### 6. Band Edge

### 6.1. Test Equipment

#### **RF** Conducted Measurement

The following test equipments are used during the band edge tests:

Equipment	Manufacturer	Model No./Serial No.	Last Cal.
Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2011
Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2011
Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2011

Note:

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- 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
- 2. The test instruments marked with "X" are used to measure the final test results.

#### **RF Radiated Measurement:**

The following test equipments are used during the band edge tests:

Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
Site # 3		Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2011
	Х	Horn Antenna	Schwarzbeck	BBHA9120D/D305	Sep., 2011
		Horn Antenna	Schwarzbeck	BBHA9170/208	Jul., 2011
	Х	Pre-Amplifier	Agilent	8447D/2944A09549	Sep., 2011
	Х	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2011
		Test Receiver	R & S	ESCS 30/ 825442/018	Sep., 2011
	Х	Coaxial Cable	QuieTek	QTK-CABLE/ CAB5	Feb., 2011
	Х	Controller	QuieTek	QTK-CONTROLLER/ CTRL3	N/A
	Х	Coaxial Switch	Anritsu	MP59B/6200265729	N/A

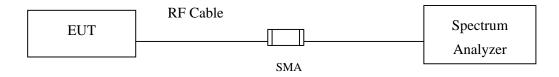
Note:

1. All instruments are calibrated every one year.

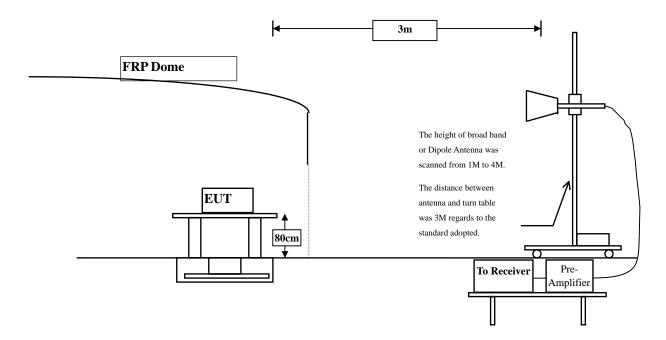
2. The test instruments marked by "X" are used to measure the final test results.

# 6.2. Test Setup

### **RF** Conducted Measurement



#### **RF Radiated Measurement:**



### 6.3. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

### 6.4. Test Procedure

The EUT was setup according to ANSI C63.4, 2003 and tested according to DTS test procedure of Mar. 2005 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4:2003 on radiated measurement.

### 6.5. Uncertainty

- ± 3.9 dB above 1GHz
- ± 3.8 dB below 1GHz

### 6.6. Test Result of Band Edge

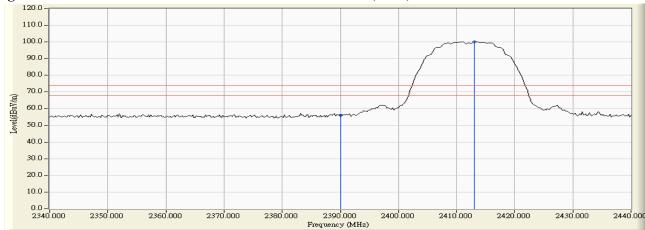
Product	:	Mozart II
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11b 1Mbps)

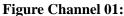
#### **RF Radiated Measurement (Horizontal):**

Channel No.	Frequency	Correct Factor	Reading Level	<b>Emission Level</b>	Peak Limit	Average Limit	Result
	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
01 (Peak)	2390.000	31.509	24.501	56.010	74.00	54.00	Pass
01 (Peak)	2413.000	31.646	68.442	100.088			
01 (Average)	2390.000	31.509	15.609	47.118	74.00	54.00	Pass
01 (Average)	2409.400	31.621	64.985	96.605			



Horizontal (Peak)





Horizontal (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

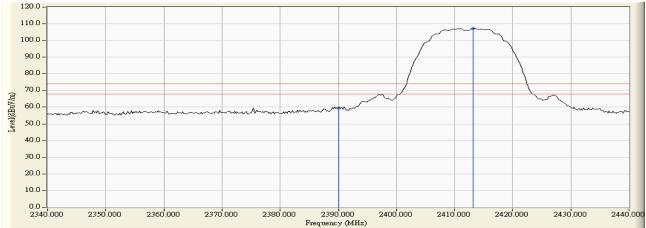
Product	:	Mozart II
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11b 1Mbps)

### **RF Radiated Measurement (Vertical):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	2390.000	30.915	28.498	59.413	74.00	54.00	Pass
01 (Peak)	2413.200	30.957	76.195	107.152			
01 (Average)	2390.000	30.915	20.909	51.824	74.00	54.00	Pass
01 (Average)	2414.800	30.968	72.801	103.769			

### Figure Channel 01:

### Vertical (Peak)





## Vertical (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

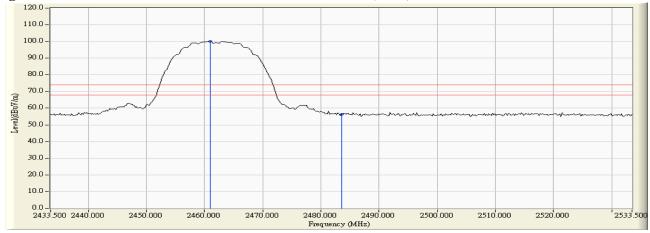
Product	:	Mozart II
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11b 1Mbps)

### **RF Radiated Measurement (Horizontal):**

Channel No.	Frequency (MHz)		÷	Emission Level		U U	Result
	(MHZ)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
11 (Peak)	2460.900	32.011	68.040	100.051			
11 (Peak)	2483.500	32.182	24.264	56.446	74.00	54.00	Pass
11 (Average)	2459.100	31.998	63.472	95.469			
11 (Average)	2483.500	32.182	12.677	44.859	74.00	54.00	Pass

**Figure Channel 11:** 

#### Horizontal (Peak)



### **Figure Channel 11:**

Horizontal (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

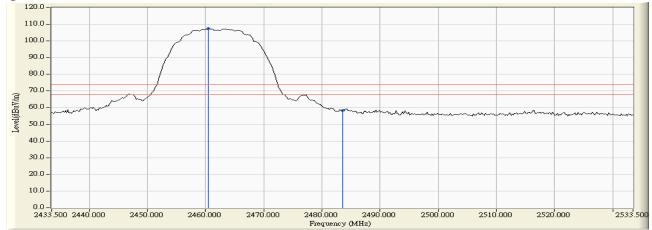
Product	:	Mozart II
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11b 1Mbps)

### **RF Radiated Measurement (Vertical):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11 (Peak)	2460.500	31.280	76.024	107.304			
11 (Peak)	2483.500	31.435	26.860	58.295	74.00	54.00	Pass
11 (Average)	2459.300	31.272	71.300	102.572			
11 (Average)	2483.500	31.435	16.259	47.694	74.00	54.00	Pass

### Figure Channel 11:

Vertical (Peak)



### Figure Channel 11:

Vertical (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



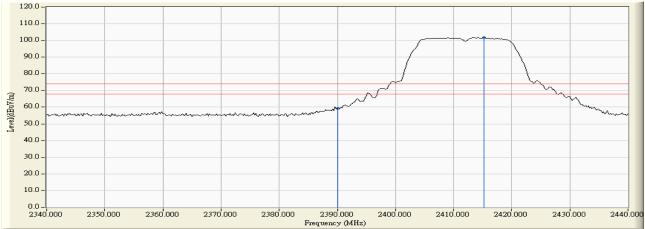
Product	:	Mozart II
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps)

#### **RF Radiated Measurement (Horizontal):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	2390.000	31.509	27.773	59.282	74.00	54.00	Pass
01 (Peak)	2415.200	31.662	70.098	101.761			
01 (Average)	2390.000	31.509	13.884	45.393	74.00	54.00	Pass
01 (Average)	2407.600	31.608	61.020	92.629			

