



TEST REPORT

Report Number: R12761322-E8

Applicant : Weber-Stephen Products LLC
1415 S Roselle Rd
Palatine, IL 60067, U.S.A.

Model : PULSE 2000

FCC ID : 2AHSR-CONNECT1

IC : 21267-CONNECT1

EUT Description : Smart grill with 2.4 WLAN and BLE radio

Test Standard(s) : FCC 47 CFR PART 15 SUBPART C
ISED RSS-247 ISSUE 2
ISED RSS-GEN ISSUE 5

Date of Issue:
2020-08-11

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REPORT REVISION HISTORY

| Rev. | Issue Date | Revisions | Revised By |
|------|------------|--|---------------|
| V1 | 2020-07-20 | Initial Issue | Niklas Haydon |
| V2 | 2020-08-10 | Added additional radiated emissions data | Niklas Haydon |

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: Weber-Stephen Products LLC
1415 S Roselle Rd
Palatine, IL 60067, U.S.A.

EUT DESCRIPTION: Smart grilling hub with 2.4 WLAN and BLE radio

MODEL: WEBER CONNECT SMART GRILLING HUB

SERIAL NUMBER: WLAN – 30190000000048, BLE - 30190000000118

SAMPLE RECEIPT DATE: 2020-06-25

DATE TESTED: 2020-07-14 to 2020-07-31
2019-04-29 (DUTY CYCLE FOR WLAN)
2019-05-14 (DUTY CYCLE FOR BLE)

| APPLICABLE STANDARDS | |
|--------------------------|--------------|
| STANDARD* | TEST RESULTS |
| CFR 47 Part 15 Subpart C | Complies |
| ISED RSS-247 Issue 2 | Complies |
| ISED RSS-GEN Issue 5 | Complies |

*This report covers radiated emissions and ac power line conducted emissions. Refer to R12761322-E1 and R12761322-E2 for all other test data.

UL LLC tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. All samples tested were in good operating condition throughout the entire test program. Measurement Uncertainties are published for informational purposes only and were not taken into account unless noted otherwise.

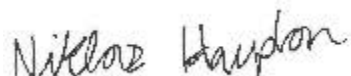
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Approved & Released For
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UL LLC

2. TEST RESULTS SUMMARY

| FCC Clause | ISED Clause | Requirement | Result | Comment |
|----------------|-------------------|------------------------------|--------------------------|--|
| See Comment | | Duty Cycle | Reporting purposes only. | ANSI C63.10 Section 11.6. |
| - | RSS-GEN 6.7 | 99% OBW | Not performed. | See UL LLC reports R12761322-E1 and R12761322-E2 |
| 15.247 (a) (2) | RSS-247 5.2 (a) | 6dB BW | Not performed. | |
| 15.247 (b) (3) | RSS-247 5.4 (d) | Output Power | Not performed. | |
| See Comment | | Average power | Not performed. | |
| 15.247 (e) | RSS-247 5.2 (b) | PSD | Not performed. | |
| 15.247 (d) | RSS-247 5.5 | Conducted Spurious Emissions | Not performed. | |
| 15.209, 15.205 | RSS-GEN 8.9, 8.10 | Radiated Emissions | Compliant. | None. |
| 15.207 | RSS-Gen 8.8 | AC Mains Conducted Emissions | Compliant. | None. |

3. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, ANSI C63.10-2013, KDB 558074 D01 15.247 Meas Guidance v05r02, KDB 414788 D01 Radiated Test Site v01r01, RSS-GEN Issue 5, and RSS-247 Issue 2.

4. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 12 Laboratory Drive, Research Triangle Park, NC 27709, USA and 2800 Perimeter Park Dr., Suite B, Morrisville, NC 27560, USA. 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.

| 12 Laboratory Dr. | 2800 Perimeter Park Dr. |
|--|---|
| Site Code: 2180C | |
| <input type="checkbox"/> Chamber A RTP | <input checked="" type="checkbox"/> North Chamber |
| <input type="checkbox"/> Chamber C RTP | <input checked="" type="checkbox"/> South Chamber |

The above test sites and facilities are covered under FCC Test Firm Registration # 703469. Chambers above are covered under Industry Canada company address and respective code.

UL LLC (RTP) is accredited by NVLAP, Laboratory Code 200246-0

5. DECISION RULES AND MEASUREMENT UNCERTAINTY

5.1. METROLOGICAL TRACEABILITY

All test and measuring equipment utilized to perform the tests documented in this report are calibrated on a regular basis, with a maximum time between calibrations of one year or the manufacturers' recommendation, whichever is less, and where applicable is traceable to recognized national standards.

5.2. DECISION RULES

The Decision Rule is based on Simple Acceptance in accordance with ISO Guide 98-4:2012 Clause 8.2. (Measurement uncertainty is not taken into account when stating conformity with a specified requirement.)

5.3. MEASUREMENT UNCERTAINTY

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

| PARAMETER | U_{Lab} |
|--|-----------------------------|
| Radio Frequency (Spectrum Analyzer) | 141.2 Hz |
| Occupied Channel Bandwidth | 2.00% |
| RF output power, conducted | 1.3 dB (PK) 0.45 dB (AV) |
| Power Spectral Density, conducted | 2.47 dB |
| Unwanted Emissions, conducted | 1.94 dB |
| All emissions, radiated | 4.88 dB |
| Conducted Emissions (0.150-30MHz) - LISN | 3.07 dB |
| Temperature | 2.26°C |
| Humidity | 6.79% |
| DC Supply voltages | 1.70% |
| Time | 3.39% |

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

5.4. SAMPLE CALCULATION

RADIATED EMISSIONS

Where relevant, the following sample calculation is provided:

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

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

MAINS CONDUCTED EMISSIONS

Where relevant, the following sample calculation is provided:

Final Voltage (dBuV) = Measured Voltage (dBuV) + Cable Loss (dB) + Limiter Factor (dB) + LISN Insertion Loss.

$$36.5 \text{ dBuV} + 0 \text{ dB} + 10.1 \text{ dB} + 0 \text{ dB} = 46.6 \text{ dBuV}$$

6. EQUIPMENT UNDER TEST

6.1. EUT DESCRIPTION

The EUT is a smart grill with 2.4 WLAN and BLE radio.

6.2. MAXIMUM OUTPUT POWER

Refer to UL LLC reports R12761322-E1 and R12761322-E2 for maximum output power.

6.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an OnBoard SMD antenna, with a maximum gain of 4.9 dBi.

6.4. SOFTWARE AND FIRMWARE

The EUT firmware installed during testing was 01-68e4a7a6.
The test utility software used during testing was 7.45.98.50 (r688715 CY WLTEST).

6.5. WORST-CASE CONFIGURATION AND MODE

Radiated emissions below 1GHz, above 18GHz, and power line conducted emission were performed with the EUT set to transmit at the channel and data rate with highest power spectral density across all data rates as worst-case scenario.

Band edge and radiated emissions between 1GHz and 18GHz were performed with the EUT set to transmit at the highest power on low, middle and high channels.

The EUT only operates in one orientations X, therefore, all final radiated testing was performed with the EUT in X orientation.

Worst-case data rates were:

BLE: 1Mbps
802.11b mode: 1 Mbps
802.11g mode: 6 Mbps
802.11n HT20mode: MCS0

6.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

| Description | Manufacturer | Model | Serial Number | FCC ID |
|-------------------------|---------------|-------------|------------------------|--------|
| Laptop | Lenovo | L470 | PF0ZV674 | NA |
| Laptop Charger | Lenovo | ADLX65NDC2A | 11S36200282ZZ20053B8X2 | NA |
| Meat Temperature Probes | Weber Stephen | SKU 7211 | Non-serialized | NA |

I/O CABLES

| I/O Cable List | | | | | | |
|----------------|-------|----------------------|----------------|------------|------------------|---------|
| Cable No. | Port | # of Identical Ports | Connector Type | Cable Type | Cable Length (m) | Remarks |
| 1 | Probe | 1 | Barrel | Probe | <3m | none |

TEST SETUP

The EUT is connected to a test laptop that has software to exercise the radio card.

SETUP DIAGRAMS

Please refer to R12761322-EP3 for setup diagrams

7. MEASUREMENT METHOD

On Time and Duty Cycle: ANSI C63.10-2013 Section 11.6.

Emissions in non-restricted frequency bands: ANSI C63.10 Subclause -11.11 and 6.10.4

Emissions in restricted frequency bands: ANSI C63.10 Subclause -11.12.1 and 6.10.5

General Radiated Emissions: ANSI C63.10:2013 Sections 6.3 – 6.6

AC Power Line Conducted Emissions: ANSI C63.10-2013, Section 6.2.

8. TEST AND MEASUREMENT EQUIPMENT

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

Test Equipment Used - Radiated Disturbance Emissions Test Equipment (Morrisville - North Chamber)

| Equip. ID | Description | Manufacturer | Model Number | Last Cal. | Next Cal. |
|---------------|---|-------------------|--------------|------------|------------|
| | 1-18 GHz | | | | |
| AT0072 | Double-Ridged Waveguide Horn Antenna, 1 to 18 GHz | ETS Lindgren | 3117 | 2020-04-27 | 2021-04-27 |
| | Gain-Loss Chains | | | | |
| N-SAC03 | Gain-loss string: 1-18GHz | Various | Various | 2020-03-15 | 2021-03-15 |
| | Receiver & Software | | | | |
| SA0025 | Spectrum Analyzer | Agilent | N9030A | 2020-03-17 | 2021-03-17 |
| SOFTEMI | EMI Software | UL | Version 9.5 | NA | NA |
| | Additional Equipment used | | | | |
| s/n 181474341 | Environmental Meter | Fisher Scientific | 15-077-963 | 2018-07-27 | 2020-07-27 |
| s/n 200037635 | Environmental Meter | Fisher Scientific | 06-662-4 | 2020-1-22 | 2022-01-22 |

Test Equipment Used - Line-Conducted Emissions – Voltage (Morrisville – Conducted 1)

| Equipment ID | Description | Manufacturer | Model Number | Last Cal. | Next Cal. |
|--------------------|---|---------------------|--------------------------|------------|------------|
| CBL087 | Coax cable, RG223, N-male to BNC-male, 20-ft. | Pasternack | PE3W06143-240 | 2020-03-26 | 2021-03-26 |
| s/n 200037610 | Environmental Meter | fisherbrand | 06-662-4 | 2020-01-21 | 2022-01-21 |
| LISN003 | LISN, 50-ohm/50-uH, 2-conductor, 25A | Fischer Custom Com. | FCC-LISN-50-25-2-01-550V | 2019-08-19 | 2020-08-19 |
| 75141 (PRE0101521) | EMI Test Receiver 9kHz-7GHz | Rohde & Schwarz | ESCI 7 | 2019-08-20 | 2020-08-20 |
| ATA222 | Transient Limiter, 0.009-100MHz | Electro-Metrics | EM-7600 | 2020-03-26 | 2021-03-26 |
| PS214 | AC Power Source | Elgar | CW2501M (s/n 1523A02396) | NA | NA |
| SOFTEMI | EMI Software | UL | Version 9.5 | NA | NA |

Test Equipment Used - Radiated Disturbance Emissions Test Equipment (Morrisville - South Chamber)

| Equip. ID | Description | Manufacturer | Model Number | Last Cal. | Next Cal. |
|---------------|---|-------------------------|--------------|------------|------------|
| | 0.009-30MHz | (Loop Ant.) | | | |
| AT0079 | Active Loop Antenna | ETS-Lindgren | 6502 | 2019-08-08 | 2020-08-08 |
| | 30-1000 MHz | | | | |
| AT0074 | Hybrid Broadband Antenna | Sunol Sciences Corp. | JB3 | 2019-07-16 | 2020-07-16 |
| | 1-18 GHz | | | | |
| AT0078 | Double-Ridged Waveguide Horn Antenna, 1 to 18 GHz | ETS Lindgren | 3117 | 2019-10-28 | 2020-10-28 |
| | 18-40 GHz | | | | |
| AT0076 | Horn Antenna, 18-26.5GHz | ARA | MWH-1826/B | 2019-11-07 | 2020-11-07 |
| | Gain-Loss Chains | | | | |
| S-SAC01 | Gain-loss string: 0.009-30MHz | Various | Various | 2020-04-23 | 2021-04-23 |
| S-SAC02 | Gain-loss string: 25-1000MHz | Various | Various | 2020-04-23 | 2021-04-23 |
| S-SAC03 | Gain-loss string: 1-18GHz | Various | Various | 2020-05-15 | 2021-05-15 |
| S-SAC04 | Gain-loss string: 18-40GHz | Various | Various | 2020-03-23 | 2021-03-23 |
| | Receiver & Software | | | | |
| SA0026 | Spectrum Analyzer | Agilent | N9030A | 2020-06-24 | 2021-06-24 |
| 197954 | Spectrum Analyzer | Rohde & Schwarz | ESW44 | 2020-03-27 | 2021-03-27 |
| SOFTEMI | EMI Software | UL | Version 9.5 | NA | NA |
| | Additional Equipment used | | | | |
| s/n 181474341 | Environmental Meter | Fisher Scientific | 15-077-963 | 2018-07-27 | 2020-07-27 |
| s/n 200037610 | Environmental Meter | Fisher Scientific | 06-662-4 | 2020-1-22 | 2022-01-22 |
| 76022 | DC Regulated Power Supply | CircuitSpecialists .Com | CSI3005X5 | N/A | N/A |

Note: All equipment was calibrated at time of test.

9. ON TIME AND DUTY CYCLE

LIMITS

None; for reporting purposes only.

PROCEDURE

KDB 558074 Zero-Span Spectrum Analyzer Method.

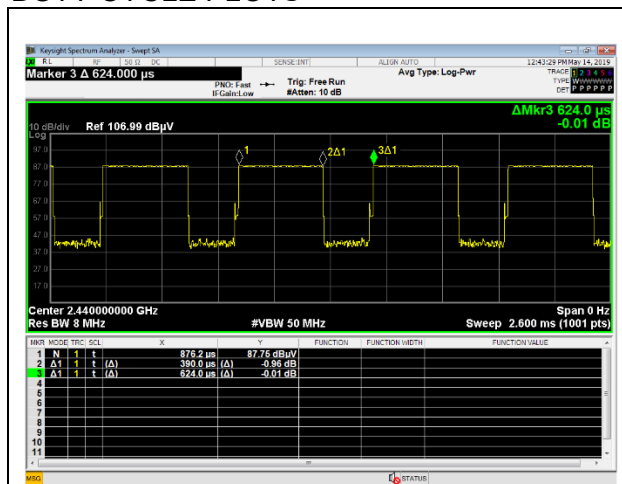
ON TIME AND DUTY CYCLE RESULTS

| Mode | ON Time B (msec) | Period (msec) | Duty Cycle x (linear) | Duty Cycle (%) | Duty Cycle Correction Factor Radiated (dB) | 1/B Minimum VBW (kHz) |
|--------------------|------------------------|------------------|-----------------------------|----------------------|--|-----------------------------|
| 2.4GHz Band | | | | | | |
| BLE | 0.390 | 0.624 | 0.625 | 62.50% | 4.08 | 2.564 |
| 802.11b 1TX | 8.400 | 8.450 | 0.994 | 99.41% | 0.00 | 0.010 |
| 802.11g 1TX | 1.396 | 1.436 | 0.972 | 97.21% | 0.25 | 0.716 |
| 802.11n HT20 1TX | 1.307 | 1.350 | 0.968 | 96.81% | 0.28 | 0.765 |

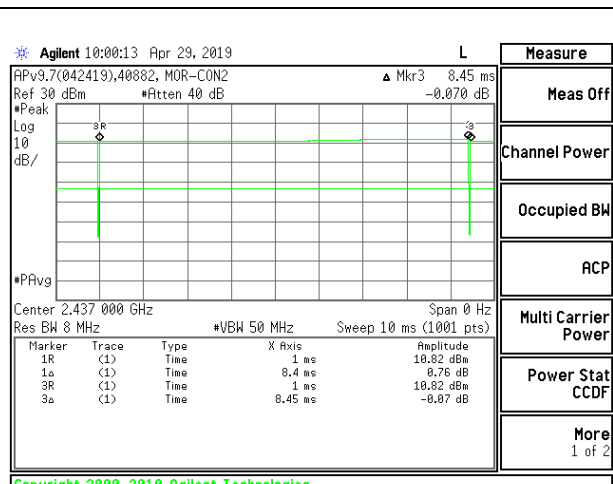
Note: This data has been referenced from UL LLC reports R12761322-E1 and R12761322-E2.

Tester: 12015/40882

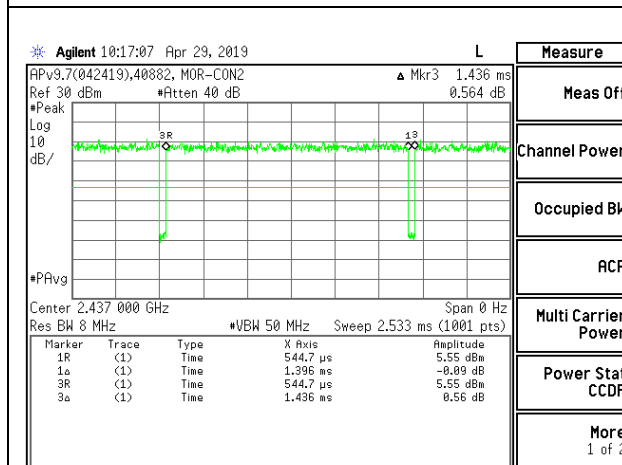
DUTY CYCLE PLOTS



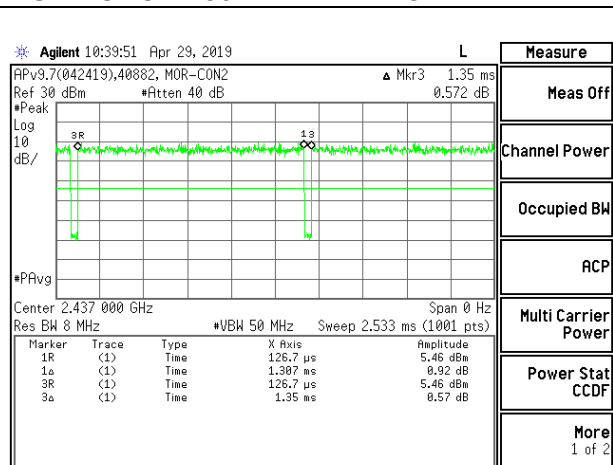
DUTY CYCLE BLE



DUTY CYCLE 802.11b 1TX MODE



DUTY CYCLE 802.11g 1TX MODE



DUTY CYCLE 802.11nHT20 1TX MODE

10. RADIATED TEST RESULTS

10.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209
 RSS-GEN, Section 8.9 and 8.10.

| 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 120 kHz for peak and/or quasi-peak detection measurements in the 30-1000MHz range, 9kHz for peak and/or quasi-peak detection measurements in the 0.15-30MHz range and 200Hz for peak and/or quasi-peak detection measurements in the 9 to 150kHz range. 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. For this test program, voltage average detection was used.

The spectrum from 1 GHz to 18 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band. Below 1GHz and above 18GHz emissions, the channel with the highest output power was tested.

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.

3D antenna use - For below 30MHz testing, investigation was done on three antenna orientations (parallel, perpendicular, and ground-parallel).

KDB 414788 Open Field Site (OFS) and Chamber Correlation Justification

Base on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field.

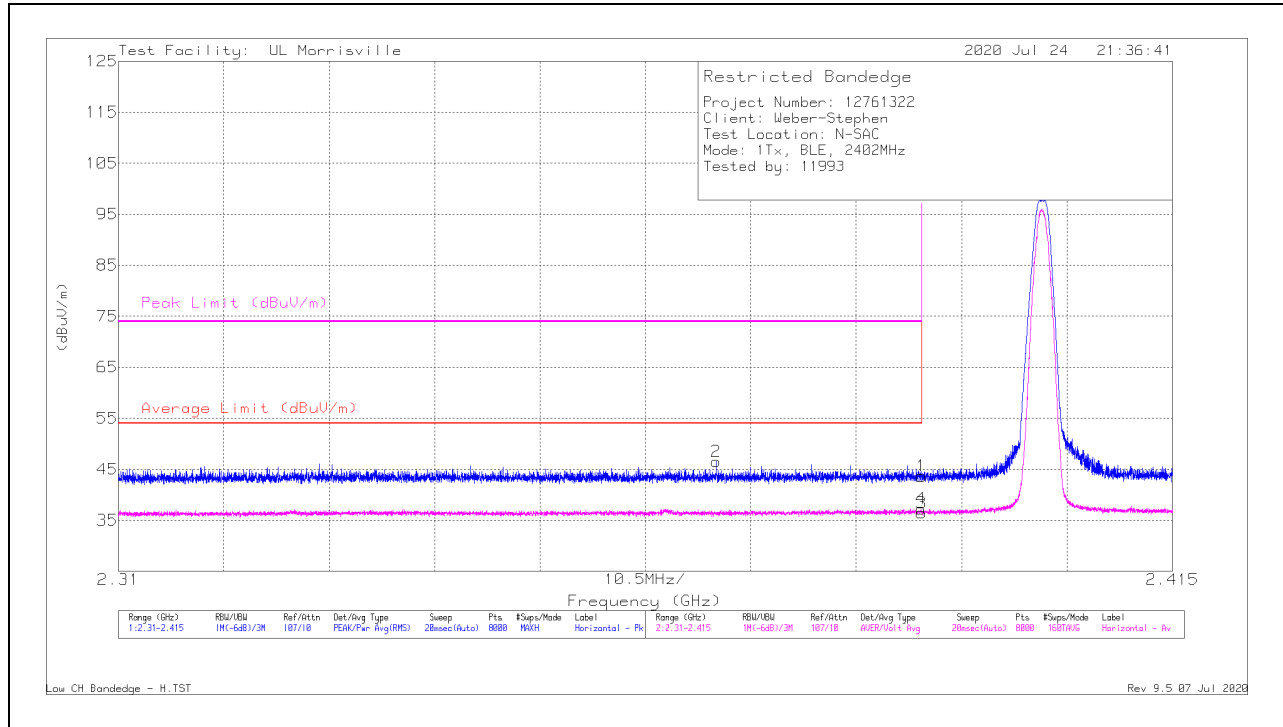
OFS and chamber correlation testing had been performed and chamber measured test result is the worst-case test result.

10.2. TRANSMITTER ABOVE 1 GHz

10.2.1. BLE

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AT0072 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 | * * * 2.39 | 35.46 | Pk | 31.8 | -23.6 | 0 | 43.66 | - | - | 74 | -30.34 | 125 | 101 | H |
| 2 | * * * 2.36954 | 38.41 | Pk | 31.7 | -23.6 | 0 | 46.51 | - | - | 74 | -27.49 | 125 | 101 | H |
| 3 | * * * 2.39 | 24.19 | ADV | 31.8 | -23.6 | 4.08 | 36.47 | 54 | -17.53 | - | - | 125 | 100 | H |
| 4 | * * * 2.38996 | 24.98 | ADV | 31.8 | -23.6 | 4.08 | 37.26 | 54 | -16.74 | - | - | 125 | 100 | H |

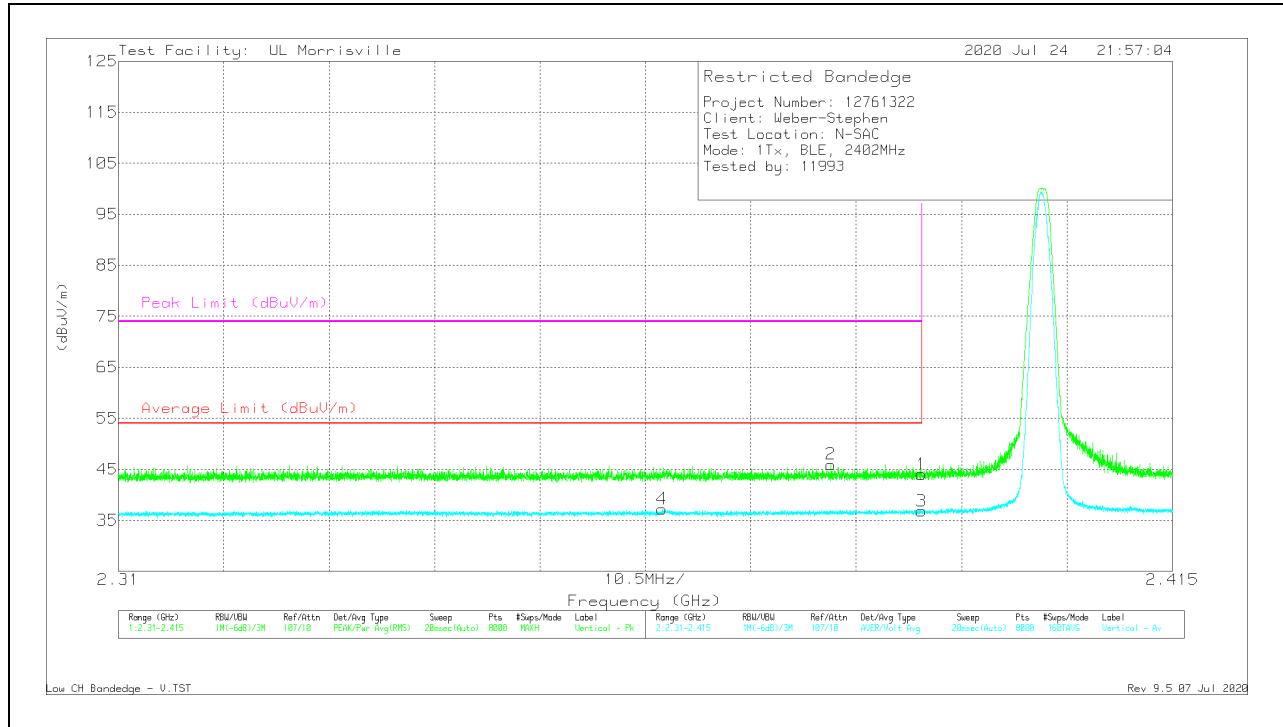
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

VERTICAL RESULT

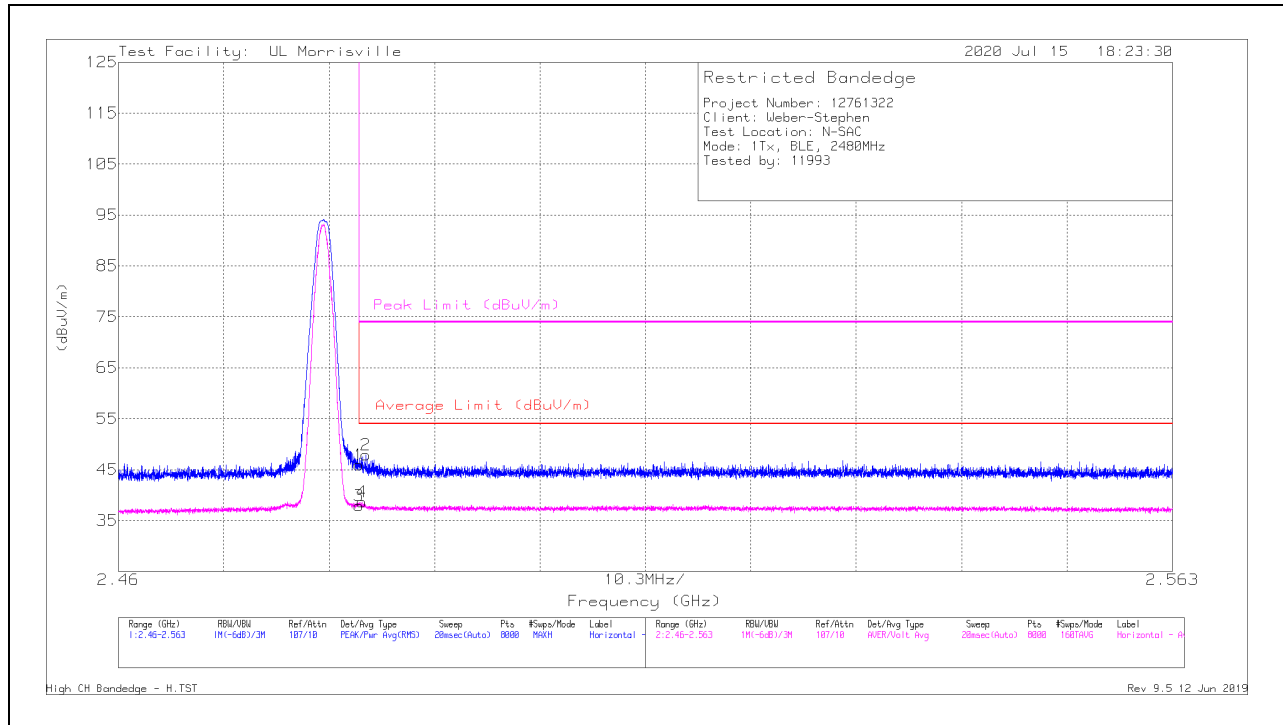


| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AT0072 dB(/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|---------------|------------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1 | * ** 2.39 | 35.83 | Pk | 31.8 | -23.6 | 0 | 44.03 | - | - | 74 | -29.97 | 283 | 129 | V |
| 2 | * ** 2.38099 | 37.68 | Pk | 31.8 | -23.5 | 0 | 45.98 | - | - | 74 | -28.02 | 283 | 129 | V |
| 3 | * ** 2.39 | 24.53 | ADV | 31.8 | -23.6 | 4.08 | 36.81 | 54 | -17.19 | - | - | 283 | 129 | V |
| 4 | * ** 2.36415 | 24.95 | ADV | 31.7 | -23.5 | 4.08 | 37.23 | 54 | -16.77 | - | - | 283 | 129 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 ADV - Linear Voltage Average

BANDEDGE (HIGH CHANNEL)

