Appendix A for SHEM190701523001

1.6dB Bandwidth

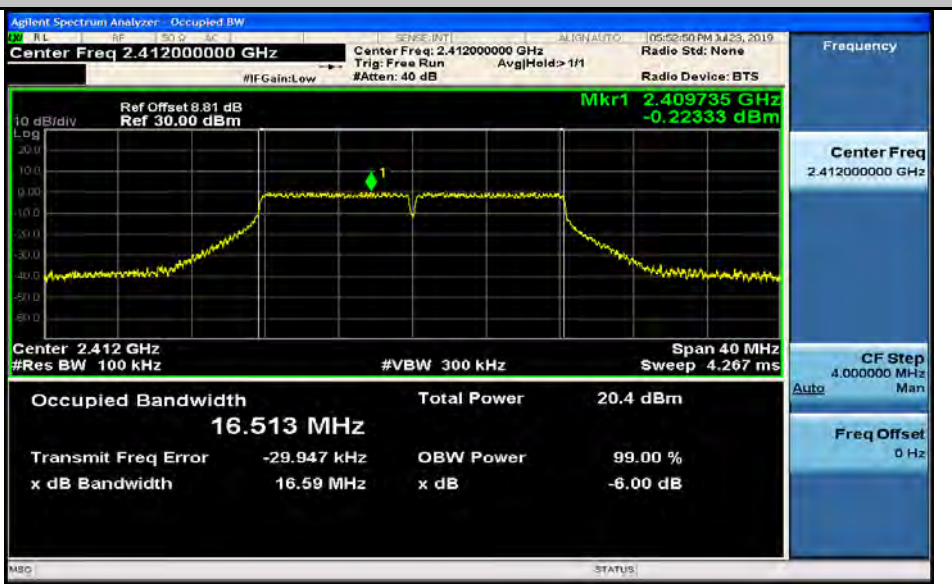
Test Mode	Test	EBW[MHz]		Limit	Verdict
		Ant1	Ant2		
11B	2412	10.08	10.06	0.5	PASS
11B	2437	10.07	10.07	0.5	PASS
11B	2462	10.04	10.07	0.5	PASS
11G	2412	16.59	16.58	0.5	PASS
11G	2437	16.58	16.59	0.5	PASS
11G	2462	16.58	16.59	0.5	PASS
11N20SISO	2412	17.81	17.83	0.5	PASS
11N20SISO	2437	17.81	17.83	0.5	PASS
11N20SISO	2462	17.82	17.83	0.5	PASS
11N40SISO	2422	36.43	36.44	0.5	PASS
11N40SISO	2437	36.43	36.42	0.5	PASS
11N40SISO	2452	36.43	36.43	0.5	PASS

