

|                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                      |                                                                    |                                                                                                                                       |                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| <b>Prüfbericht-Nr.:</b><br>Test report no.:                                                                                                                                                                                                                                                                                                                                                                                                         | <b>CN23577E 001</b>                                                                                                                                  | <b>Auftrags-Nr.:</b><br>Order no.:                                 | 180269606                                                                                                                             | Seite 1 von 49<br>Page 1 of 49                                   |
| <b>Kunden-Referenz-Nr.:</b><br>Client reference no.:                                                                                                                                                                                                                                                                                                                                                                                                | N/A                                                                                                                                                  | <b>Auftragsdatum:</b><br>Order date:                               | 2023.08.21                                                                                                                            |                                                                  |
| <b>Auftraggeber:</b><br>Client:                                                                                                                                                                                                                                                                                                                                                                                                                     | Ningbo Oriental Shengshi Photoelectric Technology Co., Ltd<br>Dasong Salt Field, Zhanqi Town, Yinzhou District, Ningbo 315100 Zhejiang P.R.<br>China |                                                                    |                                                                                                                                       |                                                                  |
| <b>Prüfgegenstand:</b><br>Test item:                                                                                                                                                                                                                                                                                                                                                                                                                | LED Umbrella lamp                                                                                                                                    |                                                                    |                                                                                                                                       |                                                                  |
| <b>Bezeichnung / Typ-Nr.:</b><br>Identification / Type no.:                                                                                                                                                                                                                                                                                                                                                                                         | DFSS-8007                                                                                                                                            |                                                                    |                                                                                                                                       |                                                                  |
| <b>Auftrags-Inhalt:</b><br>Order content:                                                                                                                                                                                                                                                                                                                                                                                                           | TÜV Rheinland – FCC Service                                                                                                                          |                                                                    |                                                                                                                                       |                                                                  |
| <b>Prüfgrundlage:</b><br>Test specification:                                                                                                                                                                                                                                                                                                                                                                                                        | FCC 47 CFR Part 15.203<br>FCC 47 CFR Part 15.247<br>FCC Part 15, Subpart B:2022                                                                      |                                                                    |                                                                                                                                       |                                                                  |
| <b>Wareneingangsdatum:</b><br>Date of sample receipt:                                                                                                                                                                                                                                                                                                                                                                                               | 2023.08.21                                                                                                                                           | Refer to Photo Documentation                                       |                                                                                                                                       |                                                                  |
| <b>Prüfmuster-Nr.:</b><br>Test sample no.:                                                                                                                                                                                                                                                                                                                                                                                                          | A003550167-011                                                                                                                                       |                                                                    |                                                                                                                                       |                                                                  |
| <b>Prüfzeitraum:</b><br>Testing period:                                                                                                                                                                                                                                                                                                                                                                                                             | 2023.09.01 - 2023.11.22                                                                                                                              |                                                                    |                                                                                                                                       |                                                                  |
| <b>Ort der Prüfung:</b><br>Place of testing:                                                                                                                                                                                                                                                                                                                                                                                                        | Refer to section 1.1                                                                                                                                 |                                                                    |                                                                                                                                       |                                                                  |
| <b>Prüflaboratorium:</b><br>Testing laboratory:                                                                                                                                                                                                                                                                                                                                                                                                     | TÜV Rheinland / CCIC<br>(Ningbo) Co., Ltd.                                                                                                           |                                                                    |                                                                                                                                       |                                                                  |
| <b>Prüfergebnis*:</b><br>Test result*:                                                                                                                                                                                                                                                                                                                                                                                                              | Pass                                                                                                                                                 |                                                                    |                                                                                                                                       |                                                                  |
| <b>geprüft von:</b><br>tested by:                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>genehmigt von:</b><br>authorized by:                                                                                                              |                                                                    |                                                                                                                                       |                                                                  |
| <b>Datum:</b><br>Date: 2024.04.01                                                                                                                                                                                                                                                                                                                                                                                                                   | <i>Keda Zhou</i>                                                                                                                                     |                                                                    | <b>Ausstelldatum:</b><br>Issue date: 2024.04.01                                                                                       | <i>Season Yang</i>                                               |
| <b>Stellung / Position:</b>                                                                                                                                                                                                                                                                                                                                                                                                                         | Keda Zhou/PE                                                                                                                                         | <b>Stellung / Position:</b>                                        | Season Yang/Authorizer                                                                                                                |                                                                  |
| <b>Sonstiges / Other:</b>                                                                                                                                                                                                                                                                                                                                                                                                                           | FCC ID: 2A27TDFSS-8007                                                                                                                               |                                                                    |                                                                                                                                       |                                                                  |
| <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:                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1 = sehr gut<br>P(ass) = entspricht o.g. Prüfgrundlage(n)                                                                                            | 2 = gut<br>2 = good<br>P(ass) = passed a.m. test specification(s)  | 3 = befriedigend<br>F(ail) = entspricht nicht o.g. Prüfgrundlage(n)<br>3 = satisfactory<br>F(ail) = failed a.m. test specification(s) | 4 = ausreichend<br>N/A = nicht anwendbar<br>N/A = not applicable |
| * Legend:                                                                                                                                                                                                                                                                                                                                                                                                                                           | 1 = very good<br>P(ass) = passed a.m. test specification(s)                                                                                          | 2 = good<br>2 = good<br>P(ass) = passed a.m. test specification(s) | 3 = satisfactory<br>3 = satisfactory<br>F(ail) = failed a.m. test specification(s)                                                    | 4 = sufficient<br>N/A = not applicable<br>N/A = not applicable   |
| <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>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. |                                                                                                                                                      |                                                                    |                                                                                                                                       |                                                                  |

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## Anmerkungen Remarks

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.

Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden.

*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.*

*Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request.*

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*As contractually agreed, this document has been signed digitally only. TUV 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, TUV 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.*

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.

*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.*

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 bezüglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019.

*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.*

## Test Summary

### 4.1.1 ANTENNA REQUIREMENT

Result:

Pass

### 4.1.2 20dB BANDWIDTH

Result:

Pass

N/A

### 4.1.3 CARRIER SEPARATION

Result:

Pass

### 4.1.4 NUMBER OF HOPPING CHANNELS

Result:

Pass

### 4.1.5 TIME OF OCCUPANCY

Result:

Pass

### 4.1.6 MAXIMUM PEAK CONDUCTED OUTPUT POWER

Result:

Pass

### 4.1.7 CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 kHz BANDWIDTH

Result:

Pass

### 4.1.8 CONDUCTED EMISSION (AC POWER-LINE)

Result:

Pass

### 4.1.9 RADIATED EMISSION

Result:

Pass

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## 1. Test Sites

### 1.1 Test Facilities

**Laboratory: TÜV Rheinland /CCIC (Ningbo) Co., Ltd.**

**1st Floor, Building 11, Scholar Innovation Park, No.1188 Zhongguan Road, Zhenhai District, Ningbo 315200 P.R. China**

The tests were conducted by TÜV Rheinland/CCIC's engineer directly in the above laboratory.

### 1.2 List of Test and Measurement Instruments

**Table 1: List of Test and Measurement Equipment, Laboratory**

| Kind of Equipment       | Type          | Serial No.   | Last cal. date | Cal. due date |
|-------------------------|---------------|--------------|----------------|---------------|
| EMI test receiver       | ESR7          | 101929       | 2023.10.30     | 2024.10.29    |
| Spectrum analyzer       | FSV40         | 101412       | 2023.10.30     | 2024.10.29    |
| Bilog Antenna           | CBL6112D      | 49033        | 2021.03.15     | 2024.03.14    |
| Horn antenna            | HF907         | 102653       | 2023.07.20     | 2026.07.19    |
| Broad-Band Horn Antenna | BBHA 9170     | 899          | 2021.01.11     | 2024.01.12    |
| Pre-amplifier           | SCU-18F       | 180051       | 2023.10.30     | 2024.10.29    |
| Pre-amplifier           | LNPA_1840G-50 | SK2021040801 | 2023.10.30     | 2024.10.29    |
| RF control Unit         | JS0806-2      | 22G8060598   | 2023.11.03     | 2024.11.02    |
| Mains control unit      | JS0806-4ADC   | 21L8060536   | 2023.10.30     | 2024.10.29    |

### 1.3 Uncertainty of Measurement

**Table 2: Measurement Uncertainty**

| Test Item                       | Expanded Measurement Uncertainty (k=2) |
|---------------------------------|----------------------------------------|
| Conducted Emission (9-150kHz)   | 3.70dB                                 |
| Conducted Emission (150k-30MHz) | 3.30dB                                 |
| Occupied Channel Bandwidth      | ±5 %                                   |
| Radiated Emission (30-1000MHz)  | 4.39dB                                 |
| Radiated Emission (1-18GHz)     | 4.67dB                                 |

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## 2. General Product Information

### 2.1 Product Function and Intended Use

The EUT (equipment under test) is a LED Umbrella lamp operated at 2400-2483.5MHz.

For more detail information, refer to the user's manual.

### 2.2 Ratings and System Details

**Table 3: General Description of EUT**

| General Description of EUT                     |                                 |
|------------------------------------------------|---------------------------------|
| Charging Voltage:                              | DC 5V                           |
| Internal battery Voltage:                      | DC 3.7V                         |
| Protection Class:                              | Class III                       |
| Operating Temperature Range:                   | 10°C~30°C                       |
| Technical Specification of Bluetooth (BR, EDR) |                                 |
| Frequency Range:                               | 2402 – 2480MHz                  |
| Modulation Type:                               | GFSK(BR), $\pi/4$ -DQPSK(EDR)   |
| Data Rate:                                     | DH1, DH3, DH5, 2DH1, 2DH3, 2DH5 |
| Channel:                                       | 0-78 (hopping)                  |
| Antenna Type:                                  | PCB Antenna                     |
| Antenna Gain:                                  | 3.0dBi                          |

**Table 4: Channel List**

| Channel List for BR/EDR |                |     |                |     |                |     |                |
|-------------------------|----------------|-----|----------------|-----|----------------|-----|----------------|
| Ch.                     | Freq.<br>(MHz) | Ch. | Freq.<br>(MHz) | Ch. | Freq.<br>(MHz) | Ch. | Freq.<br>(MHz) |
| 0                       | 2402           | 20  | 2422           | 40  | 2442           | 60  | 2462           |
| 1                       | 2403           | 21  | 2423           | 41  | 2443           | 61  | 2463           |
| 2                       | 2404           | 22  | 2424           | 42  | 2444           | 62  | 2464           |
| 3                       | 2405           | 23  | 2425           | 43  | 2445           | 63  | 2465           |
| 4                       | 2406           | 24  | 2426           | 44  | 2446           | 64  | 2466           |
| 5                       | 2407           | 25  | 2427           | 45  | 2447           | 65  | 2467           |
| 6                       | 2408           | 26  | 2428           | 46  | 2448           | 66  | 2468           |
| 7                       | 2409           | 27  | 2429           | 47  | 2449           | 67  | 2469           |
| 8                       | 2410           | 28  | 2430           | 48  | 2450           | 68  | 2470           |
| 9                       | 2411           | 29  | 2431           | 49  | 2451           | 69  | 2471           |
| 10                      | 2412           | 30  | 2432           | 50  | 2452           | 70  | 2472           |
| 11                      | 2413           | 31  | 2433           | 51  | 2453           | 71  | 2473           |
| 12                      | 2414           | 32  | 2434           | 52  | 2454           | 72  | 2474           |
| 13                      | 2415           | 33  | 2435           | 53  | 2455           | 73  | 2475           |
| 14                      | 2416           | 34  | 2436           | 54  | 2456           | 74  | 2476           |

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| Channel List for BR/EDR |      |    |      |    |      |    |      |
|-------------------------|------|----|------|----|------|----|------|
| 15                      | 2417 | 35 | 2437 | 55 | 2457 | 75 | 2477 |
| 16                      | 2418 | 36 | 2438 | 56 | 2458 | 76 | 2478 |
| 17                      | 2419 | 37 | 2439 | 57 | 2459 | 77 | 2479 |
| 18                      | 2420 | 38 | 2440 | 58 | 2460 | 78 | 2480 |
| 19                      | 2421 | 39 | 2441 | 59 | 2461 |    |      |

## 2.3 Independent Operation Modes

There are some modes:

Mode A: Transmitting continuously of BT\_ GFSK

1. Channel 2402MHz
2. Channel 2441MHz
3. Channel 2480MHz
4. Hopping

Mode B: Transmitting continuously of BT\_  $\pi/4$ -DQPSK

1. Channel 2402MHz
2. Channel 2441MHz
3. Channel 2480MHz
4. Hopping

Mode C: Normal Working

Mode D: Charging

Refer to the user's manual for further information.

## 2.4 Noise Generating and Noise Suppressing Parts

Refer to the Circuit Diagram for further information.

## 2.5 Submitted Documents

Circuit diagram, label, user manual etc.

### 3. Test Set-up and Operation Modes

#### 3.1 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.

#### 3.2 Test Operation and Test Software

During testing, Channel & Power Controlling Software provided by the customer was used to control the operating channel as well as the output power level. The RF output power was selected according to the instruction given by the manufacturer. The setting of the RF output power expected by the customer shall be fixed on the firmware of the final end product.

