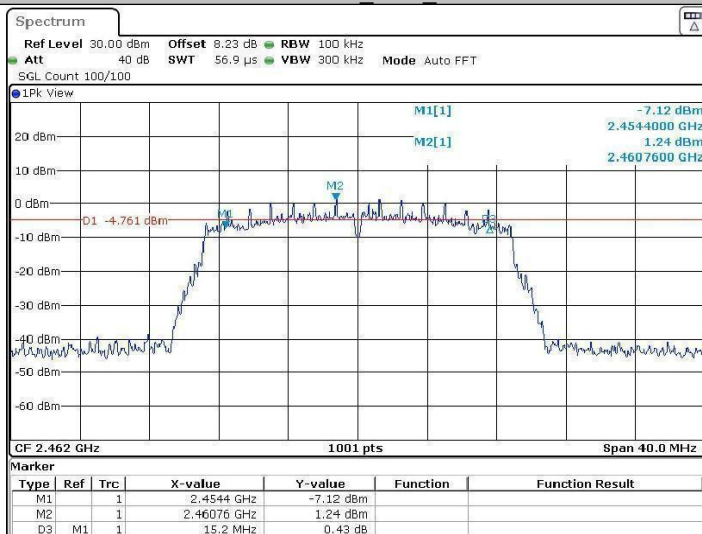
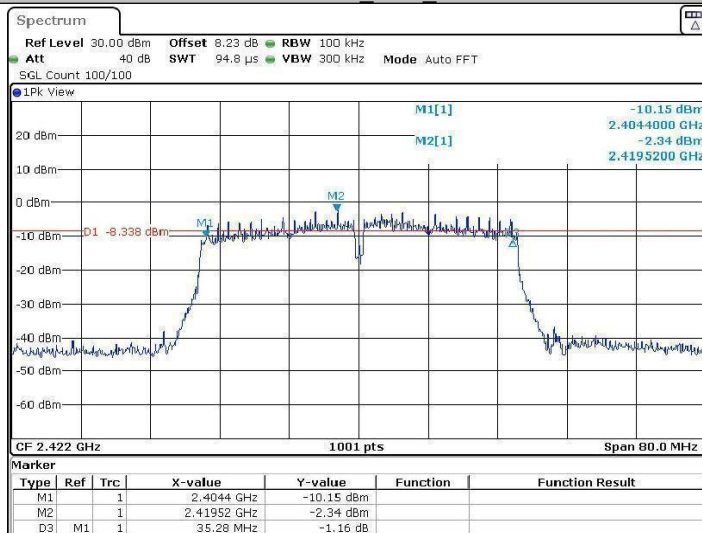


