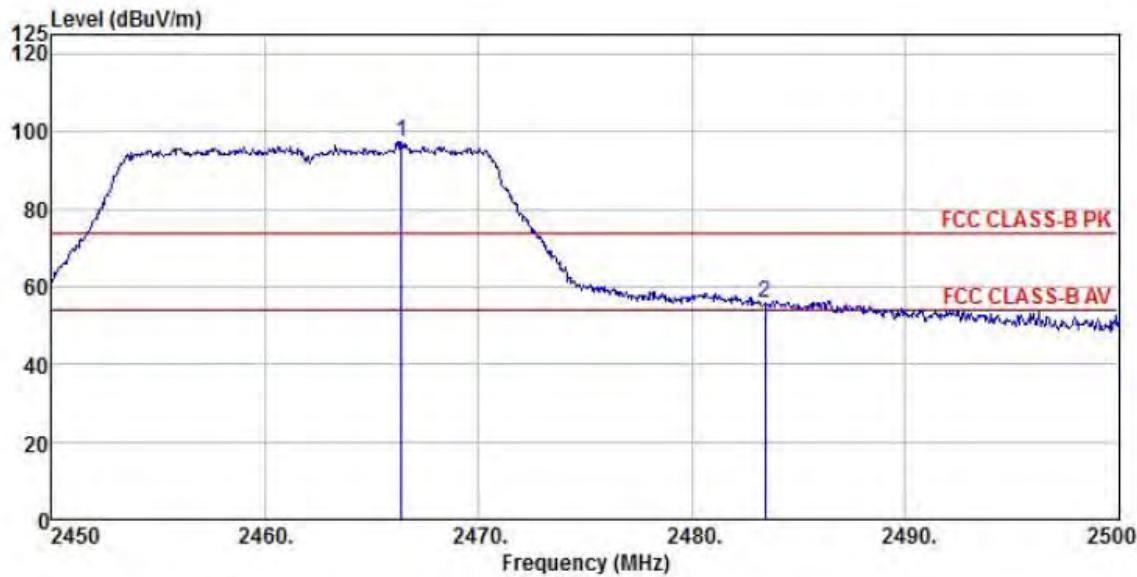


## 802.11n(20M)-Ch11

**Detector mode: Peak**

**Polarity: Horizontal**

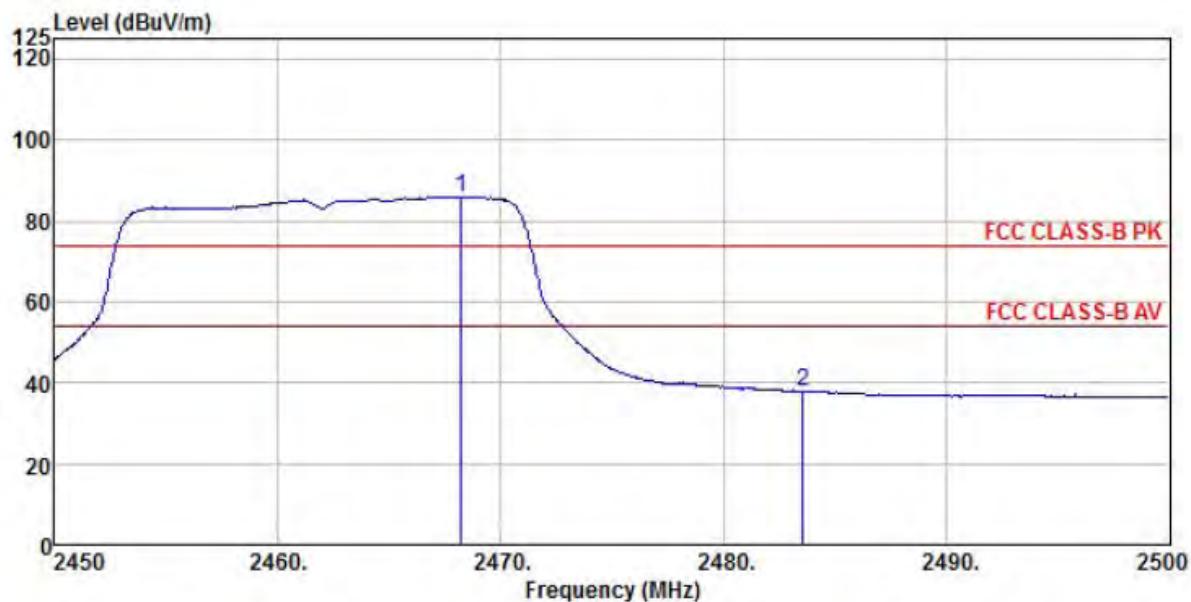


Site : chamber  
Condition : FCC CLASS-B PK 3m BBHA9120D(943) HORIZONTAL  
EUT :  
Model Name :  
Temp/Humi : 22 °C / 53 %  
Power Rating: DC 7.4V  
Mode : 11n 20M ch11  
Memo :

Freq	ReadAntenna		Cable Preamp		Limit	Over	Limit	Remark
	Level	Factor	Loss	Factor				
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1 pp	2466.40	100.82	27.49	7.39	38.32	97.38	74.00	23.38 Peak
2	2483.45	59.02	27.52	7.41	38.31	55.64	74.00	-18.36 Peak

**Detector mode: Average**

**Polarity: Horizontal**



Site : chamber

Condition : FCC CLASS-B PK 3m BBHA9120D(943) HORIZONTAL

EUT :

Model Name :

Temp/Humi : 22 °C / 53 %

Power Rating: DC 7.4V

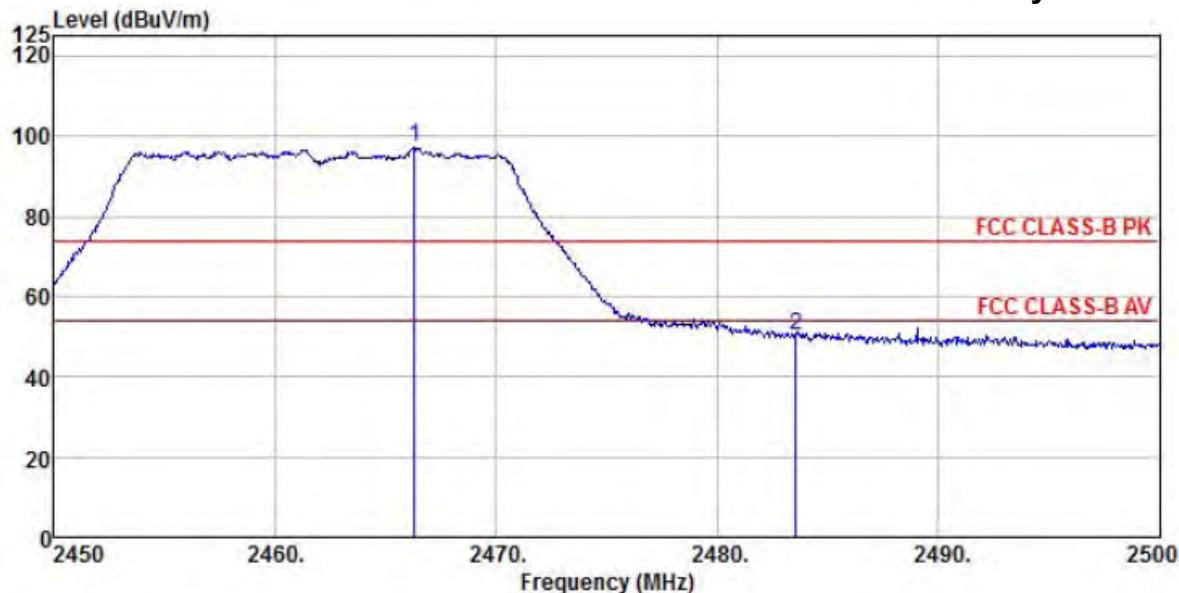
Mode : 11n 20M ch11

Memo :

Freq	ReadAntenna		Cable Preamp		Limit	Over	Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
1 pp	2468.25	89.22	27.49	7.39	38.32	85.78	54.00	31.78 Average
2	2483.55	41.23	27.52	7.41	38.31	37.85	54.00	-16.15 Average

**Detector mode: Peak**

**Polarity: Vertical**



Site : chamber

Condition : FCC CLASS-B PK 3m BBHA9120D(943) VERTICAL

EUT :

Model Name :

Temp/Humi : 22 °C / 53 %

Power Rating: DC 7.4V

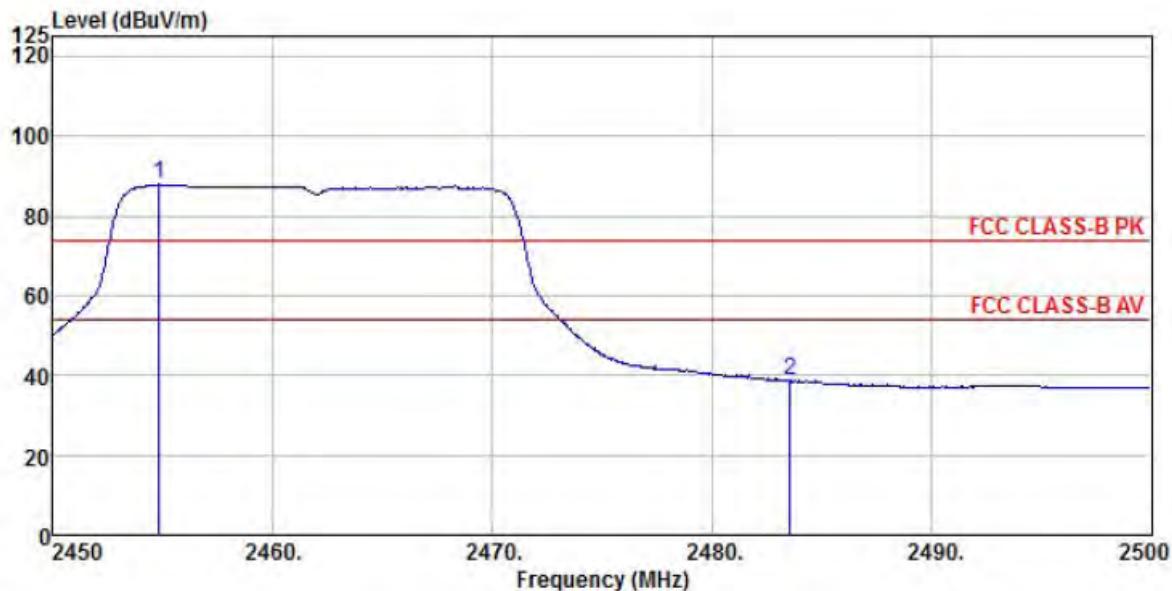
Mode : 11n 20M ch11

Memo :

Freq	ReadAntenna		Cable		Preamp		Limit	Over	Remark
	Level	Factor	Loss	Factor	Level	Line			
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1 pp	2466.30	100.56	27.49	7.39	38.32	97.12	74.00	23.12	Peak
2	2483.55	53.79	27.52	7.41	38.31	50.41	74.00	-23.59	Peak

**Detector mode: Average**

**Polarity: Vertical**



Site : chamber

Condition : FCC CLASS-B PK 3m BBHA9120D(943) VERTICAL

EUT :

Model Name :

Temp/Humi : 22 °C / 53 %

Power Rating: DC 7.4V

Mode : 11n 20M ch11

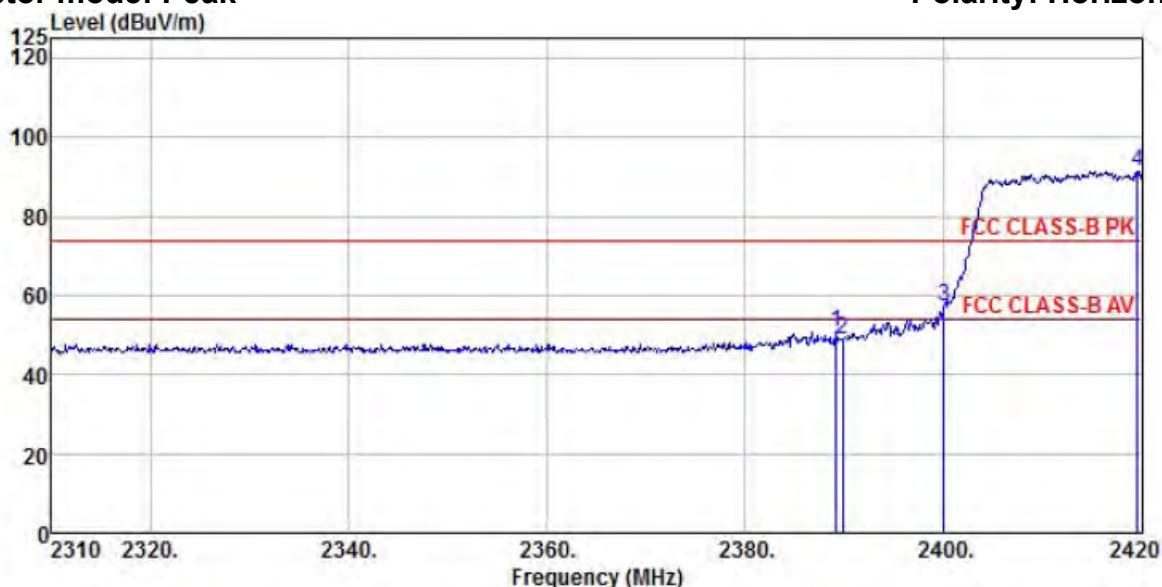
Memo :

Freq	ReadAntenna		Cable		Preamp		Limit	Over	Limit	Remark
	MHz	dBuV	Level	Factor	Loss	Factor				
1 pp	2454.85	91.58	27.46	7.39	38.32	88.11	54.00	34.11	Average	
2	2483.55	41.91	27.52	7.41	38.31	38.53	54.00	-15.47	Average	

### 802.11n(40M)-Ch3

Detector mode: Peak

Polarity: Horizontal

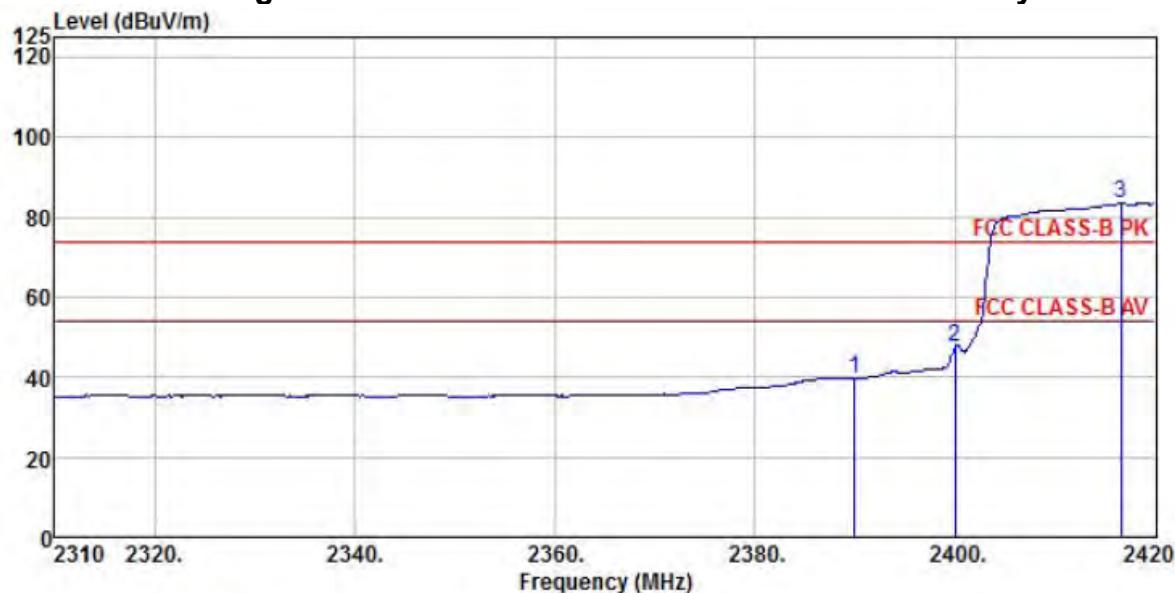


Site : chamber  
Condition : FCC CLASS-B PK 3m BBHA9120D(943) HORIZONTAL  
EUT :  
Model Name :  
Temp/Humi : 22 °C / 53 %  
Power Rating: DC 7.4V  
Mode : 11n 40M ch3  
Memo :

Freq	ReadAntenna		Cable Preamp		Limit	Over	Remark
	Level	Factor	Loss	Factor			
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
1	2389.20	54.47	27.58	7.13	38.34	50.84	74.00 -23.16 Peak
2	2389.86	52.70	27.58	7.13	38.34	49.07	74.00 -24.93 Peak
3	2400.09	60.94	27.58	7.13	38.34	57.31	74.00 -16.69 Peak
4 pp	2419.56	94.85	27.50	7.29	38.33	91.31	74.00 17.31 Peak

**Detector mode: Average**

**Polarity: Horizontal**

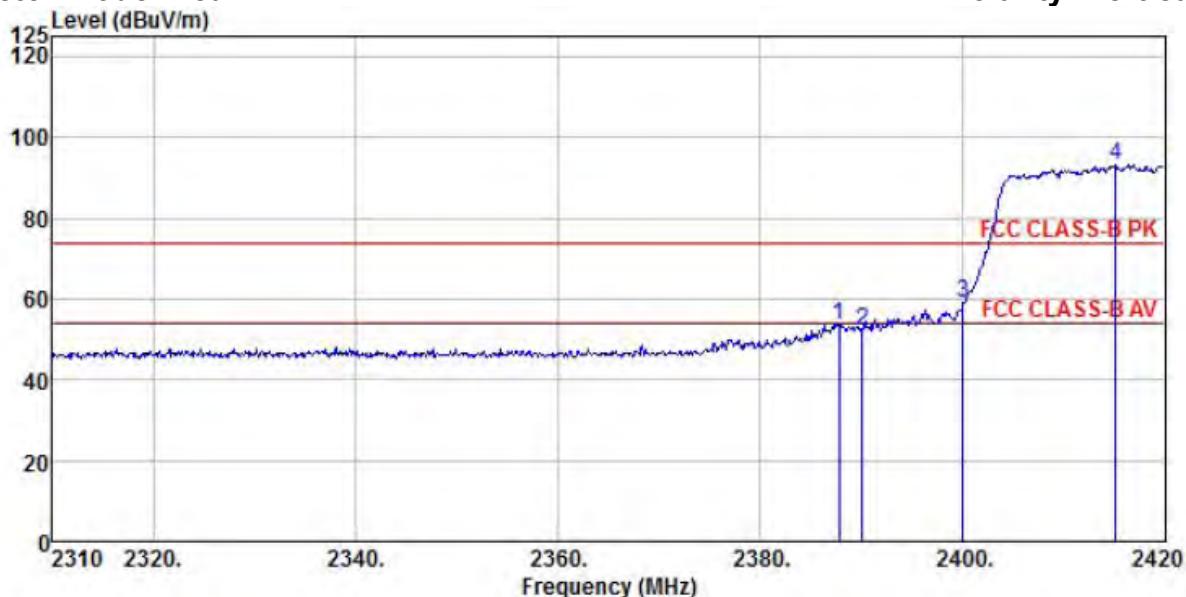


Site : chamber  
Condition : FCC CLASS-B PK 3m BBHA9120D(943) HORIZONTAL  
EUT :  
Model Name :  
Temp/Humi : 22 °C / 53 %  
Power Rating: DC 7.4V  
Mode : 11n 40M ch3  
Memo :