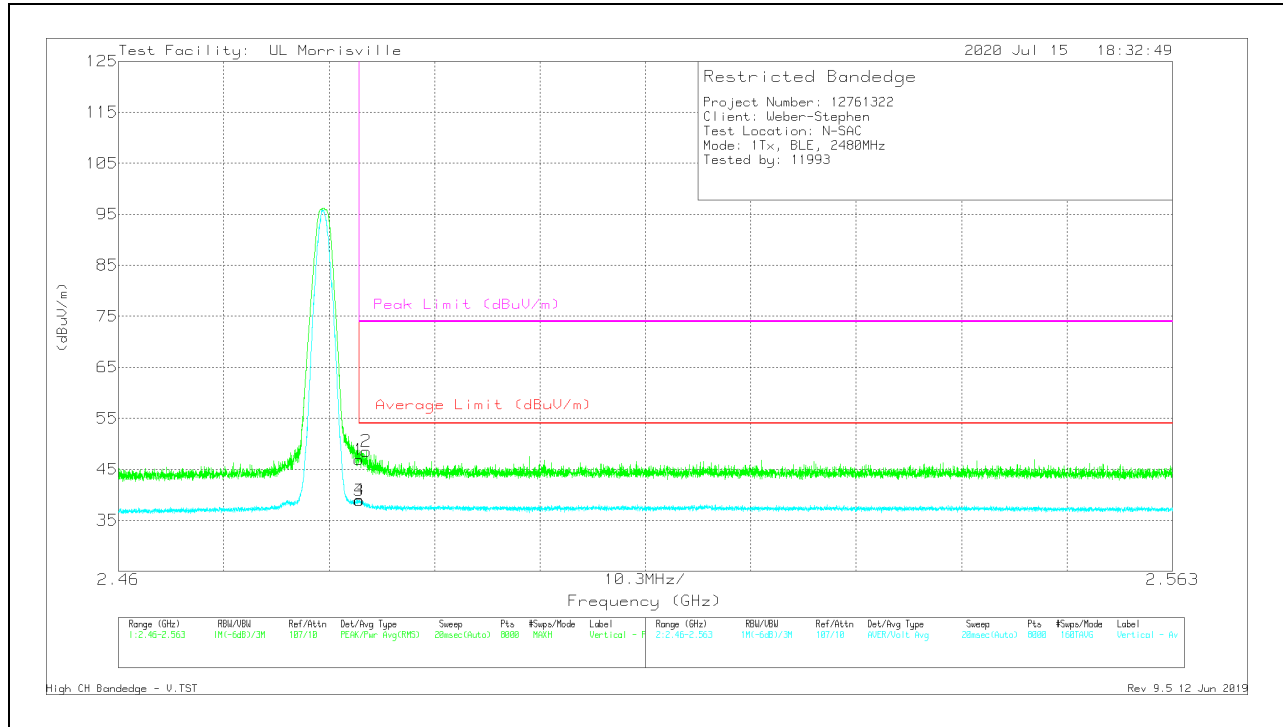
HORIZONTAL RESULT



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AT0072 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 | * ** 2.4835 | 36.92 | Pk | 32.4 | -23.4 | 0 | 45.92 | - | - | 74 | -28.08 | 33 | 329 | H |
| 2 | * ** 2.48417 | 38.88 | Pk | 32.4 | -23.4 | 0 | 47.88 | - | - | 74 | -26.12 | 33 | 329 | H |
| 3 | * ** 2.4835 | 24.79 | ADV | 32.4 | -23.4 | 4.08 | 37.87 | 54 | -16.13 | - | - | 33 | 329 | H |
| 4 | * ** 2.48382 | 25.59 | ADV | 32.4 | -23.4 | 4.08 | 38.67 | 54 | -15.33 | - | - | 33 | 329 | H |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 ADV - Linear Voltage Average

VERTICAL RESULT

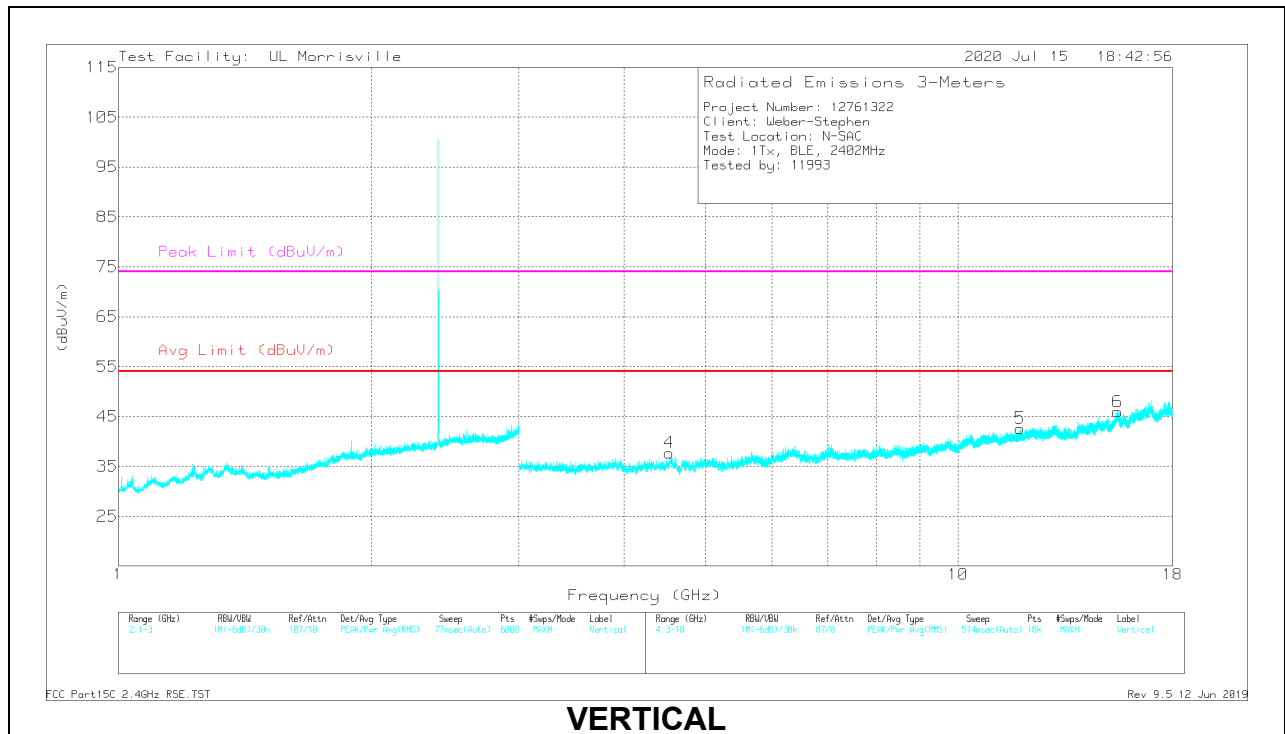
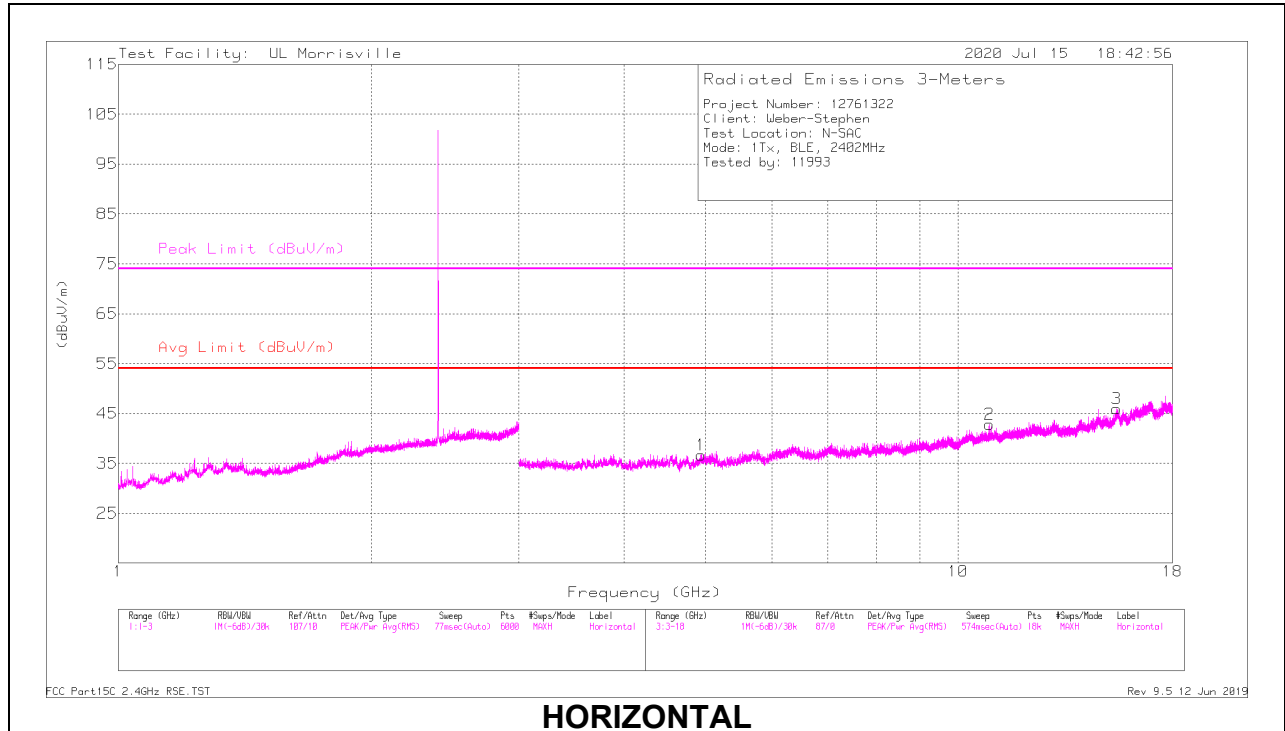


| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AT0072 dB(m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|--------------|------------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1 | * ** 2.4835 | 37.86 | Pk | 32.4 | -23.4 | 0 | 46.86 | - | - | 74 | -27.14 | 114 | 365 | V |
| 2 | * ** 2.48421 | 39.55 | Pk | 32.4 | -23.4 | 0 | 48.55 | - | - | 74 | -25.45 | 114 | 365 | V |
| 3 | * ** 2.4835 | 25.84 | ADV | 32.4 | -23.4 | 4.08 | 38.92 | 54 | -15.08 | - | - | 114 | 365 | V |
| 4 | * ** 2.48355 | 25.9 | ADV | 32.4 | -23.4 | 4.08 | 38.98 | 54 | -15.02 | - | - | 114 | 365 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 ADV - Linear Voltage Average

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



RADIATED EMISSIONS

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AT0072 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) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|---------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1 | * ** 4.94126 | 40.99 | PK2 | 34.1 | -31.5 | 0 | 43.59 | - | - | 74 | -30.41 | 54 | 235 | H |
| | * ** 4.94087 | 27.57 | ADV | 34.1 | -31.5 | 4.08 | 34.25 | 54 | -19.75 | - | - | 54 | 235 | H |
| 2 | * ** 10.90355 | 35.78 | PK2 | 37.9 | -25.2 | 0 | 48.48 | - | - | 74 | -25.52 | 60 | 152 | H |
| | * ** 10.90329 | 22.4 | ADV | 37.9 | -25.2 | 4.08 | 39.18 | 54 | -14.82 | - | - | 60 | 152 | H |
| 3 | * ** 15.45629 | 36.64 | PK2 | 40.2 | -23.3 | 0 | 53.54 | - | - | 74 | -20.46 | 71 | 160 | H |
| | * ** 15.45585 | 22.81 | ADV | 40.2 | -23.3 | 4.08 | 43.79 | 54 | -10.21 | - | - | 71 | 160 | H |
| 4 | * ** 4.52875 | 40.06 | PK2 | 34 | -31.5 | 0 | 42.56 | - | - | 74 | -31.44 | 57 | 207 | V |
| | * ** 4.52763 | 26.88 | ADV | 34 | -31.6 | 4.08 | 33.36 | 54 | -20.64 | - | - | 57 | 207 | V |
| 5 | * ** 11.86086 | 35.61 | PK2 | 38.5 | -25.2 | 0 | 48.91 | - | - | 74 | -25.09 | 169 | 316 | V |
| | * ** 11.86169 | 22.06 | ADV | 38.5 | -25.2 | 4.08 | 39.44 | 54 | -14.56 | - | - | 169 | 316 | V |
| 6 | * ** 15.48621 | 35.29 | PK2 | 40.2 | -23.1 | 0 | 52.39 | - | - | 74 | -21.61 | 331 | 202 | V |
| | * ** 15.48625 | 22.44 | ADV | 40.2 | -23.1 | 4.08 | 43.62 | 54 | -10.38 | - | - | 331 | 202 | V |

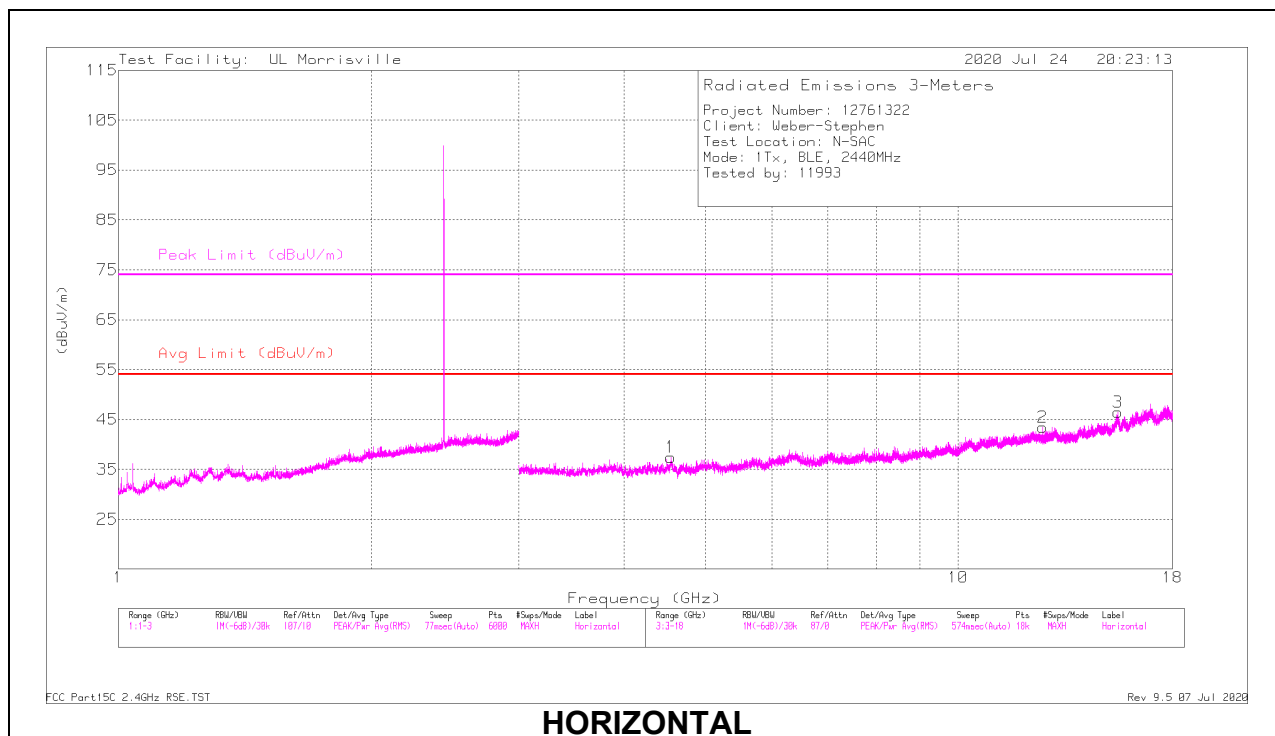
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

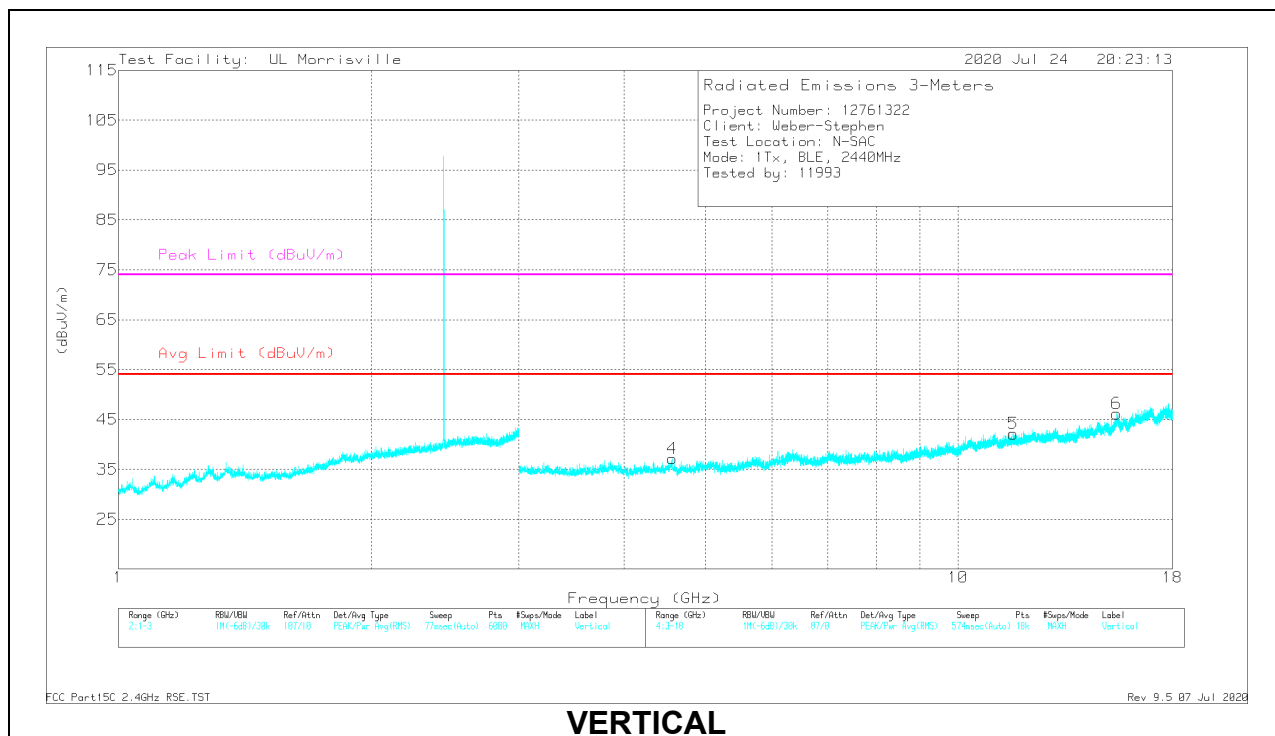
PK2 - Maximum Peak

ADV - Linear Voltage Average

MID CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AT0072 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) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|---------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1 | *** 4.54959 | 40.27 | PK2 | 34 | -31.5 | 0 | 42.77 | - | - | 74 | -31.23 | 353 | 361 | H |
| | *** 4.5493 | 27.85 | ADV | 34 | -31.5 | 4.08 | 34.43 | 54 | -19.57 | - | - | 353 | 361 | H |
| 2 | *** 12.61969 | 35.16 | PK2 | 39 | -26.1 | 0 | 48.06 | - | - | 74 | -25.94 | 303 | 114 | H |
| | *** 12.6175 | 22.66 | ADV | 39 | -26.1 | 4.08 | 39.64 | 54 | -14.36 | - | - | 303 | 114 | H |
| 3 | *** 15.49904 | 36.13 | PK2 | 40.2 | -23.1 | 0 | 53.23 | - | - | 74 | -20.77 | 261 | 103 | H |
| | *** 15.49902 | 22.33 | ADV | 40.2 | -23.1 | 4.08 | 43.51 | 54 | -10.49 | - | - | 261 | 103 | H |
| 4 | *** 4.56176 | 41.66 | PK2 | 34.1 | -31.4 | 0 | 44.36 | - | - | 74 | -29.64 | 191 | 345 | V |
| | *** 4.56206 | 27.76 | ADV | 34.1 | -31.4 | 4.08 | 34.54 | 54 | -19.46 | - | - | 191 | 345 | V |
| 5 | *** 11.63914 | 35.01 | PK2 | 38.3 | -25.3 | 0 | 48.01 | - | - | 74 | -25.99 | 140 | 126 | V |
| | *** 11.64098 | 22.23 | ADV | 38.3 | -25.3 | 4.08 | 39.31 | 54 | -14.69 | - | - | 140 | 126 | V |
| 6 | *** 15.44763 | 34.75 | PK2 | 40.1 | -23.5 | 0 | 51.35 | - | - | 74 | -22.65 | 159 | 346 | V |
| | *** 15.44773 | 22.43 | ADV | 40.1 | -23.5 | 4.08 | 43.11 | 54 | -10.89 | - | - | 159 | 346 | V |

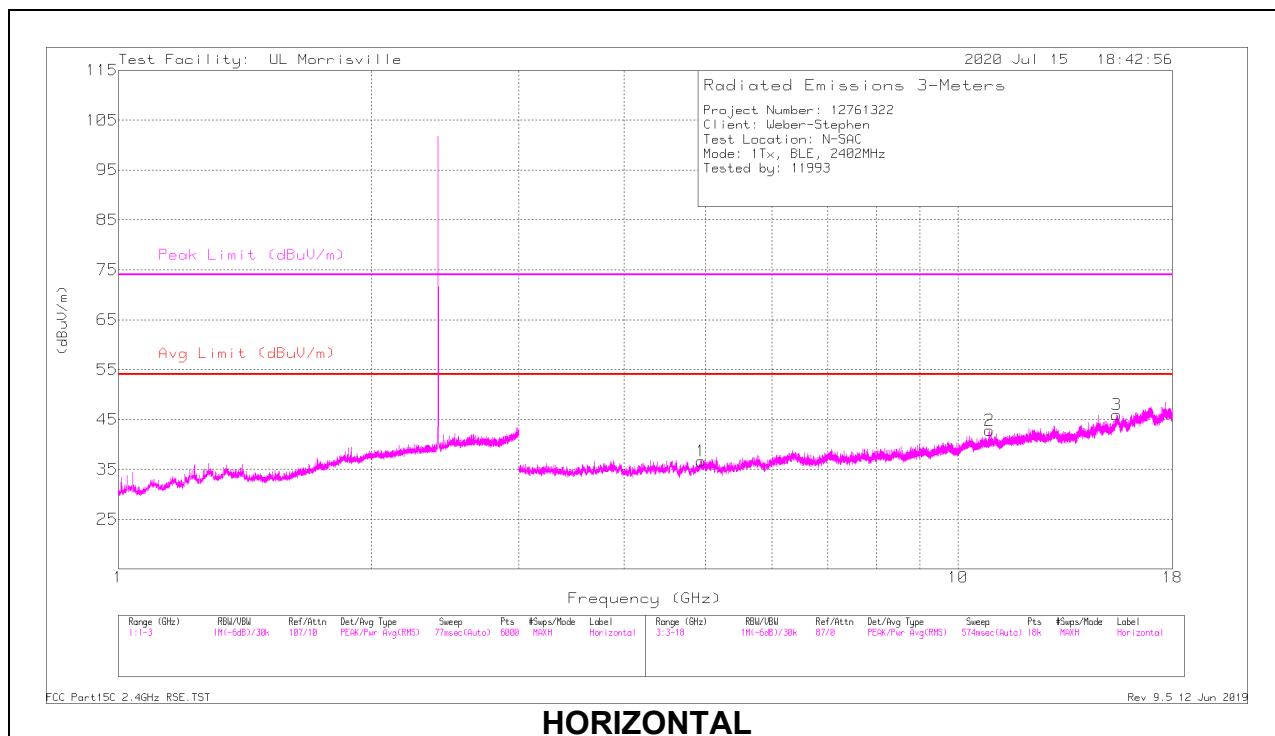
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

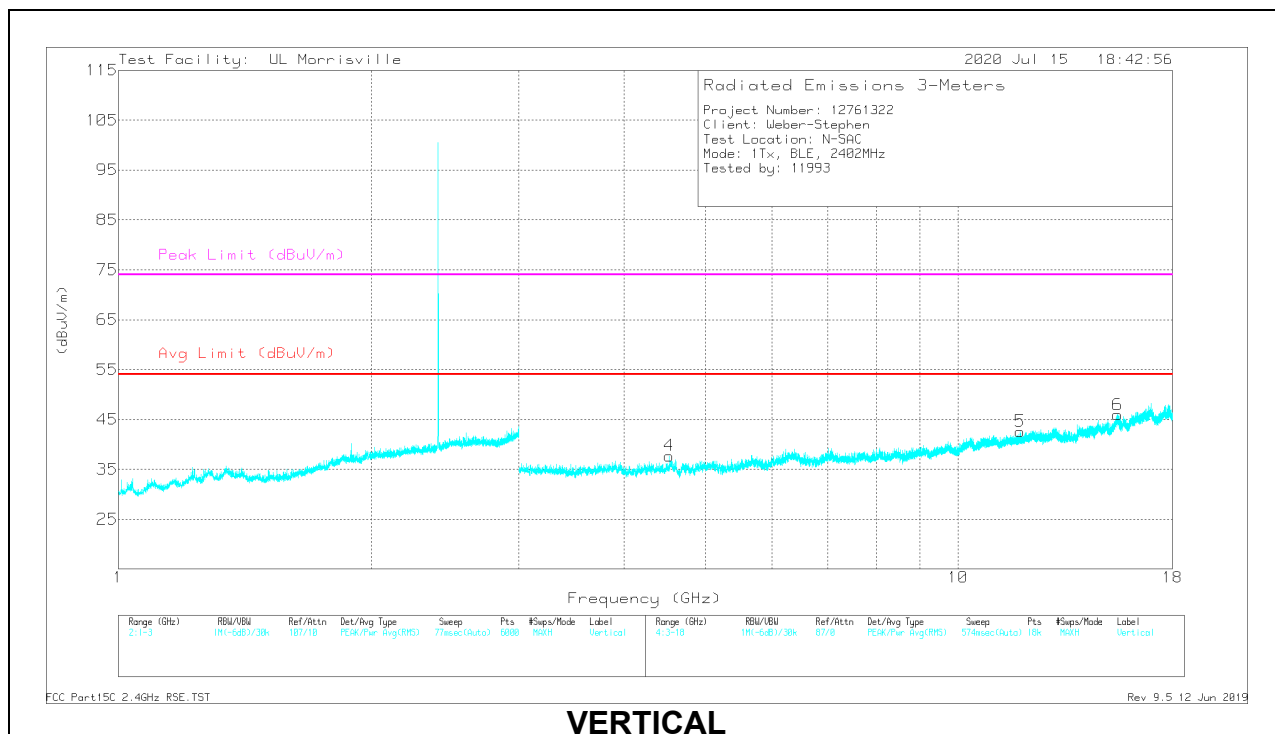
PK2 - Maximum Peak

ADV - Linear Voltage Average

HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AT0072 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) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|---------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1 | *** 4.94126 | 40.99 | PK2 | 34.1 | -31.5 | 0 | 43.59 | - | - | 74 | -30.41 | 54 | 235 | H |
| | *** 4.94087 | 27.57 | ADV | 34.1 | -31.5 | 4.08 | 34.25 | 54 | -19.75 | - | - | 54 | 235 | H |
| 2 | *** 10.90355 | 35.78 | PK2 | 37.9 | -25.2 | 0 | 48.48 | - | - | 74 | -25.52 | 60 | 152 | H |
| | *** 10.90329 | 22.4 | ADV | 37.9 | -25.2 | 4.08 | 39.18 | 54 | -14.82 | - | - | 60 | 152 | H |
| 3 | *** 15.45629 | 36.64 | PK2 | 40.2 | -23.3 | 0 | 53.54 | - | - | 74 | -20.46 | 71 | 160 | H |
| | *** 15.45585 | 22.81 | ADV | 40.2 | -23.3 | 4.08 | 43.79 | 54 | -10.21 | - | - | 71 | 160 | H |
| 4 | *** 4.52875 | 40.06 | PK2 | 34 | -31.5 | 0 | 42.56 | - | - | 74 | -31.44 | 57 | 207 | V |
| | *** 4.52763 | 26.88 | ADV | 34 | -31.6 | 4.08 | 33.36 | 54 | -20.64 | - | - | 57 | 207 | V |
| 5 | *** 11.86086 | 35.61 | PK2 | 38.5 | -25.2 | 0 | 48.91 | - | - | 74 | -25.09 | 169 | 316 | V |
| | *** 11.86169 | 22.06 | ADV | 38.5 | -25.2 | 4.08 | 39.44 | 54 | -14.56 | - | - | 169 | 316 | V |
| 6 | *** 15.48621 | 35.29 | PK2 | 40.2 | -23.1 | 0 | 52.39 | - | - | 74 | -21.61 | 331 | 202 | V |
| | *** 15.48625 | 22.44 | ADV | 40.2 | -23.1 | 4.08 | 43.62 | 54 | -10.38 | - | - | 331 | 202 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

PK2 - Maximum Peak

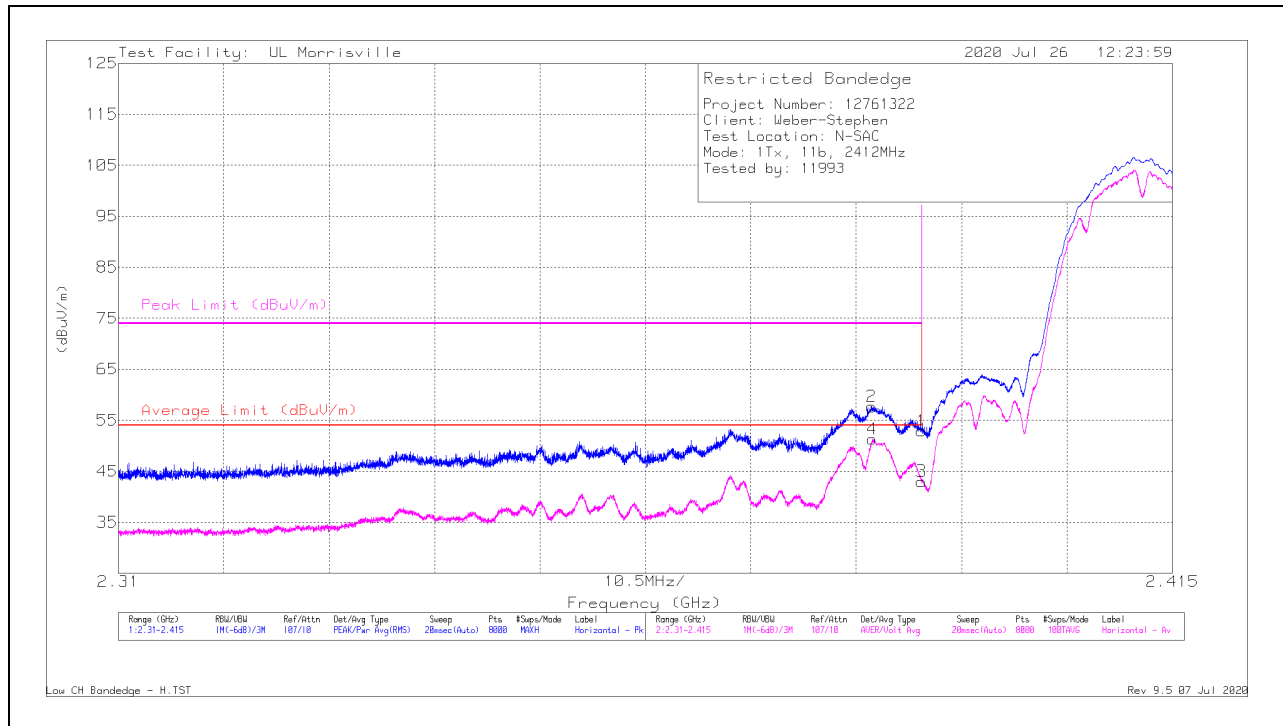
ADV - Linear Voltage Average

Pk - Peak detector

10.2.2. 2.4 WLAN 802.11b

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AT0072 dB/(m) | Amp/Cbl/Filtr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|---------------|------------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1 | * ** 2.39 | 44.71 | Pk | 31.8 | -23.6 | 52.91 | - | - | 74 | -21.09 | 87 | 120 | H |
| 2 | * ** 2.38501 | 49.47 | Pk | 31.8 | -23.6 | 57.67 | - | - | 74 | -16.33 | 87 | 120 | H |
| 3 | * ** 2.39 | 34.82 | ADV | 31.8 | -23.6 | 43.02 | 54 | -10.98 | - | - | 87 | 120 | H |
| 4 | * ** 2.38511 | 43.12 | ADV | 31.8 | -23.6 | 51.32 | 54 | -2.68 | - | - | 87 | 120 | H |

