

# **TEST REPORT**

**Report Number:** 15496282-E6V4

**Applicant :** APPLE INC.  
1 APPLE PARK WAY  
CUPERTINO, CA 95014, U.S. A

**Model :** A3260 (Parent)  
A3516, A3517, A3518 (Variants)

**Brand :** APPLE

**FCC ID :** BCG-E8948A(Parent)  
BCG-E8954A, BCG-E8955A, BCG-E8956A (Variants)

**IC :** 579C-E8948A (Parent)  
579C-E8954A, 579C-E8955A, 579C-E8956A (Variants)

**EUT Description :** Smartphone

**Test Standard(s) :** FCC 47 CFR PART 15 SUBPART E  
ISED RSS-247 ISSUE 3  
ISED RSS-GEN ISSUE 5 + A1 + A2

**Date Of Issue:**  
2025-08-21

**Prepared by:**  
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**REPORT REVISION HISTORY**

| Rev. | Issue<br>Date | Revisions                                 | Revised By         |
|------|---------------|-------------------------------------------|--------------------|
| V1   | 2025-07-03    | Initial Issue                             | ---                |
| V2   | 2025-07-09    | Addressed TCB feedback Sections 6, 10, 11 | Glenn Escano       |
| V3   | 2025-07-30    | Updated Data in section 10.1.2            | Francisco Guarnero |
| V4   | 2025-08-21    | Fix main model number                     | Francisco Guarnero |

## TABLE OF CONTENTS

|                                                                        |           |
|------------------------------------------------------------------------|-----------|
| <b>1. ATTESTATION OF TEST RESULTS.....</b>                             | <b>5</b>  |
| <b>2. TEST RESULT SUMMARY.....</b>                                     | <b>7</b>  |
| <b>3. TEST METHODOLOGY .....</b>                                       | <b>7</b>  |
| <b>4. FACILITIES AND ACCREDITATION.....</b>                            | <b>8</b>  |
| <b>5. DECISION RULES AND MEASUREMENT UNCERTAINTY.....</b>              | <b>9</b>  |
| 5.1. METROLOGICAL TRACEABILITY .....                                   | 9         |
| 5.2. DECISION RULES .....                                              | 9         |
| 5.3. MEASUREMENT UNCERTAINTY .....                                     | 9         |
| 5.4. SAMPLE CALCULATION.....                                           | 10        |
| <b>6. EQUIPMENT UNDER TEST .....</b>                                   | <b>11</b> |
| 6.1. EUT DESCRIPTION.....                                              | 11        |
| 6.2. MAXIMUM OUTPUT POWER.....                                         | 11        |
| 6.3. DESCRIPTION OF AVAILABLE ANTENNAS.....                            | 11        |
| 6.4. SOFTWARE AND FIRMWARE.....                                        | 11        |
| 6.5. WORST-CASE CONFIGURATION AND MODE.....                            | 12        |
| 6.6. DESCRIPTION OF TEST SETUP.....                                    | 13        |
| <b>7. MEASUREMENT METHOD .....</b>                                     | <b>16</b> |
| <b>8. TEST AND MEASUREMENT EQUIPMENT .....</b>                         | <b>17</b> |
| <b>9. ANTENNA PORT TEST RESULTS .....</b>                              | <b>18</b> |
| 9.1. ON TIME AND DUTY CYCLE .....                                      | 18        |
| 9.2. 99% AND 26 dB BANDWIDTH.....                                      | 19        |
| 9.3. 6 dB BANDWIDTH .....                                              | 20        |
| 9.4. OUTPUT POWER AND PSD .....                                        | 21        |
| 9.4.1. HIGH POWER.....                                                 | 22        |
| 9.4.2. LOW POWER.....                                                  | 23        |
| <b>10. RADIATED TEST RESULTS .....</b>                                 | <b>24</b> |
| 10.1. TRANSMITTER ABOVE 1 GHz.....                                     | 26        |
| 10.1.1. ANT 6, 250Kbps, HIGH POWER BAND EDGE IN THE 5.8 GHz BAND ..... | 26        |
| 10.1.2. ANT 6, 250Kbps HIGH POWER HARMONICS AND SPURIOUS EMISSIONS ... | 30        |
| 10.1.3. ANT 6, 250Kbps, LOW POWER BAND EDGE IN THE 5.8 GHz BAND .....  | 36        |
| 10.1.4. ANT 6, 250Kbps LOW POWER HARMONICS AND SPURIOUS EMISSIONS .... | 40        |
| 10.2. WORST CASE BELOW 1 GHz.....                                      | 46        |
| 10.3. WORST CASE 18-26 GHz .....                                       | 48        |

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|            |                                                          |           |
|------------|----------------------------------------------------------|-----------|
| 10.4.      | <i>WORST CASE 26-40 GHz</i>                              | 50        |
| <b>11.</b> | <b>AC POWER LINE CONDUCTED EMISSIONS</b>                 | <b>52</b> |
| 11.1.      | <i>AC Power Line WITH LAPTOP</i>                         | 53        |
| 11.2.      | <i>AC Power Line WITH AC/DC Adapter</i>                  | 55        |
| <b>12.</b> | <b>SETUP PHOTOS</b>                                      | <b>57</b> |
| <b>13.</b> | <b>APPENDIX A – SPOT CHECK EVALUATION</b>                | <b>57</b> |
| 13.1.      | <i>MODEL DIFFERENCES</i>                                 | 57        |
| 13.2.      | <i>SPOT CHECK VERIFICATION RESULTS SUMMARY FOR A3516</i> | 58        |
| 13.3.      | <i>SPOT CHECK VERIFICATION RESULTS SUMMARY FOR A3517</i> | 58        |
| 13.4.      | <i>SPOT CHECK VERIFICATION RESULTS SUMMARY FOR A3518</i> | 58        |

## 1. ATTESTATION OF TEST RESULTS

**COMPANY NAME:** APPLE INC.  
1 APPLE PARK WAY  
CUPERTINO, CA 95014, U.S.A

**EUT DESCRIPTION:** SMARTPHONE

**MODEL:** A3260 (Parent)  
A3516, A3517, A3518 (Variants)

**BRAND:** APPLE

**SERIAL NUMBER:** JJ9TWWRN60 (RADIATED)  
C07HCB0003S0000Y (CONDUCTED)

**SAMPLE RECEIPT DATE:** 2025-02-28

**DATE TESTED:** 2025-03-11 to 2025-07-30

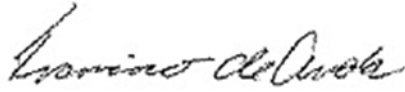
| APPLICABLE STANDARDS           |              |
|--------------------------------|--------------|
| STANDARD                       | TEST RESULTS |
| CFR 47 Part 15 Subpart E       | Complies     |
| ISED RSS-247 Issue 3           | Complies     |
| ISED RSS-GEN Issue 5 + A1 + A2 | Complies     |

UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested can demonstrate 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 considered unless noted otherwise.

This document may not be altered or revised in any way unless done so by UL Verification Services Inc. and all revisions are noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. will constitute fraud and shall nullify the document.

Approved & Released For  
UL Verification Services Inc. By:



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Francisco de Anda  
Senior Lab Engineer  
Consumer Technology Division  
UL Verification Services Inc.

Prepared By:



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Francisco Guarnero  
Senior Test Engineer  
Consumer Technology Division  
UL Verification Services Inc.

## 2. TEST RESULT SUMMARY

This report contains data provided by the customer which can impact the validity of results. UL Verification Services Inc. is only responsible for correctly integrating customer-provided data with measurements performed by UL Verification Services Inc.

Below is a list of the data provided by the customer:

1. Antenna gain and type (see section 6.3)
2. Cable loss (see section 6.3)

Identify any other data provided by the customer and indicate the section number where the data is located

| FCC Clause                 | ISED Clause                    | Requirement                  | Result                  | Comment                                  |
|----------------------------|--------------------------------|------------------------------|-------------------------|------------------------------------------|
| See Comment                |                                | Duty Cycle                   | Reporting purposes only | Per ANSI C63.10, Section 12.2.           |
| See Comment                | RSS-GEN 6.7                    | 26dB BW/99% OBW              | Reporting purposes only | Per ANSI C63.10 Sections 6.9.2 and 6.9.3 |
| 15.407 (e)                 | RSS-247 6.2.4.2                | 6 dB BW                      | complies                | None.                                    |
| 15.407 (a) (1-4), (h) (1)  | RSS-247 6.2                    | Output Power                 | complies                | None.                                    |
| 15.407 (a) (1-3, 5)        | RSS-247 6.2                    | PSD                          | complies                | None.                                    |
| 15.209, 15.205, 15.407 (b) | RSS-GEN 8.9, 8.10, RSS-247 6.2 | Radiated Emissions           | complies                | None.                                    |
| 15.207                     | RSS-Gen 8.8                    | AC Mains Conducted Emissions | complies                | None.                                    |

## 3. TEST METHODOLOGY

The tests documented in this report were performed in accordance with:

- \*ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024
- FCC 47 CFR Part 2
- FCC CFR 47 Part 15
- FCC KDB 414788 D01 Radiated Test Site
- FCC KDB 484596 D01 Referencing Test Data
- FCC KDB 662911 D01 Multiple Transmitter Output
- FCC KDB 789033 D02 General UNII Test Procedures New Rules
- RSS-GEN Issue 5 + A1 +A2
- RSS-247 Issue 3

\*Note: The use of ANSI C63.10-2020 + Cor. 1-2023 + C63.10a-2024 does not deviate from the testing procedures of ANSI C63.10-2020

## 4. FACILITIES AND ACCREDITATION

UL Verification Services Inc. is accredited by A2LA, certification #0751.05, for all testing performed within the scope of this report. Testing was performed at the locations noted below.

|                                     | Address                                                  | ISED<br>CABID | ISED<br>Company<br>Number | FCC<br>Registration |
|-------------------------------------|----------------------------------------------------------|---------------|---------------------------|---------------------|
| <input type="checkbox"/>            | Building 1: 47173 Benicia Street, Fremont, CA 94538, USA | US0104        | 2324A                     | 550739              |
| <input checked="" type="checkbox"/> | Building 2: 47266 Benicia Street, Fremont, CA 94538, USA |               |                           |                     |
| <input type="checkbox"/>            | Building 3: 843 Auburn Court, Fremont, CA 94538 USA      |               |                           |                     |
| <input checked="" type="checkbox"/> | Building 4: 47658 Kato Rd, Fremont, CA 94538 USA         |               |                           |                     |
| <input checked="" type="checkbox"/> | Building 5: 47670 Kato Rd, Fremont, CA 94538 USA         |               |                           |                     |

## 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 considered 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 <sub>LAB</sub>       |
|------------------------------------------------------|------------------------|
| Conducted Antenna Port Emission Measurement          | 1.94 dB                |
| Power Spectral Density                               | 2.466 dB               |
| Time Domain Measurements Using SA                    | 3.39 %                 |
| RF Power Measurement Direct Method Using Power Meter | 1.3 (Peak), 0.45 (Ave) |
| Radio Frequency (Spectrum Analyzer)                  | 141.16 Hz              |
| Occupied Bandwidth                                   | 1.2%                   |
| Worst Case Conducted Disturbance, 9KHz to 0.15 MHz   | 3.78 dB                |
| Worst Case Conducted Disturbance, 0.15 to 30 MHz     | 3.40 dB                |
| Worst Case Radiated Disturbance, 9KHz to 30 MHz      | 2.87 dB                |
| Worst Case Radiated Disturbance, 30 to 1000 MHz      | 6.01 dB                |
| Worst Case Radiated Disturbance, 1000 to 18000 MHz   | 4.73 dB                |
| Worst Case Radiated Disturbance, 18000 to 26000 MHz  | 4.51 dB                |
| Worst Case Radiated Disturbance, 26000 to 40000 MHz  | 5.29 dB                |

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 Apple iPhone is a smartphone with cellular GSM, GPRS, EGPRS, WCDMA, LTE, 5G NR1, IEEE 802.11a/b/g/n/ac/ax/be/az/bf, Bluetooth (BT), Ultra-Wideband (UWB), Global Positioning System (GPS), Near-Field Communication (NFC), Narrow-Band (NB) UNII, 802.15.4, 802.15.4ab-Narrow Band (NB), Wireless Power Transfer (WPT) and Mobile Satellite Service (MSS) technologies. The rechargeable battery is not user accessible.

### 6.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum conducted output power as follows:

#### 5.8 GHz BAND (FCC)

| Frequency Range (MHz)              | Mode       | Output Power (dBm) | Output Power (mW) |
|------------------------------------|------------|--------------------|-------------------|
| <b>5.8GHz Band 1TX, high power</b> |            |                    |                   |
| 5728.75 – 5846.25                  | 802.15.4ab | 20.49              | 111.94            |
| <b>5.8GHz Band 1TX Low Power</b>   |            |                    |                   |
| 5728.75 – 5846.25                  | 802.15.4ab | 15.99              | 39.72             |

### 6.3. DESCRIPTION OF AVAILABLE ANTENNAS

The antenna gain and type, as provided by the manufacturers, are as follows:  
The radio utilizes Cable loss is 2.85 dB.

| Frequency Range   | ANT 6 (Core 0) |
|-------------------|----------------|
| 5728.75 – 5846.25 | 1.7            |

### 6.4. SOFTWARE AND FIRMWARE

The EUT firmware installed during testing was Luck23A256.

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## 6.5. WORST-CASE CONFIGURATION AND MODE

The fundamental of the EUT was investigated in three orthogonal orientations X, Y and Z. It was determined that Z (Portrait) orientation was the worst-case orientation for Ant 6.

There are three indices on this 802.15.4ab technology, with data rates of 250 Kbps on index 1, 500 Kbps on index 2, and 1000 Kbps on index 3. All data rates were investigated, and the worst case was determined based on the highest power on PSD and Index 1, with 250 Kbps being the worst case.

For radiated harmonics spurious below 1GHz, 1-18GHz L/M/H channels, 18-40GHz, and power line conducted emissions were performed with the EUT set at the worst-case scenario.

Below 1GHz tests were performed with EUT connected to AC power adapter as the worst case; and for above 1GHz, the worst-case configuration reported was tested with EUT only. For AC line conducted emission, test was investigated with AC power adapter and with laptop. There were no emissions found below 30MHz within 20dB of the limit.

Simultaneous transmission with the Bluetooth was investigated, and no noticeable emission was found.

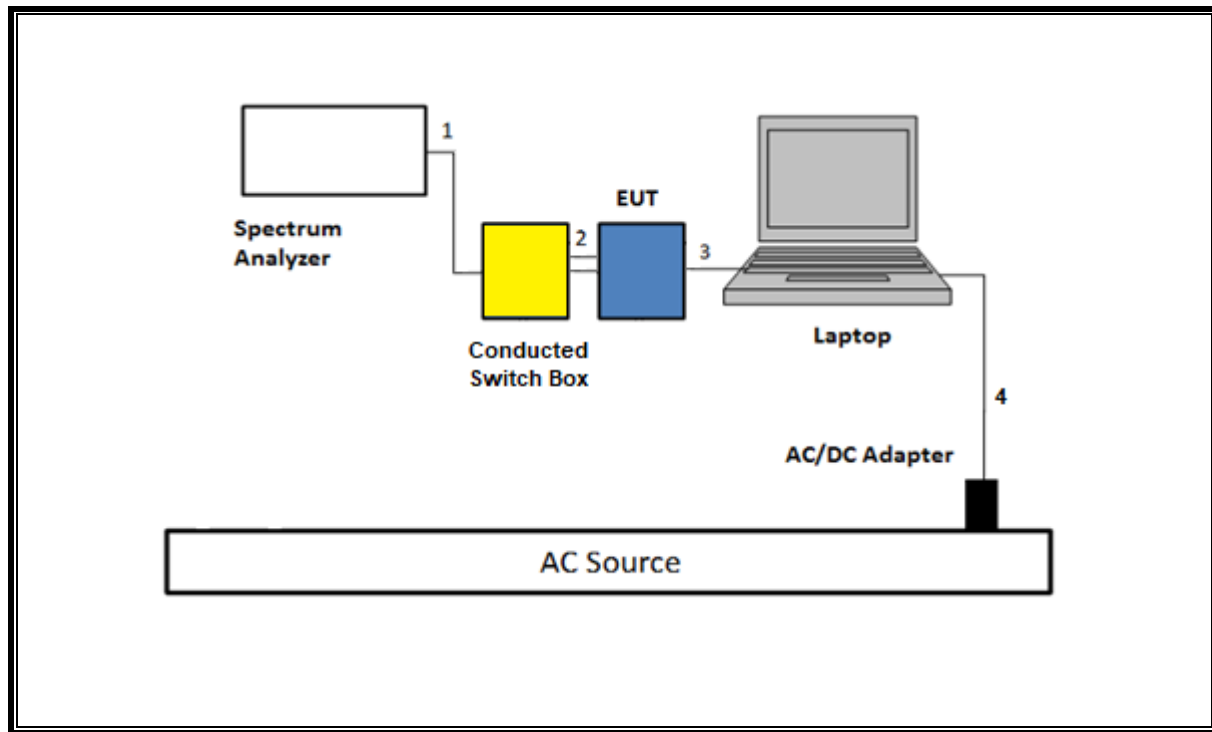
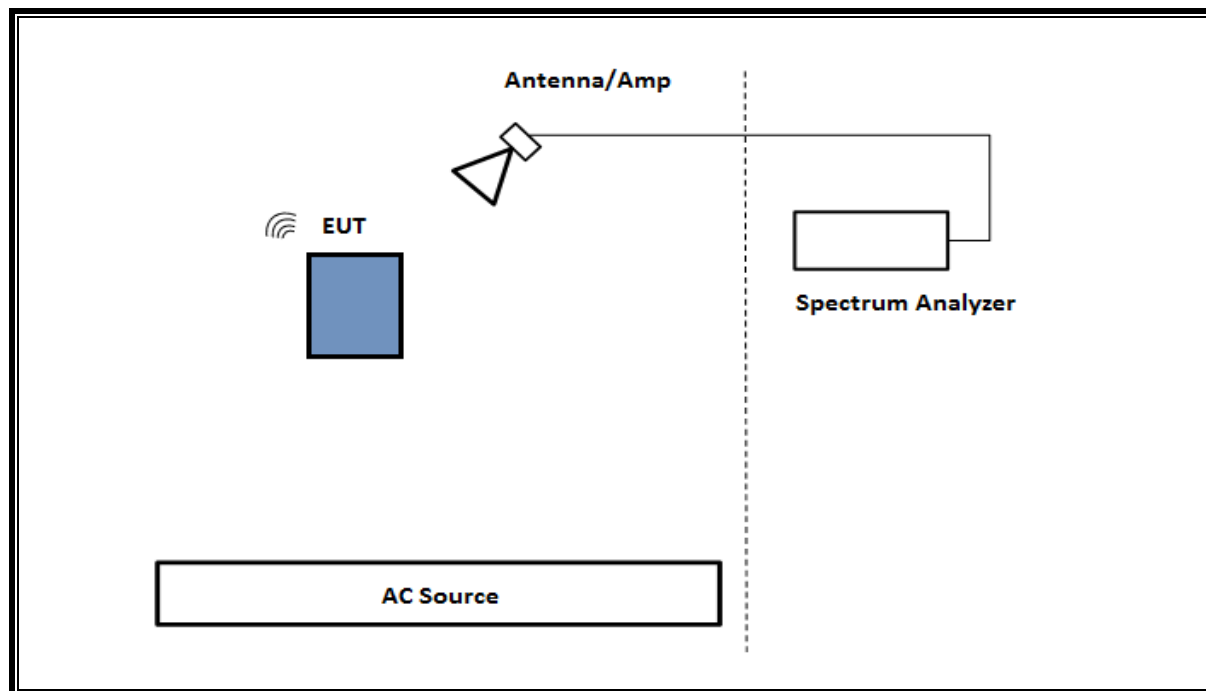
For radiated bandedge and emissions spurious, 250Kbps is set as the worst-case data rates for final test

