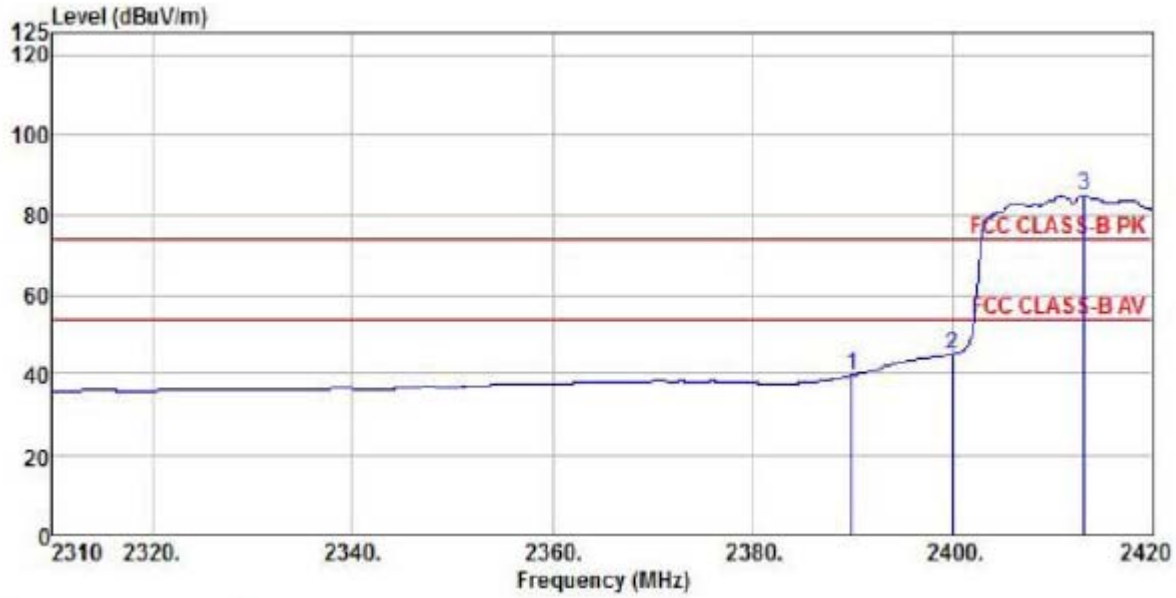
Detector mode: Average

Polarity: Vertical

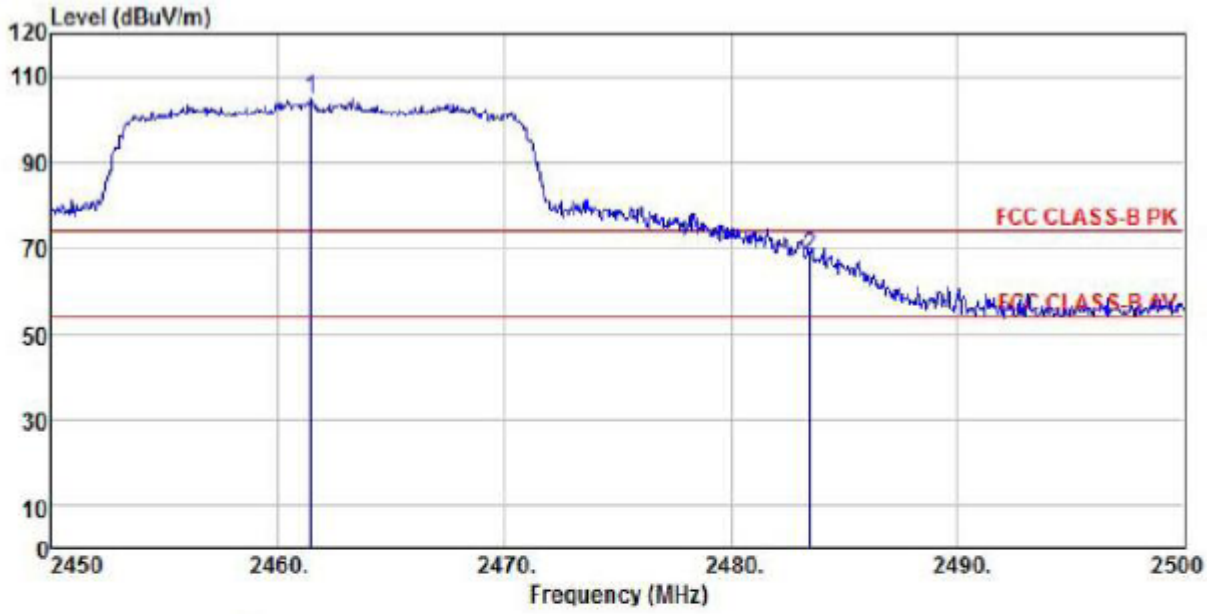


Site : chamber
Condition : FCC CLASS-B PK 3m BBHA9120D(943) VERTICAL
EUT :
Model Name :
Temp/Humi : 23 ℃ /52 %
Power Rating: AC 120V/60Hz
Mode : 11n ch1
Memo :

	Freq	Read 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	2389.97	43.21	27.58	7.13	38.34	39.58	54.00	-14.42	Average
2	2399.98	48.60	27.58	7.13	38.34	44.97	54.00	-9.03	Average
3 pp	2413.18	88.53	27.54	7.21	38.34	84.94	54.00	30.94	Average

802.11n (Ch11)

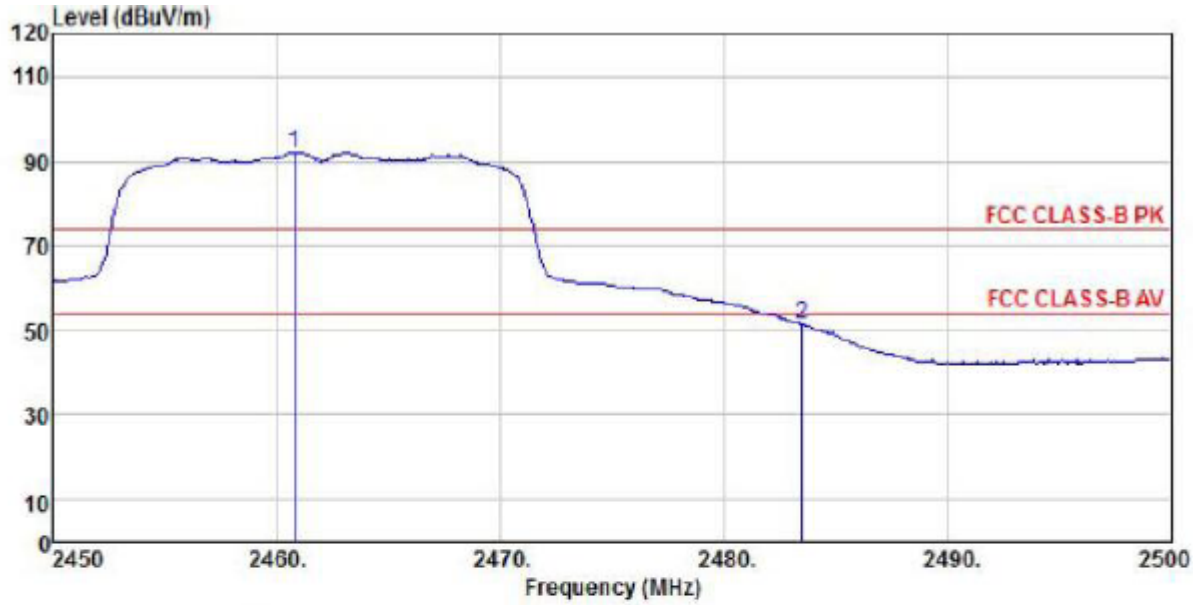
Detector mode: Peak Polarity: Horizontal



Site : chamber
Condition : FCC CLASS-B PK 3m BBHA9120D(942) HORIZONTAL
EUT :
Model Name :
Temp/Humi : 23 ℃ /52 %
Power Rating: AC 120V/60Hz
Mode : 11n ch11
Memo :

	Freq	Read 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	2461.45	108.47	27.49	7.39	38.32	105.03	74.00	31.03	Peak
2	2483.50	71.63	27.52	7.41	38.31	68.25	74.00	-5.75	Peak

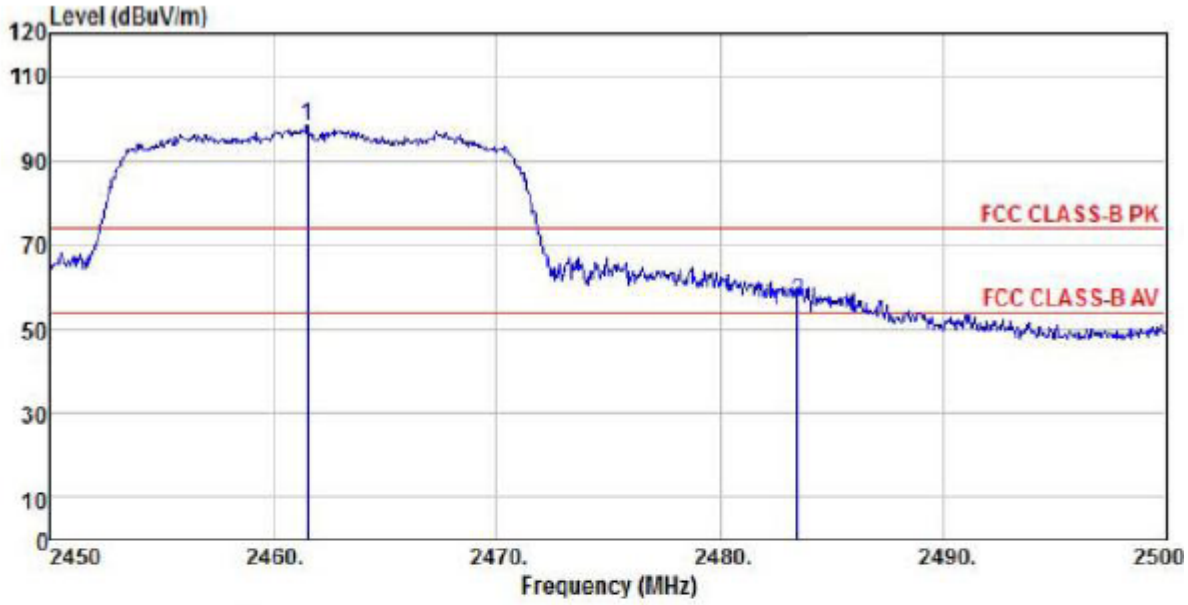
Detector mode: Average Polarity: Horizontal



Site : chamber
Condition : FCC CLASS-B PK 3m BBHA9120D(942) HORIZONTAL
EUT :
Model Name :
Temp/Humi : 23 ℃ /52 %
Power Rating: AC 120V/60Hz
Mode : 11n ch11
Memo :

	Freq	Read 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	2460.80	95.62	27.49	7.39	38.32	92.18	54.00	38.18	Average
2	2483.50	54.72	27.52	7.41	38.31	51.34	54.00	-2.66	Average

Detector mode: Peak Polarity: Vertical

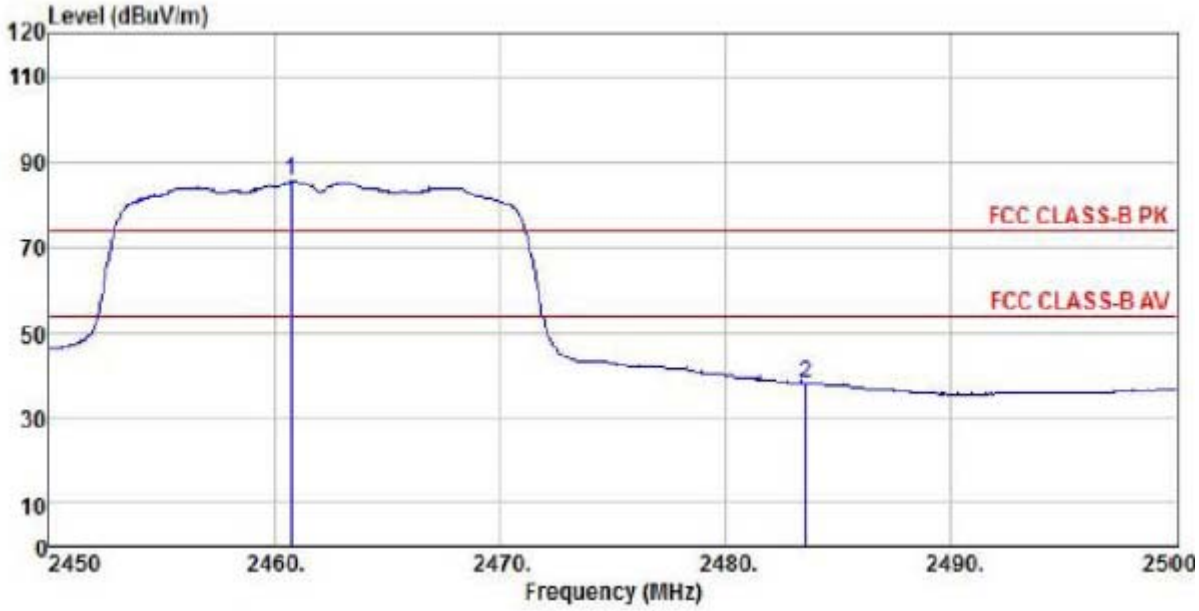


Site : chamber
Condition : FCC CLASS-B PK 3m BBHA9120D(943) VERTICAL
EUT :
Model Name :
Temp/Humi : 23 ℃ /52 %
Power Rating: AC 120V/60Hz
Mode : 11n ch11
Memo :

	Freq	Read 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	2461.50	101.65	27.49	7.39	38.32	98.21	74.00	24.21	Peak
2	2483.50	60.03	27.52	7.41	38.31	56.65	74.00	-17.35	Peak

