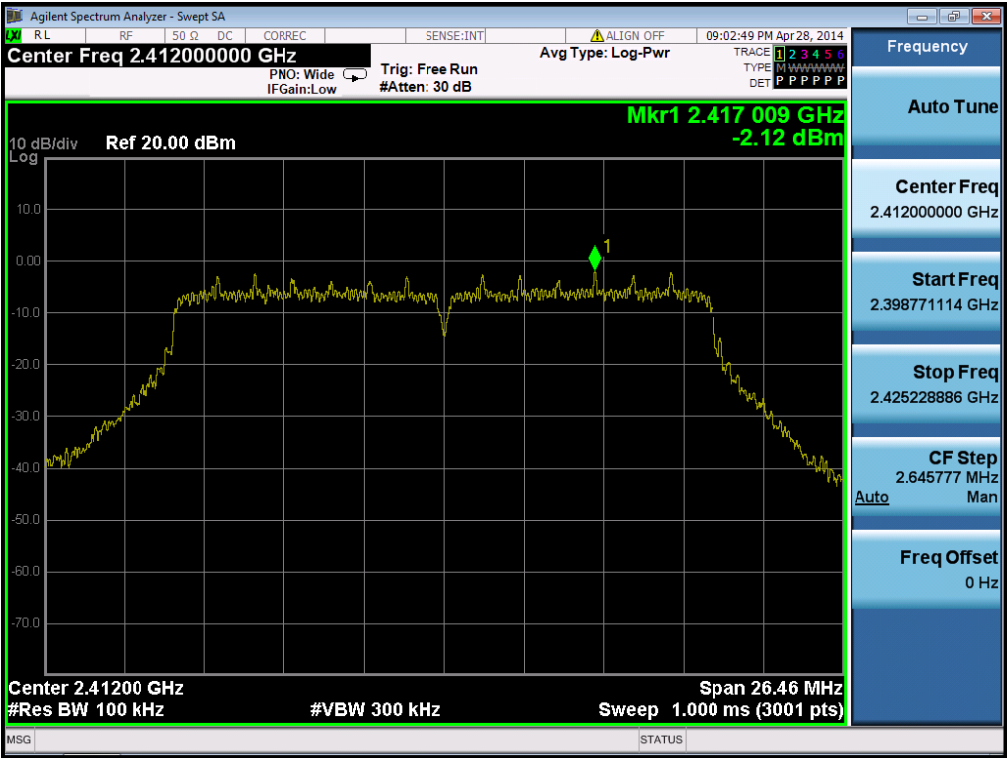
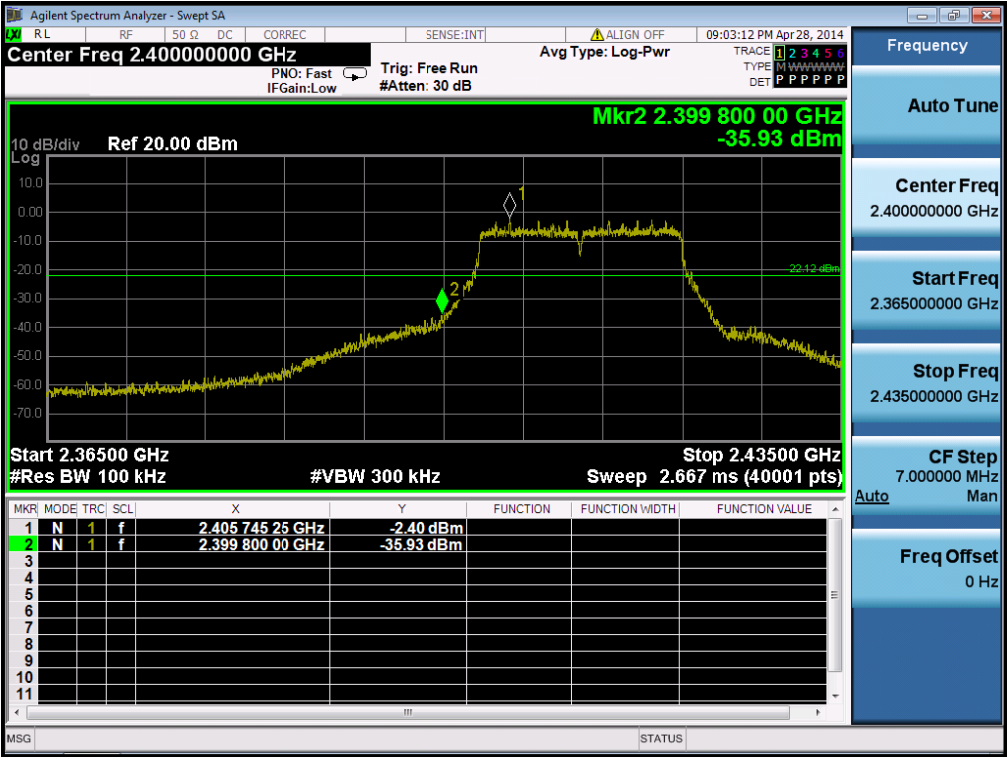


802.11n(HT20)&MCS 0&2412 MHz

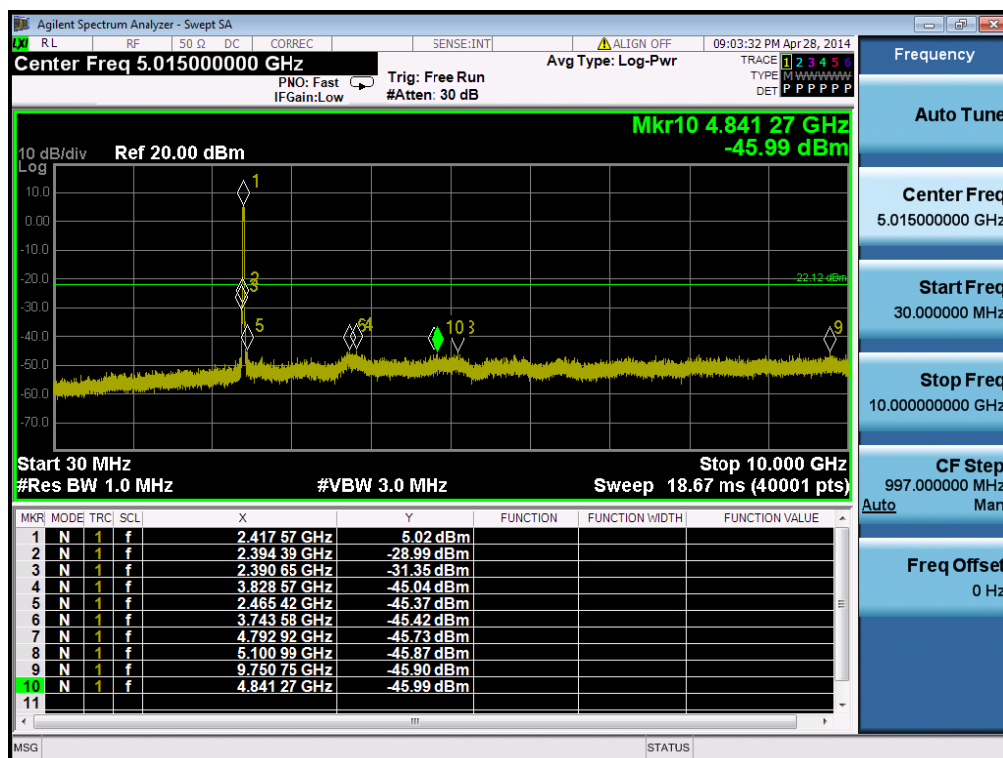
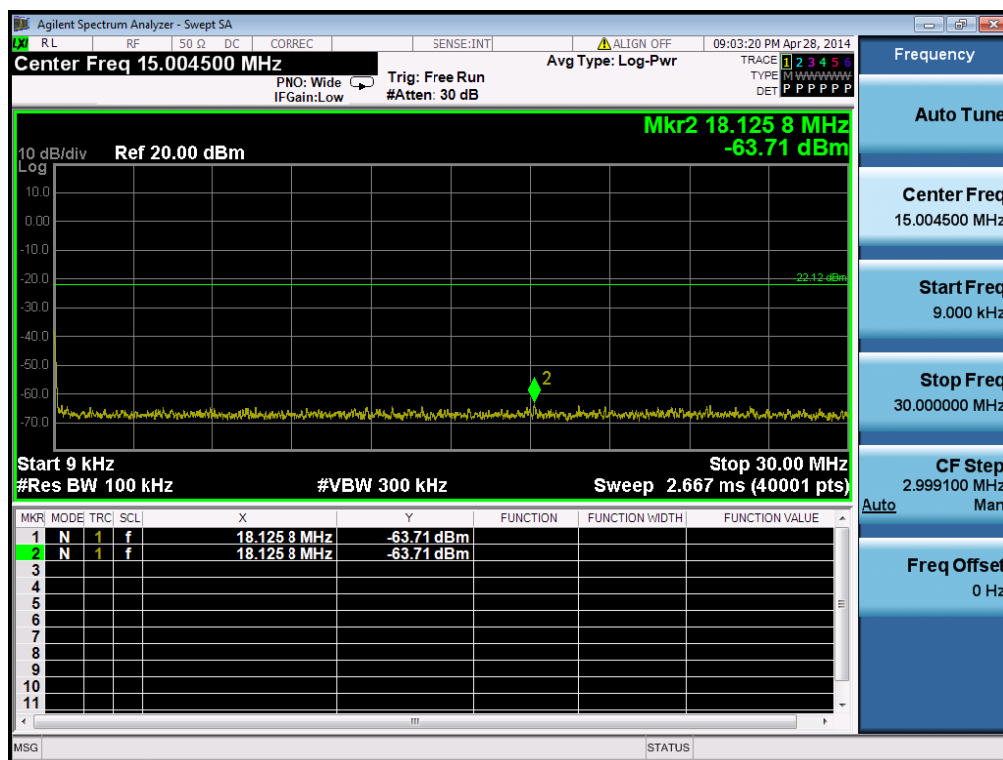
Reference