#### Figure Channel 01:

#### Horizontal (Peak)





### Horizontal (Average)

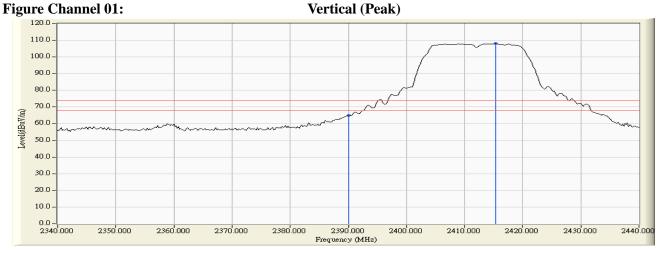


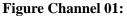
- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	Mozart II
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps)

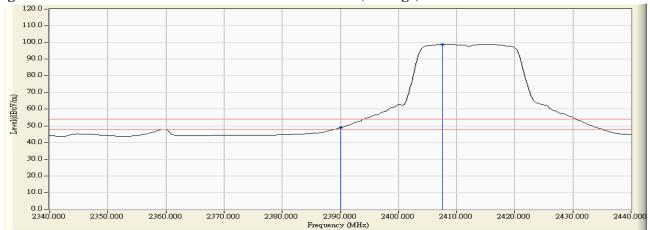
#### **RF Radiated Measurement (Vertical):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	2390.000	30.915	33.999	64.914	74.00	54.00	Pass
01 (Peak)	2415.400	30.972	77.083	108.055			
01 (Average)	2390.000	30.915	17.951	48.866	74.00	54.00	Pass
01 (Average)	2407.600	30.932	67.843	98.776			





Vertical (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



Product	:	Mozart II
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps)

#### **RF Radiated Measurement (Horizontal):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11 (Peak)	2459.500	32.001	68.670	100.670			
11 (Peak)	2483.500	32.182	26.005	58.187	74.00	54.00	Pass
11 (Average)	2460.900	32.011	59.650	91.661			
11 (Average)	2483.500	32.182	13.227	45.409	74.00	54.00	Pass

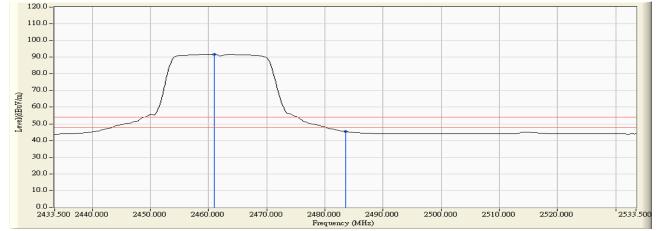
#### **Figure Channel 11:**

#### Horizontal (Peak)



#### Figure Channel 11:

Horizontal (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

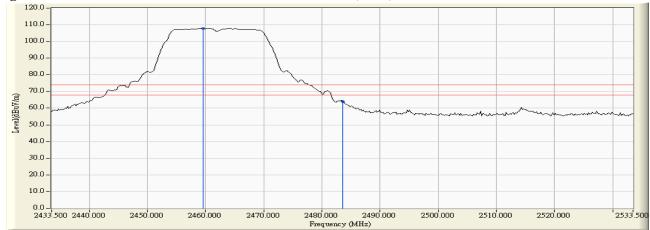
Product	:	Mozart II
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps)

### **RF Radiated Measurement (Vertical):**

Channel No.	Frequency	Correct Factor	Reading Level	<b>Emission Level</b>	Peak Limit	Average Limit	Result
	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
11 (Peak)	2459.500	31.273	76.461	107.734			
11 (Peak)	2483.500	31.435	32.645	64.080	74.00	54.00	Pass
11(Average)	2460.900	31.283	67.431	98.714			
11 (Average)	2483.500	31.435	17.076	48.511	74.00	54.00	Pass

### Figure Channel 11:

### Vertical (Peak)



#### **Figure Channel 11:**

Vertical (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

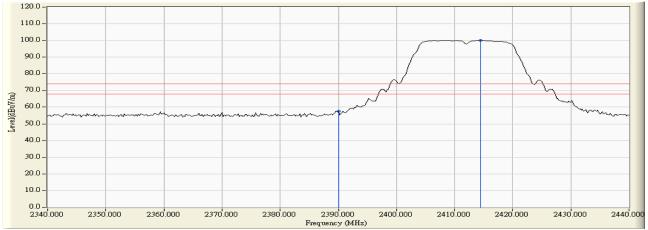
Product	:	Mozart II
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)

#### **RF Radiated Measurement (Horizontal):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	2390.000	31.509	26.163	57.672	74.00	54.00	Pass
01 (Peak)	2414.400	31.657	68.417	100.074			
01 (Average)	2390.000	31.509	12.734	44.243	74.00	54.00	Pass
01 (Average)	2409.600	31.622	59.521	91.143			

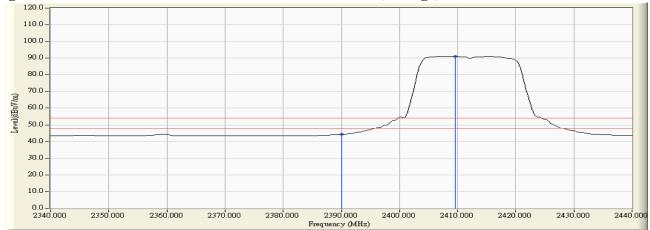
**Figure Channel 01:** 

Horizontal (Peak)





Horizontal (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

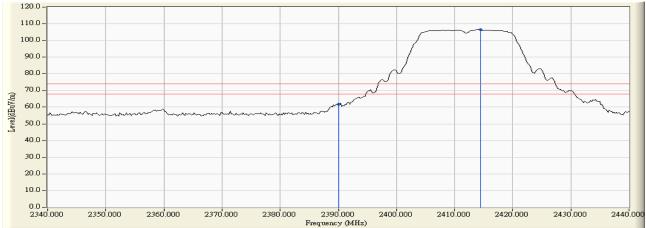
Product	:	Mozart II
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)

#### **RF Radiated Measurement (Vertical):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	2390.000	30.915	30.983	61.898	74.00	54.00	Pass
01 (Peak)	2414.400	30.966	75.475	106.441			
01 (Average)	2390.000	30.915	15.395	46.310	74.00	54.00	Pass
01 (Average)	2415.000	30.970	66.418	97.388			

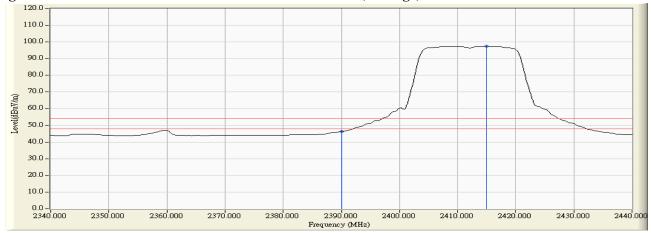
#### Figure Channel 01:

#### Vertical (Peak)





### Vertical (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

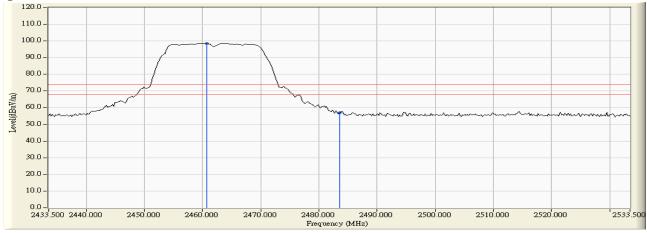
Product	:	Mozart II
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)

#### **RF Radiated Measurement (Horizontal):**

Channel No.	Frequency	Correct Factor	Reading Level	<b>Emission Level</b>	Peak Limit	Average Limit	Result
	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
11 (Peak)	2460.700	32.010	66.416	98.426			
11 (Peak)	2483.500	32.182	24.905	57.087	74.00	54.00	Pass
11 (Average)	2460.700	32.010	57.383	89.393			
11 (Average)	2483.500	32.182	12.260	44.442	74.00	54.00	Pass