Detector mode: Average

Polarity: Vertical

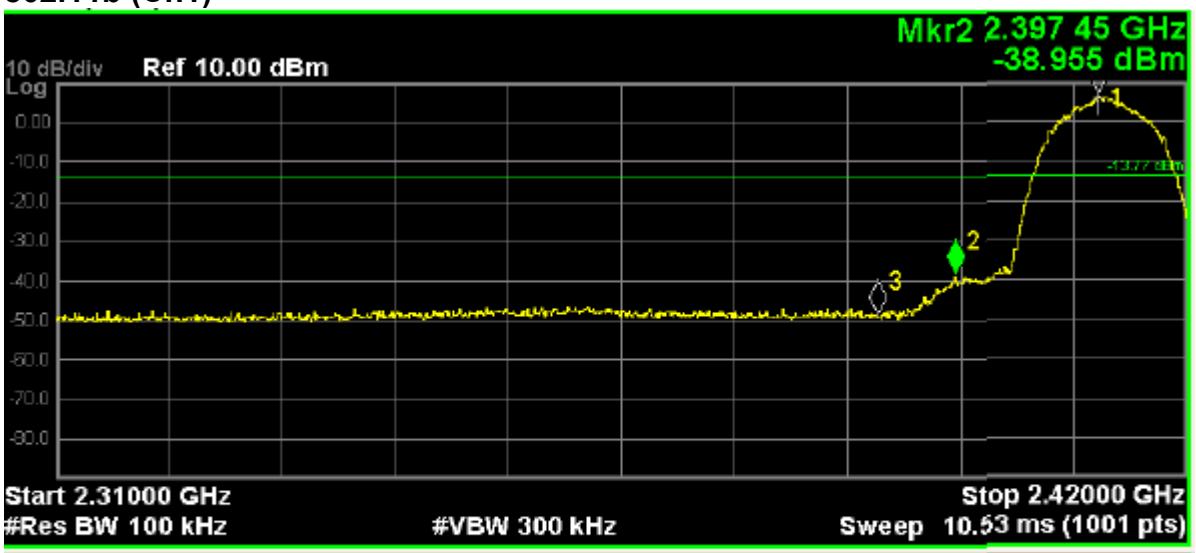


Site : chamber
Condition : FCC CLASS-B PK 3m BBHA9120D(943) VERTICAL
EUT :
Model Name :
Temp/Humi : 23 ℃ /52 %
Power Rating: AC 120V/60Hz
Mode : 11n ch11
Memo :

	Freq	Read 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	2460.75	88.75	27.49	7.39	38.32	85.31	54.00	31.31	Average
2	2483.55	41.61	27.52	7.41	38.31	38.23	54.00	-15.77	Average

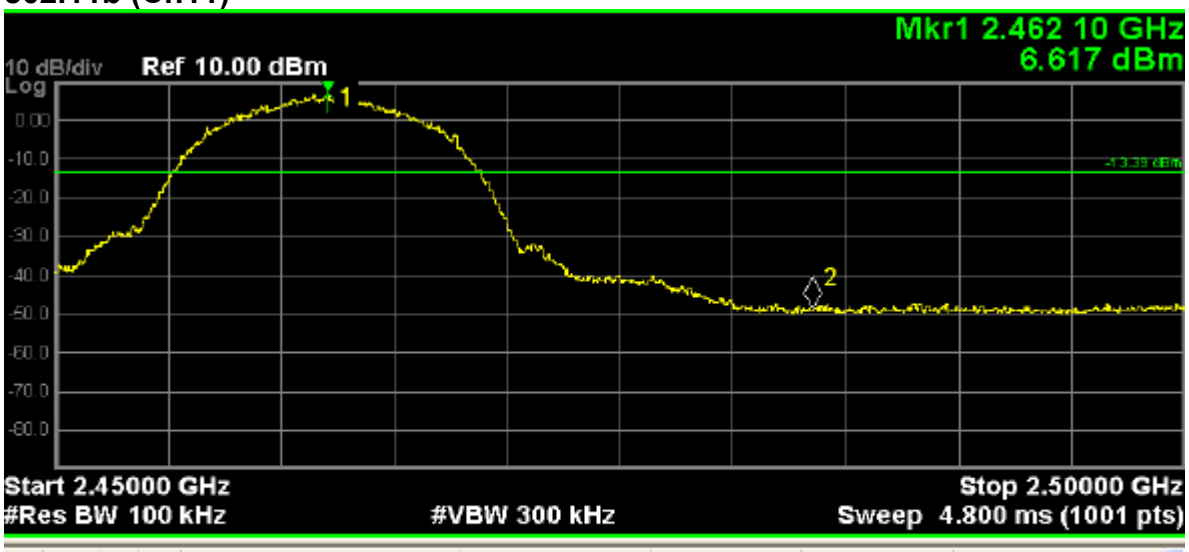
Conducted Band Edge:

802.11b (Ch1)



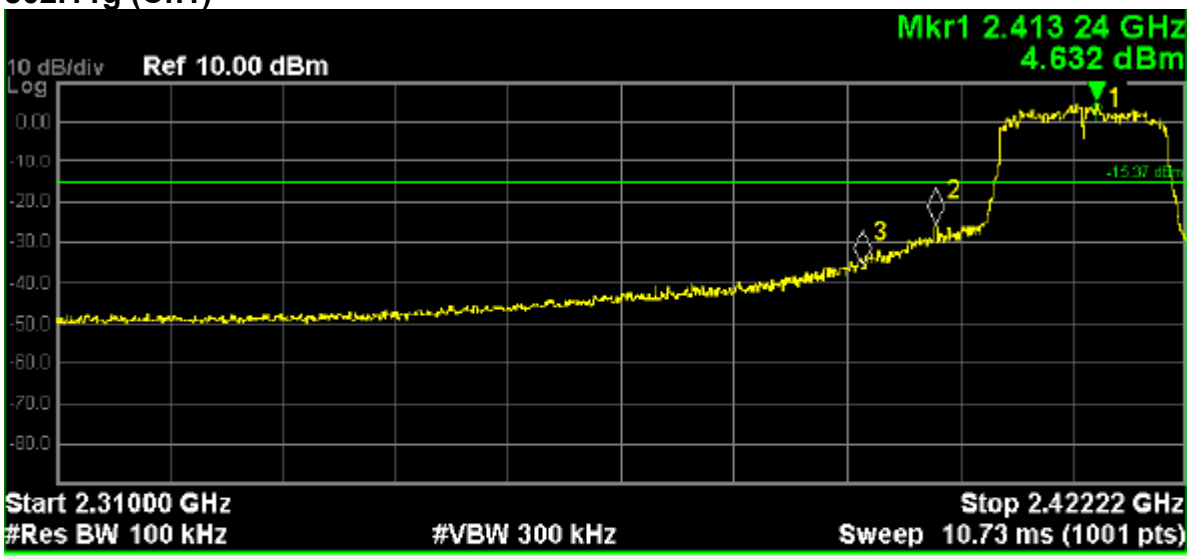
MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.411 42 GHz	6.407 dBm			
2	N	1	f	2.397 45 GHz	-38.955 dBm			
3	N	1	f	2.390 00 GHz	-49.016 dBm			
4								
5								

802.11b (Ch11)



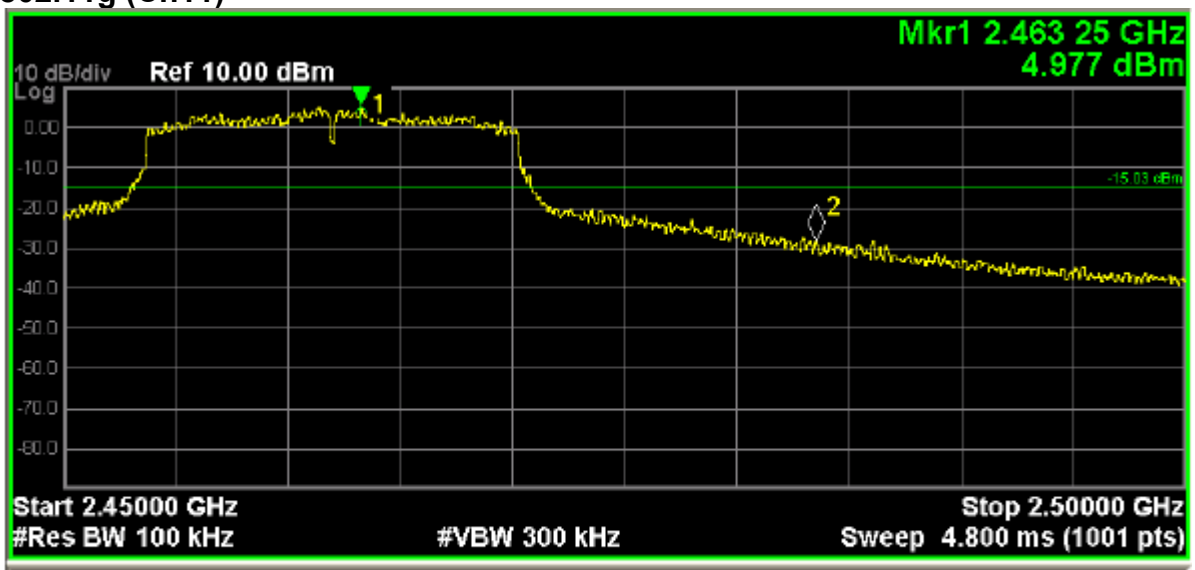
MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.462 10 GHz	6.617 dBm			
2	N	1	f	2.483 50 GHz	-49.309 dBm			
3								
4								
5								

802.11g (Ch1)



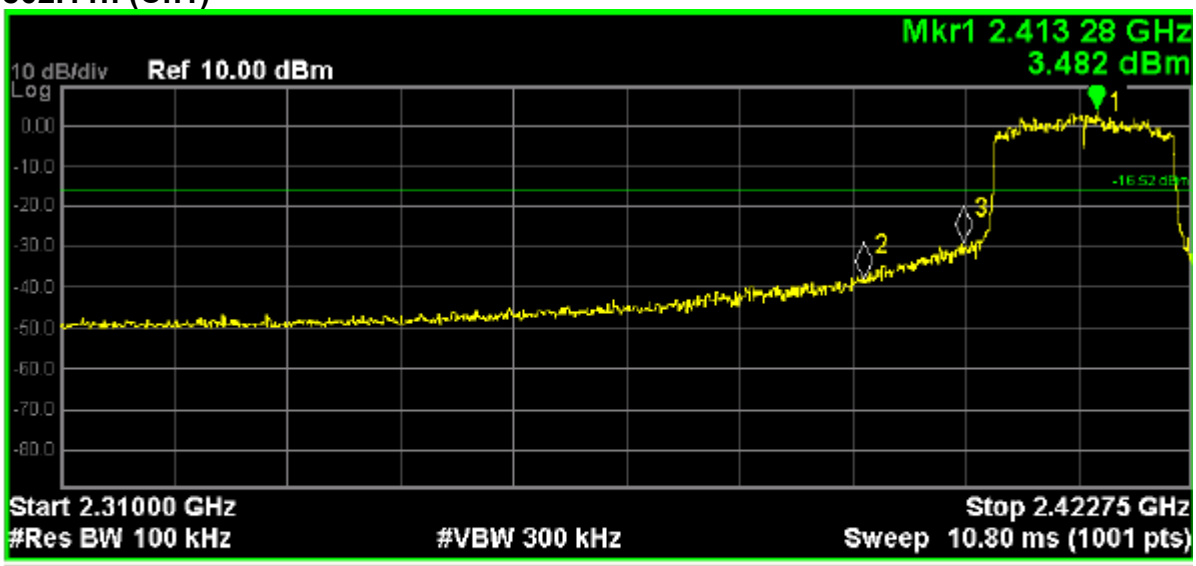
MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.413 24 GHz	4.632 dBm			
2	N	1	f	2.397 31 GHz	-26.298 dBm			
3	N	1	f	2.390 00 GHz	-36.567 dBm			
4								
5								

802.11g (Ch11)



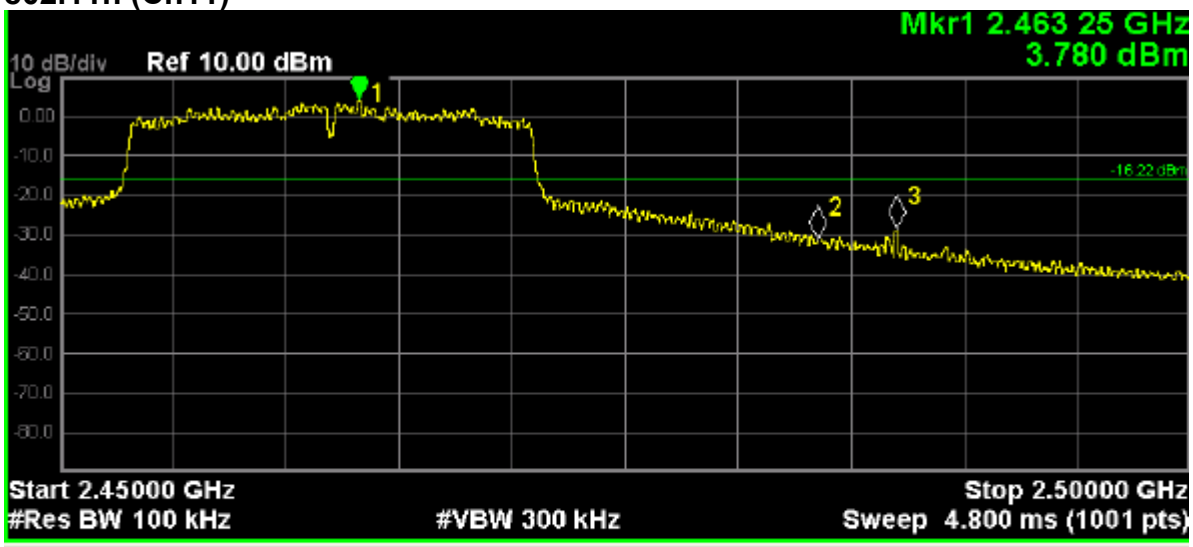
MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.463 25 GHz	4.977 dBm			
2	N	1	f	2.483 50 GHz	-28.488 dBm			
3								
4								

802.11n (Ch1)



MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.413 28 GHz	3.482 dBm			
2	N	1	f	2.390 00 GHz	-38.594 dBm			
3	N	1	f	2.399 89 GHz	-29.510 dBm			
4								
5								

802.11n (Ch11)