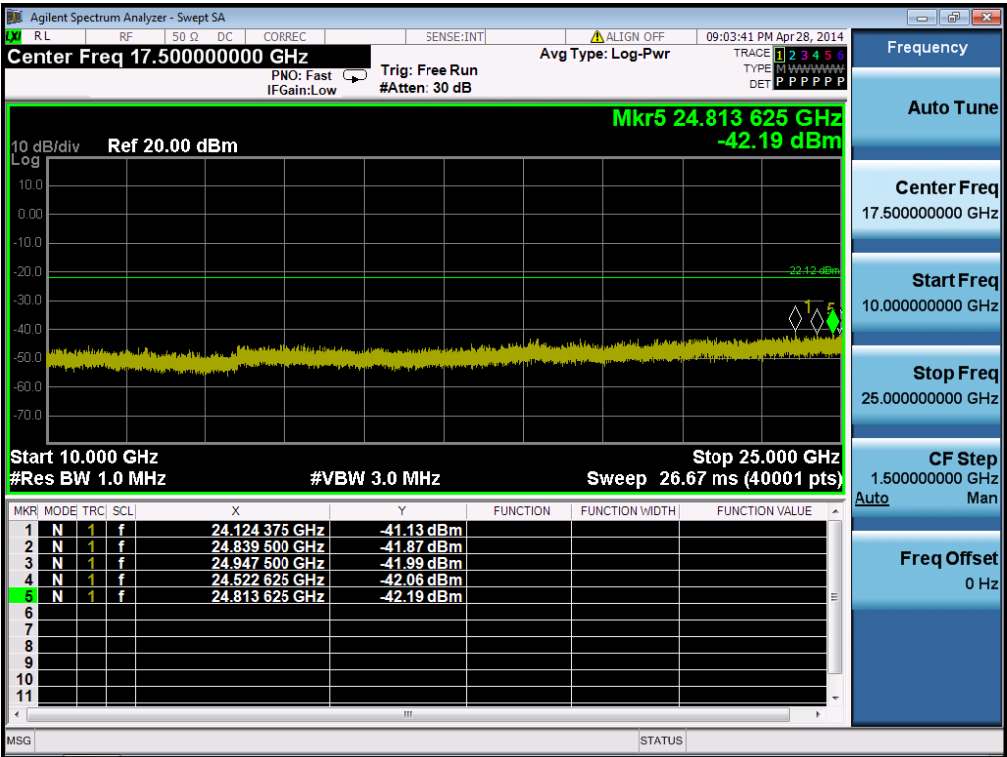
Low Band-edge



## Conducted Spurious Emissions

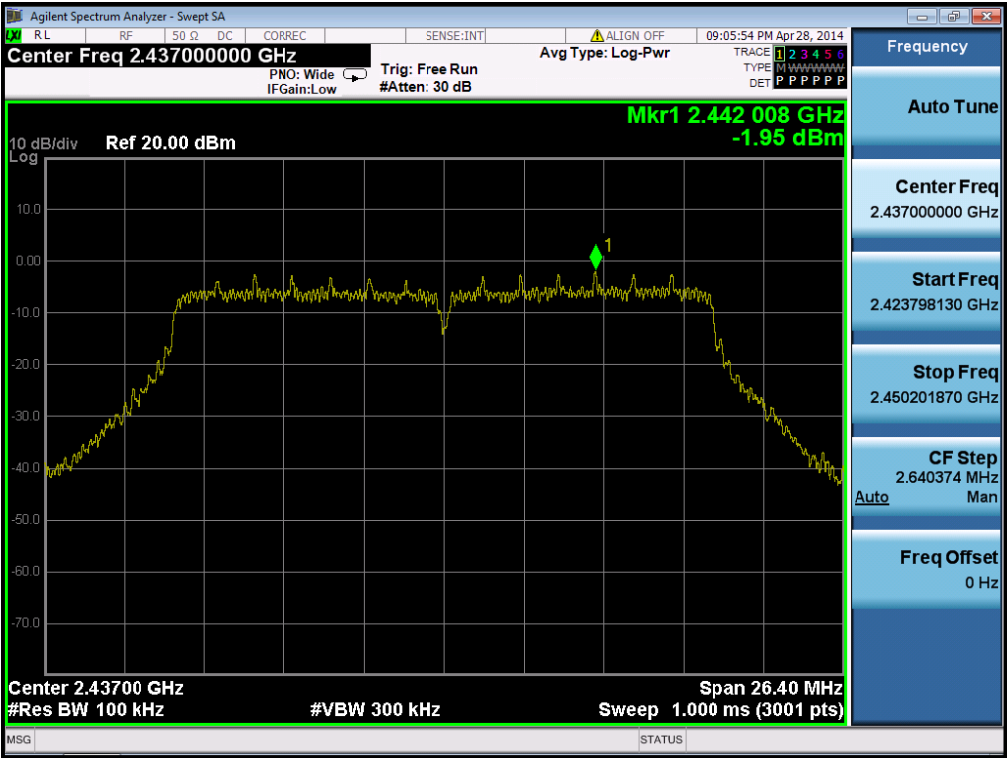


Conducted Spurious Emissions

