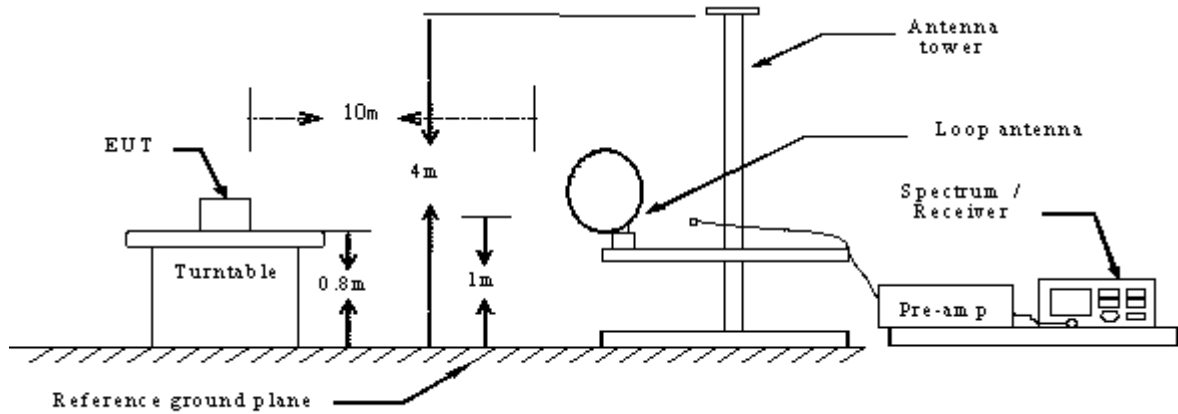


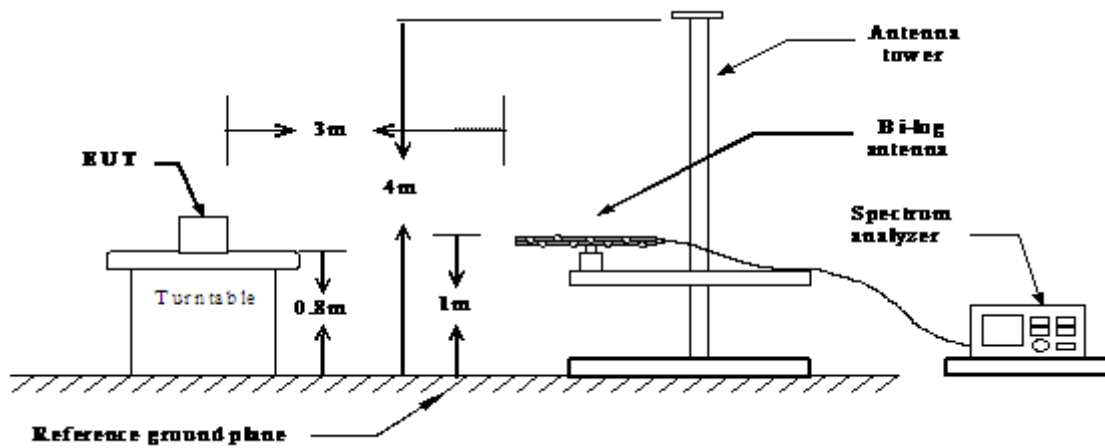
10. SPURIOUS EMISSIONS (RADIATION)

10.1 TEST SETUP

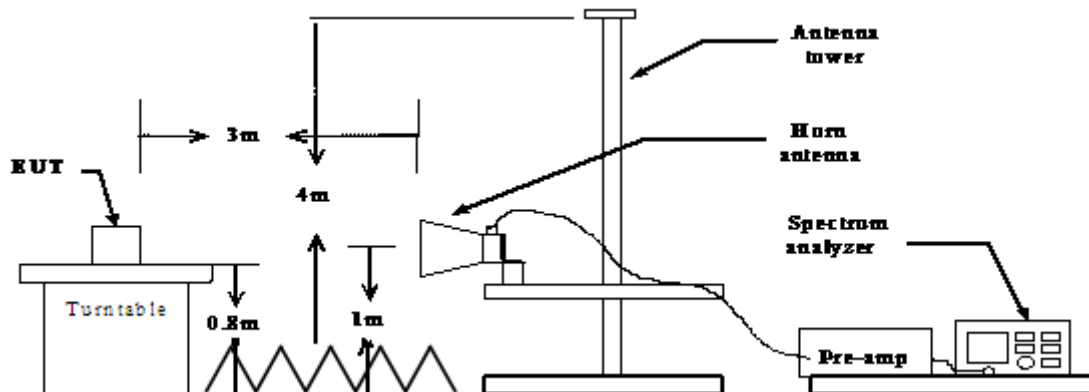
Radiated Spurious Measurement: below 30MHz



Radiated Spurious Measurement: below 1GHz



Radiated Spurious Measurement: above 1GHz



10.2 LIMITS

Frequency (MHz)	Limits (uV/m)	Limits(dBuV/m) At 3m	Measured Distance (m)
0.009-0.490	2400/F(KHz)	128.5-93.80	300
0.490-1.705	24000/F(KHz)	73.80-63.00	30
1.705-30.0	30	69.5	30
30~88	100	40	3
88~216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

Notes: the calculate formula for below 30MHz

$$L2 = 20\lg(L1) + 40\lg(d1/d2)$$

L2: is the specified limit in dB microvolts per metre at distance d2.

L1: is the specified limit in microvolts per metre at distance d1.

For example:

L1 = 2400/9 (uV/m), d1 = 300 (m), d2 = 3 (m), so L2 as follows:

$$20\lg(2400/9) + 40\lg(300/3) = 128.5(\text{dB}\mu\text{V/m})$$

10.3 TEST PROCEDURE

Radiated Emission (9 kHz - 30 MHz) :

Spurious emissions from the EUT are measured in the frequency range of 9 kHz to 30 MHz using a tuned receiver and a shielded loop antenna. The antenna was positioned 3 meters horizontally from the EUT. The RBW of the spectrum analyzer is set to 200Hz(measured frequency range was 9KHz~150KHz) or 9KHz(measured frequency range was 150KHz~30MHz). Measurements have been made in all three orthogonal axes and the shielded loop antenna was rotated to locate the maximum of the emissions. The emission limits are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz (these two bands employing a average detector).

Radiated Emission (30 MHz – 1000 MHz):

According to description of ANSI C63.4: 2009 sec.13.4, the preliminary radiated emissions measurement were carried out. The preliminary radiated measurements were performed at the measurement distance that specified for compliance to determine the emission characteristics of the EUT. The EUT configuration (in X, Y and Z axis), cable configuration and mode of operation were determined for producing the maximum level of emissions. These configurations were used for the final radiated emissions measurements. The measurement is carried out using a spectrum analyzer or receiver. The Quasi-peak detector is used and RBW is set to 120kHz. The antenna height and turn table rotation is adjusted until the maximum power value is founded on spectrum analyzer or receiver.

Radiated Emission (Above 1 GHz):

According to description of ANSI C63.4: 2009 sec.13.4, the preliminary radiated emissions measurement were carried out. The preliminary radiated measurements were performed at the measurement distance that specified for compliance to determine the emission characteristics of the EUT. The EUT configuration (in X, Y and Z axis), cable configuration and mode of operation were determined for producing the maximum level of emissions. These configurations were used for the final radiated emissions measurements. The measurement is carried out using a spectrum analyzer or receiver. The spectrum analyzer scans from 1GHz to 25GHz (higher than the 10th harmonic of the carrier). The peak detector is used for Peak limit and RBW is set to 1MHz ,VBW \geq 3RBW. The peak detector is used for Average limit and RBW is set to 1MHz ,VBW is not smaller than 1/T, T = to the shortest pulse width. The antenna height and turn table rotation is adjusted until the maximum power value is founded on spectrum analyzer or receiver.

10.4 RESULTS & PERFORMANCE

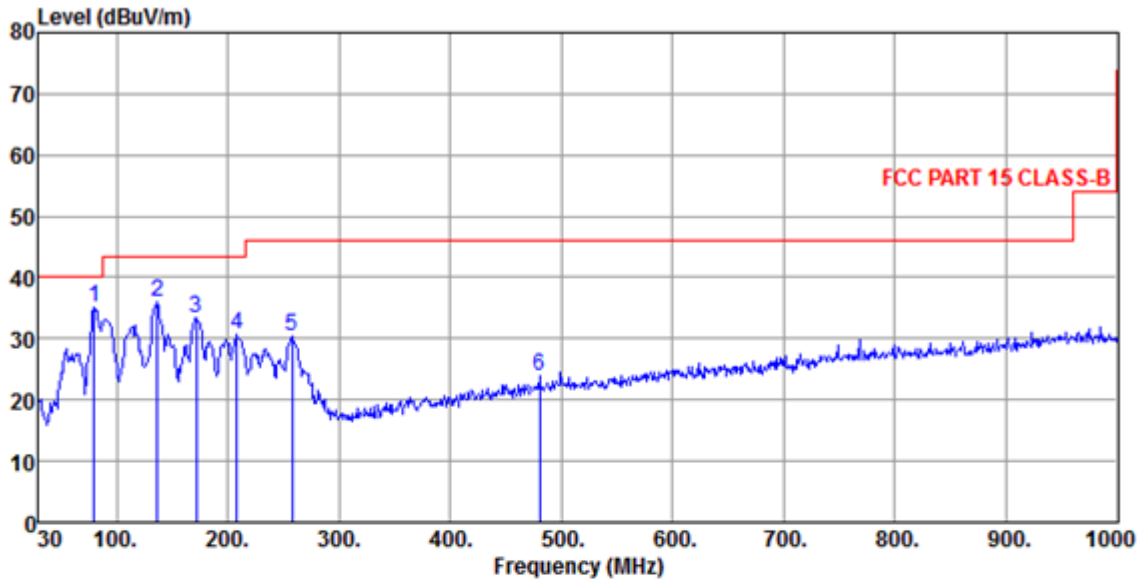
From 9KHz to 30MHz:

The test data was 20dB lower than the permissible limit was not recorded in the report.
 802.11b, traffic mode; Channel 1

From 30MHz to 1GHz:

802.11b Ch1

Polarity: Horizontal

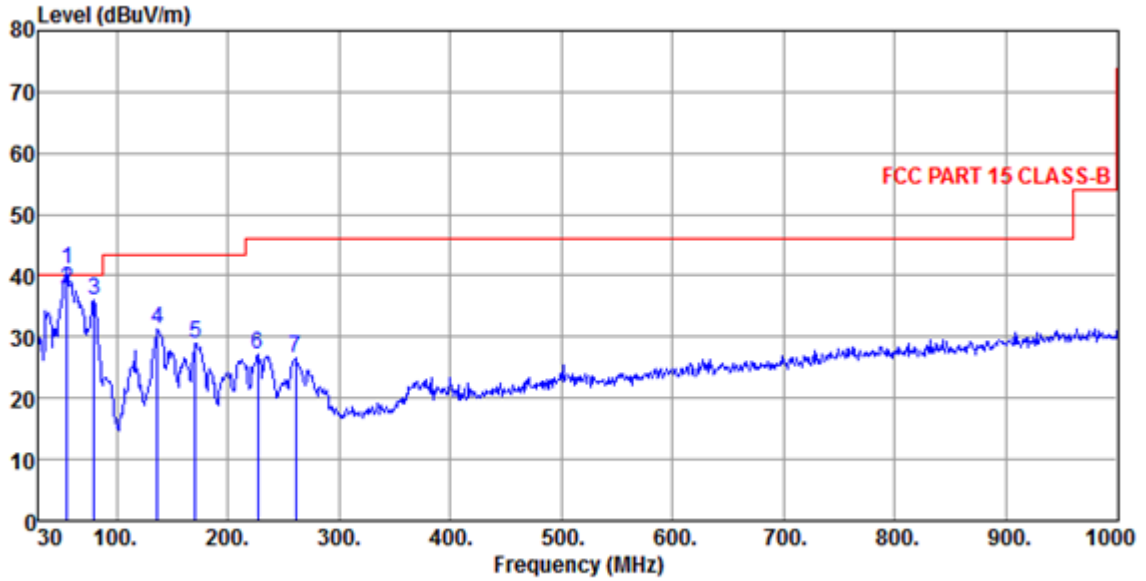


Site : chamber
 Condition : FCC PART 15 CLASS-B 3m VULB9160 HORIZONTAL
 EUT :
 Model Name :
 Temp/Humi : 23 °C / 54 %
 Power Rating: AC 120V/60HZ
 Mode : 802.11b CH1
 Memo :

	ReadAntenna	Cable	Preamp		Limit	Over	
Freq	Level	Loss	Factor	Level	Line	Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
1 pp	79.47	25.19	8.77	1.09	0.00	35.05	40.00 -4.95 Peak
2	136.70	21.24	13.21	1.62	0.00	36.07	43.50 -7.43 Peak
3	171.62	18.39	13.15	1.86	0.00	33.40	43.50 -10.10 Peak
4	208.48	18.14	10.53	1.93	0.00	30.60	43.50 -12.90 Peak
5	257.95	16.08	12.09	2.18	0.00	30.35	46.00 -15.65 Peak
6	480.08	4.00	16.89	3.00	0.00	23.89	46.00 -22.11 Peak

802.11b Ch1

Polarity: Vertical

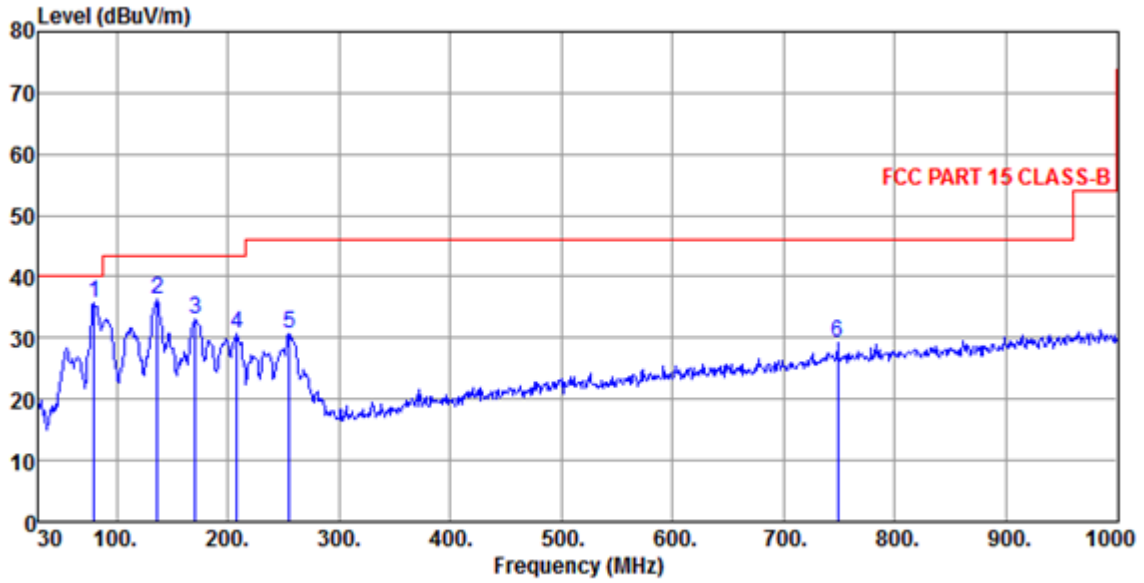


Site : chamber
 Condition : FCC PART 15 CLASS-B 3m VULB9160 VERTICAL
 EUT :
 Model Name :
 Temp/Humi : 23 °C / 54 %
 Power Rating: AC 120V/60HZ
 Mode : 802.11b CH1
 Memo :

	ReadAntenna	Cable	Preamp	Limit	Over				
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark	
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1 pp	55.22	27.58	12.40	1.00	0.00	40.98	40.00	0.98 Peak	
2 qp	55.73	24.36	12.49	1.00	0.00	37.85	40.00	-2.15 QP	
3	79.47	26.17	8.77	1.09	0.00	36.03	40.00	-3.97 Peak	
4	136.70	16.55	13.21	1.62	0.00	31.38	43.50	-12.12 Peak	
5	170.65	13.97	13.15	1.86	0.00	28.98	43.50	-14.52 Peak	
6	226.91	14.18	11.05	2.07	0.00	27.30	46.00	-18.70 Peak	
7	260.86	12.31	12.13	2.19	0.00	26.63	46.00	-19.37 Peak	

