



# **CERTIFICATION TEST REPORT**

**Report Number. :** 12132753-E5V2

**Applicant :** SONY MOBILE COMMUNICATIONS, INC.  
4-12-3 HIGASHI-SHINAGAWA,  
SHINAGAWA -KU, TOKYO, 140-0002, JAPAN

**FCC ID :** PY7-06485Z

**EUT Description :** GSM/WCDMA/LTE Phone with BT, DTS/UNII a/b/g/n/ac &  
NFC

**Test Standard(s) :** FCC 47 CFR PART 15 SUBPART E

**Date Of Issue:**  
May 18, 2018

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## REPORT REVISION HISTORY

| Rev. | Issue Date | Revisions                                | Revised By  |
|------|------------|------------------------------------------|-------------|
| V1   | 5/15/2018  | Initial Issue                            | --          |
| V2   | 5/18/2018  | Updated Section 2, 9 & Added Section 6.3 | Kiya Kedida |

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## 1. ATTESTATION OF TEST RESULTS

**COMPANY NAME:** SONY MOBILE COMMUNICATIONS, INC.  
4-12-3 HIGASHI-SHINAGAWA,  
SHINAGAWA -KU, TOKYO, 140-0002, JAPAN

**EUT DESCRIPTION:** GSM/WCDMA/LTE Phone with BT, DTS/UNII a/b/g/n/ac & NFC

**SERIAL NUMBER:** CB512FP0CD & CB512FP0J5 (RADIATED)

**DATE TESTED:** May 1 - 7, 2018

| APPLICABLE STANDARDS                  |              |
|---------------------------------------|--------------|
| STANDARD                              | TEST RESULTS |
| CFR 47 Part 15 Subpart E (EXCEPT DFS) | Complies     |

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 the U.S. government.

Approved & Released For  
UL Verification Services Inc. By:

Reviewed By:



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CONSUMER TECHNOLOGY DIVISION  
Operations Leader  
UL Verification Services Inc.



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CONSUMER TECHNOLOGY DIVISION  
Project Engineer  
UL Verification Services Inc.

## 2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, FCC KDB 662911 D01 v02r01, FCC KDB 789033 D02 v02r01, ANSI C63.10-2013 and KDB 484596 D01 Referencing Test Data v01.

## 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 (ISED:2324B-1) | <input type="checkbox"/> Chamber D (ISED:22541-1) |
| <input checked="" type="checkbox"/> Chamber B (ISED:2324B-2) | <input type="checkbox"/> Chamber E (ISED:22541-2) |
| <input checked="" type="checkbox"/> Chamber C (ISED:2324B-3) | <input type="checkbox"/> Chamber F (ISED:22541-3) |
|                                                              | <input type="checkbox"/> Chamber G (ISED:22541-4) |
|                                                              | <input type="checkbox"/> Chamber H (ISED:22541-5) |

The above test sites and facilities are covered under FCC Test Firm Registration # 208313. Chambers A through C are covered under ISED company address code 2324B with site numbers 2324B -1 through 2324B-3, respectively. Chambers D through H are covered under ISED company address code 22541 with site numbers 22541 -1 through 22541-5, respectively.

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

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

### 4.3. MEASUREMENT UNCERTAINTY

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

| PARAMETER                                           | UNCERTAINTY |
|-----------------------------------------------------|-------------|
| Worst Case Conducted Disturbance, 9KHz to 0.15 MHz  | 3.84 dB     |
| Worst Case Conducted Disturbance, 0.15 to 30 MHz    | 3.65 dB     |
| Worst Case Radiated Disturbance, 9KHz to 30 MHz     | 3.15 dB     |
| Worst Case Radiated Disturbance, 30 to 1000 MHz     | 5.36 dB     |
| Worst Case Radiated Disturbance, 1000 to 18000 MHz  | 4.32 dB     |
| Worst Case Radiated Disturbance, 18000 to 26000 MHz | 4.45 dB     |
| Worst Case Radiated Disturbance, 26000 to 40000 MHz | 5.24 dB     |

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

## **5. EQUIPMENT UNDER TEST**

### **5.1. EUT DESCRIPTION**

The EUT is a GSM/WCDMA/LTE Phone with BT, DTS/UNII a/b/g/n/ac & NFC.

## 6. REUSE OF TEST DATA

### 6.1. INTRODUCTION

According to the manufacturer, the WLAN/Bluetooth conducted and NFC hardware of PY7-04685Z are HW identical to PY7-68553C. In addition PY7-04685Z digital circuit is identical to PY7-68553C. Therefore the following report/data of PY7-04685Z may be represented from PY7-68553C.

- WLAN/Bluetooth conducted
- NFC
- 15B

### 6.2. DEVICES DIFFERENCES

Difference between PY7-04685Z and PY7-68553C:

Sony Mobile Communications Inc. hereby declares that the difference between PY7-04685Z and PY7-68553C is related only to the cellular part and WLAN/Bluetooth Antenna Gain. Therefore the WLAN/Bluetooth conducted and NFC report/data of PY7-68553C may represent for PY7-04685Z.

### 6.3. REFERENCE DETAIL

| Equipment Class  | Reference FCC ID | Report Title/Section               |
|------------------|------------------|------------------------------------|
| NII (UNII WLAN)) | PY7-68553C       | 12132731-E5V3 FCC Report UNII WLAN |

This report covers radiated emissions portion. For antenna port data refer to report number 12132731-E5V3 FCC Report UNII WLAN. FCC ID: PY7-68553C and PY7-04685Z has same output power values. Output power was confirmed before making radiated spurious measurements.

### 6.4. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes a loop antenna for chain 0 and a monopole antenna for chain 1, with the maximum gains:

| Frequency (GHz) | Peak Antenna Gain (dBi) |               |
|-----------------|-------------------------|---------------|
|                 | Main (Chain 0)          | Sub (Chain 1) |
| 5180-5320       | -3.0                    | -7.9          |
| 5500-5700       | -2.3                    | -5.3          |
| 5725-5850       | -3.6                    | -5.1          |

### 6.5. SOFTWARE AND FIRMWARE

The firmware installed in the EUT during testing was s\_atp\_XXX\_0\_00403\_A\_9.  
The test utility software used during testing was Tera Term Ver 4.79.

## 6.6. LIST OF TEST REDUCTION AND MODES

| Antenna port & Radiated Testing |                        |
|---------------------------------|------------------------|
| Mode                            | Covered by             |
| 802.11a Legacy                  | 802.11a 2TX CDD        |
| 802.11HT20 2TX STBC             | 802.11n HT20 2TX CDD   |
| 802.11ac VHT20 2TX STBC         | 802.11n HT20 2TX CDD   |
| 802.11n HT40 2TX STBC           | 802.11n HT40 2TX CDD   |
| 802.11ac VHT40 2TX STBC         | 802.11n HT40 2TX CDD   |
| 802.11ac VHT80 2TX STBC         | 802.11ac VHT80 2TX CDD |

## 7. WORST-CASE CONFIGURATION AND MODE

Radiated emissions below 30MHz, 1GHz, above 18GHz 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, and it was determined that X-Axis with AC/DC Adapter was worst-case orientation; therefore, all final radiated testing was performed with the EUT in X-Axis with AC/DC Adapter orientation.

Worst-case data rates as provided by the client were:

802.11a mode: 6 Mbps  
802.11n HT20 mode: 13 Mbps (MCS8)  
802.11n HT40 mode: 27 Mbps (MCS8)  
802.11ac VHT80 mode: 58.5 Mbps (MCS0)

802.11ac VHT20 and VHT40 mode are different from 802.11nHT20 and HT40 only in control messages and have the same power settings.

The simultaneous mode (SISO 2.4GHz Chain 0 and 5GHz chain 1) was checked and stand-alone (MIMO) 2.4 GHz / 5GHz remain worst case.

NOTE: SISO mode is covered by MIMO mode due to same maximum tune-up limit (power).

## 7.1. DESCRIPTION OF TEST SETUP

### SUPPORT EQUIPMENT

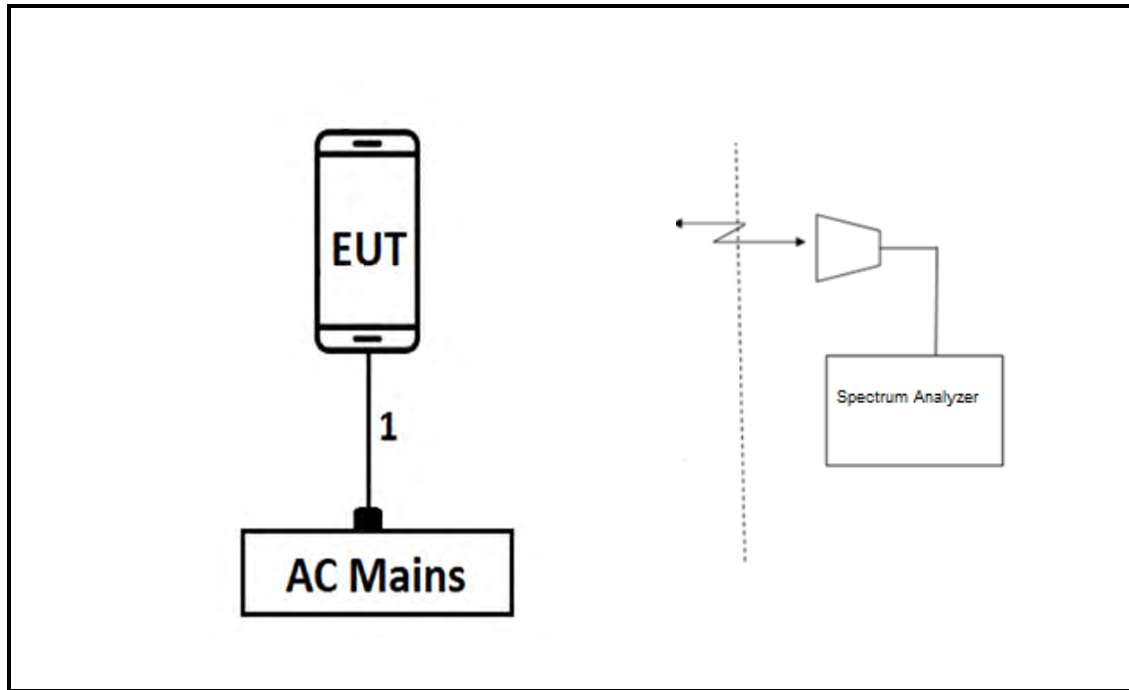
| Support Equipment List |              |            |               |        |
|------------------------|--------------|------------|---------------|--------|
| Description            | Manufacturer | Model      | Serial Number | FCC ID |
| Laptop                 | Lenovo       | 20B7S0A200 | PC015REW      | NA     |
| AC Adapter             | SONY         | UCH12      | 4016W40310044 | NA     |
| DC Power Supply        | Ametek       | XT 15-4    | T463          | N/A    |

### I/O CABLES (RADIATED EMISSIONS)

| I/O Cable List |      |                      |                |            |                  |         |
|----------------|------|----------------------|----------------|------------|------------------|---------|
| Cable No       | Port | # of identical ports | Connector Type | Cable Type | Cable Length (m) | Remarks |
| 1              | USB  | 1                    | USB            | Shielded   | 3                | N/A     |

## **TEST SETUP**

### **RADIATED AND AC LINE CONDUCTED EMISSIONS SETUP DIAGRAM**



## 8. MEASUREMENT METHOD

Unwanted emissions in restricted bands: KDB 789033 D02 v02r01, Sections II.G.3, II.G.4, II.G.5, and II.G.6.

Unwanted emissions in non-restricted bands: KDB 789033 D02 v02r01, Sections II.G.3, II.G.4, and II.G.5.

## 9. 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                  | ID Num | Cal Due  |
| Amplifier, 1 - 18GHz                       | Miteq                           | AFS42-00101800-25-S-42 | 493    | 06/23/18 |
| Amplifier, 1 - 18GHz                       | Miteq                           | AFS42-00101800-25-S-42 | 1165   | 11/25/18 |
| Amplifier, 1 - 18GHz                       | Miteq                           | AFS42-00101800-25-S-42 | T931   | 06/21/18 |
| Amplifier, 10KHz to 1GHz, 32dB             | Keysight                        | 8447D                  | 15     | 08/17/18 |
| RF Preamplifier, 1 - 26GHz                 | Agilent                         | 8449B                  | 404    | 07/23/18 |
| Amplifier- 26.5-40GHz                      | Miteq                           | NSP 4000 SP2           | T88    | 04/29/19 |
| Antenna, Broadband Hybrid 30MHz to 2000MHz | Sunol Science                   | JB1                    | 243    | 11/02/18 |
| Antenna, Horn 1-18GHz                      | ETS-Lindgren                    | 3117                   | 120    | 06/26/18 |
| Antenna, Horn 1-18GHz                      | ETS-Lindgren                    | 3117                   | 862    | 06/09/18 |
| Antenna, Horn 1-18GHz                      | ETS-Lindgren                    | 3117                   | T863   | 06/09/18 |
| Antenna, Horn 18-26.5GHz                   | ARA                             | MWH-1826               | T89    | 01/04/19 |
| Antenna, Horn 26.5 - 40GHz                 | ARA                             | MWH-2640               | T90    | 08/25/18 |
| Antenna, Active Loop 9kHz-30MHz            | Com-Power Corp.                 | AL-130R                | T1866  | 10/10/18 |
| Spectrum Analyzer, PXA, 3Hz to 44GHz       | Agilent (Keysight) Technologies | N9030A                 | T1454  | 01/08/19 |
| Spectrum Analyzer, PXA, 3Hz to 44GHz       | Agilent (Keysight) Technologies | N9030A                 | T1113  | 12/21/18 |
| Spectrum Analyzer, PXA, 3Hz to 44GHz       | Agilent (Keysight) Technologies | N9030A                 | T1450  | 02/05/19 |

| Test Software List |              |        |                      |
|--------------------|--------------|--------|----------------------|
| Description        | Manufacturer | Model  | Version              |
| Radiated Software  | UL           | UL EMC | Ver 9.5, Dec 1, 2016 |

### NOTES:

1. Equipment listed above that calibrated during the testing period was set for test after the calibration.
2. Equipment listed above that has a calibration due date during the testing period, the testing is completed before equipment expiration date.

## 10. RADIATED TEST RESULTS

### LIMITS

FCC §15.205 and §15.209

| Frequency Range (MHz) | Field Strength Limit (uV/m) at 3 m | Field Strength Limit (dBuV/m) at 3 m |
|-----------------------|------------------------------------|--------------------------------------|
| 0.009-0.490           | 2400/F(kHz) @ 300 m                | -                                    |
| 0.490-1.705           | 24000/F(kHz) @ 30 m                | -                                    |
| 1.705 - 30            | 30 @ 30m                           | -                                    |
| 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 measurement below 1GHz; 1.5 m above the ground plane for measurement above 1GHz. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

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.

For pre-scans above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 30 KHz for peak measurements.

For final measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz for peak measurements and as applicable for average measurements.

The spectrum from 30 MHz to 1GHz and 18GHz to 40 GHz is investigated with the transmitter set to transmit at the channel with highest output power as worst-case scenario. 1GHz to 18GHz was set to the lowest, middle, and highest channels in the 5 GHz bands.

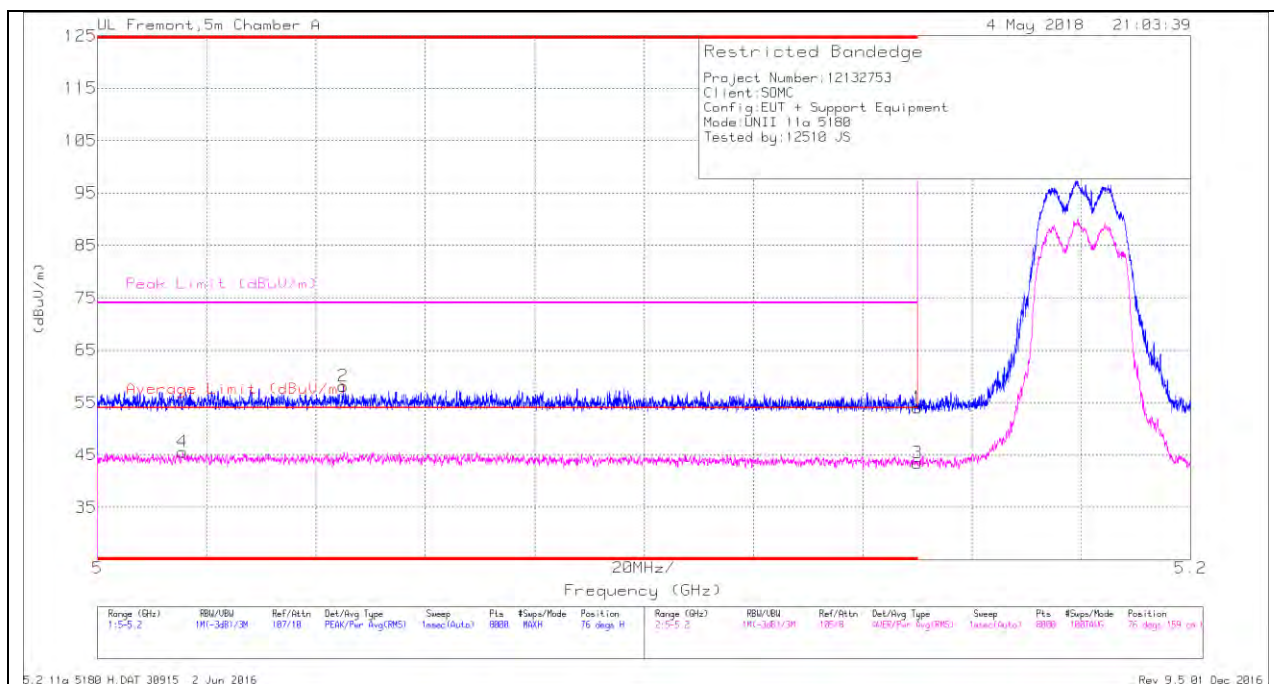
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized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

## 10.1. TRANSMITTER ABOVE 1 GHz

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

#### BANDEDGE (LOW CHANNEL)

#### HORIZONTAL RESULT



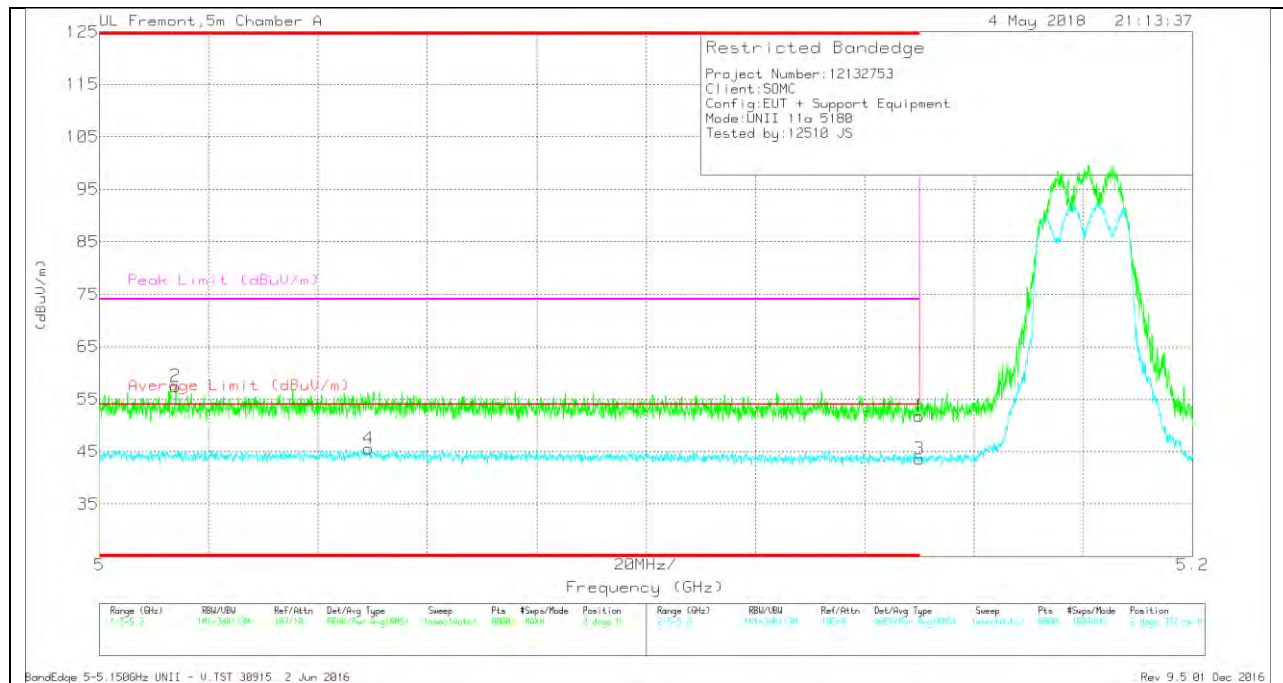
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T862 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 4      | * 5.016         | 29.17                | RMS | 34.3           | -17.9                  | 0            | 45.57                      | 54                     | -8.43       | -                   | -              | 76             | 159         | H        |
| 2      | * 5.045         | 41.6                 | Pk  | 34.4           | -17.9                  | 0            | 58.1                       | -                      | -           | 74                  | -15.9          | 76             | 159         | H        |
| 1      | * 5.15          | 37.74                | Pk  | 34.4           | -18.1                  | 0            | 54.04                      | -                      | -           | 74                  | -19.96         | 76             | 159         | H        |
| 3      | * 5.15          | 27.13                | RMS | 34.4           | -18.1                  | 0            | 43.43                      | 54                     | -10.57      | -                   | -              | 76             | 159         | H        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

Pk - Peak detector

RMS - RMS detection

## VERTICAL RESULT



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T862 (dB/m) | Amp/Cb/Fltr/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      | * 5.014         | 41.13                | Pk  | 34.3           | -18                  | 0            | 57.43                      | -                      | -           | 74                  | -16.57         | 2              | 372         | V        |
| 4      | * 5.049         | 28.97                | RMS | 34.4           | -17.8                | 0            | 45.57                      | 54                     | -8.43       | -                   | -              | 2              | 372         | V        |
| 1      | * 5.15          | 35.49                | Pk  | 34.4           | -18.1                | 0            | 51.79                      | -                      | -           | 74                  | -22.21         | 2              | 372         | V        |
| 3      | * 5.15          | 27.3                 | RMS | 34.4           | -18.1                | 0            | 43.6                       | 54                     | -10.4       | -                   | -              | 2              | 372         | V        |

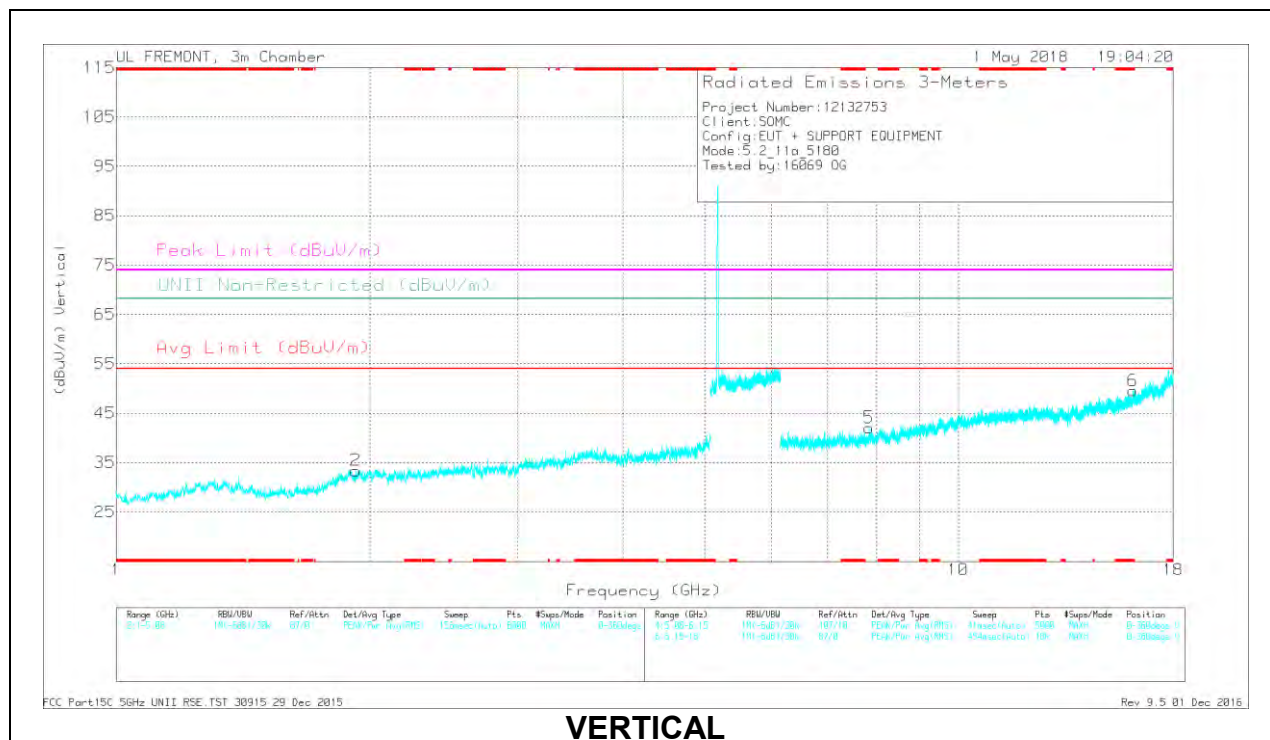
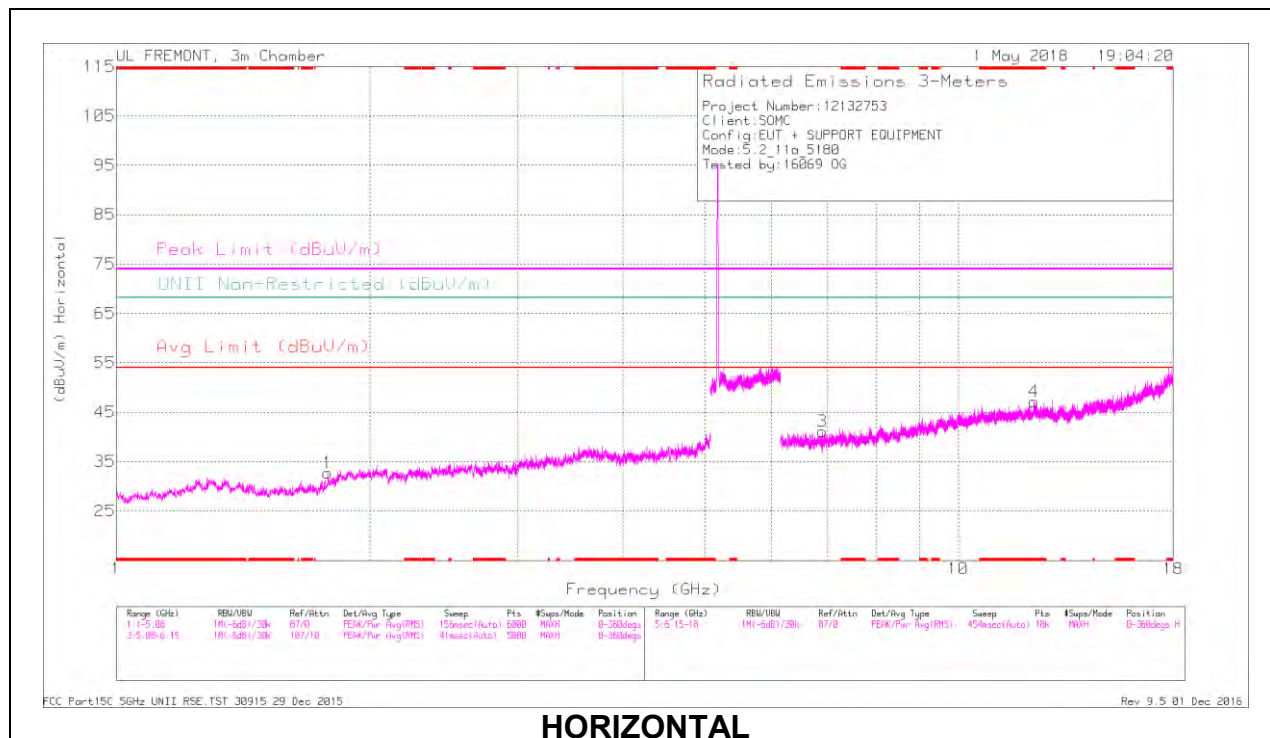
\* - indicates frequency in CFR47 Pt 15 Restricted Band

Pk - Peak detector

## RMS - RMS detection

# HARMONICS AND SPURIOUS EMISSIONS

## LOW CHANNEL RESULTS



## RADIATED EMISSIONS

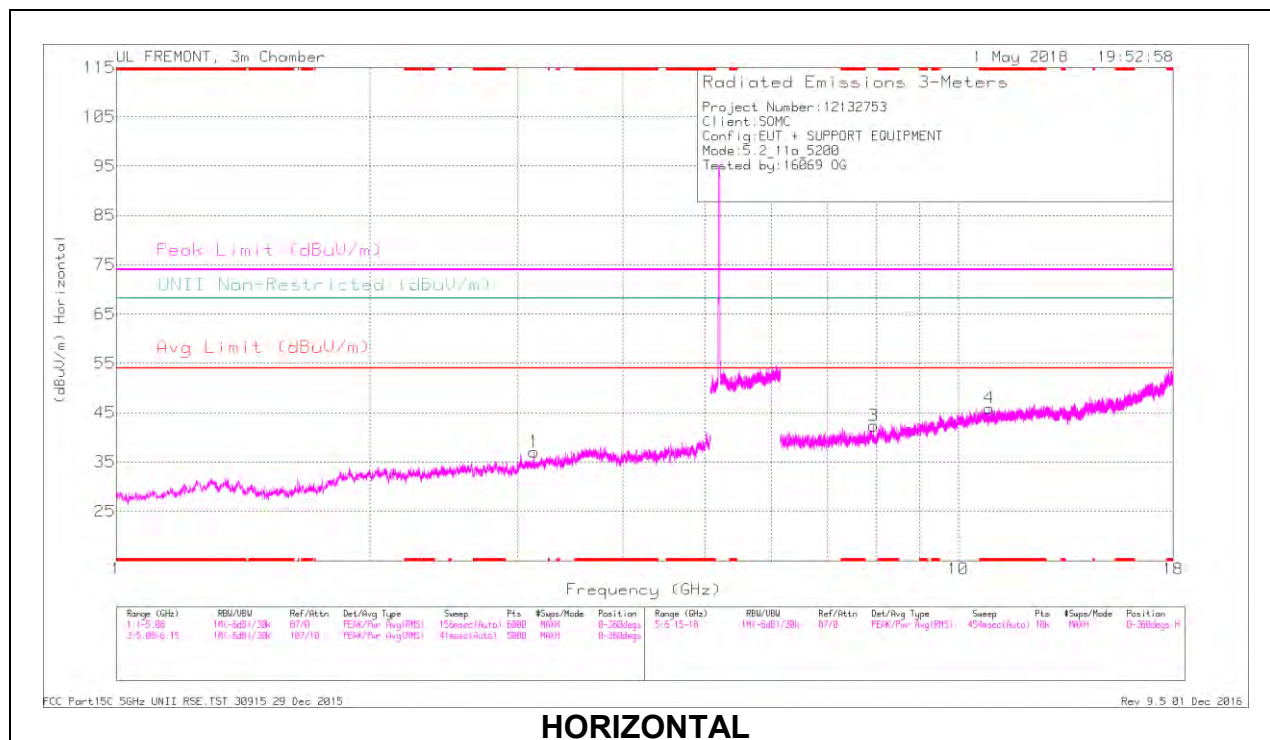
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF T120 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|----------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 4      | * 12.3          | 34.49                | PK-U | 39.1           | -20.1                  | 0            | 53.49                      | -                  | -           | 74                  | -20.51         | -                            | -              | 224            | 363         | H        |
|        | * 12.301        | 22.9                 | ADR  | 39.1           | -20.3                  | 0            | 41.7                       | 54                 | -12.3       | -                   | -              | -                            | -              | 224            | 363         | H        |
| 6      | * 16.117        | 33.7                 | PK-U | 40.5           | -18.6                  | 0            | 55.6                       | -                  | -           | 74                  | -18.4          | -                            | -              | 275            | 157         | V        |
|        | * 16.114        | 22.64                | ADR  | 40.5           | -18.8                  | 0            | 44.34                      | 54                 | -9.66       | -                   | -              | -                            | -              | 275            | 157         | V        |
| 1      | 1.785           | 39.46                | PK-U | 30             | -30.8                  | 0            | 38.66                      | -                  | -           | -                   | -              | 68.2                         | -29.54         | 219            | 332         | H        |
| 2      | 1.926           | 38.71                | PK-U | 31.5           | -30.3                  | 0            | 39.91                      | -                  | -           | -                   | -              | 68.2                         | -28.29         | 204            | 225         | V        |
| 3      | 6.896           | 35.84                | PK-U | 35.7           | -25                    | 0            | 46.54                      | -                  | -           | -                   | -              | 68.2                         | -21.66         | 291            | 351         | H        |
| 5      | 7.842           | 36.23                | PK-U | 35.8           | -24.1                  | 0            | 47.93                      | -                  | -           | -                   | -              | 68.2                         | -20.27         | 0              | 340         | V        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