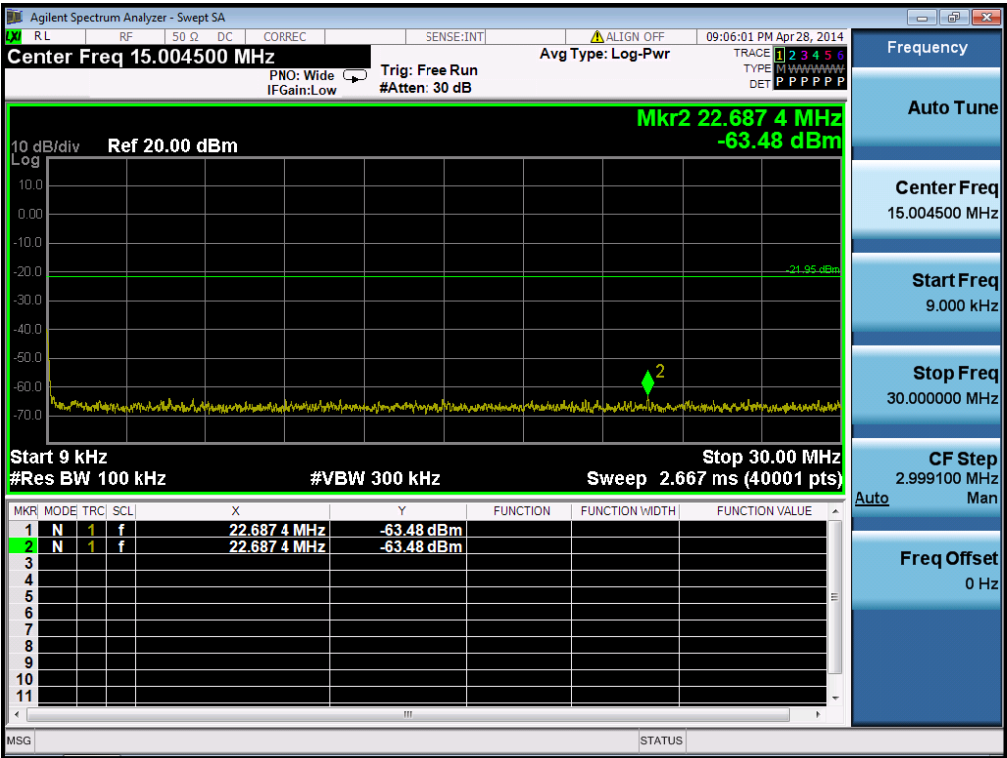


802.11n(HT20)&MCS 0&2437 MHz

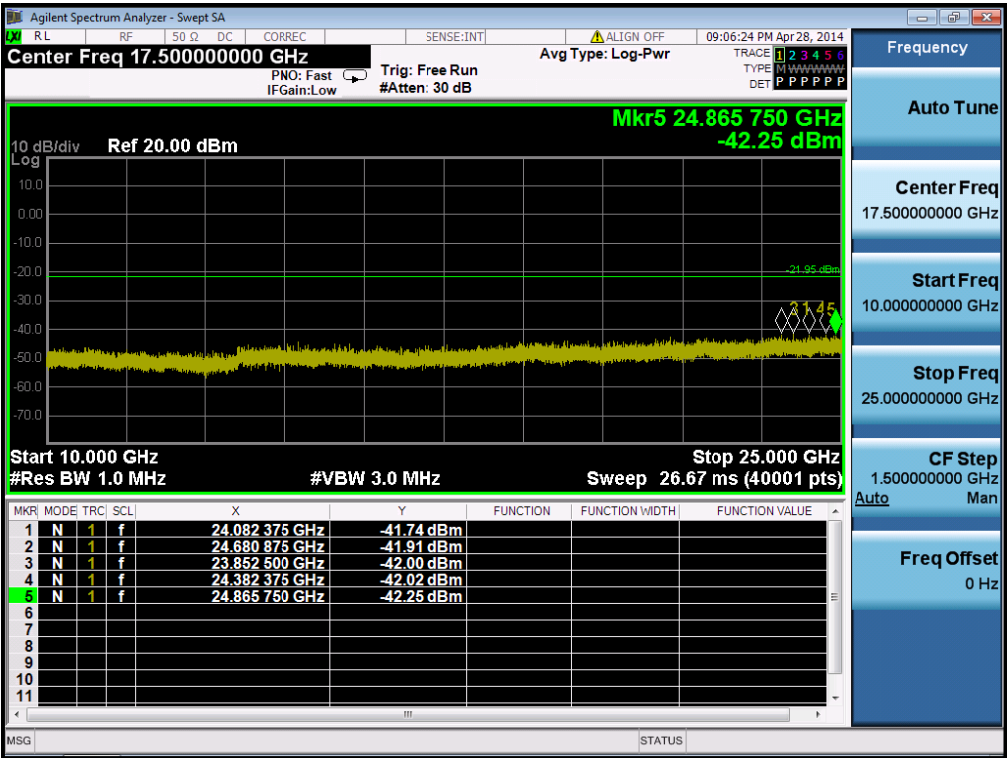
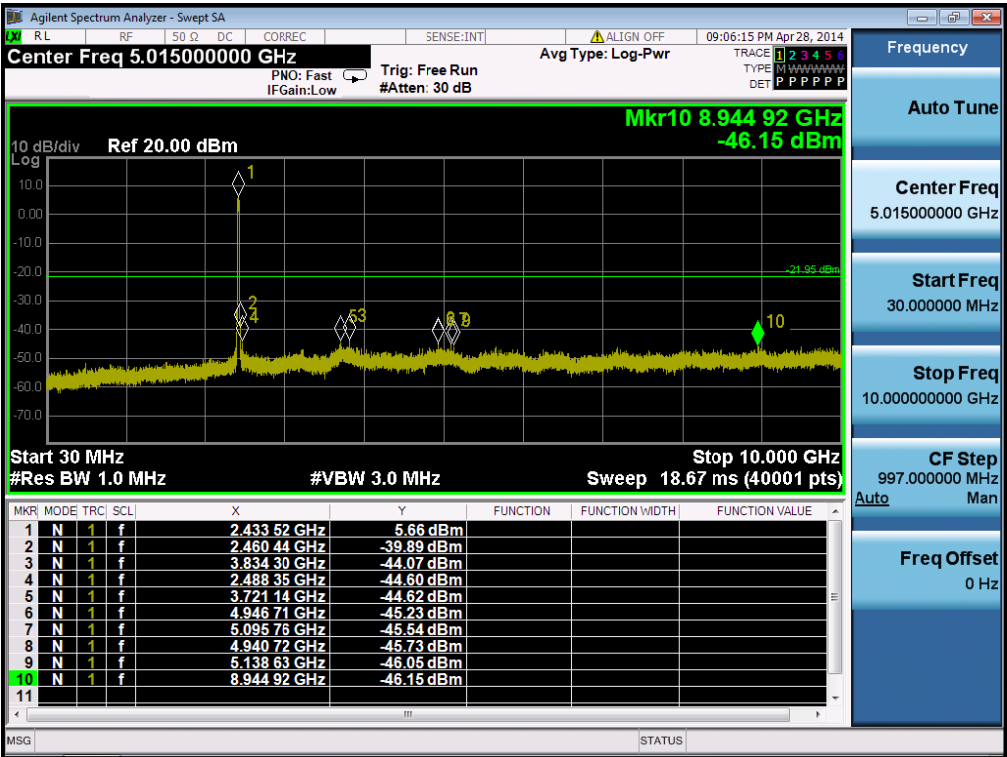
Reference



