



**FCC 47 CFR PART 15 SUBPART E**

**CERTIFICATION TEST REPORT**

**FOR**

**GSM/WCDMA/LTE Phone + Bluetooth, DTS/UNII a/b/g/n and NFC**

**MODEL NUMBER: LG-D725, D725, LGD725**

**FCC ID: ZNFD725**

**REPORT NUMBER: 14U17493-5 REVISION A**

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**NVLAP LAB CODE 200065-0**

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Revision History

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## 1. ATTESTATION OF TEST RESULTS

**COMPANY NAME:** LG ELECTRONICS MOBILECOMM U.S.A., INC.

**EUT DESCRIPTION:** GSM/WCDMA/LTE Phone + Bluetooth, DTS/UNII a/b/g/n and NFC

**MODEL:** LG-D725, D725, LGD725

**SERIAL NUMBER:** 403KPVH000431 (Conducted); 403KPXV000426 (Radiated)

**DATE TESTED:** APRIL 17 – 24, 2014

| APPLICABLE STANDARDS     |              |
|--------------------------|--------------|
| STANDARD                 | TEST RESULTS |
| CFR 47 Part 15 Subpart E | Pass         |

UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL Verification Services Inc. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

**Note:** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

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## 2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, ANSI C63.4-2009

## 3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 Benicia Street, Fremont, California, USA.

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at <http://www.ccsemc.com>.

## 4. CALIBRATION AND UNCERTAINTY

### 4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

### 4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

$$\begin{aligned} \text{Field Strength (dBuV/m)} &= \text{Measured Voltage (dBuV)} + \text{Antenna Factor (dB/m)} + \\ &\text{Cable Loss (dB)} - \text{Preamplifier Gain (dB)} \\ 36.5 \text{ dBuV} + 18.7 \text{ dB/m} + 0.6 \text{ dB} - 26.9 \text{ dB} &= 28.9 \text{ dBuV/m} \end{aligned}$$

### 4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

| PARAMETER                             | UNCERTAINTY |
|---------------------------------------|-------------|
| Conducted Disturbance, 0.15 to 30 MHz | 3.52 dB     |
| Radiated Disturbance, 30 to 18000 MHz | 4.94 dB     |

Uncertainty figures are valid to a confidence level of 95%.

## 5. EQUIPMENT UNDER TEST

### 5.1. DESCRIPTION OF EUT

The EUT is a GSM/WCDMA/LTE Phone + Bluetooth, DTS/UNII a/b/g/n and NFC.

### 5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum conducted output power as follows:

| Frequency Range (MHz) | Mode         | Output Power (dBm) | Output Power (mW) |
|-----------------------|--------------|--------------------|-------------------|
| 5180-5240             | 802.11a      | 9.79               | 9.53              |
| 5180-5240             | 802.11n HT20 | 9.4                | 8.71              |
| 5190-5230             | 802.11n HT40 | 10.66              | 11.64             |
| 5260-5320             | 802.11a      | 9.42               | 8.75              |
| 5260-5320             | 802.11n HT20 | 9.32               | 8.55              |
| 5270-5310             | 802.11n HT40 | 10.2               | 10.47             |
| 5500-5700             | 802.11a      | 9.87               | 9.71              |
| 5500-5700             | 802.11n HT20 | 9.87               | 9.71              |
| 5510-5670             | 802.11n HT40 | 10.49              | 11.19             |

### 5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes a PIF antenna, with a maximum gain of 0.3 dBi.

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#### **5.4. WORST-CASE CONFIGURATION AND MODE**

Radiated emission and power line conducted emission were performed with the EUT set to transmit at the channel with highest output power as worst-case scenario.

The fundamental of the EUT was investigated in three orthogonal orientations X,Y,Z, it was determined that the X orientation was worst-case orientation; therefore, all final radiated testing was performed with the EUT in the X orientation.

Based on the baseline scan, the worst-case data rates were:

802.11a mode: 6 Mbps  
802.11n HT20mode: MCS0  
802.11n HT40mode: MCS0

## 5.5. DESCRIPTION OF TEST SETUP

### SUPPORT EQUIPMENT

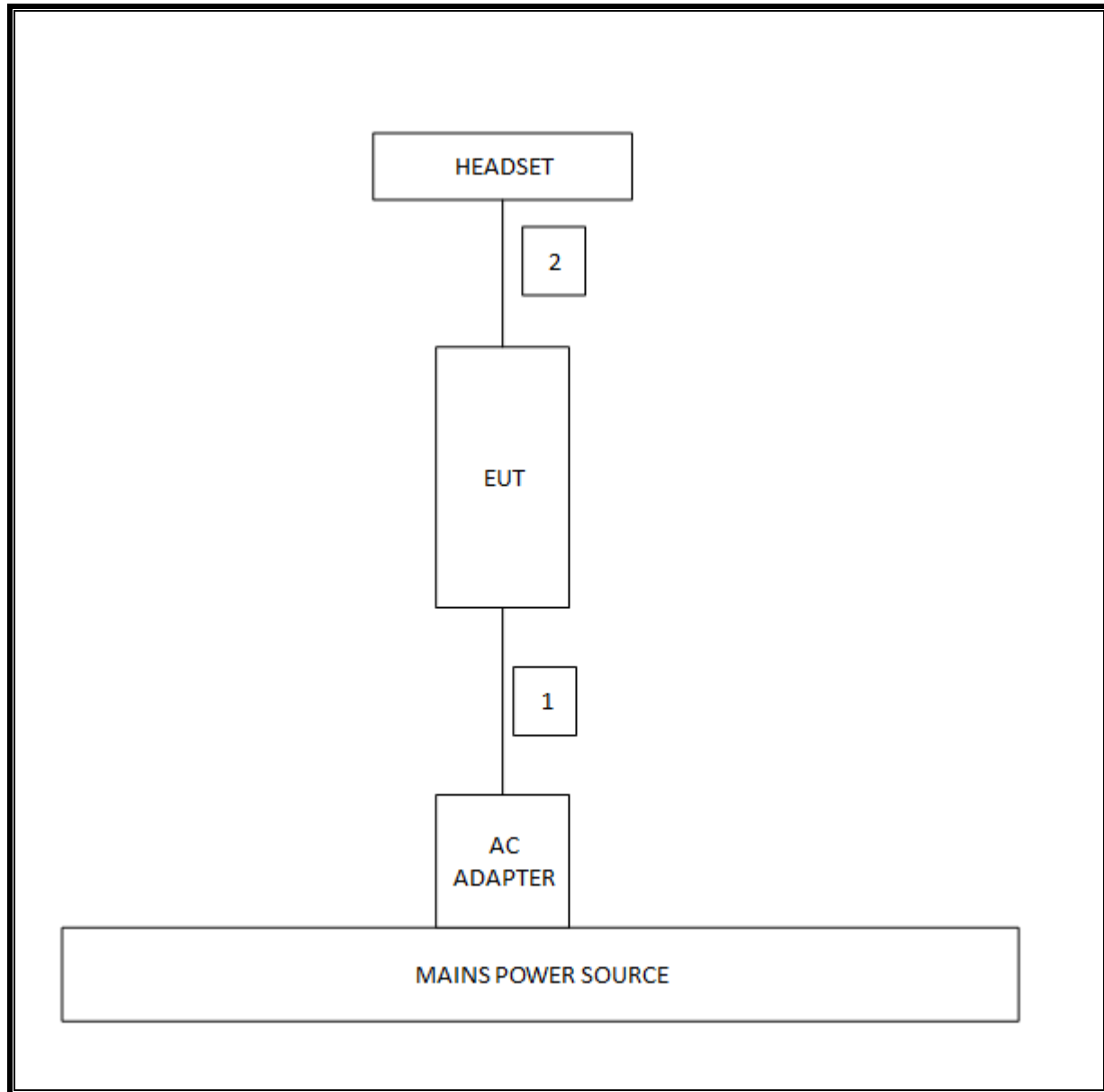
| Support Equipment List |                |          |               |        |
|------------------------|----------------|----------|---------------|--------|
| Description            | Manufacturer   | Model    | Serial Number | FCC ID |
| AC Adapter             | LG Electronics | MCS-01WD | DB3Y0094683   | N/A    |
| Earphone               | LG Electronics | N/A      | N/A           | N/A    |

### I/O CABLES

| I/O Cable List |          |                      |                |            |                  |         |
|----------------|----------|----------------------|----------------|------------|------------------|---------|
| Cable No       | Port     | # of identical ports | Connector Type | Cable Type | Cable Length (m) | Remarks |
| 1              | DC Power | 1                    | Mini-USB       | Shielded   | 1.2m             | N/A     |
| 2              | Audio    | 1                    | Mini-Jack      | Unshielded | 1.0m             | N/A     |

### TEST SETUP

The EUT is setup as a stand-alone device.

**SETUP DIAGRAM FOR TESTS**

## 6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

| Test Equipment List                |                |             |         |          |
|------------------------------------|----------------|-------------|---------|----------|
| Description                        | Manufacturer   | Model       | Asset   | Cal Due  |
| Spectrum Analyzer, 44 GHz          | Agilent / HP   | E4446A      | C01069  | 12/20/14 |
| Spectrum Analyzer, 9KHz-40GHz      | HP             | 8564E       | C00986  | 04/01/15 |
| EMI Test Receiver, 9 kHz-7 GHz     | R & S          | ESCI 7      | 1000741 | 08/13/14 |
| EMI Test Receiver, 30 MHz          | R & S          | ESHS 20     | N02396  | 08/18/14 |
| Peak Power Meter                   | Agilent / HP   | E4416A      | C00963  | 12/13/14 |
| Peak / Average Power Sensor        | Agilent / HP   | E9327A      | C00964  | 12/13/14 |
| Antenna, Horn, 1-18 GHz            | ETS            | 3117        | C01022  | 02/21/15 |
| Antenna, Horn, 18- 26 GHz          | ARA            | MWH-1826/B  | C00946  | 11/12/14 |
| Antenna, Horn, 26-40 GHz           | ARA            | MWH-2640    | C00891  | 06/28/14 |
| Antenna, Bilog, 30MHz-1 GHz        | Sunol Sciences | JB1         | T243    | 03/06/15 |
| RF Preamplifier, 100KHz -> 1300MHz | HP             | TBD         | C00825  | 06/01/14 |
| RF Preamplifier, 1GHz - 18GHz      | Miteq          | NSP4000-SP2 | 924343  | 03/23/15 |
| RF Preamplifier, 1GHz - 26.5GHz    | HP             | 8449B       | F00351  | 06/27/14 |
| AC Power Supply, 2,500VA 45-500Hz  | Elgar-Ametek   | CW2501M     | F00013  | CNR      |
| RF Preamplifier, 1GHz - 40GHz      | Miteq          | NSP4000-SP2 | C00990  | 08/20/14 |
| Attenuator / Switch driver         | HP             | 11713A      | F00204  | CNR      |
| Low Pass Filter 3GHz               | Micro-Tronics  | LPS17541    | F00219  | 05/23/14 |
| High Pass Filter 5GHz              | Micro-Tronics  | HPS17542    | F00222  | 05/22/14 |
| High Pass Filter 6GHz              | Micro-Tronics  | HPM17543    | F00224  | 05/22/14 |

## 7. SUMMARY TABLE

| FCC Part Section    | Test Description                      | Test Limit                          | Test Condition       | Test Result | Worst Case |
|---------------------|---------------------------------------|-------------------------------------|----------------------|-------------|------------|
| 15.247 (a)          | Occupied Band width (26dB)            | N/A                                 | Conducted            | Pass        | 45.7 dBm   |
| 15.407 (a)(1)       | TX Cond. Power 5.15-2.25              | <17dBm or 4+10Log(OBW)              |                      | Pass        | 10.66 dBm  |
| 15.407 (a)(2)       | TX Cond. Power 5.25-5.35 & 5.47-5.725 | <24dBm or 11+10Log(OBW)             |                      | Pass        | 10.49 dBm  |
| 15.407 (a)(5)       | PSD                                   | <4dBm for 5.2 and <8dBm for 5.3/5.5 |                      | Pass        | -0.14 dBm  |
| 15.407 (a)(6)       | Peak Excursion Ratio                  | 13dB                                |                      | Pass        | 9.22 dBm   |
| 15.207 (a)          | AC Power Line conducted emissions     | Section 10                          | Radiated             | Pass        | 49.38 dBuV |
| 15.407 (b) & 15.209 | Radiated Spurious Emission            | < 54dBuV/m                          |                      | Pass        | 46 dBuV/m  |
| 15.407 (h)(2)       | Dynamic Frequency Selection           | N/A                                 | Radiated / Conducted | Pass        | N/A        |

## 8. ON TIME, DUTY CYCLE AND MEASUREMENT METHODS

### LIMITS

None; for reporting purposes only.

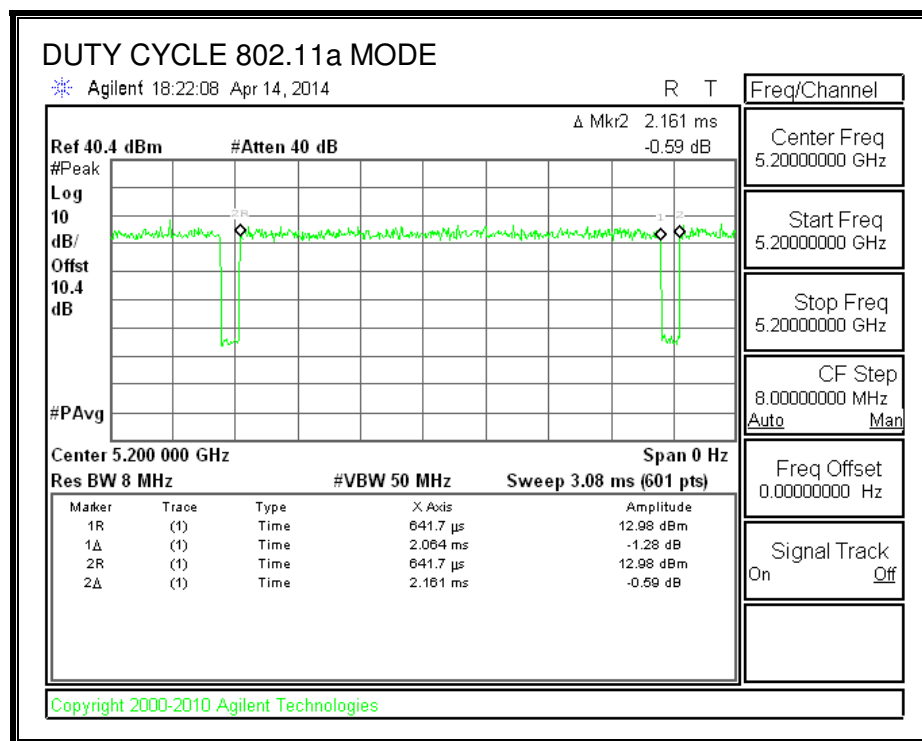
### PROCEDURE

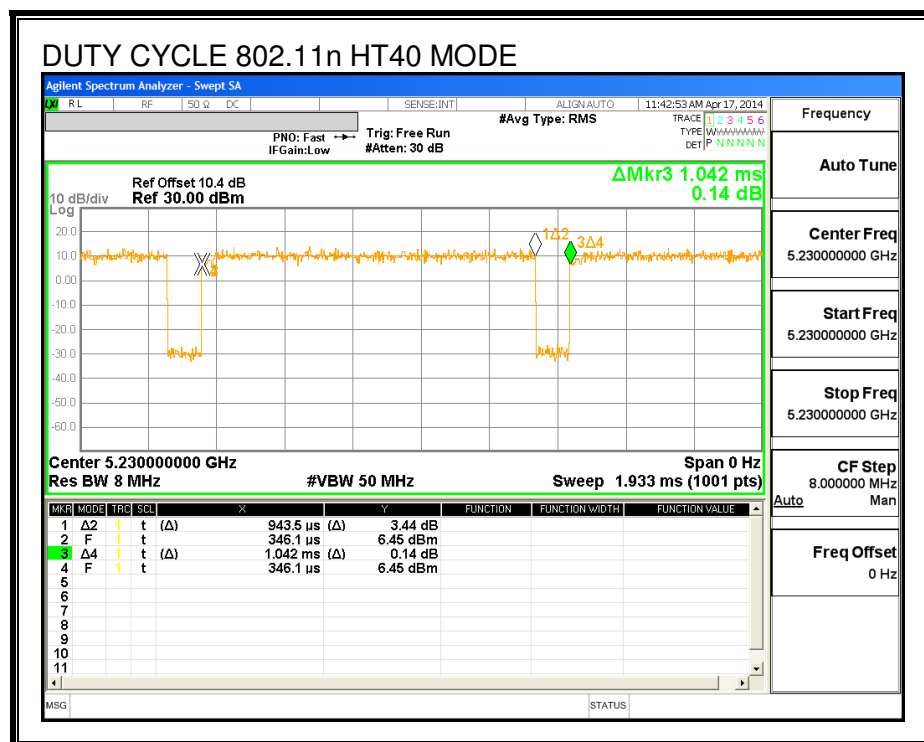
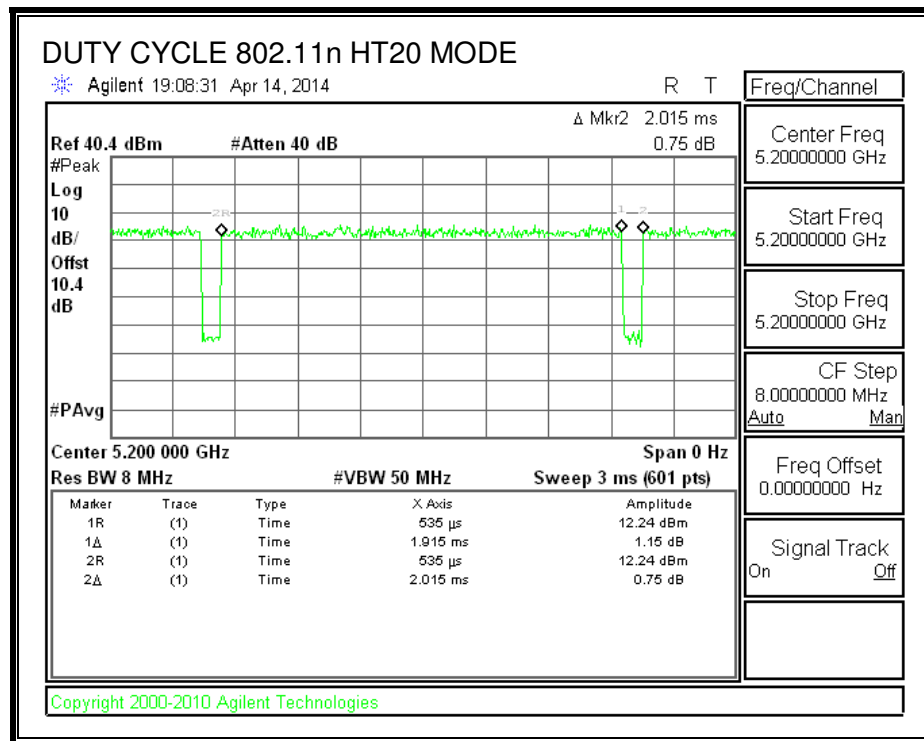
KDB 789033 Zero-Span Spectrum Analyzer Method.

### 8.1. ON TIME AND DUTY CYCLE RESULTS

| Mode         | ON Time<br>B<br>(msec) | Period<br>(msec) | Duty Cycle<br>x<br>(linear) | Duty<br>Cycle<br>(%) | Duty Cycle<br>Correction Factor<br>(dB) | 1/T<br>Minimum VBW<br>(kHz) |
|--------------|------------------------|------------------|-----------------------------|----------------------|-----------------------------------------|-----------------------------|
| 802.11a      | 2.06                   | 2.16             | 0.955                       | 95.5%                | 0.20                                    | 0.484                       |
| 802.11n HT20 | 1.92                   | 2.02             | 0.950                       | 95.0%                | 0.22                                    | 0.522                       |
| 802.11n HT40 | 0.94                   | 1.04             | 0.905                       | 90.5%                | 0.43                                    | 1.060                       |

### 8.2. DUTY CYCLE PLOTS





## 9. MEASUREMENT METHOD

The Duty Cycle is less than 98% and consistent therefore KDB 789033 Method SA-2 is used for power and PPSD

The Duty Cycle is less than 98% and consistent, KDB 789033 Method AD with Power RMS Averaging and duty cycle correction is used.

## 10. ANTENNA PORT TEST RESULTS

### 10.1. 26 dB BANDWIDTH

#### LIMITS

None; for reporting purposes only.

#### RESULTS

#### 10.1.1. 802.11a MODE IN THE 5.2 GHz BAND

| Channel | Frequency (MHz) | 26 dB Bandwidth (MHz) |
|---------|-----------------|-----------------------|
| Low     | 5180            | 19.10                 |
| Mid     | 5200            | 19.00                 |
| High    | 5240            | 19.15                 |
| Worst   |                 | 19.15                 |

#### 10.1.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

| Channel | Frequency (MHz) | 26 dB Bandwidth (MHz) |
|---------|-----------------|-----------------------|
| Low     | 5180            | 19.35                 |
| Mid     | 5200            | 19.45                 |
| High    | 5240            | 19.40                 |
| Worst   |                 | 19.45                 |

#### 10.1.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

| Channel | Frequency (MHz) | 99% Bandwidth (MHz) |
|---------|-----------------|---------------------|
| Low     | 5190            | 45.300              |
| Mid     | 5230            | 45.600              |
| Worst   |                 | 45.600              |

#### 10.1.1. 802.11a MODE IN THE 5.3 GHz BAND

| Channel | Frequency (MHz) | 26 dB Bandwidth (MHz) |
|---------|-----------------|-----------------------|
| Low     | 5260            | 18.90                 |
| Mid     | 5300            | 18.93                 |
| High    | 5320            | 18.84                 |
| Worst   |                 | 18.93                 |

### 10.1.1. 802.11n HT20 MODE IN THE 5.3 GHz BAND

| Channel | Frequency (MHz) | 26 dB Bandwidth (MHz) |
|---------|-----------------|-----------------------|
| Low     | 5260            | 19.20                 |
| Mid     | 5300            | 19.26                 |
| High    | 5320            | 19.20                 |
| Worst   |                 | 19.26                 |

### 10.1.2. 802.11n HT40 MODE IN THE 5.3 GHz BAND

| Channel | Frequency (MHz) | 26 dB Bandwidth (MHz) |
|---------|-----------------|-----------------------|
| Low     | 5270            | 45.7                  |
| High    | 5310            | 44.8                  |
| Worst   |                 | 45.7                  |

### 10.1.3. 802.11a MODE IN THE 5.5 GHz BAND

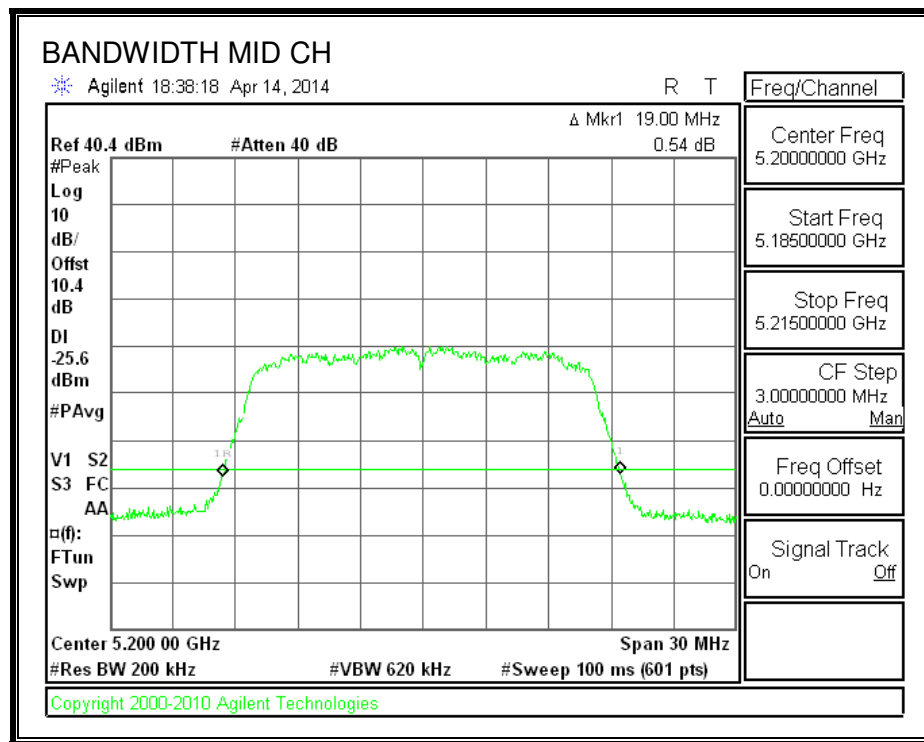
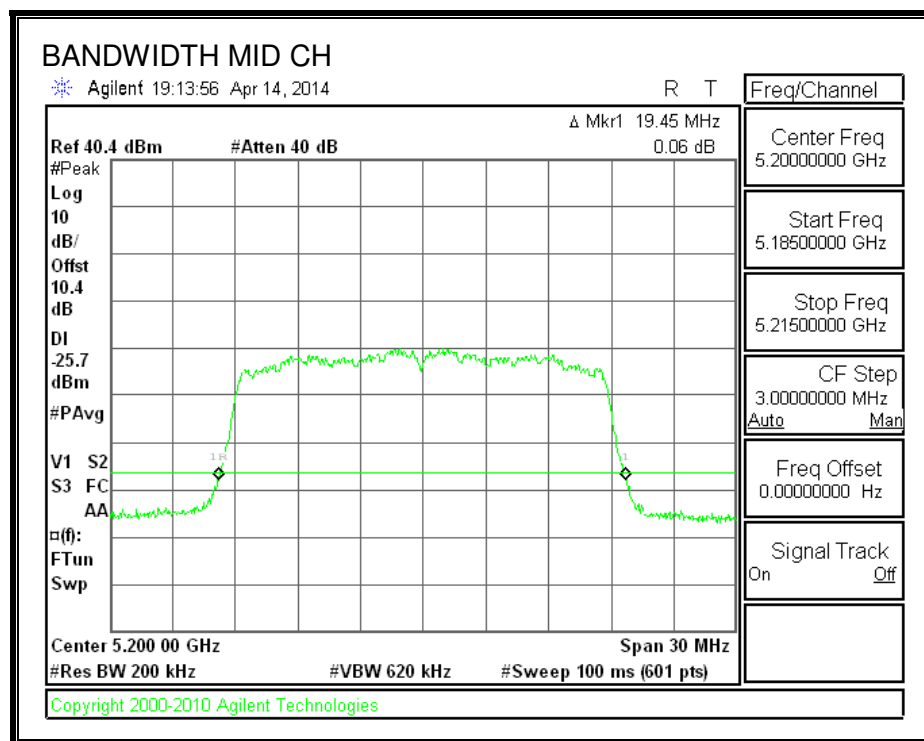
| Channel | Frequency (MHz) | 26 dB Bandwidth (MHz) |
|---------|-----------------|-----------------------|
| Low     | 5500            | 18.870                |
| Mid     | 5580            | 18.900                |
| High    | 5700            | 18.840                |
| Worst   |                 | 18.900                |

### 10.1.4. 802.11n HT20 MODE IN THE 5.5 GHz BAND

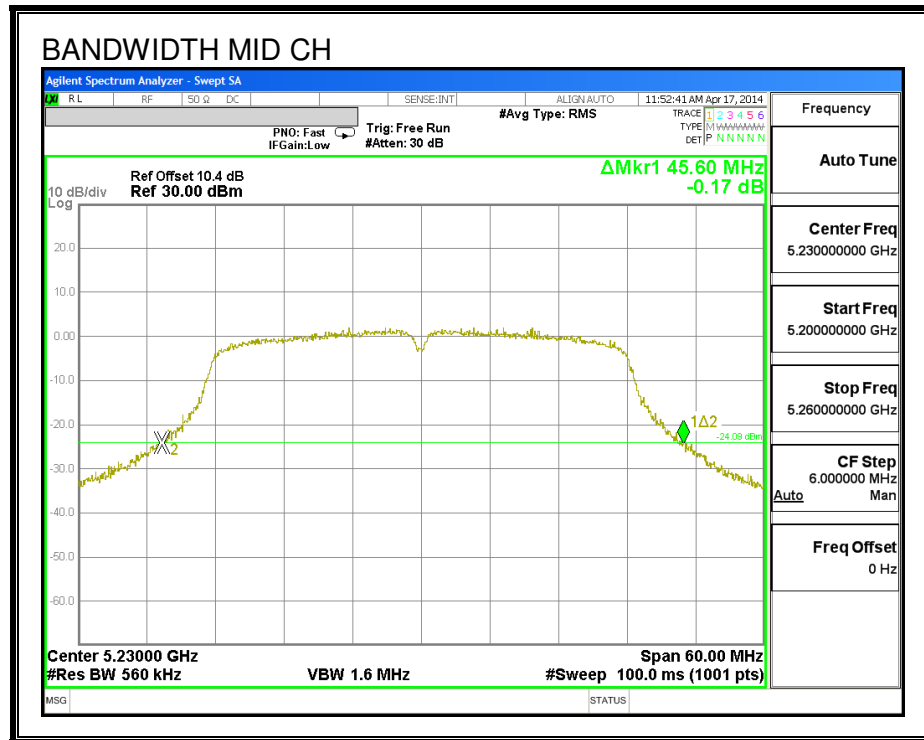
| Channel | Frequency (MHz) | 26 dB Bandwidth (MHz) |
|---------|-----------------|-----------------------|
| Low     | 5500            | 19.140                |
| Mid     | 5580            | 19.230                |
| High    | 5700            | 19.230                |
| Worst   |                 | 19.230                |

### 10.1.5. 802.11n HT40 MODE IN THE 5.5 GHz BAND

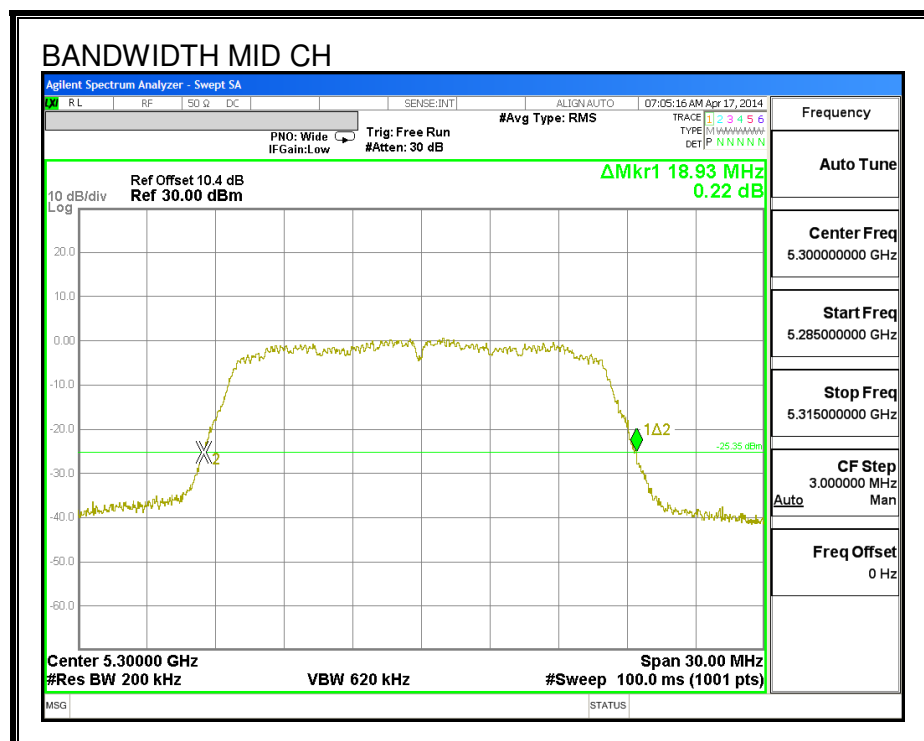
| Channel | Frequency (MHz) | 26 dB Bandwidth (MHz) |
|---------|-----------------|-----------------------|
| Low     | 5510            | 44.5                  |
| Mid     | 5550            | 44.7                  |
| High    | 5670            | 44.9                  |
| Worst   |                 | 44.9                  |

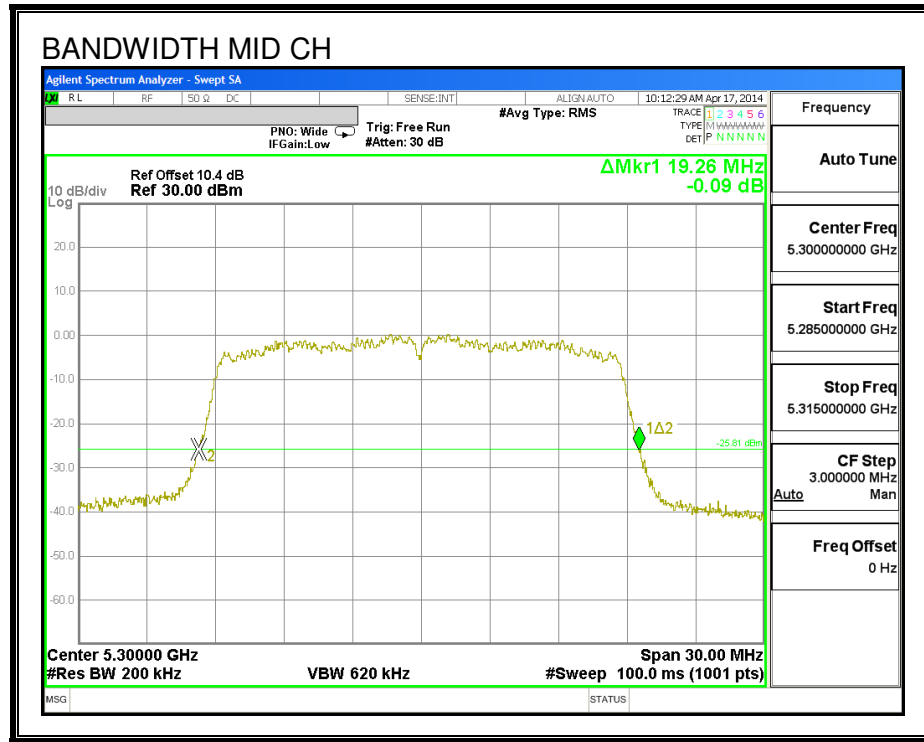
**802.11a 5.2G 26 dB BANDWIDTH****802.11n HT20 5.2G 26 dB BANDWIDTH**

**802.11n HT40 5.2G 26 dB BANDWIDTH**

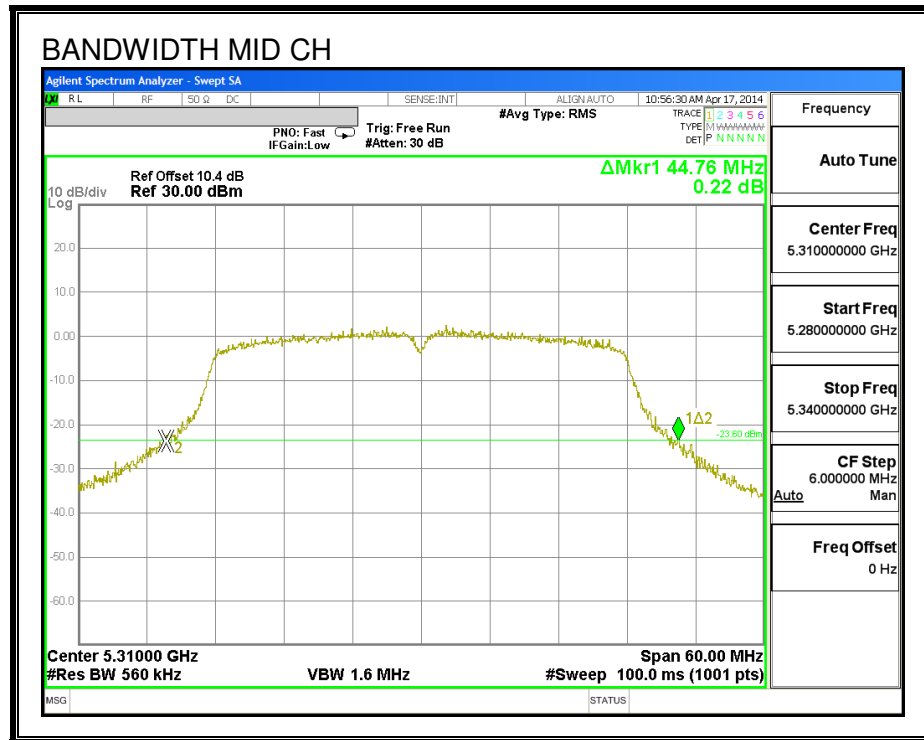


**802.11a 5.3G 26 dB BANDWIDTH**

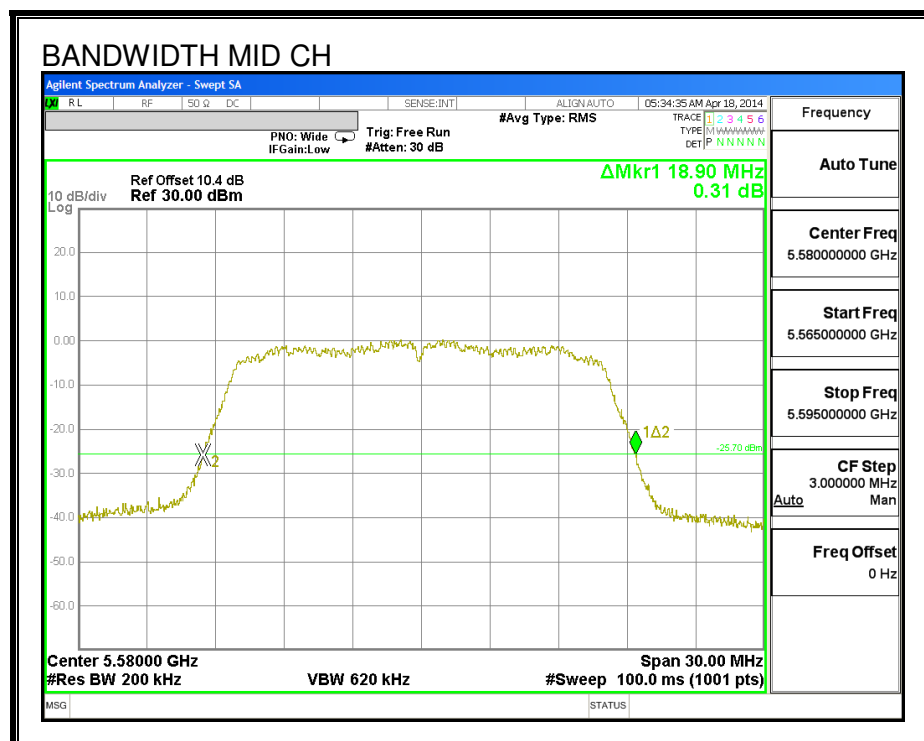


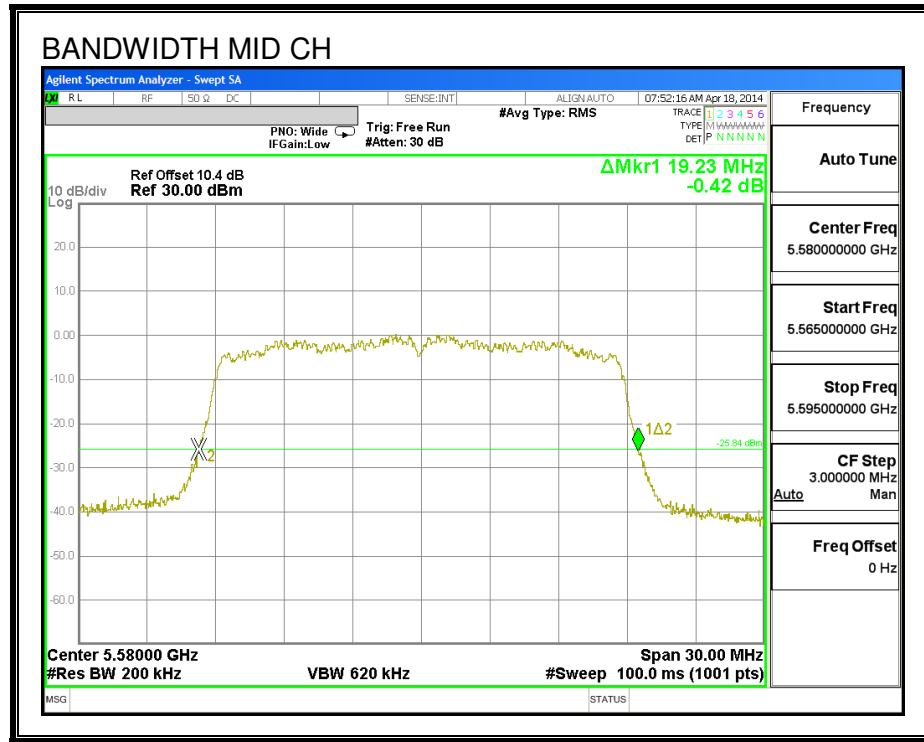


**802.11n HT40 5.3G 26 dB BANDWIDTH**

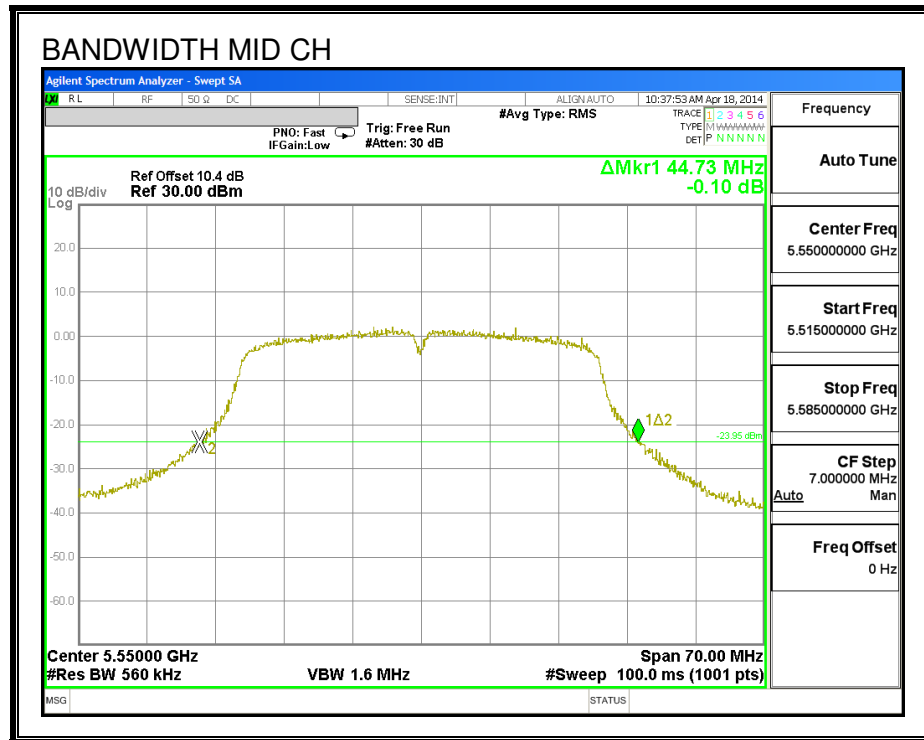


**802.11a 5.5G 26 dB BANDWIDTH**





**802.11n HT40 5.5G 26 dB BANDWIDTH**



## 10.2. 99% BANDWIDTH

### LIMITS

None; for reporting purposes only.

### RESULTS

#### 10.2.1. 802.11a MODE IN THE 5.2 GHz BAND

| Channel | Frequency (MHz) | 99% Bandwidth (MHz) |
|---------|-----------------|---------------------|
| Low     | 5180            | 16.46               |
| Mid     | 5200            | 16.45               |
| High    | 5240            | 16.45               |
| Worst   |                 | 16.46               |

#### 10.2.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

| Channel | Frequency (MHz) | 99% Bandwidth (MHz) |
|---------|-----------------|---------------------|
| Low     | 5180            | 17.63               |
| Mid     | 5200            | 17.64               |
| High    | 5240            | 17.62               |
| Worst   |                 | 17.64               |

#### 10.2.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

| Channel | Frequency (MHz) | 99% Bandwidth (MHz) |
|---------|-----------------|---------------------|
| Low     | 5190            | 35.96               |
| Mid     | 5230            | 36.29               |
| Worst   |                 | 36.29               |

#### 10.2.4. 802.11a MODE IN THE 5.3 GHz BAND

| Channel | Frequency (MHz) | 99% Bandwidth (MHz) |
|---------|-----------------|---------------------|
| Low     | 5260            | 16.38               |
| Mid     | 5300            | 16.57               |
| High    | 5320            | 16.53               |
| Worst   |                 | 16.57               |

### 10.2.5. 802.11n HT20 MODE IN THE 5.3 GHz BAND

| Channel | Frequency (MHz) | 99% Bandwidth (MHz) |
|---------|-----------------|---------------------|
| Low     | 5260            | 17.66               |
| Mid     | 5300            | 17.68               |
| High    | 5320            | 17.69               |
| Worst   |                 | 17.69               |

### 10.2.6. 802.11n HT40 MODE IN THE 5.3 GHz BAND

| Channel | Frequency (MHz) | 99% Bandwidth (MHz) |
|---------|-----------------|---------------------|
| Low     | 5270            | 36.16               |
| High    | 5310            | 35.79               |
| Worst   |                 | 36.16               |

### 10.2.7. 802.11a MODE IN THE 5.5 GHz BAND

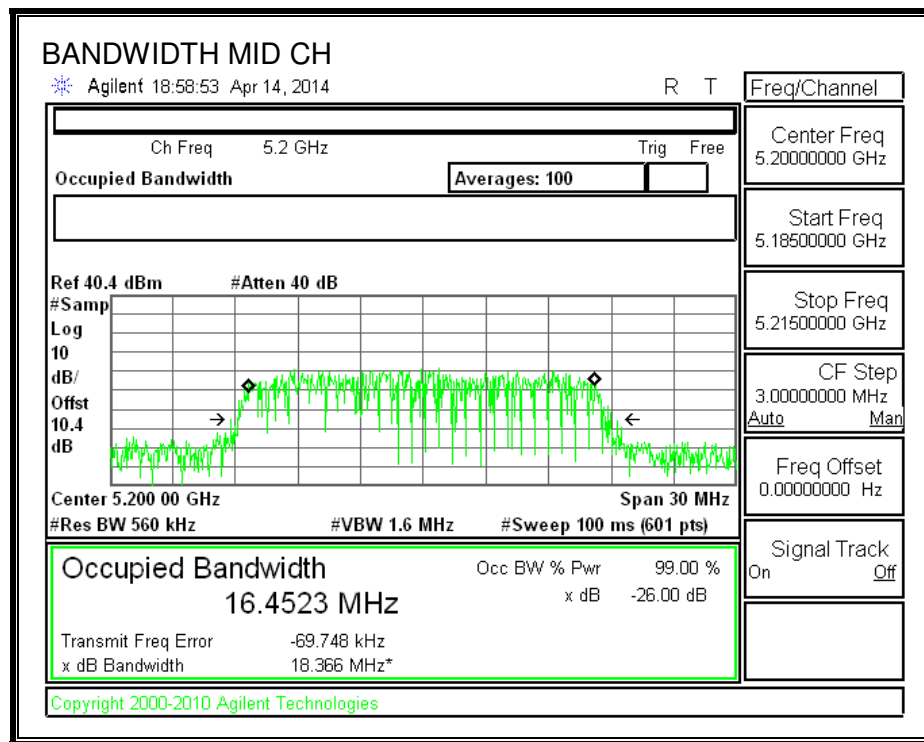
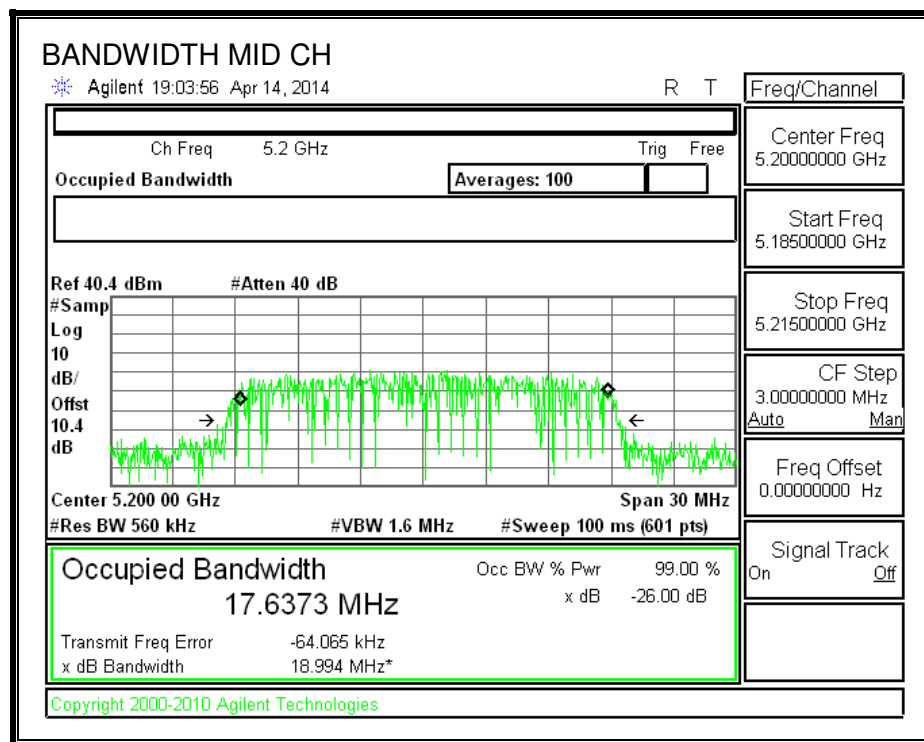
| Channel | Frequency (MHz) | 99% Bandwidth (MHz) |
|---------|-----------------|---------------------|
| Low     | 5500            | 16.46               |
| Mid     | 5580            | 16.53               |
| High    | 5700            | 16.51               |
| Worst   |                 | 16.53               |

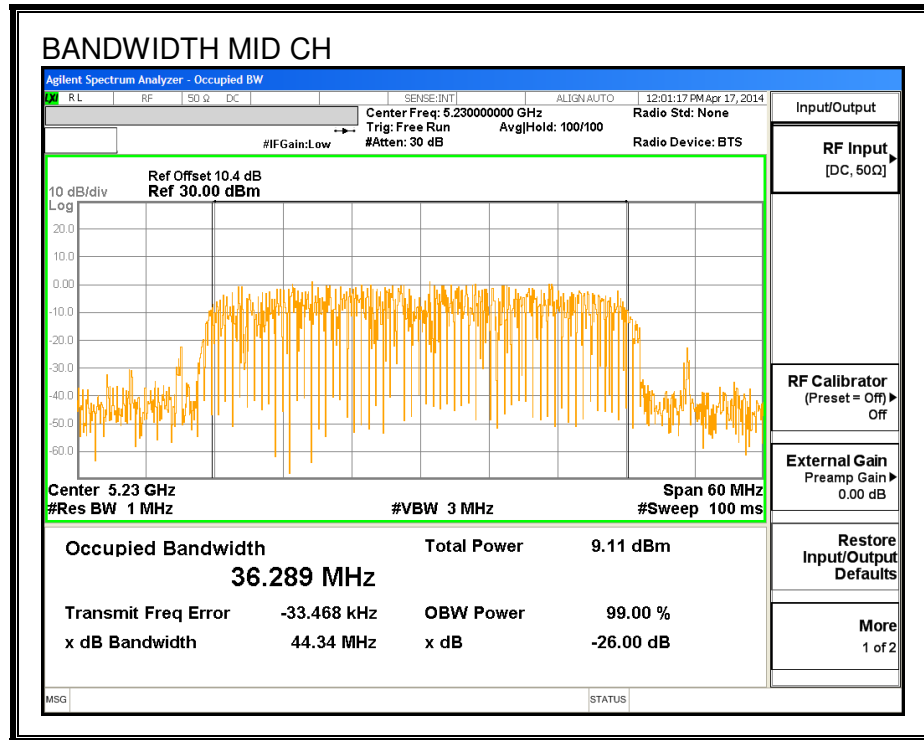
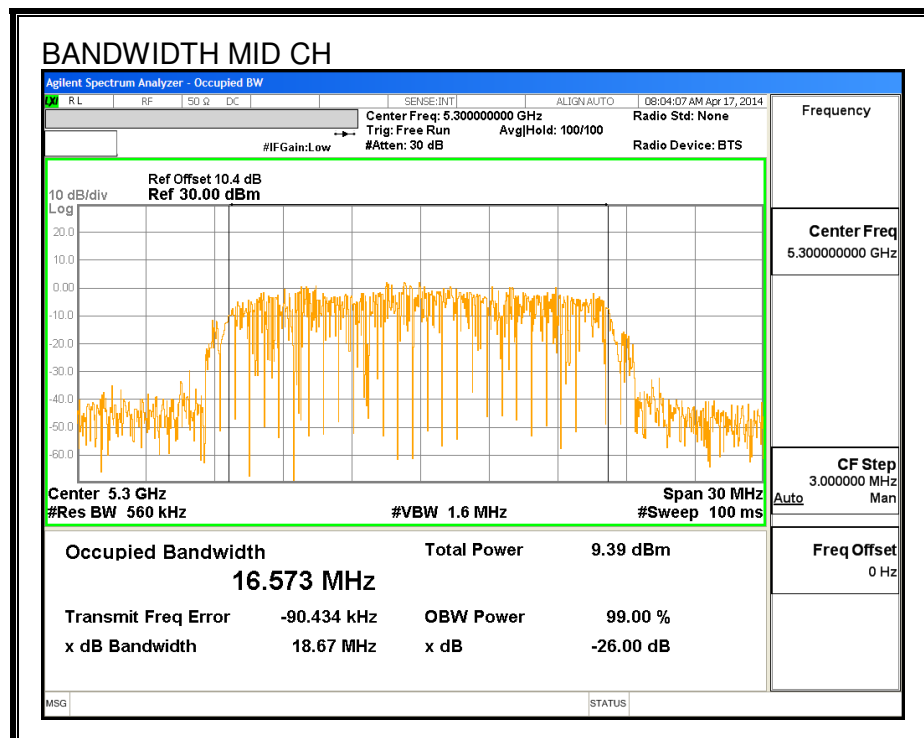
### 10.2.8. 802.11n HT20 MODE IN THE 5.5 GHz BAND

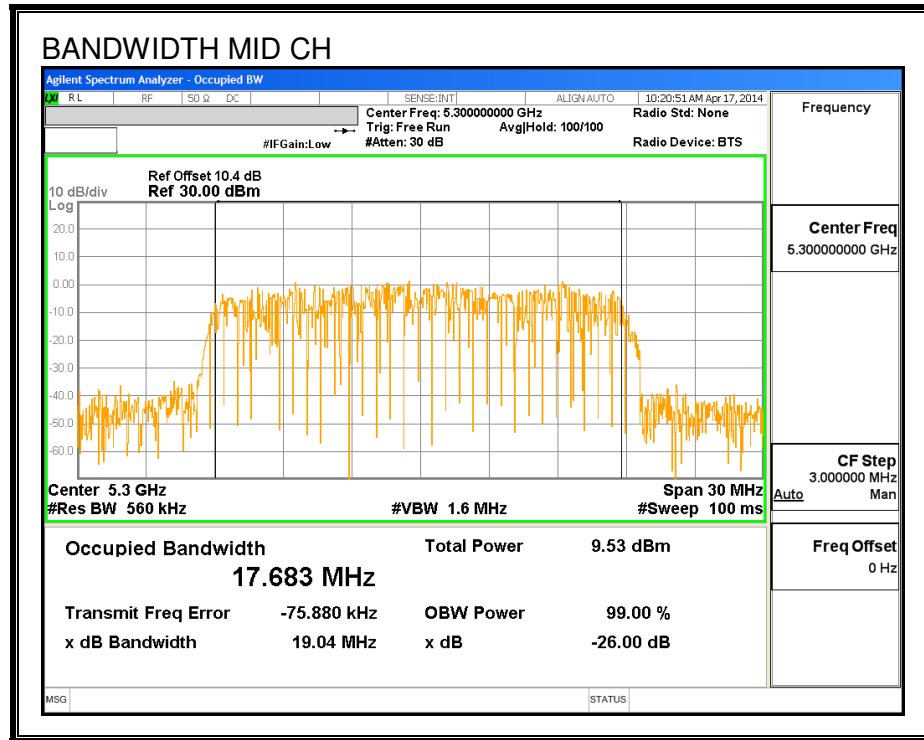
| Channel | Frequency (MHz) | 99% Bandwidth (MHz) |
|---------|-----------------|---------------------|
| Low     | 5500            | 17.66               |
| Mid     | 5580            | 17.66               |
| High    | 5700            | 17.64               |
| Worst   |                 | 17.66               |

### 10.2.9. 802.11n HT40 MODE IN THE 5.5 GHz BAND

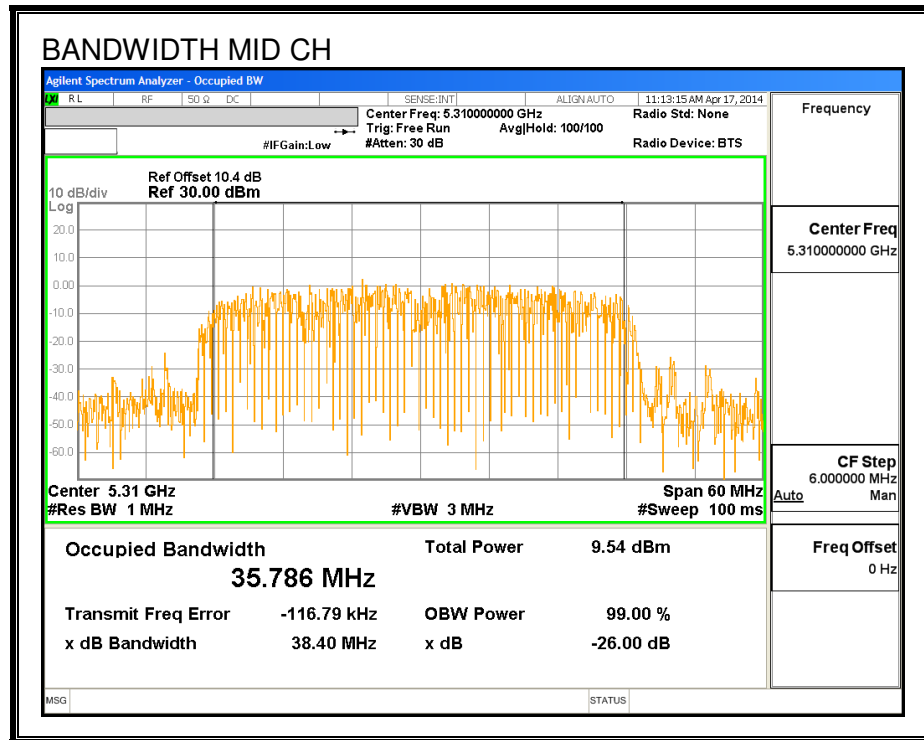
| Channel | Frequency (MHz) | 99% Bandwidth (MHz) |
|---------|-----------------|---------------------|
| Low     | 5510            | 36.20               |
| Mid     | 5550            | 36.03               |
| High    | 5670            | 36.11               |
| Worst   |                 | 36.20               |

**802.11a 5.2G 99% BANDWIDTH****802.11n HT20 5.2G 99% BANDWIDTH**

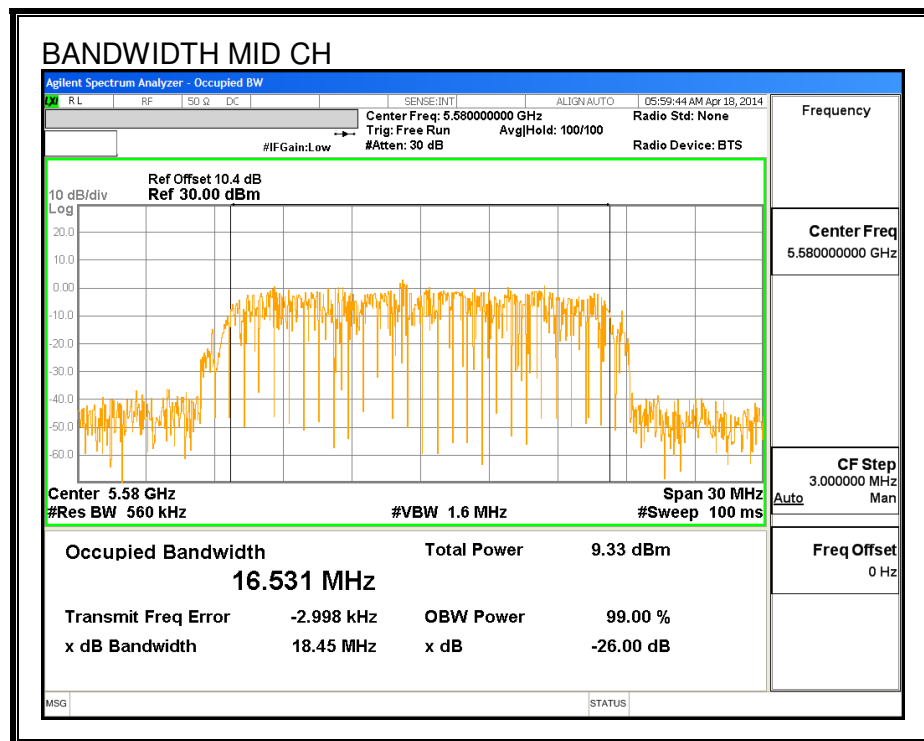
**802.11n HT40 5.2G 99% BANDWIDTH****802.11a 5.3G 99% BANDWIDTH**

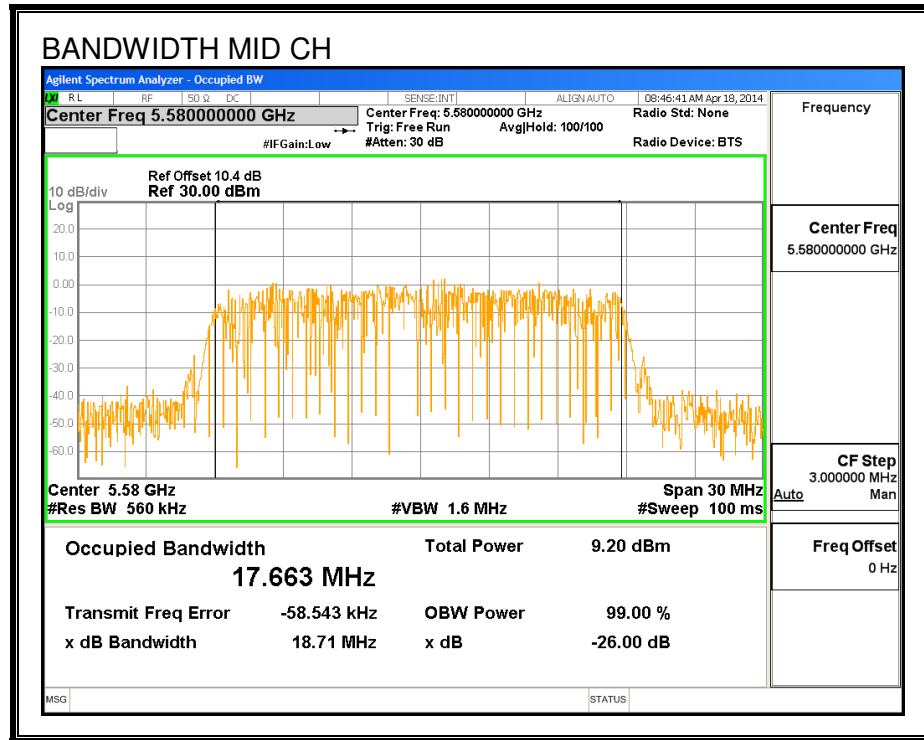


**802.11n HT40 5.3G 99% BANDWIDTH**

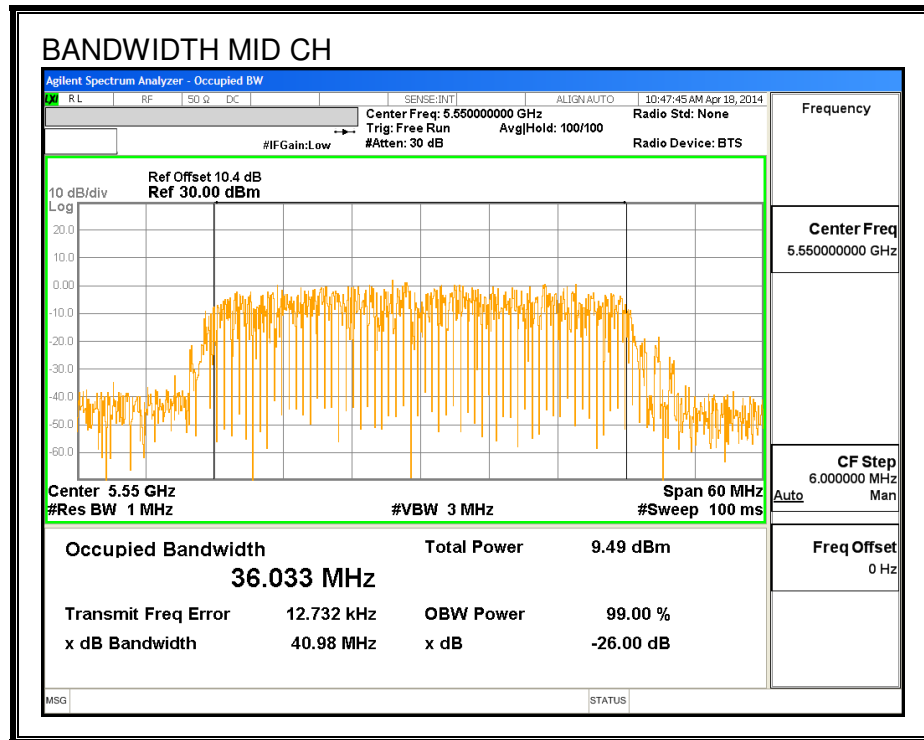


**802.11a 5.5G 99% BANDWIDTH**





**802.11n HT40 5.5G 99% BANDWIDTH**



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### **10.3. AVERAGE POWER**

#### **LIMITS**

None; for reporting purposes only.

