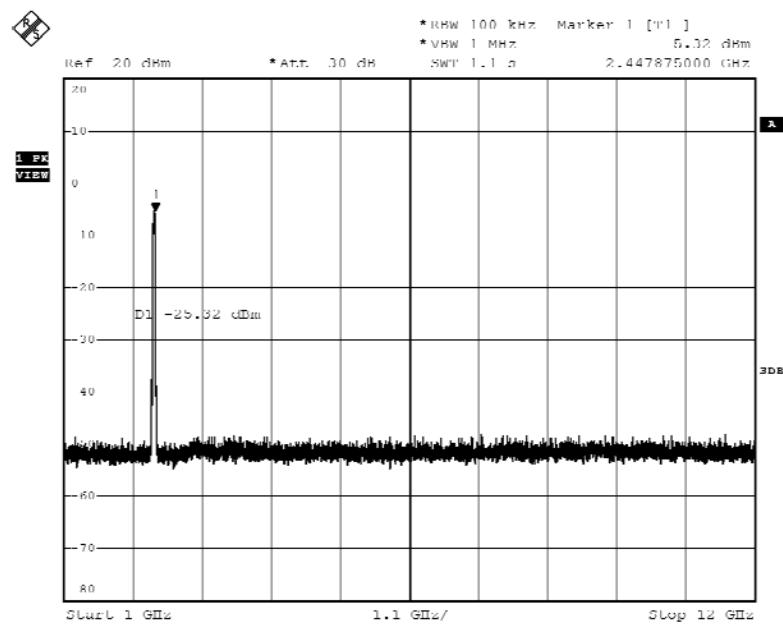
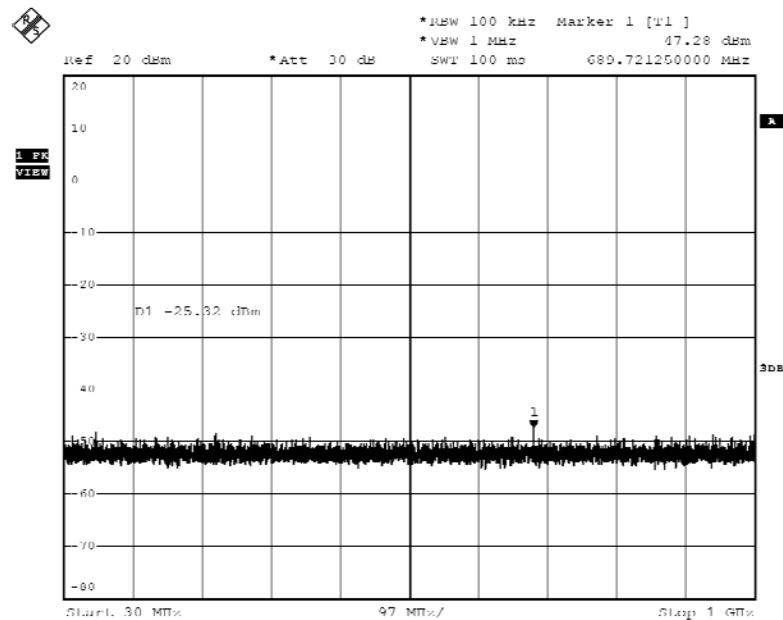
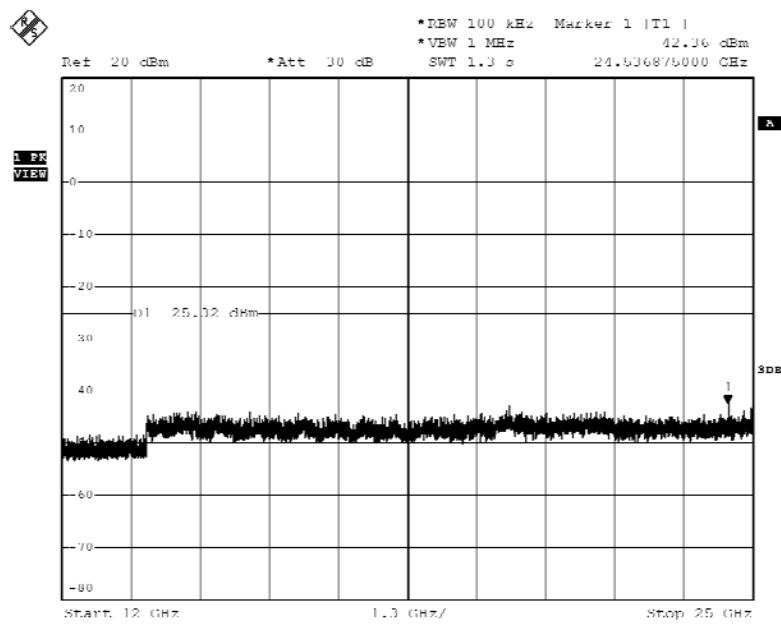
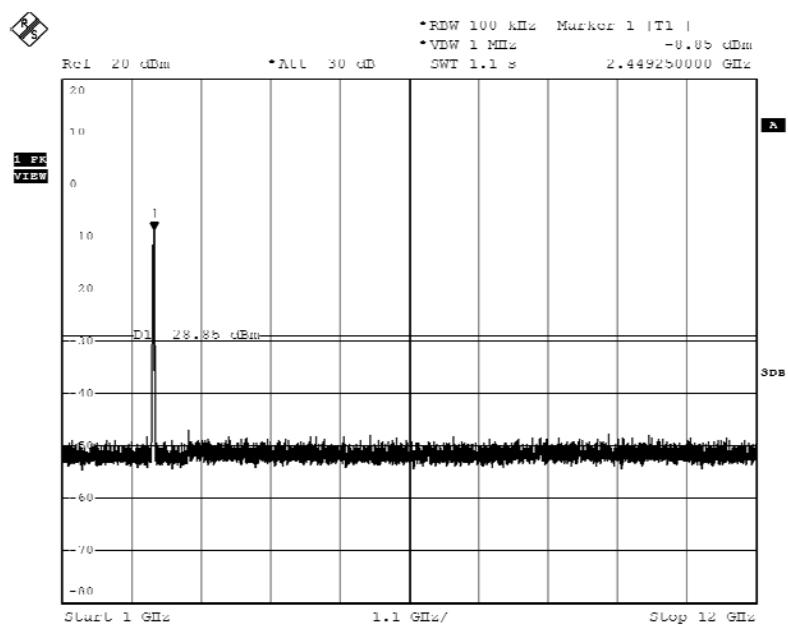
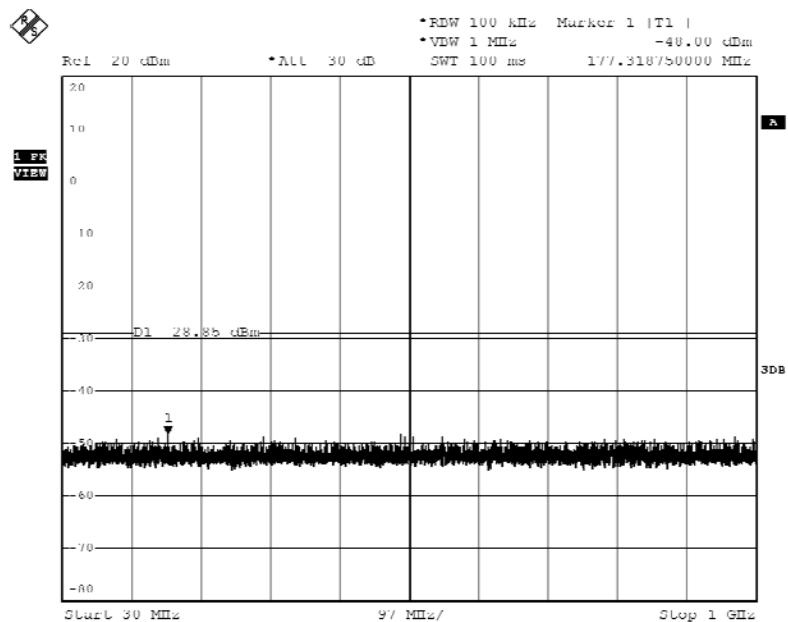


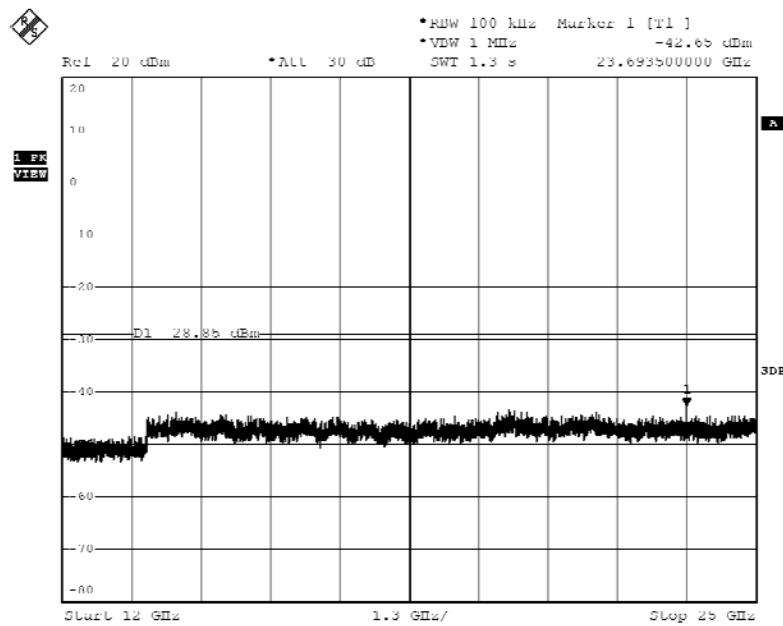
**Channel 06 (2437MHz) 30MHz -25GHz-Chain B**





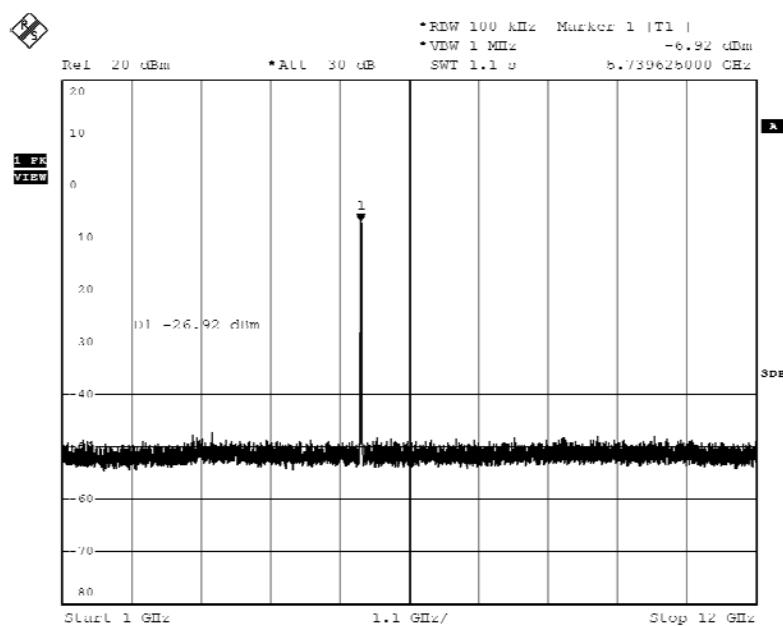
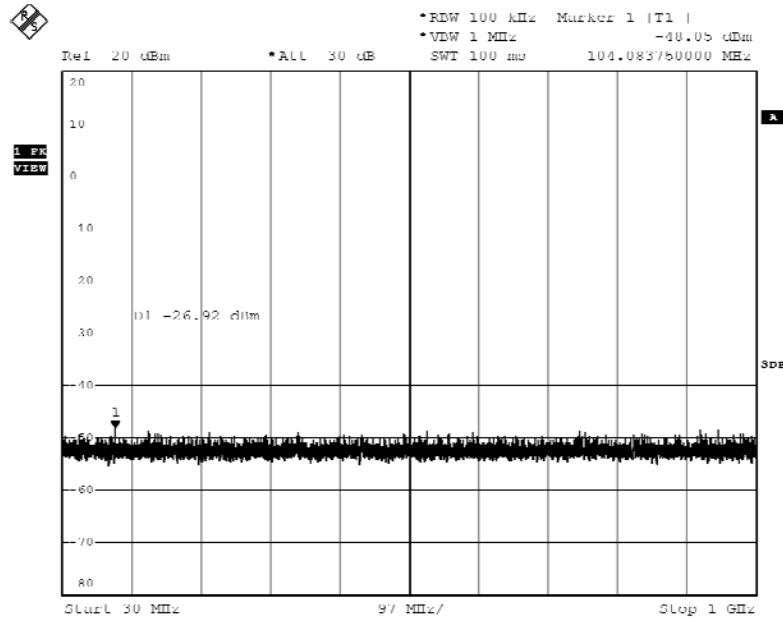
**Channel 09 (2452MHz) 30MHz -25GHz-Chain B**

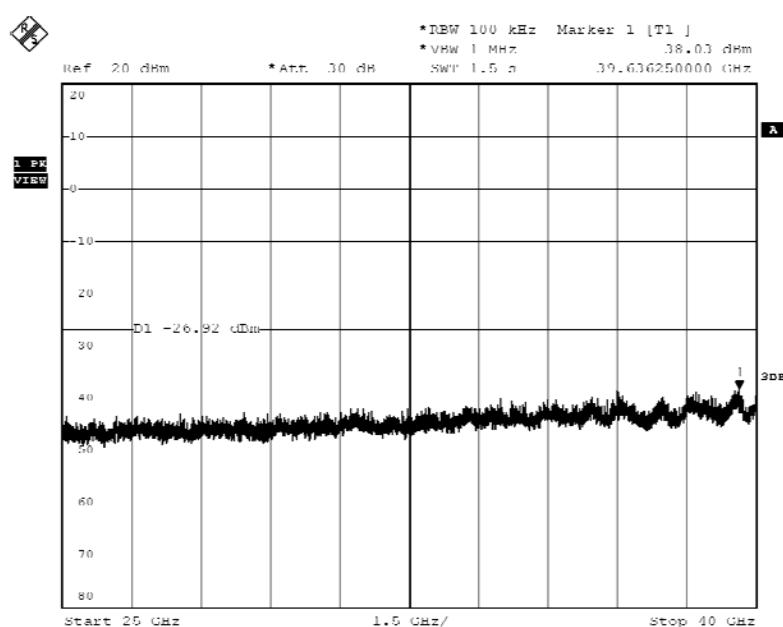
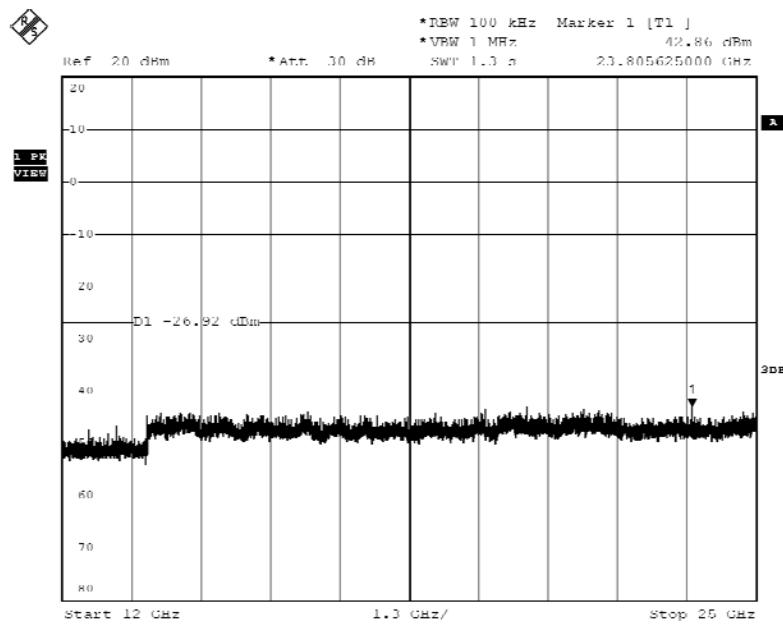




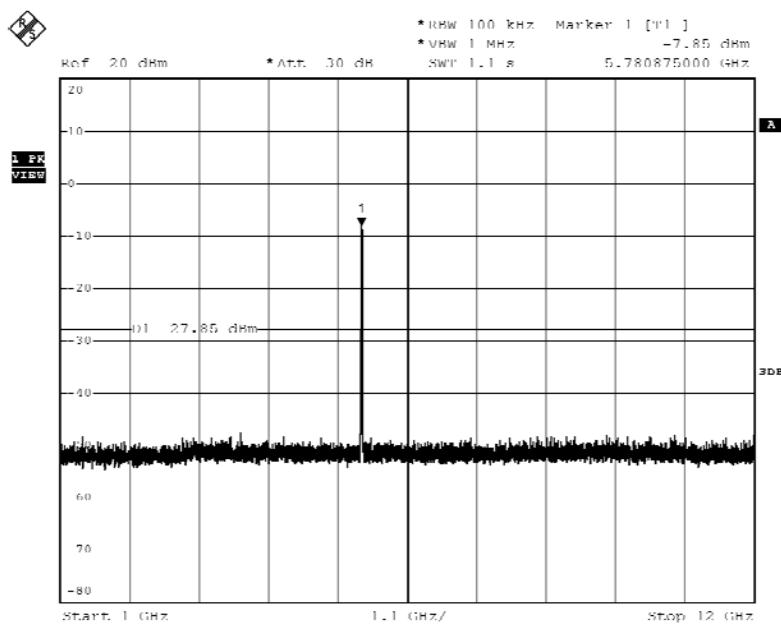
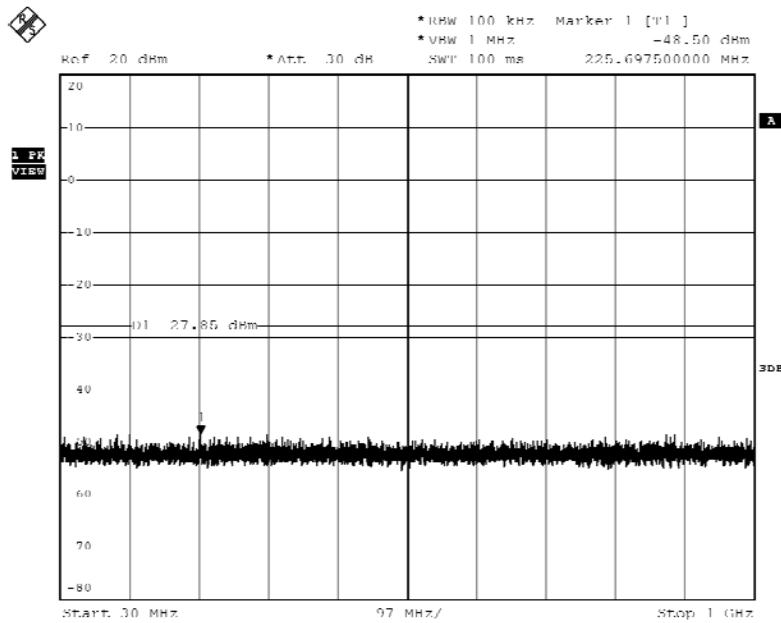
Product : Notebook PC  
 Test Item : RF Antenna Conducted Spurious  
 Test Site : No.3 OATS  
 Test Mode : Mode 6: Transmit - 802.11n-20BW\_14.4Mbps(5G Band)

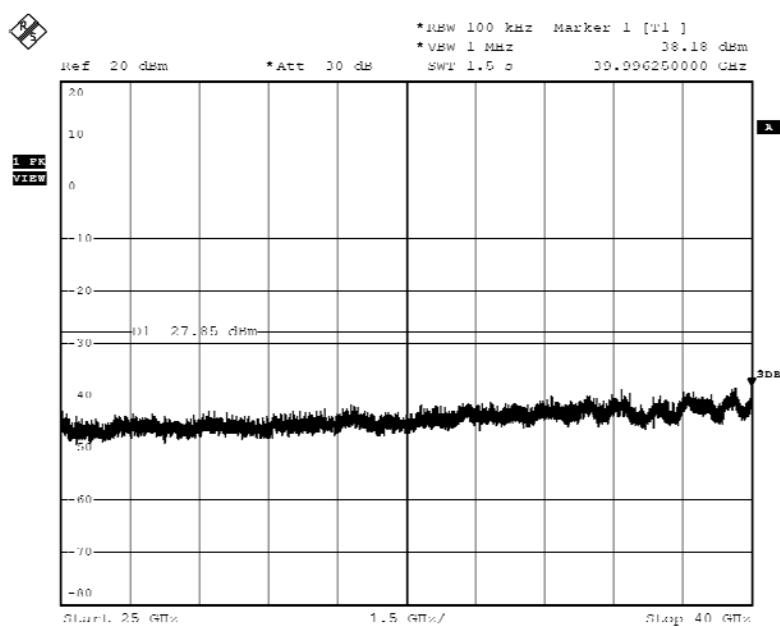
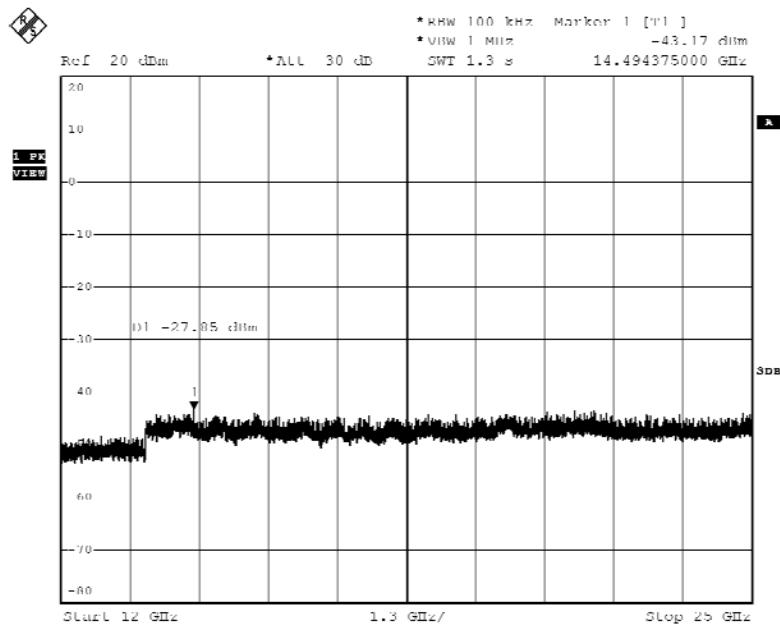
### Channel 149 (5745MHz) 30MHz -40GHz-Chain A