802.11b Ch6

Polarity: Horizontal

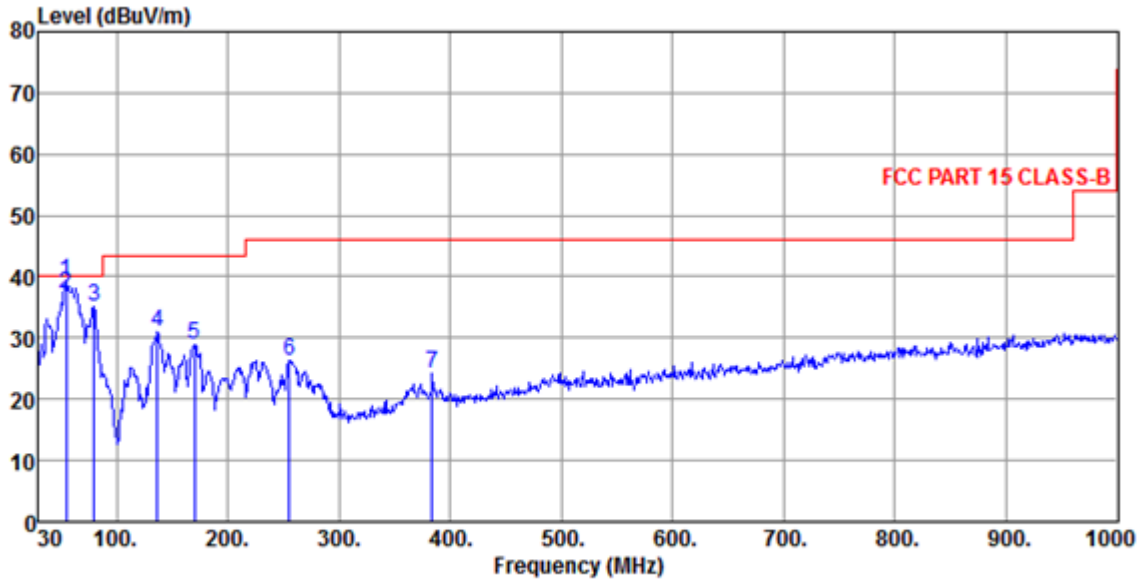


Site : chamber
 Condition : FCC PART 15 CLASS-B 3m VULB9160 HORIZONTAL
 EUT :
 Model Name :
 Temp/Humi : 23 °C / 54 %
 Power Rating: AC 120V/60HZ
 Mode : 802.11b CH6
 Memo :

	ReadAntenna	Cable	Preamp	Limit	Over			
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1 pp	79.47	25.74	8.77	1.09	0.00	35.60	40.00	-4.40 Peak
2	136.70	21.41	13.21	1.62	0.00	36.24	43.50	-7.26 Peak
3	170.65	18.05	13.15	1.86	0.00	33.06	43.50	-10.44 Peak
4	208.48	18.22	10.53	1.93	0.00	30.68	43.50	-12.82 Peak
5	255.04	16.62	12.00	2.17	0.00	30.79	46.00	-15.21 Peak
6	748.77	4.25	21.29	3.80	0.00	29.34	46.00	-16.66 Peak

802.11b Ch6

Polarity: Vertical

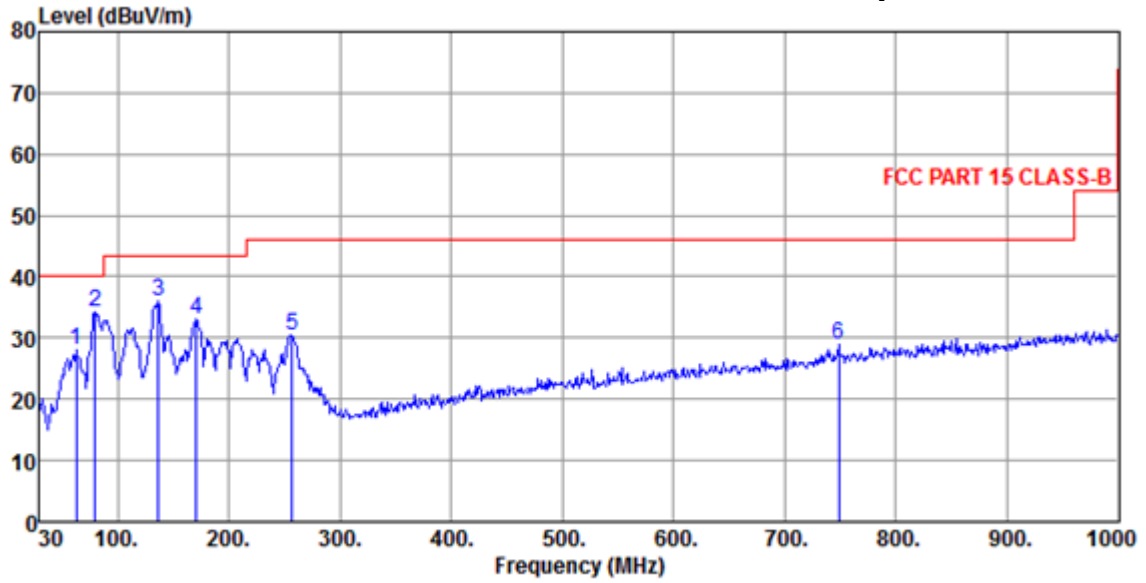


Site : chamber
 Condition : FCC PART 15 CLASS-B 3m VULB9160 VERTICAL
 EUT :
 Model Name :
 Temp/Humi : 23 °C / 54 %
 Power Rating: AC 120V/60HZ
 Mode : 802.11b CH6
 Memo :

	ReadAntenna	Cable	Preamp	Limit	Over			
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1 pp	54.25	25.84	12.40	0.99	0.00	39.23	40.00	-0.77 Peak
2 qp	54.86	23.84	12.40	0.99	0.00	37.23	40.00	-2.77 QP
3	79.47	25.36	8.77	1.09	0.00	35.22	40.00	-4.78 Peak
4	136.70	16.27	13.21	1.62	0.00	31.10	43.50	-12.40 Peak
5	169.68	13.64	13.33	1.84	0.00	28.81	43.50	-14.69 Peak
6	255.04	12.20	12.00	2.17	0.00	26.37	46.00	-19.63 Peak
7	384.05	6.61	14.97	2.74	0.00	24.32	46.00	-21.68 Peak

802.11b Ch11

Polarity: Horizontal

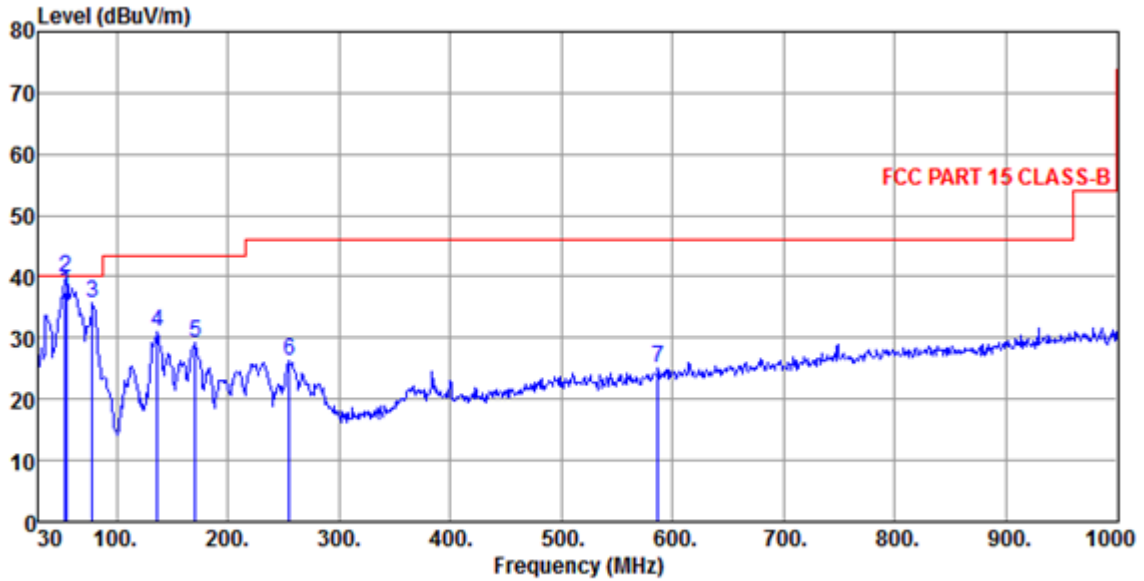


Site : chamber
 Condition : FCC PART 15 CLASS-B 3m VULB9160 HORIZONTAL
 EUT :
 Model Name :
 Temp/Humi : 23 °C / 54 %
 Power Rating: AC 120V/60HZ
 Mode : 802.11b CH11
 Memo :

	ReadAntenna	Cable	Preamp	Limit	Over				
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	62.98	14.46	12.51	1.07	0.00	28.04	40.00	-11.96	Peak
2 pp	79.47	24.24	8.77	1.09	0.00	34.10	40.00	-5.90	Peak
3	136.70	21.32	13.21	1.62	0.00	36.15	43.50	-7.35	Peak
4	170.65	18.15	13.15	1.86	0.00	33.16	43.50	-10.34	Peak
5	256.98	16.22	12.05	2.17	0.00	30.44	46.00	-15.56	Peak
6	748.77	3.98	21.29	3.80	0.00	29.07	46.00	-16.93	Peak

802.11b Ch11

Polarity: Vertical

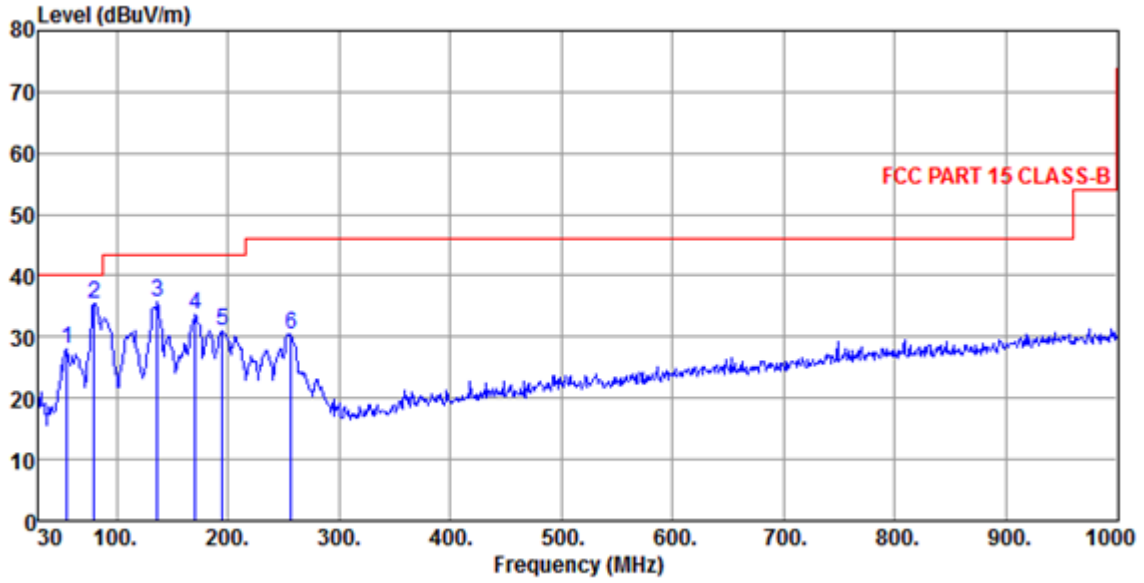


Site : chamber
 Condition : FCC PART 15 CLASS-B 3m VULB9160 VERTICAL
 EUT :
 Model Name :
 Temp/Humi : 23 °C / 54 %
 Power Rating: AC 120V/60HZ
 Mode : 802.11b CH11
 Memo :

	Freq	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	qp	54.11	24.09	12.40	0.99	0.00	37.48	40.00	-2.52 QP
2	pp	54.25	26.55	12.40	0.99	0.00	39.94	40.00	-0.06 Peak
3		78.50	25.37	9.14	1.09	0.00	35.60	40.00	-4.40 Peak
4		136.70	16.21	13.21	1.62	0.00	31.04	43.50	-12.46 Peak
5		170.65	14.12	13.15	1.86	0.00	29.13	43.50	-14.37 Peak
6		255.04	12.22	12.00	2.17	0.00	26.39	46.00	-19.61 Peak
7		586.78	2.91	18.78	3.30	0.00	24.99	46.00	-21.01 Peak

802.11g Ch1

Polarity: Horizontal

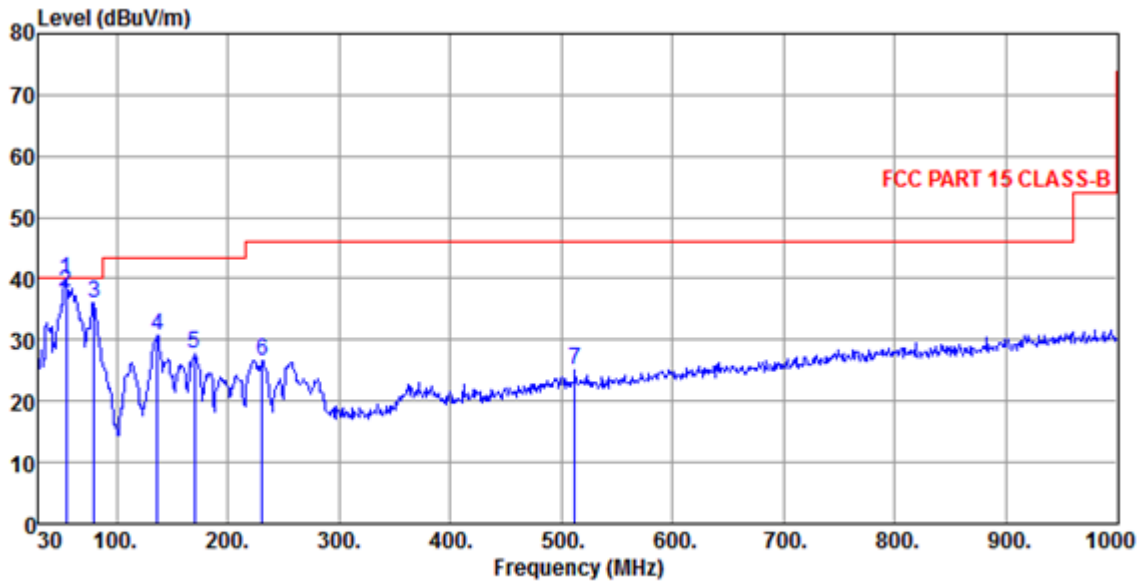


Site : chamber
 Condition : FCC PART 15 CLASS-B 3m VULB9160 HORIZONTAL
 EUT :
 Model Name :
 Temp/Humi : 23 °C / 54 %
 Power Rating: AC 120V/60HZ
 Mode : 802.11g CH1
 Memo :

	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over	Remark
	MHz	Level	Factor	Loss	Factor	Line	Limit	
		dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
1	55.22	14.75	12.40	1.00	0.00	28.15	40.00	-11.85 Peak
2	79.47	25.50	8.77	1.09	0.00	35.36	40.00	-4.64 Peak
3	136.70	20.99	13.21	1.62	0.00	35.82	43.50	-7.68 Peak
4	170.65	18.51	13.15	1.86	0.00	33.52	43.50	-9.98 Peak
5	194.90	18.31	10.81	1.89	0.00	31.01	43.50	-12.49 Peak
6	256.98	16.22	12.05	2.17	0.00	30.44	46.00	-15.56 Peak

