



FCC 47 CFR PART 15 SUBPART E

CERTIFICATION TEST REPORT

FOR

WLAN DTS/UNII a/b/g/n MIMO Satellite Setup Box

MODEL NUMBER: ID:091

FCC ID: DKN-MJS79

REPORT NUMBER: 15U20962-E2V2

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NVLAP LAB CODE 200065-0

Revision History

| Rev. | Date | Revisions | Revised By |
|------|---------|---|-------------|
| V1 | 10/3/15 | Initial Issue | P. ZHANG |
| V2 | 10/9/15 | Updated Section 11.4.3, 11.5.3, 16 and Antenna gain info. | C. VERGONIO |

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: Echostar Technologies LLC
EUT DESCRIPTION: WLAN DTS/UNII a/b/g/n MIMO Satellite setup box
MODEL: ID:091
SERIAL NUMBER: P1B51 (Conducted), P1B29 (Radiated)
DATE TESTED: SEPTEMBER 18 – OCTOBER 5, 2015

| 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 C63.10-2013 for FCC.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 and 47266 Benicia Street, Fremont, California, USA. Line conducted emissions are measured only at the 47173 address. The following table identifies which facilities were utilized for radiated emission measurements documented in this report. Specific facilities are also identified in the test results sections.

| 47173 Benicia Street | 47266 Benicia Street |
|--|---|
| <input checked="" type="checkbox"/> Chamber A(IC: 2324B-1) | <input type="checkbox"/> Chamber D(IC: 2324B-4) |
| <input type="checkbox"/> Chamber B(IC: 2324B-2) | <input type="checkbox"/> Chamber E(IC: 2324B-5) |
| <input checked="" type="checkbox"/> Chamber C(IC: 2324B-3) | <input type="checkbox"/> Chamber F(IC: 2324B-6) |
| | <input type="checkbox"/> Chamber G(IC: 2324B-7) |
| | <input type="checkbox"/> Chamber H(IC: 2324B-8) |

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at <http://ts.nist.gov/standards/scopes/2000650.htm>.

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:

Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB)

$$36.5 \text{ dBuV} + 18.7 \text{ dB/m} + 0.6 \text{ dB} - 26.9 \text{ dB} = 28.9 \text{ dBuV/m}$$

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 DTS/UNII a/b/g/n MIMO Satellite setup box.

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum total conducted output power as follows:

| Frequency Range (MHz) | Mode | Total Output Power (dBm) | Total Output Power (mW) |
|--------------------------|--------------|-----------------------------|----------------------------|
| 5180 - 5240 | 802.11a | 14.2 | 26.30 |
| 5745 - 5825 | 802.11a | 13 | 19.95 |
| 5180 - 5240 | 802.11n HT20 | 18.2 | 66.07 |
| 5745 - 5825 | 802.11n HT20 | 19.28 | 84.72 |
| 5190 - 5230 | 802.11n HT40 | 16.93 | 49.32 |
| 5755 - 5795 | 802.11n HT40 | 17.07 | 50.93 |

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes two Printed antennas, with maximum gain of 3.52dBi C0 and 3.29dBi C1.

List of test reduction and modes covering other modes:

| Authorized Frequency Band (Antenna port & Radiated Testing) | |
|---|----------------------|
| Mode | Covered by |
| 802.11a legacy 1TX | |
| 802.11HT20 1TX | |
| 802.11HT20 2TX STBC | 802.11n HT20 2TX CDD |
| 802.11n HT40 1TX | |
| 802.11n HT40 2TX STBC | 802.11n HT40 2TX CDD |

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.

For SISO mode, chain 1 was the worst case determined during pre-scan. So all radiated and conducted measurement based on chain 1.

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 |
| Laptop | HP | EliteBook 740 | N/A | N/A |
| | | | | |

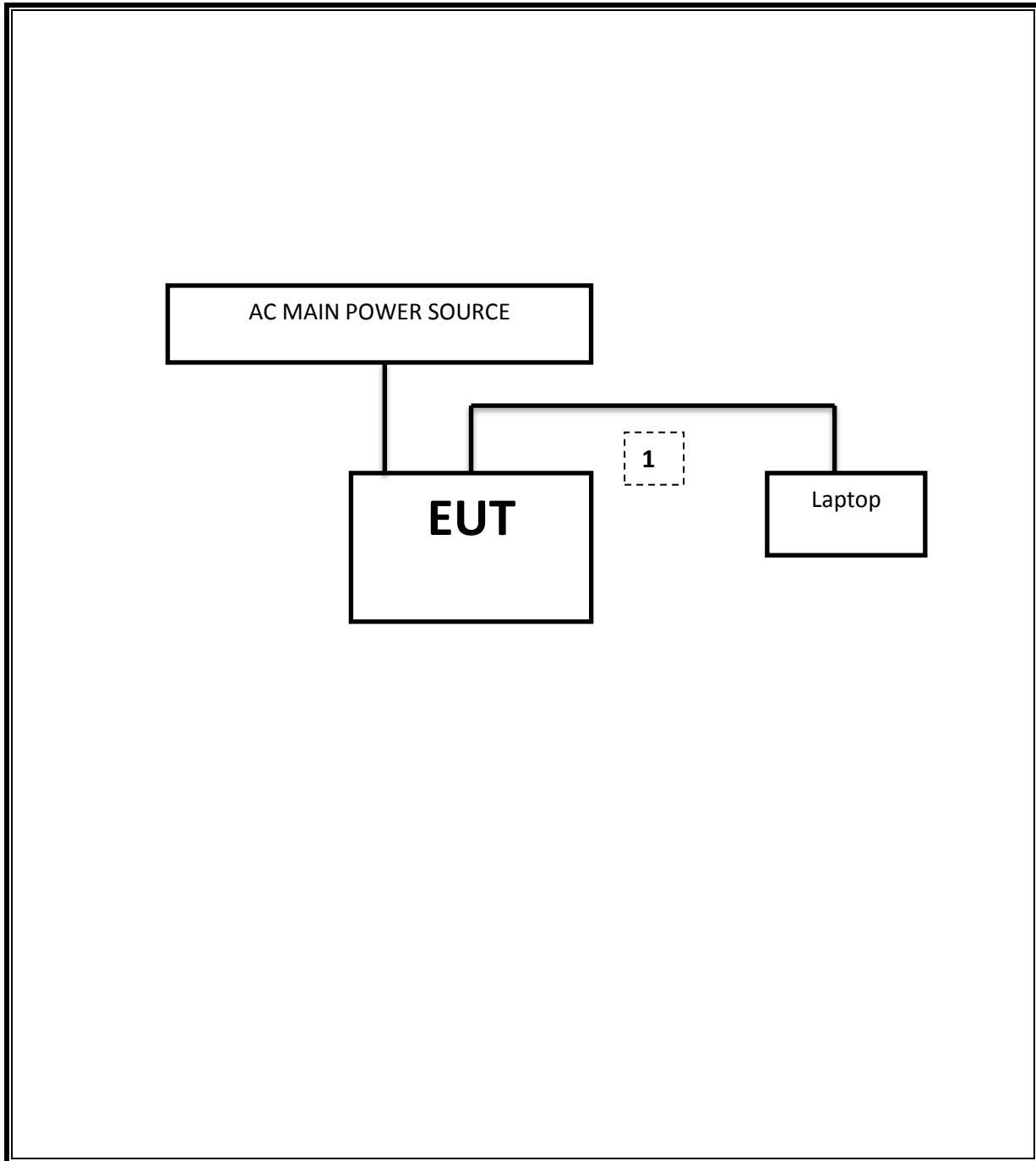
I/O CABLES

| I/O Cable List | | | | | | |
|----------------|------|----------------------|----------------|-------------|------------------|---------|
| Cable No | Port | # of identical ports | Connector Type | Cable Type | Cable Length (m) | Remarks |
| 1 | USB | 1 | USB | un-shielded | 1.5 | 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 | 12/20/15 |
| Spectrum Analyzer,9KHz-40GHz | HP | 8564E | C00986 | 04/01/16 |
| EMI Test Receiver, 9 kHz-7 GHz | R & S | ESCI 7 | 1000741 | 08/13/16 |
| EMI Test Receiver, 30 MHz | R & S | ESHS 20 | N02396 | 08/18/16 |
| Peak Power Meter | Agilent / HP | E4416A | C00963 | 12/13/15 |
| Peak / Average Power Sensor | Agilent / HP | E9327A | C00964 | 12/13/15 |
| Antenna, Horn, 1-18 GHz | ETS | 3117 | C01022 | 02/21/16 |
| Antenna, Horn,18- 26 GHz | ARA | MWH-1826/B | C00946 | 11/12/15 |
| Antenna, Horn, 26-40 GHz | ARA | MWH-2640 | C00891 | 06/28/16 |
| Antenna, Bilog, 30MHz-1 GHz | Sunol Sciences | JB1 | T243 | 03/06/16 |
| RF Preamplifier, 100KHz -> 1300MHz | HP | TBD | C00825 | 06/01/16 |
| RF Preamplifier, 1GHz - 18GHz | Miteq | NSP4000-SP2 | 924343 | 03/23/16 |
| RF Preamplifier, 1GHz - 26.5GHz | HP | 8449B | T404 | 06/29/16 |
| AC Power Supply, 2,500VA 45-500Hz | Elgar-Ametek | CW2501M | F00013 | CNR |
| RF Preamplifier, 1GHz - 40GHz | Miteq | NSP4000-SP2 | C00990 | 08/20/16 |
| Attenuator / Switch driver | HP | 11713A | F00204 | CNR |
| Low Pass Filter 3GHz | Micro-Tronics | LPS17541 | F00219 | 05/23/16 |
| High Pass Filter 5GHz | Micro-Tronics | HPS17542 | F00222 | 05/22/16 |
| High Pass Filter 6GHz | Micro-Tronics | HPM17543 | F00224 | 05/22/16 |
| Radiated Software | UL | UL EMC | Ver 9.5, July 24, 2014 | |
| Conducted Software | UL | UL EMC | Ver 9.5, May 17 2012 | |
| CLT Software | UL | UL RF | Ver 1.0, Feb 2 2015 | |
| Antenna Port Software | UL | UL RF | Ver 2.1.1.1, Jan 20 2015 | |

7. SUMMARY TABLE

| FCC Part Section | RSS Section | Test Description | Test Limit | Test Condition | Test Result | Worst Case |
|------------------------|------------------|--------------------------------------|-----------------------------|-------------------------|-------------|-------------|
| 15.407 (a) | RSS-247 | Occupied Band width (26dB) | N/A | Conducted | Pass | 47.4MHz |
| 15.407 | RSS-247 6.2.4 | 6dB Band width (5.8Ghz) | 500KHz | | Pass | 16.5MHz |
| 15.407 (a)(2) | RSS-247 6.2 | TX Cond. Power 5.15-5.25 | <24dBm or 11+10Log(OBW) | | Pass | 18.7dBm |
| 15.407 (a)(3) | RSS-247 6.2.4 | TX Cond. Power 5.725-5.825 | < 30dBm or 17+10Log(OBW) | | Pass | 19.28 dBm |
| 15.407 (a)(5) | RSS-247 6.2 | PSD (5.2GHz) | <11dBm | | Pass | 5.08dBm |
| 15.407 (a)(5) | RSS-247 6.2.4 | PSD (5.8GHz) | 30dBm per 500kHz | | | 2.17dBm |
| 15.207 (a) | RSS-GEN 8.8 | AC Power Line conducted emissions | Section 10 | Radiated | Pass | 51.54dBuV |
| 15.407 (b) & 15.209 | RSS-GEN 8.9/7 | Radiated Spurious Emission | < 54dBuV/m | | Pass | 53.32dBuV/m |
| 15.407 (h)(2) | RSS-247 6.3 | Dynamic Frequency Selection | N/A | Radiated / Condcuted | 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 B (msec) | Period (msec) | Duty Cycle x (linear) | Duty Cycle (%) | Duty Cycle Correction Factor (dB) | 1/T Minimum VBW (kHz) |
|--------------|------------------------|------------------|-----------------------------|----------------------|---|-----------------------------|
| 802.11a | 100.00 | 100.00 | 1.000 | 100.0% | 0.00 | 0.010 |
| 802.11n HT20 | 100.00 | 100 | 1.000 | 100.0% | 0.00 | 0.010 |
| 802.11n HT40 | 100.00 | 100 | 1.000 | 100.0% | 0.00 | 0.010 |

8.2. DUTY CYCLE PLOTS



9. MEASUREMENT METHOD

789033 D02 General UNII Test Procedures New Rules v01

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 SISO

10.1. 6 dB BANDWIDTH

LIMITS

FCC §15.407

The minimum 6 dB bandwidth shall be at least 500 kHz.

TEST PROCEDURE

Reference to 789033 D02 General UNII Test Procedures New Rules v01: The transmitter output is connected to a spectrum analyzer with the RBW set to 100KHz, the VBW $\geq 3 \times$ RBW, peak detector and max hold.

RESULTS**10.1.1. 802.11a MODE IN THE 5.8 GHz BAND**

| Channel | Frequency (MHz) | 6 dB Bandwidth (MHz) | Minimum Limit (MHz) |
|---------|-----------------|----------------------|---------------------|
| Low | 5745 | 16.575 | 0.5 |
| Mid | 5785 | 16.525 | 0.5 |
| High | 5825 | 16.500 | 0.5 |
| Worst | | 16.500 | |

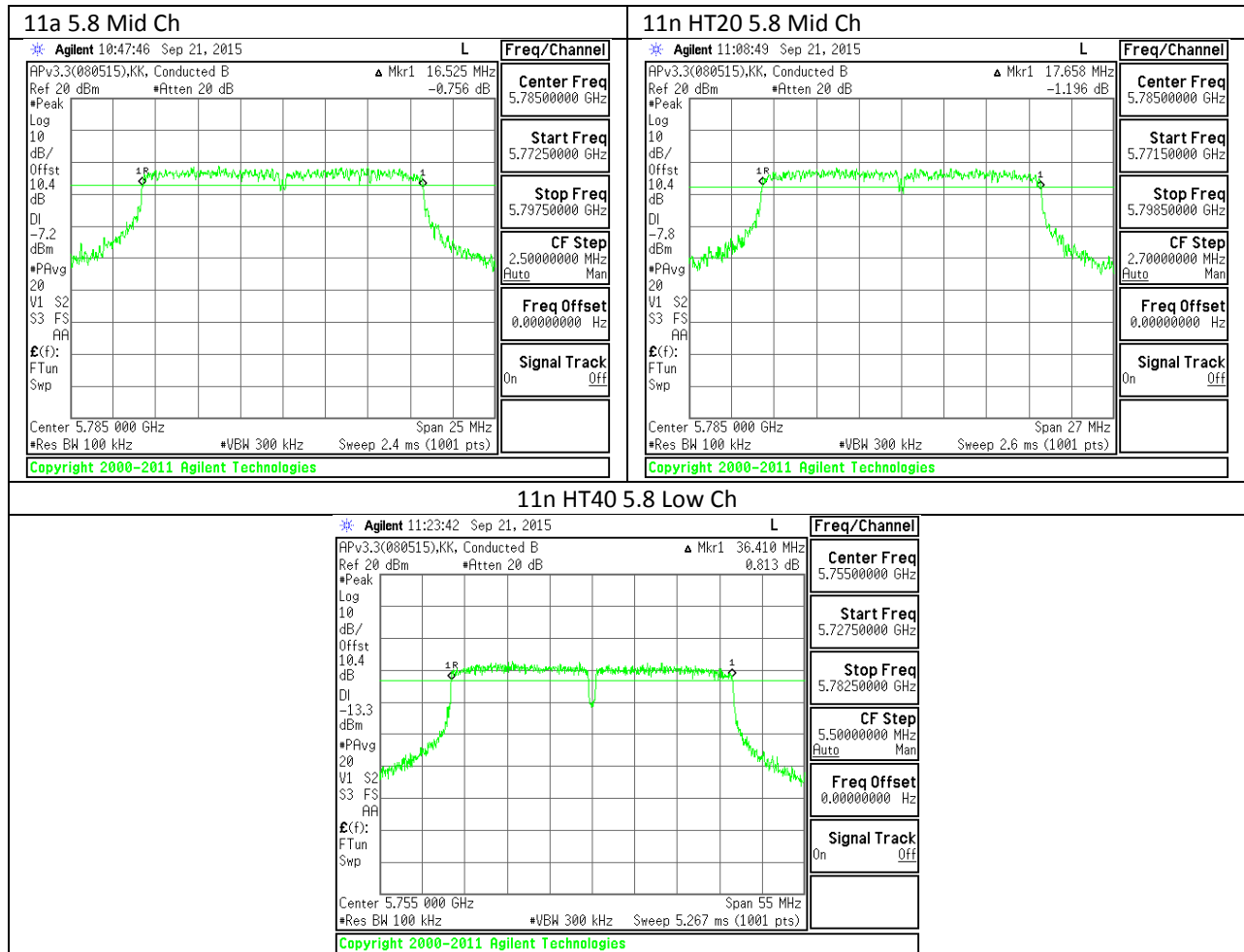
10.1.2. 802.11n HT20 MODE IN THE 5.8 GHz BAND

| Channel | Frequency (MHz) | 6 dB Bandwidth (MHz) | Minimum Limit (MHz) |
|---------|-----------------|----------------------|---------------------|
| Low | 5745 | 17.712 | 0.5 |
| Mid | 5785 | 17.658 | 0.5 |
| High | 5825 | 17.685 | 0.5 |
| Worst | | 17.658 | |

10.1.3. 802.11n HT40 MODE IN THE 5.8 GHz BAND

| Channel | Frequency (MHz) | 6 dB Bandwidth (MHz) | Minimum Limit (MHz) |
|---------|-----------------|----------------------|---------------------|
| Low | 5755 | 36.410 | 0.5 |
| High | 5795 | 36.465 | 0.5 |
| Worst | | 36.410 | |

10.1.4. 6 dB BANDWIDTH MID CH PLOTS



10.2. 26 dB BANDWIDTH

LIMITS

None; for reporting purposes only.

RESULTS

10.2.1. 802.11a MODE IN THE 5.2 GHz BAND

| Channel | Frequency (MHz) | 26 dB Bandwidth (MHz) |
|---------|-----------------|-----------------------|
| Low | 5180 | 26.28 |
| Mid | 5200 | 23.21 |
| High | 5240 | 25.47 |
| Worst | | 26.28 |

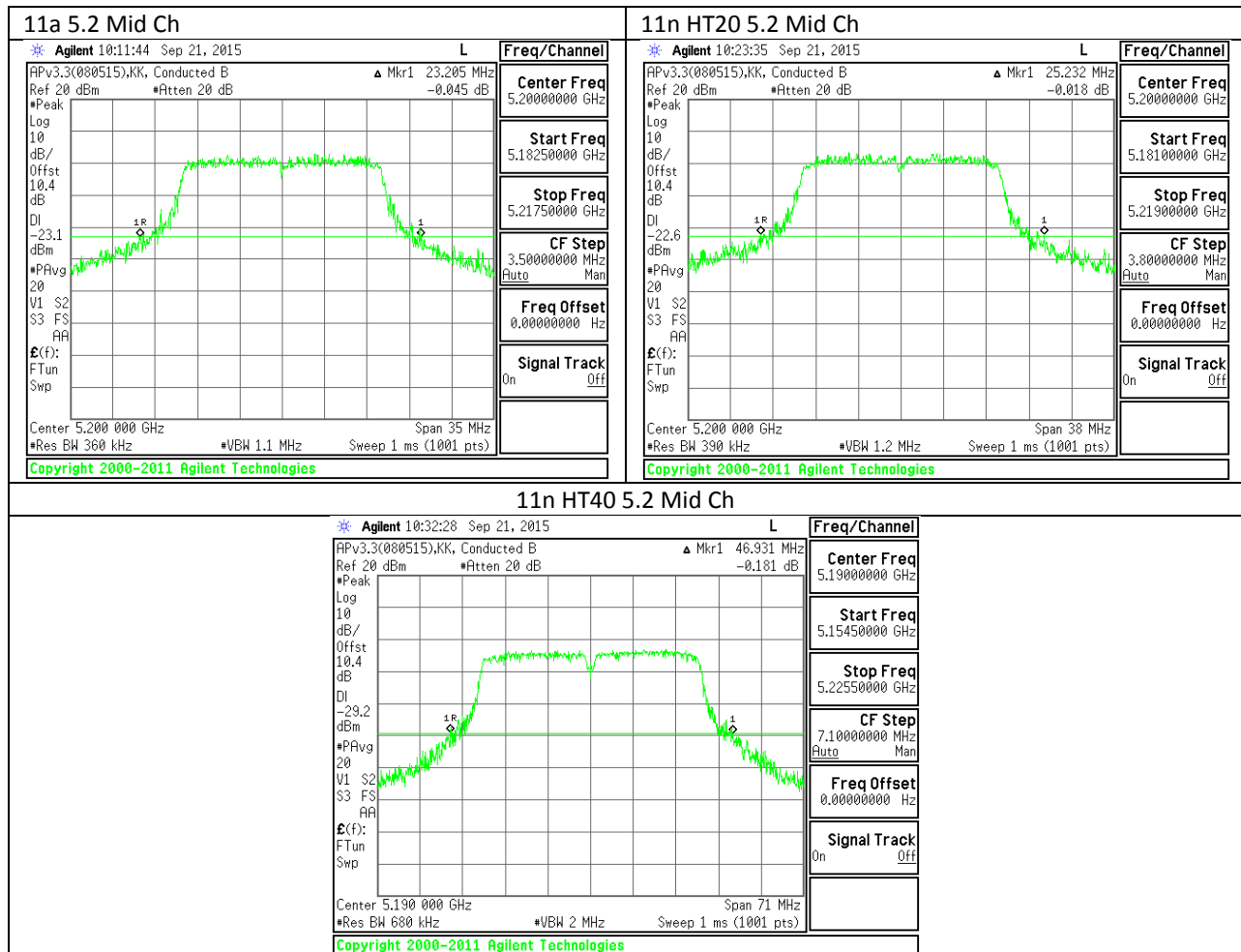
10.2.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

| Channel | Frequency (MHz) | 26 dB Bandwidth (MHz) |
|---------|-----------------|-----------------------|
| Low | 5180 | 25.27 |
| Mid | 5200 | 25.23 |
| High | 5240 | 24.93 |
| Worst | | 25.27 |

10.2.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

| Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
|---------|-----------------|----------------------|
| Low | 5190 | 46.93 |
| Mid | 5230 | 48.77 |
| Worst | | 48.77 |

10.2.4. 26 dB BANDWIDTH PLOTS



10.3. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

RESULTS

10.3.1. 802.11a MODE IN THE 5.2 GHz BAND

| Channel | Frequency (MHz) | 99% Bandwidth (MHz) |
|---------|-----------------|---------------------|
| Low | 5180 | 16.576 |
| Mid | 5200 | 16.523 |
| High | 5240 | 16.541 |
| Worst | | 16.576 |

10.3.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

| Channel | Frequency (MHz) | 99% Bandwidth (MHz) |
|---------|-----------------|---------------------|
| Low | 5180 | 17.751 |
| Mid | 5200 | 17.719 |
| High | 5240 | 17.730 |
| Worst | | 17.751 |

10.3.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

| Channel | Frequency (MHz) | 99% Bandwidth (MHz) |
|---------|-----------------|---------------------|
| Low | 5190 | 36.239 |
| Mid | 5230 | 36.306 |
| Worst | | 36.306 |

10.3.4. 802.11a MODE IN THE 5.8 GHz BAND

| Channel | Frequency (MHz) | 99% Bandwidth (MHz) |
|---------|-----------------|---------------------|
| Low | 5745 | 16.514 |
| Mid | 5785 | 16.529 |
| High | 5825 | 16.545 |
| Worst | | 16.545 |

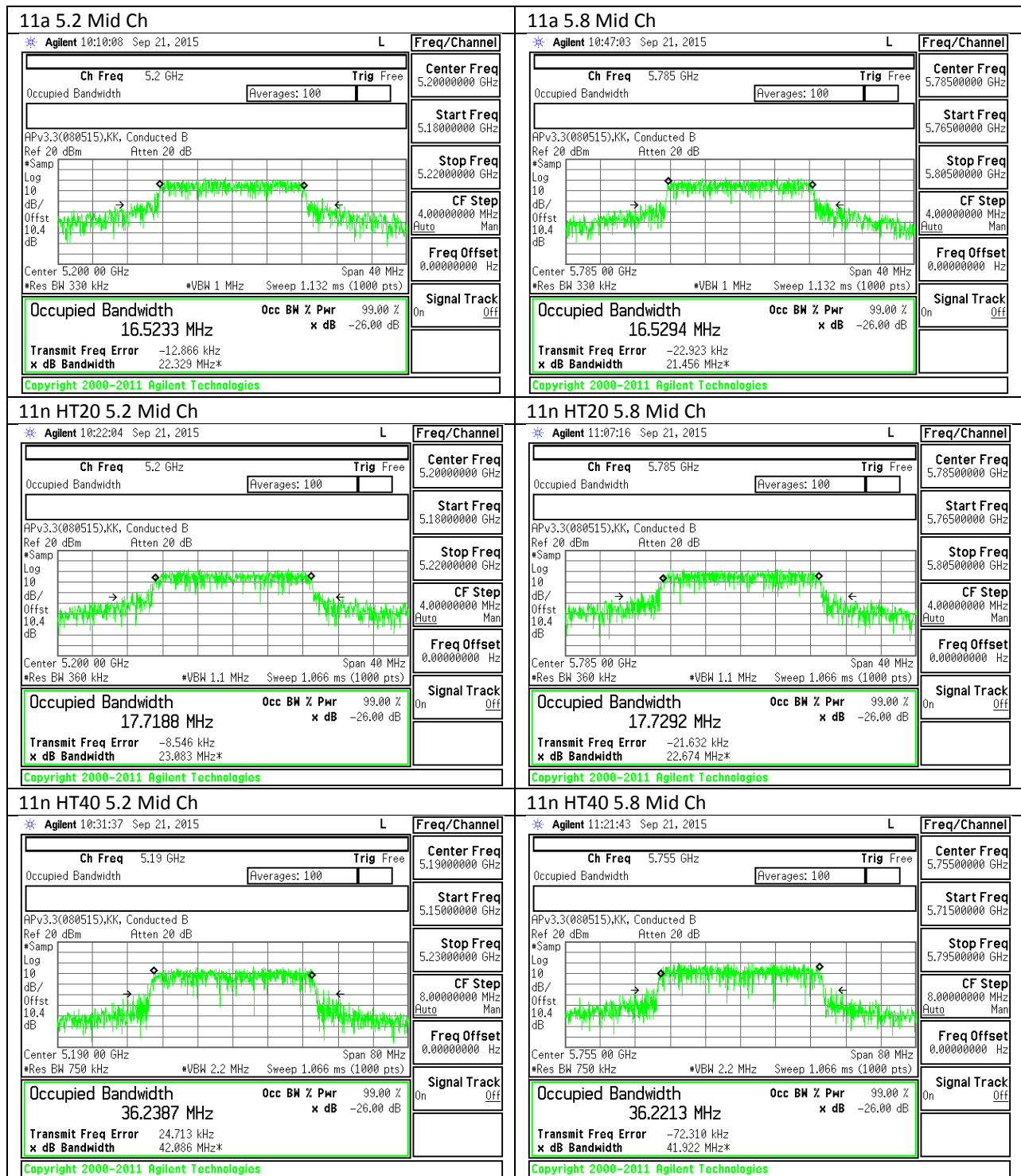
10.3.5. 802.11n HT20 MODE IN THE 5.8 GHz BAND

| Channel | Frequency (MHz) | 99% Bandwidth (MHz) |
|---------|-----------------|---------------------|
| Low | 5745 | 17.721 |
| Mid | 5785 | 17.729 |
| High | 5825 | 17.746 |
| Worst | | 17.746 |

10.3.6. 802.11n HT40 MODE IN THE 5.8 GHz BAND

| Channel | Frequency (MHz) | 99% Bandwidth (MHz) |
|---------|-----------------|---------------------|
| Low | 5755 | 36.221 |
| High | 5795 | 36.246 |
| Worst | | 36.246 |

10.3.7. 99% BANDWIDTH PLOTS



10.1. 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.

10.1.1. 802.11a MODE IN THE 5.2 GHz BAND

| Channel | Frequency (MHz) | Avg Power (dBm) |
|---------|-----------------|-----------------|
| Low | 5180 | 14.00 |
| Mid | 5200 | 14.00 |
| High | 5240 | 14.20 |
| Worst | | 14.20 |

10.1.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

| Channel | Frequency (MHz) | Avg Power (dBm) |
|---------|-----------------|-----------------|
| Low | 5180 | 13.00 |
| Mid | 5200 | 15.92 |
| High | 5240 | 15.92 |
| Worst | | 15.92 |

10.1.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

| Channel | Frequency (MHz) | Avg Power (dBm) |
|---------|-----------------|-----------------|
| Low | 5190 | 7.50 |
| Mid | 5230 | 14.00 |
| Worst | | 14.00 |

10.1.4. 802.11a MODE IN THE 5.8 GHz BAND

| Channel | Frequency (MHz) | Avg Power (dBm) |
|---------|-----------------|-----------------|
| Low | 5745 | 12.35 |
| Mid | 5785 | 13.00 |
| High | 5825 | 13.00 |
| Worst | | 13.00 |

10.1.5. 802.11n HT20 MODE IN THE 5.8 GHz BAND

| Channel | Frequency (MHz) | Avg Power (dBm) |
|---------|-----------------|-----------------|
| Low | 5745 | 12.00 |
| Mid | 5785 | 16.00 |
| High | 5825 | 16.00 |
| Worst | | 16.00 |

10.1.1. 802.11n HT40 MODE IN THE 5.8 GHz BAND

| Channel | Frequency (MHz) | Avg Power (dBm) |
|---------|-----------------|-----------------|
| Low | 5755 | 9.00 |
| High | 5795 | 14.00 |
| Worst | | 14.00 |

10.2. OUTPUT POWER AND PPSD

LIMITS

FCC §15.407 (a) (1) (2) (3)

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 250 mW or $11 \text{ dBm} + 10 \log B$, 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.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band.

DIRECTIONAL ANTENNA GAIN

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

RESULTS

10.2.1. 802.11a MODE IN THE 5.2 GHz BAND

Bandwidth and Antenna Gain

| Channel | Frequency (MHz) | Min 26 dB BW (MHz) | Min 99% BW (MHz) | Directional Gain (dBi) |
|---------|--------------------|-----------------------------|---------------------------|------------------------------|
| Low | 5180 | 26.28 | 16.576 | 3.29 |
| Mid | 5200 | 23.21 | 16.523 | 3.29 |
| High | 5240 | 25.47 | 16.541 | 3.29 |

Limits

| Channel | Frequency (MHz) | FCC Power Limit (dBm) | IC EIRP Limit (dBm) | Max IC Power (dBm) | Power Limit (dBm) | FCC PPSD Limit (dBm) | IC eirp PSD Limit (dBm) | PPSD Limit (dBm) |
|---------|--------------------|--------------------------------|------------------------------|-----------------------------|-------------------------|-------------------------------|-------------------------------------|------------------------|
| Low | 5180 | 24.00 | 22.19 | 18.90 | 24.00 | 11.00 | 10.00 | 11.00 |
| Mid | 5200 | 24.00 | 22.18 | 18.89 | 24.00 | 11.00 | 10.00 | 11.00 |
| High | 5240 | 24.00 | 22.19 | 18.90 | 24.00 | 11.00 | 10.00 | 11.00 |

| | | |
|---------------------------|------|--|
| Duty Cycle CF (dB) | 0.00 | Included in Calculations of Corr'd Power & PPSD |
|---------------------------|------|--|

Output Power Results

| Channel | Frequency (MHz) | Chain 1 Meas Power (dBm) | Total Corr'd Power (dBm) | Power Limit (dBm) | Power Margin (dB) |
|---------|--------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| Low | 5180 | 14.000 | 14.00 | 24.00 | -10.00 |
| Mid | 5200 | 14.000 | 14.00 | 24.00 | -10.00 |
| High | 5240 | 14.200 | 14.20 | 24.00 | -9.80 |

PPSD Results

| Channel | Frequency (MHz) | Chain 1 Meas PPSD (dBm) | Total Corr'd PPSD (dBm) | PPSD Limit (dBm) | PPSD Margin (dB) |
|---------|--------------------|----------------------------------|----------------------------------|------------------------|------------------------|
| Low | 5180 | 2.855 | 2.86 | 11.00 | -8.15 |
| Mid | 5200 | 1.983 | 1.98 | 11.00 | -9.02 |
| High | 5240 | 2.880 | 2.88 | 11.00 | -8.12 |

10.2.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

Bandwidth and Antenna Gain

| Channel | Frequency (MHz) | Min 26 dB BW (MHz) | Min 99% BW (MHz) | Directional Gain (dBi) |
|---------|--------------------|-----------------------------|---------------------------|------------------------------|
| Low | 5180 | 25.27 | 17.751 | 3.29 |
| Mid | 5200 | 25.23 | 17.719 | 3.29 |
| High | 5240 | 24.93 | 17.730 | 3.29 |

Limits

| Channel | Frequency (MHz) | FCC Power Limit (dBm) | IC EIRP Limit (dBm) | Max IC Power (dBm) | Power Limit (dBm) | FCC PPSD Limit (dBm) | IC eirp PSD Limit (dBm) | PPSD Limit (dBm) |
|---------|--------------------|--------------------------------|------------------------------|-----------------------------|-------------------------|-------------------------------|-------------------------------------|------------------------|
| Low | 5180 | 24.00 | 22.49 | 19.20 | 24.00 | 11.00 | 10.00 | 11.00 |
| Mid | 5200 | 24.00 | 22.48 | 19.19 | 24.00 | 11.00 | 10.00 | 11.00 |
| High | 5240 | 24.00 | 22.49 | 19.20 | 24.00 | 11.00 | 10.00 | 11.00 |

| | | |
|---------------------------|------|--|
| Duty Cycle CF (dB) | 0.00 | Included in Calculations of Corr'd Power & PPSD |
|---------------------------|------|--|

Output Power Results

| Channel | Frequency (MHz) | Chain 1 Meas Power (dBm) | Total Corr'd Power (dBm) | Power Limit (dBm) | Power Margin (dB) |
|---------|--------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| Low | 5180 | 13.000 | 13.00 | 24.00 | -11.00 |
| Mid | 5200 | 15.920 | 15.92 | 24.00 | -8.08 |
| High | 5240 | 15.920 | 15.92 | 24.00 | -8.08 |

PPSD Results

| Channel | Frequency (MHz) | Chain 1 Meas PPSD (dBm) | Total Corr'd PPSD (dBm) | PPSD Limit (dBm) | PPSD Margin (dB) |
|---------|--------------------|----------------------------------|----------------------------------|------------------------|------------------------|
| Low | 5180 | 0.578 | 0.58 | 11.00 | -10.42 |
| Mid | 5200 | 3.231 | 3.23 | 11.00 | -7.77 |
| High | 5240 | 3.622 | 3.62 | 11.00 | -7.38 |

10.2.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

Bandwidth and Antenna Gain

| Channel | Frequency (MHz) | Min 26 dB BW (MHz) | Min 99% BW (MHz) | Directional Gain (dBi) |
|---------|--------------------|-----------------------------|---------------------------|------------------------------|
| Low | 5190 | 46.93 | 36.24 | 3.29 |
| High | 5230 | 48.77 | 36.31 | 3.29 |

Limits

| Channel | Frequency (MHz) | FCC Power Limit (dBm) | IC Power Limit (dBm) | IC EIRP Limit (dBm) | Power Limit (dBm) | FCC PPSD Limit (dBm) | IC PSD Limit (dBm) | PPSD Limit (dBm) |
|---------|--------------------|--------------------------------|-------------------------------|------------------------------|-------------------------|-------------------------------|-----------------------------|------------------------|
| Low | 5190 | 24.00 | 23.00 | 23.00 | 24.00 | 11.00 | 10.00 | 11.00 |
| High | 5230 | 24.00 | 23.00 | 23.00 | 24.00 | 11.00 | 10.00 | 11.00 |

| | | |
|---------------------------|------|---|
| Duty Cycle CF (dB) | 0.00 | Included in Calculations of Corr'd Power & PSD |
|---------------------------|------|---|

Output Power Results

| Channel | Frequency (MHz) | Chain 1 Meas Power (dBm) | Total Corr'd Power (dBm) | Power Limit (dBm) | Power Margin (dB) |
|---------|--------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| Low | 5190 | 7.50 | 7.50 | 24.00 | -16.50 |
| High | 5230 | 14.00 | 14.00 | 24.00 | -10.00 |

PPSD Results

| Channel | Frequency (MHz) | Chain 1 Meas PPSD (dBm) | Total Corr'd PPSD (dBm) | PPSD Limit (dBm) | PPSD Margin (dB) |
|---------|--------------------|----------------------------------|----------------------------------|------------------------|------------------------|
| Low | 5190 | -8.47 | -8.47 | 11.00 | -19.47 |
| High | 5230 | 0.04 | 0.04 | 11.00 | -10.96 |

10.2.4. 802.11a MODE IN THE 5.8 GHz BAND

Bandwidth and Antenna Gain

| Channel | Frequency (MHz) | Min 6 dB BW (MHz) | Min 99% BW (MHz) | Directional Gain (dBi) |
|---------|--------------------|----------------------------|---------------------------|------------------------------|
| Low | 5745 | 16.58 | 16.514 | 3.29 |
| Mid | 5785 | 16.53 | 16.529 | 3.29 |
| High | 5825 | 16.50 | 16.545 | 3.29 |

Limits

| Channel | Frequency (MHz) | FCC Power Limit (dBm) | IC Power Limit (dBm) | IC EIRP Limit (dBm) | Power Limit (dBm) | FCC PPSD Limit (dBm) | IC PSD Limit (dBm) | PPSD Limit (dBm) |
|---------|--------------------|--------------------------------|-------------------------------|------------------------------|-------------------------|-------------------------------|-----------------------------|------------------------|
| Low | 5745 | 29.19 | 29.18 | 35.18 | 30.00 | 30.00 | 17.00 | 30.00 |
| Mid | 5785 | 29.18 | 29.18 | 35.18 | 30.00 | 30.00 | 17.00 | 30.00 |
| High | 5825 | 29.17 | 29.19 | 35.19 | 30.00 | 30.00 | 17.00 | 30.00 |

| | | |
|---------------------------|------|---|
| Duty Cycle CF (dB) | 0.00 | Included in Calculations of Corr'd Power & PSD |
|---------------------------|------|---|

Output Power Results

| Channel | Frequency (MHz) | Chain 1 Meas Power (dBm) | Total Corr'd Power (dBm) | Power Limit (dBm) | Power Margin (dB) |
|---------|--------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| Low | 5745 | 12.35 | 12.35 | 30.00 | -17.65 |
| Mid | 5785 | 13.00 | 13.00 | 30.00 | -17.00 |
| High | 5825 | 13.00 | 13.00 | 30.00 | -17.00 |

PPSD Results

| Channel | Frequency (MHz) | Chain 1 Meas PPSD (dBm) | Total Corr'd PPSD (dBm) | PPSD Limit (dBm) | PPSD Margin (dB) |
|---------|--------------------|----------------------------------|----------------------------------|------------------------|------------------------|
| Low | 5745 | -2.65 | -2.65 | 30.00 | -32.65 |
| Mid | 5785 | -0.97 | -0.97 | 30.00 | -30.97 |
| High | 5825 | -1.33 | -1.33 | 30.00 | -31.33 |

10.2.5. 802.11n HT20 MODE IN THE 5.8 GHz BAND

Bandwidth and Antenna Gain

| Channel | Frequency (MHz) | Min 6 dB BW (MHz) | Min 99% BW (MHz) | Directional Gain (dBi) |
|---------|--------------------|----------------------------|---------------------------|------------------------------|
| Low | 5745 | 17.71 | 17.721 | 3.29 |
| Mid | 5785 | 17.66 | 17.729 | 3.29 |
| High | 5825 | 17.69 | 17.746 | 3.29 |

Limits

| Channel | Frequency (MHz) | FCC Power Limit (dBm) | IC Power Limit (dBm) | IC EIRP Limit (dBm) | Power Limit (dBm) | FCC PPSD Limit (dBm) | IC PSD Limit (dBm) | PPSD Limit (dBm) |
|---------|--------------------|--------------------------------|-------------------------------|------------------------------|-------------------------|-------------------------------|-----------------------------|------------------------|
| Low | 5745 | 29.48 | 29.48 | 35.48 | 30.00 | 30.00 | 17.00 | 30.00 |
| Mid | 5785 | 29.47 | 29.49 | 35.49 | 30.00 | 30.00 | 17.00 | 30.00 |
| High | 5825 | 29.48 | 29.49 | 35.49 | 30.00 | 30.00 | 17.00 | 30.00 |

| | | |
|---------------------------|------|---|
| Duty Cycle CF (dB) | 0.00 | Included in Calculations of Corr'd Power & PSD |
|---------------------------|------|---|

Output Power Results

| Channel | Frequency (MHz) | Chain 1 Meas Power (dBm) | Total Corr'd Power (dBm) | Power Limit (dBm) | Power Margin (dB) |
|---------|--------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| Low | 5745 | 12.00 | 12.00 | 30.00 | -18.00 |
| Mid | 5785 | 16.00 | 16.00 | 30.00 | -14.00 |
| High | 5825 | 16.00 | 16.00 | 30.00 | -14.00 |

PPSD Results

| Channel | Frequency (MHz) | Chain 1 Meas PPSD (dBm) | Total Corr'd PPSD (dBm) | PPSD Limit (dBm) | PPSD Margin (dB) |
|---------|--------------------|----------------------------------|----------------------------------|------------------------|------------------------|
| Low | 5745 | -2.49 | -2.49 | 30.00 | -32.49 |
| Mid | 5785 | 0.88 | 0.88 | 30.00 | -29.12 |
| High | 5825 | 1.84 | 1.84 | 30.00 | -28.17 |

10.2.6. 802.11n HT40 MODE IN THE 5.8 GHz BAND

Bandwidth and Antenna Gain

| Channel | Frequency (MHz) | Min 26 dB BW (MHz) | Min 99% BW (MHz) | Directional Gain (dBi) |
|---------|--------------------|-----------------------------|---------------------------|------------------------------|
| Low | 5755 | 36.41 | 36.221 | 3.29 |
| High | 5795 | 36.47 | 36.246 | 3.29 |

Limits

| Channel | Frequency (MHz) | FCC Power Limit (dBm) | IC Power Limit (dBm) | IC EIRP Limit (dBm) | Power Limit (dBm) | FCC PPSD Limit (dBm) | IC PSD Limit (dBm) | PPSD Limit (dBm) |
|---------|--------------------|--------------------------------|-------------------------------|------------------------------|-------------------------|-------------------------------|-----------------------------|------------------------|
| Low | 5755 | 30.00 | 30.00 | 36.00 | 30.00 | 30.00 | 17.00 | 30.00 |
| High | 5795 | 30.00 | 30.00 | 36.00 | 30.00 | 30.00 | 17.00 | 30.00 |

| | | |
|---------------------------|------|---|
| Duty Cycle CF (dB) | 0.00 | Included in Calculations of Corr'd Power & PSD |
|---------------------------|------|---|

Output Power Results

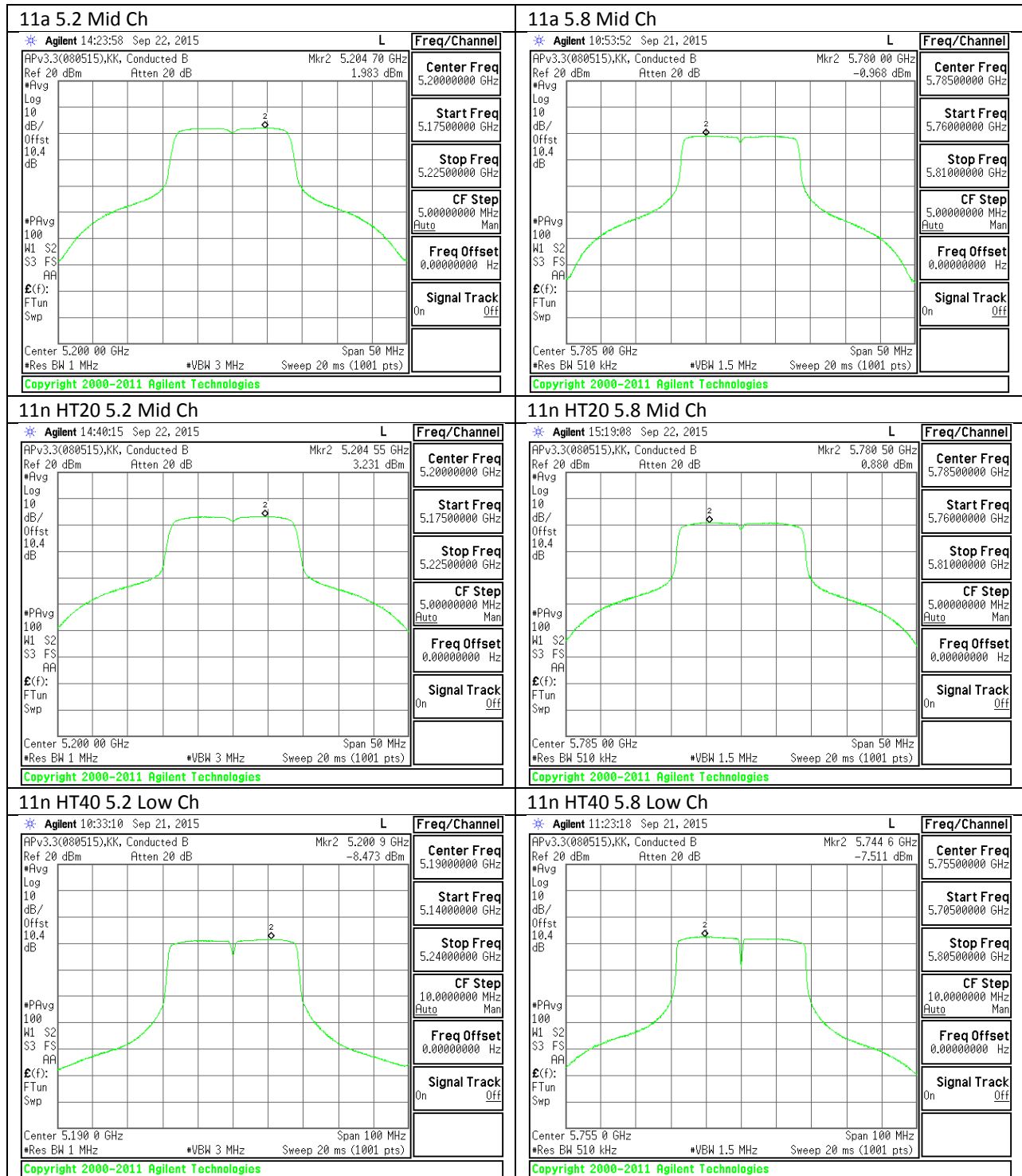
| Channel | Frequency (MHz) | Chain 1 Meas Power (dBm) | Total Corr'd Power (dBm) | Power Limit (dBm) | Power Margin (dB) |
|---------|--------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| Low | 5755 | 9.00 | 9.00 | 30.00 | -21.00 |
| High | 5795 | 14.00 | 14.00 | 30.00 | -16.00 |

PPSD Results

| Channel | Frequency (MHz) | Chain 1 Meas PPSD (dBm) | Total Corr'd PPSD (dBm) | PPSD Limit (dBm) | PPSD Margin (dB) |
|---------|--------------------|----------------------------------|----------------------------------|------------------------|------------------------|
| Low | 5755 | -7.51 | -7.51 | 30.00 | -37.51 |
| High | 5795 | -3.13 | -3.13 | 30.00 | -33.13 |

10.2.7. OUTPUT POWER AND PPSD PLOTS, Chain 1

PSD



11. ANTENNA PORT TEST RESULTS MIMO

11.1. 6 dB BANDWIDTH

LIMITS

FCC §15.407

The minimum 6 dB bandwidth shall be at least 500 kHz.

TEST PROCEDURE

Reference to 789033 D02 General UNII Test Procedures New Rules v01: The transmitter output is connected to a spectrum analyzer with the RBW set to 100kHz, the VBW $\geq 3 \times$ RBW, peak detector and max hold.

RESULTS**11.1.1. 802.11n HT20 MODE IN THE 5.8 GHz BAND**

| Channel | Frequency (MHz) | 6 dB Bandwidth CHAIN 0(MHz) | 6 dB Bandwidth CHAIN 1(MHz) | Minimum Limit (MHz) |
|---------|-----------------|-----------------------------|-----------------------------|---------------------|
| Low | 5745 | 17.69 | 17.71 | 0.5 |
| Mid | 5785 | 17.66 | 17.74 | 0.5 |
| High | 5825 | 17.71 | 17.77 | 0.5 |
| Worst | | 17.66 | 17.71 | |

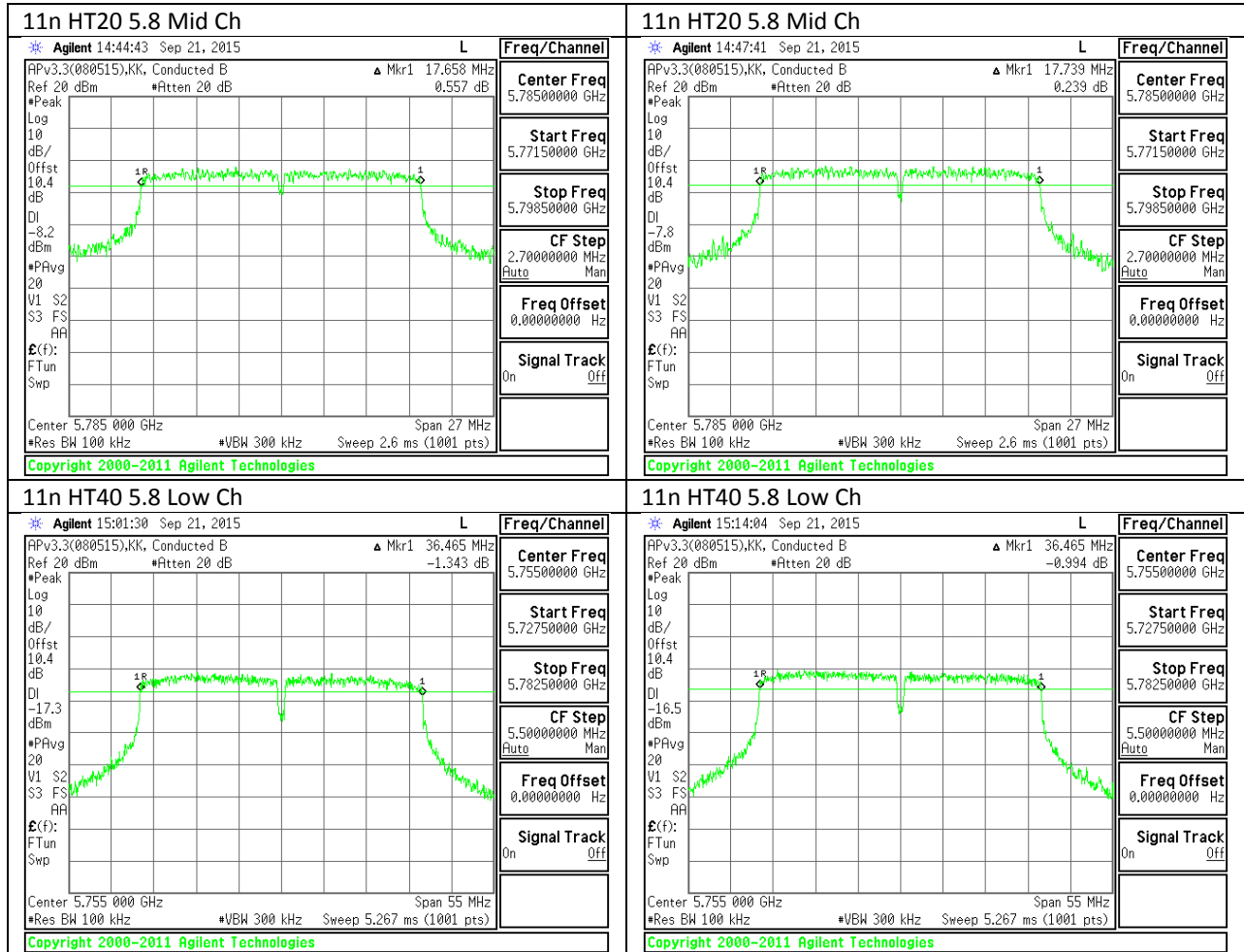
11.1.2. 802.11n HT40 MODE IN THE 5.8 GHz BAND

| Channel | Frequency (MHz) | 6 dB Bandwidth CHAIN 0(MHz) | 6 dB Bandwidth CHAIN 1(MHz) | Minimum Limit (MHz) |
|---------|-----------------|-----------------------------|-----------------------------|---------------------|
| Low | 5755 | 36.47 | 36.47 | 0.5 |
| High | 5795 | 36.41 | 36.52 | 0.5 |
| Worst | | 36.41 | 36.47 | 0.5 |

11.1.3. 6 dB BANDWIDTH MID CH PLOTS

CHAIN 0

CHAIN 1



11.2. 26 dB BANDWIDTH**LIMITS**

None; for reporting purposes only.

RESULTS**11.2.1. 802.11n HT20 MODE IN THE 5.2 GHz BAND**

| Channel | Frequency (MHz) | 26 dB BW Chain 0 (MHz) | 26 dB BW Chain 1 (MHz) |
|---------|--------------------|------------------------------|------------------------------|
| Low | 5180 | 24.9 | 24.0 |
| Mid | 5200 | 24.1 | 24.6 |
| High | 5240 | 23.4 | 23.7 |

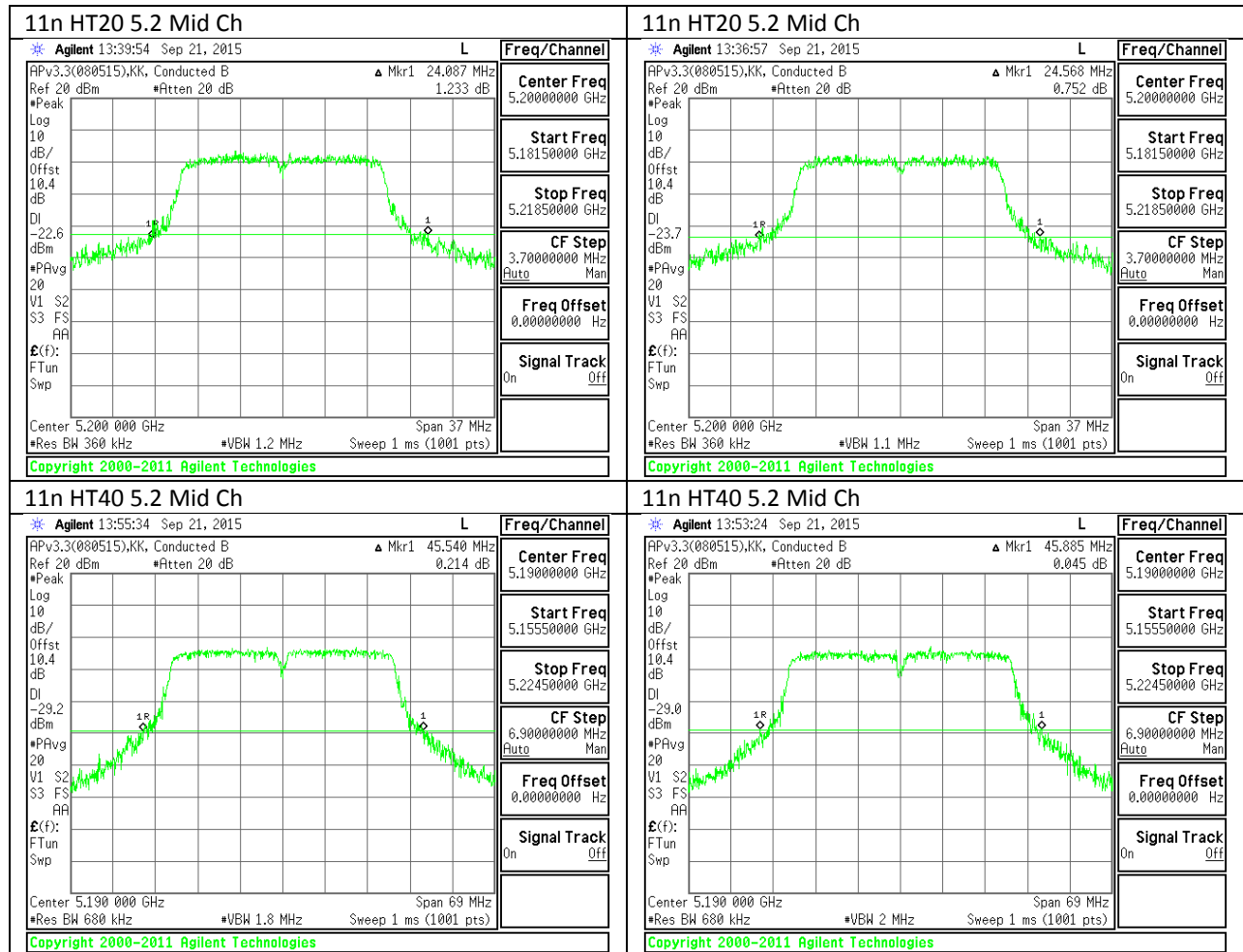
11.2.2. 802.11n HT40 MODE IN THE 5.2 GHz BAND

| Channel | Frequency (MHz) | 26 dB BW Chain 0 (MHz) | 26 dB BW Chain 1 (MHz) |
|---------|--------------------|------------------------------|------------------------------|
| Low | 5190 | 45.5 | 45.9 |
| High | 5230 | 47.0 | 47.4 |

11.2.1. 26 dB BANDWIDTH PLOTS

CHAIN 0

CHAIN 1



11.3. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

RESULTS

11.3.1. 802.11n HT20 MODE IN THE 5.2 GHz BAND

| Channel | Frequency (MHz) | 99% BW Chain 0 (MHz) | 99% BW Chain 1 (MHz) |
|---------|--------------------|----------------------------|----------------------------|
| Low | 5180 | 17.7 | 17.7 |
| Mid | 5200 | 17.7 | 17.7 |
| High | 5240 | 17.7 | 17.7 |

11.3.2. 802.11n HT40 MODE IN THE 5.2 GHz BAND

| Channel | Frequency (MHz) | 99% BW Chain 0 (MHz) | 99% BW Chain 1 (MHz) |
|---------|--------------------|----------------------------|----------------------------|
| Low | 5190 | 36.2 | 36.2 |
| High | 5230 | 36.3 | 36.3 |

11.3.1. 802.11n HT20 MODE IN THE 5.8 GHz BAND

| Channel | Frequency (MHz) | 99% BW Chain 0 (MHz) | 99% BW Chain 1 (MHz) |
|---------|--------------------|----------------------------|----------------------------|
| Low | 5745 | 17.7 | 17.7 |
| Mid | 5785 | 17.8 | 17.7 |
| High | 5825 | 17.8 | 17.7 |

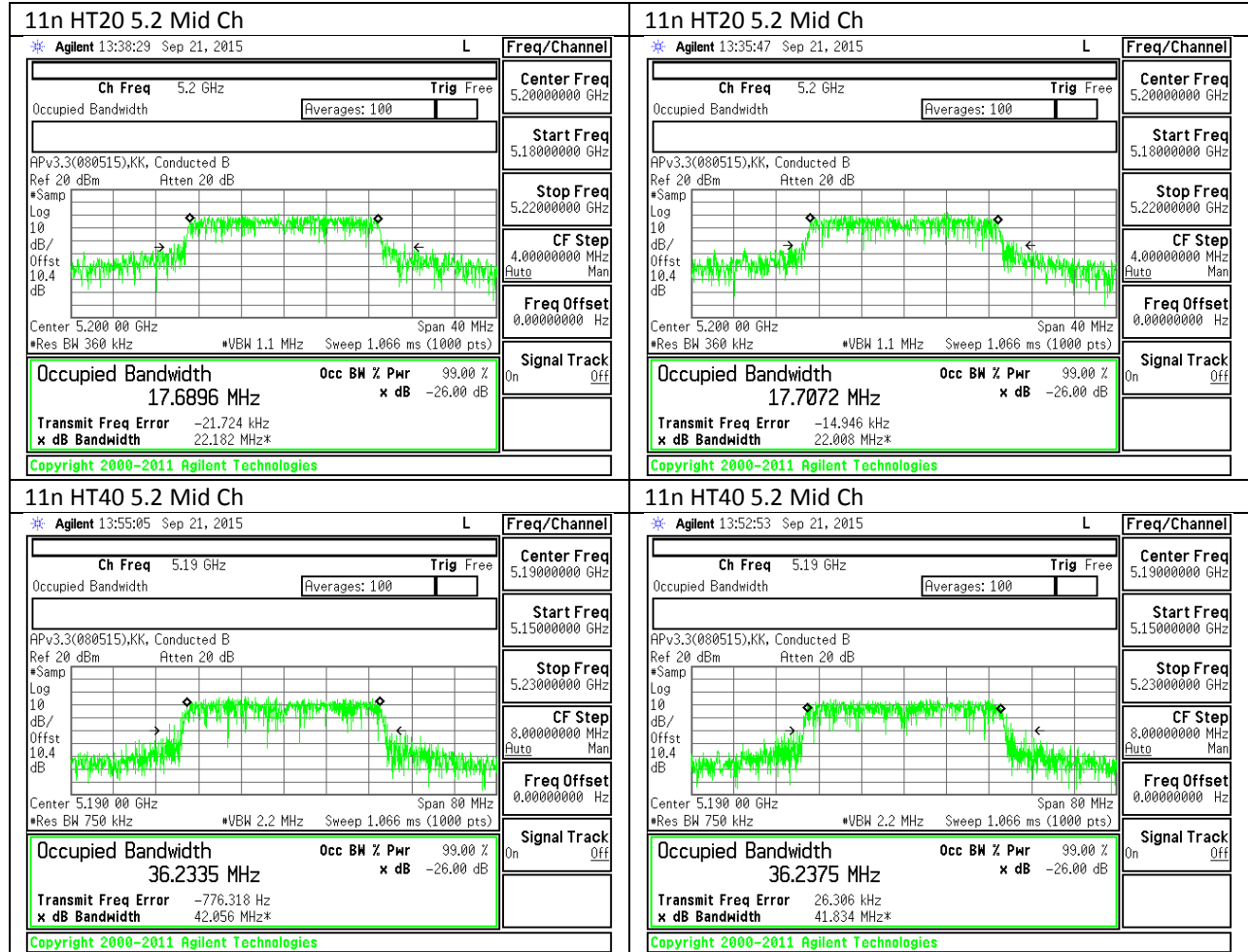
11.3.2. 802.11n HT40 MODE IN THE 5.8 GHz BAND

| Channel | Frequency (MHz) | 99% BW Chain 0 (MHz) | 99% BW Chain 1 (MHz) |
|---------|--------------------|----------------------------|----------------------------|
| Low | 5755 | 36.2 | 36.2 |
| High | 5795 | 36.2 | 36.2 |

11.3.1. 99% BANDWIDTH PLOTS

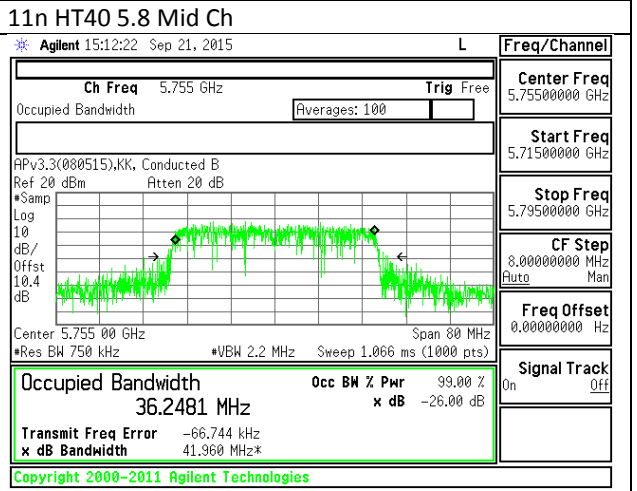
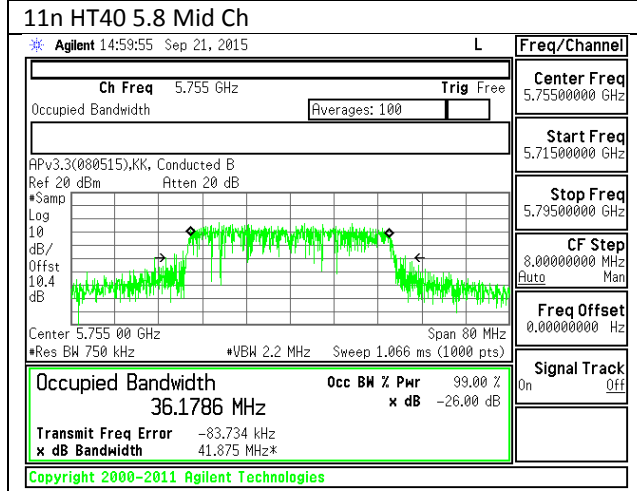
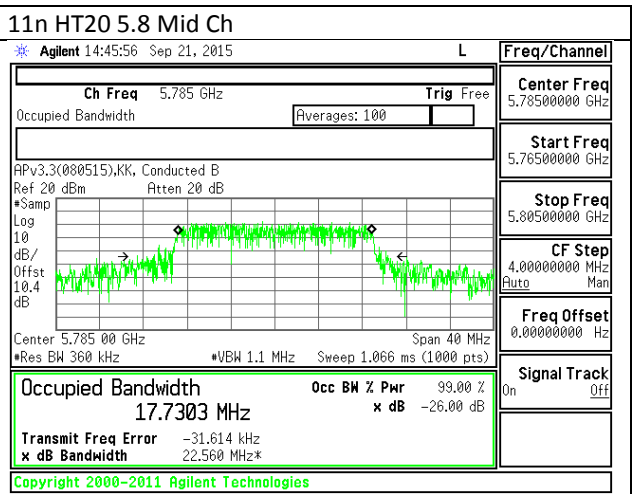
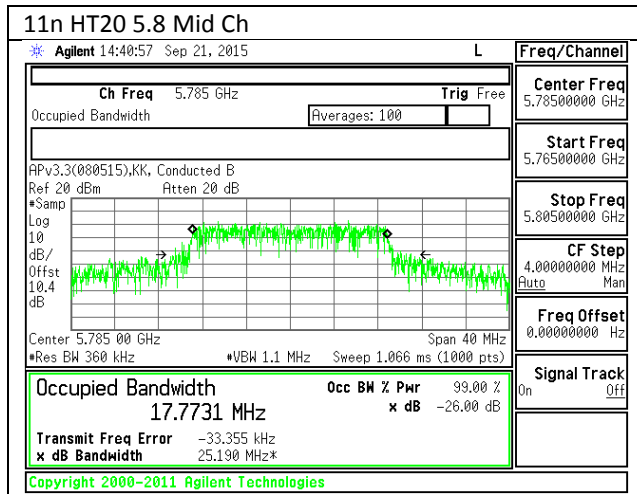
CHAIN 0

CHAIN 1



CHAIN 0

CHAIN 1



11.4. 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**11.4.1. 802.11n HT20 MODE IN THE 5.2 GHz BAND****Average Power Results**

| Channel | Frequency (MHz) | Chain 0 Power (dBm) | Chain 1 Power (dBm) | Total Power (dBm) |
|---------|--------------------|---------------------------|---------------------------|-------------------------|
| Low | 5180 | 13.11 | 13.01 | 16.07 |
| Mid | 5200 | 15.12 | 15.10 | 18.12 |
| High | 5240 | 15.15 | 15.12 | 18.15 |

11.4.2. 802.11n HT40 MODE IN THE 5.2 GHz BAND**Average Power Results**

| Channel | Frequency (MHz) | Chain 0 Power (dBm) | Chain 1 Power (dBm) | Total Power (dBm) |
|---------|--------------------|---------------------------|---------------------------|-------------------------|
| Low | 5190 | 8.00 | 7.67 | 10.85 |
| High | 5230 | 13.83 | 14.00 | 16.93 |

11.4.3. 802.11n HT20 MODE IN THE 5.8 GHz BAND

Average Power Results

| Channel | Frequency (MHz) | Chain 0 Power (dBm) | Chain 1 Power (dBm) | Total Power (dBm) |
|---------|-----------------|---------------------|---------------------|-------------------|
| Low | 5745 | 11.75 | 11.81 | 14.79 |
| Mid | 5785 | 15.65 | 16.82 | 19.28 |
| High | 5825 | 15.61 | 16.45 | 19.06 |

11.4.4. 802.11n HT40 MODE IN THE 5.8 GHz BAND

Average Power Results

| Channel | Frequency (MHz) | Chain 0 Power (dBm) | Chain 1 Power (dBm) | Total Power (dBm) |
|---------|-----------------|---------------------|---------------------|-------------------|
| Low | 5755 | 8.25 | 8.50 | 11.39 |
| High | 5795 | 14.00 | 14.11 | 17.07 |

11.5. OUTPUT POWER AND PPSD

LIMITS

FCC §15.407 (a) (1) (2) (3)

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 250 mW or $11 \text{ dBm} + 10 \log B$, 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.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band.

