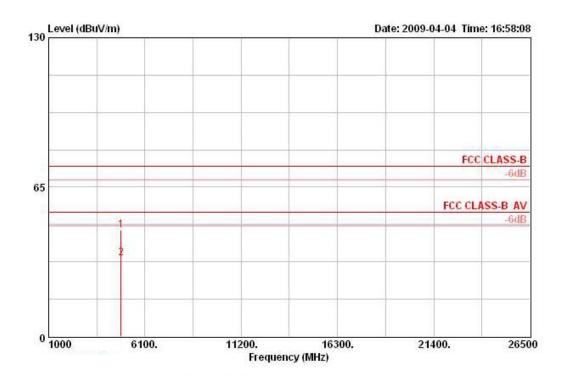
: 108 of 152

Issued Date : Apr. 15, 2009

Page No.



# Vertical

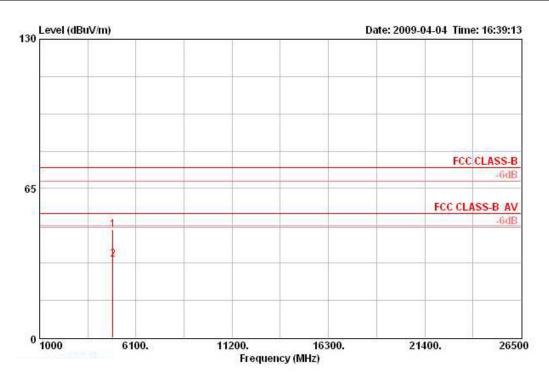


		Over	Limit	Read	Antenna	Preamp	Cable			Table	Ant
Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dВ	2	***	deg	cm
4823.992	46.45	-27.55	74.00	41.88	33.39	35.20	6.39	PEAK	VERTICAL	0	100
4823.995	34.13	-19.87	54.00	29.56	33.39	35.20	6.39	AVERAGE	VERTICAL	0	100

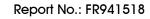


Temperature	23.5°C	Humidity	62%
Toot Engineer	Allon Liu	Configurations	Draft n MCS0 20MHz Ch 6
Test Engineer	Allen Liu	Configurations	/ Mode 4 with Ant. B-1 + Ant. B-2

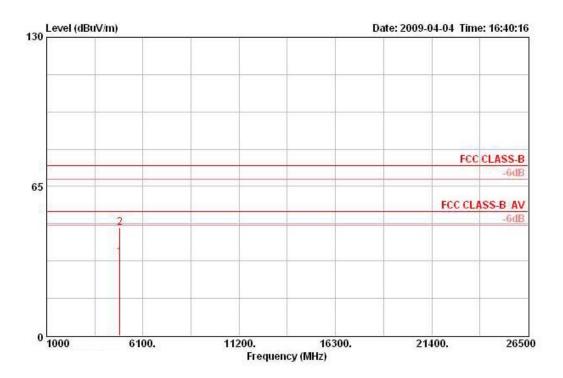
## Horizontal



		Over	Limit	Readi	Antenna	Preamp	Cable			Table	Ant
Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
MHz	MHz dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dВ		<del></del>	deg	cm
4873.980	47.13	-26.87	74.00	42.29	33.48	35.20	6.56	PEAK	HORIZONTAL	360	100
4873.987	33.98	-20.02	54 00	29 14	33.48	35.20	6.56	AVERAGE	HORT ZONTAL	360	100





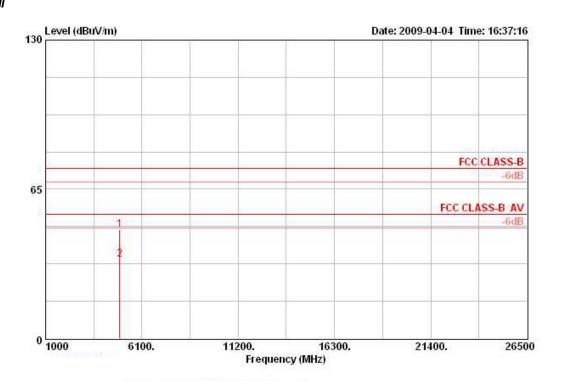


		Over	Limit	Read	Antenna	Preamp	Cable			Table	Ant
Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	<b>d</b> В	dB	×	***	deg	cm
4874.024	34.03	-19.97	54.00	29.19	33.48	35.20	6.56	AVERAGE	VERTICAL	0	100
4874 025	47 18	-26 82	74 00	42 34	33 48	35 20	6 56	PERK	VERTICAL	0	100



Temperature	23.5°C	Humidity	62%
Test Engineer	Allen Liu	Configurations	Draft n MCS0 20MHz Ch11
Test Engineer	Alleri Liu	Cornigurations	/ Mode 4 with Ant. B-1 + Ant. B-2

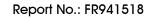
## Horizontal



			0ver	Limit	Read	Antenna	Preamp	Cable		Table	Ant		
	Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos	
	MHz	MHz dBuV/m	MHz dBuV/m dB dBuV/z		dBuV/m	dBuV	dB/m	dB d		-		deg	cm
1	4924.000	47.46	-26.54	74.00	42.36	33.58	35.20	6.73	PEAK	HORIZONTAL	0	100	
2 8	4924 002	34 46	-19 54	54 00	29 35	33 58	35 20	6 73	BUERBCE	HORT ZONTAL	n	100	

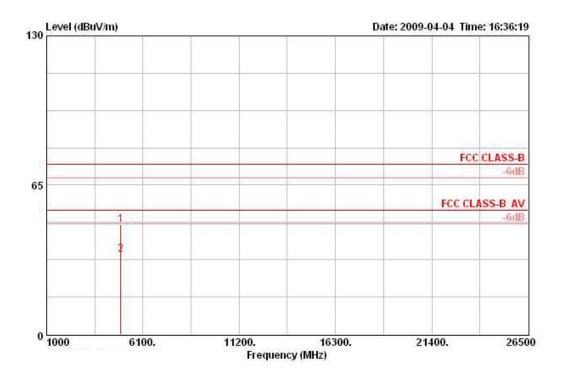
 Report Format Version: 01
 Page No.
 : 111 of 152

 FCC ID: VQF-RT3092
 Issued Date
 : Apr. 15, 2009





1 2 @



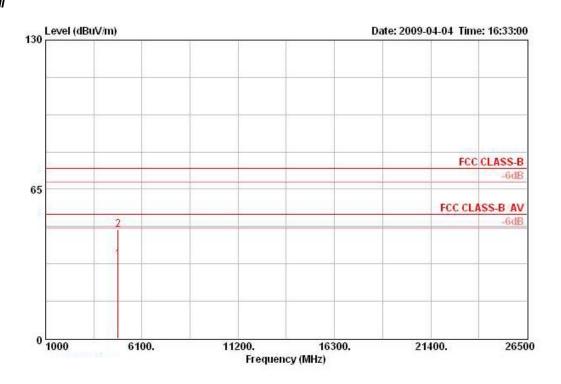
		Over	Limit	Read	Antenna	Preamp	Cable			Table	Ant
Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	-	-	deg	cm
4923.986	47.85	-26.15	74.00	42.74	33.58	35.20	6.73	PEAK	VERTICAL	360	100
4924.003	34.73	-19.27	54.00	29.62	33.58	35.20	6.73	AVERAGE	VERTICAL	360	100

Report Format Version: 01 Page No. FCC ID: VQF-RT3092 Issued Date : Apr. 15, 2009



Temperature	23.5°C	Humidity	62%
Test Engineer	Allon Liu	Configurations	Draft n MCS0 40MHz Ch 3
Test Engineer	Allen Liu	Configurations	/ Mode 4 with Ant. B-1 + Ant. B-2

## Horizontal

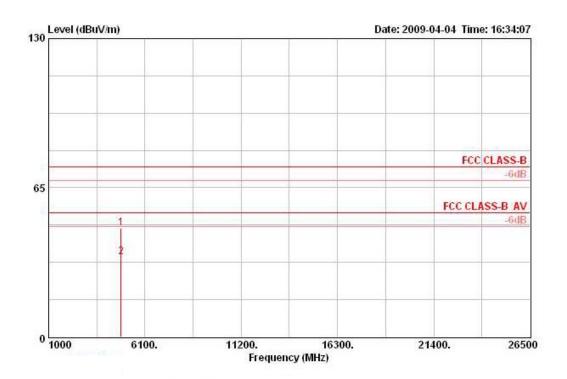


		Over	Limit	Read	Antenna	Preamp	Cable			Table	Ant
Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	<del>-</del>	<del>-</del>	deg	cm
4843.983	34.55	-19.45	54.00	29.86	33.42	35.20	6.47	AVERAGE	HORIZONTAL	360	100
4844.014	47.58	-26.42	74.00	42.88	33.42	35.20	6.47	PEAK	HORI ZONTAL	360	100

 Report Format Version: 01
 Page No.
 : 113 of 152

 FCC ID: VQF-RT3092
 Issued Date
 : Apr. 15, 2009





		Over	Limit	Read	Antenna	Preamp	Cable			Table	Ant
Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	<del></del>		deg	cm
4843.983	47.39	-26.61	74.00	42.70	33.42	35.20	6.47	PEAK	VERTICAL	0	100
4844.006	34.65	-19.35	54.00	29.95	33.42	35.20	6.47	AVERAGE	VERTICAL	0	100

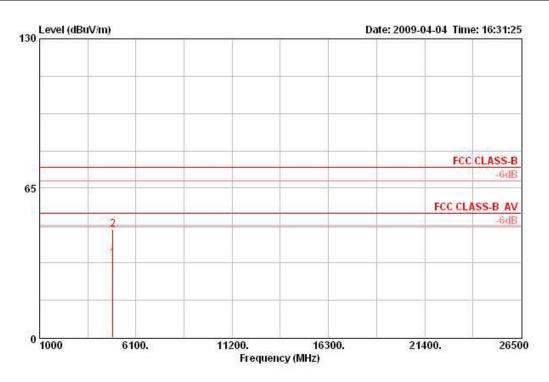
Report Format Version: 01
FCC ID: VQF-RT3092

