

|                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                               |                                                                             |                                          |                                                                                                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|------------------------------------------|--------------------------------------------------------------------------------------------------------|
| <b>Prüfbericht-Nr.:</b><br>Test report no.:                                                                                                                                                                                                                                                                                                                                                                                                                | <b>CN23QG53 002</b>                                                                                                                           | <b>Auftrags-Nr.:</b><br>Order no.:                                          | <b>168428354</b><br><b>P01070601</b>     | <b>Seite 1 von 16</b><br>Page 1 of 16                                                                  |
| <b>Kunden-Referenz-Nr.:</b><br>Client reference no.:                                                                                                                                                                                                                                                                                                                                                                                                       | N/A                                                                                                                                           | <b>Auftragsdatum:</b><br>Order date:                                        | 2023-05-25                               |                                                                                                        |
| <b>Auftraggeber:</b><br>Client:                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>ELSYS EQUIPAMENTOS ELETRONICOS LTD</b><br>RUA DOUTOR ALCIDES GOMES MIRANDA, 251, Valinhos, Brazil                                          |                                                                             |                                          |                                                                                                        |
| <b>Prüfgegenstand:</b><br>Test item:                                                                                                                                                                                                                                                                                                                                                                                                                       | Amplimax Ultra                                                                                                                                |                                                                             |                                          |                                                                                                        |
| <b>Bezeichnung / Typ-Nr.:</b><br>Identification / Type no.:                                                                                                                                                                                                                                                                                                                                                                                                | EPRL30                                                                                                                                        |                                                                             |                                          |                                                                                                        |
| <b>Auftrags-Inhalt:</b><br>Order content:                                                                                                                                                                                                                                                                                                                                                                                                                  | Test Report                                                                                                                                   |                                                                             |                                          |                                                                                                        |
| <b>Prüfgrundlage:</b><br>Test specification:                                                                                                                                                                                                                                                                                                                                                                                                               | 47 CFR Part 15 Subpart C 15.247<br>47 CFR Part 15 Subpart C 15.207<br>47 CFR Part 15 Subpart C 15.209                                         |                                                                             |                                          |                                                                                                        |
| <b>Wareneingangsdatum:</b><br>Date of sample receipt:                                                                                                                                                                                                                                                                                                                                                                                                      | 2023-08-17                                                                                                                                    |                                                                             |                                          |                                                                                                        |
| <b>Prüfmuster-Nr.:</b><br>Test sample no:                                                                                                                                                                                                                                                                                                                                                                                                                  | A003541536-003                                                                                                                                |                                                                             |                                          |                                                                                                        |
| <b>Prüfzeitraum:</b><br>Testing period:                                                                                                                                                                                                                                                                                                                                                                                                                    | 2023-09-07 – 2024-01-31                                                                                                                       |                                                                             |                                          |                                                                                                        |
| <b>Ort der Prüfung:</b><br>Place of testing:                                                                                                                                                                                                                                                                                                                                                                                                               | TÜV Rheinland<br>(Shenzhen) Co., Ltd.                                                                                                         |                                                                             |                                          |                                                                                                        |
| <b>Prüflaboratorium:</b><br>Testing laboratory:                                                                                                                                                                                                                                                                                                                                                                                                            | TÜV Rheinland<br>(Shenzhen) Co., Ltd.                                                                                                         |                                                                             |                                          |                                                                                                        |
| <b>Prüfergebnis*:</b><br>Test result*:                                                                                                                                                                                                                                                                                                                                                                                                                     | Pass                                                                                                                                          |                                                                             |                                          |                                                                                                        |
| <b>geprüft von:</b><br>tested by:                                                                                                                                                                                                                                                                                                                                                                                                                          | <u>X  Hardy Suo</u>                                        |                                                                             | <b>genehmigt von:</b><br>authorized by:  | <u>X  Lin Lin</u> |
| <b>Datum:</b><br>Date:                                                                                                                                                                                                                                                                                                                                                                                                                                     | 2024-04-07                                                                                                                                    |                                                                             | <b>Ausstellungsdatum:</b><br>Issue date: | 2024-04-07                                                                                             |
| <b>Stellung / Position:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>Sachverständige(r)/Expert</b>                                                                                                              |                                                                             | <b>Stellung / Position:</b>              | <b>Sachverständige(r)/Expert</b>                                                                       |
| <b>Sonstiges / Other:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                  | FCC ID:2AZC5-02                                                                                                                               |                                                                             |                                          |                                                                                                        |
| <b>Zustand des Prüfgegenstandes bei Anlieferung:</b><br>Condition of the test item at delivery:                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                               | Prüfmuster vollständig und unbeschädigt<br>Test item complete and undamaged |                                          |                                                                                                        |
| * Legende:                                                                                                                                                                                                                                                                                                                                                                                                                                                 | P(ass) = entspricht o.g. Prüfgrundlage(n)    F(ail) = entspricht nicht o.g. Prüfgrundlage(n)    N/A = nicht anwendbar    N/T = nicht getestet |                                                                             |                                          |                                                                                                        |
| * Legend:                                                                                                                                                                                                                                                                                                                                                                                                                                                  | P(ass) = passed a.m. test specification(s)    F(ail) = failed a.m. test specification(s)    N/A = not applicable    N/T = not tested          |                                                                             |                                          |                                                                                                        |
| <b>Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.</b><br><i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i> |                                                                                                                                               |                                                                             |                                          |                                                                                                        |

## Anmerkungen

Remarks

- |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1</b> | <p>The equipment used during the specified testing period was calibrated according to our test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of our management system.</p> <p>Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request.</p> <p><i>Alle eingesetzten Prüfmittel waren zum angegebenen Prüfzeitraum gemäß eines festgelegten Kalibrierungsprogramms unseres Prüfhauses kalibriert. Sie entsprechen den in den Prüfprogrammen hinterlegten Anforderungen. Die Rückverfolgbarkeit der eingesetzten Prüfmittel ist durch die Einhaltung der Regelungen unseres Managementsystems gegeben.</i></p> <p><i>Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden.</i></p>                                                                                                                                                 |
| <b>2</b> | <p>As contractually agreed, this document has been signed digitally only. TÜV Rheinland has not verified and unable to verify which legal or other pertaining requirements are applicable for this document. Such verification is within the responsibility of the user of this document. Upon request by its client, TÜV Rheinland can confirm the validity of the digital signature by a separate document. Such request shall be addressed to our Sales department. An environmental fee for such additional service will be charged.</p> <p><i>Wie vertraglich vereinbart, wurde dieses Dokument nur digital unterzeichnet. Der TÜV Rheinland hat nicht überprüft, welche rechtlichen oder sonstigen diesbezüglichen Anforderungen für dieses Dokument gelten. Diese Überprüfung liegt in der Verantwortung des Benutzers dieses Dokuments. Auf Verlangen des Kunden kann der TÜV Rheinland die Gültigkeit der digitalen Signatur durch ein gesondertes Dokument bestätigen. Diese Anfrage ist an unseren Vertrieb zu richten. Eine Umweltgebühr für einen solchen zusätzlichen Service wird erhoben.</i></p>                                                                                       |
| <b>3</b> | <p>Test clauses with remark of * are subcontracted to qualified subcontractors and described under the respective test clause in the report. Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report.</p> <p><i>Prüfklausel mit der Note * wurden an qualifizierte Unterauftragnehmer vergeben und sind unter der jeweiligen Prüfklausel des Berichts beschrieben. Abweichungen von Prüfspezifikation(en) oder Kundenanforderungen sind in der jeweiligen Prüfklausel im Bericht aufgeführt.</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>4</b> | <p>The decision rule for statements of conformity, based on numerical measurement results, in this test report is based on the "Zero Guard Band Rule" and "Simple Acceptance" in accordance with ILAC G8:2019 and IEC Guide 115:2021, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report. For additional information to the resulting risk based of this decision rule please refer to ILAC G8:2019.</p> <p><i>Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnissen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2021, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird. Zu weiteren Informationen bezueglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019.</i></p> |

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## TEST SUMMARY

### 5.1.1 RADIATED SPURIOUS EMISSIONS

*RESULT:* Pass

### 5.1.2 CONDUCTED EMISSION

*RESULT:* Pass

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## 1. GENERAL REMARKS

### 1.1 COMPLEMENTARY MATERIALS

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix A: Test Results of Bluetooth and Wi-Fi Operation

Appendix B: Photographs of the Test Set-Up

### 1.2 TEST STANDARD(S)

Applied Rules: 47 CFR Part 15 Subpart C Section 15.247  
47 CFR Part 15 Subpart C Section 15.207  
47 CFR Part 15 Subpart C Section 15.209

Test Method: ANSI C63.10:2013  
KDB 558074 D01 15.247 Meas Guidance v05r02

### 1.3 List of Document Change

| No. | Report No.   | Description    |
|-----|--------------|----------------|
| 1   | CN23QG53 002 | First release. |

## 2. TEST SITES

### 2.1 TEST FACILITIES

TÜV Rheinland (Shenzhen) Co., Ltd.

(FCC Registration No.: 694916 & IC Registration Number: 25069)

Address: No. 362 Huanguan Road Middle, Longhua District, Shenzhen 518110, P.R. China

### 2.2 TEST DATE

Date of test: 2023-09-07 to 2024-01-31

### 2.3 LIST OF TEST AND MEASUREMENT INSTRUMENTS

Table 1: List of Test and Measurement Equipment

| Description                                  | Manufacturer | Model                | Serial No. | Calibrated until<br>(DD.MM.YYYY) |
|----------------------------------------------|--------------|----------------------|------------|----------------------------------|
| <b>Field Strength of Spurious Radiation</b>  |              |                      |            |                                  |
| EMI Test Receiver                            | R&S          | ESR 7                | 102021     | 25.07.2024                       |
| Signal Analyzer                              | R&S          | FSV 40               | 101439     | 25.07.2024                       |
| System Controller Interface                  | R&S          | SCI-100              | S10010038  | N/A                              |
| Filterbank                                   | R&S          | Wlan                 | 100759     | 25.07.2024                       |
| OSP                                          | R&S          | OSP 120              | 102040     | N/A                              |
| Pre-amplifier                                | R&S          | SCU08F1              | 08320031   | 25.07.2024                       |
| Amplifier                                    | R&S          | SCU-18F              | 180070     | 25.07.2024                       |
| Amplifier                                    | R&S          | SCU40A               | 100475     | 25.07.2024                       |
| Trilog Broadband Antenna<br>(30 MHz - 7 GHz) | Schwarzbeck  | VULB 9162            | 193        | 06.08.2024                       |
| Double-Ridged Antenna<br>(1 -18 GHz)         | ETS-LINDGREN | 3117                 | 00218717   | 06.08.2024                       |
| Wideband Ridged Horn Antenna<br>(18-40 GHz)  | Steatite     | QMS-00880            | 19067      | 27.08.2024                       |
| Active Loop Antenna                          | Schwarzbeck  | FMZB 1513            | 302        | 06.08.2024                       |
| Test software                                | R&S          | EMC32<br>(V10.60.10) | N/A        | N/A                              |
| Control PC                                   | Dell         | OptiPlex 7050        | 36NV9P2    | N/A                              |

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|                          |           |        |              |            |
|--------------------------|-----------|--------|--------------|------------|
| 3m Semi-Anechoic Chamber | Albatross | SAC-3m | APC17151-SAC | 22.06.2024 |
|--------------------------|-----------|--------|--------------|------------|

## 2.4 Traceability

All measurement equipment calibrations are traceable to NIST or where calibration is performed outside the United States, to equivalent nationally recognized standards organizations.

## 2.5 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

## 2.6 Location of Original Data

The original copies of all test data taken during actual testing were attached at Appendix A of this report and delivered to the applicant. A copy has been retained in the TÜV Rheinland (Shenzhen) file for certification follow-up purposes.

## 2.7 Status of Facility Used for Testing

The TÜV Rheinland (Shenzhen) Co., Ltd. facility located at No. 362 Huanguan Road Middle, Longhua District, Shenzhen 518110, P.R. China is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

### 3. GENERAL PRODUCT INFORMATION

#### 3.1 GENERAL DESCRIPTION

The EUT is outdoor CPE with embedded directional antenna for fixed wireless access used for internet access. It transmits data over 4G and 5G cellular network. It supports Bluetooth and Wi-Fi wireless function.

The pre-certified Bluetooth and Wi-Fi modules were integrated into EUT.

For details refer to the User Manual, Technical Description and Circuit Diagram.

#### 3.2 RATING AND SYSTEM DETAILS

**Table 2: Rating of EUT**

| General Information of EUT | Description                                 |
|----------------------------|---------------------------------------------|
| Kind of Equipment:         | Amplimax Ultra                              |
| Type Designation:          | EPRL30                                      |
| FCC ID:                    | 2AZC5-02                                    |
| Type of Equipment:         | End device                                  |
| Antenna Type:              | Integrated Antenna                          |
| Operating Voltage:         | DC 24V via AC/DC power supply or PoE supply |

**Table 3: Technical Specification of EUT**

| Characteristic                    | Description                                                                                                                                                                             |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operated Modes:                   | Bluetooth Classic Mode, Bluetooth Low Energy<br>Wi-Fi 2.4GHz Band                                                                                                                       |
| Certified Transmitter Module:     | Integrated module (FCC ID: 2AC7Z-ESP32MINII)                                                                                                                                            |
| Operational Frequency Band(s):    | 2402 – 2480 MHz for Bluetooth<br>2412 – 2462 MHz for Wi-Fi                                                                                                                              |
| Max. RF output power (Conducted): | 11.86 dBm for Bluetooth Classic Mode<br>16.52 dBm for Wi-Fi 2.4GHz band<br>7.98 dBm for Bluetooth Low Energy                                                                            |
| Channel Number:                   | 79 channels for Bluetooth Classic Mode<br>11 channels for Wi-Fi 2.4GHz band 802.11b/g/n(HT20)<br>7 channels for Wi-Fi 2.4GHz band 802.11n(HT40)<br>40 channels for Bluetooth Low Energy |
| Channel Bandwidth:                | 1MHz & 2 MHz for Bluetooth<br>20 MHz & 40 MHz for Wi-Fi 2.4GHz                                                                                                                          |
| Modulation Type:                  | GFSK, pi/4DQPSK, 8DPSK<br>DSSS(DBPSK/DQPSK/CCK)<br>OFDM(BPSK/QPSK/16QAM/64QAM)                                                                                                          |
| Antenna Type:                     | Integrated Antenna, IPEX antenna                                                                                                                                                        |
| Antenna Gain:                     | 2.33 dBi (declared by the manufacturer)                                                                                                                                                 |