6dB Bandwidth_11B_2412_Ant1

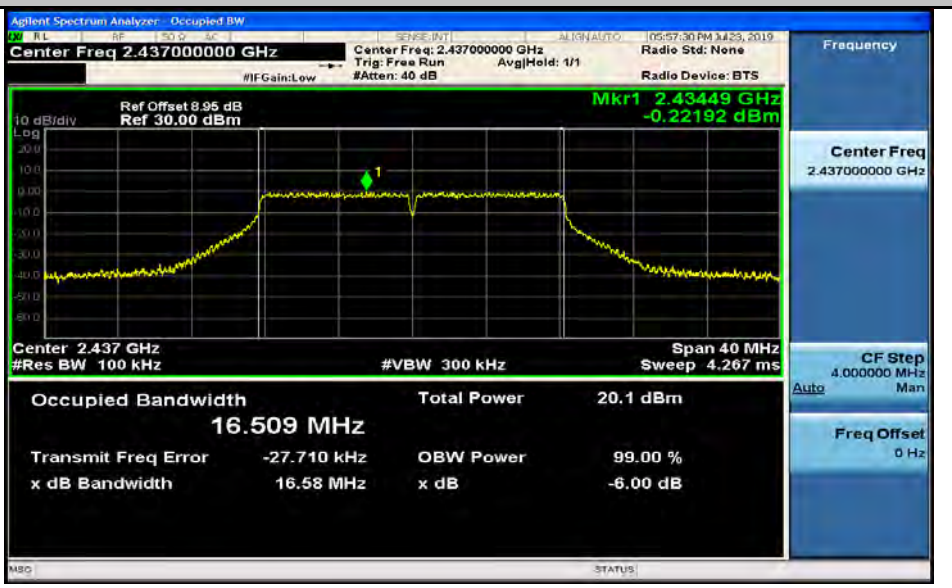
6dB Bandwidth_11B_2437_Ant1

6dB Bandwidth_11B_2462_Ant1

6dB Bandwidth_11G_2412_Ant1

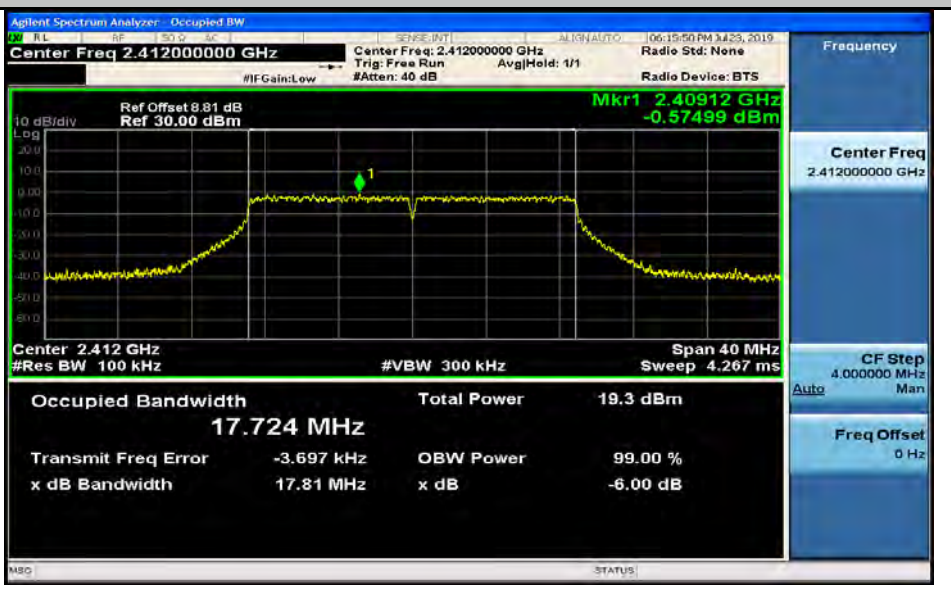


6dB Bandwidth_11G_2437_Ant1



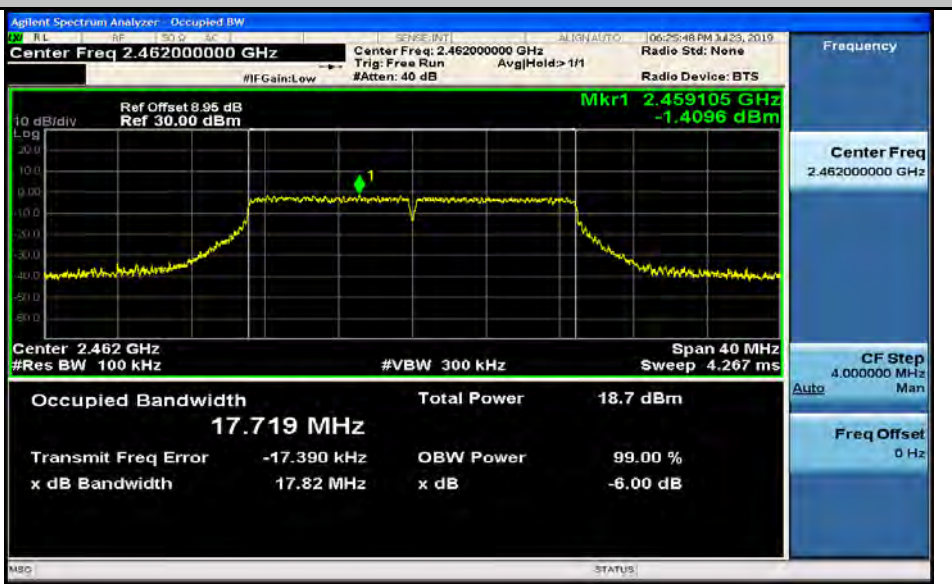
6dB Bandwidth_11G_2462_Ant1

6dB Bandwidth_11N20SISO_2412_Ant1

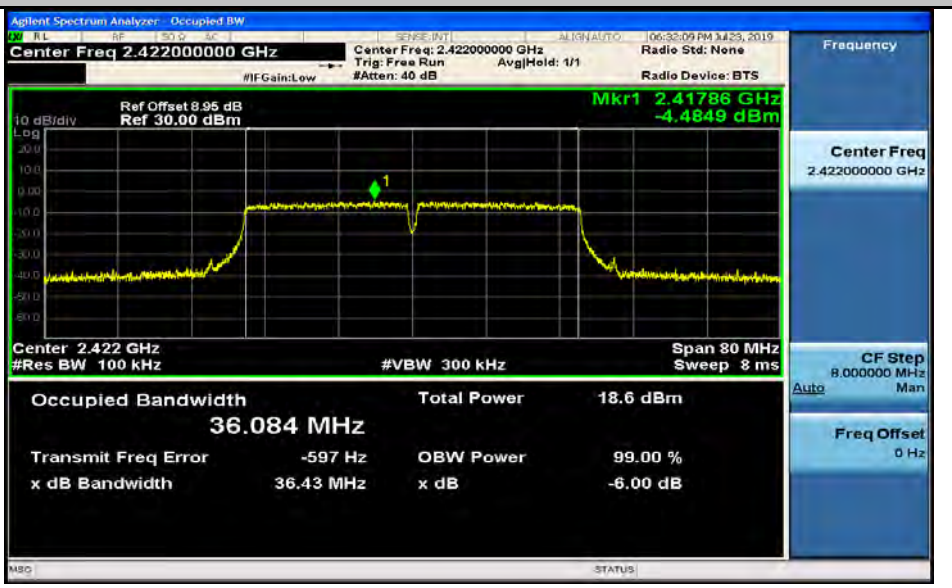


6dB Bandwidth_11N20SISO_2437_Ant1

6dB Bandwidth_11N20SISO_2462_Ant1

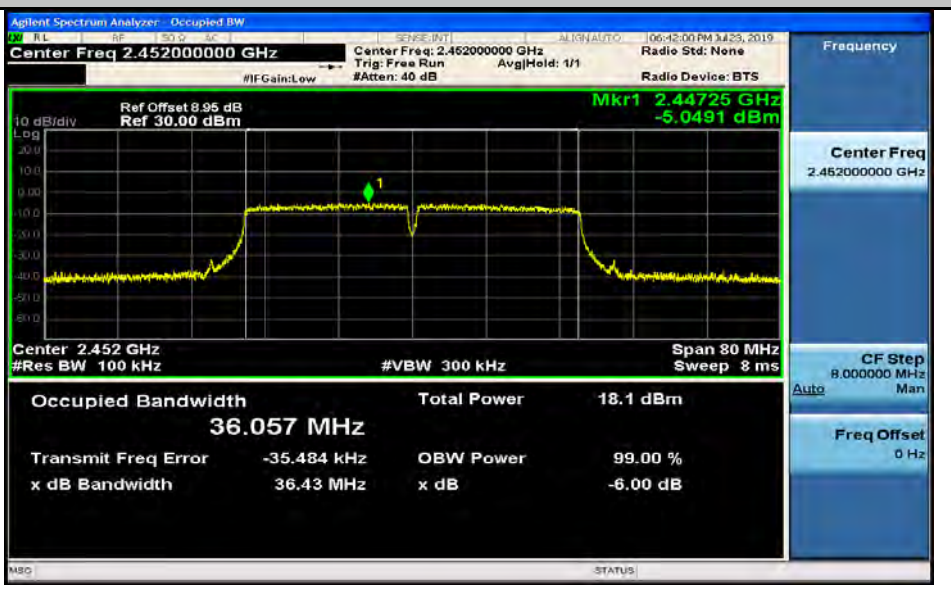


6dB Bandwidth_11N40SISO_2422_Ant1



6dB Bandwidth_11N40SISO_2437_Ant1

6dB Bandwidth_11N40SISO_2452_Ant1

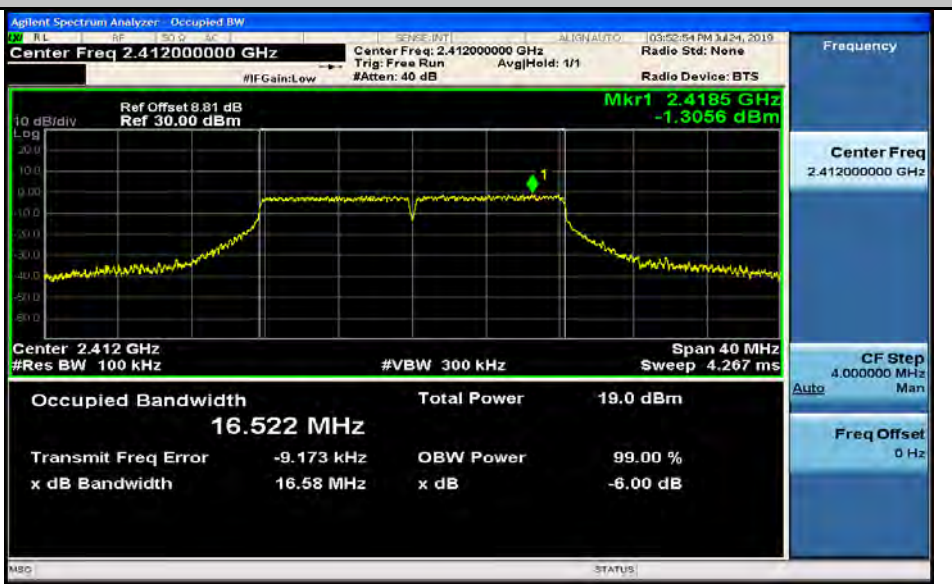


6dB Bandwidth_11B_2412_Ant2

6dB Bandwidth_11B_2437_Ant2

6dB Bandwidth_11B_2462_Ant2

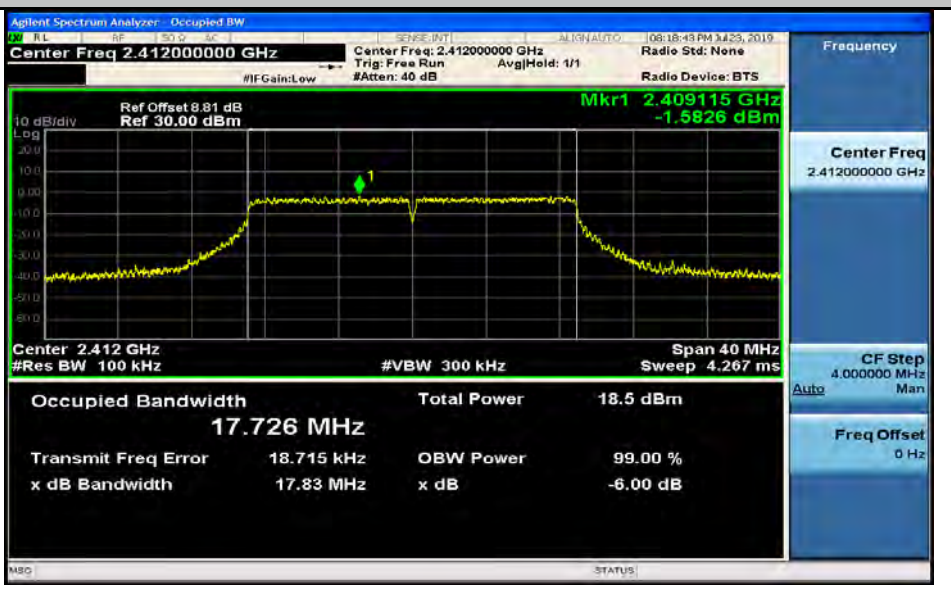
6dB Bandwidth_11G_2412_Ant2



6dB Bandwidth_11G_2437_Ant2

6dB Bandwidth_11G_2462_Ant2

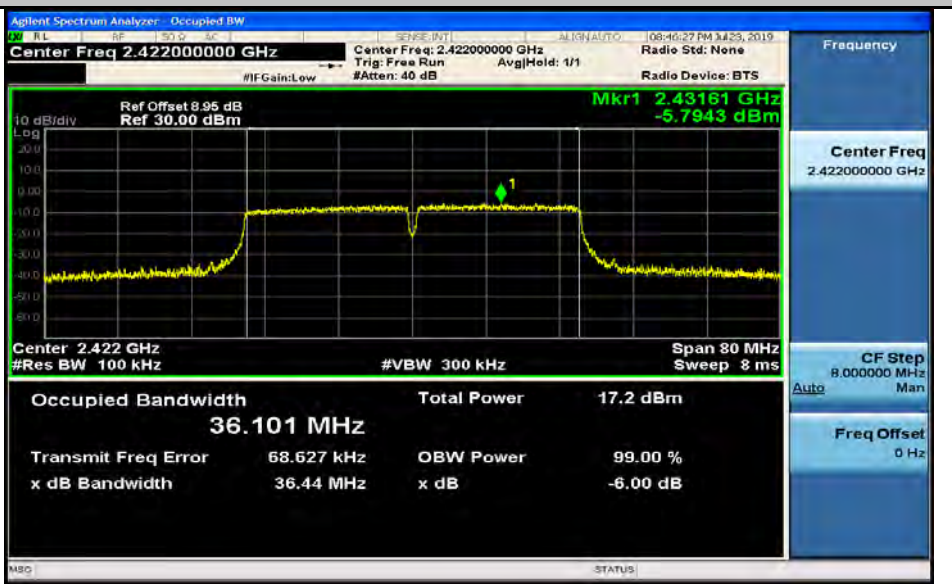
6dB Bandwidth_11N20SISO_2412_Ant2



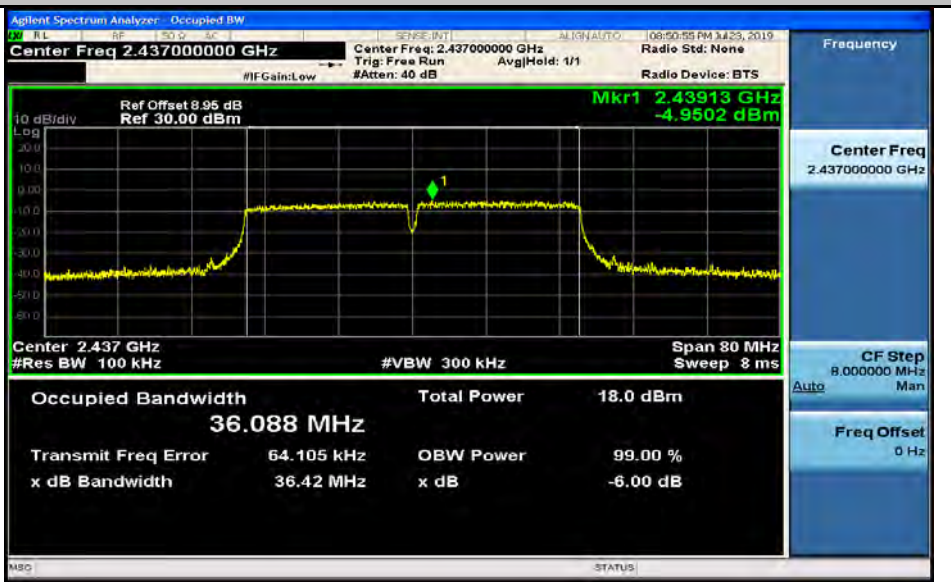
6dB Bandwidth_11N20SISO_2437_Ant2

6dB Bandwidth_11N20SISO_2462_Ant2

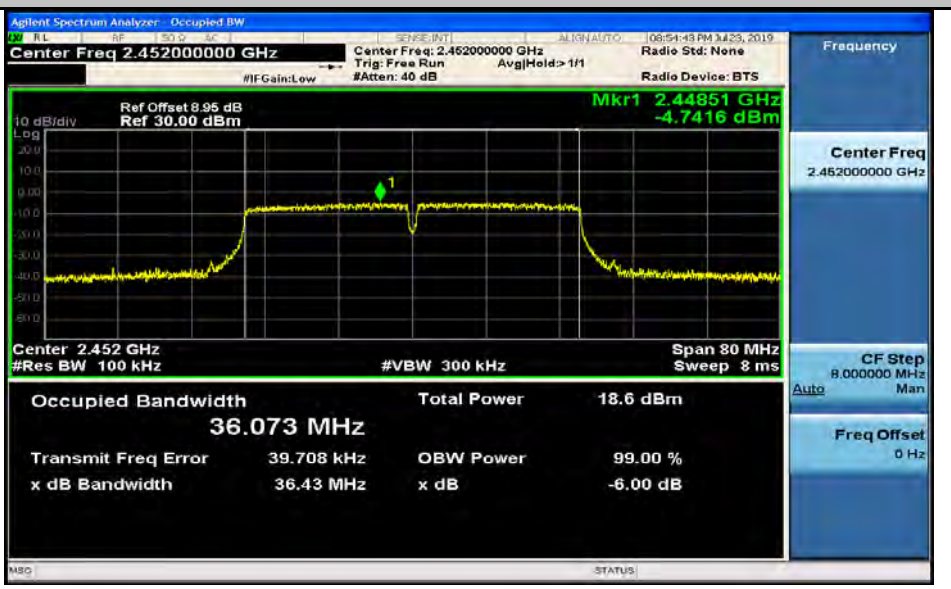
6dB Bandwidth_11N40SISO_2422_Ant2



6dB Bandwidth_11N40SISO_2437_Ant2



6dB Bandwidth_11N40SISO_2452_Ant2



2.Occupied Bandwidth

Test Mode	Test Channel	OBW[MHz]		Limit[MHz]	Verdict
		Ant1	Ant2		
11B	2412	15.09	15.25	---	PASS
11B	2437	15.09	15.17	---	PASS
11B	2462	15.09	15.16	---	PASS
11G	2412	16.99	16.99	---	PASS
11G	2437	16.96	16.95	---	PASS
11G	2462	16.95	16.98	---	PASS
11N20SISO	2412	18.04	18.04	---	PASS
11N20SISO	2437	18.02	18.03	---	PASS
11N20SISO	2462	18.02	18.02	---	PASS
11N40SISO	2422	36.61	36.64	---	PASS
11N40SISO	2437	36.58	36.62	---	PASS
11N40SISO	2452	36.58	36.57	---	PASS

