# EMC Testing of the
# Manufacturer: Blues Inc.
# Starnote for Iridium
# In accordance with FCC 47 CFR Part 15B

Prepared for: Blues Inc.
50 Harbor Street
Manchester, Massachusetts 01944 USA

## COMMERCIAL-IN-CONFIDENCE

721021685-02 Issue 01

| RESPONSIBLE FOR | NAME | DATE | SIGNATURE |
|---|---|---|---|
| **Authorized Signatory** | Ferdinand Custodio | 16 September 2026 | |

Signatures in this approval box have checked this document in line with the requirements of TÜV SÜD Product Service document control rules.

**EXECUTIVE SUMMARY**
A sample of this product was tested and found to be in compliance with FCC 47 CFR Part 15B.

A2LA Cert. No. 2955.13



**ACCREDITATION**
Our A2LA Accreditation does not cover opinions and interpretations and any expressed are outside the scope of our A2LA Accreditation.

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# Contents

## Report Summary

### 1.1 Report Modification Record

Alterations and additions to this report will be issued to the holders of each copy in the form of a complete document.

| Issue | Description of Change | Date of Issue |
|---|---|---|
| 1 | First Issue | 09/16/2026 |

**Table 1**

### 1.2 Introduction

| | |
|---|---|
| Applicant | Blues Inc. |
| Manufacturer | Blues Inc. |
| Model Number(s) | Starnote for Iridium |
| Serial Number(s) | 1A010K |
| Number of Samples Tested | 1 |
| Test Specification/Issue/Date | FCC 47 CFR Part 15B |
| Test Plan/Issue/Date | N/A |
| Order Number | 200210025265 |
| Date | June 1st 2026 |
| Date of Receipt of EUT | June 10th 2026 |
| Start of Test | July 09th 2026 |
| Finish of Test | July 09th 2026 |
| Name of Engineer(s) | Miguel Angel Rabago Garcia (MARG) |
| Related Document(s) | ANSI C63.4 2014ANSI 63.4: 2014 |

## 1.3 Brief Summary of Results

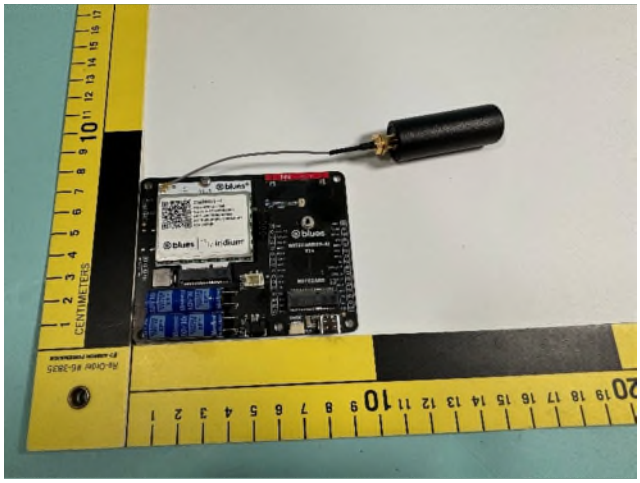
A brief summary of the tests carried out in accordance with FCC 47 CFR Part 15B is shown below.

| Section | Specification Clause | Test Description | Result | Comments/Base Standard |
|---|---|---|---|---|
| Battery Powered--Idle Mode | | | | |
| 2.1 | 15.107 | Conducted Disturbance at Mains Terminals | Pass | ANSI C63.4 2014 |
| 2.2 | 15.109 | Radiated Disturbance | Pass | ANSI 63.4: 2014 |

**Table 2**

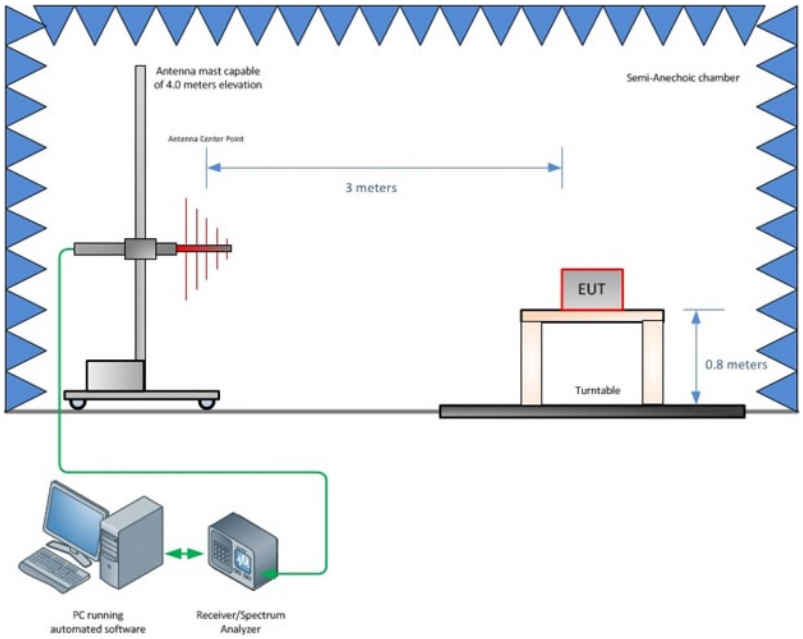
## 1.4 Product Information

The Equipment Under Test (EUT) was a companion system-on-Module card for Notecard that add pre-certified satellite connectivity to other connected products.