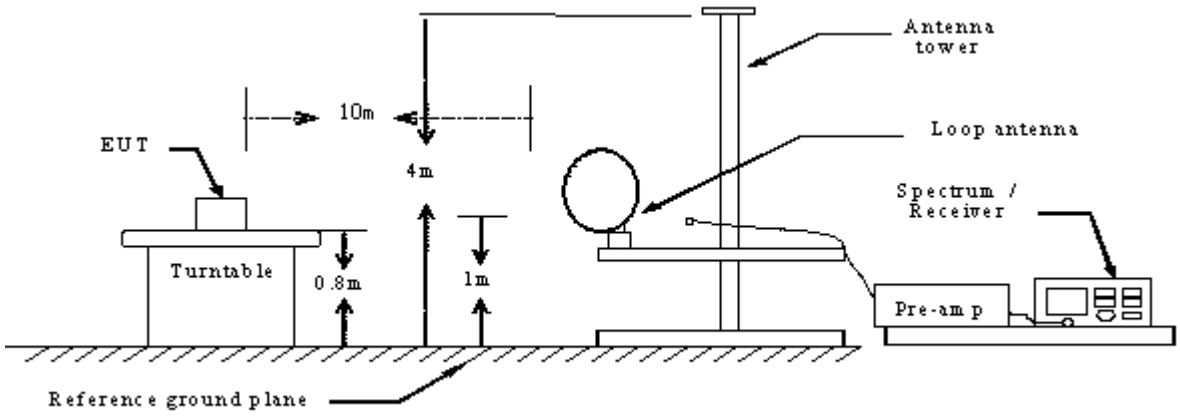


MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.463 25 GHz	3.780 dBm			
2	N	1	f	2.483 50 GHz	-31.859 dBm			
3	N	1	f	2.487 00 GHz	-29.229 dBm			
4								
5								
6								

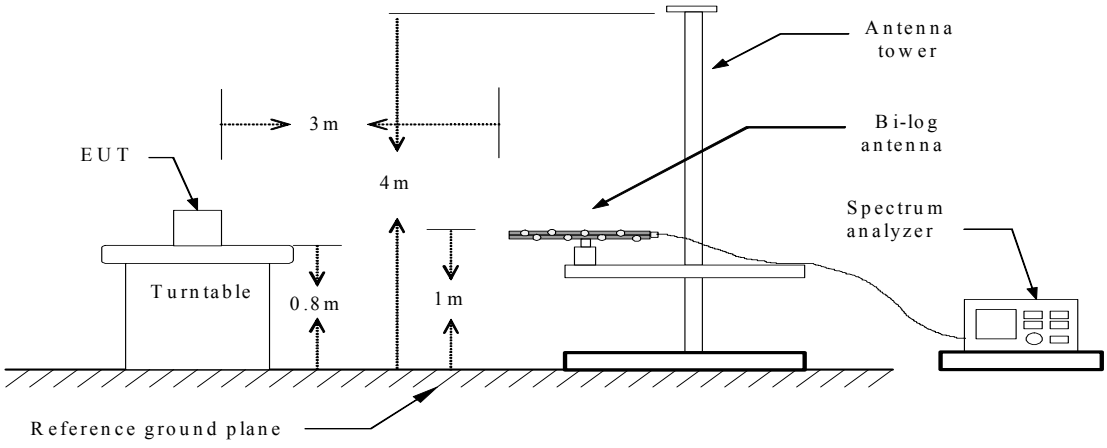
10. SPURIOUS EMISSIONS (RADIATION)

10.1 TEST SETUP

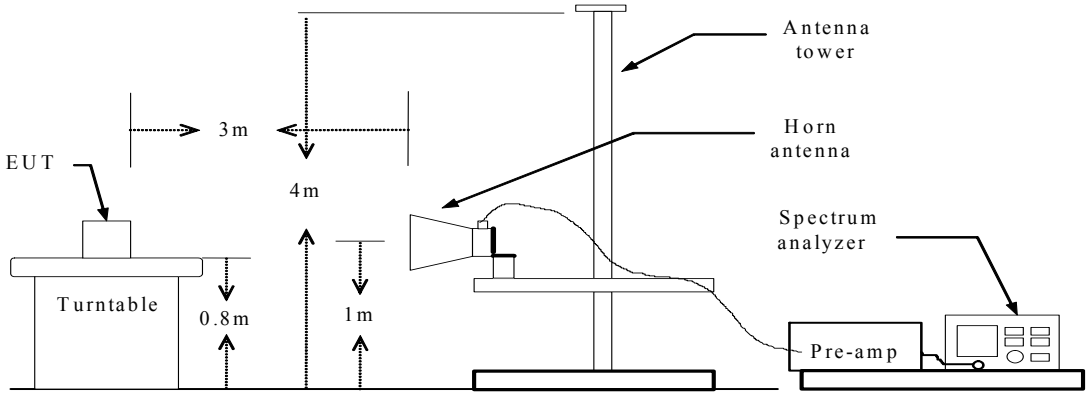
Radiated Spurious Measurement: below 30MHz



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 = 20lg (L1) + 40lg (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 (μV/m), d1 = 300 (m), d2 = 3 (m), so L2 as follows:
20lg（2400/9）+40lg(300/3) = 128.5(dBμV/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 10^{th} harmonic of the carrier). The peak detector is used for Peak limit and RBW is set to 1MHz ,VBW ≥ 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.

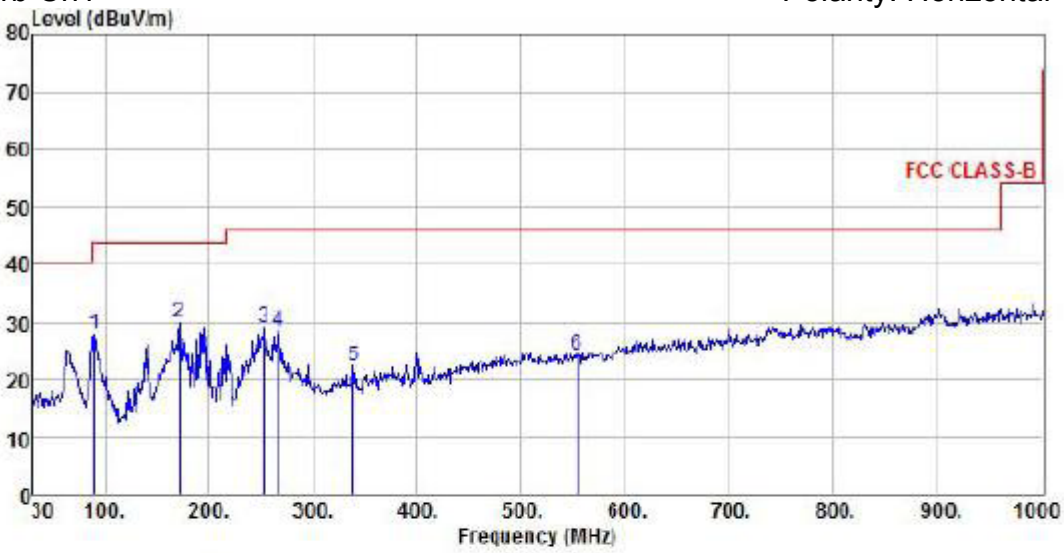
10.4 RESULTS & PERFORMANCE

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:

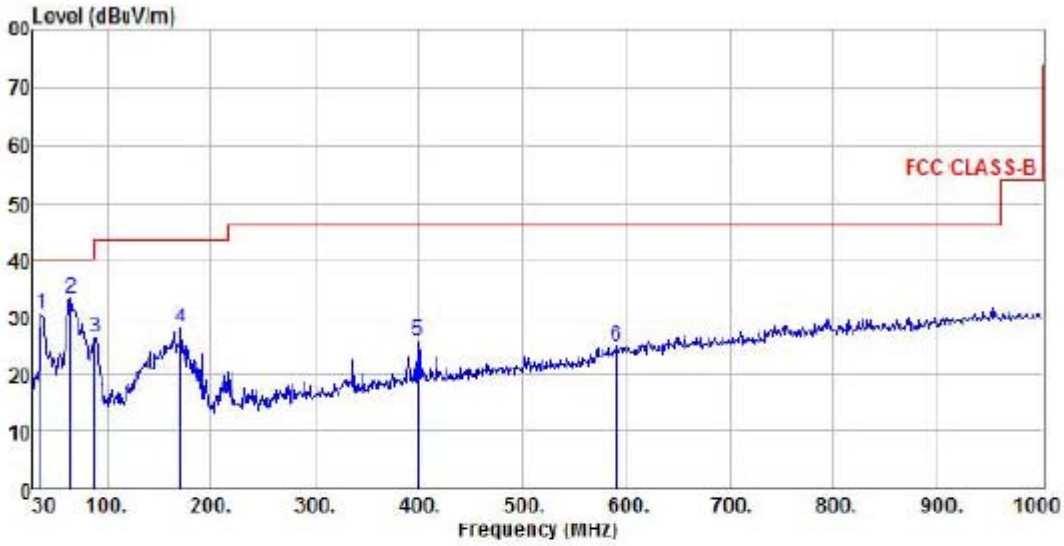
802.11b Ch1 Polarity: Horizontal



Site : chamber
Condition : FCC CLASS-B 3m VULB9160 HORIZONTAL
EUT :
Model Name :
Temp/Humi : 23 ℃ /52 %
Power Rating: AC 120V/60Hz
Mode : 11b ch1
Memo :

	Freq	Read 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	89.17	17.95	9.09	1.09	0.00	28.13	43.50	-15.37	Peak
2 pp	171.62	15.00	13.15	1.86	0.00	30.01	43.50	-13.49	Peak
3	252.13	15.06	11.96	2.16	0.00	29.18	46.00	-16.82	Peak
4	267.65	14.04	12.40	2.21	0.00	28.65	46.00	-17.35	Peak
5	338.46	5.76	14.09	2.51	0.00	22.36	46.00	-23.64	Peak
6	553.80	3.31	18.02	3.20	0.00	24.53	46.00	-21.47	Peak

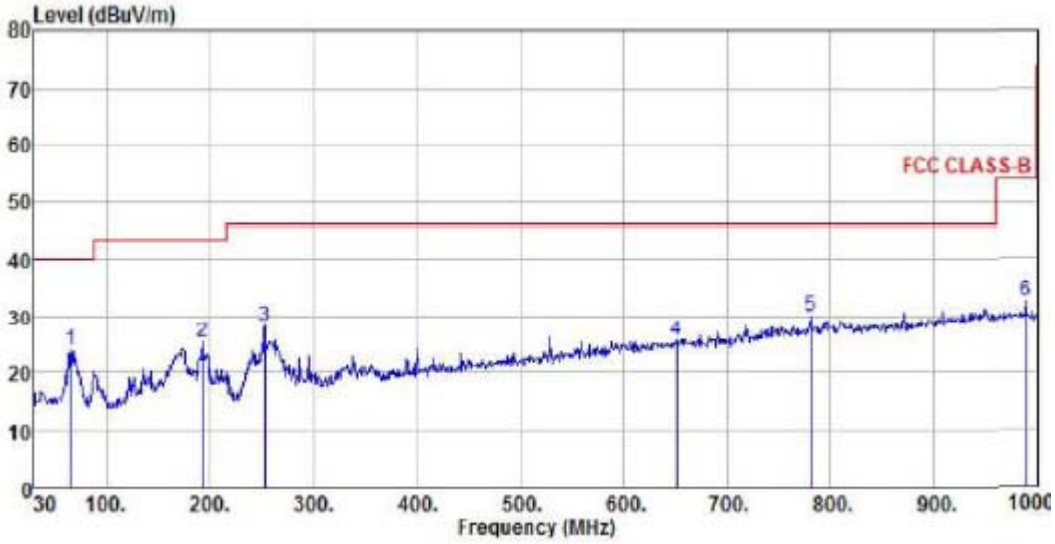
802.11b Ch1 Polarity: Vertical



Site : chamber
Condition : FCC CLASS-B 3m VULB9160 VERTICAL
EUT :
Model Name :
Temp/Humi : 23 ℃ /52 %
Power Rating: AC 120V/60Hz
Mode : 11b ch1
Memo :

	Freq	Read 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	37.76	17.51	12.51	0.79	0.00	30.81	40.00	-9.19	Peak
2 pp	64.92	19.85	12.34	1.08	0.00	33.27	40.00	-6.73	Peak
3	88.20	16.24	9.09	1.09	0.00	26.42	43.50	-17.08	Peak
4	170.65	12.92	13.15	1.86	0.00	27.93	43.50	-15.57	Peak
5	399.57	7.72	15.32	2.65	0.00	25.69	46.00	-20.31	Peak
6	590.66	2.55	18.89	3.33	0.00	24.77	46.00	-21.23	Peak

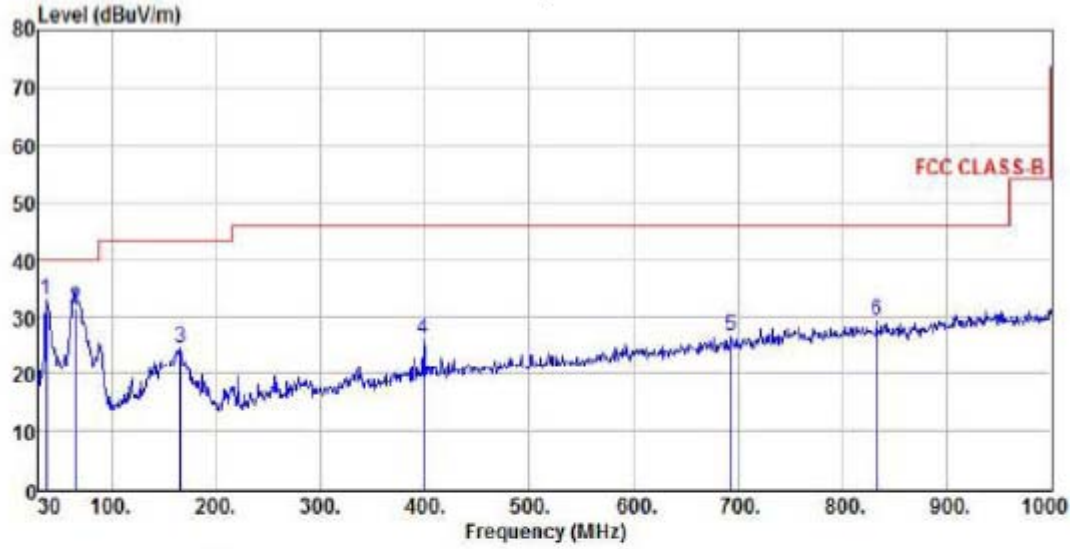
802.11b Ch6 Polarity: Horizontal



Site : chamber
Condition : FCC CLASS-B 3m VULB9160 HORIZONTAL
EUT :
Model Name :
Temp/Humi : 23 ℃ /52 %
Power Rating: AC 120V/60Hz
Mode : 11b ch6
Memo :

