



(Plot 6.6.1 D: Channel 1: 2412MHz @ 802.11b)



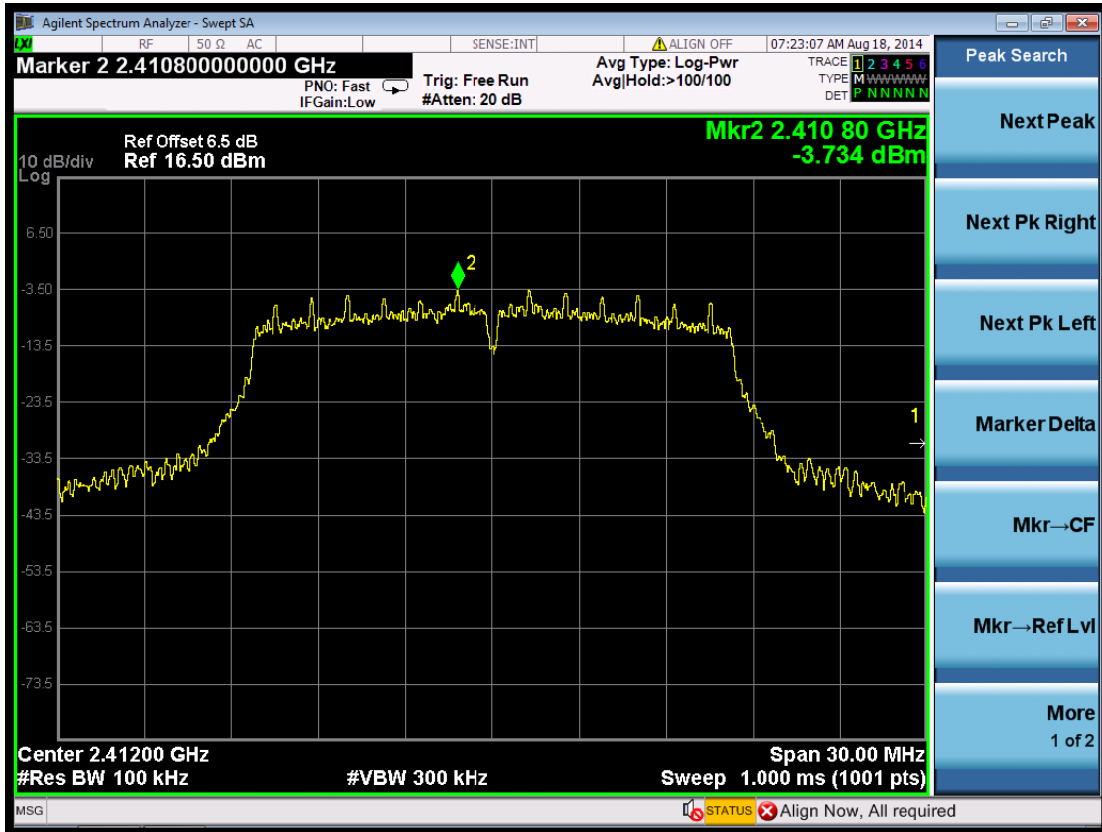
(Plot 6.6.1 E: Channel 11: 2462MHz @ 802.11b)

6.6.2 802.11g Test Mode
A. Test Verdict

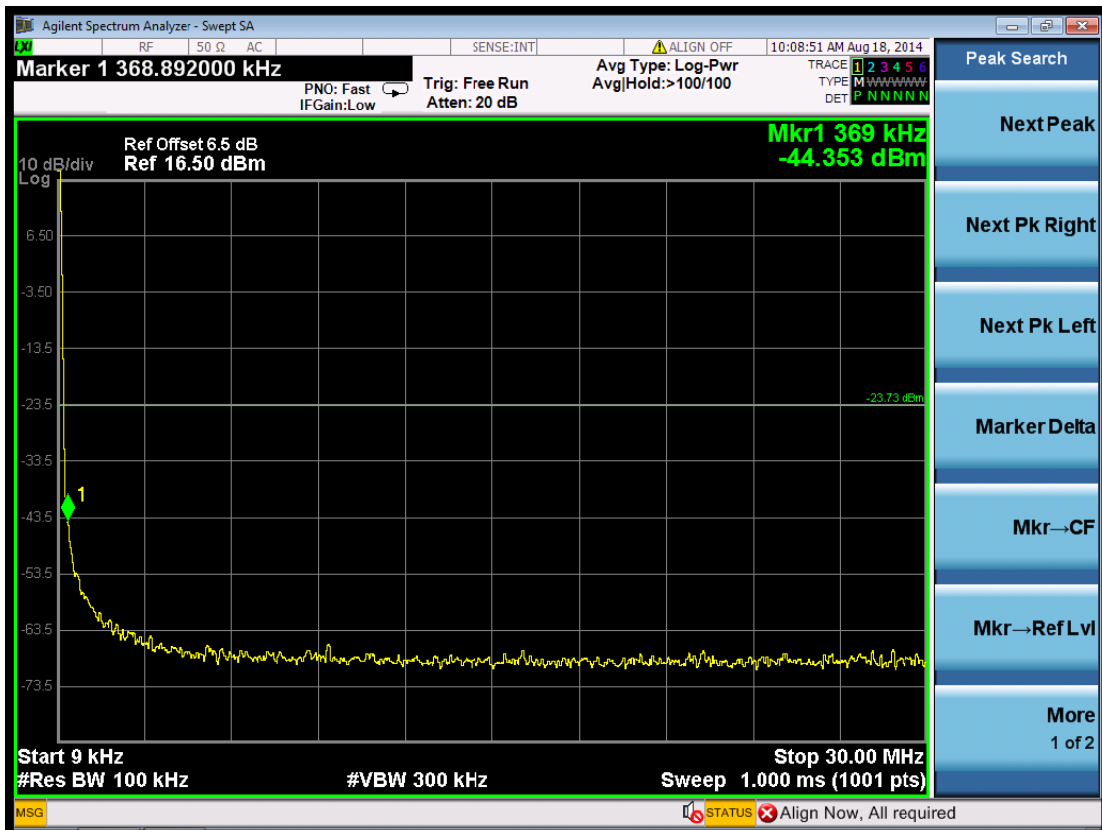
Channel	Frequency (MHz)	Frequency Range	Refer to Plot	Limit (dBc)	Verdict
1	2412	2.412 GHz	Plot 6.6.2 A1	---	PASS
		9KHz-30MHz	Plot 6.6.2 A2	-20	PASS
		30MHz-3GHz	Plot 6.6.2 A3	-20	PASS
		3GHz-9GHz	Plot 6.6.2 A4	-20	PASS
		9GHz-15GHz	Plot 6.6.2 A5	-20	PASS
		15GHz-20GHz	Plot 6.6.2 A6	-20	PASS
		20GHz-25GHz	Plot 6.6.2 A7	-20	PASS
6	2437	2.437 GHz	Plot 6.6.2 B1	---	PASS
		9KHz-30MHz	Plot 6.6.2 B2	-20	PASS
		30MHz-3GHz	Plot 6.6.2 B3	-20	PASS
		3GHz-9GHz	Plot 6.6.2 B4	-20	PASS
		9GHz-15GHz	Plot 6.6.2 B5	-20	PASS
		15GHz-20GHz	Plot 6.6.2 B6	-20	PASS
		20GHz-25GHz	Plot 6.6.2 B7	-20	PASS
11	2462	2.462 GHz	Plot 6.6.2 C1	---	PASS
		9KHz-30MHz	Plot 6.6.2 C2	-20	PASS
		30MHz-3GHz	Plot 6.6.2 C3	-20	PASS
		3GHz-9GHz	Plot 6.6.2 C4	-20	PASS
		9GHz-15GHz	Plot 6.6.2 C5	-20	PASS
		15GHz-20GHz	Plot 6.6.2 C6	-20	PASS
		20GHz-25GHz	Plot 6.6.2 C7	-20	PASS

Frequency (MHz)	Delta Peak to Band emission (dBc)	Detector	Limit (dBc)	Refer to Plot	Verdict
2400.00	-29.051	Peak	-20	Plot 6.6.2 D	PASS
2483.50	-45.033	Peak	-20	Plot 6.6.2 E	PASS

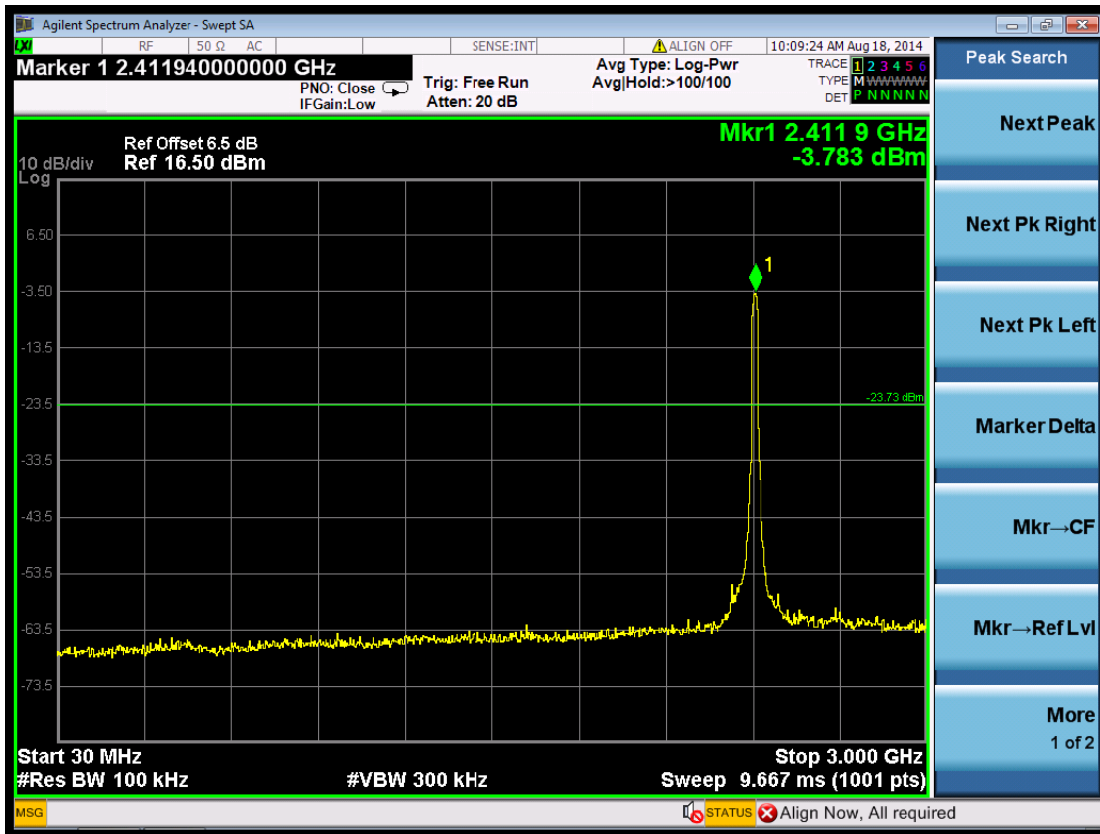
- Note: 1. For 802.11g mode at final test to get the worst-case emission at 6Mbps.
 2. The test results including the cable loss.



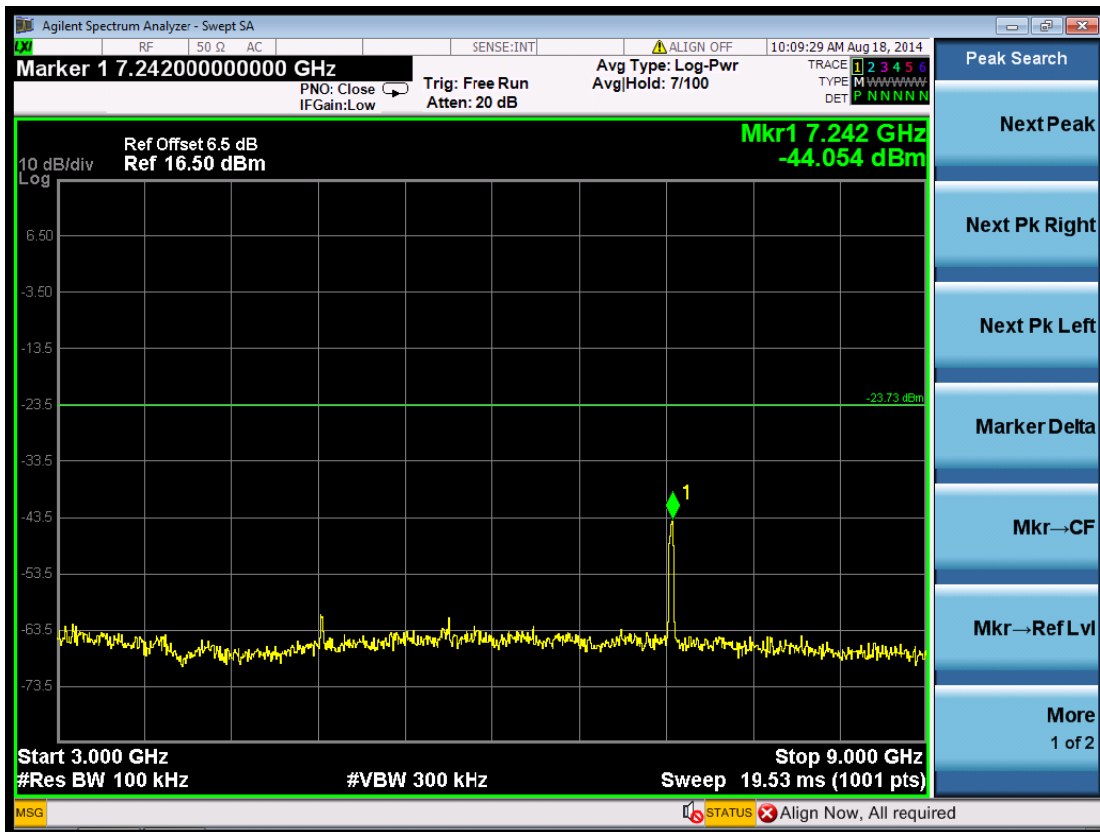
(Plot 6.6.2 A1: Channel 1: 2412MHz @ 802.11g)



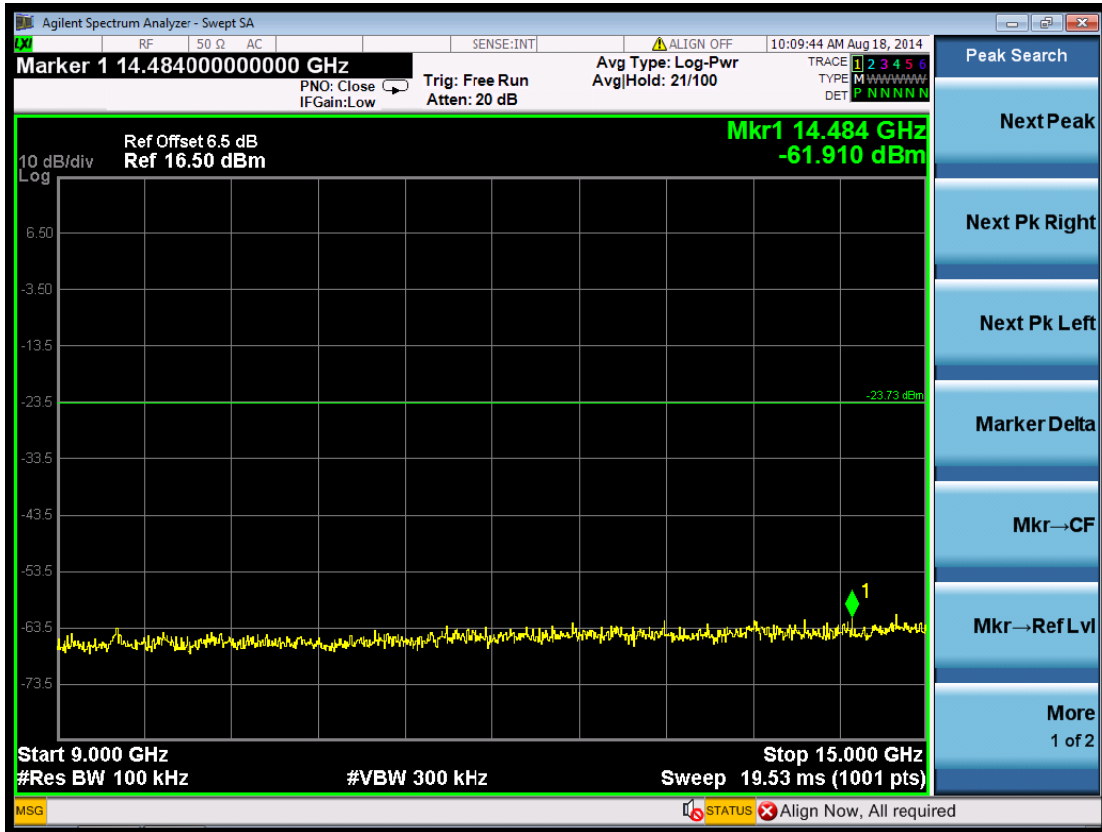
(Plot 6.6.2 A2: Channel 1: 2412MHz @ 802.11g)



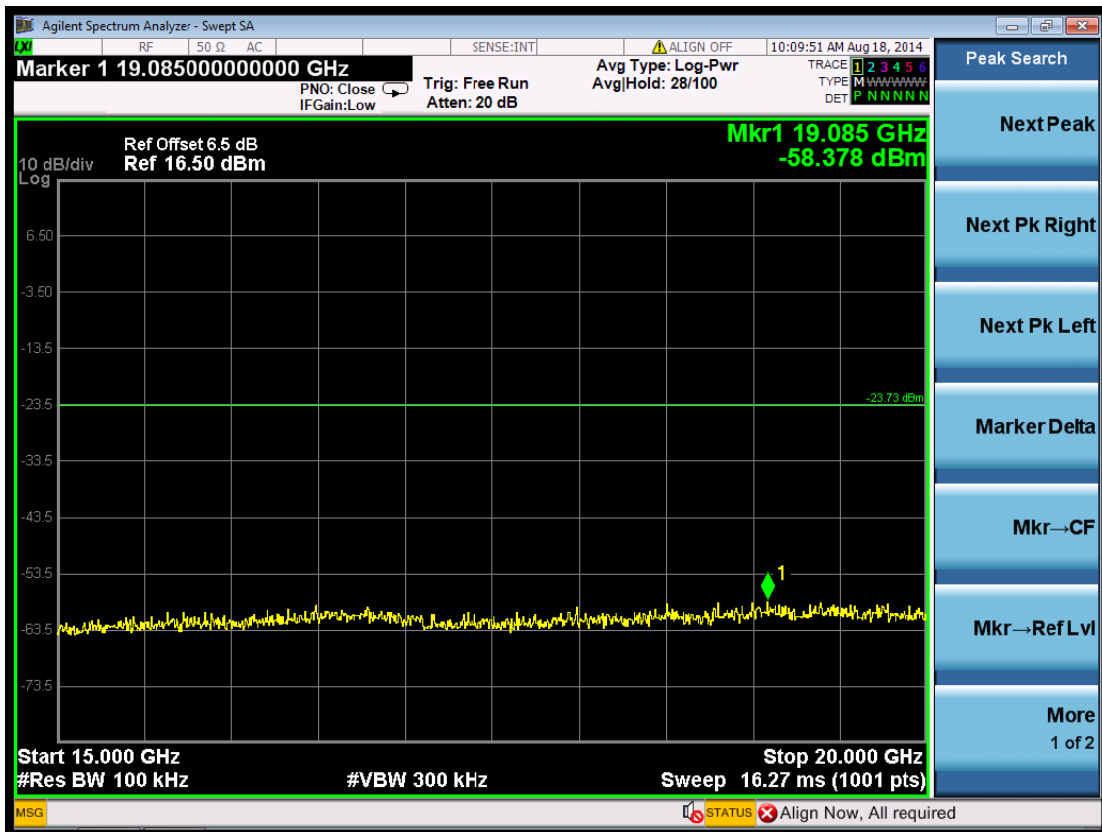
(Plot 6.6.2 A3: Channel 1: 2412MHz @ 802.11g)



(Plot 6.6.2 A4: Channel 1: 2412MHz @ 802.11g)



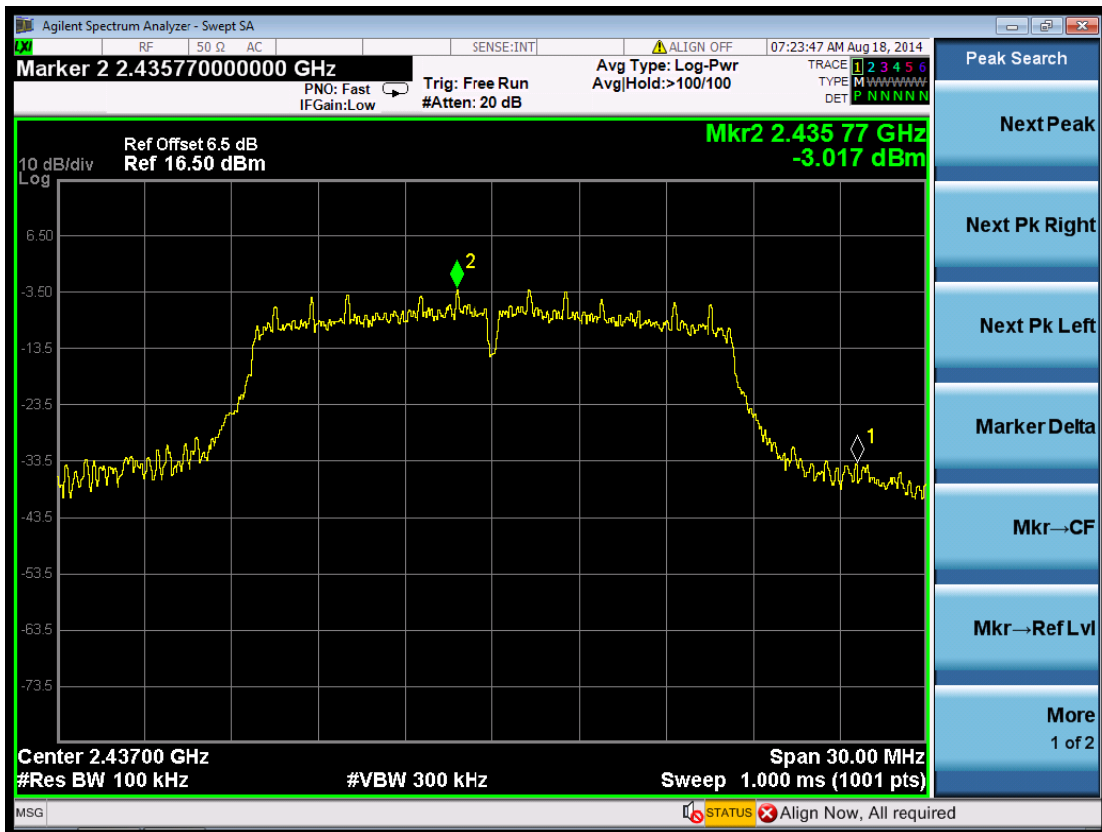
(Plot 6.6.2 A5: Channel 1: 2412MHz @ 802.11g)



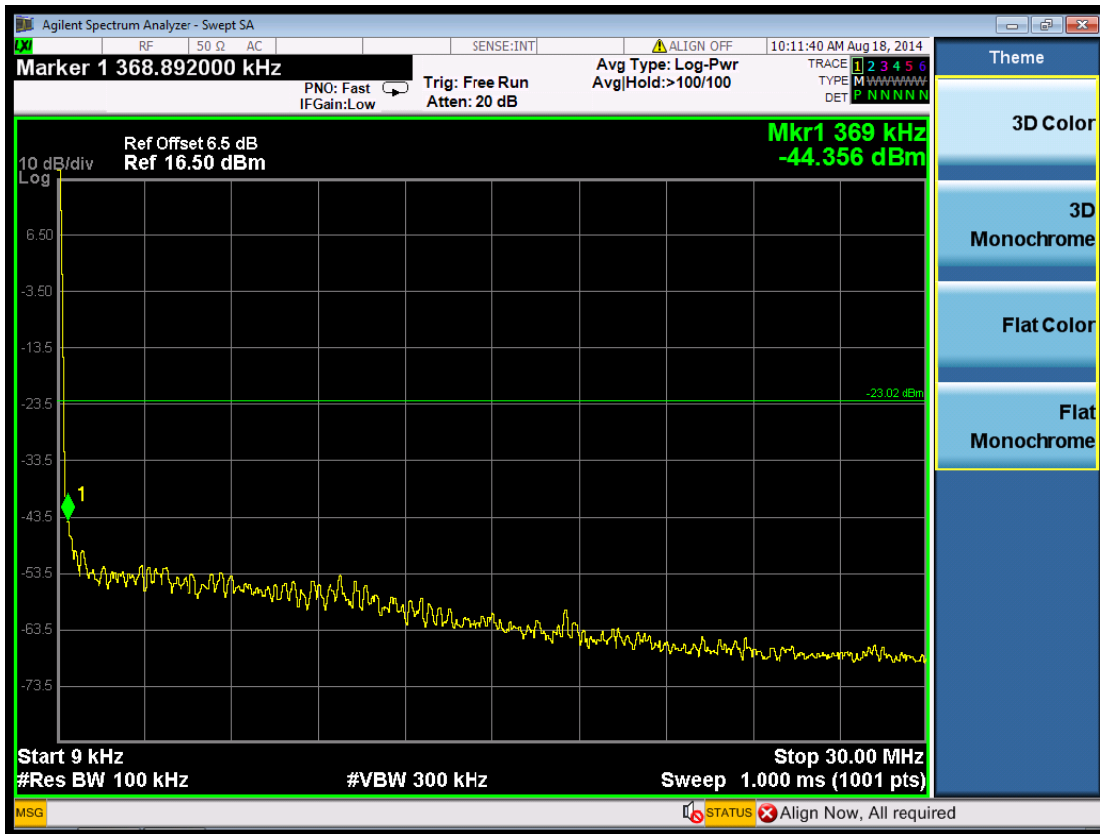
(Plot 6.6.2 A6: Channel 1: 2412MHz @ 802.11g)



