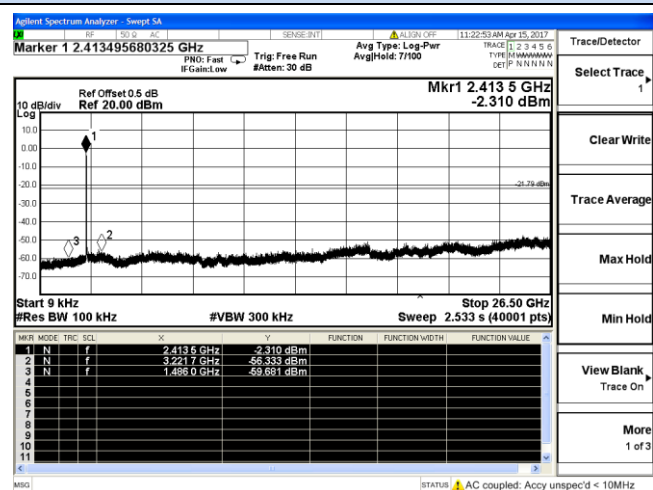
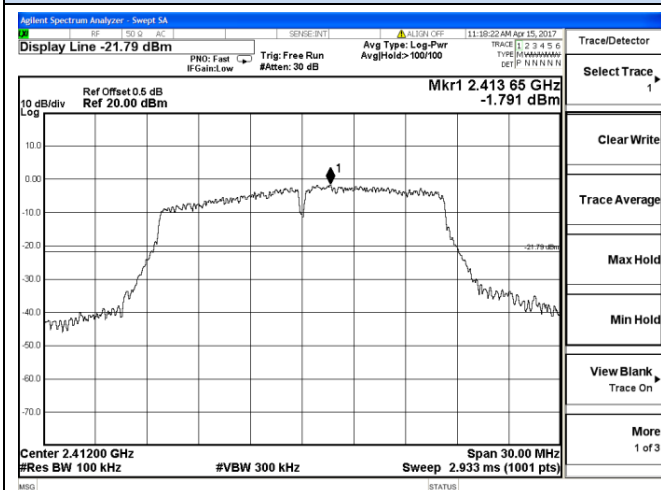


RF Conducted Spurious Emissions

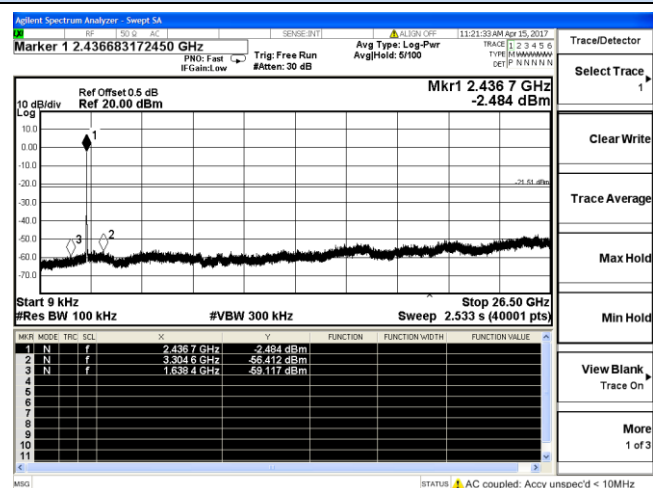
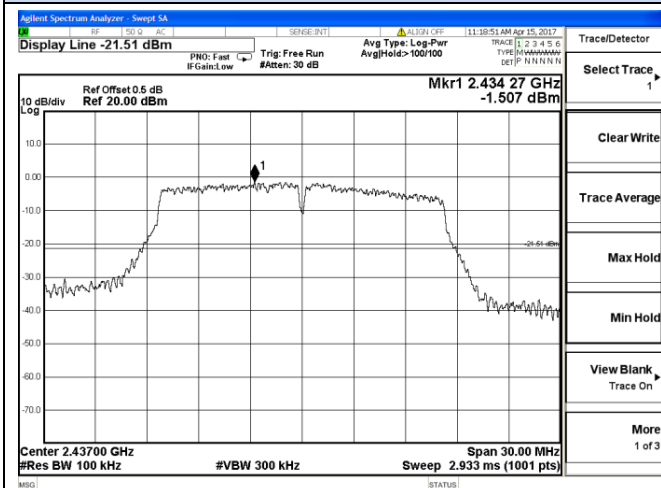
IEEE 802.11g

Chain 0



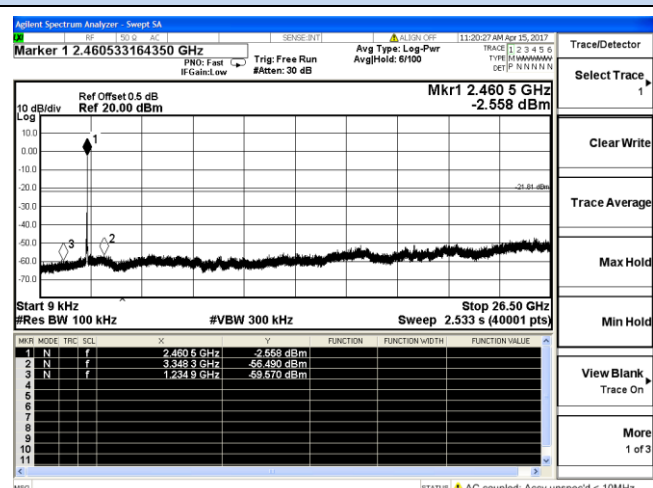
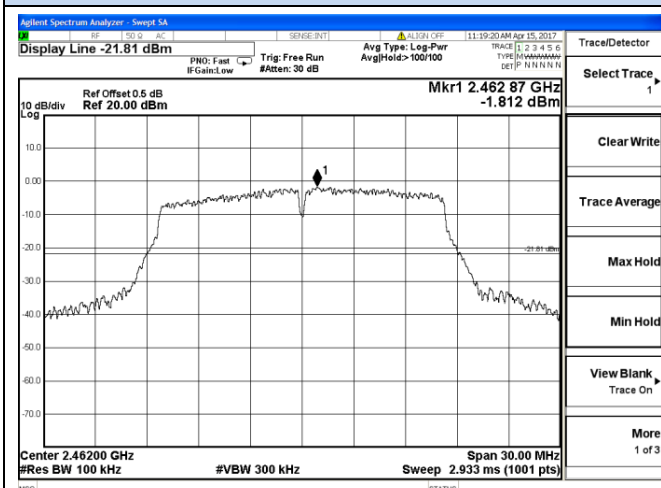
2397 MHz – 2427 MHz