	Freq	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	64.92	10.35	12.34	1.08	0.00	23.77	40.00	-16.23	Peak
2	192.96	12.56	10.96	1.89	0.00	25.41	43.50	-18.09	Peak
3	253.10	14.08	11.96	2.16	0.00	28.20	46.00	-17.80	Peak
4	650.80	2.54	19.61	3.52	0.00	25.67	46.00	-20.33	Peak
5 pp	780.78	4.73	21.50	3.82	0.00	30.05	46.00	-15.95	Peak
6	989.33	4.70	23.44	4.33	0.00	32.47	54.00	-21.53	Peak

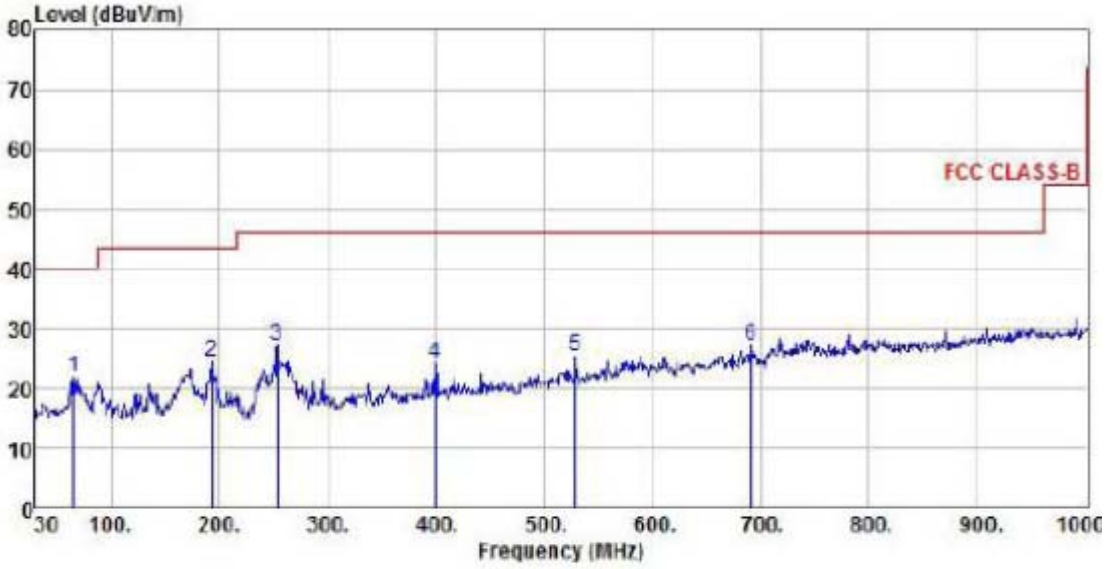
802.11b Ch6 Polarity: Vertical



Site : chamber
Condition : FCC CLASS-B 3m VULB9160 VERTICAL
EUT :
Model Name :
Temp/Humi : 23 ℃ /52 %
Power Rating: AC 120V/60Hz
Mode : 11b ch6
Memo :

	Freq	Read 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	36.79	19.78	12.51	0.77	0.00	33.06	40.00	-6.94	Peak
2 qp	64.85	18.29	12.34	1.08	0.00	31.71	40.00	-8.29	QP
3	165.80	9.33	13.55	1.77	0.00	24.65	43.50	-18.85	Peak
4	399.57	8.28	15.32	2.65	0.00	26.25	46.00	-19.75	Peak
5	692.51	3.29	20.04	3.61	0.00	26.94	46.00	-19.06	Peak
6	833.16	3.56	21.97	3.95	0.00	29.48	46.00	-16.52	Peak

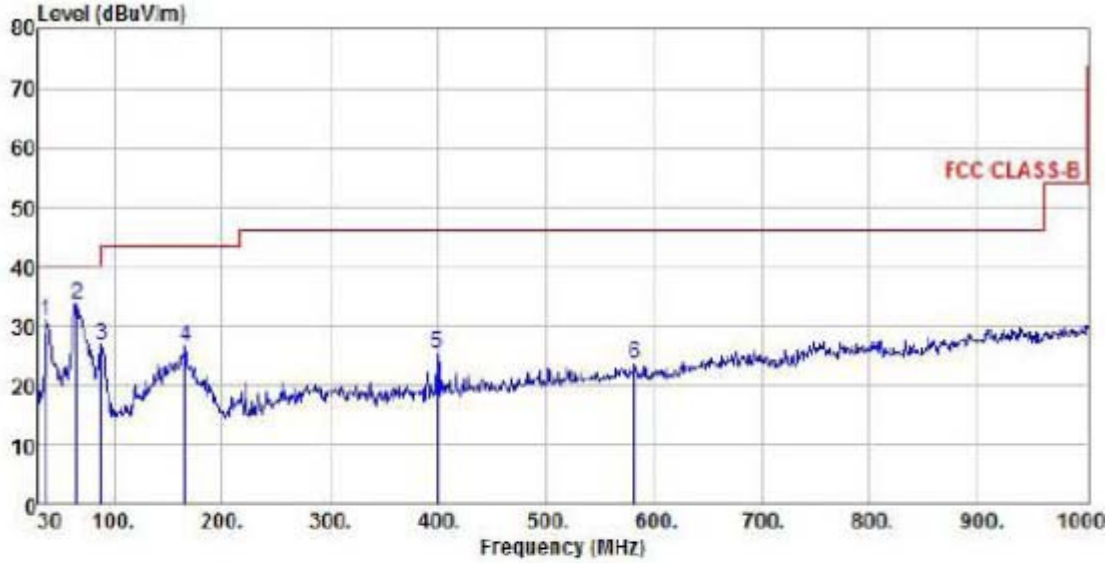
802.11b Ch11 Polarity: Horizontal



Site : chamber
Condition : FCC CLASS-B 3m VULB9160 HORIZONTAL
EUT :
Model Name :
Temp/Humi : 23 ℃ /52 %
Power Rating: AC 120V/60Hz
Mode : 11b ch11
Memo :

	Freq	Read 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	64.92	8.35	12.34	1.08	0.00	21.77	40.00	-18.23	Peak
2	192.96	11.56	10.96	1.89	0.00	24.41	43.50	-19.09	Peak
3	253.10	13.08	11.96	2.16	0.00	27.20	46.00	-18.80	Peak
4	399.57	6.28	15.32	2.65	0.00	24.25	46.00	-21.75	Peak
5	528.58	4.76	17.47	3.14	0.00	25.37	46.00	-20.63	Peak
6	690.57	3.62	20.02	3.60	0.00	27.24	46.00	-18.76	Peak

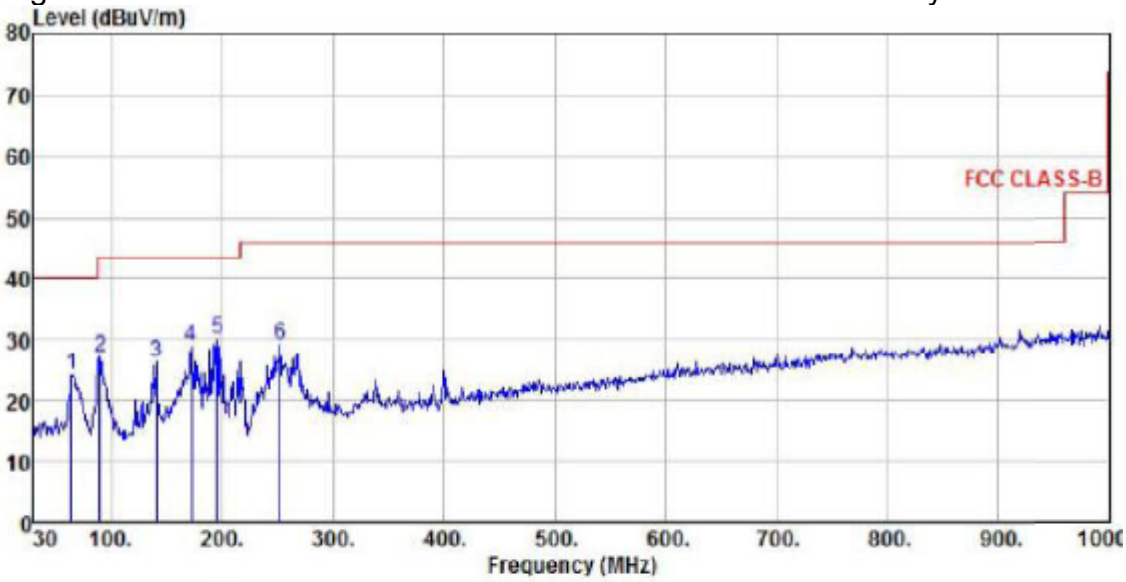
802.11b Ch11 Polarity: Vertical



Site : chamber
Condition : FCC CLASS-B 3m VULB9160 VERTICAL
EUT :
Model Name :
Temp/Humi : 23 ℃ /52 %
Power Rating: AC 120V/60Hz
Mode : 11b ch11
Memo :

	Freq	Read 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	36.79	17.78	12.51	0.77	0.00	31.06	40.00	-8.94	Peak
2 pp	64.92	20.27	12.34	1.08	0.00	33.69	40.00	-6.31	Peak
3	88.20	16.57	9.09	1.09	0.00	26.75	43.50	-16.75	Peak
4	165.80	11.33	13.55	1.77	0.00	26.65	43.50	-16.85	Peak
5	399.57	7.28	15.32	2.65	0.00	25.25	46.00	-20.75	Peak
6	581.93	1.81	18.67	3.26	0.00	23.74	46.00	-22.26	Peak

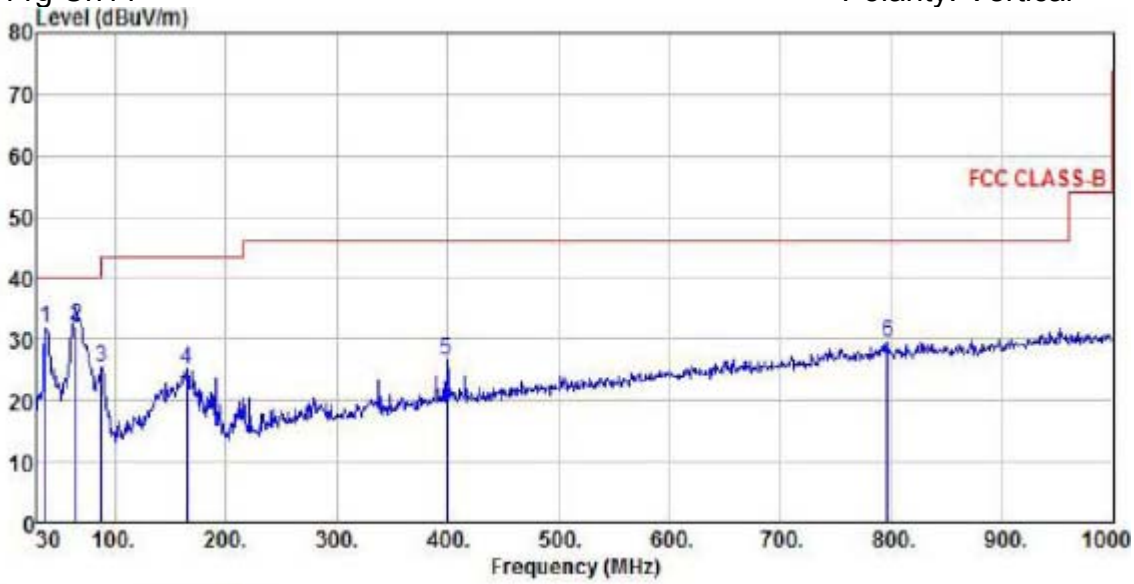
802.11g Ch11 Polarity: Horizontal



Site : chamber
Condition : FCC CLASS-B 3m VULB9160 HORIZONTAL
EUT :
Model Name :
Temp/Humi : 23 ℃ /52 %
Power Rating: AC 120V/60Hz
Mode : 11g ch1
Memo :

	Freq	Read 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	63.95	10.92	12.34	1.07	0.00	24.33	40.00	-15.67	Peak
2	89.17	16.95	9.09	1.09	0.00	27.13	43.50	-16.37	Peak
3	140.58	11.14	13.47	1.62	0.00	26.23	43.50	-17.27	Peak
4	171.62	14.00	13.15	1.86	0.00	29.01	43.50	-14.49	Peak
5 pp	194.90	17.47	10.81	1.89	0.00	30.17	43.50	-13.33	Peak
6	252.13	15.06	11.96	2.16	0.00	29.18	46.00	-16.82	Peak

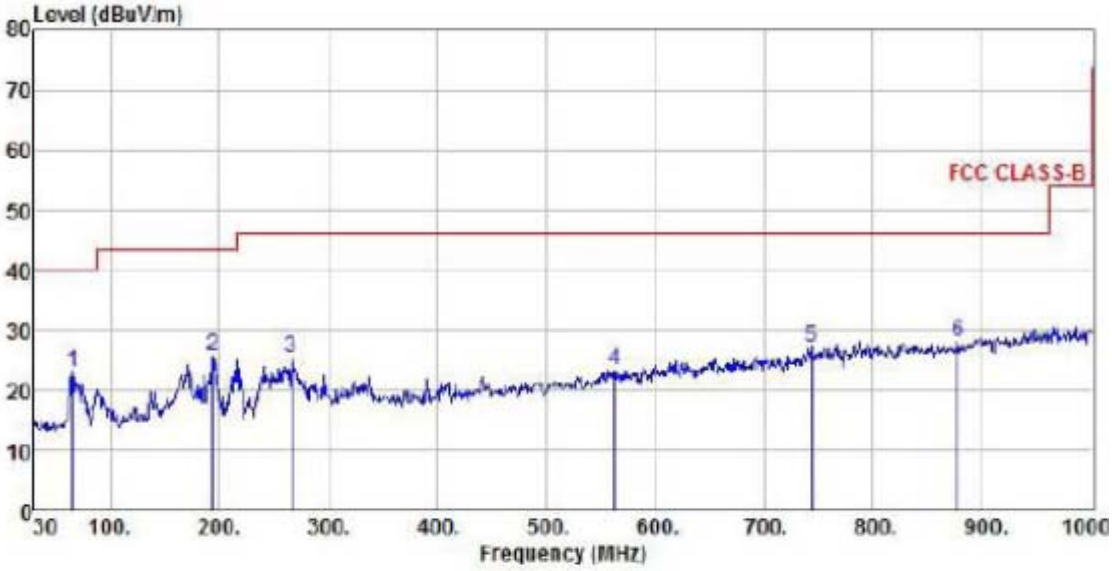
802.11g Ch11 Polarity: Vertical



Site : chamber
Condition : FCC CLASS-B 3m VULB9160 VERTICAL
EUT :
Model Name :
Temp/Humi : 23 ℃ /52 %
Power Rating: AC 120V/60Hz
Mode : 11g ch1
Memo :

