

# Conducted Output Power Plot on Configuration IEEE 802.11b Ant. B / 2437 MHz



Date: 25.MAR.2009 15:19:11

## Conducted Output Power Plot on Configuration IEEE 802.11b Ant. B / 2462 MHz

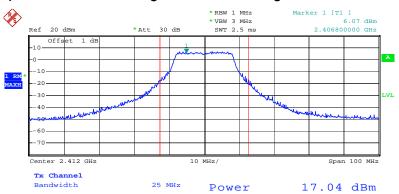


Date: 25.MAR.2009 15:31:00

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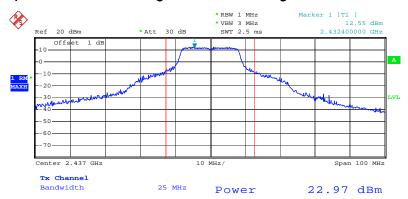


### Conducted Output Power Plot on Configuration IEEE 802.11g Ant. A / 2412 MHz



Date: 25.MAR.2009 15:38:31

### Conducted Output Power Plot on Configuration IEEE 802.11g Ant. A / 2437 MHz



Date: 25.MAR.2009 15:43:35

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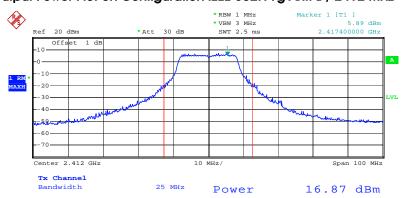


### Conducted Output Power Plot on Configuration IEEE 802.11g Ant. A / 2462 MHz



Date: 25.MAR.2009 15:44:51

## Conducted Output Power Plot on Configuration IEEE 802.11g Ant. B / 2412 MHz



Date: 25.MAR.2009 15:39:31

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### Conducted Output Power Plot on Configuration IEEE 802.11g Ant. B / 2437 MHz



Date: 25.MAR.2009 15:41:05

## Conducted Output Power Plot on Configuration IEEE 802.11g Ant. B / 2462 MHz

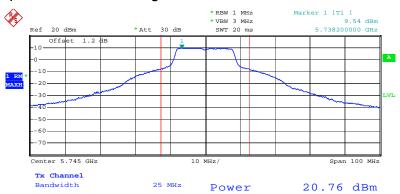


Date: 25.MAR.2009 15:46:01

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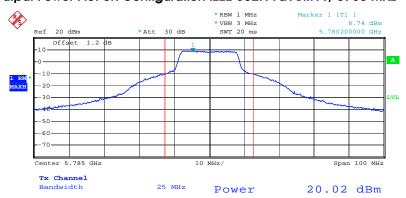


### Conducted Output Power Plot on Configuration IEEE 802.11a Ant. A / 5745 MHz



Date: 25.MAR.2009 16:13:37

## Conducted Output Power Plot on Configuration IEEE 802.11a Ant. A / 5785 MHz



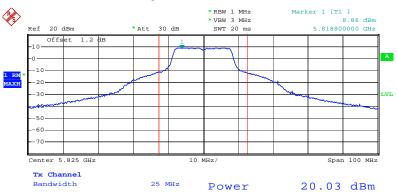
Date: 25.MAR.2009 16:16:44

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### Conducted Output Power Plot on Configuration IEEE 802.11a Ant. A / 5825 MHz



Date: 25.MAR.2009 16:22:02

## Conducted Output Power Plot on Configuration IEEE 802.11a Ant. B / 5745 MHz

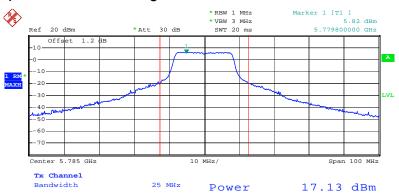


Date: 25.MAR.2009 16:15:40

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# Conducted Output Power Plot on Configuration IEEE 802.11a Ant. B / 5785 MHz



Date: 25.MAR.2009 16:17:34

## Conducted Output Power Plot on Configuration IEEE 802.11a Ant. B / 5825 MHz



Date: 25.MAR.2009 16:19:51

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### 4.3. Power Spectral Density Measurement

#### 4.3.1. Limit

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3 kHz band during any time interval of continuous transmission.

#### 4.3.2. Measuring Instruments and Setting

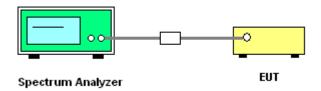
Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	30 kHz
RB	3 kHz
VB	30 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	10s

#### 4.3.3. Test Procedures

- 1. The transmitter output (antenna port) was connected to the spectrum analyser.
- 2. Set RBW of spectrum analyzer to 3kHz and VBW to 30kHz. Set Detector to Peak, Trace to Max Hold.
- 3. Mark the frequency with maximum peak power as the center of the display of the spectrum.
- 4. Set the span to 30kHz and the sweep time to 10s and record the maximum peak value.
- 5. Measuring multiple antennas, the connector is required to link with spectrum analyser through a combiner.

#### 4.3.4. Test Setup Layout



#### 4.3.5. Test Deviation

There is no deviation with the original standard.

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### 4.3.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

#### 4.3.7. Test Result of Power Spectral Density

Temperature	24°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	Draft n

### For 2.4GHz Band

#### Configuration Draft n MCSO 20MHz Ant. A + Ant. B

Channel	Frequency	Power Density (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	-3.35	8.00	Complies
6	2437 MHz	-1.94	8.00	Complies
11	2462 MHz	-6.17	8.00	Complies

### Configuration Draft n MCSO 40MHz Ant. A + Ant. B

Channel	Frequency	Power Density (dBm)	Max. Limit (dBm)	Result
3	2422 MHz	-12.77	8.00	Complies
6	2437 MHz	-7.85	8.00	Complies
9	2452 MHz	-13.62	8.00	Complies

#### For 5GHz Band

### Configuration 11a Draft n MCSO 20MHz Ant. A + Ant. B

Channel	Frequency	Power Density (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	-1.43	8.00	Complies
157	5785 MHz	-1.10	8.00	Complies
165	5825 MHz	-2.48	8.00	Complies

### Configuration 11a Draft n MCS0 40MHz Ant. A + Ant. B

Channel	Frequency	Power Density (dBm)	Max. Limit (dBm)	Result
151	5755 MHz	-3.87	8.00	Complies
159	5795 MHz	-3.12	8.00	Complies

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Temperature	24°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	802.11a/b/g

# Configuration IEEE 802.11b Ant. A + Ant. B

Channel	Frequency	Power Density (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	-3.51	8.00	Complies
6	2437 MHz	-1.80	8.00	Complies
11	2462 MHz	-5.57	8.00	Complies