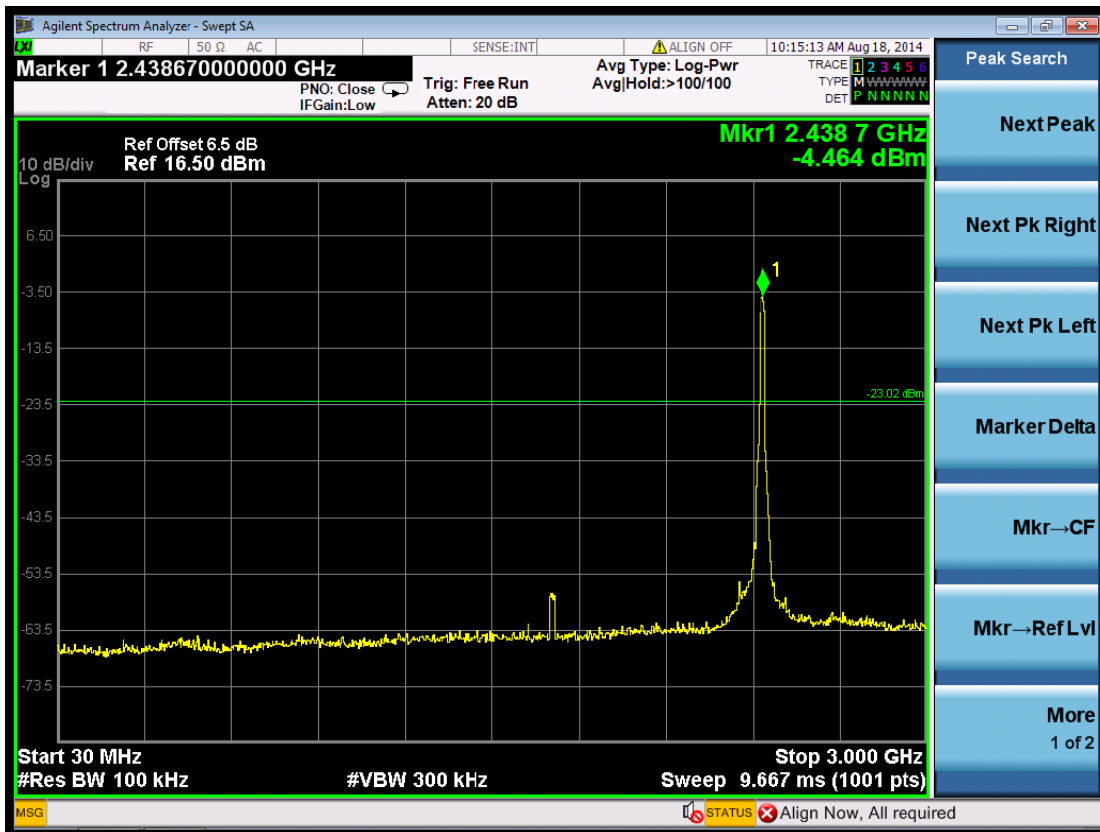
(Plot 6.6.2 A7: Channel 1: 2412MHz @ 802.11g)



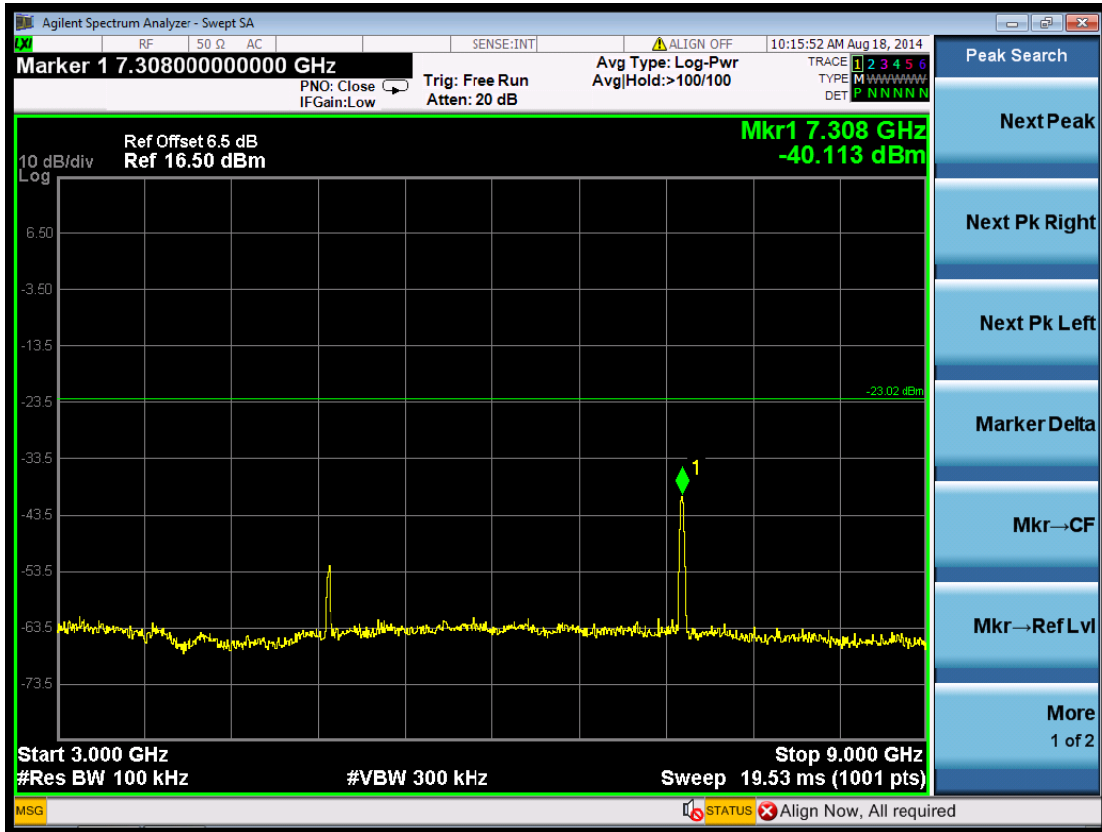
(Plot 6.6.2 B1: Channel 6: 2437MHz @ 802.11g)



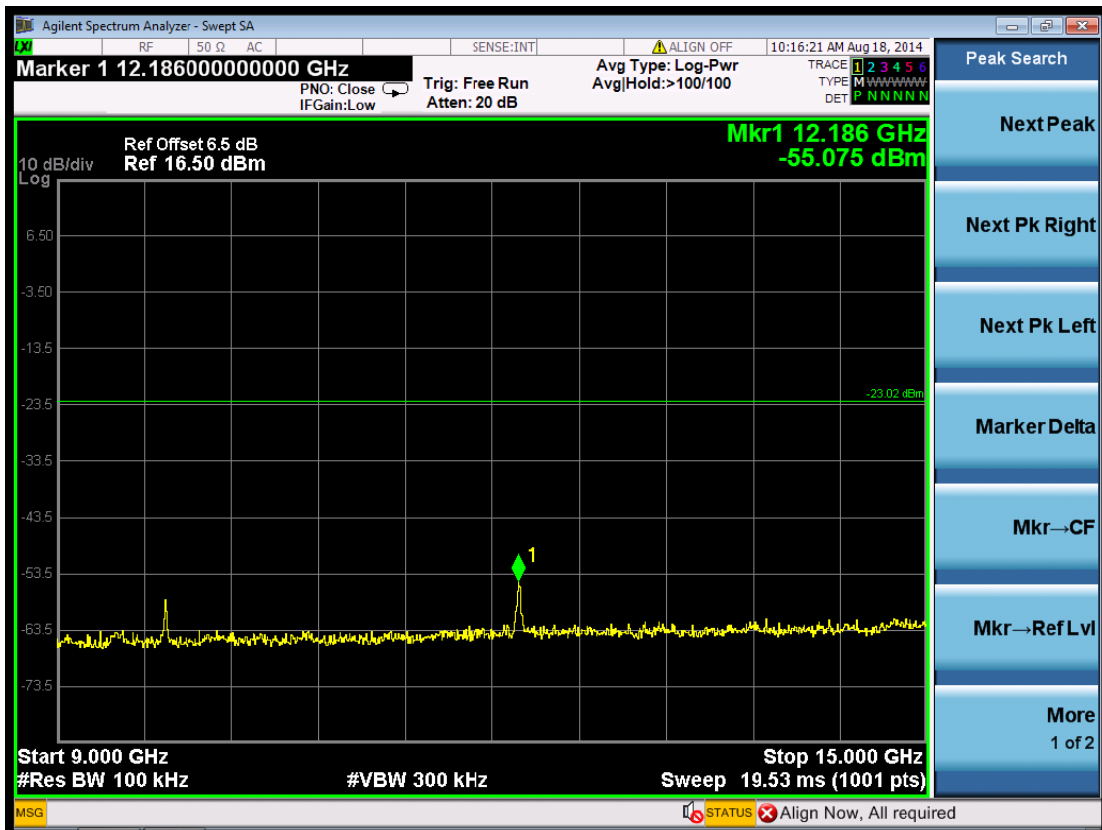
(Plot 6.6.2 B2: Channel 6: 2437MHz @ 802.11g)



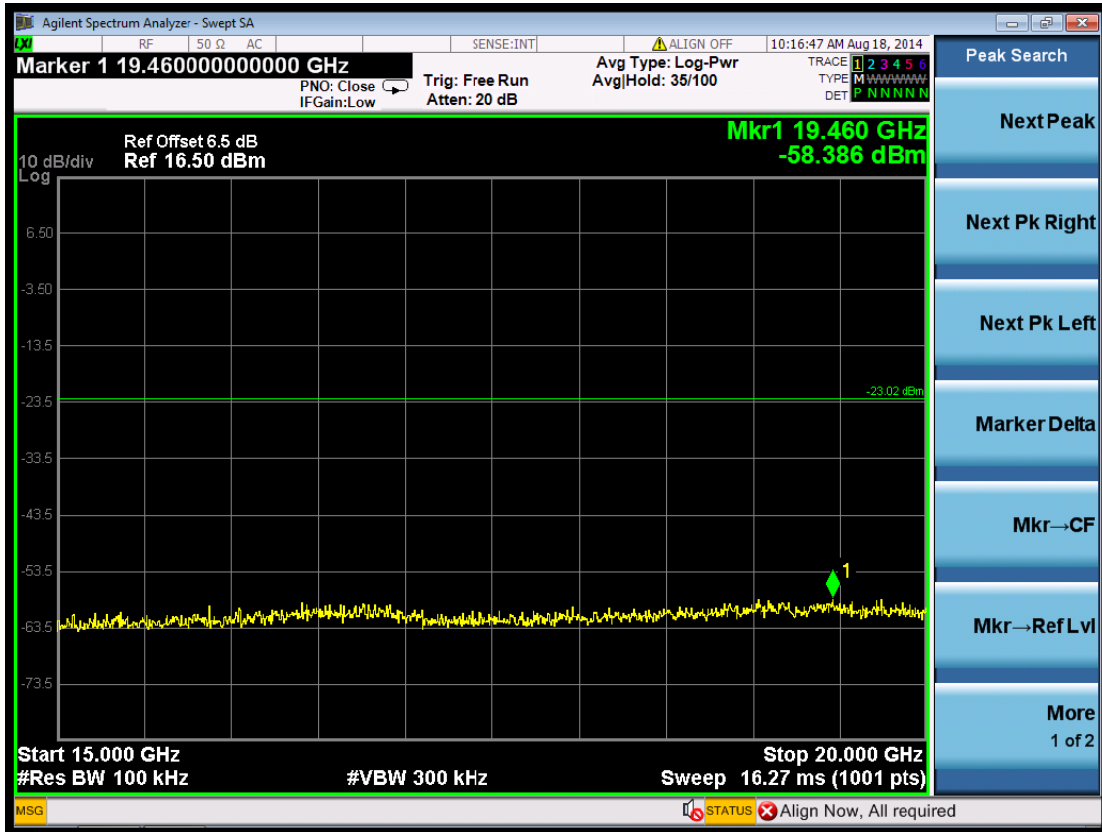
(Plot 6.6.2 B3: Channel 6: 2437MHz @ 802.11g)



(Plot 6.6.2 B4: Channel 6: 2437MHz @ 802.11g)



(Plot 6.6.2 B5: Channel 6: 2437MHz @ 802.11g)



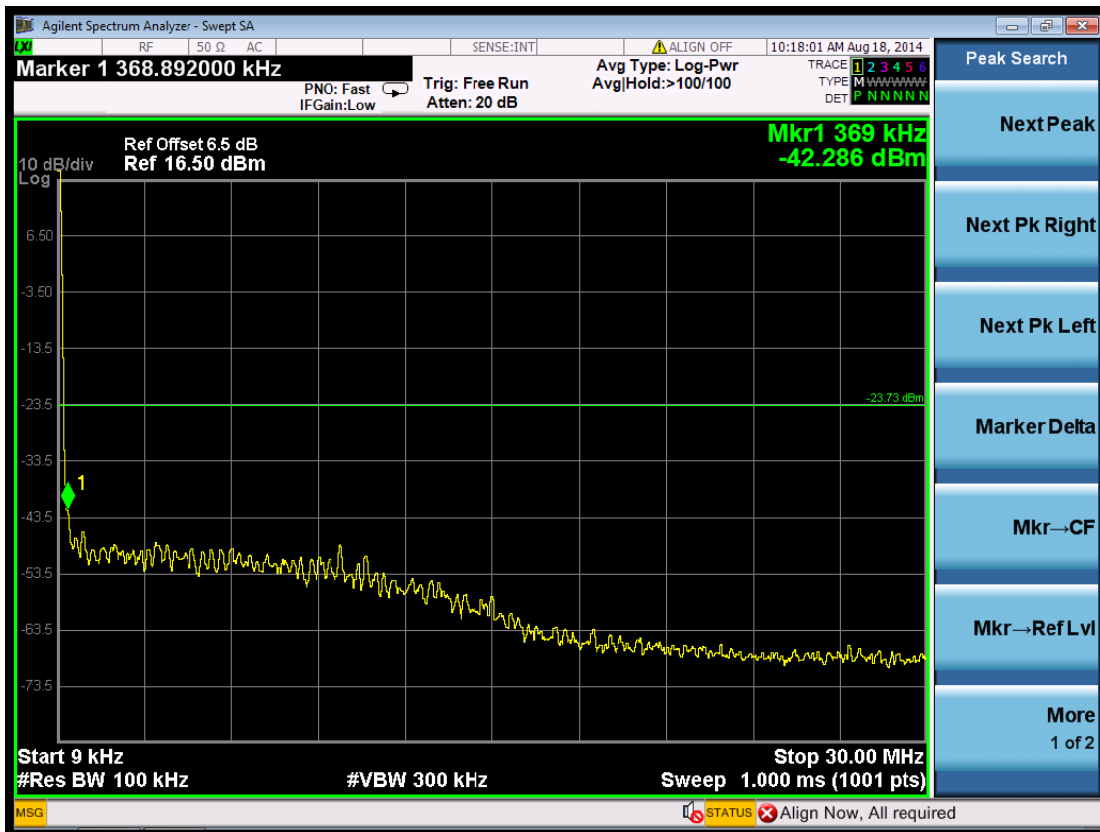
(Plot 6.6.2 B6: Channel 6: 2437MHz @ 802.11g)



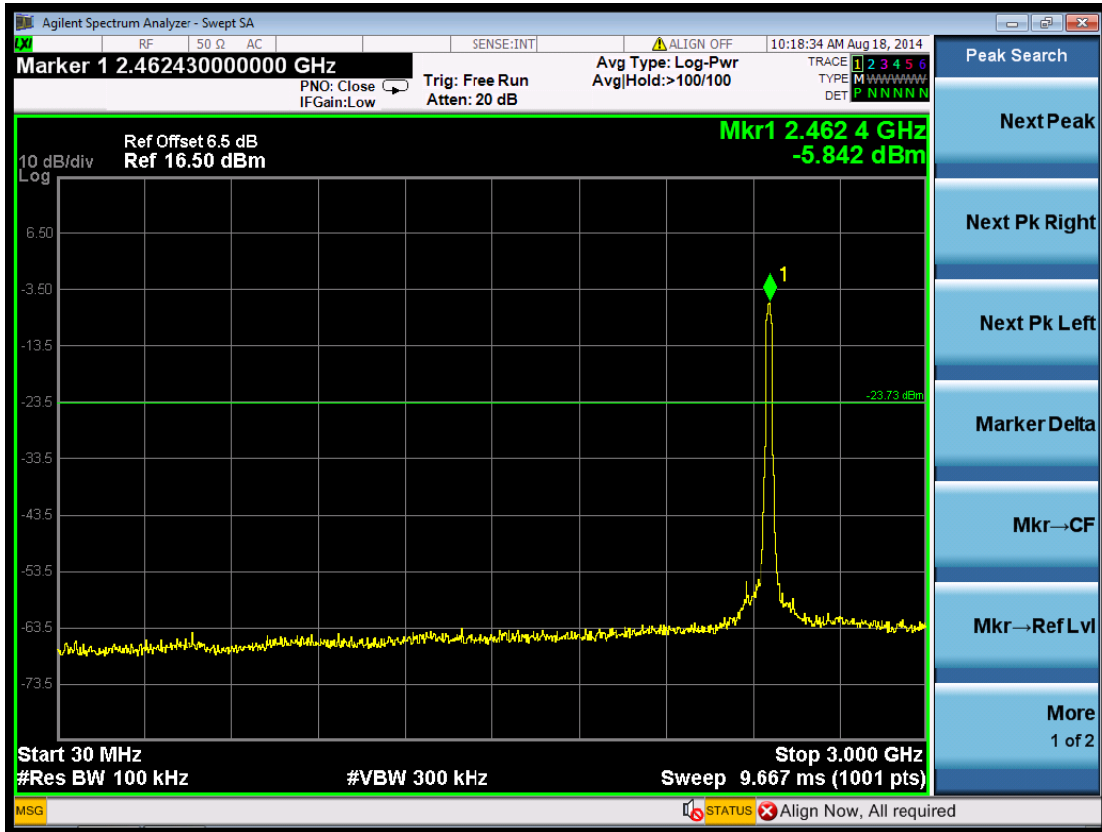
(Plot 6.6.2 B7: Channel 6: 2437MHz @ 802.11g)



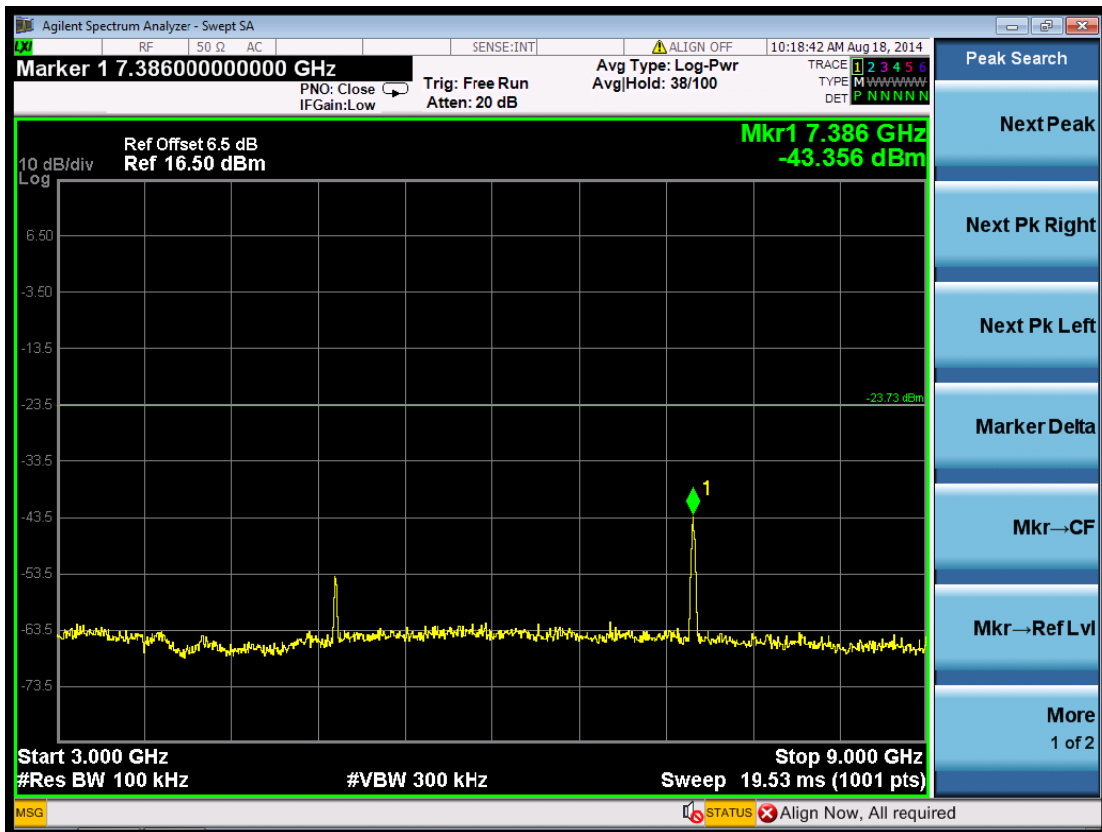
(Plot 6.6.2 C1: Channel 11: 2462MHz @ 802.11g)



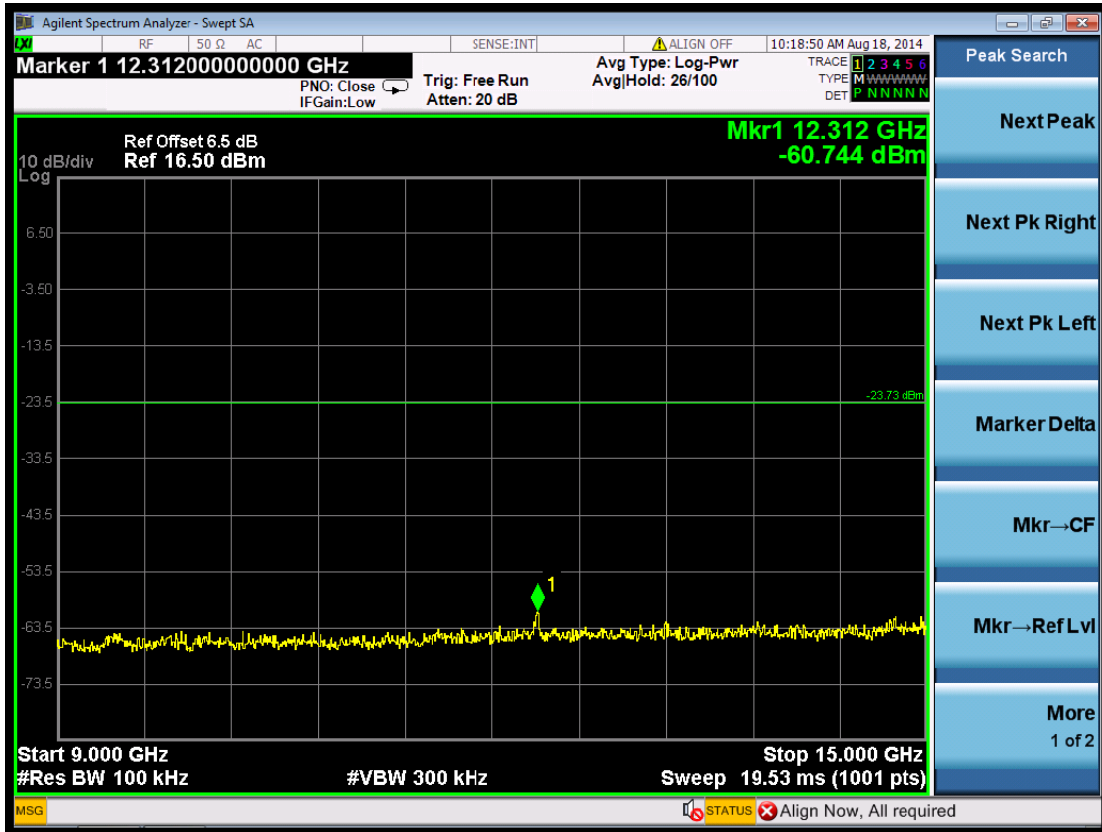
(Plot 6.6.2 C2: Channel 11: 2462MHz @ 802.11g)



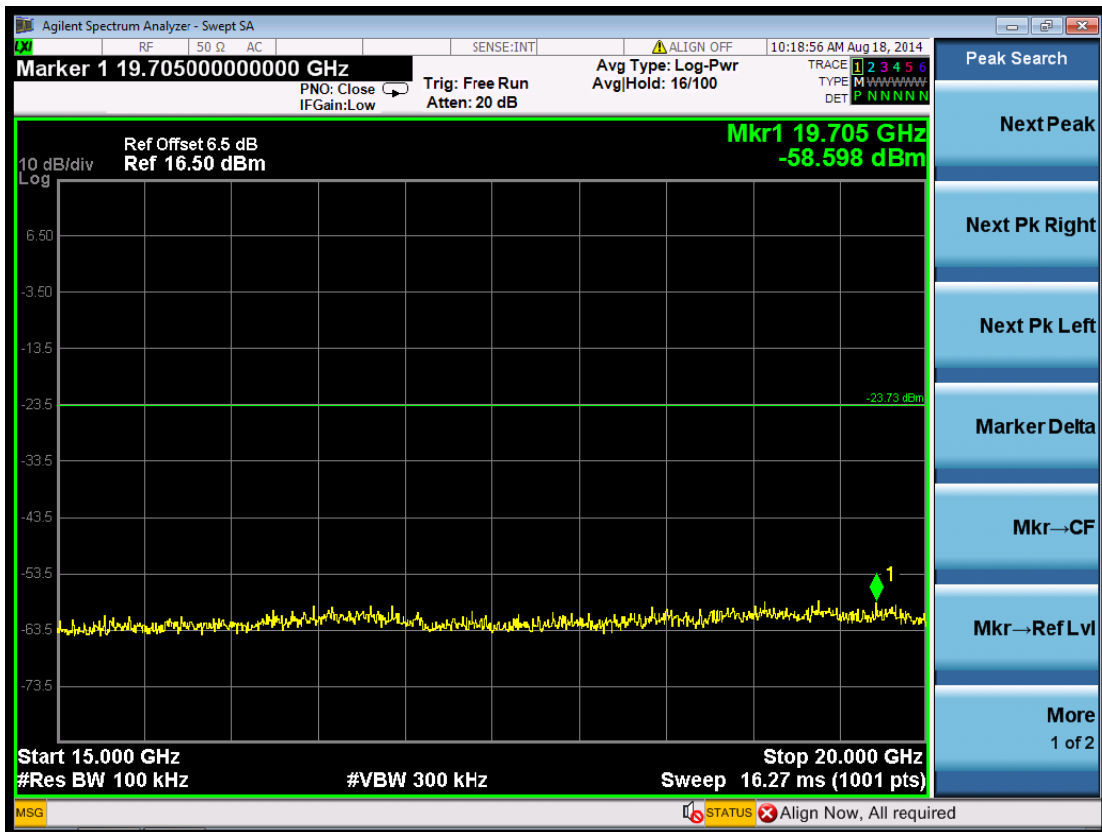
(Plot 6.6.2 C3: Channel 11: 2462MHz @ 802.11g)



(Plot 6.6.2 C4: Channel 11: 2462MHz @ 802.11g)