All testing were performed according to the procedures in ANSI C63.10: 2013.

Test Software EMC32 V10.30 was used in the radiated emission test.

More details refer to the related paragraph of this report.

#### 3.3 Special Accessories and Auxiliary Equipment

Table 5: List of Auxiliary Equipment

| Description | Manufacturer | Model No. |
|-------------|--------------|-----------|
| Adapter     | Apple        | A1443     |

#### 3.4 Countermeasures to Achieve ERM Compliance

The test sample which has been tested contained the noise suppression parts as described in the Circuit Diagram. No additional measures were employed to achieve compliance.

### 3.5 Test set-up

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

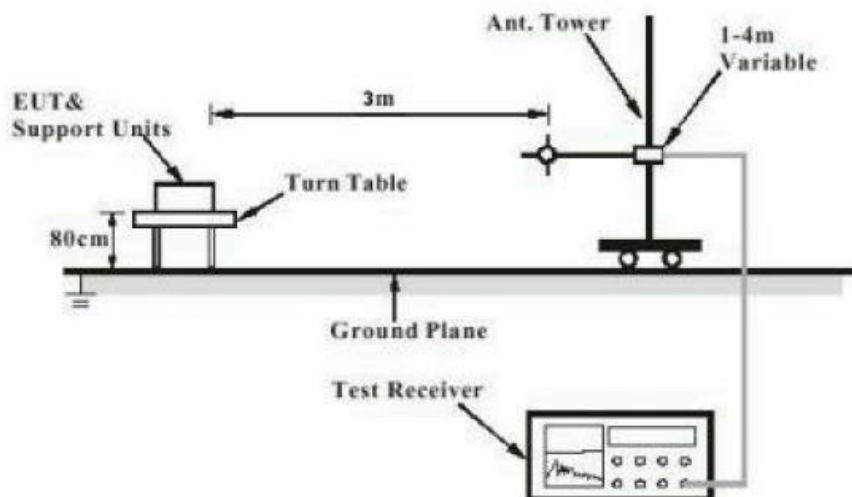


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)

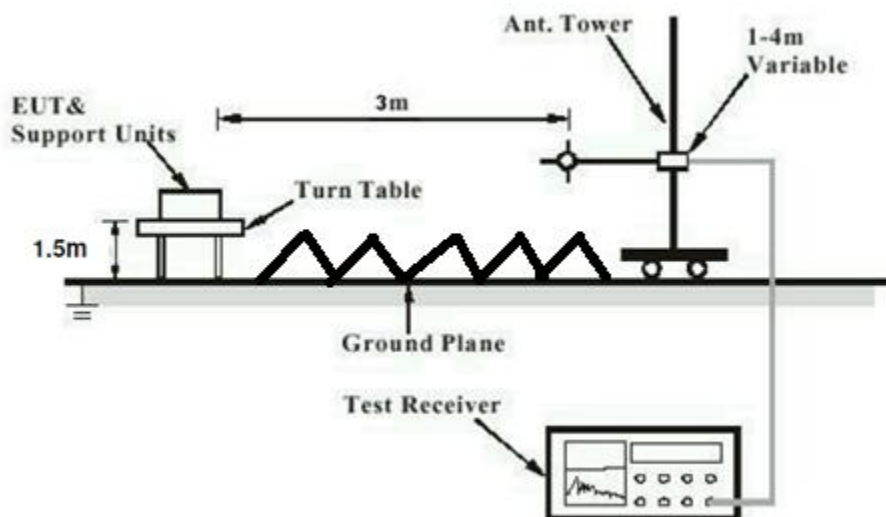
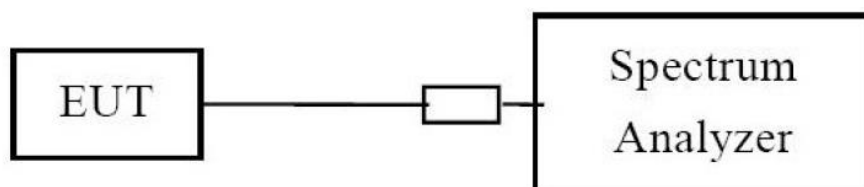


Diagram of Measurement Configuration for Conducted Transmitter Measurement



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## 4. Test Results

### 4.1 Transmitter Requirement & Test Suites

#### 4.1.1 Antenna Requirement

**Result:**

**Pass**

Test Specification

Test standard

Limit

: FCC 47 CFR Part 15.203

: FCC: the use of antennas with directional gains that do not exceed 6 dBi

According to the manufacturer declared, the EUT has an integral antenna (PCB Antenna, Antenna Gain: 3.0dBi), and no consideration of replacement. Therefore, the EUT is considered sufficient to comply with the provision.

Refer to EUT Photo for further details.

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#### 4.1.2 20dB Bandwidth

**Result:**

N/A

Test Specification

Test standard : FCC 47 CFR Part 15.247 (a)(1)

Basic standard : ANSI C63.10: 2020

Limits : No Limit

Kind of test site : Shielded Room

**Test Setup**

Date of testing : 2023.11.22

Input voltage : DC 3.7V

Operational mode : A.1, A.2, A.3, B.1, B.2, B.3

Temperature : 23°C

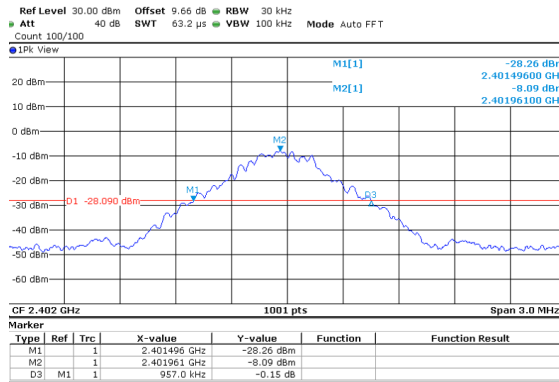
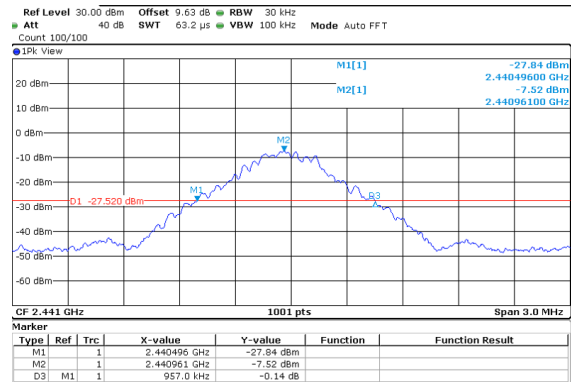
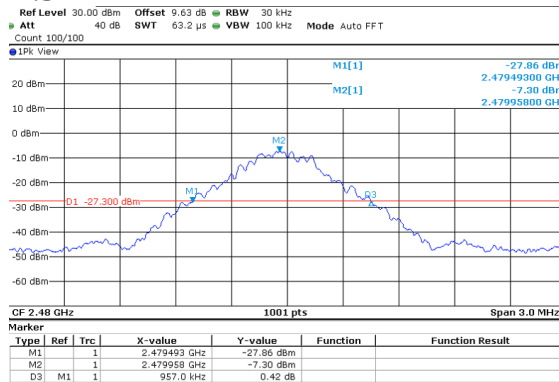
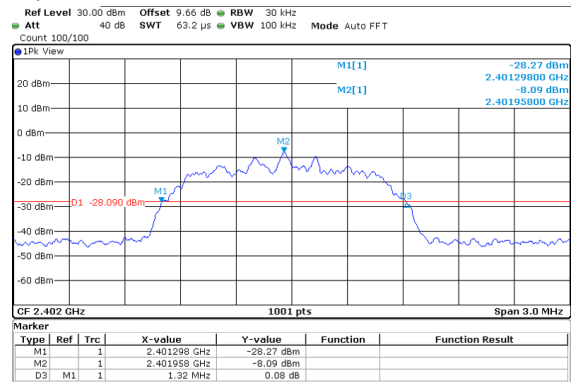
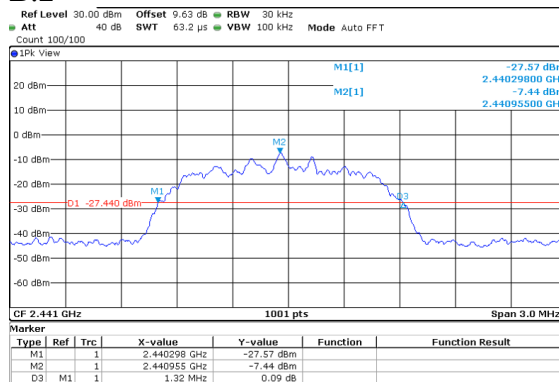
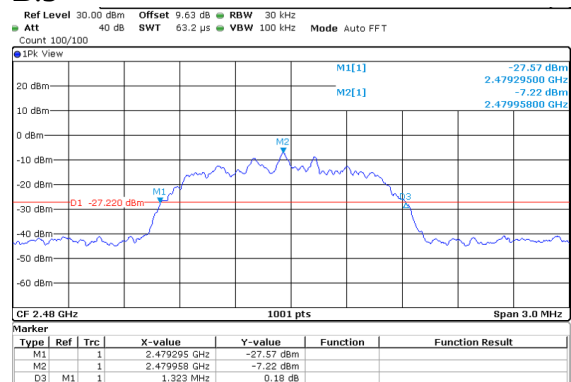
Relative humidity : 56%

Atmospheric pressure : 101.2 kPa

**Table 6: Test result of 20dB Bandwidth**

| Mode | Bandwidth (kHz) | Limit (kHz) | Verdict |
|------|-----------------|-------------|---------|
| A.1  | 960             | N/A         | N/A     |
| A.2  | 960             | N/A         | N/A     |
| A.3  | 960             | N/A         | N/A     |
| B.1  | 1320            | N/A         | N/A     |
| B.2  | 1320            | N/A         | N/A     |
| B.3  | 1320            | N/A         | N/A     |

Note: For frequency hopping systems operating in the 2400 – 2483.5MHz band, no bandwidth limit is specified. The test data is provided for reference.

**Figure 1: 20dB Bandwidth Measurement**
**A.1**

**A.2**

**A.3**

**B.1**

**B.2**

**B.3**


### 4.1.3 Carrier Separation

**Result:**

**Pass**

**Test Specification**

Test standard : FCC 47 CFR Part 15.247 (a)(1)  
Basic standard : ANSI C63.10: 2020  
Limits : FCC 47 CFR Part 15.247 (a)(1)  
Kind of test site : Shielded Room

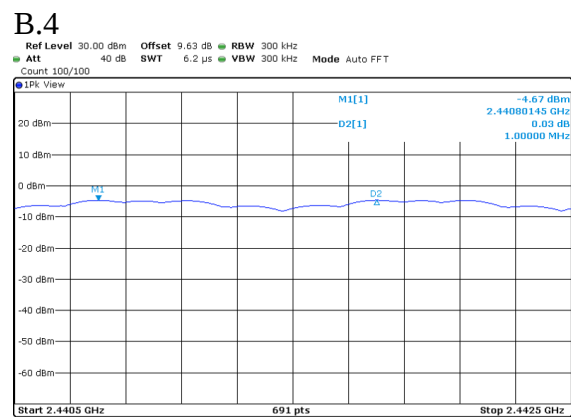
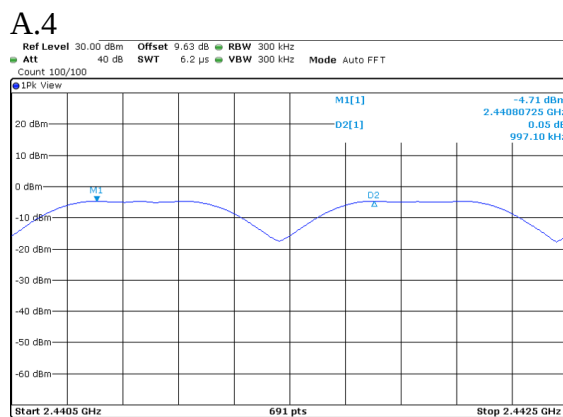
**Test Setup**

Date of testing : 2023.11.22  
Input voltage : DC 3.7V  
Operational mode : A.4, B.4  
Temperature : 23°C  
Relative humidity : 56%  
Atmospheric pressure : 101.2 kPa

**Table 7: Test result of carrier separation**

| Mode | Separation (kHz) | Limit (kHz) | Verdict |
|------|------------------|-------------|---------|
| A.4  | 997              | $\geq 960$  | Pass    |
| B.4  | 1000             | $\geq 880$  | Pass    |