Freq	ReadAntenna		Cable Preamp		Limit	Over	Remark
	Level	Factor	Loss	Factor			
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
1	2389.97	43.28	27.58	7.13	38.34	39.65	54.00 -14.35 Average
2	2399.98	51.28	27.58	7.13	38.34	47.65	54.00 -6.35 Average
3 pp	2416.59	87.00	27.54	7.21	38.34	83.41	54.00 29.41 Average

**Detector mode: Peak**

**Polarity: Vertical**



Site : chamber

Condition : FCC CLASS-B PK 3m BBHA9120D(943) VERTICAL

EUT :

Model Name :

Temp/Humi : 22 °C / 53 %

Power Rating: DC 7.4V

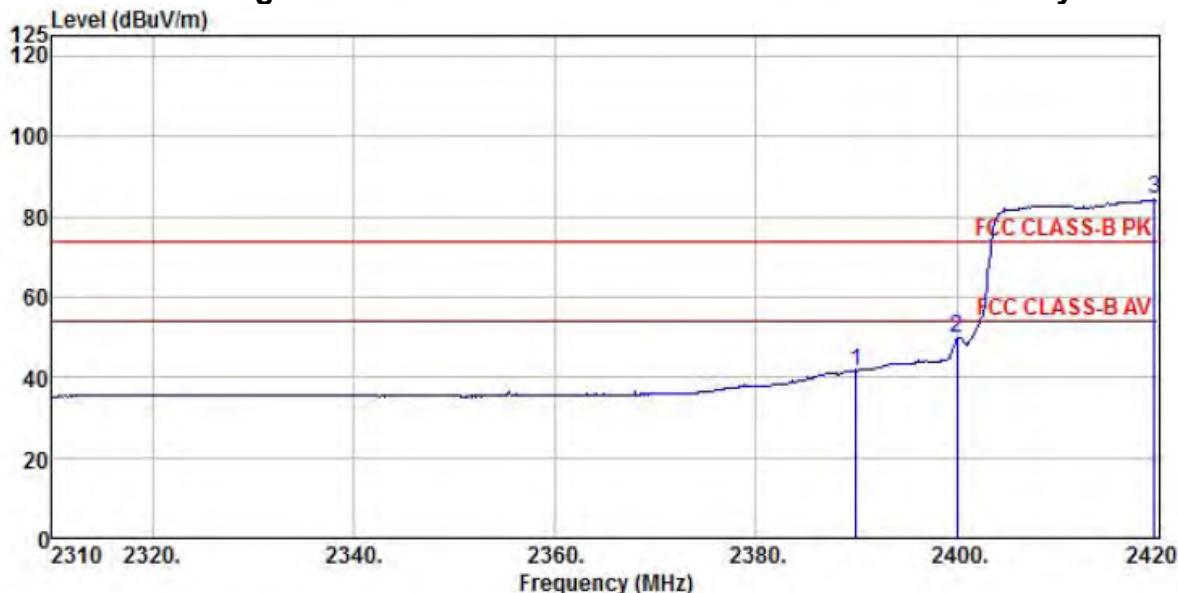
Mode : 11n 40M ch3

Memo :

Freq	ReadAntenna		Cable		Preamp	Limit	Over	Limit	Remark
	Level	Factor	Loss	Factor					
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	dB	
1	2387.77	57.20	27.58	7.13	38.34	53.57	74.00	-20.43	Peak
2	2390.08	55.59	27.58	7.13	38.34	51.96	74.00	-22.04	Peak
3	2400.09	62.67	27.58	7.13	38.34	59.04	74.00	-14.96	Peak
4 pp	2415.16	96.92	27.54	7.21	38.34	93.33	74.00	19.33	Peak

**Detector mode: Average**

**Polarity: Vertical**



Site : chamber

Condition : FCC CLASS-B PK 3m BBHA9120D(943) VERTICAL

EUT :

Model Name :

Temp/Humi : 22 °C / 53 %

Power Rating: DC 7.4V

Mode : 11n 40M ch3

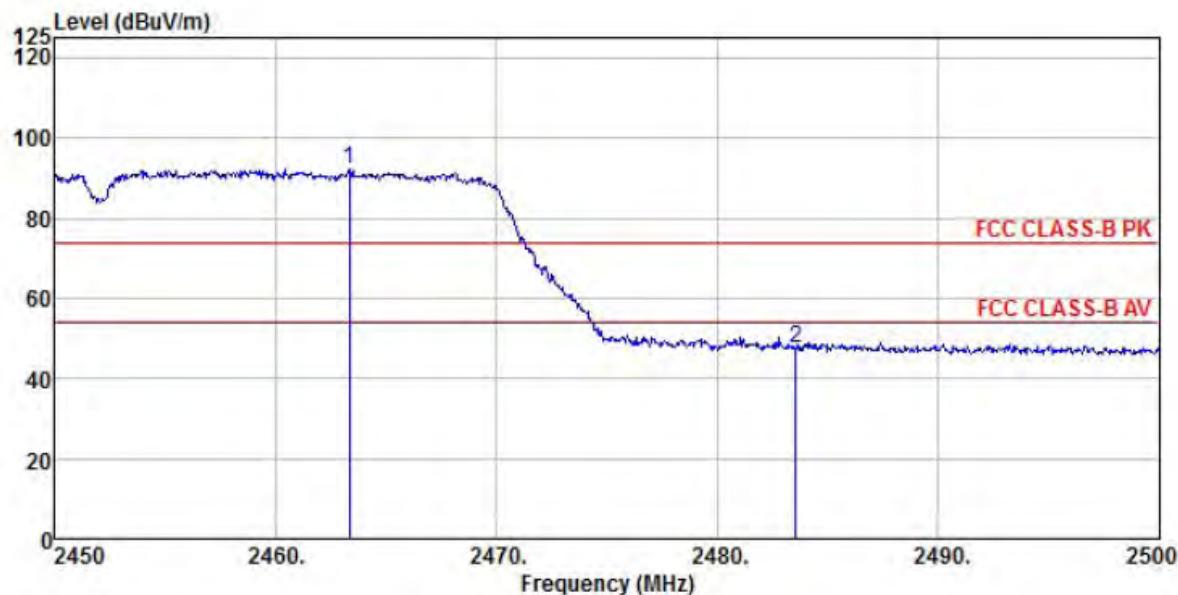
Memo :

Freq	ReadAntenna		Cable Preamp		Limit	Over	Limit	Remark
	Level	Factor	Loss	Factor				
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
1	2389.97	45.28	27.58	7.13	38.34	41.65	54.00	-12.35 Average
2	2399.98	53.32	27.58	7.13	38.34	49.69	54.00	-4.31 Average
3 pp	2419.56	87.90	27.50	7.29	38.33	84.36	54.00	30.36 Average

## 802.11n(40M)-Ch9

Detector mode: Peak

Polarity: Horizontal



Site : chamber

Condition : FCC CLASS-B PK 3m BBHA9120D(943) HORIZONTAL

EUT :

Model Name :

Temp/Humi : 22 °C / 53 %

Power Rating: DC 7.4V

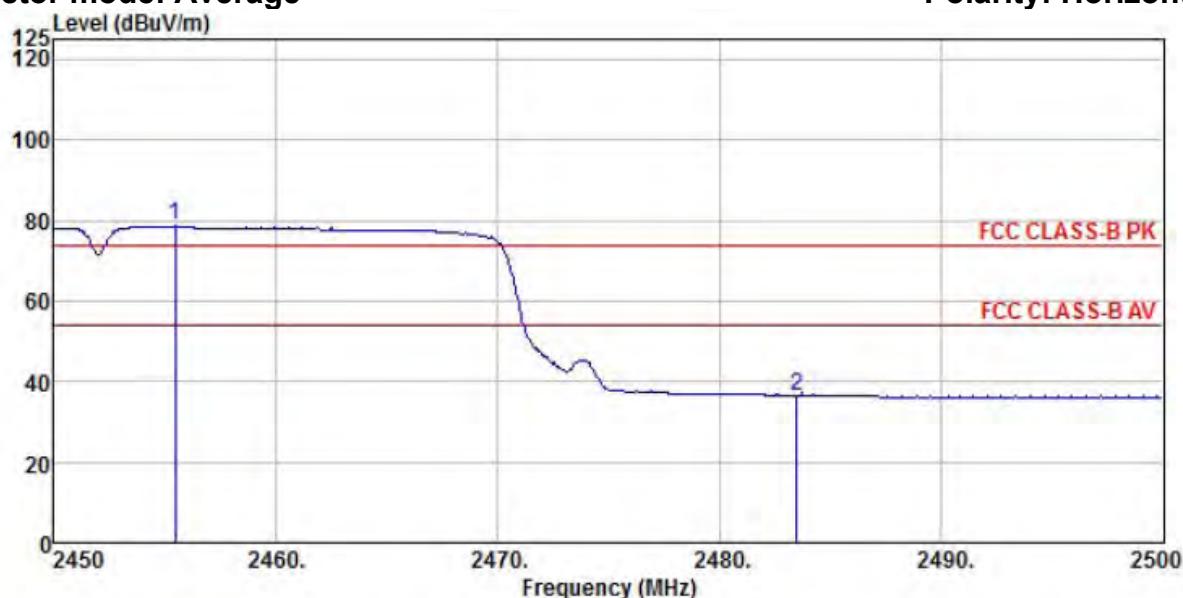
Mode : 11n 40M ch9

Memo :

Freq	ReadAntenna		Cable Preamp		Limit	Over	Limit	Remark
	Level	Factor	Loss	Factor				
1 pp	2463.35	95.58	27.49	7.39	38.32	92.14	74.00	18.14 Peak
2	2483.55	50.81	27.52	7.41	38.31	47.43	74.00	-26.57 Peak

**Detector mode: Average**

**Polarity: Horizontal**



Site : chamber

Condition : FCC CLASS-B PK 3m BBHA9120D(943) HORIZONTAL

EUT :

Model Name :

Temp/Humi : 22 °C / 53 %

Power Rating: DC 7.4V

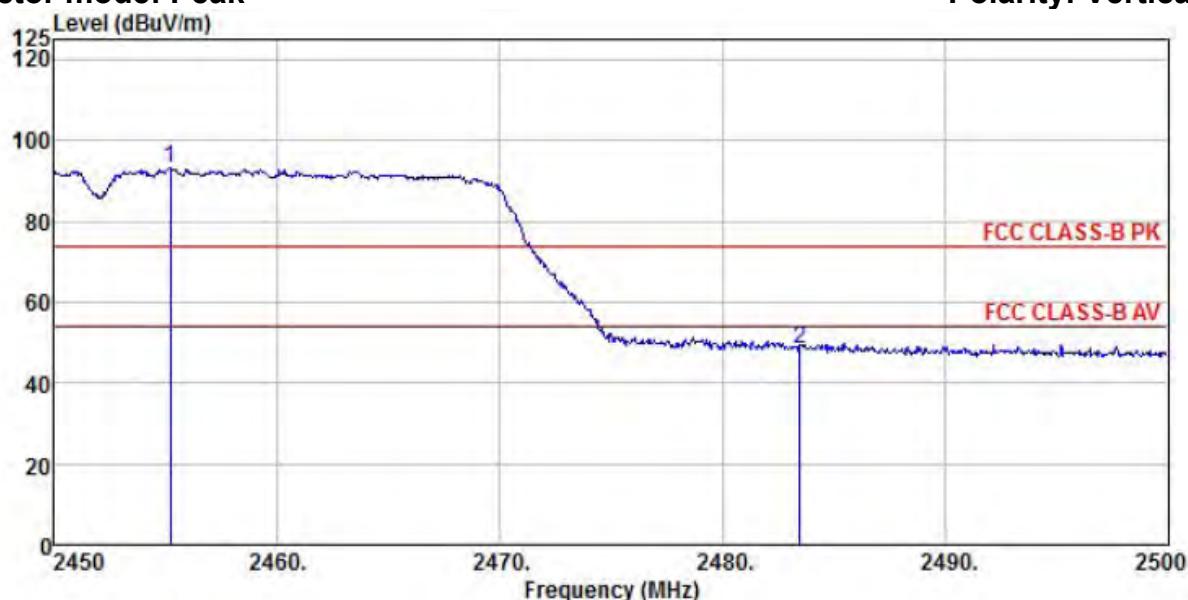
Mode : 11n 40M ch9

Memo :

Freq	ReadAntenna		Cable Preamp		Limit	Over	Limit	Remark
	Level	Factor	Loss	Factor				
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1 pp	2455.45	82.45	27.49	7.39	38.32	79.01	54.00	25.01 Average
2	2483.50	39.85	27.52	7.41	38.31	36.47	54.00	-17.53 Average

**Detector mode: Peak**

**Polarity: Vertical**



Site : chamber

Condition : FCC CLASS-B PK 3m BBHA9120D(943) VERTICAL

EUT :

Model Name :

Temp/Humi : 22 °C / 53 %

Power Rating: DC 7.4V

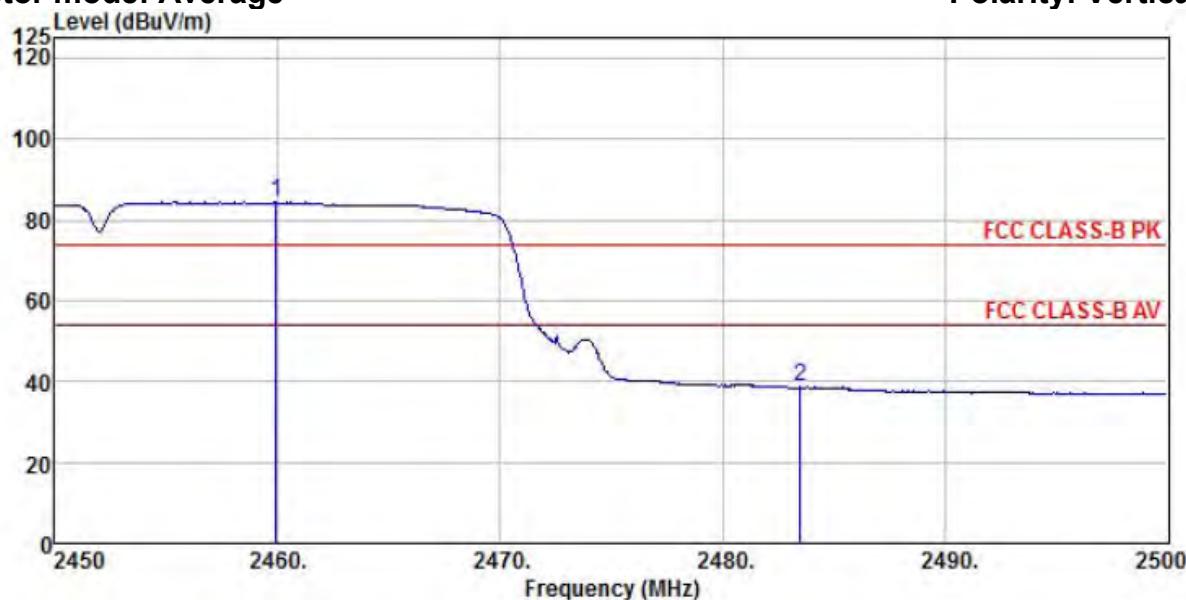
Mode : 11n 40M ch9

Memo :

Freq	ReadAntenna		Cable		Preamp Loss Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB					
1 pp	2455.20	96.49	27.49	7.39	38.32	93.05	74.00	19.05	Peak
2	2483.50	52.03	27.52	7.41	38.31	48.65	74.00	-25.35	Peak

**Detector mode: Average**

**Polarity: Vertical**



Site : chamber

Condition : FCC CLASS-B PK 3m BBHA9120D(943) VERTICAL

EUT :

Model Name :

