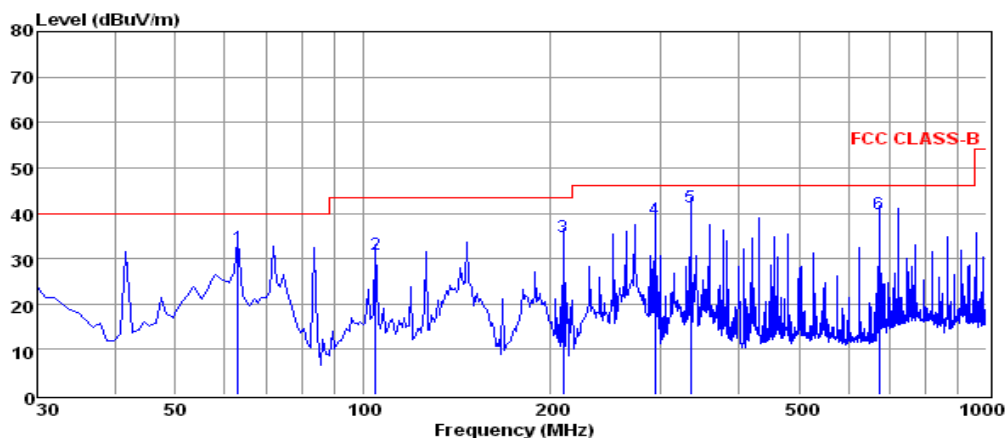


Env./Ins: 24°C/56%
 pol: HORIZONTAL

	Freq	Reading	CabLos	Antfac	Measured	Limit	Over	Remark
	MHz	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	71.71	24.46	0.55	8.36	33.37	40.00	-6.63	QP
2	126.03	19.24	0.71	9.55	29.50	43.50	-14.00	QP
3	209.45	22.96	0.86	10.87	34.69	43.50	-8.81	QP
4	293.84	25.02	1.08	12.94	39.04	46.00	-6.96	QP
5	335.55	19.11	1.09	13.94	34.14	46.00	-11.86	QP
6	720.64	16.82	1.63	19.07	37.52	46.00	-8.48	QP

Note: 1. All readings are Quasi-peak values.
 2. Measured= Reading + Antenna Factor + Cable Loss
 3. The emission that are 20db below the official limit are not reported

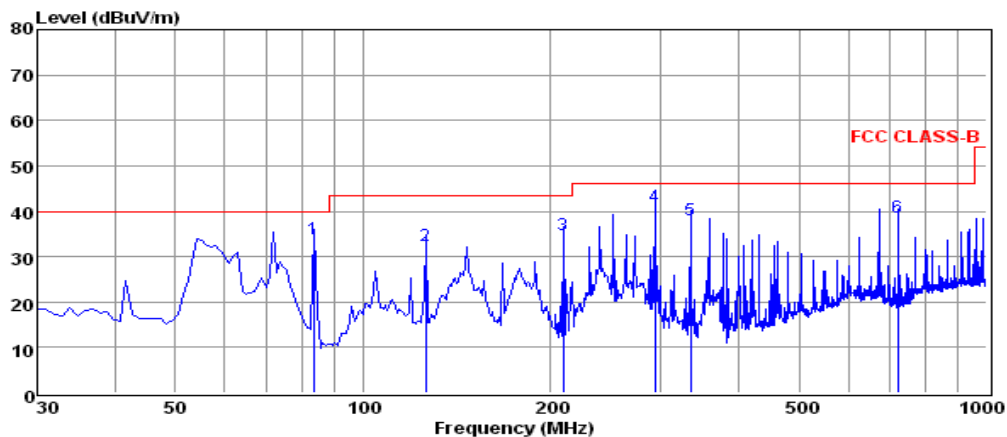
Test result for 802.11b (Low Channel) 120V/60Hz



Env./Ins: 24°C/56%
 pol: VERTICAL

	Freq	Reading	CabLos	Antfac	Measured	Limit	Over	Remark
	MHz	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	62.98	20.30	0.48	11.51	32.29	40.00	-7.71	QP
2	104.69	17.62	0.61	12.73	30.96	43.50	-12.54	QP
3	209.45	22.99	0.86	10.87	34.72	43.50	-8.78	QP
4	293.84	24.77	1.08	12.94	38.79	46.00	-7.21	QP
5	335.55	26.44	1.09	13.94	41.47	46.00	-4.53	QP
6	672.14	19.39	1.65	18.71	39.75	46.00	-6.25	QP

Note: 1. All readings are Quasi-peak values.
 2. Measured= Reading + Antenna Factor + Cable Loss
 3. The emission that are 20db below the official limit are not reported



Env./Ins:
pol:

24 °C / 56 %
HORIZONTAL

	Freq	Reading	CabLos	Antfac	Measured	Limit	Over	Remark
	MHz	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	83.35	23.66	0.54	9.73	33.93	40.00	-6.07	QP
2	126.03	22.24	0.71	9.55	32.50	43.50	-11.00	QP
3	209.45	22.96	0.86	10.87	34.69	43.50	-8.81	QP
4	293.84	27.02	1.08	12.94	41.04	46.00	-4.96	QP
5	335.55	23.11	1.09	13.94	38.14	46.00	-7.86	QP
6	720.64	17.82	1.63	19.07	38.52	46.00	-7.48	QP

Note: 1. All readings are Quasi-peak values.

2. Measured= Reading + Antenna Factor + Cable Loss

3. The emission 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 (Low Channel)).

Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

6.5.8. Results for Radiated Emissions (Above 1GHz) 802.11b

Channel 1

Freq. MHz	Reading dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
4824.00	51.34	33.06	35.04	3.94	53.30	74	-20.70	Peak	Horizontal
4824.00	37.01	33.06	35.04	3.94	38.97	54	-15.03	Average	Horizontal
4824.00	46.63	33.06	35.04	3.94	48.59	74	-25.41	Peak	Vertical
4824.00	32.74	33.06	35.04	3.94	34.70	54	-19.30	Average	Vertical

Channel 6

Freq. MHz	Reading dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
4874.00	47.86	33.16	35.15	3.96	49.83	74	-24.17	Peak	Horizontal
4874.00	39.83	33.16	35.15	3.96	41.80	54	-12.20	Average	Horizontal
4874.00	55.51	33.16	35.15	3.96	57.48	74	-16.52	Peak	Vertical
4874.00	43.02	33.16	35.15	3.96	44.99	54	-9.01	Average	Vertical

Channel 11

Freq. MHz	Reading dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
4924.00	49.64	33.26	35.14	3.98	51.74	74	-22.26	Peak	Horizontal
4924.00	34.74	33.26	35.14	3.98	36.84	54	-17.16	Average	Horizontal
4924.00	51.49	33.26	35.14	3.98	53.59	74	-20.41	Peak	Vertical
4924.00	35.83	33.26	35.14	3.98	37.93	54	-16.07	Average	Vertical

802.11g

Channel 1

Freq. MHz	Reading dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
4824.00	47.25	33.06	35.04	3.94	49.21	74	-24.79	Peak	Horizontal
4824.00	32.90	33.06	35.04	3.94	34.86	54	-19.14	Average	Horizontal
4824.00	53.08	33.06	35.04	3.94	55.04	74	-18.96	Peak	Vertical
4824.00	35.93	33.06	35.04	3.94	37.89	54	-16.11	Average	Vertical

Channel 6

Freq. MHz	Reading dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
4874.00	52.32	33.16	35.15	3.96	54.29	74	-19.71	Peak	Horizontal
4874.00	36.16	33.16	35.15	3.96	38.13	54	-15.87	Average	Horizontal
4874.00	48.61	33.16	35.15	3.96	50.58	74	-23.42	Peak	Vertical
4874.00	36.94	33.16	35.15	3.96	38.91	54	-15.09	Average	Vertical

Channel 11

Freq. MHz	Reading dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
4924.00	52.17	33.26	35.14	3.98	54.27	74	-19.73	Peak	Horizontal
4924.00	36.03	33.26	35.14	3.98	38.13	54	-15.87	Average	Horizontal
4924.00	54.53	33.26	35.14	3.98	56.63	74	-17.37	Peak	Vertical
4924.00	35.79	33.26	35.14	3.98	37.89	54	-16.11	Average	Vertical

802.11n HT20

Channel 1

Freq. MHz	Reading dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
4824.00	44.76	33.06	35.04	3.94	46.72	74	-27.28	Peak	Horizontal
4824.00	35.68	33.06	35.04	3.94	37.64	54	-16.36	Average	Horizontal
4824.00	49.92	33.06	35.04	3.94	51.88	74	-22.12	Peak	Vertical
4824.00	36.00	33.06	35.04	3.94	37.96	54	-16.04	Average	Vertical

Channel 6

Freq. MHz	Reading dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measure d dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
4874.00	52.31	33.16	35.15	3.96	54.28	74	-19.72	Peak	Horizontal
4874.00	36.22	33.16	35.15	3.96	38.19	54	-15.81	Average	Horizontal
4874.00	51.44	33.16	35.15	3.96	53.41	74	-20.59	Peak	Vertical
4874.00	34.03	33.16	35.15	3.96	36.00	54	-18.00	Average	Vertical