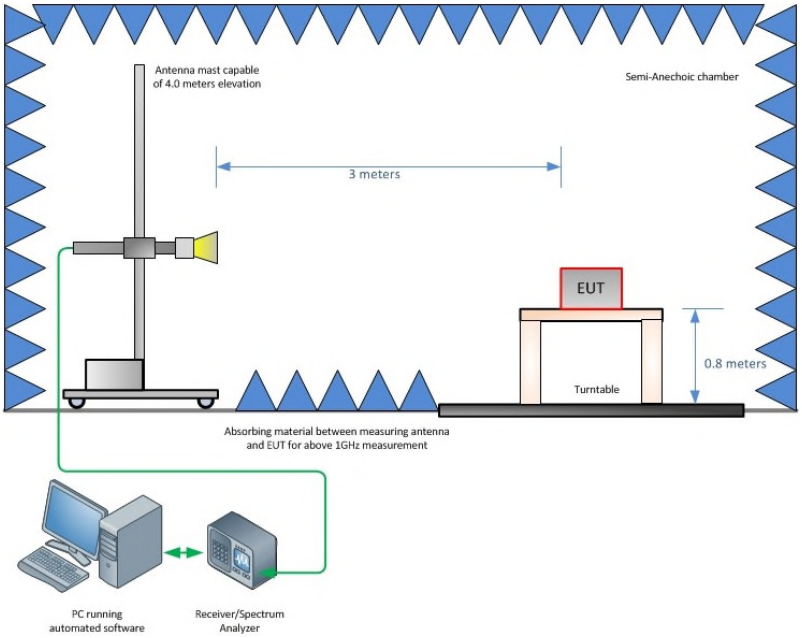


**Equipment Under Test.**

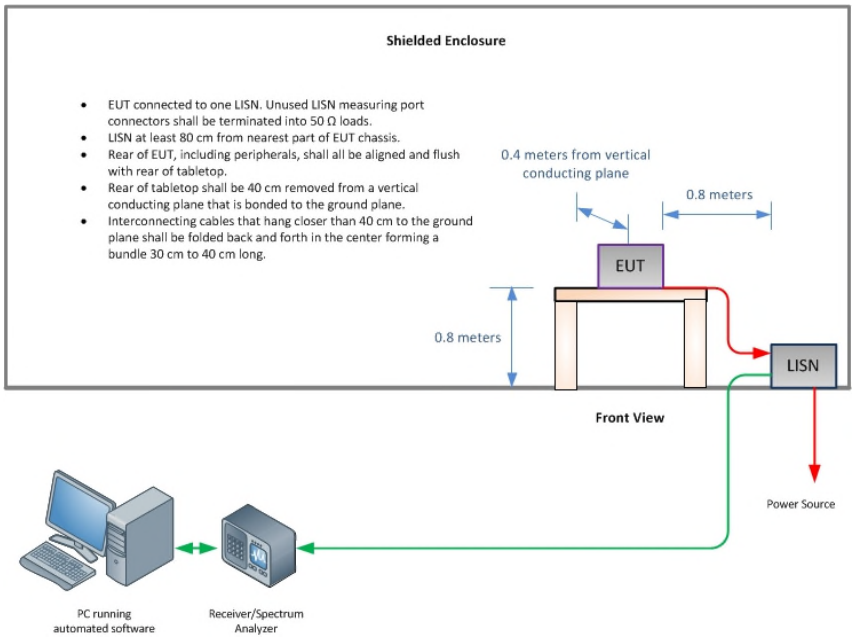
### 1.4.1 Test Configuration




**Radiated Disturbance Below 1 GHz Test Diagram**




**Radiated Disturbance Above 1 GHz Test Diagram**




**Conducted Disturbance Test Diagram**

### 1.4.2 Modes of Operation

| Mode | Description |
|---|---|
| Idle | The EUT was idle mode (EUT Was powered On but it was not transmitting) |

## 1.5 Deviations from the Standard

No deviations from the applicable test standard were made during testing.

## 1.6 EUT Modification Record

The table below details modifications made to the EUT during the test program. The modifications incorporated during each test are recorded on the appropriate test pages.

| Modification State | Description of Modification still fitted to EUT | Modification Fitted By | Date Modification Fitted |
|---|---|---|---|
| 0 | As supplied by the customer | Not Applicable | Not Applicable |

**Table 3**

## 1.7 Test Location

TÜV SÜD conducted the following tests at our San Diego Test Laboratory.

| Test Name | Name of Engineer(s) | Accreditation |
|---|---|---|
| Configuration and Mode: Idle Mode – Starnote for Iridium | | |
| Radiated Disturbance | Miguel Angel Rabago Garcia | A2LA |
| Conducted Disturbance at AC mains terminals | Miguel Angel Rabago Garcia | A2LA |

**Table 4**

Laboratory Address: 10040 Mesa Rim Rd
San Diego CA, 92121 USA

# 2 Test Details

## 2.1 Conducted Disturbance at Mains Terminals

### 2.1.1 Specification Reference

FCC 47 CFR Part 15B, Clause 15.107

### 2.1.2 Equipment Under Test and Modification State

Serial Number: 1A010K / MARG

### 2.1.3 Date of Test

July 09 2026

### 2.1.4 Test Method

Idle Mode
The EUT was placed on a non-conductive table 0.8m above a reference ground plane.
All power was connected to the EUT through a 2-line V Network. Conducted disturbance voltage measurements on mains lines were made at the output of the 2-line V Network. The 2-line V Network was placed 0.8m from the boundary of the EUT and bonded to the reference ground plane.