Temp/Humi : 22 °C / 53 %

Power Rating: DC 7.4V

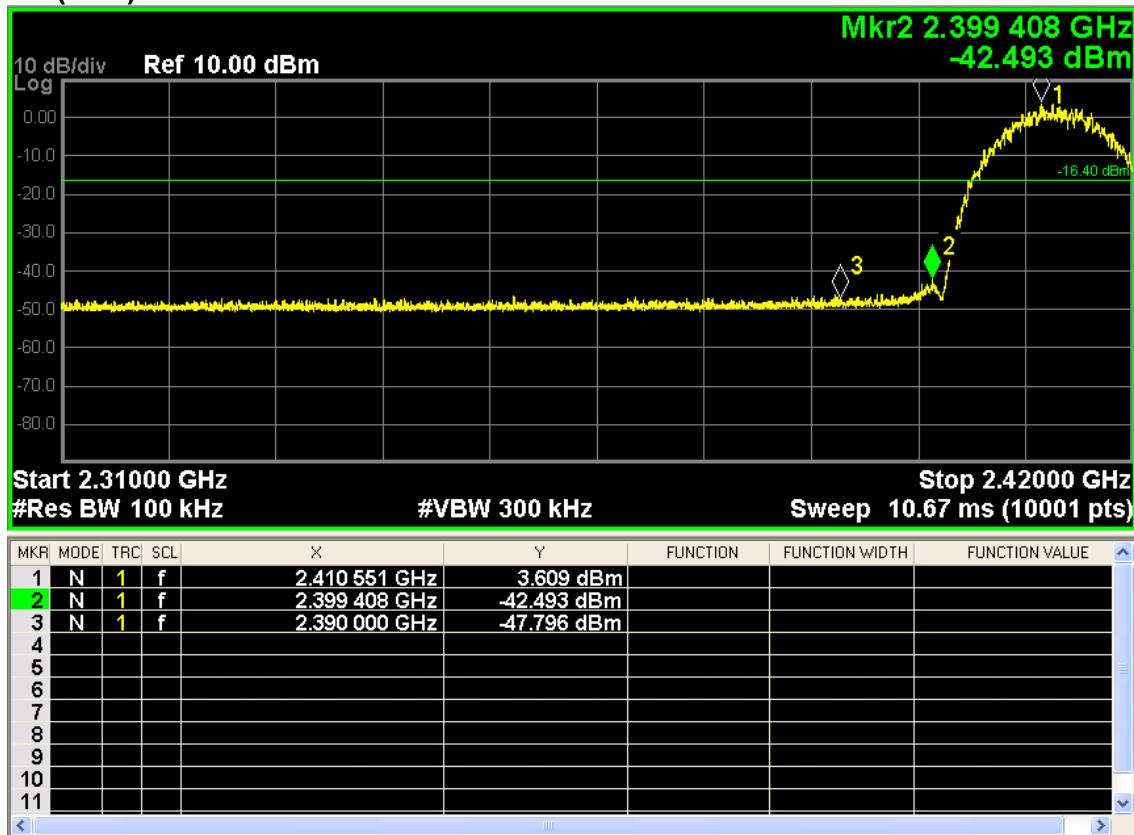
Mode : 11n 40M ch9

Memo :

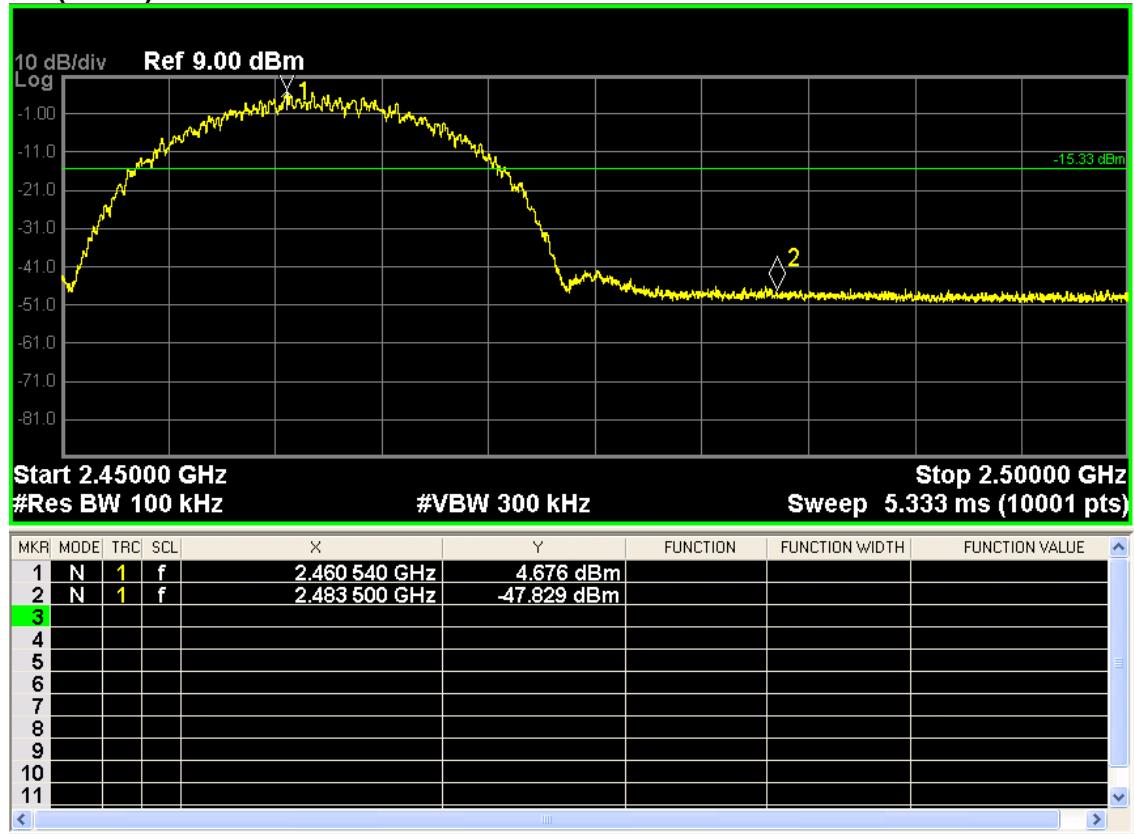
Freq	ReadAntenna		Cable		Preamp	Limit	Over	Line	Limit	Remark
	Level	Factor	Loss	Factor						
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1 pp	2459.95	87.83	27.49	7.39	38.32	84.39	54.00	30.39	Average	
2	2483.50	42.02	27.52	7.41	38.31	38.64	54.00	-15.36	Average	

## Conducted Band Edge

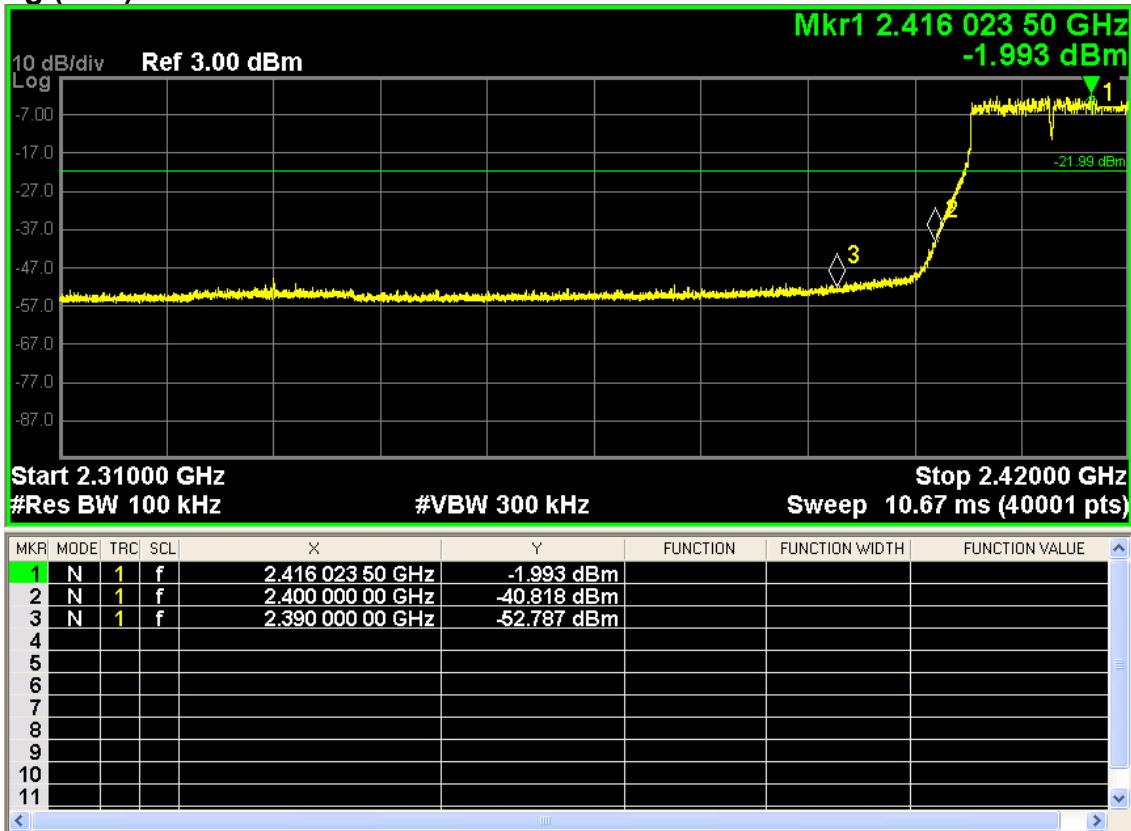
## 802.11b (Ch1)



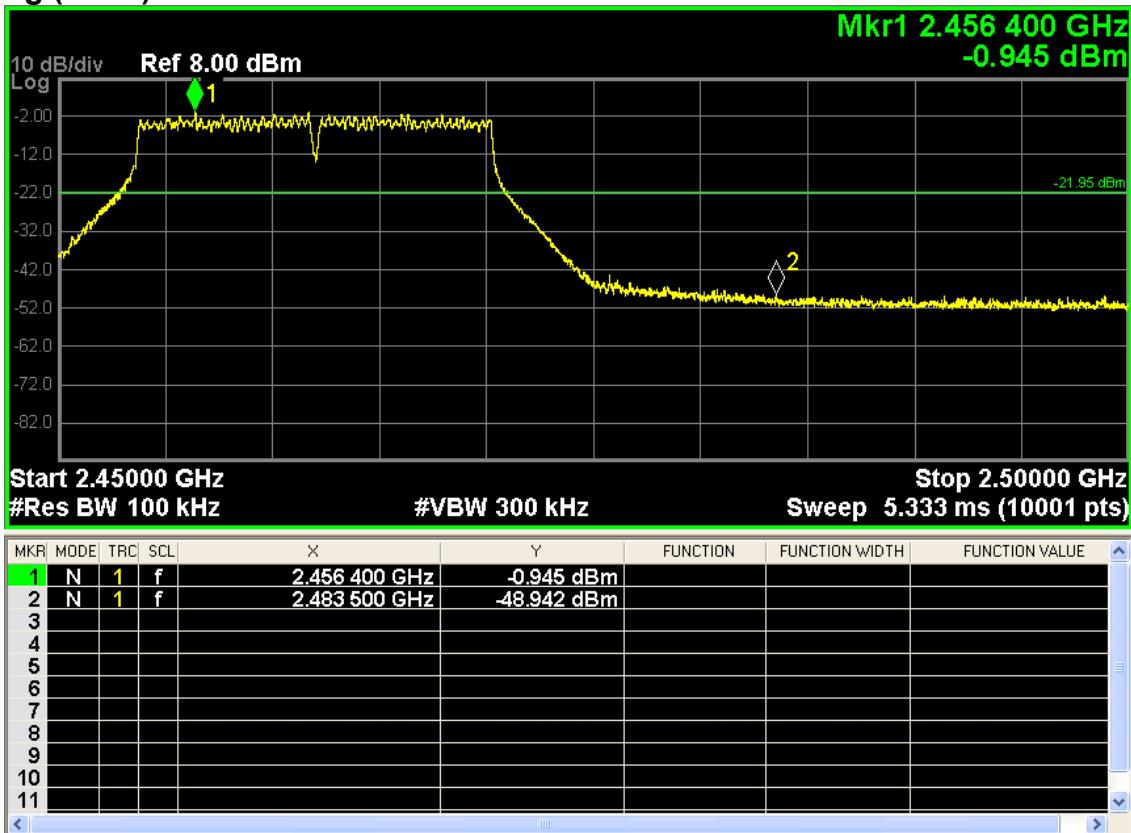
## **802.11b (Ch11)**



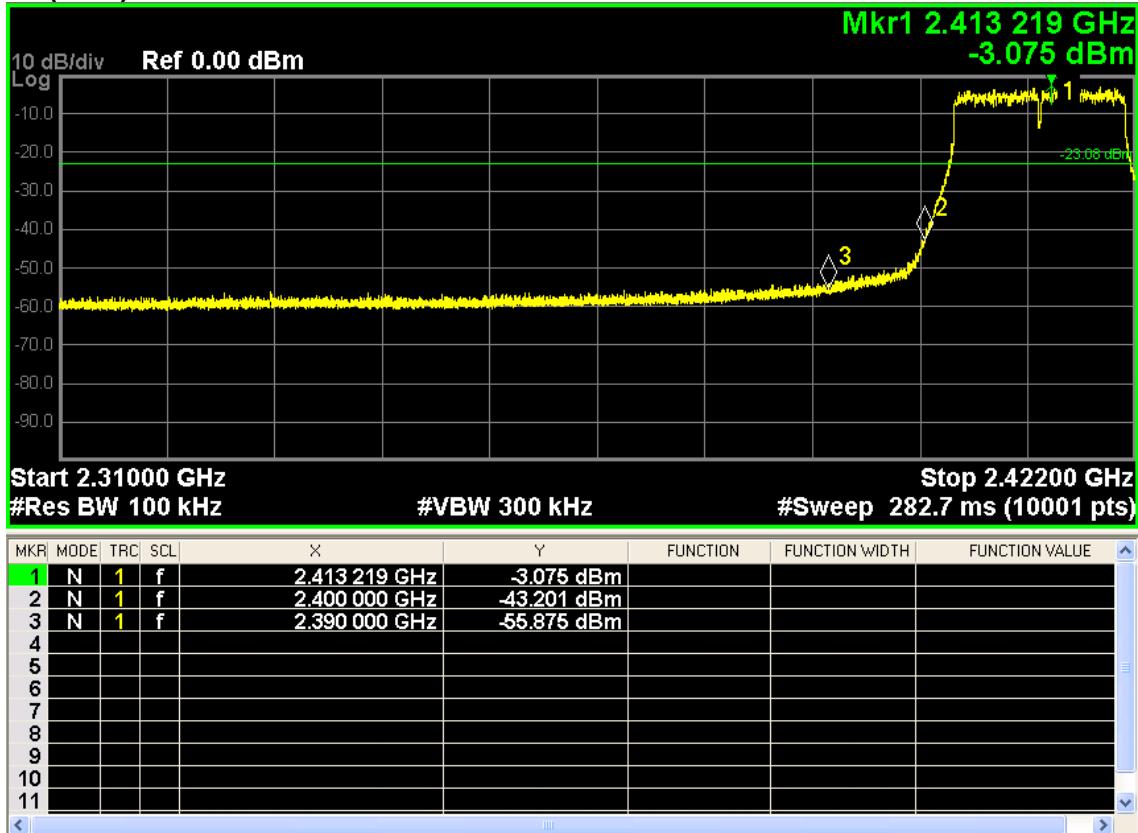
## 802.11g (Ch1)



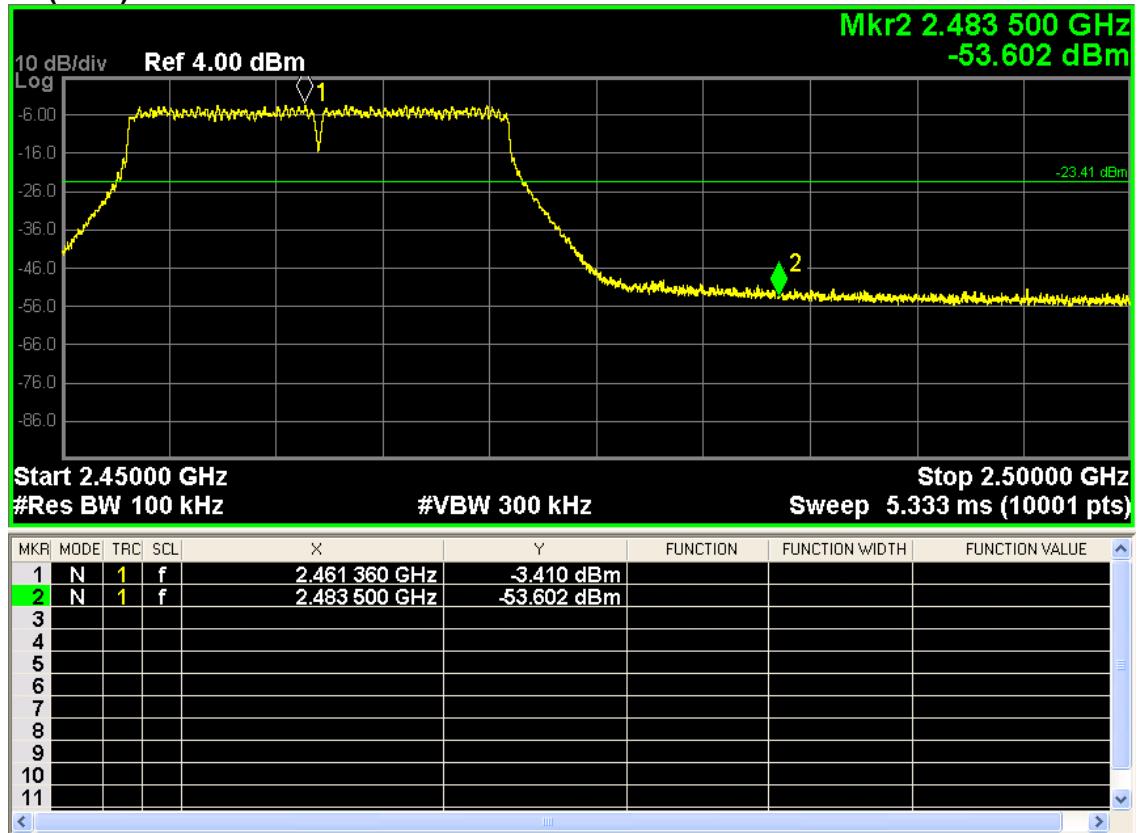
## 802.11g (Ch11)