Occupied Bandwidth_11B_2412_Ant1

Occupied Bandwidth_11B_2437_Ant1

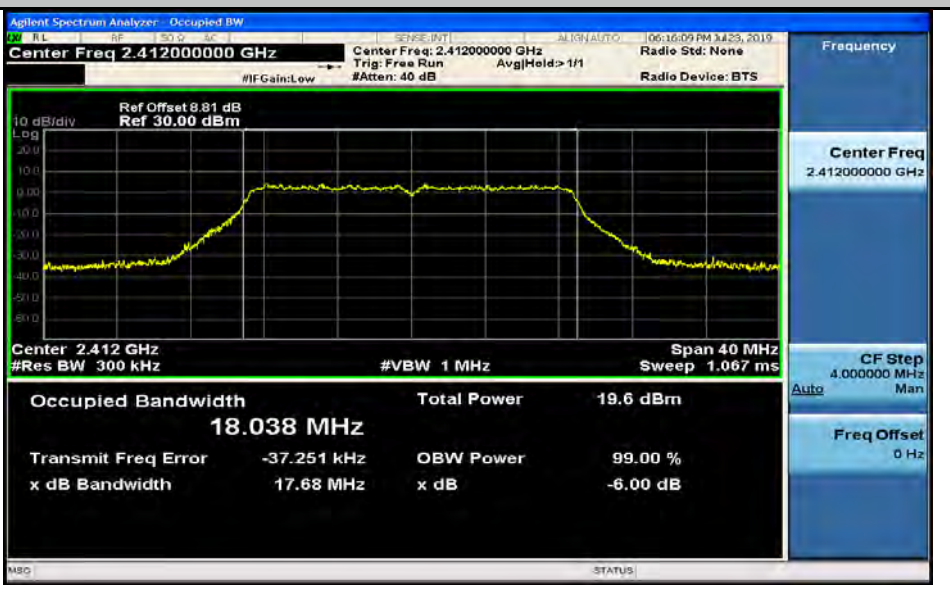
Occupied Bandwidth_11B_2462_Ant1

Occupied Bandwidth_11G_2412_Ant1

Occupied Bandwidth_11G_2437_Ant1

Occupied Bandwidth_11G_2462_Ant1

Occupied Bandwidth_11N20SISO_2412_Ant1



Occupied Bandwidth_11N20SISO_2437_Ant1

Occupied Bandwidth_11N20SISO_2462_Ant1

Occupied Bandwidth_11N40SISO_2422_Ant1

Occupied Bandwidth_11N40SISO_2437_Ant1
Occupied Bandwidth_11N40SISO_2452_Ant1

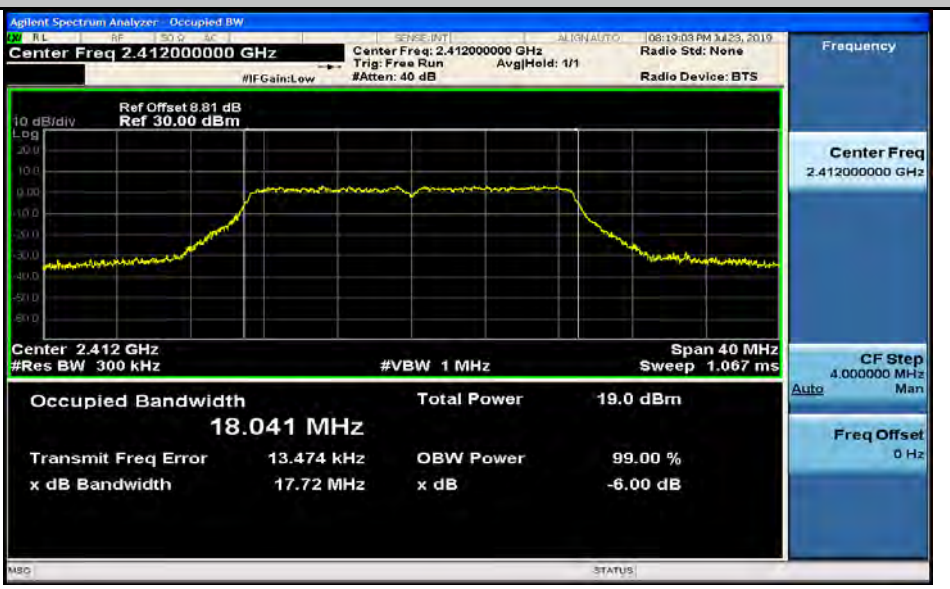
Occupied Bandwidth_11B_2412_Ant2
Occupied Bandwidth_11B_2437_Ant2
Occupied Bandwidth_11B_2462_Ant2

Occupied Bandwidth_11G_2412_Ant2

Occupied Bandwidth_11G_2437_Ant2

Occupied Bandwidth_11G_2462_Ant2

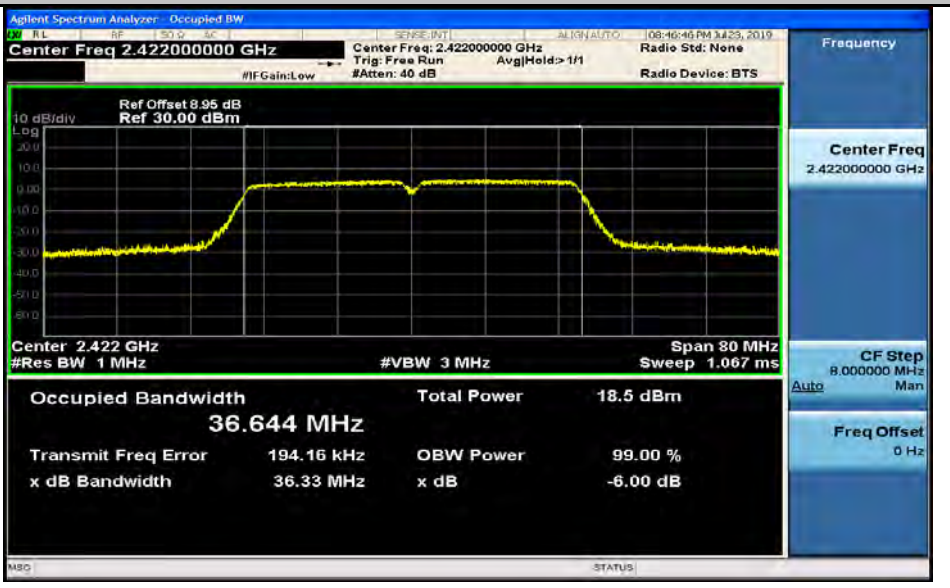
Occupied Bandwidth_11N20SISO_2412_Ant2



Occupied Bandwidth_11N20SISO_2437_Ant2

Occupied Bandwidth_11N20SISO_2462_Ant2

Occupied Bandwidth_11N40SISO_2422_Ant2



Occupied Bandwidth_11N40SISO_2437_Ant2
Occupied Bandwidth_11N40SISO_2452_Ant2

3.Maximum conducted (average) output power

Test Mode	Test Channel	Level [dBm]		10log(1/x) Factor[dB]		Power [dBm]			Limit [dBm]	Verdict
		Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	MIMO		
11B	2412	16.18	15.05	0.00	0.00	16.18	15.05	NA	30	PASS
11B	2437	16	15.13	0.00	0.00	16.00	15.13	NA	30	PASS
11B	2462	15.38	15.96	0.00	0.00	15.38	15.96	NA	30	PASS
11G	2412	14.3	12.94	0.00	0.00	14.30	12.94	NA	30	PASS
11G	2437	14.23	14.29	0.00	0.00	14.23	14.29	NA	30	PASS
11G	2462	13.68	15.14	0.00	0.00	13.68	15.14	NA	30	PASS
11N20MIMO	2412	13.31	12.74	0.00	0.00	13.31	12.74	16.04	30	PASS
11N20MIMO	2437	13.15	13.1	0.00	0.00	13.15	13.10	16.14	30	PASS
11N20MIMO	2462	12.57	13.2	0.00	0.00	12.57	13.20	15.91	30	PASS
11N40MIMO	2422	12.3	11.27	0.00	0.00	12.30	11.27	14.83	30	PASS
11N40MIMO	2437	12.08	12.06	0.00	0.00	12.08	12.06	15.08	30	PASS
11N40MIMO	2452	11.8	12.69	0.00	0.00	11.80	12.69	15.28	30	PASS

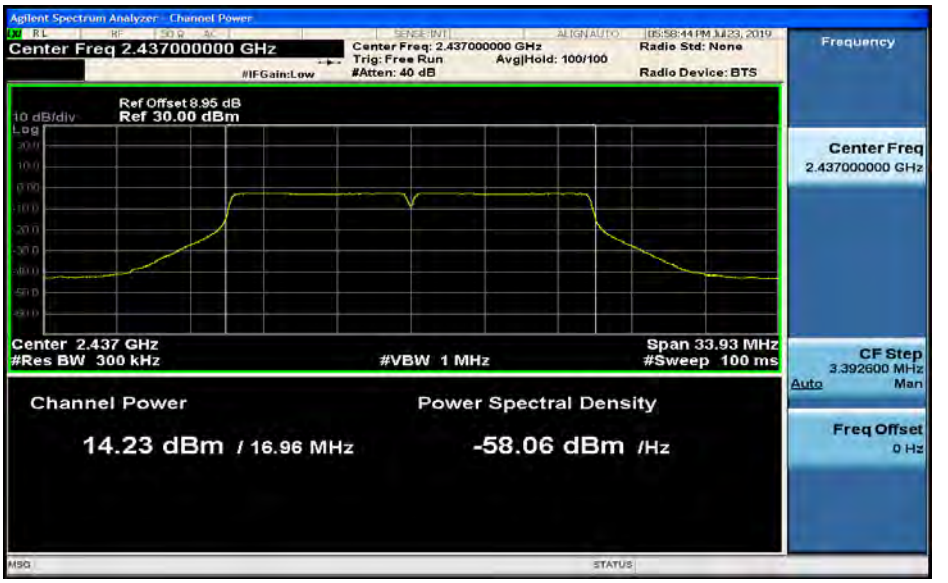
Maximum conducted (average) output power_11B_2412_Ant1