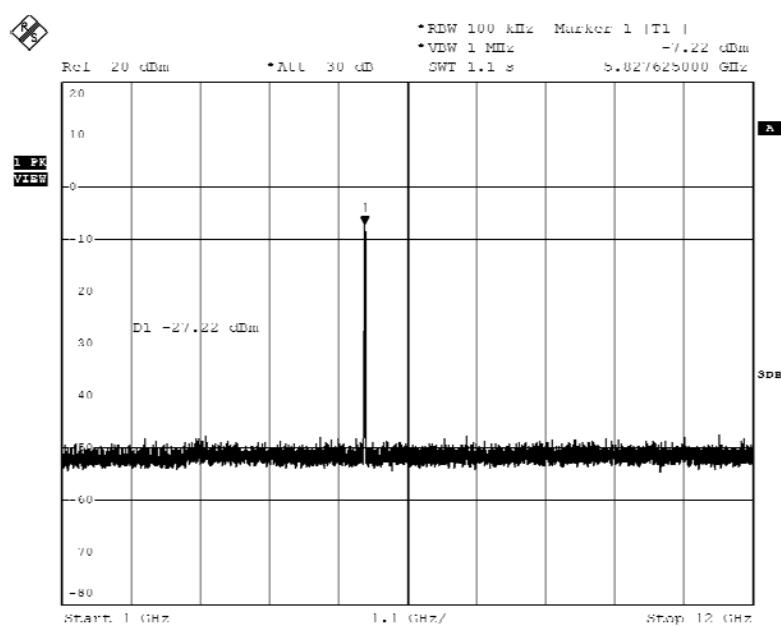
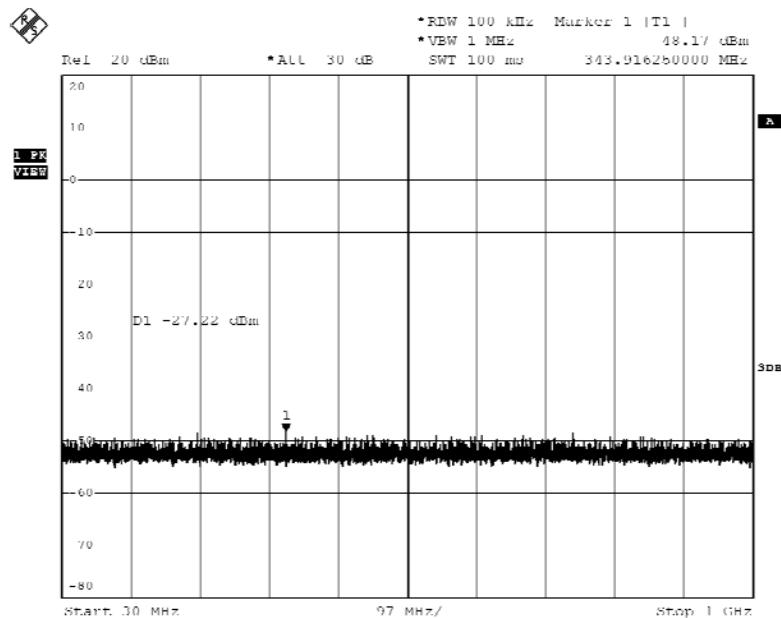


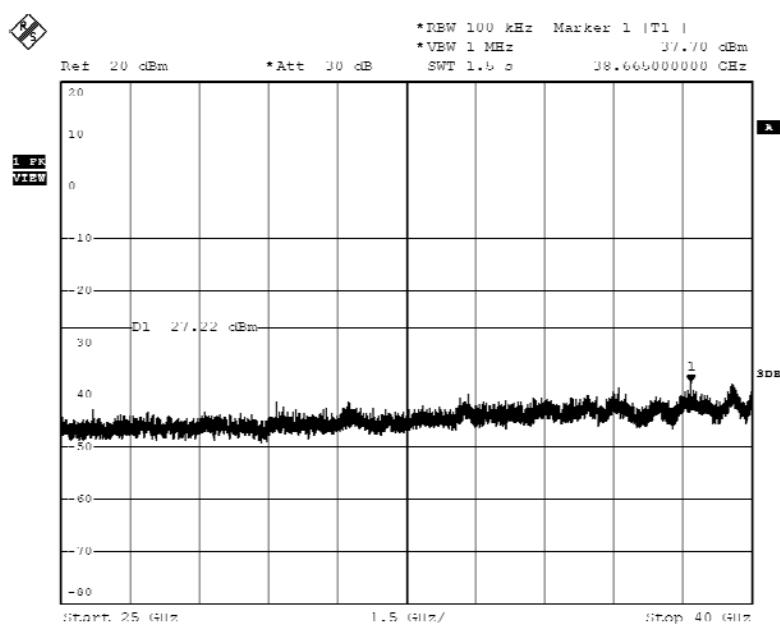
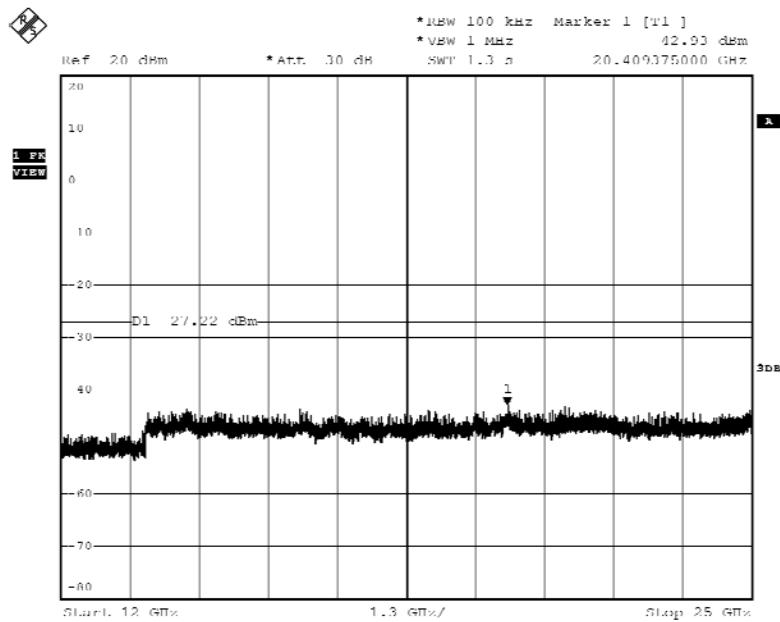
**Channel 157 (5785MHz) 30MHz -40GHz-Chain A**



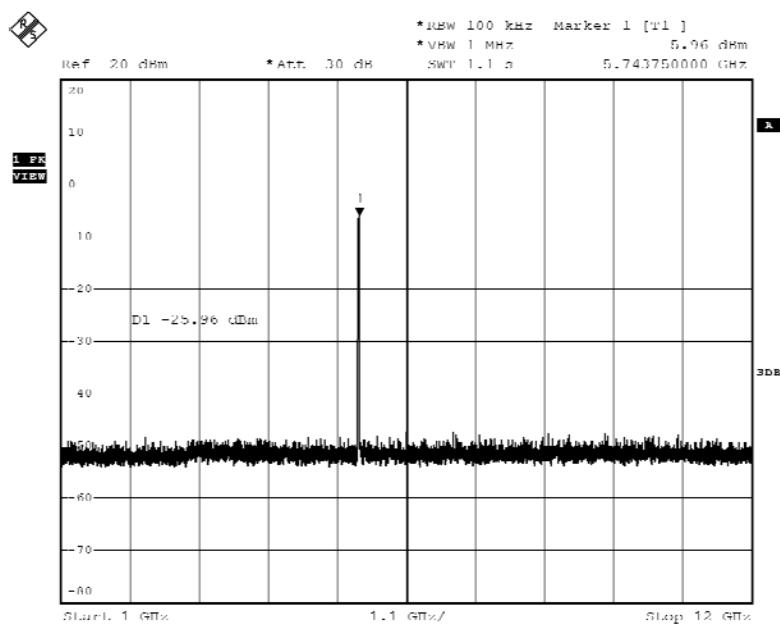
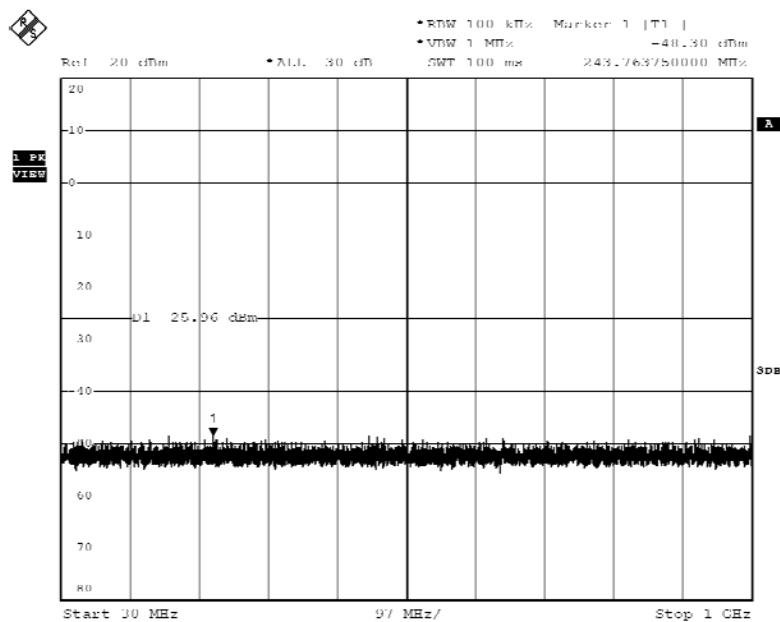


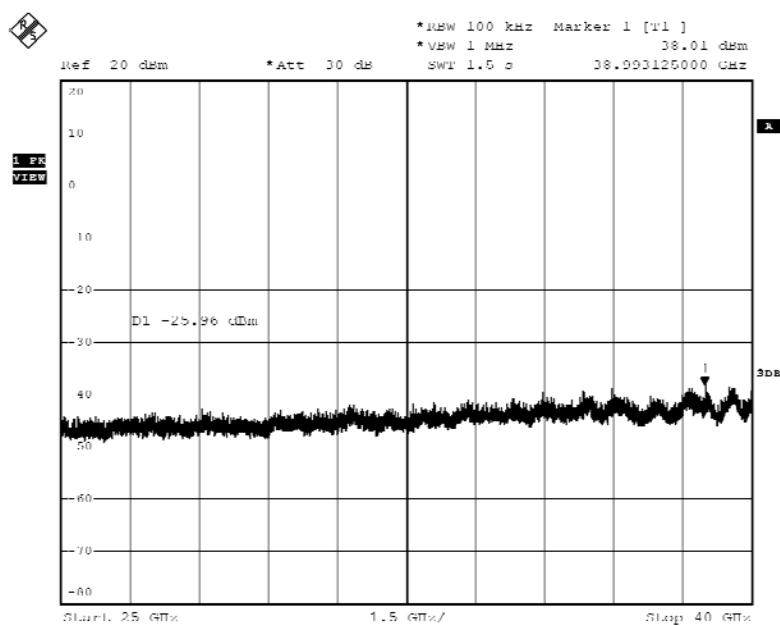
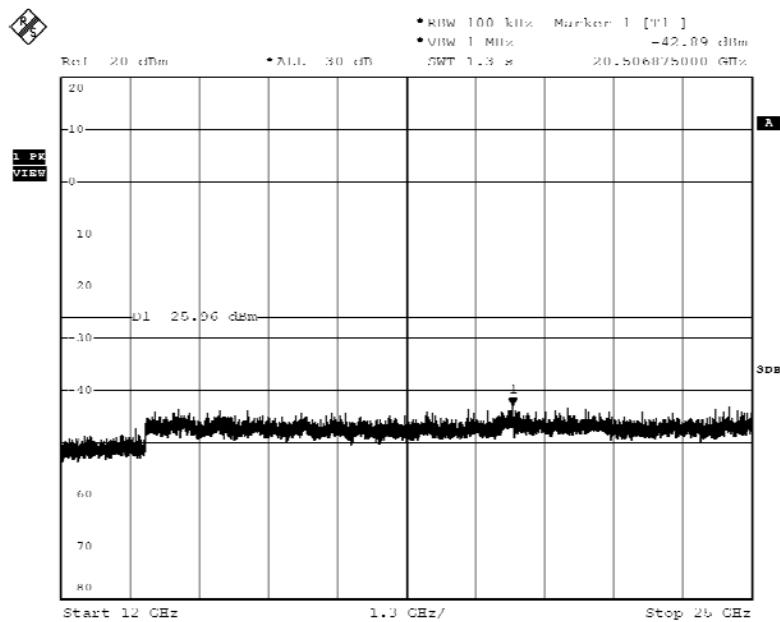
**Channel 165 (5825MHz) 30MHz -40GHz-Chain A**



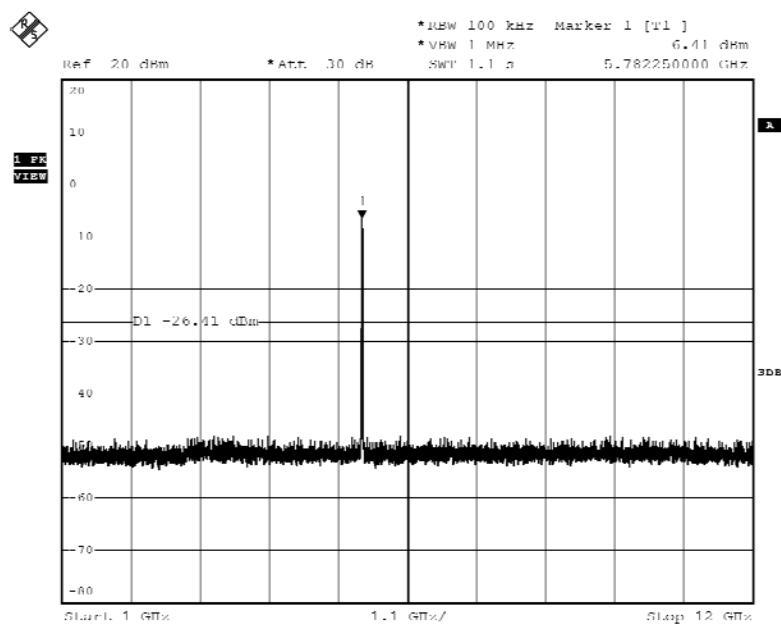
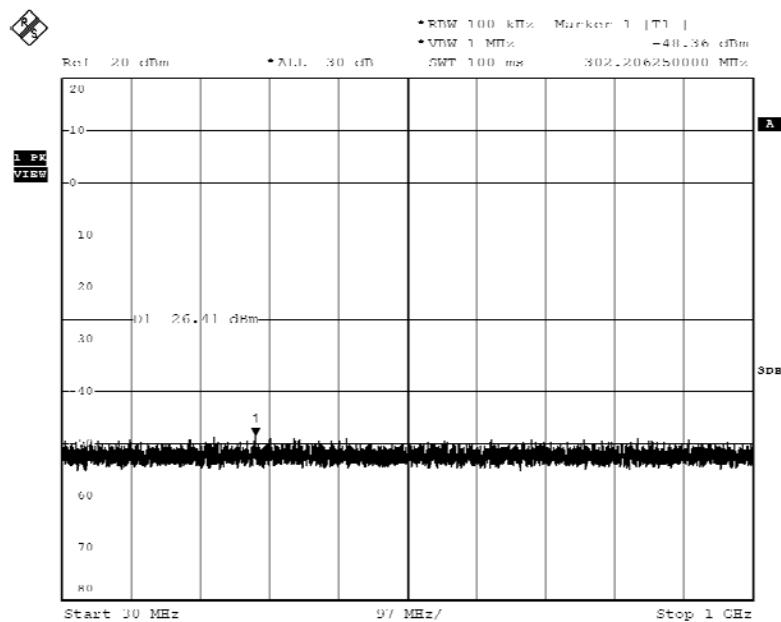


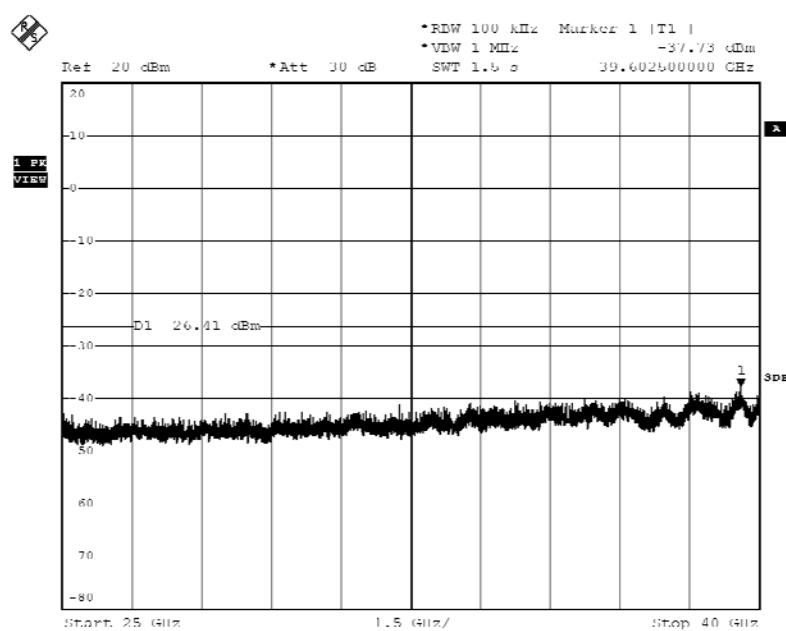
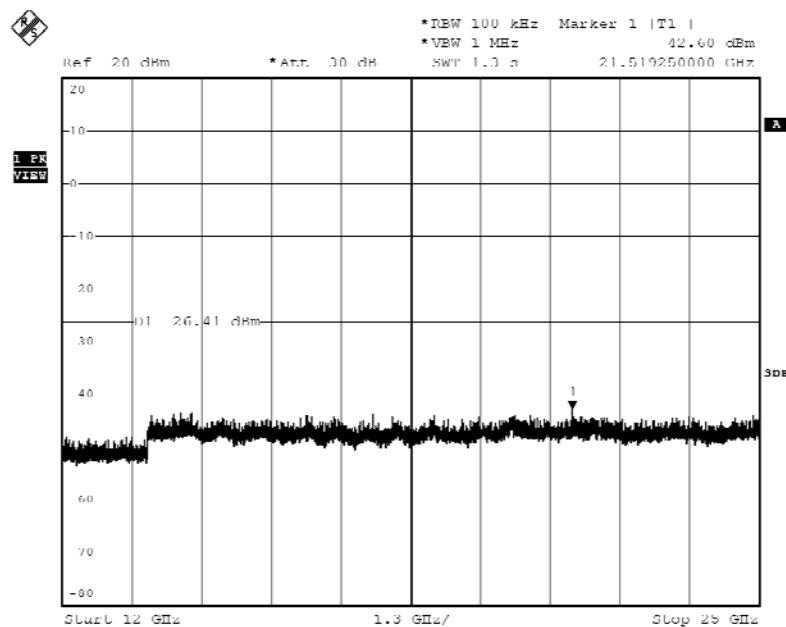
**Channel 149 (5745MHz) 30MHz -40GHz-Chain B**



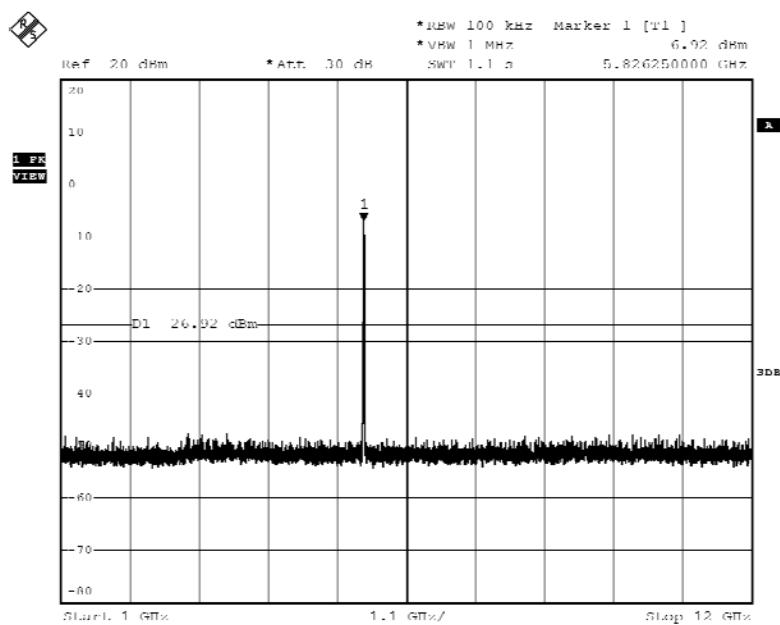
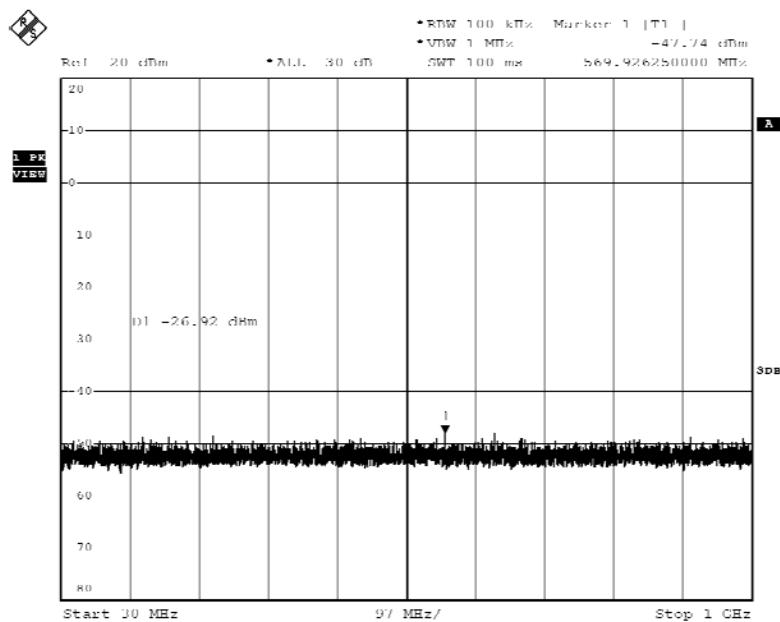