Channel 11

Freq. MHz	Reading dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
4924.00	46.28	33.26	35.14	3.98	48.38	74	-25.62	Peak	Horizontal
4924.00	34.91	33.26	35.14	3.98	37.01	54	-16.99	Average	Horizontal
4924.00	48.40	33.26	35.14	3.98	50.50	74	-23.50	Peak	Vertical
4924.00	35.87	33.26	35.14	3.98	37.97	54	-16.03	Average	Vertical

802.11n HT40

Channel 3

Freq. MHz	Reading dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
4844.00	42.49	33.06	35.04	3.94	44.45	74	-29.55	Peak	Horizontal
4844.00	33.61	33.06	35.04	3.94	35.57	54	-18.43	Average	Horizontal
4844.00	45.22	33.06	35.04	3.94	47.18	74	-26.82	Peak	Vertical
4844.00	34.97	33.06	35.04	3.94	36.93	54	-17.07	Average	Vertical

Channel 6

Freq. MHz	Reading dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
4874.00	43.45	33.16	35.15	3.96	45.42	74	-28.58	Peak	Horizontal
4874.00	34.40	33.16	35.15	3.96	36.37	54	-17.63	Average	Horizontal
4874.00	45.57	33.16	35.15	3.96	47.54	74	-26.46	Peak	Vertical
4874.00	36.46	33.16	35.15	3.96	38.43	54	-15.57	Average	Vertical

Channel 9

Freq. MHz	Reading dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
4904.00	36.91	33.26	35.14	3.98	39.01	74	-34.99	Peak	Horizontal
4904.00	38.84	33.26	35.14	3.98	40.94	54	-13.06	Average	Horizontal
4904.00	41.26	33.26	35.14	3.98	43.36	74	-30.64	Peak	Vertical
4904.00	34.38	33.26	35.14	3.98	36.48	54	-17.52	Average	Vertical

Notes:

1. Measuring frequencies from 9k~10th harmonic or 26.5GHz (which is less), No emission found between lowest internal used/generated frequency to 30MHz.
2. Radiated emissions measured in frequency range from 9k~10th harmonic or 40GHz (which is less) were made with an instrument using Peak detector mode.
3. Data of measurement within this frequency range shown "---" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

6.5.9. Results of Band Edges Test (Radiated)

802.11b

Tx-2412

Freq. MHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
2390.00	55.36	32.89	35.16	3.51	56.60	74	-17.40	Peak	Horizontal
2390.00	34.70	32.89	35.16	3.51	35.95	54	-18.05	Average	Horizontal
2400.00	58.43	32.92	35.16	3.54	59.73	74	-14.27	Peak	Horizontal
2400.00	41.73	32.92	35.16	3.54	43.03	54	-10.97	Average	Horizontal
2390.00	50.25	32.89	35.16	3.51	51.49	74	-22.51	Peak	Vertical
2390.00	35.21	32.89	35.16	3.51	36.46	54	-17.54	Average	Vertical
2400.00	58.21	32.92	35.16	3.54	59.51	74	-14.49	Peak	Vertical
2400.00	37.05	32.92	35.16	3.54	38.35	54	-15.65	Average	Vertical

Tx-2462

Freq. MHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
2483.50	56.90	33.06	35.18	3.60	58.38	74	-15.62	Peak	Horizontal
2483.50	39.15	33.06	35.18	3.60	40.63	54	-13.37	Average	Horizontal
2483.50	55.65	33.06	35.18	3.60	57.13	74	-16.87	Peak	Vertical
2483.50	38.31	33.06	35.18	3.60	39.79	54	-14.21	Average	Vertical

802.11g

Tx-2412

Freq. MHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
2390.00	51.33	32.89	35.16	3.51	52.57	74	-21.43	Peak	Horizontal
2390.00	39.84	32.89	35.16	3.51	41.09	54	-12.91	Average	Horizontal
2400.00	52.17	32.92	35.16	3.54	53.47	74	-20.53	Peak	Horizontal
2400.00	38.10	32.92	35.16	3.54	39.40	54	-14.60	Average	Horizontal
2390.00	54.34	32.89	35.16	3.51	55.58	74	-18.42	Peak	Vertical
2390.00	43.02	32.89	35.16	3.51	44.27	54	-9.73	Average	Vertical
2400.00	56.60	32.92	35.16	3.54	57.90	74	-16.10	Peak	Vertical
2400.00	37.82	32.92	35.16	3.54	39.12	54	-14.88	Average	Vertical

Tx-2462

Freq. MHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
2483.50	58.34	33.06	35.18	3.60	59.82	74	-14.18	Peak	Horizontal
2483.50	38.54	33.06	35.18	3.60	40.02	54	-13.98	Average	Horizontal
2483.50	55.95	33.06	35.18	3.60	57.43	74	-16.57	Peak	Vertical
2483.50	37.80	33.06	35.18	3.60	39.28	54	-14.72	Average	Vertical

802.11n (HT20)

Tx-2412

Freq. MHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
2390.00	53.13	32.89	35.16	3.51	54.37	74	-19.63	Peak	Horizontal
2390.00	38.99	32.89	35.16	3.51	40.24	54	-13.76	Average	Horizontal
2400.00	54.81	32.92	35.16	3.54	56.11	74	-17.89	Peak	Horizontal
2400.00	39.81	32.92	35.16	3.54	41.11	54	-12.89	Average	Horizontal
2390.00	57.58	32.89	35.16	3.51	58.82	74	-15.18	Peak	Vertical
2390.00	37.91	32.89	35.16	3.51	39.16	54	-14.84	Average	Vertical
2400.00	54.27	32.92	35.16	3.54	55.57	74	-18.43	Peak	Vertical
2400.00	36.29	32.92	35.16	3.54	37.59	54	-16.41	Average	Vertical

Tx-2462

Freq. MHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
2483.50	55.05	33.06	35.18	3.60	56.53	74	-17.47	Peak	Horizontal
2483.50	37.46	33.06	35.18	3.60	38.94	54	-15.06	Average	Horizontal
2483.50	53.05	33.06	35.18	3.60	54.53	74	-19.47	Peak	Vertical
2483.50	39.70	33.06	35.18	3.60	41.18	54	-12.82	Average	Vertical

802.11n (HT40)

Tx-2422

Freq. MHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
2390.00	48.71	32.89	35.16	3.51	49.95	74	-24.05	Peak	Horizontal
2390.00	35.24	32.89	35.16	3.51	36.49	54	-17.51	Average	Horizontal
2400.00	55.72	32.92	35.16	3.54	57.02	74	-16.98	Peak	Horizontal
2400.00	43.03	32.92	35.16	3.54	44.33	54	-9.67	Average	Horizontal
2390.00	52.65	32.89	35.16	3.51	53.89	74	-20.11	Peak	Vertical
2390.00	40.04	32.89	35.16	3.51	41.29	54	-12.71	Average	Vertical
2400.00	57.32	32.92	35.16	3.54	58.62	74	-15.38	Peak	Vertical
2400.00	39.57	32.92	35.16	3.54	40.87	54	-13.13	Average	Vertical

Tx-2452

Freq. MHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
2483.50	58.15	33.06	35.18	3.60	59.63	74	-14.37	Peak	Horizontal
2483.50	37.13	33.06	35.18	3.60	38.61	54	-15.39	Average	Horizontal
2483.50	55.58	33.06	35.18	3.60	57.06	74	-16.94	Peak	Vertical
2483.50	37.62	33.06	35.18	3.60	39.10	54	-14.90	Average	Vertical

6.6. Conducted Spurious Emissions and Band Edges Test

6.6.1. Standard Applicable

According to §15.247 (d): 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. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

6.6.2. Measuring Instruments and Setting

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

Spectrum Parameter	Setting
Detector	Peak
Attenuation	Auto
RB / VB (Emission in restricted band)	100KHz/300KHz
RB / VB (Emission in non-restricted band)	100KHz/300KHz

6.6.3. Test Procedures

The transmitter output is connected to a spectrum analyzer. The resolution bandwidth is set to 100 kHz. The video bandwidth is set to 300 kHz

The spectrum from 9 kHz to 40GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

Preliminary tests on individual chains. The worst-case configuration was with a combiner, therefore final test were performed with all chains feeding a combiner.

6.6.4. Test Setup Layout

This test setup layout is the same as that shown in section 5.4.4.