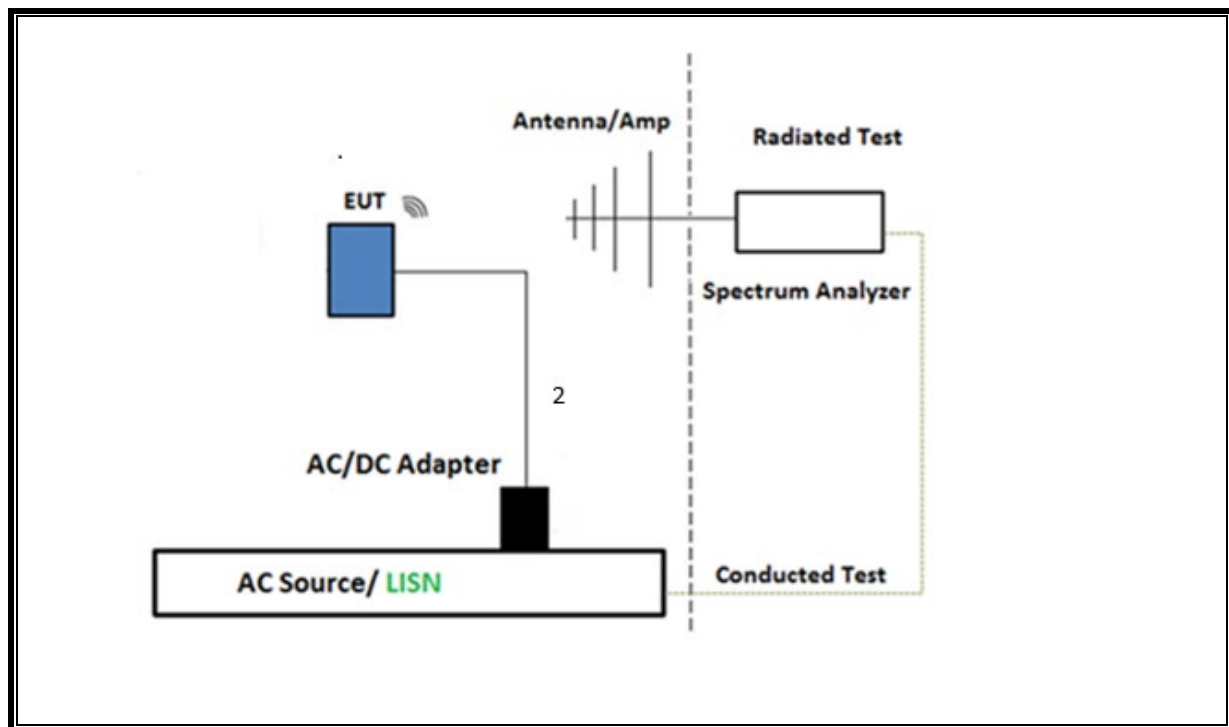
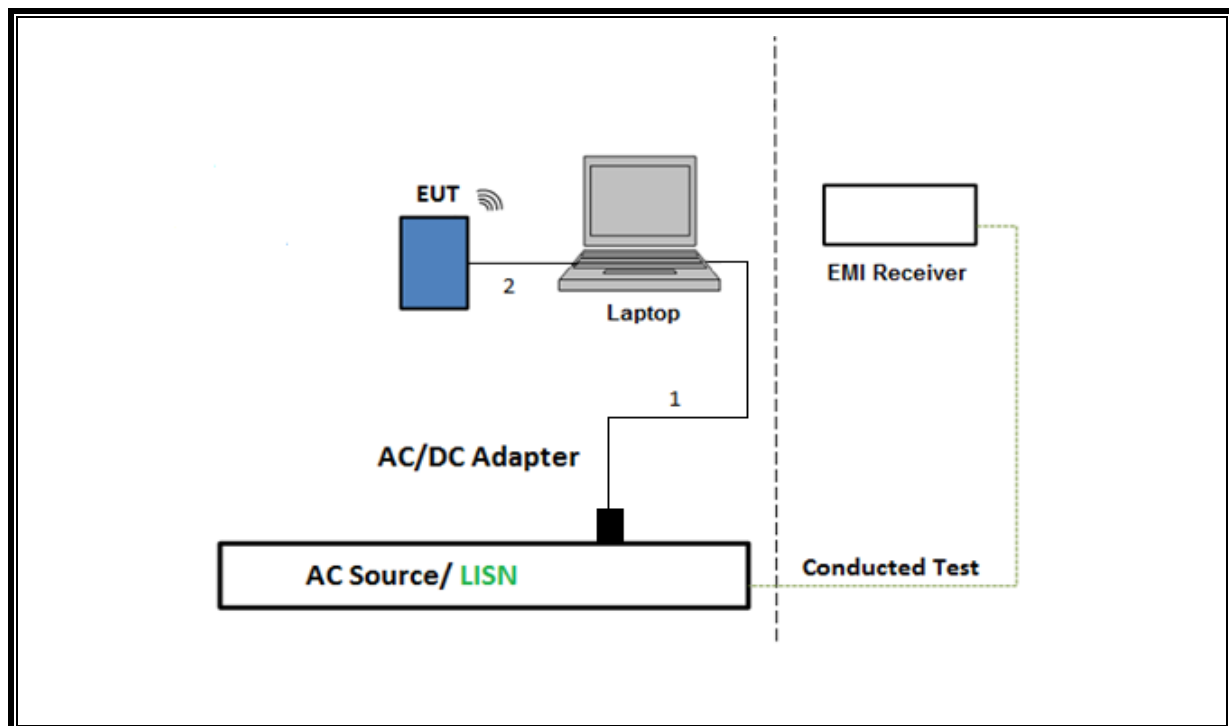
## 6.6. DESCRIPTION OF TEST SETUP

| SUPPORT TEST EQUIPMENT                              |         |                      |                |                   |                  |                         |
|-----------------------------------------------------|---------|----------------------|----------------|-------------------|------------------|-------------------------|
| Description                                         |         | Manufacturer         | Model          | Serial Number     |                  | FCC ID/ DoC             |
| Laptop                                              |         | Apple                | Macbook Pro    | C02VD7SAHV22      |                  | BCGA1708                |
| Laptop AC/DC adapter                                |         | Liteon Technology    | A1424          | NSW25679          |                  | DoC                     |
| EUT AC/DC adapter                                   |         | Apple                | A1720          | C3D8417A7R93KVPA8 |                  | DoC                     |
| Conducted Switch Box                                |         | UL                   | n/a            | 208281            |                  | N/A                     |
| I/O CABLES (RF CONDUCTED TEST)                      |         |                      |                |                   |                  |                         |
| Cable No.                                           | Port    | # of Identical Ports | Connector Type | Cable Type        | Cable Length (m) | Remarks                 |
| 1                                                   | SMA     | 1                    | SMA            | Shielded          | 0.75             | To spectrum Analyzer    |
| 2                                                   | Antenna | 2                    | SMA            | Shielded          | 0.2              | To Conducted Switch Box |
| 3                                                   | USB     | 1                    | USB-C          | Shielded          | 1.0              | N/A                     |
| 4                                                   | DC      | 1                    | DC             | Shielded          | 2                | N/A                     |
| I/O CABLES (RF RADIATED AND AC LINE CONDUCTED TEST) |         |                      |                |                   |                  |                         |
| Cable No.                                           | Port    | # of Identical Ports | Connector Type | Cable Type        | Cable Length (m) | Remarks                 |
| 1                                                   | DC      | 1                    | DC             | Shielded          | 2                | N/A                     |
| 2                                                   | USB     | 1                    | USB-C          | Shielded          | 1                | N/A                     |

### TEST SETUP

The EUT setup is shown as below. Test software exercised the radio card.

**SETUP DIAGRAM FOR CONDUCTED TESTS****SETUP DIAGRAM FOR RADIATED TESTS Above 1 GHz**

**SETUP DIAGRAM FOR Below 1GHz and AC LINE CONDUCTED TEST****TEST SETUP- AC LINE CONDUCTED: LAPTOP CONFIGURATION**

## 7. MEASUREMENT METHOD

On Time and Duty Cycle: KDB 789033 D02 v02r01, Section B.

6 dB Emission BW: KDB 789033 D02 v02r01, Section C.2

26 dB Emission BW: KDB 789033 D02 v02r01, Section C.1

99% Occupied BW: KDB 789033 D02 v02r01, Section D.

Conducted Output Power: KDB 789033 D02 v02r01

Power Spectral Density: KDB 789033 D02 v02r01, Section F

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

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

AC Power Line Conducted Emissions: ANSI C63.10-2020, Section 6.2.

Radiated Spurious Emissions Below 30MHz: ANSI C63.10-2020 Section 6.4

## 8. TEST AND MEASUREMENT EQUIPMENT

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

| TEST EQUIPMENT LIST                                     |                           |                           |            |             |
|---------------------------------------------------------|---------------------------|---------------------------|------------|-------------|
| Description                                             | Manufacturer              | Model                     | ID Num     | Cal Due     |
| Antenna, Horn 1-18GHz                                   | ETS-Lindgren              | 3117                      | 200897     | 2026/04/30  |
| RF Filter Box, 1-18GHz, 12 Port                         | UL-FR1                    | Frankenstein              | 217255     | 2026/01/31  |
| EMI TEST RECEIVER                                       | Rohde & Schwarz           | ESW44                     | 225688     | 2026/02/28  |
| Antenna, Horn 1-18GHz                                   | ETS-Lindgren              | 3117                      | 206808     | 2026/04/30  |
| RF Filter Box, 1-18GHz, 8 Port                          | UL-FR1                    | SAC 8 port rf box 1       | 197920     | 2026/03/31  |
| EMI TEST RECEIVER                                       | Rohde & Schwarz           | ESW44                     | 169936     | 2026/02/28  |
| Antenna, Horn 1-18GHz                                   | ETS-Lindgren              | 3117                      | 84796      | 2026/04/30  |
| RF Filter Box, 1-18GHz, 12 Port                         | UL-FR1                    | Frankenstein              | 230878     | 2026/01/31  |
| EMI TEST RECEIVER                                       | Rohde & Schwarz           | ESW44                     | 191428     | 2026/02/28  |
| Antenna, Broadband Hybrid, 30MHz to 3GHz                | Sunol Sciences Corp.      | JB3                       | 202301     | 2026/08/31  |
| Amplifier, 9KHz to 1GHz, 32dB                           | SONOMA INSTRUMENT         | 310                       | 79584      | 2026/01/31  |
| EMI TEST RECEIVER                                       | Rohde & Schwarz           | ESW44                     | 235266     | 2026/02/28  |
| Antenna, Horn 1-18GHz                                   | ETS-Lindgren              | 3117                      | 81887      | 2027/3/31   |
| RF Filter Box, 1-18GHz, 17 Ports                        | UL-FR1                    | RATS 2                    | 225575     | 2026/1/31   |
| EMI TEST RECEIVER                                       | Rohde & Schwarz           | ESW44                     | 201498     | 2026/2/28   |
| Antenna, Horn 18-26.5GHz                                | A.R.A                     | MWH-1826/B                | 81140      | *2025/03/21 |
| Link File, RF Amplifier Assembly, 18-26.5GHz, 60dB Gain | Amplical                  | AMP18G26.5-60             | 236106     | *2025/04/18 |
| Antenna, Horn 26.5-40GHz                                | A.R.A                     | MWH-2640/B                | 230656     | *2025/03/31 |
| Link File, RF Amplifier Assembly, 26.5-40GHz, 65dB Gain | Amplical                  | AMP26G40-65               | 236107     | *2025/04/17 |
| Antenna, Passive Loop, 30Hz - 1MHz                      | Electro-Metrics           | EM-6871                   | 170014     | 2025/08/31  |
| Antenna, Passive Loop, 100kHz to 30MHz                  | Electro-Metrics           | EM-6872                   | 170016     | 2025/08/31  |
| DC Power Supply                                         | TDK-LAMBDA                | GEN 60-25                 | PRE0074756 | N/A         |
| Spectrum Analyzer, PXA, 3Hz to 44GHz                    | N9030A                    | Keysight Technologies Inc | 90238      | 2025/07/31  |
| Conducted Switch Box                                    | UL-FR1                    | CSB                       | 235778     | *2025/05/31 |
| Power Meter, P-series single channel                    | Keysight Technologies Inc | N1911A                    | 90715      | 2026/01/31  |
| Power Sensor, P - series, 50MHz to 18GHz, Wideband      | Keysight Technologies Inc | N1921A                    | 81319      | 2026/01/31  |

| AC Line Conducted                     |                               |                              |                      |            |
|---------------------------------------|-------------------------------|------------------------------|----------------------|------------|
| Description                           | Manufacturer                  | Model                        | ID Num               | Cal Due    |
| EMI Test Receiver 9kHz-7GHz           | Rohde & Schwarz               | ESR                          | 171646               | 2026/02/28 |
| LISN for Conducted Emissions CISPR-16 | FISCHER CUSTOM COMMUNICATIONS | FCC-LISN-50/250-25-2-01-480V | 175765               | 2026/01/31 |
| Transient Limiter                     | TE                            | TBFL1                        | 207996               | 2025/09/30 |
| UL AUTOMATION SOFTWARE                |                               |                              |                      |            |
| Radiated Software                     | UL                            | UL EMC                       | Ver 9.5, May 1, 2023 |            |
| Conducted Software                    | UL                            | UL EMC                       | 2020.8.16            |            |
| AC Line Conducted Software            | UL                            | UL EMC                       | Ver 9.5, Mar 3, 2023 |            |

\*Testing is completed before equipment calibration expiration date.

## 9. ANTENNA PORT TEST RESULTS

### 9.1. ON TIME AND DUTY CYCLE

#### LIMITS

None; for reporting purposes only.

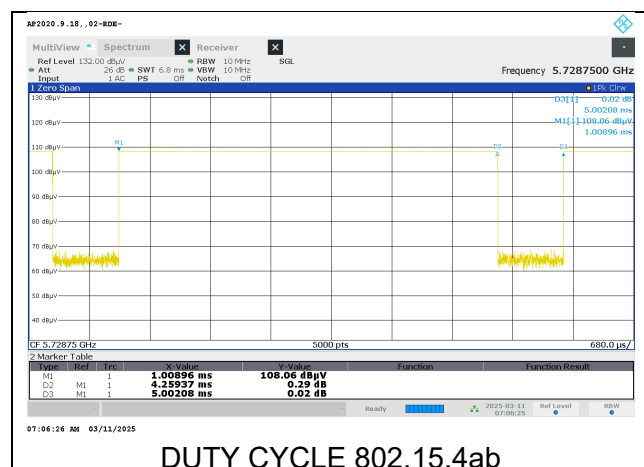
#### PROCEDURE

KDB 558074 Zero-Span Spectrum Analyzer Method.

#### ON TIME AND DUTY CYCLE RESULTS

|                    | T<br>(msec) | (msec) | x<br>(linear) | Cycle<br>(%) | Correction Factor<br>(dB) | 1/T<br>Minimum VBW<br>(kHz) |
|--------------------|-------------|--------|---------------|--------------|---------------------------|-----------------------------|
| <b>802.15.4ab</b>  |             |        |               |              |                           |                             |
| 5728.75MHz 250kbps | 4.259       | 5.002  | 0.852         | 85.15%       | 0.70                      | 0.235                       |

#### DUTY CYCLE PLOTS



## 9.2. 99% AND 26 dB BANDWIDTH

### LIMITS

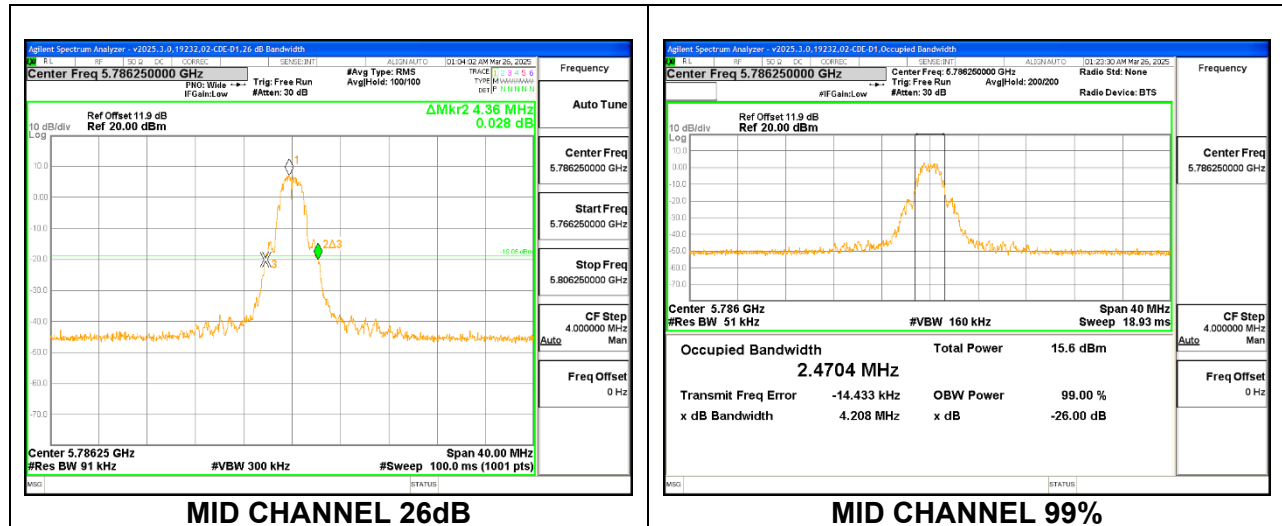
None; for reporting purposes only.

### RESULTS

Only the High-Power modes result is reported, it covers all Low Power modes. Only Mid channel plot is reported to show setting parameter complied with the testing method/procedure.

#### 1TX Antenna 6 MODE

| Channel | Frequency<br>(MHz) | 26dB Bandwidth<br>(MHz) | 99% Bandwidth<br>(MHz) |
|---------|--------------------|-------------------------|------------------------|
| Low     | 5728.75            | 4.120                   | 2.4546                 |
| Mid     | 5786.25            | 4.360                   | 2.4704                 |
| High    | 5846.25            | 4.440                   | 2.5029                 |



### 9.3. 6 dB BANDWIDTH

#### LIMITS

FCC §15.407 (e)

RSS-247 6.2.4.2

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

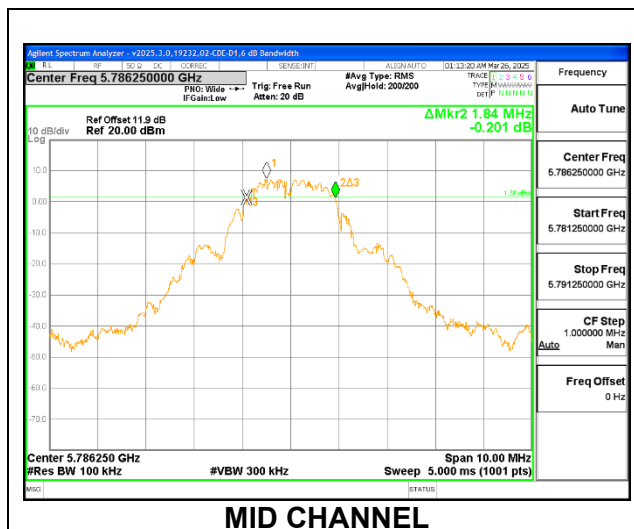
#### RESULTS

Only the High-Power modes result is reported, it covers all Low-power modes

Only Mid channel plot is reported to show setting parameter complies with the testing method/procedure.

#### 1TX Antenna 6 MODE

| Channel | Frequency (MHz) | 6 dB Bandwidth (MHz) | Minimum Limit (MHz) |
|---------|-----------------|----------------------|---------------------|
| Low     | 5728.75         | 1.860                | 0.5                 |
| Mid     | 5786.25         | 1.840                | 0.5                 |
| High    | 5846.25         | 1.870                | 0.5                 |



## 9.4. OUTPUT POWER AND PSD

### LIMITS

#### **FCC §15.407**

##### **Band 5.725-5.85 GHz**

The maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information.

#### **RSS-247**

##### **Band 5.725-5.85 GHz**

The maximum conducted output power shall not exceed 1 W. The power spectral density shall not exceed 30 dBm in any 500 kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications and multiple collocated transmitters transmitting the same information.

### TEST PROCEDURE

The measurement method used for output power is KDB 789033 D02, Section E.3 b. Method PM-G.

The measurement method used for power spectral density is KDB 789033 D02 v02r01, Section F.

Only Mid channel plot is reported to show setting parameter complies with testing method/procedure.

### DIRECTIONAL ANTENNA GAIN

For 1 TX:

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

### 9.4.1. HIGH POWER

#### 1TX Antenna 6 MODE (FCC+IC)

|                |            |
|----------------|------------|
| Test Engineer: | 106046     |
| Test Date:     | 06/21/2025 |

#### Antenna Gain and Limit

| Channel | Frequency<br>(MHz) | Directional<br>Gain<br>(dBi) | Power<br>Limit<br>(dBm) | PSD<br>Limit<br>(dBm/500KHz) |
|---------|--------------------|------------------------------|-------------------------|------------------------------|
| Low     | 5728.75            | 1.70                         | 30.00                   | 30.00                        |
| Mid     | 5786.25            | 1.70                         | 30.00                   | 30.00                        |
| High    | 5846.25            | 1.70                         | 30.00                   | 30.00                        |

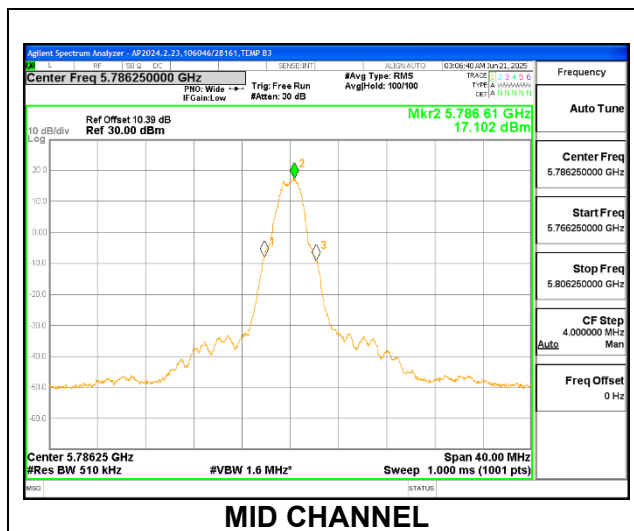
|                    |      |                                        |
|--------------------|------|----------------------------------------|
| Duty Cycle CF (dB) | 0.70 | Included in Calculations of Corr'd PSD |
|--------------------|------|----------------------------------------|

#### Output Power Results

| Channel | Frequency<br>(MHz) | Antenna 6<br>Meas<br>Power<br>(dBm) | Total<br>Corr'd<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Power<br>Margin<br>(dB) |
|---------|--------------------|-------------------------------------|-----------------------------------|-------------------------|-------------------------|
| Low     | 5728.75            | 20.48                               | 20.48                             | 30.00                   | -9.52                   |
| Mid     | 5786.25            | 20.49                               | 20.49                             | 30.00                   | -9.51                   |
| High    | 5846.25            | 20.45                               | 20.45                             | 30.00                   | -9.55                   |

#### PSD Results

| Channel | Frequency<br>(MHz) | Antenna 6<br>Meas<br>PSD<br>(dBm/500KHz) | Total<br>Corr'd<br>PSD<br>(dBm/500KHz) | PSD<br>Limit<br>(dBm/500KHz) | PSD<br>Margin<br>(dB) |
|---------|--------------------|------------------------------------------|----------------------------------------|------------------------------|-----------------------|
| Low     | 5728.75            | 16.905                                   | 17.605                                 | 30.00                        | -12.40                |
| Mid     | 5786.25            | 17.102                                   | 17.802                                 | 30.00                        | -12.20                |
| High    | 5846.25            | 19.010                                   | 19.710                                 | 30.00                        | -10.29                |



## 9.4.2. LOW POWER

### 1TX Antenna 6 MODE (FCC+IC)

|                |            |
|----------------|------------|
| Test Engineer: | 106046     |
| Test Date:     | 06/21/2025 |

#### Antenna Gain and Limit

| Channel | Frequency<br>(MHz) | Directional<br>Gain<br>(dBi) | Power<br>Limit<br>(dBm) | PSD<br>Limit<br>(dBm/500KHz) |
|---------|--------------------|------------------------------|-------------------------|------------------------------|
| Low     | 5728.75            | 1.70                         | 30.00                   | 30.00                        |
| Mid     | 5786.25            | 1.70                         | 30.00                   | 30.00                        |
| High    | 5846.25            | 1.70                         | 30.00                   | 30.00                        |

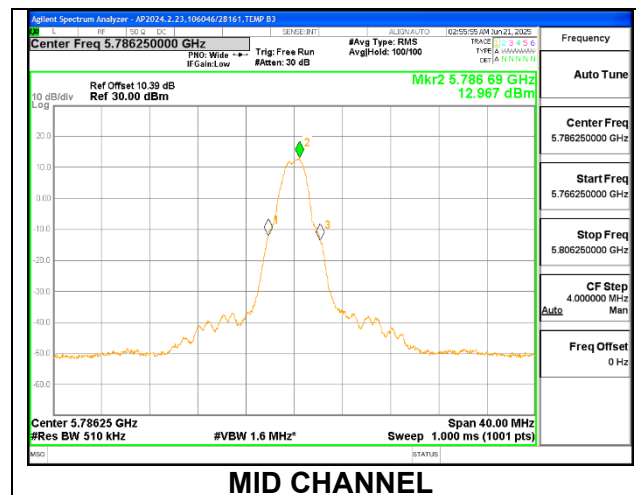
|                    |      |                                        |
|--------------------|------|----------------------------------------|
| Duty Cycle CF (dB) | 0.70 | Included in Calculations of Corr'd PSD |
|--------------------|------|----------------------------------------|

#### Output Power Results

| Channel | Frequency<br>(MHz) | Antenna 6<br>Meas<br>Power<br>(dBm) | Total<br>Corr'd<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Power<br>Margin<br>(dB) |
|---------|--------------------|-------------------------------------|-----------------------------------|-------------------------|-------------------------|
| Low     | 5728.75            | 15.99                               | 15.99                             | 30.00                   | -14.01                  |
| Mid     | 5786.25            | 15.92                               | 15.92                             | 30.00                   | -14.08                  |
| High    | 5846.25            | 15.85                               | 15.85                             | 30.00                   | -14.15                  |

#### PSD Results

| Channel | Frequency<br>(MHz) | Antenna 6<br>Meas<br>PSD<br>(dBm/500KHz) | Total<br>Corr'd<br>PSD<br>(dBm/500KHz) | PSD<br>Limit<br>(dBm/500KHz) | PSD<br>Margin<br>(dB) |
|---------|--------------------|------------------------------------------|----------------------------------------|------------------------------|-----------------------|
| Low     | 5728.75            | 12.550                                   | 13.250                                 | 30.00                        | -16.75                |
| Mid     | 5786.25            | 12.967                                   | 13.667                                 | 30.00                        | -16.33                |
| High    | 5846.25            | 14.544                                   | 15.244                                 | 30.00                        | -14.76                |



## 10. RADIATED TEST RESULTS

### LIMITS

FCC §15.205 and §15.209 -Restricted bands

FCC §15.407(b)(1-3) -Un-Restricted bands

RSS 247 Issue 3 Section

6.2.4.3 (for 5725-5850 MHz band)

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

### TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for measurement below 1GHz; 1.5 m above the ground plane for measurement above 1GHz. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

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

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

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

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

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

For below 30MHz testing, the investigation was done on three antenna orientations (parallel, perpendicular, and ground-parallel), parallel and perpendicular are the worst orientations, therefore testing was performed on these two orientations only. Blue color trace on plots: Parallel orientation. Green color trace on plots: Perpendicular orientation.