Maximum conducted (average) output power_11B_2437_Ant1

Maximum conducted (average) output power_11B_2462_Ant1

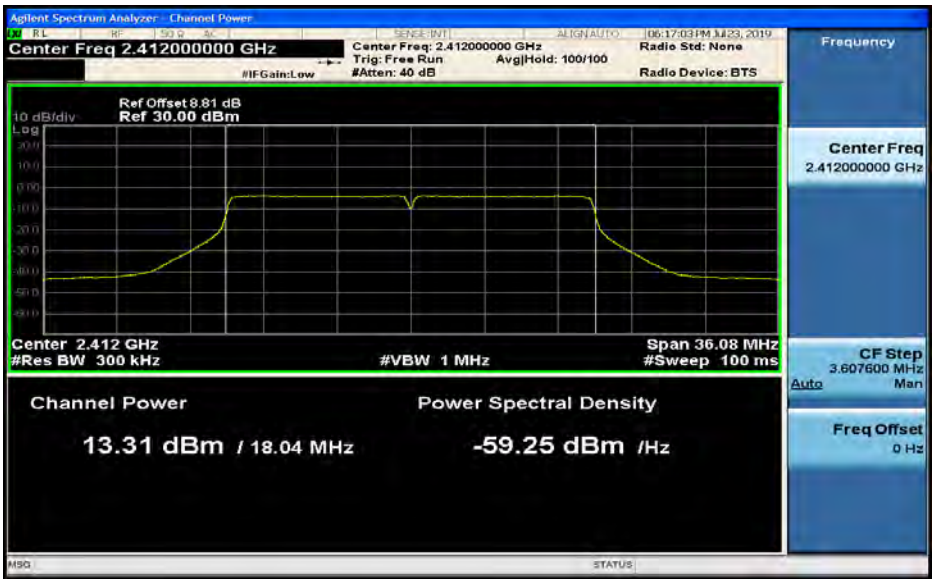
Maximum conducted (average) output power_11G_2412_Ant1

Maximum conducted (average) output power_11G_2437_Ant1

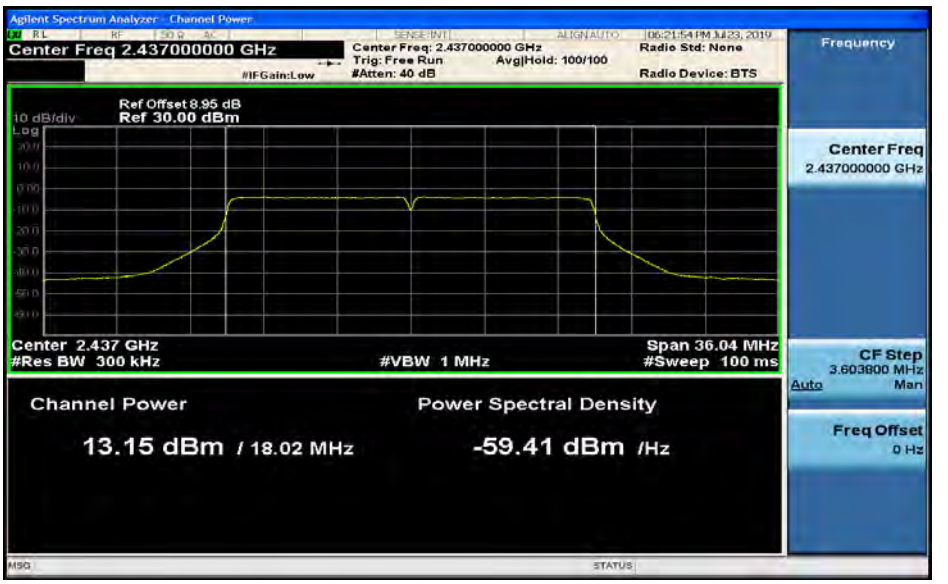


Maximum conducted (average) output power_11G_2462_Ant1

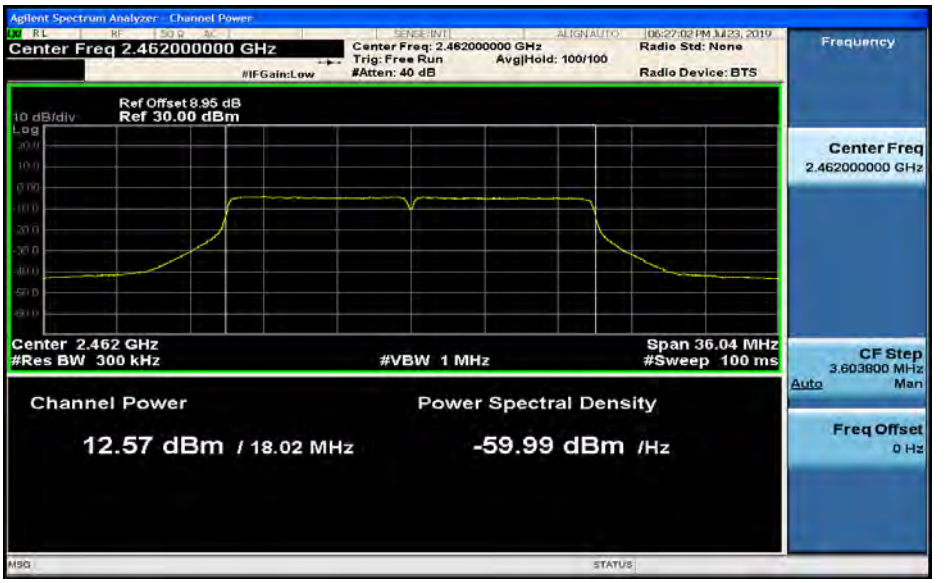
Maximum conducted (average) output power_11N20SISO_2412_Ant1



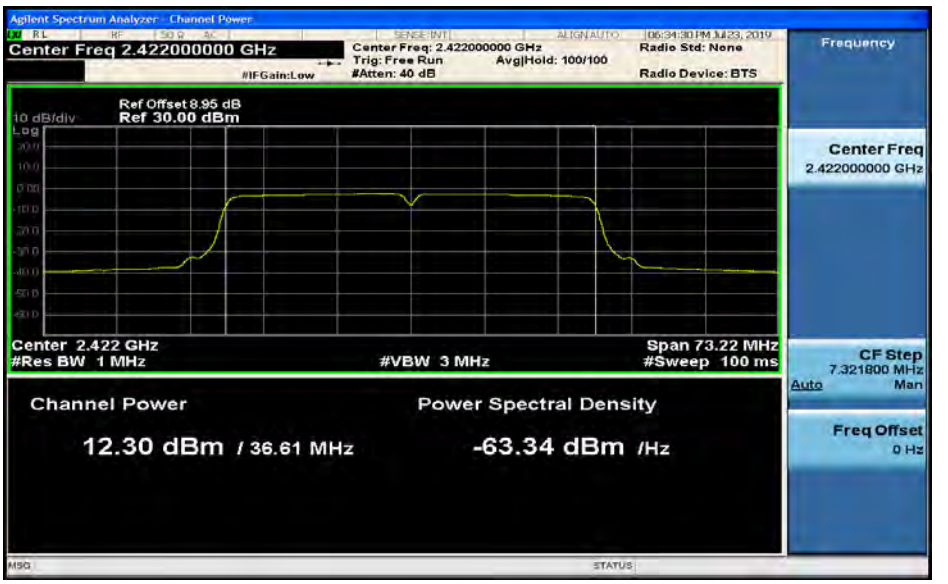
Maximum conducted (average) output power_11N20SISO_2437_Ant1



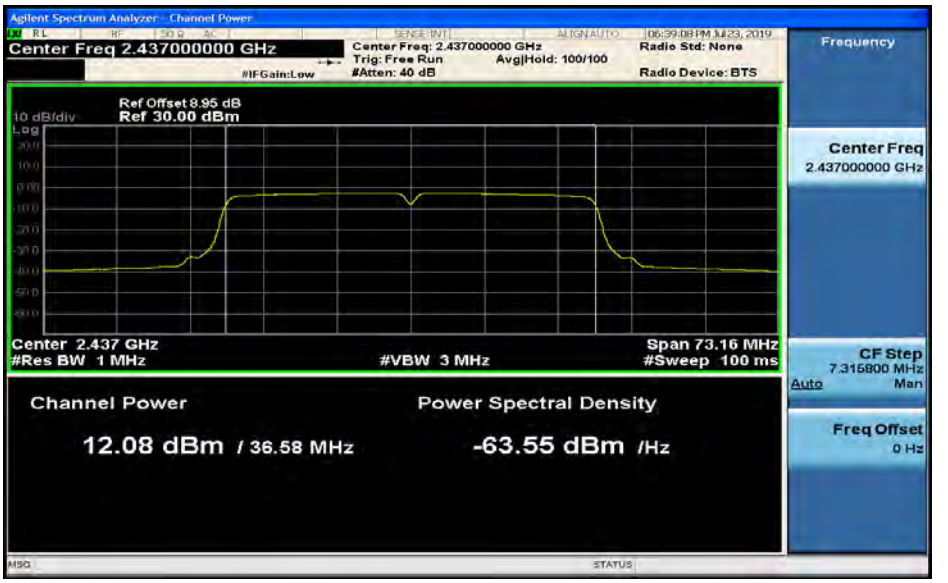
Maximum conducted (average) output power_11N20SISO_2462_Ant1



Maximum conducted (average) output power_11N40SISO_2422_Ant1



Maximum conducted (average) output power_11N40SISO_2437_Ant1

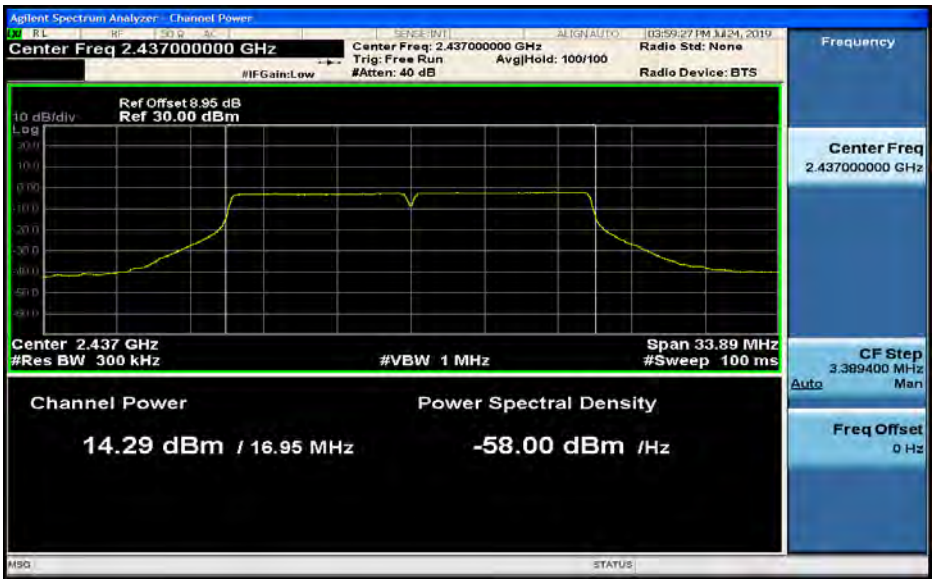


Maximum conducted (average) output power_11N40SISO_2452_Ant1

Maximum conducted (average) output power_11B_2412_Ant2
Maximum conducted (average) output power_11B_2437_Ant2
Maximum conducted (average) output power_11B_2462_Ant2