**Figure 2: Carrier separation**



### 4.1.4 Number of Hopping Channels

**Result:**
**Pass**
**Test Specification**

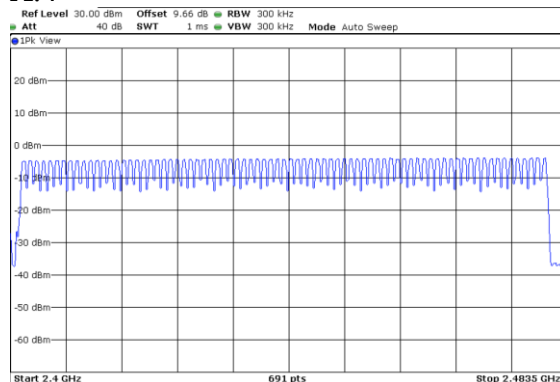
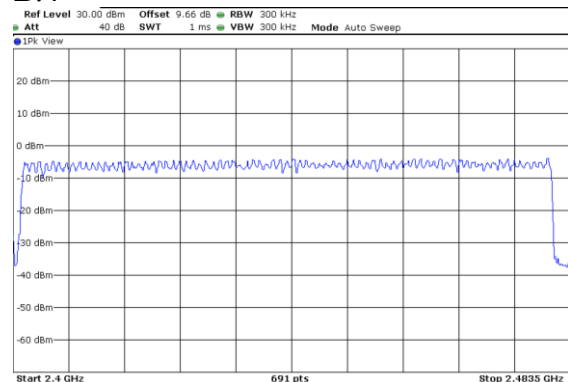
Test standard : FCC 47 CFR Part 15.247 (a)(1)(iii)  
 Basic standard : ANSI C63.10: 2020  
 Limits : At least 15  
 Kind of test site : Shielded Room

**Test Setup**

Date of testing : 2023.11.22  
 Input voltage : DC 3.7V  
 Operational mode : A.4, B.4  
 Temperature : 23°C  
 Relative humidity : 56%  
 Atmospheric pressure : 101.2 kPa

**Table 8: Test result of number of hopping channels**

| Mode | Number | Limit     | Verdict |
|------|--------|-----------|---------|
| A.4  | 79     | $\geq 15$ | Pass    |
| B.4  | 79     | $\geq 15$ | Pass    |

**Figure 3: Number of hopping channels**
**A.4**

**B.4**


## 4.1.5 Time of Occupancy

**Result:**
**Pass**

Test Specification

Test standard : FCC 47 CFR Part 15.247 (a)(1)(iii)

Basic standard : ANSI C63.10: 2020

Limits : Not more than 400ms

Kind of test site : Shielded Room

**Test Setup**

Date of testing : 2023.11.22

Input voltage : DC 3.7V

Operational mode : A.4, B.4

Temperature : 23°C

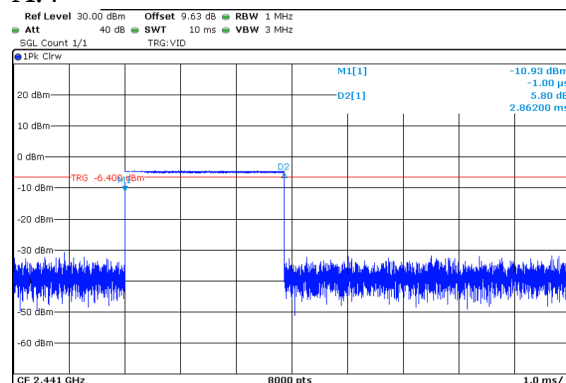
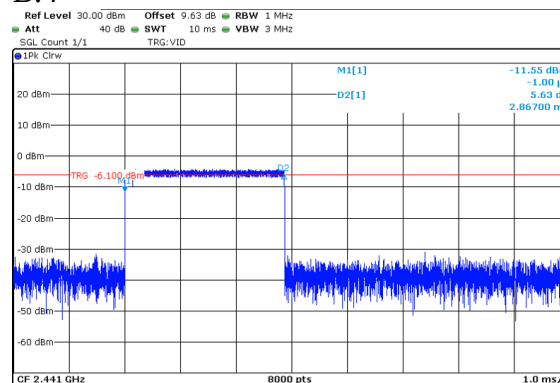
Relative humidity : 56%

Atmospheric pressure : 101.2 kPa

**Table 9: Test result of time of occupancy**

| Mode | Single Burst Time(ms) | Number of Hopping | Total Burst Time (ms) | Limit (ms) | Verdict |
|------|-----------------------|-------------------|-----------------------|------------|---------|
| A.4  | 2.862                 | 106.67            | 305                   | ≤400       | Pass    |
| B.4  | 2.867                 | 106.67            | 306                   | ≤400       | Pass    |

Note: Total Burst Time= Single Burst Time\* Number of Hopping

**Figure 4: Time of occupancy**
**A.4**

**B.4**


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#### 4.1.6 Maximum Peak Conducted Output Power

Result:

Pass

Test Specification

Test standard : FCC 47 CFR Part 15.247 (b)(1)

Basic standard : ANSI C63.10: 2020

Limits : FCC 47 CFR Part 15.247 (a)(1)&(b)(1)

Kind of test site : Shielded Room

#### Test Setup

Date of testing : 2023.11.22

Input voltage : DC 3.7V

Operational mode : A.1, A.2, A.3, B.1, B.2, B.3

Temperature : 23°C

Relative humidity : 56%

Atmospheric pressure : 101.2 kPa

Table 10: Test result of Maximum Peak Output Power

| Mode | Peak Output Power (dBm) | Limit (dBm) | Verdict |
|------|-------------------------|-------------|---------|
| A.1  | -4.36                   | ≤30         | Pass    |
| A.2  | -3.82                   | ≤30         | Pass    |
| A.3  | -3.65                   | ≤30         | Pass    |
| B.1  | -3.81                   | ≤20.97      | Pass    |
| B.2  | -3.34                   | ≤20.97      | Pass    |
| B.3  | -3.11                   | ≤20.97      | Pass    |

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#### **4.1.7 Conducted Spurious Emissions Measured in 100 kHz Bandwidth**

**Result:**

**Pass**

Test Specification

Test standard : FCC 47 CFR Part 15.247 (d)

Basic standard : ANSI C63.10: 2020

Limits : 20dB (below that in the 100kHz bandwidth within the band that contains the highest level of the desired power)

Kind of test site : Shielded Room

##### **Test Setup**

Date of testing : 2023.11.22

Input voltage : DC 3.7V

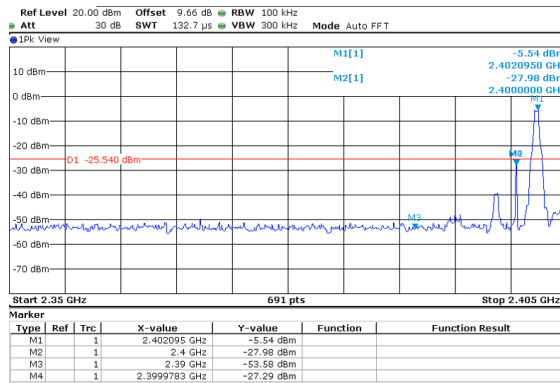
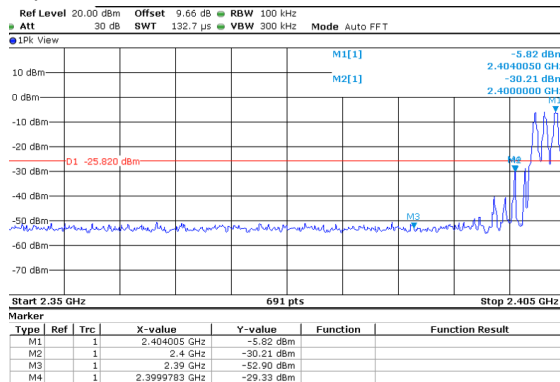
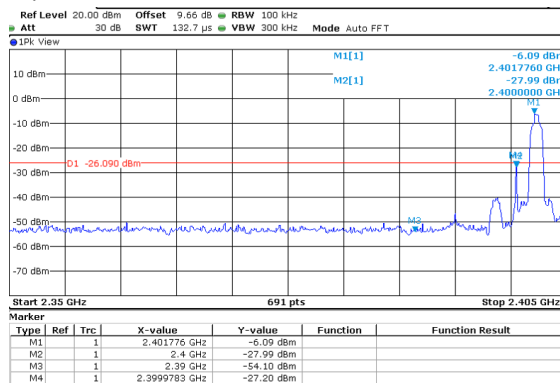
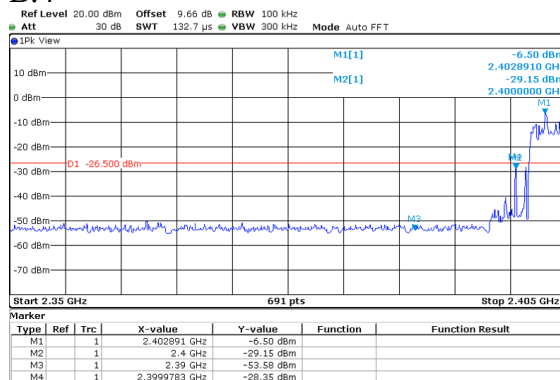
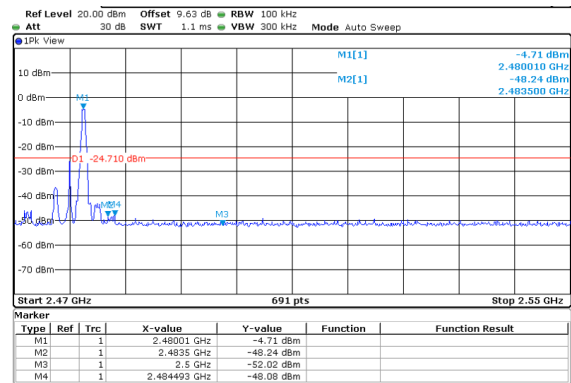
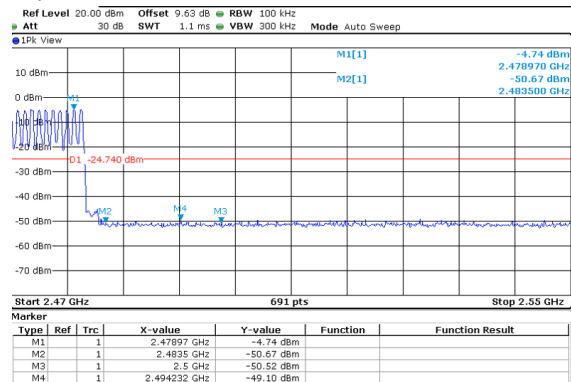
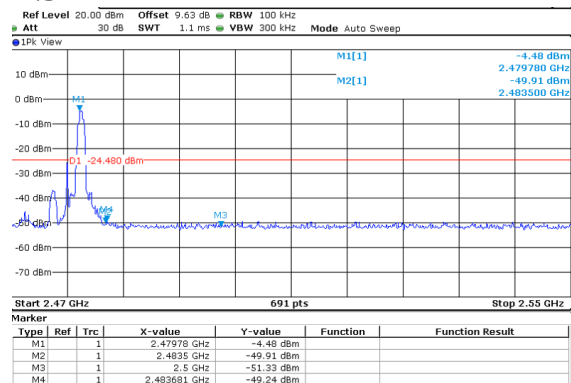
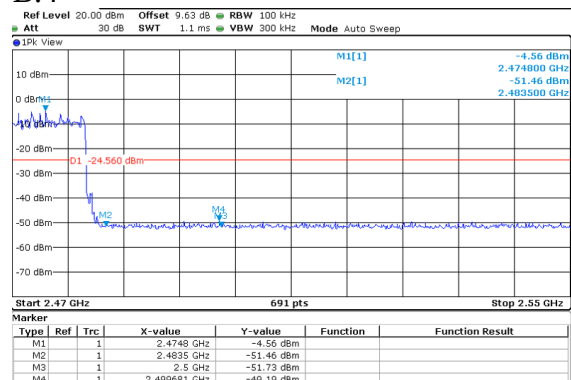
Operational mode : A.1, A.2, A.3, B.1, B.2, B.3

Temperature : 23°C

Relative humidity : 56%

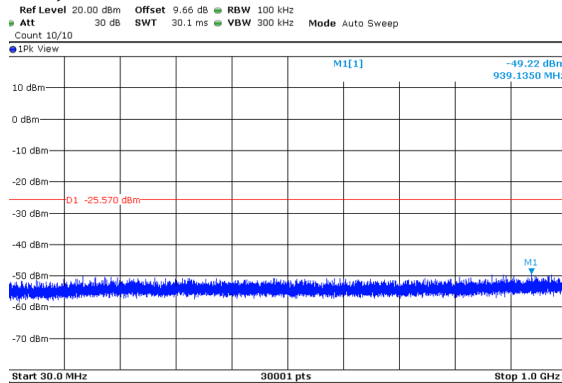
Atmospheric pressure : 101.2 kPa

All emissions are more than 20dB below fundamental, compliance is achieved as well.