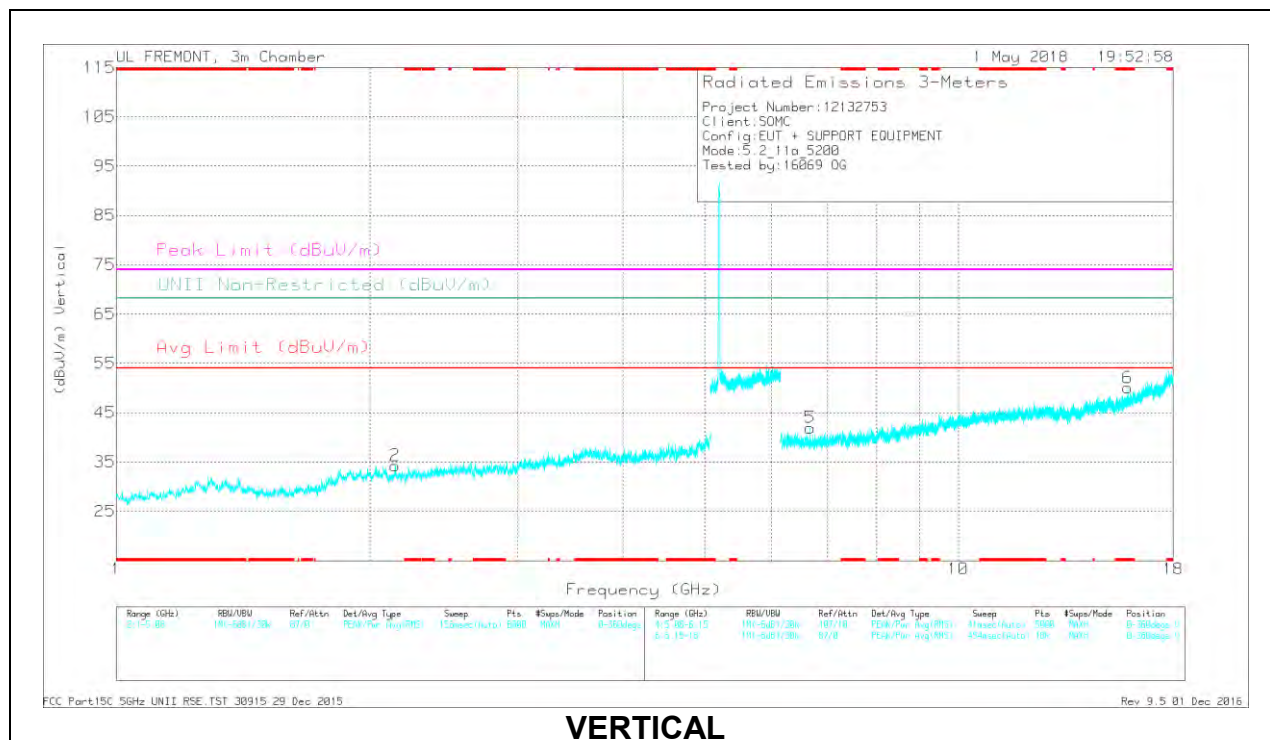
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

## MID CHANNEL RESULTS



## HORIZONTAL



## VERTICAL

## RADIATED EMISSIONS

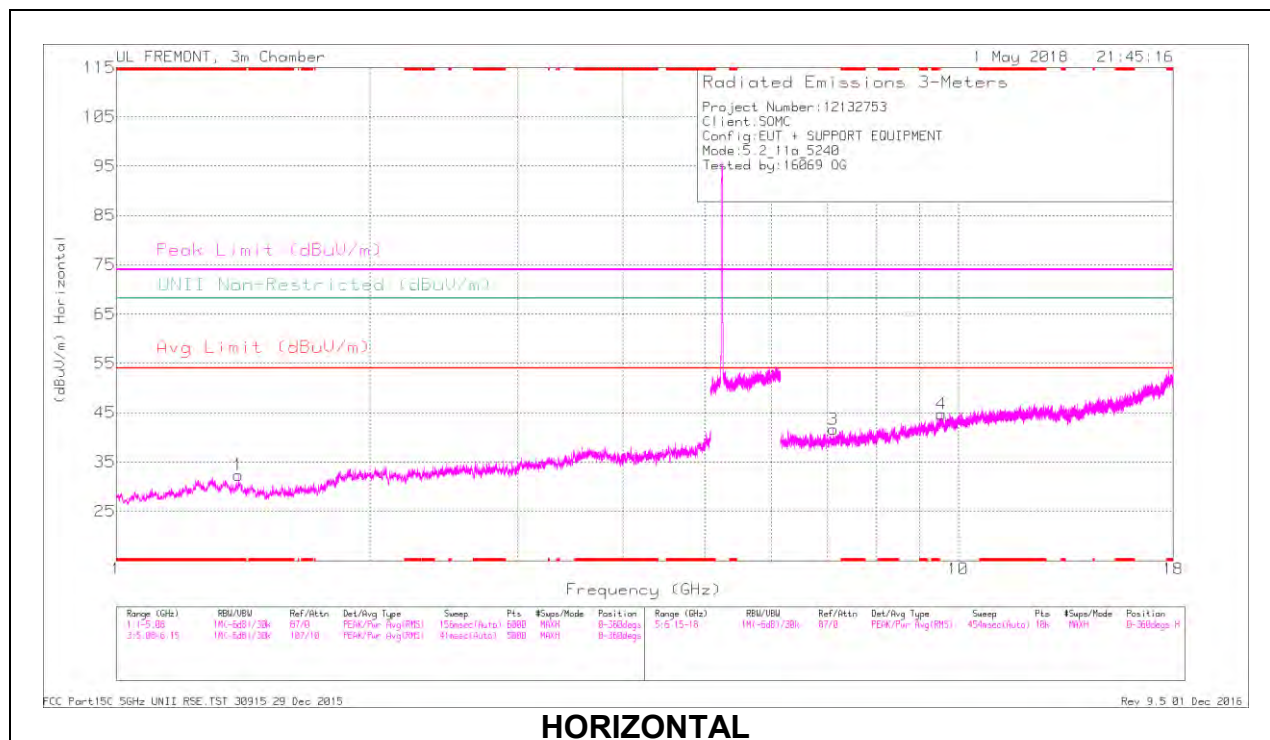
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF T120 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|----------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 4      | * 10.888        | 34.18                | PK-U | 37.9           | -20.9                  | 0            | 51.18                      | -                  | -           | 74                  | -22.82         | -                            | -              | 99             | 145         | H        |
|        | * 10.891        | 22.75                | ADR  | 37.9           | -20.9                  | 0            | 39.75                      | 54                 | -14.25      | -                   | -              | -                            | -              | 99             | 145         | H        |
| 6      | * 15.902        | 34.75                | PK-U | 40.4           | -20.1                  | 0            | 55.05                      | -                  | -           | 74                  | -18.95         | -                            | -              | 38             | 138         | V        |
|        | * 15.901        | 22.66                | ADR  | 40.4           | -20.1                  | 0            | 42.96                      | 54                 | -11.04      | -                   | -              | -                            | -              | 38             | 138         | V        |
| 2      | 2.146           | 38.27                | PK-U | 31.4           | -29.8                  | 0            | 39.87                      | -                  | -           | -                   | -              | 68.2                         | -28.33         | 100            | 365         | V        |
| 1      | 3.135           | 38.89                | PK-U | 33.2           | -30                    | 0            | 42.09                      | -                  | -           | -                   | -              | 68.2                         | -26.11         | 82             | 112         | H        |
| 5      | 6.673           | 36.39                | PK-U | 35.7           | -25.3                  | 0            | 46.79                      | -                  | -           | -                   | -              | 68.2                         | -21.41         | 307            | 308         | V        |
| 3      | 7.93            | 34.89                | PK-U | 35.8           | -23.9                  | 0            | 46.79                      | -                  | -           | -                   | -              | 68.2                         | -21.41         | 222            | 296         | H        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

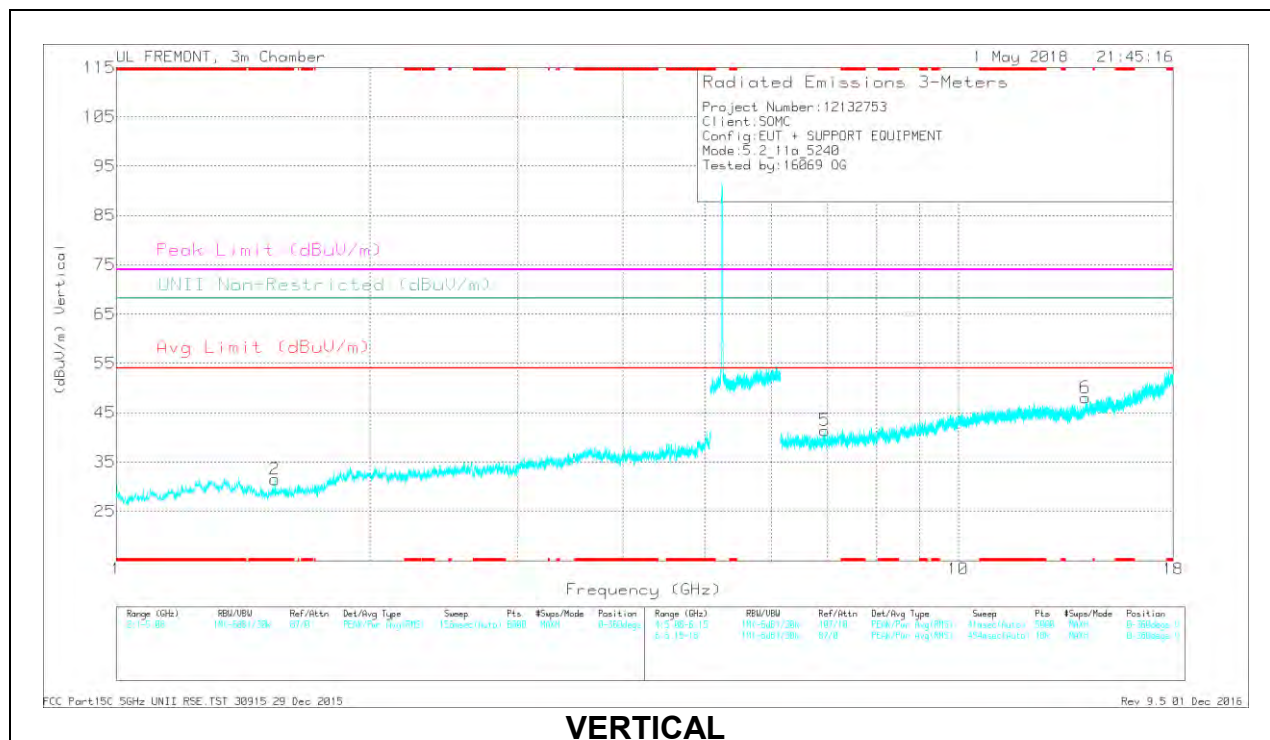
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

## HIGH CHANNEL RESULTS



## HORIZONTAL



## VERTICAL

## RADIATED EMISSIONS

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF T120 (dB/m) | Amp/Cbl/Fitr/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      | * 1.398         | 40.26                | PK-U | 29.3           | -30.7                 | 0            | 38.86                      | -                  | -           | 74                  | -35.14         | -                            | -              | 272            | 193         | H        |
|        | * 1.398         | 27.72                | ADR  | 29.3           | -30.7                 | 0            | 26.32                      | 54                 | -27.68      | -                   | -              | -                            | -              | 272            | 193         | H        |
| 2      | * 1.545         | 39.04                | PK-U | 28             | -31                   | 0            | 36.04                      | -                  | -           | 74                  | -37.96         | -                            | -              | 193            | 349         | V        |
|        | * 1.543         | 27.53                | ADR  | 28             | -31.1                 | 0            | 24.43                      | 54                 | -29.57      | -                   | -              | -                            | -              | 193            | 349         | V        |
| 5      | 6.942           | 36.02                | PK-U | 35.7           | -24.7                 | 0            | 47.02                      | -                  | -           | -                   | -              | 68.2                         | -21.18         | 102            | 397         | V        |
| 3      | 7.101           | 36.56                | PK-U | 35.7           | -25.4                 | 0            | 46.86                      | -                  | -           | -                   | -              | 68.2                         | -21.34         | 274            | 144         | H        |
| 4      | 9.552           | 34.25                | PK-U | 36.8           | -20.3                 | 0            | 50.75                      | -                  | -           | -                   | -              | 68.2                         | -17.45         | 98             | 344         | H        |
| 6      | 14.155          | 35.83                | PK-U | 39.3           | -21.9                 | 0            | 53.23                      | -                  | -           | -                   | -              | 68.2                         | -14.97         | 37             | 165         | V        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

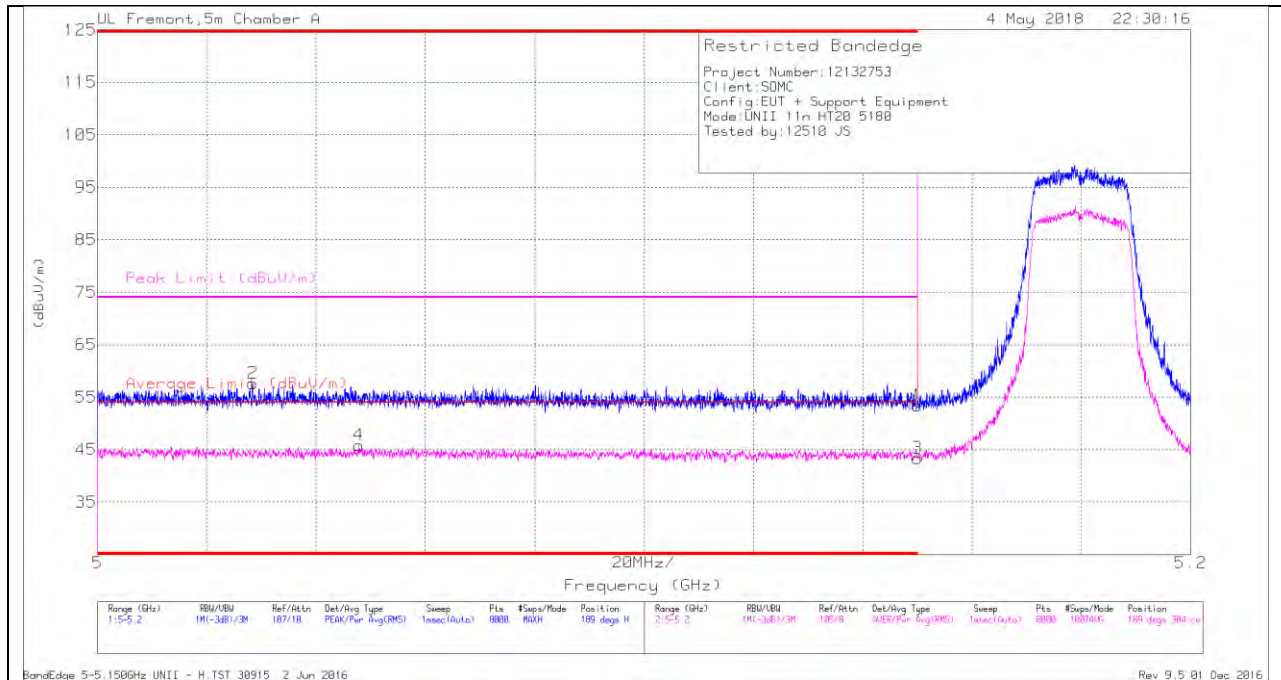
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

## 10.1.2. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.2 GHz BAND

### BANDEDGE (LOW CHANNEL)

### HORIZONTAL RESULT



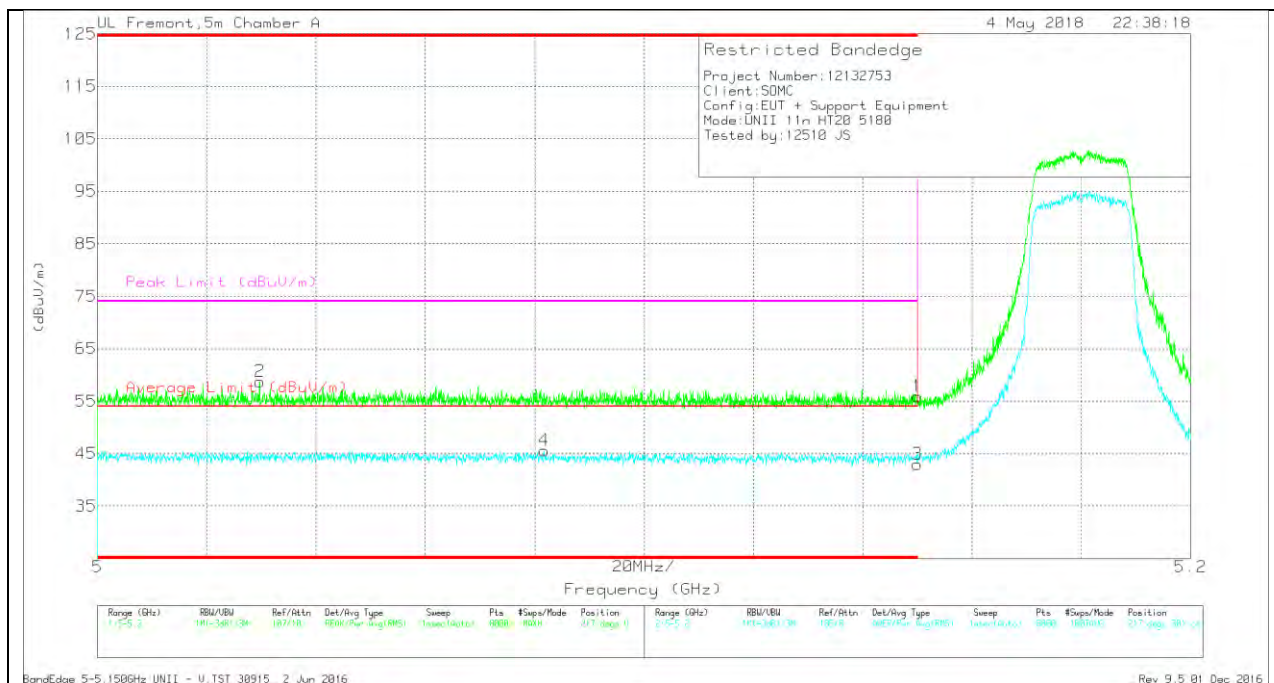
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T862 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 2      | * 5.028         | 41.26                | Pk  | 34.3           | -18                    | 0            | 57.56                      | -                      | -           | 74                  | -16.44         | 189            | 384         | H        |
| 4      | * 5.048         | 29.11                | RMS | 34.4           | -17.8                  | .1           | 45.81                      | 54                     | -8.19       | -                   | -              | 189            | 384         | H        |
| 1      | * 5.15          | 37.09                | Pk  | 34.4           | -18.1                  | 0            | 53.39                      | -                      | -           | 74                  | -20.61         | 189            | 384         | H        |
| 3      | * 5.15          | 26.9                 | RMS | 34.4           | -18.1                  | .1           | 43.3                       | 54                     | -10.7       | -                   | -              | 189            | 384         | H        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

Pk - Peak detector

RMS - RMS detection

## VERTICAL RESULT



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T862 (dB/m) | Amp/Cbl/Filtr/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      | * 5.03          | 42.41                | Pk  | 34.3           | -18                    | 0            | 58.71                      | -                      | -           | 74                  | -15.29         | 217            | 301         | V        |
| 4      | * 5.082         | 29.11                | RMS | 34.4           | -18                    | .1           | 45.61                      | 54                     | -8.39       | -                   | -              | 217            | 301         | V        |
| 1      | * 5.15          | 39.62                | Pk  | 34.4           | -18.1                  | 0            | 55.92                      | -                      | -           | 74                  | -18.08         | 217            | 301         | V        |
| 3      | * 5.15          | 26.55                | RMS | 34.4           | -18.1                  | .1           | 42.95                      | 54                     | -11.05      | -                   | -              | 217            | 301         | V        |

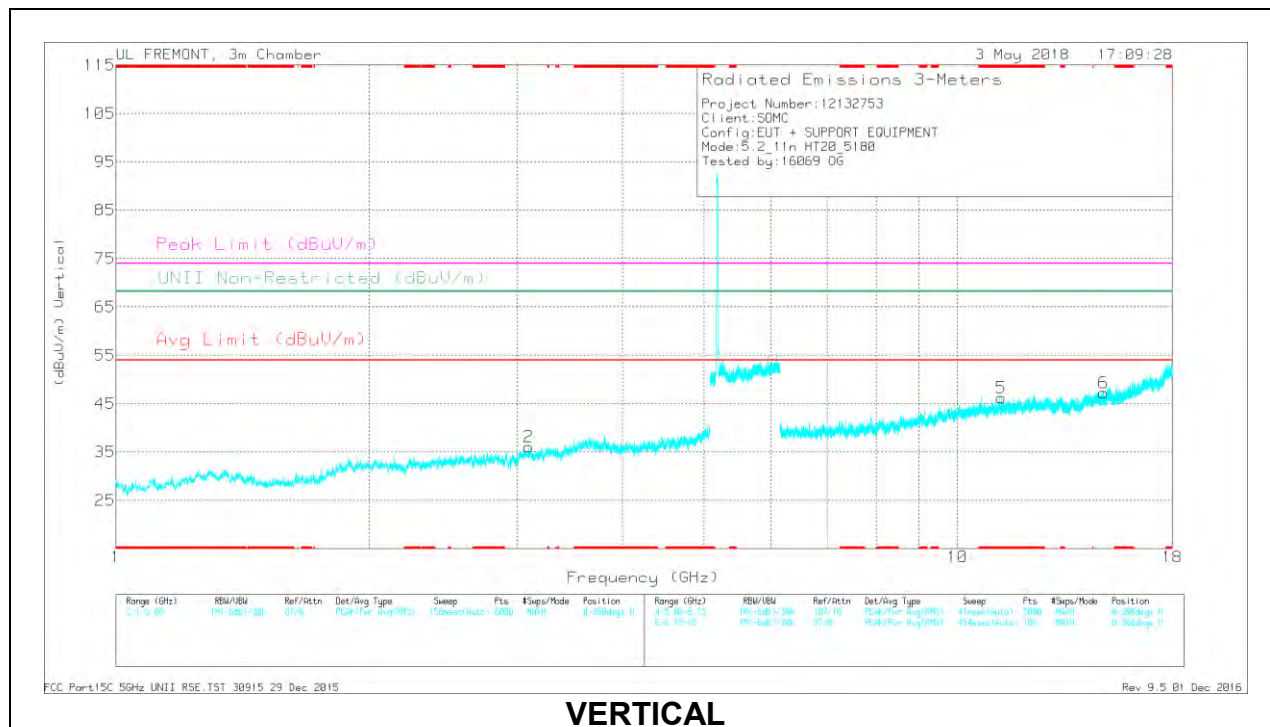
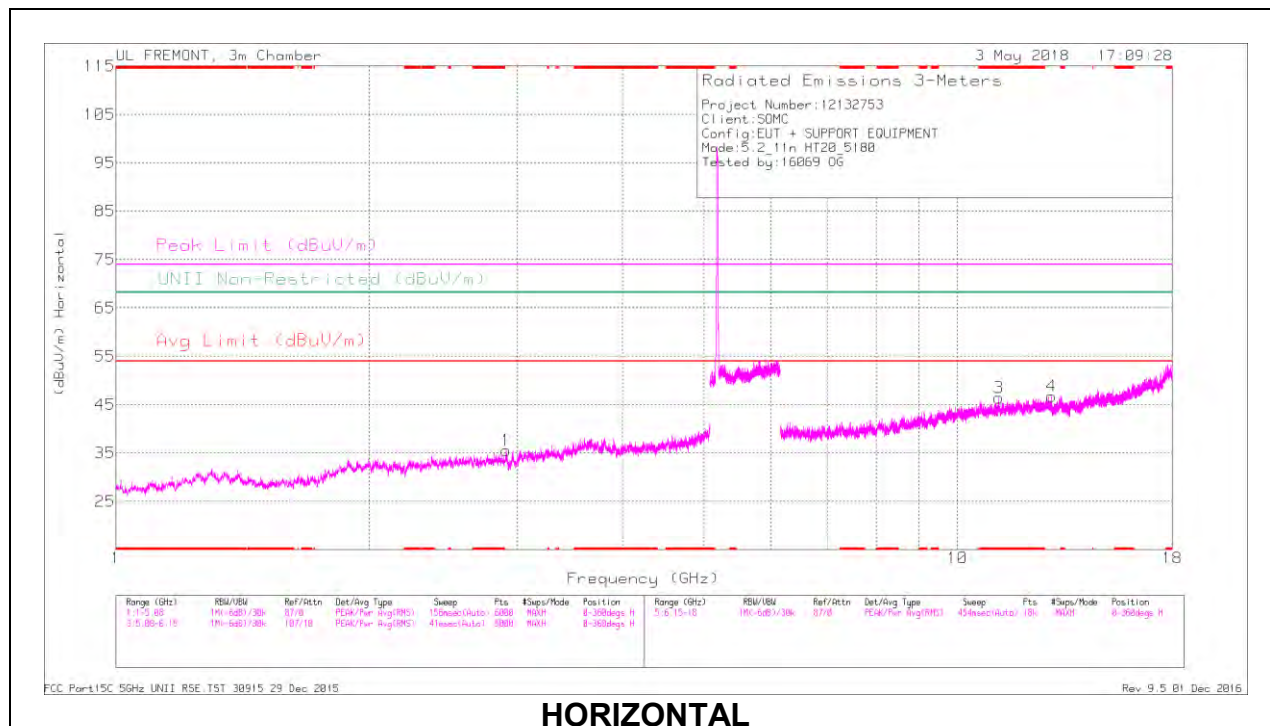
\* - indicates frequency in CFR47 Pt 15 Restricted Band

Pk - Peak detector

RMS - RMS detection

# HARMONICS AND SPURIOUS EMISSIONS

## LOW CHANNEL RESULTS



## RADIATED EMISSIONS

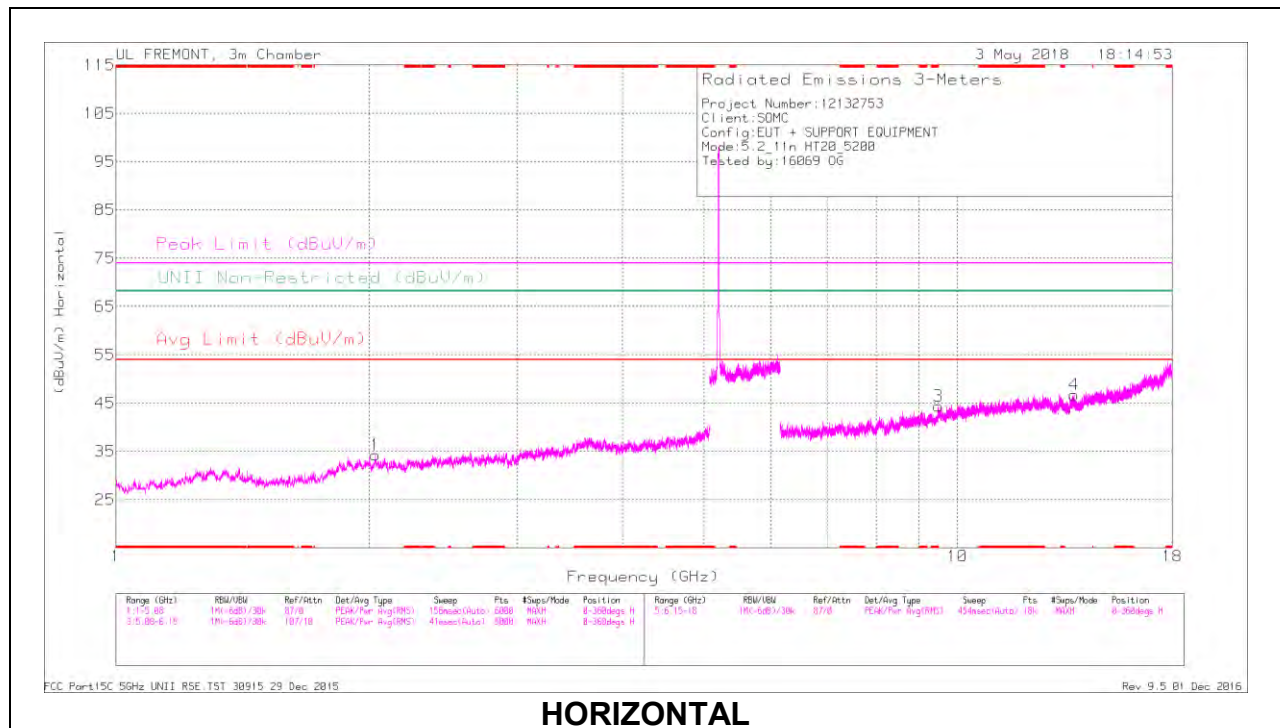
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF T120 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|----------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 3      | * 11.187        | 34.65                | PK-U | 38.2           | -20.9                  | 0            | 51.95                      | -                  | -           | 74                  | -22.05         | -                            | -              | 99             | 189         | H        |
|        | * 11.189        | 22.72                | ADR  | 38.2           | -20.9                  | .1           | 40.12                      | 54                 | -13.88      | -                   | -              | -                            | -              | 99             | 189         | H        |
| 5      | * 11.265        | 34.38                | PK-U | 38.3           | -21.2                  | 0            | 51.48                      | -                  | -           | 74                  | -22.52         | -                            | -              | 227            | 169         | V        |
|        | * 11.265        | 22.53                | ADR  | 38.3           | -21.2                  | .1           | 39.73                      | 54                 | -14.27      | -                   | -              | -                            | -              | 227            | 169         | V        |
| 1      | 2.911           | 38.32                | PK-U | 32.9           | -29.4                  | 0            | 41.82                      | -                  | -           | -                   | -              | 68.2                         | -26.38         | 91             | 292         | H        |
| 2      | 3.094           | 38.37                | PK-U | 33.2           | -29.1                  | 0            | 42.47                      | -                  | -           | -                   | -              | 68.2                         | -25.73         | 211            | 103         | V        |
| 4      | 12.933          | 35.87                | PK-U | 39.2           | -21.7                  | 0            | 53.37                      | -                  | -           | -                   | -              | 68.2                         | -14.83         | 52             | 398         | H        |
| 6      | 14.911          | 36.26                | PK-U | 40             | -20.8                  | 0            | 55.46                      | -                  | -           | -                   | -              | 68.2                         | -12.74         | 218            | 284         | V        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

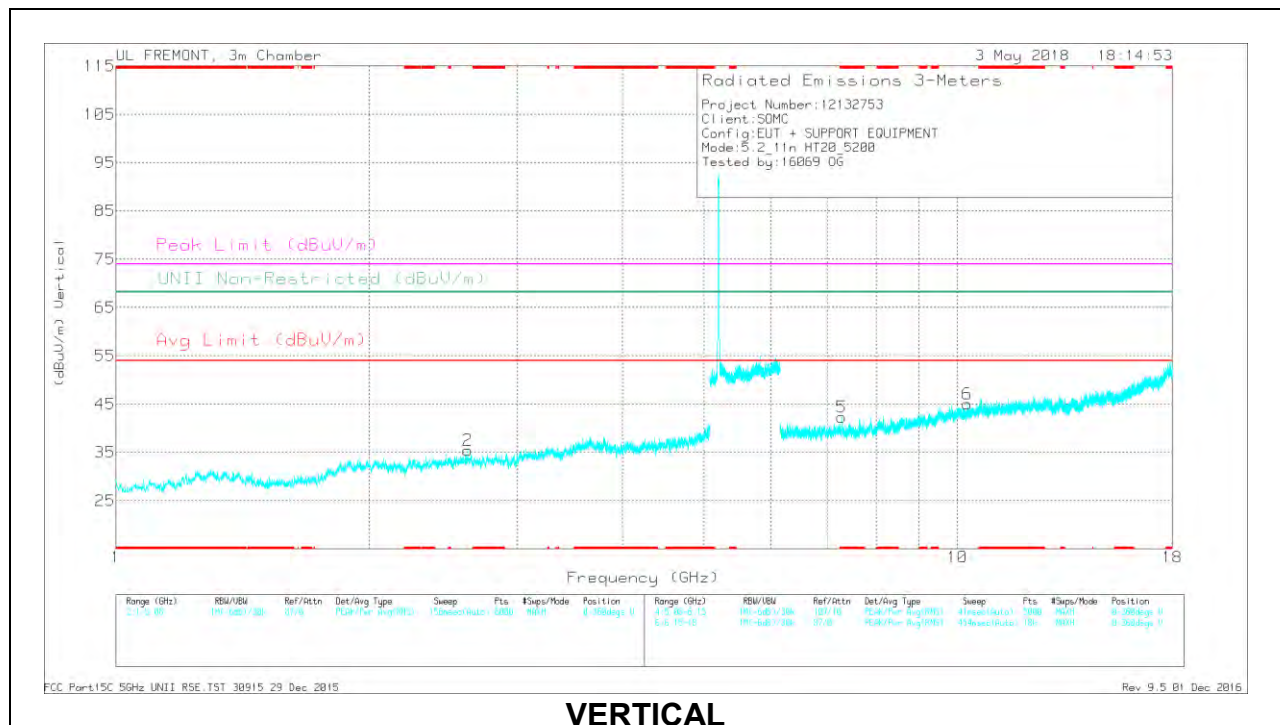
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