802.11g Ch1

Polarity: Vertical

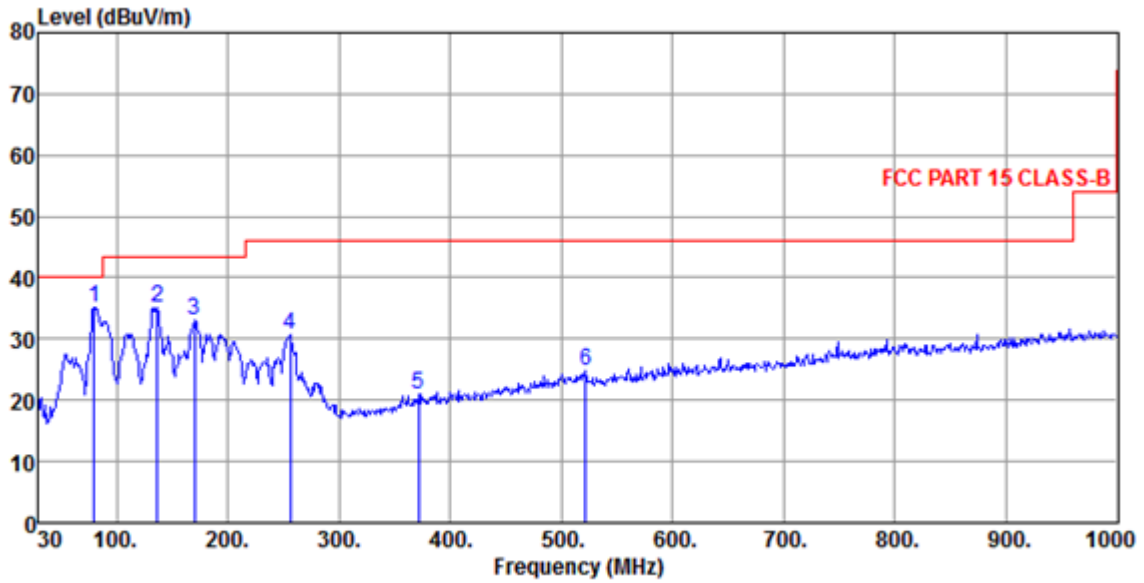


Site : chamber
 Condition : FCC PART 15 CLASS-B 3m VULB9160 VERTICAL
 EUT :
 Model Name :
 Temp/Humi : 23 °C / 54 %
 Power Rating: AC 120V/60HZ
 Mode : 802.11g CH1
 Memo :

	Freq	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	pp	54.25	26.39	12.40	0.99	0.00	39.78	40.00	-0.22 Peak
2	qp	54.39	24.32	12.40	0.99	0.00	37.71	40.00	-2.29 QP
3		79.47	26.24	8.77	1.09	0.00	36.10	40.00	-3.90 Peak
4		136.70	16.00	13.21	1.62	0.00	30.83	43.50	-12.67 Peak
5		169.68	12.49	13.33	1.84	0.00	27.66	43.50	-15.84 Peak
6		230.79	13.33	11.24	2.05	0.00	26.62	46.00	-19.38 Peak
7		512.09	4.79	17.22	3.10	0.00	25.11	46.00	-20.89 Peak

802.11g Ch6

Polarity: Horizontal

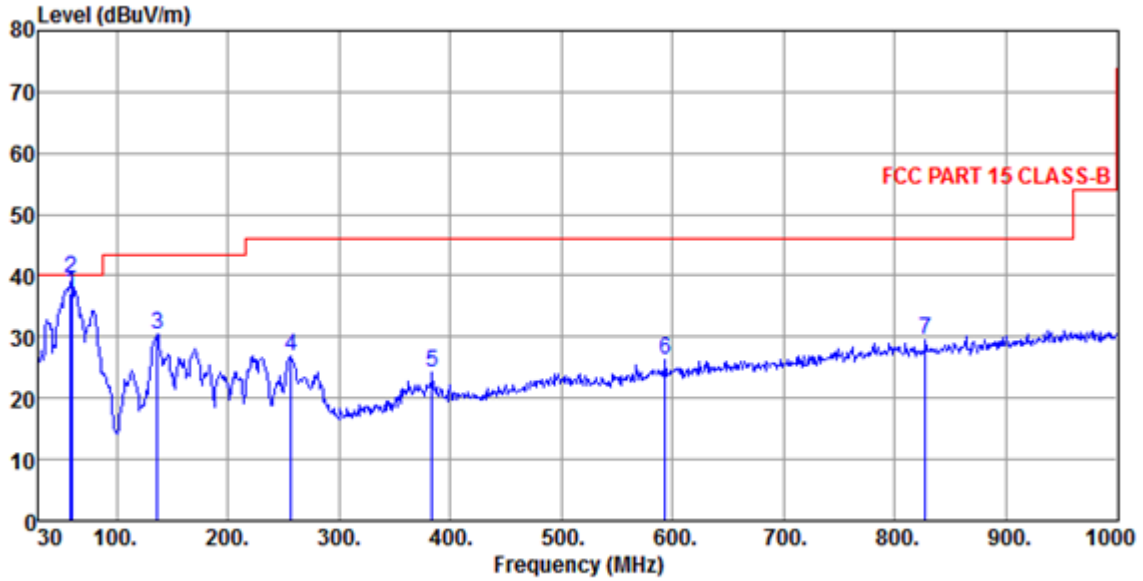


Site : chamber
 Condition : FCC PART 15 CLASS-B 3m VULB9160 HORIZONTAL
 EUT :
 Model Name :
 Temp/Humi : 23 °C / 54 %
 Power Rating: AC 120V/60HZ
 Mode : 802.11g CH6
 Memo :

	Freq	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	79.47	25.21	8.77	1.09	0.00	35.07	40.00	-4.93	Peak
2	136.70	20.38	13.21	1.62	0.00	35.21	43.50	-8.29	Peak
3	169.68	17.95	13.33	1.84	0.00	33.12	43.50	-10.38	Peak
4	256.01	16.50	12.05	2.17	0.00	30.72	46.00	-15.28	Peak
5	371.44	3.54	14.64	2.72	0.00	20.90	46.00	-25.10	Peak
6	521.79	4.20	17.36	3.11	0.00	24.67	46.00	-21.33	Peak

802.11g Ch6

Polarity: Vertical

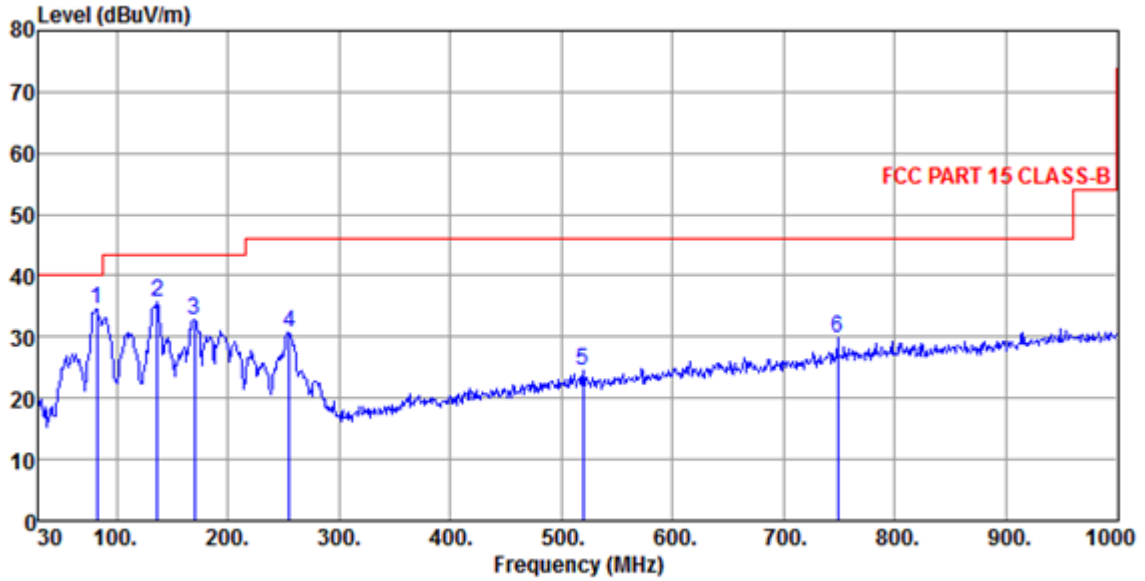


Site : chamber
 Condition : FCC PART 15 CLASS-B 3m VULB9160 VERTICAL
 EUT :
 Model Name :
 Temp/Humi : 23 °C / 54 %
 Power Rating: AC 120V/60HZ
 Mode : 802.11g CH6
 Memo :

	Read	Antenna	Cable	Preamp	Limit	Over	
Freq	Level	Factor	Loss	Factor	Line	Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
1 qp	58.75	23.69	12.58	1.03	0.00	37.30	40.00 -2.70 QP
2 pp	59.10	25.94	12.58	1.04	0.00	39.56	40.00 -0.44 Peak
3	136.70	15.71	13.21	1.62	0.00	30.54	43.50 -12.96 Peak
4	256.98	12.76	12.05	2.17	0.00	26.98	46.00 -19.02 Peak
5	384.05	6.44	14.97	2.74	0.00	24.15	46.00 -21.85 Peak
6	593.57	3.92	19.00	3.33	0.00	26.25	46.00 -19.75 Peak
7	827.34	3.68	21.94	3.90	0.00	29.52	46.00 -16.48 Peak

802.11g Ch11

Polarity: Horizontal

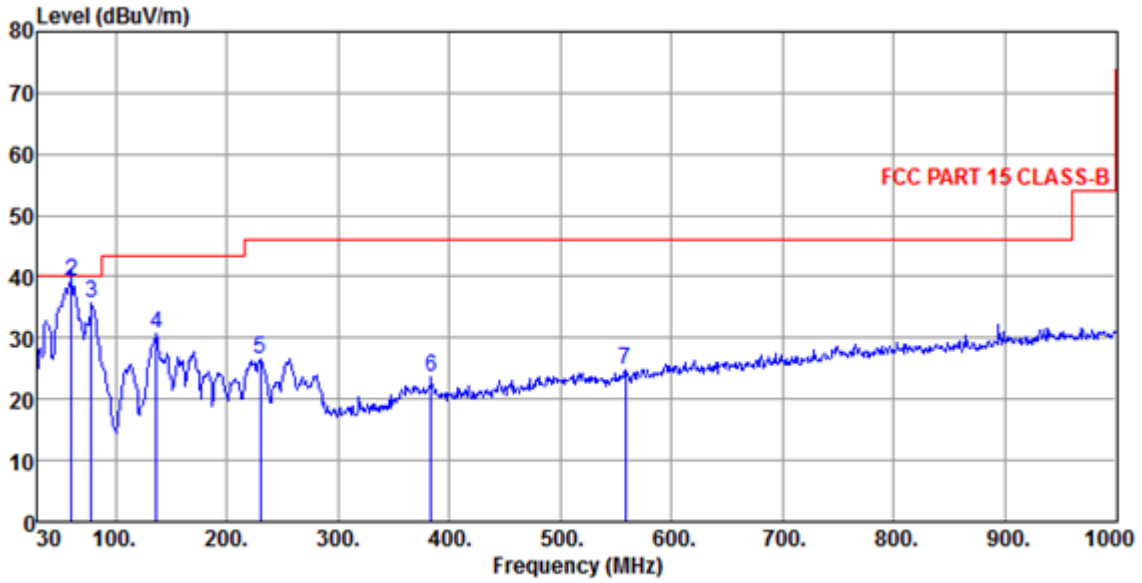


Site : chamber
 Condition : FCC PART 15 CLASS-B 3m VULB9160 HORIZONTAL
 EUT :
 Model Name :
 Temp/Humi : 23 °C / 54 %
 Power Rating: AC 120V/60HZ
 Mode : 802.11g CH11
 Memo :

	Freq	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	pp 82.38	24.68	8.73	1.09	0.00	34.50	40.00	-5.50	Peak
2	136.70	20.80	13.21	1.62	0.00	35.63	43.50	-7.87	Peak
3	169.68	17.74	13.33	1.84	0.00	32.91	43.50	-10.59	Peak
4	255.04	16.51	12.00	2.17	0.00	30.68	46.00	-15.32	Peak
5	519.85	4.19	17.33	3.10	0.00	24.62	46.00	-21.38	Peak
6	748.77	4.83	21.29	3.80	0.00	29.92	46.00	-16.08	Peak

802.11g Ch11

Polarity: Vertical

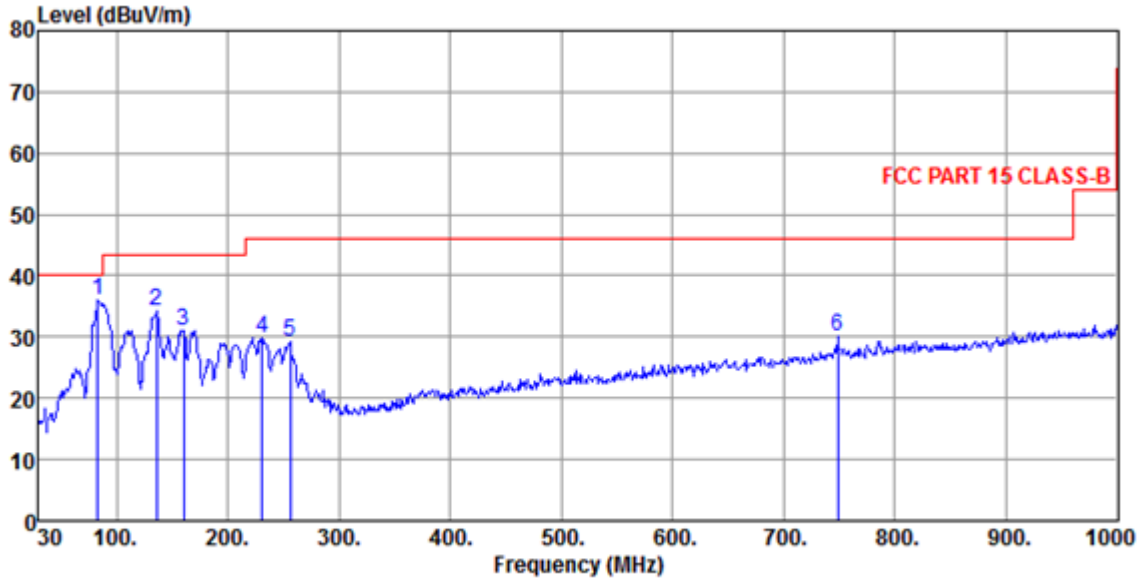


Site : chamber
 Condition : FCC PART 15 CLASS-B 3m VULB9160 VERTICAL
 EUT :
 Model Name :
 Temp/Humi : 23 °C / 54 %
 Power Rating: AC 120V/60HZ
 Mode : 802.11g CH11
 Memo :

	ReadAntenna	Cable	Preamp	Limit	Over			
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1 qp	59.87	23.68	12.67	1.04	0.00	37.39	40.00	-2.61 QP
2 pp	60.07	25.62	12.67	1.05	0.00	39.34	40.00	-0.66 Peak
3	78.50	25.38	9.14	1.09	0.00	35.61	40.00	-4.39 Peak
4	136.70	15.92	13.21	1.62	0.00	30.75	43.50	-12.75 Peak
5	229.82	13.39	11.24	2.04	0.00	26.67	46.00	-19.33 Peak
6	384.05	6.01	14.97	2.74	0.00	23.72	46.00	-22.28 Peak
7	558.65	3.32	18.12	3.23	0.00	24.67	46.00	-21.33 Peak

802.11n20 Ch1

Polarity: Horizontal

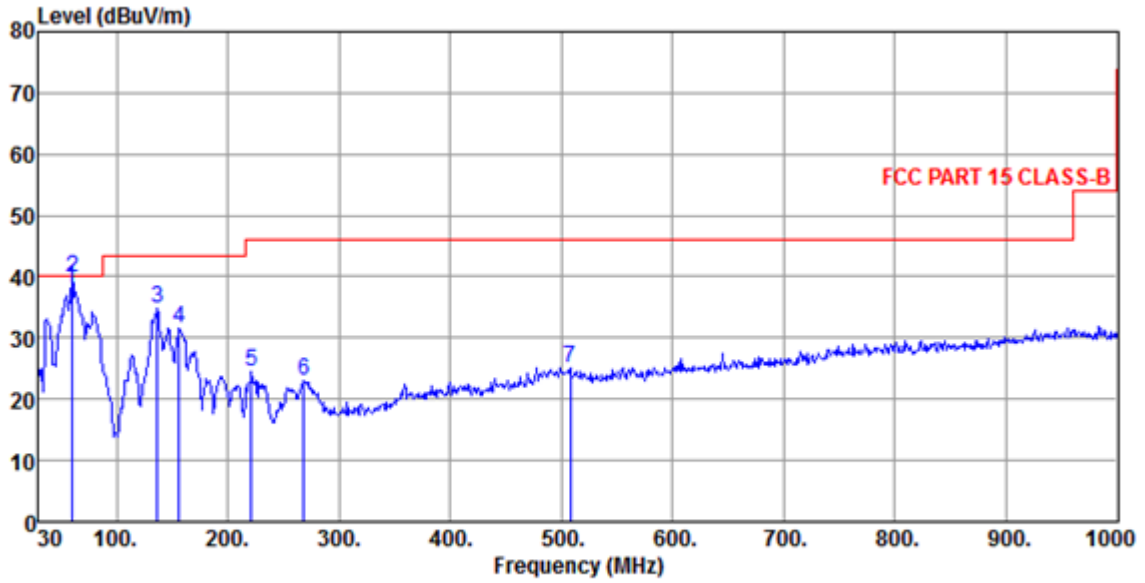


Site : chamber
 Condition : FCC PART 15 CLASS-B 3m VULB9160 HORIZONTAL
 EUT :
 Model Name :
 Temp/Humi : 23 °C / 54 %
 Power Rating: AC 120V/60HZ
 Mode : 802.11n20 CH1
 Memo :