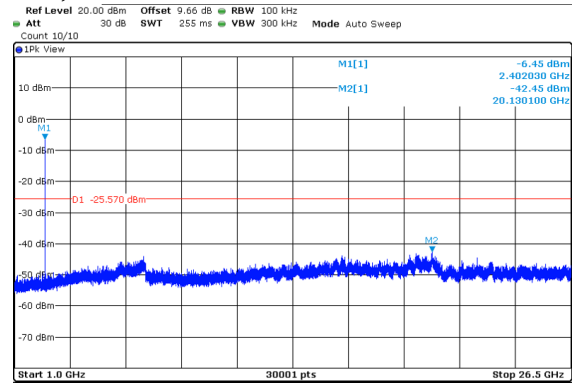
**Figure 5: Band Edge**
**A.1**

**A.4**

**B.1**

**B.4**

**A.3**

**A.4**

**B.3**

**B.4**


**Figure 6: Conducted Spurious Emission**

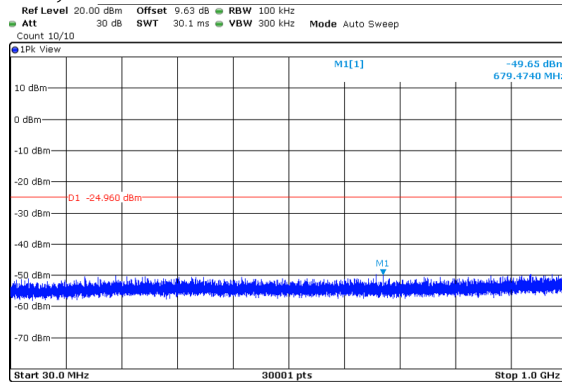
**A.1, 30MHz-1000MHz**



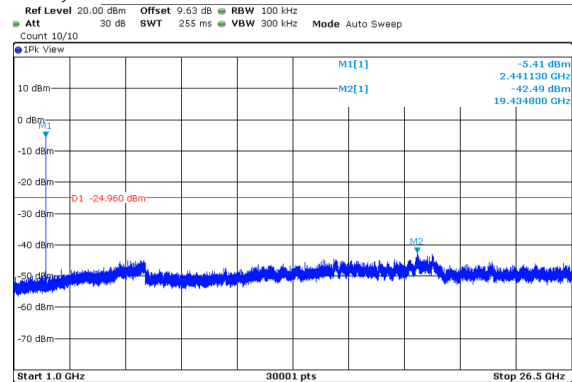
**A.1, 1GHz-26.5GHz**



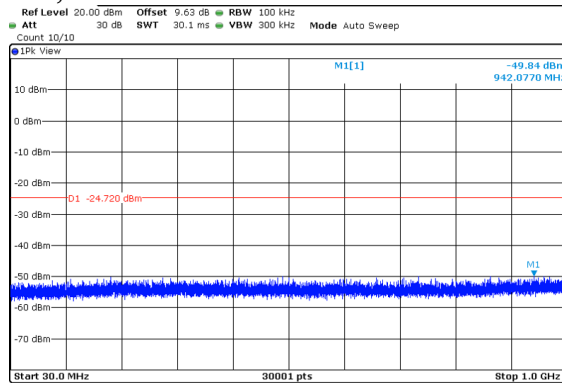
**A.2, 30MHz-1000MHz**



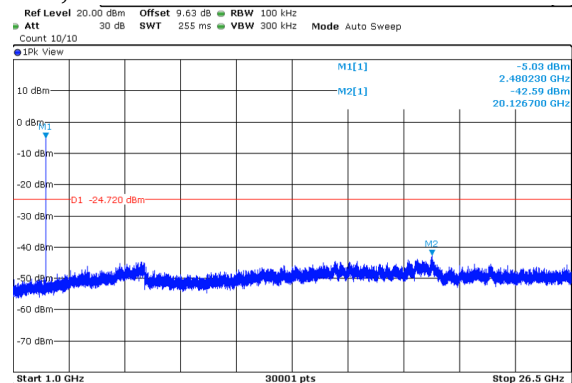
**A.2, 1GHz-26.5GHz**



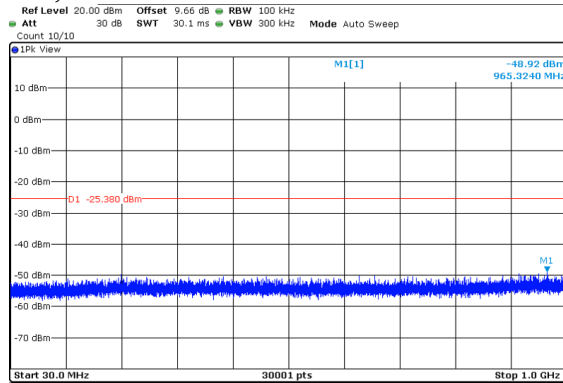
**A.3, 30MHz-1000MHz**



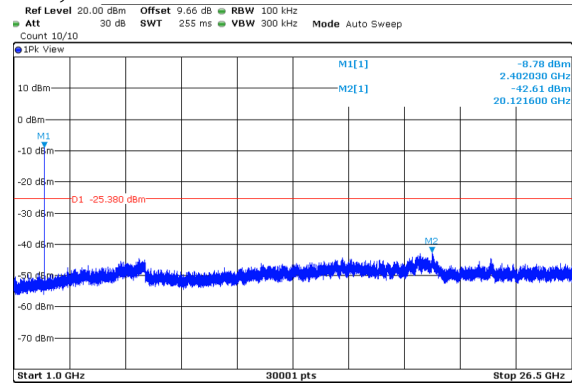
**A.3, 1GHz-26.5GHz**



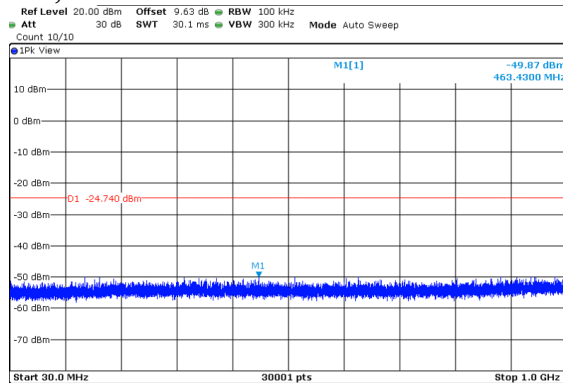
### B.1, 30MHz-1000MHz



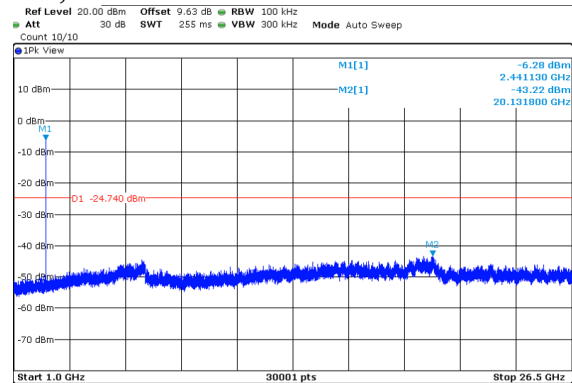
### B.1, 1GHz-26.5GHz



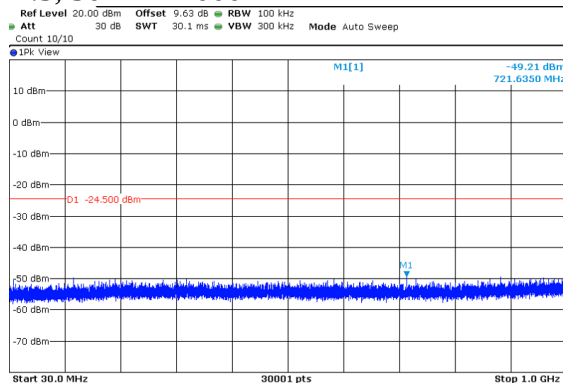
### B.2, 30MHz-1000MHz



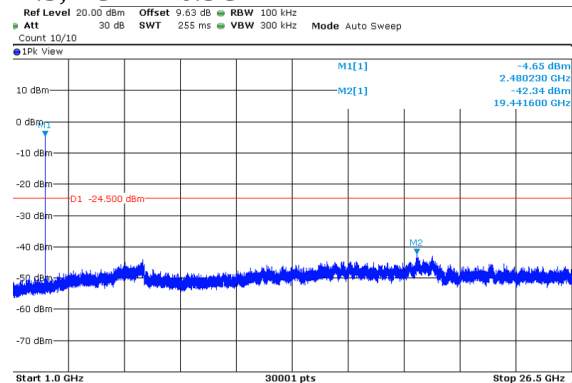
### B.2, 1GHz-26.5GHz



### B.3, 30MHz-1000MHz



### B.3, 1GHz-26.5GHz



#### 4.1.8 Conducted Emission (AC power-line)

**Result:**

**Pass**

Test Specification

Test standard : CFR47 FCC Part 15.107  
CFR47 FCC Part 15.207

Test procedure : ANSI C63.4:2014+A1:2017 and CISPR 16-1 series standards

Port : Mains

Frequency range : 0.15 – 30MHz

Limits : CFR47 FCC Part 15.107  
CFR47 FCC Part 15.207

Kind of test site : Shielding Room

**Test Setup**

Date of testing : 2023.09.18

Input voltage : DC 5V

Operational mode : D

Temperature : 21°C

Relative humidity : 63%

Atmospheric pressure : 101.2 kPa

The measurement setup was made according to ANSI C63.4:2014+A1:2017 in a shielded room.

The measurement equipment like test receivers, quasi-peak detector and artificial mains network (AMN) are in compliance with ANSI C63.4:2014+A1:2017 and CISPR 16-1 series standards.

The tested object was set-up on a wooden table. The EUT was set 0.8m away from the AMN. The cord longer than necessary to be connected to the AMN was folded forth and back parallel so as to form a bundle with a length between 0.3m and 0.4m.

The disturbance voltage test was performed on the neutral line and phase line of the power supply of the EUT respectively.

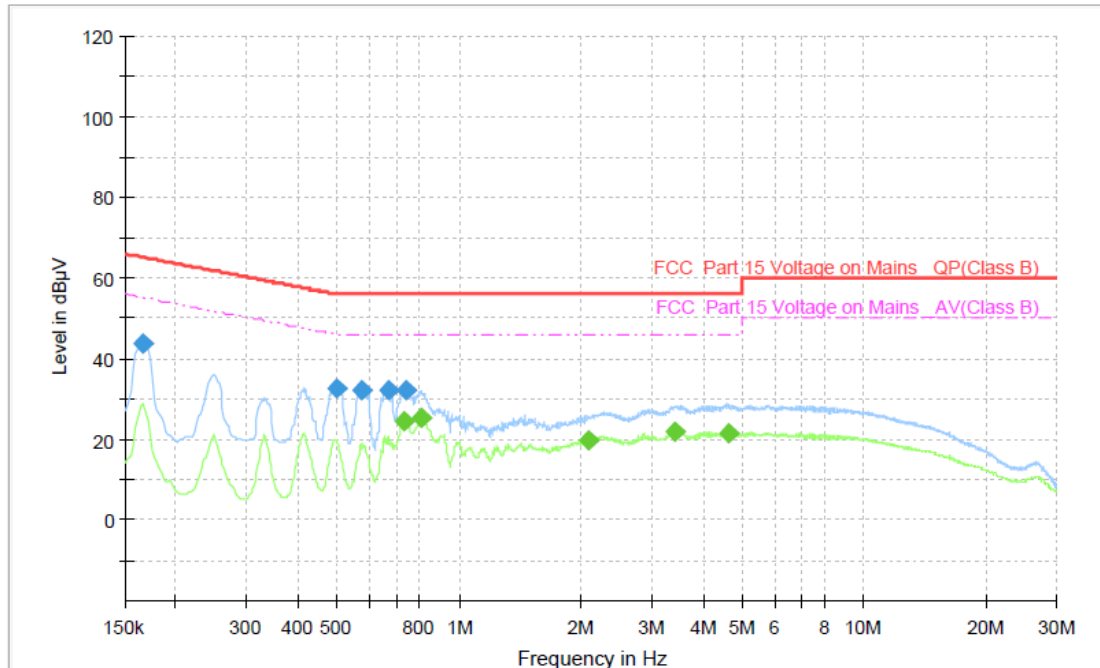
Before measurement, a survey was made to determine in which state the maximum disturbance was obtained. And the measurement was made in the state the maximum disturbance was obtained.

The following figures and tables were those measured by an automatic measuring system. Both Quasi Peak and Average Value were measured. Quasi-Peak and Average Value were measured and listed respectively where they had a maximum in previous scanning survey. In the Figures, “•” means Quasi-Peak Value and Average Value which were measured in final measurement.