#### **TEST PROCEDURE**

The transmitter output is connected to a power meter.

The cable assembly insertion loss of 11 dB (including 10 dB pad and 1 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

#### **RESULTS**

### 10.3.1. 802.11a MODE IN THE 5.2 GHz BAND

| Channel | Frequency (MHz) | Avg Power (dBm) |
|---------|-----------------|-----------------|
| Low     | 5180            | 9.30            |
| Mid     | 5200            | 9.30            |
| High    | 5240            | 9.30            |
| Worst   |                 | 9.30            |

### 10.3.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

| Channel | Frequency (MHz) | Avg Power (dBm) |
|---------|-----------------|-----------------|
| Low     | 5180            | 9.20            |
| Mid     | 5200            | 9.00            |
| High    | 5240            | 9.20            |
| Worst   |                 | 9.20            |

### 10.3.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

| Channel | Frequency (MHz) | Avg Power (dBm) |
|---------|-----------------|-----------------|
| Low     | 5190            | 9.40            |
| Mid     | 5230            | 9.40            |
| Worst   |                 | 9.40            |

### 10.3.4. 802.11a MODE IN THE 5.3 GHz BAND

| Channel | Frequency (MHz) | Avg Power (dBm) |
|---------|-----------------|-----------------|
| Low     | 5260            | 9.50            |
| Mid     | 5300            | 9.40            |
| High    | 5320            | 9.50            |
| Worst   |                 | 9.50            |

### 10.3.5. 802.11n HT20 MODE IN THE 5.3 GHz BAND

| Channel | Frequency (MHz) | Avg Power (dBm) |
|---------|-----------------|-----------------|
| Low     | 5260            | 9.30            |
| Mid     | 5300            | 9.30            |
| High    | 5320            | 9.30            |
| Worst   |                 | 9.30            |

**10.3.6. 802.11n HT40 MODE IN THE 5.3 GHz BAND**

| Channel | Frequency (MHz) | Avg Power (dBm) |
|---------|-----------------|-----------------|
| Low     | 5270            | 9.50            |
| High    | 5310            | 9.60            |
| Worst   |                 | 9.60            |

**10.3.7. 802.11a MODE IN THE 5.5 GHz BAND**

| Channel | Frequency (MHz) | Avg Power (dBm) |
|---------|-----------------|-----------------|
| Low     | 5500            | 9.20            |
| Mid     | 5580            | 9.30            |
| High    | 5700            | 9.40            |
| Worst   |                 | 9.40            |

**10.3.8. 802.11n HT20 MODE IN THE 5.5 GHz BAND**

| Channel | Frequency (MHz) | Avg Power (dBm) |
|---------|-----------------|-----------------|
| Low     | 5500            | 9.00            |
| Mid     | 5580            | 9.20            |
| High    | 5700            | 9.30            |
| Worst   |                 | 9.30            |

**10.3.9. 802.11n HT40 MODE IN THE 5.5 GHz BAND**

| Channel | Frequency (MHz) | Avg Power (dBm) |
|---------|-----------------|-----------------|
| Low     | 5510            | 9.40            |
| Mid     | 5550            | 9.40            |
| High    | 5670            | 9.50            |
| Worst   |                 | 9.50            |

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## **10.4. OUTPUT POWER AND PPSD**

### **LIMITS**

FCC §15.407 (a) (1)

For the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW or  $4 \text{ dBm} + 10 \log B$ , where B is the 26-dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 4 dBm in any 1-MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

IC RSS-210 A9.2 (1)

The maximum e.i.r.p. shall not exceed 200 mW or  $10 + 10 \log_{10} B$ , dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

### **DIRECTIONAL ANTENNA GAIN**

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

### **Test Methodology**

**RESULTS**

**10.4.1. 802.11a MODE IN THE 5.2 GHz BAND**

**Bandwidth and Antenna Gain**

| Channel | Frequency<br>(MHz) | Min<br>26 dB<br>BW<br>(MHz) | Min<br>99%<br>BW<br>(MHz) | Directional<br>Gain<br>(dBi) |
|---------|--------------------|-----------------------------|---------------------------|------------------------------|
| Low     | 5180               | 19.10                       | 16.46                     | 0.30                         |
| Mid     | 5200               | 19.00                       | 16.45                     | 0.30                         |
| High    | 5240               | 19.15                       | 16.45                     | 0.30                         |

**Limits**

| Channel | Frequency<br>(MHz) | FCC<br>Power<br>Limit<br>(dBm) | IC<br>EIRP<br>Limit<br>(dBm) | Max<br>IC<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | FCC<br>PPSD<br>Limit<br>(dBm) | IC<br>eirp<br>PSD<br>Limit<br>(dBm) | PPSD<br>Limit<br>(dBm) |
|---------|--------------------|--------------------------------|------------------------------|-----------------------------|-------------------------|-------------------------------|-------------------------------------|------------------------|
| Low     | 5180               | 16.81                          | 22.16                        | 21.86                       | 16.81                   | 4.00                          | 10.00                               | 4.00                   |
| Mid     | 5200               | 16.79                          | 22.16                        | 21.86                       | 16.79                   | 4.00                          | 10.00                               | 4.00                   |
| High    | 5240               | 16.82                          | 22.16                        | 21.86                       | 16.82                   | 4.00                          | 10.00                               | 4.00                   |

|                           |      |                                                           |
|---------------------------|------|-----------------------------------------------------------|
| <b>Duty Cycle CF (dB)</b> | 0.20 | <b>Included in Calculations of Corr'd Power &amp; PSD</b> |
|---------------------------|------|-----------------------------------------------------------|

**Output Power Results**

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>Power<br>(dBm) | Total<br>Corr'd<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Power<br>Margin<br>(dB) |
|---------|--------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| Low     | 5180               | 9.26                              | 9.46                              | 16.81                   | -7.35                   |
| Mid     | 5200               | 9.46                              | 9.66                              | 16.79                   | -7.13                   |
| High    | 5240               | 9.59                              | 9.79                              | 16.82                   | -7.03                   |

**PPSD Results**

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>PPSD<br>(dBm) | Total<br>Corr'd<br>PPSD<br>(dBm) | PPSD<br>Limit<br>(dBm) | PPSD<br>Margin<br>(dB) |
|---------|--------------------|----------------------------------|----------------------------------|------------------------|------------------------|
| Low     | 5180               | -0.72                            | -0.52                            | 4.00                   | -4.52                  |
| Mid     | 5200               | -0.75                            | -0.55                            | 4.00                   | -4.55                  |
| High    | 5240               | -0.34                            | -0.14                            | 4.00                   | -4.14                  |

## 10.4.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

### Bandwidth and Antenna Gain

| Channel | Frequency<br>(MHz) | Min<br>26 dB<br>BW<br>(MHz) | Min<br>99%<br>BW<br>(MHz) | Directional<br>Gain<br>(dBi) |
|---------|--------------------|-----------------------------|---------------------------|------------------------------|
| Low     | 5180               | 19.35                       | 17.63                     | 0.30                         |
| Mid     | 5200               | 19.45                       | 17.64                     | 0.30                         |
| High    | 5240               | 19.40                       | 17.62                     | 0.30                         |

### Limits

| Channel | Frequency<br>(MHz) | FCC<br>Power<br>Limit<br>(dBm) | IC<br>EIRP<br>Limit<br>(dBm) | Max<br>IC<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | FCC<br>PPSD<br>Limit<br>(dBm) | IC<br>eirp<br>PSD<br>Limit<br>(dBm) | PPSD<br>Limit<br>(dBm) |
|---------|--------------------|--------------------------------|------------------------------|-----------------------------|-------------------------|-------------------------------|-------------------------------------|------------------------|
| Low     | 5180               | 16.87                          | 22.46                        | 22.16                       | 16.87                   | 4.00                          | 10.00                               | 4.00                   |
| Mid     | 5200               | 16.89                          | 22.46                        | 22.16                       | 16.89                   | 4.00                          | 10.00                               | 4.00                   |
| High    | 5240               | 16.88                          | 22.46                        | 22.16                       | 16.88                   | 4.00                          | 10.00                               | 4.00                   |

|                    |      |                                                |
|--------------------|------|------------------------------------------------|
| Duty Cycle CF (dB) | 0.22 | Included in Calculations of Corr'd Power & PSD |
|--------------------|------|------------------------------------------------|

### Output Power Results

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>Power<br>(dBm) | Total<br>Corr'd<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Power<br>Margin<br>(dB) |
|---------|--------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| Low     | 5180               | 9.07                              | 9.29                              | 16.87                   | -7.58                   |
| Mid     | 5200               | 9.18                              | 9.40                              | 16.89                   | -7.49                   |
| High    | 5240               | 9.18                              | 9.40                              | 16.88                   | -7.48                   |

### PPSD Results

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>PPSD<br>(dBm) | Total<br>Corr'd<br>PPSD<br>(dBm) | PPSD<br>Limit<br>(dBm) | PPSD<br>Margin<br>(dB) |
|---------|--------------------|----------------------------------|----------------------------------|------------------------|------------------------|
| Low     | 5180               | -1.21                            | -0.99                            | 4.00                   | -4.99                  |
| Mid     | 5200               | -1.27                            | -1.05                            | 4.00                   | -5.05                  |
| High    | 5240               | -1.27                            | -1.05                            | 4.00                   | -5.05                  |

### 10.4.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

#### Bandwidth and Antenna Gain

| Channel | Frequency<br>(MHz) | Min<br>26 dB<br>BW<br>(MHz) | Min<br>99%<br>BW<br>(MHz) | Directional<br>Gain<br>(dBi) |
|---------|--------------------|-----------------------------|---------------------------|------------------------------|
| Low     | 5190               | 45.30                       | 35.96                     | 0.30                         |
| Mid     | 5230               | 45.60                       | 36.29                     | 0.30                         |

#### Limits

| Channel            | Frequency<br>(MHz) | FCC<br>Power<br>Limit<br>(dBm) | IC<br>EIRP<br>Limit<br>(dBm)                   | Max<br>IC<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | FCC<br>PPSD<br>Limit<br>(dBm) | IC<br>eirp<br>PSD<br>Limit<br>(dBm) | PPSD<br>Limit<br>(dBm) |
|--------------------|--------------------|--------------------------------|------------------------------------------------|-----------------------------|-------------------------|-------------------------------|-------------------------------------|------------------------|
| Low                | 5190               | 17.00                          | 23.00                                          | 22.70                       | 17.00                   | 4.00                          | 10.00                               | 4.00                   |
| Mid                | 5230               | 17.00                          | 23.00                                          | 22.70                       | 17.00                   | 4.00                          | 10.00                               | 4.00                   |
| Duty Cycle CF (dB) |                    | 0.43                           | Included in Calculations of Corr'd Power & PSD |                             |                         |                               |                                     |                        |

#### Output Power Results

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>Power<br>(dBm) | Total<br>Corr'd<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Power<br>Margin<br>(dB) |
|---------|--------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| Low     | 5190               | 10.23                             | 10.66                             | 17.00                   | -6.34                   |
| Mid     | 5230               | 10.11                             | 10.54                             | 17.00                   | -6.46                   |

#### PPSD Results

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>PPSD<br>(dBm) | Total<br>Corr'd<br>PPSD<br>(dBm) | PPSD<br>Limit<br>(dBm) | PPSD<br>Margin<br>(dB) |
|---------|--------------------|----------------------------------|----------------------------------|------------------------|------------------------|
| Low     | 5190               | -3.15                            | -2.72                            | 4.00                   | -6.72                  |
| Mid     | 5230               | -3.50                            | -3.07                            | 4.00                   | -7.07                  |

## 10.4.4. 802.11a MODE IN THE 5.3 GHz BAND

### Bandwidth and Antenna Gain

| Channel | Frequency<br>(MHz) | Min<br>26 dB<br>BW<br>(MHz) | Min<br>99%<br>BW<br>(MHz) | Directional<br>Gain<br>(dBi) |
|---------|--------------------|-----------------------------|---------------------------|------------------------------|
| Low     | 5260               | 18.90                       | 16.38                     | 0.30                         |
| Mid     | 5300               | 18.93                       | 16.57                     | 0.30                         |
| High    | 5320               | 18.84                       | 16.53                     | 0.30                         |

### Limits

| Channel | Frequency<br>(MHz) | FCC<br>Power<br>Limit<br>(dBm) | IC<br>Power<br>Limit<br>(dBm) | IC<br>EIRP<br>Limit<br>(dBm) | Power<br>Limit<br>(dBm) | FCC<br>PPSD<br>Limit<br>(dBm) | IC<br>PSD<br>Limit<br>(dBm) | PPSD<br>Limit<br>(dBm) |
|---------|--------------------|--------------------------------|-------------------------------|------------------------------|-------------------------|-------------------------------|-----------------------------|------------------------|
| Low     | 5260               | 23.76                          | 23.14                         | 29.14                        | 23.14                   | 11.00                         | 11.00                       | 11.00                  |
| Mid     | 5300               | 23.77                          | 23.19                         | 29.19                        | 23.19                   | 11.00                         | 11.00                       | 11.00                  |
| High    | 5320               | 23.75                          | 23.18                         | 29.18                        | 23.18                   | 11.00                         | 11.00                       | 11.00                  |

|                    |      |                                                |
|--------------------|------|------------------------------------------------|
| Duty Cycle CF (dB) | 0.20 | Included in Calculations of Corr'd Power & PSD |
|--------------------|------|------------------------------------------------|

### Output Power Results

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>Power<br>(dBm) | Total<br>Corr'd<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Power<br>Margin<br>(dB) |
|---------|--------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| Low     | 5260               | 9.22                              | 9.42                              | 23.14                   | -13.72                  |
| Mid     | 5300               | 9.03                              | 9.23                              | 23.19                   | -13.96                  |
| High    | 5320               | 9.10                              | 9.30                              | 23.18                   | -13.88                  |

### PPSD Results

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>PPSD<br>(dBm) | Total<br>Corr'd<br>PPSD<br>(dBm) | PPSD<br>Limit<br>(dBm) | PPSD<br>Margin<br>(dB) |
|---------|--------------------|----------------------------------|----------------------------------|------------------------|------------------------|
| Low     | 5260               | -0.64                            | -0.44                            | 11.00                  | -11.44                 |
| Mid     | 5300               | -0.69                            | -0.49                            | 11.00                  | -11.49                 |
| High    | 5320               | -1.02                            | -0.82                            | 11.00                  | -11.82                 |

### 10.4.5. 802.11n HT20 MODE IN THE 5.3 GHz BAND

#### Bandwidth and Antenna Gain

| Channel | Frequency<br>(MHz) | Min<br>26 dB<br>BW<br>(MHz) | Min<br>99%<br>BW<br>(MHz) | Directional<br>Gain<br>(dBi) |
|---------|--------------------|-----------------------------|---------------------------|------------------------------|
| Low     | 5260               | 19.20                       | 17.66                     | 0.30                         |
| Mid     | 5300               | 19.26                       | 17.69                     | 0.30                         |
| High    | 5320               | 19.20                       | 17.69                     | 0.30                         |

#### Limits

| Channel | Frequency<br>(MHz) | FCC<br>Power<br>Limit<br>(dBm) | IC<br>Power<br>Limit<br>(dBm) | IC<br>EIRP<br>Limit<br>(dBm) | Power<br>Limit<br>(dBm) | FCC<br>PPSD<br>Limit<br>(dBm) | IC<br>PSD<br>Limit<br>(dBm) | PPSD<br>Limit<br>(dBm) |
|---------|--------------------|--------------------------------|-------------------------------|------------------------------|-------------------------|-------------------------------|-----------------------------|------------------------|
| Low     | 5260               | 23.83                          | 23.47                         | 29.47                        | 23.47                   | 11.00                         | 11.00                       | 11.00                  |
| Mid     | 5300               | 23.85                          | 23.48                         | 29.48                        | 23.48                   | 11.00                         | 11.00                       | 11.00                  |
| High    | 5320               | 23.83                          | 23.48                         | 29.48                        | 23.48                   | 11.00                         | 11.00                       | 11.00                  |

|                    |      |                                                 |
|--------------------|------|-------------------------------------------------|
| Duty Cycle CF (dB) | 0.22 | Included in Calculations of Corr'd Power & PPSP |
|--------------------|------|-------------------------------------------------|

#### Output Power Results

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>Power<br>(dBm) | Total<br>Corr'd<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Power<br>Margin<br>(dB) |
|---------|--------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| Low     | 5260               | 9.07                              | 9.29                              | 23.47                   | -14.18                  |
| Mid     | 5300               | 9.06                              | 9.28                              | 23.48                   | -14.19                  |
| High    | 5320               | 9.10                              | 9.32                              | 23.48                   | -14.16                  |

#### PPSD Results

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>PPSD<br>(dBm) | Total<br>Corr'd<br>PPSD<br>(dBm) | PPSD<br>Limit<br>(dBm) | PPSD<br>Margin<br>(dB) |
|---------|--------------------|----------------------------------|----------------------------------|------------------------|------------------------|
| Low     | 5260               | -1.06                            | -0.84                            | 11.00                  | -11.84                 |
| Mid     | 5300               | -1.19                            | -0.97                            | 11.00                  | -11.97                 |
| High    | 5320               | -0.97                            | -0.75                            | 11.00                  | -11.75                 |

## 10.4.6. 802.11n HT40 MODE IN THE 5.3 GHz BAND

### Bandwidth and Antenna Gain

| Channel | Frequency<br>(MHz) | Min<br>26 dB<br>BW<br>(MHz) | Min<br>99%<br>BW<br>(MHz) | Directional<br>Gain<br>(dBi) |
|---------|--------------------|-----------------------------|---------------------------|------------------------------|
| Low     | 5270               | 45.70                       | 36.16                     | 0.30                         |
| High    | 5310               | 44.80                       | 35.79                     | 0.30                         |

### Limits

| Channel | Frequency<br>(MHz) | FCC<br>Power<br>Limit<br>(dBm) | IC<br>Power<br>Limit<br>(dBm) | IC<br>EIRP<br>Limit<br>(dBm) | Power<br>Limit<br>(dBm) | FCC<br>PPSD<br>Limit<br>(dBm) | IC<br>PSD<br>Limit<br>(dBm) | PPSD<br>Limit<br>(dBm) |
|---------|--------------------|--------------------------------|-------------------------------|------------------------------|-------------------------|-------------------------------|-----------------------------|------------------------|
| Low     | 5270               | 24.00                          | 24.00                         | 30.00                        | 24.00                   | 11.00                         | 11.00                       | 11.00                  |
| High    | 5310               | 24.00                          | 24.00                         | 30.00                        | 24.00                   | 11.00                         | 11.00                       | 11.00                  |

|                    |      |                                                |
|--------------------|------|------------------------------------------------|
| Duty Cycle CF (dB) | 0.43 | Included in Calculations of Corr'd Power & PSD |
|--------------------|------|------------------------------------------------|

### Output Power Results

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>Power<br>(dBm) | Total<br>Corr'd<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Power<br>Margin<br>(dB) |
|---------|--------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| Low     | 5270               | 9.77                              | 10.20                             | 24.00                   | -13.81                  |
| High    | 5310               | 9.35                              | 9.78                              | 24.00                   | -14.22                  |

### PPSD Results

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>PPSD<br>(dBm) | Total<br>Corr'd<br>PPSD<br>(dBm) | PPSD<br>Limit<br>(dBm) | PPSD<br>Margin<br>(dB) |
|---------|--------------------|----------------------------------|----------------------------------|------------------------|------------------------|
| Low     | 5270               | -3.91                            | -3.48                            | 11.00                  | -14.48                 |
| High    | 5310               | -4.30                            | -3.87                            | 11.00                  | -14.87                 |

## 10.4.7. 802.11a MODE IN THE 5.5 GHz BAND

### Bandwidth and Antenna Gain

| Channel | Frequency<br>(MHz) | Min<br>26 dB<br>BW<br>(MHz) | Min<br>99%<br>BW<br>(MHz) | Directional<br>Gain<br>(dBi) |
|---------|--------------------|-----------------------------|---------------------------|------------------------------|
| Low     | 5500               | 18.87                       | 16.46                     | 0.30                         |
| Mid     | 5580               | 18.90                       | 16.53                     | 0.30                         |
| High    | 5700               | 18.84                       | 16.51                     | 0.30                         |

### Limits

| Channel | Frequency<br>(MHz) | FCC<br>Power<br>Limit<br>(dBm) | IC<br>Power<br>Limit<br>(dBm) | IC<br>EIRP<br>Limit<br>(dBm) | Power<br>Limit<br>(dBm) | FCC<br>PPSD<br>Limit<br>(dBm) | IC<br>PSD<br>Limit<br>(dBm) | PPSD<br>Limit<br>(dBm) |
|---------|--------------------|--------------------------------|-------------------------------|------------------------------|-------------------------|-------------------------------|-----------------------------|------------------------|
| Low     | 5500               | 23.76                          | 23.16                         | 29.16                        | 23.16                   | 11.00                         | 11.00                       | 11.00                  |
| Mid     | 5580               | 23.76                          | 23.18                         | 29.18                        | 23.18                   | 11.00                         | 11.00                       | 11.00                  |
| High    | 5700               | 23.75                          | 23.18                         | 29.18                        | 23.18                   | 11.00                         | 11.00                       | 11.00                  |

|                    |      |                                                 |
|--------------------|------|-------------------------------------------------|
| Duty Cycle CF (dB) | 0.20 | Included in Calculations of Corr'd Power & PPSP |
|--------------------|------|-------------------------------------------------|

### Output Power Results

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>Power<br>(dBm) | Total<br>Corr'd<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Power<br>Margin<br>(dB) |
|---------|--------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| Low     | 5500               | 9.267                             | 9.47                              | 23.16                   | -13.70                  |
| Mid     | 5580               | 9.312                             | 9.51                              | 23.18                   | -13.67                  |
| High    | 5700               | 9.667                             | 9.87                              | 23.18                   | -13.31                  |

### PPSD Results

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>PPSD<br>(dBm) | Total<br>Corr'd<br>PPSD<br>(dBm) | PPSD<br>Limit<br>(dBm) | PPSD<br>Margin<br>(dB) |
|---------|--------------------|----------------------------------|----------------------------------|------------------------|------------------------|
| Low     | 5500               | -0.808                           | -0.61                            | 11.00                  | -11.61                 |
| Mid     | 5580               | -0.821                           | -0.62                            | 11.00                  | -11.62                 |
| High    | 5700               | -0.396                           | -0.20                            | 11.00                  | -11.20                 |

### 10.4.8. 802.11n HT20 MODE IN THE 5.5 GHz BAND

#### Bandwidth and Antenna Gain

| Channel | Frequency<br>(MHz) | Min<br>26 dB<br>BW<br>(MHz) | Min<br>99%<br>BW<br>(MHz) | Directional<br>Gain<br>(dBi) |
|---------|--------------------|-----------------------------|---------------------------|------------------------------|
| Low     | 5500               | 19.14                       | 17.66                     | 0.30                         |
| Mid     | 5580               | 19.23                       | 17.66                     | 0.30                         |
| High    | 5700               | 19.23                       | 17.64                     | 0.30                         |

#### Limits

| Channel | Frequency<br>(MHz) | FCC<br>Power<br>Limit<br>(dBm) | IC<br>Power<br>Limit<br>(dBm) | IC<br>EIRP<br>Limit<br>(dBm) | Power<br>Limit<br>(dBm) | FCC<br>PPSD<br>Limit<br>(dBm) | IC<br>PSD<br>Limit<br>(dBm) | PPSD<br>Limit<br>(dBm) |
|---------|--------------------|--------------------------------|-------------------------------|------------------------------|-------------------------|-------------------------------|-----------------------------|------------------------|
| Low     | 5500               | 23.82                          | 23.47                         | 29.47                        | 23.47                   | 11.00                         | 11.00                       | 11.00                  |
| Mid     | 5580               | 23.84                          | 23.47                         | 29.47                        | 23.47                   | 11.00                         | 11.00                       | 11.00                  |
| High    | 5700               | 23.84                          | 23.47                         | 29.47                        | 23.47                   | 11.00                         | 11.00                       | 11.00                  |

|                    |      |                                                 |
|--------------------|------|-------------------------------------------------|
| Duty Cycle CF (dB) | 0.23 | Included in Calculations of Corr'd Power & PPSP |
|--------------------|------|-------------------------------------------------|

#### Output Power Results

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>Power<br>(dBm) | Total<br>Corr'd<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Power<br>Margin<br>(dB) |
|---------|--------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| Low     | 5500               | 9.25                              | 9.48                              | 23.47                   | -13.99                  |
| Mid     | 5580               | 9.33                              | 9.56                              | 23.47                   | -13.91                  |
| High    | 5700               | 9.64                              | 9.87                              | 23.47                   | -13.60                  |

#### PPSD Results

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>PPSD<br>(dBm) | Total<br>Corr'd<br>PPSD<br>(dBm) | PPSD<br>Limit<br>(dBm) | PPSD<br>Margin<br>(dB) |
|---------|--------------------|----------------------------------|----------------------------------|------------------------|------------------------|
| Low     | 5500               | -0.91                            | -0.68                            | 11.00                  | -11.68                 |
| Mid     | 5580               | -0.99                            | -0.76                            | 11.00                  | -11.76                 |
| High    | 5700               | -0.52                            | -0.29                            | 11.00                  | -11.29                 |

## 10.4.9. 802.11n HT40 MODE IN THE 5.5 GHz BAND

### Bandwidth and Antenna Gain

| Channel | Frequency<br>(MHz) | Min<br>26 dB<br>BW<br>(MHz) | Min<br>99%<br>BW<br>(MHz) | Directional<br>Gain<br>(dBi) |
|---------|--------------------|-----------------------------|---------------------------|------------------------------|
| Low     | 5510               | 44.50                       | 36.20                     | 0.30                         |
| Mid     | 5550               | 44.70                       | 36.03                     | 0.30                         |
| High    | 5670               | 44.90                       | 36.11                     | 0.30                         |

### Limits

| Channel | Frequency<br>(MHz) | FCC<br>Power<br>Limit<br>(dBm) | IC<br>Power<br>Limit<br>(dBm) | IC<br>EIRP<br>Limit<br>(dBm) | Power<br>Limit<br>(dBm) | FCC<br>PPSD<br>Limit<br>(dBm) | IC<br>PSD<br>Limit<br>(dBm) | PPSD<br>Limit<br>(dBm) |
|---------|--------------------|--------------------------------|-------------------------------|------------------------------|-------------------------|-------------------------------|-----------------------------|------------------------|
| Low     | 5510               | 24.00                          | 24.00                         | 30.00                        | 24.00                   | 11.00                         | 11.00                       | 11.00                  |
| Mid     | 5550               | 24.00                          | 24.00                         | 30.00                        | 24.00                   | 11.00                         | 11.00                       | 11.00                  |
| High    | 5670               | 24.00                          | 24.00                         | 30.00                        | 24.00                   | 11.00                         | 11.00                       | 11.00                  |

|                    |      |                                                 |
|--------------------|------|-------------------------------------------------|
| Duty Cycle CF (dB) | 0.43 | Included in Calculations of Corr'd Power & PPSP |
|--------------------|------|-------------------------------------------------|

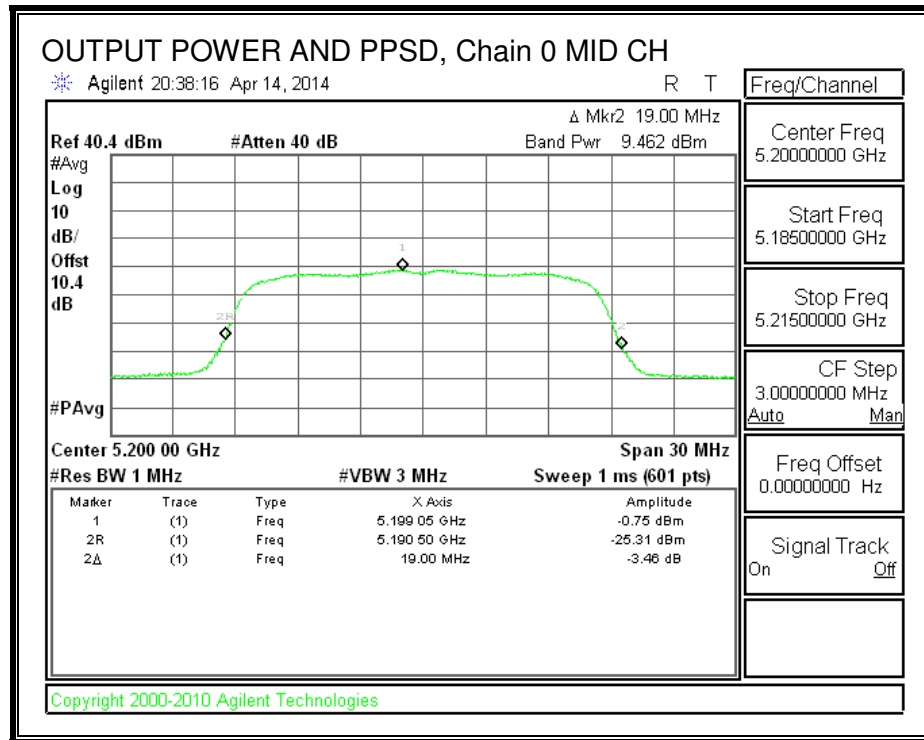
### Output Power Results

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>Power<br>(dBm) | Total<br>Corr'd<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Power<br>Margin<br>(dB) |
|---------|--------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| Low     | 5510               | 9.901                             | 10.33                             | 24.00                   | -13.67                  |
| Mid     | 5550               | 9.512                             | 9.94                              | 24.00                   | -14.06                  |
| High    | 5670               | 10.063                            | 10.49                             | 24.00                   | -13.51                  |

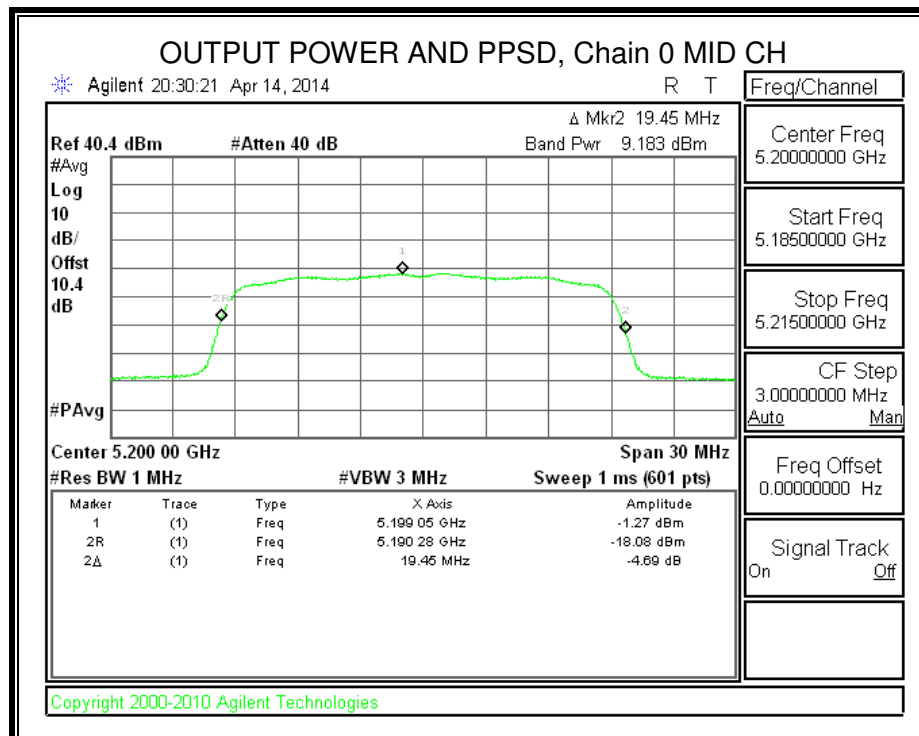
### PPSD Results

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>PPSD<br>(dBm) | Total<br>Corr'd<br>PPSD<br>(dBm) | PPSD<br>Limit<br>(dBm) | PPSD<br>Margin<br>(dB) |
|---------|--------------------|----------------------------------|----------------------------------|------------------------|------------------------|
| Low     | 5510               | -3.764                           | -3.33                            | 11.00                  | -14.33                 |
| Mid     | 5550               | -4.039                           | -3.61                            | 11.00                  | -14.61                 |
| High    | 5670               | -3.386                           | -2.96                            | 11.00                  | -13.96                 |

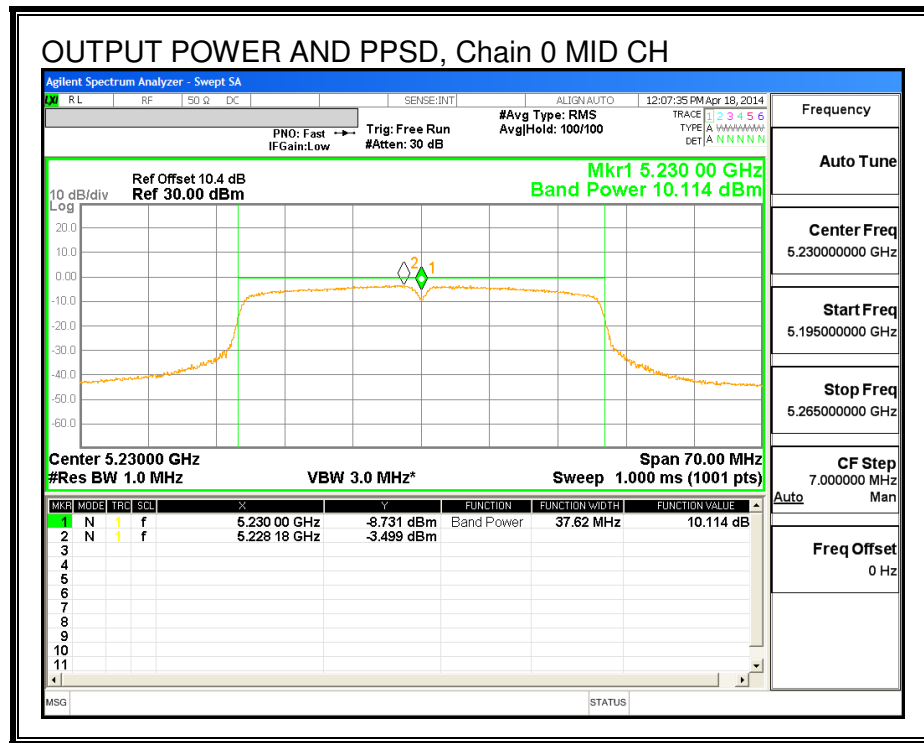
**802.11a 5.2G OUTPUT POWER AND PPSD, Chain 0**



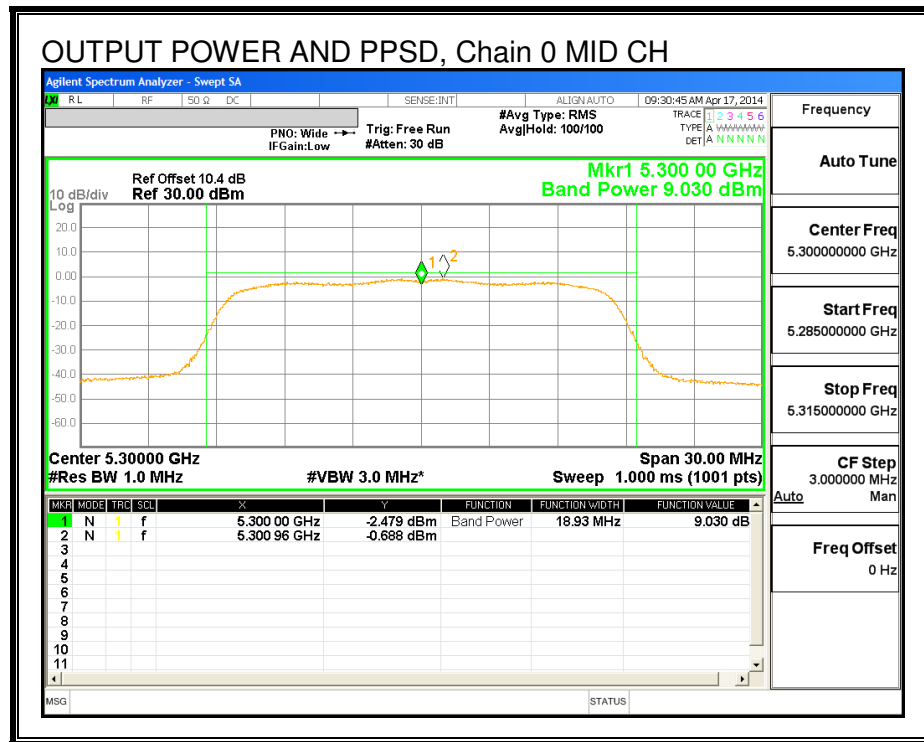
**802.11n HT20 5.2G OUTPUT POWER AND PPSD, Chain 0**



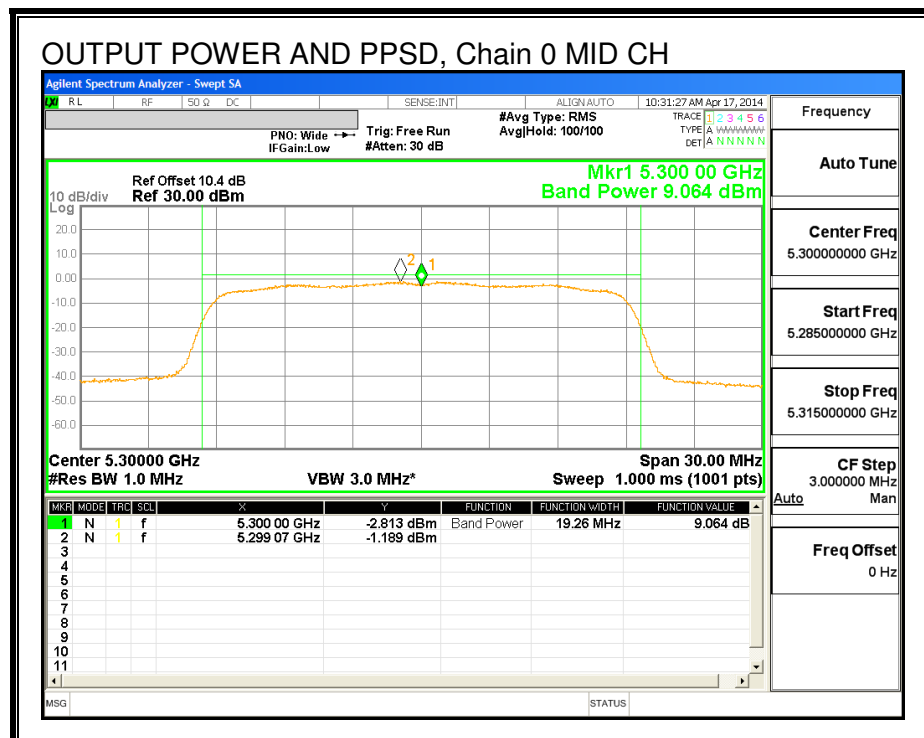
**802.11n HT40 5.2G OUTPUT POWER AND PPSD, Chain 0**



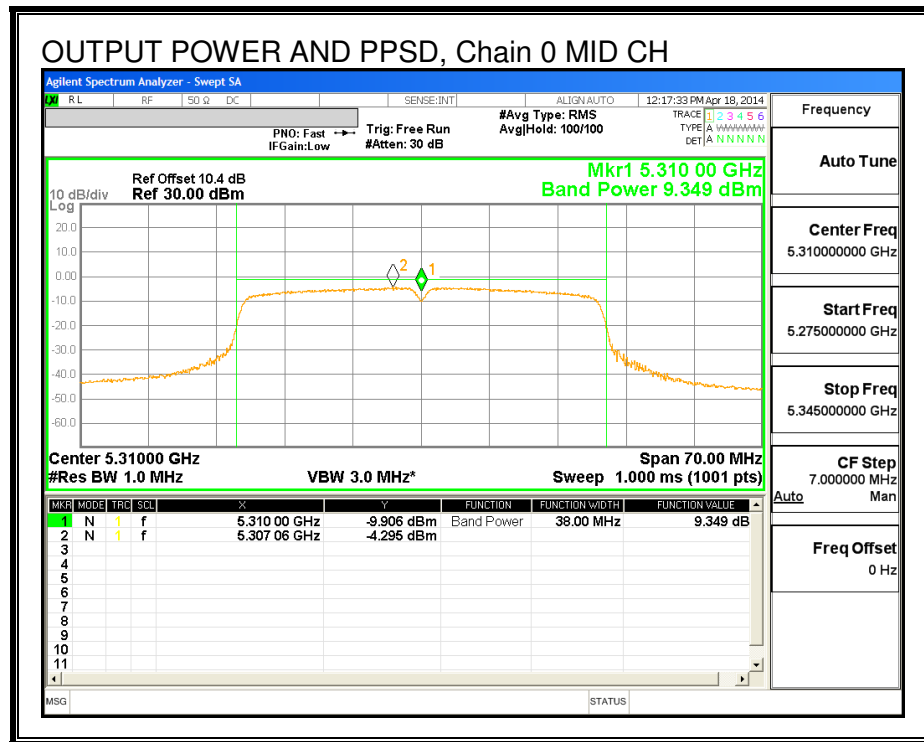
**802.11a 5.3G OUTPUT POWER AND PPSD, Chain 0**



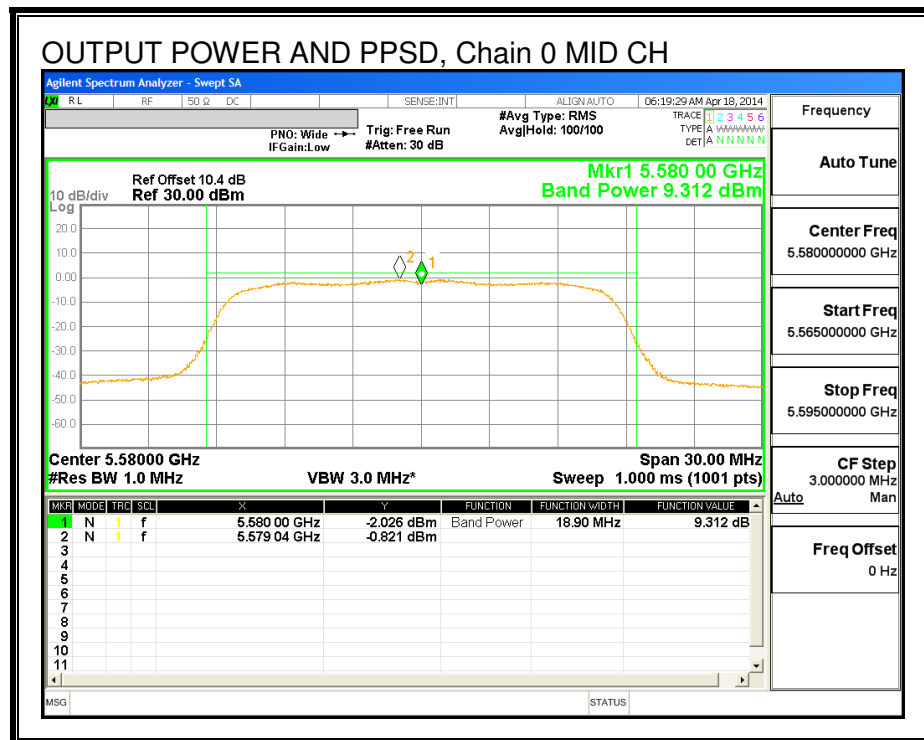
**802.11n HT20 5.3G OUTPUT POWER AND PPSD, Chain 0**



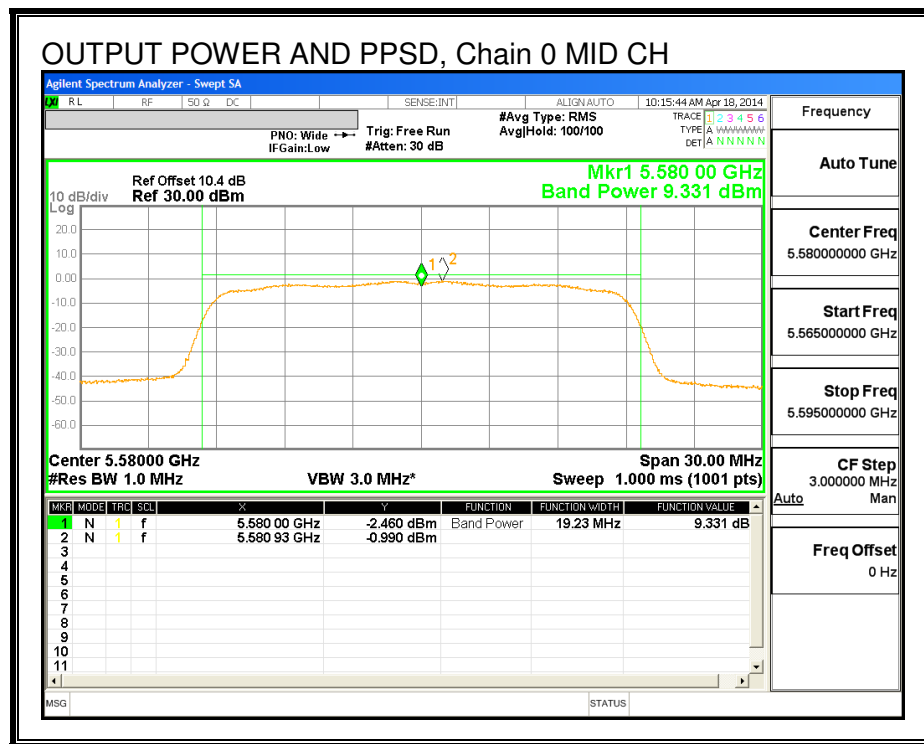
**802.11n HT40 5.3G OUTPUT POWER AND PPSD, Chain 0**



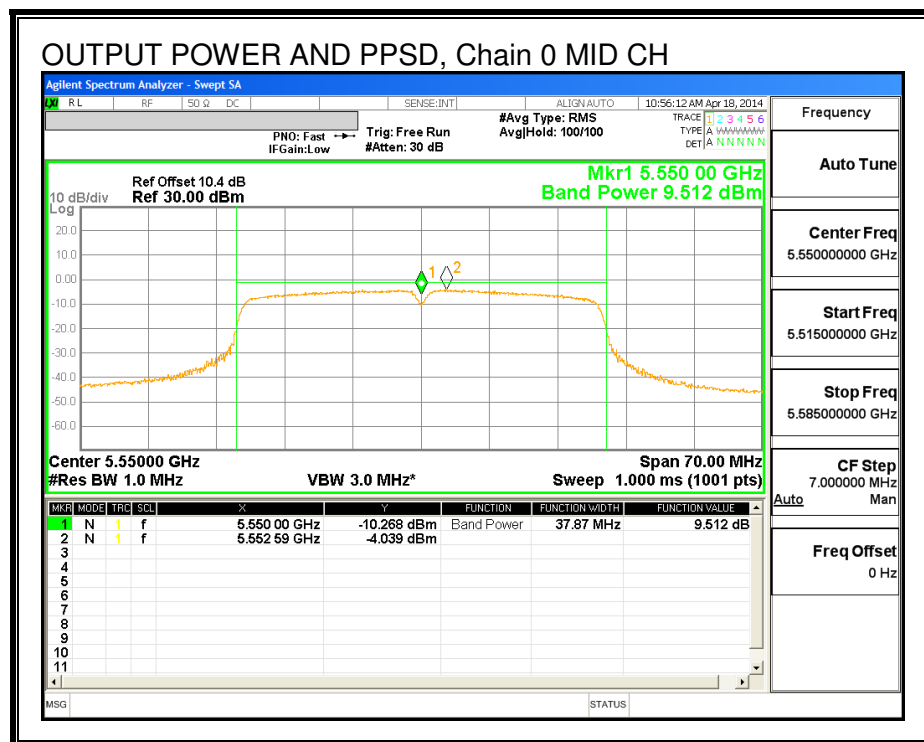
**802.11a 5.5G OUTPUT POWER AND PPSD, Chain 0**



**802.11n HT20 5.5G OUTPUT POWER AND PPSD, Chain 0**



**802.11n HT40 5.5G OUTPUT POWER AND PPSD, Chain 0**



## 10.5. PEAK EXCURSION

### LIMITS

FCC §15.407 (a) (6)

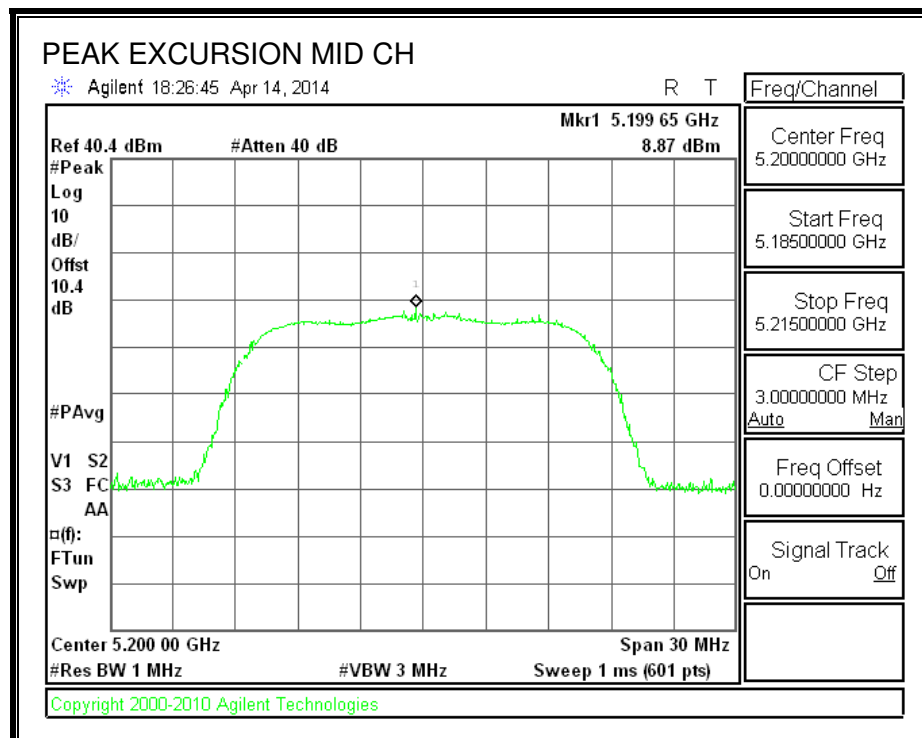
The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power (measured as specified above) shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

### RESULTS

#### 10.5.1. 802.11a MODE IN THE 5.2 GHz BAND

| Channel | Frequency (MHz) | PK Level (dBm) | PSD (dBm) | DCCF (dB) | Peak Excursion (dB) | Limit (dB) | Margin (dB) |
|---------|-----------------|----------------|-----------|-----------|---------------------|------------|-------------|
| Mid     | 5200            | 8.870          | -0.55     | 0.20      | 9.22                | 13         | -3.78       |

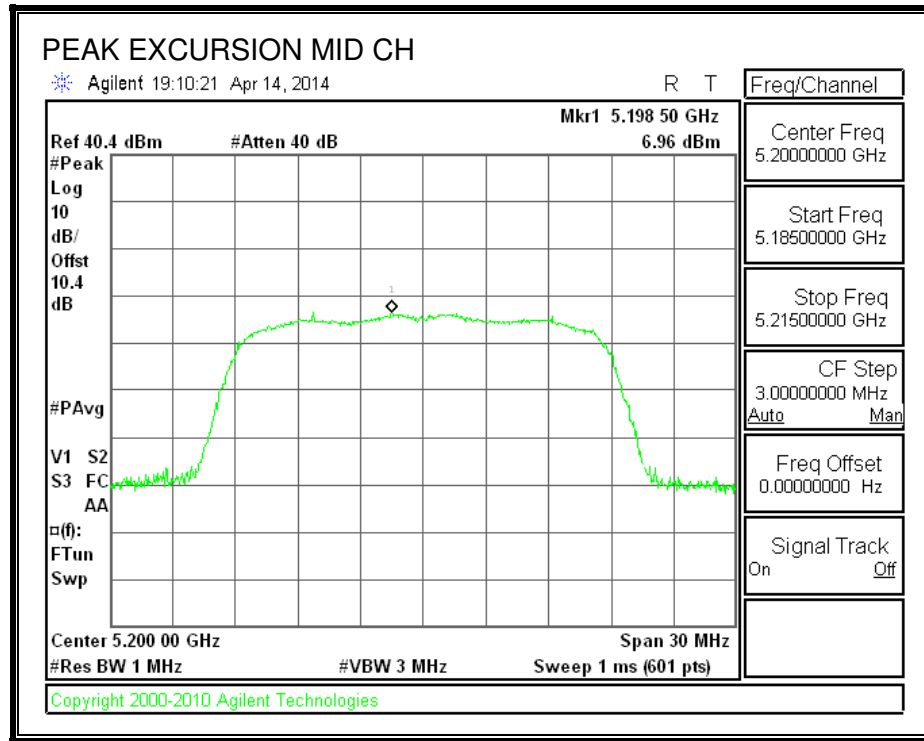
### PEAK EXCURSION



### 10.5.1. 802.11n HT20 MODE IN THE 5.2 GHz BAND

| Channel | Frequency (MHz) | PK Level (dBm) | PSD (dBm) | DCCF (dB) | Peak Excursion (dB) | Limit (dB) | Margin (dB) |
|---------|-----------------|----------------|-----------|-----------|---------------------|------------|-------------|
| Mid     | 5200            | 6.960          | -1.05     | 0.22      | 7.79                | 13         | -5.21       |

#### PEAK EXCURSION



| Channel | Frequency (MHz) | PK Level (dBm) | PSD (dBm) | DCCF (dB) | Peak Excursion (dB) | Limit (dB) | Margin (dB) |
|---------|-----------------|----------------|-----------|-----------|---------------------|------------|-------------|
| Mid     | 5230            | 5.310          | -3.07     | 0.43      | 7.95                | 13         | -5.05       |

# PEAK EXCURSION MID CH

**Agilent Spectrum Analyzer - Swept SA**

**VM** RL RF SQ Z DC SENSE:INT
 
ALIGN AUTO
12:22:51 PM Apr 18, 2014

PNO: Fast IF Gain: Low
 

 Trig: Free Run #Atten: 30 dB
 

**#Avg Type: RMS**

TRACE 1 2 3 4 5 6  
 TYPE S W W W W W W W  
 DET P N N N N N

Ref Offset 10.4 dB  
 Ref 30.00 dBm

Mkr1 5.228 11 GHz  
 5.31 dBm

Center 5.23000 GHz  
#Res BW 1.0 MHz
VBW 3.0 MHz
Sweep 1.000 ms (1001 pts)

Frequency

Auto Tune

Center Freq  
5.230000000 GHz

Start Freq  
5.195000000 GHz

Stop Freq  
5.265000000 GHz

CF Step  
 7.000000 MHz  
 Auto Man

Freq Offset  
 0 Hz

MSG
STATUS

## 11. TRANSMITTER ABOVE 1 GHz

### LIMITS

FCC §15.205 and §15.209

| Frequency Range (MHz) | Field Strength Limit (uV/m) at 3 m | Field Strength Limit (dBuV/m) at 3 m |
|-----------------------|------------------------------------|--------------------------------------|
| 30 - 88               | 100                                | 40                                   |
| 88 - 216              | 150                                | 43.5                                 |
| 216 - 960             | 200                                | 46                                   |
| Above 960             | 500                                | 54                                   |

### TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane. The antenna to EUT distance is 3 meters.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

Reference to KDB 789033 UNII part H) 6) d) Method VB:

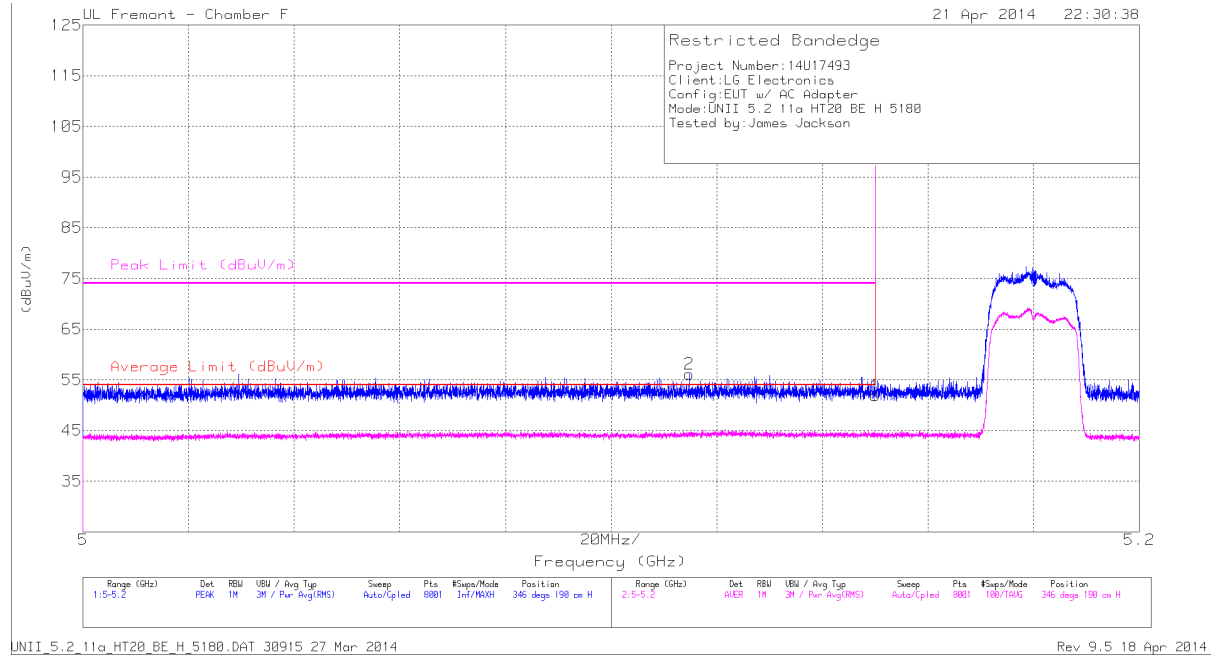
For measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz for peak measurements and add duty cycle factor to the reading offset for average measurements.