Operation mode: Stand-alone

**Table 4: Operating Frequency Range for Bluetooth operation**

| RF Channel | Frequency (MHz) | RF Channel | Frequency (MHz) | RF Channel | Frequency (MHz) | RF Channel | Frequency (MHz) |
|------------|-----------------|------------|-----------------|------------|-----------------|------------|-----------------|
| 0          | 2402.00         | 20         | 2422.00         | 40         | 2442.00         | 60         | 2462.00         |
| 1          | 2403.00         | 21         | 2423.00         | 41         | 2443.00         | 61         | 2463.00         |
| 2          | 2404.00         | 22         | 2424.00         | 42         | 2444.00         | 62         | 2464.00         |
| 3          | 2405.00         | 23         | 2425.00         | 43         | 2445.00         | 63         | 2465.00         |
| 4          | 2406.00         | 24         | 2426.00         | 44         | 2446.00         | 64         | 2466.00         |
| 5          | 2407.00         | 25         | 2427.00         | 45         | 2447.00         | 65         | 2467.00         |
| 6          | 2408.00         | 26         | 2428.00         | 46         | 2448.00         | 66         | 2468.00         |
| 7          | 2409.00         | 27         | 2429.00         | 47         | 2449.00         | 67         | 2469.00         |
| 8          | 2410.00         | 28         | 2430.00         | 48         | 2450.00         | 68         | 2470.00         |
| 9          | 2411.00         | 29         | 2431.00         | 49         | 2451.00         | 69         | 2471.00         |
| 10         | 2412.00         | 30         | 2432.00         | 50         | 2452.00         | 70         | 2472.00         |
| 11         | 2413.00         | 31         | 2433.00         | 51         | 2453.00         | 71         | 2473.00         |
| 12         | 2414.00         | 32         | 2434.00         | 52         | 2454.00         | 72         | 2474.00         |
| 13         | 2415.00         | 33         | 2435.00         | 53         | 2455.00         | 73         | 2475.00         |
| 14         | 2416.00         | 34         | 2436.00         | 54         | 2456.00         | 74         | 2476.00         |
| 15         | 2417.00         | 35         | 2437.00         | 55         | 2457.00         | 75         | 2477.00         |
| 16         | 2418.00         | 36         | 2438.00         | 56         | 2458.00         | 76         | 2478.00         |
| 17         | 2419.00         | 37         | 2439.00         | 57         | 2459.00         | 77         | 2479.00         |
| 18         | 2420.00         | 38         | 2440.00         | 58         | 2460.00         | 78         | 2480.00         |
| 19         | 2421.00         | 39         | 2441.00         | 59         | 2461.00         |            |                 |

**Table 5: Operating Frequency Range for Wi-Fi operation**

| RF Channel | 802.11 b/g/n(HT20) | 802.11 n(HT40)  |
|------------|--------------------|-----------------|
|            | Frequency (MHz)    | Frequency (MHz) |
| 01         | 2412               | /               |
| 02         | 2417               | /               |
| 03         | 2422               | 2422            |
| 04         | 2427               | 2427            |
| 05         | 2432               | 2432            |
| 06         | 2437               | 2437            |
| 07         | 2442               | 2442            |
| 08         | 2447               | 2447            |
| 09         | 2452               | 2452            |
| 10         | 2457               | /               |
| 11         | 2462               | /               |

### 3.3 INDEPENDENT OPERATION MODES

The basic operation modes are:

- A. On, Transmitting mode
  - 1) Bluetooth
    - i. Low channel
    - ii. Middle channel
    - iii. High channel
  - 2) Wi-Fi
    - i. Low channel
    - ii. Middle channel
    - iii. High channel
- B. On, normal data link established
- C. Standby/Idle
- D. Off

### 3.4 NOISE GENERATING AND NOISE SUPPRESSING PARTS

Refer to the Circuit Diagram.

### 3.5 SUBMITTED DOCUMENTS

- |                                                     |                                                    |
|-----------------------------------------------------|----------------------------------------------------|
| <input checked="" type="checkbox"/> User Manual     | <input checked="" type="checkbox"/> Rating Label   |
| <input checked="" type="checkbox"/> Circuit Diagram | <input checked="" type="checkbox"/> PCB Layout     |
| <input checked="" type="checkbox"/> Block Diagram   | <input checked="" type="checkbox"/> Photo Document |
| <input checked="" type="checkbox"/> Schematics      | <input checked="" type="checkbox"/> Parts List     |
| <input type="checkbox"/> Model Difference Letter    |                                                    |

## 4. TEST SET-UP AND OPERATION MODES

### 4.1 PRINCIPLE OF CONFIGURATION SELECTION

**Radio Spectrum:** The equipment under test (EUT) was configured at its highest power output in order to measure its highest possible radiation and conducted level. The test modes were adapted accordingly in reference to the instructions for use.

**Emission:** The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

### 4.2 TEST OPERATION AND TEST SOFTWARE

Test operation refers to test setup in chapter 5. All testing were performed according to the procedure in ANSI C63.10: 2013.

According to description in clause 3.1, only radiated spurious emissions was applied because the pre-certified module was integrated into the EUT.

The manufacturer declared that they has built in the pre-certified module according to the integration guides and has no modified either hardware and software provided by the grantee of module, hence the original test report accurately represent test results under the new conditions.

Below exhibits for uploaded original test reports represent this device in its entirety.

| Wireless Technology | Test Item                    | Rule Part                                  | Report No.                     |
|---------------------|------------------------------|--------------------------------------------|--------------------------------|
| Wi-Fi               | Conducted signal measurement | 47 CFR Part 15 Subpart C<br>Section 15.247 | R2105A0435-R2                  |
| Bluetooth           | Conducted signal measurement |                                            | R2105A0435-R1<br>R2105A0435-R2 |

## 4.3 SPECIAL ACCESSORIES AND AUXILIARY EQUIPMENT

Table 6: Auxiliary Equipment used during test

| Name                   | Model                      | Manufacturer               | S/N |
|------------------------|----------------------------|----------------------------|-----|
| Switching Power Supply | S024AMU2400100             | TEN PAO INDUSTRIAL CO LTD. | N/A |
| PoE Adapter            | Amplimax Ultra POE adapter | ELSYS                      | N/A |

## 4.4 COUNTERMEASURES TO ACHIEVE EMC COMPLIANCE

The test sample, which has been tested, contained the noise suppression parts as described in the Constructional Data Form or the Technical Construction File. No additional measures were employed to achieve compliance.

## 4.5 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test (Below 1GHz)

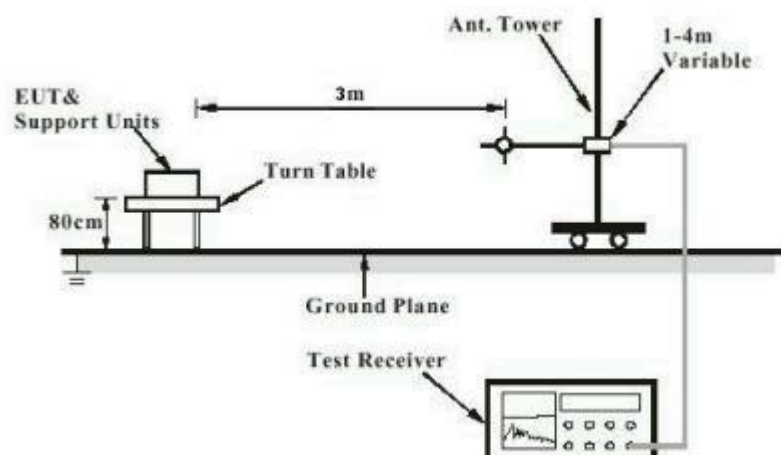
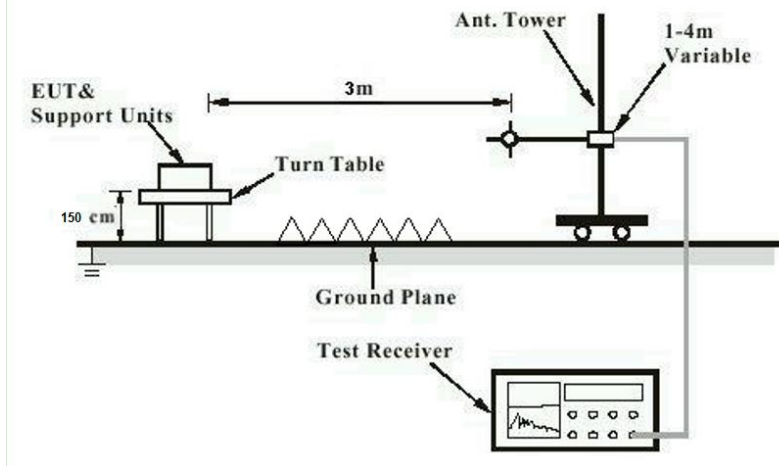


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)



## 5. TEST RESULTS

### 5.1 ESSENTIAL REQUIREMENTS OF STANDARD

#### 5.1.1 RADIATED SPURIOUS EMISSIONS

**RESULT:****Pass**

Test standard : 47 CFR Part 15 Subpart C Section 15.247  
47 CFR Part 15 Subpart C Section 15.209

Limits : Refer to 15.209(c) of FCC Part 15.247(d)  
Test procedure : ANSI C63.10:2013  
Kind of test site : 3m Semi Anechoic Room

**Test Setup**

Date of testing : 2023-09-07 to 2024-01-31  
Input voltage : DC 24V via AC/DC power supply  
(AC 120V @ 60Hz via AC/DC power supply)  
Test environment : ☒ Normal test conditions  
☐ Extreme test conditions  
Operation mode : A, B  
Ambient temperature : Refer to test result  
Relative humidity : Refer to test result  
Atmospheric pressure : 101.0 kPa

Refer to attached Appendix for details of test results.

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## 5.1.2 Conducted Emission

**RESULT:****Pass**

|                   |   |                                         |
|-------------------|---|-----------------------------------------|
| Test standard     | : | 47 CFR Part 15 Subpart C Section 15.207 |
| Basic standard    | : | ANSI C63.10:2013                        |
| Frequency range   | : | 0.15 – 30 MHz                           |
| Limits            | : | 47 CFR 15.207(a)                        |
| Test procedure    | : | Clause 6.2 of ANSI C63.10:2013          |
| Kind of test site | : | Shielding Room                          |

**Test Setup**

|                      |   |                                                                                                                |
|----------------------|---|----------------------------------------------------------------------------------------------------------------|
| Date of testing      | : | 2023-09-07 to 2024-01-31                                                                                       |
| Input voltage        | : | DC 24V via AC/DC power supply<br>(AC 120V @ 60Hz via AC/DC power supply)                                       |
| Test environment     | : | <input checked="" type="checkbox"/> Normal test conditions<br><input type="checkbox"/> Extreme test conditions |
| Operation mode       | : | B                                                                                                              |
| Ambient temperature  | : | Refer to test result                                                                                           |
| Relative humidity    | : | Refer to test result                                                                                           |
| Atmospheric pressure | : | 101.0 kPa                                                                                                      |

Refer to attached Appendix A for details of test results.

## 6. SYSTEM MEASUREMENT UNCERTAINTY

For a 95% confidence level, the measurement expanded uncertainties for defined systems, in accordance with the recommendations of ISO 17025 were:

**Table 7: System Measurement Uncertainty**

| Items                               |                               | Extended Uncertainty |
|-------------------------------------|-------------------------------|----------------------|
| Radiated Spurious Emissions         | Radiated emission below 1 GHz | ±3.60 dB             |
|                                     | Radiated emission above 1 GHz | ±4.60 dB             |
| Conducted Emissions                 | 9kHz to 150kHz                | ± 3.70 dB            |
|                                     | 150kHz to 30MHz               | ± 3.30 dB            |
| Remark: 95% Confidence Levels, k=2. |                               |                      |

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===== END OF REPORT =====

# APPENDIX A: TEST RESULTS OF BLUETOOTH AND WI-FI OPERATION

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## APPENDIX A.1: RADIATED SPURIOUS EMISSIONS

Note:

- 1) This testing was carried out on different operation mode, only the worst case was presented in this report.
- 2) Testing was carried out within frequency range 9kHz to the tenth harmonics. The measurement results below 30MHz and 18GHz - 26.5GHz were greater than 20dB below the limit, so only the radiated spurious emissions from 30MHz to 18GHz were reported.

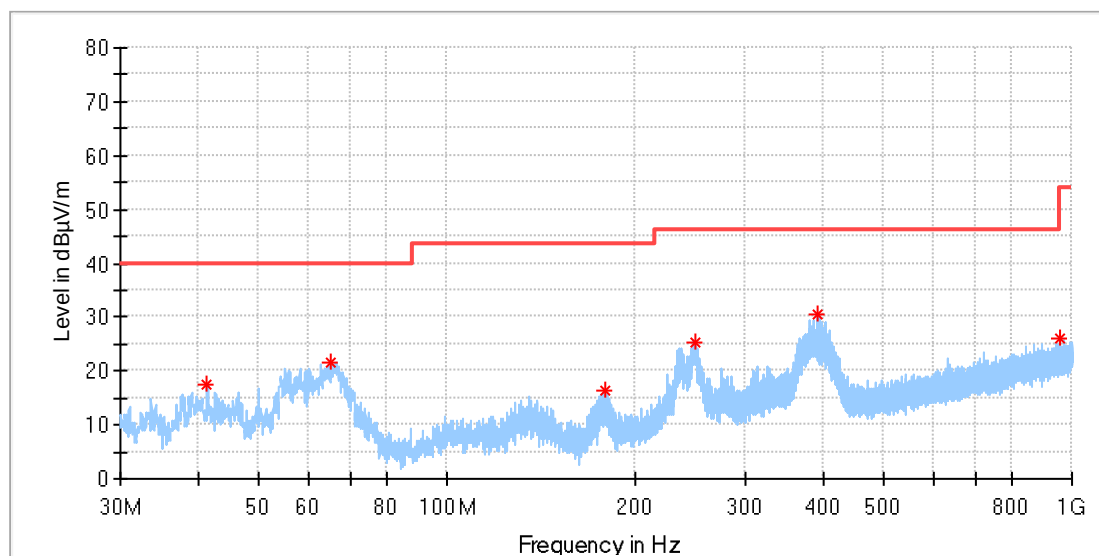
TRANSMITTING MODE

Bluetooth operation mode

Horizontal

### EUT Information

|                     |                          |
|---------------------|--------------------------|
| EUT Name:           | Amplimax Ultra           |
| Model:              | EPRL30                   |
| Test Mode:          | Bluetooth transmitting   |
| Order No/Sample No: | 168428354/A003541536-003 |
| Test Voltage:       | 120V/60Hz                |
| Remark:             | Temp 23 Humi:53%         |
| Test Standard:      | FCC Part 15.247          |
| Tested By:          | Kei Zhang                |
| Reviewed By:        | Terry Yin                |