The measurement result is calculated based on the following formula by the test software:

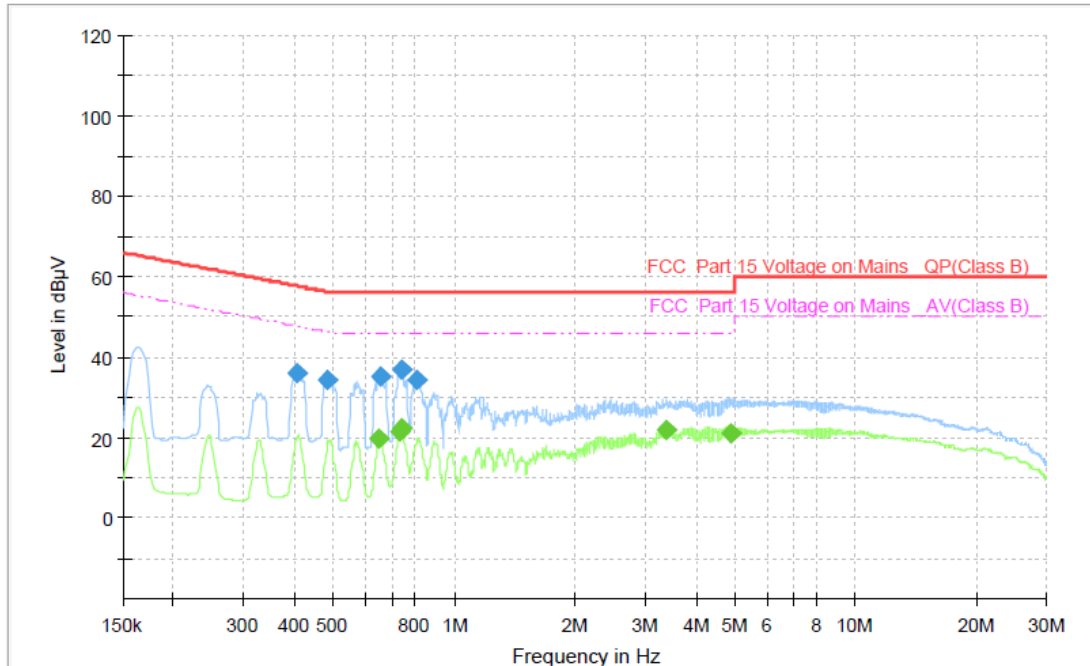
Emission Level = Reading level + Correction (LISN factor + cable loss)

**Figure 7: Spectral Diagrams, Conducted Emission, 150KHz - 30MHz, L**



## Final Result

| Frequency (MHz) | QuasiPeak (dBµV) | CAverage (dBµV) | Limit (dBµV) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Line | Filter | Corr. (dB) |
|-----------------|------------------|-----------------|--------------|-------------|-----------------|-----------------|------|--------|------------|
| 0.165750        | 43.98            | ---             | 65.17        | 21.19       | 1000.0          | 9.000           | L1   | ON     | 9.6        |
| 0.501000        | 32.76            | ---             | 56.00        | 23.24       | 1000.0          | 9.000           | L1   | ON     | 9.6        |
| 0.573000        | 32.44            | ---             | 56.00        | 23.57       | 1000.0          | 9.000           | L1   | ON     | 9.6        |
| 0.667500        | 32.15            | ---             | 56.00        | 23.85       | 1000.0          | 9.000           | L1   | ON     | 9.6        |
| 0.735000        | ---              | 24.41           | 46.00        | 21.59       | 1000.0          | 9.000           | L1   | ON     | 9.6        |
| 0.737250        | 32.12            | ---             | 56.00        | 23.88       | 1000.0          | 9.000           | L1   | ON     | 9.6        |
| 0.804750        | ---              | 25.30           | 46.00        | 20.70       | 1000.0          | 9.000           | L1   | ON     | 9.6        |
| 2.080500        | ---              | 19.99           | 46.00        | 26.01       | 1000.0          | 9.000           | L1   | ON     | 9.7        |
| 3.421500        | ---              | 21.87           | 46.00        | 24.13       | 1000.0          | 9.000           | L1   | ON     | 9.8        |
| 4.641000        | ---              | 21.51           | 46.00        | 24.49       | 1000.0          | 9.000           | L1   | ON     | 9.8        |

**Figure 8: Spectral Diagrams, Conducted Emission, 150KHz - 30MHz, N**


### Final Result

| Frequency (MHz) | QuasiPeak (dBµV) | CAverage (dBµV) | Limit (dBµV) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Line | Filter | Corr. (dB) |
|-----------------|------------------|-----------------|--------------|-------------|-----------------|-----------------|------|--------|------------|
| 0.404250        | 35.94            | ---             | 57.77        | 21.83       | 1000.0          | 9.000           | N    | ON     | 9.6        |
| 0.485250        | 34.20            | ---             | 56.25        | 22.05       | 1000.0          | 9.000           | N    | ON     | 9.6        |
| 0.647250        | ---              | 19.76           | 46.00        | 26.24       | 1000.0          | 9.000           | N    | ON     | 9.6        |
| 0.658500        | 35.17            | ---             | 56.00        | 20.83       | 1000.0          | 9.000           | N    | ON     | 9.6        |
| 0.728250        | ---              | 21.47           | 46.00        | 24.53       | 1000.0          | 9.000           | N    | ON     | 9.6        |
| 0.739500        | 36.87            | ---             | 56.00        | 19.13       | 1000.0          | 9.000           | N    | ON     | 9.6        |
| 0.739500        | ---              | 22.35           | 46.00        | 23.65       | 1000.0          | 9.000           | N    | ON     | 9.6        |
| 0.807000        | 34.51            | ---             | 56.00        | 21.49       | 1000.0          | 9.000           | N    | ON     | 9.7        |
| 3.378750        | ---              | 22.06           | 46.00        | 23.94       | 1000.0          | 9.000           | N    | ON     | 9.8        |
| 4.902000        | ---              | 21.13           | 46.00        | 24.87       | 1000.0          | 9.000           | N    | ON     | 9.8        |

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#### **4.1.9 Radiated Emission**

**Result:**

**Pass**

Test Specification

Test standard : CFR47 FCC Part 15.109  
CFR47 FCC Part 15.209

Test procedure : ANSI C63.4:2014+A1:2017 and CISPR 16-1 series standards  
ANSI C63.10: 2020

Port : Enclosure

Frequency range : 30MHz-1000MHz for normal  
30MHz-10<sup>th</sup> Harmonic for intentional radiator

Limits : CFR47 FCC Part 15.109  
CFR47 FCC Part 15.205  
CFR47 FCC Part 15.209

Kind of test site : 3m Semi-anechoic Chamber

**Test Setup**

Date of testing : 2023.09.01-2023.11.03

Input voltage : DC 3.7V

Operational mode : A.1, A.2, A.3, B.1, B.2, B.3, C, D

Temperature : 21°C

Relative humidity : 63%

Atmospheric pressure : 101.2 kPa

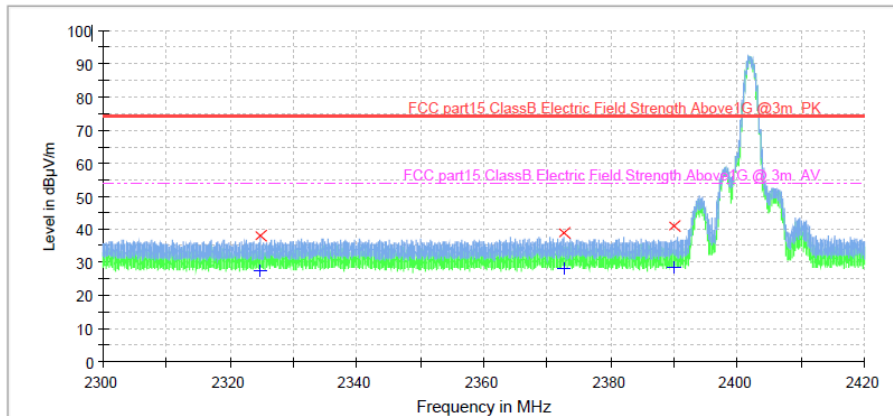
The radiated measurement result is calculated based on the following formula by the test software: Emission Level = Reading level + Correction (Antenna factor + Cable loss Preamplifier)

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**Figure 9: Spectral Diagrams, Restricted frequency bands, Mode A.1**

2310MHz-2390MHz, Horizontal



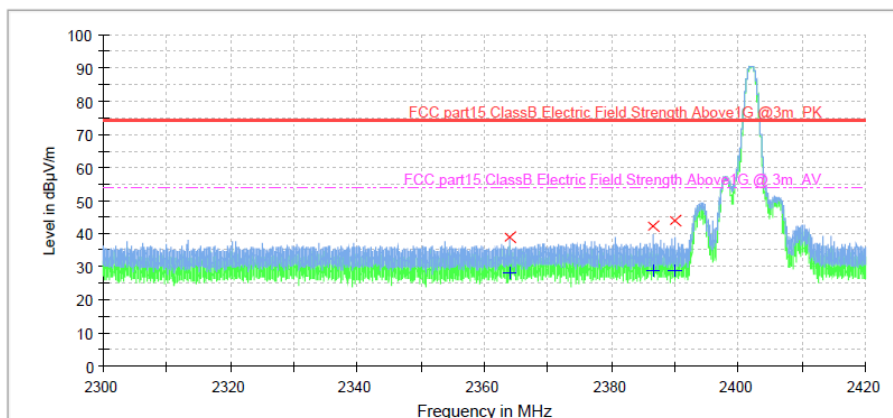
#### Limit and Margin-PK

| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - PK+ (dB) | Limit - PK+ (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 2324.785000     | 38.0             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -5.7       | 36.0              | 74.0                 |
| 2372.585000     | 38.8             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -5.4       | 35.2              | 74.0                 |
| 2390.000000     | 41.0             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -5.3       | 33.0              | 74.0                 |

#### Limit and Margin-AV

| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - AVG (dB) | Limit - AVG (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 2324.785000     | 27.8             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -5.7       | 26.2              | 54.0                 |
| 2372.585000     | 28.1             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -5.4       | 25.9              | 54.0                 |
| 2390.000000     | 28.7             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -5.3       | 25.4              | 54.0                 |

2310MHz-2390MHz, Vertical



#### Limit and Margin-PK

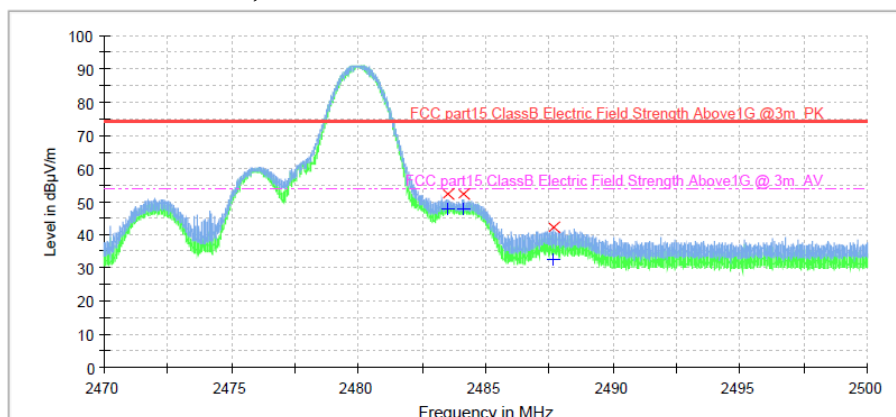
| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - PK+ (dB) | Limit - PK+ (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 2363.970000     | 38.9             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -5.5       | 35.1              | 74.0                 |
| 2386.595000     | 42.1             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -5.4       | 31.9              | 74.0                 |
| 2390.000000     | 43.8             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -5.3       | 30.3              | 74.0                 |

#### Limit and Margin-AV

| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - AVG (dB) | Limit - AVG (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 2363.970000     | 28.1             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -5.5       | 25.9              | 54.0                 |
| 2386.595000     | 28.9             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -5.4       | 25.1              | 54.0                 |
| 2390.000000     | 28.9             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -5.3       | 25.1              | 54.0                 |

**Figure 10: Spectral Diagrams, Restricted frequency bands, Mode A.3**

2483.5MHz-2500MHz, Horizontal



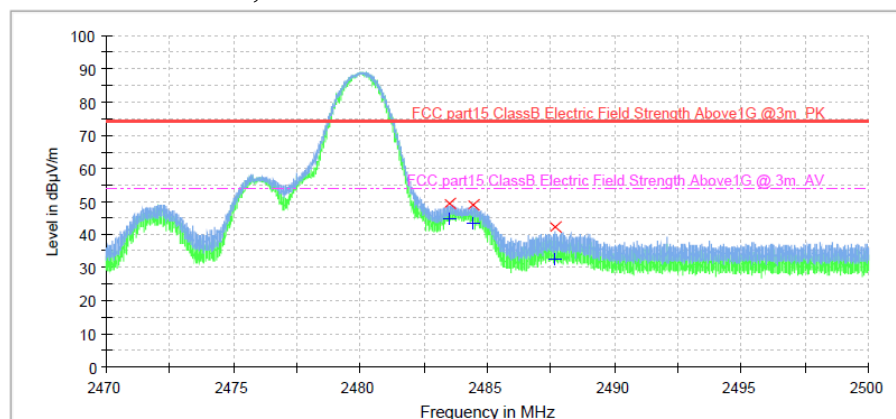
#### Limit and Margin-PK

| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - PK+ (dB) | Limit - PK+ (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 2483.500000     | 52.5             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -4.9       | 21.5              | 74.0                 |
| 2484.145000     | 52.2             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -4.9       | 21.8              | 74.0                 |
| 2487.645000     | 42.4             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -4.9       | 31.6              | 74.0                 |

#### Limit and Margin-AV

| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - AVG (dB) | Limit - AVG (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 2483.500000     | 47.7             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -4.9       | 6.4               | 54.0                 |
| 2484.145000     | 47.9             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -4.9       | 6.1               | 54.0                 |
| 2487.645000     | 32.5             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -4.9       | 21.5              | 54.0                 |