Page No. : 114 of 152 Issued Date : Apr. 15, 2009



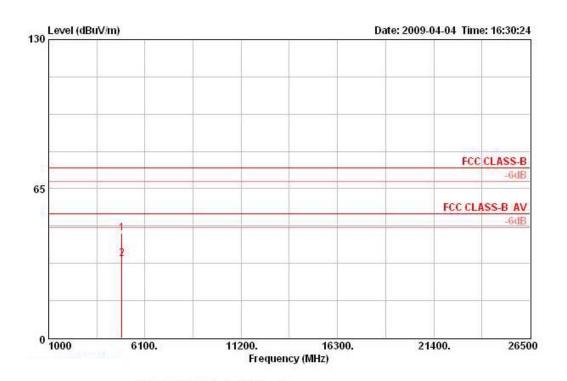
Temperature	23.5℃	Humidity	62%
Test Engineer	Allen Liu	Configurations	Draft n MCS0 40MHz Ch 6
Test Engineer	Allen Liu	Configurations	/ Mode 4 with Ant. B-1 + Ant. B-2

#### Horizontal



			Over	Limit	Read	Antenna	Preamp	Cable			Table	Ant
	Freq			Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
	MHz			dBuV/m	dBuV	dB/m	<u>ав</u>	dB			deg	cm
1	4874.018	34.30	-19.70	54.00	29.46	33.48	35.20	6.56	AVERAGE	HORIZONTAL	0	100
2	4874.018	47.18	-26.82	74.00	42.34	33.48	35.20	6.56	PEAK	HORI ZONTAL	0	100





		Over	Limit	Read	Antenna	Preamp	Cable			Table	Ant
Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	<del></del>		deg	cm
4873.999	45.71	-28.29	74.00	40.87	33.48	35.20	6.56	PEAK	VERTICAL	360	100
4874.005	34.27	-19.73	54.00	29.42	33.48	35.20	6.56	AVERAGE	VERTICAL	360	100

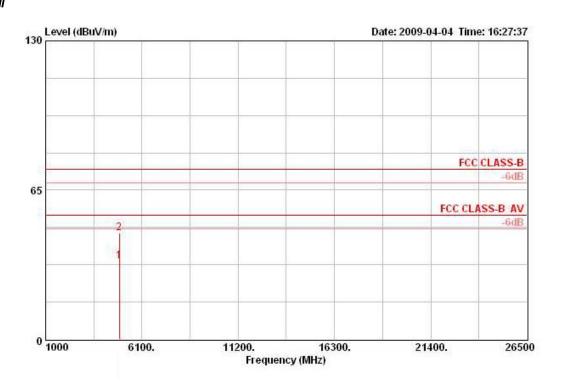
Report Format Version: 01
FCC ID: VQF-RT3092

Page No. : 116 of 152 Issued Date : Apr. 15, 2009



Temperature	23.5°C	Humidity	62%
Test Engineer	Allon Liu	Configurations	Draft n MCS0 40MHz Ch 9
	Allen Liu	Configurations	/ Mode 4 with Ant. B-1 + Ant. B-2

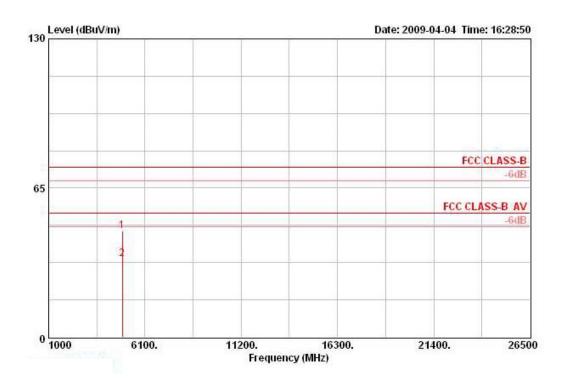
#### Horizontal



		Over	Limit	Read	Antenna	Preamp	Cable			Table	Ant
Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
MHz	dBuV/m	dВ	dBuV/m	dBuV	dB/m	dB	dВ	*		deg	cm
4904.013	34.11	-19.89	54.00	29.12	33.54	35.20	6.65	AVERAGE	HORIZONTAL	360	100
4904.023	46.21	-27.79	74.00	41.22	33.54	35.20	6.65	PEAK	HORI ZONTAL	360	100

1 2

#### Vertical



			Over	Limit	Read	Antenna	Preamp	Cable			Table	Ant
	Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
	Mtz	dBuV/m dB dBuV/		dBuV/m	W/m dBuV dB/r		dB	<b>дв</b>		<del></del>	deg	cm
1	4904.004	46.36	-27.64	74.00	41.37	33.54	35.20	6.65	PEAK	VERTICAL	0	100
2	4904.008	34.08	-19.92	54.00	29.09	33.54	35.20	6.65	AVERAGE	VERTICAL	0	100

#### Note:

The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

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

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

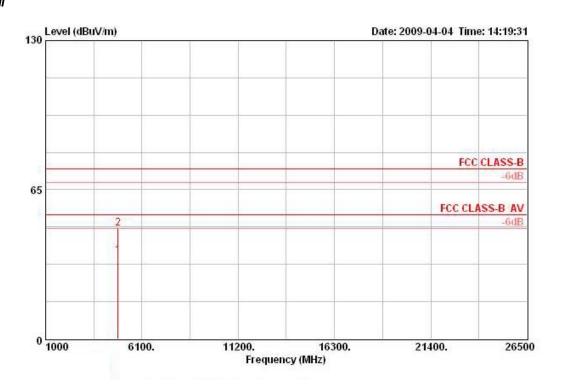
 Report Format Version: 01
 Page No.
 : 118 of 152

 FCC ID: VQF-RT3092
 Issued Date
 : Apr. 15, 2009



Temperature	23.5°C	Humidity	62%			
Test Engineer	Allen Liu	Configurations	802.11b CH 1			
Test Engineer	Allen Liu	Configurations	/ Mode 4 with Ant. B-1			

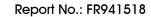
## Horizontal



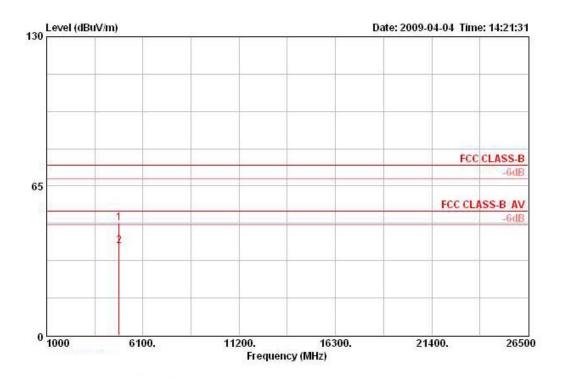
			Over	Limit	Read	Antenna	Preamp	Cable			Table	Ant
	Freq	Level	Limit	imit Line  dB dBuV/m	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
	MHz	Hz dBuV/m	dB		dBuV dB/m	dB dB	dB		deg	cm		
1	4824.052	36.17	-17.83	54.00	31.59	33.39	35.20	6.39	AVERAGE	HORIZONTAL	46	100
2	4824.306	48.02	-25.98	74.00	43.44	33.39	35.20	6.39	PEAK	HORI ZONTAL	46	100

 Report Format Version: 01
 Page No.
 : 119 of 152

 FCC ID: VQF-RT3092
 Issued Date
 : Apr. 15, 2009







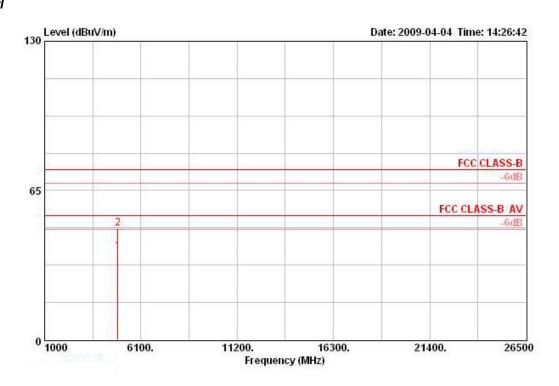
			Over	Limit	Read	Antenna	Preamp	Cable			Table	Ant
	Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	· -		deg	cm
L.	4823.808	49.01	-24.99	74.00	44.43	33.39	35.20	6.39	PEAK	VERTICAL	107	100
e e	4823.970	38.97	-15.03	54.00	34.39	33.39	35.20	6.39	AVERAGE	VERTICAL	107	100

Report Format Version: 01
FCC ID: VQF-RT3092



Temperature	23.5°C	Humidity	62%
Test Engineer	Allen Liu	Configurations	802.11b CH 6
Test Engineer	Allen Liu	Cornigulations	/ Mode 4 with Ant. B-1

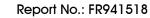
## Horizontal



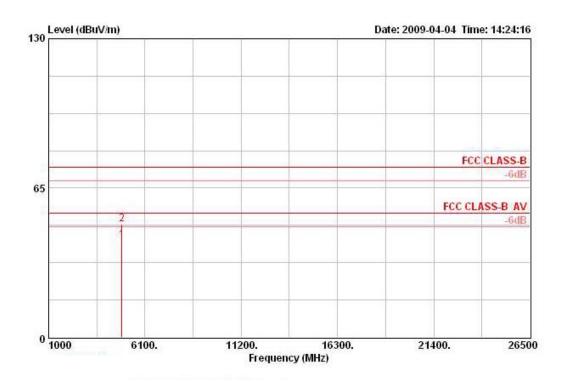
			Over	Limit	Readi	Antenna	Preamp	Cable			Table	Ant														
	Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos														
	MHz	dBuV/m	dBuV/m	dBuV/m	dBuV/m	dBuV/m	dBuV/m	dBuV/m	dBuV/m	dBuV/m	dBuV/m	dBuV/m	dBuV/m	dBuV/m	dBuV/m	dBuV/m	dB	dBuV/m	dBuV	dB/m	<b>дв</b>	dВ	×		deg	cm
1 @	4874.010	38.64	-15.36	54.00	33.79	33.48	35.20	6.56	AVERAGE	HORIZONTAL	121	176														
2	4974 192	49 49	-25 52	74 00	43 64	22 49	25 20	6 56	DEDE	HOPT TONTAL	121	176														