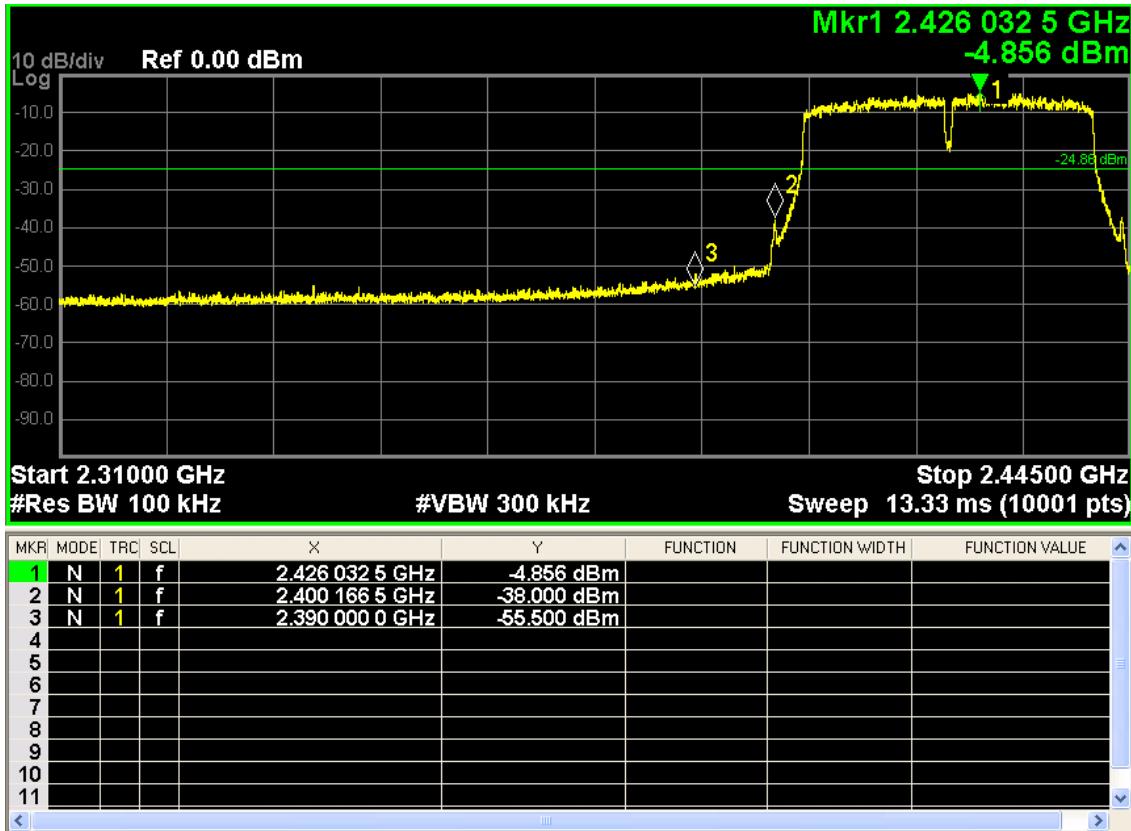
## 802.11n(20M)-Ch1



## 802.11n(20M)-Ch11



## 802.11n(40M)-Ch3



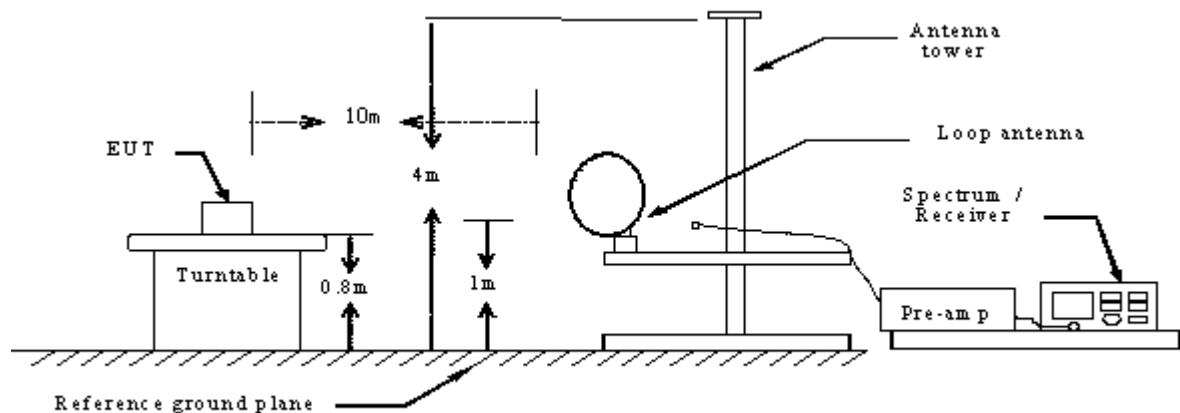
802.11n(40M)-Ch9



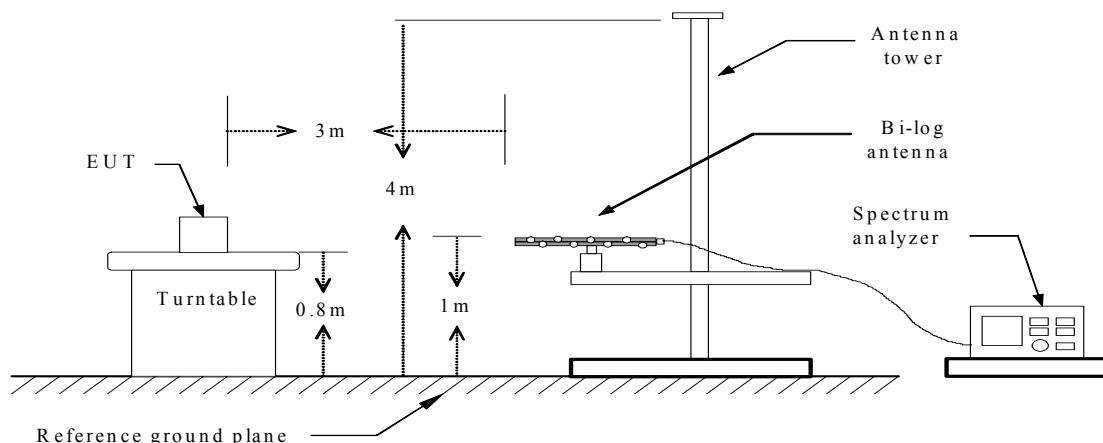
## 10. SPURIOUS EMISSIONS (RADIATION)

### 10.1 TEST SETUP

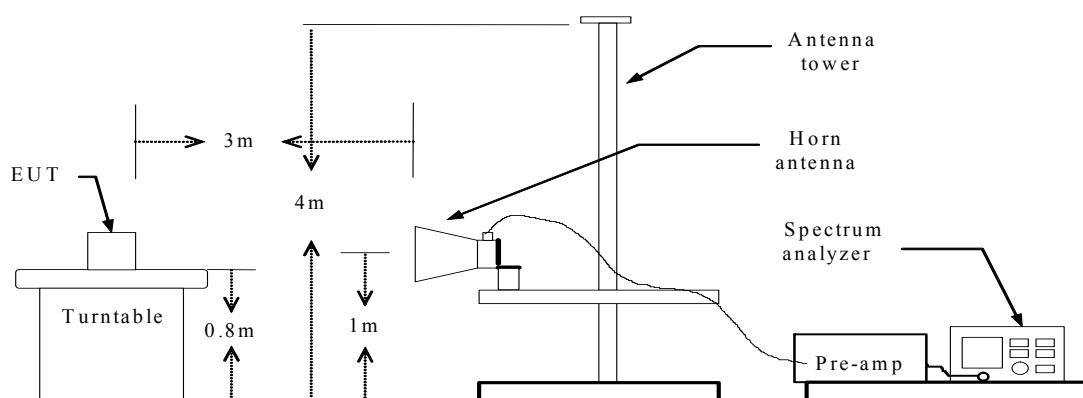
Radiated Spurious Measurement: below 30MHz



Radiated Spurious Measurement: below 1GHz



Radiated Spurious Measurement: above 1GHz



## 10.2 LIMITS

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

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:

$L1 = 2400/9 \text{ (}\mu\text{V/m)}$ ,  $d1 = 300 \text{ (m)}$ ,  $d2 = 3 \text{ (m)}$ , 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 10<sup>th</sup> 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.

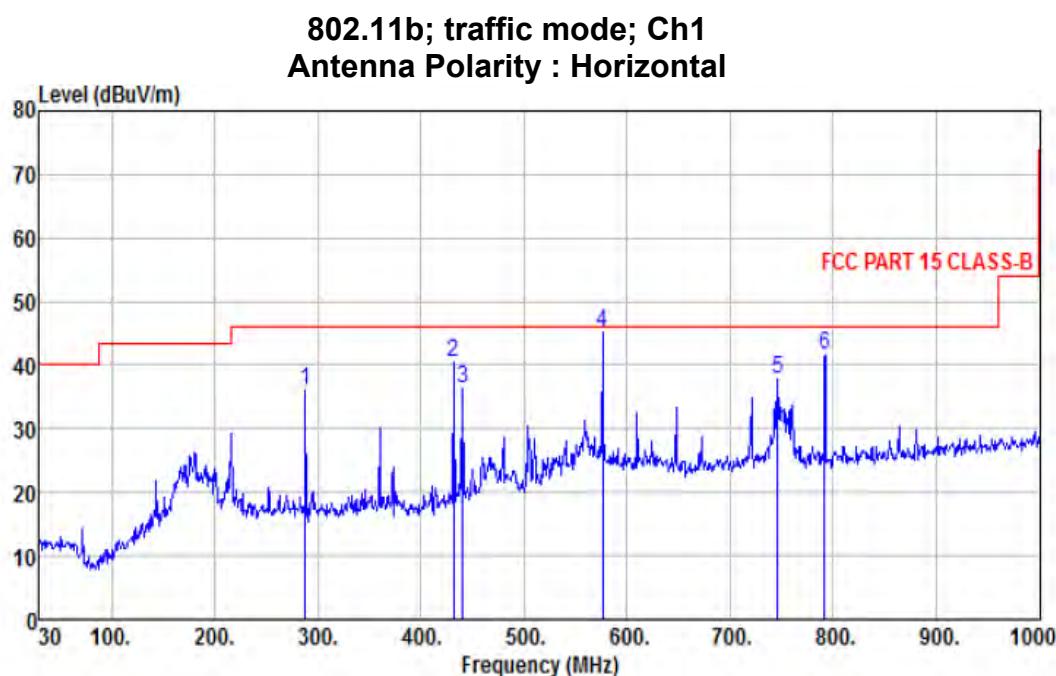
## 10.4 RESULTS & PERFORMANCE

### From 9KHz to 30MHz:

The test data was 20dB lower than the permissible limit was not recorded in the report.

### From 30MHz to 1GHz:

#### 802.11b



Site : chamber

Condition : FCC PART 15 CLASS-B 3m VULB9160 HORIZONTAL

EUT :

Model Name :

Temp/Humi : 21 °C /53%

Power Rating: DC 7.4V

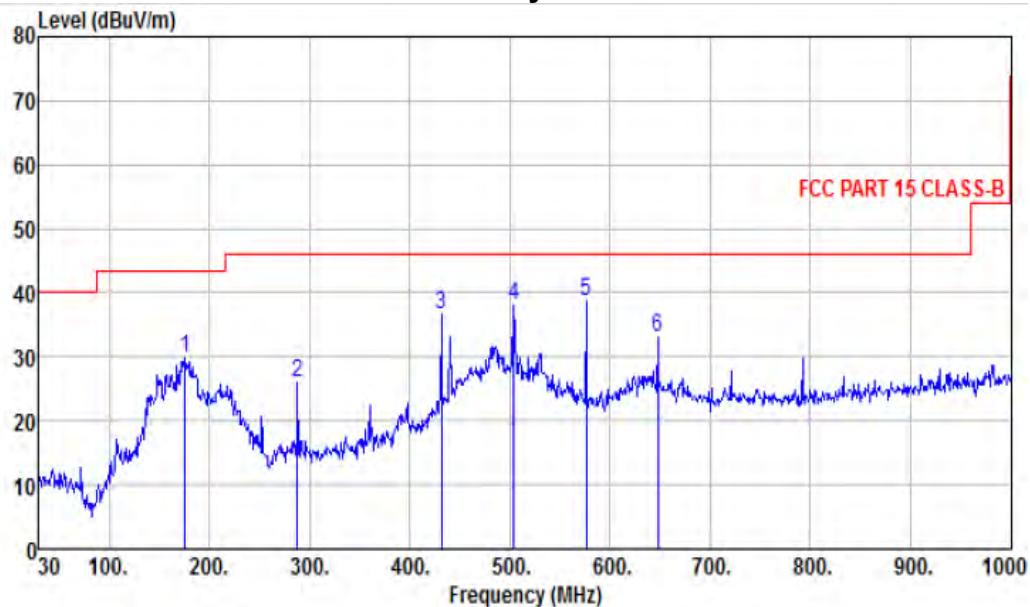
Mode : 11b ch1

Memo :

	ReadAntenna	Cable	Preamp	Limit	Over	
Freq	Level	Factor	Loss	Level	Line	Limit

	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	288.02	20.69	12.96	2.26	0.00	35.91	46.00	-10.09	Peak
2 pk	431.58	21.65	16.01	2.79	0.00	40.45	46.00	-5.55	Peak
3	440.31	17.14	16.21	2.86	0.00	36.21	46.00	-9.79	Peak
4 pp	576.00	23.54	18.53	3.24	0.00	45.31	46.00	-0.69	QP
5	745.86	12.80	21.23	3.79	0.00	37.82	46.00	-8.18	Peak
6	792.00	16.26	21.64	3.83	0.00	41.73	46.00	-4.27	QP

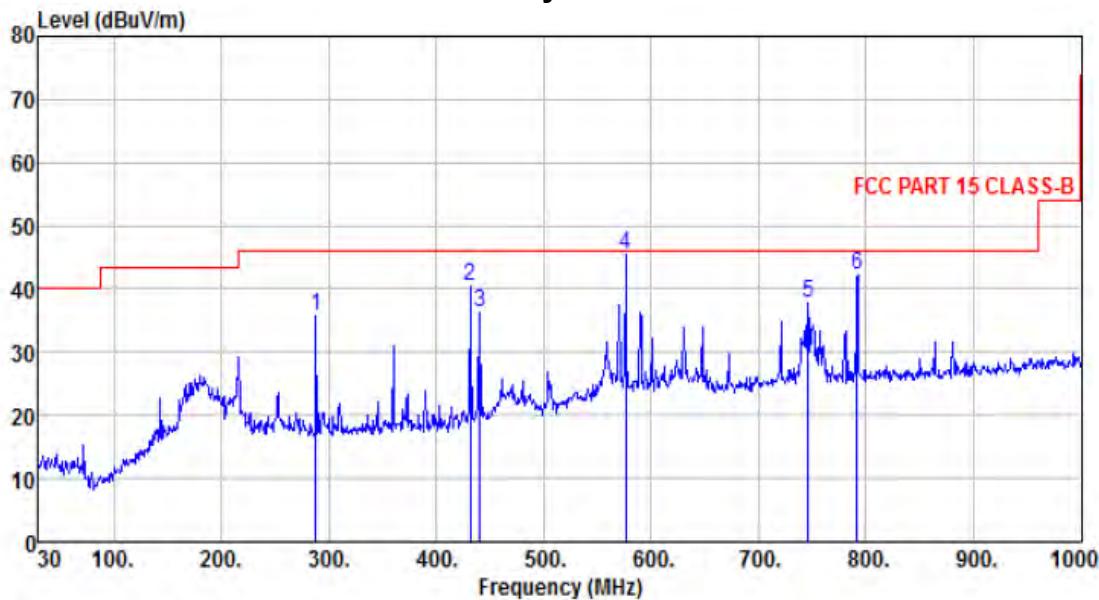
**802.11b; traffic mode; Ch1  
Antenna Polarity : Vertical**



Site : chamber  
Condition : FCC PART 15 CLASS-B 3m VULB9160 VERTICAL  
EUT :  
Model Name :  
Temp/Humi : 21 °C /53%  
Power Rating: DC 7.4V  
Mode : 11b ch1  
Memo :

	Freq	ReadAntenna		Cable Preamp		Limit Level	Over Line	Over Limit	Remark
		MHz	dBuV	dB/m	dB				
1	175.50	15.02	12.80	1.87	0.00	29.69	43.50	-13.81	Peak
2	288.02	10.70	12.96	2.26	0.00	25.92	46.00	-20.08	Peak
3	431.58	17.68	16.01	2.79	0.00	36.48	46.00	-9.52	Peak
4	504.33	17.95	17.11	3.06	0.00	38.12	46.00	-7.88	Peak
5 pp	576.11	16.76	18.53	3.24	0.00	38.53	46.00	-7.47	Peak
6	647.89	10.11	19.56	3.53	0.00	33.20	46.00	-12.80	Peak

**802.11b; traffic mode; Ch6**  
**Antenna Polarity : Horizontal**



Site : chamber  
Condition : FCC PART 15 CLASS-B 3m VULB9160 HORIZONTAL

EUT :

Model Name :

Temp/Humi : 21 °C /53%

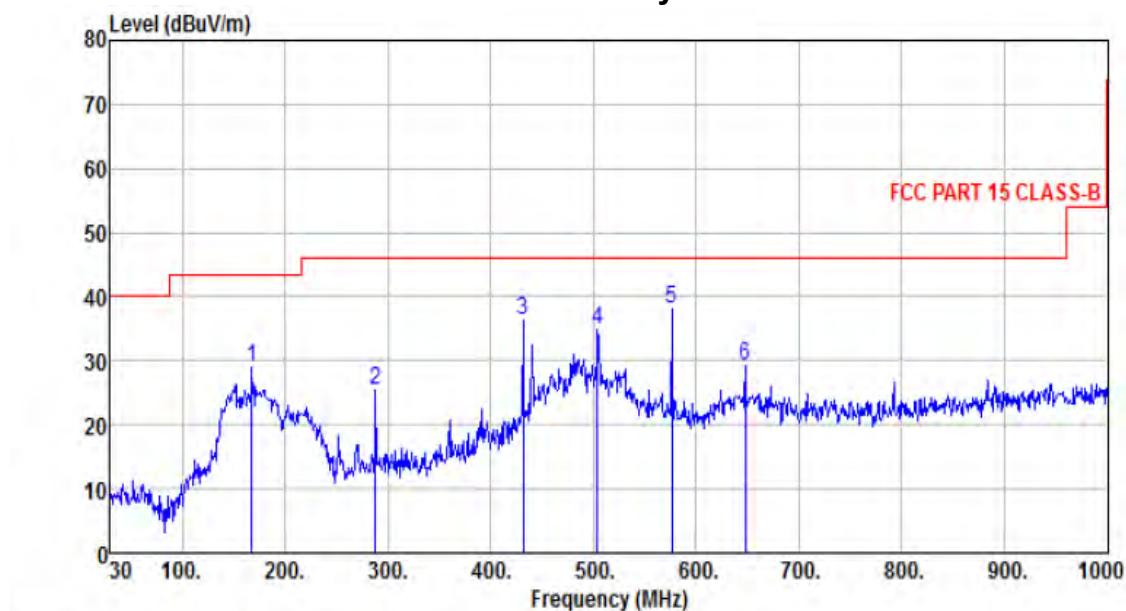
Power Rating: DC 7.4V

Mode : 11b ch6

Memo :