Based 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.

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

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

Note: The 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 377 Ohms. For example, the measurement at frequency X kHz resulted in a level of Y dBuV/m, which is equivalent to  $Y - 51.5 = Z$  dBuA/m, which has the same margin, W dB, to the corresponding RSS-Gen Table 6 limit as it has to 15.209(a) limit.

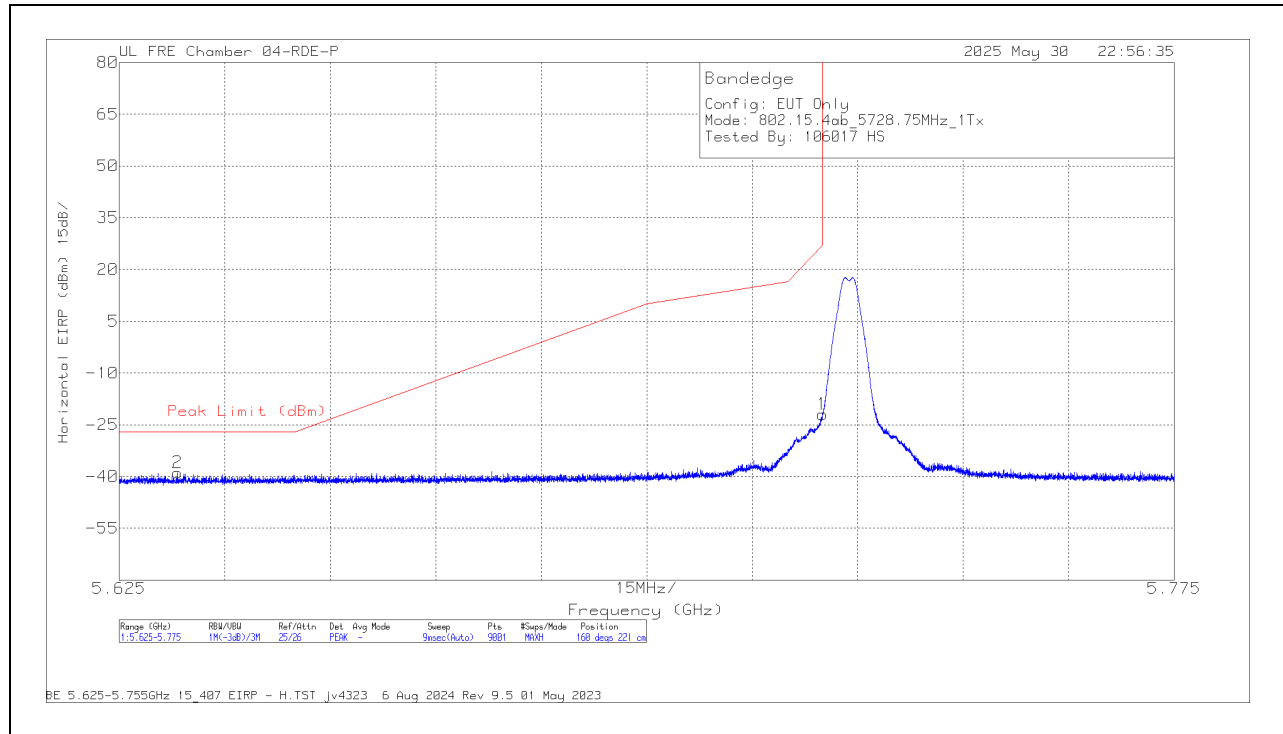
#### **RESULTS**

## 10.1. TRANSMITTER ABOVE 1 GHz

### 10.1.1. ANT 6, 250Kbps, HIGH POWER BAND EDGE IN THE 5.8 GHz BAND

#### BANDEDGE (LOW CHANNEL)

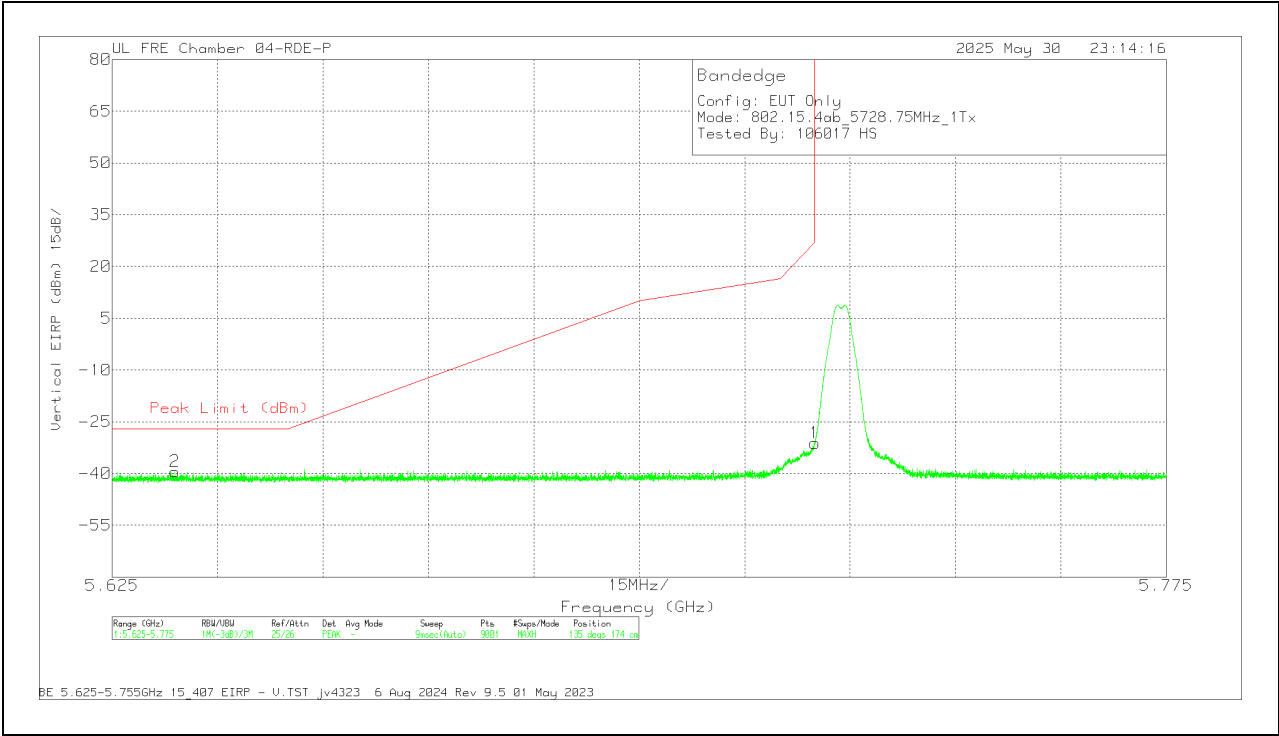
#### HORIZONTAL RESULT



| Marker | Frequency (GHz) | Meter Reading (dBm) | Det | 200897 ACF (dB/m) | Conversion Factor (dB) | Gain/Loss (dB) | Corrected Reading EIRP (dBm) | Peak Limit (dBm) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|---------------------|-----|-------------------|------------------------|----------------|------------------------------|------------------|-------------|----------------|-------------|----------|
| 1      | 5.725           | -30.19              | Pk  | 34.5              | 11.8                   | -38.06         | -21.95                       | 27               | -48.95      | 160            | 221         | H        |
| 2      | 5.6333          | -46.68              | Pk  | 34.4              | 11.8                   | -38.37         | -38.85                       | -27              | -11.85      | 160            | 221         | H        |

Pk - Peak detector

VERTICAL RESULT

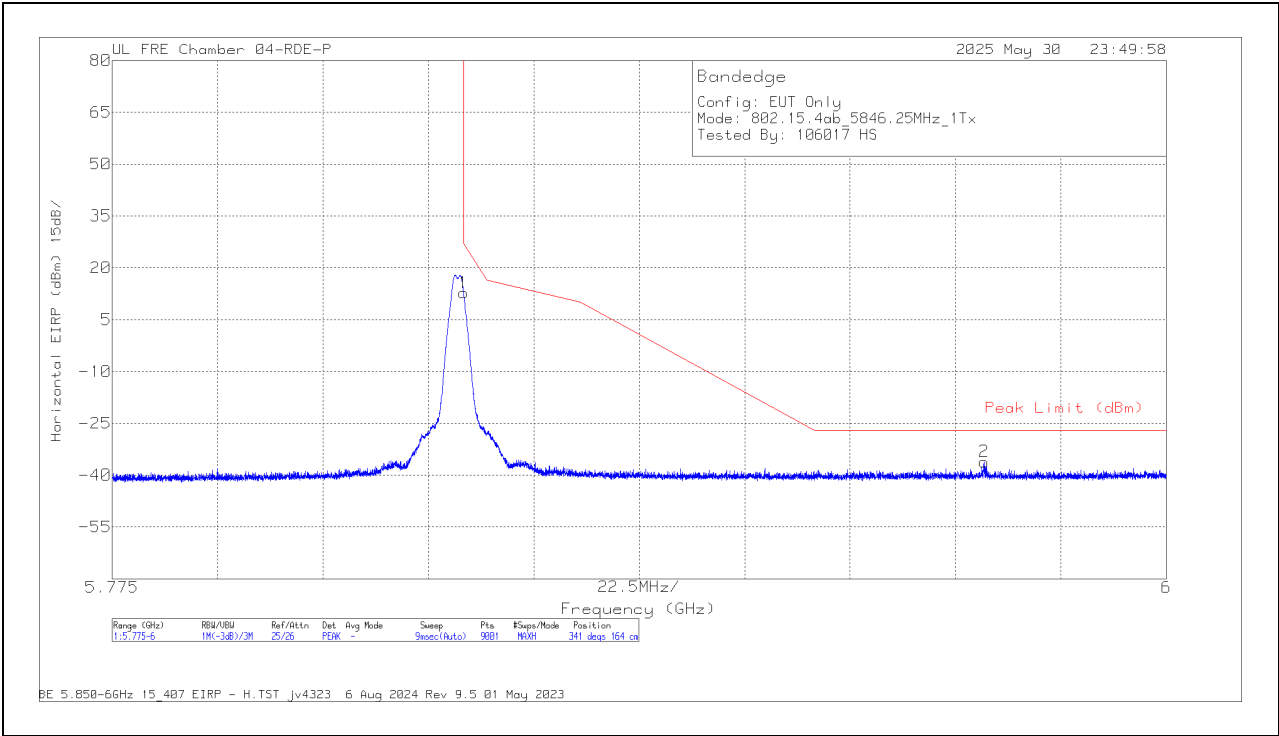


| Marker | Frequency (GHz) | Meter Reading (dBm) | Det | 200897 ACF (dB/m) | Conversion Factor (dB) | DCCF (dB) | Gain/Loss (dB) | Corrected Reading EIRP (dBm) | Peak Limit (dBm) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|---------------------|-----|-------------------|------------------------|-----------|----------------|------------------------------|------------------|-------------|----------------|-------------|----------|
| 1      | 5.725           | -39.39              | Pk  | 34.5              | 11.8                   | 0         | -38.06         | -31.15                       | 27               | -58.15      | 135            | 174         | V        |
| 2      | 5.6339          | -47.27              | Pk  | 34.4              | 11.8                   | 0         | -38.38         | -39.45                       | -27              | -12.45      | 135            | 174         | V        |

Pk - Peak detector

BANDEDGE (HIGH CHANNEL)

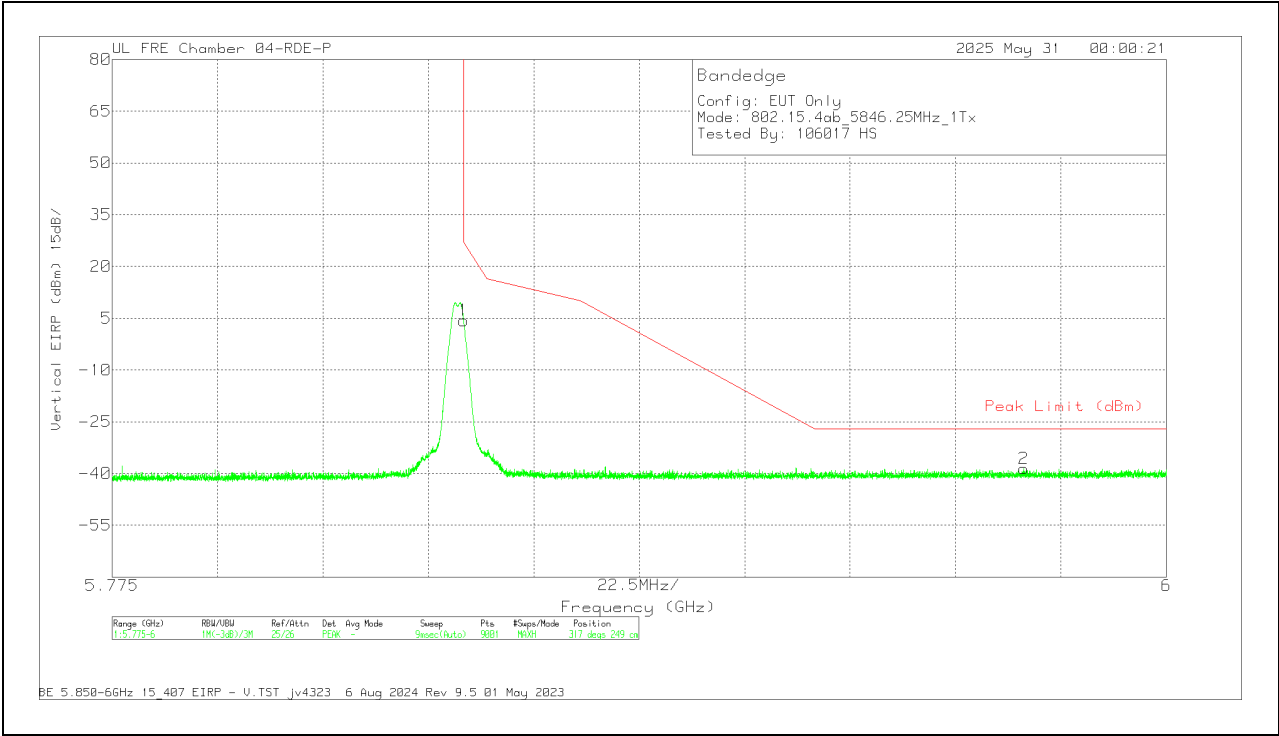
HORIZONTAL RESULT



| Marker | Frequency (GHz) | Meter Reading (dBm) | Det | 200897 ACF (dB/m) | Conversion Factor (dB) | DCCF (dB) | Gain/Loss (dB) | Corrected Reading EIRP (dBm) | Peak Limit (dBm) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|---------------------|-----|-------------------|------------------------|-----------|----------------|------------------------------|------------------|-------------|----------------|-------------|----------|
| 1      | 5.85            | 3.61                | Pk  | 34.9              | 11.8                   | 0         | -37.56         | 12.75                        | 27               | -14.25      | 341            | 164         | H        |
| 2      | 5.961125        | -45.86              | Pk  | 35.2              | 11.8                   | 0         | -37.23         | -36.09                       | -27              | -9.09       | 341            | 164         | H        |

Pk - Peak detector

VERTICAL RESULT

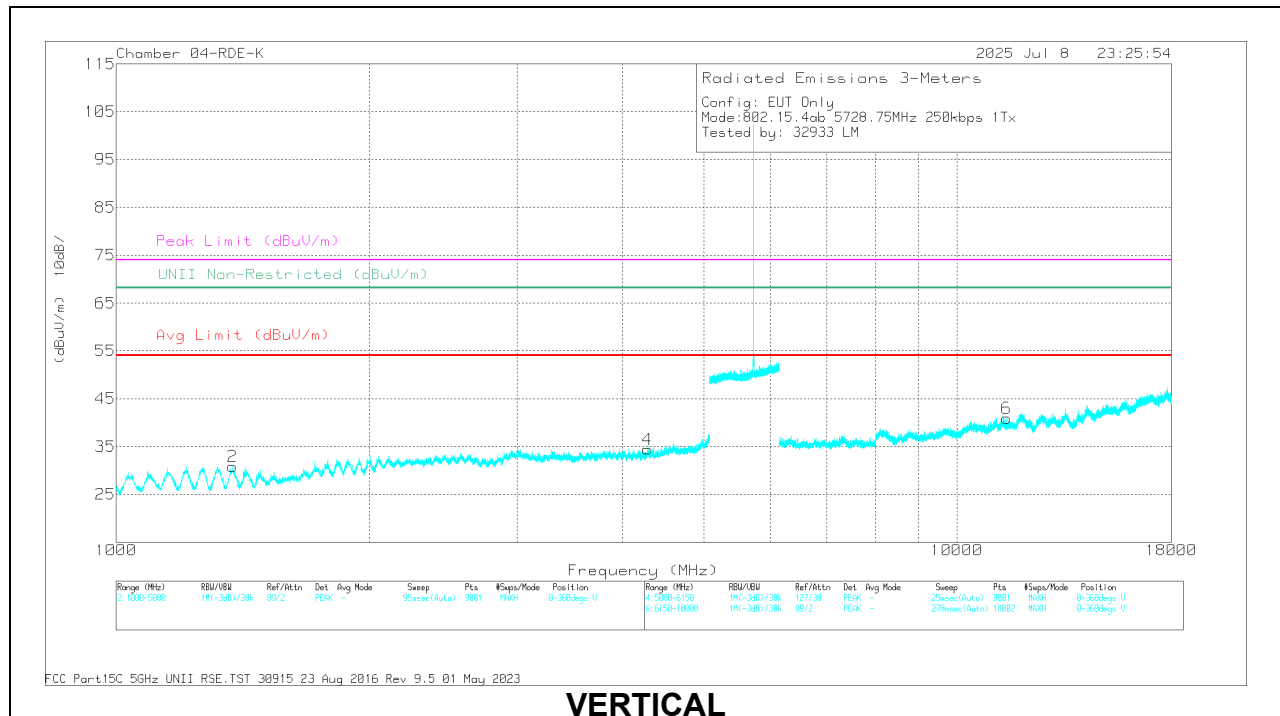
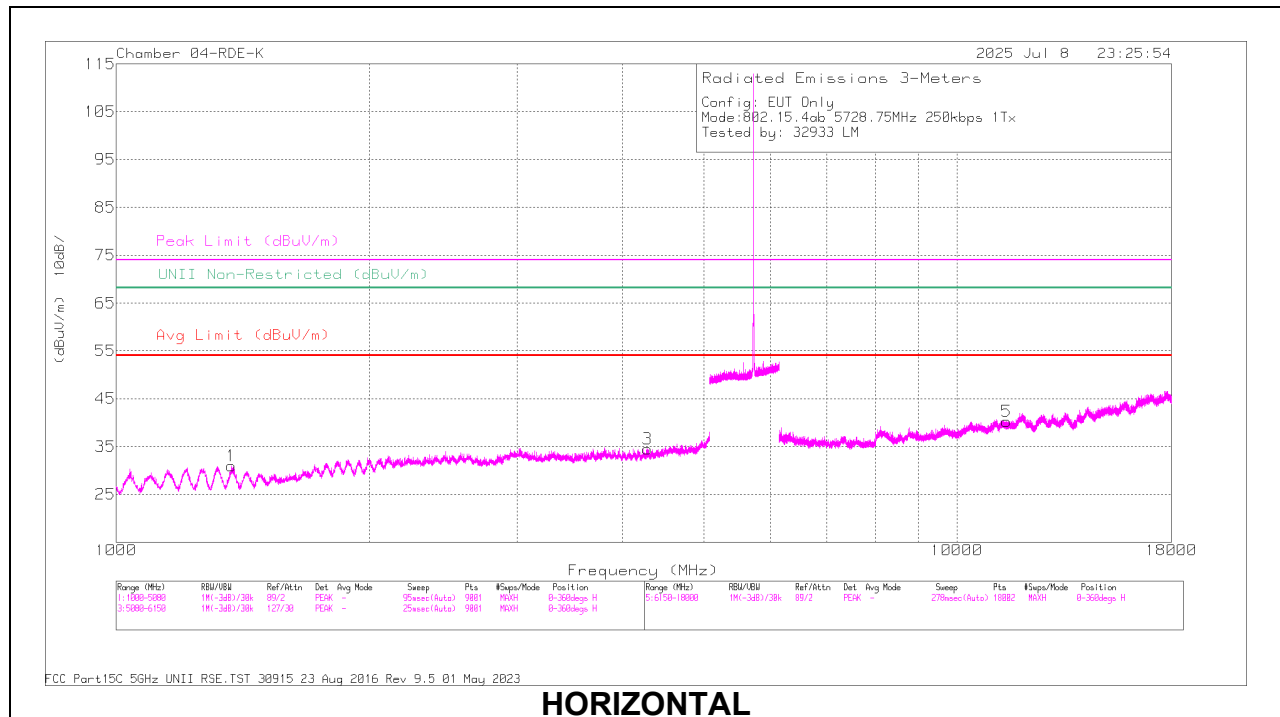


| Marker | Frequency (GHz) | Meter Reading (dBm) | Det | 200897 ACF (dB/m) | Conversion Factor (dB) | DCCF (dB) | Gain/Loss (dB) | Corrected Reading EIRP (dBm) | Peak Limit (dBm) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|---------------------|-----|-------------------|------------------------|-----------|----------------|------------------------------|------------------|-------------|----------------|-------------|----------|
| 1      | 5.85            | -4.79               | Pk  | 34.9              | 11.8                   | 0         | -37.56         | 4.35                         | 27               | -22.65      | 317            | 249         | V        |
| 2      | 5.969575        | -48.35              | Pk  | 35.2              | 11.8                   | 0         | -37.22         | -38.57                       | -27              | -11.57      | 317            | 249         | V        |