### 2.1.5 Environmental Conditions

| | |
|---|---|
| Ambient Temperature | 25.4°C |
| Relative Humidity | 39% |

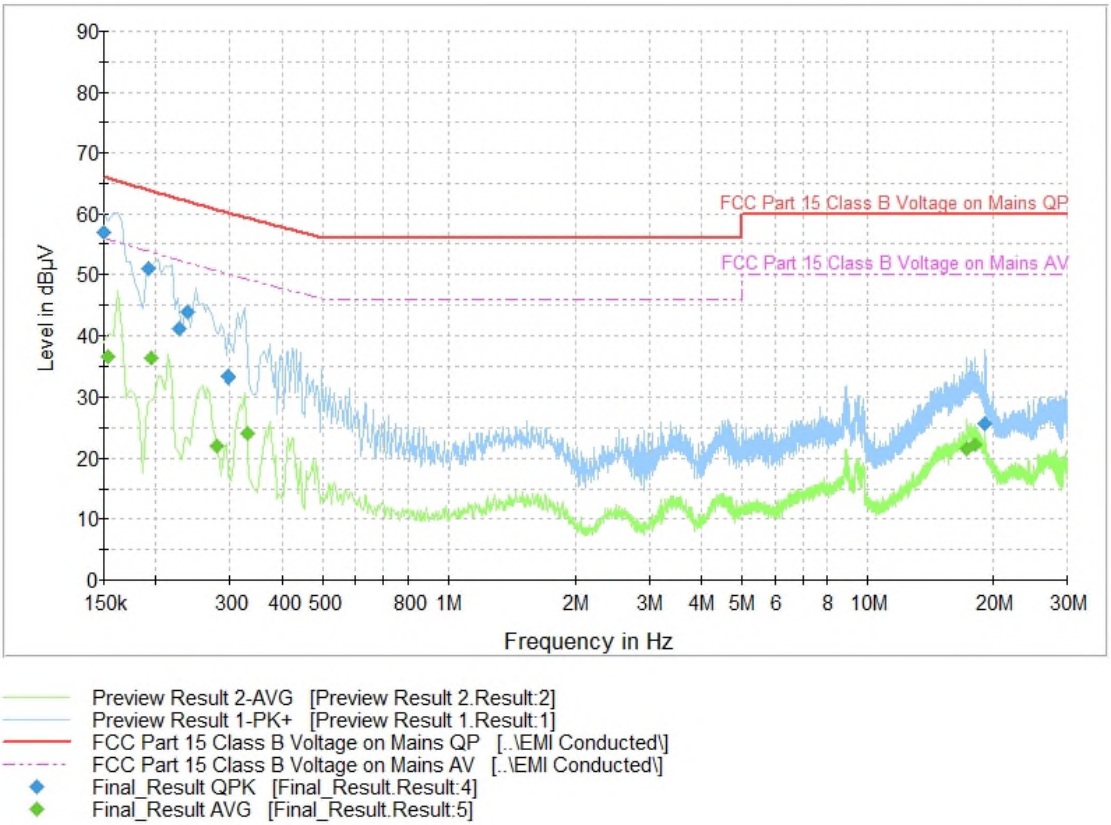
### 2.1.6 Test Results

**Results for Configuration and Mode: Idle Mode.**

Performance assessment of the EUT made during this test: Pass.

Detailed results are shown below.

### 2.1.7 FCC Part 15 B Class B Line 1



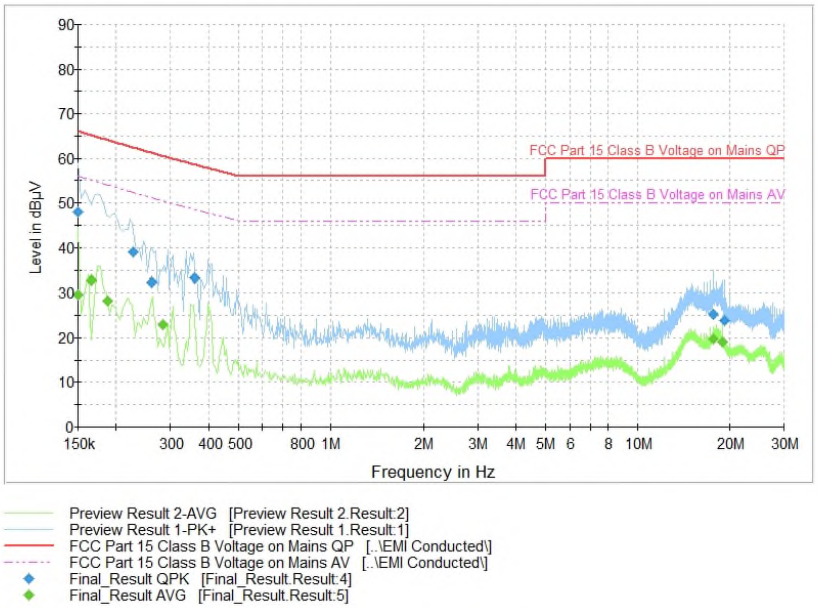

**Final Results QPK**

| Frequency (MHz) | QuasiPeak (dBµV) | Limit (dBµV) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Line | Filter | Corr. (dB) | Sig Path (dB) | Trd Corr. (dB) |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.150000 | 57.03 | 66.00 | 8.97 | 1000.0 | 9.000 | L1 | OFF | 9.6 | 0.150000 | 57.03 |
| 0.191500 | 51.08 | 63.84 | 12.76 | 1000.0 | 9.000 | L1 | OFF | 9.6 | 0.191500 | 51.08 |
| 0.226500 | 40.99 | 62.39 | 21.40 | 1000.0 | 9.000 | L1 | OFF | 9.6 | 0.226500 | 40.99 |
| 0.238500 | 43.75 | 61.95 | 18.20 | 1000.0 | 9.000 | L1 | OFF | 9.6 | 0.238500 | 43.75 |
| 0.298000 | 33.23 | 60.10 | 26.86 | 1000.0 | 9.000 | L1 | OFF | 9.6 | 0.298000 | 33.23 |
| 19.077000 | 25.60 | 60.00 | 34.40 | 1000.0 | 9.000 | L1 | OFF | 10.0 | 19.077000 | 25.60 |

**Final Results AVG**

| Frequency (MHz) | QuasiPeak (dBµV) | Limit (dBµV) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Line | Filter | Corr. (dB) | Sig Path (dB) | Trd Corr. (dB) |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.154000 | 36.57 | 55.76 | 19.19 | 1000.0 | 9.000 | L1 | OFF | 9.6 | 0.154000 | 36.57 |
| 0.195500 | 36.18 | 53.63 | 17.45 | 1000.0 | 9.000 | L1 | OFF | 9.6 | 0.195500 | 36.18 |
| 0.279500 | 21.97 | 50.59 | 28.61 | 1000.0 | 9.000 | L1 | OFF | 9.6 | 0.279500 | 21.97 |
| 0.331500 | 24.20 | 49.20 | 24.99 | 1000.0 | 9.000 | L1 | OFF | 9.6 | 0.331500 | 24.20 |
| 17.279500 | 21.60 | 50.00 | 28.40 | 1000.0 | 9.000 | L1 | OFF | 10.0 | 17.279500 | 21.60 |
| 18.039500 | 22.31 | 50.00 | 27.69 | 1000.0 | 9.000 | L1 | OFF | 10.0 | 18.039500 | 22.31 |