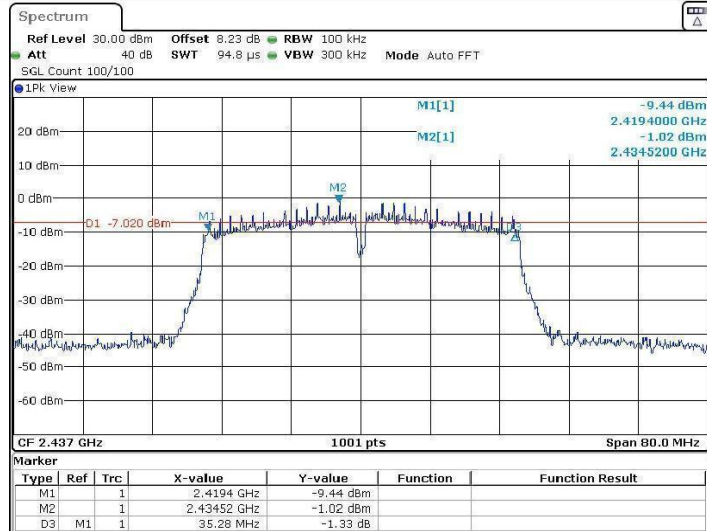
11N20SISO_Ant1_2462



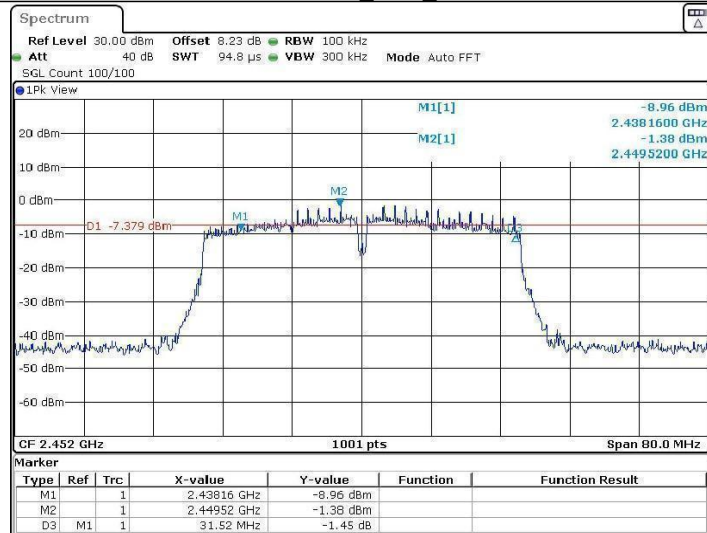
11N40SISO_Ant1_2422



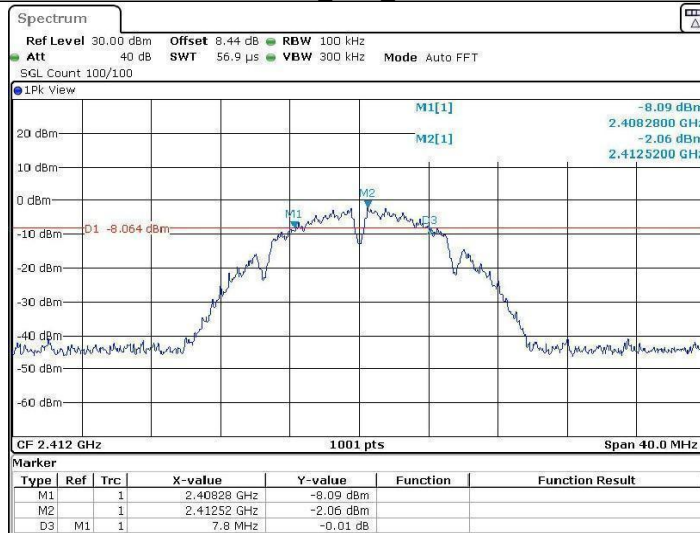
11N40SISO_Ant1_2437



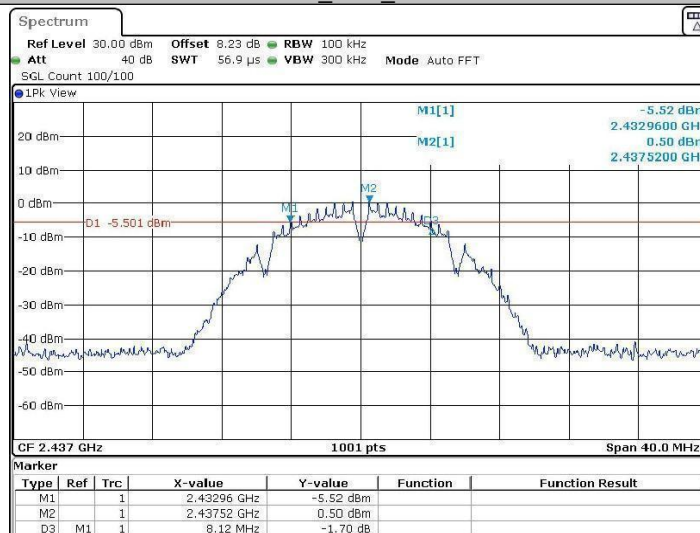
11N40SISO_Ant1_2452



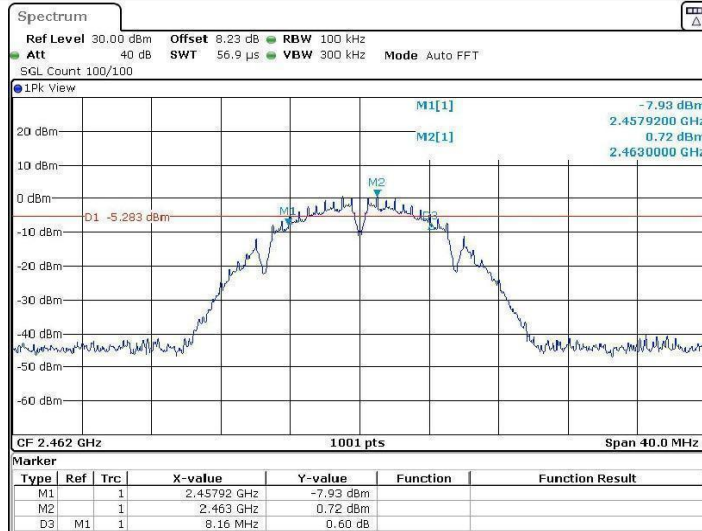
11B_Ant2_2412



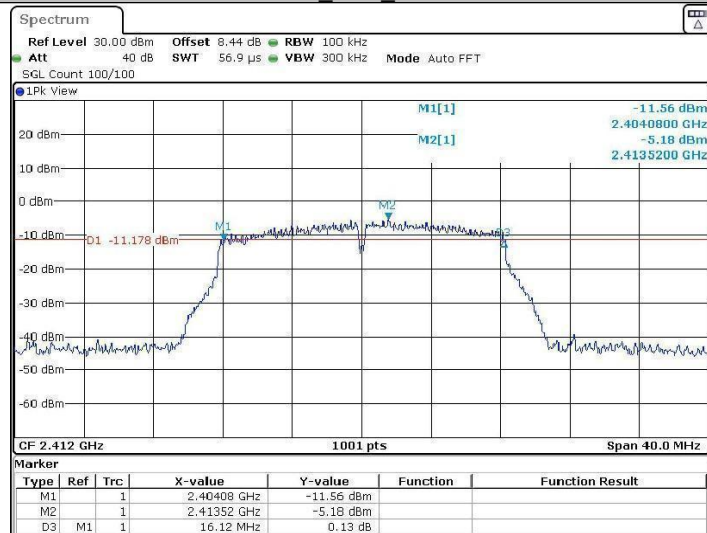
11B_Ant2_2437



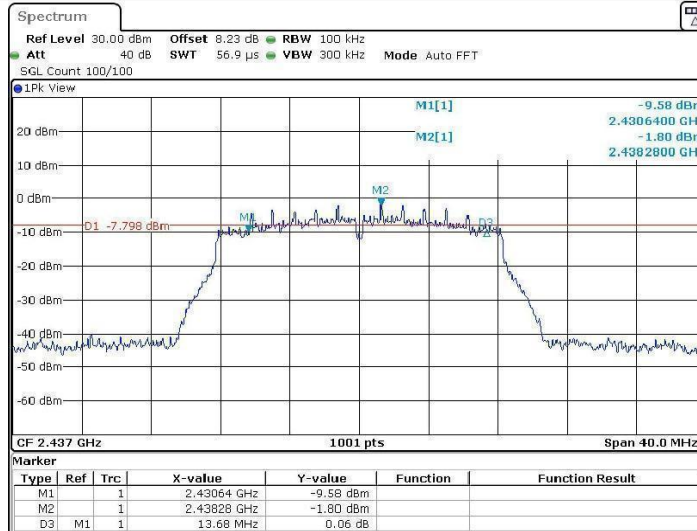
11B_Ant2_2462



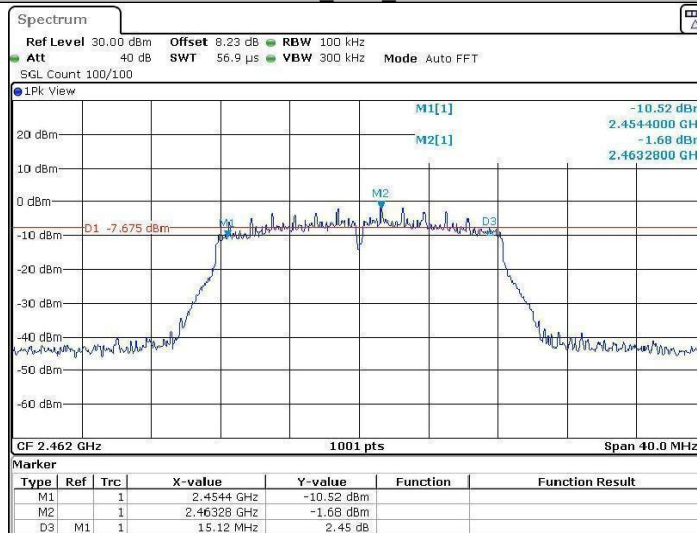
11G_Ant2_2412



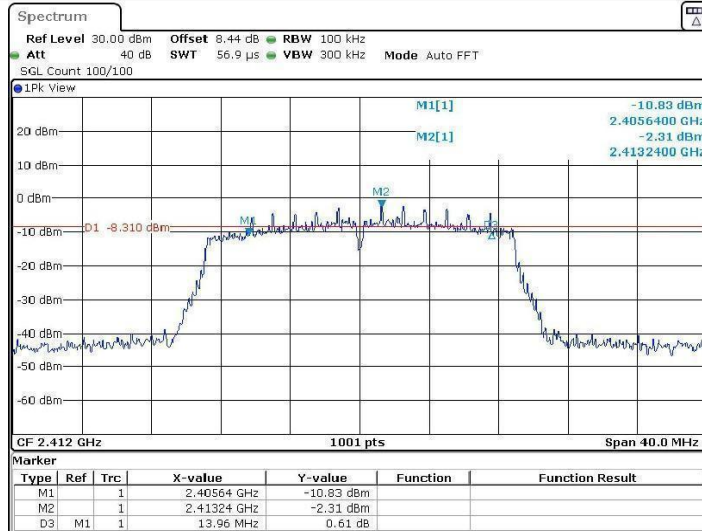
11G_Ant2_2437



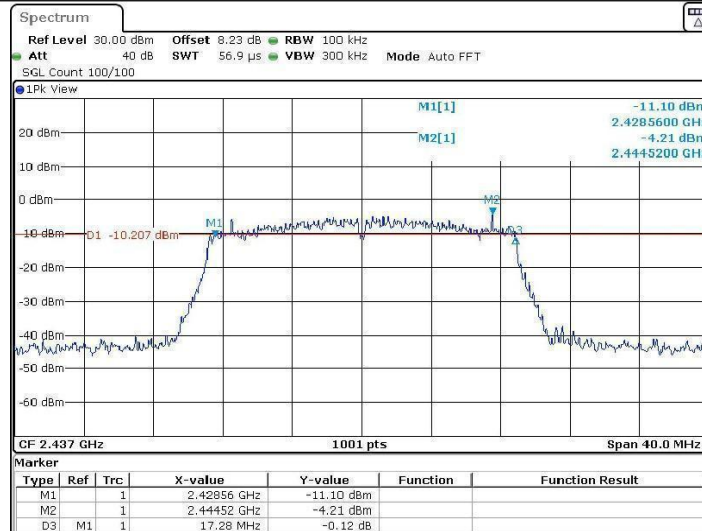
11G_Ant2_2462



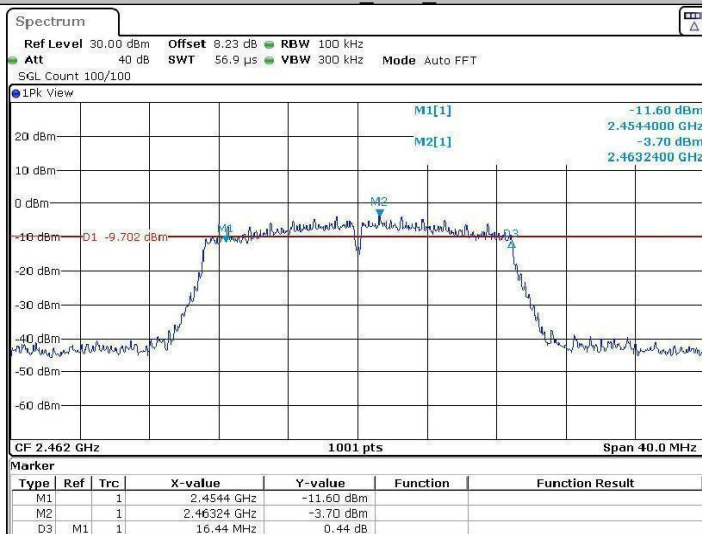
11N20SISO_Ant2_2412



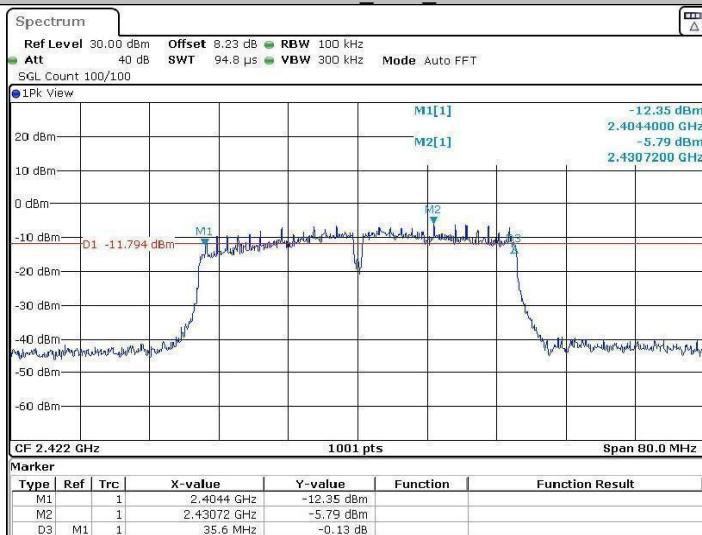
11N20SISO_Ant2_2437



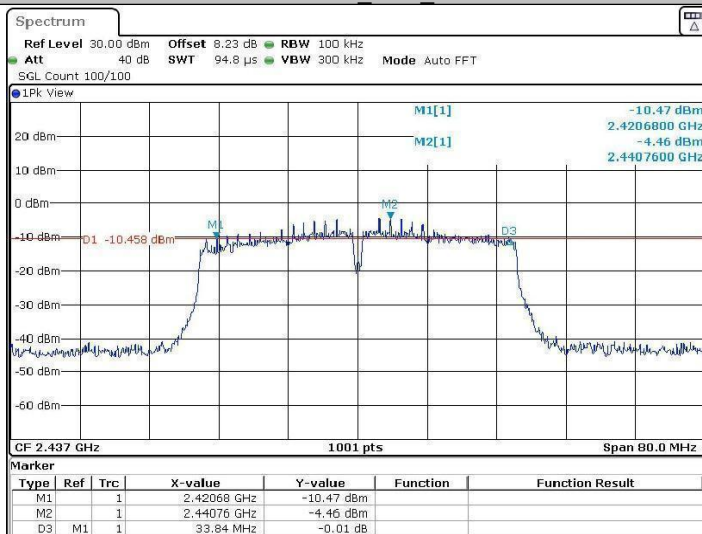
11N20SISO_Ant2_2462



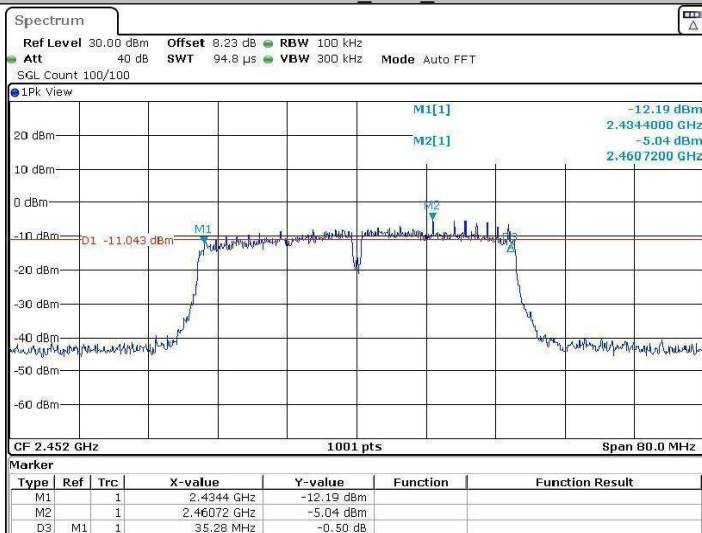
11N40SISO_Ant2_2422



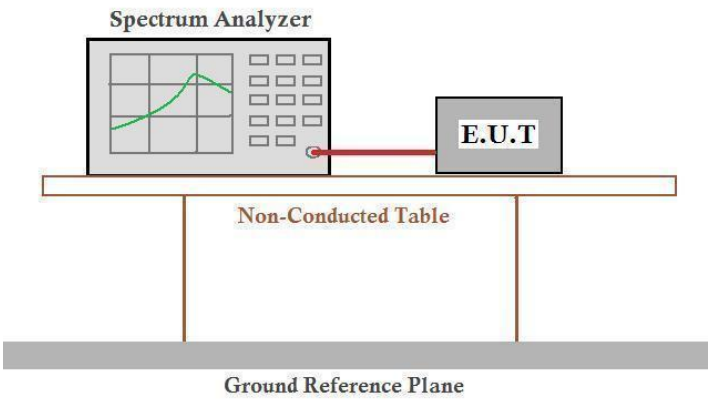
11N40SISO_Ant2_2437



11N40SISO_Ant2_2452



5.5 Power Spectral Density

Test Requirement:	47 CFR Part 15C Section 15.247 (e)
Test Method:	ANSI C63.10: 2013
Test Setup:	 Offset=cable loss+ attenuation factor
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates