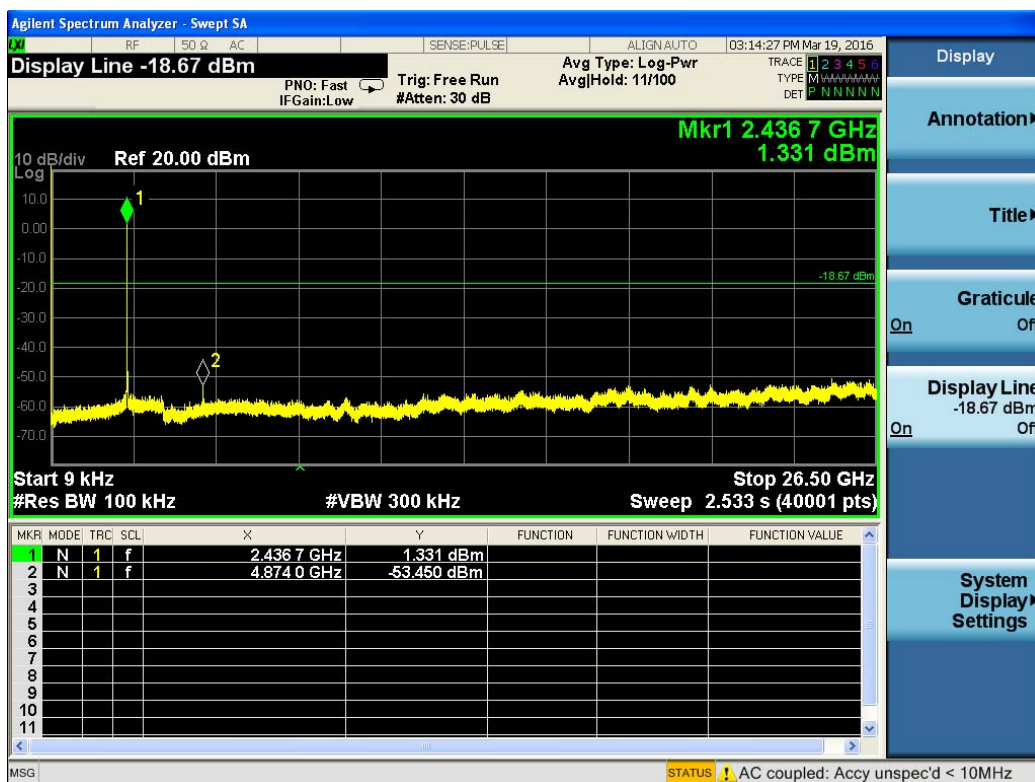
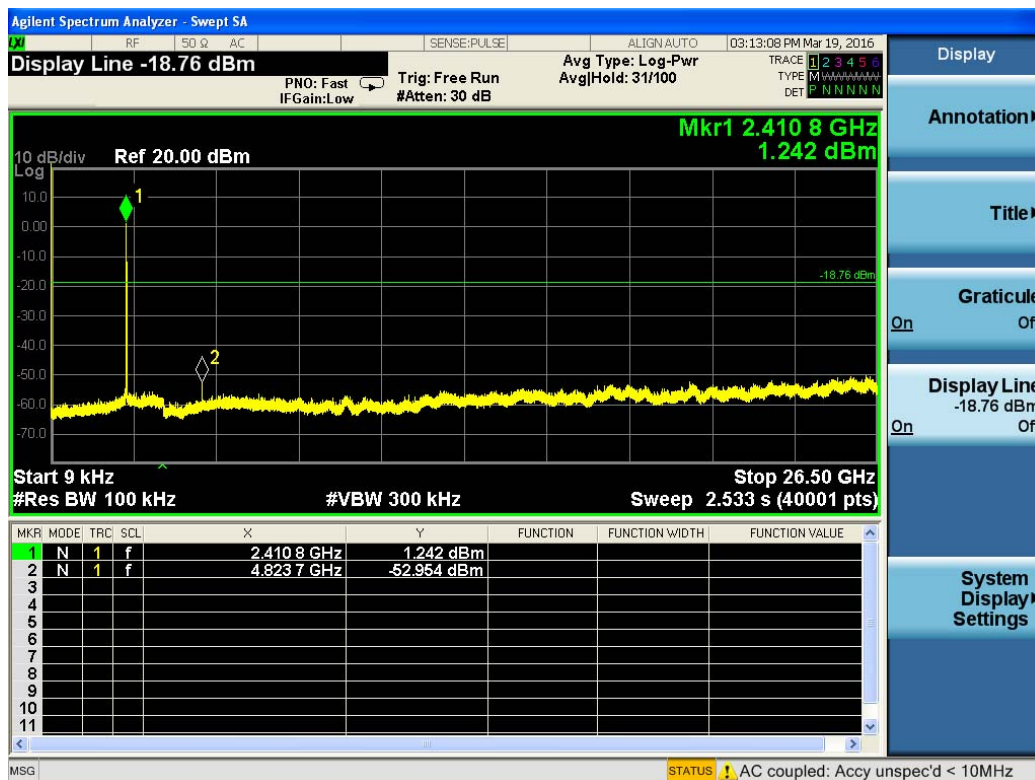
6.6.5. EUT Operation during Test

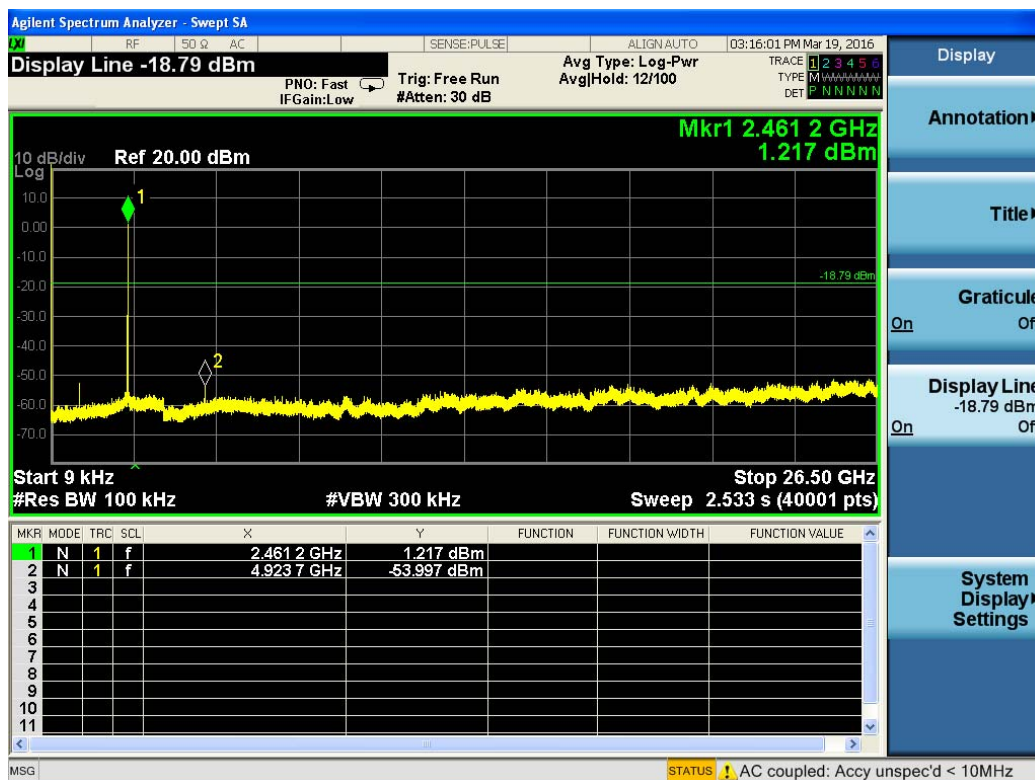
The EUT was programmed to be in continuously transmitting mode.

6.6.6. Test Results of Conducted Spurious Emissions

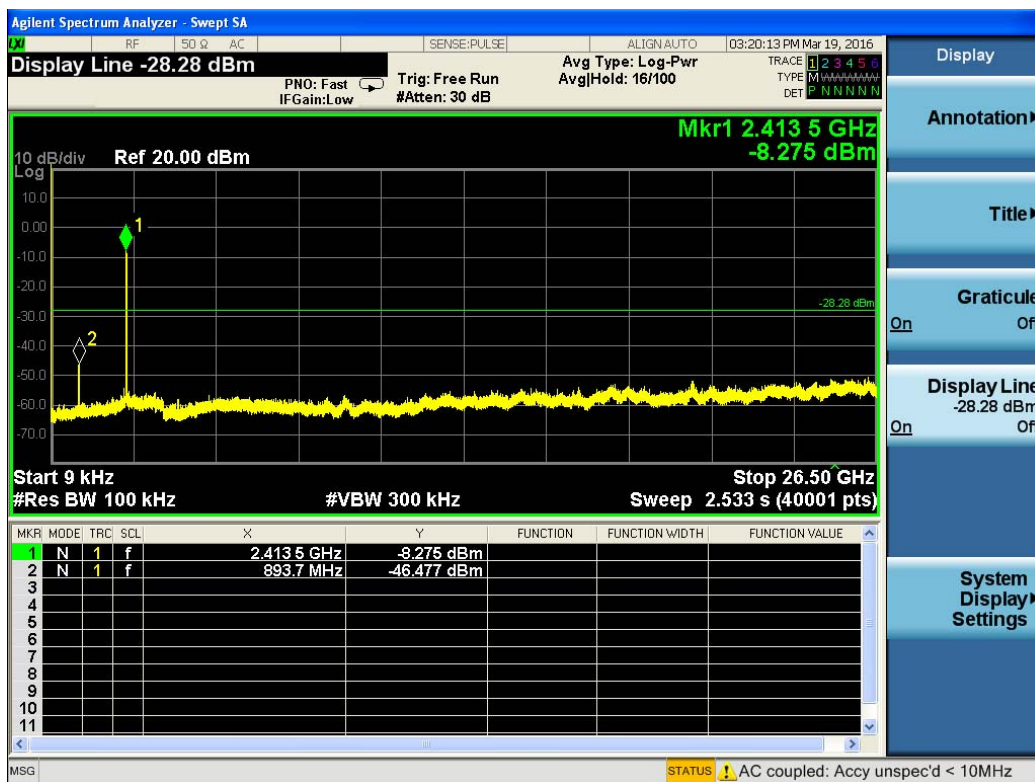
Emissions that fall into restricted frequency bands was blow the emission limits in Section 15.209.