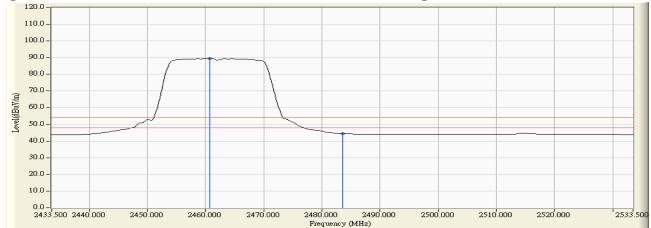
**Figure Channel 11:** 

Horizontal (Peak)





Horizontal (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



Product	:	Mozart II
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)

#### **RF Radiated Measurement (Vertical):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11 (Peak)	2460.500	31.280	74.126	105.406			
11 (Peak)	2483.500	31.435	29.566	61.001	74.00	54.00	Pass
11 (Average)	2460.700	31.281	65.114	96.395			
11 (Average)	2483.500	31.435	14.644	46.079	74.00	54.00	Pass

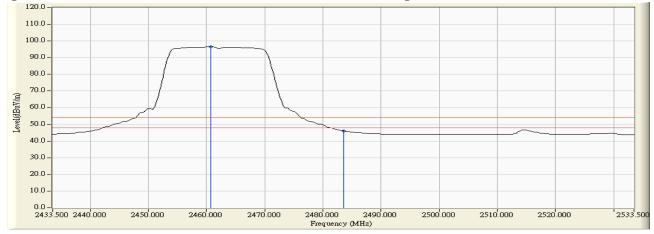
#### **Figure Channel 11:**

Vertical (Peak)



#### **Figure Channel 11:**

Vertical (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

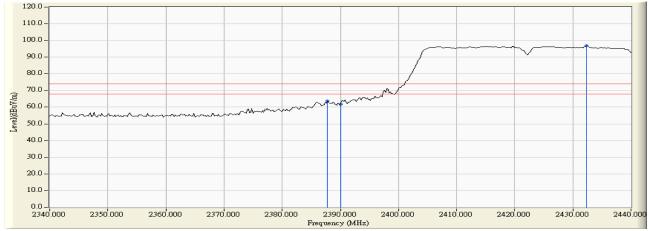
Product	:	Mozart II
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)

#### **RF Radiated Measurement (Horizontal):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	2387.800	31.501	32.246	63.747	74.00	54.00	Pass
01 (Peak)	2390.000	31.509	30.156	61.665	74.00	54.00	Pass
01 (Peak)	2432.400	31.794	64.926	96.720			
01 (Average)	2390.000	31.509	16.676	48.185	74.00	54.00	Pass
01 (Average)	2425.800	31.745	55.506	87.250			

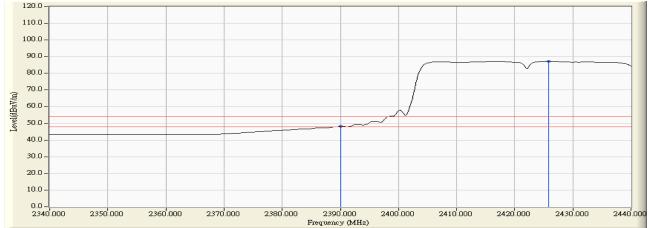
#### **Figure Channel 01:**

#### Horizontal (Peak)



### Figure Channel 01:

#### Horizontal (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



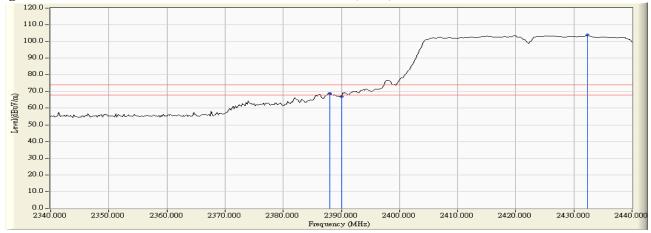
Product	:	Mozart II
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)

#### **RF** Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	2388.000	30.925	37.981	68.906	74.00	54.00	Pass
01 (Peak)	2390.000	30.915	35.965	66.880	74.00	54.00	Pass
01 (Peak)	2432.400	31.088	72.782	103.870			
01 (Average)	2390.000	30.915	21.754	52.669	74.00	54.00	Pass
01 (Average)	2425.600	31.041	63.223	94.265			

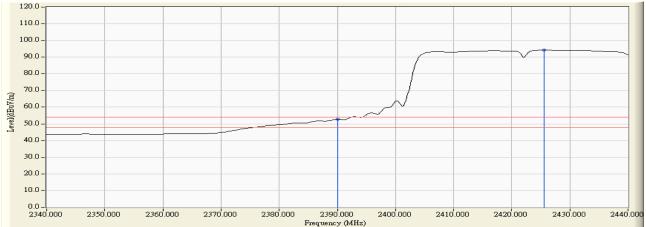
**Figure Channel 01:** 







Vertical (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

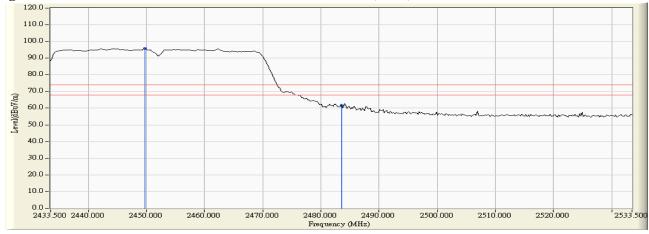
Product	:	Mozart II
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)

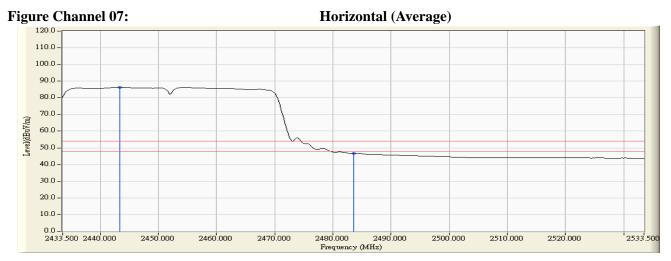
### **RF Radiated Measurement (Horizontal):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
07 (Peak)	2449.700	31.926	63.797	95.723			
07(Peak)	2483.500	32.182	29.534	61.716	74.00	54.00	Pass
07 (Average)	2443.300	31.877	54.303	86.180			
07 (Average)	2483.500	32.182	14.455	46.637	74.00	54.00	Pass

**Figure Channel 07:** 

Horizontal (Peak)





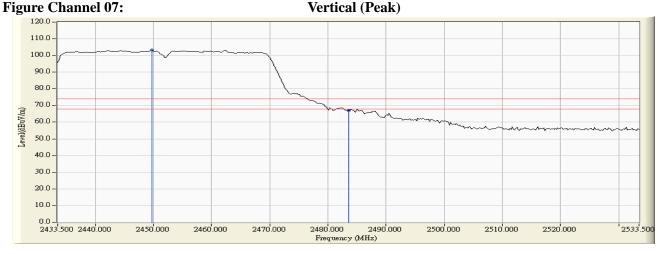
- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

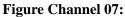


Product	:	Mozart II
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)

#### **RF** Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
07 (Peak)	2449.700	31.205	71.923	103.129			
07 (Peak)	2483.500	31.435	35.583	67.018	74.00	54.00	Pass
07 (Average)	2454.300	31.237	62.310	93.548			
07 (Average)	2483.500	31.435	19.881	51.316	74.00	54.00	Pass





Vertical (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

# 7. Occupied Bandwidth

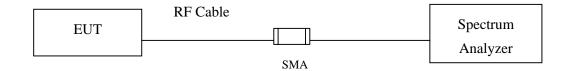
# 7.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2011
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2011
Х	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2011

### Note:

- 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
- 2. The test instruments marked with "X" are used to measure the final test results.