9 KHz – 26.5 GHz



2422 MHz – 2452 MHz

9 KHz – 26.5 GHz



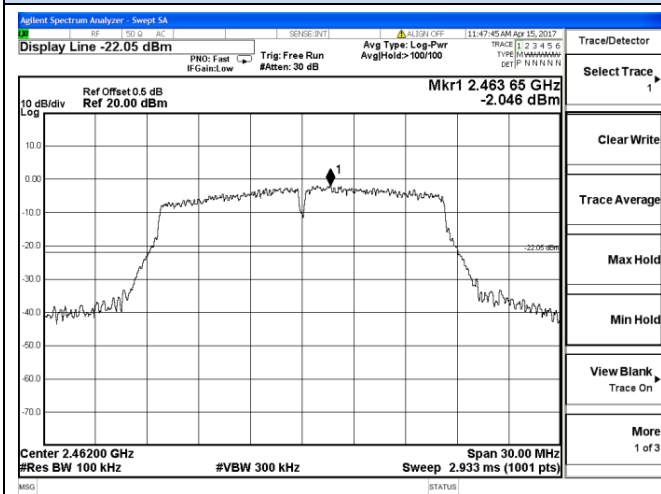
2447 MHz – 2477 MHz

9 KHz – 26.5 GHz

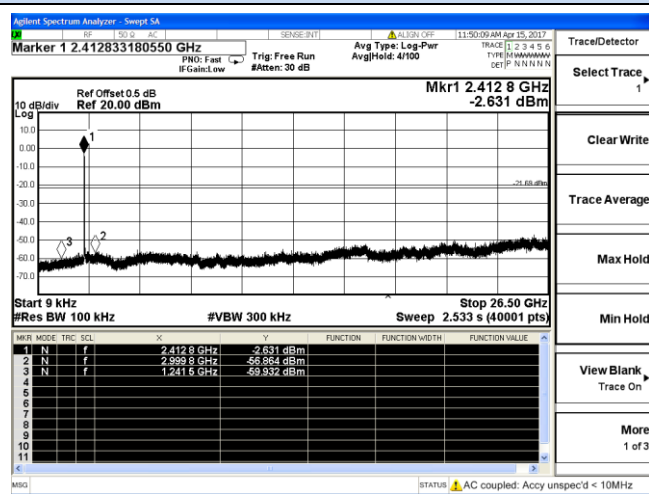
RF Conducted Spurious Emissions

IEEE 802.11g

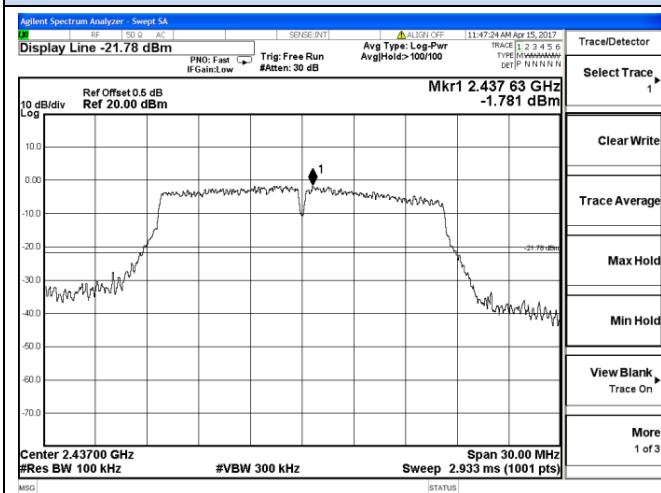
Chain 1



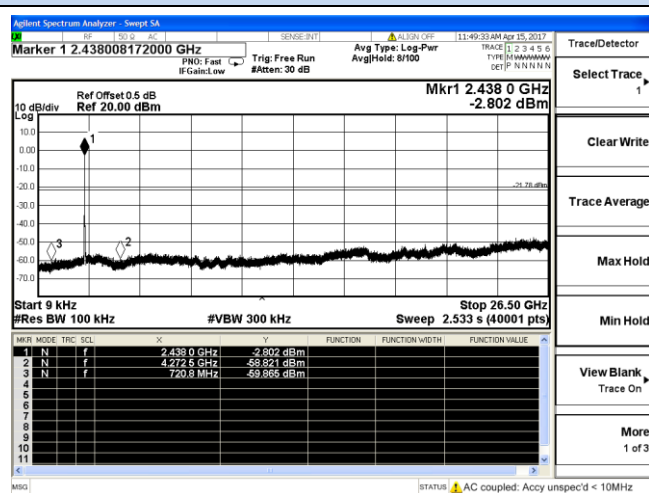
2397 MHz – 2427 MHz



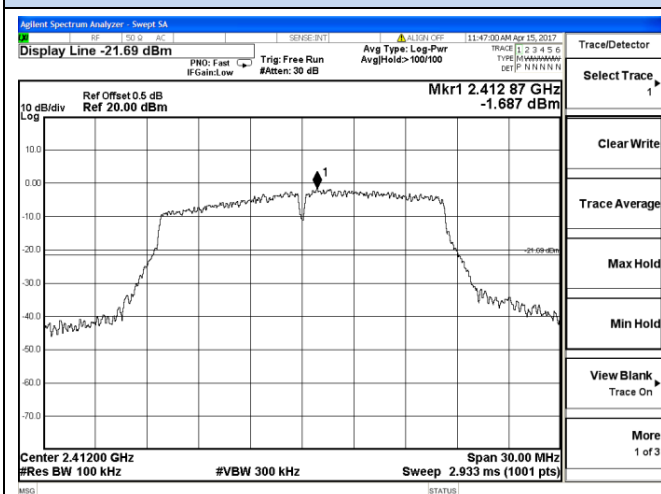
9 KHz – 26.5 GHz



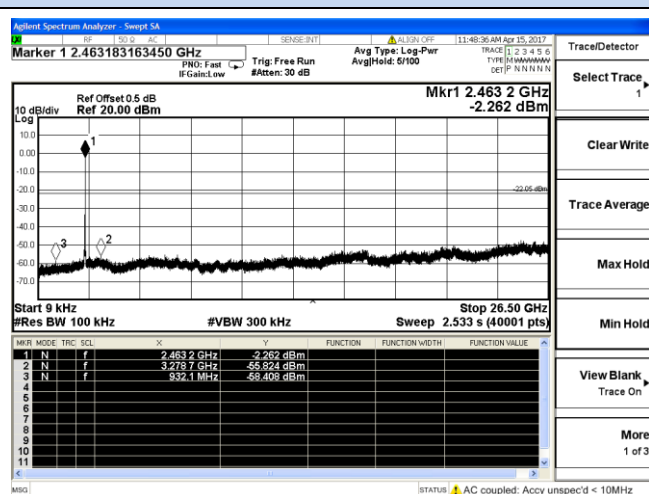
2422 MHz – 2452 MHz



9 KHz – 26.5 GHz



2447 MHz – 2477 MHz

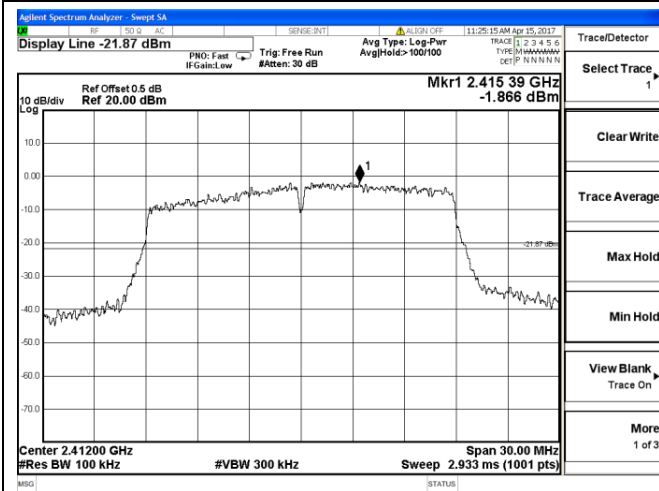


9 KHz – 26.5 GHz

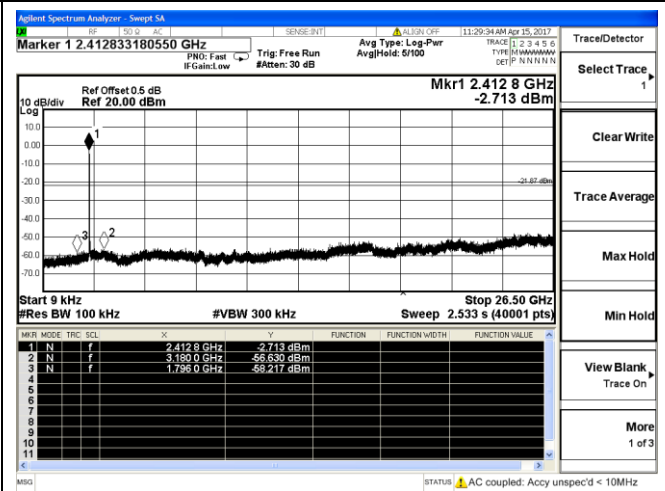
RF Conducted Spurious Emissions

IEEE 802.11n HT20

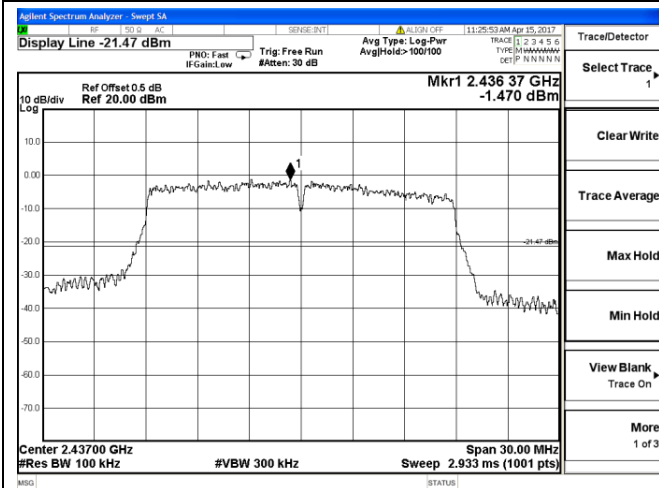
Chain 0



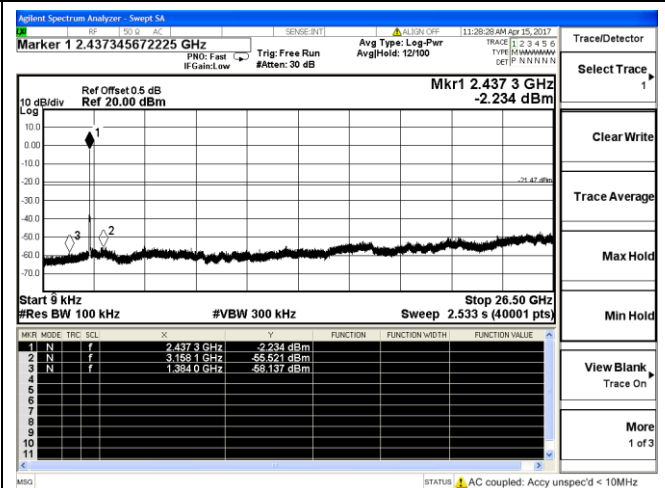
2397 MHz – 2427 MHz



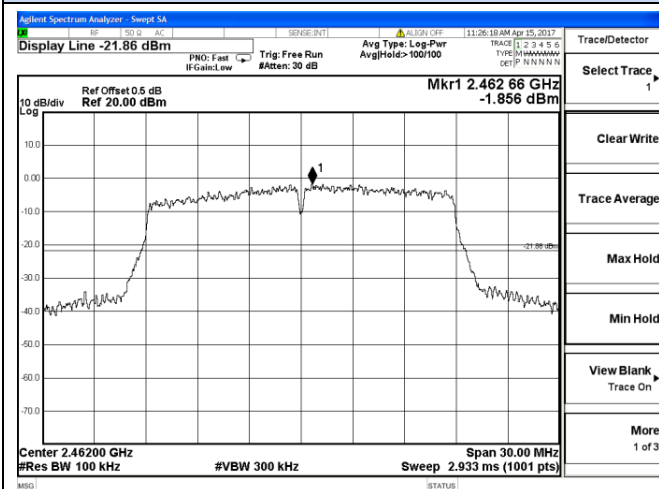
9 KHz – 26.5 GHz



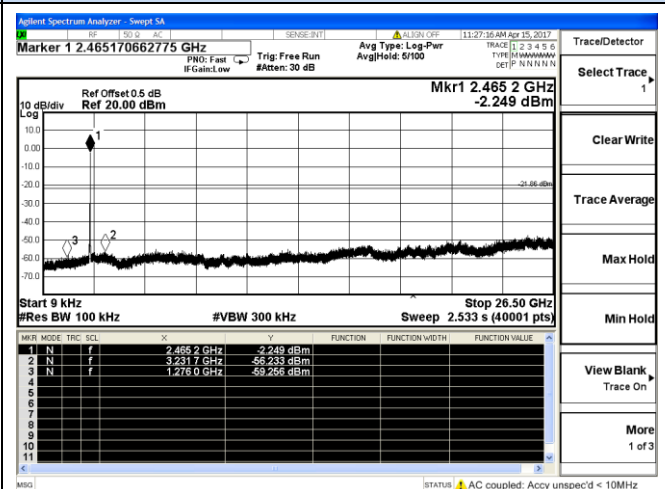
2422 MHz – 2452 MHz



9 KHz – 26.5 GHz



2447 MHz – 2477 MHz

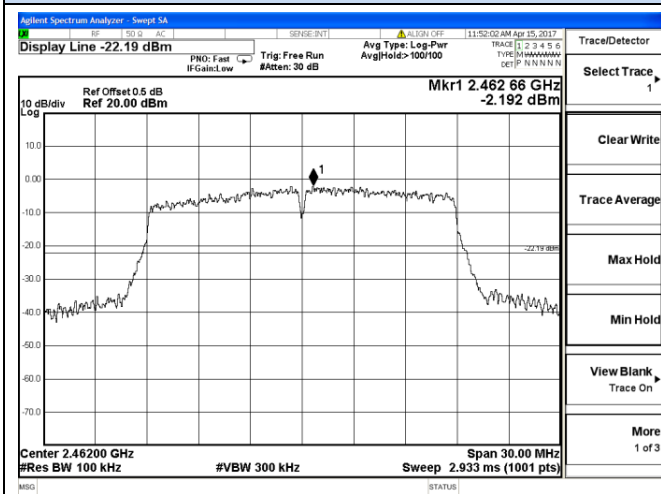


9 KHz – 26.5 GHz

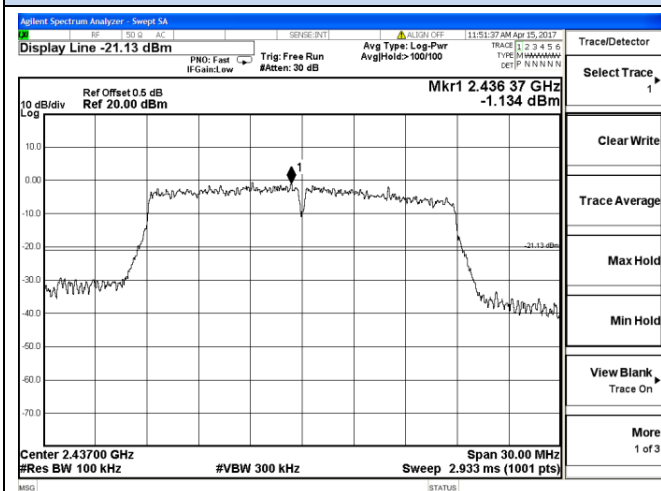
RF Conducted Spurious Emissions

IEEE 802.11n HT20

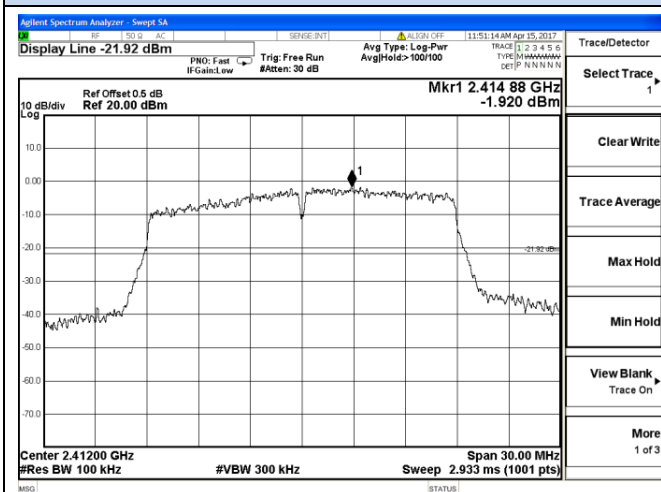
Chain 1



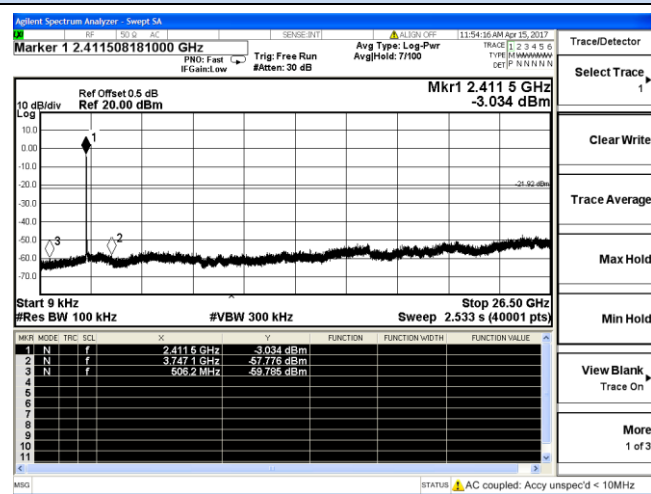
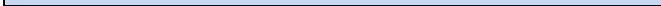
2397 MHz – 2427 MHz