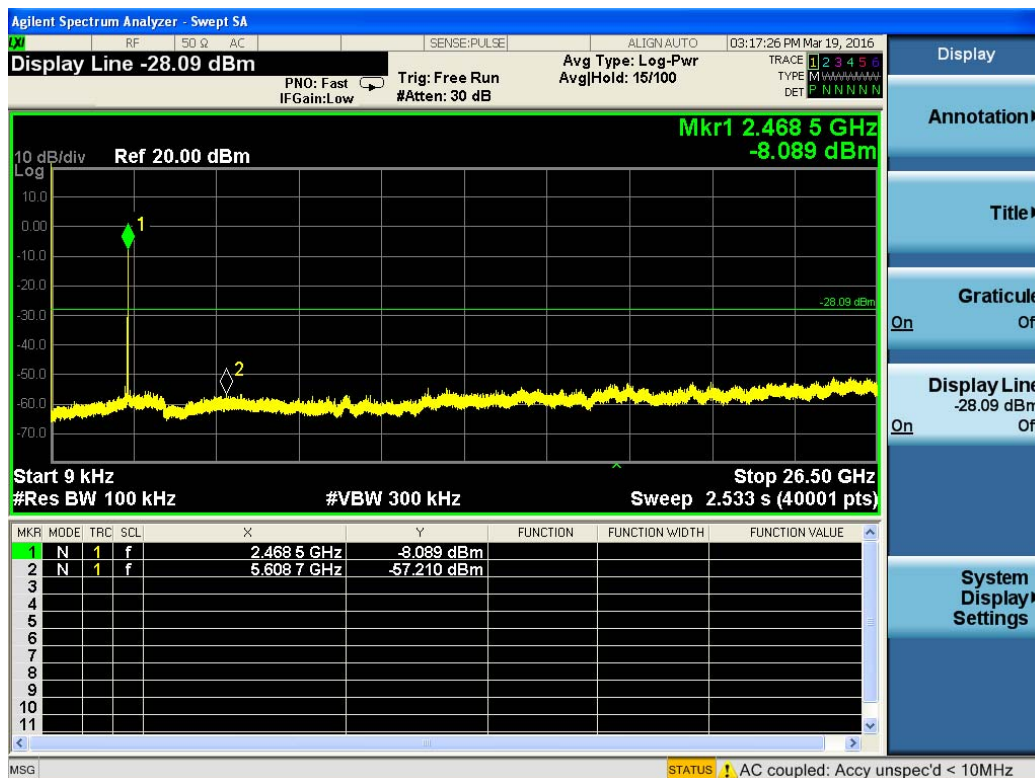
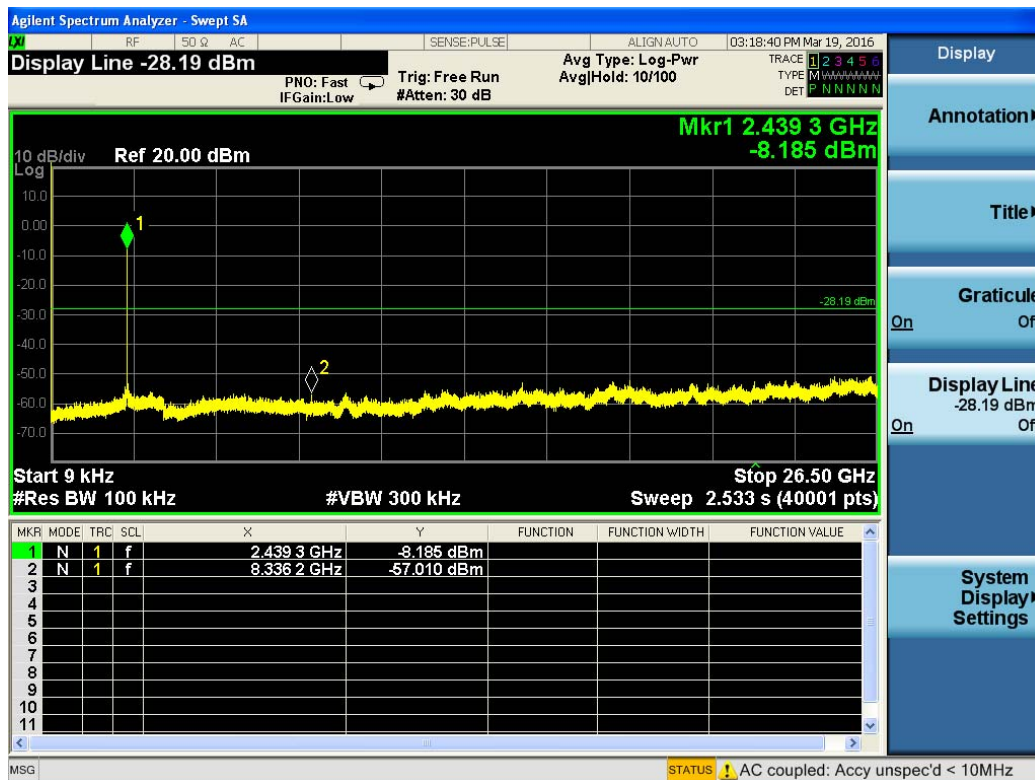
802.11b



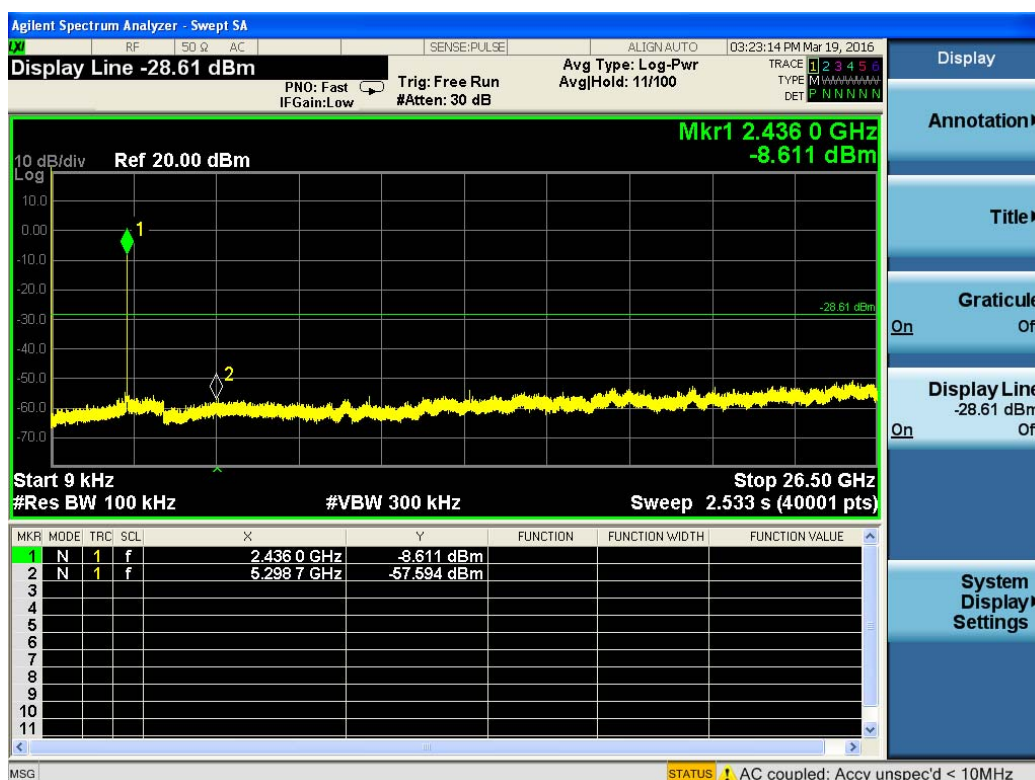
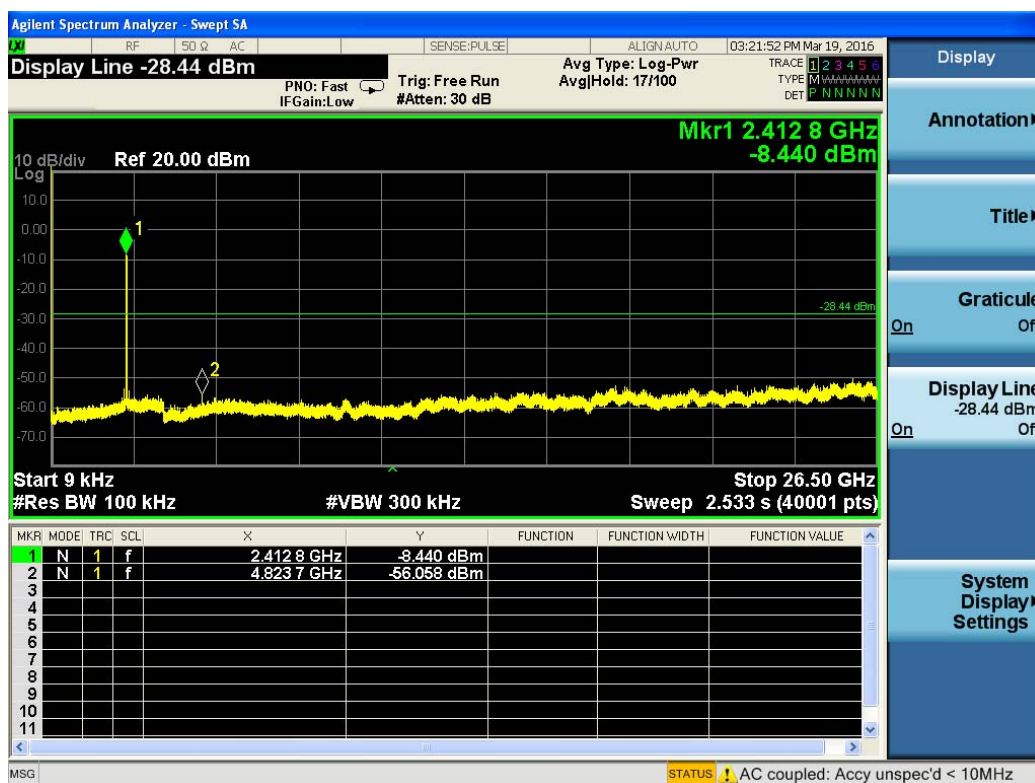