Final Test Mode:	Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11b; 6Mbps of rate is the worst case of 802.11g; 6.5Mbps of rate is the worst case of 802.11n(HT20); 13.5Mbps of rate is the worst case of 802.11n(HT40). Only the worst case is recorded in the report.
Limit:	$\leq 8.00\text{dBm}/3\text{kHz}$
Test Results:	Pass

Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-18.62	≤8	PASS
		2437	-17.79	≤8	PASS
		2462	-16.99	≤8	PASS
11G	Ant1	2412	-18.26	≤8	PASS
		2437	-17.87	≤8	PASS
		2462	-18.5	≤8	PASS
11N20SISO	Ant1	2412	-20.38	≤8	PASS
		2437	-20.57	≤8	PASS
		2462	-20.72	≤8	PASS
11N40SISO	Ant1	2422	-20.69	≤8	PASS
		2437	-17.97	≤8	PASS
		2452	-18.81	≤8	PASS

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant2	2412	-22.88	≤8	PASS
		2437	-21.78	≤8	PASS
		2462	-21.76	≤8	PASS
11G	Ant2	2412	-22.66	≤8	PASS
		2437	-20.18	≤8	PASS
		2462	-24.37	≤8	PASS
11N20SISO	Ant2	2412	-22.66	≤8	PASS
		2437	-19.88	≤8	PASS
		2462	-24.41	≤8	PASS
11N40SISO	Ant2	2422	-23.22	≤8	PASS
		2437	-21.34	≤8	PASS
		2452	-20.8	≤8	PASS

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11N20MIMO	Ant1+Ant2	2412	-18.36	≤8	PASS
		2437	-17.20	≤8	PASS
		2462	-19.17	≤8	PASS
11N40MIMO	Ant1+Ant2	2422	-18.76	≤8	PASS
		2437	-16.33	≤8	PASS
		2452	-16.68	≤8	PASS

Note:

The antenna is Omni Directional Antenna.

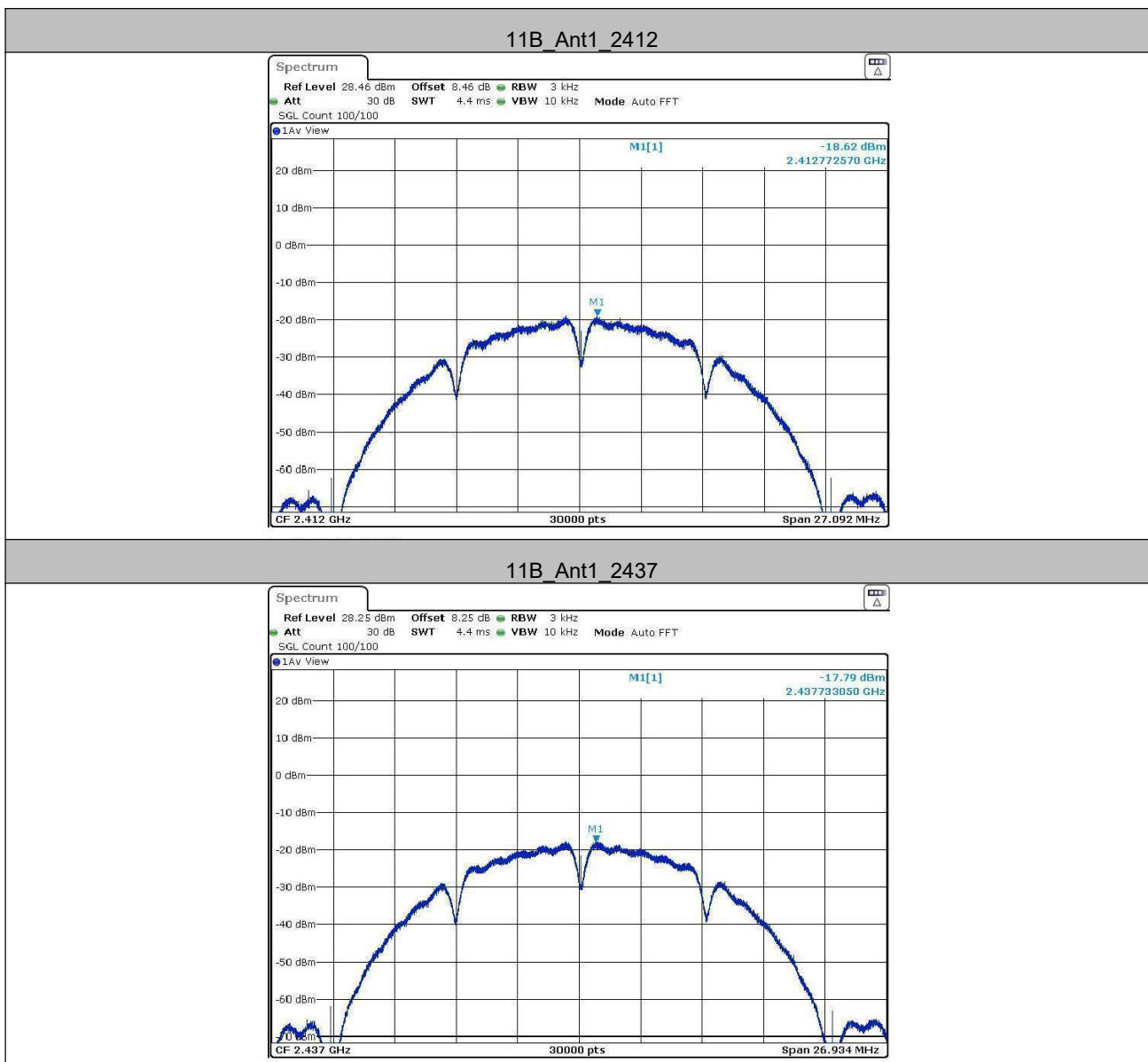
The best case gain of the ANT1 is 2.58dBi. The best case gain of the ANT2 is 2.58dBi.