# Configuration IEEE 802.11g Ant. A + Ant. B

Channel	Frequency	Power Density (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	-3.26	8.00	Complies
6	2437 MHz	1.17	8.00	Complies
11	2462 MHz	-3.47	8.00	Complies

# Configuration IEEE 802.11a Ant. A + Ant. B

Channel	Frequency	Power Density (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	1.01	8.00	Complies
157	5785 MHz	-0.70	8.00	Complies
165	5825 MHz	-0.21	8.00	Complies

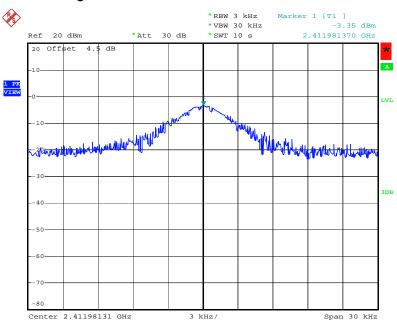
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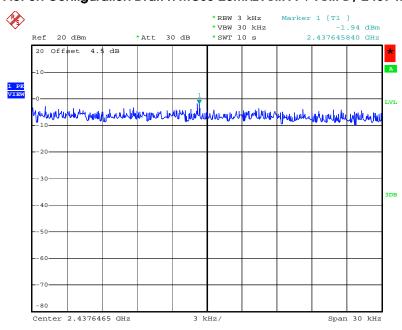


### Power Density Plot on Configuration Draft n MCSO 20MHz Ant. A + Ant. B / 2412 MHz



Date: 26.MAR.2009 12:33:23

#### Power Density Plot on Configuration Draft n MCSO 20MHz Ant. A + Ant. B / 2437 MHz

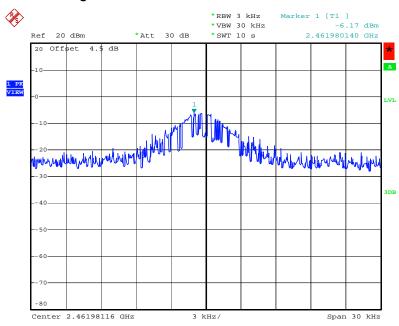


Date: 26.MAR.2009 12:34:28

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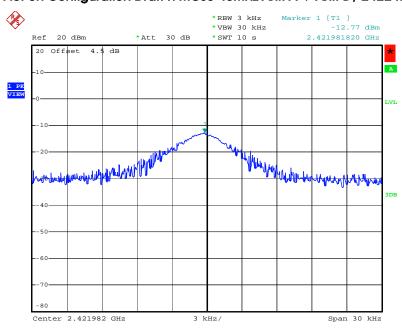


## Power Density Plot on Configuration Draft n MCS0 20MHz Ant. A + Ant. B / 2462 MHz



Date: 26.MAR.2009 12:35:10

#### Power Density Plot on Configuration Draft n MCSO 40MHz Ant. A + Ant. B / 2422 MHz

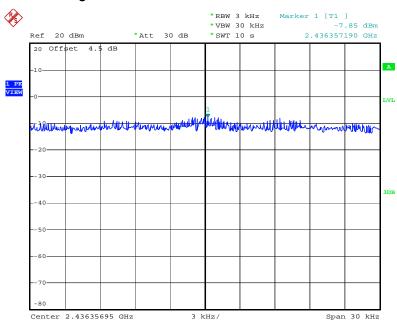


Date: 26.MAR.2009 12:41:13

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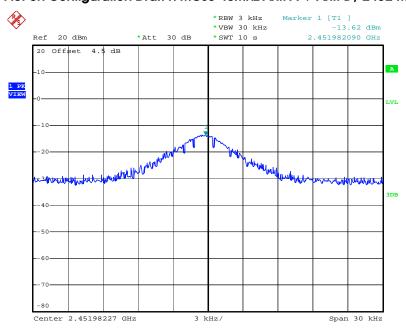


### Power Density Plot on Configuration Draft n MCSO 40MHz Ant. A + Ant. B / 2437 MHz



Date: 26.MAR.2009 12:57:10

### Power Density Plot on Configuration Draft n MCSO 40MHz Ant. A + Ant. B / 2452 MHz

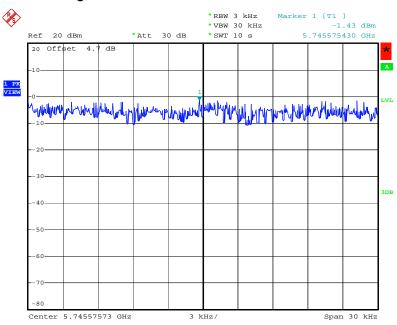


Date: 26.MAR.2009 13:00:17

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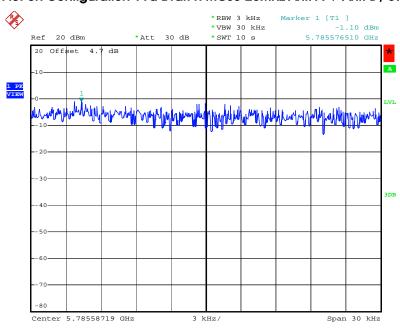


### Power Density Plot on Configuration 11a Draft n MCSO 20MHz Ant. A + Ant. B / 5745 MHz



Date: 26.MAR.2009 12:26:20

#### Power Density Plot on Configuration 11a Draft n MCSO 20MHz Ant. A + Ant. B / 5785 MHz

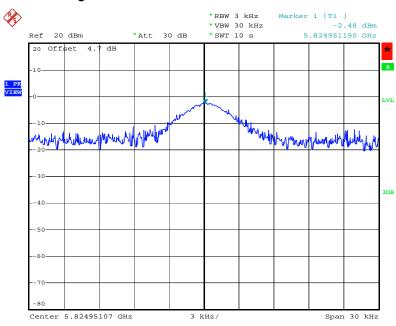


Date: 26.MAR.2009 12:28:06

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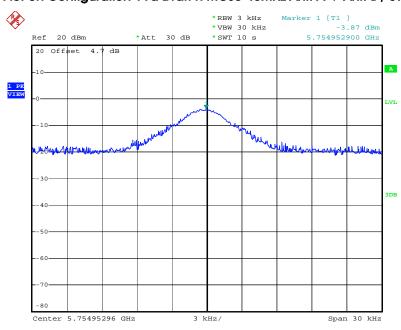