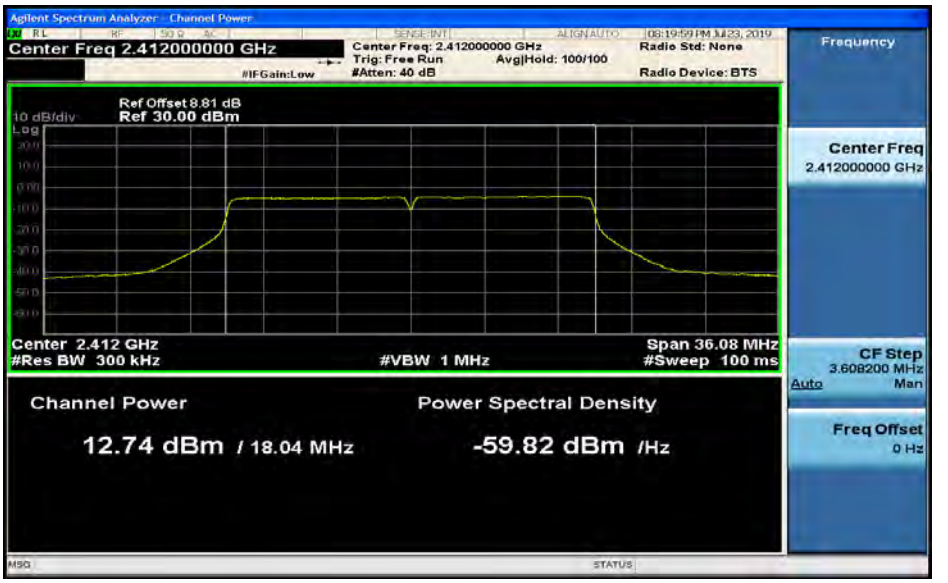
Maximum conducted (average) output power_11G_2412_Ant2

Maximum conducted (average) output power_11G_2437_Ant2



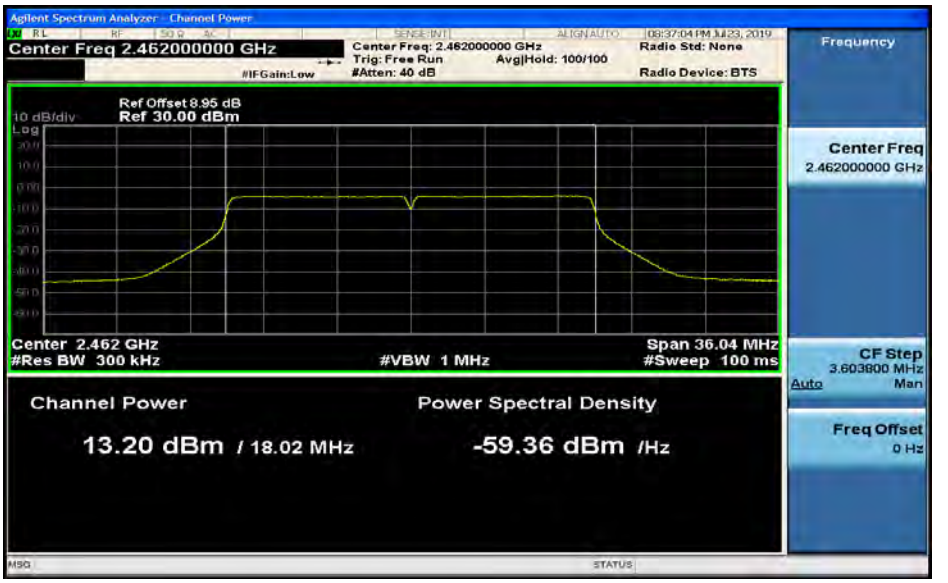
Maximum conducted (average) output power_11G_2462_Ant2

Maximum conducted (average) output power_11N20SISO_2412_Ant2



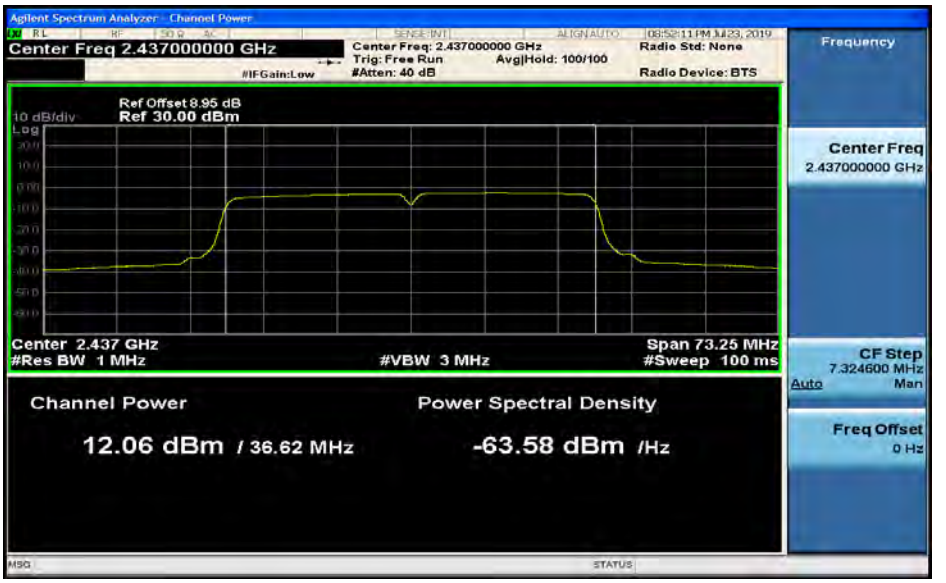
Maximum conducted (average) output power_11N20SISO_2437_Ant2

Maximum conducted (average) output power_11N20SISO_2462_Ant2

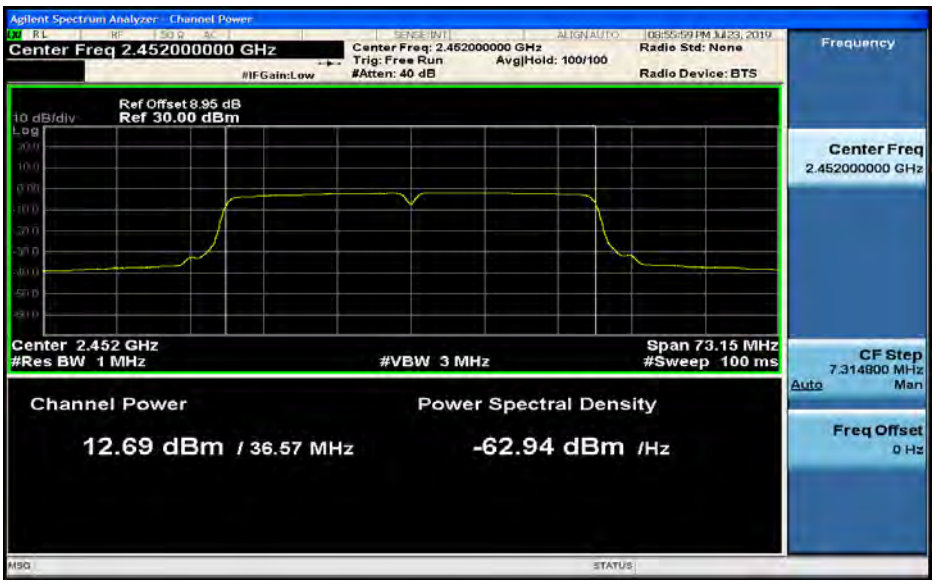


Maximum conducted (average) output power_11N40SISO_2422_Ant2

Maximum conducted (average) output power_11N40SISO_2437_Ant2



Maximum conducted (average) output power_11N40SISO_2452_Ant2



4.Maximum(average) power spectral density

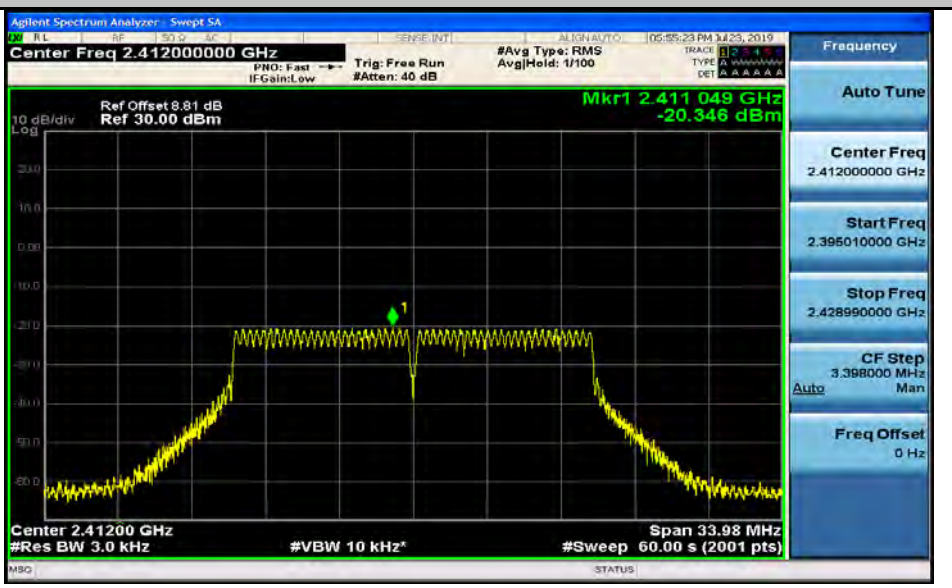
Test Mode	Test Channel	Level [dBm/3kHz]		10log(1/x) Factor[dB]		PSD[dBm/3kHz]			Limit[dBm/3kHz]	Verdict
		Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	MIMO		
11B	2412	-16.62	-17.81	0.00	0.01	-16.62	-17.81	NA	8.00	PASS
11B	2437	-16.74	-17.64	0.00	0.01	-16.74	-17.64	NA	8.00	PASS
11B	2462	-17.34	-16.81	0.00	0.01	-17.34	-16.81	NA	8.00	PASS
11G	2412	-20.35	-21.59	0.00	0.05	-20.35	-21.59	NA	8.00	PASS
11G	2437	-20.41	-20.34	0.00	0.05	-20.41	-20.34	NA	8.00	PASS
11G	2462	-20.93	-19.46	0.00	0.05	-20.93	-19.46	NA	8.00	PASS
11N20MIMO	2412	-21.83	-22.08	0.00	0.06	-21.83	-22.08	-18.94	8.00	PASS
11N20MIMO	2437	-21.83	-21.69	0.00	0.06	-21.83	-21.69	-18.75	8.00	PASS
11N20MIMO	2462	-22.44	-21.68	0.00	0.06	-22.44	-21.68	-19.03	8.00	PASS
11N40MIMO	2422	-25.97	-26.88	0.00	0.13	-25.97	-26.88	-23.39	8.00	PASS
11N40MIMO	2437	-26.29	-26.01	0.00	0.12	-26.29	-26.01	-23.14	8.00	PASS
11N40MIMO	2452	-26.50	-25.50	0.00	0.12	-26.50	-25.50	-22.96	8.00	PASS