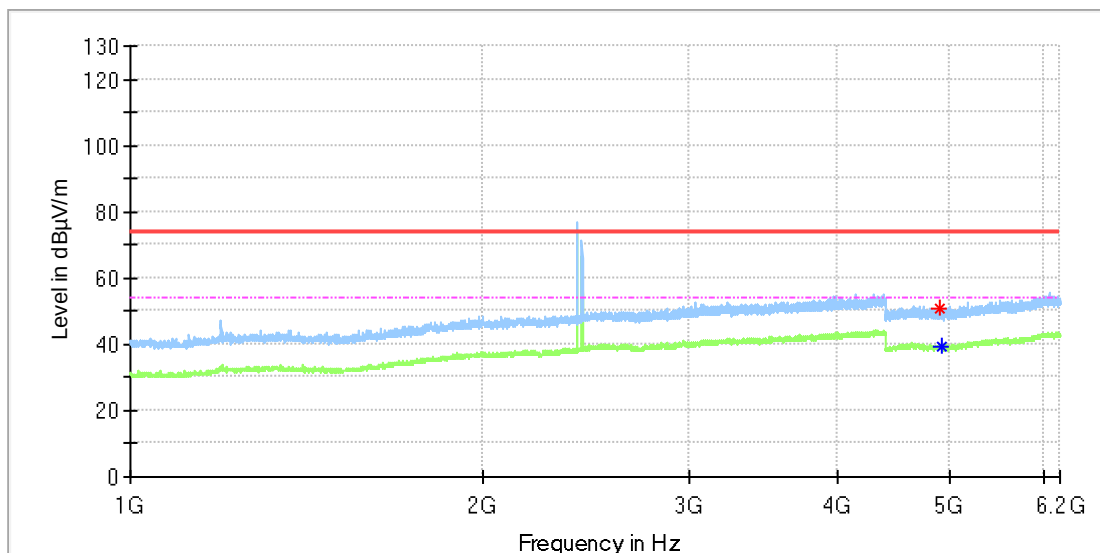


### Critical Freqs

| Frequency (MHz) | MaxPeak (dBm) | Limit (dBm) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|-----------------|---------------|-------------|-------------|-------------|-----|---------------|------------|
| 41.341539       | 17.51         | 40.00       | 22.49       | 100.0       | H   | 30.0          | -20.1      |
| 65.069231       | 21.42         | 40.00       | 18.58       | 100.0       | H   | 38.0          | -20.4      |
| 179.305385      | 16.42         | 43.50       | 27.08       | 100.0       | H   | 38.0          | -20.9      |
| 249.033462      | 25.47         | 46.00       | 20.53       | 100.0       | H   | 347.0         | -17.7      |
| 392.630769      | 30.58         | 46.00       | 15.42       | 100.0       | H   | 120.0         | -14.3      |
| 959.968846      | 26.06         | 46.00       | 19.94       | 100.0       | H   | 274.0         | -4.7       |

## EUT Information

|                     |                          |
|---------------------|--------------------------|
| EUT Name:           | Amplimax Ultra           |
| Model:              | EPRL30                   |
| Test Mode:          | Bluetooth transmitting   |
| Order No/Sample No: | 168428354/A003541536-003 |
| Test Voltage:       | 120V/60Hz                |
| Remark:             | Temp 23 Humi:53%         |
| Test Standard:      | FCC Part 15.247          |
| Tested By:          | Kei Zhang                |
| Reviewed By:        | Terry Yin                |

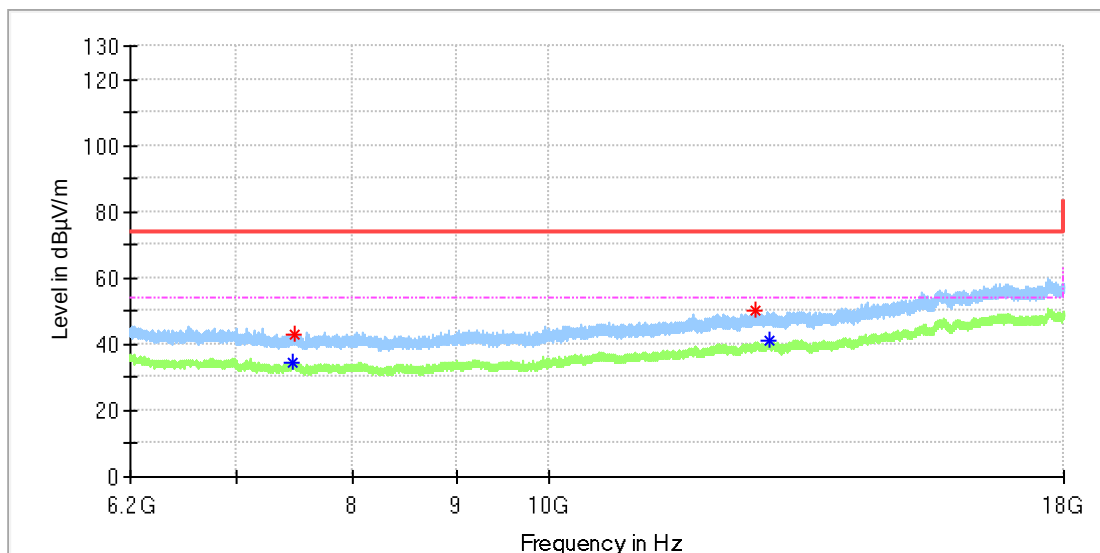


## Critical\_Freqs

| Frequency (MHz) | MaxPeak (dBm) | Limit (dBm) | Margin (dB) | Height (cm) | Pol  | Azimuth (deg) | Corr. (dB) |
|-----------------|---------------|-------------|-------------|-------------|------|---------------|------------|
| 4905.500000     | 50.81         | ---         | 74.00       | 23.19       | 150. | H             | 33.0       |
| 4916.500000     | ---           | 39.58       | 54.00       | 14.42       | 150. | H             | 293.0      |

## EUT Information

|                     |                          |
|---------------------|--------------------------|
| EUT Name:           | Amplimax Ultra           |
| Model:              | EPRL30                   |
| Test Mode:          | Bluetooth transmitting   |
| Order No/Sample No: | 168428354/A003541536-003 |
| Test Voltage:       | 120V/60Hz                |
| Remark:             | Temp 23 Humi:53%         |
| Test Standard:      | FCC Part 15.247          |
| Tested By:          | Kei Zhang                |
| Reviewed By:        | Terry Yin                |



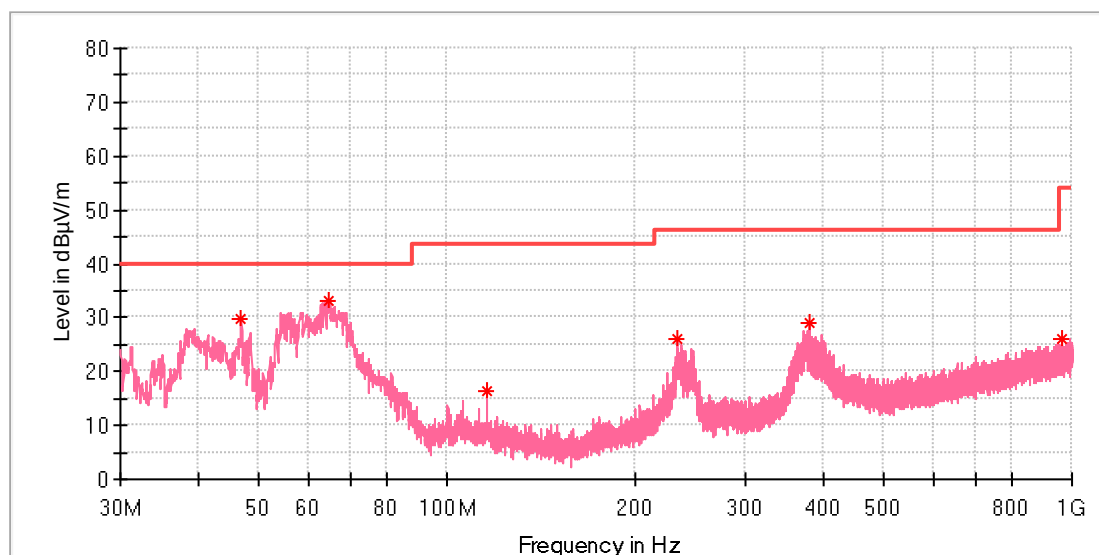
## Critical\_Freqs

| Frequency (MHz) | MaxPeak (dBm) | Limit (dBm) | Margin (dB) | Height (cm) | Pol  | Azimuth (deg) | Corr. (dB) |
|-----------------|---------------|-------------|-------------|-------------|------|---------------|------------|
| 7468.500000     | ---           | 34.66       | 54.00       | 19.34       | 150. | H             | 0.0        |
| 7470.466667     | 43.20         | ---         | 74.00       | 30.80       | 150. | H             | 35.0       |
| 12660.500000    | 50.03         | ---         | 74.00       | 23.97       | 150. | H             | 109.0      |
| 12867.983333    | ---           | 41.24       | 54.00       | 12.76       | 150. | H             | 207.0      |

Vertical

## EUT Information

|                     |                          |
|---------------------|--------------------------|
| EUT Name:           | Amplimax Ultra           |
| Model:              | EPRL30                   |
| Test Mode:          | Bluetooth transmitting   |
| Order No/Sample No: | 168428354/A003541536-003 |
| Test Voltage:       | 120V/60Hz                |
| Remark:             | Temp 23 Humi:53%         |
| Test Standard:      | FCC Part 15.247          |
| Tested By:          | Kei Zhang                |
| Reviewed By:        | Terry Yin                |

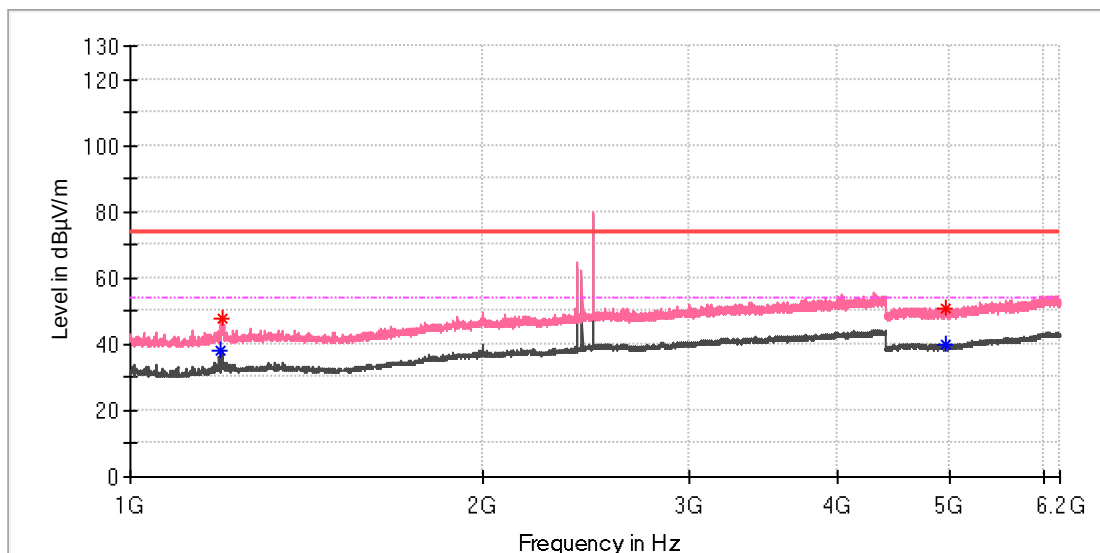


## Critical Freqs

| Frequency (MHz) | MaxPeak (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 46.825769       | 29.94            | 40.00          | 10.06       | 100.0       | V   | 125.0         | -18.9        |
| 64.621539       | 33.11            | 40.00          | 6.89        | 100.0       | V   | 67.0          | -20.3        |
| 115.621154      | 16.25            | 43.50          | 27.25       | 100.0       | V   | 148.0         | -20.2        |
| 234.073077      | 25.94            | 46.00          | 20.06       | 100.0       | V   | 252.0         | -18.3        |
| 380.916154      | 28.86            | 46.00          | 17.14       | 100.0       | V   | 355.0         | -14.5        |
| 960.565769      | 25.88            | 54.00          | 28.12       | 100.0       | V   | 320.0         | -4.7         |

## EUT Information

|                     |                          |
|---------------------|--------------------------|
| EUT Name:           | Amplimax Ultra           |
| Model:              | EPRL30                   |
| Test Mode:          | Bluetooth transmitting   |
| Order No/Sample No: | 168428354/A003541536-003 |
| Test Voltage:       | 120V/60Hz                |
| Remark:             | Temp 23 Humi:53%         |
| Test Standard:      | FCC Part 15.247          |
| Tested By:          | Kei Zhang                |
| Reviewed By:        | Terry Yin                |

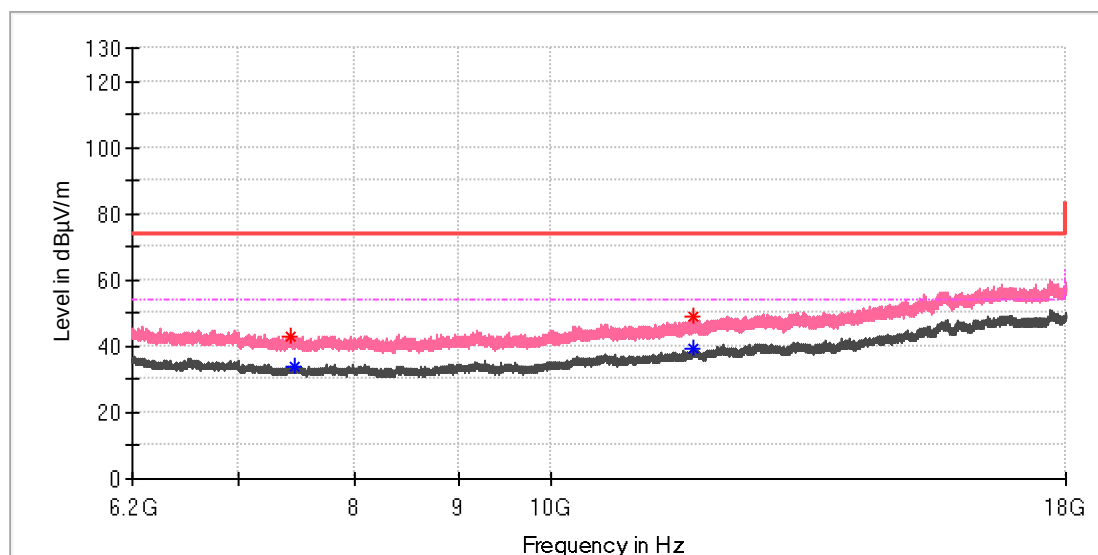


## Critical\_Freqs

| Frequency (MHz) | MaxPeak (dBμV/m) | Average (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 1194.500000     | ---              | 38.19            | 54.00          | 15.81       | 150.0       | V   | 248.0         | 1.1          |
| 1196.000000     | 47.75            | ---              | 74.00          | 26.25       | 150.0       | V   | 277.0         | 1.1          |
| 4946.500000     | ---              | 39.88            | 54.00          | 14.12       | 150.0       | V   | 282.0         | 11.8         |
| 4952.500000     | 50.63            | ---              | 74.00          | 23.37       | 150.0       | V   | 123.0         | 11.8         |