The spectrum from 1GHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

## 11.1. 5.2 GHz

### 11.1.1. TX ABOVE 1 GHz 802.11a MODE IN THE 5.2 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

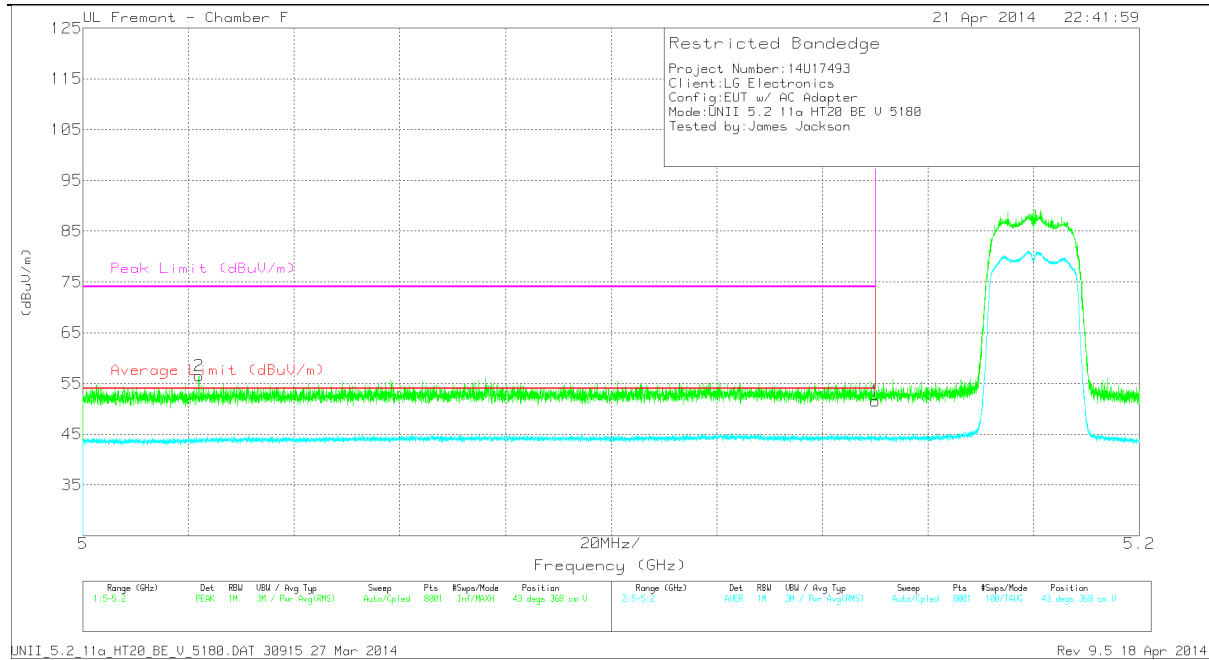


| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T120 (dB/m) | Amp/Cbl/ Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 5.15          | 36.81                | PK  | 34.4           | -19.3                  | 51.91                      | -                      | -           | 74                  | -22.09         | 346            | 190         | H        |
| 2      | * 5.115         | 41.31                | PK  | 34.3           | -19.5                  | 56.11                      | -                      | -           | 74                  | -17.89         | 346            | 190         | H        |
| 3      | * 5.15          | 29.23                | RMS | 34.4           | -19.3                  | 44.33                      | 54                     | -9.67       | -                   | -              | 346            | 190         | H        |
| 4      | * 5.122         | 30.07                | RMS | 34.4           | -19.3                  | 45.17                      | 54                     | -8.83       | -                   | -              | 346            | 190         | H        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

RMS - RMS detection



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T120 (dB/m) | Amp/Cbl/ Filt/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 5.15          | 36.49                | PK  | 34.4           | -19.3                  | 51.59                      | -                      | -           | 74                  | -22.41         | 43             | 368         | V        |
| 2      | * 5.022         | 42.35                | PK  | 34.3           | -20.2                  | 56.45                      | -                      | -           | 74                  | -17.55         | 43             | 368         | V        |
| 3      | * 5.15          | 29.23                | RMS | 34.4           | -19.3                  | 44.33                      | 54                     | -9.67       | -                   | -              | 43             | 368         | V        |
| 4      | * 5.123         | 30.06                | RMS | 34.4           | -19.3                  | 45.16                      | 54                     | -8.84       | -                   | -              | 43             | 368         | V        |

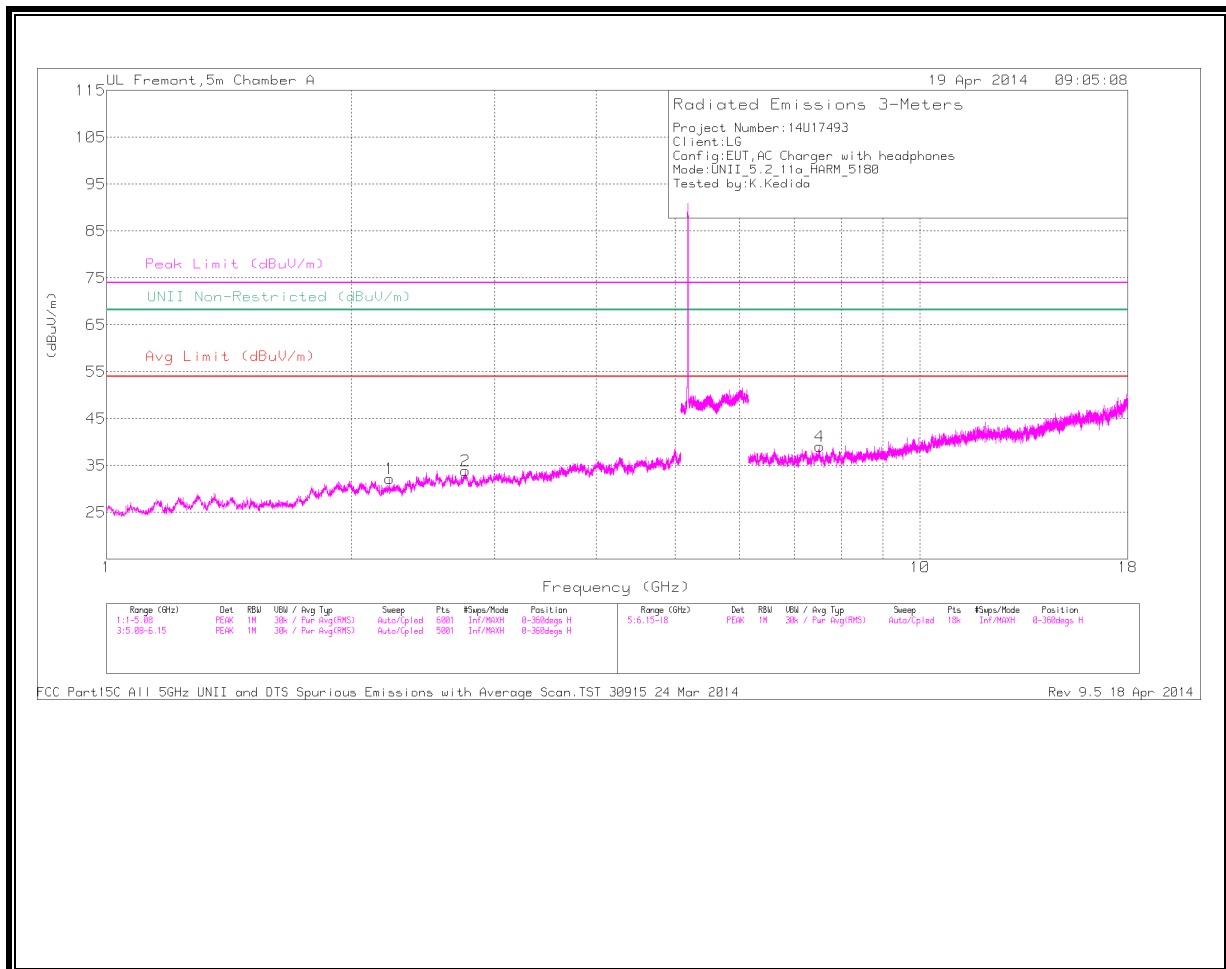
\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

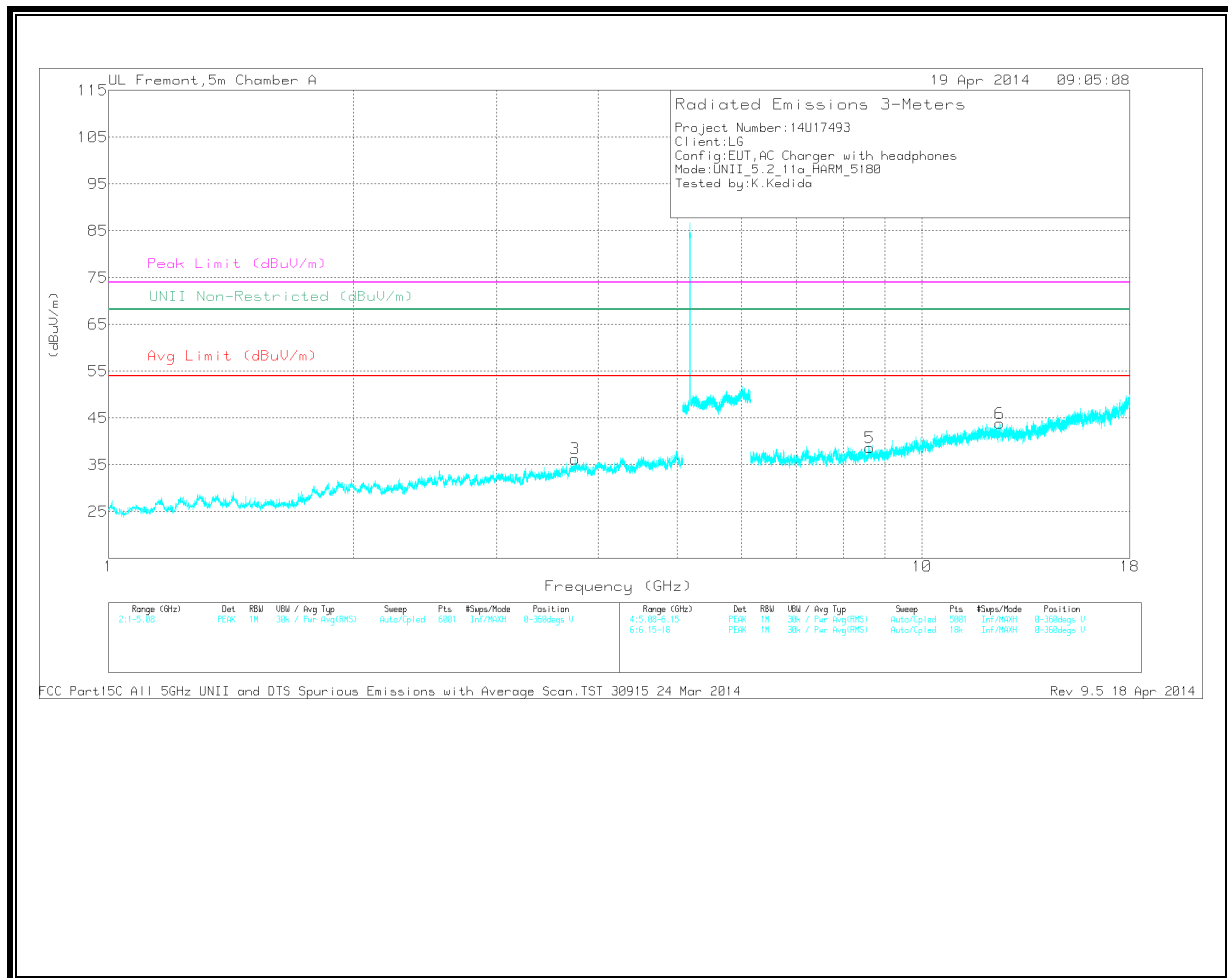
RMS - RMS detection

## HARMONICS AND SPURIOUS EMISSIONS

### LOW CHANNEL HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T136 (dB/m) | Amp/Cbl/Fitr /Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 1      | * 2.227         | 34.37                | PK  | 31.3           | -33.5                  | 32.17                      | -                  | -           | 74                  | -41.83         | -                            | -              | 0-360          | 200         | H        |
| 2      | * 2.764         | 33.61                | PK  | 32.7           | -32.4                  | 33.91                      | -                  | -           | 74                  | -40.09         | -                            | -              | 0-360          | 200         | H        |
| 3      | * 3.747         | 32.99                | PK  | 33.5           | -30.2                  | 36.29                      | -                  | -           | 74                  | -37.71         | -                            | -              | 0-360          | 201         | V        |
| 4      | * 7.521         | 28.75                | PK  | 35.3           | -25                    | 39.05                      | -                  | -           | 74                  | -34.95         | -                            | -              | 0-360          | 200         | H        |
| 6      | * 12.46         | 27.2                 | PK  | 38.8           | -22.1                  | 43.9                       | -                  | -           | 74                  | -30.1          | -                            | -              | 0-360          | 100         | V        |
| 5      | 8.619           | 28.37                | PK  | 35.7           | -25.4                  | 38.67                      | -                  | -           | -                   | -              | 68.2                         | -29.53         | 0-360          | 100         | V        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

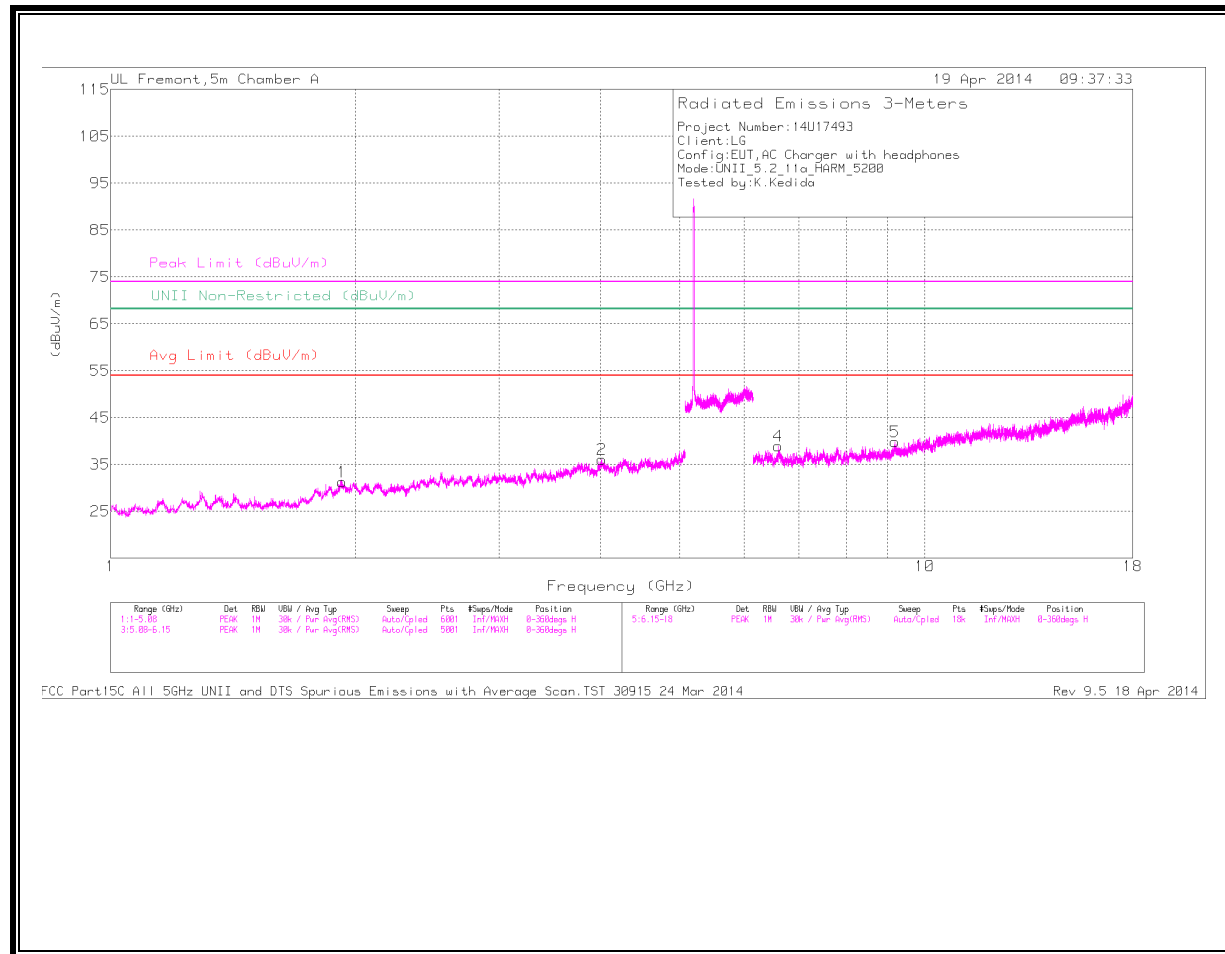
PK - Peak detector

Radiated Emissions

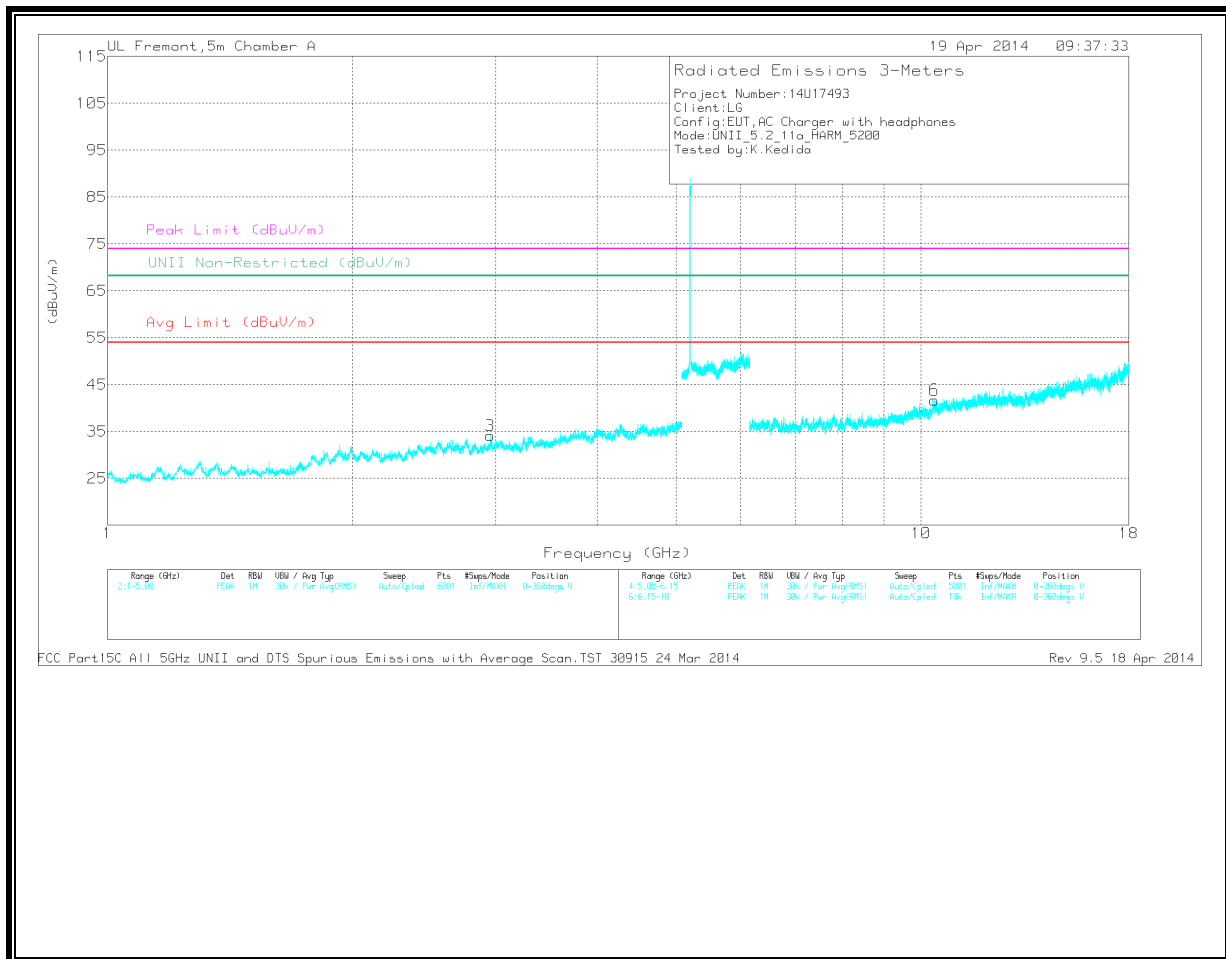
| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T136 (dB/m) | Amp/Cbl/Fitr /Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|-----|----------------|------------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 2.227         | 40.95                | PK1 | 31.3           | -33.5                  | 38.75                      | -                  | -           | 74                  | -35.25         | -                            | -              | 359            | 100         | H        |
| * 2.764         | 40.79                | PK1 | 32.7           | -32.4                  | 41.09                      | -                  | -           | 74                  | -32.91         | -                            | -              | 359            | 100         | H        |
| * 3.747         | 40.31                | PK1 | 33.5           | -30.2                  | 43.61                      | -                  | -           | 74                  | -30.39         | -                            | -              | 359            | 100         | V        |
| * 7.521         | 36.48                | PK1 | 35.3           | -25                    | 46.78                      | -                  | -           | 74                  | -27.22         | -                            | -              | 359            | 100         | H        |
| * 12.46         | 34.65                | PK1 | 38.8           | -22.1                  | 51.35                      | -                  | -           | 74                  | -22.65         | -                            | -              | 359            | 100         | V        |
| 8.62            | 36.42                | PK1 | 35.7           | -25.4                  | 46.72                      | -                  | -           | -                   | -              | 68.2                         | -21.48         | 359            | 100         | V        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK1 - KDB789033 Method: Peak



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T136 (dB/m) | Amp/Cbl/Ftr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 2      | * 4.01          | 32.08                | PK  | 33.7           | -29.7                | 0            | 36.08                      | -                  | -           | 74                  | -37.92         | -                            | -              | 0-360          | 200         | H        |
| 5      | * 9.188         | 28.1                 | PK  | 36.1           | -24.3                | 0            | 39.9                       | -                  | -           | 74                  | -34.1          | -                            | -              | 0-360          | 200         | H        |
| 1      | 1.925           | 34.06                | PK  | 31.8           | -34.6                | 0            | 31.26                      | -                  | -           | -                   | -              | 68.2                         | -36.94         | 0-360          | 100         | H        |
| 3      | 2.956           | 33.76                | PK  | 32.7           | -32.3                | 0            | 34.16                      | -                  | -           | -                   | -              | 68.2                         | -34.04         | 0-360          | 200         | V        |
| 4      | 6.607           | 29.37                | PK  | 35.5           | -25.9                | 0            | 38.97                      | -                  | -           | -                   | -              | 68.2                         | -29.23         | 0-360          | 100         | H        |
| 6      | 10.38           | 26.94                | PK  | 37.3           | -22.5                | 0            | 41.74                      | -                  | -           | -                   | -              | 68.2                         | -26.46         | 0-360          | 100         | V        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

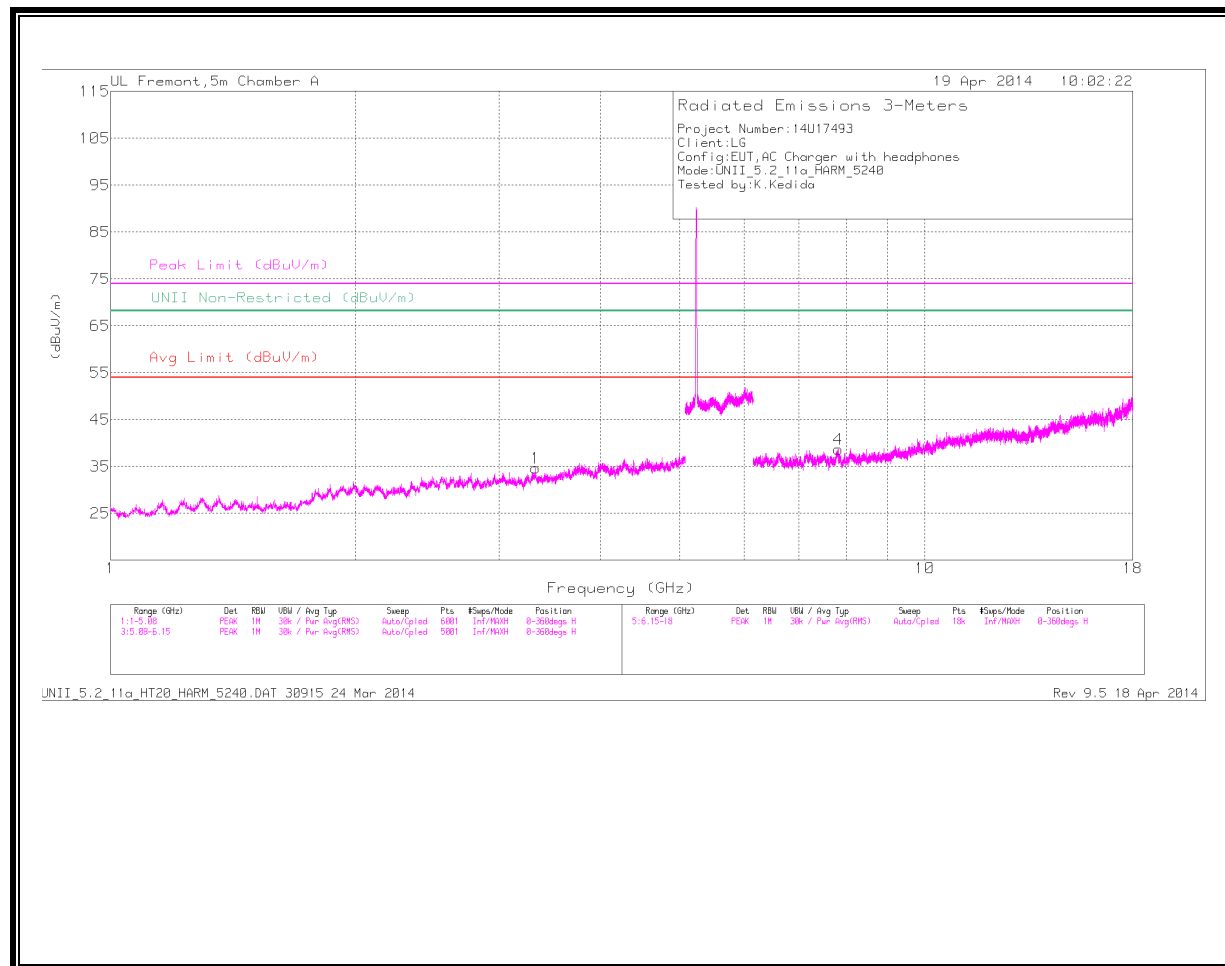
PK - Peak detector

Radiated Emissions

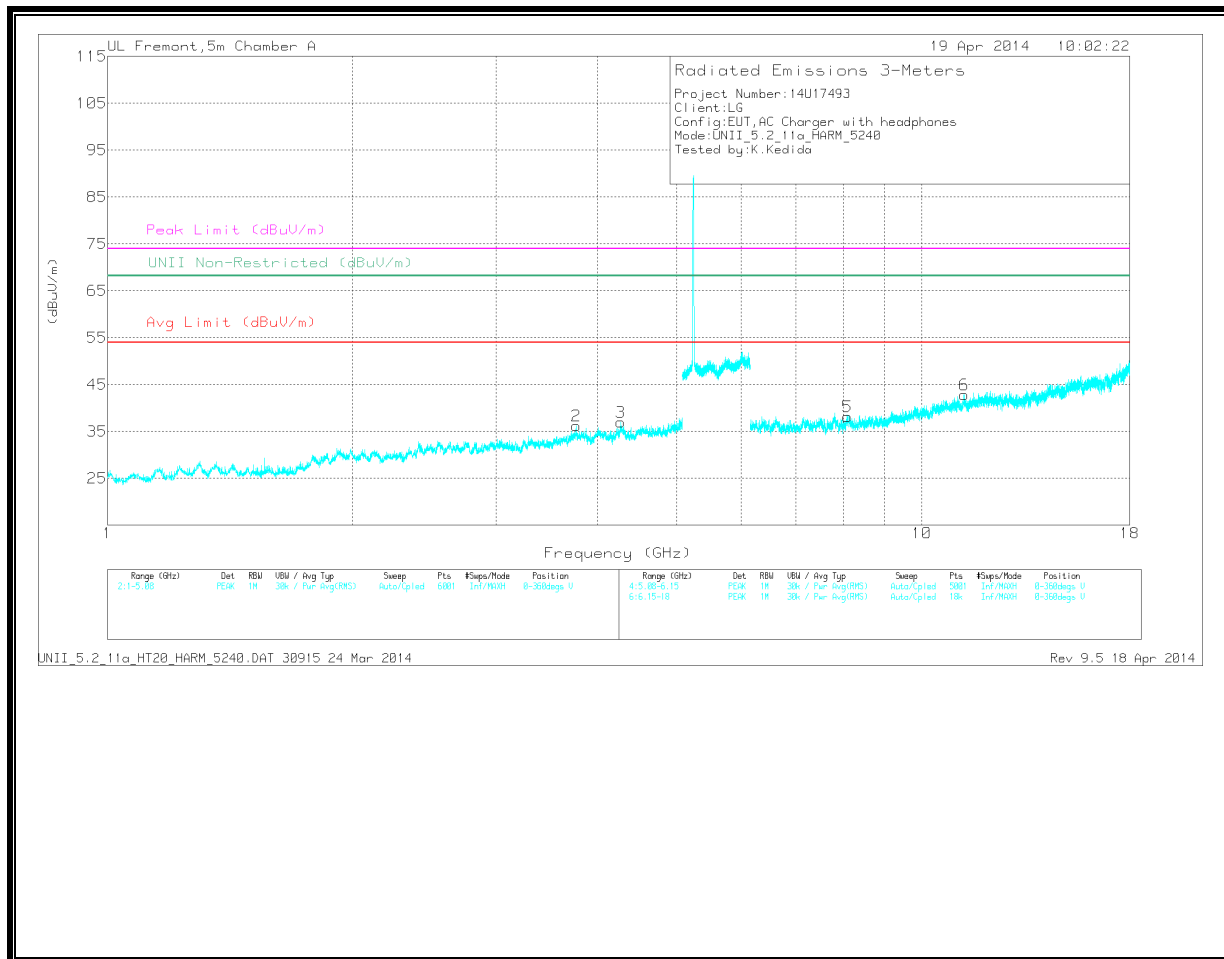
| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T136 (dB/m) | Amp/Cbl/Ftr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|-----|----------------|----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 4.011         | 39.67                | PK1 | 33.7           | -29.7                | 0            | 43.67                      | -                  | -           | 74                  | -30.33         | -                            | -              | 359            | 100         | H        |
| * 9.187         | 36.41                | PK1 | 36.1           | -24.3                | 0            | 48.21                      | -                  | -           | 74                  | -25.79         | -                            | -              | 359            | 100         | H        |
| 1.924           | 42.37                | PK1 | 31.8           | -34.6                | 0            | 39.57                      | -                  | -           | -                   | -              | 68.2                         | -28.63         | 359            | 100         | H        |
| 2.955           | 41.15                | PK1 | 32.7           | -32.3                | 0            | 41.55                      | -                  | -           | -                   | -              | 68.2                         | -26.65         | 359            | 100         | V        |
| 6.605           | 37.29                | PK1 | 35.5           | -26                  | 0            | 46.79                      | -                  | -           | -                   | -              | 68.2                         | -21.41         | 359            | 100         | H        |
| 10.379          | 35.46                | PK1 | 37.3           | -22.6                | 0            | 50.16                      | -                  | -           | -                   | -              | 68.2                         | -18.04         | 359            | 100         | V        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK1 - KDB789033 Method: Peak



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

# HIGH CHANNEL DATA

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T136 (dB/m) | Amp/Cbl/Ftr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 2      | * 3.762         | 32.36                | PK  | 33.5           | -29.6                | 0            | 36.26                      | -                  | -           | 74                  | -37.74         | -                            | -              | 0-360          | 100         | V        |
| 3      | * 4.266         | 31.28                | PK  | 34             | -28.3                | 0            | 36.98                      | -                  | -           | 74                  | -37.02         | -                            | -              | 0-360          | 100         | V        |
| 5      | * 8.108         | 27.62                | PK  | 35.5           | -24.9                | 0            | 38.22                      | -                  | -           | 74                  | -35.78         | -                            | -              | 0-360          | 201         | V        |
| 6      | * 11.282        | 26.75                | PK  | 37.9           | -21.8                | 0            | 42.85                      | -                  | -           | 74                  | -31.15         | -                            | -              | 0-360          | 100         | V        |
| 1      | 3.328           | 32.81                | PK  | 33             | -31.2                | 0            | 34.61                      | -                  | -           | -                   | -              | 68.2                         | -33.59         | 0-360          | 200         | H        |
| 4      | 7.824           | 27.73                | PK  | 35.5           | -24.6                | 0            | 38.63                      | -                  | -           | -                   | -              | 68.2                         | -29.57         | 0-360          | 100         | H        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

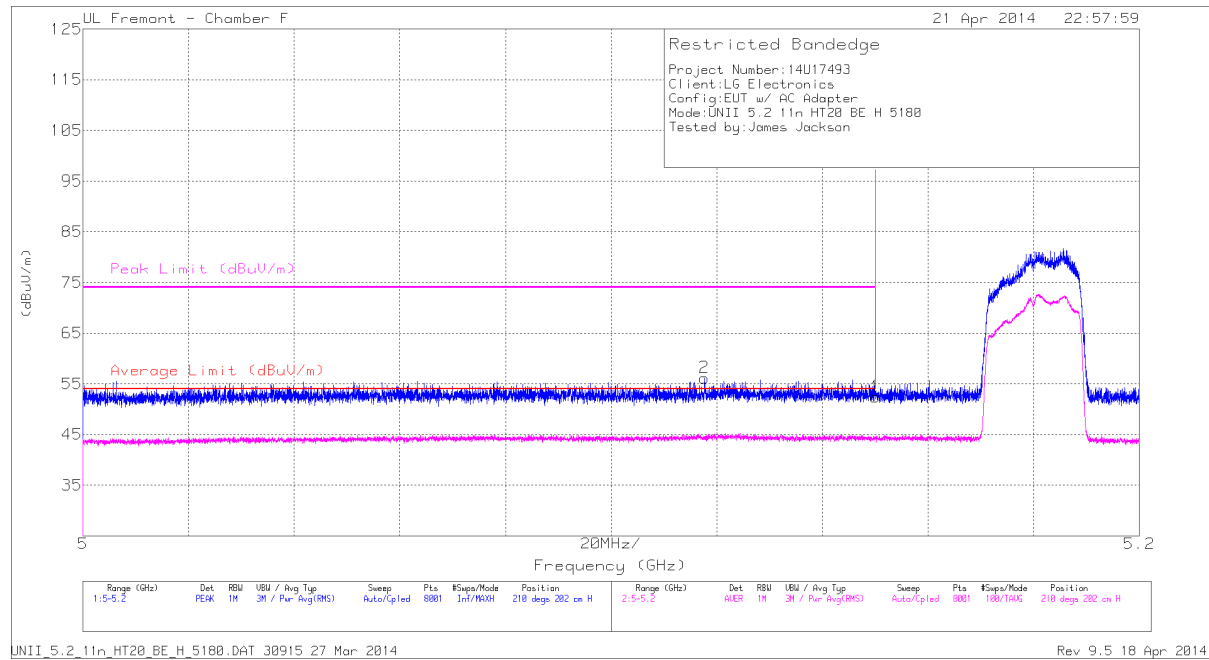
Radiated Emissions

| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T136 (dB/m) | Amp/Cbl/Ftr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|-----|----------------|----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 3.762         | 39.72                | PK1 | 33.5           | -29.6                | 0            | 43.62                      | -                  | -           | 74                  | -30.38         | -                            | -              | 359            | 100         | V        |
| * 4.267         | 39.16                | PK1 | 34             | -28.3                | 0            | 44.86                      | -                  | -           | 74                  | -29.14         | -                            | -              | 359            | 100         | V        |
| * 8.108         | 36.53                | PK1 | 35.5           | -24.9                | 0            | 47.13                      | -                  | -           | 74                  | -26.87         | -                            | -              | 359            | 100         | V        |
| * 11.283        | 34.15                | PK1 | 37.9           | -21.8                | 0            | 50.25                      | -                  | -           | 74                  | -23.75         | -                            | -              | 359            | 100         | V        |
| 3.326           | 40.38                | PK1 | 33             | -31.1                | 0            | 42.28                      | -                  | -           | -                   | -              | 68.2                         | -25.92         | 359            | 100         | H        |
| 7.824           | 36.34                | PK1 | 35.5           | -24.6                | 0            | 47.24                      | -                  | -           | -                   | -              | 68.2                         | -20.96         | 359            | 100         | H        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK1 - KDB789033 Method: Peak

# 11.1.2. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.2 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

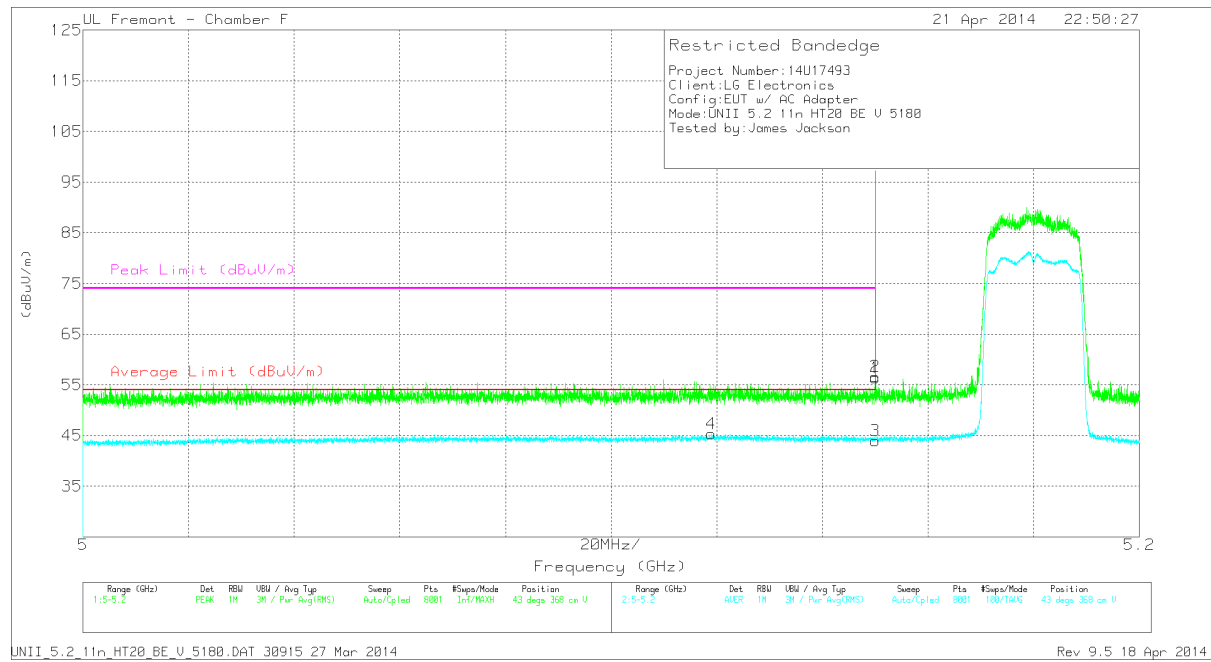


| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T120 (dB/m) | Amp/Cbl/ Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 5.15          | 37.36                | PK  | 34.4           | -19.3                  | 52.46                      | -                      | -           | 74                  | -21.54         | 210            | 202         | H        |
| 2      | * 5.118         | 41.19                | PK  | 34.4           | -19.4                  | 56.19                      | -                      | -           | 74                  | -17.81         | 210            | 202         | H        |
| 3      | * 5.15          | 28.88                | RMS | 34.4           | -19.3                  | 43.98                      | 54                     | -10.02      | -                   | -              | 210            | 202         | H        |
| 4      | * 5.124         | 30.08                | RMS | 34.4           | -19.3                  | 45.18                      | 54                     | -8.82       | -                   | -              | 210            | 202         | H        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

RMS - RMS detection



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T120 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 5.15          | 41.23                | PK  | 34.4           | -19.3                 | 56.33                      | -                      | -           | 74                  | -17.67         | 43             | 368         | V        |
| 2      | * 5.15          | 41.57                | PK  | 34.4           | -19.3                 | 56.67                      | -                      | -           | 74                  | -17.33         | 43             | 368         | V        |
| 3      | * 5.15          | 28.82                | RMS | 34.4           | -19.3                 | 43.92                      | 54                     | -10.08      | -                   | -              | 43             | 368         | V        |
| 4      | * 5.119         | 30.28                | RMS | 34.4           | -19.4                 | 45.28                      | 54                     | -8.72       | -                   | -              | 43             | 368         | V        |

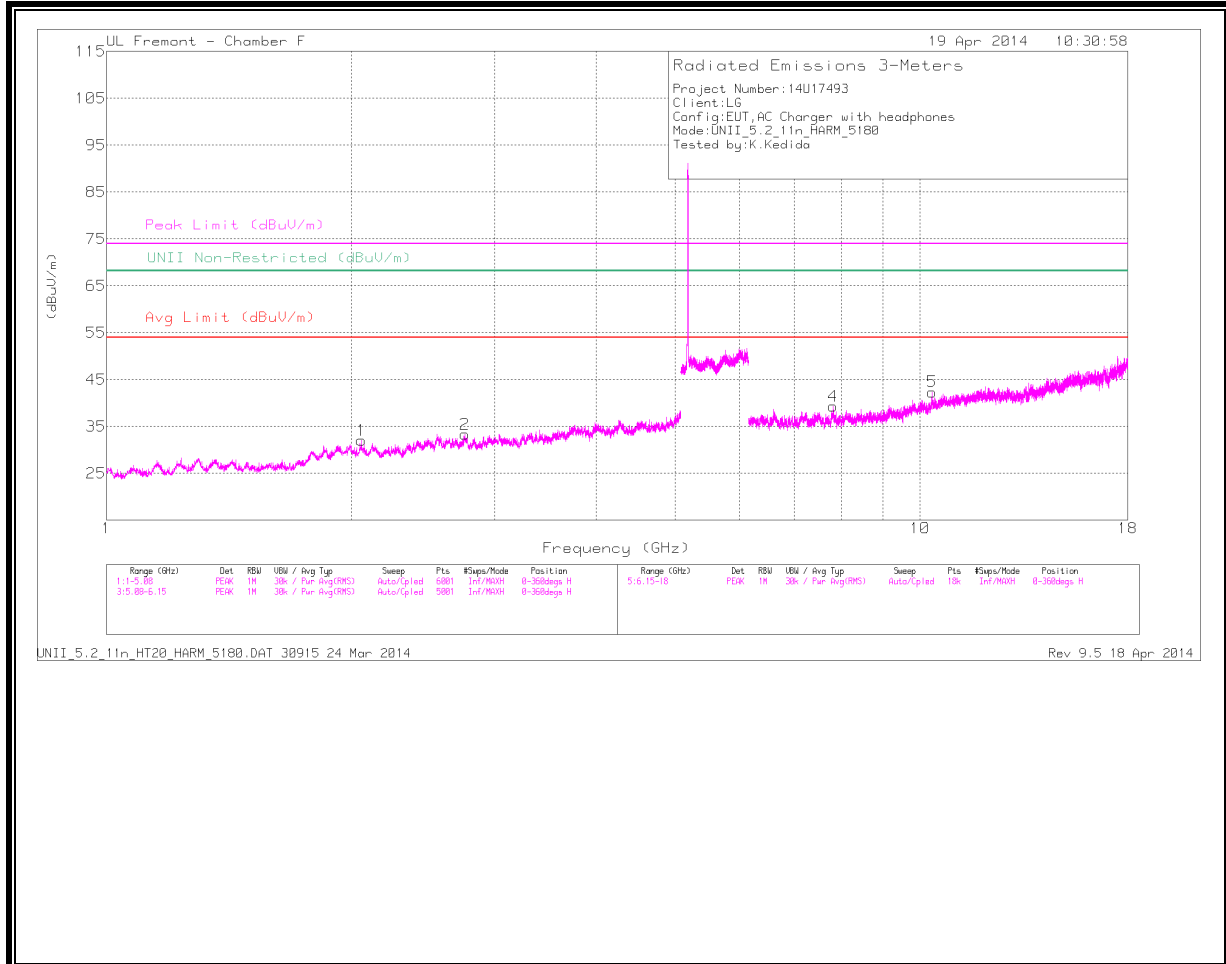
\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

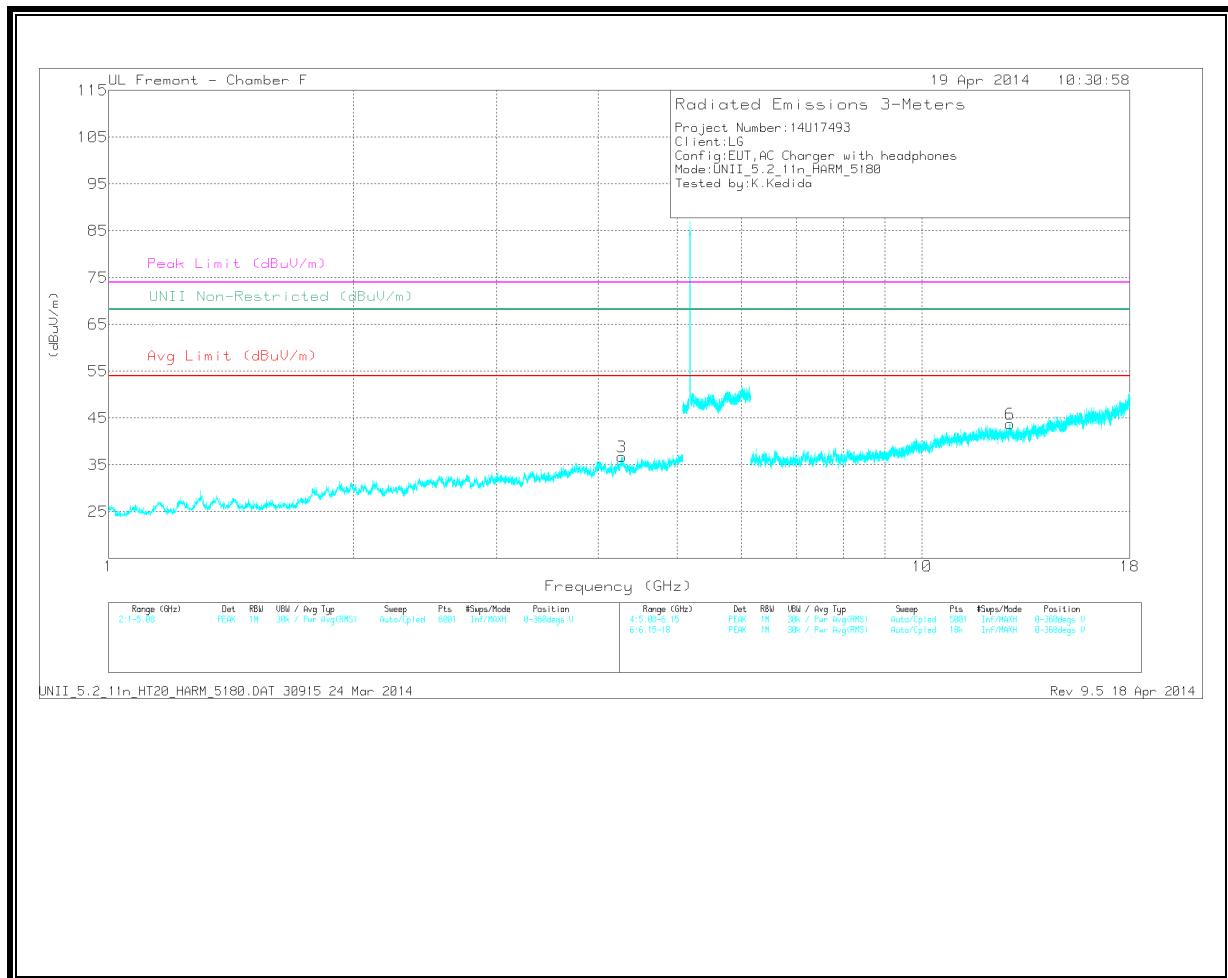
RMS - RMS detection

## HARMONICS AND SPURIOUS EMISSIONS

### LOW CHANNEL HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

# LOW CHANNEL DATA

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T136 (dB/m) | Amp/Cbl/Filr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 1      | 2.057           | 35.06                | PK  | 31.9           | -34.9                 | 0            | 32.06                      | -                  | -           | -                   | -              | 68.2                         | -36.14         | 0-360          | 100         | H        |
| 2      | * 2.757         | 32.61                | PK  | 32.7           | -31.9                 | 0            | 33.41                      | -                  | -           | 74                  | -40.59         | -                            | -              | 0-360          | 100         | H        |
| 3      | * 4.271         | 31.49                | PK  | 34             | -28.7                 | 0            | 36.79                      | -                  | -           | 74                  | -37.21         | -                            | -              | 0-360          | 200         | V        |
| 4      | 7.815           | 28.21                | PK  | 35.5           | -24.4                 | 0            | 39.31                      | -                  | -           | -                   | -              | 68.2                         | -28.89         | 0-360          | 100         | H        |
| 5      | 10.342          | 27.29                | PK  | 37.3           | -22.2                 | 0            | 42.39                      | -                  | -           | -                   | -              | 68.2                         | -25.81         | 0-360          | 100         | H        |
| 6      | 12.82           | 26.91                | PK  | 39             | -22.1                 | 0            | 43.81                      | -                  | -           | -                   | -              | 68.2                         | -24.39         | 0-360          | 100         | V        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

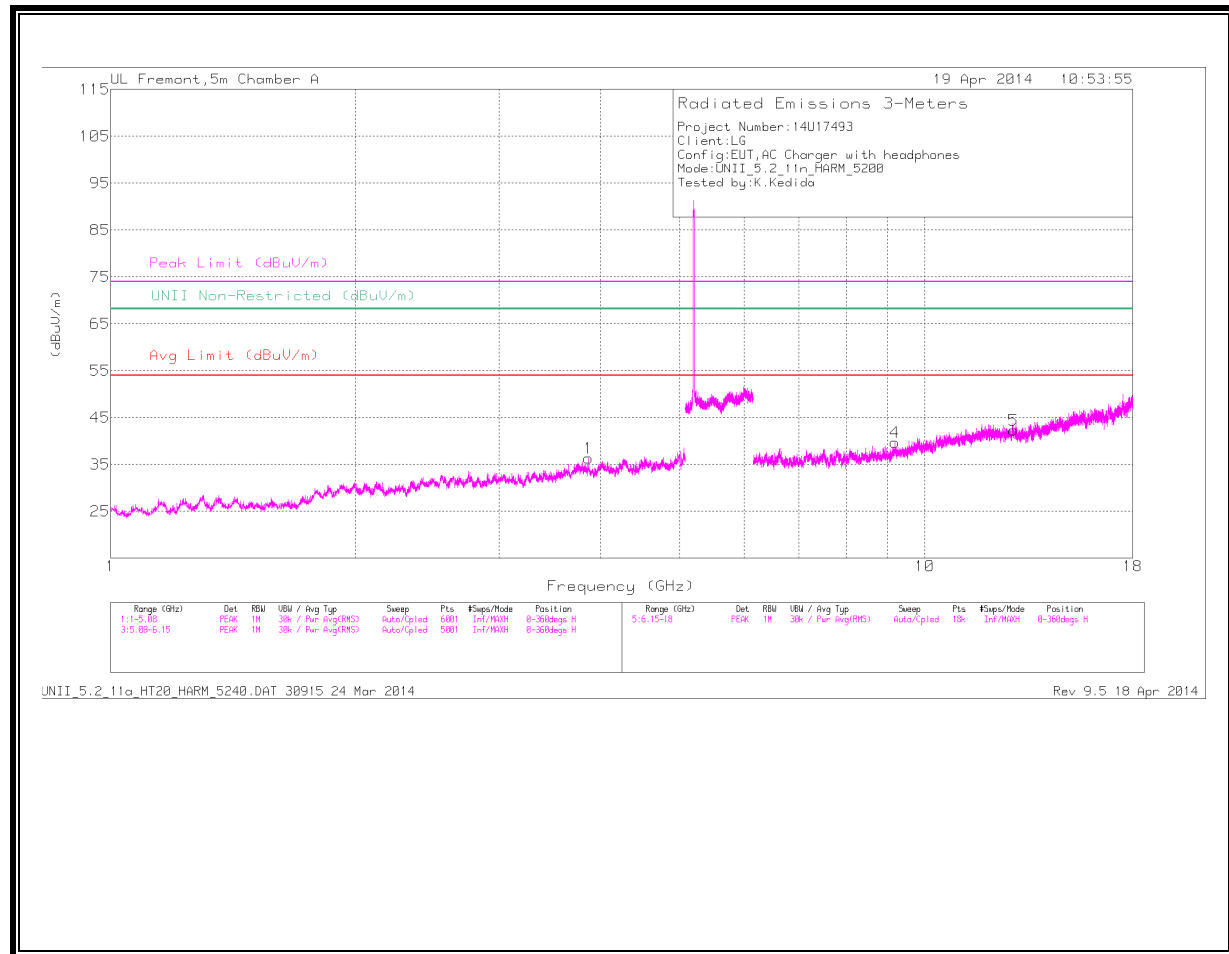
PK - Peak detector

Radiated Emissions

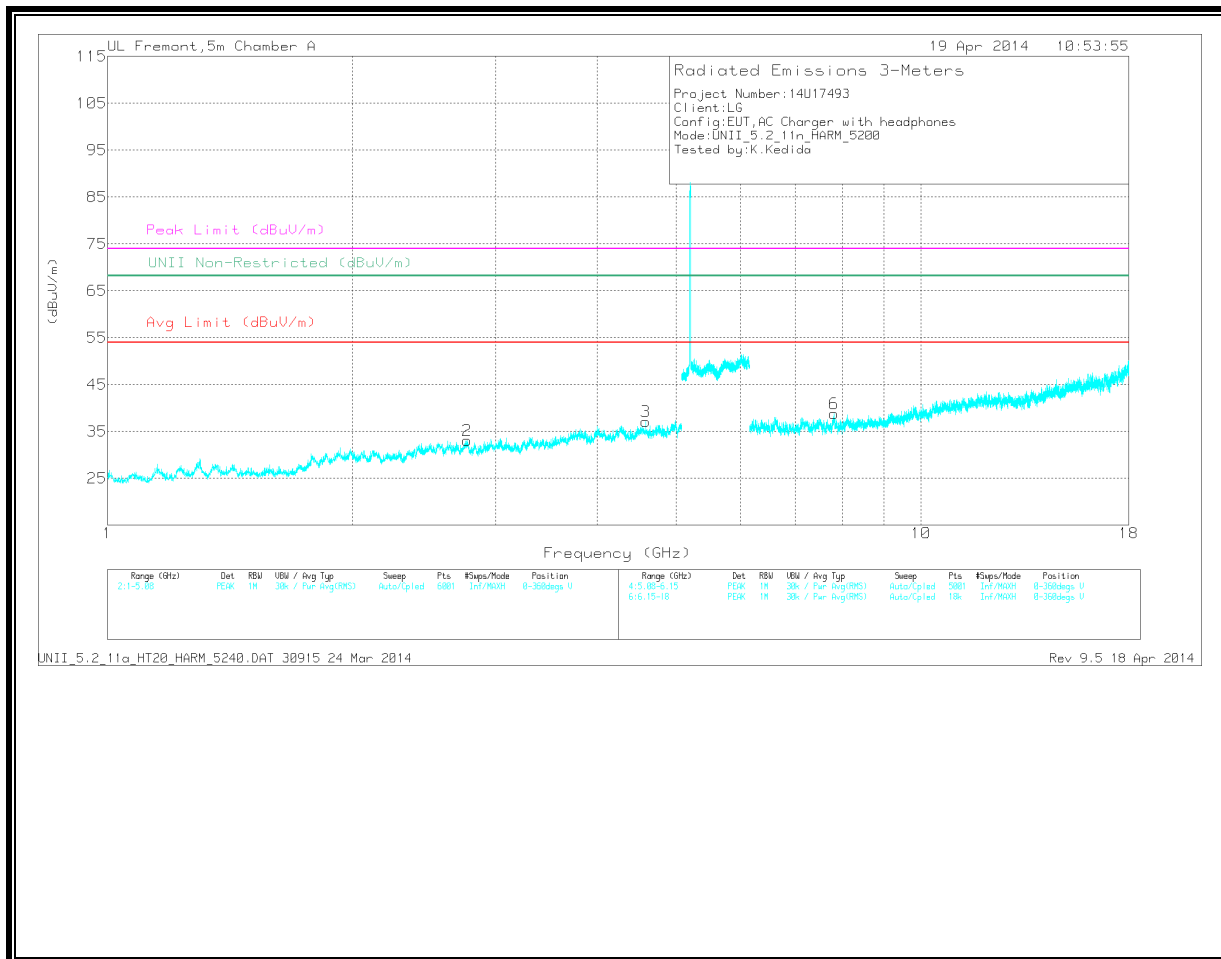
| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T136 (dB/m) | Amp/Cbl/Filr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|-----|----------------|-----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 2.055           | 43.17                | PK1 | 31.9           | -34.9                 | 0            | 40.17                      | -                  | -           | -                   | -              | 68.2                         | -28.03         | 359            | 100         | H        |
| * 2.757         | 40.71                | PK1 | 32.7           | -31.9                 | 0            | 41.51                      | -                  | -           | 74                  | -32.49         | -                            | -              | 359            | 100         | H        |
| * 4.272         | 38.89                | PK1 | 34             | -28.7                 | 0            | 44.19                      | -                  | -           | 74                  | -29.81         | -                            | -              | 359            | 100         | V        |
| 7.815           | 36.82                | PK1 | 35.5           | -24.4                 | 0            | 47.92                      | -                  | -           | -                   | -              | 68.2                         | -20.28         | 359            | 100         | H        |
| 10.343          | 35.28                | PK1 | 37.3           | -22.2                 | 0            | 50.38                      | -                  | -           | -                   | -              | 68.2                         | -17.82         | 359            | 100         | H        |
| 12.819          | 34.41                | PK1 | 39             | -22                   | 0            | 51.41                      | -                  | -           | -                   | -              | 68.2                         | -16.79         | 359            | 100         | V        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK1 - KDB789033 Method: Peak



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T136 (dB/m) | Amp/Cbl/Filr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 1      | * 3.861         | 33.58                | PK  | 33.7           | -30.9                 | 0            | 36.38                      | -                  | -           | 74                  | -37.62         | -                            | -              | 0-360          | 100         | H        |
| 2      | * 2.766         | 32.75                | PK  | 32.7           | -32.4                 | 0            | 33.05                      | -                  | -           | 74                  | -40.95         | -                            | -              | 0-360          | 100         | V        |
| 3      | * 4.586         | 32.81                | PK  | 34             | -29.7                 | 0            | 37.11                      | -                  | -           | 74                  | -36.89         | -                            | -              | 0-360          | 200         | V        |
| 4      | * 9.191         | 27.79                | PK  | 36.1           | -24.2                 | 0            | 39.69                      | -                  | -           | 74                  | -34.31         | -                            | -              | 0-360          | 100         | H        |
| 6      | 7.82            | 27.6                 | PK  | 35.5           | -24.3                 | 0            | 38.8                       | -                  | -           | -                   | -              | 68.2                         | -29.4          | 0-360          | 200         | V        |
| 5      | 12.854          | 26.12                | PK  | 39             | -22.8                 | 0            | 42.32                      | -                  | -           | -                   | -              | 68.2                         | -25.88         | 0-360          | 100         | H        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

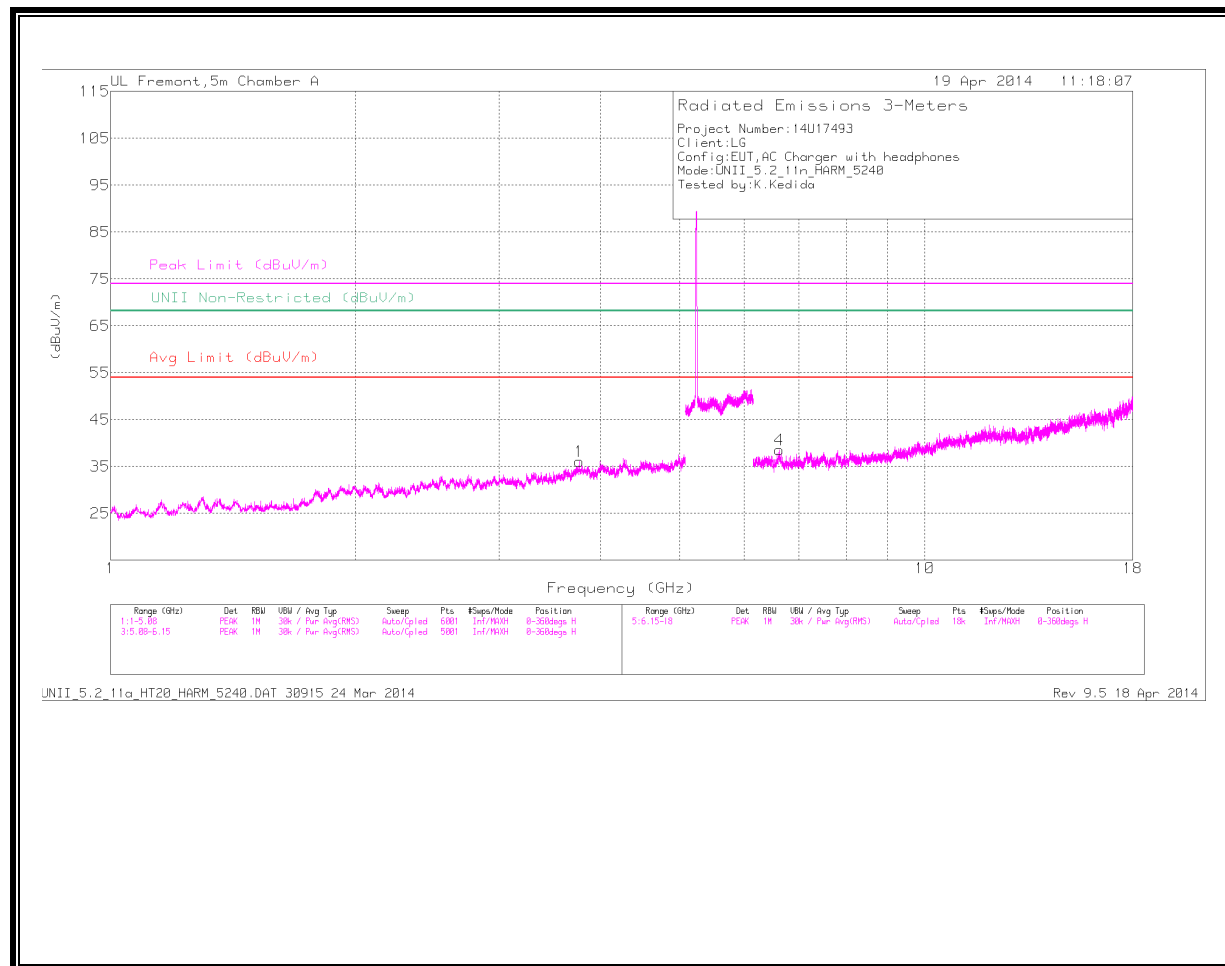
Radiated Emissions

| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T136 (dB/m) | Amp/Cbl/Filr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|-----|----------------|-----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 3.861         | 40.67                | PK1 | 33.7           | -30.9                 | 0            | 43.47                      | -                  | -           | 74                  | -30.53         | -                            | -              | 360            | 100         | H        |
| * 2.765         | 40.9                 | PK1 | 32.7           | -32.4                 | 0            | 41.2                       | -                  | -           | 74                  | -32.8          | -                            | -              | 360            | 100         | V        |
| * 4.586         | 40.09                | PK1 | 34             | -29.7                 | 0            | 44.39                      | -                  | -           | 74                  | -29.61         | -                            | -              | 360            | 100         | V        |
| * 9.191         | 36.22                | PK1 | 36.1           | -24.2                 | 0            | 48.12                      | -                  | -           | 74                  | -25.88         | -                            | -              | 360            | 100         | H        |
| 7.819           | 36.54                | PK1 | 35.5           | -24.3                 | 0            | 47.74                      | -                  | -           | -                   | -              | 68.2                         | -20.46         | 360            | 100         | V        |
| 12.854          | 34.98                | PK1 | 39             | -22.8                 | 0            | 51.18                      | -                  | -           | -                   | -              | 68.2                         | -17.02         | 360            | 100         | H        |

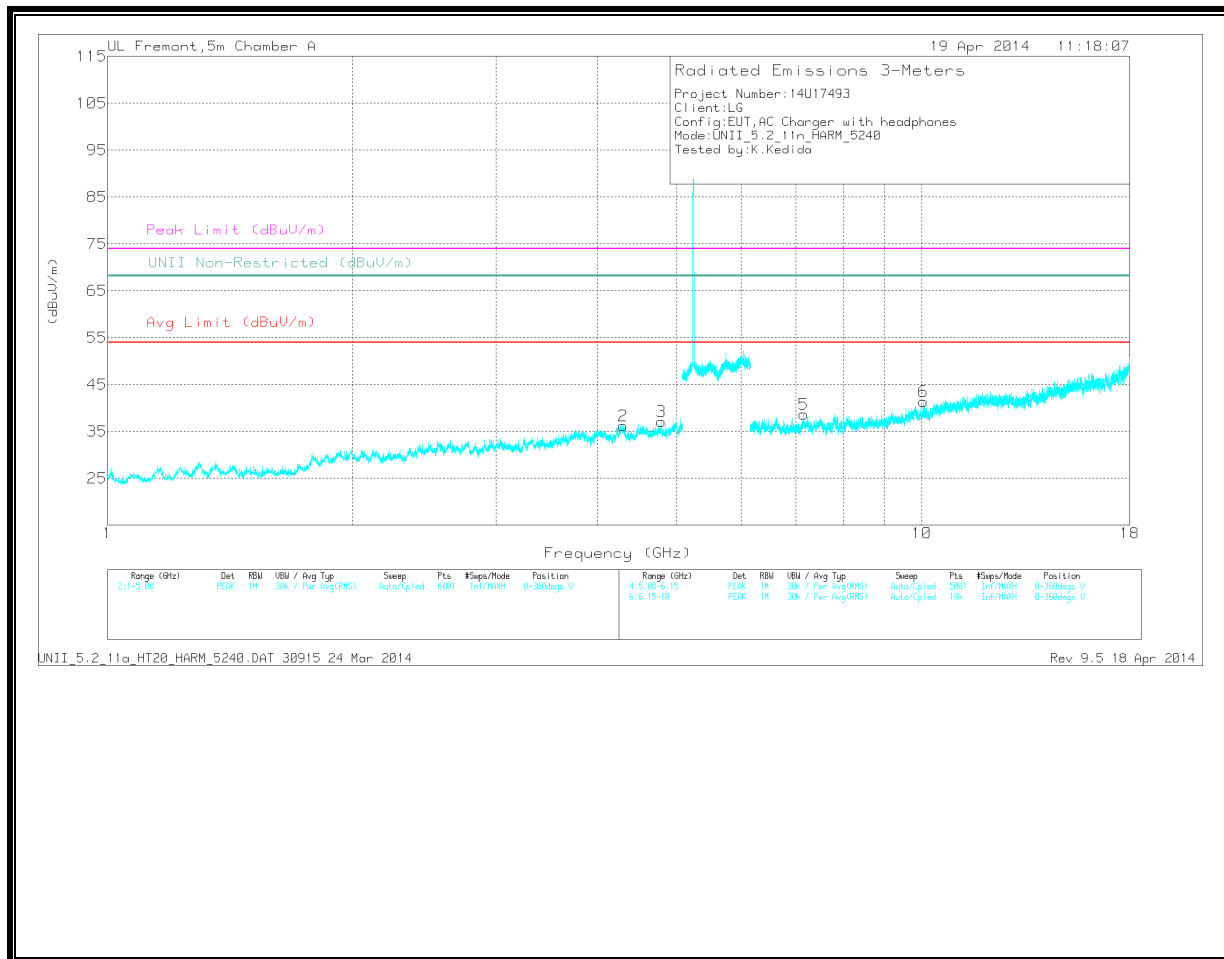
\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Avg - Video bandwidth < Resolution bandwidth

PK1 - KDB789033 Method: Peak



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

# HIGH CHANNEL DATA

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T136 (dB/m) | Amp/Cbl/Ftr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 1      | * 3.761         | 32.26                | PK  | 33.5           | -29.7                | 0            | 36.06                      | -                  | -           | 74                  | -37.94         | -                            | -              | 0-360          | 200         | H        |
| 2      | * 4.295         | 31.77                | PK  | 34             | -29.6                | 0            | 36.17                      | -                  | -           | 74                  | -37.83         | -                            | -              | 0-360          | 100         | V        |
| 3      | * 4.789         | 32.68                | PK  | 34             | -29.6                | 0            | 37.08                      | -                  | -           | 74                  | -36.92         | -                            | -              | 0-360          | 200         | V        |
| 4      | 6.63            | 28.9                 | PK  | 35.4           | -25.8                | 0            | 38.5                       | -                  | -           | -                   | -              | 68.2                         | -29.7          | 0-360          | 100         | H        |
| 5      | 7.159           | 29.59                | PK  | 35.3           | -26.2                | 0            | 38.69                      | -                  | -           | -                   | -              | 68.2                         | -29.51         | 0-360          | 200         | V        |
| 6      | 10.053          | 27.46                | PK  | 37.1           | -23.1                | 0            | 41.46                      | -                  | -           | -                   | -              | 68.2                         | -26.74         | 0-360          | 200         | V        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