# Power Density Plot on Configuration 11a Draft n MCS0 20MHz Ant. A + Ant. B / 5825 MHz



Date: 26.MAR.2009 12:30:45

## Power Density Plot on Configuration 11a Draft n MCSO 40MHz Ant. A + Ant. B / 5755 MHz

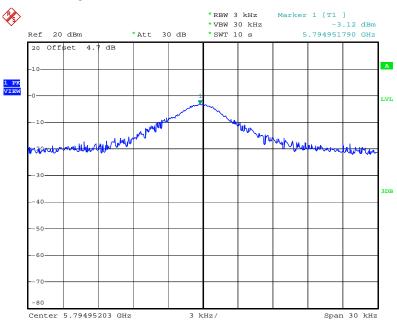


Date: 26.MAR.2009 13:38:50

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## Power Density Plot on Configuration 11a Draft n MCSO 40MHz Ant. A + Ant. B / 5795 MHz



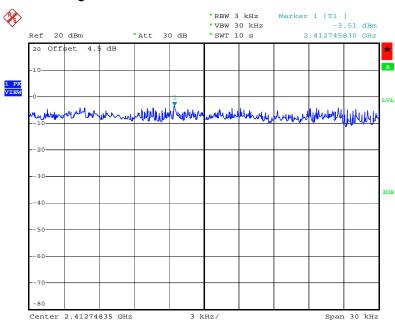
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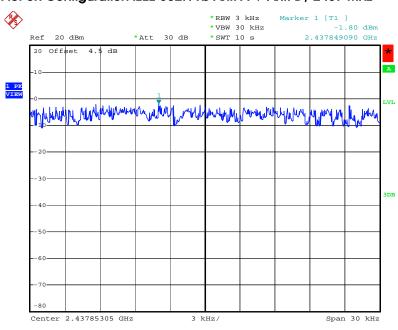


### Power Density Plot on Configuration IEEE 802.11b Ant. A + Ant. B / 2412 MHz



Date: 26.MAR.2009 12:02:30

#### Power Density Plot on Configuration IEEE 802.11b Ant. A + Ant. B / 2437 MHz

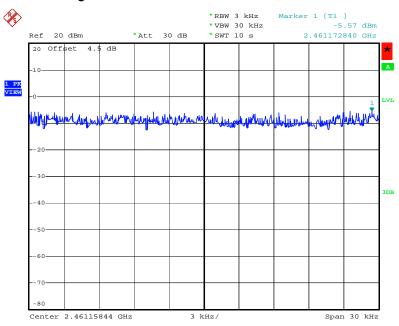


Date: 26.MAR.2009 12:04:18

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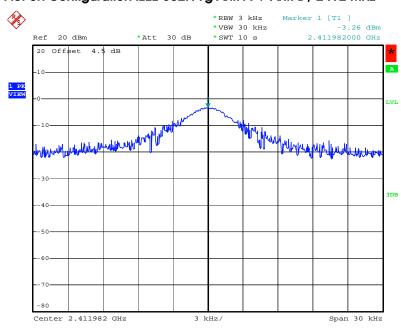


### Power Density Plot on Configuration IEEE 802.11b Ant. A + Ant. B / 2462 MHz



Date: 26.MAR.2009 12:05:20

# Power Density Plot on Configuration IEEE 802.11g Ant. A + Ant. B / $2412 \ MHz$



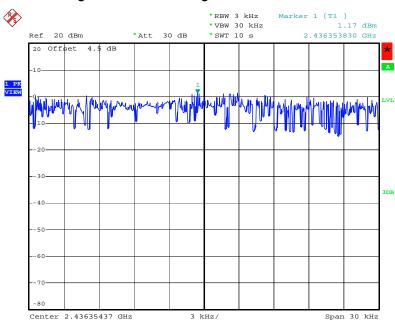
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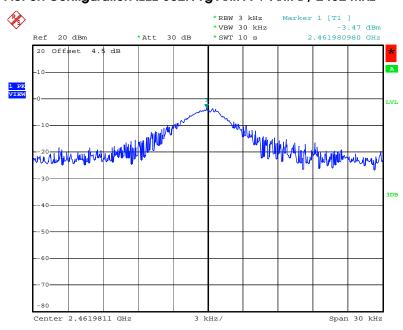


### Power Density Plot on Configuration IEEE 802.11g Ant. A + Ant. B / 2437 MHz



Date: 26.MAR.2009 12:07:41

# Power Density Plot on Configuration IEEE 802.11g Ant. A + Ant. B / 2462 MHz



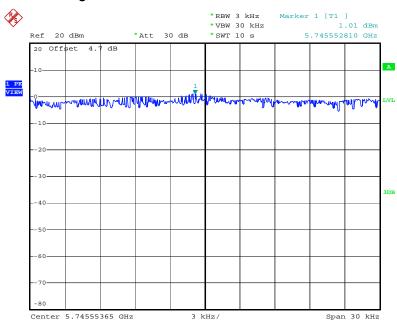
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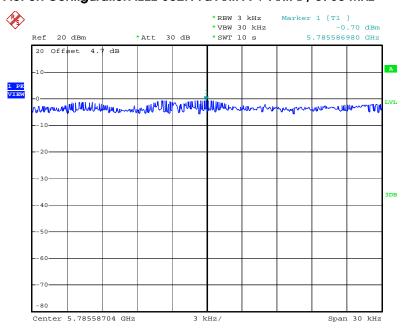


# Power Density Plot on Configuration IEEE 802.11a Ant. A + Ant. B / 5745 MHz



Date: 26.MAR.2009 14:03:05

# Power Density Plot on Configuration IEEE 802.11a Ant. A + Ant. B / 5785 MHz

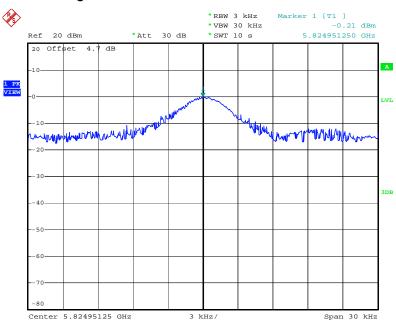


Date: 26.MAR.2009 13:50:02

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## Power Density Plot on Configuration IEEE 802.11a Ant. A + Ant. B / 5825 MHz



Date: 26.MAR.2009 13:48:05

### 4.4. 6dB Spectrum Bandwidth Measurement

#### 4.4.1. Limit

For digital modulation systems, the minimum 6dB bandwidth shall be at least 500 kHz.

#### 4.4.2. Measuring Instruments and Setting

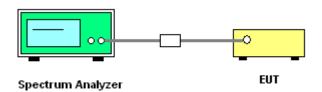
Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

Spectrum Parameters	Setting
Attenuation	Auto
Span Frequency	> 6dB Bandwidth
RB	100 kHz
VB	100 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

#### 4.4.3. Test Procedures

- 1. The transmitter output (antenna port) was connected to the spectrum analyser in peak hold mode.
- 2. The resolution bandwidth of 100 kHz and the video bandwidth of 100 kHz were used.
- 3. Measured the spectrum width with power higher than 6dB below carrier.
- 4. Measuring multiple antennas, the connector is required to link with spectrum analyzer through a combiner.