Freq	ReadAntenna		Cable Preamp		Limit	Over	Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
1	288.02	20.50	12.96	2.26	0.00	35.72	46.00	-10.28 Peak
2 pk	431.58	21.73	16.01	2.79	0.00	40.53	46.00	-5.47 Peak
3	440.31	17.25	16.21	2.86	0.00	36.32	46.00	-9.68 Peak
4 pp	576.00	23.60	18.53	3.24	0.00	45.37	46.00	-0.63 QP
5	745.86	12.90	21.23	3.79	0.00	37.92	46.00	-8.08 Peak
6	792.00	16.68	21.64	3.83	0.00	42.15	46.00	-3.85 QP

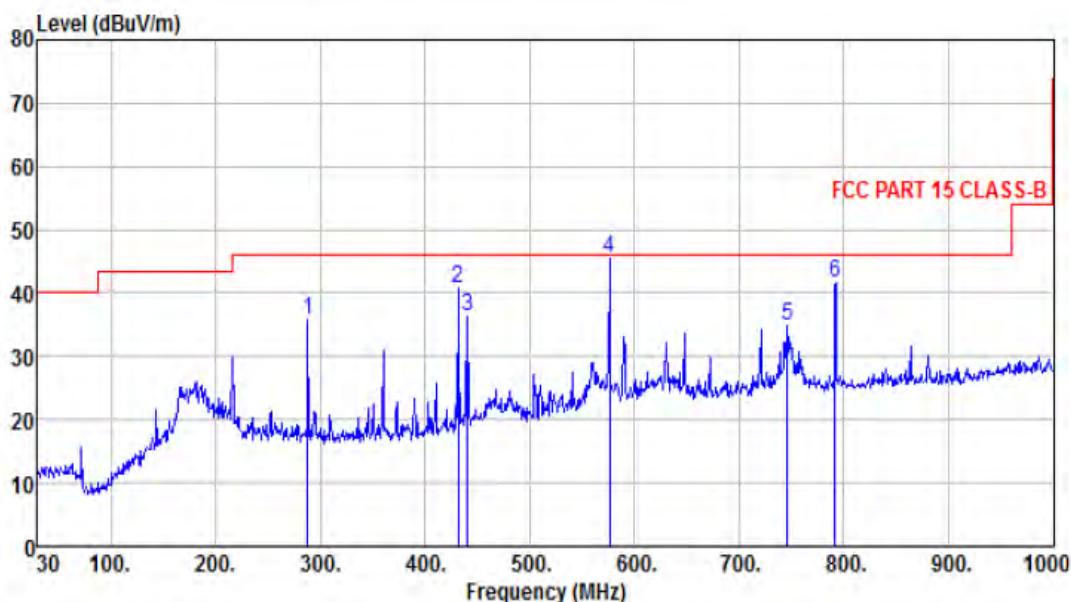
**802.11b; traffic mode; Ch6  
Antenna Polarity : Vertical**



Site : chamber  
Condition : FCC PART 15 CLASS-B 3m VULB9160 VERTICAL  
EUT :  
Model Name :  
Temp/Humi : 21 °C /53%  
Power Rating: DC 7.4V  
Mode : 11b ch6  
Memo :

Freq	ReadAntenna		Cable Preamp		Limit Level	Over Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB				
1	167.74	13.80	13.44	1.81	0.00	29.05	43.50	-14.45 Peak
2	288.02	10.15	12.96	2.26	0.00	25.37	46.00	-20.63 Peak
3	431.58	17.55	16.01	2.79	0.00	36.35	46.00	-9.65 Peak
4	504.33	14.74	17.11	3.06	0.00	34.91	46.00	-11.09 Peak
5 pp	576.11	16.27	18.53	3.24	0.00	38.04	46.00	-7.96 Peak
6	647.89	6.27	19.56	3.53	0.00	29.36	46.00	-16.64 Peak

**802.11b; traffic mode; Ch11  
Antenna Polarity : Horizontal**



Site : chamber

Condition : FCC PART 15 CLASS-B 3m VULB9160 HORIZONTAL

EUT :

Model Name :

Temp/Humi : 21 °C /53%

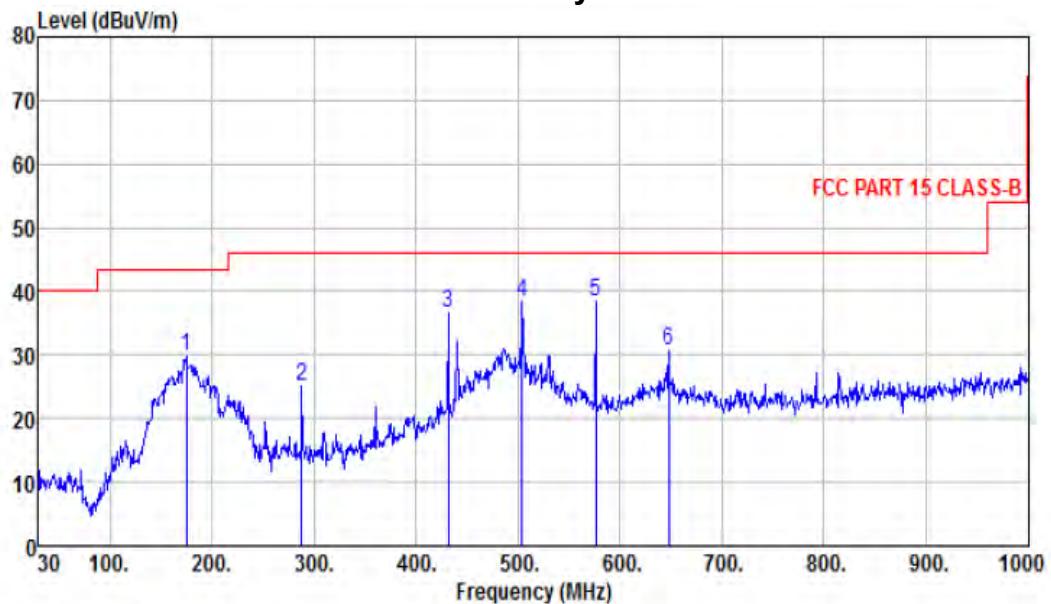
Power Rating: DC 7.4V

Mode : 11b ch11

Memo :

Freq	ReadAntenna		Cable		Preamp Level	Limit Line	Over Limit	Remark
	Level	Factor	Loss	Factor				
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
1	288.02	20.52	12.96	2.26	0.00	35.74	46.00	-10.26 Peak
2 pk	431.58	21.96	16.01	2.79	0.00	40.76	46.00	-5.24 Peak
3	440.31	17.18	16.21	2.86	0.00	36.25	46.00	-9.75 Peak
4 pp	576.00	23.65	18.53	3.24	0.00	45.42	46.00	-0.58 QP
5	745.86	9.80	21.23	3.79	0.00	34.82	46.00	-11.18 Peak
6	792.00	16.12	21.64	3.83	0.00	41.59	46.00	-4.41 QP

**802.11b; traffic mode; Ch11  
Antenna Polarity : Vertical**



Site : chamber  
Condition : FCC PART 15 CLASS-B 3m VULB9160 VERTICAL

EUT :

Model Name :

Temp/Humi : 21 °C /53%

Power Rating: DC 7.4V

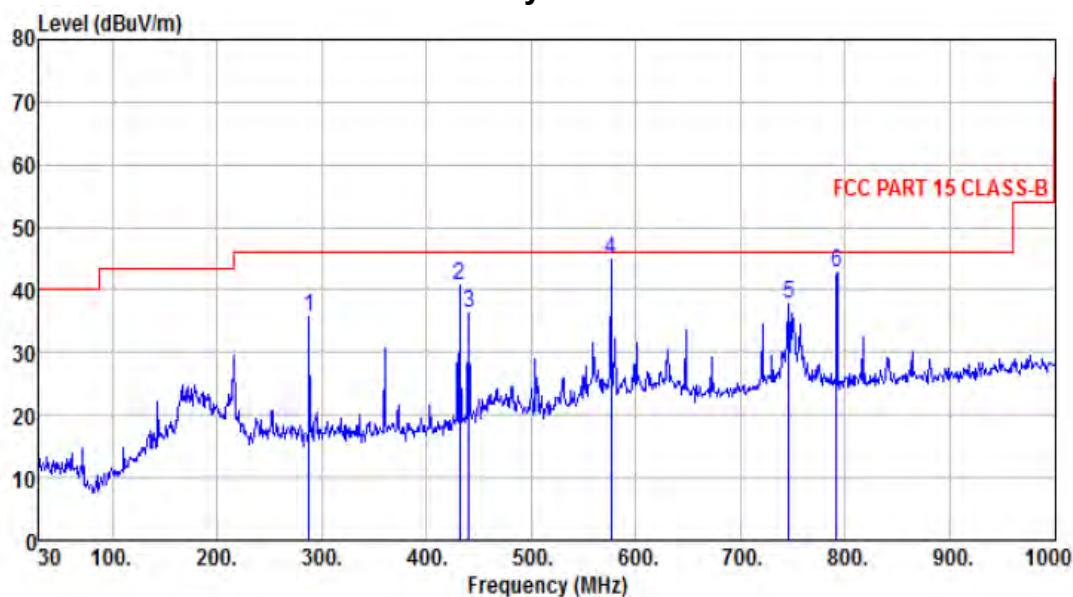
Mode : 11b ch11

Memo :

Freq	ReadAntenna		Cable Loss	Preamp Factor	Limit Level	Line Level	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	
1	174.53	15.27	12.80	1.87	0.00	29.94	43.50	-13.56 Peak
2	288.02	9.89	12.96	2.26	0.00	25.11	46.00	-20.89 Peak
3	431.58	17.82	16.01	2.79	0.00	36.62	46.00	-9.38 Peak
4 pp	504.33	18.23	17.11	3.06	0.00	38.40	46.00	-7.60 Peak
5	576.11	16.57	18.53	3.24	0.00	38.34	46.00	-7.66 Peak
6	647.89	7.71	19.56	3.53	0.00	30.80	46.00	-15.20 Peak

**802.11g**

**802.11g; traffic mode; Ch1  
Antenna Polarity : Horizontal**



Site : chamber

Condition : FCC PART 15 CLASS-B 3m VULB9160 HORIZONTAL

EUT :

Model Name :

Temp/Humi : 21 °C /53%

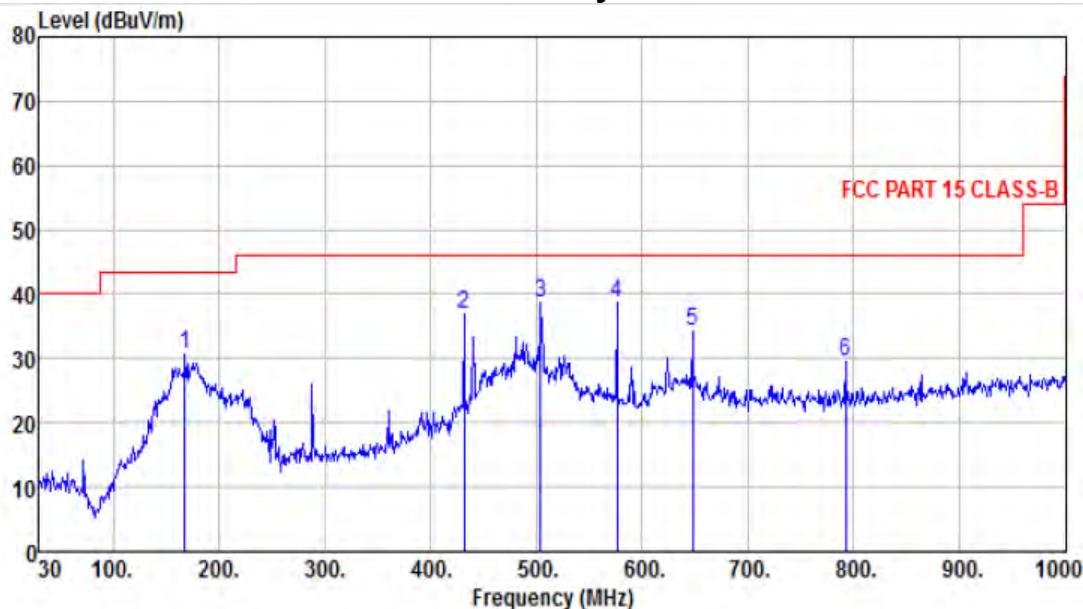
Power Rating: DC 7.4V

Mode : 11g ch1

Memo :

Freq	ReadAntenna		Cable Preamp		Limit	Over	Limit	Remark
	Level	Factor	Loss	Factor				
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
1	288.02	20.64	12.96	2.26	0.00	35.86	46.00	-10.14 Peak
2 pk	431.58	22.04	16.01	2.79	0.00	40.84	46.00	-5.16 Peak
3	440.31	17.15	16.21	2.86	0.00	36.22	46.00	-9.78 Peak
4 pp	576.00	23.09	18.53	3.24	0.00	44.86	46.00	-1.14 QP
5	745.86	12.76	21.23	3.79	0.00	37.78	46.00	-8.22 Peak
6	792.00	17.23	21.64	3.83	0.00	42.70	46.00	-3.30 QP

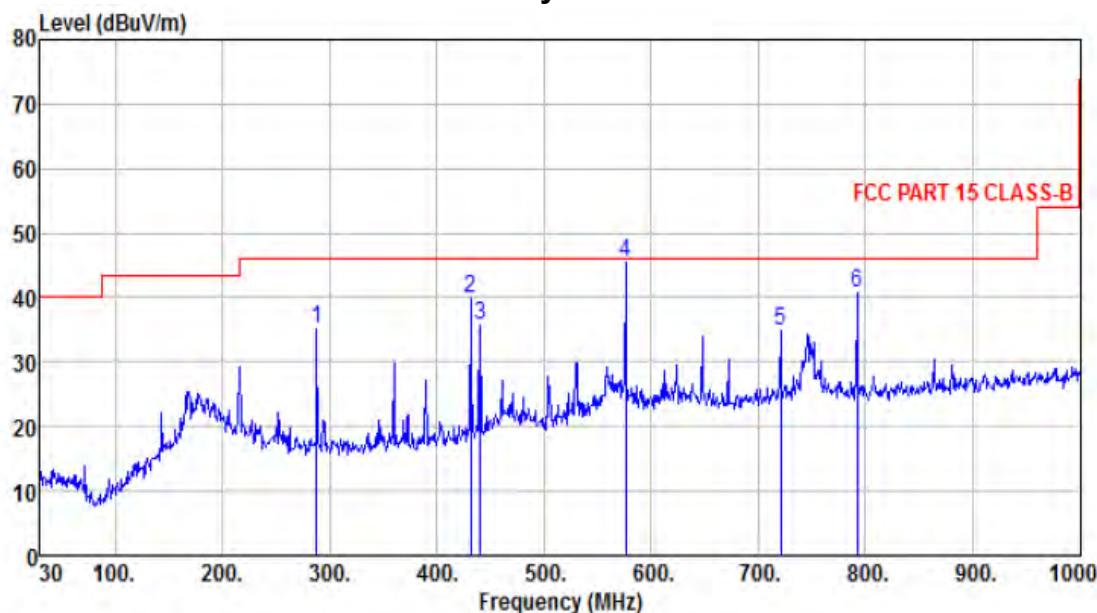
**802.11g; traffic mode; Ch1  
Antenna Polarity : Vertical**



Site : chamber  
Condition : FCC PART 15 CLASS-B 3m VULB9160 VERTICAL  
EUT :  
Model Name :  
Temp/Humi : 21 °C /53%  
Power Rating: DC 7.4V  
Mode : 11g ch1  
Memo :

Freq	ReadAntenna		Cable Preamp		Limit Level	Line Limit	Over Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dB
1	167.74	15.42	13.44	1.81	0.00	30.67	43.50 -12.83 Peak
2	431.58	18.20	16.01	2.79	0.00	37.00	46.00 -9.00 Peak
3	504.33	18.50	17.11	3.06	0.00	38.67	46.00 -7.33 Peak
4 pp	576.11	17.03	18.53	3.24	0.00	38.80	46.00 -7.20 Peak
5	647.89	11.11	19.56	3.53	0.00	34.20	46.00 -11.80 Peak
6	792.42	3.96	21.67	3.83	0.00	29.46	46.00 -16.54 Peak

**802.11g; traffic mode; Ch6  
Antenna Polarity : Horizontal**



Site : chamber

Condition : FCC PART 15 CLASS-B 3m VULB9160 HORIZONTAL

EUT :

Model Name :

Temp/Humi : 21 °C /53%

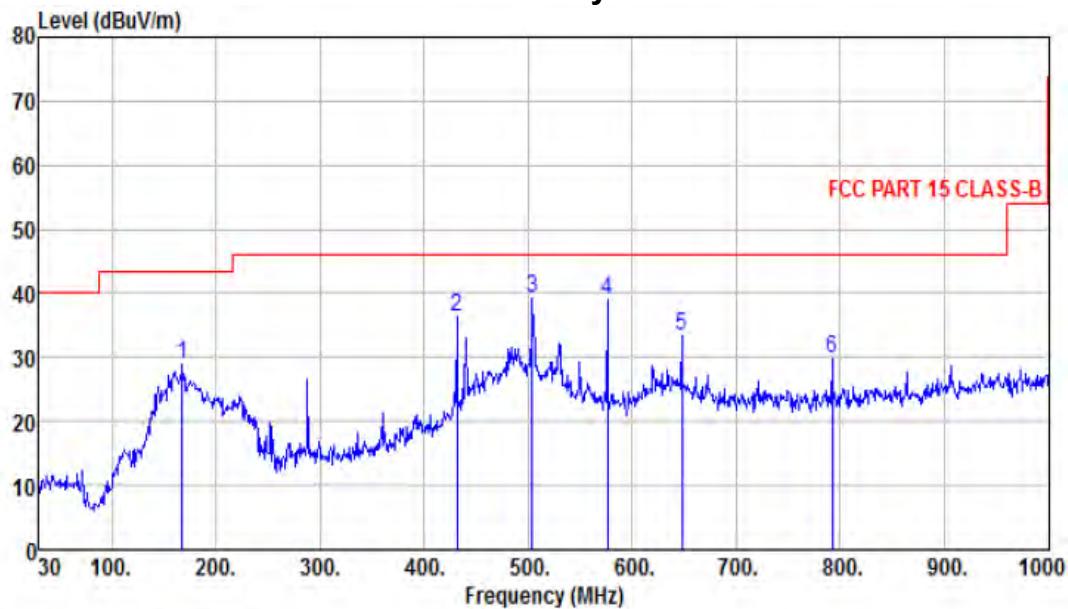
Power Rating: DC 7.4V

Mode : 11g ch6

Memo :