### 2.1.8 FCC Part 15 B Class B Line 2



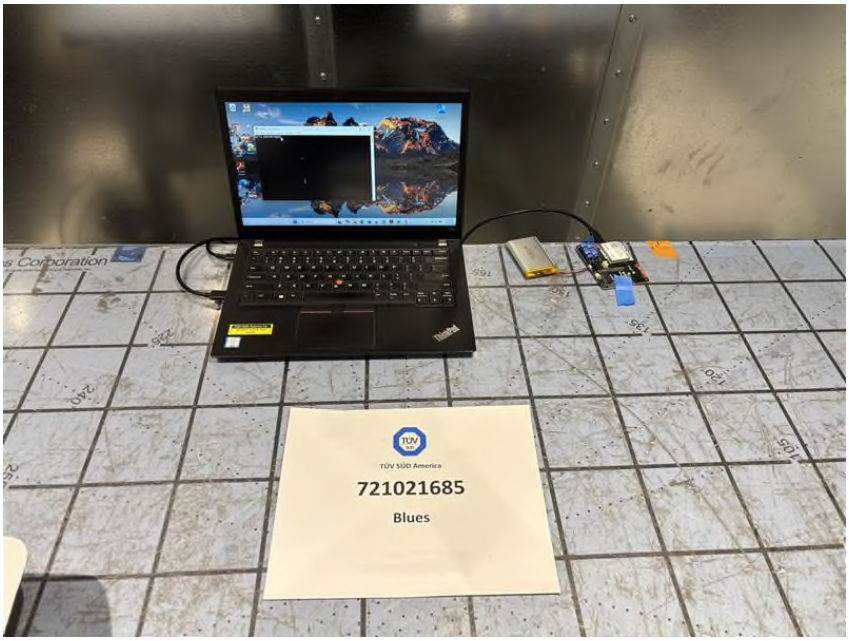

**Final Results QPK**

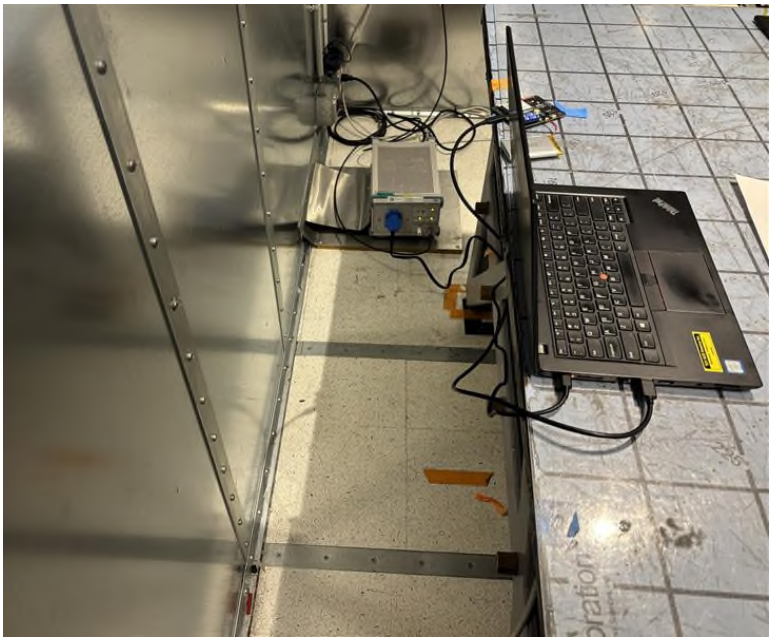
| Frequency (MHz) | QuasiPeak (dBµV) | Limit (dBµV) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Line | Filter | Corr. (dB) | Sig Path (dB) | Trd Corr. (dB) |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.150000 | 47.98 | 66.00 | 18.02 | 1000.0 | 9.000 | N | OFF | 9.6 | 0.150000 | 47.98 |
| 0.226500 | 38.95 | 62.39 | 23.45 | 1000.0 | 9.000 | N | OFF | 9.6 | 0.226500 | 38.95 |
| 0.261500 | 32.39 | 61.18 | 28.79 | 1000.0 | 9.000 | N | OFF | 9.6 | 0.261500 | 32.39 |
| 0.360500 | 33.40 | 58.56 | 25.16 | 1000.0 | 9.000 | N | OFF | 9.6 | 0.360500 | 33.40 |
| 17.616000 | 25.17 | 60.00 | 34.83 | 1000.0 | 9.000 | N | OFF | 10.2 | 17.616000 | 25.17 |
| 19.151500 | 23.94 | 60.00 | 36.06 | 1000.0 | 9.000 | N | OFF | 10.2 | 19.151500 | 23.94 |

**Final Results AVG**

| Frequency (MHz) | QuasiPeak (dBµV) | Limit (dBµV) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Line | Filter | Corr. (dB) | Sig Path (dB) | Trd Corr. (dB) |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.150000 | 29.51 | 56.00 | 26.49 | 1000.0 | 9.000 | N | OFF | 9.6 | 0.150000 | 29.51 |
| 0.166000 | 32.74 | 55.08 | 22.34 | 1000.0 | 9.000 | N | OFF | 9.6 | 0.166000 | 32.74 |
| 0.187500 | 28.21 | 54.00 | 25.79 | 1000.0 | 9.000 | N | OFF | 9.6 | 0.187500 | 28.21 |
| 0.283500 | 23.01 | 50.47 | 27.46 | 1000.0 | 9.000 | N | OFF | 9.6 | 0.283500 | 23.01 |
| 17.635500 | 19.81 | 50.00 | 30.19 | 1000.0 | 9.000 | N | OFF | 10.2 | 17.635500 | 19.81 |
| 18.871500 | 19.13 | 50.00 | 30.87 | 1000.0 | 9.000 | N | OFF | 10.2 | 18.871500 | 19.13 |

### 2.1.9 Test Setup photos





### 2.1.10 Test Location and Test Equipment Used

This test was carried out in the Mira Mesa Facility (SR5).

| Instrument | Manufacturer | Type No | TE No | Calibration Period (months) | Calibration Due |
|---|---|---|---|---|---|
| Two-Line Network | Rohde & Schwarz | ENV-216 | 65161 | 12 | 07/24/2026 |
| EMI Test Receiver | Rohde & Schwarz | ESU40 | SDGE07620 | 12 | 08/08/2026 |