Pk - Peak detector

## 10.1.2. ANT 6, 250Kbps HIGH POWER HARMONICS AND SPURIOUS EMISSIONS

### LOW CHANNEL RESULTS



## RADIATED EMISSIONS

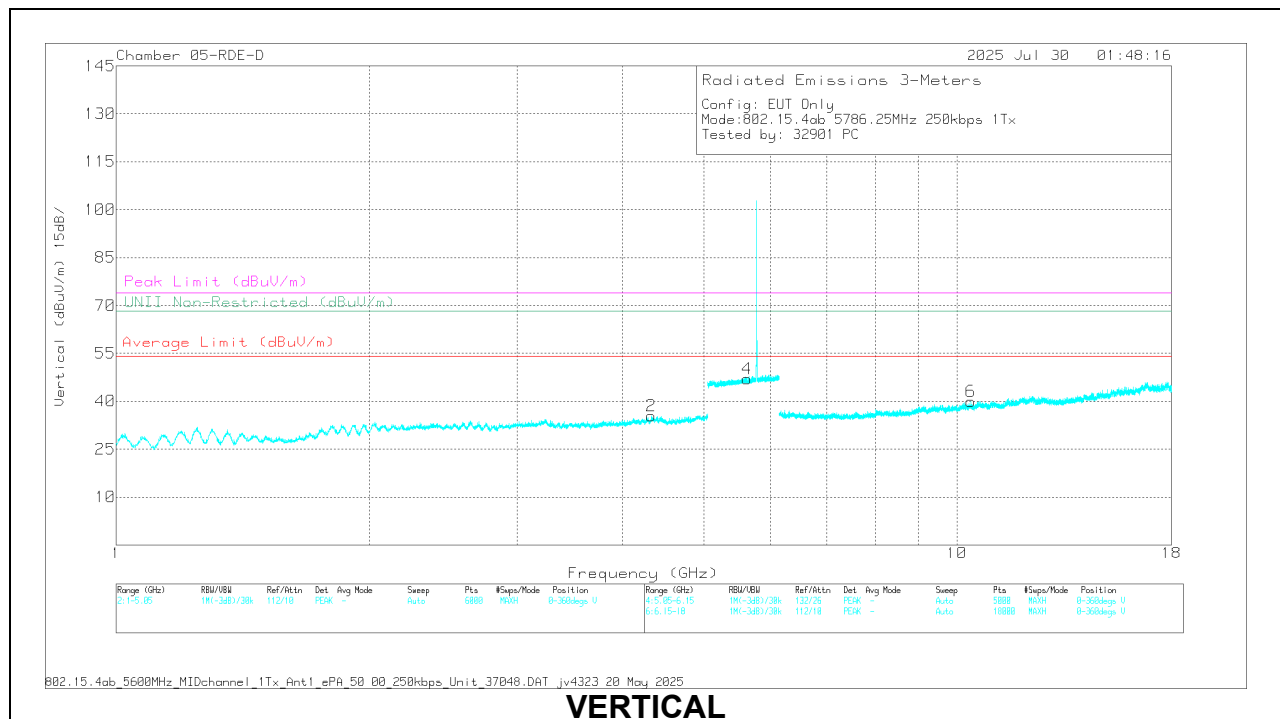
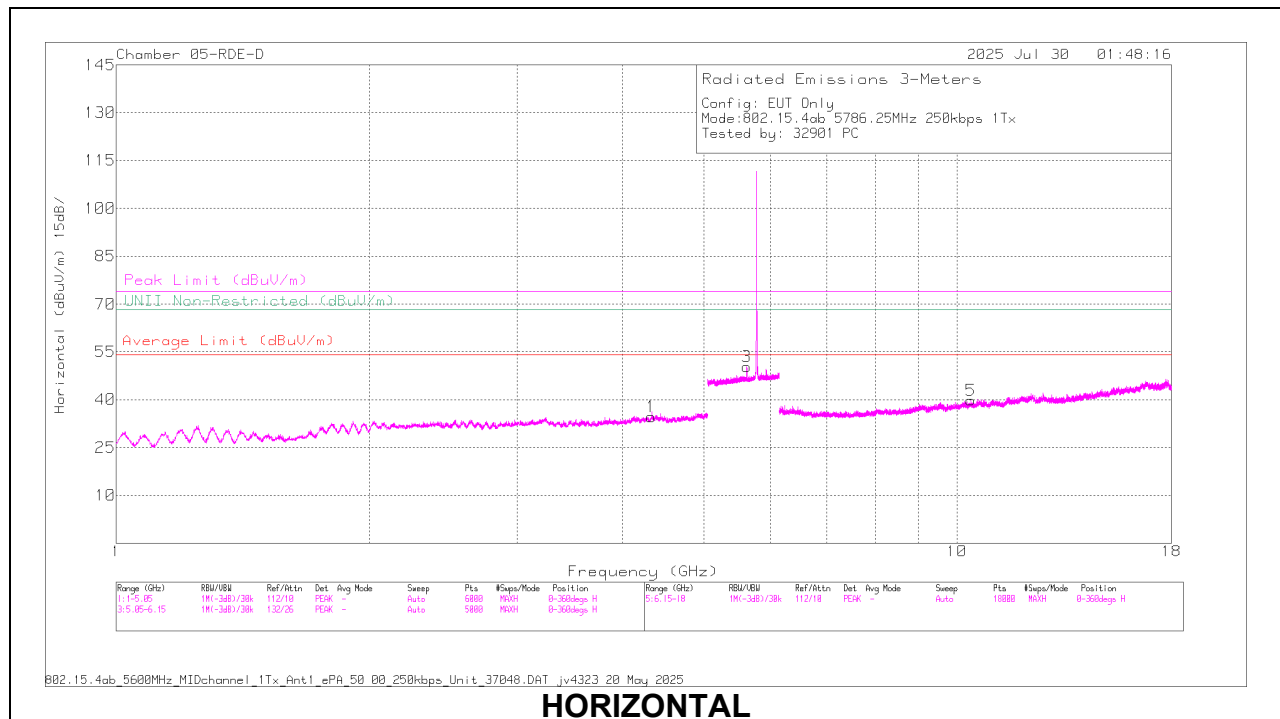
| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det  | 206808 ACF (dB/m) | Amp/Cbl/Filtr (dB) | DCCF (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|-------------------|--------------------|-----------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 1      | * 1372.218      | 58.36                | PK-U | 28.4              | -46                | 0         | 40.76                      | -                  | -           | 74                  | -33.24         | -                            | -              | 245            | 229         | H        |
|        | * 1371.579      | 46.6                 | ADR  | 28.4              | -46                | .7        | 29.7                       | 54                 | -24.3       | -                   | -              | -                            | -              | 245            | 229         | H        |
| 2      | * 1374.034      | 58.41                | PK-U | 28.4              | -46                | 0         | 40.81                      | -                  | -           | 74                  | -33.19         | -                            | -              | 69             | 108         | V        |
|        | * 1373.901      | 46.47                | ADR  | 28.4              | -46                | .7        | 29.57                      | 54                 | -24.43      | -                   | -              | -                            | -              | 69             | 108         | V        |
| 3      | * 4283.719      | 52.41                | PK-U | 33.6              | -41.3              | 0         | 44.71                      | -                  | -           | 74                  | -29.29         | -                            | -              | 46             | 215         | H        |
|        | * 4284.605      | 40.43                | ADR  | 33.6              | -41.3              | .7        | 33.43                      | 54                 | -20.57      | -                   | -              | -                            | -              | 46             | 215         | H        |
| 4      | * 4282.339      | 52.37                | PK-U | 33.6              | -41.3              | 0         | 44.67                      | -                  | -           | 74                  | -29.33         | -                            | -              | 347            | 241         | V        |
|        | * 4283.627      | 40.36                | ADR  | 33.6              | -41.3              | .7        | 33.36                      | 54                 | -20.64      | -                   | -              | -                            | -              | 347            | 241         | V        |
| 5      | * 11458.163     | 46.66                | PK-U | 38.1              | -35.9              | 0         | 48.86                      | -                  | -           | 74                  | -25.14         | -                            | -              | 222            | 156         | H        |
|        | * 11456.782     | 34.88                | ADR  | 38.1              | -35.9              | .7        | 37.78                      | 54                 | -16.22      | -                   | -              | -                            | -              | 222            | 156         | H        |
| 6      | * 11454.894     | 46.81                | PK-U | 38.1              | -35.9              | 0         | 49.01                      | -                  | -           | 74                  | -24.99         | -                            | -              | 226            | 148         | V        |
|        | * 11453.136     | 35.05                | ADR  | 38.1              | -35.8              | .7        | 38.05                      | 54                 | -15.95      | -                   | -              | -                            | -              | 226            | 148         | V        |

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

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

## MID CHANNEL RESULTS



## RADIATED EMISSIONS

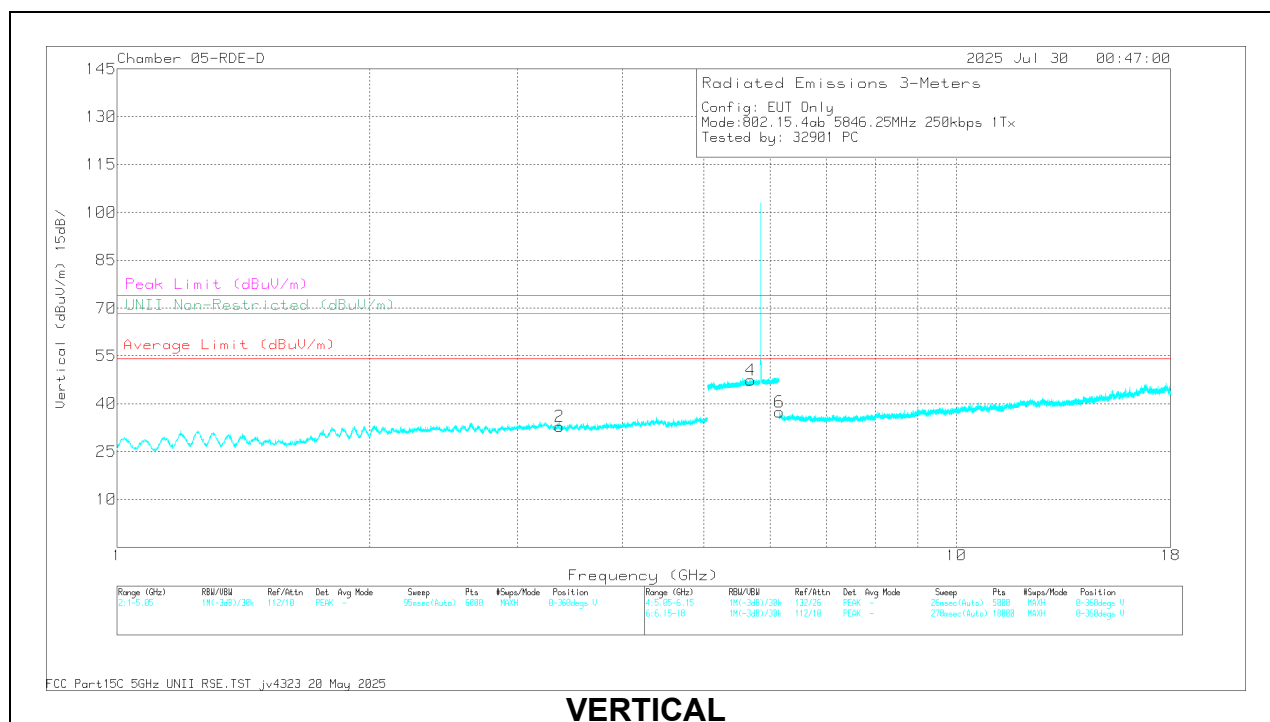
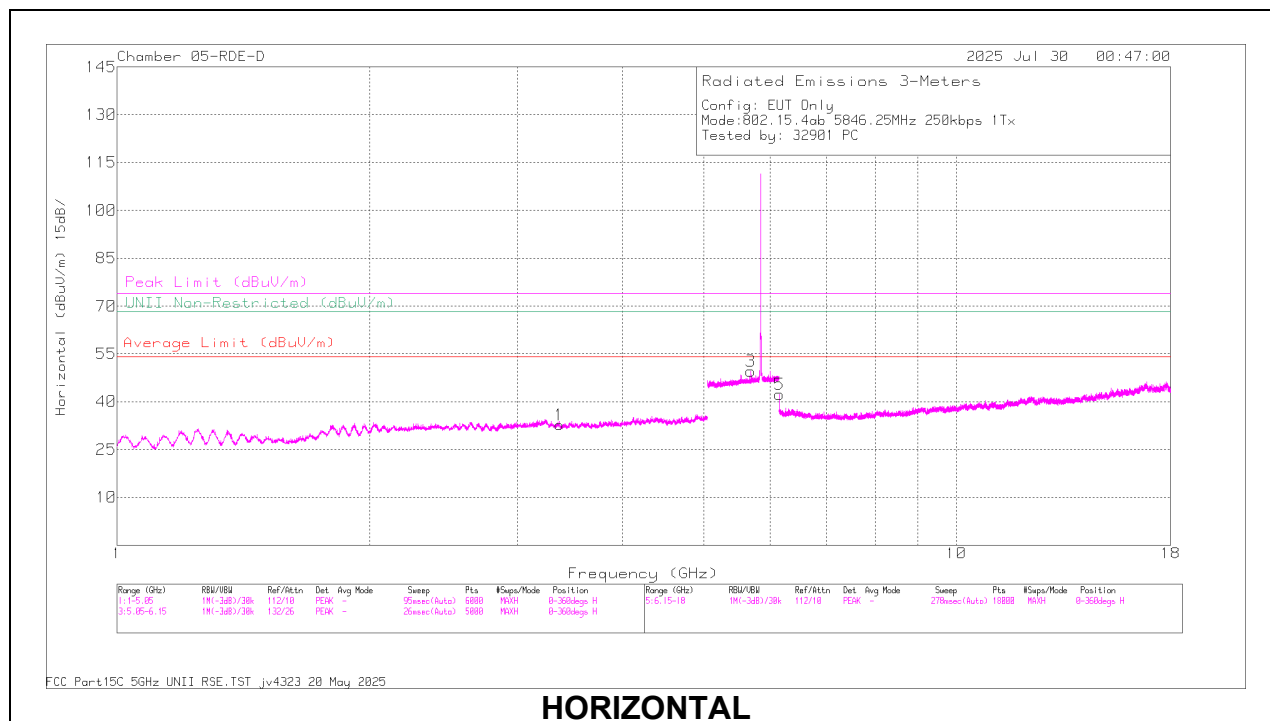
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | 81887 ACF (dB/m) | DCCF (dB) | Gain/Loss (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|------------------|-----------|----------------|----------------------------|------------------------|-------------|---------------------|-------------|------------------------------|-------------|----------------|-------------|----------|
| 1      | *4.328409       | 58.43                | PK-U | 34.2             | 0         | -47.75         | 44.88                      | -                      | -           | 74                  | -29.12      | -                            | -           | 360            | 199         | H        |
|        | *4.33015        | 46.64                | ADR  | 34.2             | 0.7       | -47.77         | 33.77                      | 54                     | -20.23      | -                   | -           | -                            | -           | 360            | 199         | H        |
| 2      | *4.333169       | 58.22                | PK-U | 34.3             | 0         | -47.8          | 44.72                      | -                      | -           | 74                  | -29.28      | -                            | -           | 360            | 101         | V        |
|        | *4.334955       | 46.74                | ADR  | 34.3             | 0.7       | -47.82         | 33.92                      | 54                     | -20.08      | -                   | -           | -                            | -           | 360            | 101         | V        |
| 3      | 5.625419        | 61.89                | PK-U | 35               | 0         | -38.46         | 58.43                      | -                      | -           | -                   | -           | 68.2                         | -9.77       | 189            | 160         | H        |
| 4      | 5.624328        | 60.73                | PK-U | 35               | 0         | -38.45         | 57.28                      | -                      | -           | -                   | -           | 68.2                         | -10.92      | 189            | 200         | V        |
| 5      | 10.38746        | 58.43                | PK-U | 37.5             | 0         | -46.58         | 49.35                      | -                      | -           | -                   | -           | 68.2                         | -18.85      | 189            | 200         | H        |
| 6      | 10.39632        | 58                   | PK-U | 37.5             | 0         | -46.52         | 48.98                      | -                      | -           | -                   | -           | 68.2                         | -19.22      | 189            | 200         | V        |

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

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

## HIGH CHANNEL RESULTS



## RADIATED EMISSIONS

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | 81887 ACF (dB/m) | DCCF (dB) | Gain/Loss (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | UNII Non-Restricted (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|------------------|-----------|----------------|----------------------------|------------------------|-------------|---------------------|-------------|------------------------------|-------------|----------------|-------------|----------|
| 1      | 3.367542        | 57.97                | PK-U | 32.9             | 0         | -47.6          | 43.27                      | -                      | -           | -                   | -           | 68.2                         | -24.93      | 360            | 101         | H        |
| 2      | 3.366232        | 58.19                | PK-U | 32.9             | 0         | -47.57         | 43.52                      | -                      | -           | -                   | -           | 68.2                         | -24.68      | 360            | 101         | V        |
| 3      | 5.693217        | 61.77                | PK-U | 35               | 0         | -38.28         | 58.49                      | -                      | -           | -                   | -           | 68.2                         | -9.71       | 201            | 132         | H        |
| 4      | 5.692498        | 59.66                | PK-U | 35               | 0         | -38.28         | 56.38                      | -                      | -           | -                   | -           | 68.2                         | -11.82      | 201            | 200         | V        |
| 5      | 6.153175        | 61.55                | PK-U | 35.4             | 0         | -45.96         | 50.99                      | -                      | -           | -                   | -           | 68.2                         | -17.21      | 242            | 170         | H        |
| 6      | 6.153258        | 57.58                | PK-U | 35.4             | 0         | -45.96         | 47.02                      | -                      | -           | -                   | -           | 68.2                         | -21.18      | 242            | 200         | V        |

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

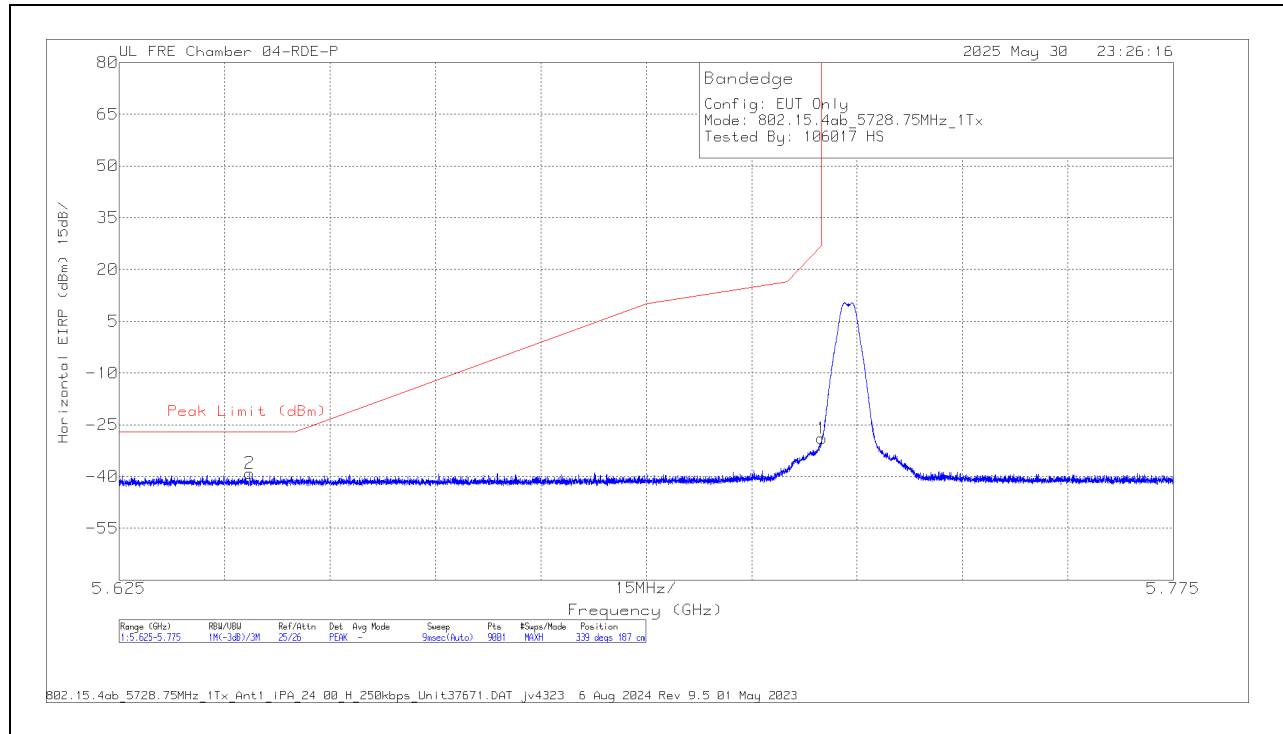
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