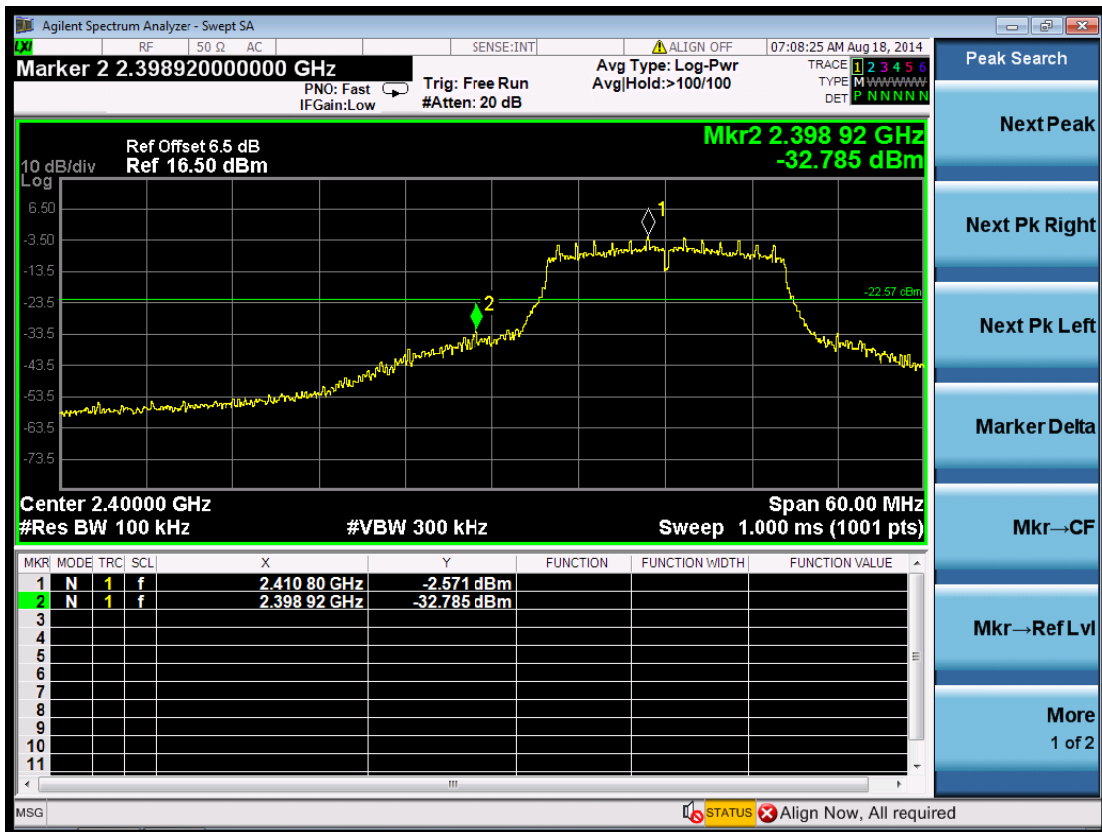
(Plot 6.6.2 C5: Channel 11: 2462MHz @ 802.11g)



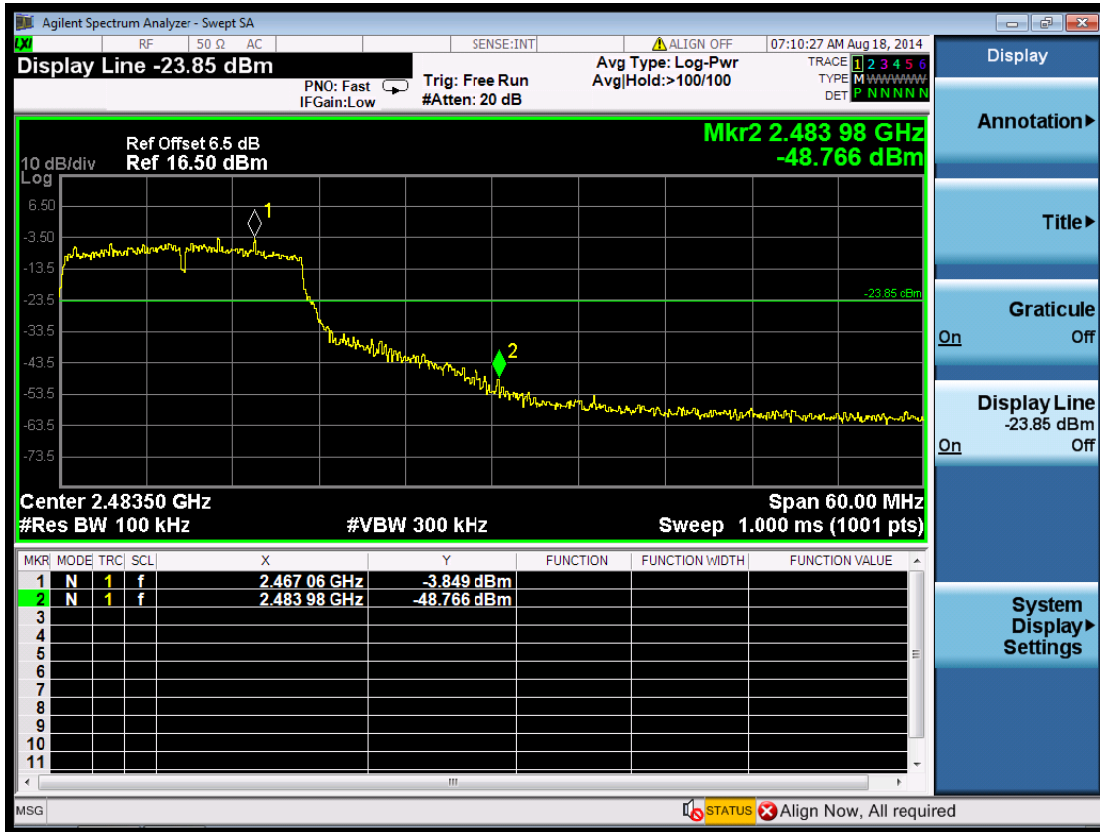
(Plot 6.6.2 C6: Channel 11: 2462MHz @ 802.11g)



(Plot 6.6.2 C7: Channel 11: 2462MHz @ 802.11g)



(Plot 6.6.2 D: Channel 1: 2412MHz @ 802.11g)



(Plot 6.6.2 E: Channel 11: 2462MHz @ 802.11g)

6.6.3 802.11n HT20MHz Test Mode

A. Test Verdict

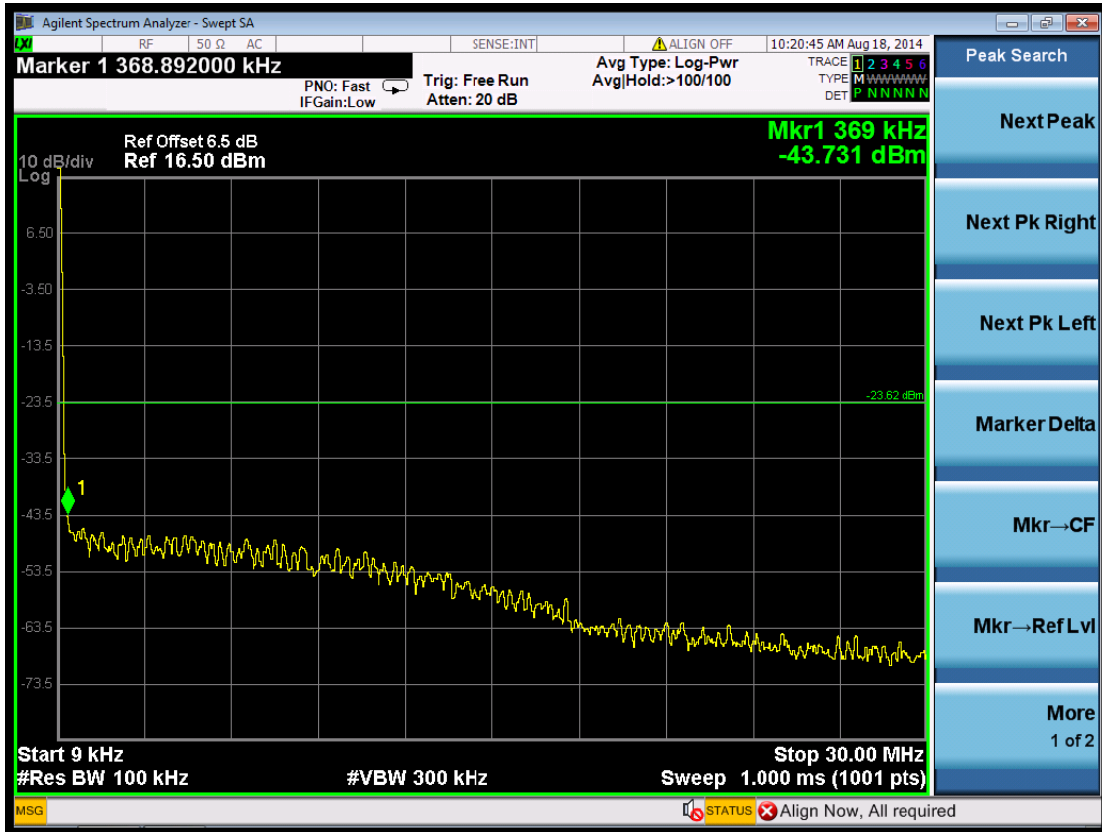
Channel	Frequency (MHz)	Frequency Range	Refer to Plot	Limit (dBc)	Verdict
1	2412	2.412 GHz	Plot 6.6.3 A1	---	PASS
		9KHz-30MHz	Plot 6.6.3 A2	-20	PASS
		30MHz-3GHz	Plot 6.6.3 A3	-20	PASS
		3GHz-9GHz	Plot 6.6.3 A4	-20	PASS
		9GHz-15GHz	Plot 6.6.3 A5	-20	PASS
		15GHz-20GHz	Plot 6.6.3 A6	-20	PASS
		20GHz-25GHz	Plot 6.6.3 A7	-20	PASS
6	2437	2.437 GHz	Plot 6.6.3 B1	---	PASS
		9KHz-30MHz	Plot 6.6.3 B2	-20	PASS
		30MHz-3GHz	Plot 6.6.3 B3	-20	PASS
		3GHz-9GHz	Plot 6.6.3 B4	-20	PASS
		9GHz-15GHz	Plot 6.6.3 B5	-20	PASS
		15GHz-20GHz	Plot 6.6.3 B6	-20	PASS
		20GHz-25GHz	Plot 6.6.3 B7	-20	PASS
11	2462	2.462 GHz	Plot 6.6.3 C1	---	PASS
		9KHz-30MHz	Plot 6.6.3 C2	-20	PASS
		30MHz-3GHz	Plot 6.6.3 C3	-20	PASS
		3GHz-9GHz	Plot 6.6.3 C4	-20	PASS
		9GHz-15GHz	Plot 6.6.3 C5	-20	PASS
		15GHz-20GHz	Plot 6.6.3 C6	-20	PASS
		20GHz-25GHz	Plot 6.6.3 C7	-20	PASS

Frequency (MHz)	Delta Peak to Band emission (dBc)	Detector	Limit (dBc)	Refer to Plot	Verdict
2400.00	-29.682	Peak	-20	Plot 6.6.3 D	PASS
2483.50	-42.398	Peak	-20	Plot 6.6.3 E	PASS

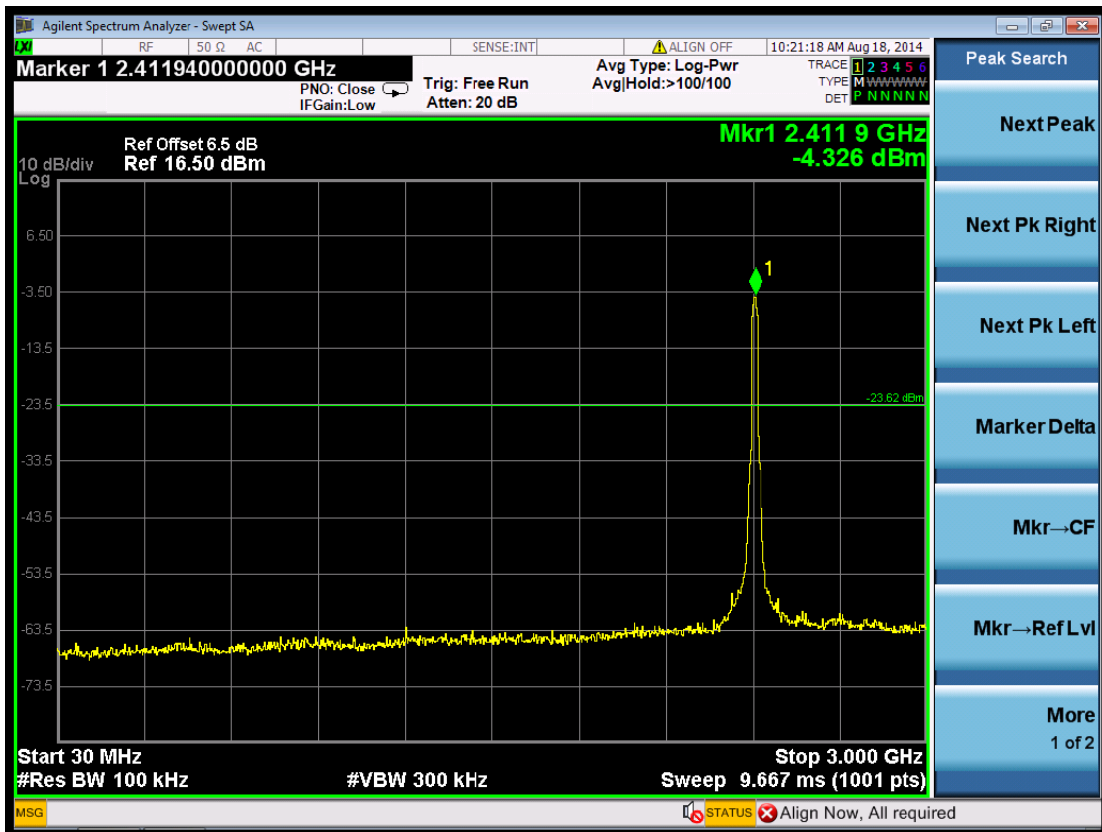
- Note: 1. For 802.11n HT20MHz mode at final test to get the worst-case emission at 6.5Mbps.
 2. The test results including the cable lose.



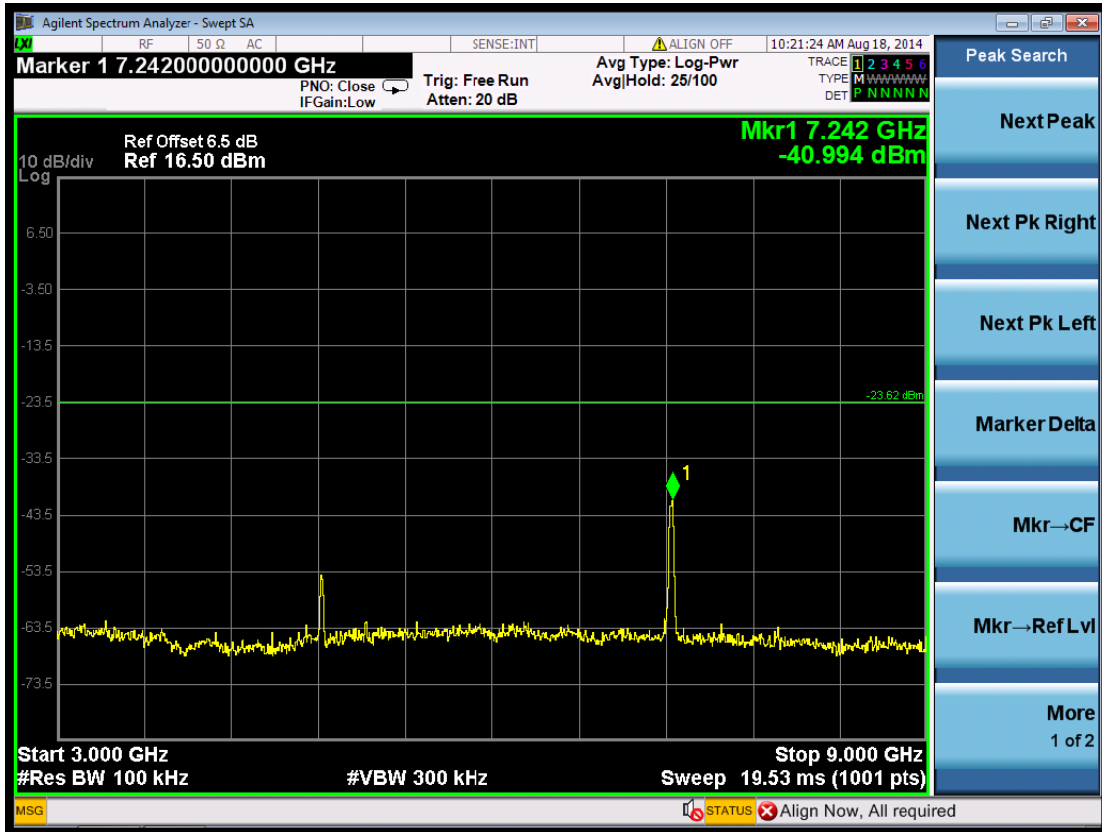
(Plot 6.6.3 A1: Channel 1: 2412MHz @ 802.11n HT20)



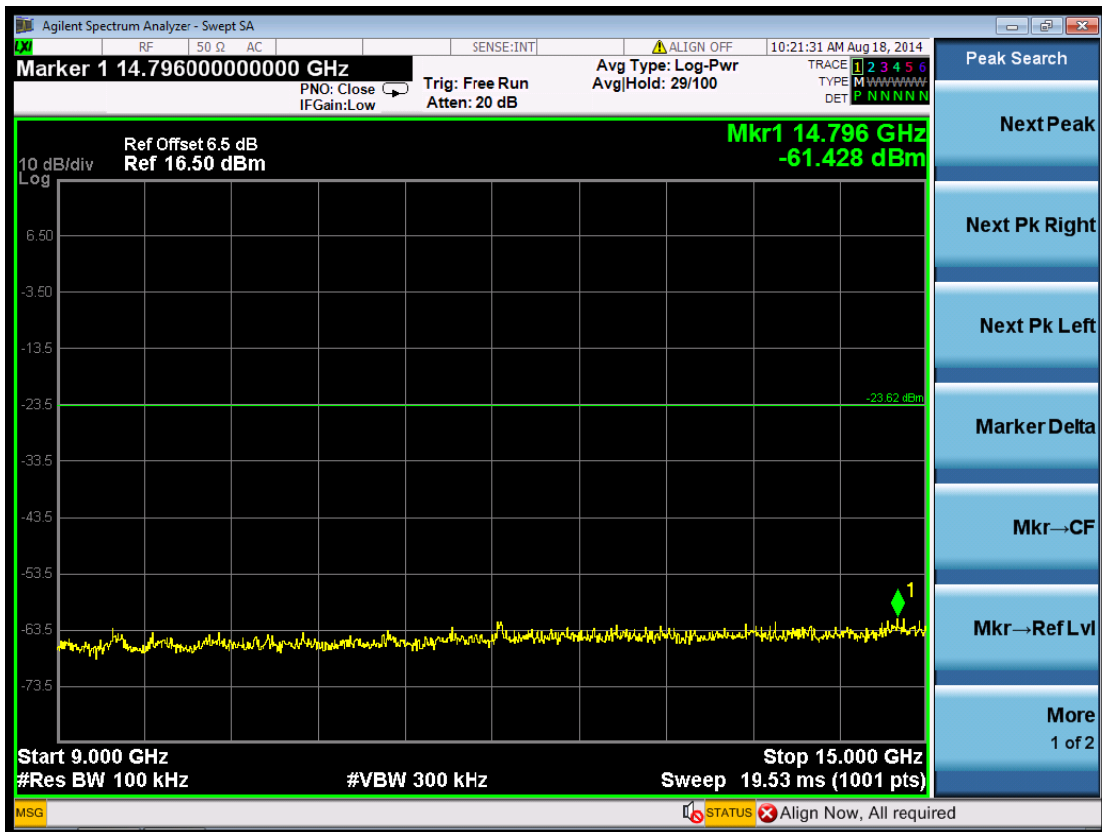
(Plot 6.6.3 A2: Channel 1: 2412MHz @ 802.11n HT20)



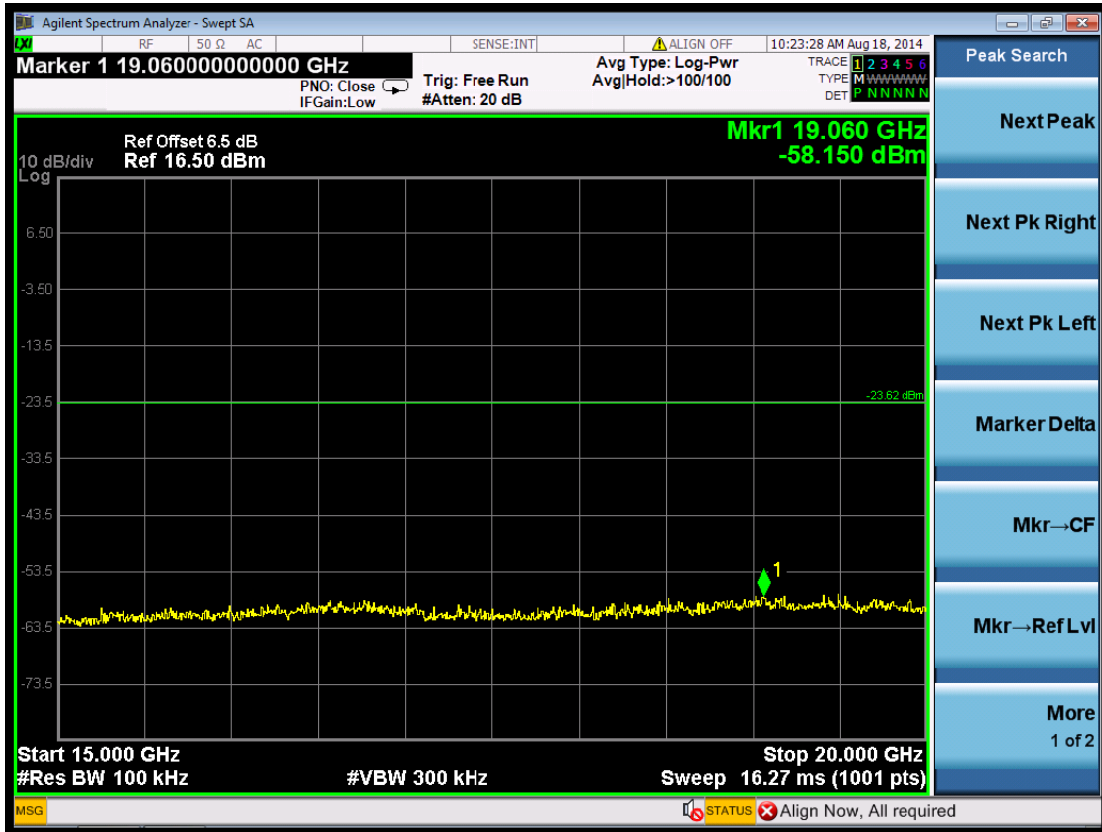
(Plot 6.6.3 A3: Channel 1: 2412MHz @ 802.11n HT20)



(Plot 6.6.3 A4: Channel 1: 2412MHz @ 802.11n HT20)



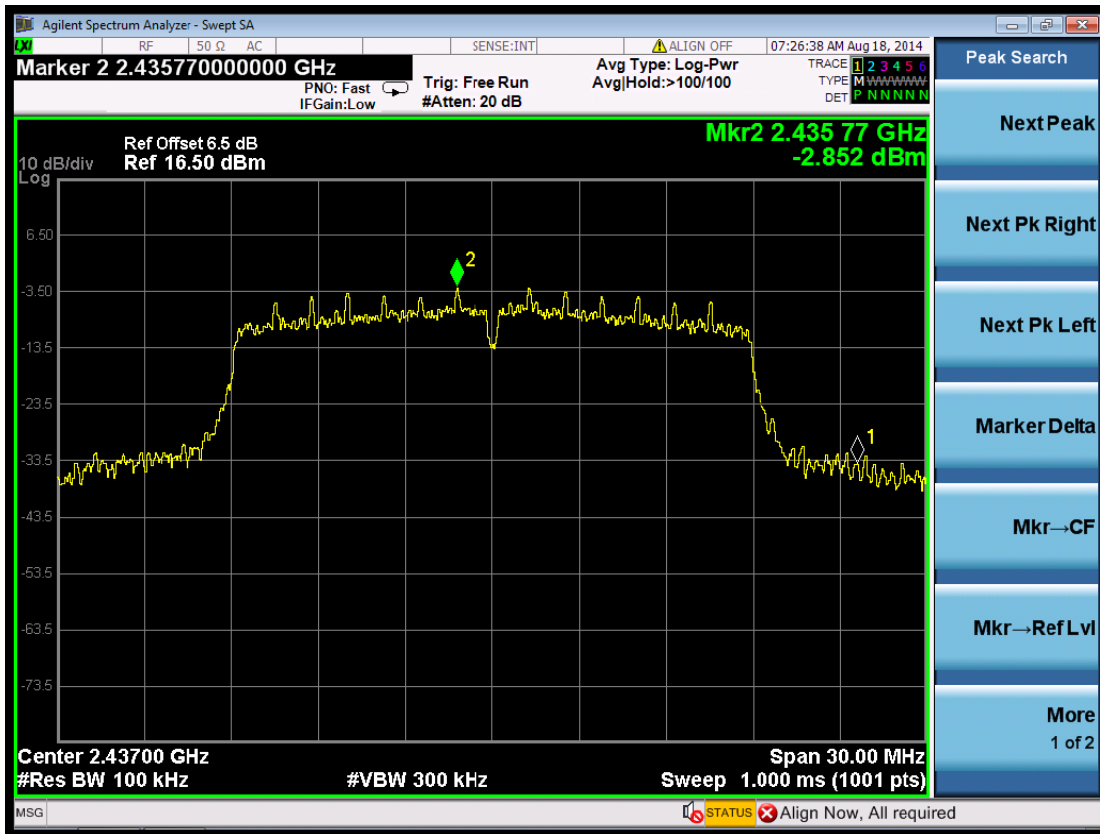
(Plot 6.6.3 A5: Channel 1: 2412MHz @ 802.11n HT20)