	Freq	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	pp 83.35	26.15	8.68	1.09	0.00	35.92	40.00	-4.08	Peak
2	135.73	19.41	13.07	1.62	0.00	34.10	43.50	-9.40	Peak
3	159.98	15.51	13.88	1.68	0.00	31.07	43.50	-12.43	Peak
4	230.79	16.63	11.24	2.05	0.00	29.92	46.00	-16.08	Peak
5	256.01	15.05	12.05	2.17	0.00	29.27	46.00	-16.73	Peak
6	748.77	4.92	21.29	3.80	0.00	30.01	46.00	-15.99	Peak

802.11n20 Ch1

Polarity: Vertical

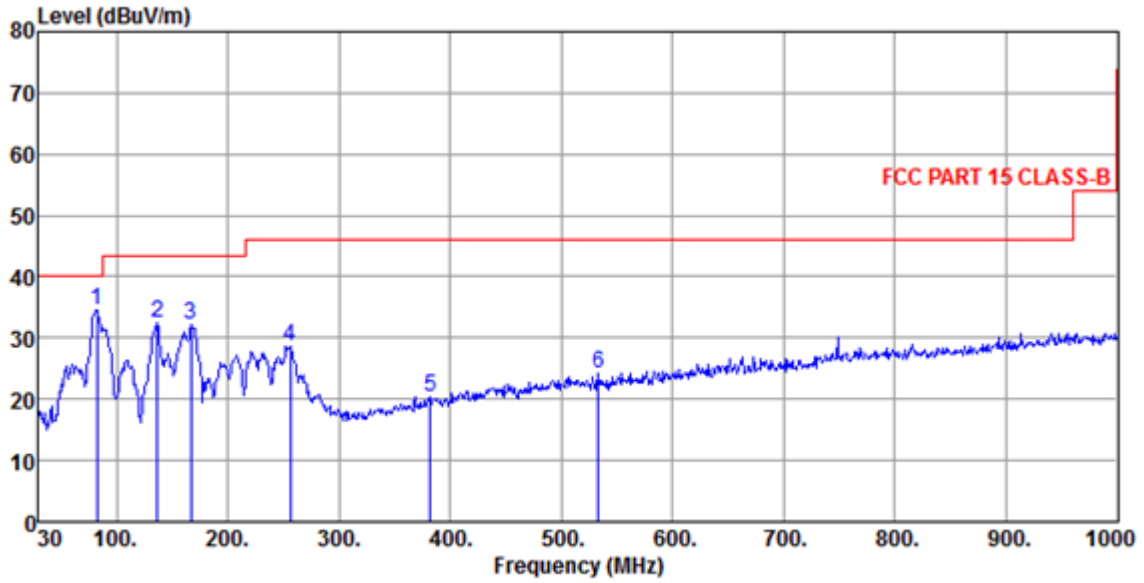


Site : chamber
 Condition : FCC PART 15 CLASS-B 3m VULB9160 VERTICAL
 EUT :
 Model Name :
 Temp/Humi : 23 °C / 54 %
 Power Rating: AC 120V/60HZ
 Mode : 802.11n20 CH1
 Memo :

	ReadAntenna	Cable	Preamp		Limit	Over		
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1 qp	59.64	24.39	12.67	1.04	0.00	38.10	40.00	-1.90 QP
2 pp	60.07	26.11	12.67	1.05	0.00	39.83	40.00	-0.17 Peak
3	136.70	19.93	13.21	1.62	0.00	34.76	43.50	-8.74 Peak
4	156.10	15.91	13.89	1.67	0.00	31.47	43.50	-12.03 Peak
5	221.09	11.57	10.76	2.11	0.00	24.44	46.00	-21.56 Peak
6	268.62	8.31	12.40	2.21	0.00	22.92	46.00	-23.08 Peak
7	508.21	4.96	17.17	3.09	0.00	25.22	46.00	-20.78 Peak

802.11n20 Ch6

Polarity: Horizontal

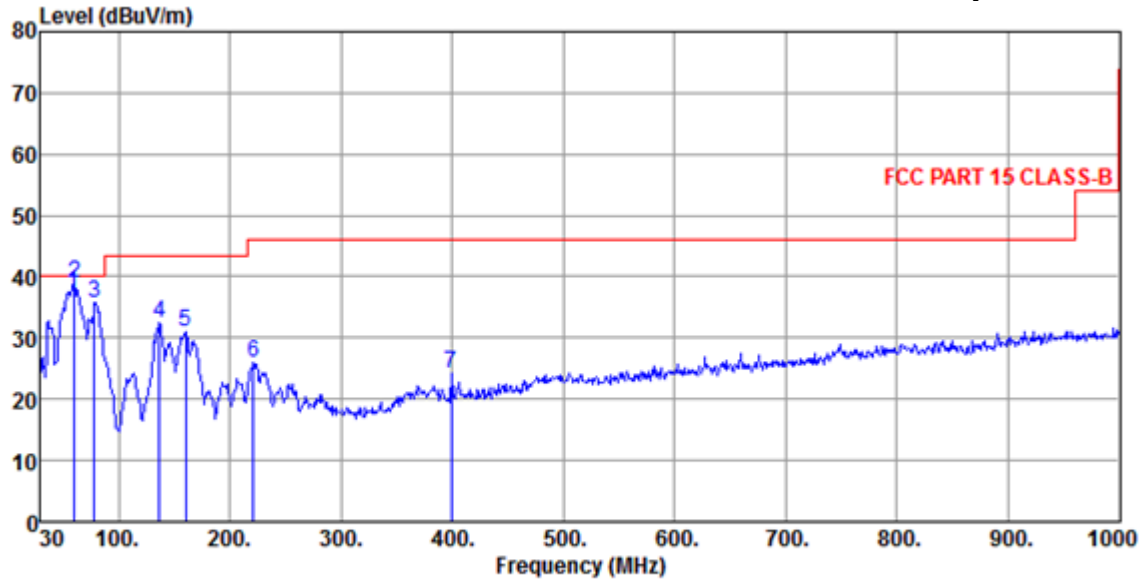


Site : chamber
 Condition : FCC PART 15 CLASS-B 3m VULB9160 HORIZONTAL
 EUT :
 Model Name :
 Temp/Humi : 23 °C / 54 %
 Power Rating: AC 120V/60HZ
 Mode : 802.11n20 CH6
 Memo :

	ReadAntenna	Cable	Preamp	Limit	Over			
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1 pp	82.38	24.77	8.73	1.09	0.00	34.59	40.00	-5.41 Peak
2	136.70	17.71	13.21	1.62	0.00	32.54	43.50	-10.96 Peak
3	166.77	16.98	13.44	1.79	0.00	32.21	43.50	-11.29 Peak
4	256.01	14.49	12.05	2.17	0.00	28.71	46.00	-17.29 Peak
5	382.11	2.63	14.92	2.75	0.00	20.30	46.00	-25.70 Peak
6	533.43	3.66	17.54	3.13	0.00	24.33	46.00	-21.67 Peak

802.11n20 Ch6

Polarity: Vertical

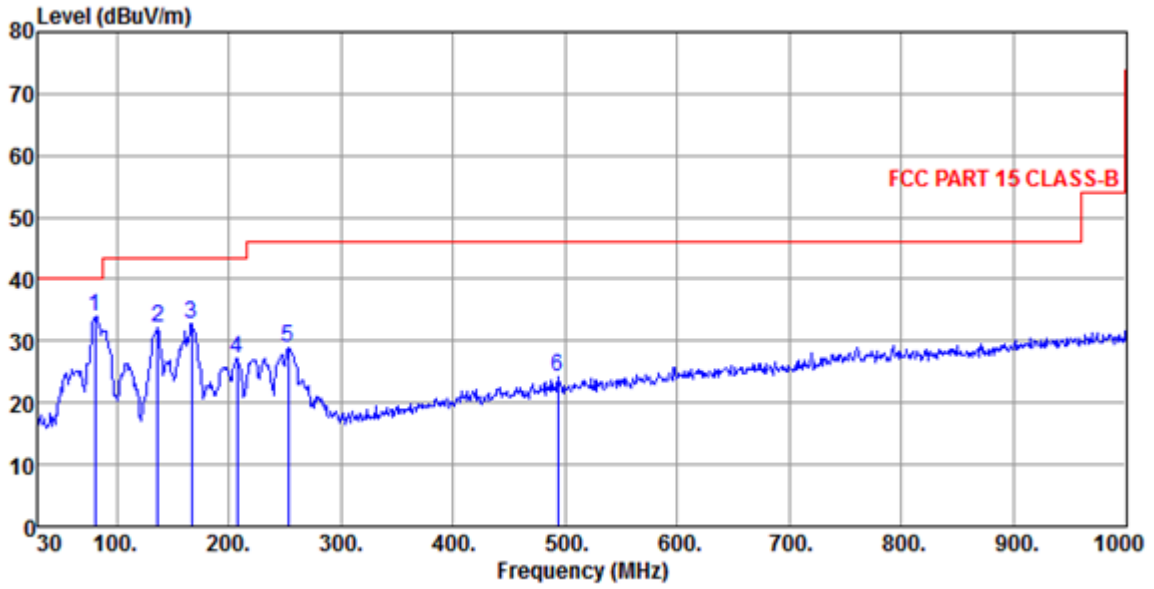


Site : chamber
 Condition : FCC PART 15 CLASS-B 3m VULB9160 VERTICAL
 EUT :
 Model Name :
 Temp/Humi : 23 °C / 54 %
 Power Rating: AC 120V/60HZ
 Mode : 802.11n20 CH6
 Memo :

	ReadAntenna	Cable	Preamp	Limit	Over			
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1 qp	59.82	23.54	12.67	1.04	0.00	37.25	40.00	-2.75 QP
2 pp	60.07	25.36	12.67	1.05	0.00	39.08	40.00	-0.92 Peak
3	78.50	25.58	9.14	1.09	0.00	35.81	40.00	-4.19 Peak
4	136.70	17.60	13.21	1.62	0.00	32.43	43.50	-11.07 Peak
5	159.98	15.36	13.88	1.68	0.00	30.92	43.50	-12.58 Peak
6	221.09	13.25	10.76	2.11	0.00	26.12	46.00	-19.88 Peak
7	399.57	6.28	15.32	2.65	0.00	24.25	46.00	-21.75 Peak

802.11n20 Ch11

Polarity: Horizontal

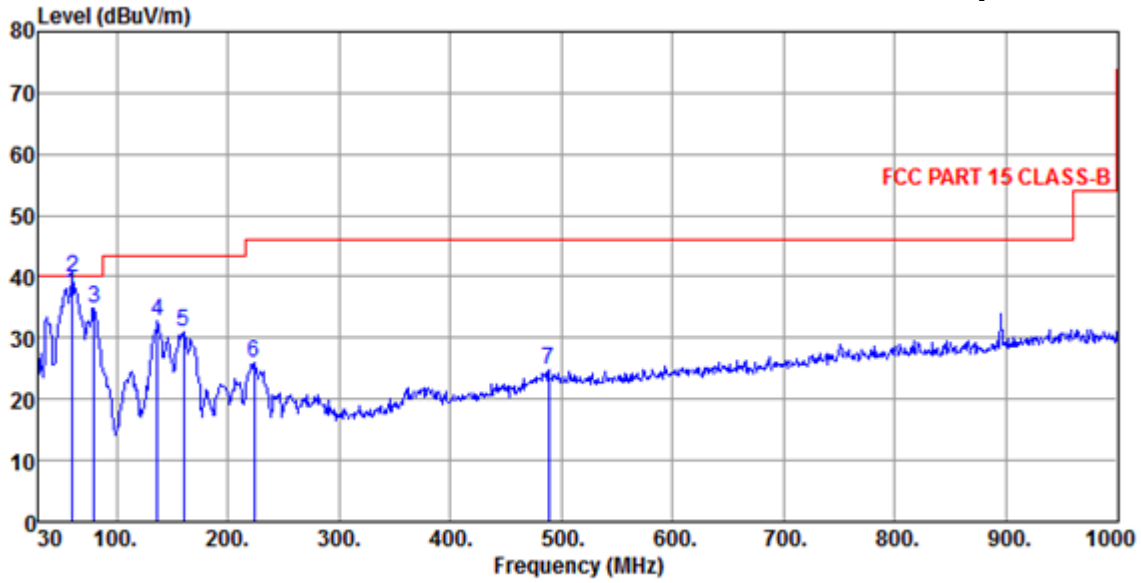


Site : chamber
 Condition : FCC PART 15 CLASS-B 3m VULB9160 HORIZONTAL
 EUT :
 Model Name :
 Temp/Humi : 23 °C / 54 %
 Power Rating: AC 120V/60HZ
 Mode : 802.11n20 CH11
 Memo :

	ReadAntenna	Cable	Preamp	Limit	Over			
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1 pp	80.44	24.20	8.77	1.08	0.00	34.05	40.00	-5.95 Peak
2	136.70	17.45	13.21	1.62	0.00	32.28	43.50	-11.22 Peak
3	166.77	17.43	13.44	1.79	0.00	32.66	43.50	-10.84 Peak
4	207.51	14.85	10.49	1.93	0.00	27.27	43.50	-16.23 Peak
5	253.10	14.92	11.96	2.16	0.00	29.04	46.00	-16.96 Peak
6	493.66	4.06	17.00	3.04	0.00	24.10	46.00	-21.90 Peak

802.11n20 Ch11

Polarity: Vertical



Site : chamber
 Condition : FCC PART 15 CLASS-B 3m VULB9160 VERTICAL
 EUT :
 Model Name :
 Temp/Humi : 23 °C / 54 %
 Power Rating: AC 120V/60HZ
 Mode : 802.11n20 CH11
 Memo :

	ReadAntenna	Cable	Preamp		Limit	Over		
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1 qp	59.76	23.59	12.67	1.04	0.00	37.30	40.00	-2.70 QP
2 pp	60.07	26.03	12.67	1.05	0.00	39.75	40.00	-0.25 Peak
3	79.47	24.95	8.77	1.09	0.00	34.81	40.00	-5.19 Peak
4	136.70	17.83	13.21	1.62	0.00	32.66	43.50	-10.84 Peak
5	159.98	15.54	13.88	1.68	0.00	31.10	43.50	-12.40 Peak
6	224.00	13.08	10.95	2.09	0.00	26.12	46.00	-19.88 Peak
7	488.81	4.80	16.97	3.05	0.00	24.82	46.00	-21.18 Peak

From 1GHz to 25GHz:

802.11b, traffic mode; Channel 1

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Antenna Polarity	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
2412	110.68	-3.54	Horizontal	107.14	/	/	Peak
2412	/	-3.54	H	/	/	/	Average
4824	42.18	4.76	H	46.94	74	26.06	Peak
4824	/	4.76	H	/	54	/	Average
7236	44.9	11.24	H	56.14	74	17.86	Peak
7236	/	11.24	H	/	54	/	Average
2412	104.37	-3.54	Vertical	100.83	/	/	Peak
2412	/	-3.54	V	/	/	/	Average
4824	42.96	4.76	V	47.72	74	26.28	Peak
4824	/	4.76	V	/	54	/	Average
7236	43.76	11.24	V	55	74	19	Peak
7236	/	11.24	V	/	54	/	Average

- Note: 1, Total=Reading+Correct factor
 2, 2412 MHz was fundamental signal which can be ignored.
 3, Other harmonics are lower than background noise.