DIRECTIONAL ANTENNA GAIN

For POWER, The TX chains are uncorrelated and the antenna gain is unequal among the chains. The directional gain is:

| Chain 0 Antenna Gain (dBi) | Chain 1 Antenna Gain (dBi) | Uncorrelated Chains Directional Gain (dBi) |
|---|---|---|
| 3.52 | 3.29 | 3.41 |

For PSD, The TX chains are correlated and the antenna gain is the same for each chain. The directional gain is:

| Chain 0 Antenna Gain (dBi) | Chain 1 Antenna Gain (dBi) | Correlated Chains Directional Gain (dBi) |
|---|---|---|
| 3.52 | 3.29 | 6.42 |

11.5.1. 802.11n HT20 MODE IN THE 5.2 GHz BAND

Bandwidth and Antenna Gain

| Channel | Frequency (MHz) | Min 26 dB BW (MHz) | Min 99% BW (MHz) | Directional Gain for Power (dBi) | Directional Gain for PPSD (dBi) |
|---------|--------------------|-----------------------------|---------------------------|---|--|
| Low | 5180 | 24.85 | 17.7436 | 3.41 | 6.42 |
| Mid | 5200 | 24.57 | 17.7072 | 3.41 | 6.42 |
| High | 5240 | 23.69 | 17.7233 | 3.41 | 6.42 |

Limits

| Channel | Frequency (MHz) | FCC Power Limit (dBm) | IC EIRP Limit (dBm) | Max IC Power (dBm) | Power Limit (dBm) | FCC PPSD Limit (dBm) | IC eirp PSD Limit (dBm) | PPSD Limit (dBm) |
|---------|--------------------|--------------------------------|------------------------------|-----------------------------|-------------------------|-------------------------------|-------------------------------------|------------------------|
| Low | 5180 | 24.00 | 22.49 | 24.00 | 24.00 | 10.58 | 10.00 | 10.00 |
| Mid | 5200 | 24.00 | 22.48 | 24.00 | 24.00 | 10.58 | 10.00 | 10.00 |
| High | 5240 | 24.00 | 22.49 | 24.00 | 24.00 | 10.58 | 10.00 | 10.00 |

| | | |
|---------------------------|------|--|
| Duty Cycle CF (dB) | 0.00 | Included in Calculations of Corr'd Power & PPSD |
|---------------------------|------|--|

Output Power Results

| Channel | Frequency (MHz) | Chain 0 Meas Power (dBm) | Chain 1 Meas Power (dBm) | Total Corr'd Power (dBm) | Power Limit (dBm) | Power Margin (dB) |
|---------|--------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| Low | 5180 | 13.11 | 13.01 | 16.07 | 24.00 | -7.93 |
| Mid | 5200 | 15.12 | 15.10 | 18.12 | 24.00 | -5.88 |
| High | 5240 | 15.25 | 15.12 | 18.20 | 24.00 | -5.80 |

PPSD Results

| Channel | Frequency (MHz) | Chain 0 Meas PPSD (dBm) | Chain 1 Meas PPSD (dBm) | Total Corr'd PPSD (dBm) | PPSD Limit (dBm) | PPSD Margin (dB) |
|---------|--------------------|----------------------------------|----------------------------------|----------------------------------|------------------------|------------------------|
| Low | 5180 | -0.37 | -0.82 | 2.42 | 10.58 | -8.16 |
| Mid | 5200 | 1.50 | 1.77 | 4.65 | 10.58 | -5.93 |
| High | 5240 | 1.55 | 2.54 | 5.08 | 10.58 | -5.50 |

11.5.2. 802.11n HT40 MODE IN THE 5.2 GHz BAND

Bandwidth and Antenna Gain

| Channel | Frequency (MHz) | Min 26 dB BW (MHz) | Min 99% BW (MHz) | Directional Gain for Power (dBi) | Directional Gain for PSD (dBi) |
|---------|--------------------|-----------------------------|---------------------------|---|---|
| Low | 5190 | 45.54 | 45.8850 | 3.41 | 6.42 |
| High | 5230 | 47.00 | 47.4480 | 3.41 | 6.42 |

Limits

| Channel | Frequency (MHz) | FCC Power Limit (dBm) | IC EIRP Limit (dBm) | Max IC Power (dBm) | Power Limit (dBm) | FCC PPSD Limit (dBm) | IC eirp PSD Limit (dBm) | PPSD Limit (dBm) |
|---------|--------------------|--------------------------------|------------------------------|-----------------------------|-------------------------|-------------------------------|-------------------------------------|------------------------|
| Low | 5190 | 24.00 | 23.00 | 24.00 | 24.00 | 10.58 | 10.00 | 10.00 |
| High | 5230 | 24.00 | 23.00 | 24.00 | 24.00 | 10.58 | 10.00 | 10.00 |

| | | |
|---------------------------|------|---|
| Duty Cycle CF (dB) | 0.00 | Included in Calculations of Corr'd Power & PSD |
|---------------------------|------|---|

Output Power Results

| Channel | Frequency (MHz) | Chain 0 Meas Power (dBm) | Chain 1 Meas Power (dBm) | Total Corr'd Power (dBm) | Power Limit (dBm) | Power Margin (dB) |
|---------|--------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| Low | 5190 | 8.00 | 7.67 | 10.85 | 24.00 | -13.15 |
| High | 5230 | 13.83 | 14.00 | 16.93 | 24.00 | -7.07 |

PPSD Results

| Channel | Frequency (MHz) | Chain 0 Meas PPSD (dBm) | Chain 1 Meas PPSD (dBm) | Total Corr'd PPSD (dBm) | PPSD Limit (dBm) | PPSD Margin (dB) |
|---------|--------------------|----------------------------------|----------------------------------|----------------------------------|------------------------|------------------------|
| Low | 5190 | -8.42 | -8.70 | -5.55 | 10.58 | -16.13 |
| High | 5230 | -2.87 | -2.11 | 0.54 | 10.58 | -10.04 |

11.5.3. 802.11n HT20 MODE IN THE 5.8 GHz BAND

Bandwidth and Antenna Gain

| Channel | Frequency (MHz) | Min 6 dB BW (MHz) | Min 99% BW (MHz) | Directional Gain for Power (dBi) | Directional Gain for PPSD (dBi) |
|---------|-----------------|-------------------|------------------|----------------------------------|---------------------------------|
| Low | 5745 | 17.71 | 17.7023 | 3.41 | 6.42 |
| Mid | 5785 | 17.74 | 17.7731 | 3.41 | 6.42 |
| High | 5825 | 17.77 | 17.7509 | 3.41 | 6.42 |

Limits

| Channel | Frequency (MHz) | FCC Power Limit (dBm) | IC Power Limit (dBm) | IC EIRP Limit (dBm) | Power Limit (dBm) | FCC PPSD Limit (dBm) | IC PSD Limit (dBm) | PPSD Limit (dBm) |
|---------|-----------------|-----------------------|----------------------|---------------------|-------------------|----------------------|--------------------|------------------|
| Low | 5745 | 29.48 | 30.00 | 30.00 | 30.00 | 29.58 | 17.00 | 28.99 |
| Mid | 5785 | 29.49 | 30.00 | 30.00 | 30.00 | 29.58 | 17.00 | 28.99 |
| High | 5825 | 29.50 | 30.00 | 30.00 | 30.00 | 29.58 | 17.00 | 28.99 |

| | | |
|---------------------------|------|--|
| Duty Cycle CF (dB) | 0.00 | Included in Calculations of Corr'd Power & PPSD |
|---------------------------|------|--|

Output Power Results

| Channel | Frequency (MHz) | Chain 0 Meas Power (dBm) | Chain 1 Meas Power (dBm) | Total Corr'd Power (dBm) | Power Limit (dBm) | Power Margin (dB) |
|---------|-----------------|--------------------------|--------------------------|--------------------------|-------------------|-------------------|
| Low | 5745 | 11.75 | 11.81 | 14.79 | 30.00 | -15.21 |
| Mid | 5785 | 15.65 | 16.82 | 19.28 | 30.00 | -10.72 |
| High | 5825 | 15.61 | 16.45 | 19.06 | 30.00 | -10.94 |

PPSD Results

| Channel | Frequency (MHz) | Chain 0 Meas PPSD (dBm) | Chain 1 Meas PPSD (dBm) | Total Corr'd PPSD (dBm) | PPSD Limit (dBm) | PPSD Margin (dB) |
|---------|-----------------|-------------------------|-------------------------|-------------------------|------------------|------------------|
| Low | 5745 | -6.75 | -7.50 | -4.10 | 29.58 | -33.68 |
| Mid | 5785 | -1.48 | -0.28 | 2.17 | 29.58 | -27.41 |
| High | 5825 | -2.26 | -1.12 | 1.35 | 29.58 | -28.23 |

11.5.4. 802.11n HT40 MODE IN THE 5.8 GHz BAND

Bandwidth and Antenna Gain

| Channel | Frequency (MHz) | Min 6 dB BW (MHz) | Min 99% BW (MHz) | Directional Gain for Power (dBi) | Directional Gain for PPSD (dBi) |
|---------|--------------------|----------------------------|---------------------------|---|--|
| Low | 5755 | 36.5 | 36.2481 | 3.41 | 6.42 |
| High | 5795 | 36.5 | 36.2124 | 3.41 | 6.42 |

Limits

| Channel | Frequency (MHz) | FCC Power Limit (dBm) | IC Power Limit (dBm) | IC EIRP Limit (dBm) | Power Limit (dBm) | FCC PPSD Limit (dBm) | IC PSD Limit (dBm) | PPSD Limit (dBm) |
|---------|--------------------|--------------------------------|-------------------------------|------------------------------|-------------------------|-------------------------------|-----------------------------|------------------------|
| Low | 5755 | 30.00 | 30.00 | 30.00 | 30.00 | 29.58 | 17.00 | 28.99 |
| High | 5795 | 30.00 | 30.00 | 30.00 | 30.00 | 29.58 | 17.00 | 28.99 |

| | | |
|---------------------------|------|--|
| Duty Cycle CF (dB) | 0.00 | Included in Calculations of Corr'd Power & PPSD |
|---------------------------|------|--|

Output Power Results

| Channel | Frequency (MHz) | Chain 0 Meas Power (dBm) | Chain 1 Meas Power (dBm) | Total Corr'd Power (dBm) | Power Limit (dBm) | Power Margin (dB) |
|---------|--------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| Low | 5755 | 8.25 | 8.50 | 11.39 | 30.00 | -18.61 |
| High | 5795 | 14.00 | 14.11 | 17.07 | 30.00 | -12.93 |

PPSD Results

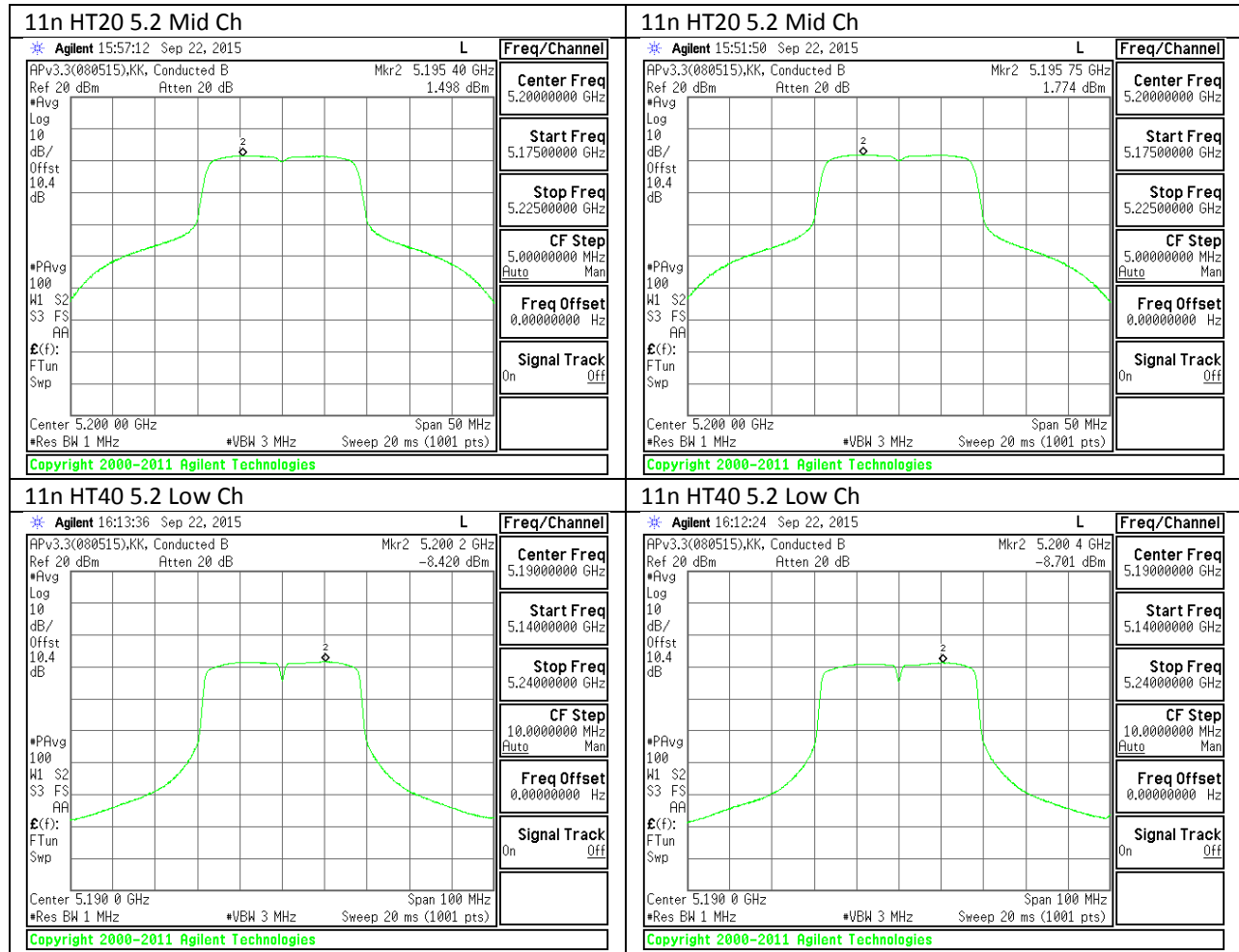
| Channel | Frequency (MHz) | Chain 0 Meas PPSD (dBm) | Chain 1 Meas PPSD (dBm) | Total Corr'd PPSD (dBm) | PPSD Limit (dBm) | PPSD Margin (dB) |
|---------|--------------------|----------------------------------|----------------------------------|----------------------------------|------------------------|------------------------|
| Low | 5755 | -12.46 | -12.00 | -9.22 | 29.58 | -38.80 |
| High | 5795 | -5.90 | -5.11 | -2.48 | 29.58 | -32.06 |

11.5.5. OUTPUT POWER AND PSD PLOTS

PSD PLOTS

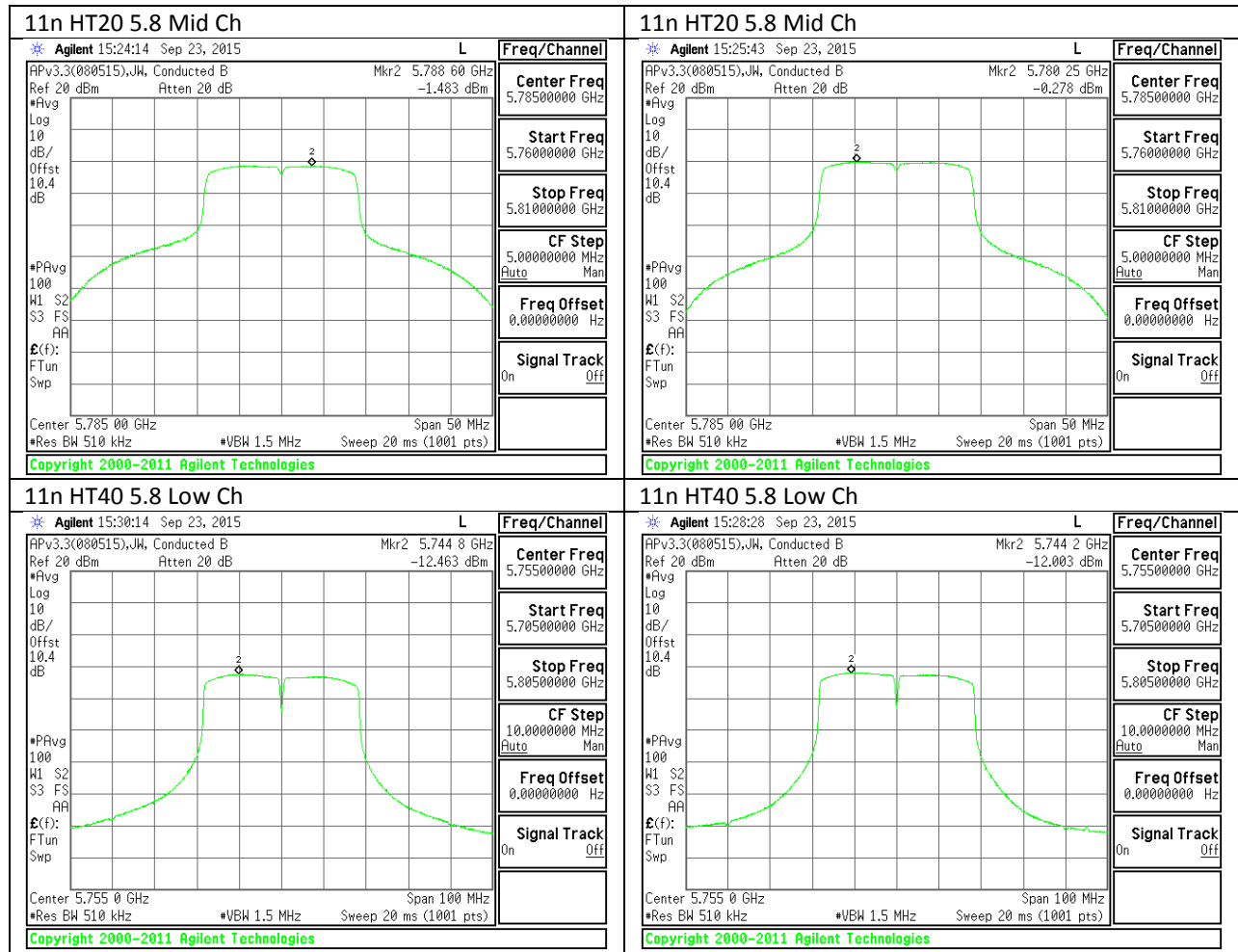
CHAIN 0

CHAIN 1



CHAIN 0

CHAIN 1



12. TRANSMITTER ABOVE 1 GHz SISO

LIMITS

FCC §15.205 and §15.209

| Frequency Range (MHz) | Field Strength Limit ($\mu\text{V}/\text{m}$) at 3 m | Field Strength Limit (dB $\mu\text{V}/\text{m}$) 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 for below 1GHz and 150cm for above 1GHz. 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 G) 6) d) Method AD:

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.

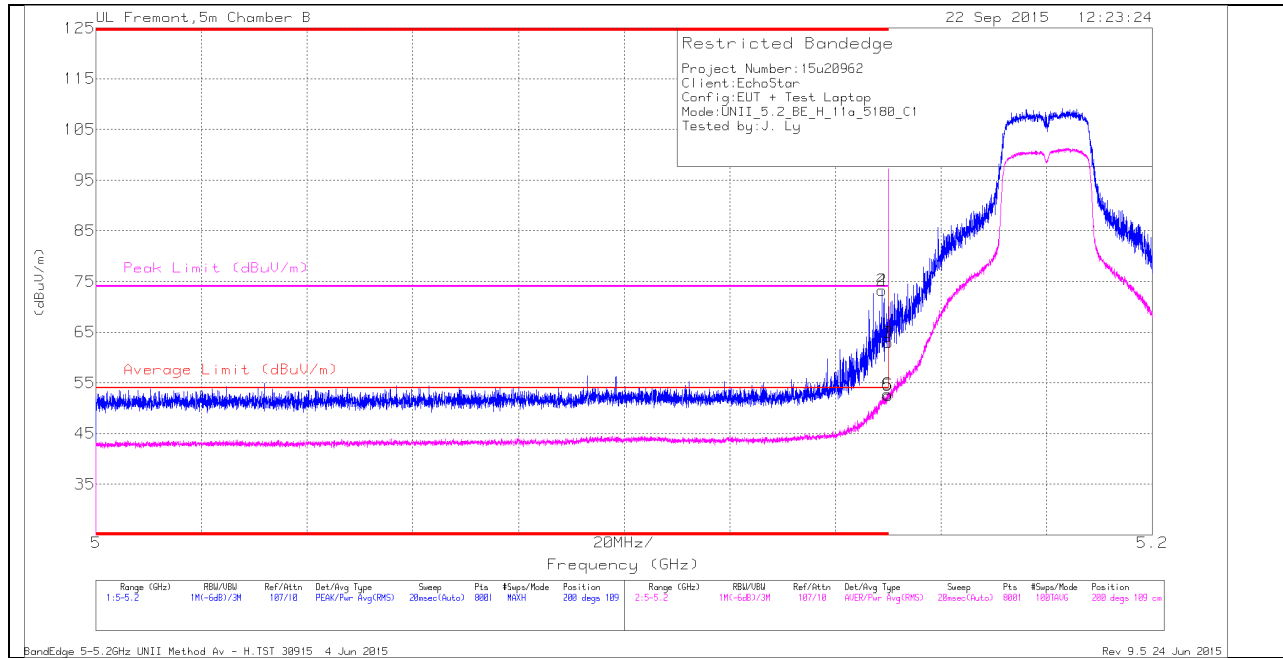
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized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

12.1. 5.2 GHz

12.1.1. TX ABOVE 1 GHz 802.11a MODE IN THE 5.2 GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT

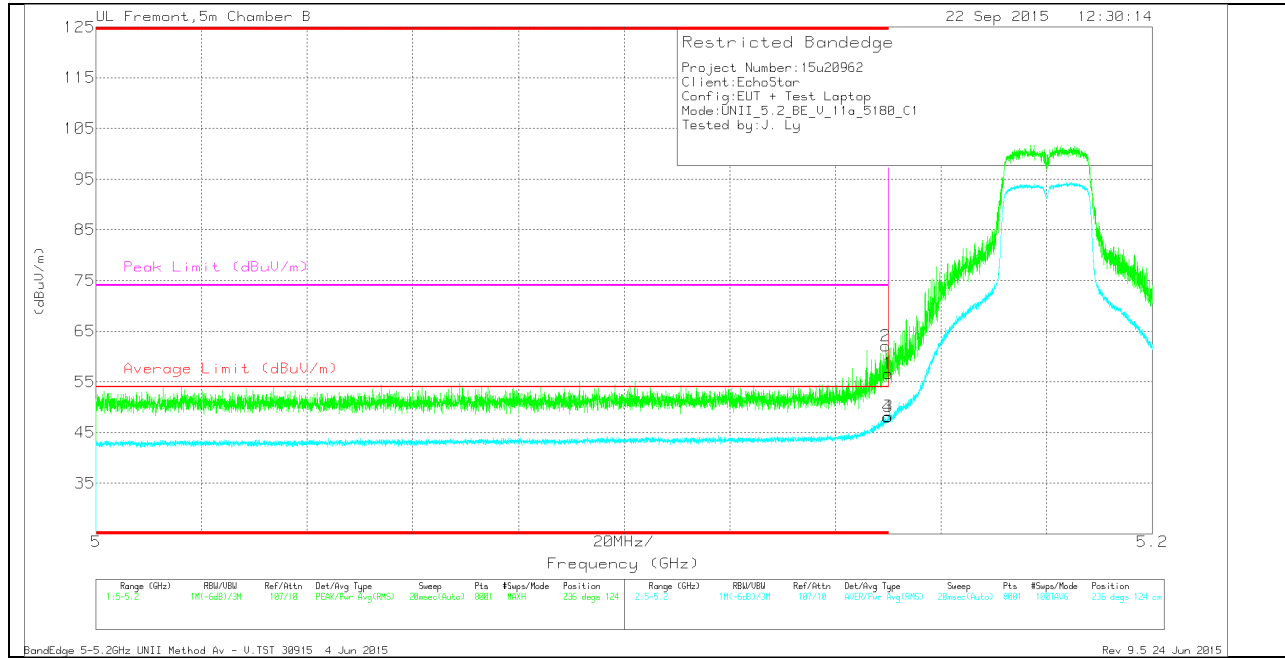


HORIZONTAL DATA

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (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 |
|--------|-----------------|----------------------|-----|----------------|----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 2 | * 5.149 | 61.12 | Pk | 34.1 | -22 | 73.22 | - | - | 74 | -.78 | 200 | 109 | H |
| 4 | * 5.149 | 61.12 | Pk | 34.1 | -22 | 73.22 | - | - | 74 | -.78 | 200 | 109 | H |
| 1 | * 5.15 | 50.85 | Pk | 34.1 | -22 | 62.95 | - | - | 74 | -11.05 | 200 | 109 | H |
| 3 | * 5.15 | 50.85 | Pk | 34.1 | -22 | 62.95 | - | - | 74 | -11.05 | 200 | 109 | H |
| 5 | * 5.15 | 40.44 | RMS | 34.1 | -22 | 52.54 | 54 | -1.46 | - | - | 200 | 109 | H |
| 6 | * 5.15 | 40.68 | RMS | 34.1 | -22 | 52.78 | 54 | -1.22 | - | - | 200 | 109 | H |

VERTICAL PEAK AND AVERAGE PLOT

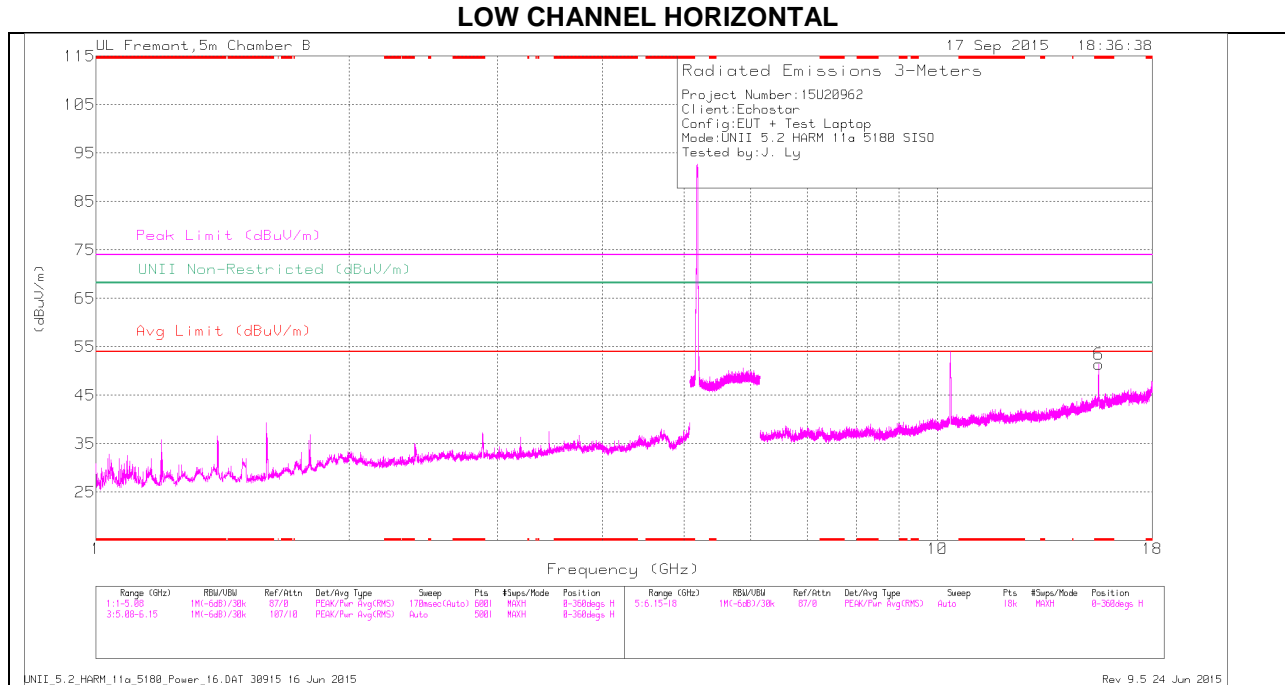


VERTICAL DATA

Trace Markers

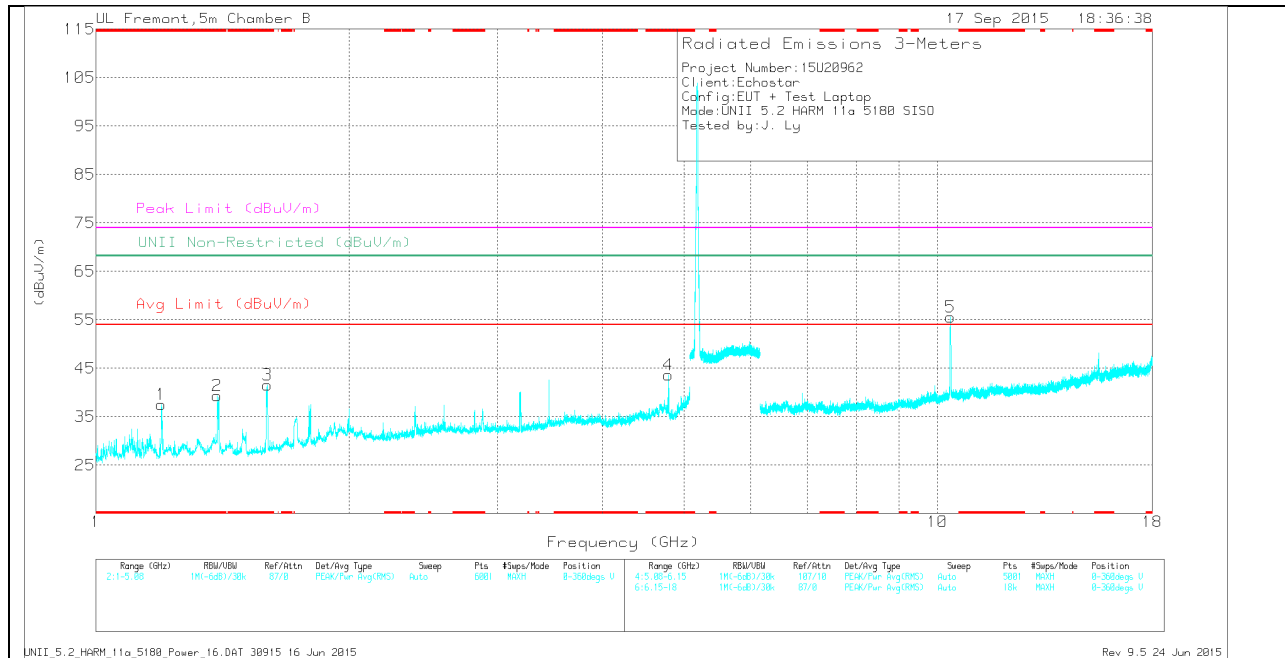
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1 | * 5.15 | 44.52 | Pk | 34.1 | -22 | 56.62 | - | - | 74 | -17.38 | 236 | 124 | V |
| 2 | * 5.15 | 49.93 | Pk | 34.1 | -22 | 62.03 | - | - | 74 | -11.97 | 236 | 124 | V |
| 3 | * 5.15 | 36.08 | RMS | 34.1 | -22 | 48.18 | 54 | -5.82 | - | - | 236 | 124 | V |
| 4 | * 5.15 | 35.97 | RMS | 34.1 | -22 | 48.07 | 54 | -5.93 | - | - | 236 | 124 | V |

HARMONICS AND SPURIOUS EMISSIONS



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 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.

LOW CHANNEL DATA

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (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 | * 1.197 | 44.65 | Pk | 28.5 | -35.6 | 0 | 37.55 | - | - | 74 | -36.45 | - | - | 0-360 | 101 | V |
| 2 | * 1.394 | 44.58 | Pk | 29.4 | -34.7 | 0 | 39.28 | - | - | 74 | -34.72 | - | - | 0-360 | 101 | V |
| 3 | * 1.599 | 47.83 | Pk | 28.8 | -35.1 | 0 | 41.53 | - | - | 74 | -32.47 | - | - | 0-360 | 199 | V |
| 4 | * 4.79 | 40.95 | Pk | 34.3 | -31.6 | 0 | 43.65 | - | - | 74 | -30.35 | - | - | 0-360 | 199 | V |
| 6 | * 15.543 | 33.46 | Pk | 40.8 | -22.9 | 0 | 51.36 | - | - | 74 | -22.64 | - | - | 0-360 | 199 | H |
| 5 | 10.362 | 43.79 | Pk | 37.4 | -25.6 | 0 | 55.59 | - | - | - | - | 68.2 | -12.61 | 0-360 | 101 | V |

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

Pk - Peak detector

Radiated Emissions

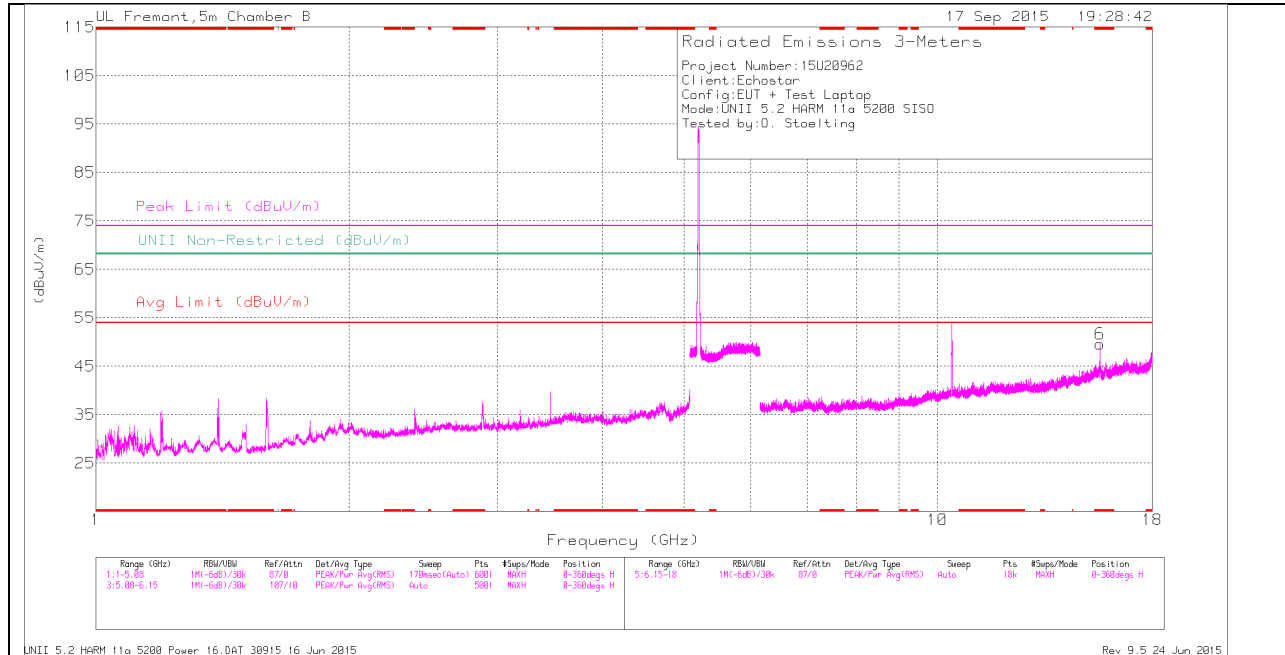
| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Ftr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|------|----------------|----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 1.196 | 52.46 | PK-U | 28.4 | -35.6 | 0 | 45.26 | - | - | 74 | -28.74 | - | - | 336 | 288 | V |
| * 1.197 | 33.94 | ADR | 28.5 | -35.6 | 0 | 26.84 | 54 | -27.16 | - | - | - | - | 336 | 288 | V |
| * 1.394 | 55.49 | PK-U | 29.4 | -34.7 | 0 | 50.19 | - | - | 74 | -23.81 | - | - | 217 | 350 | V |
| * 1.399 | 32.93 | ADR | 29.4 | -34.7 | 0 | 27.63 | 54 | -26.37 | - | - | - | - | 217 | 350 | V |
| * 1.598 | 56.33 | PK-U | 28.8 | -35.2 | 0 | 49.93 | - | - | 74 | -24.07 | - | - | 35 | 350 | V |
| * 1.598 | 35.32 | ADR | 28.8 | -35.2 | 0 | 28.92 | 54 | -25.08 | - | - | - | - | 35 | 350 | V |
| * 4.788 | 43.33 | PK-U | 34.3 | -31.6 | 0 | 46.03 | - | - | 74 | -27.97 | - | - | 263 | 159 | V |
| * 4.788 | 30.11 | ADR | 34.3 | -31.6 | 0 | 32.81 | 54 | -21.19 | - | - | - | - | 263 | 159 | V |
| * 15.545 | 37.51 | PK-U | 40.8 | -22.9 | 0 | 55.41 | - | - | 74 | -18.59 | - | - | 184 | 282 | H |
| * 15.543 | 25.18 | ADR | 40.8 | -22.9 | 0 | 43.08 | 54 | -10.92 | - | - | - | - | 184 | 282 | H |
| 10.362 | 52.36 | PK-U | 37.4 | -25.6 | 0 | 64.16 | - | - | - | - | 68.2 | -4.04 | 210 | 101 | V |

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

PK-U - U-NII: Maximum Peak

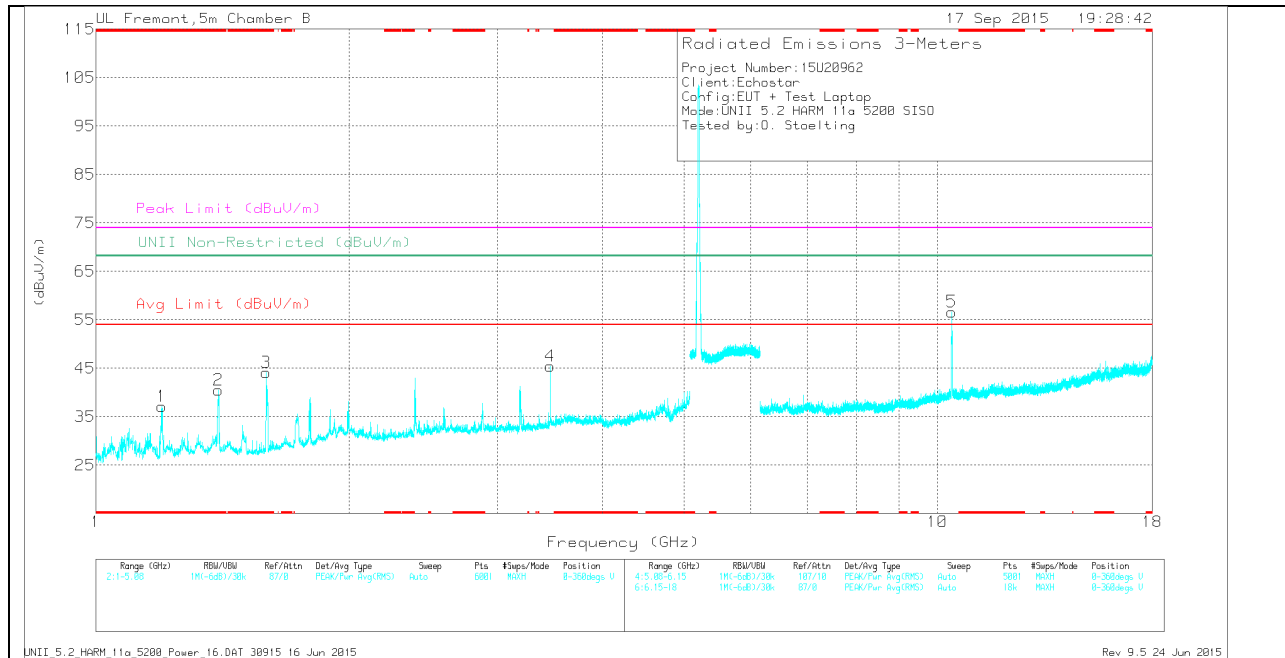
ADR - U-NII AD primary method, RMS average

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.

MID CHANNEL 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

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Filtr/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 | * 1.199 | 44.39 | Pk | 28.5 | -35.7 | 0 | 37.19 | - | - | 74 | -36.81 | - | - | 0-360 | 101 | V |
| 2 | * 1.399 | 45.79 | Pk | 29.4 | -34.7 | 0 | 40.49 | - | - | 74 | -33.51 | - | - | 0-360 | 200 | V |
| 3 | * 1.593 | 50.62 | Pk | 28.8 | -35.3 | 0 | 44.12 | - | - | 74 | -29.88 | - | - | 0-360 | 101 | V |
| 6 | * 15.599 | 32.22 | Pk | 40.8 | -23.4 | 0 | 49.62 | - | - | 74 | -24.38 | - | - | 0-360 | 199 | H |
| 4 | 3.467 | 45.44 | Pk | 33.4 | -33.4 | 0 | 45.44 | - | - | - | - | 68.2 | -22.76 | 0-360 | 101 | V |
| 5 | 10.397 | 44.47 | Pk | 37.4 | -25.2 | 0 | 56.67 | - | - | - | - | 68.2 | -11.53 | 0-360 | 199 | V |

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

Pk - Peak detector

Radiated Emissions

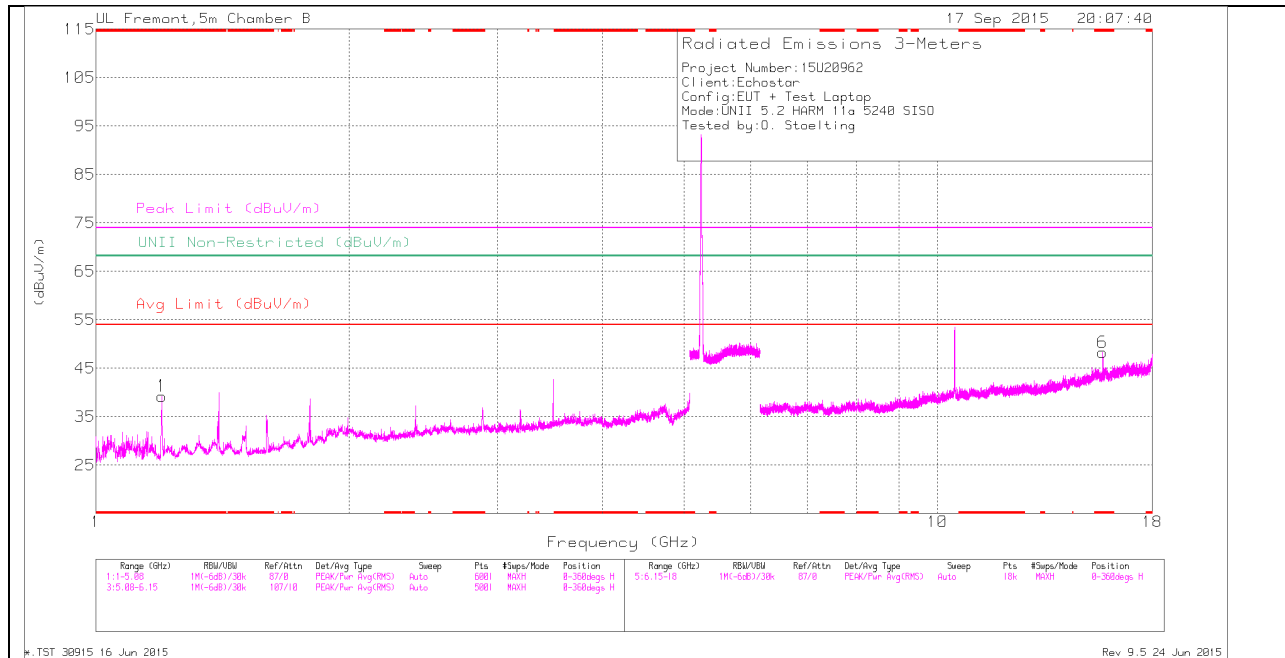
| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|------|----------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 1.199 | 53.07 | PK-U | 28.5 | -35.7 | 0 | 45.87 | - | - | 74 | -28.13 | - | - | 195 | 261 | V |
| * 1.2 | 32.36 | ADR | 28.5 | -35.7 | 0 | 25.16 | 54 | -28.84 | - | - | - | - | 195 | 261 | V |
| * 1.594 | 56.64 | PK-U | 28.8 | -35.2 | 0 | 50.24 | - | - | 74 | -23.76 | - | - | 35 | 105 | V |
| * 1.594 | 34.83 | ADR | 28.8 | -35.3 | 0 | 28.33 | 54 | -25.67 | - | - | - | - | 35 | 105 | V |
| * 1.394 | 55.49 | PK-U | 29.4 | -34.7 | 0 | 50.19 | - | - | 74 | -23.81 | - | - | 217 | 350 | V |
| * 1.399 | 32.93 | ADR | 29.4 | -34.7 | 0 | 27.63 | 54 | -26.37 | - | - | - | - | 217 | 350 | V |
| * 15.6 | 35.21 | PK-U | 40.8 | -23.3 | 0 | 52.71 | - | - | 74 | -21.29 | - | - | 65 | 209 | H |
| * 15.598 | 23.6 | ADR | 40.8 | -23.4 | 0 | 41 | 54 | -13 | - | - | - | - | 65 | 209 | H |
| 3.467 | 44.91 | PK-U | 33.4 | -33.4 | 0 | 44.91 | - | - | - | - | 68.2 | -23.29 | 136 | 101 | V |
| 10.398 | 51.07 | PK-U | 37.4 | -25.1 | 0 | 63.37 | - | - | - | - | 68.2 | -4.83 | 177 | 200 | V |

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

PK-U - U-NII: Maximum Peak

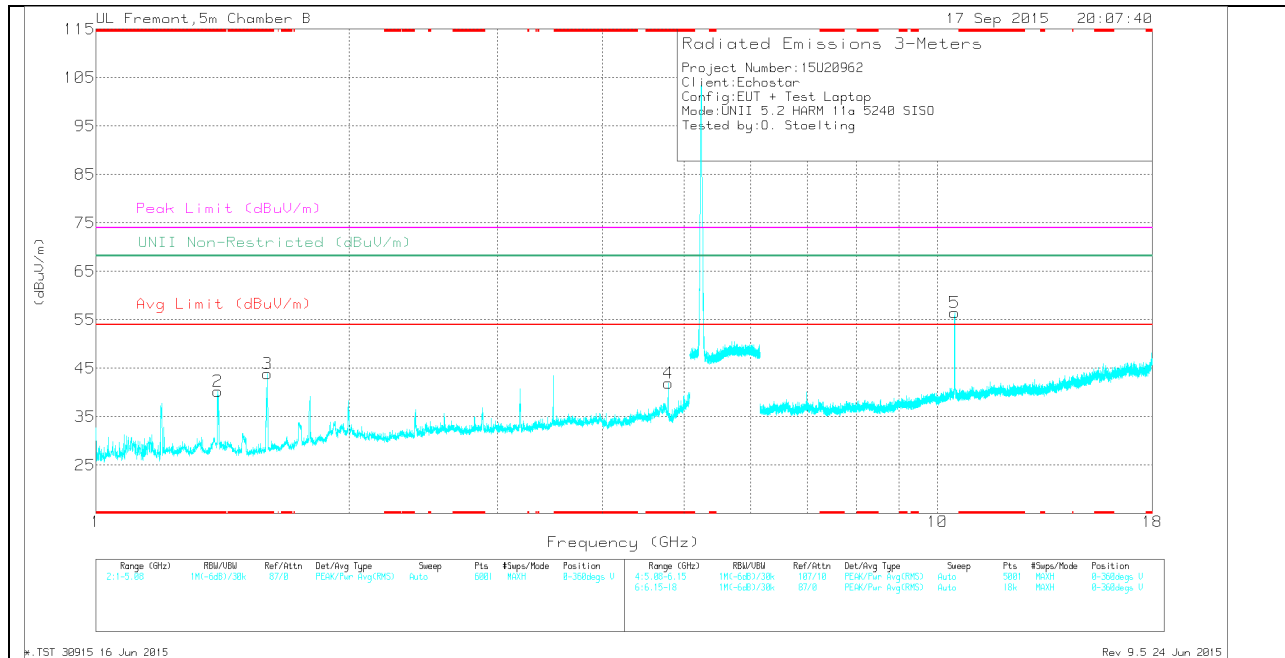
ADR - U-NII AD primary method, RMS average

HIGH 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.

HIGH CHANNEL 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.