# 7.2. Test Setup



## 7.3. Limits

The minimum bandwidth shall be at least 500 kHz.

## 7.4. Test Procedure

The EUT was setup according to ANSI C63.4, 2003; tested according to DTS test procedure of Mar. 2005 KDB558074 for compliance to FCC 47CFR 15.247 requirements. Set RBW = 100 kHz, Span greater than RBW.

# 7.5. Uncertainty

 $\pm$  150Hz



# 7.6. Test Result of Occupied Bandwidth

Product	:	Mozart II
Test Item	:	Occupied Bandwidth Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11b 1Mbps) (2412MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1	2412	12250	>500	Pass

# Figure Channel 1:

🗊 Agilent Spectrum Analyzer - Swept SA				
Center Freq 2.412000000 GHz	AC SENSE:INT	ALIGN AUTO Avg Type: Log-Pwr	08:32:29 AM Dec 13, 2011 TRACE 1 2 3 4 5 6 TYPE MWWWWW	Frequency
Input: RF PNO: F IFGain:	ast 🖵 Trig: Free Run .ow Atten: 30 dB	BAL	DETPNNNN	Auto Tuno
10 dB/div Ref 20.00 dBm		IVIKI	2 2.405 90 GHz -3.55 dBm	
Log 10.0				Center Freq
0.00		2ª	2.57 dBm	2.412000000 GHz
-10.0		the second secon		
-30.0				Start Freq 2.387000000 GHz
-40.0		Van J	and a	2.387000000 GH2
-50.0		· V	Anonan	Stop Freq
-60.0				2.437000000 GHz
Center 2.41200 GHz	10 77		Span 50.00 MHz	
	≠VBW 100 kHz	#Sweep	500 ms (1001 pts)	
MKR MODE TRC SCL X		FUNCTION FUNCTION WIDTH	FUNCTION VALUE	<u>Auto</u> Man
2 N 1 f 2.405 90 GF 3 N 1 f 2.418 15 GF	Iz -3.55 dBm			
4				Freq Offset 0 Hz
6 7				
8 9				
10 11				
12 MSG		STATUS	3	

Product	:	Mozart II
Test Item	:	Occupied Bandwidth Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11b 1Mbps) (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
6	2437	12200	>500	Pass

# Figure Channel 6:

Frequency	M Dec 13, 2011 E 1 2 3 4 5 6	TRAC	ALIGNAUTO : Log-Pwr	Avg Typ	NSE:INT		00 GHz	2.437000	50 s		RL ent
		TYP				Trig: Free Atten: 30		Input			
Auto Tu	90 GHz 57 dBm		Mkr				1	20.00 dB	Rei	3/div	0 dE
Center Fre				_∧3	1	•2					. <b>og</b> 10.0
2.437000000 GI	-2.68 dBm			12m	Marine	Hanning	مے				0.00 10.0
Start Fro				· A	1		A. C.				20.0
2.412000000 GI		e 1	lun re	13			m	Jur			30.0 40.0
	m Jack a	- And and	2 mg				and a start of	M	and the second	mit	io.o io.o
Stop Fr 2.462000000 G	N 12 19										50.0 70.0
		Cnon Fi							2.4370		
CF St 5.000000 M	0.00 MHz 1001 pts)		#Sweep			3W 100 kHz	#V		2.4370 N 100		
<u>Auto</u> M	IN VALUE	FUNCTIO	NCTION WIDTH	CTION FL		Y 3.33 d	2.438 00 GHz		TRC SCL		
Freq Offs						-3.57 d -2.73 d	2.430 90 GHz 2.443 10 GHz		1 f 1 f		3
0										-	4 5 6
											7 8
											9
											0

Product	:	Mozart II
Test Item	:	Occupied Bandwidth Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11b 1Mbps) (2462MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
11	2462	12200	>500	Pass

# Figure Channel 11:

D Agilent Spectrum Analyzer - S	Swept SA	8					
₩ RL 50 Ω Center Freq 2.46200	00000 GHz	AC SENSE:IN	Avg Type:	LIGNAUTO	TRACI	1 Dec 13, 2011	Frequency
10 dB/div Ref 20.00 d	ilBm	➡ Trig: Free Run Atten: 30 dB		Mkr2	DE 2.455	90 GHz 50 dBm	Auto Tune
10.0 0.00 -10.0	Junio	2 Al	man 3			2.58 dBm	Center Free 2.462000000 GH:
-20.0	n de la companya de l			my and	~		Start Free 2.437000000 GH
-50.0 -60.0 -70.0	Y			V	And	Und have by	<b>Stop Fre</b> 2.487000000 GH
Center 2.46200 GHz #Res BW 100 kHz	#VB	W 100 kHz		Sweep	Span 50 500 ms (1 5000	0.00 MHz 1001 pts) NVALUE	CF Ste 5.000000 M⊢ Auto Ma
1 N 1 f 2 N 1 f 3 N 1 f 4 5 6 6	2.463 00 GHz 2.455 90 GHz 2.468 10 GHz	3.42 dBm -3.50 dBm -2.62 dBm					Freq Offse
7 8 9 10 11 12							
MSG				STATUS			

Product	:	Mozart II
Test Item	:	Occupied Bandwidth Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps) (2412MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1	2412	16600	>500	Pass

# Figure Channel 1:

🗊 Agilent Spectrum Analyzer - S	Swept SA						
	00000 GHz	AC SENSE:IN	vт Avg Type	ALIGNAUTO : Log-Pwr	TRACI	A Dec 13, 2011	Frequency
	out: RF PNO: Fast C IFGain:Low	Trig: Free Rur Atten: 30 dB	1	Mkr2	DE 2.403	70 GHz	Auto Tune
10.0 -10.0	2 01p.ir.s	างเหรือเป็นการให้เป็นหน้าสามาระก ในการณ์ การ	manufacture 3			-6.39 dBm	Center Free 2.412000000 GH
-20.0 -30.0 -40.0 -50.0	manna		*	Mur Mayny	My Around My road		Start Fre 2.387000000 GH
-50.0						- North Marken	Stop Fre 2.437000000 GH
Center 2.41200 GHz #Res BW 100 kHz MKR MODE TRC SCL	#VB	W 100 kHz		#Sweep {			<b>CF Ste</b> 5.000000 MH <u>Auto</u> Ma
1 N 1 f 2 N 1 f 3 N 1 f 4 5 6	2.416 15 GHz 2.403 70 GHz 2.420 30 GHz	-0.39 dBm -6.99 dBm -6.84 dBm					Freq Offse 0 ⊢
7							
MSG	ti.			STATUS			

Product	:	Mozart II
Test Item	:	Occupied Bandwidth Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps) (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
6	2437	16600	>500	Pass

# Figure Channel 6:

	8				
Agilent Spectrum Analyzer - Swept SA					
(X/ RL 50Ω		ENSE:INT		AM Dec 13, 2011 ACE 1 2 3 4 5 6	Frequency
Center Freq 2.437000000	GHZ PNO: Fast 😱 Trig: Fre		T	YPE MWWWWWW	
	FGain:Low Atten: 3			DET P N N N N N	
			Mkr2 2.428	2 70 CU-	Auto Tune
				.70 dBml	
10 dB/div Ref 20.00 dBm			-/	.70 uBiiii	
10.0					
					Center Free
0.00	2 mmaerinersenersenersen			-6.97 dBm	2.437000000 GH
-10.0		Y Y			
-20.0	5	1			
	AN COLOR	\ \	κA		Start Fre
-30.0			When the th		2.412000000 GH
-40.0			W. Pastante		
-40.0		-	Aw way how the	mula	
-60.0				M. C. Marshran	Stop Fre
-70.0					2.462000000 GH
Center 2.43700 GHz				50.00 MHz	CF Ste
#Res BW 100 kHz	#VBW 100 kH	Z	#Sweep 500 ms	(1001 pts)	5.000000 MH
MKR MODE TRC SCL X	Y	FUNCTION FU	NCTION WIDTH FUNC	TION VALUE	Auto Ma
	15 GHz -0.97 (				
	70 GHz -7.70 (	dBm		I	
3 N 1 f 2.445	30 GHz -7.29 (	dBm			Freq Offse
5					0 H
6					
7					
8 9	8				
10					
11					
12					
MSG			STATUS		