### 4.4.4. Test Setup Layout



#### 4.4.5. Test Deviation

There is no deviation with the original standard.

#### 4.4.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

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### 4.4.7. Test Result of 6dB Spectrum Bandwidth

Temperature	24°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	Draft n

#### For 2.4GHz Band

### Configuration Draft n MCSO 20MHz Ant. A + Ant. B

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
1	2412 MHz	16.32	17.72	500	Complies
6	2437 MHz	17.32	17.68	500	Complies
11	2462 MHz	17.60	17.68	500	Complies

### Configuration Draft n MCSO 40MHz Ant. A + Ant. B

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
3	2422 MHz	36.56	36.32	500	Complies
6	2437 MHz	36.32	36.32	500	Complies
9	2452 MHz	36.00	36.24	500	Complies

#### For 5GHz Band

### Configuration 11a Draft n MCSO 20MHz Ant. A+ Ant. B

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
149	5745 MHz	16.32	17.68	500	Complies
157	5785 MHz	16.68	17.68	500	Complies
165	5825 MHz	16.32	17.68	500	Complies

### Configuration 11a Draft n MCSO 40MHz Ant. A+ Ant. B

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
151	5755 MHz	35.76	36.32	500	Complies
159	5795 MHz	35.76	36.24	500	Complies

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Temperature24°CHumidity56%Test EngineerAllen LiuConfigurations802.11a/b/g

## Configuration IEEE 802.11b Ant. A + Ant. B

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
1	2412 MHz	12.52	15.84	500	Complies
6	2437 MHz	12.08	15.72	500	Complies
11	2462 MHz	13.08	15.84	500	Complies

# Configuration IEEE 802.11g Ant. A+ Ant. B

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
1	2412 MHz	16.40	16.48	500	Complies
6	2437 MHz	16.48	16.52	500	Complies
11	2462 MHz	16.36	16.48	500	Complies

### Configuration IEEE 802.11a Ant. A+ Ant. B

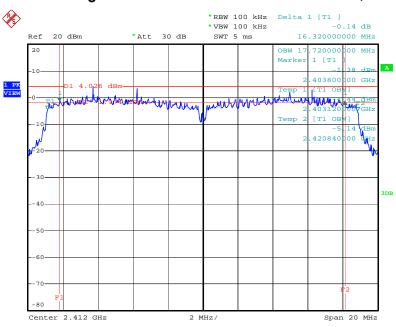
Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
149	5745 MHz	16.36	16.84	500	Complies
157	5785 MHz	16.32	16.60	500	Complies
165	5825 MHz	15.68	16.52	500	Complies

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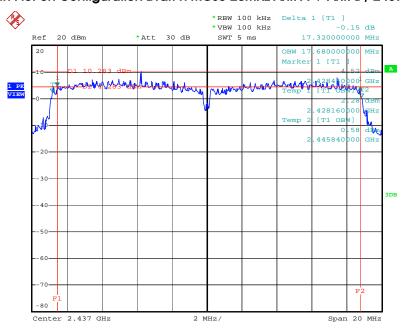


### 6 dB Bandwidth Plot on Configuration Draft n MCSO 20MHz Ant. A + Ant. B / 2412 MHz



Date: 26.MAR.2009 12:32:58

#### 6 dB Bandwidth Plot on Configuration Draft n MCSO 20MHz Ant. A + Ant. B / 2437 MHz

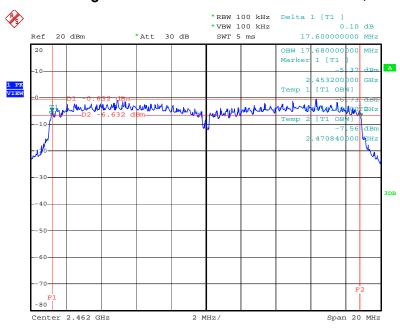


Date: 26.MAR.2009 12:34:11

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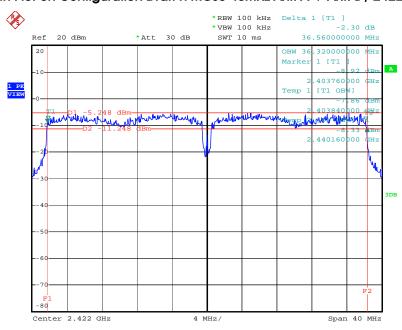


### 6 dB Bandwidth Plot on Configuration Draft n MCSO 20MHz Ant. A + Ant. B / 2462 MHz



Date: 26.MAR.2009 12:34:55

### 6 dB Bandwidth Plot on Configuration Draft n MCSO 40MHz Ant. A + Ant. B / 2422 MHz

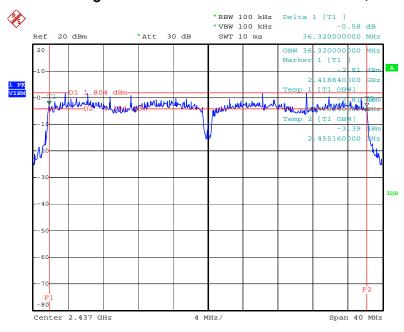


Date: 26.MAR.2009 12:40:48

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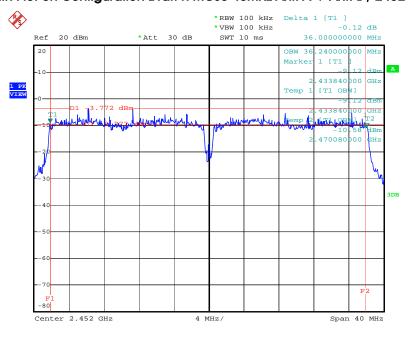


## 6 dB Bandwidth Plot on Configuration Draft n MCSO 40MHz Ant. A + Ant. B / 2437 MHz



Date: 26.MAR.2009 12:55:42

### 6 dB Bandwidth Plot on Configuration Draft n MCSO 40MHz Ant. A + Ant. B / 2452 MHz

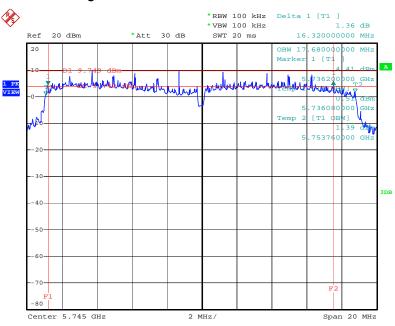


Date: 26.MAR.2009 12:58:49

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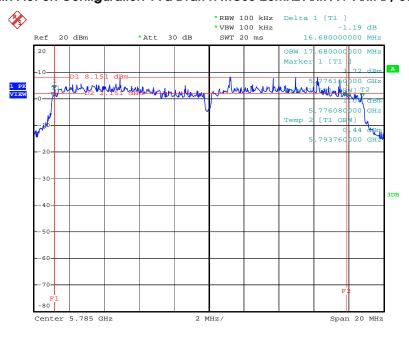