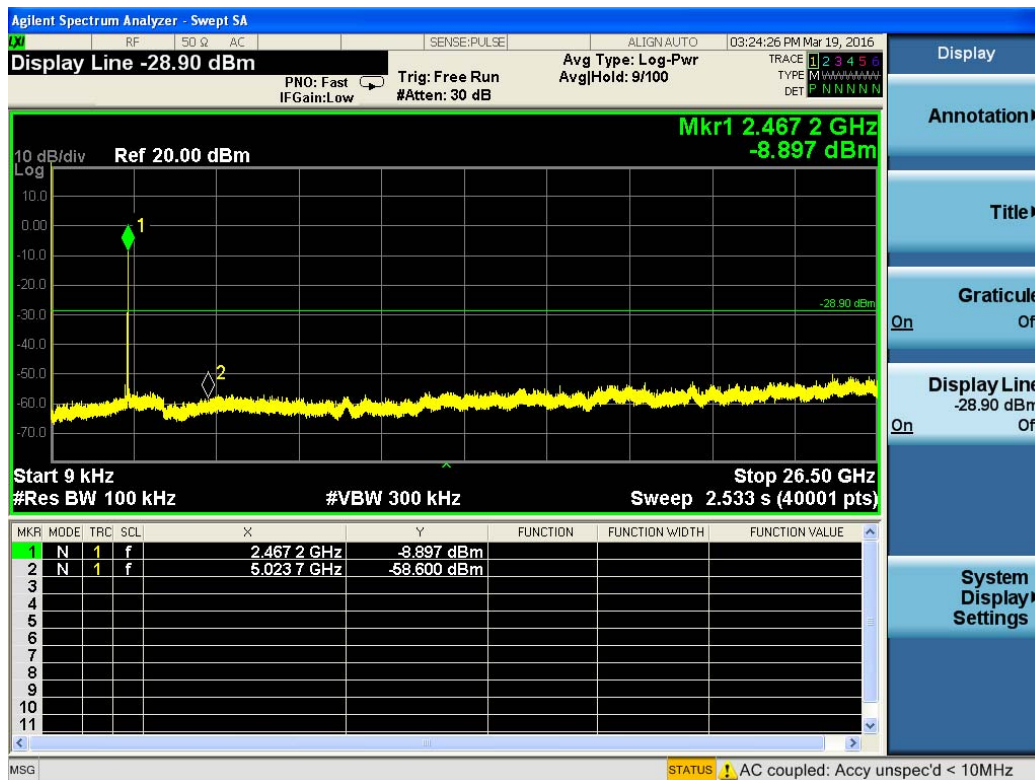
802.11g



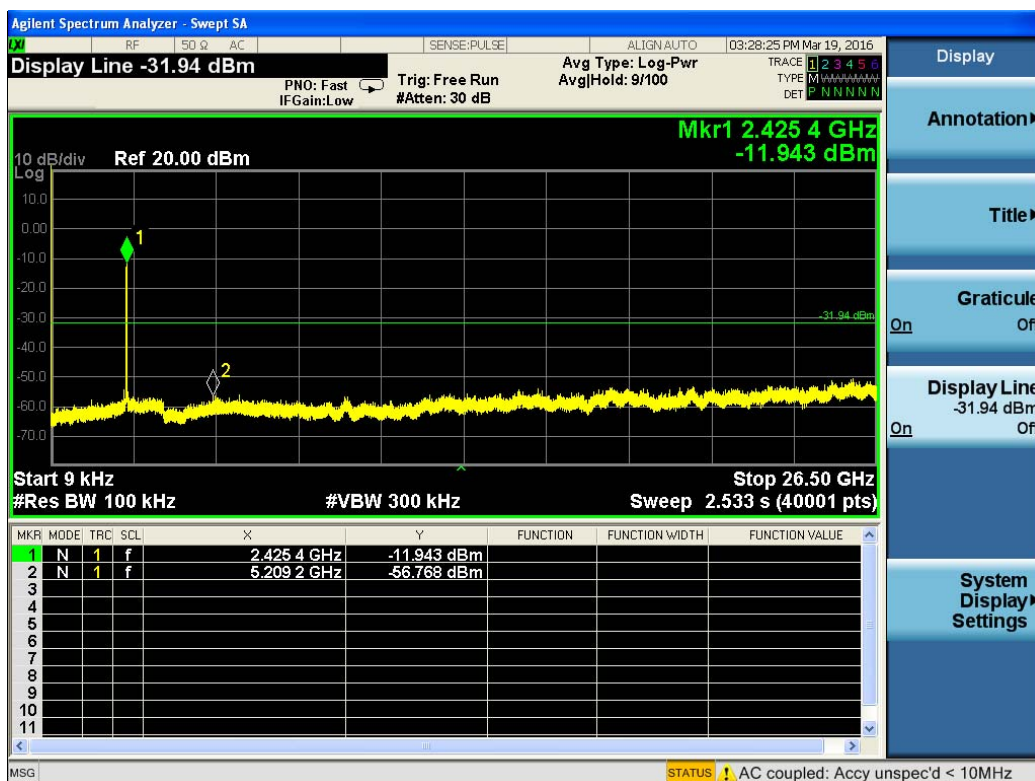


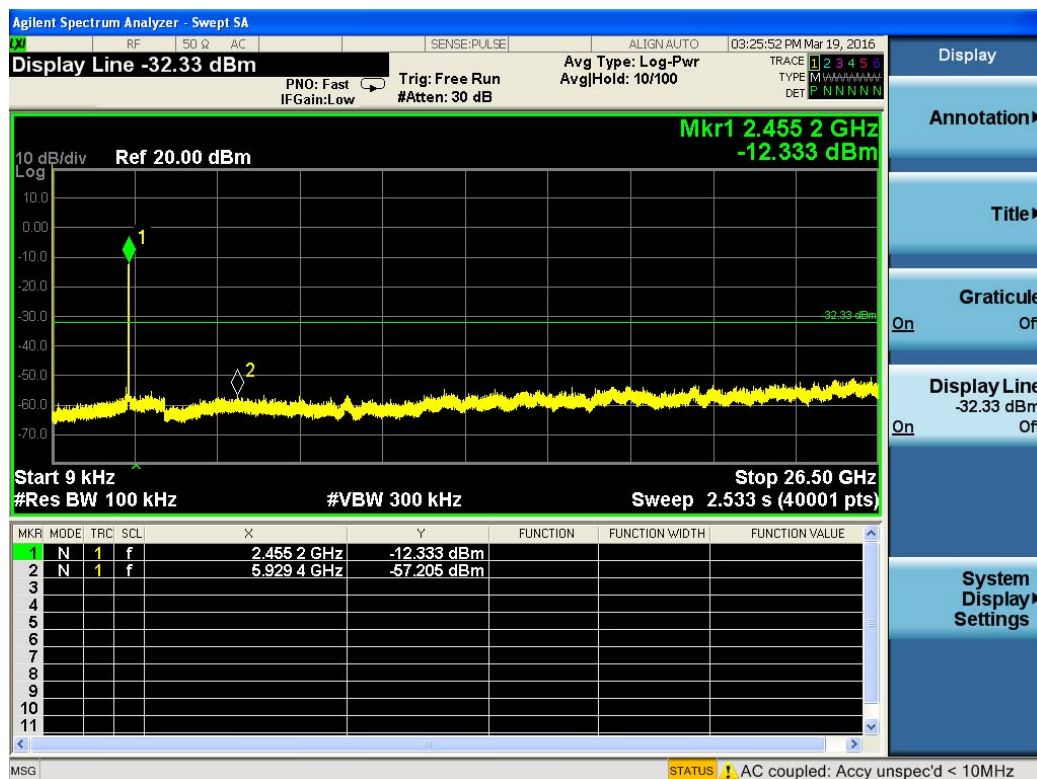
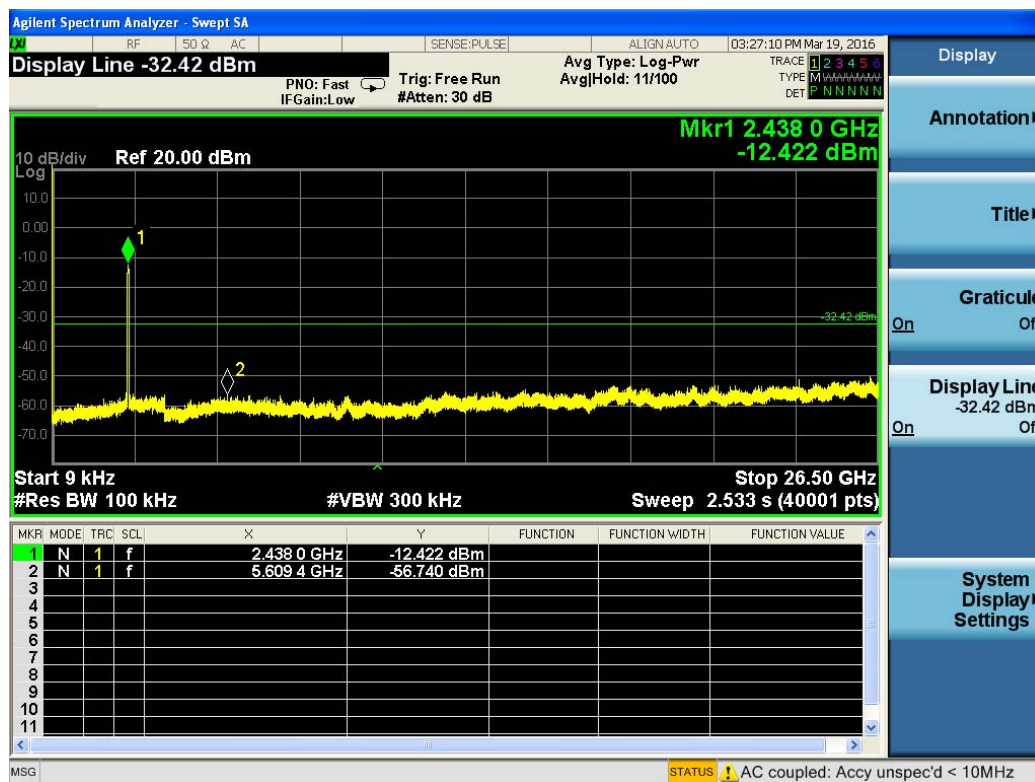
802.11n HT20