## MID CHANNEL RESULTS



## HORIZONTAL



## VERTICAL

## RADIATED EMISSIONS

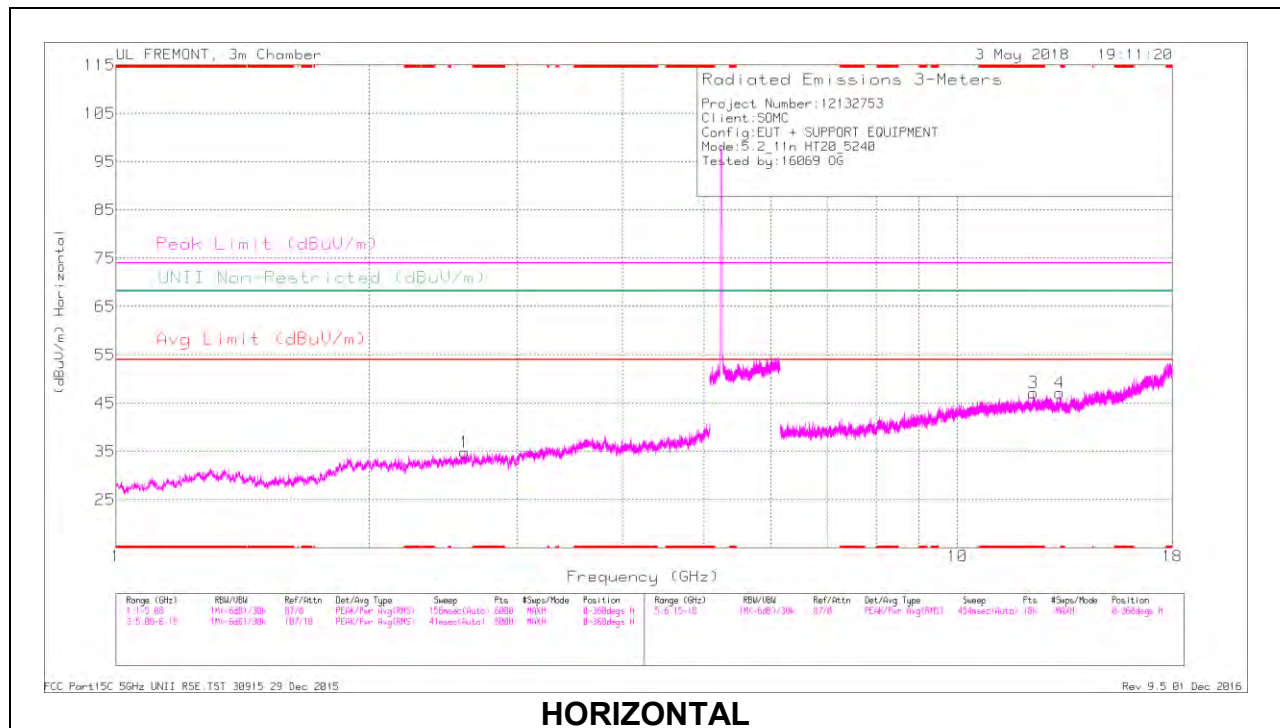
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF T120 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|----------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 3      | * 9.49          | 34.43                | PK-U | 36.7           | -21                    | 0            | 50.13                      | -                  | -           | 74                  | -23.87         | -                            | -              | 283            | 399         | H        |
|        | * 9.491         | 22.72                | ADR  | 36.7           | -20.9                  | .1           | 38.62                      | 54                 | -15.38      | -                   | -              | -                            | -              | 283            | 399         | H        |
| 5      | * 7.288         | 35.66                | PK-U | 35.7           | -23.6                  | 0            | 47.76                      | -                  | -           | 74                  | -26.24         | -                            | -              | 119            | 295         | V        |
|        | * 7.288         | 23.98                | ADR  | 35.7           | -23.6                  | .1           | 36.18                      | 54                 | -17.82      | -                   | -              | -                            | -              | 119            | 295         | V        |
| 1      | 2.034           | 40.61                | PK-U | 31.9           | -30.7                  | 0            | 41.81                      | -                  | -           | -                   | -              | 68.2                         | -26.39         | 169            | 103         | H        |
| 2      | 2.62            | 39.08                | PK-U | 32.5           | -29.9                  | 0            | 41.68                      | -                  | -           | -                   | -              | 68.2                         | -26.52         | 52             | 398         | V        |
| 6      | 10.278          | 33.26                | PK-U | 37.5           | -20.7                  | 0            | 50.06                      | -                  | -           | -                   | -              | 68.2                         | -18.14         | 58             | 383         | V        |
| 4      | 13.76           | 35.19                | PK-U | 38.8           | -22.1                  | 0            | 51.89                      | -                  | -           | -                   | -              | 68.2                         | -16.31         | 1              | 118         | H        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

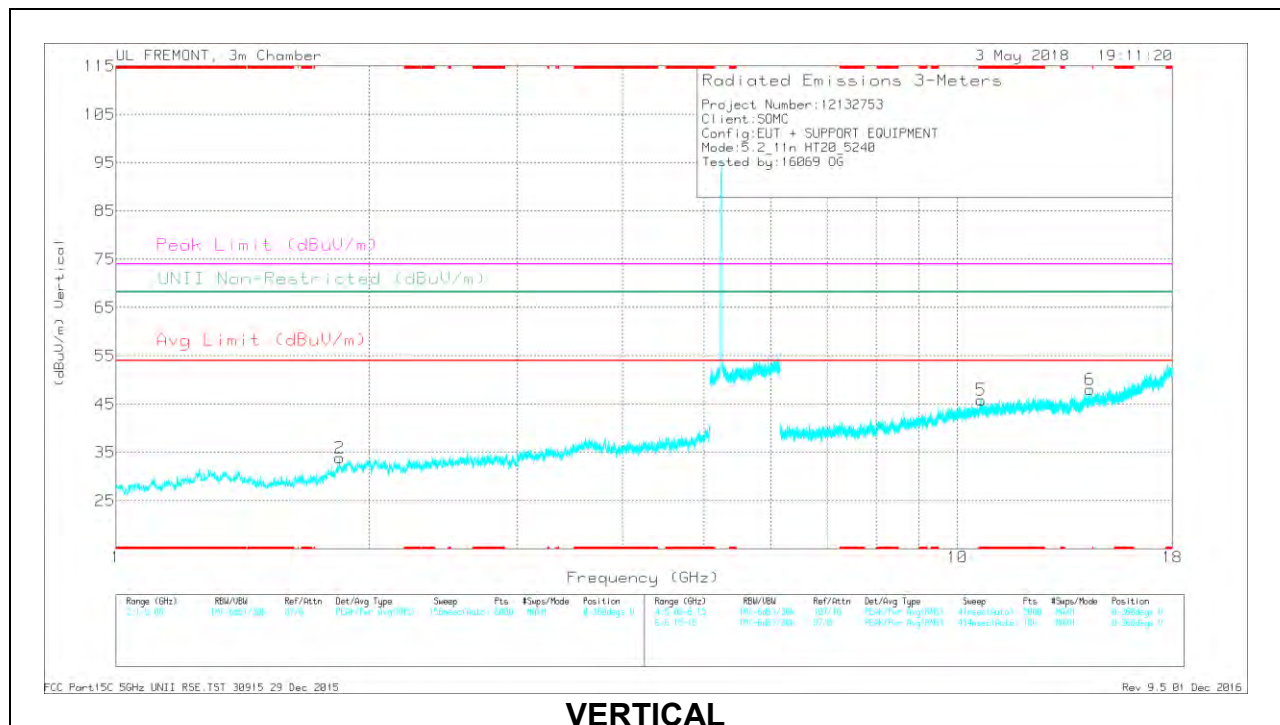
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

## HIGH CHANNEL RESULTS



### HORIZONTAL



### VERTICAL

## RADIATED EMISSIONS

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF T120 (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 |
|--------|-----------------|----------------------|------|----------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 3      | * 12.301        | 34.33                | PK-U | 39.1           | -20.3                  | 0            | 53.13                      | -                  | -           | 74                  | -20.87         | -                            | -              | 76             | 180         | H        |
|        | * 12.303        | 22.49                | ADR  | 39.1           | -20.6                  | .1           | 41.09                      | 54                 | -12.91      | -                   | -              | -                            | -              | 76             | 180         | H        |
| 5      | * 10.662        | 34.62                | PK-U | 37.8           | -20.4                  | 0            | 52.02                      | -                  | -           | 74                  | -21.98         | -                            | -              | 36             | 233         | V        |
|        | * 10.662        | 23.18                | ADR  | 37.8           | -20.4                  | .1           | 40.68                      | 54                 | -13.32      | -                   | -              | -                            | -              | 36             | 233         | V        |
| 2      | 1.843           | 40.15                | PK-U | 30.9           | -30.3                  | 0            | 40.75                      | -                  | -           | -                   | -              | 68.2                         | -27.45         | 93             | 359         | V        |
| 1      | 2.598           | 38.31                | PK-U | 32.4           | -29.7                  | 0            | 41.01                      | -                  | -           | -                   | -              | 68.2                         | -27.19         | 261            | 362         | H        |
| 4      | 13.227          | 34.44                | PK-U | 38.9           | -21                    | 0            | 52.34                      | -                  | -           | -                   | -              | 68.2                         | -15.86         | 188            | 173         | H        |
| 6      | 14.359          | 35.57                | PK-U | 39.6           | -22.2                  | 0            | 52.97                      | -                  | -           | -                   | -              | 68.2                         | -15.23         | 113            | 157         | V        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

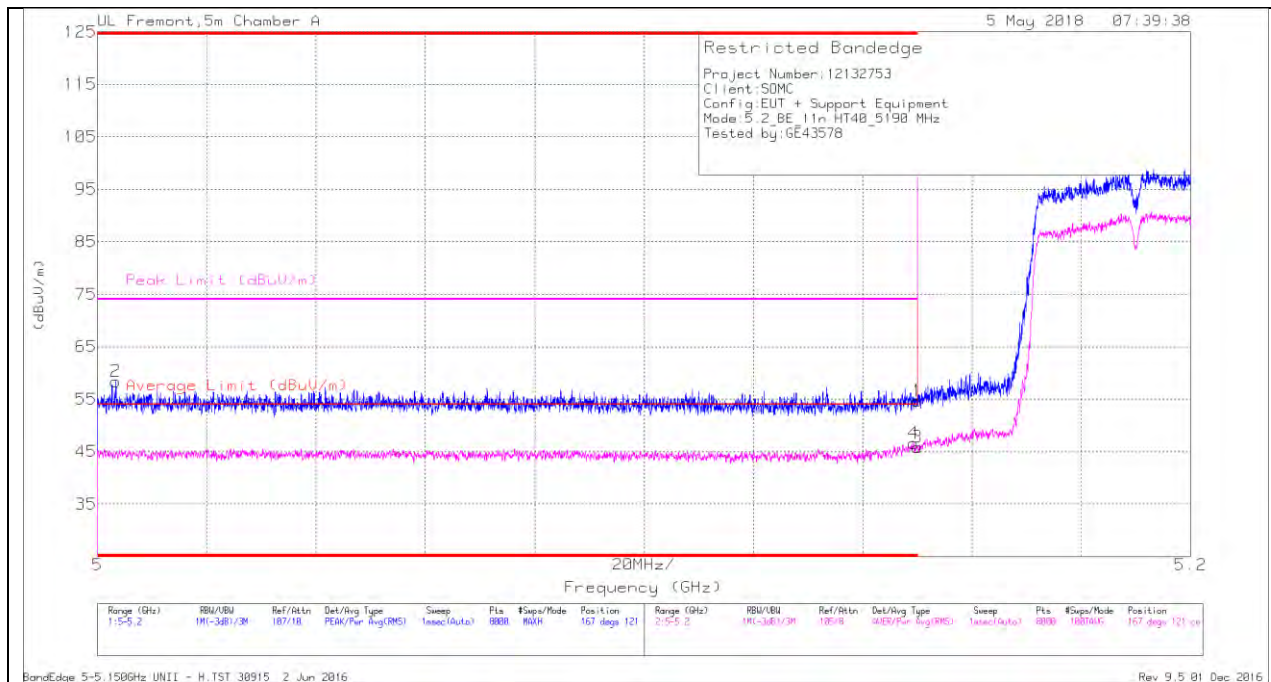
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

# 10.1.3. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.2 GHz BAND

## BANDEDGE (LOW CHANNEL)

### HORIZONTAL RESULT



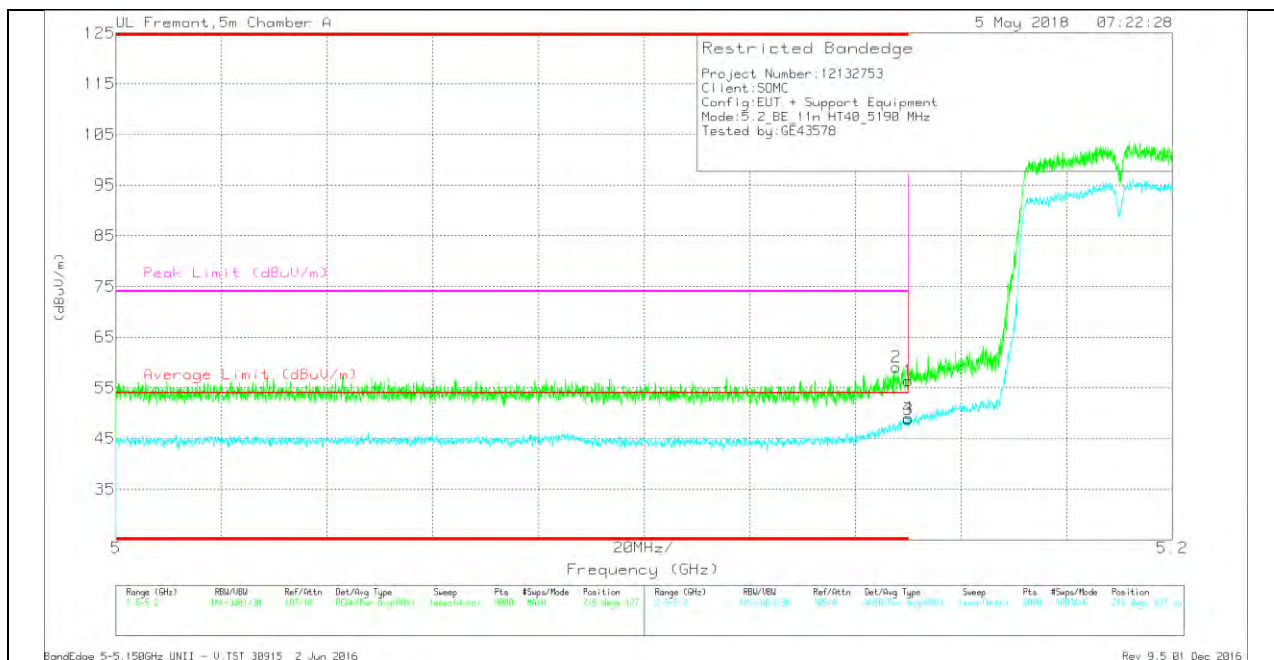
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T862 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 2      | * 5.003         | 41.92                | Pk  | 34.3           | -17.9                  | 0            | 58.32                      | -                      | -           | 74                  | -15.68         | 167            | 121         | H        |
| 4      | * 5.149         | 29.96                | RMS | 34.4           | -18.1                  | .32          | 46.58                      | 54                     | -7.42       | -                   | -              | 167            | 121         | H        |
| 1      | * 5.15          | 38.37                | Pk  | 34.4           | -18.1                  | 0            | 54.67                      | -                      | -           | 74                  | -19.33         | 167            | 121         | H        |
| 3      | * 5.15          | 29.17                | RMS | 34.4           | -18.1                  | .32          | 45.79                      | 54                     | -8.21       | -                   | -              | 167            | 121         | H        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

Pk - Peak detector

RMS - RMS detection

## VERTICAL RESULT



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T862 (dB/m) | Amp/Cbl/Filtr/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      | * 5.148         | 42.86                | Pk  | 34.4           | -18.1                  | 0            | 59.16                      | -                      | -           | 74                  | -14.84         | 216            | 127         | V        |
| 1      | * 5.15          | 40.13                | Pk  | 34.4           | -18.1                  | 0            | 56.43                      | -                      | -           | 74                  | -17.57         | 216            | 127         | V        |
| 3      | * 5.15          | 32.16                | RMS | 34.4           | -18.1                  | .32          | 48.78                      | 54                     | -5.22       | -                   | -              | 216            | 127         | V        |
| 4      | * 5.15          | 32.45                | RMS | 34.4           | -18.1                  | .32          | 49.07                      | 54                     | -4.93       | -                   | -              | 216            | 127         | V        |

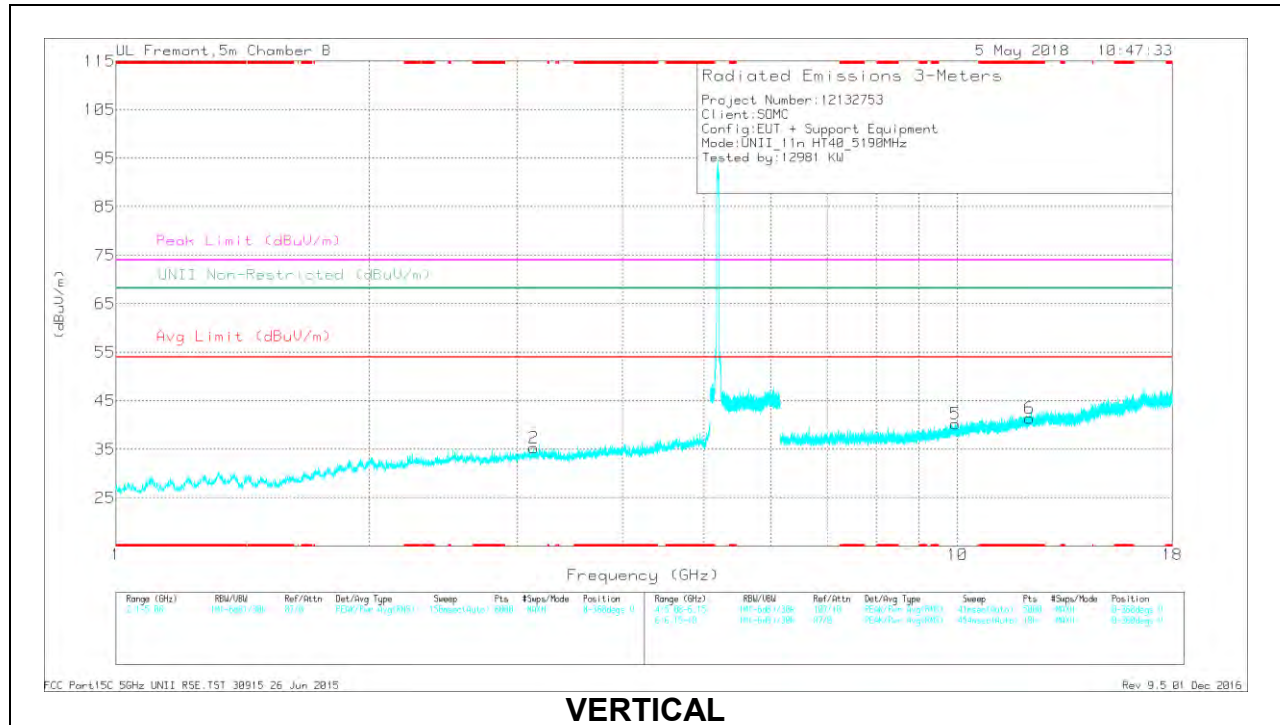
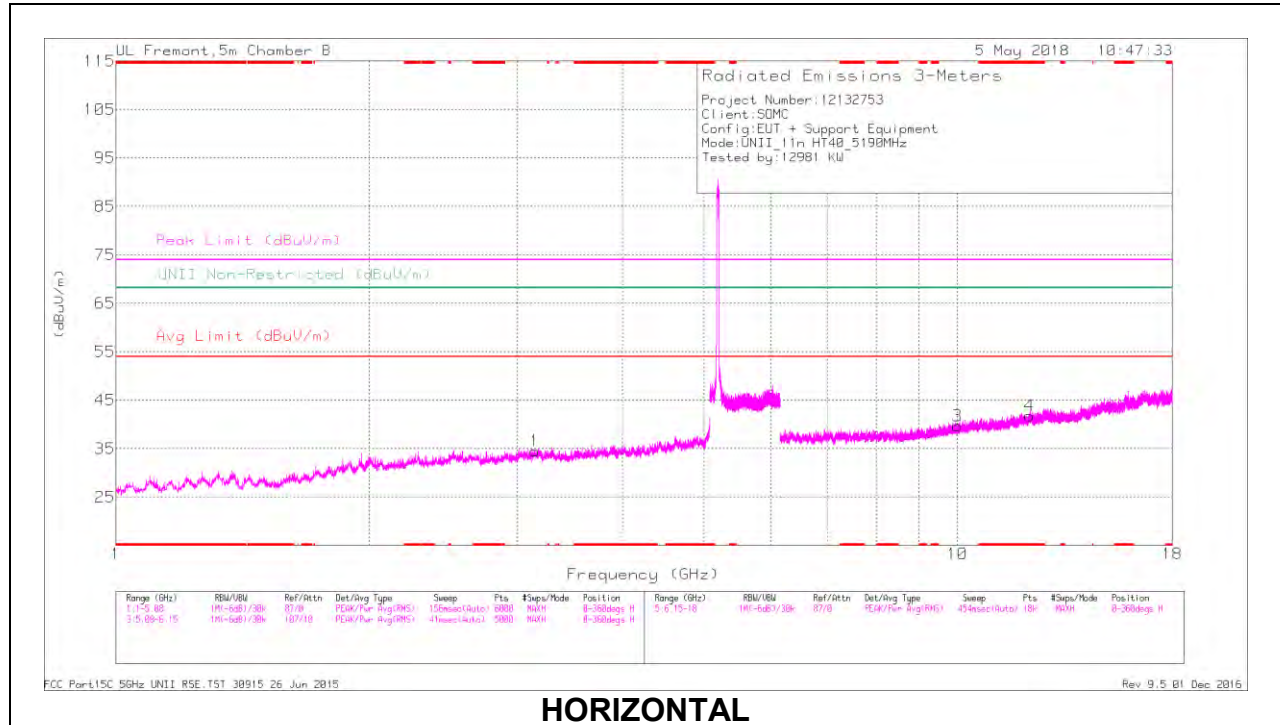
\* - indicates frequency in CFR47 Pt 15 Restricted Band

Pk - Peak detector

RMS - RMS detection

## HARMONICS AND SPURIOUS EMISSIONS

### LOW CHANNEL RESULTS



## RADIATED EMISSIONS

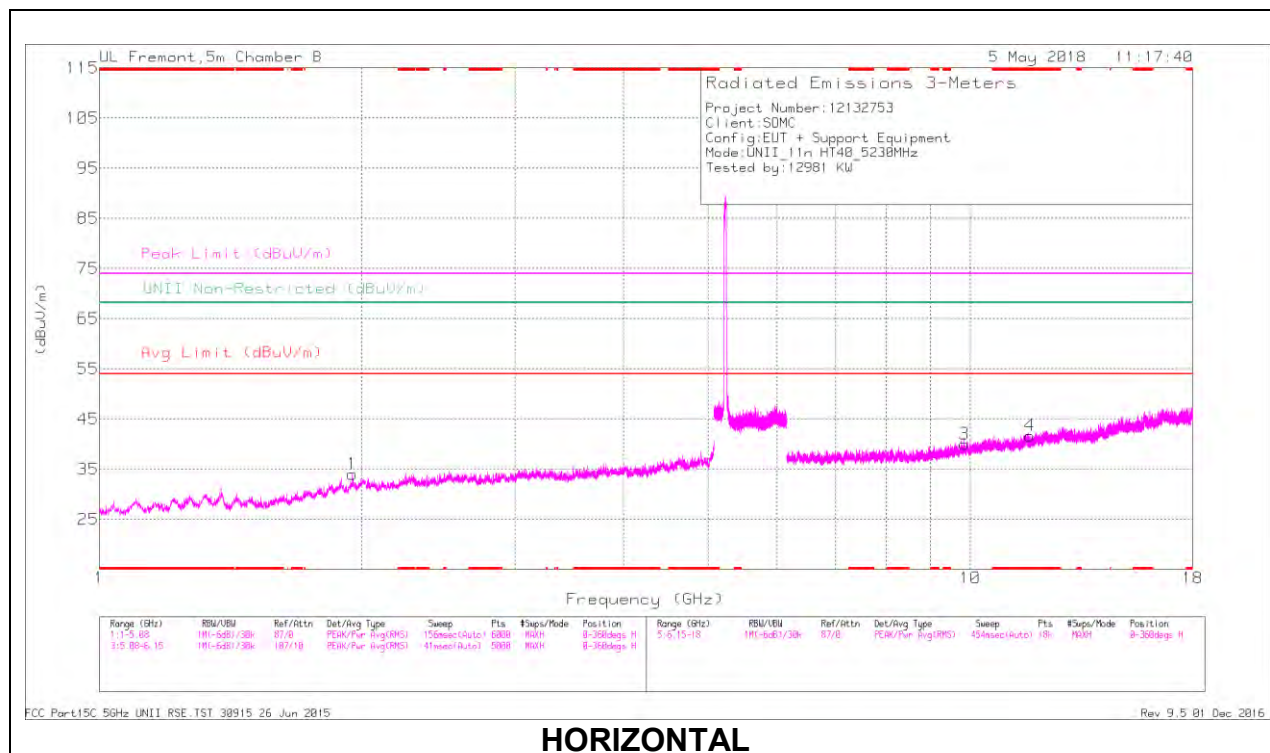
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF T120 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|----------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 4      | * 12.184        | 34.17                | PK-U | 39.1           | -24                    | 0            | 49.27                      | -                  | -           | 74                  | -24.73         | -                            | -              | 46             | 116         | H        |
|        | * 12.182        | 22.06                | ADR  | 39.1           | -24                    | .32          | 37.48                      | 54                 | -16.52      | -                   | -              | -                            | -              | 46             | 116         | H        |
| 6      | * 12.184        | 33.77                | PK-U | 39.1           | -24                    | 0            | 48.87                      | -                  | -           | 74                  | -25.13         | -                            | -              | 112            | 251         | V        |
|        | * 12.182        | 21.76                | ADR  | 39.1           | -24                    | .32          | 37.18                      | 54                 | -16.82      | -                   | -              | -                            | -              | 112            | 251         | V        |
| 2      | 3.138           | 40.82                | PK-U | 33             | -32.1                  | 0            | 41.72                      | -                  | -           | -                   | -              | 68.2                         | -26.48         | 96             | 116         | V        |
| 1      | 3.146           | 39.97                | PK-U | 33             | -32                    | 0            | 40.97                      | -                  | -           | -                   | -              | 68.2                         | -27.23         | 86             | 118         | H        |
| 5      | 9.943           | 35.21                | PK-U | 37.1           | -25.7                  | 0            | 46.61                      | -                  | -           | -                   | -              | 68.2                         | -21.59         | 311            | 153         | V        |
| 3      | 9.994           | 34.35                | PK-U | 37.1           | -25.9                  | 0            | 45.55                      | -                  | -           | -                   | -              | 68.2                         | -22.65         | 251            | 178         | H        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

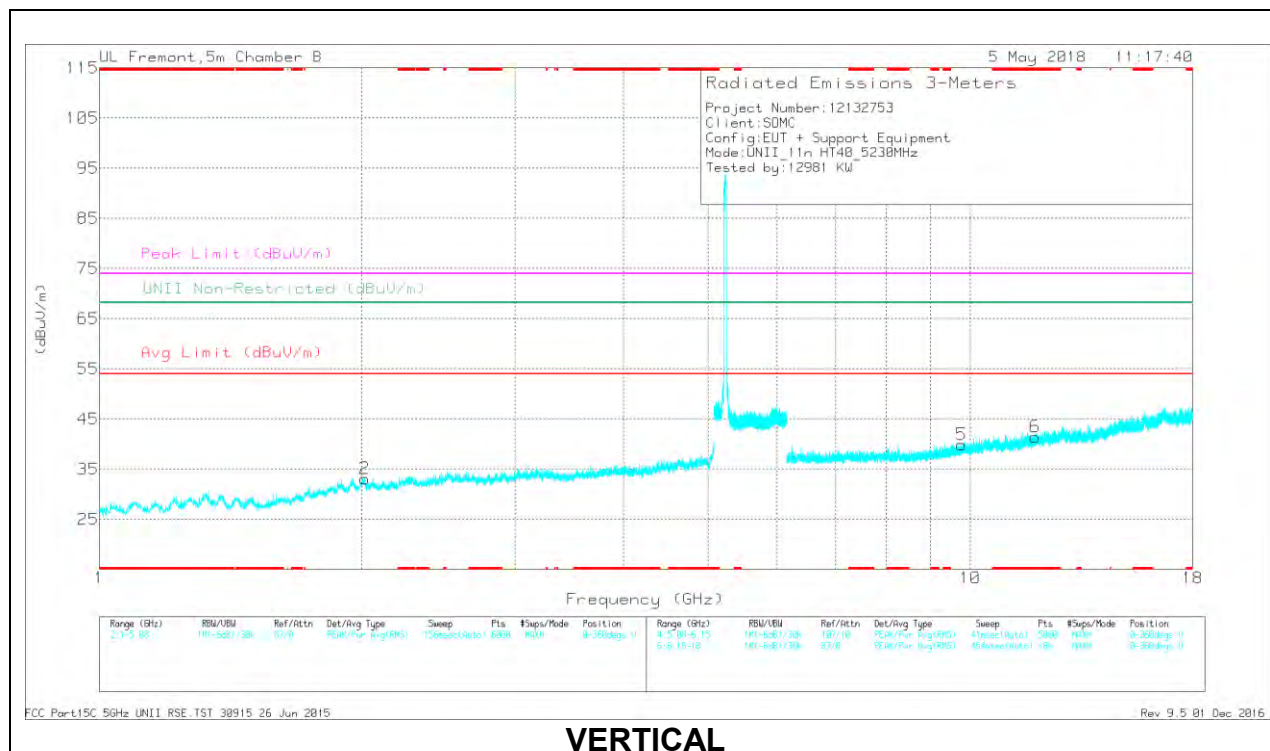
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

## HIGH CHANNEL RESULTS



## HORIZONTAL



## VERTICAL

## RADIATED EMISSIONS

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF T863 (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 |
|--------|-----------------|----------------------|------|----------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 4      | * 11.709        | 33.62                | PK-U | 38.4           | -24.5                  | 0            | 47.52                      | -                  | -           | 74                  | -26.48         | -                            | -              | 80             | 199         | H        |
|        | * 11.712        | 21.97                | ADR  | 38.4           | -24.6                  | .32          | 36.09                      | 54                 | -17.91      | -                   | -              | -                            | -              | 80             | 199         | H        |
| 6      | * 11.865        | 34.18                | PK-U | 38.6           | -24.1                  | 0            | 48.68                      | -                  | -           | 74                  | -25.32         | -                            | -              | 119            | 189         | V        |
|        | * 11.865        | 21.77                | ADR  | 38.6           | -24.1                  | .32          | 36.59                      | 54                 | -17.41      | -                   | -              | -                            | -              | 119            | 189         | V        |
| 1      | 1.952           | 41.65                | PK-U | 31.1           | -32.8                  | 0            | 39.95                      | -                  | -           | -                   | -              | 68.2                         | -28.25         | 69             | 177         | H        |
| 2      | 2.019           | 40.96                | PK-U | 31.3           | -32.6                  | 0            | 39.66                      | -                  | -           | -                   | -              | 68.2                         | -28.54         | 88             | 116         | V        |
| 5      | 9.77            | 34.27                | PK-U | 36.9           | -25.3                  | 0            | 45.87                      | -                  | -           | -                   | -              | 68.2                         | -22.33         | 161            | 114         | V        |
| 3      | 9.839           | 33.96                | PK-U | 37             | -24.6                  | 0            | 46.36                      | -                  | -           | -                   | -              | 68.2                         | -21.84         | 231            | 128         | H        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

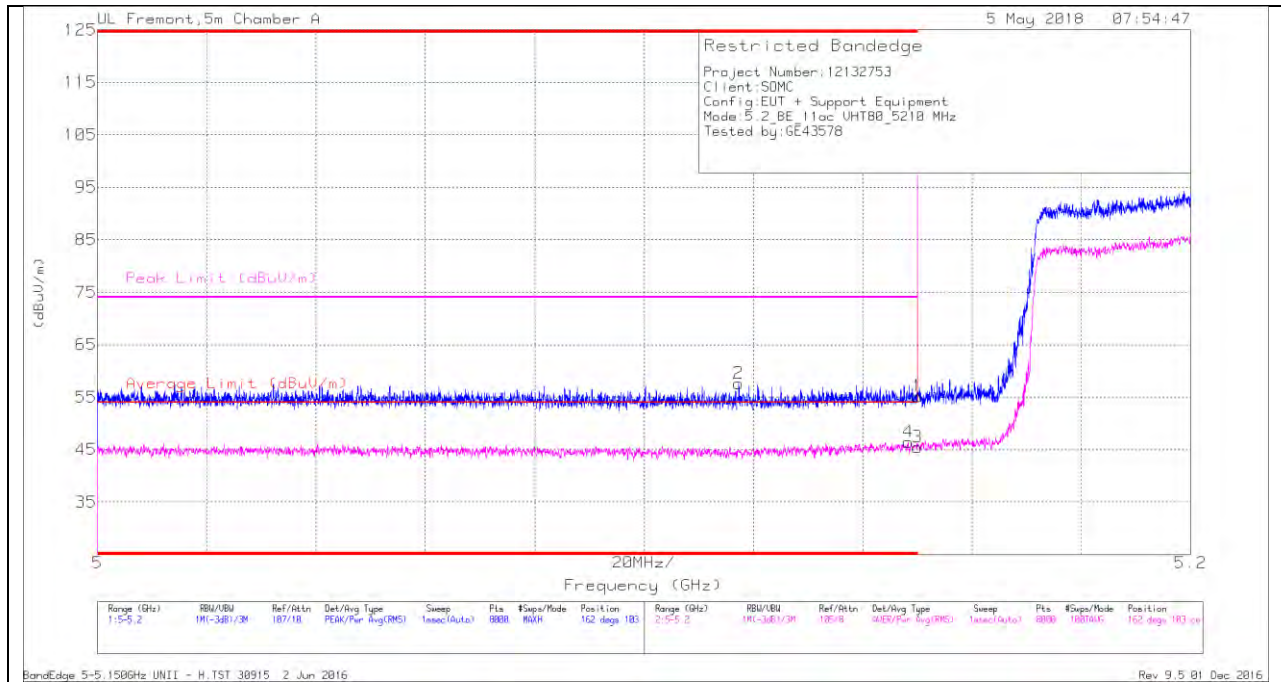
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