### 10.1.3. ANT 6, 250Kbps, LOW POWER BAND EDGE IN THE 5.8 GHz BAND

#### BANDEDGE (LOW CHANNEL)

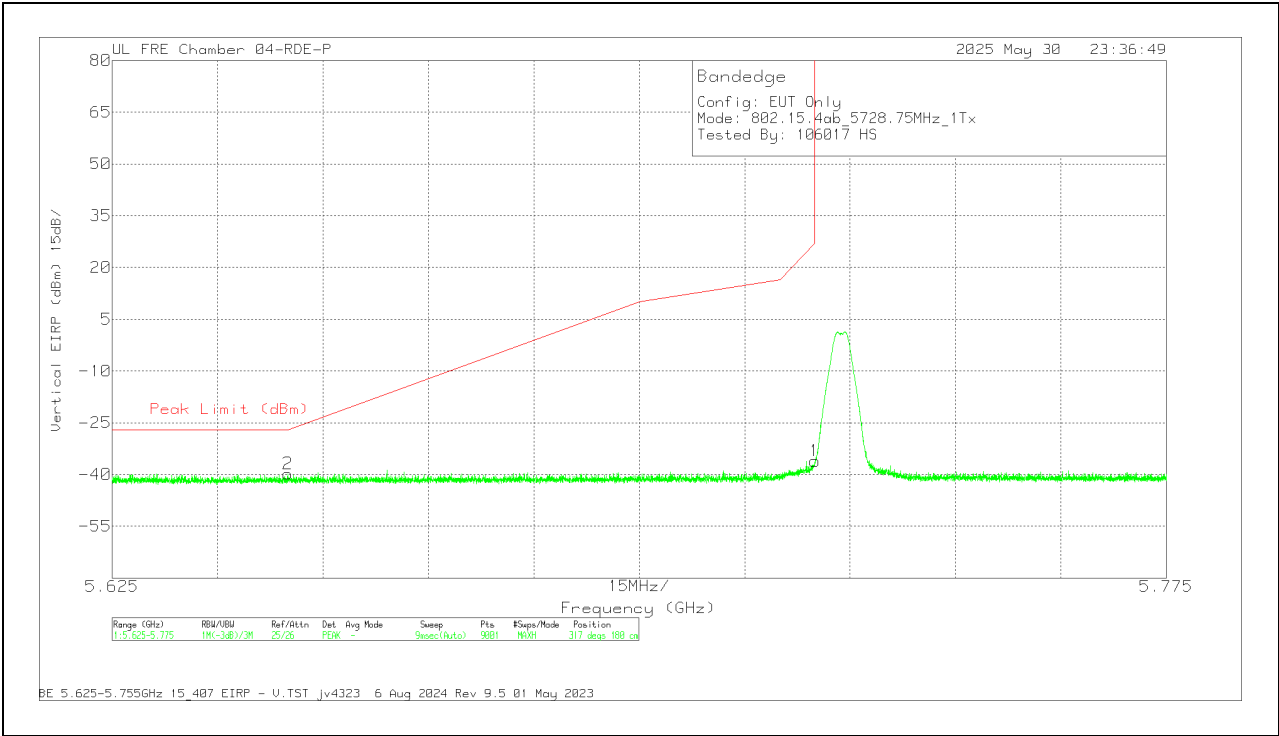
#### HORIZONTAL RESULT



| Marker | Frequency (GHz) | Meter Reading (dBm) | Det | 200897 ACF (dB/m) | Conversion Factor (dB) | DCCF (dB) | Gain/Loss (dB) | Corrected Reading EIRP (dBm) | Peak Limit (dBm) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|---------------------|-----|-------------------|------------------------|-----------|----------------|------------------------------|------------------|-------------|----------------|-------------|----------|
| 1      | 5.725           | -37.17              | Pk  | 34.5              | 11.8                   | 0         | -38.06         | -28.93                       | 27               | -55.93      | 339            | 187         | H        |
| 2      | 5.6436          | -46.87              | Pk  | 34.4              | 11.8                   | 0         | -38.39         | -39.06                       | -27              | -12.06      | 339            | 187         | H        |

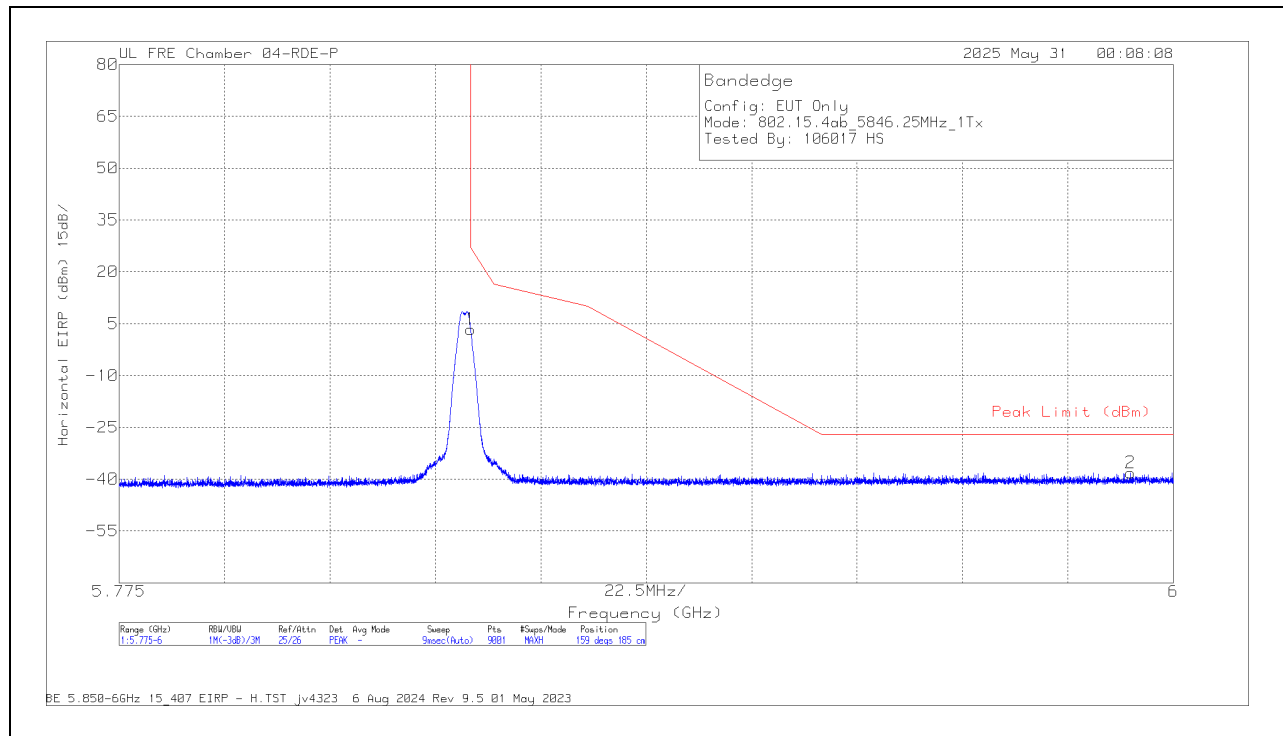
Pk - Peak detector

VERTICAL RESULT



| Marker | Frequency (GHz) | Meter Reading (dBm) | Det | 200897 ACF (dB/m) | Conversion Factor (dB) | DCCF (dB) | Gain/Loss (dB) | Corrected Reading EIRP (dBm) | Peak Limit (dBm) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|---------------------|-----|-------------------|------------------------|-----------|----------------|------------------------------|------------------|-------------|----------------|-------------|----------|
| 1      | 5.725           | -44.31              | Pk  | 34.5              | 11.8                   | 0         | -38.06         | -36.07                       | 27               | -63.07      | 317            | 180         | V        |
| 2      | 5.650017        | -47.65              | Pk  | 34.4              | 11.8                   | 0         | -38.35         | -39.8                        | -26.99           | -12.81      | 317            | 180         | V        |

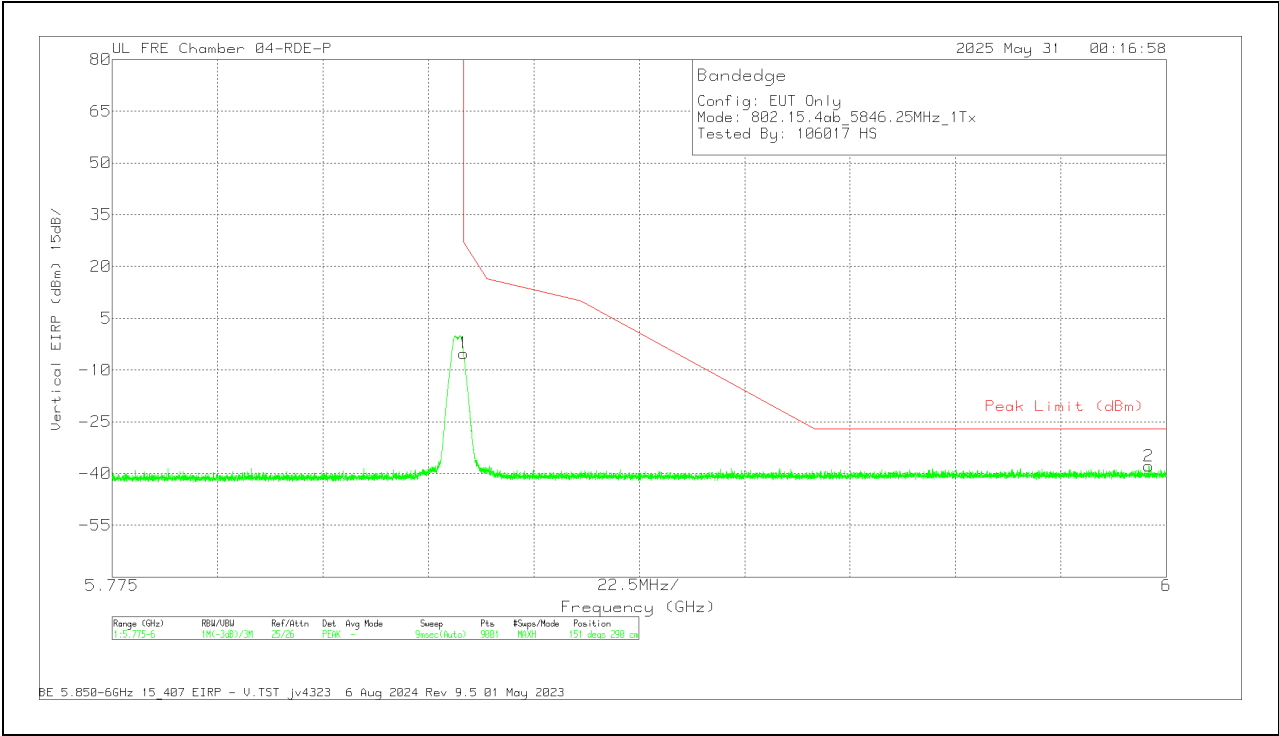
Pk - Peak detector

**BANDEDGE (HIGH CHANNEL)****HORIZONTAL RESULT**

| Marker | Frequency (GHz) | Meter Reading (dBm) | Det | 200897 ACF (dB/m) | Conversion Factor (dB) | DCCF (dB) | Gain/Loss (dB) | Corrected Reading EIRP (dBm) | Peak Limit (dBm) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|---------------------|-----|-------------------|------------------------|-----------|----------------|------------------------------|------------------|-------------|----------------|-------------|----------|
| 1      | 5.85            | -5.76               | Pk  | 34.9              | 11.8                   | 0         | -37.56         | 3.38                         | 27               | -23.62      | 159            | 185         | H        |
| 2      | 5.99085         | -48.14              | Pk  | 35.3              | 11.8                   | 0         | -37.11         | -38.15                       | -27              | -11.15      | 159            | 185         | H        |

Pk - Peak detector

VERTICAL RESULT

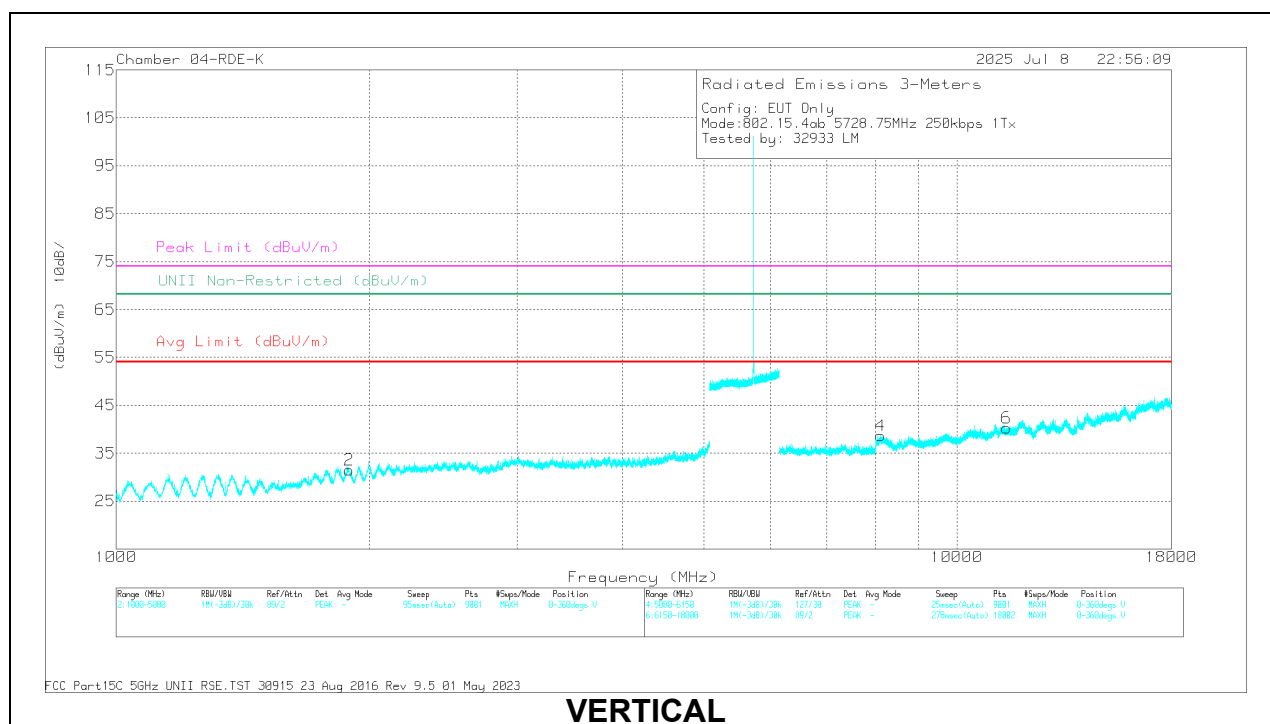
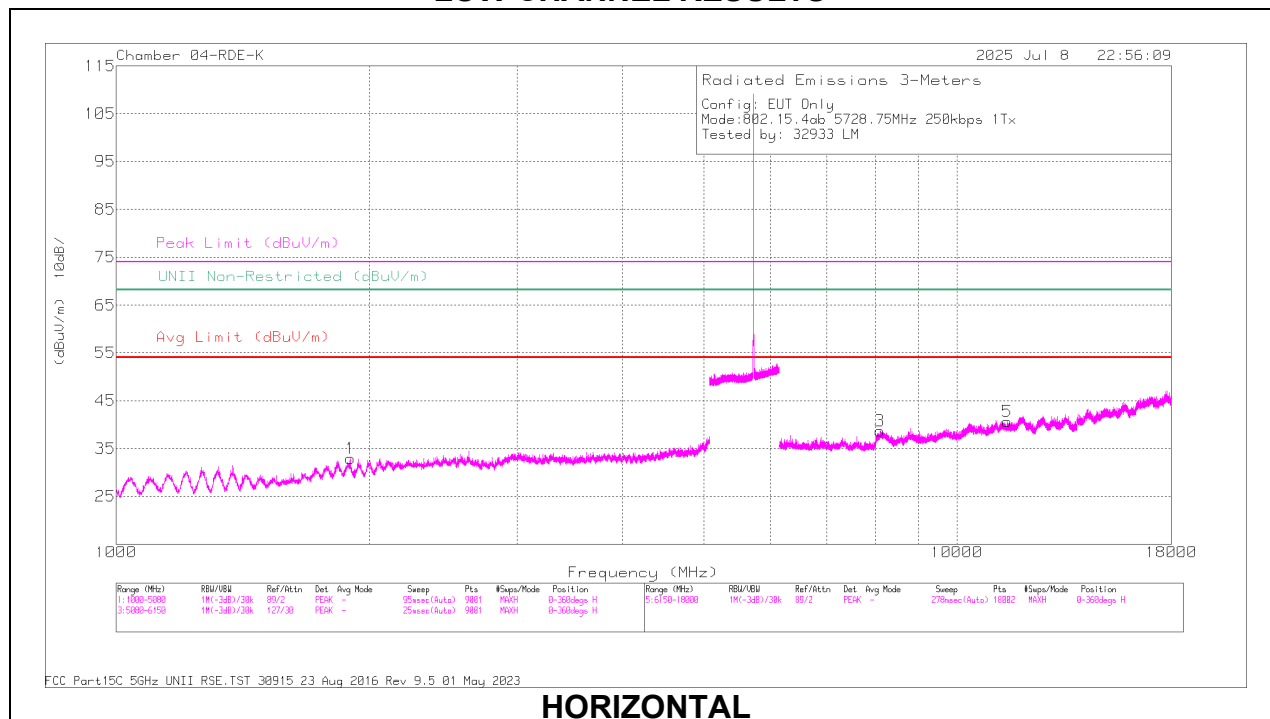


| Marker | Frequency (GHz) | Meter Reading (dBm) | Det | 200897 ACF (dB/m) | Conversion Factor (dB) | DCCF (dB) | Gain/Loss (dB) | Corrected Reading EIRP (dBm) | Peak Limit (dBm) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|---------------------|-----|-------------------|------------------------|-----------|----------------|------------------------------|------------------|-------------|----------------|-------------|----------|
| 1      | 5.85            | -14.28              | Pk  | 34.9              | 11.8                   | 0         | -37.56         | -5.14                        | 27               | -32.14      | 151            | 290         | V        |
| 2      | 5.996275        | -47.84              | Pk  | 35.3              | 11.8                   | 0         | -37.08         | -37.82                       | -27              | -10.82      | 151            | 290         | V        |