Freq	ReadAntenna		Cable Preamp		Limit Level	Over Line	Over Limit	Remark
	Level	Factor	Loss	Factor				
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	288.02	19.92	12.96	2.26	0.00	35.14	46.00	-10.86 Peak
2	431.58	21.06	16.01	2.79	0.00	39.86	46.00	-6.14 Peak
3	440.31	16.71	16.21	2.86	0.00	35.78	46.00	-10.22 Peak
4 pp	576.00	23.75	18.53	3.24	0.00	45.52	46.00	-0.48 QP
5	720.64	10.66	20.52	3.69	0.00	34.87	46.00	-11.13 Peak
6 pk	792.42	15.25	21.67	3.83	0.00	40.75	46.00	-5.25 Peak

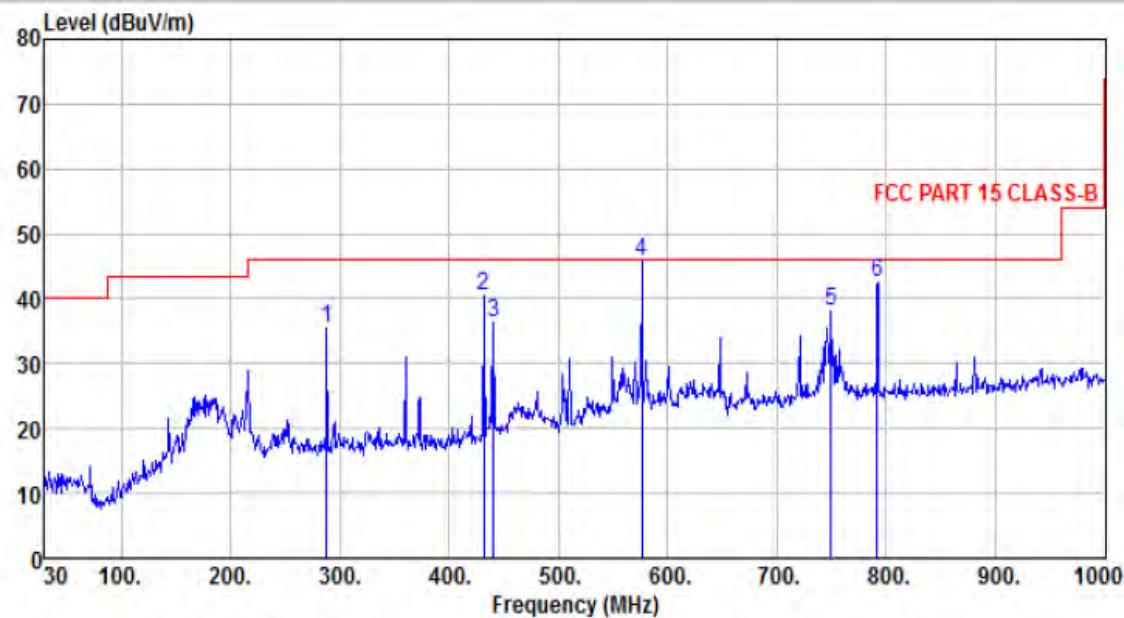
**802.11g; traffic mode; Ch6  
Antenna Polarity : Vertical**



Site : chamber  
Condition : FCC PART 15 CLASS-B 3m VULB9160 VERTICAL  
EUT :  
Model Name :  
Temp/Humi : 21 °C /53%  
Power Rating: DC 7.4V  
Mode : 11g ch6  
Memo :

Freq	ReadAntenna		Cable Preamp		Limit	Over	Remark	
	Freq	Level	Factor	Loss	Factor			
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
1	167.74	13.77	13.44	1.81	0.00	29.02	43.50	-14.48 Peak
2	431.58	17.42	16.01	2.79	0.00	36.22	46.00	-9.78 Peak
3 pp	504.33	19.01	17.11	3.06	0.00	39.18	46.00	-6.82 Peak
4	576.11	17.10	18.53	3.24	0.00	38.87	46.00	-7.13 Peak
5	647.89	10.14	19.56	3.53	0.00	33.23	46.00	-12.77 Peak
6	792.42	4.44	21.67	3.83	0.00	29.94	46.00	-16.06 Peak

**802.11g; traffic mode; Ch11  
Antenna Polarity : Horizontal**



Site : chamber

Condition : FCC PART 15 CLASS-B 3m VULB9160 HORIZONTAL

EUT :

Model Name :

Temp/Humi : 21 °C /53%

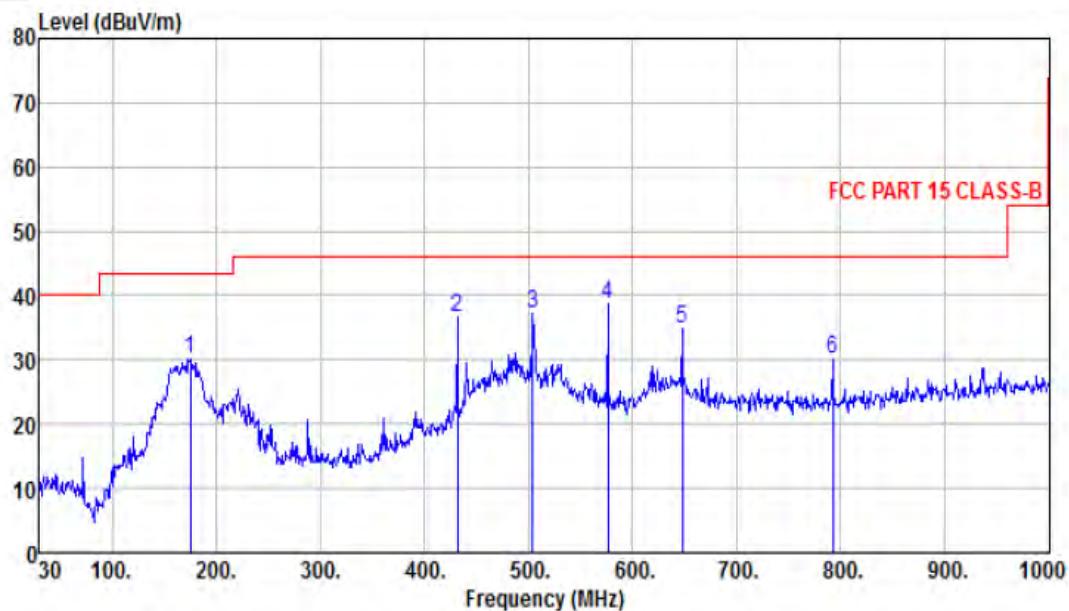
Power Rating: DC 7.4V

Mode : 11g ch11

Memo :

Freq	ReadAntenna		Cable Preamp		Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB				
1	288.02	20.32	12.96	2.26	0.00	35.54	46.00	-10.46 Peak
2 pk	431.58	21.73	16.01	2.79	0.00	40.53	46.00	-5.47 Peak
3	440.31	17.18	16.21	2.86	0.00	36.25	46.00	-9.75 Peak
4 pp	576.00	24.00	18.53	3.24	0.00	45.77	46.00	-0.23 QP
5	749.74	13.07	21.35	3.80	0.00	38.22	46.00	-7.78 Peak
6	792.00	17.13	21.64	3.83	0.00	42.60	46.00	-3.40 QP

**802.11g; traffic mode; Ch11  
Antenna Polarity : Vertical**

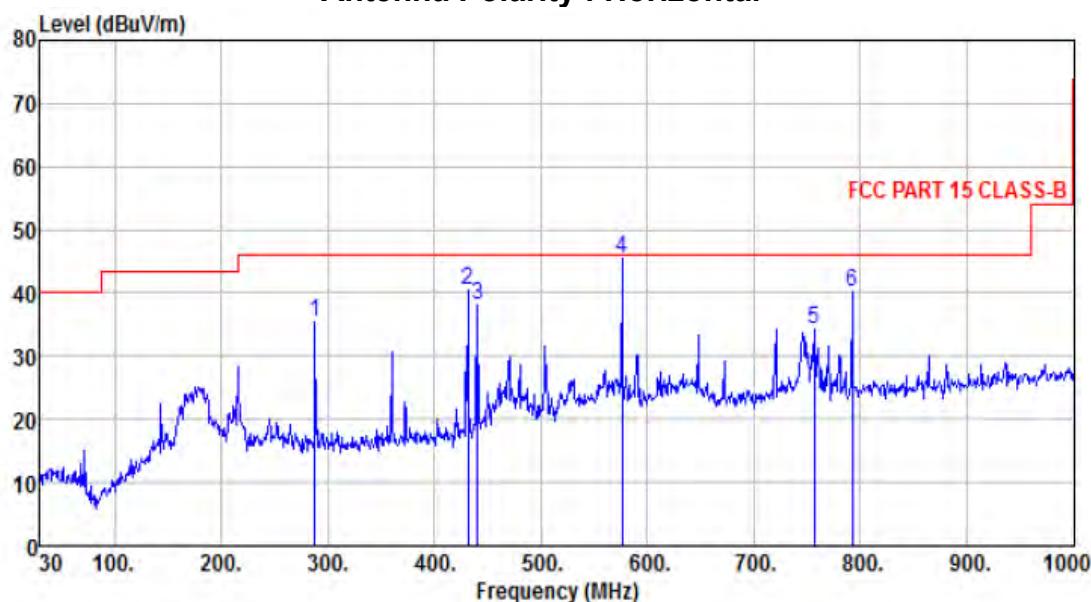


Site : chamber  
Condition : FCC PART 15 CLASS-B 3m VULB9160 VERTICAL  
EUT :  
Model Name :  
Temp/Humi : 21 °C /53%  
Power Rating: DC 7.4V  
Mode : 11g ch11  
Memo :

Freq	ReadAntenna		Cable Preamp		Limit Level	Over Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB				
1	174.53	15.43	12.80	1.87	0.00	30.10	43.50	-13.40 Peak
2	431.58	17.78	16.01	2.79	0.00	36.58	46.00	-9.42 Peak
3	504.33	16.95	17.11	3.06	0.00	37.12	46.00	-8.88 Peak
4 pp	576.11	16.77	18.53	3.24	0.00	38.54	46.00	-7.46 Peak
5	647.89	11.72	19.56	3.53	0.00	34.81	46.00	-11.19 Peak
6	792.42	4.57	21.67	3.83	0.00	30.07	46.00	-15.93 Peak

## 802.11n(20M)

### 802.11n(20M); traffic mode; Ch1 Antenna Polarity : Horizontal



Site : chamber

Condition : FCC PART 15 CLASS-B 3m VULB9160 HORIZONTAL

EUT :

Model Name :

Temp/Humi : 21 °C /53%

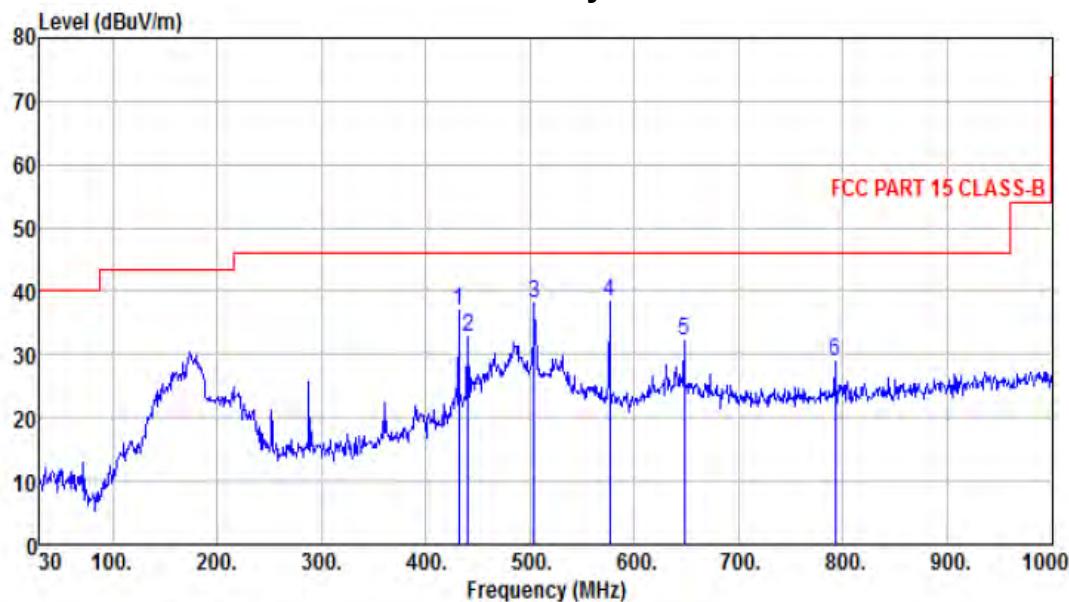
Power Rating: DC 7.4V

Mode : 11n(20M) ch1

Memo :

Freq	ReadAntenna		Cable		Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB					
1	288.02	20.25	12.96	2.26	0.00	35.47	46.00	-10.53	Peak
2 pk	431.58	21.74	16.01	2.79	0.00	40.54	46.00	-5.46	Peak
3	440.31	19.15	16.21	2.86	0.00	38.22	46.00	-7.78	Peak
4 pp	576.00	23.60	18.53	3.24	0.00	45.37	46.00	-0.63	QP
5	756.53	9.28	21.36	3.74	0.00	34.38	46.00	-11.62	Peak
6	792.42	14.54	21.67	3.83	0.00	40.04	46.00	-5.96	Peak

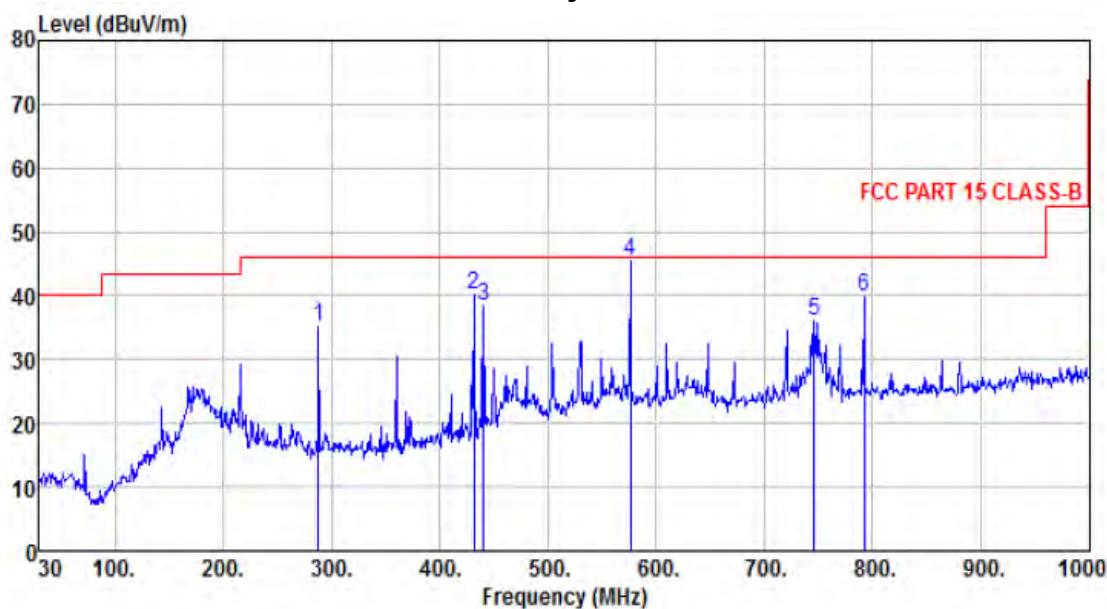
**802.11n(20M); traffic mode; Ch1  
Antenna Polarity : Vertical**



Site : chamber  
Condition : FCC PART 15 CLASS-B 3m VULB9160 VERTICAL  
EUT :  
Model Name :  
Temp/Humi : 21 °C /53%  
Power Rating: DC 7.4V  
Mode : 11n(20M) ch1  
Memo :

Freq	ReadAntenna		Cable		Preamp Loss Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB					
1	431.58	17.98	16.01	2.79	0.00	36.78	46.00	-9.22	Peak
2	440.31	13.62	16.21	2.86	0.00	32.69	46.00	-13.31	Peak
3	504.33	17.79	17.11	3.06	0.00	37.96	46.00	-8.04	Peak
4 pp	576.11	16.55	18.53	3.24	0.00	38.32	46.00	-7.68	Peak
5	647.89	9.18	19.56	3.53	0.00	32.27	46.00	-13.73	Peak
6	792.42	3.51	21.67	3.83	0.00	29.01	46.00	-16.99	Peak

**802.11n(20M); traffic mode; Ch6  
Antenna Polarity : Horizontal**



Site : chamber

Condition : FCC PART 15 CLASS-B 3m VULB9160 HORIZONTAL

EUT :

Model Name :

Temp/Humi : 21 °C /53%

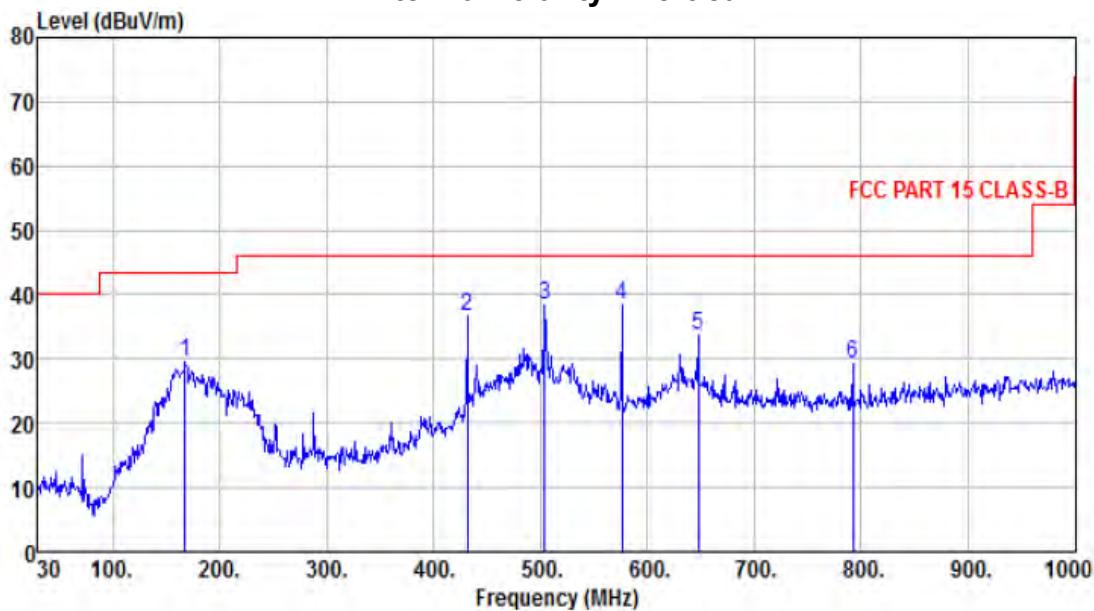
Power Rating: DC 7.4V

Mode : 11n(20M) ch6

Memo :