Product	:	Mozart II
Test Item	:	Occupied Bandwidth Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps) (2462MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
11	2462	16600	>500	Pass

# Figure Channel 11:

		8			
💴 Agilent Spectrum Analyzer - S	iwept SA				
(X) RL 50Ω		AC SENSE:INT	ALIGNAUTO Avg Type: Log-Pwr	09:10:58 AM Dec 13, 2011 TRACE 1 2 3 4 5 6	Frequency
Center Freq 2.46200	DUUUU GHZ Dut: RF PNO: Fast G IFGain:Low	Trig: Free Run Atten: 30 dB	Avg Type. Log-Pwr	TYPE MWWWW DET P N N N N N	
10 dB/div Ref 20.00 d	IBm		Mkr	2 2.453 70 GHz -7.14 dBm	Auto Tune
			www.mentimety 3	-6.82 dBm	<b>Center Fre</b> 2.462000000 GH
-20.0 -30.0 -40.0 -50.0	www			for a from the second	Start Fre 2.437000000 GH
-50.0				Might for a believer	Stop Fre 2.487000000 G⊦
Center 2.46200 GHz #Res BW 100 kHz	#VB\	V 100 kHz	#Sweep	Span 50.00 MHz 500 ms (1001 pts)	CF Ste 5.000000 MH
MKR MODE TRC SCL	× 2.459 25 GHz	-0.82 dBm	FUNCTION FUNCTION WIDTH	FUNCTION VALUE	<u>Auto</u> Ma
2 N 1 f 3 N 1 f 4 5 6 6	2.453 70 GHz 2.470 30 GHz	-7.14 dBm -7.05 dBm			Freq Offse 0 ⊦
7 8 9 10 11					
12 // // // // // // // // // // // // //			STATUS		

Product	:	Mozart II
Test Item	:	Occupied Bandwidth Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2412MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1	2412	16650	>500	Pass

# Figure Channel 1:

		8			
Agilent Spectrum Analyze α RL 50 Ω	er - Swept SA				
enter Freg 2.41	2000000 CH-2	AC SENSE:IN	ALIGNAUTO Avg Type: Log-Pwr	09:20:00 AM Dec 13, 2011 TRACE 1 2 3 4 5 6	Frequency
senter rieg 2.41	Input: RF PNO: Fast	Trig: Free Run		TYPE MWWWWW DET P N N N N N	
	IFGain:Lov	Atten: 30 dB			Auto Tu
			Mkr	2 2.403 70 GHz	Autoru
0 dB/div Ref 20.0	0 dBm			-8.42 dBm	
10.0		-			Center Fr
0.00	2				2.412000000 G
0.0		horner brancher and the		-8.02 dBm	2.412000000 G
	đ		ĺ.		
20.0					Start Fr
80.0	mm		Www.hom		2.387000000 0
10.0 50.0	when and it		- · · · · · · · · · · · · · · · · · · ·	warmen and	
0.0 minter white white				1 VIV Val mar and a series and	
0.0				to he	Stop Fr
0.0					2.437000000 0
enter 2.41200 GH Res BW 100 kHz		BW 100 kHz	<b>#O</b>	Span 50.00 MHz	CF St
Res BW 100 KHZ	#V		#Sweep	500 ms (1001 pts)	5.000000 N
KR MODE TRE SEL	× 2.409 25 GHz	-2.02 dBm	FUNCTION FUNCTION WIDTH	FUNCTION VALUE	<u>Auto</u> N
2 N 1 f	2.409 25 GHz 2.403 70 GHz	-2.02 dBm			
3 N 1 f	2.420 35 GHz	-11.01 dBm			Freq Off
5					0
6 7					
8					
9					
1					
12					
G			STATUS		

Product	:	Mozart II
Test Item	:	Occupied Bandwidth Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
6	2437	16600	>500	Pass

# Figure Channel 6:

RL         50.2         AC         SENSE INT         ALIGNAUTO         D9:27:12AMDec 13, 2011         Frequency           Input: RF         PN0: Fast IFGain:Low         Trig: Free Run Atten: 30 dB         Avg Type: Log-Pwr         ITRACE 12, 33 4 5 5 INTRACE 12, 34 5 5 Order P NNNN         Frequency         Auto Tur           0 dB/div         Ref 20.00 dBm         -8.83 dBm         -8.83 dBm         Auto Tur           0 dB/div         Ref 20.00 dBm         -8.83 dBm         -8.83 dBm         -8.82 dm           0 d         -2         -1         -3         -8.32 dm         -8.32 dm           0 d         -2         -1         -3         -8.32 dm         -8.32 dm           0 d         -2         -1         -3         -8.32 dm         -8.32 dm           0 d         -2         -1         -3         -8.32 dm         -8.32 dm           0 d         -2         -1         -3         -8.32 dm         -8.32 dm           0 d         -2         -2         -1         -8.32 dm         -8.32 dm         -8.32 dm           0 d         -2         -2         -2         -2         -2         -2         -2         -2         -2         -2         -2         -2         -2         -2 </th <th></th> <th>8</th> <th></th> <th></th> <th></th>		8			
enter Freq         2.437000000         GHz         Frequency           Input: RF         PN0: Fast         Trig: Free Run         Mkr2 2.428 70 GHz         Auto Tur           DdB/div         Ref 20.00 dBm         -8.83 dBm         -8.83 dBm         Auto Tur           00         -2         -1         -8.83 dBm         -8.32 dBm         -8.34 dBm         -8.34 dBm         -8.34 dBm         -8.34	Agilent Spectrum Analyzer - Swept SA				
Input: RF         PN0: Fast IFGain:Low         Trig: Free Run Atten: 30 dB         Mkr2 2.428 70 GHz -8.83 dBm         Auto Tur           0         0		AC SENSE:IN			Frequency
OBJGIUV         Ref 20.00 dBm         -8.83 dBm           00         -8.83 dBm         -8.83 dBm           00         -2         -1         -3.32 dBm           00         -2         -4         -4         -4           00         -2         -4         -4         -4           00         -2         -4         -4         -4           00         -4         -4         -4         -4           00         -4         -4         -4         -4           00         -4         -4         -4         -4           01         -4         -4         -4         -4           02         -4         -4         -4         -4           03         -4         -4         -4         -4           04         -4         -4         -4         -4           05         -4         -4         -4         -4           1         1         -4         -4         -4           1         -4         -4         -4         -4           1         -4         -4         -4         -4           1         -4         -4         -	Input: RF PNO: F			TYPE M WWWWWW	
Center Fre       Center Fre         0.0 <td>0 dB/div Ref 20.00 dBm</td> <td></td> <td>N</td> <td></td> <td></td>	0 dB/div Ref 20.00 dBm		N		
0.00       0.00	-og 10.0		1		Center Fre
0.0	0.00		monthsmining 3	-8.32 dBm	2.437000000 G
0.0	0.0				Start Fr
NO     <	www.		M	m	2.412000000 G
N.0         2.46200000 G           enter 2.43700 GHz         Span 50.00 MHz           Res BW 100 kHz         #VBW 100 kHz         #Sweep 500 ms (1001 pts)           XE         Y         FUNCTION         FUNCTION WIDTH         FUNCTION VALUE           1         1         f         2.435 30 GHz	walkentowith				Stop Er
Res BW 100 kHz         #VBW 100 kHz         #Sweep 500 ms (1001 pts)         CF St 5.00000 M           Remote trop scule         X         Y         FUNCTION         FUNCTION width         FUNCTION value           1         1         f         2.438 90 GHz         -2.32 dBm         Function width         Function value         Auto         Mato           2         N         1         f         2.445 30 GHz         -8.83 dBm         Function value         Freq Offs           3         N         1         f         2.445 30 GHz         -8.34 dBm         Freq Offs         Freq Offs           4         6               0           7                0           9	0.0				
KR         MODE         TRG         SCL         X         Y         FUNCTION         FUNCTION WIDTH         FUNCTION VALUE           1         N         1         f         2.438 90 GHz         -2.32 dBm         Auto         M           2         N         1         f         2.438 70 GHz         -8.83 dBm         -         0         -         -         -         -         -         -         -         -         0         -         -         0         -         -         0         -         0         -         0         -         0         -         0 </td <td></td> <td>#VBW 100 kHz</td> <td>#Swe</td> <td></td> <td>CF St</td>		#VBW 100 kHz	#Swe		CF St
21       N       1       f       2.428 70 GHz       -8.83 dBm			FUNCTION FUNCTION W	IDTH FUNCTION VALUE	
5	3 N 1 f 2.445 30 Gł	Hz -8.83 dBm Hz -8.34 dBm			Freg Offs
8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	5				
	8				
	0				
G STATUS	<b>2 3</b> G			ATUS	