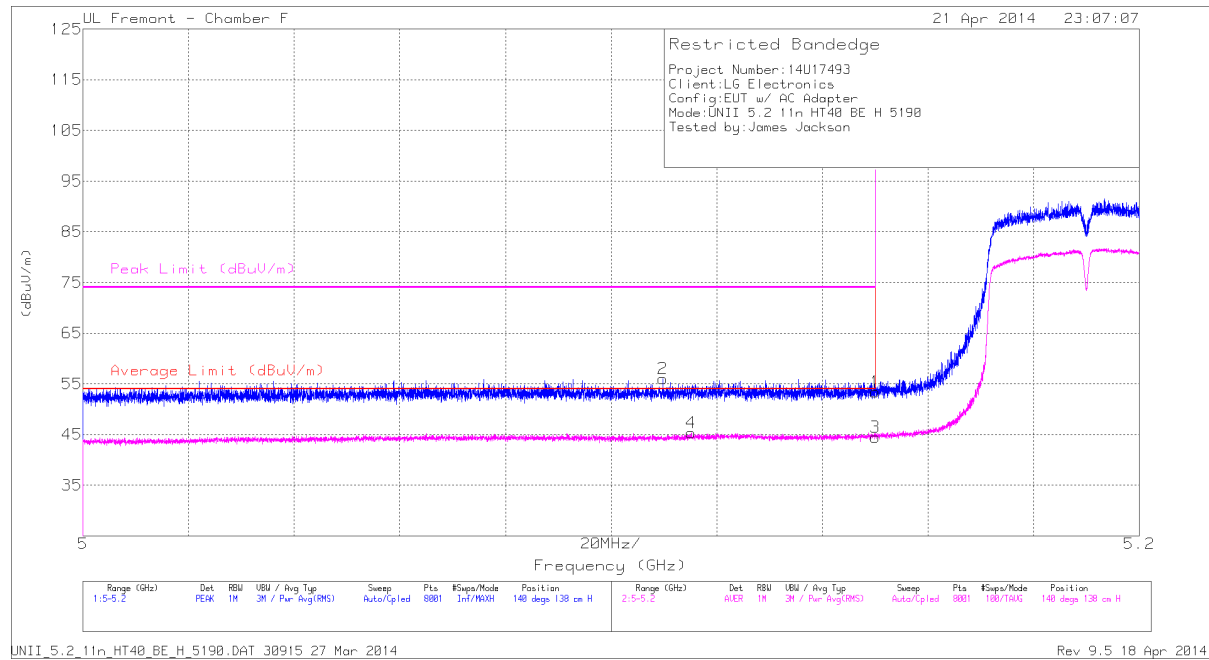
Radiated Emissions

| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T136 (dB/m) | Amp/Cbl/Ftr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|-----|----------------|----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 3.761         | 40.27                | PK1 | 33.5           | -29.7                | 0            | 44.07                      | -                  | -           | 74                  | -29.93         | -                            | -              | 359            | 100         | H        |
| * 4.295         | 39.7                 | PK1 | 34             | -29.6                | 0            | 44.1                       | -                  | -           | 74                  | -29.9          | -                            | -              | 359            | 100         | V        |
| * 4.787         | 39.62                | PK1 | 34             | -29.6                | 0            | 44.02                      | -                  | -           | 74                  | -29.98         | -                            | -              | 359            | 100         | V        |
| 6.63            | 37.13                | PK1 | 35.4           | -25.8                | 0            | 46.73                      | -                  | -           | -                   | -              | 68.2                         | -21.47         | 359            | 100         | H        |
| 7.159           | 38.28                | PK1 | 35.3           | -26.2                | 0            | 47.38                      | -                  | -           | -                   | -              | 68.2                         | -20.82         | 359            | 100         | V        |
| 10.052          | 26.63                | PK1 | 37.1           | -23.1                | 0            | 40.63                      | -                  | -           | -                   | -              | 68.2                         | -27.57         | 359            | 100         | V        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK1 - KDB789033 Method: Peak

# **11.1.3. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.2 GHz BAND** **RESTRICTED BANDEDGE (LOW CHANNEL)**

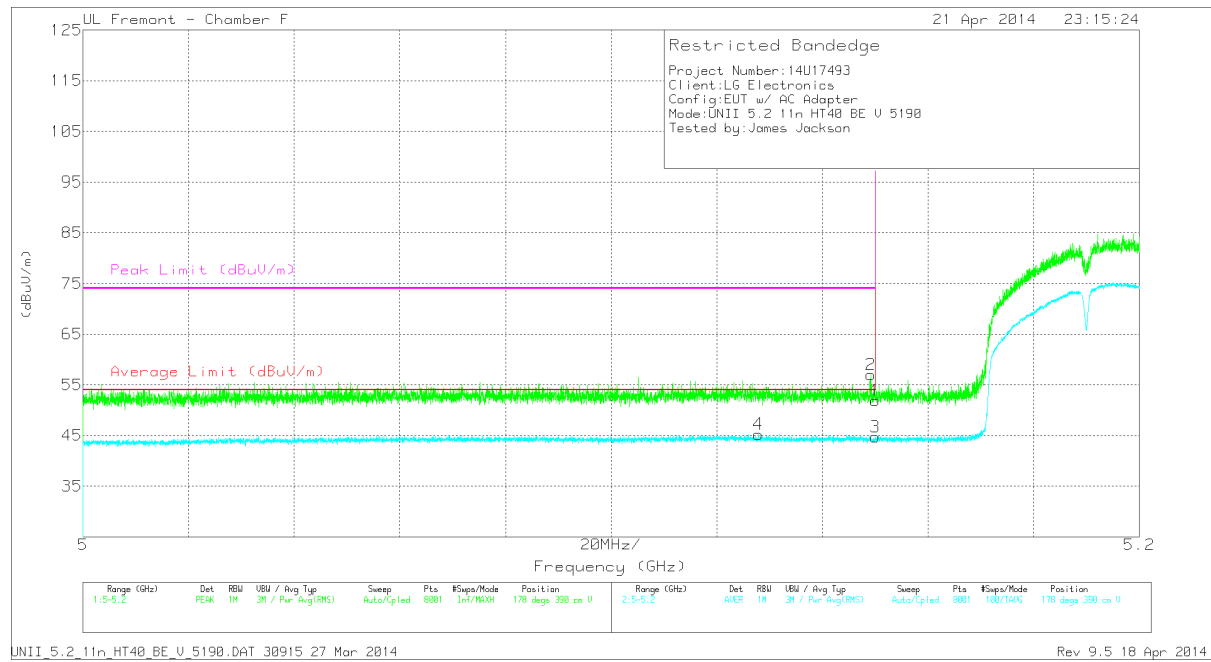


| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AFT120 (dB/m) | Amp/Cbl/ Filt/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|---------------|------------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 5.15          | 38.31                | PK  | 34.4          | -19.3                  | 53.41                      | -                      | -           | 74                  | -20.59         | 140            | 138         | H        |
| 2      | * 5.11          | 41.28                | PK  | 34.3          | -19.6                  | 55.98                      | -                      | -           | 74                  | -18.02         | 140            | 138         | H        |
| 3      | * 5.15          | 29.38                | RMS | 34.4          | -19.3                  | 44.48                      | 54                     | -9.52       | -                   | -              | 140            | 138         | H        |
| 4      | * 5.115         | 30.55                | RMS | 34.3          | -19.5                  | 45.35                      | 54                     | -8.65       | -                   | -              | 140            | 138         | H        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

RMS - RMS detection



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T120 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 5.15          | 36.84                | PK  | 34.4           | -19.3                 | 51.94                      | -                      | -           | 74                  | -22.06         | 178            | 390         | V        |
| 2      | * 5.149         | 41.86                | PK  | 34.4           | -19.3                 | 56.96                      | -                      | -           | 74                  | -17.04         | 178            | 390         | V        |
| 3      | * 5.15          | 29.55                | RMS | 34.4           | -19.3                 | 44.65                      | 54                     | -9.35       | -                   | -              | 178            | 390         | V        |
| 4      | * 5.128         | 30.26                | RMS | 34.4           | -19.4                 | 45.26                      | 54                     | -8.74       | -                   | -              | 178            | 390         | V        |

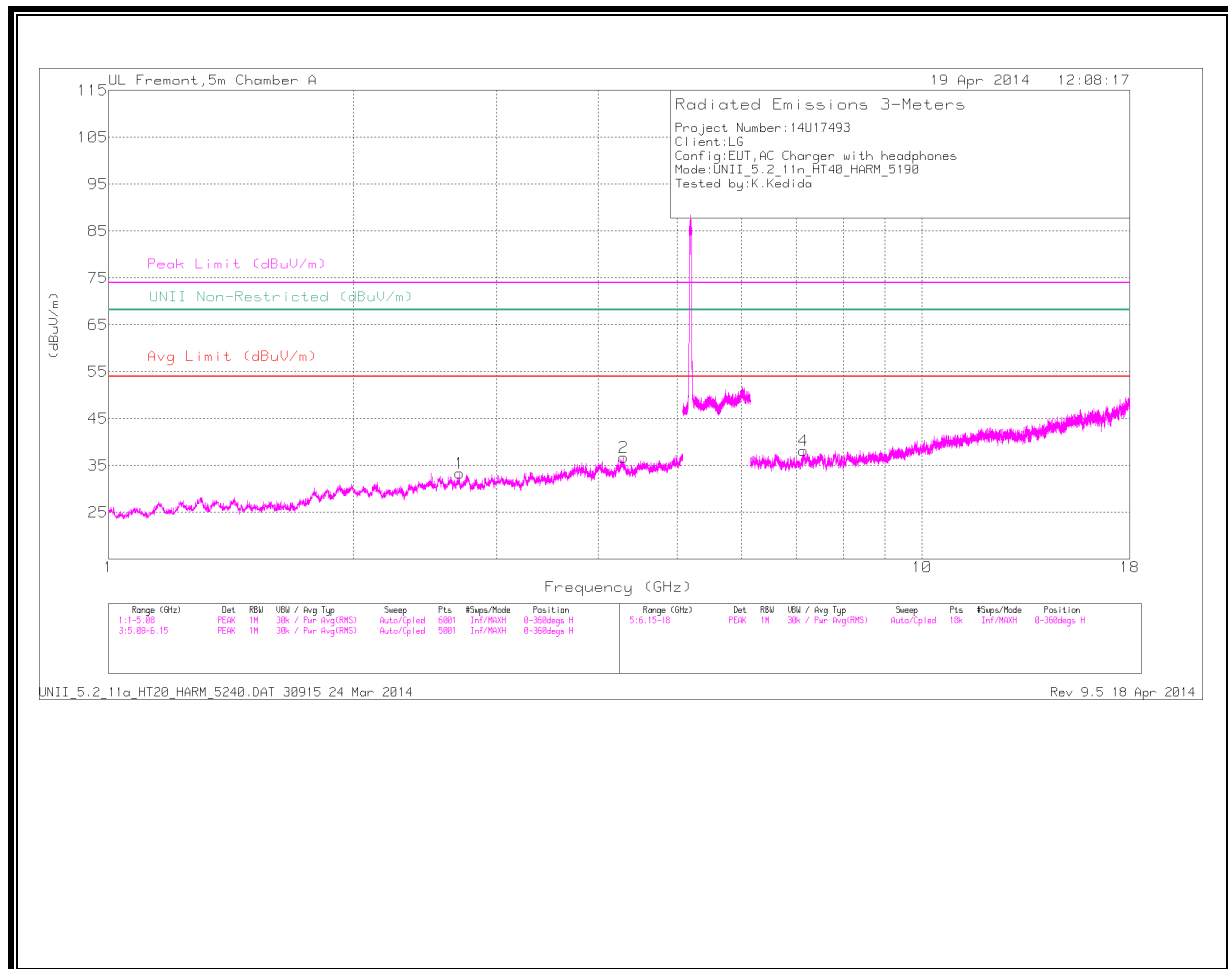
\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

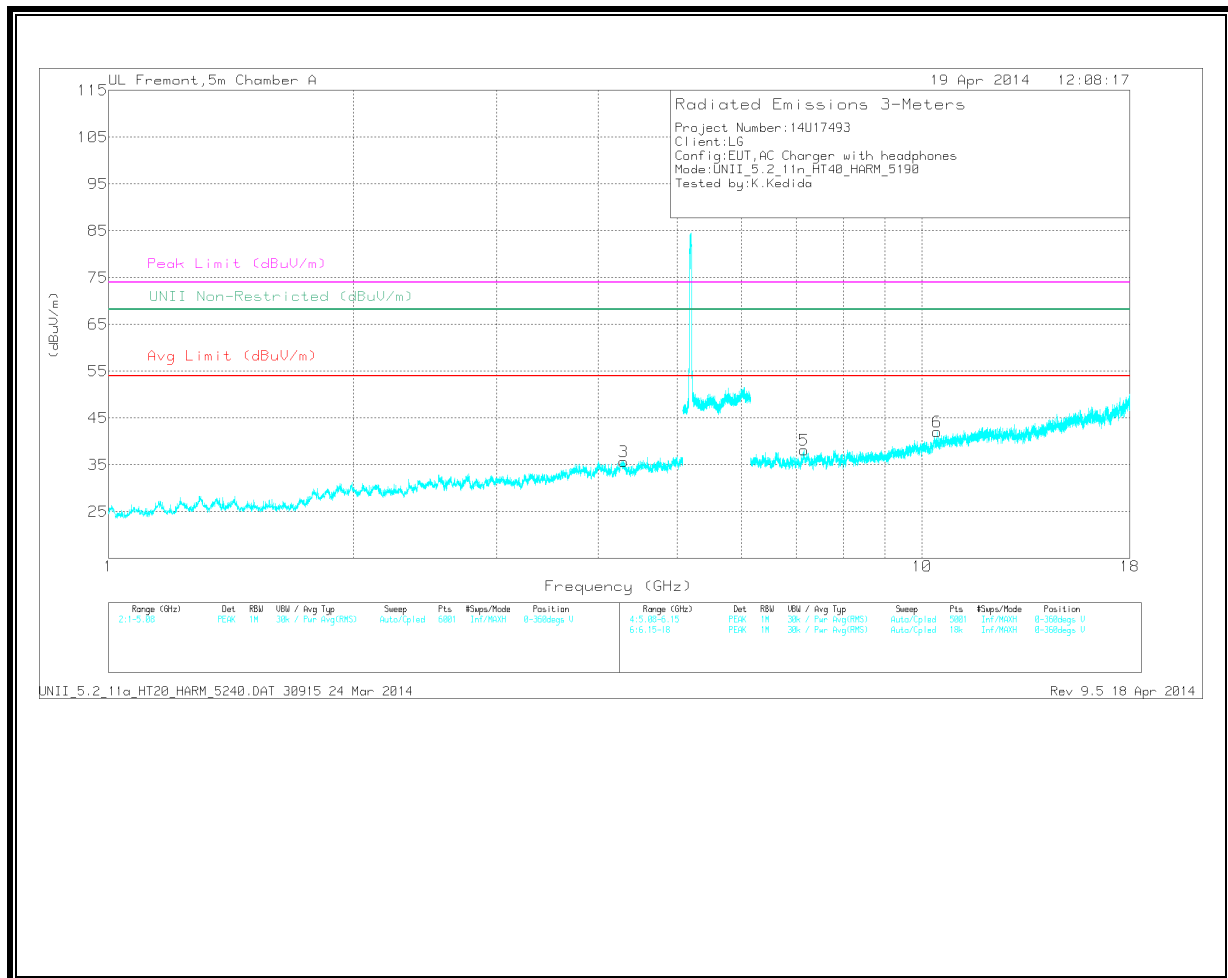
RMS - RMS detection

## HARMONICS AND SPURIOUS EMISSIONS

### LOW CHANNEL HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T136 (dB/m) | Amp/Cbl/Filt r/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 1      | * 2.699         | 33.89                | PK  | 32.7           | -33.2                   | 0            | 33.39                      | -                  | -           | 74                  | -40.61         | -                            | -              | 0-360          | 200         | H        |
| 2      | * 4.295         | 32.38                | PK  | 34             | -29.6                   | 0            | 36.78                      | -                  | -           | 74                  | -37.22         | -                            | -              | 0-360          | 100         | H        |
| 3      | * 4.293         | 31.2                 | PK  | 34             | -29.5                   | 0            | 35.7                       | -                  | -           | 74                  | -38.3          | -                            | -              | 0-360          | 100         | V        |
| 4      | 7.147           | 29.37                | PK  | 35.3           | -26.5                   | 0            | 38.17                      | -                  | -           | -                   | -              | 68.2                         | -30.03         | 0-360          | 201         | H        |
| 5      | 7.162           | 29                   | PK  | 35.3           | -26.1                   | 0            | 38.2                       | -                  | -           | -                   | -              | 68.2                         | -30            | 0-360          | 201         | V        |
| 6      | 10.426          | 26.37                | PK  | 37.4           | -21.7                   | 0            | 42.07                      | -                  | -           | -                   | -              | 68.2                         | -26.13         | 0-360          | 201         | V        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

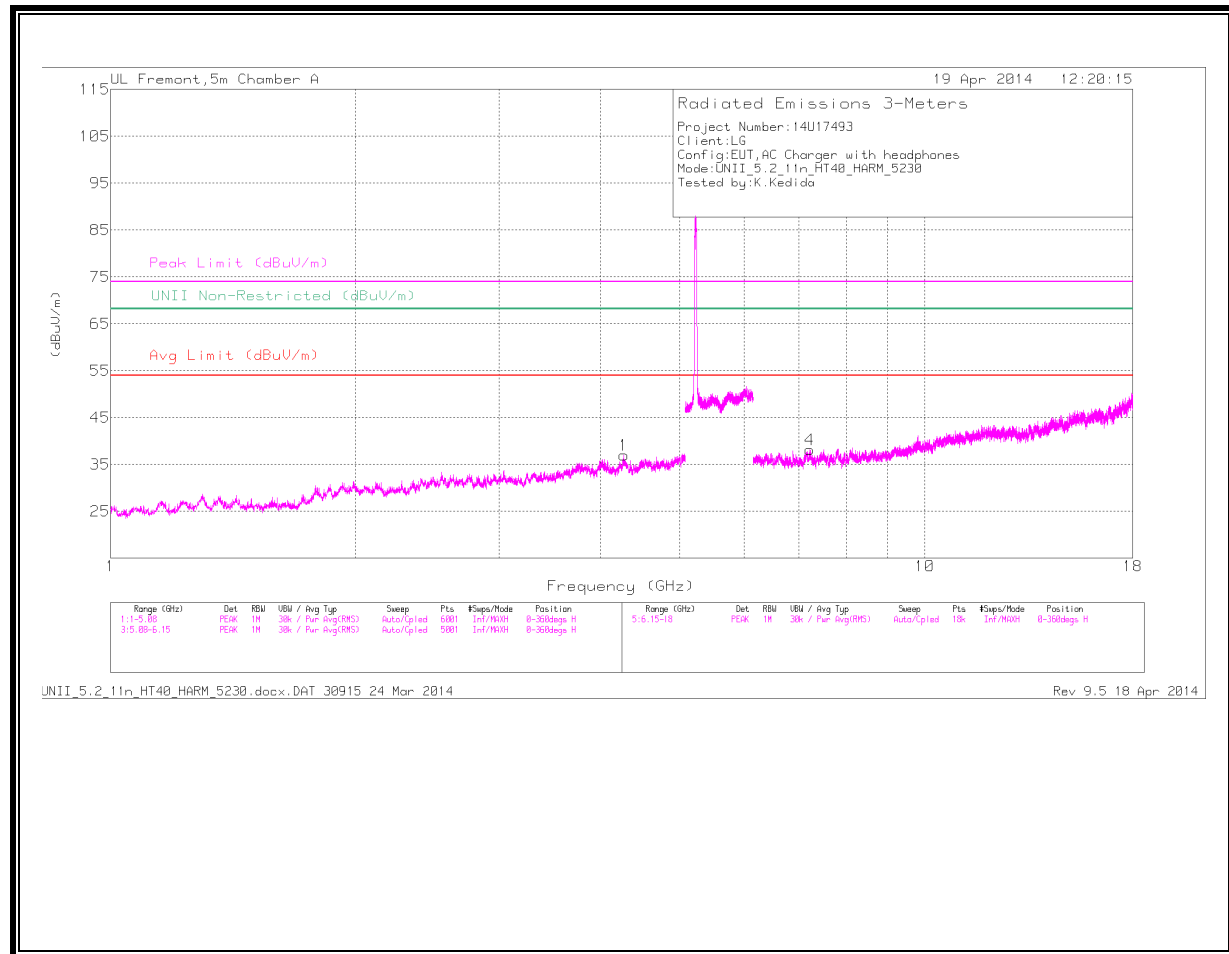
PK - Peak detector

Radiated Emissions

| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T136 (dB/m) | Amp/Cbl/Filt r/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|-----|----------------|-------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 4.294         | 31.87                | PK1 | 34             | -29.6                   | 0            | 36.27                      | -                  | -           | 74                  | -37.73         | -                            | -              | 359            | 100         | H        |
| * 4.294         | 39.81                | PK1 | 34             | -29.6                   | 0            | 44.21                      | -                  | -           | 74                  | -29.79         | -                            | -              | 359            | 100         | V        |
| 7.147           | 38.35                | PK1 | 35.3           | -26.5                   | 0            | 47.15                      | -                  | -           | -                   | -              | 68.2                         | -21.05         | 359            | 100         | H        |
| 7.161           | 38.48                | PK1 | 35.3           | -26.1                   | 0            | 47.68                      | -                  | -           | -                   | -              | 68.2                         | -20.52         | 359            | 100         | V        |
| 10.425          | 34.51                | PK1 | 37.3           | -21.6                   | 0            | 50.21                      | -                  | -           | -                   | -              | 68.2                         | -17.99         | 359            | 100         | V        |

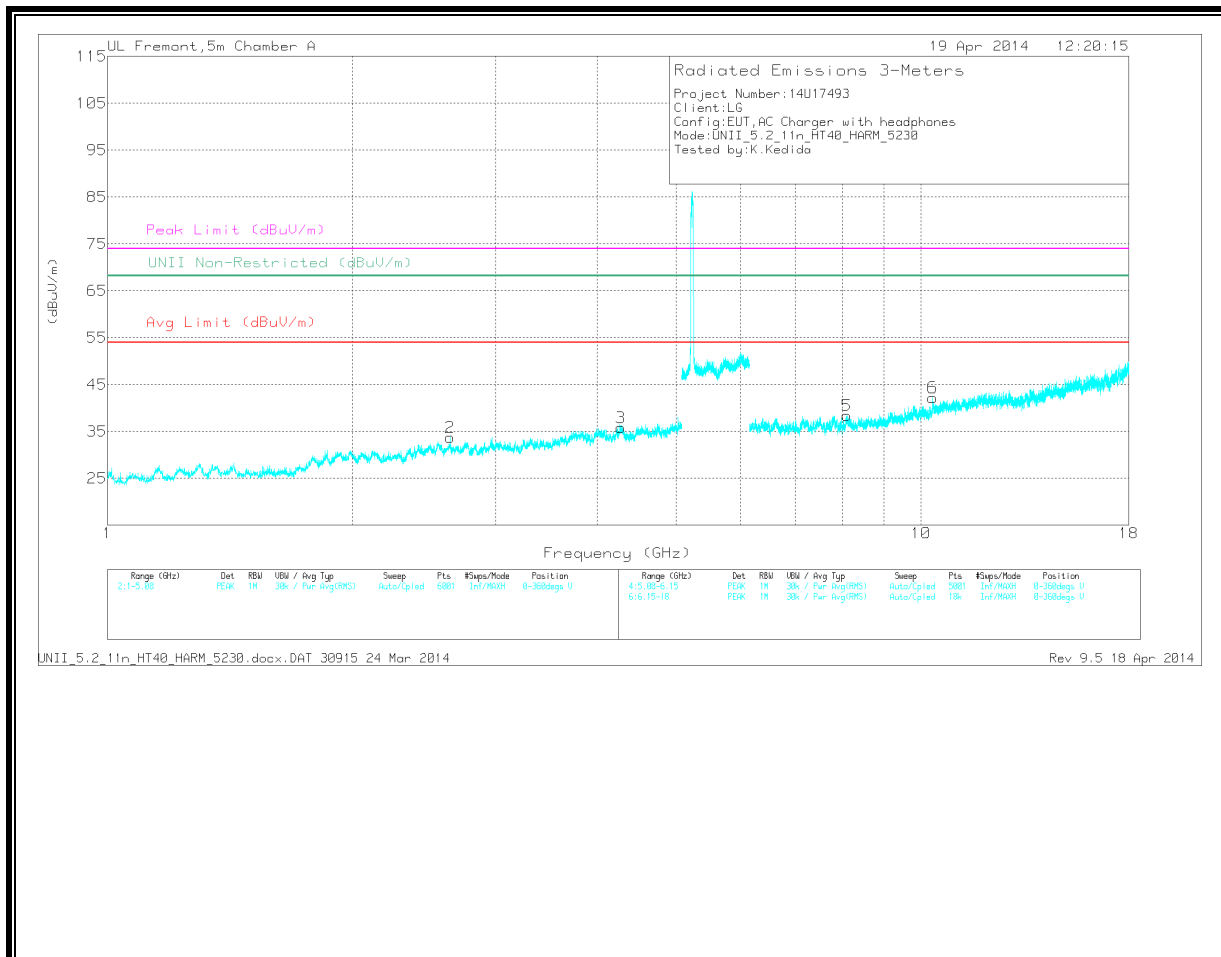
\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK1 - KDB789033 Method: Peak



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T136 (dB/m) | Amp/Cbl/Fil r/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 1      | * 4.271         | 31.64                | PK  | 34             | -28.6                  | 0            | 37.04                      | -                  | -           | 74                  | -36.96         | -                            | -              | 0-360          | 200         | H        |
| 3      | * 4.275         | 30.5                 | PK  | 34             | -28.7                  | 0            | 35.8                       | -                  | -           | 74                  | -38.2          | -                            | -              | 0-360          | 201         | V        |
| 5      | * 8.107         | 27.87                | PK  | 35.5           | -24.9                  | 0            | 38.47                      | -                  | -           | 74                  | -35.53         | -                            | -              | 0-360          | 200         | V        |
| 2      | 2.635           | 33.94                | PK  | 32.9           | -33.1                  | 0            | 33.74                      | -                  | -           | -                   | -              | 68.2                         | -34.46         | 0-360          | 201         | V        |
| 4      | 7.224           | 28.42                | PK  | 35.2           | -25.5                  | 0            | 38.12                      | -                  | -           | -                   | -              | 68.2                         | -30.08         | 0-360          | 100         | H        |
| 6      | 10.335          | 27.46                | PK  | 37.3           | -22.5                  | 0            | 42.26                      | -                  | -           | -                   | -              | 68.2                         | -25.94         | 0-360          | 200         | V        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

Radiated Emissions

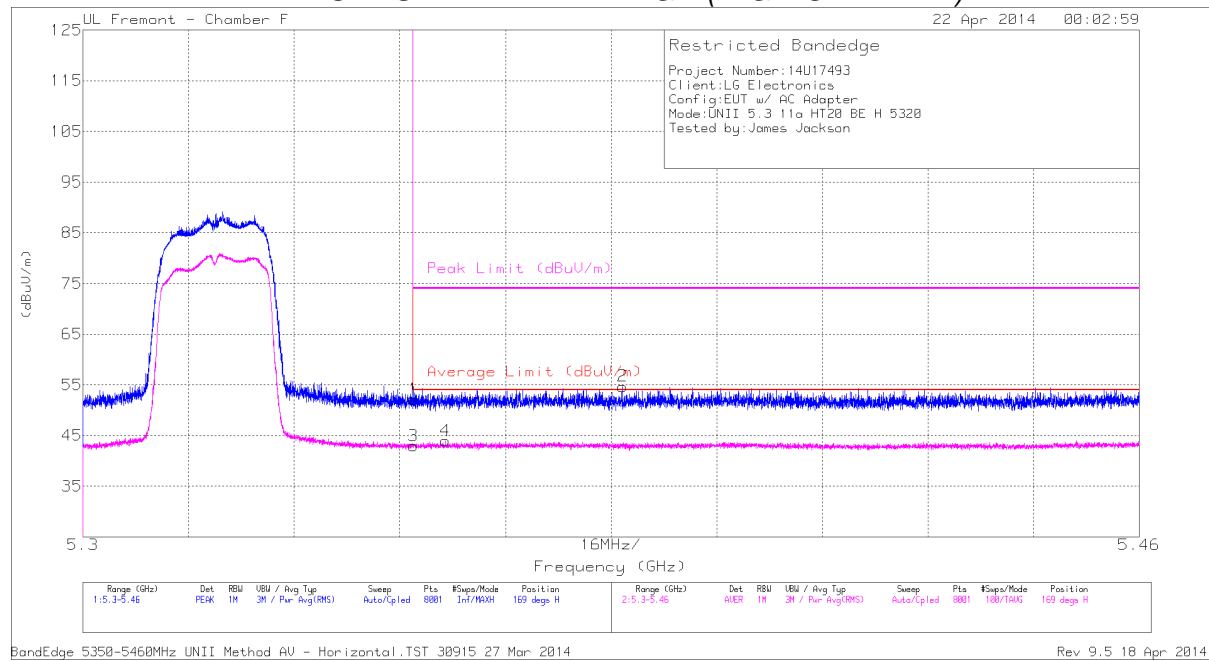
| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T136 (dB/m) | Amp/Cbl/Fil r/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|-----|----------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 4.27          | 39.07                | PK1 | 34             | -28.6                  | 0            | 44.47                      | -                  | -           | 74                  | -29.53         | -                            | -              | 360            | 100         | H        |
| * 4.274         | 38.99                | PK1 | 34             | -28.7                  | 0            | 44.29                      | -                  | -           | 74                  | -29.71         | -                            | -              | 360            | 100         | V        |
| * 8.107         | 35.77                | PK1 | 35.5           | -24.9                  | 0            | 46.37                      | -                  | -           | 74                  | -27.63         | -                            | -              | 360            | 100         | V        |
| 2.635           | 41.47                | PK1 | 32.9           | -33.1                  | 0            | 41.27                      | -                  | -           | -                   | -              | 68.2                         | -26.93         | 360            | 100         | V        |
| 7.224           | 36.87                | PK1 | 35.2           | -25.5                  | 0            | 46.57                      | -                  | -           | -                   | -              | 68.2                         | -21.63         | 360            | 100         | H        |
| 10.334          | 34.78                | PK1 | 37.3           | -22.6                  | 0            | 49.48                      | -                  | -           | -                   | -              | 68.2                         | -18.72         | 360            | 100         | V        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK1 - KDB789033 Method: Peak

## 11.2. 5.3 GHz

### 11.2.1. TX ABOVE 1 GHz 802.11a MODE IN THE 5.3 GHz BAND AUTHORIZED BANDEDGE (HIGH CHANNEL)

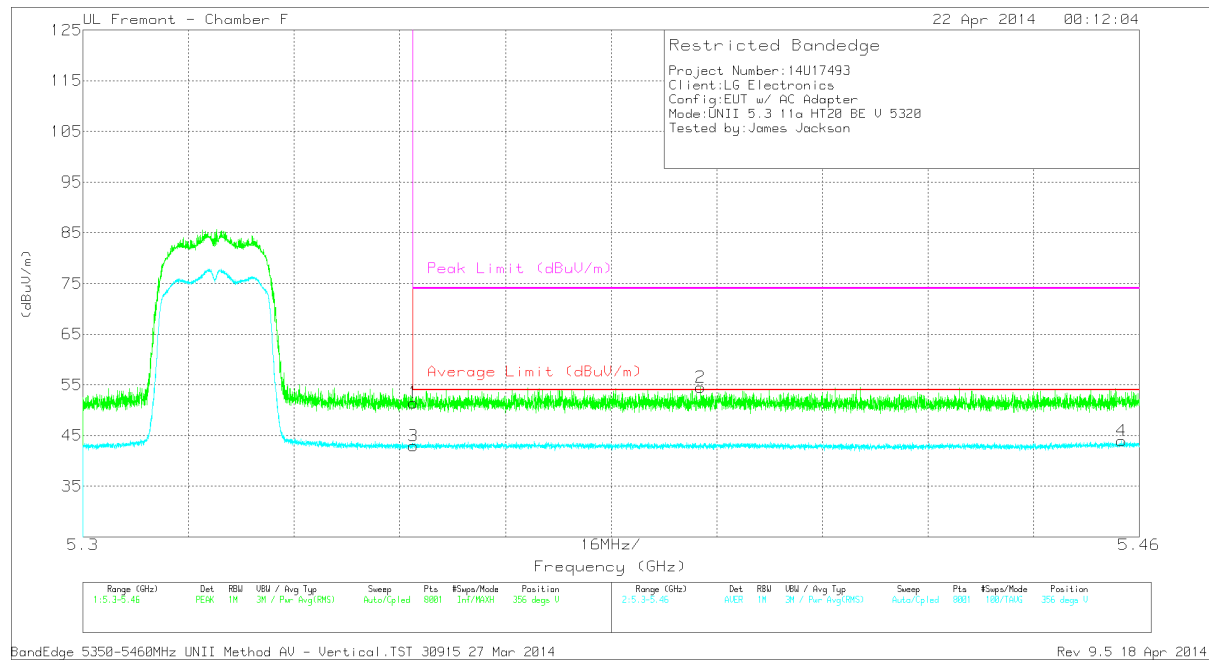


| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T120 (dB/m) | Amp/Cbl/Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 5.35          | 36.88                | PK  | 34.5           | -19.2                 | 52.18                      | -                      | -           | 74                  | -21.82         | 169            | 401         | H        |
| 2      | * 5.382         | 39.6                 | PK  | 34.5           | -19.4                 | 54.7                       | -                      | -           | 74                  | -19.3          | 169            | 401         | H        |
| 3      | * 5.35          | 27.62                | RMS | 34.5           | -19.2                 | 42.92                      | 54                     | -11.08      | -                   | -              | 169            | 401         | H        |
| 4      | * 5.355         | 28.63                | RMS | 34.5           | -19.2                 | 43.93                      | 54                     | -10.07      | -                   | -              | 169            | 401         | H        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

RMS - RMS detection



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T120 (dB/m) | Amp/Cbl/ Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 5.35          | 36.17                | PK  | 34.5           | -19.2                  | 51.47                      | -                      | -           | 74                  | -22.53         | 356            | 224         | V        |
| 2      | * 5.394         | 39.42                | PK  | 34.6           | -19.5                  | 54.52                      | -                      | -           | 74                  | -19.48         | 356            | 224         | V        |
| 3      | * 5.35          | 27.66                | RMS | 34.5           | -19.2                  | 42.96                      | 54                     | -11.04      | -                   | -              | 356            | 224         | V        |
| 4      | * 5.457         | 29.27                | RMS | 34.6           | -19.9                  | 43.97                      | 54                     | -10.03      | -                   | -              | 356            | 224         | V        |

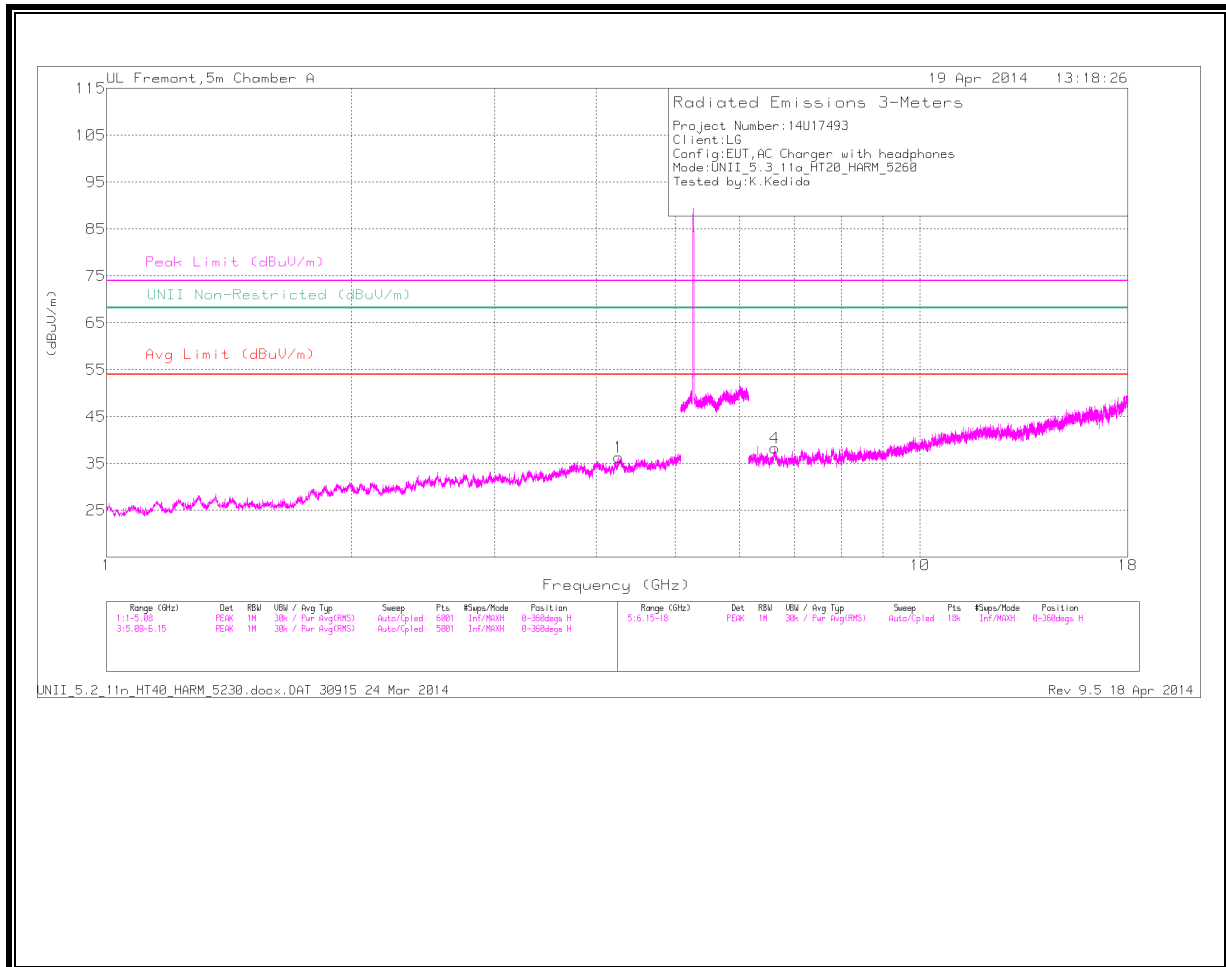
\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

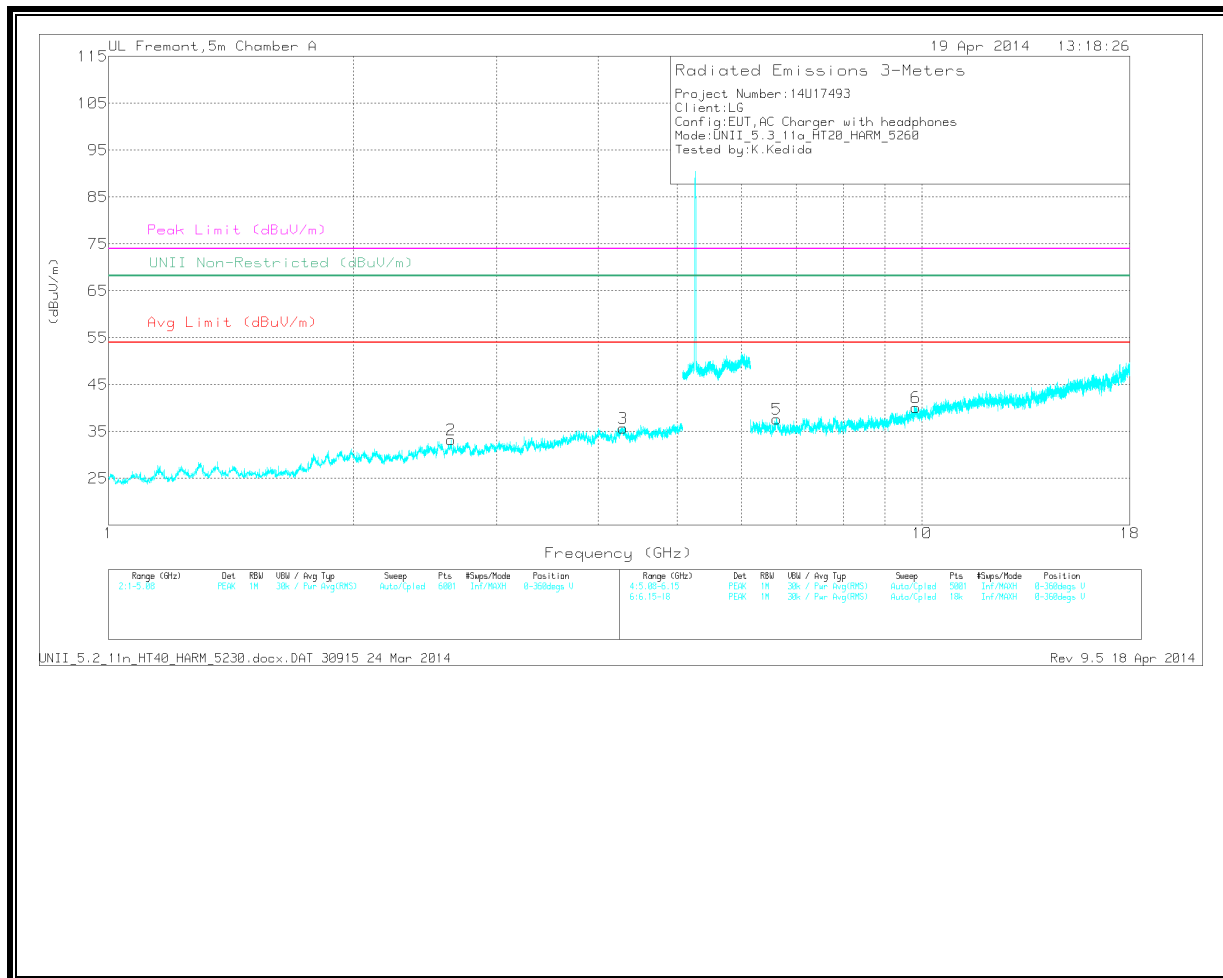
RMS - RMS detection

## HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL  
HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

# LOW CHANNEL DATA

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T136 (dB/m) | Amp/Cbl/Ftr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 1      | * 4.263         | 30.51                | PK  | 34             | -28.1                | 0            | 36.41                      | -                  | -           | 74                  | -37.59         | -                            | -              | 0-360          | 100         | H        |
| 3      | * 4.286         | 30.66                | PK  | 34             | -28.9                | 0            | 35.76                      | -                  | -           | 74                  | -38.24         | -                            | -              | 0-360          | 201         | V        |
| 2      | 2.635           | 33.38                | PK  | 32.9           | -33.1                | 0            | 33.18                      | -                  | -           | -                   | -              | 68.2                         | -35.02         | 0-360          | 100         | V        |
| 4      | 6.627           | 28.7                 | PK  | 35.4           | -25.8                | 0            | 38.3                       | -                  | -           | -                   | -              | 68.2                         | -29.9          | 0-360          | 200         | H        |
| 5      | 6.63            | 28                   | PK  | 35.4           | -25.8                | 0            | 37.6                       | -                  | -           | -                   | -              | 68.2                         | -30.6          | 0-360          | 201         | V        |
| 6      | 9.825           | 26.57                | PK  | 36.9           | -23.4                | 0            | 40.07                      | -                  | -           | -                   | -              | 68.2                         | -28.13         | 0-360          | 201         | V        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

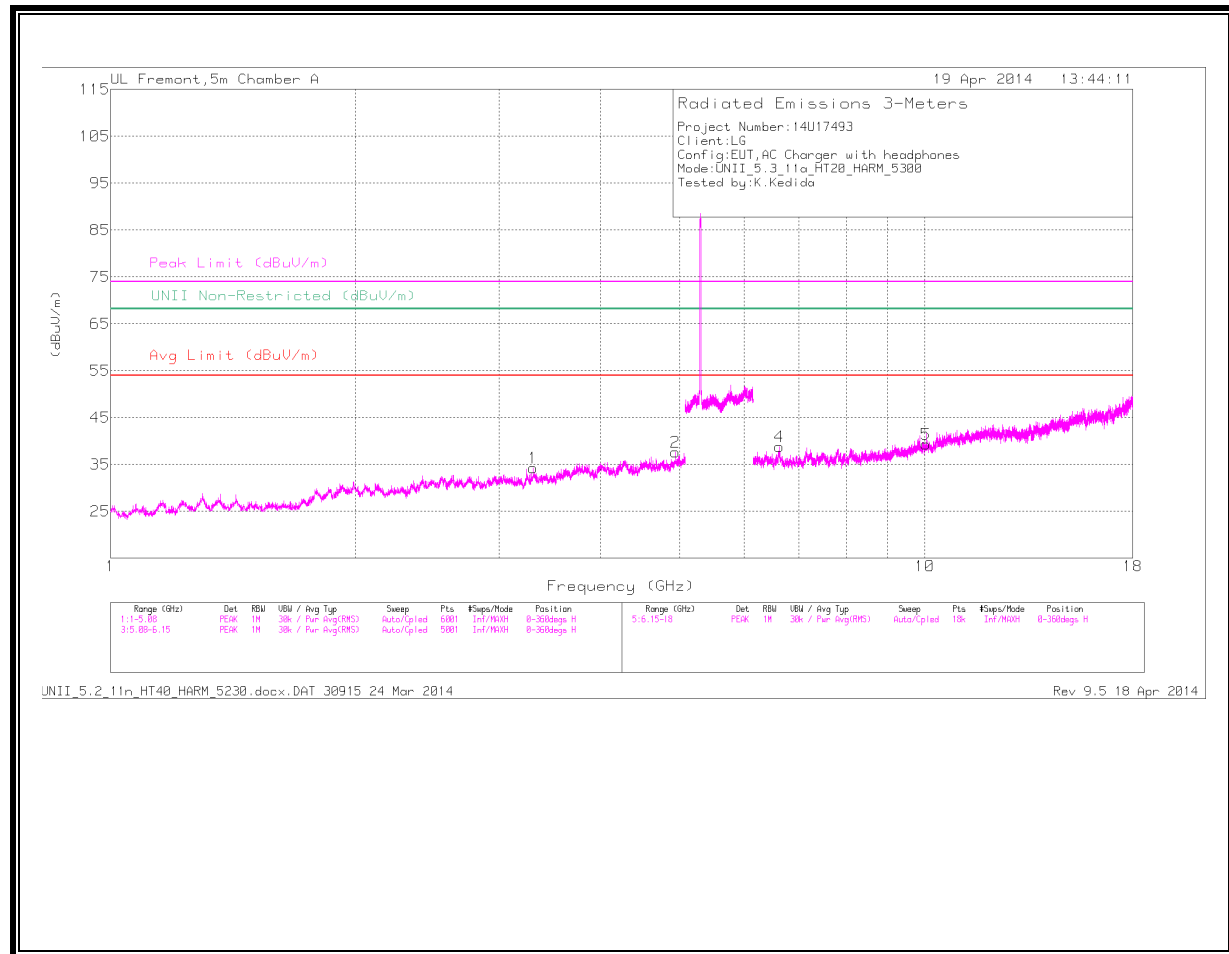
PK - Peak detector

Radiated Emissions

| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T136 (dB/m) | Amp/Cbl/Ftr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|-----|----------------|----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 4.263         | 38.95                | PK1 | 34             | -28.1                | 0            | 44.85                      | -                  | -           | 74                  | -29.15         | -                            | -              | 359            | 100         | H        |
| * 4.286         | 39.23                | PK1 | 34             | -28.9                | 0            | 44.33                      | -                  | -           | 74                  | -29.67         | -                            | -              | 359            | 100         | V        |
| 2.634           | 41.26                | PK1 | 32.9           | -33.1                | 0            | 41.06                      | -                  | -           | -                   | -              | 68.2                         | -27.14         | 359            | 100         | V        |
| 6.627           | 37.1                 | PK1 | 35.4           | -25.8                | 0            | 46.7                       | -                  | -           | -                   | -              | 68.2                         | -21.5          | 359            | 100         | H        |
| 6.628           | 36.78                | PK1 | 35.4           | -25.8                | 0            | 46.38                      | -                  | -           | -                   | -              | 68.2                         | -21.82         | 359            | 100         | V        |
| 9.825           | 34.85                | PK1 | 36.9           | -23.4                | 0            | 48.35                      | -                  | -           | -                   | -              | 68.2                         | -19.85         | 359            | 100         | V        |

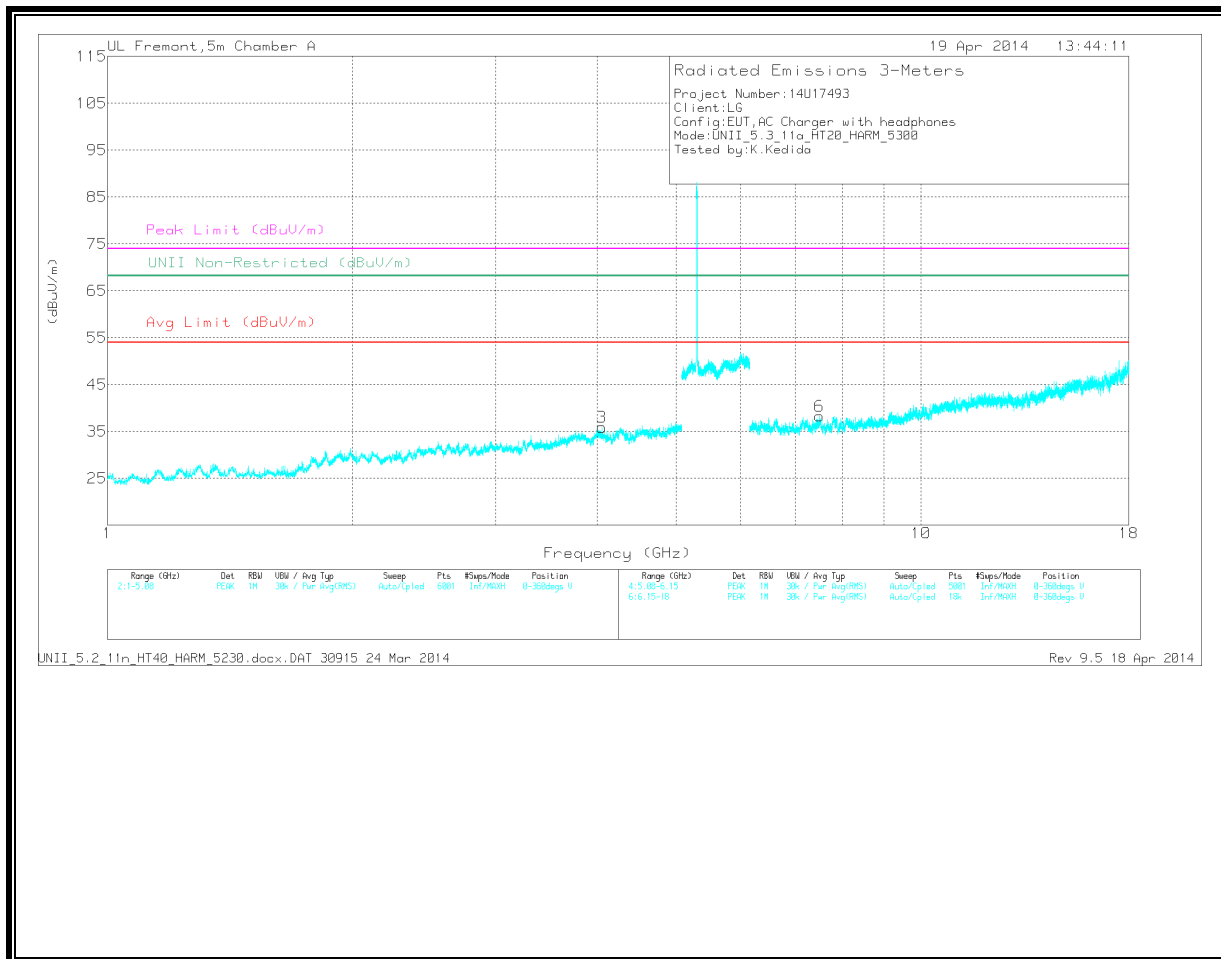
\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK1 - KDB789033 Method: Peak



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T136 (dB/m) | Amp/Cbl/Ftr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 2      | * 4.94          | 32.71                | PK  | 33.9           | -29                  | 0            | 37.61                      | -                  | -           | 74                  | -36.39         | -                            | -              | 0-360          | 200         | H        |
| 3      | * 4.056         | 33.2                 | PK  | 33.8           | -31.1                | 0            | 35.9                       | -                  | -           | 74                  | -38.1          | -                            | -              | 0-360          | 100         | V        |
| 6      | * 7.503         | 27.72                | PK  | 35.3           | -24.7                | 0            | 38.32                      | -                  | -           | 74                  | -35.68         | -                            | -              | 0-360          | 201         | V        |
| 1      | 3.303           | 32.27                | PK  | 32.9           | -30.9                | 0            | 34.27                      | -                  | -           | -                   | -              | 68.2                         | -33.93         | 0-360          | 100         | H        |
| 4      | 6.627           | 29.2                 | PK  | 35.4           | -25.8                | 0            | 38.8                       | -                  | -           | -                   | -              | 68.2                         | -29.4          | 0-360          | 100         | H        |
| 5      | 10.033          | 25.54                | PK  | 37.1           | -23.3                | 0            | 39.34                      | -                  | -           | -                   | -              | 68.2                         | -28.86         | 0-360          | 100         | H        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

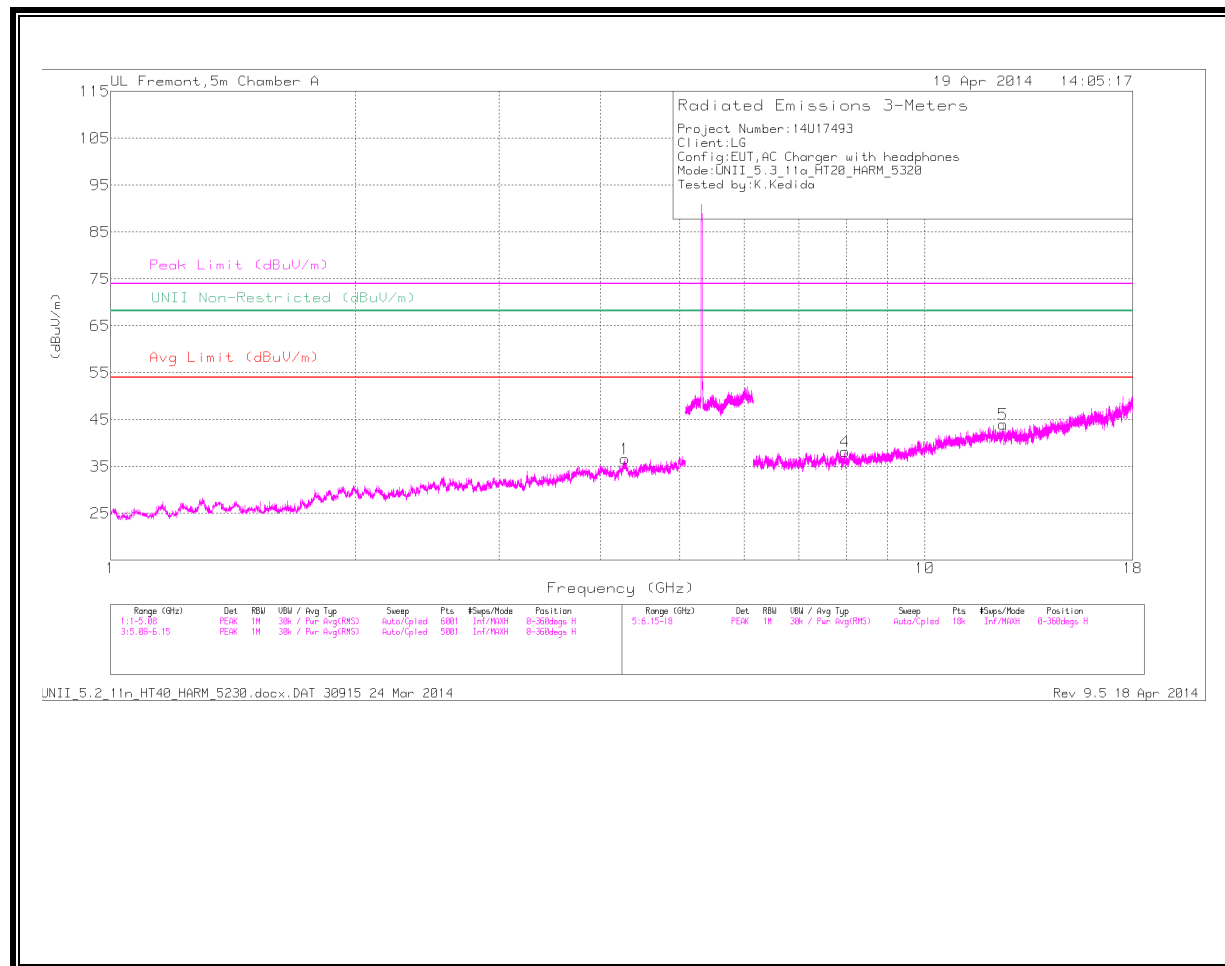
PK - Peak detector

Radiated Emissions

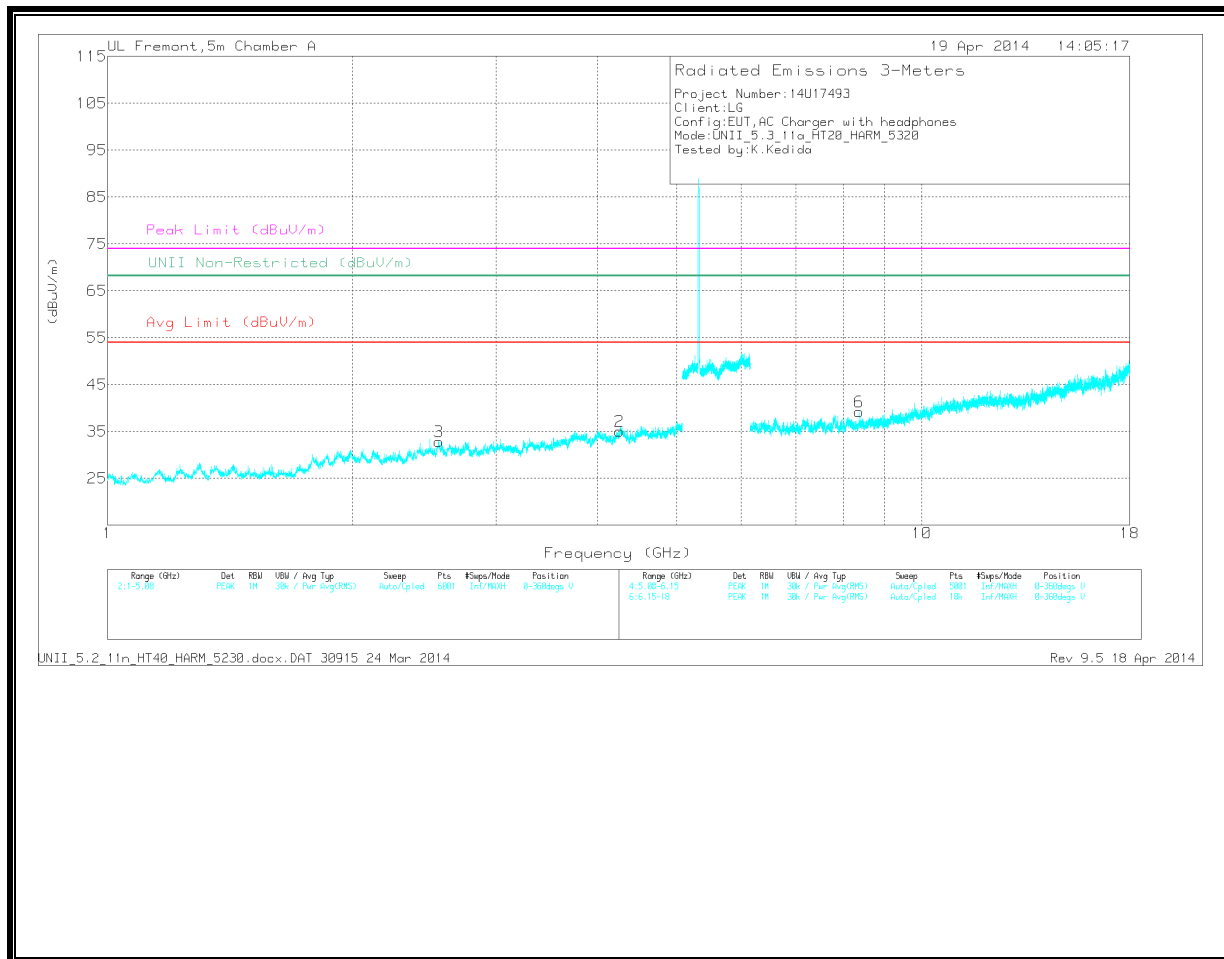
| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T136 (dB/m) | Amp/Cbl/Ftr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|-----|----------------|----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 4.939         | 39.04                | PK1 | 33.9           | -29                  | 0            | 43.94                      | -                  | -           | 74                  | -30.06         | -                            | -              | 359            | 100         | H        |
| * 4.056         | 40.12                | PK1 | 33.8           | -31.2                | 0            | 42.72                      | -                  | -           | 74                  | -31.28         | -                            | -              | 359            | 100         | V        |
| 3.303           | 39.6                 | PK1 | 32.9           | -30.9                | 0            | 41.6                       | -                  | -           | -                   | -              | 68.2                         | -26.6          | 359            | 100         | H        |
| 6.626           | 37.29                | PK1 | 35.4           | -25.8                | 0            | 46.89                      | -                  | -           | -                   | -              | 68.2                         | -21.31         | 359            | 100         | H        |
| 10.032          | 34.64                | PK1 | 37.1           | -23.3                | 0            | 48.44                      | -                  | -           | -                   | -              | 68.2                         | -19.76         | 359            | 100         | H        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK1 - KDB789033 Method: Peak



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

# HIGH CHANNEL DATA

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T136 (dB/m) | Amp/Cbl/Ftr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 1      | * 4.281         | 31.28                | PK  | 34             | -28.7                | 0            | 36.58                      | -                  | -           | 74                  | -37.42         | -                            | -              | 0-360          | 100         | H        |
| 2      | * 4.25          | 30.46                | PK  | 34             | -29.4                | 0            | 35.06                      | -                  | -           | 74                  | -38.94         | -                            | -              | 0-360          | 100         | V        |
| 5      | * 12.47         | 27.15                | PK  | 38.8           | -21.9                | 0            | 44.05                      | -                  | -           | 74                  | -29.95         | -                            | -              | 0-360          | 100         | H        |
| 6      | * 8.367         | 29.85                | PK  | 35.7           | -26.4                | 0            | 39.15                      | -                  | -           | 74                  | -34.85         | -                            | -              | 0-360          | 200         | V        |
| 3      | 2.552           | 32.7                 | PK  | 32.9           | -32.7                | 0            | 32.9                       | -                  | -           | -                   | -              | 68.2                         | -35.3          | 0-360          | 201         | V        |
| 4      | 7.979           | 28.4                 | PK  | 35.5           | -25.7                | 0            | 38.2                       | -                  | -           | -                   | -              | 68.2                         | -30            | 0-360          | 200         | H        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

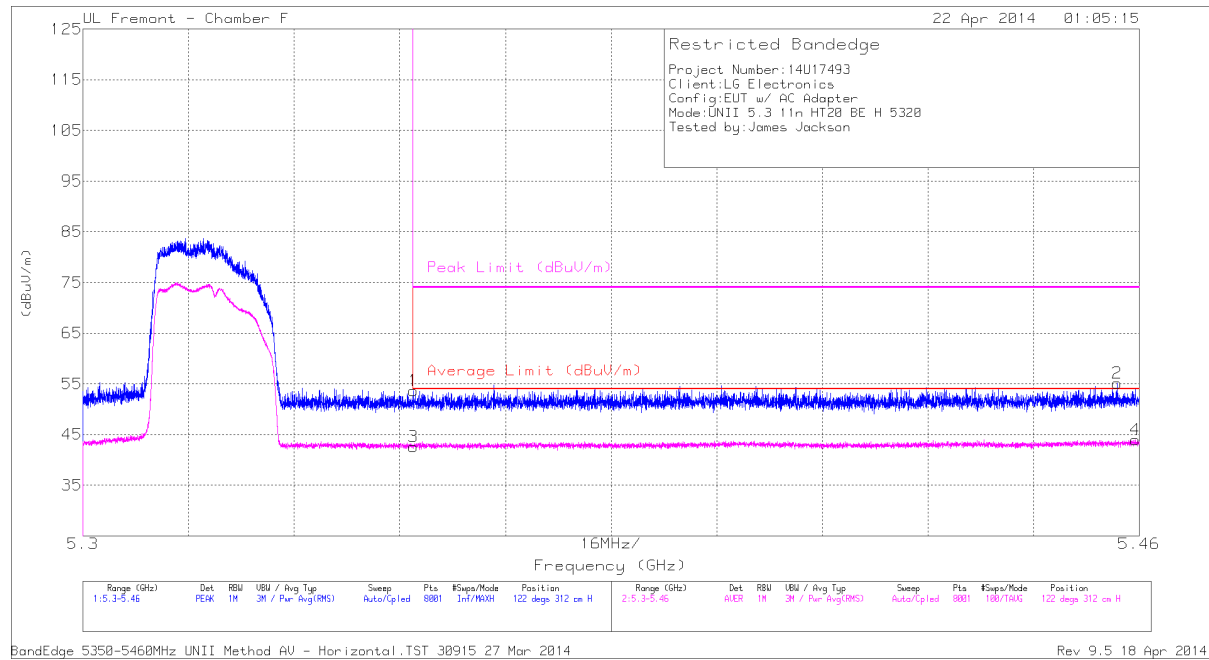
Radiated Emissions

| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T136 (dB/m) | Amp/Cbl/Ftr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|-----|----------------|----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 4.28          | 40.2                 | PK1 | 34             | -28.7                | 0            | 45.5                       | -                  | -           | 74                  | -28.5          | -                            | -              | 359            | 100         | H        |
| * 4.248         | 38.68                | PK1 | 34             | -29.5                | 0            | 43.18                      | -                  | -           | 74                  | -30.82         | -                            | -              | 359            | 100         | V        |
| * 12.469        | 35.07                | PK1 | 38.8           | -21.9                | 0            | 51.97                      | -                  | -           | 74                  | -22.03         | -                            | -              | 359            | 100         | H        |
| * 8.367         | 37.18                | PK1 | 35.7           | -26.5                | 0            | 46.38                      | -                  | -           | 74                  | -27.62         | -                            | -              | 359            | 100         | V        |
| 2.551           | 41.17                | PK1 | 32.9           | -32.6                | 0            | 41.47                      | -                  | -           | -                   | -              | 68.2                         | -26.73         | 359            | 100         | V        |
| 7.978           | 36.49                | PK1 | 35.5           | -25.7                | 0            | 46.29                      | -                  | -           | -                   | -              | 68.2                         | -21.91         | 359            | 100         | H        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK1 - KDB789033 Method: Peak