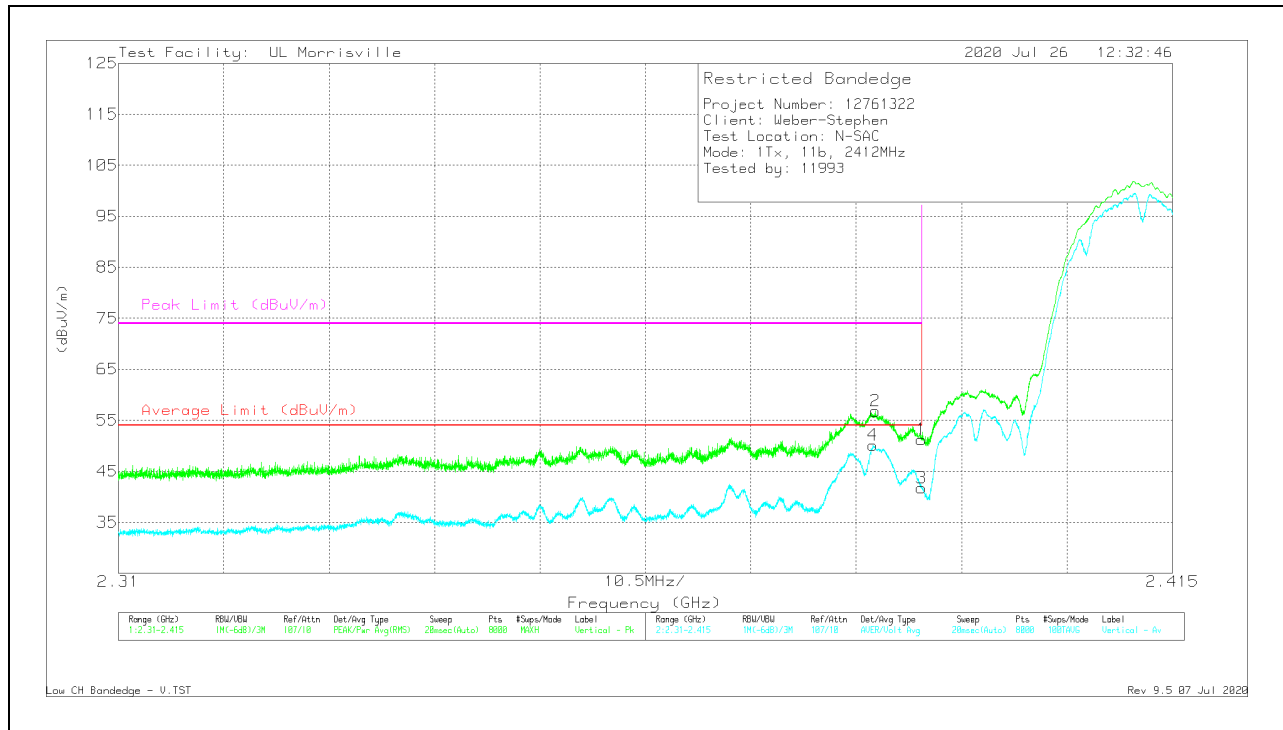
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

VERTICAL RESULT

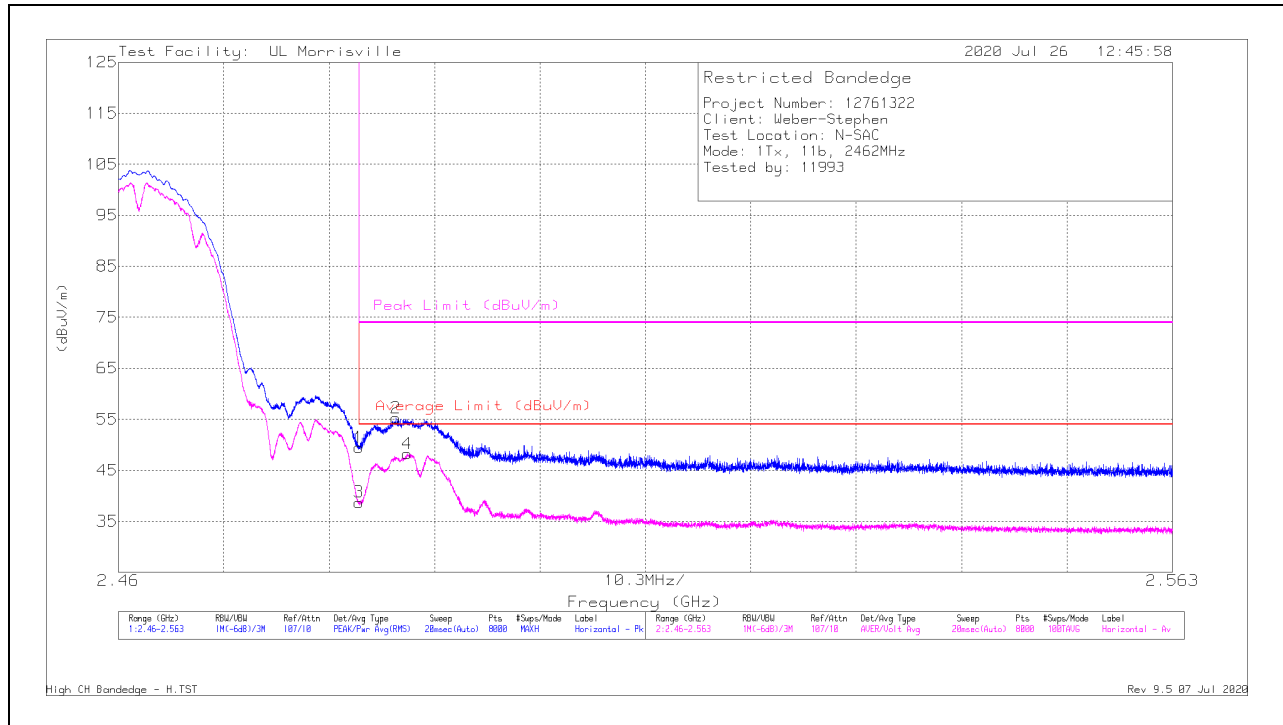


| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AT0072 dB(/m) | Amp/Cbl/Filtr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|---------------|------------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1 | * ** 2.39 | 43.04 | Pk | 31.8 | -23.6 | 51.24 | - | - | 74 | -22.76 | 324 | 118 | V |
| 2 | * ** 2.38539 | 48.61 | Pk | 31.8 | -23.6 | 56.81 | - | - | 74 | -17.19 | 324 | 118 | V |
| 3 | * ** 2.39 | 33.56 | ADV | 31.8 | -23.6 | 41.76 | 54 | -12.24 | - | - | 324 | 118 | V |
| 4 | * ** 2.38518 | 41.95 | ADV | 31.8 | -23.6 | 50.15 | 54 | -3.85 | - | - | 324 | 118 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 ADV - Linear Voltage Average

BANDEDGE (HIGH CHANNEL)

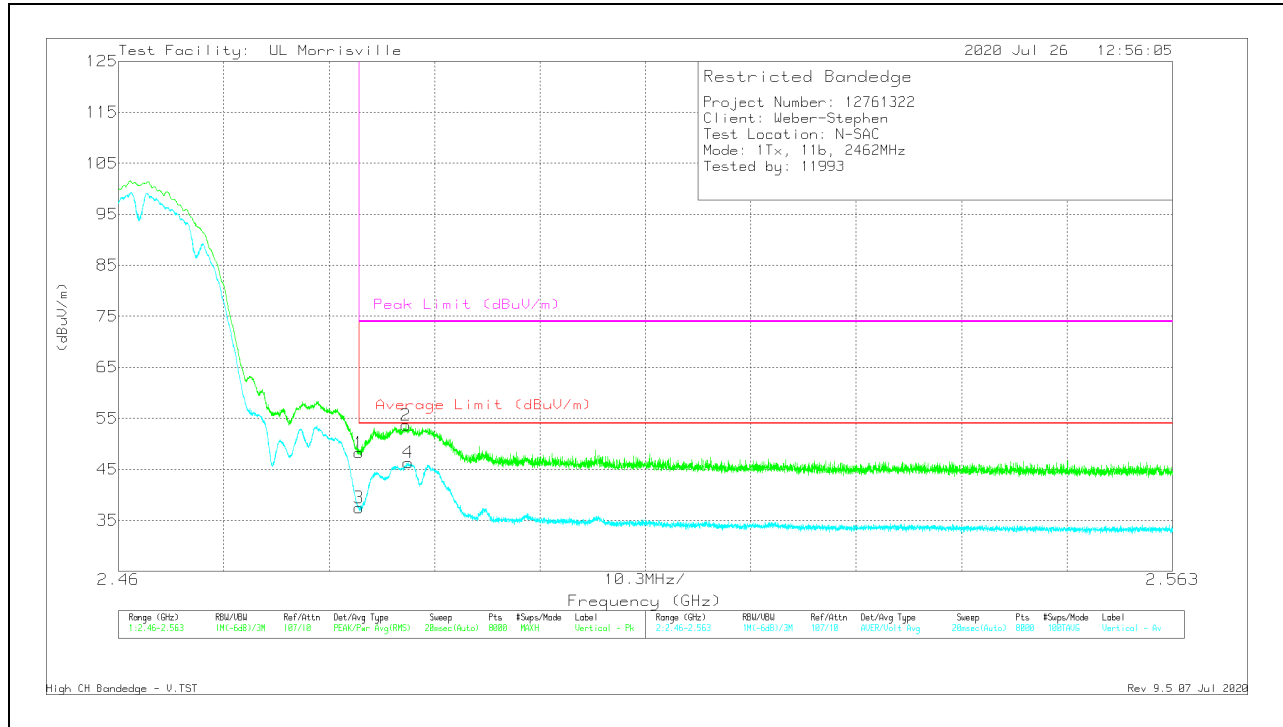
HORIZONTAL RESULT



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AT0072 dB(m) | Amp/Cbl/Filtr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|--------------|------------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1 | * ** 2.4835 | 40.46 | Pk | 32.4 | -23.4 | 49.46 | - | - | 74 | -24.54 | 227 | 104 | H |
| 2 | * ** 2.48713 | 46.14 | Pk | 32.5 | -23.4 | 55.24 | - | - | 74 | -18.76 | 227 | 104 | H |
| 3 | * ** 2.4835 | 29.73 | ADV | 32.4 | -23.4 | 38.73 | 54 | -15.27 | - | - | 227 | 104 | H |
| 4 | * ** 2.48821 | 39.12 | ADV | 32.5 | -23.4 | 48.22 | 54 | -5.78 | - | - | 227 | 104 | H |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 ADV - Linear Voltage Average

VERTICAL RESULT

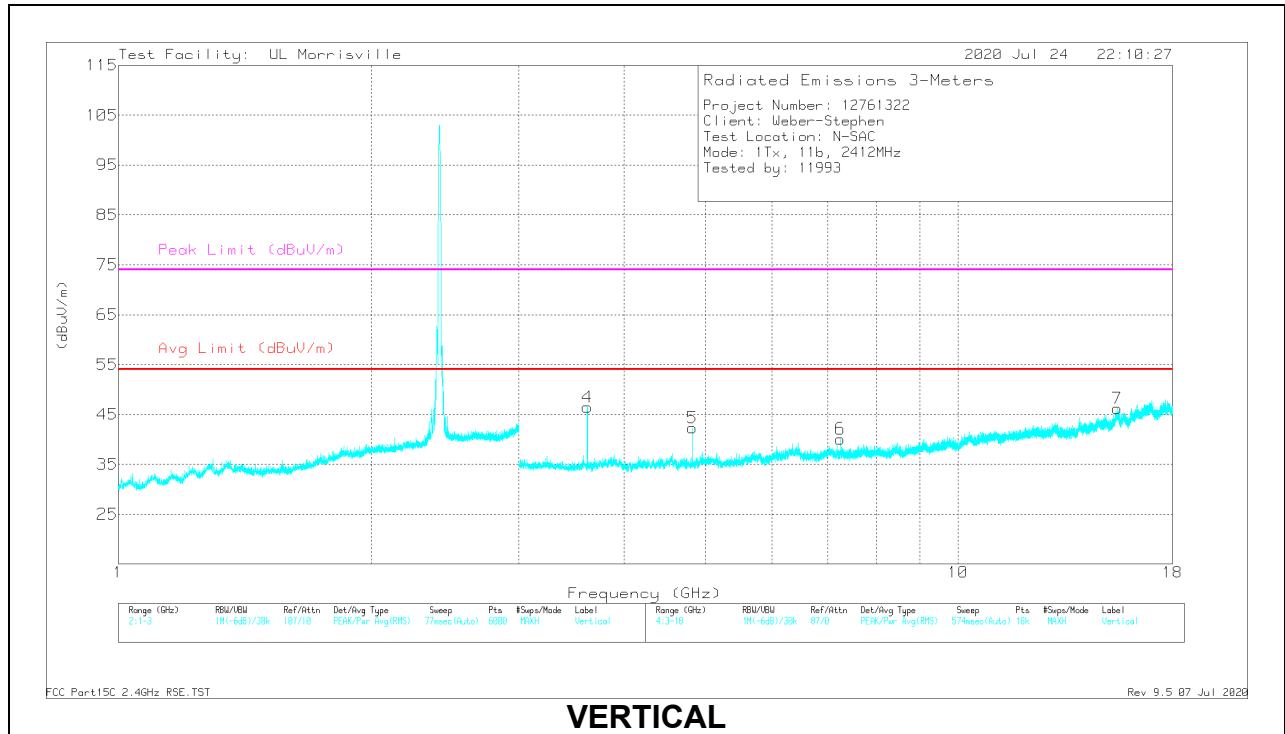
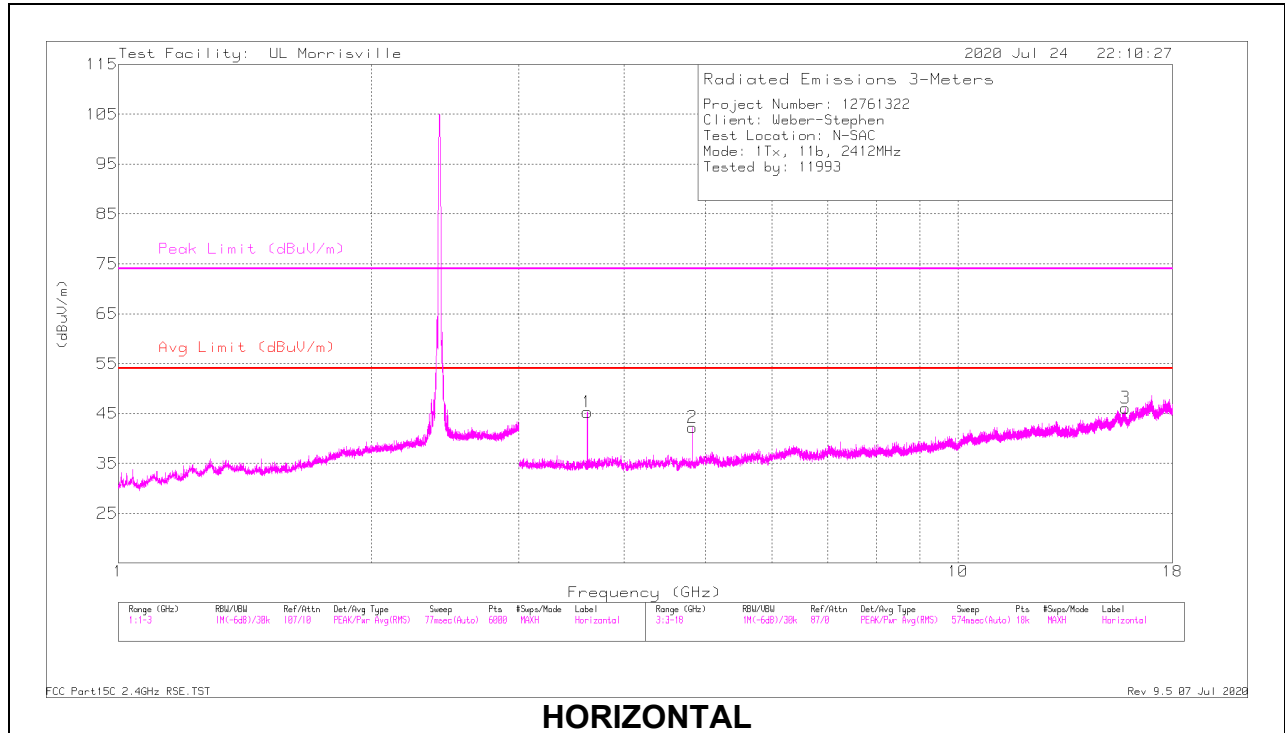


| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AT0072 dB(m) | Amp/Cbl/Filtr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|--------------|------------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1 | * ** 2.4835 | 39.22 | Pk | 32.4 | -23.4 | 48.22 | - | - | 74 | -25.78 | 186 | 108 | V |
| 2 | * ** 2.48808 | 44.57 | Pk | 32.5 | -23.4 | 53.67 | - | - | 74 | -20.33 | 186 | 108 | V |
| 3 | * ** 2.4835 | 28.48 | ADV | 32.4 | -23.4 | 37.48 | 54 | -16.52 | - | - | 186 | 108 | V |
| 4 | * ** 2.48832 | 37.24 | ADV | 32.5 | -23.4 | 46.34 | 54 | -7.66 | - | - | 186 | 108 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 ADV - Linear Voltage Average

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



RADIATED EMISSIONS

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AT0072 dB/(m) | Amp/Cbl/Filtr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|---------------|------------------------|----------------------------|--------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1 | *** 3.61811 | 46.72 | PK2 | 33 | -31.1 | 48.62 | - | - | 74 | -25.38 | 153 | 101 | H |
| | *** 3.61803 | 42.34 | ADV | 33 | -31.1 | 44.24 | 54 | -9.76 | - | - | 153 | 101 | H |
| 2 | *** 4.82397 | 44.65 | PK2 | 34.2 | -30.8 | 48.05 | - | - | 74 | -25.95 | 82 | 111 | H |
| | *** 4.82401 | 38.68 | ADV | 34.2 | -30.8 | 42.08 | 54 | -11.92 | - | - | 82 | 111 | H |
| 3 | *** 15.82541 | 37.01 | PK2 | 40.2 | -24.4 | 52.81 | - | - | 74 | -21.19 | 98 | 339 | H |
| | *** 15.82638 | 22.87 | ADV | 40.2 | -24.5 | 38.57 | 54 | -15.43 | - | - | 98 | 339 | H |
| 4 | *** 3.61796 | 47.64 | PK2 | 33 | -31.1 | 49.54 | - | - | 74 | -24.46 | 164 | 101 | V |
| | *** 3.61802 | 43.9 | ADV | 33 | -31.1 | 45.8 | 54 | -8.2 | - | - | 164 | 101 | V |
| 5 | *** 4.82401 | 43.91 | PK2 | 34.2 | -30.8 | 47.31 | - | - | 74 | -26.69 | 90 | 194 | V |
| | *** 4.82402 | 38.18 | ADV | 34.2 | -30.8 | 41.58 | 54 | -12.42 | - | - | 90 | 194 | V |
| 7 | *** 15.48108 | 34.82 | PK2 | 40.2 | -23.1 | 51.92 | - | - | 74 | -22.08 | 76 | 322 | V |
| | *** 15.48391 | 22.55 | ADV | 40.2 | -23.1 | 39.65 | 54 | -14.35 | - | - | 76 | 322 | V |
| 6 | 7.23524 | 33.21 | Pk | 35.7 | -28.8 | 40.11 | - | - | - | - | 0-360 | 101 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

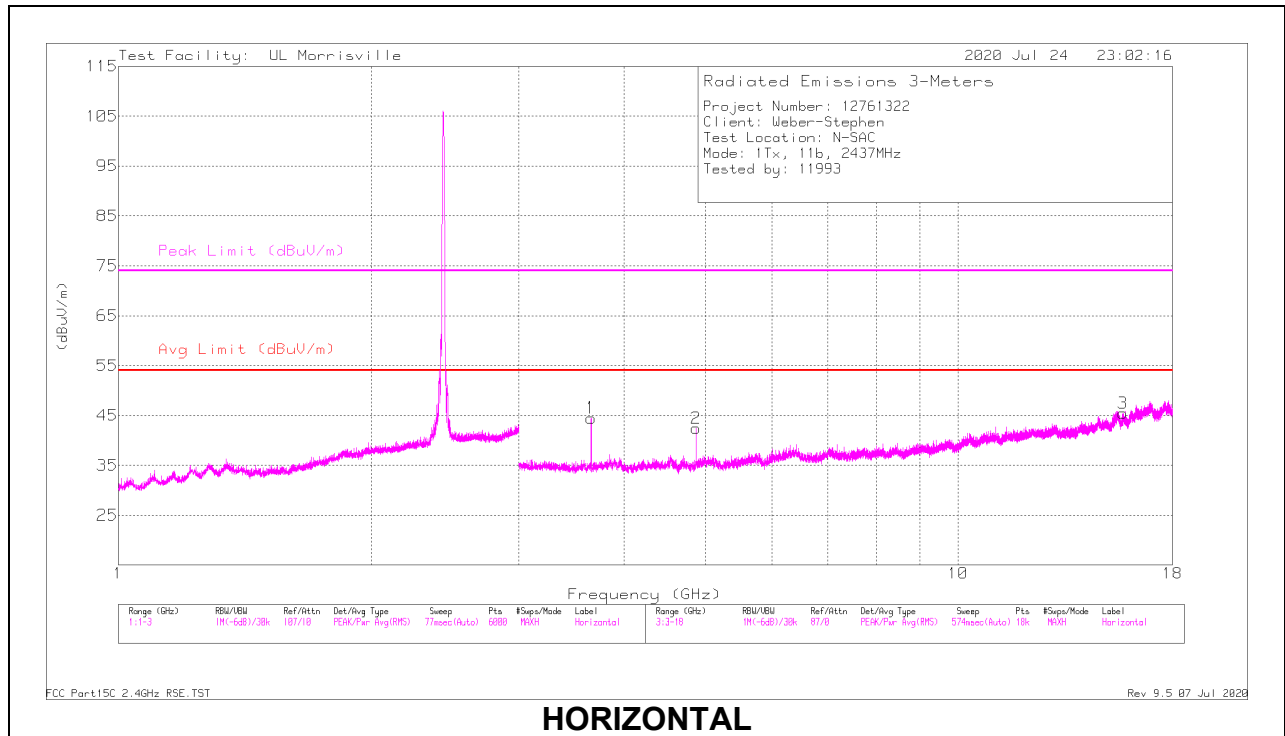
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

PK2 - Maximum Peak

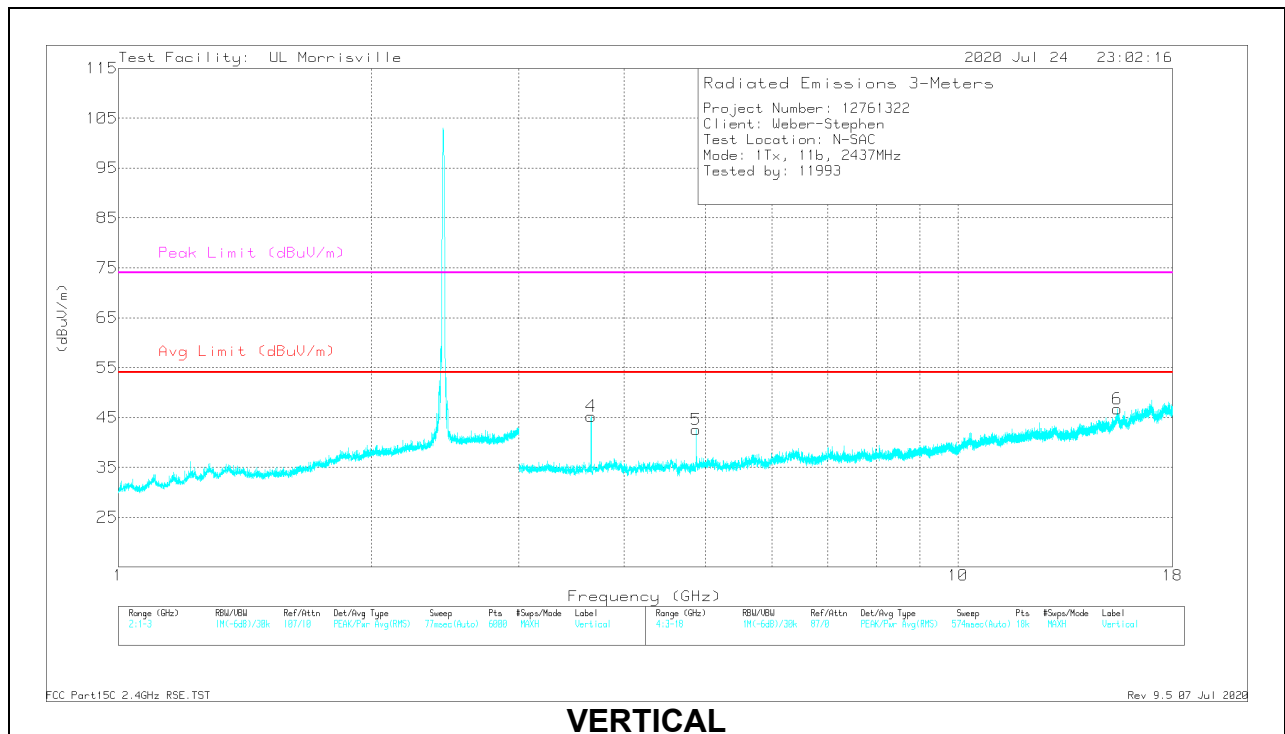
ADV - Linear Voltage Average

Pk - Peak detector

MID CHANNEL RESULTS



HORIZONTAL



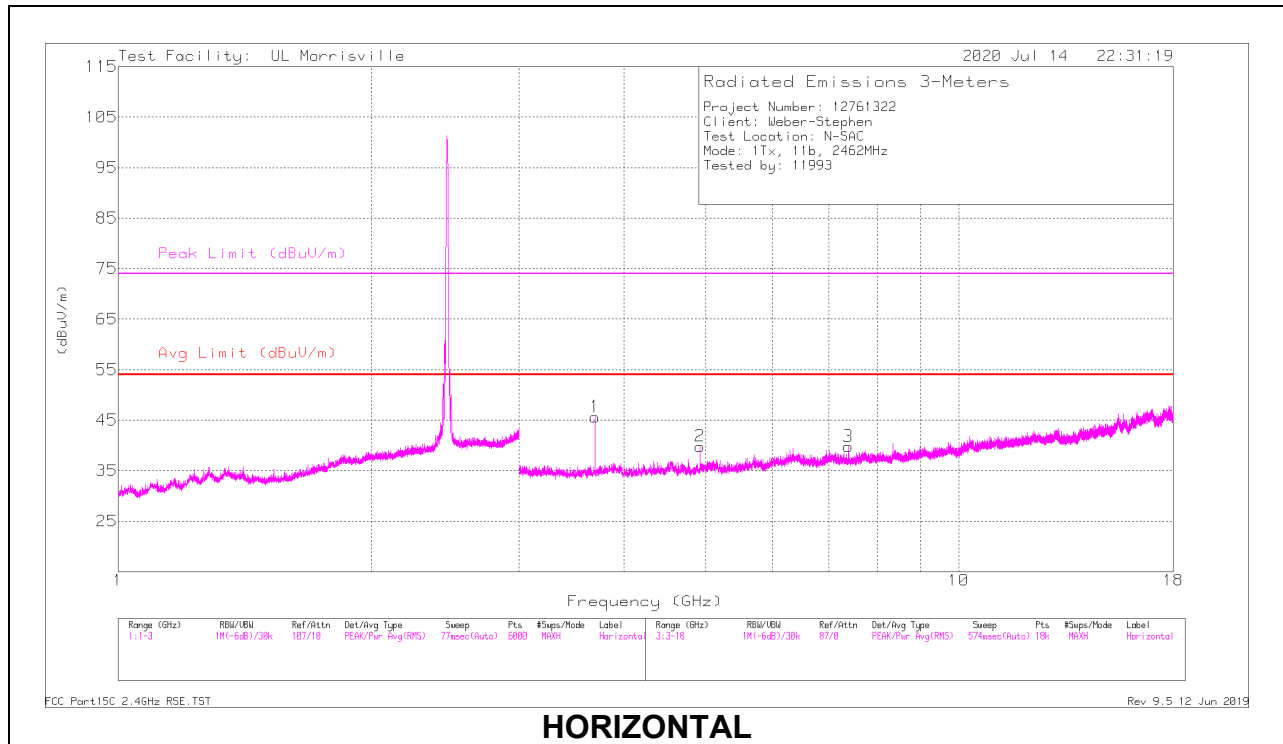
VERTICAL

RADIATED EMISSIONS

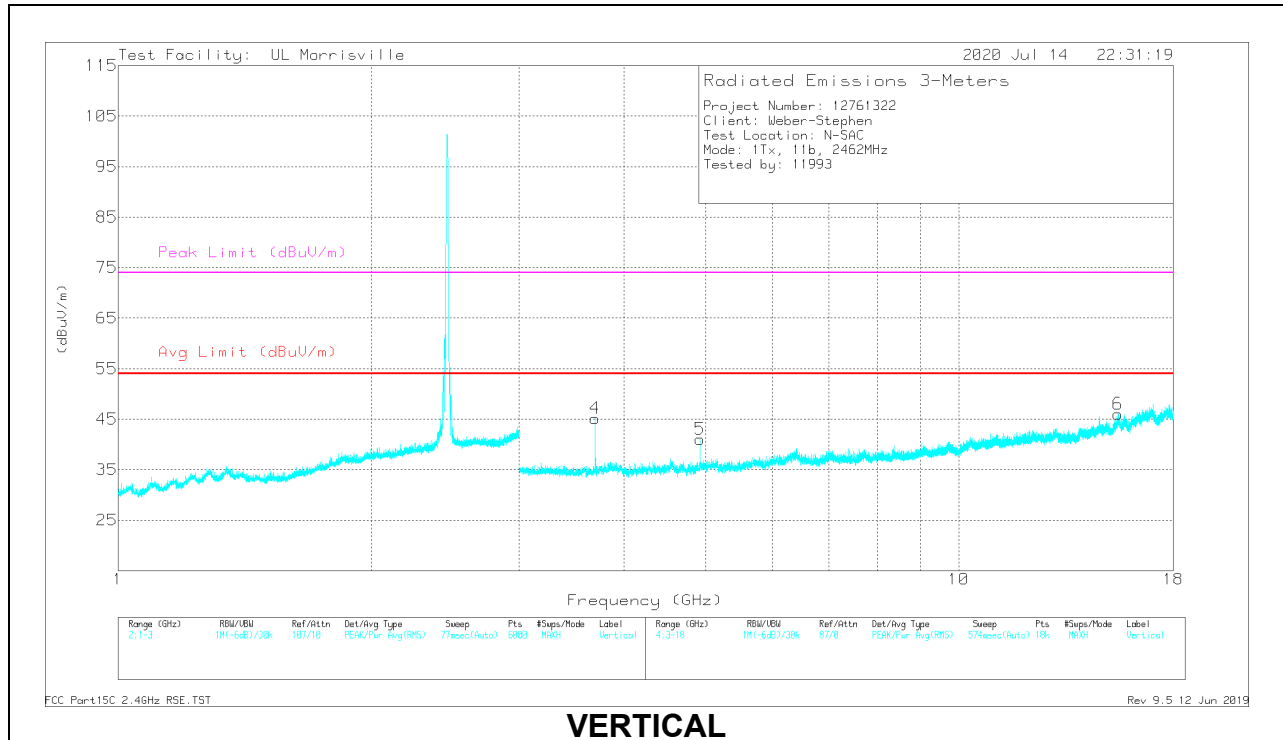
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AT0072 dB/(m) | Amp/Cbl/Filtr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|---------------|------------------------|----------------------------|--------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1 | * ** 3.6555 | 46.95 | PK2 | 32.9 | -30.9 | 48.95 | - | - | 74 | -25.05 | 118 | 111 | H |
| | * ** 3.65552 | 42.9 | ADV | 32.9 | -30.9 | 44.9 | 54 | -9.1 | - | - | 118 | 111 | H |
| 2 | * ** 4.87391 | 43.93 | PK2 | 34.1 | -30.9 | 47.13 | - | - | 74 | -26.87 | 16 | 106 | H |
| | * ** 4.87401 | 37.26 | ADV | 34.1 | -30.9 | 40.46 | 54 | -13.54 | - | - | 16 | 106 | H |
| 3 | * ** 15.72229 | 36.05 | PK2 | 40.1 | -23.8 | 52.35 | - | - | 74 | -21.65 | 150 | 241 | H |
| | * ** 15.72221 | 22.87 | ADV | 40.1 | -23.8 | 39.17 | 54 | -14.83 | - | - | 150 | 241 | H |
| 4 | * ** 3.6557 | 46.99 | PK2 | 32.9 | -30.9 | 48.99 | - | - | 74 | -25.01 | 164 | 101 | V |
| | * ** 3.6555 | 42.46 | ADV | 32.9 | -30.9 | 44.46 | 54 | -9.54 | - | - | 164 | 101 | V |
| 5 | * ** 4.87399 | 43.91 | PK2 | 34.1 | -30.9 | 47.11 | - | - | 74 | -26.89 | 116 | 102 | V |
| | * ** 4.87405 | 37.13 | ADV | 34.1 | -30.9 | 40.33 | 54 | -13.67 | - | - | 116 | 102 | V |
| 6 | * ** 15.46457 | 35.02 | PK2 | 40.3 | -23.1 | 52.22 | - | - | 74 | -21.78 | 47 | 256 | V |
| | * ** 15.46251 | 22.71 | ADV | 40.2 | -23.2 | 39.71 | 54 | -14.29 | - | - | 47 | 256 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 PK2 - Maximum Peak
 ADV - Linear Voltage Average

HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

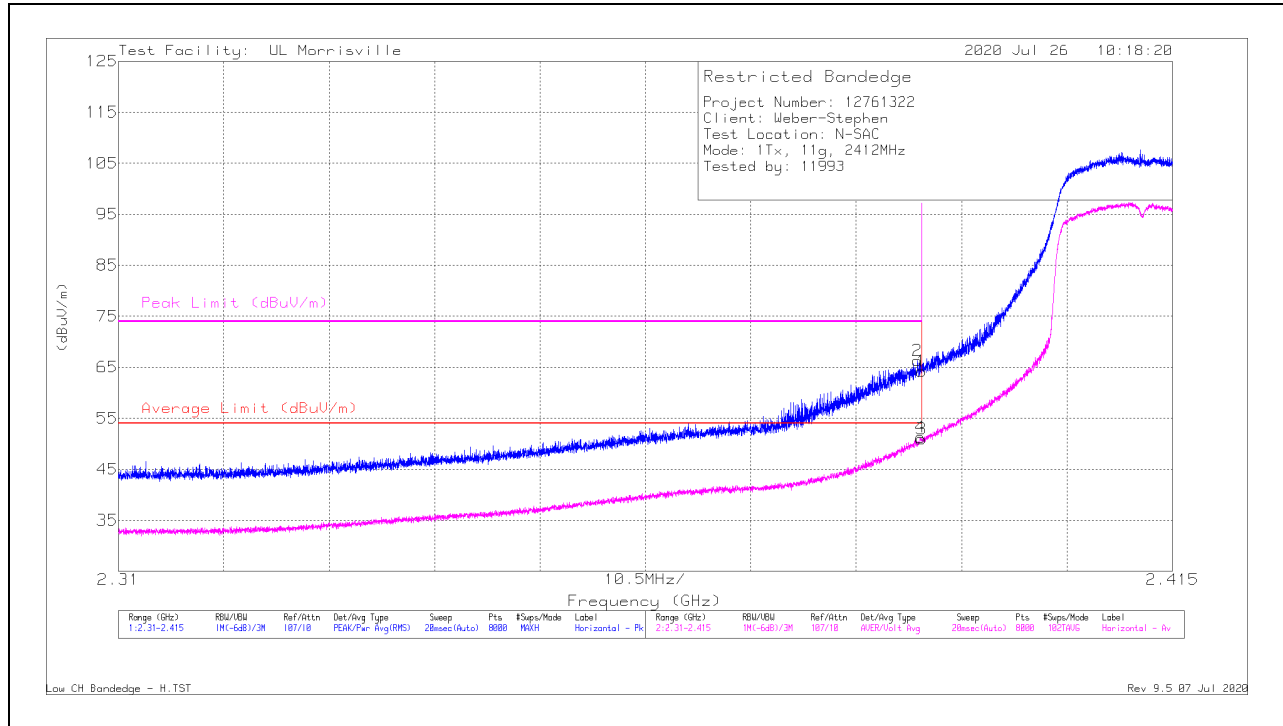
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AT0072 dB(/m) | Amp/Cbl/Filtr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|---------------|------------------------|----------------------------|--------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1 | * ** 3.69309 | 48.42 | PK2 | 33.1 | -31.5 | 50.02 | - | - | 74 | -23.98 | 128 | 153 | H |
| | * ** 3.69303 | 44.53 | ADV | 33.1 | -31.5 | 46.13 | 54 | -7.87 | - | - | 128 | 153 | H |
| 2 | * ** 4.9242 | 42.72 | PK2 | 34 | -31.2 | 45.52 | - | - | 74 | -28.48 | 13 | 128 | H |
| | * ** 4.92403 | 34.03 | ADV | 34 | -31.2 | 36.83 | 54 | -17.17 | - | - | 13 | 128 | H |
| 3 | * ** 7.38622 | 38.7 | PK2 | 35.7 | -28.4 | 46 | - | - | 74 | -28 | 127 | 102 | H |
| | * ** 7.38602 | 27.66 | ADV | 35.7 | -28.4 | 34.96 | 54 | -19.04 | - | - | 127 | 102 | H |
| 4 | * ** 3.69289 | 47.53 | PK2 | 33.1 | -31.5 | 49.13 | - | - | 74 | -24.87 | 175 | 109 | V |
| | * ** 3.693 | 43.06 | ADV | 33.1 | -31.5 | 44.66 | 54 | -9.34 | - | - | 175 | 109 | V |
| 5 | * ** 4.924 | 44.05 | PK2 | 34 | -31.2 | 46.85 | - | - | 74 | -27.15 | 178 | 207 | V |
| | * ** 4.92407 | 37.44 | ADV | 34 | -31.2 | 40.24 | 54 | -13.76 | - | - | 178 | 207 | V |
| 6 | * ** 15.46133 | 35.74 | PK2 | 40.2 | -23.2 | 52.74 | - | - | 74 | -21.26 | 243 | 166 | V |
| | * ** 15.46132 | 22.51 | ADV | 40.2 | -23.2 | 39.51 | 54 | -14.49 | - | - | 243 | 166 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 PK2 - Maximum Peak
 ADV - Linear Voltage Average

10.2.3. 2.4 WLAN 802.11g

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AT0072 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 | * ** 2.39 | 56 | Pk | 31.8 | -23.6 | 0 | 64.2 | - | - | 74 | -9.8 | 89 | 116 | H |
| 2 | * ** 2.38958 | 58.15 | Pk | 31.8 | -23.6 | 0 | 66.35 | - | - | 74 | -7.65 | 89 | 116 | H |
| 3 | * ** 2.39 | 42.53 | ADV | 31.8 | -23.6 | .25 | 50.98 | 54 | -3.02 | - | - | 89 | 116 | H |
| 4 | * ** 2.38989 | 42.83 | ADV | 31.8 | -23.6 | .25 | 51.28 | 54 | -2.72 | - | - | 89 | 116 | H |

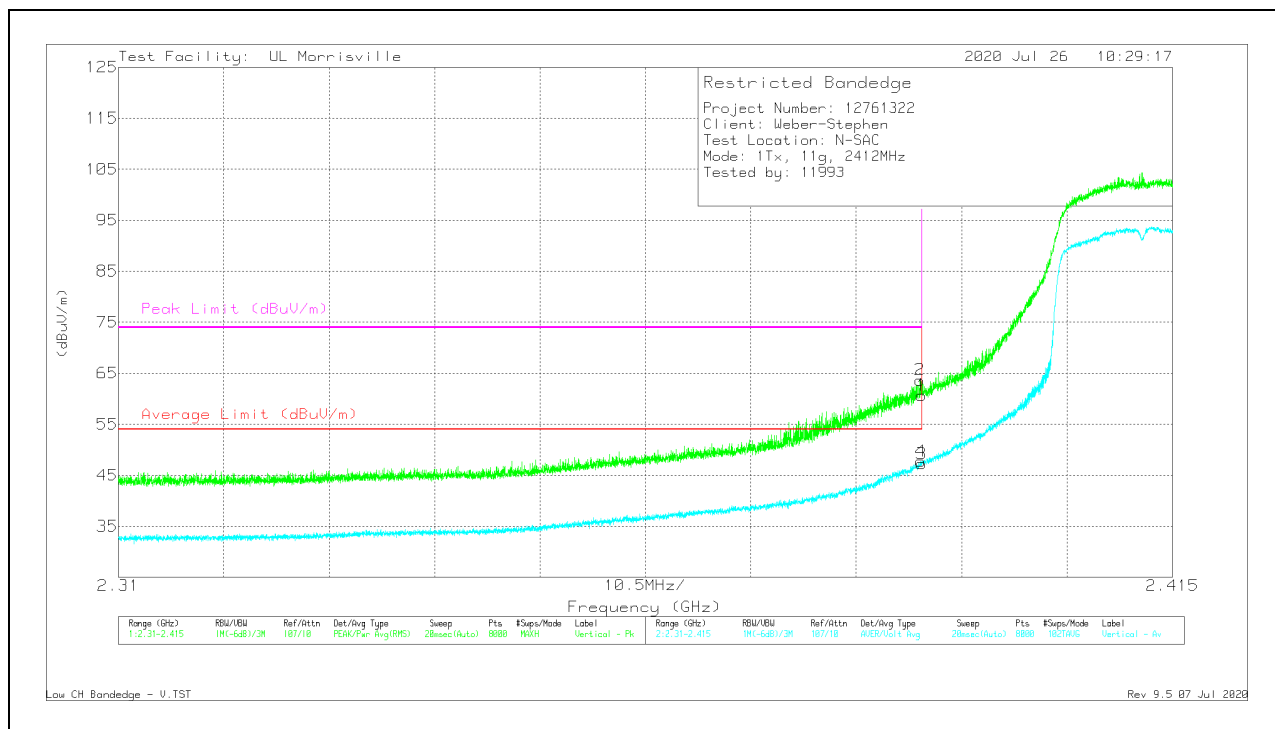
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

VERTICAL RESULT

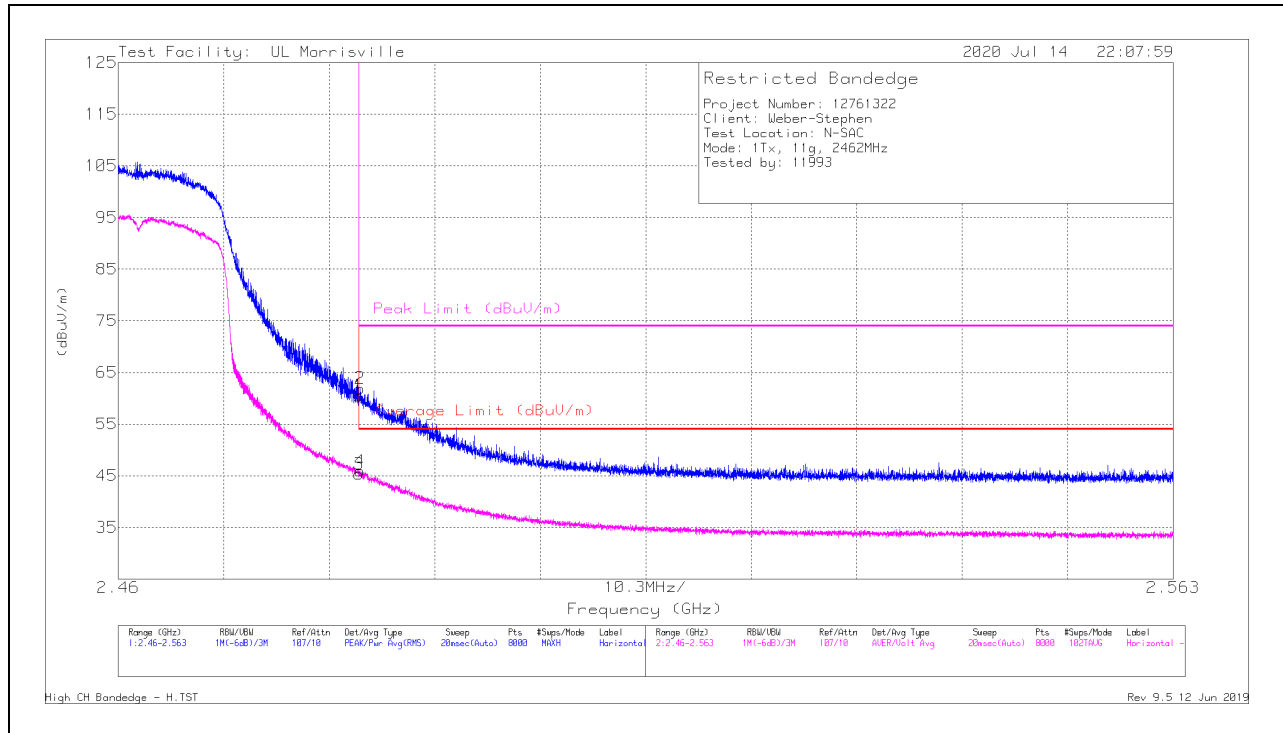


| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AT0072 dB(/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|---------------|------------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1 | * ** 2.39 | 52.5 | Pk | 31.8 | -23.6 | 0 | 60.7 | - | - | 74 | -13.3 | 195 | 104 | V |
| 2 | * ** 2.38986 | 55.48 | Pk | 31.8 | -23.6 | 0 | 63.68 | - | - | 74 | -10.32 | 195 | 104 | V |
| 3 | * ** 2.39 | 38.79 | ADV | 31.8 | -23.6 | .25 | 47.24 | 54 | -6.76 | - | - | 195 | 104 | V |
| 4 | * ** 2.38993 | 39.33 | ADV | 31.8 | -23.6 | .25 | 47.78 | 54 | -6.22 | - | - | 195 | 104 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 ADV - Linear Voltage Average

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AT0072 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 | * ** 2.4835 | 51.48 | Pk | 32.4 | -23.4 | 0 | 60.48 | - | - | 74 | -13.52 | 82 | 189 | H |
| 2 | * ** 2.48359 | 52.9 | Pk | 32.4 | -23.4 | 0 | 61.9 | - | - | 74 | -12.1 | 82 | 189 | H |
| 3 | * ** 2.4835 | 36.08 | ADV | 32.4 | -23.4 | .25 | 45.33 | 54 | -8.67 | - | - | 82 | 189 | H |
| 4 | * ** 2.48362 | 36.69 | ADV | 32.4 | -23.4 | .25 | 45.94 | 54 | -8.06 | - | - | 82 | 189 | H |

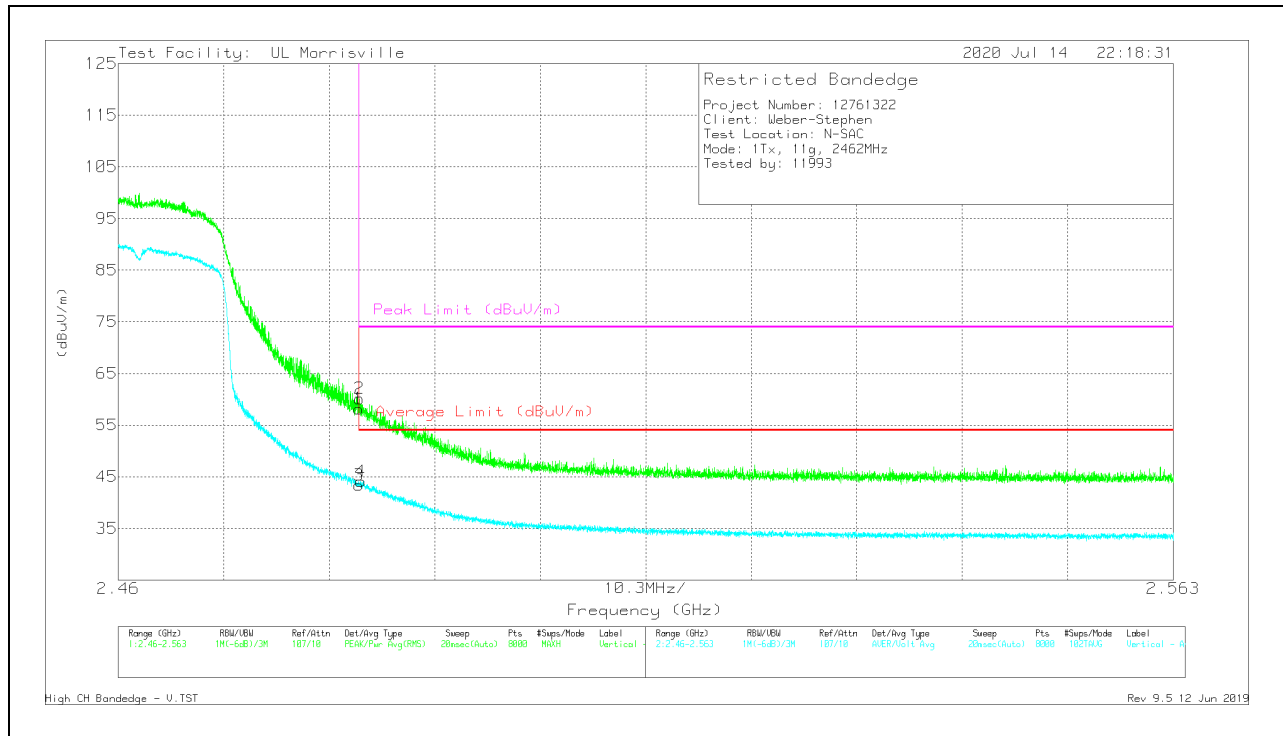
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

VERTICAL RESULT

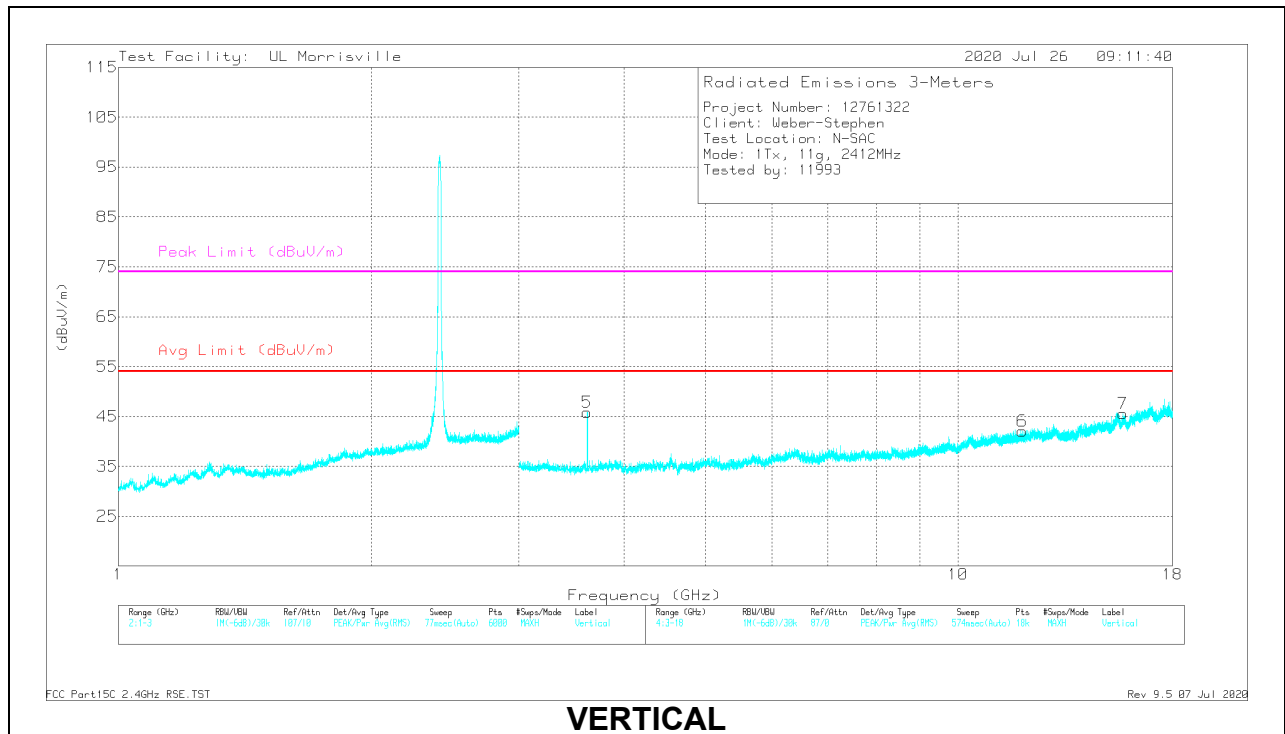
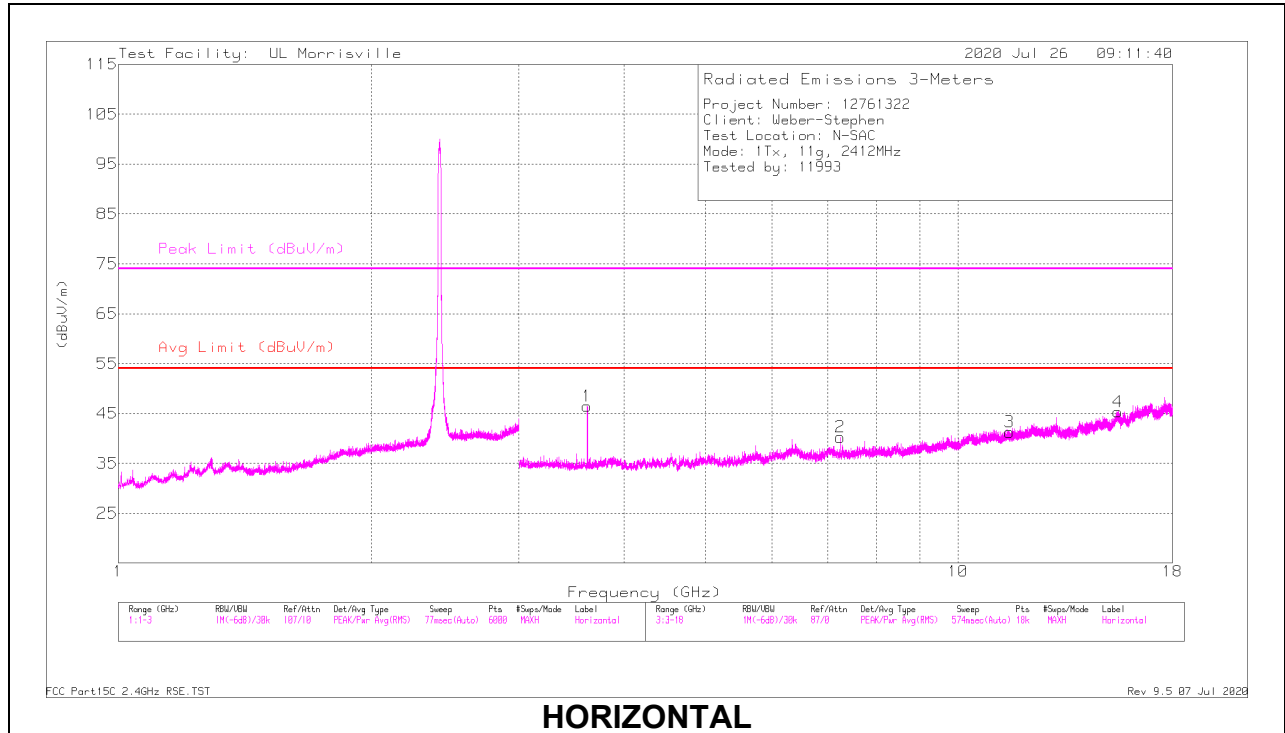


| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AT0072 dB(/m) | Amp/Cbl/Fitr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|---------------|-----------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1 | * ** 2.4835 | 49.14 | Pk | 32.4 | -23.4 | 0 | 58.14 | - | - | 74 | -15.86 | 98 | 346 | V |
| 2 | * ** 2.48353 | 51.13 | Pk | 32.4 | -23.4 | 0 | 60.13 | - | - | 74 | -13.87 | 98 | 346 | V |
| 3 | * ** 2.4835 | 34.11 | ADV | 32.4 | -23.4 | .25 | 43.36 | 54 | -10.64 | - | - | 98 | 346 | V |
| 4 | * ** 2.48369 | 34.87 | ADV | 32.4 | -23.4 | .25 | 44.12 | 54 | -9.88 | - | - | 98 | 346 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 ADV - Linear Voltage Average

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



RADIATED EMISSIONS

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AT0072 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) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|---------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1 | *** 3.61794 | 47.77 | PK2 | 33 | -31.1 | 0 | 49.67 | - | - | 74 | -24.33 | 153 | 121 | H |
| | *** 3.61801 | 43.94 | ADV | 33 | -31.1 | .25 | 46.09 | 54 | -7.91 | - | - | 153 | 121 | H |
| 4 | *** 15.49322 | 35.04 | PK2 | 40.2 | -23 | 0 | 52.24 | - | - | 74 | -21.76 | 37 | 259 | H |
| | *** 15.49091 | 22.28 | ADV | 40.2 | -23 | .25 | 39.73 | 54 | -14.27 | - | - | 37 | 259 | H |
| 3 | *** 11.51701 | 35.26 | PK2 | 38.2 | -25.1 | 0 | 48.36 | - | - | 74 | -25.64 | 0 | 266 | H |
| | *** 11.51639 | 22.11 | ADV | 38.2 | -25.1 | .25 | 35.46 | 54 | -18.54 | - | - | 0 | 266 | H |
| 5 | *** 3.618 | 47.36 | PK2 | 33 | -31.1 | 0 | 49.26 | - | - | 74 | -24.74 | 155 | 116 | V |
| | *** 3.61799 | 43.54 | ADV | 33 | -31.1 | .25 | 45.69 | 54 | -8.31 | - | - | 155 | 116 | V |
| 6 | *** 11.92933 | 34.36 | PK2 | 38.6 | -25.5 | 0 | 47.46 | - | - | 74 | -26.54 | 184 | 315 | V |
| | *** 11.92985 | 22.31 | ADV | 38.6 | -25.5 | .25 | 35.66 | 54 | -18.34 | - | - | 184 | 315 | V |
| 7 | *** 15.71117 | 35.18 | PK2 | 40.1 | -24.2 | 0 | 51.08 | - | - | 74 | -22.92 | 227 | 133 | V |
| | *** 15.71251 | 22.73 | ADV | 40.1 | -24.1 | .25 | 38.98 | 54 | -15.02 | - | - | 227 | 133 | V |
| 2 | 7.23607 | 33.45 | Pk | 35.6 | -28.8 | 0 | 40.25 | - | - | - | - | 0-360 | 101 | H |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

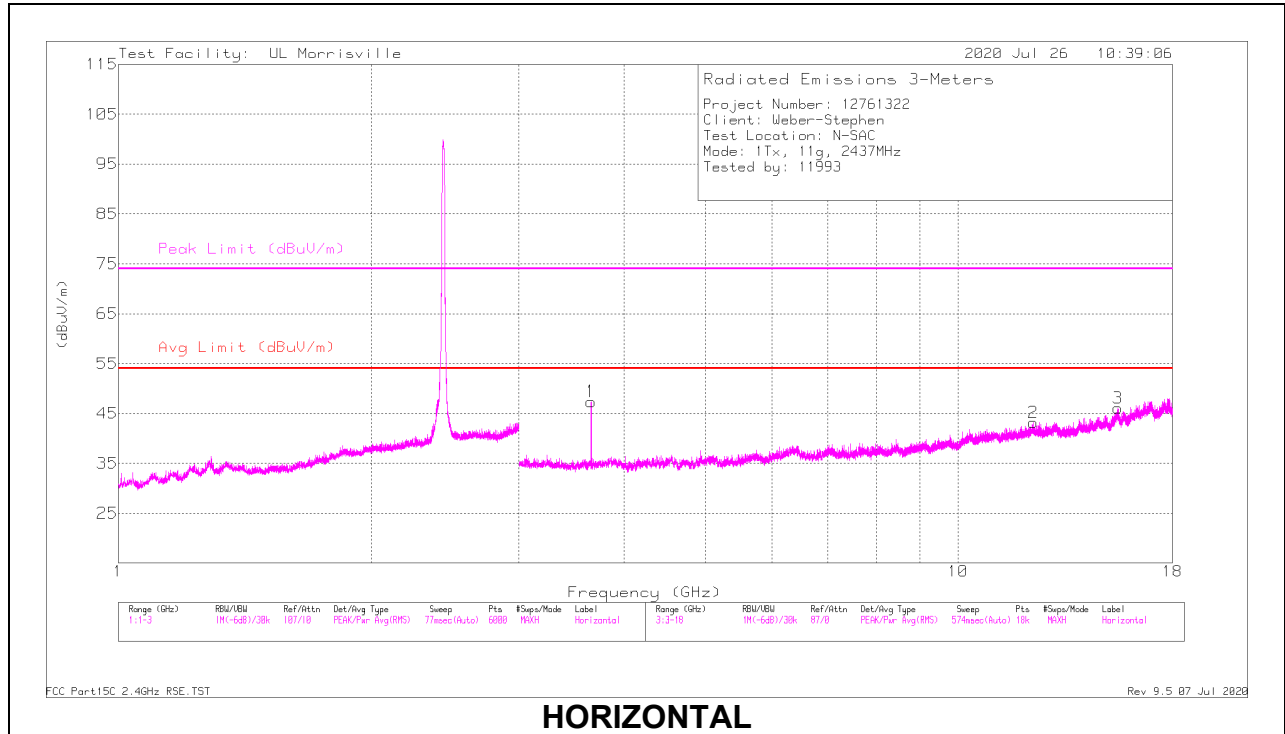
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