Report Format Version: 01
FCC ID: VQF-RT3092

Page No. : 121 of 152 Issued Date : Apr. 15, 2009







			Over	Limit	Readi	Antenna	Preamp	Cable			Table	Ant
	Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
	MHz	MHz dBuV/m dB dBuV/	dBuV/m	dBuV	dB/m	<u>ав</u>	dВ		***	deg	cm	
1 @	4873.990	42.19	-11.81	54.00	37.35	33.48	35.20	6.56	AVERAGE	VERTICAL	46	213
2	4874.088	49.33	-24.67	74.00	44.49	33.48	35.20	6.56	PEAK	VERTICAL	46	213

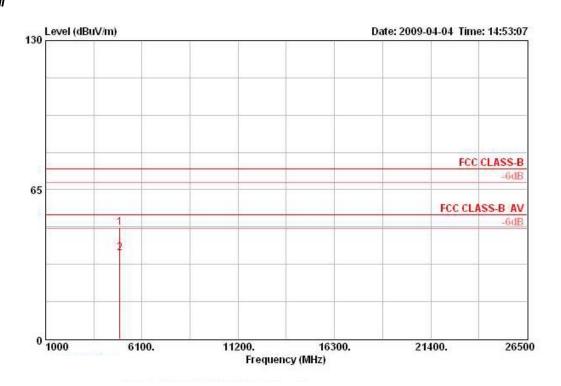
 Report Format Version: 01
 Page No.
 : 122 of 152

 FCC ID: VQF-RT3092
 Issued Date
 : Apr. 15, 2009



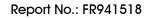
Temperature	23.5°C	Humidity	62%
Test Engineer	Allen Liu	Configurations	802.11b CH 11
	Allen Liu	Configurations	/ Mode 4 with Ant. B-1

## Horizontal

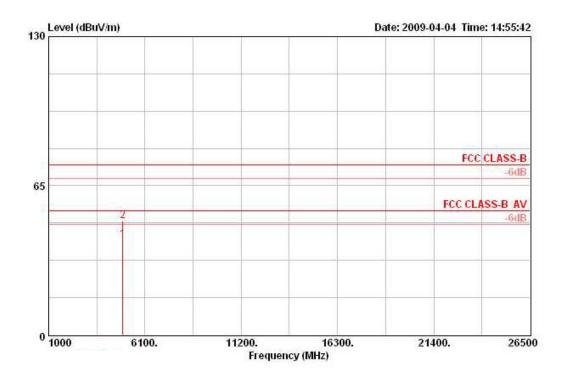


			Over	c Limit t Line	t ReadAntenna Preamp			Cable			Table	Ant
	Freq	Level	Limit		Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
	MHz	MHz dBuV/m	dB	dB dBuV/m		dB/m dB		dB			deg	cm
1	4923.714	48.37	-25.63	74.00	43.26	33.58	35.20	6.73	PEAK	HORIZONTAL	178	102
2 @	4924.050	37.23	-16.77	54.00	32.12	33.58	35.20	6.73	AVERAGE	HORI ZONTAL	178	102

Report Format Version: 01
FCC ID: VQF-RT3092







		Over	Limit	Read	Antenna	Preamp	Cable			Table	Ant
Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	- dB	dB	-		deg	cm
4924.030	41.31	-12.69	54.00	36.21	33.58	35.20	6.73	AVERAGE	VERTICAL	42	203
4924.076	49.63	-24.37	74.00	44.52	33.58	35.20	6.73	PEAK	VERTICAL	42	203

Report Format Version: 01
FCC ID: VQF-RT3092

1 @ 2

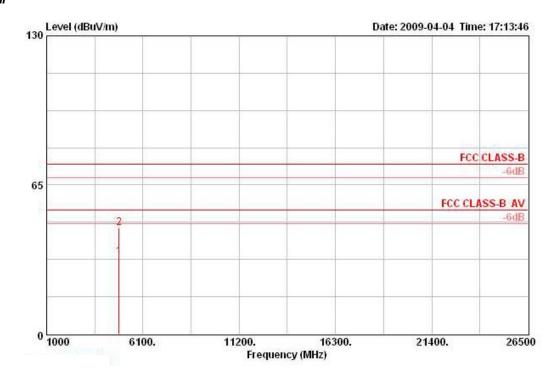
> Page No. : 124 of 152 Issued Date : Apr. 15, 2009



Temperature	23.5°C	Humidity	62%
Test Engineer	Allen Liu	Configurations	802.11g CH 1
Test Engineer	Alleri Liu	Configurations	/ Mode 4 with Ant. B-1

## Horizontal

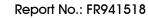
1 2



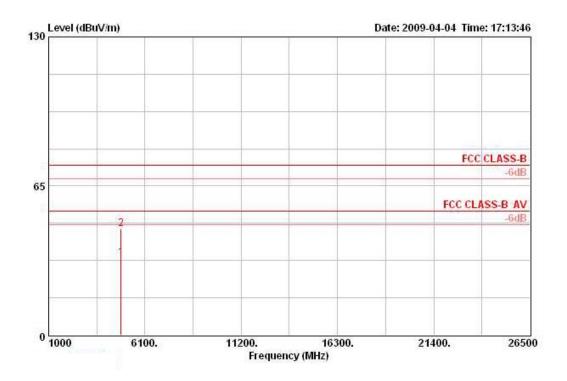
			Over	Limit	Readi	Antenna	Preamp	Cable			Table	Ant
	Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	-		deg	can
ŭ	4823.976	33.88	-20.12	54.00	29.30	33.39	35.20	6.39	AVERAGE	HORI ZONTAL	0	100
	4824.008	46.35	-27.65	74.00	41.77	33.39	35.20	6.39	PEAK	HORI ZONTAL	0	100

 Report Format Version: 01
 Page No.
 : 125 of 152

 FCC ID: VQF-RT3092
 Issued Date
 : Apr. 15, 2009







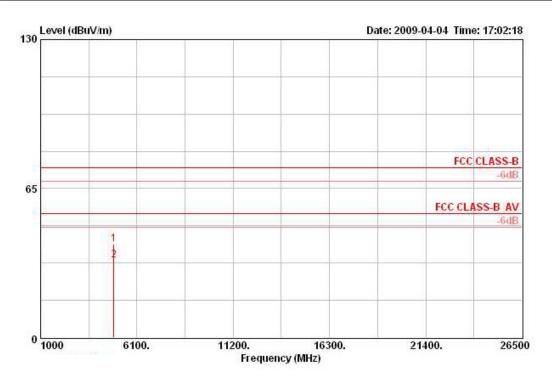
Freq	Level	Over Limit				Preamp Factor		Remark	Pol/Phase	Table Pos	Ant Pos
MHz	dBuV/m	ав	dBuV/m	dBuV	dB/m	dB		<u> </u>	- Supp	deg	can
4823.976	33.88	-20.12	54.00	29.30	33.39	35.20	6.39	AVERAGE	HORIZONTAL	0	100
4824 008	46 35	-27 65	74 00	41 77	33 39	35 20	6 39	DEAK	HORT ZONTAL	0	100

1 2



Temperature	23.5°C	Humidity	62%
Test Engineer	Allen Liu	Configurations	802.11g CH 6
Test Engineer	Allen Liu	Configurations	/ Mode 4 with Ant. B-1

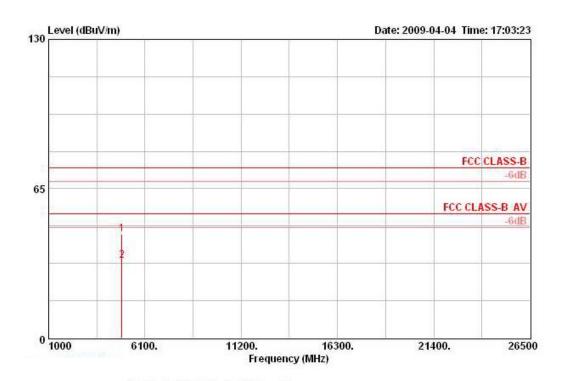
## Horizontal



			Over	Limit	Read	Antenna	Preamp	Cable			Table	Ant
	Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB		-		deg	cm
1	4873.976	40.92	-33.08	74.00	36.08	33.48	35.20	6.56	PEAK	HORIZONTAL	360	100
2	4873.996	33.83	-20.17	54.00	28.98	33.48	35.20	6.56	AVERAGE	HORI ZONTAL	360	100

Report Format Version: 01 Page No. FCC ID: VQF-RT3092 Issued Date : Apr. 15, 2009





		Over	Limit	Read	Antenna	Preamp	Cable			Table	Ant
Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	Y		deg	cm
4873.976	45.32	-28.68	74.00	40.47	33.48	35.20	6.56	PEAK	VERTICAL	0	100
4874.006	33.87	-20.13	54.00	29.03	33.48	35.20	6.56	AVERAGE	VERTICAL	0	100

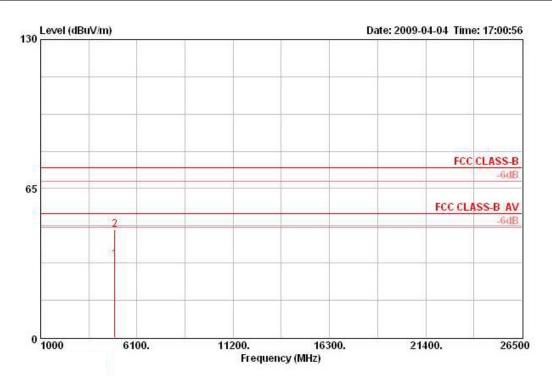
Report Format Version: 01
FCC ID: VQF-RT3092