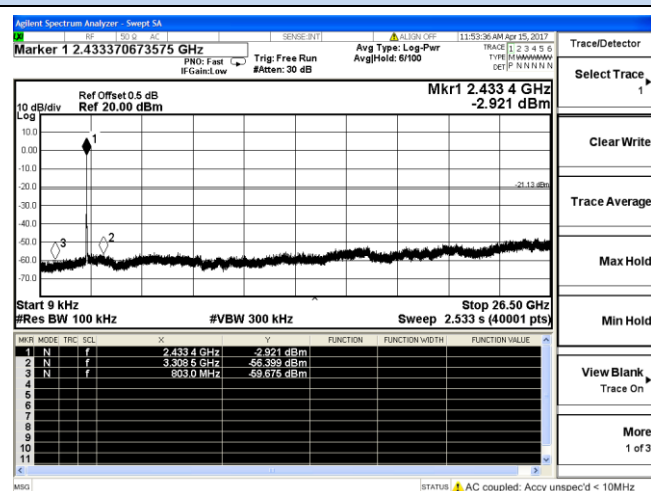
2422 MHz – 2452 MHz



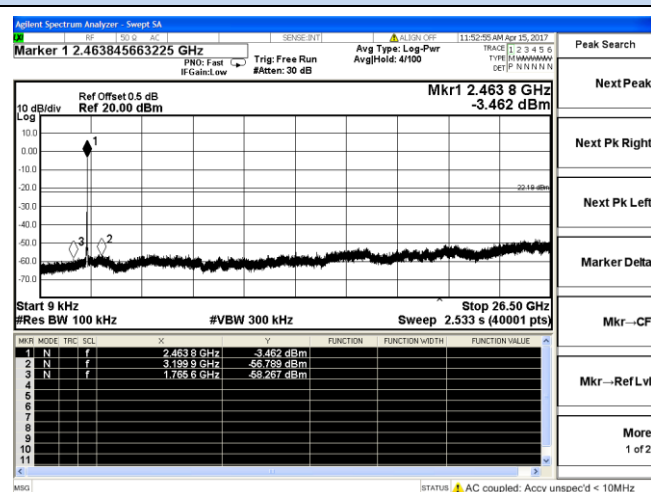
2447 MHz – 2477 MHz



9 KHz – 26.5 GHz



9 KHz – 26.5 GHz

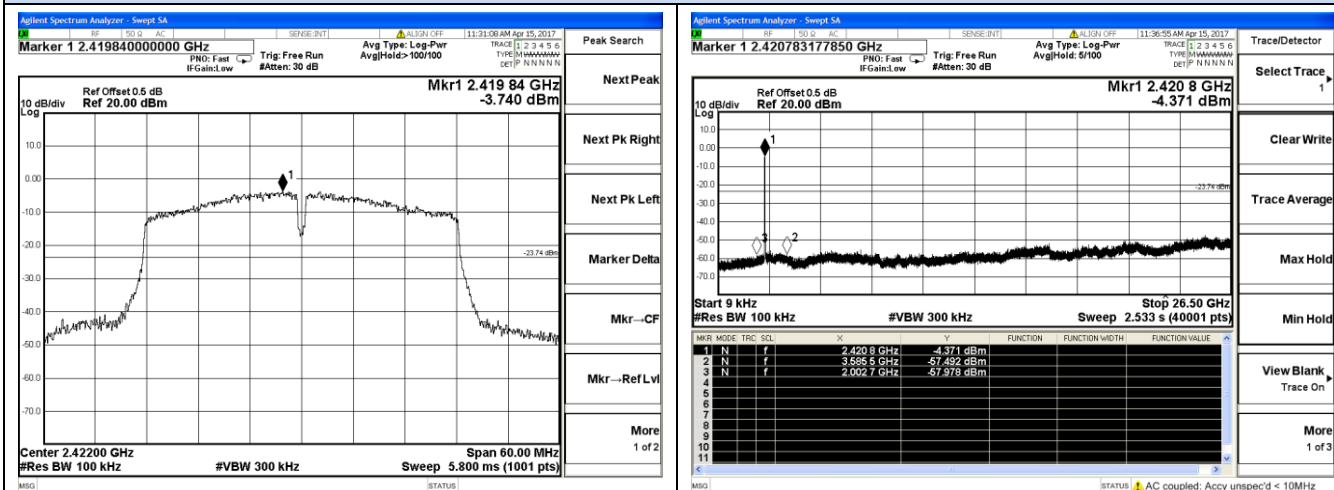


9 KHz – 26.5 GHz

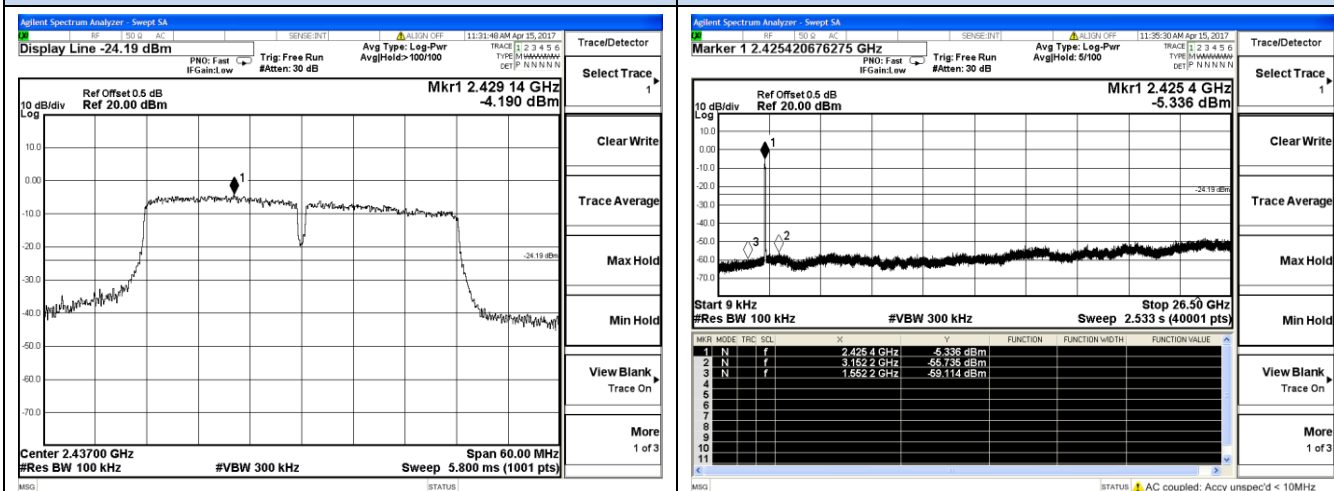
RF Conducted Spurious Emissions

IEEE 802.11n HT40

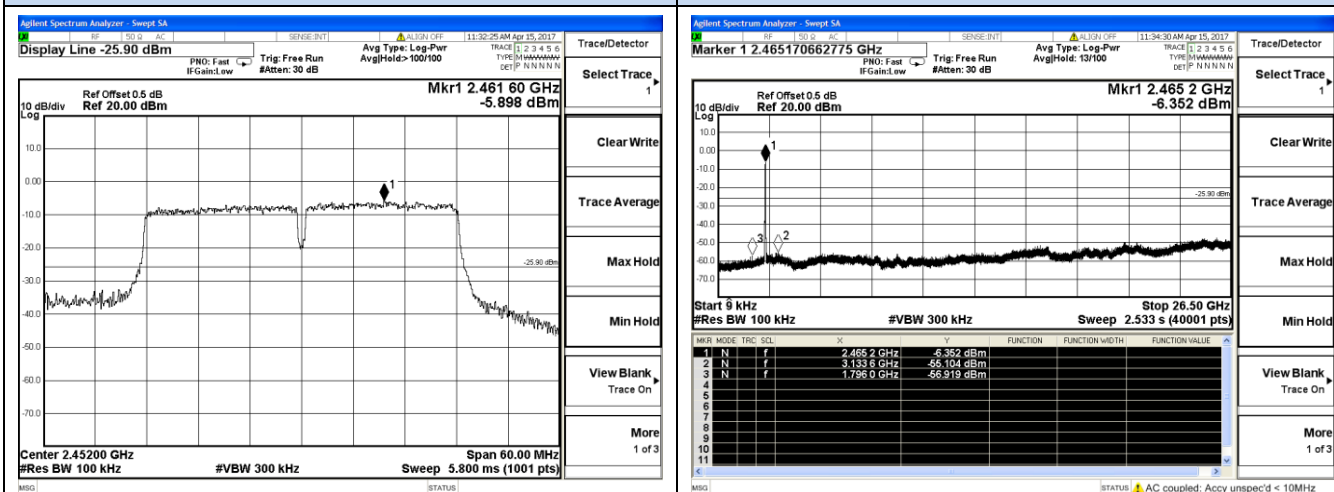
Chain 0



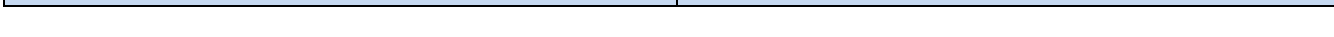
2392 MHz – 2452 MHz



2407 MHz – 2467 MHz



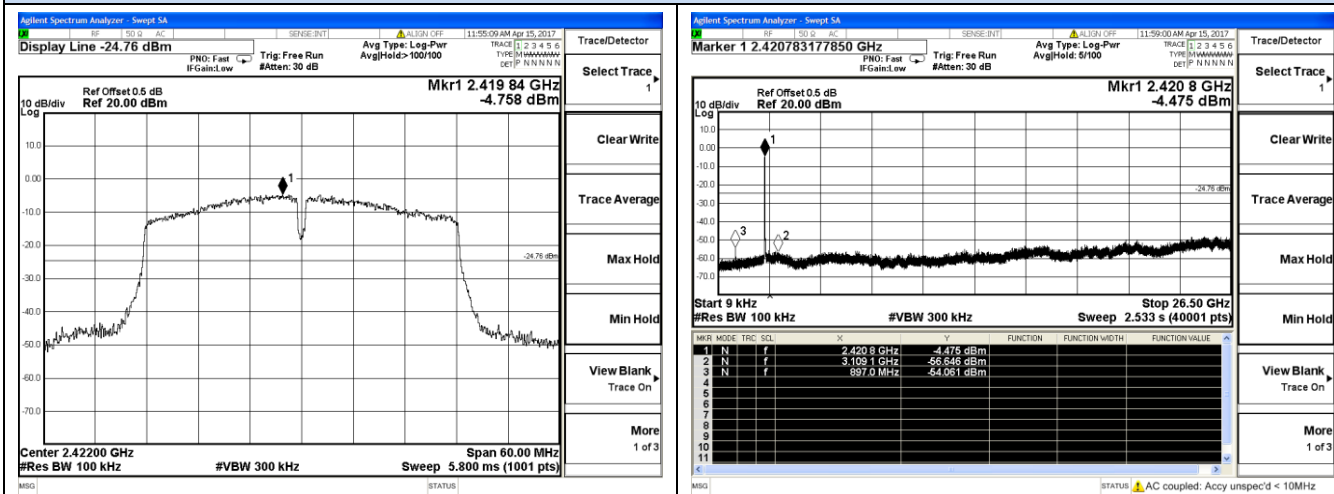
2422 MHz – 2482 MHz



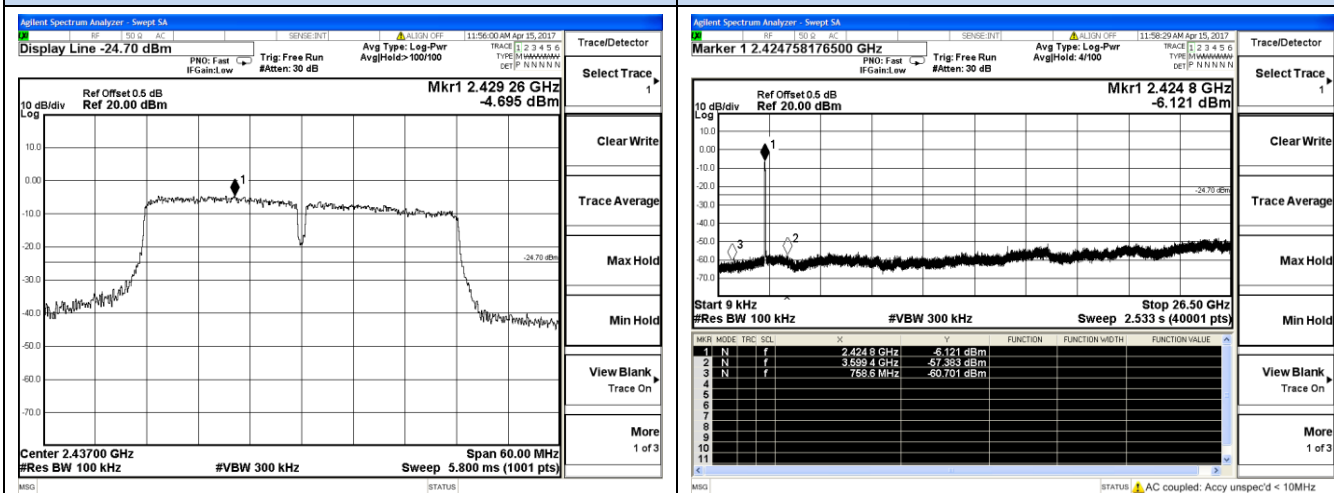
RF Conducted Spurious Emissions

IEEE 802.11n HT40

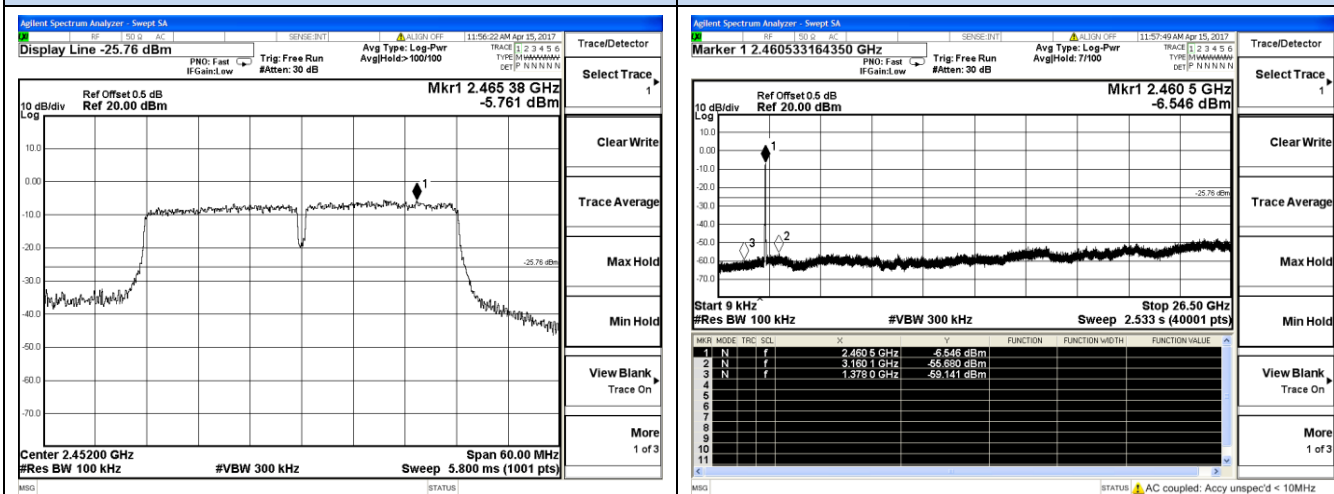
Chain 1



2392 MHz – 2452 MHz



2407 MHz – 2467 MHz



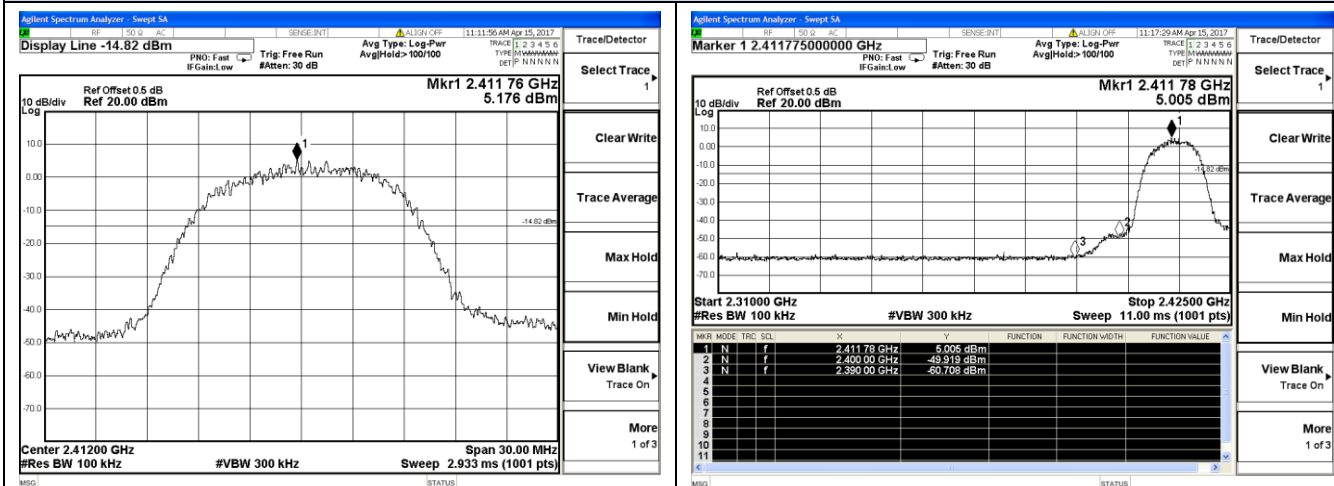
2422 MHz – 2482 MHz

5.6.7. Test Results of Band Edges Test

Band-edge measurements for conducted emissions

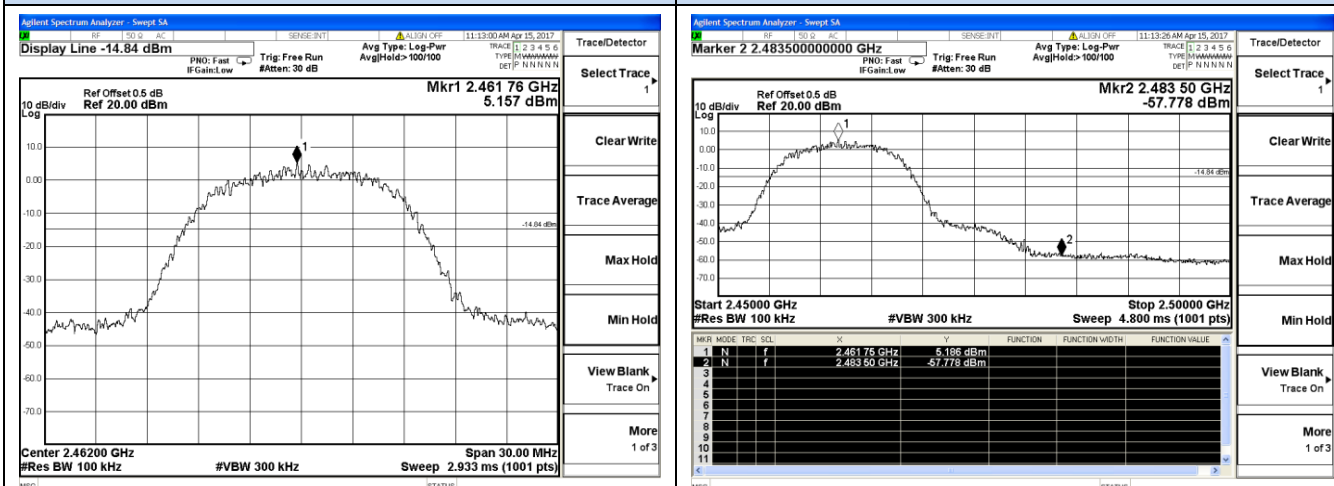
IEEE 802.11b

Chain 0



2397 MHz – 2427 MHz

Channel 1 / 2412 MHz

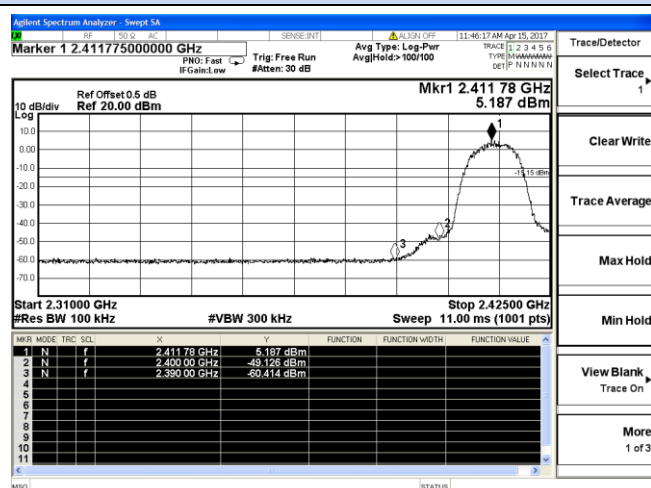
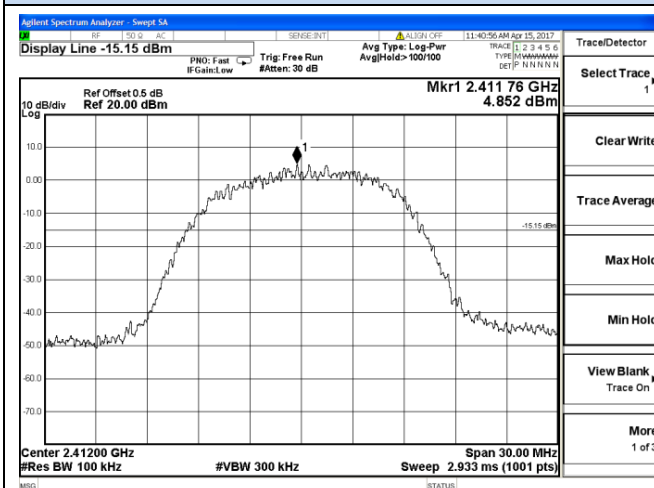