Product	:	Mozart II
Test Item	:	Occupied Bandwidth Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2462MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
11	2462	16600	>500	Pass

# Figure Channel 11:

						8-						
								wept SA	Analyzer - S			
	AM Dec 13, 2011		ALIGNAUTO	A	ENSE:INT	AC SE				50 :		RL
N N	YPE MWWWWW DET P NNNNN	TY	: Log-Pwr	Avgiype		Trig: Fre Atten: 30	HZ 10: Fast G Gain:Low	DOOOO G ut: RF PI IFC		req	ter I	en
	3 70 GHz .55 dBm		Mkr					Bm	f 20.00 c	Re	3/div	0 dF
Center Fre						. 1						<b>og</b> 10.0
2.462000000 GH				3		[ 0' ]	2					0.00
	-8.53 dBm			nonumer )	- MARINA	and a state of the second						10.0
				1			d					20.0
Start Fre				X			کس					30.0
2.437000000 G		100	mont					mann				40.0
-		Aprovinan.						Jan 1	man			
	and the second	1								and the	and and	50.0
2.487000000 GI						-						60.0
2.487000000 Gr												70.0
	50.00 MHz	Span 5			10- 10-				0 GHz	4620	ter 2	Cent
CF Ste	(1001 pts)		#Sweep			100 kHz	#VBV			100		
5.000000 M Auto M	TION VALUE	E INNI	NCTION WIDTH	NCTION FU		Y		×		RC SCL	MUDEL	икві і
						-2.53 d		2.459 2		1 f	N	1
-						<u>-9.55 d</u> -8.84 d		2.453 7		1 f 1 f		2
Freq Offs				1		-0.04 u	0 0112	2.4700	1	· · ·		4
01					-					-	-	5
												7
-11										-		8
-												10
-11					-					-	-	11 12
			STATUS	÷								sg
			014100									

Product	:	Mozart II
Test Item	:	Occupied Bandwidth Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2422MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
3	2422	36450	>500	Pass

# Figure Channel 1:

		8					
Magilent Spectrum Analyzer - S	owept SA				52		
LX RL 50Ω		AC SENSE:IN	T Avg Type:	ALIGNAUTO		MDec 13, 2011	Frequency
Center Freq 2.4220	out: RF PNO: Fast	🖵 🛛 Trig: Free Run		Log-Fwr	TYP		
	IFGain:Low	Atten: 30 dB			DE		A
				Mkr2	2.403	80 GHz	Auto Tune
10 dB/div Ref 20.00 c	IBm				-11.3	24 dBm	<u>.</u>
Log							
10.0			_∧1				Center Fre
0.00	per constant ferrangene	11	$-\langle \rangle^{+}$		∧3		2.422000000 GH
-10.0	Manune management	moundary have	were and a second second	malinet warmen	monent	-10.85 dBm	
-20.0		L <sub>op</sub> t			1		
					h		Start Fre
Mars Arrest					Ч	mappy anna	2.397000000 GH
-40.0						10 may	
-50.0							
-60.0							Stop Fre
-70.0							2.447000000 GH
Center 2.42200 GHz						0.00 MHz	CE Oto
#Res BW 100 kHz	#VB	SW 100 kHz	i	#Sweep :	500 ms (	1001 pts)	CF Ste 5.000000 MH
MKR MODE TRC SCL	X	Y	FUNCTION FUN	ICTION WIDTH	FUNCTIO	IN VALUE	Auto Ma
1 N 1 f	2.425 50 GHz	-4.85 dBm					
2 N 1 F 3 N 1 F	2.403 80 GHz 2.440 25 GHz	-11.24 dBm -12.02 dBm	1				100 100100
4	2.440 20 0112	-12.02 dBiii	0				Freq Offs
5							0 H
6 7				<i></i>			
8							
9							
11	0		5				
12							
MSG				STATUS			1

Product	:	Mozart II
Test Item	:	Occupied Bandwidth Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
6	2437	36450	>500	Pass

# Figure Channel 4:

		8					
💴 Agilent Spectrum Analyzer - S	Swept SA						
LXI RL 50 Ω		AC SENSE:		ALIGN AUTO		M Dec 13, 2011	Frequency
Center Freq 2.4370	00000 GHz out: RF PNO: Fast	Trig: Free Ru		Type: Log-Pwr	TYP	E 1 2 3 4 5 6 E MWWWWW	
Ini	IFGain:Low	Atten: 30 dB			DE		
				Mkr	2 2.418	80 GHz	Auto Tune
10 dB/div Ref 20.00 d	IBm					66 dBm	
Log							
10.0							Center Free
0.00			() <sup>1</sup>				2.437000000 GH;
-10.0	Mannerstrans	and harmonichana	mannaman	And a	umman 3	-11.03 dBm	
-20.0	and a second	La.		1000 C	Ĭ		
					1		Start Fred
-30.0					2	what when	2.412000000 GHz
-40.0						Wanger	
-50.0							
-60.0							Stop Free
-70.0							2.462000000 GH
10.0							
Center 2.43700 GHz	165 11.464-11.00-1			192 - 11 1975 (c.	Span 5	0.00 MHz	05.01
#Res BW 100 kHz	#VE	SW 100 kHz		#Sweep	500 ms (	1001 pts)	CF Step 5.000000 MH;
MKR MODE TRC SCL	×	Y	FUNCTION	FUNCTION WIDTH	FUNCTIO	IN VALUE	Auto Mar
1 N 1 f	2.440 50 GHz	-5.03 dBm					
2 N 1 f 3 N 1 f	2.418 80 GHz 2.455 25 GHz	-11.66 dBm -12.25 dBm		-			The second se
4	2.400 20 GHZ	-12.25 UDIII					Freq Offse
5							0 H;
6							
8							
9							
11	5						
12							
MSG				STATUS			

Product	:	Mozart II
Test Item	:	Occupied Bandwidth Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2452MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
9	2452	36450	>500	Pass

# Figure Channel 7:

		0	e onui				
💭 Agilent Spectrum Analyzer - S	iwept SA						
	00000 GHz out: RF PNO: Fast			ALIGN AUTO Avg Type: Log-Pwr	TRAC	M Dec 13, 2011 E 1 2 3 4 5 6 E M WWWWW	Frequency
	IFGain:Low			КЛІсе	1111020	80 GHz	Auto Tune
10 dB/div Ref 20.00 c	lBm			IVIKI		80 GH2 36 dBm	
10.0							Center Fre
0.00 <b>2</b>	Warman	warman .		and - Uniformation and an and the other and an a	mmin 3	-11.30 dBm	2.452000000 G⊢
-20.0		- La			,		~ =
-30.0 Man Man Man					1 And a start	mortan	Start Fre 2.427000000 GH
-40.0 m -50.0						- and a	
-60.0							Stop Fre 2.477000000 GH
-70.0							2.477000000 GF
Center 2.45200 GHz #Res BW 100 kHz	#V	BW 100 kHz		#Sweep		0.00 MHz 1001 pts)	CF Ste 5.000000 MH
MKR MODE TRO SCL	× 2.455 50 GHz	-5.30 dBi	FUNCTIO	DN FUNCTION WIDTH	FUNCTIO	IN VALUE	Auto Ma
2 N 1 f 3 N 1 f	2.433 80 GHz 2.470 25 GHz	-11.86 dBr -12.51 dBr	n				Erog Offe
4 5							Freq Offs 0 H
6 7 8							
9							
11 12							
MSG				STATUS	3		

# 8. Power Density

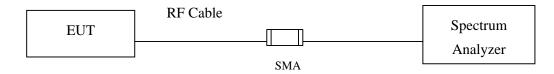
## 8.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2011
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2011
Х	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2011

### Note:

- 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
- 2. The test instruments marked with "X" are used to measure the final test results.