Page No. : 128 of 152 Issued Date : Apr. 15, 2009



Temperature	23.5°C	Humidity	62%
Test Engineer	Allen Liu	Configurations	802.11g CH 11
Test Engineer	Alleri Liu	Configurations	/ Mode 4 with Ant. B-1

## Horizontal

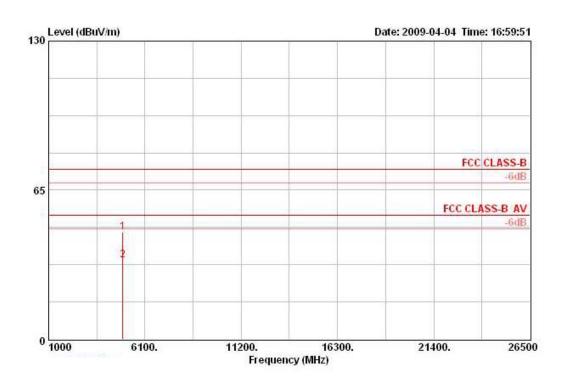


			Over	Limit	Readi	Antenna	Preamp	Cable			Table	Ant
	Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dВ	-		deg -	cm
1	4924.013	34.24	-19.76	54.00	29.13	33.58	35.20	6.73	AVERAGE	HORIZONTAL	0	100
2	4924.024	47.00	-27.00	74.00	41.89	33.58	35.20	6.73	PEAK	HORI ZONTAL	0	100

 Report Format Version: 01
 Page No.
 : 129 of 152

 FCC ID: VQF-RT3092
 Issued Date
 : Apr. 15, 2009

#### Vertical



			Over	Limit	Readi	Antenna	Preamp	Cable			Table	Ant
	Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	<del></del>		deg	cm
1	4923.998	46.52	-27.48	74.00	41.41	33.58	35.20	6.73	PEAK	VERTICAL	360	100
2	4924.015	34.35	-19.65	54.00	29.24	33.58	35.20	6.73	AVERAGE	VERTICAL	360	100

#### Note:

The amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.

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

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

 Report Format Version: 01
 Page No.
 : 130 of 152

 FCC ID: VQF-RT3092
 Issued Date
 : Apr. 15, 2009



## 4.6. Band Edge Emissions Measurement

#### 4.6.1. Limit

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Field Strength	Measurement Distance		
(micorvolts/meter)	(meters)		
2400/F(KHz)	300		
24000/F(KHz)	30		
30	30		
100	3		
150	3		
200	3		
500	3		
	Field Strength (micorvolts/meter)  2400/F(KHz)  24000/F(KHz)  30  100  150  200		

#### 4.6.2. Measuring Instruments and Setting

Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	100 MHz
RB / VB (Emission in restricted band)	1MHz / 1MHz for Peak, 1 MHz / 10Hz for Average
RB / VB (Emission in non-restricted band)	100 KHz /100 KHz for Peak

#### 4.6.3. Test Procedures

- 1. The test procedure is the same as section 4.5.3, only the frequency range investigated is limited to 100MHz around bandedges.
- 2. In case the emission is fail due to the used RB/VB is too wide, marker-delta method of FCC Public Notice DA00-705 will be followed.

#### 4.6.4. Test Setup Layout

This test setup layout is the same as that shown in section 4.5.4.

#### 4.6.5. Test Deviation

There is no deviation with the original standard.

#### 4.6.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

 Report Format Version: 01
 Page No. : 131 of 152

 FCC ID: VQF-RT3092
 Issued Date : Apr. 15, 2009

# 4.6.7. Test Result of Band Edge and Fundamental Emissions

Temperature	23.5°C	Humidity	62%
Test Engineer	Allen Liu	Configurations	Draft n MCS0 20MHz Ch 1, 6, 11
lesi Engineei	Allen Liu	Cornigurations	/ Mode 3 with Ant. A-1 +Ant. A-2
Test Date	Apr. 06, 2009		

#### Channel 1

			Over	Limit	Read	Antenna	Preamp	Cable			Table	Ant
	Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
	MHz	dBuV/m	ав	dBuV/m	dBuV	dB/m	dB	dB	G)		deg	cm
1 @	2389.800	73.68	-0.32	74.00	42.75	28.05	0.00	2.88	PEAK	VERTICAL	90	100
2 @	2390.000	50.78	-3.22	54.00	19.85	28.05	0.00	2.88	AVERAGE	VERTICAL	90	100
3 @	2410.200	116.28			85.31	28.09	0.00	2.88	PEAK	VERTICAL	90	100
4 @	2411.000	103.31			72.33	28.09	0.00	2.88	AVERAGE	VERTICAL	90	100

Item 3, 4 are the fundamental frequency at 2412 MHz

#### Channel 6

			Over	Limit	Read	Antenna	Preamp	Cable			Table	Ant
	Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	9.0		deg	cm
1 @	2387.000	59.91	-14.09	74.00	29.00	28.05	0.00	2.86	PEAK	VERTICAL	90	100
2 @	2390.000	47.43	-6.57	54.00	16.50	28.05	0.00	2.88	AVERAGE	VERTICAL	90	8955
3 @	2432.200	103.57			72.54	28.13	0.00	2.90	AVERAGE	VERTICAL	90	100
4 @	2438.800	115.87			84.80	28.18	0.00	2.90	PEAK	VERTICAL	90	100
5 @	2483.500	46.52	-7.48	54.00	15.34	28.26	0.00	2.93	AVERAGE	VERTICAL	90	100
<b>6</b> @	2486.900	57.88	-16.12	74.00	26.70	28.26	0.00	2.93	PEAK	VERTICAL	90	100

Item 3, 4 are the fundamental frequency at 2437MHz.

#### Channel 11

			0ver	Limit	Readi	Antenna	Preamp	Cable			Table	Ant
	Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	di <u>e</u>		deg	cm
1 @	2456.200	115.97			84.85	28.22	0.00	2.91	PEAK	VERTICAL	91	100
2 @	2456.800	103.68			72.55	28.22	0.00	2.91	AVERAGE	VERTICAL	91	100
3 @	2483.500	53.54	-0.46	54.00	22.36	28.26	0.00	2.93	AVERAGE	VERTICAL	91	100
4 @	2483.500	73.56	-0.44	74.00	42.37	28.26	0.00	2.93	PEAK	VERTICAL	91	100

Item 1, 2 are the fundamental frequency at 2462 MHz.

 Report Format Version: 01
 Page No.
 : 132 of 152

 FCC ID: VQF-RT3092
 Issued Date
 : Apr. 15, 2009

Temperature	23.5°C	Humidity	62%
Toet Engineer	Allen Liu	Configurations	Draft n MCS0 40MHz Ch 3, 6, 9
Test Engineer	Alleri Liu	Configurations	/ Mode 3 with Ant. A-1 +Ant. A-2
Test Date	Apr. 06, 2009		

#### Channel 3

	Freq	Level	Over Limit				Preamp Factor		Remark	Pol/Phase	Table Pos	Ant Pos
	Mtz	dBuV/m	dВ	dBuV/m	dBu∀	dB/m	dB	dB	92	<u> </u>	deg	cm
1 @	2389.600	73.29	-0.71	74.00	42.37	28.05	0.00	2.86	PEAK	VERTICAL	90	100
2 @	2390.000	50.65	-3.35	54.00	19.72	28.05	0.00	2.88	AVERAGE	VERTICAL	90	100
3 @	2410.000	108.62			77.65	28.09	0.00	2.88	PERK	VERTICAL	90	100
4 @	2412.000	96.88			65.91	28.09	0.00	2.88	AVERAGE	VERTICAL	90	100

Item 3, 4 are the fundamental frequency at 2422 MHz.

#### Channel 6

	Freq	Level	Over Limit				Preamp Factor		Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBuV/m	dВ	dBuV/m	dBuV	dB/m	dB	dB	die P	<u> </u>	deg	cm
<b>1</b> @	2390.000	73.80	-0.20	74.00	42.87	28.05	0.00	2.88	PEAK	VERTICAL	89	100
2 @	2390.000	49.71	-4.29	54.00	18.77	28.05	0.00	2.88	AVERAGE	VERTICAL	89	100
3 @	2432.600	110.87			79.84	28.13	0.00	2.90	PEAK	VERTICAL	89	100
4 @	2433.800	99.32			68.29	28.13	0.00	2.90	AVERAGE	VERTICAL	89	100
5 @	2483.500	49.99	-4.01	54.00	18.81	28.26	0.00	2.93	AVERAGE	VERTICAL	89	100
<b>6</b> @	2485.100	72.95	-1.05	74.00	41.76	28.26	0.00	2.93	PEAK	VERTICAL	89	100

Item 3, 4 are the fundamental frequency at 2437MHz.