Conducted Spurious Emissions

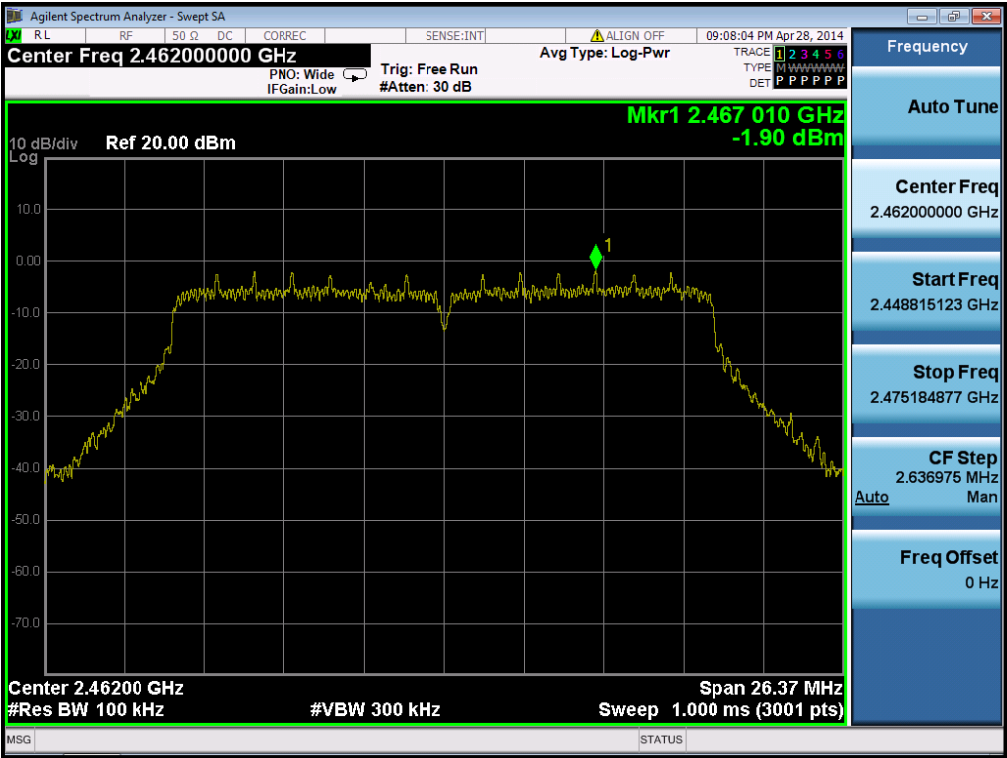


Conducted Spurious Emissions

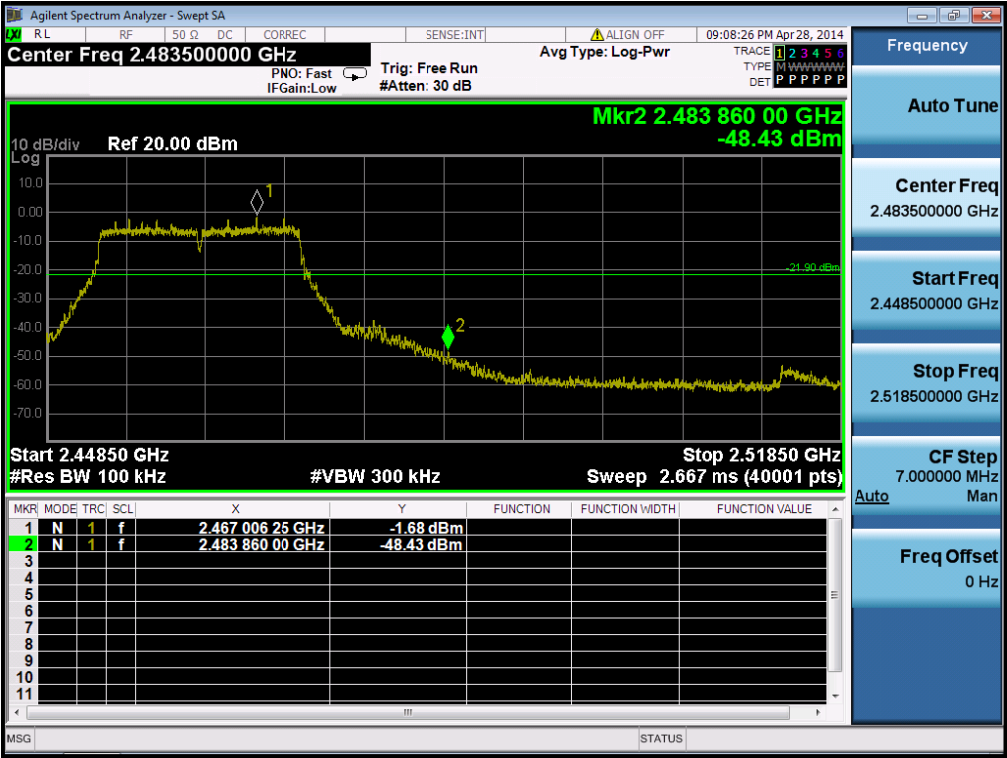


802.11n(HT20)&MCS 0&2462 MHz

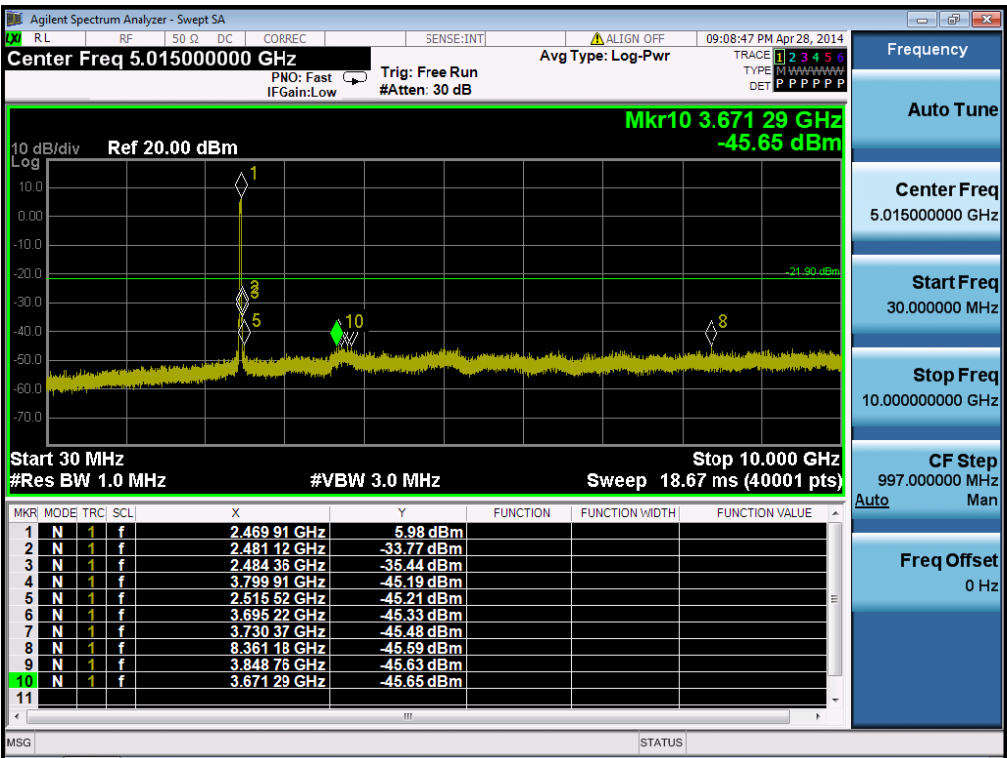
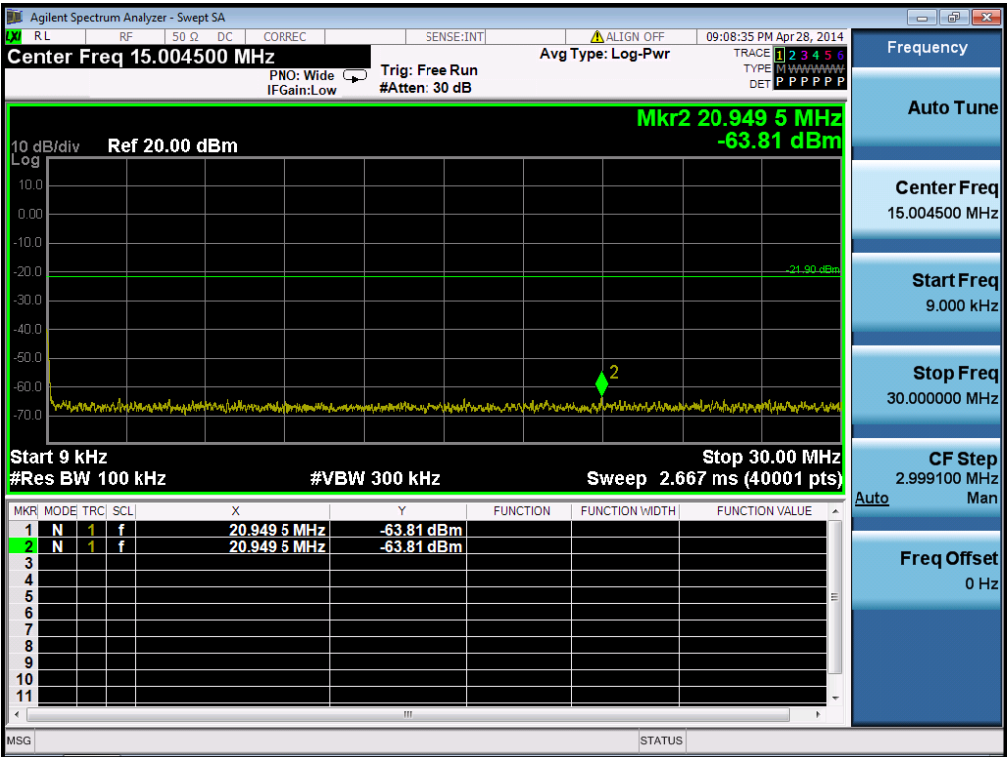
Reference