**Table 5**

## 2.2 Radiated Disturbance

### 2.2.1 Specification Reference

FCC 47 CFR Part 15B, Clause 15.109

### 2.2.2 Test Limits

FCC 47 CFR Part 15B, Limit Clause 15.109

| Frequency (MHz) | Field Strength (µV/m) | Measurement Distance (m) |
|---|---|---|
| 30 to 88 | 100 | 3 |
| 88 to 216 | 150 | 3 |
| 216 to 960 | 200 | 3 |
| Above 960 | 500 | 3 |

### 2.2.3 Equipment Under Test and Modification State

Serial Number: 1A010K /MARG

### 2.2.4 Date of Test

July 09 2026

### 2.2.5 Test Method

idle Mode
The EUT was set up in a semi-anechoic chamber on a remotely controlled turntable and placed on a nonconductive table 0.8m above a reference ground plane
A prescan of the EUT emissions profile was made while varying the antenna to the EUT azimuth and antenna to the EUT polarization using a peak detector; measurements were taken at a 3m distance. Using the prescan list of the highest emissions detected, their bearing and associated antenna polarization, the EUT was then formally measured using a Quasi-Peak detector. The readings were maximized by adjusting the antenna height, polarization and turntable azimuth, in accordance with the specification.

### 2.2.6 Environmental Conditions

| | |
|---|---|
| Ambient Temperature | 25.4°C |
| Relative Humidity | 39% |

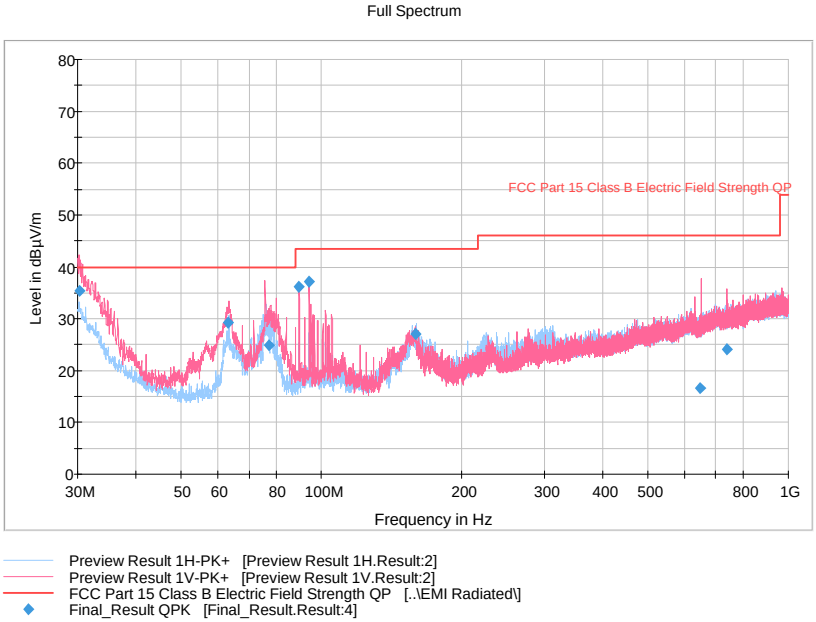
### 2.2.7 Test Results

**Results for Configuration and Mode: Battery Powered and Charging Mode-Idle Mode.**

Performance assessment of the EUT made during this test: Pass.

Highest frequency generated or used within the EUT: 1625.97915073MHz
Which necessitates an upper frequency test limit of: 18GHz

### 2.2.8 FCC Part 15 B Class B Idle Mode 30MHz to 1GHz Results

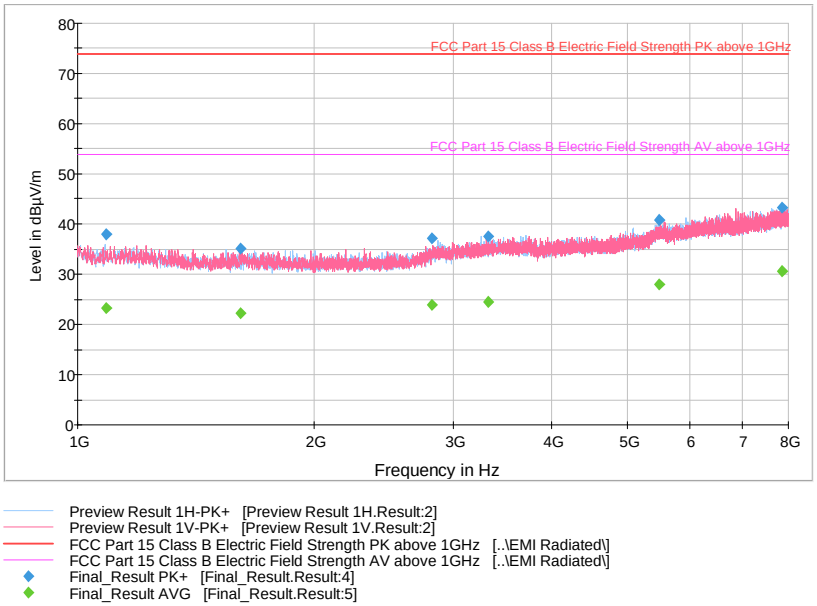



**RSE 30MHz-1GHz**

**30MHz to 1GHz Test Data**

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|---|---|---|---|---|---|---|---|---|---|
| 30.320000 | 35.42 | 40.00 | 4.58 | 1000.0 | 1000.000 | 102.0 | H | 270.0 | -14 |
| 62.937333 | 29.26 | 40.00 | 10.74 | 1000.0 | 1000.000 | 102.0 | H | 270.0 | -14 |
| 77.231667 | 24.95 | 40.00 | 15.05 | 1000.0 | 1000.000 | 350.0 | V | 29.0 | -15 |
| 89.493333 | 36.17 | 43.50 | 7.33 | 1000.0 | 1000.000 | 350.0 | V | 29.0 | -15 |
| 94.109333 | 37.05 | 43.50 | 6.45 | 1000.0 | 1000.000 | 102.0 | V | 211.0 | -14 |
| 158.559667 | 27.04 | 43.50 | 16.46 | 1000.0 | 1000.000 | 102.0 | V | 211.0 | -14 |
| 649.128667 | 16.64 | 46.00 | 29.36 | 1000.0 | 1000.000 | 200.0 | V | 19.0 | -13 |
| 737.482333 | 24.06 | 46.00 | 21.94 | 1000.0 | 1000.000 | 200.0 | V | 19.0 | -13 |