#### Channel 9

		Over	Limit	Readi	Antenna	Preamp	Cable			Table	Ant
Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
MHz	dBuV/m	дВ	dBuV/m	dBuV	dB/m	dB	dВ	99		deg	cm
2456.400	95.31			64.19	28.22	0.00	2.91	AVERAGE	VERTICAL	93	100
2456.800	106.94			75.81	28.22	0.00	2.91	PEAK	VERTICAL	93	100
2483.500	52.44	-1.56	54.00	21.26	28.26	0.00	2.93	AVERAGE	VERTICAL	93	100
2483.500	73.89	-0.11	74.00	42.70	28.26	0.00	2.93	PERK	VERTICAL	93	100
	MHz 2456.400 2456.800 2483.500	MHz dBuV/m 2456.400 95.31 2456.800 106.94 2483.500 52.44	MHz dBuV/m dB  2456.400 95.31 2456.800 106.94 2483.500 52.44 -1.56	MHz dBuV/m dB dBuV/m  2456.400 95.31 2456.800 106.94 2483.500 52.44 -1.56 54.00	### Hevel Limit Line Level   MHz   dBuV/m   dB   dBuV/m   dBuV	## Freq Level Limit Line Level Factor    MHz   dBuV/m   dB   dBuV/m   dBuV   dB/m	### Here   Limit   Line   Level   Factor   Factor	Freq Level Limit Line Level Factor Factor Loss  MHz dBuV/m dB dBuV/m dBuV dB/m dB dB  2456.400 95.31 64.19 28.22 0.00 2.91  2456.800 106.94 75.81 28.22 0.00 2.91  2483.500 52.44 -1.56 54.00 21.26 28.26 0.00 2.93	Freq Level Limit Line Level Factor Factor Loss Remark  MHz dBuV/m dB dBuV/m dBuV dB/m dB dB  2456.400 95.31 64.19 28.22 0.00 2.91 RVERAGE 2456.800 106.94 75.81 28.22 0.00 2.91 PERK 2483.500 52.44 -1.56 54.00 21.26 28.26 0.00 2.93 RVERAGE	Freq Level Limit Line Level Factor Factor Loss Remark Pol/Phase  MHz dBuV/m dB dBuV/m dBuV dB/m dB dB  2456.400 95.31 64.19 28.22 0.00 2.91 RVERAGE VERTICAL 2456.800 106.94 75.81 28.22 0.00 2.91 PERK VERTICAL 2483.500 52.44 -1.56 54.00 21.26 28.26 0.00 2.93 RVERAGE VERTICAL	Freq Level Limit Line Level Factor Factor Loss Remark Pol/Phase Pos  MHz dBuV/m dB dBuV/m dBuV dB/m dB dB dB deg  2456.400 95.31 64.19 28.22 0.00 2.91 AVERAGE VERTICAL 93 2456.800 106.94 75.81 28.22 0.00 2.91 PEAK VERTICAL 93 2483.500 52.44 -1.56 54.00 21.26 28.26 0.00 2.93 AVERAGE VERTICAL 93

Item 1, 2 are the fundamental frequency at 2452 MHz.

## Note:

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

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

 Report Format Version: 01
 Page No.
 : 133 of 152

 FCC ID: VQF-RT3092
 Issued Date
 : Apr. 15, 2009

Temperature	23.5°C	Humidity	62%
Tost Engineer	Allen Liu	Configurations	802.11b CH 1, 6, 11
Test Engineer	Alleri Liu	Configurations	/ Mode 3 with Ant. A-1
Test Date	Apr. 06, 2009		

#### Channel 1

				Over	Limit	Readi	Antenna	Preamp	Cable			Table	Ant
		Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
		MHz	dBuV/m	dВ	dBuV/m	dBuV	dB/m	<u>ав</u>	dВ	9		deg	cm
1 @	E.	2386.000	62.04	-11.96	74.00	31.12	28.05	0.00	2.86	PEAK	VERTICAL	154	100
2 @	ļ.	2386.200	53.11	-0.89	54.00	22.19	28.05	0.00	2.86	AVERAGE	VERTICAL	154	100
3 @	į.	2412.800	109.30			78.33	28.09	0.00	2.88	AVERAGE	VERTICAL	154	100
4 @	i i	2413.000	113.29			82.32	28.09	0.00	2.88	PERK	VERTICAL	154	100

Item 3, 4 are the fundamental frequency at 2412 MHz.

## Channel 6

				0ver	Limit	Readi	Antenna	Preamp	Cable			Table	Ant
		Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	g <sub>e</sub>		deg	cm
1	. e	2388.600	58.17	-15.83	74.00	27.26	28.05	0.00	2.86	PEAK	VERTICAL	91	100
2	0	2390.000	46.54	-7.46	54.00	15.61	28.05	0.00	2.88	AVERAGE	VERTICAL	91	100
3	e	436.200	110.04			79.01	28.13	0.00	2.90	AVERAGE	VERTICAL	91	100
4	e	2438.400	113.99			82.91	28.18	0.00	2.90	PERK	VERTICAL	91	100
5	e	2483.500	46.45	-7.55	54.00	15.27	28.26	0.00	2.93	AVERAGE	VERTICAL	91	100
6	e	2485.700	58.19	-15.81	74.00	27.00	28.26	0.00	2.93	PEAK	VERTICAL	91	100

Item 3, 4 are the fundamental frequency at 2437MHz.

## Channel 11

	Freq	Level	Over Limit				Preamp Factor		Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBuV/m		dBuV/m	dBuV	dB/m	dB	dB		<u> </u>	deg -	cm
1 @	2459.400	108.96			77.83	28.22	0.00	2.91	AVERAGE	VERTICAL	153	100
2 @	2461.000	112.54			81.42	28.22	0.00	2.91	PEAK	VERTICAL	153	100
3 @	2487.300	53.94	-0.06	54.00	22.76	28.26	0.00	2.93	AVERAGE	VERTICAL	153	100
4 0	2487.500	61.87	-12.13	74.00	30.65	28.30	0.00	2.93	PEAK	VERTICAL	153	100

Item 1, 2 are the fundamental frequency at 2462 MHz.

Temperature	23.5°C	Humidity	62%
Toot Engineer	Allen Liu	Configurations	802.11g CH 1, 6, 11
Test Engineer	Alleri Liu	Configurations	/ Mode 3 with Ant. A-1
Test Date	Apr. 06, 2009		

#### Channel 1

	Freq	Level	Over Limit				Preamp Factor		Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	oly T			cm
1 @	2390.000	50.61	-3.39	54.00	19.68	28.05	0.00	2.88	AVERAGE	VERTICAL	105	100
2 @	2390.000	67.96	-6.04	74.00	37.03	28.05	0.00	2.88	PEAK	VERTICAL	105	100
3 @	2419.000	101.42			70.44	28.09	0.00	2.90	AVERAGE	VERTICAL	105	100
4 @	2419.400	111.05			80.06	28.09	0.00	2.90	PERK	VERTICAL	105	100

Item 3, 4 are the fundamental frequency at 2412 MHz.

#### Channel 6

			0ver	Limit	Read	Antenna	Preamp	Cable			Table	Ant
	Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
	MHz	dBuV/m		dBuV/m	dBuV	dB/m	dB	dB	S <u>.</u>		deg	cm
1 @	2387.200	57.27	-16.73	74.00	26.36	28.05	0.00	2.86	PEAK	VERTICAL	153	100
2 @	2390.000	46.12	-7.88	54.00	15.19	28.05	0.00	2.88	AVERAGE	VERTICAL	153	100
3 @	2432.400	115.33	1		84.30	28.13	0.00	2.90	PEAK	VERTICAL	153	100
4 @	2434.200	103.67			72.64	28.13	0.00	2.90	AVERAGE	VERTICAL	153	100
5 @	2483.500	57.31	-16.69	74.00	26.12	28.26	0.00	2.93	PEAK	VERTICAL	153	100
6 @	2483.500	46.22	-7.78	54.00	15.04	28.26	0.00	2.93	AVERAGE	VERTICAL	153	100

Item 3, 4 are the fundamental frequency at 2437 MHz.

#### Channel 11

			0ver	Limit	Readi	Antenna	Preamp	Cable			Table	Ant
	Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	G <sub>B</sub>	3242	deg	cm
1 @	2459.200	101.99			70.86	28.22	0.00	2.91	AVERAGE	VERTICAL	153	100
2 @	2467.200	111.63			80.49	28.22	0.00	2.93	PEAK	VERTICAL	153	100
3 @	2483.500	53.25	-0.75	54.00	22.07	28.26	0.00	2.93	AVERAGE	VERTICAL	153	100
4 @	2484.100	69.80	-4.20	74.00	38.61	28.26	0.00	2.93	PEAK	VERTICAL	153	100

Item 1, 2 are the fundamental frequency at 2462 MHz.

## Note:

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

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

 Report Format Version: 01
 Page No.
 : 135 of 152

 FCC ID: VQF-RT3092
 Issued Date
 : Apr. 15, 2009

Temperature	23.5°C	Humidity	62%
Toot Engineer	Allen Liu	Configurations	Draft n MCS0 20MHz Ch 1, 6, 11
Test Engineer	Allen Liu	Configurations	/ Mode 4 with Ant. B-1 + Ant. B-2
Test Date	Apr. 06, 2009		

#### Channel 1

				Over	Limit	Readi	Antenna	Preamp	Cable			Table	Ant
		Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	dia		deg	cm
1	·@	2390.000	69.18	-4.82	74.00	38.25	28.05	0.00	2.88	PEAK	VERTICAL	306	124
2	e	2390.000	51.60	-2.40	54.00	20.67	28.05	0.00	2.88	AVERAGE	VERTICAL	306	124
3	@	2416.000	108.38			77.39	28.09	0.00	2.90	PEAK	VERTICAL	306	124
4	e	2417.000	98.59			67.60	28.09	0.00	2.90	AVERAGE	VERTICAL	306	124

Item 3, 4 are the fundamental frequency at 2412 MHz

## Channel 6

			Over	Limit	Read	Antenna	Preamp	Cable			Table	Ant
	Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dВ	S <u>i</u>		deg	cm
1	2387.400	54.31	-19.69	74.00	23.39	28.05	0.00	2.86	PEAK	VERTICAL	180	107
2 @	2390.000	43.79	-10.21	54.00	12.86	28.05	0.00	2.88	AVERAGE	VERTICAL	180	107
3 @	2431.800	98.95			67.93	28.13	0.00	2.90	AVERAGE	VERTICAL	180	107
4 @	2432.800	109.65			78.62	28.13	0.00	2.90	PEAK	VERTICAL	180	107
5 @	2483.500	43.99	-10.01	54.00	12.81	28.26	0.00	2.93	AVERAGE	VERTICAL	180	107
6	2485.100	55.45	-18.55	74.00	24.27	28.26	0.00	2.93	PEAK	VERTICAL	180	107

Item 3, 4 are the fundamental frequency at 2437MHz.