Freq	ReadAntenna		Cable Preamp		Limit Level	Line dBuV/m	Over Limit	Remark
	MHz	dBuV	dB/m	dB				
1	288.02	19.86	12.96	2.26	0.00	35.08	46.00	-10.92 Peak
2 pk	431.58	21.43	16.01	2.79	0.00	40.23	46.00	-5.77 Peak
3	440.31	19.19	16.21	2.86	0.00	38.26	46.00	-7.74 Peak
4 pp	576.00	23.76	18.53	3.24	0.00	45.53	46.00	-0.47 QP
5	745.86	10.97	21.23	3.79	0.00	35.99	46.00	-10.01 Peak
6	792.42	14.49	21.67	3.83	0.00	39.99	46.00	-6.01 Peak

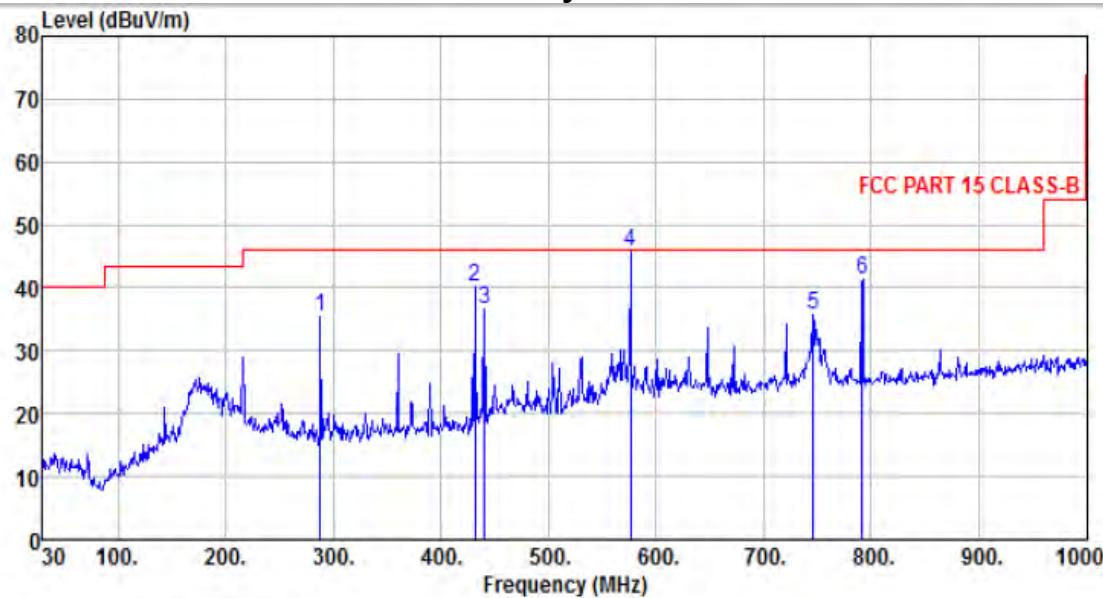
**802.11n(20M); traffic mode; Ch6  
Antenna Polarity : Vertical**



Site : chamber  
Condition : FCC PART 15 CLASS-B 3m VULB9160 VERTICAL  
EUT :  
Model Name :  
Temp/Humi : 21 °C /53%  
Power Rating: DC 7.4V  
Mode : 11n(20M) ch6  
Memo :

Freq	ReadAntenna		Cable Preamp		Limit Level	Over Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
1	167.74	14.37	13.44	1.81	0.00	29.62	43.50	-13.88 Peak
2	431.58	17.72	16.01	2.79	0.00	36.52	46.00	-9.48 Peak
3 pp	504.33	18.31	17.11	3.06	0.00	38.48	46.00	-7.52 Peak
4	576.11	16.68	18.53	3.24	0.00	38.45	46.00	-7.55 Peak
5	647.89	10.51	19.56	3.53	0.00	33.60	46.00	-12.40 Peak
6	792.42	3.79	21.67	3.83	0.00	29.29	46.00	-16.71 Peak

**802.11n(20M); traffic mode; Ch11  
Antenna Polarity : Horizontal**



Site : chamber

Condition : FCC PART 15 CLASS-B 3m VULB9160 HORIZONTAL

EUT :

Model Name :

Temp/Humi : 21 °C /53%

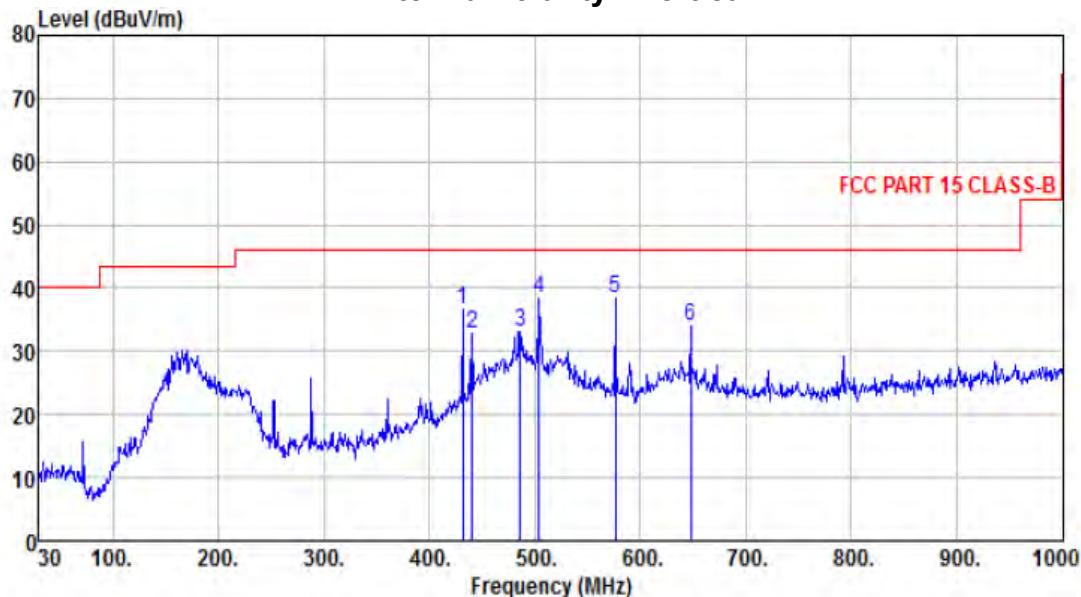
Power Rating: DC 7.4V

Mode : 11n(20M) ch11

Memo :

Freq	ReadAntenna		Cable Preamp		Limit	Over	Limit	Remark
	MHz	dBuV	Level Factor	Loss Factor				
1	288.02	20.08	12.96	2.26	0.00	35.30	46.00	-10.70 Peak
2 pk	431.58	21.22	16.01	2.79	0.00	40.02	46.00	-5.98 Peak
3	440.31	17.50	16.21	2.86	0.00	36.57	46.00	-9.43 Peak
4 pp	576.00	23.97	18.53	3.24	0.00	45.74	46.00	-0.26 QP
5	745.86	10.60	21.23	3.79	0.00	35.62	46.00	-10.38 Peak
6	792.00	15.76	21.64	3.83	0.00	41.23	46.00	-4.77 QP

**802.11n(20M); traffic mode; Ch11  
Antenna Polarity : Vertical**



Site : chamber

Condition : FCC PART 15 CLASS-B 3m VULB9160 VERTICAL

EUT :

Model Name :

Temp/Humi : 21 °C /53%

Power Rating: DC 7.4V

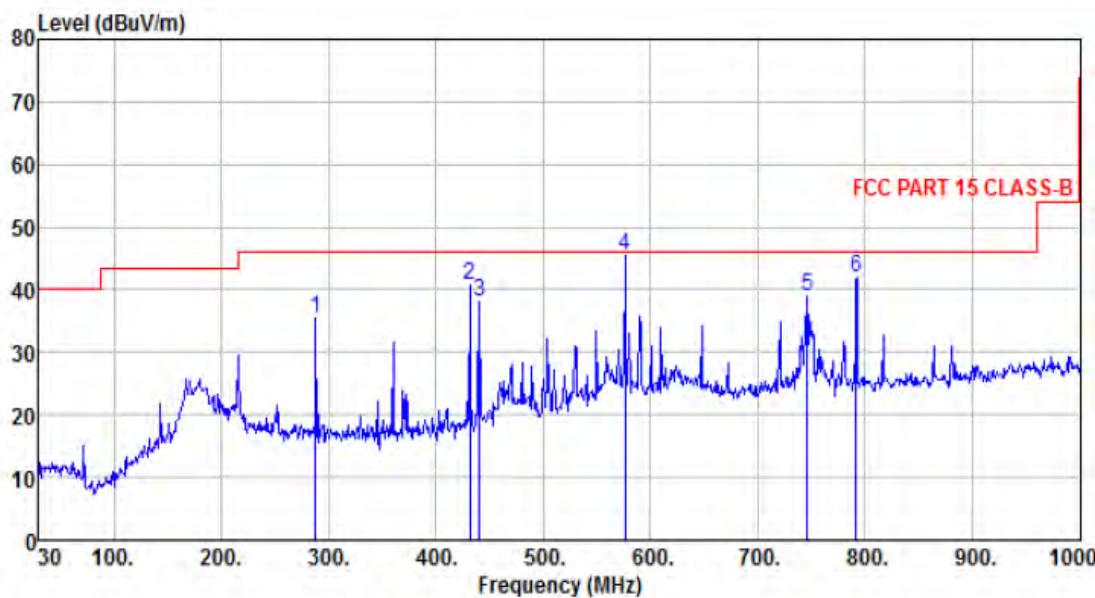
Mode : 11n(20M) ch11

Memo :

Freq	ReadAntenna		Cable		Preamp	Limit	Over	Line	Limit	Remark
	Level	Factor	Loss	Factor						
1	431.58	17.84	16.01	2.79	0.00	36.64	46.00	-9.36	Peak	
2	440.31	13.83	16.21	2.86	0.00	32.90	46.00	-13.10	Peak	
3	485.90	12.99	16.94	3.03	0.00	32.96	46.00	-13.04	Peak	
4	504.33	18.21	17.11	3.06	0.00	38.38	46.00	-7.62	Peak	
5 pp	576.11	16.75	18.53	3.24	0.00	38.52	46.00	-7.48	Peak	
6	647.89	10.89	19.56	3.53	0.00	33.98	46.00	-12.02	Peak	

## 802.11n(40M)

### 802.11n(40M); traffic mode; Ch3 Antenna Polarity : Horizontal



Site : chamber

Condition : FCC PART 15 CLASS-B 3m VULB9160 HORIZONTAL

EUT :

Model Name :

Temp/Humi : 21 °C /53%

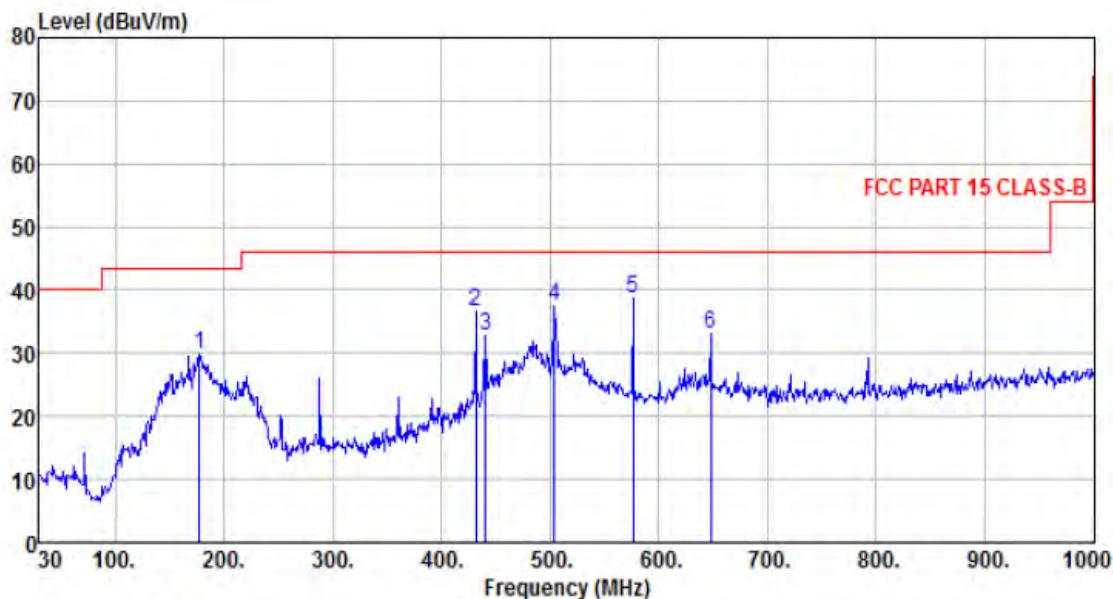
Power Rating: DC 7.4V

Mode : 11n(40M) ch1

Memo :

Freq	ReadAntenna		Cable Preamp		Limit	Over	Remark
	Level	Factor	Loss	Factor			
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
1	288.02	20.27	12.96	2.26	0.00	35.49	46.00 -10.51 Peak
2 pk	431.58	21.86	16.01	2.79	0.00	40.66	46.00 -5.34 Peak
3	440.31	19.01	16.21	2.86	0.00	38.08	46.00 -7.92 Peak
4 pp	576.00	23.82	18.53	3.24	0.00	45.59	46.00 -0.41 QP
5	745.86	13.86	21.23	3.79	0.00	38.88	46.00 -7.12 Peak
6	792.00	16.36	21.64	3.83	0.00	41.83	46.00 -4.17 QP

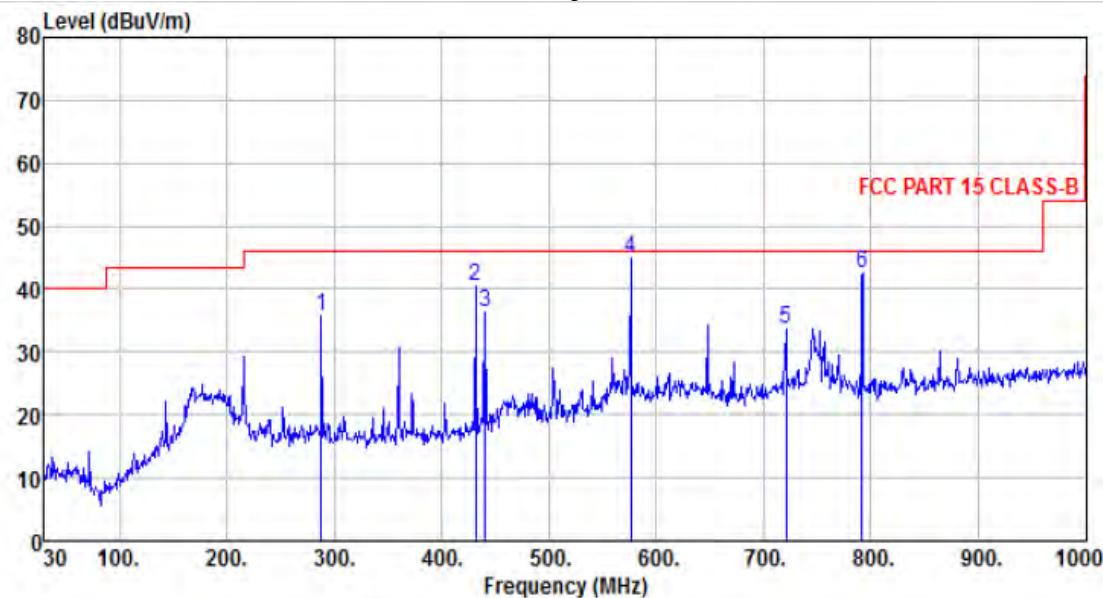
**802.11n(40M); traffic mode; Ch3  
Antenna Polarity : Vertical**



Site : chamber  
Condition : FCC PART 15 CLASS-B 3m VULB9160 VERTICAL  
EUT :  
Model Name :  
Temp/Humi : 21 °C /53%  
Power Rating: DC 7.4V  
Mode : 11n(40M) ch1  
Memo :

Freq	ReadAntenna		Cable Preamp		Limit Level	Line dBuV/m	Over Limit	Remark
	MHz	dBuV	Factor	Loss				
1	177.44	15.36	12.62	1.87	0.00	29.85	43.50	-13.65 Peak
2	431.58	17.91	16.01	2.79	0.00	36.71	46.00	-9.29 Peak
3	440.31	13.78	16.21	2.86	0.00	32.85	46.00	-13.15 Peak
4	504.33	17.19	17.11	3.06	0.00	37.36	46.00	-8.64 Peak
5 pp	576.11	16.88	18.53	3.24	0.00	38.65	46.00	-7.35 Peak
6	647.89	9.93	19.56	3.53	0.00	33.02	46.00	-12.98 Peak

**802.11n(40M); traffic mode; Ch6**  
**Antenna Polarity : Horizontal**



Site : chamber  
Condition : FCC PART 15 CLASS-B 3m VULB9160 HORIZONTAL

EUT :

Model Name :