## 11.2.2. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.3 GHz BAND AUTHORIZED BANDEDGE (HIGH CHANNEL)

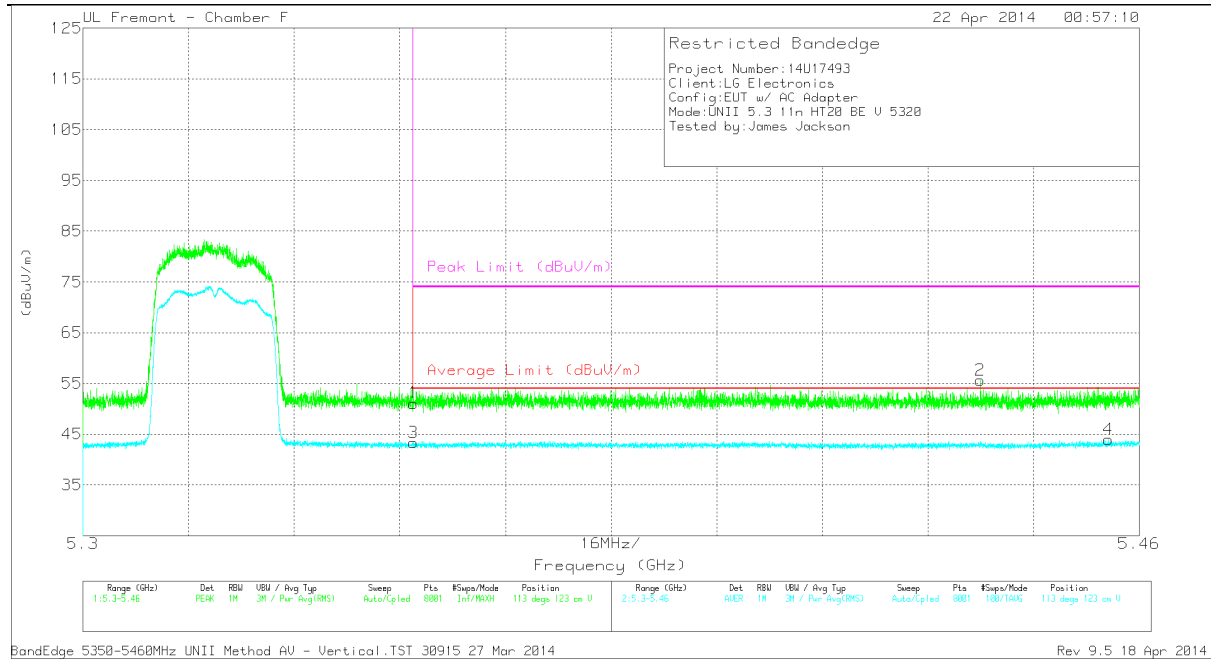


| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AFT120 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|---------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 5.35          | 38.29                | PK  | 34.5          | -19.2                 | 53.59                      | -                      | -           | 74                  | -20.41         | 122            | 312         | H        |
| 2      | * 5.457         | 40.4                 | PK  | 34.6          | -19.9                 | 55.1                       | -                      | -           | 74                  | -18.9          | 122            | 312         | H        |
| 3      | * 5.35          | 27.24                | RMS | 34.5          | -19.2                 | 42.54                      | 54                     | -11.46      | -                   | -              | 122            | 312         | H        |
| 4      | * 5.459         | 29.19                | RMS | 34.6          | -19.8                 | 43.99                      | 54                     | -10.01      | -                   | -              | 122            | 312         | H        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

RMS - RMS detection



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T120 (dB/m) | Amp/Cbl/ Filt/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 5.35          | 35.8                 | PK  | 34.5           | -19.2                  | 51.1                       | -                      | -           | 74                  | -22.9          | 113            | 123         | V        |
| 2      | * 5.436         | 41.05                | PK  | 34.6           | -20                    | 55.65                      | -                      | -           | 74                  | -18.35         | 113            | 123         | V        |
| 3      | * 5.35          | 28.03                | RMS | 34.5           | -19.2                  | 43.33                      | 54                     | -10.67      | -                   | -              | 113            | 123         | V        |
| 4      | * 5.455         | 29.27                | RMS | 34.6           | -19.9                  | 43.97                      | 54                     | -10.03      | -                   | -              | 113            | 123         | V        |

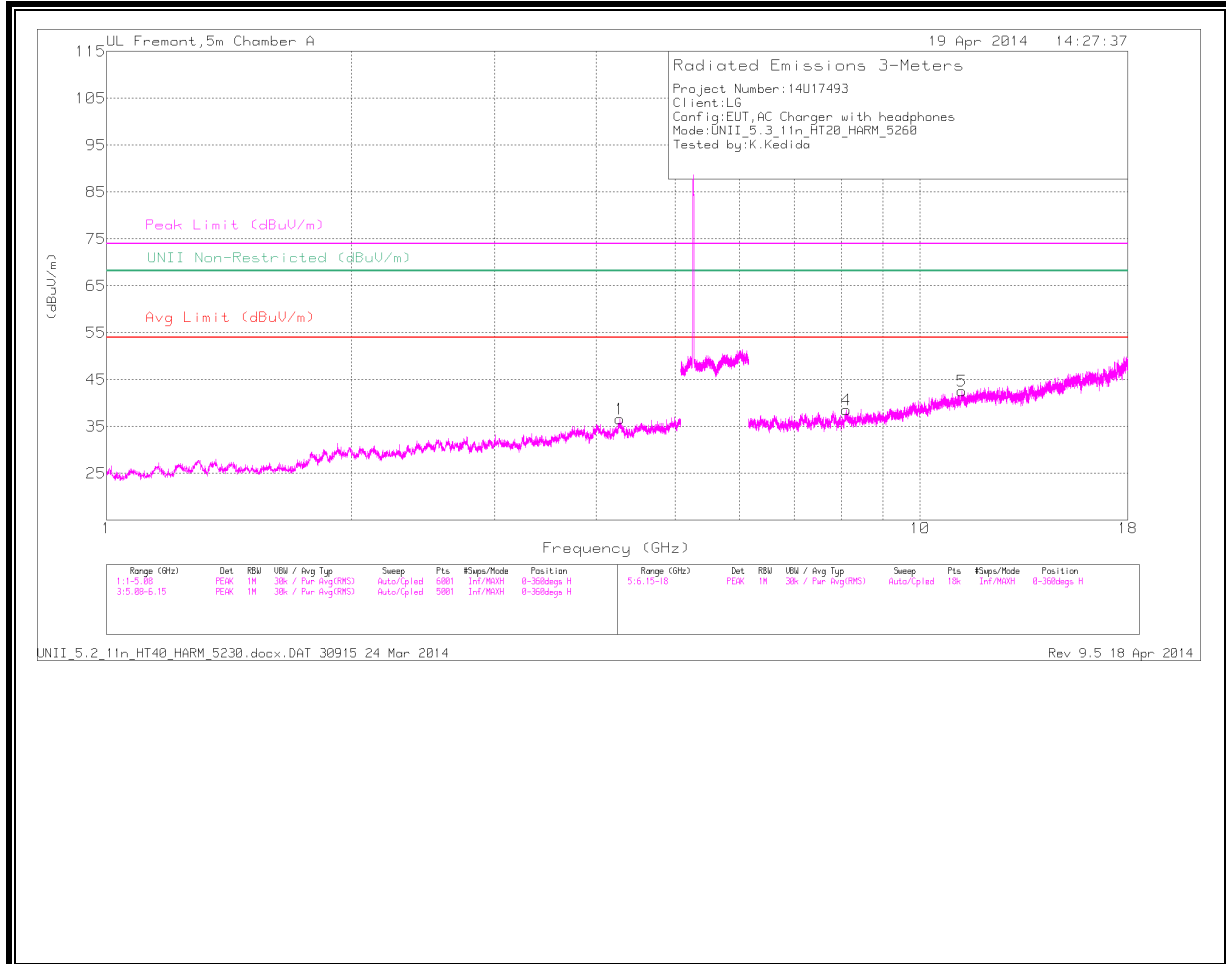
\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

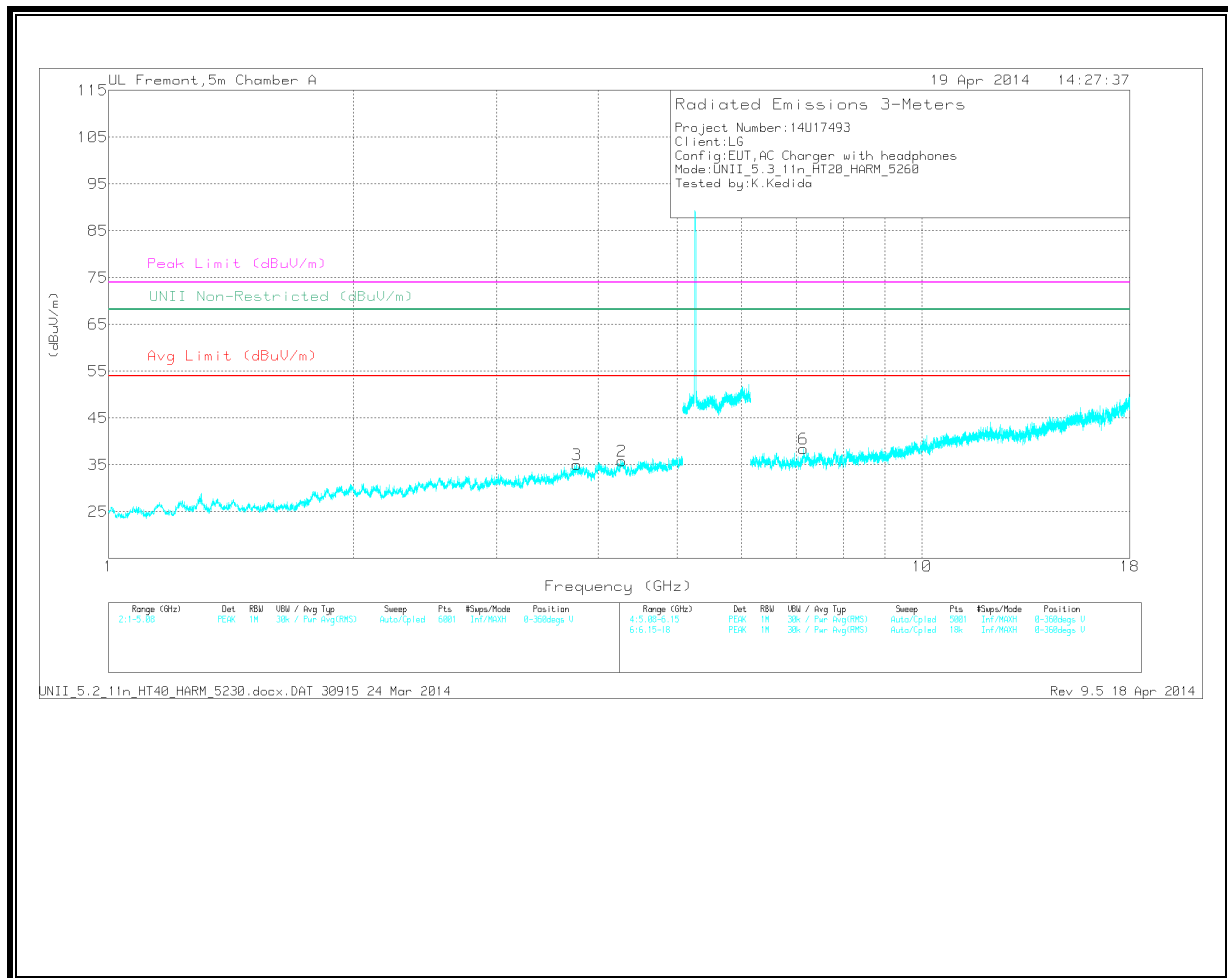
RMS - RMS detection

## HARMONICS AND SPURIOUS EMISSIONS

### LOW CHANNEL HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

# LOW CHANNEL DATA

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T136 (dB/m) | Amp/Cbl/Ftr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 1      | * 4.273         | 31.27                | PK  | 34             | -28.7                | 0            | 36.57                      | -                  | -           | 74                  | -37.43         | -                            | -              | 0-360          | 100         | H        |
| 2      | * 4.274         | 30.5                 | PK  | 34             | -28.7                | 0            | 35.8                       | -                  | -           | 74                  | -38.2          | -                            | -              | 0-360          | 201         | V        |
| 3      | * 3.763         | 31.14                | PK  | 33.5           | -29.6                | 0            | 35.04                      | -                  | -           | 74                  | -38.96         | -                            | -              | 0-360          | 100         | V        |
| 4      | * 8.116         | 27.94                | PK  | 35.5           | -24.9                | 0            | 38.54                      | -                  | -           | 74                  | -35.46         | -                            | -              | 0-360          | 100         | H        |
| 5      | * 11.249        | 26.51                | PK  | 37.9           | -21.8                | 0            | 42.61                      | -                  | -           | 74                  | -31.39         | -                            | -              | 0-360          | 200         | H        |
| 6      | 7.15            | 29.56                | PK  | 35.3           | -26.4                | 0            | 38.46                      | -                  | -           | -                   | -              | 68.2                         | -29.74         | 0-360          | 200         | V        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

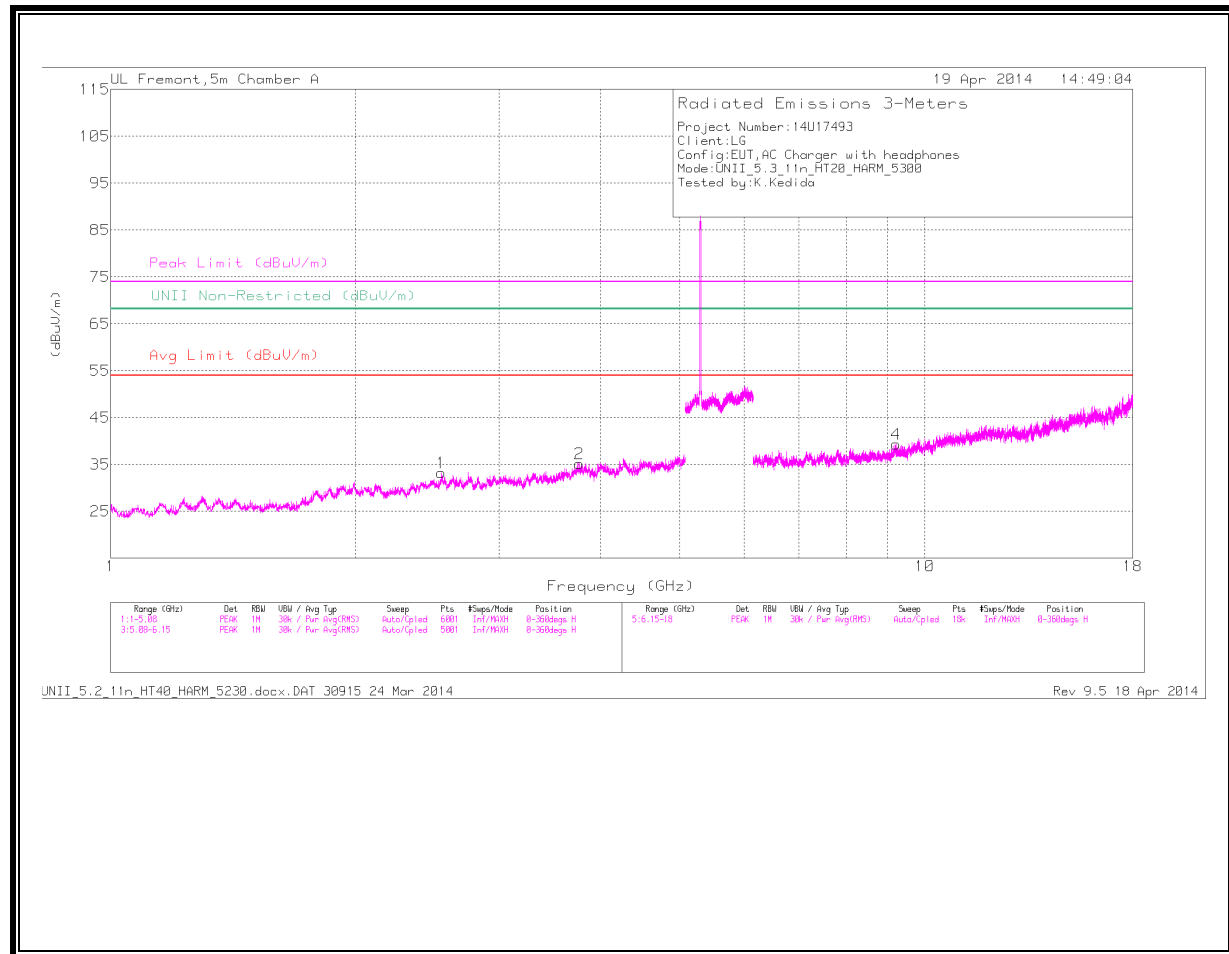
PK - Peak detector

Radiated Emissions

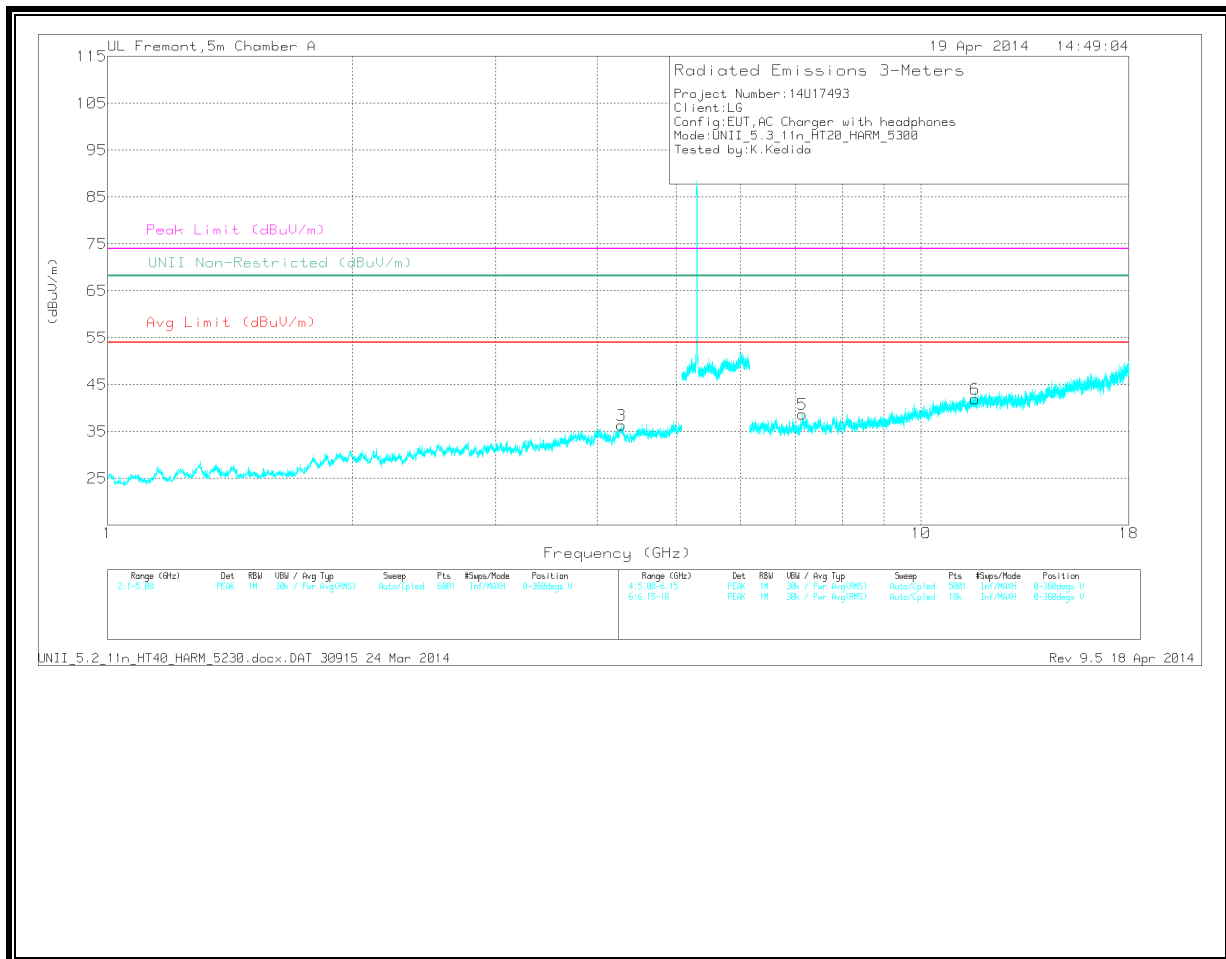
| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T136 (dB/m) | Amp/Cbl/Ftr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|-----|----------------|----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 4.272         | 39.3                 | PK1 | 34             | -28.7                | 0            | 44.6                       | -                  | -           | 74                  | -29.4          | -                            | -              | 359            | 100         | H        |
| * 4.273         | 39.07                | PK1 | 34             | -28.7                | 0            | 44.37                      | -                  | -           | 74                  | -29.63         | -                            | -              | 359            | 100         | V        |
| * 3.763         | 39.94                | PK1 | 33.5           | -29.6                | 0            | 43.84                      | -                  | -           | 74                  | -30.16         | -                            | -              | 359            | 100         | V        |
| * 8.115         | 36.93                | PK1 | 35.5           | -24.9                | 0            | 47.53                      | -                  | -           | 74                  | -26.47         | -                            | -              | 359            | 100         | H        |
| * 11.248        | 35                   | PK1 | 37.9           | -21.8                | 0            | 51.1                       | -                  | -           | 74                  | -22.9          | -                            | -              | 359            | 100         | H        |
| 7.148           | 38.01                | PK1 | 35.3           | -26.5                | 0            | 46.81                      | -                  | -           | -                   | -              | 68.2                         | -21.39         | 359            | 100         | V        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK1 - KDB789033 Method: Peak



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

# MID CHANNEL DATA

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T136 (dB/m) | Amp/Cbl/Ftr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 2      | * 3.762         | 31.32                | PK  | 33.5           | -29.6                | 0            | 35.22                      | -                  | -           | 74                  | -38.78         | -                            | -              | 0-360          | 200         | H        |
| 3      | * 4.28          | 31.11                | PK  | 34             | -28.7                | 0            | 36.41                      | -                  | -           | 74                  | -37.59         | -                            | -              | 0-360          | 100         | V        |
| 6      | * 11.653        | 25.99                | PK  | 38.6           | -22.6                | 0            | 41.99                      | -                  | -           | 74                  | -32.01         | -                            | -              | 0-360          | 100         | V        |
| 1      | 2.548           | 33.07                | PK  | 32.9           | -32.7                | 0            | 33.27                      | -                  | -           | -                   | -              | 68.2                         | -34.93         | 0-360          | 100         | H        |
| 5      | 7.142           | 30.14                | PK  | 35.3           | -26.7                | 0            | 38.74                      | -                  | -           | -                   | -              | 68.2                         | -29.46         | 0-360          | 200         | V        |
| 4      | 9.212           | 27.58                | PK  | 36.1           | -24.3                | 0            | 39.38                      | -                  | -           | -                   | -              | 68.2                         | -28.82         | 0-360          | 100         | H        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

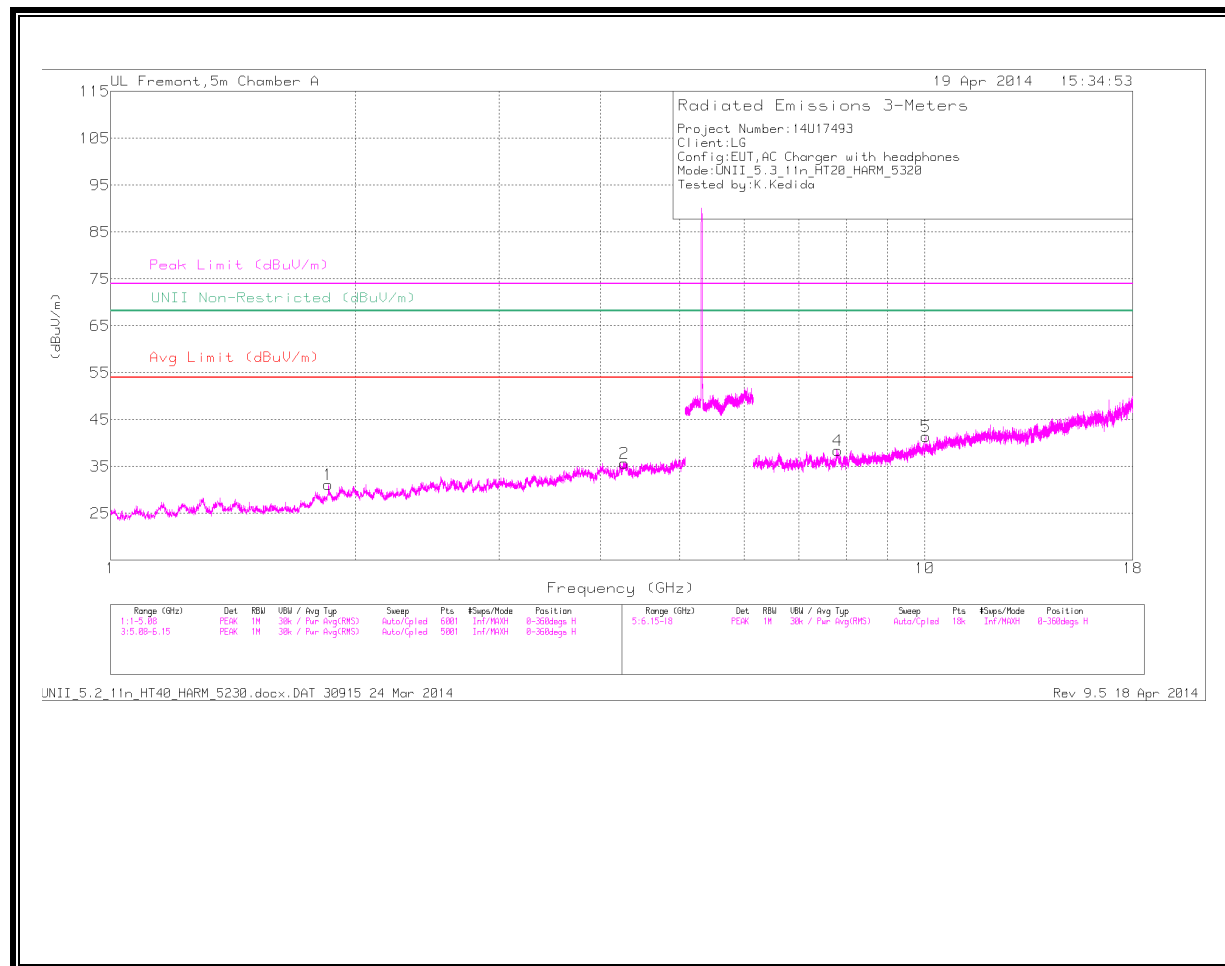
PK - Peak detector

Radiated Emissions

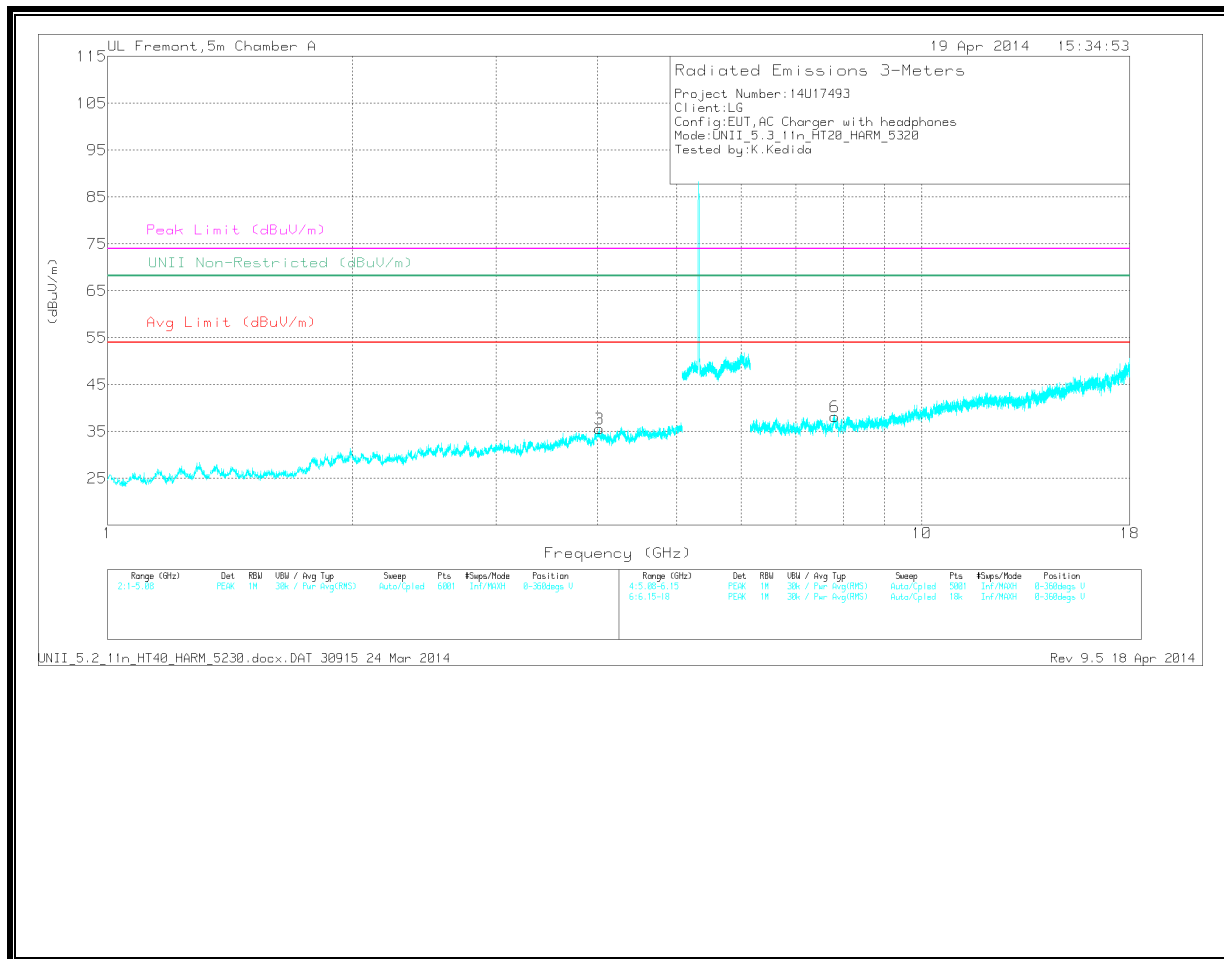
| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T136 (dB/m) | Amp/Cbl/Ftr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|-----|----------------|----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 3.762         | 39.58                | PK1 | 33.5           | -29.6                | 0            | 43.48                      | -                  | -           | 74                  | -30.52         | -                            | -              | 360            | 100         | H        |
| * 4.28          | 39.27                | PK1 | 34             | -28.7                | 0            | 44.57                      | -                  | -           | 74                  | -29.43         | -                            | -              | 360            | 100         | V        |
| * 11.653        | 34.4                 | PK1 | 38.6           | -22.6                | 0            | 50.4                       | -                  | -           | 74                  | -23.6          | -                            | -              | 360            | 100         | V        |
| 2.548           | 40.86                | PK1 | 32.9           | -32.7                | 0            | 41.06                      | -                  | -           | -                   | -              | 68.2                         | -27.14         | 360            | 100         | H        |
| 7.142           | 37.96                | PK1 | 35.3           | -26.7                | 0            | 46.56                      | -                  | -           | -                   | -              | 68.2                         | -21.64         | 360            | 100         | V        |
| 9.211           | 36.22                | PK1 | 36.1           | -24.4                | 0            | 47.92                      | -                  | -           | -                   | -              | 68.2                         | -20.28         | 360            | 100         | H        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK1 - KDB789033 Method: Peak



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

# HIGH CHANNEL DATA

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T136 (dB/m) | Amp/Cbl/Fil r/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 2      | * 4.274         | 30.45                | PK  | 34             | -28.7                  | 0            | 35.75                      | -                  | -           | 74                  | -38.25         | -                            | -              | 0-360          | 100         | H        |
| 3      | * 4.019         | 31.58                | PK  | 33.7           | -29.7                  | 0            | 35.58                      | -                  | -           | 74                  | -38.42         | -                            | -              | 0-360          | 200         | V        |
| 1      | 1.851           | 34.74                | PK  | 31.1           | -34.7                  | 0            | 31.14                      | -                  | -           | -                   | -              | 68.2                         | -37.06         | 0-360          | 200         | H        |
| 4      | 7.818           | 27.29                | PK  | 35.5           | -24.4                  | 0            | 38.39                      | -                  | -           | -                   | -              | 68.2                         | -29.81         | 0-360          | 200         | H        |
| 6      | 7.819           | 26.94                | PK  | 35.5           | -24.3                  | 0            | 38.14                      | -                  | -           | -                   | -              | 68.2                         | -30.06         | 0-360          | 100         | V        |
| 5      | 10.027          | 27.8                 | PK  | 37.1           | -23.5                  | 0            | 41.4                       | -                  | -           | -                   | -              | 68.2                         | -26.8          | 0-360          | 200         | H        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

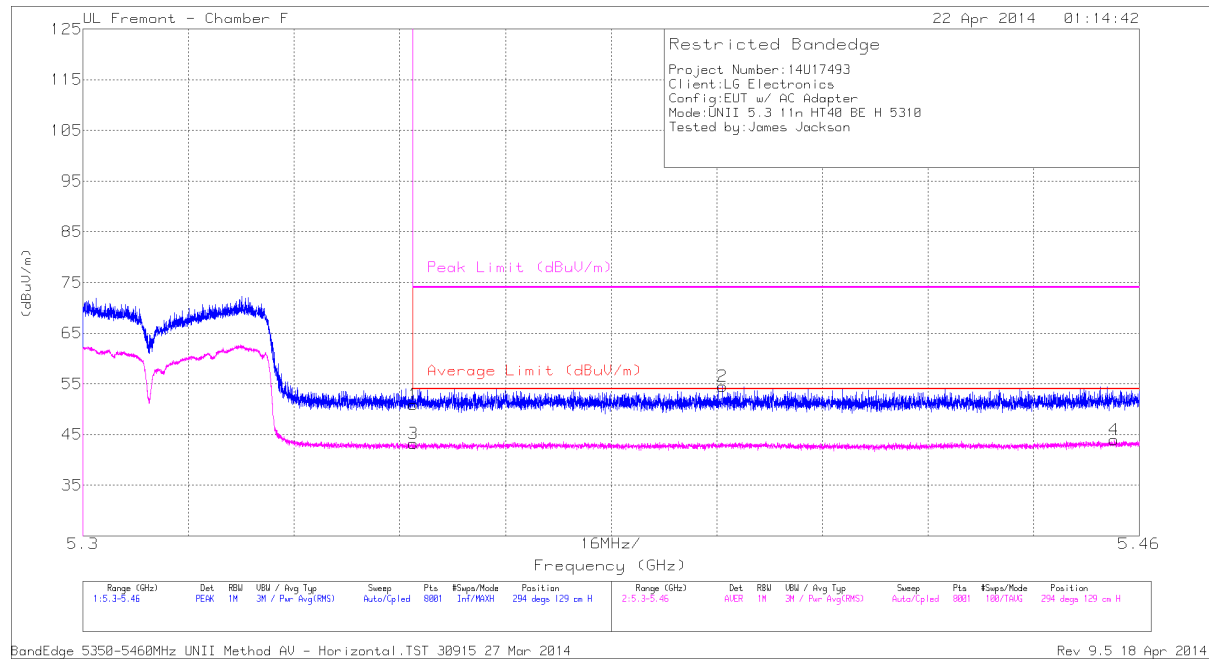
Radiated Emissions

| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T136 (dB/m) | Amp/Cbl/Fil r/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|-----|----------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 4.274         | 38.83                | PK1 | 34             | -28.7                  | 0            | 44.13                      | -                  | -           | 74                  | -29.87         | -                            | -              | 359            | 100         | H        |
| * 4.018         | 40.3                 | PK1 | 33.7           | -29.7                  | 0            | 44.3                       | -                  | -           | 74                  | -29.7          | -                            | -              | 359            | 100         | V        |
| 1.85            | 42.22                | PK1 | 31.1           | -34.7                  | 0            | 38.62                      | -                  | -           | -                   | -              | 68.2                         | -29.58         | 359            | 100         | H        |
| 7.818           | 36.22                | PK1 | 35.5           | -24.4                  | 0            | 47.32                      | -                  | -           | -                   | -              | 68.2                         | -20.88         | 359            | 100         | H        |
| 10.026          | 35.06                | PK1 | 37.1           | -23.5                  | 0            | 48.66                      | -                  | -           | -                   | -              | 68.2                         | -19.54         | 359            | 100         | H        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK1 - KDB789033 Method: Peak

# **11.2.4. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.3 GHz BAND AUTHORIZED BANDEDGE (HIGH CHANNEL)**

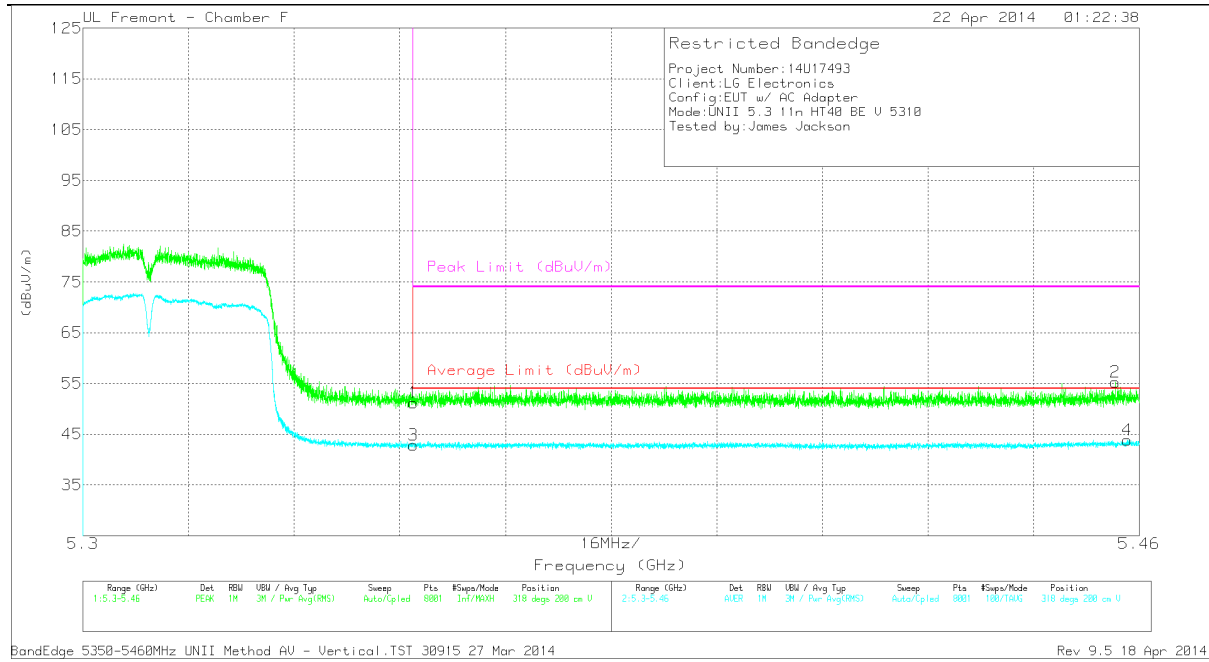


| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AFT120 (dB/m) | Amp/Cbl/ Filt/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|---------------|------------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 5.35          | 35.56                | PK  | 34.5          | -19.2                  | 50.86                      | -                      | -           | 74                  | -23.14         | 294            | 129         | H        |
| 2      | * 5.397         | 39.28                | PK  | 34.6          | -19.4                  | 54.48                      | -                      | -           | 74                  | -19.52         | 294            | 129         | H        |
| 3      | * 5.35          | 27.9                 | RMS | 34.5          | -19.2                  | 43.2                       | 54                     | -10.8       | -                   | -              | 294            | 129         | H        |
| 4      | * 5.456         | 29.3                 | RMS | 34.6          | -19.9                  | 44                         | 54                     | -10         | -                   | -              | 294            | 129         | H        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

RMS - RMS detection



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T120 (dB/m) | Amp/Cbl/ Filt/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 5.35          | 35.84                | PK  | 34.5           | -19.2                  | 51.14                      | -                      | -           | 74                  | -22.86         | 318            | 200         | V        |
| 2      | * 5.456         | 40.56                | PK  | 34.6           | -19.9                  | 55.26                      | -                      | -           | 74                  | -18.74         | 318            | 200         | V        |
| 3      | * 5.35          | 27.54                | RMS | 34.5           | -19.2                  | 42.84                      | 54                     | -11.16      | -                   | -              | 318            | 200         | V        |
| 4      | * 5.458         | 29.11                | RMS | 34.6           | -19.9                  | 43.81                      | 54                     | -10.19      | -                   | -              | 318            | 200         | V        |

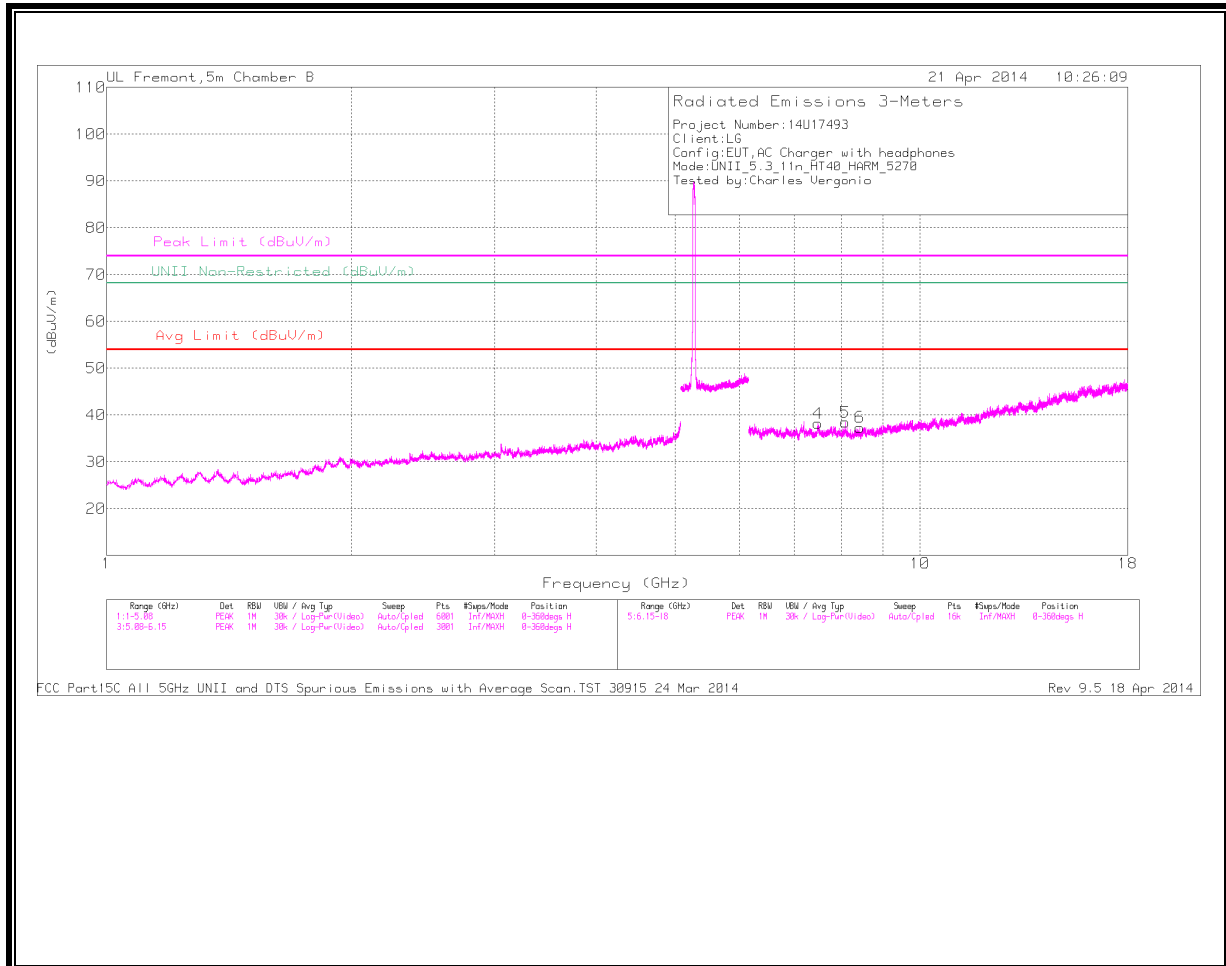
\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

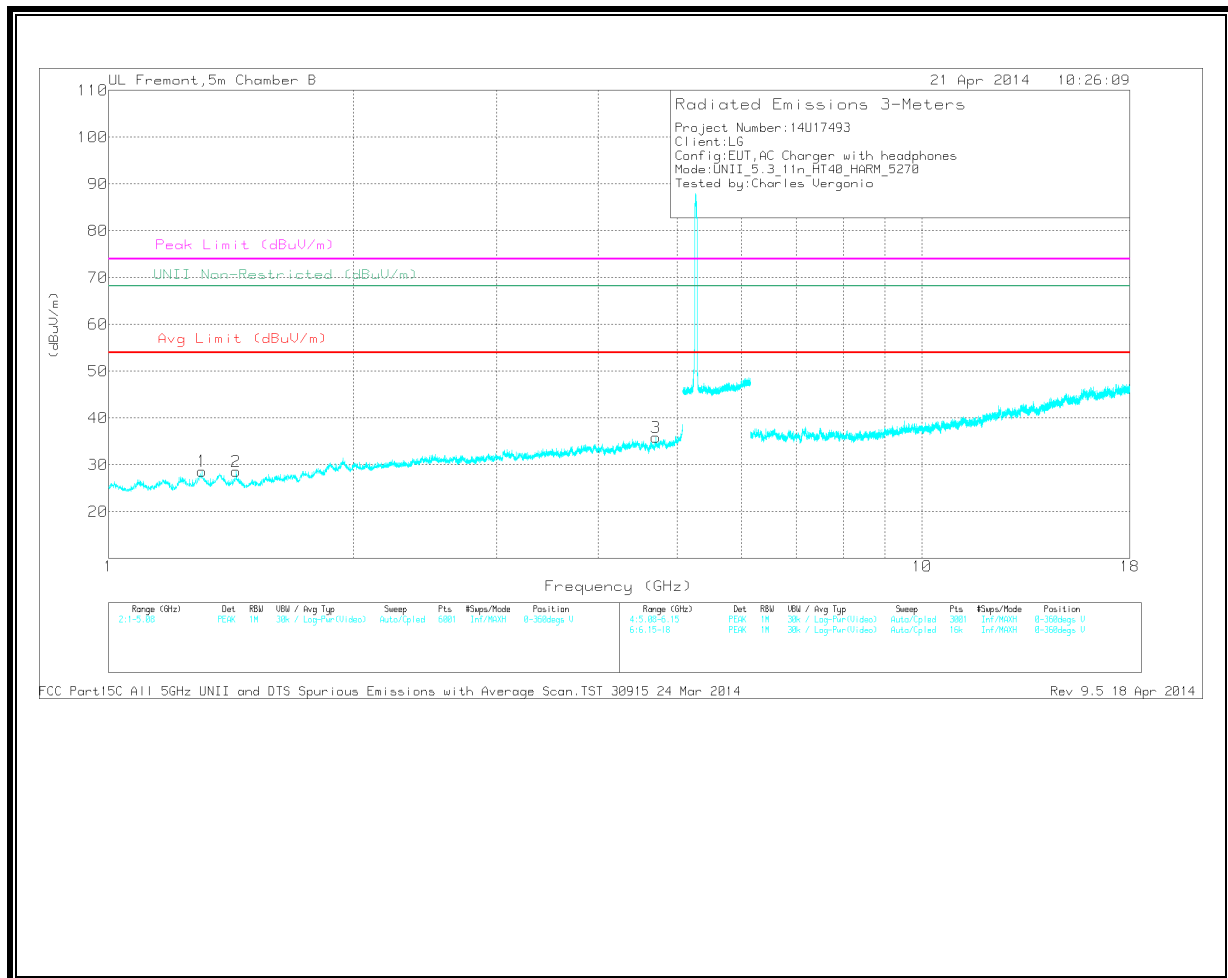
RMS - RMS detection

## HARMONICS AND SPURIOUS EMISSIONS

### LOW CHANNEL HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-----------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 1      | * 1.303         | 34.09                | PK  | 28.8           | -34.2                 | 28.69                      | -                  | -           | 74                  | -45.31         | -                            | -              | 0-360          | 99          | V        |
| 2      | * 1.435         | 34.29                | PK  | 28.3           | -34                   | 28.59                      | -                  | -           | 74                  | -45.41         | -                            | -              | 0-360          | 99          | V        |
| 3      | * 4.709         | 31.54                | PK  | 34.2           | -29.9                 | 35.84                      | -                  | -           | 74                  | -38.16         | -                            | -              | 0-360          | 202         | V        |
| 4      | * 7.488         | 28.38                | PK  | 35.6           | -25.8                 | 38.18                      | -                  | -           | 74                  | -35.82         | -                            | -              | 0-360          | 99          | H        |
| 5      | * 8.094         | 29.17                | PK  | 35.7           | -26.4                 | 38.47                      | -                  | -           | 74                  | -35.53         | -                            | -              | 0-360          | 202         | H        |
| 6      | * 8.434         | 27.59                | PK  | 35.8           | -26                   | 37.39                      | -                  | -           | 74                  | -36.61         | -                            | -              | 0-360          | 202         | H        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

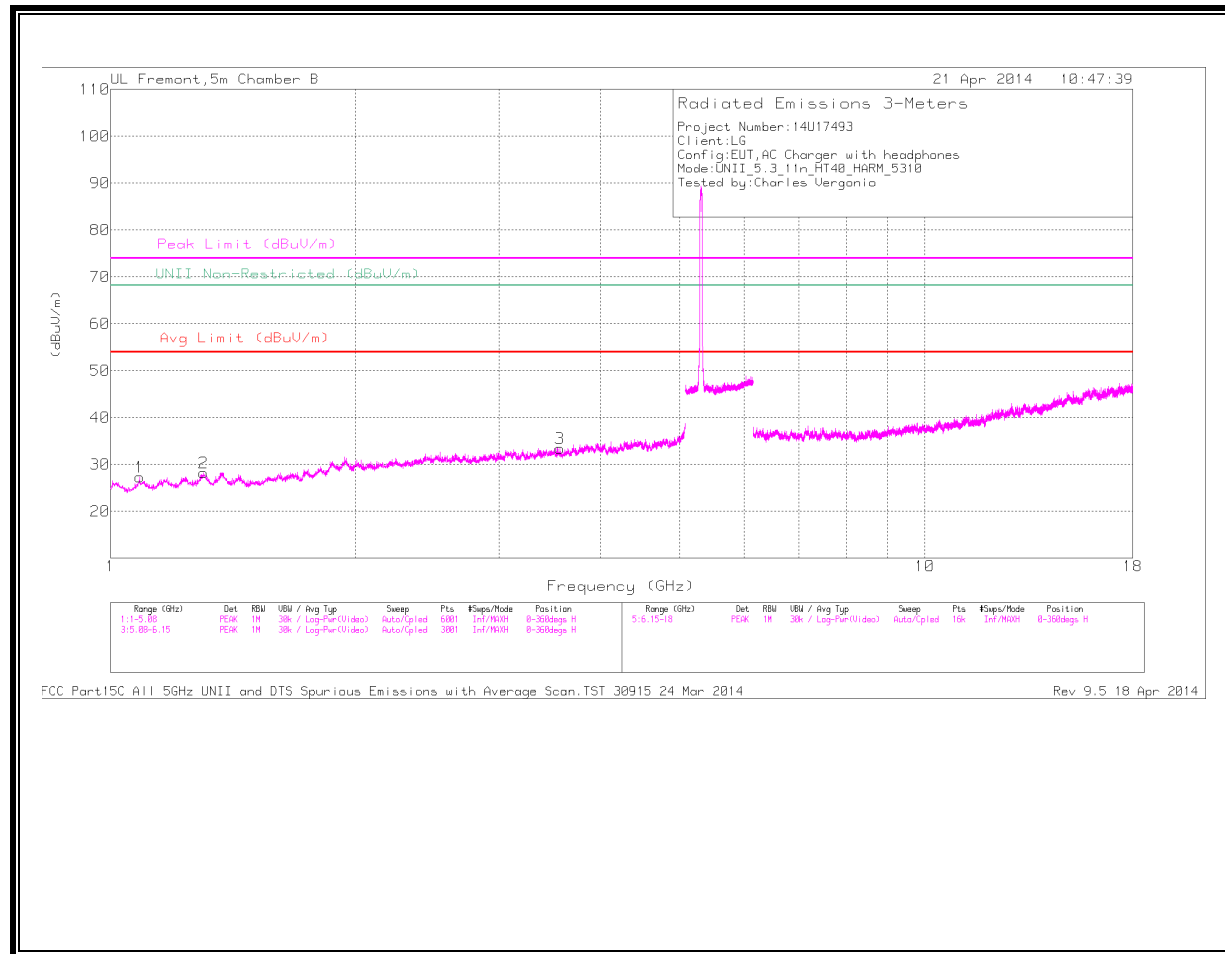
PK - Peak detector

Radiated Emissions

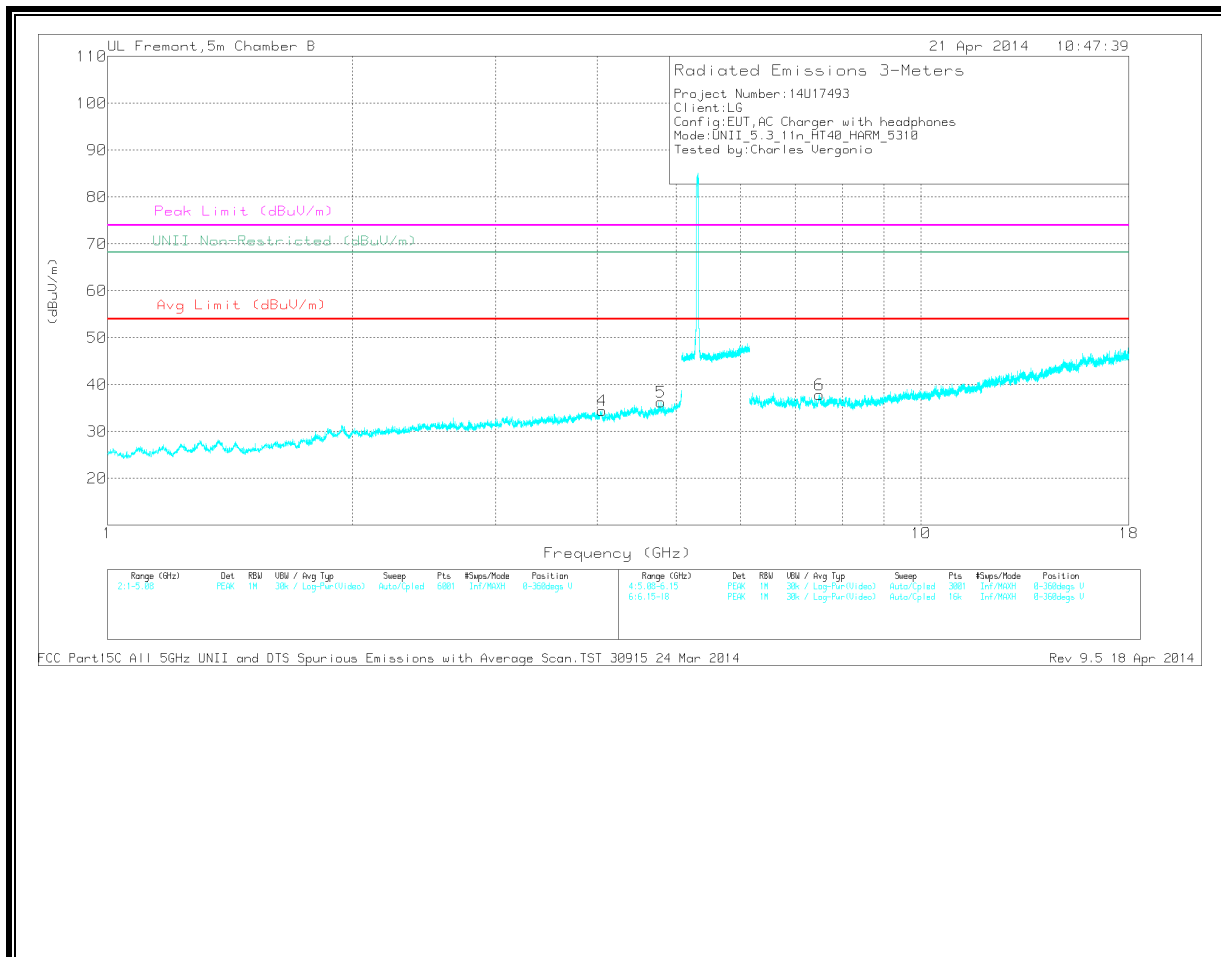
| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|-----|----------------|-----------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 1.303         | 44.02                | PK1 | 28.8           | -34.2                 | 38.62                      | 54                 | -15.38      | 74                  | -35.38         | -                            | -              | 1              | 100         | V        |
| * 1.437         | 43.18                | PK1 | 28.3           | -34                   | 37.48                      | 54                 | -16.52      | 74                  | -36.52         | -                            | -              | 1              | 100         | V        |
| * 4.709         | 40.71                | PK1 | 34.2           | -29.9                 | 45.01                      | 54                 | -8.99       | 74                  | -28.99         | -                            | -              | 1              | 100         | V        |
| * 7.486         | 38.02                | PK1 | 35.6           | -25.9                 | 47.72                      | 54                 | -6.28       | 74                  | -26.28         | -                            | -              | 1              | 100         | H        |
| * 8.096         | 37.25                | PK1 | 35.7           | -26.5                 | 46.45                      | 54                 | -7.55       | 74                  | -27.55         | -                            | -              | 1              | 100         | H        |
| * 8.434         | 36.55                | PK1 | 35.8           | -26                   | 46.35                      | 54                 | -7.65       | 74                  | -27.65         | -                            | -              | 1              | 100         | H        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK1 - KDB789033 Method: Peak

MID CHANNEL  
HORIZONTAL

Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-----------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 1      | * 1.085         | 34.43                | PK  | 27.3           | -34.4                 | 27.33                      | -                  | -           | 74                  | -46.67         | -                            | -              | 0-360          | 202         | H        |
| 2      | * 1.301         | 33.59                | PK  | 28.9           | -34.2                 | 28.29                      | -                  | -           | 74                  | -45.71         | -                            | -              | 0-360          | 99          | H        |
| 3      | * 3.562         | 32.07                | PK  | 33             | -31.6                 | 33.47                      | -                  | -           | 74                  | -40.53         | -                            | -              | 0-360          | 202         | H        |
| 4      | * 4.051         | 30.82                | PK  | 33.6           | -29.9                 | 34.52                      | -                  | -           | 74                  | -39.48         | -                            | -              | 0-360          | 202         | V        |
| 5      | * 4.786         | 31.04                | PK  | 34.2           | -29                   | 36.24                      | -                  | -           | 74                  | -37.76         | -                            | -              | 0-360          | 202         | V        |
| 6      | * 7.499         | 28.12                | PK  | 35.6           | -25.9                 | 37.82                      | -                  | -           | 74                  | -36.18         | -                            | -              | 0-360          | 202         | V        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

Radiated Emissions

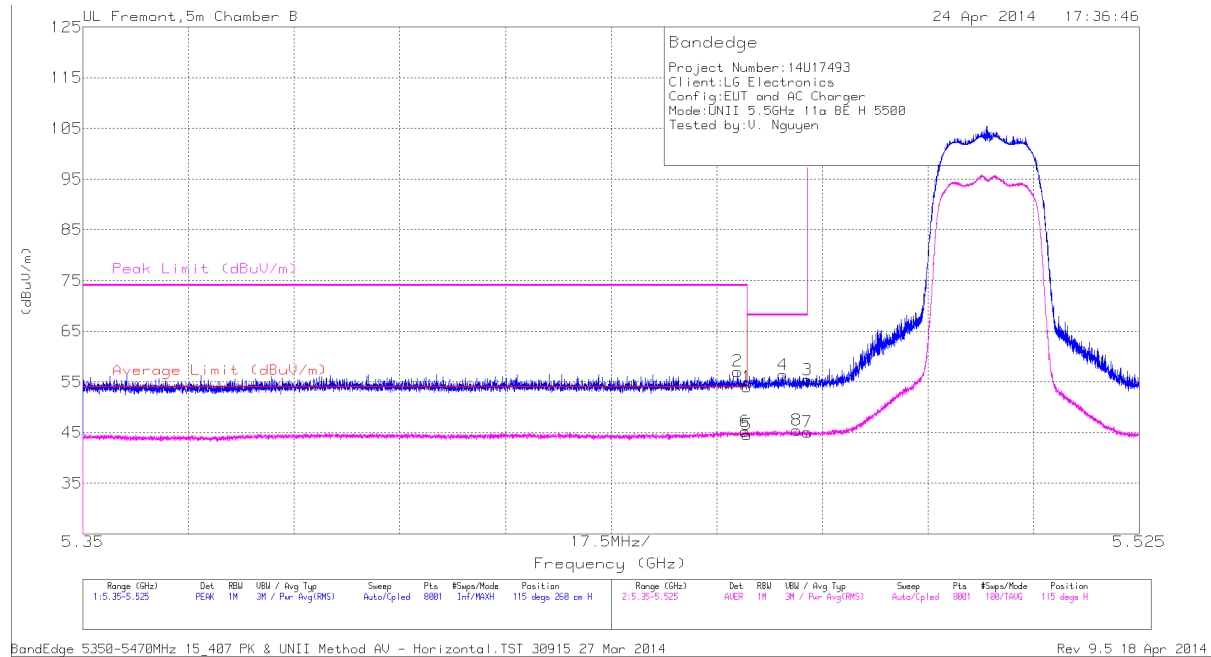
| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|-----|----------------|-----------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 1.084         | 43.42                | PK1 | 27.3           | -34.4                 | 36.32                      | 54                 | -17.68      | 74                  | -37.68         | -                            | -              | 1              | 100         | H        |
| * 1.298         | 43.33                | PK1 | 28.8           | -34.2                 | 37.93                      | 54                 | -16.07      | 74                  | -36.07         | -                            | -              | 1              | 100         | H        |
| * 3.562         | 41.29                | PK1 | 33             | -31.6                 | 42.69                      | 54                 | -11.31      | 74                  | -31.31         | -                            | -              | 1              | 100         | H        |
| * 4.05          | 40.38                | PK1 | 33.6           | -29.8                 | 44.18                      | 54                 | -9.82       | 74                  | -29.82         | -                            | -              | 1              | 100         | V        |
| * 4.785         | 39.4                 | PK1 | 34.2           | -29                   | 44.6                       | 54                 | -9.4        | 74                  | -29.4          | -                            | -              | 1              | 100         | V        |
| * 7.5           | 37.68                | PK1 | 35.6           | -25.9                 | 47.38                      | 54                 | -6.62       | 74                  | -26.62         | -                            | -              | 1              | 100         | V        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK1 - KDB789033 Method: Peak