802.11b, traffic mode; Channel 6

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Antenna Polarity	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
2437	111.76	-3.54	Horizontal	108.22	/	/	Peak
2437	/	-3.54	H	/	/	/	Average
4874	42.27	4.76	H	47.03	74	26.97	Peak
4874	/	4.76	H	/	54	/	Average
7311	41.99	11.24	H	53.23	74	20.77	Peak
7311	/	11.24	H	/	54	/	Average
2437	107.13	-3.54	Vertical	103.59	/	/	Peak
2437	/	-3.54	V	/	/	/	Average
4874	41.96	4.76	V	46.72	74	27.28	Peak
4874	/	4.76	V	/	54	/	Average
7311	41.93	11.24	V	53.17	74	20.83	Peak
7311	/	11.24	V	/	54	/	Average

- Note: 1, Total=Reading+Correct factor
 2, 2437 MHz was fundamental signal which can be ignored.
 3, Other harmonics are lower than background noise

802.11b, traffic mode; Channel 11

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Antenna Polarity	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
2462	110.95	-3.13	Horizontal	107.82	/	/	Peak
2462	/	-3.13	H	/	/	/	Average
4924	41.48	5.15	H	46.63	74	27.37	Peak
4924	/	5.15	H	/	54	/	Average
7386	45.19	12.01	H	57.2	74	16.8	Peak
7386	/	12.01	H	/	54	/	Average
2462	107.52	-3.13	Vertical	104.39	/	/	Peak
2462	/	-3.13	V	/	/	/	Average
4924	41.18	5.15	V	46.33	74	27.67	Peak
4924	/	5.15	V	/	54	/	Average
7386	42.76	12.01	V	54.77	74	19.23	Peak
7386	/	12.01	V	/	54	/	Average

- Note: 1, Total=Reading+Correct factor
 2, 2462 MHz was fundamental signal which can be ignored.
 3, Other harmonics are lower than background noise

802.11g, traffic mode; Channel 1

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Antenna Polarity	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
2412	112.75	-3.54	Horizontal	109.21	/	/	Peak
2412	/	-3.54	H	/	/	/	Average
4824	44.36	4.76	H	49.12	74	24.88	Peak
4824	/	4.76	H	/	54	/	Average
7236	43.89	11.24	H	55.13	74	18.87	Peak
7236	/	11.24	H	/	54	/	Average
2412	107.33	-3.54	Vertical	103.79	/	/	Peak
2412	/	-3.54	V	/	/	/	Average
4824	43.58	4.76	V	48.34	74	25.66	Peak
4824	/	4.76	V	/	54	/	Average
7236	44.91	11.24	V	56.15	74	17.85	Peak
7236	/	11.24	V	/	54	/	Average

- Note: 1, Total=Reading+Correct factor
 2, 2412 MHz was fundamental signal which can be ignored.
 3, Other harmonics are lower than background noise.

802.11g, traffic mode; Channel 6

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Antenna Polarity	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
2437	112.26	-3.49	Horizontal	108.77	/	/	Peak
2437	/	-3.49	H	/	/	/	Average
4874	43.79	4.81	H	48.6	74	25.4	Peak
4874	/	4.81	H	/	54	/	Average
7311	43.11	11.56	H	54.67	74	19.33	Peak
7311	/	11.56	H	/	54	/	Average
2437	111.11	-3.49	Vertical	107.62	/	/	Peak
2437	/	-3.49	V	/	/	/	Average
4874	42.55	4.81	V	47.36	74	26.64	Peak
4874	/	4.81	V	/	54	/	Average
7311	42.79	11.56	V	54.35	74	19.65	Peak
7311	/	11.56	V	/	54	/	Average

- Note: 1, Total=Reading+Correct factor
 2, 2437 MHz was fundamental signal which can be ignored.
 3, Other harmonics are lower than background noise.

802.11g, traffic mode; Channel 11

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Antenna Polarity	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
2462	110.96	-3.13	Horizontal	107.83	/	/	Peak
2462	/	-3.13	H	/	/	/	Average
4924	41.83	5.15	H	46.98	74	27.02	Peak
4924	/	5.15	H	/	54	/	Average
7386	44.43	12.01	H	56.44	74	17.56	Peak
7386	/	12.01	H	/	54	/	Average
2462	109.52	-3.13	Vertical	106.39	/	/	Peak
2462	/	-3.13	V	/	/	/	Average
4924	41.89	5.15	V	47.04	74	26.96	Peak
4924	/	5.15	V	/	54	/	Average
7386	43.66	12.01	V	55.67	74	18.33	Peak
7386	/	12.01	V	/	54	/	Average

- Note: 1, Total=Reading+Correct factor
 2, 2462 MHz was fundamental signal which can be ignored.
 3, Other harmonics are lower than background noise.

802.11n20, traffic mode; Channel 1

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Antenna Polarity	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
2412	112.66	-3.54	Horizontal	109.12	/	/	Peak
2412	/	-3.54	H	/	/	/	Average
4824	42.93	4.76	H	47.69	74	26.31	Peak
4824	/	4.76	H	/	54	/	Average
7236	44.83	11.24	H	56.07	74	17.93	Peak
7236	/	11.24	H	/	54	/	Average
2412	109.97	-3.54	Vertical	106.43	/	/	Peak
2412	/	-3.54	V	/	/	/	Average
4824	42.85	4.76	V	47.61	74	26.39	Peak
4824	/	4.76	V	/	54	/	Average
7236	43.77	11.24	V	55.01	74	18.99	Peak
7236	/	11.24	V	/	54	/	Average

- Note: 1, Total=Reading+Correct factor
 2, 2412 MHz was fundamental signal which can be ignored.
 3, Other harmonics are lower than background noise.

802.11n20, traffic mode; Channel 6

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Antenna Polarity	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
2437	112.18	-3.49	Horizontal	108.69	/	/	Peak
2437	/	-3.49	H	/	/	/	Average
4874	42.86	4.81	H	47.67	74	26.33	Peak
4874	/	4.81	H	/	54	/	Average
7311	45.38	11.56	H	56.94	74	17.06	Peak
7311	/	11.56	H	/	54	/	Average
2437	108.79	-3.49	Vertical	105.3	/	/	Peak
2437	/	-3.49	V	/	/	/	Average
4874	42.51	4.81	V	47.32	74	26.68	Peak
4874	/	4.81	V	/	54	/	Average
7311	42.36	11.56	V	53.92	74	20.08	Peak
7311	/	11.56	V	/	54	/	Average

- Note: 1, Total=Reading+Correct factor
 2, 2437 MHz was fundamental signal which can be ignored.
 3, Other harmonics are lower than background noise.

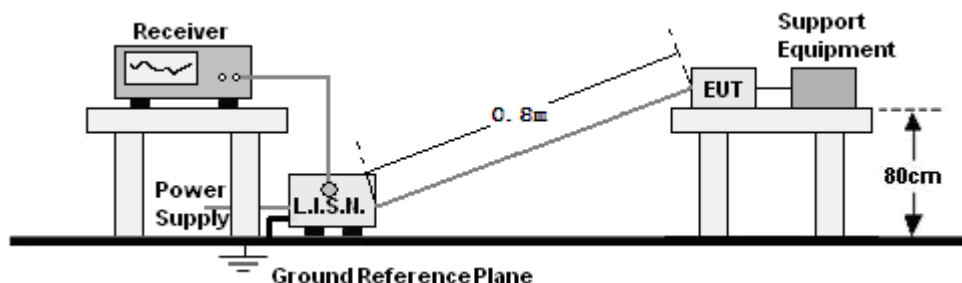
802.11n20, traffic mode; Channel 11

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Antenna Polarity	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
2462	112.39	-3.13	Horizontal	109.26	/	/	Peak
2462	/	-3.13	H	/	/	/	Average
4924	43.56	5.15	H	48.71	74	25.29	Peak
4924	/	5.15	H	/	54	/	Average
7386	44.99	12.01	H	57	74	17	Peak
7386	/	12.01	H	/	54	/	Average
2462	109.95	-3.13	Vertical	106.82	/	/	Peak
2462	/	-3.13	V	/	/	/	Average
4924	42.22	5.15	V	47.37	74	26.63	Peak
4924	/	5.15	V	/	54	/	Average
7386	45.01	12.01	V	57.02	74	16.98	Peak
7386	/	12.01	V	/	54	/	Average

- Note: 1, Total=Reading+Correct factor
 2, 2462 MHz was fundamental signal which can be ignored.
 3, Other harmonics are lower than background noise.

11. AC POWER LINE CONDUCTED EMISSIONS

11.1 TEST SETUP



11.2 LIMITS

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

- NOTE:** 1. The lower limit shall apply at the transition frequencies.
 2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 to 0.50 MHz.

11.3 TEST PROCEDURE

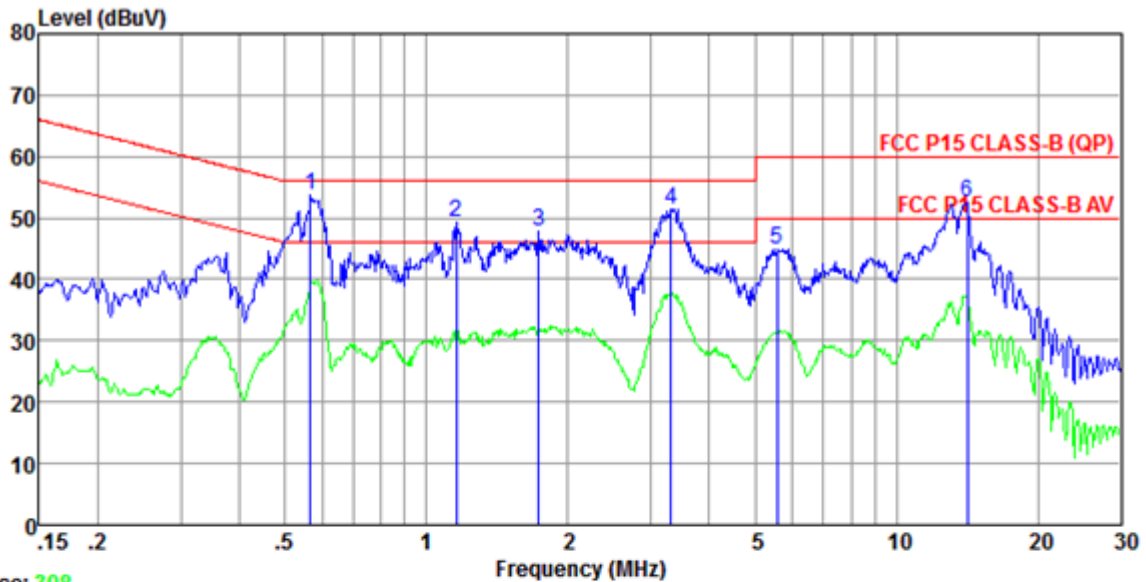
According to description of ANSI C63.4: 2009 sec.13.1.3, the AC power line preliminary conducted emissions measurements were carried out. The preliminary conducted measurements were performed using the spectrum analyzer to observe the emission characteristics of the EUT. The EUT configuration, cable configuration and mode of operation were determined for producing the maximum level of emissions. These configurations were used for final AC power line conducted emissions measurements. The EUT is placed on a non-metallic table 0.8m above the horizontal metal reference ground plane. The EUT is connected to LISN and LISN is connected to the reference ground. All other supplemental devices are connected with EUT through other LISN. The distance between EUT and LISN is 80cm. A radio link is established between EUT and the tester. The output power of the EUT is controlled by the tester and driven to maximum value. An initial pre-scan was performed on the live L line and neutral line with peak detector (9kHz RBW). Both average detector and quasi-peak detector are performed at the frequencies with maximized peak emission. Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

11.4 RESULTS & PERFORMANCE

Only show the worst test data when EUT was operated on different mode.

EUT operation mode: 11b(Ch1/Ch6/Ch11); 11g(Ch1/Ch6/Ch11); 11n20(Ch1/Ch6/Ch11); 11n40(Ch3/Ch6/Ch9).

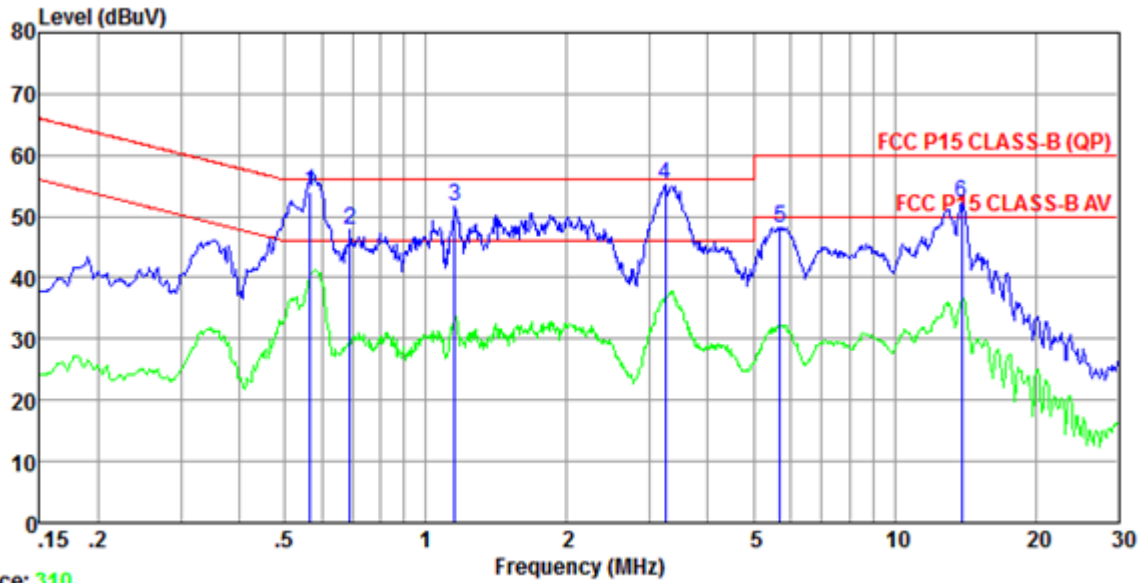
802.11b Ch1



Trace: 308

Site : chamber
 Condition : FCC P15 CLASS-B (QP) ENV216(L)-20120730 LINE
 EUT :
 Model Name :
 Temp/Humi : 23 °C / 54 %
 Power Rating: AC 120V/60HZ
 Mode : 802.11b CH1
 Memo :

	Read Freq	Read Level	LISN Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV	dBuV	dB	
1	pp	0.57	43.20	10.50	0.11	0.00	53.81	56.00	-2.19 Peak
2		1.16	38.51	10.52	0.14	0.00	49.17	56.00	-6.83 Peak
3		1.73	37.25	10.52	0.15	0.00	47.92	56.00	-8.08 Peak
4		3.31	40.73	10.52	0.15	0.00	51.40	56.00	-4.60 Peak
5		5.56	34.24	10.50	0.19	0.00	44.93	60.00	-15.07 Peak
6		14.14	41.94	10.50	0.18	0.00	52.62	60.00	-7.38 Peak

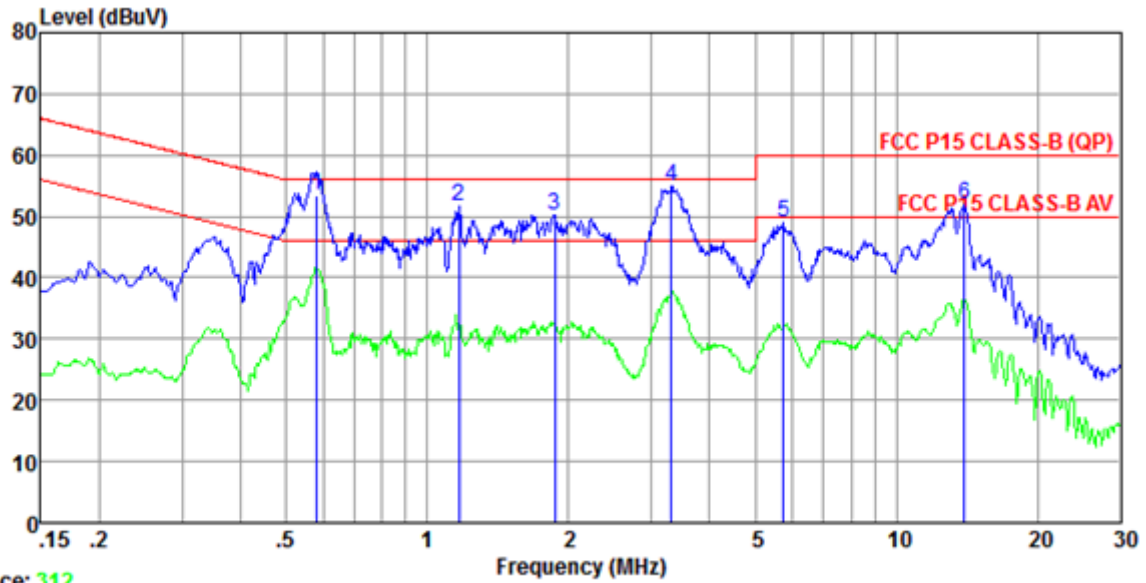


Trace: 310

Site : chamber
 Condition : FCC P15 CLASS-B (QP) ENV216(N)-20120730 NEUTRAL
 EUT :
 Model Name :
 Temp/Humi : 23 °C / 54 %
 Power Rating: AC 120V/60HZ
 Mode : 802.11b CH1
 Memo :