Temp/Humi : 21 °C /53%

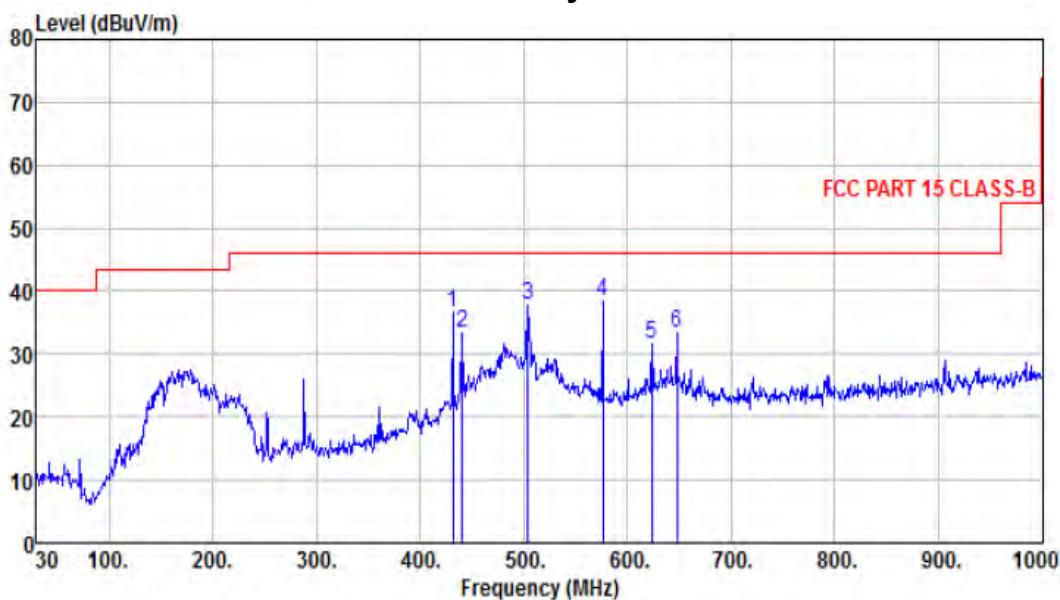
Power Rating: DC 7.4V

Mode : 11n(40M) ch6

Memo :

Freq	ReadAntenna		Cable Preamp		Limit	Over	Limit	Remark
	Level	Factor	Loss	Factor				
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	288.02	20.65	12.96	2.26	0.00	35.87	46.00	-10.13 Peak
2 pk	431.58	21.58	16.01	2.79	0.00	40.38	46.00	-5.62 Peak
3	440.31	17.37	16.21	2.86	0.00	36.44	46.00	-9.56 Peak
4 pp	576.00	23.11	18.53	3.24	0.00	44.88	46.00	-1.12 QP
5	720.64	9.52	20.52	3.69	0.00	33.73	46.00	-12.27 Peak
6	792.00	16.93	21.64	3.83	0.00	42.40	46.00	-3.60 QP

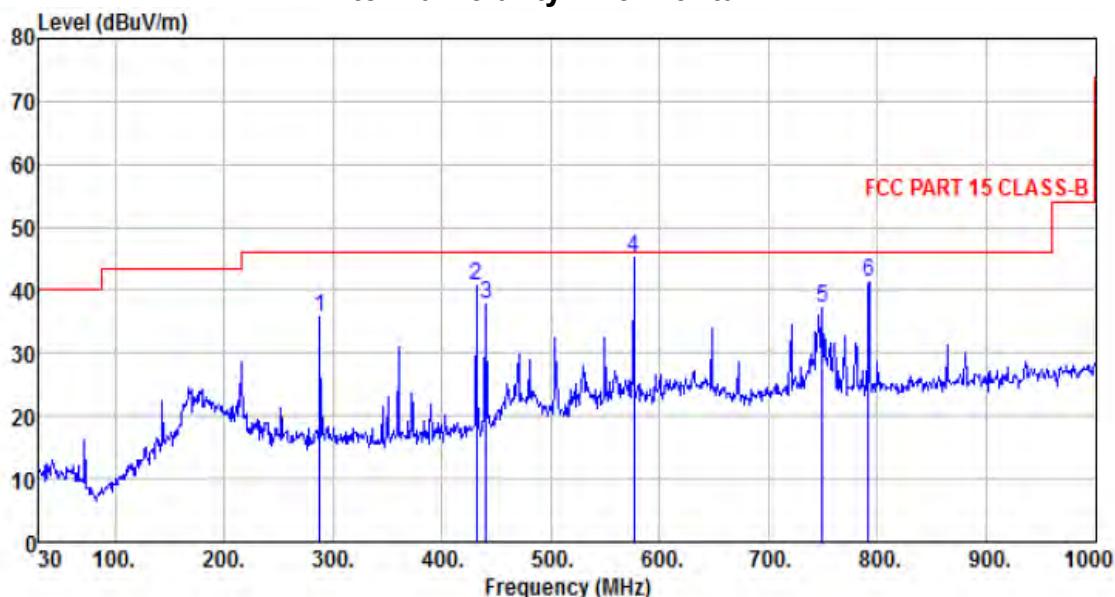
**802.11n(40M); traffic mode; Ch6  
Antenna Polarity : Vertical**



Site : chamber  
Condition : FCC PART 15 CLASS-B 3m VULB9160 VERTICAL  
EUT :  
Model Name :  
Temp/Humi : 21 °C /53%  
Power Rating: DC 7.4V  
Mode : 11n(40M) ch6  
Memo :

Freq	ReadAntenna		Cable Preamp		Limit	Over	Remark	
	Level	Factor	Loss	Factor				
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
1	431.58	17.71	16.01	2.79	0.00	36.51	46.00	-9.49 Peak
2	440.31	14.39	16.21	2.86	0.00	33.46	46.00	-12.54 Peak
3	504.33	17.66	17.11	3.06	0.00	37.83	46.00	-8.17 Peak
4 pp	576.11	16.75	18.53	3.24	0.00	38.52	46.00	-7.48 Peak
5	623.64	9.07	19.22	3.44	0.00	31.73	46.00	-14.27 Peak
6	647.89	10.18	19.56	3.53	0.00	33.27	46.00	-12.73 Peak

**802.11n(40M); traffic mode; Ch9**  
**Antenna Polarity : Horizontal**



Site : chamber

Condition : FCC PART 15 CLASS-B 3m VULB9160 HORIZONTAL

EUT :

Model Name :

Temp/Humi : 21 °C /53%

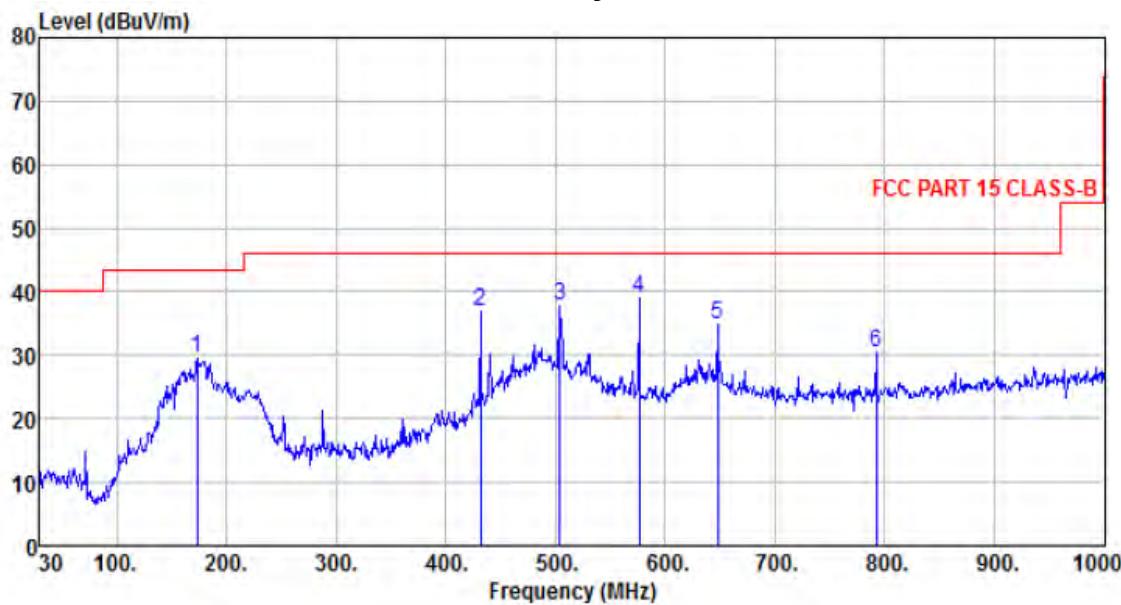
Power Rating: DC 7.4V

Mode : 11n(40M) ch11

Memo :

Freq	ReadAntenna		Cable Preamp		Limit	Over	Limit	Remark
	Level	Factor	Loss	Factor				
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	288.02	20.39	12.96	2.26	0.00	35.61	46.00	-10.39 Peak
2 pk	431.58	21.91	16.01	2.79	0.00	40.71	46.00	-5.29 Peak
3	440.31	18.85	16.21	2.86	0.00	37.92	46.00	-8.08 Peak
4 pp	576.00	23.42	18.53	3.24	0.00	45.19	46.00	-0.81 QP
5	749.74	12.00	21.35	3.80	0.00	37.15	46.00	-8.85 Peak
6	792.00	15.89	21.64	3.83	0.00	41.36	46.00	-4.64 QP

**802.11n(40M); traffic mode; Ch9  
Antenna Polarity : Vertical**



Site : chamber  
Condition : FCC PART 15 CLASS-B 3m VULB9160 VERTICAL  
EUT :  
Model Name :  
Temp/Humi : 21 °C /53%  
Power Rating: DC 7.4V  
Mode : 11n(40M) ch11  
Memo :

Freq	ReadAntenna		Cable Preamp		Limit	Over	Remark
	Level	Factor	Loss	Factor			
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
1	173.56	14.61	12.97	1.87	0.00	29.45	43.50 -14.05 Peak
2	431.58	18.08	16.01	2.79	0.00	36.88	46.00 -9.12 Peak
3	504.33	17.50	17.11	3.06	0.00	37.67	46.00 -8.33 Peak
4 pp	576.11	17.13	18.53	3.24	0.00	38.90	46.00 -7.10 Peak
5	647.89	11.60	19.56	3.53	0.00	34.69	46.00 -11.31 Peak
6	792.42	4.78	21.67	3.83	0.00	30.28	46.00 -15.72 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	102.38	-3.54	Horizontal	98.84	/	/	Peak
2412	101.57	-3.54	H	98.03	/	/	Average
4824	44.8	4.76	H	49.56	74	24.44	Peak
4824	41.39	4.76	H	46.15	54	7.85	Average
2412	101.79	-3.54	Vertical	98.25	/	/	Peak
2412	101.17	-3.54	V	97.63	/	/	Average
4824	44.36	4.76	V	49.12	74	24.88	Peak
4824	40.61	4.76	V	45.37	54	8.63	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	101.04	-3.49	Horizontal	97.55	/	/	Peak
2437	100.55	-3.49	H	97.06	/	/	Average
4874	43.72	4.81	H	48.53	74	25.47	Peak
4874	41.47	4.81	H	46.28	54	7.72	Average
2437	100.72	-3.49	Vertical	97.23	/	/	Peak
2437	100.78	-3.49	V	97.29	/	/	Average
4874	43.53	4.81	V	48.34	74	25.66	Peak
4874	40.45	4.81	V	45.26	54	8.74	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	101.58	-3.13	Horizontal	98.45	/	/	Peak
2462	101.25	-3.13	H	98.12	/	/	Average
4924	43.24	5.15	H	48.39	74	25.61	Peak
4924	40.52	5.15	H	45.67	54	8.33	Average
2462	101.41	-3.13	Vertical	98.28	/	/	Peak
2462	101.25	-3.13	V	98.12	/	/	Average
4924	43.02	5.15	V	48.17	74	25.83	Peak
4924	39.2	5.15	V	44.35	54	9.65	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	100.09	-3.54	Horizontal	96.55	/	/	Peak
2412	99.66	-3.54	H	96.12	/	/	Average
4824	42.76	4.76	H	47.52	74	26.48	Peak
4824	40.42	4.76	H	45.18	54	8.82	Average
2412	99.81	-3.54	Vertical	96.27	/	/	Peak
2412	99.89	-3.54	V	96.35	/	/	Average
4824	42.35	4.76	V	47.11	74	26.89	Peak
4824	40.67	4.76	V	45.43	54	8.57	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	99.82	-3.49	Horizontal	96.33	/	/	Peak
2437	99.33	-3.49	H	95.84	/	/	Average
4874	41.58	4.81	H	46.39	74	27.61	Peak
4874	40.48	4.81	H	45.29	54	8.71	Average
2437	98.71	-3.49	Vertical	95.22	/	/	Peak
2437	99.12	-3.49	V	95.63	/	/	Average
4874	41.37	4.81	V	46.18	74	27.82	Peak
4874	40.46	4.81	V	45.27	54	8.73	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	99.37	-3.13	Horizontal	96.24	/	/	Peak
2462	99.33	-3.13	H	96.20	/	/	Average
4924	41.37	5.15	H	46.52	74	27.48	Peak
4924	40.28	5.15	H	45.43	54	8.57	Average
2462	99.15	-3.13	Vertical	96.02	/	/	Peak
2462	99.19	-3.13	V	96.06	/	/	Average
4924	41.02	5.15	V	46.17	74	27.83	Peak
4924	40.1	5.15	V	45.25	54	8.75	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(20M), traffic mode; Channel 1**

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Antenna Polarity	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
2412	100.41	-3.54	Horizontal	96.87	/	/	Peak
2412	98.84	-3.54	H	95.30	/	/	Average
4824	41.46	4.76	H	46.22	74	27.78	Peak
4824	39.82	4.76	H	44.58	54	9.42	Average
2412	98.97	-3.54	Vertical	95.43	/	/	Peak
2412	98.57	-3.54	V	95.03	/	/	Average
4824	41.41	4.76	V	46.17	74	27.83	Peak
4824	40.15	4.76	V	44.91	54	9.09	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.

**802.11 n(20M), traffic mode; Channel 6**

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Antenna Polarity	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
2437	99.6	-3.49	Horizontal	96.11	/	/	Peak
2437	98.6	-3.49	H	95.11	/	/	Average
4874	41.4	4.81	H	46.21	74	27.79	Peak
4874	40.25	4.81	H	45.06	54	8.94	Average
2437	98.71	-3.49	Vertical	95.22	/	/	Peak
2437	98.82	-3.49	V	95.33	/	/	Average
4874	41.37	4.81	V	46.18	74	27.82	Peak
4874	40.64	4.81	V	45.45	54	8.55	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.

**802.11 n(20M), traffic mode; Channel 11**

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Antenna Polarity	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
2462	97.37	-3.13	Horizontal	94.24	/	/	Peak
2462	97.23	-3.13	H	94.10	/	/	Average
4924	41.13	5.15	H	46.28	74	27.72	Peak
4924	39.96	5.15	H	45.11	54	8.89	Average
2462	98.39	-3.13	Vertical	95.26	/	/	Peak
2462	97.25	-3.13	V	94.12	/	/	Average
4924	41.03	5.15	V	46.18	74	27.82	Peak
4924	40.1	5.15	V	45.25	54	8.75	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.

**802.11 n(40M), traffic mode; Channel 3**

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Antenna Polarity	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
2422	99.77	-3.51	Horizontal	96.26	/	/	Peak
2422	97.65	-3.51	H	94.14	/	/	Average
4844	41.49	4.79	H	46.28	74	27.72	Peak
4844	39.58	4.79	H	44.37	54	9.63	Average
2422	98.74	-3.51	Vertical	95.23	/	/	Peak
2422	97.65	-3.51	V	94.14	/	/	Average
4844	41.5	4.79	V	46.29	74	27.71	Peak
4844	40.04	4.79	V	44.83	54	9.17	Average

Note 1:Total=Reading+Correct factor.

2:2422 MHz was fundamental signal which can be ignored.

3:Other harmonics are lower than background noise.

**802.11 n(40M), traffic mode; Channel 6**

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Antenna Polarity	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
2437	99.75	-3.49	Horizontal	96.26	/	/	Peak
2437	97.63	-3.49	H	94.14	/	/	Average
4874	41.47	4.81	H	46.28	74	27.72	Peak
4874	39.56	4.81	H	44.37	54	9.63	Average
2437	98.72	-3.49	Vertical	95.23	/	/	Peak
2437	97.63	-3.49	V	94.14	/	/	Average
4874	41.48	4.81	V	46.29	74	27.71	Peak
4874	40.02	4.81	V	44.83	54	9.17	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.

**802.11 n(40M), traffic mode; Channel 9**

Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Antenna Polarity	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
2452	98.08	-3.21	Horizontal	94.87	/	/	Peak
2452	97.13	-3.21	H	93.92	/	/	Average
4904	41.13	5.02	H	46.15	74	27.85	Peak
4904	39.3	5.02	H	44.32	54	9.68	Average
2452	97.81	-3.21	Vertical	94.60	/	/	Peak
2452	96.36	-3.21	V	93.15	/	/	Average
4904	40.22	5.02	V	45.24	74	28.76	Peak
4904	39.15	5.02	V	44.17	54	9.83	Average

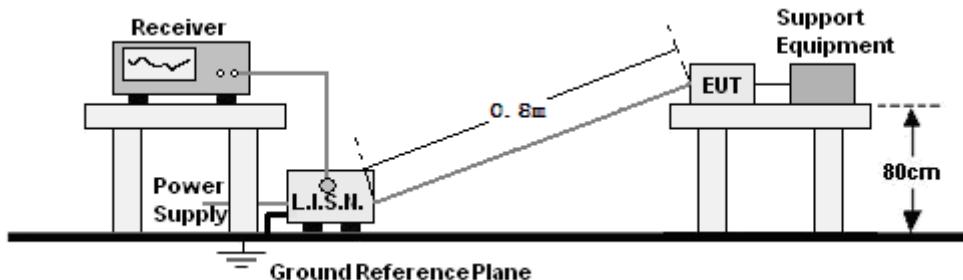
Note 1:Total=Reading+Correct factor.

2:2452 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( $\mu$ 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 invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

## **11.4 RESULTS & PERFORMANCE**

EUT is powered by a DC battery and It has no other AC power port or AC to DC power port, So this test item is not applicable for this equipment.

## **APPENDIX 1 PHOTOGRAHPS OF TEST SETUP**

Please refer to the file named “2AEKJ-CICADA\_Part15C Setup Photos”.

## **APPENDIX 2 PHOTOGRAHPS OF EUT**

Please refer to the two files named “2AEKJ-CICADA\_External Photos” and  
“2AEKJ-CICADA\_INternal Photos”.

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