## 8.2. Test Setup



## 8.3. Limits

The transmitted power density averaged over any 1 second interval shall not be greater +8dBm in any 3kHz bandwidth.

# 8.4. Test Procedure

The EUT was setup according to ANSI C63.4, 2003; tested according to DTS test procedure of Mar. 2005 KDB558074 for compliance to FCC 47CFR 15.247 requirements. Set RBW= 3 kHz, VBW=10KHz, Sweep time=(SPAN/3KHz), detector=Peak detector

## 8.5. Uncertainty

 $\pm$  1.27 dB

# 8.6. Test Result of Power Density

Product	:	Mozart II
Test Item	:	Power Density Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11b 1Mbps) (2412MHz)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-14.090	< 8dBm	Pass

# Figure Channel 1:

d RL	ent Spectrum 50	Ω			AC S	ENSE:INT		ALIGNAUTO		M Dec 13, 2011	<b></b>
Cent	er Freq		put: RF	GHz PNO: Far ( IFGain:Low	Trig: Fro Atten: 3	e Run 0 dB	Avg Type	e: Log-Pwr	TYP	E 1 2 3 4 5 6 E MWWWWW T P NNNNN	Frequency
10 dB.	/div Re	f 20.00 (	dBm					Mkr1 2.4		54 GHz 09 dBm	Auto Tun
<b>og</b> 10.0											Center Fre 2.413010000 GH
).00 - 0.0 -	•1	0.0.0			0 0 0 0						<b>Start Fr</b> 2.412860000 G
0.0 9.0											<b>Stop Fr</b> 2.413160000 G
0.0 - 0.0 -											CF Sto 30.000 k <u>Auto</u> M
0.0 -		0									Freq Offs 0
	er 2.4130		z						Span (	300.0 kHz	
Res	BW 3.0	kHz		#VB	W 10 kHz			#Sweep	100 s (	1001 pts)	
G								STATUS			

Product	:	Mozart II
Test Item	:	Power Density Data
Test Site	:	No.3OATS
Test Mode	:	Mode 1: Transmit (802.11b 1Mbps) (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
6	2437	-14.180	< 8dBm	Pass

# Figure Channel 6:

Frequency	1 Dec 13, 2011 1 2 3 4 5 6 MWWWWW P N N N N N	TRAC		ALIGN: : Log-	A		Free	Trig: Atte	AC	Z ): Far in:Low	PN	<b>5000</b> It: RF			r Freq	ent
Auto Tu	8 GHz 8 dBm	37 856 -14.1	1 2.4	Mkı		 		- Ince			IFG	Зm	00 d	ef 20.	liv Re	0 dBi
<b>Center Fr</b> 2.438005000 G																<b>og</b> 10.0
<b>Start Fr</b> 2.437855000 G															[	).00 - 0.0 <b>)</b>
<b>Stop Fr</b> 2.438155000 G					N		N		V	W						0.0
CF St 30.000 k Auto M						 										0.0
Freq Offs 0						 			_							0.0 -
	00.0 kHz	Span 3		#6				10 kł		#\/!			GHz		r 2.438 3W 3.0	
	100 i pt3)	100 3 (	TATUS				12			<i>\\</i>				A112	JVV J.U	RC3

Product	:	Mozart II
Test Item	:	Power Density Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11b 1Mbps) (2462MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
11	2462	-14.140	< 8dBm	Pass

# Figure Channel 11:

enter F	<sup>50 Ω</sup> req 2.463		<b>000</b> ıt: RF	Р	Hz NO: I Gain:		G		ig: F	ree	Ru dB			A	vg T				UTO Wr		08:4	TRA	CE	ec 13, 20 L 2 3 4 MWWW P N N N	5.6	F	requency
0 dB/div	Ref 20.0	0 dl	Bm		3411.	LU#											Μ	kr	12	.4				5 GH I dB			Auto Tui
																										1	<b>Center Fr</b> 3010000 G
0.00 0.0 <b>•</b> 1																										2.46	<b>Start Fr</b> 52860000 G
		Ŵ						V	$\mathbb{V}$			V	V		$\mathbb{N}$	V			$\mathbb{N}$		N	V			A	2.46	<b>Stop Fr</b> 3160000 G
0.0																									-	<u>Auto</u>	CF St 30.000 k N
0.0		_																							_		Freq Offs 0
enter 2.	4630100 G	Hz	1																	2	Sn	an	30	0.0 kl	-17		
	3.0 kHz				1	#VE	зw	10	kН	z							#		vee					01 pt			

Product	:	Mozart II
Test Item	:	Power Density Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps) (2412MHz)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-15.250	< 8dBm	Pass

# Figure Channel 1:

enter	50 Ω Freq 2.4	13900000 Input: RF		Trig: Fre		Avg Typ	ALIGNAUTO e: Log-Pwr	08:55:31 AM Dec 13, 2011 TRACE 1 2 3 4 5 6 TYPE MWWWWW DET P N N N N N	Frequency
0 dB/div	Ref 20.	00 dBm	FGain:Low	Atten: 30	dB		Mkr1 2.4	413 885 6 GHz -15.25 dBm	Auto Tun
10.0									Center Fre 2.413900000 GH
0.00				<b>1</b>					Start Fre 2.413750000 GF
20.0 ~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	vn	mm	, MM	m	mm	hand the second	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	<b>Stop Fre</b> 2.414050000 GF
i0.0 i0.0									CF Ste 30.000 kl <u>Auto</u> M
0.0									Freq Offs
70.0		0.11-							
	2.4139000 V 3.0 kHz	GHZ	#VBW	10 kHz			#Sweep	Span 300.0 kHz 100 s (1001 pts)	
sg							STATUS		-3

Product	:	Mozart II
Test Item	:	Power Density Data
Test Site	:	No.3OATS
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps) (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
6	2437	-15.170	< 8dBm	Pass

# Figure Channel 6:

RL	Spectrum Analy 50 Ω	zer - Swept SA		AC SE	NSE:INT		ALIGN AUTO	09:02:13 AM Dec 13, 201	
enter	Freq 2.4	38900000 Input: RF	GHz PNO: Far G FGain:Low	Trig: Free Atten: 30		Avg Type	: Log-Pwr	TRACE 1 2 3 4 5 TYPE MWWWWW DET P N N N N	4
0 dB/div	v Ref 20	.00 dBm	- Guine Gui				Mkr1 2.4	138 886 2 GH: -15.17 dBm	
10.0									Center Fre 2.438900000 GH
0.00				<b>●</b> <sup>1</sup>					Start Fr 2.438750000 G
20.0	Jam		mm	h	n	nga	pronon /	M	Stop Fr 2.439050000 G
io.o —									CF Sta 30.000 k Auto M
i0.0									Freq Offs 0
70.0									-
	2.4389000 W 3.0 kHz	GHz	#VBW	/ 10 kHz	1		#Sweep	Span 300.0 kH 100 s (1001 pts	
sg							STATUS		