MIMO mode:the antenna gain is 5.59dBi.

Transmit signals are correlated with each other,

Directional gain= $G_{ANT}+10\log(N_{ANT})$ dBi=2.58+10log(2)dBi=5.59dBi

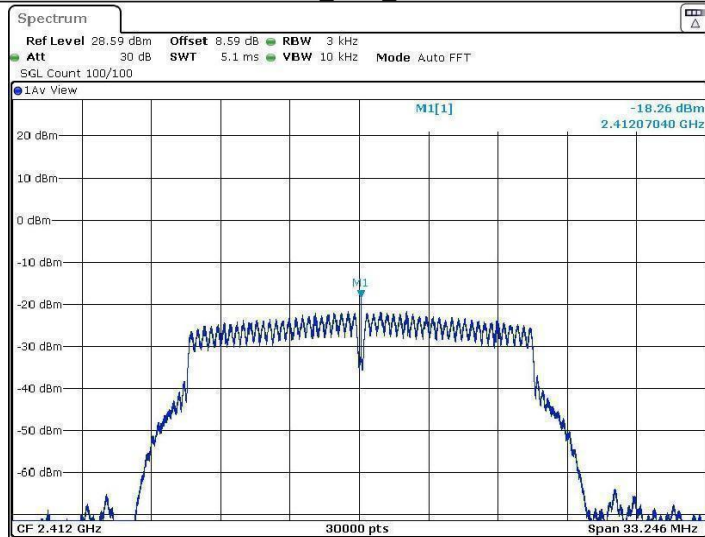
Test Graphs



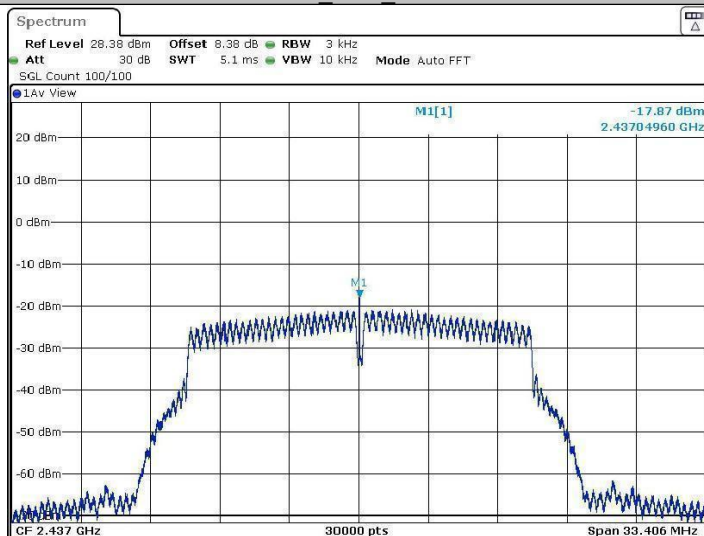
11B_Ant1_2462



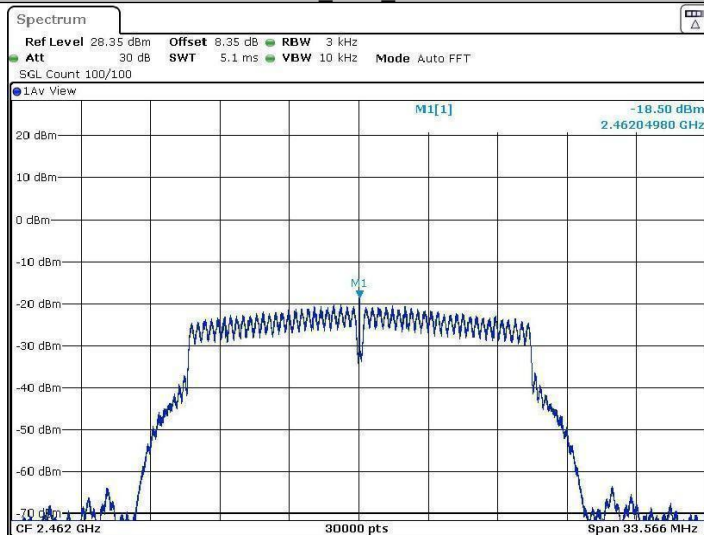
11G_Ant1_2412



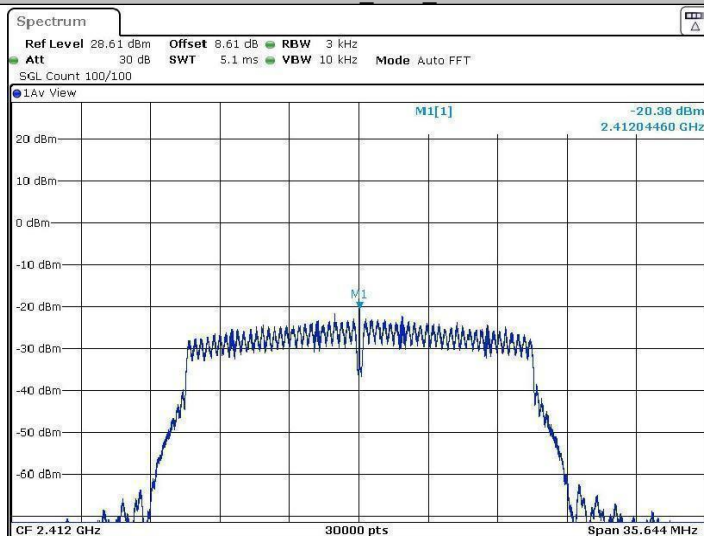
11G_Ant1_2437



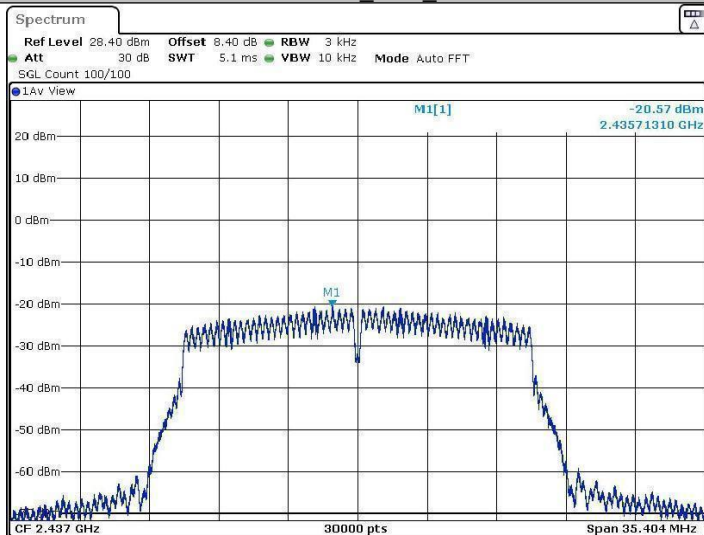
11G_Ant1_2462



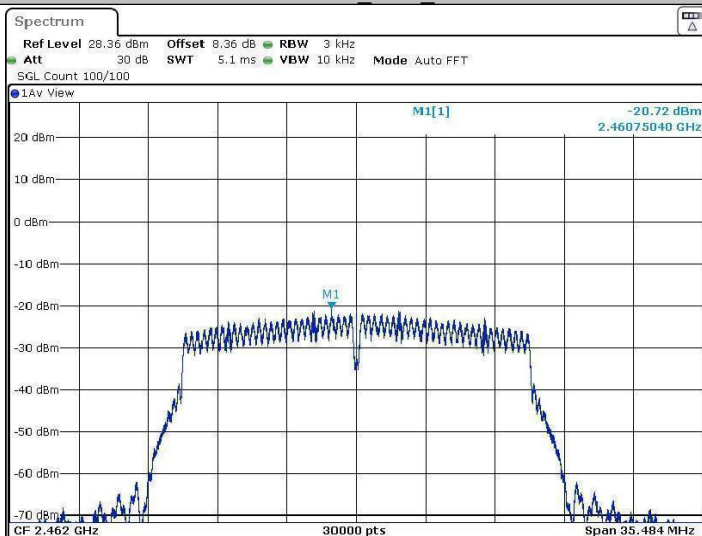
11N20SISO_Ant1_2412



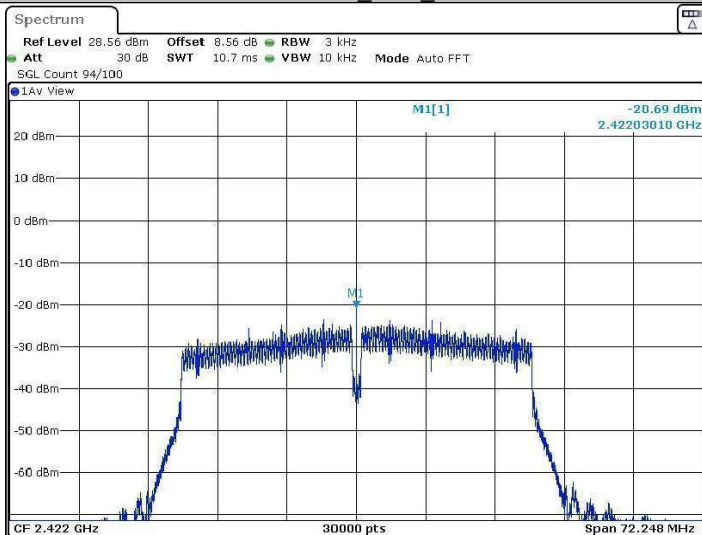
11N20SISO_Ant1_2437



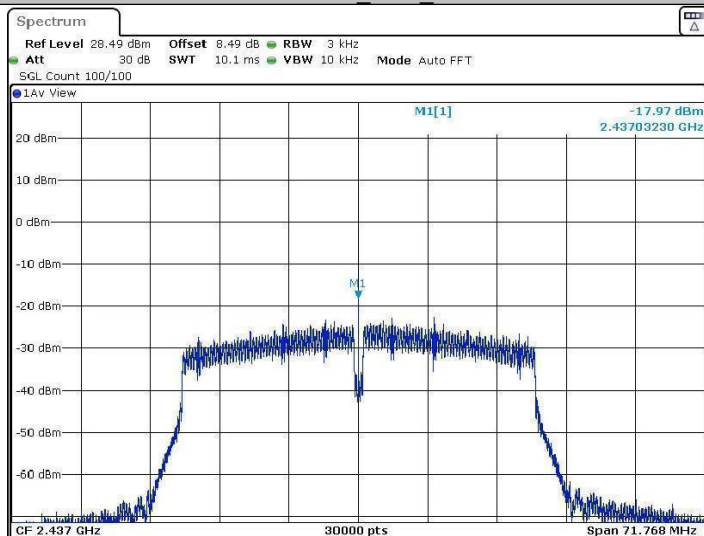
11N20SISO_Ant1_2462