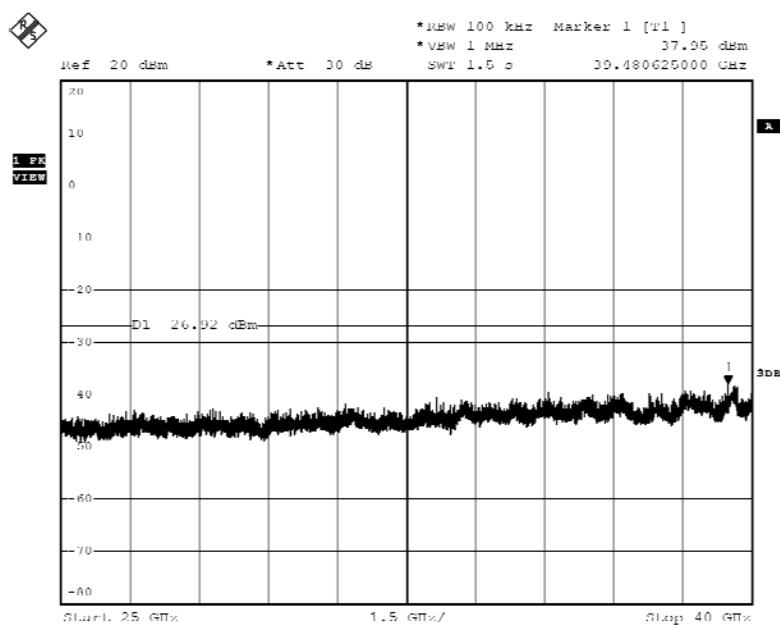
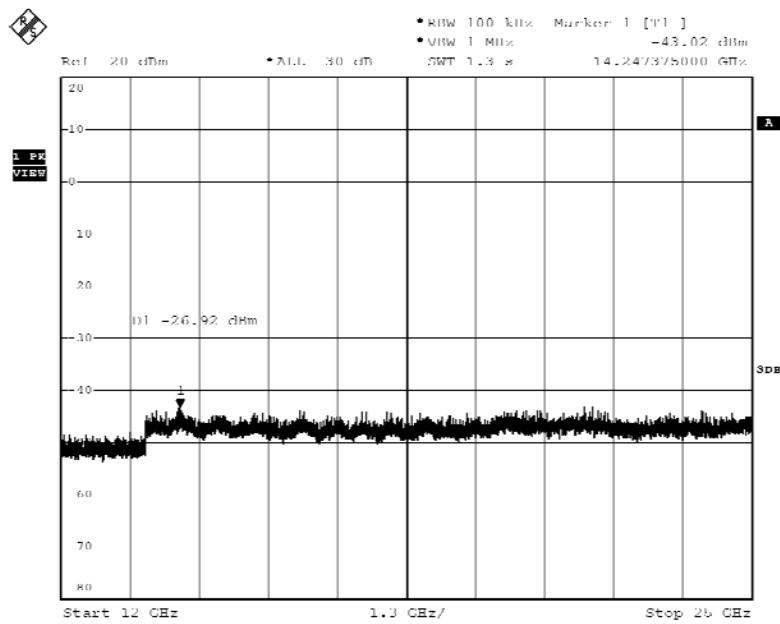
**Channel 157 (5785MHz) 30MHz -40GHz-Chain B**





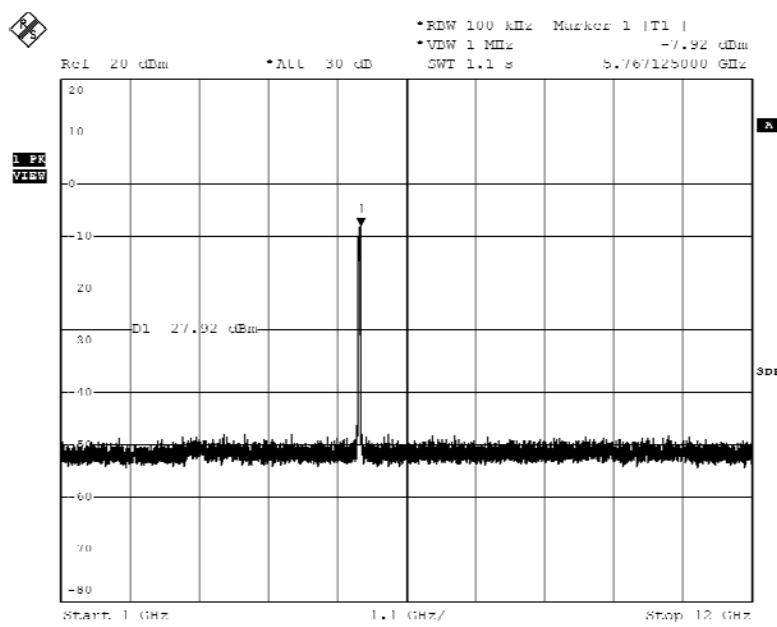
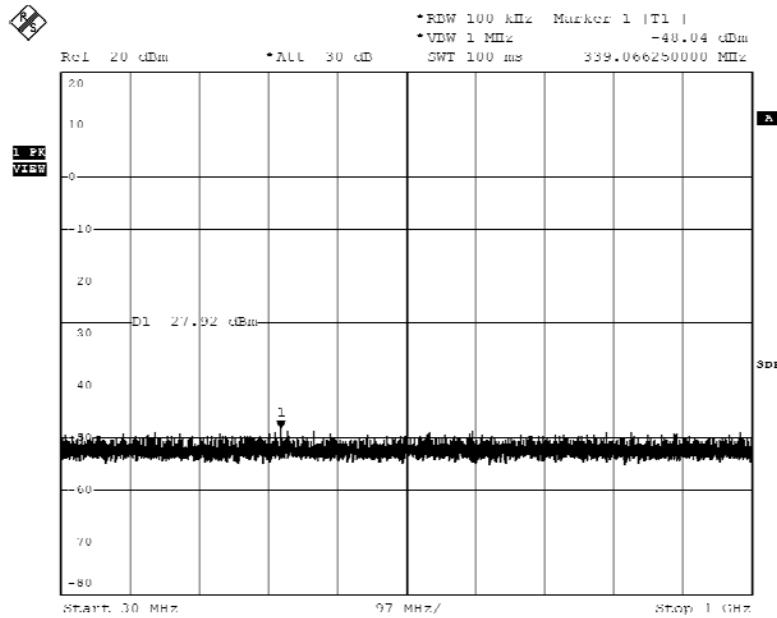
**Channel 165 (5825MHz) 30MHz -40GHz-Chain B**

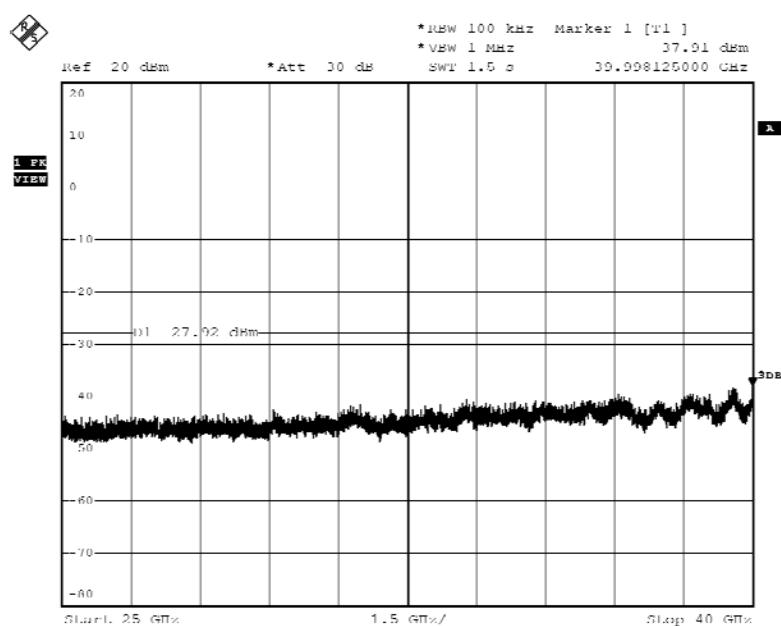
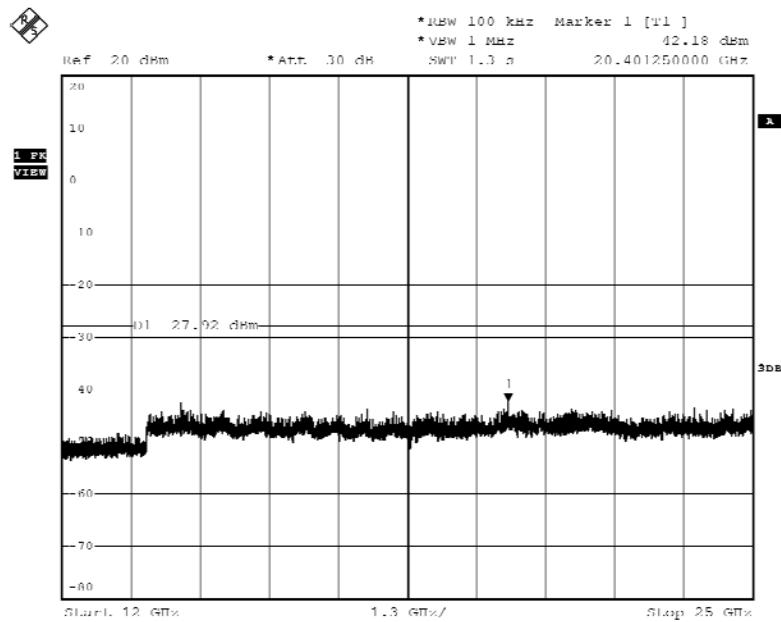




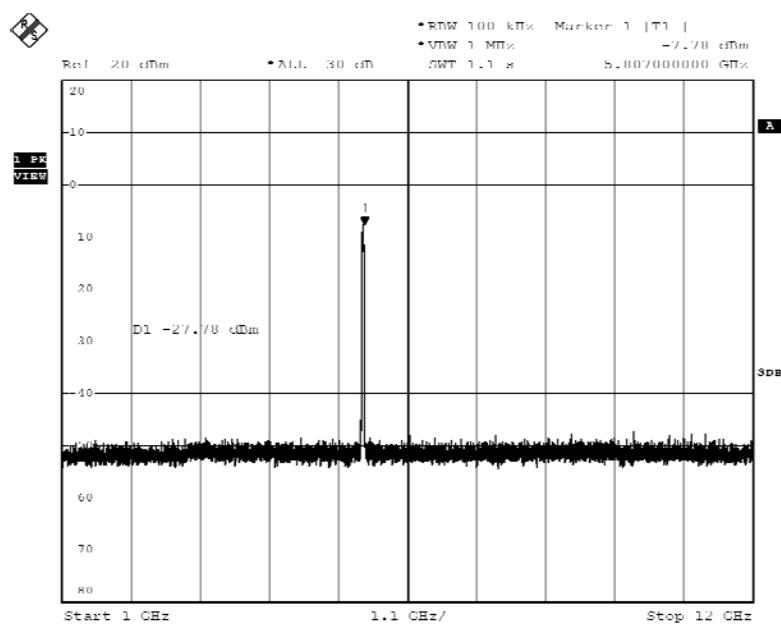
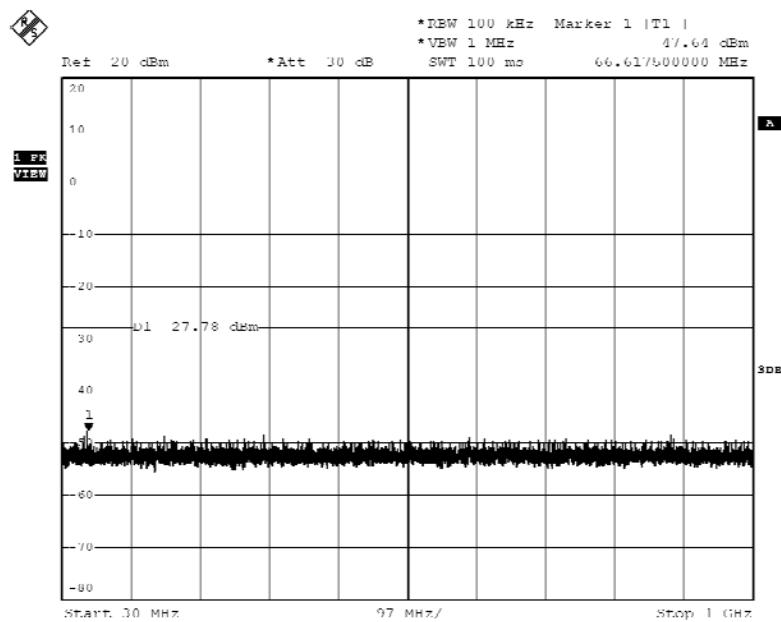
Product : Notebook PC  
 Test Item : RF Antenna Conducted Spurious  
 Test Site : No.3 OATS  
 Test Mode : Mode 7: Transmit - 802.11n-40BW\_30Mbps(5G Band)

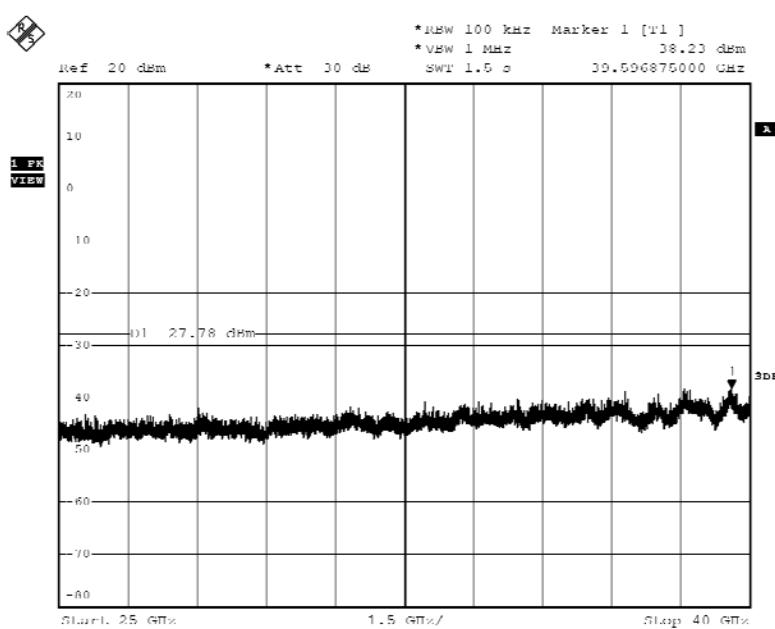
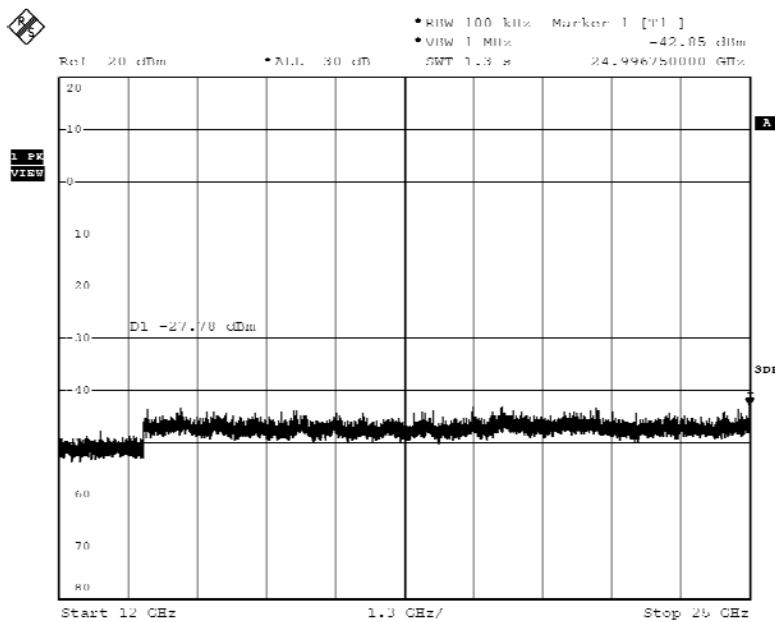
**Channel 151 (5755MHz) 30MHz -40GHz-Chain A**



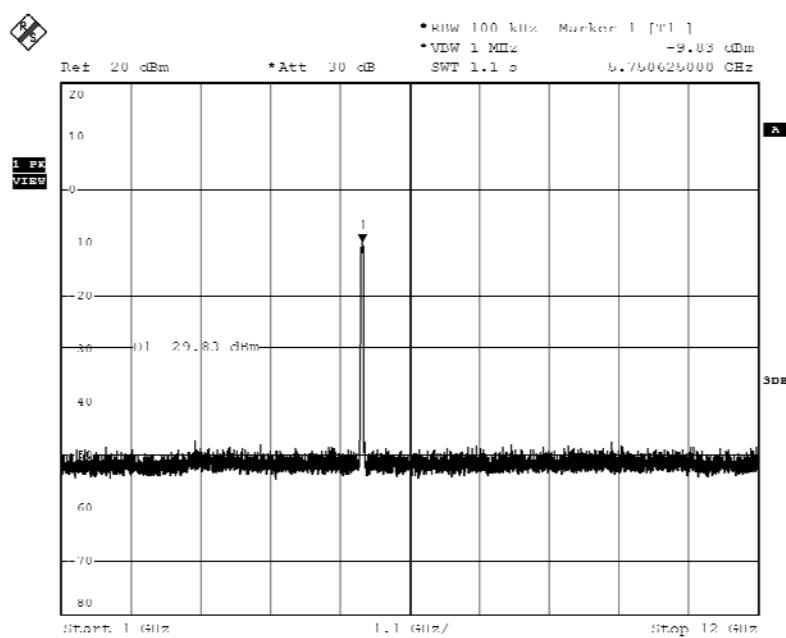
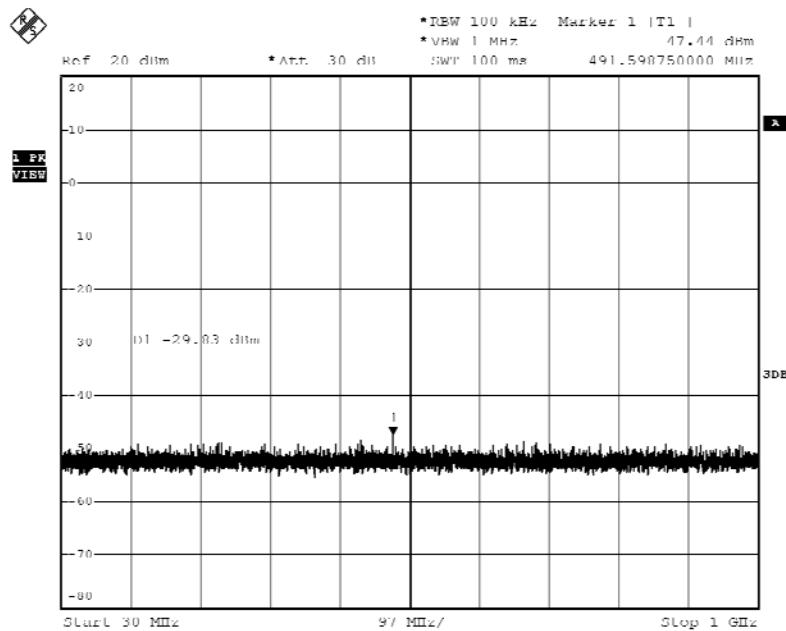


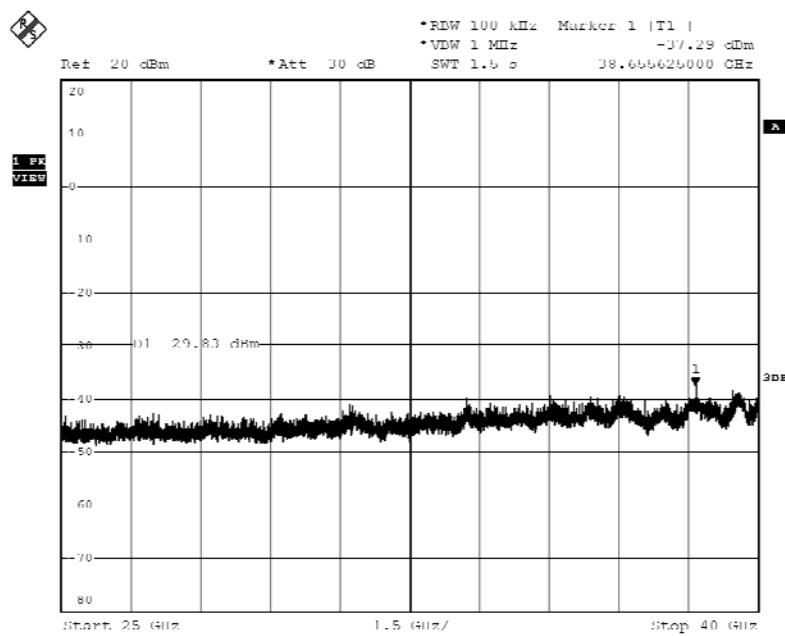
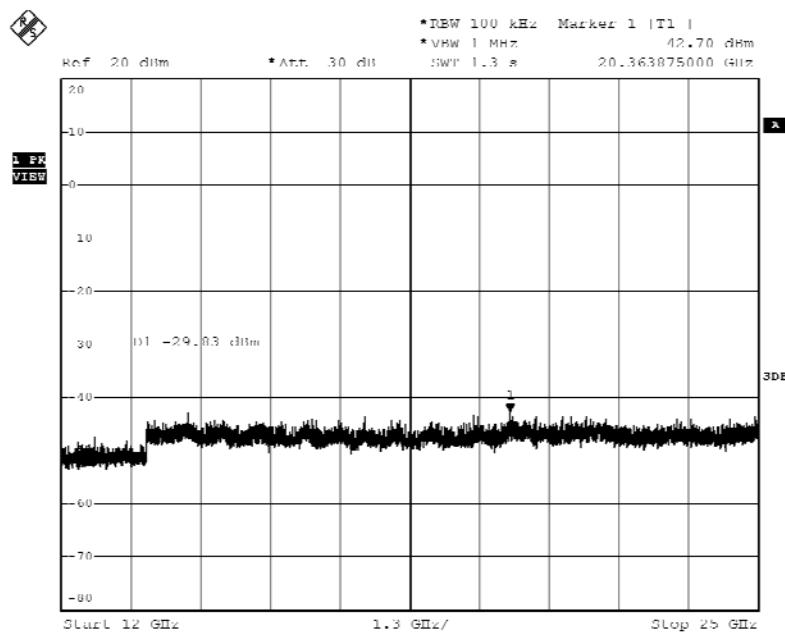
**Channel 159 (5795MHz) 30MHz -40GHz-Chain A**