2447 MHz – 2477 MHz

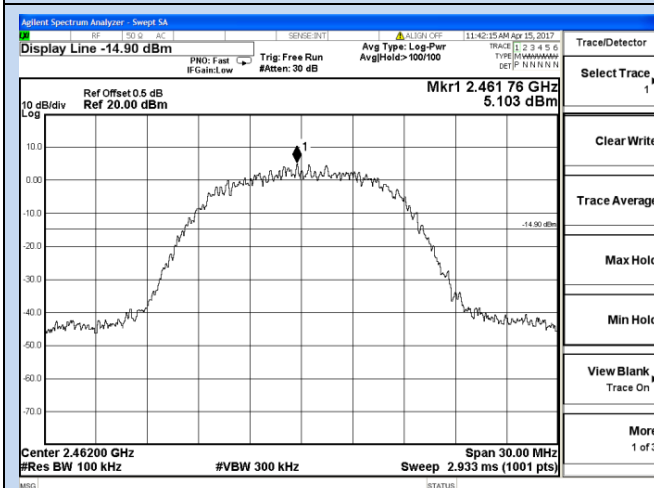
Channel 11 / 2462 MHz

IEEE 802.11b

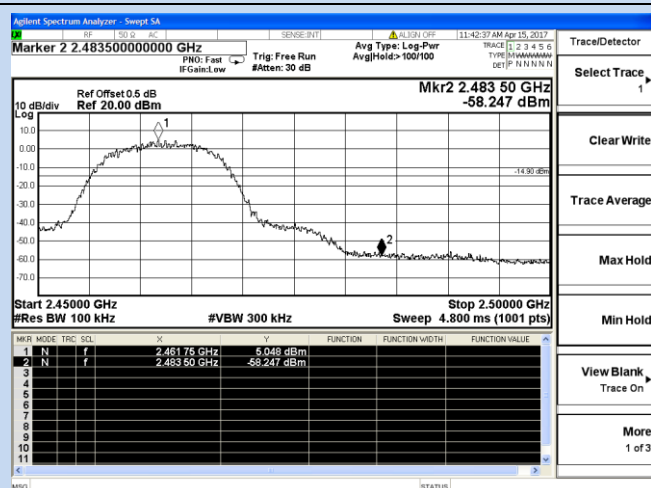
Chain 1



2397 MHz – 2427 MHz



Channel 1 / 2412 MHz

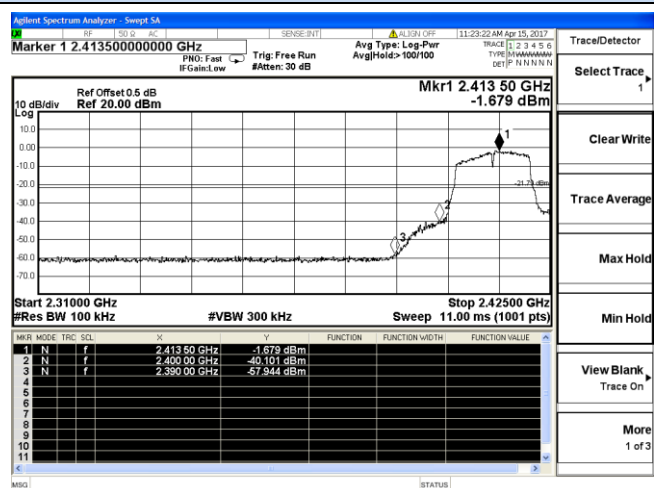
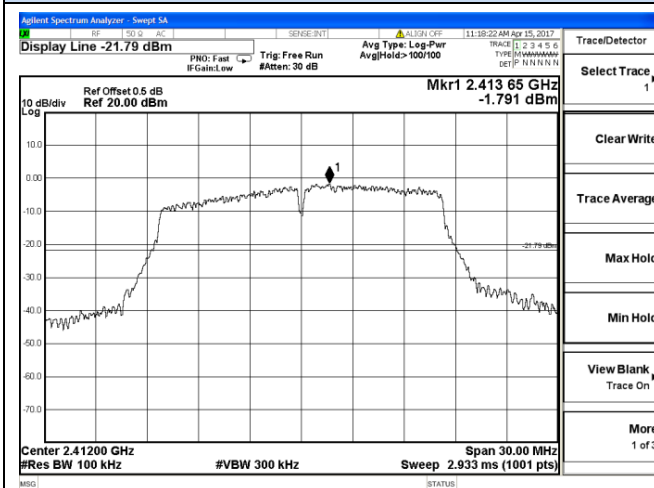


2447 MHz – 2477 MHz

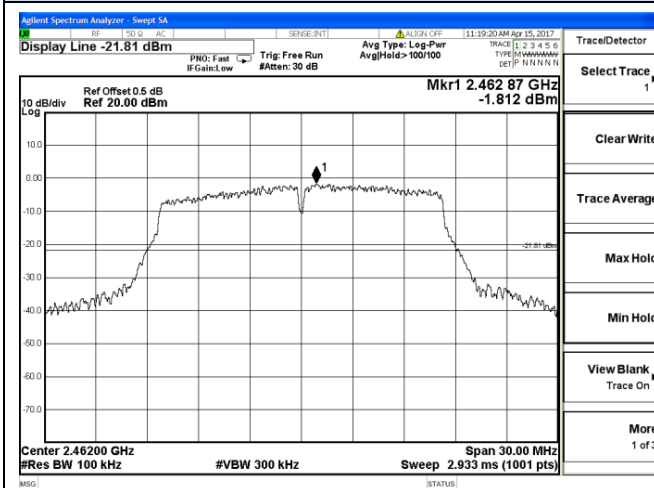
Channel 11 / 2462 MHz

IEEE 802.11g

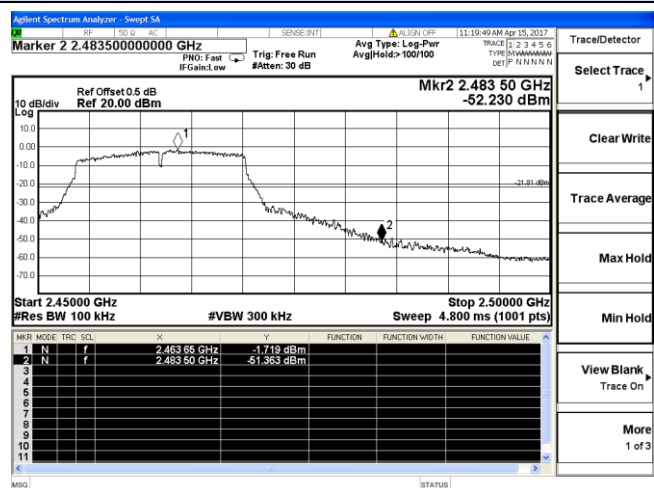
Chain 0



2397 MHz – 2427 MHz



Channel 1 / 2412 MHz

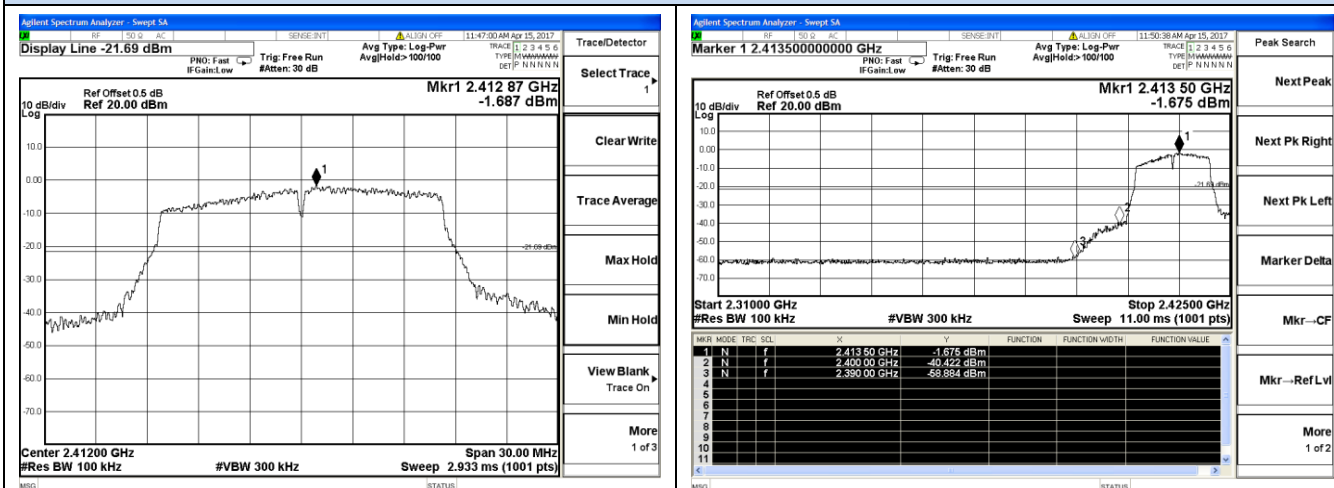


2447 MHz – 2477 MHz

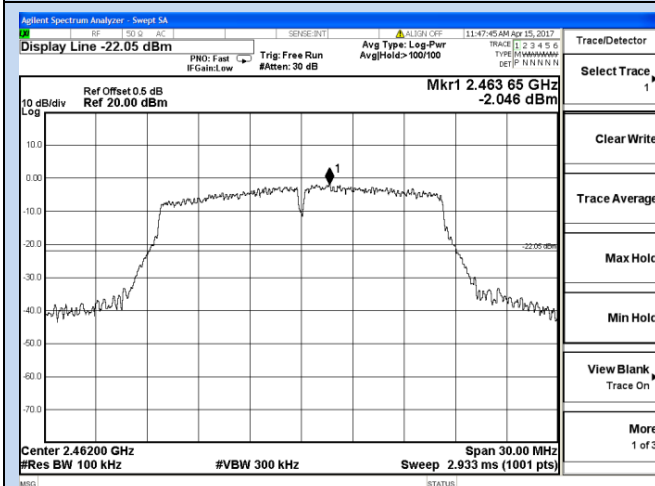
Channel 11 / 2462 MHz

IEEE 802.11g

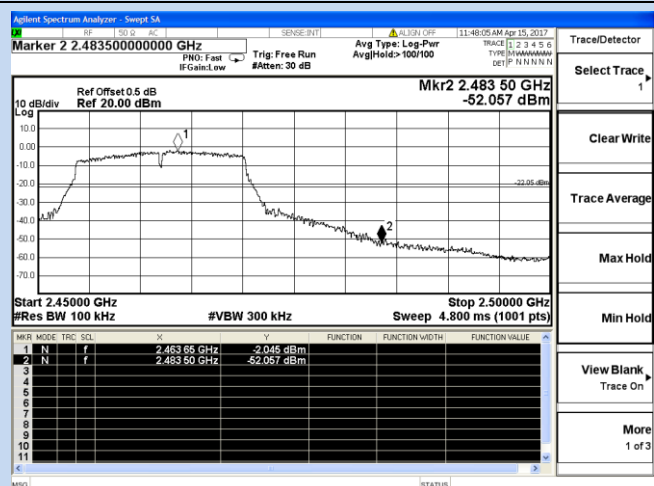
Chain 1



2397 MHz – 2427 MHz



Channel 1 / 2412 MHz

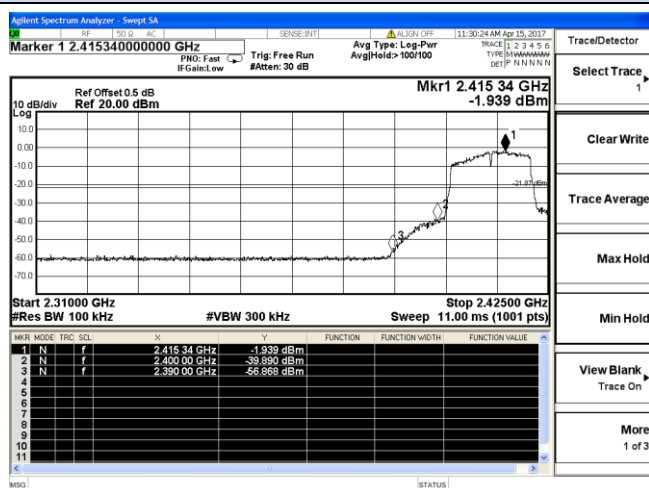
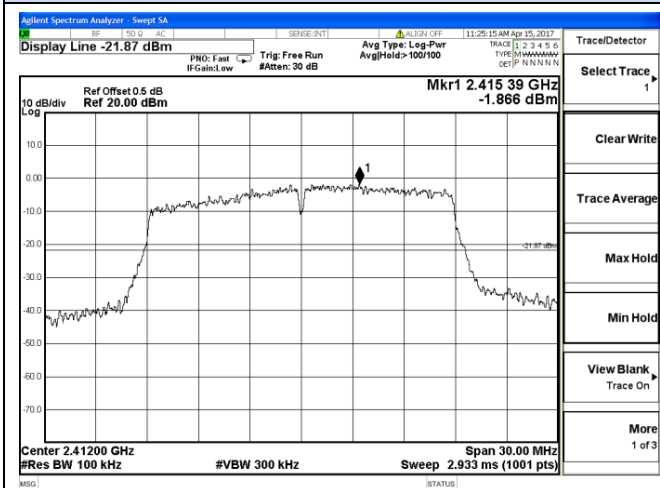