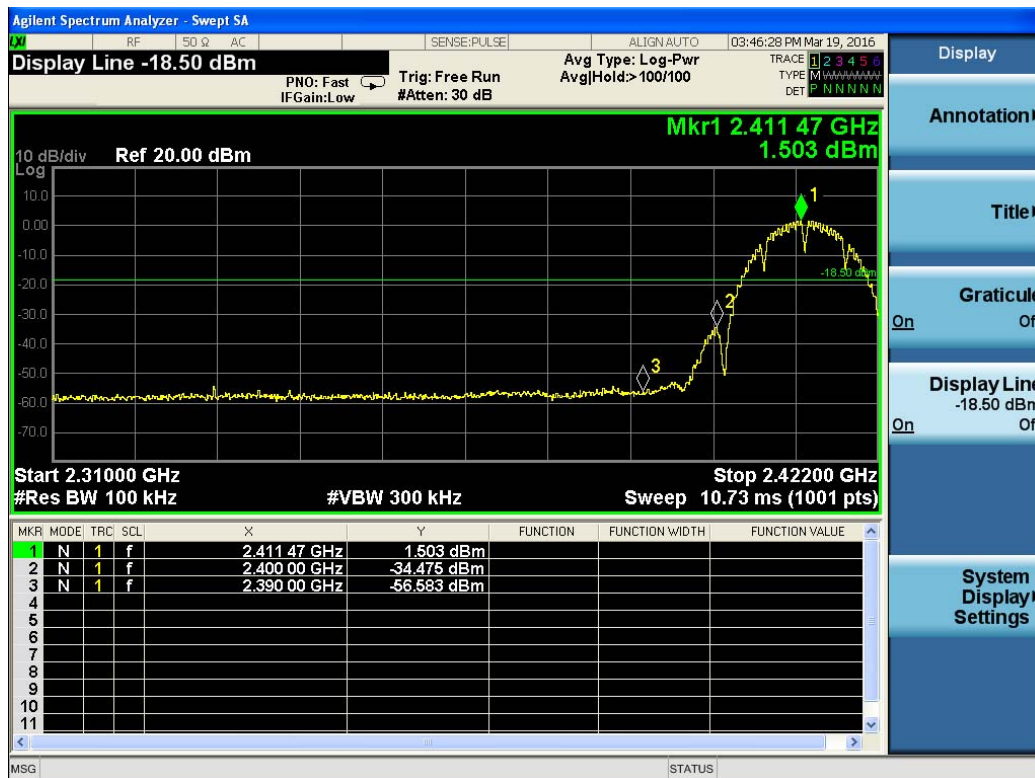
802.11n HT40



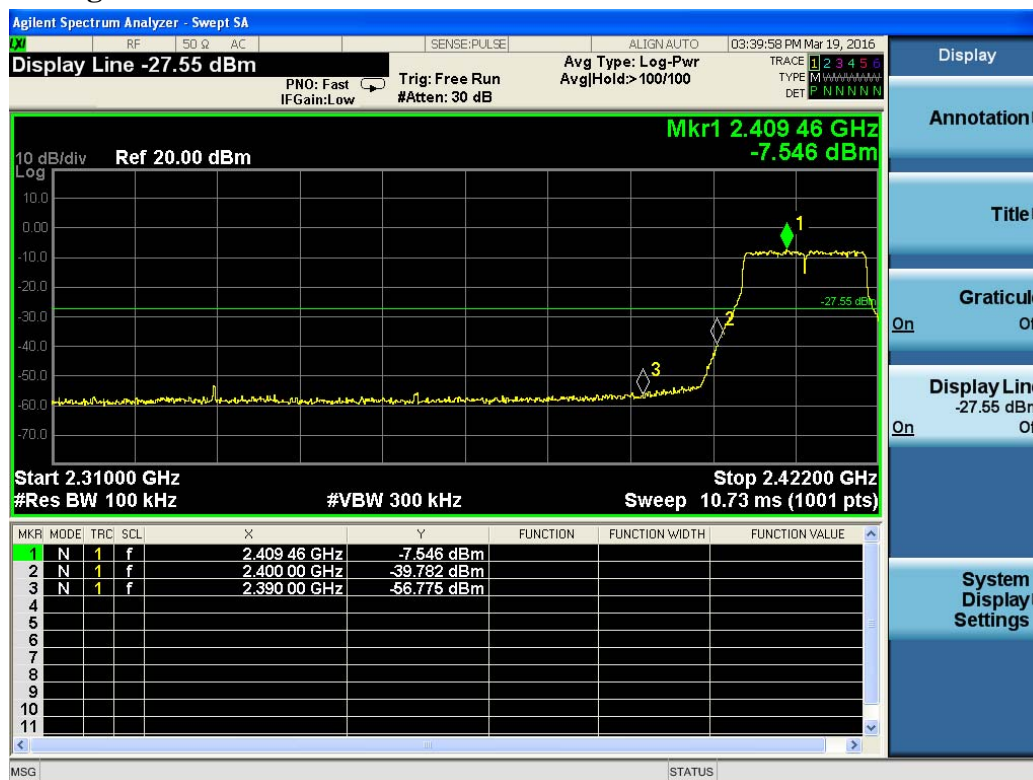


6.6.7. Test Results of Band Edges Test

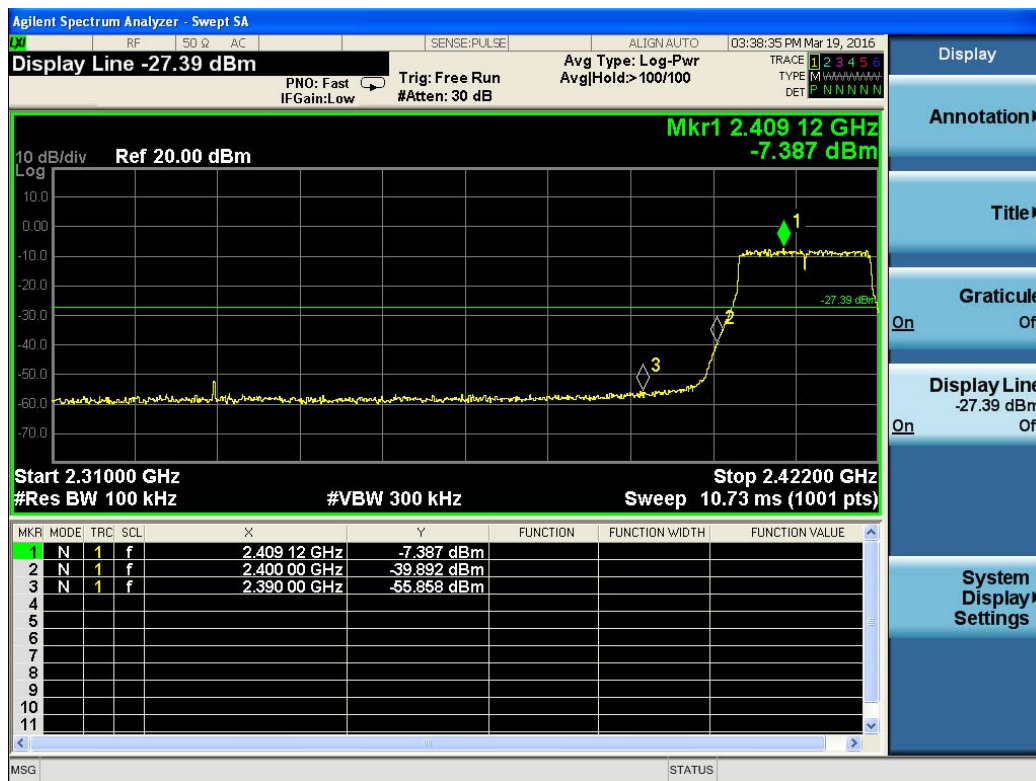
802.11b



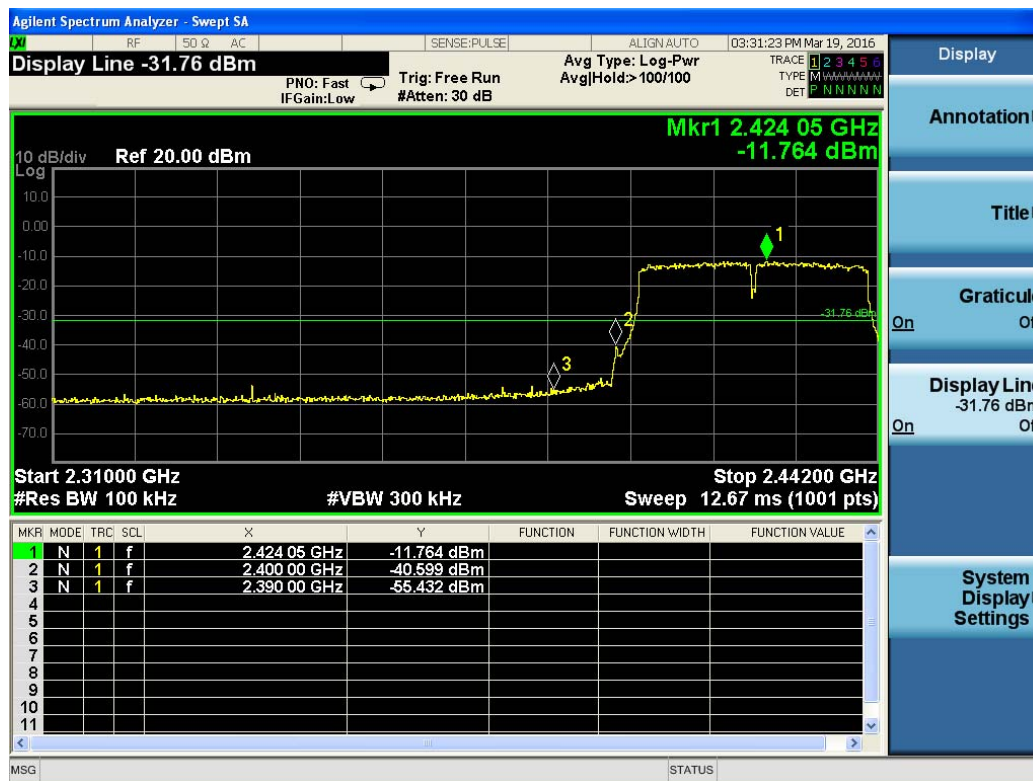
802.11g



802.11n HT20



802.11n HT40



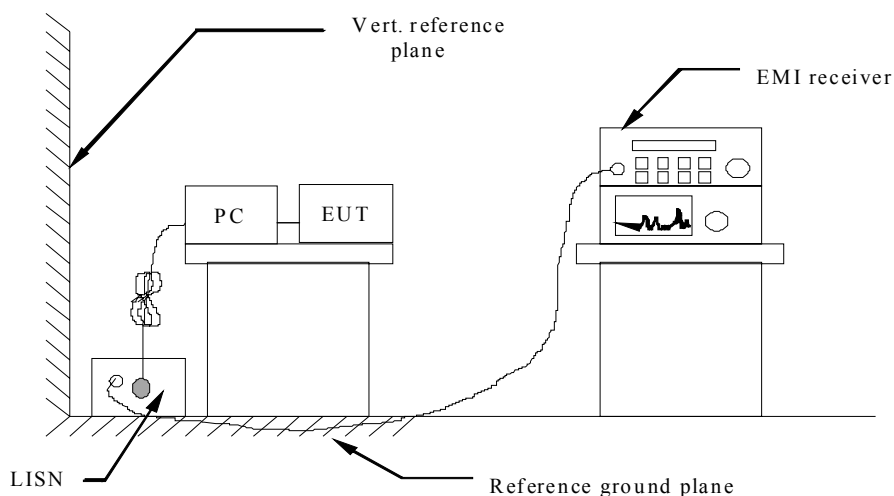
6.7. Power line conducted emissions

6.7.1 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 (dBμV)	
	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

6.7.2 Block Diagram of Test Setup

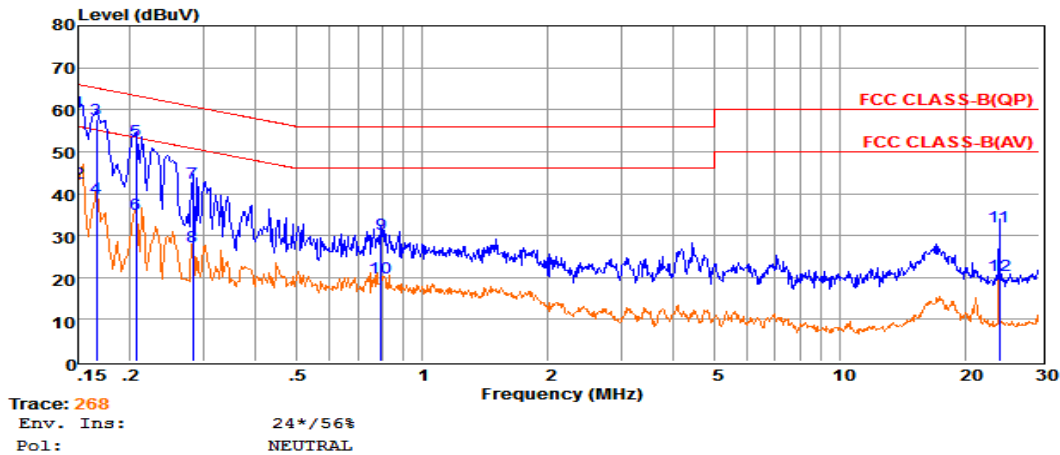


6.7.3 Test Results

PASS.

The test data please refer to following page.

Test Result for Line Power Input AC 120V/60Hz



Trace: 268

Env. Ins:

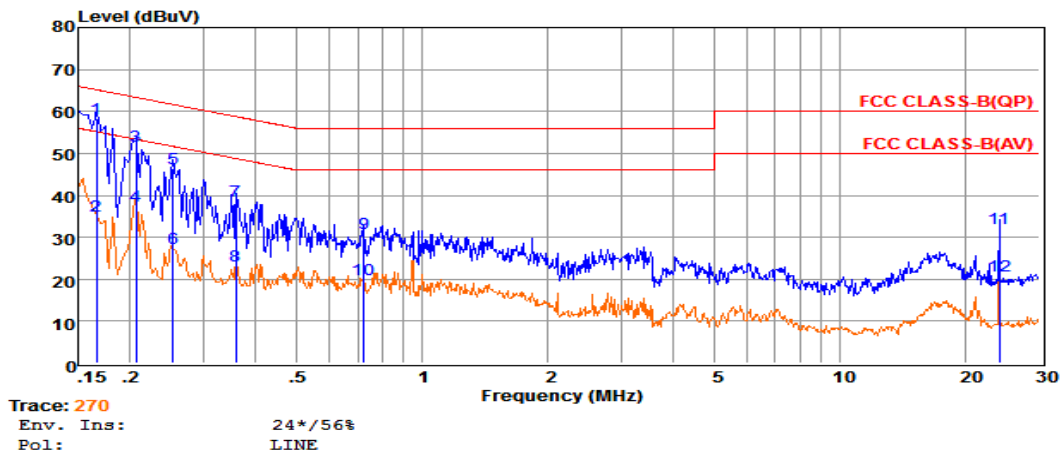
24*/56%

Pol:

NEUTRAL