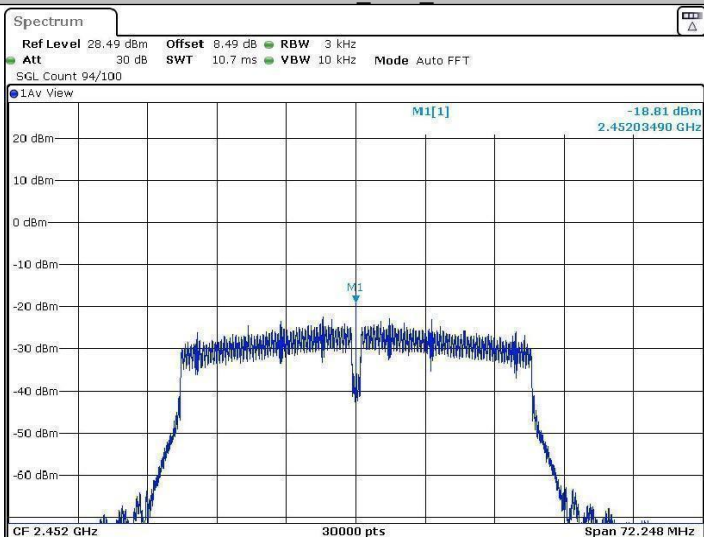
11N40SISO_Ant1_2422



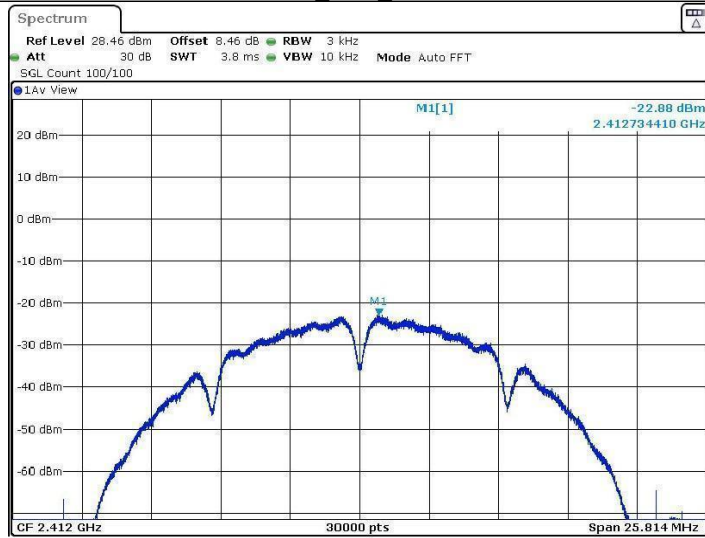
11N40SISO_Ant1_2437



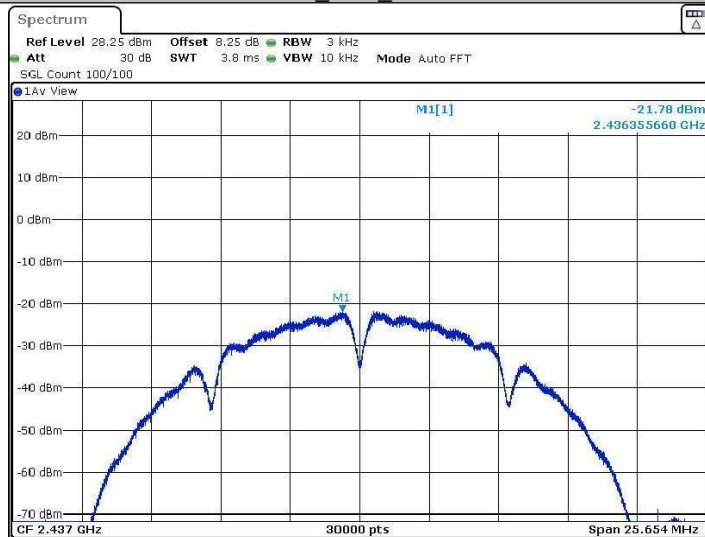
11N40SISO_Ant1_2452



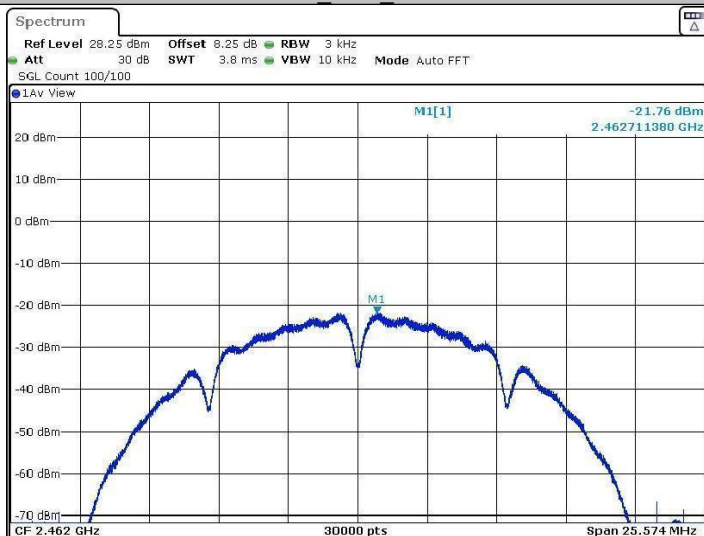
11B_Ant2_2412



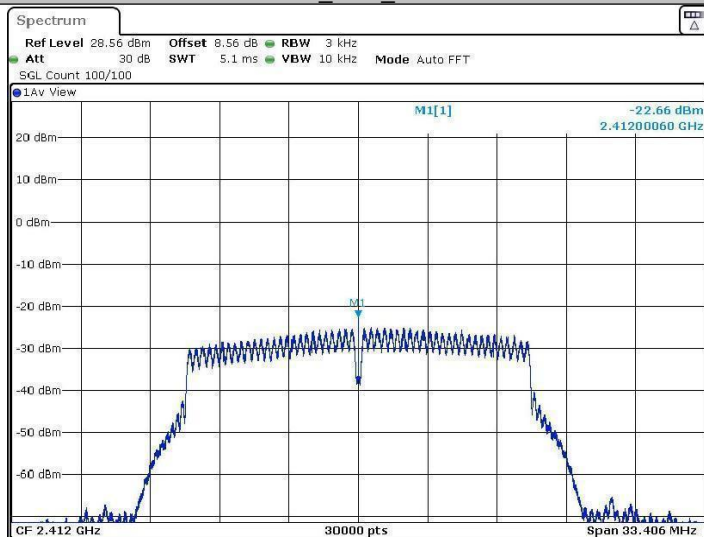
11B_Ant2_2437



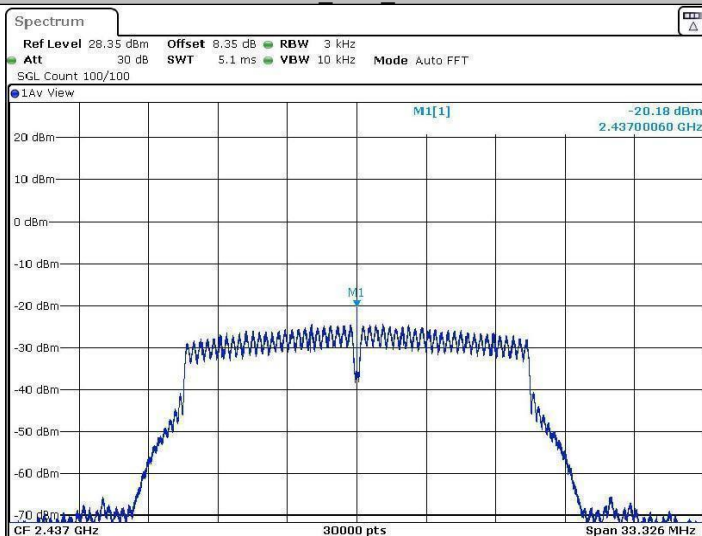
11B_Ant2_2462



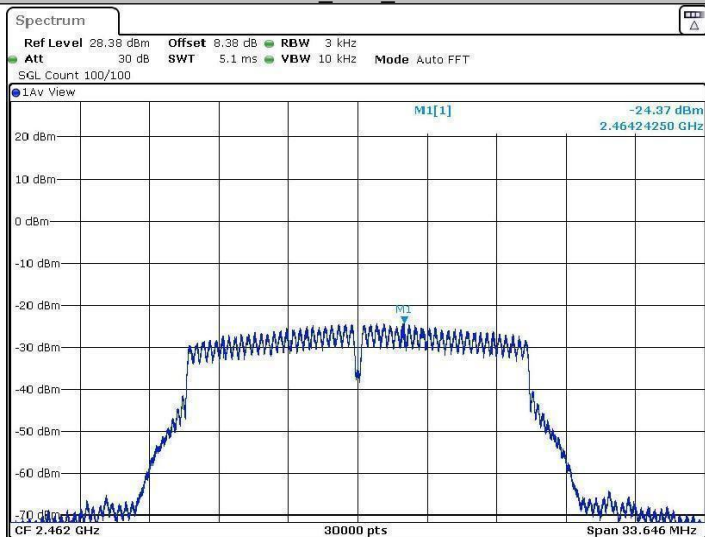
11G_Ant2_2412



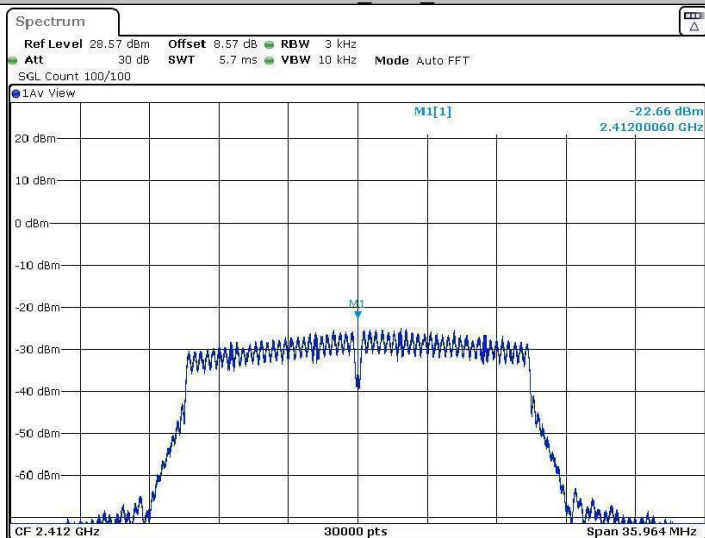
11G_Ant2_2437



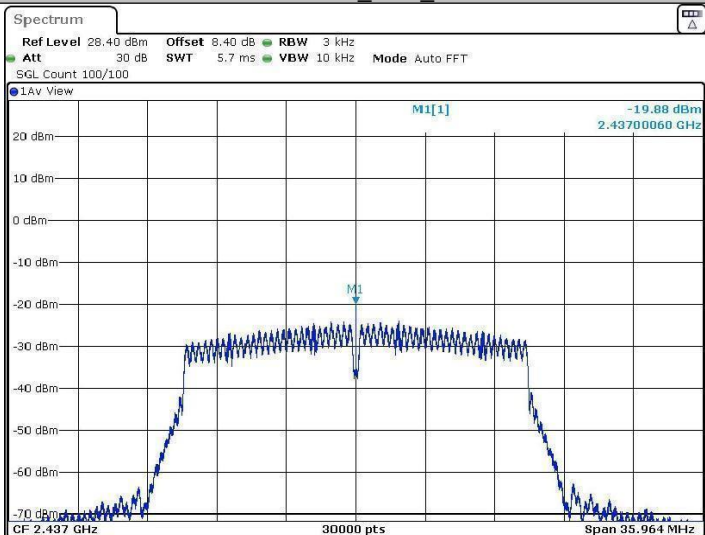
11G_Ant2_2462



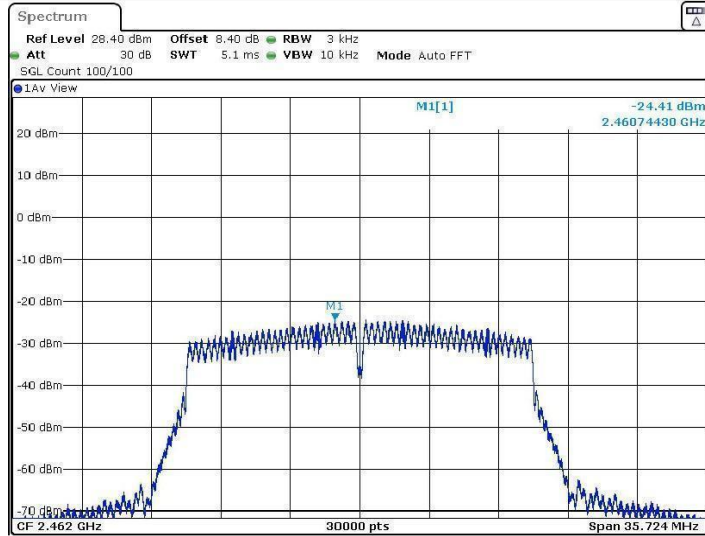
11N20SISO_Ant2_2412



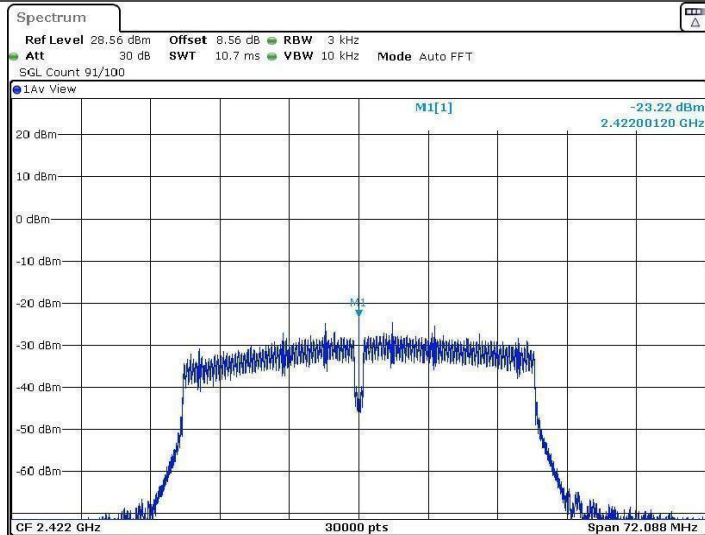