2447 MHz – 2477 MHz

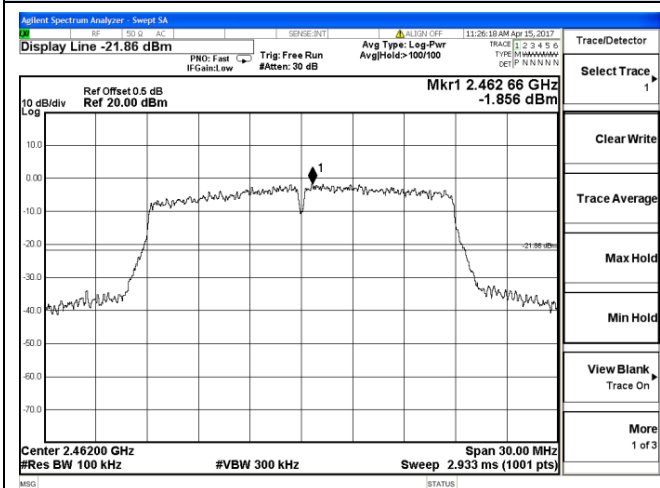
Channel 11 / 2462 MHz

IEEE 802.11n HT20

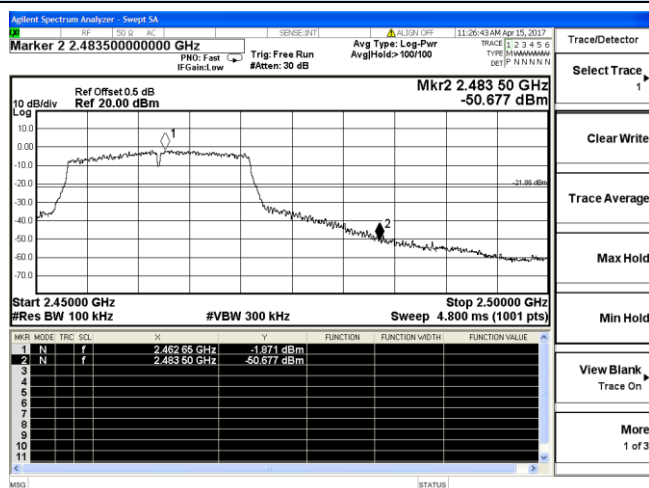
Chain 0



2397 MHz – 2427 MHz



Channel 1 / 2412 MHz

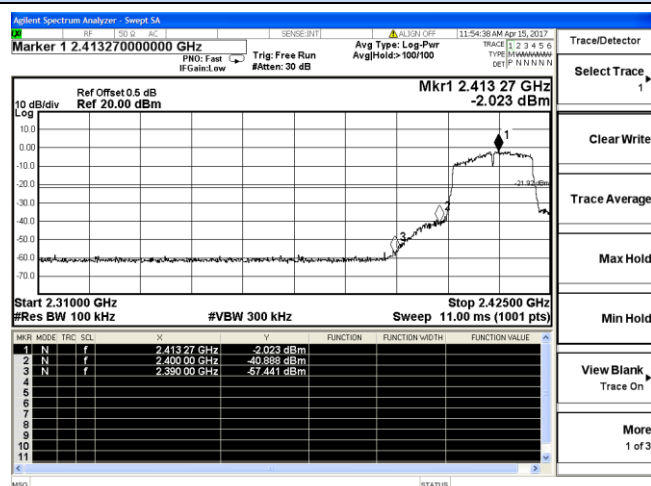
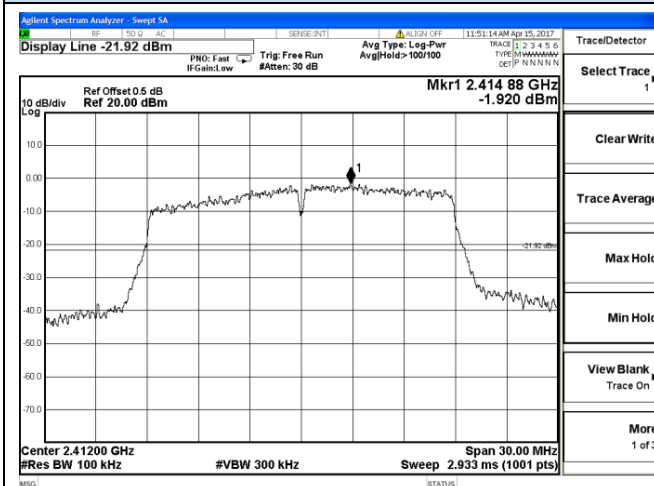


2447 MHz – 2477 MHz

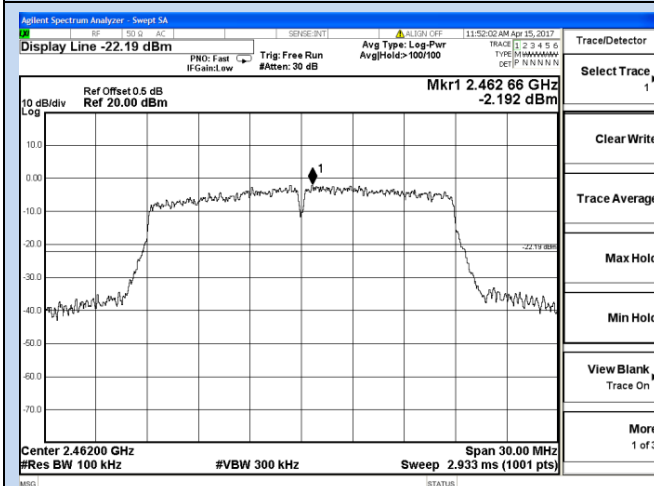
Channel 11 / 2462 MHz

IEEE 802.11n HT20

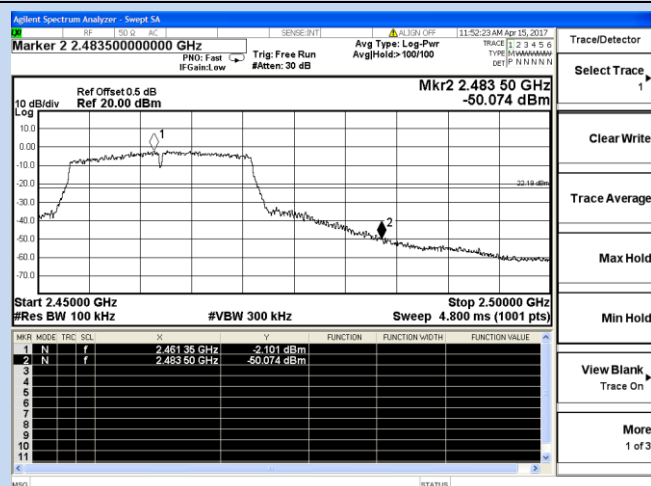
Chain 1



2397 MHz – 2427 MHz



Channel 1 / 2412 MHz

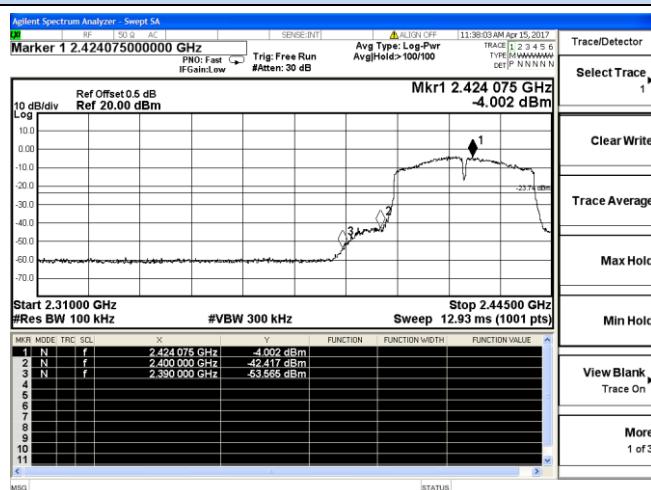
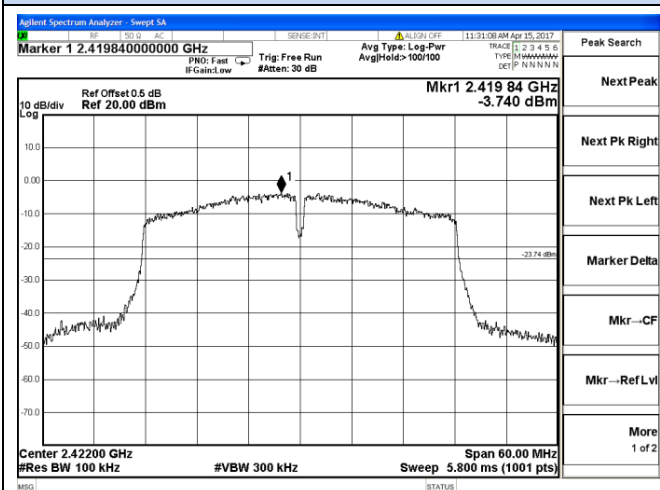


2447 MHz – 2477 MHz

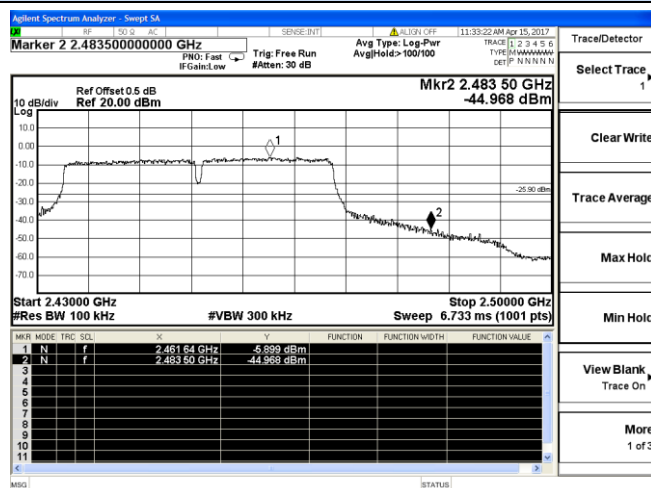
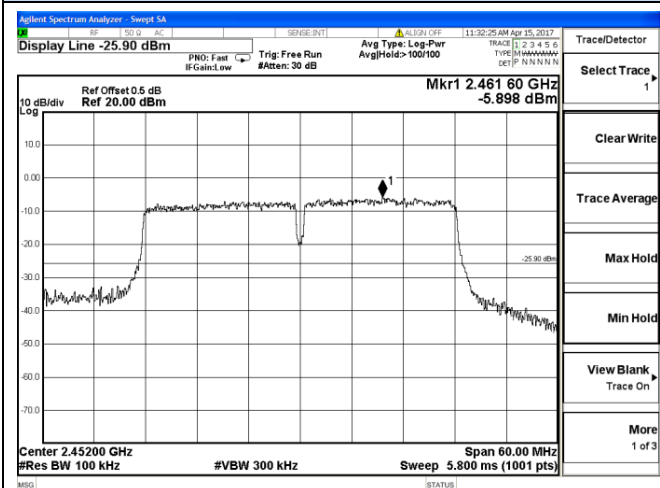
Channel 11 / 2462 MHz

IEEE 802.11n HT40

Chain 0



2392 MHz – 2452 MHz

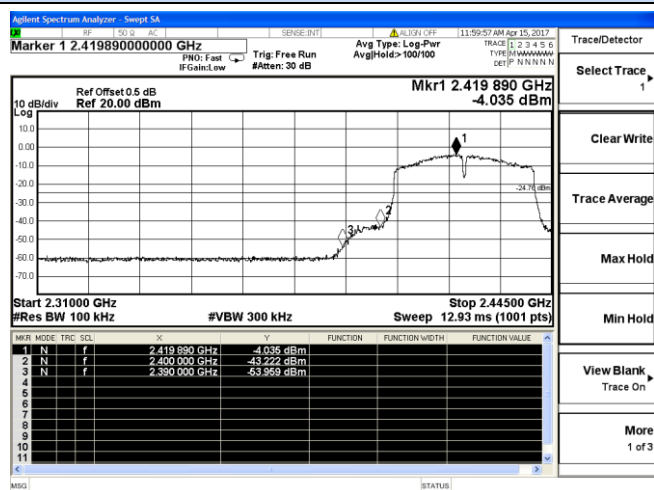
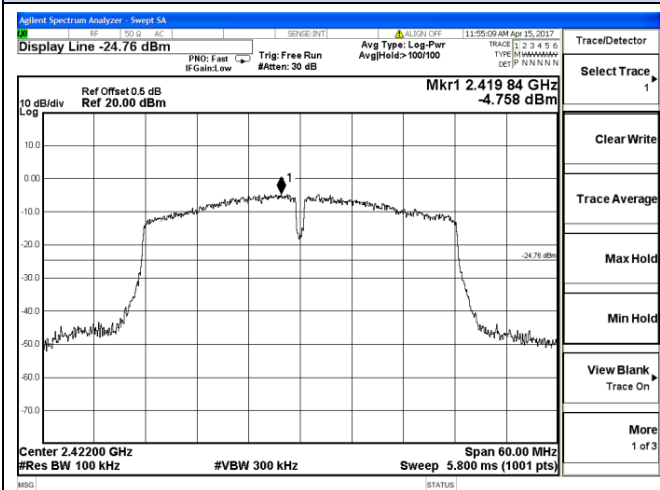