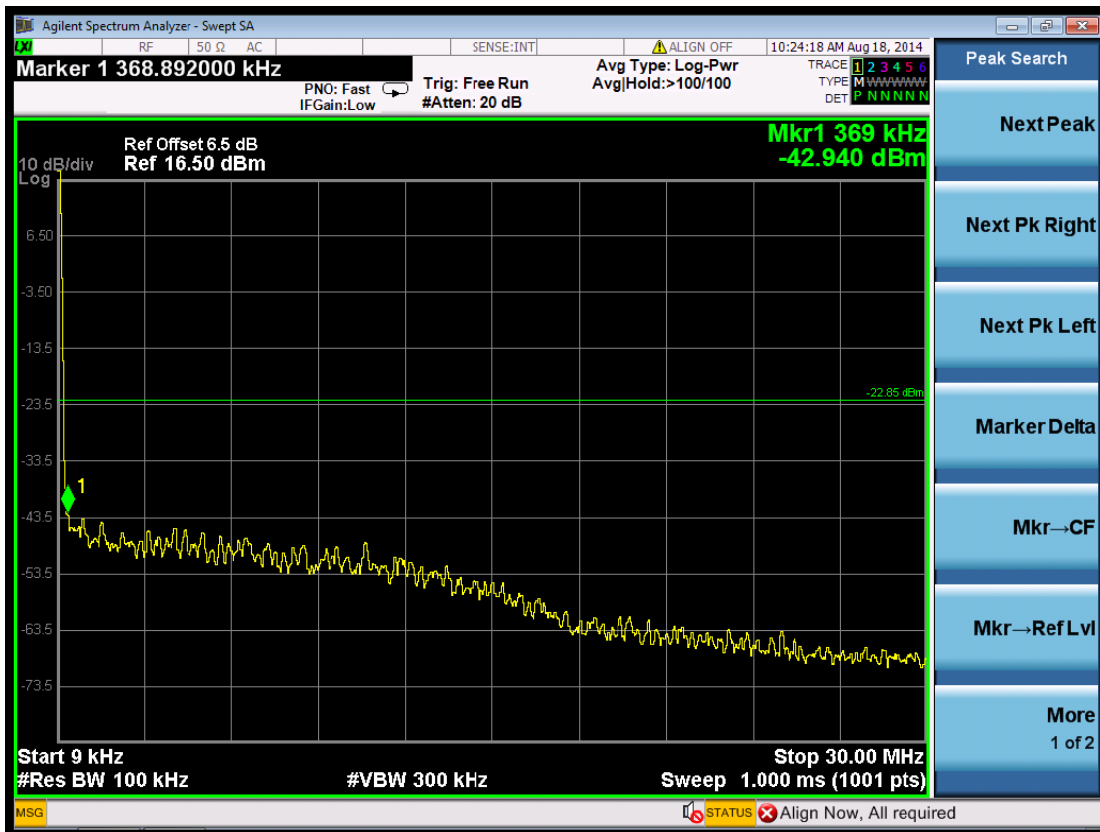
(Plot 6.6.3 A6: Channel 1: 2412MHz @ 802.11n HT20)



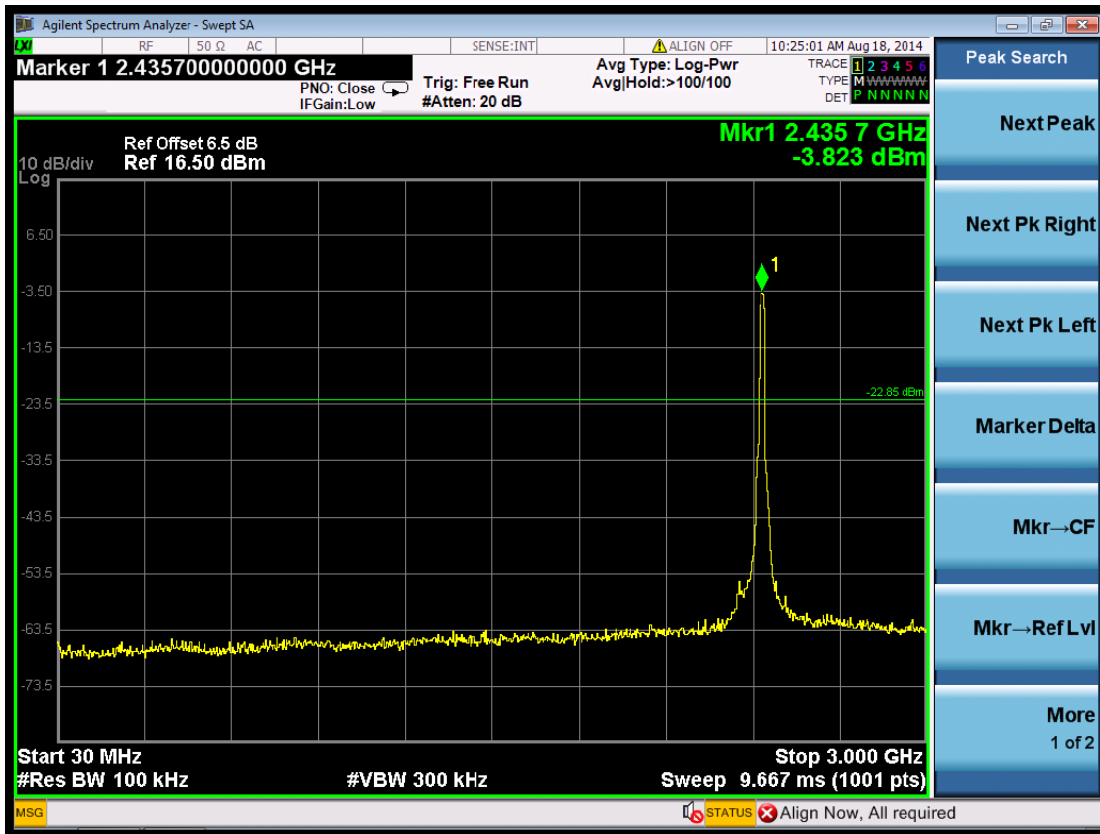
(Plot 6.6.3 A7: Channel 1: 2412MHz @ 802.11n HT20)



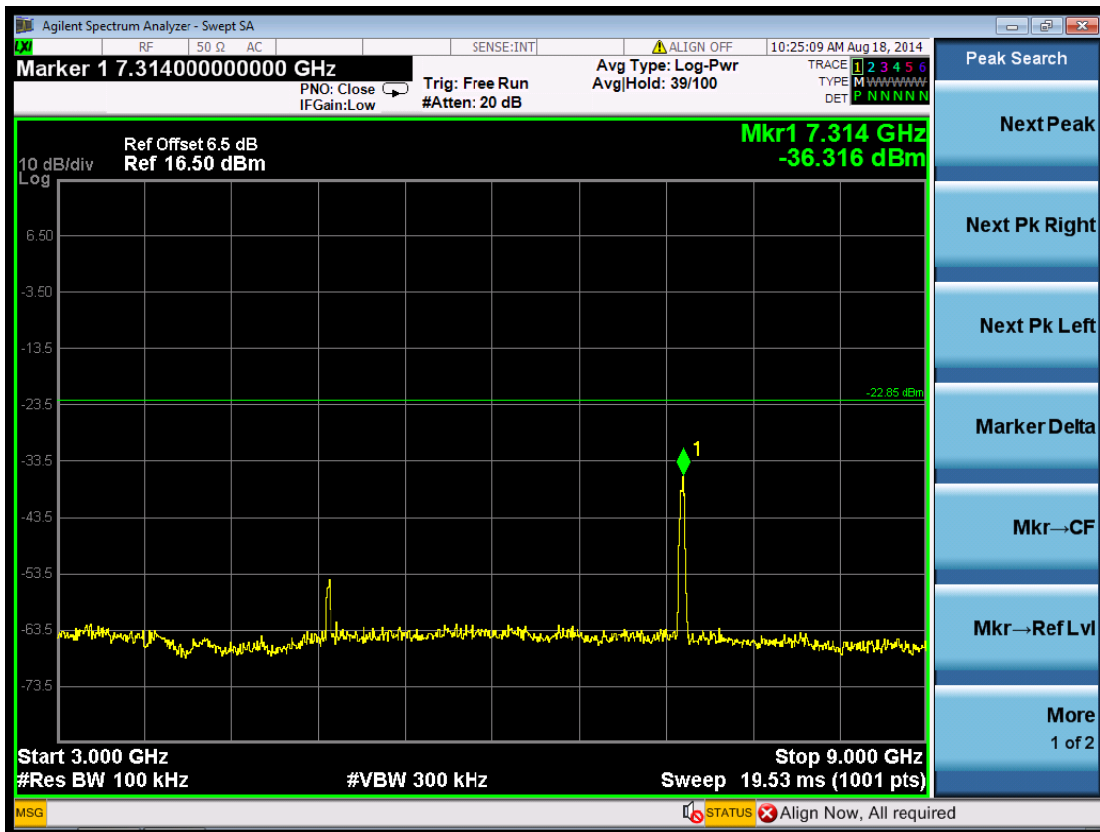
(Plot 6.6.3 B1: Channel 6: 2437MHz @ 802.11n HT20)



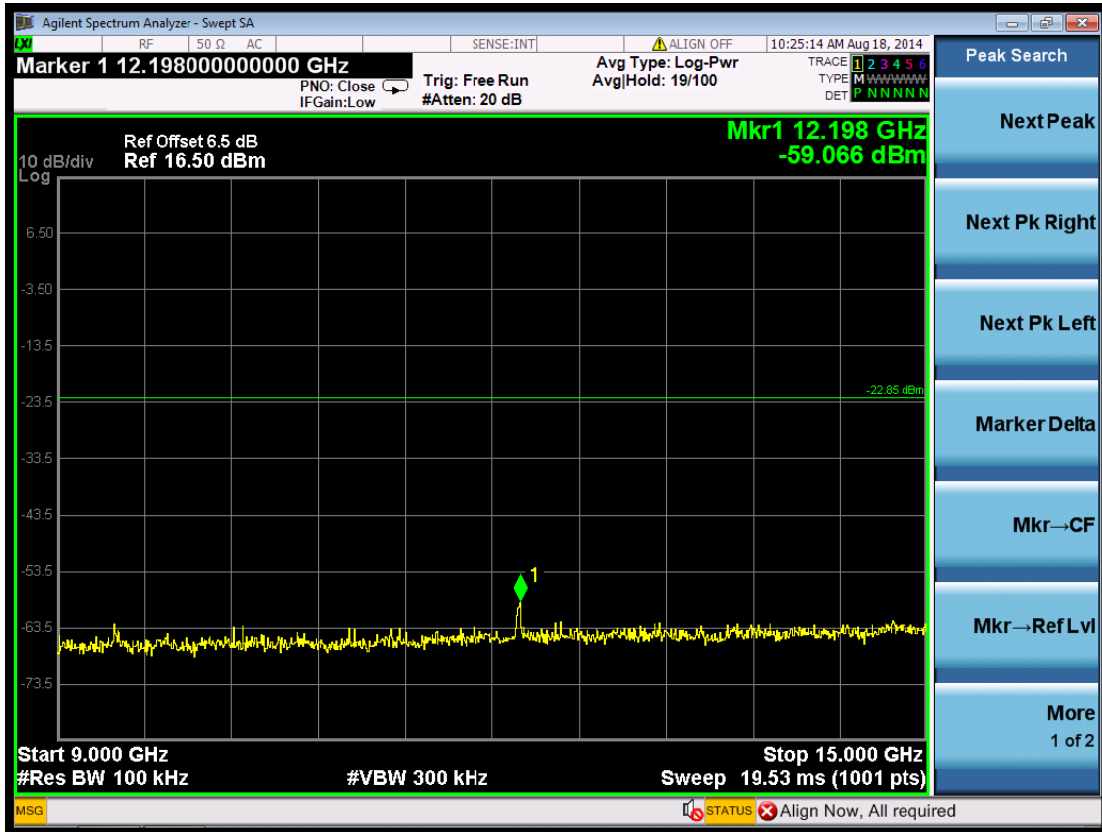
(Plot 6.6.3 B2: Channel 6: 2437MHz @ 802.11n HT20)



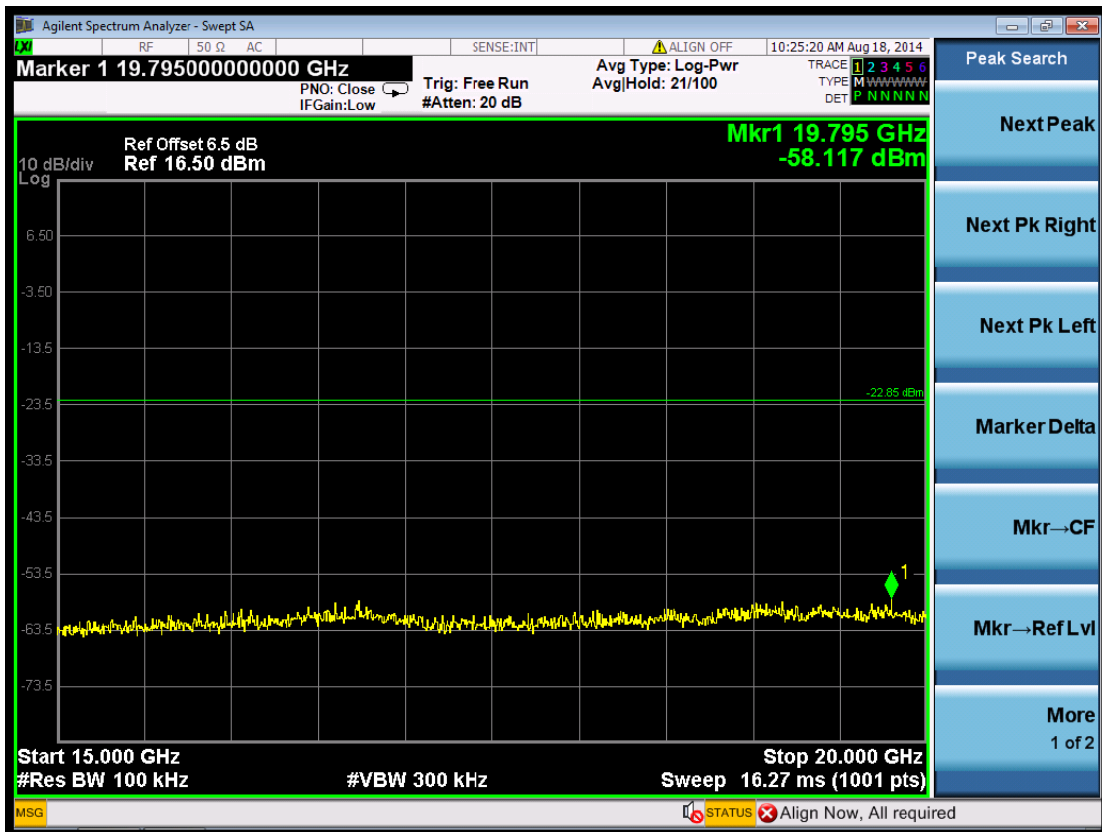
(Plot 6.6.3 B3: Channel 6: 2437MHz @ 802.11n HT20)



(Plot 6.6.3 B4: Channel 6: 2437MHz @ 802.11n HT20)



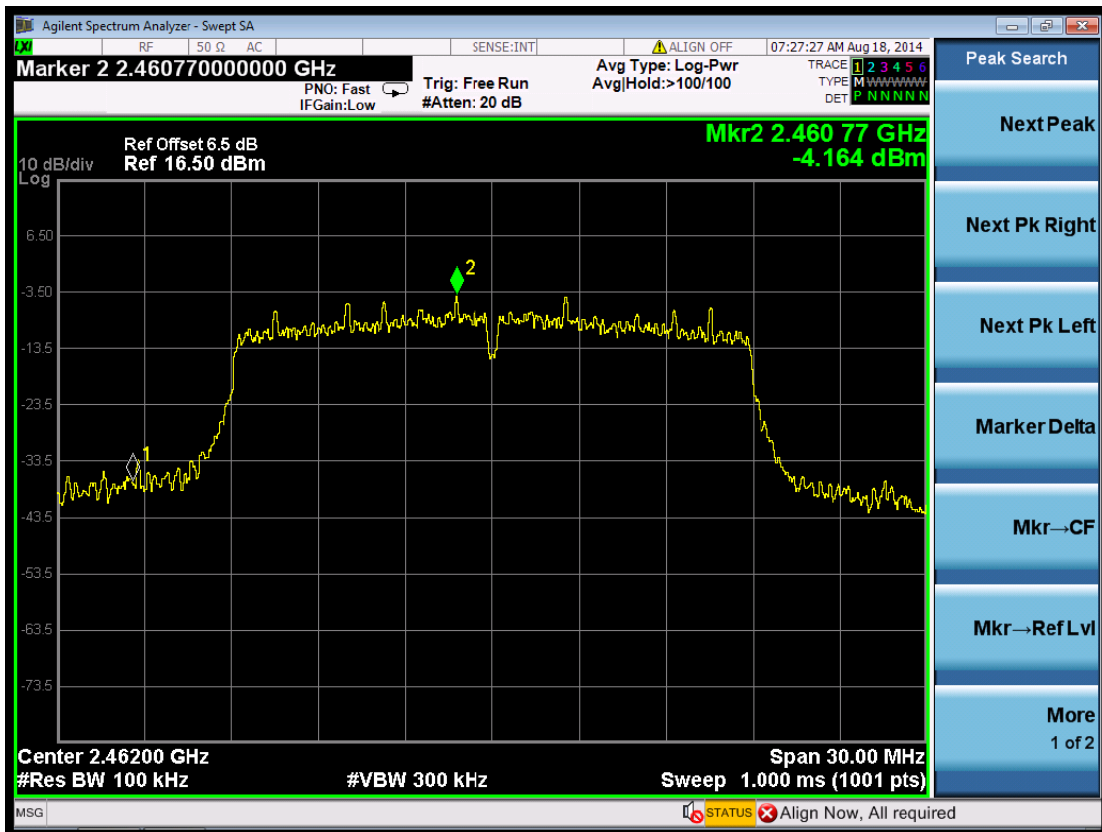
(Plot 6.6.3 B5: Channel 6: 2437MHz @ 802.11n HT20)



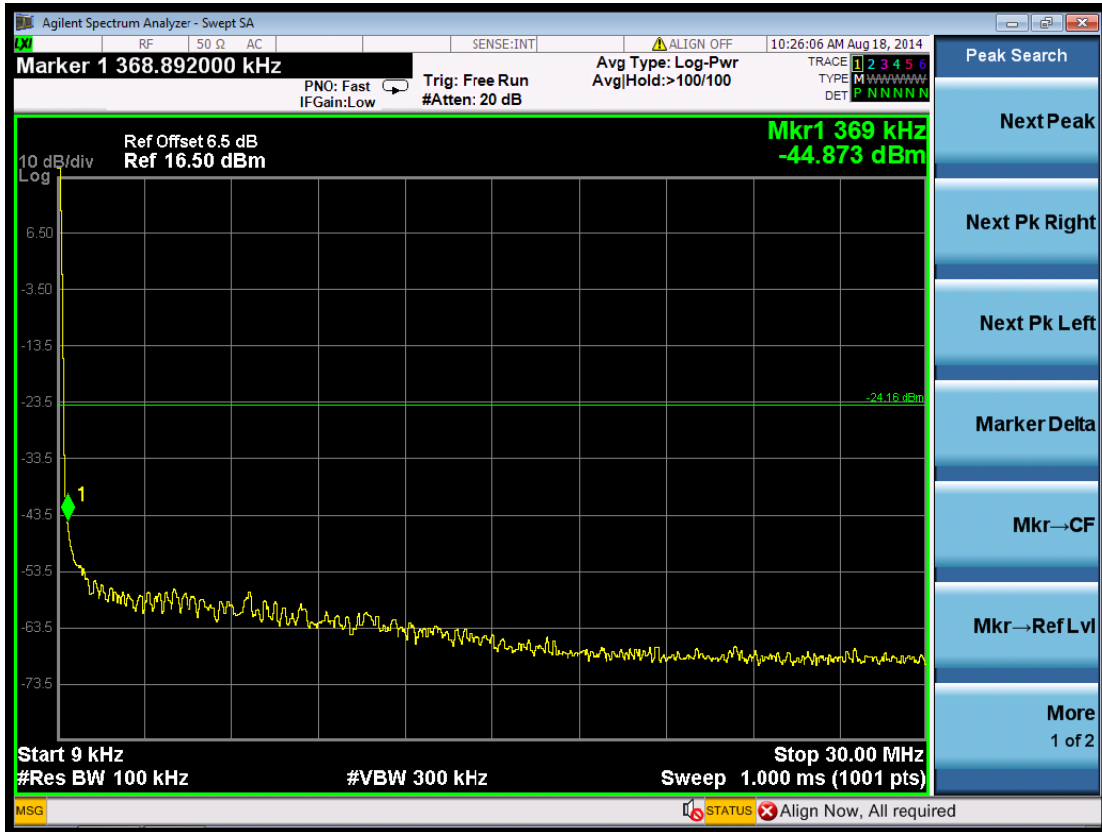
(Plot 6.6.3 B6: Channel 6: 2437MHz @ 802.11n HT20)



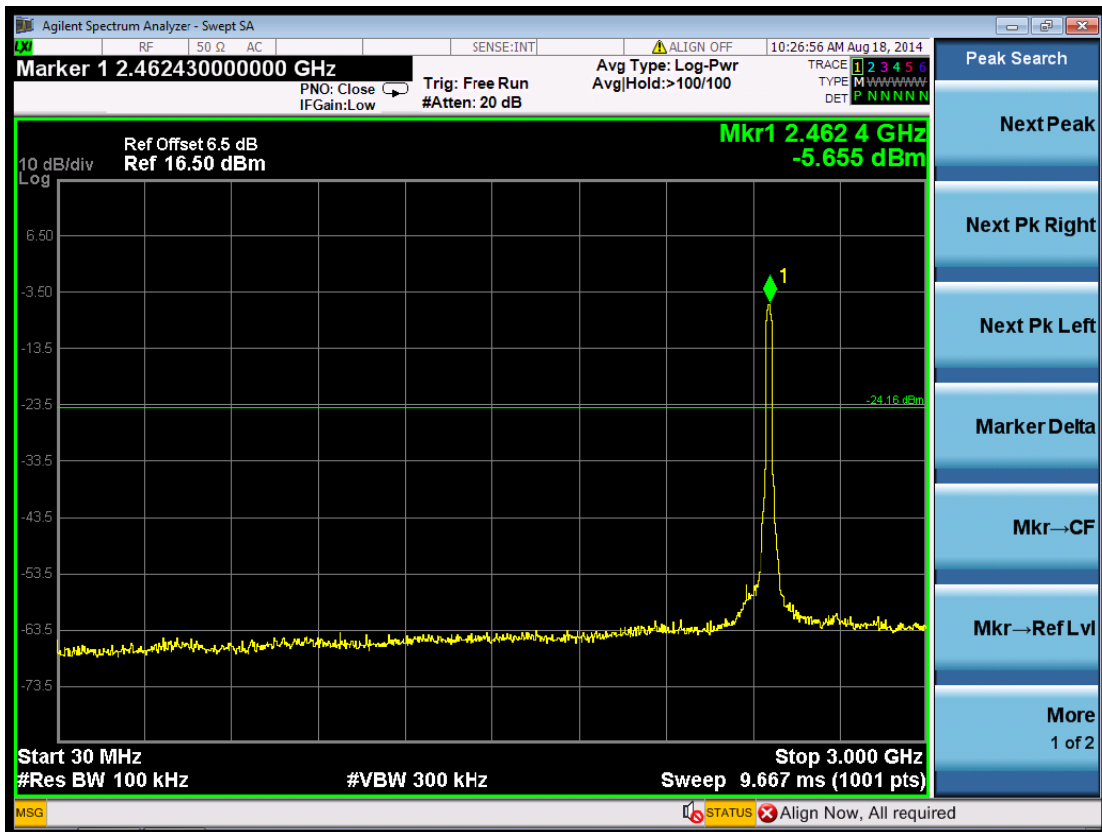
(Plot 6.6.3 B7: Channel 6: 2437MHz @ 802.11n HT20)



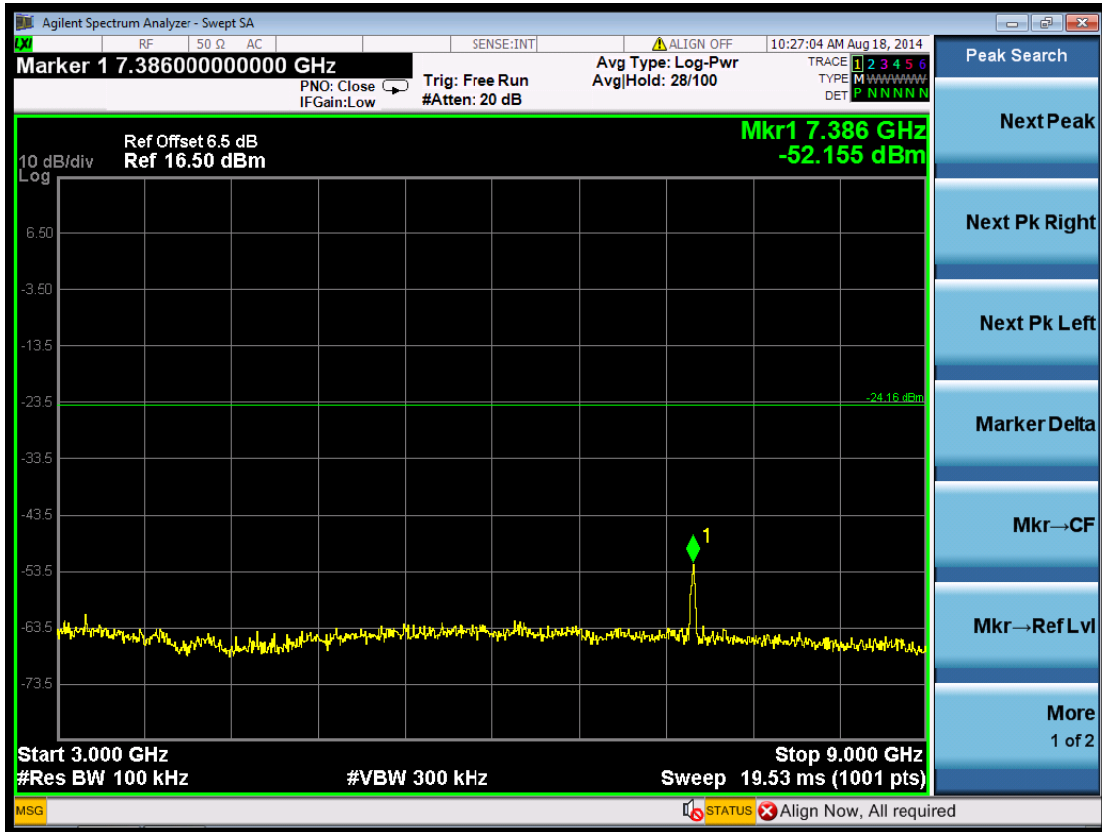
(Plot 6.6.3 C1: Channel 11: 2462MHz @ 802.11n HT20)