### 6 dB Bandwidth Plot on Configuration 11a Draft n MCSO 20MHz Ant. A+ Ant. B / 5745 MHz



Date: 26.MAR.2009 12:25:55

#### 6 dB Bandwidth Plot on Configuration 11a Draft n MCSO 20MHz Ant. A+ Ant. B / 5785MHz

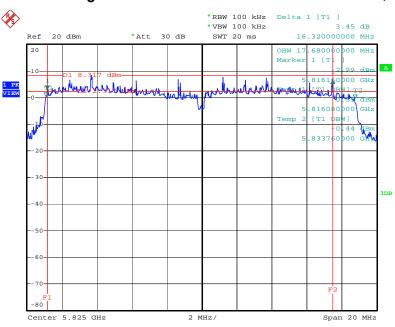


Date: 26.MAR.2009 12:27:40

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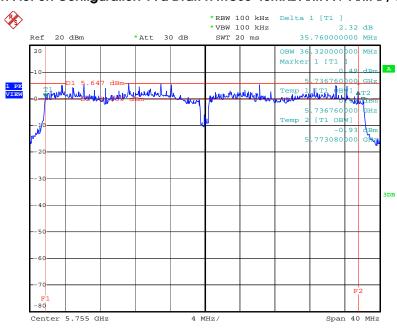


### 6 dB Bandwidth Plot on Configuration 11a Draft n MCSO 20MHz Ant. A+ Ant. B / 5825 MHz



Date: 26.MAR.2009 12:30:19

### 6 dB Bandwidth Plot on Configuration 11a Draft n MCSO 40MHz Ant. A+ Ant. B / 5755MHz

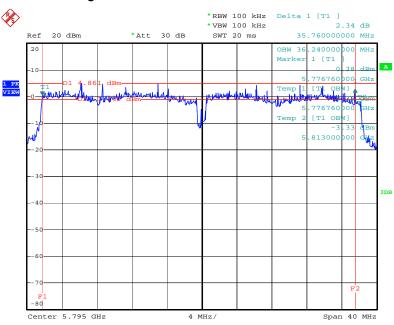


Date: 26.MAR.2009 13:37:23

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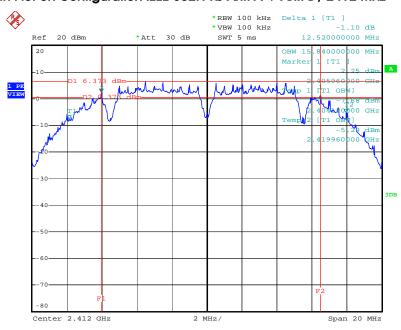


### 6 dB Bandwidth Plot on Configuration 11a Draft n MCSO 40MHz Ant. A+ Ant. B / 5795 MHz



Date: 26.MAR.2009 13:39:21

### 6 dB Bandwidth Plot on Configuration IEEE 802.11b Ant. A + Ant. B / 2412 MHz

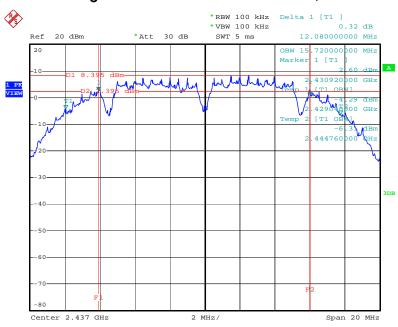


Date: 26.MAR.2009 12:02:05

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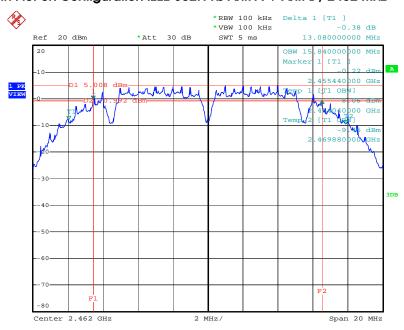


### 6 dB Bandwidth Plot on Configuration IEEE 802.11b Ant. A + Ant. B / 2437 MHz



Date: 26.MAR.2009 12:04:02

### 6 dB Bandwidth Plot on Configuration IEEE 802.11b Ant. A + Ant. B / 2462 MHz



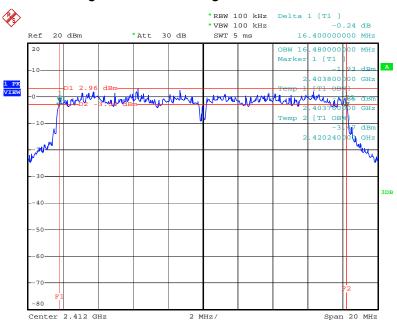
Date: 26.MAR.2009 12:05:04

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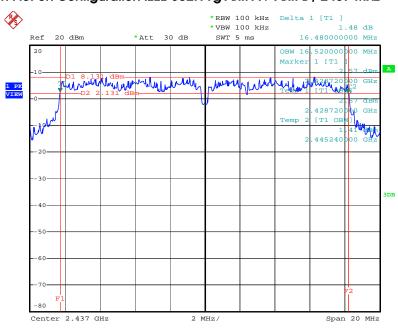


### 6 dB Bandwidth Plot on Configuration IEEE 802.11g Ant. A+ Ant. B / 2412 MHz



Date: 26.MAR.2009 12:06:28

### 6 dB Bandwidth Plot on Configuration IEEE 802.11g Ant. A+ Ant. B / 2437 MHz



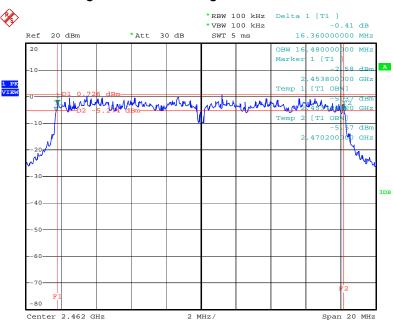
Date: 26.MAR.2009 12:07:25

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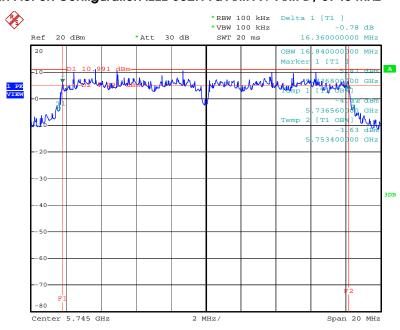