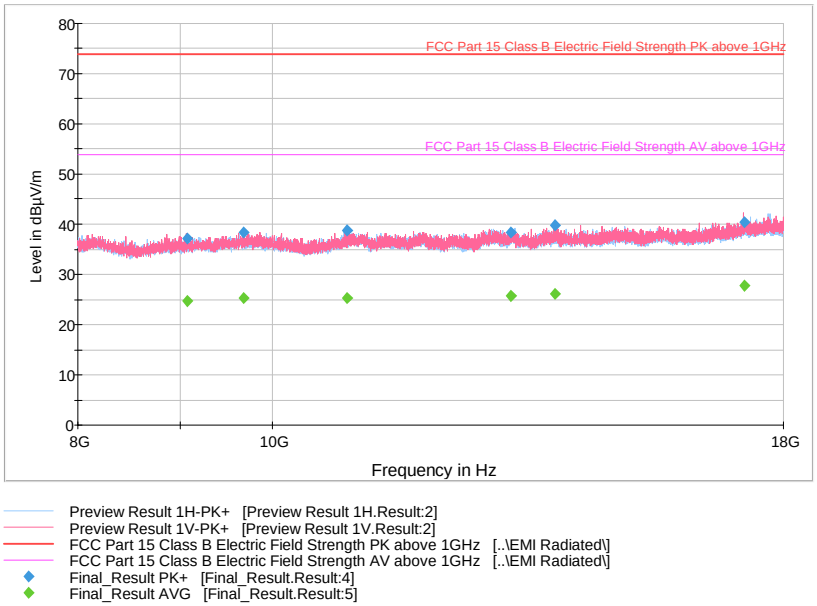
### 2.2.9 FCC Part 15 B Class B Idle Mode 1GHz to 8GHz Results




#### 1GHz to 8GHz Test Data

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|---|---|---|---|---|---|---|---|---|---|
| 1089.067500 | 37.99 | --- | 73.90 | 35.91 | 1000.0 | 1000.000 | 102.0 | H | 270.0 |
| 1089.067500 | --- | 23.25 | 53.90 | 30.65 | 1000.0 | 1000.000 | 102.0 | H | 270.0 |
| 1610.760000 | --- | 22.22 | 53.90 | 31.68 | 1000.0 | 1000.000 | 350.0 | V | 29.0 |
| 1610.760000 | 35.05 | --- | 73.90 | 38.85 | 1000.0 | 1000.000 | 350.0 | V | 29.0 |
| 2823.044000 | 37.11 | --- | 73.90 | 36.79 | 1000.0 | 1000.000 | 102.0 | V | 211.0 |
| 2823.044000 | --- | 23.82 | 53.90 | 30.08 | 1000.0 | 1000.000 | 102.0 | V | 211.0 |
| 3322.158500 | 37.48 | --- | 73.90 | 36.42 | 1000.0 | 1000.000 | 200.0 | V | 19.0 |
| 3322.158500 | --- | 24.46 | 53.90 | 29.44 | 1000.0 | 1000.000 | 200.0 | V | 19.0 |
| 5485.720000 | 40.75 | --- | 73.90 | 33.15 | 1000.0 | 1000.000 | 200.0 | H | 206.0 |
| 5485.720000 | --- | 27.95 | 53.90 | 25.95 | 1000.0 | 1000.000 | 200.0 | H | 206.0 |
| 7846.186500 | --- | 30.52 | 53.90 | 23.38 | 1000.0 | 1000.000 | 200.0 | V | 275.0 |
| 7846.186500 | 43.19 | --- | 73.90 | 30.71 | 1000.0 | 1000.000 | 200.0 | V | 275.0 |
| 1089.067500 | 37.99 | --- | 73.90 | 35.91 | 1000.0 | 1000.000 | 102.0 | H | 270.0 |
| 1089.067500 | --- | 23.25 | 53.90 | 30.65 | 1000.0 | 1000.000 | 102.0 | H | 270.0 |