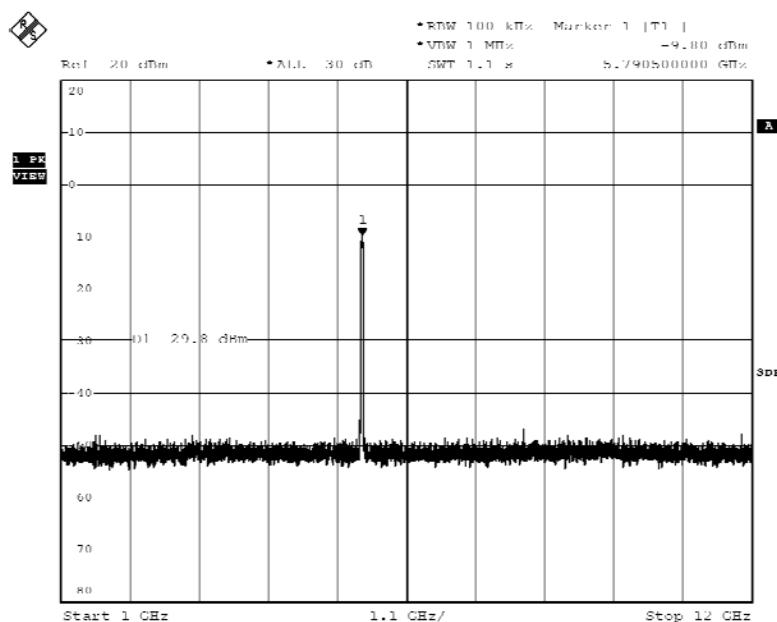
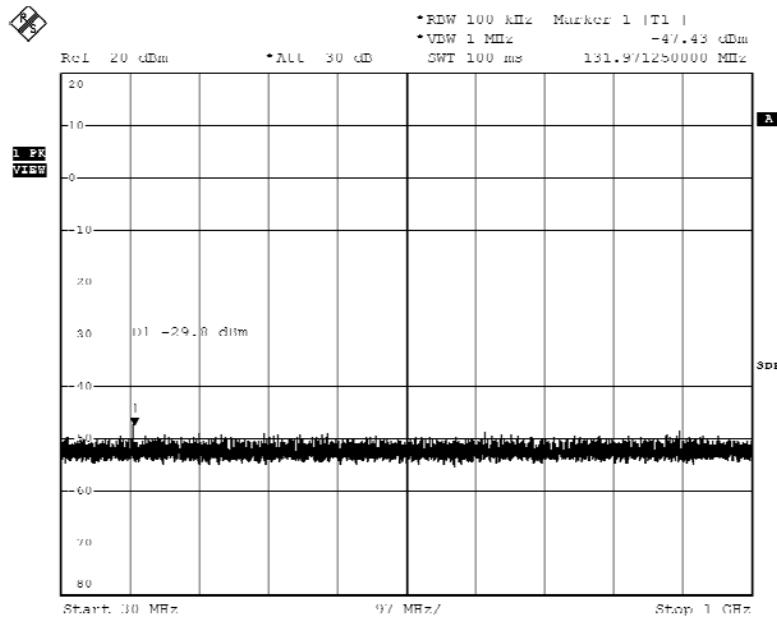


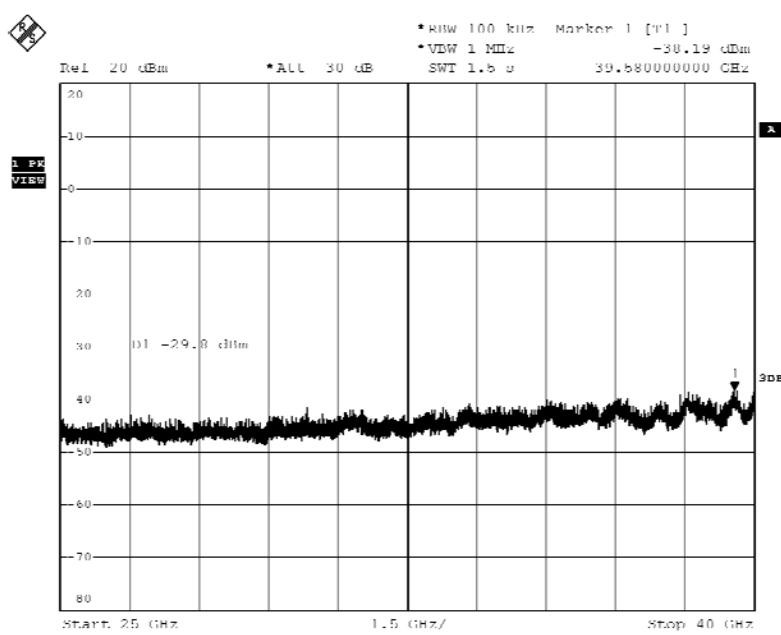
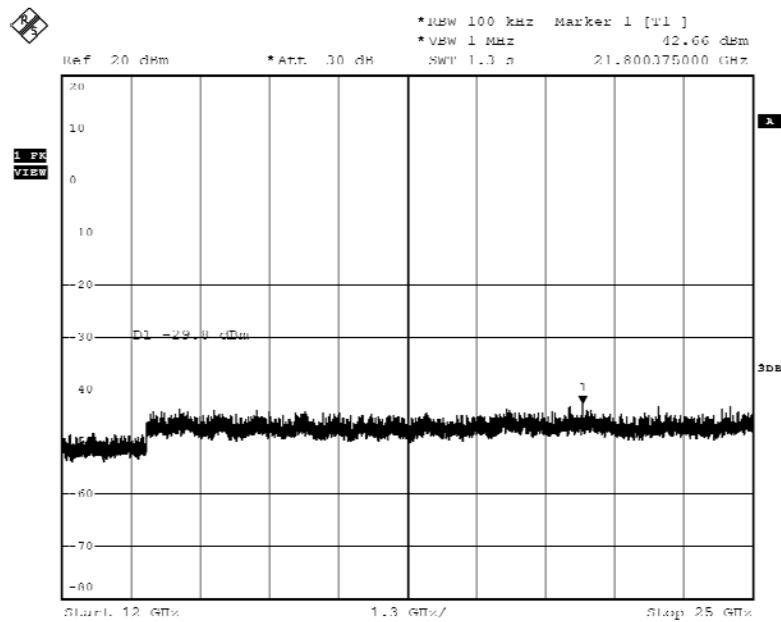
**Channel 151 (5755MHz) 30MHz -40GHz-Chain B**





**Channel 159 (5795MHz) 30MHz -40GHz-Chain B**





## 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, 2012  |
| Spectrum Analyzer   | Agilent      | E4407B / US39440758  | Jun, 2012  |
| X Spectrum Analyzer | Agilent      | N9010A / MY48030495  | Apr., 2012 |

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.

#### RF Radiated Measurement:

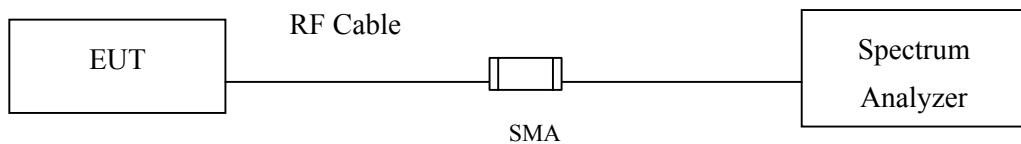
The following test equipments are used during the band edge tests:

| Test Site  | Equipment           | Manufacturer    | Model No./Serial No.       | Last Cal.  |
|------------|---------------------|-----------------|----------------------------|------------|
| X Site # 3 | Bilog Antenna       | Schaffner Chase | CBL6112B/2673              | Sep., 2012 |
|            | X Horn Antenna      | Schwarzbeck     | BBHA9120D/D305             | Sep., 2012 |
|            | Horn Antenna        | Schwarzbeck     | BBHA9170/208               | Jul., 2012 |
|            | Pre-Amplifier       | QTK             | QTK-AMP-03 / 0003          | May, 2012  |
|            | X Pre-Amplifier     | QTK             | AP-180C / CHM_0906076      | Sep., 2012 |
|            | Pre-Amplifier       | MITEQ           | AMF-4D-180400-45-6P/925975 | Mar, 2012  |
|            | X Spectrum Analyzer | Agilent         | E4407B / US39440758        | May, 2012  |
|            | Test Receiver       | R & S           | ESCS 30/ 825442/018        | Sep., 2012 |
|            | X Coaxial Cable     | QuieTek         | QTK-CABLE/ CAB5            | Feb., 2012 |
|            | X Controller        | QuieTek         | QTK-CONTROLLER/ CTRL3      | N/A        |
|            | X Coaxial Switch    | Anritsu         | MP59B/6200265729           | N/A        |

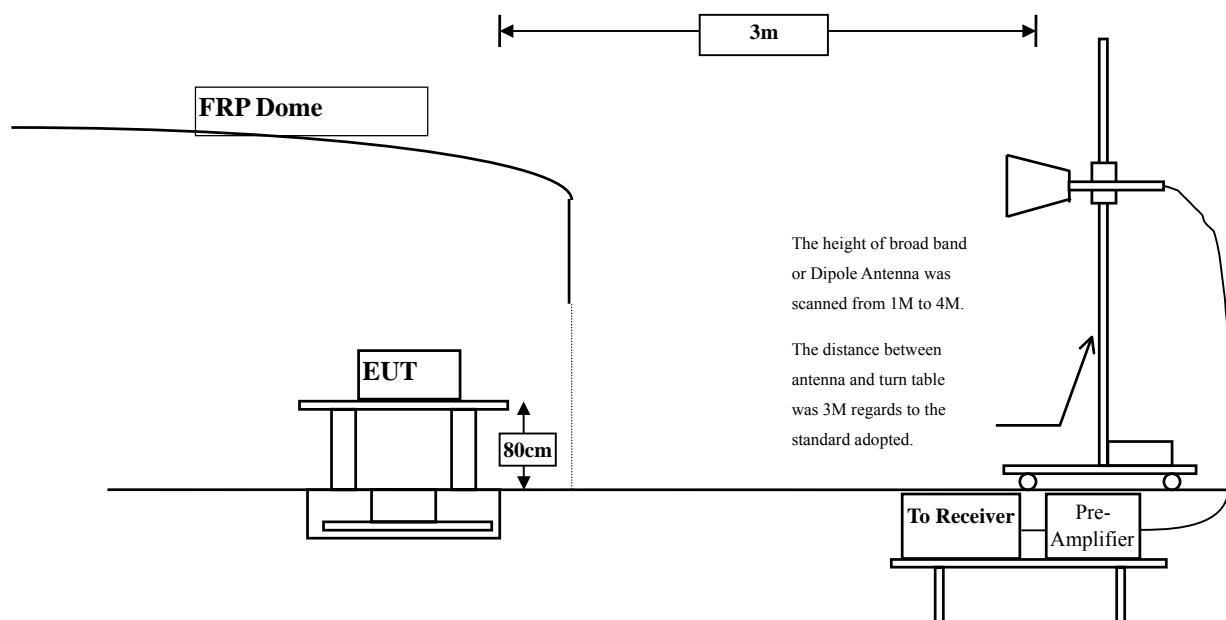
- Note:
1. All instruments are calibrated every one year.
  2. The test instruments marked by “X” are used to measure the final test results.

## 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 ANSI C63.4: 2010 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 : Notebook PC  
 Test Item : Band Edge  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit - 802.11b 1Mbps

### 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)    | 2376.000        | 31.454              | 24.754               | 56.209                  | 74.00               | 54.00                  | Pass   |
| 01 (Peak)    | 2390.000        | 31.509              | 21.677               | 53.186                  | 74.00               | 54.00                  | Pass   |
| 01 (Peak)    | 2413.000        | 31.646              | 62.019               | 93.665                  | --                  | --                     | Pass   |
| 01 (Average) | 2376.000        | 31.454              | 11.864               | 43.319                  | 74.00               | 54.00                  | Pass   |
| 01 (Average) | 2390.000        | 31.509              | 11.830               | 43.339                  | 74.00               | 54.00                  | Pass   |
| 01 (Average) | 2411.200        | 31.632              | 57.910               | 89.542                  | --                  | --                     | Pass   |

Figure Channel 01:

Horizontal (Peak)

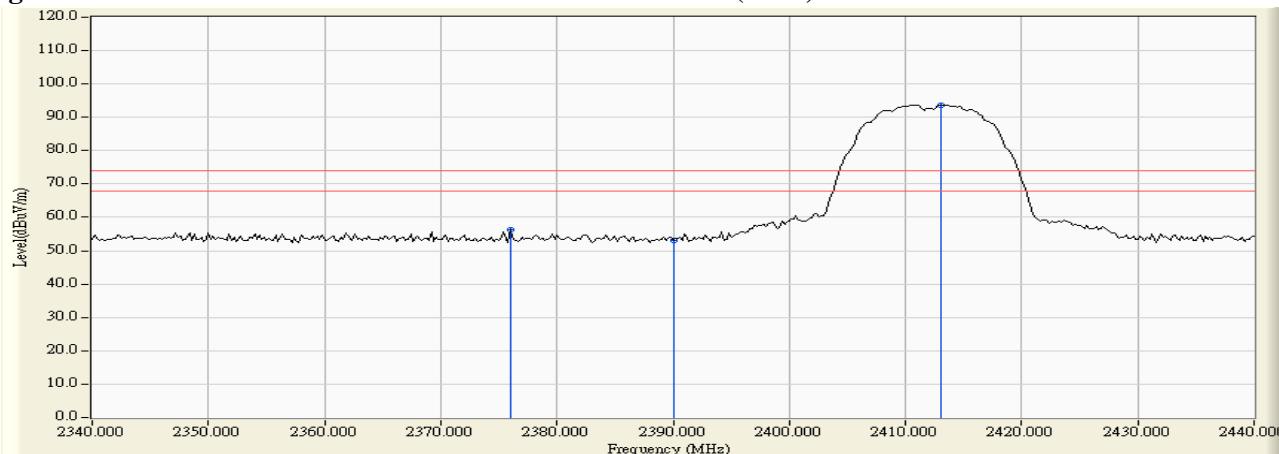
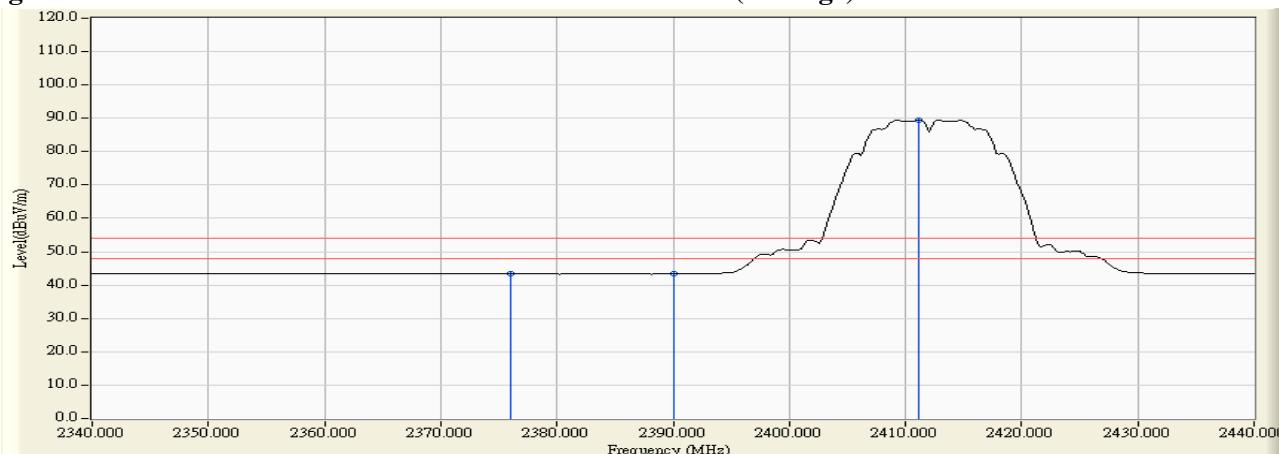


Figure Channel 01:

Horizontal (Average)



Note:

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 : Notebook PC  
 Test Item : Band Edge  
 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)    | 2385.600        | 30.936              | 24.879               | 55.815                  | 74.00               | 54.00                  | Pass   |
| 01 (Peak)    | 2390.000        | 30.915              | 23.349               | 54.264                  | 74.00               | 54.00                  | Pass   |
| 01 (Peak)    | 2411.000        | 30.942              | 64.226               | 95.168                  | --                  | --                     | Pass   |
| 01 (Average) | 2385.600        | 30.936              | 11.846               | 42.782                  | 74.00               | 54.00                  | Pass   |
| 01 (Average) | 2390.000        | 30.915              | 11.861               | 42.776                  | 74.00               | 54.00                  | Pass   |
| 01 (Average) | 2411.200        | 30.944              | 60.012               | 90.956                  | --                  | --                     | Pass   |

Figure Channel 01:

Vertical (Peak)

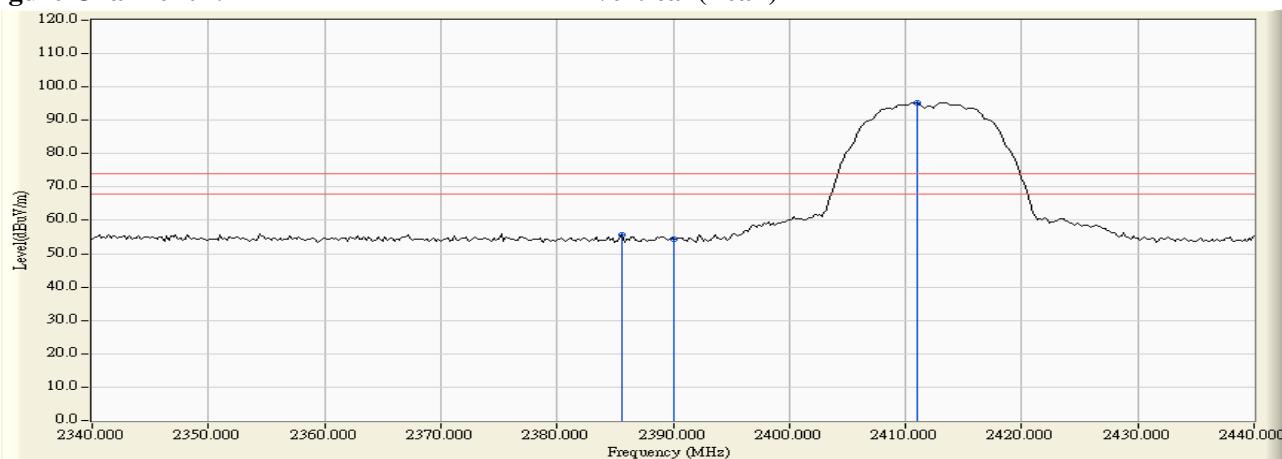
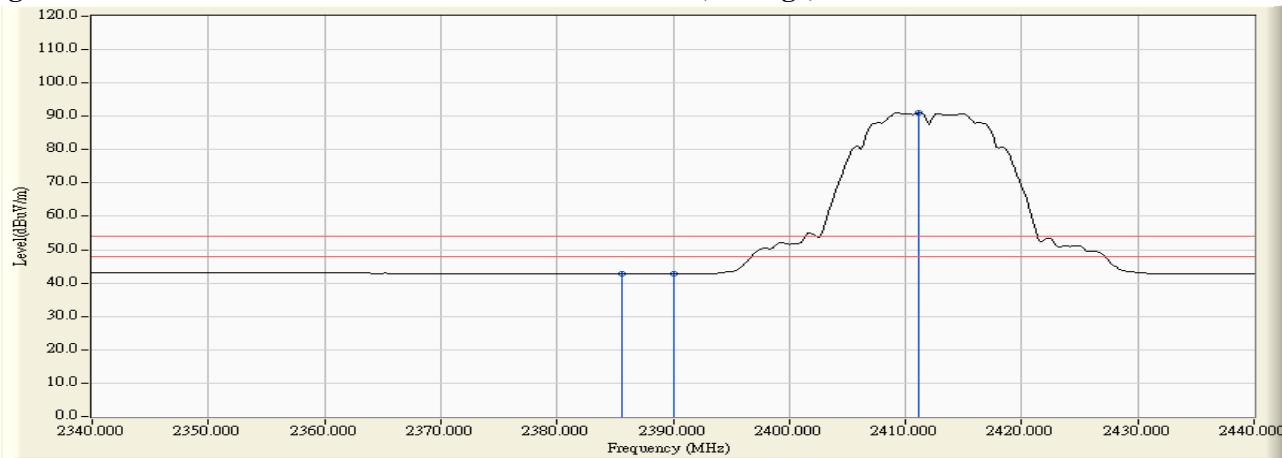


Figure Channel 01:

Vertical (Average)



Note:

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.