Maximum(average) power spectral density_11B_2412_Ant1

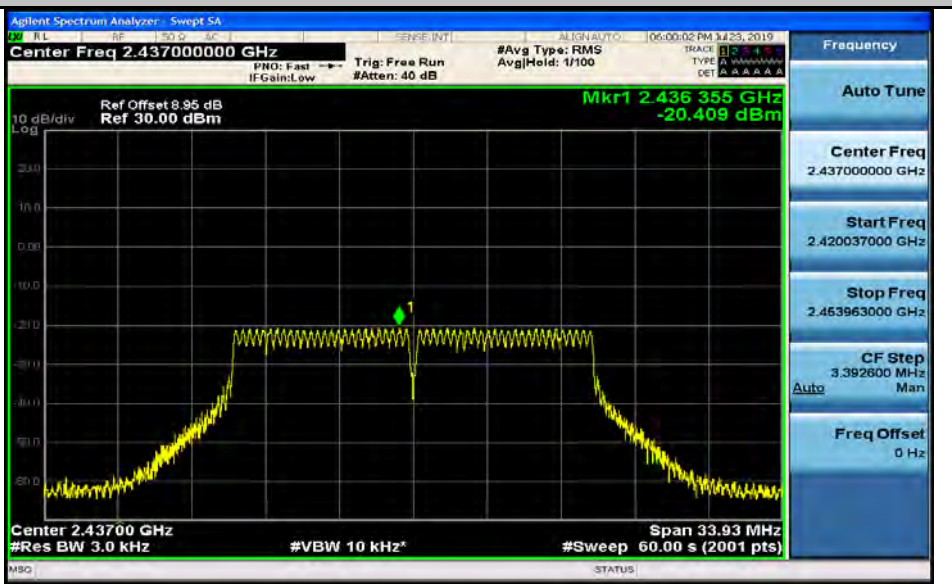
Maximum(average) power spectral density_11B_2437_Ant1

Maximum(average) power spectral density_11B_2462_Ant1

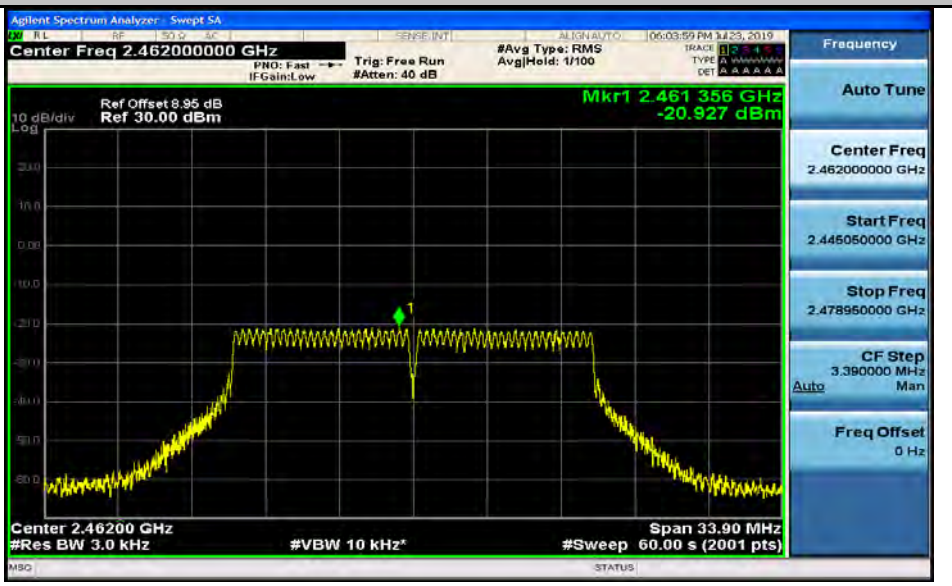
Maximum(average) power spectral density_11G_2412_Ant1



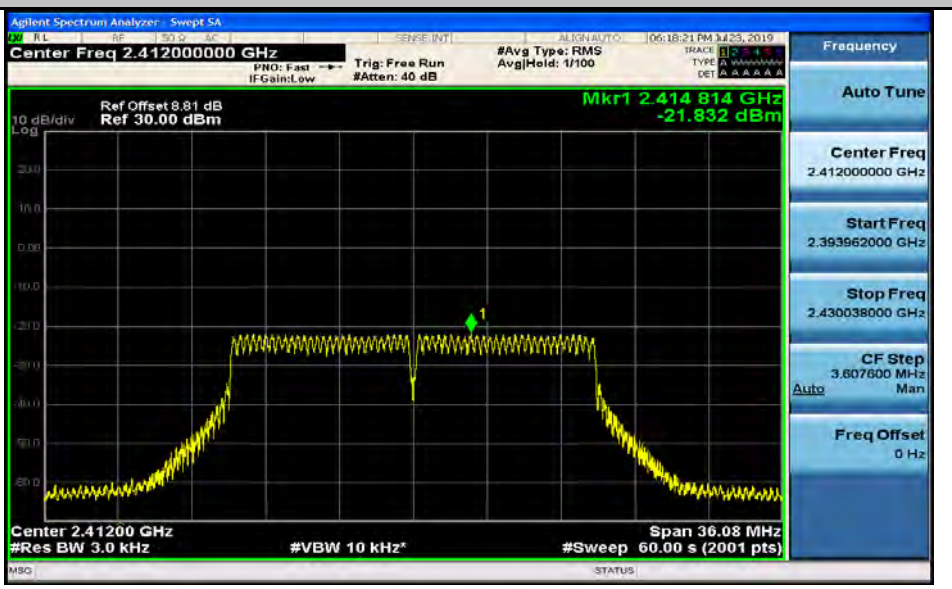
Maximum(average) power spectral density_11G_2437_Ant1



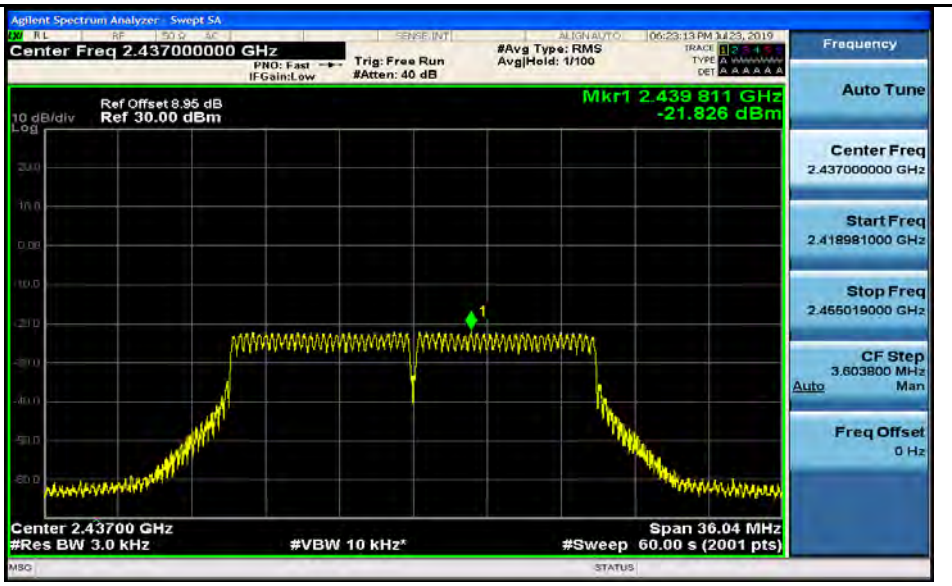
Maximum(average) power spectral density_11G_2462_Ant1



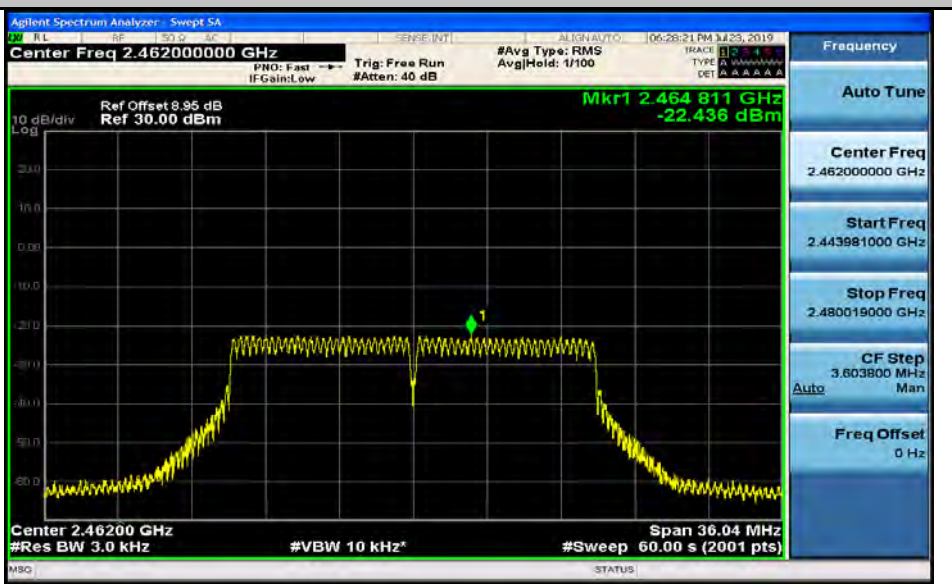
Maximum(average) power spectral density_11N20SISO_2412_Ant1



Maximum(average) power spectral density_11N20SISO_2437_Ant1



Maximum(average) power spectral density_11N20SISO_2462_Ant1



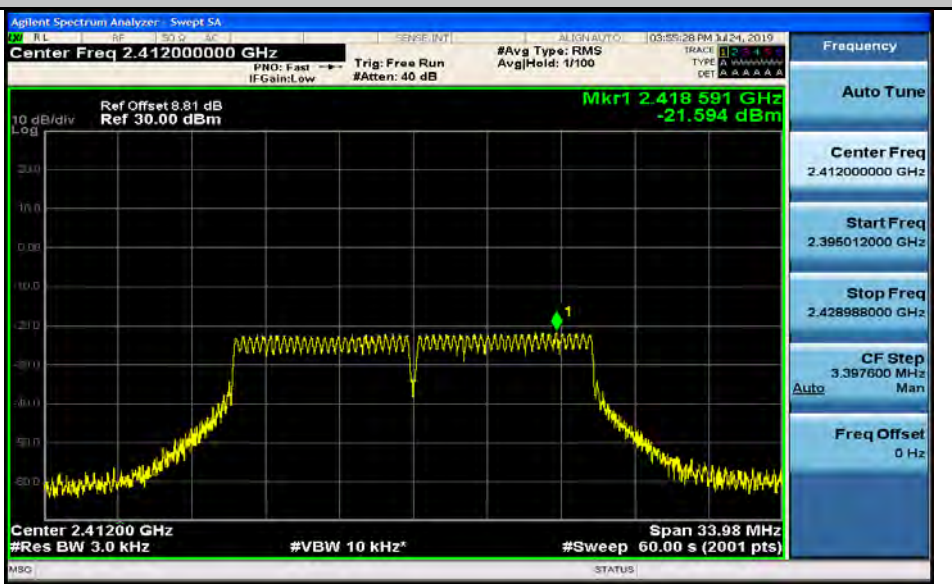
Maximum(average) power spectral density_11N40SISO_2422_Ant1