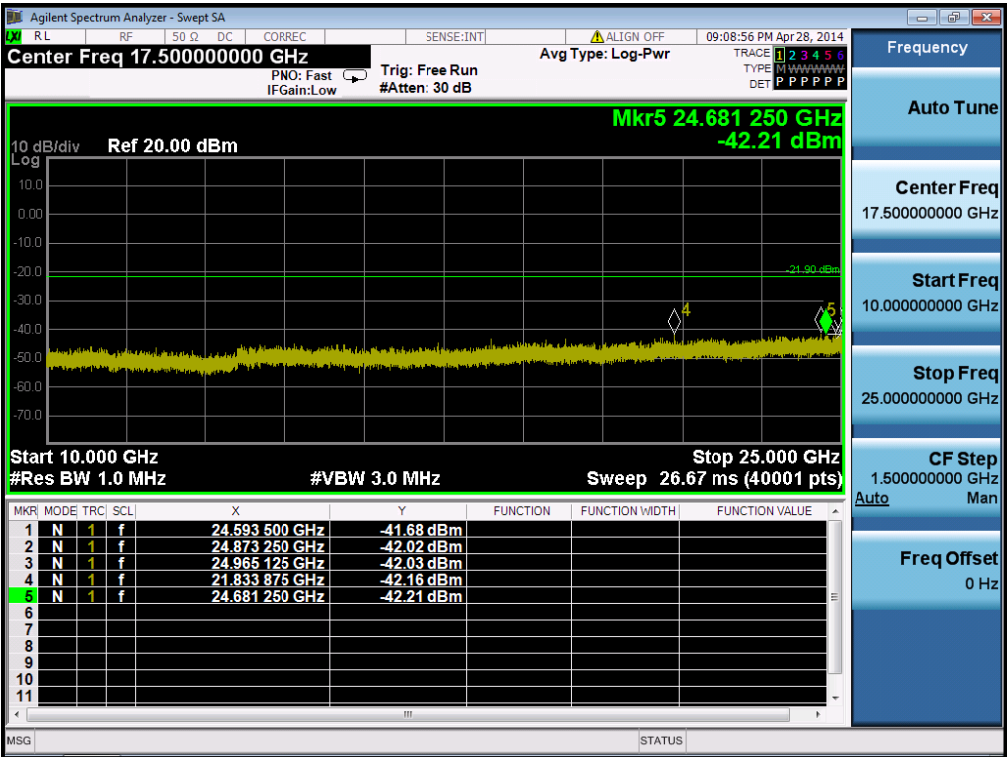
High Band-edge



Conducted Spurious Emissions



Conducted Spurious Emissions



## 8.5 Radiated Spurious Emissions

### Test Requirements and limit,

#### §15.247(d), §15.205, §15.209 & RSS-210 [A8.5], RSS-Gen [7.2.2], RSS-Gen [7.2.5]

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

#### ▪ FCC Part 15.209(a) and (b)

| Frequency (MHz) | Limit (uV/m) | Measurement Distance (meter) |
|-----------------|--------------|------------------------------|
| 0.009 – 0.490   | 2400/F(KHz)  | 300                          |
| 0.490 – 1.705   | 24000/F(KHz) | 30                           |
| 1.705 – 30.0    | 30           | 30                           |
| 30 ~ 88         | 100 **       | 3                            |
| 88 ~ 216        | 150 **       | 3                            |
| 216 ~ 960       | 200 **       | 3                            |
| Above 960       | 500          | 3                            |

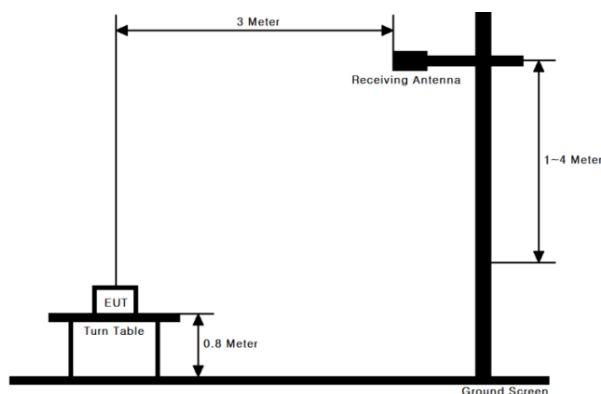
\*\* Except as provided in 15.209(g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88MHz, 174-216MHz or 470-806MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g. 15.231 and 15.241.

#### ▪ FCC Part 15.205 (a): Only spurious emissions are permitted in any of the frequency bands listed below:

| MHz               | MHz               | MHz               | MHz             | GHz          | GHz           |
|-------------------|-------------------|-------------------|-----------------|--------------|---------------|
| 0.009 ~ 0.110     | 8.41425 ~ 8.41475 | 108 ~ 121.94      | 1300 ~ 1427     | 4.5 ~ 5.15   | 14.47 ~ 14.5  |
| 0.495 ~ 0.505     | 12.29 ~ 12.293    | 123 ~ 138         | 1435 ~ 1626.5   | 5.35 ~ 5.46  | 15.35 ~ 16.2  |
| 2.1735 ~ 2.1905   | 12.51975 ~        | 149.9 ~ 150.05    | 1645.5 ~ 1646.5 | 7.25 ~ 7.75  | 17.7 ~ 21.4   |
| 4.125 ~ 4.128     | 12.52025          | 156.52475 ~       | 1660 ~ 1710     | 8.025 ~ 8.5  | 22.01 ~ 23.12 |
| 4.17725 ~ 4.17775 | 12.57675 ~        | 156.52525         | 1718.8 ~ 1722.2 | 9.0 ~ 9.2    | 23.6 ~ 24.0   |
| 4.20725 ~ 4.20775 | 12.57725          | 156.7 ~ 156.9     | 2200 ~ 2300     | 9.3 ~ 9.5    | 31.2 ~ 31.8   |
| 6.215 ~ 6.218     | 13.36 ~ 13.41     | 162.0125 ~ 167.17 | 2310 ~ 2390     | 10.6 ~ 12.7  | 36.43 ~ 36.5  |
| 6.26775 ~ 6.26825 | 16.42 ~ 16.423    | 167.72 ~ 173.2    | 2483.5 ~ 2500   | 13.25 ~ 13.4 | Above 38.6    |
| 6.31175 ~ 6.31225 | 16.69475 ~        | 240 ~ 285         | 2655 ~ 2900     |              |               |
| 8.291 ~ 8.294     | 16.69525          | 322 ~ 335.4       | 3260 ~ 3267     |              |               |
| 8.362 ~ 8.366     | 16.80425 ~        | 399.90 ~ 410      | 3332 ~ 3339     |              |               |
| 8.37625 ~ 8.38675 | 16.80475          | 608 ~ 614         | 3345.8 ~ 3358   |              |               |
|                   | 25.5 ~ 25.67      | 960 ~ 1240        | 3600 ~ 4400     |              |               |
|                   | 37.5 ~ 38.25      |                   |                 |              |               |
|                   | 73 ~ 74.6         |                   |                 |              |               |
|                   | 74.8 ~ 75.2       |                   |                 |              |               |

▪ **FCC Part 15.205(b):** The field strength of emissions appearing within these frequency bands shall not exceed the limits shown in §15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in §15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in §15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in §15.35 apply to these measurements.

## Test Configuration



### TEST PROCEDURE

1. The EUT is placed on a turntable, which is 0.8 m above ground plane.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3 m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Repeat above procedures until the measurements for all frequencies are complete.

### Measurement Instrument Setting for Radiated Emission Measurements.

The radiated emission was tested according to the section 6.3 6.4, 6.5 and 6.6 of the ANSI C63.10-2009 with following settings.

#### Peak Measurement:

RBW = As specified in below table , VBW  $\geq 3 \times$  RBW, Sweep = Auto, Detector = Peak, Trace mode = Max Hold until the trace stabilizes.

| Frequency   | RBW         |
|-------------|-------------|
| 9-150 kHz   | 200-300 Hz  |
| 0.15-30 MHz | 9-10 kHz    |
| 30-1000 MHz | 100-120 kHz |
| > 1000 MHz  | 1 MHz       |

#### Average Measurement :

1. RBW = 1 MHz (unless otherwise specified).
2. VBW  $\geq 3 \times$  RBW.
3. Detector = RMS (Number of points  $\geq 2 \times$  Span / RBW)
4. Averaging type = power (i.e., RMS).
5. Sweep time = auto.
6. Perform a trace average of at least 100 traces.
7. A correction factor shall be added to the measurement results prior to comparing to the emission limit in order to compute the emission level that would have been measured had the test been performed at 100 percent duty cycle. The correction factor is computed as follows:
  - 1) If power averaging (RMS) mode was used in step 4, then the applicable correction factor is  $10 \log(1/x)$ , where x is the duty cycle.
  - 2) If linear voltage averaging mode was used in step 4, then the applicable correction factor is  $20 \log(1/x)$ , where x is the duty cycle.
  - 3) If a specific emission is demonstrated to be continuous ( $\geq 98$  percent duty cycle) rather than turning on and off with the transmit cycle, then no duty cycle correction is required for that emission.