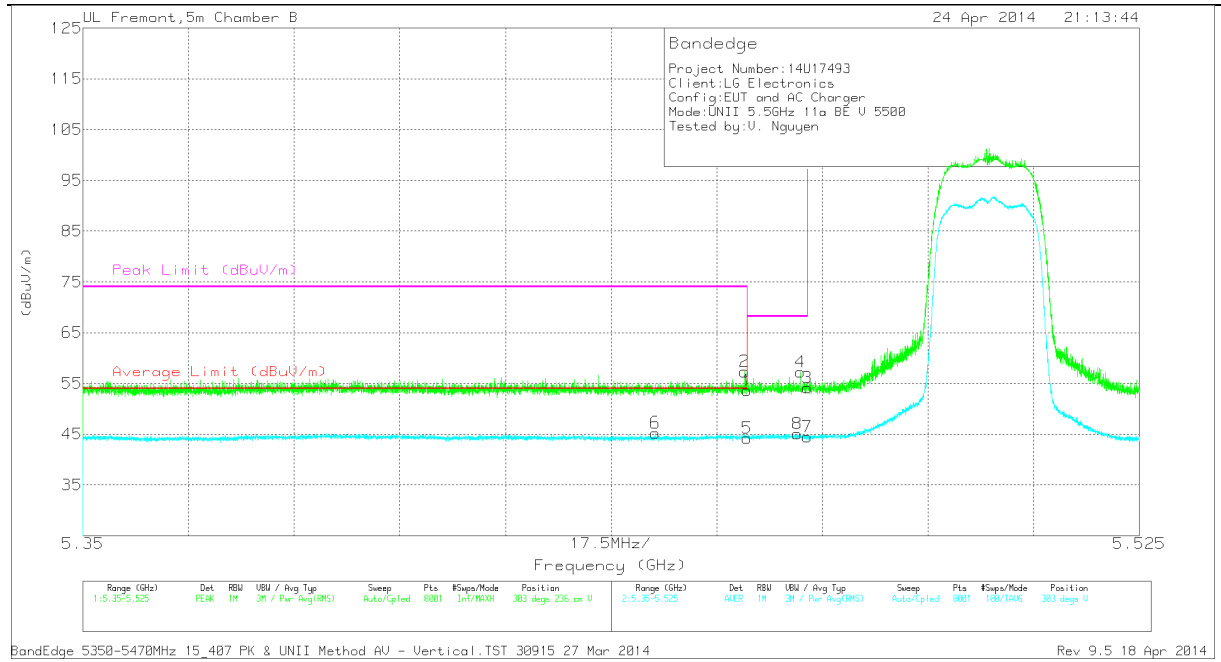
## 11.3. 5.5-5.6 GHz

### 11.3.1. TX ABOVE 1 GHz 802.11a MODE IN THE 5.5 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 2      | * 5.458         | 42.56                | PK  | 34.5           | -20                    | 57.06                      | -                      | -           | 74                  | -16.94         | 115            | 260         | H        |
| 1      | * 5.46          | 39.54                | PK  | 34.5           | -20                    | 54.04                      | -                      | -           | 74                  | -19.96         | 115            | 260         | H        |
| 5      | * 5.46          | 30.08                | RMS | 34.5           | -20                    | 44.58                      | 54                     | -9.42       | -                   | -              | 115            | 260         | H        |
| 6      | * 5.46          | 30.69                | RMS | 34.5           | -20                    | 45.19                      | 54                     | -8.81       | -                   | -              | 115            | 260         | H        |
| 4      | 5.466           | 41.85                | PK  | 34.5           | -20                    | 56.35                      | -                      | -           | 68.2                | -11.85         | 115            | 260         | H        |
| 8      | 5.468           | 30.95                | RMS | 34.5           | -20                    | 45.45                      | -                      | -           | -                   | -              | 115            | 260         | H        |
| 3      | 5.47            | 40.74                | PK  | 34.5           | -19.9                  | 55.34                      | -                      | -           | 68.2                | -12.86         | 115            | 260         | H        |
| 7      | 5.47            | 30.42                | RMS | 34.5           | -19.9                  | 45.02                      | -                      | -           | -                   | -              | 115            | 260         | H        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band  
PK - Peak detector  
RMS - RMS detection



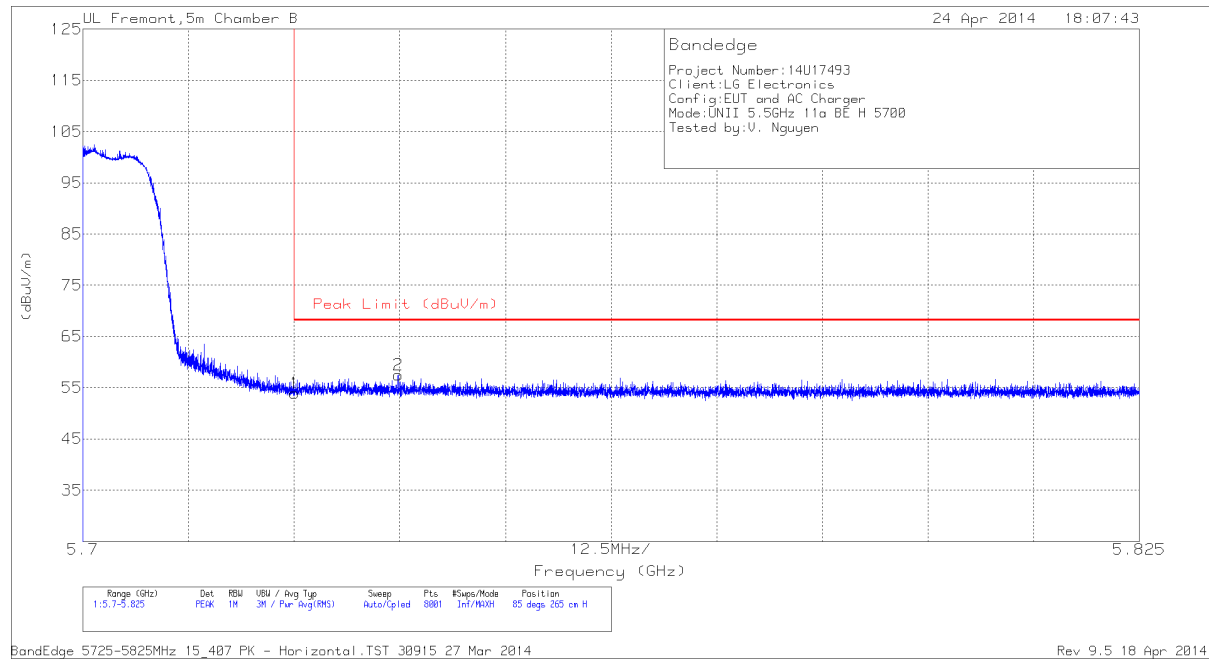
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/FI tr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 5.46          | 39.19                | PK  | 34.5           | -20                    | 0            | 53.69                      | -                      | -           | 74                  | -20.31         | 303            | 236         | V        |
| 2      | * 5.46          | 42.81                | PK  | 34.5           | -20                    | 0            | 57.31                      | -                      | -           | 74                  | -16.69         | 303            | 236         | V        |
| 5      | * 5.46          | 29.53                | RMS | 34.5           | -20                    | 2            | 44.23                      | 54                     | -9.77       | -                   | -              | 303            | 236         | V        |
| 6      | * 5.445         | 30.66                | RMS | 34.5           | -20.1                  | 2            | 45.26                      | 54                     | -8.74       | -                   | -              | 303            | 236         | V        |
| 8      | 5.468           | 30.38                | RMS | 34.5           | -20                    | 2            | 45.08                      | -                      | -           | -                   | -              | 303            | 236         | V        |
| 4      | 5.469           | 42.73                | PK  | 34.5           | -20                    | 0            | 57.23                      | -                      | -           | 68.2                | -10.97         | 303            | 236         | V        |
| 3      | 5.47            | 39.54                | PK  | 34.5           | -19.9                  | 0            | 54.14                      | -                      | -           | 68.2                | -14.06         | 303            | 236         | V        |
| 7      | 5.47            | 29.68                | RMS | 34.5           | -19.9                  | 2            | 44.48                      | -                      | -           | -                   | -              | 303            | 236         | V        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

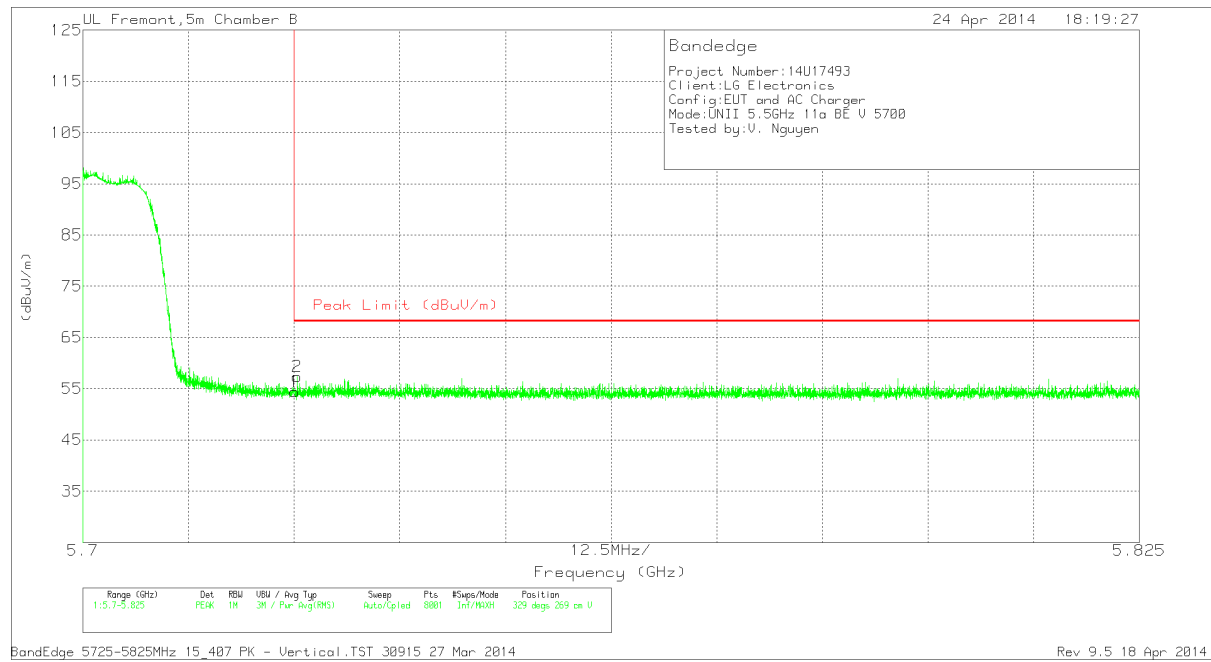
RMS - RMS detection

**AUTHORIZED BANDEDGE (HIGH CHANNEL)**



| Marker | Frequen<br>cy (GHz) | Meter<br>Reading<br>(dBuV) | Det | AF T345<br>(dB/m) | Amp/Cbl/<br>Filtr/Pad<br>(dB) | Correcte<br>d<br>Reading<br>(dBuV/m) | Peak<br>Limit<br>(dBuV/m) | PK<br>Margin<br>(dB) | Azimuth<br>(Degs) | Height<br>(cm) | Polarity |
|--------|---------------------|----------------------------|-----|-------------------|-------------------------------|--------------------------------------|---------------------------|----------------------|-------------------|----------------|----------|
| 1      | 5.725               | 38.94                      | PK  | 34.6              | -19.6                         | 53.94                                | 68.2                      | -14.26               | 85                | 265            | H        |
| 2      | 5.737               | 42.41                      | PK  | 34.6              | -19.5                         | 57.51                                | 68.2                      | -10.69               | 85                | 265            | H        |

PK - Peak detector

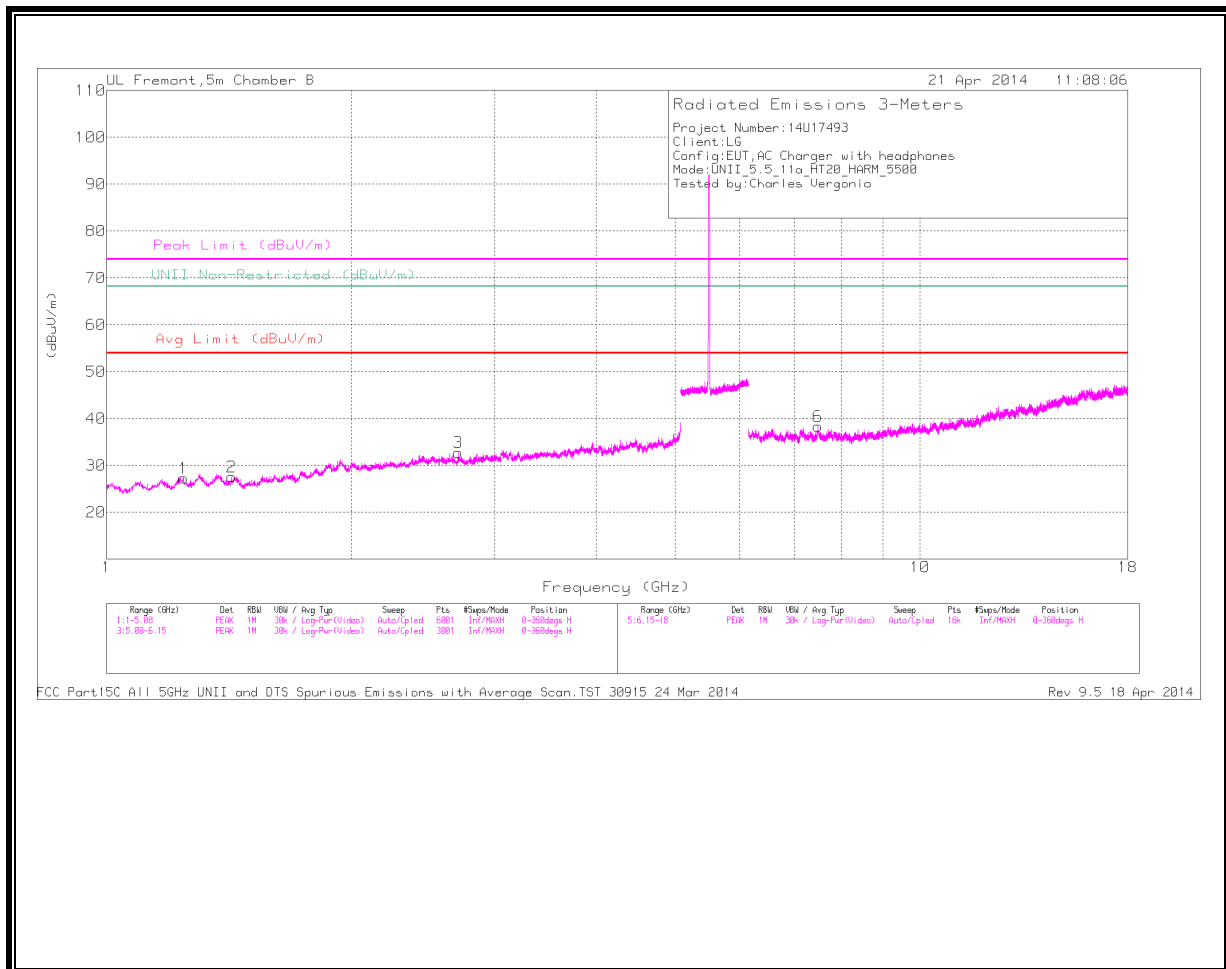


| Marker | Frequen<br>cy<br>(GHz) | Meter<br>Reading<br>(dBuV) | Det | AF T345<br>(dB/m) | Amp/Cbl/<br>Filtr/Pad<br>(dB) | Correcte<br>d<br>Reading<br>(dBuV/m) | Peak<br>Limit<br>(dBuV/m) | PK<br>Margin<br>(dB) | Azimuth<br>(Degs) | Height<br>(cm) | Polarity |
|--------|------------------------|----------------------------|-----|-------------------|-------------------------------|--------------------------------------|---------------------------|----------------------|-------------------|----------------|----------|
| 1      | 5.725                  | 39.36                      | PK  | 34.6              | -19.6                         | 54.36                                | 68.2                      | -13.84               | 329               | 269            | V        |
| 2      | 5.725                  | 42.31                      | PK  | 34.6              | -19.6                         | 57.31                                | 68.2                      | -10.89               | 329               | 269            | V        |

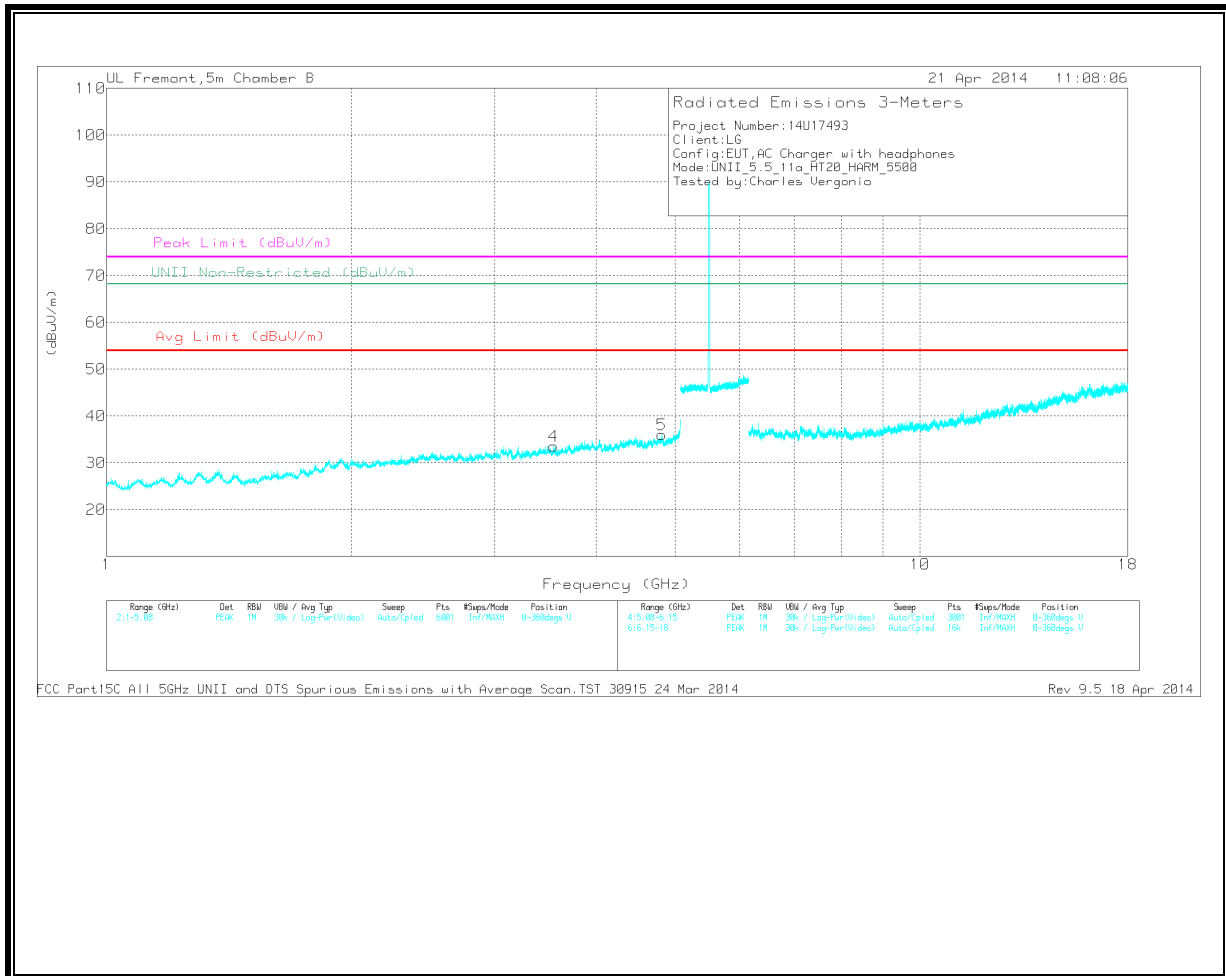
PK - Peak detector

## HARMONICS AND SPURIOUS EMISSIONS

### LOW CHANNEL HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-----------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 1      | * 1.243         | 33.54                | PK  | 28.5           | -34.7                 | 27.34                      | -                  | -           | 74                  | -46.66         | -                            | -              | 0-360          | 99          | H        |
| 2      | * 1.426         | 33.24                | PK  | 28.4           | -34                   | 27.64                      | -                  | -           | 74                  | -46.36         | -                            | -              | 0-360          | 99          | H        |
| 3      | * 2.706         | 32.35                | PK  | 32.2           | -31.8                 | 32.75                      | -                  | -           | 74                  | -41.25         | -                            | -              | 0-360          | 202         | H        |
| 4      | * 3.547         | 32.39                | PK  | 33             | -31.8                 | 33.59                      | -                  | -           | 74                  | -40.41         | -                            | -              | 0-360          | 99          | V        |
| 5      | * 4.809         | 31.17                | PK  | 34.2           | -29.3                 | 36.07                      | -                  | -           | 74                  | -37.93         | -                            | -              | 0-360          | 202         | V        |
| 6      | * 7.488         | 28.56                | PK  | 35.6           | -25.8                 | 38.36                      | -                  | -           | 74                  | -35.64         | -                            | -              | 0-360          | 202         | H        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

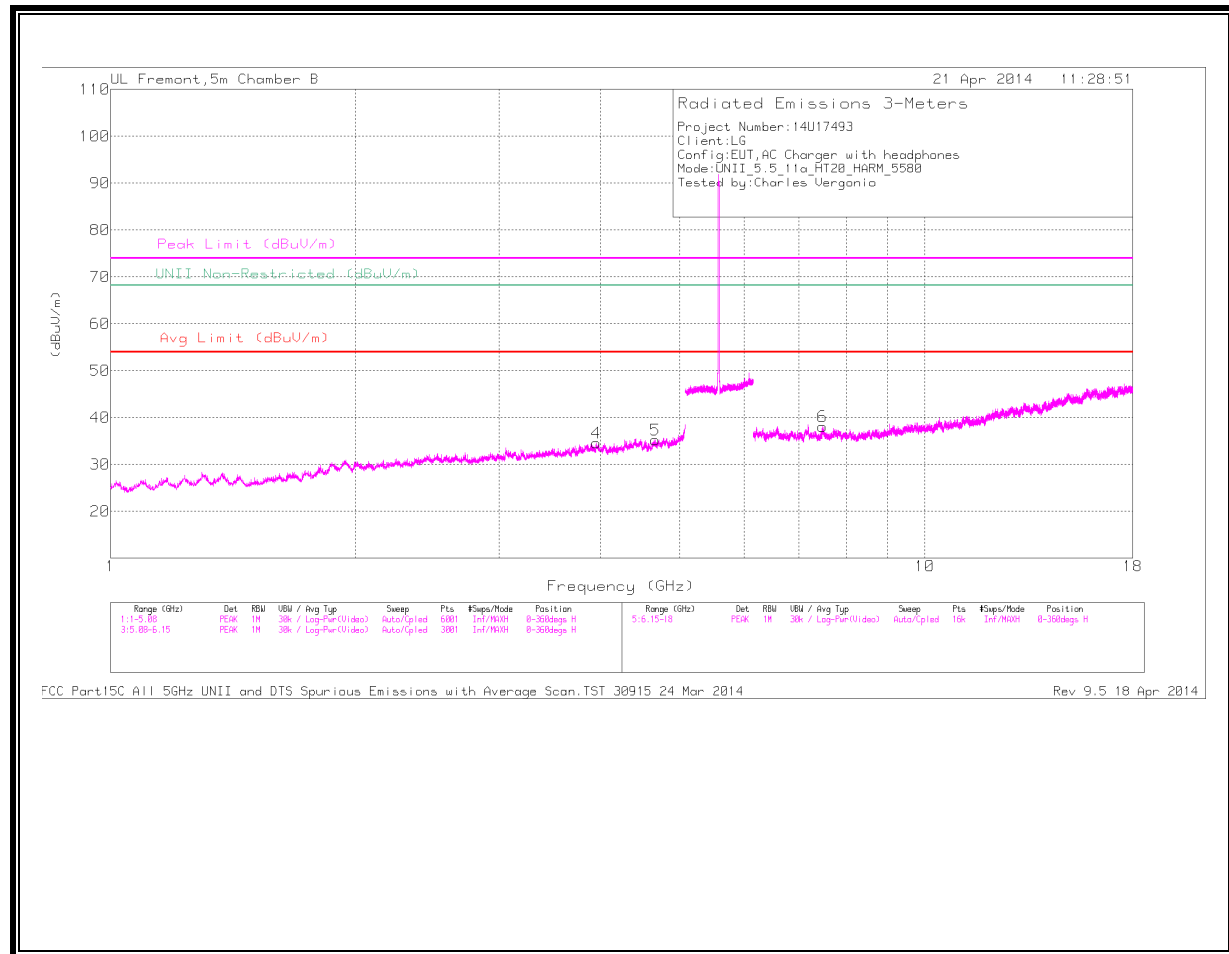
PK - Peak detector

Radiated Emissions

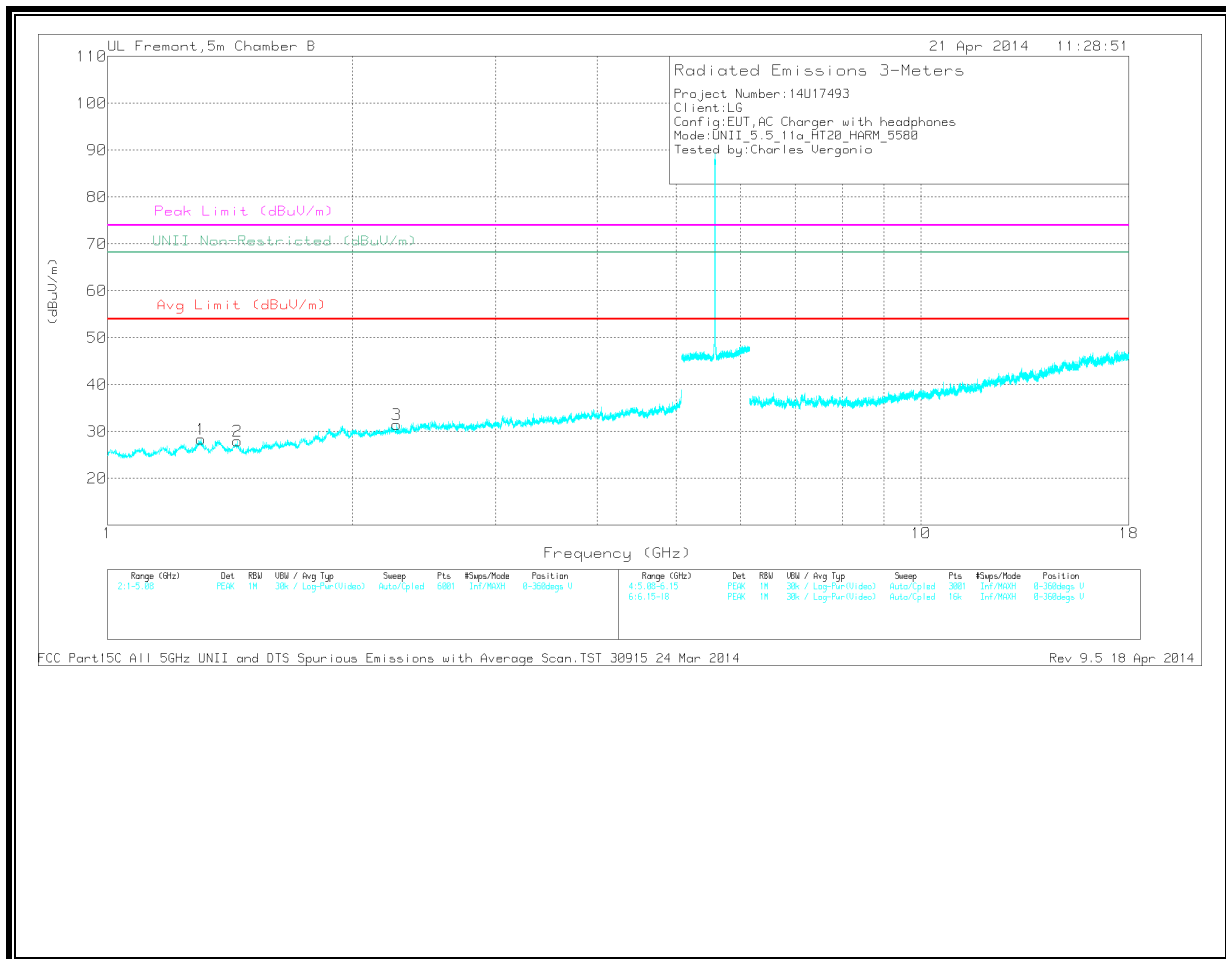
| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|-----|----------------|-----------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 1.244         | 43.12                | PK1 | 28.5           | -34.7                 | 36.92                      | 54                 | -17.08      | 74                  | -37.08         | -                            | -              | 1              | 100         | H        |
| * 1.425         | 42.86                | PK1 | 28.4           | -34                   | 37.26                      | 54                 | -16.74      | 74                  | -36.74         | -                            | -              | 1              | 100         | H        |
| * 2.708         | 41.65                | PK1 | 32.2           | -31.8                 | 42.05                      | 54                 | -11.95      | 74                  | -31.95         | -                            | -              | 1              | 100         | H        |
| * 3.545         | 41.83                | PK1 | 32.9           | -31.9                 | 42.83                      | 54                 | -11.17      | 74                  | -31.17         | -                            | -              | 1              | 100         | V        |
| * 4.808         | 40.65                | PK1 | 34.2           | -29.3                 | 45.55                      | 54                 | -8.45       | 74                  | -28.45         | -                            | -              | 1              | 100         | V        |
| * 7.489         | 38.07                | PK1 | 35.6           | -25.7                 | 47.97                      | 54                 | -6.03       | 74                  | -26.03         | -                            | -              | 1              | 100         | H        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK1 - KDB789033 Method: Peak



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-----------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 4      | * 3.949         | 31.08                | PK  | 33.7           | -30.2                 | 34.58                      | -                  | -           | 74                  | -39.42         | -                            | -              | 0-360          | 202         | H        |
| 5      | * 4.665         | 30.28                | PK  | 34.2           | -29.2                 | 35.28                      | -                  | -           | 74                  | -38.72         | -                            | -              | 0-360          | 202         | H        |
| 1      | * 1.303         | 33.81                | PK  | 28.8           | -34.2                 | 28.41                      | -                  | -           | 74                  | -45.59         | -                            | -              | 0-360          | 99          | V        |
| 2      | * 1.444         | 33.9                 | PK  | 28.2           | -34.1                 | 28                         | -                  | -           | 74                  | -46            | -                            | -              | 0-360          | 99          | V        |
| 3      | * 2.268         | 32.76                | PK  | 31.5           | -32.8                 | 31.46                      | -                  | -           | 74                  | -42.54         | -                            | -              | 0-360          | 202         | V        |
| 6      | * 7.492         | 28.23                | PK  | 35.6           | -25.7                 | 38.13                      | -                  | -           | 74                  | -35.87         | -                            | -              | 0-360          | 99          | H        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

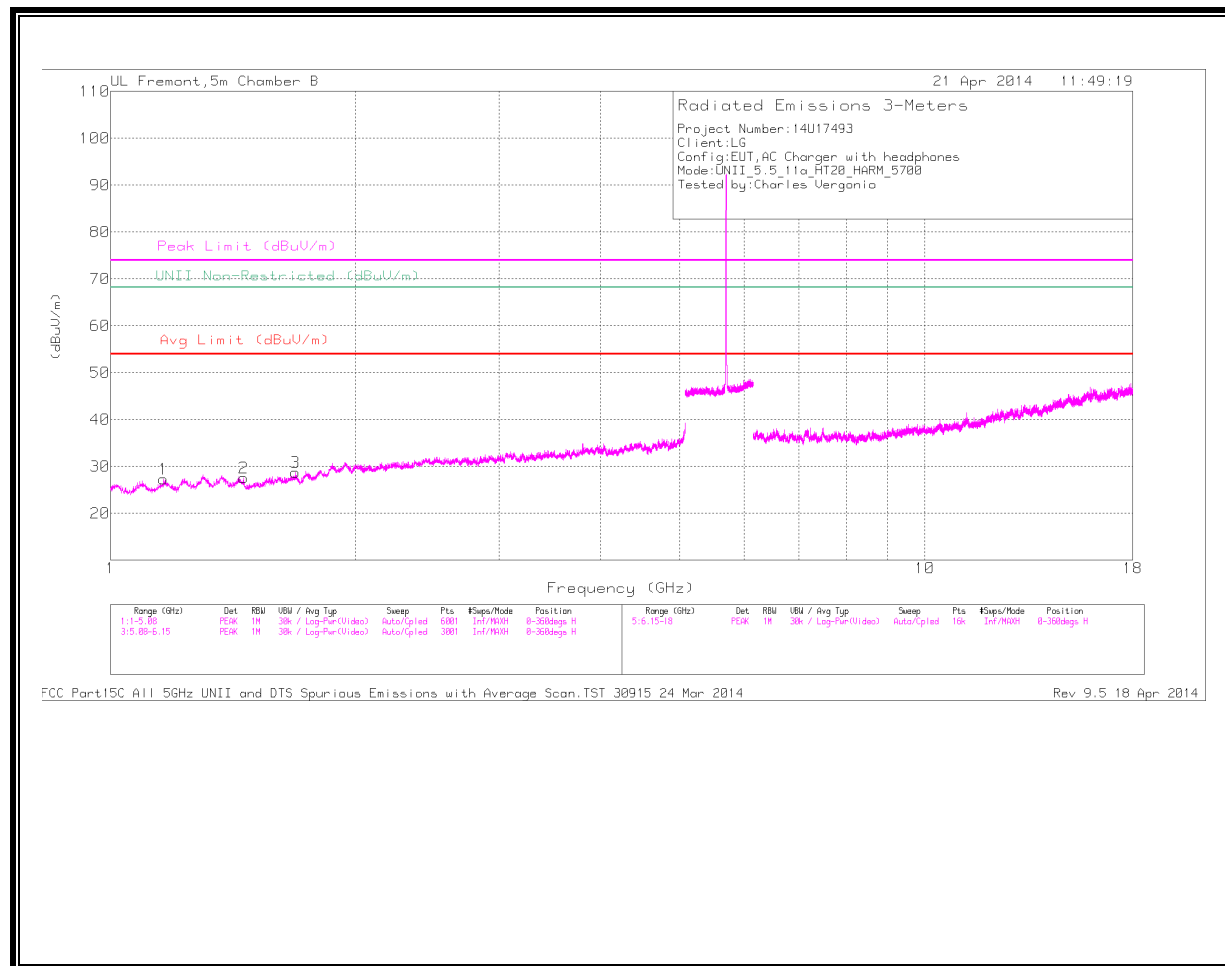
PK - Peak detector

Radiated Emissions

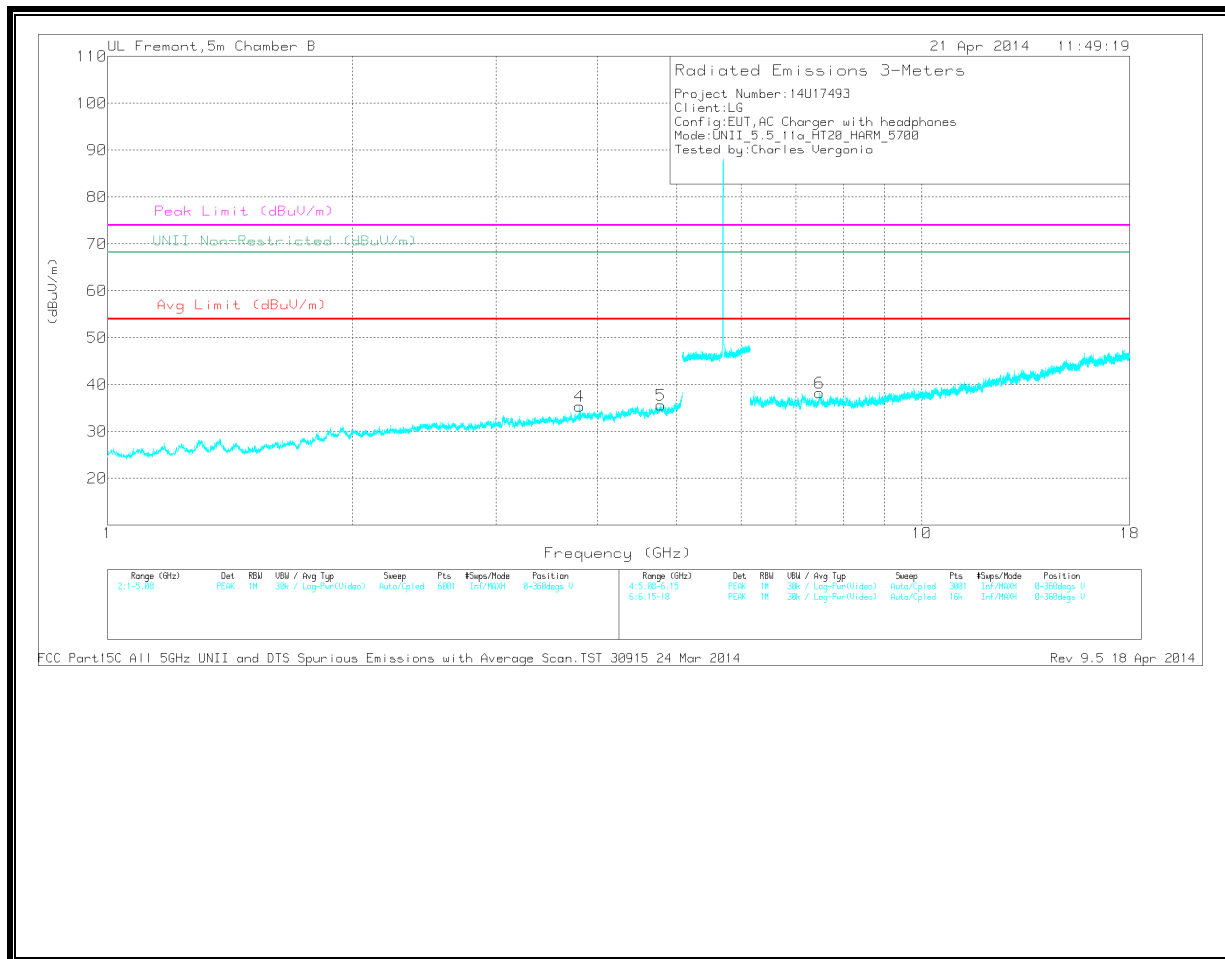
| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|-----|----------------|-----------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 3.948         | 40.22                | PK1 | 33.7           | -30.3                 | 43.62                      | 54                 | -10.38      | 74                  | -30.38         | -                            | -              | 1              | 100         | H        |
| * 4.666         | 40.02                | PK1 | 34.2           | -29.2                 | 45.02                      | 54                 | -8.98       | 74                  | -28.98         | -                            | -              | 1              | 100         | H        |
| * 1.304         | 43.01                | PK1 | 28.8           | -34.2                 | 37.61                      | 54                 | -16.39      | 74                  | -36.39         | -                            | -              | 1              | 100         | V        |
| * 1.446         | 43.52                | PK1 | 28.2           | -34.2                 | 37.52                      | 54                 | -16.48      | 74                  | -36.48         | -                            | -              | 1              | 100         | V        |
| * 2.268         | 41.7                 | PK1 | 31.5           | -32.8                 | 40.4                       | 54                 | -13.6       | 74                  | -33.6          | -                            | -              | 1              | 100         | V        |
| * 7.493         | 37.81                | PK1 | 35.6           | -25.7                 | 47.71                      | 54                 | -6.29       | 74                  | -26.29         | -                            | -              | 1              | 100         | H        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK1 - KDB789033 Method: Peak



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

# HIGH CHANNEL DATA

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-----------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 1      | * 1.161         | 34.13                | PK  | 27.9           | -34.7                 | 27.33                      | -                  | -           | 74                  | -46.67         | -                            | -              | 0-360          | 201         | H        |
| 2      | * 1.458         | 33.8                 | PK  | 28.2           | -34.4                 | 27.6                       | -                  | -           | 74                  | -46.4          | -                            | -              | 0-360          | 99          | H        |
| 3      | * 1.687         | 33.01                | PK  | 29             | -33.3                 | 28.71                      | -                  | -           | 74                  | -45.29         | -                            | -              | 0-360          | 201         | H        |
| 4      | * 3.8           | 32.8                 | PK  | 33.6           | -31                   | 35.4                       | -                  | -           | 74                  | -38.6          | -                            | -              | 0-360          | 99          | V        |
| 5      | * 4.781         | 30.49                | PK  | 34.2           | -29                   | 35.69                      | -                  | -           | 74                  | -38.31         | -                            | -              | 0-360          | 99          | V        |
| 6      | * 7.492         | 28.36                | PK  | 35.6           | -25.7                 | 38.26                      | -                  | -           | 74                  | -35.74         | -                            | -              | 0-360          | 202         | V        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

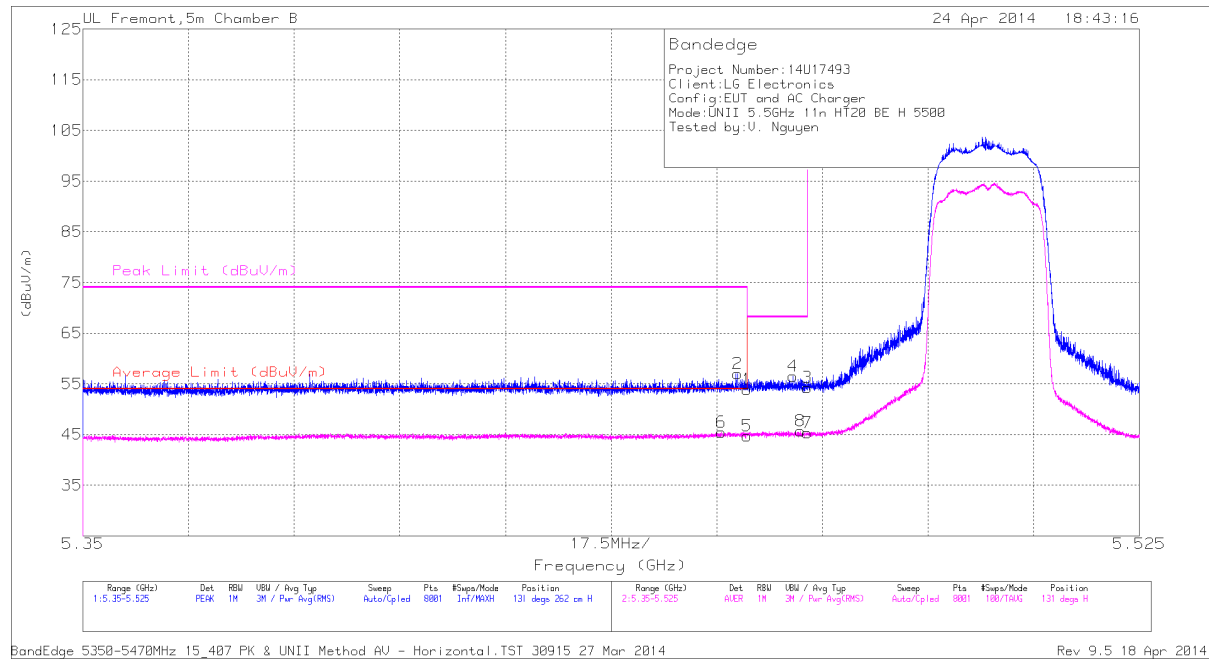
Radiated Emissions

| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|-----|----------------|-----------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 1.16          | 43.66                | PK1 | 27.9           | -34.7                 | 36.86                      | 54                 | -17.14      | 74                  | -37.14         | -                            | -              | 1              | 100         | H        |
| * 1.456         | 42.64                | PK1 | 28.2           | -34.4                 | 36.44                      | 54                 | -17.56      | 74                  | -37.56         | -                            | -              | 1              | 100         | H        |
| * 1.69          | 42.45                | PK1 | 29             | -33.3                 | 38.15                      | 54                 | -15.85      | 74                  | -35.85         | -                            | -              | 1              | 100         | H        |
| * 3.802         | 40.4                 | PK1 | 33.6           | -31                   | 43                         | 54                 | -11.0       | 74                  | -31            | -                            | -              | 1              | 100         | V        |
| * 4.78          | 40.41                | PK1 | 34.2           | -29                   | 45.61                      | 54                 | -8.39       | 74                  | -28.39         | -                            | -              | 1              | 100         | V        |
| * 7.49          | 38.16                | PK1 | 35.6           | -25.7                 | 48.06                      | 54                 | -5.94       | 74                  | -25.94         | -                            | -              | 1              | 100         | V        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

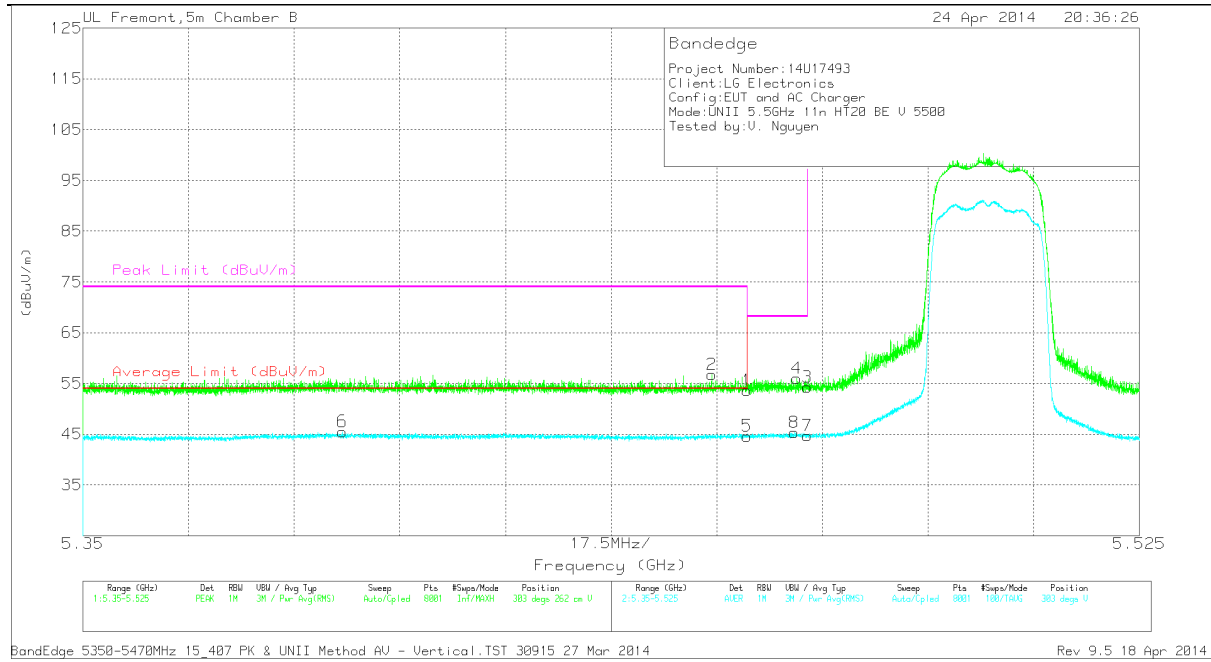
PK1 - KDB789033 Method: Peak

### 11.3.3. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.5 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)



| Marker | Frequenc<br>y (GHz) | Meter<br>Reading<br>(dBuV) | Det | AF T345<br>(dB/m) | Amp/Cbl/FI<br>tr/Pad (dB) | DC Corr<br>(dB) | Correcte<br>d<br>Reading<br>(dBuV/m) | Average<br>Limit<br>(dBuV/m) | Margin<br>(dB) | Peak Limit<br>(dBuV/m) | PK<br>Margin<br>(dB) | Azimuth<br>(Degs) | Height<br>(cm) | Polarity |
|--------|---------------------|----------------------------|-----|-------------------|---------------------------|-----------------|--------------------------------------|------------------------------|----------------|------------------------|----------------------|-------------------|----------------|----------|
| 6      | * 5.456             | 30.73                      | RMS | 34.5              | -20                       | .2              | 45.43                                | 54                           | -8.57          | -                      | -                    | 131               | 262            | H        |
| 2      | * 5.458             | 42.53                      | PK  | 34.5              | -20                       | 0               | 57.03                                | -                            | -              | 74                     | -16.97               | 131               | 262            | H        |
| 1      | * 5.46              | 39.36                      | PK  | 34.5              | -20                       | 0               | 53.86                                | -                            | -              | 74                     | -20.14               | 131               | 262            | H        |
| 5      | * 5.46              | 29.97                      | RMS | 34.5              | -20                       | .2              | 44.67                                | 54                           | -9.33          | -                      | -                    | 131               | 262            | H        |
| 4      | 5.468               | 42                         | PK  | 34.5              | -20                       | 0               | 56.5                                 | -                            | -              | 68.2                   | -11.7                | 131               | 262            | H        |
| 8      | 5.469               | 30.98                      | RMS | 34.5              | -20                       | .2              | 45.68                                | -                            | -              | -                      | -                    | 131               | 262            | H        |
| 3      | 5.47                | 39.65                      | PK  | 34.5              | -19.9                     | 0               | 54.25                                | -                            | -              | 68.2                   | -13.95               | 131               | 262            | H        |
| 7      | 5.47                | 30.54                      | RMS | 34.5              | -19.9                     | .2              | 45.34                                | -                            | -              | -                      | -                    | 131               | 262            | H        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band  
PK - Peak detector  
RMS - RMS detection



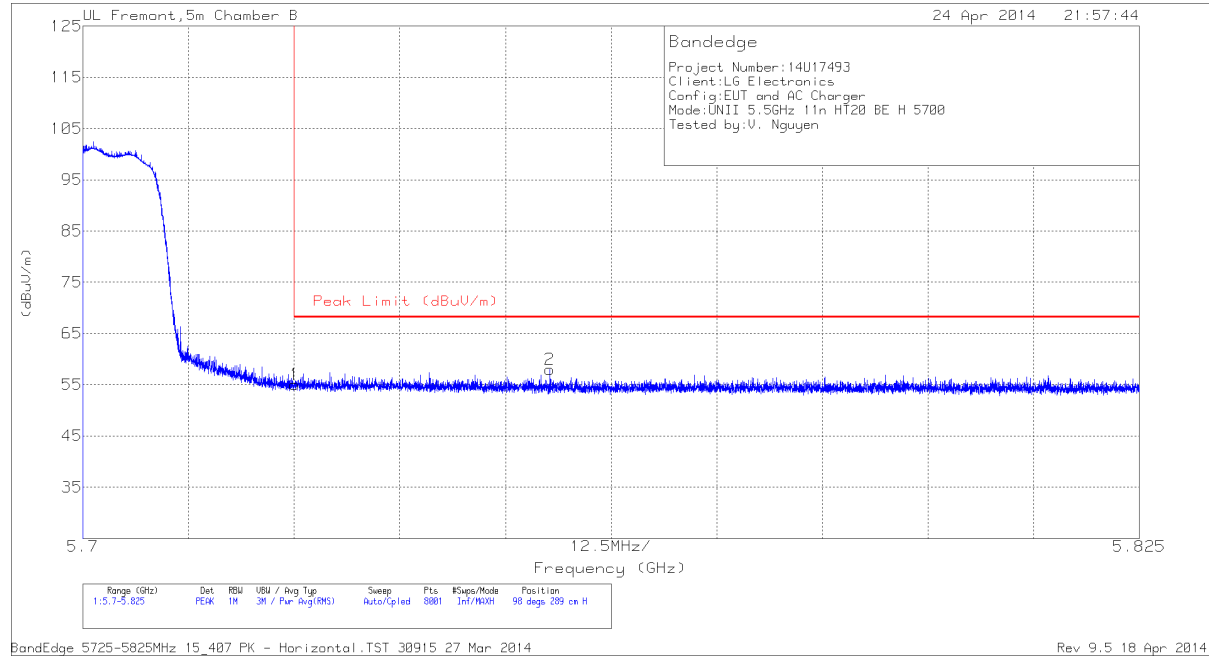
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Fit r/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 6      | * 5.393         | 30.61                | RMS | 34.5           | -19.8                  | .2           | 45.51                      | 54                     | -8.49       | -                   | -              | 303            | 262         | V        |
| 2      | * 5.454         | 42.34                | PK  | 34.5           | -20.1                  | 0            | 56.74                      | -                      | -           | 74                  | -17.26         | 303            | 262         | V        |
| 1      | * 5.46          | 39.1                 | PK  | 34.5           | -20                    | 0            | 53.6                       | -                      | -           | 74                  | -20.4          | 303            | 262         | V        |
| 5      | * 5.46          | 29.94                | RMS | 34.5           | -20                    | .2           | 44.64                      | 54                     | -9.36       | -                   | -              | 303            | 262         | V        |
| 4      | 5.468           | 41.48                | PK  | 34.5           | -20                    | 0            | 55.98                      | -                      | -           | 68.2                | -12.22         | 303            | 262         | V        |
| 8      | 5.468           | 30.59                | RMS | 34.5           | -20                    | .2           | 45.29                      | -                      | -           | -                   | -              | 303            | 262         | V        |
| 3      | 5.47            | 39.63                | PK  | 34.5           | -19.9                  | 0            | 54.23                      | -                      | -           | 68.2                | -13.97         | 303            | 262         | V        |
| 7      | 5.47            | 29.9                 | RMS | 34.5           | -19.9                  | .2           | 44.7                       | -                      | -           | -                   | -              | 303            | 262         | V        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

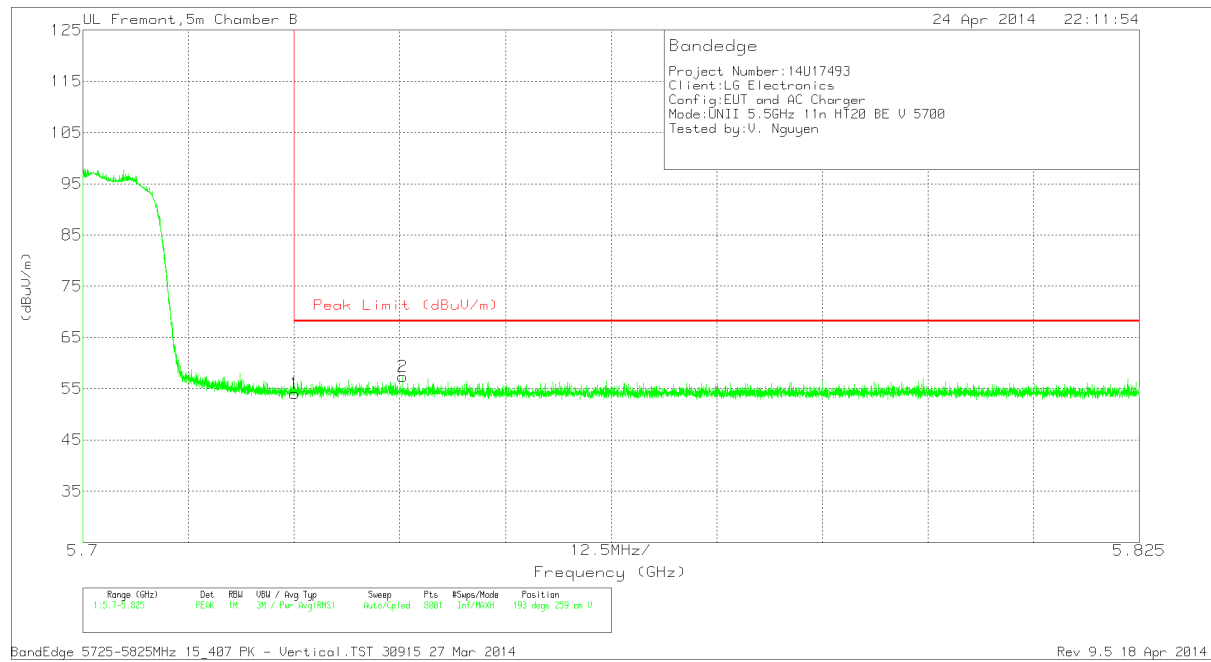
RMS - RMS detection

## AUTHORIZED BANDEDGE (HIGH CHANNEL)



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/ Filt/Pad (dB) | Corrected Reading (dBuV/m) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|----------------------------|---------------------|----------------|----------------|-------------|----------|
| 1      | 5.725           | 40.03                | PK  | 34.6           | -19.6                  | 55.03                      | 68.2                | -13.17         | 98             | 289         | H        |
| 2      | 5.755           | 42.87                | PK  | 34.6           | -19.5                  | 57.97                      | 68.2                | -10.23         | 98             | 289         | H        |

PK - Peak detector

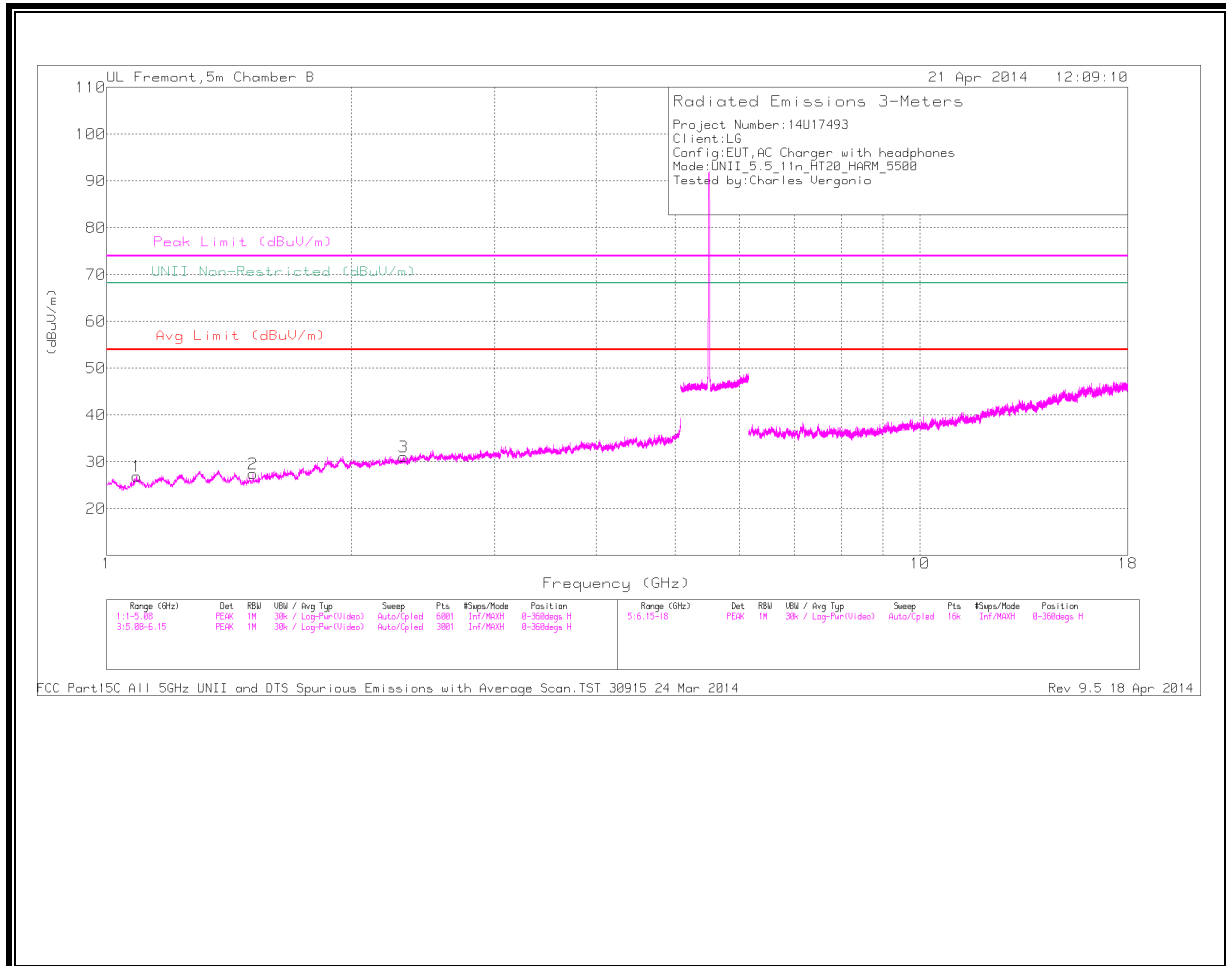


| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/ Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|----------------------------|---------------------|----------------|----------------|-------------|----------|
| 1      | 5.725           | 39.1                 | PK  | 34.6           | -19.6                  | 54.1                       | 68.2                | -14.1          | 193            | 259         | V        |
| 2      | 5.738           | 42.27                | PK  | 34.6           | -19.5                  | 57.37                      | 68.2                | -10.83         | 193            | 259         | V        |

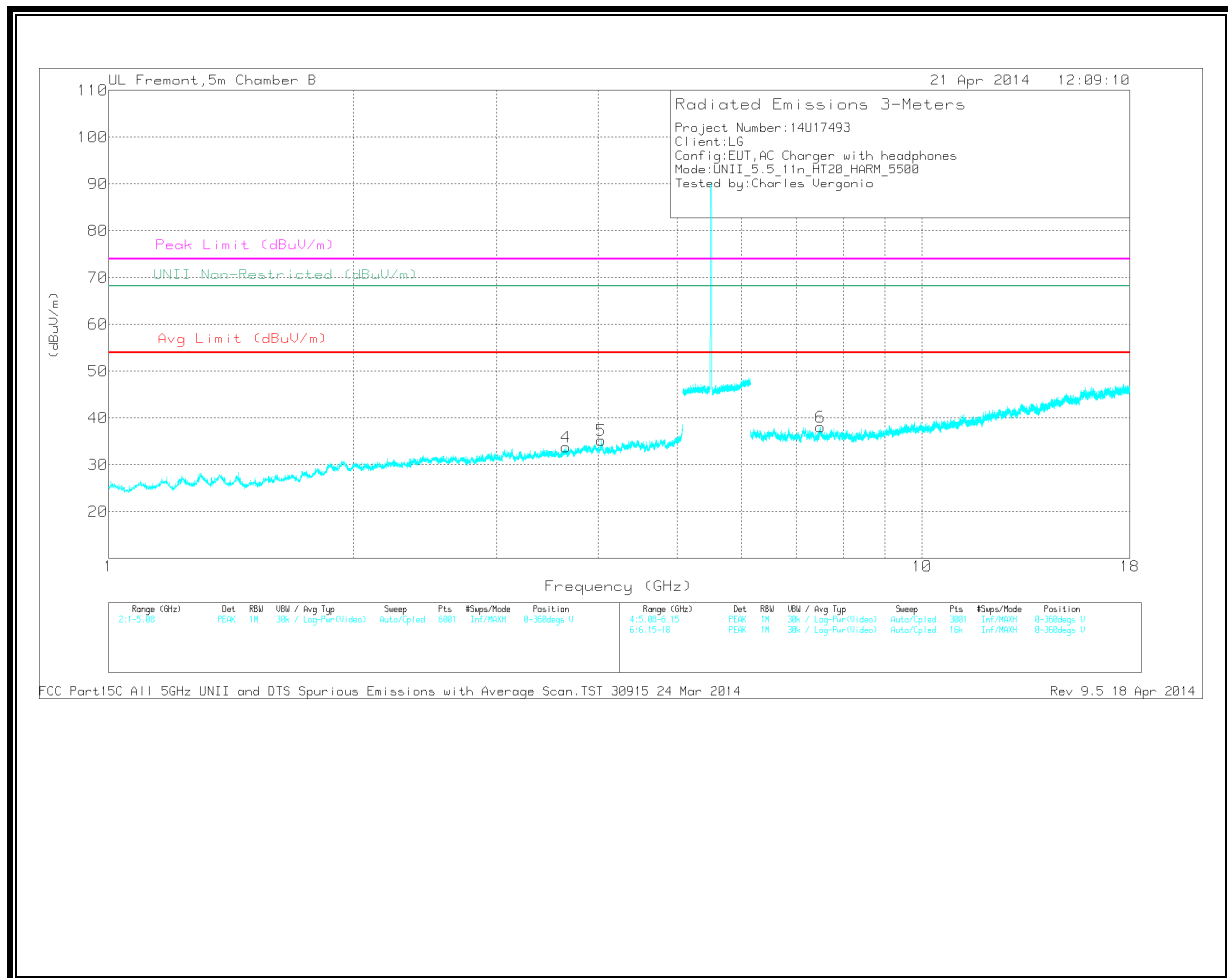
PK - Peak detector

## HARMONICS AND SPURIOUS EMISSIONS

### LOW CHANNEL HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-----------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 1      | * 1.09          | 34.05                | PK  | 27.3           | -34.4                 | 26.95                      | -                  | -           | 74                  | -47.05         | -                            | -              | 0-360          | 202         | H        |
| 2      | * 1.513         | 33.86                | PK  | 28             | -34.4                 | 27.46                      | -                  | -           | 74                  | -46.54         | -                            | -              | 0-360          | 99          | H        |
| 3      | * 2.316         | 32.52                | PK  | 31.7           | -33.1                 | 31.12                      | -                  | -           | 74                  | -42.88         | -                            | -              | 0-360          | 202         | H        |
| 4      | * 3.651         | 31.68                | PK  | 33.2           | -31.1                 | 33.78                      | -                  | -           | 74                  | -40.22         | -                            | -              | 0-360          | 99          | V        |
| 5      | * 4.031         | 31.72                | PK  | 33.6           | -30.1                 | 35.22                      | -                  | -           | 74                  | -38.78         | -                            | -              | 0-360          | 202         | V        |
| 6      | * 7.497         | 28.31                | PK  | 35.6           | -25.8                 | 38.11                      | -                  | -           | 74                  | -35.89         | -                            | -              | 0-360          | 99          | V        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