PK2 - Maximum Peak

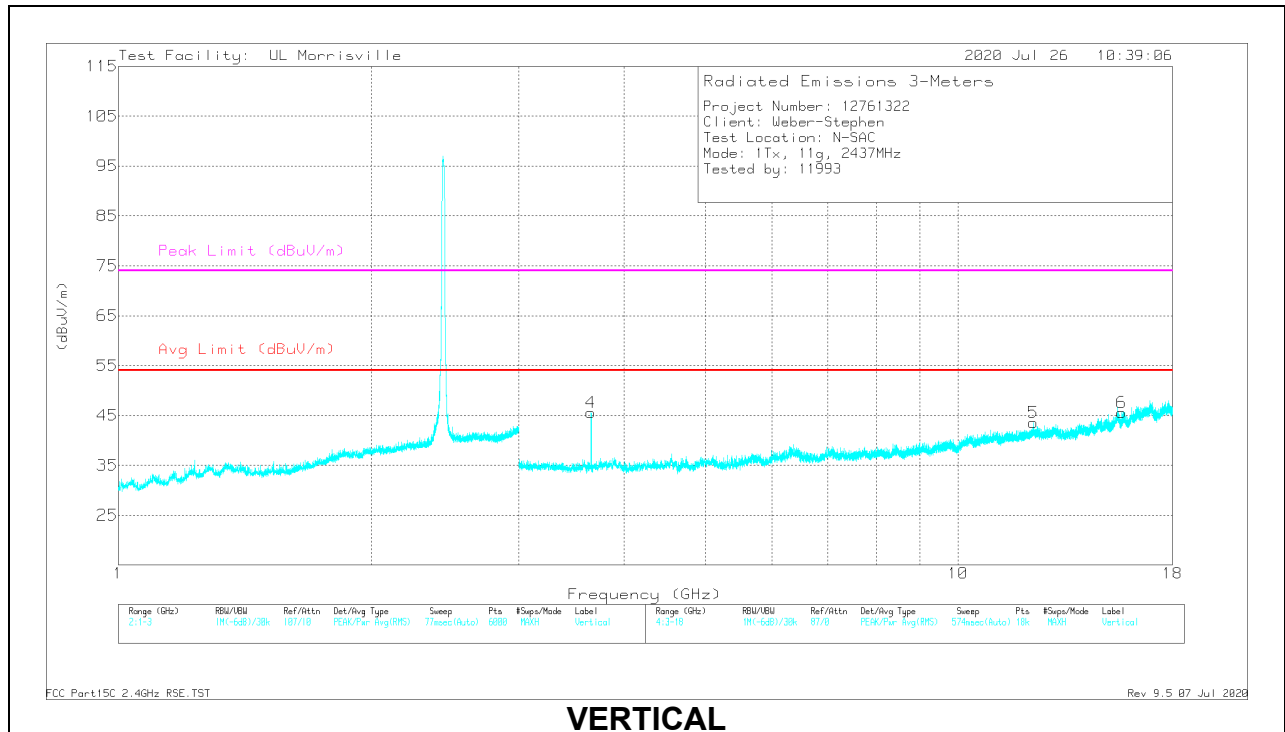
ADV - Linear Voltage Average

Pk - Peak detector

MID CHANNEL RESULTS



HORIZONTAL



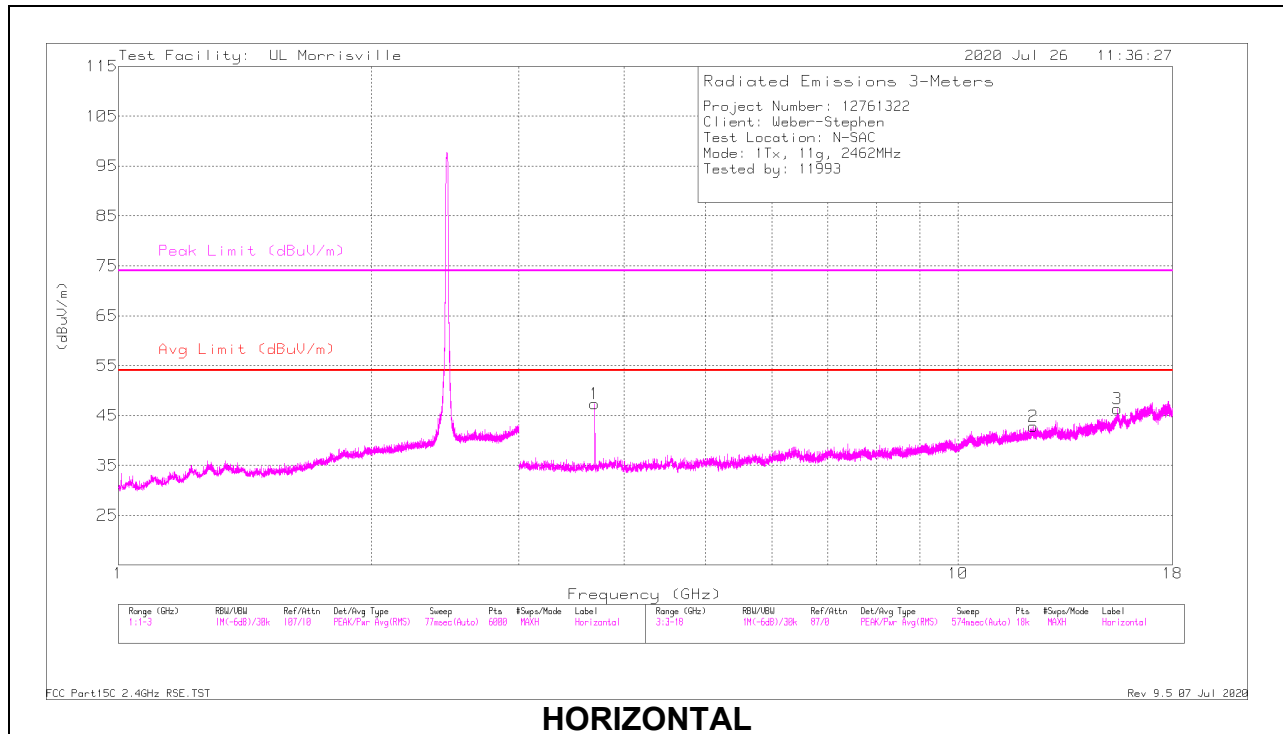
VERTICAL

RADIATED EMISSIONS

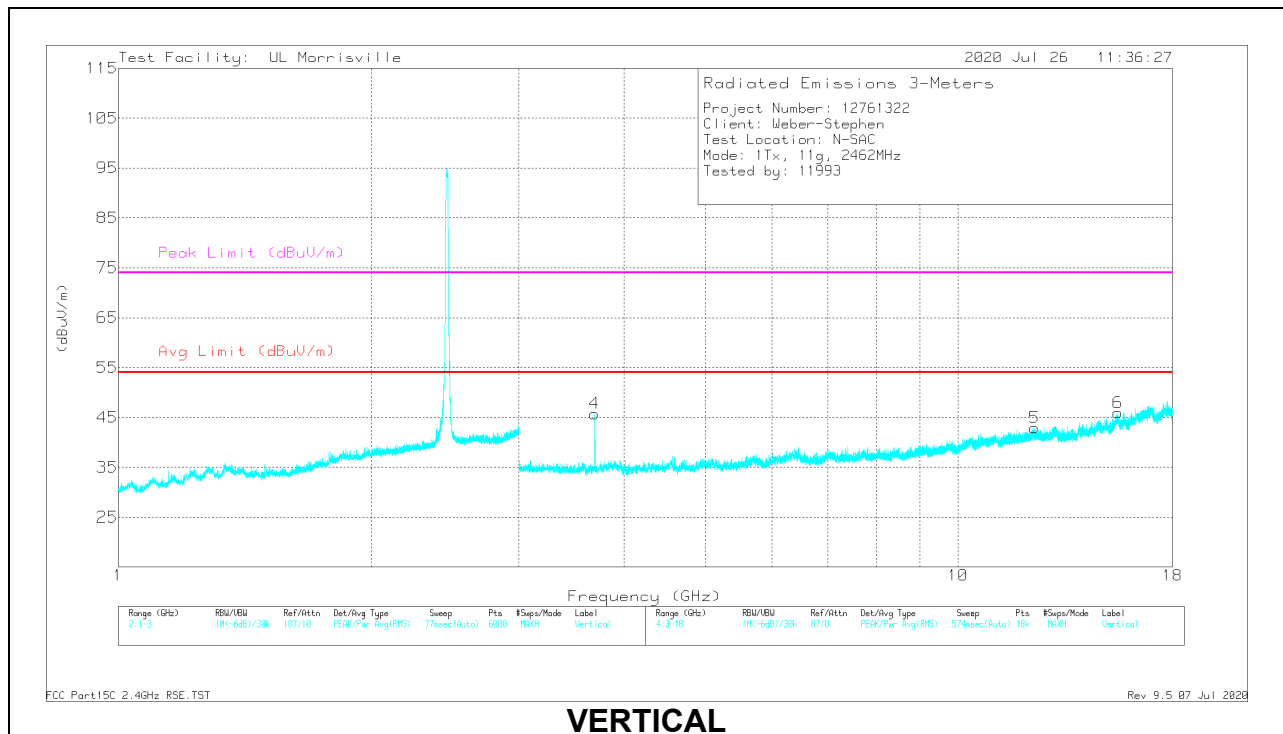
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AT0072 dB/(m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|---------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1 | *** 3.65554 | 47.89 | PK2 | 32.9 | -30.9 | 0 | 49.89 | - | - | 74 | -24.11 | 125 | 125 | H |
| | *** 3.65552 | 44.68 | ADV | 32.9 | -30.9 | .25 | 46.93 | 54 | -7.07 | - | - | 125 | 125 | H |
| 2 | *** 12.29913 | 34.94 | PK2 | 38.9 | -25.1 | 0 | 48.74 | - | - | 74 | -25.26 | 92 | 152 | H |
| | *** 12.29707 | 22.3 | ADV | 38.9 | -25.1 | .25 | 36.35 | 54 | -17.65 | - | - | 92 | 152 | H |
| 3 | *** 15.49002 | 36.14 | PK2 | 40.1 | -23.1 | 0 | 53.14 | - | - | 74 | -20.86 | 159 | 161 | H |
| | *** 15.48957 | 22.45 | ADV | 40.2 | -23.1 | .25 | 39.8 | 54 | -14.2 | - | - | 159 | 161 | H |
| 4 | *** 3.65552 | 47.33 | PK2 | 32.9 | -30.9 | 0 | 49.33 | - | - | 74 | -24.67 | 180 | 112 | V |
| | *** 3.6555 | 43.25 | ADV | 32.9 | -30.9 | .25 | 45.5 | 54 | -8.5 | - | - | 180 | 112 | V |
| 5 | *** 12.29337 | 34.83 | PK2 | 38.9 | -25 | 0 | 48.73 | - | - | 74 | -25.27 | 261 | 136 | V |
| | *** 12.29296 | 22.35 | ADV | 38.9 | -25.1 | .25 | 36.4 | 54 | -17.6 | - | - | 261 | 136 | V |
| 6 | *** 15.66997 | 35.61 | PK2 | 40.1 | -25.3 | 0 | 50.41 | - | - | 74 | -23.59 | 209 | 339 | V |
| | *** 15.66994 | 22.65 | ADV | 40.1 | -25.3 | .25 | 37.7 | 54 | -16.3 | - | - | 209 | 339 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 PK2 - Maximum Peak
 ADV - Linear Voltage Average

HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

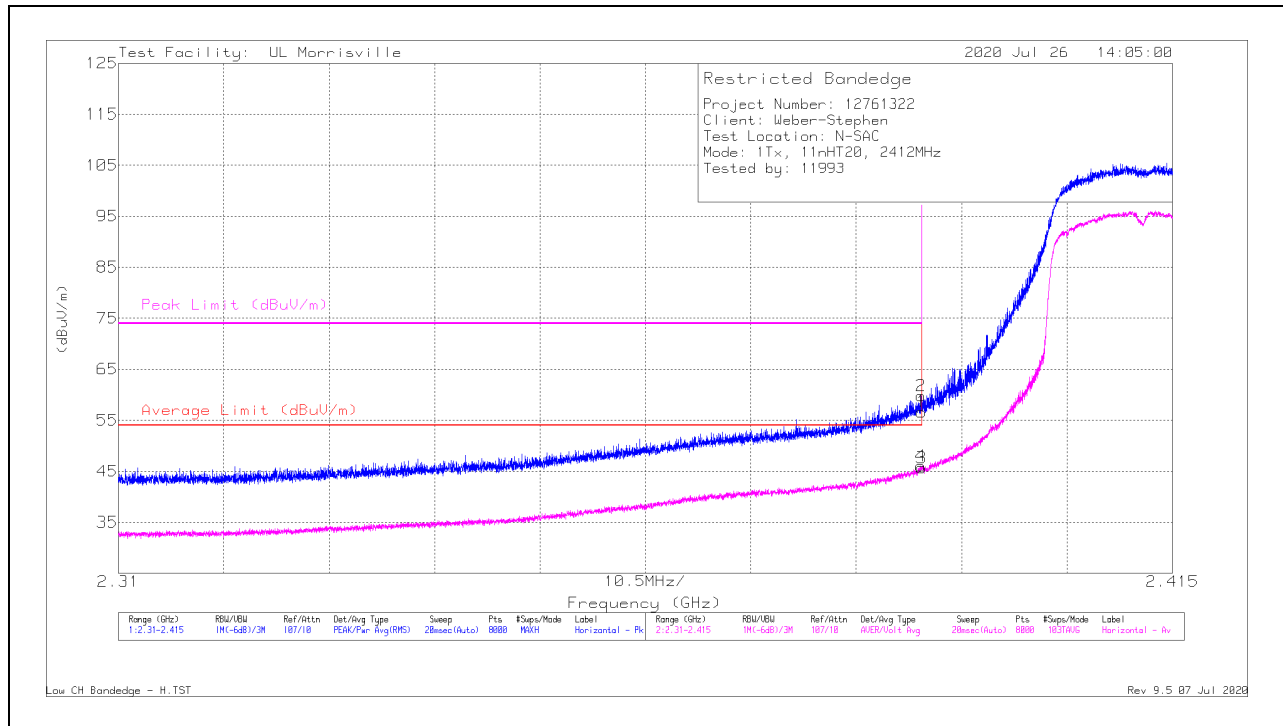
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AT0072 dB(/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|---------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1 | *** 3.693 | 49.37 | PK2 | 33.1 | -31.5 | 0 | 50.97 | - | - | 74 | -23.03 | 125 | 121 | H |
| | *** 3.693 | 45.85 | ADV | 33.1 | -31.5 | .25 | 47.7 | 54 | -6.3 | - | - | 125 | 121 | H |
| 2 | *** 12.28125 | 35.29 | PK2 | 39 | -25.1 | 0 | 49.19 | - | - | 74 | -24.81 | 308 | 135 | H |
| | *** 12.2812 | 22.32 | ADV | 39 | -25.1 | .25 | 36.47 | 54 | -17.53 | - | - | 308 | 135 | H |
| 3 | *** 15.47241 | 35.13 | PK2 | 40.3 | -23.1 | 0 | 52.33 | - | - | 74 | -21.67 | 225 | 124 | H |
| | *** 15.47231 | 22.52 | ADV | 40.3 | -23.1 | .25 | 39.97 | 54 | -14.03 | - | - | 225 | 124 | H |
| 4 | *** 3.69305 | 42.59 | PK2 | 33.1 | -31.5 | 0 | 44.19 | - | - | 74 | -29.81 | 225 | 101 | V |
| | *** 3.69301 | 33.95 | ADV | 33.1 | -31.5 | .25 | 35.8 | 54 | -18.2 | - | - | 225 | 101 | V |
| 5 | *** 12.32458 | 35.75 | PK2 | 38.9 | -25.1 | 0 | 49.55 | - | - | 74 | -24.45 | 112 | 303 | V |
| | *** 12.32456 | 22.35 | ADV | 38.9 | -25.1 | .25 | 36.4 | 54 | -17.6 | - | - | 112 | 303 | V |
| 6 | *** 15.48955 | 35.44 | PK2 | 40.2 | -23.1 | 0 | 52.54 | - | - | 74 | -21.46 | 333 | 114 | V |
| | *** 15.48997 | 22.32 | ADV | 40.1 | -23.1 | .25 | 39.57 | 54 | -14.43 | - | - | 333 | 114 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 PK2 - Maximum Peak
 ADV - Linear Voltage Average

10.2.4. 2.4 WLAN 802.11n HT20

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AT0072 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 | * ** 2.39 | 48.47 | Pk | 31.8 | -23.6 | 0 | 56.67 | - | - | 74 | -17.33 | 85 | 164 | H |
| 2 | * ** 2.38994 | 51.6 | Pk | 31.8 | -23.6 | 0 | 59.8 | - | - | 74 | -14.2 | 85 | 164 | H |
| 3 | * ** 2.39 | 37.18 | ADV | 31.8 | -23.6 | .28 | 45.66 | 54 | -8.34 | - | - | 85 | 164 | H |
| 4 | * ** 2.38993 | 37.55 | ADV | 31.8 | -23.6 | .28 | 46.03 | 54 | -7.97 | - | - | 85 | 164 | H |

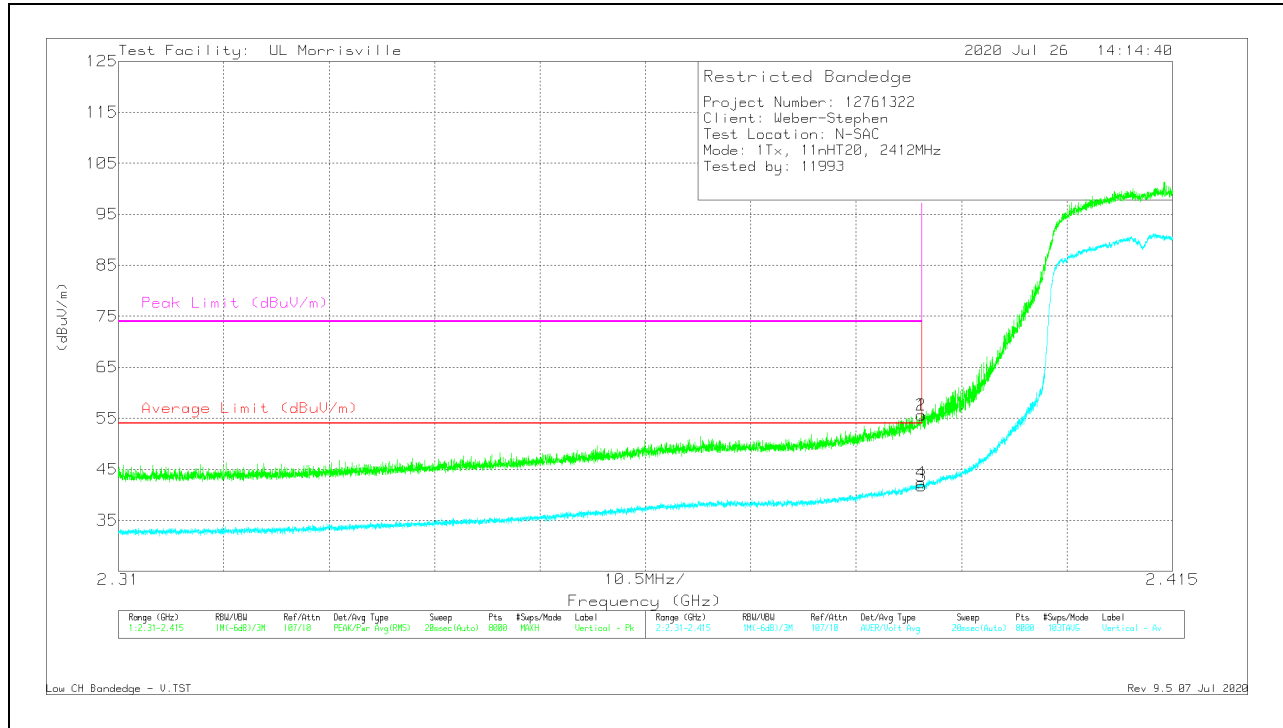
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

VERTICAL RESULT

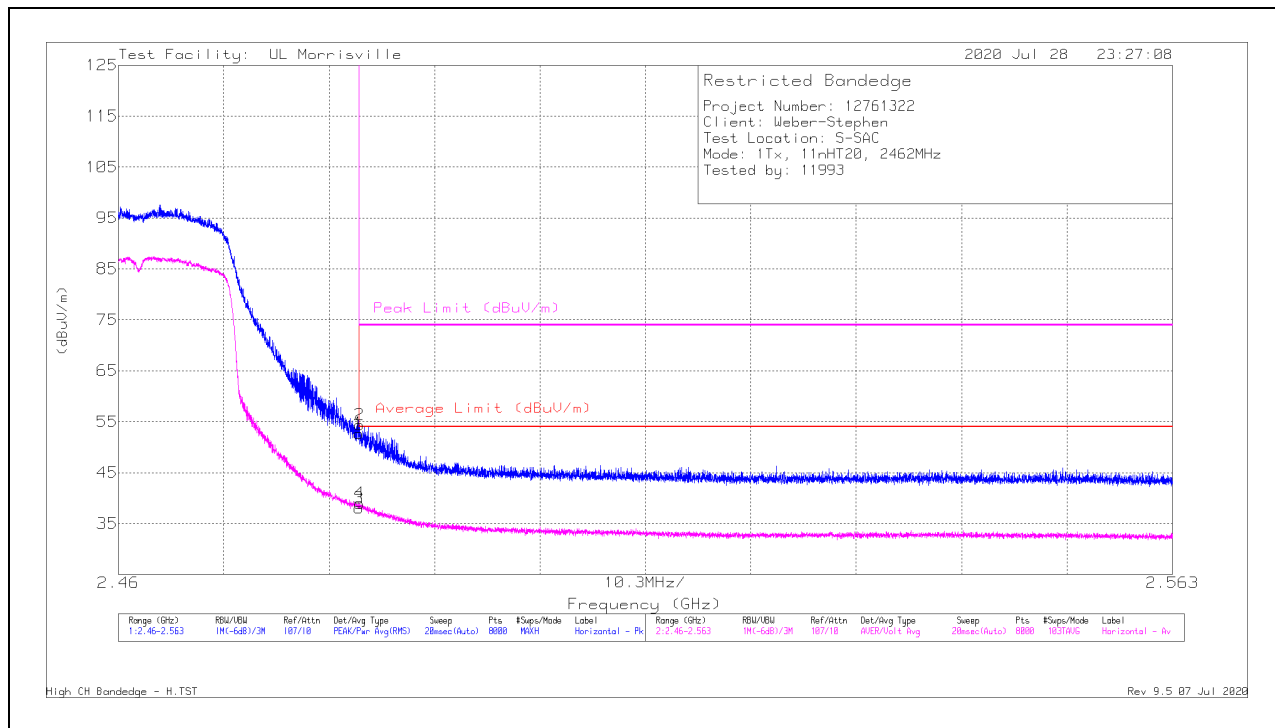


| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AT0072 dB(/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|---------------|------------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1 | * ** 2.39 | 47.45 | Pk | 31.8 | -23.6 | 0 | 55.65 | - | - | 74 | -18.35 | 35 | 165 | V |
| 2 | * ** 2.38998 | 47.41 | Pk | 31.8 | -23.6 | 0 | 55.61 | - | - | 74 | -18.39 | 35 | 165 | V |
| 3 | * ** 2.39 | 33.27 | ADV | 31.8 | -23.6 | .28 | 41.75 | 54 | -12.25 | - | - | 35 | 165 | V |
| 4 | * ** 2.38997 | 33.85 | ADV | 31.8 | -23.6 | .28 | 42.33 | 54 | -11.67 | - | - | 35 | 165 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 ADV - Linear Voltage Average

BANDEDGE (HIGH CHANNEL)

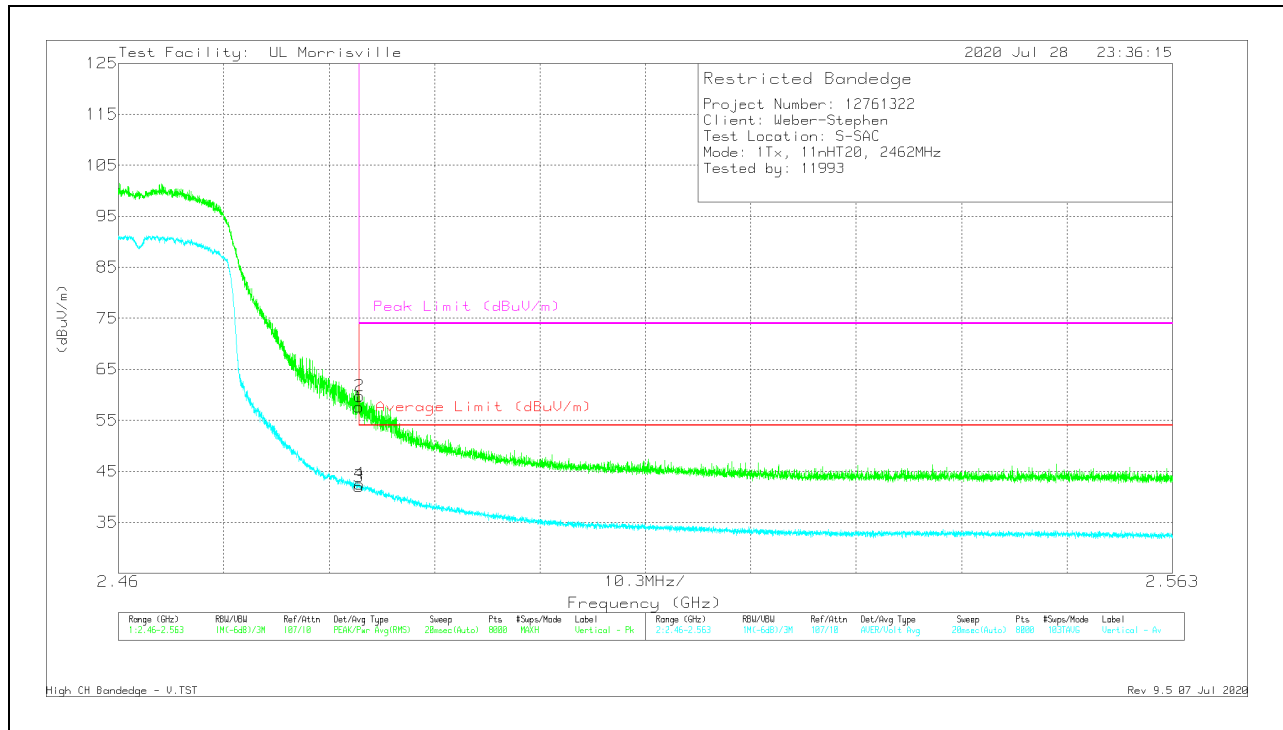
HORIZONTAL RESULT



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AT0067 (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 | * ** 2.4835 | 44.72 | Pk | 32.4 | -24.4 | 0 | 52.72 | - | - | 74 | -21.28 | 199 | 221 | H |
| 2 | * ** 2.48355 | 46.36 | Pk | 32.4 | -24.4 | 0 | 54.36 | - | - | 74 | -19.64 | 199 | 221 | H |
| 3 | * ** 2.4835 | 29.77 | ADV | 32.4 | -24.4 | .28 | 38.05 | 54 | -15.95 | - | - | 199 | 221 | H |
| 4 | * ** 2.48356 | 30.7 | ADV | 32.4 | -24.4 | .28 | 38.98 | 54 | -15.02 | - | - | 199 | 221 | H |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 ADV - Linear Voltage Average

VERTICAL RESULT

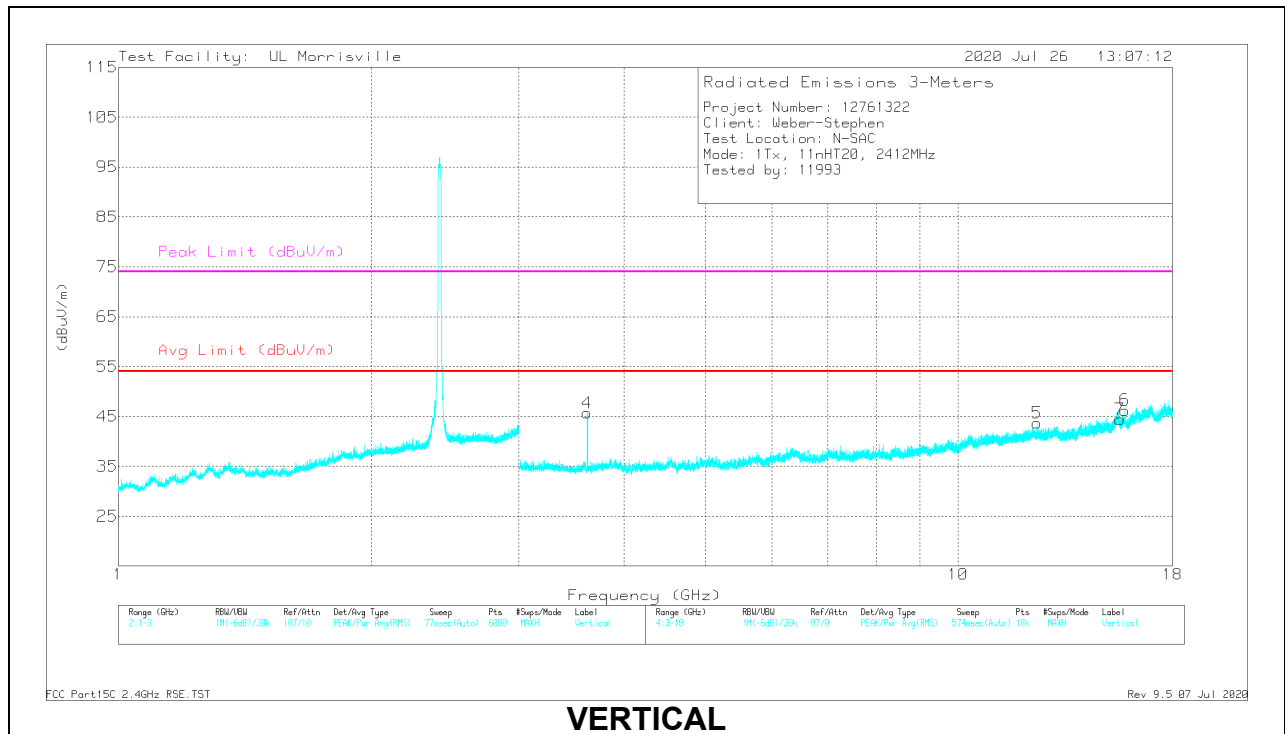
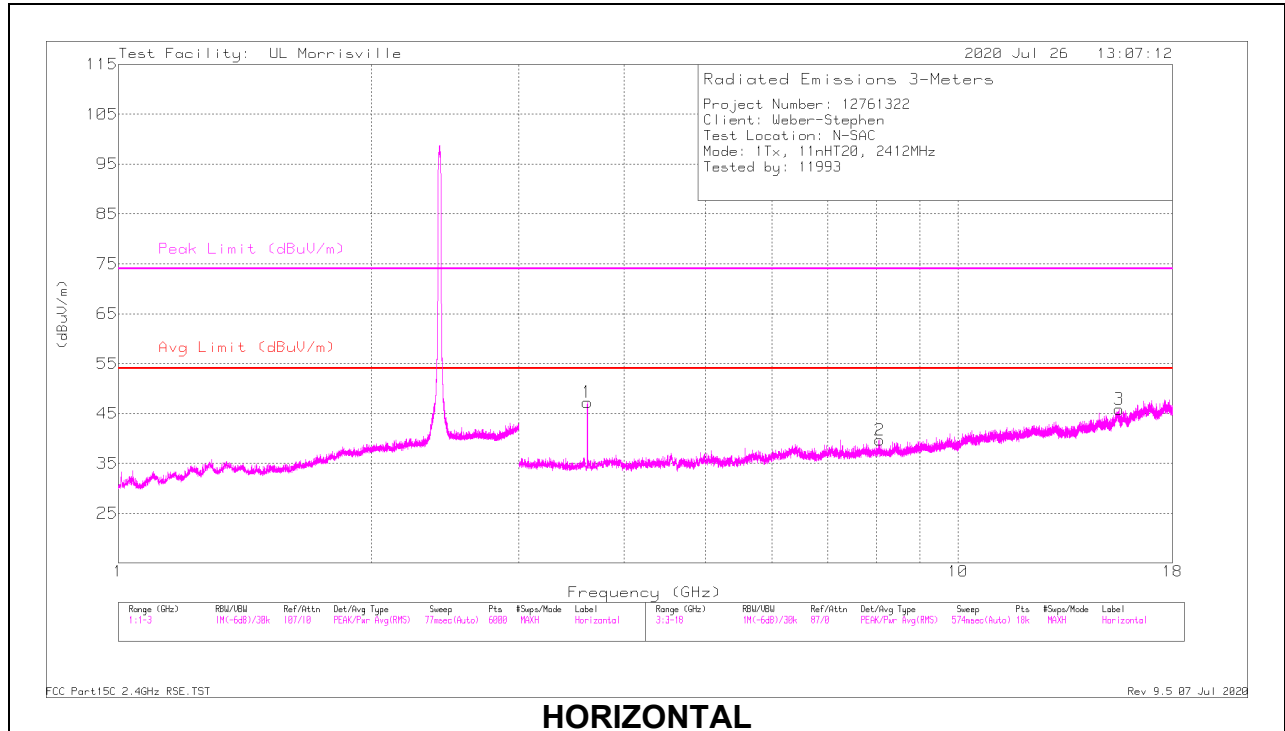


| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AT0067 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|---------------|------------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1 | * ** 2.4835 | 49.57 | Pk | 32.4 | -24.4 | 0 | 57.57 | - | - | 74 | -16.43 | 199 | 397 | V |
| 2 | * ** 2.48356 | 51.76 | Pk | 32.4 | -24.4 | 0 | 59.76 | - | - | 74 | -14.24 | 199 | 397 | V |
| 3 | * ** 2.4835 | 33.74 | ADV | 32.4 | -24.4 | .28 | 42.02 | 54 | -11.98 | - | - | 199 | 397 | V |
| 4 | * ** 2.48356 | 34.26 | ADV | 32.4 | -24.4 | .28 | 42.54 | 54 | -11.46 | - | - | 199 | 397 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 ADV - Linear Voltage Average