Pk - Peak detector

### 10.1.4. ANT 6, 250Kbps LOW POWER HARMONICS AND SPURIOUS EMISSIONS

#### LOW CHANNEL RESULTS



## RADIATED EMISSIONS

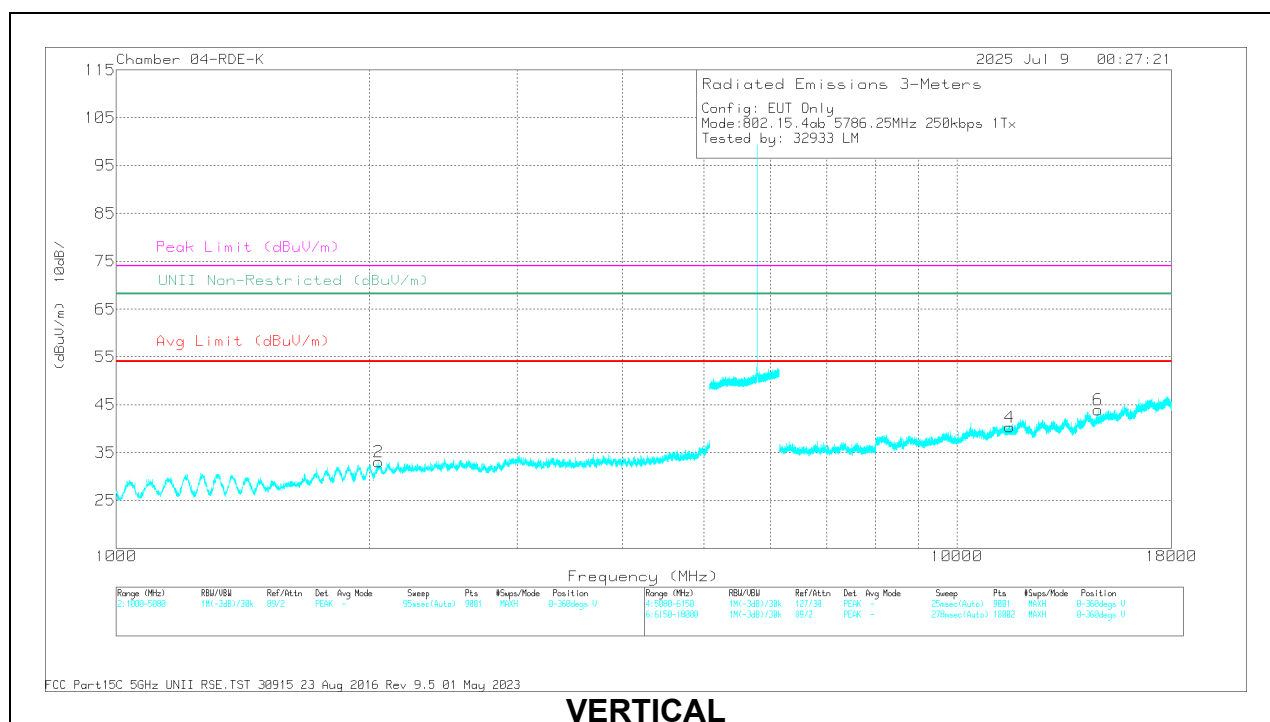
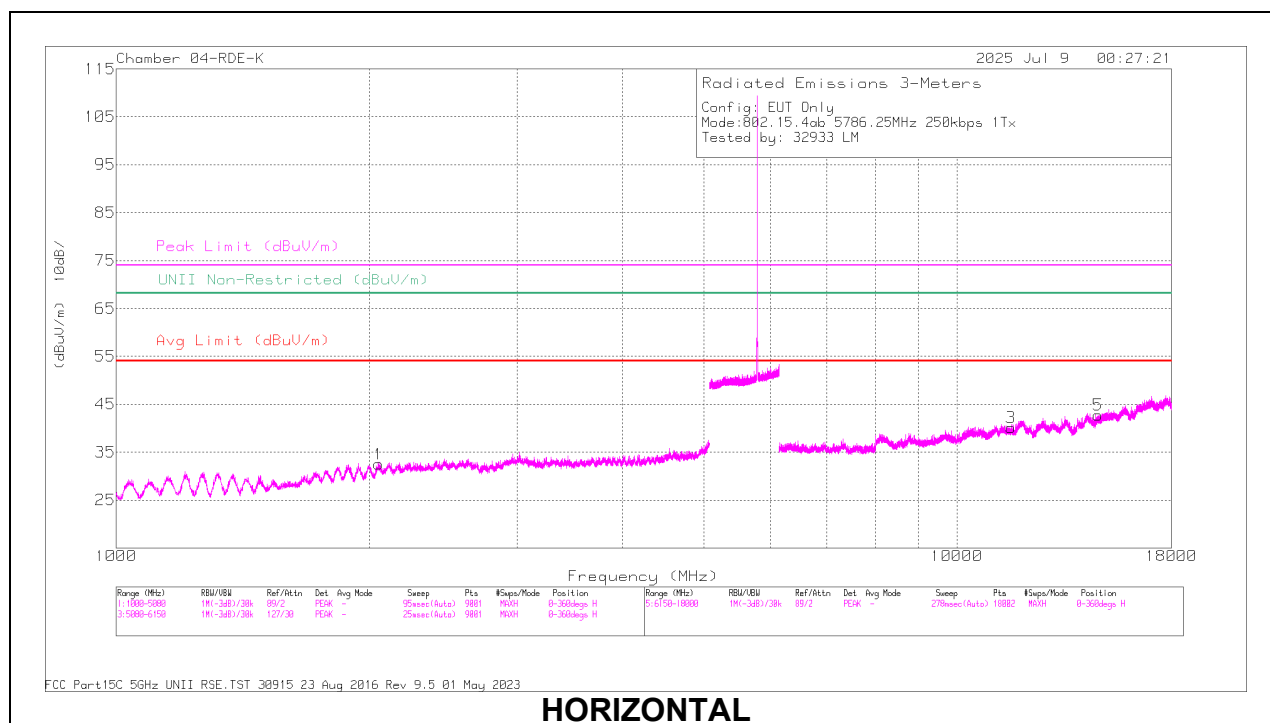
| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det  | 206808 ACF (dB/m) | Amp/Cbl/Filtr (dB) | DCCF (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|-------------------|--------------------|-----------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 1      | 1897.314        | 56.07                | PK-U | 30.8              | -45.2              | 0         | 41.67                      | -                  | -           | -                   | -              | 68.2                         | -26.53         | 17             | 200         | H        |
| 2      | 1892.033        | 57.1                 | PK-U | 30.8              | -45.3              | 0         | 42.6                       | -                  | -           | -                   | -              | 68.2                         | -25.6          | 110            | 118         | V        |
| 3      | * 8108.981      | 49.49                | PK-U | 35.9              | -37.3              | 0         | 48.09                      | -                  | -           | 74                  | -25.91         | -                            | -              | 227            | 169         | H        |
|        | * 8105.376      | 37.94                | ADR  | 35.9              | -37.3              | .7        | 37.24                      | 54                 | -16.76      | -                   | -              | -                            | -              | 227            | 169         | H        |
| 4      | * 8120.233      | 49.32                | PK-U | 35.9              | -37.4              | 0         | 47.82                      | -                  | -           | 74                  | -26.18         | -                            | -              | 234            | 171         | V        |
|        | * 8122.148      | 38.03                | ADR  | 35.9              | -37.4              | .7        | 37.23                      | 54                 | -16.77      | -                   | -              | -                            | -              | 234            | 171         | V        |
| 5      | * 11478.397     | 46.55                | PK-U | 38.1              | -35.9              | 0         | 48.75                      | -                  | -           | 74                  | -25.25         | -                            | -              | 85             | 202         | H        |
|        | * 11480.875     | 34.99                | ADR  | 38.1              | -35.9              | .7        | 37.89                      | 54                 | -16.11      | -                   | -              | -                            | -              | 85             | 202         | H        |
| 6      | * 11465.804     | 46.42                | PK-U | 38.1              | -35.9              | 0         | 48.62                      | -                  | -           | 74                  | -25.38         | -                            | -              | 335            | 176         | V        |
|        | * 11467.723     | 35.08                | ADR  | 38.1              | -35.9              | .7        | 37.98                      | 54                 | -16.02      | -                   | -              | -                            | -              | 335            | 176         | V        |

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

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

## MID CHANNEL RESULTS



## RADIATED EMISSIONS

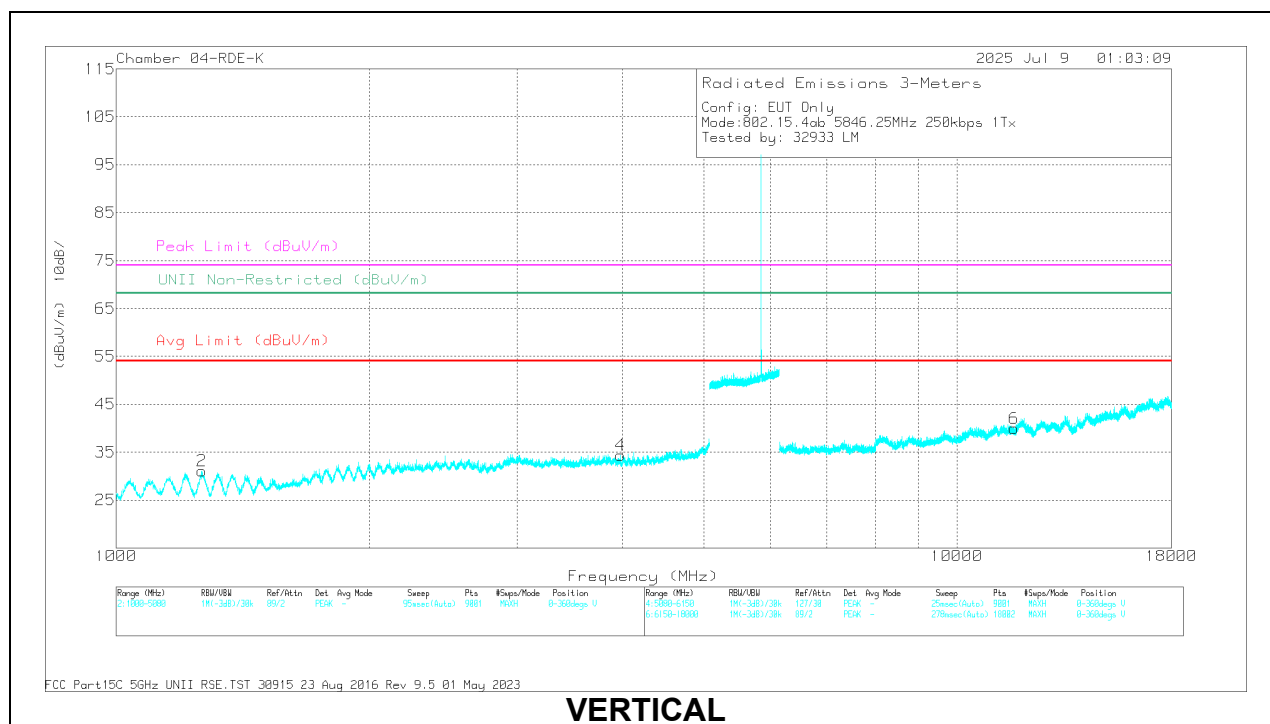
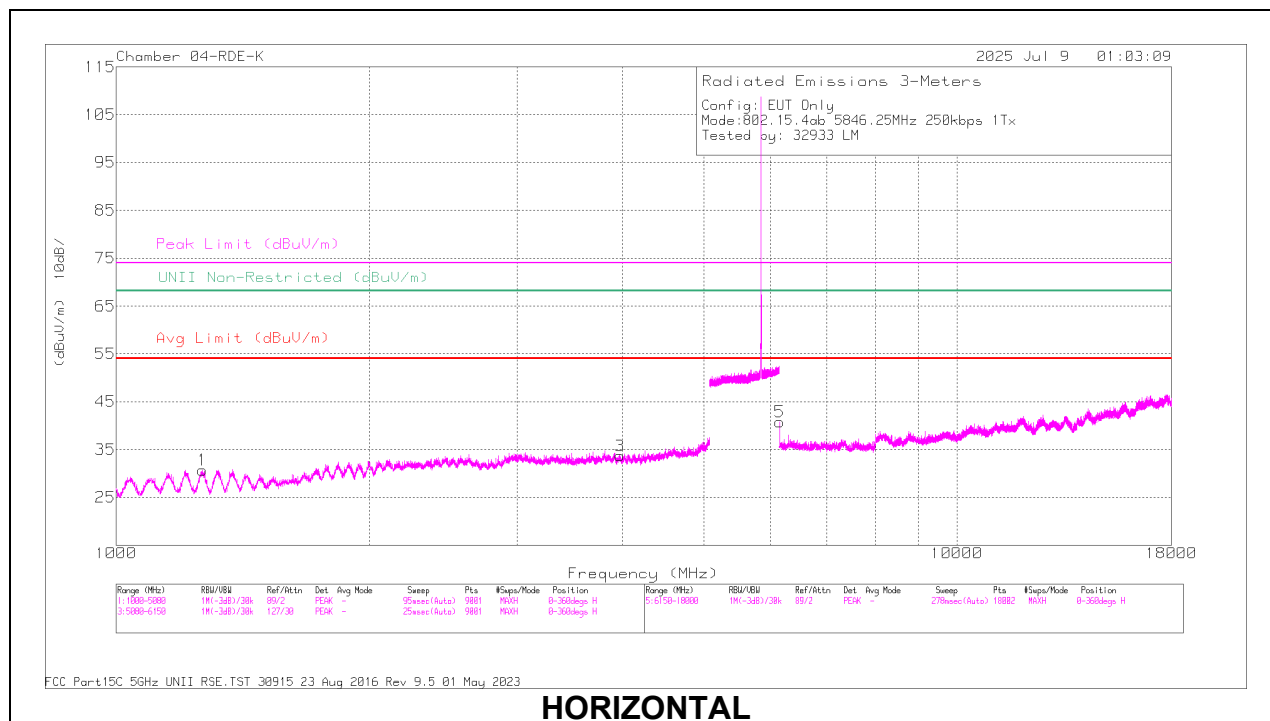
| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det  | 206808 ACF (dB/m) | Amp/Cbl/Filtr (dB) | DCCF (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|-------------------|--------------------|-----------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 1      | 2053.568        | 56.75                | PK-U | 31.4              | -45.4              | 0         | 42.75                      | -                  | -           | -                   | -              | 68.2                         | -25.45         | 118            | 194         | H        |
| 2      | 2053.385        | 57.08                | PK-U | 31.4              | -45.4              | 0         | 43.08                      | -                  | -           | -                   | -              | 68.2                         | -25.12         | 144            | 161         | V        |
| 3      | * 11589.941     | 47.01                | PK-U | 38.2              | -35.6              | 0         | 49.61                      | -                  | -           | 74                  | -24.39         | -                            | -              | 339            | 232         | H        |
|        | * 11588.895     | 35.17                | ADR  | 38.2              | -35.6              | .7        | 38.47                      | 54                 | -15.53      | -                   | -              | -                            | -              | 339            | 232         | H        |
| 4      | * 11564.169     | 47.08                | PK-U | 38.2              | -35.7              | 0         | 49.58                      | -                  | -           | 74                  | -24.42         | -                            | -              | 161            | 180         | V        |
|        | * 11564.479     | 35.4                 | ADR  | 38.2              | -35.7              | .7        | 38.6                       | 54                 | -15.4       | -                   | -              | -                            | -              | 161            | 180         | V        |
| 5      | 14727.73        | 46.24                | PK-U | 39.5              | -33.9              | 0         | 51.84                      | -                  | -           | -                   | -              | 68.2                         | -16.36         | 294            | 218         | H        |
| 6      | 14711.206       | 45.94                | PK-U | 39.5              | -33.7              | 0         | 51.74                      | -                  | -           | -                   | -              | 68.2                         | -16.46         | 312            | 154         | V        |

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

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

## HIGH CHANNEL RESULTS



## RADIATED EMISSIONS

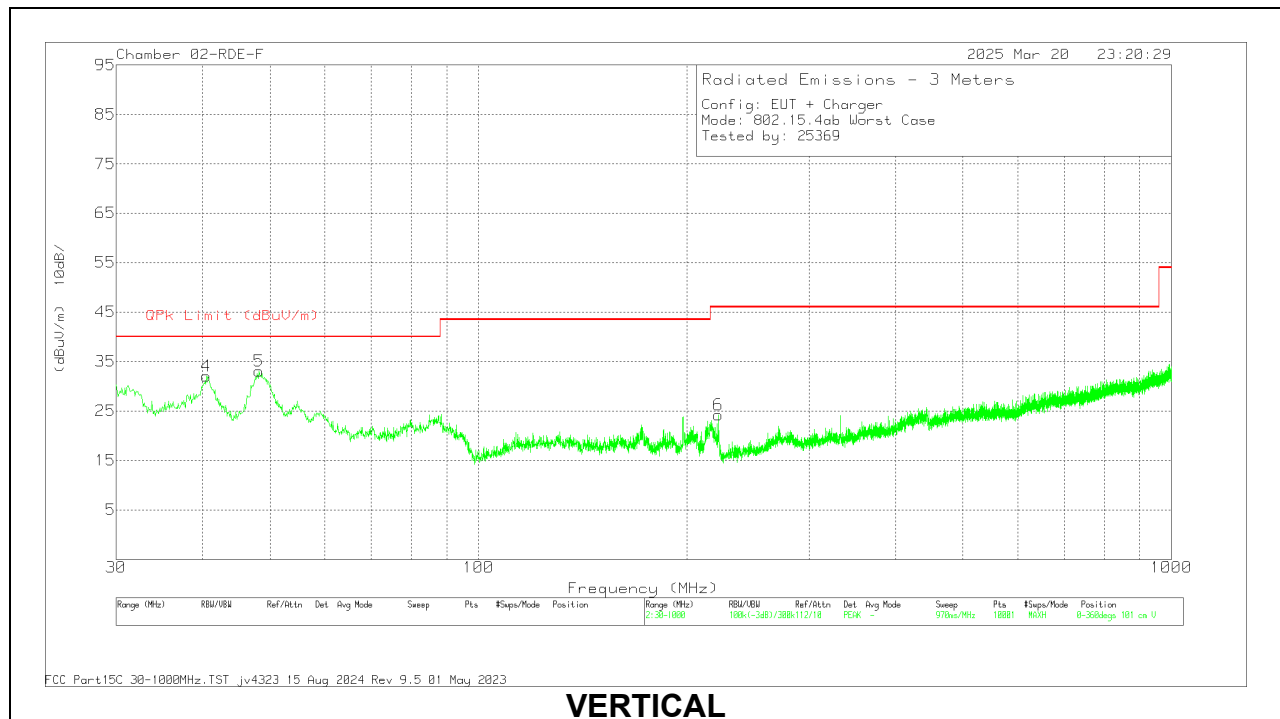
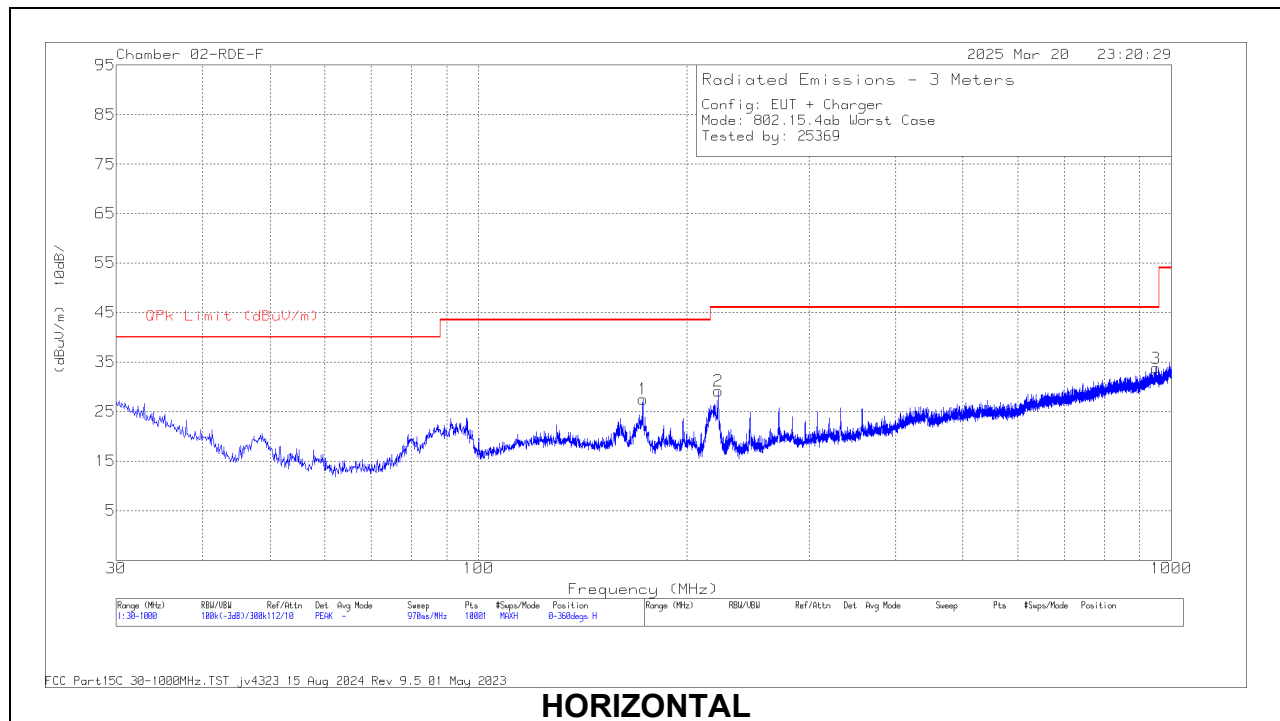
| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det  | 206808 ACF (dB/m) | Amp/Cbl/Filtr (dB) | DCCF (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|-------------------|--------------------|-----------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 1      | * 1264.533      | 58.17                | PK-U | 28.9              | -46.2              | 0         | 40.87                      | -                  | -           | 74                  | -33.13         | -                            | -              | 355            | 101         | H        |
|        | * 1264.247      | 46.48                | ADR  | 28.9              | -46.2              | .7        | 29.88                      | 54                 | -24.12      | -                   | -              | -                            | -              | 355            | 101         | H        |
| 2      | * 1265.043      | 57.73                | PK-U | 28.9              | -46.2              | 0         | 40.43                      | -                  | -           | 74                  | -33.57         | -                            | -              | 37             | 116         | V        |
|        | * 1264.59       | 46.53                | ADR  | 28.9              | -46.2              | .7        | 29.93                      | 54                 | -24.07      | -                   | -              | -                            | -              | 37             | 116         | V        |
| 3      | * 3973.86       | 51.6                 | PK-U | 33.5              | -41.4              | 0         | 43.7                       | -                  | -           | 74                  | -30.3          | -                            | -              | 318            | 236         | H        |
|        | * 3976.96       | 40.24                | ADR  | 33.5              | -41.4              | .7        | 33.04                      | 54                 | -20.96      | -                   | -              | -                            | -              | 318            | 236         | H        |
| 4      | * 3978.871      | 52.22                | PK-U | 33.5              | -41.3              | 0         | 44.42                      | -                  | -           | 74                  | -29.58         | -                            | -              | 90             | 134         | V        |
|        | * 3978.805      | 39.92                | ADR  | 33.5              | -41.3              | .7        | 32.82                      | 54                 | -21.18      | -                   | -              | -                            | -              | 90             | 134         | V        |
| 5      | 6156.274        | 53.03                | PK-U | 35.4              | -38.4              | 0         | 50.03                      | -                  | -           | -                   | -              | 68.2                         | -18.17         | 245            | 271         | H        |
| 6      | * 11698.757     | 47.15                | PK-U | 38.4              | -35.5              | 0         | 50.05                      | -                  | -           | 74                  | -23.95         | -                            | -              | 182            | 194         | V        |
|        | * 11696.771     | 35.32                | ADR  | 38.4              | -35.5              | .7        | 38.92                      | 54                 | -15.08      | -                   | -              | -                            | -              | 182            | 194         | V        |