11N20SISO_Ant2_2437



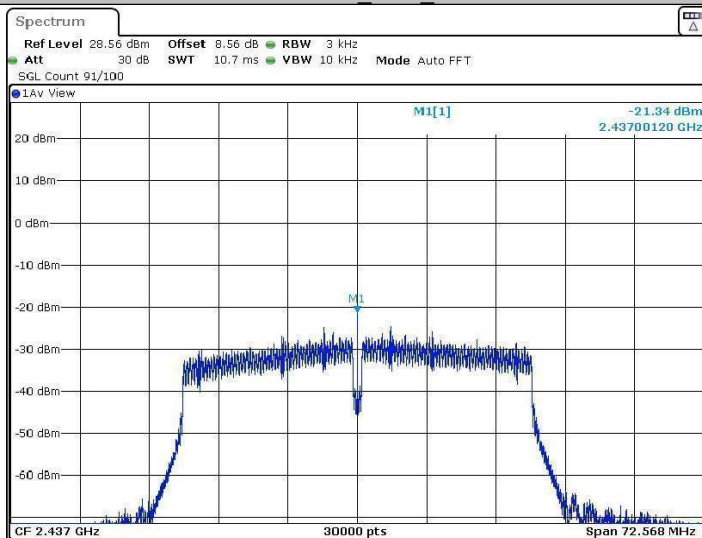
11N20SISO_Ant2_2462



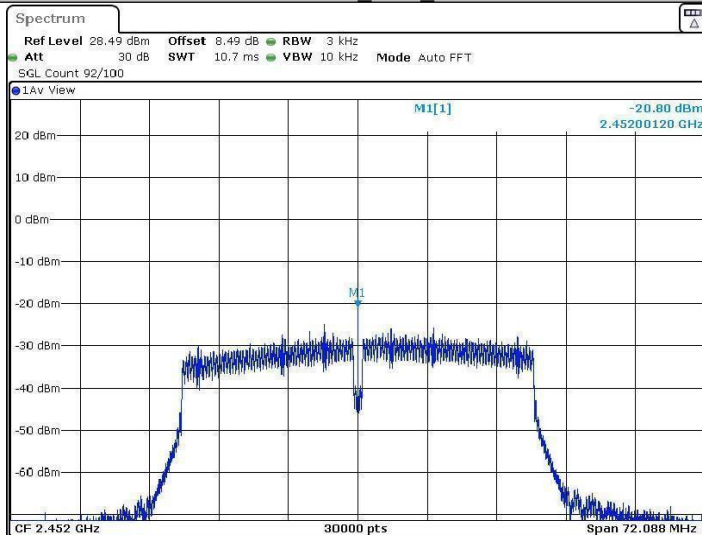
11N40SISO_Ant2_2422



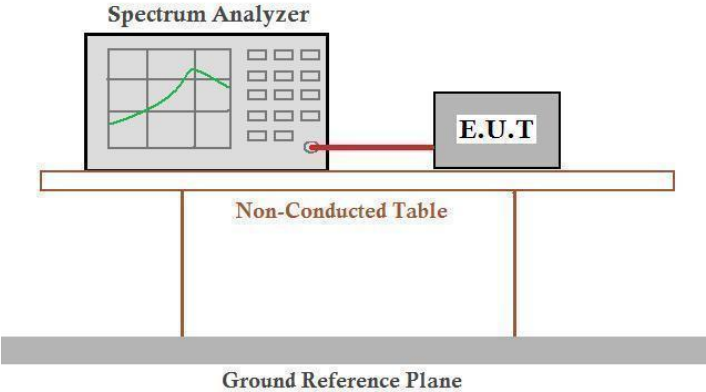
11N40SISO_Ant2_2437



11N40SISO_Ant2_2452



5.6 Band-edge for RF Conducted Emissions

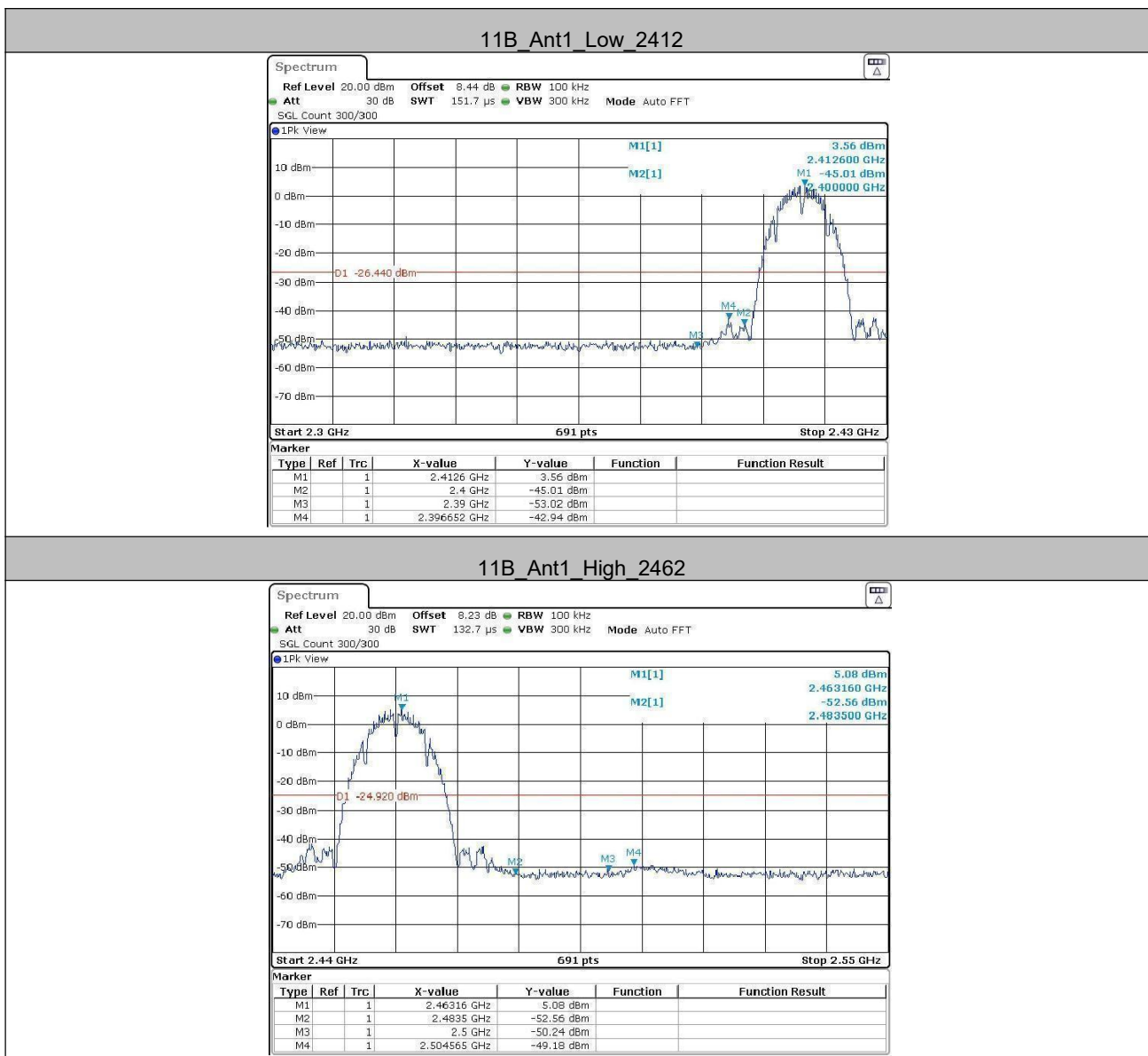
Test Requirement:	47 CFR Part 15C Section 15.247 (d)
Test Method:	ANSI C63.10: 2013
Test Setup:	 Offset=cable loss+ attenuation factor
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates
Final Test Mode:	Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11b; 6Mbps of rate is the worst case of 802.11g; 6.5Mbps