## EUT Information

|                     |                          |
|---------------------|--------------------------|
| EUT Name:           | Amplimax Ultra           |
| Model:              | EPRL30                   |
| Test Mode:          | Bluetooth transmitting   |
| Order No/Sample No: | 168428354/A003541536-003 |
| Test Voltage:       | 120V/60Hz                |
| Remark:             | Temp 23 Humi:53%         |
| Test Standard:      | FCC Part 15.247          |
| Tested By:          | Kei Zhang                |
| Reviewed By:        | Terry Yin                |



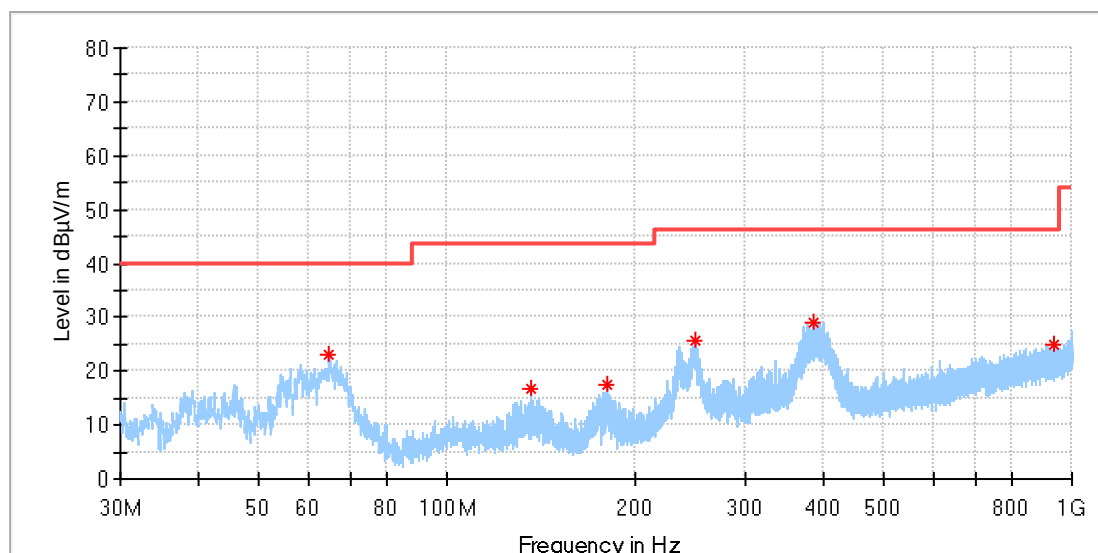
## Critical\_Freqs

| Frequency (MHz) | MaxPeak (dBμV/m) | Average (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 7422.283333     | 43.14            | ---              | 74.00          | 30.86       | 150.0       | V   | 348.0         | 8.4          |
| 7469.975000     | ---              | 34.00            | 54.00          | 20.00       | 150.0       | V   | 85.0          | 8.6          |
| 11764.191667    | ---              | 39.32            | 54.00          | 14.68       | 150.0       | V   | 241.0         | 13.4         |
| 11774.516667    | 48.80            | ---              | 74.00          | 25.20       | 150.0       | V   | 324.0         | 13.4         |

Wi-Fi operation mode  
802.11b - Horizontal

## EUT Information

|                     |                                           |
|---------------------|-------------------------------------------|
| EUT Name:           | Amplimax Ultra                            |
| Model:              | EPRL30                                    |
| Test Mode:          | Wi-Fi transmitting, 11b mode, Low channel |
| Order No/Sample No: | 168428354/A003541536-003                  |
| Test Voltage:       | 120V/60Hz                                 |
| Remark:             | Temp 23 Humi:53%                          |
| Test Standard:      | FCC Part 15.247                           |
| Tested By:          | Kei Zhang                                 |
| Reviewed By:        | Terry Yin                                 |

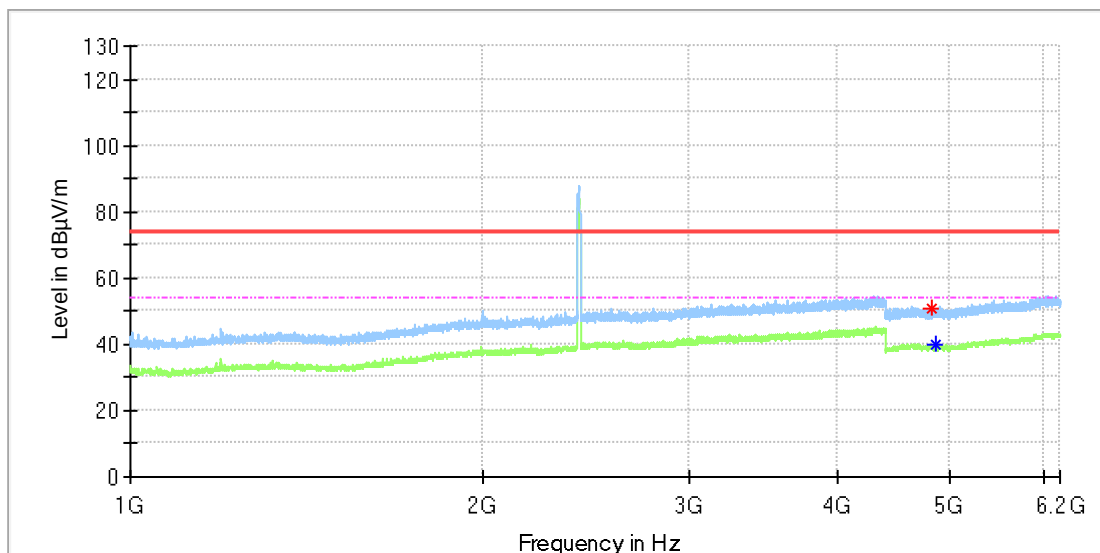


## Critical Freqs

| Frequency (MHz) | MaxPeak (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 64.845385       | 23.23            | 40.00          | 16.77       | 100.0       | H   | 45.0          | -20.4        |
| 136.289615      | 16.92            | 43.50          | 26.58       | 100.0       | H   | 286.0         | -22.4        |
| 179.902308      | 17.48            | 43.50          | 26.02       | 100.0       | H   | 37.0          | -20.8        |
| 248.846923      | 25.50            | 46.00          | 20.50       | 100.0       | H   | 329.0         | -17.7        |
| 386.698846      | 29.20            | 46.00          | 16.80       | 100.0       | H   | 312.0         | -14.4        |
| 939.151154      | 24.78            | 46.00          | 21.22       | 100.0       | H   | 294.0         | -5.0         |

## EUT Information

|                     |                                           |
|---------------------|-------------------------------------------|
| EUT Name:           | Amplimax Ultra                            |
| Model:              | EPRL30                                    |
| Test Mode:          | Wi-Fi transmitting, 11b mode, Low channel |
| Order No/Sample No: | 168428354/A003541536-003                  |
| Test Voltage:       | 120V/60Hz                                 |
| Remark:             | Temp 23 Humi:53%                          |
| Test Standard:      | FCC Part 24                               |
| Tested By:          | Kei Zhang                                 |
| Reviewed By:        | Terry Yin                                 |

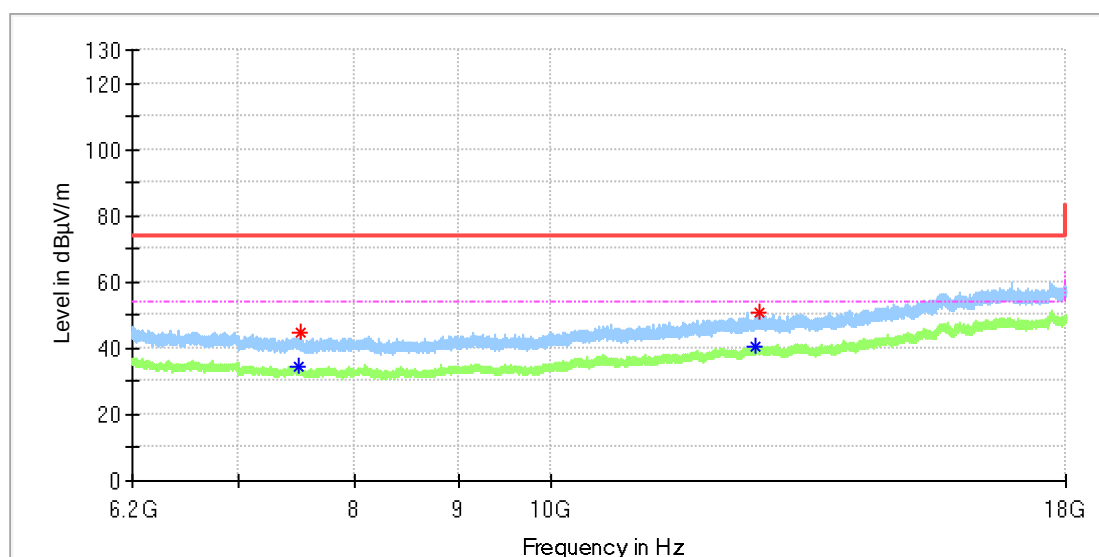


## Critical\_Freqs

| Frequency (MHz) | MaxPeak (dBμV/m) | Average (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 4823.000000     | 50.64            | ---              | 74.00          | 23.36       | 150.0       | H   | 307.0         | 11.8         |
| 4850.000000     | ---              | 39.65            | 54.00          | 14.35       | 150.0       | H   | 142.0         | 11.8         |

## EUT Information

|                      |                                           |
|----------------------|-------------------------------------------|
| EUT Name:            | Amplimax Ultra                            |
| Model:               | EPRL30                                    |
| Test Mode:           | Wi-Fi transmitting, 11b mode, Low channel |
| Order No./Sample No: | 168428354/A003541536-003                  |
| Test Voltage:        | 120V/60Hz                                 |
| Remark:              | Temp 23 Humi:53%                          |
| Test Standard:       | FCC Part 24                               |
| Tested By:           | Kei Zhang                                 |
| Reviewed By:         | Terry Yin                                 |



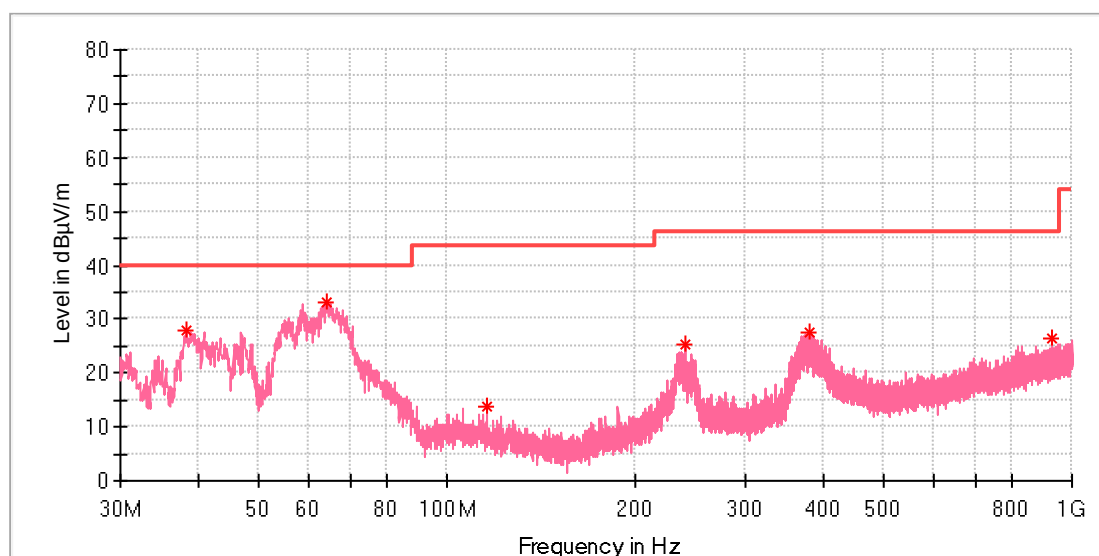
## Critical\_Freqs

| Frequency (MHz) | MaxPeak (dBμV/m) | Average (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 7492.591667     | ---              | 34.75            | 54.00          | 19.25       | 150.0       | H   | 266.0         | 8.7          |
| 7512.258333     | 44.65            | ---              | 74.00          | 29.35       | 150.0       | H   | 279.0         | 8.7          |
| 12627.558333    | ---              | 40.61            | 54.00          | 13.39       | 150.0       | H   | 103.0         | 14.9         |
| 12679.183333    | 50.68            | ---              | 74.00          | 23.32       | 150.0       | H   | 20.0          | 15.1         |

802.11b - Vertical

## EUT Information

|                     |                                           |
|---------------------|-------------------------------------------|
| EUT Name:           | Amplimax Ultra                            |
| Model:              | EPRL30                                    |
| Test Mode:          | Wi-Fi transmitting, 11b mode, Low channel |
| Order No/Sample No: | 168428354/A003541536-003                  |
| Test Voltage:       | 120V/60Hz                                 |
| Remark:             | Temp 23 Humi:53%                          |
| Test Standard:      | FCC Part 24                               |
| Tested By:          | Kei Zhang                                 |
| Reviewed By:        | Terry Yin                                 |