#### Duty Cycle Corrections (Refer to appendix II for duty cycle measurement procedure and plots)

| Band          | Duty Cycle(%) | T <sub>on</sub> (ms) | T <sub>on</sub> + T <sub>off</sub> (ms) | DCF = $10\log(1/\text{Duty})$ (dB) |
|---------------|---------------|----------------------|-----------------------------------------|------------------------------------|
| 802.11b       | 99.27         | 12.240               | 12.330                                  | 0.03                               |
| 802.11g       | 95.21         | 2.028                | 2.130                                   | 0.21                               |
| 802.11n(HT20) | 94.35         | 1.704                | 1.806                                   | 0.25                               |
| -             | -             | -                    | -                                       | -                                  |
| -             | -             | -                    | -                                       | -                                  |
| -             | -             | -                    | -                                       | -                                  |

**9KHz ~ 25GHz Data(802.11b & 1 Mbps)****▪ Lowest Channel**

| Frequency (MHz) | ANT Pol | EUT Position (Axis) | Detector Mode | Reading (dBuV) | T.F (dB/m) | DCF (dB) | Distance Factor(dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) |
|-----------------|---------|---------------------|---------------|----------------|------------|----------|---------------------|-----------------|----------------|-------------|
| 2387.66         | H       | Y                   | PK            | 53.44          | -4.32      | -        | -                   | 49.12           | 74.00          | 24.88       |
| 2387.54         | H       | Y                   | AV            | 43.67          | -4.32      | -        | -                   | 39.35           | 54.00          | 14.65       |
| 4823.97         | H       | Z                   | PK            | 45.73          | 5.20       | -        | -                   | 50.93           | 74.00          | 23.07       |
| 4824.00         | H       | Z                   | AV            | 36.02          | 5.20       | -        | -                   | 41.22           | 54.00          | 12.78       |
| 7235.99         | H       | Z                   | PK            | 43.05          | 11.46      | -        | -                   | 54.51           | 74.00          | 19.49       |
| 7236.02         | H       | Z                   | AV            | 32.61          | 11.46      | -        | -                   | 44.07           | 54.00          | 9.93        |

**▪ Middle Channel**

| Frequency (MHz) | ANT Pol | EUT Position (Axis) | Detector Mode | Reading (dBuV) | T.F (dB/m) | DCF (dB) | Distance Factor(dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) |
|-----------------|---------|---------------------|---------------|----------------|------------|----------|---------------------|-----------------|----------------|-------------|
| 4873.97         | H       | Z                   | PK            | 45.32          | 5.38       | -        | -                   | 50.70           | 74.00          | 23.30       |
| 4874.05         | H       | Z                   | AV            | 36.54          | 5.38       | -        | -                   | 41.92           | 54.00          | 12.08       |
| 7311.60         | H       | Z                   | PK            | 44.21          | 11.47      | -        | -                   | 55.68           | 74.00          | 18.32       |
| 7311.54         | H       | Z                   | AV            | 33.05          | 11.47      | -        | -                   | 44.52           | 54.00          | 9.48        |

**▪ Highest Channel**

| Frequency (MHz) | ANT Pol | EUT Position (Axis) | Detector Mode | Reading (dBuV) | T.F (dB/m) | DCF (dB) | Distance Factor(dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) |
|-----------------|---------|---------------------|---------------|----------------|------------|----------|---------------------|-----------------|----------------|-------------|
| 2484.15         | H       | Y                   | PK            | 55.44          | -3.99      | -        | -                   | 51.45           | 74.00          | 22.55       |
| 2483.72         | H       | Y                   | AV            | 45.69          | -3.99      | -        | -                   | 41.70           | 54.00          | 12.30       |
| 4923.65         | H       | Z                   | PK            | 45.72          | 5.56       | -        | -                   | 51.28           | 74.00          | 22.72       |
| 4923.82         | H       | Z                   | AV            | 35.94          | 5.56       | -        | -                   | 41.50           | 54.00          | 12.50       |
| 7386.05         | H       | Z                   | PK            | 44.66          | 11.33      | -        | -                   | 55.99           | 74.00          | 18.01       |
| 7386.33         | H       | Z                   | AV            | 33.42          | 11.33      | -        | -                   | 44.75           | 54.00          | 9.25        |

**Note.**

1. Measurement Distance = 3 m for below 10 GHz, Measurement Distance = 1 m for above 10 GHz.  
So Distance Correction Factor :-  $9.54\text{dB} = 20 \cdot \log(1\text{m}/3\text{m})$
- 2.No other spurious and harmonic emissions were found greater than listed emissions on above table.
- 3.Above listed point data is the worst case data.
- 4.Sample Calculation.

Margin = Limit – Result / Result = Reading + T.F+ DCF + Distance Factor/ T.F = AF + CL – AG  
Where, T.F = Total Factor, AF = Antenna Factor, CL = Cable Loss, AG = Amplifier Gain,  
DCF = Duty Cycle Correction Factor.

**9KHz ~ 25GHz Data(802.11g & 6 Mbps)****▪ Lowest Channel**

| Frequency (MHz) | ANT Pol | EUT Position (Axis) | Detector Mode | Reading (dBuV) | T.F (dB/m) | DCF (dB) | Distance Factor(dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) |
|-----------------|---------|---------------------|---------------|----------------|------------|----------|---------------------|-----------------|----------------|-------------|
| 2389.95         | H       | Y                   | PK            | 68.54          | -4.32      | -        | -                   | 64.22           | 74.00          | 9.78        |
| 2389.98         | H       | Y                   | AV            | 53.95          | -4.32      | 0.21     | -                   | 49.84           | 54.00          | 4.16        |
| 4823.96         | H       | Z                   | PK            | 44.09          | 5.20       | -        | -                   | 49.29           | 74.00          | 24.71       |
| 4823.97         | H       | Z                   | AV            | 32.97          | 5.20       | 0.21     | -                   | 38.38           | 54.00          | 15.62       |
| 7236.01         | H       | Z                   | PK            | 44.24          | 11.46      | -        | -                   | 55.70           | 74.00          | 18.30       |
| 7235.89         | H       | Z                   | AV            | 33.31          | 11.46      | 0.21     | -                   | 44.98           | 54.00          | 9.02        |

**▪ Middle Channel**

| Frequency (MHz) | ANT Pol | EUT Position (Axis) | Detector Mode | Reading (dBuV) | T.F (dB/m) | DCF (dB) | Distance Factor(dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) |
|-----------------|---------|---------------------|---------------|----------------|------------|----------|---------------------|-----------------|----------------|-------------|
| 4874.05         | H       | Z                   | PK            | 44.21          | 5.38       | -        | -                   | 49.59           | 74.00          | 24.41       |
| 4873.67         | H       | Z                   | AV            | 33.05          | 5.38       | 0.21     | -                   | 38.64           | 54.00          | 15.36       |
| 7311.24         | H       | Z                   | PK            | 44.33          | 11.47      | -        | -                   | 55.80           | 74.00          | 18.20       |
| 7311.30         | H       | Z                   | AV            | 33.61          | 11.47      | 0.21     | -                   | 45.29           | 54.00          | 8.71        |

**▪ Highest Channel**

| Frequency (MHz) | ANT Pol | EUT Position (Axis) | Detector Mode | Reading (dBuV) | T.F (dB/m) | DCF (dB) | Distance Factor(dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) |
|-----------------|---------|---------------------|---------------|----------------|------------|----------|---------------------|-----------------|----------------|-------------|
| 2483.63         | H       | Y                   | PK            | 67.12          | -3.99      | -        | -                   | 63.13           | 74.00          | 10.87       |
| 2483.76         | H       | Y                   | AV            | 50.40          | -3.99      | 0.21     | -                   | 46.62           | 54.00          | 7.38        |
| 4924.03         | H       | Z                   | PK            | 44.62          | 5.56       | -        | -                   | 50.18           | 74.00          | 23.82       |
| 4924.12         | H       | Z                   | AV            | 32.14          | 5.56       | 0.21     | -                   | 37.91           | 54.00          | 16.09       |
| 7386.32         | H       | Z                   | PK            | 45.10          | 11.33      | -        | -                   | 56.43           | 74.00          | 17.57       |
| 7386.27         | H       | Z                   | AV            | 33.27          | 11.33      | 0.21     | -                   | 44.81           | 54.00          | 9.19        |

**Note.**

1. Measurement Distance = 3 m for below 10 GHz, Measurement Distance = 1 m for above 10 GHz.  
So Distance Correction Factor :-  $9.54\text{dB} = 20 \cdot \log(1\text{m}/3\text{m})$
2. No other spurious and harmonic emissions were found greater than listed emissions on above table.
3. Above listed point data is the worst case data.
4. Sample Calculation.

Margin = Limit – Result / Result = Reading + T.F + DCF + Distance Factor / T.F = AF + CL – AG  
Where, T.F = Total Factor, AF = Antenna Factor, CL = Cable Loss, AG = Amplifier Gain,  
DCF = Duty Cycle Correction Factor.