HIGH CHANNEL DATA

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (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 | * 1.198 | 46.47 | Pk | 28.5 | -35.7 | 0 | 39.27 | - | - | 74 | -34.73 | - | - | 0-360 | 199 | H |
| 2 | * 1.396 | 45.49 | Pk | 29.4 | -34.7 | 0 | 40.19 | - | - | 74 | -33.81 | - | - | 0-360 | 101 | V |
| 3 | * 1.6 | 50.22 | Pk | 28.8 | -35.1 | 0 | 43.92 | - | - | 74 | -30.08 | - | - | 0-360 | 101 | V |
| 4 | * 4.785 | 39.09 | Pk | 34.3 | -31.5 | 0 | 41.89 | - | - | 74 | -32.11 | - | - | 0-360 | 200 | V |
| 6 | * 15.716 | 31.2 | Pk | 40.6 | -23.5 | 0 | 48.3 | - | - | 74 | -25.7 | - | - | 0-360 | 199 | H |
| 5 | 10.479 | 44.37 | Pk | 37.4 | -25.3 | 0 | 56.47 | - | - | - | - | 68.2 | -11.73 | 0-360 | 101 | 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/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 |
|-----------------|----------------------|------|----------------|----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 1.2 | 54.29 | PK-U | 28.5 | -35.7 | 0 | 47.09 | - | - | 74 | -26.91 | - | - | 256 | 144 | H |
| * 1.197 | 32.61 | ADR | 28.5 | -35.6 | 0 | 25.51 | 54 | -28.49 | - | - | - | - | 256 | 144 | H |
| * 1.394 | 56 | PK-U | 29.4 | -34.7 | 0 | 50.7 | - | - | 74 | -23.3 | - | - | 15 | 297 | V |
| * 1.394 | 33.04 | ADR | 29.4 | -34.7 | 0 | 27.74 | 54 | -26.26 | - | - | - | - | 15 | 297 | V |
| * 1.598 | 55.31 | PK-U | 28.8 | -35.2 | 0 | 48.91 | - | - | 74 | -25.09 | - | - | 31 | 159 | V |
| * 1.599 | 33.88 | ADR | 28.8 | -35.1 | 0 | 27.58 | 54 | -26.42 | - | - | - | - | 31 | 159 | V |
| * 4.787 | 50.67 | PK-U | 34.3 | -31.5 | 0 | 53.47 | - | - | 74 | -20.53 | - | - | 242 | 270 | V |
| * 4.784 | 30.89 | ADR | 34.3 | -31.5 | 0 | 33.69 | 54 | -20.31 | - | - | - | - | 242 | 270 | V |
| * 15.715 | 34.76 | PK-U | 40.6 | -23.5 | 0 | 51.86 | - | - | 74 | -22.14 | - | - | 198 | 265 | H |
| * 15.717 | 23.3 | ADR | 40.6 | -23.5 | 0 | 40.4 | 54 | -13.6 | - | - | - | - | 198 | 265 | H |
| 10.48 | 50.12 | PK-U | 37.4 | -25.4 | 0 | 62.12 | - | - | - | - | 68.2 | -6.08 | 203 | 117 | V |

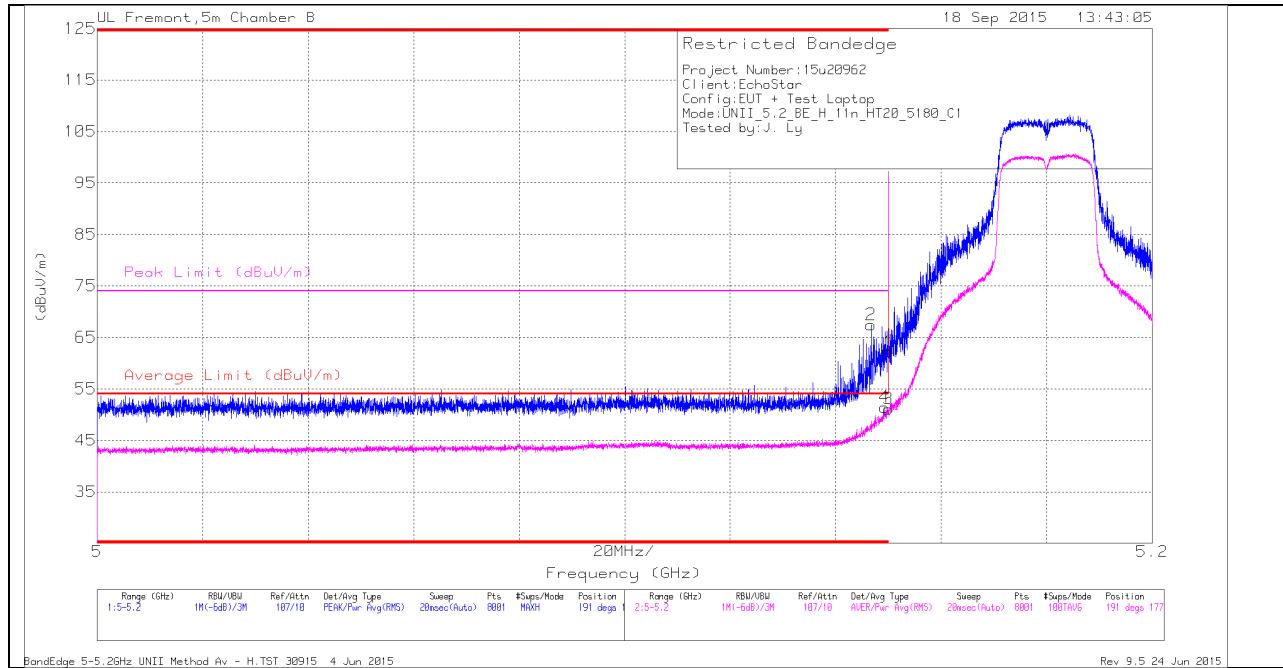
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

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

HORIZONTAL PEAK AND AVERAGE PLOT

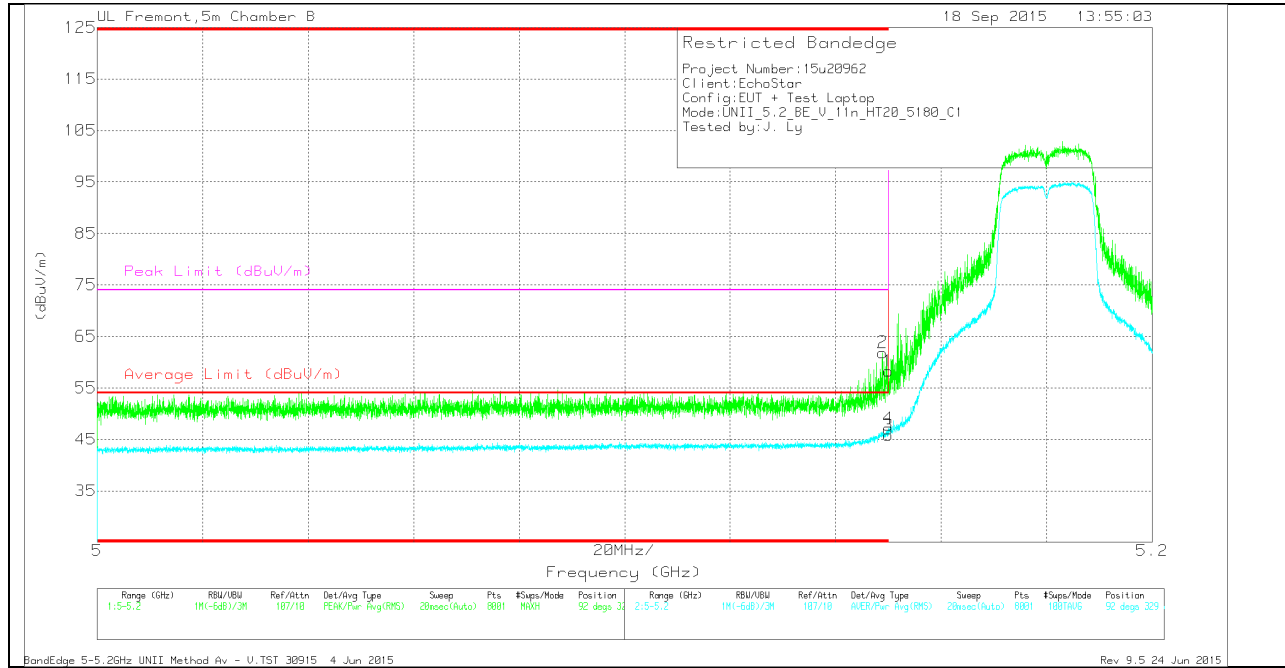


HORIZONTAL DATA

Trace Markers

| 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 |
|--------|-----------------|----------------------|-----|----------------|------------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 2 | * 5.147 | 55.35 | Pk | 34.1 | -22 | 0 | 67.45 | - | - | 74 | -6.55 | 191 | 177 | H |
| 4 | * 5.149 | 39.35 | RMS | 34.1 | -22 | 0 | 51.45 | 54 | -2.55 | - | - | 191 | 177 | H |
| 1 | * 5.15 | 50.09 | Pk | 34.1 | -22 | 0 | 62.19 | - | - | 74 | -11.81 | 191 | 177 | H |
| 3 | * 5.15 | 39.02 | RMS | 34.1 | -22 | 0 | 51.12 | 54 | -2.88 | - | - | 191 | 177 | H |

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

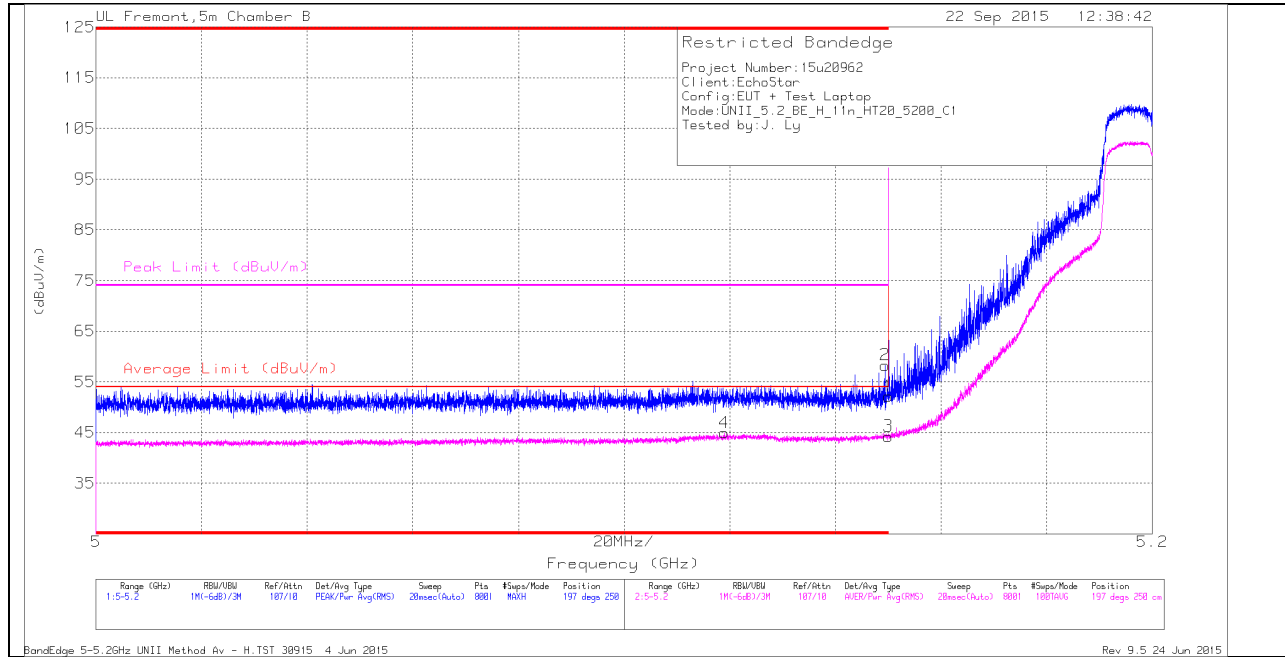
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Fit r/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 2 | * 5.149 | 49.76 | Pk | 34.1 | -22 | 0 | 61.86 | - | - | 74 | -12.14 | 92 | 329 | V |
| 1 | * 5.15 | 46.18 | Pk | 34.1 | -22 | 0 | 58.28 | - | - | 74 | -15.72 | 92 | 329 | V |
| 3 | * 5.15 | 33.7 | RMS | 34.1 | -22 | 0 | 45.8 | 54 | -8.2 | - | - | 92 | 329 | V |
| 4 | * 5.15 | 35 | RMS | 34.1 | -22 | 0 | 47.1 | 54 | -6.9 | - | - | 92 | 329 | V |

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

Pk - Peak detector

RMS - RMS detection

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

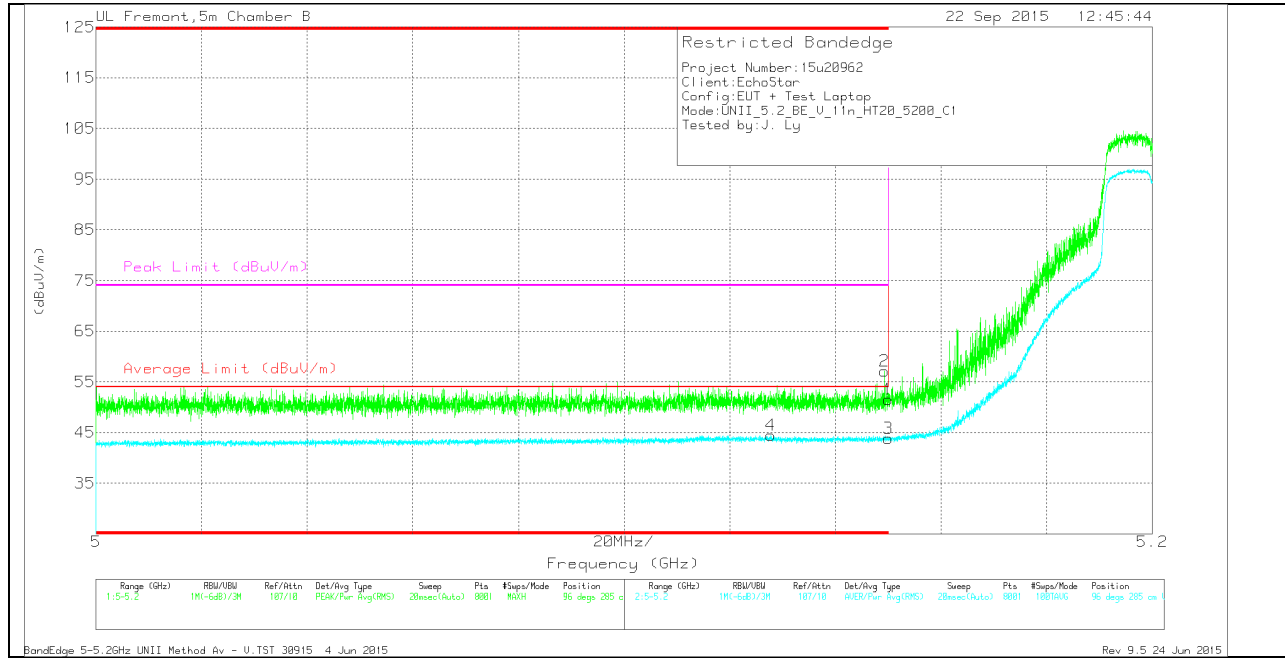
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 4 | * 5.119 | 32.99 | RMS | 34 | -22 | 44.99 | 54 | -9.01 | - | - | 197 | 250 | H |
| 2 | * 5.149 | 46.2 | Pk | 34.1 | -22 | 58.3 | - | - | 74 | -15.7 | 197 | 250 | H |
| 1 | * 5.15 | 40.1 | Pk | 34.1 | -22 | 52.2 | - | - | 74 | -21.8 | 197 | 250 | H |
| 3 | * 5.15 | 32.17 | RMS | 34.1 | -22 | 44.27 | 54 | -9.73 | - | - | 197 | 250 | H |

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

Pk - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

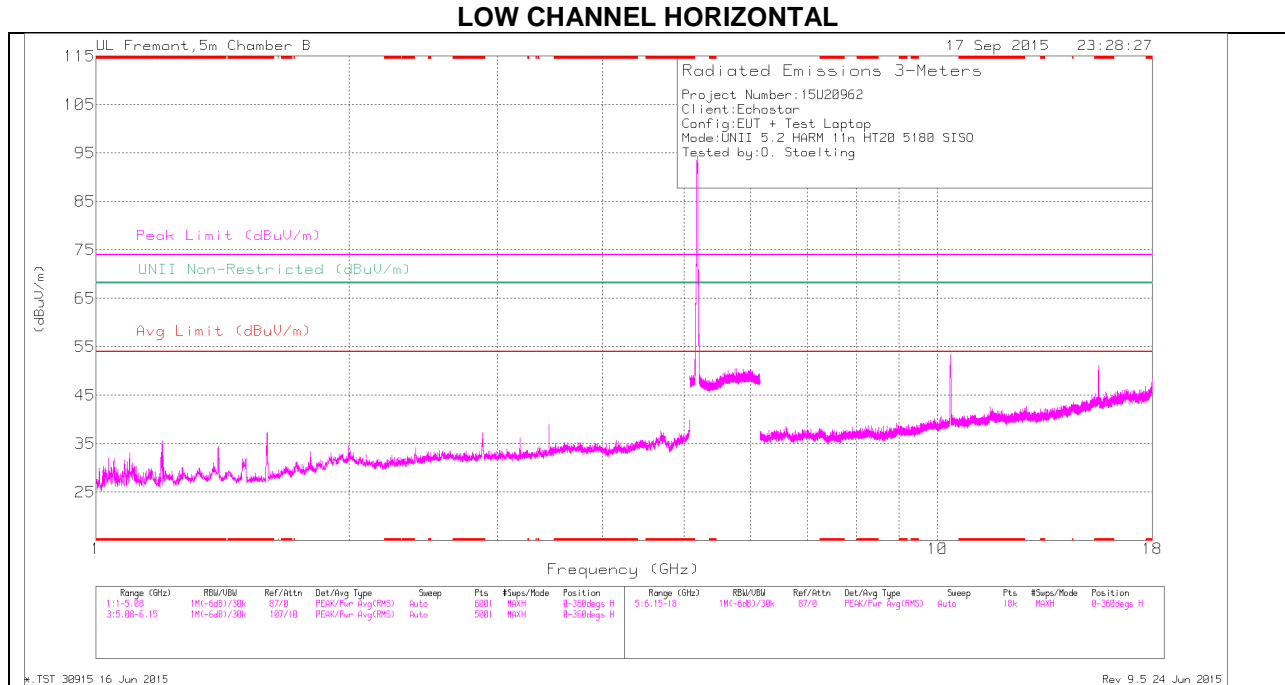
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Fltr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 4 | * 5.128 | 32.33 | RMS | 34.1 | -22 | 44.43 | 54 | -9.57 | - | - | 96 | 285 | V |
| 2 | * 5.149 | 44.98 | Pk | 34.1 | -22 | 57.08 | - | - | 74 | -16.92 | 96 | 285 | V |
| 1 | * 5.15 | 39.46 | Pk | 34.1 | -22 | 51.56 | - | - | 74 | -22.44 | 96 | 285 | V |
| 3 | * 5.15 | 31.73 | RMS | 34.1 | -22 | 43.83 | 54 | -10.17 | - | - | 96 | 285 | V |

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

Pk - Peak detector

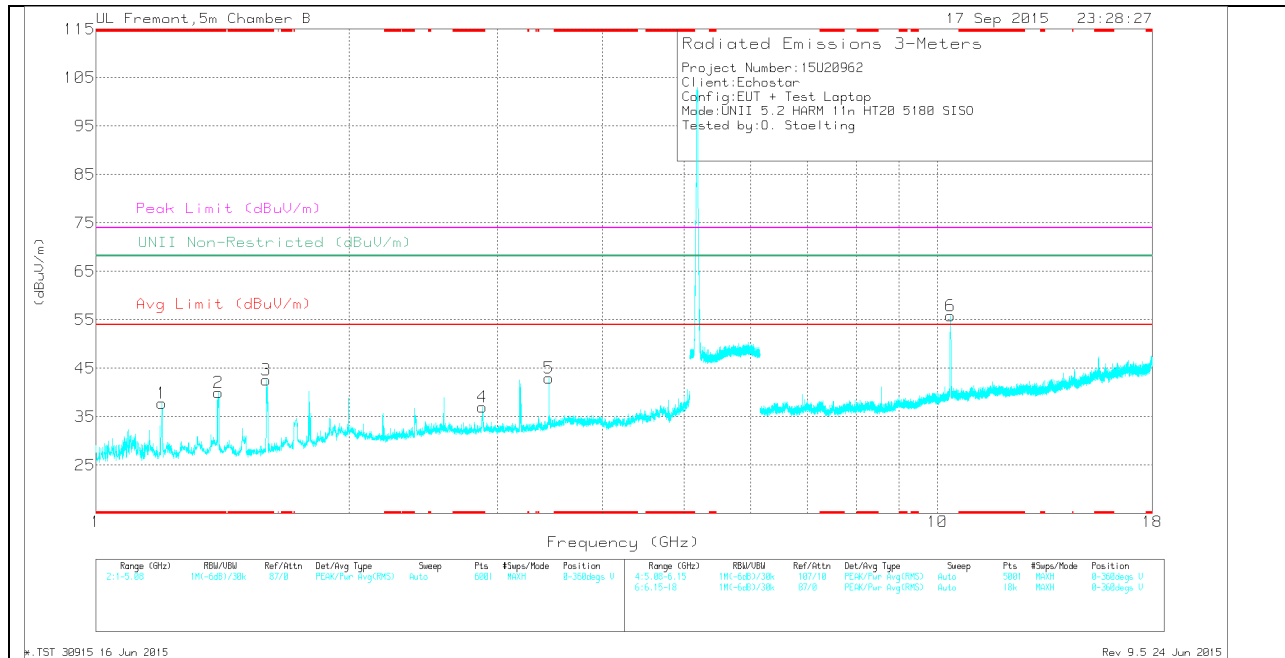
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS



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 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.

LOW CHANNEL DATA

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (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 | * 1.199 | 45.03 | Pk | 28.5 | -35.7 | 0 | 37.83 | - | - | 74 | -36.17 | - | - | 0-360 | 101 | V |
| 2 | * 1.399 | 45.23 | Pk | 29.4 | -34.7 | 0 | 39.93 | - | - | 74 | -34.07 | - | - | 0-360 | 101 | V |
| 3 | * 1.594 | 49.03 | Pk | 28.8 | -35.3 | 0 | 42.53 | - | - | 74 | -31.47 | - | - | 0-360 | 101 | V |
| 4 | * 2.88 | 37.72 | Pk | 32.6 | -33.3 | 0 | 37.02 | - | - | 74 | -36.98 | - | - | 0-360 | 200 | V |
| 5 | 3.453 | 43.25 | Pk | 33.3 | -33.6 | 0 | 42.95 | - | - | - | - | 68.2 | -25.25 | 0-360 | 101 | V |
| 6 | 10.36 | 44.02 | Pk | 37.4 | -25.6 | 0 | 55.82 | - | - | - | - | 68.2 | -12.38 | 0-360 | 199 | V |

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

Pk - Peak detector

Radiated Emissions

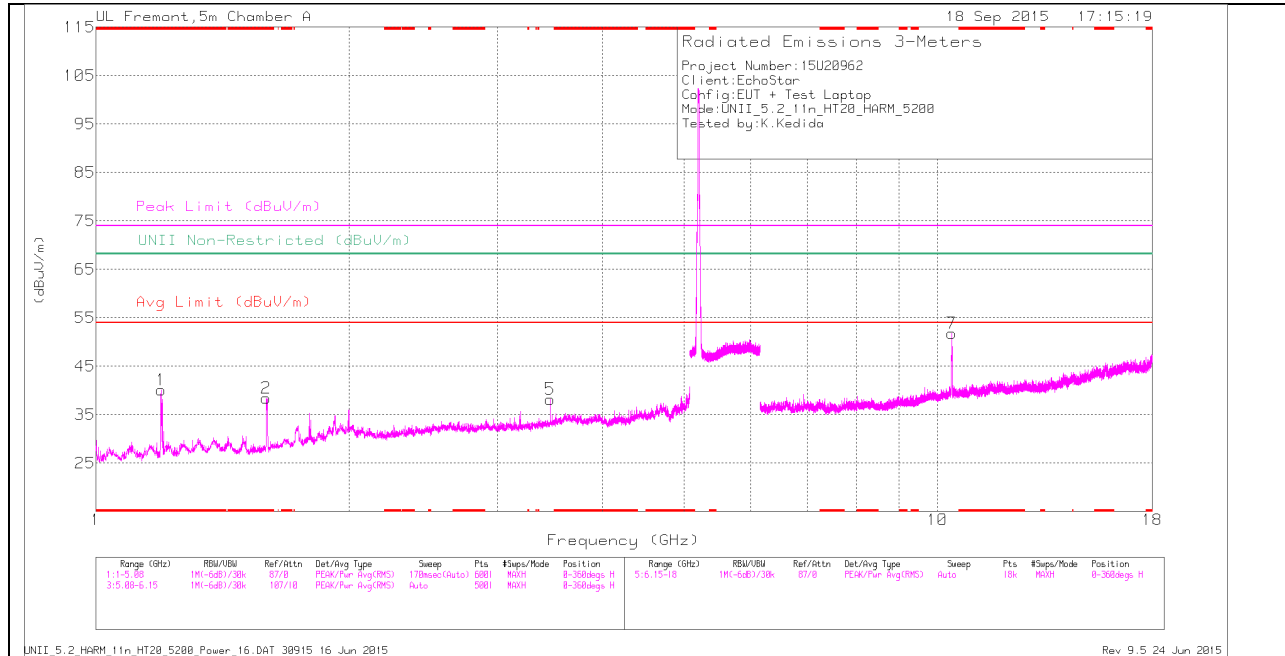
| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Ftr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|------|----------------|----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 1.2 | 54.97 | PK-U | 28.5 | -35.7 | 0 | 47.77 | - | - | 74 | -26.23 | - | - | 178 | 263 | V |
| * 1.2 | 32.91 | ADR | 28.5 | -35.7 | 0 | 25.71 | 54 | -28.29 | - | - | - | - | 178 | 263 | V |
| * 1.398 | 55.71 | PK-U | 29.4 | -34.7 | 0 | 50.41 | - | - | 74 | -23.59 | - | - | 18 | 297 | V |
| * 1.398 | 33.43 | ADR | 29.4 | -34.7 | 0 | 28.13 | 54 | -25.87 | - | - | - | - | 18 | 297 | V |
| * 1.593 | 55.48 | PK-U | 28.8 | -35.3 | 0 | 48.98 | - | - | 74 | -25.02 | - | - | 16 | 182 | V |
| * 1.594 | 34.54 | ADR | 28.8 | -35.3 | 0 | 28.04 | 54 | -25.96 | - | - | - | - | 16 | 182 | V |
| * 2.88 | 58.03 | PK-U | 32.6 | -33.3 | 0 | 57.33 | - | - | 74 | -16.67 | - | - | 176 | 324 | V |
| * 2.88 | 34.4 | ADR | 32.6 | -33.3 | 0 | 33.7 | 54 | -20.3 | - | - | - | - | 176 | 324 | V |
| 3.453 | 44.66 | PK-U | 33.3 | -33.6 | 0 | 44.36 | - | - | - | - | 68.2 | -23.84 | 131 | 154 | V |
| 10.359 | 51.83 | PK-U | 37.4 | -25.6 | 0 | 63.63 | - | - | - | - | 68.2 | -4.57 | 267 | 378 | V |

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

PK-U - U-NII: Maximum Peak

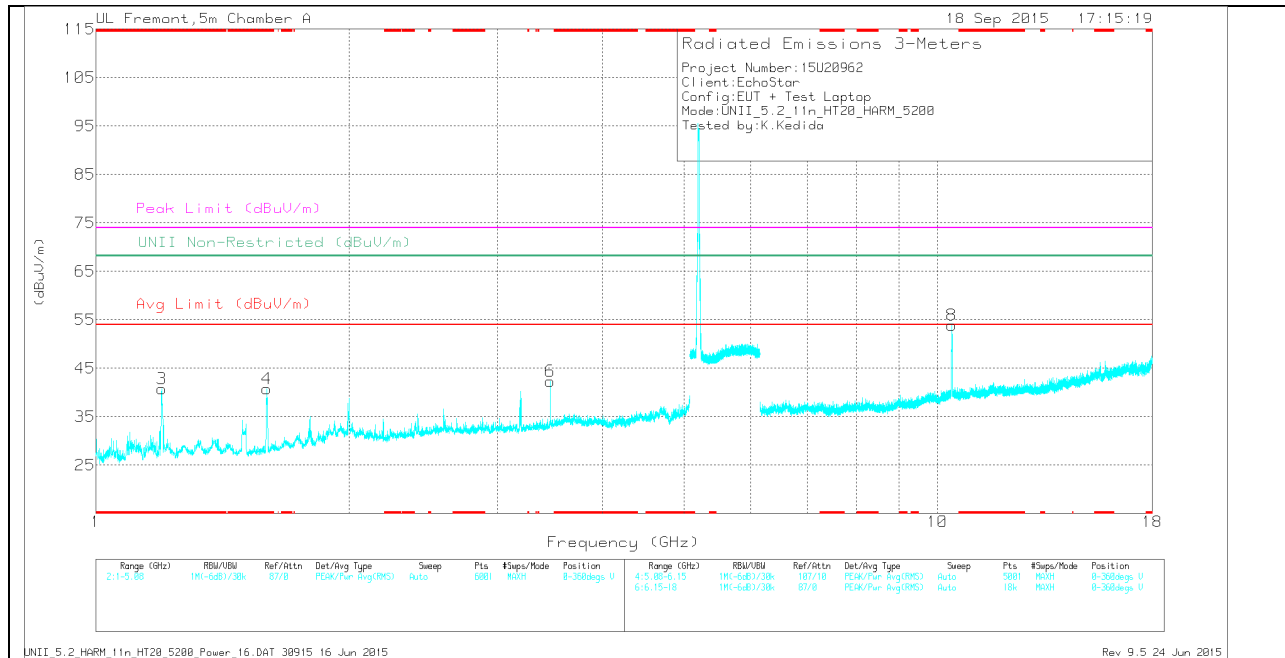
ADR - U-NII AD primary method, RMS average

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.

MID CHANNEL 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

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Filtr/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 | * 1.197 | 47.18 | Pk | 28.5 | -35.6 | 0 | 40.08 | - | - | 74 | -33.92 | - | - | 0-360 | 199 | H |
| 2 | * 1.593 | 44.94 | Pk | 28.8 | -35.3 | 0 | 38.44 | - | - | 74 | -35.56 | - | - | 0-360 | 101 | H |
| 3 | * 1.198 | 47.91 | Pk | 28.5 | -35.7 | 0 | 40.71 | - | - | 74 | -33.29 | - | - | 0-360 | 101 | V |
| 4 | * 1.597 | 47.17 | Pk | 28.8 | -35.2 | 0 | 40.77 | - | - | 74 | -33.23 | - | - | 0-360 | 101 | V |
| 5 | 3.466 | 38.33 | Pk | 33.4 | -33.5 | 0 | 38.23 | - | - | - | - | 68.2 | -29.97 | 0-360 | 199 | H |
| 6 | 3.466 | 42.45 | Pk | 33.4 | -33.5 | 0 | 42.35 | - | - | - | - | 68.2 | -25.85 | 0-360 | 199 | V |
| 8 | 10.398 | 41.61 | Pk | 37.4 | -25.1 | 0 | 53.91 | - | - | - | - | 68.2 | -14.29 | 0-360 | 101 | V |
| 7 | 10.399 | 39.64 | Pk | 37.4 | -25.2 | 0 | 51.84 | - | - | - | - | 68.2 | -16.36 | 0-360 | 101 | H |

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

Pk - Peak detector

Radiated Emissions

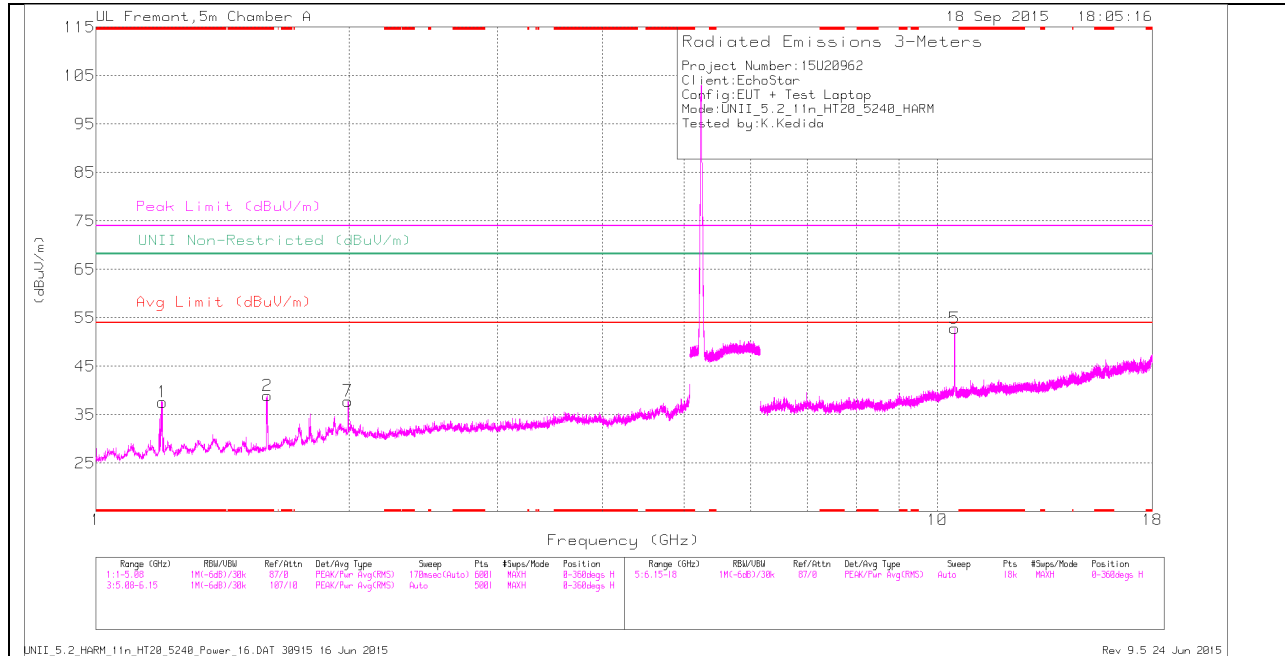
| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|------|----------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 1.197 | 55.01 | PK-U | 28.5 | -35.6 | 0 | 47.91 | - | - | 74 | -26.09 | - | - | 21 | 268 | H |
| * 1.196 | 32.7 | ADR | 28.4 | -35.6 | 0 | 25.5 | 54 | -28.5 | - | - | - | - | 21 | 268 | H |
| * 1.595 | 53.95 | PK-U | 28.8 | -35.2 | 0 | 47.55 | - | - | 74 | -26.45 | - | - | 150 | 118 | H |
| * 1.593 | 33.86 | ADR | 28.8 | -35.3 | 0 | 27.36 | 54 | -26.64 | - | - | - | - | 150 | 118 | H |
| * 1.198 | 58.07 | PK-U | 28.5 | -35.7 | 0 | 50.87 | - | - | 74 | -23.13 | - | - | 278 | 102 | V |
| * 1.2 | 37.65 | ADR | 28.5 | -35.7 | 0 | 30.45 | 54 | -23.55 | - | - | - | - | 278 | 102 | V |
| * 1.599 | 53.29 | PK-U | 28.8 | -35.1 | 0 | 46.99 | - | - | 74 | -27.01 | - | - | 278 | 102 | V |
| * 1.598 | 35.56 | ADR | 28.8 | -35.2 | 0 | 29.16 | 54 | -24.84 | - | - | - | - | 278 | 102 | V |
| 10.399 | 51.91 | PK-U | 37.4 | -25.2 | 0 | 64.11 | - | - | - | - | 68.2 | -4.09 | 34 | 297 | H |
| 10.399 | 51.47 | PK-U | 37.4 | -25.2 | 0 | 63.67 | - | - | - | - | 68.2 | -4.53 | 34 | 297 | H |

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

PK-U - U-NII: Maximum Peak

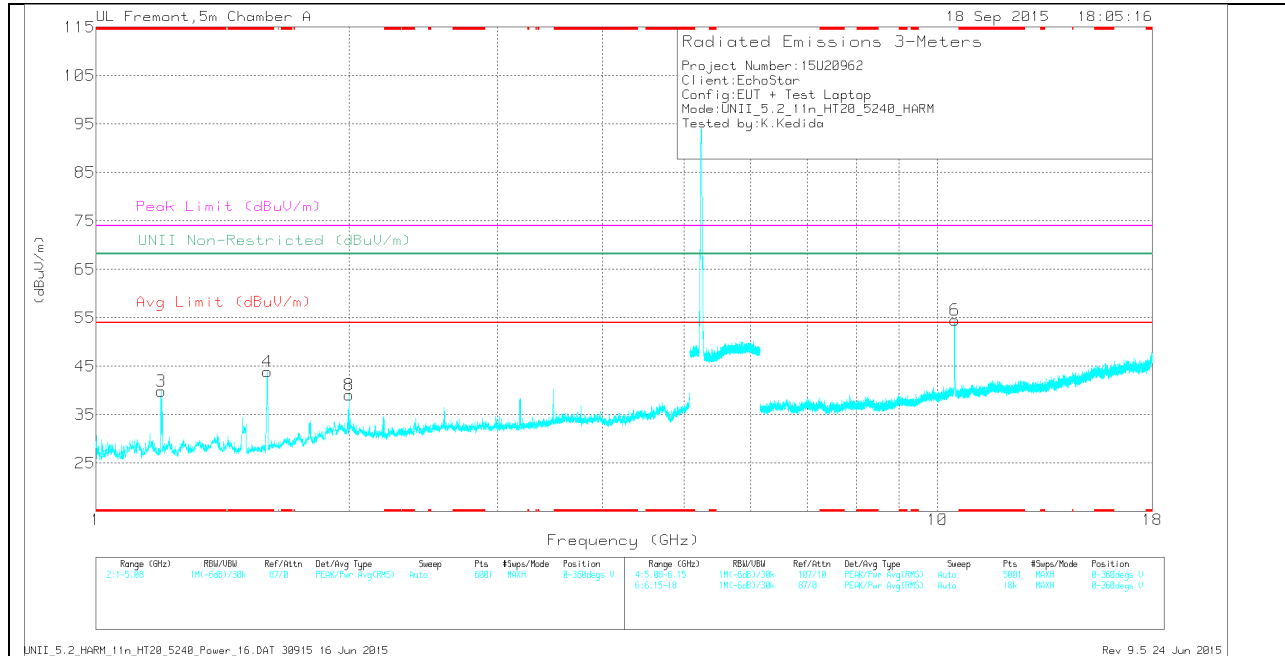
ADR - U-NII AD primary method, RMS average

HIGH 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.

HIGH CHANNEL 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.

HIGH CHANNEL DATA

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (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 | * 1.2 | 44.79 | Pk | 28.5 | -35.7 | 0 | 37.59 | - | - | 74 | -36.41 | - | - | 0-360 | 200 | H |
| 2 | * 1.599 | 45.27 | Pk | 28.8 | -35.1 | 0 | 38.97 | - | - | 74 | -35.03 | - | - | 0-360 | 200 | H |
| 3 | * 1.195 | 47.07 | Pk | 28.4 | -35.6 | 0 | 39.87 | - | - | 74 | -34.13 | - | - | 0-360 | 101 | V |
| 4 | * 1.598 | 50.33 | Pk | 28.8 | -35.2 | 0 | 43.93 | - | - | 74 | -30.07 | - | - | 0-360 | 101 | V |
| 7 | 1.993 | 39.44 | Pk | 32.3 | -33.9 | 0 | 37.84 | - | - | - | - | 68.2 | -30.36 | 0-360 | 101 | H |
| 8 | 1.998 | 40.78 | Pk | 32.3 | -34 | 0 | 39.08 | - | - | - | - | 68.2 | -29.12 | 0-360 | 101 | V |
| 5 | 10.479 | 40.72 | Pk | 37.4 | -25.3 | 0 | 52.82 | - | - | - | - | 68.2 | -15.38 | 0-360 | 199 | H |
| 6 | 10.482 | 42.48 | Pk | 37.4 | -25.4 | 0 | 54.48 | - | - | - | - | 68.2 | -13.72 | 0-360 | 199 | 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/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 |
|-----------------|----------------------|------|----------------|----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 1.196 | 49.66 | PK-U | 28.4 | -35.6 | 0 | 42.46 | - | - | 74 | -31.54 | - | - | 109 | 102 | V |
| * 1.195 | 32.38 | ADR | 28.4 | -35.6 | 0 | 25.18 | 54 | -28.82 | - | - | - | - | 109 | 102 | V |
| * 1.598 | 55.88 | PK-U | 28.8 | -35.2 | 0 | 49.48 | - | - | 74 | -24.52 | - | - | 176 | 113 | V |
| * 1.6 | 34.29 | ADR | 28.8 | -35.1 | 0 | 27.99 | 54 | -26.01 | - | - | - | - | 176 | 113 | V |
| 10.48 | 46.31 | PK-U | 37.4 | -25.4 | 0 | 58.31 | - | - | - | - | 68.2 | -9.89 | 220 | 231 | H |
| 10.481 | 36.67 | PK-U | 37.4 | -25.4 | 0 | 48.67 | - | - | - | - | 68.2 | -19.53 | 220 | 231 | V |

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

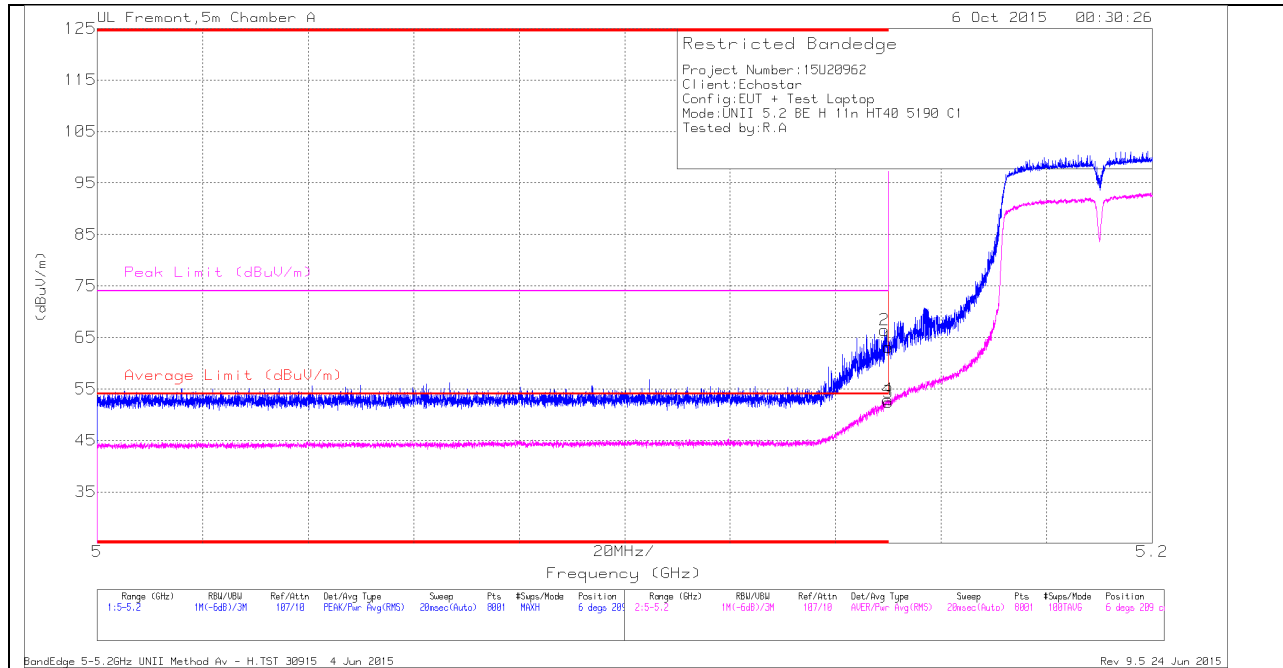
Av - Average detection

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

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

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

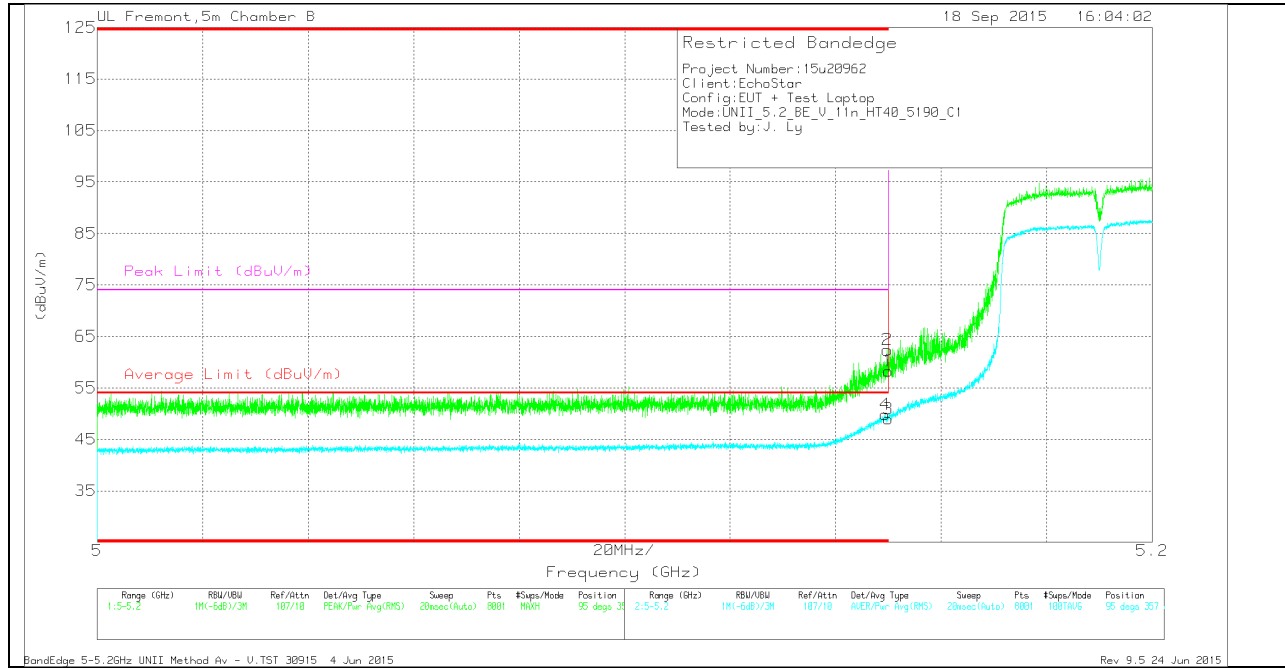
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T136 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1 | * 5.15 | 49.61 | Pk | 34.2 | -20.7 | 63.11 | - | - | 74 | -10.89 | 6 | 209 | H |
| 2 | * 5.149 | 52.91 | Pk | 34.2 | -20.7 | 66.41 | - | - | 74 | -7.59 | 6 | 209 | H |
| 3 | * 5.15 | 38.92 | RMS | 34.2 | -20.7 | 52.42 | 54 | -1.58 | - | - | 6 | 209 | H |
| 4 | * 5.15 | 39.44 | RMS | 34.2 | -20.7 | 52.94 | 54 | -1.06 | - | - | 6 | 209 | H |

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

Pk - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

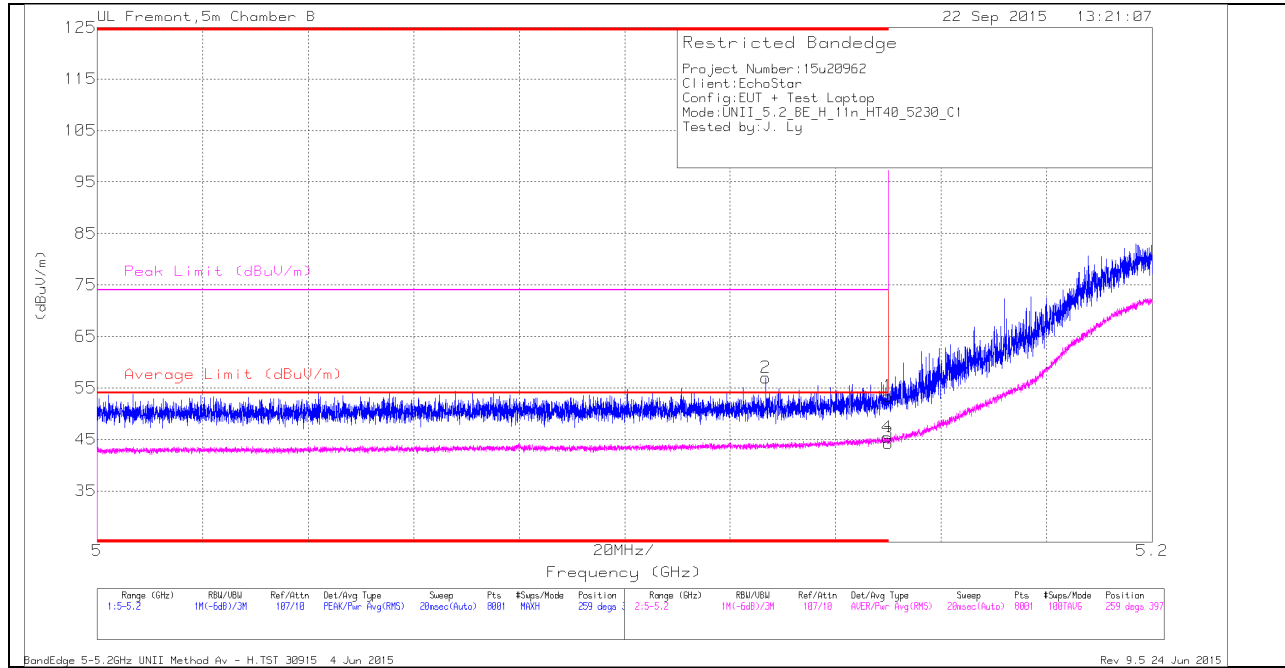
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Fit r/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 4 | * 5.149 | 37.72 | RMS | 34.1 | -22 | 0 | 49.82 | 54 | -4.18 | - | - | 95 | 357 | V |
| 1 | * 5.15 | 46.22 | Pk | 34.1 | -22 | 0 | 58.32 | - | - | 74 | -15.68 | 95 | 357 | V |
| 2 | * 5.15 | 50.28 | Pk | 34.1 | -22 | 0 | 62.38 | - | - | 74 | -11.62 | 95 | 357 | V |
| 3 | * 5.15 | 36.87 | RMS | 34.1 | -22 | 0 | 48.97 | 54 | -5.03 | - | - | 95 | 357 | V |

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

Pk - Peak detector

RMS - RMS detection

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

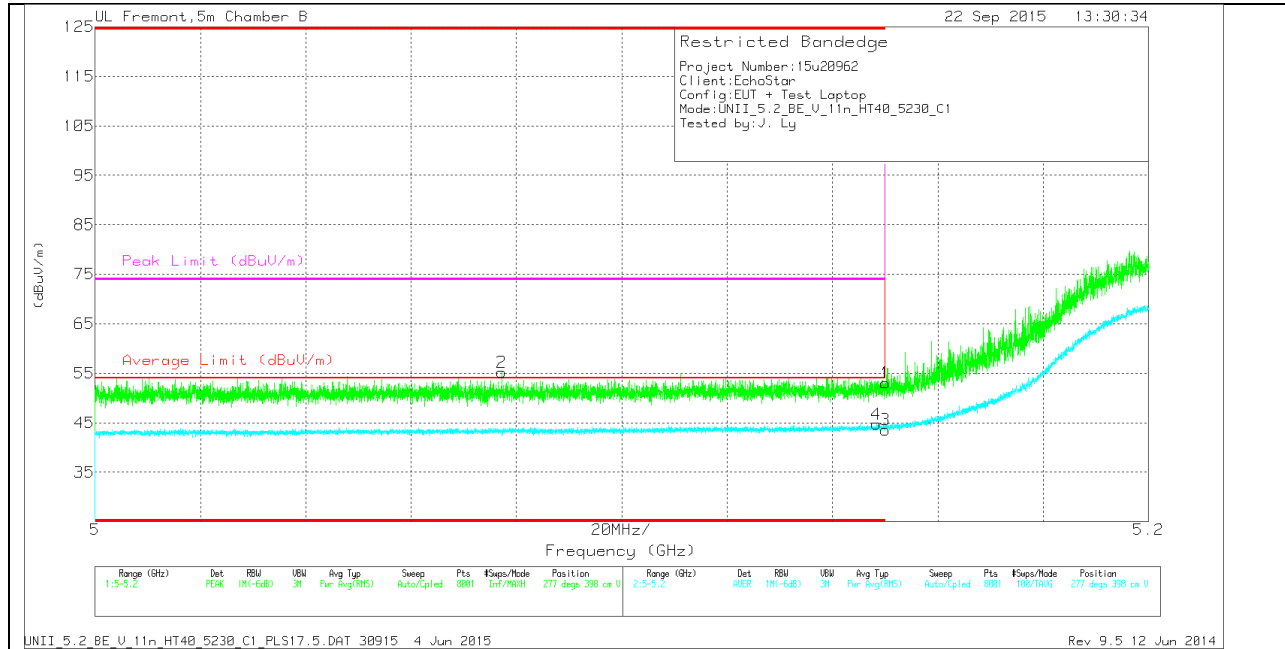
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1 | * 5.15 | 41.34 | Pk | 34.1 | -22 | 53.44 | - | - | 74 | -20.56 | 259 | 397 | H |
| 2 | * 5.127 | 44.89 | Pk | 34.1 | -22 | 56.99 | - | - | 74 | -17.01 | 259 | 397 | H |
| 3 | * 5.15 | 32.17 | RMS | 34.1 | -22 | 44.27 | 54 | -9.73 | - | - | 259 | 397 | H |
| 4 | * 5.15 | 33.35 | RMS | 34.1 | -22 | 45.45 | 54 | -8.55 | - | - | 259 | 397 | H |

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

Pk - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (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 | 40.92 | PK | 34.1 | -22 | 53.02 | - | - | 74 | -20.98 | 277 | 398 | V |
| 2 | * 5.077 | 43.41 | PK | 34 | -22.2 | 55.21 | - | - | 74 | -18.79 | 277 | 398 | V |
| 3 | * 5.15 | 31.47 | RMS | 34.1 | -22 | 43.57 | 54 | -10.43 | - | - | 277 | 398 | V |
| 4 | * 5.148 | 32.63 | RMS | 34.1 | -22 | 44.73 | 54 | -9.27 | - | - | 277 | 398 | V |

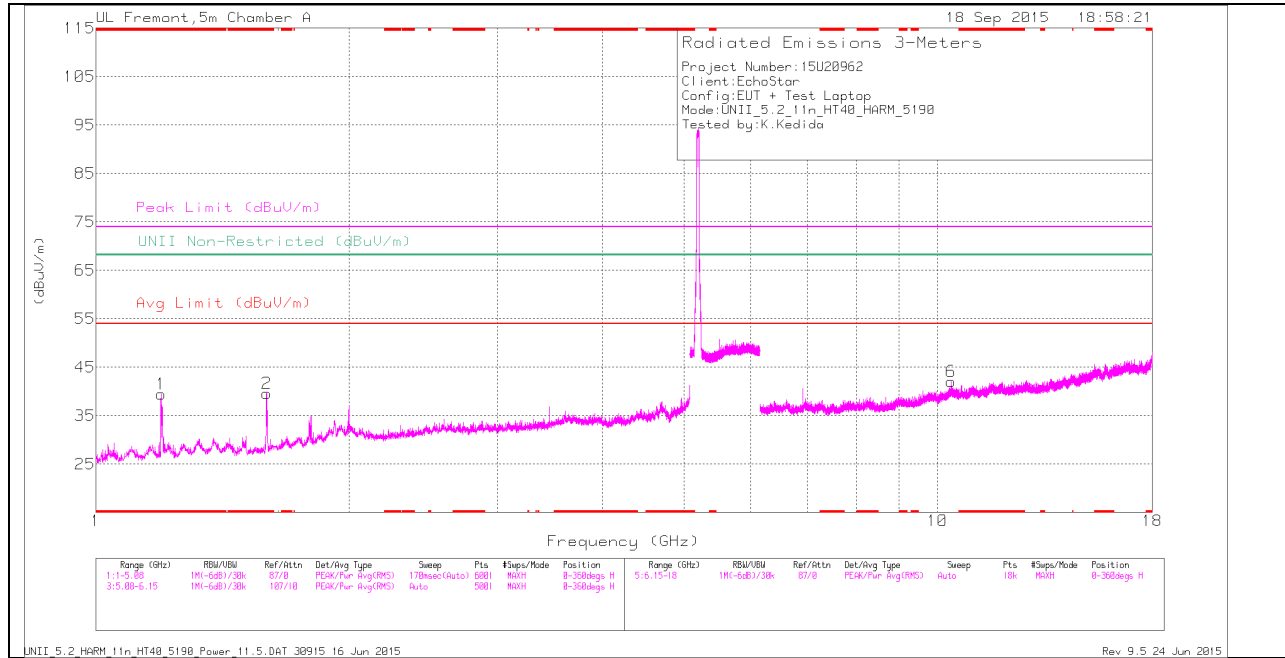
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

RMS - RMS detection

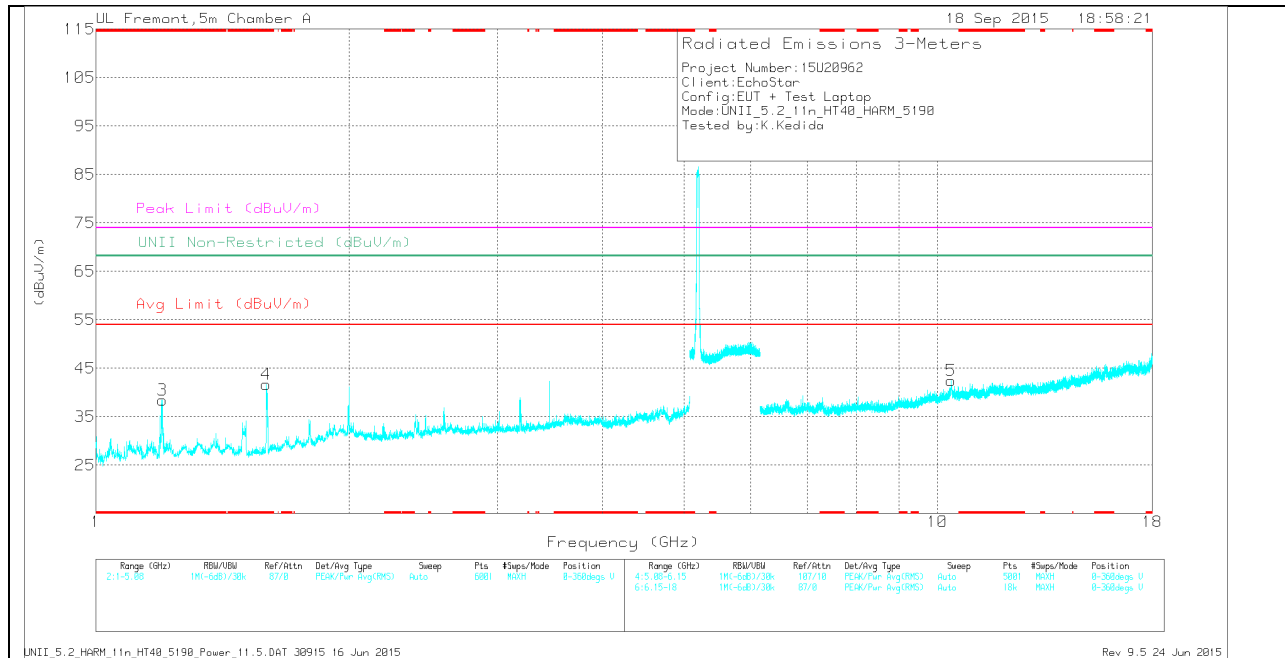
HARMONICS AND SPURIOUS EMISSIONS

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.

LOW CHANNEL 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.

LOW CHANNEL DATA

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (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 | * 1.195 | 46.7 | Pk | 28.4 | -35.6 | 0 | 39.5 | - | - | 74 | -34.5 | - | - | 0-360 | 101 | H |
| 2 | * 1.595 | 46.04 | Pk | 28.8 | -35.2 | 0 | 39.64 | - | - | 74 | -34.36 | - | - | 0-360 | 199 | H |
| 3 | * 1.2 | 45.61 | Pk | 28.5 | -35.7 | 0 | 38.41 | - | - | 74 | -35.59 | - | - | 0-360 | 101 | V |
| 4 | * 1.594 | 48.07 | Pk | 28.8 | -35.2 | 0 | 41.67 | - | - | 74 | -32.33 | - | - | 0-360 | 101 | V |
| 6 | 10.38 | 30.02 | Pk | 37.4 | -25.4 | 0 | 42.02 | - | - | - | - | 68.2 | -26.18 | 0-360 | 101 | H |
| 5 | 10.381 | 30.5 | Pk | 37.4 | -25.4 | 0 | 42.5 | - | - | - | - | 68.2 | -25.7 | 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 T345 (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 |
|-----------------|----------------------|------|----------------|----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 1.195 | 49.93 | PK-U | 28.4 | -35.6 | 0 | 42.73 | - | - | 74 | -31.27 | - | - | 1 | 101 | H |
| * 1.197 | 32.12 | ADR | 28.5 | -35.6 | 0 | 25.02 | 54 | -28.98 | - | - | - | - | 1 | 101 | H |
| * 1.595 | 48.71 | PK-U | 28.8 | -35.2 | 0 | 42.31 | - | - | 74 | -31.69 | - | - | 1 | 199 | H |
| * 1.596 | 32.84 | ADR | 28.8 | -35.2 | 0 | 26.44 | 54 | -27.56 | - | - | - | - | 1 | 199 | H |
| * 1.2 | 56.03 | PK-U | 28.5 | -35.7 | 0 | 48.83 | - | - | 74 | -25.17 | - | - | 322 | 356 | V |
| * 1.199 | 33.27 | ADR | 28.5 | -35.7 | 0 | 26.07 | 54 | -27.93 | - | - | - | - | 322 | 356 | V |
| * 1.595 | 47.52 | PK-U | 28.8 | -35.2 | 0 | 41.12 | - | - | 74 | -32.88 | - | - | 322 | 102 | V |
| * 1.595 | 31.94 | ADR | 28.8 | -35.2 | 0 | 25.54 | 54 | -28.46 | - | - | - | - | 322 | 102 | V |
| 10.38 | 36.36 | PK-U | 37.4 | -25.4 | 0 | 48.36 | - | - | - | - | 68.2 | -19.84 | 80 | 331 | H |
| 10.381 | 36.04 | PK-U | 37.4 | -25.3 | 0 | 48.14 | - | - | - | - | 68.2 | -20.06 | 80 | 331 | V |

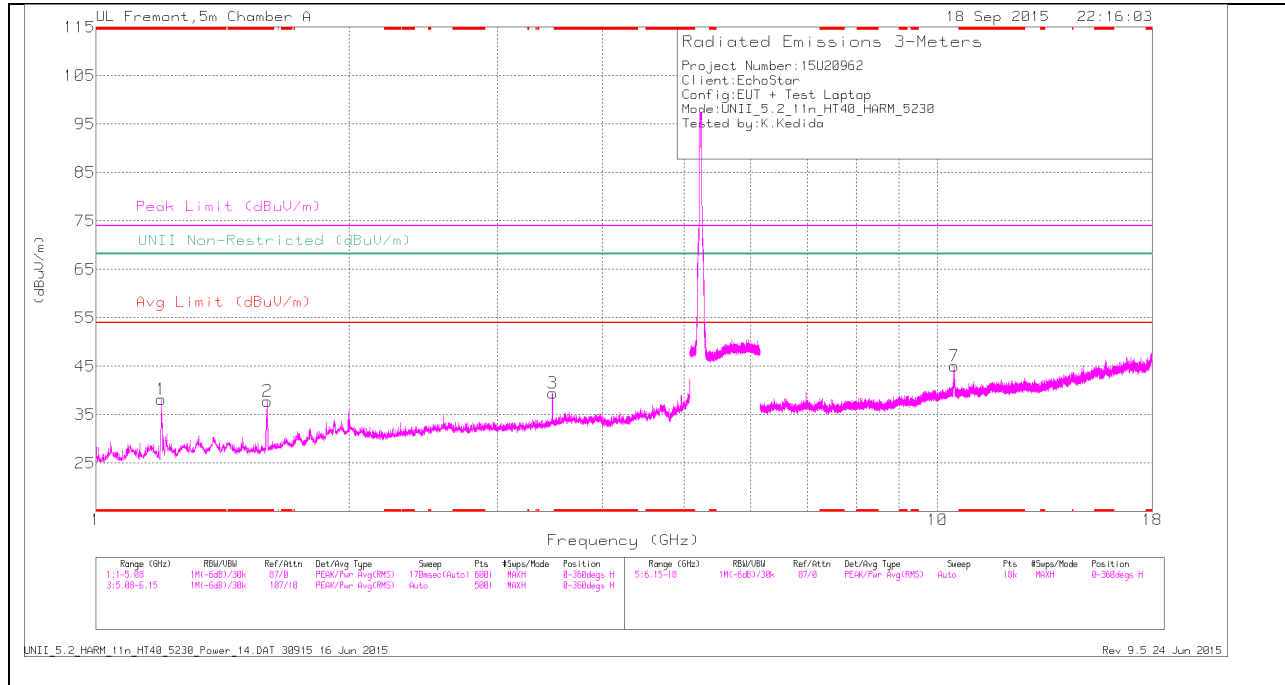
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Av - Average detection

PK-U - U-NII: Maximum Peak

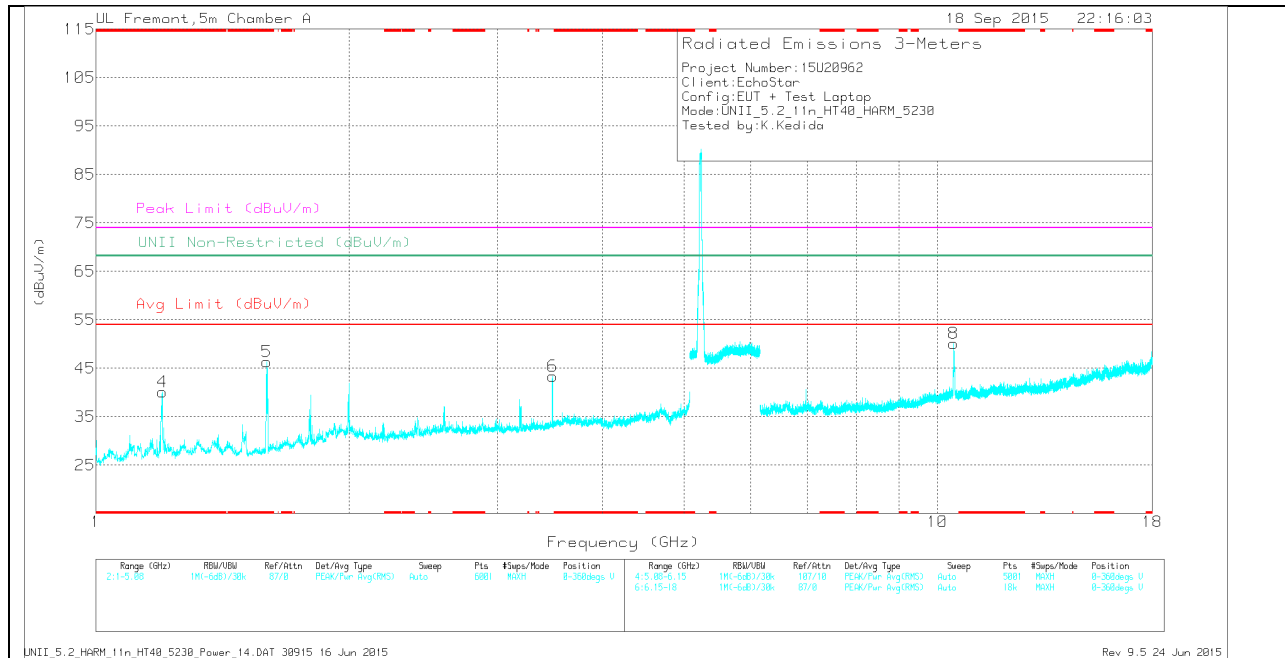
ADR - U-NII AD primary method, RMS average

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.