# 10.1.4. TX ABOVE 1 GHz 802.11ac VHT80 MODE IN THE 5.2 GHz BAND

## BANDEDGE (MID CHANNEL)

### HORIZONTAL RESULT



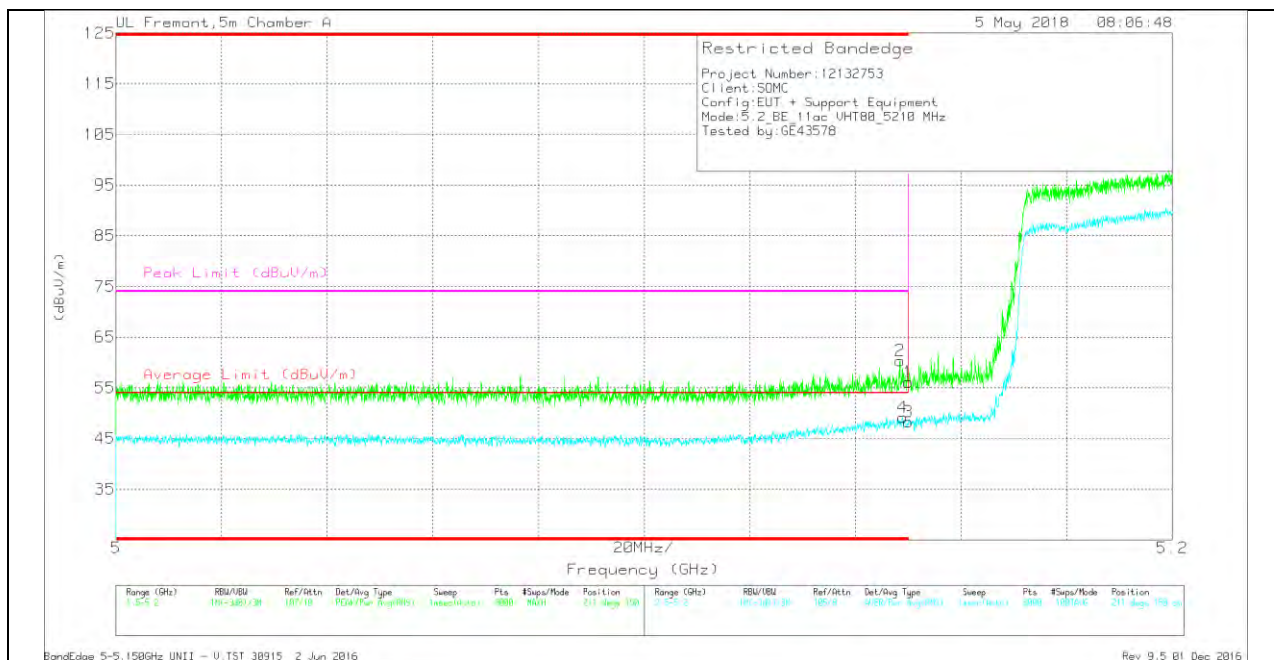
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T862 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 2      | * 5.117         | 41.2                 | Pk  | 34.4           | -18                    | 0            | 57.6                       | -                      | -           | 74                  | -16.4          | 162            | 103         | H        |
| 4      | * 5.148         | 29.49                | RMS | 34.4           | -18.1                  | .62          | 46.41                      | 54                     | -7.59       | -                   | -              | 162            | 103         | H        |
| 1      | * 5.15          | 38.88                | Pk  | 34.4           | -18.1                  | 0            | 55.18                      | -                      | -           | 74                  | -18.82         | 162            | 103         | H        |
| 3      | * 5.15          | 28.48                | RMS | 34.4           | -18.1                  | .62          | 45.4                       | 54                     | -8.6        | -                   | -              | 162            | 103         | H        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

Pk - Peak detector

RMS - RMS detection

## VERTICAL RESULT



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T862 (dB/m) | Amp/Cbl/Filtr/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      | * 5.148         | 44.09                | Pk  | 34.4           | -18.1                  | 0            | 60.39                      | -                      | -           | 74                  | -13.61         | 211            | 150         | V        |
| 4      | * 5.149         | 32.29                | RMS | 34.4           | -18.1                  | .62          | 49.21                      | 54                     | -4.79       | -                   | -              | 211            | 150         | V        |
| 1      | * 5.15          | 39.79                | Pk  | 34.4           | -18.1                  | 0            | 56.09                      | -                      | -           | 74                  | -17.91         | 211            | 150         | V        |
| 3      | * 5.15          | 31.37                | RMS | 34.4           | -18.1                  | .62          | 48.29                      | 54                     | -5.71       | -                   | -              | 211            | 150         | V        |

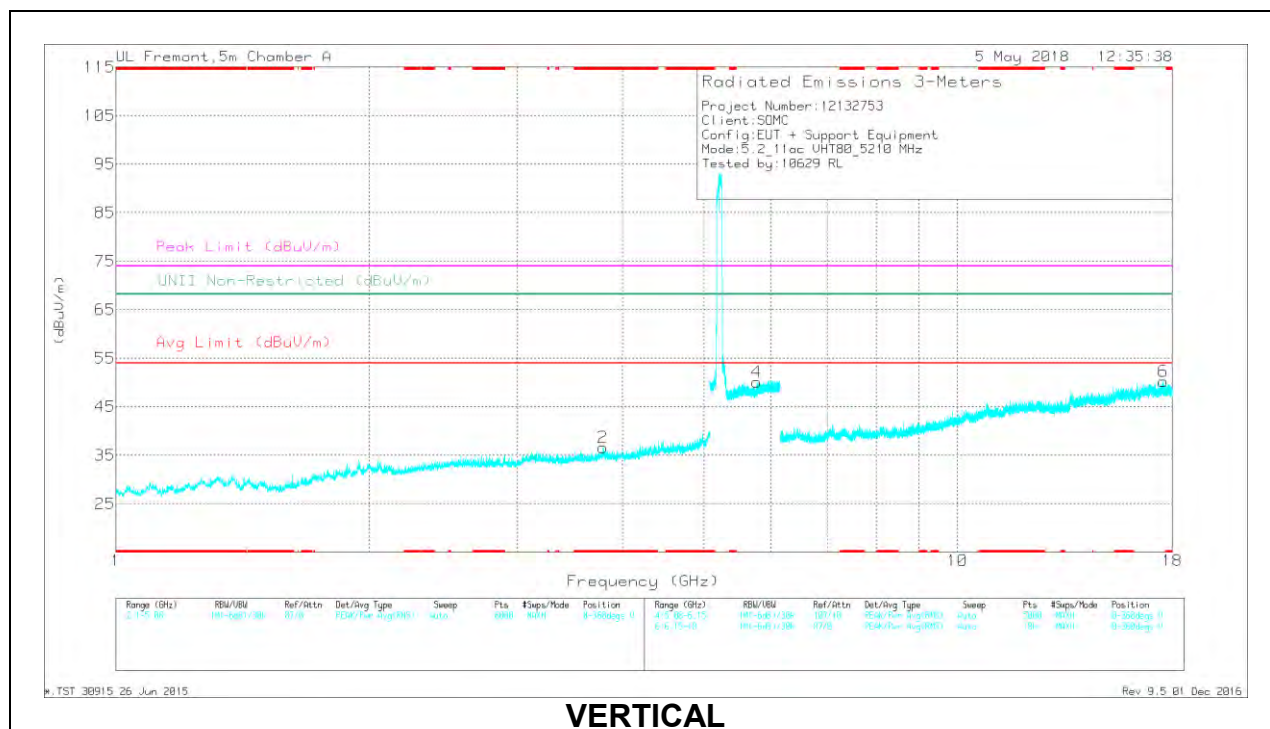
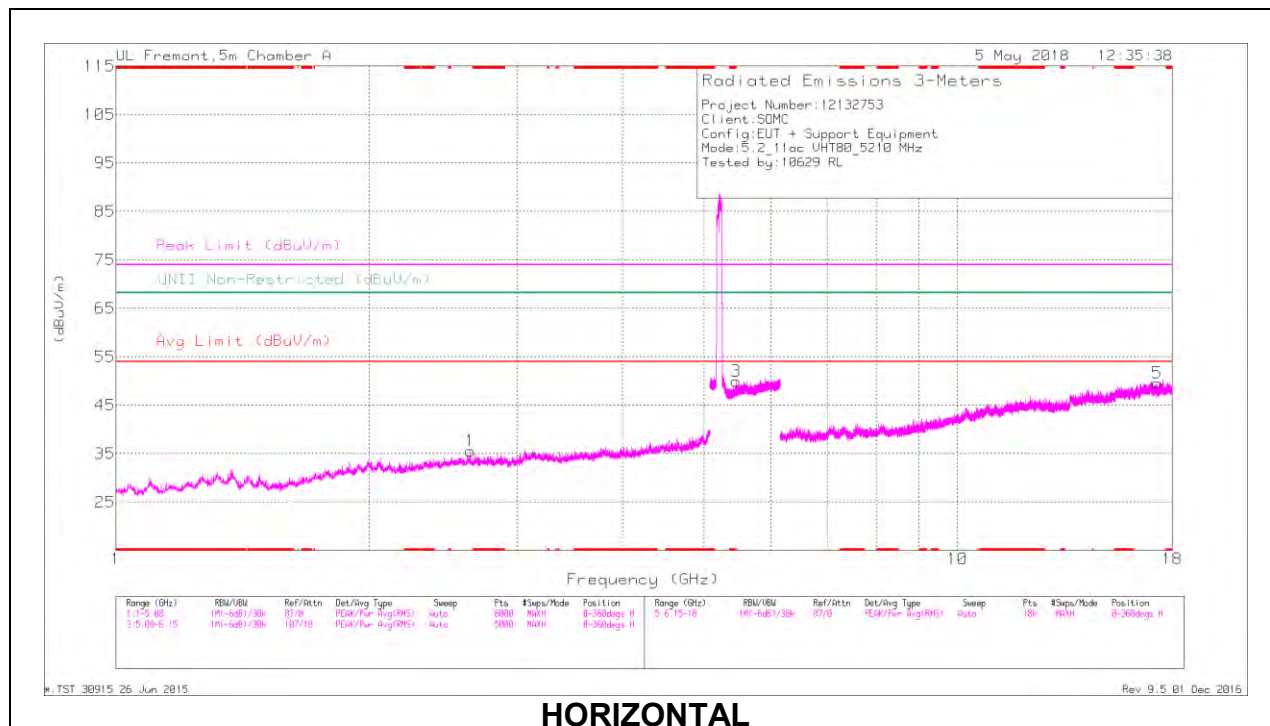
\* - indicates frequency in CFR47 Pt 15 Restricted Band

Pk - Peak detector

RMS - RMS detection

# HARMONICS AND SPURIOUS EMISSIONS

## MID CHANNEL RESULTS



## RADIATED EMISSIONS

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF T862 (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 |
|--------|-----------------|----------------------|------|----------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 2      | * 3.79          | 37.38                | PK-U | 33.2           | -28.2                  | 0            | 42.38                      | -                  | -           | 74                  | -31.62         | -                            | -              | 61             | 170         | V        |
|        | * 3.794         | 26.44                | ADR  | 33.2           | -28.2                  | .62          | 32.06                      | 54                 | -21.94      | -                   | -              | -                            | -              | 61             | 170         | V        |
| 3      | * 5.452         | 38.11                | PK-U | 34.7           | -18.4                  | 0            | 54.41                      | -                  | -           | 74                  | -19.59         | -                            | -              | 279            | 203         | H        |
|        | * 5.448         | 27.43                | ADR  | 34.7           | -18.4                  | .62          | 44.35                      | 54                 | -9.65       | -                   | -              | -                            | -              | 279            | 203         | H        |
| 1      | 2.637           | 33.48                | Pk   | 32.5           | -30.4                  | 0            | 35.58                      | -                  | -           | -                   | -              | 68.2                         | -32.62         | 0-360          | 101         | H        |
| 4      | 5.776           | 33.36                | Pk   | 35             | -18.2                  | 0            | 50.16                      | -                  | -           | -                   | -              | 68.2                         | -18.04         | 0-360          | 200         | V        |
| 5      | 17.275          | 27.76                | Pk   | 41.2           | -19.4                  | 0            | 49.56                      | -                  | -           | -                   | -              | 68.2                         | -18.64         | 0-360          | 101         | H        |
| 6      | 17.559          | 27.26                | Pk   | 41.2           | -18.2                  | 0            | 50.26                      | -                  | -           | -                   | -              | 68.2                         | -17.94         | 0-360          | 101         | V        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

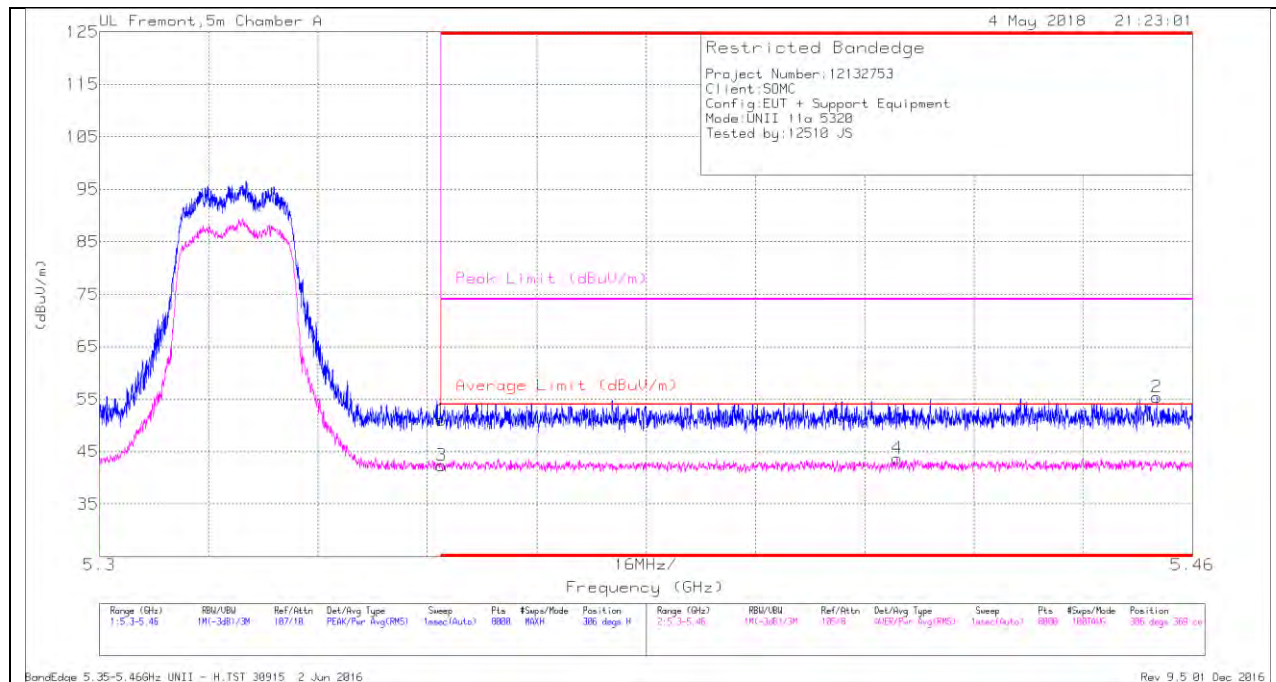
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

## 10.1.5. TX ABOVE 1 GHz 802.11a MODE IN THE 5.3 GHz BAND

### BANDEDGE (HIGH CHANNEL)

#### HORIZONTAL RESULT



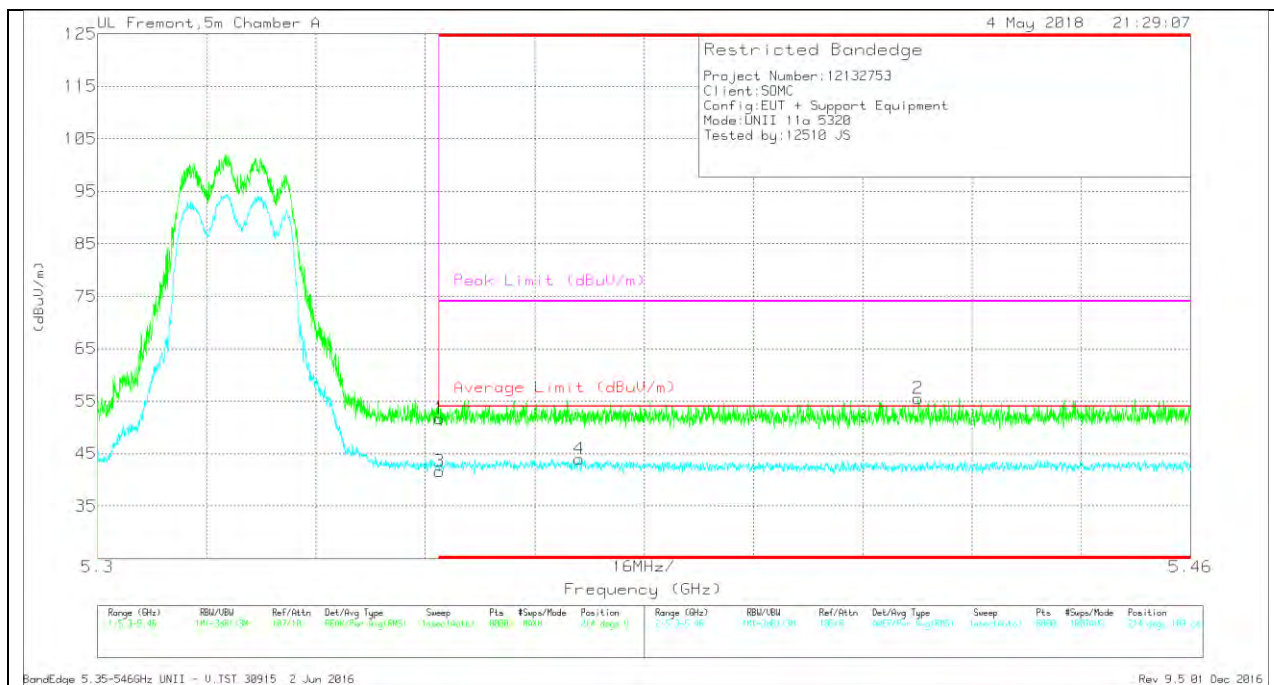
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T862 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 5.35          | 34.62                | Pk  | 34.6           | -18.2                  | 0            | 51.02                      | -                      | -           | 74                  | -22.98         | 306            | 369         | H        |
| 3      | * 5.35          | 25.91                | RMS | 34.6           | -18.2                  | 0            | 42.31                      | 54                     | -11.69      | -                   | -              | 306            | 369         | H        |
| 4      | * 5.417         | 27.42                | RMS | 34.7           | -18.4                  | 0            | 43.72                      | 54                     | -10.28      | -                   | -              | 306            | 369         | H        |
| 2      | * 5.455         | 39.11                | Pk  | 34.7           | -18.4                  | 0            | 55.41                      | -                      | -           | 74                  | -18.59         | 306            | 369         | H        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

Pk - Peak detector

RMS - RMS detection

## VERTICAL RESULT



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T862 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 5.35          | 35.25                | Pk  | 34.6           | -18.2                  | 0            | 51.65                      | -                      | -           | 74                  | -22.35         | 214            | 109         | V        |
| 3      | * 5.35          | 25.24                | RMS | 34.6           | -18.2                  | 0            | 41.64                      | 54                     | -12.36      | -                   | -              | 214            | 109         | V        |
| 4      | * 5.371         | 27.6                 | RMS | 34.6           | -18.2                  | 0            | 44                         | 54                     | -10         | -                   | -              | 214            | 109         | V        |
| 2      | * 5.42          | 39.2                 | Pk  | 34.7           | -18.4                  | 0            | 55.5                       | -                      | -           | 74                  | -18.5          | 214            | 109         | V        |

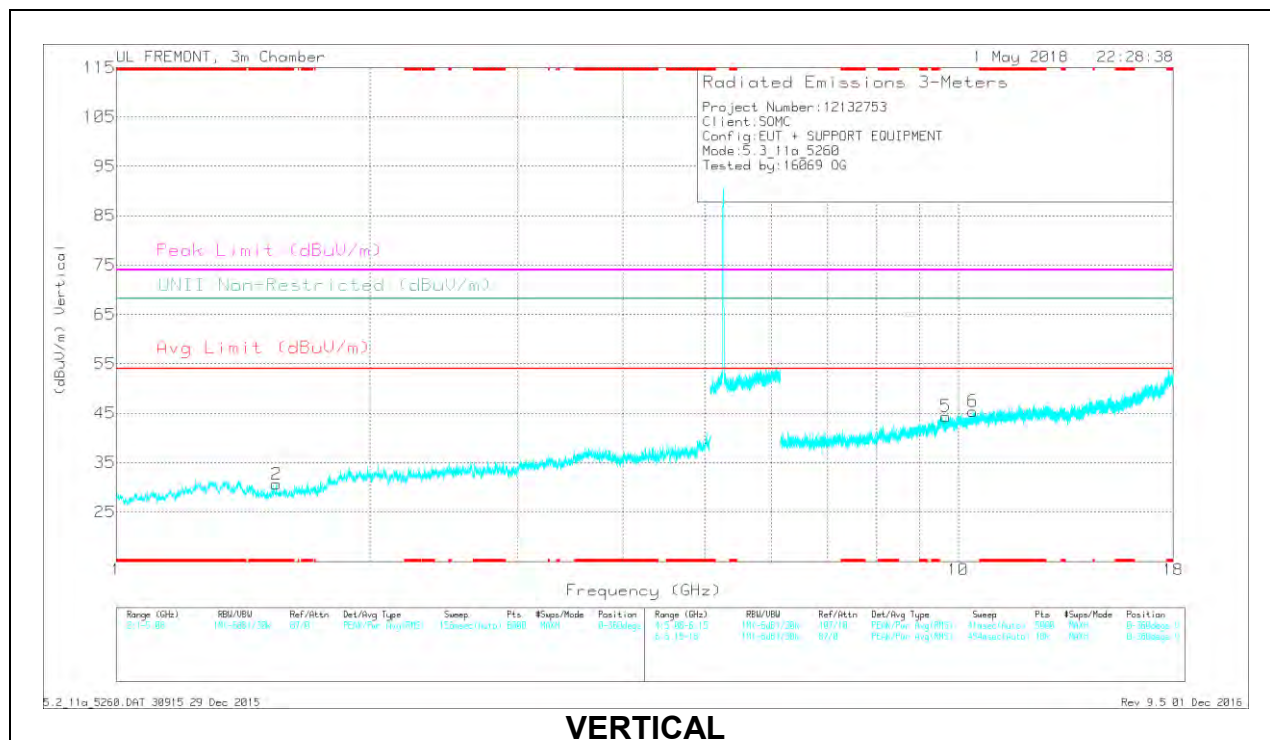
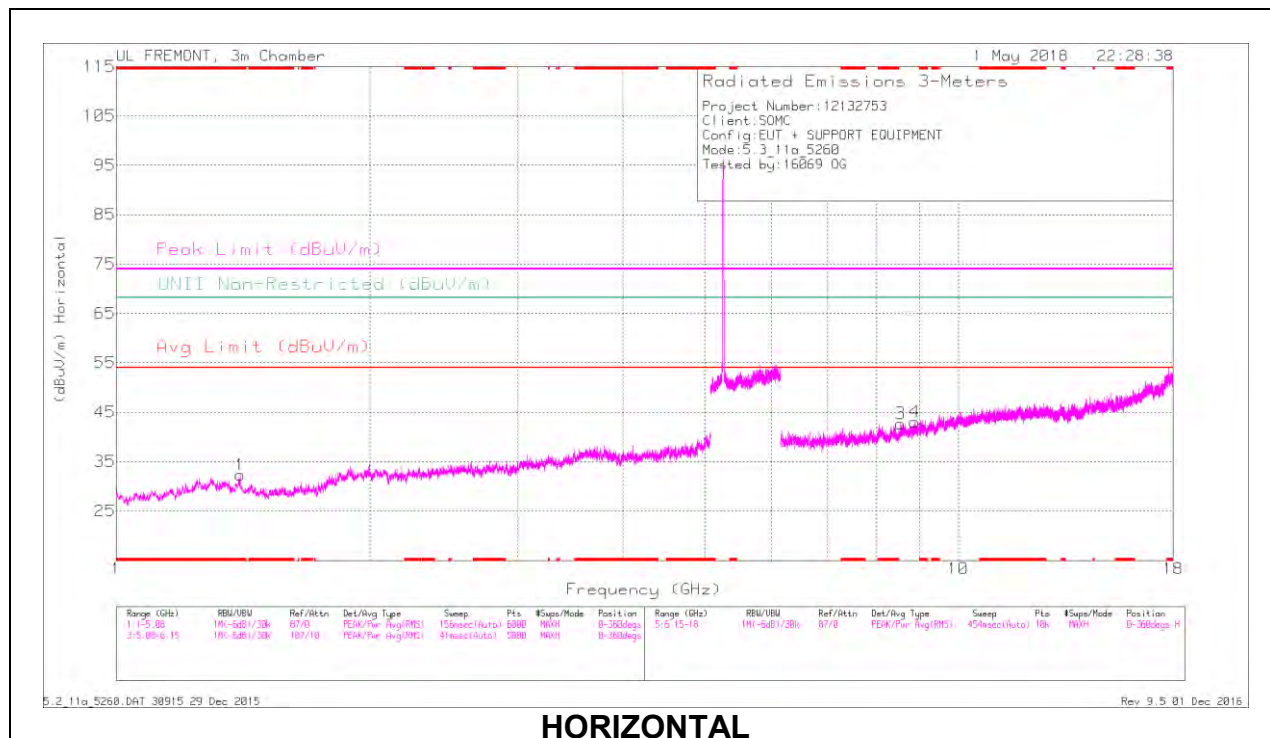
\* - indicates frequency in CFR47 Pt 15 Restricted Band

Pk - Peak detector

RMS - RMS detection

# HARMONICS AND SPURIOUS EMISSIONS

## LOW CHANNEL RESULTS



## RADIATED EMISSIONS

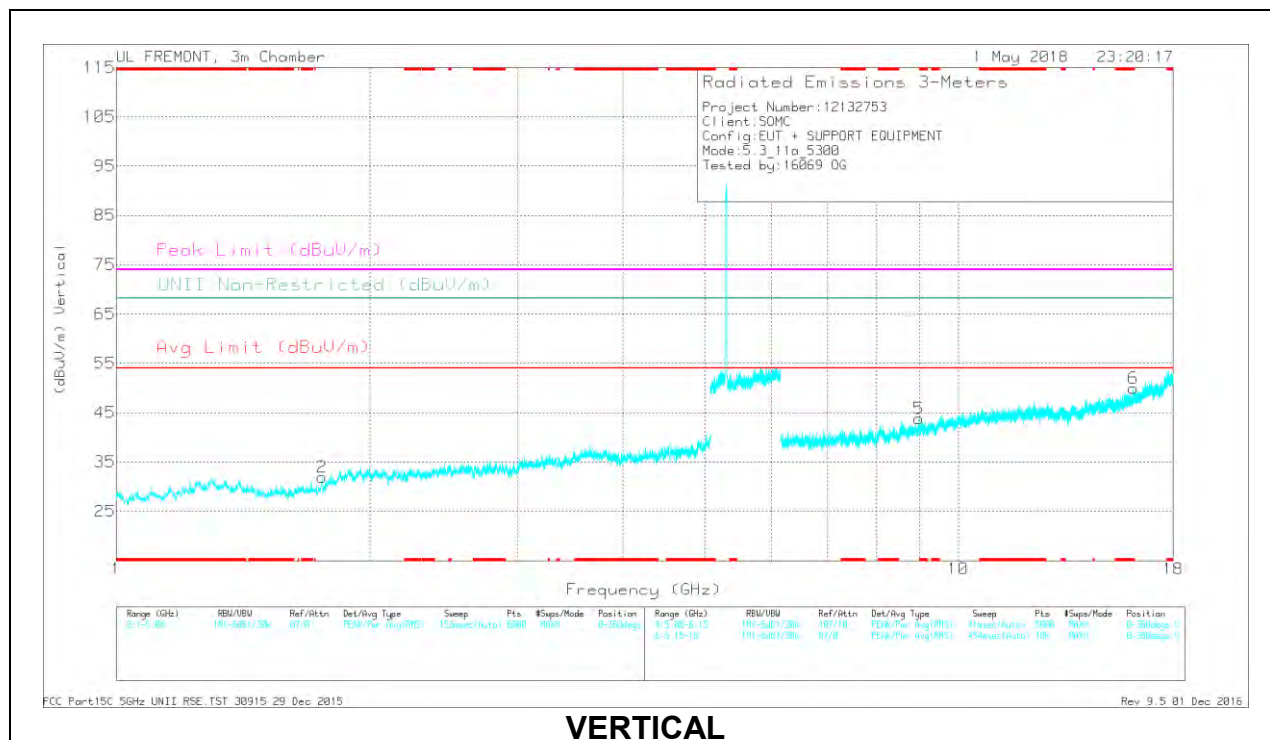
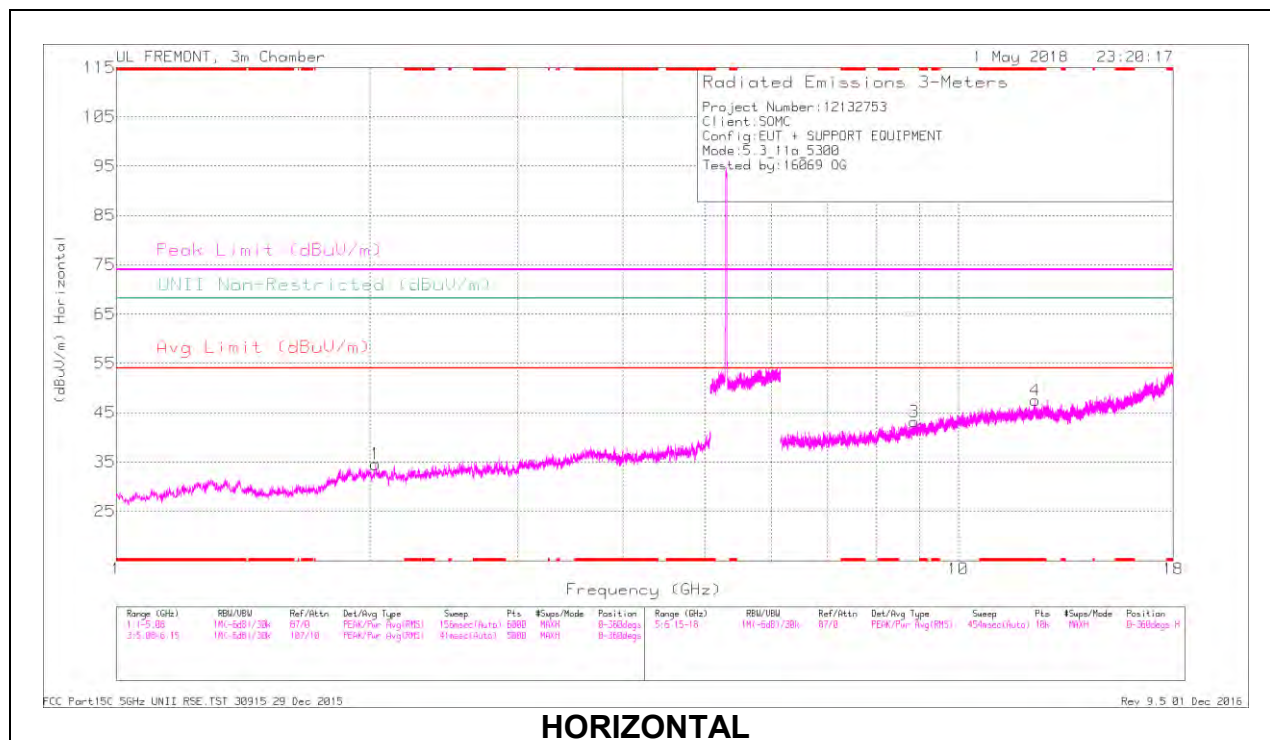
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF T120 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|----------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 1      | * 1.402         | 39.53                | PK-U | 29.3           | -31                    | 0            | 37.83                      | -                  | -           | 74                  | -36.17         | -                            | -              | 280            | 353         | H        |
|        | * 1.401         | 27.72                | ADR  | 29.3           | -30.9                  | 0            | 26.12                      | 54                 | -27.88      | -                   | -              | -                            | -              | 280            | 353         | H        |
| 2      | * 1.551         | 39.77                | PK-U | 28             | -30.8                  | 0            | 36.97                      | -                  | -           | 74                  | -37.03         | -                            | -              | 193            | 263         | V        |
|        | * 1.551         | 27.34                | ADR  | 28             | -30.8                  | 0            | 24.54                      | 54                 | -29.46      | -                   | -              | -                            | -              | 193            | 263         | V        |
| 3      | 8.541           | 34.58                | PK-U | 35.8           | -21.9                  | 0            | 48.48                      | -                  | -           | -                   | -              | 68.2                         | -19.72         | 187            | 293         | H        |
| 4      | 8.878           | 34.91                | PK-U | 36.1           | -22                    | 0            | 49.01                      | -                  | -           | -                   | -              | 68.2                         | -19.19         | 132            | 342         | H        |
| 5      | 9.663           | 34.38                | PK-U | 36.9           | -21.6                  | 0            | 49.68                      | -                  | -           | -                   | -              | 68.2                         | -18.52         | 16             | 373         | V        |
| 6      | 10.409          | 34.76                | PK-U | 37.6           | -21.4                  | 0            | 50.96                      | -                  | -           | -                   | -              | 68.2                         | -17.24         | 317            | 118         | V        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