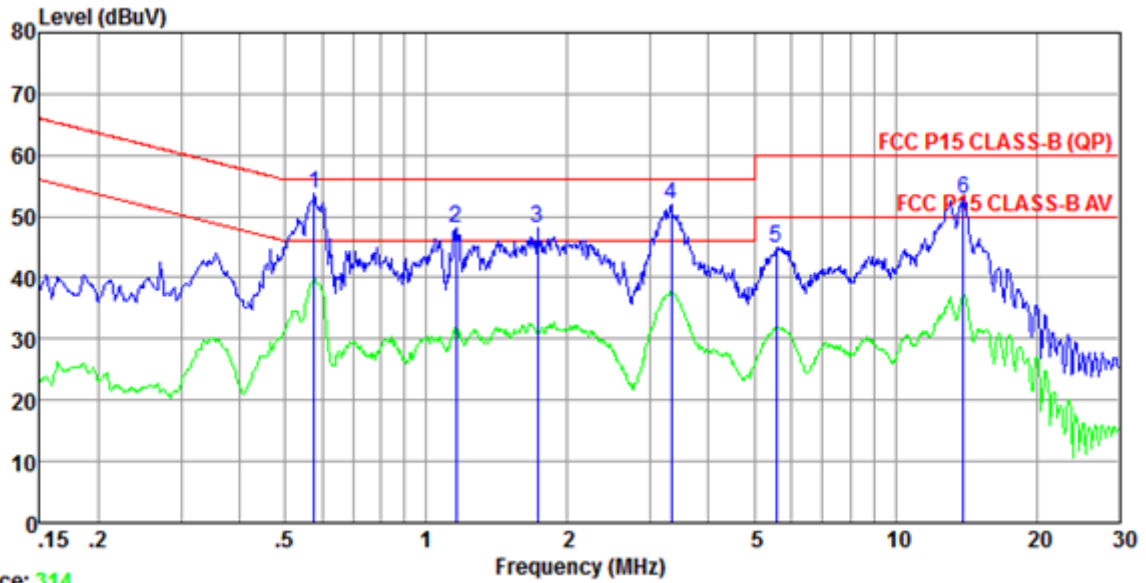
	Read Freq	Level	LISN Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV	dBuV	dB	
1 qp	0.57	43.60	10.38	0.11	0.00	54.09	56.00	-1.91	QP
2	0.69	37.52	10.31	0.12	0.00	47.95	56.00	-8.05	Peak
3	1.15	41.17	10.31	0.14	0.00	51.62	56.00	-4.38	Peak
4 pp	3.24	44.75	10.32	0.15	0.00	55.22	56.00	-0.78	Peak
5	5.68	37.73	10.33	0.20	0.00	48.26	60.00	-11.74	Peak
6	13.91	41.49	10.53	0.20	0.00	52.22	60.00	-7.78	Peak

802.11b Ch6



Trace: 312
 Site : chamber
 Condition : FCC P15 CLASS-B (QP) ENV216(N)-20120730 NEUTRAL
 EUT :
 Model Name :
 Temp/Humi : 23 °C / 54 %
 Power Rating: AC 120V/60HZ
 Mode : 802.11b CH6
 Memo :

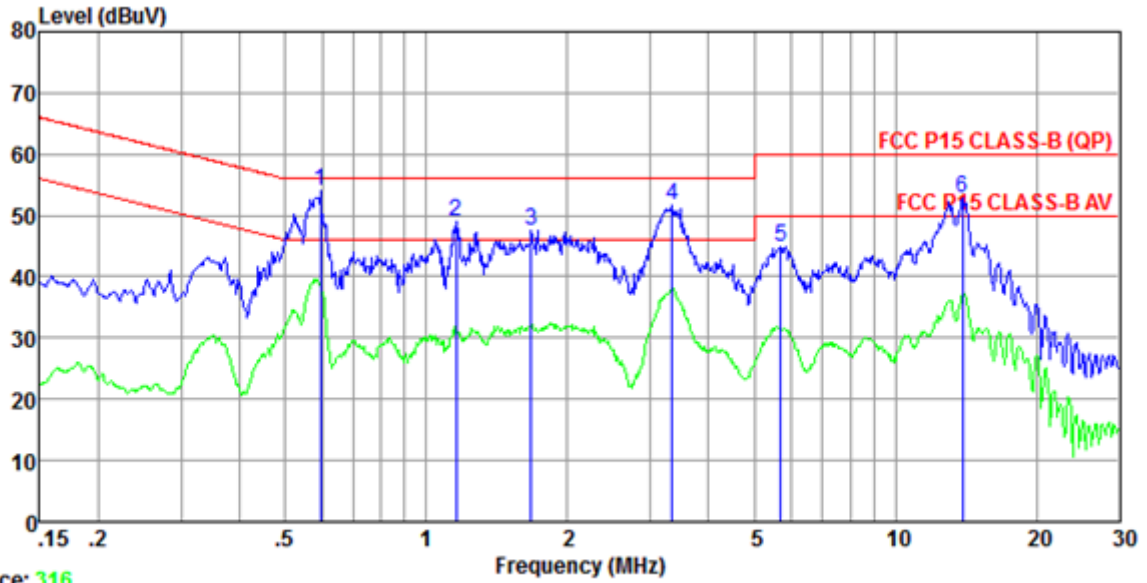
	Read Freq	Level	LISN Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV	dBuV	dB	
1	qp	0.58	42.86	10.37	0.11	0.00	53.34	56.00	-2.66 QP
2		1.17	41.23	10.31	0.14	0.00	51.68	56.00	-4.32 Peak
3		1.87	39.70	10.31	0.15	0.00	50.16	56.00	-5.84 Peak
4	pp	3.31	44.50	10.32	0.15	0.00	54.97	56.00	-1.03 Peak
5		5.74	38.36	10.33	0.21	0.00	48.90	60.00	-11.10 Peak
6		13.99	41.36	10.53	0.20	0.00	52.09	60.00	-7.91 Peak



Trace: 314
 Site : chamber
 Condition : FCC P15 CLASS-B (QP) ENV216(L)-20120730 LINE
 EUT :
 Model Name :
 Temp/Humi : 23 °C / 54 %
 Power Rating: AC 120V/60HZ
 Mode : 802.11b CH6
 Memo :

	Read Freq	Level	LISN Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV	dBuV	dB	
1	pp	0.58	43.16	10.49	0.11	0.00	53.76	56.00	-2.24 Peak
2		1.16	37.49	10.52	0.14	0.00	48.15	56.00	-7.85 Peak
3		1.73	37.42	10.52	0.15	0.00	48.09	56.00	-7.91 Peak
4		3.33	41.20	10.52	0.15	0.00	51.87	56.00	-4.13 Peak
5		5.56	34.20	10.50	0.19	0.00	44.89	60.00	-15.11 Peak
6		13.99	42.07	10.50	0.20	0.00	52.77	60.00	-7.23 Peak

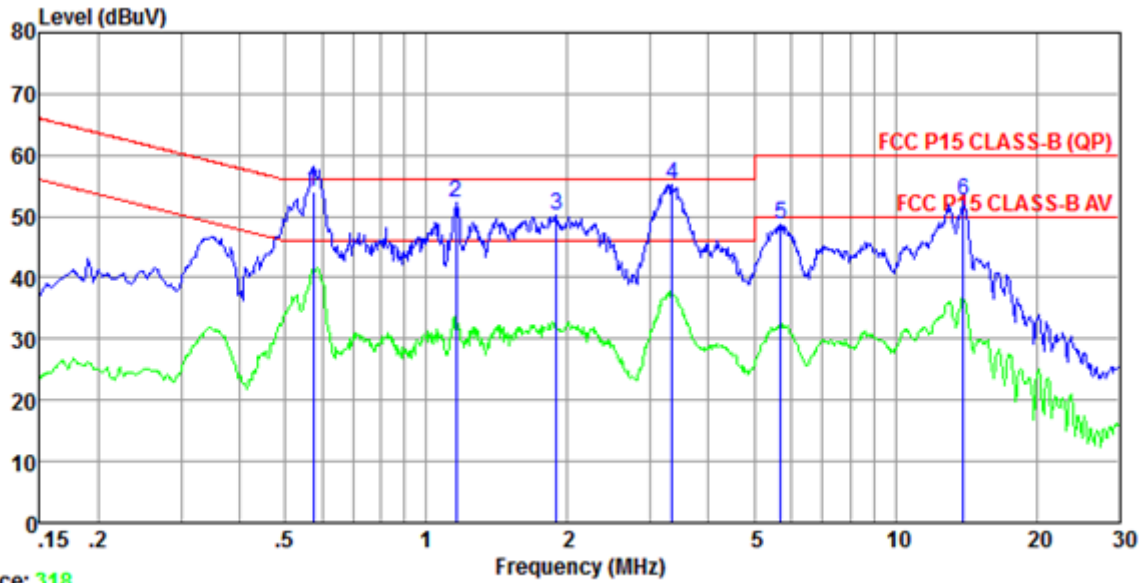
802.11b Ch11



Trace: 316

Site : chamber
 Condition : FCC P15 CLASS-B (QP) ENV216(L)-20120730 LINE
 EUT :
 Model Name :
 Temp/Humi : 23 °C / 54 %
 Power Rating: AC 120V/60HZ
 Mode : 802.11b CH11
 Memo :

	Freq	Read Level	LISN Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV	dBuV	dB	
1 pp	0.59	43.49	10.47	0.11	0.00	54.07	56.00	-1.93	Peak
2	1.16	38.24	10.52	0.14	0.00	48.90	56.00	-7.10	Peak
3	1.67	36.86	10.52	0.15	0.00	47.53	56.00	-8.47	Peak
4	3.35	41.01	10.52	0.15	0.00	51.68	56.00	-4.32	Peak
5	5.68	34.15	10.50	0.20	0.00	44.85	60.00	-15.15	Peak
6	13.91	42.21	10.50	0.20	0.00	52.91	60.00	-7.09	Peak

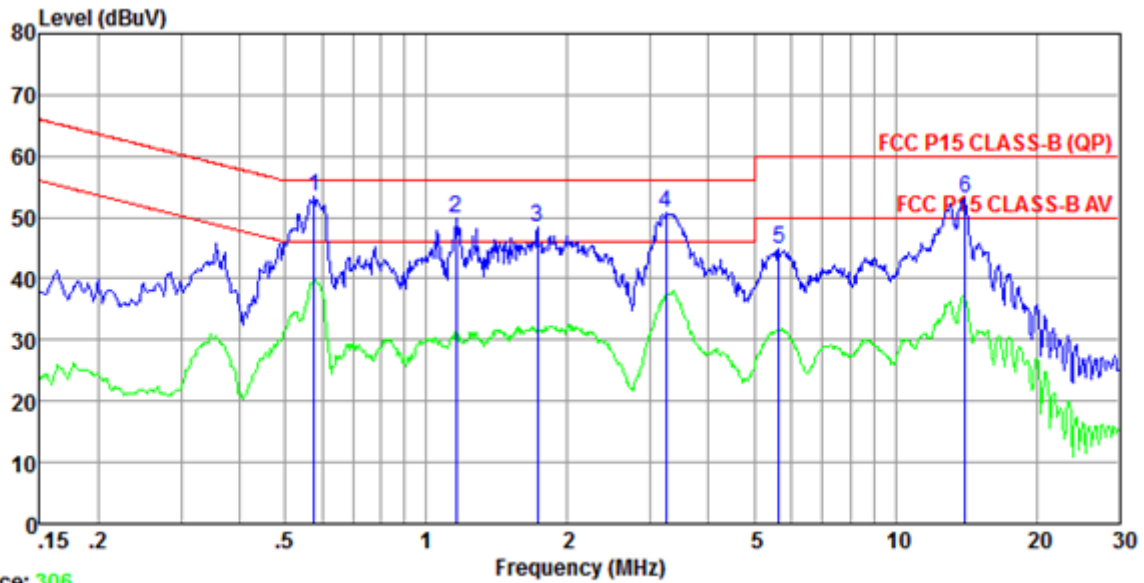


Trace: 318

Site : chamber
 Condition : FCC P15 CLASS-B (QP) ENV216(N)-20120730 NEUTRAL
 EUT :
 Model Name :
 Temp/Humi : 23 °C / 54 %
 Power Rating: AC 120V/60HZ
 Mode : 802.11b CH11
 Memo :

	Read Freq	Level	LISN Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV	dBuV	dB	
1 qp	0.57	43.65	10.37	0.11	0.00	54.13	56.00	-1.87	QP
2	1.16	41.68	10.31	0.14	0.00	52.13	56.00	-3.87	Peak
3	1.90	39.66	10.31	0.15	0.00	50.12	56.00	-5.88	Peak
4 pp	3.35	44.67	10.32	0.15	0.00	55.14	56.00	-0.86	Peak
5	5.68	38.25	10.33	0.20	0.00	48.78	60.00	-11.22	Peak
6	13.99	41.77	10.53	0.20	0.00	52.50	60.00	-7.50	Peak

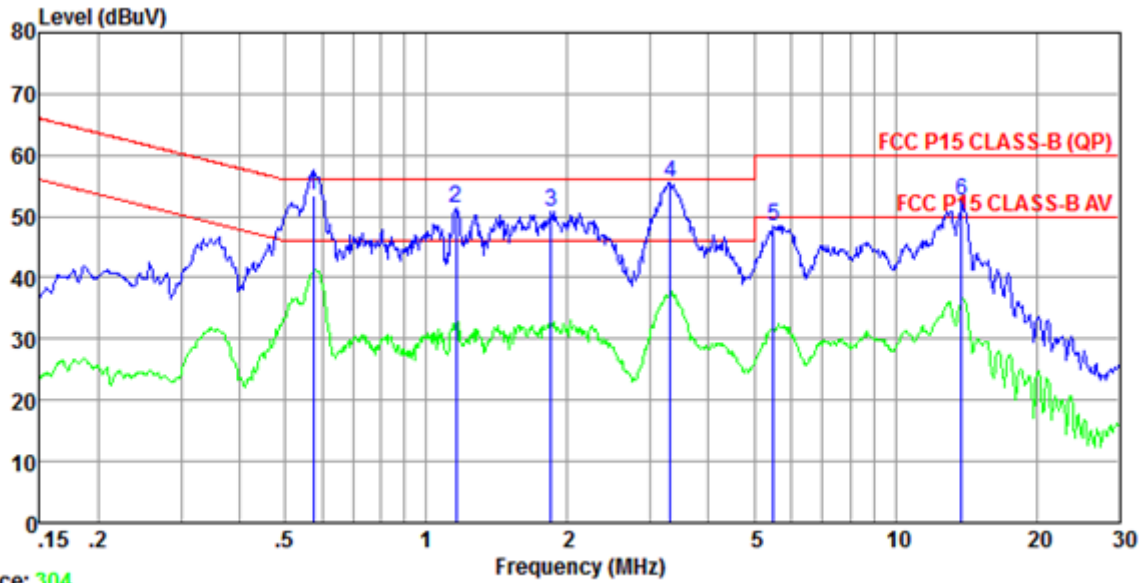
802.11g Ch1



Trace: 306

Site : chamber
 Condition : FCC P15 CLASS-B (QP) ENV216(L)-20120730 LINE
 EUT :
 Model Name :
 Temp/Humi : 23 °C / 54 %
 Power Rating: AC 120V/60HZ
 Mode : 802.11g CH1
 Memo :