	Freq	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1 pk	37.76	18.51	12.51	0.79	0.00	31.81	40.00	-8.19	Peak
2 pp	64.92	18.76	12.34	1.08	0.00	32.18	40.00	-7.82	QP
3	88.20	15.24	9.09	1.09	0.00	25.42	43.50	-18.08	Peak
4	164.83	9.92	13.55	1.76	0.00	25.23	43.50	-18.27	Peak
5	399.57	8.72	15.32	2.65	0.00	26.69	46.00	-19.31	Peak
6	796.30	4.09	21.73	3.82	0.00	29.64	46.00	-16.36	Peak

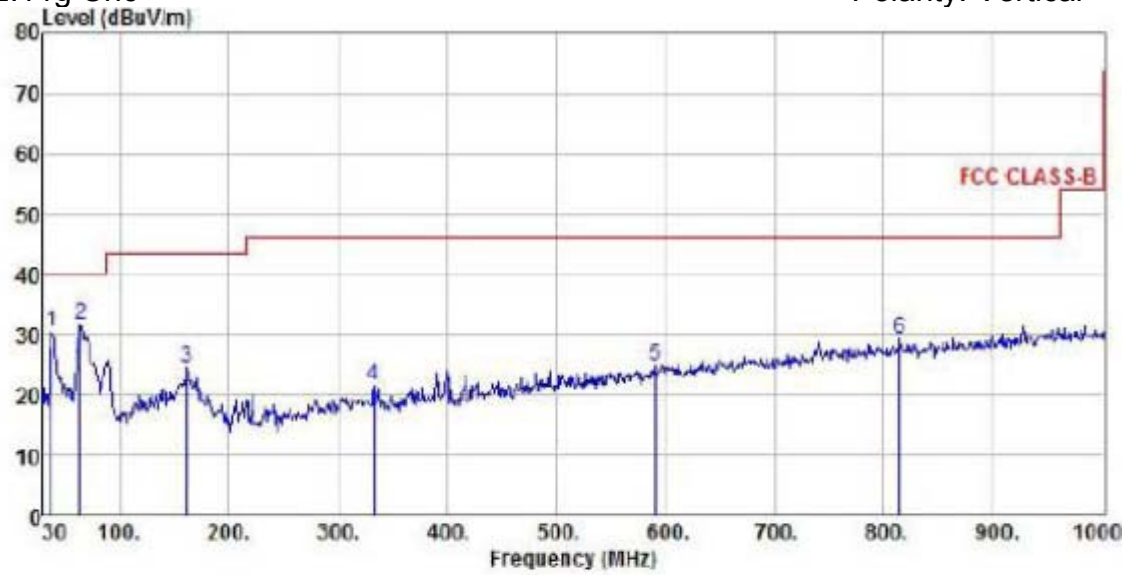
802.11g Ch6 Polarity: Horizontal



Site : chamber
Condition : FCC CLASS-B 3m VULB9160 HORIZONTAL
EUT :
Model Name :
Temp/Humi : 23 ℃ /52 %
Power Rating: AC 120V/60Hz
Mode : 11g ch6
Memo :

	Freq	Read 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	64.92	9.50	12.34	1.08	0.00	22.92	40.00	-17.08	Peak
2	193.93	13.06	10.81	1.89	0.00	25.76	43.50	-17.74	Peak
3	265.71	10.96	12.33	2.20	0.00	25.49	46.00	-20.51	Peak
4	562.53	1.86	18.22	3.24	0.00	23.32	46.00	-22.68	Peak
5	743.92	2.11	21.18	3.78	0.00	27.07	46.00	-18.93	Peak
6	877.78	2.08	22.13	3.96	0.00	28.17	46.00	-17.83	Peak

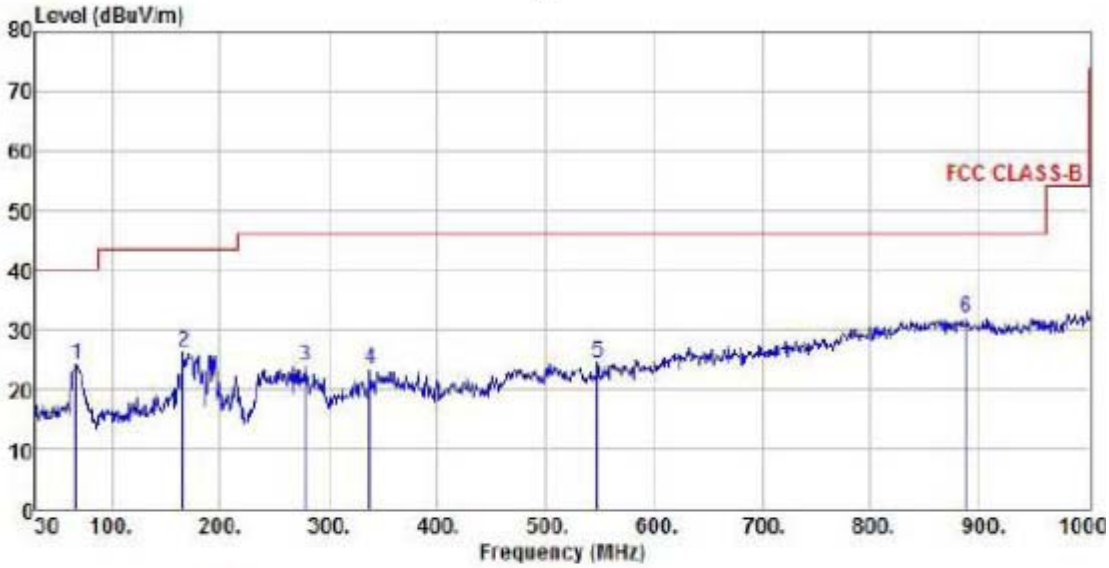
802.11g Ch6 Polarity: Vertical



Site : chamber
Condition : FCC CLASS-B 3m VULB9160 VERTICAL
EUT :
Model Name :
Temp/Humi : 23 ℃ /52 %
Power Rating: AC 120V/60Hz
Mode : 11g ch6
Memo :

	Freq	Read 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	37.76	17.22	12.51	0.79	0.00	30.52	40.00	-9.48	Peak
2 pp	63.95	18.11	12.34	1.07	0.00	31.52	40.00	-8.48	Peak
3	160.95	8.96	13.77	1.69	0.00	24.42	43.50	-19.08	Peak
4	332.64	5.08	13.96	2.49	0.00	21.53	46.00	-24.47	Peak
5	590.66	2.72	18.89	3.33	0.00	24.94	46.00	-21.06	Peak
6	814.73	3.62	21.86	3.79	0.00	29.27	46.00	-16.73	Peak

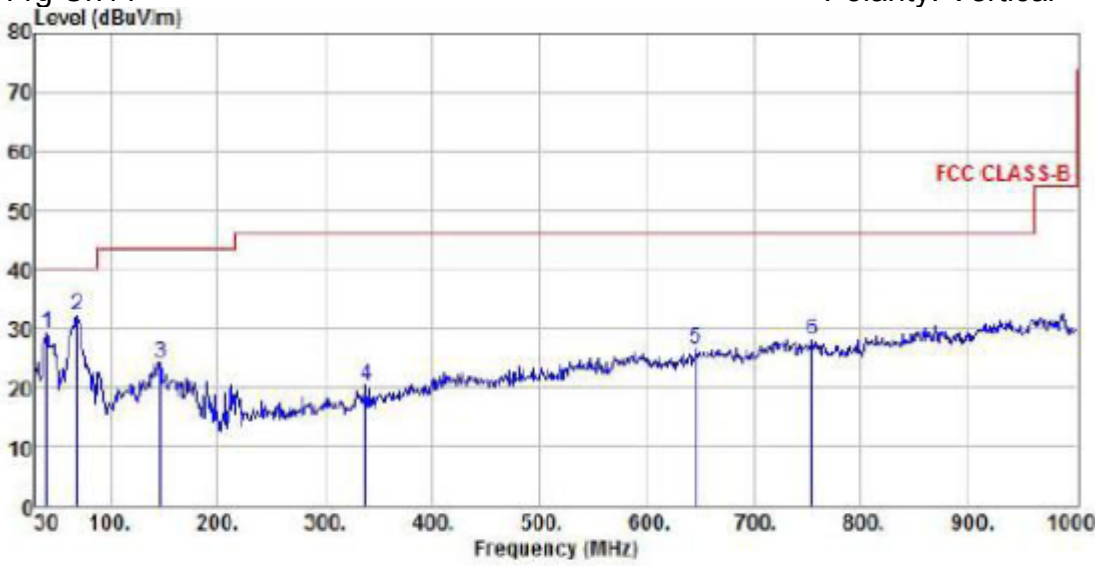
802.11g Ch11 Polarity: Horizontal



Site : chamber
Condition : FCC CLASS-B 3m VULB9160 HORIZONTAL
EUT :
Model Name :
Temp/Humi : 23 ℃ /52 %
Power Rating: AC 120V/60Hz
Mode : 11g ch11
Memo :

	Freq	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	66.86	11.17	11.89	1.10	0.00	24.16	40.00	-15.84	Peak
2	165.80	10.85	13.55	1.77	0.00	26.17	43.50	-17.33	Peak
3	279.29	8.87	12.81	2.20	0.00	23.88	46.00	-22.12	Peak
4	338.46	6.65	14.09	2.51	0.00	23.25	46.00	-22.75	Peak
5	547.98	3.35	17.88	3.16	0.00	24.39	46.00	-21.61	Peak
6 pp	888.45	5.47	22.34	4.00	0.00	31.81	46.00	-14.19	Peak

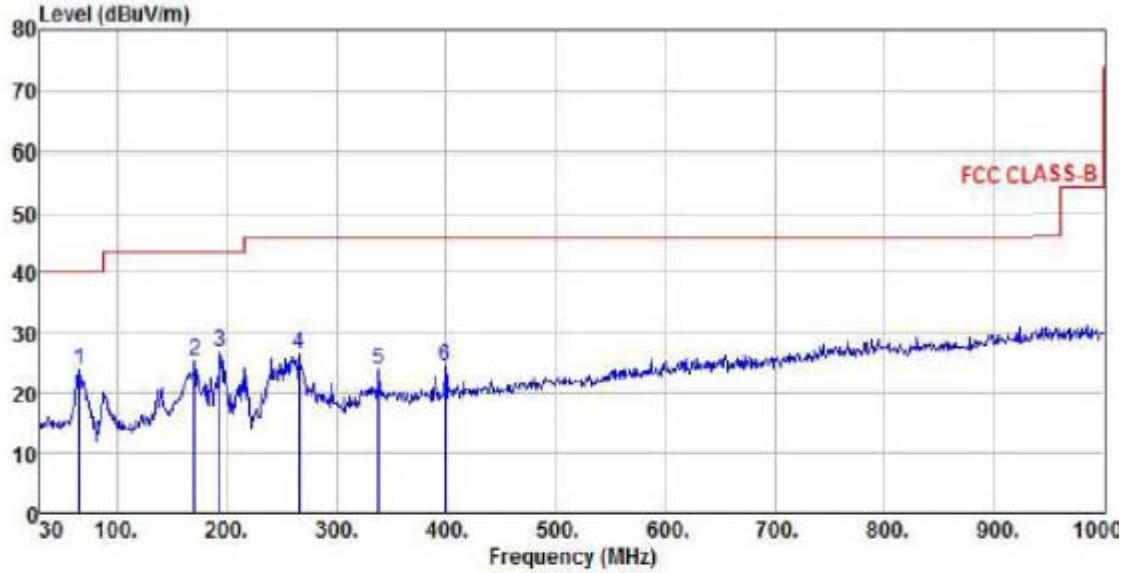
802.11g Ch11 Polarity: Vertical



Site : chamber
Condition : FCC CLASS-B 3m VULB9160 VERTICAL
EUT :
Model Name :
Temp/Humi : 23 ℃ /52 %
Power Rating: AC 120V/60Hz
Mode : 11g ch11
Memo :

	Freq	Read 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	40.67	15.65	12.71	0.83	0.00	29.19	40.00	-10.81	Peak
2 pp	68.80	19.75	11.44	1.11	0.00	32.30	40.00	-7.70	Peak
3	146.40	8.94	13.68	1.63	0.00	24.25	43.50	-19.25	Peak
4	338.46	3.89	14.09	2.51	0.00	20.49	46.00	-25.51	Peak
5	645.95	3.50	19.53	3.53	0.00	26.56	46.00	-19.44	Peak
6	754.59	3.06	21.36	3.76	0.00	28.18	46.00	-17.82	Peak