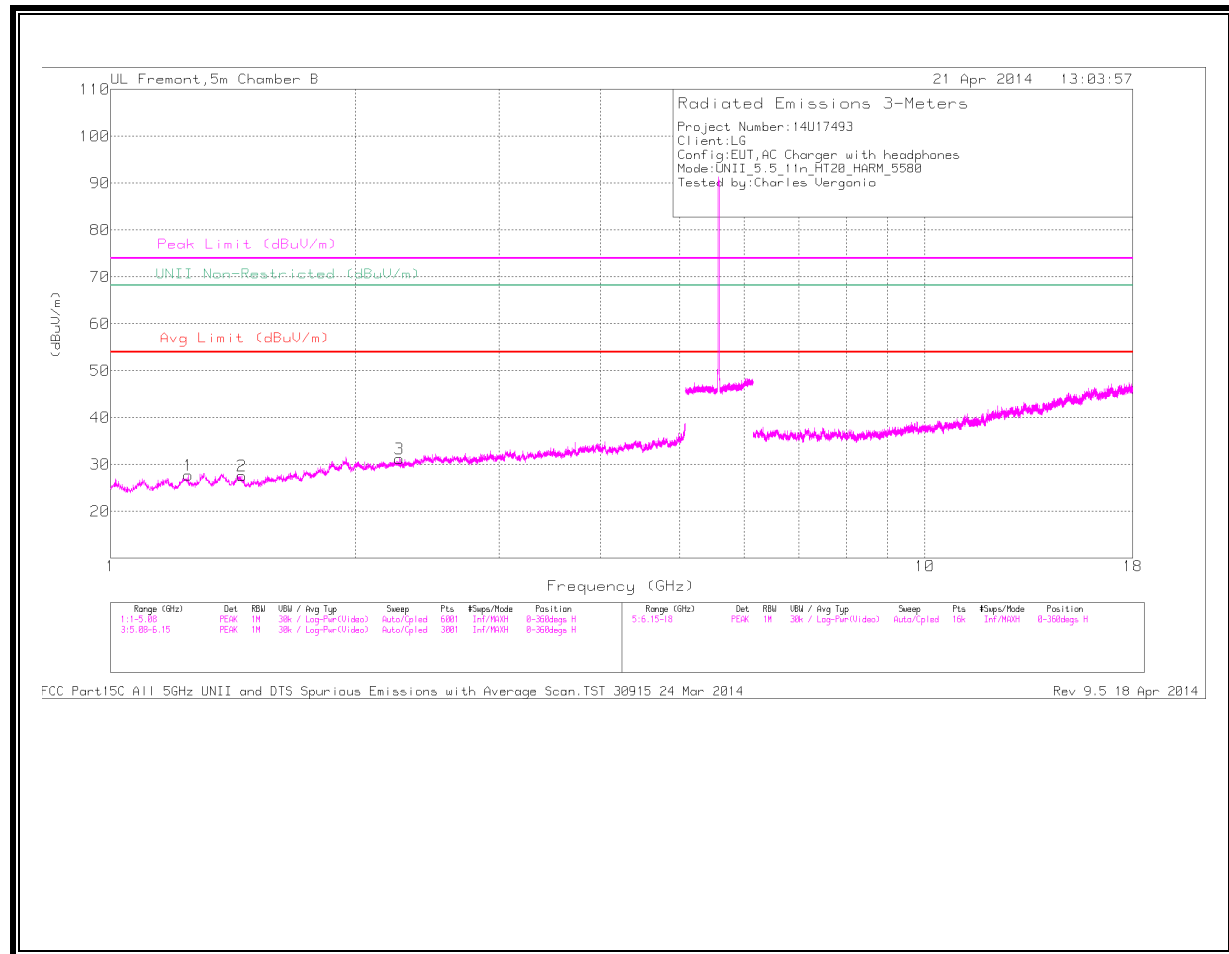
PK - Peak detector

Radiated Emissions

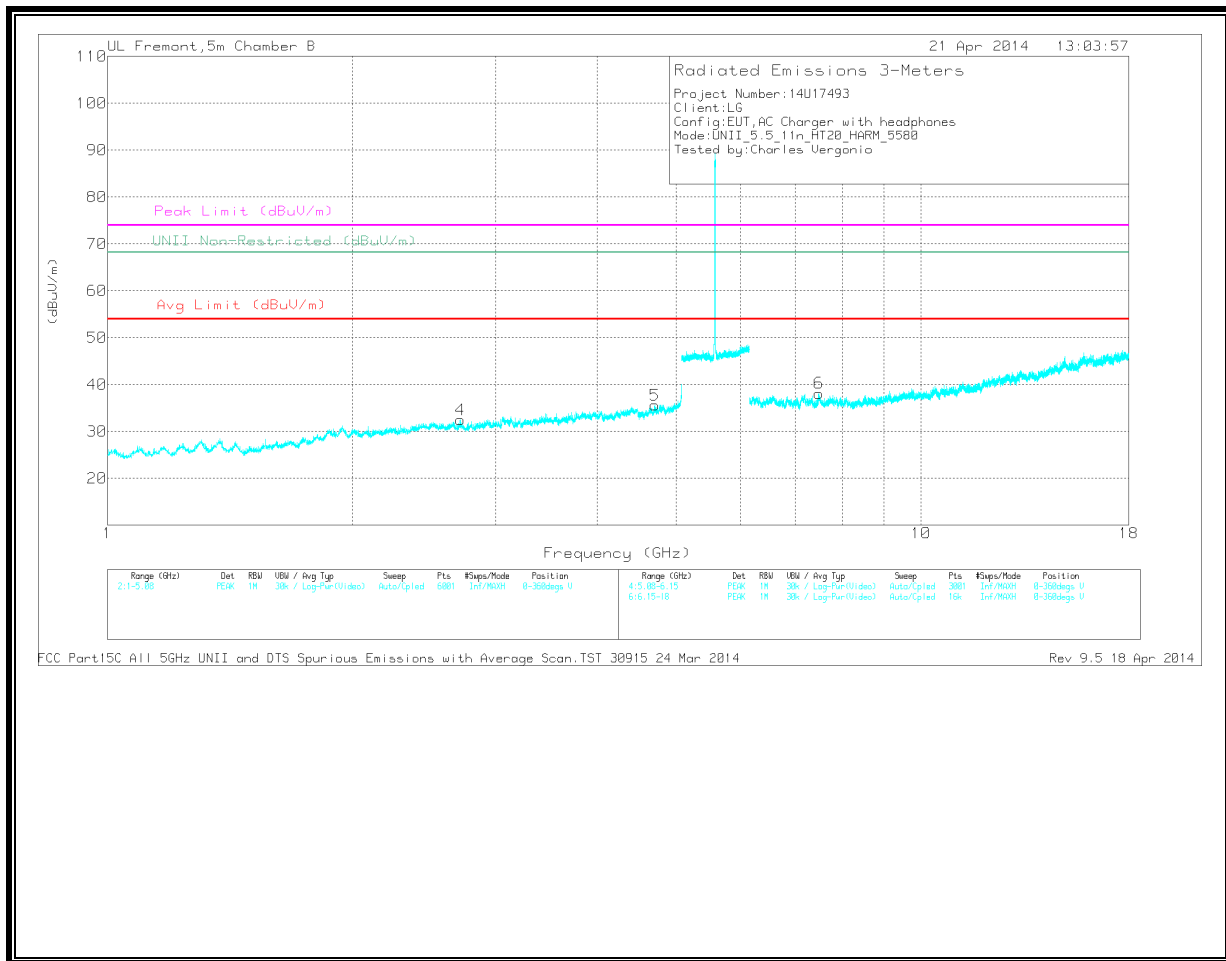
| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|-----|----------------|-----------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 1.09          | 43.67                | PK1 | 27.3           | -34.4                 | 36.57                      | 54                 | -17.43      | 74                  | -37.43         | -                            | -              | 1              | 100         | H        |
| * 1.514         | 43.03                | PK1 | 28             | -34.4                 | 36.63                      | 54                 | -17.37      | 74                  | -37.37         | -                            | -              | 1              | 100         | H        |
| * 2.315         | 41.97                | PK1 | 31.7           | -33.1                 | 40.57                      | 54                 | -13.43      | 74                  | -33.43         | -                            | -              | 1              | 100         | H        |
| * 3.65          | 40.8                 | PK1 | 33.2           | -31.1                 | 42.9                       | 54                 | -11.1       | 74                  | -31.1          | -                            | -              | 1              | 100         | V        |
| * 4.033         | 40.59                | PK1 | 33.6           | -30.1                 | 44.09                      | 54                 | -9.91       | 74                  | -29.91         | -                            | -              | 1              | 100         | V        |
| * 7.496         | 38.21                | PK1 | 35.6           | -25.8                 | 48.01                      | 54                 | -5.99       | 74                  | -25.99         | -                            | -              | 1              | 100         | V        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK1 - KDB789033 Method: Peak



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-----------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 1      | * 1.246         | 33.91                | PK  | 28.5           | -34.7                 | 27.71                      | -                  | -           | 74                  | -46.29         | -                            | -              | 0-360          | 202         | H        |
| 2      | * 1.449         | 33.54                | PK  | 28.2           | -34.2                 | 27.54                      | -                  | -           | 74                  | -46.46         | -                            | -              | 0-360          | 99          | H        |
| 3      | * 2.263         | 32.49                | PK  | 31.5           | -32.8                 | 31.19                      | -                  | -           | 74                  | -42.81         | -                            | -              | 0-360          | 202         | H        |
| 4      | * 2.716         | 32.07                | PK  | 32.2           | -31.8                 | 32.47                      | -                  | -           | 74                  | -41.53         | -                            | -              | 0-360          | 202         | V        |
| 5      | * 4.706         | 31.39                | PK  | 34.2           | -29.9                 | 35.69                      | -                  | -           | 74                  | -38.31         | -                            | -              | 0-360          | 202         | V        |
| 6      | * 7.493         | 28.27                | PK  | 35.6           | -25.7                 | 38.17                      | -                  | -           | 74                  | -35.83         | -                            | -              | 0-360          | 202         | V        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

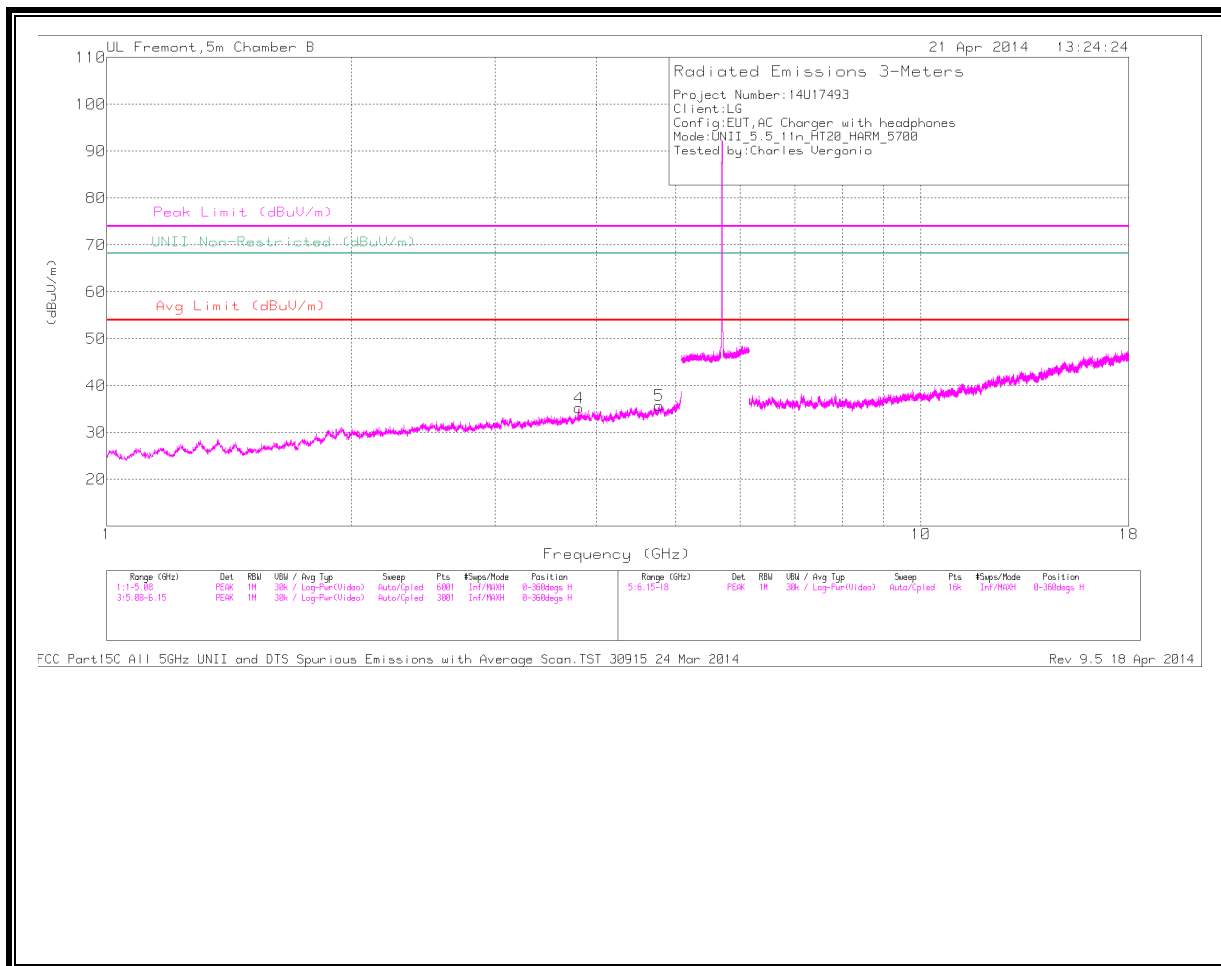
PK - Peak detector

Radiated Emissions

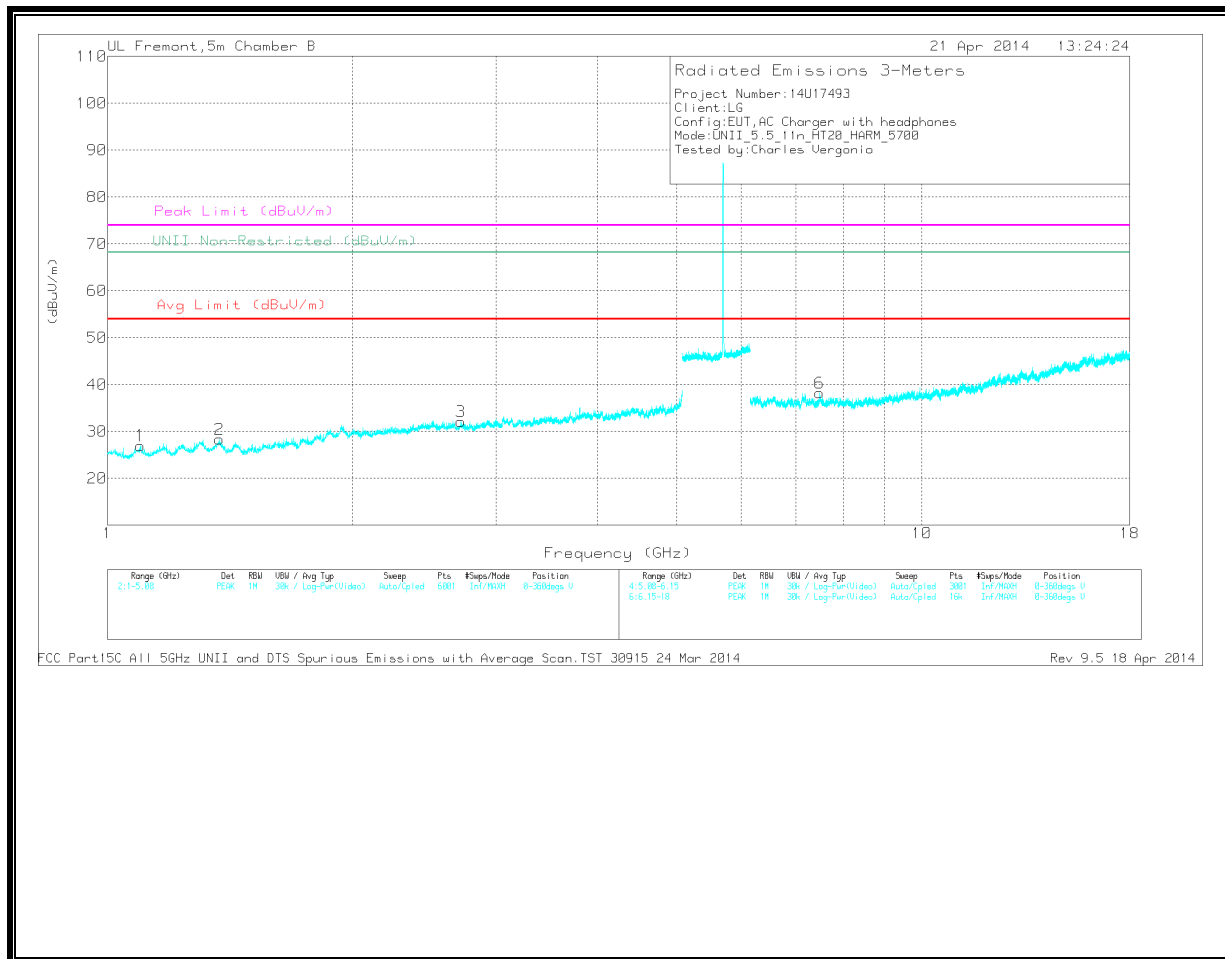
| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|-----|----------------|-----------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 1.245         | 43                   | PK1 | 28.5           | -34.7                 | 36.8                       | 54                 | -17.2       | 74                  | -37.2          | -                            | -              | 1              | 100         | H        |
| * 1.448         | 43.74                | PK1 | 28.2           | -34.2                 | 37.74                      | 54                 | -16.26      | 74                  | -36.26         | -                            | -              | 1              | 100         | H        |
| * 2.263         | 41.41                | PK1 | 31.5           | -32.8                 | 40.11                      | 54                 | -13.89      | 74                  | -33.89         | -                            | -              | 1              | 100         | H        |
| * 2.714         | 40.85                | PK1 | 32.2           | -31.8                 | 41.25                      | 54                 | -12.75      | 74                  | -32.75         | -                            | -              | 1              | 100         | V        |
| * 4.708         | 41.21                | PK1 | 34.2           | -29.9                 | 45.51                      | 54                 | -8.49       | 74                  | -28.49         | -                            | -              | 1              | 100         | V        |
| * 7.491         | 38.3                 | PK1 | 35.6           | -25.7                 | 48.2                       | 54                 | -5.8        | 74                  | -25.8          | -                            | -              | 1              | 100         | V        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK1 - KDB789033 Method: Peak



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

# HIGH CHANNEL DATA

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-----------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 4      | * 3.8           | 32.63                | PK  | 33.6           | -31                   | 35.23                      | -                  | -           | 74                  | -38.77         | -                            | -              | 0-360          | 202         | H        |
| 5      | * 4.77          | 30.75                | PK  | 34.2           | -29.2                 | 35.75                      | -                  | -           | 74                  | -38.25         | -                            | -              | 0-360          | 202         | H        |
| 1      | * 1.098         | 34                   | PK  | 27.4           | -34.4                 | 27                         | -                  | -           | 74                  | -47            | -                            | -              | 0-360          | 99          | V        |
| 2      | * 1.372         | 33.61                | PK  | 28.6           | -33.8                 | 28.41                      | -                  | -           | 74                  | -45.59         | -                            | -              | 0-360          | 202         | V        |
| 3      | * 2.716         | 31.72                | PK  | 32.2           | -31.8                 | 32.12                      | -                  | -           | 74                  | -41.88         | -                            | -              | 0-360          | 202         | V        |
| 6      | * 7.487         | 28.41                | PK  | 35.6           | -25.8                 | 38.21                      | -                  | -           | 74                  | -35.79         | -                            | -              | 0-360          | 202         | V        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

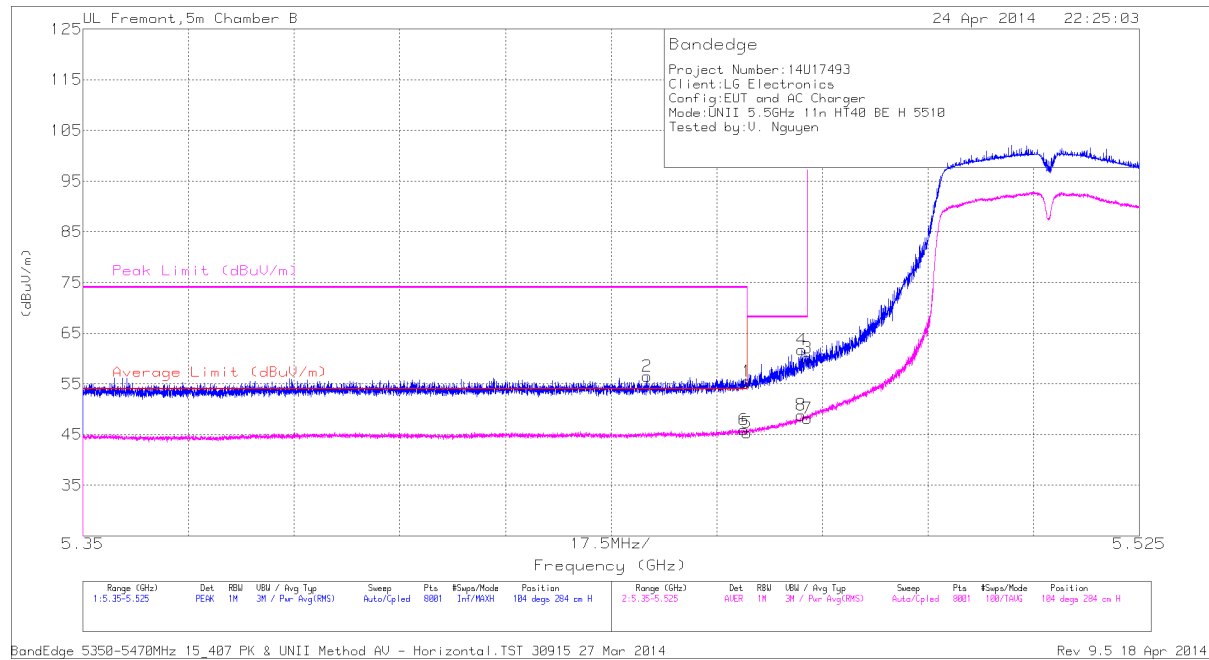
Radiated Emissions

| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|-----|----------------|-----------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 3.802         | 41.77                | PK1 | 33.6           | -31                   | 44.37                      | 54                 | -9.63       | 74                  | -29.63         | -                            | -              | 1              | 100         | H        |
| * 4.768         | 40.95                | PK1 | 34.2           | -29.4                 | 45.75                      | 54                 | -8.25       | 74                  | -28.25         | -                            | -              | 1              | 100         | H        |
| * 1.097         | 44.08                | PK1 | 27.4           | -34.4                 | 37.08                      | 54                 | -16.92      | 74                  | -36.92         | -                            | -              | 174            | 316         | V        |
| * 1.371         | 43.36                | PK1 | 28.6           | -33.8                 | 38.16                      | 54                 | -15.84      | 74                  | -35.84         | -                            | -              | 174            | 316         | V        |
| * 2.716         | 41.37                | PK1 | 32.2           | -31.8                 | 41.77                      | 54                 | -12.23      | 74                  | -32.23         | -                            | -              | 174            | 316         | V        |
| * 7.488         | 37.98                | PK1 | 35.6           | -25.8                 | 47.78                      | 54                 | -6.22       | 74                  | -26.22         | -                            | -              | 174            | 316         | V        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK1 - KDB789033 Method: Peak

# 11.3.5. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.5 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

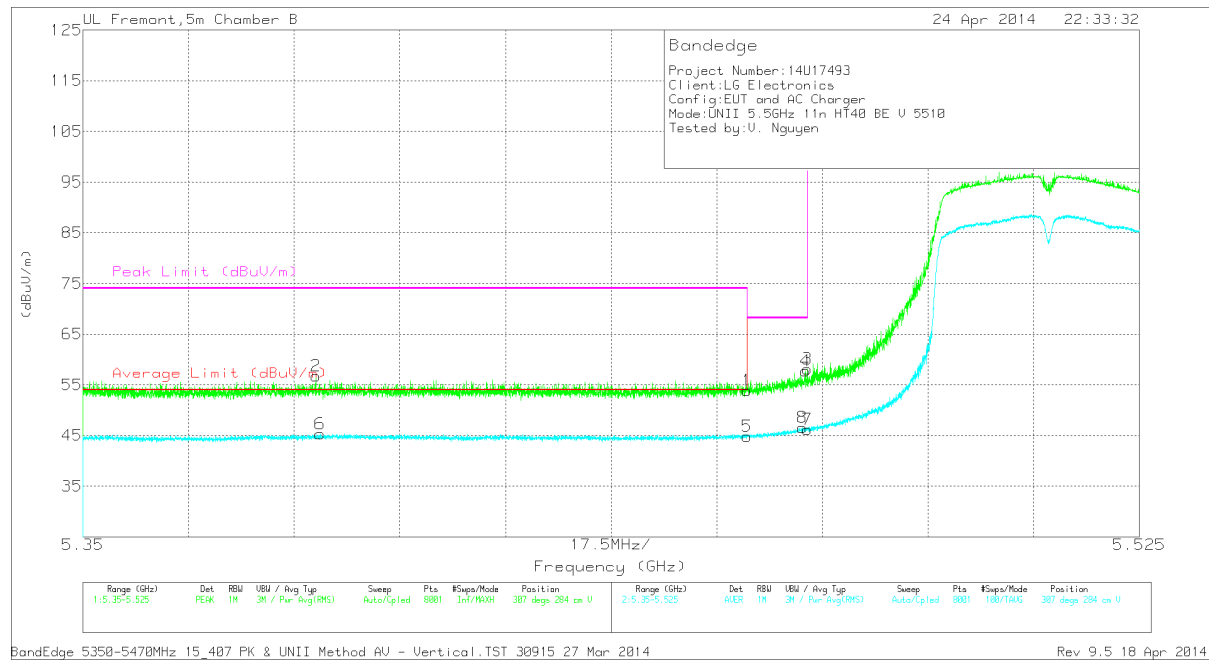


| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Filt r/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-------------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 2      | * 5.443         | 42.14                | PK  | 34.5           | -20.1                   | 0            | 56.54                      | -                      | -           | 74                  | -17.46         | 104            | 284         | H        |
| 1      | * 5.46          | 40.97                | PK  | 34.5           | -20                     | 0            | 55.47                      | -                      | -           | 74                  | -18.53         | 104            | 284         | H        |
| 5      | * 5.46          | 30.44                | RMS | 34.5           | -20                     | .4           | 45.34                      | 54                     | -8.66       | -                   | -              | 104            | 284         | H        |
| 6      | * 5.46          | 31.1                 | RMS | 34.5           | -20                     | .4           | 46                         | 54                     | -8          | -                   | -              | 104            | 284         | H        |
| 4      | 5.469           | 47.24                | PK  | 34.5           | -20                     | 0            | 61.74                      | -                      | -           | 68.2                | -6.46          | 104            | 284         | H        |
| 8      | 5.469           | 33.96                | RMS | 34.5           | -20                     | .4           | 48.86                      | -                      | -           | -                   | -              | 104            | 284         | H        |
| 3      | 5.47            | 45.48                | PK  | 34.5           | -19.9                   | 0            | 60.08                      | -                      | -           | 68.2                | -8.12          | 104            | 284         | H        |
| 7      | 5.47            | 33.19                | RMS | 34.5           | -19.9                   | .4           | 48.19                      | -                      | -           | -                   | -              | 104            | 284         | H        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

RMS - RMS detection



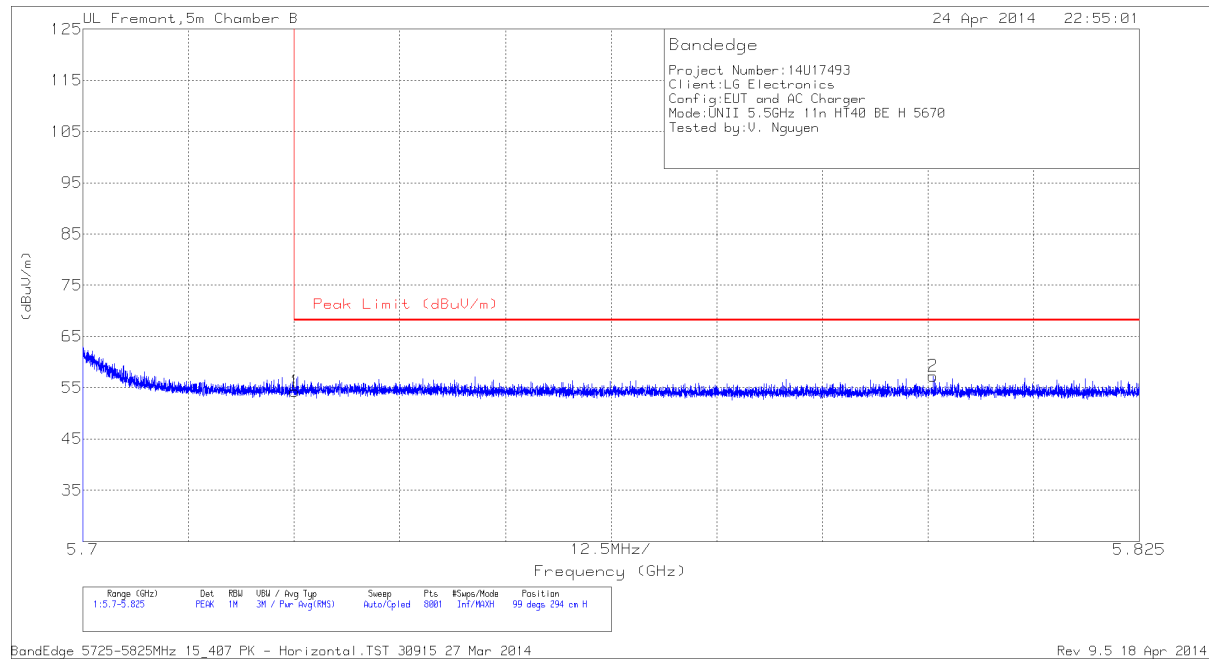
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Filt r/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-------------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 2      | * 5.389         | 41.9                 | PK  | 34.5           | -19.7                   | 0            | 56.7                       | -                      | -           | 74                  | -17.3          | 307            | 284         | V        |
| 6      | * 5.389         | 30.13                | RMS | 34.5           | -19.7                   | .4           | 45.33                      | 54                     | -8.67       | -                   | -              | 307            | 284         | V        |
| 1      | * 5.46          | 39.35                | PK  | 34.5           | -20                     | 0            | 53.85                      | -                      | -           | 74                  | -20.15         | 307            | 284         | V        |
| 5      | * 5.46          | 29.95                | RMS | 34.5           | -20                     | .4           | 44.85                      | 54                     | -9.15       | -                   | -              | 307            | 284         | V        |
| 8      | 5.469           | 31.64                | RMS | 34.5           | -20                     | .4           | 46.54                      | -                      | -           | -                   | -              | 307            | 284         | V        |
| 3      | 5.47            | 43.46                | PK  | 34.5           | -19.9                   | 0            | 58.06                      | -                      | -           | 68.2                | -10.14         | 307            | 284         | V        |
| 4      | 5.47            | 43.18                | PK  | 34.5           | -19.9                   | 0            | 57.78                      | -                      | -           | 68.2                | -10.42         | 307            | 284         | V        |
| 7      | 5.47            | 31.19                | RMS | 34.5           | -19.9                   | .4           | 46.19                      | -                      | -           | -                   | -              | 307            | 284         | V        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

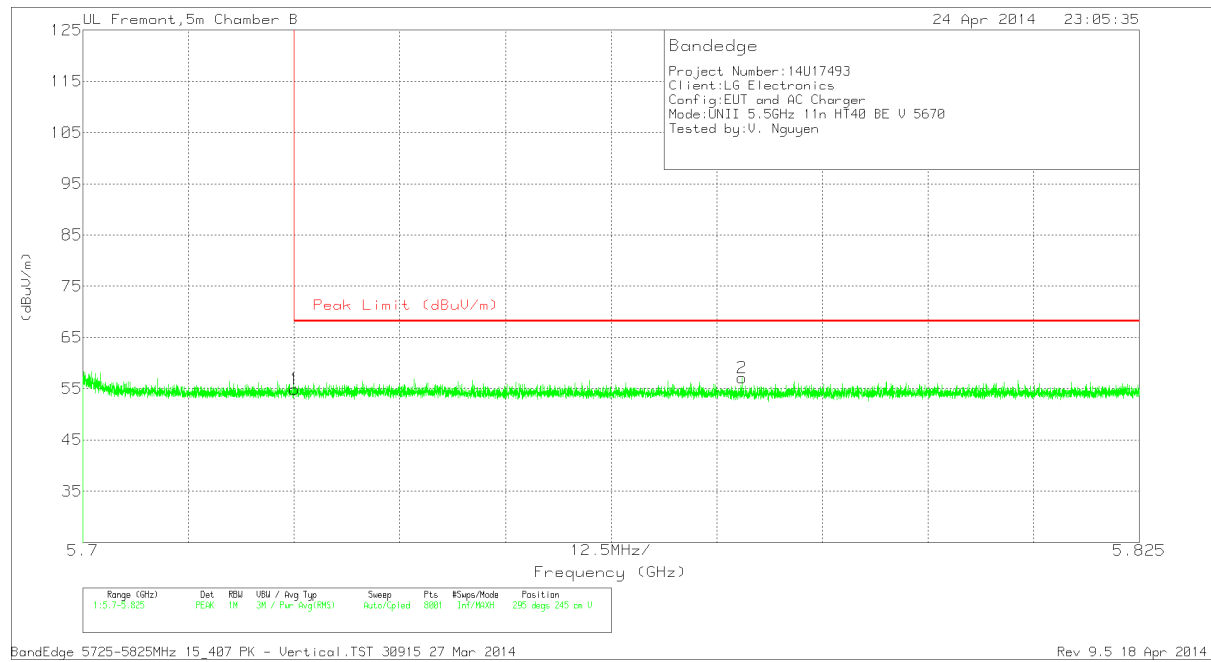
RMS - RMS detection

## AUTHORIZED BANDEDGE (HIGH CHANNEL)



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | Corrected Reading (dBuV/m) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|----------------------------|---------------------|----------------|----------------|-------------|----------|
| 1      | 5.725           | 39.31                | PK  | 34.6           | -19.6                  | 54.31                      | 68.2                | -13.89         | 99             | 294         | H        |
| 2      | 5.801           | 42.2                 | PK  | 34.7           | -19.6                  | 57.3                       | 68.2                | -10.9          | 99             | 294         | H        |

PK - Peak detector

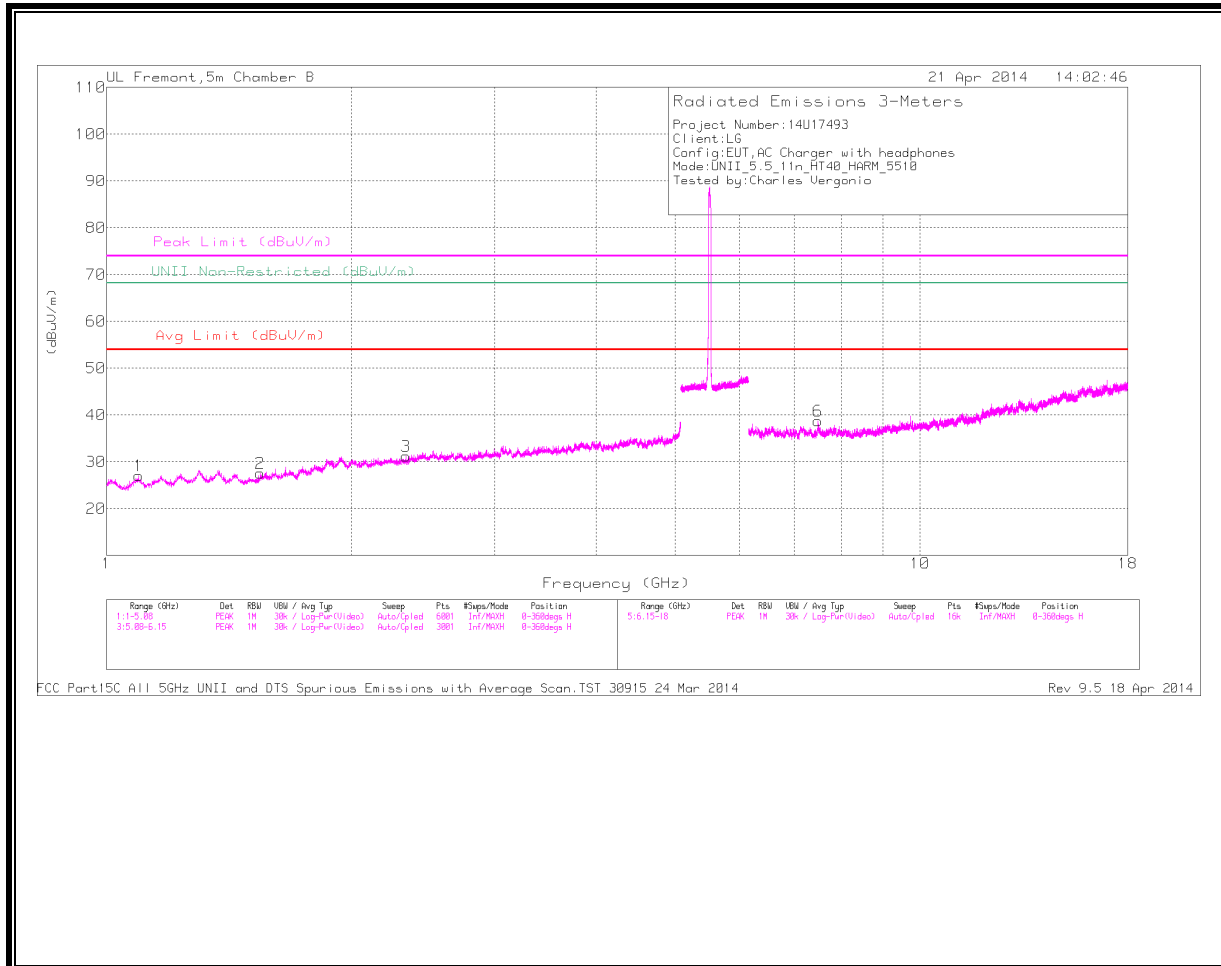


| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Fltr/Pad (dB) | Corrected Reading (dBuV/m) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-----------------------|----------------------------|---------------------|----------------|----------------|-------------|----------|
| 1      | 5.725           | 39.95                | PK  | 34.6           | -19.6                 | 54.95                      | 68.2                | -13.25         | 295            | 245         | V        |
| 2      | 5.778           | 42.14                | PK  | 34.7           | -19.7                 | 57.14                      | 68.2                | -11.06         | 295            | 245         | V        |

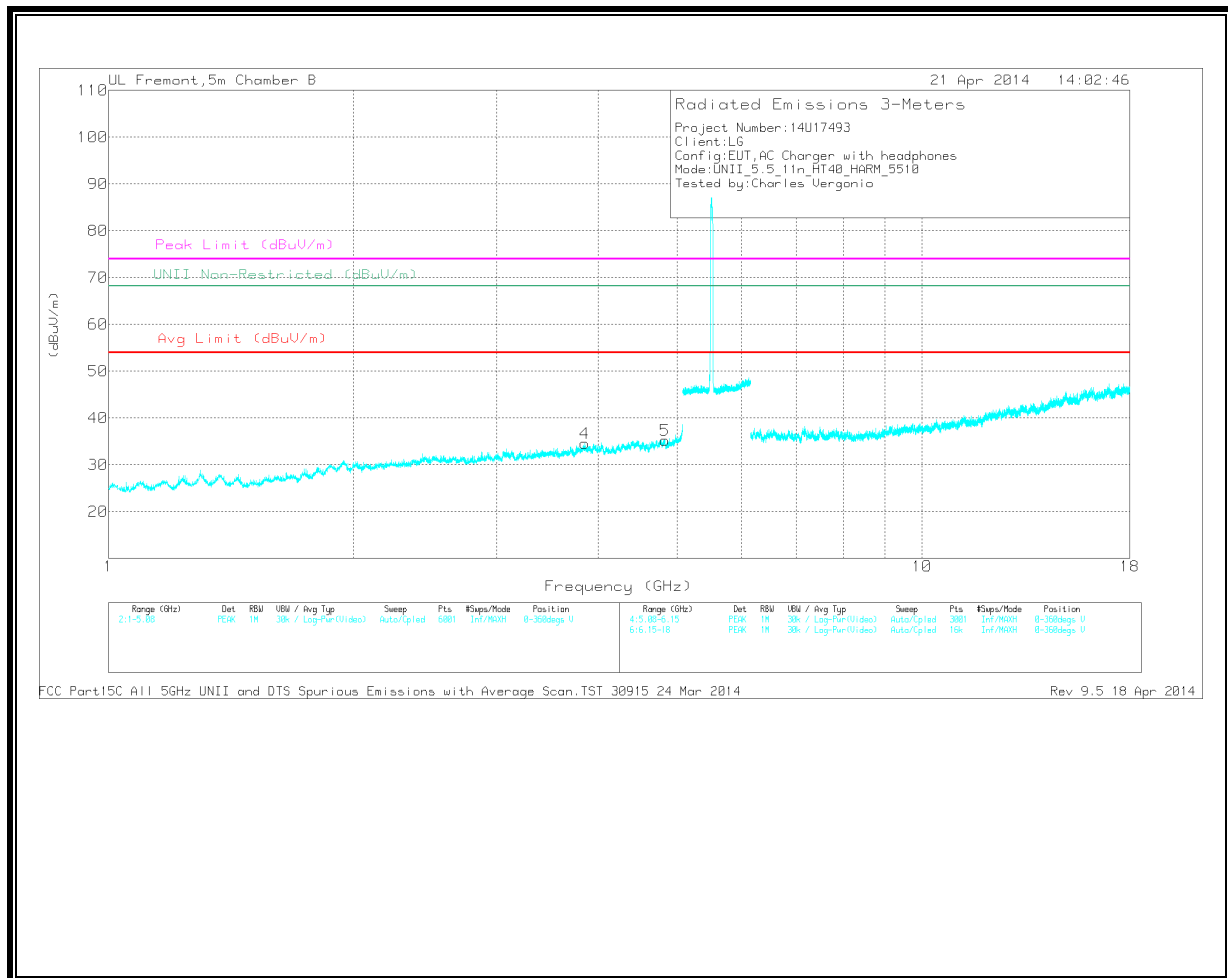
PK - Peak detector

## HARMONICS AND SPURIOUS EMISSIONS

### LOW CHANNEL HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Fitr /Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 1      | * 1.095         | 34.05                | PK  | 27.4           | -34.4                  | 27.05                      | -                  | -           | 74                  | -46.95         | -                            | -              | 0-360          | 202         | H        |
| 2      | * 1.545         | 33.41                | PK  | 28.2           | -34                    | 27.61                      | -                  | -           | 74                  | -46.39         | -                            | -              | 0-360          | 202         | H        |
| 3      | * 2.333         | 32.64                | PK  | 31.8           | -33.2                  | 31.24                      | -                  | -           | 74                  | -42.76         | -                            | -              | 0-360          | 202         | H        |
| 4      | * 3.848         | 32.14                | PK  | 33.7           | -31.3                  | 34.54                      | -                  | -           | 74                  | -39.46         | -                            | -              | 0-360          | 202         | V        |
| 5      | * 4.826         | 30.93                | PK  | 34.2           | -29.9                  | 35.23                      | -                  | -           | 74                  | -38.77         | -                            | -              | 0-360          | 99          | V        |
| 6      | * 7.493         | 28.83                | PK  | 35.6           | -25.7                  | 38.73                      | -                  | -           | 74                  | -35.27         | -                            | -              | 0-360          | 99          | H        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

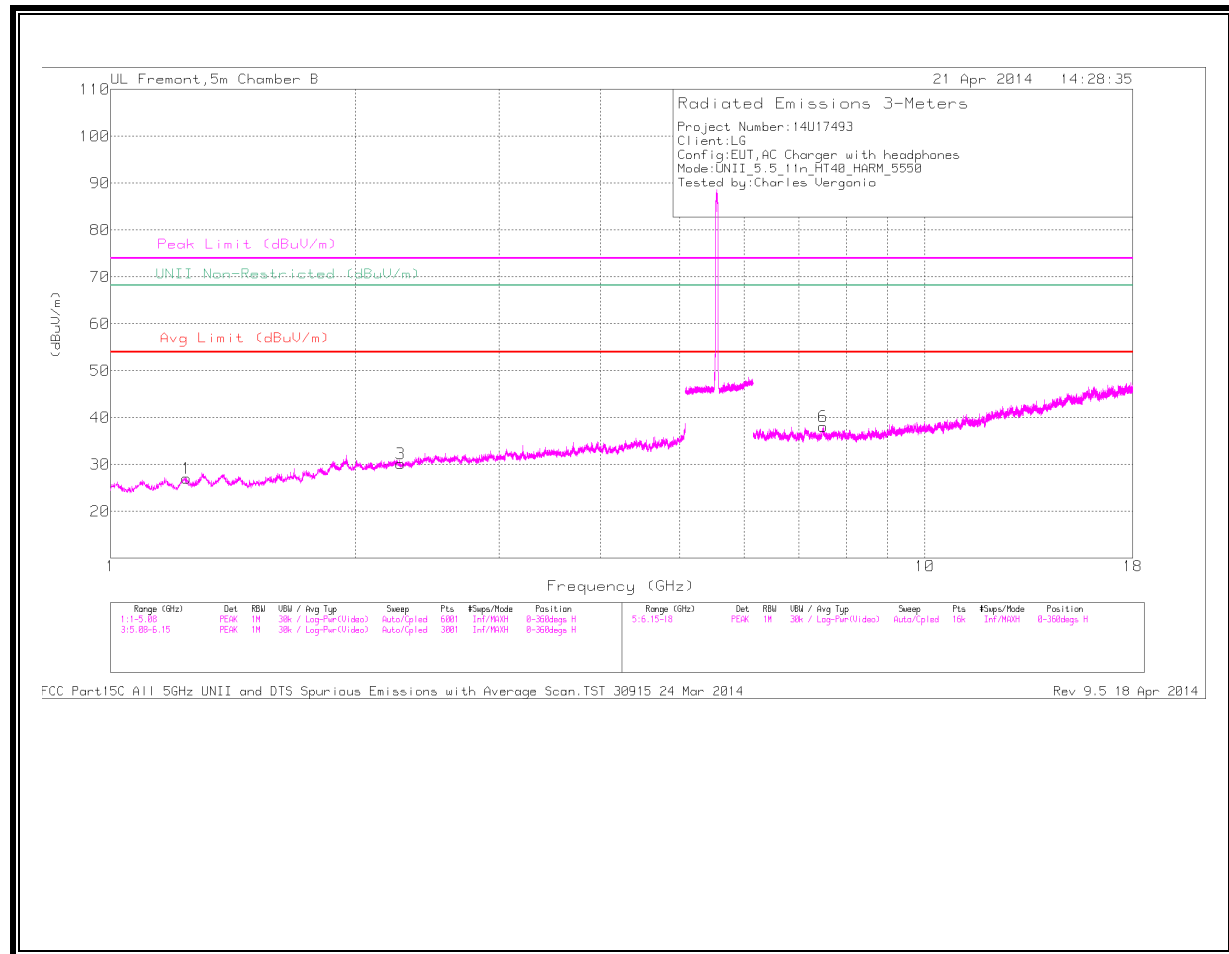
PK - Peak detector

Radiated Emissions

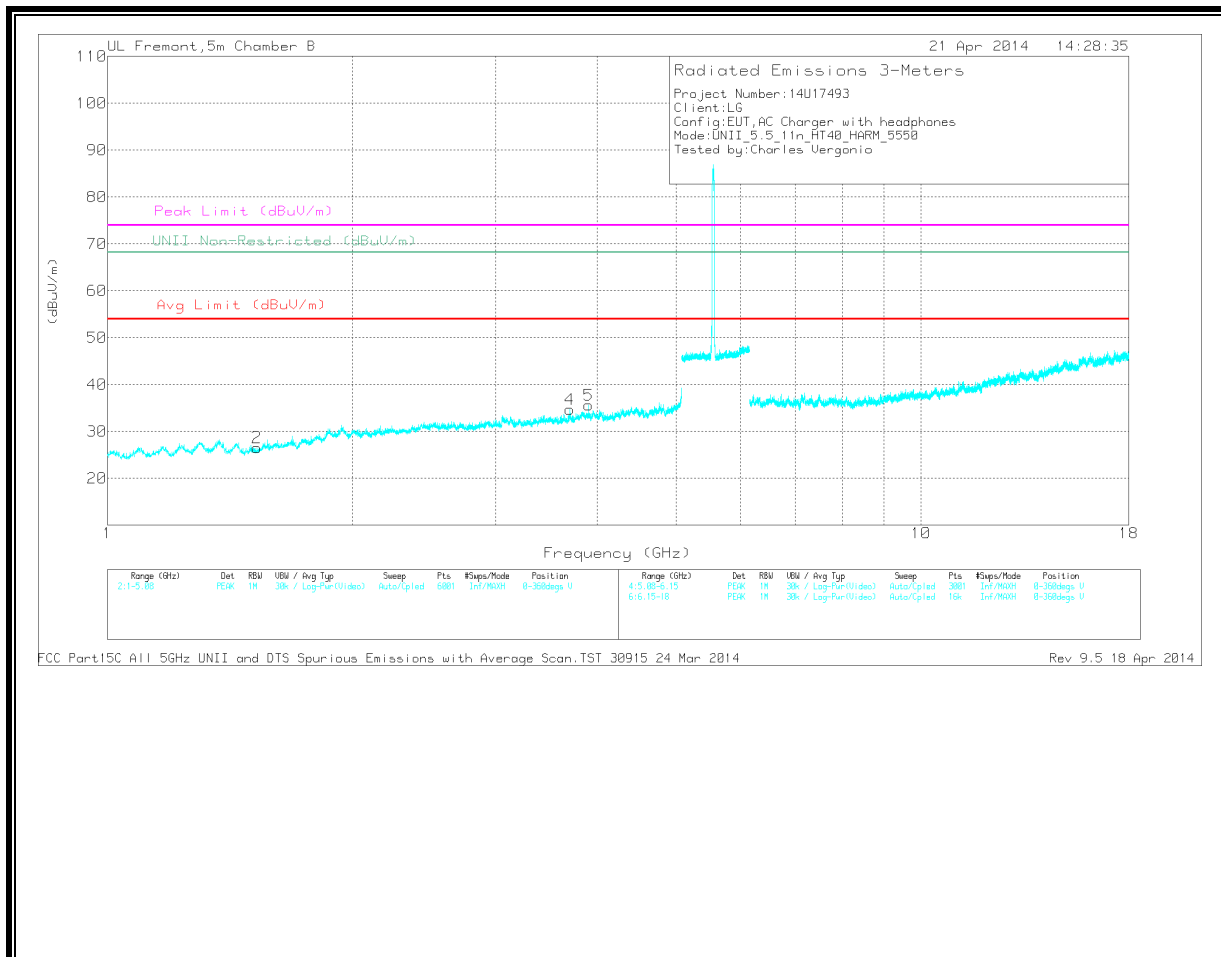
| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Fitr /Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|-----|----------------|------------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 1.093         | 43.86                | PK1 | 27.4           | -34.4                  | 36.86                      | 54                 | -17.14      | 74                  | -37.14         | -                            | -              | 1              | 100         | H        |
| * 1.547         | 42.75                | PK1 | 28.2           | -34                    | 36.95                      | 54                 | -17.05      | 74                  | -37.05         | -                            | -              | 1              | 100         | H        |
| * 2.334         | 41.74                | PK1 | 31.8           | -33.2                  | 40.34                      | 54                 | -13.66      | 74                  | -33.66         | -                            | -              | 1              | 100         | H        |
| * 3.848         | 41.37                | PK1 | 33.7           | -31.3                  | 43.77                      | 54                 | -10.23      | 74                  | -30.23         | -                            | -              | 1              | 100         | V        |
| * 4.828         | 41.95                | PK1 | 34.2           | -30                    | 46.15                      | 54                 | -7.85       | 74                  | -27.85         | -                            | -              | 1              | 100         | V        |
| * 7.493         | 38.31                | PK1 | 35.6           | -25.7                  | 48.21                      | 54                 | -5.79       | 74                  | -25.79         | -                            | -              | 1              | 100         | H        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK1 - KDB789033 Method: Peak



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Filt r/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-------------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 1      | * 1.239         | 33.27                | PK  | 28.5           | -34.7                   | 27.07                      | -                  | -           | 74                  | -46.93         | -                            | -              | 0-360          | 99          | H        |
| 3      | * 2.27          | 31.61                | PK  | 31.5           | -32.9                   | 30.21                      | -                  | -           | 74                  | -43.79         | -                            | -              | 0-360          | 99          | H        |
| 2      | * 1.526         | 32.81                | PK  | 28.1           | -34.3                   | 26.61                      | -                  | -           | 74                  | -47.39         | -                            | -              | 0-360          | 99          | V        |
| 4      | * 3.7           | 32.63                | PK  | 33.3           | -31.2                   | 34.73                      | -                  | -           | 74                  | -39.27         | -                            | -              | 0-360          | 99          | V        |
| 5      | * 3.9           | 33.28                | PK  | 33.8           | -31.5                   | 35.58                      | -                  | -           | 74                  | -38.42         | -                            | -              | 0-360          | 202         | V        |
| 6      | * 7.494         | 28.24                | PK  | 35.6           | -25.7                   | 38.14                      | -                  | -           | 74                  | -35.86         | -                            | -              | 0-360          | 201         | H        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

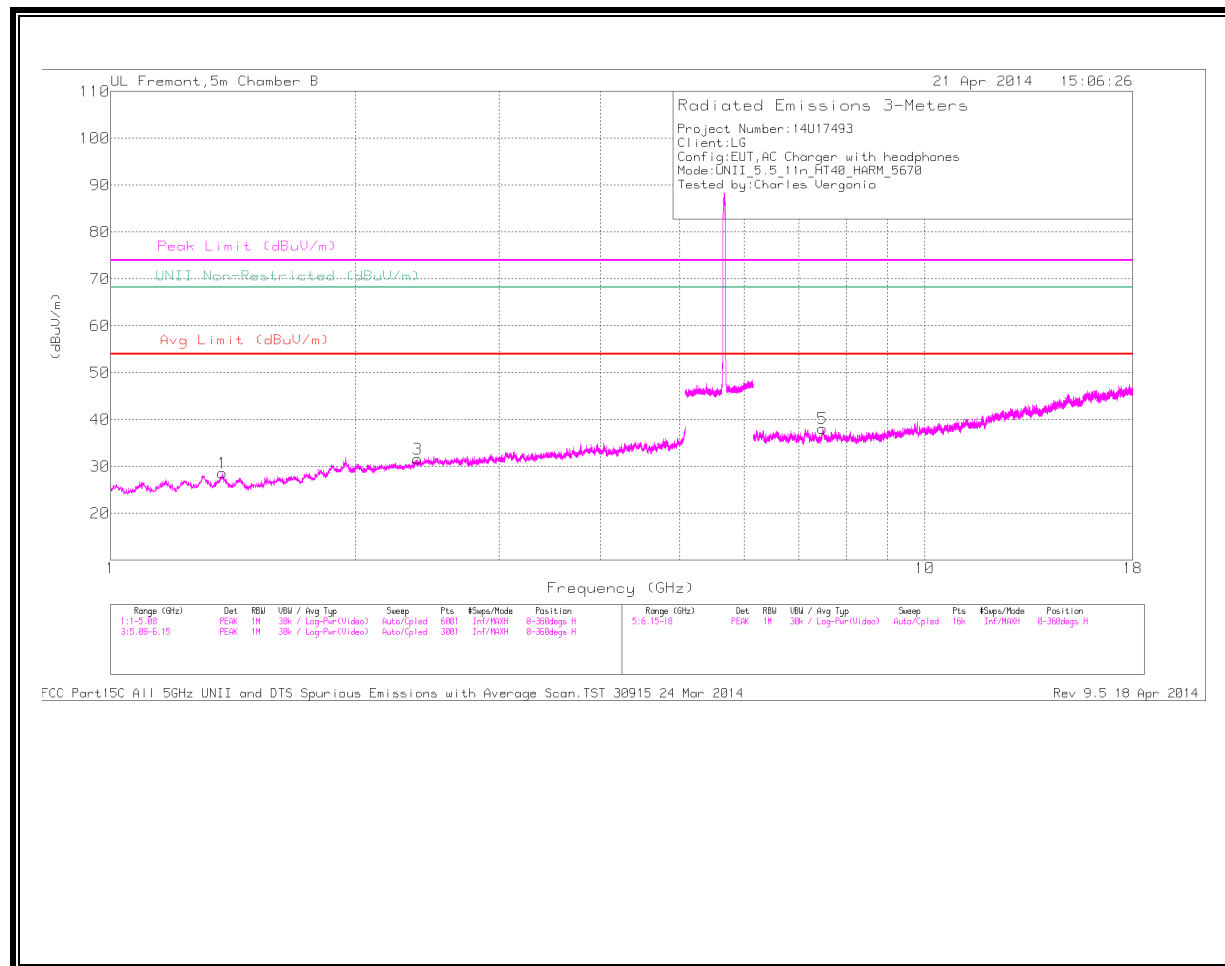
PK - Peak detector

Radiated Emissions

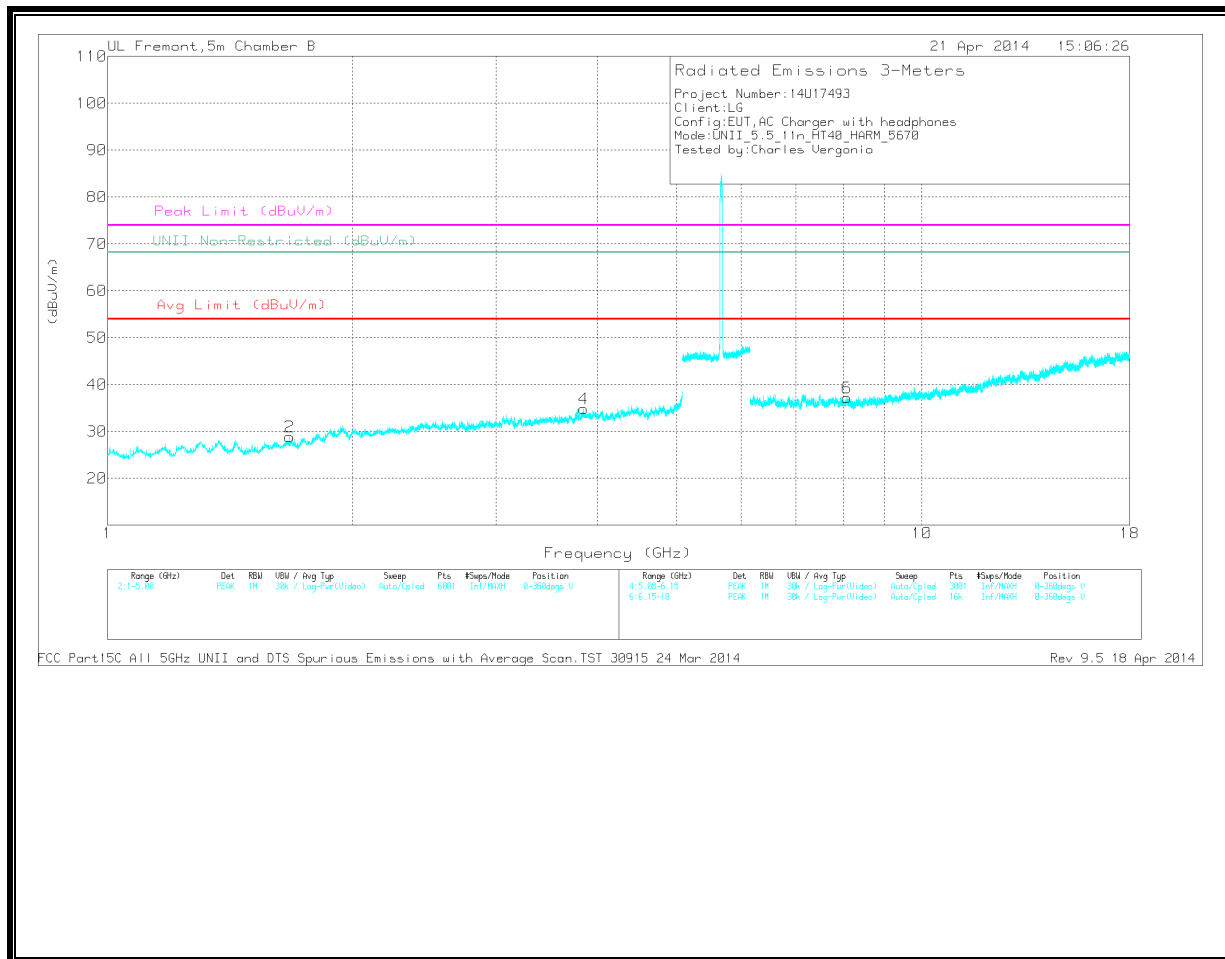
| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Filt r/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|-----|----------------|-------------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 1.239         | 43.45                | PK1 | 28.5           | -34.7                   | 37.25                      | 54                 | -16.75      | 74                  | -36.75         | -                            | -              | 1              | 100         | H        |
| * 2.271         | 41.58                | PK1 | 31.5           | -32.9                   | 40.18                      | 54                 | -13.82      | 74                  | -33.82         | -                            | -              | 1              | 100         | H        |
| * 1.525         | 42.78                | PK1 | 28.1           | -34.3                   | 36.58                      | 54                 | -17.42      | 74                  | -37.42         | -                            | -              | 353            | 234         | V        |
| * 3.7           | 40.96                | PK1 | 33.3           | -31.2                   | 43.06                      | 54                 | -10.94      | 74                  | -30.94         | -                            | -              | 353            | 234         | V        |
| * 3.9           | 41.93                | PK1 | 33.8           | -31.5                   | 44.23                      | 54                 | -9.77       | 74                  | -29.77         | -                            | -              | 353            | 234         | V        |
| * 7.492         | 38.05                | PK1 | 35.6           | -25.7                   | 47.95                      | 54                 | -6.05       | 74                  | -26.05         | -                            | -              | 353            | 234         | H        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK1 - KDB789033 Method: Peak



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

# HIGH CHANNEL DATA

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-----------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 1      | * 1.371         | 33.78                | PK  | 28.6           | -33.8                 | 28.58                      | -                  | -           | 74                  | -45.42         | -                            | -              | 0-360          | 202         | H        |
| 3      | * 2.38          | 32.43                | PK  | 32             | -32.8                 | 31.63                      | -                  | -           | 74                  | -42.37         | -                            | -              | 0-360          | 202         | H        |
| 2      | * 1.673         | 33.31                | PK  | 28.9           | -33.3                 | 28.91                      | -                  | -           | 74                  | -45.09         | -                            | -              | 0-360          | 202         | V        |
| 4      | * 3.844         | 32.36                | PK  | 33.7           | -31.2                 | 34.86                      | -                  | -           | 74                  | -39.14         | -                            | -              | 0-360          | 202         | V        |
| 5      | * 7.491         | 28.26                | PK  | 35.6           | -25.7                 | 38.16                      | -                  | -           | 74                  | -35.84         | -                            | -              | 0-360          | 99          | H        |
| 6      | * 8.094         | 27.84                | PK  | 35.7           | -26.4                 | 37.14                      | -                  | -           | 74                  | -36.86         | -                            | -              | 0-360          | 202         | V        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

Radiated Emissions

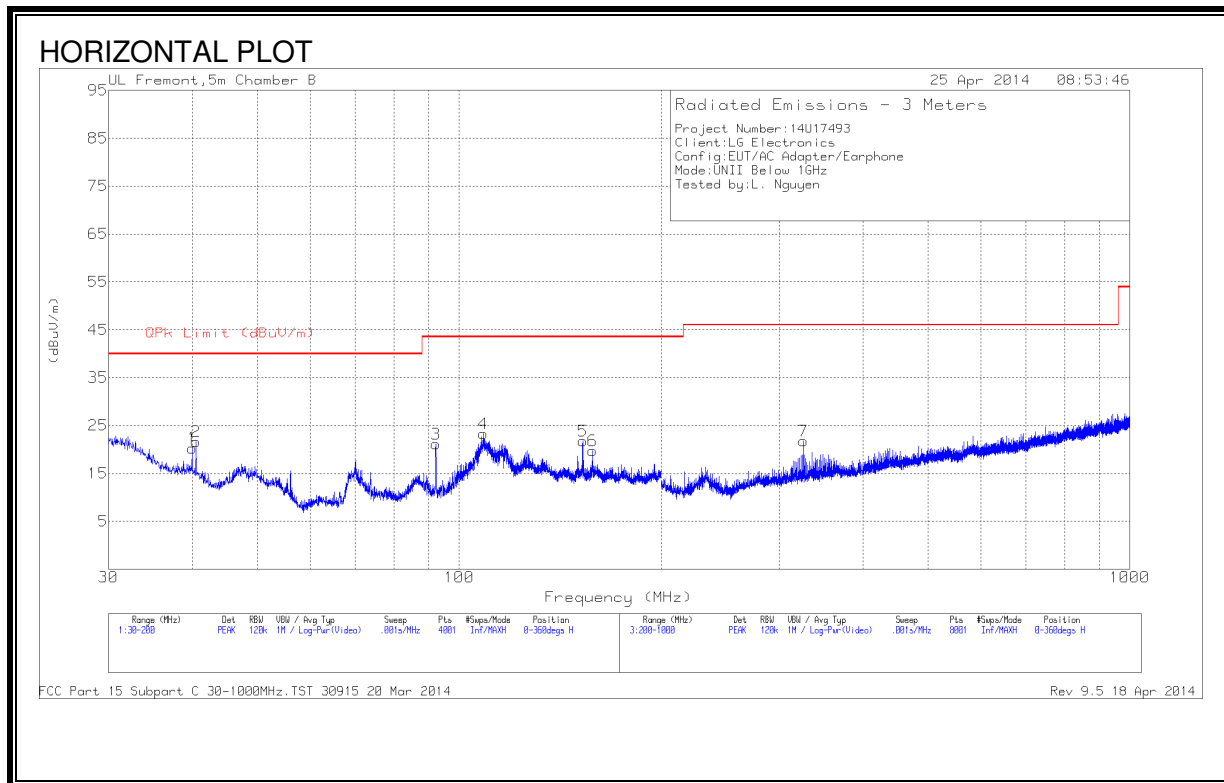
| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|-----|----------------|-----------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 1.373         | 43.5                 | PK1 | 28.6           | -33.8                 | 38.3                       | 54                 | -15.7       | 74                  | -35.7          | -                            | -              | 360            | 100         | H        |
| * 2.38          | 41.92                | PK1 | 32             | -32.8                 | 41.12                      | 54                 | -12.88      | 74                  | -32.88         | -                            | -              | 360            | 100         | H        |
| * 1.674         | 41.95                | PK1 | 28.9           | -33.3                 | 37.55                      | 54                 | -16.45      | 74                  | -36.45         | -                            | -              | 360            | 100         | V        |
| * 3.845         | 40.98                | PK1 | 33.7           | -31.2                 | 43.48                      | 54                 | -9.52       | 74                  | -30.52         | -                            | -              | 360            | 100         | V        |
| * 7.49          | 37.88                | PK1 | 35.6           | -25.7                 | 47.78                      | 54                 | -6.22       | 74                  | -26.22         | -                            | -              | 360            | 100         | H        |
| * 8.096         | 38.47                | PK1 | 35.7           | -26.5                 | 47.67                      | 54                 | -6.33       | 74                  | -26.33         | -                            | -              | 360            | 100         | V        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

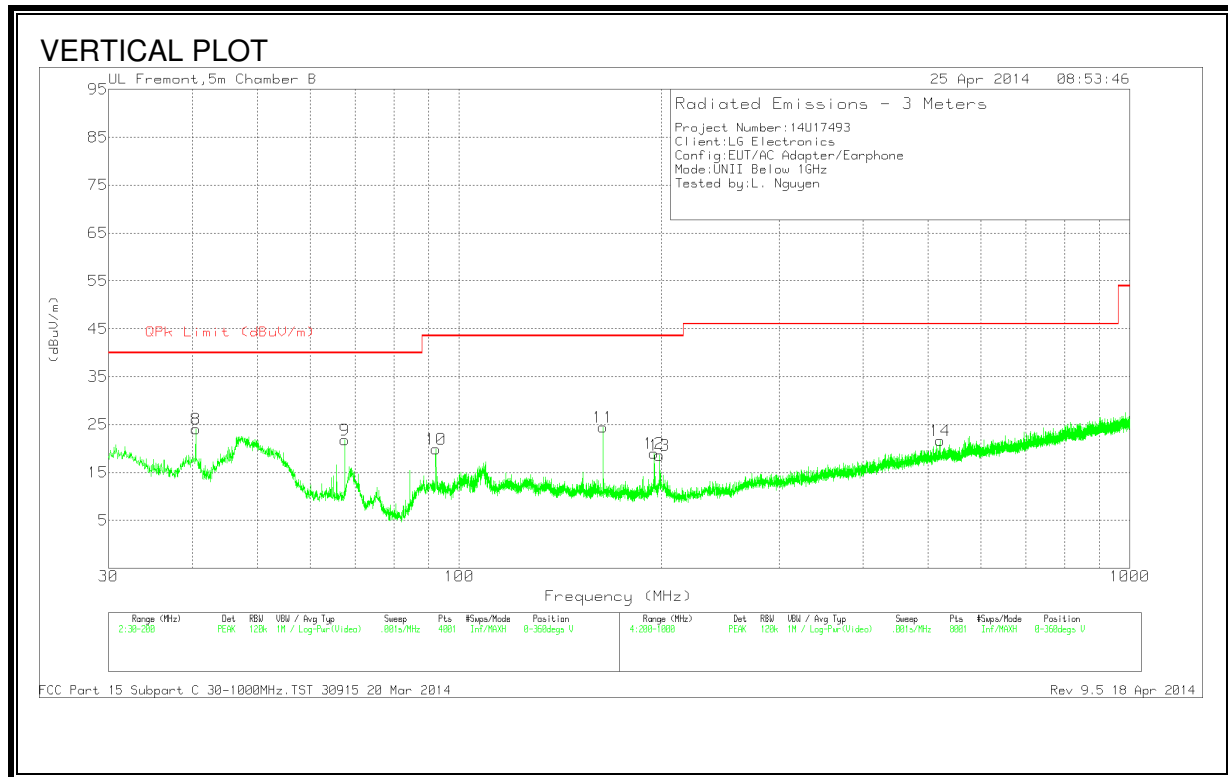
PK1 - KDB789033 Method: Peak

## 12. WORST-CASE BELOW 1 GHz (in the 5.3 GHz Band)

### SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)



**SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, VERTICAL)**



Worst Case Data

| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | AF T477 (dB/m) | Amp/Cbl (dB) | Corrected Reading (dBuV/m) | QPk Limit (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|--------------|----------------------------|--------------------|-------------|----------------|-------------|----------|
| 4      | *<br>108.5825   | 38.9                 | PK  | 12.4           | -28          | 23.3                       | 43.52              | -20.22      | 0-360          | 300         | H        |
| 11     | *<br>163.9175   | 39.66                | PK  | 12.1           | -27.3        | 24.46                      | 43.52              | -19.06      | 0-360          | 101         | V        |
| 7      | * 326.4         | 33.91                | PK  | 13.8           | -25.9        | 21.81                      | 46.02              | -24.21      | 0-360          | 101         | H        |
| 1      | 39.9875         | 35.43                | PK  | 13.6           | -28.7        | 20.33                      | 40                 | -19.67      | 0-360          | 400         | H        |
| 8      | 40.4975         | 39.56                | PK  | 13.2           | -28.7        | 24.06                      | 40                 | -15.94      | 0-360          | 101         | V        |
| 2      | 40.54           | 37.16                | PK  | 13.2           | -28.7        | 21.66                      | 40                 | -18.34      | 0-360          | 200         | H        |
| 9      | 67.5275         | 42.14                | PK  | 8.1            | -28.4        | 21.84                      | 40                 | -18.16      | 0-360          | 101         | V        |
| 10     | 92.2625         | 39.75                | PK  | 8.2            | -28.1        | 19.85                      | 43.52              | -23.67      | 0-360          | 101         | V        |
| 3      | 92.305          | 41.08                | PK  | 8.2            | -28.1        | 21.18                      | 43.52              | -22.34      | 0-360          | 200         | H        |
| 5      | 152.825         | 37                   | PK  | 12.3           | -27.5        | 21.8                       | 43.52              | -21.72      | 0-360          | 200         | H        |
| 6      | 158.01          | 34.85                | PK  | 12.3           | -27.4        | 19.75                      | 43.52              | -23.77      | 0-360          | 100         | H        |
| 12     | 195.3675        | 34.34                | PK  | 11.7           | -27          | 19.04                      | 43.52              | -24.48      | 0-360          | 101         | V        |
| 13     | 199.065         | 33.26                | PK  | 12.3           | -27          | 18.56                      | 43.52              | -24.96      | 0-360          | 101         | V        |
| 14     | 521             | 29.35                | PK  | 18             | -25.7        | 21.65                      | 46.02              | -24.37      | 0-360          | 101         | V        |

\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

### 13. AC POWER LINE CONDUCTED EMISSIONS

#### LIMITS

FCC §15.207 (a)

RSS-Gen 7.2.2

| Frequency of Emission (MHz) | Conducted Limit (dBuV) |                       |
|-----------------------------|------------------------|-----------------------|
|                             | Quasi-peak             | Average               |
| 0.15-0.5                    | 66 to 56 <sup>*</sup>  | 56 to 46 <sup>*</sup> |
| 0.5-5                       | 56                     | 46                    |
| 5-30                        | 60                     | 50                    |

<sup>\*</sup> Decreases with the logarithm of the frequency.