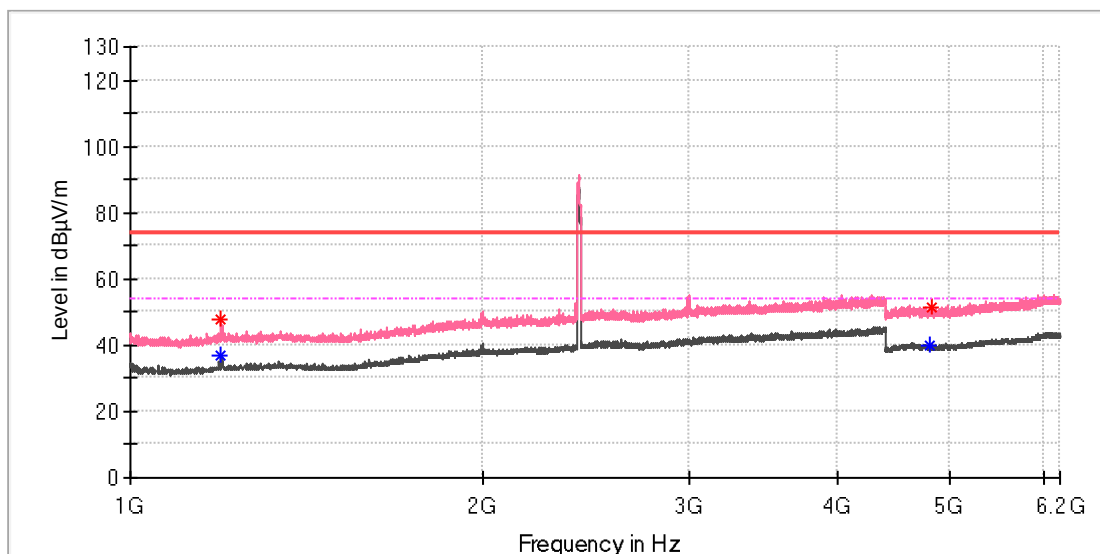


## Critical Freqs

| Frequency (MHz) | MaxPeak (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 38.282308       | 27.75            | 40.00          | 12.25       | 100.0       | V   | 0.0           | -21.0        |
| 64.099231       | 33.16            | 40.00          | 6.84        | 100.0       | V   | 53.0          | -20.2        |
| 115.621154      | 13.78            | 43.50          | 29.72       | 100.0       | V   | 100.0         | -20.2        |
| 240.005000      | 25.26            | 46.00          | 20.74       | 100.0       | V   | 254.0         | -18.0        |
| 378.976154      | 27.63            | 46.00          | 18.37       | 100.0       | V   | 339.0         | -14.6        |
| 929.786923      | 26.26            | 46.00          | 19.74       | 100.0       | V   | 180.0         | -5.1         |

## EUT Information

EUT Name: Amplimax Ultra  
 Model: EPRL30  
 Test Mode: Wi-Fi transmitting, 11b mode, Low channel  
 Order No/Sample No: 168428354/A003541536-003  
 Test Voltage: 120V/60Hz  
 Remark: Temp 23 Humi:53%  
 Test Standard: FCC Part 24  
 Tested By: Kei Zhang  
 Reviewed By: Terry Yin

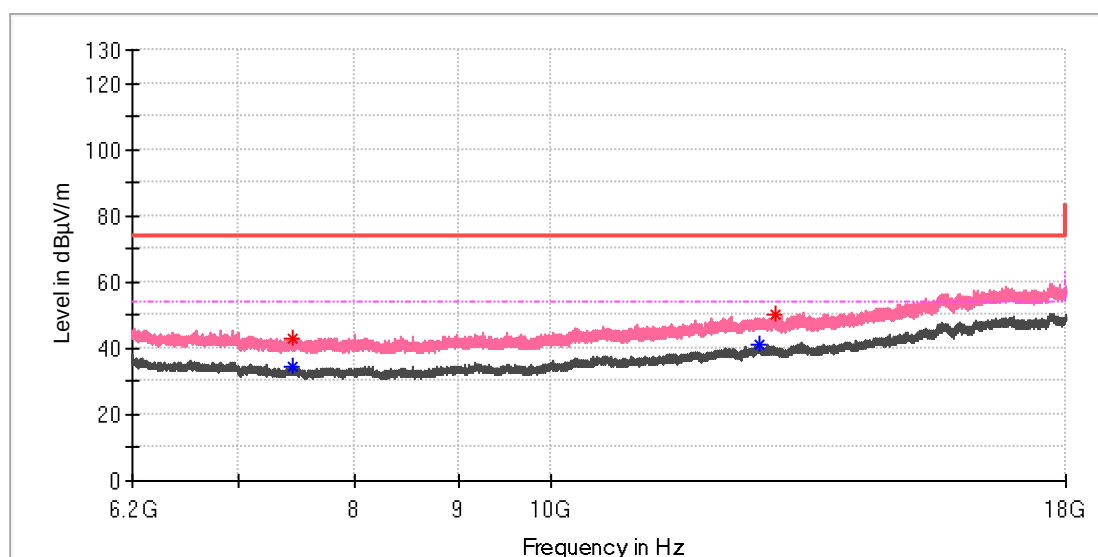


## Critical\_Freqs

| Frequency (MHz) | MaxPeak (dBμV/m) | Average (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 1195.000000     | 47.79            | ---              | 74.00          | 26.21       | 150.0       | V   | 98.0          | 1.1          |
| 1195.500000     | ---              | 36.79            | 54.00          | 17.21       | 150.0       | V   | 321.0         | 1.1          |
| 4811.000000     | ---              | 40.13            | 54.00          | 13.87       | 150.0       | V   | 293.0         | 11.8         |
| 4812.500000     | 51.28            | ---              | 74.00          | 22.72       | 150.0       | V   | 300.0         | 11.8         |

## EUT Information

|                     |                                           |
|---------------------|-------------------------------------------|
| EUT Name:           | Amplimax Ultra                            |
| Model:              | EPRL30                                    |
| Test Mode:          | Wi-Fi transmitting, 11b mode, Low channel |
| Order No/Sample No: | 168428354/A003541536-003                  |
| Test Voltage:       | 120V/60Hz                                 |
| Remark:             | Temp 23 Humi:53%                          |
| Test Standard:      | FCC Part 24                               |
| Tested By:          | Kei Zhang                                 |
| Reviewed By:        | Terry Yin                                 |



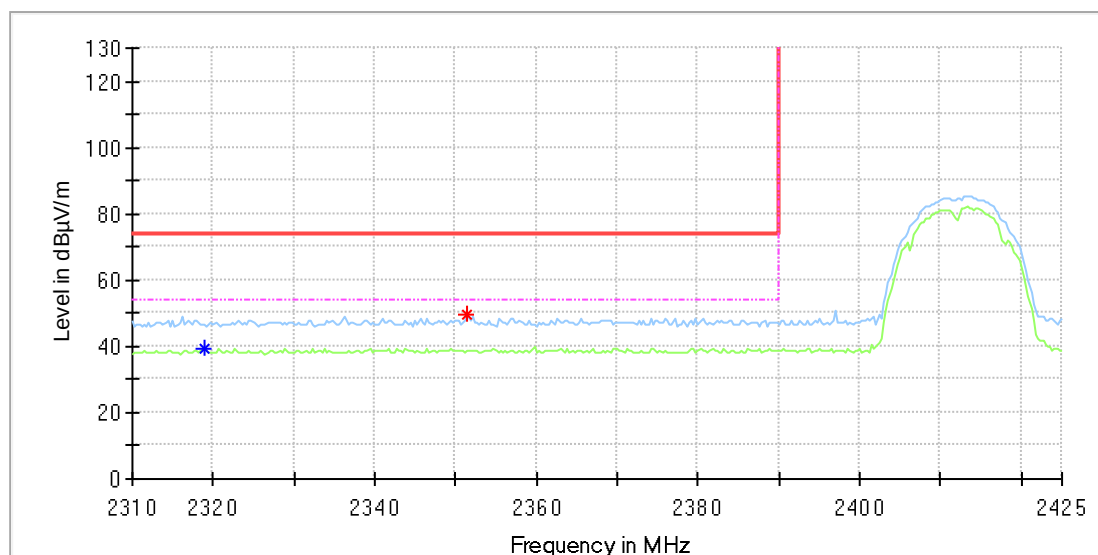
## Critical\_Freqs

| Frequency (MHz) | MaxPeak (dBμV/m) | Average (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 7439.000000     | ---              | 34.36            | 54.00          | 19.64       | 150.0       | V   | 59.0          | 8.4          |
| 7442.933333     | 42.89            | ---              | 74.00          | 31.11       | 150.0       | V   | 83.0          | 8.4          |
| 12698.850000    | ---              | 41.29            | 54.00          | 12.71       | 150.0       | V   | 238.0         | 15.1         |
| 12914.200000    | 50.06            | ---              | 74.00          | 23.94       | 150.0       | V   | 35.0          | 15.5         |

802.11b Band edge

## EUT Information

|                     |                                           |
|---------------------|-------------------------------------------|
| EUT Name:           | Amplimax Ultra                            |
| Model:              | EPRL30                                    |
| Test Mode:          | Wi-Fi transmitting, 11b mode, Low channel |
| Order No/Sample No: | 168428354/A003541536-003                  |
| Test Voltage:       | 120V/60Hz                                 |
| Remark:             | Temp 23 Humi:53%                          |
| Test Standard:      | FCC Part 22                               |
| Tested By:          | Kei Zhang                                 |
| Reviewed By:        | Terry Yin                                 |

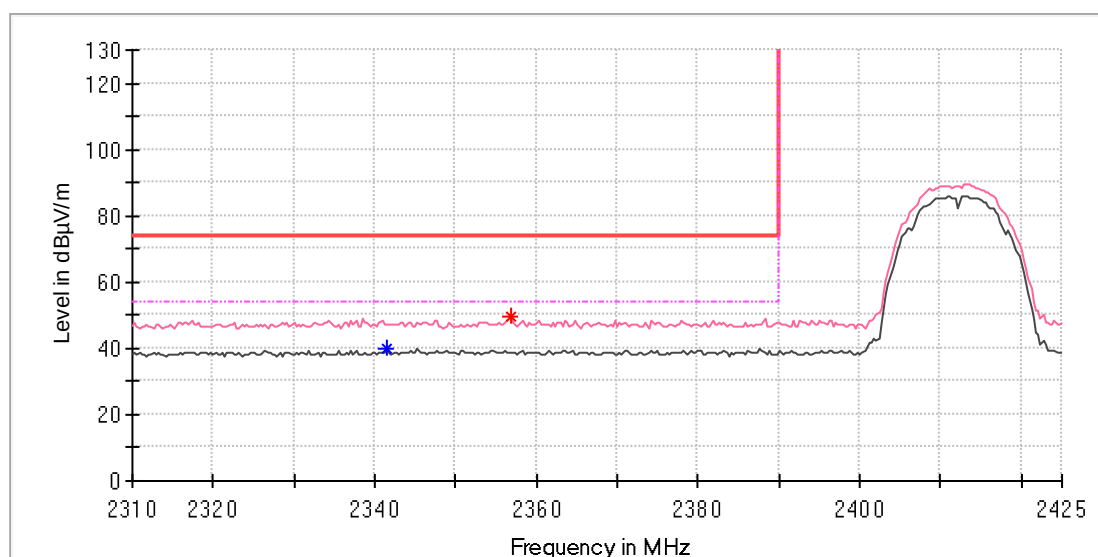


## Critical Freqs

| Frequency (MHz) | MaxPeak (dBµV/m) | Average (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2318.823529     | ---              | 39.50            | 54.00          | 14.50       | 150.0       | H   | 0.0           | 6.6          |
| 2351.470588     | 49.35            | ---              | 74.00          | 24.65       | 150.0       | H   | 174.0         | 6.9          |

## EUT Information

|                     |                                           |
|---------------------|-------------------------------------------|
| EUT Name:           | Amplimax Ultra                            |
| Model:              | EPRL30                                    |
| Test Mode:          | Wi-Fi transmitting, 11b mode, Low channel |
| Order No/Sample No: | 168428354/A003541536-003                  |
| Test Voltage:       | 120V/60Hz                                 |
| Remark:             | Temp 23 Humi:53%                          |
| Test Standard:      | FCC Part 22                               |
| Tested By:          | Kei Zhang                                 |
| Reviewed By:        | Terry Yin                                 |



## Critical\_Freqs

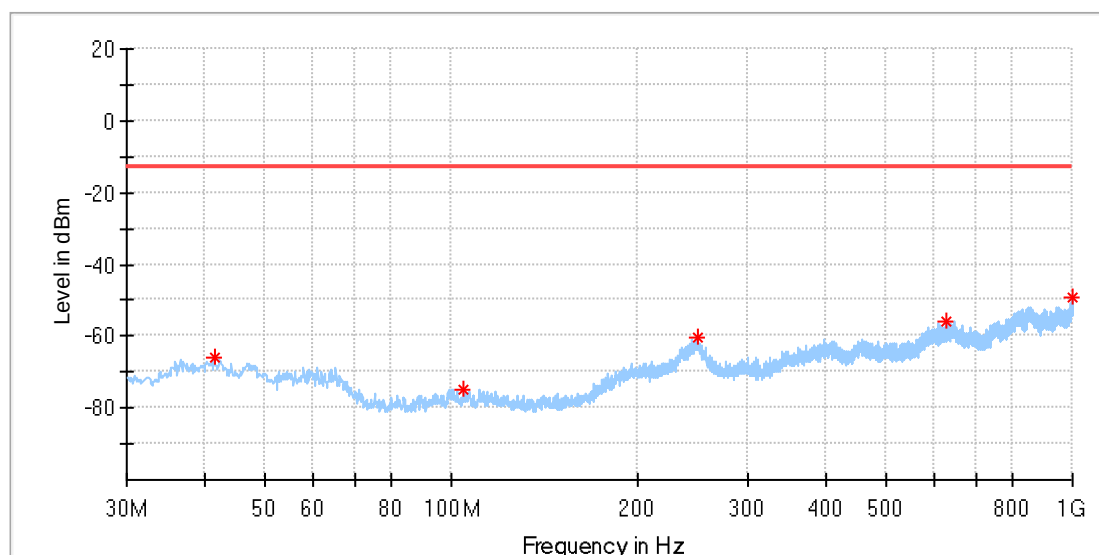
| Frequency (MHz) | MaxPeak (dBμV/m) | Average (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2341.470588     | ---              | 39.87            | 54.00          | 14.13       | 150.0       | V   | 16.0          | 6.8          |
| 2356.764706     | 49.51            | ---              | 74.00          | 24.49       | 150.0       | V   | 238.0         | 6.9          |



CO-LOCATION OPERATION MODE  
LTE Band 26 with Bluetooth

## EUT Information

|                     |                          |
|---------------------|--------------------------|
| EUT Name:           | Amplimax Ultra           |
| Model:              | EPRL30                   |
| Test Mode:          | BT+LTE Band 26           |
| Order No/Sample No: | 168428354/A003541536-003 |
| Test Voltage:       | 120V/60Hz                |
| Remark:             | Temp 23 Humi:53%         |
| Test Standard:      | FCC Part 22              |
| Tested By:          | Kei Zhang                |
| Reviewed By:        | Terry Yin                |