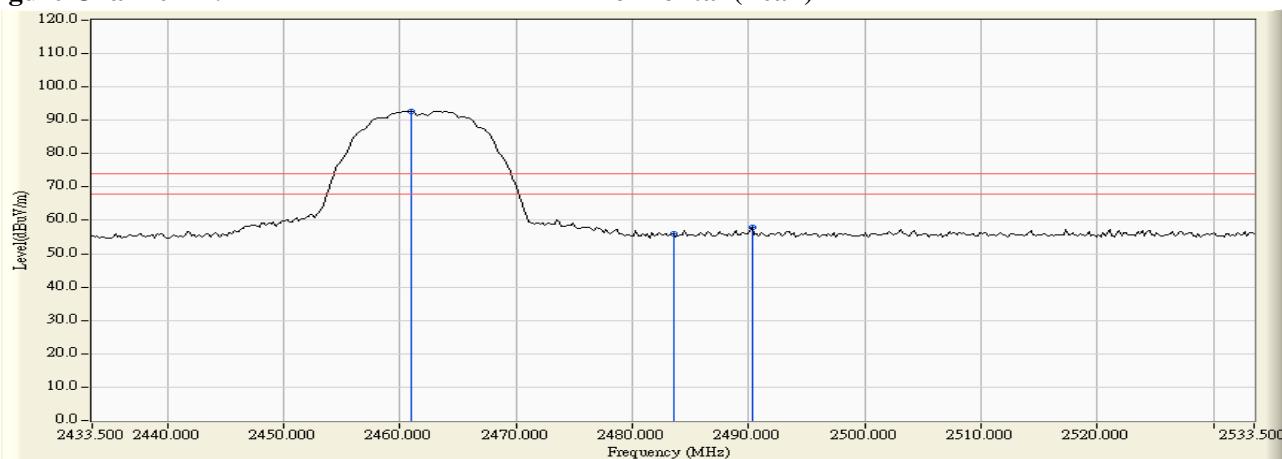
Product : Notebook PC  
 Test Item : Band Edge  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit - 802.11b 1Mbps

**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)    | 2460.900        | 32.011              | 60.714               | 92.725                  | --                  | --                     | Pass   |
| 11 (Peak)    | 2483.500        | 32.182              | 23.907               | 56.089                  | 74.00               | 54.00                  | Pass   |
| 11 (Peak)    | 2490.300        | 32.233              | 25.530               | 57.763                  | 74.00               | 54.00                  | Pass   |
| 11 (Average) | 2461.100        | 32.013              | 56.628               | 88.641                  | --                  | --                     | Pass   |
| 11 (Average) | 2483.500        | 32.182              | 11.790               | 43.972                  | 74.00               | 54.00                  | Pass   |
| 11 (Average) | 2490.300        | 32.233              | 11.767               | 44.000                  | 74.00               | 54.00                  | Pass   |

**Figure Channel 11:**

**Horizontal (Peak)**



**Figure Channel 11:**

**Horizontal (Average)**



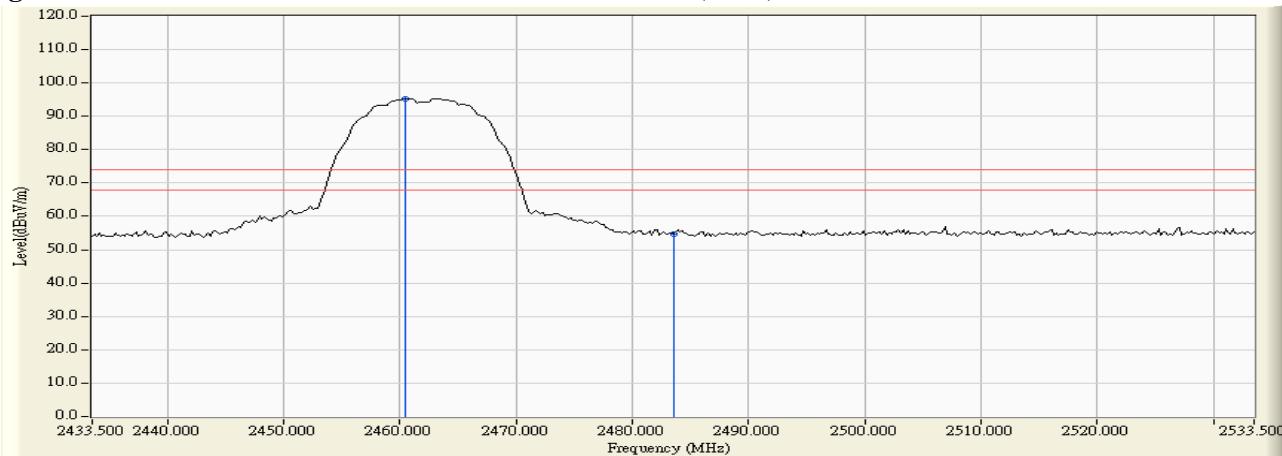
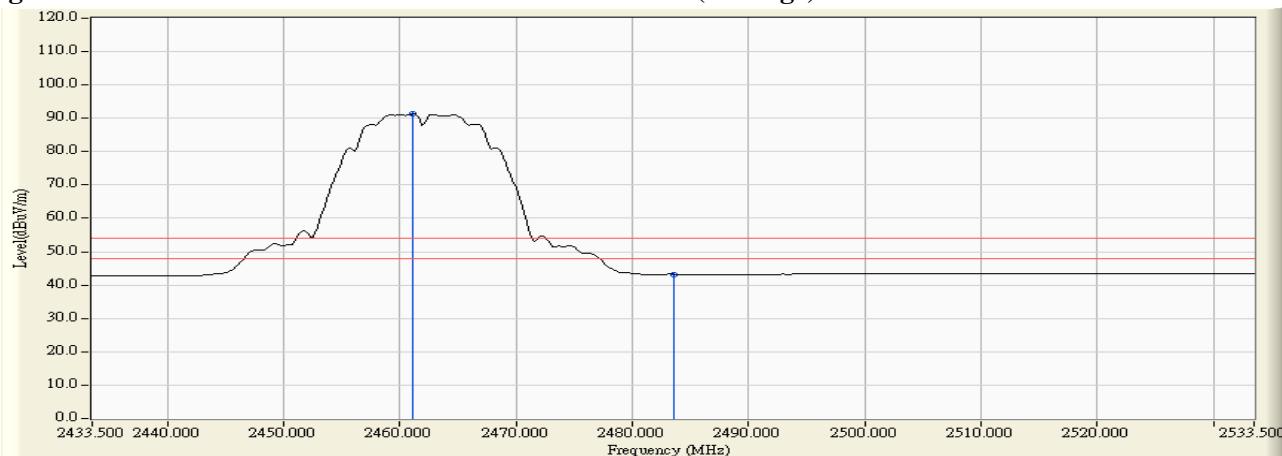
Note:

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 : Notebook PC  
 Test Item : Band Edge  
 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              | 64.107               | 95.387                  | --                  | --                     | Pass   |
| 11 (Peak)    | 2483.500        | 31.435              | 23.377               | 54.812                  | 74.00               | 54.00                  | Pass   |
| 11 (Average) | 2461.100        | 31.285              | 60.102               | 91.386                  | --                  | --                     | Pass   |
| 11 (Average) | 2483.500        | 31.435              | 11.801               | 43.236                  | 74.00               | 54.00                  | Pass   |

**Figure Channel 11:****Vertical (Peak)****Figure Channel 11:****Vertical (Average)**

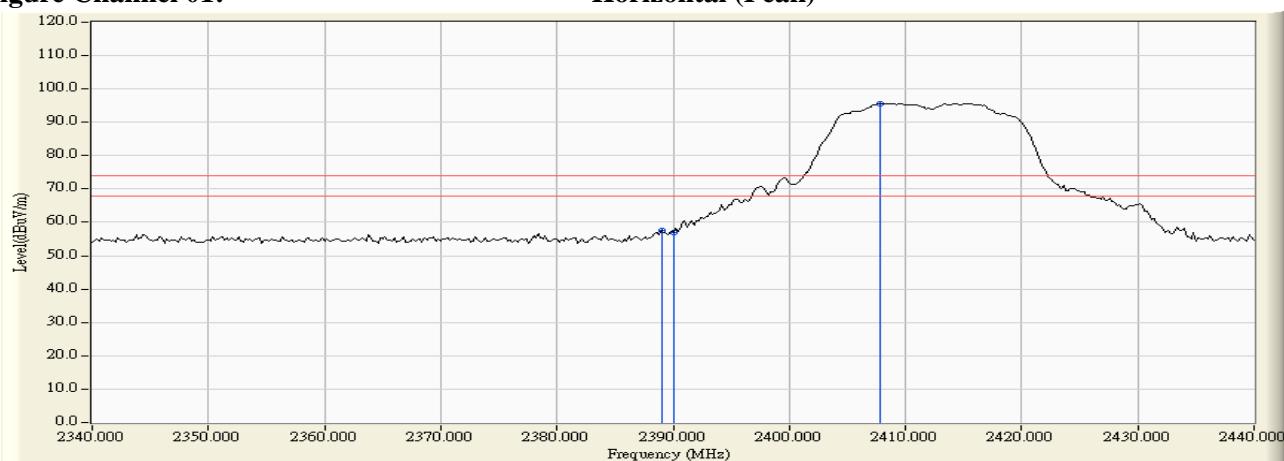
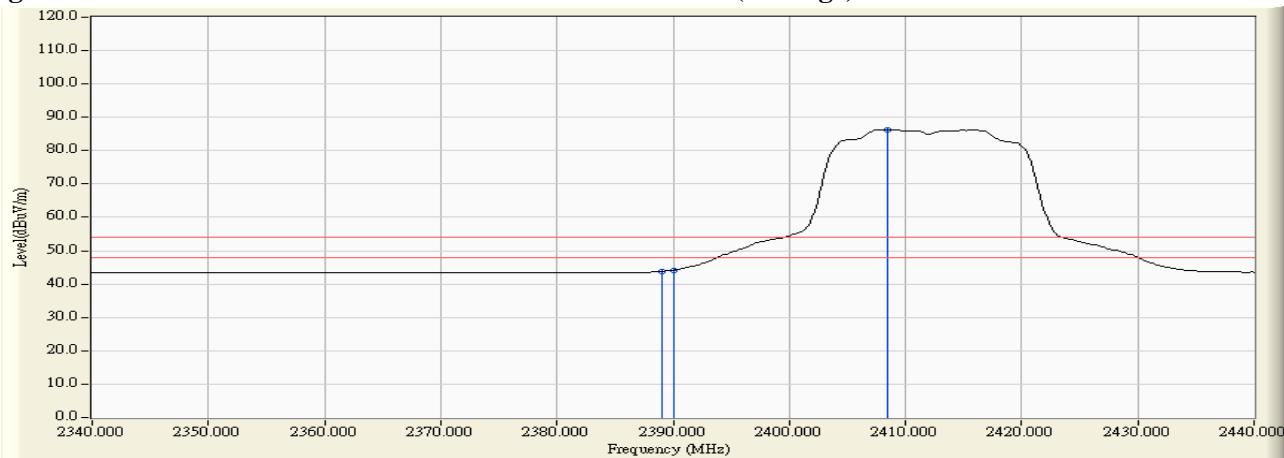
Note:

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 : Notebook PC  
 Test Item : Band Edge  
 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)   | 2389.000        | 31.505              | 26.150               | 57.655                  | 74.00               | 54.00                  | Pass   |
| 01 (Peak)   | 2390.000        | 31.509              | 25.446               | 56.955                  | 74.00               | 54.00                  | Pass   |
| 01 (Peak)   | 2407.800        | 31.610              | 64.008               | 95.618                  | --                  | --                     |        |
| 01(Average) | 2389.000        | 31.505              | 12.341               | 43.846                  | 74.00               | 54.00                  | Pass   |
| 01(Average) | 2390.000        | 31.509              | 12.677               | 44.186                  | 74.00               | 54.00                  | Pass   |
| 01(Average) | 2408.400        | 31.615              | 54.611               | 86.225                  | --                  | --                     | Pass   |

**Figure Channel 01:**
**Horizontal (Peak)**

**Figure Channel 01:**
**Horizontal (Average)**


Note:

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 : Notebook PC  
 Test Item : Band Edge  
 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)    | 2389.000        | 30.920              | 27.572               | 58.492                  | 74.00               | 54.00                  | Pass   |
| 01 (Peak)    | 2390.000        | 30.915              | 26.320               | 57.235                  | 74.00               | 54.00                  | Pass   |
| 01 (Peak)    | 2407.800        | 30.934              | 66.295               | 97.229                  | --                  | --                     | Pass   |
| 01 (Average) | 2389.000        | 30.920              | 12.588               | 43.508                  | 74.00               | 54.00                  | Pass   |
| 01 (Average) | 2390.000        | 30.915              | 13.133               | 44.048                  | 74.00               | 54.00                  | Pass   |
| 01 (Average) | 2408.600        | 30.936              | 56.861               | 87.797                  | --                  | --                     | Pass   |

Figure Channel 01:

Vertical (Peak)

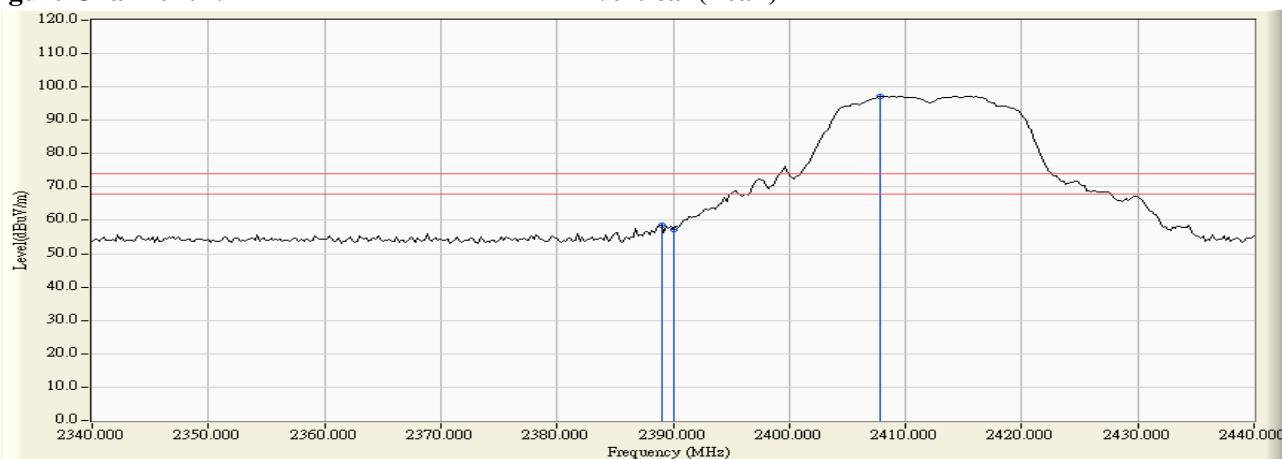
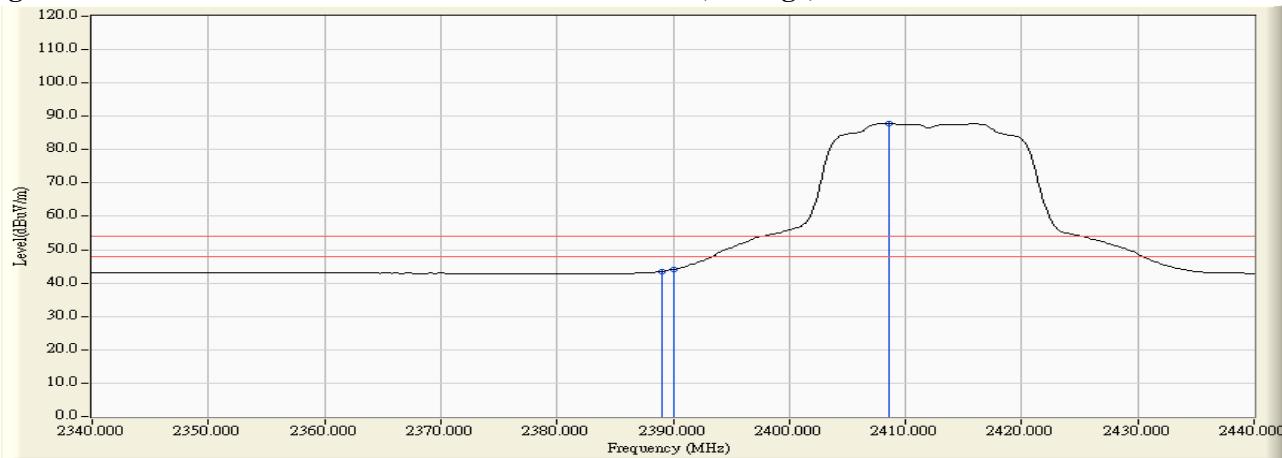


Figure Channel 01:

Vertical (Average)



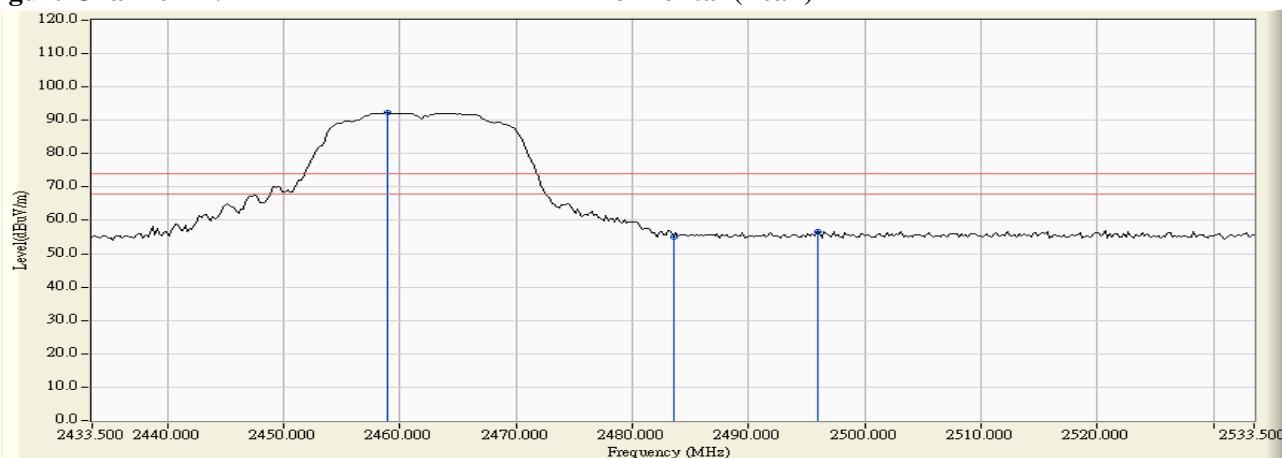
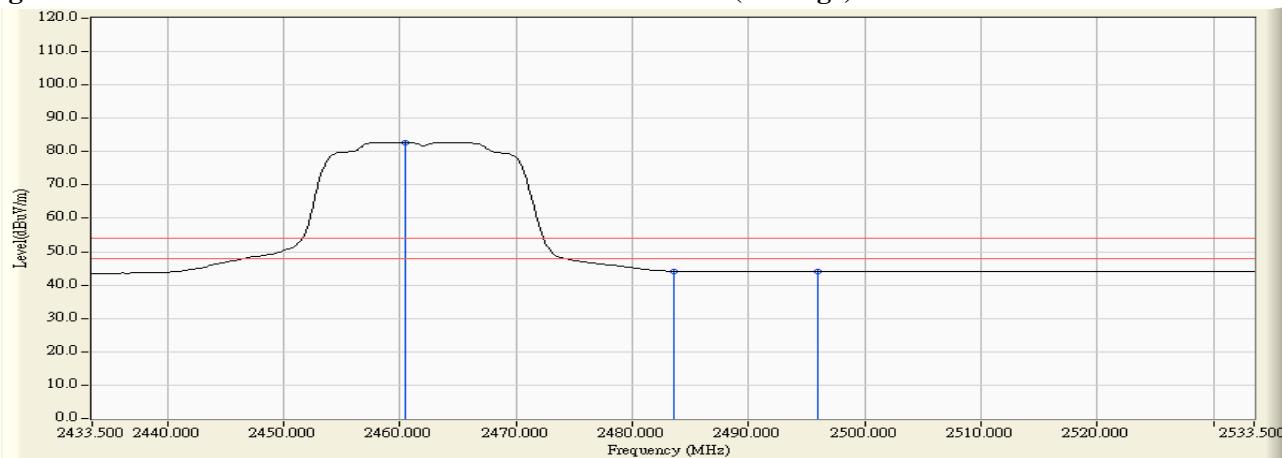
Note:

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 : Notebook PC  
 Test Item : Band Edge  
 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)    | 2458.900        | 31.997              | 60.190               | 92.186                  | --                  | --                     | Pass   |
| 11 (Peak)    | 2483.500        | 32.182              | 22.760               | 54.942                  | 74.00               | 54.00                  | Pass   |
| 11 (Peak)    | 2495.900        | 32.275              | 24.479               | 56.755                  | 74.00               | 54.00                  | Pass   |
| 11 (Average) | 2460.500        | 32.008              | 50.745               | 82.753                  | --                  | --                     | Pass   |
| 11 (Average) | 2483.500        | 32.182              | 11.946               | 44.128                  | 74.00               | 54.00                  | Pass   |
| 11 (Average) | 2495.900        | 32.275              | 11.794               | 44.070                  | 74.00               | 54.00                  | Pass   |