## Channel 11

			0ver	Limit	Readi	Antenna	Preamp	Cable			Table	Ant
	Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
	МН	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	Sig.	- 1/4/2	deg	cm
1 @	2460.400	97.55			66.43	28.22	0.00	2.91	AVERAGE	VERTICAL	179	101
2 @	2464.800	107.40			76.27	28.22	0.00	2.91	PEAK	VERTICAL	179	101
3 @	2483.500	50.97	-3.03	54.00	19.78	28.26	0.00	2.93	AVERAGE	VERTICAL	179	101
4 @	2483.900	68.74	-5.26	74.00	37.55	28.26	0.00	2.93	PEAK	VERTICAL	179	101

Item 1, 2 are the fundamental frequency at 2462 MHz.

Temperature	23.5°C	Humidity	62%
Tost Engineer	Allen Liu	Configurations	Draft n MCS0 40MHz Ch 3, 6, 9
Test Engineer	Allen Liu	Configurations	/ Mode 4 with Ant. B-1 + Ant. B-2
Test Date	Apr. 06, 2009		

#### Channel 3

				0ver	Limit	Readi	Antenna	Preamp	Cable			Table	Ant
		Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
		MHz	dBuV/m	dВ	dBuV/m	dBuV	dB/m	dB	dВ	dia P	3242	deg	cm
1		2389.600	73.61	-0.39	74.00	42.70	28.05	0.00	2.86	PEAK	VERTICAL	181	135
2	e	2390.000	53.83	-0.17	54.00	22.90	28.05	0.00	2.88	AVERAGE	VERTICAL	181	135
3	0	2430.000	105.25			74.22	28.13	0.00	2.90	PEAK	VERTICAL	181	135
4	@	2431.200	94.33			63.30	28.13	0.00	2.90	AVERAGE	VERTICAL	181	135

Item 3, 4 are the fundamental frequency at 2422 MHz.

#### Channel 6

			0ver	Limit	Read	Antenna	Preamp	Cable			Table	Ant
	Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
	MHz	dBuV/m	dВ	dBuV/m	dBuV	dB/m	dB	dB	dig.		deg	cm
1 @	2385.200	65.65	-8.35	74.00	34.78	28.01	0.00	2.86	PEAK	VERTICAL	179	105
2 @	2390.000	49.40	-4.60	54.00	18.47	28.05	0.00	2.88	AVERAGE	VERTICAL	179	105
3 @	2422.600	95.99			64.96	28.13	0.00	2.90	AVERAGE	VERTICAL	179	105
4 @	2431.400	106.56			75.53	28.13	0.00	2.90	PEAK	VERTICAL	179	105
5 @	2483.500	51.11	-2.89	54.00	19.93	28.26	0.00	2.93	AVERAGE	VERTICAL	179	105
6 @	2487.100	69.15	-4.85	74.00	37.97	28.26	0.00	2.93	PERK	VERTICAL	179	105

Item 3, 4 are the fundamental frequency at 2437MHz.

#### Channel 9

			0ver	Limit	Readi	Antenna	Preamp	Cable			Table	Ant
	Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
	МКг	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	90	- 1/4/2	deg	cm
<b>1</b> @	2440.000	103.49			72.42	28.18	0.00	2.90	PEAK	VERTICAL	181	101
2 @	2455.200	92.43			61.31	28.22	0.00	2.91	AVERAGE	VERTICAL	181	101
3 @	2483.500	53.89	-0.11	54.00	22.70	28.26	0.00	2.93	AVERAGE	VERTICAL	181	101
4 @	2485.100	72.83	-1.17	74.00	41.64	28.26	0.00	2.93	PEAK	VERTICAL	181	101

Item 1, 2 are the fundamental frequency at 2452 MHz.

## Note:

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

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

 Report Format Version: 01
 Page No.
 : 137 of 152

 FCC ID: VQF-RT3092
 Issued Date
 : Apr. 15, 2009



Temperature	23.5°C	Humidity	62%
Test Engineer	Allen Liu	Configurations	802.11b CH 1, 6, 11
lesi Engineei	Alleri Liu	Configurations	/ Mode 4 with Ant. B-1
Test Date	Apr. 06, 2009		

#### Channel 1

				0ver	Limit	Readi	Antenna	Preamp	Cable			Table	Ant
		Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
		MHz	dBuV/m	dВ	dBuV/m	dBuV	dB/m	dB	dB	g <sub>e</sub>	-32-32	deg	cm
1		2384.600	56.06	-17.94	74.00	25.18	28.01	0.00	2.86	PEAK	VERTICAL	306	122
2 6	9	2385.400	45.82	-8.18	54.00	14.95	28.01	0.00	2.86	AVERAGE	VERTICAL	306	122
3 6	9	2410.600	105.93			74.95	28.09	0.00	2.88	PEAK	VERTICAL	306	122
4 6	9	2411.200	101.82			70.84	28.09	0.00	2.88	AVERAGE	VERTICAL	306	122

Item 3, 4 are the fundamental frequency at 2412 MHz.

## Channel 6

			Over	Limit	Readi	Antenna	Preamp	Cable			Table	Ant
	Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dВ		<u>-(1-1)</u>	deg	cm
1	2388.800	54.22	-19.78	74.00	23.30	28.05	0.00	2.86	PEAK	HORIZONTAL	179	100
2 @	2390.000	43.48	-10.52	54.00	12.54	28.05	0.00	2.88	AVERAGE	HORI ZONTAL	179	100
3 @	436.000	97.07			66.04	28.13	0.00	2.90	PEAK	HORI ZONTAL	179	100
4 @	2436.200	93.30			62.27	28.13	0.00	2.90	AVERAGE	HORI ZONTAL	179	100
5 @	2483.500	43.70	-10.30	54.00	12.51	28.26	0.00	2.93	AVERAGE	HORI ZONTAL	179	100
6	2484.300	54.76	-19.24	74.00	23.57	28.26	0.00	2.93	PEAK	HORI ZONTAL	179	100

Item 3, 4 are the fundamental frequency at 2437MHz.

## Channel 11

	Freq	Level	Over Limit				Preamp Factor		Remark	Pol/Phase	Table Pos	Ant Pos
	Mz	dBuV/m		dBuV/m	dBuV	dB/m	dB	dB		3343	deg -	cm
1 @	2463.200	103.65			72.53	28.22	0.00	2.91	PEAK	VERTICAL	179	101
2 @	2464.800	99.93			68.81	28.22	0.00	2.91	AVERAGE	VERTICAL	179	101
3 @	2487.300	50.20	-3.80	54.00	19.01	28.26	0.00	2.93	AVERAGE	VERTICAL	179	101
4 @	2487.900	59.17	-14.83	74.00	27.95	28.30	0.00	2.93	PERK	VERTICAL	179	101

Item 1, 2 are the fundamental frequency at 2462 MHz.

Page No. : 138 of 152

Issued Date : Apr. 15, 2009

Temperature	23.5°C	Humidity	62%
Test Engineer	Allen Liu	Configurations	802.11g CH 1, 6, 11
lesi Engineei	Alleri Liu	Configurations	/ Mode 4 with Ant. B-1
Test Date	Apr. 06, 2009		

#### Channel 1

			0ver	Limit	Readi	Antenna	Preamp	Cable			Table	Ant
	Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
	MHz	dBuV/m	dВ	dBuV/m	dBuV	dB/m	dВ	dВ	99		deg	cm
1 @	2389.800	61.47	-12.53	74.00	30.53	28.05	0.00	2.88	PEAK	VERTICAL	306	123
2 @	2390.000	47.11	-6.89	54.00	16.18	28.05	0.00	2.88	AVERAGE	VERTICAL	306	123
3 @	2407.000	104.57			73.60	28.09	0.00	2.88	PEAK	VERTICAL	306	123
4 @	2410.200	93.89			62.91	28.09	0.00	2.88	AVERAGE	VERTICAL	306	123

Item 3, 4 are the fundamental frequency at 2412 MHz.

#### Channel 6

			Over	Limit	Read	Antenna	Preamp	Cable			Table	Ant
	Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
	Mtz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	¥ <u>1</u>	-32-32	deg	cm
1 @	2390.000	43.48	-10.52	54.00	12.55	28.05	0.00	2.88	AVERAGE	VERTICAL	165	103
2	2390.000	54.02	-19.98	74.00	23.09	28.05	0.00	2.88	PEAK	VERTICAL	165	103
3 @	2435.200	102.56			71.53	28.13	0.00	2.90	PEAK	VERTICAL	165	103
4 @	2436.000	93.18			62.15	28.13	0.00	2.90	AVERAGE	VERTICAL	165	103
5 @	2483.500	43.87	-10.13	54.00	12.69	28.26	0.00	2.93	AVERAGE	VERTICAL	165	103
6	2485.300	55.08	-18.92	74.00	23.90	28.26	0.00	2.93	PEAK	VERTICAL	165	103

Item 3, 4 are the fundamental frequency at 2437 MHz.

#### Channel 11

	Freq	Level	Over Limit				Preamp Factor		Remark	Pol/Phase	Table Pos	Ant Pos
	МНг	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	g <u>ia</u>	101101	deg -	cm
<b>1</b> @	2463.600	92.82			61.69	28.22	0.00	2.91	AVERAGE	VERTICAL	179	100
2 @	2465.000	102.74			71.61	28.22	0.00	2.91	PEAK	VERTICAL	179	100
3 @	2483.500	47.99	-6.01	54.00	16.81	28.26	0.00	2.93	AVERAGE	VERTICAL	179	100
4 @	2483.700	64.71	-9.29	74.00	33.53	28.26	0.00	2.93	PERK	VERTICAL	179	100

Item 1, 2 are the fundamental frequency at 2462 MHz.