Freq	Reading	LisnFac	CabLos	Atten_Fac	Measured	Limit	Over	Remark
MHz	dBuV	dB	dB	dB	dBuV	dBuV	dB	
1 0.15000	39.78	9.70	0.02	10.00	59.50	66.00	-6.50	QP
2 0.15010	22.94	9.70	0.02	10.00	42.66	55.99	-13.33	Average
3 0.16589	38.12	9.66	0.02	10.00	57.80	65.16	-7.36	QP
4 0.16599	19.41	9.66	0.02	10.00	39.09	55.16	-16.07	Average
5 0.20614	33.02	9.59	0.03	10.00	52.64	63.36	-10.72	QP
6 0.20624	15.51	9.59	0.03	10.00	35.13	53.36	-18.23	Average
7 0.28178	22.88	9.60	0.03	10.00	42.51	60.76	-18.25	QP
8 0.28188	7.85	9.60	0.03	10.00	27.48	50.76	-23.28	Average
9 0.79600	10.72	9.63	0.04	10.00	30.39	56.00	-25.61	QP
10 0.79610	0.31	9.63	0.04	10.00	19.98	46.00	-26.02	Average
1124.01475	12.05	9.82	0.13	10.00	32.00	60.00	-28.00	QP
1224.01575	0.70	9.82	0.13	10.00	20.65	50.00	-29.35	Average