MID CHANNEL 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

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Ftr /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 | * 1.196 | 45.32 | Pk | 28.4 | -35.6 | 38.12 | - | - | 74 | -35.88 | - | - | 0-360 | 199 | H |
| 2 | * 1.599 | 44.14 | Pk | 28.8 | -35.1 | 37.84 | - | - | 74 | -36.16 | - | - | 0-360 | 101 | H |
| 4 | * 1.199 | 47.35 | Pk | 28.5 | -35.7 | 40.15 | - | - | 74 | -33.85 | - | - | 0-360 | 199 | V |
| 5 | * 1.597 | 52.79 | Pk | 28.8 | -35.2 | 46.39 | - | - | 74 | -27.61 | - | - | 0-360 | 101 | V |
| 3 | 3.487 | 39.11 | Pk | 33.5 | -33.1 | 39.51 | - | - | - | - | 68.2 | -28.69 | 0-360 | 199 | H |
| 6 | 3.487 | 42.98 | Pk | 33.5 | -33.1 | 43.38 | - | - | - | - | 68.2 | -24.82 | 0-360 | 199 | V |
| 8 | 10.46 | 37.77 | Pk | 37.4 | -25.1 | 50.07 | - | - | - | - | 68.2 | -18.13 | 0-360 | 101 | V |
| 7 | 10.462 | 32.77 | Pk | 37.4 | -25.1 | 45.07 | - | - | - | - | 68.2 | -23.13 | 0-360 | 199 | H |

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

Pk - Peak detector

Radiated Emissions

| Frequency (GHz) | Meter Reading (dBuV) | Det | AFT345 (dB/m) | Amp/Cbl/Ftr /tr/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 |
|-----------------|----------------------|------|---------------|--------------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 1.195 | 49.91 | PK-U | 28.4 | -35.6 | 42.71 | - | - | 74 | -31.29 | - | - | 167 | 200 | H |
| * 1.194 | 29.89 | VA1T | 28.4 | -35.6 | 22.69 | 54 | -31.31 | - | - | - | - | 167 | 200 | H |
| * 1.598 | 30.25 | VA1T | 28.8 | -35.2 | 23.85 | 54 | -30.15 | - | - | - | - | 167 | 102 | H |
| * 1.598 | 43.32 | PK-U | 28.8 | -35.2 | 36.92 | - | - | 74 | -37.08 | - | - | 167 | 102 | H |
| * 1.596 | 46.73 | PK-U | 28.8 | -35.2 | 40.33 | - | - | 74 | -33.67 | - | - | 167 | 102 | V |
| * 1.595 | 32.17 | ADR | 28.8 | -35.2 | 25.77 | 54 | -28.23 | - | - | - | - | 167 | 102 | V |
| 10.46 | 34.86 | PK-U | 37.4 | -25.1 | 47.16 | - | - | - | - | 68.2 | -21.04 | 220 | 266 | V |
| 10.461 | 43.9 | PK-U | 37.4 | -25.1 | 56.2 | - | - | - | - | 68.2 | -12 | 220 | 266 | H |

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

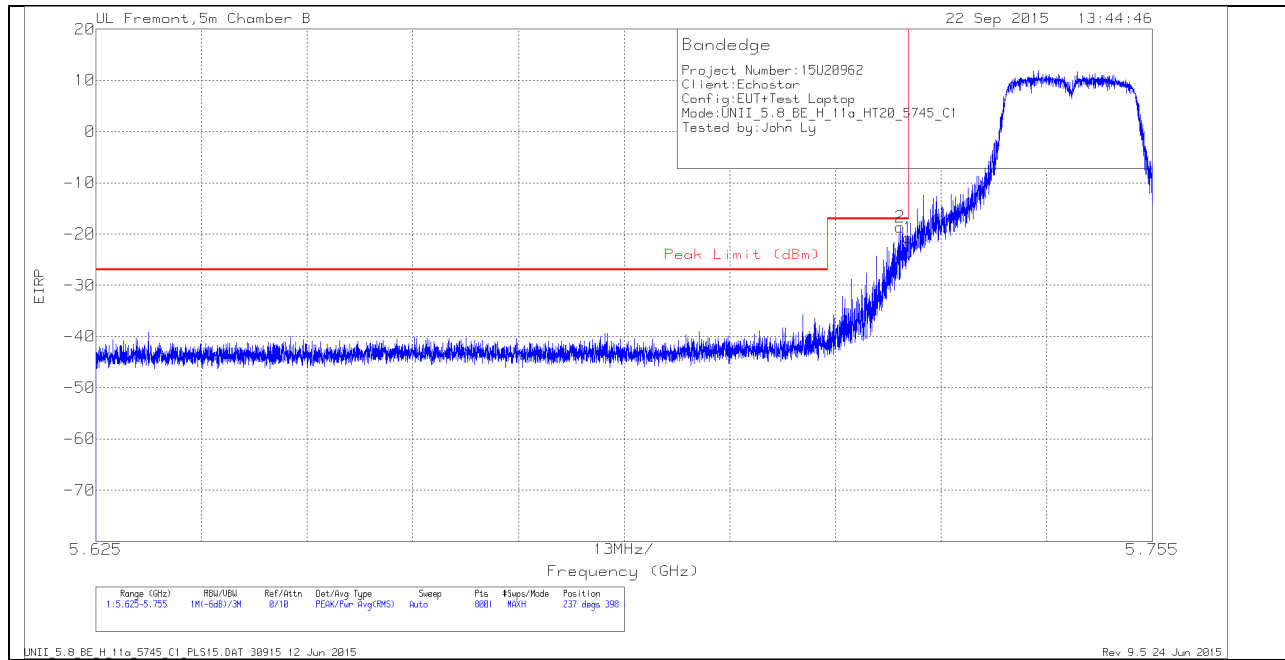
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

12.2. 5.8 GHz

12.2.1. TX ABOVE 1 GHz 802.11a MODE IN THE 5.8 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK PLOT



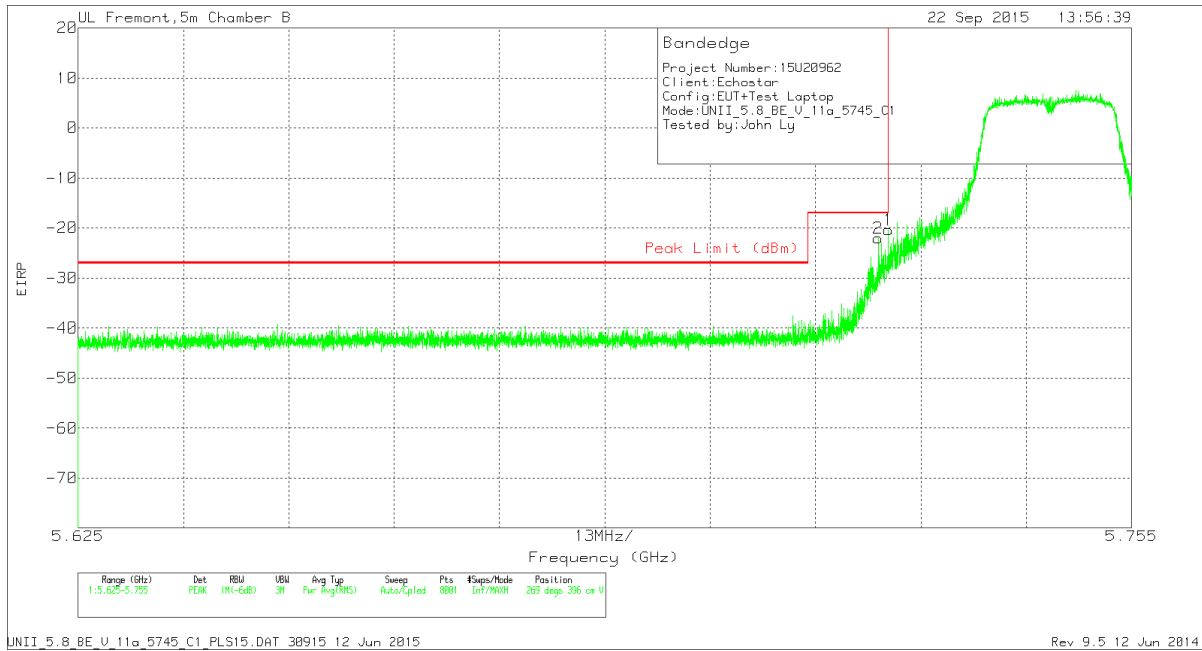
CH 149 HORIZONTAL DATA

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBm) | Det | AF T345 (dB/m) | Amp/Cbl/F Itr/Pad (dB) | Conversion Factor (dB) | Corrected Reading EIRP | Peak Limit (dBm) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|---------------------|-----|----------------|------------------------|------------------------|------------------------|------------------|----------------|----------------|-------------|----------|
| 2 | 5.724 | -43.72 | Pk | 35 | -21.7 | 11.8 | -18.62 | -17 | -1.62 | 237 | 398 | H |
| 1 | 5.725 | -45.83 | Pk | 35 | -21.7 | 11.8 | -20.73 | -17 | -3.73 | 237 | 398 | H |

Pk - Peak detector

VERTICAL PEAK PLOT



CH 149 VERTICAL DATA

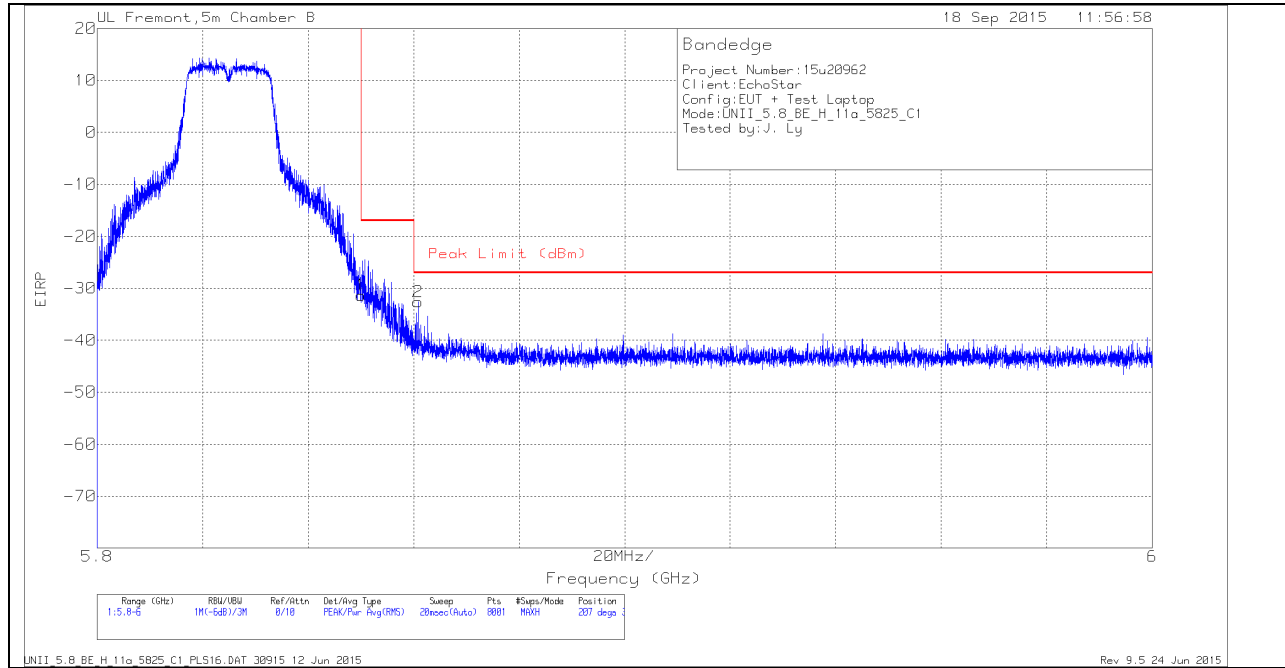
Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBm) | Det | AF T345 (dB/m) | Amp/Cbl/F ltr/Pad (dB) | Conversion Factor (dB) | Corrected Reading EIRP | Peak Limit (dBm) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|---------------------|-----|----------------|------------------------|------------------------|------------------------|------------------|----------------|----------------|-------------|----------|
| 2 | 5.724 | -47.11 | PK | 35 | -21.7 | 11.8 | -22.01 | -17 | -5.01 | 269 | 396 | V |
| 1 | 5.725 | -45.47 | PK | 35 | -21.7 | 11.8 | -20.37 | -17 | -3.37 | 269 | 396 | V |

PK - Peak detector

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK PLOT



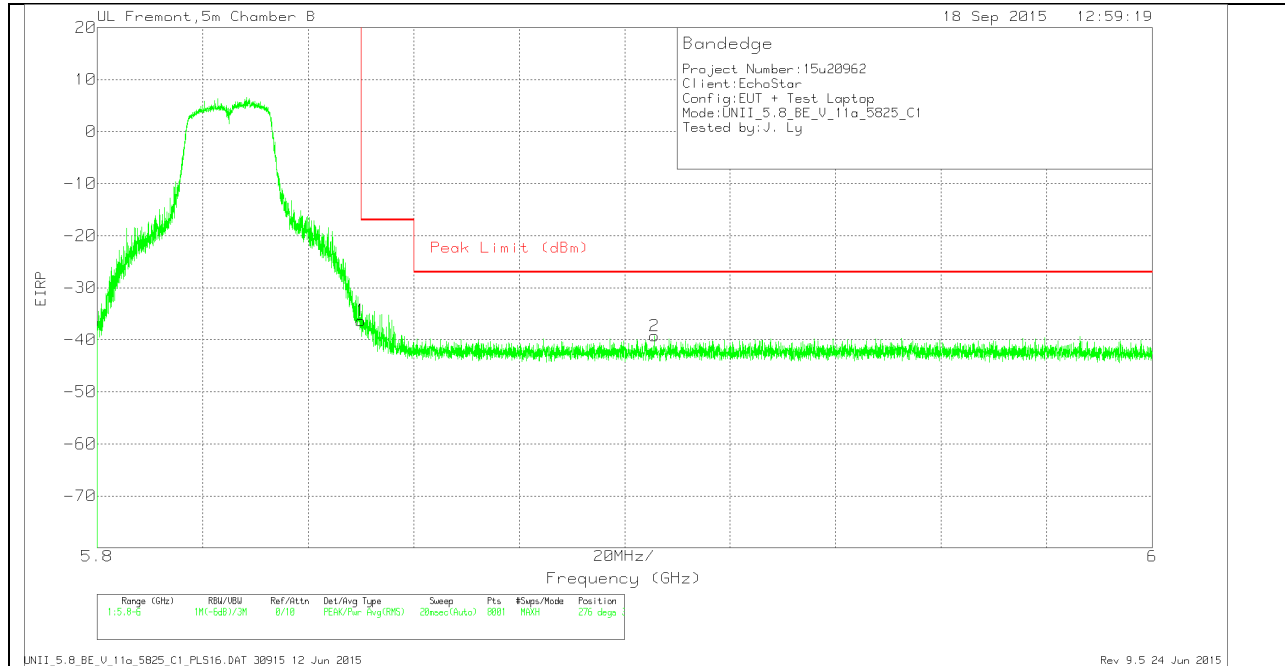
CH 165 HORIZONTAL DATA

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBm) | Det | AF T345 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | Conversion Factor (dB) | DC Corr (dB) | Corrected Reading EIRP | Peak Limit (dBm) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|---------------------|-----|----------------|------------------------|------------------------|--------------|------------------------|------------------|----------------|----------------|-------------|----------|
| 1 | 5.85 | -56.94 | Pk | 35.4 | -21.6 | 11.8 | 0 | -31.34 | -17 | -14.34 | 207 | 311 | H |
| 2 | 5.861 | -58.22 | Pk | 35.4 | -21.6 | 11.8 | 0 | -32.62 | -27 | -5.62 | 207 | 311 | H |

Pk - Peak detector

VERTICAL PEAK PLOT



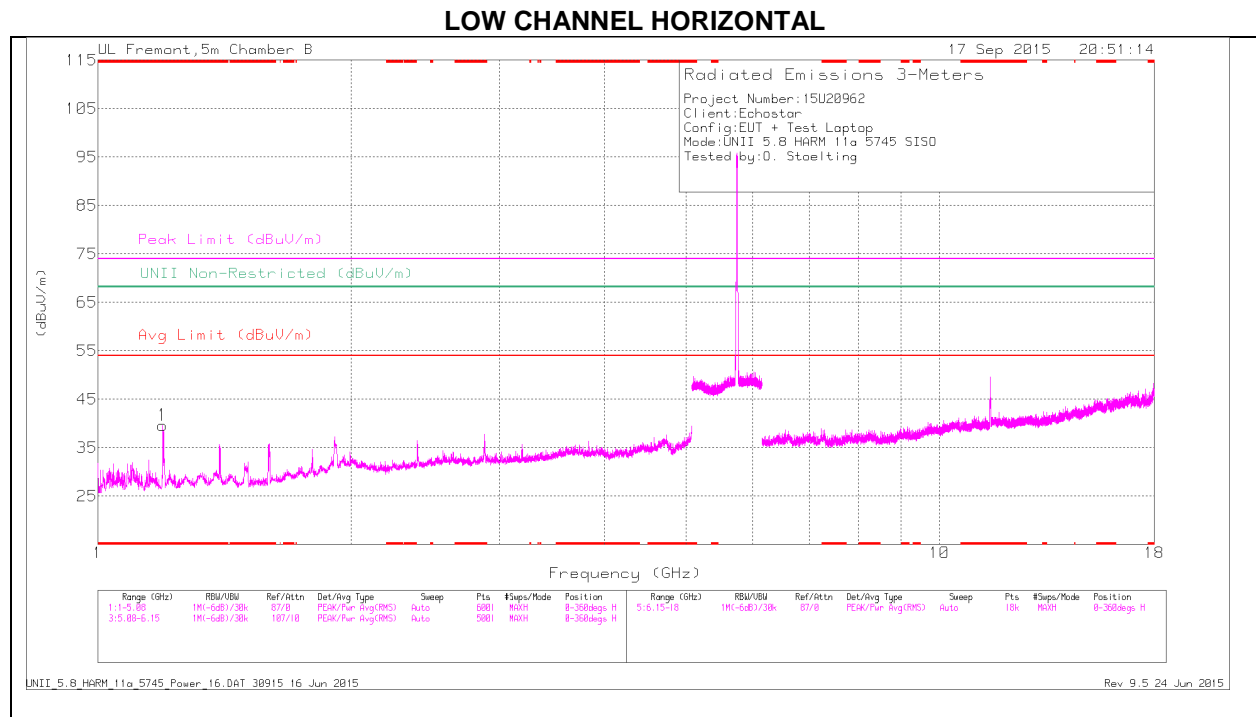
CH 165 HORIZONTAL DATA

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBm) | Det | AF T345 (dB/m) | Amp/Cbl/F ltr/Pad (dB) | Conversion Factor (dB) | Corrected Reading EIRP | Peak Limit (dBm) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|---------------------|-----|----------------|------------------------|------------------------|------------------------|------------------|----------------|----------------|-------------|----------|
| 1 | 5.85 | -61.92 | Pk | 35.4 | -21.6 | 11.8 | -36.32 | -17 | -19.32 | 276 | 382 | V |
| 2 | 5.906 | -64.93 | Pk | 35.5 | -21.6 | 11.8 | -39.23 | -27 | -12.23 | 276 | 382 | V |

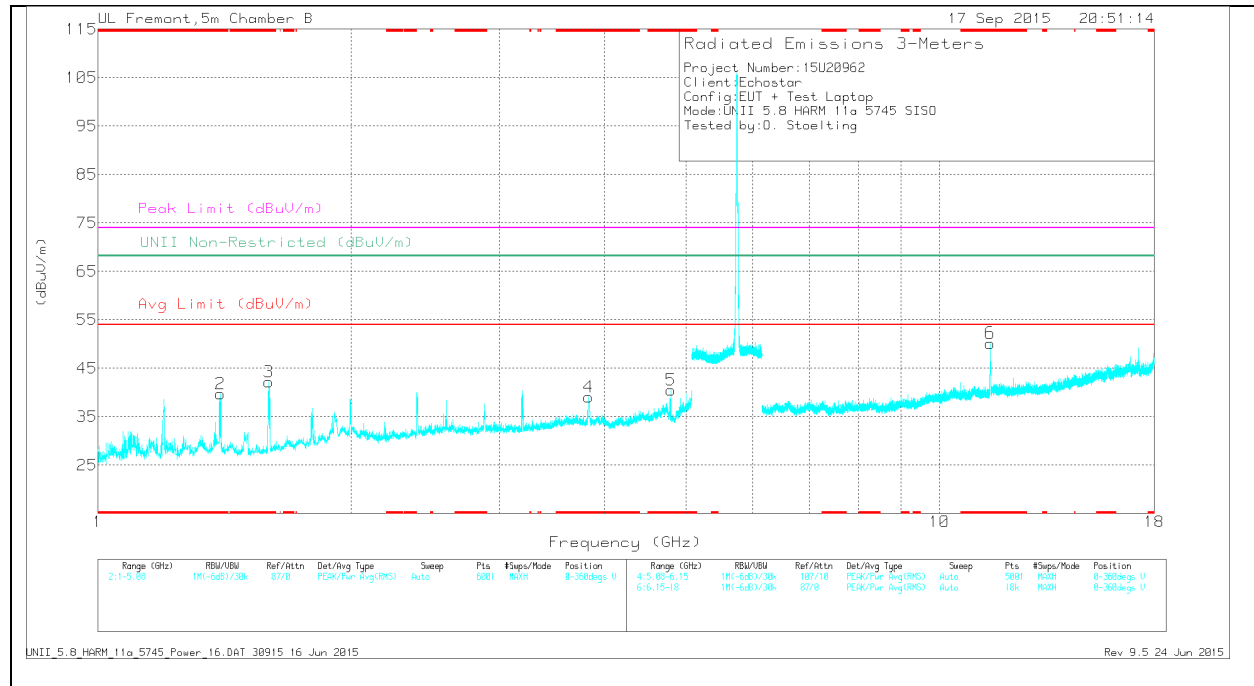
Pk - Peak detector

HARMONICS AND SPURIOUS EMISSIONS



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 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.

LOW CHANNEL DATA

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (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 | * 1.194 | 46.86 | Pk | 28.4 | -35.6 | 0 | 39.66 | - | - | 74 | -34.34 | - | - | 0-360 | 199 | H |
| 2 | * 1.399 | 45.03 | Pk | 29.4 | -34.7 | 0 | 39.73 | - | - | 74 | -34.27 | - | - | 0-360 | 199 | V |
| 3 | * 1.597 | 48.57 | Pk | 28.8 | -35.2 | 0 | 42.17 | - | - | 74 | -31.83 | - | - | 0-360 | 101 | V |
| 4 | * 3.83 | 38.64 | Pk | 33.4 | -33 | 0 | 39.04 | - | - | 74 | -34.96 | - | - | 0-360 | 199 | V |
| 5 | * 4.795 | 37.86 | Pk | 34.3 | -31.7 | 0 | 40.46 | - | - | 74 | -33.54 | - | - | 0-360 | 199 | V |
| 6 | * 11.491 | 37.28 | Pk | 38.3 | -25.4 | 0 | 50.18 | - | - | 74 | -23.82 | - | - | 0-360 | 101 | V |

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

Pk - Peak detector

Radiated Emissions

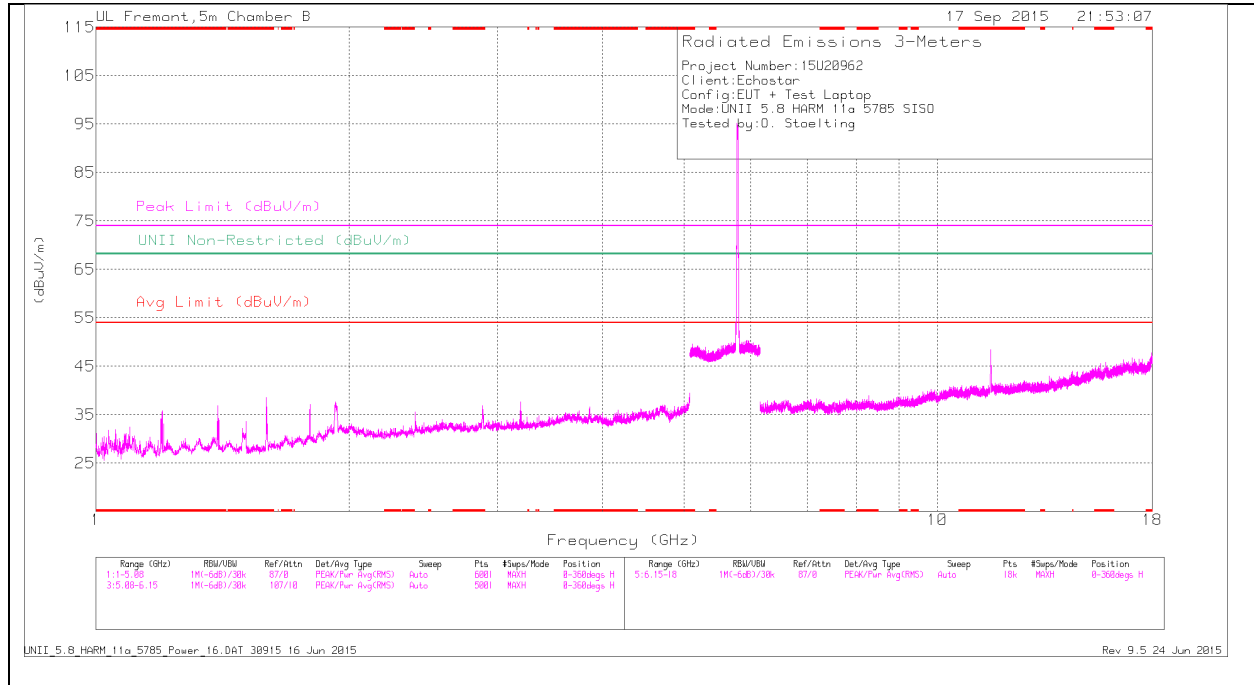
| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Ftr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|------|----------------|----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 1.195 | 54.28 | PK-U | 28.4 | -35.6 | 0 | 47.08 | - | - | 74 | -26.92 | - | - | 261 | 137 | H |
| * 1.195 | 32.44 | ADR | 28.4 | -35.6 | 0 | 25.24 | 54 | -28.76 | - | - | - | - | 261 | 137 | H |
| * 1.4 | 54.59 | PK-U | 29.3 | -34.7 | 0 | 49.19 | - | - | 74 | -24.81 | - | - | 193 | 112 | V |
| * 1.397 | 32.94 | ADR | 29.4 | -34.7 | 0 | 27.64 | 54 | -26.36 | - | - | - | - | 193 | 112 | V |
| * 1.598 | 57.12 | PK-U | 28.8 | -35.2 | 0 | 50.72 | - | - | 74 | -23.28 | - | - | 13 | 393 | V |
| * 1.596 | 35.46 | ADR | 28.8 | -35.2 | 0 | 29.06 | 54 | -24.94 | - | - | - | - | 13 | 393 | V |
| * 3.83 | 43.78 | PK-U | 33.4 | -33 | 0 | 44.18 | - | - | 74 | -29.82 | - | - | 140 | 290 | V |
| * 3.83 | 35.21 | ADR | 33.4 | -33 | 0 | 35.61 | 54 | -18.39 | - | - | - | - | 140 | 290 | V |
| * 4.794 | 45.19 | PK-U | 34.3 | -31.7 | 0 | 47.79 | - | - | 74 | -26.21 | - | - | 221 | 251 | V |
| * 4.794 | 29.13 | ADR | 34.3 | -31.7 | 0 | 31.73 | 54 | -22.27 | - | - | - | - | 221 | 251 | V |
| * 11.493 | 43.37 | PK-U | 38.3 | -25.4 | 0 | 56.27 | - | - | 74 | -17.73 | - | - | 197 | 335 | V |
| * 11.49 | 30.37 | ADR | 38.3 | -25.4 | 0 | 43.27 | 54 | -10.73 | - | - | - | - | 197 | 335 | V |

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

PK-U - U-NII: Maximum Peak

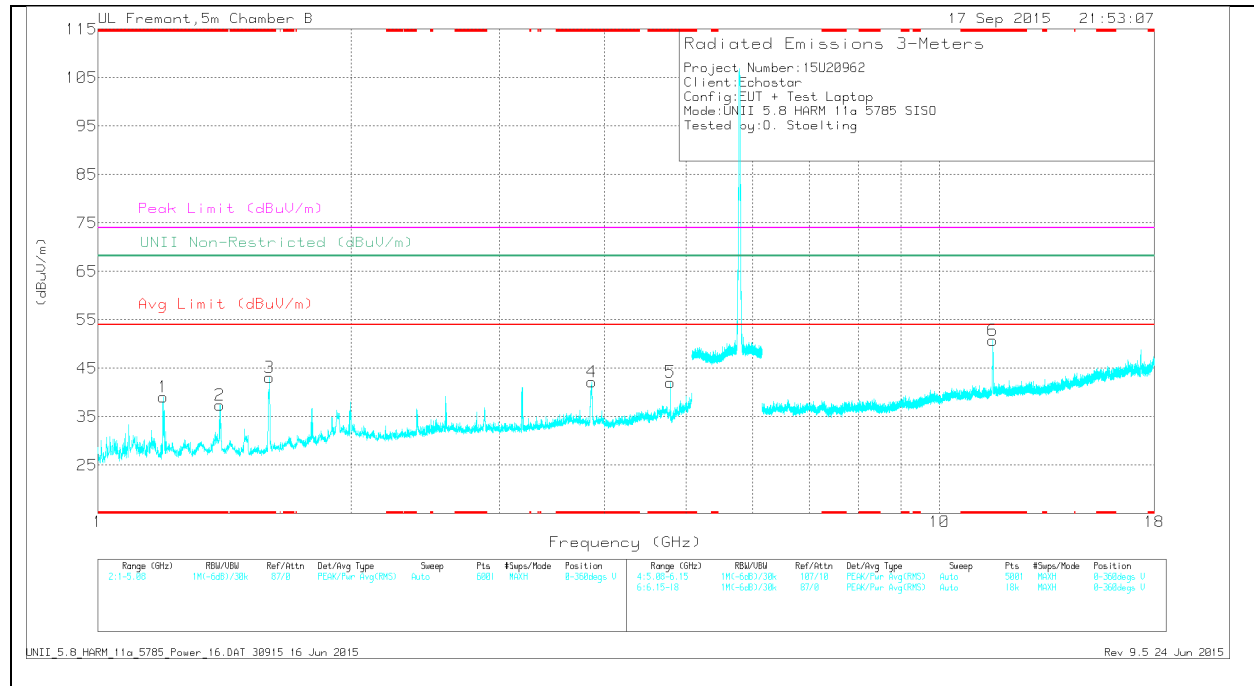
ADR - U-NII AD primary method, RMS average

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.

MID CHANNEL 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

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Filtr/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 | * 1.195 | 46.24 | Pk | 28.4 | -35.6 | 0 | 39.04 | - | - | 74 | -34.96 | - | - | 0-360 | 101 | V |
| 2 | * 1.396 | 42.71 | Pk | 29.4 | -34.7 | 0 | 37.41 | - | - | 74 | -36.59 | - | - | 0-360 | 200 | V |
| 3 | * 1.6 | 49.36 | Pk | 28.8 | -35.1 | 0 | 43.06 | - | - | 74 | -30.94 | - | - | 0-360 | 200 | V |
| 4 | * 3.861 | 41.65 | Pk | 33.4 | -32.8 | 0 | 42.25 | - | - | 74 | -31.75 | - | - | 0-360 | 200 | V |
| 5 | * 4.785 | 39.33 | Pk | 34.3 | -31.5 | 0 | 42.13 | - | - | 74 | -31.87 | - | - | 0-360 | 101 | V |
| 6 | * 11.572 | 36.92 | Pk | 38.4 | -24.6 | 0 | 50.72 | - | - | 74 | -23.28 | - | - | 0-360 | 101 | V |

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

Pk - Peak detector

Radiated Emissions

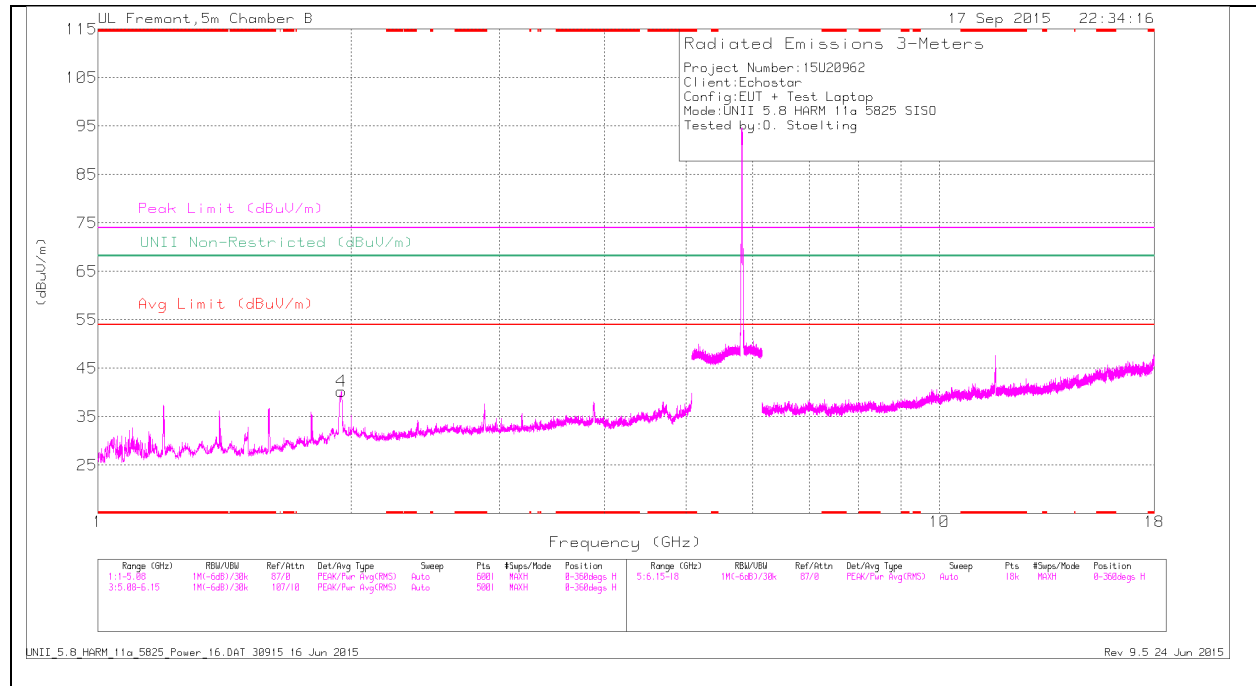
| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|------|----------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 1.197 | 52.71 | PK-U | 28.5 | -35.6 | 0 | 45.61 | - | - | 74 | -28.39 | - | - | 185 | 283 | V |
| * 1.197 | 32.25 | ADR | 28.5 | -35.6 | 0 | 25.15 | 54 | -28.85 | - | - | - | - | 185 | 283 | V |
| * 1.394 | 55.75 | PK-U | 29.4 | -34.7 | 0 | 50.45 | - | - | 74 | -23.55 | - | - | 188 | 382 | V |
| * 1.394 | 33.02 | ADR | 29.4 | -34.7 | 0 | 27.72 | 54 | -26.28 | - | - | - | - | 188 | 382 | V |
| * 3.861 | 44.37 | PK-U | 33.4 | -32.8 | 0 | 44.97 | - | - | 74 | -29.03 | - | - | 295 | 376 | V |
| * 3.86 | 32.16 | ADR | 33.4 | -32.9 | 0 | 32.66 | 54 | -21.34 | - | - | - | - | 295 | 376 | V |
| * 4.787 | 44.1 | PK-U | 34.3 | -31.5 | 0 | 46.9 | - | - | 74 | -27.1 | - | - | 69 | 171 | V |
| * 4.787 | 29.88 | ADR | 34.3 | -31.5 | 0 | 32.68 | 54 | -21.32 | - | - | - | - | 69 | 171 | V |
| * 11.573 | 37.99 | PK-U | 38.4 | -24.5 | 0 | 51.89 | - | - | 74 | -22.11 | - | - | 191 | 282 | V |
| * 11.57 | 26.23 | ADR | 38.4 | -24.6 | 0 | 40.03 | 54 | -13.97 | - | - | - | - | 191 | 282 | V |
| * 11.493 | 43.37 | PK-U | 38.3 | -25.4 | 0 | 56.27 | - | - | 74 | -17.73 | - | - | 197 | 335 | V |
| * 11.49 | 30.37 | ADR | 38.3 | -25.4 | 0 | 43.27 | 54 | -10.73 | - | - | - | - | 197 | 335 | V |

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

PK-U - U-NII: Maximum Peak

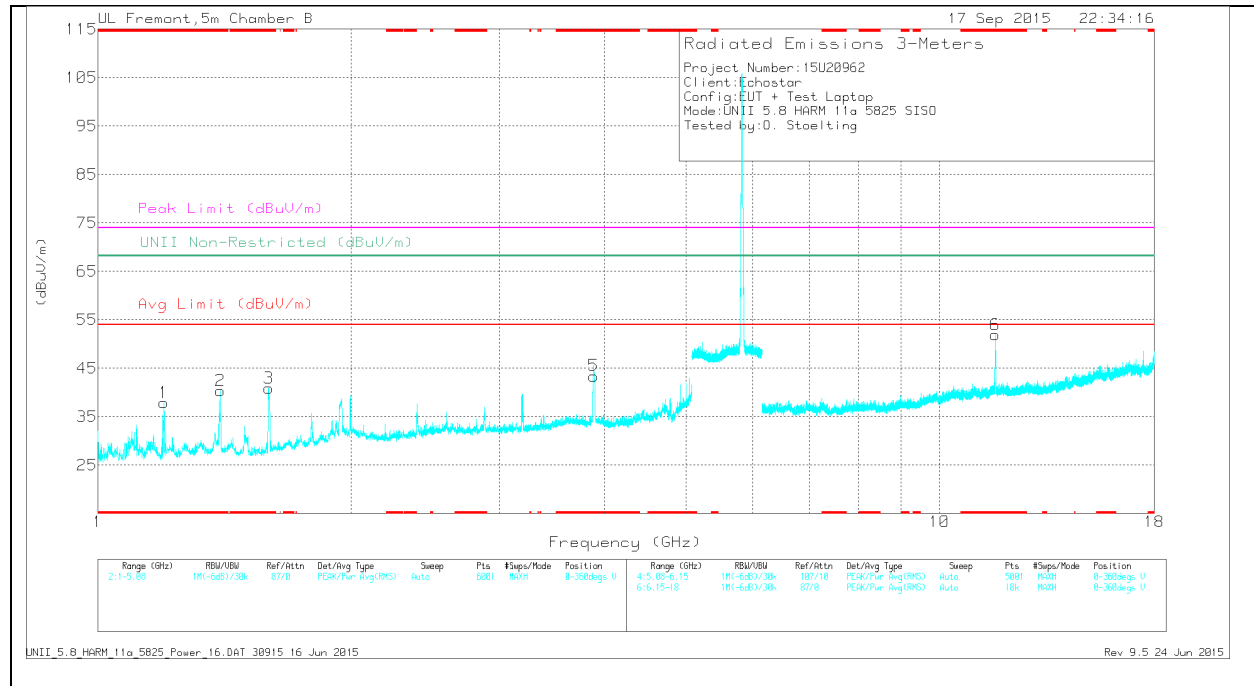
ADR - U-NII AD primary method, RMS average

HIGH 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.

HIGH CHANNEL 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.

HIGH CHANNEL DATA

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (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 | * 1.199 | 45.13 | Pk | 28.5 | -35.7 | 0 | 37.93 | - | - | 74 | -36.07 | - | - | 0-360 | 101 | V |
| 2 | * 1.398 | 45.73 | Pk | 29.4 | -34.7 | 0 | 40.43 | - | - | 74 | -33.57 | - | - | 0-360 | 199 | V |
| 3 | * 1.596 | 47.3 | Pk | 28.8 | -35.2 | 0 | 40.9 | - | - | 74 | -33.1 | - | - | 0-360 | 199 | V |
| 5 | * 3.879 | 42.53 | Pk | 33.5 | -32.6 | 0 | 43.43 | - | - | 74 | -30.57 | - | - | 0-360 | 199 | V |
| 6 | * 11.645 | 38.17 | Pk | 38.5 | -24.7 | 0 | 51.97 | - | - | 74 | -22.03 | - | - | 0-360 | 101 | V |
| 4 | 1.947 | 41.89 | Pk | 32.1 | -33.8 | 0 | 40.19 | - | - | - | - | 68.2 | -28.01 | 0-360 | 199 | 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/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 |
|-----------------|----------------------|------|----------------|----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 1.199 | 54.34 | PK-U | 28.5 | -35.7 | 0 | 47.14 | - | - | 74 | -26.86 | - | - | 186 | 146 | V |
| * 1.198 | 32.63 | ADR | 28.5 | -35.7 | 0 | 25.43 | 54 | -28.57 | - | - | - | - | 186 | 146 | V |
| * 1.398 | 54.97 | PK-U | 29.4 | -34.7 | 0 | 49.67 | - | - | 74 | -24.33 | - | - | 192 | 386 | V |
| * 1.397 | 32.89 | ADR | 29.4 | -34.7 | 0 | 27.59 | 54 | -26.41 | - | - | - | - | 192 | 386 | V |
| * 1.597 | 57.63 | PK-U | 28.8 | -35.2 | 0 | 51.23 | - | - | 74 | -22.77 | - | - | 209 | 283 | V |
| * 1.594 | 35.59 | ADR | 28.8 | -35.2 | 0 | 29.19 | 54 | -24.81 | - | - | - | - | 209 | 283 | V |
| * 3.881 | 47.23 | PK-U | 33.5 | -32.6 | 0 | 48.13 | - | - | 74 | -25.87 | - | - | 270 | 400 | V |
| * 3.881 | 34.85 | ADR | 33.5 | -32.6 | 0 | 35.75 | 54 | -18.25 | - | - | - | - | 270 | 400 | V |
| * 11.646 | 37.76 | PK-U | 38.5 | -24.7 | 0 | 51.56 | - | - | 74 | -22.44 | - | - | 79 | 101 | V |
| * 11.647 | 25.96 | ADR | 38.5 | -24.7 | 0 | 39.76 | 54 | -14.24 | - | - | - | - | 79 | 101 | V |
| * 11.49 | 30.37 | ADR | 38.3 | -25.4 | 0 | 43.27 | 54 | -10.73 | - | - | - | - | 197 | 335 | V |
| 1.946 | 48.86 | PK-U | 32.1 | -33.8 | 0 | 47.16 | - | - | - | - | 68.2 | -21.04 | 230 | 327 | H |

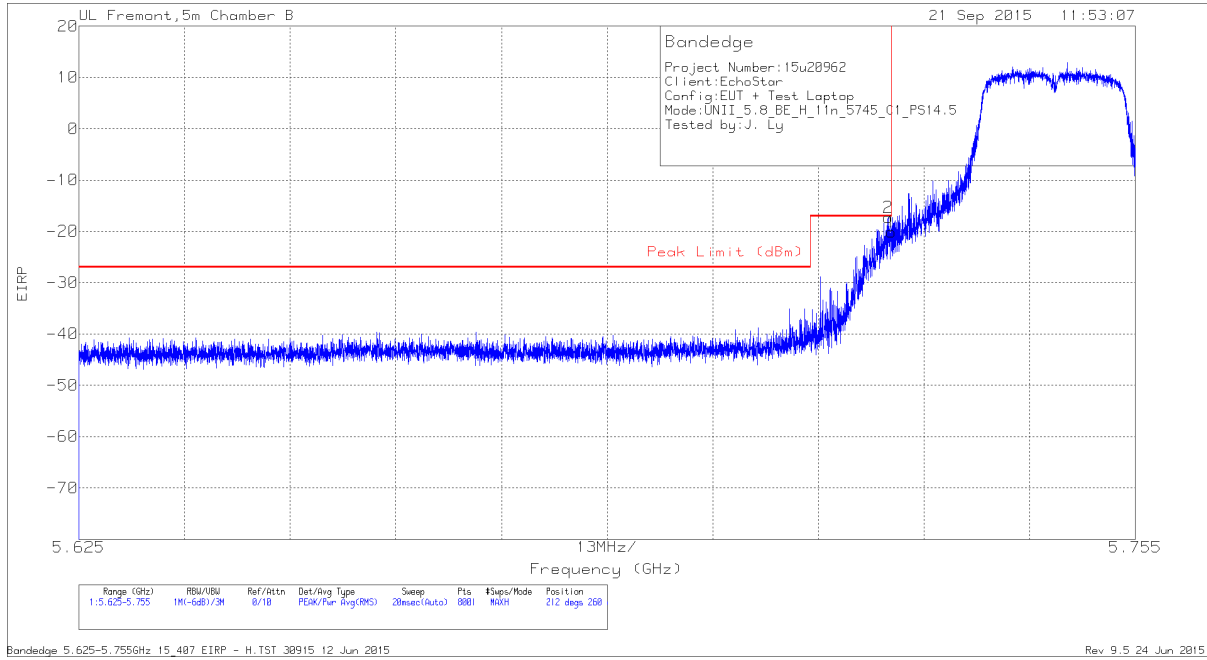
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

12.2.1. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.8 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL DATA

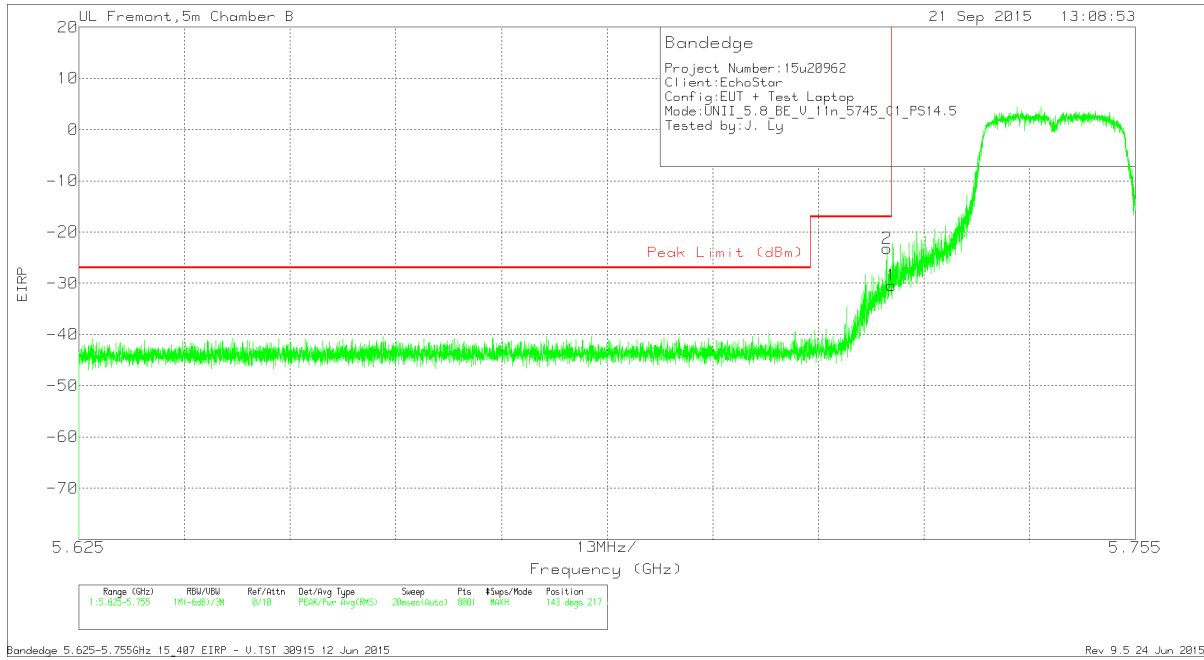


Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBm) | Det | AFT345 (dB/m) | Amp/Cb/Fltr/Pad (dB) | Conversion Factor (dB) | DC Corr (dB) | Corrected Reading EIRP | Peak Limit (dBm) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|---------------------|-----|---------------|----------------------|------------------------|--------------|------------------------|------------------|----------------|----------------|-------------|----------|
| 1 | 5.725 | -45.18 | Pk | 35 | -21.7 | 11.8 | 0 | -20.08 | -17 | -3.08 | 212 | 260 | H |
| 2 | 5.725 | -42.45 | Pk | 35 | -21.7 | 11.8 | 0 | -17.35 | -17 | -3.5 | 212 | 260 | H |

Pk - Peak detector

VERTICAL DATA

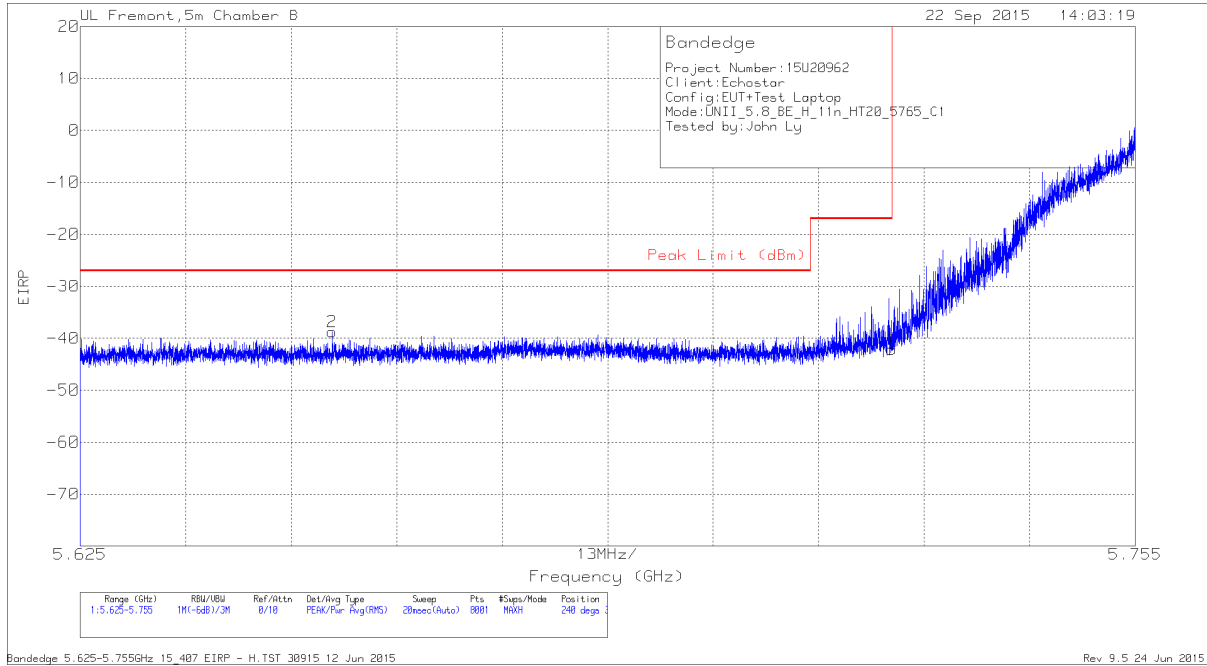


Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBm) | Det | AF T345 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | Conversion Factor (dB) | DC Corr (dB) | Corrected Reading EIRP | Peak Limit (dBm) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|---------------------|-----|----------------|------------------------|------------------------|--------------|------------------------|------------------|----------------|----------------|-------------|----------|
| 2 | 5.724 | -48.3 | Pk | 35 | -21.7 | 11.8 | 0 | -23.2 | -17 | -6.2 | 143 | 217 | V |
| 1 | 5.725 | -55.5 | Pk | 35 | -21.7 | 11.8 | 0 | -30.4 | -17 | -13.4 | 143 | 217 | V |

Pk - Peak detector

CH 153 HORIZONTAL DATA

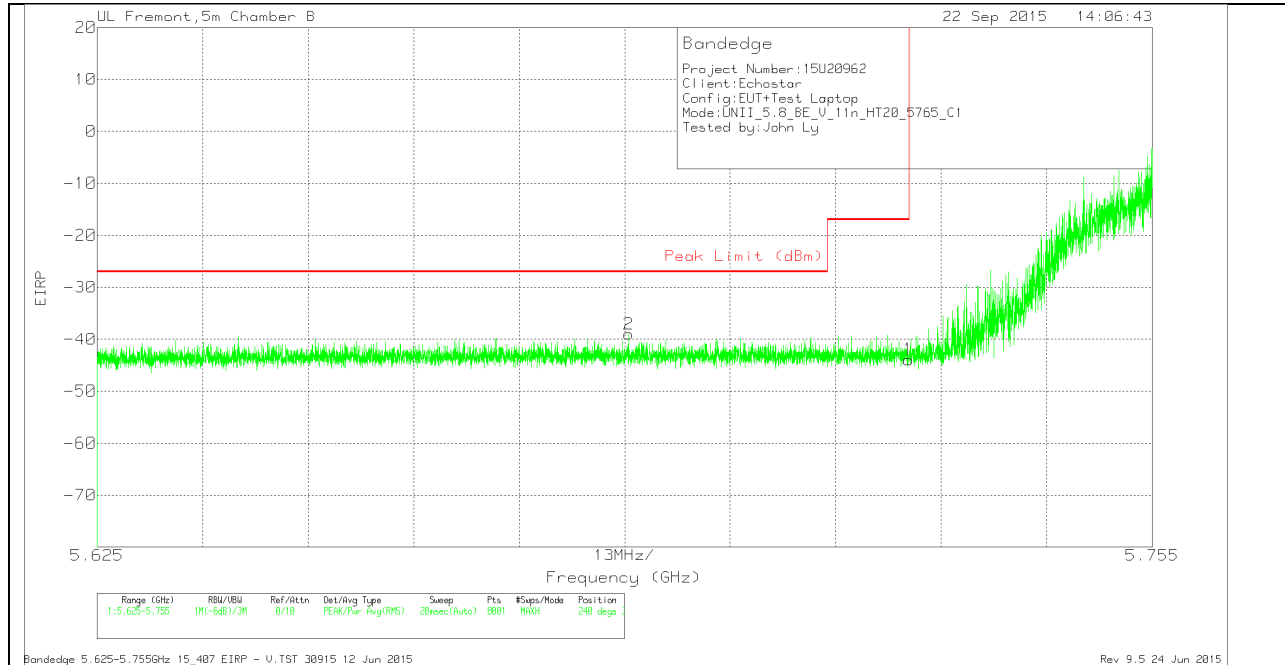


Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBm) | Det | AF T345 (dB/m) | Amp/Cbl/F ltr/Pad (dB) | Conversion Factor (dB) | Corrected Reading EIRP | Peak Limit (dBm) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|---------------------|-----|----------------|------------------------|------------------------|------------------------|------------------|----------------|----------------|-------------|----------|
| 2 | 5.656 | -63.55 | Pk | 34.9 | -21.9 | 11.8 | -38.75 | -27 | -11.75 | 240 | 369 | H |
| 1 | 5.725 | -67.25 | Pk | 35 | -21.7 | 11.8 | -42.15 | -17 | -25.15 | 240 | 369 | H |

Pk - Peak detector

CH 153 VERTICAL DATA



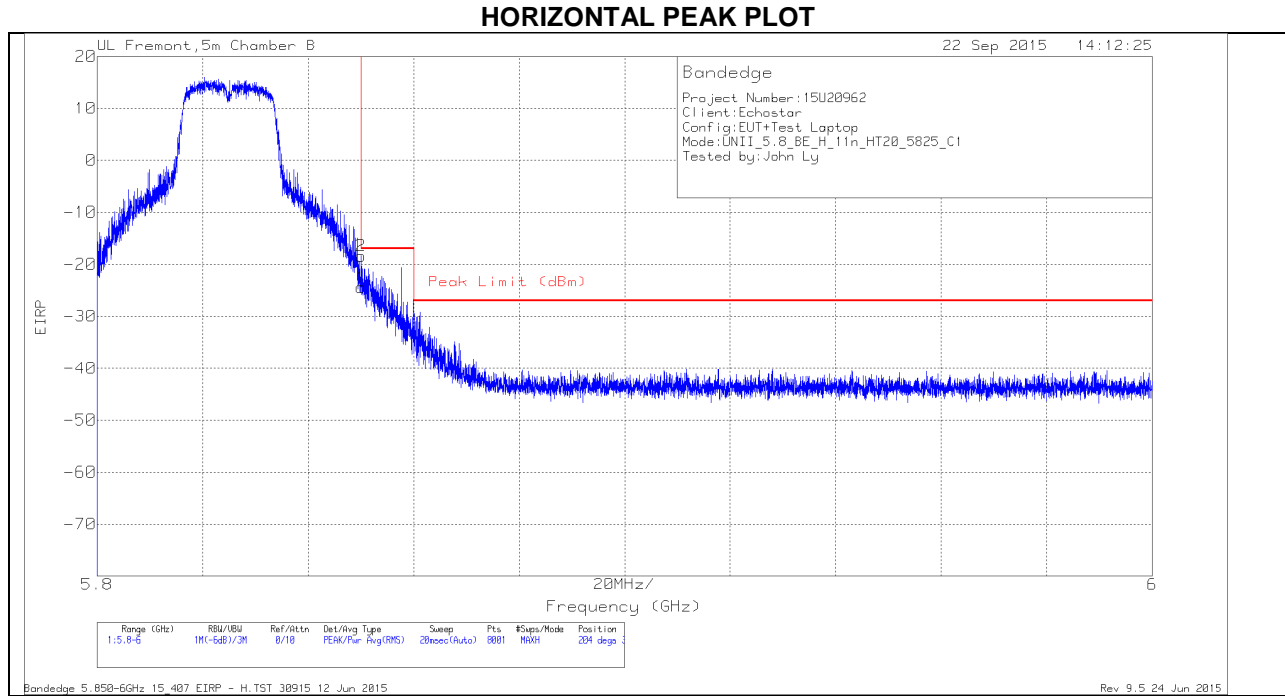
CH 153 VERTICAL DATA

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBm) | Det | AF T345 (dB/m) | Amp/Cbl/F ltr/Pad (dB) | Conversion Factor (dB) | Corrected Reading EIRP | Peak Limit (dBm) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|---------------------|-----|----------------|------------------------|------------------------|------------------------|------------------|----------------|----------------|-------------|----------|
| 2 | 5.691 | -63.91 | Pk | 34.9 | -21.8 | 11.8 | -39.01 | -27 | -12.01 | 240 | 369 | V |
| 1 | 5.725 | -69.01 | Pk | 35 | -21.7 | 11.8 | -43.91 | -17 | -26.91 | 240 | 369 | V |

Pk - Peak detector

AUTHORIZED BANDEDGE (HIGH CHANNEL)



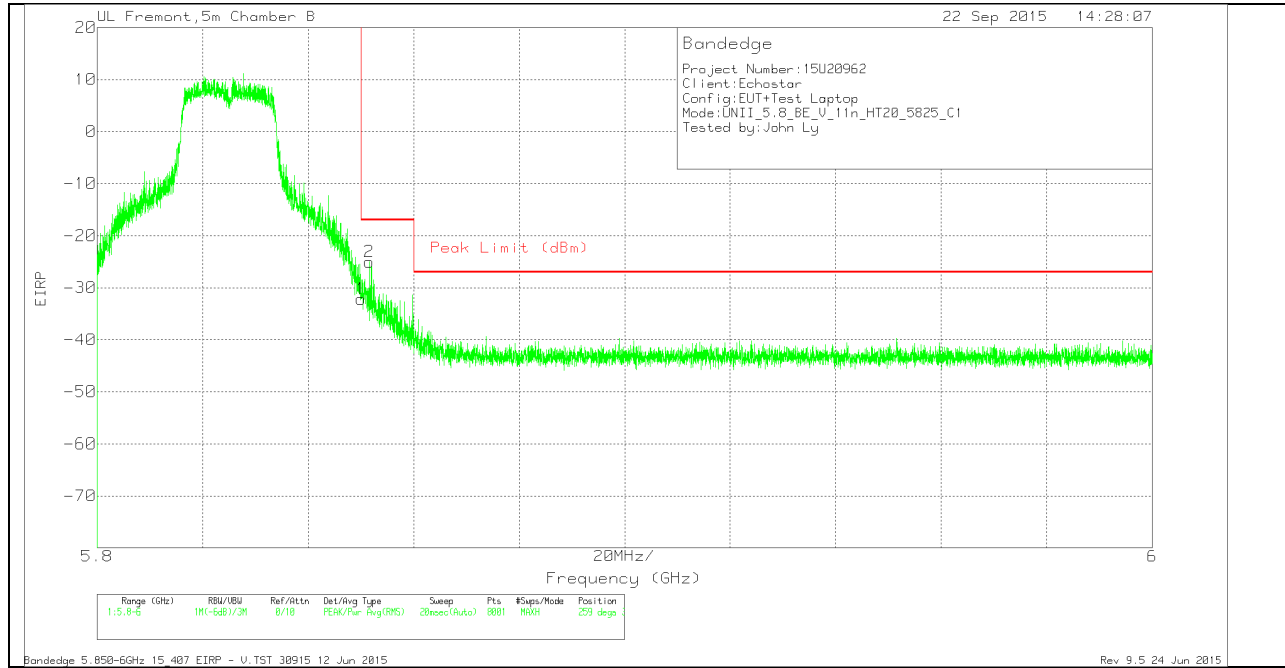
CH 165 HORIZONTAL DATA

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBm) | Det | AF T345 (dB/m) | Amp/Cbl/F Itr/Pad (dB) | Conversion Factor (dB) | Corrected Reading EIRP | Peak Limit (dBm) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|---------------------|-----|----------------|------------------------|------------------------|------------------------|------------------|----------------|----------------|-------------|----------|
| 1 | 5.85 | -50.02 | Pk | 35.4 | -21.6 | 11.8 | -24.42 | -17 | -7.42 | 204 | 300 | H |
| 2 | 5.85 | -43.98 | Pk | 35.4 | -21.6 | 11.8 | -18.38 | -17 | -1.38 | 204 | 300 | H |

Pk - Peak detector

VERTICAL PEAK PLOT



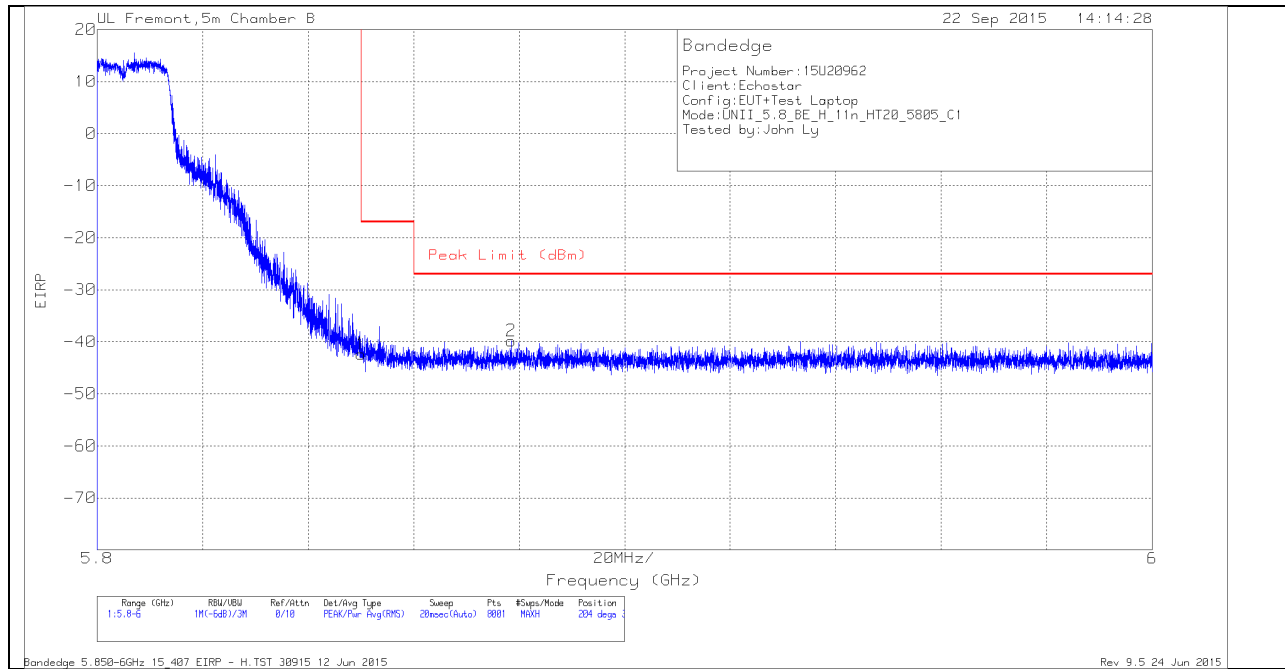
CH 165 HORIZONTAL DATA

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBm) | Det | AF T345 (dB/m) | Amp/Cbl/F Itr/Pad (dB) | Conversion Factor (dB) | Corrected Reading EIRP | Peak Limit (dBm) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|---------------------|-----|----------------|------------------------|------------------------|------------------------|------------------|----------------|----------------|-------------|----------|
| 1 | 5.85 | -57.75 | Pk | 35.4 | -21.6 | 11.8 | -32.15 | -17 | -15.15 | 259 | 351 | V |
| 2 | 5.852 | -50.62 | Pk | 35.4 | -21.6 | 11.8 | -25.02 | -17 | -8.02 | 259 | 351 | V |