**9KHz ~ 25GHz Data(802.11n HT20 & MCS 0)****▪ Lowest Channel**

| Frequency (MHz) | ANT Pol | EUT Position (Axis) | Detector Mode | Reading (dBuV) | T.F (dB/m) | DCF (dB) | Distance Factor(dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) |
|-----------------|---------|---------------------|---------------|----------------|------------|----------|---------------------|-----------------|----------------|-------------|
| 2389.98         | H       | Y                   | PK            | 69.60          | -4.32      | -        | -                   | 65.28           | 74.00          | 8.72        |
| 2389.80         | H       | Y                   | AV            | 52.31          | -4.32      | 0.25     | -                   | 48.24           | 54.00          | 5.76        |
| 4823.92         | H       | Z                   | PK            | 44.37          | 5.20       | -        | -                   | 49.57           | 74.00          | 24.43       |
| 4823.89         | H       | Z                   | AV            | 32.65          | 5.20       | 0.25     | -                   | 38.10           | 54.00          | 15.90       |
| 7236.20         | H       | Z                   | PK            | 44.20          | 11.46      | -        | -                   | 55.66           | 74.00          | 18.34       |
| 7236.09         | H       | Z                   | AV            | 32.97          | 11.46      | 0.25     | -                   | 44.68           | 54.00          | 9.32        |

**▪ Middle Channel**

| Frequency (MHz) | ANT Pol | EUT Position (Axis) | Detector Mode | Reading (dBuV) | T.F (dB/m) | DCF (dB) | Distance Factor(dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) |
|-----------------|---------|---------------------|---------------|----------------|------------|----------|---------------------|-----------------|----------------|-------------|
| 4874.02         | H       | Z                   | PK            | 44.75          | 5.38       | -        | -                   | 50.13           | 74.00          | 23.87       |
| 4874.11         | H       | Z                   | AV            | 33.36          | 5.38       | 0.25     | -                   | 38.99           | 54.00          | 15.01       |
| 7310.79         | H       | Z                   | PK            | 45.14          | 11.47      | -        | -                   | 56.61           | 74.00          | 17.39       |
| 7311.07         | H       | Z                   | AV            | 33.22          | 11.47      | 0.25     | -                   | 44.94           | 54.00          | 9.06        |

**▪ Highest Channel**

| Frequency (MHz) | ANT Pol | EUT Position (Axis) | Detector Mode | Reading (dBuV) | T.F (dB/m) | DCF (dB) | Distance Factor(dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) |
|-----------------|---------|---------------------|---------------|----------------|------------|----------|---------------------|-----------------|----------------|-------------|
| 2483.80         | H       | Y                   | PK            | 65.82          | -3.99      | -        | -                   | 61.83           | 74.00          | 12.17       |
| 2483.88         | H       | Y                   | AV            | 49.32          | -3.99      | 0.25     | -                   | 45.58           | 54.00          | 8.42        |
| 4924.03         | H       | Z                   | PK            | 44.40          | 5.56       | -        | -                   | 49.96           | 74.00          | 24.04       |
| 4924.17         | H       | Z                   | AV            | 33.36          | 5.56       | 0.25     | -                   | 39.17           | 54.00          | 14.83       |
| 7386.52         | H       | Z                   | PK            | 44.55          | 11.33      | -        | -                   | 55.88           | 74.00          | 18.12       |
| 7386.34         | H       | Z                   | AV            | 33.42          | 11.33      | 0.25     | -                   | 45.00           | 54.00          | 9.00        |

**Note.**

1. Measurement Distance = 3 m for below 10 GHz, Measurement Distance = 1 m for above 10 GHz.  
So Distance Correction Factor :-  $9.54\text{dB} = 20 \times \log(1\text{m}/3\text{m})$
2. No other spurious and harmonic emissions were found greater than listed emissions on above table.
3. Above listed point data is the worst case data.
4. Sample Calculation.

Margin = Limit – Result / Result = Reading + T.F + DCF + Distance Factor/ T.F = AF + CL – AG  
Where, T.F = Total Factor, AF = Antenna Factor, CL = Cable Loss, AG = Amplifier Gain,  
DCF = Duty Cycle Correction Factor.

## 8.6 Power-line Conducted Emissions

### Test Requirements and limit, §15.207& RSS-Gen [7.2.4]

For an intentional radiator which is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed 250 microvolts (The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz). The limits at specific frequency range is listed as follows:

| Frequency Range (MHz) | Conducted Limit (dBuV) |            |
|-----------------------|------------------------|------------|
|                       | Quasi-Peak             | Average    |
| 0.15 ~ 0.5            | 66 to 56 *             | 56 to 46 * |
| 0.5 ~ 5               | 56                     | 46         |
| 5 ~ 30                | 60                     | 50         |

\* Decreases with the logarithm of the frequency

Compliance with this provision shall be based on the measurement of the radio frequency voltage between each power line (LINE and NEUTRAL) and ground at the power terminals.

### Test Configuration

See test photographs for the actual connections between EUT and support equipment.

### Test Mode

The all modes of EUT operation were investigated and the worst case mode was reported.

### TEST PROCEDURE

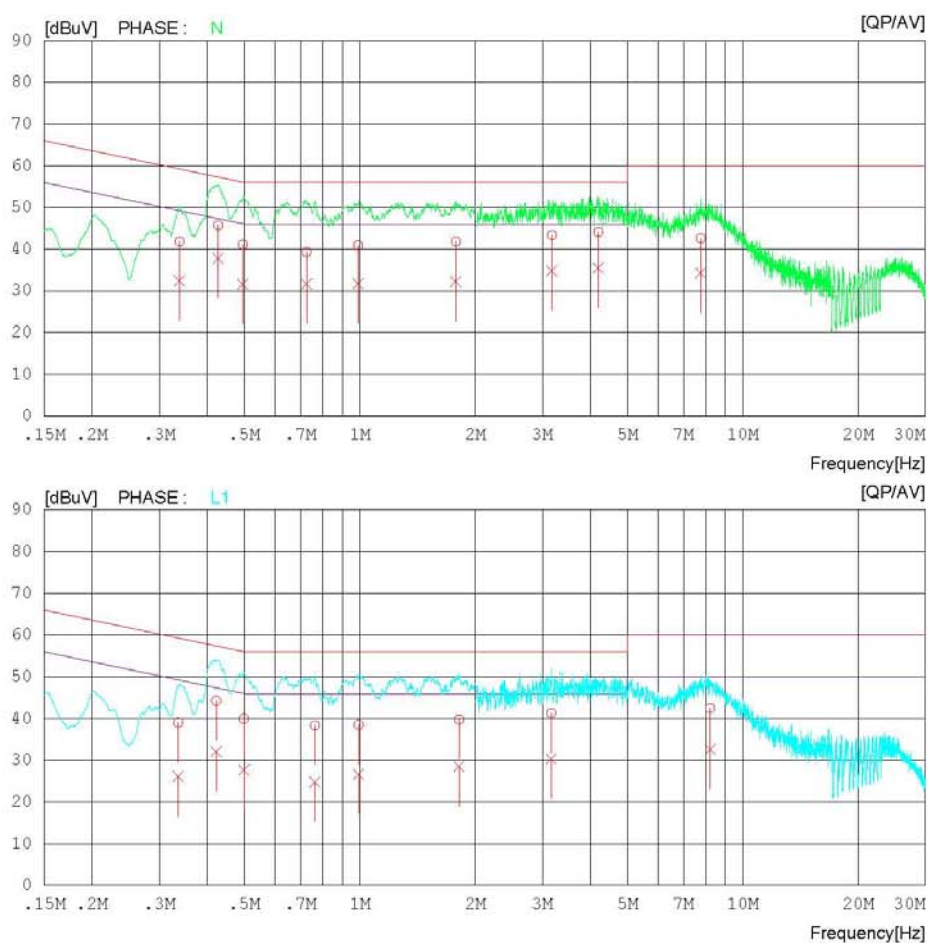
1. The EUT is placed on a wooden table 80 cm above the reference groundplane.
2. The EUT is connected via LISN to the test power supply.
3. The measurement results are obtained as described below:
4. Detectors – Quasi Peak and Average Detector.