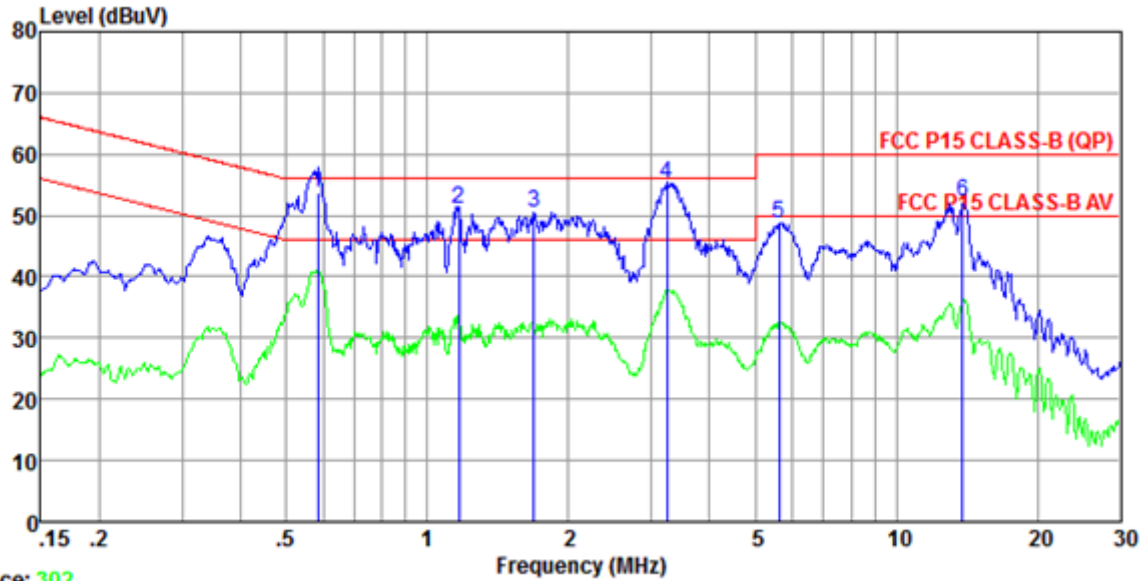
	Freq	Read Level	LISN Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV	dBuV	dB	
1 pp	0.58	42.94	10.49	0.11	0.00	53.54	56.00	-2.46	Peak
2	1.16	39.31	10.52	0.14	0.00	49.97	56.00	-6.03	Peak
3	1.73	37.60	10.52	0.15	0.00	48.27	56.00	-7.73	Peak
4	3.24	40.21	10.52	0.15	0.00	50.88	56.00	-5.12	Peak
5	5.65	34.28	10.50	0.20	0.00	44.98	60.00	-15.02	Peak
6	14.06	42.45	10.50	0.19	0.00	53.14	60.00	-6.86	Peak



Trace: 304
 Site : chamber
 Condition : FCC P15 CLASS-B (QP) ENV216(N)-20120730 NEUTRAL
 EUT :
 Model Name :
 Temp/Humi : 23 °C / 54 %
 Power Rating: AC 120V/60HZ
 Mode : 802.11g CH1
 Memo :

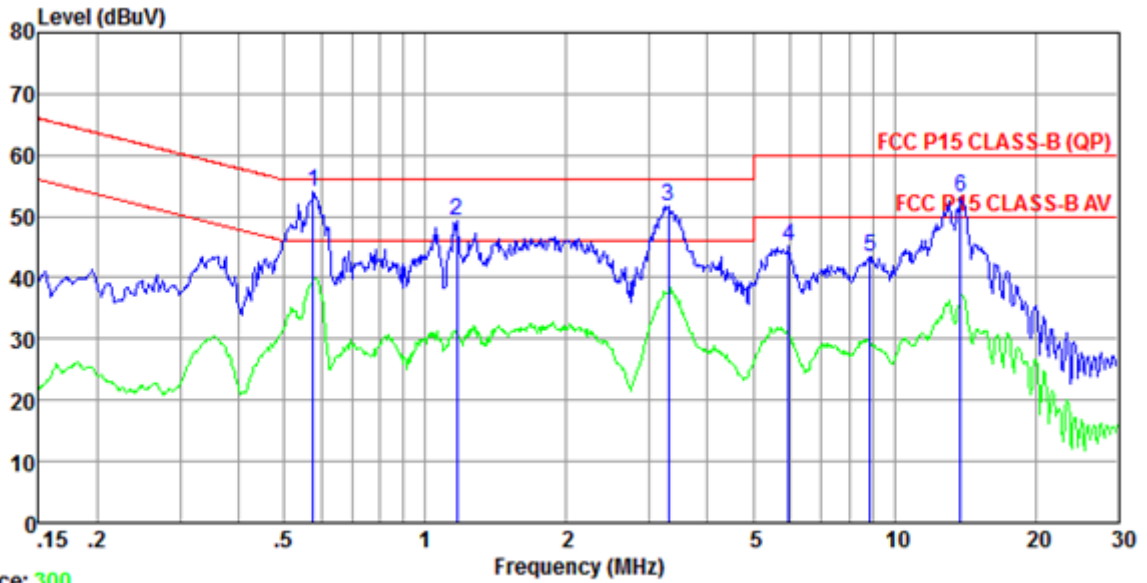
	Read Freq	Level	LISN Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV	dBuV	dB	
1 qp	0.57	42.97	10.37	0.11	0.00	53.45	56.00	-2.55	QP
2	1.16	40.94	10.31	0.14	0.00	51.39	56.00	-4.61	Peak
3	1.85	40.30	10.31	0.15	0.00	50.76	56.00	-5.24	Peak
4 pp	3.31	45.02	10.32	0.15	0.00	55.49	56.00	-0.51	Peak
5	5.51	37.95	10.32	0.19	0.00	48.46	60.00	-11.54	Peak
6	13.84	41.74	10.53	0.21	0.00	52.48	60.00	-7.52	Peak

802.11g Ch6



Trace: 302
 Site : chamber
 Condition : FCC P15 CLASS-B (QP) ENV216(N)-20120730 NEUTRAL
 EUT :
 Model Name :
 Temp/Humi : 23 °C / 54 %
 Power Rating: AC 120V/60HZ
 Mode : 802.11g CH6
 Memo :

	Read	LISN	Cable	Preamp	Limit	Over	
Freq	Level	Factor	Loss	Factor	Line	Limit	Remark
MHz	dBuV	dB	dB	dB	dBuV	dB	
1 qp	0.59	43.17	10.36	0.11	0.00	53.64	56.00 -2.36 QP
2	1.17	40.70	10.31	0.14	0.00	51.15	56.00 -4.85 Peak
3	1.69	39.87	10.31	0.15	0.00	50.33	56.00 -5.67 Peak
4 pp	3.24	44.81	10.32	0.15	0.00	55.28	56.00 -0.72 Peak
5	5.62	38.14	10.33	0.20	0.00	48.67	60.00 -11.33 Peak
6	13.84	41.37	10.53	0.21	0.00	52.11	60.00 -7.89 Peak

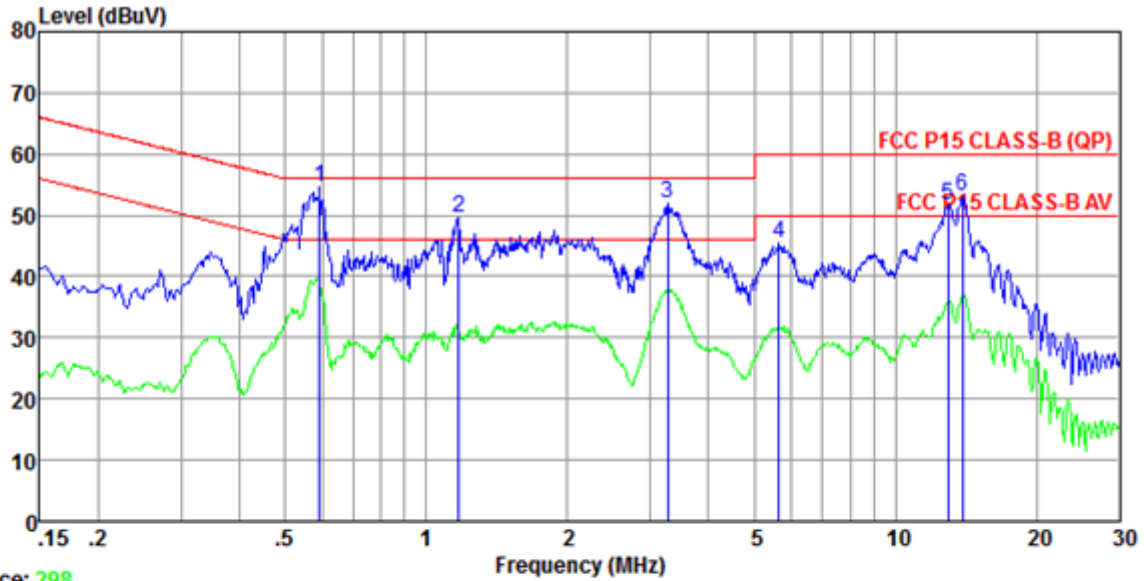


Trace: 300

Site : chamber
 Condition : FCC P15 CLASS-B (QP) ENV216(L)-20120730 LINE
 EUT :
 Model Name :
 Temp/Humi : 23 °C / 54 %
 Power Rating: AC 120V/60HZ
 Mode : 802.11g CH6
 Memo :

	Read Freq	Read Level	LISN Factor	Cable Loss	Preamp Factor	Limit Level	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV	dB	
1	pp	0.58	43.29	10.49	0.11	0.00	53.89	56.00 -2.11 Peak
2		1.17	38.58	10.52	0.14	0.00	49.24	56.00 -6.76 Peak
3		3.29	41.11	10.52	0.15	0.00	51.78	56.00 -4.22 Peak
4		5.96	34.57	10.49	0.23	0.00	45.29	60.00 -14.71 Peak
5		8.87	32.82	10.42	0.26	0.00	43.50	60.00 -16.50 Peak
6		13.84	42.30	10.50	0.21	0.00	53.01	60.00 -6.99 Peak

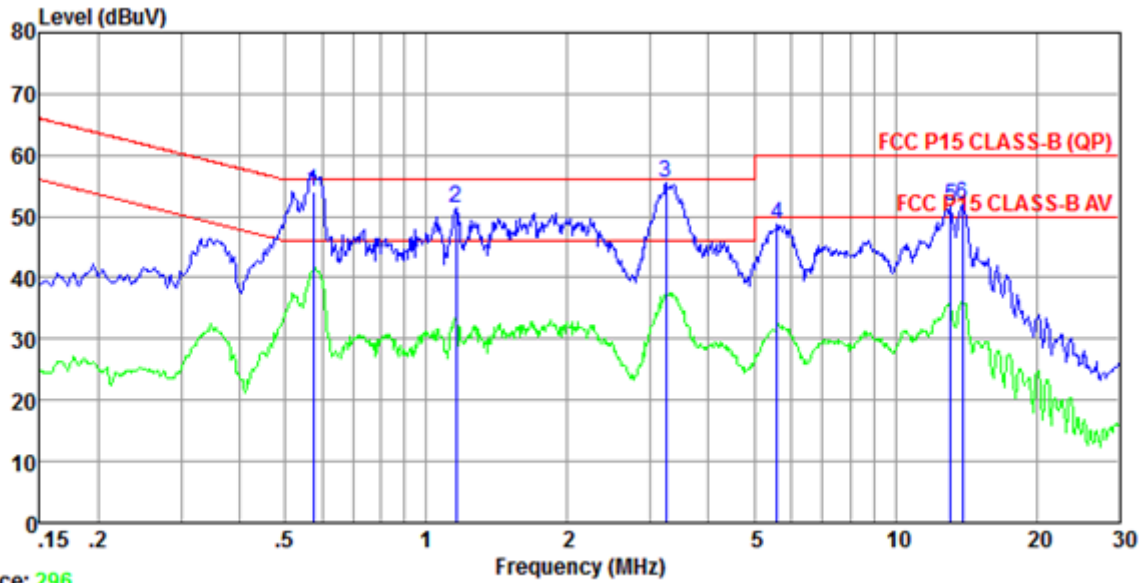
802.11g Ch11



Trace: 298

Site : chamber
 Condition : FCC P15 CLASS-B (QP) ENV216(L)-20120730 LINE
 EUT :
 Model Name :
 Temp/Humi : 23 °C / 54 %
 Power Rating: AC 120V/60HZ
 Mode : 802.11g CH11
 Memo :

	Read Freq	Level	LISN Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV	dBuV	dB	
1 pp	0.59	43.89	10.47	0.11	0.00	54.47	56.00	-1.53	Peak
2	1.17	38.81	10.52	0.14	0.00	49.47	56.00	-6.53	Peak
3	3.28	41.25	10.52	0.15	0.00	51.92	56.00	-4.08	Peak
4	5.65	34.70	10.50	0.20	0.00	45.40	60.00	-14.60	Peak
5	12.92	40.95	10.48	0.30	0.00	51.73	60.00	-8.27	Peak
6	13.91	42.36	10.50	0.20	0.00	53.06	60.00	-6.94	Peak

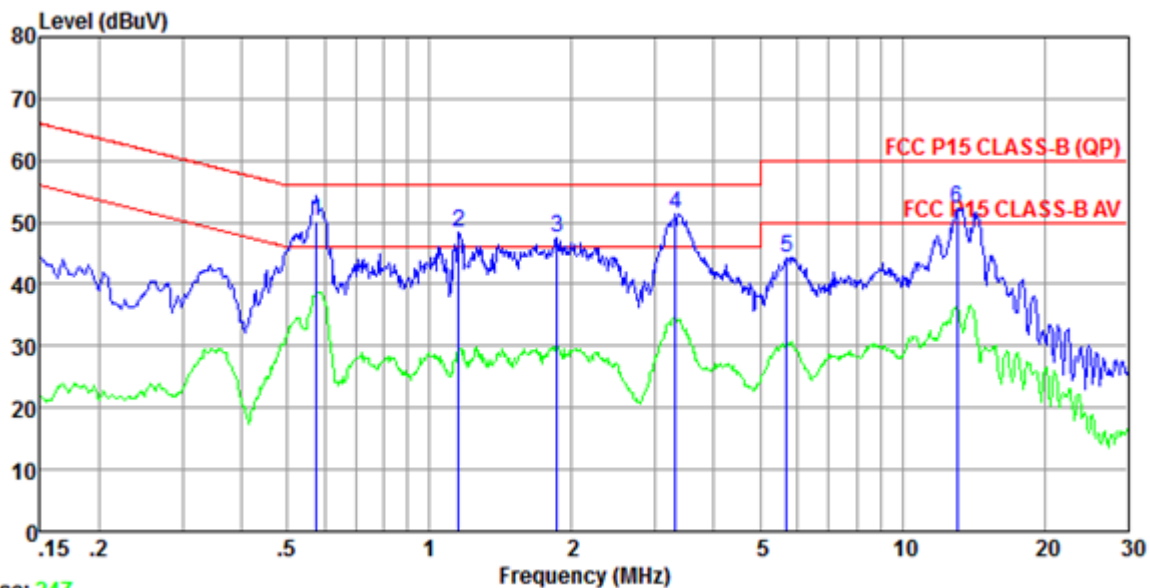


Trace: 296

Site : chamber
 Condition : FCC P15 CLASS-B (QP) ENV216(N)-20120730 NEUTRAL
 EUT :
 Model Name :
 Temp/Humi : 23 °C / 54 %
 Power Rating: AC 120V/60HZ
 Mode : 802.11g CH11
 Memo :

	Read Freq	Level	LISN Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV	dBuV	dB	
1	qp	0.57	43.59	10.37	0.11	0.00	54.07	56.00	-1.93 QP
2		1.16	40.77	10.31	0.14	0.00	51.22	56.00	-4.78 Peak
3	pp	3.24	44.95	10.32	0.15	0.00	55.42	56.00	-0.58 Peak
4		5.59	38.12	10.32	0.19	0.00	48.63	60.00	-11.37 Peak
5		13.13	40.92	10.50	0.28	0.00	51.70	60.00	-8.30 Peak
6		13.91	41.17	10.53	0.20	0.00	51.90	60.00	-8.10 Peak