**Figure Channel 11:**
**Horizontal (Peak)**

**Figure Channel 11:**
**Horizontal (Average)**


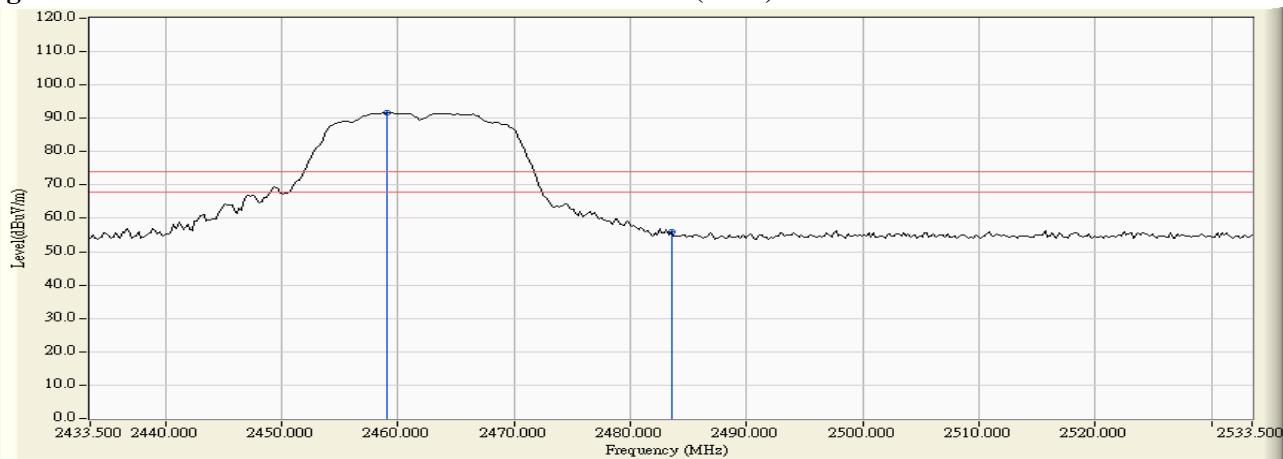
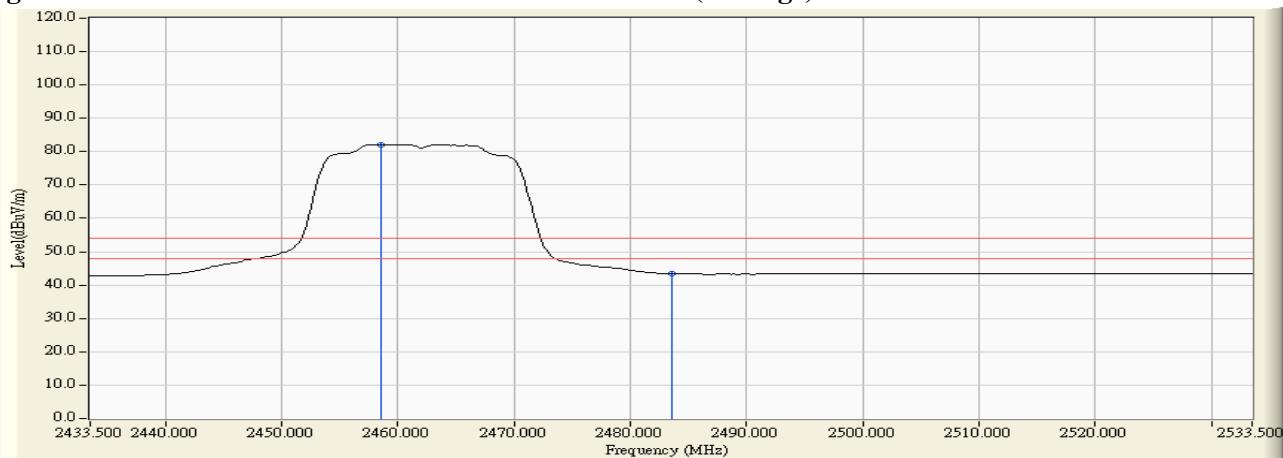
Note:

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 : Notebook PC  
 Test Item : Band Edge  
 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 |
|--------------|-----------------|---------------------|----------------------|-------------------------|---------------------|------------------------|--------|
| 11 (Peak)    | 2459.100        | 31.271              | 60.390               | 91.661                  | --                  | --                     | Pass   |
| 11 (Peak)    | 2483.500        | 31.435              | 24.532               | 55.967                  | 74.00               | 54.00                  | Pass   |
| 11 (Average) | 2458.500        | 31.266              | 50.887               | 82.153                  | --                  | --                     | Pass   |
| 11 (Average) | 2483.500        | 31.435              | 11.962               | 43.397                  | 74.00               | 54.00                  | Pass   |

**Figure Channel 11:**
**Vertical (Peak)**

**Figure Channel 11:**
**Vertical (Average)**

**Note:**

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.

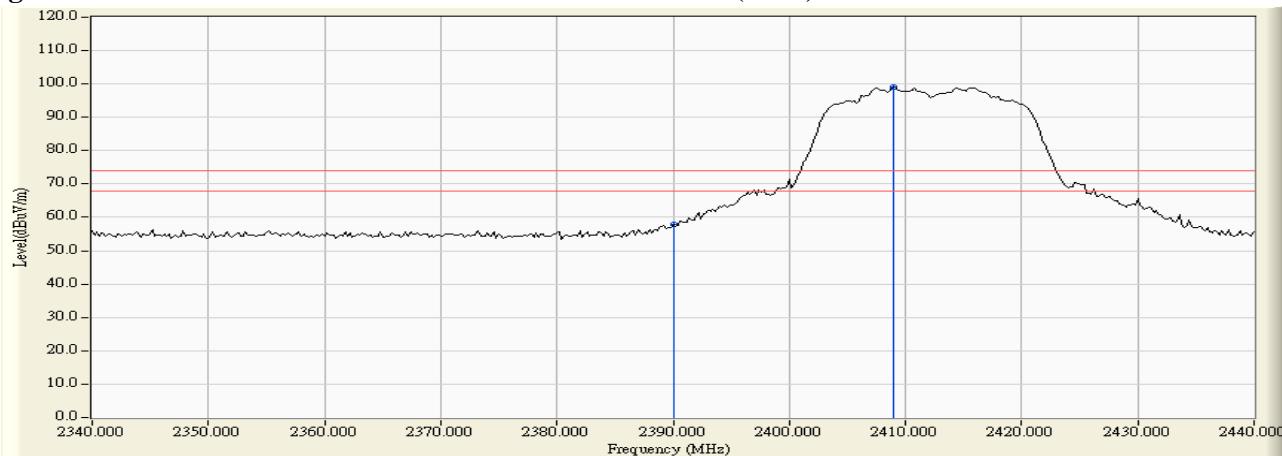
Product : Notebook PC  
 Test Item : Band Edge  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmit - 802.11n-20BW\_14.4Mbps(2.4G Band)

**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              | 26.323               | 57.832                  | 74.00               | 54.00                  | Pass   |
| 01 (Peak)    | 2409.000        | 31.618              | 67.444               | 99.062                  | --                  | --                     | Pass   |
| 01 (Average) | 2390.000        | 31.509              | 13.637               | 45.146                  | 74.00               | 54.00                  | Pass   |
| 01 (Average) | 2408.400        | 31.615              | 55.190               | 86.804                  | --                  | --                     | Pass   |

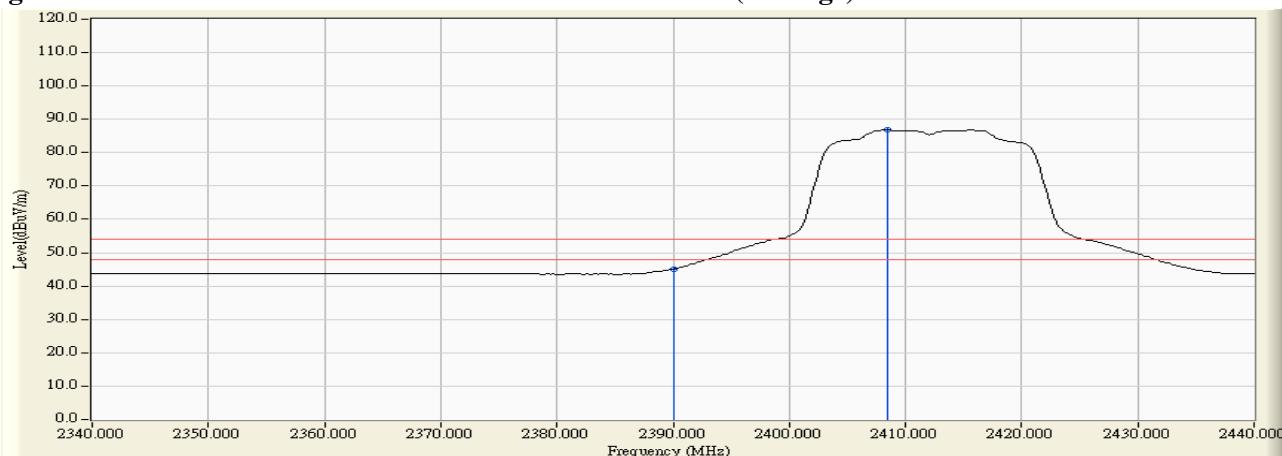
**Figure Channel 01:**

**Horizontal (Peak)**



**Figure Channel 01:**

**Horizontal (Average)**



**Note:**

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 : Notebook PC  
 Test Item : Band Edge  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmit - 802.11n-20BW\_14.4Mbps(2.4G Band)

#### 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              | 27.955               | 58.870                  | 74.00               | 54.00                  | Pass   |
| 01 (Peak)    | 2415.600        | 30.973              | 68.322               | 99.296                  | --                  | --                     | Pass   |
| 01 (Average) | 2390.000        | 30.915              | 14.045               | 44.960                  | 74.00               | 54.00                  | Pass   |
| 01 (Average) | 2408.400        | 30.936              | 56.413               | 87.348                  | --                  | --                     | Pass   |

Figure Channel 01:

Vertical (Peak)

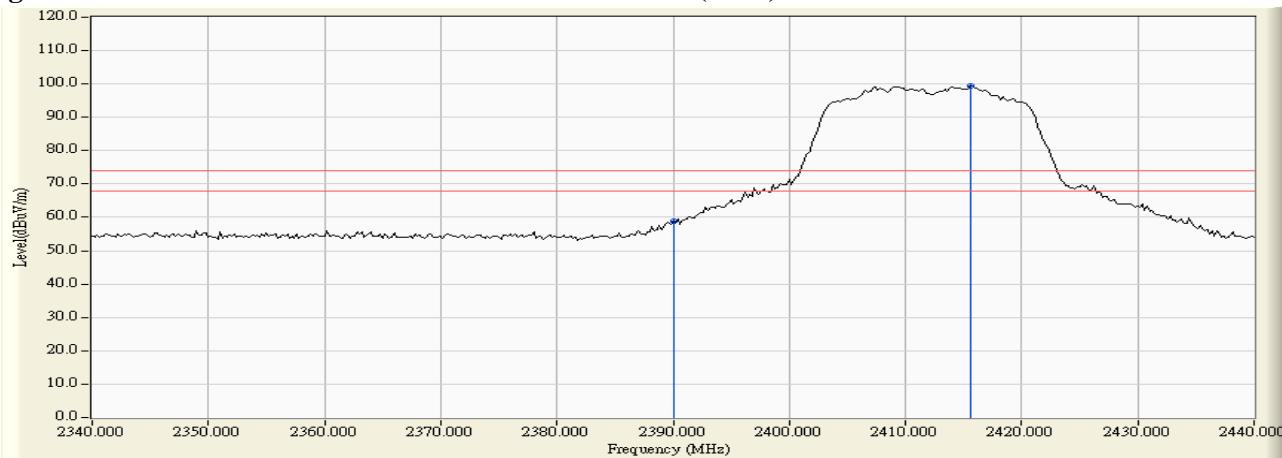
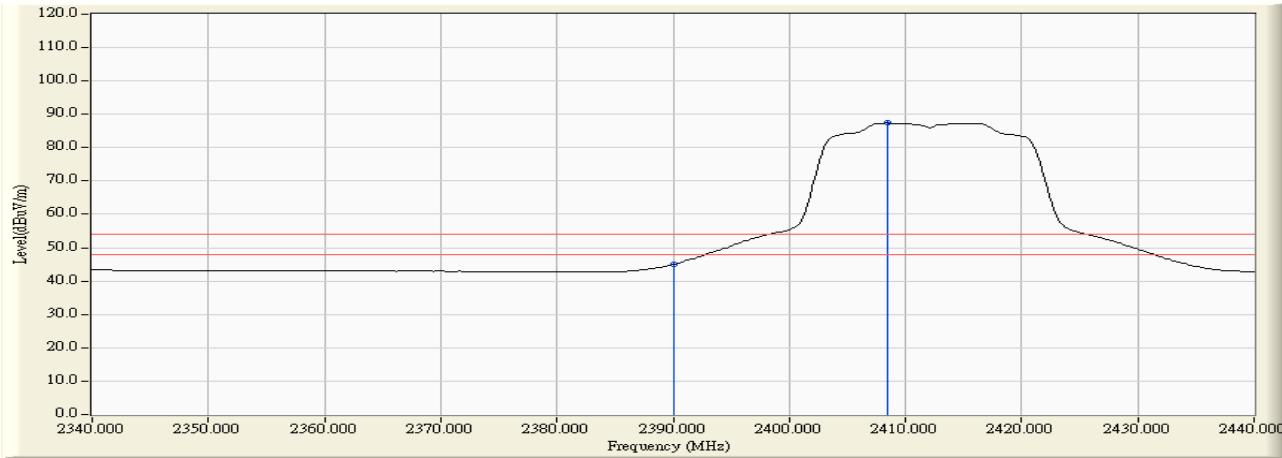


Figure Channel 01:

Vertical (Average)



Note:

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 : Notebook PC  
 Test Item : Band Edge  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmit - 802.11n-20BW\_14.4Mbps(2.4G Band)

#### 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)    | 2460.700        | 32.010              | 67.196               | 99.206                  | --                  | --                     | Pass   |
| 11 (Peak)    | 2483.500        | 32.182              | 26.540               | 58.722                  | 74.00               | 54.00                  | Pass   |
| 11 (Peak)    | 2485.100        | 32.194              | 26.798               | 58.992                  | 74.00               | 54.00                  | Pass   |
| 11 (Average) | 2458.300        | 31.991              | 54.494               | 86.485                  | --                  | --                     | Pass   |
| 11 (Average) | 2483.500        | 32.182              | 13.215               | 45.397                  | 74.00               | 54.00                  | Pass   |
| 11 (Average) | 2485.100        | 32.194              | 12.506               | 44.700                  | 74.00               | 54.00                  | Pass   |

Figure Channel 11:

Horizontal (Peak)

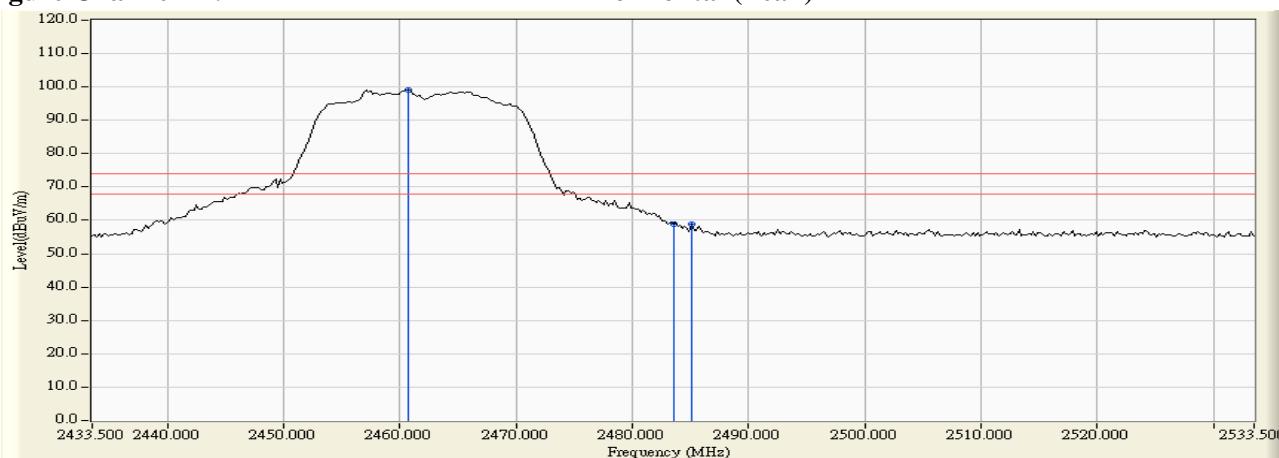
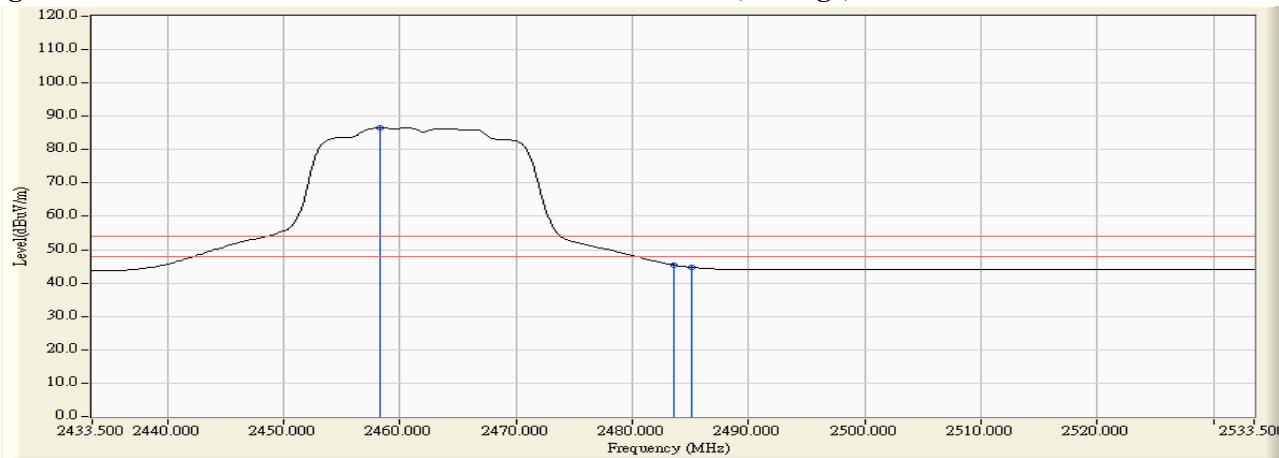


Figure Channel 11:

Horizontal (Average)



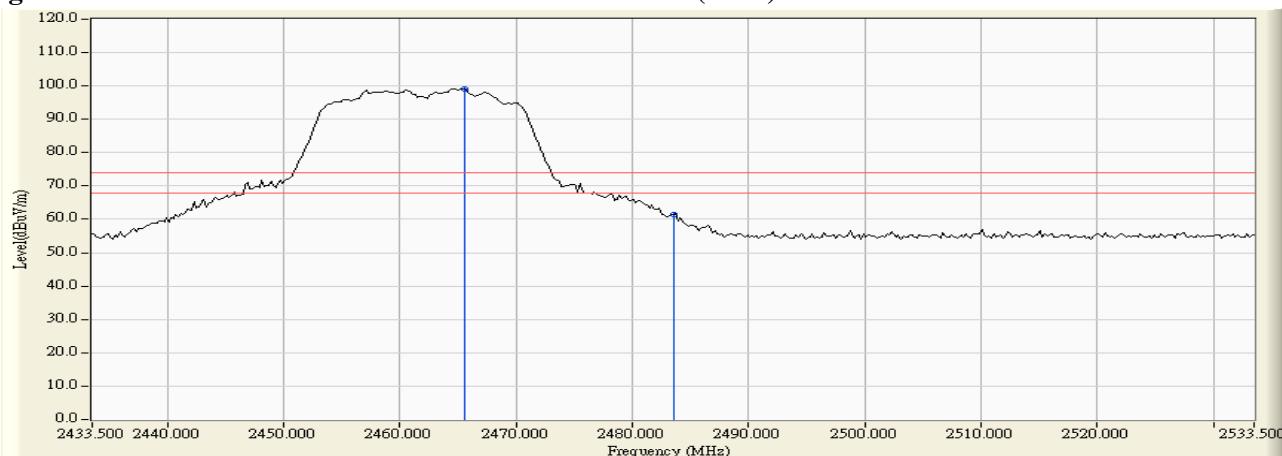
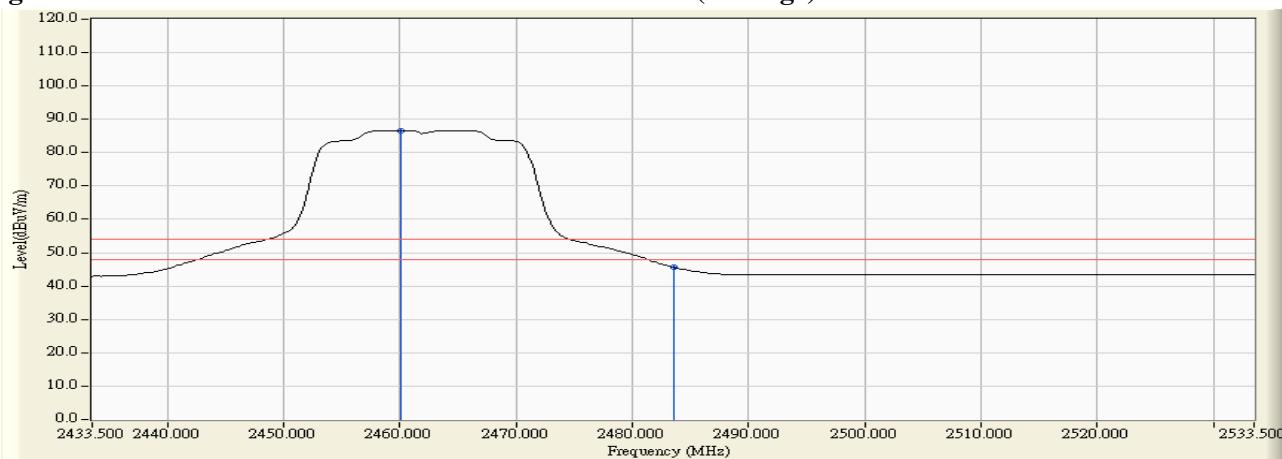
Note:

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 : Notebook PC  
 Test Item : Band Edge  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmit - 802.11n-20BW\_14.4Mbps(2.4G Band)

**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)    | 2465.500        | 31.314              | 67.763               | 99.077                  | --                  | --                     | --     |
| 11 (Peak)    | 2483.500        | 31.435              | 29.896               | 61.331                  | 74.00               | 54.00                  | Pass   |
| 11 (Average) | 2460.100        | 31.277              | 55.335               | 86.612                  | --                  | --                     | --     |
| 11 (Average) | 2483.500        | 31.435              | 14.228               | 45.663                  | 74.00               | 54.00                  | Pass   |

**Figure Channel 11:**
**Vertical (Peak)**

**Figure Channel 11:**
**Vertical (Average)**


Note:

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.