2422 MHz – 2482 MHz

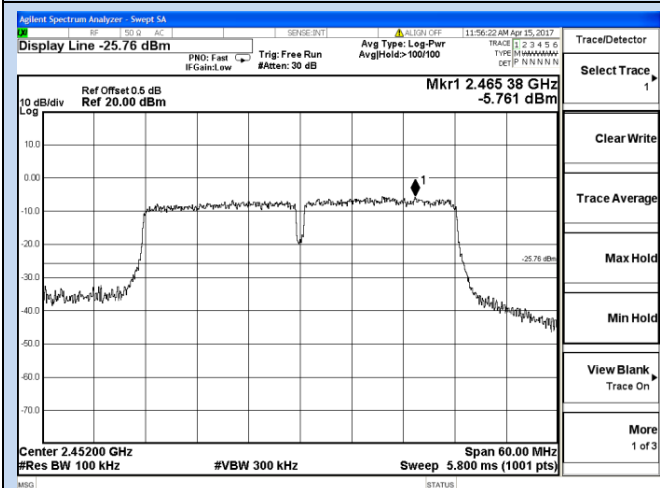
Channel 9 / 2452 MHz

IEEE 802.11n HT40

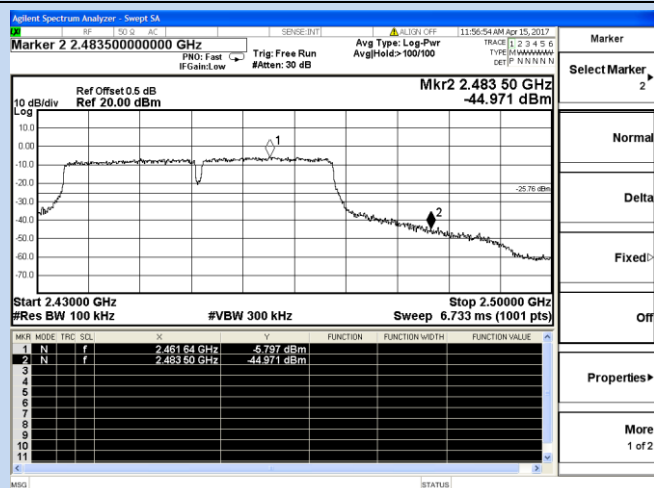
Chain 1



2392 MHz – 2452 MHz



Channel 3 / 2422 MHz



2422 MHz – 2482 MHz

Channel 9 / 2452 MHz

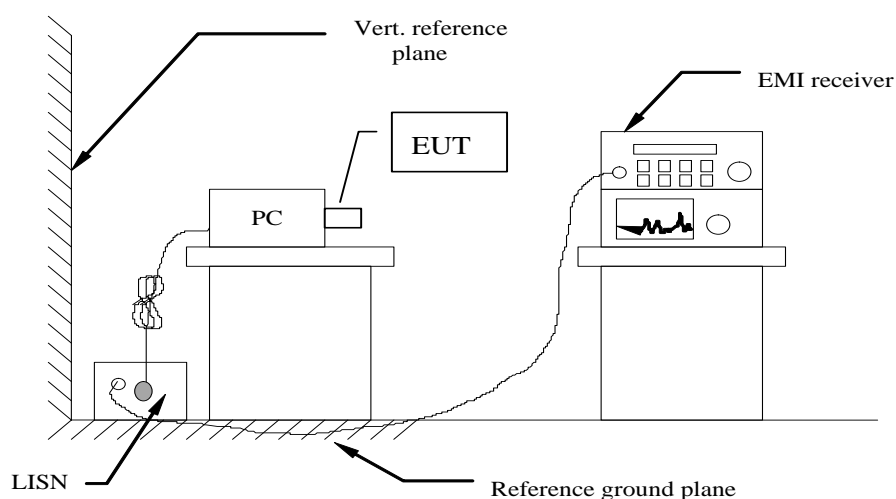
5.7. Power line conducted emissions

5.7.1 Standard Applicable

According to §15.207 (a): For an intentional radiator which is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed 250 microvolts (The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz). The limits at specific frequency range is listed as follows:

Frequency Range (MHz)	Limits (dB μ V)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5	56	46
5 to 30	60	50

5.7.2 Block Diagram of Test Setup

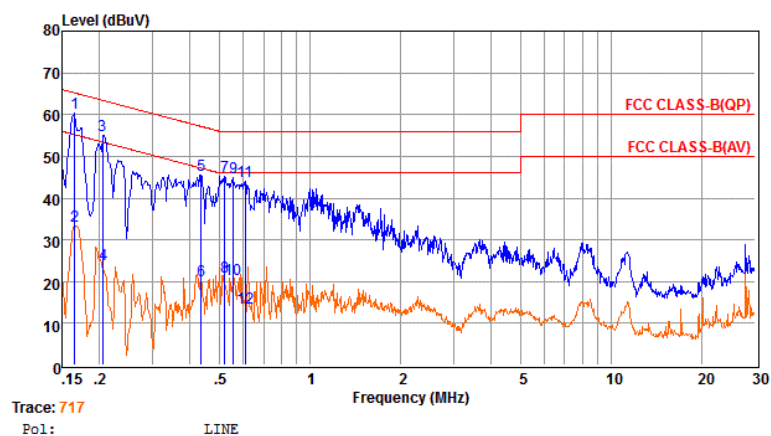


5.7.3 Test Results

PASS.

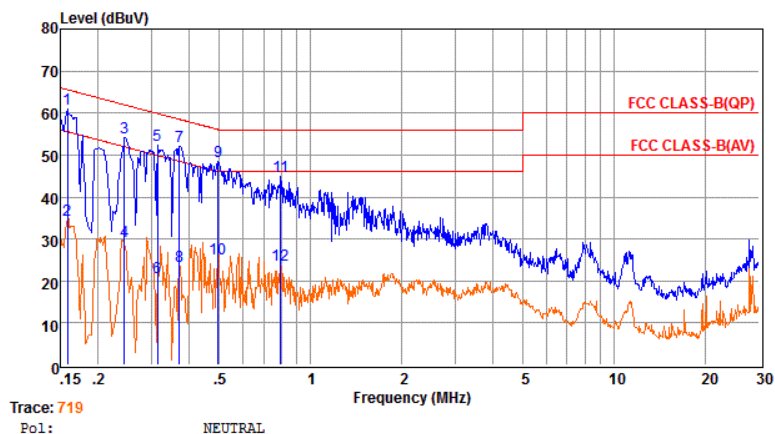
The test data please refer to following page.

Temperature	24.2℃	Humidity	56.8%
Test Engineer	Jayden Zhuo	Test Date	March 29, 2017
Test result for 802.11b (AC 120V)			



	Freq	Reading	LISNFac	CabLos	Aux2Fac	Measured	Limit	Over	Remark
	MHz	dBuV	dB	dB	dB	dB	dBuV	dBuV	dB
1	0.17	40.70	9.59	0.02	10.00	60.31	65.21	-4.90	QP
2	0.17	13.58	9.59	0.02	10.00	33.19	55.20	-22.01	Average
3	0.21	35.30	9.63	0.03	10.00	54.96	63.40	-8.44	QP
4	0.21	4.34	9.63	0.03	10.00	24.00	53.40	-29.40	Average
5	0.44	25.88	9.62	0.04	10.00	45.54	57.15	-11.61	QP
6	0.44	0.60	9.62	0.04	10.00	20.26	47.15	-26.89	Average
7	0.52	25.63	9.62	0.04	10.00	45.29	56.00	-10.71	QP
8	0.52	1.50	9.62	0.04	10.00	21.16	46.00	-24.84	Average
9	0.56	25.39	9.63	0.04	10.00	45.06	56.00	-10.94	QP
10	0.56	0.81	9.63	0.04	10.00	20.48	46.00	-25.52	Average
11	0.61	24.39	9.63	0.04	10.00	44.06	56.00	-11.94	QP
12	0.61	-6.11	9.63	0.04	10.00	13.56	46.00	-32.44	Average

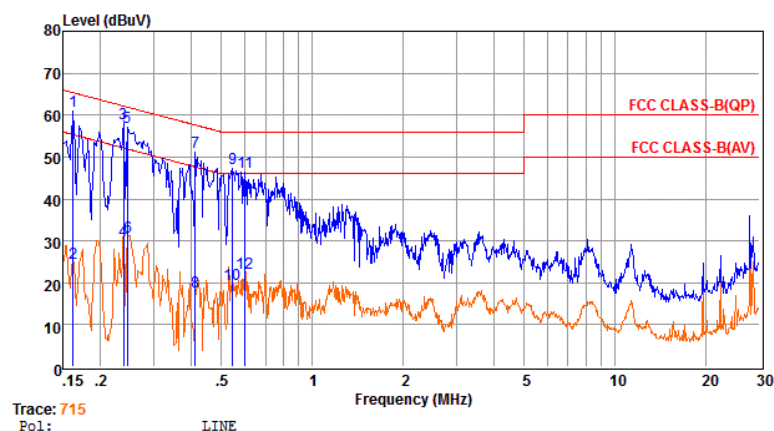
Remarks: 1. Measured = Reading +Cable Loss +Aux2 Fac.
2. The emission levels that are 20dB below the official limit are not reported.



	Freq	Reading	LISNFac	CabLos	Aux2Fac	Measured	Limit	Over	Remark
	MHz	dBuV	dB	dB	dB	dB	dBuV	dBuV	dB
1	0.16	41.13	9.68	0.02	10.00	60.83	65.56	-4.73	QP
2	0.16	14.72	9.68	0.02	10.00	34.42	55.55	-21.13	Average
3	0.24	34.52	9.60	0.03	10.00	54.15	61.95	-7.80	QP
4	0.24	9.85	9.60	0.03	10.00	29.48	51.95	-22.47	Average
5	0.31	32.82	9.60	0.03	10.00	52.45	59.88	-7.43	QP
6	0.31	1.13	9.60	0.03	10.00	20.76	49.88	-29.12	Average
7	0.37	32.47	9.61	0.03	10.00	52.11	58.52	-6.41	QP
8	0.37	3.95	9.61	0.03	10.00	23.59	48.52	-24.93	Average
9	0.50	28.87	9.62	0.04	10.00	48.53	56.05	-7.52	QP
10	0.50	5.51	9.62	0.04	10.00	25.17	46.05	-20.88	Average
11	0.80	25.28	9.63	0.04	10.00	44.95	56.00	-11.05	QP
12	0.80	4.21	9.63	0.04	10.00	23.88	46.00	-22.12	Average

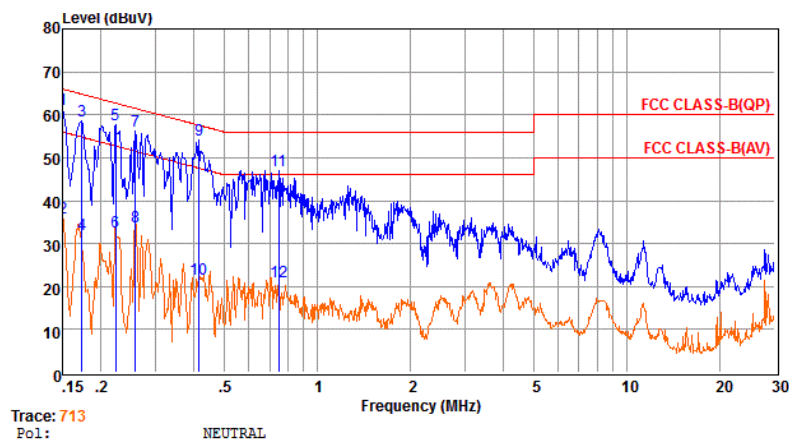
Remarks: 1. Measured = Reading +Cable Loss +Aux2 Fac.
2. The emission levels that are 20dB below the official limit are not reported.

Temperature	24.2°C	Humidity	56.8%
Test Engineer	Jayden Zhuo	Test Date	March 29, 2017
Test result for 802.11b (AC 240V)			



	Freq	Reading	LISNFac	CabLos	Aux2Fac	Measured	Limit	Over	Remark
	MHz	dBuV	dB	dB	dB	dB	dBuV	dBuV	dB
1	0.16	41.42	9.59	0.02	10.00	61.03	65.34	-4.31	QP
2	0.16	5.00	9.59	0.02	10.00	24.61	55.33	-30.72	Average
3	0.24	38.31	9.63	0.03	10.00	57.97	62.17	-4.20	QP
4	0.24	10.31	9.63	0.03	10.00	29.97	52.17	-22.20	Average
5	0.25	37.36	9.63	0.03	10.00	57.02	61.91	-4.89	QP
6	0.25	11.24	9.63	0.03	10.00	30.90	51.90	-21.00	Average
7	0.41	31.38	9.62	0.04	10.00	51.04	57.64	-6.60	QP
8	0.41	-1.73	9.62	0.04	10.00	17.93	47.64	-29.71	Average
9	0.55	27.53	9.63	0.04	10.00	47.20	56.00	-8.80	QP
10	0.55	-0.18	9.63	0.04	10.00	19.49	46.00	-26.51	Average
11	0.60	26.70	9.63	0.04	10.00	46.37	56.00	-9.63	QP
12	0.60	2.49	9.63	0.04	10.00	22.16	46.00	-23.84	Average

Remarks: 1. Measured = Reading + Cable Loss + Aux2 Fac.
2. The emission levels that are 20dB below the official limit are not reported.



	Freq	Reading	LISNFac	CabLos	Aux2Fac	Measured	Limit	Over	Remark
	MHz	dBuV	dB	dB	dB	dB	dBuV	dBuV	dB
1	0.15	41.44	9.70	0.02	10.00	61.16	66.00	-4.84	QP
2	0.15	16.38	9.70	0.02	10.00	36.10	55.99	-19.89	Average
3	0.17	38.85	9.65	0.02	10.00	58.52	64.81	-6.29	QP
4	0.17	12.37	9.65	0.02	10.00	32.04	54.81	-22.77	Average
5	0.22	38.20	9.59	0.03	10.00	57.82	62.70	-4.88	QP
6	0.22	12.97	9.59	0.03	10.00	32.59	52.70	-20.11	Average
7	0.26	36.62	9.60	0.03	10.00	56.25	61.51	-5.26	QP
8	0.26	14.24	9.60	0.03	10.00	33.87	51.51	-17.64	Average
9	0.41	34.36	9.61	0.04	10.00	54.01	57.55	-3.54	QP
10	0.41	2.11	9.61	0.04	10.00	21.76	47.55	-25.79	Average
11	0.75	27.34	9.63	0.04	10.00	47.01	56.00	-8.99	QP
12	0.75	1.38	9.63	0.04	10.00	21.05	46.00	-24.95	Average

Remarks: 1. Measured = Reading + Cable Loss + Aux2 Fac.
2. The emission levels that are 20dB below the official limit are not reported.

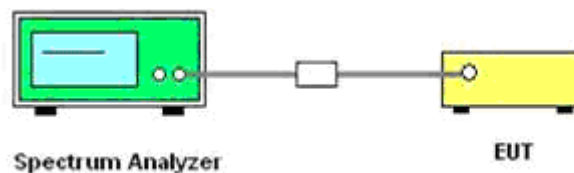
***Note: Pre-scan all modes and recorded the worst case results in this report (802.11b).

5.8. Band-edge measurements for radiated emissions

5.8.1 Standard Applicable

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated 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, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

5.8.2 Test Setup Layout



5.8.3. Measuring Instruments and Setting

Please refer to section 6 of equipment list in this report. The following table is the setting of Spectrum Analyzer.

5.8.4. Test Procedures

According to KDB 558074 D01 V03 for Antenna-port conducted measurement. Antenna-port conducted measurements may also be used as an alternative to radiated measurements for demonstrating compliance in the restricted frequency bands. If conducted measurements are performed, then proper impedance matching must be ensured and an additional radiated test for cabinet/case spurious emissions is required.