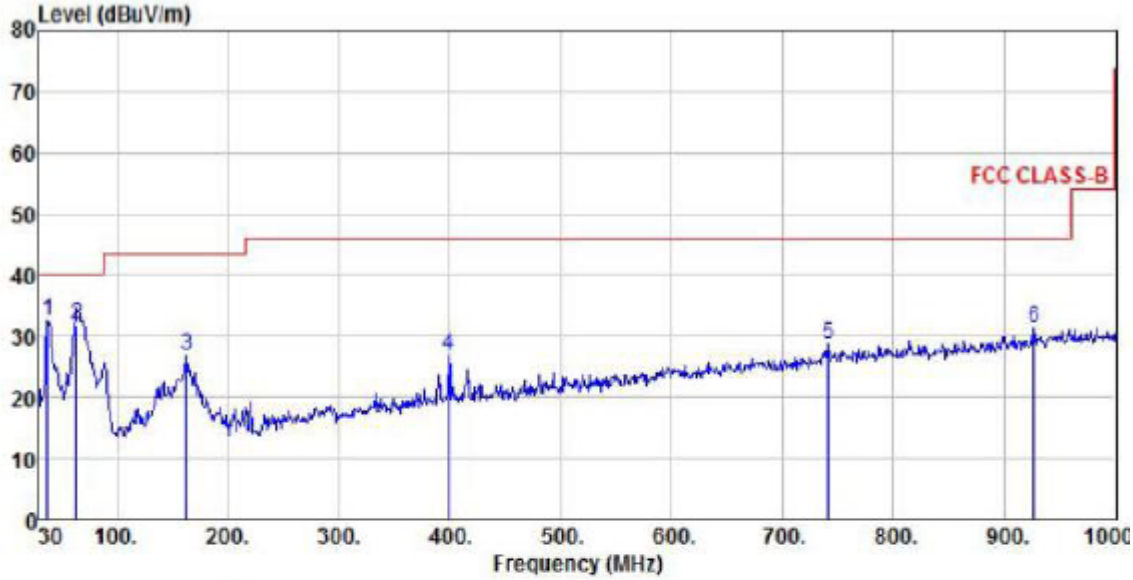
802.11n Ch1 Polarity: Horizontal



Site : chamber
Condition : FCC CLASS-B 3m VULB9160 HORIZONTAL
EUT :
Model Name :
Temp/Humi : 23 ℃ /52 %
Power Rating: AC 120V/60Hz
Mode : 11n ch1
Memo :

	Freq	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1 pp	64.92	10.50	12.34	1.08	0.00	23.92	40.00	-16.08	Peak
2	170.65	10.29	13.15	1.86	0.00	25.30	43.50	-18.20	Peak
3	193.93	14.06	10.81	1.89	0.00	26.76	43.50	-16.74	Peak
4	265.71	11.96	12.33	2.20	0.00	26.49	46.00	-19.51	Peak
5	338.46	7.40	14.09	2.51	0.00	24.00	46.00	-22.00	Peak
6	399.57	6.53	15.32	2.65	0.00	24.50	46.00	-21.50	Peak

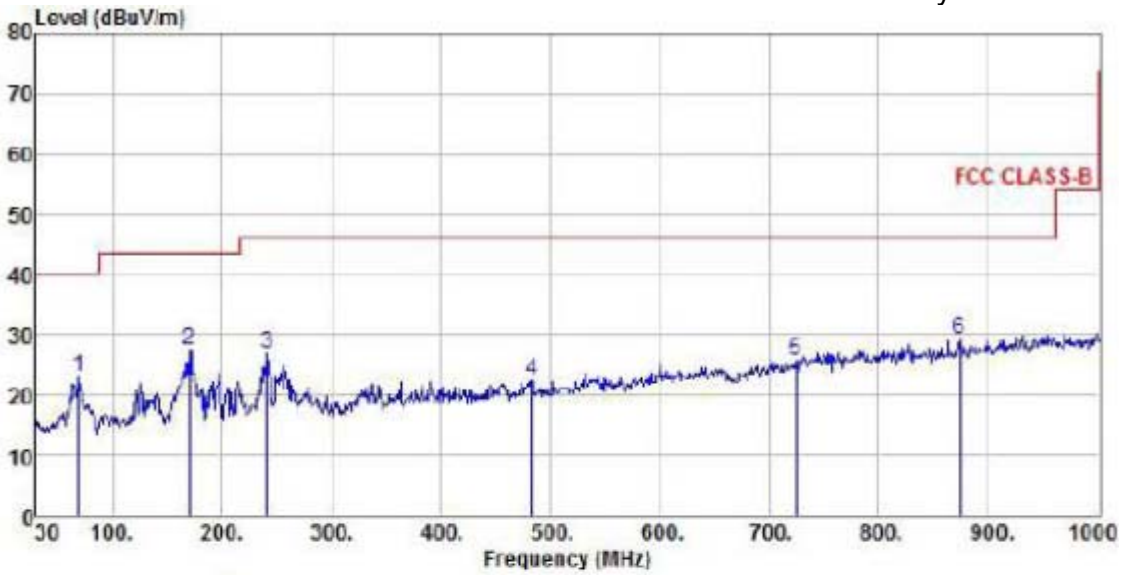
802.11n Ch1 Polarity: Vertical



Site : chamber
Condition : FCC CLASS-B 3m VULB9160 VERTICAL
EUT :
Model Name :
Temp/Humi : 23 ℃ /52 %
Power Rating: AC 120V/60Hz
Mode : 11n ch1
Memo :

	Freq	Read 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	37.76	19.22	12.51	0.79	0.00	32.52	40.00	-7.48	Peak
2 qp	63.59	18.35	12.34	1.07	0.00	31.76	40.00	-8.24	QP
3	162.89	11.46	13.66	1.72	0.00	26.84	43.50	-16.66	Peak
4	399.57	9.00	15.32	2.65	0.00	26.97	46.00	-19.03	Peak
5	741.01	3.83	21.12	3.77	0.00	28.72	46.00	-17.28	Peak
6	926.28	4.30	22.95	4.10	0.00	31.35	46.00	-14.65	Peak

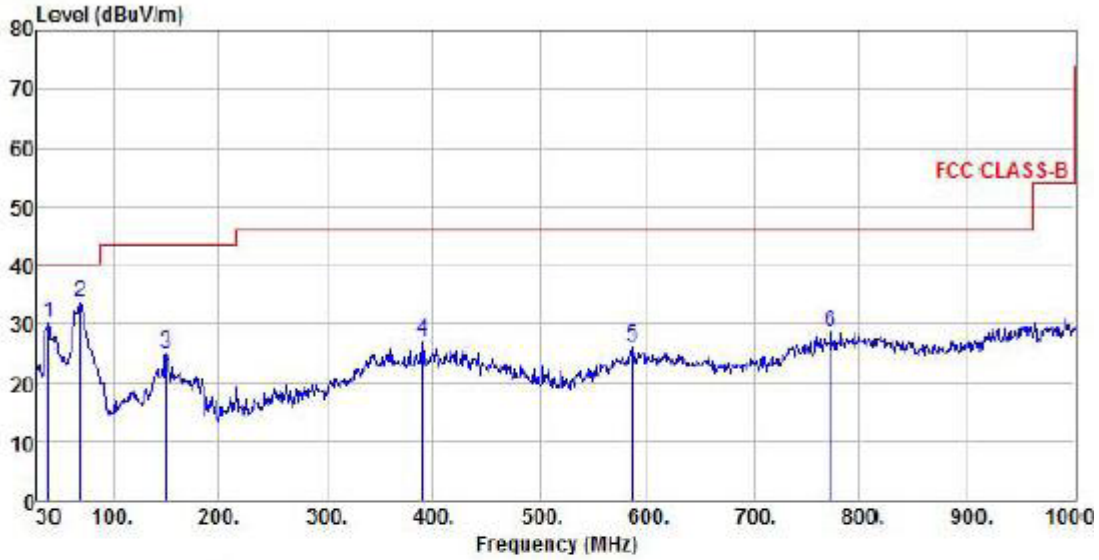
802.11n Ch6 Polarity: Horizontal



Site : chamber
Condition : FCC CLASS-B 3m VULB9160 HORIZONTAL
EUT :
Model Name :
Temp/Humi : 23 ℃ /52 %
Power Rating: AC 120V/60Hz
Mode : 11n ch6
Memo :

	Freq	Read 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	68.80	10.59	11.44	1.11	0.00	23.14	40.00	-16.86	Peak
2 pp	169.68	12.38	13.33	1.84	0.00	27.55	43.50	-15.95	Peak
3	240.49	13.06	11.71	2.12	0.00	26.89	46.00	-19.11	Peak
4	482.99	2.53	16.92	3.02	0.00	22.47	46.00	-23.53	Peak
5	724.52	1.54	20.60	3.64	0.00	25.78	46.00	-20.22	Peak
6	873.90	3.26	22.05	3.96	0.00	29.27	46.00	-16.73	Peak

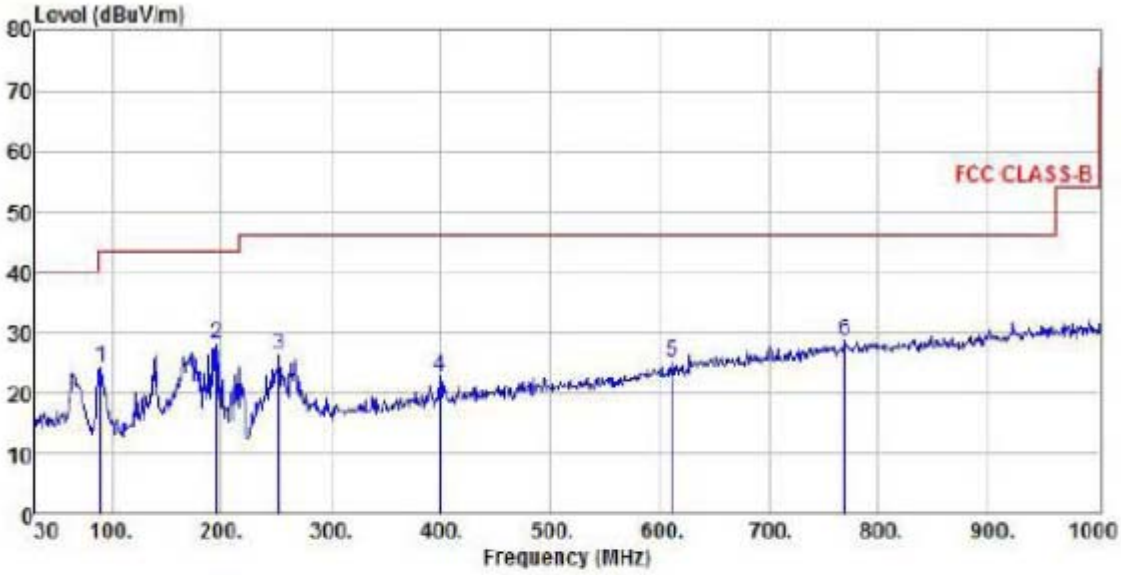
802.11n Ch6 Polarity: Vertical



Site : chamber
Condition : FCC CLASS-B 3m VULB9160 VERTICAL
EUT :
Model Name :
Temp/Humi : 23 ℃ /52 %
Power Rating: AC 120V/60Hz
Mode : 11n ch6
Memo :

	Freq	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	40.67	16.44	12.71	0.83	0.00	29.98	40.00	-10.02	Peak
2 pp	68.80	21.11	11.44	1.11	0.00	33.66	40.00	-6.34	Peak
3	149.31	9.45	13.90	1.63	0.00	24.98	43.50	-18.52	Peak
4	389.87	9.20	15.10	2.71	0.00	27.01	46.00	-18.99	Peak
5	586.78	4.05	18.78	3.30	0.00	26.13	46.00	-19.87	Peak
6	772.05	3.59	21.40	3.74	0.00	28.73	46.00	-17.27	Peak

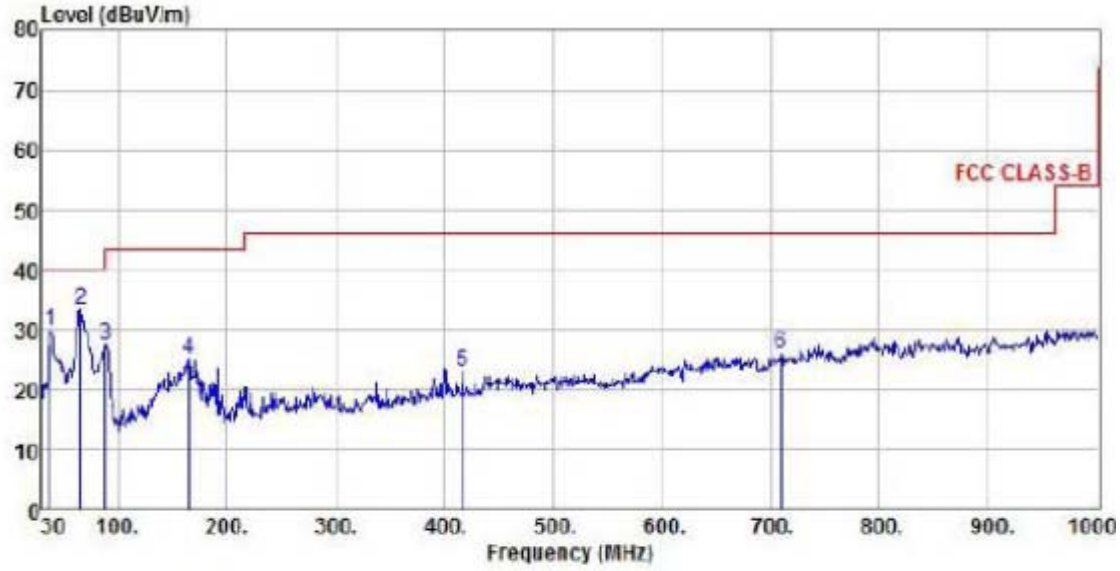
802.11n Ch11 Polarity: Horizontal



Site : chamber
Condition : FCC CLASS-B 3m VULB9160 HORIZONTAL
EUT :
Model Name :
Temp/Humi : 23 ℃ /52 %
Power Rating: AC 120V/60Hz
Mode : 11n ch11
Memo :

	Freq	Read 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	89.17	13.95	9.09	1.09	0.00	24.13	43.50	-19.37	Peak
2 pp	194.90	15.47	10.81	1.89	0.00	28.17	43.50	-15.33	Peak
3	252.13	12.06	11.96	2.16	0.00	26.18	46.00	-19.82	Peak
4	399.57	4.88	15.32	2.65	0.00	22.85	46.00	-23.15	Peak
5	611.03	2.41	19.19	3.37	0.00	24.97	46.00	-21.03	Peak
6	769.14	3.63	21.40	3.71	0.00	28.74	46.00	-17.26	Peak

802.11n Ch11 Polarity: Vertical



Site : chamber
Condition : FCC CLASS-B 3m VULB9160 VERTICAL
EUT :
Model Name :
Temp/Humi : 23 ℃ /52 %
Power Rating: AC 120V/60Hz
Mode : 11n ch11
Memo :