of rate is the worst case of 802.11n(HT20); 13.5Mbps of rate is the worst case of 802.11n(HT40). Only the worst case is recorded in the report.
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.
Test Results:	Pass

Test Result

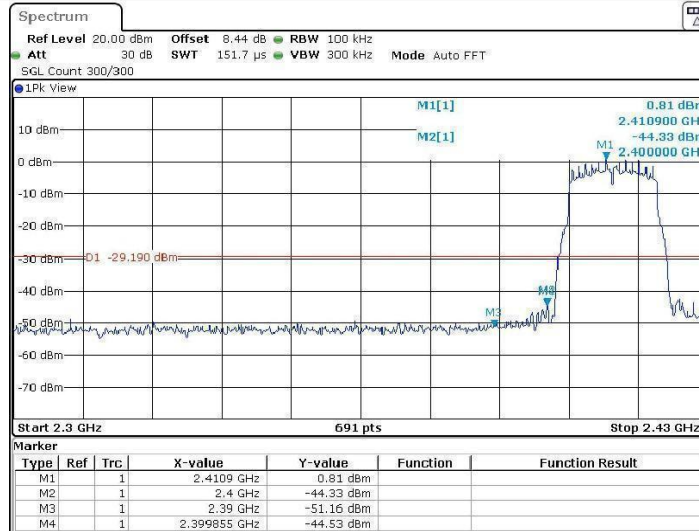
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	3.56	-42.94	≤-26.44	PASS
		High	2462	5.08	-49.18	≤-24.92	PASS
11G	Ant1	Low	2412	0.81	-44.53	≤-29.19	PASS
		High	2462	2.05	-49.33	≤-27.95	PASS
11N20SISO	Ant1	Low	2412	-0.55	-45.36	≤-30.55	PASS
		High	2462	0.81	-49.06	≤-29.19	PASS
11N40SISO	Ant1	Low	2422	-1.68	-40.85	≤-31.68	PASS
		High	2452	-0.67	-46.31	≤-30.67	PASS