Maximum(average) power spectral density_11N40SISO_2437_Ant1

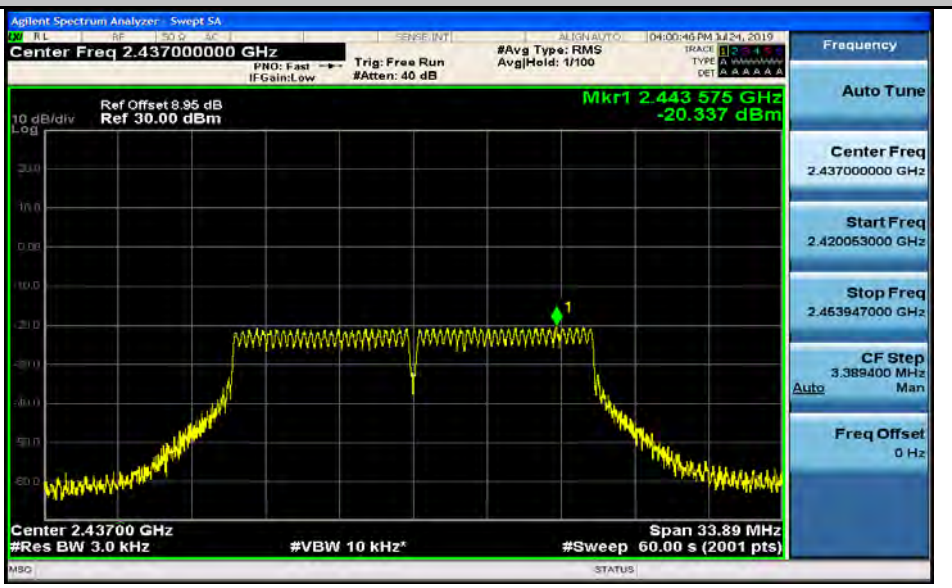
Maximum(average) power spectral density_11N40SISO_2452_Ant1

Maximum(average) power spectral density_11B_2412_Ant2
Maximum(average) power spectral density_11B_2437_Ant2
Maximum(average) power spectral density_11B_2462_Ant2

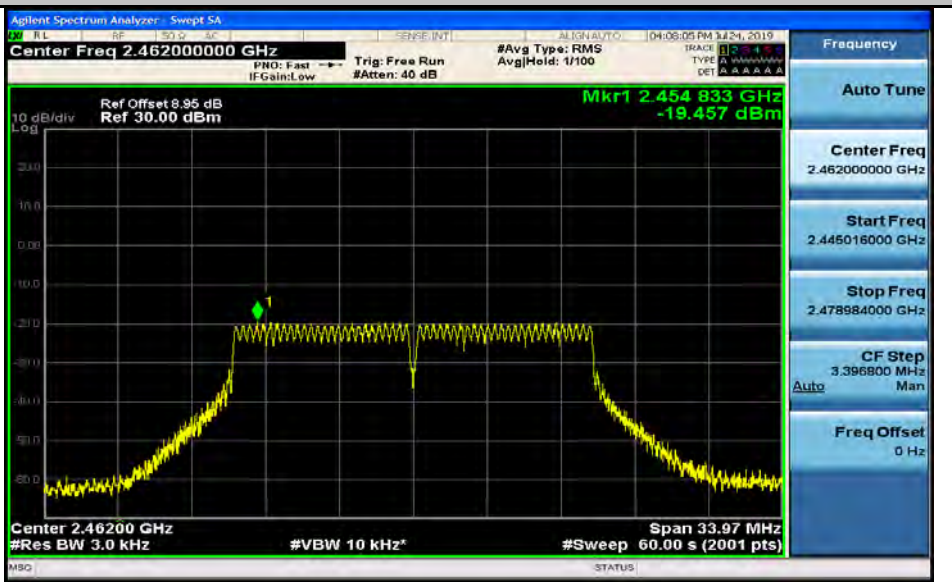
Maximum(average) power spectral density_11G_2412_Ant2



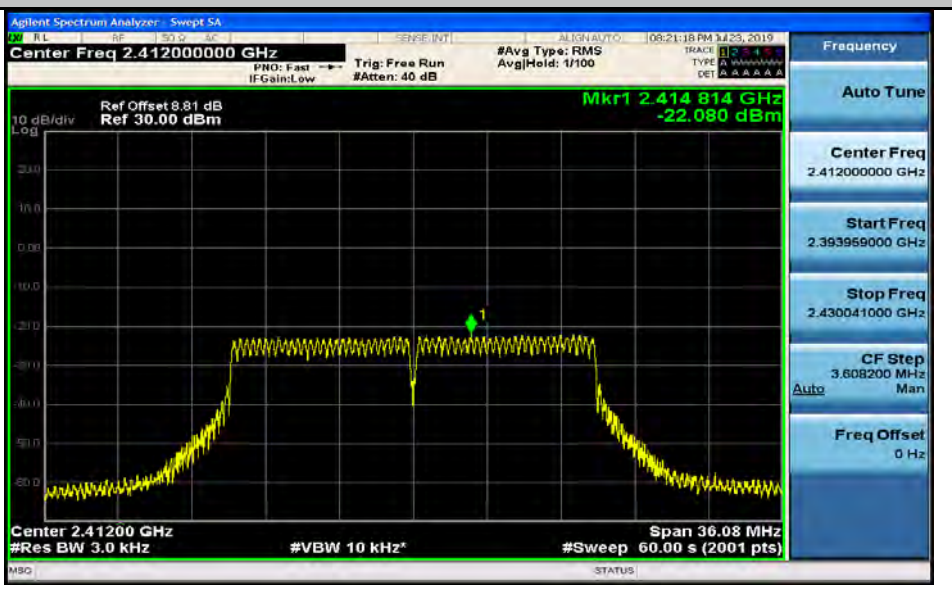
Maximum(average) power spectral density_11G_2437_Ant2



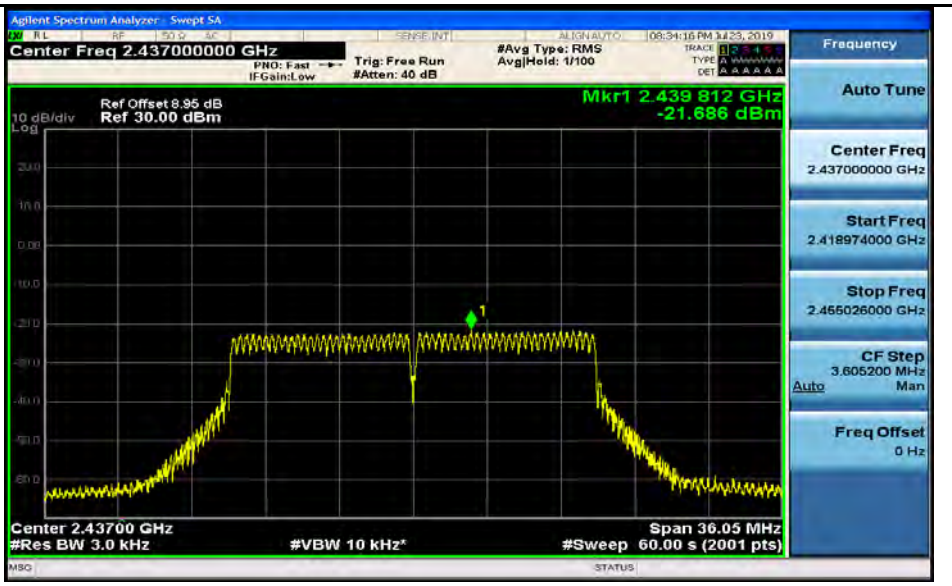
Maximum(average) power spectral density_11G_2462_Ant2



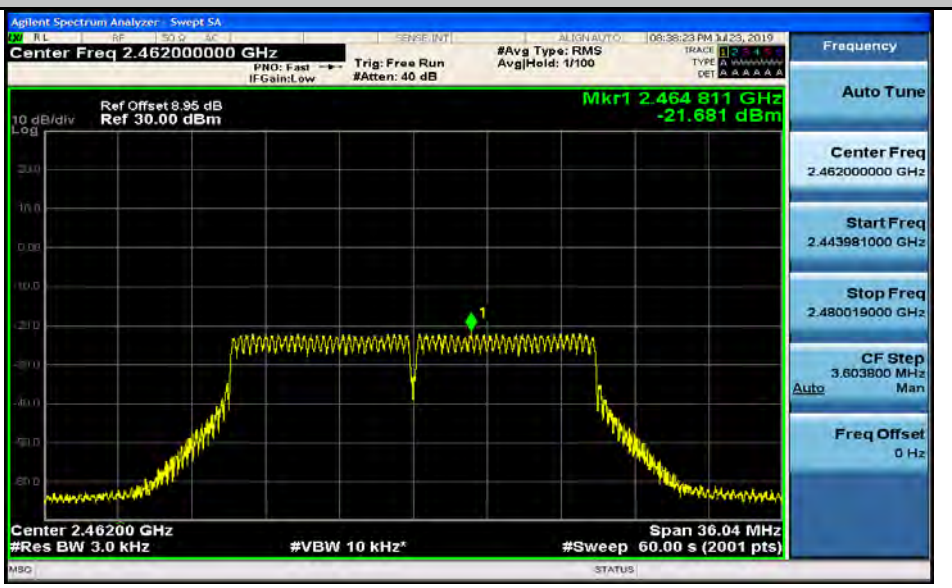
Maximum(average) power spectral density_11N20SISO_2412_Ant2



Maximum(average) power spectral density_11N20SISO_2437_Ant2



Maximum(average) power spectral density_11N20SISO_2462_Ant2



Maximum(average) power spectral density_11N40SISO_2422_Ant2

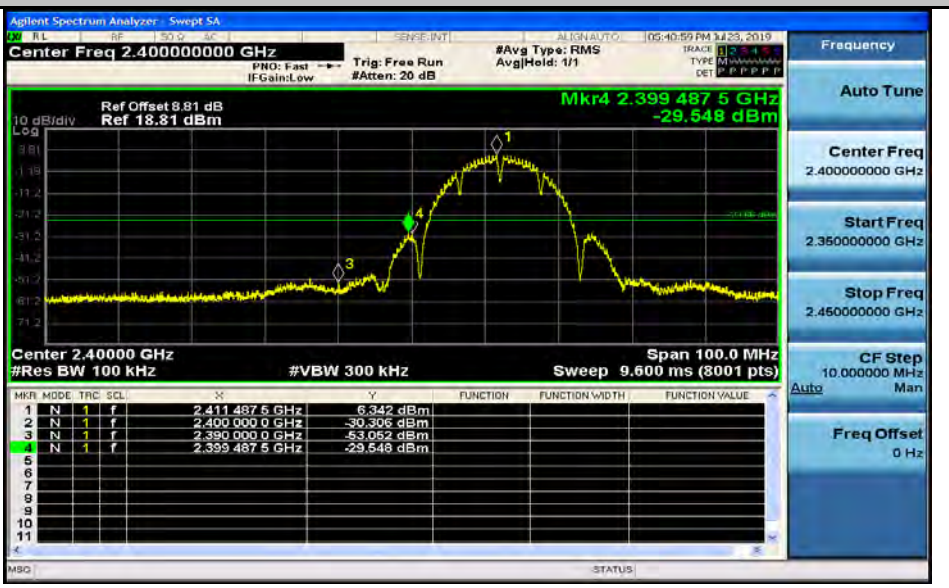
Maximum(average) power spectral density_11N40SISO_2437_Ant2