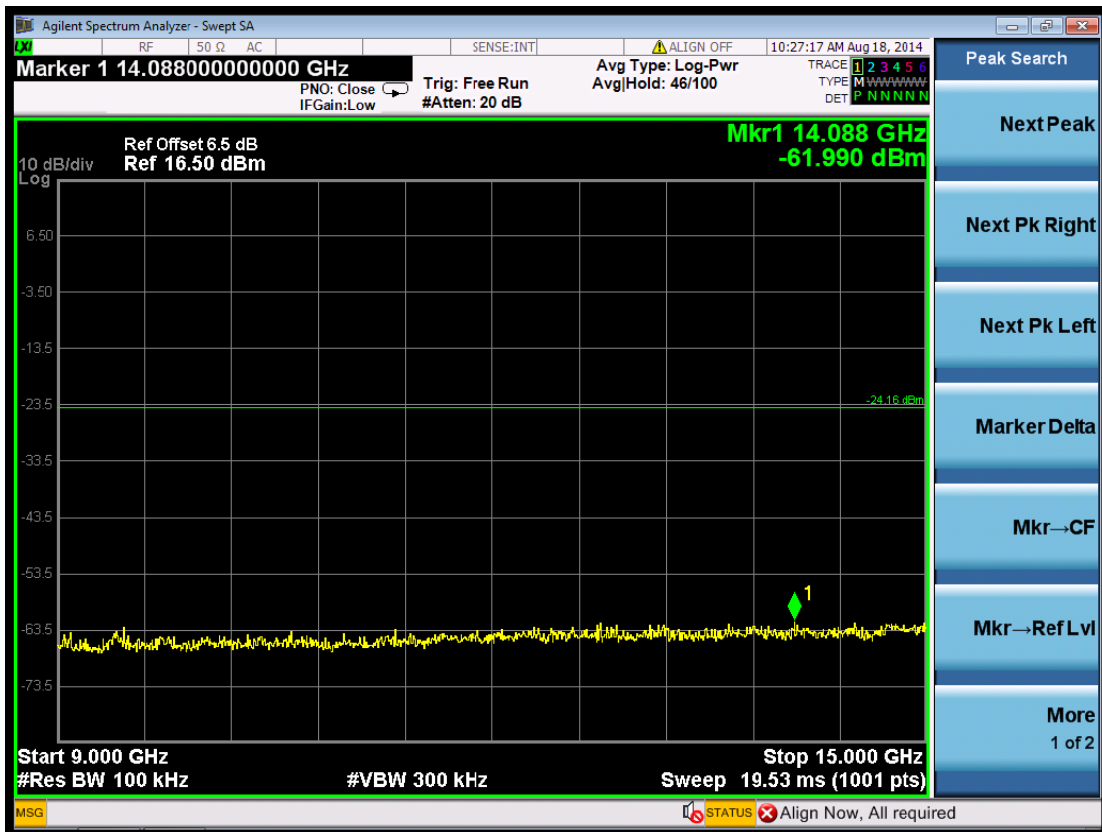
(Plot 6.6.3 C2: Channel 11: 2462MHz @ 802.11n HT20)



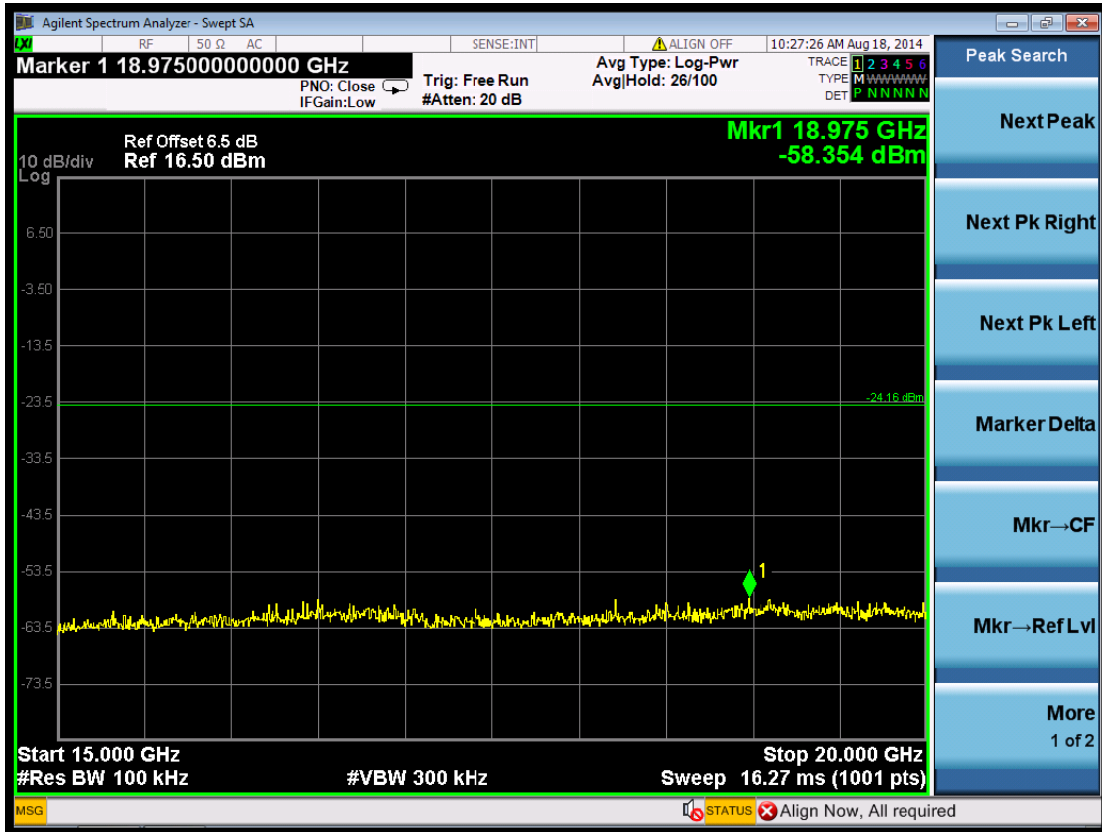
(Plot 6.6.3 C3: Channel 11: 2462MHz @ 802.11n HT20)



(Plot 6.6.3 C4: Channel 11: 2462MHz @ 802.11n HT20)



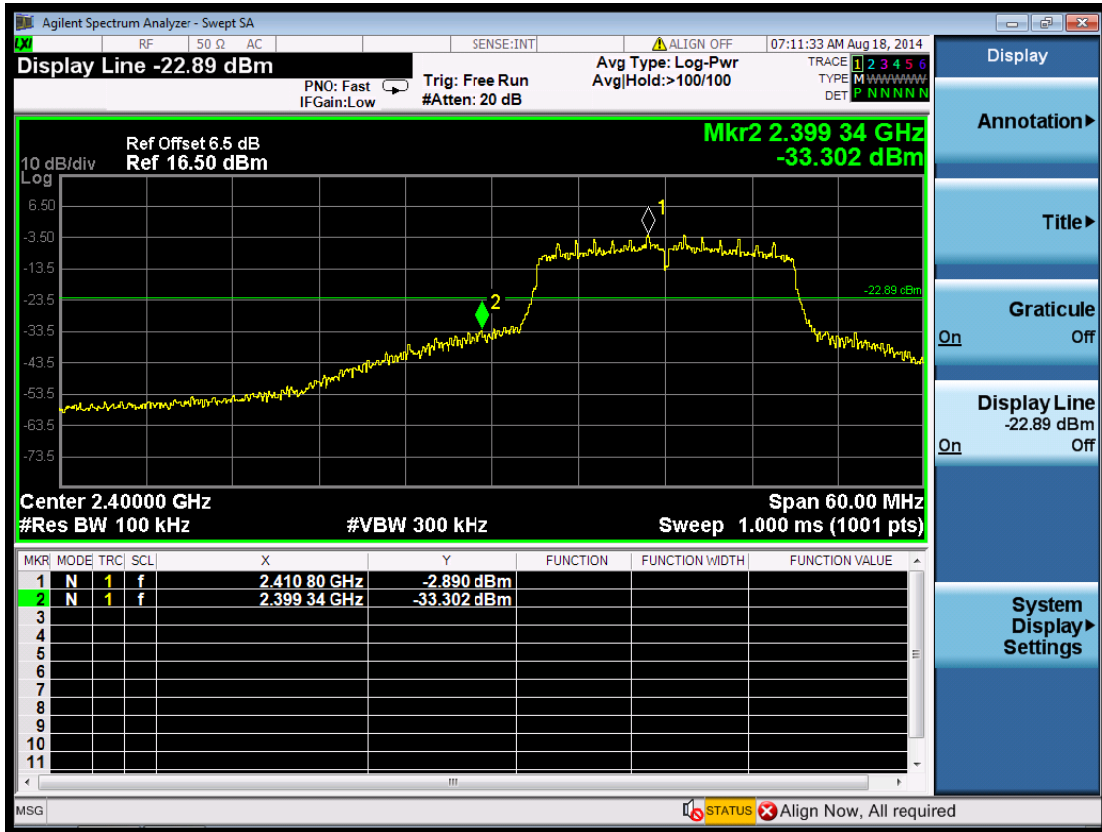
(Plot 6.6.3 C5: Channel 11: 2462MHz @ 802.11n HT20)



(Plot 6.6.3 C6: Channel 11: 2462MHz @ 802.11n HT20)



(Plot 6.6.3 C7: Channel 11: 2462MHz @ 802.11n HT20)



(Plot 6.6.3 D: Channel 1: 2412MHz @ 802.11n HT20)



(Plot 6.6.3 E: Channel 11: 2462MHz @ 802.11n HT20)

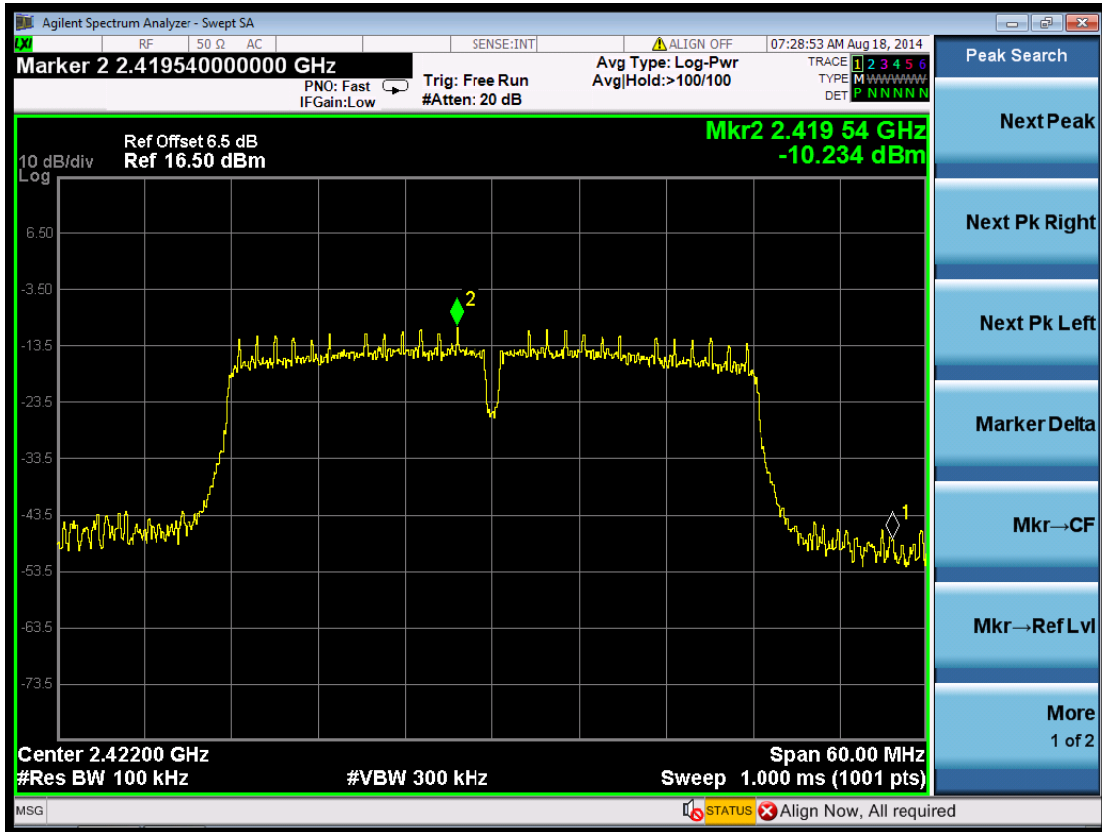
6.6.4 802.11n HT40MHz Test Mode
A. Test Verdict

Channel	Frequency (MHz)	Frequency Range	Refer to Plot	Limit (dBc)	Verdict
3	2422	2.422 GHz	Plot 6.6.4 A1	---	PASS
		9KHz-30MHz	Plot 6.6.4 A2	-20	PASS
		30MHz-3GHz	Plot 6.6.4 A3	-20	PASS
		3GHz-9GHz	Plot 6.6.4 A4	-20	PASS
		9GHz-15GHz	Plot 6.6.4 A5	-20	PASS
		15GHz-20GHz	Plot 6.6.4 A6	-20	PASS
		20GHz-25GHz	Plot 6.6.4 A7	-20	PASS
6	2437	2.437 GHz	Plot 6.6.4 B1	---	PASS
		9KHz-30MHz	Plot 6.6.4 B2	-20	PASS
		30MHz-3GHz	Plot 6.6.4 B3	-20	PASS
		3GHz-9GHz	Plot 6.6.4 B4	-20	PASS
		9GHz-15GHz	Plot 6.6.4 B5	-20	PASS
		15GHz-20GHz	Plot 6.6.4 B6	-20	PASS
		20GHz-25GHz	Plot 6.6.4 B7	-20	PASS
9	2452	2.452 GHz	Plot 6.6.4 C1	---	PASS
		9KHz-30MHz	Plot 6.6.4 C2	-20	PASS
		30MHz-3GHz	Plot 6.6.4 C3	-20	PASS
		3GHz-9GHz	Plot 6.6.4 C4	-20	PASS
		9GHz-15GHz	Plot 6.6.4 C5	-20	PASS
		15GHz-20GHz	Plot 6.6.4 C6	-20	PASS
		20GHz-25GHz	Plot 6.6.4 C7	-20	PASS

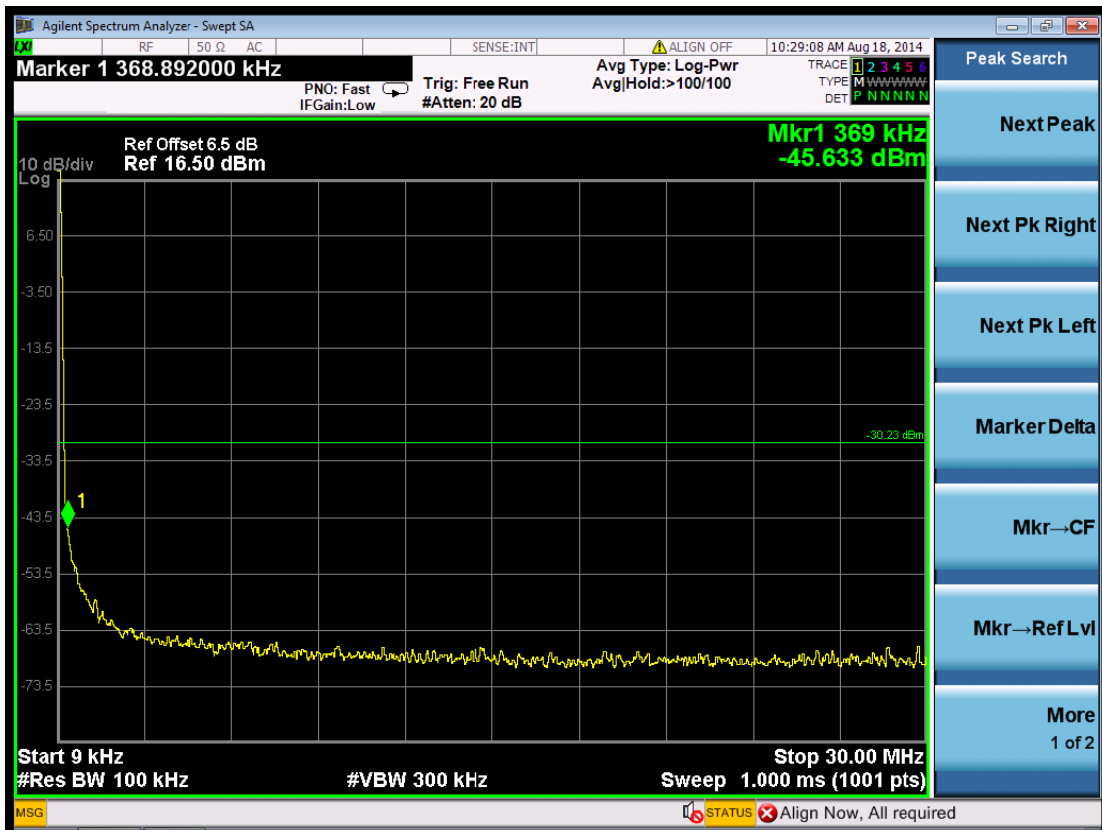
Frequency (MHz)	Delta Peak to Band emission (dBc)	Detector	Limit (dBc)	Refer to Plot	Verdict
2400.00	-29.751	Peak	-20	Plot 6.6.4 D	PASS
2483.50	-34.192	Peak	-20	Plot 6.6.4 E	PASS

Note: 1. For 802.11n HT40MHz mode at final test to get the worst-case emission at 13.5Mbps.
 2. The test results including the cable loss.

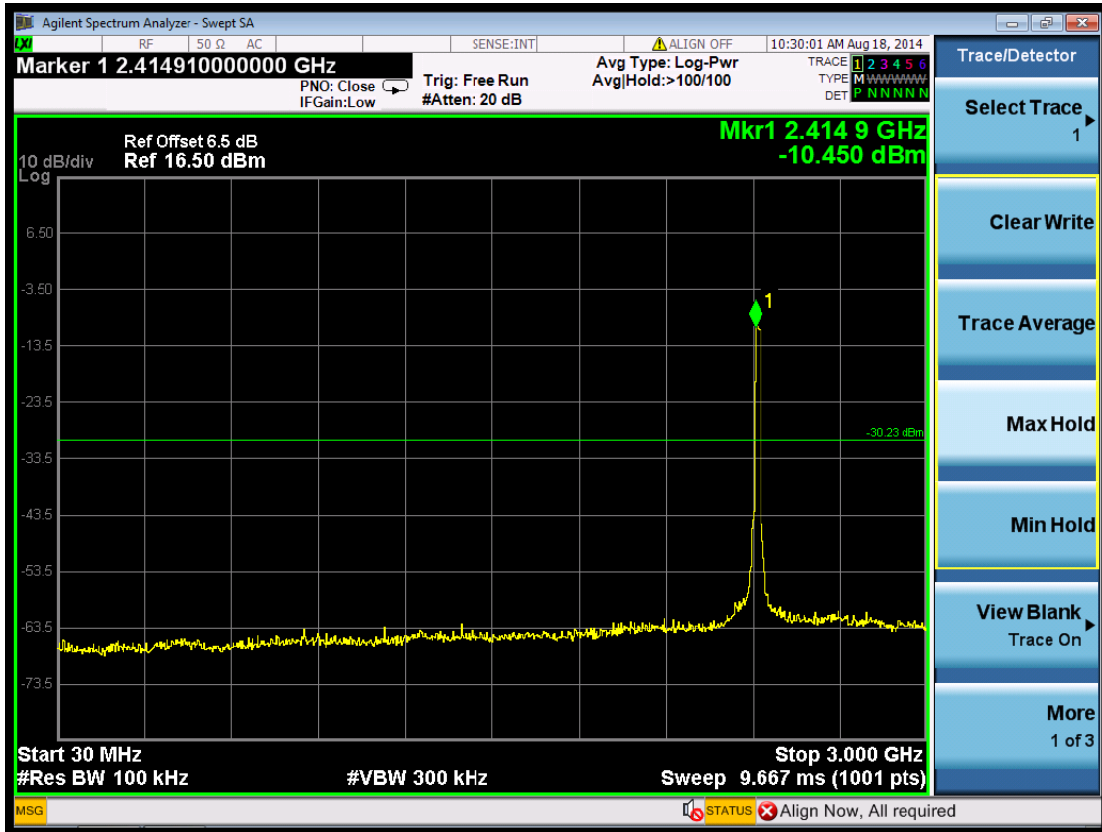
B. Test Plots



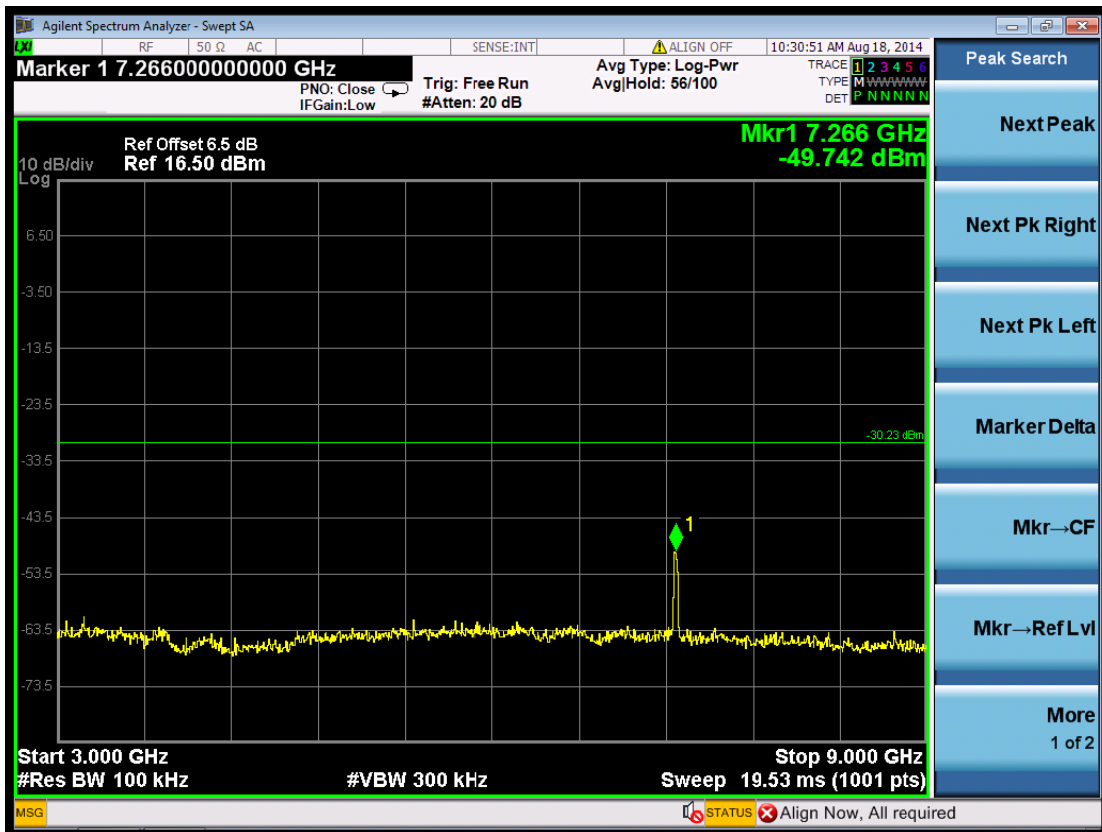
(Plot 6.6.4 A1: Channel 3: 2422MHz @ 802.11n HT40)



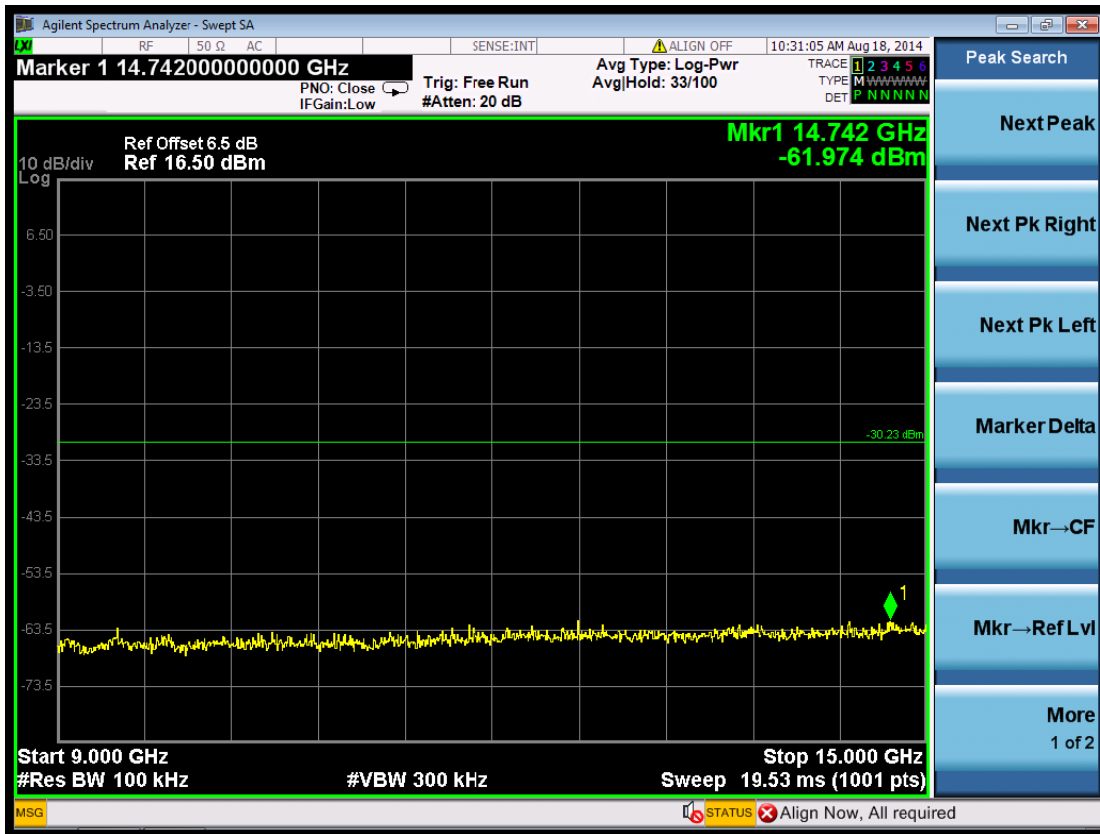
(Plot 6.6.4 A2: Channel 3: 2422MHz @ 802.11n HT40)