	Freq	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	37.76	16.51	12.51	0.79	0.00	29.81	40.00	-10.19	Peak
2 pp	64.92	19.85	12.34	1.08	0.00	33.27	40.00	-6.73	Peak
3	88.20	17.24	9.09	1.09	0.00	27.42	43.50	-16.08	Peak
4	164.83	9.92	13.55	1.76	0.00	25.23	43.50	-18.27	Peak
5	416.06	4.44	15.62	2.83	0.00	22.89	46.00	-23.11	Peak
6	709.97	2.11	20.33	3.60	0.00	26.04	46.00	-19.96	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	99.38	-3.54	Horizontal	95.84	/	/	Peak
2412	97.57	-3.54	H	94.03	/	/	Average
4866	61.91	4.76	H	66.67	74	7.33	Peak
4866	47.11	4.76	H	51.87	54	2.13	Average
7245	50.84	11.24	H	62.08	74	11.92	Peak
7245	38.07	11.24	H	49.31	54	4.69	Average
2412	98.57	-3.54	Vertical	95.03	/	/	Peak
2412	97.86	-3.54	V	94.32	/	/	Average
4866	61.99	4.76	V	66.75	74	7.25	Peak
4866	47.50	4.76	V	52.36	54	1.74	Average
7245	51.18	11.24	V	62.42	74	11.58	Peak
7245	36.92	11.24	V	48.16	54	5.84	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	98.59	-3.54	Horizontal	95.84	/	/	Peak
2437	95.22	-3.54	H	94.03	/	/	Average
4819	59.63	4.76	H	64.39	74	9.61	Peak
4819	47.37	4.76	H	52.13	54	1.87	Average
7240	50.89	11.24	H	62.13	74	11.87	Peak
7240	38.04	11.24	H	49.28	54	4.72	Average
2437	97.57	-3.54	Vertical	94.03	/	/	Peak
2437	95.86	-3.54	V	92.32	/	/	Average
4819	60.99	4.76	V	65.75	74	8.25	Peak
4819	47.00	4.76	V	51.76	54	2.26	Average
7240	51.38	11.24	V	62.62	74	11.38	Peak
7240	36.52	11.24	V	47.76	54	6.24	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	99.19	-3.13	Horizontal	96.06	/	/	Peak
2462	97.22	-3.13	H	94.09	/	/	Average
4919	58.63	5.15	H	63.78	74	10.22	Peak
4919	47.07	5.15	H	52.22	54	1.78	Average
7346	50.29	12.01	H	62.30	74	11.70	Peak
7346	36.04	12.01	H	49.05	54	4.95	Average
2462	97.97	-3.13	Vertical	94.84	/	/	Peak
2462	95.46	-3.13	V	92.33	/	/	Average
4919	60.79	5.15	V	65.94	74	8.06	Peak
4919	47.10	5.15	V	52.25	54	1.75	Average
7346	52.48	12.01	V	64.49	74	9.51	Peak
7346	36.82	12.01	V	48.83	54	5.17	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	102.35	-3.54	Horizontal	98.81	/	/	Peak
2412	100.58	-3.54	H	97.04	/	/	Average
4826	63.15	4.76	H	67.91	74	6.09	Peak
4826	46.53	4.76	H	51.29	54	2.71	Average
7235	52.07	11.24	H	63.31	74	10.69	Peak
7235	38.53	11.24	H	49.31	54	4.23	Average
2412	102.12	-3.54	Vertical	98.58	/	/	Peak
2412	99.95	-3.54	V	96.41	/	/	Average
4826	61.54	4.76	V	66.30	74	7.70	Peak
4826	46.54	4.76	V	51.20	54	2.80	Average
7235	51.18	11.24	V	62.39	74	11.61	Peak
7235	36.37	11.24	V	47.61	54	6.39	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	102.45	-3.49	Horizontal	98.96	/	/	Peak
2437	100.18	-3.49	H	96.67	/	/	Average
4876	62.15	4.81	H	66.96	74	7.04	Peak
4876	46.03	4.81	H	50.84	54	3.16	Average
7231	52.17	11.56	H	63.73	74	10.27	Peak
7231	38.13	11.56	H	49.69	54	4.31	Average
2437	102.72	-3.49	Vertical	99.23	/	/	Peak
2437	99.99	-3.49	V	96.60	/	/	Average
4876	61.94	4.81	V	65.13	74	8.87	Peak
4876	46.14	4.81	V	50.95	54	2.05	Average
7231	51.10	11.56	V	62.66	74	11.34	Peak
7231	36.33	11.56	V	47.89	54	6.21	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	102.32	-3.13	Horizontal	99.19	/	/	Peak
2462	100.65	-3.13	H	97.52	/	/	Average
4824	62.70	5.15	H	67.85	74	6.15	Peak
4824	47.73	5.15	H	52.88	54	1.12	Average
7381	51.40	12.01	H	63.73	74	10.57	Peak
7381	37.63	12.01	H	49.64	54	4.36	Average
2462	101.42	-3.13	Vertical	97.29	/	/	Peak
2462	98.93	-3.13	V	95.80	/	/	Average
4824	62.67	5.15	V	67.82	74	6.18	Peak
4824	47.38	5.15	V	52.53	54	1.47	Average
7381	51.62	12.01	V	63.63	74	10.37	Peak
7381	36.98	12.01	V	48.99	54	5.01	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.

802.11n, traffic mode; Channel 1

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Antenna Polarity	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
2412	98.32	-3.54	Horizontal	94.78	/	/	Peak
2412	97.65	-3.54	H	94.11	/	/	Average
4826	62.70	4.76	H	67.46	74	6.54	Peak
4826	47.73	4.76	H	52.49	54	1.51	Average
7331	50.40	11.24	H	61.64	74	12.36	Peak
7331	37.60	11.24	H	48.84	54	5.16	Average
2412	98.42	-3.54	Vertical	94.88	/	/	Peak
2412	97.93	-3.54	V	94.39	/	/	Average
4826	62.44	4.76	V	67.20	74	6.80	Peak
4826	47.33	4.76	V	52.19	54	1.81	Average
7331	51.65	11.24	V	62.87	74	11.13	Peak
7331	36.91	11.24	V	48.15	54	5.85	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.

802.11n, traffic mode; Channel 6

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Antenna Polarity	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
2437	100.21	-3.49	Horizontal	96.72	/	/	Peak
2437	98.68	-3.49	H	95.19	/	/	Average
4876	63.02	4.81	H	67.83	74	6.17	Peak
4876	47.16	4.81	H	51.97	54	2.03	Average
7321	51.33	11.56	H	62.89	74	11.11	Peak
7321	36.72	11.56	H	48.28	54	5.72	Average
2437	99.46	-3.49	Vertical	95.97	/	/	Peak
2437	98.15	-3.49	V	94.66	/	/	Average
4876	60.98	4.81	V	65.79	74	8.21	Peak
4876	46.74	4.81	V	51.55	54	2.45	Average
7321	51.23	11.56	V	62.79	74	11.21	Peak
7321	35.95	11.56	V	47.51	54	6.49	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.

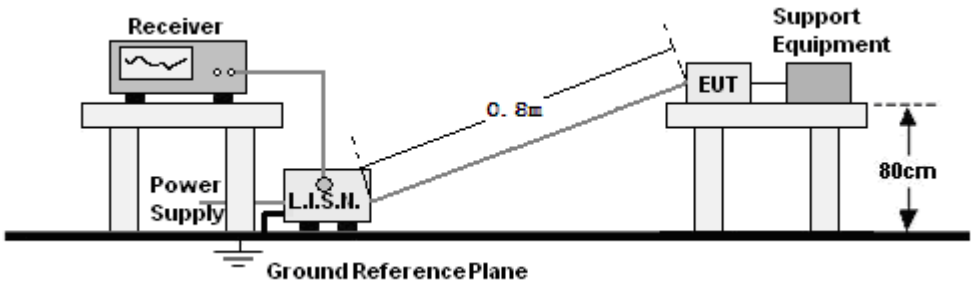
802.11n, traffic mode; Channel 11

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Antenna Polarity	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
2462	100.01	-3.13	Horizontal	96.88	/	/	Peak
2462	99.68	-3.13	H	96.55	/	/	Average
4874	63.22	5.15	H	68.37	74	5.63	Peak
4874	46.16	5.15	H	51.31	54	2.69	Average
7401	51.83	12.01	H	63.84	74	10.16	Peak
7401	35.72	12.01	H	47.73	54	6.27	Average
2462	99.48	-3.13	Vertical	96.35	/	/	Peak
2462	98.86	-3.13	V	95.73	/	/	Average
4874	60.18	5.15	V	65.33	74	8.67	Peak
4874	46.04	5.15	V	51.19	54	2.81	Average
7401	51.33	12.01	V	63.34	74	10.66	Peak
7401	35.85	12.01	V	47.86	54	6.14	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(μV)	
	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.

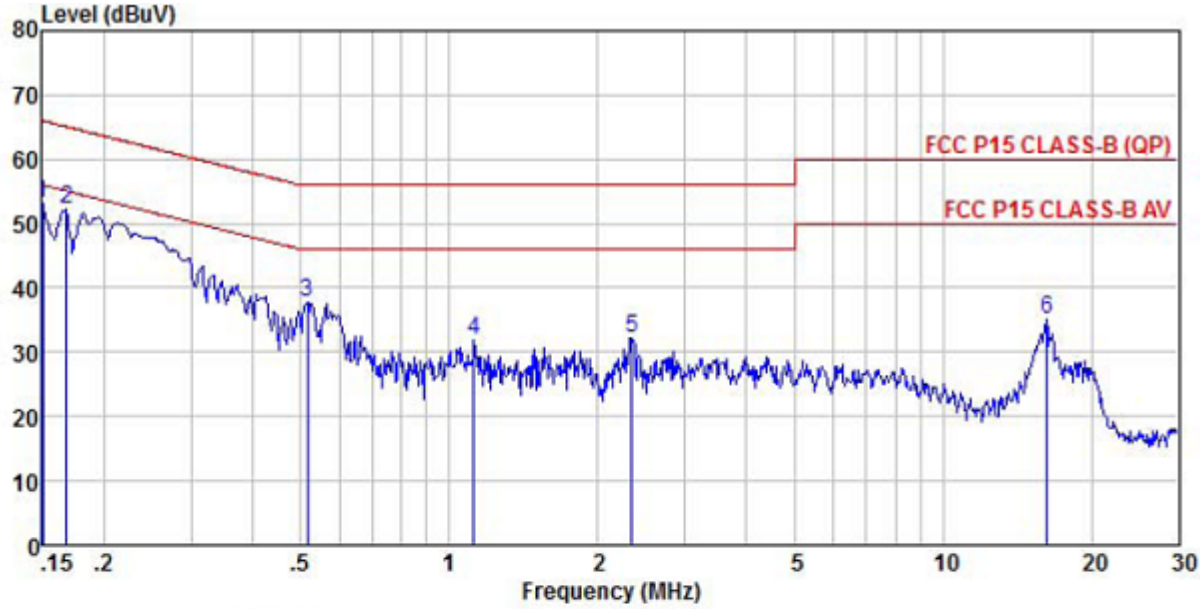
11.3 TEST PROCEDURE

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 qausi-peak detector are performed at the frequencies with maximized peak emission.
Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

11.4 RESULTS & PERFORMANCE

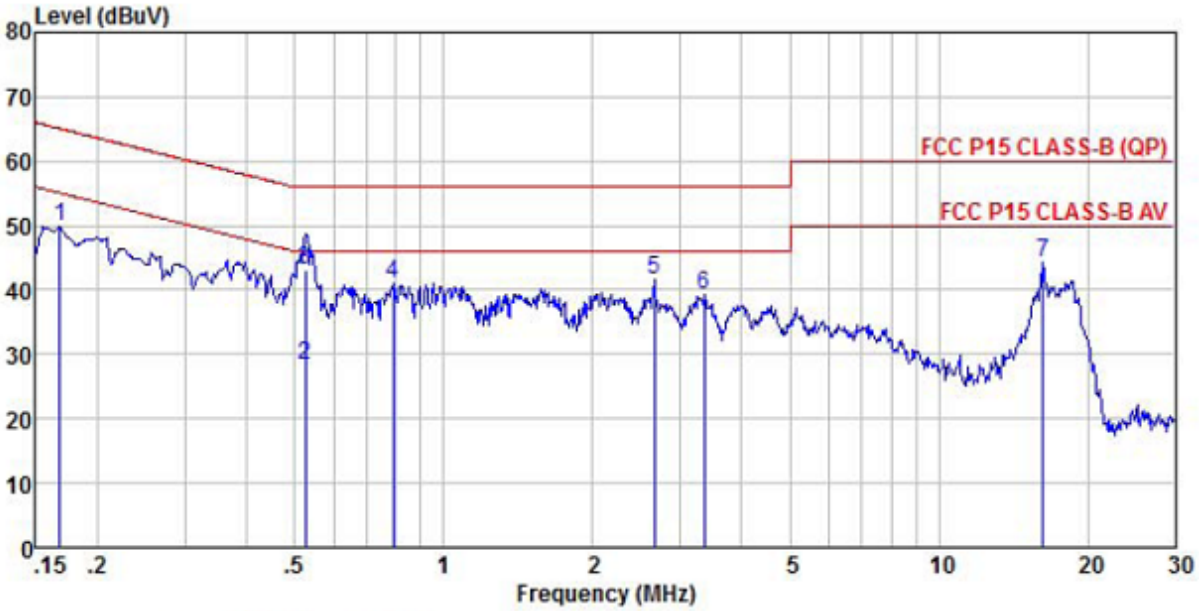
Only show the worst test data when EUT was operated on different mode.
EUT operation mode: 11b(Ch1/Ch6/Ch11); 11g(Ch1/Ch6/Ch11); 11n(Ch1/Ch6/Ch11).