### 2.2.10 FCC Part 15 B Class B Battery Mode 8GHz to 18GHz Results

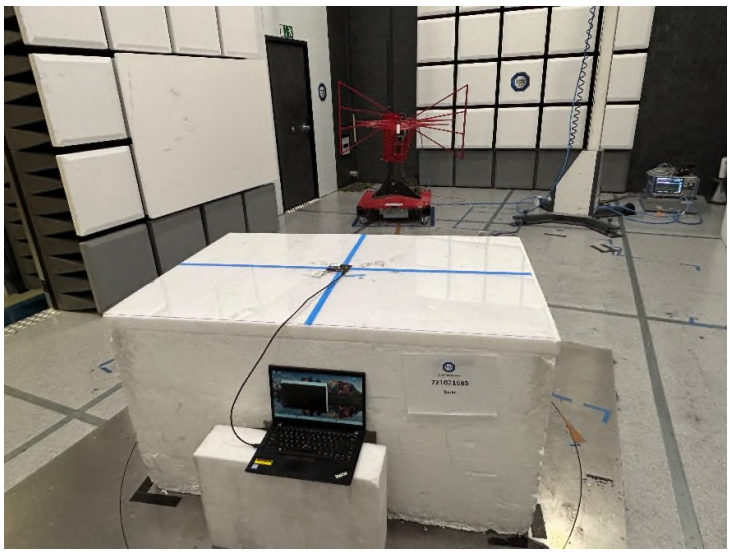



**RSE 8GHz to 18GHz**

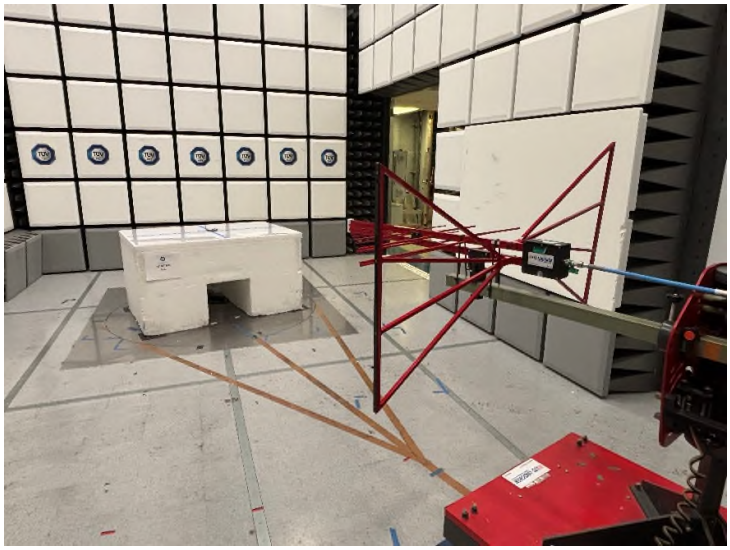
### 8GHz to 18GHz Test Data

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|---|---|---|---|---|---|---|---|---|---|
| 9074.298000 | 37.13 | --- | 73.90 | 36.78 | 1000.0 | 1000.000 | 350.0 | V | 125.0 |
| 9074.298000 | --- | 24.61 | 53.90 | 29.29 | 1000.0 | 1000.000 | 350.0 | V | 125.0 |
| 9680.897000 | --- | 25.28 | 53.90 | 28.62 | 1000.0 | 1000.000 | 200.0 | V | 70.0 |
| 9680.897000 | 38.37 | --- | 73.90 | 35.53 | 1000.0 | 1000.000 | 200.0 | V | 70.0 |
| 10906.856000 | --- | 25.39 | 53.90 | 28.51 | 1000.0 | 1000.000 | 300.0 | H | 74.0 |
| 10906.856000 | 38.78 | --- | 73.90 | 35.12 | 1000.0 | 1000.000 | 300.0 | H | 74.0 |
| 13163.942000 | --- | 25.75 | 53.90 | 28.15 | 1000.0 | 1000.000 | 300.0 | H | 180.0 |
| 13163.942000 | 38.39 | --- | 73.90 | 35.51 | 1000.0 | 1000.000 | 300.0 | H | 180.0 |
| 13848.418000 | 39.70 | --- | 73.90 | 34.20 | 1000.0 | 1000.000 | 102.0 | V | 138.0 |
| 13848.418000 | --- | 26.14 | 53.90 | 27.76 | 1000.0 | 1000.000 | 102.0 | V | 138.0 |
| 17217.560000 | --- | 27.69 | 53.90 | 26.21 | 1000.0 | 1000.000 | 102.0 | V | 26.0 |
| 17217.560000 | 40.42 | --- | 73.90 | 33.48 | 1000.0 | 1000.000 | 102.0 | V | 26.0 |
| 9074.298000 | 37.13 | --- | 73.90 | 36.78 | 1000.0 | 1000.000 | 350.0 | V | 125.0 |
| 9074.298000 | --- | 24.61 | 53.90 | 29.29 | 1000.0 | 1000.000 | 350.0 | V | 125.0 |

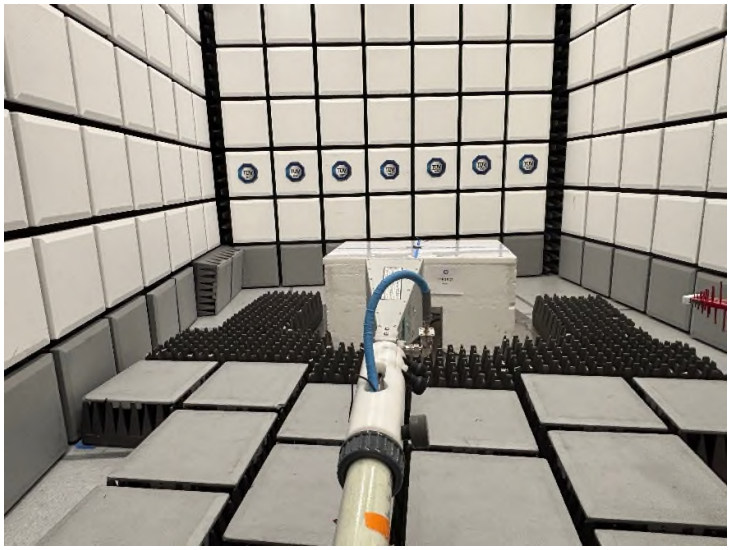
### 2.2.11 Test Setup photos



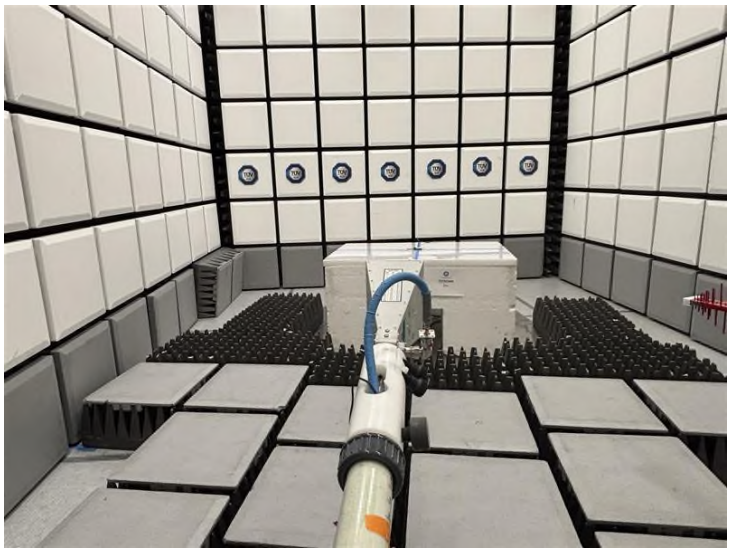
**Radiated Emissions Idle Mode 30MHz to 1GHz Back**