2483.5MHz-2500MHz, Vertical



#### Limit and Margin-PK

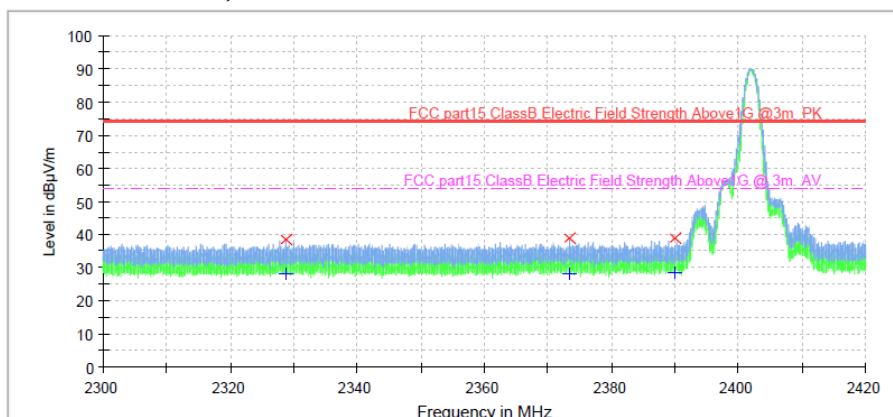
| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - PK+ (dB) | Limit - PK+ (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 2483.500000     | 49.6             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -4.9       | 24.4              | 74.0                 |
| 2484.460000     | 48.8             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -4.9       | 25.2              | 74.0                 |
| 2487.670000     | 42.2             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -4.9       | 31.8              | 74.0                 |

#### Limit and Margin-AV

| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - AVG (dB) | Limit - AVG (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 2483.500000     | 44.6             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -4.9       | 9.4               | 54.0                 |
| 2484.460000     | 43.6             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -4.9       | 10.4              | 54.0                 |
| 2487.670000     | 32.5             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -4.9       | 21.5              | 54.0                 |

**Figure 11: Spectral Diagrams, Restricted frequency bands, Mode B.1**

2310MHz-2390MHz, Horizontal

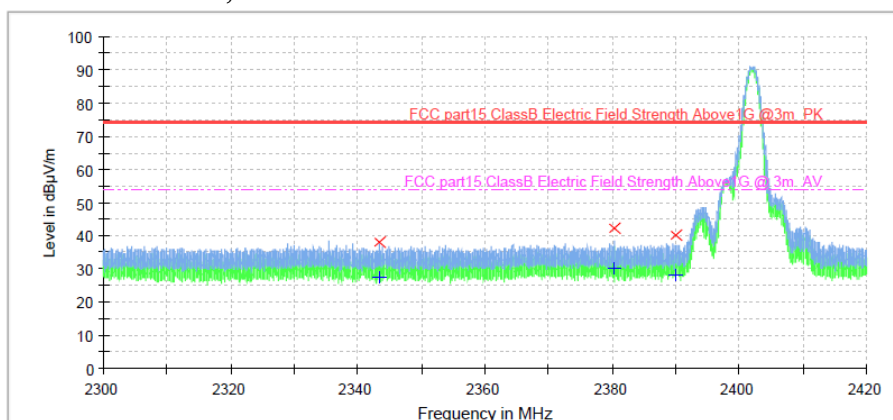

**Limit and Margin-PK**

| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - PK+ (dB) | Limit - PK+ (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 2328.705000     | 38.6             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -5.7       | 35.5              | 74.0                 |
| 2373.355000     | 38.7             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -5.4       | 35.3              | 74.0                 |
| 2390.000000     | 38.8             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -5.3       | 35.3              | 74.0                 |

**Limit and Margin-AV**

| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - AVG (dB) | Limit - AVG (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 2328.705000     | 27.9             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -5.7       | 26.1              | 54.0                 |
| 2373.355000     | 28.2             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -5.4       | 25.8              | 54.0                 |
| 2390.000000     | 28.5             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -5.3       | 25.5              | 54.0                 |

2310MHz-2390MHz, Vertical


**Limit and Margin-PK**

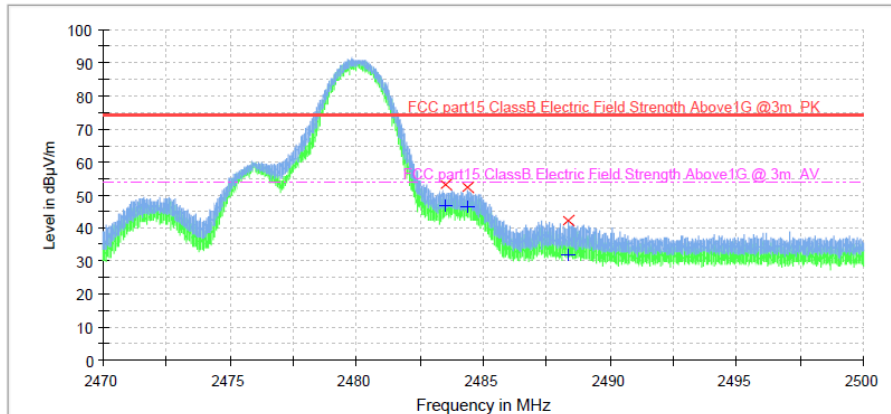
| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - PK+ (dB) | Limit - PK+ (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 2343.330000     | 38.1             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -5.6       | 35.9              | 74.0                 |
| 2380.290000     | 42.4             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -5.4       | 31.6              | 74.0                 |
| 2390.000000     | 40.1             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -5.3       | 33.9              | 74.0                 |

**Limit and Margin-AV**

| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - AVG (dB) | Limit - AVG (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 2343.330000     | 27.8             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -5.6       | 26.2              | 54.0                 |
| 2380.290000     | 30.3             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -5.4       | 23.7              | 54.0                 |
| 2390.000000     | 28.1             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -5.3       | 25.9              | 54.0                 |

**Figure 12: Spectral Diagrams, Restricted frequency bands, Mode B.3**

2483.5MHz-2500MHz, Horizontal



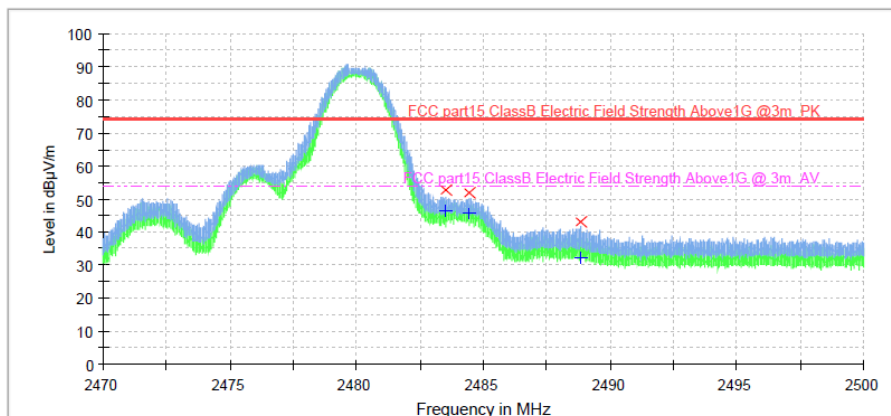
**Limit and Margin-PK**

| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - PK+ (dB) | Limit - PK+ (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 2483.500000     | 53.0             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -4.9       | 21.0              | 74.0                 |
| 2484.400000     | 52.3             | 1000.0          | 1000.000        | 150.0       | H   | 16.0          | -4.9       | 21.7              | 74.0                 |
| 2488.330000     | 42.1             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -4.9       | 31.9              | 74.0                 |

**Limit and Margin-AV**

| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - AVG (dB) | Limit - AVG (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 2483.500000     | 46.8             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -4.9       | 7.2               | 54.0                 |
| 2484.400000     | 46.4             | 1000.0          | 1000.000        | 150.0       | H   | 16.0          | -4.9       | 7.6               | 54.0                 |
| 2488.330000     | 31.8             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -4.9       | 22.2              | 54.0                 |

2483.5MHz-2500MHz, Vertical



**Limit and Margin-PK**

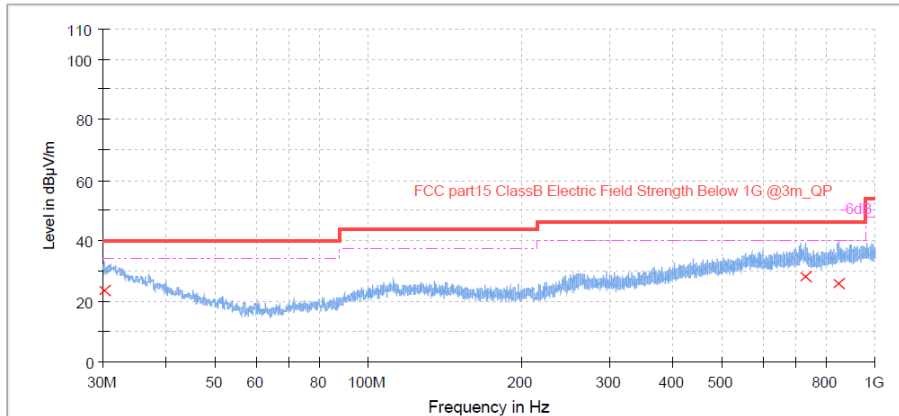
| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - PK+ (dB) | Limit - PK+ (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 2483.500000     | 52.6             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -4.9       | 21.4              | 74.0                 |
| 2484.465000     | 52.0             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -4.9       | 22.0              | 74.0                 |
| 2488.850000     | 43.1             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -4.9       | 30.9              | 74.0                 |

**Limit and Margin-AV**

| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - AVG (dB) | Limit - AVG (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 2483.500000     | 46.3             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -4.9       | 7.7               | 54.0                 |
| 2484.465000     | 45.7             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -4.9       | 8.3               | 54.0                 |
| 2488.850000     | 32.4             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -4.9       | 21.6              | 54.0                 |

**Figure 13: Spectral Diagrams, Radiated Spurious Emission, Mode A.1**

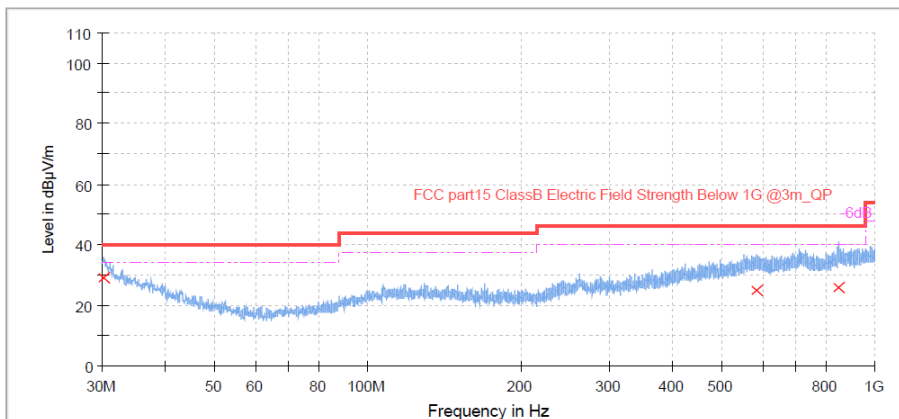
30MHz-1000MHz, Horizontal



#### Limit and Margin

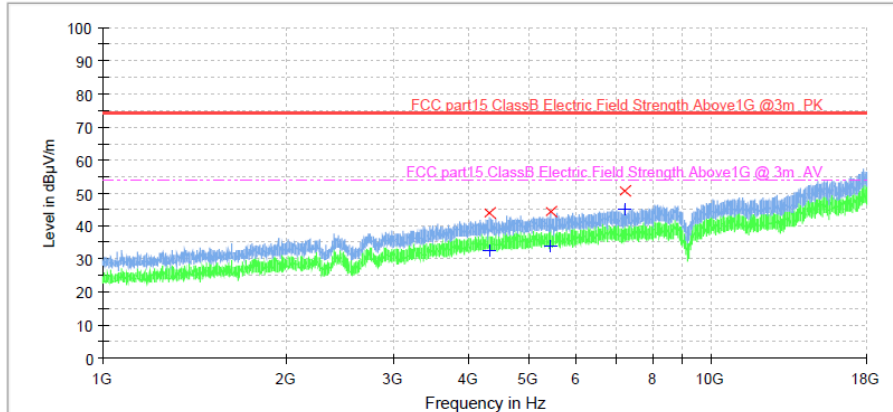
| Frequency (MHz) | QuasiPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - QPK (dB) | Limit - QPK (dBµV/m) |
|-----------------|--------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 30.220000       | 23.3               | 1000.0          | 120.000         | 100.0       | H   | 11.0          | 25.8       | 16.7              | 40.0                 |
| 728.560000      | 27.9               | 1000.0          | 120.000         | 100.0       | H   | 11.0          | 28.0       | 18.1              | 46.0                 |
| 845.180000      | 25.6               | 1000.0          | 120.000         | 100.0       | H   | 11.0          | 29.4       | 20.4              | 46.0                 |