## Note:

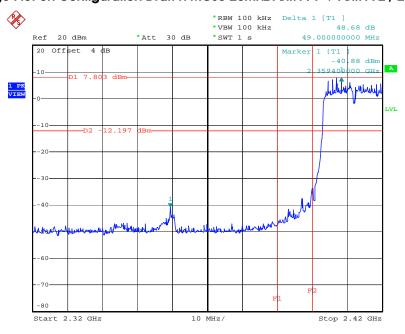
Emission level (dBuV/m) =  $20 \log Emission$  level (uV/m).

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

 Report Format Version: 01
 Page No.
 : 139 of 152

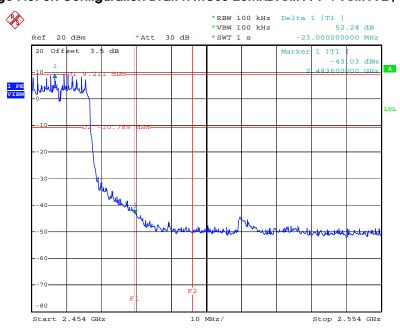
 FCC ID: VQF-RT3092
 Issued Date
 : Apr. 15, 2009

# For Emission not in Restricted Band Low Band Edge Plot on Configuration Draft n MCS0 20MHz Ant. A-1 + Ant. A-2 / 2412 MHz



Date: 7.APR.2009 01:22:11

## High Band Edge Plot on Configuration Draft n MCS0 20MHz Ant. A-1 + Ant. A-2 / 2462 MHz



Date: 7.APR.2009 01:01:31

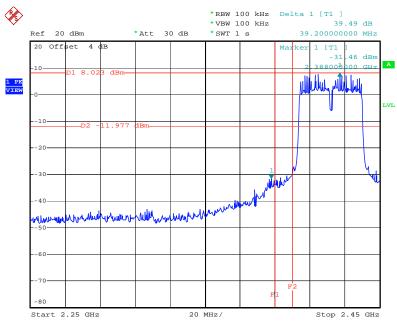
 Report Format Version: 01
 Page No.
 : 140 of 152

 FCC ID: VQF-RT3092
 Issued Date
 : Apr. 15, 2009



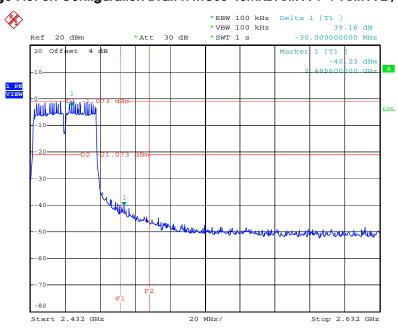
# For Emission not in Restricted Band

# Low Band Edge Plot on Configuration Draft n MCS0 40MHz Ant. A-1 $\,+\,$ Ant. A-2 / 2422 MHz



Date: 7.APR.2009 01:32:50

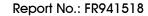
## High Band Edge Plot on Configuration Draft n MCS0 40MHz Ant. A-1 + Ant. A-2 / 2452 MHz



Date: 7.APR.2009 10:24:43

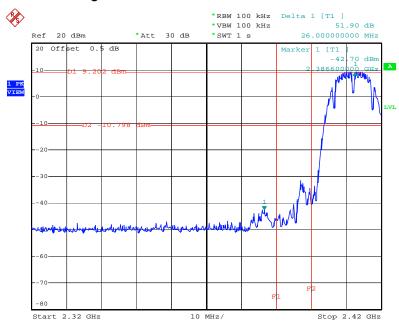
 Report Format Version: 01
 Page No.
 : 141 of 152

 FCC ID: VQF-RT3092
 Issued Date
 : Apr. 15, 2009



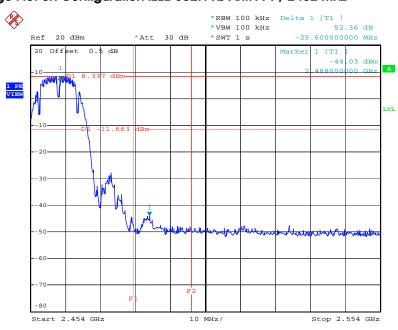


# Low Band Edge Plot on Configuration IEEE 802.11b Ant. A-1 / 2412 MHz



Date: 7.APR.2009 09:25:35

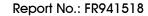
## High Band Edge Plot on Configuration IEEE 802.11b Ant. A-1 / 2462 MHz



Date: 6.APR.2009 23:42:33

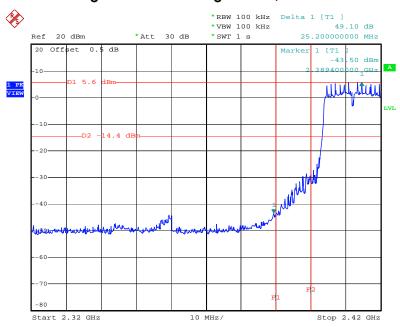
 Report Format Version: 01
 Page No.
 : 142 of 152

 FCC ID: VQF-RT3092
 Issued Date
 : Apr. 15, 2009



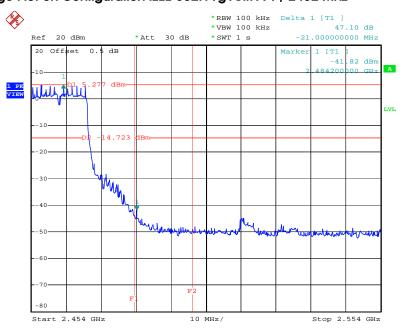


# Low Band Edge Plot on Configuration IEEE 802.11g Ant. A-1 / 2412 MHz



Date: 7.APR.2009 09:44:08

## High Band Edge Plot on Configuration IEEE 802.11g Ant. A-1 / 2462 MHz

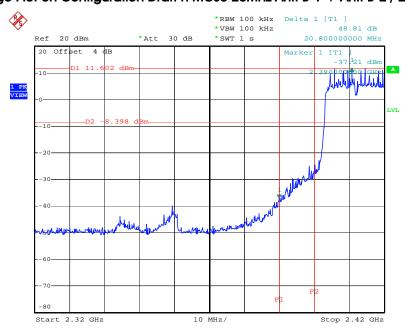


Date: 7.APR.2009 09:51:13

 Report Format Version: 01
 Page No.
 : 143 of 152

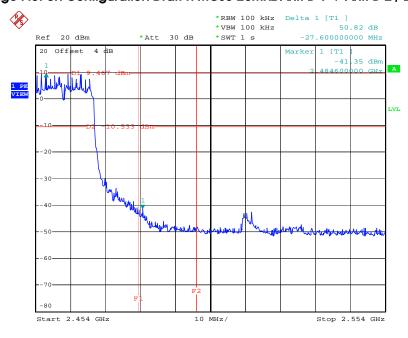
 FCC ID: VQF-RT3092
 Issued Date
 : Apr. 15, 2009

# For Emission not in Restricted Band Low Band Edge Plot on Configuration Draft n MCS0 20MHz Ant. B-1 + Ant. B-2 / 2412 MHz



Date: 7.APR.2009 01:10:22

## High Band Edge Plot on Configuration Draft n MCS0 20MHz Ant. B-1 + Ant. B-2 / 2462 MHz



Date: 7.APR.2009 01:17:25

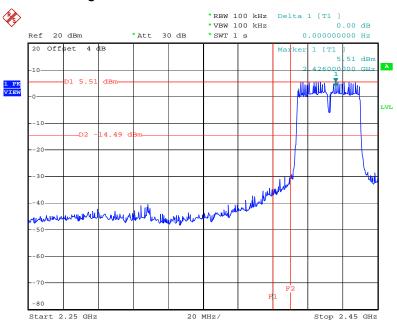
 Report Format Version: 01
 Page No.
 : 144 of 152

 FCC ID: VQF-RT3092
 Issued Date
 : Apr. 15, 2009



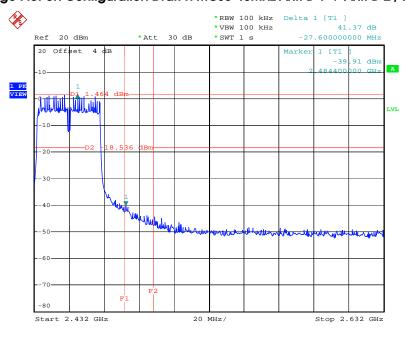
# For Emission not in Restricted Band

# Low Band Edge Plot on Configuration Draft n MCSO 40MHz Ant. B-1 + Ant. B-2 / 2422 MHz



Date: 7.APR.2009 10:13:45

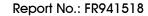
## High Band Edge Plot on Configuration Draft n MCS0 40MHz Ant. B-1 + Ant. B-2 / 2452 MHz



Date: 7.APR.2009 01:38:42

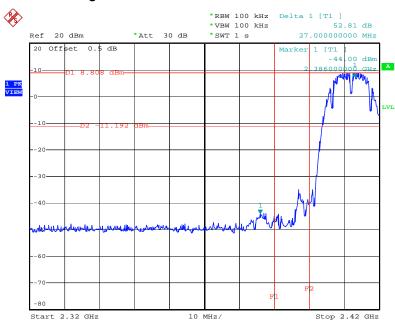
 Report Format Version: 01
 Page No.
 : 145 of 152

 FCC ID: VQF-RT3092
 Issued Date
 : Apr. 15, 2009



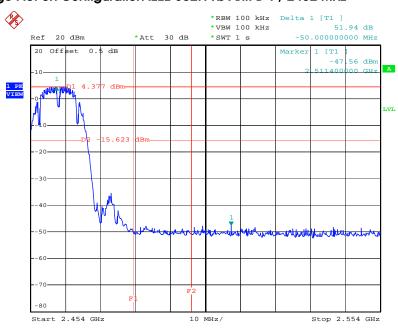


# Low Band Edge Plot on Configuration IEEE 802.11b Ant. B-1 / 2412 MHz



Date: 7.APR.2009 09:23:06

## High Band Edge Plot on Configuration IEEE 802.11b Ant. B-1 / 2462 MHz



Date: 7.APR.2009 00:13:20

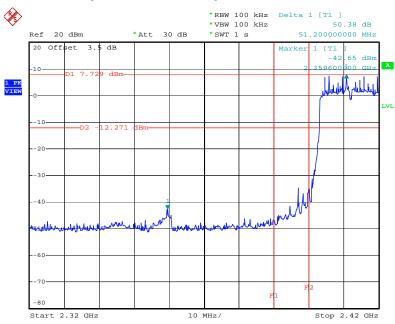
 Report Format Version: 01
 Page No.
 : 146 of 152