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



RADIATED EMISSIONS

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AT0072 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) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|---------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1 | *** 3.61795 | 48.2 | PK2 | 33 | -31.1 | 0 | 50.1 | - | - | 74 | -23.9 | 152 | 145 | H |
| | *** 3.61799 | 44.53 | ADV | 33 | -31.1 | .28 | 46.71 | 54 | -7.29 | - | - | 152 | 145 | H |
| 2 | *** 8.07249 | 36.75 | PK2 | 35.9 | -27.8 | 0 | 44.85 | - | - | 74 | -29.15 | 61 | 163 | H |
| | *** 8.07264 | 23.96 | ADV | 35.9 | -27.8 | .28 | 32.34 | 54 | -21.66 | - | - | 61 | 163 | H |
| 3 | *** 15.55957 | 35.65 | PK2 | 40.2 | -24.2 | 0 | 51.65 | - | - | 74 | -22.35 | 2 | 249 | H |
| | *** 15.55943 | 22.6 | ADV | 40.2 | -24.2 | .28 | 38.88 | 54 | -15.12 | - | - | 2 | 249 | H |
| 4 | *** 3.61794 | 46.61 | PK2 | 33 | -31.1 | 0 | 48.51 | - | - | 74 | -25.49 | 163 | 104 | V |
| | *** 3.618 | 42.38 | ADV | 33 | -31.1 | .28 | 44.56 | 54 | -9.44 | - | - | 163 | 104 | V |
| 5 | *** 12.42075 | 35.29 | PK2 | 38.9 | -25.5 | 0 | 48.69 | - | - | 74 | -25.31 | 96 | 281 | V |
| | *** 12.41771 | 22.51 | ADV | 38.9 | -25.5 | .28 | 36.19 | 54 | -17.81 | - | - | 96 | 281 | V |
| 6 | *** 15.79381 | 36 | PK2 | 40.1 | -24.1 | 0 | 52 | - | - | 74 | -22 | 2 | 147 | V |
| | *** 15.79376 | 23.37 | ADV | 40.1 | -24.1 | .28 | 39.65 | 54 | -14.35 | - | - | 2 | 147 | V |
| 7 | *** 15.59403 | 36.3 | PK2 | 40.2 | -25.8 | 0 | 50.7 | - | - | 74 | -23.3 | 325 | 268 | V |
| | *** 15.59405 | 23.84 | ADV | 40.2 | -25.8 | .28 | 38.52 | 54 | -15.48 | - | - | 325 | 268 | V |

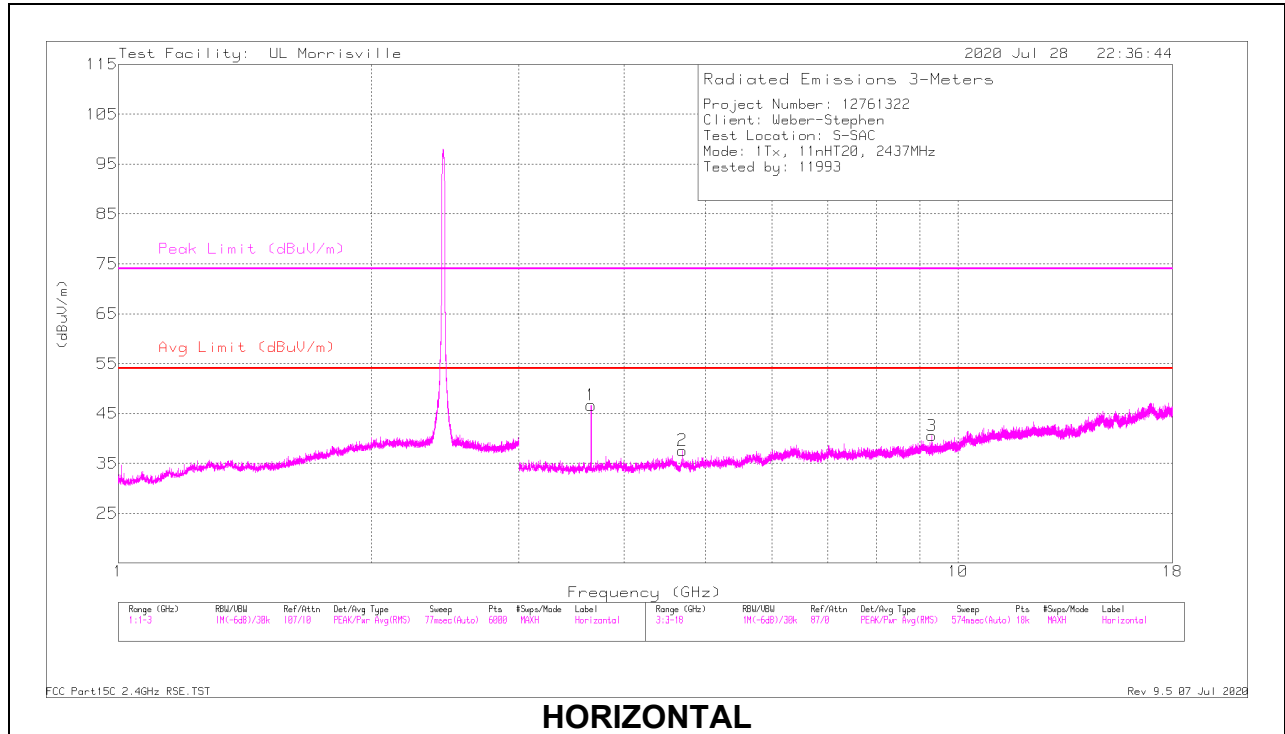
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

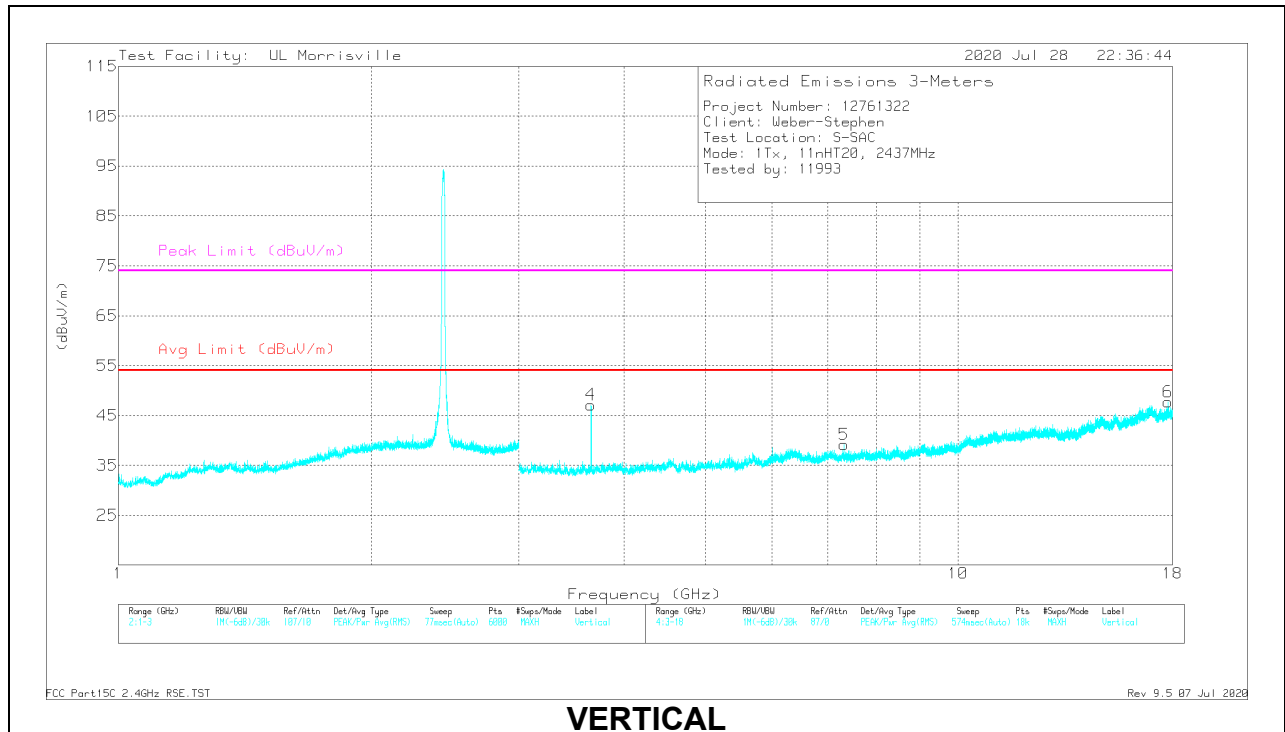
PK2 - Maximum Peak

ADV - Linear Voltage Average

MID CHANNEL RESULTS



HORIZONTAL



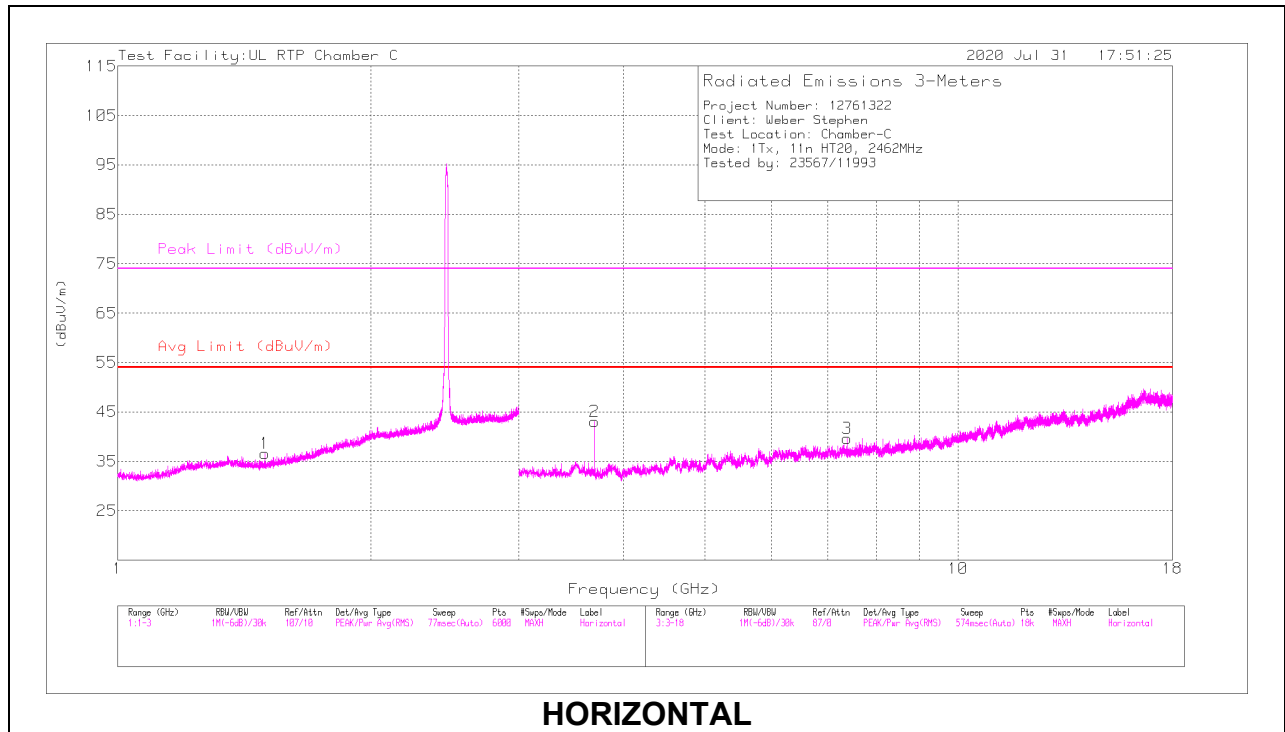
VERTICAL

RADIATED EMISSIONS

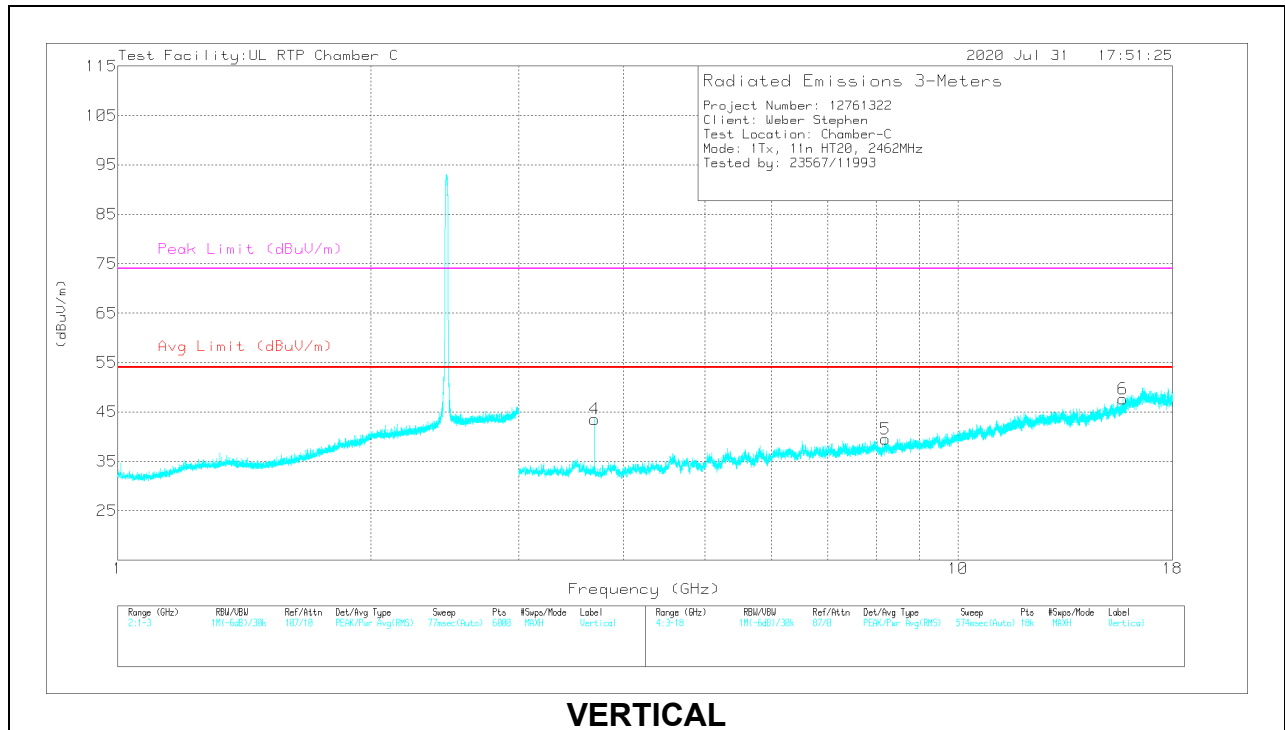
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AT0067 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|---------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1 | *** 3.6554 | 48.71 | PK2 | 33.1 | -32.2 | 0 | 49.61 | - | - | 74 | -24.39 | 191 | 109 | H |
| | *** 3.65548 | 45.11 | ADV | 33.1 | -32.2 | .28 | 46.29 | 54 | -7.71 | - | - | 191 | 109 | H |
| 2 | *** 4.69837 | 39.99 | PK2 | 34.1 | -31.7 | 0 | 42.39 | - | - | 74 | -31.61 | 252 | 237 | H |
| | *** 4.69823 | 26.81 | ADV | 34.1 | -31.7 | .28 | 29.49 | 54 | -24.51 | - | - | 252 | 237 | H |
| 3 | *** 9.30717 | 35.34 | PK2 | 36.3 | -26.6 | 0 | 45.04 | - | - | 74 | -28.96 | 236 | 208 | H |
| | *** 9.30717 | 22.41 | ADV | 36.3 | -26.6 | .28 | 32.39 | 54 | -21.61 | - | - | 236 | 208 | H |
| 4 | *** 3.65552 | 49.38 | PK2 | 33.1 | -32.2 | 0 | 50.28 | - | - | 74 | -23.72 | 236 | 111 | V |
| | *** 3.65549 | 46.07 | ADV | 33.1 | -32.2 | .28 | 47.25 | 54 | -6.75 | - | - | 236 | 111 | V |
| 5 | *** 7.31105 | 37.78 | PK2 | 35.6 | -27.5 | 0 | 45.88 | - | - | 74 | -28.12 | 220 | 112 | V |
| | *** 7.31103 | 27.8 | ADV | 35.6 | -27.5 | .28 | 36.18 | 54 | -17.82 | - | - | 220 | 112 | V |
| 6 | *** 17.78551 | 34.65 | PK2 | 41.1 | -22.1 | 0 | 53.65 | - | - | 74 | -20.35 | 54 | 244 | V |
| | *** 17.78532 | 21.24 | ADV | 41.1 | -22.1 | .28 | 40.52 | 54 | -13.48 | - | - | 54 | 244 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 PK2 - Maximum Peak
 ADV - Linear Voltage Average

HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AT0062 (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) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|---------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1 | * ** 1.49669 | 35.05 | PK2 | 27.8 | -20.9 | 0 | 41.95 | - | - | 74 | -32.05 | 126 | 144 | H |
| | * ** 1.49447 | 21.42 | ADV | 27.8 | -20.9 | .28 | 28.6 | 54 | -25.4 | - | - | 126 | 144 | H |
| 2 | * ** 3.69292 | 63.05 | PK2 | 33.2 | -49.6 | 0 | 46.65 | - | - | 74 | -27.35 | 151 | 102 | H |
| | * ** 3.69298 | 59.14 | ADV | 33.2 | -49.6 | .28 | 43.02 | 54 | -10.98 | - | - | 151 | 102 | H |
| 3 | * ** 7.38613 | 57.96 | PK2 | 35.8 | -47 | 0 | 46.76 | - | - | 74 | -27.24 | 244 | 102 | H |
| | * ** 7.38607 | 48.63 | ADV | 35.8 | -47 | .28 | 37.71 | 54 | -16.29 | - | - | 244 | 102 | H |
| 4 | * ** 3.69294 | 62.89 | PK2 | 33.2 | -49.6 | 0 | 46.49 | - | - | 74 | -27.51 | 239 | 102 | V |
| | * ** 3.69301 | 58.51 | ADV | 33.2 | -49.6 | .28 | 42.39 | 54 | -11.61 | - | - | 239 | 102 | V |
| 5 | * ** 8.19821 | 54.39 | PK2 | 35.9 | -45.6 | 0 | 44.69 | - | - | 74 | -29.31 | 202 | 207 | V |
| | * ** 8.19649 | 41.46 | ADV | 35.9 | -45.6 | .28 | 32.04 | 54 | -21.96 | - | - | 202 | 207 | V |
| 6 | * ** 15.71598 | 50.06 | PK2 | 40.7 | -37.9 | 0 | 52.86 | - | - | 74 | -21.14 | 83 | 217 | V |
| | * ** 15.71647 | 37.26 | ADV | 40.7 | -37.8 | .28 | 40.44 | 54 | -13.56 | - | - | 83 | 217 | V |

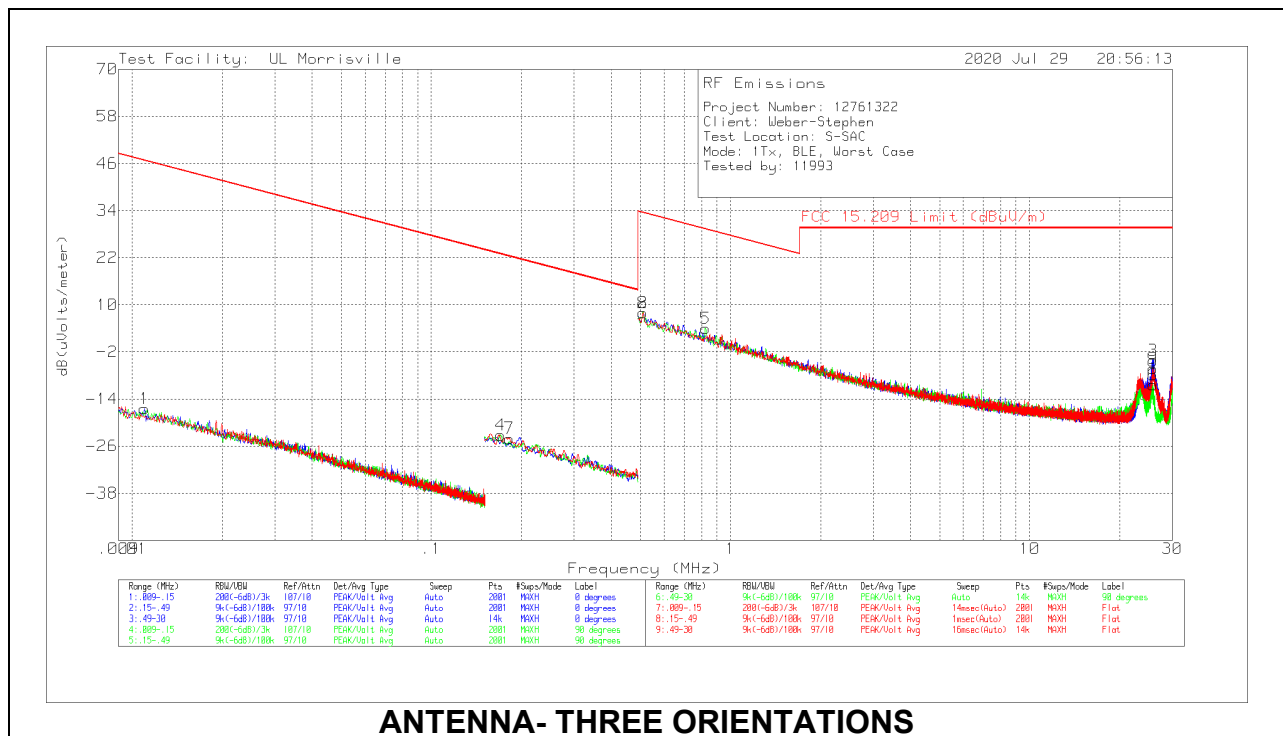
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 PK2 - Maximum Peak
 ADV - Linear Voltage Average

10.3. WORST CASE BELOW 30MHZ

Note for below 30 MHz scans: All measurements were made at a test distance of 3 m. The measured data was extrapolated from the test distance (3m) to the specification distance (300 m from 9-490 kHz and 30 m from 490 kHz – 30 MHz) to clearly show the relative levels of fundamental and spurious emissions and demonstrate compliance with the requirement that the level of any spurious emissions be below the level of the intentionally transmitted signal. The extrapolation factor for the limits were $40 \cdot \log(\text{test distance} / \text{specification distance})$.

The below 30 MHz limits in CFR 47, Part 15, Subpart C, paragraph 15.209 (a), are identical to those in RSS-GEN Section 8.9, Table 6, since the measurements are performed in terms of magnetic field strength and converted to electric field strength levels (as reported in the table) using the free space impedance of 377Ω . For example, the measurement frequency 10.99 KHz resulted in a level of -16.46 dBuV/m, which is equivalent to $-16.46 - 51.5 = -67.96$ dBuA/m, which has the same margin, -63.25 dB, to the corresponding RSS-GEN Table 6 limit as it has to be 15.209(a) limit.

SPURIOUS EMISSIONS BELOW 30 MHz (WORST-CASE CONFIGURATION) - BLE

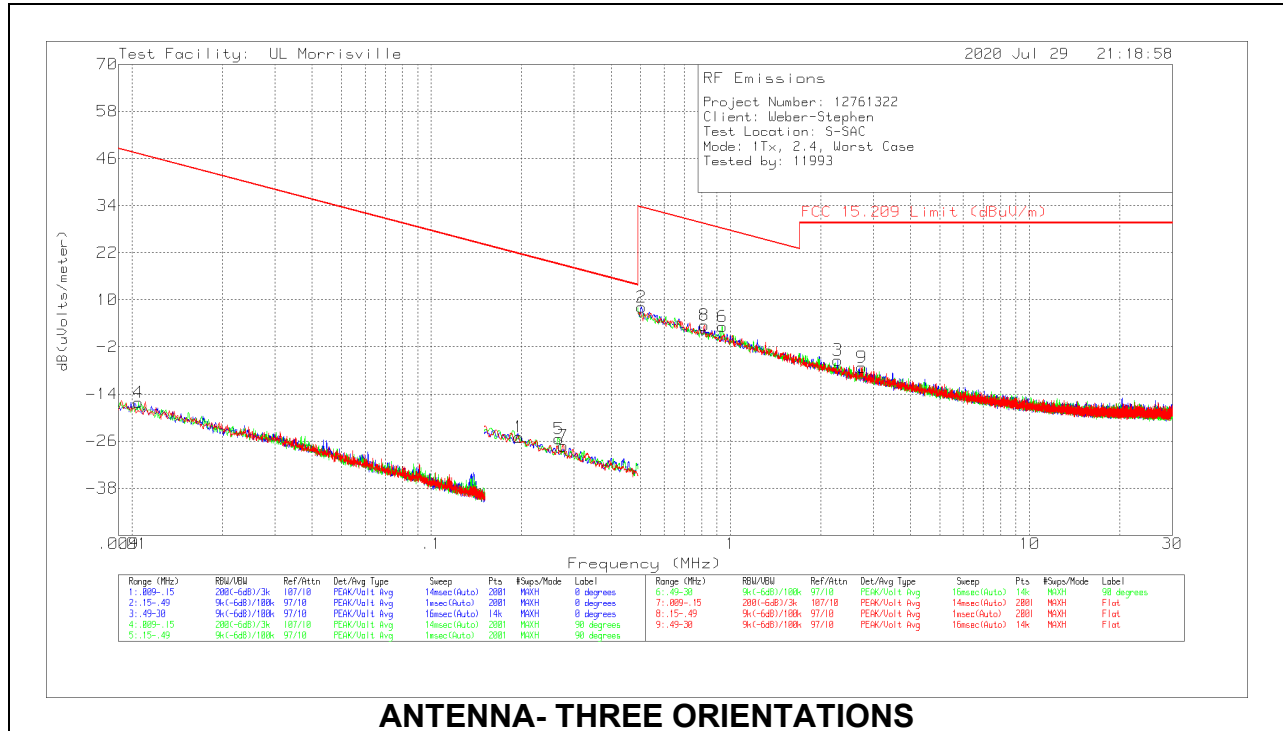


Below 30MHz Data

| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | AT0079 AF (dB/m) | Cbl (dB) | Dist. Corr. Factor (dB) | Corrected Reading dB(uVolts/meter) | FCC 15.209 Avg/QP Limit (dBuV/m) | FCC 15.209 Pk Limit (dBuV/m) | Worst-Case Margin (dB) | Azimuth (Degs) | Antenna Face |
|--------|-----------------|----------------------|-----|------------------|----------|-------------------------|------------------------------------|----------------------------------|------------------------------|------------------------|----------------|--------------|
| 1 | .01099 | 45.64 | Pk | 17.8 | .1 | -80 | -16.46 | 46.79 | 66.79 | -63.25 | 0-360 | On |
| 2 | .51003 | 36.88 | Pk | 11 | .1 | -40 | 7.98 | 33.45 | - | -25.47 | 0-360 | On |
| 3 | 25.87243 | 26.05 | Pk | 8.7 | 1 | -40 | -4.25 | 29.54 | - | -33.79 | 0-360 | On |
| 4 | .17032 | 45.66 | Pk | 11 | .1 | -80 | -23.24 | 22.98 | 42.98 | -46.22 | 0-360 | Off |
| 5 | .82517 | 32.77 | Pk | 11 | .2 | -40 | 3.97 | 29.27 | - | -25.3 | 0-360 | Off |
| 6 | 25.85767 | 19.9 | Pk | 8.7 | 1 | -40 | -10.4 | 29.54 | - | -39.94 | 0-360 | Off |
| 7 | .18247 | 44.83 | Pk | 11 | .1 | -80 | -24.07 | 22.38 | 42.38 | -46.45 | 0-360 | Flat |
| 8 | .50897 | 36.85 | Pk | 11 | .1 | -40 | 7.95 | 33.47 | - | -25.52 | 0-360 | Flat |
| 9 | 25.84713 | 24.04 | Pk | 8.7 | 1 | -40 | -6.26 | 29.54 | - | -35.8 | 0-360 | Flat |