### 6 dB Bandwidth Plot on Configuration IEEE 802.11g Ant. A+ Ant. B / 2462 MHz



Date: 26.MAR.2009 12:08:35

### 6 dB Bandwidth Plot on Configuration IEEE 802.11a Ant. A+ Ant. B / 5745 MHz

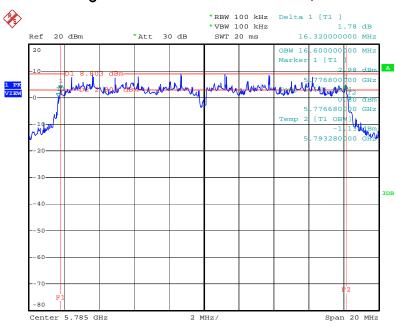


Date: 26.MAR.2009 14:01:37

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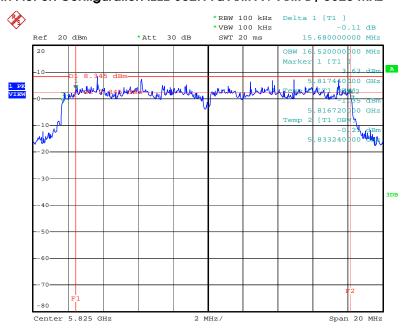


### 6 dB Bandwidth Plot on Configuration IEEE 802.11a Ant. A+ Ant. B / 5785 MHz



Date: 26.MAR.2009 13:48:35

### 6 dB Bandwidth Plot on Configuration IEEE 802.11a Ant. A+ Ant. B / 5825 MHz



Date: 26.MAR.2009 13:46:38

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### 4.5. Radiated Emissions Measurement

#### 4.5.1. 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.

Frequencies	Field Strength	Measurement Distance
(MHz)	(micorvolts/meter)	(meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

### 4.5.2. Measuring Instruments and Setting

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

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB / VB (Emission in restricted band)	1MHz / 1MHz for Peak, 1 MHz / 10Hz for Average
RB / VB (Emission in non-restricted band)	1MHz / 1MHz for peak

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

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#### 4.5.3. Test Procedures

Configure the EUT according to ANSI C63.4. The EUT was placed on the top of the turntable 0.8
meter above ground. The phase center of the receiving antenna mounted on the top of a
height-variable antenna tower was placed 3 meters far away from the turntable.

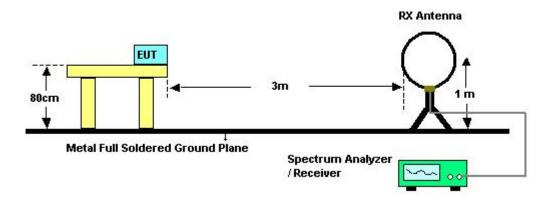
- 2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
- The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
- 4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
- 5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
- 6. For emissions above 1GHz, use 1MHz VBW and RBW for peak reading. Then 1MHz RBW and 10Hz VBW for average reading in spectrum analyzer.
- 7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum value.
- 8. If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
- 9. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
- 10. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High Low scan is not required in this case.

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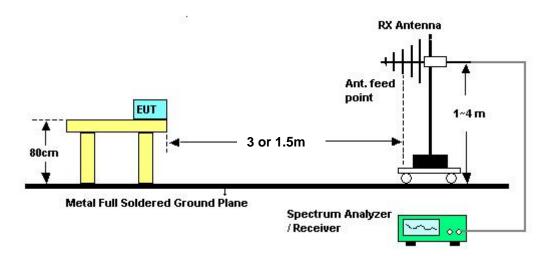


## 4.5.4. Test Setup Layout

#### For radiated emissions below 30MHz



#### For radiated emissions above 30MHz



Above 10 GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade form 3m to 1.5m.

Distance extrapolation factor = 20 log (specific distance [3m] / test distance [1.5m]) (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

#### 4.5.5. Test Deviation

There is no deviation with the original standard.

## 4.5.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

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# 4.5.7. Results of Radiated Emissions (9kHz~30MHz)

Temperature	25.6℃	Humidity	56%
Test Engineer	Allen Liu		

Freq.	Level	Over Limit	Limit Line	Remark
(MHz)	(dBuV)	(dB)	(dBuV)	
-	-	-	-	See Note

#### Note:

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

Distance extrapolation factor = 40 log (specific distance / test distance) (dB);

 $\label{limit} \mbox{Limit line} = \mbox{specific limits (dBuV)} + \mbox{distance extrapolation factor}.$ 

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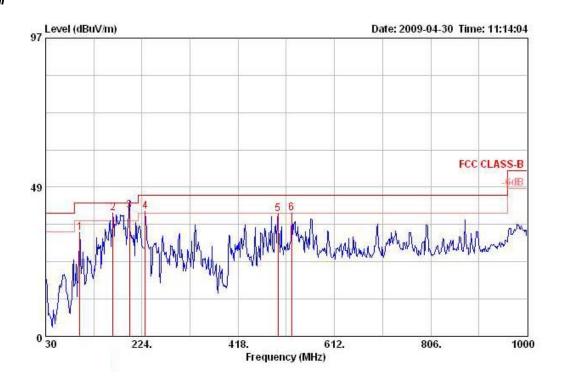
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# 4.5.8. Results of Radiated Emissions (30MHz~1GHz)

Temperature	25.6℃	Humidity	56%
Test Engineer	Allen Liu	Configurations	Normal Link

## Horizontal

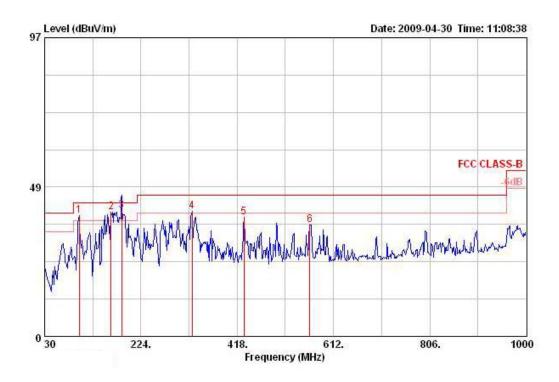


			Over	Limit	Read	Antenna	Preamp	Cable			Table	Ant
	Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
	Mz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	-		deg	can
1	98.870	33.83	-9.67	43.50	49.47	10.79	27.61	1.18	Peak	HORIZONTAL	0	100
2 !	165.800	40.16	-3.34	43.50	53.44	12.47	27.27	1.53	Peak	HORIZONTAL	0	100
3 @	199.125	40.85	-2.65	43.50	57.00	9.25	27.10	1.70	QP	HORIZONTAL	312	100
4!	230.790	40.68	-5.32	46.00	54.56	11.34	27.04	1.82	Peak	HORIZONTAL	0	100
5	498.510	39.68	-6.32	46.00	47.47	17.60	28.09	2.70	Peak	HORI ZONTAL	0	100
6!	525.670	40.14	-5.86	46.00	47.57	17.92	28.10	2.75	Peak	HORI ZONTAL	0	100

