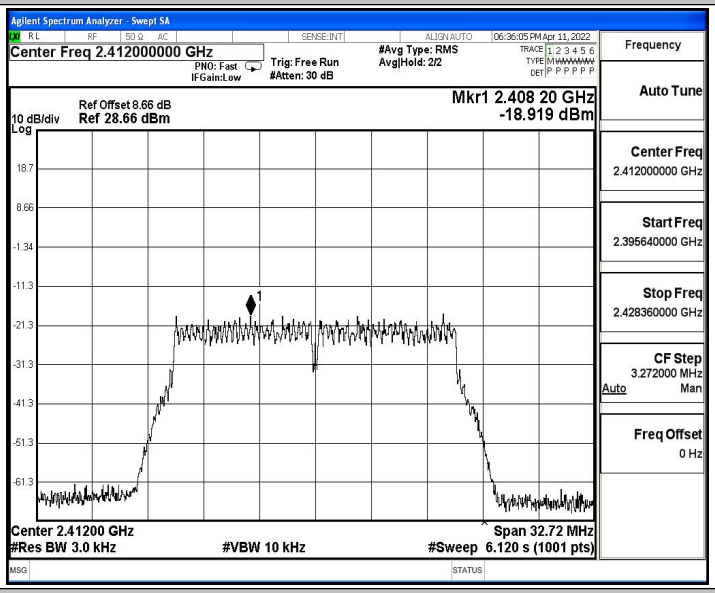
11B_Ant1_2437



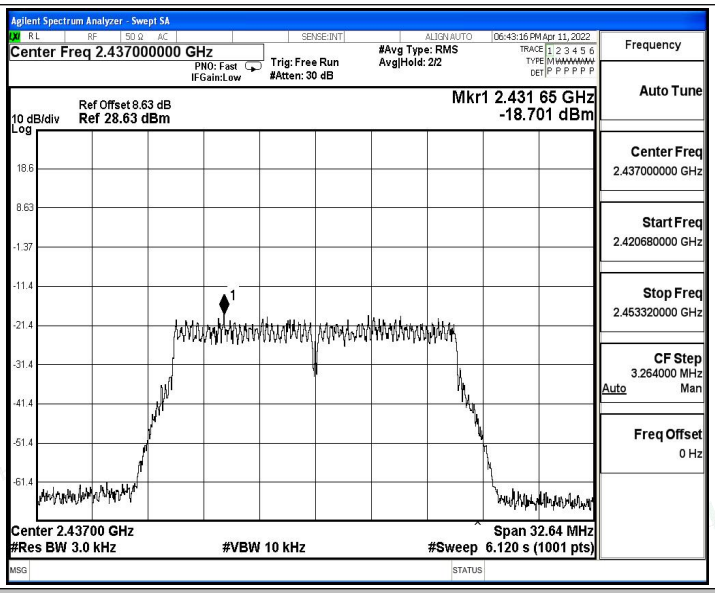
11B_Ant1_2462



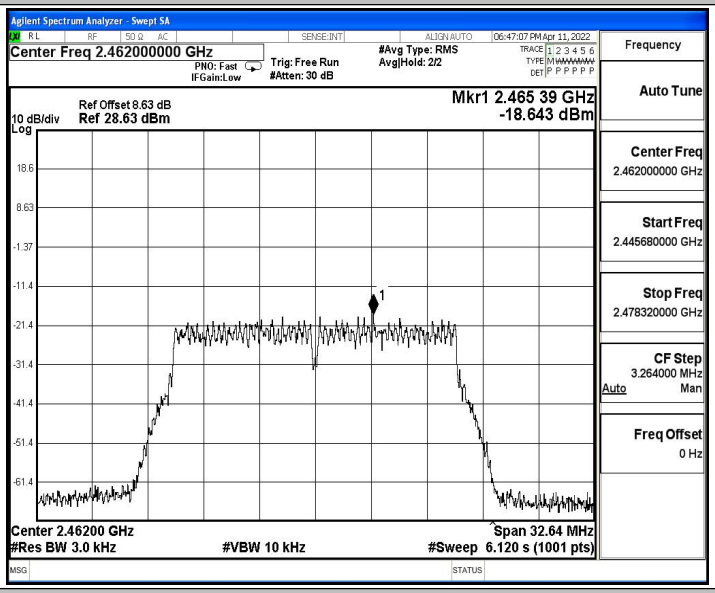
11G_Ant1_2412



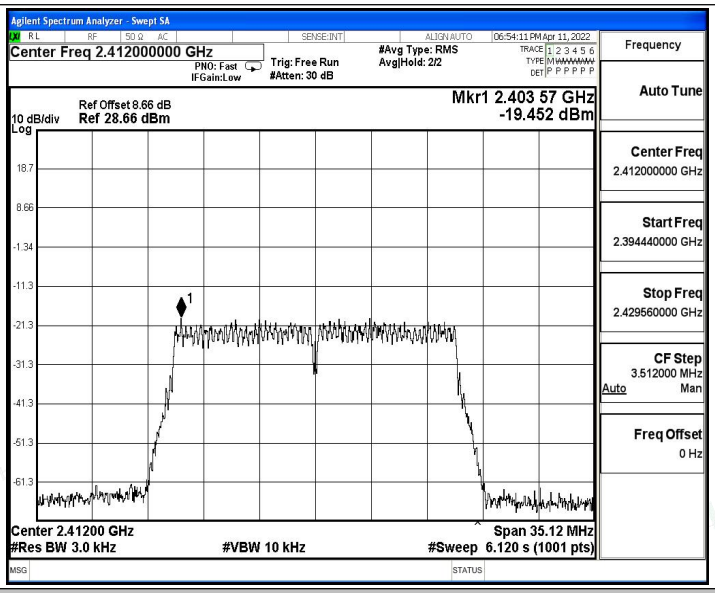
11G_Ant1_2437



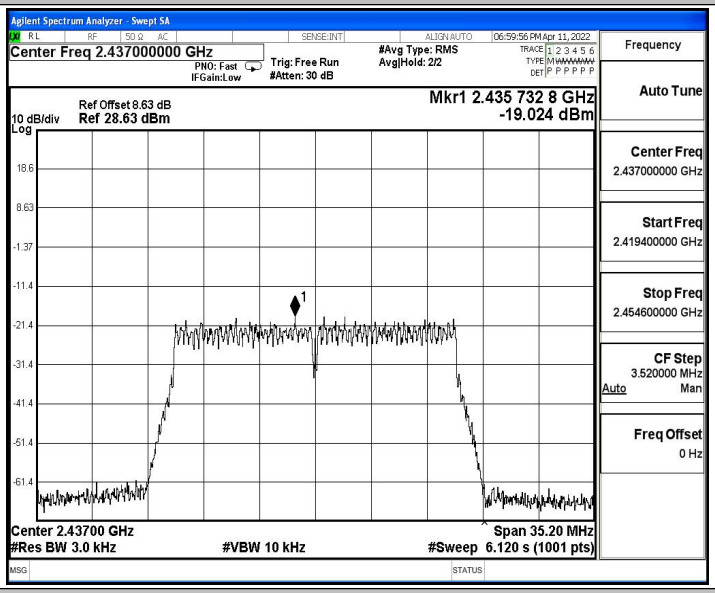
11G_Ant1_2462



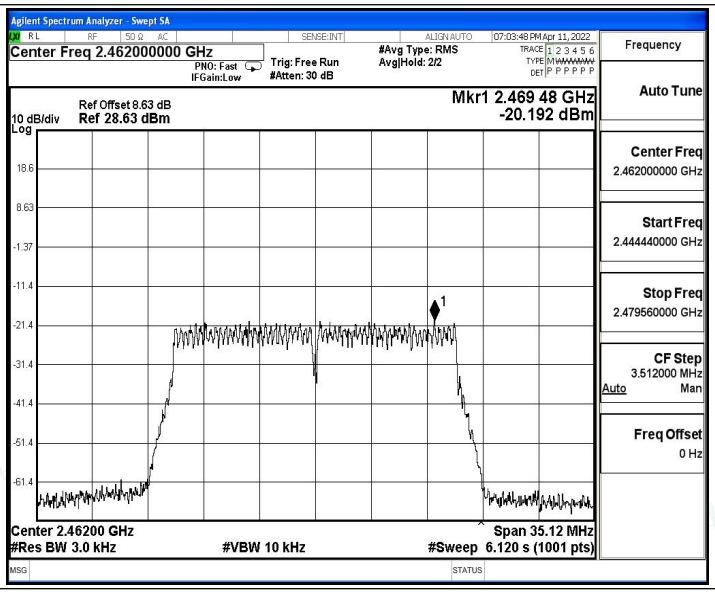
11N20SISO_Ant1_2412



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: 2/2
07:03:48 PM Apr 11, 2022
Frequency
Auto Tune
Ref Offset 8.63 dB
10 dB/div Ref 28.63 dBm
Log
Mkr1 2.469 48 GHz
-20.192 dBm
Center Freq
2.462000000 GHz
Start Freq
2.444440000 GHz
Stop Freq
2.479560000 GHz
CF Step
3.512000 MHz
Auto Man
Freq Offset
0 Hz
Center 2.46200 GHz
#Res BW 3.0 kHz
#VBW 10 kHz
Span 35.12 MHz
#Sweep 6.120 s (1001 pts)

A.4 Band edge measurements

Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	3.74	-42.26	≤-16.26	PASS
		High	2462	3.41	-47.63	≤-16.6	PASS
11G	Ant1	Low	2412	-4.34	-44.86	≤-24.34	PASS
		High	2462	-4.99	-47.4	≤-24.99	PASS
11N20SISO	Ant1	Low	2412	-4.22	-44.46	≤-24.22	PASS
		High	2462	-4.48	-48.04	≤-24.48	PASS