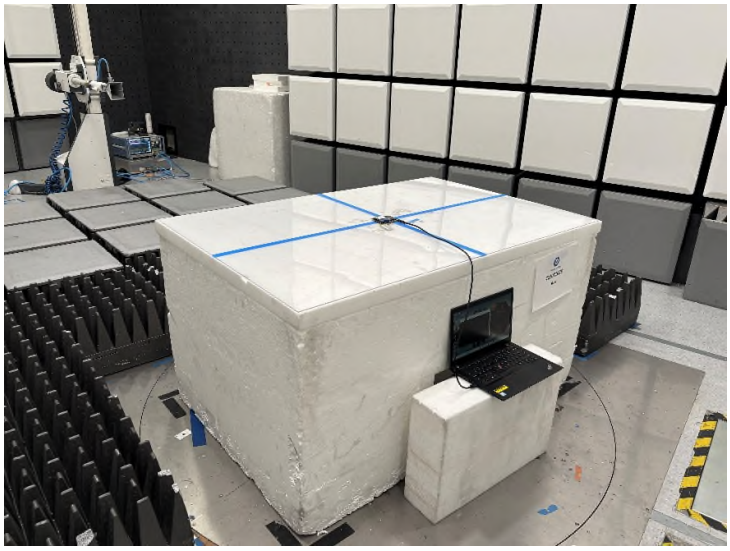
**Radiated Emissions Idle Mode 30MHz to 1GHz Front**



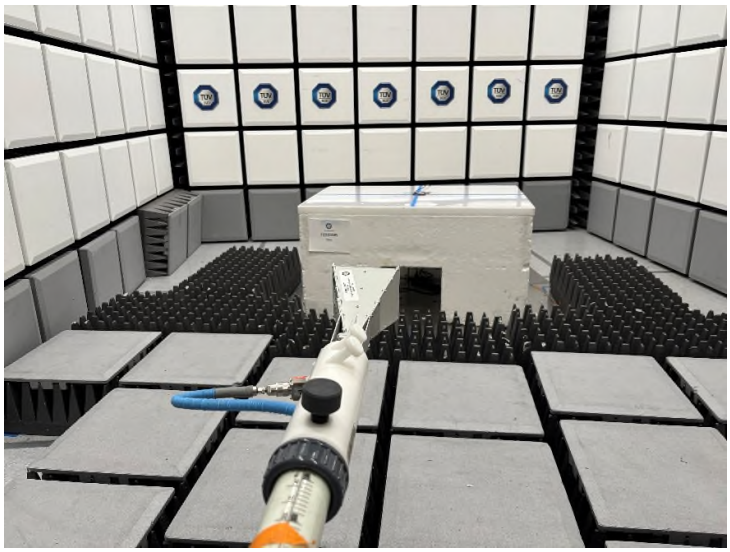
**Radiated Emissions Idle Mode 1GHz to 8GHz Back**



**Radiated Emissions Idle Mode 1GHz to 8GHz Front**



**Radiated Emissions Idle Mode 8GHz to 18GHz Back**



**Radiated Emissions Battery Mode 8GHz to 18GHz Front**

### 2.2.12 Test Location and Test Equipment Used

This test was carried out in the Mira Mesa Facility (SR5)

| Instrument | Manufacturer | Type No | TE No | Calibration Period (Months) |
|---|---|---|---|---|
| BiConiLog Antenna | ETS Lindgren | 3142C | 31446 | 12 |
| 7.5-18 GHz Double Ridge Horn Antenna | Schwarzbeck Mess-Elektronil | HWRD 750 | 69562 | 12 |
| 1-10GHz Broad-Band Horn Antenna | Schwarzbeck Mess-Elektronil | BBHA 9120 B | 69563 | 12 |
| TUVSSU 010 PLC US | TUV SUD UK | TUVSSU 010 PLC US | 74136 | 12 |
| 18-26GHz Antenna | Custom Microwave,Inc. | HO42S | 30572 | 12 |
| ESW44 EMI Test Receiver | Rohde & Schwarz | ESW44 | 68302 | 12 |
| 7GHz to 18GHz PreAmp | Ciao Wireless | CA718-403015N-FM | 78961 | 12 |

**Table 6**

# 3 Test Equipment Information

## 3.1 General Test Equipment Used

| **Miscellaneous** | | | | | |
|---|---|---|---|---|---|
| 30215 | Temp,Humidity and Barometric Sensor | iBTHX-W | 15050268 | Omega | 05-22-2026 |
| N/A | EMX Test Software | N/A | N/A | TUV SUD UK | N/A |

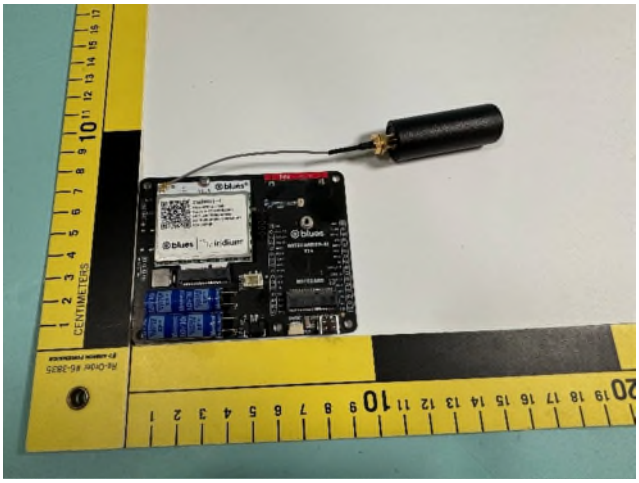
**Table 7**

# 4 Incident Reports

No incidents reports were raised.

# 5 Photographs

## 5.1 Equipment Under Test (EUT)



# 6 Measurement Uncertainty

For a 95% confidence level, the measurement uncertainties for defined systems are:

| Test Name | Measurement Uncertainty |
|---|---|
| Conducted Disturbance at Mains Terminals | 150 kHz to 30 MHz, LISN, ±3.7 dB |
| Radiated Disturbance | 30 MHz to 1 GHz, Bilog Antenna, ±5.2 dB<br>1 GHz to 40 GHz, Horn Antenna, ±6.3 dB |

**Table 8**

Worst case error for both Time and Frequency measurement 12 parts in $10^6$.
*In accordance with CISPR 16