802.11b



Site : shielded room 3
Condition : FCC P15 CLASS-B (QP) ENV216(L)-20120730 LINE
EUT :
Model Name :
Temp/Humi : 23 ℃ / 55%
Power Rating: AC 120V/60Hz
Mode : WIFI 11b
Memo :

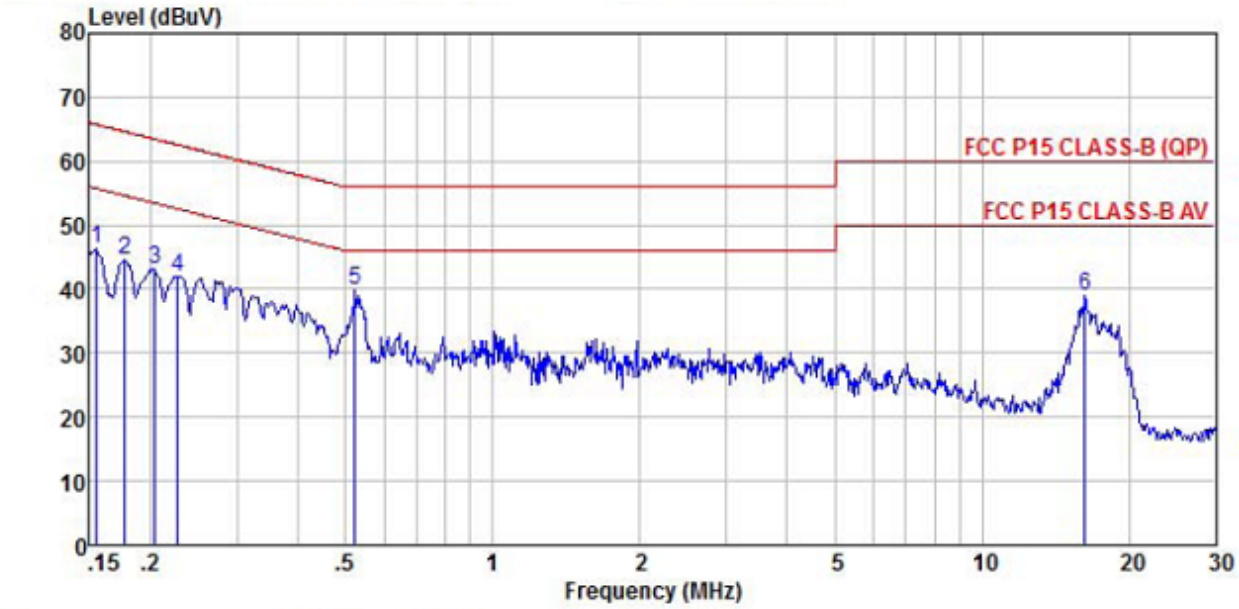
	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	0.15	42.55	10.36	0.09	0.00	53.00	66.00	-13.00	Peak
2 pp	0.17	41.79	10.49	0.09	0.00	52.37	65.08	-12.71	Peak
3	0.52	27.11	10.55	0.10	0.00	37.76	56.00	-18.24	Peak
4	1.12	21.25	10.52	0.14	0.00	31.91	56.00	-24.09	Peak
5	2.35	21.60	10.52	0.15	0.00	32.27	56.00	-23.73	Peak
6	16.23	24.53	10.52	0.11	0.00	35.16	60.00	-24.84	Peak



Site : shielded room 3
Condition : FCC P15 CLASS-B (QP) ENV216(N)-20120730 NEUTRAL
EUT :
Model Name :
Temp/Humi : 23 ℃ / 55%
Power Rating: AC 120V/60Hz
Mode : WIFI 11b
Memo :

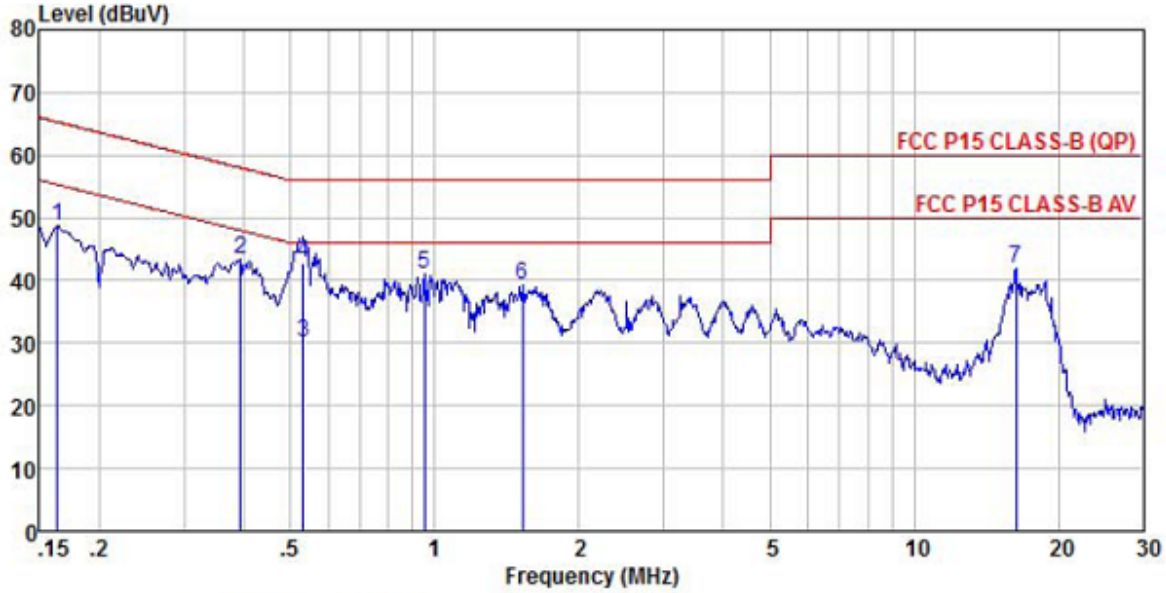
	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	0.17	39.44	10.27	0.09	0.00	49.80	65.08	-15.28	Peak
2 av	0.53	17.69	10.40	0.10	0.00	28.19	46.00	-17.81	Average
3 pp	0.53	32.72	10.40	0.10	0.00	43.22	56.00	-12.78	QP
4	0.79	30.71	10.31	0.13	0.00	41.15	56.00	-14.85	Peak
5 pk	2.66	31.28	10.32	0.15	0.00	41.75	56.00	-14.25	Peak
6	3.36	28.69	10.32	0.15	0.00	39.16	56.00	-16.84	Peak
7	16.23	33.62	10.52	0.11	0.00	44.25	60.00	-15.75	Peak

802.11g



Site : shielded room 3
Condition : FCC P15 CLASS-B (QP) ENV216(L)-20120730 LINE
EUT :
Model Name :
Temp/Humi : 23 ℃ / 55%
Power Rating: AC 120V/60Hz
Mode : WIFI 11g
Memo :

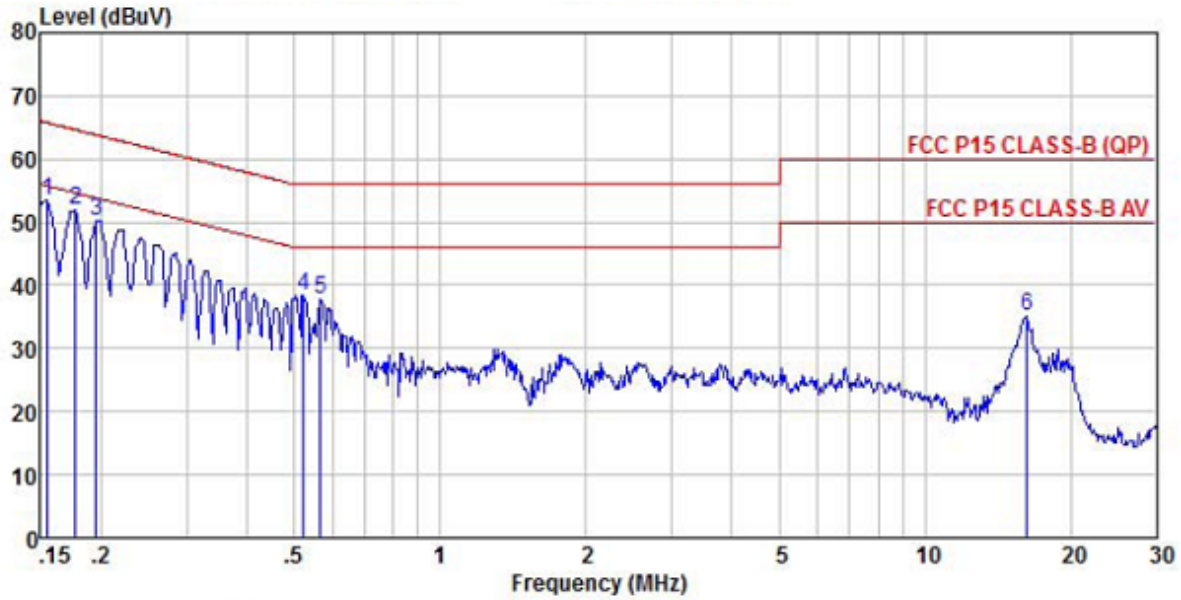
	Freq	ReadLevel	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	0.15	35.75	10.38	0.09	0.00	46.22	65.74	-19.52	Peak
2	0.18	33.81	10.53	0.23	0.00	44.57	64.64	-20.07	Peak
3	0.20	32.37	10.42	0.22	0.00	43.01	63.45	-20.44	Peak
4	0.23	31.39	10.44	0.22	0.00	42.05	62.57	-20.52	Peak
5 pp	0.52	29.07	10.54	0.10	0.00	39.71	56.00	-16.29	Peak
6	16.23	28.28	10.52	0.11	0.00	38.91	60.00	-21.09	Peak



Site : shielded room 3
Condition : FCC P15 CLASS-B (QP) ENV216(N)-20120730 NEUTRAL
EUT :
Model Name :
Temp/Humi : 23 ℃ / 55%
Power Rating: AC 120V/60Hz
Mode : WIFI 11g
Memo :

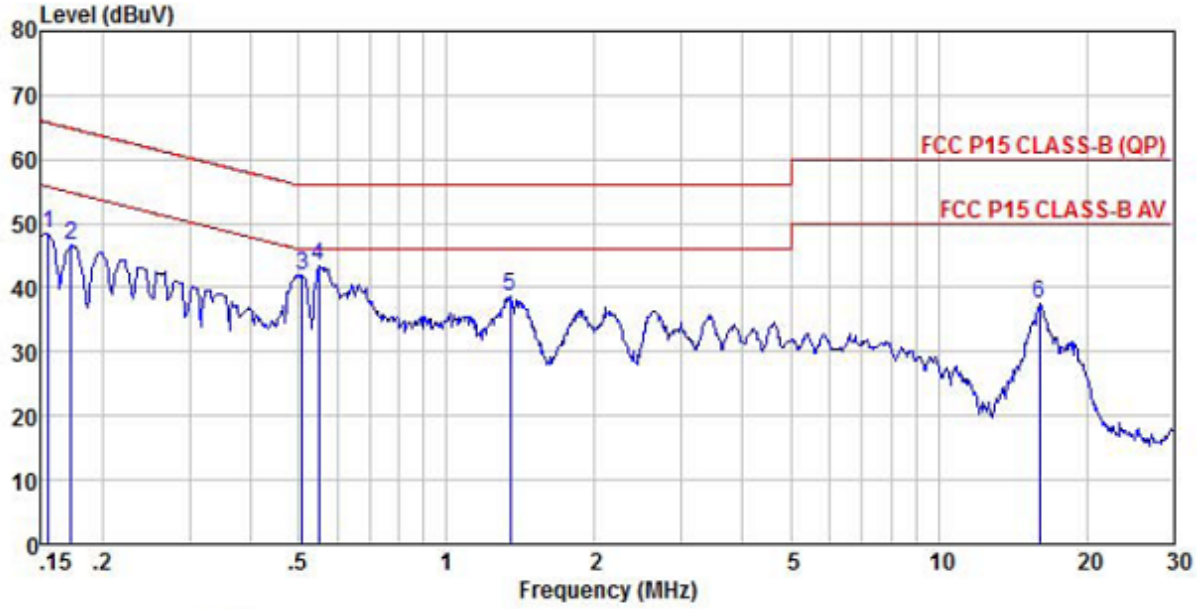
	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	0.16	38.41	10.28	0.09	0.00	48.78	65.30	-16.52	Peak
2 pk	0.39	32.79	10.42	0.14	0.00	43.35	57.99	-14.64	Peak
3 av	0.53	19.65	10.40	0.10	0.00	30.15	46.00	-15.85	Average
4 pp	0.53	32.22	10.40	0.10	0.00	42.72	56.00	-13.28	QP
5	0.95	30.61	10.31	0.14	0.00	41.06	56.00	-14.94	Peak
6	1.53	28.94	10.31	0.15	0.00	39.40	56.00	-16.60	Peak
7	16.31	31.25	10.51	0.11	0.00	41.87	60.00	-18.13	Peak

802.11n



Site : chamber
Condition : FCC P15 CLASS-B (QP) ENV216(L)-20120730 LINE
EUT :
Model Name :
Temp/Humi : 23 ℃ / 55%
Power Rating: AC 120V/60Hz
Mode : WIFI 11n
Memo :

	Freq	Read 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	0.15	43.00	10.38	0.09	0.00	53.47	65.74	-12.27	Peak
2	0.18	41.10	10.53	0.23	0.00	51.86	64.64	-12.78	Peak
3	0.20	39.60	10.44	0.23	0.00	50.27	63.80	-13.53	Peak
4	0.52	27.87	10.54	0.10	0.00	38.51	56.00	-17.49	Peak
5	0.57	27.06	10.50	0.11	0.00	37.67	56.00	-18.33	Peak
6	16.23	24.62	10.52	0.11	0.00	35.25	60.00	-24.75	Peak



Site : chamber
Condition : FCC P15 CLASS-B (QP) ENV216(N)-20120730 NEUTRAL
EUT :
Model Name :
Temp/Humi : 23 ℃ / 55%
Power Rating: AC 120V/60Hz
Mode : WIFI 11n
Memo :

	Freq	Read 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	0.15	38.04	10.29	0.09	0.00	48.42	65.74	-17.32	Peak
2	0.17	36.21	10.26	0.09	0.00	46.56	64.86	-18.30	Peak
3	0.51	31.56	10.41	0.10	0.00	42.07	56.00	-13.93	Peak
4 pp	0.55	32.88	10.39	0.11	0.00	43.38	56.00	-12.62	Peak
5	1.34	28.31	10.31	0.14	0.00	38.76	56.00	-17.24	Peak
6	16.05	26.91	10.53	0.11	0.00	37.55	60.00	-22.45	Peak

APPENDIX 1 PHOTOGRAPHS OF TEST SETUP

Please refer to the file named “N72 WXYZ_Part22&24 15C Setup Photos”.

APPENDIX 2 PHOTOGRAPHS OF EUT

Please refer to the files named “N72 WXYZ _EUT External Photos” and “N72 WXYZ _EUT Internal Photos”.

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