Pk - Peak detector

SPURIOUS EMISSIONS BELOW 30 MHz (WORST-CASE CONFIGURATION) – 2.4 WLAN



ANTENNA- THREE ORIENTATIONS

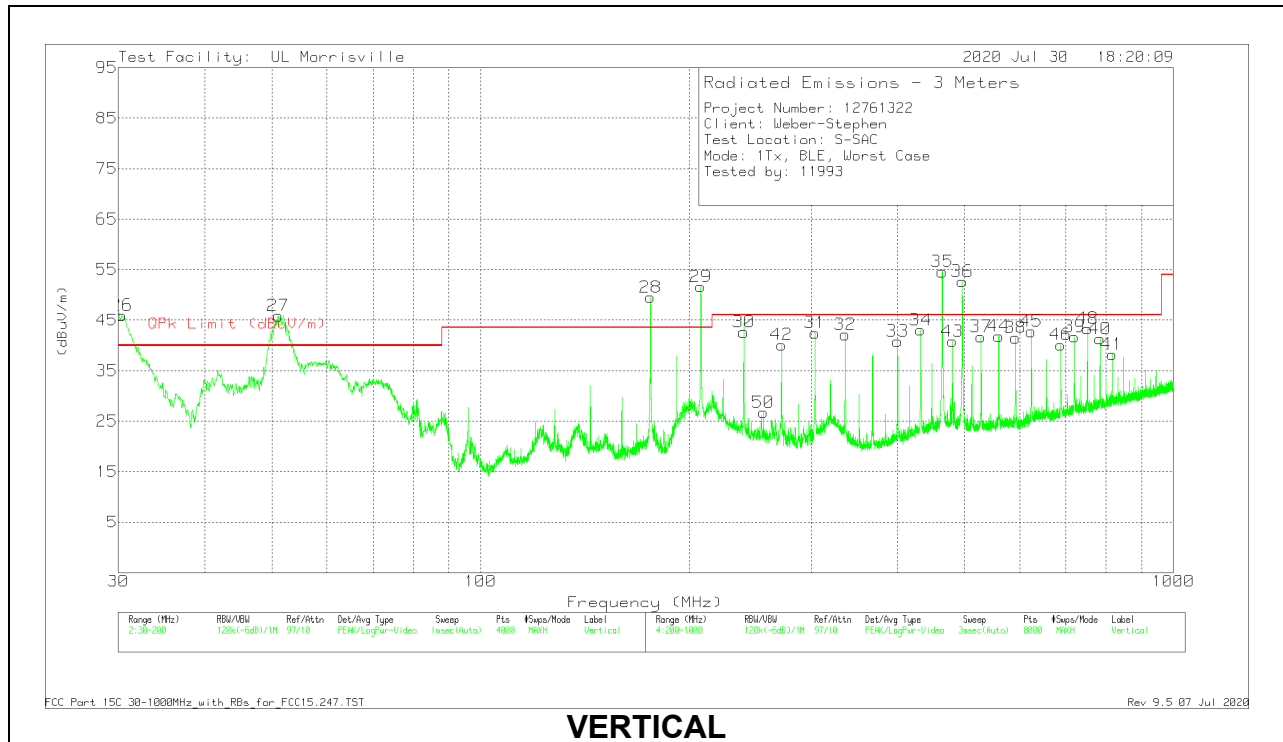
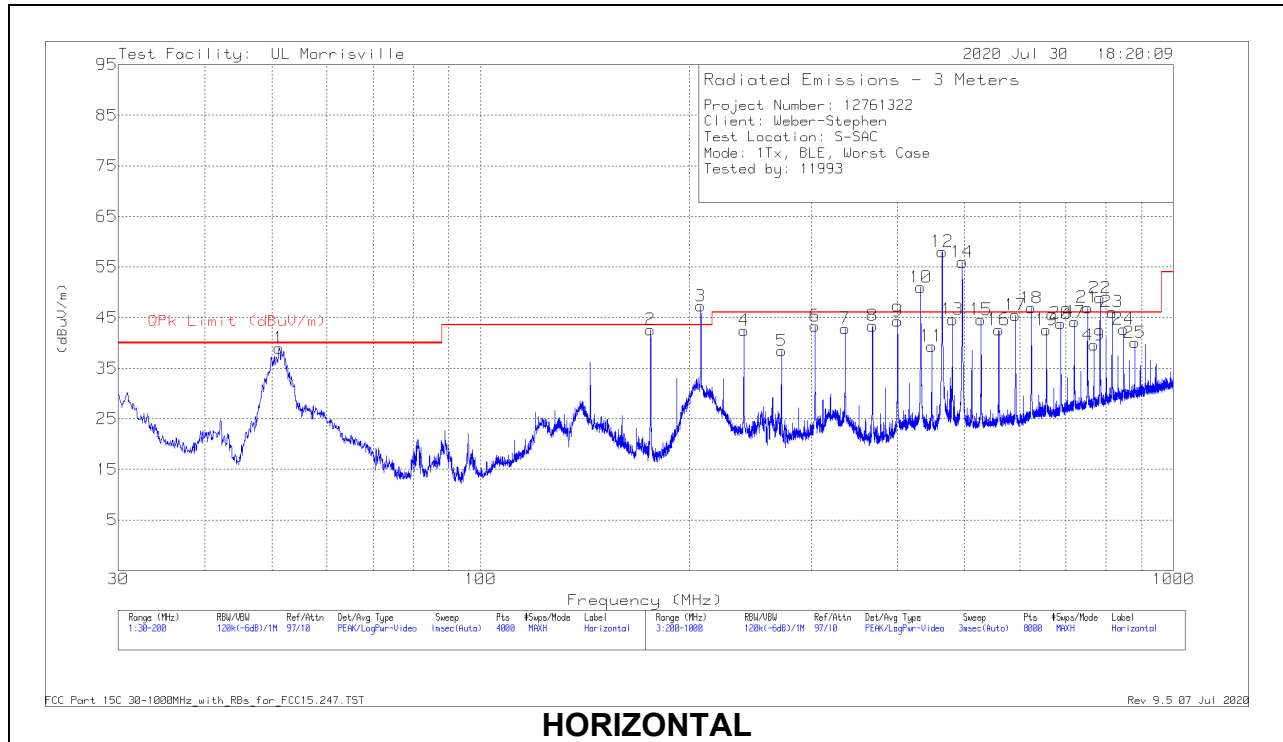
Below 30MHz Data

| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | AT0079 AF (dB/m) | Cbl (dB) | Dist. Corr. Factor (dB) | Corrected Reading dB(uVolts/meter) | FCC 15.209 Avg/QP Limit (dBuV/m) | FCC 15.209 Pk Limit (dBuV/m) | Worst-Case Margin (dB) | Azimuth (Degs) | Antenna Face |
|--------|-----------------|----------------------|-----|------------------|----------|-------------------------|------------------------------------|----------------------------------|------------------------------|------------------------|----------------|--------------|
| 1 | .19607 | 43.89 | Pk | 11 | .1 | -80 | -25.01 | 21.76 | 41.76 | -46.77 | 0-360 | On |
| 2 | .50476 | 37.04 | Pk | 11 | .1 | -40 | 8.14 | 33.54 | - | -25.4 | 0-360 | On |
| 3 | 2.2818 | 23.09 | Pk | 11.2 | .3 | -40 | -5.41 | 29.54 | - | -34.95 | 0-360 | On |
| 4 | .01049 | 45.78 | Pk | 18 | .1 | -80 | -16.12 | 47.19 | 67.19 | -63.31 | 0-360 | Off |
| 5 | .2673 | 43.5 | Pk | 11 | .1 | -80 | -25.4 | 19.06 | 39.06 | -44.46 | 0-360 | Off |
| 6 | .939 | 31.98 | Pk | 11 | .2 | -40 | 3.18 | 28.15 | - | -24.97 | 0-360 | Off |
| 7 | .27665 | 41.66 | Pk | 11 | .1 | -80 | -27.24 | 18.77 | 38.77 | -46.01 | 0-360 | Flat |
| 8 | .81885 | 32.33 | Pk | 11 | .2 | -40 | 3.53 | 29.34 | - | -25.81 | 0-360 | Flat |
| 9 | 2.74978 | 21.32 | Pk | 11.2 | .3 | -40 | -7.18 | 29.54 | - | -36.72 | 0-360 | Flat |

Pk - Peak detector

10.4. WORST CASE BELOW 1 GHZ

SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION) - BLE

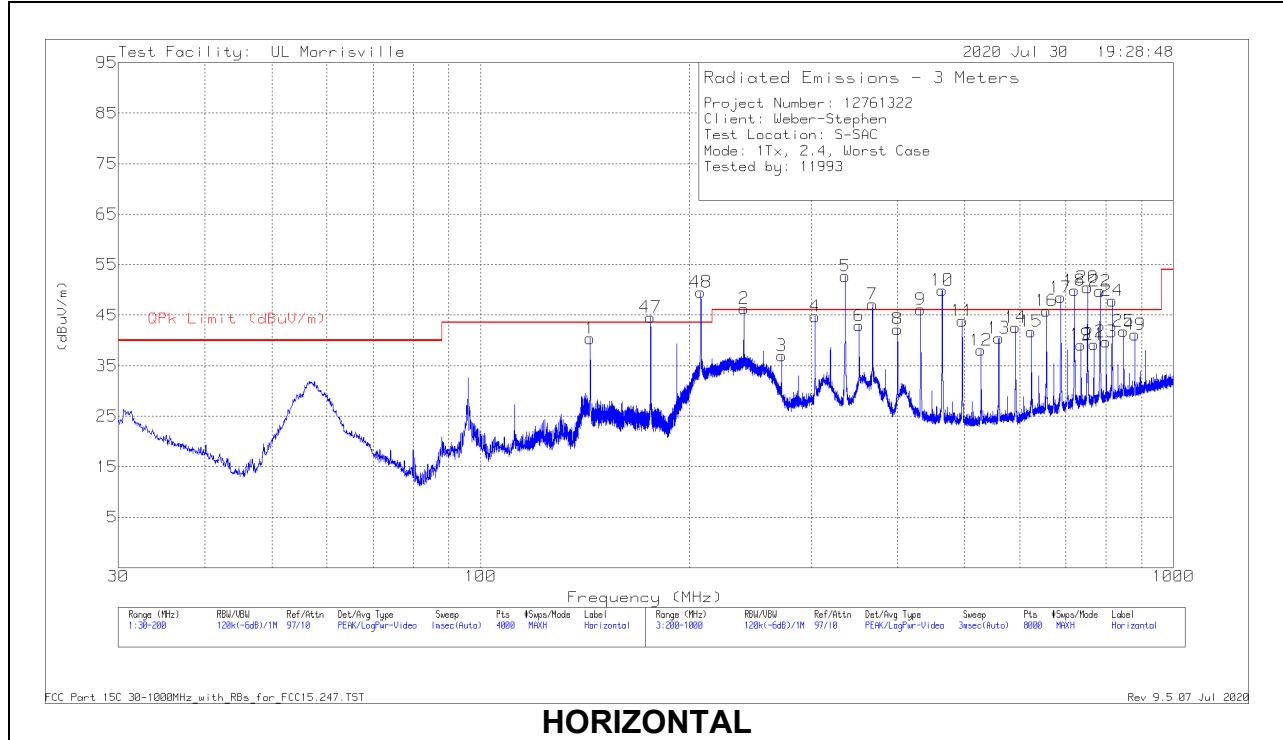


Below 1GHz Data

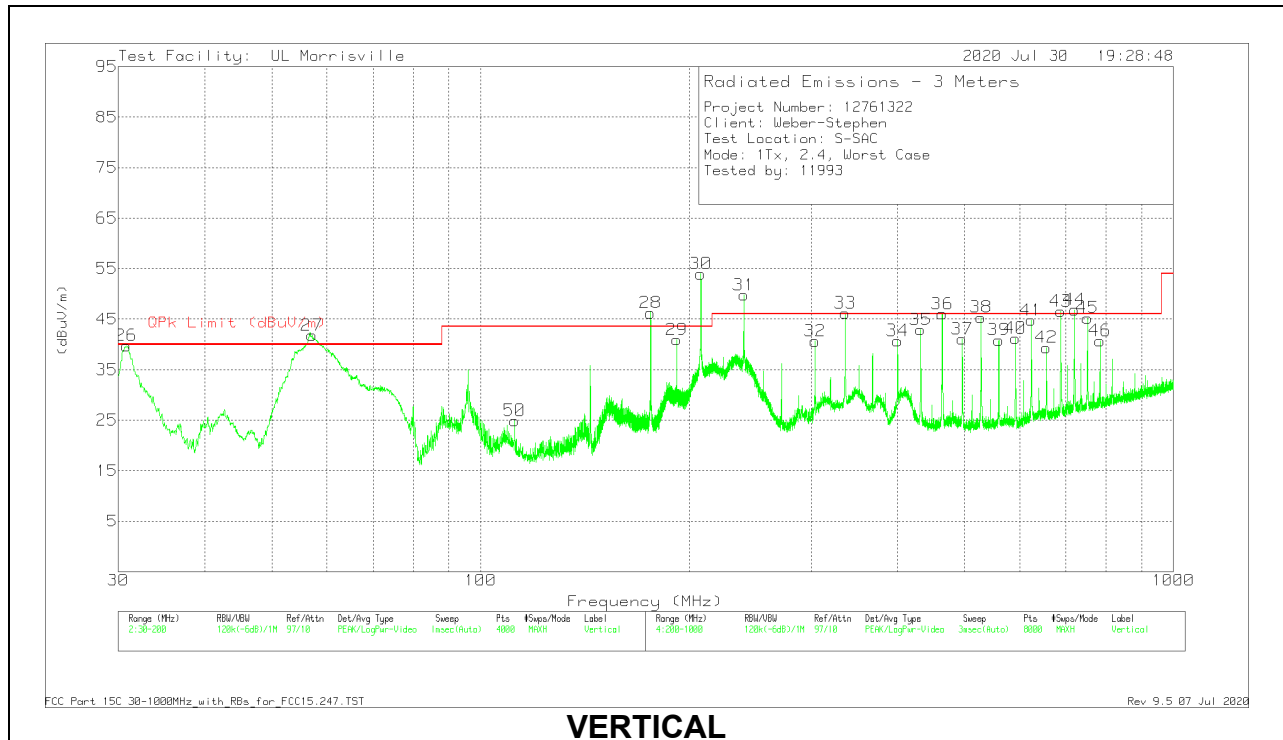
| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | AT0081 AF (dB/m) | Amp/Cbl (dB) | Corrected Reading (dBuV/m) | QPk Limit (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|--------------|----------------------------|--------------------|-------------|----------------|-------------|----------|
| 4 | * 240.0052 | 53.9 | Qp | 17.7 | -29.3 | 42.3 | 46.02 | -3.72 | 179 | 115 | H |
| 5 | * 272.0094 | 48.13 | Pk | 19.3 | -29 | 38.43 | 46.02 | -7.59 | 0-360 | 101 | H |
| 9 | * 400.0015 | 50.62 | Qp | 21.7 | -28.3 | 44.02 | 46.02 | -2 | 134 | 101 | H |
| 33 | * 399.9943 | 47.1 | Qp | 21.7 | -28.3 | 40.5 | 46.02 | -5.52 | 158 | 194 | V |
| 42 | * 272.0003 | 49.36 | Qp | 19.3 | -29 | 39.66 | 46.02 | -6.36 | 137 | 227 | V |
| 50 | * 256.0073 | 38.13 | Pk | 17.7 | -29.1 | 26.73 | 46.02 | -19.29 | 0-360 | 199 | V |
| 26 | 30.3401 | 50.75 | Pk | 26.7 | -31.5 | 45.95 | - | - | 0-360 | 101 | V |
| 27 | 51.0429 | 63.18 | Pk | 13.9 | -31.2 | 45.88 | - | - | 0-360 | 101 | V |
| 1 | 51.213 | 56.27 | Pk | 13.9 | -31.2 | 38.97 | - | - | 0-360 | 400 | H |
| 28 | 175.9828 | 61.81 | Pk | 17.5 | -29.8 | 49.51 | - | - | 0-360 | 101 | V |
| 2 | 176.0253 | 54.91 | Pk | 17.5 | -29.8 | 42.61 | - | - | 0-360 | 200 | H |
| 3 | 208.001 | 60.06 | Pk | 16.6 | -29.4 | 47.26 | - | - | 0-360 | 101 | H |
| 29 | 208.001 | 64.42 | Pk | 16.6 | -29.4 | 51.62 | - | - | 0-360 | 101 | V |
| 30 | 239.9052 | 54.24 | Pk | 17.7 | -29.3 | 42.64 | - | - | 0-360 | 101 | V |
| 6 | 304.0135 | 52.44 | Pk | 19.6 | -28.7 | 43.34 | - | - | 0-360 | 101 | H |
| 31 | 304.0135 | 51.59 | Pk | 19.6 | -28.7 | 42.49 | - | - | 0-360 | 101 | V |
| 7 | 336.0177 | 51.36 | Pk | 20.1 | -28.6 | 42.86 | - | - | 0-360 | 101 | H |
| 32 | 336.0177 | 50.64 | Pk | 20.1 | -28.6 | 42.14 | - | - | 0-360 | 199 | V |
| 8 | 368.0218 | 50.89 | Pk | 20.9 | -28.4 | 43.39 | - | - | 0-360 | 101 | H |
| 10 | 432.0302 | 56.58 | Pk | 22.6 | -28.2 | 50.98 | - | - | 0-360 | 101 | H |
| 34 | 432.0302 | 48.63 | Pk | 22.6 | -28.2 | 43.03 | - | - | 0-360 | 101 | V |
| 11 | 447.9322 | 44.57 | Pk | 22.8 | -28 | 39.37 | - | - | 0-360 | 101 | H |
| 12 | 464.0343 | 62.72 | Pk | 23.3 | -28 | 58.02 | - | - | 0-360 | 101 | H |
| 35 | 464.0343 | 59.29 | Pk | 23.3 | -28 | 54.59 | - | - | 0-360 | 199 | V |
| 13 | 480.0364 | 48.63 | Pk | 23.8 | -27.8 | 44.63 | - | - | 0-360 | 101 | H |
| 43 | 480.0364 | 44.79 | Pk | 23.8 | -27.8 | 40.79 | - | - | 0-360 | 199 | V |
| 14 | 496.0385 | 59.97 | Pk | 23.7 | -27.7 | 55.97 | - | - | 0-360 | 101 | H |
| 36 | 496.0385 | 56.66 | Pk | 23.7 | -27.7 | 52.66 | - | - | 0-360 | 199 | V |
| 15 | 528.0426 | 48.27 | Pk | 24 | -27.7 | 44.57 | - | - | 0-360 | 101 | H |
| 37 | 528.0426 | 45.43 | Pk | 24 | -27.7 | 41.73 | - | - | 0-360 | 101 | V |
| 16 | 559.9468 | 45.59 | Pk | 24.5 | -27.5 | 42.59 | - | - | 0-360 | 101 | H |
| 44 | 559.9468 | 44.82 | Pk | 24.5 | -27.5 | 41.82 | - | - | 0-360 | 101 | V |
| 17 | 591.9509 | 48.49 | Pk | 24.4 | -27.4 | 45.49 | - | - | 0-360 | 199 | H |
| 38 | 591.9509 | 44.52 | Pk | 24.4 | -27.4 | 41.52 | - | - | 0-360 | 101 | V |
| 18 | 623.9551 | 48.72 | Pk | 25.4 | -27.2 | 46.92 | - | - | 0-360 | 199 | H |
| 45 | 624.0551 | 44.57 | Pk | 25.4 | -27.2 | 42.77 | - | - | 0-360 | 101 | V |
| 19 | 655.9593 | 43.97 | Pk | 25.8 | -27.2 | 42.57 | - | - | 0-360 | 199 | H |
| 20 | 687.9634 | 44.93 | Pk | 26.1 | -27.2 | 43.83 | - | - | 0-360 | 101 | H |
| 46 | 688.0134 | 41.22 | Pk | 26.1 | -27.2 | 40.12 | - | - | 0-360 | 101 | V |
| 47 | 719.9676 | 44.66 | Pk | 26.5 | -27 | 44.16 | - | - | 0-360 | 101 | H |
| 39 | 719.9676 | 42.23 | Pk | 26.5 | -27 | 41.73 | - | - | 0-360 | 101 | V |
| 21 | 751.9717 | 47.07 | Pk | 26.8 | -26.9 | 46.97 | - | - | 0-360 | 101 | H |
| 48 | 751.9717 | 43.42 | Pk | 26.8 | -26.9 | 43.32 | - | - | 0-360 | 101 | V |
| 49 | 767.9738 | 39.27 | Pk | 26.9 | -26.6 | 39.57 | - | - | 0-360 | 101 | H |
| 22 | 783.9759 | 48.29 | Pk | 27.3 | -26.7 | 48.89 | - | - | 0-360 | 101 | H |
| 40 | 783.9759 | 40.69 | Pk | 27.3 | -26.7 | 41.29 | - | - | 0-360 | 101 | V |
| 23 | 815.9801 | 44.73 | Pk | 27.7 | -26.3 | 46.13 | - | - | 0-360 | 101 | H |
| 41 | 815.9801 | 36.81 | Pk | 27.7 | -26.3 | 38.21 | - | - | 0-360 | 101 | V |
| 24 | 847.9842 | 40.91 | Pk | 27.9 | -26.1 | 42.71 | - | - | 0-360 | 101 | H |
| 25 | 879.9884 | 37.86 | Pk | 28 | -25.8 | 40.06 | - | - | 0-360 | 101 | H |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 Pk - Peak detector
 Qp - Quasi-Peak detector

SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION) – 2.4 WLAN



HORIZONTAL



VERTICAL

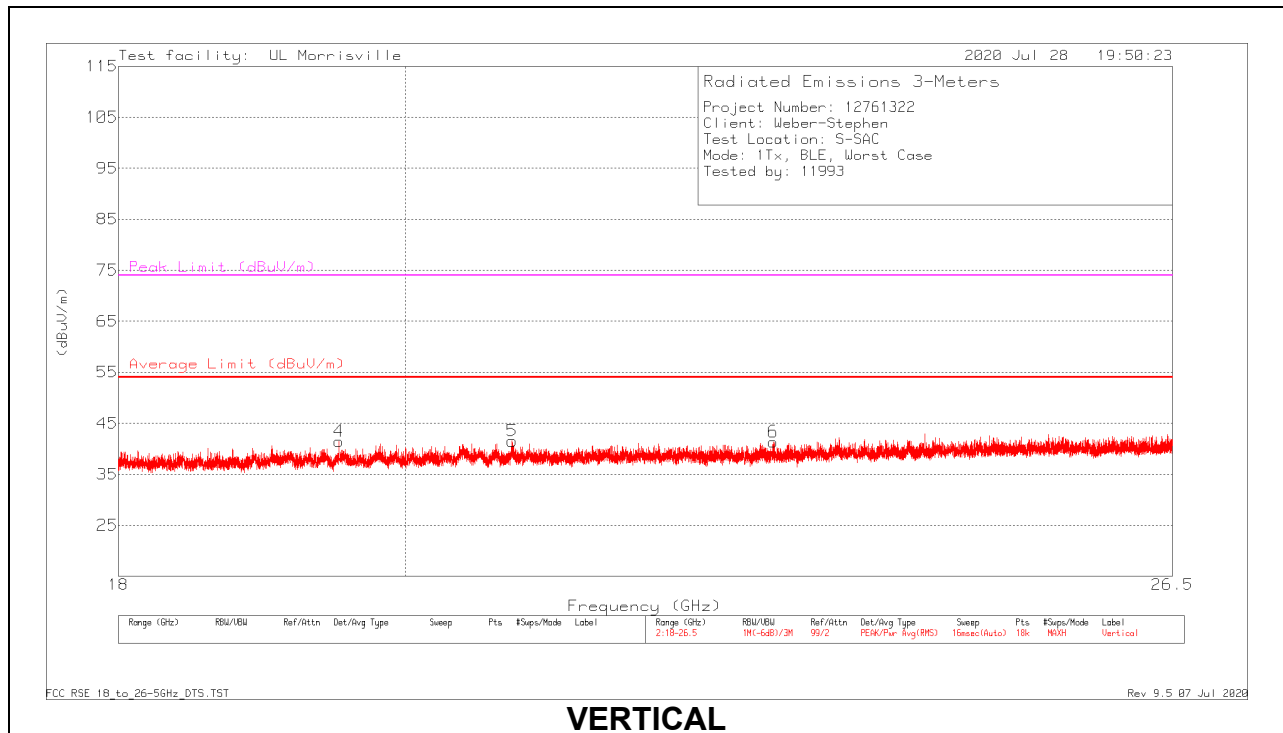
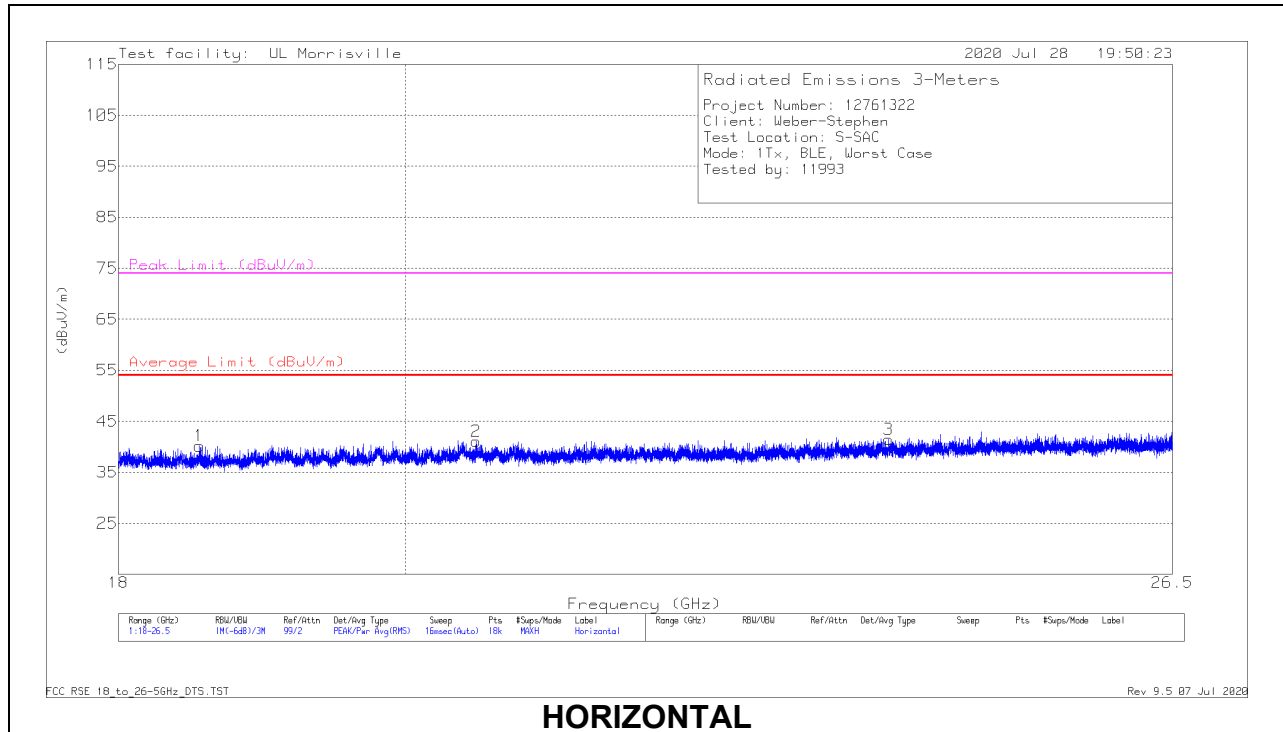
Below 1GHz Data

| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | AT0081 AF (dB/m) | Amp/Cbl (dB) | Corrected Reading (dBuV/m) | QPk Limit (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|--------------|----------------------------|--------------------|-------------|----------------|-------------|----------|
| 50 | * 112.0037 | 36.3 | Pk | 19.1 | -30.5 | 24.9 | 43.52 | -18.62 | 0-360 | 101 | V |
| 2 | * 240.0086 | 57.36 | Qp | 17.7 | -29.3 | 45.76 | 46.02 | -26 | 166 | 105 | H |
| 3 | * 272.0094 | 46.66 | Pk | 19.3 | -29 | 36.96 | 46.02 | -9.06 | 0-360 | 101 | H |
| 8 | * 399.9911 | 47.62 | Qp | 21.7 | -28.3 | 41.02 | 46.02 | -5 | 138 | 101 | H |
| 31 | * 240.0086 | 56.2 | Qp | 17.7 | -29.3 | 44.6 | 46.02 | -1.42 | 314 | 103 | V |
| 34 | * 400.003 | 45.88 | Qp | 21.7 | -28.3 | 39.28 | 46.02 | -6.74 | 260 | 130 | V |
| 26 | 30.8077 | 44.75 | Pk | 26.5 | -31.5 | 39.75 | - | - | 0-360 | 101 | V |
| 27 | 57.122 | 59.5 | Pk | 13.4 | -31.1 | 41.8 | - | - | 0-360 | 101 | V |
| 1 | 144.0145 | 51.59 | Pk | 18.9 | -30.1 | 40.39 | - | - | 0-360 | 199 | H |
| 47 | 175.9828 | 56.86 | Pk | 17.5 | -29.8 | 44.56 | - | - | 0-360 | 199 | H |
| 28 | 176.0253 | 58.54 | Pk | 17.5 | -29.8 | 46.24 | - | - | 0-360 | 101 | V |
| 29 | 192.0094 | 53.12 | Pk | 17.4 | -29.6 | 40.92 | - | - | 0-360 | 101 | V |
| 48 | 208.001 | 62.35 | Pk | 16.6 | -29.4 | 49.55 | - | - | 0-360 | 101 | H |
| 30 | 208.001 | 66.77 | Pk | 16.6 | -29.4 | 53.97 | - | - | 0-360 | 101 | V |
| 4 | 304.0135 | 53.85 | Pk | 19.6 | -28.7 | 44.75 | - | - | 0-360 | 101 | H |
| 32 | 304.0135 | 49.75 | Pk | 19.6 | -28.7 | 40.65 | - | - | 0-360 | 101 | V |
| 5 | 336.0177 | 61.23 | Pk | 20.1 | -28.6 | 52.73 | - | - | 0-360 | 101 | H |
| 33 | 336.0177 | 54.71 | Pk | 20.1 | -28.6 | 46.21 | - | - | 0-360 | 101 | V |
| 6 | 352.0198 | 50.83 | Pk | 20.6 | -28.5 | 42.93 | - | - | 0-360 | 101 | H |
| 7 | 368.0218 | 54.62 | Pk | 20.9 | -28.4 | 47.12 | - | - | 0-360 | 101 | H |
| 9 | 432.0302 | 51.72 | Pk | 22.6 | -28.2 | 46.12 | - | - | 0-360 | 200 | H |
| 35 | 432.0302 | 48.52 | Pk | 22.6 | -28.2 | 42.92 | - | - | 0-360 | 199 | V |
| 10 | 464.0343 | 54.65 | Pk | 23.3 | -28 | 49.95 | - | - | 0-360 | 200 | H |
| 36 | 464.0343 | 50.74 | Pk | 23.3 | -28 | 46.04 | - | - | 0-360 | 101 | V |
| 37 | 495.9385 | 45.06 | Pk | 23.7 | -27.7 | 41.06 | - | - | 0-360 | 101 | V |
| 11 | 496.0385 | 47.89 | Pk | 23.7 | -27.7 | 43.89 | - | - | 0-360 | 200 | H |
| 12 | 528.0426 | 41.76 | Pk | 24 | -27.7 | 38.06 | - | - | 0-360 | 200 | H |
| 38 | 528.0426 | 49.05 | Pk | 24 | -27.7 | 45.35 | - | - | 0-360 | 101 | V |
| 13 | 560.0468 | 43.45 | Pk | 24.5 | -27.5 | 40.45 | - | - | 0-360 | 299 | H |
| 39 | 560.0468 | 43.88 | Pk | 24.5 | -27.5 | 40.88 | - | - | 0-360 | 101 | V |
| 14 | 591.9509 | 45.57 | Pk | 24.4 | -27.4 | 42.57 | - | - | 0-360 | 101 | H |
| 40 | 591.9509 | 44.21 | Pk | 24.4 | -27.4 | 41.21 | - | - | 0-360 | 101 | V |
| 15 | 623.9551 | 43.55 | Pk | 25.4 | -27.2 | 41.75 | - | - | 0-360 | 101 | H |
| 41 | 623.9551 | 46.58 | Pk | 25.4 | -27.2 | 44.78 | - | - | 0-360 | 101 | V |
| 16 | 655.9593 | 47.26 | Pk | 25.8 | -27.2 | 45.86 | - | - | 0-360 | 101 | H |
| 42 | 655.9593 | 40.78 | Pk | 25.8 | -27.2 | 39.38 | - | - | 0-360 | 101 | V |
| 17 | 687.9634 | 49.61 | Pk | 26.1 | -27.2 | 48.51 | - | - | 0-360 | 101 | H |
| 43 | 687.9634 | 47.66 | Pk | 26.1 | -27.2 | 46.56 | - | - | 0-360 | 101 | V |
| 18 | 719.9676 | 50.38 | Pk | 26.5 | -27 | 49.88 | - | - | 0-360 | 101 | H |
| 44 | 719.9676 | 47.36 | Pk | 26.5 | -27 | 46.86 | - | - | 0-360 | 101 | V |
| 19 | 735.9697 | 39.32 | Pk | 26.6 | -26.8 | 39.12 | - | - | 0-360 | 101 | H |
| 20 | 751.9717 | 50.58 | Pk | 26.8 | -26.9 | 50.48 | - | - | 0-360 | 101 | H |
| 45 | 751.9717 | 45.34 | Pk | 26.8 | -26.9 | 45.24 | - | - | 0-360 | 101 | V |
| 21 | 767.9738 | 38.92 | Pk | 26.9 | -26.6 | 39.22 | - | - | 0-360 | 101 | H |
| 22 | 783.9759 | 49.13 | Pk | 27.3 | -26.7 | 49.73 | - | - | 0-360 | 101 | H |
| 46 | 783.9759 | 40.14 | Pk | 27.3 | -26.7 | 40.74 | - | - | 0-360 | 101 | V |
| 23 | 799.978 | 38.71 | Pk | 27.4 | -26.4 | 39.71 | - | - | 0-360 | 101 | H |
| 24 | 815.9801 | 46.47 | Pk | 27.7 | -26.3 | 47.87 | - | - | 0-360 | 101 | H |
| 25 | 847.9842 | 40.06 | Pk | 27.9 | -26.1 | 41.86 | - | - | 0-360 | 101 | H |
| 49 | 879.9884 | 38.95 | Pk | 28 | -25.8 | 41.15 | - | - | 0-360 | 101 | H |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 Pk - Peak detector
 Qp - Quasi-Peak detector