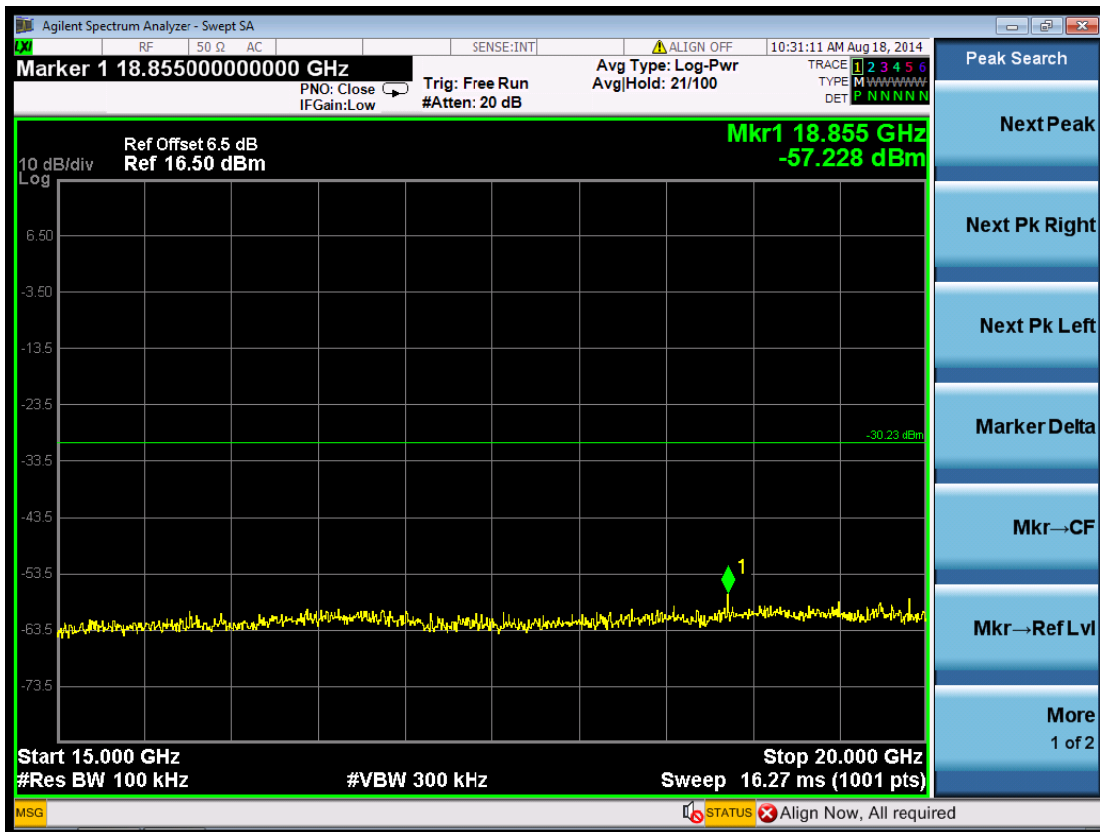
(Plot 6.6.4 A3: Channel 3: 2422MHz @ 802.11n HT40)



(Plot 6.6.4 A4: Channel 3: 2422MHz @ 802.11n HT40)



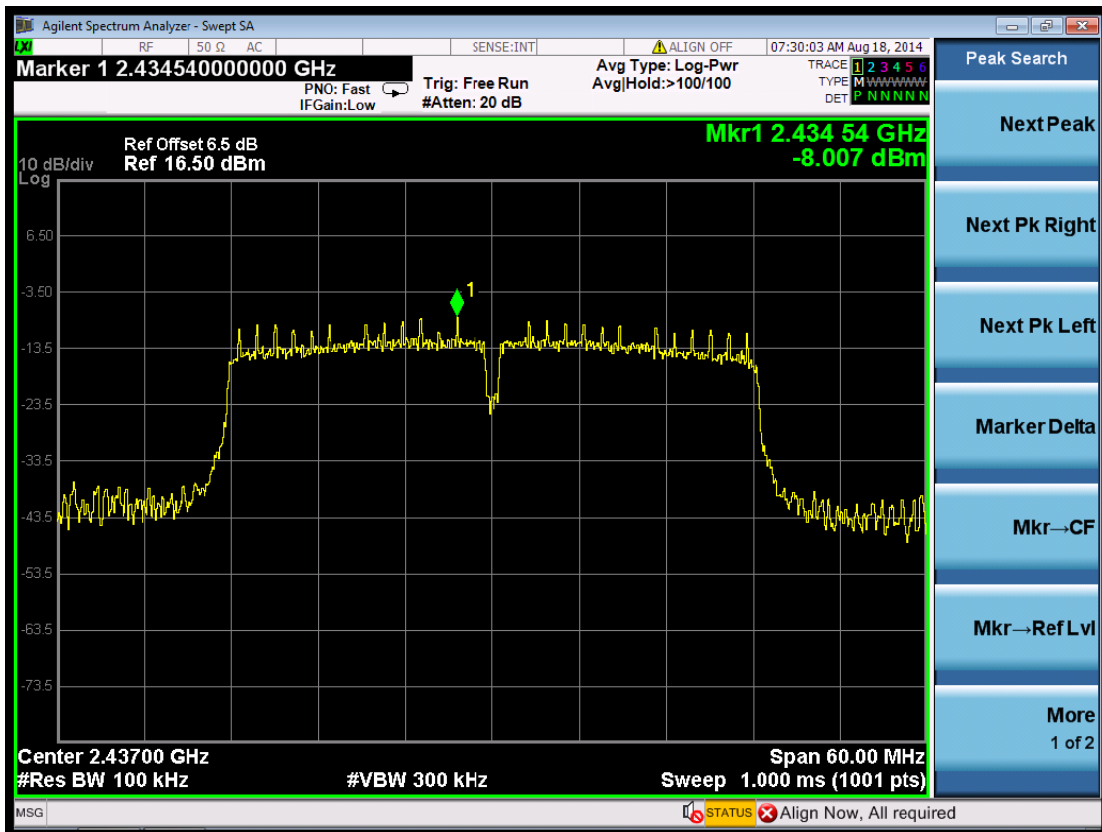
(Plot 6.6.4 A5: Channel 3: 2422MHz @ 802.11n HT40)



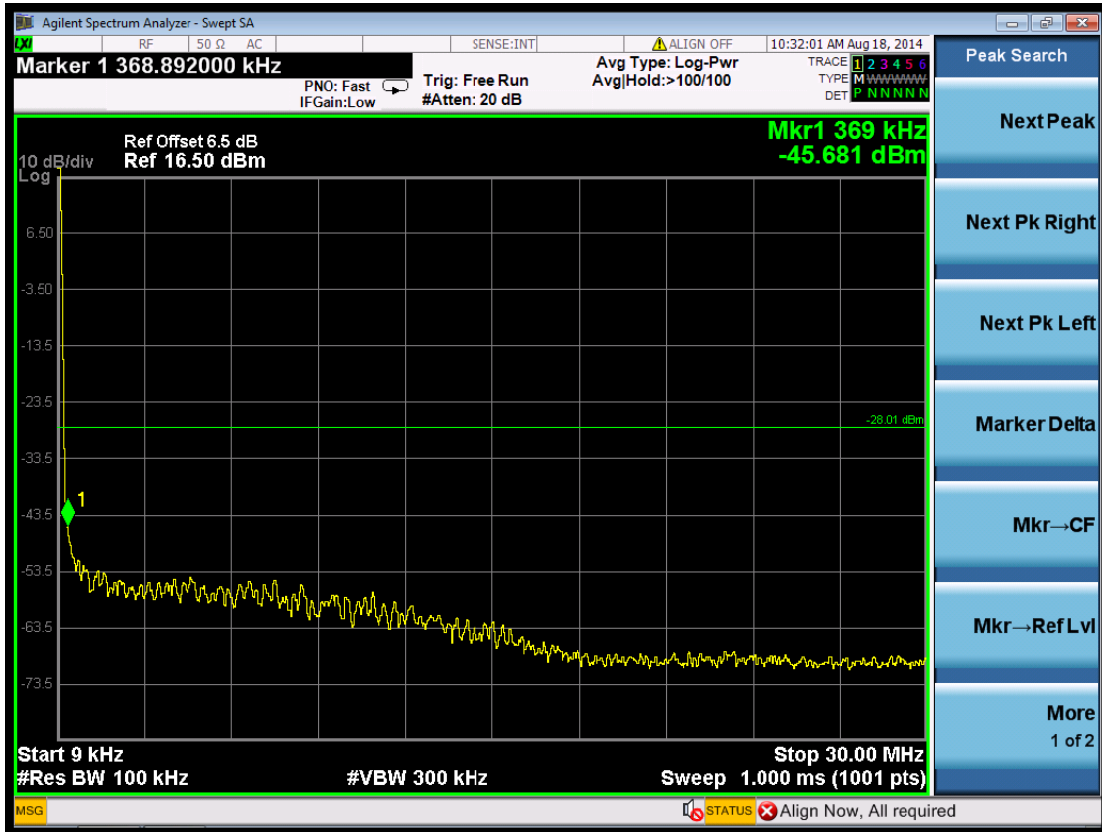
(Plot 6.6.4 A6: Channel 3: 2422MHz @ 802.11n HT40)



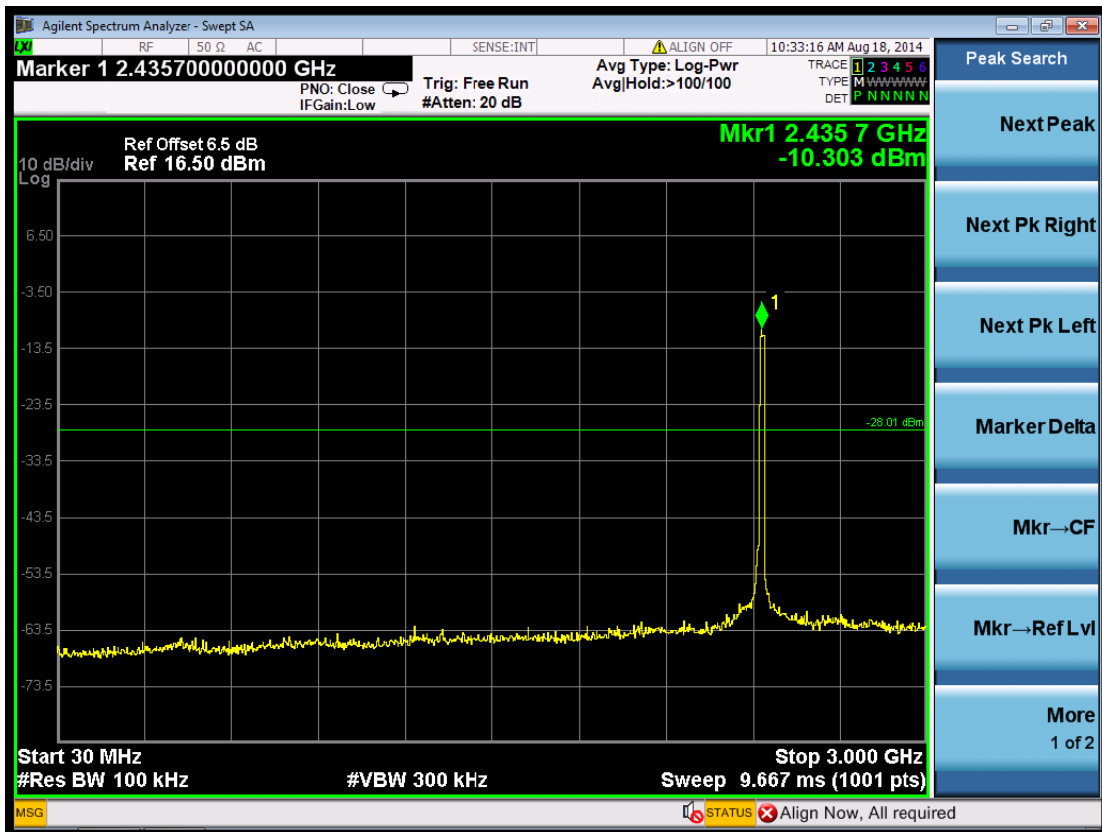
(Plot 6.6.4 A7: Channel 3: 2422MHz @ 802.11n HT40)



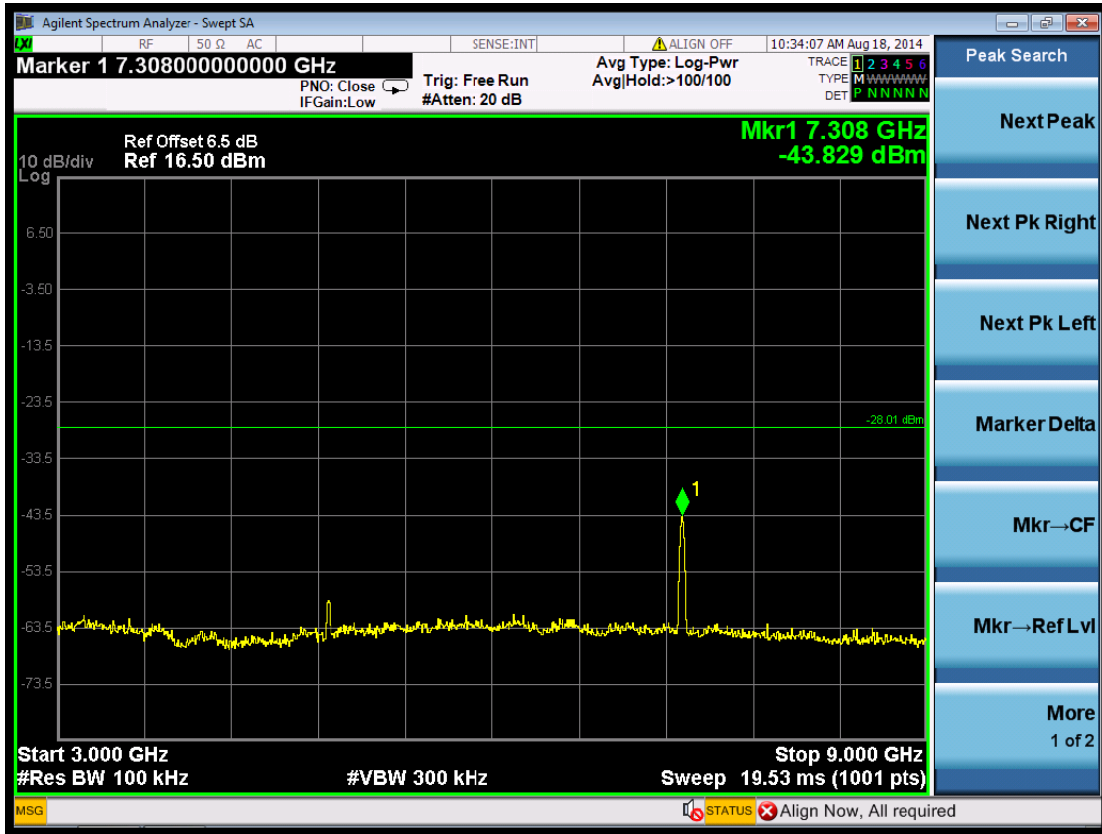
(Plot 6.6.4 B1: Channel 6: 2437MHz @ 802.11n HT40)



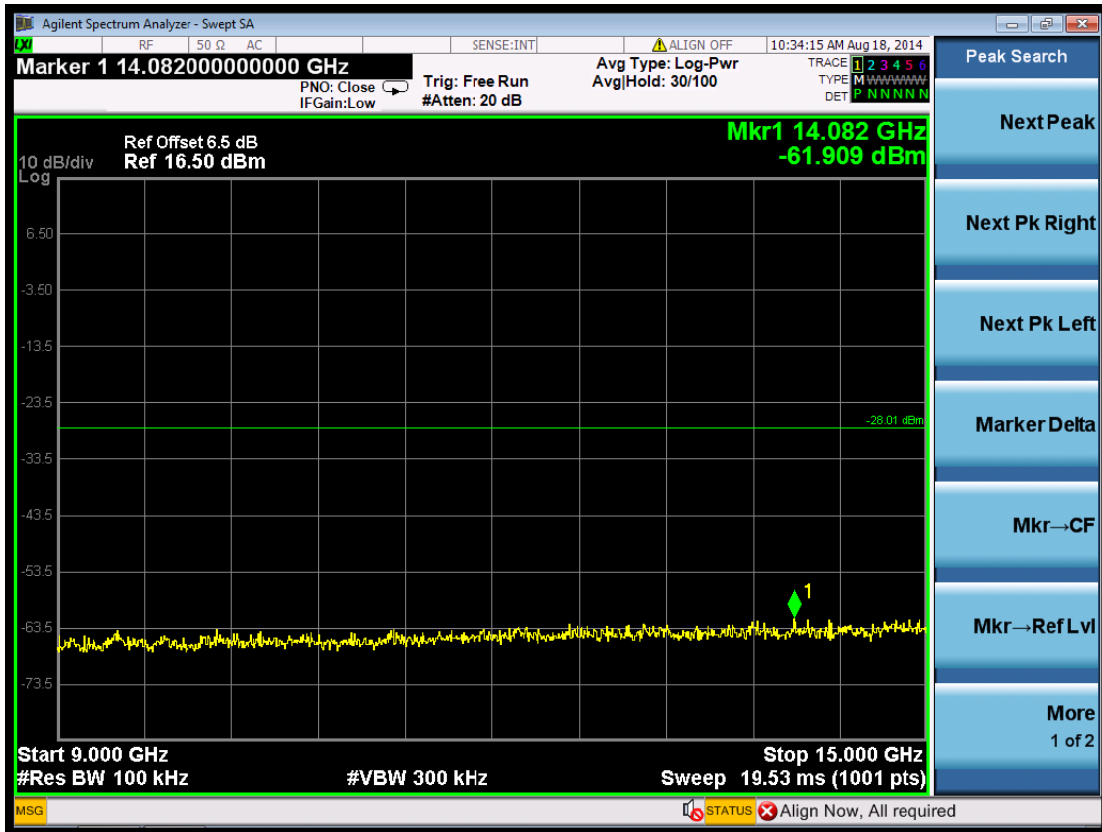
(Plot 6.6.4 B2: Channel 6: 2437MHz @ 802.11n HT40)



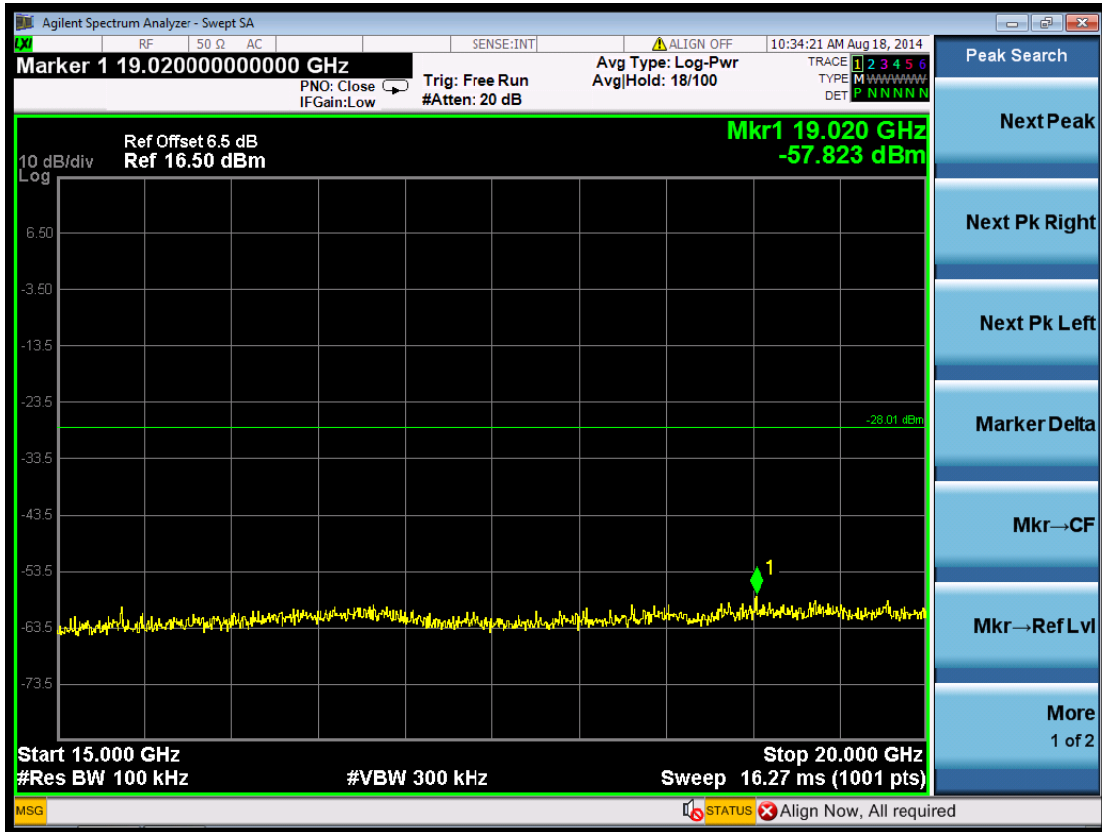
(Plot 6.6.4 B3: Channel 6: 2437MHz @ 802.11n HT40)



(Plot 6.6.4 B4: Channel 6: 2437MHz @ 802.11n HT40)



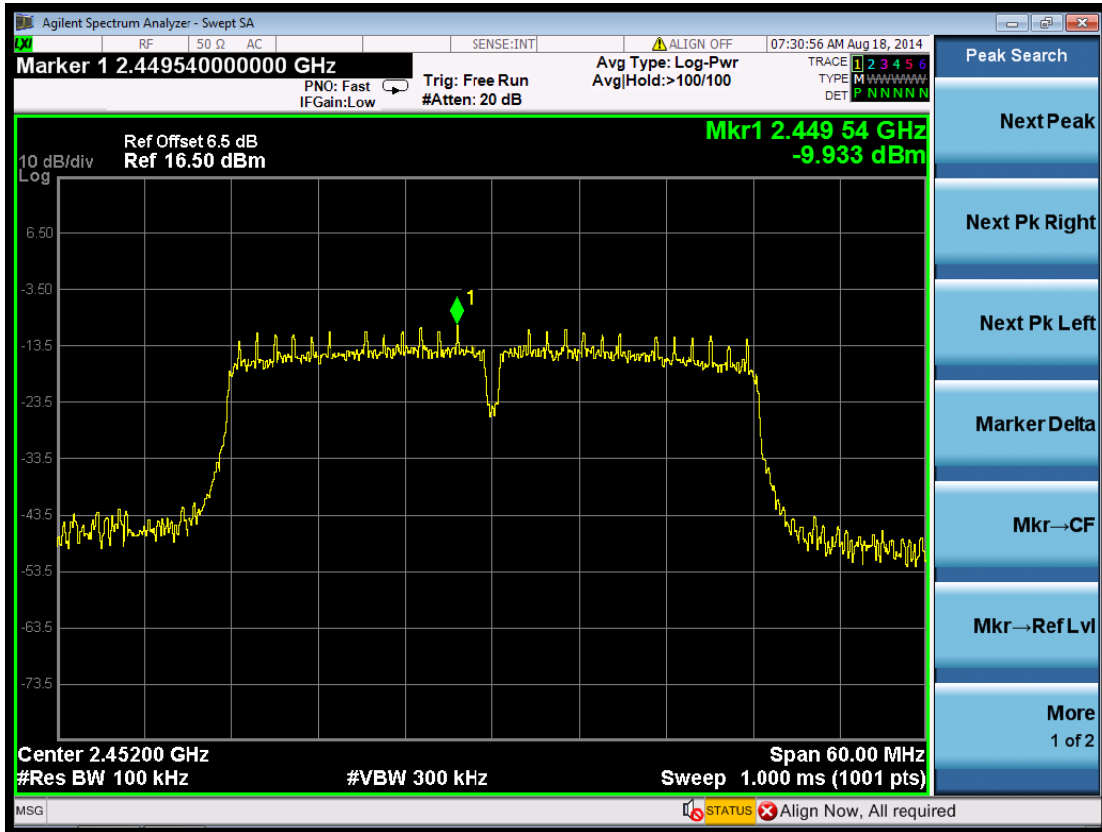
(Plot 6.6.4 B5: Channel 6: 2437MHz @ 802.11n HT40)



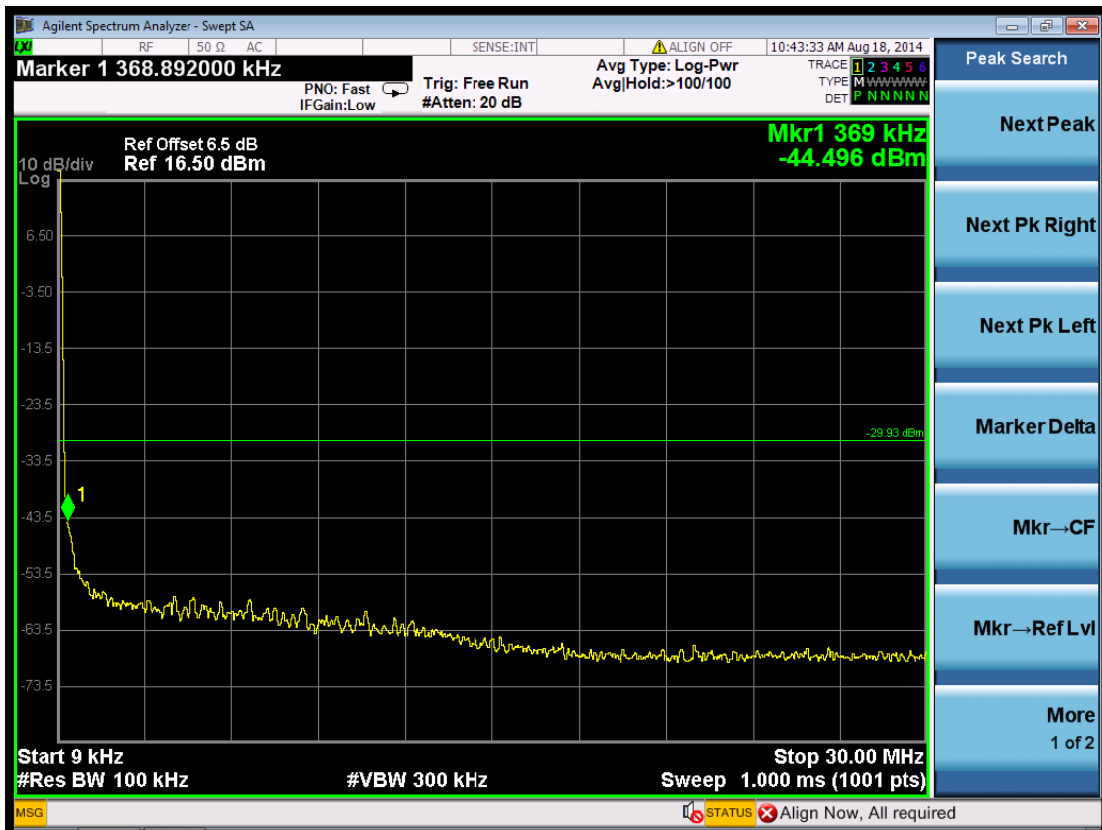
(Plot 6.6.4 B6: Channel 6: 2437MHz @ 802.11n HT40)