## MID CHANNEL RESULTS



## RADIATED EMISSIONS

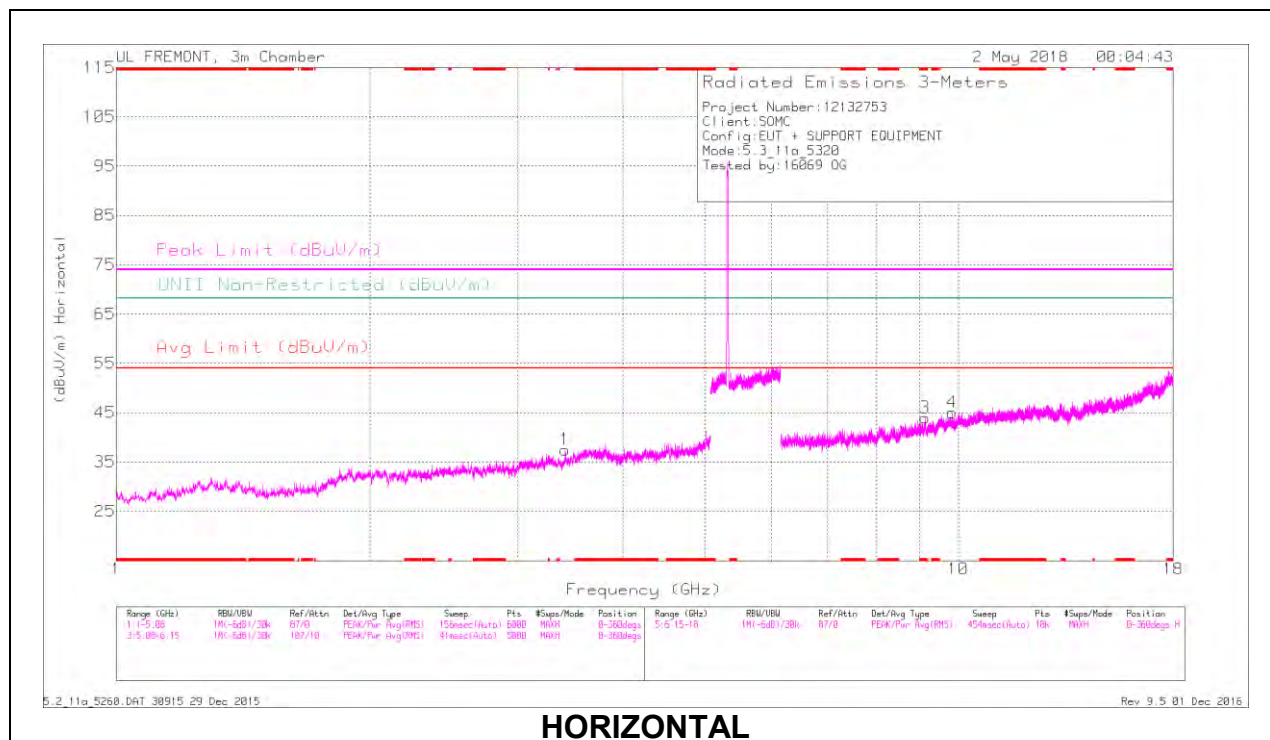
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF T120 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|----------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 4      | * 12.345        | 34.31                | PK-U | 39.1           | -21.3                  | 0            | 52.11                      | -                  | -           | 74                  | -21.89         | -                            | -              | 101            | 288         | H        |
|        | * 12.345        | 22.93                | ADR  | 39.1           | -21.3                  | 0            | 40.73                      | 54                 | -13.27      | -                   | -              | -                            | -              | 101            | 288         | H        |
| 6      | * 16.156        | 34.01                | PK-U | 40.6           | -19.4                  | 0            | 55.21                      | -                  | -           | 74                  | -18.79         | -                            | -              | 235            | 131         | V        |
|        | * 16.154        | 22.61                | ADR  | 40.6           | -19.3                  | 0            | 43.91                      | 54                 | -10.09      | -                   | -              | -                            | -              | 235            | 131         | V        |
| 2      | 1.754           | 38.94                | PK-U | 29.5           | -31                    | 0            | 37.44                      | -                  | -           | -                   | -              | 68.2                         | -30.76         | 0              | 184         | V        |
| 1      | 2.032           | 39.38                | PK-U | 31.9           | -30.7                  | 0            | 40.58                      | -                  | -           | -                   | -              | 68.2                         | -27.62         | 270            | 135         | H        |
| 3      | 8.869           | 34.93                | PK-U | 36.1           | -22.2                  | 0            | 48.83                      | -                  | -           | -                   | -              | 68.2                         | -19.37         | 140            | 200         | H        |
| 5      | 8.976           | 35.58                | PK-U | 36.1           | -21.9                  | 0            | 49.78                      | -                  | -           | -                   | -              | 68.2                         | -18.42         | 237            | 329         | V        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

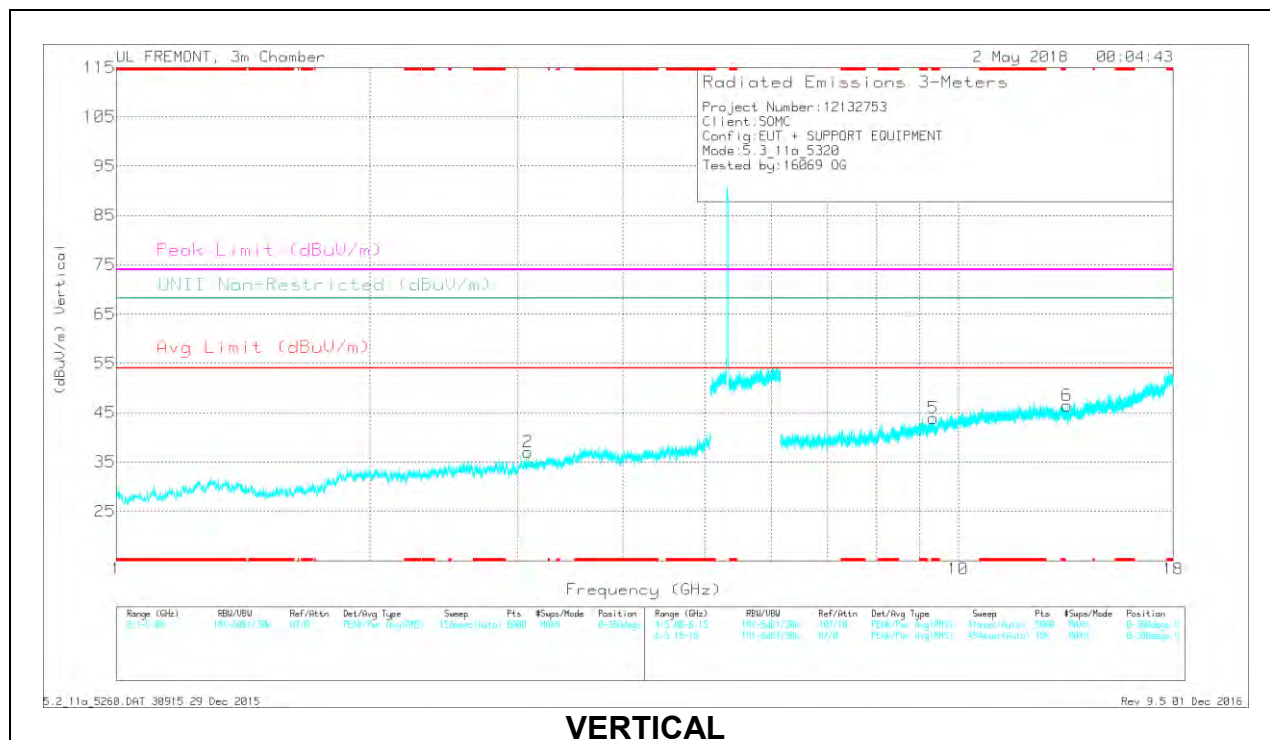
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

## HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

## RADIATED EMISSIONS

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF T120 (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 |
|--------|-----------------|----------------------|------|----------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 3      | * 9.138         | 34.06                | PK-U | 36.2           | -21                    | 0            | 49.26                      | -                  | -           | 74                  | -24.74         | -                            | -              | 253            | 118         | H        |
|        | * 9.138         | 22.68                | ADR  | 36.2           | -21                    | 0            | 37.88                      | 54                 | -16.12      | -                   | -              | -                            | -              | 253            | 118         | H        |
| 5      | * 9.343         | 34.29                | PK-U | 36.5           | -20.9                  | 0            | 49.89                      | -                  | -           | 74                  | -24.11         | -                            | -              | 155            | 271         | V        |
|        | * 9.342         | 22.26                | ADR  | 36.5           | -20.9                  | 0            | 37.86                      | 54                 | -16.14      | -                   | -              | -                            | -              | 155            | 271         | V        |
| 2      | 3.084           | 38.65                | PK-U | 33.2           | -29.6                  | 0            | 42.25                      | -                  | -           | -                   | -              | 68.2                         | -25.95         | 262            | 231         | V        |
| 1      | 3.411           | 38.48                | PK-U | 33.7           | -29                    | 0            | 43.18                      | -                  | -           | -                   | -              | 68.2                         | -25.02         | 311            | 309         | H        |
| 4      | 9.839           | 34.1                 | PK-U | 37.2           | -20.6                  | 0            | 50.7                       | -                  | -           | -                   | -              | 68.2                         | -17.5          | 240            | 280         | H        |
| 6      | 13.465          | 35.03                | PK-U | 38.8           | -22.3                  | 0            | 51.53                      | -                  | -           | -                   | -              | 68.2                         | -16.67         | 253            | 128         | V        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

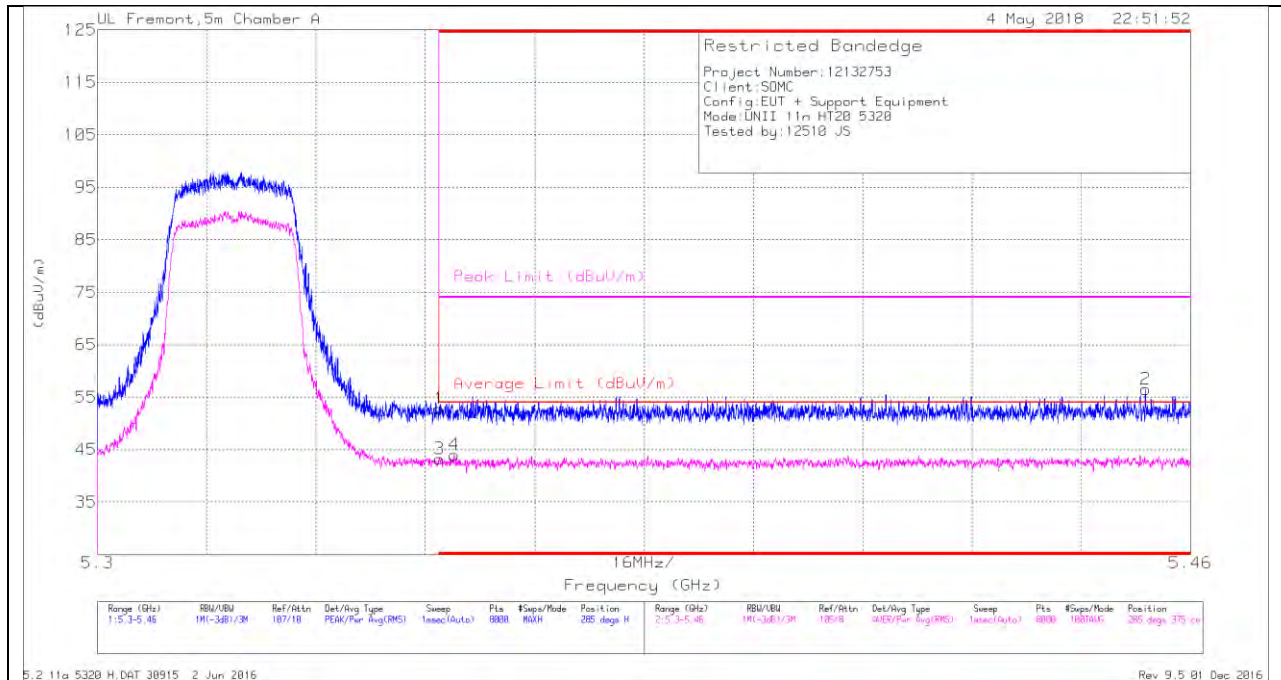
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

## 10.1.6. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.3 GHz BAND

### BANDEDGE (HIGH CHANNEL)

#### HORIZONTAL RESULT



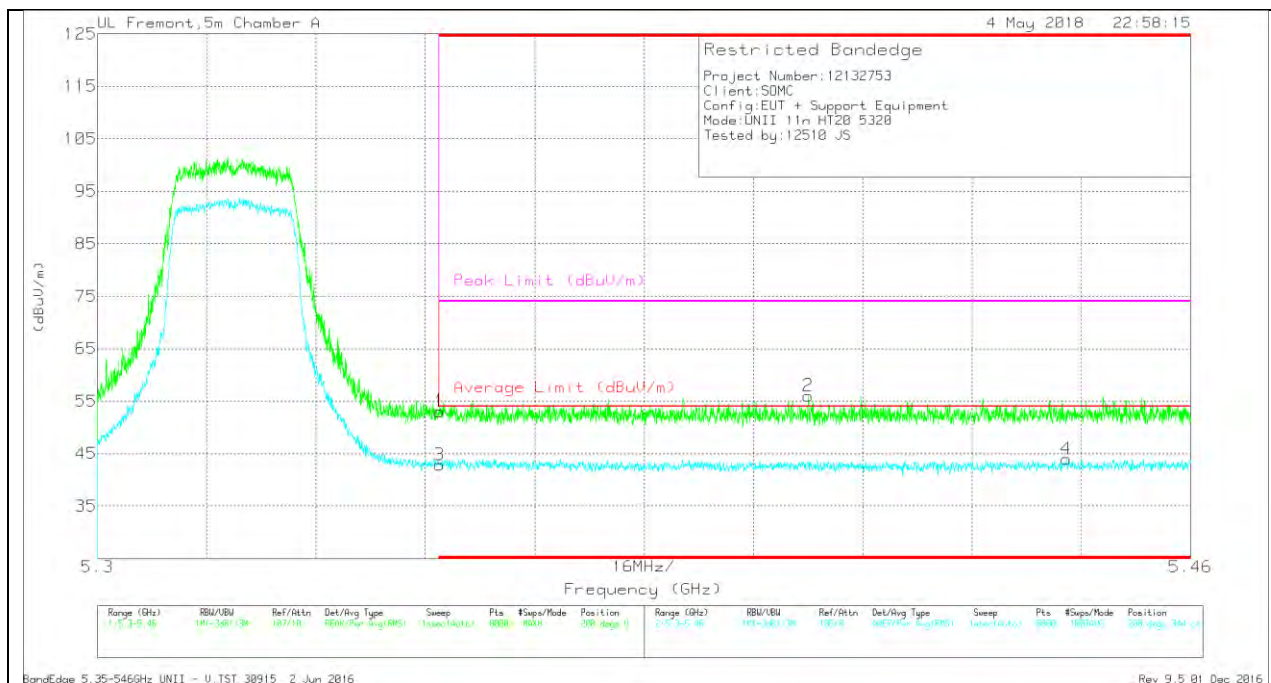
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T862 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 5.35          | 36.41                | Pk  | 34.6           | -18.2                  | 0            | 52.81                      | -                      | -           | 74                  | -21.19         | 285            | 375         | H        |
| 3      | * 5.35          | 26.76                | RMS | 34.6           | -18.2                  | .1           | 43.26                      | 54                     | -10.74      | -                   | -              | 285            | 375         | H        |
| 4      | * 5.352         | 27.41                | RMS | 34.6           | -18.2                  | .1           | 43.91                      | 54                     | -10.09      | -                   | -              | 285            | 375         | H        |
| 2      | * 5.453         | 40.15                | Pk  | 34.7           | -18.4                  | 0            | 56.45                      | -                      | -           | 74                  | -17.55         | 285            | 375         | H        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

Pk - Peak detector

RMS - RMS detection

## VERTICAL RESULT



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T862 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 5.35          | 36.68                | Pk  | 34.6           | -18.2                  | 0            | 53.08                      | -                      | -           | 74                  | -20.92         | 208            | 344         | V        |
| 3      | * 5.35          | 26.29                | RMS | 34.6           | -18.2                  | .1           | 42.79                      | 54                     | -11.21      | -                   | -              | 208            | 344         | V        |
| 2      | * 5.404         | 39.76                | Pk  | 34.6           | -18.3                  | 0            | 56.06                      | -                      | -           | 74                  | -17.94         | 208            | 344         | V        |
| 4      | * 5.442         | 27.61                | RMS | 34.7           | -18.4                  | .1           | 44.01                      | 54                     | -9.99       | -                   | -              | 208            | 344         | V        |

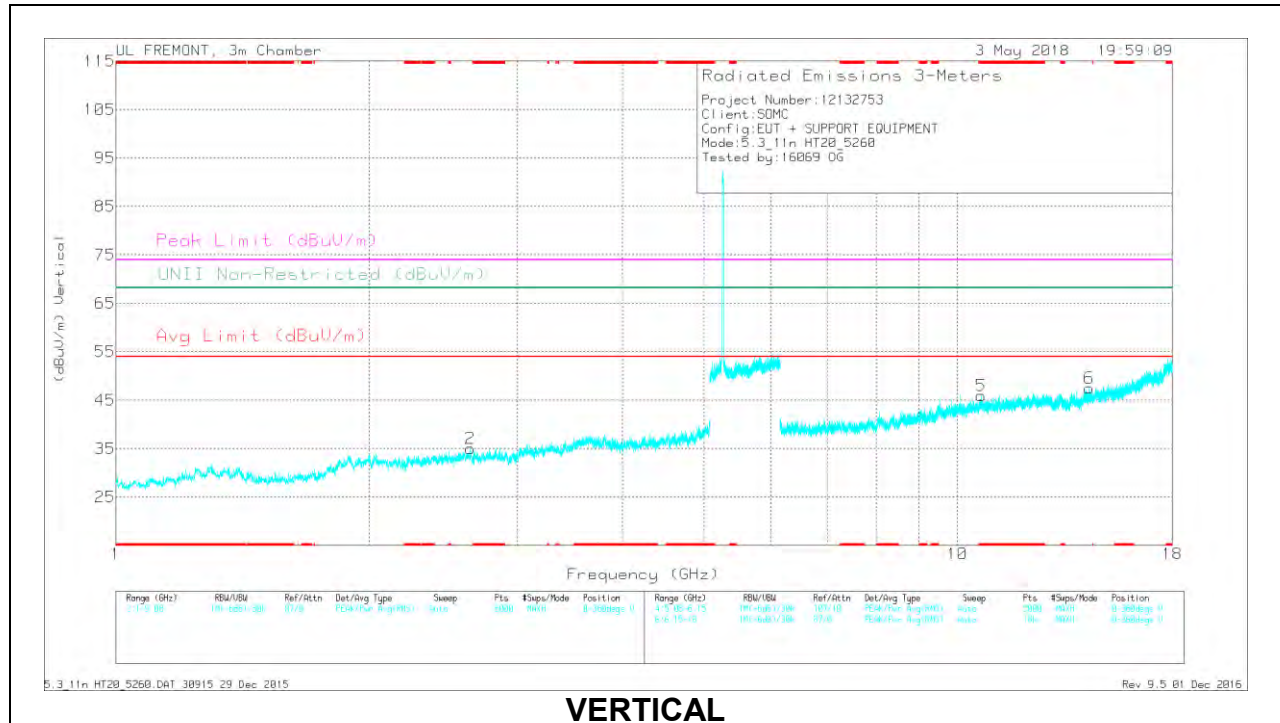
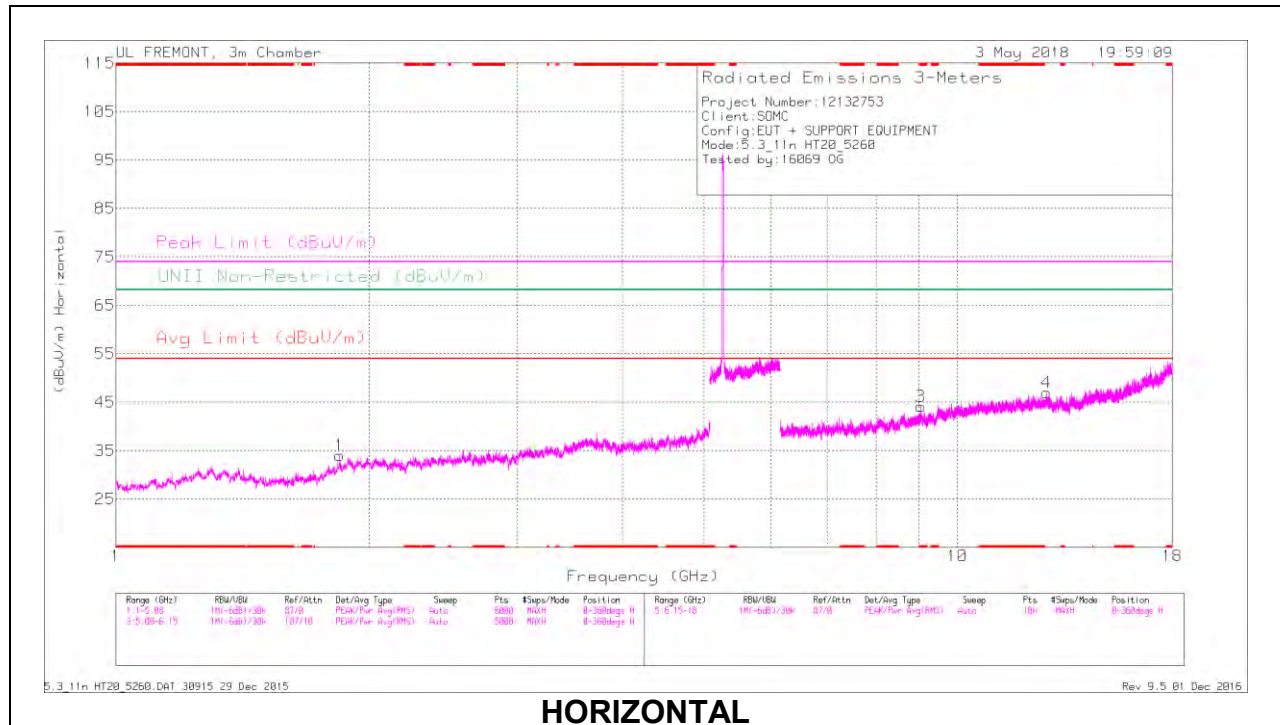
\* - indicates frequency in CFR47 Pt 15 Restricted Band

Pk - Peak detector

RMS - RMS detection

## HARMONICS AND SPURIOUS EMISSIONS

### LOW CHANNEL RESULTS



## RADIATED EMISSIONS

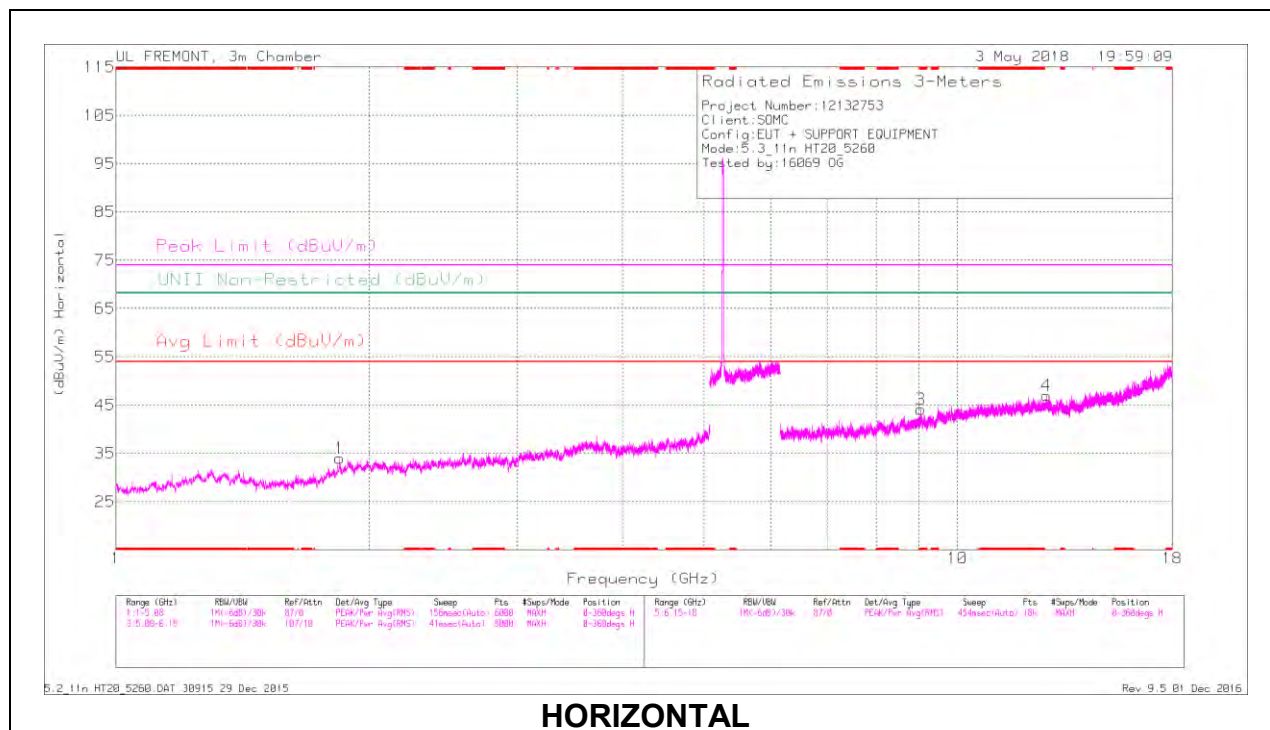
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF T120 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|----------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 3      | * 9.046         | 34.13                | PK-U | 36.1           | -20.9                  | 0            | 49.33                      | -                  | -           | 74                  | -24.67         | -                            | -              | 99             | 229         | H        |
|        | * 9.048         | 22.26                | ADR  | 36.1           | -20.8                  | .1           | 37.66                      | 54                 | -16.34      | -                   | -              | -                            | -              | 99             | 229         | H        |
| 5      | * 10.663        | 34.95                | PK-U | 37.8           | -20.4                  | 0            | 52.35                      | -                  | -           | 74                  | -21.65         | -                            | -              | 279            | 134         | V        |
|        | * 10.663        | 22.97                | ADR  | 37.8           | -20.4                  | .1           | 40.47                      | 54                 | -13.53      | -                   | -              | -                            | -              | 279            | 134         | V        |
| 1      | 1.844           | 39.37                | PK-U | 30.9           | -30.3                  | 0            | 39.97                      | -                  | -           | -                   | -              | 68.2                         | -28.23         | 7              | 219         | H        |
| 2      | 2.638           | 37.54                | PK-U | 32.6           | -28                    | 0            | 42.14                      | -                  | -           | -                   | -              | 68.2                         | -26.06         | 359            | 340         | V        |
| 4      | 12.76           | 34.1                 | PK-U | 39.2           | -21                    | 0            | 52.3                       | -                  | -           | -                   | -              | 68.2                         | -15.9          | 241            | 198         | H        |
| 6      | 14.333          | 36.65                | PK-U | 39.5           | -21.7                  | 0            | 54.45                      | -                  | -           | -                   | -              | 68.2                         | -13.75         | 356            | 217         | V        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

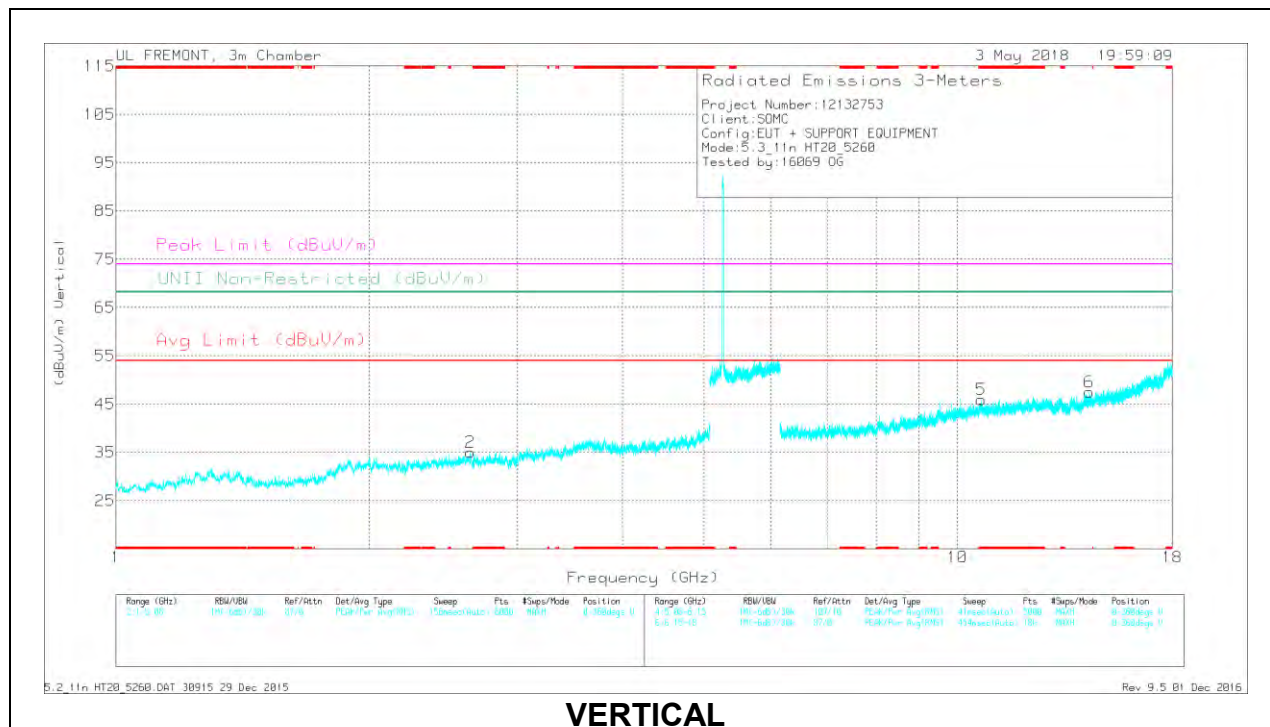
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

## MID CHANNEL RESULTS



### HORIZONTAL



### VERTICAL

## RADIATED EMISSIONS

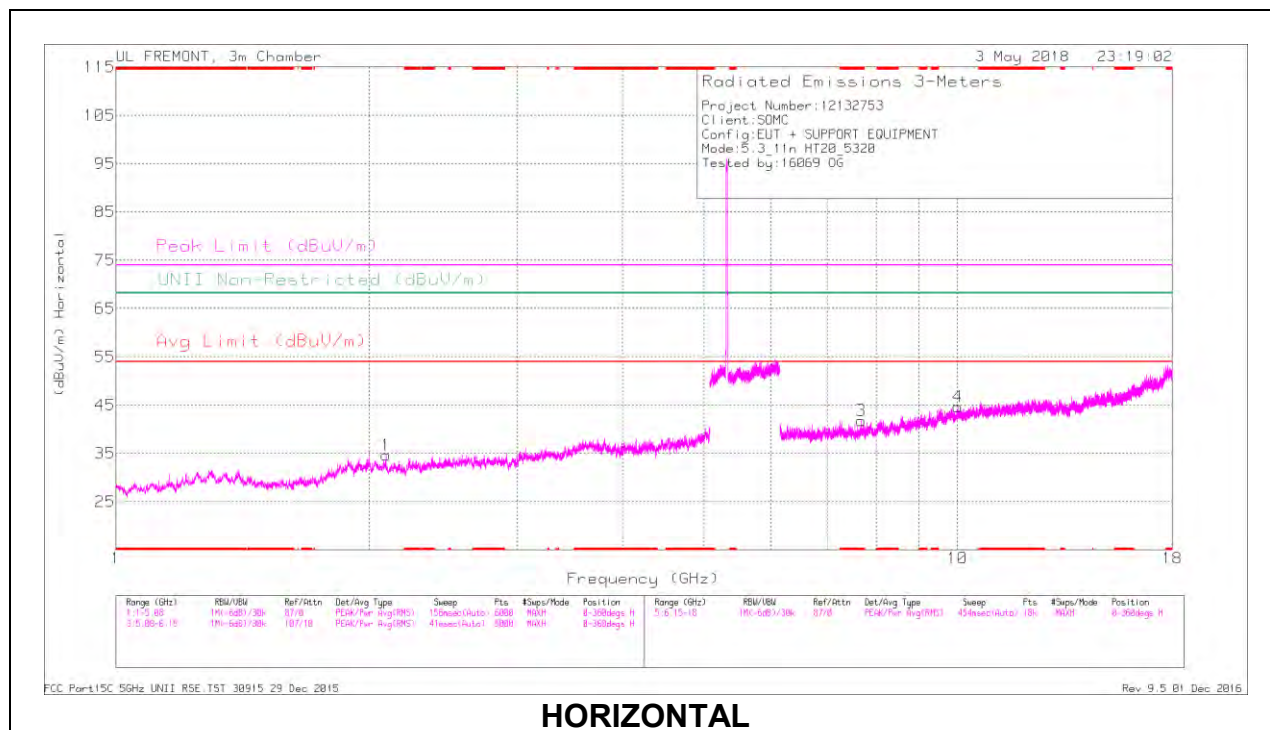
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF T120 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|----------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 3      | * 9.046         | 34.13                | PK-U | 36.1           | -20.9                  | 0            | 49.33                      | -                  | -           | 74                  | -24.67         | -                            | -              | 99             | 229         | H        |
|        | * 9.048         | 22.26                | ADR  | 36.1           | -20.8                  | .1           | 37.66                      | 54                 | -16.34      | -                   | -              | -                            | -              | 99             | 229         | H        |
| 5      | * 10.663        | 34.95                | PK-U | 37.8           | -20.4                  | 0            | 52.35                      | -                  | -           | 74                  | -21.65         | -                            | -              | 279            | 134         | V        |
|        | * 10.663        | 22.97                | ADR  | 37.8           | -20.4                  | .1           | 40.47                      | 54                 | -13.53      | -                   | -              | -                            | -              | 279            | 134         | V        |
| 1      | 1.844           | 39.37                | PK-U | 30.9           | -30.3                  | 0            | 39.97                      | -                  | -           | -                   | -              | 68.2                         | -28.23         | 7              | 219         | H        |
| 2      | 2.638           | 37.54                | PK-U | 32.6           | -28                    | 0            | 42.14                      | -                  | -           | -                   | -              | 68.2                         | -26.06         | 359            | 340         | V        |
| 4      | 12.76           | 34.1                 | PK-U | 39.2           | -21                    | 0            | 52.3                       | -                  | -           | -                   | -              | 68.2                         | -15.9          | 241            | 198         | H        |
| 6      | 14.333          | 36.65                | PK-U | 39.5           | -21.7                  | 0            | 54.45                      | -                  | -           | -                   | -              | 68.2                         | -13.75         | 356            | 217         | V        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