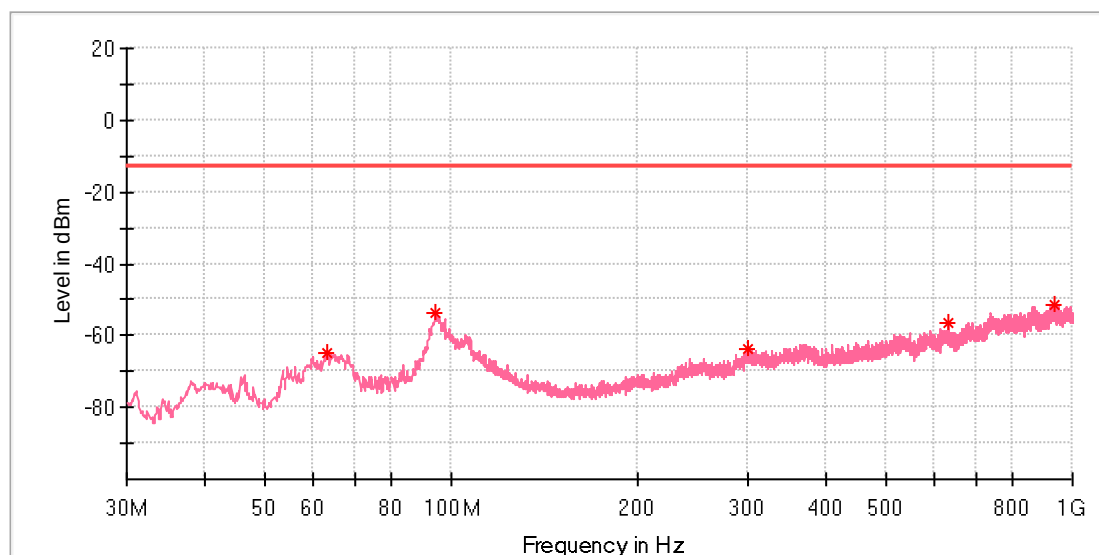


## Critical\_Freqs

| Frequency (MHz) | MaxPeak (dBm) | Limit (dBm) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|-----------------|---------------|-------------|-------------|-------------|-----|---------------|------------|
| 41.518750       | -65.75        | -13.00      | 52.75       | 100.0       | H   | 168.0         | -112.2     |
| 104.811250      | -74.66        | -13.00      | 61.66       | 100.0       | H   | 321.0         | -121.5     |
| 249.462500      | -60.37        | -13.00      | 47.37       | 100.0       | H   | 210.0         | -110.1     |
| 625.580000      | -55.70        | -13.00      | 42.70       | 100.0       | H   | 238.0         | -105.4     |
| 998.787500      | -49.25        | -13.00      | 36.25       | 100.0       | H   | 214.0         | -98.5      |

## EUT Information

|                     |                          |
|---------------------|--------------------------|
| EUT Name:           | Amplimax Ultra           |
| Model:              | EPRL30                   |
| Test Mode:          | BT+LTE Band 26           |
| Order No/Sample No: | 168428354/A003541536-003 |
| Test Voltage:       | 120V/60Hz                |
| Remark:             | Temp 23 Humi:53%         |
| Test Standard:      | FCC Part 22              |
| Tested By:          | Kei Zhang                |
| Reviewed By:        | Terry Yin                |

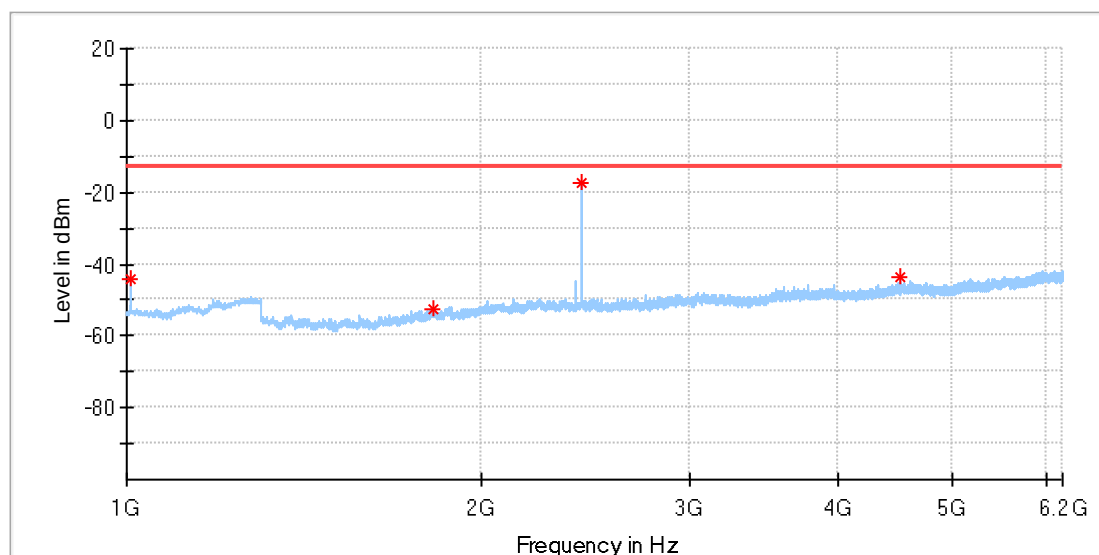


## Critical\_Freqs

| Frequency (MHz) | MaxPeak (dBm) | Limit (dBm) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|-----------------|---------------|-------------|-------------|-------------|-----|---------------|------------|
| 62.858750       | -64.59        | -13.00      | 51.59       | 100.0       | V   | 64.0          | -120.9     |
| 94.262500       | -53.90        | -13.00      | 40.90       | 100.0       | V   | 342.0         | -99.6      |
| 300.266250      | -63.52        | -13.00      | 50.52       | 100.0       | V   | 172.0         | -111.2     |
| 630.308750      | -56.47        | -13.00      | 43.47       | 100.0       | V   | 270.0         | -106.7     |
| 931.857500      | -51.58        | -13.00      | 38.58       | 100.0       | V   | 172.0         | -100.5     |

## EUT Information

|                     |                                                                                                  |
|---------------------|--------------------------------------------------------------------------------------------------|
| EUT Name:           | Amplimax Ultra                                                                                   |
| Model:              | EPRL30                                                                                           |
| Test Mode:          | BT+LTE Band 26                                                                                   |
| Order No/Sample No: | 168428354/A003541536-003                                                                         |
| Test Voltage:       | 120V/60Hz                                                                                        |
| Remark:             | Temp 23 Humi:53%                                                                                 |
| Test Standard:      | FCC Part 22                                                                                      |
| Tested By:          | Kei Zhang                                                                                        |
| Reviewed By:        | Terry Yin                                                                                        |
| Note:               | The highest frequency which exceeds the limit is the fundament frequency of Bluetooth operation. |

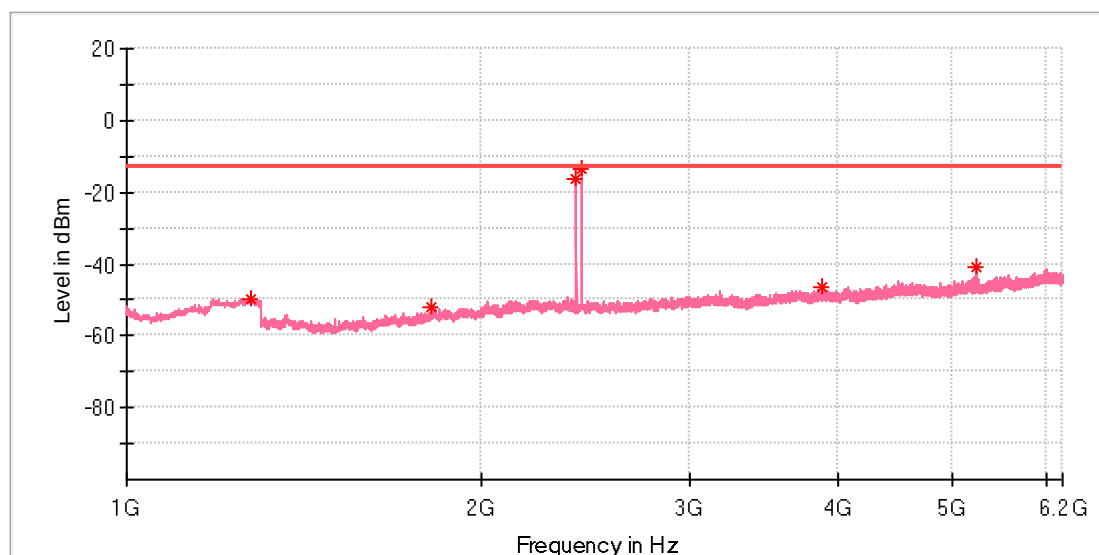


## Critical Freqs

| Frequency (MHz) | MaxPeak (dBm) | Limit (dBm) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|-----------------|---------------|-------------|-------------|-------------|-----|---------------|------------|
| 1007.000000     | -44.40        | -13.00      | 31.40       | 150.0       | H   | 77.0          | -94.8      |
| 1815.500000     | -52.61        | -13.00      | 39.61       | 150.0       | H   | 181.0         | -90.1      |
| 2426.000000     | -17.44        | -13.00      | 4.44        | 150.0       | H   | 214.0         | -87.5      |
| 4524.000000     | -43.51        | -13.00      | 30.51       | 150.0       | H   | 45.0          | -83.6      |

## EUT Information

|                     |                                                                                                  |
|---------------------|--------------------------------------------------------------------------------------------------|
| EUT Name:           | Amplimax Ultra                                                                                   |
| Model:              | EPRL30                                                                                           |
| Test Mode:          | BT+LTE Band 26                                                                                   |
| Order No/Sample No: | 168428354/A003541536-003                                                                         |
| Test Voltage:       | 120V/60Hz                                                                                        |
| Remark:             | Temp 23 Humi:53%                                                                                 |
| Test Standard:      | FCC Part 22                                                                                      |
| Tested By:          | Kei Zhang                                                                                        |
| Reviewed By:        | Terry Yin                                                                                        |
| Note:               | The highest frequency which exceeds the limit is the fundament frequency of Bluetooth operation. |

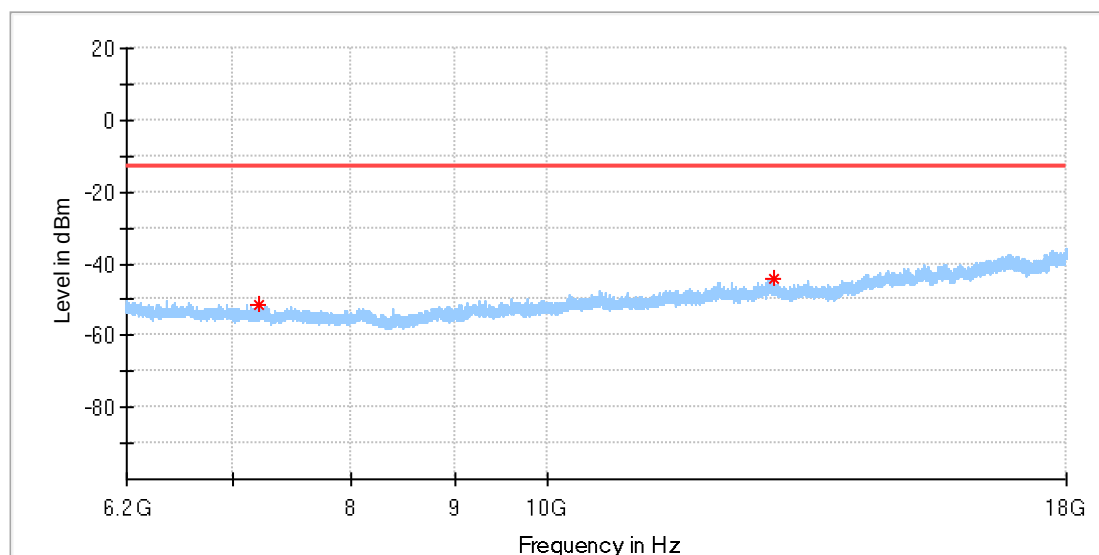


## Critical Freqs

| Frequency (MHz) | MaxPeak (dBm) | Limit (dBm) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|-----------------|---------------|-------------|-------------|-------------|-----|---------------|------------|
| 1272.000000     | -49.53        | -13.00      | 36.53       | 150.0       | V   | 83.0          | -92.1      |
| 1814.000000     | -51.90        | -13.00      | 38.90       | 150.0       | V   | 338.0         | -90.0      |
| 2402.000000     | -16.31        | -13.00      | 3.31        | 150.0       | V   | 74.0          | -88.2      |
| 2425.500000     | -13.76        | -13.00      | 0.76        | 150.0       | V   | 266.0         | -87.9      |
| 3874.000000     | -46.65        | -13.00      | 33.65       | 150.0       | V   | 0.0           | -85.1      |
| 5234.000000     | -40.81        | -13.00      | 27.81       | 150.0       | V   | 103.0         | -83.1      |

## EUT Information

|                     |                          |
|---------------------|--------------------------|
| EUT Name:           | Amplimax Ultra           |
| Model:              | EPRL30                   |
| Test Mode:          | BT+LTE Band 26           |
| Order No/Sample No: | 168428354/A003541536-003 |
| Test Voltage:       | 120V/60Hz                |
| Remark:             | Temp 23 Humi:53%         |
| Test Standard:      | FCC Part 22              |
| Tested By:          | Kei Zhang                |
| Reviewed By:        | Terry Yin                |

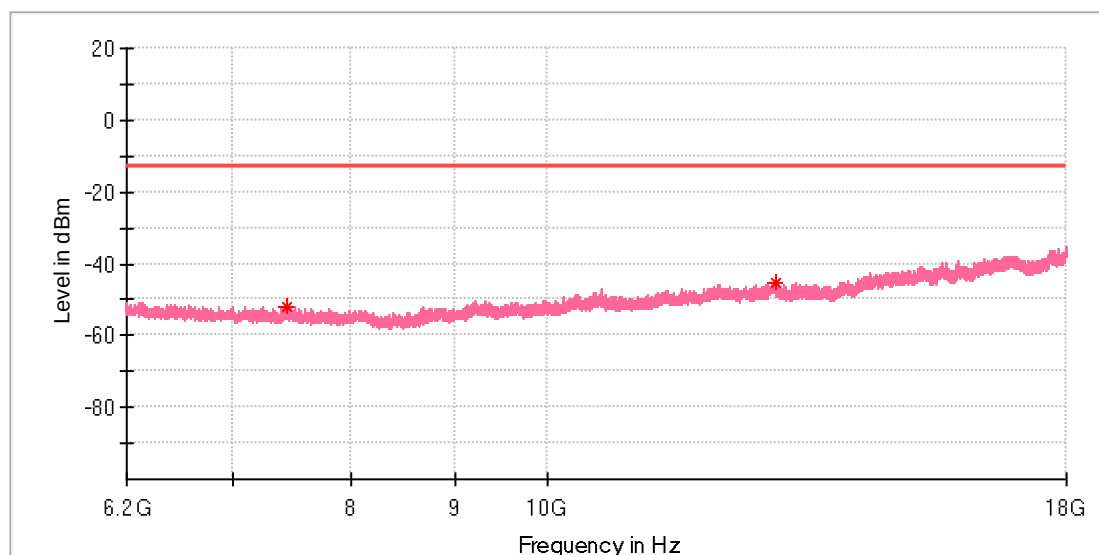


## Critical\_Freqs

| Frequency (MHz) | MaxPeak (dBm) | Limit (dBm) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|-----------------|---------------|-------------|-------------|-------------|-----|---------------|------------|
| 7201.033333     | -51.29        | -13.00      | 38.29       | 150.0       | H   | 336.0         | -86.4      |
| 12908.300000    | -44.03        | -13.00      | 31.03       | 150.0       | H   | 182.0         | -78.6      |