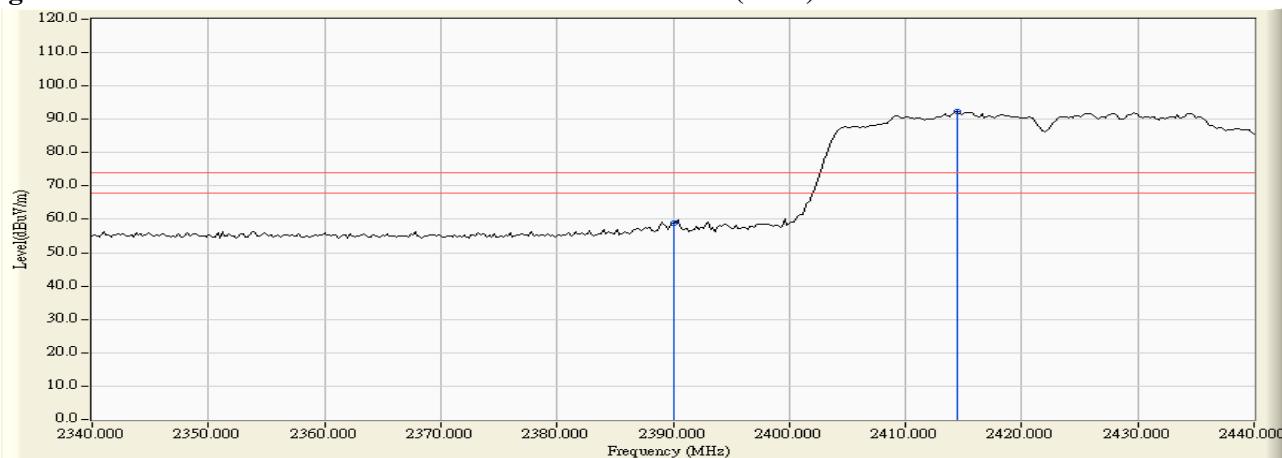
Product : Notebook PC  
 Test Item : Band Edge  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmit - 802.11n-40BW\_30Mbps(2.4G Band)

**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              | 27.366               | 58.875                  | 74.00               | 54.00                  | Pass   |
| 01 (Peak)    | 2414.400        | 31.657              | 60.714               | 92.371                  | --                  | --                     | Pass   |
| 01 (Average) | 2390.000        | 31.509              | 12.866               | 44.375                  | 74.00               | 54.00                  | Pass   |
| 01 (Average) | 2425.000        | 31.737              | 47.401               | 79.139                  | --                  | --                     | Pass   |

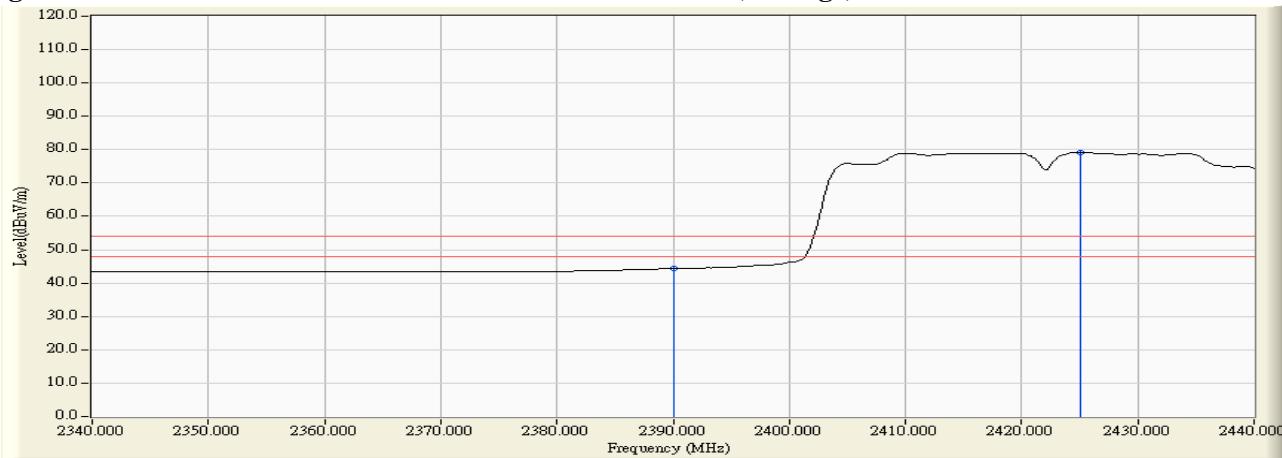
**Figure Channel 01:**

**Horizontal (Peak)**



**Figure Channel 01:**

**Horizontal (Average)**



Note:

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.

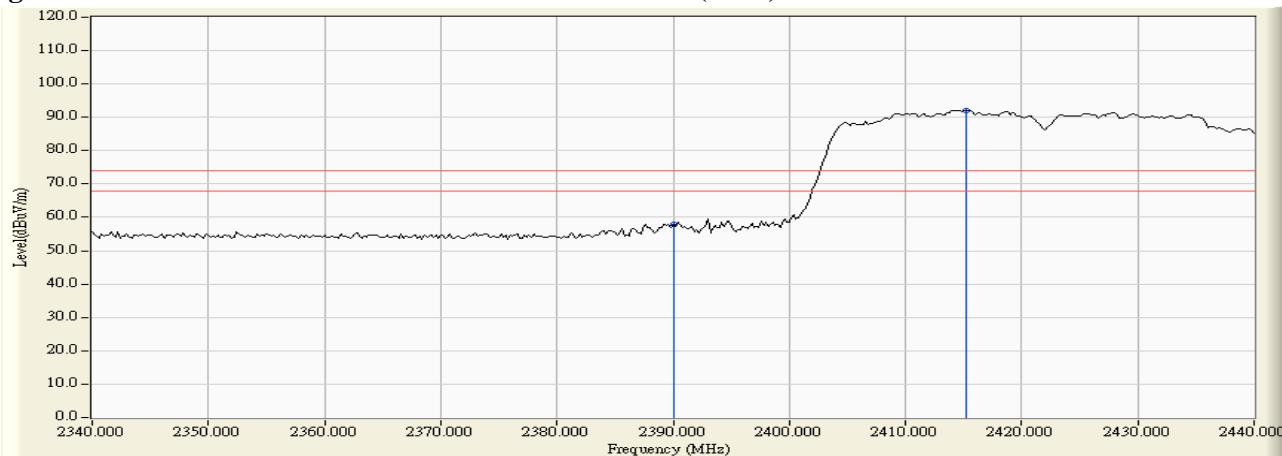
Product : Notebook PC  
 Test Item : Band Edge  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmit - 802.11n-40BW\_30Mbps(2.4G Band)

**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              | 26.959               | 57.874                  | 74.00               | 54.00                  | Pass   |
| 01 (Peak)    | 2415.200        | 30.971              | 61.163               | 92.134                  | --                  | --                     | Pass   |
| 01 (Average) | 2390.000        | 30.915              | 13.036               | 43.951                  | 74.00               | 54.00                  | Pass   |
| 01 (Average) | 2410.000        | 30.940              | 48.270               | 79.210                  | --                  | --                     | Pass   |

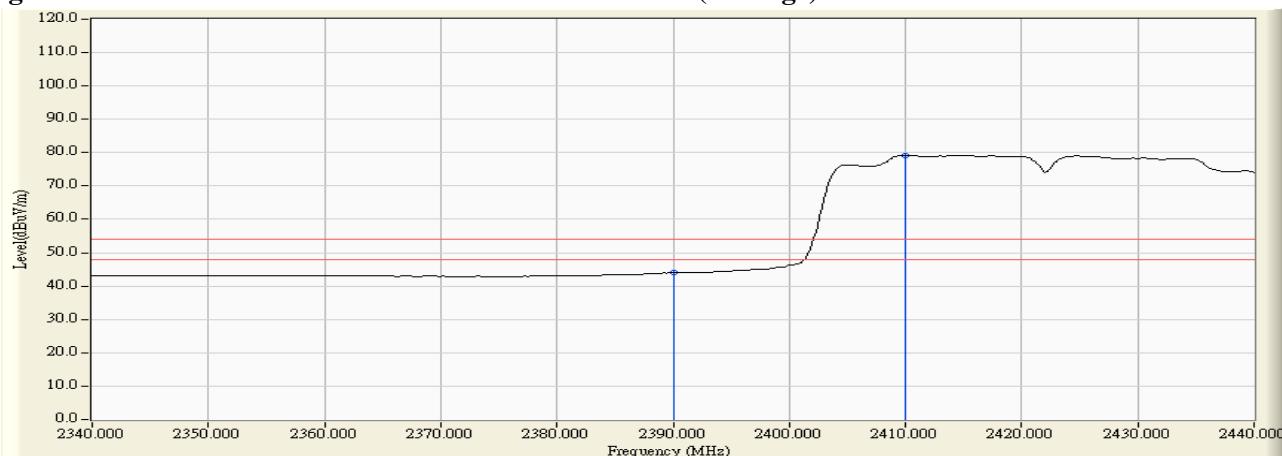
**Figure Channel 01:**

**Vertical (Peak)**



**Figure Channel 01:**

**Vertical (Average)**



**Note:**

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.

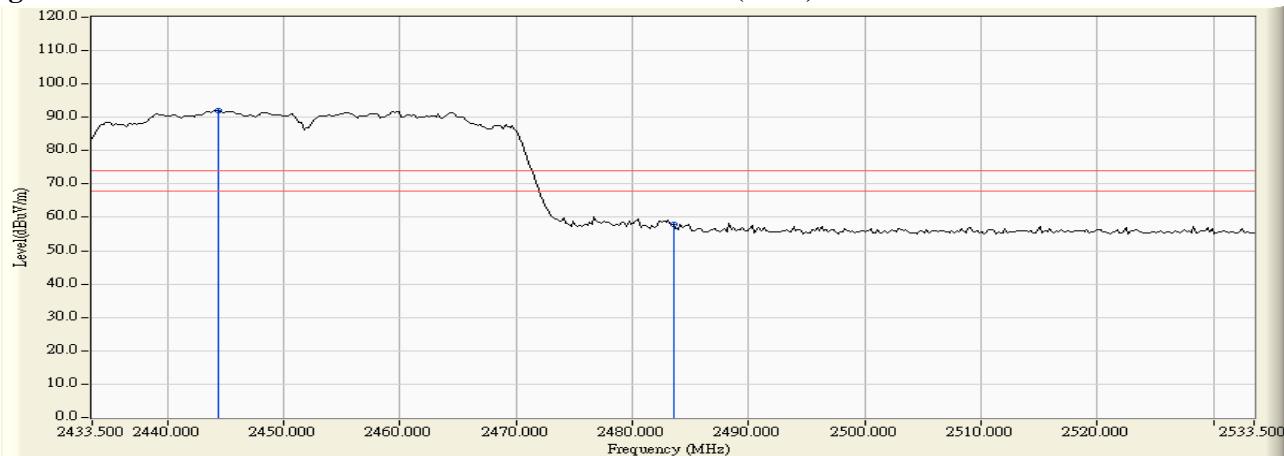
Product : Notebook PC  
 Test Item : Band Edge  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmit - 802.11n-40BW\_30Mbps(2.4G Band)

**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)    | 2444.300        | 31.885              | 60.262               | 92.147                  | --                  | --                     | Pass   |
| 07 (Peak)    | 2483.500        | 32.182              | 25.827               | 58.009                  | 74.00               | 54.00                  | Pass   |
| 07 (Average) | 2443.700        | 31.881              | 47.125               | 79.005                  | --                  | --                     | Pass   |
| 07 (Average) | 2483.500        | 32.182              | 12.596               | 44.778                  | 74.00               | 54.00                  | Pass   |

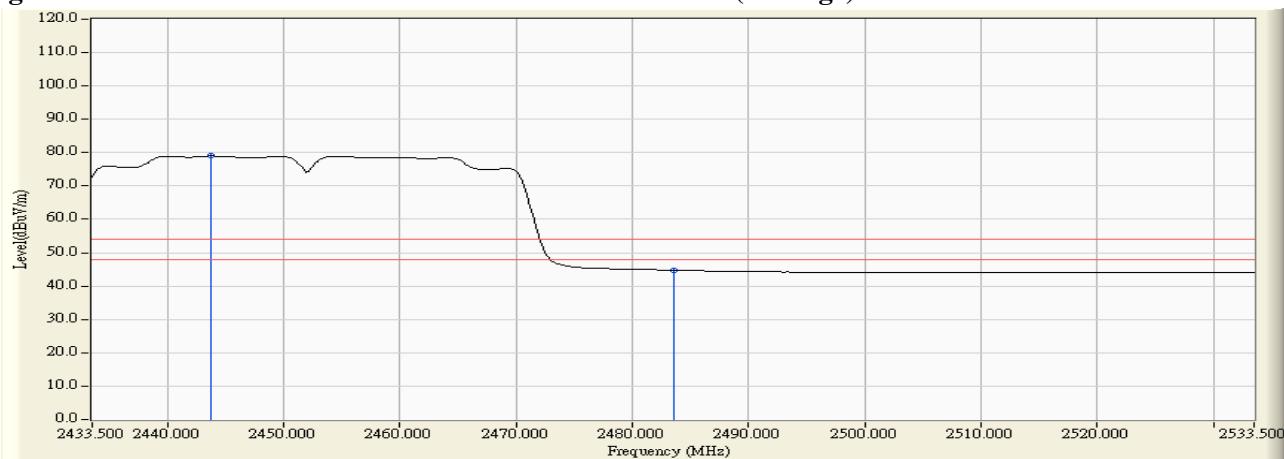
**Figure Channel 07:**

**Horizontal (Peak)**



**Figure Channel 07:**

**Horizontal (Average)**



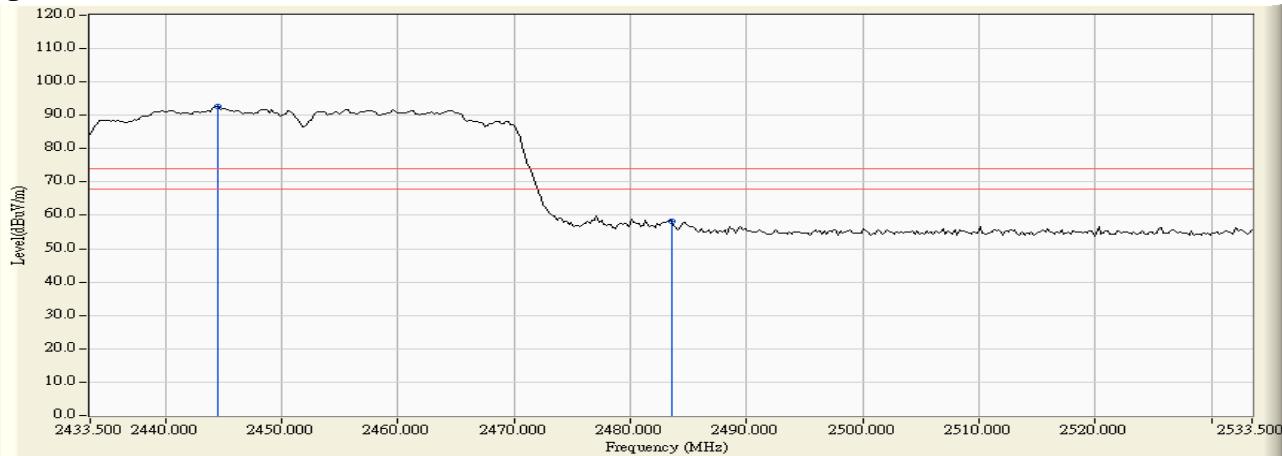
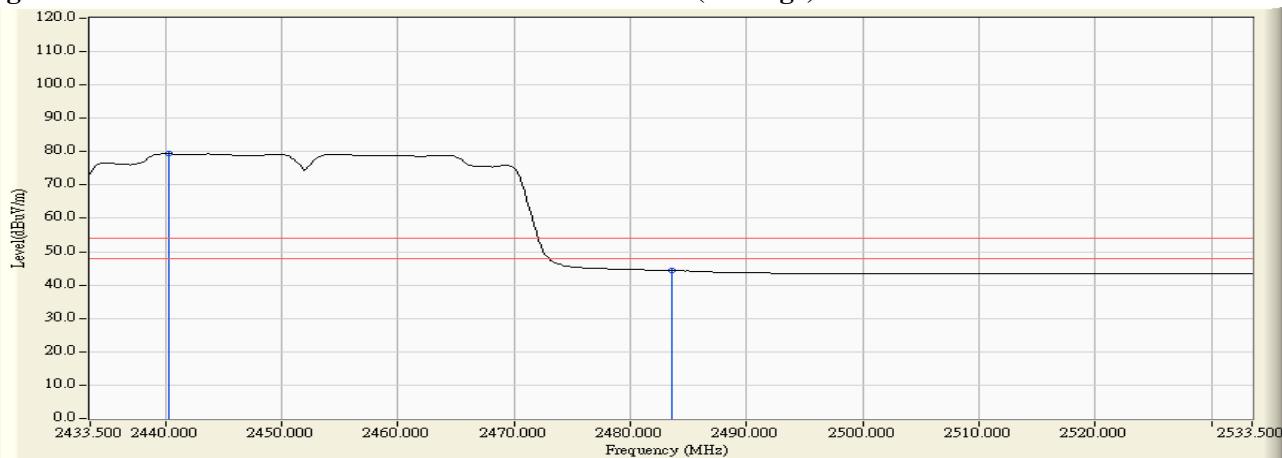
Note:

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 : Notebook PC  
 Test Item : Band Edge  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmit - 802.11n-40BW\_30Mbps(2.4G Band)

**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)    | 2444.500        | 31.170              | 61.593               | 92.763                  | --                  | --                     | Pass   |
| 07 (Peak)    | 2483.500        | 31.435              | 26.955               | 58.390                  | 74.00               | 54.00                  | Pass   |
| 07 (Average) | 2440.300        | 31.141              | 48.219               | 79.360                  | --                  | --                     | Pass   |
| 07 (Average) | 2483.500        | 31.435              | 12.812               | 44.247                  | 74.00               | 54.00                  | Pass   |

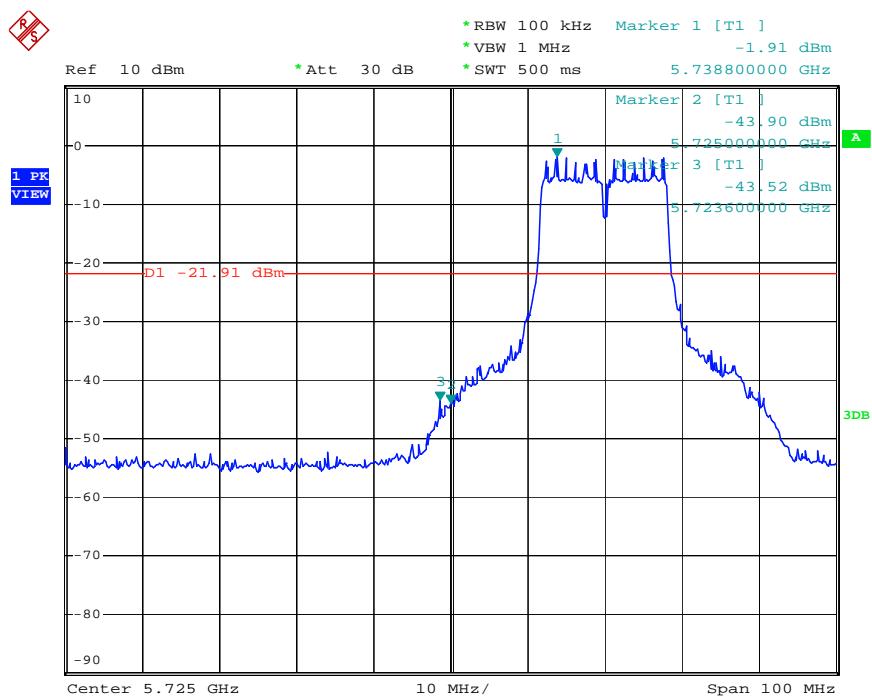
**Figure Channel 07:****Vertical (Peak)****Figure Channel 01:****Vertical (Average)****Note:**

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 : Notebook PC  
Test Item : Band Edge  
Test Site : No.3 OATS  
Test Mode : Mode 3: Transmit - 802.11a 6Mbps

## Chain A

| Test Frequency<br>(MHz) | Measurement Level<br>$\Delta$ (dB) | Limit<br>$\Delta$ (dB) | Result |
|-------------------------|------------------------------------|------------------------|--------|
| 5745                    | 41.99                              | >20                    | PASS   |