10.5. WORST CASE 18-26 GHZ

SPURIOUS EMISSIONS 18-26 GHz (WORST-CASE CONFIGURATION) - BLE



18 – 26GHz DATA

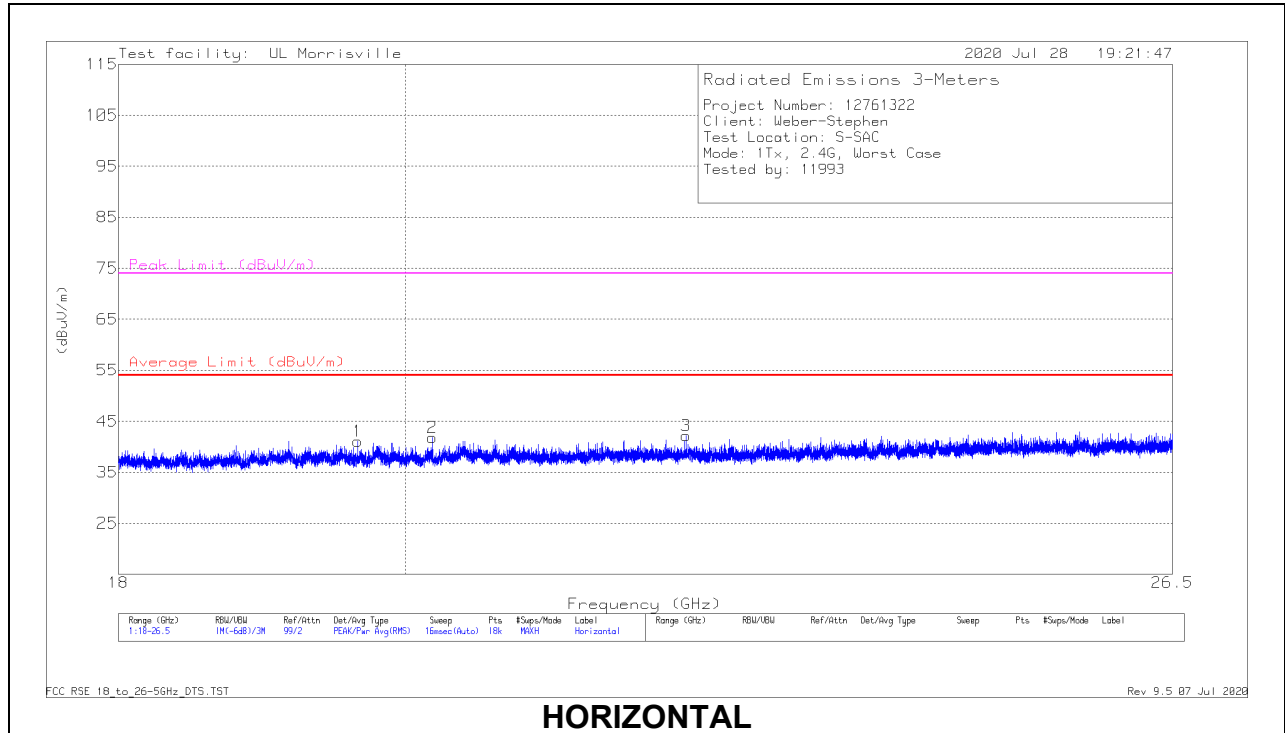
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AT0076 AF (dB/m) | Amp/Cbl (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|--------------|----------------------------|------------------------|-------------|---------------------|-------------|----------------|-------------|----------|
| 1 | * ** 18.54309 | 47.17 | Pk | 32.6 | -39.6 | 40.17 | 54 | -13.83 | 74 | -33.83 | 0-360 | 250 | H |
| 2 | * ** 20.52511 | 46.89 | Pk | 33.2 | -39 | 41.09 | 54 | -12.91 | 74 | -32.91 | 0-360 | 101 | H |
| 3 | * ** 23.88043 | 45.97 | Pk | 34.1 | -38.6 | 41.47 | 54 | -12.53 | 74 | -32.53 | 0-360 | 199 | H |
| 4 | * ** 19.51828 | 47.69 | Pk | 32.7 | -38.9 | 41.49 | 54 | -12.51 | 74 | -32.51 | 0-360 | 299 | V |
| 5 | * ** 20.79807 | 47.23 | Pk | 33.2 | -38.9 | 41.53 | 54 | -12.47 | 74 | -32.47 | 0-360 | 250 | V |
| 6 | * ** 22.89013 | 46.47 | Pk | 33.8 | -38.9 | 41.37 | 54 | -12.63 | 74 | -32.63 | 0-360 | 150 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

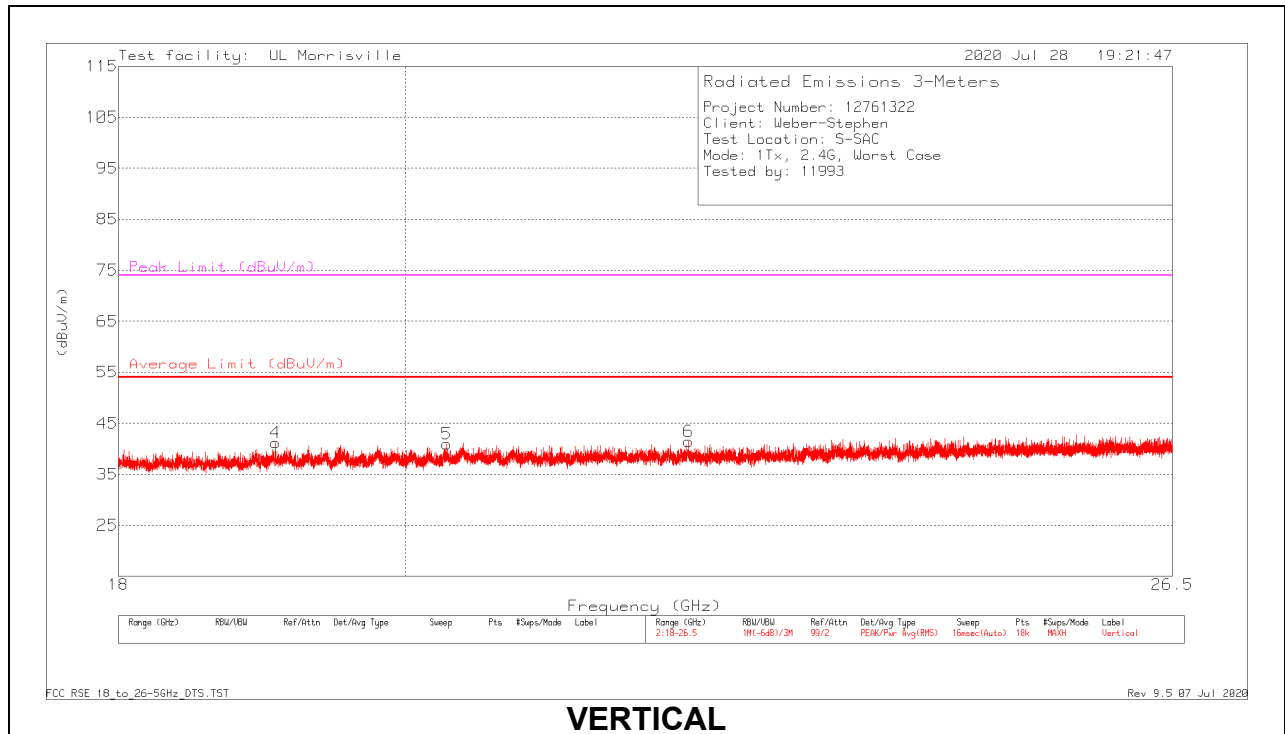
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

SPURIOUS EMISSIONS 18-26 GHz (WORST-CASE CONFIGURATION) – 2.4 WLAN



HORIZONTAL



VERTICAL

18 – 26GHz DATA

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AT0076 AF (dB/m) | Amp/Cbl (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|--------------|----------------------------|------------------------|-------------|---------------------|-------------|----------------|-------------|----------|
| 1 | * ** 19.6524 | 47.35 | Pk | 32.7 | -39 | 41.05 | 54 | -12.95 | 74 | -32.95 | 0-360 | 200 | H |
| 2 | * ** 20.19595 | 48.02 | Pk | 32.8 | -39 | 41.82 | 54 | -12.18 | 74 | -32.18 | 0-360 | 300 | H |
| 3 | * ** 22.16664 | 47.97 | Pk | 33.6 | -39.4 | 42.17 | 54 | -11.83 | 74 | -31.83 | 0-360 | 300 | H |
| 4 | * ** 19.06728 | 47.8 | Pk | 32.8 | -39.4 | 41.2 | 54 | -12.8 | 74 | -32.8 | 0-360 | 101 | V |
| 5 | * ** 20.30268 | 46.45 | Pk | 33.2 | -38.7 | 40.95 | 54 | -13.05 | 74 | -33.05 | 0-360 | 200 | V |
| 6 | * ** 22.1879 | 47.31 | Pk | 33.6 | -39.5 | 41.41 | 54 | -12.59 | 74 | -32.59 | 0-360 | 300 | V |

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

11. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)
RSS-Gen 8.8

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

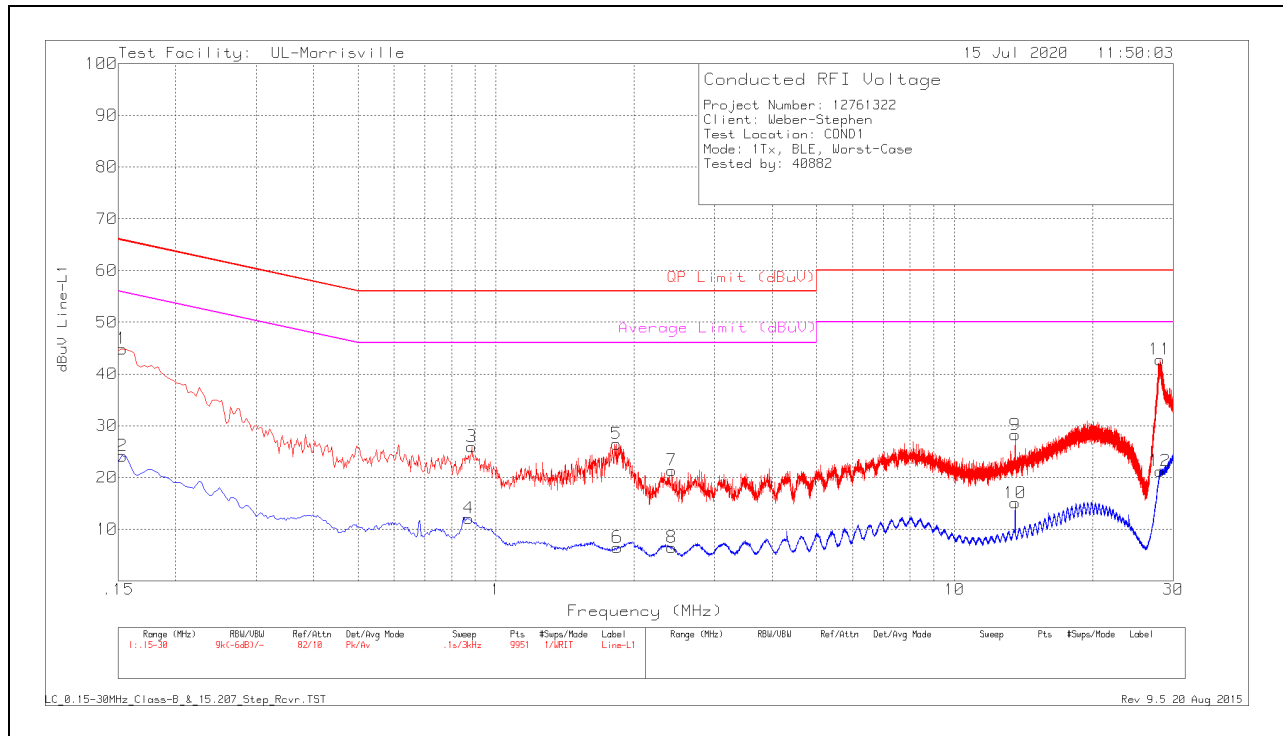
*Decreases with the logarithm of the frequency.

RESULTS

11.1.1. AC Power Line Host

BLE

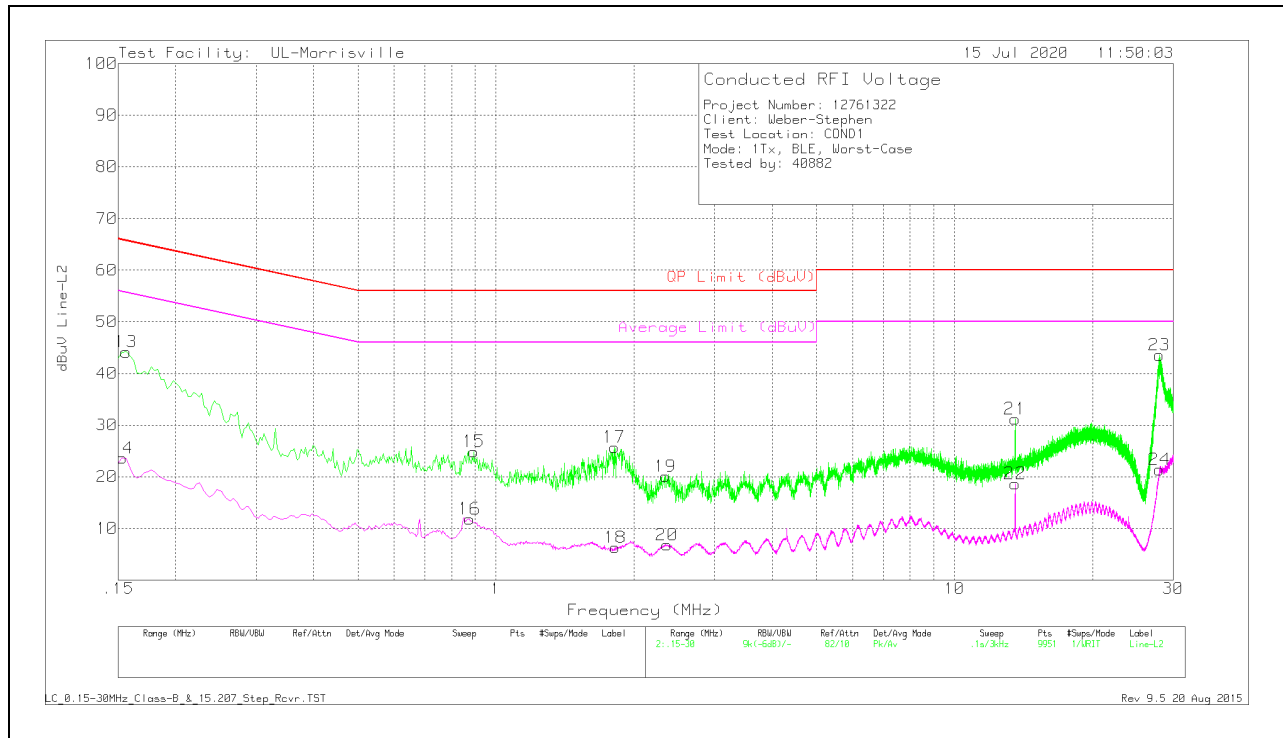
LINE 1 RESULTS



| Range 1: Line-L1 .15 - 30MHz | | | | | | | | | | |
|------------------------------|-----------------|----------------------|-----|---------------|------------------|------------------------|-----------------|-------------|----------------------|-------------|
| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | LISN VCF (dB) | Cbl/Limiter (dB) | Corrected Reading dBuV | QP Limit (dBuV) | Margin (dB) | Average Limit (dBuV) | Margin (dB) |
| 1 | .153 | 34.97 | Pk | .2 | 9.7 | 44.87 | 65.84 | -20.97 | - | - |
| 2 | .153 | 14.28 | Av | .2 | 9.7 | 24.18 | - | - | 55.84 | -31.66 |
| 3 | .885 | 16.15 | Pk | 0 | 9.8 | 25.95 | 56 | -30.05 | - | - |
| 4 | .873 | 2.3 | Av | 0 | 9.8 | 12.1 | - | - | 46 | -33.9 |
| 5 | 1.83 | 16.68 | Pk | 0 | 9.8 | 26.48 | 56 | -29.52 | - | - |
| 6 | 1.839 | -3.33 | Av | 0 | 9.8 | 6.47 | - | - | 46 | -39.53 |
| 7 | 2.418 | 11.55 | Pk | 0 | 9.8 | 21.35 | 56 | -34.65 | - | - |
| 8 | 2.418 | -3.34 | Av | 0 | 9.8 | 6.46 | - | - | 46 | -39.54 |
| 9 | 13.56 | 18.14 | Pk | .1 | 10 | 28.24 | 60 | -31.76 | - | - |
| 10 | 13.56 | 4.97 | Av | .1 | 10 | 15.07 | - | - | 50 | -34.93 |
| 11 | 28.044 | 32.29 | Pk | .3 | 10.2 | 42.79 | 60 | -17.21 | - | - |
| 12 | 28.047 | 10.73 | Av | .3 | 10.2 | 21.23 | - | - | 50 | -28.77 |

Pk - Peak detector
 Av - Average detection

LINE 2 RESULTS

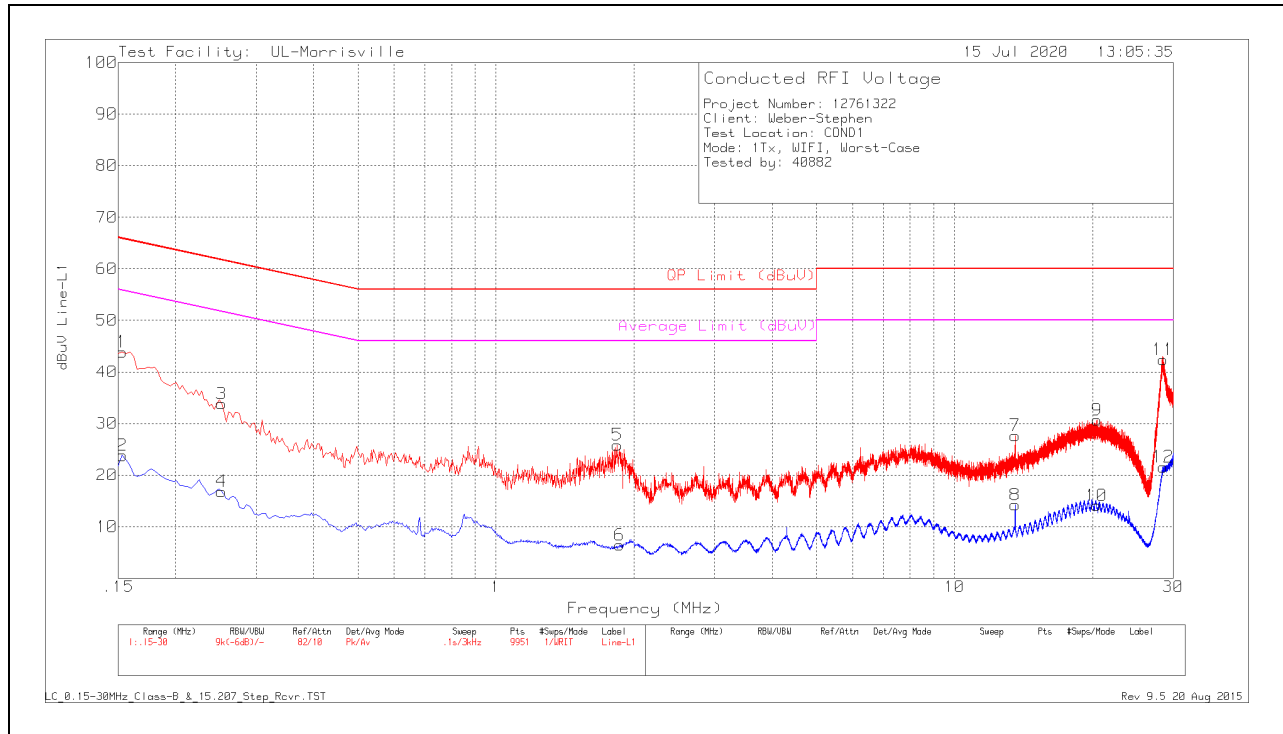


| Range 2: Line-L2 .15 - 30MHz | | | | | | | | | | |
|------------------------------|-----------------|----------------------|-----|---------------|------------------|------------------------|-----------------|-------------|----------------------|-------------|
| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | LISN VCF (dB) | Cbl/Limiter (dB) | Corrected Reading dBuV | QP Limit (dBuV) | Margin (dB) | Average Limit (dBuV) | Margin (dB) |
| 13 | .156 | 34.25 | Pk | .2 | 9.7 | 44.15 | 65.67 | -21.52 | - | - |
| 14 | .153 | 13.69 | Av | .2 | 9.7 | 23.59 | - | - | 55.84 | -32.25 |
| 15 | .894 | 15.07 | Pk | 0 | 9.8 | 24.87 | 56 | -31.13 | - | - |
| 16 | .876 | 2.02 | Av | 0 | 9.8 | 11.82 | - | - | 46 | -34.18 |
| 17 | 1.812 | 15.93 | Pk | 0 | 9.8 | 25.73 | 56 | -30.27 | - | - |
| 18 | 1.821 | -3.5 | Av | 0 | 9.8 | 6.3 | - | - | 46 | -39.7 |
| 19 | 2.343 | 10.28 | Pk | 0 | 9.8 | 20.08 | 56 | -35.92 | - | - |
| 20 | 2.361 | -3 | Av | 0 | 9.8 | 6.8 | - | - | 46 | -39.2 |
| 21 | 13.56 | 21.07 | Pk | .1 | 10 | 31.17 | 60 | -28.83 | - | - |
| 22 | 13.56 | 8.55 | Av | .1 | 10 | 18.65 | - | - | 50 | -31.35 |
| 23 | 27.984 | 33.15 | Pk | .2 | 10.2 | 43.55 | 60 | -16.45 | - | - |
| 24 | 28.002 | 10.88 | Av | .3 | 10.2 | 21.38 | - | - | 50 | -28.62 |

Pk - Peak detector
 Av - Average detection

2.4 WLAN

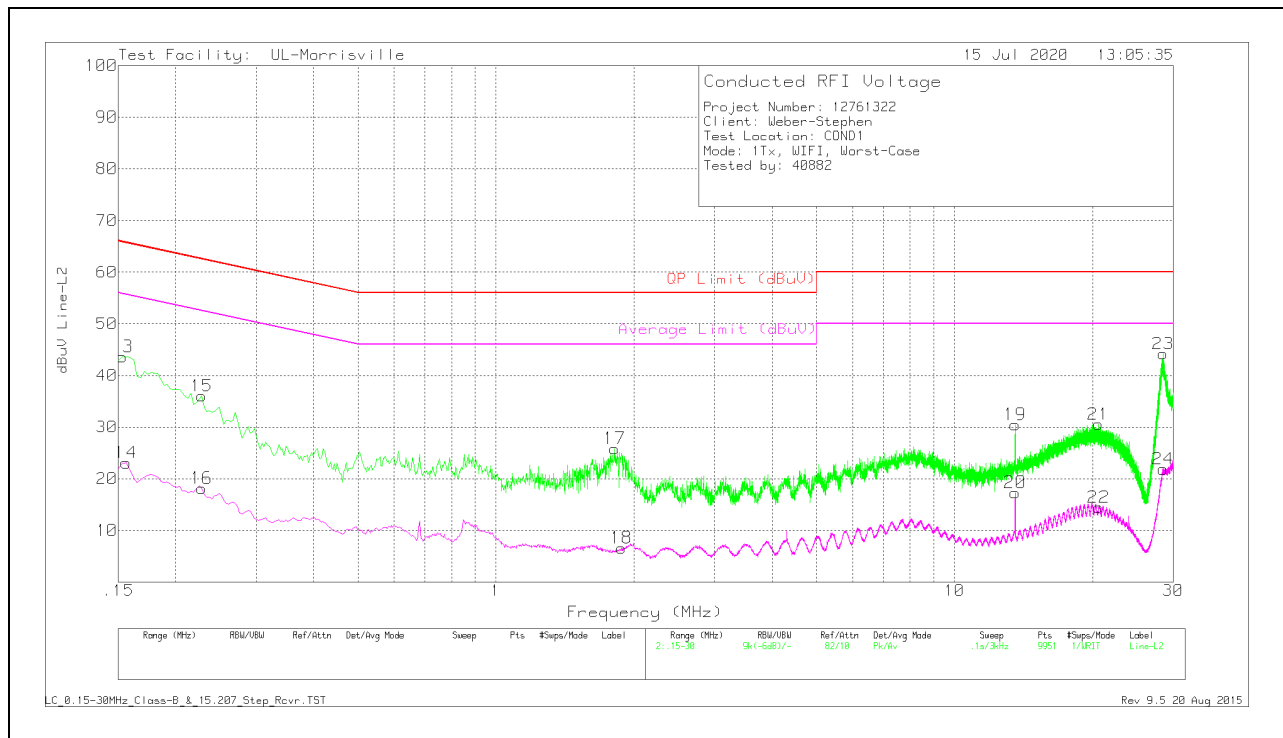
LINE 1 RESULTS



| Range 1: Line-L1 .15 - 30MHz | | | | | | | | | | |
|------------------------------|-----------------|----------------------|-----|---------------|------------------|------------------------|-----------------|-------------|----------------------|-------------|
| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | LISN VCF (dB) | Cbl/Limiter (dB) | Corrected Reading dBuV | QP Limit (dBuV) | Margin (dB) | Average Limit (dBuV) | Margin (dB) |
| 1 | .153 | 33.96 | Pk | .2 | 9.7 | 43.86 | 65.84 | -21.98 | - | - |
| 2 | .153 | 13.91 | Av | .2 | 9.7 | 23.81 | - | - | 55.84 | -32.03 |
| 3 | .252 | 24.04 | Pk | .1 | 9.7 | 33.84 | 61.69 | -27.85 | - | - |
| 4 | .252 | 7.03 | Av | .1 | 9.7 | 16.83 | - | - | 51.69 | -34.86 |
| 5 | 1.839 | 16.04 | Pk | 0 | 9.8 | 25.84 | 56 | -30.16 | - | - |
| 6 | 1.86 | -3.36 | Av | 0 | 9.8 | 6.44 | - | - | 46 | -39.56 |
| 7 | 13.56 | 17.54 | Pk | .1 | 10 | 27.64 | 60 | -32.36 | - | - |
| 8 | 13.56 | 4.11 | Av | .1 | 10 | 14.21 | - | - | 50 | -35.79 |
| 9 | 20.478 | 20.38 | Pk | .2 | 10.1 | 30.68 | 60 | -29.32 | - | - |
| 10 | 20.406 | 3.79 | Av | .2 | 10.1 | 14.09 | - | - | 50 | -35.91 |
| 11 | 28.53 | 31.88 | Pk | .3 | 10.2 | 42.38 | 60 | -17.62 | - | - |
| 12 | 28.518 | 11.08 | Av | .3 | 10.2 | 21.58 | - | - | 50 | -28.42 |

Pk - Peak detector
 Av - Average detection

LINE 2 RESULTS



| Range 2: Line-L2 .15 - 30MHz | | | | | | | | | | |
|------------------------------|-----------------|----------------------|-----|---------------|------------------|------------------------|-----------------|-------------|----------------------|-------------|
| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | LISN VCF (dB) | Cbl/Limiter (dB) | Corrected Reading dBuV | QP Limit (dBuV) | Margin (dB) | Average Limit (dBuV) | Margin (dB) |
| 13 | .153 | 33.72 | Pk | .2 | 9.7 | 43.62 | 65.84 | -22.22 | - | - |
| 14 | .156 | 13.19 | Av | .2 | 9.7 | 23.09 | - | - | 55.67 | -32.58 |
| 15 | .228 | 26.21 | Pk | .1 | 9.7 | 36.01 | 62.52 | -26.51 | - | - |
| 16 | .228 | 8.35 | Av | .1 | 9.7 | 18.15 | - | - | 52.52 | -34.37 |
| 17 | 1.815 | 16.03 | Pk | 0 | 9.8 | 25.83 | 56 | -30.17 | - | - |
| 18 | 1.878 | -3.2 | Av | 0 | 9.8 | 6.6 | - | - | 46 | -39.4 |
| 19 | 13.56 | 20.35 | Pk | .1 | 10 | 30.45 | 60 | -29.55 | - | - |
| 20 | 13.56 | 7.19 | Av | .1 | 10 | 17.29 | - | - | 50 | -32.71 |
| 21 | 20.595 | 20.24 | Pk | .2 | 10.1 | 30.54 | 60 | -29.46 | - | - |
| 22 | 20.625 | 4.18 | Av | .2 | 10.1 | 14.48 | - | - | 50 | -35.52 |
| 23 | 28.521 | 33.68 | Pk | .3 | 10.2 | 44.18 | 60 | -15.82 | - | - |
| 24 | 28.53 | 11.36 | Av | .3 | 10.2 | 21.86 | - | - | 50 | -28.14 |

Pk - Peak detector
 Av - Average detection

12. SETUP PHOTOS

Please refer to R12761322-EP3 for setup photos.

END OF TEST REPORT