Pk - Peak detector

HORIZONTAL PEAK PLOT



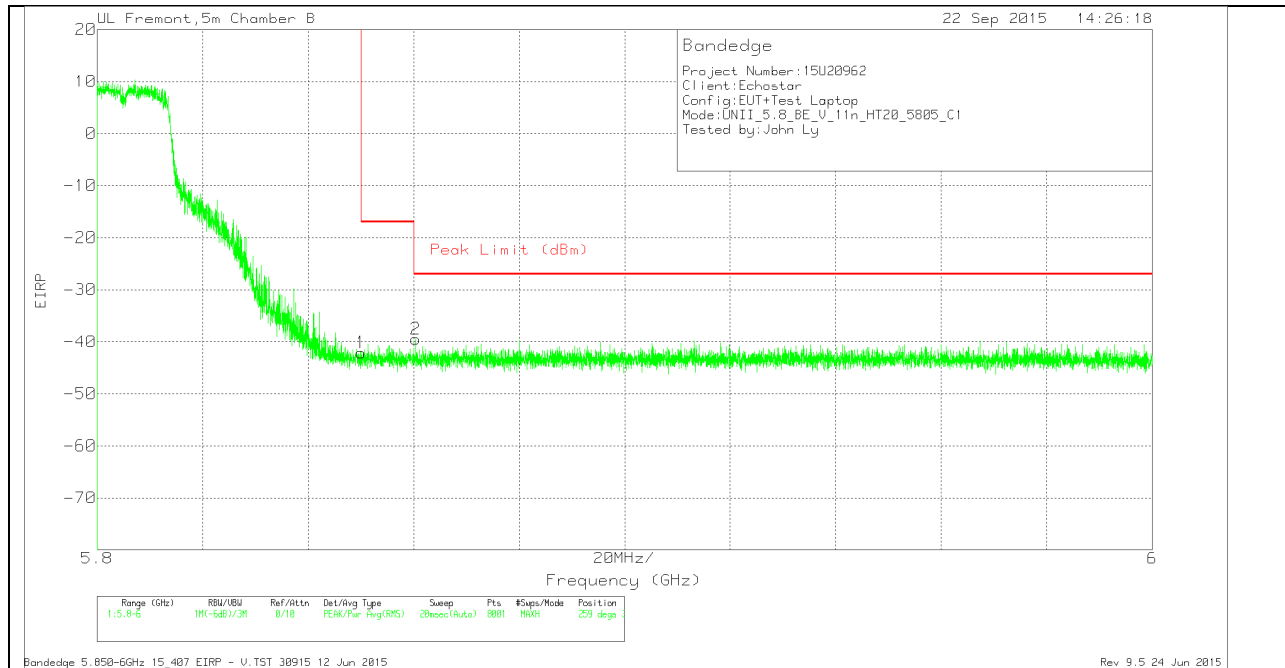
CH 161 HORIZONTAL DATA

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBm) | Det | AF T345 (dB/m) | Amp/Cbl/F ltr/Pad (dB) | Conversion Factor (dB) | Corrected Reading EIRP | Peak Limit (dBm) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|---------------------|-----|----------------|------------------------|------------------------|------------------------|------------------|----------------|----------------|-------------|----------|
| 1 | 5.85 | -67.95 | Pk | 35.4 | -21.6 | 11.8 | -42.35 | -17 | -25.35 | 204 | 300 | H |
| 2 | 5.879 | -65.51 | Pk | 35.5 | -21.6 | 11.8 | -39.81 | -27 | -12.81 | 204 | 300 | H |

Pk - Peak detector

VERTICAL PEAK PLOT



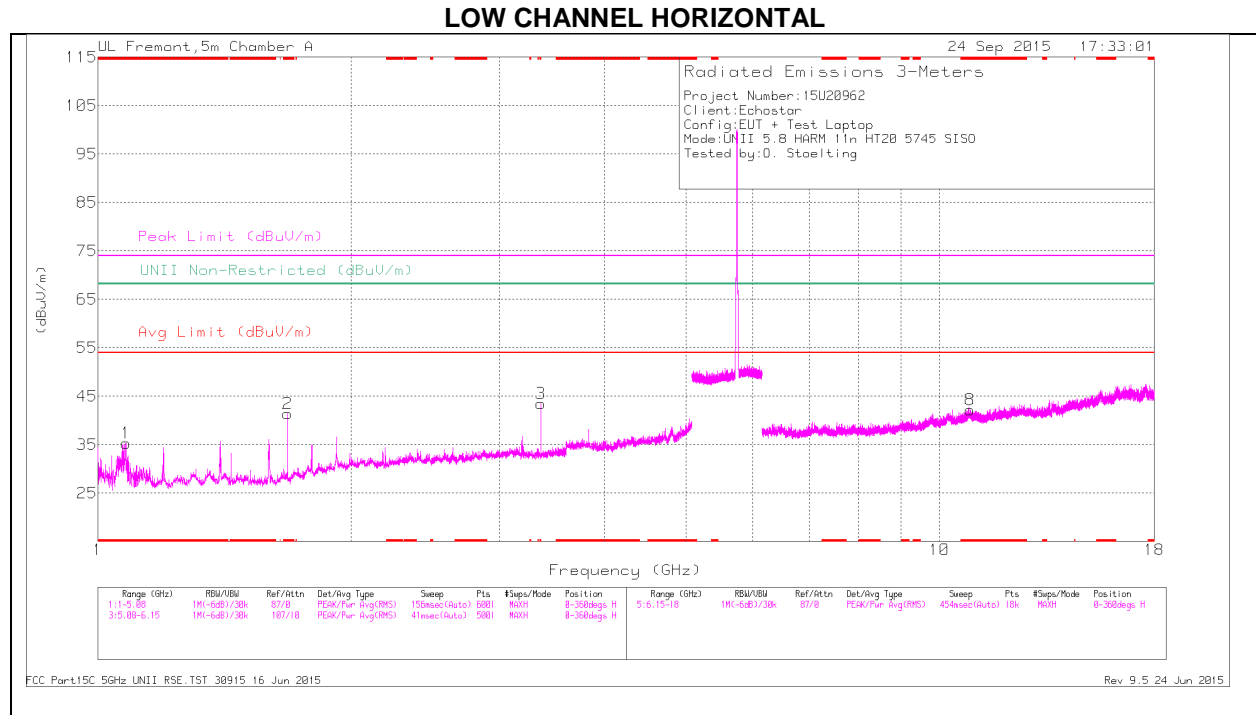
CH 161 VERTICAL DATA

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBm) | Det | AF T345 (dB/m) | Amp/Cbl/F Itr/Pad (dB) | Conversion Factor (dB) | Corrected Reading EIRP | Peak Limit (dBm) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|---------------------|-----|----------------|------------------------|------------------------|------------------------|------------------|----------------|----------------|-------------|----------|
| 1 | 5.85 | -67.7 | Pk | 35.4 | -21.6 | 11.8 | -42.1 | -17 | -25.1 | 259 | 351 | V |
| 2 | 5.86 | -65.07 | Pk | 35.4 | -21.6 | 11.8 | -39.47 | -27 | -12.47 | 259 | 351 | V |

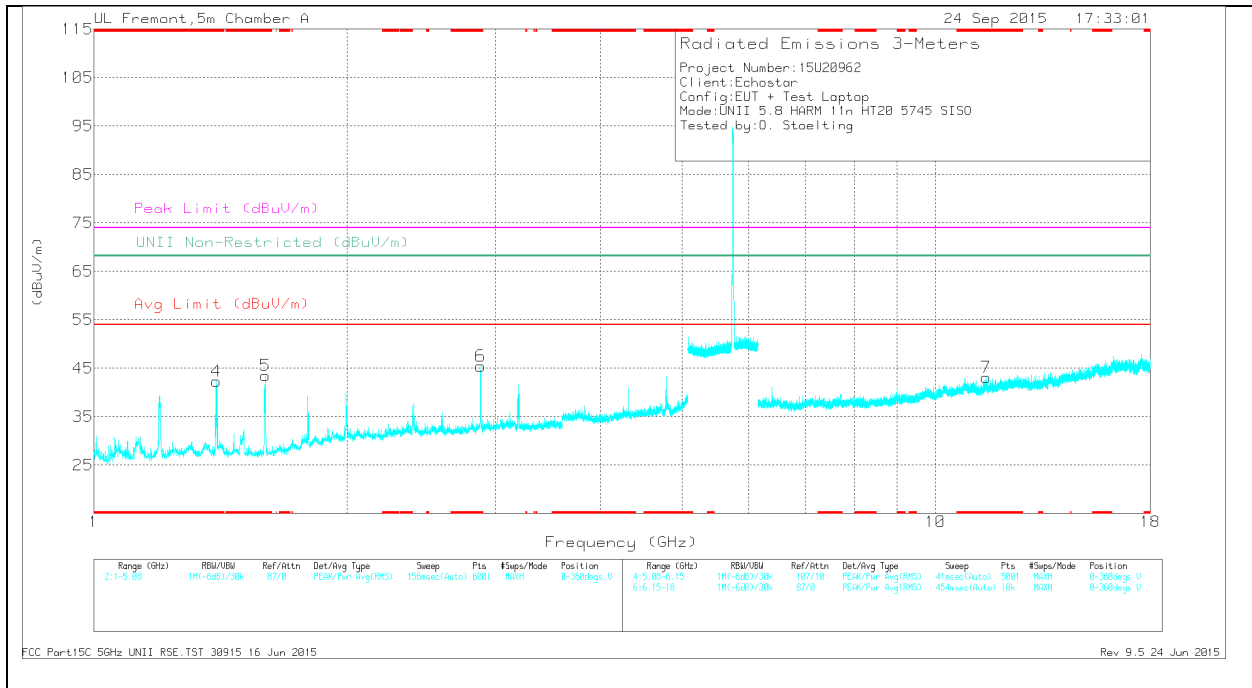
Pk - Peak detector

HARMONICS AND SPURIOUS EMISSIONS



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 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.

LOW CHANNEL DATA

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T136 (dB/m) | Amp/Cb/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 | * 1.08 | 43.59 | Pk | 27.2 | -35.5 | 35.29 | - | - | 74 | -38.71 | - | - | 0-360 | 100 | H |
| 2 | * 1.68 | 47.84 | Pk | 28.5 | -34.9 | 41.44 | - | - | 74 | -32.56 | - | - | 0-360 | 201 | H |
| 4 | * 1.399 | 49.02 | Pk | 28.5 | -35.2 | 42.32 | - | - | 74 | -31.68 | - | - | 0-360 | 100 | V |
| 5 | * 1.598 | 51.05 | Pk | 27.9 | -35.5 | 43.45 | - | - | 74 | -30.55 | - | - | 0-360 | 200 | V |
| 6 | * 2.881 | 45.9 | Pk | 32.6 | -33.1 | 45.4 | - | - | 74 | -28.6 | - | - | 0-360 | 200 | V |
| 8 | * 10.873 | 26.49 | Pk | 37.8 | -22.1 | 42.19 | - | - | 74 | -31.81 | - | - | 0-360 | 100 | H |
| 7 | * 11.493 | 27.74 | Pk | 38 | -22.6 | 43.14 | - | - | 74 | -30.86 | - | - | 0-360 | 100 | V |
| 3 | 3.36 | 43.81 | Pk | 32.9 | -33.2 | 43.51 | - | - | - | - | 68.2 | -24.69 | 0-360 | 100 | H |

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

Pk - Peak detector

Radiated Emissions

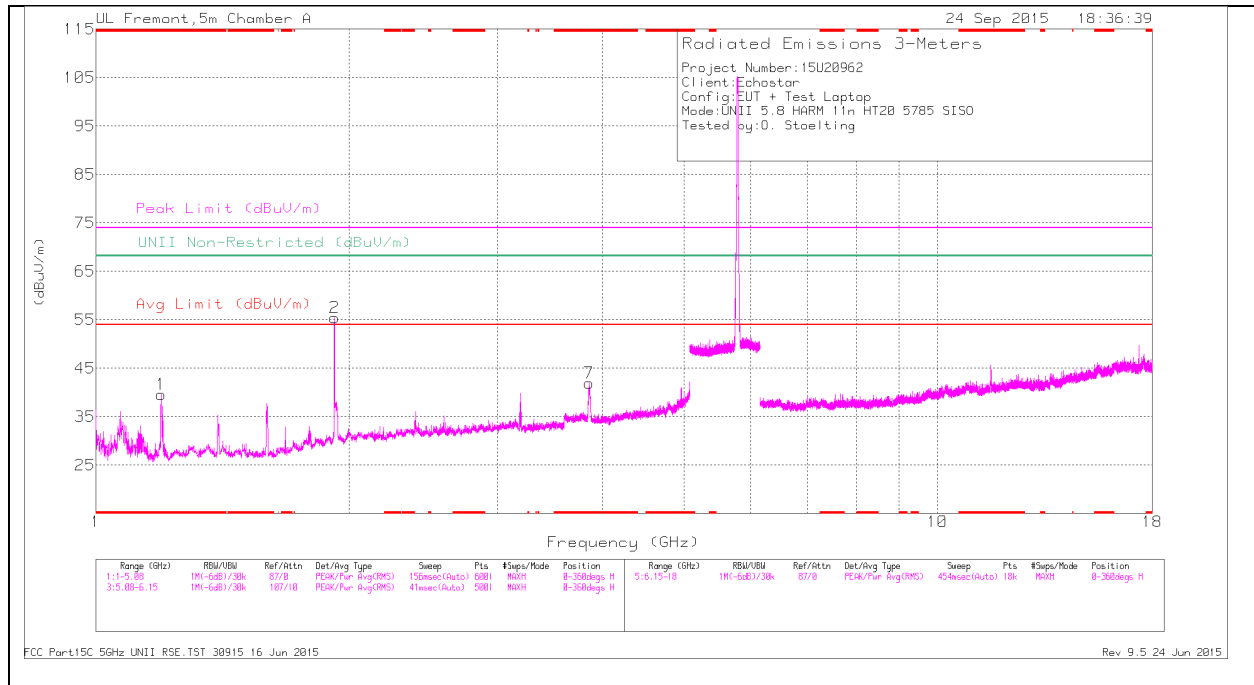
| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T136 (dB/m) | Amp/Cb/Fitr /Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|------|----------------|-----------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 1.082 | 53.76 | PK-U | 27.2 | -35.5 | 45.46 | - | - | 74 | -28.54 | - | - | 250 | 197 | H |
| * 1.079 | 33.35 | ADR | 27.2 | -35.5 | 25.05 | 54 | -28.95 | - | - | - | - | 250 | 197 | H |
| * 1.68 | 53.49 | PK-U | 28.5 | -34.9 | 47.09 | - | - | 74 | -26.91 | - | - | 4 | 235 | H |
| * 1.68 | 32.17 | ADR | 28.5 | -34.9 | 25.77 | 54 | -28.23 | - | - | - | - | 4 | 235 | H |
| * 1.4 | 56.77 | PK-U | 28.5 | -35.2 | 50.07 | - | - | 74 | -23.93 | - | - | 180 | 245 | V |
| * 1.398 | 33.93 | ADR | 28.5 | -35.2 | 27.23 | 54 | -26.77 | - | - | - | - | 180 | 245 | V |
| * 1.597 | 56.74 | PK-U | 27.9 | -35.5 | 49.14 | - | - | 74 | -24.86 | - | - | 47 | 100 | V |
| * 1.597 | 34.71 | ADR | 27.9 | -35.5 | 27.11 | 54 | -26.89 | - | - | - | - | 47 | 100 | V |
| * 2.88 | 59.75 | PK-U | 32.6 | -33.2 | 59.15 | - | - | 74 | -14.85 | - | - | 154 | 163 | V |
| * 2.88 | 37.02 | ADR | 32.6 | -33.2 | 36.42 | 54 | -17.58 | - | - | - | - | 154 | 163 | V |
| * 10.873 | 34.23 | PK-U | 37.8 | -22.1 | 49.93 | - | - | 74 | -24.07 | - | - | 188 | 276 | H |
| * 10.871 | 22.3 | ADR | 37.8 | -22.1 | 38 | 54 | -16 | - | - | - | - | 188 | 276 | H |
| * 11.492 | 35.9 | PK-U | 38 | -22.6 | 51.3 | - | - | 74 | -22.7 | - | - | 289 | 374 | V |
| * 11.491 | 24.05 | ADR | 38 | -22.6 | 39.45 | 54 | -14.55 | - | - | - | - | 289 | 374 | V |
| 3.36 | 47.08 | PK-U | 32.9 | -33.2 | 46.78 | - | - | - | - | 68.2 | -21.42 | 167 | 134 | H |
| 3.36 | 30.55 | ADR | 32.9 | -33.2 | 30.25 | - | - | - | - | - | - | 167 | 134 | H |

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

PK-U - U-NII: Maximum Peak

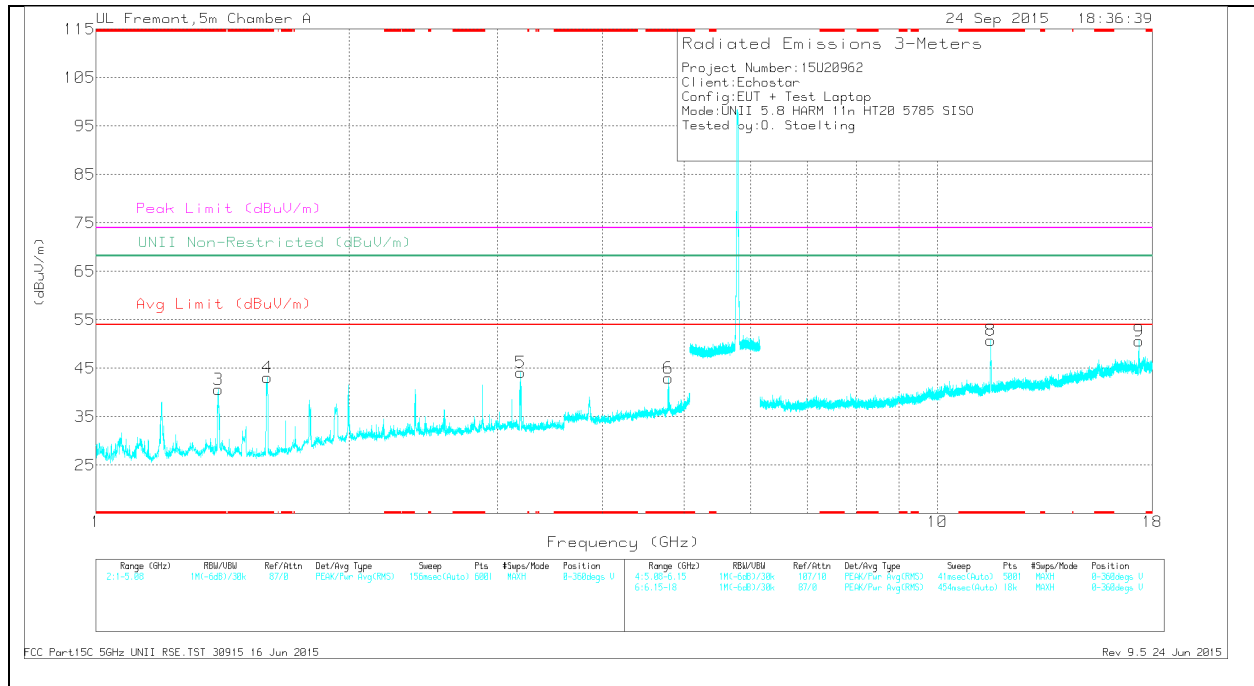
ADR - U-NII AD primary method, RMS average

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.

MID CHANNEL 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

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T136 (dB/m) | Amp/Cb/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 | * 1.197 | 47.72 | Pk | 28 | -36.1 | 39.62 | - | - | 74 | -34.38 | - | - | 0-360 | 201 | H |
| 3 | * 1.397 | 47.37 | Pk | 28.5 | -35.2 | 40.67 | - | - | 74 | -33.33 | - | - | 0-360 | 200 | V |
| 4 | * 1.599 | 50.76 | Pk | 27.9 | -35.5 | 43.16 | - | - | 74 | -30.84 | - | - | 0-360 | 200 | V |
| 8 | * 11.566 | 35.52 | Pk | 38.1 | -22.9 | 50.72 | - | - | 74 | -23.28 | - | - | 0-360 | 200 | V |
| 7 | * 3.857 | 40.4 | Pk | 33.4 | -31.9 | 41.9 | - | - | 74 | -32.1 | - | - | 0-360 | 100 | H |
| 6 | * 4.79 | 38.99 | Pk | 34 | -30 | 42.99 | - | - | 74 | -31.01 | - | - | 0-360 | 100 | V |
| 2 | 1.92 | 59.77 | Pk | 30.9 | -35.2 | 55.47 | - | - | - | - | 68.2 | -12.73 | 0-360 | 201 | H |
| 9 | 17.354 | 32.33 | Pk | 41.3 | -23 | 50.63 | - | - | - | - | 68.2 | -17.57 | 0-360 | 200 | V |
| 5 | 3.199 | 44.64 | Pk | 32.7 | -33.2 | 44.14 | - | - | - | - | 68.2 | -24.06 | 0-360 | 100 | V |

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

Pk - Peak detector

Radiated Emissions

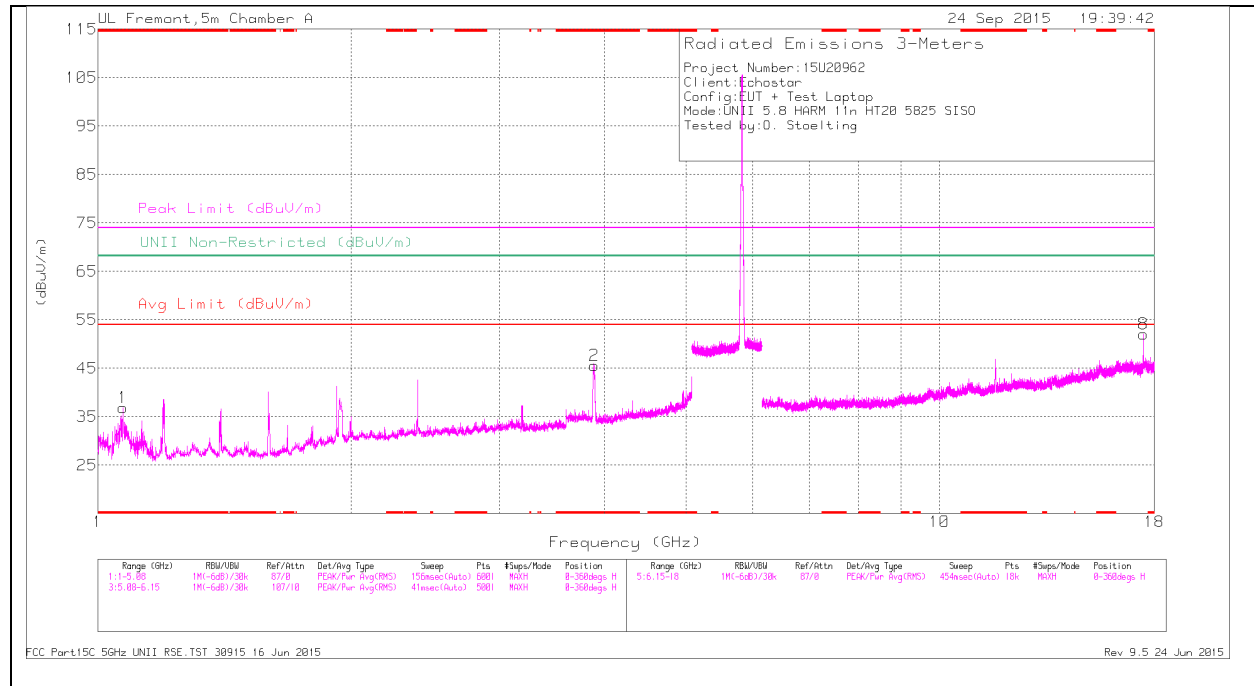
| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T136 (dB/m) | Amp/Cb/FI tr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|------|----------------|-----------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 1.197 | 55.93 | PK-U | 28 | -36 | 47.93 | - | - | 74 | -26.07 | - | - | 255 | 153 | H |
| * 1.198 | 35.43 | ADR | 28 | -36 | 27.43 | 54 | -26.57 | - | - | - | - | 255 | 153 | H |
| * 3.856 | 50.65 | PK-U | 33.4 | -31.9 | 52.15 | - | - | 74 | -21.85 | - | - | 301 | 181 | H |
| * 3.857 | 40.17 | ADR | 33.4 | -31.9 | 41.67 | 54 | -12.33 | - | - | - | - | 301 | 181 | H |
| * 1.399 | 57.21 | PK-U | 28.5 | -35.2 | 50.51 | - | - | 74 | -23.49 | - | - | 183 | 194 | V |
| * 1.398 | 35.36 | ADR | 28.5 | -35.2 | 28.66 | 54 | -25.34 | - | - | - | - | 183 | 194 | V |
| * 1.6 | 57.19 | PK-U | 27.9 | -35.5 | 49.59 | - | - | 74 | -24.41 | - | - | 28 | 201 | V |
| * 1.599 | 37.56 | ADR | 27.9 | -35.5 | 29.96 | 54 | -24.04 | - | - | - | - | 28 | 201 | V |
| * 4.791 | 49.02 | PK-U | 34 | -30 | 53.02 | - | - | 74 | -20.98 | - | - | 220 | 148 | V |
| * 4.788 | 30.02 | ADR | 34 | -30 | 34.02 | 54 | -19.98 | - | - | - | - | 220 | 148 | V |
| * 11.567 | 47.68 | PK-U | 38.1 | -22.9 | 62.88 | - | - | 74 | -11.12 | - | - | 49 | 398 | V |
| * 11.568 | 33.75 | ADR | 38.1 | -22.9 | 48.95 | 54 | -5.05 | - | - | - | - | 49 | 398 | V |
| 1.92 | 60.92 | PK-U | 30.9 | -35.2 | 56.62 | - | - | - | - | 68.2 | -11.58 | 306 | 326 | H |
| 3.2 | 51.44 | PK-U | 32.7 | -33.2 | 50.94 | - | - | - | - | 68.2 | -17.26 | 204 | 120 | V |
| 17.354 | 43.26 | PK-U | 41.3 | -23 | 61.56 | - | - | - | - | 68.2 | -6.64 | 320 | 216 | V |

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

PK-U - U-NII: Maximum Peak

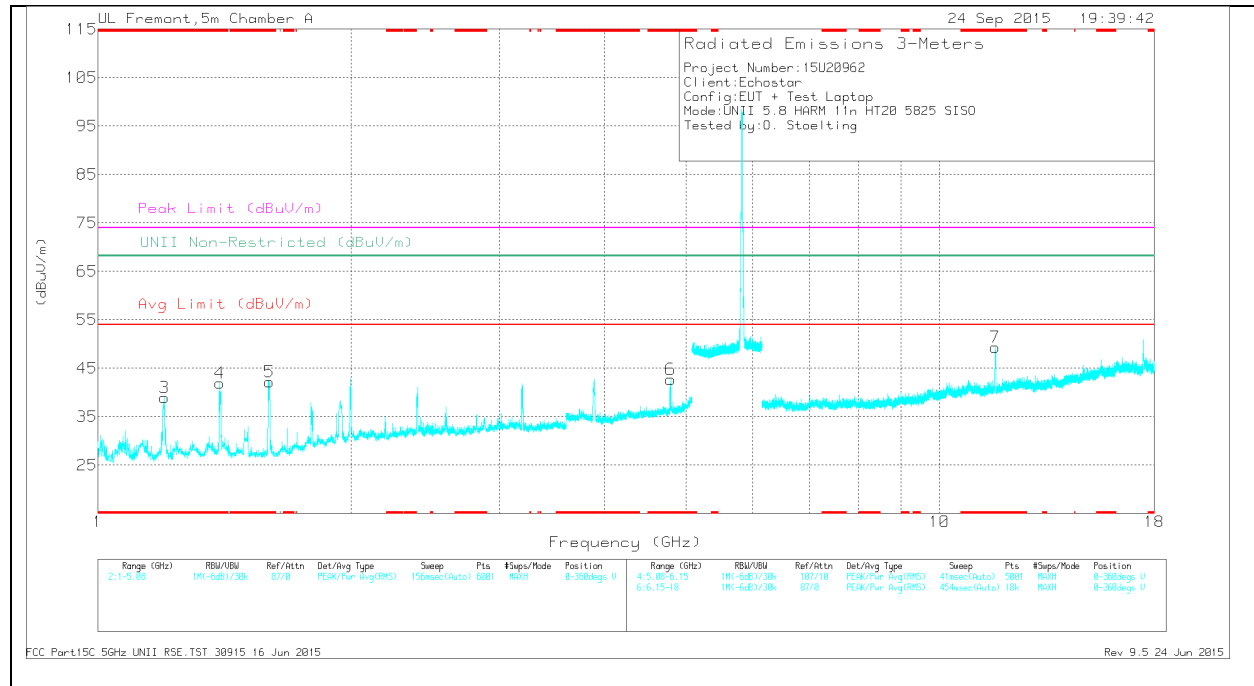
ADR - U-NII AD primary method, RMS average

HIGH 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.

HIGH CHANNEL 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.

HIGH CHANNEL DATA

Trace Markers

| 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 | * 1.071 | 45.25 | Pk | 27.2 | -35.6 | 36.85 | - | - | 74 | -37.15 | - | - | 0-360 | 201 | H |
| 2 | * 3.888 | 44.46 | Pk | 33.5 | -32.4 | 45.56 | - | - | 74 | -28.44 | - | - | 0-360 | 201 | H |
| 3 | * 1.2 | 47 | Pk | 28 | -36 | 39 | - | - | 74 | -35 | - | - | 0-360 | 100 | V |
| 4 | * 1.396 | 48.51 | Pk | 28.5 | -35.1 | 41.91 | - | - | 74 | -32.09 | - | - | 0-360 | 100 | V |
| 5 | * 1.599 | 49.79 | Pk | 27.9 | -35.5 | 42.19 | - | - | 74 | -31.81 | - | - | 0-360 | 100 | V |
| 6 | * 4.792 | 38.72 | Pk | 34 | -30 | 42.72 | - | - | 74 | -31.28 | - | - | 0-360 | 200 | V |
| 7 | * 11.657 | 33.53 | Pk | 38.2 | -22.4 | 49.33 | - | - | 74 | -24.67 | - | - | 0-360 | 200 | V |
| 8 | 17.473 | 33.2 | Pk | 41.5 | -22.6 | 52.1 | - | - | - | - | 68.2 | -16.1 | 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 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 |
|-----------------|----------------------|------|----------------|------------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 1.072 | 55.83 | PK-U | 27.2 | -35.6 | 47.43 | - | - | 74 | -26.57 | - | - | 258 | 129 | H |
| * 1.073 | 35.07 | ADR | 27.2 | -35.6 | 26.67 | 54 | -27.33 | - | - | - | - | 258 | 129 | H |
| * 3.886 | 54.82 | PK-U | 33.5 | -32.4 | 55.92 | - | - | 74 | -18.08 | - | - | 296 | 265 | H |
| * 3.886 | 42.51 | ADR | 33.5 | -32.4 | 43.61 | 54 | -10.39 | - | - | - | - | 296 | 265 | H |
| * 1.2 | 54.09 | PK-U | 28 | -36 | 46.09 | - | - | 74 | -27.91 | - | - | 227 | 126 | V |
| * 1.198 | 33.99 | ADR | 28 | -36 | 25.99 | 54 | -28.01 | - | - | - | - | 227 | 126 | V |
| * 1.398 | 56.53 | PK-U | 28.5 | -35.2 | 49.83 | - | - | 74 | -24.17 | - | - | 214 | 241 | V |
| * 1.398 | 35.11 | ADR | 28.5 | -35.2 | 28.41 | 54 | -25.59 | - | - | - | - | 214 | 241 | V |
| * 1.599 | 58.1 | PK-U | 27.9 | -35.5 | 50.5 | - | - | 74 | -23.5 | - | - | 209 | 361 | V |
| * 1.597 | 38.51 | ADR | 27.9 | -35.5 | 30.91 | 54 | -23.09 | - | - | - | - | 209 | 361 | V |
| * 4.79 | 52.2 | PK-U | 34 | -30 | 56.2 | - | - | 74 | -17.8 | - | - | 232 | 231 | V |
| * 4.793 | 31.31 | ADR | 34 | -30 | 35.31 | 54 | -18.69 | - | - | - | - | 232 | 231 | V |
| * 11.656 | 47.45 | PK-U | 38.2 | -22.4 | 63.25 | - | - | 74 | -10.75 | - | - | 42 | 384 | V |
| * 11.655 | 33.58 | ADR | 38.2 | -22.4 | 49.38 | 54 | -4.62 | - | - | - | - | 42 | 384 | V |
| 17.471 | 44.05 | PK-U | 41.5 | -22.6 | 62.95 | - | - | - | - | 68.2 | -5.25 | 318 | 394 | H |

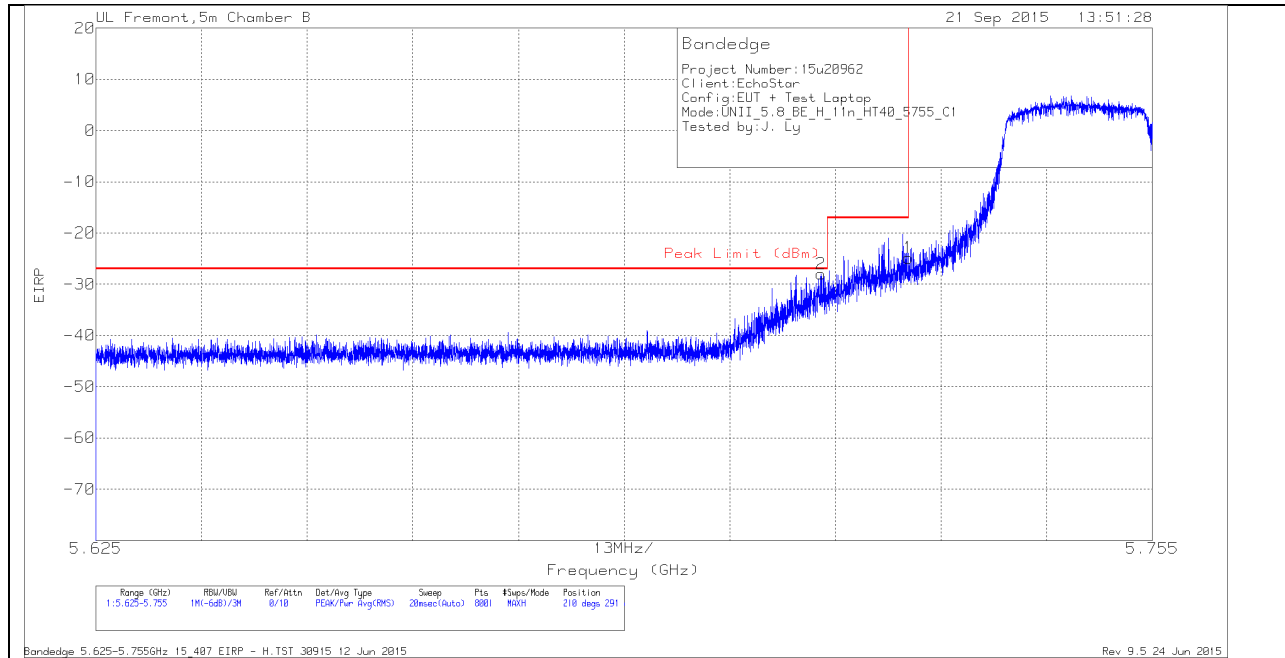
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

12.2.2. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.8 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK PLOT

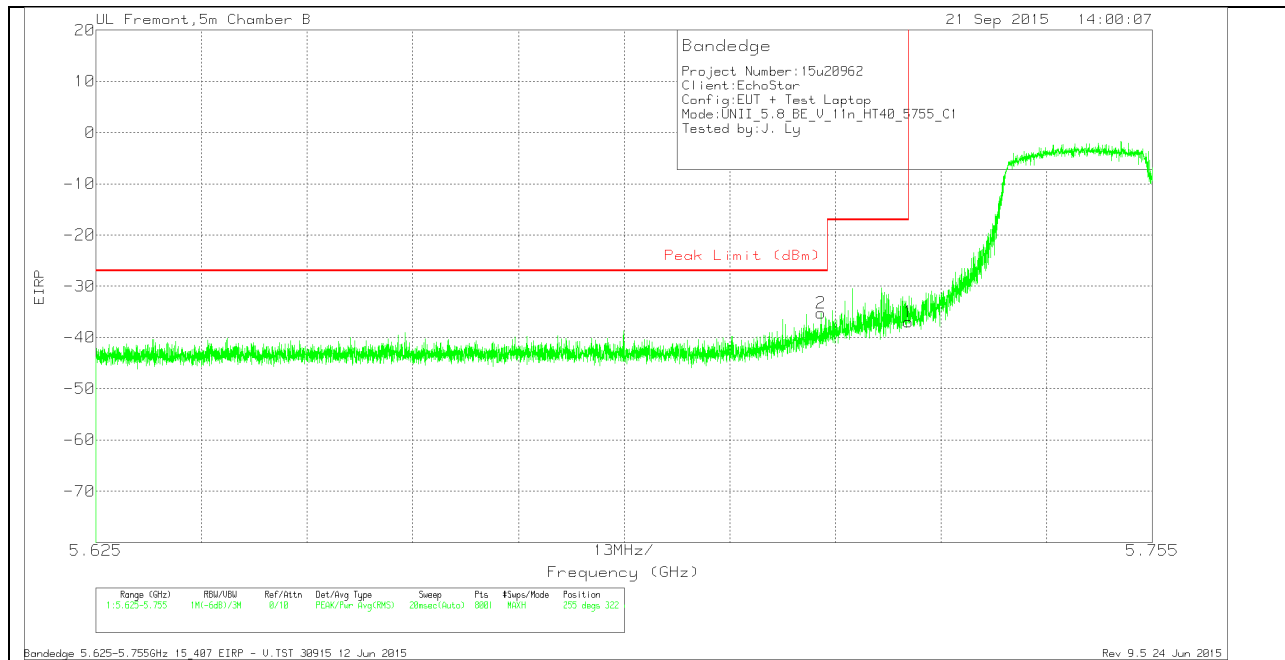


CH 151 HORIZONTAL DATA

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBm) | Det | AF T345 (dB/m) | Amp/Cb/F ltr/Pad (dB) | Conversion Factor (dB) | Corrected Reading EIRP | Peak Limit (dBm) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|---------------------|-----|----------------|-----------------------|------------------------|------------------------|------------------|----------------|----------------|-------------|----------|
| 2 | 5.714 | -53.08 | Pk | 35 | -21.7 | 11.8 | -27.98 | -27 | -.98 | 210 | 291 | H |
| 1 | 5.725 | -49.95 | Pk | 35 | -21.7 | 11.8 | -24.85 | -17 | -7.85 | 210 | 291 | H |

Pk - Peak detector



CH 151 VERTICAL DATA

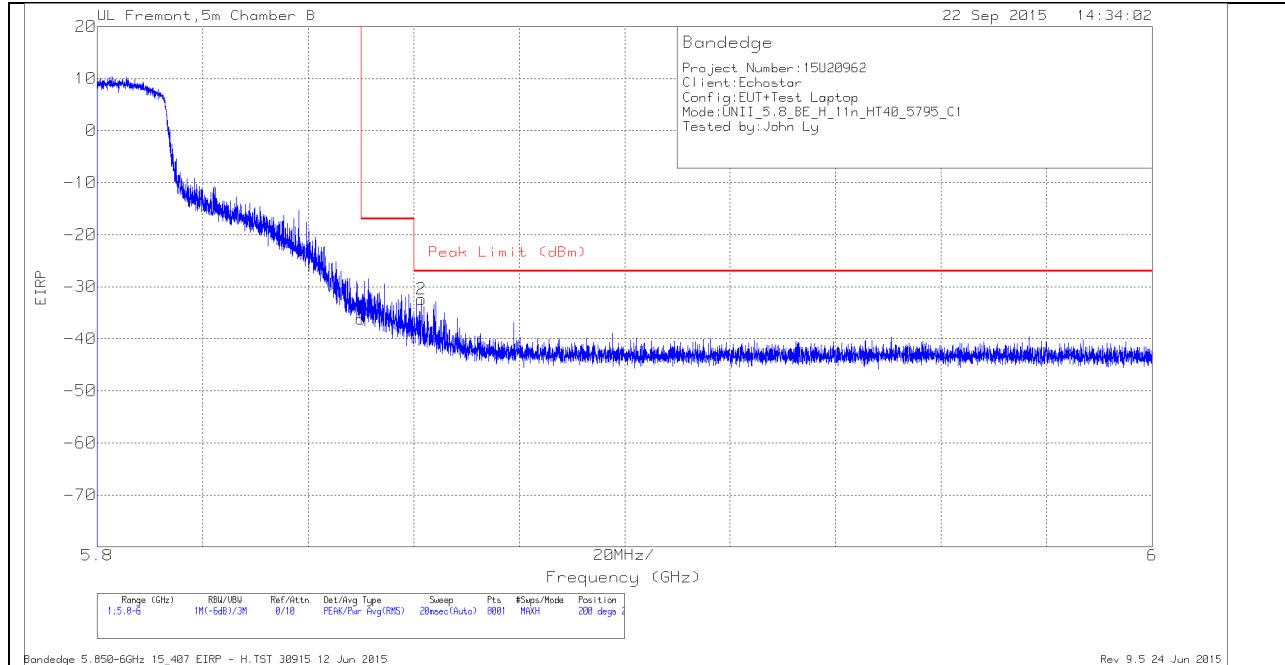
Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBm) | Det | AF T345 (dB/m) | Amp/Cbl/F ltr/Pad (dB) | Conversion Factor (dB) | Corrected Reading EIRP | Peak Limit (dBm) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|---------------------|-----|----------------|------------------------|------------------------|------------------------|------------------|----------------|----------------|-------------|----------|
| 2 | 5.714 | -60.36 | Pk | 35 | -21.7 | 11.8 | -35.26 | -27 | -8.26 | 255 | 322 | V |
| 1 | 5.725 | -62.05 | Pk | 35 | -21.7 | 11.8 | -36.95 | -17 | -19.95 | 255 | 322 | V |

Pk - Peak detector

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK PLOT



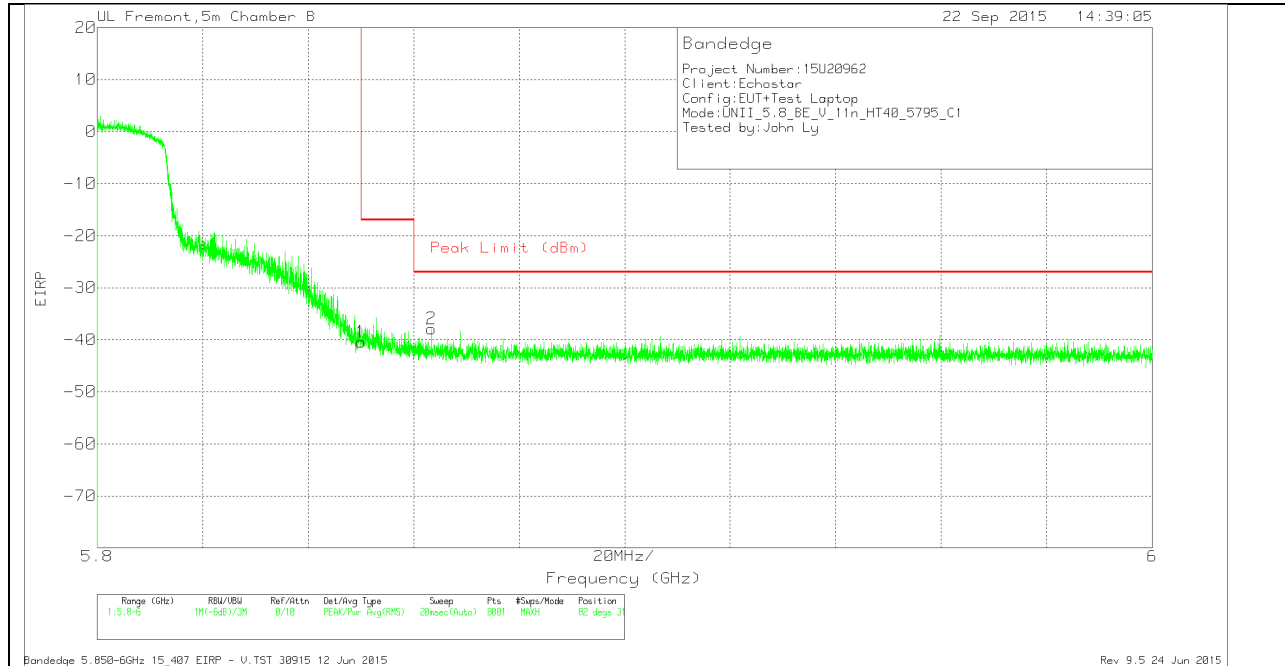
CH 159 HORIZONTAL DATA

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBm) | Det | AF T136 (dB/m) | Amp/Cbl/F Itr/Pad (dB) | Conversion Factor (dB) | Corrected Reading EIRP | Peak Limit (dBm) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|---------------------|-----|----------------|------------------------|------------------------|------------------------|------------------|----------------|----------------|-------------|----------|
| 1 | 5.725 | -54.87 | Pk | 34.7 | -19.8 | 11.8 | -28.17 | -17 | -11.17 | 86 | 128 | V |
| 2 | 5.725 | -46.27 | Pk | 34.7 | -19.8 | 11.8 | -19.57 | -17 | -2.57 | 86 | 128 | V |

Pk - Peak detector

VERTICAL PEAK PLOT



CH 159 VERTICAL DATA

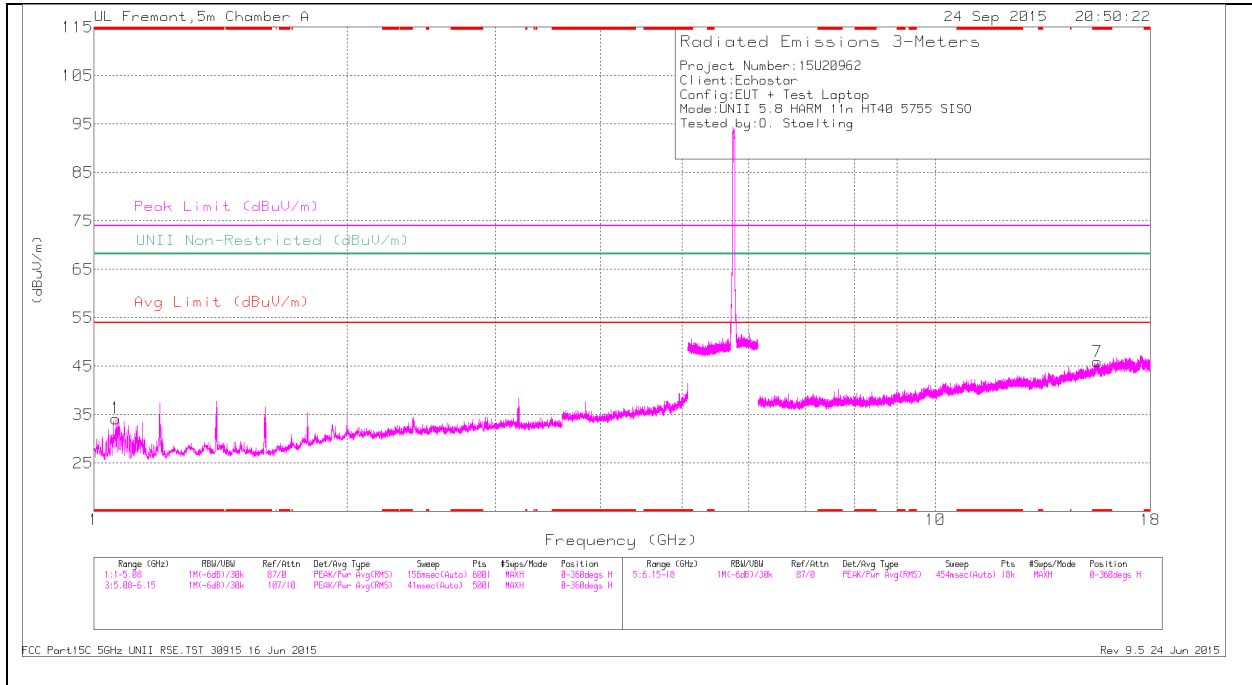
Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBm) | Det | AF T345 (dB/m) | Amp/Cb/F ltr/Pad (dB) | Conversion Factor (dB) | Corrected Reading EIRP | Peak Limit (dBm) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|---------------------|-----|----------------|-----------------------|------------------------|------------------------|------------------|----------------|----------------|-------------|----------|
| 1 | 5.85 | -66 | Pk | 35.4 | -21.6 | 11.8 | -40.4 | -17 | -23.4 | 82 | 314 | V |
| 2 | 5.863 | -63.47 | Pk | 35.4 | -21.6 | 11.8 | -37.87 | -27 | -10.87 | 82 | 314 | V |

Pk - Peak detector

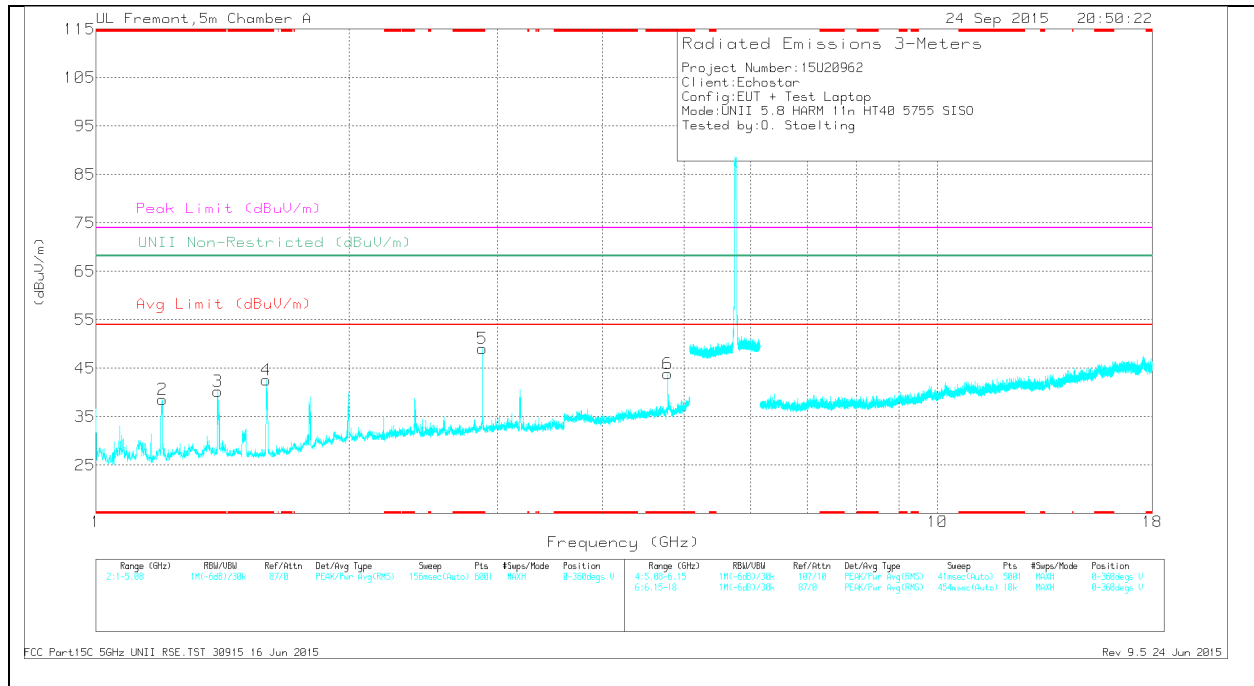
HARMONICS AND SPURIOUS EMISSIONS

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.

LOW CHANNEL 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.

LOW CHANNEL DATA

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T136 (dB/m) | Amp/Cb/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 | * 1.061 | 42.81 | Pk | 27.1 | -35.7 | 34.21 | - | - | 74 | -39.79 | - | - | 0-360 | 100 | H |
| 2 | * 1.199 | 46.53 | Pk | 28 | -36 | 38.53 | - | - | 74 | -35.47 | - | - | 0-360 | 100 | V |
| 3 | * 1.396 | 46.87 | Pk | 28.5 | -35.1 | 40.27 | - | - | 74 | -33.73 | - | - | 0-360 | 100 | V |
| 4 | * 1.593 | 50.22 | Pk | 27.9 | -35.5 | 42.62 | - | - | 74 | -31.38 | - | - | 0-360 | 200 | V |
| 5 | * 2.88 | 49.72 | Pk | 32.6 | -33.2 | 49.12 | - | - | 74 | -24.88 | - | - | 0-360 | 100 | V |
| 6 | * 4.779 | 39.9 | Pk | 34 | -30 | 43.9 | - | - | 74 | -30.1 | - | - | 0-360 | 200 | V |
| 7 | * 15.568 | 26.8 | Pk | 40.4 | -21.2 | 46 | - | - | 74 | -28 | - | - | 0-360 | 201 | H |

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

Pk - Peak detector

Radiated Emissions

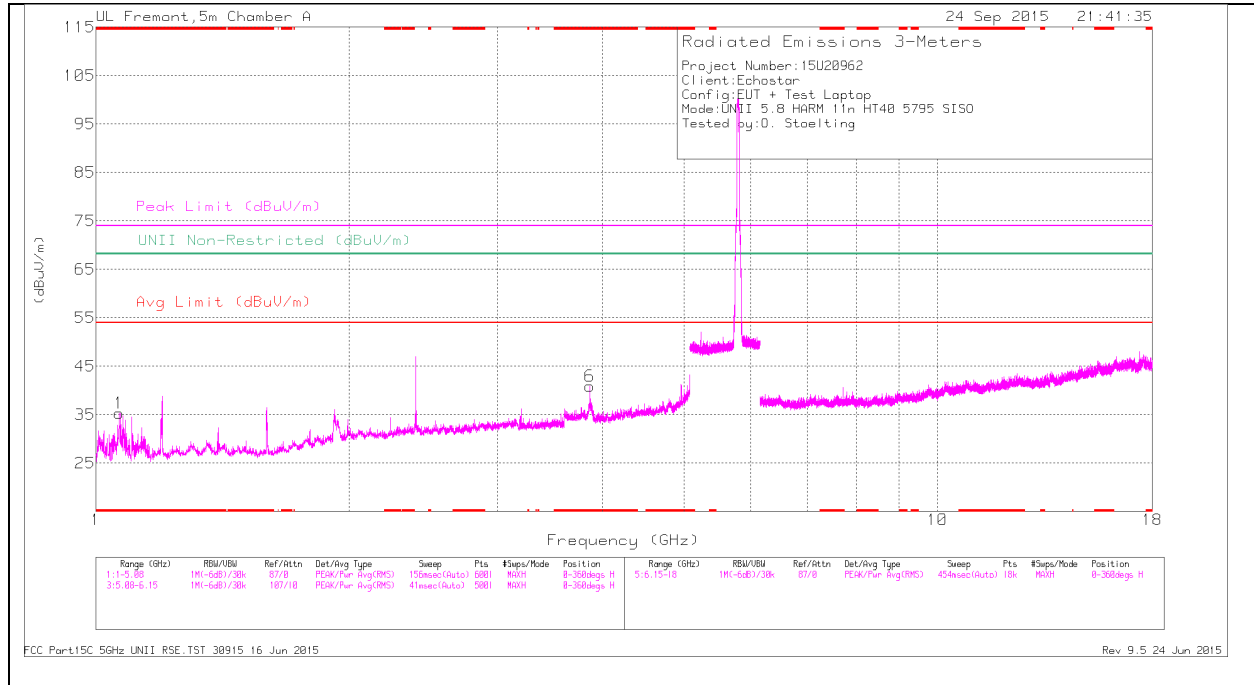
| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T136 (dB/m) | Amp/Cb/FI tr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|------|----------------|-----------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 1.061 | 54.61 | PK-U | 27.1 | -35.7 | 46.01 | - | - | 74 | -27.99 | - | - | 258 | 142 | H |
| * 1.062 | 33.62 | ADR | 27.1 | -35.7 | 25.02 | 54 | -28.98 | - | - | - | - | 258 | 142 | H |
| * 1.199 | 57 | PK-U | 28 | -36 | 49 | - | - | 74 | -25 | - | - | 191 | 155 | V |
| * 1.199 | 34.59 | ADR | 28 | -36 | 26.59 | 54 | -27.41 | - | - | - | - | 191 | 155 | V |
| * 1.396 | 56.07 | PK-U | 28.5 | -35.1 | 49.47 | - | - | 74 | -24.53 | - | - | 213 | 230 | V |
| * 1.397 | 33.14 | ADR | 28.5 | -35.2 | 26.44 | 54 | -27.56 | - | - | - | - | 213 | 230 | V |
| * 1.594 | 57.39 | PK-U | 27.9 | -35.5 | 49.79 | - | - | 74 | -24.21 | - | - | 209 | 362 | V |
| * 1.595 | 36.17 | ADR | 27.9 | -35.5 | 28.57 | 54 | -25.43 | - | - | - | - | 209 | 362 | V |
| * 2.88 | 61.64 | PK-U | 32.6 | -33.2 | 61.04 | - | - | 74 | -12.96 | - | - | 31 | 265 | V |
| * 2.88 | 38.72 | ADR | 32.6 | -33.2 | 38.12 | 54 | -15.88 | - | - | - | - | 31 | 265 | V |
| * 4.779 | 48.05 | PK-U | 34 | -30 | 52.05 | - | - | 74 | -21.95 | - | - | 190 | 319 | V |
| * 4.781 | 29.41 | ADR | 34 | -30 | 33.41 | 54 | -20.59 | - | - | - | - | 190 | 319 | V |
| * 15.569 | 33.96 | PK-U | 40.4 | -21.3 | 53.06 | - | - | 74 | -20.94 | - | - | 0 | 174 | H |
| * 15.568 | 22.81 | ADR | 40.4 | -21.2 | 42.01 | 54 | -11.99 | - | - | - | - | 0 | 174 | H |

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

PK-U - U-NII: Maximum Peak

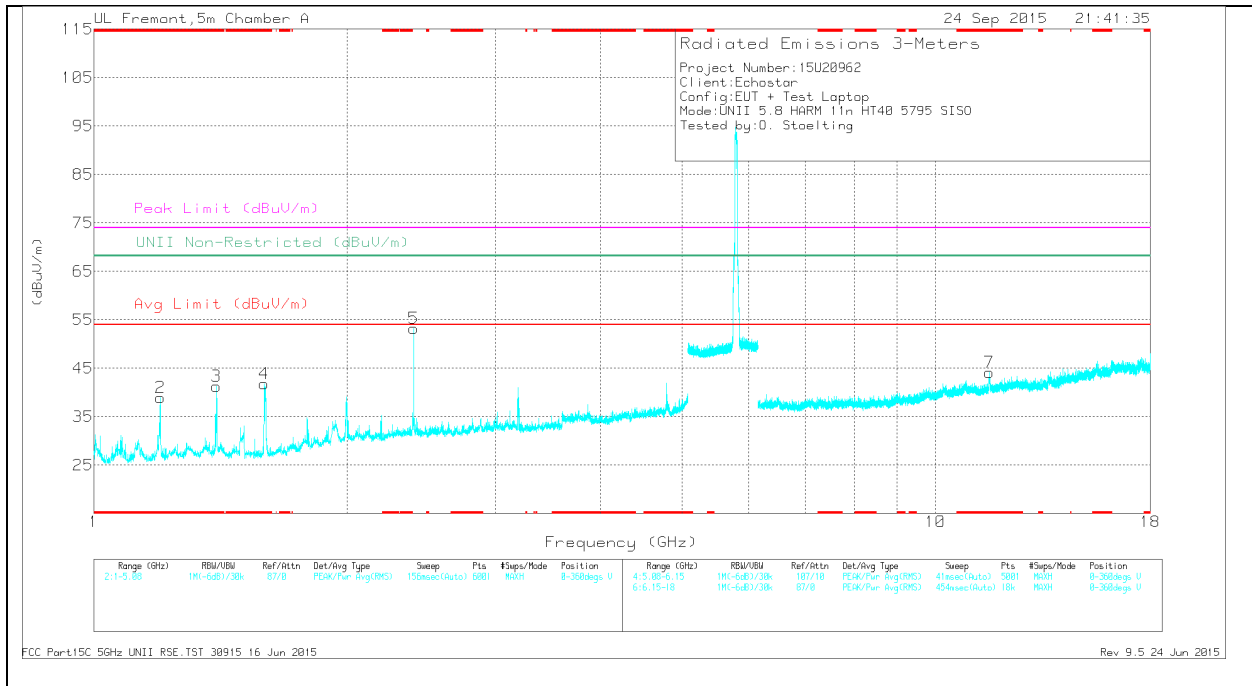
ADR - U-NII AD primary method, RMS average

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.