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



Trace: 270

Env. Ins:

24*/56%

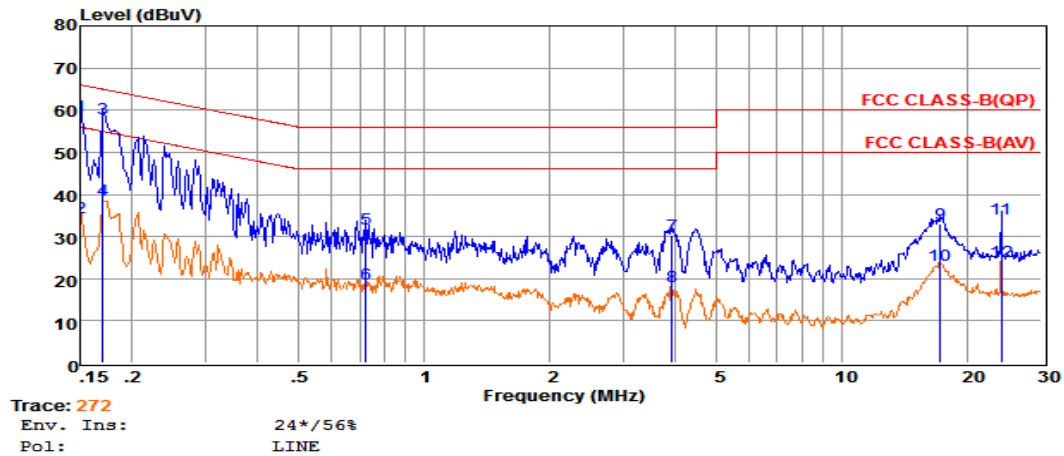
Pol:

LINE

Freq	Reading	LisnFac	CabLos	Atten_Fac	Measured	Limit	Over	Remark
MHz	dBuV	dB	dB	dB	dBuV	dBuV	dB	
1 0.16589	38.76	9.59	0.02	10.00	58.37	65.16	-6.79	QP
2 0.16599	15.34	9.59	0.02	10.00	34.95	55.16	-20.21	Average
3 0.20614	32.13	9.63	0.03	10.00	51.79	63.36	-11.57	QP
4 0.20624	17.81	9.63	0.03	10.00	37.47	53.36	-15.89	Average
5 0.25345	26.78	9.63	0.03	10.00	46.44	61.64	-15.20	QP
6 0.25355	7.56	9.63	0.03	10.00	27.22	51.64	-24.42	Average
7 0.35765	18.93	9.62	0.03	10.00	38.58	58.78	-20.20	QP
8 0.35775	3.64	9.62	0.03	10.00	23.29	48.78	-25.49	Average
9 0.72360	11.20	9.64	0.04	10.00	30.88	56.00	-25.12	QP
10 0.72370	0.16	9.64	0.04	10.00	19.84	46.00	-26.16	Average
1124.01475	12.26	9.71	0.13	10.00	32.10	60.00	-27.90	QP
1224.01575	0.91	9.71	0.13	10.00	20.75	50.00	-29.25	Average

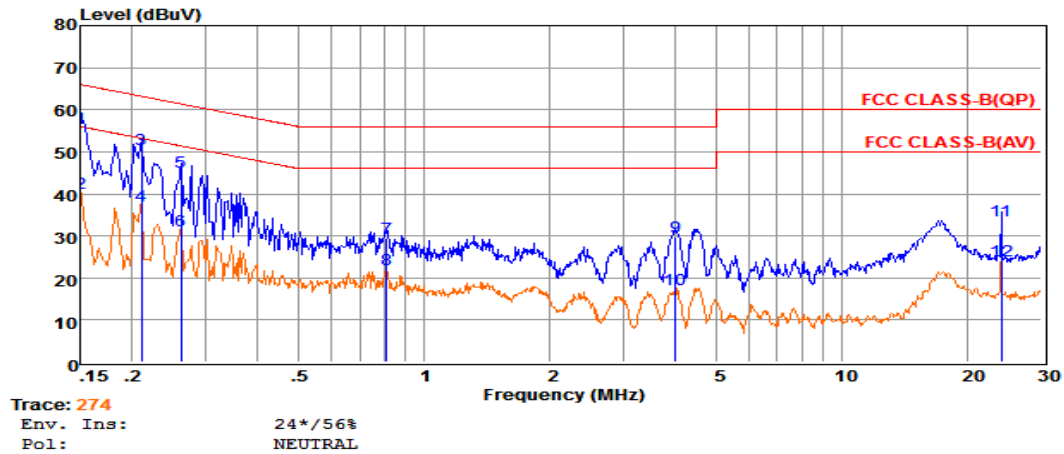
Remarks: 1. Measured = Reading + Lisn Factor +Cable Loss+Atten_Fac.
2. The emission levels that are 20dB below the official limit are not reported.

Test Result for Line Power Input AC 240V/60Hz



Freq	Reading	LisnFac	CabLos	Atten_Fac	Measured	Limit	Over	Remark
MHz	dBuV	dB	dB	dB	dBuV	dBuV	dB	
1 0.15000	39.00	9.57	0.02	10.00	58.59	66.00	-7.41	QP
2 0.15010	14.89	9.57	0.02	10.00	34.48	55.99	-21.51	Average
3 0.17034	38.51	9.60	0.02	10.00	58.13	64.94	-6.81	QP
4 0.17044	18.92	9.60	0.02	10.00	38.54	54.94	-16.40	Average
5 0.72360	12.09	9.64	0.04	10.00	31.77	56.00	-24.23	QP
6 0.72370	-0.83	9.64	0.04	10.00	18.85	46.00	-27.15	Average
7 3.92216	10.67	9.65	0.06	10.00	30.38	56.00	-25.62	QP
8 3.92316	-1.71	9.65	0.06	10.00	18.00	46.00	-28.00	Average
9 17.19939	13.18	9.73	0.11	10.00	33.02	60.00	-26.98	QP
10 17.20039	3.40	9.73	0.11	10.00	23.24	50.00	-26.76	Average
11 24.01475	14.29	9.71	0.13	10.00	34.13	60.00	-25.87	QP
12 24.01575	4.18	9.71	0.13	10.00	24.02	50.00	-25.98	Average

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



Freq	Reading	LisnFac	CabLos	Atten_Fac	Measured	Limit	Over	Remark
MHz	dBuV	dB	dB	dB	dBuV	dBuV	dB	
1 0.15000	35.83	9.70	0.02	10.00	55.55	66.00	-10.45	QP
2 0.15010	20.52	9.70	0.02	10.00	40.24	55.99	-15.75	Average
3 0.21055	30.88	9.59	0.03	10.00	50.50	63.18	-12.68	QP
4 0.21065	17.55	9.59	0.03	10.00	37.17	53.18	-16.01	Average
5 0.26164	25.69	9.60	0.03	10.00	45.32	61.38	-16.06	QP
6 0.26174	11.51	9.60	0.03	10.00	31.14	51.38	-20.24	Average
7 0.81305	9.71	9.63	0.04	10.00	29.38	56.00	-26.62	QP
8 0.81315	2.44	9.63	0.04	10.00	22.11	46.00	-23.89	Average
9 3.98501	9.89	9.65	0.06	10.00	29.60	56.00	-26.40	QP
10 3.98601	-2.51	9.65	0.06	10.00	17.20	46.00	-28.80	Average
11 24.01475	13.60	9.82	0.13	10.00	33.55	60.00	-26.45	QP
12 24.01575	4.27	9.82	0.13	10.00	24.22	50.00	-25.78	Average

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

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

7. ANTENNA REQUIREMENT

7.1 Standard Applicable

According to antenna requirement of §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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be re-placed by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of Sections 15.211, 15.213, 15.217, 15.219, or 15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with Section 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this Part are not exceeded.

And according to §15.247(4)(1), system operating in the 2400-2483.5MHz bands that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum peak output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.

7.2 Antenna Connected Construction

7.2.1. Standard Applicable

According to § 15.203 & RSS-Gen, 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.

7.2.2. Antenna Connector Construction

The sample use external antenna and maximum antenna gain is 2.0dBi. Please see EUT photo for details.

7.2.3. Results: Compliance.

Measurement

The antenna gain of the complete system is calculated by the difference of radiated power in EIRP and the conducted power of the module.

Conducted power refers ANSI C63.10:2013 Output power test procedure for DTS devices.

Radiated power refers to ANSI C63.10:2013 Radiated emissions tests.

Measurement parameters:

Measurement parameter	
Detector:	Peak
Sweep time:	Auto
Resolution bandwidth:	1 MHz
Video bandwidth:	3 MHz
Trace-Mode:	Max hold

Note: The antenna gain of the complete system is calculated by the difference of radiated power in EIRP and the conducted power of the module. For WLAN devices, the DSSS mode is used.

Limits:

FCC	IC
Antenna Gain	
6dBi	

Tnom	Vnom	lowest channel 2412 MHz	middle channel 2437 MHz	highest channel 2462 MHz
Conducted power [dBm] Measured with DSSS		9.35	9.41	9.55
Radiated power [dBm] Measured with DSSS		8.17	10.72	10.16
Gain [dBi] Calculated		-1.18	1.31	0.61
Measurement uncertainty			± 1.6 dB (cond.) / ± 3.8 dB (rad.)	

Result: -/-

-----THE END OF TEST REPORT-----