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant2	Low	2412	-0.24	-49.22	≤-30.24	PASS
		High	2462	1.01	-48.65	≤-28.99	PASS
11G	Ant2	Low	2412	-5.28	-43.46	≤-35.28	PASS
		High	2462	-1.70	-49.62	≤-31.7	PASS
11N20SISO	Ant2	Low	2412	-2.46	-43.8	≤-32.46	PASS
		High	2462	-2.21	-48.54	≤-32.21	PASS
11N40SISO	Ant2	Low	2422	-4.35	-44.46	≤-34.35	PASS
		High	2452	-4.17	-41.08	≤-34.17	PASS

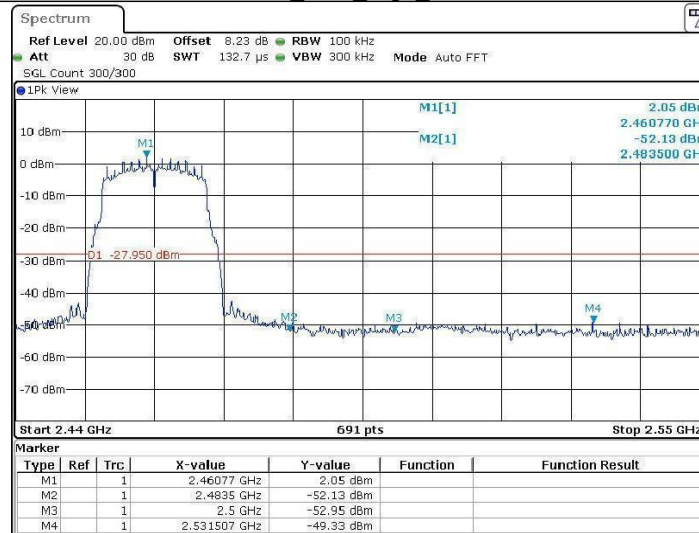
5.6.1 Test Graphs



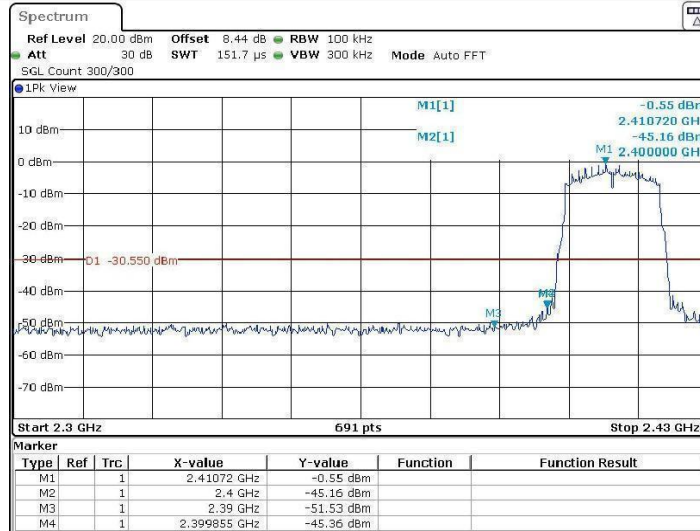
11G_Ant1_Low_2412



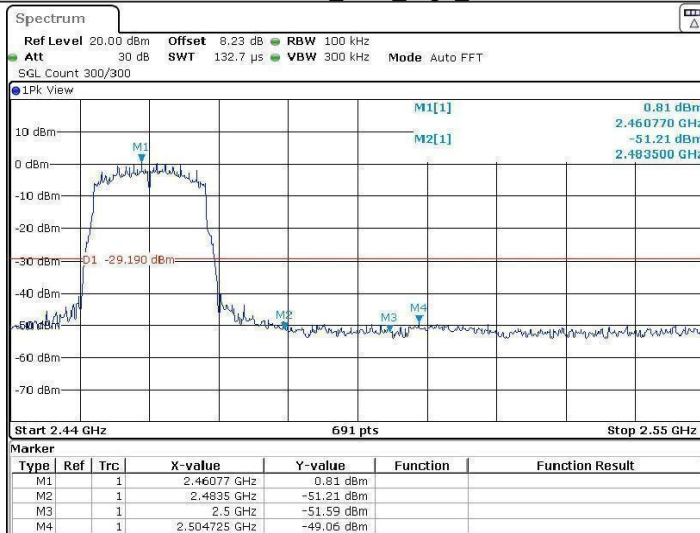
11G_Ant1_High_2462



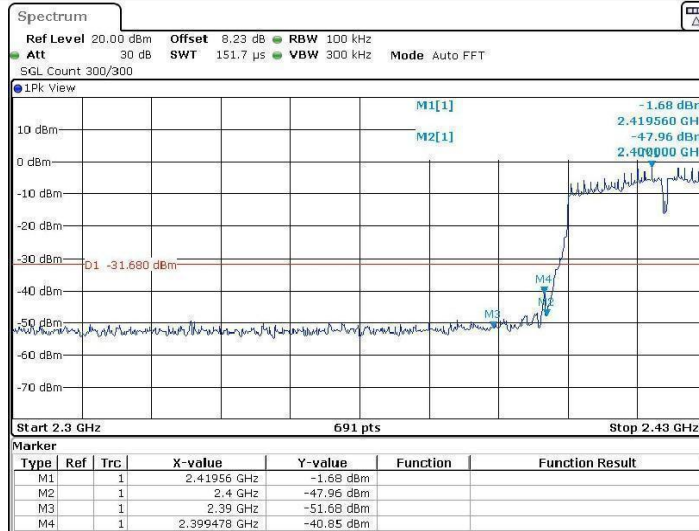
11N20SISO_Ant1_Low_2412



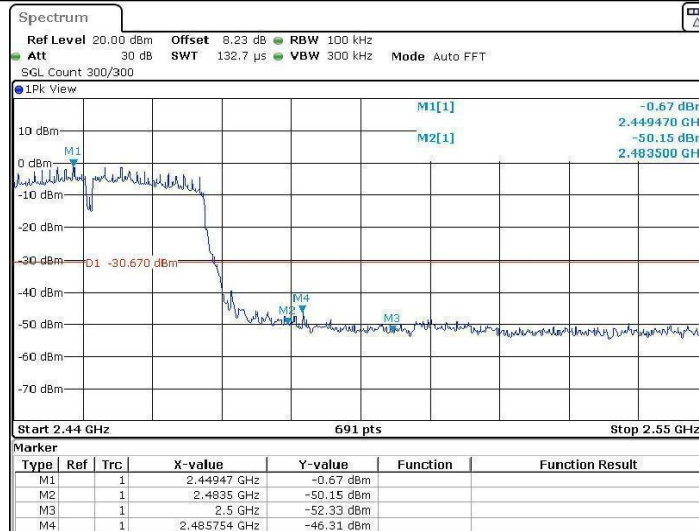
11N20SISO_Ant1_High_2462



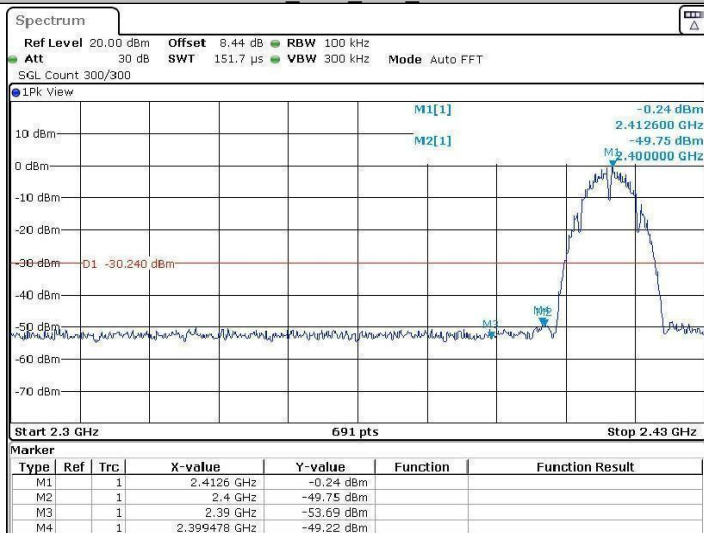
11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452



11B_Ant2_Low_2412



11B_Ant2_High_2462