MID CHANNEL 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

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T136 (dB/m) | Amp/Cbi/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 | * 1.066 | 43.82 | Pk | 27.2 | -35.7 | 35.32 | - | - | 74 | -38.68 | - | - | 0-360 | 100 | H |
| 6 | * 3.863 | 39.34 | Pk | 33.5 | -32 | 40.84 | - | - | 74 | -33.16 | - | - | 0-360 | 201 | H |
| 2 | * 1.2 | 46.92 | Pk | 28 | -36 | 38.92 | - | - | 74 | -35.08 | - | - | 0-360 | 200 | V |
| 3 | * 1.399 | 48.03 | Pk | 28.5 | -35.2 | 41.33 | - | - | 74 | -32.67 | - | - | 0-360 | 200 | V |
| 4 | * 1.594 | 49.4 | Pk | 27.9 | -35.5 | 41.8 | - | - | 74 | -32.2 | - | - | 0-360 | 100 | V |
| 7 | * 11.588 | 28.89 | Pk | 38.1 | -22.8 | 44.19 | - | - | 74 | -29.81 | - | - | 0-360 | 200 | V |
| 5 | 2.4 | 55.28 | Pk | 32 | -34.1 | 53.18 | - | - | - | - | 68.2 | -15.02 | 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/Cbi/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 |
|-----------------|----------------------|------|----------------|-----------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 1.068 | 55 | PK-U | 27.2 | -35.6 | 46.6 | - | - | 74 | -27.4 | - | - | 267 | 130 | H |
| * 1.068 | 33.55 | ADR | 27.2 | -35.6 | 25.15 | 54 | -28.85 | - | - | - | - | 267 | 130 | H |
| * 3.863 | 48.56 | PK-U | 33.5 | -32 | 50.06 | - | - | 74 | -23.94 | - | - | 309 | 265 | H |
| * 3.863 | 39.1 | ADR | 33.5 | -32 | 40.6 | 54 | -13.4 | - | - | - | - | 309 | 265 | H |
| * 1.2 | 54.84 | PK-U | 28 | -36 | 46.84 | - | - | 74 | -27.16 | - | - | 111 | 137 | V |
| * 1.2 | 33.21 | ADR | 28 | -36 | 25.21 | 54 | -28.79 | - | - | - | - | 111 | 137 | V |
| * 1.399 | 55.69 | PK-U | 28.5 | -35.2 | 48.99 | - | - | 74 | -25.01 | - | - | 184 | 246 | V |
| * 1.399 | 33.15 | ADR | 28.5 | -35.2 | 26.45 | 54 | -27.55 | - | - | - | - | 184 | 246 | V |
| * 1.596 | 56.83 | PK-U | 27.9 | -35.5 | 49.23 | - | - | 74 | -24.77 | - | - | 218 | 158 | V |
| * 1.595 | 35.95 | ADR | 27.9 | -35.5 | 28.35 | 54 | -25.65 | - | - | - | - | 218 | 158 | V |
| * 11.588 | 40.62 | PK-U | 38.1 | -22.8 | 55.92 | - | - | 74 | -18.08 | - | - | 55 | 239 | V |
| * 11.59 | 27.9 | ADR | 38.1 | -22.8 | 43.2 | 54 | -10.8 | - | - | - | - | 55 | 239 | V |
| 2.4 | 57.71 | PK-U | 32 | -34.1 | 55.61 | - | - | - | - | 68.2 | -12.59 | 351 | 256 | V |

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

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

13. TRANSMITTER ABOVE 1 GHz MIMO

LIMITS

FCC §15.205 and §15.209

| Frequency Range (MHz) | Field Strength Limit ($\mu\text{V}/\text{m}$) at 3 m | Field Strength Limit (dB $\mu\text{V}/\text{m}$) 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 for below 1GHz and 150cm for above 1GHz. 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 G) 6) d) Method AD:

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.

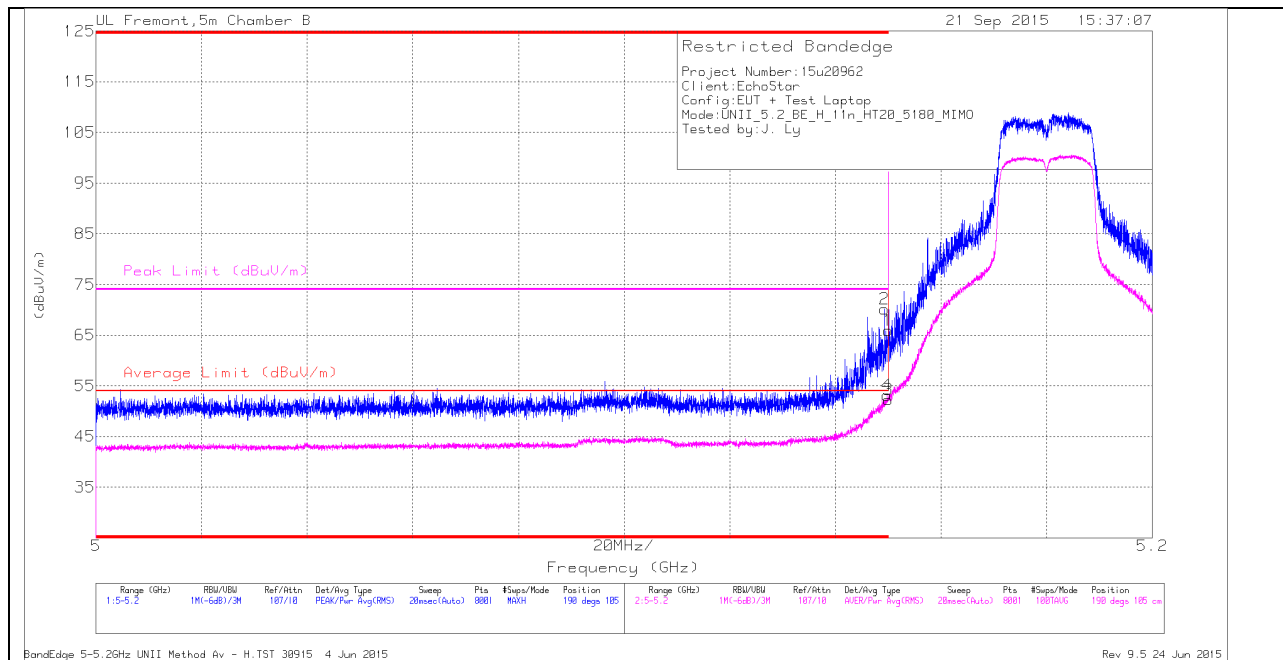
The spectrum from 30 MHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

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.

13.1. 5.2 GHz

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

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

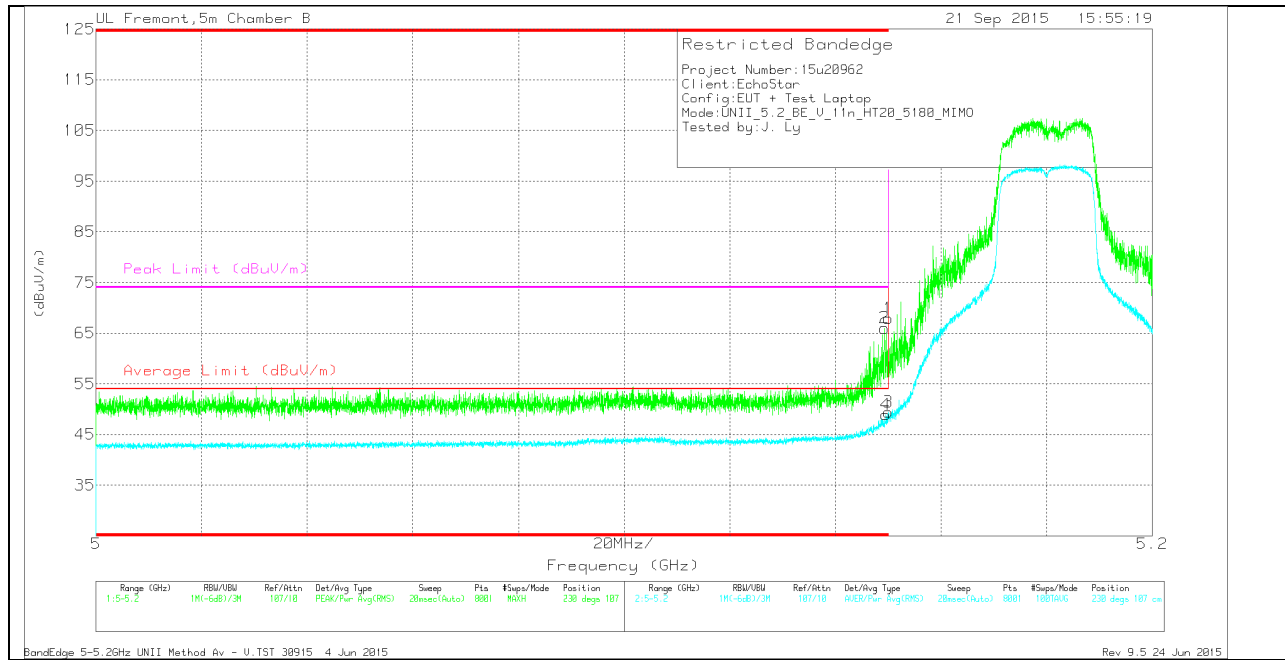
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Fit r/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 2 | * 5.149 | 58.03 | Pk | 34.1 | -22 | 0 | 70.13 | - | - | 74 | -3.87 | 190 | 105 | H |
| 1 | * 5.15 | 53.79 | Pk | 34.1 | -22 | 0 | 65.89 | - | - | 74 | -8.11 | 190 | 105 | H |
| 3 | * 5.15 | 40.15 | RMS | 34.1 | -22 | 0 | 52.25 | 54 | -1.75 | - | - | 190 | 105 | H |
| 4 | * 5.15 | 41.1 | RMS | 34.1 | -22 | 0 | 53.2 | 54 | -0.8 | - | - | 190 | 105 | H |

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

Pk - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

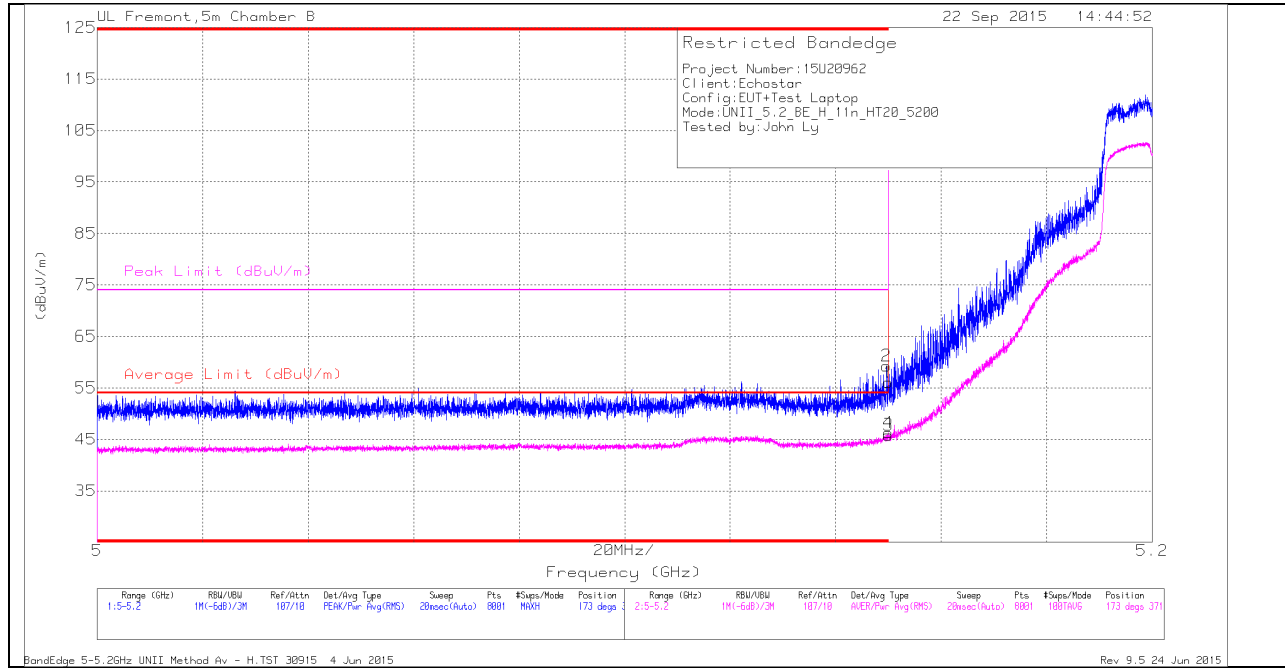
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 2 | * 5.149 | 53.9 | Pk | 34.1 | -22 | 66 | - | - | 74 | -8 | 230 | 107 | V |
| 1 | * 5.15 | 55.79 | Pk | 34.1 | -22 | 67.89 | - | - | 74 | -6.11 | 230 | 107 | V |
| 3 | * 5.15 | 37.3 | RMS | 34.1 | -22 | 49.4 | 54 | -4.6 | - | - | 230 | 107 | V |
| 4 | * 5.15 | 36.85 | RMS | 34.1 | -22 | 48.95 | 54 | -5.05 | - | - | 230 | 107 | V |

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

Pk - Peak detector

RMS - RMS detection

Ch. 40 HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

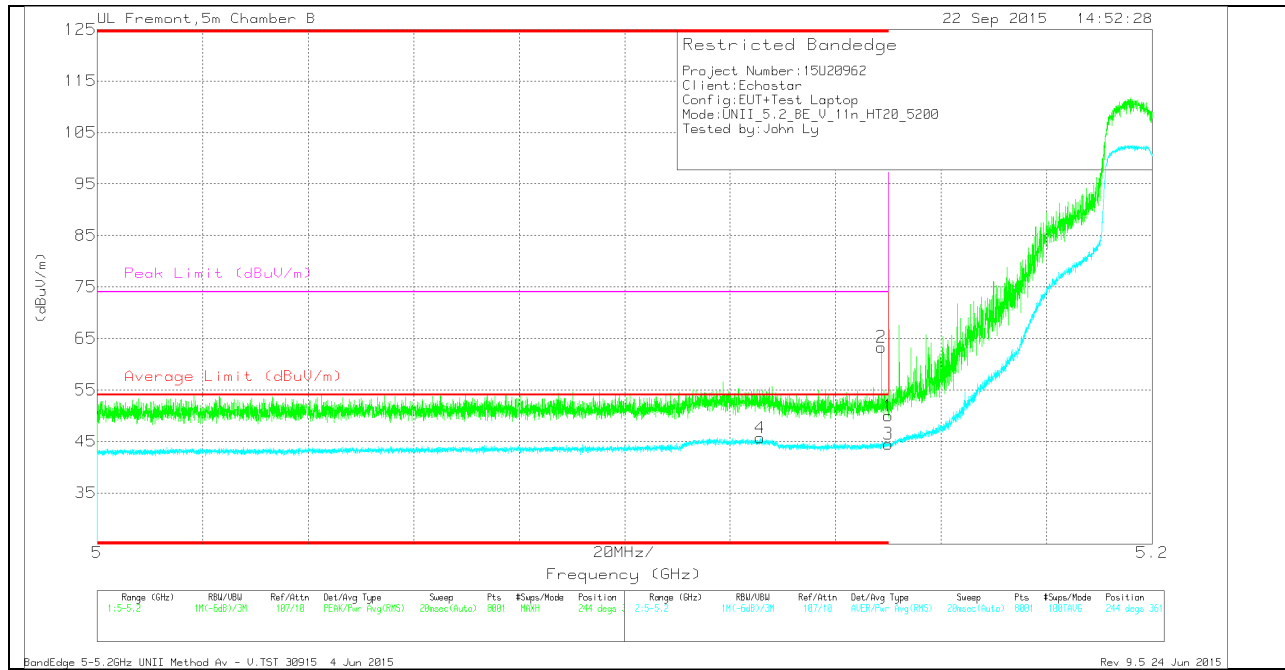
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1 | * 5.15 | 43.94 | Pk | 34.1 | -22 | 56.04 | - | - | 74 | -17.96 | 173 | 371 | H |
| 2 | * 5.15 | 47.16 | Pk | 34.1 | -22 | 59.26 | - | - | 74 | -14.74 | 173 | 371 | H |
| 3 | * 5.15 | 33.73 | RMS | 34.1 | -22 | 45.83 | 54 | -8.17 | - | - | 173 | 371 | H |
| 4 | * 5.15 | 34.17 | RMS | 34.1 | -22 | 46.27 | 54 | -7.73 | - | - | 173 | 371 | H |

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

Pk - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

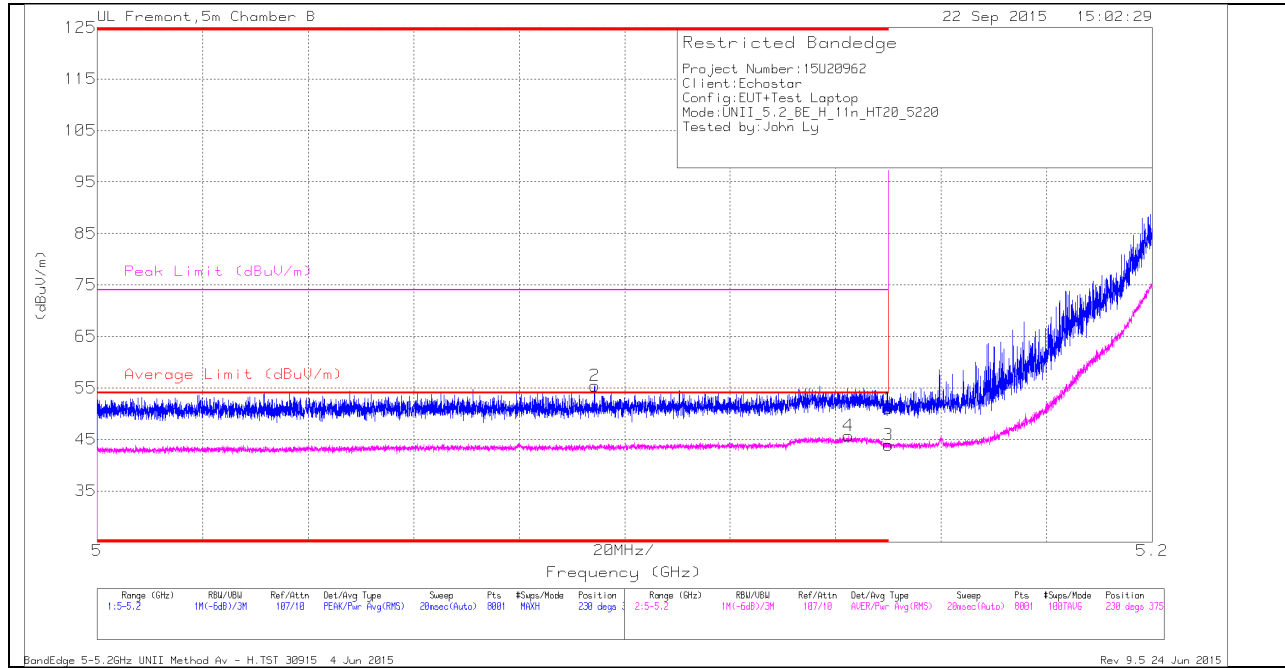
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 4 | * 5.126 | 33.58 | RMS | 34.1 | -22 | 45.68 | 54 | -8.32 | - | - | 244 | 361 | V |
| 2 | * 5.149 | 51.2 | Pk | 34.1 | -22 | 63.3 | - | - | 74 | -10.7 | 244 | 361 | V |
| 1 | * 5.15 | 37.87 | Pk | 34.1 | -22 | 49.97 | - | - | 74 | -24.03 | 244 | 361 | V |
| 3 | * 5.15 | 32.41 | RMS | 34.1 | -22 | 44.51 | 54 | -9.49 | - | - | 244 | 361 | V |

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

Pk - Peak detector

RMS - RMS detection

Ch. 44 HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

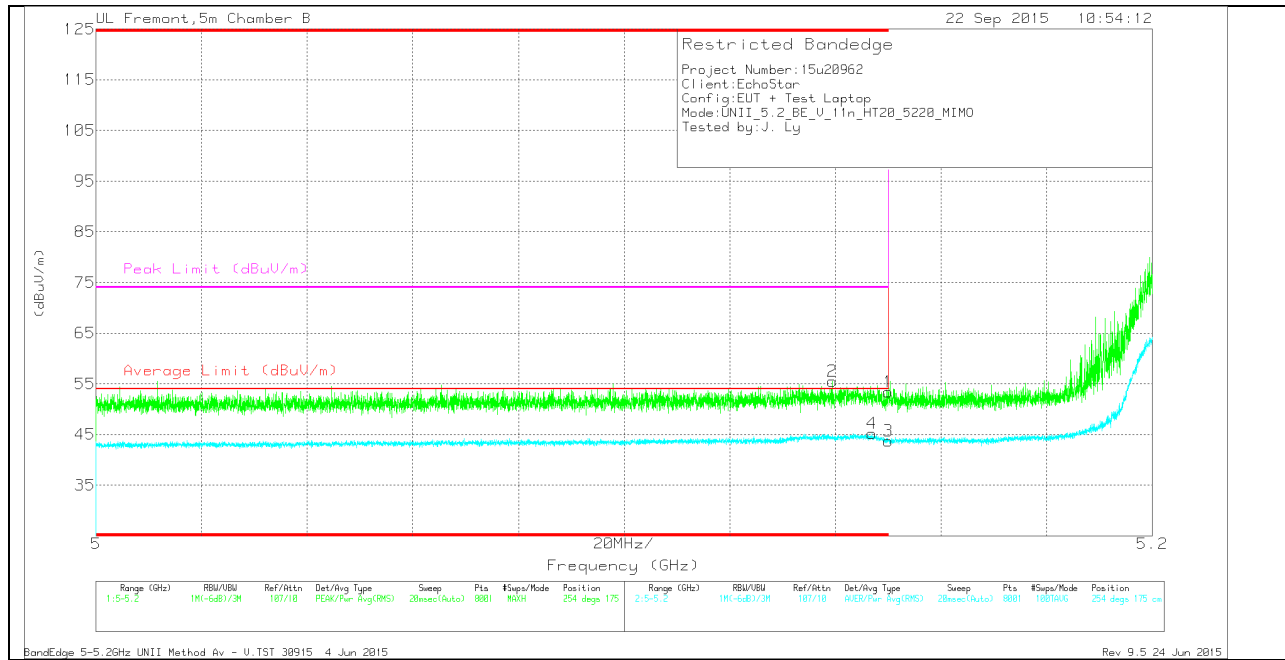
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1 | * 5.15 | 38.87 | Pk | 34.1 | -22 | 50.97 | - | - | 74 | -23.03 | 230 | 375 | H |
| 2 | * 5.094 | 43.62 | Pk | 34 | -22.2 | 55.42 | - | - | 74 | -18.58 | 230 | 375 | H |
| 3 | * 5.15 | 31.83 | RMS | 34.1 | -22 | 43.93 | 54 | -10.07 | - | - | 230 | 375 | H |
| 4 | * 5.142 | 33.61 | RMS | 34.1 | -22 | 45.71 | 54 | -8.29 | - | - | 230 | 375 | H |

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

Pk - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

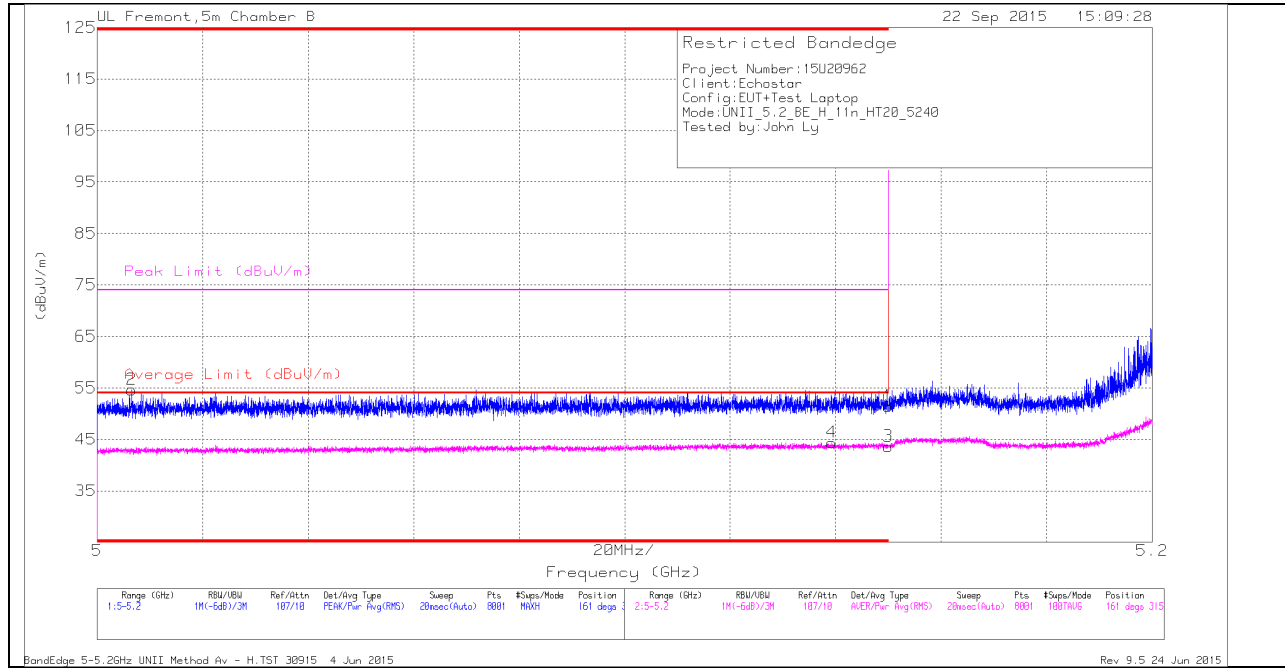
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1 | * 5.15 | 41.25 | Pk | 34.1 | -22 | 53.35 | - | - | 74 | -20.65 | 254 | 175 | V |
| 2 | * 5.139 | 43.41 | Pk | 34.1 | -22 | 55.51 | - | - | 74 | -18.49 | 254 | 175 | V |
| 3 | * 5.15 | 31.57 | RMS | 34.1 | -22 | 43.67 | 54 | -10.33 | - | - | 254 | 175 | V |
| 4 | * 5.147 | 33.08 | RMS | 34.1 | -22 | 45.18 | 54 | -8.82 | - | - | 254 | 175 | V |

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

Pk - Peak detector

RMS - RMS detection

CH 48 HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

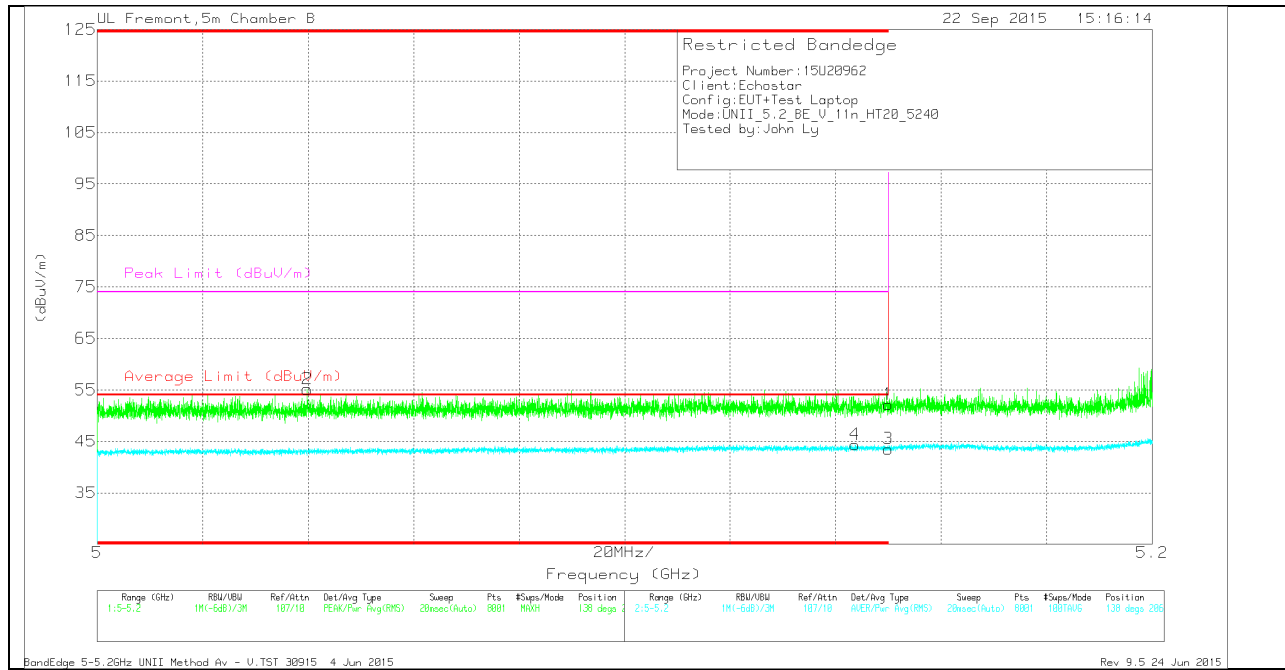
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1 | * 5.15 | 39.35 | Pk | 34.1 | -22 | 51.45 | - | - | 74 | -22.55 | 161 | 315 | H |
| 2 | * 5.007 | 42.77 | Pk | 34 | -22.1 | 54.67 | - | - | 74 | -19.33 | 161 | 315 | H |
| 3 | * 5.15 | 31.55 | RMS | 34.1 | -22 | 43.65 | 54 | -10.35 | - | - | 161 | 315 | H |
| 4 | * 5.139 | 32.3 | RMS | 34.1 | -22 | 44.4 | 54 | -9.6 | - | - | 161 | 315 | H |

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

Pk - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (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 | 40.1 | Pk | 34.1 | -22 | 52.2 | - | - | 74 | -21.8 | 138 | 206 | V |
| 2 | * 5.04 | 43.46 | Pk | 34 | -22.3 | 55.16 | - | - | 74 | -18.84 | 138 | 206 | V |
| 3 | * 5.15 | 31.45 | RMS | 34.1 | -22 | 43.55 | 54 | -10.45 | - | - | 138 | 206 | V |
| 4 | * 5.144 | 32.29 | RMS | 34.1 | -22 | 44.39 | 54 | -9.61 | - | - | 138 | 206 | V |

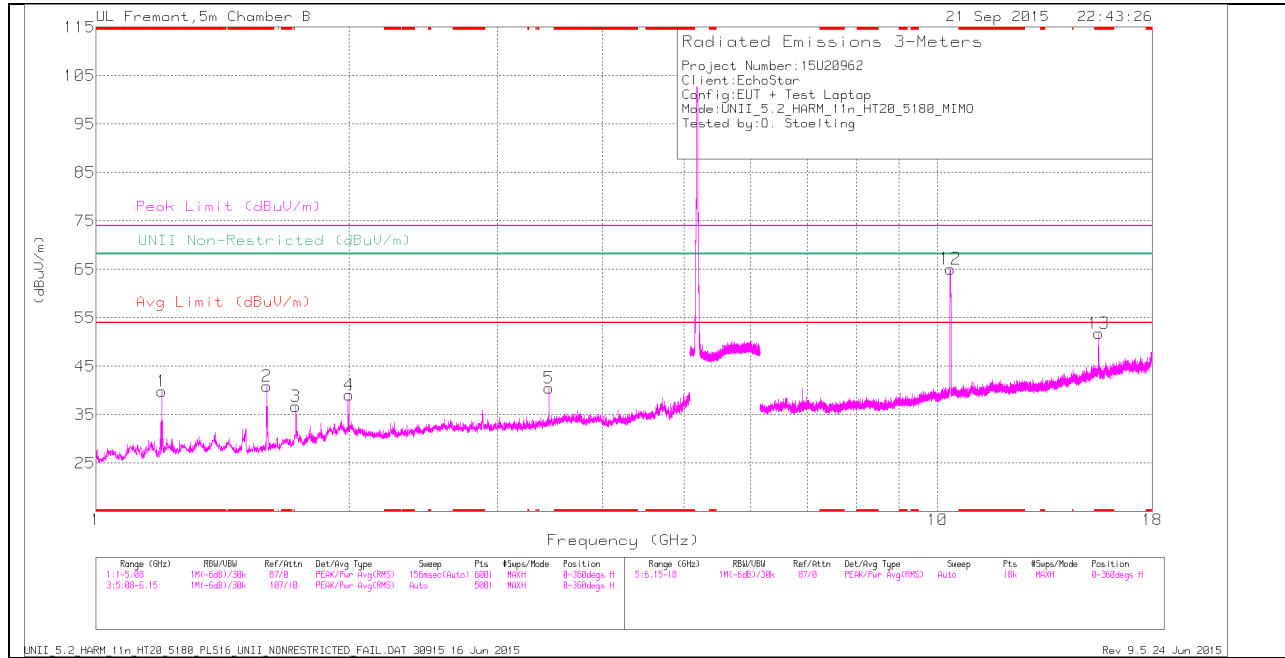
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

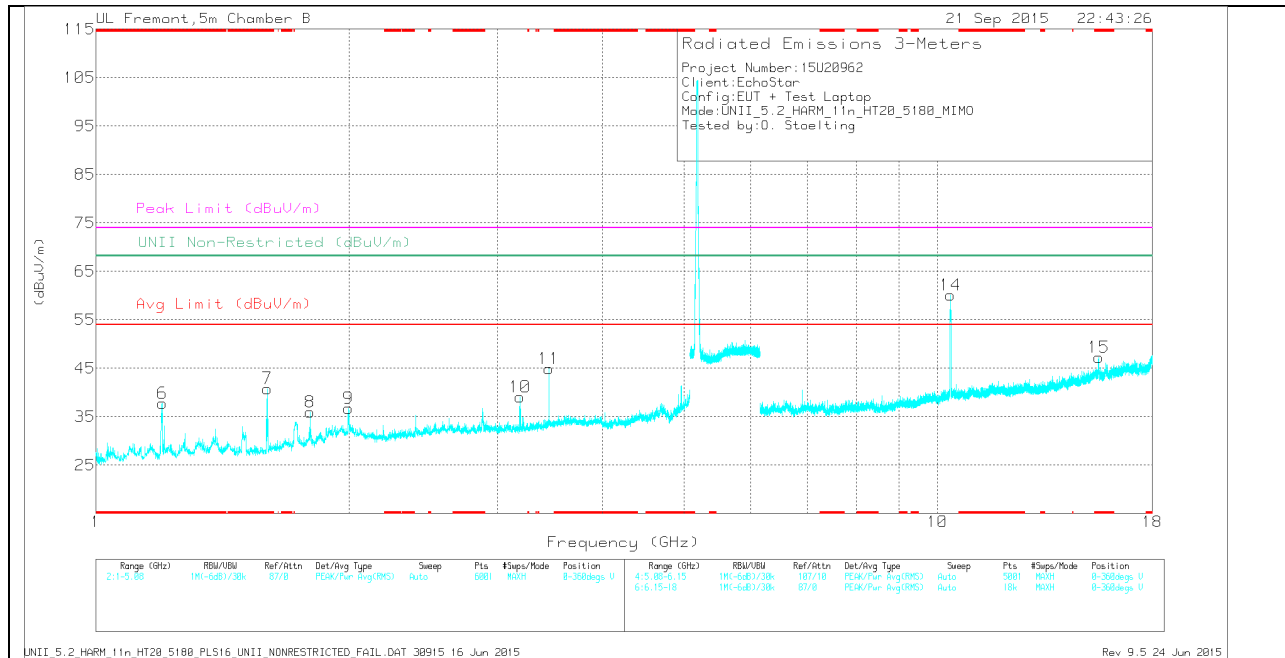
HARMONICS AND SPURIOUS EMISSIONS

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.

LOW CHANNEL 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.

LOW CHANNEL DATA

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Filtr/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 | * 1.198 | 47.07 | Pk | 28.5 | -35.7 | 0 | 39.87 | - | - | 74 | -34.13 | - | - | 0-360 | 101 | H |
| 2 | * 1.597 | 47.25 | Pk | 28.8 | -35.2 | 0 | 40.85 | - | - | 74 | -33.15 | - | - | 0-360 | 101 | H |
| 6 | * 1.199 | 45 | Pk | 28.5 | -35.7 | 0 | 37.8 | - | - | 74 | -36.2 | - | - | 0-360 | 101 | V |
| 7 | * 1.6 | 47.13 | Pk | 28.8 | -35.1 | 0 | 40.83 | - | - | 74 | -33.17 | - | - | 0-360 | 101 | V |
| 13 | * 15.542 | 33.96 | Pk | 40.8 | -22.9 | 0 | 51.86 | - | - | 74 | -22.14 | - | - | 0-360 | 199 | H |
| 15 | * 15.541 | 29.37 | Pk | 40.8 | -22.9 | 0 | 47.27 | - | - | 74 | -26.73 | - | - | 0-360 | 199 | V |
| 3 | 1.728 | 41.13 | Pk | 30 | -34.4 | 0 | 36.73 | - | - | - | - | 68.2 | -31.47 | 0-360 | 101 | H |
| 8 | 1.796 | 40.39 | Pk | 30.7 | -35.1 | 0 | 35.99 | - | - | - | - | 68.2 | -32.21 | 0-360 | 101 | V |
| 9 | 1.994 | 38.3 | Pk | 32.3 | -33.9 | 0 | 36.7 | - | - | - | - | 68.2 | -31.5 | 0-360 | 200 | V |
| 4 | 1.998 | 40.74 | Pk | 32.3 | -34 | 0 | 39.04 | - | - | - | - | 68.2 | -29.16 | 0-360 | 200 | H |
| 10 | 3.192 | 39.63 | Pk | 32.4 | -32.9 | 0 | 39.13 | - | - | - | - | 68.2 | -29.07 | 0-360 | 101 | V |
| 5 | 3.453 | 40.77 | Pk | 33.3 | -33.6 | 0 | 40.47 | - | - | - | - | 68.2 | -27.73 | 0-360 | 101 | H |
| 11 | 3.453 | 45.23 | Pk | 33.3 | -33.6 | 0 | 44.93 | - | - | - | - | 68.2 | -23.27 | 0-360 | 200 | V |
| 12 | 10.36 | 53.31 | Pk | 37.4 | -25.6 | 0 | 65.11 | - | - | - | - | 68.2 | -3.09 | 0-360 | 101 | H |
| 14 | 10.365 | 48.27 | Pk | 37.4 | -25.6 | 0 | 60.07 | - | - | - | - | 68.2 | -8.13 | 0-360 | 101 | V |

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

Pk - Peak detector

Radiated Emissions

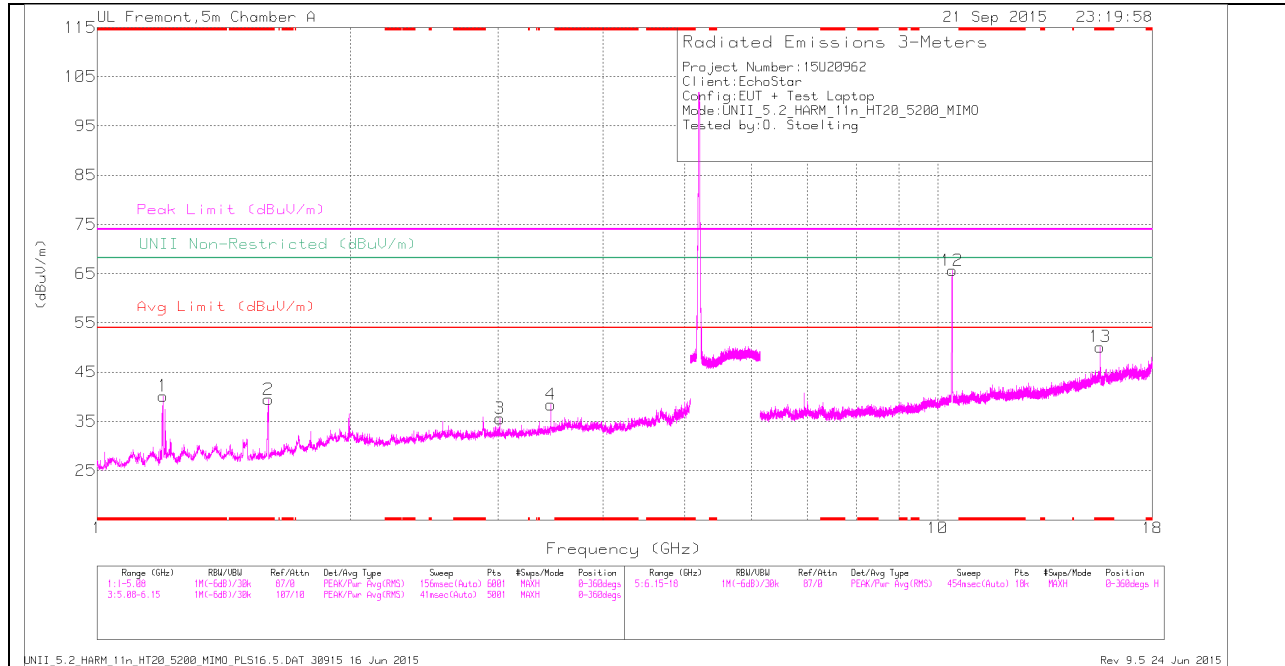
| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|------|----------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 1.199 | 54.04 | PK-U | 28.5 | -35.7 | 0 | 46.84 | - | - | 74 | -27.16 | - | - | 263 | 129 | H |
| * 1.198 | 32.59 | ADR | 28.5 | -35.6 | 0 | 25.49 | 54 | -28.51 | - | - | - | - | 263 | 129 | H |
| * 1.598 | 54.27 | PK-U | 28.8 | -35.2 | 0 | 47.87 | - | - | 74 | -26.13 | - | - | 157 | 328 | H |
| * 1.598 | 33.66 | ADR | 28.8 | -35.2 | 0 | 27.26 | 54 | -26.74 | - | - | - | - | 157 | 328 | H |
| * 15.543 | 42.75 | PK-U | 40.8 | -22.9 | 0 | 60.65 | - | - | 74 | -13.35 | - | - | 249 | 196 | H |
| * 15.54 | 28.44 | ADR | 40.8 | -22.9 | 0 | 46.34 | 54 | -7.66 | - | - | - | - | 249 | 196 | H |
| 3.453 | 49.49 | PK-U | 33.3 | -33.6 | 0 | 49.19 | - | - | - | - | 68.2 | -19.01 | 158 | 263 | V |
| 10.359 | 54 | PK-U | 37.4 | -25.6 | 0 | 65.8 | - | - | - | - | 68.2 | -2.4 | 113 | 102 | H |

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

PK-U - U-NII: Maximum Peak

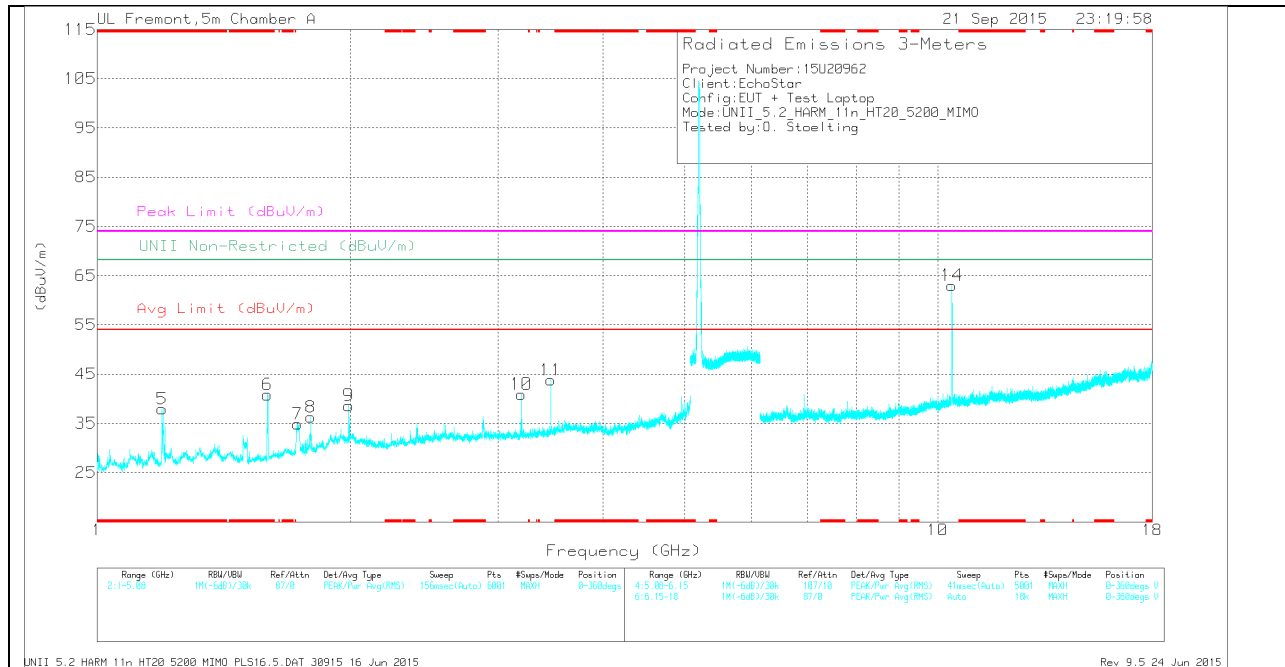
ADR - U-NII AD primary method, RMS average

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.

MID CHANNEL 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

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Filtr/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 | * 1.198 | 47.34 | Pk | 28.5 | -35.7 | 0 | 40.14 | 54 | -13.86 | 74 | -33.86 | - | - | 0-360 | 101 | H |
| 2 | * 1.599 | 45.74 | Pk | 28.8 | -35.1 | 0 | 39.44 | 54 | -14.56 | 74 | -34.56 | - | - | 0-360 | 101 | H |
| 5 | * 1.195 | 45.14 | Pk | 28.4 | -35.6 | 0 | 37.94 | 54 | -16.06 | 74 | -36.06 | - | - | 0-360 | 101 | V |
| 6 | * 1.594 | 47.23 | Pk | 28.8 | -35.2 | 0 | 40.83 | 54 | -13.17 | 74 | -33.17 | - | - | 0-360 | 199 | V |
| 13 | * 15.597 | 32.73 | Pk | 40.8 | -23.4 | 0 | 50.13 | 54 | -3.87 | 74 | -23.87 | - | - | 0-360 | 199 | H |
| 7 | 1.733 | 39.18 | Pk | 30.1 | -34.4 | 0 | 34.88 | - | - | - | - | 68.2 | -33.32 | 0-360 | 199 | V |
| 8 | 1.796 | 40.67 | Pk | 30.7 | -35.1 | 0 | 36.27 | - | - | - | - | 68.2 | -31.93 | 0-360 | 199 | V |
| 9 | 1.993 | 40.2 | Pk | 32.3 | -33.9 | 0 | 38.6 | - | - | - | - | 68.2 | -29.6 | 0-360 | 199 | V |
| 3 | 3.016 | 36.59 | Pk | 32.6 | -33.6 | 0 | 35.59 | - | - | - | - | 68.2 | -32.61 | 0-360 | 101 | H |
| 10 | 3.197 | 41.32 | Pk | 32.4 | -32.8 | 0 | 40.92 | - | - | - | - | 68.2 | -27.28 | 0-360 | 101 | V |
| 4 | 3.466 | 38.5 | Pk | 33.4 | -33.5 | 0 | 38.4 | - | - | - | - | 68.2 | -29.8 | 0-360 | 199 | H |
| 11 | 3.467 | 43.78 | Pk | 33.4 | -33.4 | 0 | 43.78 | - | - | - | - | 68.2 | -24.42 | 0-360 | 199 | V |
| 14 | 10.399 | 50.7 | Pk | 37.4 | -25.1 | 0 | 63 | - | - | - | - | 68.2 | -5.2 | 0-360 | 199 | V |
| 12 | 10.404 | 53.47 | Pk | 37.4 | -25.2 | 0 | 65.67 | - | - | - | - | 68.2 | -2.53 | 0-360 | 101 | H |

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

Pk - Peak detector

Radiated Emissions

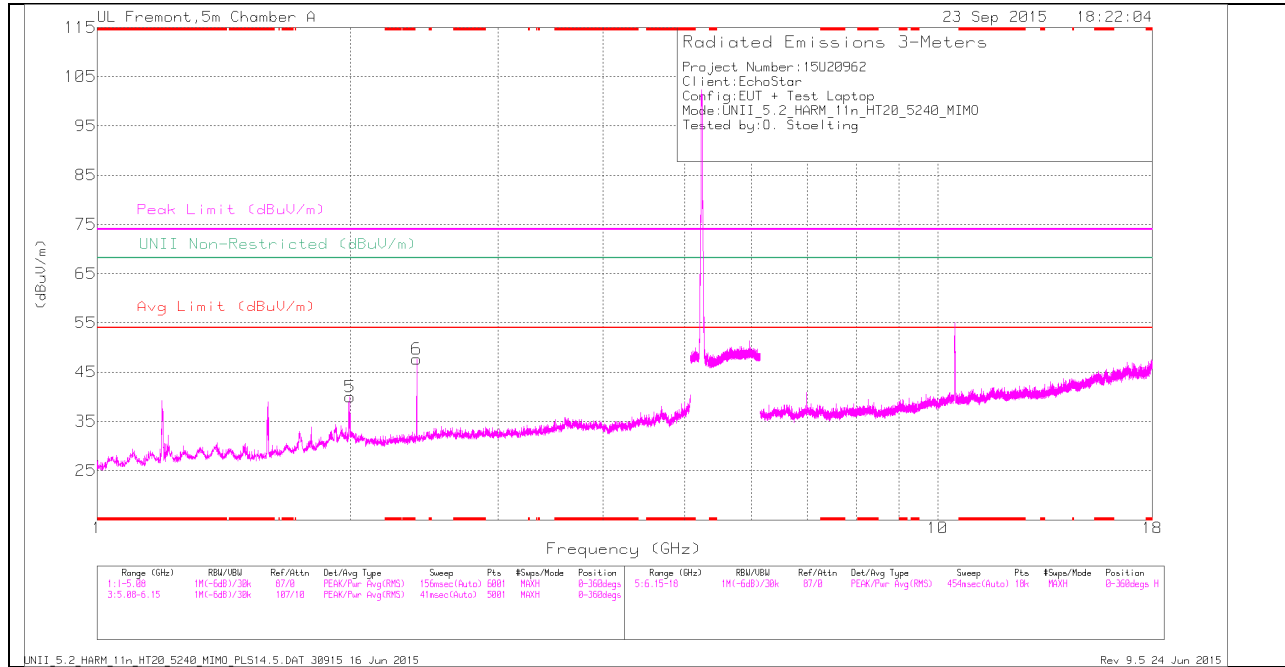
| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|------|----------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 1.199 | 53.13 | PK-U | 28.5 | -35.7 | 0 | 45.93 | 54 | -8.07 | 74 | -28.07 | - | - | 267 | 116 | H |
| * 1.199 | 32.39 | ADR | 28.5 | -35.7 | 0 | 25.19 | 54 | -28.81 | - | - | - | - | 267 | 116 | H |
| * 1.596 | 55.59 | PK-U | 28.8 | -35.2 | 0 | 49.19 | 54 | -4.81 | 74 | -24.81 | - | - | 203 | 235 | V |
| * 1.596 | 34.87 | ADR | 28.8 | -35.2 | 0 | 28.47 | 54 | -25.53 | - | - | - | - | 203 | 235 | V |
| * 1.195 | 52.02 | PK-U | 28.4 | -35.6 | 0 | 44.82 | 54 | -9.18 | 74 | -29.18 | - | - | 296 | 108 | V |
| * 1.195 | 33.94 | ADR | 28.4 | -35.6 | 0 | 26.74 | 54 | -27.26 | - | - | - | - | 296 | 108 | V |
| * 15.595 | 34.58 | PK-U | 40.8 | -23.4 | 0 | 51.98 | 54 | -2.02 | 74 | -22.02 | - | - | 64 | 200 | H |
| * 15.596 | 23.24 | ADR | 40.8 | -23.4 | 0 | 40.64 | 54 | -13.36 | - | - | - | - | 64 | 200 | H |
| 3.467 | 48.88 | PK-U | 33.4 | -33.4 | 0 | 48.88 | - | - | - | - | 68.2 | -19.32 | 215 | 227 | V |
| 10.401 | 55.43 | PK-U | 37.4 | -25.2 | 0 | 67.63 | - | - | - | - | 68.2 | -5.7 | 296 | 108 | H |

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

PK-U - U-NII: Maximum Peak

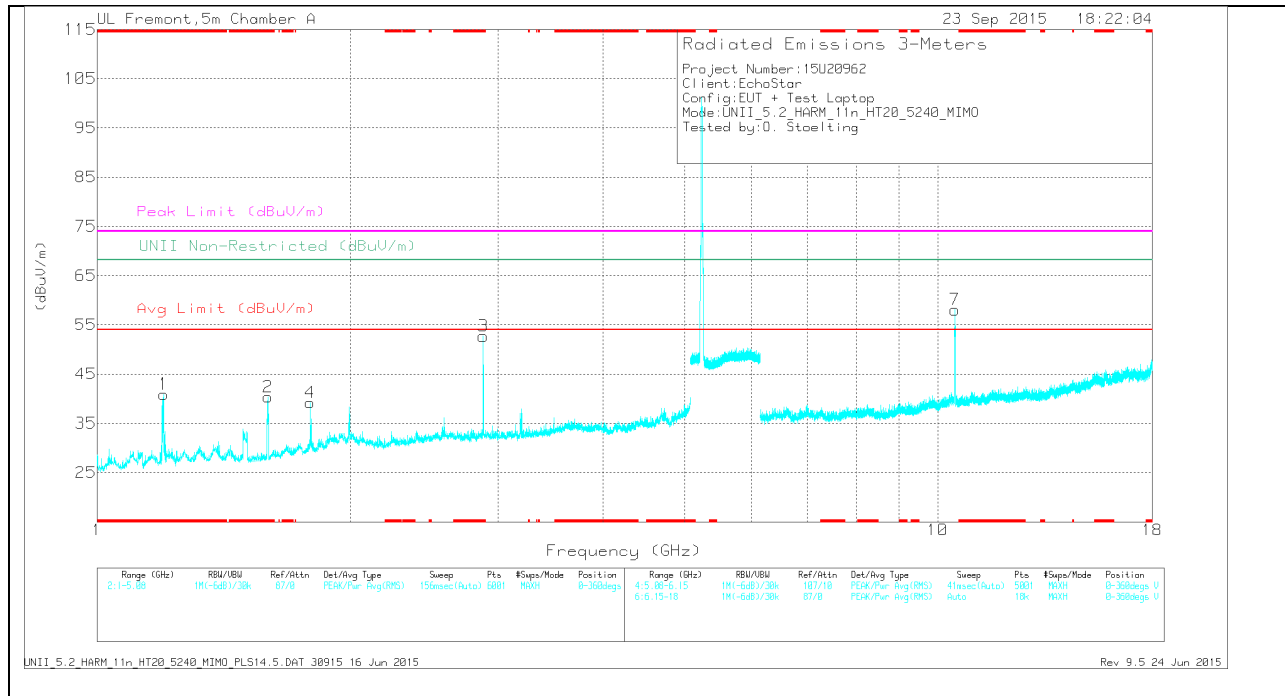
ADR - U-NII AD primary method, RMS average

HIGH 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.

HIGH CHANNEL 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.