 FCC ID: VQF-RT3092
 Issued Date
 : Apr. 15, 2009



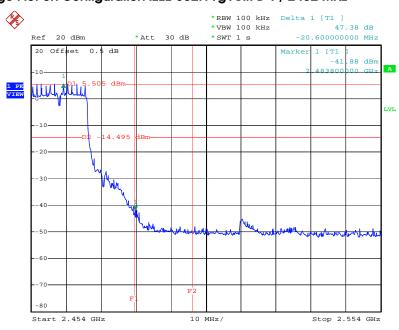


# Low Band Edge Plot on Configuration IEEE 802.11g Ant. B-1 / 2412 MHz



Date: 7.APR.2009 00:56:22

## High Band Edge Plot on Configuration IEEE 802.11g Ant. B-1 / 2462 MHz



Date: 7.APR.2009 00:22:43

 Report Format Version: 01
 Page No.
 : 147 of 152

 FCC ID: VQF-RT3092
 Issued Date
 : Apr. 15, 2009



## 4.7. Antenna Requirements

#### 4.7.1. Limit

Except for special regulations, the Low-power Radio-frequency Devices must not be equipped with any jacket for installing an antenna with extension cable. An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. Further, this requirement does not apply to intentional radiators that must be professionally installed.

#### 4.7.2. Antenna Connector Construction

Please refer to section 3.3 in this test report; antenna connector complied with the requirements.

 Report Format Version: 01
 Page No. : 148 of 152

 FCC ID: VQF-RT3092
 Issued Date : Apr. 15, 2009



# 5. LIST OF MEASURING EQUIPMENTS

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
EMC Receiver	R&S	ESCS 30	100174	9kHz – 2.75GHz	Mar. 03, 2009	Conduction (CO04-HY)
LISN	MessTec	NNB-2/16Z	99079	9kHz – 30MHz	Mar. 31, 2008	Conduction (CO04-HY)
LISN (Support Unit)	EMCO	3810/2NM	9703-1839	9kHz – 30MHz	Mar. 22, 2008	Conduction (CO04-HY)
RF Cable-CON	UTIFLEX	3102-26886-4	CB049	9kHz – 30MHz	Apr. 20, 2008	Conduction (CO04-HY)
ISN	SCHAFFNER	ISN T400	21653	9kHz –30MHz	Mar. 27, 2008	Conduction (CO04-HY)
EMI Filter	LINDGREN	LRE-2030	2651	< 450 Hz	N/A	Conduction (CO04-HY)
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30 MHz - 1 GHz 3m	Jun. 14, 2008	Radiation (03CH03-HY)
Amplifier	SCHAFFNER	COA9231A	18667	9 kHz - 2 GHz	Jan. 23, 2009	Radiation (03CH03-HY)
Amplifier	Agilent	8449B	3008A02120	1 GHz - 26.5 GHz	Jul. 21, 2008	Radiation (03CH03-HY)
Amplifier	MITEQ	AMF-6F-260400	9121372	26.5 GHz - 40 GHz	Jan. 22, 2008*	Radiation (03CH03-HY)
Spectrum Analyzer	R&S	FSP40	100004	9 kHz - 30 GHz	Oct. 06, 2008	Radiation (03CH03-HY)
Loop Antenna	R&S	HFH2-Z2	860004/001	9 kHz - 30 MHz	Jul. 28, 2008*	Radiation (03CH03-HY)
Bilog Antenna	SCHAFFNER	CBL 6112D	22237	30 MHz – 1 GHz	Jul. 12, 2008	Radiation (03CH03-HY)
Horn Antenna	EMCO	3115	6741	1GHz ~ 18GHz	Apr. 04, 2008	Radiation (03CH03-HY)
Horn Antenna	EMCO	3115	6741	1GHz ~ 18GHz	Apr. 04, 2009	Radiation (03CH03-HY)
Horn Antenna	SCHWARZBECK	BBHA9170	BBHA9170154	15 GHz - 40 GHz	Jan. 16, 2009	Radiation (03CH03-HY)
RF Cable-R03m	Jye Bao	RG142	CB021	30 MHz - 1 GHz	Jan. 05, 2009	Radiation (03CH03-HY)
RF Cable-HIGH	SUHNER	SUCOFLEX 106	03CH03-HY	1 GHz - 40 GHz	Jan. 05, 2009	Radiation (03CH03-HY)
Turn Table	HD	D\$ 420	420/650/00	0 – 360 degree	N/A	Radiation (03CH03-HY)
Antenna Mast	DH	MA 240	240/560/00	1 m - 4 m	N/A	Radiation (03CH03-HY)
Spectrum Analyzer	R&S	FSP30	100023	9kHz ~ 30GHz	Jan. 09, 2009	Conducted (TH01-HY)
Power Meter	R&S	NRVS	100444	DC ~ 40GHz	Jul. 11, 2008	Conducted
Power Sensor	R&S	NRV-Z51	100458	DC ~ 30GHz	Jul. 11, 2008	(TH01-HY) Conducted (TH01-HY)
Power Sensor	R&S	NRV-Z32	100057	30MHz ∼ 6GHz	Jul. 11, 2008	Conducted
AC Power Source	HPC	HPA-500W	HPA-9100024	AC 0 ~ 300V	May. 30, 2009*	(TH01-HY) Conducted
DC Power Source	G.W.	GPC-6030D	C671845	DC 1V ~ 60V	Mar. 13, 2009	(TH01-HY) Conducted
Temp. and Humidity					•	(TH01-HY) Conducted
Chamber	Giant Force	GTH-225-20-S	MAB0103-001	N/A	Jul. 18, 2008	(THO1-HY)
RF CABLE-1m	Jye Bao	RG142	CB034-1m	20MHz ~ 7GHz	Dec. 01, 2008	Conducted (TH01-HY)

Page No.

: 149 of 152

Issued Date : Apr. 15, 2009



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
RF CABLE-2m	Jye Bao	RG142	CB035-2m	20MHz ~ 1GHz	Dec. 01, 2008	Conducted (TH01-HY)
Vector Signal Generator	R&S	SMU200A	102098	100kHz ~ 6GHz	Dec. 14, 2008	Conducted (TH01-HY)
Signal Generator	R&S	SMR40	100116	10MHz ~ 40GHz	Mar. 10, 2009	Conducted (TH01-HY)
Oscilloscope	Tektonix	TD\$380	B016197	400MHz/ 2GS/s	Jun. 27, 2008	Conducted (TH01-HY)

Note: Calibration Interval of instruments listed above is one year.

Note: \*Calibration Interval of instruments listed above is two year.

Page No. : 150 of 152 Issued Date : Apr. 15, 2009



# 6. TEST LOCATION

SHIJR	ADD	:	6FI., No. 106, Sec. 1, Shintai 5th Rd., Shijr City, Taipei, Taiwan 221, R.O.C.
	TEL	:	886-2-2696-2468
	FAX	:	886-2-2696-2255
HWA YA	ADD	:	No. 52, Hwa Ya 1st Rd., Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.
	TEL	:	886-3-327-3456
	FAX	:	886-3-318-0055
LINKOU	ADD	:	No. 30-2, Dingfu Tsuen, Linkou Shiang, Taipei, Taiwan 244, R.O.C
	TEL	:	886-2-2601-1640
	FAX	:	886-2-2601-1695
DUNGHU	ADD	:	No. 3, Lane 238, Kangle St., Neihu Chiu, Taipei, Taiwan 114, R.O.C.
	TEL	:	886-2-2631-4739
	FAX	:	886-2-2631-9740
JUNGHE	ADD	:	7FI., No. 758, Jungjeng Rd., Junghe City, Taipei, Taiwan 235, R.O.C.
	TEL	:	886-2-8227-2020
	FAX	:	886-2-8227-2626
NEIHU	ADD	:	4FI., No. 339, Hsin Hu 2 <sup>nd</sup> Rd., Taipei 114, Taiwan, R.O.C.
	TEL	:	886-2-2794-8886
	FAX	:	886-2-2794-9777
JHUBEI	ADD	:	No.8, Lane 724, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C.
	TEL	:	886-3-656-9065
	FAX	:	886-3-656-9085
-	•		

: 151 of 152



## 7. TAF CERTIFICATE OF ACCREDITATION



Certificate No.: L1190-081212

# Certificate of Accreditation

This is to certify that

#### Sporton International Inc.

EMC & Wireless Communications Laboratory

No.52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.

#### is accredited in respect of laboratory

Accreditation Criteria : ISO/IEC 17025:2005

Accreditation Number : 1190

Originally Accredited : December 15, 2003

Effective Period : January 10, 2007 to January 09, 2010

Accredited Scope : Testing Field, see described in the Appendix

: Accreditation Program for Designated Testing Laboratory Specific Accreditation

Program for Commodities Inspection

Accreditation Program for Telecommunication Equipment

Testing Laboratory

Accreditation Program for BSMI Mutual Recognition

Arrangment with Foreign Authorities

Jay-San Chen

President, Taiwan Accreditation Foundation

Date: December 12, 2008

P1, total 18 pages

The Appendix forms an integral part of this Certificate, which shall be invalid when use without the Appendix

Report Format Version: 01 : 152 of 152 Page No. FCC ID: VQF-RT3092 Issued Date : Apr. 15, 2009