#### TEST PROCEDURE

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.4.

The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

Line conducted data is recorded for both NEUTRAL and HOT lines.

#### RESULTS

**6 WORST EMISSIONS****Line-L1 .15 - 30MHz****Trace Markers**

| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | T24 IL L1 (dB) | LC Cables 1&3 (dB) | Corrected Reading dBuV | CISPR 22 Class B QP | Margin to Limit (dB) | CISPR 22 Class B Avg | Margin to Limit (dB) |
|--------|-----------------|----------------------|-----|----------------|--------------------|------------------------|---------------------|----------------------|----------------------|----------------------|
| 1      | .1995           | 38.92                | PK  | .9             | 0                  | 39.82                  | 63.6                | -23.78               | -                    | -                    |
| 2      | .1995           | 21.01                | Av  | .9             | 0                  | 21.91                  | -                   | -                    | 53.6                 | -31.69               |
| 3      | .375            | 41.96                | PK  | .4             | 0                  | 42.36                  | 58.4                | -16.04               | -                    | -                    |
| 4      | .375            | 28.8                 | Av  | .4             | 0                  | 29.2                   | -                   | -                    | 48.4                 | -19.2                |
| 5      | .4965           | 48.98                | PK  | .4             | 0                  | 49.38                  | 56.1                | -6.72                | -                    | -                    |
| 6      | .4965           | 34.11                | Av  | .4             | 0                  | 34.51                  | -                   | -                    | 46.1                 | -11.59               |
| 7      | 1.032           | 47.8                 | PK  | .2             | 0                  | 48                     | 56                  | -8                   | -                    | -                    |
| 8      | 1.032           | 25.64                | Av  | .2             | 0                  | 25.84                  | -                   | -                    | 46                   | -20.16               |
| 9      | 1.6575          | 46.87                | PK  | .2             | .1                 | 47.17                  | 56                  | -8.83                | -                    | -                    |
| 10     | 1.6575          | 32.1                 | Av  | .2             | .1                 | 32.4                   | -                   | -                    | 46                   | -13.6                |
| 11     | 3.3135          | 45.54                | PK  | .2             | .1                 | 45.84                  | 56                  | -10.16               | -                    | -                    |
| 12     | 3.3135          | 28.38                | Av  | .2             | .1                 | 28.68                  | -                   | -                    | 46                   | -17.32               |
| 17     | 6.1215          | 42.61                | PK  | .2             | .1                 | 42.91                  | 60                  | -17.09               | -                    | -                    |
| 18     | 6.1215          | 23.89                | Av  | .2             | .1                 | 24.19                  | -                   | -                    | 50                   | -25.81               |
| 13     | 13.5465         | 38.2                 | PK  | .2             | .2                 | 38.6                   | 60                  | -21.4                | -                    | -                    |
| 14     | 13.5465         | 16.57                | Av  | .2             | .2                 | 16.97                  | -                   | -                    | 50                   | -33.03               |
| 15     | 13.623          | 38.96                | PK  | .2             | .2                 | 39.36                  | 60                  | -20.64               | -                    | -                    |
| 16     | 13.623          | 17.42                | Av  | .2             | .2                 | 17.82                  | -                   | -                    | 50                   | -32.18               |

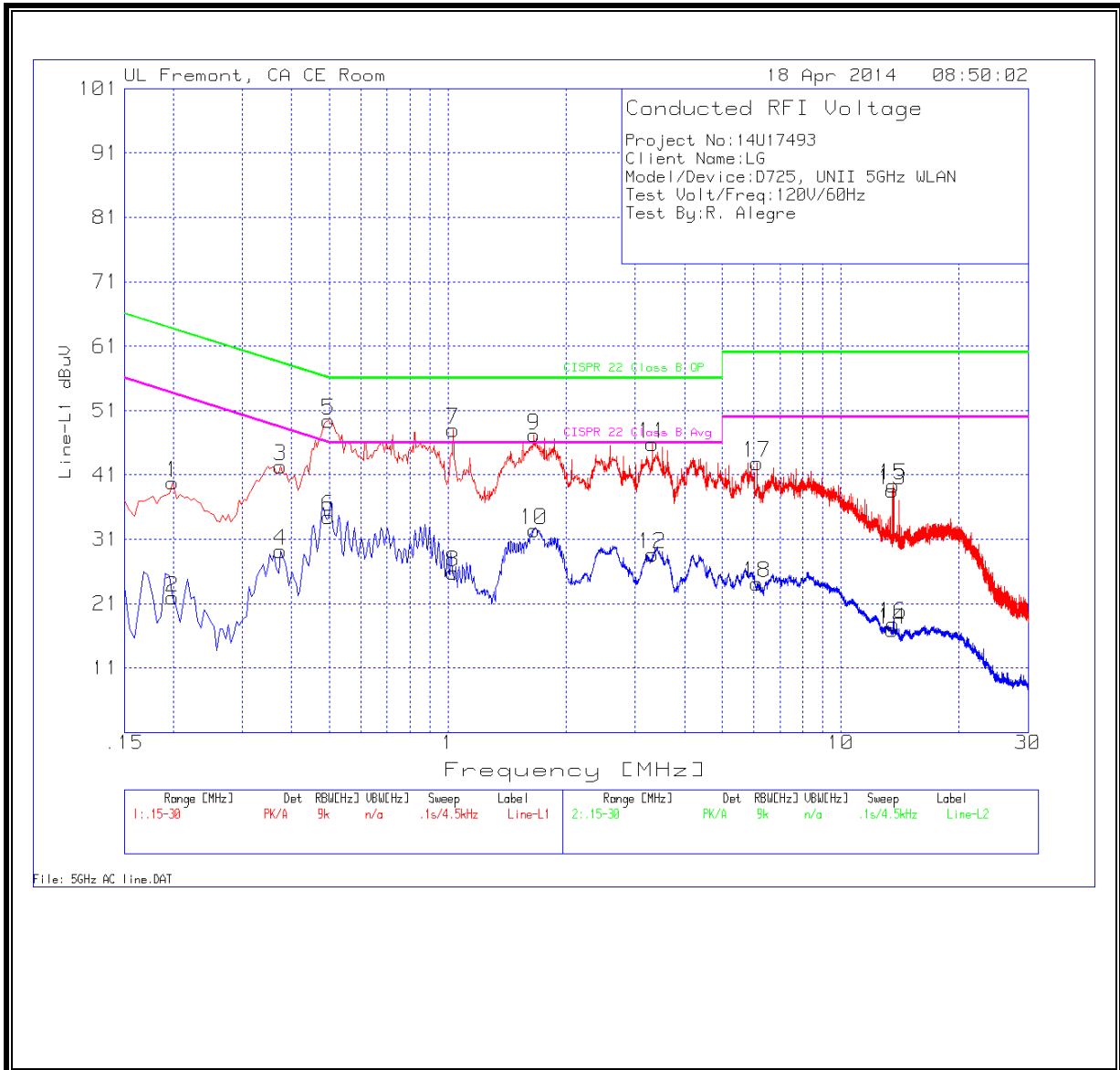
**Line-L2 .15 - 30MHz****Trace Markers**

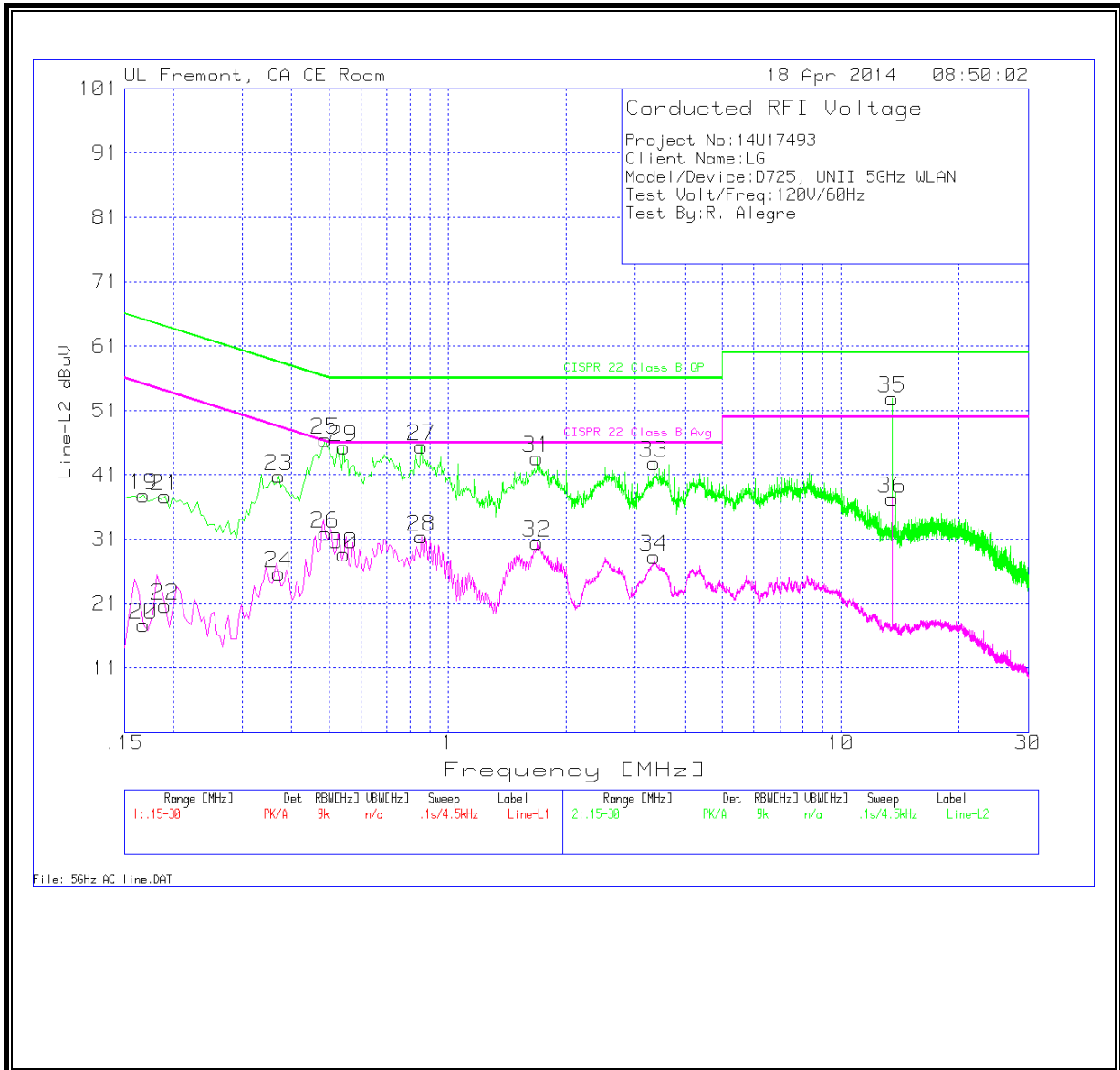
| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | T24 IL L2 (dB) | LC Cables 2&3 (dB) | Corrected Reading dBuV | CISPR 22 Class B QP | Margin to Limit (dB) | CISPR 22 Class B Avg | Margin to Limit (dB) |
|--------|-----------------|----------------------|-----|----------------|--------------------|------------------------|---------------------|----------------------|----------------------|----------------------|
| 19     | .168            | 36.47                | PK  | 1.3            | 0                  | 37.77                  | 65.1                | -27.33               | -                    | -                    |
| 20     | .168            | 16.37                | Av  | 1.3            | 0                  | 17.67                  | -                   | -                    | 55.1                 | -37.43               |
| 21     | .1905           | 36.62                | PK  | 1.1            | 0                  | 37.72                  | 64                  | -26.28               | -                    | -                    |
| 22     | .1905           | 19.64                | Av  | 1.1            | 0                  | 20.74                  | -                   | -                    | 54                   | -33.26               |
| 23     | .3705           | 40.35                | PK  | .5             | 0                  | 40.85                  | 58.5                | -17.65               | -                    | -                    |
| 24     | .3705           | 25.18                | Av  | .5             | 0                  | 25.68                  | -                   | -                    | 48.5                 | -22.82               |
| 25     | .4875           | 46.07                | PK  | .4             | 0                  | 46.47                  | 56.2                | -9.73                | -                    | -                    |
| 26     | .4875           | 31.53                | Av  | .4             | 0                  | 31.93                  | -                   | -                    | 46.2                 | -14.27               |
| 29     | .5415           | 45.03                | PK  | .3             | 0                  | 45.33                  | 56                  | -10.67               | -                    | -                    |
| 30     | .5415           | 28.33                | Av  | .3             | 0                  | 28.63                  | -                   | -                    | 46                   | -17.37               |
| 27     | .8565           | 45.18                | PK  | .3             | 0                  | 45.48                  | 56                  | -10.52               | -                    | -                    |
| 28     | .8565           | 31.14                | Av  | .3             | 0                  | 31.44                  | -                   | -                    | 46                   | -14.56               |
| 31     | 1.689           | 43.34                | PK  | .2             | .1                 | 43.64                  | 56                  | -12.36               | -                    | -                    |
| 32     | 1.689           | 30.22                | Av  | .2             | .1                 | 30.52                  | -                   | -                    | 46                   | -15.48               |
| 33     | 3.345           | 42.51                | PK  | .2             | .1                 | 42.81                  | 56                  | -13.19               | -                    | -                    |
| 34     | 3.345           | 27.96                | Av  | .2             | .1                 | 28.26                  | -                   | -                    | 46                   | -17.74               |
| 35     | 13.5555         | 52.36                | PK  | .3             | .2                 | 52.86                  | 60                  | -7.14                | -                    | -                    |
| 36     | 13.5555         | 36.86                | Av  | .3             | .2                 | 37.36                  | -                   | -                    | 50                   | -12.64               |

PK - Peak detector

Av - average detection

**LINE 1 RESULTS**



**LINE 2 RESULTS**

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## 14. DYNAMIC FREQUENCY SELECTION

### 14.1. OVERVIEW

#### 14.1.1. LIMITS

##### INDUSTRY CANADA

IC RSS-210 is closely harmonized with FCC Part 15 DFS rules. The deviations are as follows:

RSS-210 Issue 7 A9.4 (b) (ii) **Channel Availability Check Time:** ...

**Additional requirements for the band 5600-5650 MHz:** Until further notice, devices subject to this Section shall not be capable of transmitting in the band 5600-5650 MHz, so that Environment Canada weather radars operating in this band are protected.

##### FCC

§15.407 (h) and FCC 06-96 APPENDIX "COMPLIANCE MEASUREMENT PROCEDURES FOR UNLICENSED-NATIONAL INFORMATION INFRASTRUCTURE DEVCIES OPERATING IN THE 5250-5350 MHz AND 5470-5725 MHz BANDS INCORPORATING DYNAMIC FREQUENCY SELECTION".

**Table 1: Applicability of DFS requirements prior to use of a channel**

| Requirement                     | Operational Mode |                                  |                               |
|---------------------------------|------------------|----------------------------------|-------------------------------|
|                                 | Master           | Client (without radar detection) | Client (with radar detection) |
| Non-Occupancy Period            | Yes              | Not required                     | Yes                           |
| DFS Detection Threshold         | Yes              | Not required                     | Yes                           |
| Channel Availability Check Time | Yes              | Not required                     | Not required                  |
| Uniform Spreading               | Yes              | Not required                     | Not required                  |

**Table 2: Applicability of DFS requirements during normal operation**

| Requirement                       | Operational Mode |                      |                   |
|-----------------------------------|------------------|----------------------|-------------------|
|                                   | Master           | Client (without DFS) | Client (with DFS) |
| DFS Detection Threshold           | Yes              | Not required         | Yes               |
| Channel Closing Transmission Time | Yes              | Yes                  | Yes               |
| Channel Move Time                 | Yes              | Yes                  | Yes               |

**Table 3: Interference Threshold values, Master or Client incorporating In-Service Monitoring**

|                                                                                                                                                                                                                                                                                                                                                                                                        |                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Maximum Transmit Power                                                                                                                                                                                                                                                                                                                                                                                 | Value (see note) |
| ≥ 200 milliwatt                                                                                                                                                                                                                                                                                                                                                                                        | -64 dBm          |
| < 200 milliwatt                                                                                                                                                                                                                                                                                                                                                                                        | -62 dBm          |
| <p>Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna</p> <p>Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.</p> |                  |

**Table 4: DFS Response requirement values**

| Parameter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Value                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| <i>Non-occupancy period</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 30 minutes                                                                 |
| <i>Channel Availability Check Time</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 60 seconds                                                                 |
| <i>Channel Move Time</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 10 seconds                                                                 |
| <i>Channel Closing Transmission Time</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 200 milliseconds + approx. 60 milliseconds over remaining 10 second period |
| <p>The instant that the <i>Channel Move Time</i> and the <i>Channel Closing Transmission Time</i> begins is as follows:</p> <p>For the Short pulse radar Test Signals this instant is the end of the <i>Burst</i>.</p> <p>For the Frequency Hopping radar Test Signal, this instant is the end of the last radar burst generated.</p> <p>For the Long Pulse radar Test Signal this instant is the end of the 12-second period defining the radar transmission.</p> <p>The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate channel changes (an aggregate of approximately 60 milliseconds) during the remainder of the 10-second period. The aggregate duration of control signals will not count quiet periods in between transmissions.</p> |                                                                            |

**Table 5 – Short Pulse Radar Test Waveforms**

| Radar Type                  | Pulse Width (Microseconds) | PRI (Microseconds) | Pulses | Minimum Percentage of Successful Detection | Minimum Trials |
|-----------------------------|----------------------------|--------------------|--------|--------------------------------------------|----------------|
| 1                           | 1                          | 1428               | 18     | 60%                                        | 30             |
| 2                           | 1-5                        | 150-230            | 23-29  | 60%                                        | 30             |
| 3                           | 6-10                       | 200-500            | 16-18  | 60%                                        | 30             |
| 4                           | 11-20                      | 200-500            | 12-16  | 60%                                        | 30             |
| Aggregate (Radar Types 1-4) |                            |                    |        | 80%                                        | 120            |

**Table 6 – Long Pulse Radar Test Signal**

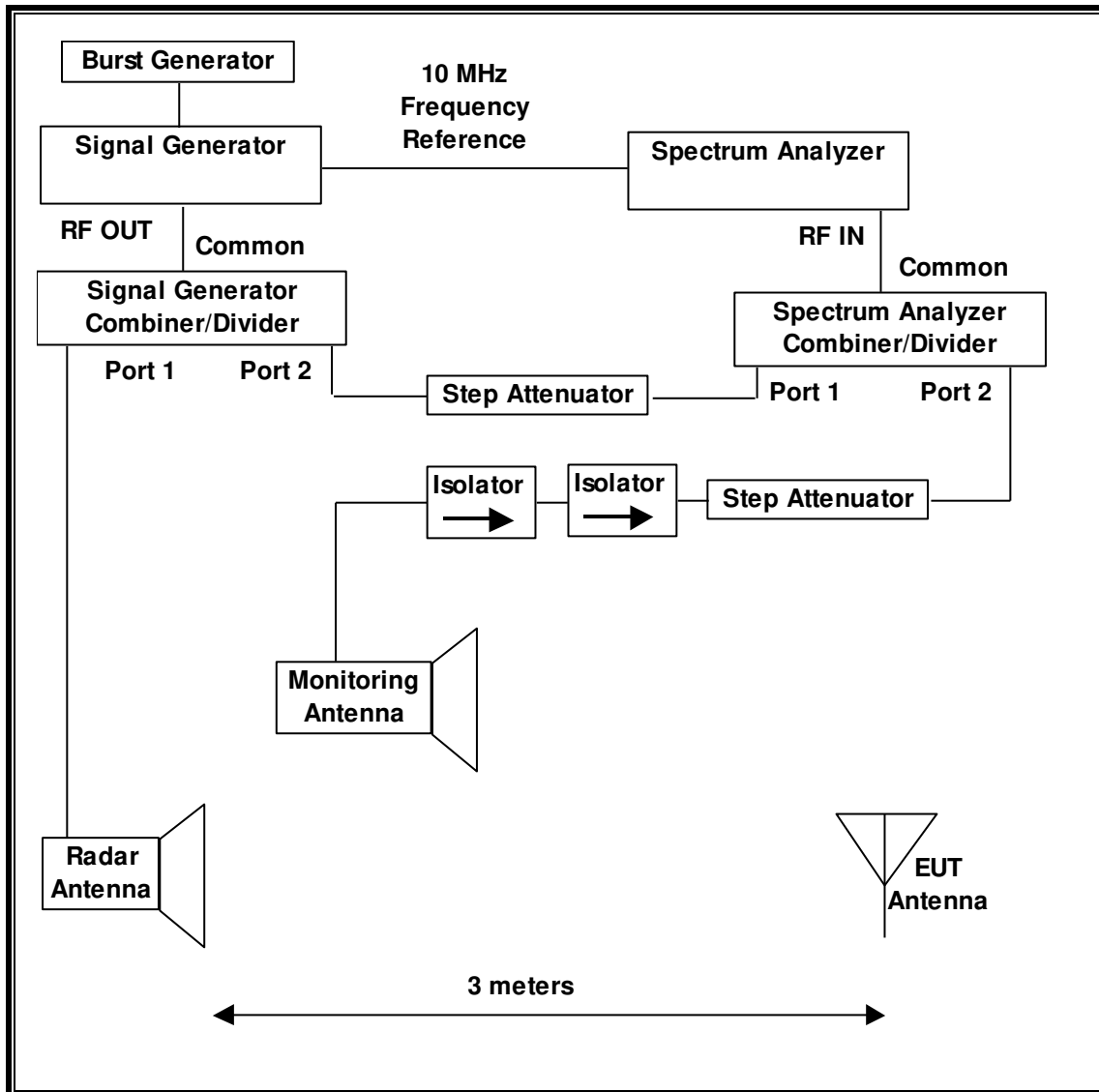
| Radar Waveform | Bursts | Pulses per Burst | Pulse Width (μsec) | Chirp Width (MHz) | PRI (μsec) | Minimum Percentage of Successful Detection | Minimum Trials |
|----------------|--------|------------------|--------------------|-------------------|------------|--------------------------------------------|----------------|
| 5              | 8-20   | 1-3              | 50-100             | 5-20              | 1000-2000  | 80%                                        | 30             |

**Table 7 – Frequency Hopping Radar Test Signal**

| Radar Waveform | Pulse Width (μsec) | PRI (μsec) | Burst Length (ms) | Pulses per Hop | Hopping Rate (kHz) | Minimum Percentage of Successful Detection | Minimum Trials |
|----------------|--------------------|------------|-------------------|----------------|--------------------|--------------------------------------------|----------------|
| 6              | 1                  | 333        | 300               | 9              | .333               | 70%                                        | 30             |

## 14.1.2. TEST AND MEASUREMENT SYSTEM

### RADIATED METHOD SYSTEM BLOCK DIAGRAM



## **SYSTEM OVERVIEW**

The short pulse and long pulse signal generating system utilizes the NTIA software. The Vector Signal Generator has been validated by the NTIA. The hopping signal generating system utilizes the CCS simulated hopping method and system, which has been validated by the DoD, FCC and NTIA. The software selects waveform parameters from within the bounds of the signal type on a random basis using uniform distribution.

The short pulse types 2, 3 and 4, and the long pulse type 5 parameters are randomized at run-time.

The hopping type 6 pulse parameters are fixed while the hopping sequence is based on the August 2005 NTIA Hopping Frequency List. The initial starting point randomized at run-time and each subsequent starting point is incremented by 475. Each frequency in the 100-length segment is compared to the boundaries of the EUT Detection Bandwidth and the software creates a hopping burst pattern in accordance with Section 7.4.1.3 Method #2 Simulated Frequency Hopping Radar Waveform Generating Subsystem of FCC 06-96 APPENDIX. The frequency of the signal generator is incremented in 1 MHz steps from  $F_L$  to  $F_H$  for each successive trial. This incremental sequence is repeated as required to generate a minimum of 30 total trials and to maintain a uniform frequency distribution over the entire Detection Bandwidth.

The signal monitoring equipment consists of a spectrum analyzer. The aggregate ON time is calculated by multiplying the number of bins above a threshold during a particular observation period by the dwell time per bin, with the analyzer set to peak detection and max hold.

## **SYSTEM CALIBRATION**

A 50-ohm load is connected in place of the spectrum analyzer, and the spectrum analyzer is connected to a horn antenna via a coaxial cable, with the reference level offset set to (horn antenna gain – coaxial cable loss). The signal generator is set to CW mode. The amplitude of the signal generator is adjusted to yield a level of –64 dBm as measured on the spectrum analyzer.

Without changing any of the instrument settings, the spectrum analyzer is reconnected to the Common port of the Spectrum Analyzer Combiner/Divider. The Reference Level Offset of the spectrum analyzer is adjusted so that the displayed amplitude of the signal is –64 dBm.

The spectrum analyzer displays the level of the signal generator as received at the antenna ports of the Master Device. The interference detection threshold may be varied from the calibrated value of –64 dBm and the spectrum analyzer will still indicate the level as received by the Master Device.

### **ADJUSTMENT OF DISPLAYED TRAFFIC LEVEL**

A link is established between the Master and Slave and the distance between the units is adjusted as needed to provide a suitable received level at the Master and Slave devices. The video test file is streamed to generate WLAN traffic. The monitoring antenna is adjusted so that the WLAN traffic level, as displayed on the spectrum analyzer, is at lower amplitude than the radar detection threshold.

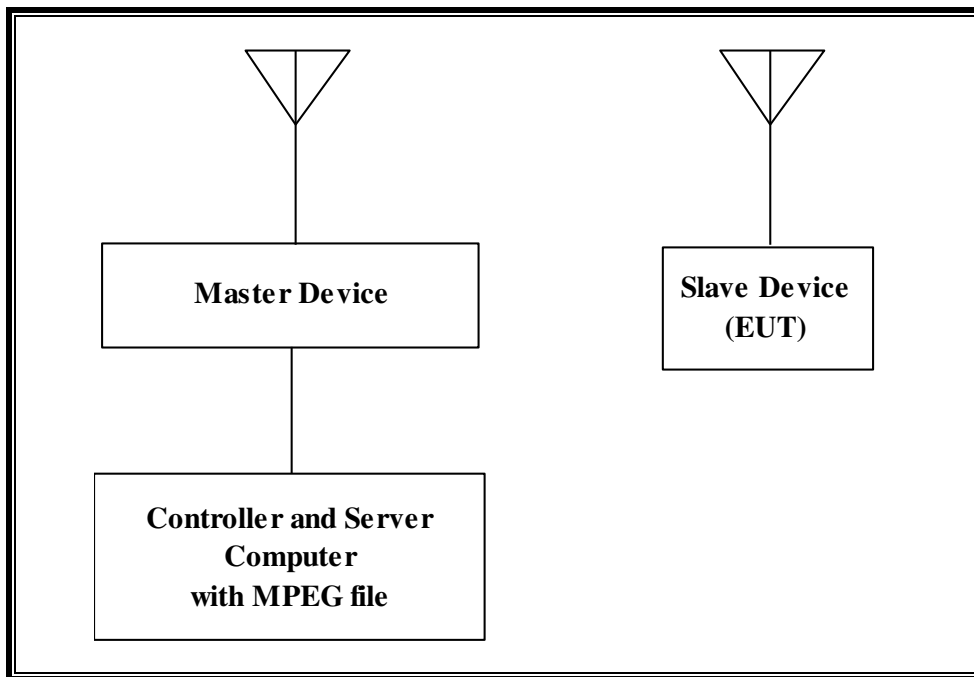
### **TEST AND MEASUREMENT EQUIPMENT**

The following test and measurement equipment was utilized for the DFS tests documented in this report:

| TEST EQUIPMENT LIST            |              |        |              |          |
|--------------------------------|--------------|--------|--------------|----------|
| Description                    | Manufacturer | Model  | Asset Number | Cal Due  |
| Spectrum Analyzer, 26.5 GHz    | Agilent / HP | E4440A | C01178       | 09/10/14 |
| Vector Signal Generator, 20GHz | Agilent / HP | E8267C | C01066       | 09/12/14 |

### 14.1.3. SETUP OF EUT

#### RADIATED METHOD EUT TEST SETUP



#### SUPPORT EQUIPMENT

The following support equipment was utilized for the DFS tests documented in this report:

| PERIPHERAL SUPPORT EQUIPMENT LIST |                   |                   |                          |           |
|-----------------------------------|-------------------|-------------------|--------------------------|-----------|
| Description                       | Manufacturer      | Model             | Serial Number            | FCC ID    |
| Wireless Access Point             | Cisco             | AIR-AP1252AG-A-K9 | FTX120690N2              | LDK102061 |
| AC Adapter (AP)                   | Delta Electronics | EADP-45BB B       | DTH112490BD              | DoC       |
| Notebook PC (Controller/Server)   | Dell              | PP18L             | 10657517725              | DoC       |
| AC Adapter (Controller/Server PC) | Dell              | LA65SN0-00        | CN-ODF263-71615-6AU-1019 | DoC       |

#### **14.1.5. DESCRIPTION OF EUT**

The EUT operates over the 5250-5350 MHz and 5470-5725 MHz ranges excluding the 5600-5650 MHz range.

The EUT is a Slave Device without Radar Detection.

The highest power level within these bands is 10.2 dBm EIRP in the 5250-5350 MHz band and 10.49 dBm EIRP in the 5470-5725 MHz band.

The only antenna assembly utilized with the EUT has a gain of 0.3 dBi.

The rated output power of the Master unit is > 23dBm (EIRP). Therefore the required interference threshold level is -64 dBm. After correction for procedural adjustments, the required radiated threshold at the antenna port is  $-64 + 1 = -63$  dBm.

The calibrated radiated DFS Detection Threshold level is set to -64 dBm. The tested level is lower than the required level hence it provides a margin to the limit.

The EUT uses one transmitter/receiver chain connected to an antenna to perform radiated tests.

WLAN traffic exceeding the transmitter minimum activity ratio of 30% is generated by streaming the compressed video file "6 ½ Magic Hours" from the Master to the Slave in full motion video using MX Player version 1.7.22 media player.

TPC is not required since the maximum EIRP is less than 500 mW (27 dBm).

The EUT utilizes the 802.11a/n architecture. Two nominal channel bandwidths are implemented: 20 MHz and 40 MHz.

The software installed in the access point is revision 12.4(25d)JA1.

#### **UNIFORM CHANNEL SPREADING**

This requirement is not applicable to Slave radio devices.

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**OVERVIEW OF MASTER DEVICE WITH RESPECT TO §15.407 (h) REQUIREMENTS**

The Master Device is a Cisco Access Point, FCC ID: LDK102061. The minimum antenna gain for the Master Device is 3.5 dBi.

The rated output power of the Master unit is  $> 23\text{dBm}$  (EIRP). Therefore the required interference threshold level is  $-64\text{ dBm}$ . After correction for procedural adjustments, the required radiated threshold at the antenna port is  $-64 + 1 = -63\text{ dBm}$ .

The calibrated radiated DFS Detection Threshold level is set to  $-64\text{ dBm}$ . The tested level is lower than the required level hence it provides a margin to the limit.

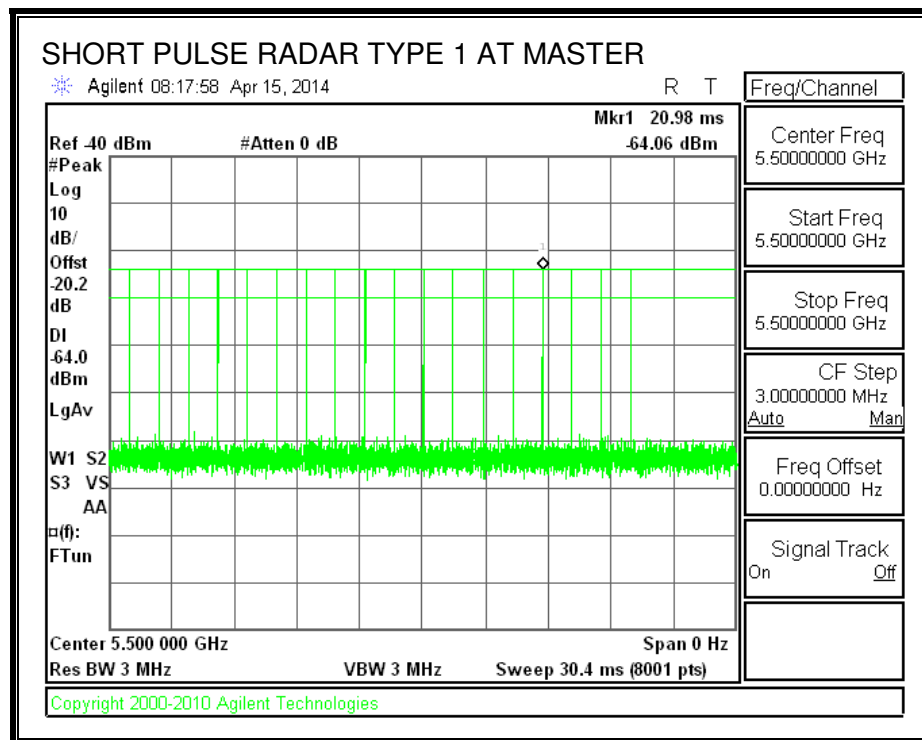
## 14.2. RESULTS FOR 20 MHz BANDWIDTH

### 14.2.1. TEST CHANNEL

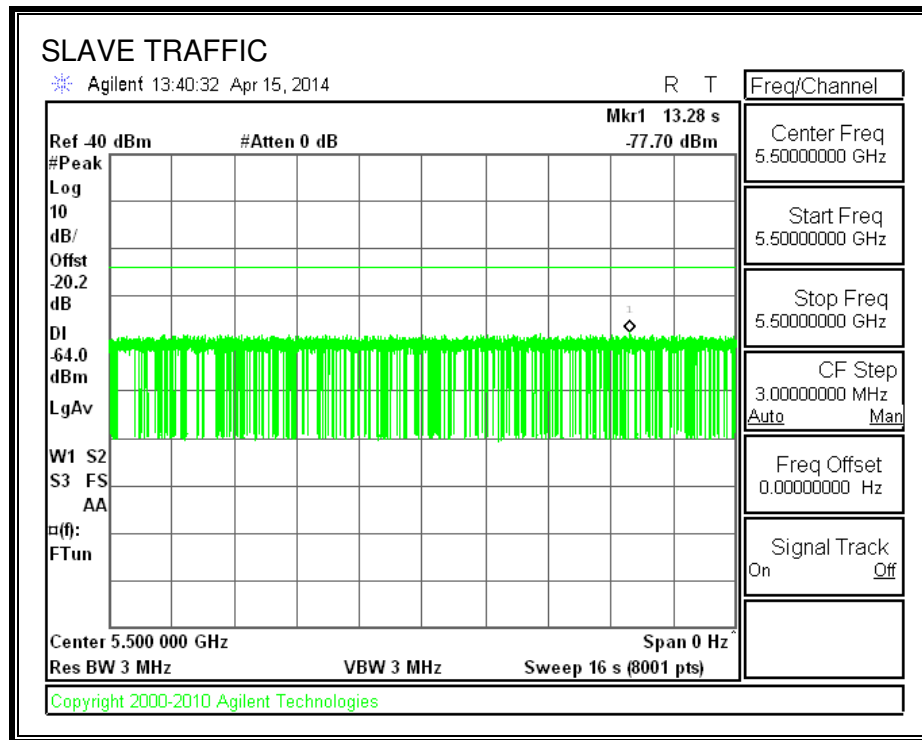
All tests were performed at a channel center frequency of 5500 MHz.

### 14.2.2. RADAR WAVEFORM AND TRAFFIC

#### RADAR WAVEFORM



**TRAFFIC**



### 14.2.3. OVERLAPPING CHANNEL TESTS

#### RESULTS

These tests are not applicable.

### 14.2.4. MOVE AND CLOSING TIME

#### REPORTING NOTES

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time =  
(Number of analyzer bins showing transmission) \* (dwell time per bin)

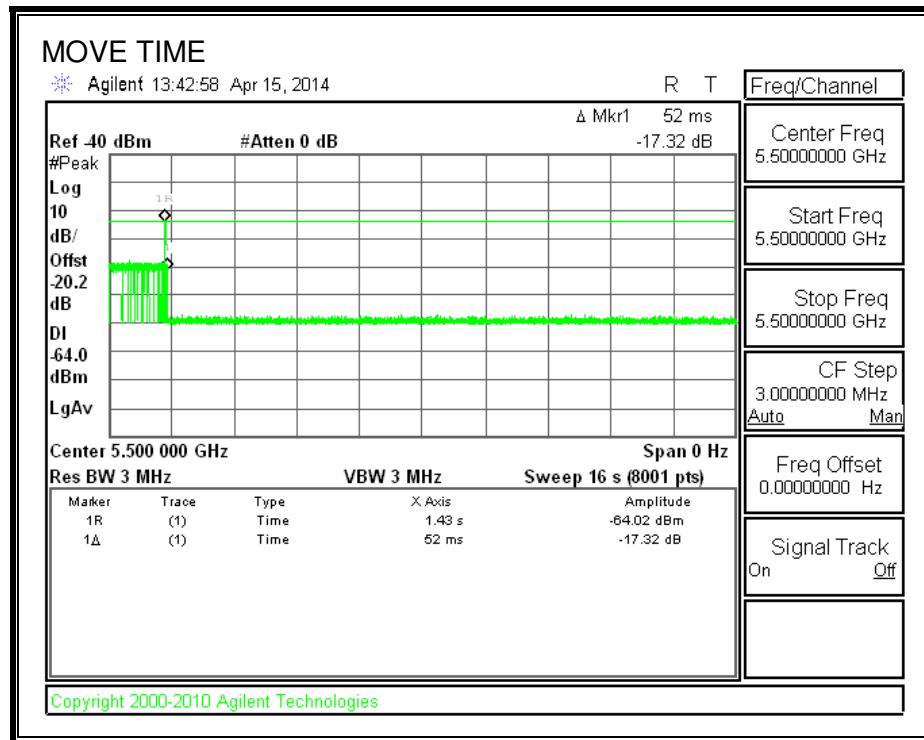
The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

#### RESULTS

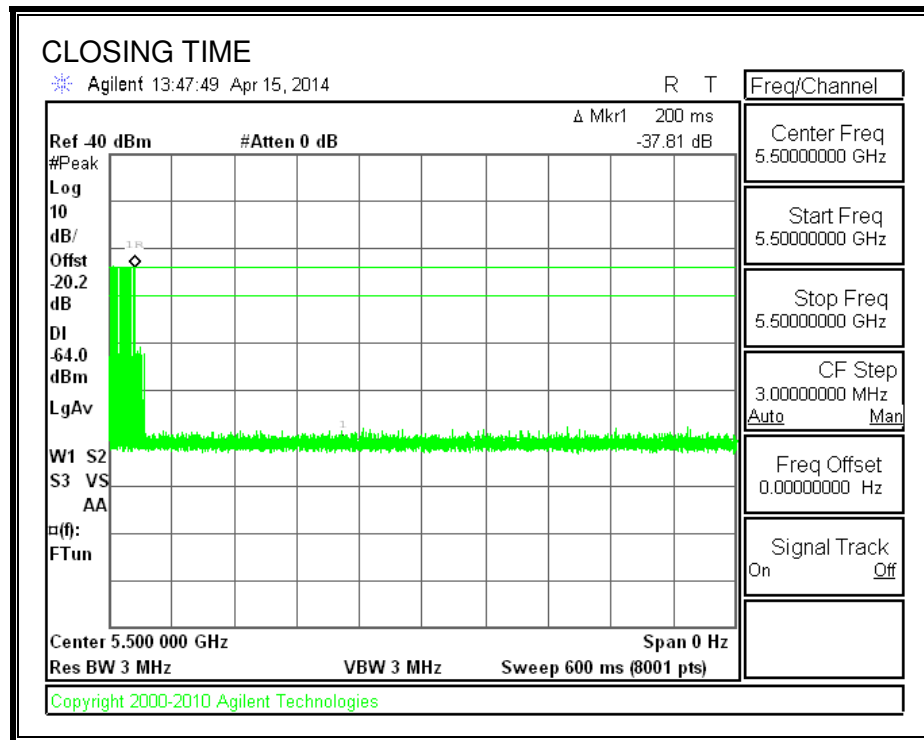
| Channel Move Time<br>(sec) | Limit<br>(sec) |
|----------------------------|----------------|
| 0.052                      | 10             |

| Aggregate Channel Closing Transmission Time<br>(msec) | Limit<br>(msec) |
|-------------------------------------------------------|-----------------|
| 0.0                                                   | 60              |

**MOVE TIME**

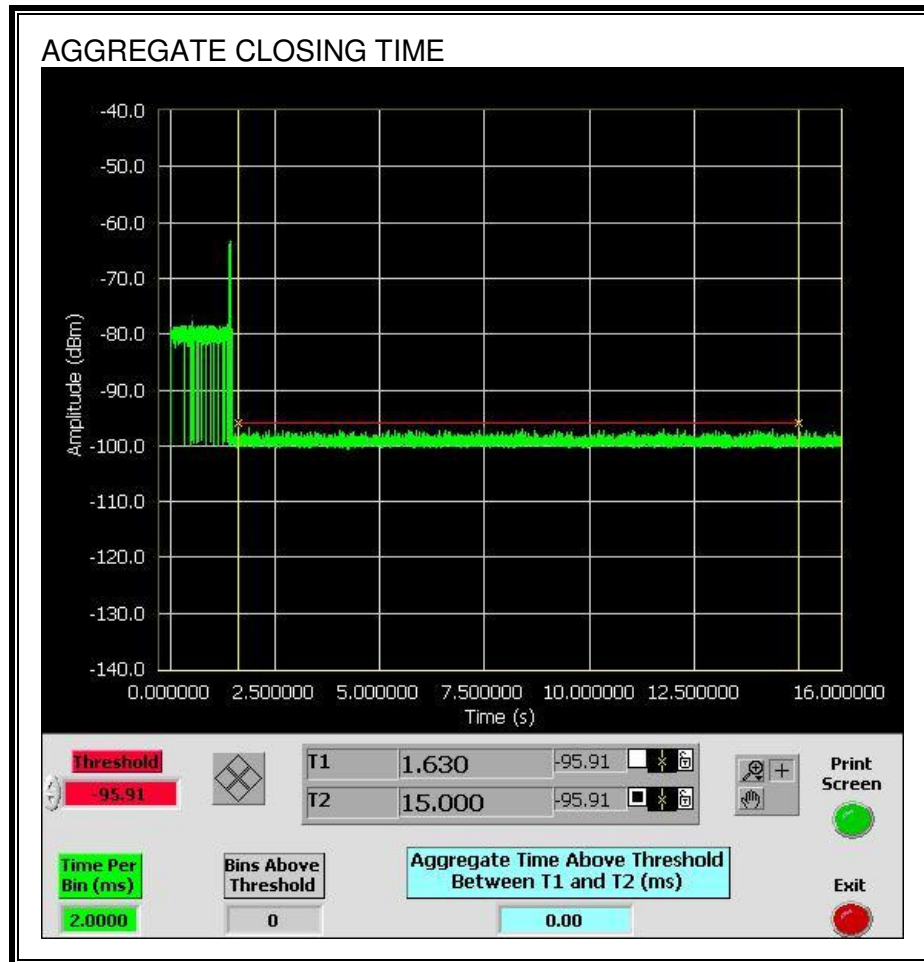


**CHANNEL CLOSING TIME**



### AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

No transmissions are observed during the aggregate monitoring period.



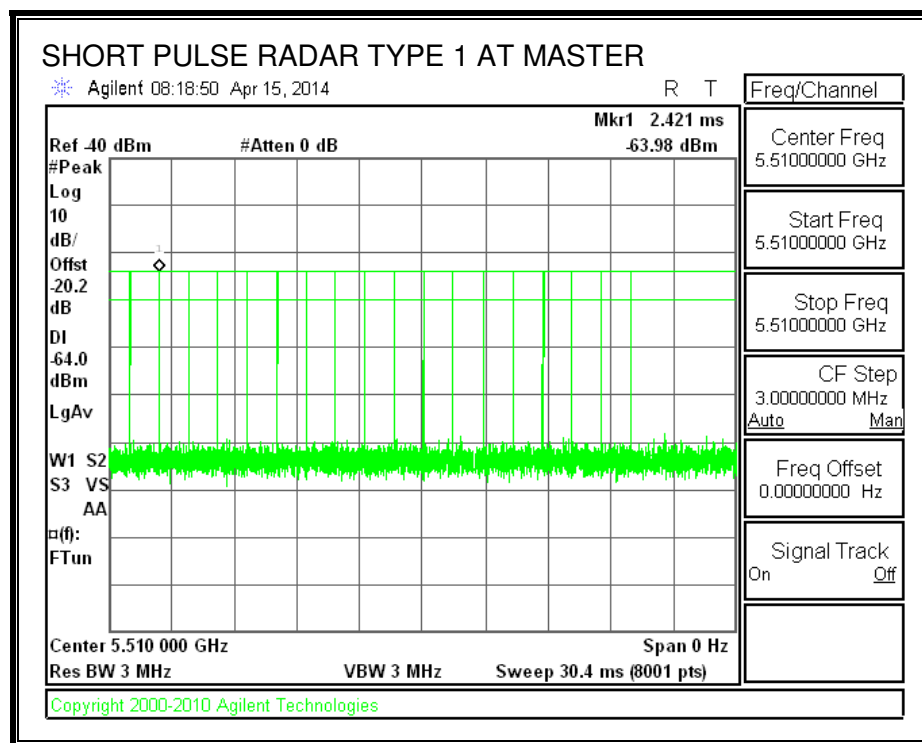
### 14.3. RESULTS FOR 40 MHz BANDWIDTH

#### 14.3.1. TEST CHANNEL

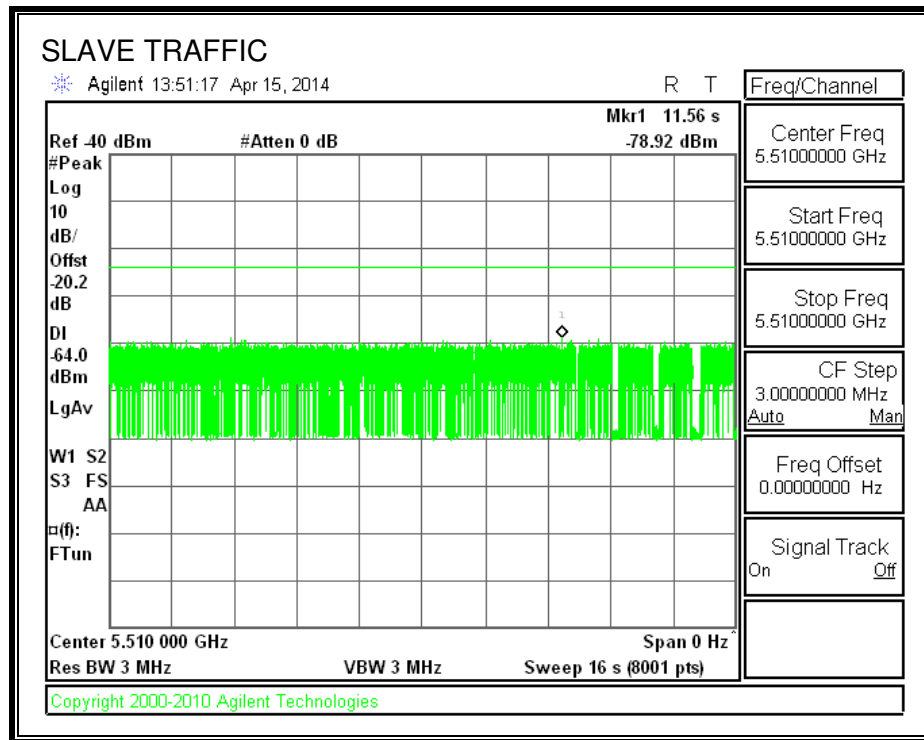
All tests were performed at a channel center frequency of 5510 MHz.

#### 14.3.2. RADAR WAVEFORM AND TRAFFIC

##### RADAR WAVEFORM



**TRAFFIC**



### 14.3.3. OVERLAPPING CHANNEL TESTS

#### RESULTS

These tests are not applicable.

### 14.3.4. MOVE AND CLOSING TIME

#### REPORTING NOTES

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time =  
(Number of analyzer bins showing transmission) \* (dwell time per bin)

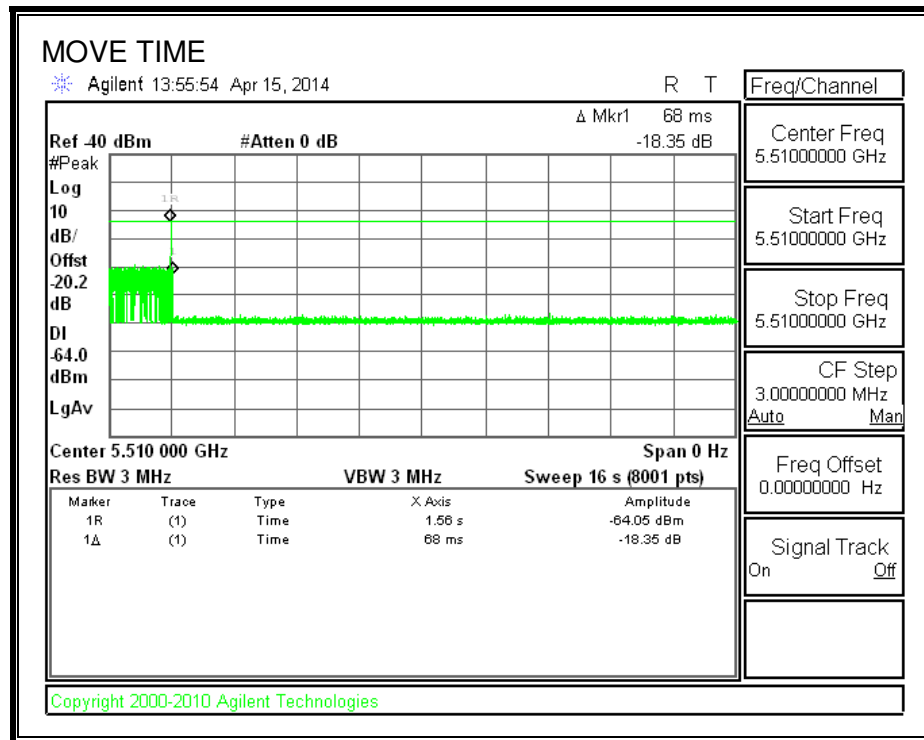
The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

#### RESULTS

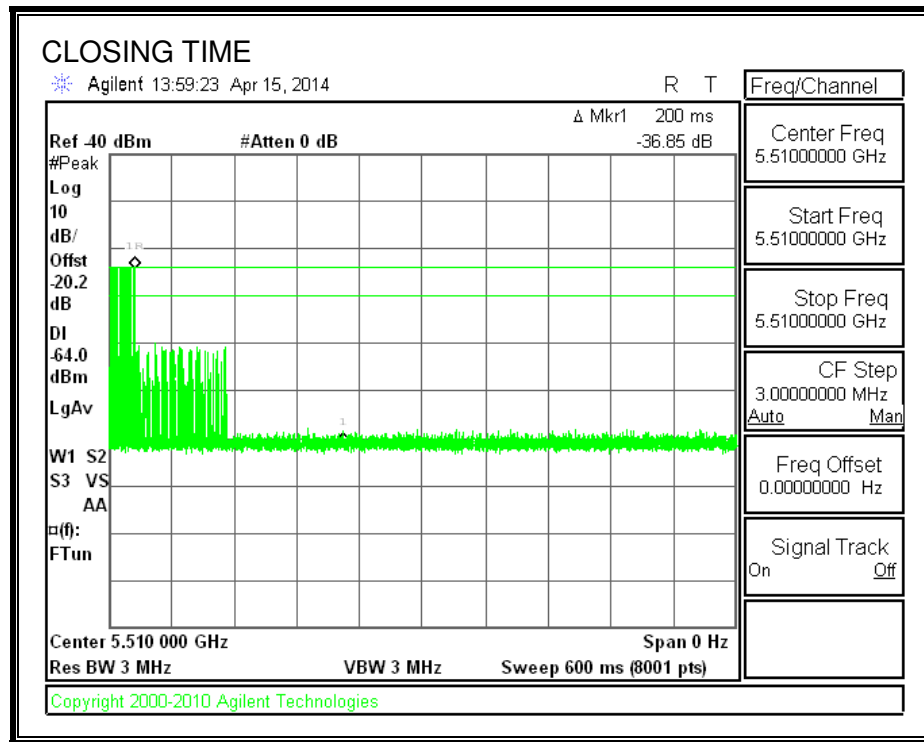
| Channel Move Time<br>(sec) | Limit<br>(sec) |
|----------------------------|----------------|
| 0.068                      | 10             |

| Aggregate Channel Closing Transmission Time<br>(msec) | Limit<br>(msec) |
|-------------------------------------------------------|-----------------|
| 0.0                                                   | 60              |

**MOVE TIME**

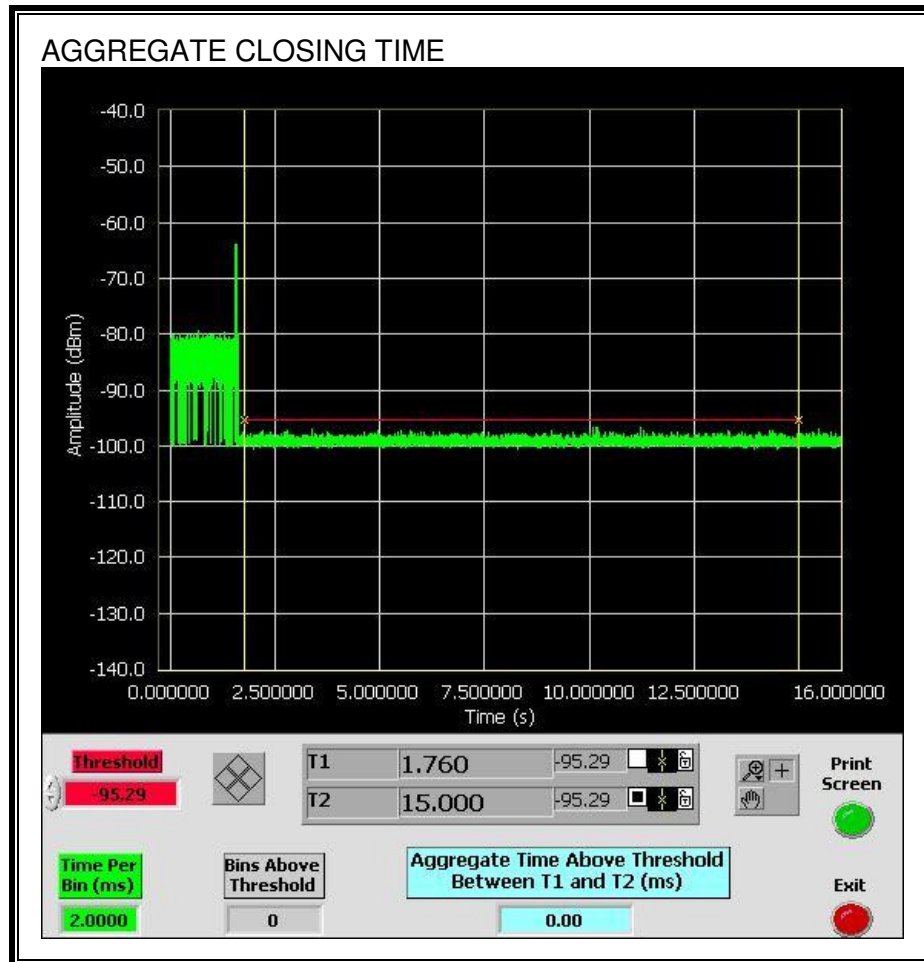


**CHANNEL CLOSING TIME**



**AGGREGATE CHANNEL CLOSING TRANSMISSION TIME**

No transmissions are observed during the aggregate monitoring period.



### 14.3.5. NON-OCCUPANCY PERIOD

#### RESULTS

No EUT transmissions were observed on the test channel during the 30-minute observation time.