HIGH CHANNEL DATA

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/CbI/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 | * 1.2 | 48.11 | Pk | 28.5 | -35.7 | 40.91 | - | - | 74 | -33.09 | - | - | 0-360 | 101 | V |
| 2 | * 1.597 | 46.73 | Pk | 28.8 | -35.2 | 40.33 | - | - | 74 | -33.67 | - | - | 0-360 | 101 | V |
| 3 | * 2.88 | 53.4 | Pk | 32.6 | -33.3 | 52.7 | - | - | 74 | -21.3 | - | - | 0-360 | 200 | V |
| 4 | 1.794 | 43.58 | Pk | 30.7 | -35.1 | 39.18 | - | - | - | - | 68.2 | -29.02 | 0-360 | 101 | V |
| 5 | 2 | 41.79 | Pk | 32.3 | -34.1 | 39.99 | - | - | - | - | 68.2 | -28.21 | 0-360 | 101 | H |
| 6 | 2.4 | 50.03 | Pk | 32.1 | -34.5 | 47.63 | - | - | - | - | 68.2 | -20.57 | 0-360 | 200 | H |
| 7 | 10.479 | 45.97 | Pk | 37.4 | -25.3 | 58.07 | - | - | - | - | 68.2 | -10.13 | 0-360 | 101 | 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/CbI/FI tr/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 | 54.8 | PK-U | 28.5 | -35.7 | 47.6 | - | - | 74 | -26.4 | - | - | 0 | 115 | V |
| * 1.2 | 32.76 | ADR | 28.5 | -35.7 | 25.56 | 54 | -28.44 | - | - | - | - | 0 | 115 | V |
| * 1.595 | 53.43 | PK-U | 28.8 | -35.2 | 47.03 | - | - | 74 | -26.97 | - | - | 266 | 109 | V |
| * 1.596 | 33.48 | ADR | 28.8 | -35.2 | 27.08 | 54 | -26.92 | - | - | - | - | 266 | 109 | V |
| * 2.88 | 56.19 | PK-U | 32.6 | -33.3 | 55.49 | - | - | 74 | -18.51 | - | - | 345 | 107 | V |
| * 2.88 | 32.57 | ADR | 32.6 | -33.3 | 31.87 | 54 | -22.13 | - | - | - | - | 345 | 107 | V |
| 1.793 | 46.95 | PK-U | 30.7 | -35.1 | 42.55 | - | - | - | - | 68.2 | -25.65 | 345 | 102 | V |
| 1.999 | 49.74 | PK-U | 32.3 | -34 | 48.04 | - | - | - | - | 68.2 | -20.16 | 360 | 101 | H |
| 2.4 | 49.92 | PK-U | 32.1 | -34.5 | 47.52 | - | - | - | - | 68.2 | -20.68 | 360 | 199 | H |
| 10.481 | 55.31 | PK-U | 37.4 | -25.4 | 67.31 | - | - | - | - | 68.2 | -.89 | 226 | 208 | V |

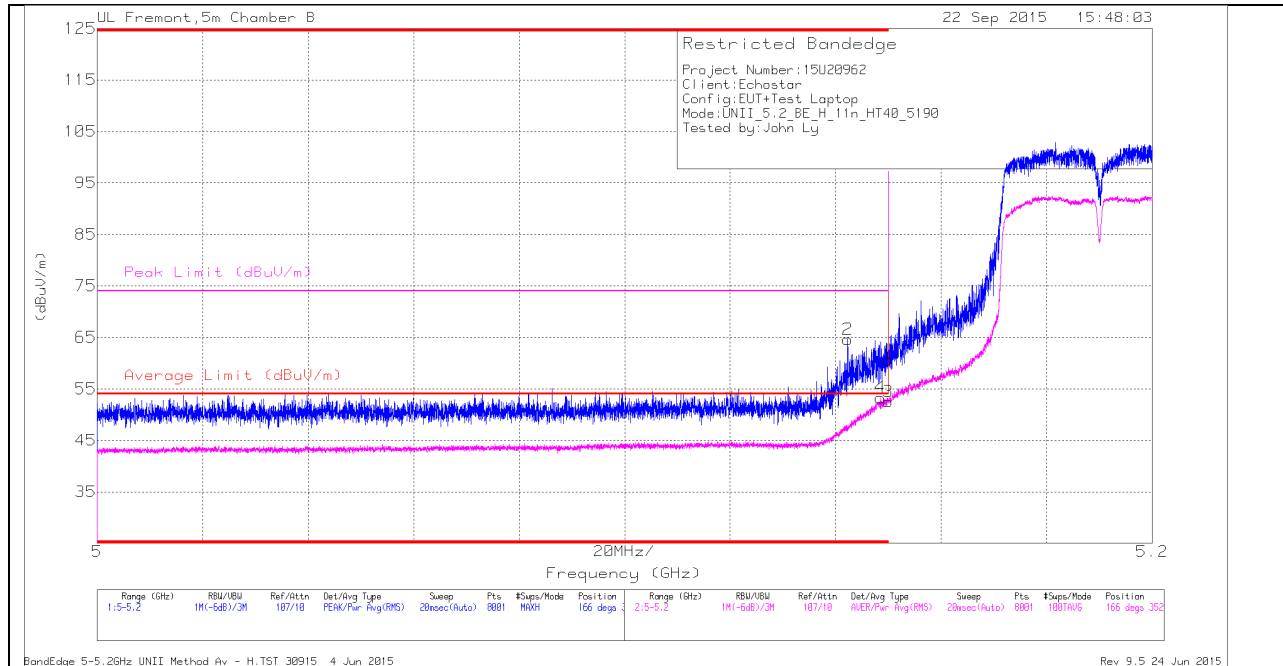
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

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

Ch. 38 HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

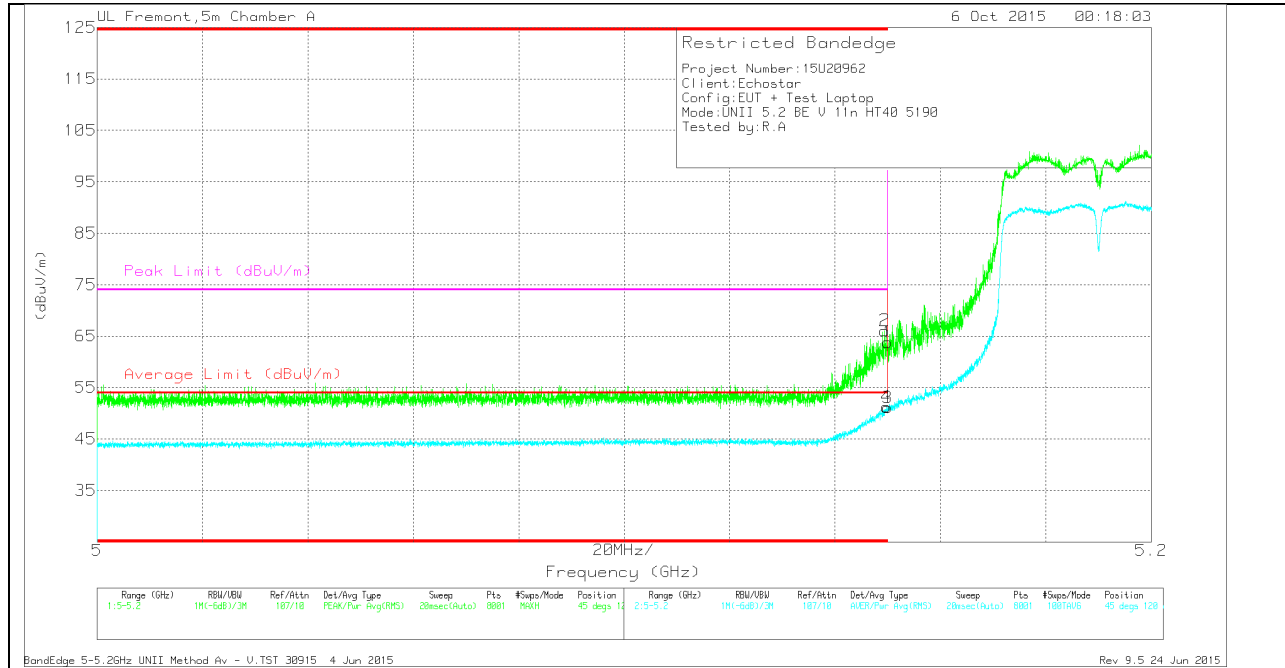
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1 | * 5.15 | 48.46 | Pk | 34.1 | -22 | 60.56 | - | - | 74 | -13.44 | 166 | 352 | H |
| 2 | * 5.142 | 52.52 | Pk | 34.1 | -22 | 64.62 | - | - | 74 | -9.38 | 166 | 352 | H |
| 3 | * 5.15 | 40.43 | RMS | 34.1 | -22 | 52.53 | 54 | -1.47 | - | - | 166 | 352 | H |
| 4 | * 5.148 | 41.22 | RMS | 34.1 | -22 | 53.32 | 54 | -.68 | - | - | 166 | 352 | H |

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

Pk - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

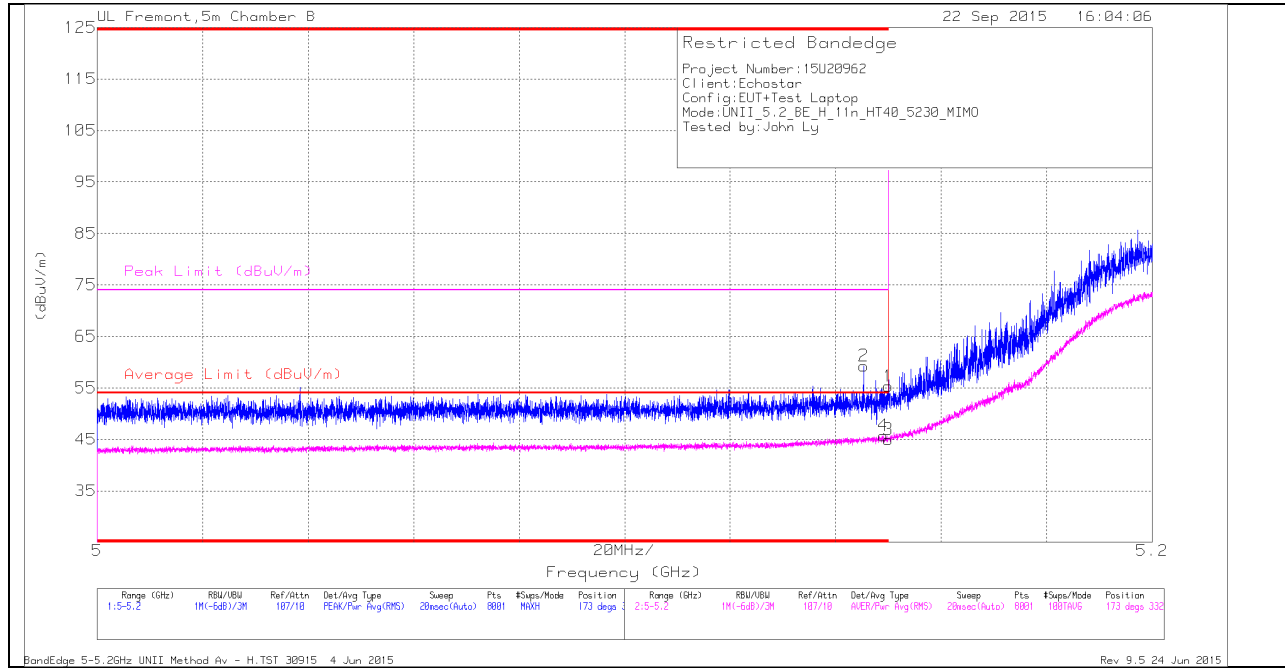
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T136 (dB/m) | Amp/Cbl/Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1 | * 5.15 | 50.3 | Pk | 34.2 | -20.7 | 63.8 | - | - | 74 | -10.2 | 45 | 120 | V |
| 2 | * 5.149 | 52.59 | Pk | 34.2 | -20.7 | 66.09 | - | - | 74 | -7.91 | 45 | 120 | V |
| 3 | * 5.15 | 37.62 | RMS | 34.2 | -20.7 | 51.12 | 54 | -2.88 | - | - | 45 | 120 | V |
| 4 | * 5.15 | 37.76 | RMS | 34.2 | -20.7 | 51.26 | 54 | -2.74 | - | - | 45 | 120 | V |

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

Pk - Peak detector

RMS - RMS detection

CH 46 HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

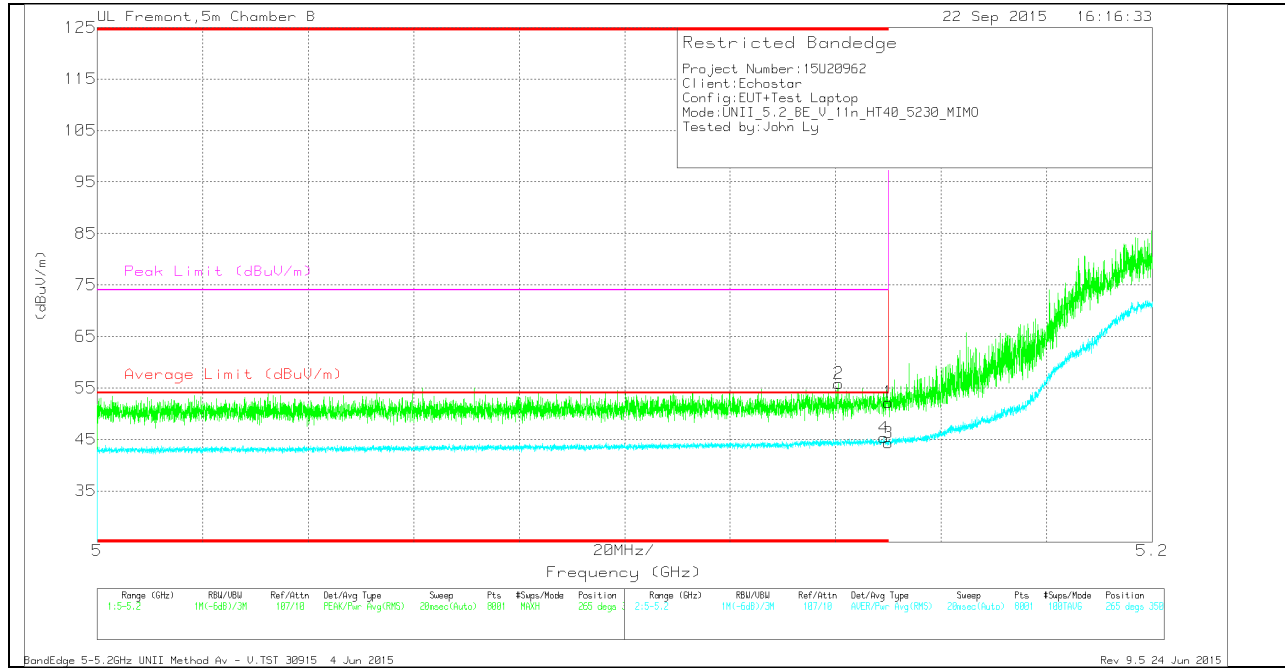
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1 | * 5.15 | 43.24 | Pk | 34.1 | -22 | 55.34 | - | - | 74 | -18.66 | 173 | 332 | H |
| 2 | * 5.145 | 47.18 | Pk | 34.1 | -22 | 59.28 | - | - | 74 | -14.72 | 173 | 332 | H |
| 3 | * 5.15 | 32.88 | RMS | 34.1 | -22 | 44.98 | 54 | -9.02 | - | - | 173 | 332 | H |
| 4 | * 5.149 | 33.63 | RMS | 34.1 | -22 | 45.73 | 54 | -8.27 | - | - | 173 | 332 | H |

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

Pk - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

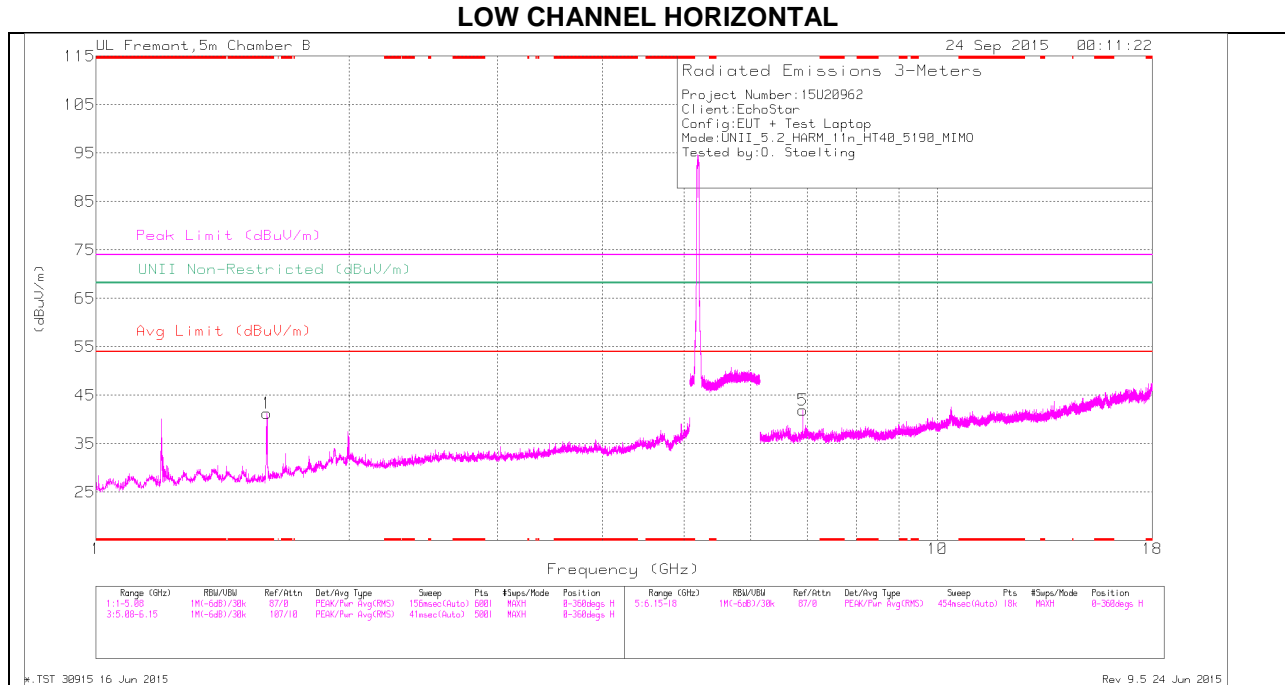
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/ Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1 | * 5.15 | 40.11 | Pk | 34.1 | -22 | 52.21 | - | - | 74 | -21.79 | 265 | 350 | V |
| 2 | * 5.141 | 43.74 | Pk | 34.1 | -22 | 55.84 | - | - | 74 | -18.16 | 265 | 350 | V |
| 3 | * 5.15 | 32.23 | RMS | 34.1 | -22 | 44.33 | 54 | -9.67 | - | - | 265 | 350 | V |
| 4 | * 5.149 | 33.2 | RMS | 34.1 | -22 | 45.3 | 54 | -8.7 | - | - | 265 | 350 | V |

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

Pk - Peak detector

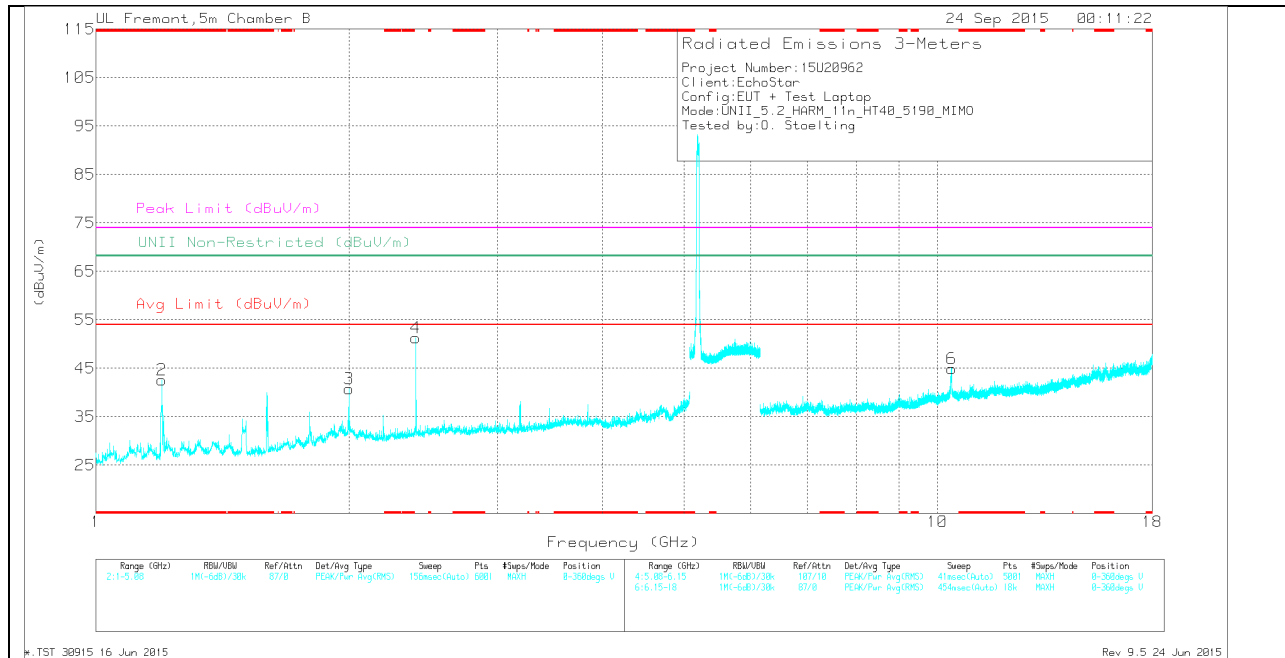
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS



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 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.

LOW CHANNEL DATA

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Ftr /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 | * 1.596 | 47.65 | Pk | 28.8 | -35.2 | 41.25 | - | - | 74 | -32.75 | - | - | 0-360 | 101 | H |
| 2 | * 1.198 | 49.77 | Pk | 28.5 | -35.7 | 42.57 | - | - | 74 | -31.43 | - | - | 0-360 | 101 | V |
| 3 | 2 | 42.55 | Pk | 32.3 | -34.1 | 40.75 | - | - | - | - | 68.2 | -27.45 | 0-360 | 200 | V |
| 4 | 2.4 | 53.63 | Pk | 32.1 | -34.5 | 51.23 | - | - | - | - | 68.2 | -16.97 | 0-360 | 200 | V |
| 5 | 6.92 | 36.53 | Pk | 36.1 | -30.7 | 41.93 | - | - | - | - | 68.2 | -26.27 | 0-360 | 101 | H |
| 6 | 10.395 | 32.73 | Pk | 37.4 | -25.2 | 44.93 | - | - | - | - | 68.2 | -23.27 | 0-360 | 200 | V |

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

Pk - Peak detector

Radiated Emissions

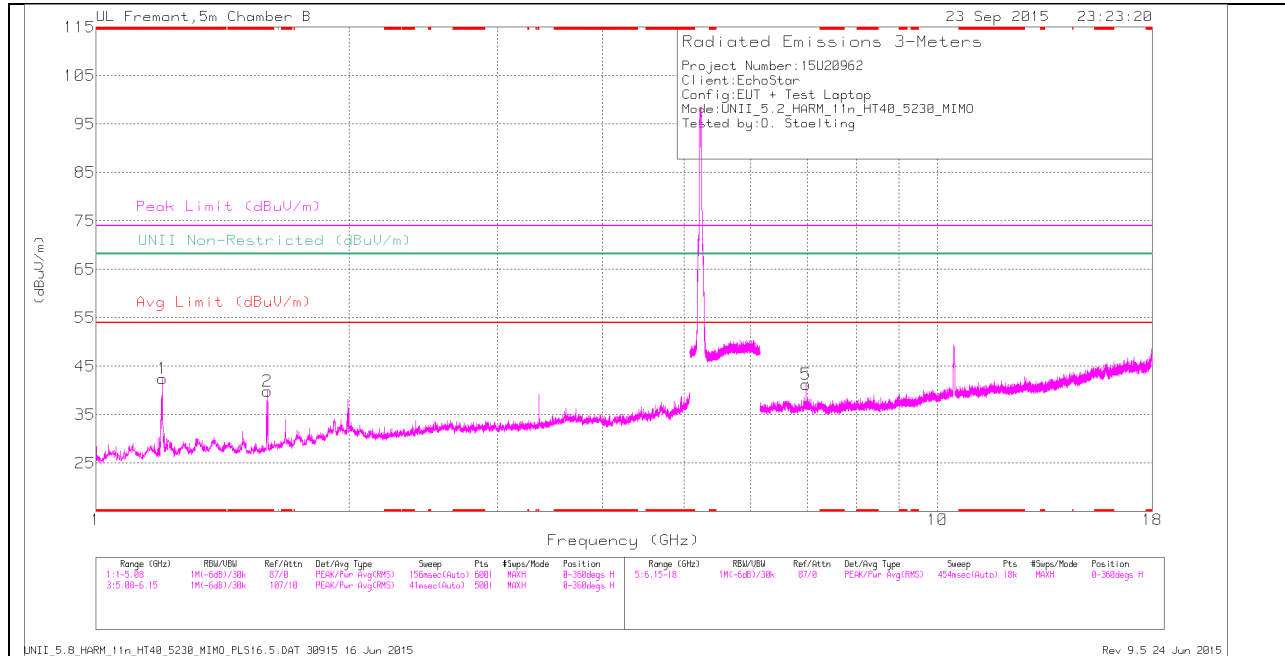
| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/FI tr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|------|----------------|------------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 1.595 | 55.2 | PK-U | 28.8 | -35.2 | 48.8 | - | - | 74 | -25.2 | - | - | 274 | 122 | H |
| * 1.597 | 33.91 | ADR | 28.8 | -35.2 | 27.51 | 54 | -26.49 | - | - | - | - | 274 | 122 | H |
| * 1.2 | 55.32 | PK-U | 28.5 | -35.7 | 48.12 | - | - | 74 | -25.88 | - | - | 239 | 168 | V |
| * 1.199 | 33.02 | ADR | 28.5 | -35.7 | 25.82 | 54 | -28.18 | - | - | - | - | 239 | 168 | V |
| 1.999 | 31.12 | ADR | 32.3 | -34 | 29.42 | - | - | - | - | - | - | 290 | 311 | V |
| 2 | 51.76 | PK-U | 32.3 | -34.1 | 49.96 | - | - | - | - | 68.2 | -18.24 | 290 | 311 | V |
| 2.4 | 57.1 | PK-U | 32.1 | -34.5 | 54.7 | - | - | - | - | 68.2 | -13.5 | 17 | 159 | V |
| 6.92 | 41.99 | PK-U | 36.1 | -30.7 | 47.39 | - | - | - | - | 68.2 | -20.81 | 40 | 108 | H |
| 10.394 | 41.57 | PK-U | 37.4 | -25.2 | 53.77 | - | - | - | - | 68.2 | -14.43 | 359 | 216 | V |

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

PK-U - U-NII: Maximum Peak

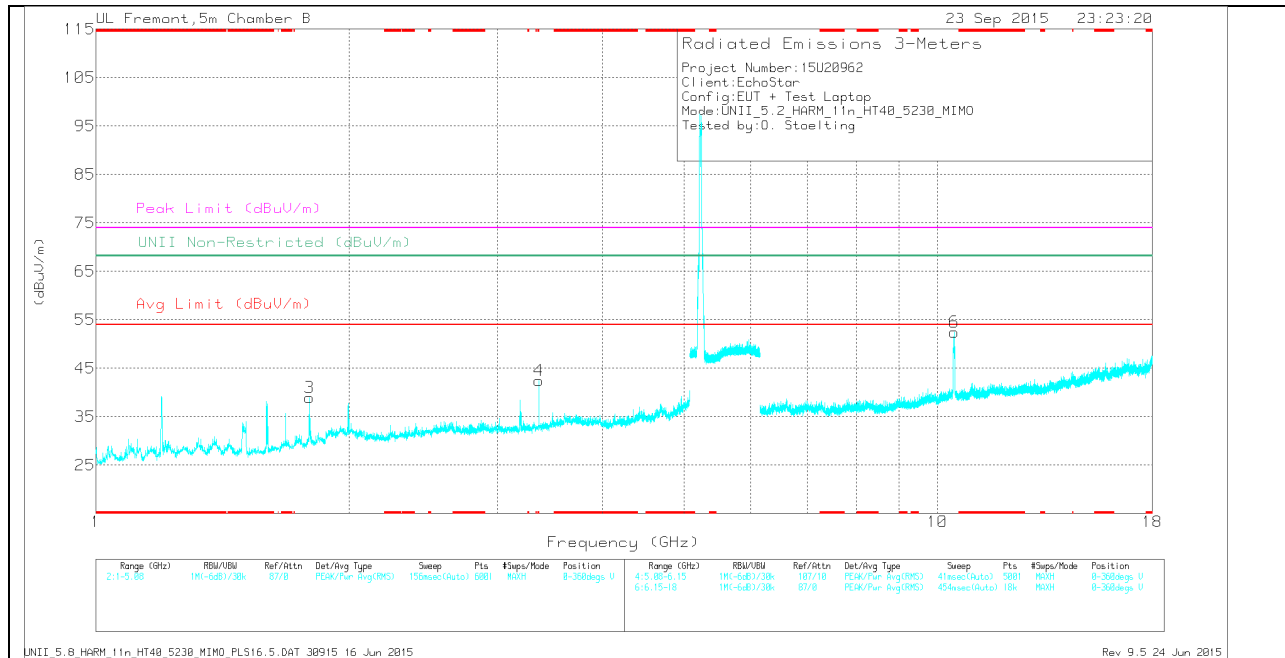
ADR - U-NII AD primary method, RMS average

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.

MID CHANNEL 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

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cb/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 | * 1.2 | 49.65 | Pk | 28.5 | -35.7 | 42.45 | - | - | 74 | -31.55 | - | - | 0-360 | 101 | H |
| 2 | * 1.6 | 46.18 | Pk | 28.8 | -35.1 | 39.88 | - | - | 74 | -34.12 | - | - | 0-360 | 101 | H |
| 3 | 1.794 | 43.34 | Pk | 30.7 | -35.1 | 38.94 | - | - | - | - | 68.2 | -29.26 | 0-360 | 101 | V |
| 4 | 3.36 | 42.55 | Pk | 32.9 | -33 | 42.45 | - | - | - | - | 68.2 | -25.75 | 0-360 | 101 | V |
| 5 | 6.974 | 35.24 | Pk | 36 | -30 | 41.24 | - | - | - | - | 68.2 | -26.96 | 0-360 | 101 | H |
| 6 | 10.464 | 40.11 | Pk | 37.4 | -25.1 | 52.41 | - | - | - | - | 68.2 | -15.79 | 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 T345 (dB/m) | Amp/Cb/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 |
|-----------------|----------------------|------|----------------|----------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 1.199 | 57.72 | PK-U | 28.5 | -35.7 | 50.52 | - | - | 74 | -23.48 | - | - | 352 | 133 | H |
| * 1.198 | 33.91 | ADR | 28.5 | -35.7 | 26.71 | 54 | -27.29 | - | - | - | - | 352 | 133 | H |
| * 1.599 | 52.89 | PK-U | 28.8 | -35.1 | 46.59 | - | - | 74 | -27.41 | - | - | 337 | 192 | H |
| * 1.599 | 32.69 | ADR | 28.8 | -35.1 | 26.39 | 54 | -27.61 | - | - | - | - | 337 | 192 | H |
| 1.793 | 52.96 | PK-U | 30.7 | -35.1 | 48.56 | - | - | - | - | 68.2 | -19.64 | 248 | 102 | V |
| 3.36 | 50.64 | PK-U | 32.9 | -33 | 50.54 | - | - | - | - | 68.2 | -17.66 | 160 | 234 | V |
| 6.973 | 42.34 | PK-U | 36 | -30 | 48.34 | - | - | - | - | 68.2 | -19.86 | 45 | 108 | H |
| 10.464 | 51.91 | PK-U | 37.4 | -25.1 | 64.21 | - | - | - | - | 68.2 | -3.99 | 352 | 224 | V |

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

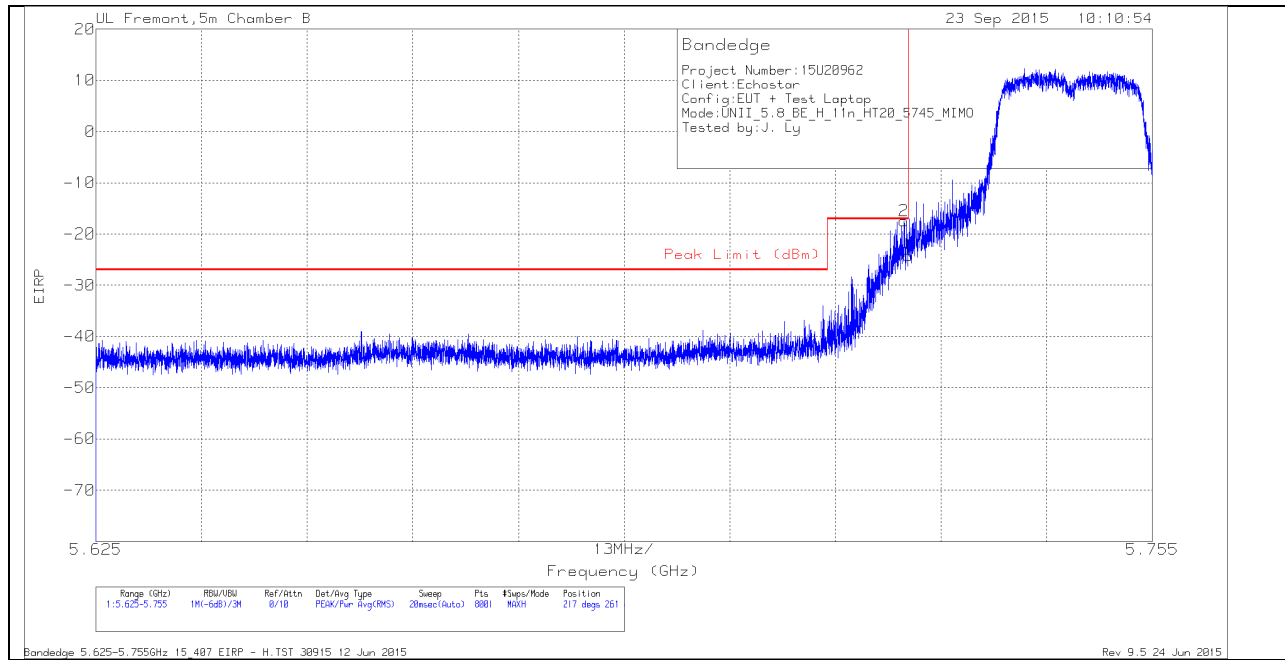
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

13.2. 5.8 GHz

13.2.1. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.8 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK PLOT



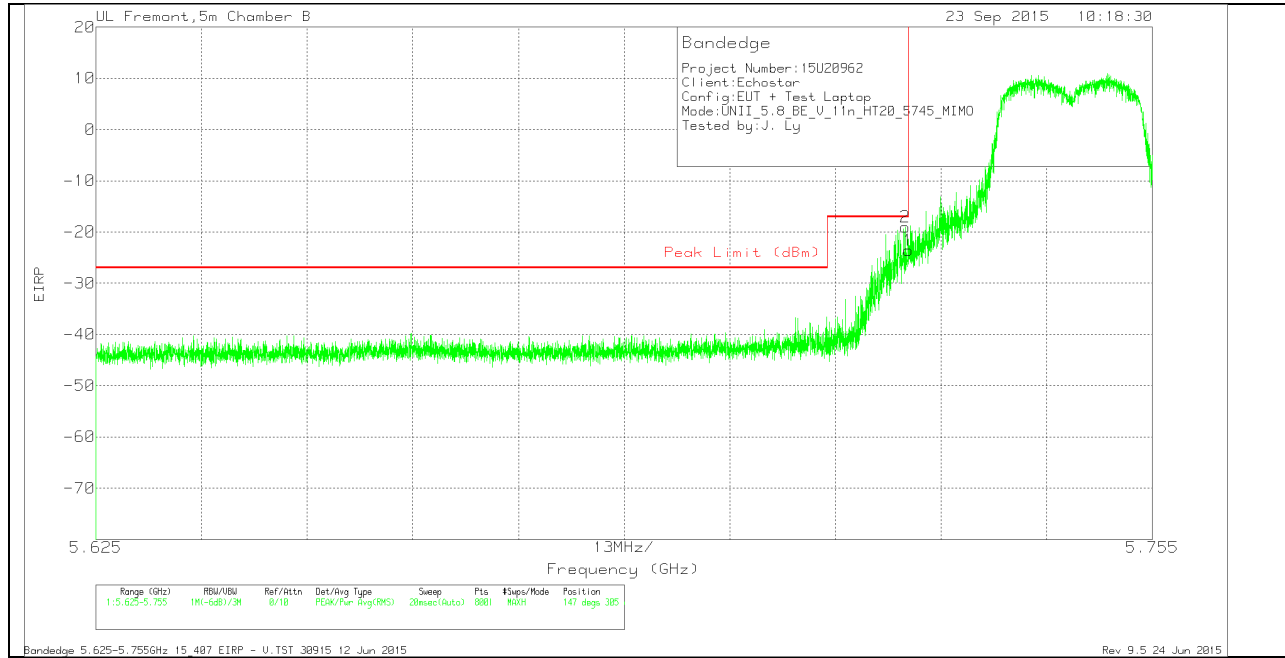
CH 149 HORIZONTAL DATA

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBm) | Det | AF T345 (dB/m) | Amp/Cbl/F ltr/Pad (dB) | Conversion Factor (dB) | Corrected Reading EIRP | Peak Limit (dBm) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|---------------------|-----|----------------|------------------------|------------------------|------------------------|------------------|----------------|----------------|-------------|----------|
| 2 | 5.724 | -42.57 | Pk | 35 | -21.7 | 11.8 | -17.47 | -17 | -.47 | 217 | 261 | H |
| 1 | 5.725 | -49.22 | Pk | 35 | -21.7 | 11.8 | -24.12 | -17 | -7.12 | 217 | 261 | H |

Pk - Peak detector

VERTICAL PEAK PLOT



CH 149 VERTICAL DATA

Trace Markers

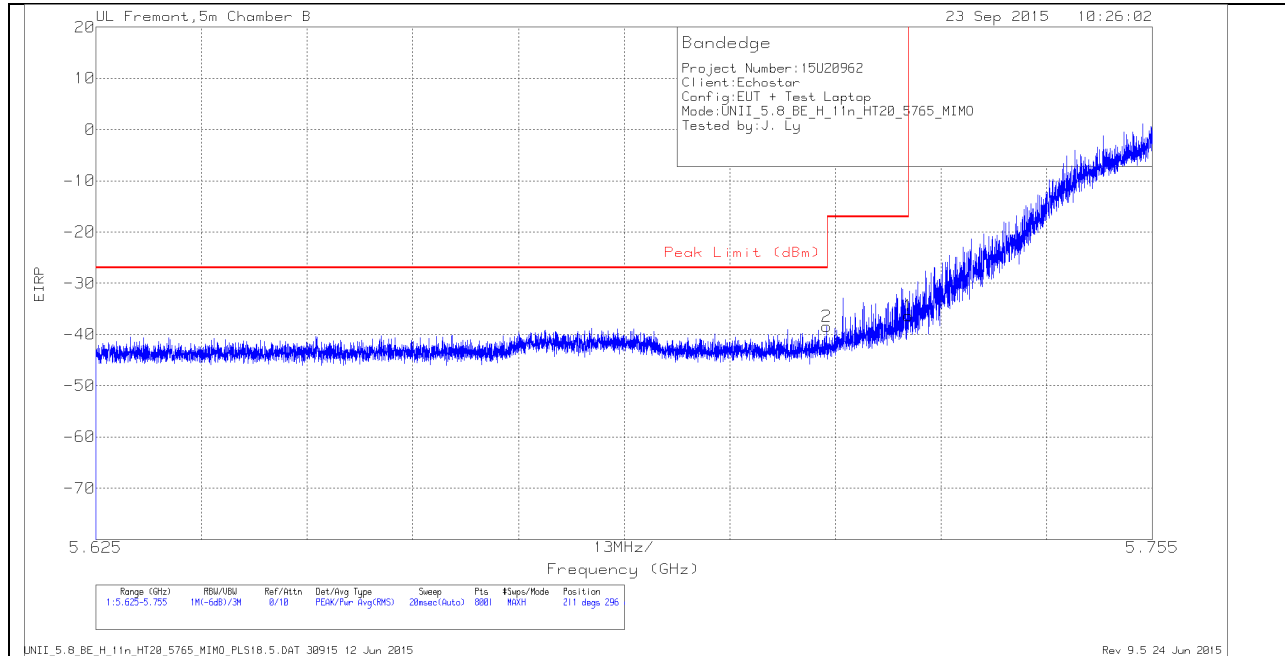
| Marker | Frequency (GHz) | Meter Reading (dBm) | Det | AF T136 (dB/m) | Amp/Cbl/F Itr/Pad (dB) | Conversion Factor (dB) | Corrected Reading EIRP | Peak Limit (dBm) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|---------------------|-----|----------------|------------------------|------------------------|------------------------|------------------|----------------|----------------|-------------|----------|
| 2 | 5.711 | -66.3 | Pk | 34.7 | -20.7 | 11.8 | -40.5 | -27 | -13.5 | 108 | 270 | H |
| 1 | 5.725 | -65.25 | Pk | 34.7 | -20.7 | 11.8 | -39.45 | -17 | -22.45 | 108 | 270 | H |

Pk - Peak detector

Bandedge 5.625-5.755GHz 15_407 EIRP - H.TST 39763 24 Nov 2014

Rev 9.5 24 Jun 2015

CH 153 HORIZONTAL PEAK PLOT



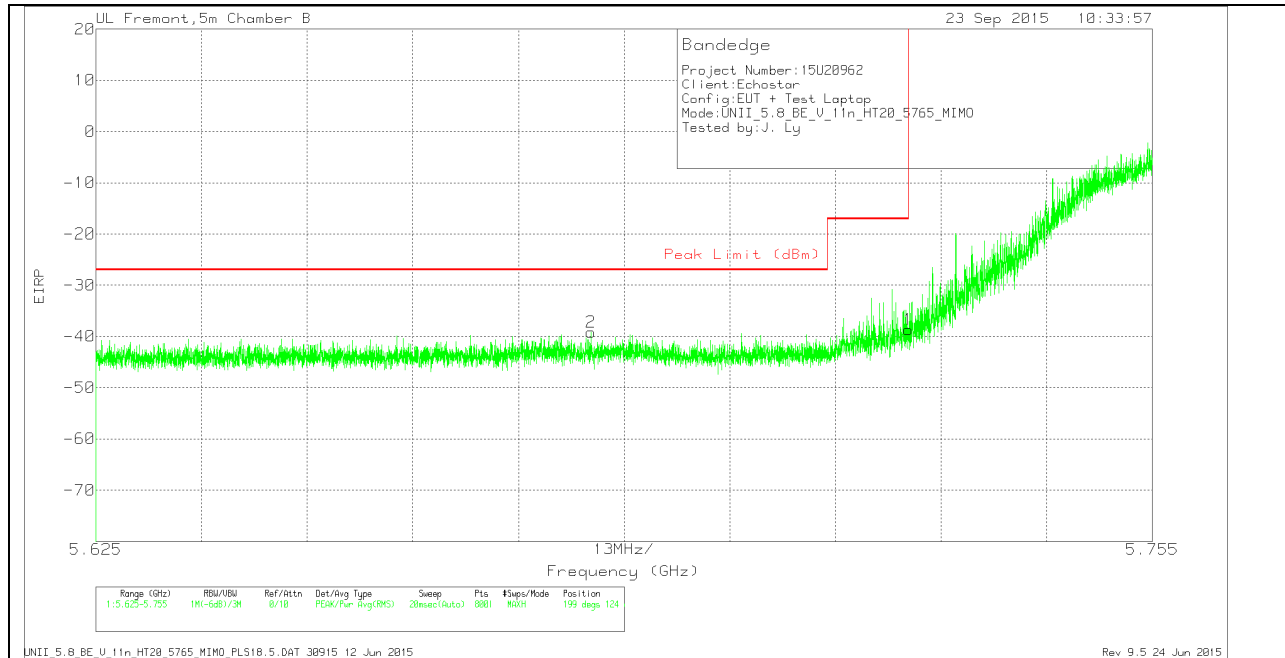
VERTICAL DATA

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBm) | Det | AF T345 (dB/m) | Amp/Cbl/F ltr/Pad (dB) | Conversion Factor (dB) | Corrected Reading EIRP | Peak Limit (dBm) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|---------------------|-----|----------------|------------------------|------------------------|------------------------|------------------|----------------|----------------|-------------|----------|
| 2 | 5.715 | -63.53 | PK | 35 | -21.7 | 11.8 | -38.43 | -27 | -11.43 | 211 | 296 | H |
| 1 | 5.725 | -61.44 | PK | 35 | -21.7 | 11.8 | -36.34 | -17 | -19.34 | 211 | 296 | H |

Pk - Peak detector

CH 153 VERTICAL PEAK PLOT



CH 153 VERTICAL DATA

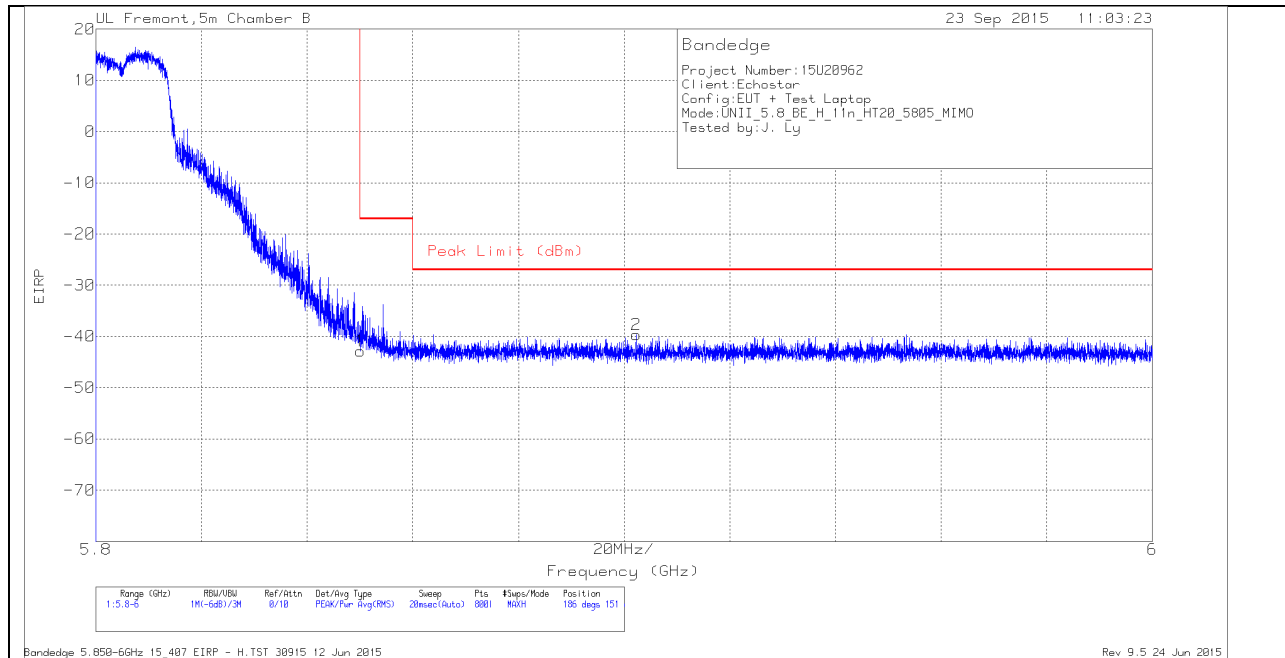
Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBm) | Det | AF T345 (dB/m) | Amp/Cbl/F ltr/Pad (dB) | Conversion Factor (dB) | Corrected Reading EIRP | Peak Limit (dBm) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|---------------------|-----|----------------|------------------------|------------------------|------------------------|------------------|----------------|----------------|-------------|----------|
| 2 | 5.686 | -64.18 | Pk | 34.9 | -21.7 | 11.8 | -39.18 | -27 | -12.18 | 199 | 124 | V |
| 1 | 5.725 | -63.77 | Pk | 35 | -21.7 | 11.8 | -38.67 | -17 | -21.67 | 199 | 124 | V |

Pk - Peak detector

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK PLOT



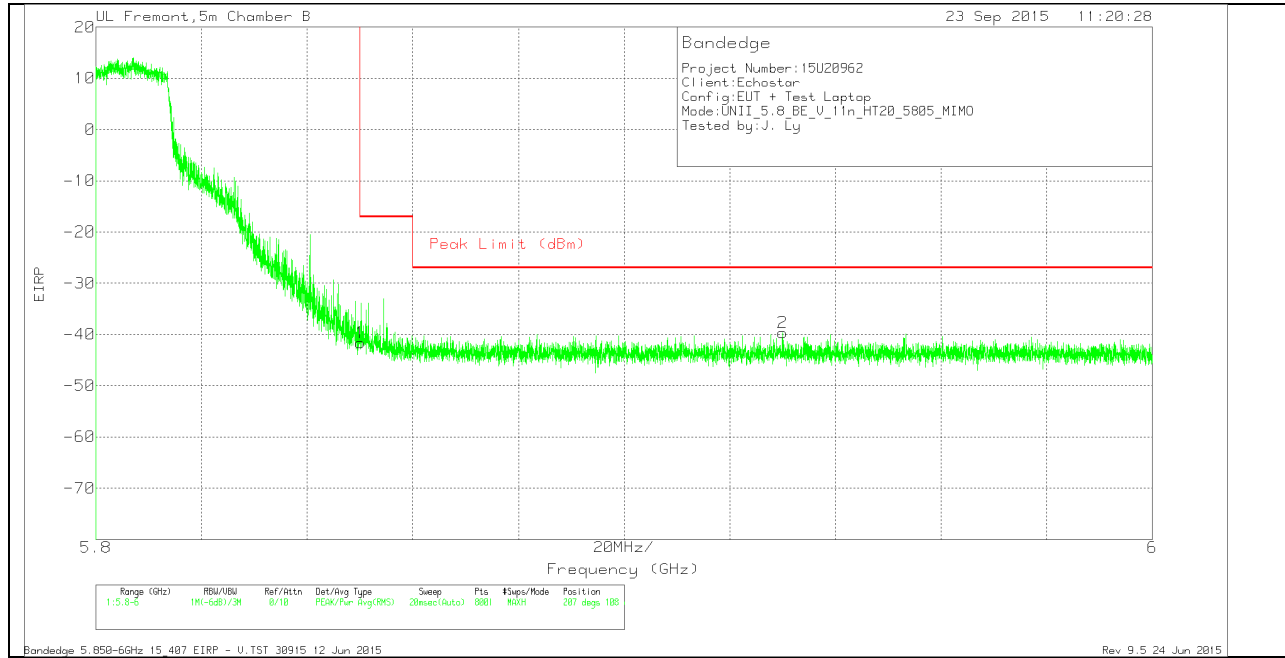
CH 161 HORIZONTAL DATA

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBm) | Det | AF T345 (dB/m) | Amp/Cb/F ltr/Pad (dB) | Conversion Factor (dB) | Corrected Reading EIRP | Peak Limit (dBm) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|---------------------|-----|----------------|-----------------------|------------------------|------------------------|------------------|----------------|----------------|-------------|----------|
| 1 | 5.85 | -68.4 | Pk | 35.4 | -21.6 | 11.8 | -42.8 | -17 | -25.8 | 186 | 151 | H |
| 2 | 5.902 | -65.3 | Pk | 35.5 | -21.6 | 11.8 | -39.6 | -27 | -12.6 | 186 | 151 | H |

Pk - Peak detector

VERTICAL PEAK PLOT



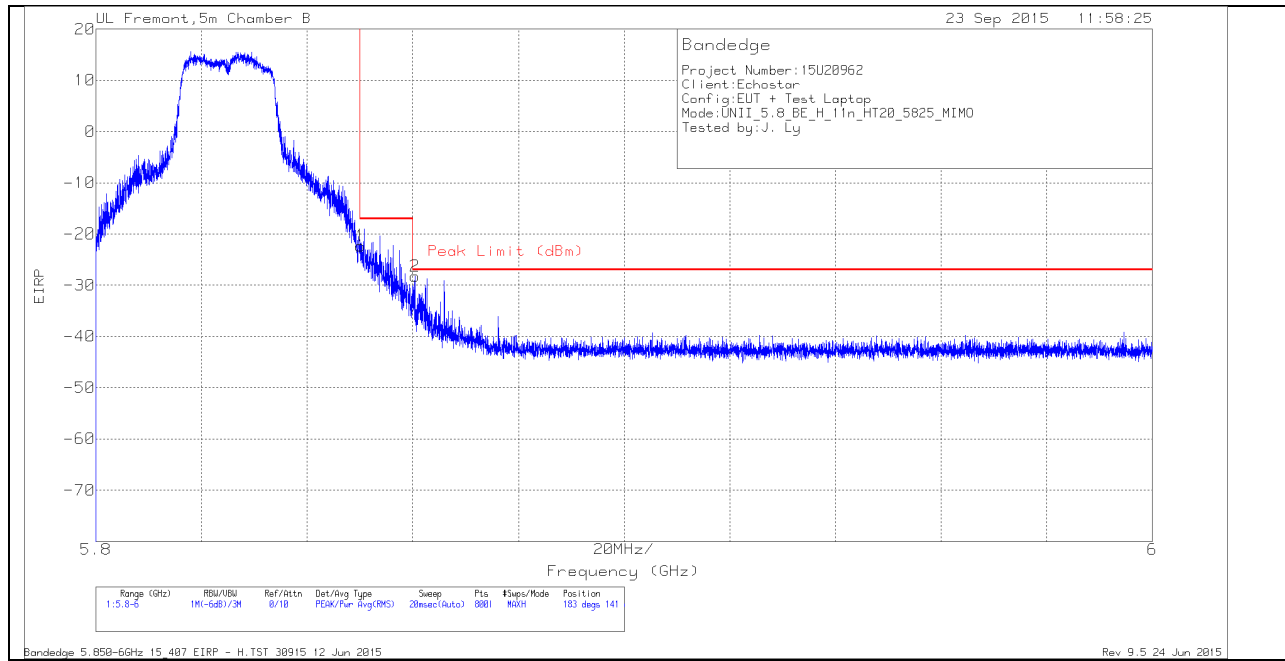
CH 161 HORIZONTAL DATA

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBm) | Det | AF T136 (dB/m) | Amp/Cbl/F ltr/Pad (dB) | Conversion Factor (dB) | Corrected Reading EIRP | Peak Limit (dBm) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|---------------------|-----|----------------|------------------------|------------------------|------------------------|------------------|----------------|----------------|-------------|----------|
| 1 | 5.85 | -57.34 | Pk | 35.1 | -20.3 | 11.8 | -30.74 | -17 | -13.74 | 0 | 152 | H |
| 2 | 5.861 | -57.82 | Pk | 35.1 | -20.3 | 11.8 | -31.22 | -27 | -4.22 | 0 | 152 | H |

Pk - Peak detector

HORIZONTAL PLOT



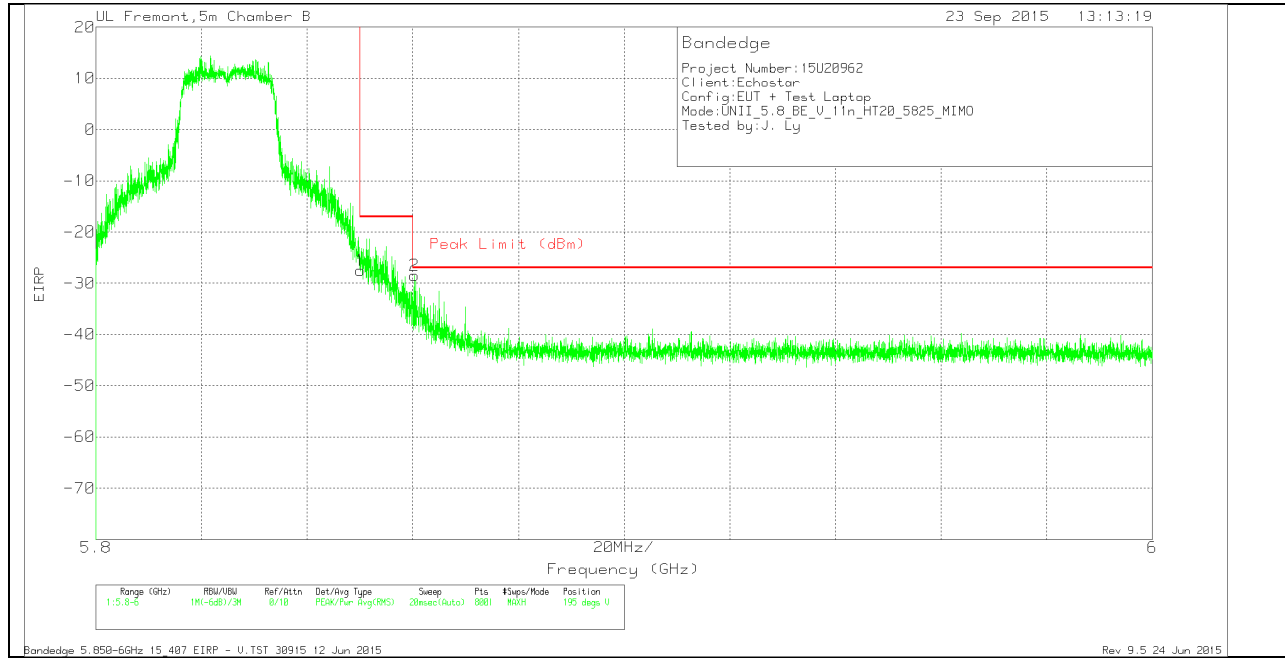
CH 165 HORIZONTAL DATA

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBm) | Det | AF T345 (dB/m) | Amp/Cbl/F Itr/Pad (dB) | Conversion Factor (dB) | Corrected Reading EIRP | Peak Limit (dBm) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|---------------------|-----|----------------|------------------------|------------------------|------------------------|------------------|----------------|----------------|-------------|----------|
| 1 | 5.85 | -47.88 | PK | 35.4 | -21.6 | 11.8 | -22.28 | -17 | -5.28 | 183 | 141 | H |
| 2 | 5.86 | -53.8 | PK | 35.4 | -21.6 | 11.8 | -28.2 | -27 | -1.2 | 183 | 141 | H |

Pk - Peak detector

VERTICAL PLOT



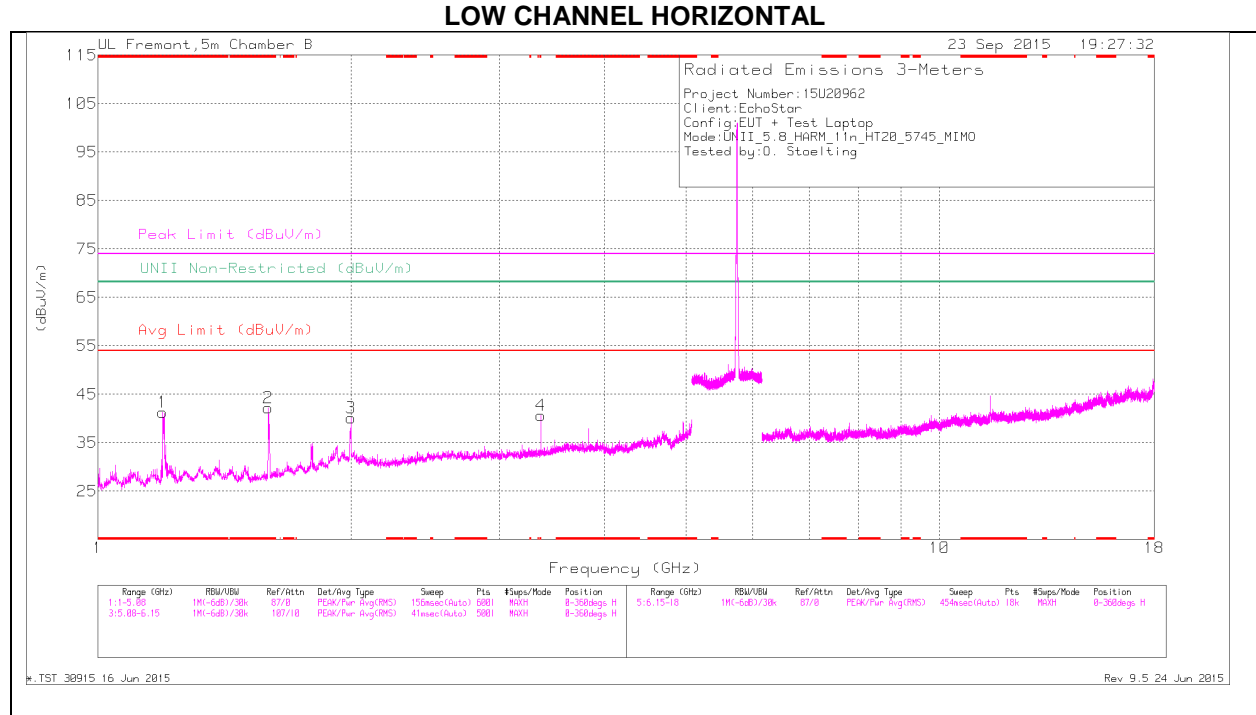
CH 165 VERTICAL DATA

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBm) | Det | AF T345 (dB/m) | Amp/Cb/F ltr/Pad (dB) | Conversion Factor (dB) | Corrected Reading EIRP | Peak Limit (dBm) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|---------------------|-----|----------------|-----------------------|------------------------|------------------------|------------------|----------------|----------------|-------------|----------|
| 1 | 5.85 | -53.14 | Pk | 35.4 | -21.6 | 11.8 | -27.54 | -17 | -10.54 | 195 | 114 | V |
| 2 | 5.86 | -54.07 | Pk | 35.4 | -21.6 | 11.8 | -28.47 | -27 | -1.47 | 195 | 114 | V |

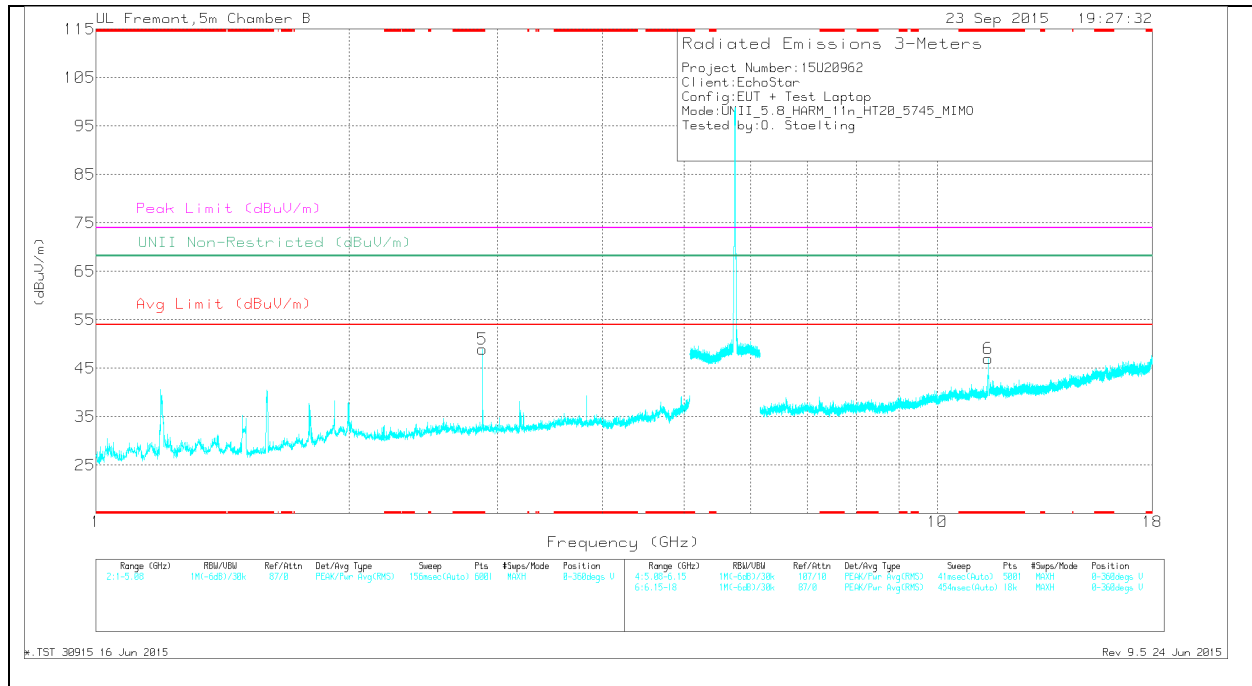
Pk - Peak detector

HARMONICS AND SPURIOUS EMISSIONS



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 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.

LOW CHANNEL DATA

Trace Markers

| 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 | * 1.194 | 48.43 | Pk | 28.4 | -35.6 | 41.23 | - | - | 74 | -32.77 | - | - | 0-360 | 102 | H |
| 2 | * 1.593 | 48.71 | Pk | 28.8 | -35.3 | 42.21 | - | - | 74 | -31.79 | - | - | 0-360 | 102 | H |
| 5 | * 2.88 | 49.64 | Pk | 32.6 | -33.3 | 48.94 | - | - | 74 | -25.06 | - | - | 0-360 | 101 | V |
| 6 | * 11.487 | 34.19 | Pk | 38.2 | -25.4 | 46.99 | - | - | 74 | -27.01 | - | - | 0-360 | 101 | V |
| 3 | 1.999 | 41.81 | Pk | 32.3 | -34 | 40.11 | - | - | - | - | 68.2 | -28.09 | 0-360 | 102 | H |
| 4 | 3.36 | 40.68 | Pk | 32.9 | -33 | 40.58 | - | - | - | - | 68.2 | -27.62 | 0-360 | 200 | H |

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

Pk - Peak detector

Radiated Emissions

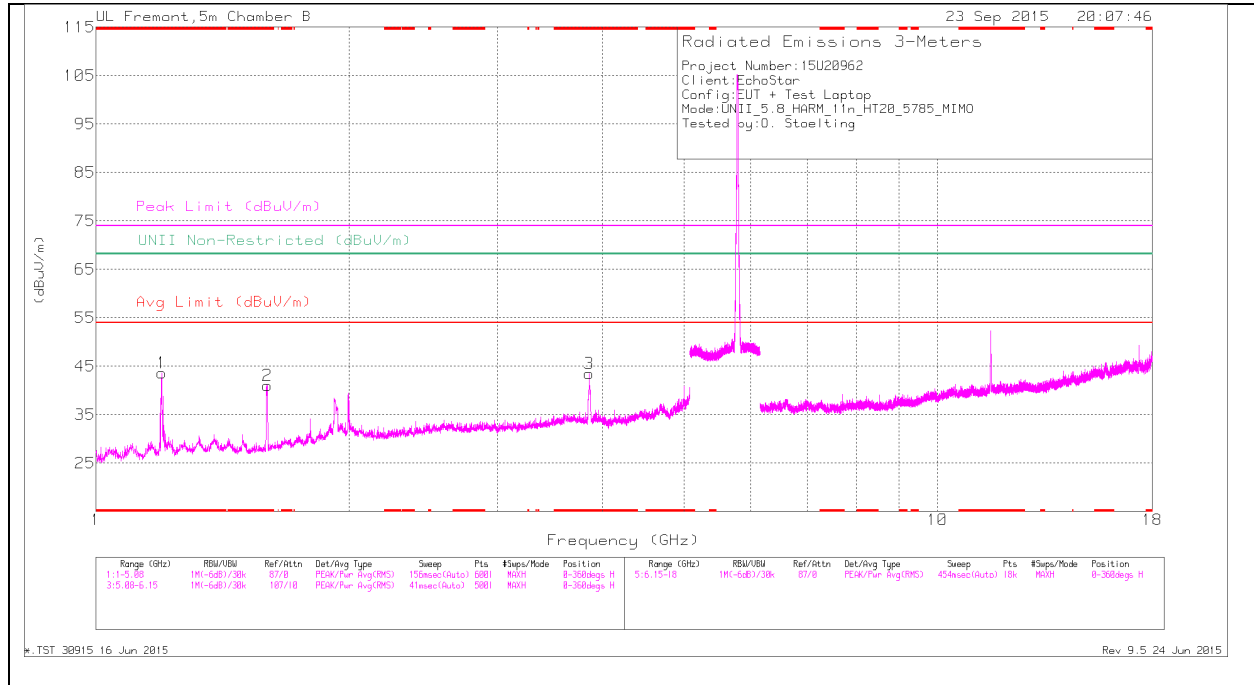
| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Fitr /Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|------|----------------|------------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 1.195 | 58.16 | PK-U | 28.4 | -35.6 | 50.96 | - | - | 74 | -23.04 | - | - | 345 | 108 | H |
| * 1.195 | 35.6 | ADR | 28.4 | -35.6 | 28.4 | 54 | -25.6 | - | - | - | - | 345 | 108 | H |
| * 1.594 | 54.5 | PK-U | 28.8 | -35.3 | 48 | - | - | 74 | -26 | - | - | 244 | 146 | H |
| * 1.593 | 35.06 | ADR | 28.8 | -35.3 | 28.56 | 54 | -25.44 | - | - | - | - | 244 | 146 | H |
| * 2.88 | 55.46 | PK-U | 32.6 | -33.3 | 54.76 | - | - | 74 | -19.24 | - | - | 299 | 242 | V |
| * 2.88 | 33.03 | ADR | 32.6 | -33.3 | 32.33 | 54 | -21.67 | - | - | - | - | 299 | 242 | V |
| * 11.489 | 44.88 | PK-U | 38.3 | -25.4 | 57.78 | - | - | 74 | -16.22 | - | - | 59 | 322 | V |
| * 11.489 | 31.6 | ADR | 38.3 | -25.4 | 44.5 | 54 | -9.5 | - | - | - | - | 59 | 322 | V |
| 2 | 49.08 | PK-U | 32.3 | -34 | 47.38 | - | - | - | - | 68.2 | -20.82 | 244 | 103 | H |
| 3.359 | 42.5 | PK-U | 32.9 | -33 | 42.4 | - | - | - | - | 68.2 | -25.8 | 244 | 200 | H |

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

PK-U - U-NII: Maximum Peak

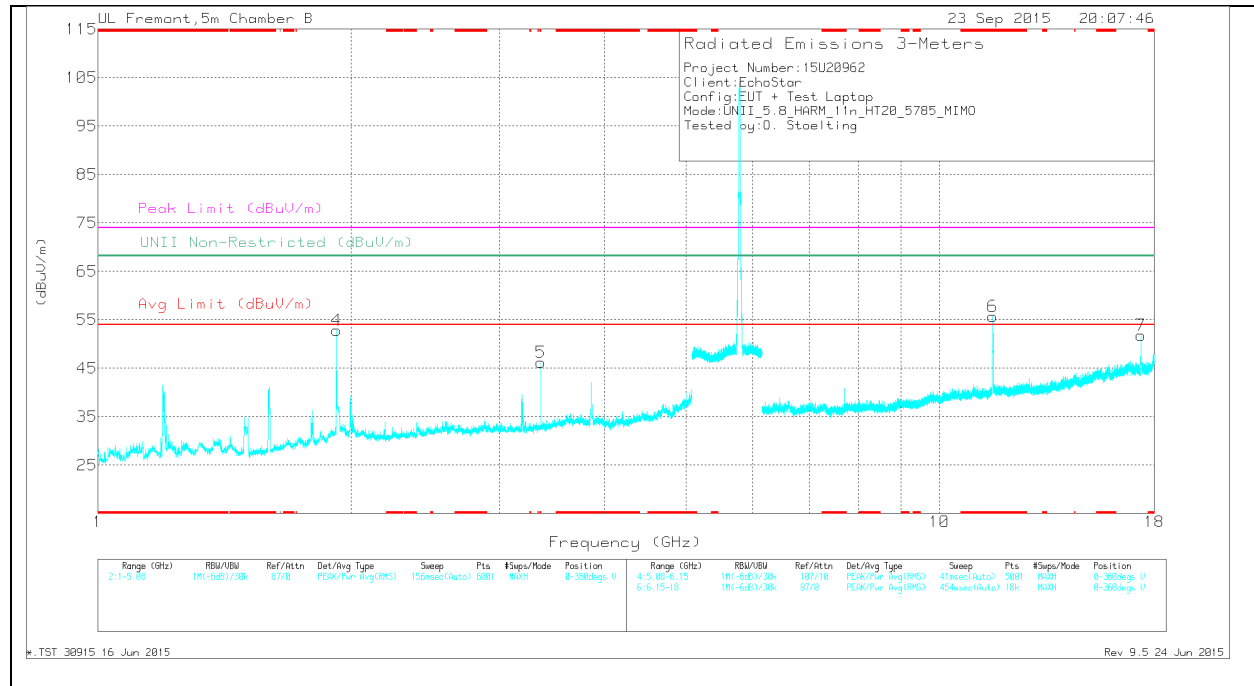
ADR - U-NII AD primary method, RMS average

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.