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#### Vertical



			Over	Limit	Read	Antenna	Preamp	Cable			Table	Ant
	Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
	МК	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	-		deg	cm
1 !	99.840	39.13	-4.37	43.50	54.54	10.99	27.60	1.20	Peak	VERTICAL	0	400
2 !	163.860	40.35	-3.15	43.50	53.79	12.32	27.28	1.52	Peak	VERTICAL	0	400
3 @	185.270	40.78	-2.72	43.50	54.21	12.12	27.17	1.63	QP	VERTICAL	128	100
4 !	326.820	40.65	-5.35	46.00	51.49	14.09	27.09	2.15	Peak	VERTICAL	0	400
5	431.580	38.76	-7.24	46.00	47.47	16.56	27.76	2.49	Peak	VERTICAL	0	400
6	564.470	36.09	-9.91	46.00	43.00	18.36	28.10	2.83	Peak	VERTICAL	0	400

#### 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.

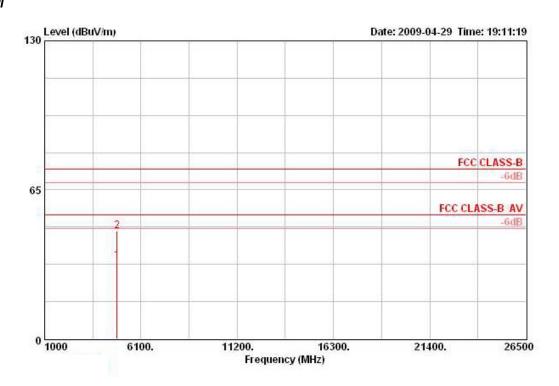
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# 4.5.9. Results for Radiated Emissions (1GHz~10<sup>th</sup> Harmonic)

Temperature	25.6°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	Draft n MCS0 20MHz Ch 1 / Ant. A + Ant. B

## Horizontal

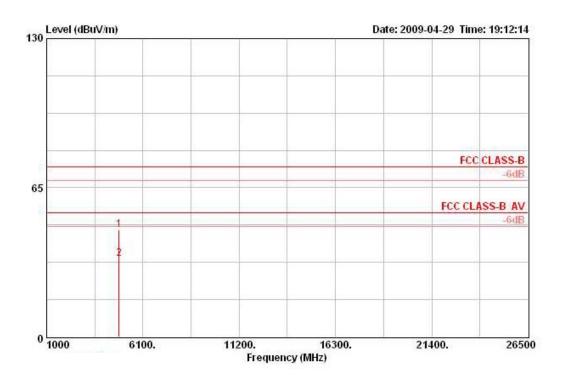


			0ver	Limit	Readi	Antenna	Preamp	Cable			Table	Ant
	Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	-		deg	cm
1 @	4823.991	34.10	-19.90	54.00	29.52	33.39	35.20	6.39	AVERAGE	HORI ZONTAL	360	100
2	4823.992	47.01	-26.99	74.00	42.43	33.39	35.20	6.39	PEAK	HORI ZONTAL	360	100

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			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	ав	9		deg	cm
1	4823.980	46.72	-27.28	74.00	42.14	33.39	35.20	6.39	PEAK	VERTICAL	0	100
2 @	4824.007	33.95	-20.05	54.00	29.37	33.39	35.20	6.39	AVERAGE	VERTICAL	0	100

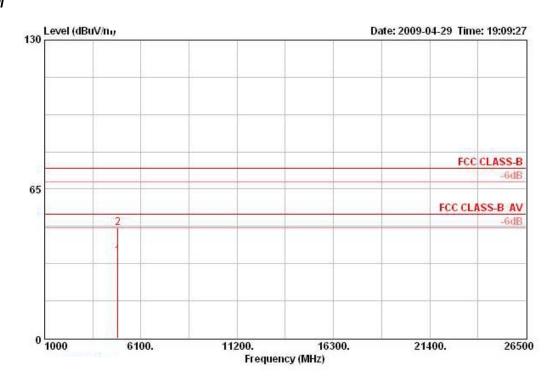
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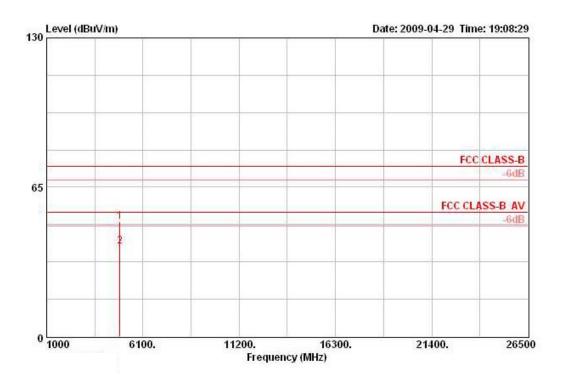
Temperature	25.6°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	Draft n MCS0 20MHz Ch 6 / Ant. A + Ant. B

## Horizontal



	Freq	Level		Limit Line			Preamp Factor		Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dВ			deg	cm
1 @	4873.999	35.77	-18.23	54.00	30.92	33.48	35.20	6.56	AVERAGE	HORIZONTAL	0	100
2	4874.017	48.29	-25.71	74.00	43.45	33.48	35.20	6.56	PEAK	HORI ZONTAL	0	100





			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	dВ	9		deg	cm
1	4873.979	50.06	-23.94	74.00	45.21	33.48	35.20	6.56	PEAK	VERTICAL	360	100
2 @	4873.981	39.43	-14.57	54.00	34.59	33.48	35.20	6.56	AVERAGE	VERTICAL	360	100

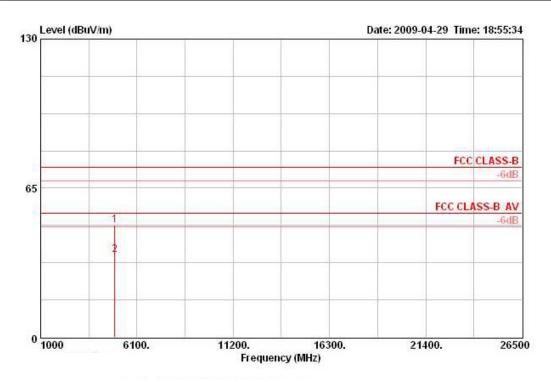
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Temperature	25.6°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	Draft n MCS0 20MHz Ch11 / Ant. A + Ant. B