Product	:	Mozart II
Test Item	:	Power Density Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps) (2462MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
11	2462	-15.340	< 8dBm	Pass

# Figure Channel 11:

a RL 50 Ω Center Freq 2.45991 Inpu	AC SENSI 5000 GHz It: RF PNO: Far C Trig: Free F IFGain:Low Atten: 30 dl	Avg Type: Log-Pwr lun	09:10:09 AM Dec 13, 2011 TRACE 1 2 3 4 5 6 TYPE MWWWWW DET P N N N N N	Frequency
0 dB/div Ref 20.00 dB	3m	Mkr1 2.4	459 839 1 GHz -15.34 dBm	Auto Tun
10.0				Center Fre 2.459915000 GH
0.00	1			<b>Start Fre</b> 2.459765000 GF
20.0	M ho monto	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	<b>Stop Fr</b> 2.460065000 GI
0.0				CF Ste 30.000 ki <u>Auto</u> M
50.0				Freq Offs
70.0				
Center 2.4599150 GHz Res BW 3.0 kHz	#VBW 10 kHz	#Sweep	Span 300.0 kHz 100 s (1001 pts)	

Product	:	Mozart II
Test Item	:	Power Density Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2412MHz)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-17.220	< 8dBm	Pass

# Figure Channel 1:

enter Freq 2.409270 Input:	000 GHz	Run	ALIGN AUTO Type: Log-Pwr	09:19:13 AM Dec 13, 2011 TRACE 1 2 3 4 5 6 TYPE MWWWWW DET P N N N N N	Frequency
0 dB/div Ref 20.00 dB			Mkr1 2.	409 230 4 GHz -17.22 dBm	Auto Tun
					Center Fre 2.409270000 GH
0.00	1				<b>Start Fre</b> 2.409120000 GF
	man	m	~~~~~~	mm	<b>Stop Fr</b> 2.409420000 G
0.0					CF Ste 30.000 k <u>Auto</u> M
0.0					Freq Offs 0
70.0 enter 2.4092700 GHz				Span 300.0 kHz	
Res BW 3.0 kHz	#VBW 10 kHz		#Sweep	100 s (1001 pts)	

Product	:	Mozart II
Test Item	:	Power Density Data
Test Site	:	No.3OATS
Test Mode	:	Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
6	2437	-17.100	< 8dBm	Pass

# Figure Channel 6:

RL 50Ω Center Freq 2.438900 Input	: RF PNO: Far 🖵 Trig: Free F	Avg Type: Log-Pwr un	09:26:26 AM Dec 13, 2011 TRACE 1 2 3 4 5 6 TYPE M WWWWW DET P N N N N N	Frequency
0 dB/div Ref 20.00 dE	in Guinie Gw		438 885 9 GHz -17.10 dBm	Auto Tur
og 10.0				<b>Center Fr</b> 2.438900000 G
0.0				<b>Start Fr</b> 2.438750000 G
0.0	No Andrew and a	and a share a second	mm	<b>Stop Fr</b> 2.439050000 G
0.0				CF St 30.000 k Auto M
0.0				Freq Offs 0
70.0 Center 2.4389000 GHz Res BW 3.0 kHz	#VBW 10 kHz	#Sweep	Span 300.0 kHz 0 100 s (1001 pts)	

Product	:	Mozart II
Test Item	:	Power Density Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2462MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
11	2462	-17.900	< 8dBm	Pass

# Figure Channel 11:

enter Freq 2.459270 Input:		ALIGN AUTO	09:34:20 AM Dec 13, 2011 TRACE 1 2 3 4 5 6 TYPE MWWWW DET P N N N N N	Frequency
0 dB/div Ref 20.00 dB	m	Mkr1 2.45	59 220 5 GHz -17.90 dBm	Auto Tur
og 10.0				Center Fre 2.459270000 Gi
0.0				<b>Start Fr</b> 2.459120000 G
0.0 <mark>~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~</mark>	Man	Mar	www	<b>Stop Fr</b> 2.459420000 G
0.0				CF St 30.000 k Auto M
0.0				Freq Offs 0
70.0			Shop 200 0 kills	
Res BW 3.0 kHz	#VBW 10 kHz		Span 300.0 kHz 100 s (1001 pts)	

Product	:	Mozart II
Test Item	:	Power Density Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2422MHz)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
3	2422	-16.920	< 8dBm	Pass

# Figure Channel 1:

	ter 2.4 s BW 3			HZ			#VBV	/ 10 kH	łz			#Swee		300.0 kHz 1001 pts)	
		055											0		
-60.0 -70.0															0
co o															Freq Off
50.0												_			30.000 k <u>Auto</u> N
40.0		_										_			CF St
30.0	~~~		V . ~	~						VW V	n m	- m	hum	m	Stop Fi 2.425675000 G
20.0	D. O. C	2700	Å	1995	-000		0-00-	mon to		1. A	-				
10.0		_	<b>1</b>	_		_									Start Fi 2.425375000 G
0.00		_													
10.0						_								·	Center Fi 2.425525000 G
0 di .og	B/div	Ref	20.00	) dB	m			Ĩ			ī	Mkr1 2.		1 8 GHz 92 dBm	Auto Tu
en	iter Fr	eq		525 Input:	RF		Far 🕞 Low	Trig: Atter			Avgij	pe. Log-Pwi	TYI	ET P N N N N N	
RI		50 Ω			000			AC	SEN	ISE:INT	0	ALIGNAUTO		M Dec 13, 2011	Frequency

Product	:	Mozart II
Test Item	:	Power Density Data
Test Site	:	No.3OATS
Test Mode	:	Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2437MHz)

Channel No.	Frequency (MHz)	1 2		Result
6	2437	-18.500	< 8dBm	Pass

# Figure Channel 4:

RL 50 Ω enter Freq 2.4405200 Input: R		ALIGNAUTO Avg Type: Log-Pwr	09:50:07 AM Dec 13, 2011 TRACE 1 2 3 4 5 6 TYPE MWWWW DET P N N N N N	Frequency					
dB/div Ref 20.00 dBm	Mkr1 2.440 479 8 GHz dB/div Ref 20.00 dBm -18.50 dBm								
0.0				Center Fre 2.440520000 G⊦					
0.0	▲1			<b>Start Fre</b> 2.440370000 GH					
0.0	esse manner	Man	nm	<b>Stop Fr</b> 2.440670000 G					
0.0				CF Ste 30.000 k <u>Auto</u> M					
0.0				Freq Offs					
0.0									
enter 2.4405200 GHz Res BW 3.0 kHz	#VBW 10 kHz		Span 300.0 kHz 100 s (1001 pts)						

Product	:	Mozart II
Test Item	:	Power Density Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2452MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
9	2452	-18.350	< 8dBm	Pass

# Figure Channel 7:

enter Fred		t: RF PI	lz 10: Far 🖵	]		Avg	ALIGN AUTO Type: Log-Pwr	TRAC	M Dec 13, 2011 E 1 2 3 4 5 6 PE M WWWWW ET P N N N N N	Frequency
	Mkr1 2.455 447 9 GHz -18.35 dBm -18.35 dBm									Auto Tur
- <b>og</b> 10.0			5						· · · · · ·	Center Fre 2.455525000 GF
0.00		<b>▲</b> 1								<b>Start Fr</b> 2.455375000 GI
30.0	monto	-Ara	ومكركهم	www	*h~~	m	mm	m	m	<b>Stop Fr</b> 2.455675000 G
40.0										CF Ste 30.000 k Auto M
60.0										Freq Offs 0
70.0	5250 GHz							Snan	300.0 kHz	
Center 2.455 #Res BW 3.0			#VBW	10 kHz			#Swee		300.0 kHz 1001 pts)	

# 9. EMI Reduction Method During Compliance Testing

No modification was made during testing.