MID CHANNEL 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

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cb/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 | * 1.197 | 50.68 | Pk | 28.5 | -35.6 | 43.58 | - | - | 74 | -30.42 | - | - | 0-360 | 101 | H |
| 2 | * 1.599 | 47.38 | Pk | 28.8 | -35.1 | 41.08 | - | - | 74 | -32.92 | - | - | 0-360 | 101 | H |
| 3 | * 3.857 | 42.99 | Pk | 33.4 | -32.9 | 43.49 | - | - | 74 | -30.51 | - | - | 0-360 | 199 | H |
| 6 | * 11.563 | 41.84 | Pk | 38.4 | -24.6 | 55.64 | - | - | 74 | -18.36 | - | - | 0-360 | 101 | V |
| 4 | 1.92 | 54.79 | Pk | 31.9 | -33.9 | 52.79 | - | - | - | - | 68.2 | -15.41 | 0-360 | 199 | V |
| 5 | 3.36 | 46.28 | Pk | 32.9 | -33 | 46.18 | - | - | - | - | 68.2 | -22.02 | 0-360 | 199 | V |
| 7 | 17.354 | 32.25 | Pk | 40.8 | -21.3 | 51.75 | - | - | - | - | 68.2 | -16.45 | 0-360 | 101 | V |

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

Pk - Peak detector

Radiated Emissions

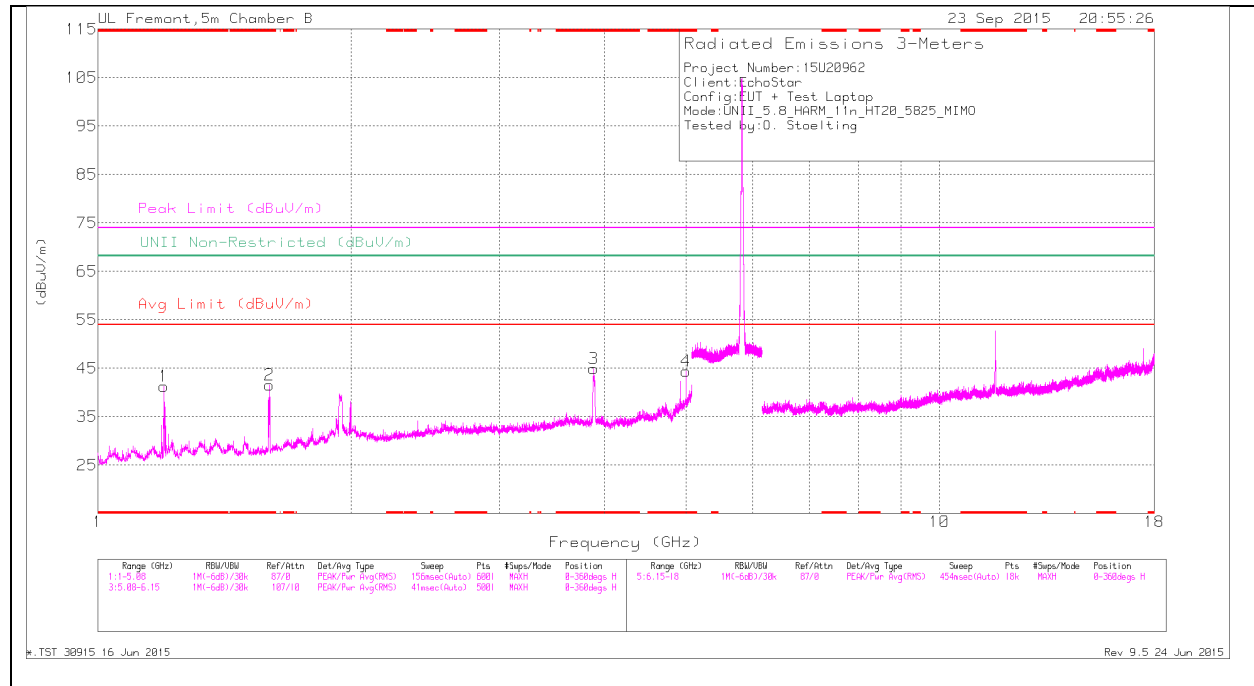
| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cb/Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|------|----------------|----------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 1.198 | 58.5 | PK-U | 28.5 | -35.7 | 51.3 | - | - | 74 | -22.7 | - | - | 350 | 110 | H |
| * 1.198 | 36.77 | ADR | 28.5 | -35.7 | 29.57 | 54 | -24.43 | - | - | - | - | 350 | 110 | H |
| * 1.598 | 54.96 | PK-U | 28.8 | -35.2 | 48.56 | - | - | 74 | -25.44 | - | - | 242 | 130 | H |
| * 1.598 | 35.38 | ADR | 28.8 | -35.2 | 28.98 | 54 | -25.02 | - | - | - | - | 242 | 130 | H |
| * 3.856 | 52.98 | PK-U | 33.4 | -32.9 | 53.48 | - | - | 74 | -20.52 | - | - | 25 | 222 | H |
| * 3.857 | 41.96 | ADR | 33.4 | -32.9 | 42.46 | 54 | -11.54 | - | - | - | - | 25 | 222 | H |
| * 11.565 | 52.52 | PK-U | 38.4 | -24.6 | 66.32 | - | - | 74 | -7.68 | - | - | 210 | 374 | V |
| * 11.565 | 38.94 | ADR | 38.4 | -24.6 | 52.74 | 54 | -1.26 | - | - | - | - | 210 | 374 | V |
| 1.92 | 55.6 | PK-U | 31.9 | -33.9 | 53.6 | - | - | - | - | 68.2 | -14.6 | 25 | 200 | V |
| 3.36 | 49.94 | PK-U | 32.9 | -33 | 49.84 | - | - | - | - | 68.2 | -18.36 | 25 | 200 | V |
| 17.353 | 34.98 | PK-U | 40.8 | -21.3 | 54.48 | - | - | - | - | 68.2 | -13.72 | 210 | 102 | V |

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

PK-U - U-NII: Maximum Peak

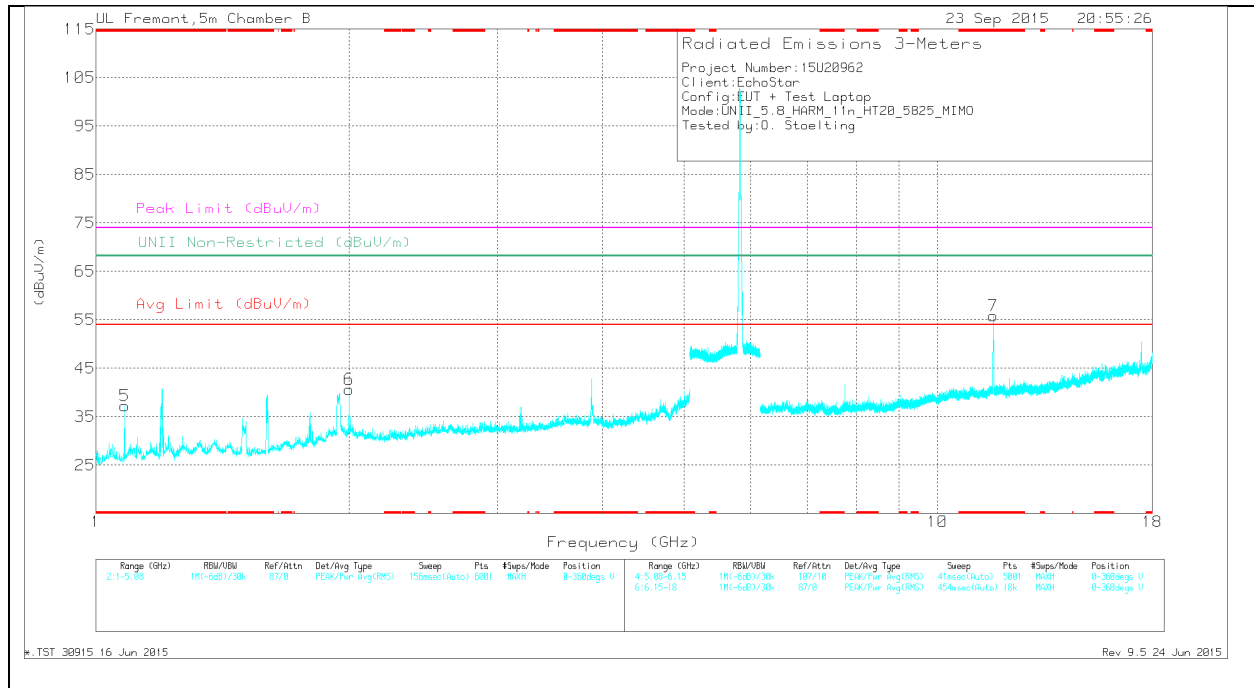
ADR - U-NII AD primary method, RMS average

HIGH 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.

HIGH CHANNEL 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.

HIGH CHANNEL DATA

Trace Markers

| 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 | * 1.198 | 48.54 | Pk | 28.5 | -35.7 | 41.34 | - | - | 74 | -32.66 | - | - | 0-360 | 102 | H |
| 2 | * 1.6 | 47.87 | Pk | 28.8 | -35.1 | 41.57 | - | - | 74 | -32.43 | - | - | 0-360 | 199 | H |
| 3 | * 3.883 | 44.08 | Pk | 33.5 | -32.6 | 44.98 | - | - | 74 | -29.02 | - | - | 0-360 | 199 | H |
| 4 | * 5 | 40.31 | Pk | 34 | -29.9 | 44.41 | - | - | 74 | -29.59 | - | - | 0-360 | 102 | H |
| 5 | * 1.082 | 45.39 | Pk | 27.6 | -35.7 | 37.29 | - | - | 74 | -36.71 | - | - | 0-360 | 199 | V |
| 7 | * 11.648 | 42.1 | Pk | 38.5 | -24.8 | 55.8 | - | - | 74 | -18.2 | - | - | 0-360 | 101 | V |
| 6 | 2 | 42.47 | Pk | 32.3 | -34.1 | 40.67 | - | - | - | - | 68.2 | -27.53 | 0-360 | 199 | 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 |
|-----------------|----------------------|------|----------------|-----------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 1.2 | 58.88 | PK-U | 28.5 | -35.7 | 51.68 | - | - | 74 | -22.32 | - | - | 348 | 139 | H |
| * 1.199 | 34.3 | ADR | 28.5 | -35.7 | 27.1 | 54 | -26.9 | - | - | - | - | 348 | 139 | H |
| * 1.6 | 54.86 | PK-U | 28.8 | -35.1 | 48.56 | - | - | 74 | -25.44 | - | - | 246 | 110 | H |
| * 1.598 | 34.02 | ADR | 28.8 | -35.2 | 27.62 | 54 | -26.38 | - | - | - | - | 246 | 110 | H |
| * 3.882 | 54.12 | PK-U | 33.5 | -32.6 | 55.02 | - | - | 74 | -18.98 | - | - | 25 | 238 | H |
| * 3.883 | 44.41 | ADR | 33.5 | -32.6 | 45.31 | 54 | -8.69 | - | - | - | - | 25 | 238 | H |
| * 5 | 48.33 | PK-U | 34 | -29.9 | 52.43 | - | - | 74 | -21.57 | - | - | 51 | 288 | H |
| * 5 | 40.38 | ADR | 34 | -29.9 | 44.48 | 54 | -9.52 | - | - | - | - | 51 | 288 | H |
| * 1.083 | 44.15 | PK-U | 27.6 | -35.7 | 36.05 | - | - | 74 | -37.95 | - | - | 69 | 237 | V |
| * 1.083 | 31.43 | ADR | 27.6 | -35.7 | 23.33 | 54 | -30.67 | - | - | - | - | 69 | 237 | V |
| * 11.65 | 51.41 | PK-U | 38.5 | -24.8 | 65.11 | - | - | 74 | -8.89 | - | - | 322 | 101 | V |
| * 11.649 | 37.93 | ADR | 38.5 | -24.8 | 51.63 | 54 | -2.37 | - | - | - | - | 322 | 101 | V |
| 2 | 53.08 | PK-U | 32.3 | -34.1 | 51.28 | - | - | - | - | 68.2 | -16.92 | 299 | 334 | V |

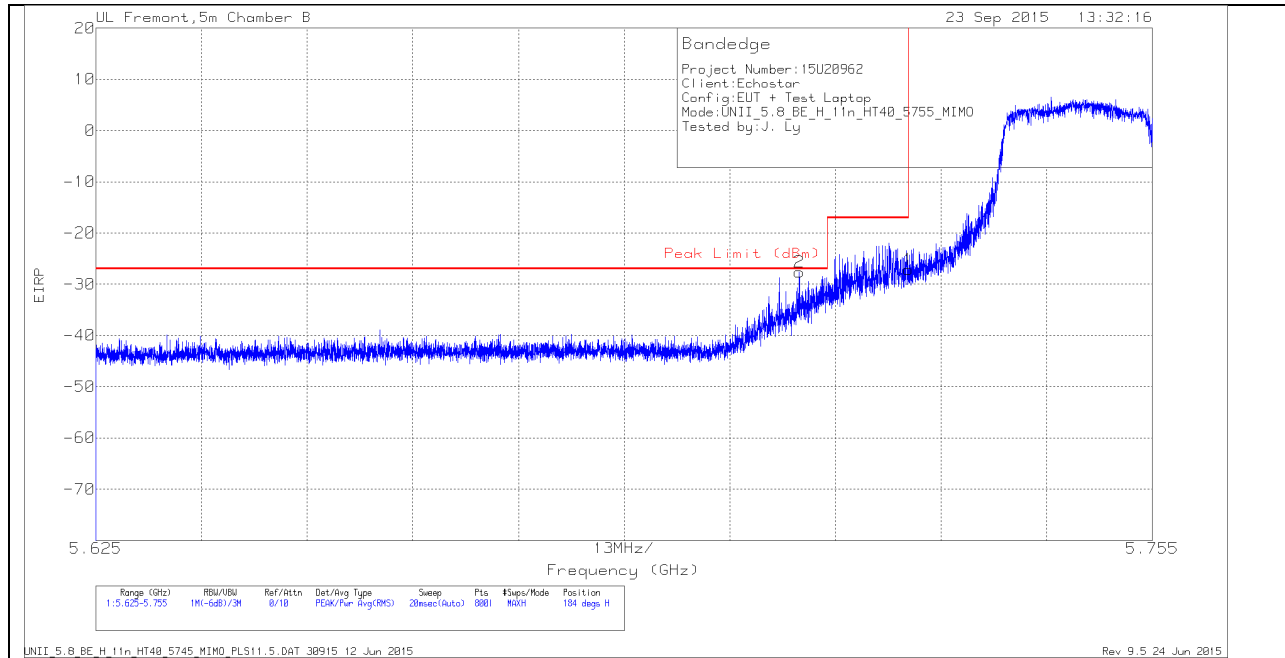
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

13.2.2. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.8 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



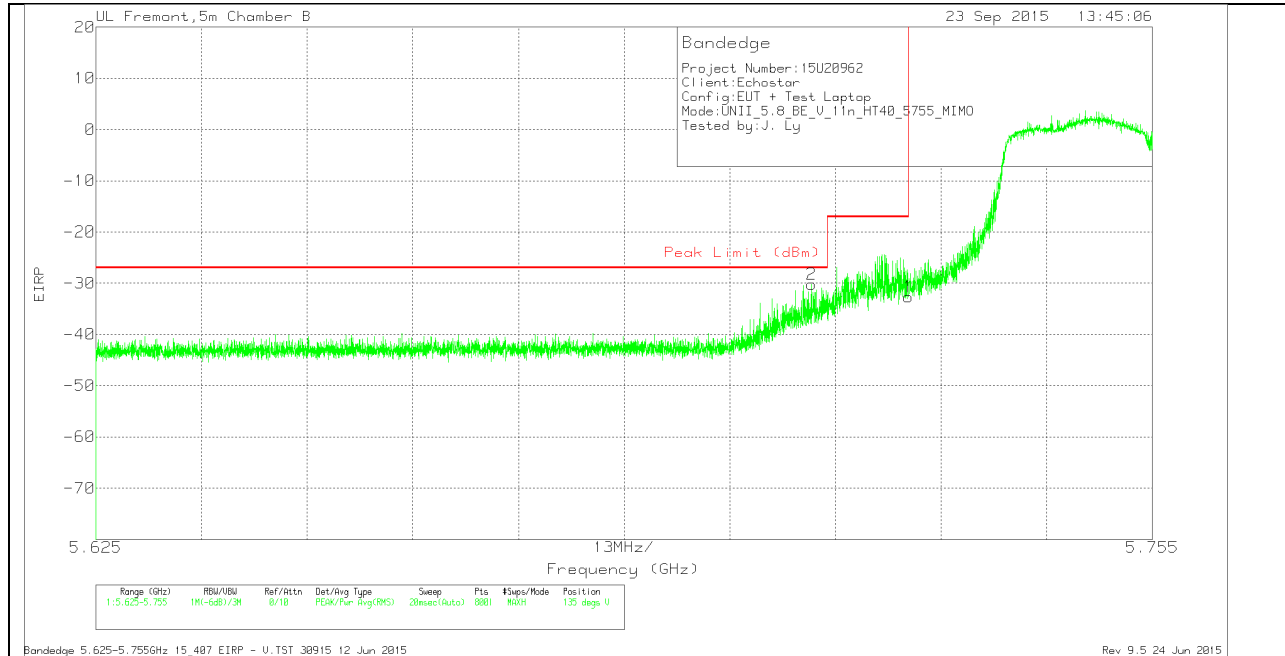
CH 151 HORIZONTAL DATA

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBm) | Det | AF T345 (dB/m) | Amp/Cb/F ltr/Pad (dB) | Conversion Factor (dB) | Corrected Reading EIRP | Peak Limit (dBm) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|---------------------|-----|----------------|-----------------------|------------------------|------------------------|------------------|----------------|----------------|-------------|----------|
| 2 | 5.712 | -52.77 | Pk | 35 | -21.7 | 11.8 | -27.67 | -27 | -.67 | 184 | 172 | H |
| 1 | 5.725 | -52.26 | Pk | 35 | -21.7 | 11.8 | -27.16 | -17 | -10.16 | 184 | 172 | H |

Pk - Peak detector

VERTICAL PEAK AND AVERAGE PLOT



CH 151 VERTICAL DATA

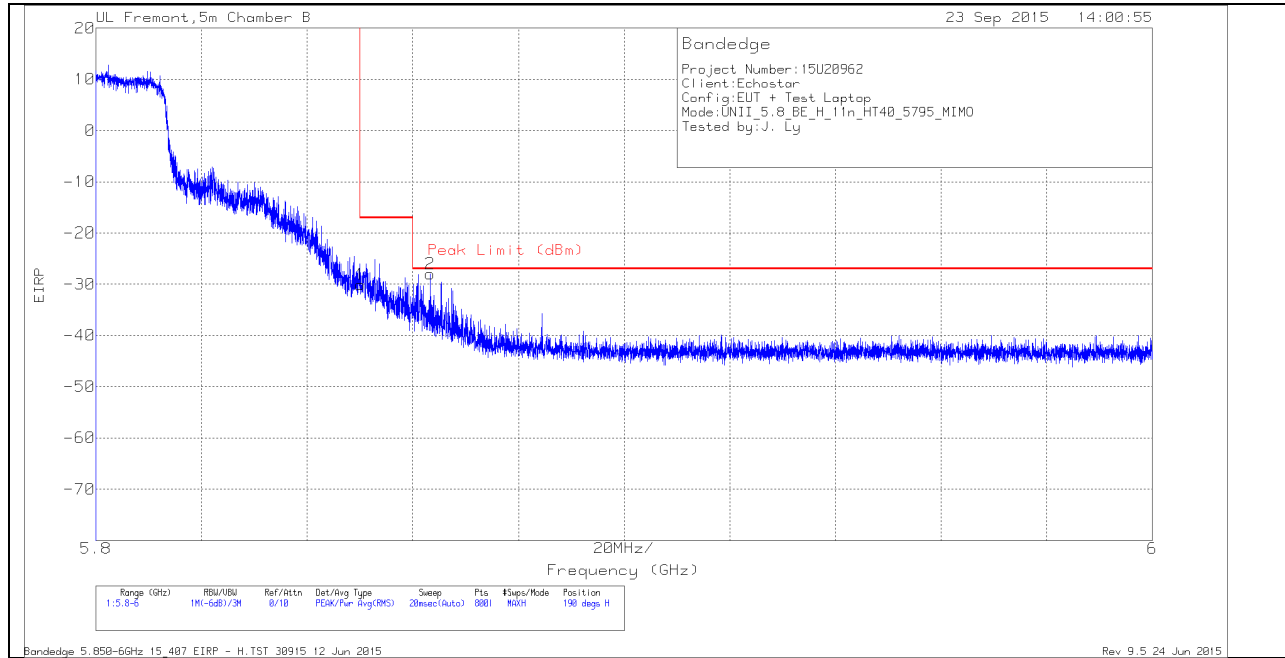
Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBm) | Det | AF T345 (dB/m) | Amp/Cb/F ltr/Pad (dB) | Conversion Factor (dB) | Corrected Reading EIRP | Peak Limit (dBm) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|---------------------|-----|----------------|-----------------------|------------------------|------------------------|------------------|----------------|----------------|-------------|----------|
| 2 | 5.713 | -55.32 | Pk | 35 | -21.7 | 11.8 | -30.22 | -27 | -3.22 | 135 | 103 | V |
| 1 | 5.725 | -57.79 | Pk | 35 | -21.7 | 11.8 | -32.69 | -17 | -15.69 | 135 | 103 | V |

Pk - Peak detector

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



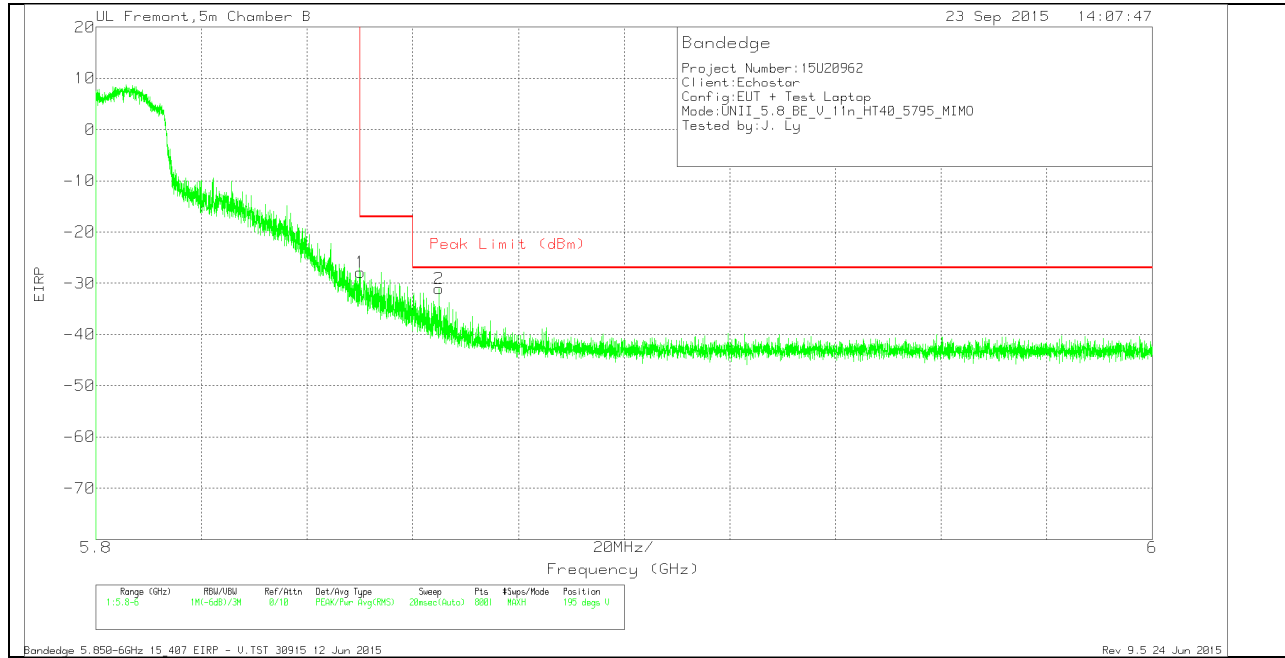
HORIZONTAL DATA

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBm) | Det | AF T345 (dB/m) | Amp/Cbl/F ltr/Pad (dB) | Conversion Factor (dB) | Corrected Reading EIRP | Peak Limit (dBm) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|---------------------|-----|----------------|------------------------|------------------------|------------------------|------------------|----------------|----------------|-------------|----------|
| 1 | 5.85 | -55.67 | Pk | 35.4 | -21.6 | 11.8 | -30.07 | -17 | -13.07 | 190 | 168 | H |
| 2 | 5.863 | -53.63 | Pk | 35.4 | -21.6 | 11.8 | -28.03 | -27 | -1.03 | 190 | 168 | H |

Pk - Peak detector

VERTICAL PEAK AND AVERAGE PLOT



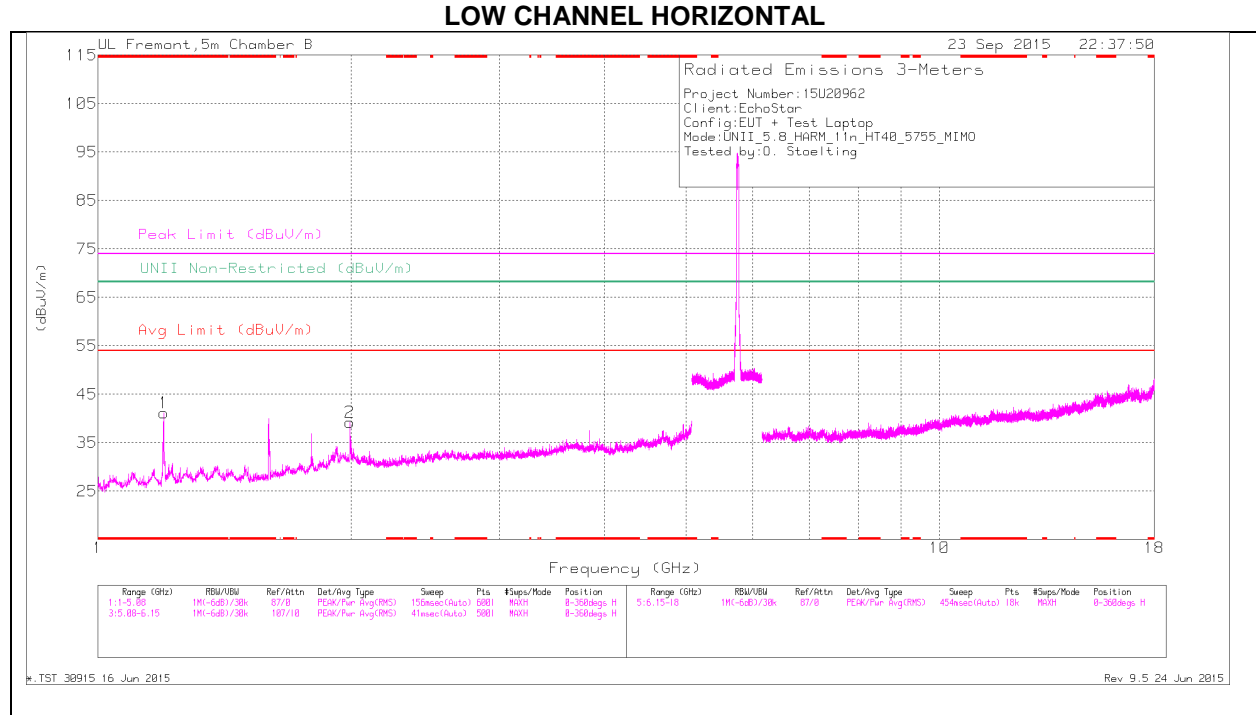
VERTICAL DATA

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBm) | Det | AF T345 (dB/m) | Amp/Cb/F ltr/Pad (dB) | Conversion Factor (dB) | Corrected Reading EIRP | Peak Limit (dBm) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|---------------------|-----|----------------|-----------------------|------------------------|------------------------|------------------|----------------|----------------|-------------|----------|
| 1 | 5.85 | -53.51 | Pk | 35.4 | -21.6 | 11.8 | -27.91 | -17 | -10.91 | 195 | 206 | V |
| 2 | 5.865 | -56.61 | Pk | 35.4 | -21.6 | 11.8 | -31.01 | -27 | -4.01 | 195 | 206 | V |

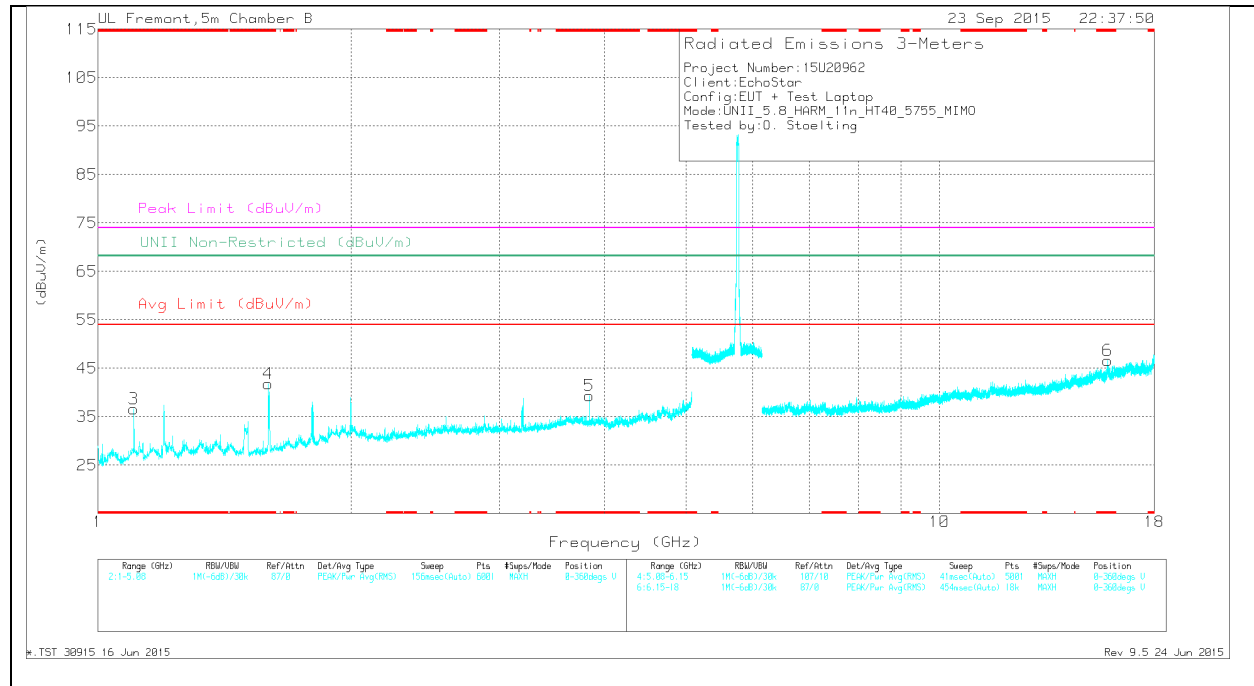
Pk - Peak detector

HARMONICS AND SPURIOUS EMISSIONS



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 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.

LOW CHANNEL DATA

Trace Markers

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Filtr/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 | * 1.198 | 48.3 | Pk | 28.5 | -35.7 | 41.1 | - | - | 74 | -32.9 | - | - | 0-360 | 102 | H |
| 3 | * 1.103 | 44.42 | Pk | 27.7 | -35.5 | 36.62 | - | - | 74 | -37.38 | - | - | 0-360 | 199 | V |
| 4 | * 1.594 | 48.17 | Pk | 28.8 | -35.2 | 41.77 | - | - | 74 | -32.23 | - | - | 0-360 | 101 | V |
| 5 | * 3.836 | 38.89 | Pk | 33.4 | -33 | 39.29 | - | - | 74 | -34.71 | - | - | 0-360 | 199 | V |
| 6 | * 15.85 | 26.78 | Pk | 40.6 | -20.8 | 46.58 | - | - | 74 | -27.42 | - | - | 0-360 | 101 | V |
| 2 | 1.992 | 40.75 | Pk | 32.3 | -33.9 | 39.15 | - | - | - | - | 68.2 | -29.05 | 0-360 | 102 | H |

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

Pk - Peak detector

Radiated Emissions

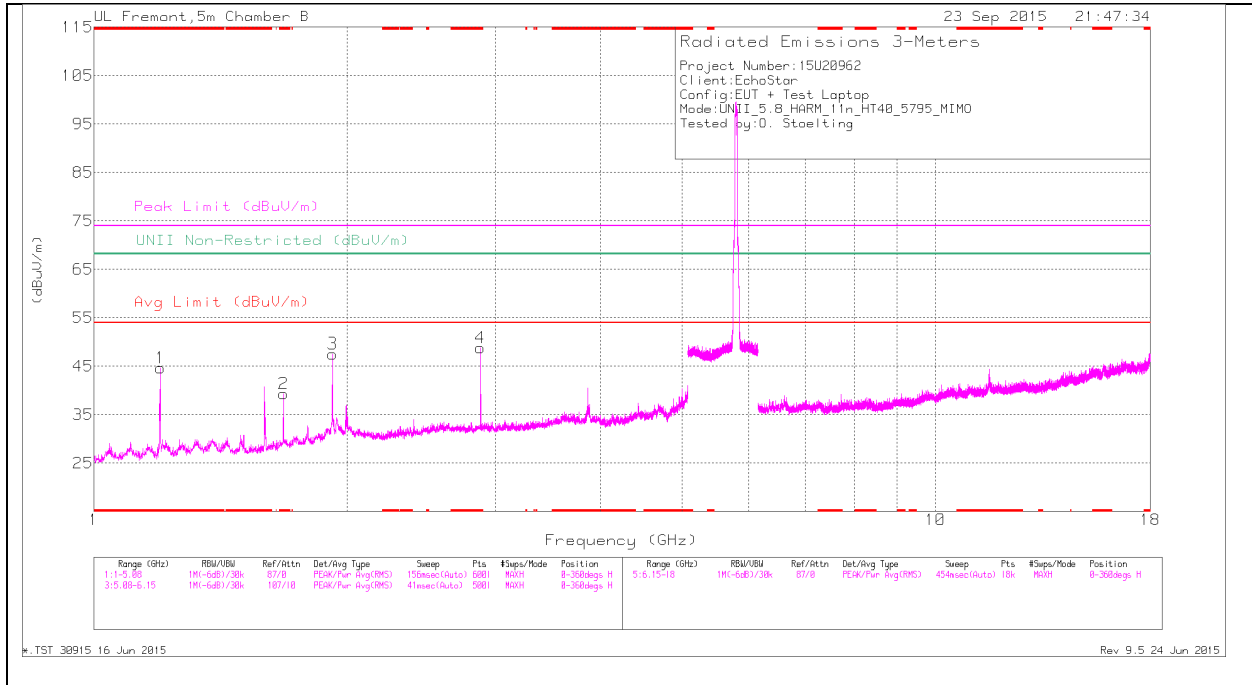
| Frequency (GHz) | Meter Reading (dBuV) | Det | AF T345 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|------|----------------|------------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 1.199 | 58.12 | PK-U | 28.5 | -35.7 | 50.92 | - | - | 74 | -23.08 | - | - | 352 | 134 | H |
| * 1.199 | 34.96 | ADR | 28.5 | -35.7 | 27.76 | 54 | -26.24 | - | - | - | - | 352 | 134 | H |
| * 1.105 | 48.66 | PK-U | 27.7 | -35.5 | 40.86 | - | - | 74 | -33.14 | - | - | 238 | 310 | V |
| * 1.105 | 33.21 | ADR | 27.7 | -35.5 | 25.41 | 54 | -28.59 | - | - | - | - | 238 | 310 | V |
| * 1.593 | 54.3 | PK-U | 28.8 | -35.3 | 47.8 | - | - | 74 | -26.2 | - | - | 266 | 119 | V |
| * 1.596 | 33.51 | ADR | 28.8 | -35.2 | 27.11 | 54 | -26.89 | - | - | - | - | 266 | 119 | V |
| * 3.837 | 44.78 | PK-U | 33.4 | -33 | 45.18 | - | - | 74 | -28.82 | - | - | 332 | 217 | V |
| * 3.837 | 37.45 | ADR | 33.4 | -33 | 37.85 | 54 | -16.15 | - | - | - | - | 332 | 217 | V |
| * 15.848 | 33.45 | PK-U | 40.6 | -20.9 | 53.15 | - | - | 74 | -20.85 | - | - | 128 | 211 | V |
| * 15.851 | 22.16 | ADR | 40.6 | -20.7 | 42.06 | 54 | -11.94 | - | - | - | - | 128 | 211 | V |
| 1.993 | 48.46 | PK-U | 32.3 | -33.9 | 46.86 | - | - | - | - | 68.2 | -21.34 | 334 | 386 | H |

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

PK-U - U-NII: Maximum Peak

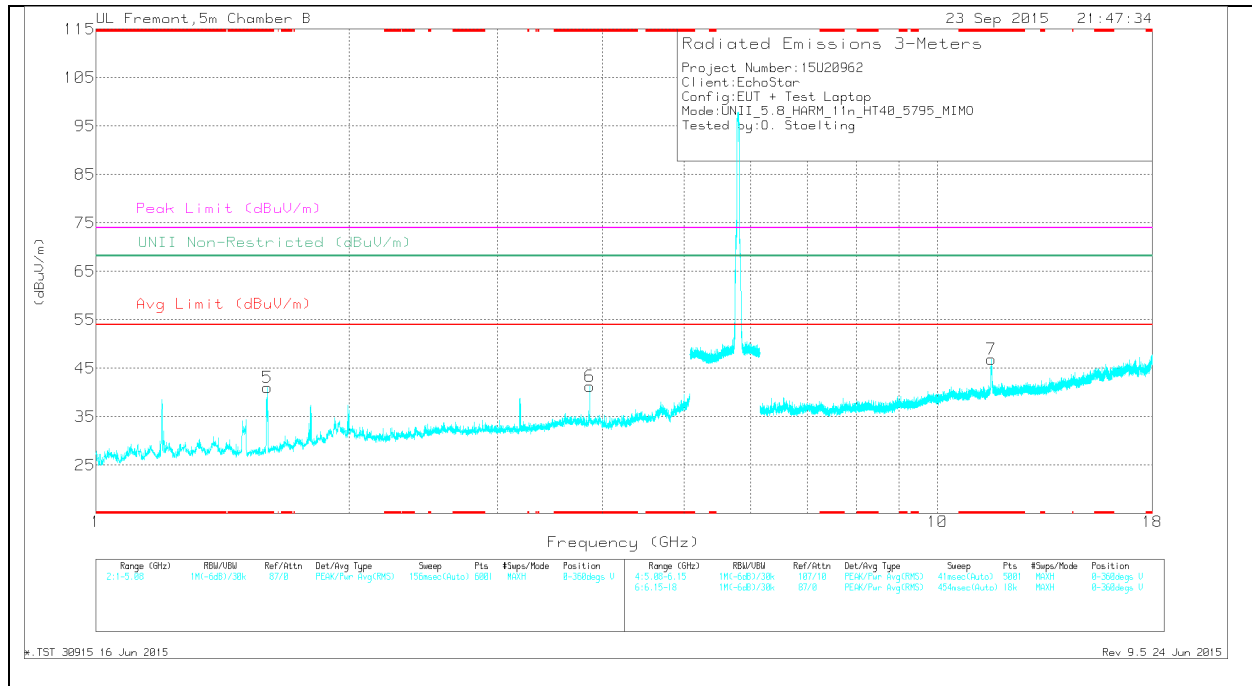
ADR - U-NII AD primary method, RMS average

HIGH 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.

HIGH CHANNEL 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.

HIGH CHANNEL DATA

Trace Markers

| 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 | * 1.2 | 51.84 | Pk | 28.5 | -35.7 | 44.64 | - | - | 74 | -29.36 | - | - | 0-360 | 101 | H |
| 2 | * 1.679 | 43.96 | Pk | 29.6 | -34.2 | 39.36 | - | - | 74 | -34.64 | - | - | 0-360 | 199 | H |
| 4 | * 2.88 | 49.46 | Pk | 32.6 | -33.3 | 48.76 | - | - | 74 | -25.24 | - | - | 0-360 | 101 | H |
| 5 | * 1.6 | 47.28 | Pk | 28.8 | -35.1 | 40.98 | - | - | 74 | -33.02 | - | - | 0-360 | 101 | V |
| 6 | * 3.863 | 40.63 | Pk | 33.4 | -32.8 | 41.23 | - | - | 74 | -32.77 | - | - | 0-360 | 101 | V |
| 7 | * 11.584 | 33.08 | Pk | 38.4 | -24.6 | 46.88 | - | - | 74 | -27.12 | - | - | 0-360 | 101 | V |
| 3 | 1.92 | 49.58 | Pk | 31.9 | -33.9 | 47.58 | - | - | - | - | 68.2 | -20.62 | 0-360 | 199 | 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 |
|-----------------|----------------------|------|----------------|-----------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 1.198 | 59.14 | PK-U | 28.5 | -35.7 | 51.94 | - | - | 74 | -22.06 | - | - | 342 | 133 | H |
| * 1.199 | 34.47 | ADR | 28.5 | -35.7 | 27.27 | 54 | -26.73 | - | - | - | - | 342 | 133 | H |
| * 1.68 | 50.83 | PK-U | 29.6 | -34.2 | 46.23 | - | - | 74 | -27.77 | - | - | 244 | 318 | H |
| * 1.68 | 31.7 | ADR | 29.6 | -34.2 | 27.1 | 54 | -26.9 | - | - | - | - | 244 | 318 | H |
| * 2.88 | 50.5 | PK-U | 32.6 | -33.3 | 49.8 | - | - | 74 | -24.2 | - | - | 287 | 397 | H |
| * 2.88 | 30.69 | ADR | 32.6 | -33.3 | 29.99 | 54 | -24.01 | - | - | - | - | 287 | 397 | H |
| * 1.598 | 54.72 | PK-U | 28.8 | -35.2 | 48.32 | - | - | 74 | -25.68 | - | - | 262 | 103 | V |
| * 1.598 | 33.84 | ADR | 28.8 | -35.2 | 27.44 | 54 | -26.56 | - | - | - | - | 262 | 103 | V |
| * 3.863 | 46.75 | PK-U | 33.4 | -32.8 | 47.35 | - | - | 74 | -26.65 | - | - | 133 | 107 | V |
| * 3.863 | 40.46 | ADR | 33.4 | -32.8 | 41.06 | 54 | -12.94 | - | - | - | - | 133 | 107 | V |
| * 11.584 | 45.07 | PK-U | 38.4 | -24.6 | 58.87 | - | - | 74 | -15.13 | - | - | 208 | 102 | V |
| * 11.583 | 31.78 | ADR | 38.4 | -24.6 | 45.58 | 54 | -8.42 | - | - | - | - | 208 | 102 | V |
| 1.92 | 63.47 | PK-U | 31.9 | -33.9 | 61.47 | - | - | - | - | 68.2 | -6.73 | 353 | 145 | H |

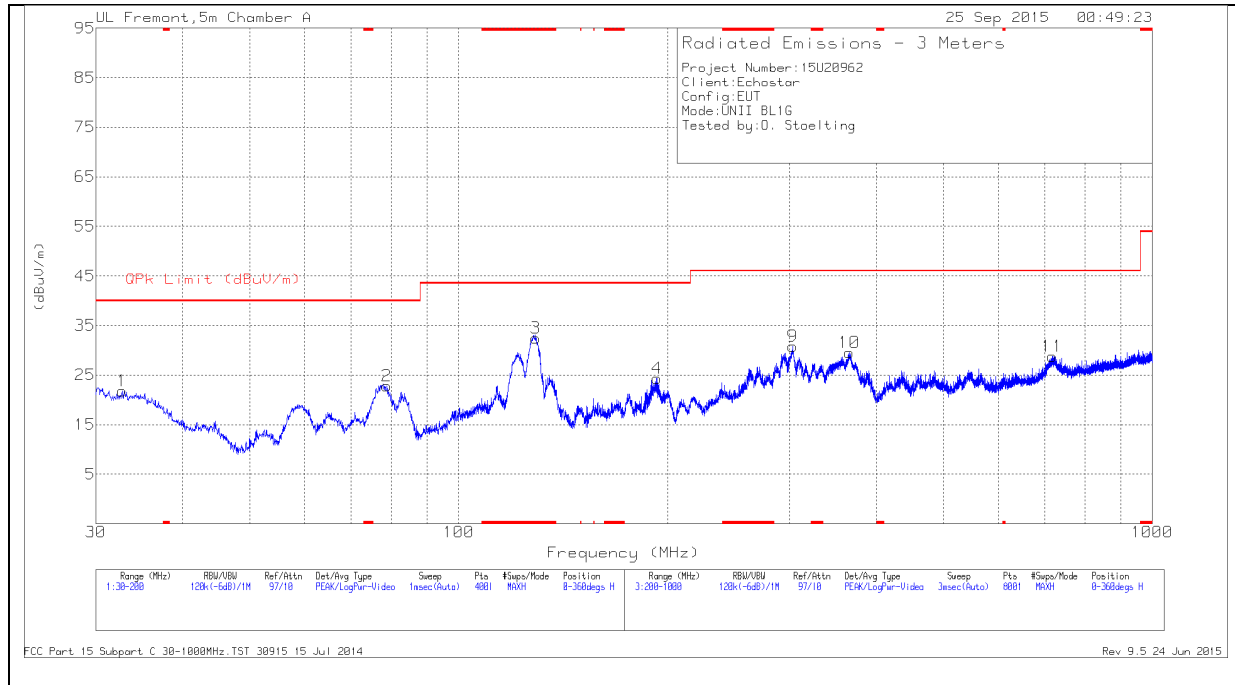
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK-U - U-NII: Maximum Peak

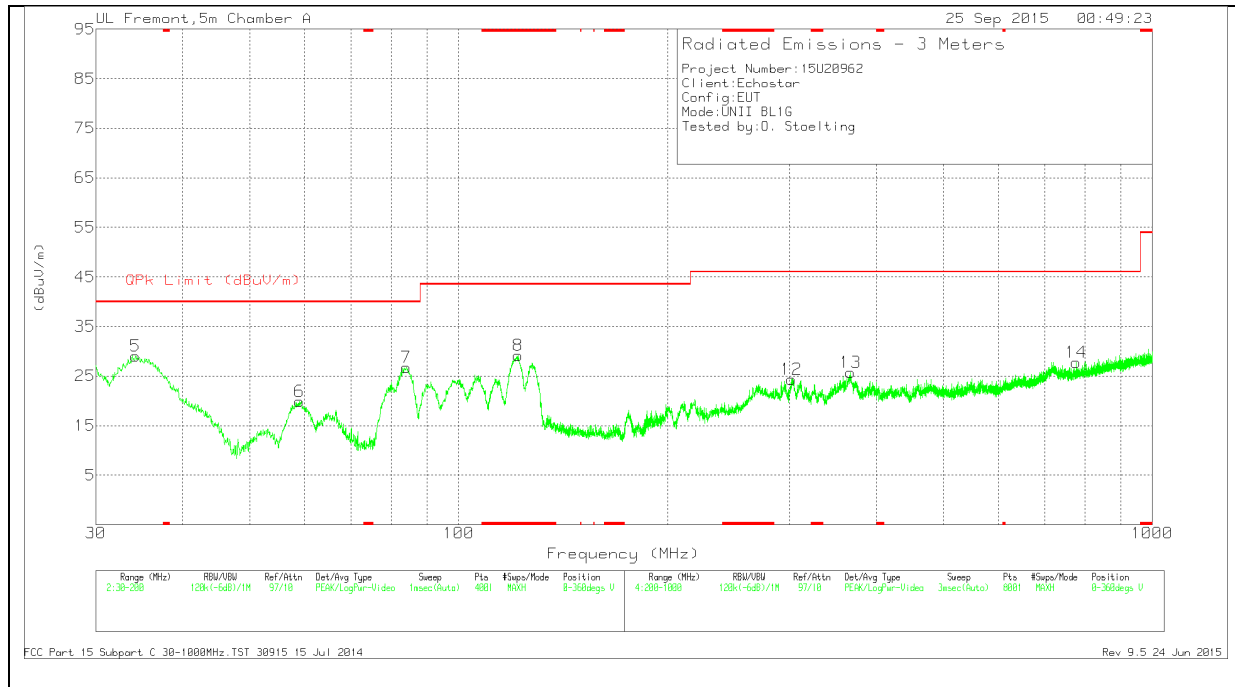
ADR - U-NII AD primary method, RMS average

14. 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)



Below 1G Data

Trace Markers

| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | AF T477 (dB/m) | Amp/Cbl (dB/m) | Corrected Reading (dBuV/m) | QPk Limit (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|----------------|----------------------------|--------------------|-------------|----------------|-------------|----------|
| 3 | * 129.0463 | 45.1 | Pk | 17.7 | -30.3 | 32.5 | 43.52 | -11.02 | 0-360 | 199 | H |
| 8 | * 121.7575 | 41.83 | Pk | 17.7 | -30.4 | 29.13 | 43.52 | -14.39 | 0-360 | 101 | V |
| 1 | 32.72 | 29.69 | Pk | 23.3 | -31.2 | 21.79 | 40 | -18.21 | 0-360 | 199 | H |
| 5 | 34.2075 | 38.16 | Pk | 22.1 | -31.2 | 29.06 | 40 | -10.94 | 0-360 | 101 | V |
| 6 | 58.985 | 39.63 | Pk | 11.2 | -30.9 | 19.93 | 40 | -20.07 | 0-360 | 101 | V |
| 2 | 78.7475 | 41.99 | Pk | 11.5 | -30.7 | 22.79 | 40 | -17.21 | 0-360 | 199 | H |
| 7 | 84.06 | 46.4 | Pk | 11.1 | -30.7 | 26.8 | 40 | -13.2 | 0-360 | 101 | V |
| 4 | 193.03 | 38.83 | Pk | 15.5 | -30 | 24.33 | 43.52 | -19.19 | 0-360 | 101 | H |
| 12 | 302.1 | 36.38 | Pk | 17.4 | -29.4 | 24.38 | 46.02 | -21.64 | 0-360 | 101 | V |
| 9 | 303 | 42.66 | Pk | 17.5 | -29.4 | 30.76 | 46.02 | -15.26 | 0-360 | 100 | H |
| 10 | 366 | 39.89 | Pk | 18.9 | -29.2 | 29.59 | 46.02 | -16.43 | 0-360 | 100 | H |
| 13 | 367.3 | 35.99 | Pk | 18.9 | -29.2 | 25.69 | 46.02 | -20.33 | 0-360 | 101 | V |
| 11 | 718 | 32.69 | Pk | 24.4 | -28.3 | 28.79 | 46.02 | -17.23 | 0-360 | 100 | H |
| 14 | 777.2 | 30.89 | Pk | 25.1 | -28.2 | 27.79 | 46.02 | -18.23 | 0-360 | 299 | V |

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

Pk - Peak detector

Radiated Emissions

| Frequency (MHz) | Meter Reading (dBuV) | Det | AF T477 (dB/m) | Amp/Cbl (dB/m) | Corrected Reading (dBuV/m) | QPk Limit (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|-----|----------------|----------------|----------------------------|--------------------|-------------|----------------|-------------|----------|
| 34.343 | 34.7 | Qp | 22 | -31.2 | 25.5 | 40 | -14.5 | 338 | 114 | V |

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

Qp - Quasi-Peak detector

15. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

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

*Decreases with the logarithm of the frequency.

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 C63.10.

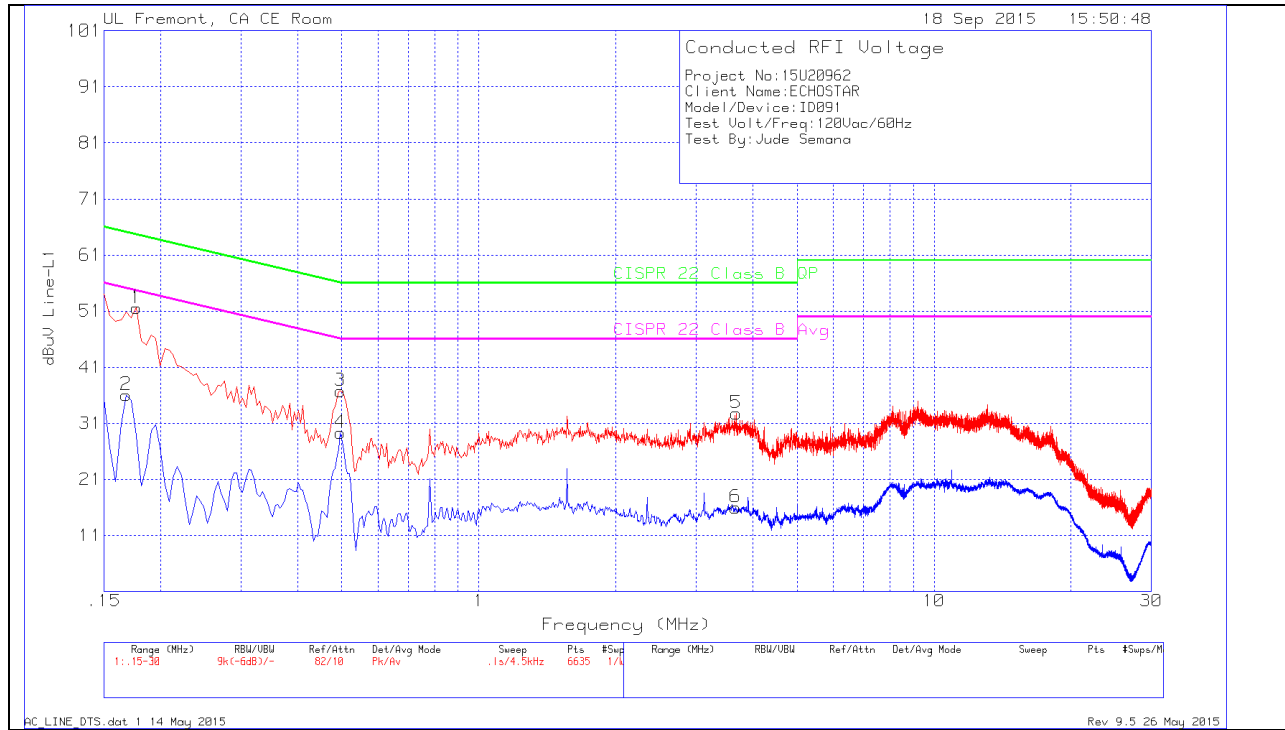
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

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

RESULTS

6 WORST EMISSIONS

LINE 1 PLOT



LINE 1 RESULTS

Trace Markers

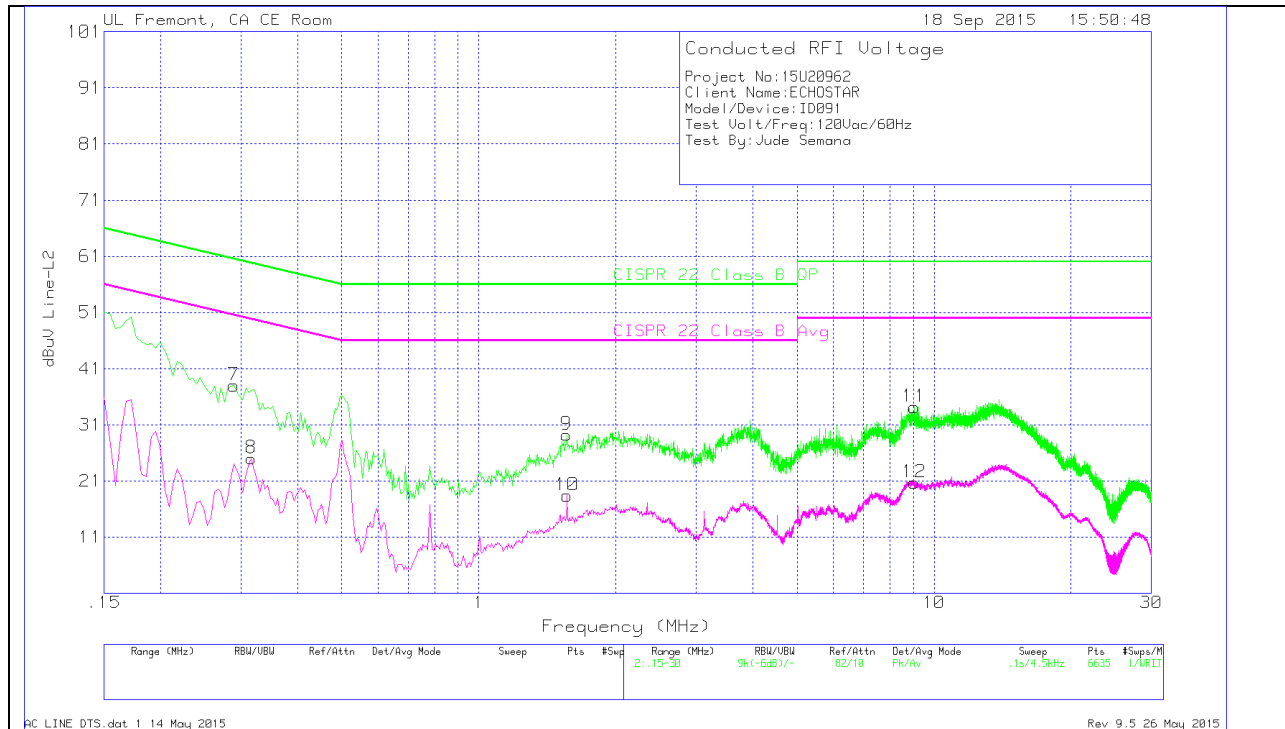
Range 1: Line-L1 .15 - 30MHz

| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | T24 IL L1 | LC Cables 1&3 | Corrected Reading dBuV | CISPR 22 Class B QP | Margin (dB) | CISPR 22 Class B Avg | Margin (dB) |
|--------|-----------------|----------------------|-----|-----------|---------------|------------------------|---------------------|-------------|----------------------|-------------|
| 1 | .177 | 50.44 | Pk | 1.1 | 0 | 51.54 | 64.63 | -13.09 | | |
| 2 | .168 | 34.84 | Av | 1.2 | 0 | 36.04 | - | - | 55.06 | -19.02 |
| 3 | .4965 | 36.45 | Pk | .3 | 0 | 36.75 | 56.06 | -19.31 | | |
| 4 | .4965 | 29 | Av | .3 | 0 | 29.3 | - | - | 46.06 | -16.76 |
| 5 | 3.678 | 32.45 | Pk | .2 | .1 | 32.75 | 56 | -23.25 | | |
| 6 | 3.6645 | 15.7 | Av | .2 | .1 | 16 | - | - | 46 | -30 |

Pk - Peak detector

Av - Average detection

LINE 2 PLOT



LINE 2 RESULTS

Trace Markers

Range 2: Line-L2 .15 - 30MHz

| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | T24 IL L2 | LC Cables 2&3 | Corrected Reading dBuV | CISPR 22 Class B QP | Margin (dB) | CISPR 22 Class B Avg | Margin (dB) |
|--------|-----------------|----------------------|-----|-----------|---------------|------------------------|---------------------|-------------|----------------------|-------------|
| 7 | .2895 | 37.42 | Pk | .6 | 0 | 38.02 | 60.54 | -22.52 | | |
| 8 | .3165 | 24.42 | Av | .6 | 0 | 25.02 | - | - | 49.8 | -24.78 |
| 9 | 1.5585 | 28.93 | Pk | .2 | .1 | 29.23 | 56 | -26.77 | | |
| 10 | 1.563 | 18.1 | Av | .2 | .1 | 18.4 | - | - | 46 | -27.6 |
| 11 | 9.0465 | 33.88 | Pk | .2 | .1 | 34.18 | 60 | -25.82 | | |
| 12 | 9.0465 | 20.41 | Av | .2 | .1 | 20.71 | - | - | 50 | -29.29 |

Pk - Peak detector

Av - Average detection

16. POWER SETTING TABLE

SISO

All Power setting numbers in dBm

| | Channel ID | 36 | 40 | 44 | 48 | 149 | 153 | 157 | 161 | 165 |
|------|--------------|------|------|------|------|------|------|------|------|------|
| | Center Freq. | 5180 | 5200 | 5220 | 5240 | 5745 | 5765 | 5785 | 5805 | 5825 |
| SISO | 11a | 16.5 | 16.5 | 16.5 | 16.5 | 15 | 15 | 15 | 15 | 15 |
| | 11n 20 | 15.5 | 18.5 | 18.5 | 18.5 | 14.5 | 18.5 | 18.5 | 18.5 | 18.5 |
| | Channel ID | 38 | | 46 | | 151 | | 159 | | |
| | Center Freq. | 5190 | | 5230 | | 5755 | | 5795 | | |
| | 11n 40 | 11.5 | | 17.5 | | 12.5 | | 16.5 | | |

MIMO

All Power setting numbers in dBm

| | Channel ID | 36 | 40 | 44 | 48 | 149 | 153 | 157 | 161 | 165 |
|------|--------------|------|------|------|------|------|------|------|------|------|
| | Center Freq. | 5180 | 5200 | 5220 | 5240 | 5745 | 5765 | 5785 | 5805 | 5825 |
| MIMO | 11a | | | | | | | | | |
| | 11n 20 | 15.5 | 17.5 | 18.5 | 17.5 | 13.5 | 18.5 | 18.5 | 18.5 | 17.5 |
| | Channel ID | 38 | | 46 | | 151 | | 159 | | |
| | Center Freq. | 5190 | | 5230 | | 5755 | | 5795 | | |
| | 11n 40 | 11.5 | | 16.5 | | 11.5 | | 16.5 | | |