## Horizontal



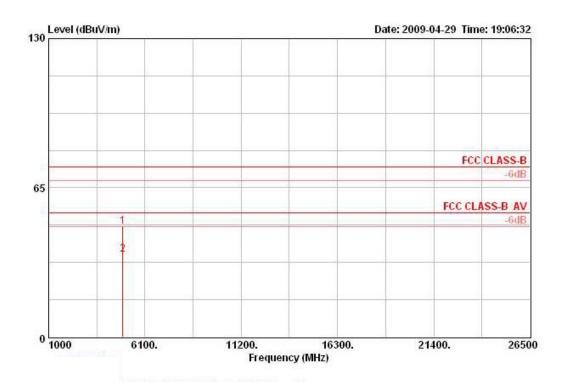
	Freq	Freq	Freq Le	Level	Over rel Limit				Preamp Factor		Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	MHz dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	8	-	deg	cm		
1	4923.975	48.87	-25.13	74.00	43.76	33.58	35.20	6.73	PEAK	HORIZONTAL	360	100		
2 @	4924.011	35.85	-18.15	54.00	30.74	33.58	35.20	6.73	AVERAGE	HORI ZONTAL	360	100		

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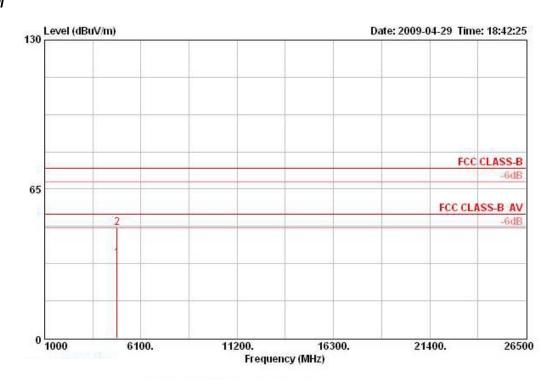
		Over	Limit	Read	Antenna	Preamp	Cable			Table	Ant
Freq	Level	Limit	Line	Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	9	700	deg	cm
4923.991	48.25	-25.75	74.00	43.14	33.58	35.20	6.73	PEAK	VERTICAL	0	100
4924.014	35.92	-18.08	54.00	30.81	33.58	35.20	6.73	AVERAGE	VERTICAL	0	100

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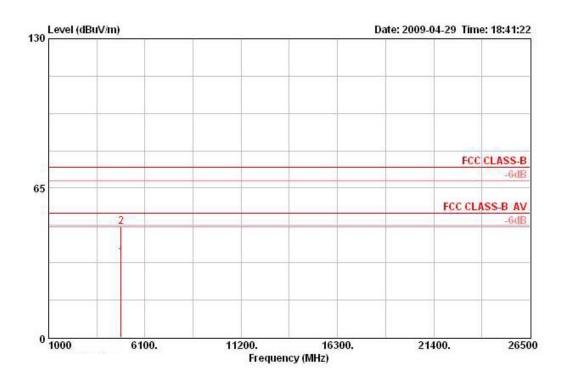
Temperature	25.6°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	Draft n MCS0 40MHz Ch 3 / Ant. A + Ant. B

## Horizontal



	Freq	Level		Limit Line			Preamp Factor		Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB			deg -	cm
1 @	4843.999	34.90	-19.10	54.00	30.21	33.42	35.20	6.47	AVERAGE	HORIZONTAL	0	100
2	4844.015	48.31	-25.69	74.00	43.61	33.42	35.20	6.47	PEAK	HORI ZONTAL	0	100





				Limit Line	ReadAntenna Pr		Preamp	Cable			Table	Ant
	Freq	Level			Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dВ	-		deg	cm
1 @	4843.985	34.97	-19.03	54.00	30.28	33.42	35.20	6.47	AVERAGE	VERTICAL	360	100
2	4843.993	48.22	-25.78	74.00	43.53	33.42	35.20	6.47	PEAK	VERTICAL	360	100

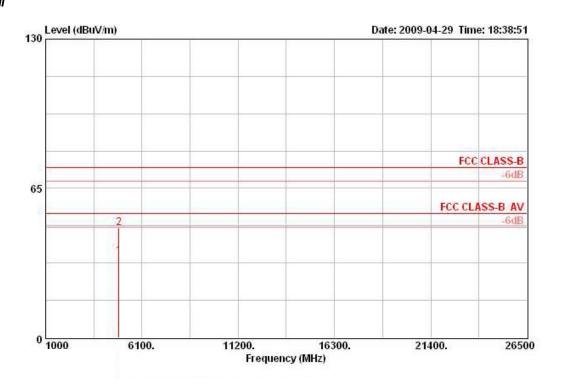
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Temperature	25.6°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	Draft n MCS0 40MHz Ch 6 / Ant. A + Ant. B

## Horizontal

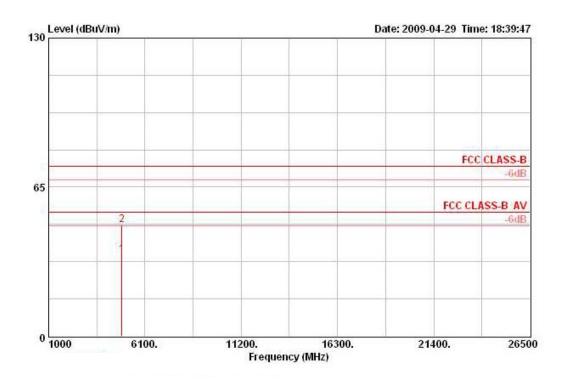


			Over Limit L Limit Line n dB dBuV/m		ReadAntenna Preamp			Cable			Table	Ant
		Level			Level	Factor	Factor	Loss	Remark	Pol/Phase	Pos	Pos
		dBuV/m		dBuV	dB/m dB		dВ			deg	cm.	
1 @	4873.987	35.41	-18.59	54.00	30.57	33.48	35.20	6.56	AVERAGE	HORIZONTAL	360	100
2	4873.999	47.67	-26.33	74.00	42.82	33.48	35.20	6.56	PEAK	HORI ZONTAL	360	100

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			Over	Limit	ReadAntenna Preamp			Cable			Table	Ant
	Freq	Level	Limit	Line	Level	Factor	Factor	Loss Remark dB	Pol/Phase	Pos	Pos	
	Mz	z dBuV/m	dB	dBuV/m	dBuV	dB/m	dB				deg	cm
10	4873.998	35.62	-18.38	54.00	30.77	33.48	35.20	6.56	AVERAGE	VERTICAL	0	655
2	4874.017	48.36	-25.64	74.00	43.52	33.48	35.20	6.56	PEAK	VERTICAL	0	100

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