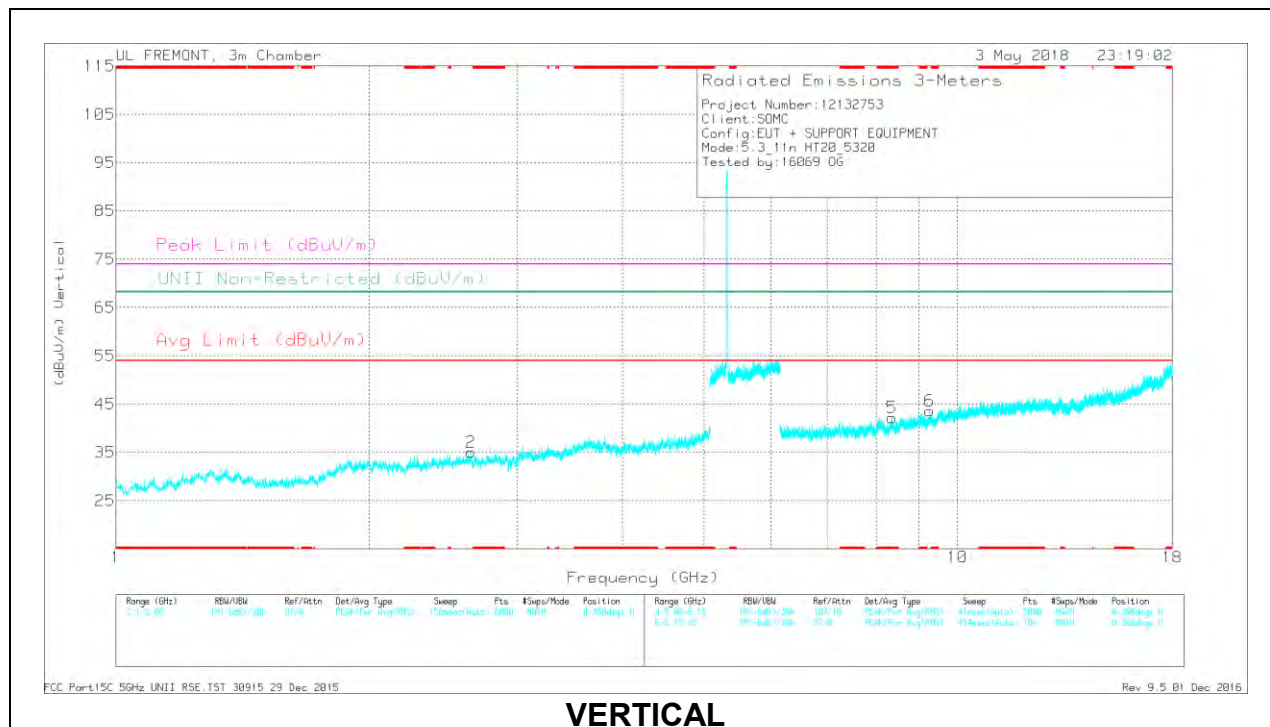
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

## HIGH CHANNEL RESULTS



## HORIZONTAL



## VERTICAL

## RADIATED EMISSIONS

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF T120 (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 |
|--------|-----------------|----------------------|------|----------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 3      | * 7.688         | 34.89                | PK-U | 35.8           | -23.9                  | 0            | 46.79                      | -                  | -           | 74                  | -27.21         | -                            | -              | 237            | 150         | H        |
|        | * 7.685         | 23.45                | ADR  | 35.8           | -24                    | .1           | 35.35                      | 54                 | -18.65      | -                   | -              | -                            | -              | 237            | 150         | H        |
| 5      | * 8.352         | 34.55                | PK-U | 35.8           | -22.3                  | 0            | 48.05                      | -                  | -           | 74                  | -25.95         | -                            | -              | 0              | 118         | V        |
|        | * 8.352         | 23.07                | ADR  | 35.8           | -22.3                  | .1           | 36.67                      | 54                 | -17.33      | -                   | -              | -                            | -              | 0              | 118         | V        |
| 1      | 2.093           | 38.32                | PK-U | 31.6           | -30.2                  | 0            | 39.72                      | -                  | -           | -                   | -              | 68.2                         | -28.48         | 268            | 347         | H        |
| 2      | 2.642           | 37.71                | PK-U | 32.6           | -29                    | 0            | 41.31                      | -                  | -           | -                   | -              | 68.2                         | -26.89         | 17             | 258         | V        |
| 6      | 9.269           | 33.82                | PK-U | 36.4           | -20.9                  | 0            | 49.32                      | -                  | -           | -                   | -              | 68.2                         | -18.88         | 141            | 100         | V        |
| 4      | 10.014          | 32.97                | PK-U | 37.3           | -20.6                  | 0            | 49.67                      | -                  | -           | -                   | -              | 68.2                         | -18.53         | 62             | 314         | H        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

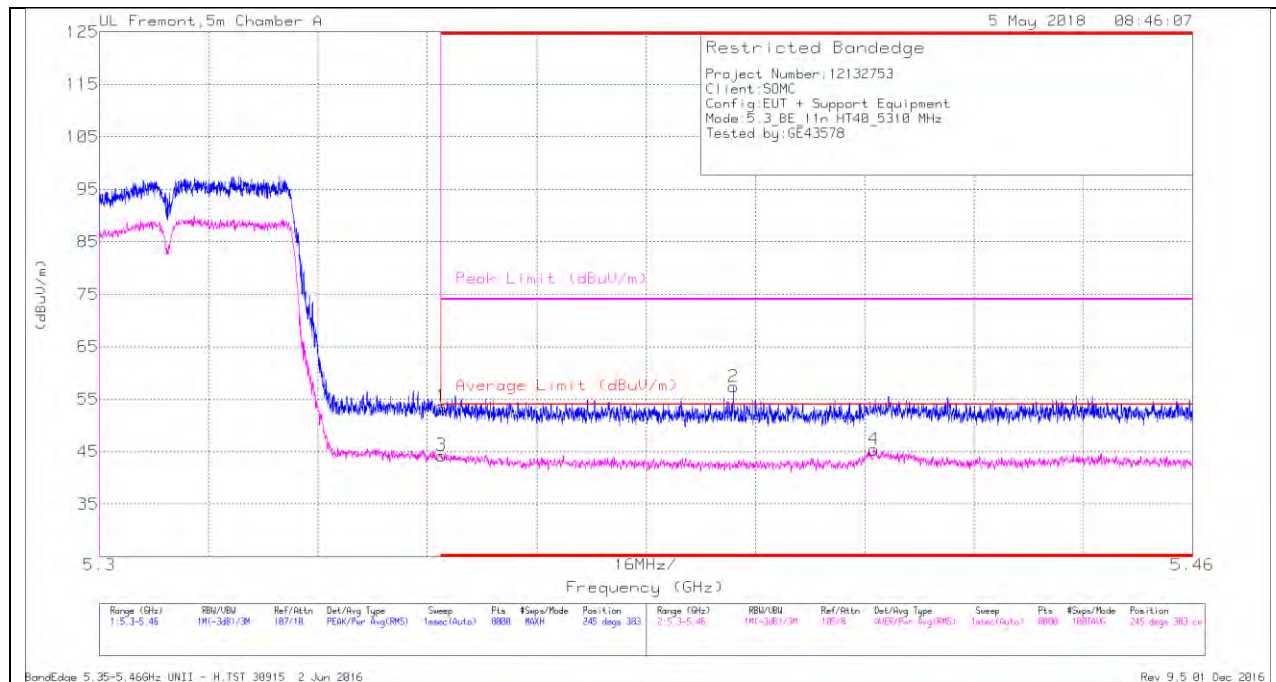
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

## 10.1.7. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.3 GHz BAND

### BANDEDGE (HIGH CHANNEL)

#### HORIZONTAL RESULT



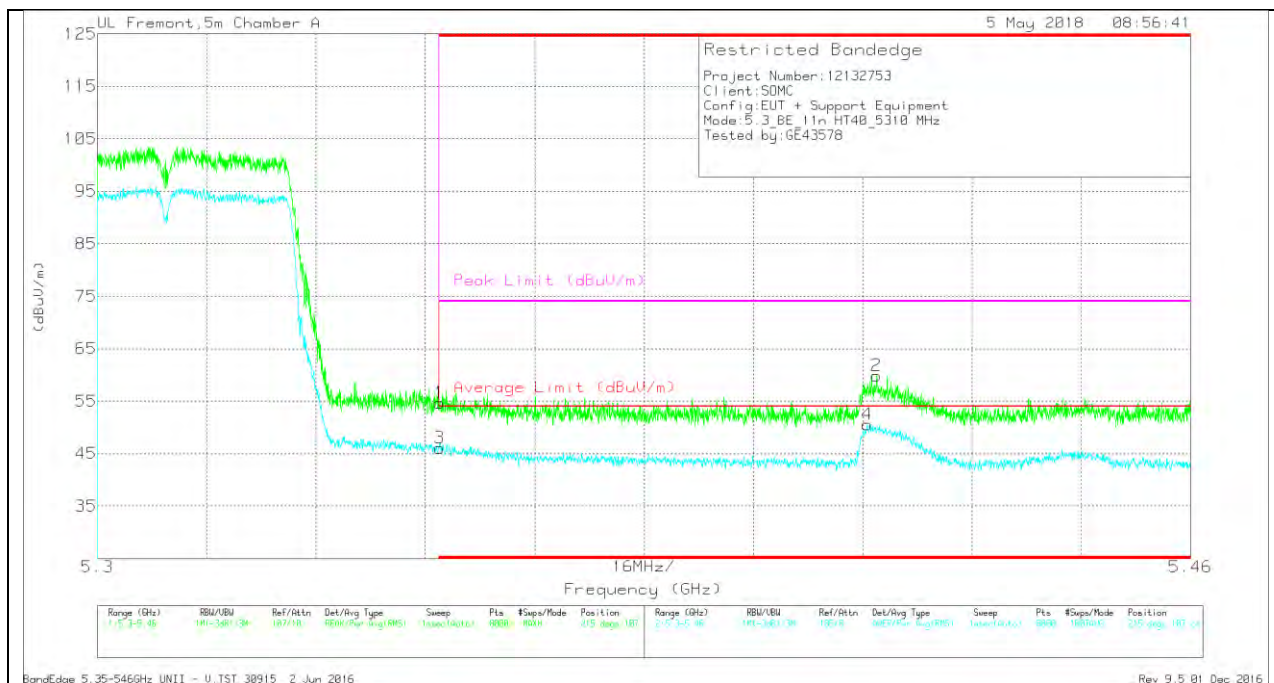
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T862 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 5.35          | 37.19                | Pk  | 34.6           | -18.2                  | 0            | 53.59                      | -                      | -           | 74                  | -20.41         | 245            | 383         | H        |
| 3      | * 5.35          | 27.55                | RMS | 34.6           | -18.2                  | .32          | 44.27                      | 54                     | -9.73       | -                   | -              | 245            | 383         | H        |
| 2      | * 5.393         | 41.03                | Pk  | 34.6           | -18.3                  | 0            | 57.33                      | -                      | -           | 74                  | -16.67         | 245            | 383         | H        |
| 4      | * 5.413         | 28.77                | RMS | 34.7           | -18.4                  | .32          | 45.39                      | 54                     | -8.61       | -                   | -              | 245            | 383         | H        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

Pk - Peak detector

RMS - RMS detection

## VERTICAL RESULT



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T862 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 5.35          | 38.26                | Pk  | 34.6           | -18.2                  | 0            | 54.66                      | -                      | -           | 74                  | -19.34         | 215            | 107         | V        |
| 3      | * 5.35          | 29.32                | RMS | 34.6           | -18.2                  | .32          | 46.04                      | 54                     | -7.96       | -                   | -              | 215            | 107         | V        |
| 4      | * 5.413         | 33.92                | RMS | 34.7           | -18.4                  | .32          | 50.54                      | 54                     | -3.46       | -                   | -              | 215            | 107         | V        |
| 2      | * 5.414         | 43.6                 | Pk  | 34.7           | -18.4                  | 0            | 59.9                       | -                      | -           | 74                  | -14.1          | 215            | 107         | V        |

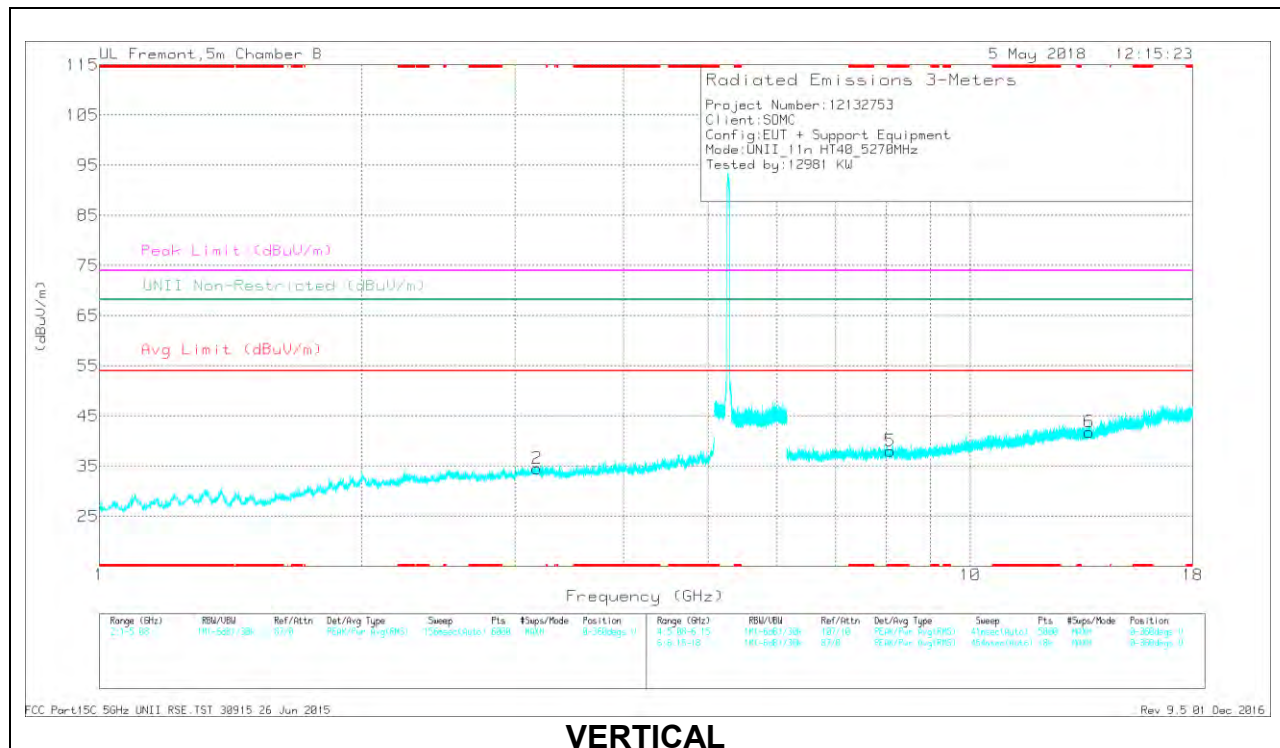
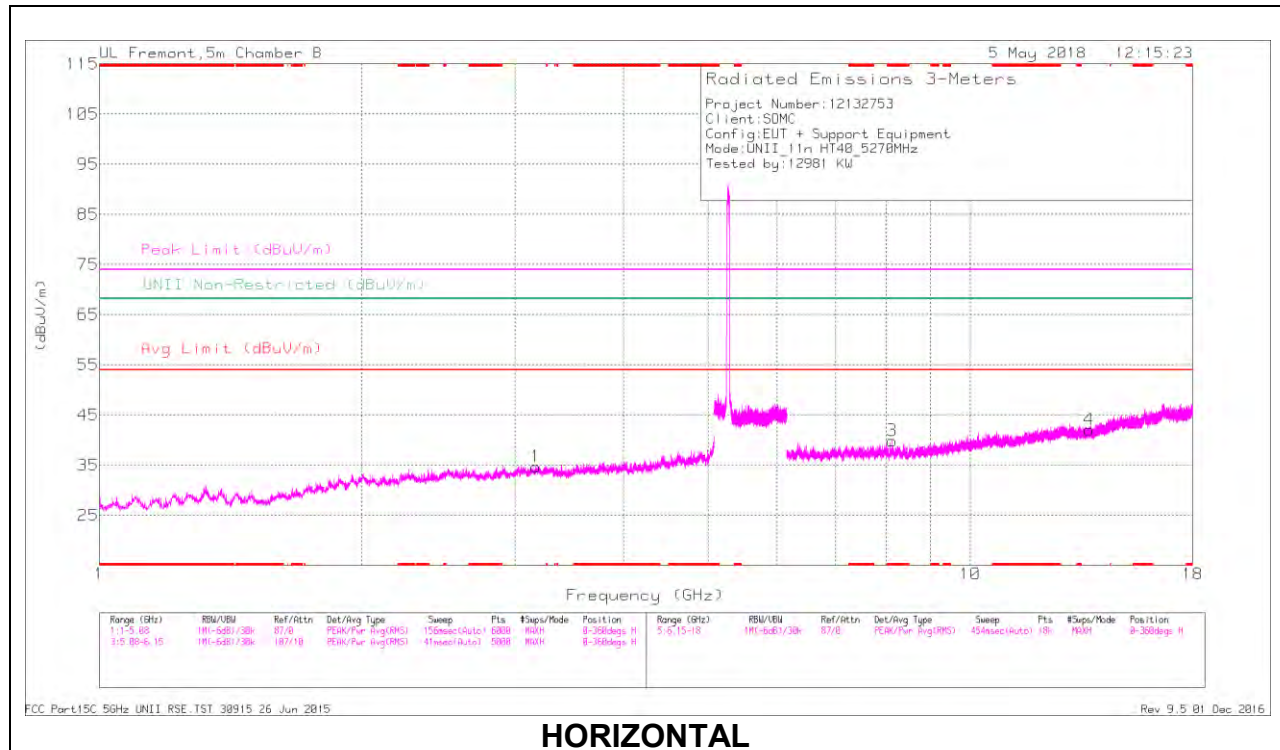
\* - indicates frequency in CFR47 Pt 15 Restricted Band

Pk - Peak detector

RMS - RMS detection

## HARMONICS AND SPURIOUS EMISSIONS

### LOW CHANNEL RESULTS



## RADIATED EMISSIONS

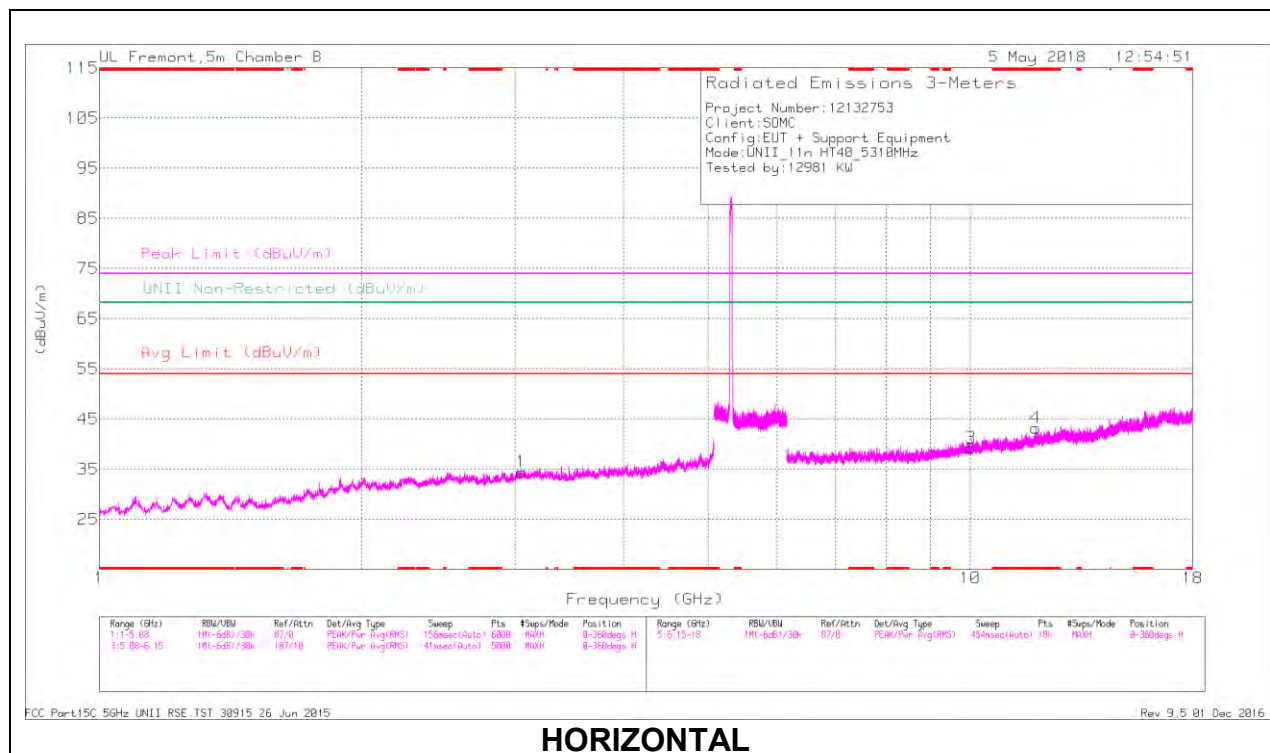
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF T863 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|----------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 3      | * 8.134         | 37.38                | PK-U | 36             | -27.9                  | 0            | 45.48                      | -                  | -           | 74                  | -28.52         | -                            | -              | 90             | 181         | H        |
|        | * 8.134         | 25.45                | ADR  | 36             | -27.9                  | .32          | 33.87                      | 54                 | -20.13      | -                   | -              | -                            | -              | 90             | 181         | H        |
| 5      | * 8.088         | 37.25                | PK-U | 36             | -27.7                  | 0            | 45.55                      | -                  | -           | 74                  | -28.45         | -                            | -              | 182            | 172         | V        |
|        | * 8.088         | 25.06                | ADR  | 36             | -27.7                  | .32          | 33.68                      | 54                 | -20.32      | -                   | -              | -                            | -              | 182            | 172         | V        |
| 1      | 3.167           | 40.27                | PK-U | 33             | -31.9                  | 0            | 41.37                      | -                  | -           | -                   | -              | 68.2                         | -26.83         | 64             | 161         | H        |
| 2      | 3.18            | 40.55                | PK-U | 33             | -31.6                  | 0            | 41.95                      | -                  | -           | -                   | -              | 68.2                         | -26.25         | 68             | 115         | V        |
| 6      | 13.687          | 33.46                | PK-U | 39.1           | -23.6                  | 0            | 48.96                      | -                  | -           | -                   | -              | 68.2                         | -19.24         | 79             | 189         | H        |
| 4      | 13.689          | 33.3                 | PK-U | 39.1           | -23.6                  | 0            | 48.8                       | -                  | -           | -                   | -              | 68.2                         | -19.4          | 169            | 134         | V        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

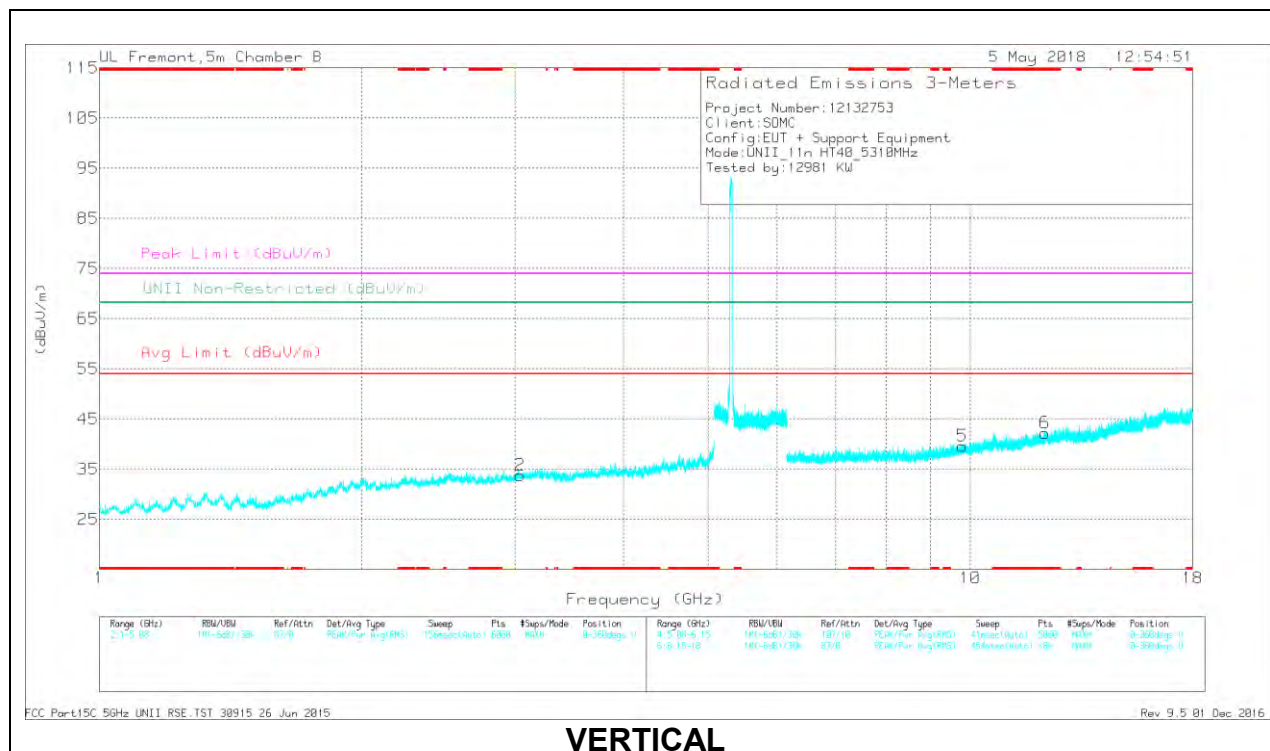
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

## HIGH CHANNEL RESULTS



## HORIZONTAL



## VERTICAL

## RADIATED EMISSIONS

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF T863 (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 |
|--------|-----------------|----------------------|------|----------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 4      | * 11.892        | 34.17                | PK-U | 38.7           | -24.2                  | 0            | 48.67                      | -                  | -           | 74                  | -25.33         | -                            | -              | 88             | 189         | H        |
|        | * 11.889        | 21.92                | ADR  | 38.7           | -24.2                  | .32          | 36.74                      | 54                 | -17.26      | -                   | -              | -                            | -              | 88             | 189         | H        |
| 6      | * 12.179        | 33.5                 | PK-U | 39.1           | -24                    | 0            | 48.6                       | -                  | -           | 74                  | -25.4          | -                            | -              | 132            | 144         | V        |
|        | * 12.179        | 21.86                | ADR  | 39.1           | -24                    | .32          | 37.28                      | 54                 | -16.72      | -                   | -              | -                            | -              | 132            | 144         | V        |
| 2      | 3.038           | 39.8                 | PK-U | 32.9           | -32.1                  | 0            | 40.6                       | -                  | -           | -                   | -              | 68.2                         | -27.6          | 78             | 149         | V        |
| 1      | 3.049           | 39.91                | PK-U | 33             | -32.1                  | 0            | 40.81                      | -                  | -           | -                   | -              | 68.2                         | -27.39         | 94             | 132         | H        |
| 5      | 9.795           | 34.98                | PK-U | 36.9           | -25.3                  | 0            | 46.58                      | -                  | -           | -                   | -              | 68.2                         | -21.62         | 165            | 181         | V        |
| 3      | 10.01           | 34.76                | PK-U | 37.2           | -25.8                  | 0            | 46.16                      | -                  | -           | -                   | -              | 68.2                         | -22.04         | 39             | 173         | H        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

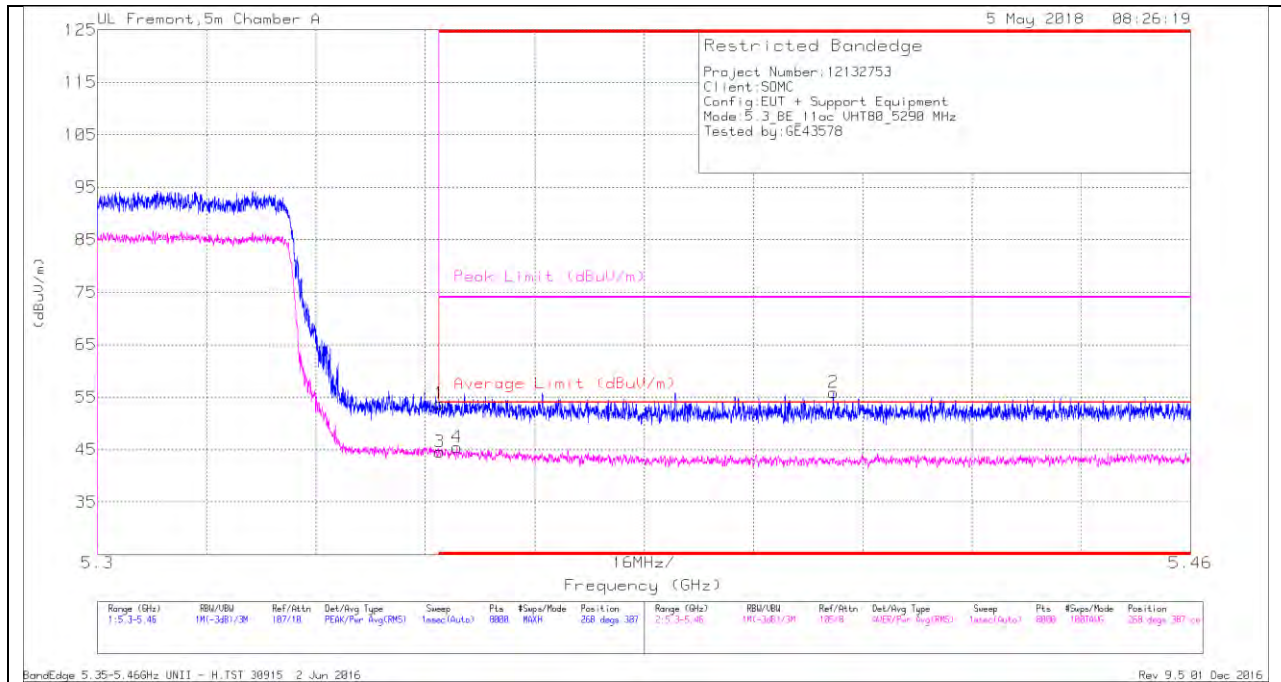
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

## 10.1.8. TX ABOVE 1 GHz 802.11ac VHT80 MODE IN THE 5.3 GHz BAND

### BANDEDGE (MID CHANNEL)

### HORIZONTAL RESULT



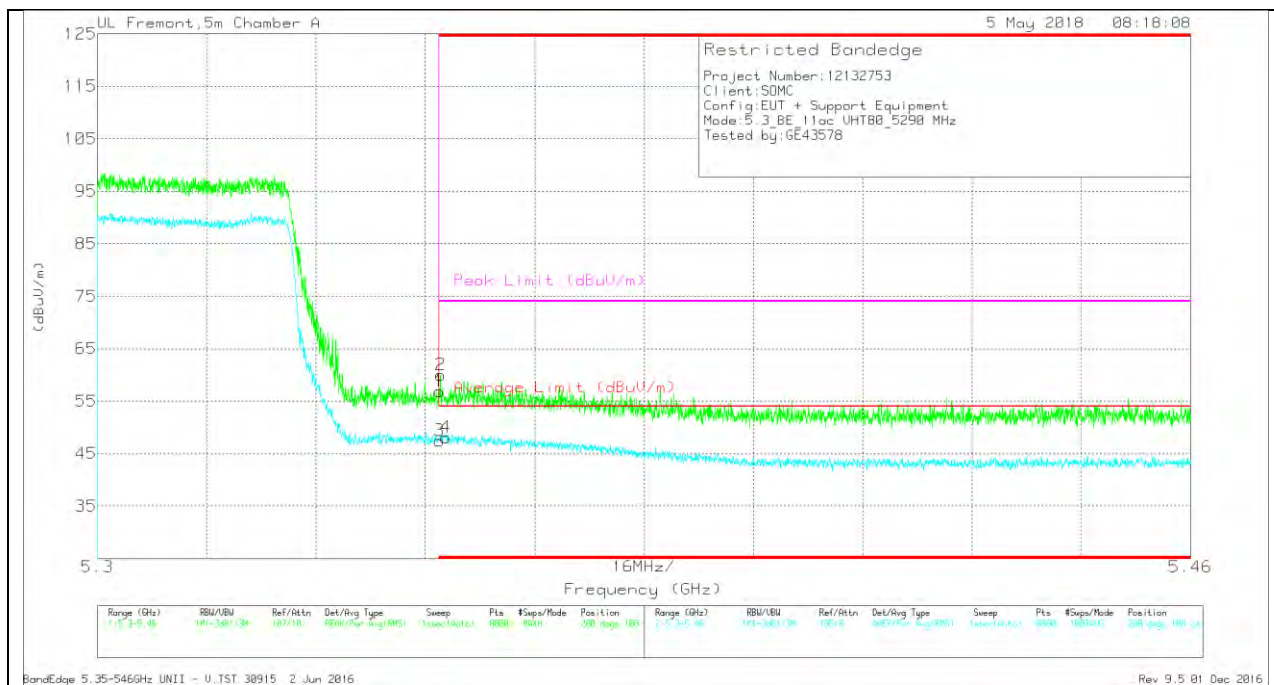
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T862 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 5.35          | 37.35                | Pk  | 34.6           | -18.2                  | 0            | 53.75                      | -                      | -           | 74                  | -20.25         | 268            | 387         | H        |
| 3      | * 5.35          | 27.57                | RMS | 34.6           | -18.2                  | .62          | 44.59                      | 54                     | -9.41       | -                   | -              | 268            | 387         | H        |
| 4      | * 5.353         | 28.47                | RMS | 34.6           | -18.2                  | .62          | 45.49                      | 54                     | -8.51       | -                   | -              | 268            | 387         | H        |
| 2      | * 5.408         | 39.53                | Pk  | 34.7           | -18.4                  | 0            | 55.83                      | -                      | -           | 74                  | -18.17         | 268            | 387         | H        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

Pk - Peak detector

RMS - RMS detection

## VERTICAL RESULT



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T862 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 5.35          | 40.48                | Pk  | 34.6           | -18.2                  | 0            | 56.88                      | -                      | -           | 74                  | -17.12         | 200            | 108         | V        |
| 2      | * 5.35          | 43.6                 | Pk  | 34.6           | -18.2                  | 0            | 60                         | -                      | -           | 74                  | -14            | 200            | 108         | V        |
| 3      | * 5.35          | 31.01                | RMS | 34.6           | -18.2                  | .62          | 48.03                      | 54                     | -5.97       | -                   | -              | 200            | 108         | V        |
| 4      | * 5.351         | 31.68                | RMS | 34.6           | -18.2                  | .62          | 48.7                       | 54                     | -5.3        | -                   | -              | 200            | 108         | V        |