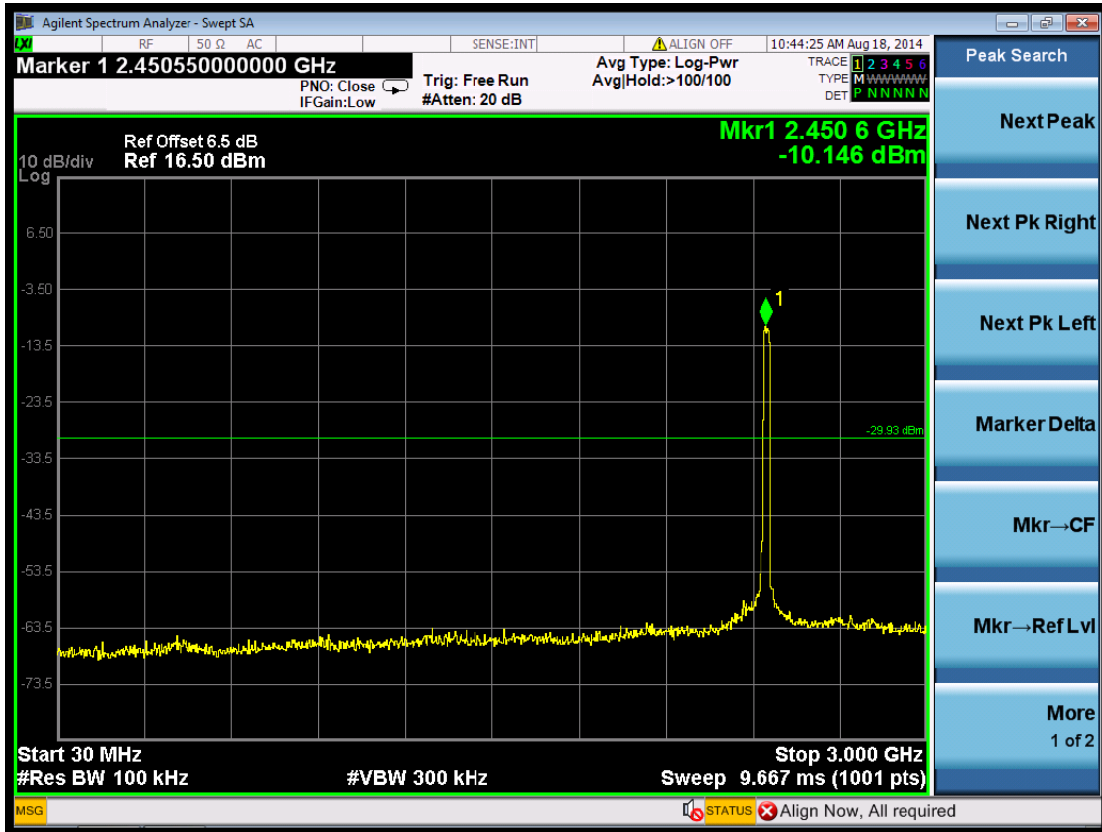
(Plot 6.6.4 B7: Channel 6: 2437MHz @ 802.11n HT40)



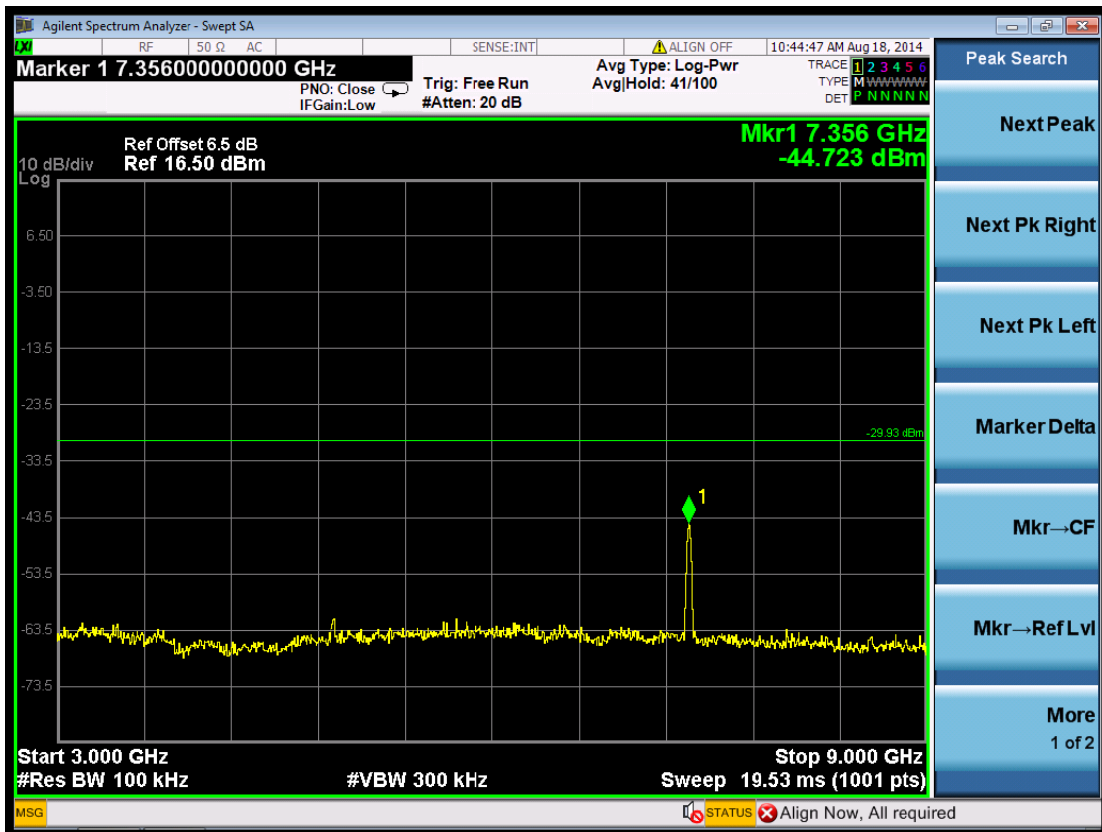
(Plot 6.6.4 C1: Channel 11: 2462MHz @ 802.11n HT40)



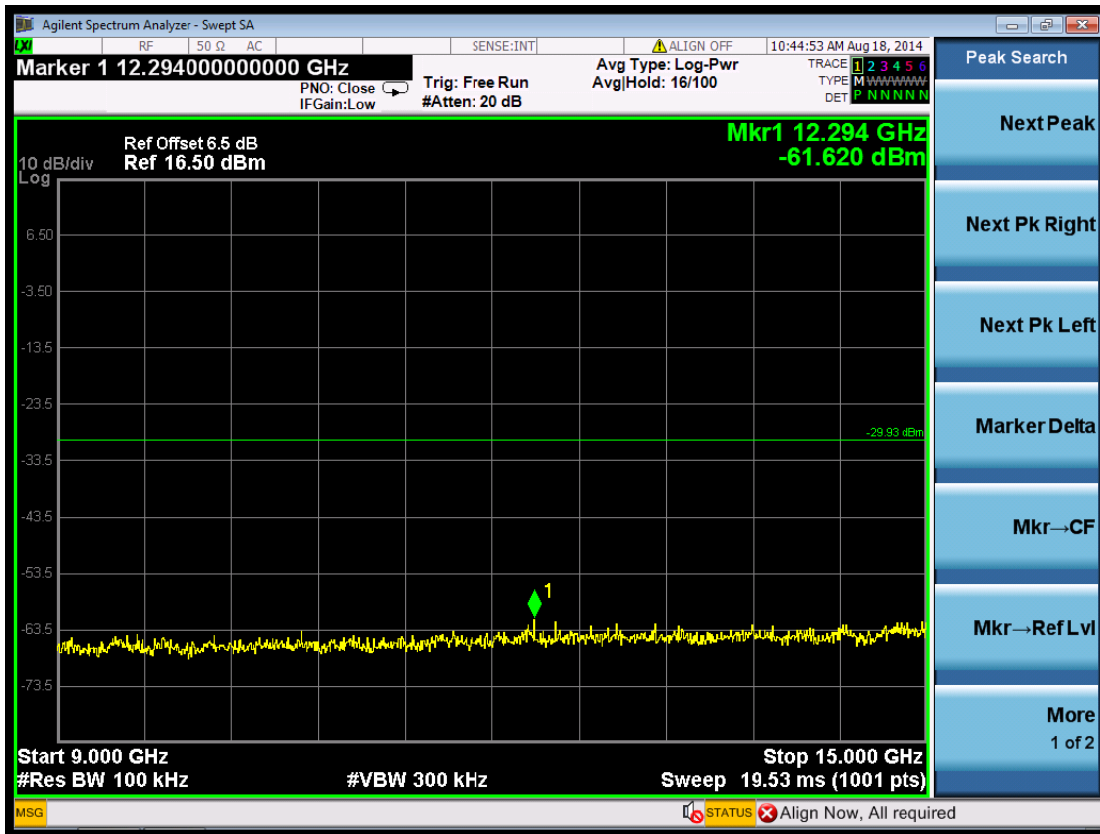
(Plot 6.6.4 C2: Channel 11: 2462MHz @ 802.11n HT40)



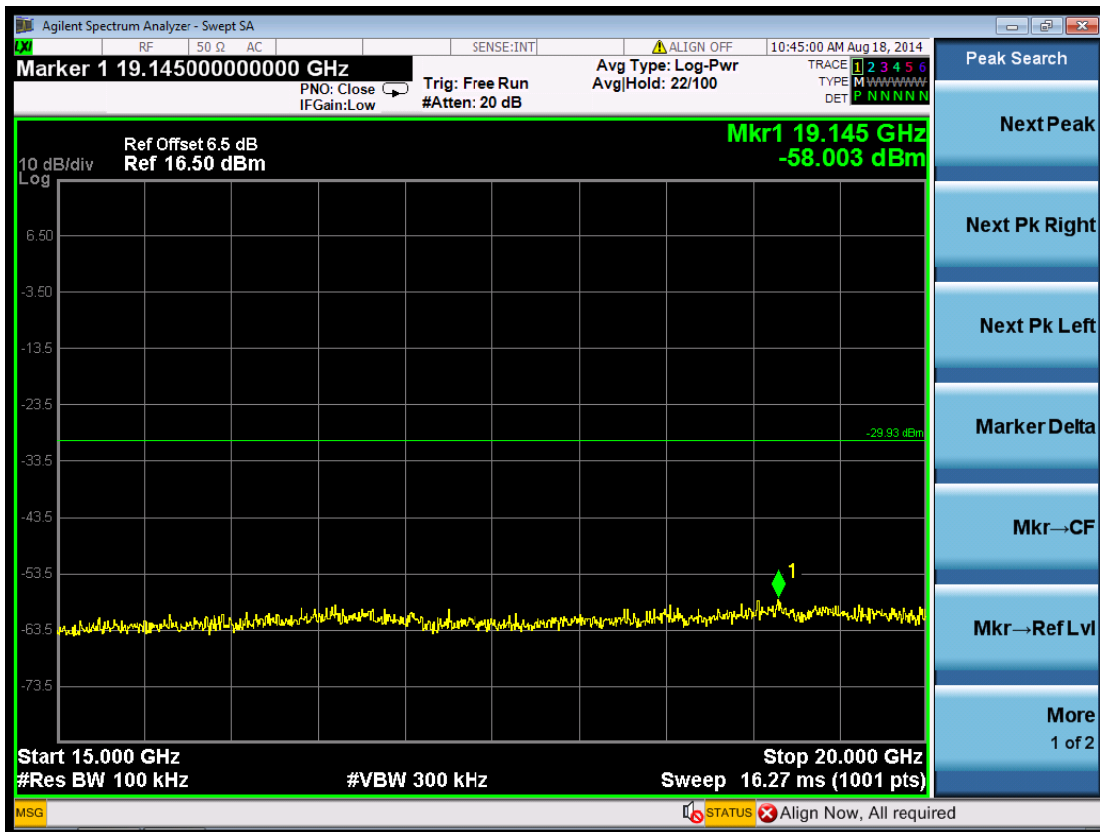
(Plot 6.6.4 C3: Channel 11: 2462MHz @ 802.11n HT40)



(Plot 6.6.4 C4: Channel 11: 2462MHz @ 802.11n HT40)



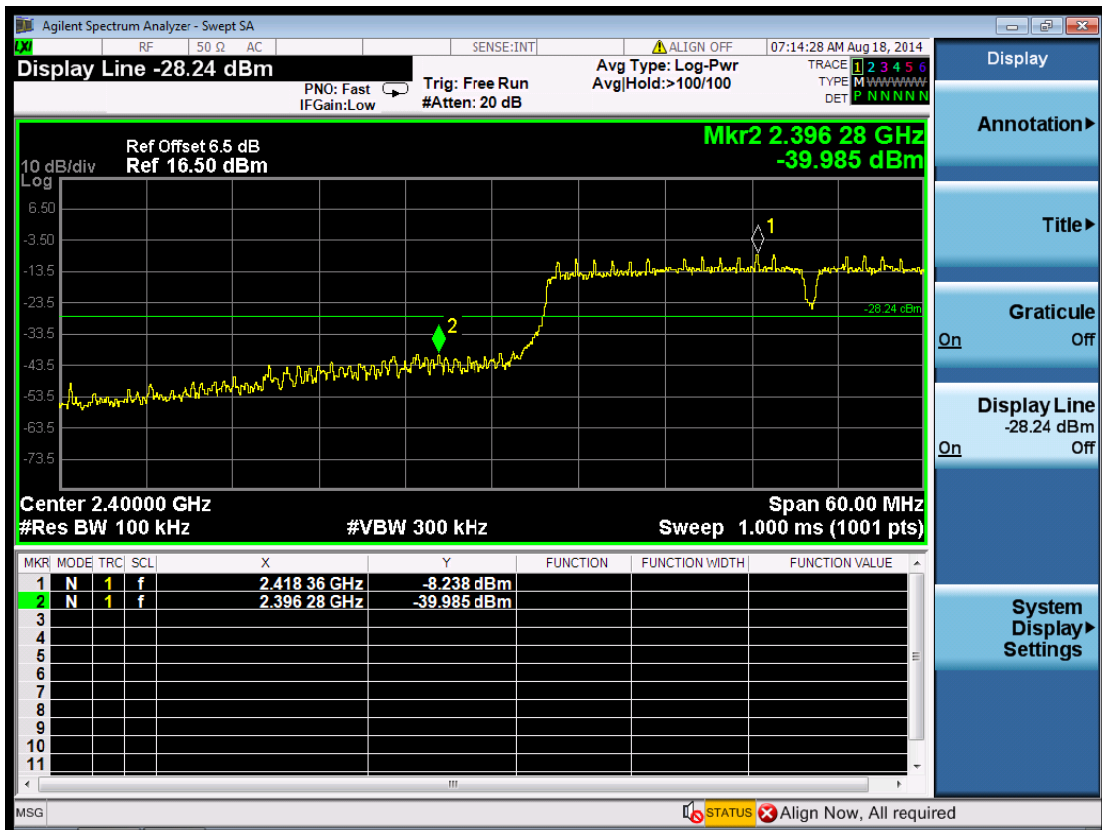
(Plot 6.6.4 C5: Channel 11: 2462MHz @ 802.11n HT40)



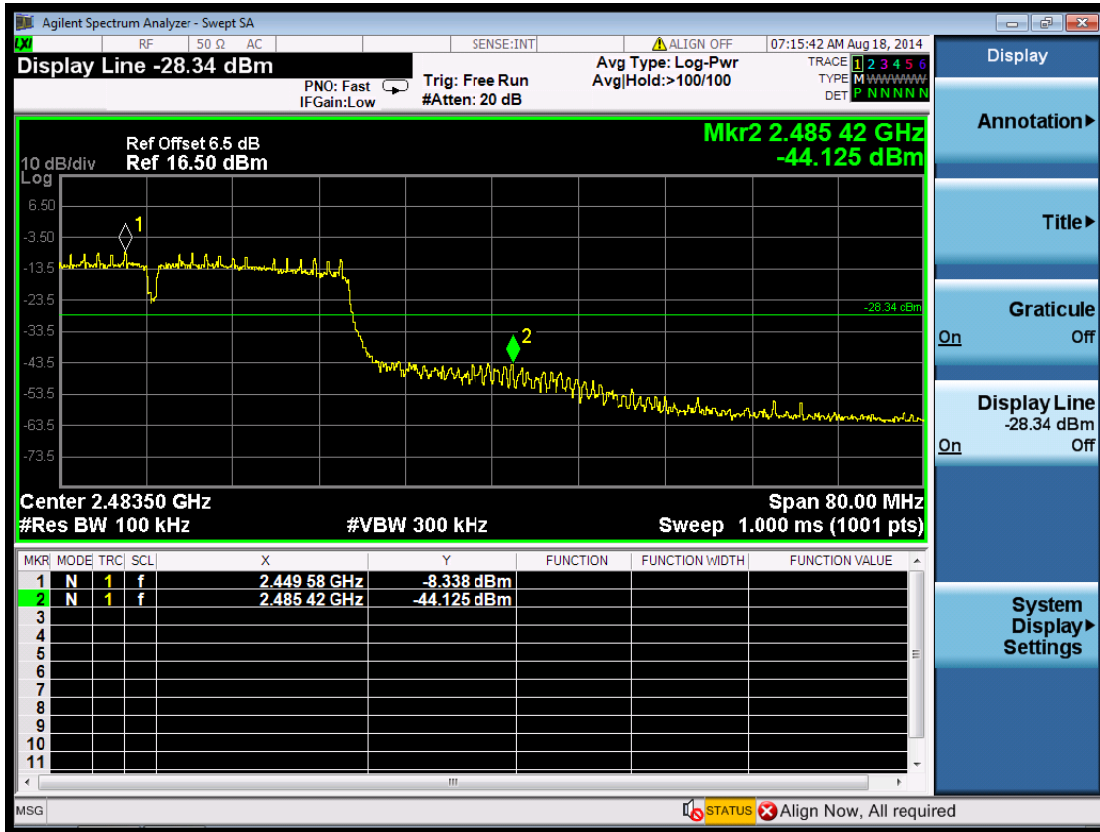
(Plot 6.6.4 C6: Channel 11: 2462MHz @ 802.11n HT40)



(Plot 6.6.4 C7: Channel 11: 2462MHz @ 802.11n HT40)



(Plot 6.6.4 D: Channel 1: 2412MHz @802.11n HT40)



(Plot 6.6.4 E: Channel 11: 2462MHz @ 802.11n HT40)

6.7 6dB Bandwidth

TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100 KHz RBW and 300KHz VBW. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

According to KDB558074 D01 V03 for one of the following procedures may be used to determine the modulated DTS device signal bandwidth.

1. Set RBW = 100 kHz.
2. Set the video bandwidth (VBW) ≥ 3 RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

LIMIT

For digital modulation systems, the minimum 6 dB bandwidth shall be at least 500 kHz.

TEST RESULTS

6.7.1 801.11b Test Mode

A. Test Verdict

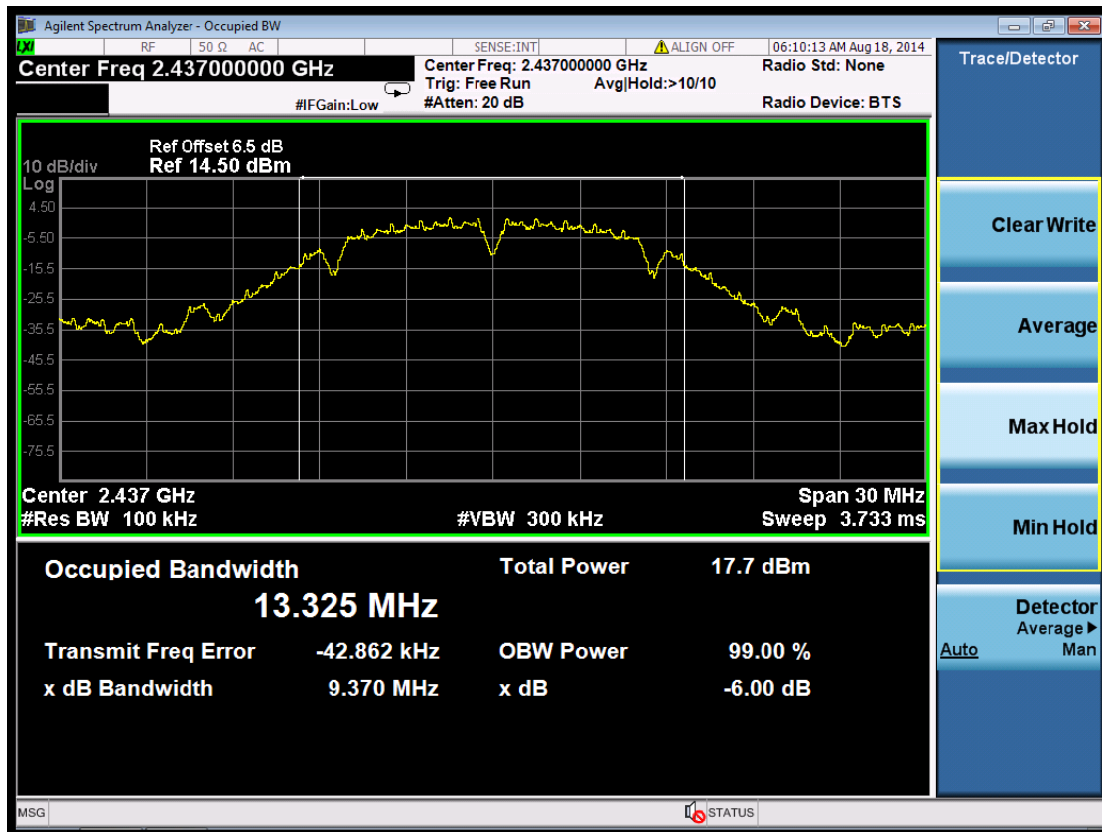
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Refer to Plot	Limits (kHz)	Verdict
1	2412	13.679	Plot 6.7.1 A	≥ 500	PASS
6	2437	13.325	Plot 6.7.1 B	≥ 500	PASS
11	2462	13.158	Plot 6.7.1 C	≥ 500	PASS

- Note: 1. For 802.11b mode at final test to get the worst-case emission at 1Mbps.
2. The test results including the cable loss.

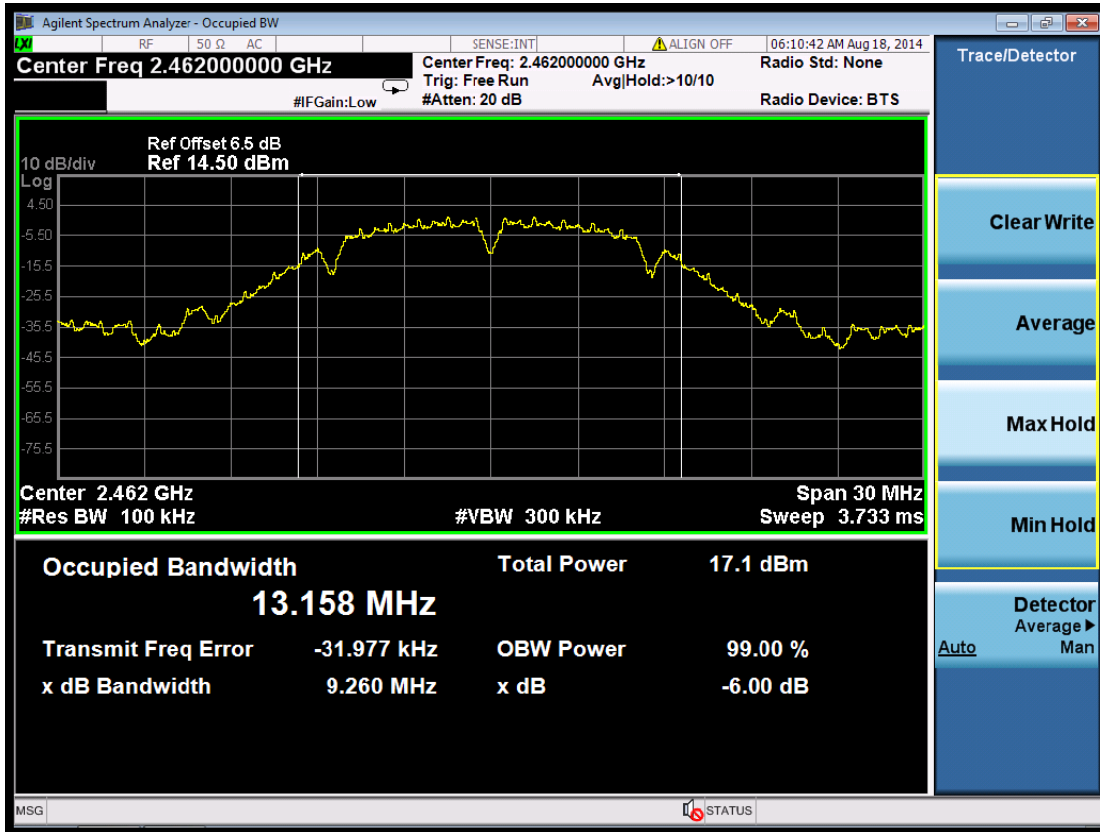
B. Test Plots



(Plot 6.7.1 A: Channel 1: 2412MHz @ 802.11b)



(Plot 6.7.1 B: Channel 6: 2437MHz @ 802.11b)



(Plot 6.7.1 C: Channel 11: 2462MHz @ 802.11b)