Maximum(average) power spectral density_11N40SISO_2452_Ant2

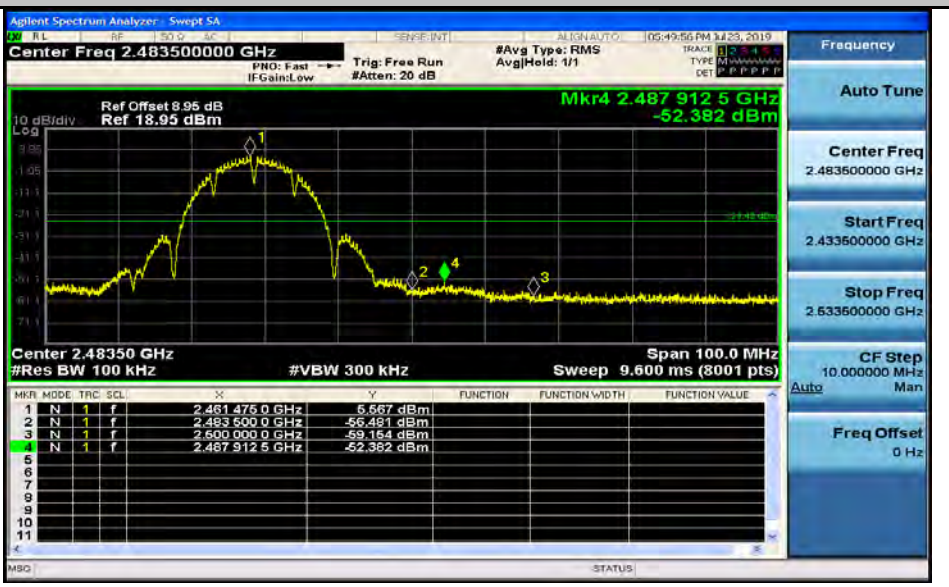
5.Band-edge for RF Conducted Emissions

Test Mode	Test Channel	Carrier Power[dBm]		Max. Spurious Level [dBm]		Limit [dBm]		Verdict
		Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	
11B	2412	6.34	5.20	-29.55	-32.91	-23.66	-24.80	PASS
11B	2462	5.57	6.24	-52.38	-52.69	-24.43	-23.77	PASS
11G	2412	-0.23	-1.31	-32.32	-33.31	-30.23	-31.31	PASS
11G	2462	-0.77	0.63	-43.66	-37.37	-30.77	-29.38	PASS
11N20SISO	2412	-0.99	-1.53	-31.91	-32.24	-30.99	-31.53	PASS
11N20SISO	2462	-1.44	-0.98	-42.60	-45.62	-31.44	-30.98	PASS
11N40SISO	2422	-4.85	-5.58	-37.17	-36.33	-34.85	-35.58	PASS
11N40SISO	2452	-5.34	-4.28	-41.61	-38.12	-35.34	-34.28	PASS

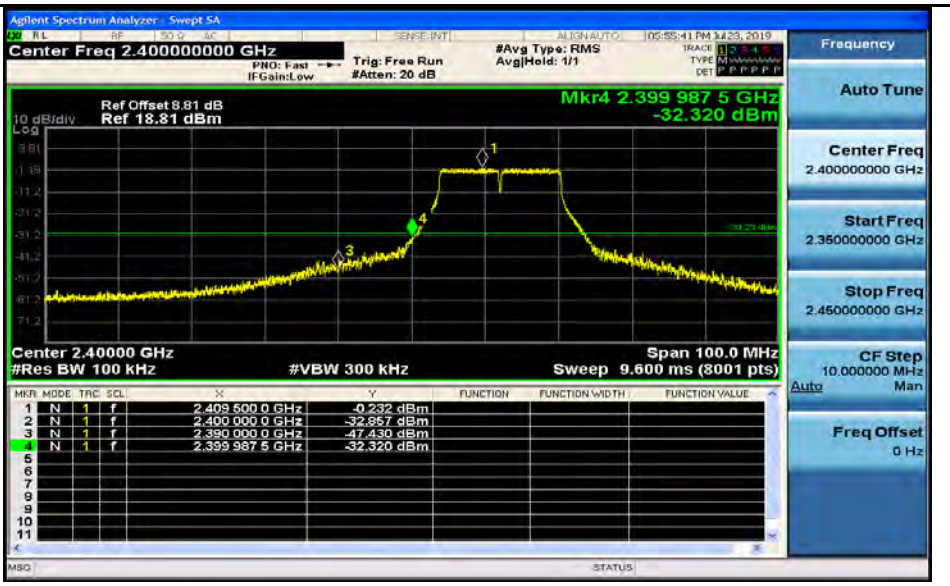
Band-edge for RF Conducted Emissions_11B_2412_Ant1



Band-edge for RF Conducted Emissions_11B_2462_Ant1

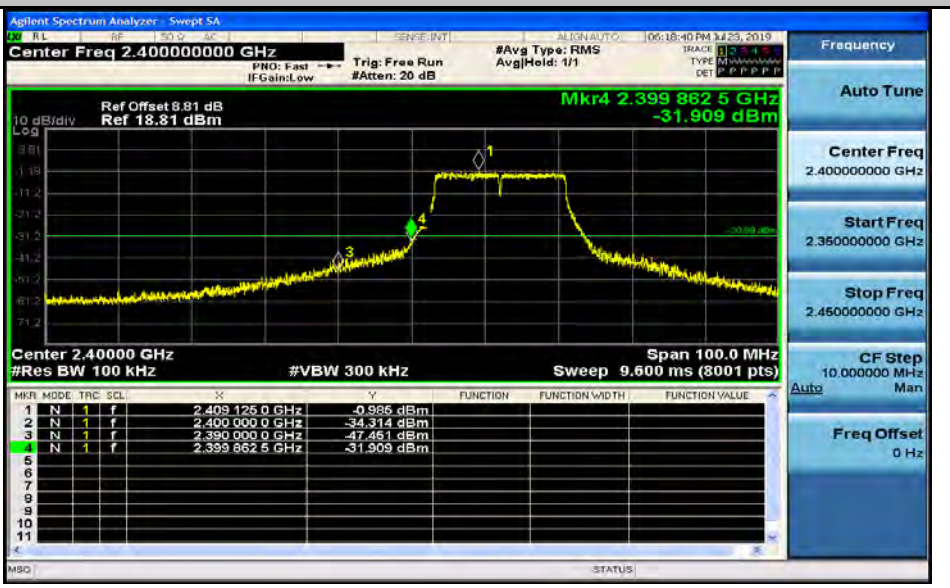


Band-edge for RF Conducted Emissions_11G_2412_Ant1



Band-edge for RF Conducted Emissions_11G_2462_Ant1

Band-edge for RF Conducted Emissions_11N20SISO_2412_Ant1



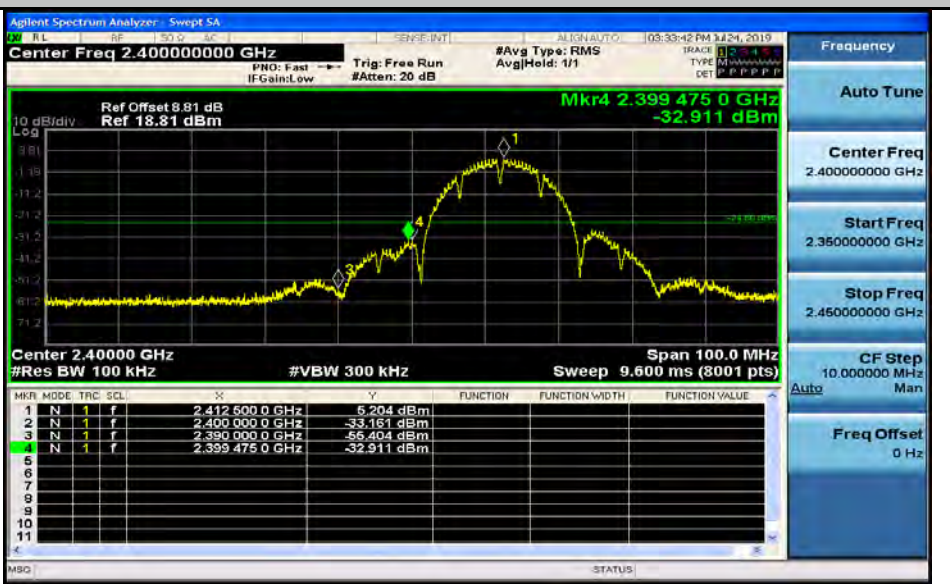
Band-edge for RF Conducted Emissions_11N20SISO_2462_Ant1

Band-edge for RF Conducted Emissions_11N40SISO_2422_Ant1

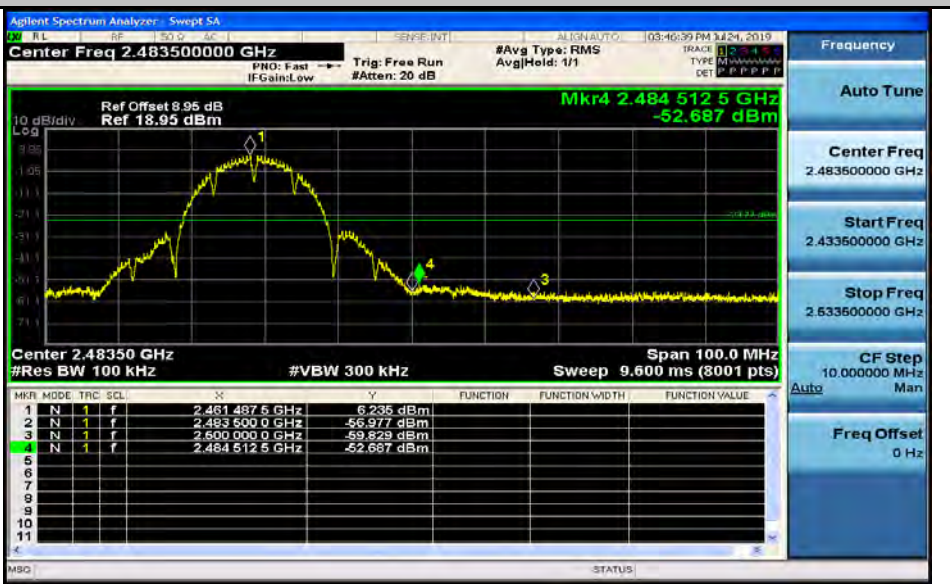
Band-edge for RF Conducted Emissions_11N40SISO_2452_Ant1

Agilent Spectrum Analyzer - Swept SA
Center Freq 2.483500000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
#Avg Type: RMS
Avg|Hold: 1/1
06:44:51 PM Jul 23, 2019
Frequency
Auto Tune
Ref Offset 8.95 dB
10 dB/div
Log
Ref 18.95 dBm
Mkr4 2.486 650 0 GHz
-41.606 dBm
Center Freq
2.483500000 GHz
Start Freq
2.433500000 GHz
Stop Freq
2.533500000 GHz
Center 2.48350 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 100.0 MHz
Sweep 9.600 ms (8001 pts)
CF Step
10.000000 MHz
Auto
Man
Freq Offset
0 Hz
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 2.454 125 0 GHz -5.337 dBm
2 N 1 f 2.483 500 0 GHz -44.135 dBm
3 N 1 f 2.500 000 0 GHz -52.648 dBm
4 N 1 f 2.486 650 0 GHz -41.606 dBm
MSG
STATUS

Band-edge for RF Conducted Emissions_11B_2412_Ant2



Band-edge for RF Conducted Emissions_11B_2462_Ant2



Band-edge for RF Conducted Emissions_11G_2412_Ant2