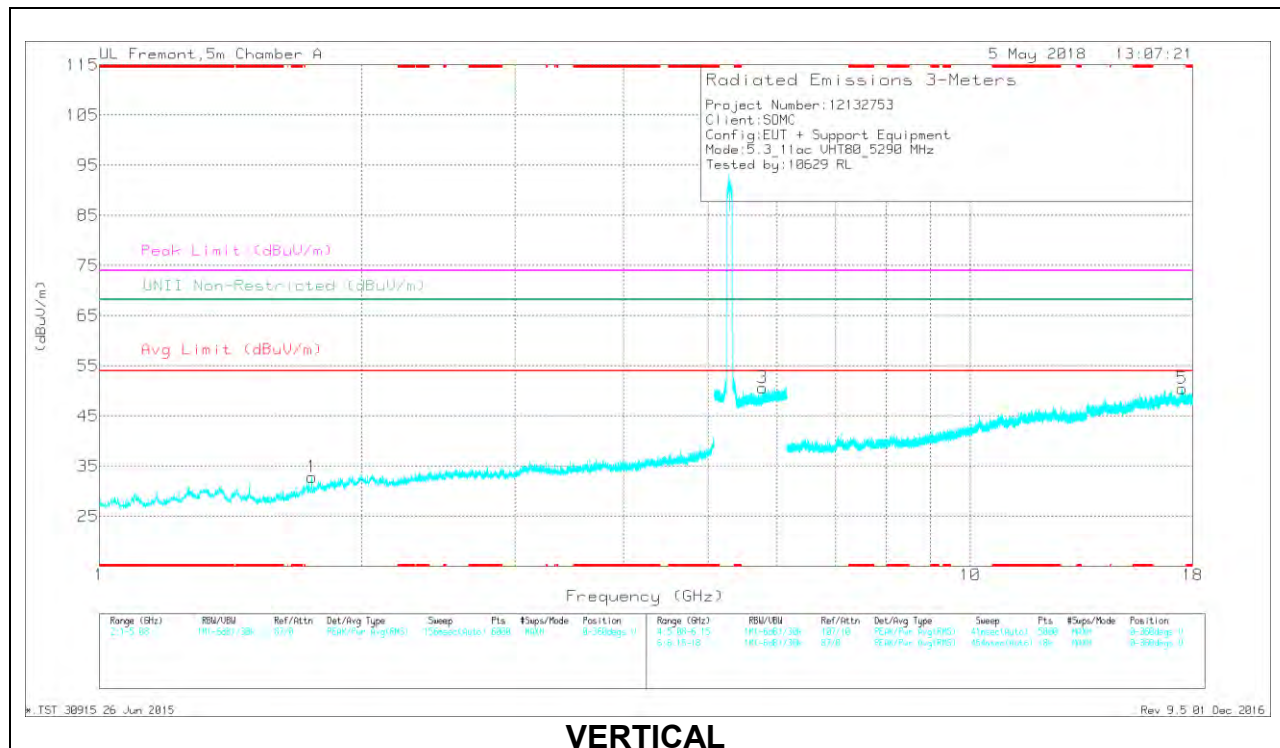
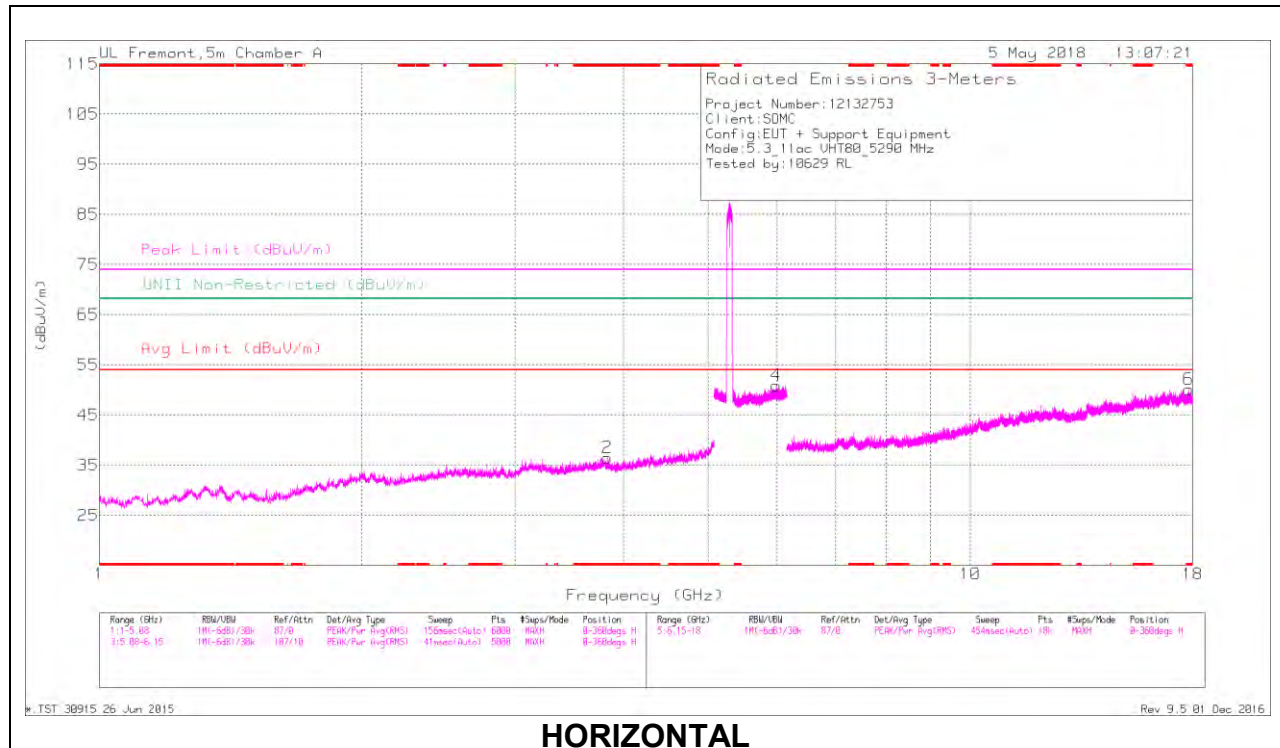
\* - indicates frequency in CFR47 Pt 15 Restricted Band

Pk - Peak detector

RMS - RMS detection

## HARMONICS AND SPURIOUS EMISSIONS

### MID CHANNEL RESULTS



## RADIATED EMISSIONS

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF T862 (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 |
|--------|-----------------|----------------------|------|----------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 2      | * 3.828         | 37.31                | PK-U | 33.1           | -28.3                  | 0            | 42.11                      | -                  | -           | 74                  | -31.89         | -                            | -              | 135            | 273         | H        |
|        | * 3.826         | 25.89                | ADR  | 33.1           | -28.3                  | .62          | 31.31                      | 54                 | -22.69      | -                   | -              | -                            | -              | 135            | 273         | H        |
| 6      | * 17.801        | 32.86                | PK-U | 41.2           | -18.3                  | 0            | 55.76                      | -                  | -           | 74                  | -18.24         | -                            | -              | 254            | 194         | H        |
|        | * 17.799        | 21.98                | ADR  | 41.2           | -18.4                  | .62          | 45.4                       | 54                 | -8.6        | -                   | -              | -                            | -              | 254            | 194         | H        |
| 1      | 1.753           | 33.85                | Pk   | 29.8           | -30.8                  | 0            | 32.85                      | -                  | -           | -                   | -              | 68.2                         | -35.35         | 0-360          | 200         | V        |
| 3      | 5.771           | 33.96                | Pk   | 35             | -18.3                  | 0            | 50.66                      | -                  | -           | -                   | -              | 68.2                         | -17.54         | 0-360          | 101         | V        |
| 4      | 5.986           | 33.58                | Pk   | 35.3           | -18                    | 0            | 50.88                      | -                  | -           | -                   | -              | 68.2                         | -17.32         | 0-360          | 199         | H        |
| 5      | 17.504          | 28.19                | Pk   | 41.2           | -18.9                  | 0            | 50.49                      | -                  | -           | -                   | -              | 68.2                         | -17.71         | 0-360          | 200         | V        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

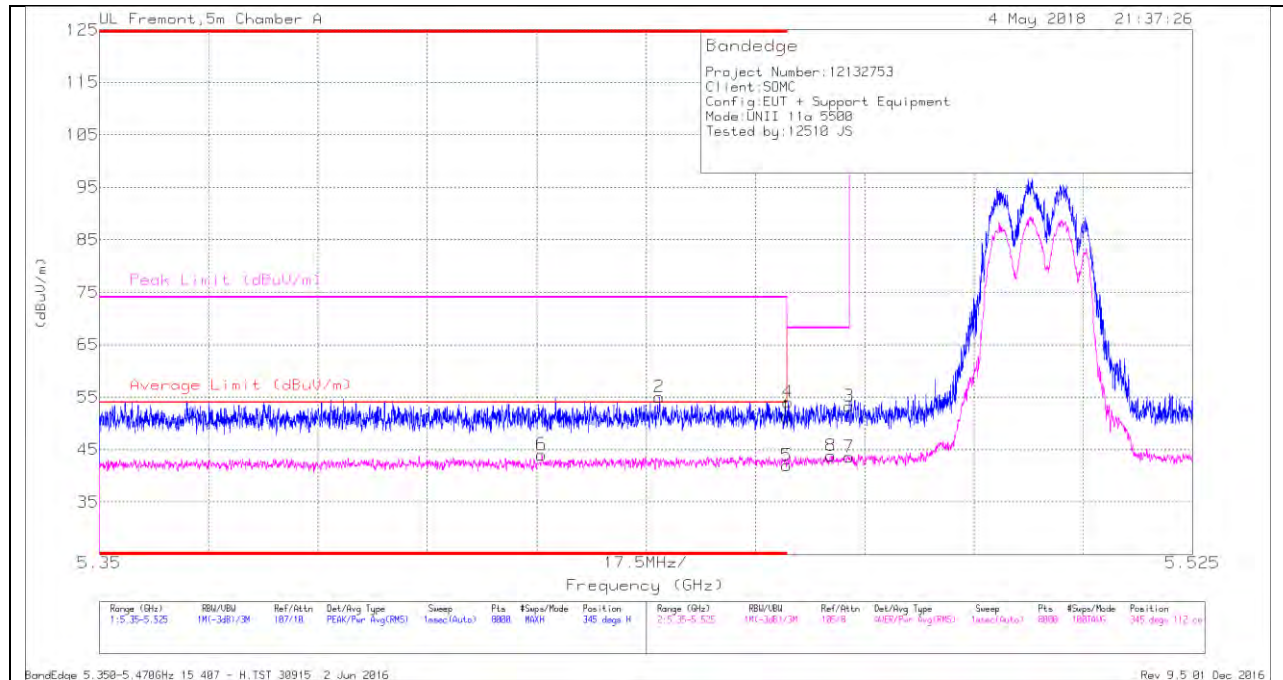
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

# 10.1.9. TX ABOVE 1 GHz 802.11a MODE IN THE 5.6 GHz BAND

## BANDEDGE (LOW CHANNEL)

### HORIZONTAL RESULT



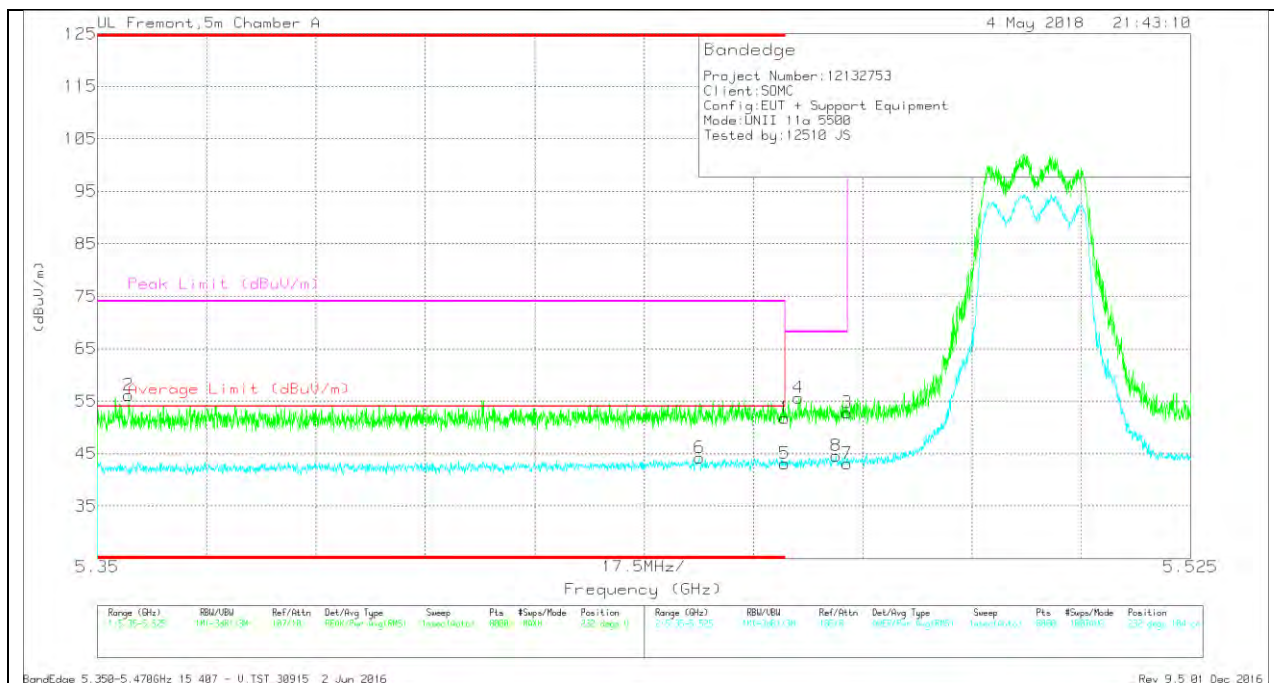
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T862 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 6      | * 5.421         | 27.72                | RMS | 34.7           | -18.4                  | 0            | 44.02                      | 54                     | -9.98       | -                   | -              | 345            | 112         | H        |
| 2      | * 5.44          | 38.56                | Pk  | 34.7           | -18.3                  | 0            | 54.96                      | -                      | -           | 74                  | -19.04         | 345            | 112         | H        |
| 1      | * 5.46          | 35.13                | Pk  | 34.7           | -18.5                  | 0            | 51.33                      | -                      | -           | 74                  | -22.67         | 345            | 112         | H        |
| 5      | * 5.46          | 25.79                | RMS | 34.7           | -18.5                  | 0            | 41.99                      | 54                     | -12.01      | -                   | -              | 345            | 112         | H        |
| 4      | 5.46            | 37.79                | Pk  | 34.7           | -18.5                  | 0            | 53.99                      | -                      | -           | 68.2                | -14.21         | 345            | 112         | H        |
| 8      | 5.467           | 27.36                | RMS | 34.8           | -18.3                  | 0            | 43.86                      | -                      | -           | -                   | -              | 345            | 112         | H        |
| 3      | 5.47            | 36.77                | Pk  | 34.8           | -18.3                  | 0            | 53.27                      | -                      | -           | 68.2                | -14.93         | 345            | 112         | H        |
| 7      | 5.47            | 27.05                | RMS | 34.8           | -18.3                  | 0            | 43.55                      | -                      | -           | -                   | -              | 345            | 112         | H        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

Pk - Peak detector

RMS - RMS detection

## VERTICAL RESULT



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T862 (dB/m) | Amp/Cbl/Filtr/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      | * 5.355         | 39.68                | Pk  | 34.6           | -18.2                  | 0            | 56.08                      | -                      | -           | 74                  | -17.92         | 232            | 104         | V        |
| 6      | * 5.446         | 27.88                | RMS | 34.7           | -18.4                  | 0            | 44.18                      | 54                     | -9.82       | -                   | -              | 232            | 104         | V        |
| 1      | * 5.46          | 35.56                | Pk  | 34.7           | -18.5                  | 0            | 51.76                      | -                      | -           | 74                  | -22.24         | 232            | 104         | V        |
| 5      | * 5.46          | 26.94                | RMS | 34.7           | -18.5                  | 0            | 43.14                      | 54                     | -10.86      | -                   | -              | 232            | 104         | V        |
| 4      | 5.462           | 39.45                | Pk  | 34.7           | -18.5                  | 0            | 55.65                      | -                      | -           | 68.2                | -12.55         | 232            | 104         | V        |
| 8      | 5.468           | 28.07                | RMS | 34.8           | -18.3                  | 0            | 44.57                      | -                      | -           | -                   | -              | 232            | 104         | V        |
| 3      | 5.47            | 36.31                | Pk  | 34.8           | -18.3                  | 0            | 52.81                      | -                      | -           | 68.2                | -15.39         | 232            | 104         | V        |
| 7      | 5.47            | 26.56                | RMS | 34.8           | -18.3                  | 0            | 43.06                      | -                      | -           | -                   | -              | 232            | 104         | V        |

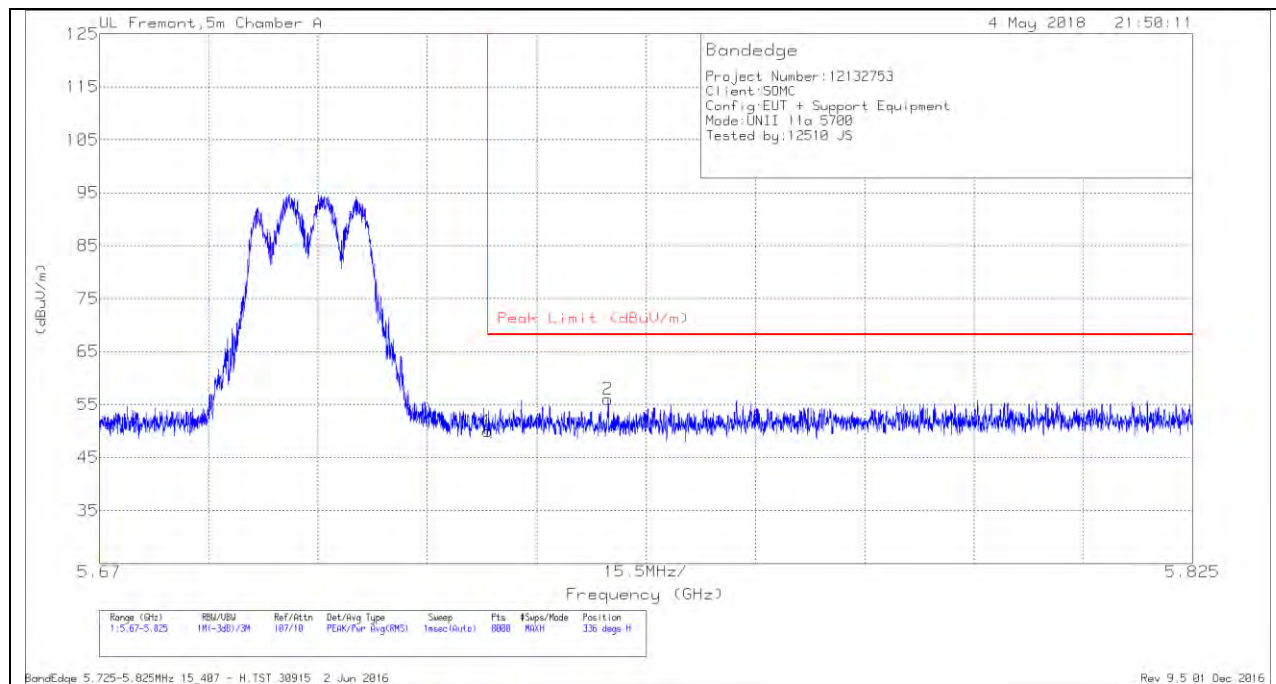
\* - indicates frequency in CFR47 Pt 15 Restricted Band

Pk - Peak detector

RMS - RMS detection

## BANDEDGE (HIGH CHANNEL)

### HORIZONTAL RESULT

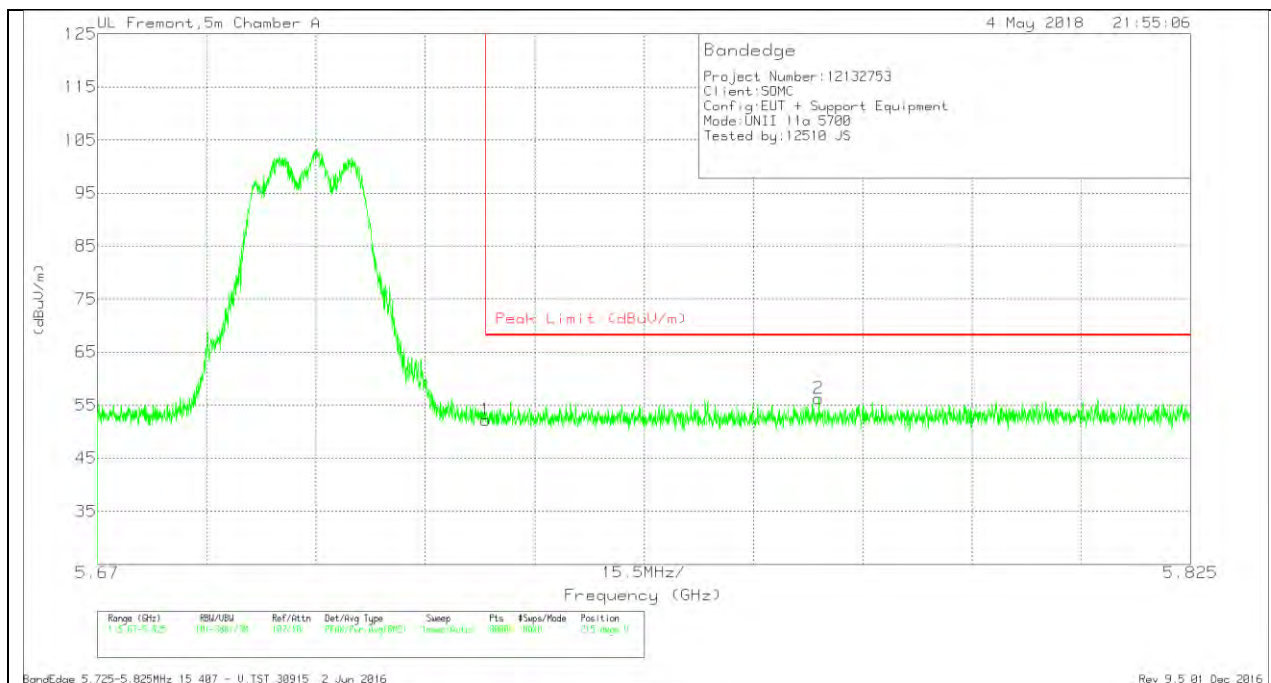


| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AFT862 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|---------------|------------------------|--------------|----------------------------|---------------------|----------------|----------------|-------------|----------|
| 1      | 5.725           | 33.51                | Pk  | 35            | -18.5                  | 0            | 50.01                      | 68.2                | -18.19         | 336            | 101         | H        |
| 2      | 5.742           | 39.38                | Pk  | 35            | -18.4                  | 0            | 55.98                      | 68.2                | -12.22         | 336            | 101         | H        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

Pk - Peak detector

## VERTICAL RESULT

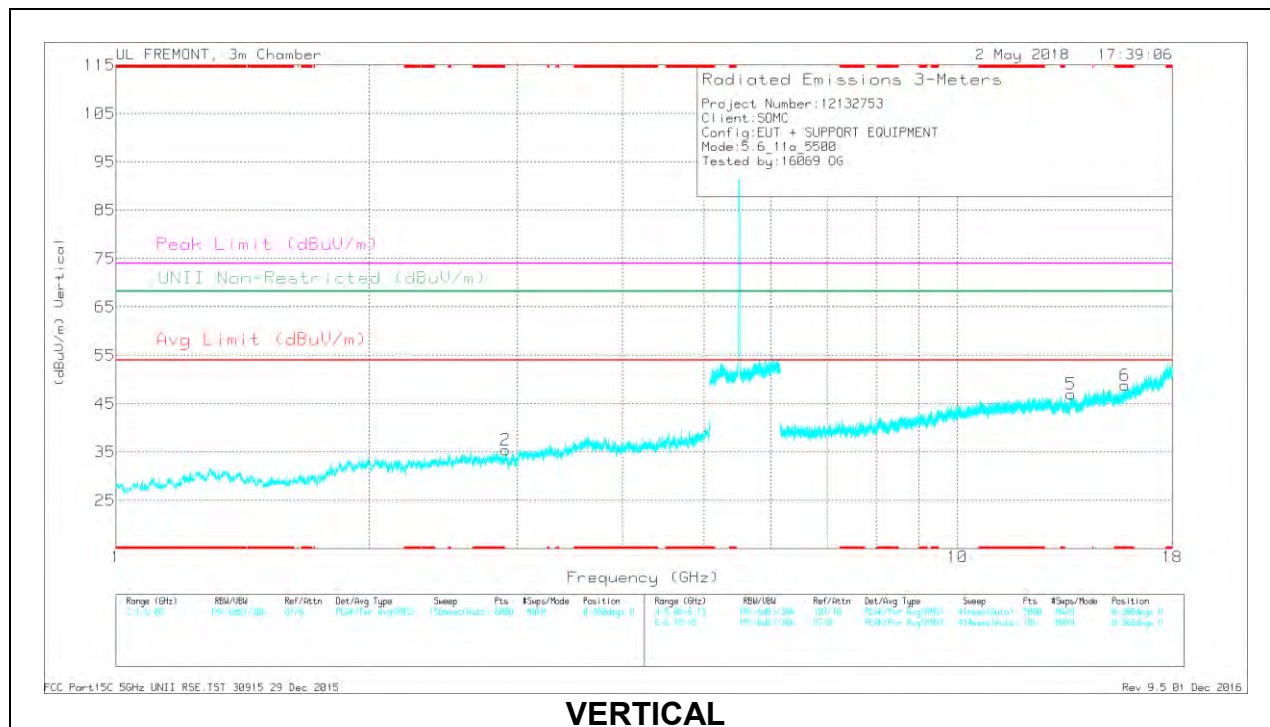
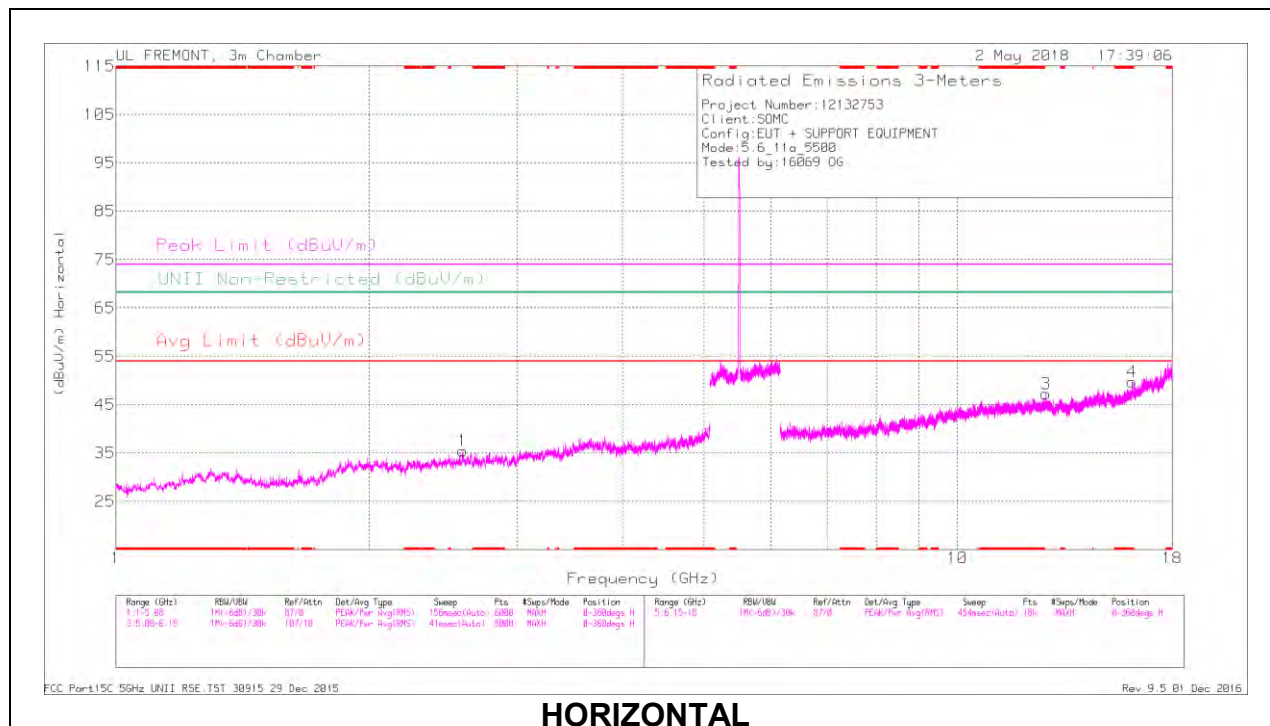


| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T862 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|--------------|----------------------------|---------------------|----------------|----------------|-------------|----------|
| 1      | 5.725           | 35.75                | Pk  | 35             | -18.5                  | 0            | 52.25                      | 68.2                | -15.95         | 215            | 104         | V        |
| 2      | 5.772           | 39.45                | Pk  | 35             | -18.2                  | 0            | 56.25                      | 68.2                | -11.95         | 215            | 104         | V        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band  
Pk - Peak detector

## HARMONICS AND SPURIOUS EMISSIONS

### LOW CHANNEL RESULTS



## RADIATED EMISSIONS

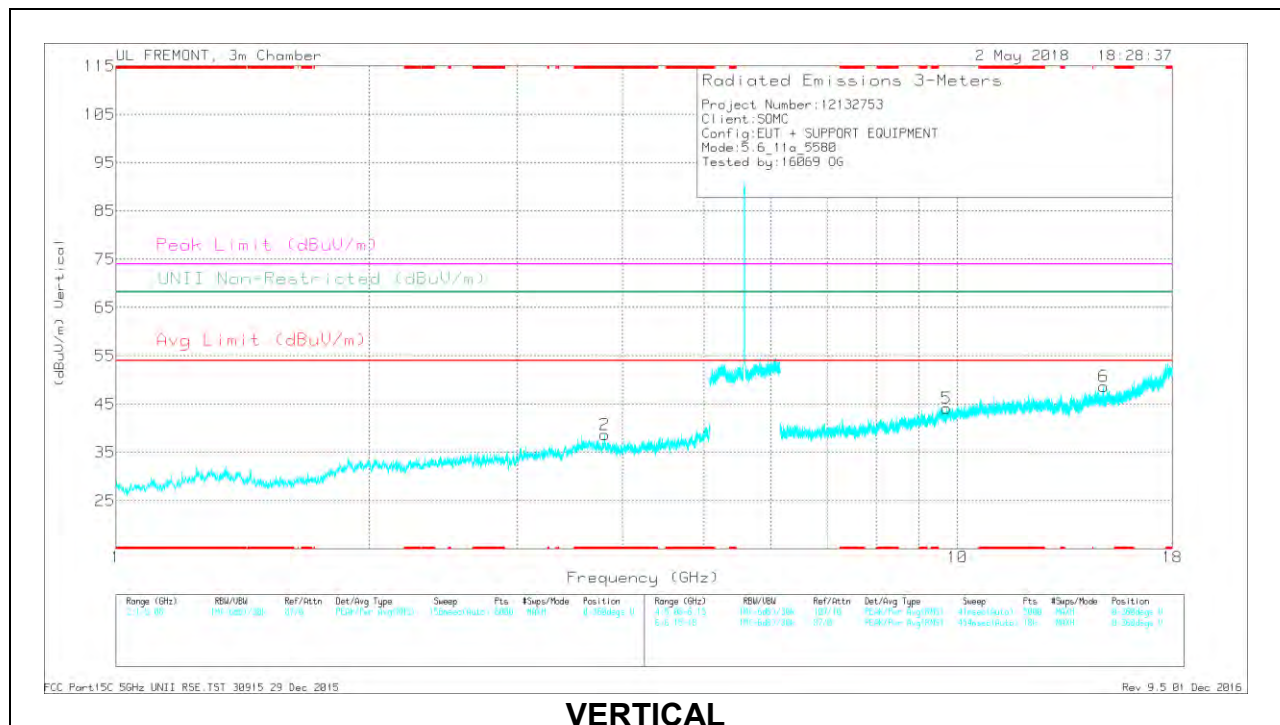
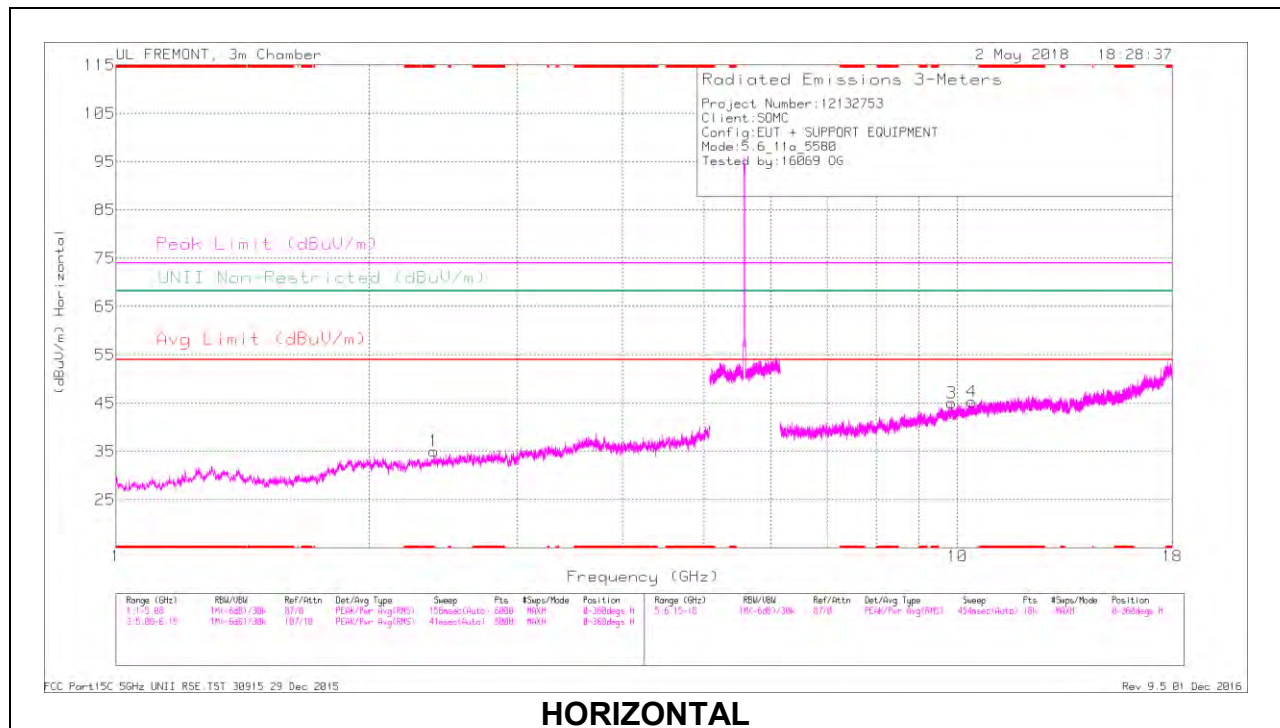
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF T120 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|----------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 4      | * 16.12         | 34.11                | PK-U | 40.5           | -19                    | 0            | 55.61                      | -                  | -           | 74                  | -18.39         | -                            | -              | 188            | 100         | H        |
|        | * 16.12         | 21.83                | ADR  | 40.5           | -19                    | 0            | 43.33                      | 54                 | -10.67      | -                   | -              | -                            | -              | 188            | 100         | H        |
| 6      | * 15.823        | 33.1                 | PK-U | 40.5           | -20.5                  | 0            | 53.1                       | -                  | -           | 74                  | -20.9          | -                            | -              | 20             | 119         | V        |
|        | * 15.826        | 22.38                | ADR  | 40.5           | -20.5                  | 0            | 42.38                      | 54                 | -11.62      | -                   | -              | -                            | -              | 20             | 119         | V        |
| 1      | 2.582           | 38.76                | PK-U | 32.4           | -30                    | 0            | 41.16                      | -                  | -           | -                   | -              | 68.2                         | -27.04         | 57             | 256         | H        |
| 2      | 2.902           | 38.31                | PK-U | 32.8           | -29.6                  | 0            | 41.51                      | -                  | -           | -                   | -              | 68.2                         | -26.69         | 172            | 137         | V        |
| 3      | 12.732          | 34.74                | PK-U | 39.2           | -21.7                  | 0            | 52.24                      | -                  | -           | -                   | -              | 68.2                         | -15.96         | 218            | 306         | H        |
| 5      | 13.633          | 35.62                | PK-U | 38.7           | -22.5                  | 0            | 51.82                      | -                  | -           | -                   | -              | 68.2                         | -16.38         | 213            | 325         | V        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