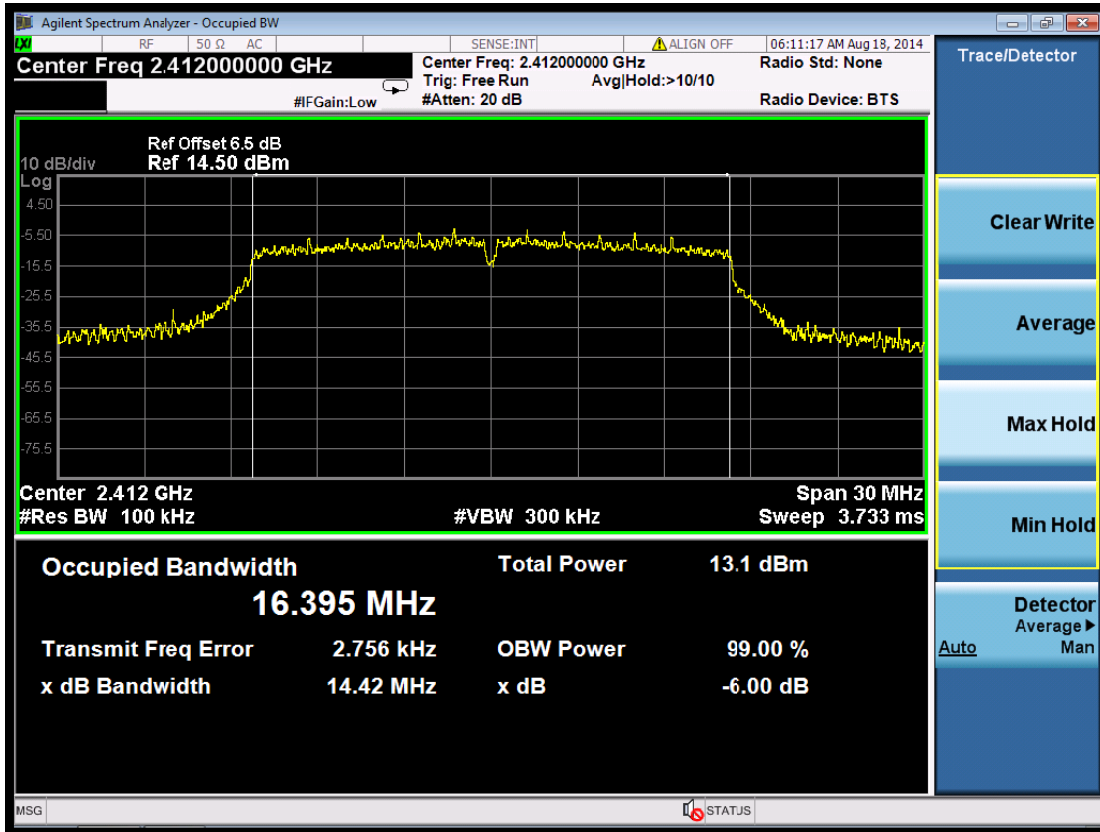
6.7.2 801.11g Test Mode

A. Test Verdict

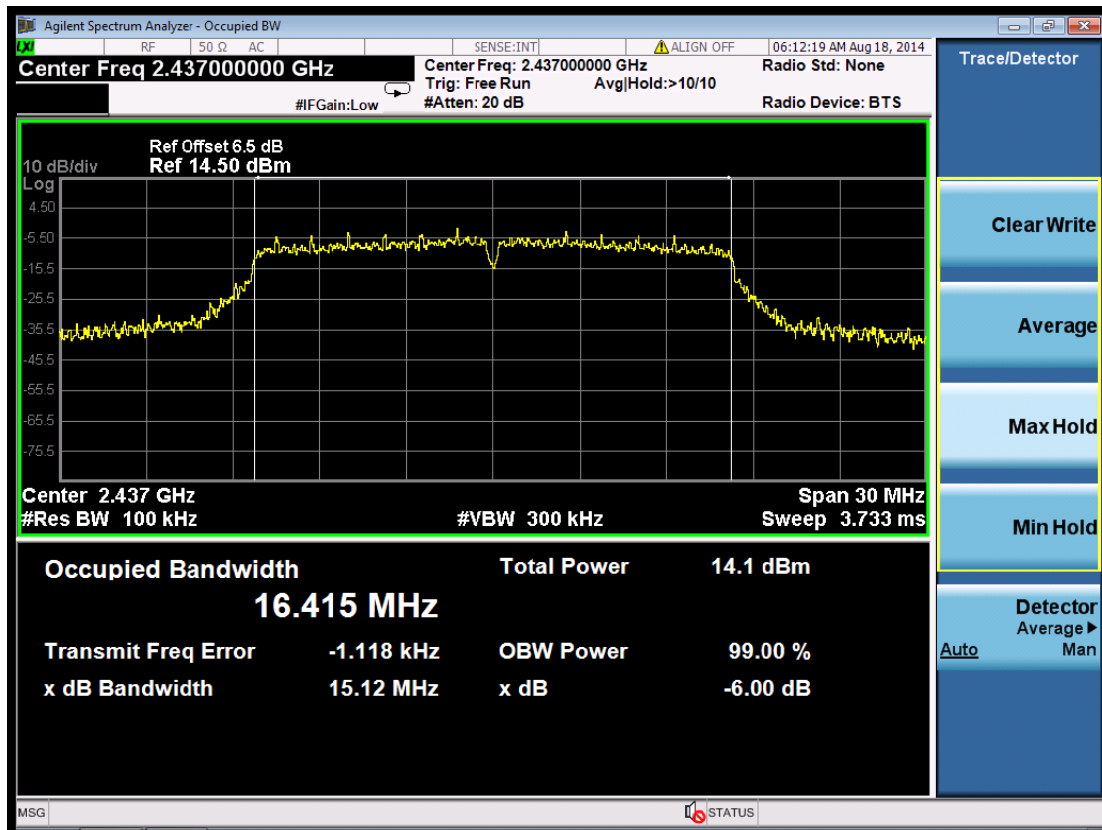
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Refer to Plot	Limits (kHz)	Verdict
1	2412	16.395	Plot 6.7.2 A	≥500	PASS
6	2437	16.415	Plot 6.7.2 B	≥500	PASS
11	2462	16.398	Plot 6.7.2 C	≥500	PASS

Note: 1. For 802.11g mode at final test to get the worst-case emission at 6Mbps.
 2. The test results including the cable lose.

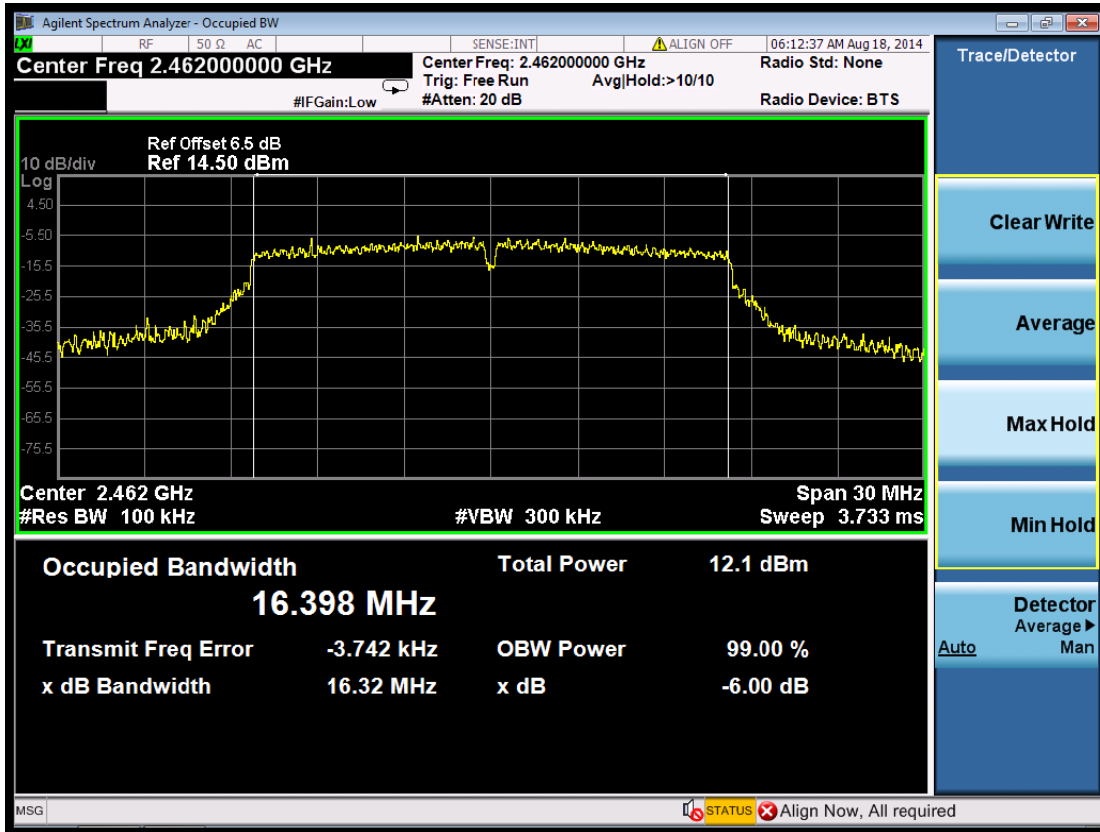
B. Test Plots



(Plot 6.7.2 A: Channel 1: 2412MHz @ 802.11g)



(Plot 6.7.2 B: Channel 6: 2437MHz @ 802.11g)



(Plot 6.7.2 C: Channel 11: 2462MHz @ 802.11g)

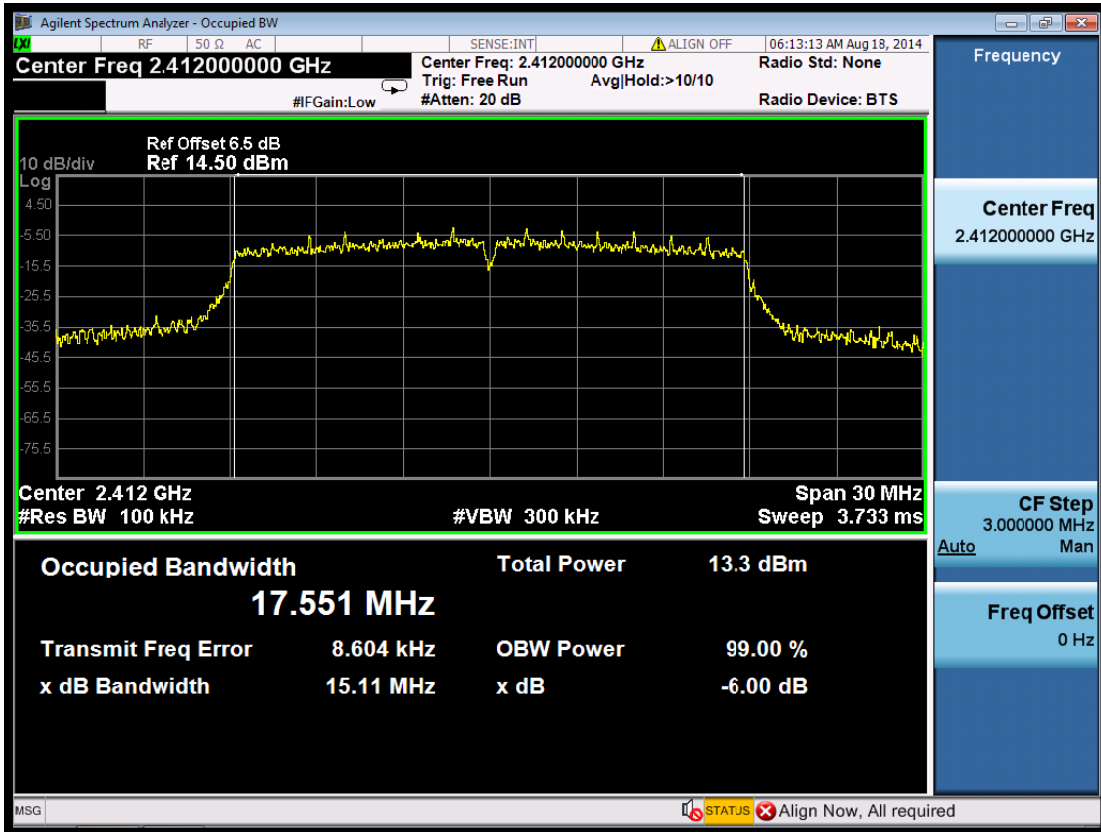
6.7.3 801.11n HT20MHz Test Mode

A. Test Verdict

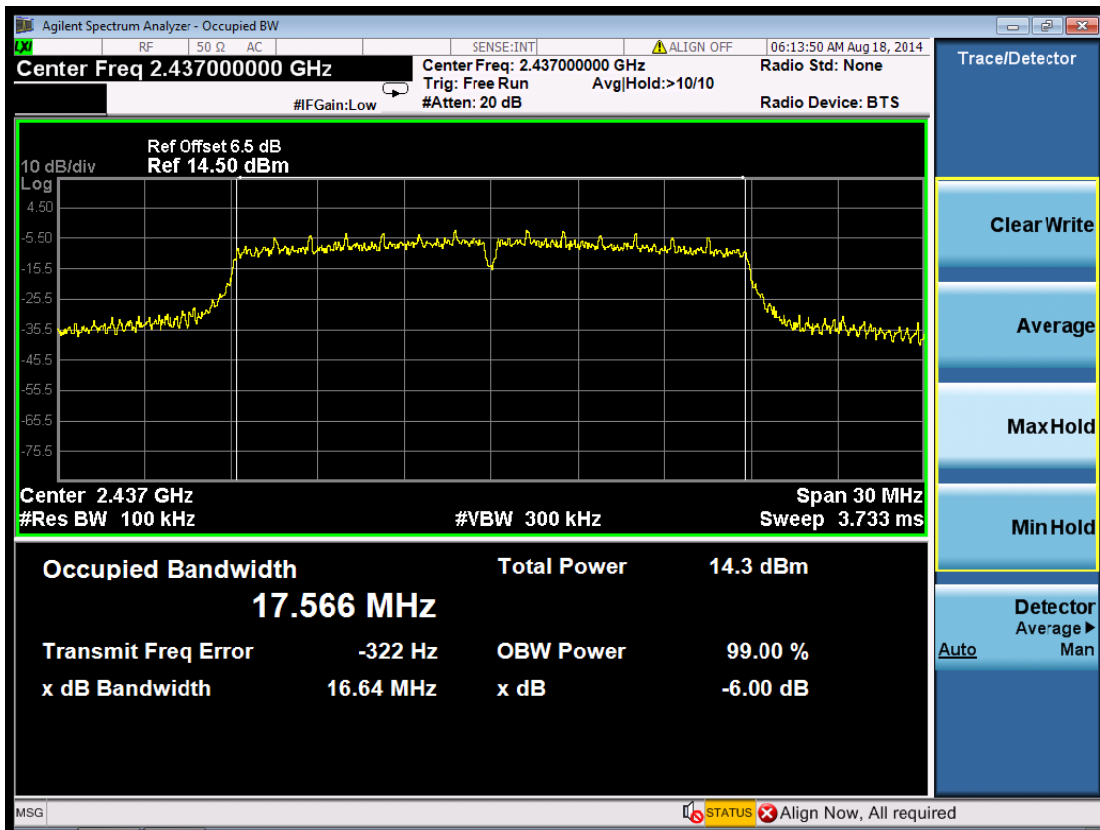
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Refer to Plot	Limits (kHz)	Verdict
1	2412	17.551	Plot 6.7.3 A	≥500	PASS
6	2437	17.566	Plot 6.7.3 B	≥500	PASS
11	2462	17.554	Plot 6.7.3 C	≥500	PASS

Note: 1. For 802.11n HT20MHz mode at final test to get the worst-case emission at 6.5Mbps.
 2. The test results including the cable loss.

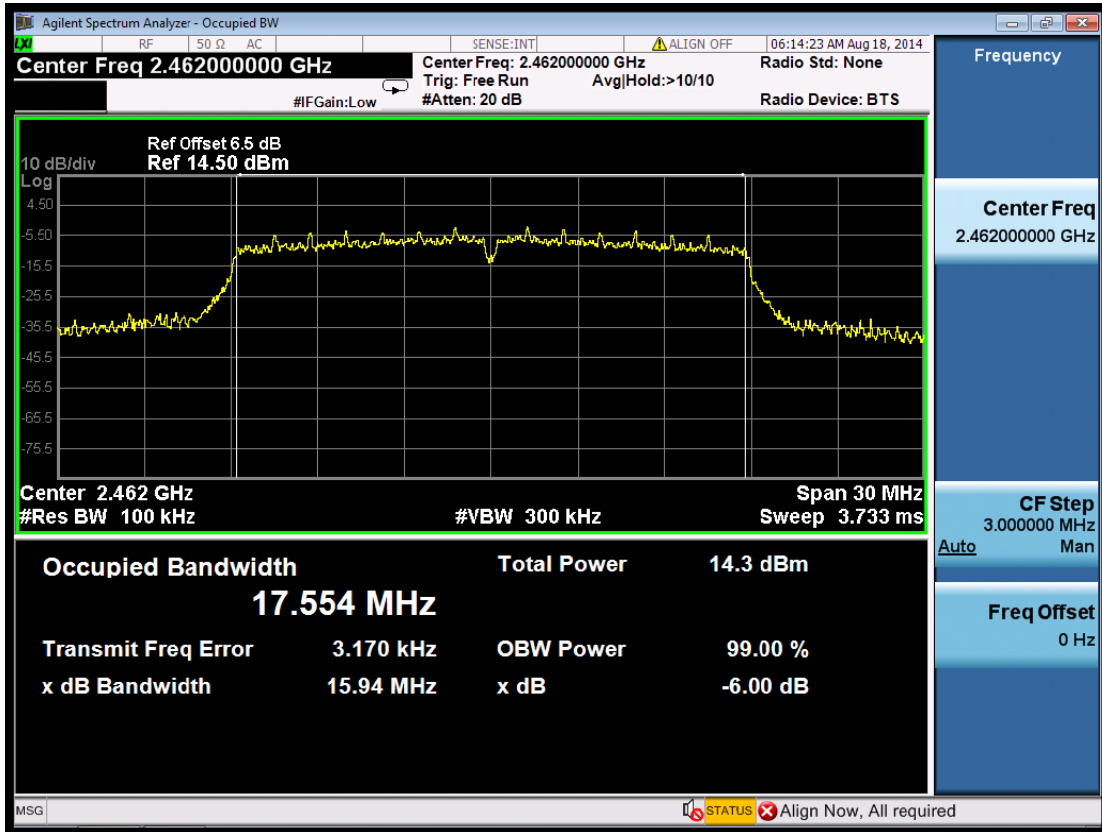
B. Test Plots



(Plot 6.7.3 A: Channel 1: 2412MHz @ 802.11n HT20MHz)



(Plot 6.7.3 B: Channel 6: 2437MHz @ 802.11n HT20MHz)



(Plot 6.7.3 C: Channel 11: 2462MHz @ 802.11n HT20MHz)

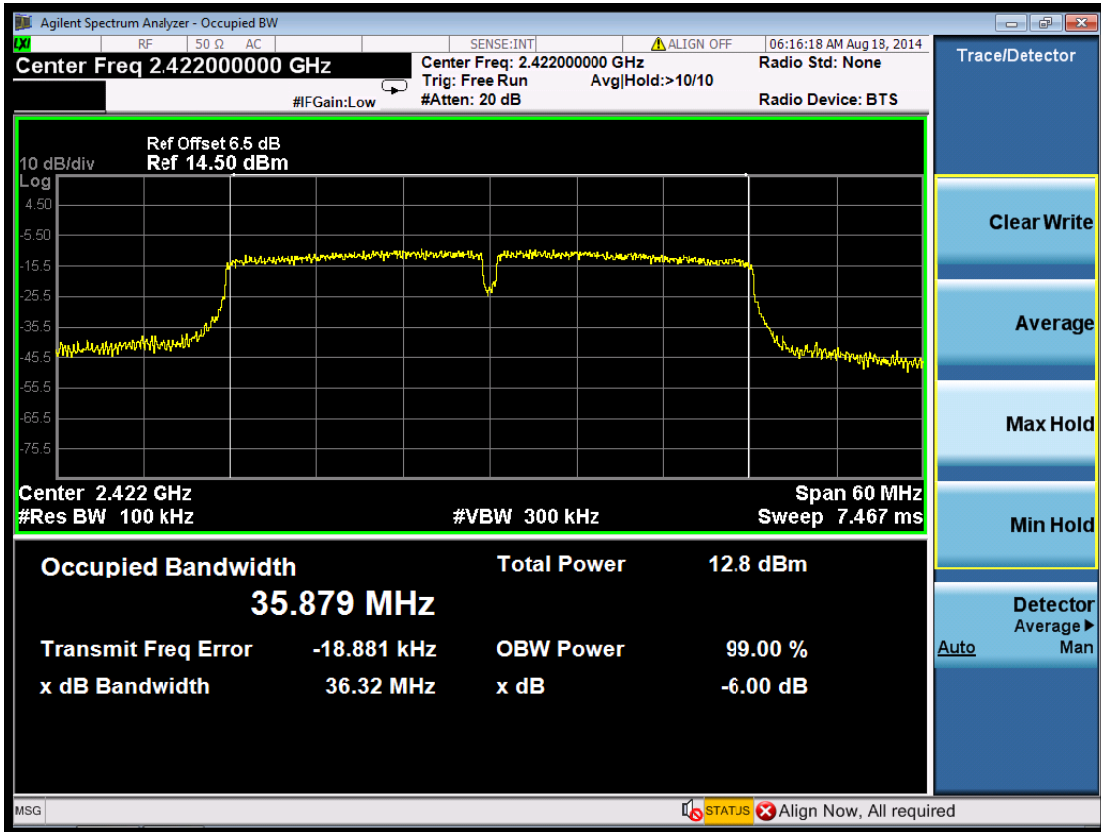
6.7.4 801.11n HT40MHz Test Mode

A. Test Verdict

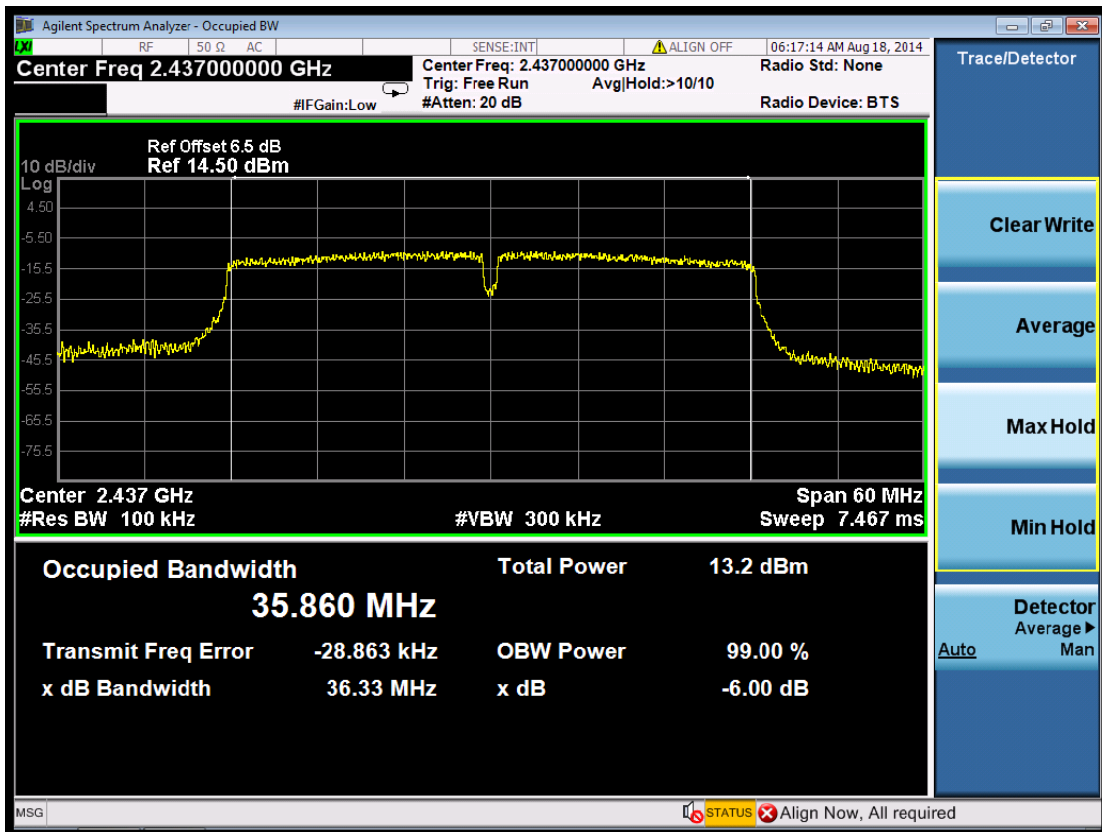
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Refer to Plot	Limits (kHz)	Verdict
3	2422	35.879	Plot 6.7.4 A	≥500	PASS
6	2437	35.860	Plot 6.7.4 B	≥500	PASS
9	2452	35.866	Plot 6.7.4 C	≥500	PASS

Note: 1. For 802.11n HT40MHz mode at final test to get the worst-case emission at 13.5Mbps.
 2. The test results including the cable lose.

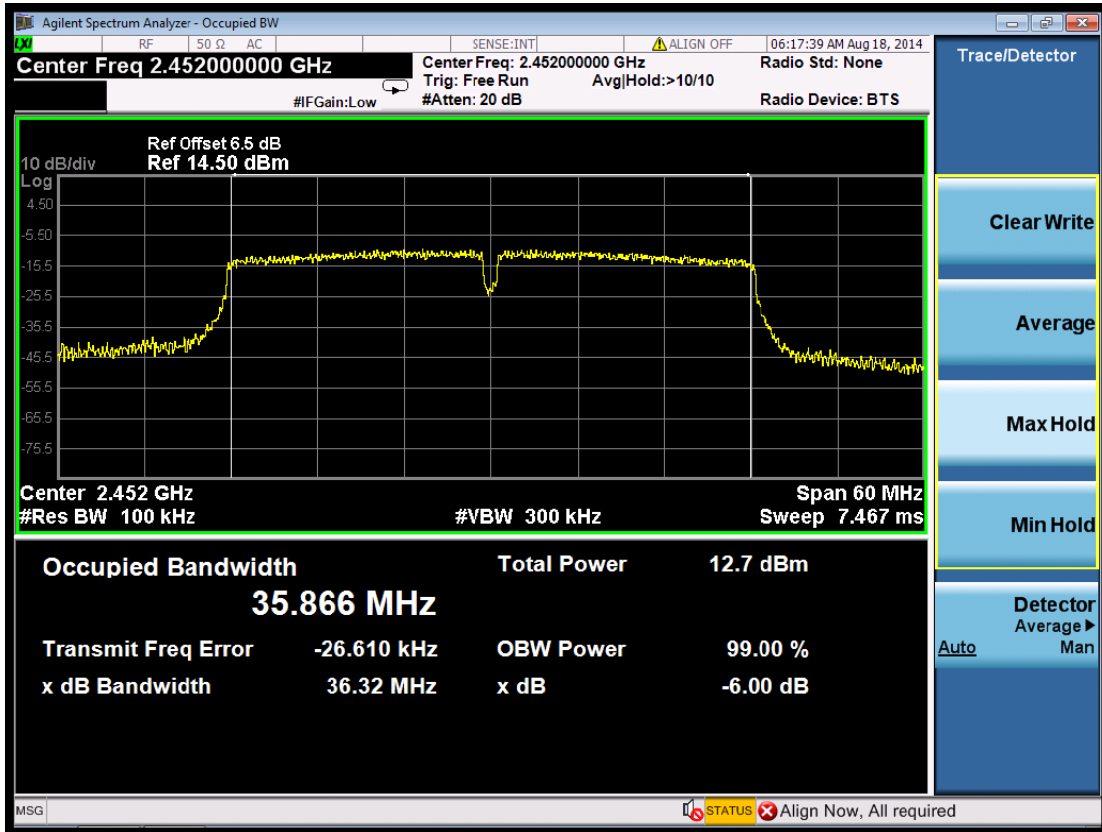
B. Test Plots



(Plot 6.7.4 A: Channel 3: 2422MHz @ 802.11n HT40MHz)



(Plot 6.7.3 B: Channel 6: 2437MHz @ 802.11n HT40MHz)



(Plot 6.7.4 C: Channel 9: 2452MHz @ 802.11n HT40MHz)



6.8 Antenna Requirement

Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.247 (c), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

Refer to statement below for compliance

The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. Further, this requirement does not apply to intentional radiators that must be professionally installed.

Antenna Connected Construction

The WLAN and Bluetooth sharing same antenna and the maximum antenna gain of WLAN used was 0.00 dBi.

END