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

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

## 10.2. WORST CASE BELOW 1 GHz



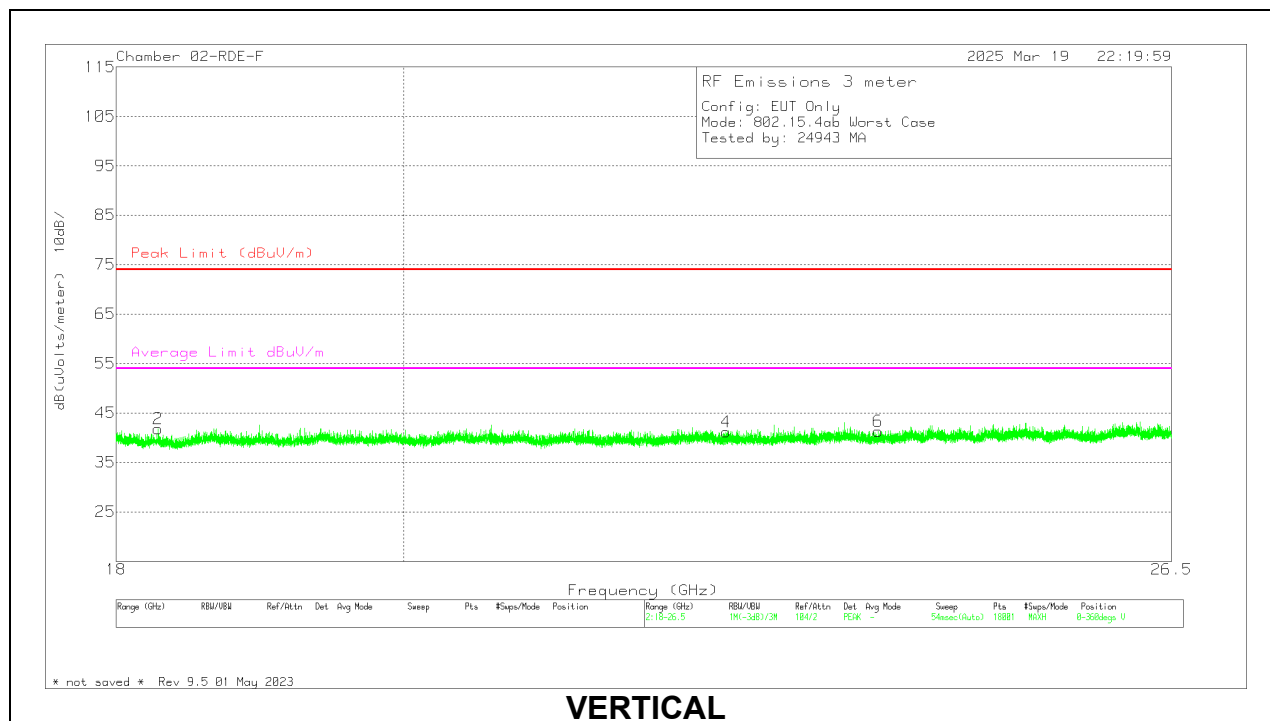
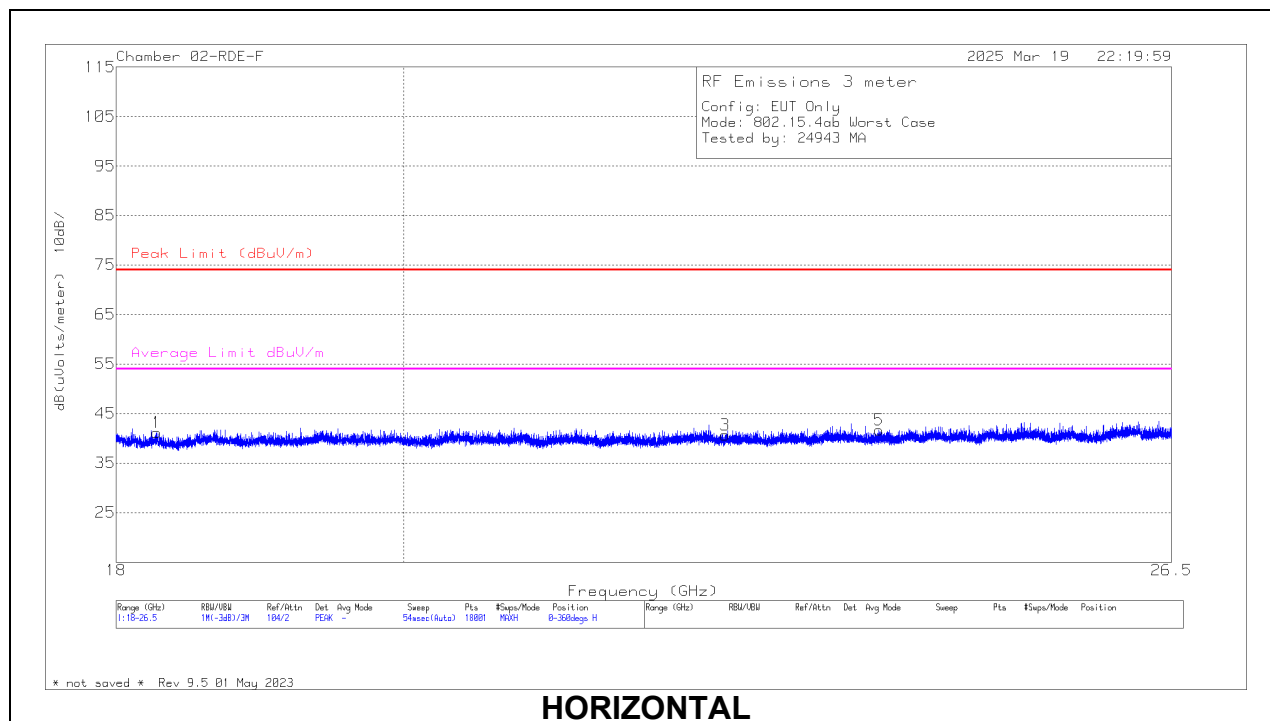
**Below 1GHz DATA**

| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | 202301 ACF (dB/m) | CBL/AMP (dB) | Corrected Reading (dBuV/m) | QPk Limit (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|-------------------|--------------|----------------------------|--------------------|-------------|----------------|-------------|----------|
| 1      | * 172.659       | 35.75                | Qp  | 17.3              | -30.7        | 22.35                      | 43.52              | -21.17      | 228            | 173         | H        |
| 2      | 221.887         | 33.07                | Qp  | 16.6              | -30.4        | 19.27                      | 46.02              | -26.75      | 113            | 137         | V        |
| 3      | 949.706         | 19.95                | Qp  | 28.2              | -26.5        | 21.65                      | 46.02              | -24.37      | 5              | 194         | H        |
| 4      | 40.6021         | 37.76                | Qp  | 19.1              | -31.4        | 25.46                      | 40                 | -14.54      | 74             | 142         | V        |
| 5      | 47.9796         | 46.09                | Qp  | 14.2              | -31.6        | 28.69                      | 40                 | -11.31      | 174            | 100         | V        |
| 6      | 221.933         | 41.52                | Qp  | 16.6              | -30.4        | 27.72                      | 46.02              | -18.30      | 260            | 164         | H        |

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

Qp - Quasi-Peak detector

### 10.3. WORST CASE 18-26 GHz

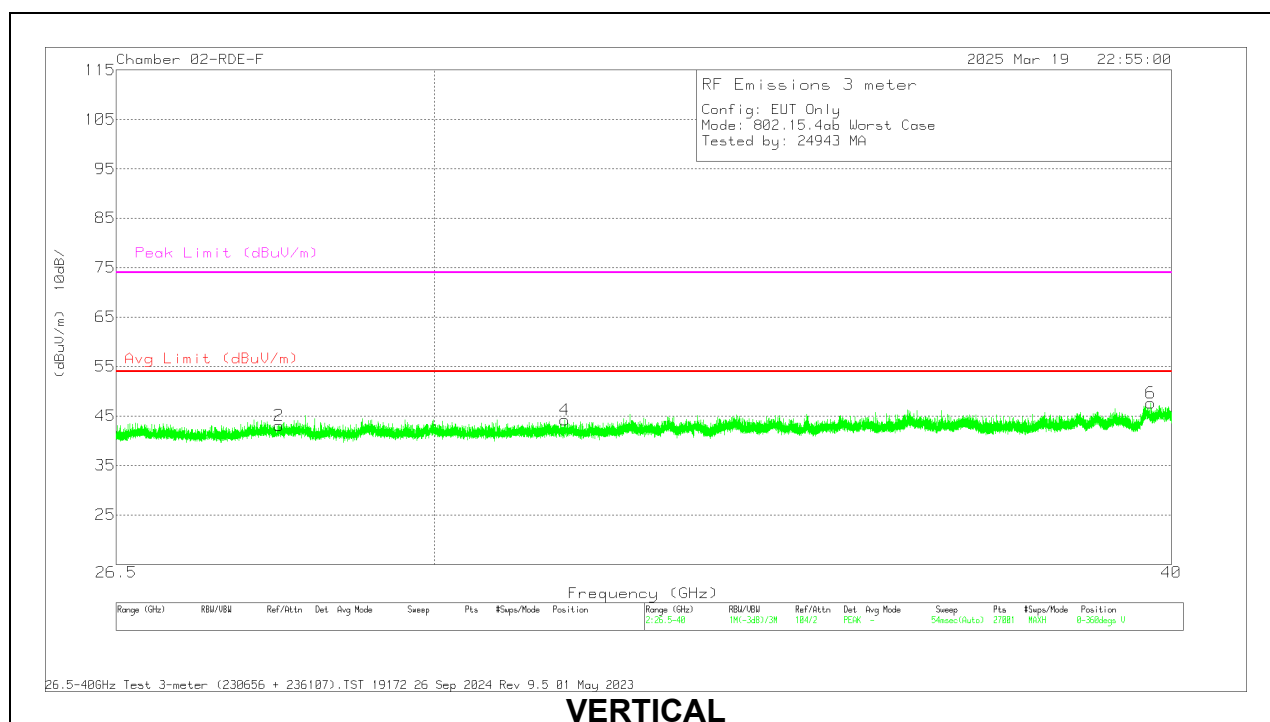
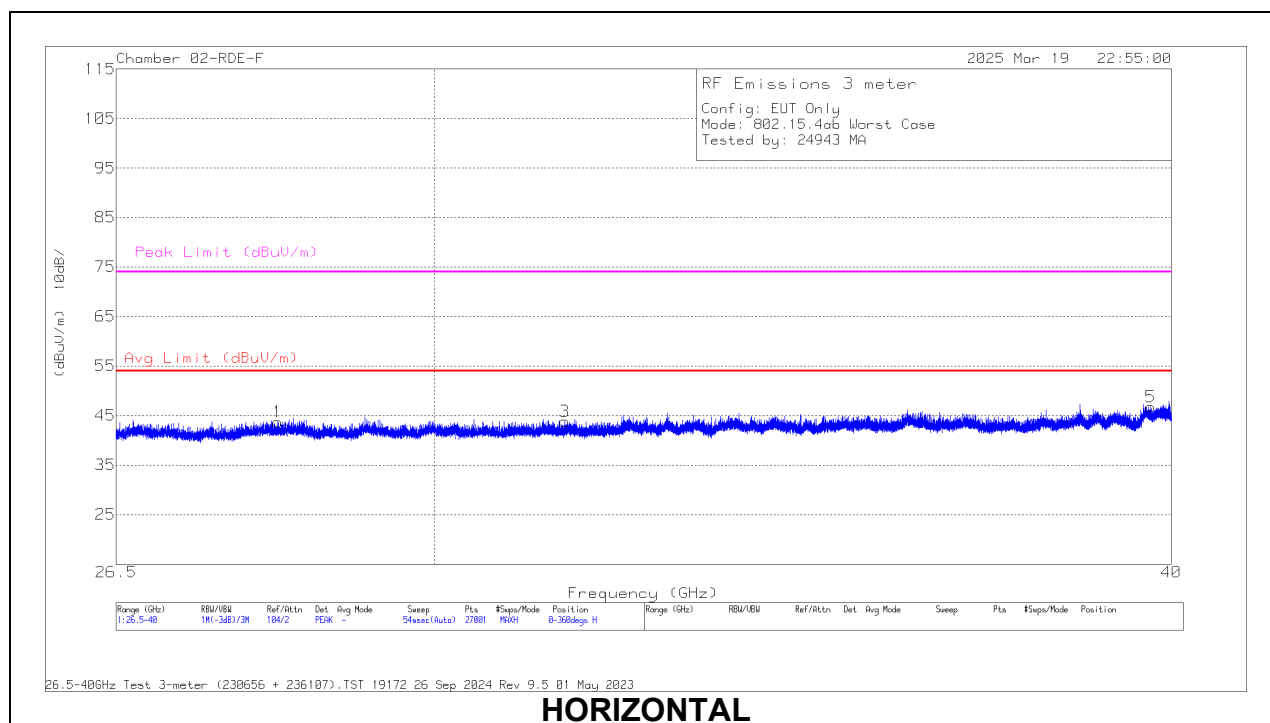


**18 – 26GHz DATA**

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 81140 ACF (dB/m) | AMP (dB) | CBL (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|----------|----------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 18.271055     | 55.52                | Pk  | 32.2             | -63.8    | 17.3     | 41.22                      | 54                     | -12.78      | 74                  | -32.78         | 0-360          | 199         | H        |
| 3      | * 22.502637     | 50.9                 | Pk  | 33.3             | -62.6    | 19.1     | 40.7                       | 54                     | -13.3       | 74                  | -33.3          | 0-360          | 101         | H        |
| 5      | * 23.806914     | 52.08                | Pk  | 33.7             | -63.8    | 19.7     | 41.68                      | 54                     | -12.32      | 74                  | -32.32         | 0-360          | 199         | H        |
| 2      | * 18.277667     | 56.16                | Pk  | 32.2             | -63.8    | 17.3     | 41.86                      | 54                     | -12.14      | 74                  | -32.14         | 0-360          | 200         | V        |
| 4      | * 22.509248     | 51.38                | Pk  | 33.3             | -62.6    | 19.1     | 41.18                      | 54                     | -12.82      | 74                  | -32.82         | 0-360          | 200         | V        |
| 6      | * 23.799358     | 51.75                | Pk  | 33.7             | -63.8    | 19.7     | 41.35                      | 54                     | -12.65      | 74                  | -32.65         | 0-360          | 101         | V        |

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

Pk - Peak detector

**10.4. WORST CASE 26-40 GHz**

**26 – 40GHz DATA**

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | 230656 ACF (dB/m) | AMP (dB) | CBL (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|-------------------|----------|----------|----------------------------|--------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 3      | * 31.571        | 46.7                 | Pk  | 36.4              | -62.2    | 22.9     | 43.8                       | 54                 | -10.2       | 74                  | -30.2          | 0-360          | 101         | H        |
| 5      | * 39.677        | 47.81                | Pk  | 38.3              | -65.5    | 26.2     | 46.81                      | 54                 | -7.19       | 74                  | -27.19         | 0-360          | 200         | H        |
| 4      | * 31.5685       | 47.09                | Pk  | 36.4              | -62.2    | 22.9     | 44.19                      | 54                 | -9.81       | 74                  | -29.81         | 0-360          | 101         | V        |
| 6      | * 39.6795       | 48.61                | Pk  | 38.3              | -65.5    | 26.2     | 47.61                      | 54                 | -6.39       | 74                  | -26.39         | 0-360          | 101         | V        |
| 1      | 28.2215         | 49.7                 | Pk  | 36.2              | -64      | 21.8     | 43.7                       | 54                 | -10.3       | 74                  | -30.3          | 0-360          | 200         | H        |
| 2      | 28.2365         | 49.06                | Pk  | 36.2              | -64      | 21.8     | 43.06                      | 54                 | -10.94      | 74                  | -30.94         | 0-360          | 200         | V        |

\* - indicates frequency in CFR47 Pt 15 / IC RSS-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 (dB $\mu$ V) |            |
|-----------------------------|------------------------------|------------|
|                             | Quasi-peak                   | Average    |
| 0.15-0.5                    | 66 to 56 *                   | 56 to 46 * |
| 0.5-5                       | 56                           | 46         |
| 5-30                        | 60                           | 50         |

\*Decreases with the logarithm of the frequency.

### TEST PROCEDURE

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.10.

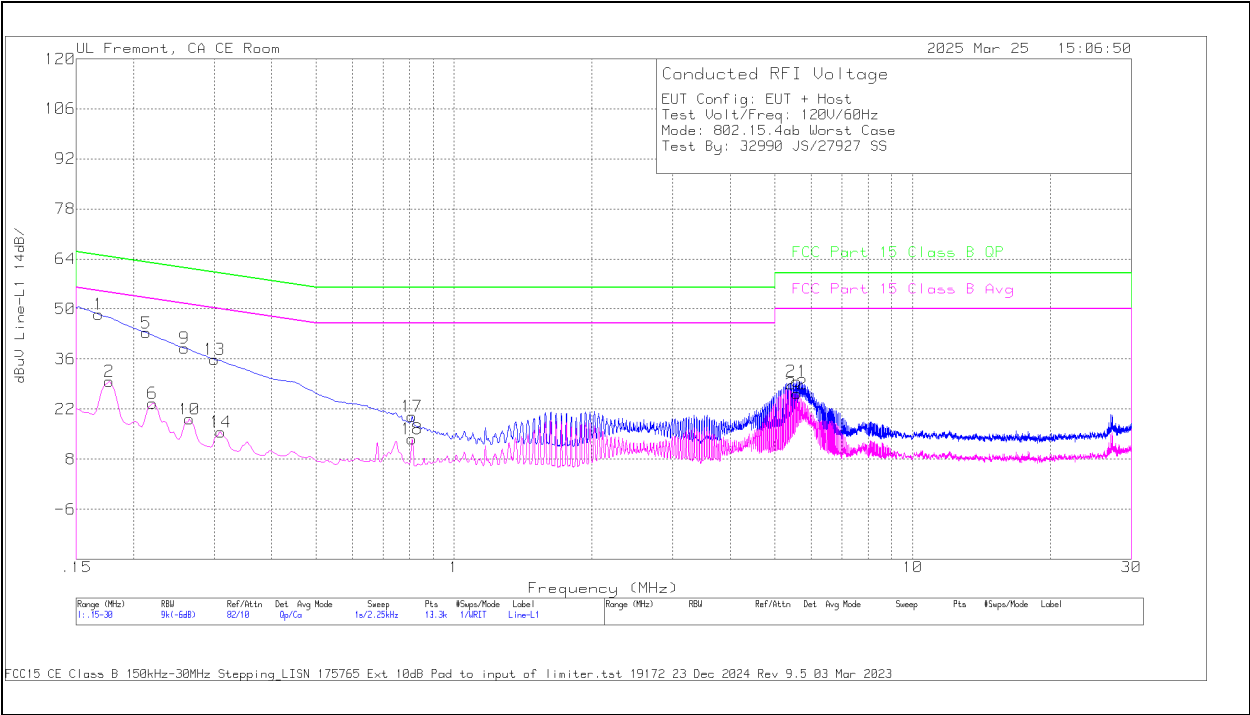
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

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

### RESULTS

11.1. AC Power Line WITH LAPTOP

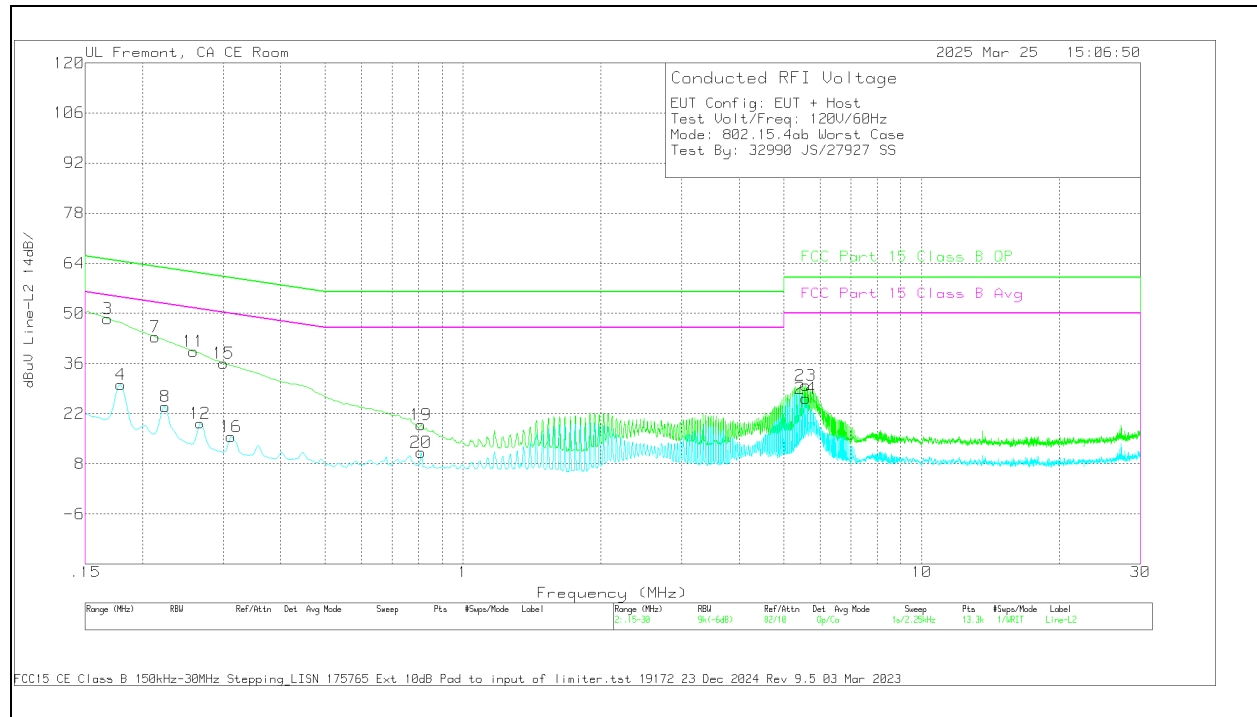
LINE 1 RESULTS



| Range 1: Line-L1 .15 - 30MHz |                 |                      |     |           |         |         |                 |                          |                                     |                |                                      |                       |
|------------------------------|-----------------|----------------------|-----|-----------|---------|---------|-----------------|--------------------------|-------------------------------------|----------------|--------------------------------------|-----------------------|
| Marker                       | Frequency (MHz) | Meter Reading (dBuV) | Det | LISN (dB) | CBL(dB) | CBL(dB) | 10dB Atten (dB) | Corrected Reading (dBuV) | FCC Part 15 Class B QP Limit (dBuV) | QP Margin (dB) | FCC Part 15 Class B Avg Limit (dBuV) | Av(CISPR) Margin (dB) |
|                              |                 |                      |     |           |         |         |                 |                          |                                     |                |                                      |                       |
| 2                            | .177            | 10.97                | Ca  | .1        | .3      | 8.4     | 10              | 29.77                    | -                                   | -              | 54.63                                | -24.86                |
| 6                            | .2198           | 5.39                 | Ca  | 0         | 0       | 8.3     | 10              | 23.69                    | -                                   | -              | 52.83                                | -29.14                |
| 10                           | .2648           | 1.16                 | Ca  | 0         | -.1     | 8.1     | 10              | 19.16                    | -                                   | -              | 51.28                                | -32.12                |
| 14                           | .3098           | -2.47                | Ca  | 0         | -.1     | 8.1     | 10              | 15.53                    | -                                   | -              | 49.98                                | -34.45                |
| 18                           | .8093           | -4.33                | Ca  | 0         | .1      | 7.9     | 10              | 13.67                    | -                                   | -              | 46                                   | -32.33                |
| 22                           | 5.5838          | 7.83                 | Ca  | 0         | .3      | 8.2     | 10              | 26.33                    | -                                   | -              | 50                                   | -23.67                |
| 1                            | .168            | 29.54                | Qp  | .1        | .4      | 8.5     | 10              | 48.54                    | 65.06                               | -16.52         | -                                    | -                     |
| 5                            | .213            | 25.04                | Qp  | 0         | 0       | 8.3     | 10              | 43.34                    | 63.09                               | -19.75         | -                                    | -                     |
| 9                            | .258            | 21.01                | Qp  | 0         | -.1     | 8.2     | 10              | 39.11                    | 61.5                                | -22.39         | -                                    | -                     |
| 13                           | .3008           | 17.85                | Qp  | 0         | 0       | 8       | 10              | 35.85                    | 60.22                               | -24.37         | -                                    | -                     |
| 17                           | .8093           | 1.89                 | Qp  | 0         | .1      | 7.9     | 10              | 19.89                    | 56                                  | -36.11         | -                                    | -                     |
| 21                           | 5.5815          | 11.24                | Qp  | 0         | .3      | 8.2     | 10              | 29.74                    | 60                                  | -30.26         | -                                    | -                     |