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Remove the antenna from the EUT and then connect to a low loss RF cable from the antenna port to a EMI test receiver, then turn on the EUT and make it operate in transmitting mode. Then set it to Low Channel and High Channel within its operating range, and make sure the instrument is operated in its linear range.
3. Set both RBW and VBW of spectrum analyzer to 100 kHz with a convenient frequency span including 100kHz bandwidth from band edge, for Radiated emissions restricted band RBW=1MHz, VBW=3MHz for peak detector and RBW=1MHz, VBW=1/B for Peak detector.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.
6. Measure the conducted output power (in dBm) using the detector specified by the appropriate regulatory agency (see 12.2.2, 12.2.3, and 12.2.4 for guidance regarding measurement procedures for determining quasi-peak, peak, and average conducted output power, respectively).
7. Add the maximum transmit antenna gain (in dBi) to the measured output power level to determine the EIRP level (see 12.2.5 for guidance on determining the applicable antenna gain)
8. Add the appropriate maximum ground reflection factor to the EIRP level (6 dB for frequencies ≤ 30 MHz, 4.7 dB for frequencies between 30 MHz and 1000 MHz, inclusive and 0 dB for frequencies > 1000 MHz).

9. For devices with multiple antenna-ports, measure the power of each individual chain and sum the EIRP of all chains in linear terms (e.g., Watts, mW).
10. Convert the resultant EIRP level to an equivalent electric field strength using the following relationship:
$$E = \text{EIRP} - 20\log D + 104.8$$

Where:

E = electric field strength in dB μ V/m,

EIRP = equivalent isotropic radiated power in dBm

D = specified measurement distance in meters.

11. Since the out-of-band characteristics of the EUT transmit antenna will often be unknown, the use of a conservative antenna gain value is necessary. Thus, when determining the EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2 dBi, whichever is greater. However, for devices that operate in multiple frequency bands while using the same transmit antenna, the highest gain of the antenna within the operating band nearest in frequency to the restricted band emission being measured may be used in lieu of the overall highest gain when the emission is at a frequency that is within 20 percent of the nearest band edge frequency, but in no case shall a value less than 2 dBi be used.
12. Compare the resultant electric field strength level to the applicable regulatory limit.
13. Perform radiated spurious emission test duress until all measured frequencies were complete.

5.8.5 Test Results

For Antenna Chain 0

IEEE 802.11b								
Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	Ground Reflection Factor (dB)	Covert Radiated E Level At 3m (dBuV/m)	Detector	Limit (dBuV/m)	Over limit dB	Verdict
2310.000	-51.055	3.0	0.000	47.205	Peak	74.00	-26.795	PASS
2310.000	-60.632	3.0	0.000	37.628	AV	54.00	-16.372	PASS
2390.000	-50.314	3.0	0.000	47.946	Peak	74.00	-26.054	PASS
2390.000	-60.336	3.0	0.000	37.924	AV	54.00	-16.076	PASS
2483.500	-49.371	3.0	0.000	48.889	Peak	74.00	-25.111	PASS
2483.500	-58.872	3.0	0.000	39.388	AV	54.00	-14.612	PASS
2500.000	-50.847	3.0	0.000	47.413	Peak	74.00	-26.587	PASS
2500.000	-60.827	3.0	0.000	37.433	AV	54.00	-16.567	PASS

IEEE 802.11g								
Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	Ground Reflection Factor (dB)	Covert Radiated E Level At 3m (dBuV/m)	Limit (dBuV/m)	Limit (dBuV/m)	Over limit dB	Verdict
2310.000	-50.191	3.0	0.000	48.069	Peak	74.00	-25.931	PASS
2310.000	-60.919	3.0	0.000	37.341	AV	54.00	-16.659	PASS
2390.000	-48.618	3.0	0.000	49.642	Peak	74.00	-24.358	PASS
2390.000	-59.619	3.0	0.000	38.641	AV	54.00	-15.359	PASS
2483.500	-41.594	3.0	0.000	56.666	Peak	74.00	-17.334	PASS
2483.500	-53.808	3.0	0.000	44.452	AV	54.00	-9.548	PASS
2500.000	-49.937	3.0	0.000	48.323	Peak	74.00	-25.677	PASS
2500.000	-60.836	3.0	0.000	37.424	AV	54.00	-16.576	PASS

IEEE 802.11 n HT20								
Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	Ground Reflection Factor (dB)	Covert Radiated E Level At 3m (dBuV/m)	Detector	Limit (dBuV/m)	Over limit dB	Verdict
2310.000	-51.297	3.0	0.000	46.963	Peak	74.00	-27.037	PASS
2310.000	-56.519	3.0	0.000	41.741	AV	54.00	-12.259	PASS
2390.000	-45.714	3.0	0.000	52.546	Peak	74.00	-21.454	PASS
2390.000	-58.967	3.0	0.000	39.293	AV	54.00	-14.707	PASS
2483.500	-39.448	3.0	0.000	58.812	Peak	74.00	-15.188	PASS
2483.500	-60.924	3.0	0.000	37.336	AV	54.00	-16.664	PASS
2500.000	-51.559	3.0	0.000	46.701	Peak	74.00	-27.299	PASS
2500.000	-58.922	3.0	0.000	39.338	AV	54.00	-14.662	PASS

IEEE 802.11n HT40								
Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	Ground Reflection Factor (dB)	Covert Radiated E Level At 3m (dBuV/m)	Detector	Limit (dBuV/m)	Over limit dB	Verdict
2310.000	-51.045	3.0	0.000	47.215	Peak	74.00	-26.785	PASS
2310.000	-61.202	3.0	0.000	37.058	AV	54.00	-16.942	PASS
2390.000	-44.814	3.0	0.000	53.446	Peak	74.00	-20.554	PASS
2390.000	-56.859	3.0	0.000	41.401	AV	54.00	-12.599	PASS
2483.500	-38.487	3.0	0.000	59.773	Peak	74.00	-14.227	PASS
2483.500	-57.630	3.0	0.000	40.63	AV	54.00	-13.37	PASS
2500.000	-50.731	3.0	0.000	47.529	Peak	74.00	-26.471	PASS
2500.000	-58.989	3.0	0.000	39.271	AV	54.00	-14.729	PASS

For Antenna Chain 1

IEEE 802.11b								
Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	Ground Reflection Factor (dB)	Covert Radiated E Level At 3m (dBuV/m)	Detector	Limit (dBuV/m)	Over limit dB	Verdict
2310.000	-51.239	3.0	0.000	47.021	Peak	74.00	-26.979	PASS
2310.000	-60.778	3.0	0.000	37.482	AV	54.00	-16.518	PASS
2390.000	-49.966	3.0	0.000	48.294	Peak	74.00	-25.706	PASS
2390.000	-60.249	3.0	0.000	38.011	AV	54.00	-15.989	PASS
2483.500	-49.237	3.0	0.000	49.023	Peak	74.00	-24.977	PASS
2483.500	-58.013	3.0	0.000	40.247	AV	54.00	-13.753	PASS
2500.000	-50.570	3.0	0.000	47.690	Peak	74.00	-26.31	PASS
2500.000	-60.503	3.0	0.000	37.757	AV	54.00	-16.243	PASS

IEEE 802.11g								
Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	Ground Reflection Factor (dB)	Covert Radiated E Level At 3m (dBuV/m)	Detector	Limit (dBuV/m)	Over limit dB	Verdict
2310.000	-50.596	3.0	0.000	47.664	Peak	74.00	-26.336	PASS
2310.000	-61.097	3.0	0.000	37.163	AV	54.00	-16.837	PASS
2390.000	-48.379	3.0	0.000	49.881	Peak	74.00	-24.119	PASS
2390.000	-59.503	3.0	0.000	38.757	AV	54.00	-15.243	PASS
2483.500	-41.525	3.0	0.000	56.735	Peak	74.00	-17.265	PASS
2483.500	-53.901	3.0	0.000	44.359	AV	54.00	-9.641	PASS
2500.000	-49.499	3.0	0.000	48.761	Peak	74.00	-25.239	PASS
2500.000	-60.318	3.0	0.000	37.942	AV	54.00	-16.058	PASS

IEEE 802.11 n HT20								
Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	Ground Reflection Factor (dB)	Covert Radiated E Level At 3m (dBuV/m)	Detector	Limit (dBuV/m)	Over limit dB	Verdict
2310.000	-49.477	3.0	0.000	48.783	Peak	74.00	-25.217	PASS
2310.000	-61.030	3.0	0.000	37.23	AV	54.00	-16.77	PASS
2390.000	-45.089	3.0	0.000	53.171	Peak	74.00	-20.829	PASS
2390.000	-58.593	3.0	0.000	39.667	AV	54.00	-14.333	PASS
2483.500	-56.643	3.0	0.000	41.617	Peak	74.00	-32.383	PASS
2483.500	-52.115	3.0	0.000	46.145	AV	54.00	-7.855	PASS
2500.000	-58.820	3.0	0.000	39.44	Peak	74.00	-34.56	PASS
2500.000	-60.634	3.0	0.000	37.626	AV	54.00	-16.374	PASS

IEEE 802.11 n HT40								
Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	Ground Reflection Factor (dB)	Covert Radiated E Level At 3m (dBuV/m)	Detector	Limit (dBuV/m)	Over limit dB	Verdict
2310.000	-51.615	3.0	0.000	46.645	Peak	74.00	-27.355	PASS
2310.000	-60.644	3.0	0.000	37.616	AV	54.00	-16.384	PASS
2390.000	-44.753	3.0	0.000	53.507	Peak	74.00	-20.493	PASS
2390.000	-56.764	3.0	0.000	41.496	AV	54.00	-12.504	PASS
2483.500	-57.913	3.0	0.000	40.347	Peak	74.00	-33.653	PASS
2483.500	-53.586	3.0	0.000	44.674	AV	54.00	-9.326	PASS
2500.000	-58.866	3.0	0.000	39.394	Peak	74.00	-34.606	PASS
2500.000	-60.999	3.0	0.000	37.261	AV	54.00	-16.739	PASS

For Combined Antenna Chain 0 and Antenna Chain 1**IEEE 802.11n HT20**

Frequency (MHz)	Conducted Power (dBm)			Directional Gain (dB)	Ground Reflection Factor (dB)	Covert Radiated E Level At 3m (dBuV/m)	Detector	Limit (dBuV/m)	Over limit dB	Verdict
	Chain 0	Chain 1	Sum							
2310.000*	-51.297	-49.477	-47.282	6.010*	0.000	53.988	Peak	74.00	-15.742	PASS
2310.000	-56.519	-61.030	-55.203	6.010*	0.000	46.067	AV	54.00	-3.663	PASS
2390.000	-45.714	-45.089	-42.380	6.010*	0.000	58.890	Peak	74.00	-10.840	PASS
2390.000	-58.967	-58.593	-55.766	6.010*	0.000	45.504	AV	54.00	-4.226	PASS
2483.500*	-39.448	-56.643	-39.366	6.010*	0.000	61.904	Peak	74.00	-7.826	PASS
2483.500	-60.924	-52.115	-51.578	6.010*	0.000	49.692	AV	54.00	-0.039	PASS
2500.000	-51.559	-58.820	-50.811	6.010*	0.000	50.459	Peak	74.00	-19.272	PASS
2500.000	-58.922	-60.634	-56.684	6.010*	0.000	44.586	AV	54.00	-5.144	PASS

IEEE 802.11n HT40

Frequency (MHz)	Conducted Power (dBm)			Directional Gain (dB)	Ground Reflection Factor (dB)	Covert Radiated E Level At 3m (dBuV/m)	Detector	Limit (dBuV/m)	Over limit dB	Verdict
	Chain 0	Chain 1	Sum							
2310.000*	-51.045	-51.615	-48.310	6.010*	0.000	52.960	Peak	74.00	-16.771	PASS
2310.000	-61.202	-60.644	-57.904	6.010*	0.000	43.366	AV	54.00	-6.364	PASS
2390.000	-44.814	-44.753	-41.773	6.010*	0.000	59.497	Peak	74.00	-10.233	PASS
2390.000	-56.859	-56.764	-53.801	6.010*	0.000	47.469	AV	54.00	-2.261	PASS
2483.500*	-38.487	-57.913	-38.438	6.010*	0.000	62.832	Peak	74.00	-6.898	PASS
2483.500	-57.630	-53.586	-52.143	6.010*	0.000	49.127	AV	54	-0.603	PASS
2500.000	-50.731	-58.866	-50.110	6.010*	0.000	51.160	Peak	74.00	-18.571	PASS
2500.000	-58.989	-60.999	-56.868	6.010*	0.000	44.402	AV	54.00	-5.329	PASS

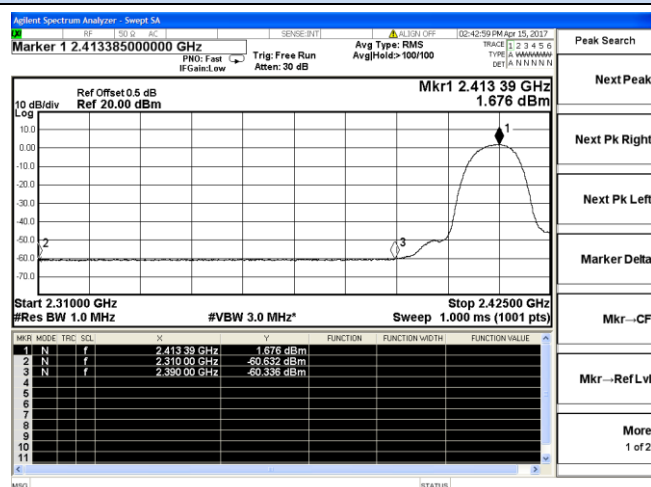
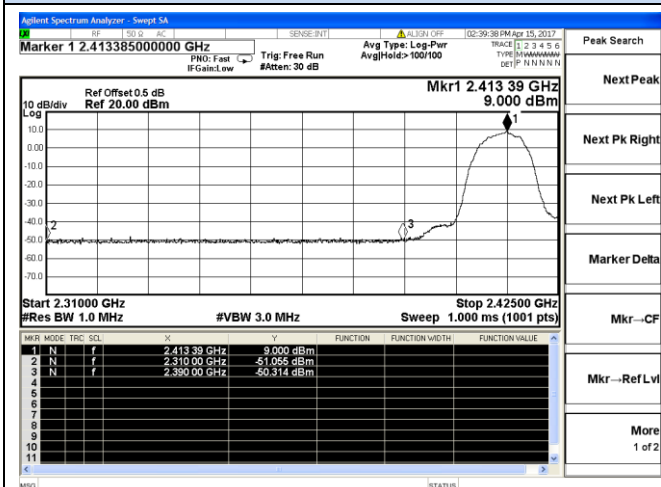
Remark:

1. Measured Band-edge measurements for radiated emissions at difference data rate for each mode and recorded worst case for each mode.
2. Test results including cable loss;
3. Worst case data at 1Mbps at IEEE 802.11b; 6Mbps at IEEE 802.11g; 6.5Mbps at IEEE 802.11n HT20; 13.5Mbps at IEEE 802.11n HT40;
4. “---“means that the fundamental frequency not for 15.209 limits requirement.
5. No need measure Average values if Peak values meets Average limits;
6. * means maximum values of frequency band 2310 – 2390 MHz, 2483.5 – 2500 MHz;
7. For MIMO with CCD technology device, The Directional Gain= Gain of individual transmit antennas (dBi) + Array gain;
Array gain = $10 \log(N_{ant})$, where N_{ant} is the number of transmit antennas.
8. $*6.010=3.0+10*\log(2)$.
9. Covert Radiated E Level At 3m = Conducted average power + Directional Gain + $104.77-20*\log(2)$;
10. Please refer to following plots;

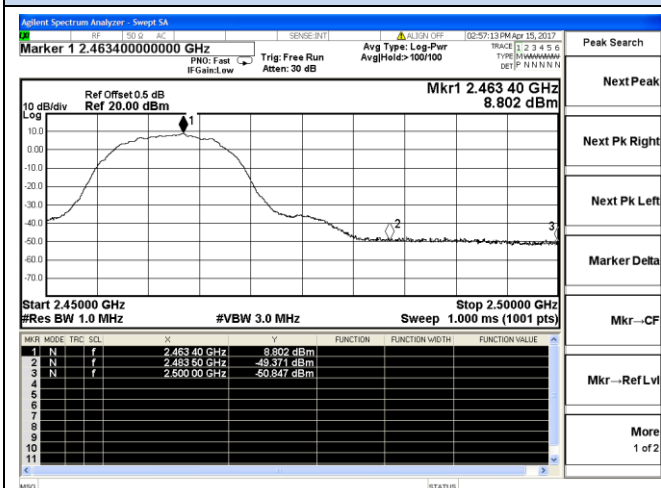
Band-edge measurements for radiated emissions

IEEE 802.11b

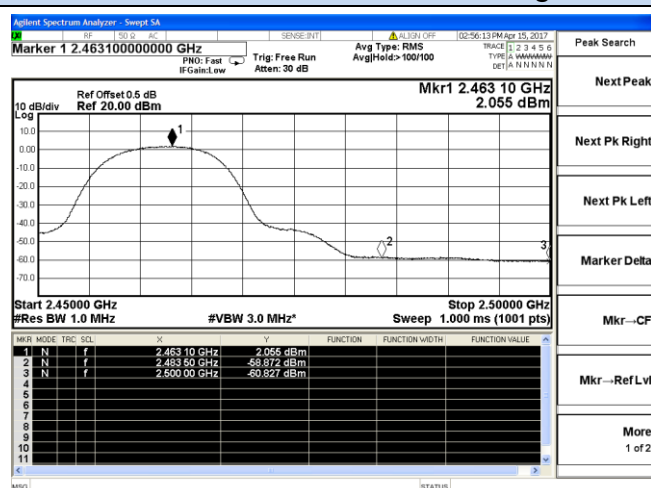
Chain 0



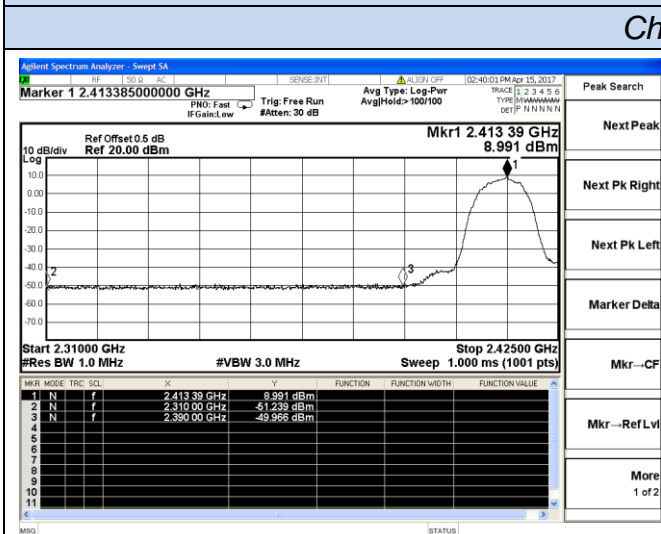
Channel 1 / 2412 MHz – Peak



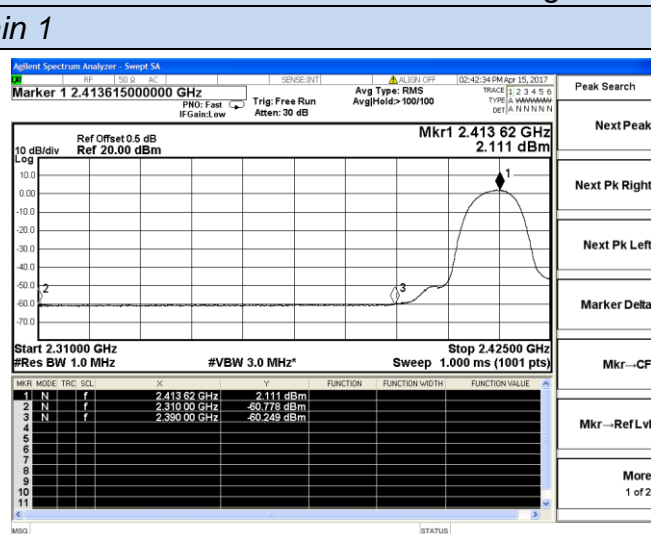
Channel 1 / 2412 MHz – Average



Channel 11 / 2462 MHz – Peak

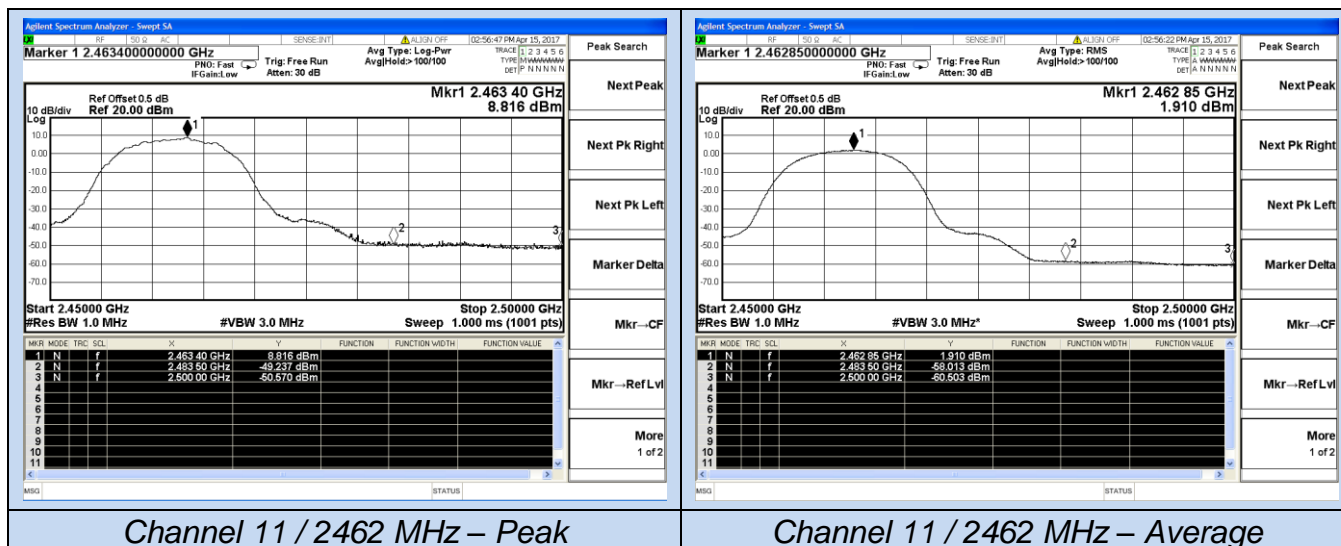


Channel 11 / 2462 MHz – Average



Channel 1 / 2412 MHz – Peak

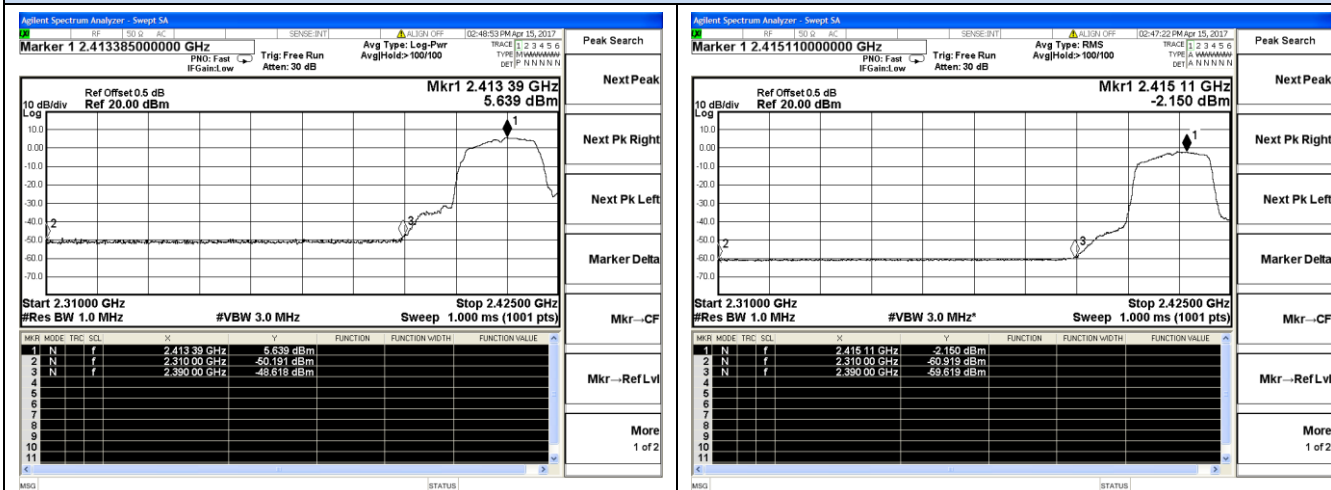
Channel 1 / 2412 MHz – Average



Band-edge measurements for radiated emissions

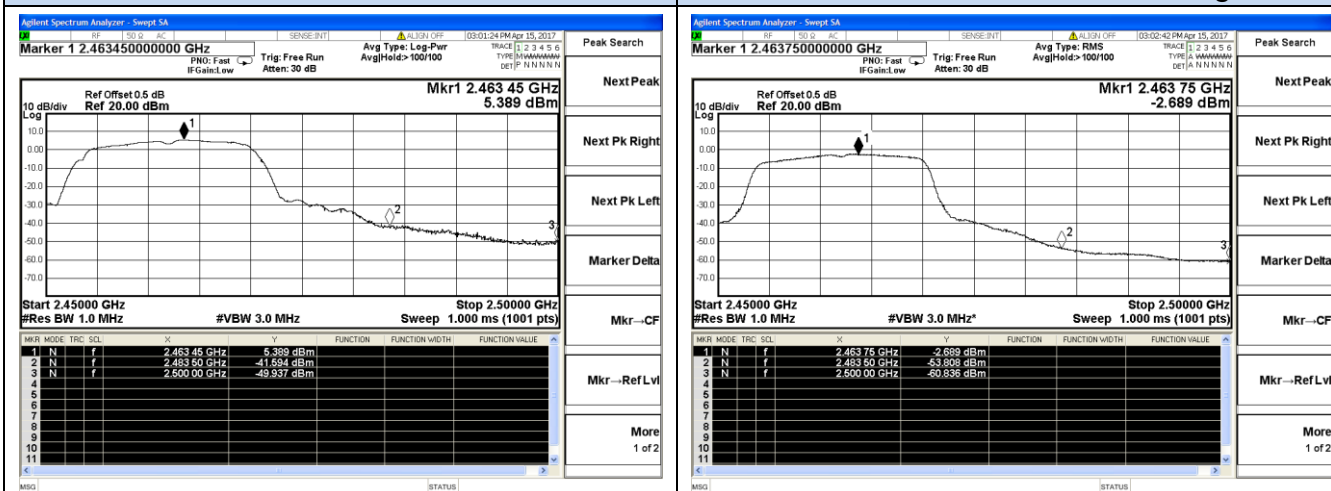
IEEE 802.11g

Chain 0



Channel 1 / 2412 MHz – Peak

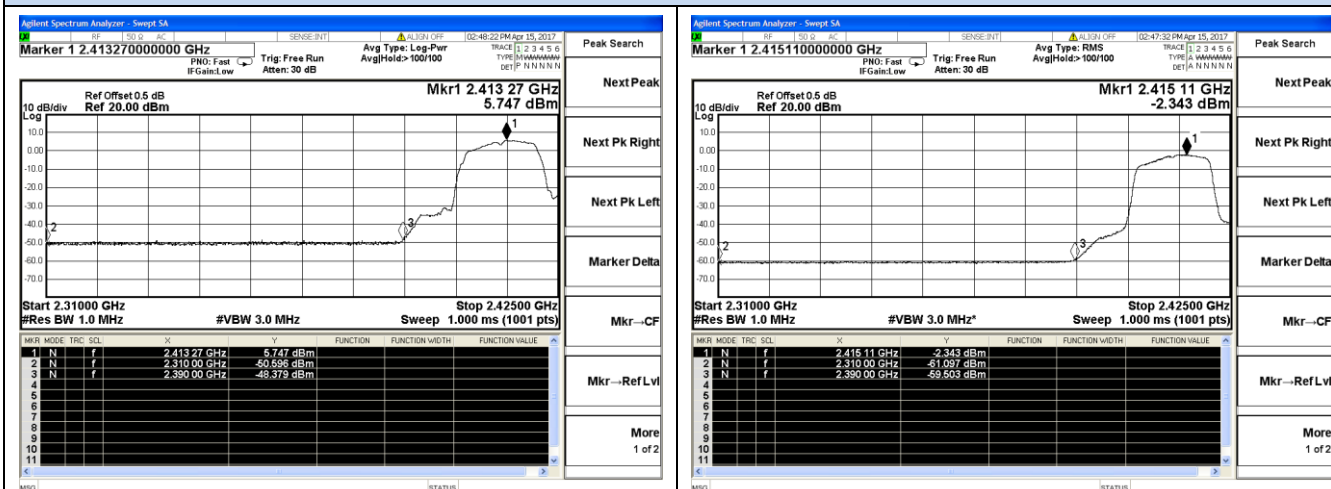
Channel 1 / 2412 MHz – Average



Channel 11 / 2462 MHz – Peak

Channel 11 / 2462 MHz – Average

Chain 1



Channel 1 / 2412 MHz – Peak

Channel 1 / 2412 MHz – Average