30MHz-1000MHz, Vertical



#### Limit and Margin

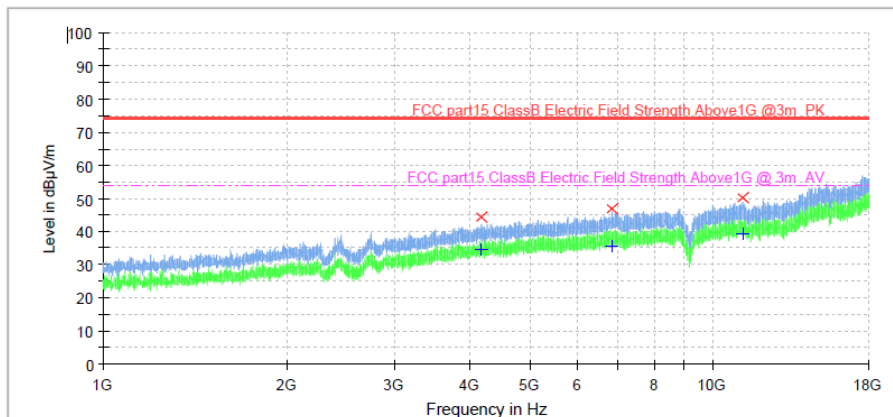
| Frequency (MHz) | QuasiPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - QPK (dB) | Limit - QPK (dBµV/m) |
|-----------------|--------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 30.220000       | 28.8               | 1000.0          | 120.000         | 100.0       | V   | 11.0          | 25.8       | 11.2              | 40.0                 |
| 584.140000      | 24.7               | 1000.0          | 120.000         | 100.0       | V   | 11.0          | 27.3       | 21.3              | 46.0                 |
| 845.550000      | 25.7               | 1000.0          | 120.000         | 100.0       | V   | 11.0          | 29.3       | 20.3              | 46.0                 |

**1GHz-18GHz, Horizontal**

**Limit and Margin-PK**

| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - PK+ (dB) | Limit - PK+ (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 4327.750000     | 43.9             | 1000.0          | 1000.000        | 200.0       | H   | 0.0           | 2.1        | 30.1              | 74.0                 |
| 5444.970000     | 44.3             | 1000.0          | 1000.000        | 200.0       | H   | 0.0           | 4.6        | 29.7              | 74.0                 |
| 7205.530000     | 50.6             | 1000.0          | 1000.000        | 200.0       | H   | 0.0           | 7.6        | 23.4              | 74.0                 |

**Limit and Margin-AV**

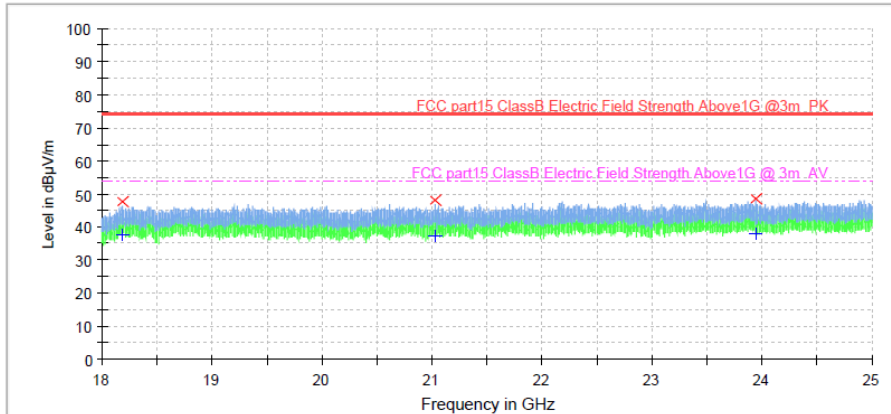
| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - AVG (dB) | Limit - AVG (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 4327.750000     | 32.6             | 1000.0          | 1000.000        | 200.0       | H   | 0.0           | 2.1        | 21.4              | 54.0                 |
| 5444.970000     | 33.7             | 1000.0          | 1000.000        | 200.0       | H   | 0.0           | 4.6        | 20.3              | 54.0                 |
| 7205.530000     | 45.0             | 1000.0          | 1000.000        | 200.0       | H   | 0.0           | 7.6        | 9.0               | 54.0                 |

**1GHz-18GHz, Vertical**

**Limit and Margin-PK**

| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - PK+ (dB) | Limit - PK+ (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 4175.810000     | 44.5             | 1000.0          | 1000.000        | 200.0       | V   | 0.0           | 1.8        | 29.5              | 74.0                 |
| 6817.720000     | 46.7             | 1000.0          | 1000.000        | 200.0       | V   | 0.0           | 7.0        | 27.3              | 74.0                 |
| 11169.185000    | 50.3             | 1000.0          | 1000.000        | 200.0       | V   | 0.0           | 11.9       | 23.7              | 74.0                 |

**Limit and Margin-AV**

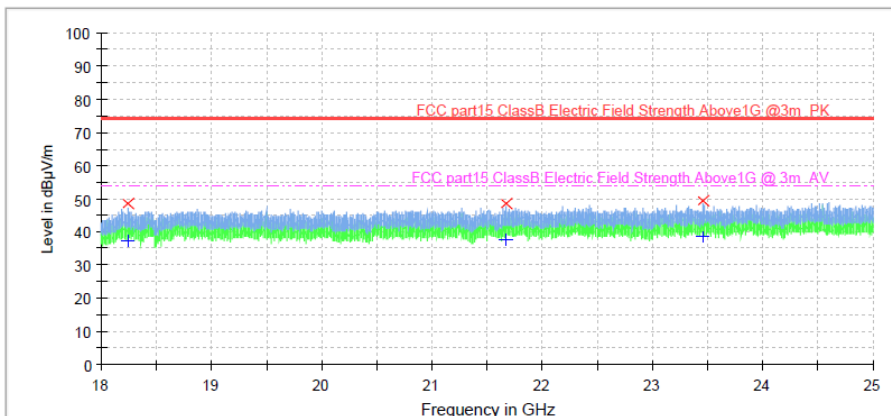
| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - AVG (dB) | Limit - AVG (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 4175.810000     | 34.8             | 1000.0          | 1000.000        | 200.0       | V   | 0.0           | 1.8        | 19.2              | 54.0                 |
| 6817.720000     | 35.7             | 1000.0          | 1000.000        | 200.0       | V   | 0.0           | 7.0        | 18.3              | 54.0                 |
| 11169.185000    | 39.2             | 1000.0          | 1000.000        | 200.0       | V   | 0.0           | 11.9       | 14.8              | 54.0                 |

**18GHz-25GHz, Horizontal**

**Limit and Margin-PK**

| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - PK+ (dB) | Limit - PK+ (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 18184.405000    | 47.8             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -9.9       | 26.2              | 74.0                 |
| 21028.595000    | 48.0             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -8.2       | 26.0              | 74.0                 |
| 23947.155000    | 48.6             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -5.2       | 25.4              | 74.0                 |

**Limit and Margin-AV**

| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - AVG (dB) | Limit - AVG (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 18184.405000    | 37.6             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -9.9       | 16.4              | 54.0                 |
| 21028.595000    | 37.4             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -8.2       | 16.6              | 54.0                 |
| 23947.155000    | 38.2             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -5.2       | 15.8              | 54.0                 |

**18GHz-25GHz, Vertical**

**Limit and Margin-PK**

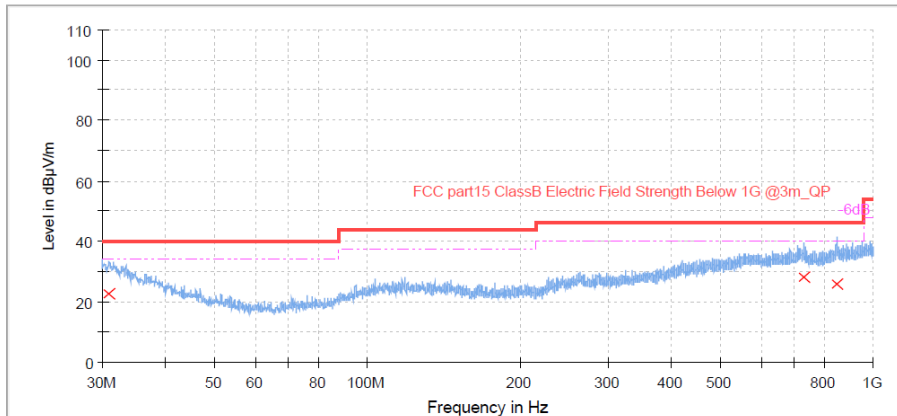
| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - PK+ (dB) | Limit - PK+ (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 18241.720000    | 48.7             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -9.9       | 25.3              | 74.0                 |
| 21669.970000    | 48.5             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -7.3       | 25.5              | 74.0                 |
| 23456.500000    | 49.3             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -5.1       | 24.7              | 74.0                 |

**Limit and Margin-AV**

| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - AVG (dB) | Limit - AVG (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 18241.720000    | 37.2             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -9.9       | 16.8              | 54.0                 |
| 21669.970000    | 37.9             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -7.3       | 16.2              | 54.0                 |
| 23456.500000    | 38.4             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -5.1       | 15.6              | 54.0                 |

**Figure 14: Spectral Diagrams, Radiated Spurious Emission, Mode A.2**

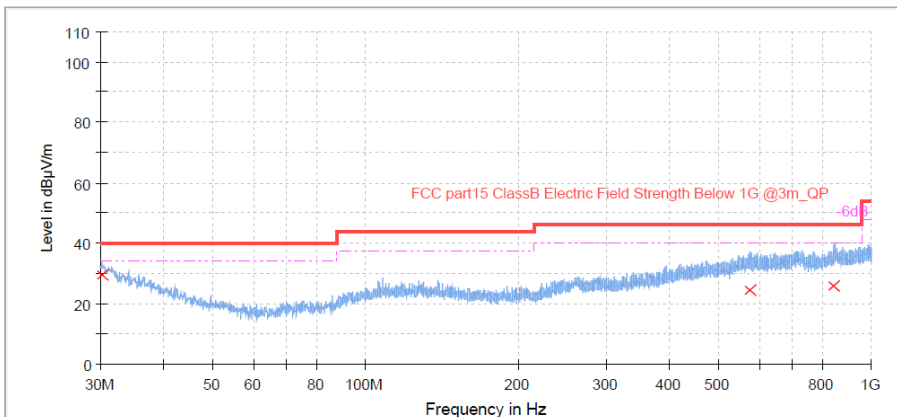
30MHz-1000MHz, Horizontal



#### Limit and Margin

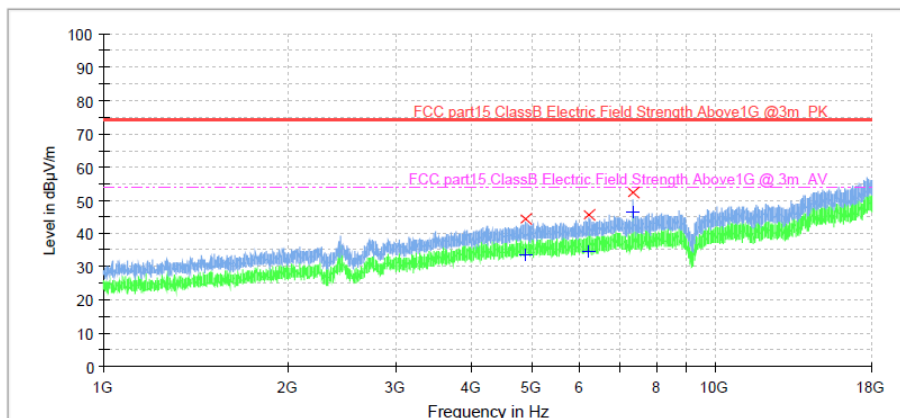
| Frequency (MHz) | QuasiPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - QPK (dB) | Limit - QPK (dBµV/m) |
|-----------------|--------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 30.970000       | 22.6               | 1000.0          | 120.000         | 100.0       | H   | 11.0          | 25.3       | 17.4              | 40.0                 |
| 729.150000      | 28.1               | 1000.0          | 120.000         | 100.0       | H   | 11.0          | 28.0       | 17.9              | 46.0                 |
| 845.180000      | 25.8               | 1000.0          | 120.000         | 100.0       | H   | 11.0          | 29.4       | 20.3              | 46.0                 |

30MHz-1000MHz, Vertical



#### Limit and Margin

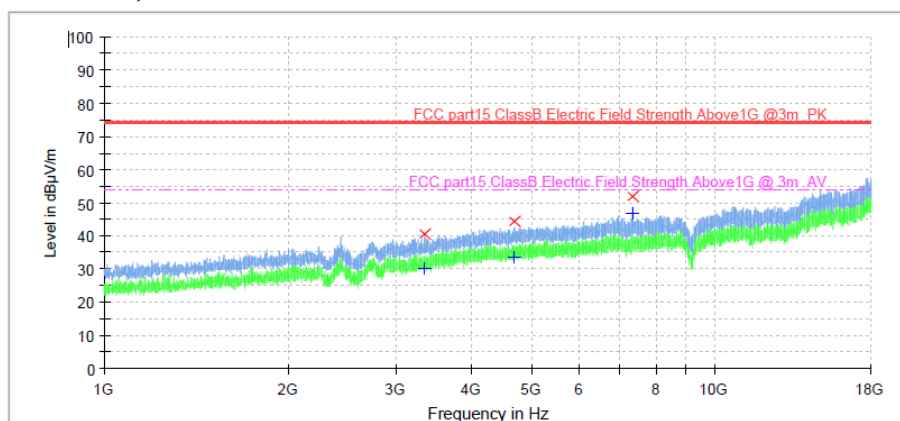
| Frequency (MHz) | QuasiPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - QPK (dB) | Limit - QPK (dBµV/m) |
|-----------------|--------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 30.220000       | 29.3               | 1000.0          | 120.000         | 100.0       | V   | 11.0          | 25.8       | 10.7              | 40.0                 |
| 574.870000      | 24.5               | 1000.0          | 120.000         | 100.0       | V   | 11.0          | 27.3       | 21.5              | 46.0                 |
| 844.800000      | 25.7               | 1000.0          | 120.000         | 100.0       | V   | 11.0          | 29.4       | 20.3              | 46.0                 |