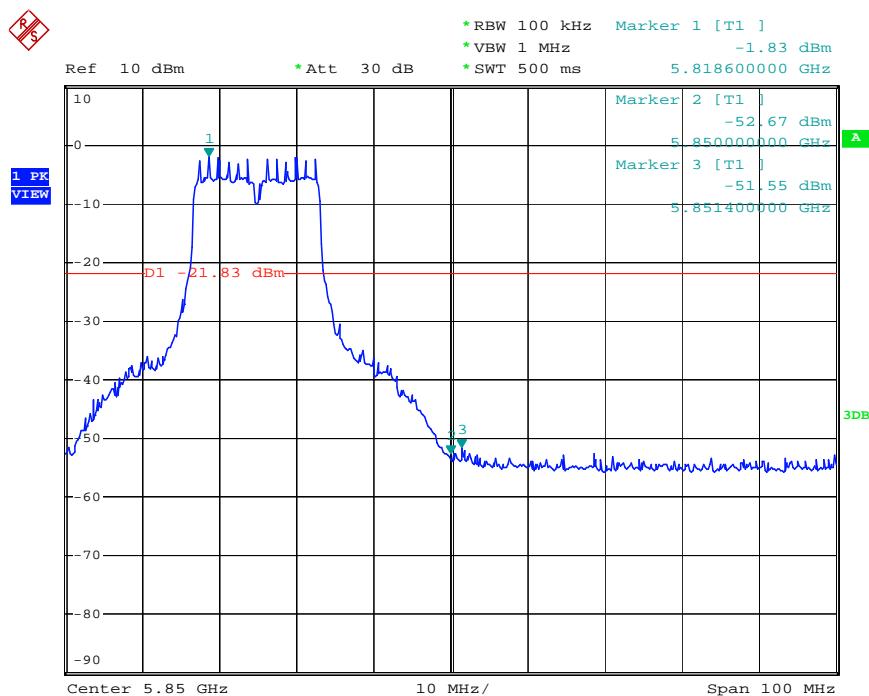


Date: 2.NOV.2012 15:58:42

Product : Notebook PC  
Test Item : Band Edge  
Test Site : No.3 OATS  
Test Mode : Mode 3: Transmit - 802.11a 6Mbps

## Chain A

| Test Frequency<br>(MHz) | Measurement Level<br>$\Delta$ (dB) | Limit<br>$\Delta$ (dB) | Result |
|-------------------------|------------------------------------|------------------------|--------|
| 5825                    | 50.84                              | >20                    | PASS   |

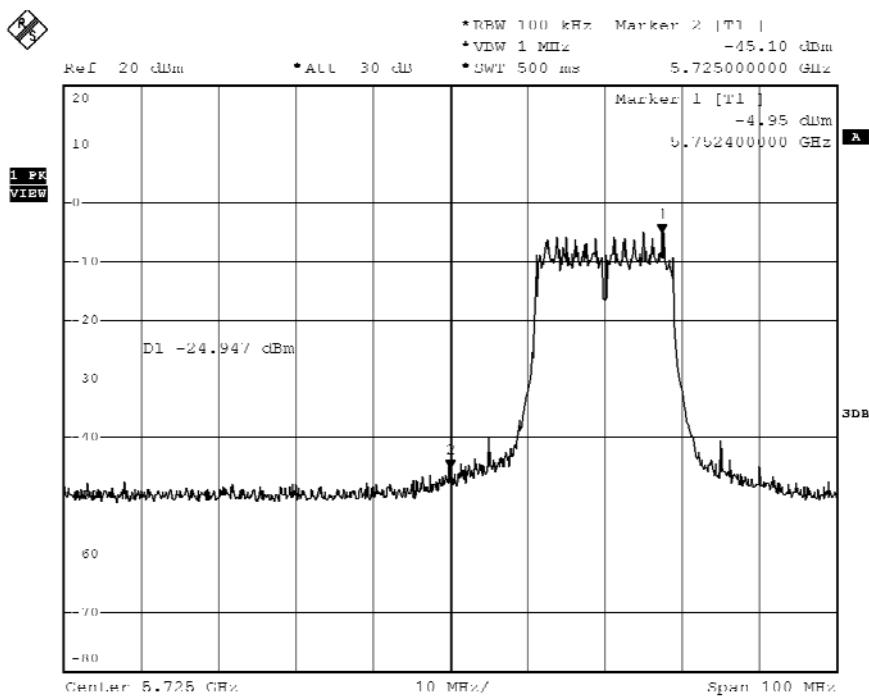


Date: 2.NOV.2012 16:01:10

Product : Notebook PC  
Test Item : Band Edge  
Test Site : No.3 OATS  
Test Mode : Mode 6: Transmit - 802.11n-20BW\_14.4Mbps(5G Band)

## Chain A

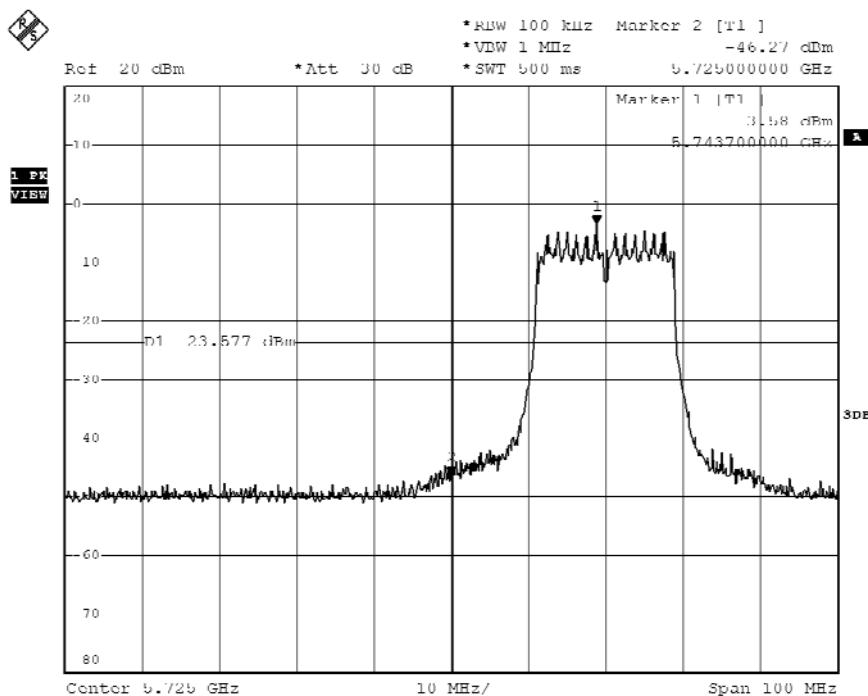
| Test Frequency<br>(MHz) | Measurement Level<br>$\Delta$ (dB) | Limit<br>$\Delta$ (dB) | Result |
|-------------------------|------------------------------------|------------------------|--------|
| 5745                    | 40.15                              | >20                    | PASS   |



Product : Notebook PC  
 Test Item : Band Edge  
 Test Site : No.3 OATS  
 Test Mode : Mode 6: Transmit - 802.11n-20BW\_14.4Mbps(5G Band)

## Chain B

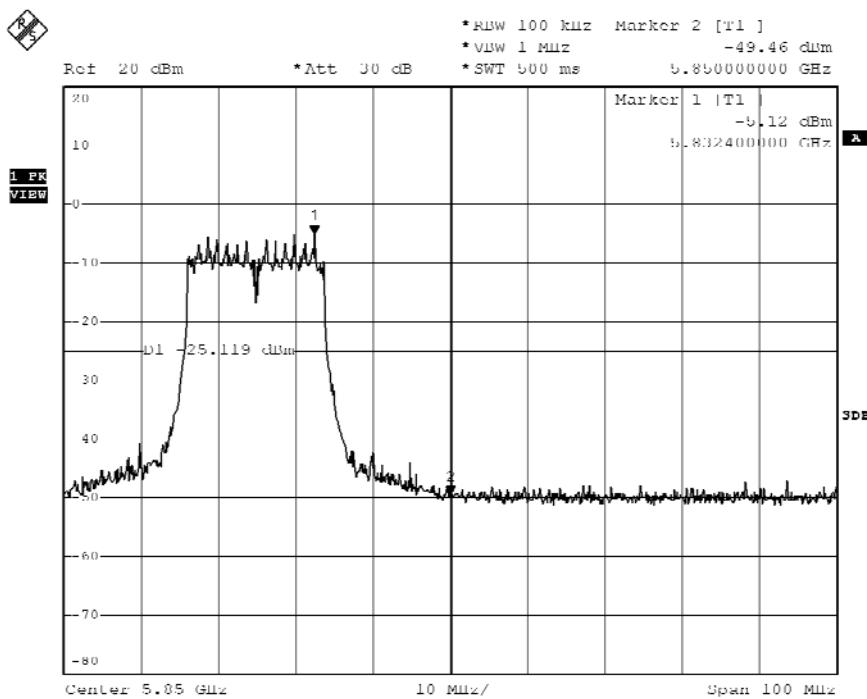
| Test Frequency<br>(MHz) | Measurement Level<br>$\Delta$ (dB) | Limit<br>$\Delta$ (dB) | Result |
|-------------------------|------------------------------------|------------------------|--------|
| 5745                    | 42.68                              | >20                    | PASS   |



Product : Notebook PC  
Test Item : Band Edge  
Test Site : No.3 OATS  
Test Mode : Mode 6: Transmit - 802.11n-20BW\_14.4Mbps(5G Band)

## Chain A

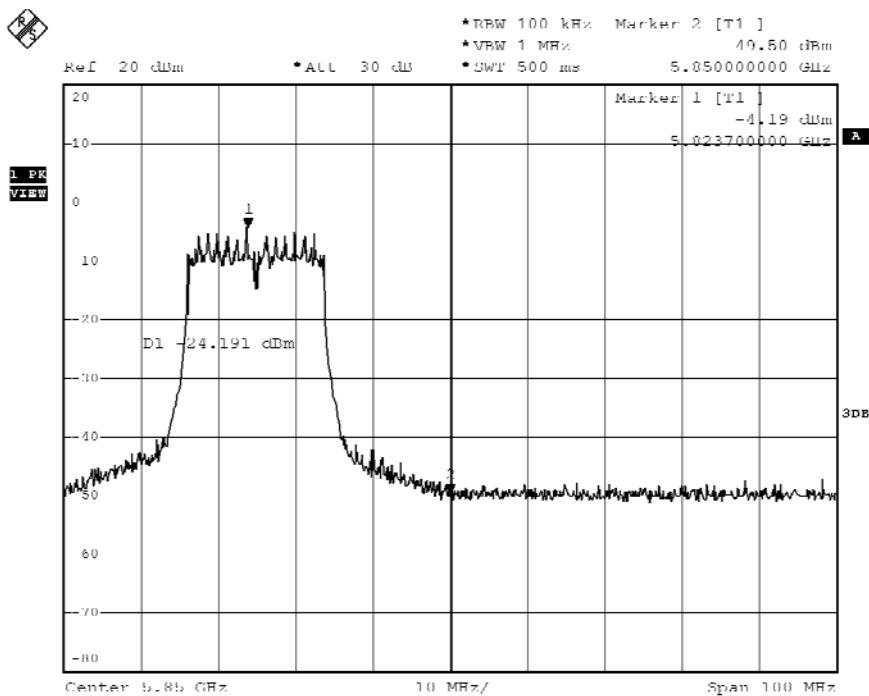
| Test Frequency<br>(MHz) | Measurement Level<br>$\Delta$ (dB) | Limit<br>$\Delta$ (dB) | Result |
|-------------------------|------------------------------------|------------------------|--------|
| 5825                    | 44.34                              | >20                    | PASS   |



Product : Notebook PC  
Test Item : Band Edge  
Test Site : No.3 OATS  
Test Mode : Mode 6: Transmit - 802.11n-20BW\_14.4Mbps(5G Band)

## Chain B

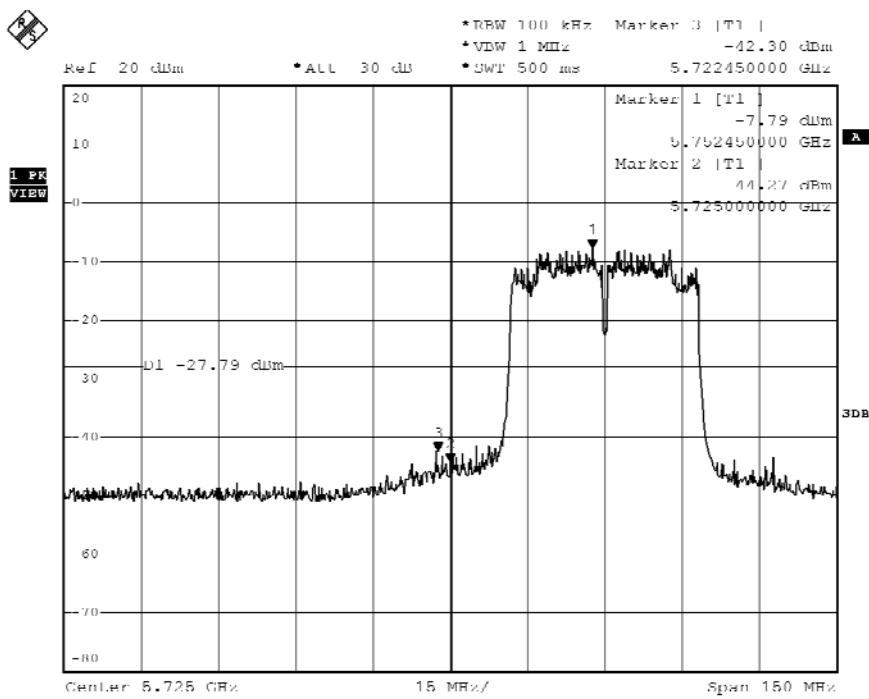
| Test Frequency<br>(MHz) | Measurement Level<br>$\Delta$ (dB) | Limit<br>$\Delta$ (dB) | Result |
|-------------------------|------------------------------------|------------------------|--------|
| 5825                    | 45.31                              | >20                    | PASS   |



Product : Notebook PC  
Test Item : Band Edge  
Test Site : No.3 OATS  
Test Mode : Mode 7: Transmit - 802.11n-40BW\_30Mbps(5G Band)

## Chain A

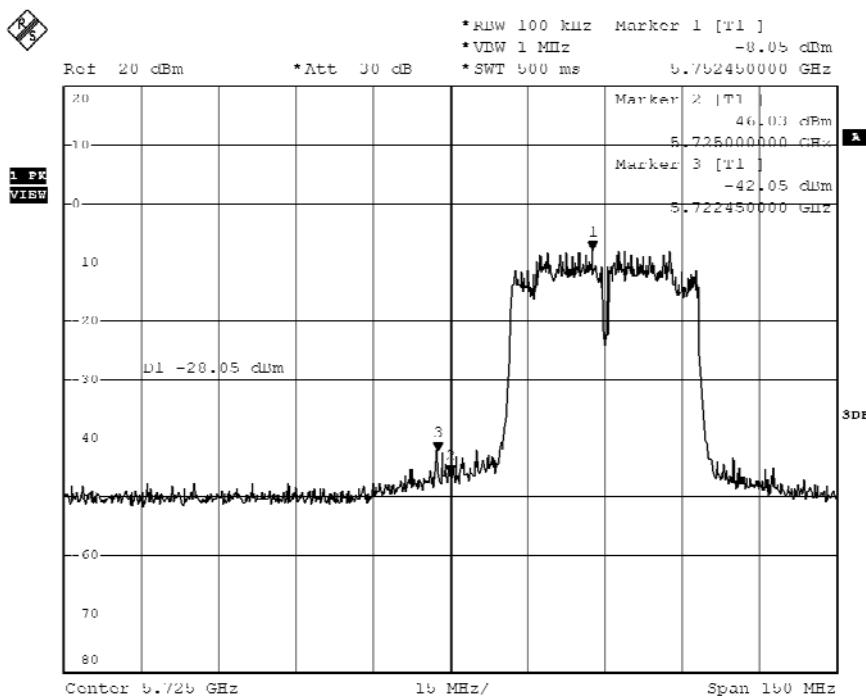
| Test Frequency<br>(MHz) | Measurement Level<br>$\Delta$ (dB) | Limit<br>$\Delta$ (dB) | Result |
|-------------------------|------------------------------------|------------------------|--------|
| 5755                    | 36.48                              | >20                    | PASS   |



Product : Notebook PC  
Test Item : Band Edge  
Test Site : No.3 OATS  
Test Mode : Mode 7: Transmit - 802.11n-40BW\_30Mbps(5G Band)

## Chain B

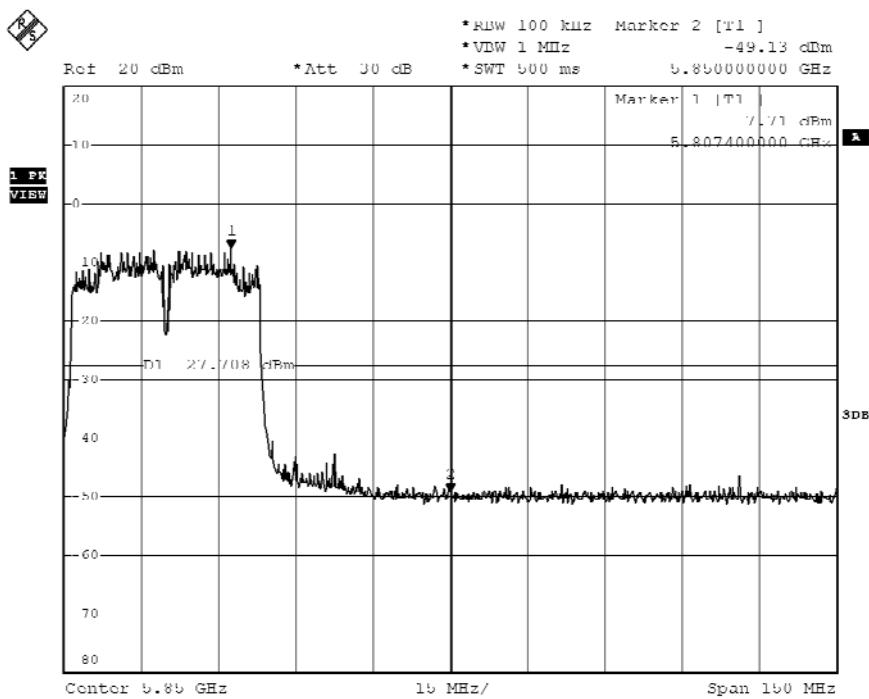
| Test Frequency<br>(MHz) | Measurement Level<br>$\Delta$ (dB) | Limit<br>$\Delta$ (dB) | Result |
|-------------------------|------------------------------------|------------------------|--------|
| 5755                    | 37.98                              | >20                    | PASS   |



Product : Notebook PC  
Test Item : Band Edge  
Test Site : No.3 OATS  
Test Mode : Mode 7: Transmit - 802.11n-40BW\_30Mbps(5G Band)

## Chain A

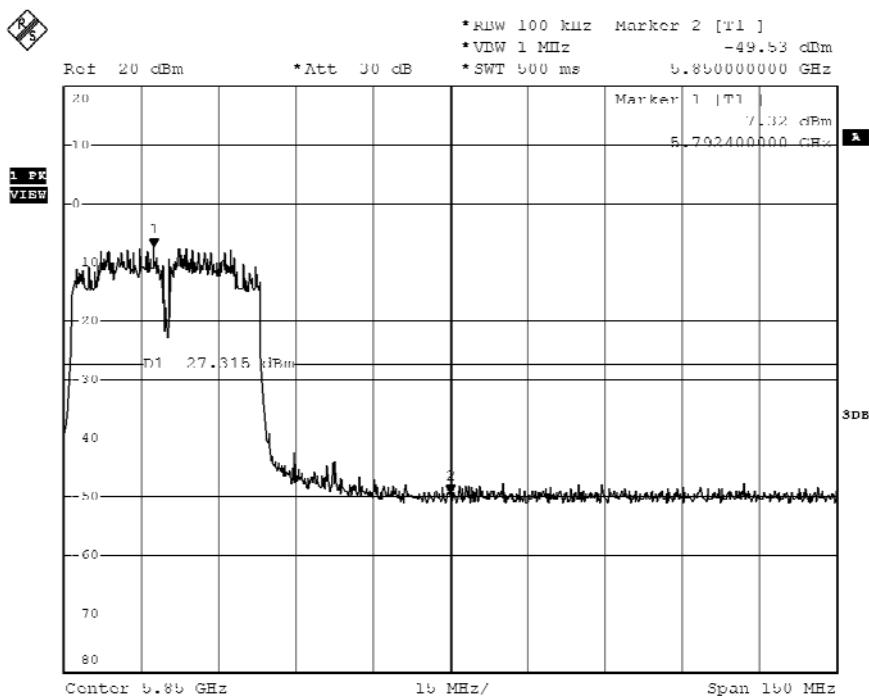
| Test Frequency<br>(MHz) | Measurement Level<br>$\Delta$ (dB) | Limit<br>$\Delta$ (dB) | Result |
|-------------------------|------------------------------------|------------------------|--------|
| 5795                    | 41.42                              | >20                    | PASS   |



Product : Notebook PC  
Test Item : Band Edge  
Test Site : No.3 OATS  
Test Mode : Mode 7: Transmit - 802.11n-40BW\_30Mbps(5G Band)

## Chain B

| Test Frequency<br>(MHz) | Measurement Level<br>$\Delta$ (dB) | Limit<br>$\Delta$ (dB) | Result |
|-------------------------|------------------------------------|------------------------|--------|
| 5795                    | 42.21                              | >20                    | PASS   |



## 7. Occupied Bandwidth

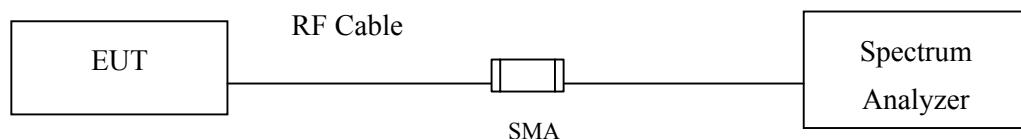
### 7.1. Test Equipment

|   | Equipment         | Manufacturer | Model No./Serial No. | Last Cal.  |
|---|-------------------|--------------|----------------------|------------|
| X | Spectrum Analyzer | R&S          | FSP40 / 100170       | Jun, 2012  |
|   | Spectrum Analyzer | Agilent      | E4407B / US39440758  | Jun, 2012  |
|   | Spectrum Analyzer | Agilent      | N9010A / MY48030495  | Apr., 2012 |

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 ANSI C63.4: 2010 for compliance to FCC 47CFR 15.247 requirements.

Set RBW = 1-5% of the emission bandwidth,  $VBW \geq 3 * RBW$

### 7.5. Uncertainty

$\pm 150\text{Hz}$

## 7.6. Test Result of Occupied Bandwidth

Product : Notebook PC  
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           | 2412.00         | 10300                   | >500                 | Pass   |

**Figure Channel 1:**