## MID CHANNEL RESULTS



## RADIATED EMISSIONS

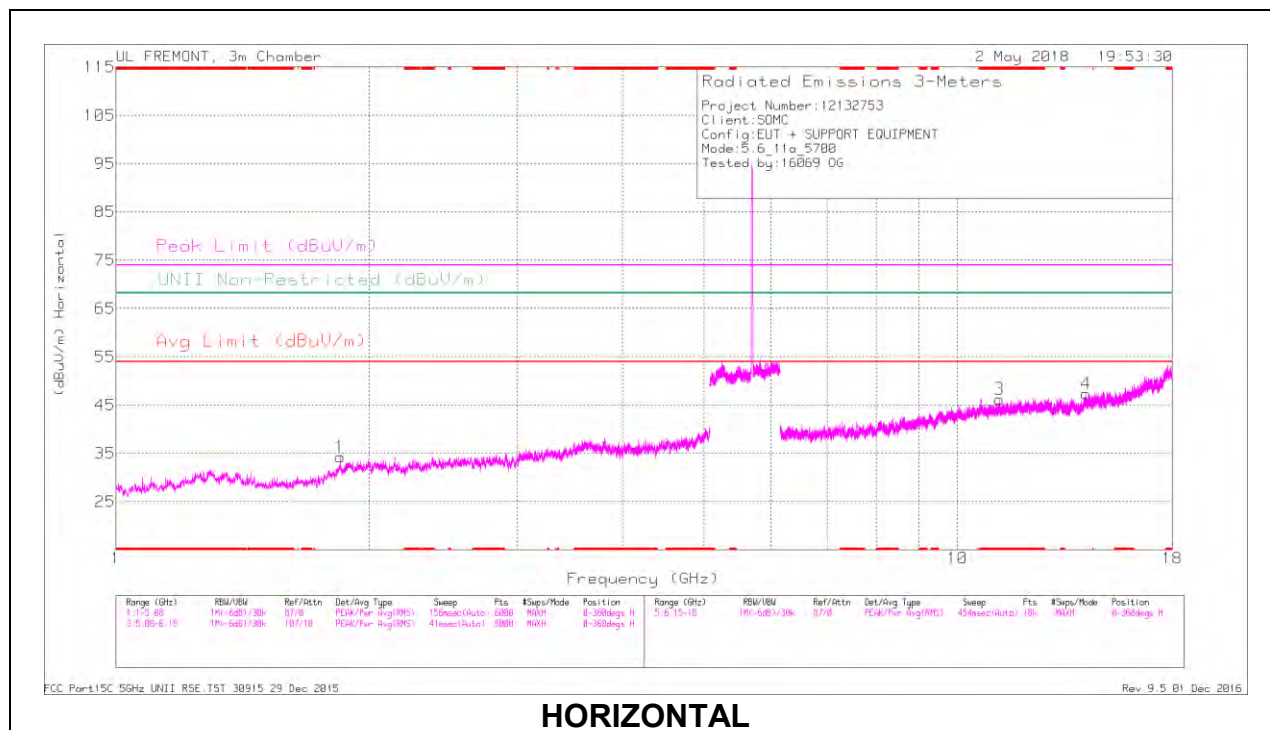
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF T120 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|----------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 1      | * 2.386         | 38.78                | PK-U | 31.9           | -30                    | 0            | 40.68                      | -                  | -           | 74                  | -33.32         | -                            | -              | 135            | 297         | H        |
|        | * 2.389         | 26.71                | ADR  | 31.9           | -30                    | 0            | 28.61                      | 54                 | -25.39      | -                   | -              | -                            | -              | 135            | 297         | H        |
| 2      | * 3.811         | 38.68                | PK-U | 33.7           | -27.4                  | 0            | 44.98                      | -                  | -           | 74                  | -29.02         | -                            | -              | 142            | 287         | V        |
|        | * 3.812         | 27.3                 | ADR  | 33.7           | -27.5                  | 0            | 33.5                       | 54                 | -20.5       | -                   | -              | -                            | -              | 142            | 287         | V        |
| 5      | 9.706           | 33.86                | PK-U | 37             | -21.1                  | 0            | 49.76                      | -                  | -           | -                   | -              | 68.2                         | -18.44         | 312            | 389         | V        |
| 3      | 9.84            | 34.02                | PK-U | 37.2           | -20.6                  | 0            | 50.62                      | -                  | -           | -                   | -              | 68.2                         | -17.58         | 265            | 324         | H        |
| 4      | 10.396          | 34.6                 | PK-U | 37.6           | -21.6                  | 0            | 50.6                       | -                  | -           | -                   | -              | 68.2                         | -17.6          | 261            | 102         | H        |
| 6      | 14.916          | 34.94                | PK-U | 40             | -21.4                  | 0            | 53.54                      | -                  | -           | -                   | -              | 68.2                         | -14.66         | 356            | 384         | V        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

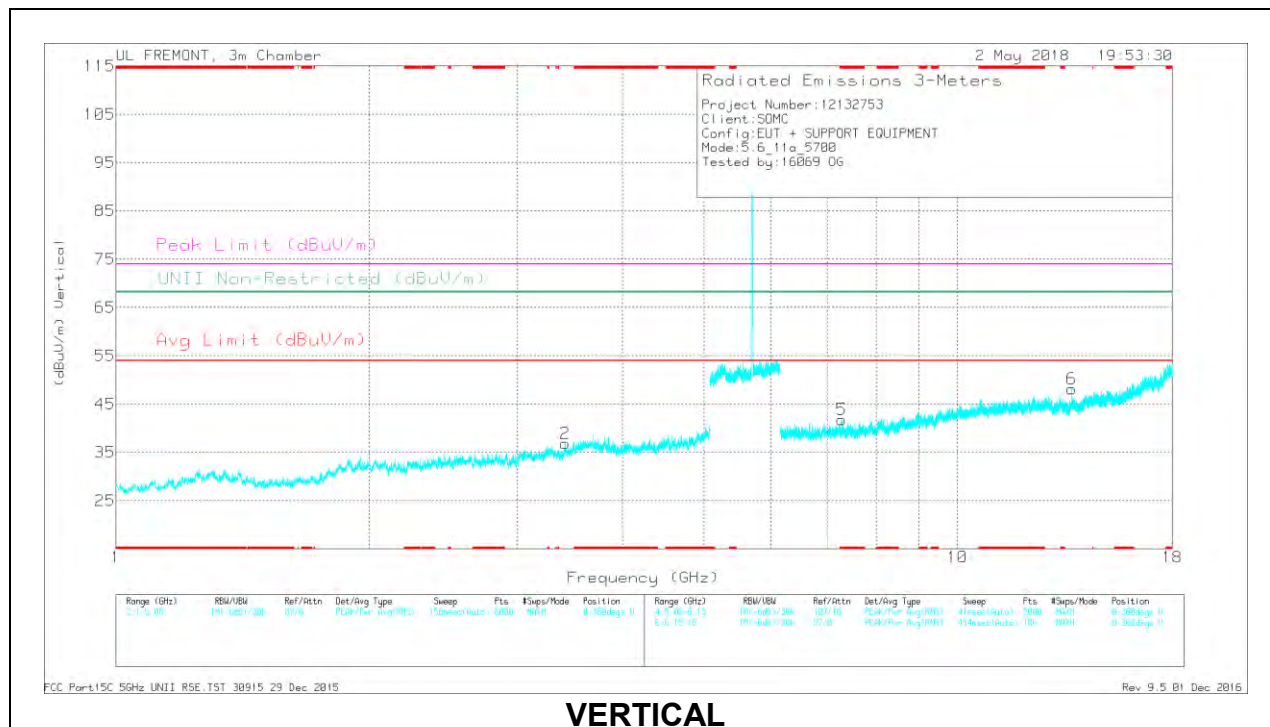
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

## HIGH CHANNEL RESULTS



### HORIZONTAL



### VERTICAL

## RADIATED EMISSIONS

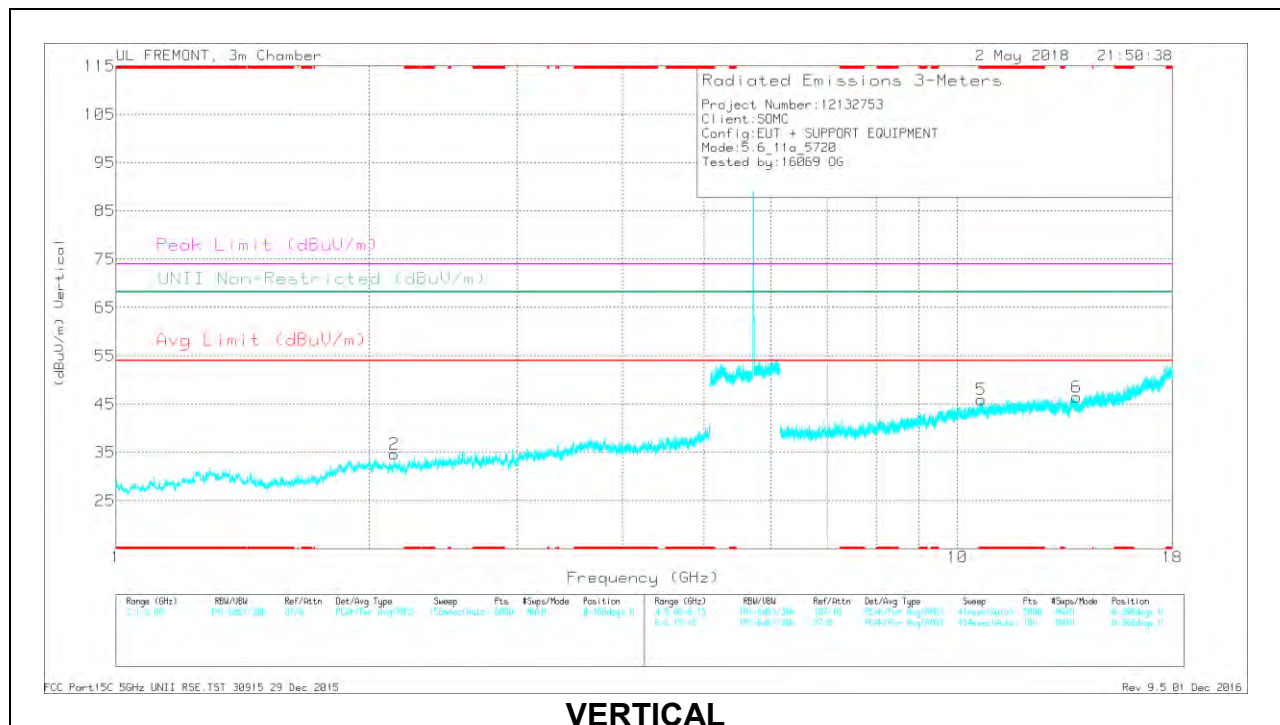
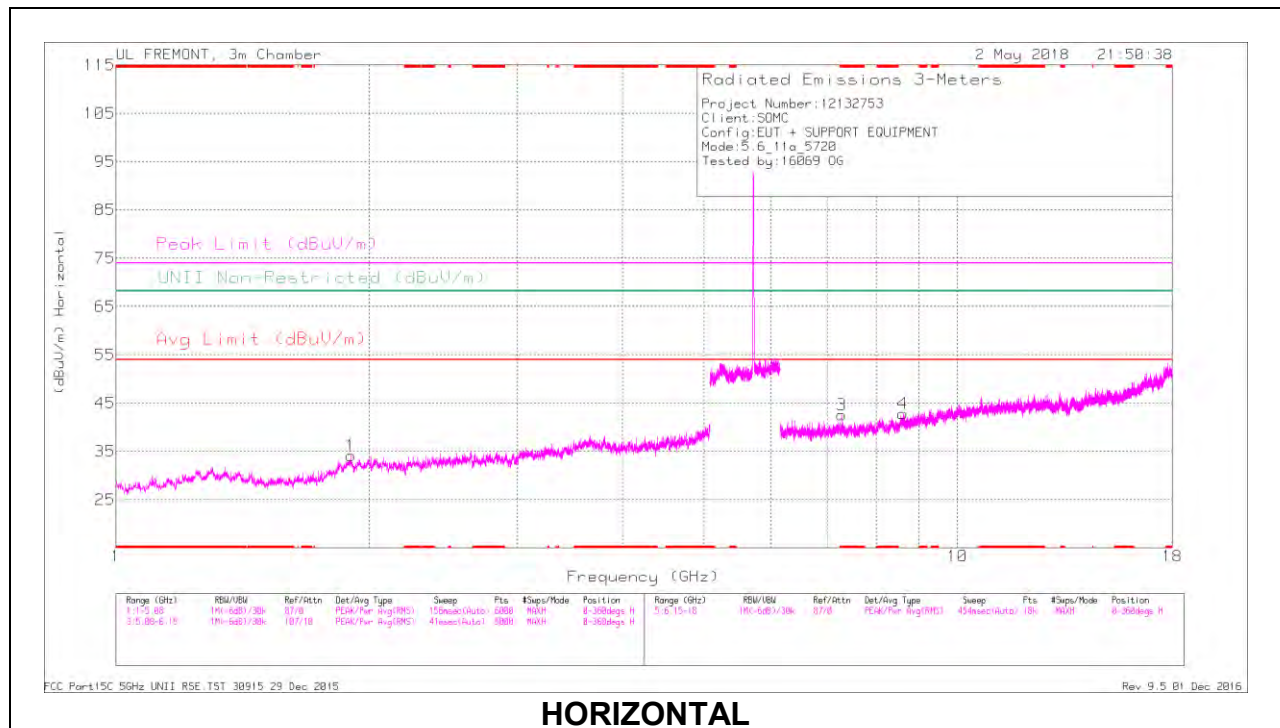
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF T120 (dB/m) | Amp/Cbl/Fitr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|----------------|-----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 3      | * 11.223        | 33.99                | PK-U | 38.2           | -21.2                 | 0            | 50.99                      | -                  | -           | 74                  | -23.01         | -                            | -              | 182            | 181         | H        |
|        | * 11.221        | 22.9                 | ADR  | 38.2           | -21.1                 | 0            | 40                         | 54                 | -14         | -                   | -              | -                            | -              | 182            | 181         | H        |
| 5      | * 7.282         | 35.08                | PK-U | 35.7           | -22.6                 | 0            | 48.18                      | -                  | -           | 74                  | -25.82         | -                            | -              | 234            | 368         | V        |
|        | * 7.286         | 23.5                 | ADR  | 35.7           | -22.8                 | 0            | 36.4                       | 54                 | -17.6       | -                   | -              | -                            | -              | 234            | 368         | V        |
| 1      | 1.847           | 39.56                | PK-U | 30.9           | -30.4                 | 0            | 40.06                      | -                  | -           | -                   | -              | 68.2                         | -28.14         | 45             | 230         | H        |
| 2      | 3.419           | 37.92                | PK-U | 33.8           | -28.3                 | 0            | 43.42                      | -                  | -           | -                   | -              | 68.2                         | -24.78         | 271            | 321         | V        |
| 6      | 13.666          | 35.16                | PK-U | 38.7           | -20.9                 | 0            | 52.96                      | -                  | -           | -                   | -              | 68.2                         | -15.24         | 239            | 348         | V        |
| 4      | 14.213          | 35.66                | PK-U | 39.4           | -21.5                 | 0            | 53.56                      | -                  | -           | -                   | -              | 68.2                         | -14.64         | 13             | 292         | H        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

## CHANNEL 144 RESULTS



## RADIATED EMISSIONS

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF T120 (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 |
|--------|-----------------|----------------------|------|----------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 3      | * 7.286         | 35.5                 | PK-U | 35.7           | -22.9                  | 0            | 48.3                       | -                  | -           | 74                  | -25.7          | -                            | -              | 104            | 382         | H        |
|        | * 7.287         | 23.98                | ADR  | 35.7           | -23.4                  | 0            | 36.28                      | 54                 | -17.72      | -                   | -              | -                            | -              | 104            | 382         | H        |
| 5      | * 10.666        | 34.75                | PK-U | 37.8           | -20.6                  | 0            | 51.95                      | -                  | -           | 74                  | -22.05         | -                            | -              | 346            | 322         | V        |
|        | * 10.665        | 23.16                | ADR  | 37.8           | -20.5                  | 0            | 40.46                      | 54                 | -13.54      | -                   | -              | -                            | -              | 346            | 322         | V        |
| 1      | 1.902           | 39.28                | PK-U | 31.4           | -30.2                  | 0            | 40.48                      | -                  | -           | -                   | -              | 68.2                         | -27.72         | 215            | 337         | H        |
| 2      | 2.143           | 39.35                | PK-U | 31.4           | -30                    | 0            | 40.75                      | -                  | -           | -                   | -              | 68.2                         | -27.45         | 206            | 244         | V        |
| 4      | 8.615           | 34.03                | PK-U | 35.8           | -21.6                  | 0            | 48.23                      | -                  | -           | -                   | -              | 68.2                         | -19.97         | 295            | 388         | H        |
| 6      | 13.853          | 35.9                 | PK-U | 38.9           | -21.8                  | 0            | 53                         | -                  | -           | -                   | -              | 68.2                         | -15.2          | 336            | 100         | V        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

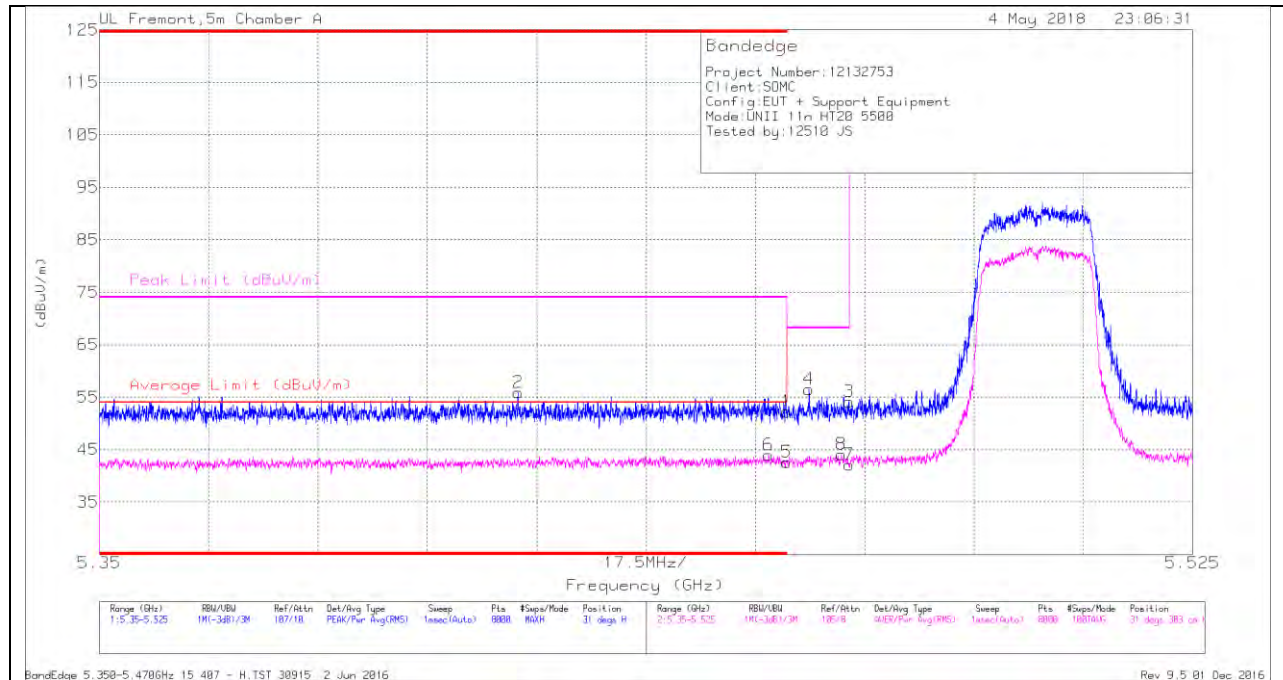
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

# 10.1.10. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.6 GHz BAND

## BANDEDGE (LOW CHANNEL)

### HORIZONTAL RESULT



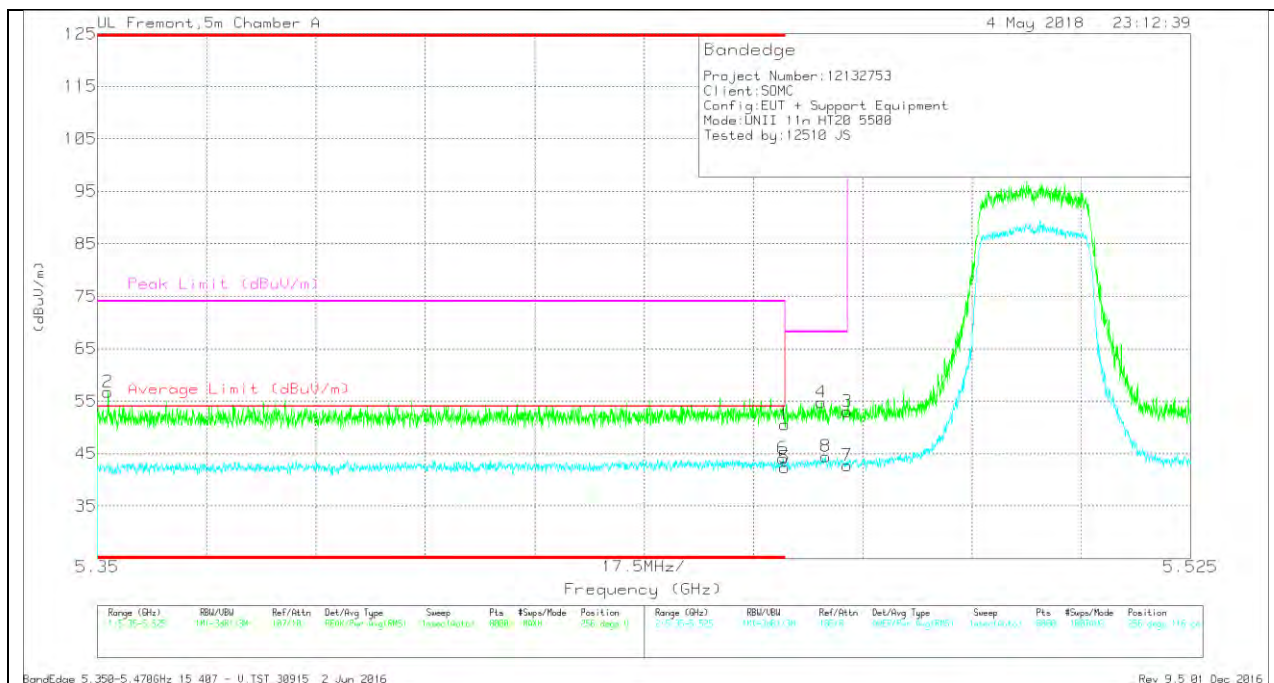
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T862 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 2      | * 5.417         | 39.54                | Pk  | 34.7           | -18.4                  | 0            | 55.84                      | -                      | -           | 74                  | -18.16         | 31             | 303         | H        |
| 6      | * 5.457         | 27.65                | RMS | 34.7           | -18.5                  | .1           | 43.95                      | 54                     | -10.05      | -                   | -              | 31             | 303         | H        |
| 1      | * 5.46          | 36.02                | Pk  | 34.7           | -18.5                  | 0            | 52.22                      | -                      | -           | 74                  | -21.78         | 31             | 303         | H        |
| 5      | * 5.46          | 26.28                | RMS | 34.7           | -18.5                  | .1           | 42.58                      | 54                     | -11.42      | -                   | -              | 31             | 303         | H        |
| 4      | 5.464           | 40.22                | Pk  | 34.7           | -18.4                  | 0            | 56.52                      | -                      | -           | 68.2                | -11.68         | 31             | 303         | H        |
| 8      | 5.469           | 27.45                | RMS | 34.8           | -18.3                  | .1           | 44.05                      | -                      | -           | -                   | -              | 31             | 303         | H        |
| 3      | 5.47            | 37.59                | Pk  | 34.8           | -18.3                  | 0            | 54.09                      | -                      | -           | 68.2                | -14.11         | 31             | 303         | H        |
| 7      | 5.47            | 25.46                | RMS | 34.8           | -18.3                  | .1           | 42.06                      | -                      | -           | -                   | -              | 31             | 303         | H        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

Pk - Peak detector

RMS - RMS detection

## VERTICAL RESULT



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T862 (dB/m) | Amp/Cbl/Filtr/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      | * 5.352         | 40.39                | Pk  | 34.6           | -18.2                  | 0            | 56.79                      | -                      | -           | 74                  | -17.21         | 256            | 116         | V        |
| 1      | * 5.46          | 34.29                | Pk  | 34.7           | -18.5                  | 0            | 50.49                      | -                      | -           | 74                  | -23.51         | 256            | 116         | V        |
| 5      | * 5.46          | 26.1                 | RMS | 34.7           | -18.5                  | .1           | 42.4                       | 54                     | -11.6       | -                   | -              | 256            | 116         | V        |
| 6      | * 5.46          | 27.75                | RMS | 34.7           | -18.5                  | .1           | 44.05                      | 54                     | -9.95       | -                   | -              | 256            | 116         | V        |
| 4      | 5.466           | 38.46                | Pk  | 34.7           | -18.4                  | 0            | 54.76                      | -                      | -           | 68.2                | -13.44         | 256            | 116         | V        |
| 8      | 5.467           | 28.02                | RMS | 34.7           | -18.4                  | .1           | 44.42                      | -                      | -           | -                   | -              | 256            | 116         | V        |
| 3      | 5.47            | 36.55                | Pk  | 34.8           | -18.3                  | 0            | 53.05                      | -                      | -           | 68.2                | -15.15         | 256            | 116         | V        |
| 7      | 5.47            | 26.17                | RMS | 34.8           | -18.3                  | .1           | 42.77                      | -                      | -           | -                   | -              | 256            | 116         | V        |

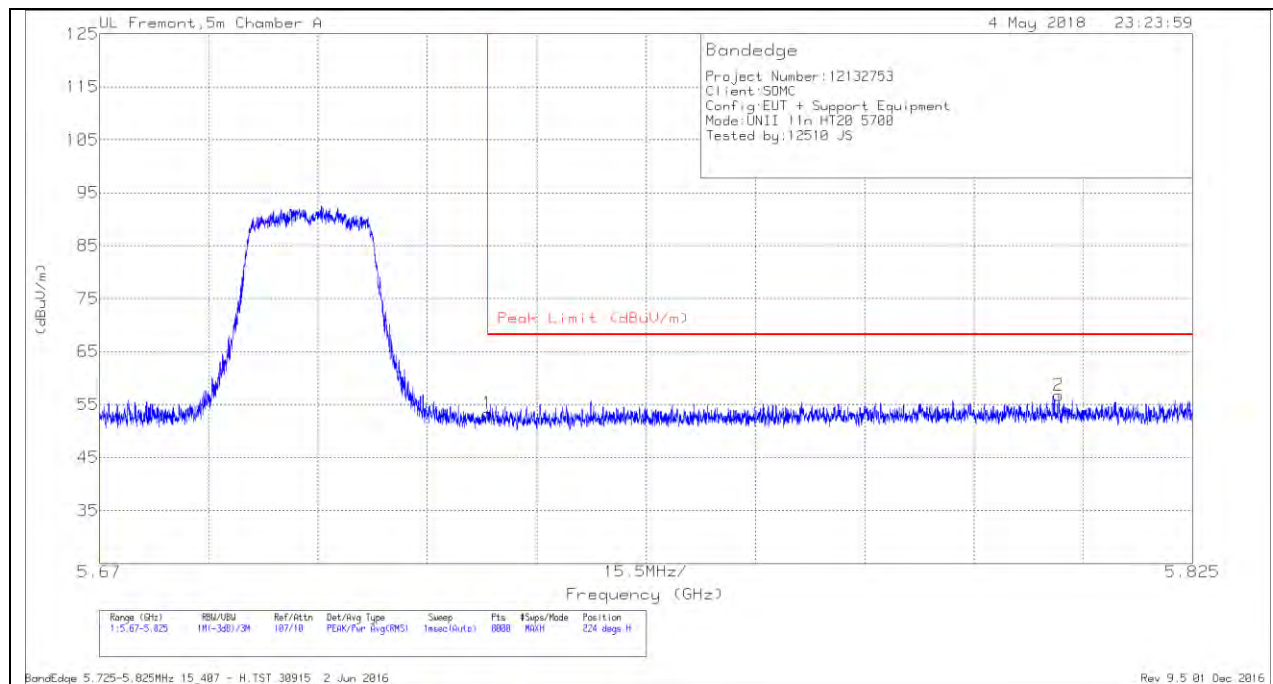
\* - indicates frequency in CFR47 Pt 15 Restricted Band

Pk - Peak detector

RMS - RMS detection

## BANDEDGE (HIGH CHANNEL)

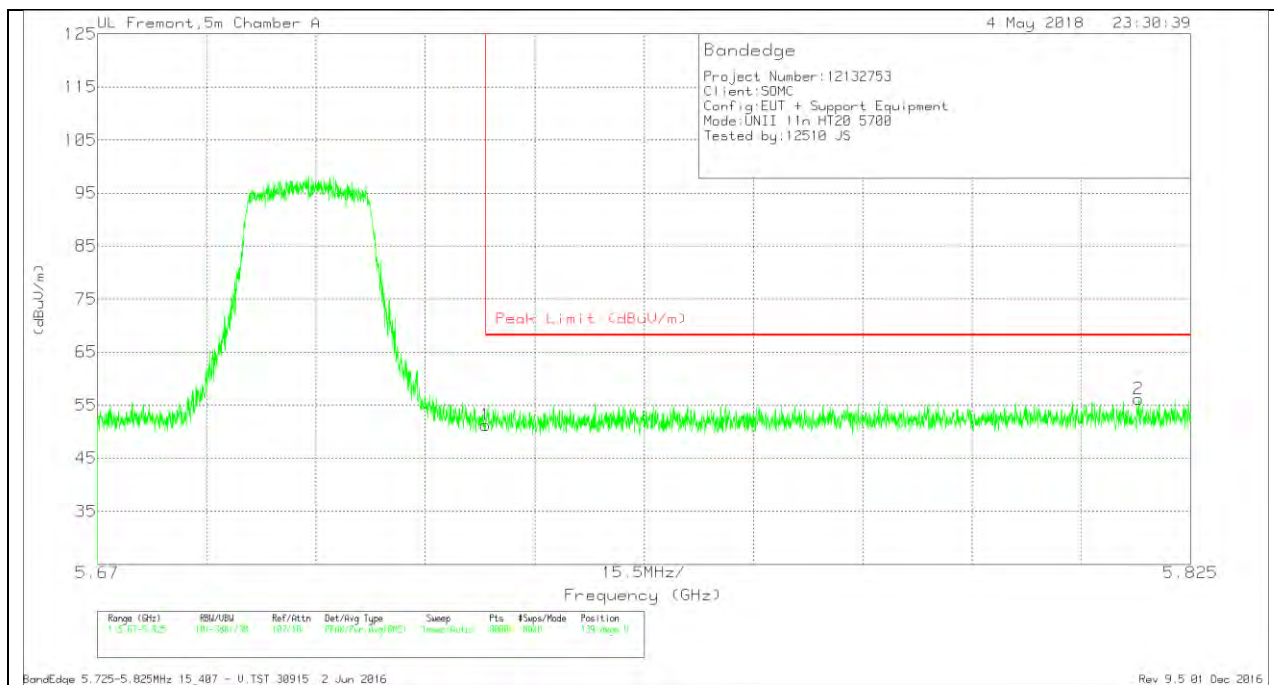
### HORIZONTAL RESULT



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T862 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | Corrected Reading (dBuV/m) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|----------------------------|---------------------|----------------|----------------|-------------|----------|
| 1      | 5.725           | 36.78                | Pk  | 35             | -18.5                  | 53.28                      | 68.2                | -14.92         | 224            | 342         | H        |
| 2      | 5.806           | 39.8                 | Pk  | 35.1           | -18.2                  | 56.7                       | 68.2                | -11.5          | 224            | 342         | H        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band  
Pk - Peak detector

## VERTICAL RESULT



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T862 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|--------------|----------------------------|---------------------|----------------|----------------|-------------|----------|
| 1      | 5.725           | 34.68                | Pk  | 35             | -18.5                  | 0            | 51.18                      | 68.2                | -17.02         | 139            | 398         | V        |
| 2      | 5.818           | 39.24                | Pk  | 35.1           | -18.2                  | 0            | 56.14                      | 68.2                | -12.06         | 139            | 398         | V        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band  
Pk - Peak detector

## HARMONICS AND SPURIOUS EMISSIONS

### LOW CHANNEL RESULTS