■ **RESULT PLOTS****AC Line Conducted Emissions (Graph)**

Test Mode: 802.11n &amp; 1Mbps &amp; 2437MHz

**Results of Conducted Emission**Digital EMC  
Date : 2014-04-22Model No. : LG-D150g  
Type :  
Serial No. : Identical prototype  
Test Condition : WLANReference No. :  
Power Supply : 120 V 60 Hz  
Temp/Humi. : 21 'C 40 % R.H.  
Operator : C.M.KIM

Memo : 802.11n / 2437MHz

LIMIT : FCC P15.207 QP  
FCC P15.207 AV

**AC Line Conducted Emissions (List)**

Test Mode: 802.11n &amp; 1Mbps &amp; 2437MHz

**Results of Conducted Emission**Digital EMC  
Date : 2014-04-22

|                |                       |               |                   |
|----------------|-----------------------|---------------|-------------------|
| Model No.      | : LG-D150g            | Reference No. | :                 |
| Type           | :                     | Power Supply  | : 120 V 60 Hz     |
| Serial No.     | : Identical prototype | Temp/Humi.    | : 21 'C 40 % R.H. |
| Test Condition | : WLAN                | Operator      | : C.M.KIM         |

Memo : 802.11n / 2437MHz

LIMIT : FCC P15.207 QP  
FCC P15.207 AV

| NO | FREQ<br>[MHz] | READING      |              | C.FACTOR<br>[dB] | RESULT       |              | LIMIT        |              | MARGIN       |              | PHASE |
|----|---------------|--------------|--------------|------------------|--------------|--------------|--------------|--------------|--------------|--------------|-------|
|    |               | QP<br>[dBuV] | AV<br>[dBuV] |                  | QP<br>[dBuV] | AV<br>[dBuV] | QP<br>[dBuV] | AV<br>[dBuV] | QP<br>[dBuV] | AV<br>[dBuV] |       |
| 1  | 0.33827       | 31.7         | 22.2         | 10.2             | 41.9         | 32.4         | 59.2         | 49.2         | 17.3         | 16.8         | N     |
| 2  | 0.42670       | 35.5         | 27.6         | 10.2             | 45.7         | 37.8         | 57.3         | 47.3         | 11.6         | 9.5          | N     |
| 3  | 0.49491       | 30.9         | 21.4         | 10.2             | 41.1         | 31.6         | 56.1         | 46.1         | 15.0         | 14.5         | N     |
| 4  | 0.72636       | 29.1         | 21.5         | 10.2             | 39.3         | 31.7         | 56.0         | 46.0         | 16.7         | 14.3         | N     |
| 5  | 0.99035       | 30.7         | 21.5         | 10.2             | 40.9         | 31.7         | 56.0         | 46.0         | 15.1         | 14.3         | N     |
| 6  | 1.78259       | 31.5         | 21.9         | 10.3             | 41.8         | 32.2         | 56.0         | 46.0         | 14.2         | 13.8         | N     |
| 7  | 3.17783       | 33.1         | 24.5         | 10.3             | 43.4         | 34.8         | 56.0         | 46.0         | 12.6         | 11.2         | N     |
| 8  | 4.19779       | 33.8         | 25.2         | 10.3             | 44.1         | 35.5         | 56.0         | 46.0         | 11.9         | 10.5         | N     |
| 9  | 7.76694       | 32.2         | 23.9         | 10.4             | 42.6         | 34.3         | 60.0         | 50.0         | 17.4         | 15.7         | N     |
| 10 | 0.33564       | 28.7         | 15.8         | 10.3             | 39.0         | 26.1         | 59.3         | 49.3         | 20.3         | 23.2         | L1    |
| 11 | 0.42165       | 33.9         | 21.9         | 10.3             | 44.2         | 32.2         | 57.4         | 47.4         | 13.2         | 15.2         | L1    |
| 12 | 0.49821       | 29.7         | 17.4         | 10.3             | 40.0         | 27.7         | 56.0         | 46.0         | 16.0         | 18.3         | L1    |
| 13 | 0.76374       | 28.1         | 14.5         | 10.3             | 38.4         | 24.8         | 56.0         | 46.0         | 17.6         | 21.2         | L1    |
| 14 | 0.99269       | 28.2         | 16.4         | 10.3             | 38.5         | 26.7         | 56.0         | 46.0         | 17.5         | 19.3         | L1    |
| 15 | 1.81650       | 29.5         | 18.2         | 10.3             | 39.8         | 28.5         | 56.0         | 46.0         | 16.2         | 17.5         | L1    |
| 16 | 3.15900       | 30.9         | 19.9         | 10.4             | 41.3         | 30.3         | 56.0         | 46.0         | 14.7         | 15.7         | L1    |
| 17 | 8.22776       | 32.0         | 22.1         | 10.5             | 42.5         | 32.6         | 60.0         | 50.0         | 17.5         | 17.4         | L1    |

## 8.7 Occupied Bandwidth

### Test Requirements, RSS-Gen [4.6.1]

When an occupied bandwidth value is not specified in the applicable RSS, the transmitted signal bandwidth to be reported is to be its 99% emission bandwidth, as calculated or measured.

#### ■ TEST CONFIGURATION

Refer to the APPENDIX I.

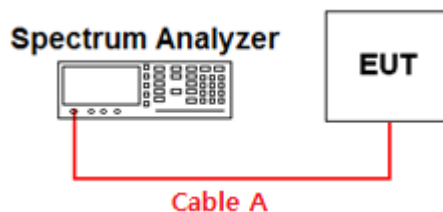
#### ■ TEST PROCEDURE

The resolution bandwidth shall be set to as close to 1% of the selected span as is possible without being below 1%. The video bandwidth shall be set to 3 times the resolution bandwidth. Video averaging is not permitted. Where practical a sampling detector shall be used given that a peak or peak hold may produce a wider bandwidth than actual.

#### ■ TEST RESULTS: **N/A**

**9. LIST OF TEST EQUIPMENT**

| Type                                | Manufacturer         | Model               | Cal.Date<br>(yy/mm/dd) | Next.Cal.Date<br>(yy/mm/dd) | S/N               |
|-------------------------------------|----------------------|---------------------|------------------------|-----------------------------|-------------------|
| PXA Signal Analyzer                 | Agilent Technologies | N9030A              | 13/10/29               | 14/10/29                    | MY53310140        |
| Digital Multimeter                  | H.P                  | 34401A              | 14/02/27               | 15/02/27                    | 3146A13475        |
| Dynamic Measurement DC Source       | Agilent Technologies | 66332A              | 13/09/24               | 14/09/24                    | MY43000211        |
| Thermohygrometer                    | BODYCOM              | BJ5478              | 14/03/03               | 15/03/03                    | 1209              |
| Vector Signal Generator             | Rohde Schwarz        | SMJ100A             | 14/01/07               | 15/01/07                    | 100148            |
| Signal Generator                    | Rohde Schwarz        | SMF100A             | 13/07/22               | 14/07/22                    | 102341            |
| Attenuator(3dB)                     | SMAJK                | SMAJK-2-3           | 13/10/22               | 14/10/22                    | 3                 |
| High-pass filter                    | Wainwright           | WHKX3.0             | 13/09/12               | 14/09/12                    | 9                 |
| LOOP Antenna                        | Schwarzbeck          | FMZB1513            | 12/09/24               | 14/09/24                    | 1513-128          |
| BILOG ANTENNA                       | SCHAFFNER            | CBL6112B            | 12/11/06               | 14/11/06                    | 2737              |
| Horn Antenna                        | ETS                  | 3115                | 13/02/28               | 15/02/28                    | 00021097          |
| HORN ANT                            | A.H.Systems          | SAS-574             | 13/03/20               | 15/03/20                    | 154               |
| Amplifier (22dB)                    | H.P                  | 8447E               | 14/01/07               | 15/01/07                    | 2945A02865        |
| Amplifier (30dB)                    | Agilent              | 8449B               | 14/02/27               | 15/02/27                    | 3008A00370        |
| EMI TEST RECEIVER                   | R&S                  | ESU                 | 14/01/07               | 15/01/07                    | 100014            |
| EMI TEST RECEIVER                   | ROHDE&SCHWARZ        | ESR                 | 14/02/07               | 15/02/07                    | 101767            |
| CVCF                                | NF                   | 4420                | 13/09/12               | 14/09/12                    | 3049354420023     |
| LISN                                | Narda S.T.S. / PMM   | PMM L2-16B          | 13/06/27               | 14/06/27                    | 000WX20305        |
| Power Meter & Wide Bandwidth Sensor | Anritsu              | ML2496A/<br>MA2411B | 13/10/29               | 14/10/29                    | 1338004 / 1306053 |

**APPENDIX I****Conducted Test set up Diagram & Path loss Information****▪Conducted Measurement****Path loss information**

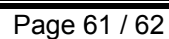
| Frequency (GHz)    | Path Loss (dB) | Frequency (GHz) | Path Loss (dB) |
|--------------------|----------------|-----------------|----------------|
| 0.03               | 0.10           | 15              | 1.18           |
| 1                  | 0.21           | 20              | 1.30           |
| 2402 & 2440 & 2480 | 0.31           | 25              | 2.75           |
| 5                  | 0.50           | -               | -              |
| 10                 | 1.05           | -               | -              |

Note. 1: The path loss from EUT to Spectrum analyzer was measured and used for test.

Path loss (=S/A's Correction factor) = Cable A (Attenuator, Applied only when it was used externally)



Test Mode: 802.11g & 6 Mbps & 2437 MHz



## Test Mode: 802.11n &amp; MCS 0&amp;2437 MHz