Qp - Quasi-Peak detector  
Ca - CISPR average detection

## LINE 2 RESULTS

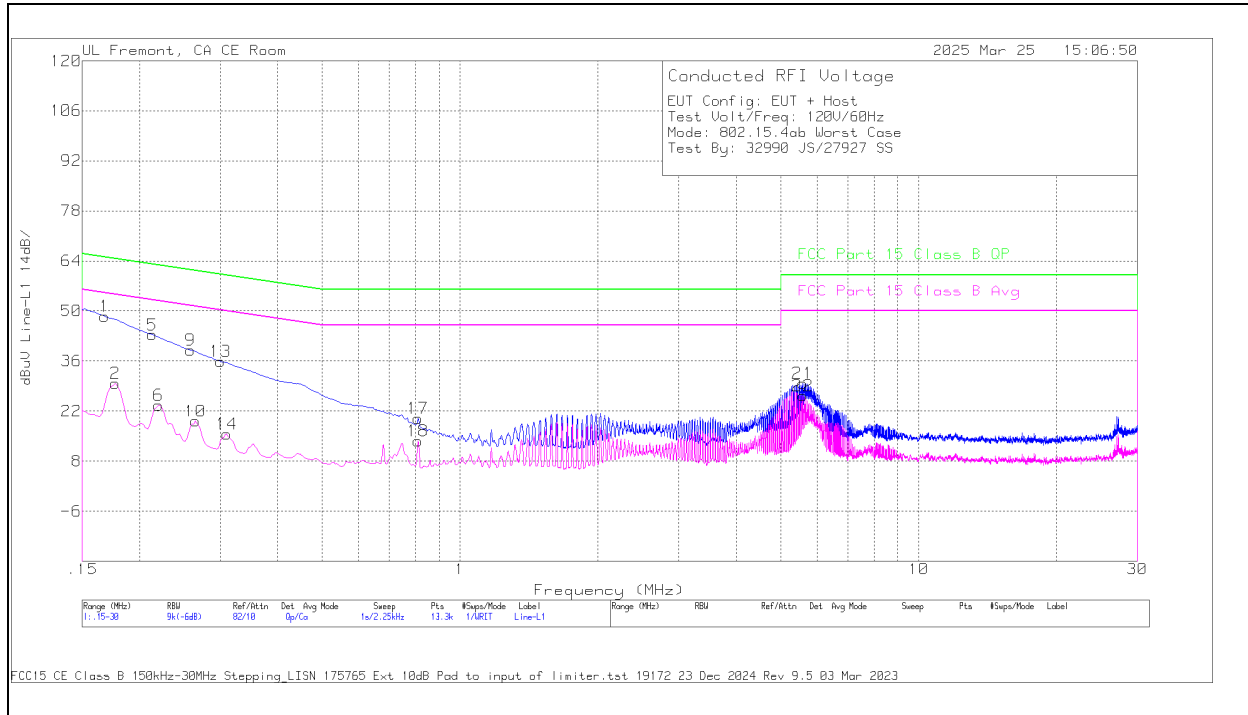


| Range 2: Line-L2 15 - 30MHz |                 |                      |     |           |         |         |                 |                        |                                     |                |                                      |                       |
|-----------------------------|-----------------|----------------------|-----|-----------|---------|---------|-----------------|------------------------|-------------------------------------|----------------|--------------------------------------|-----------------------|
| Marker                      | Frequency (MHz) | Meter Reading (dBUV) | Det | LISN (dB) | CBL(dB) | CBL(dB) | 10dB Atten (dB) | Corrected Reading dBUV | FCC Part 15 Class B QP Limit (dBUV) | QP Margin (dB) | FCC Part 15 Class B Avg Limit (dBUV) | Av(CISPR) Margin (dB) |
| 4                           | .1793           | 11.67                | Ca  | 0         | .1      | 8.4     | 10              | 30.17                  | -                                   | -              | 54.52                                | -24.35                |
| 8                           | .2243           | 5.63                 | Ca  | 0         | .1      | 8.3     | 10              | 24.03                  | -                                   | -              | 52.66                                | -28.63                |
| 12                          | .267            | 1.12                 | Ca  | 0         | .1      | 8.1     | 10              | 19.32                  | -                                   | -              | 51.21                                | -31.89                |
| 16                          | .312            | -2.55                | Ca  | 0         | 0       | 8.1     | 10              | 15.55                  | -                                   | -              | 49.92                                | -34.37                |
| 20                          | .8093           | -6.75                | Ca  | 0         | 0       | 7.9     | 10              | 11.15                  | -                                   | -              | 46                                   | -34.85                |
| 24                          | 5.586           | 7.69                 | Ca  | 0         | .3      | 8.2     | 10              | 26.19                  | -                                   | -              | 50                                   | -23.81                |
| 3                           | .168            | 29.77                | Qp  | .1        | .2      | 8.5     | 10              | 48.57                  | 65.06                               | -16.49         | -                                    | -                     |
| 7                           | .213            | 25.1                 | Qp  | 0         | .1      | 8.3     | 10              | 43.5                   | 63.09                               | -19.59         | -                                    | -                     |
| 11                          | .258            | 21.05                | Qp  | 0         | .2      | 8.2     | 10              | 39.45                  | 61.5                                | -22.05         | -                                    | -                     |
| 15                          | .3008           | 18.02                | Qp  | 0         | 0       | 8       | 10              | 36.02                  | 60.22                               | -24.2          | -                                    | -                     |
| 19                          | .8093           | .93                  | Qp  | 0         | 0       | 7.9     | 10              | 18.83                  | 56                                  | -37.17         | -                                    | -                     |
| 23                          | 5.5883          | 11.26                | Qp  | 0         | .4      | 8.2     | 10              | 29.86                  | 60                                  | -30.14         | -                                    | -                     |

Qp - Quasi-Peak detector  
 Ca - CISPR average detection

## 11.2. AC Power Line WITH AC/DC Adapter

### LINE 1 RESULTS

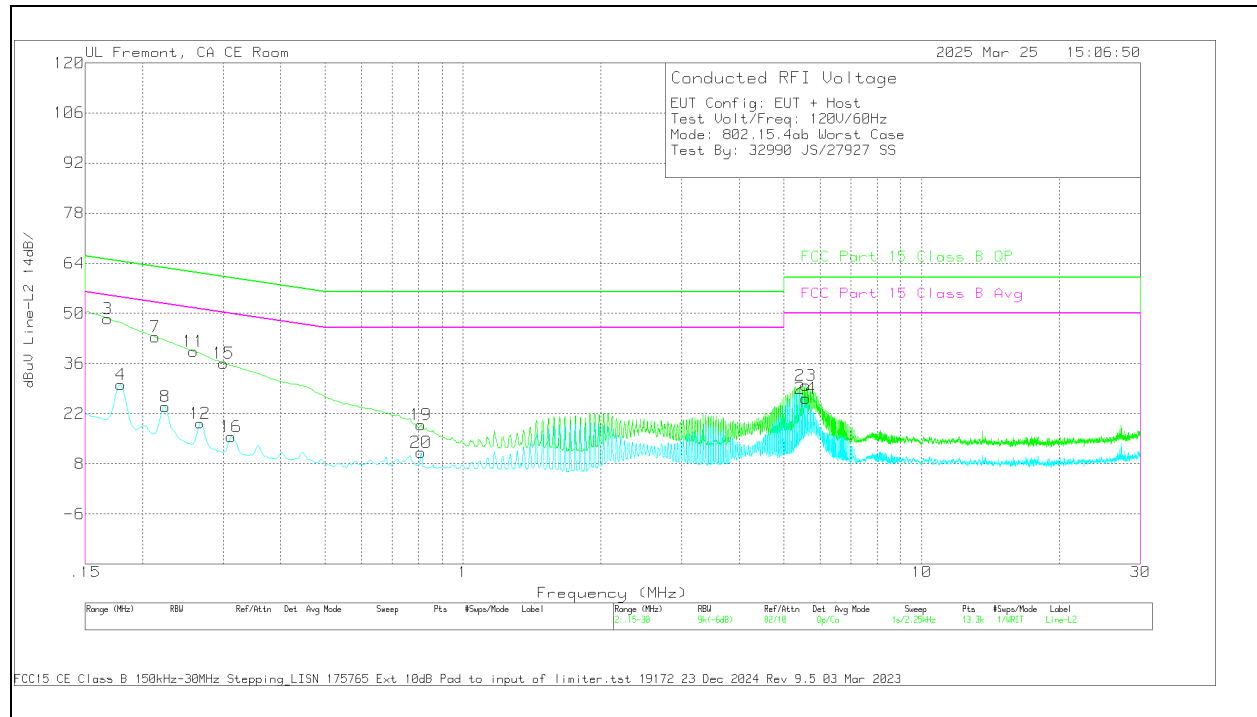


| Range 1: Line-L1 .15 - 30MHz |                 |                      |     |           |         |         |                 |                          |                               |                |                                |                       |
|------------------------------|-----------------|----------------------|-----|-----------|---------|---------|-----------------|--------------------------|-------------------------------|----------------|--------------------------------|-----------------------|
| Marker                       | Frequency (MHz) | Meter Reading (dBuV) | Det | LISN (dB) | CBL(dB) | CBL(dB) | 10dB Atten (dB) | Corrected Reading (dBuV) | FCC Part 15 Class B QP (dBuV) | QP Margin (dB) | FCC Part 15 Class B Avg (dBuV) | Av(CISPR) Margin (dB) |
| 2                            | .177            | 10.97                | Ca  | .1        | .3      | 8.4     | 10              | 29.77                    | -                             | -              | 54.63                          | -24.86                |
| 6                            | .2198           | 5.39                 | Ca  | 0         | 0       | 8.3     | 10              | 23.69                    | -                             | -              | 52.83                          | -29.14                |
| 10                           | .2648           | 1.16                 | Ca  | 0         | -.1     | 8.1     | 10              | 19.16                    | -                             | -              | 51.28                          | -32.12                |
| 14                           | .3098           | -2.47                | Ca  | 0         | -.1     | 8.1     | 10              | 15.53                    | -                             | -              | 49.98                          | -34.45                |
| 18                           | .8093           | -4.33                | Ca  | 0         | .1      | 7.9     | 10              | 13.67                    | -                             | -              | 46                             | -32.33                |
| 22                           | 5.5838          | 7.83                 | Ca  | 0         | .3      | 8.2     | 10              | 26.33                    | -                             | -              | 50                             | -23.67                |
| 1                            | .168            | 29.54                | Qp  | .1        | .4      | 8.5     | 10              | 48.54                    | 65.06                         | -16.52         | -                              | -                     |
| 5                            | .213            | 25.04                | Qp  | 0         | 0       | 8.3     | 10              | 43.34                    | 63.09                         | -19.75         | -                              | -                     |
| 9                            | .258            | 21.01                | Qp  | 0         | -.1     | 8.2     | 10              | 39.11                    | 61.5                          | -22.39         | -                              | -                     |
| 13                           | .3008           | 17.85                | Qp  | 0         | 0       | 8       | 10              | 35.85                    | 60.22                         | -24.37         | -                              | -                     |
| 17                           | .8093           | 1.89                 | Qp  | 0         | .1      | 7.9     | 10              | 19.89                    | 56                            | -36.11         | -                              | -                     |
| 21                           | 5.5815          | 11.24                | Qp  | 0         | .3      | 8.2     | 10              | 29.74                    | 60                            | -30.26         | -                              | -                     |

Qp - Quasi-Peak detector

Ca - CISPR average detection

## LINE 2 RESULTS



| Range 2: Line-L2 15 - 30MHz |                 |                      |     |           |         |         |                 |                          |                               |                |                                |                       |
|-----------------------------|-----------------|----------------------|-----|-----------|---------|---------|-----------------|--------------------------|-------------------------------|----------------|--------------------------------|-----------------------|
| Marker                      | Frequency (MHz) | Meter Reading (dBuV) | Det | LISN (dB) | CBL(dB) | CBL(dB) | 10dB Atten (dB) | Corrected Reading (dBuV) | FCC Part 15 Class B QP (dBuV) | QP Margin (dB) | FCC Part 15 Class B Avg (dBuV) | Av(CISPR) Margin (dB) |
| 4                           | .1793           | 11.67                | Ca  | 0         | .1      | 8.4     | 10              | 30.17                    | -                             | -              | 54.52                          | -24.35                |
| 8                           | .2243           | 5.63                 | Ca  | 0         | .1      | 8.3     | 10              | 24.03                    | -                             | -              | 52.66                          | -28.63                |
| 12                          | .267            | 1.12                 | Ca  | 0         | .1      | 8.1     | 10              | 19.32                    | -                             | -              | 51.21                          | -31.89                |
| 16                          | .312            | -2.55                | Ca  | 0         | 0       | 8.1     | 10              | 15.55                    | -                             | -              | 49.92                          | -34.37                |
| 20                          | .8093           | -6.75                | Ca  | 0         | 0       | 7.9     | 10              | 11.15                    | -                             | -              | 46                             | -34.85                |
| 24                          | 5.586           | 7.69                 | Ca  | 0         | .3      | 8.2     | 10              | 26.19                    | -                             | -              | 50                             | -23.81                |
| 3                           | .168            | 29.77                | Qp  | .1        | .2      | 8.5     | 10              | 48.57                    | 65.06                         | -16.49         | -                              | -                     |
| 7                           | .213            | 25.1                 | Qp  | 0         | .1      | 8.3     | 10              | 43.5                     | 63.09                         | -19.59         | -                              | -                     |
| 11                          | .258            | 21.05                | Qp  | 0         | .2      | 8.2     | 10              | 39.45                    | 61.5                          | -22.05         | -                              | -                     |
| 15                          | .3008           | 18.02                | Qp  | 0         | 0       | 8       | 10              | 36.02                    | 60.22                         | -24.2          | -                              | -                     |
| 19                          | .8093           | .93                  | Qp  | 0         | 0       | 7.9     | 10              | 18.83                    | 56                            | -37.17         | -                              | -                     |
| 23                          | 5.5883          | 11.26                | Qp  | 0         | .4      | 8.2     | 10              | 29.86                    | 60                            | -30.14         | -                              | -                     |

Qp - Quasi-Peak detector

Ca - CISPR average detection

## 12. SETUP PHOTOS

Please refer to 15496282-EP1V1 FCC IC for setup photos.

## 13. APPENDIX A – SPOT CHECK EVALUATION

### 13.1. MODEL DIFFERENCES

The manufacturer hereby declares the following for models A3260, A3516, A3517 and A3518.

These models have the same PCB layout, design, common components, antennas, antenna locations and housing cases, except for the cellular bands that are enabled/disabled by software as shown below.

| Model | FCC ID     | IC ID       | Feature Difference                | Sim Support | Reference Model |
|-------|------------|-------------|-----------------------------------|-------------|-----------------|
| A3260 | BCG-E8948A | 579C-E8948A | _No B11/21                        | eSIM        | -               |
| A3516 | BCG-E8954A | 579C-E8954A | _Added B11/21<br>_No B14/29/71    |             | A3260           |
| A3517 | BCG-E8955A | 579C-E8955A | _No B11/21/14/29/71               |             |                 |
| A3518 | BCG-E8956A | 579C-E8956A | _No B11/21/14/29/71/53<br>_No MSS |             |                 |

The spot check plan, approved by the FCC inquiry, allows for data reuse from the reference model where the variant model data meets the limits and has not changed by more than the criteria from KDB 484596 D01 v03 equation (4).

$$\begin{aligned}
 d_{dB\max}(M_{dB}) &= (3 + M_{dB}/20) \text{ dB, for } 0 \leq M_{dB} \leq 60 \text{ dB} \\
 &6 \text{ dB, for } M_{dB} > 60 \text{ dB}
 \end{aligned}
 \tag{4}$$

Where:  $d_{dB\max}$  is the maximum deviation  $d_{dB}$  allowed,  $M_{dB}$  is the margin in dB  
 $d_{dB}$  deviation from Reference data,  $V_{dB}$  variant spot check level, and  $R_{dB}$  measurement level

## 13.2. SPOT CHECK VERIFICATION RESULTS SUMMARY FOR A3516

| A3516 SPOT CHECK RESULTS |                          |               |           |                         |                         |         |                          |                                         |                                         |            |        |         |
|--------------------------|--------------------------|---------------|-----------|-------------------------|-------------------------|---------|--------------------------|-----------------------------------------|-----------------------------------------|------------|--------|---------|
| Equipment Class          | Frequency (GHz)          | Mode          | Data Rate | Test Item               |                         | Channel | Measured Frequency (GHz) | Original Model: A3260                   | Sub Model: A3516                        | Delta (dB) | Margin | Remarks |
|                          |                          |               |           |                         |                         |         |                          | FCC ID : BCG-E8948A<br>IC : 579C-E8948A | FCC ID : BCG-E8954A<br>IC : 579C-E8954A |            |        |         |
| UNII / 802.15.4ab        | 5728.75 – 5846.25 UNII-3 | 1TX HP (ANT6) | 250kbps   | Fundamental             | Avg Power (dBm)         | Mid     | 5.786                    | 20.49                                   | 20.28                                   | -0.21      | -9.51  | Note 1  |
|                          |                          | 1TX HP (ANT6) | 250kbps   | Horizontal High Channel | Radiated Bandedge (dBm) | High    | 5.96                     | -36.09                                  | -35.50                                  | 0.59       | -9.09  | Note 1  |
|                          |                          | 1TX HP (ANT6) | 250kbps   | 1 to 18 GHz             | RSE Peak (dBuV/m)       | High    | 5.692498                 | 58.49                                   | 58.57                                   | 0.08       | -9.71  | Note 1  |

Note 1: Deviation from reference to variant within the value allowed by equation (4) in KDB 484596. Additional tests not required.

Note 2: Deviation from reference to variant exceeds the value allowed by equation (4) in KDB 484596. Additional tests performed on second channel.

## 13.3. SPOT CHECK VERIFICATION RESULTS SUMMARY FOR A3517

| A3517 SPOT CHECK RESULTS |                          |               |           |                         |                         |         |                          |                                         |                                         |            |        |         |
|--------------------------|--------------------------|---------------|-----------|-------------------------|-------------------------|---------|--------------------------|-----------------------------------------|-----------------------------------------|------------|--------|---------|
| Equipment Class          | Frequency (GHz)          | Mode          | Data Rate | Test Item               |                         | Channel | Measured Frequency (GHz) | Original Model: A3260                   | Sub Model: A3517                        | Delta (dB) | Margin | Remarks |
|                          |                          |               |           |                         |                         |         |                          | FCC ID : BCG-E8948A<br>IC : 579C-E8948A | FCC ID : BCG-E8955A<br>IC : 579C-E8955A |            |        |         |
| UNII / 802.15.4ab        | 5728.75 – 5846.25 UNII-3 | 1TX HP (ANT6) | 250kbps   | Fundamental             | Avg Power (dBm)         | Mid     | 5.786                    | 20.49                                   | 20.19                                   | -0.30      | -9.51  | Note 1  |
|                          |                          | 1TX HP (ANT6) | 250kbps   | Horizontal High Channel | Radiated Bandedge (dBm) | High    | 5.96                     | -36.09                                  | -36.18                                  | -0.09      | -9.09  | Note 1  |
|                          |                          | 1TX HP (ANT6) | 250kbps   | 1 to 18 GHz             | RSE Peak (dBuV/m)       | High    | 5.692498                 | 58.49                                   | 58.06                                   | -0.43      | -9.71  | Note 1  |

Note 1: Deviation from reference to variant within the value allowed by equation (4) in KDB 484596. Additional tests not required.

Note 2: Deviation from reference to variant exceeds the value allowed by equation (4) in KDB 484596. Additional tests performed on second channel.

## 13.4. SPOT CHECK VERIFICATION RESULTS SUMMARY FOR A3518

| A3518 SPOT CHECK RESULTS |                          |               |           |                         |                         |         |                          |                                         |                                         |            |        |         |
|--------------------------|--------------------------|---------------|-----------|-------------------------|-------------------------|---------|--------------------------|-----------------------------------------|-----------------------------------------|------------|--------|---------|
| Equipment Class          | Frequency (GHz)          | Mode          | Data Rate | Test Item               |                         | Channel | Measured Frequency (GHz) | Original Model: A3260                   | Sub Model: A3518                        | Delta (dB) | Margin | Remarks |
|                          |                          |               |           |                         |                         |         |                          | FCC ID : BCG-E8948A<br>IC : 579C-E8948A | FCC ID : BCG-E8956A<br>IC : 579C-E8956A |            |        |         |
| UNII / 802.15.4ab        | 5728.75 – 5846.25 UNII-3 | 1TX HP (ANT6) | 250kbps   | Fundamental             | Avg Power (dBm)         | Mid     | 5.786                    | 20.49                                   | 20.36                                   | -0.13      | -9.51  | Note 1  |
|                          |                          | 1TX HP (ANT6) | 250kbps   | Horizontal High Channel | Radiated Bandedge (dBm) | High    | 5.96                     | -36.09                                  | -36.10                                  | -0.01      | -9.09  | Note 1  |
|                          |                          | 1TX HP (ANT6) | 250kbps   | 1 to 18 GHz             | RSE Peak (dBuV/m)       | High    | 5.692498                 | 58.49                                   | 58.21                                   | -0.28      | -9.71  | Note 1  |

Note 1: Deviation from reference to variant within the value allowed by equation (4) in KDB 484596. Additional tests not required.

Note 2: Deviation from reference to variant exceeds the value allowed by equation (4) in KDB 484596. Additional tests performed on second channel.

## END OF REPORT