## EUT Information

|                     |                          |
|---------------------|--------------------------|
| EUT Name:           | Amplimax Ultra           |
| Model:              | EPRL30                   |
| Test Mode:          | BT+LTE Band 26           |
| Order No/Sample No: | 168428354/A003541536-003 |
| Test Voltage:       | 120V/60Hz                |
| Remark:             | Temp 23 Humi:53%         |
| Test Standard:      | FCC Part 22              |
| Tested By:          | Kei Zhang                |
| Reviewed By:        | Terry Yin                |



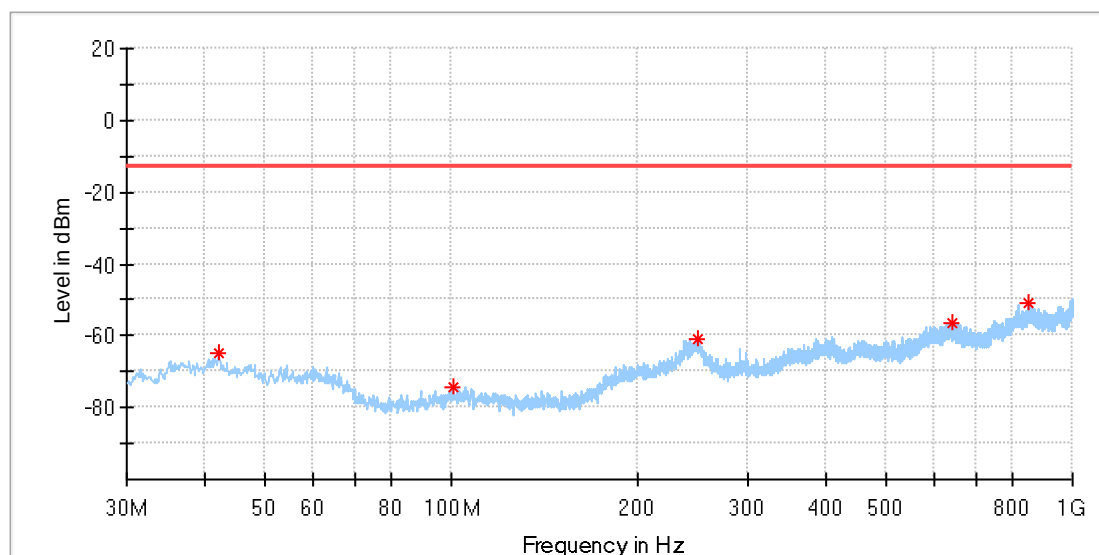
## Critical\_Freqs

| Frequency (MHz) | MaxPeak (dBm) | Limit (dBm) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|-----------------|---------------|-------------|-------------|-------------|-----|---------------|------------|
| 7437.525000     | -51.88        | -13.00      | 38.88       | 150.0       | V   | 106.0         | -86.9      |
| 12942.716667    | -45.15        | -13.00      | 32.15       | 150.0       | V   | 293.0         | -78.5      |

NR Band n5 with Wi-Fi

## EUT Information

|                     |                          |
|---------------------|--------------------------|
| EUT Name:           | Amplimax Ultra           |
| Model:              | EPRL30                   |
| Test Mode:          | WIFI 2.4G_+5G NR n5      |
| Order No/Sample No: | 168428354/A003541536-001 |
| Test Voltage:       | 120V/60Hz                |
| Remark:             | Temp 23 Humi:53%         |
| Test Standard:      | FCC Part 22              |
| Tested By:          | Kei Zhang                |
| Reviewed By:        | Terry Yin                |

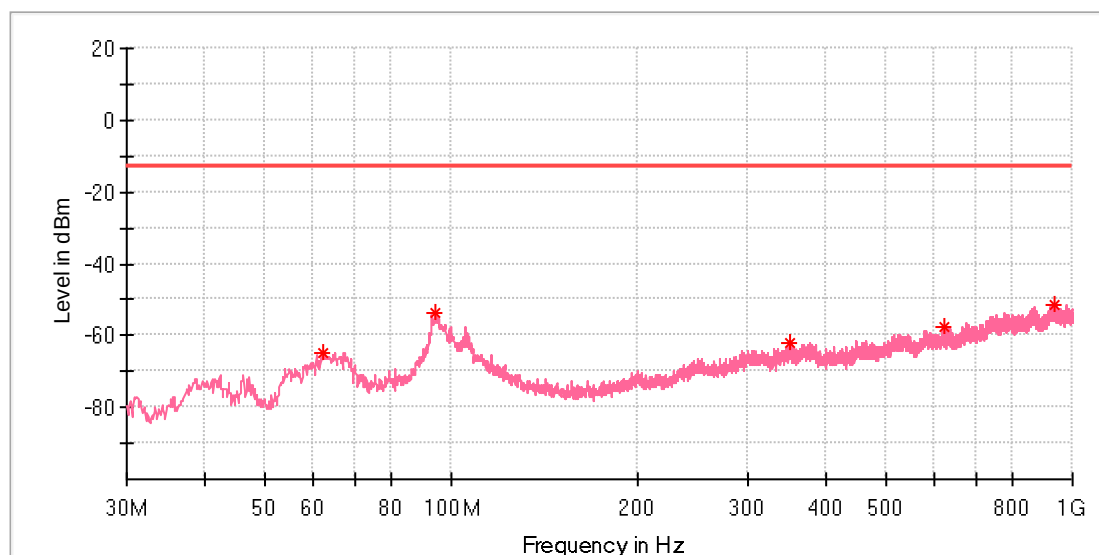


## Critical Freqs

| Frequency (MHz) | MaxPeak (dBm) | Limit (dBm) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|-----------------|---------------|-------------|-------------|-------------|-----|---------------|------------|
| 42.125000       | -64.83        | -13.00      | 51.83       | 100.0       | H   | 62.0          | -112.3     |
| 100.446250      | -74.05        | -13.00      | 61.05       | 100.0       | H   | 87.0          | -120.8     |
| 249.947500      | -60.67        | -13.00      | 47.67       | 100.0       | H   | 0.0           | -110.1     |
| 641.221250      | -56.29        | -13.00      | 43.29       | 100.0       | H   | 173.0         | -104.7     |
| 851.347500      | -51.12        | -13.00      | 38.12       | 100.0       | H   | 293.0         | -100.1     |

## EUT Information

|                     |                          |
|---------------------|--------------------------|
| EUT Name:           | Amplimax Ultra           |
| Model:              | EPRL30                   |
| Test Mode:          | WIFI 2.4G_+5G NR n5      |
| Order No/Sample No: | 168428354/A003541536-001 |
| Test Voltage:       | 120V/60Hz                |
| Remark:             | Temp 23 Humi:53%         |
| Test Standard:      | FCC Part 22              |
| Tested By:          | Kei Zhang                |
| Reviewed By:        | Terry Yin                |

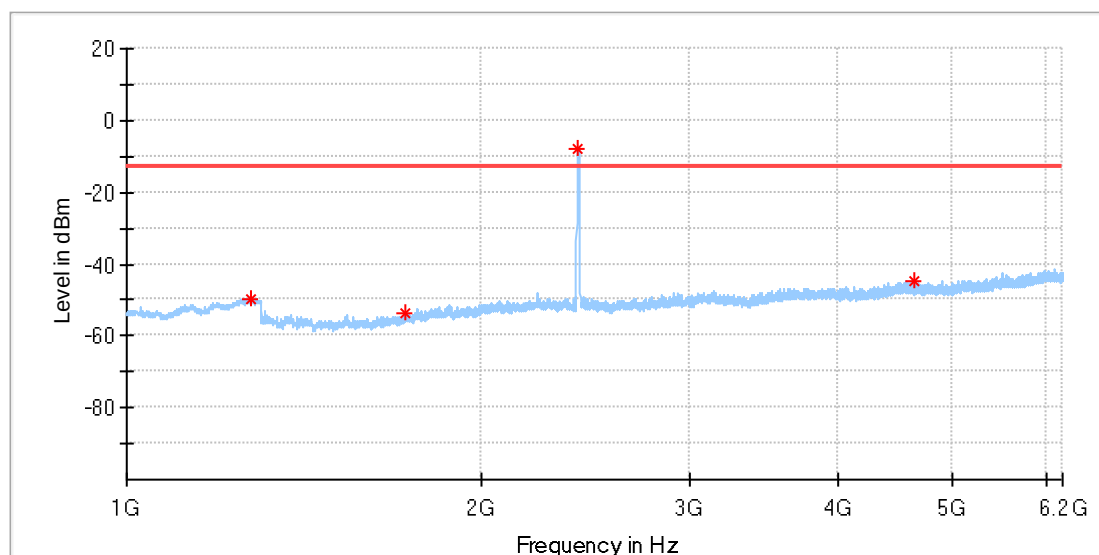


## Critical\_Freqs

| Frequency (MHz) | MaxPeak (dBm) | Limit (dBm) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|-----------------|---------------|-------------|-------------|-------------|-----|---------------|------------|
| 62.252500       | -64.69        | -13.00      | 51.69       | 100.0       | V   | 43.0          | -120.6     |
| 94.262500       | -53.60        | -13.00      | 40.60       | 100.0       | V   | 332.0         | -99.6      |
| 351.797500      | -62.31        | -13.00      | 49.31       | 100.0       | V   | 279.0         | -111.0     |
| 621.336250      | -57.59        | -13.00      | 44.59       | 100.0       | V   | 164.0         | -106.6     |
| 932.706250      | -51.45        | -13.00      | 38.45       | 100.0       | V   | 218.0         | -100.5     |

## EUT Information

|                     |                                                                                              |
|---------------------|----------------------------------------------------------------------------------------------|
| EUT Name:           | Amplimax Ultra                                                                               |
| Model:              | EPRL30                                                                                       |
| Test Mode:          | WIFI 2.4G_+5G NR n5                                                                          |
| Order No/Sample No: | 168428354/A003541536-001                                                                     |
| Test Voltage:       | 120V/60Hz                                                                                    |
| Remark:             | Temp 23 Humi:53%                                                                             |
| Test Standard:      | FCC Part 22                                                                                  |
| Tested By:          | Kei Zhang                                                                                    |
| Reviewed By:        | Terry Yin                                                                                    |
| Note:               | The highest frequency which exceeds the limit is the fundament frequency of Wi-Fi operation. |

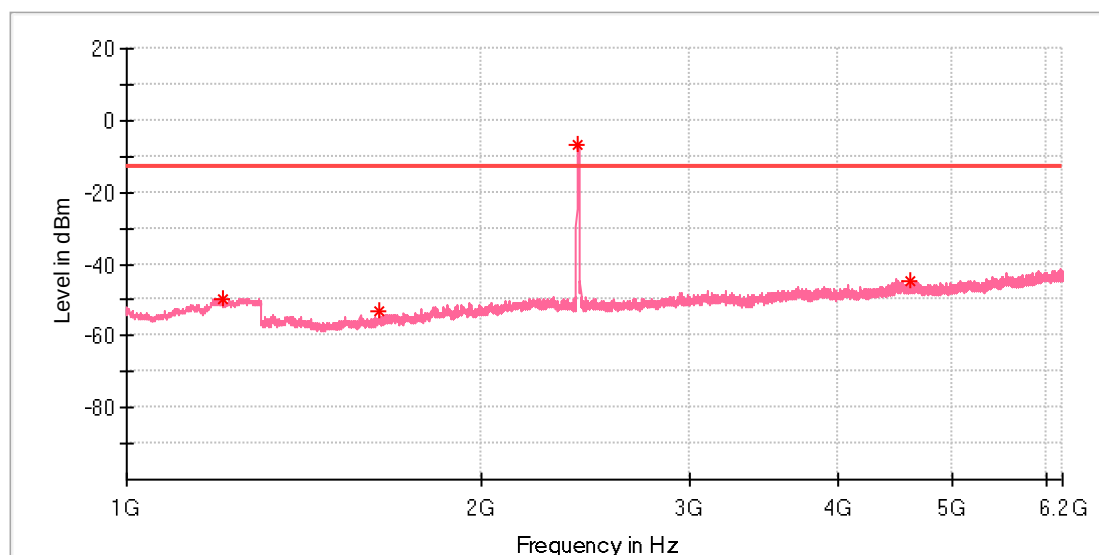


## Critical Freqs

| Frequency (MHz) | MaxPeak (dBm) | Limit (dBm) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|-----------------|---------------|-------------|-------------|-------------|-----|---------------|------------|
| 1275.000000     | -49.52        | -13.00      | 36.52       | 150.0       | H   | 4.0           | -92.0      |
| 1724.000000     | -53.41        | -13.00      | 40.41       | 150.0       | H   | 309.0         | -91.6      |
| 2410.500000     | -7.94         | -13.00      | -5.06       | 150.0       | H   | 236.0         | -87.7      |
| 4635.500000     | -44.76        | -13.00      | 31.76       | 150.0       | H   | 177.0         | -83.7      |

## EUT Information

|                     |                                                                                              |
|---------------------|----------------------------------------------------------------------------------------------|
| EUT Name:           | Amplimax Ultra                                                                               |
| Model:              | EPRL30                                                                                       |
| Test Mode:          | WIFI 2.4G_+5G NR n5                                                                          |
| Order No/Sample No: | 168428354/A003541536-001                                                                     |
| Test Voltage:       | 120V/60Hz                                                                                    |
| Remark:             | Temp 23 Humi:53%                                                                             |
| Test Standard:      | FCC Part 22                                                                                  |
| Tested By:          | Kei Zhang                                                                                    |
| Reviewed By:        | Terry Yin                                                                                    |
| Note:               | The highest frequency which exceeds the limit is the fundament frequency of Wi-Fi operation. |