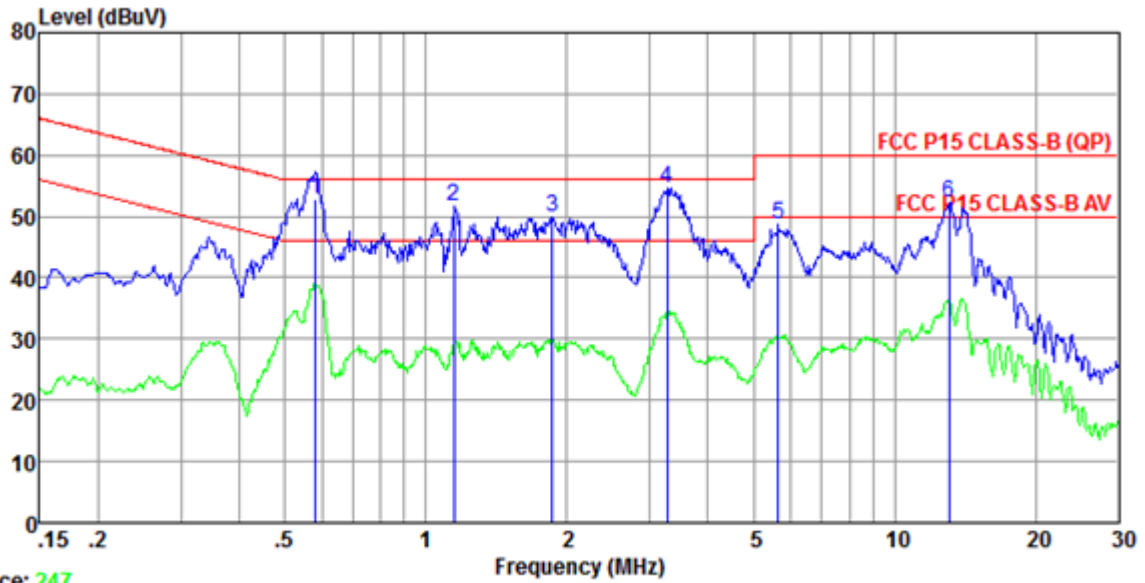
802.11n20 Ch1



Trace: 247

Site : chamber
 Condition : FCC P15 CLASS-B (QP) ENV216(L)-20120730 LINE
 EUT :
 Model Name :
 Temp/Humi : 23 °C / 54 %
 Power Rating: AC 120V/60HZ
 Mode : 802.11n20 CH1
 Memo :

	Read Freq	LISN Level	LISN Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV	dBuV	dB	
1 qp	0.58	39.58	10.49	0.11	0.00	50.18	56.00	-5.82	QP
2	1.15	37.85	10.52	0.14	0.00	48.51	56.00	-7.49	Peak
3	1.86	36.72	10.52	0.15	0.00	47.39	56.00	-8.61	Peak
4 pp	3.31	40.74	10.52	0.15	0.00	51.41	56.00	-4.59	Peak
5	5.68	33.71	10.50	0.20	0.00	44.41	60.00	-15.59	Peak
6	13.06	41.51	10.48	0.29	0.00	52.28	60.00	-7.72	Peak

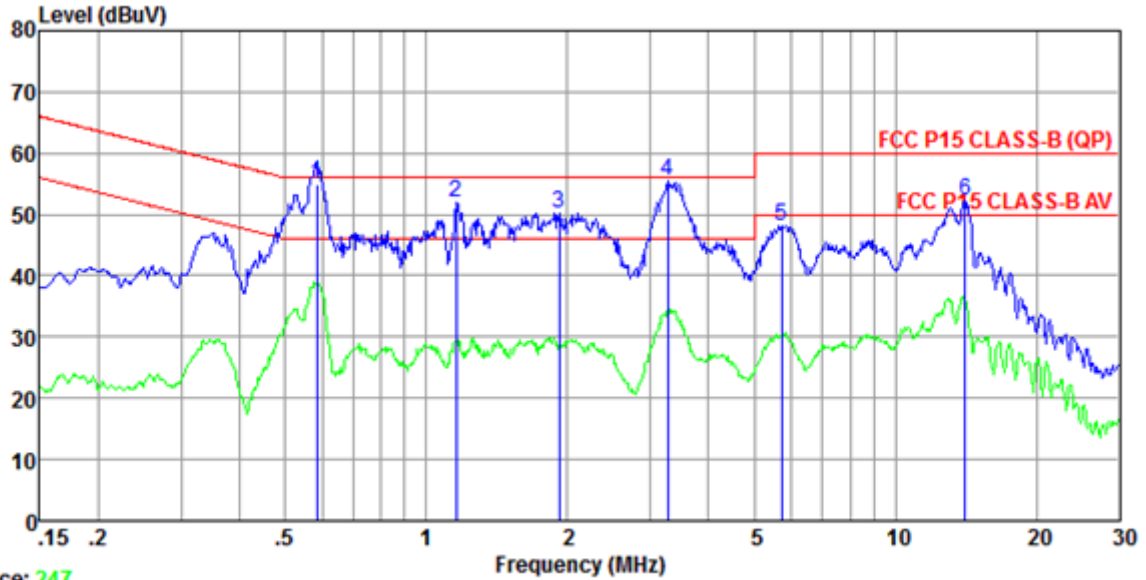


Trace: 247

Site : chamber
 Condition : FCC P15 CLASS-B (QP) ENV216(N)-20120730 NEUTRAL
 EUT :
 Model Name :
 Temp/Humi : 23 °C / 54 %
 Power Rating: AC 120V/60HZ
 Mode : 802.11n20 CH1
 Memo :

	Read Freq	Level	LISN Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV	dBuV	dB	
1	qp	0.58	42.32	10.37	0.11	0.00	52.80	56.00	-3.20 QP
2		1.15	41.32	10.31	0.14	0.00	51.77	56.00	-4.23 Peak
3		1.86	39.43	10.31	0.15	0.00	49.89	56.00	-6.11 Peak
4	pp	3.28	44.08	10.32	0.15	0.00	54.55	56.00	-1.45 Peak
5		5.65	38.21	10.33	0.20	0.00	48.74	60.00	-11.26 Peak
6		13.06	41.43	10.49	0.29	0.00	52.21	60.00	-7.79 Peak

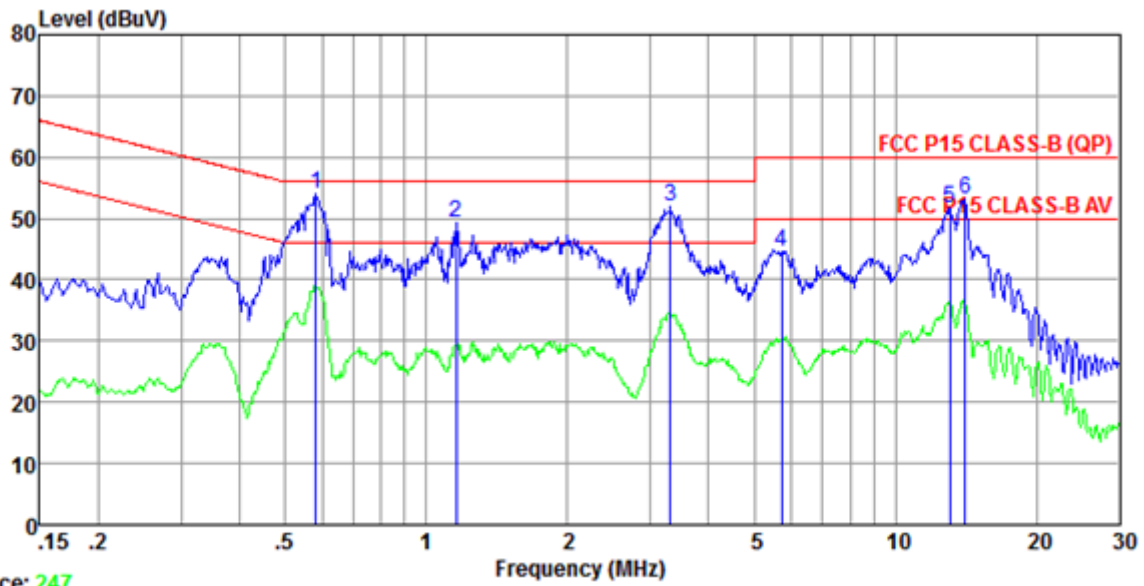
802.11n20 Ch6



Trace: 247

Site : chamber
 Condition : FCC P15 CLASS-B (QP) ENV216(N)-20120730 NEUTRAL
 EUT :
 Model Name :
 Temp/Humi : 23 °C / 54 %
 Power Rating: AC 120V/60HZ
 Mode : 802.11n20 CH6
 Memo :

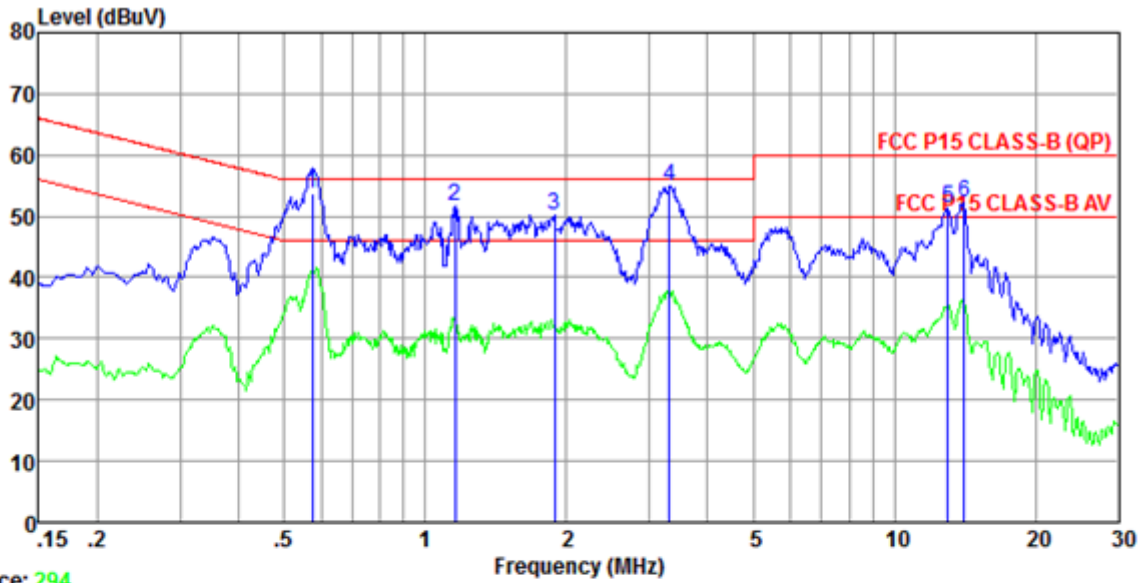
	Read	LISN	Cable	Preamp	Limit	Over		
Freq	Level	Factor	Loss	Factor	Line	Limit	Remark	
MHz	dBuV	dB	dB	dB	dBuV	dBuV	dB	
1 qp	0.59	44.29	10.36	0.11	0.00	54.76	56.00	-1.24 QP
2	1.16	41.57	10.31	0.14	0.00	52.02	56.00	-3.98 Peak
3	1.92	39.85	10.31	0.15	0.00	50.31	56.00	-5.69 Peak
4 pp	3.28	44.91	10.32	0.15	0.00	55.38	56.00	-0.62 Peak
5	5.71	37.68	10.33	0.20	0.00	48.21	60.00	-11.79 Peak
6	14.06	41.54	10.53	0.19	0.00	52.26	60.00	-7.74 Peak



Trace: 247
 Site : chamber
 Condition : FCC P15 CLASS-B (QP) ENV216(L)-20120730 LINE
 EUT :
 Model Name :
 Temp/Humi : 23 °C / 54 %
 Power Rating: AC 120V/60HZ
 Mode : 802.11n20 CH6
 Memo :

	Read	LISN	Cable	Preamp	Limit	Over	
Freq	Level	Factor	Loss	Factor	Line	Limit	Remark
MHz	dBuV	dB	dB	dB	dBuV	dB	
1 pp	0.58	43.44	10.48	0.11	0.00	54.03	56.00 -1.97 Peak
2	1.16	38.74	10.52	0.14	0.00	49.40	56.00 -6.60 Peak
3	3.31	41.28	10.52	0.15	0.00	51.95	56.00 -4.05 Peak
4	5.71	33.90	10.50	0.20	0.00	44.60	60.00 -15.40 Peak
5	13.06	40.95	10.48	0.29	0.00	51.72	60.00 -8.28 Peak
6	14.06	42.46	10.50	0.19	0.00	53.15	60.00 -6.85 Peak

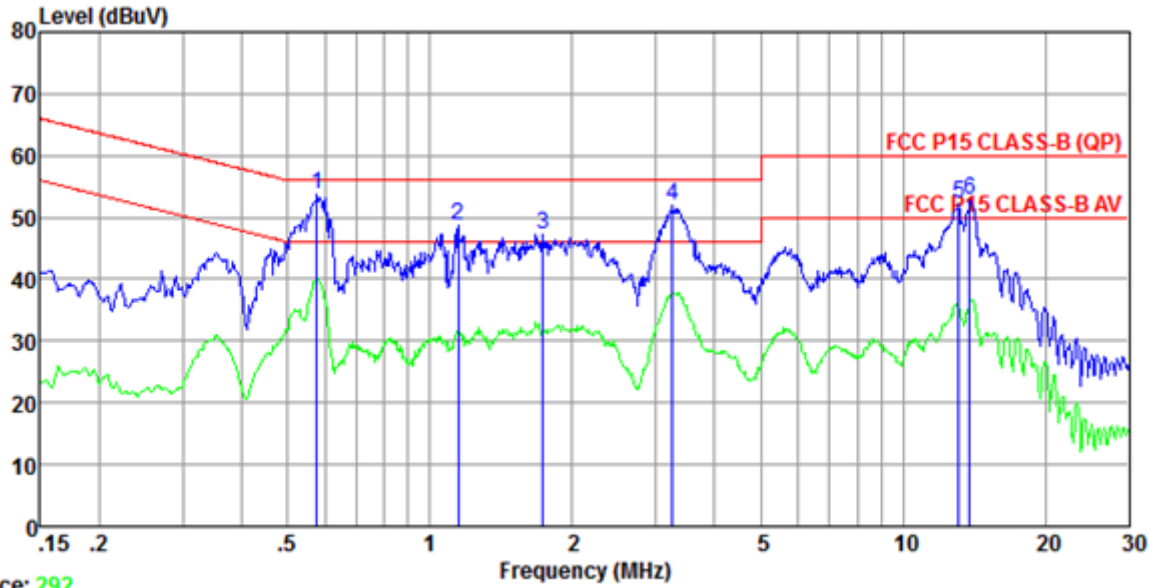
802.11n20 Ch11



Trace: 294

Site : chamber
 Condition : FCC P15 CLASS-B (QP) ENV216(N)-20120730 NEUTRAL
 EUT :
 Model Name :
 Temp/Humi : 23 °C / 54 %
 Power Rating: AC 120V/60HZ
 Mode : 802.11n20 CH11
 Memo :

	Freq	Read Level	LISN Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV	dBuV	dB	
1 qp	0.57	43.19	10.37	0.11	0.00	53.67	56.00	-2.33	QP
2	1.16	41.21	10.31	0.14	0.00	51.66	56.00	-4.34	Peak
3	1.89	39.70	10.31	0.15	0.00	50.16	56.00	-5.84	Peak
4 pp	3.31	44.46	10.32	0.15	0.00	54.93	56.00	-1.07	Peak
5	12.99	40.49	10.49	0.29	0.00	51.27	60.00	-8.73	Peak
6	14.06	41.67	10.53	0.19	0.00	52.39	60.00	-7.61	Peak



Trace: 292

Site : chamber
 Condition : FCC P15 CLASS-B (QP) ENV216(L)-20120730 LINE
 EUT :
 Model Name :
 Temp/Humi : 23 °C / 54 %
 Power Rating: AC 120V/60HZ
 Mode : 802.11n20 CH11
 Memo :

	Freq	Read Level	LISN Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV	dBuV	dB	
1 pp	0.58	43.10	10.49	0.11	0.00	53.70	56.00	-2.30	Peak
2	1.15	38.12	10.52	0.14	0.00	48.78	56.00	-7.22	Peak
3	1.73	36.56	10.52	0.15	0.00	47.23	56.00	-8.77	Peak
4	3.26	41.32	10.52	0.15	0.00	51.99	56.00	-4.01	Peak
5	13.13	41.41	10.48	0.28	0.00	52.17	60.00	-7.83	Peak
6	13.84	42.13	10.50	0.21	0.00	52.84	60.00	-7.16	Peak

APPENDIX 1 PHOTOGRAPHS OF TEST SETUP

Please refer to the file named “i80 WXYZ RF Setup Photos”.

APPENDIX 2 PHOTOGRAPHS OF EUT

Please refer to the files named “i80 WXYZ_EUT External Photos” and “i80 WXYZ_EUT Internal Photos”.

----End of the report----