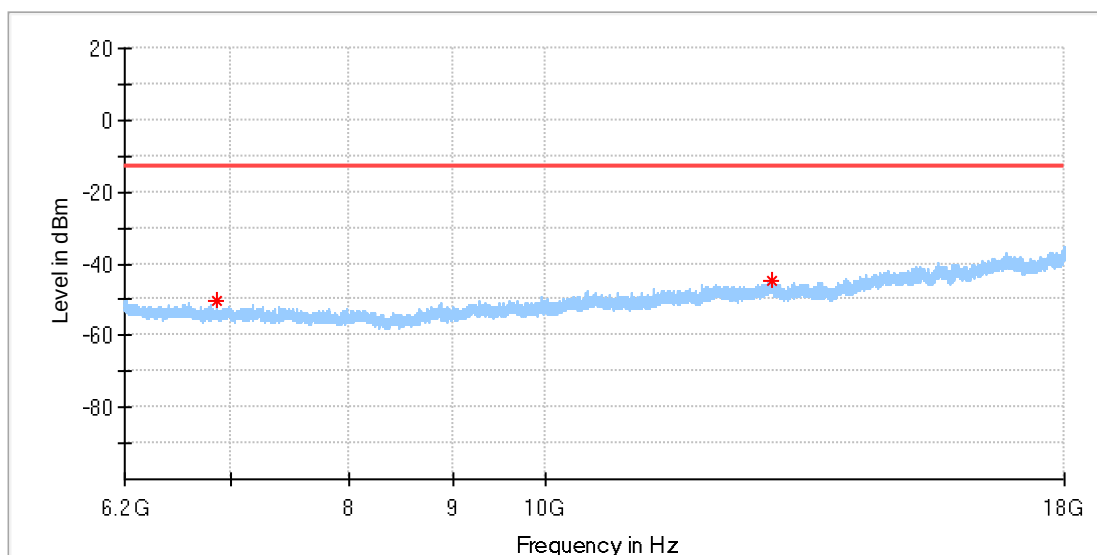


## Critical Freqs

| Frequency (MHz) | MaxPeak (dBm) | Limit (dBm) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|-----------------|---------------|-------------|-------------|-------------|-----|---------------|------------|
| 1205.500000     | -49.50        | -13.00      | 36.50       | 150.0       | V   | 220.0         | -92.8      |
| 1636.000000     | -53.02        | -13.00      | 40.02       | 150.0       | V   | 288.0         | -92.5      |
| 2410.500000     | -6.88         | -13.00      | -6.12       | 150.0       | V   | 110.0         | -88.1      |
| 4609.000000     | -44.49        | -13.00      | 31.49       | 150.0       | V   | 152.0         | -83.8      |

## EUT Information

|                     |                          |
|---------------------|--------------------------|
| EUT Name:           | Amplimax Ultra           |
| Model:              | EPRL30                   |
| Test Mode:          | WIFI 2.4G_+5G NR n5      |
| Order No/Sample No: | 168428354/A003541536-001 |
| Test Voltage:       | 120V/60Hz                |
| Remark:             | Temp 23 Humi:53%         |
| Test Standard:      | FCC Part 22              |
| Tested By:          | Kei Zhang                |
| Reviewed By:        | Terry Yin                |

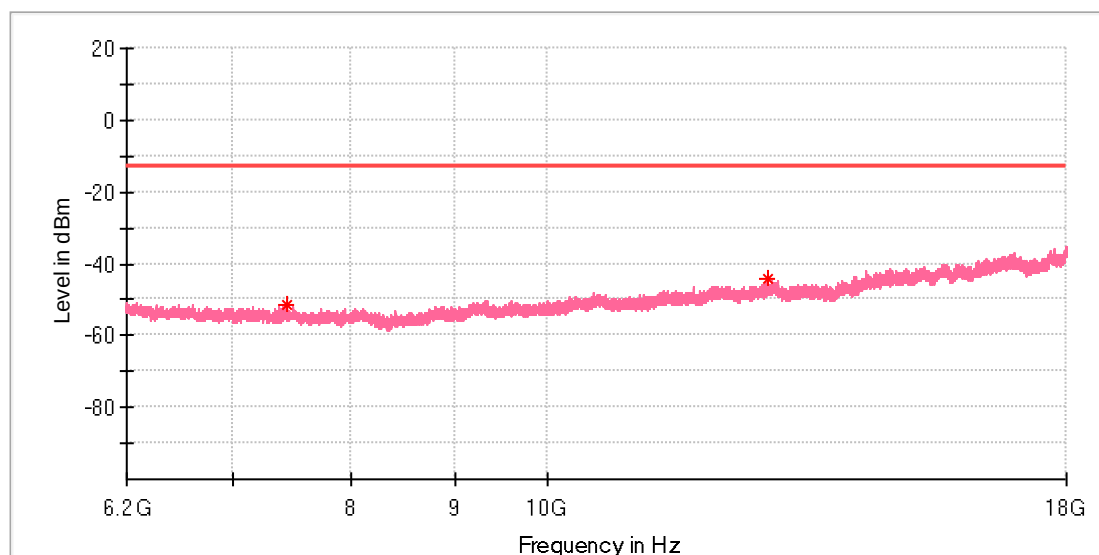


## Critical\_Freqs

| Frequency (MHz) | MaxPeak (dBm) | Limit (dBm) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|-----------------|---------------|-------------|-------------|-------------|-----|---------------|------------|
| 6879.975000     | -50.28        | -13.00      | 37.28       | 150.0       | H   | 284.0         | -87.6      |
| 12906.333333    | -44.79        | -13.00      | 31.79       | 150.0       | H   | 237.0         | -78.6      |

## EUT Information

|                     |                          |
|---------------------|--------------------------|
| EUT Name:           | Amplimax Ultra           |
| Model:              | EPRL30                   |
| Test Mode:          | WIFI 2.4G_+5G NR n5      |
| Order No/Sample No: | 168428354/A003541536-001 |
| Test Voltage:       | 120V/60Hz                |
| Remark:             | Temp 23 Humi:53%         |
| Test Standard:      | FCC Part 22              |
| Tested By:          | Kei Zhang                |
| Reviewed By:        | Terry Yin                |



## Critical\_Freqs

| Frequency (MHz) | MaxPeak (dBm) | Limit (dBm) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|-----------------|---------------|-------------|-------------|-------------|-----|---------------|------------|
| 7439.000000     | -51.55        | -13.00      | 38.55       | 150.0       | V   | 118.0         | -86.9      |
| 12841.433333    | -43.95        | -13.00      | 30.95       | 150.0       | V   | 134.0         | -79.1      |

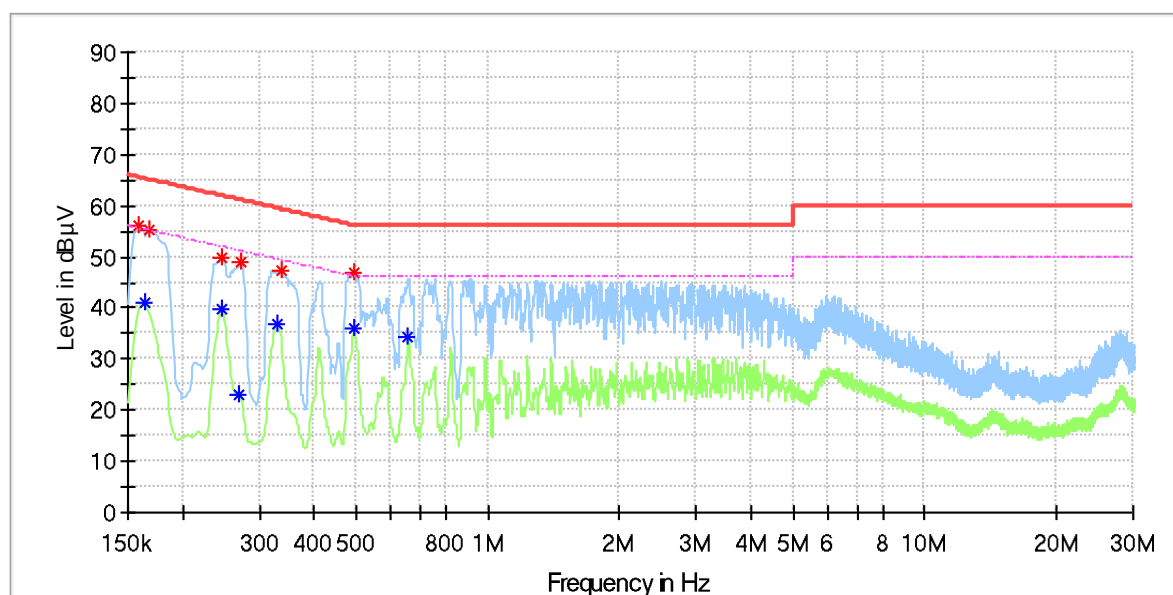
## APPENDIX A.2: CONDUCTED EMISSIONS

Wi-Fi operation

Live

### EUT Information

|                     |                      |
|---------------------|----------------------|
| EUT Name            | Amplimax Ultra       |
| Order Number:       | 168428354            |
| Model:              | EPRL30               |
| Test Mode:          | B                    |
| Test Voltage:       | AC 120V/60Hz         |
| Test Standard:      | FCC Part 15C         |
| Test By:/Review By: | Eric Guo / Gary Chen |
| Tem./Hum./Pressure: | 25.0°C/51.2%/101kPa  |
| Remark:             | SR1                  |



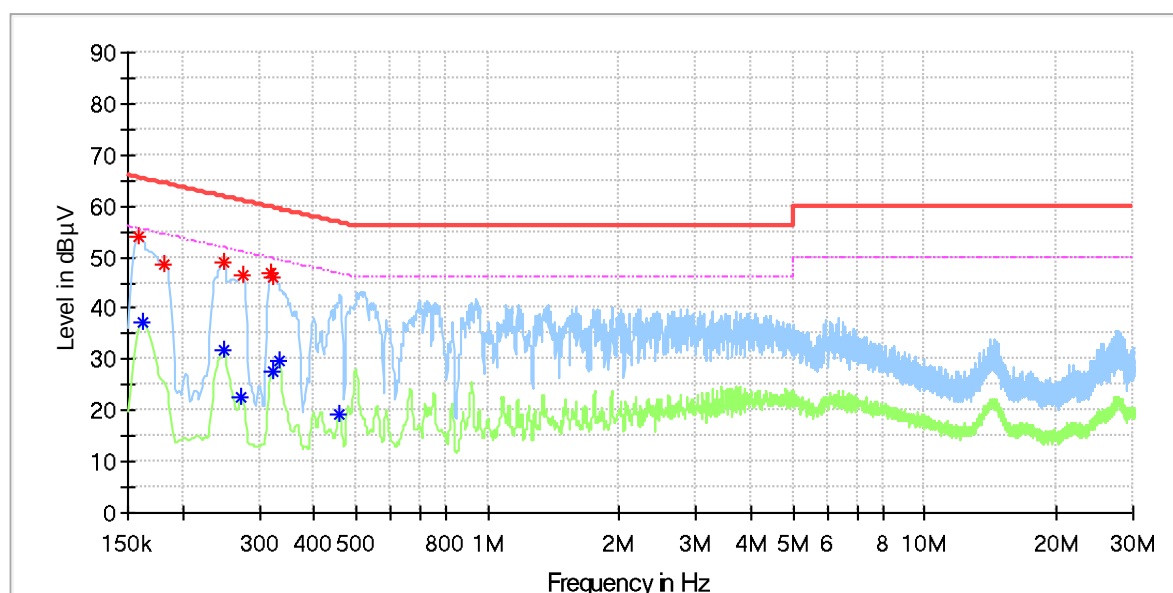
### Critical Freqs

| Frequency (MHz) | MaxPeak (dBμV) | Average (dBμV) | Limit (dBμV) | Margin (dB) | Line | Corr. (dB) |
|-----------------|----------------|----------------|--------------|-------------|------|------------|
| 0.158292        | 56.07          | ---            | 65.55        | 9.49        | L1   | 9.6        |
| 0.163267        | ---            | 41.11          | 55.30        | 14.19       | L1   | 9.7        |
| 0.168242        | 55.44          | ---            | 65.05        | 9.61        | L1   | 9.7        |
| 0.246183        | 49.76          | ---            | 61.89        | 12.13       | L1   | 9.8        |
| 0.246183        | ---            | 39.58          | 51.89        | 12.30       | L1   | 9.8        |
| 0.269400        | ---            | 23.22          | 51.14        | 27.91       | L1   | 9.8        |
| 0.271058        | 48.83          | ---            | 61.09        | 12.25       | L1   | 9.8        |
| 0.329100        | ---            | 37.01          | 49.47        | 12.46       | L1   | 9.9        |
| 0.335733        | 47.47          | ---            | 59.31        | 11.84       | L1   | 9.9        |
| 0.493275        | ---            | 35.87          | 46.11        | 10.24       | L1   | 9.9        |
| 0.496592        | 46.79          | ---            | 56.06        | 9.26        | L1   | 9.9        |
| 0.657450        | ---            | 34.31          | 46.00        | 11.69       | L1   | 9.8        |

Neutral

## EUT Information

|                     |                      |
|---------------------|----------------------|
| EUT Name            | Amplimax Ultra       |
| Order Number:       | 168428354            |
| Model:              | EPRL30               |
| Test Mode:          | B                    |
| Test Voltage:       | AC 120V/60Hz         |
| Test Standard:      | FCC Part 15C         |
| Test By:/Review By: | Eric Guo / Gary Chen |
| Tem./Hum./Pressure: | 25.0°C/51.2%/101kPa  |
| Remark:             | SR1                  |



## Critical Freqs

| Frequency (MHz) | MaxPeak (dBμV) | Average (dBμV) | Limit (dBμV) | Margin (dB) | Line | Corr. (dB) |
|-----------------|----------------|----------------|--------------|-------------|------|------------|
| 0.158292        | 54.13          | ---            | 65.55        | 11.42       | N    | 9.8        |
| 0.161608        | ---            | 37.46          | 55.38        | 17.92       | N    | 9.8        |
| 0.181508        | 48.74          | ---            | 64.42        | 15.68       | N    | 9.7        |
| 0.247842        | 48.95          | ---            | 61.83        | 12.88       | N    | 9.7        |
| 0.247842        | ---            | 31.63          | 51.83        | 20.20       | N    | 9.7        |
| 0.272717        | ---            | 22.72          | 51.04        | 28.32       | N    | 9.7        |
| 0.274375        | 46.32          | ---            | 60.98        | 14.66       | N    | 9.7        |
| 0.317492        | 46.91          | ---            | 59.77        | 12.87       | N    | 9.7        |
| 0.320808        | ---            | 27.64          | 49.69        | 22.04       | N    | 9.7        |
| 0.324125        | 46.17          | ---            | 59.60        | 13.43       | N    | 9.7        |
| 0.332417        | ---            | 29.73          | 49.39        | 19.66       | N    | 9.7        |
| 0.456792        | ---            | 19.35          | 46.75        | 27.40       | N    | 9.7        |

===== END OF APPENDIX =====