**1GHz-18GHz, Horizontal**

**Limit and Margin-PK**

| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - PK+ (dB) | Limit - PK+ (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 4893.000000     | 44.2             | 1000.0          | 1000.000        | 200.0       | H   | 0.0           | 3.5        | 29.8              | 74.0                 |
| 6213.685000     | 45.8             | 1000.0          | 1000.000        | 200.0       | H   | 0.0           | 6.0        | 28.2              | 74.0                 |
| 7322.405000     | 52.2             | 1000.0          | 1000.000        | 200.0       | H   | 0.0           | 7.7        | 21.8              | 74.0                 |

**Limit and Margin-AV**

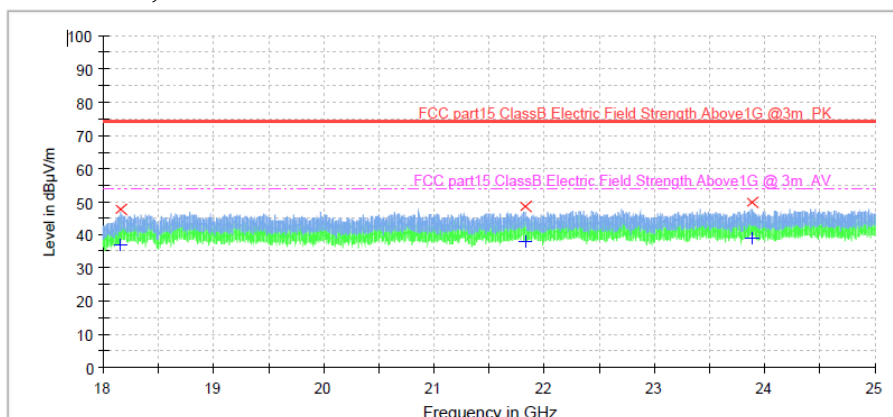
| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - AVG (dB) | Limit - AVG (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 4893.000000     | 33.6             | 1000.0          | 1000.000        | 200.0       | H   | 0.0           | 3.5        | 20.4              | 54.0                 |
| 6213.685000     | 34.8             | 1000.0          | 1000.000        | 200.0       | H   | 0.0           | 6.0        | 19.2              | 54.0                 |
| 7322.405000     | 46.6             | 1000.0          | 1000.000        | 200.0       | H   | 0.0           | 7.7        | 7.4               | 54.0                 |

**1GHz-18GHz, Vertical**

**Limit and Margin-PK**

| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - PK+ (dB) | Limit - PK+ (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 3340.155000     | 40.5             | 1000.0          | 1000.000        | 200.0       | V   | 0.0           | -0.6       | 33.5              | 74.0                 |
| 4689.000000     | 44.2             | 1000.0          | 1000.000        | 200.0       | V   | 0.0           | 2.9        | 29.8              | 74.0                 |
| 7322.935000     | 51.8             | 1000.0          | 1000.000        | 200.0       | V   | 0.0           | 7.7        | 22.2              | 74.0                 |

**Limit and Margin-AV**

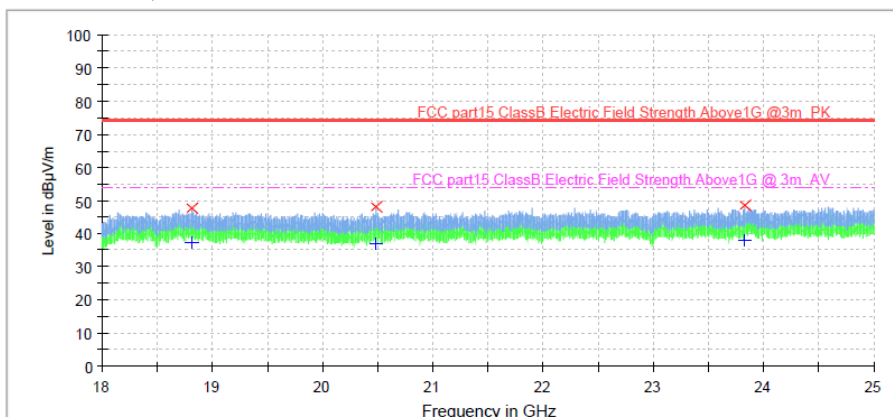
| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - AVG (dB) | Limit - AVG (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 3340.155000     | 30.2             | 1000.0          | 1000.000        | 200.0       | V   | 0.0           | -0.6       | 23.8              | 54.0                 |
| 4689.000000     | 33.4             | 1000.0          | 1000.000        | 200.0       | V   | 0.0           | 2.9        | 20.7              | 54.0                 |
| 7322.935000     | 46.8             | 1000.0          | 1000.000        | 200.0       | V   | 0.0           | 7.7        | 7.2               | 54.0                 |

**18GHz-25GHz, Horizontal**

**Limit and Margin-PK**

| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - PK+ (dB) | Limit - PK+ (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 18160.560000    | 47.5             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -9.9       | 26.5              | 74.0                 |
| 21827.470000    | 48.5             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -7.2       | 25.5              | 74.0                 |
| 23882.845000    | 49.8             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -5.2       | 24.2              | 74.0                 |

**Limit and Margin-AV**

| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - AVG (dB) | Limit - AVG (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 18160.560000    | 37.0             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -9.9       | 17.1              | 54.0                 |
| 21827.470000    | 37.9             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -7.2       | 16.1              | 54.0                 |
| 23882.845000    | 39.0             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -5.2       | 15.0              | 54.0                 |

**18GHz-25GHz, Vertical**

**Limit and Margin-PK**

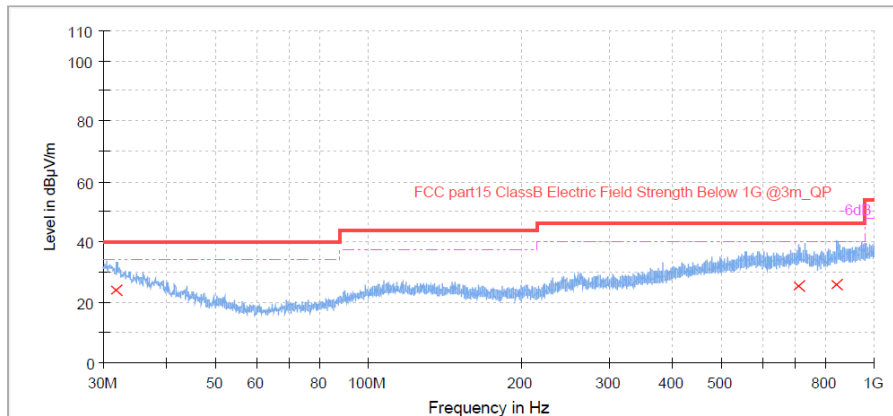
| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - PK+ (dB) | Limit - PK+ (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 18818.560000    | 47.8             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -9.9       | 26.2              | 74.0                 |
| 20485.000000    | 48.2             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -9.0       | 25.8              | 74.0                 |
| 23834.500000    | 48.7             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -5.1       | 25.3              | 74.0                 |

**Limit and Margin-AV**

| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - AVG (dB) | Limit - AVG (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 18818.560000    | 37.1             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -9.9       | 16.9              | 54.0                 |
| 20485.000000    | 37.0             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -9.0       | 17.1              | 54.0                 |
| 23834.500000    | 38.3             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -5.1       | 15.8              | 54.0                 |

**Figure 15: Spectral Diagrams, Radiated Spurious Emission, Mode A.3**

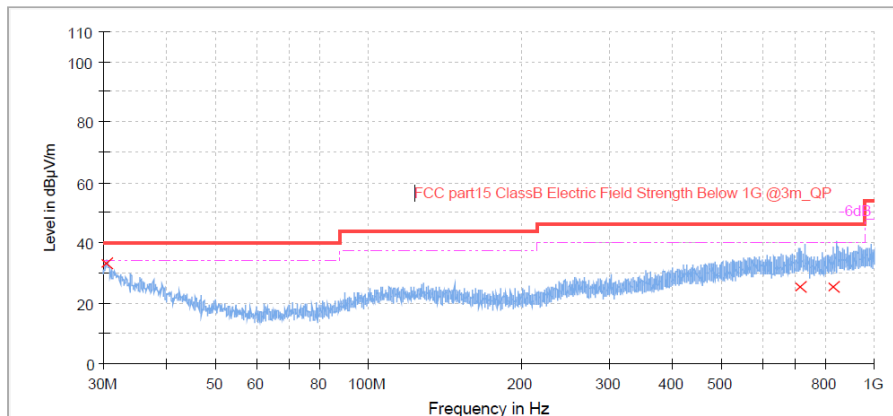
30MHz-1000MHz, Horizontal



#### Limit and Margin

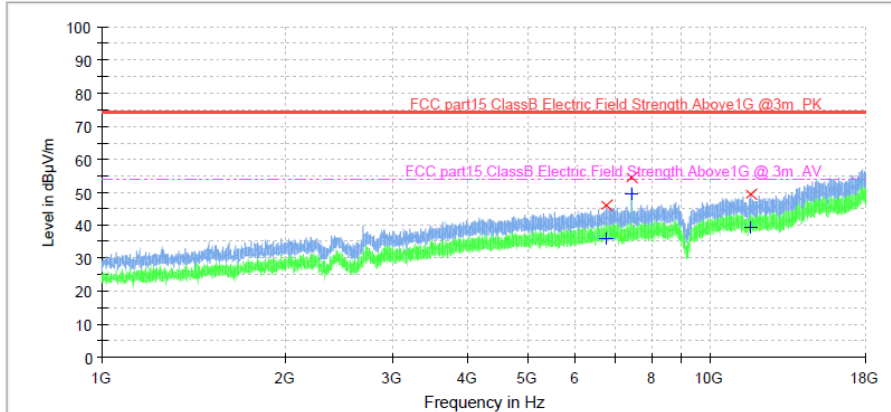
| Frequency (MHz) | QuasiPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - QPK (dB) | Limit - QPK (dBµV/m) |
|-----------------|--------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 31.830000       | 24.0               | 1000.0          | 120.000         | 100.0       | H   | 11.0          | 24.6       | 16.0              | 40.0                 |
| 710.350000      | 25.3               | 1000.0          | 120.000         | 100.0       | H   | 11.0          | 27.8       | 20.7              | 46.0                 |
| 844.800000      | 25.7               | 1000.0          | 120.000         | 100.0       | H   | 11.0          | 29.4       | 20.3              | 46.0                 |

30MHz-1000MHz, Vertical



#### Limit and Margin

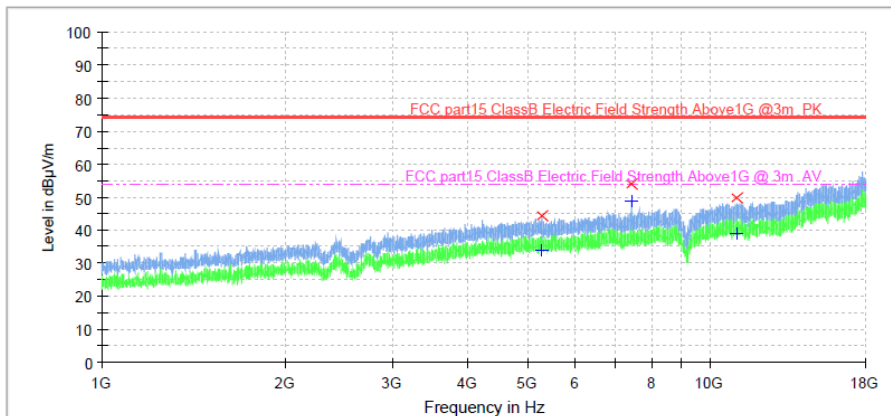
| Frequency (MHz) | QuasiPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - QPK (dB) | Limit - QPK (dBµV/m) |
|-----------------|--------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 30.480000       | 33.3               | 1000.0          | 120.000         | 100.0       | V   | 11.0          | 25.7       | 6.7               | 40.0                 |
| 714.070000      | 25.3               | 1000.0          | 120.000         | 100.0       | V   | 11.0          | 27.8       | 20.7              | 46.0                 |
| 828.850000      | 25.5               | 1000.0          | 120.000         | 100.0       | V   | 11.0          | 29.3       | 20.5              | 46.0                 |

**1GHz-18GHz, Horizontal**

**Limit and Margin-PK**

| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - PK+ (dB) | Limit - PK+ (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 6727.935000     | 46.2             | 1000.0          | 1000.000        | 200.0       | H   | 0.0           | 6.9        | 27.9              | 74.0                 |
| 7440.345000     | 54.4             | 1000.0          | 1000.000        | 200.0       | H   | 0.0           | 7.8        | 19.6              | 74.0                 |
| 11657.405000    | 49.5             | 1000.0          | 1000.000        | 200.0       | H   | 0.0           | 11.6       | 24.5              | 74.0                 |

**Limit and Margin-AV**

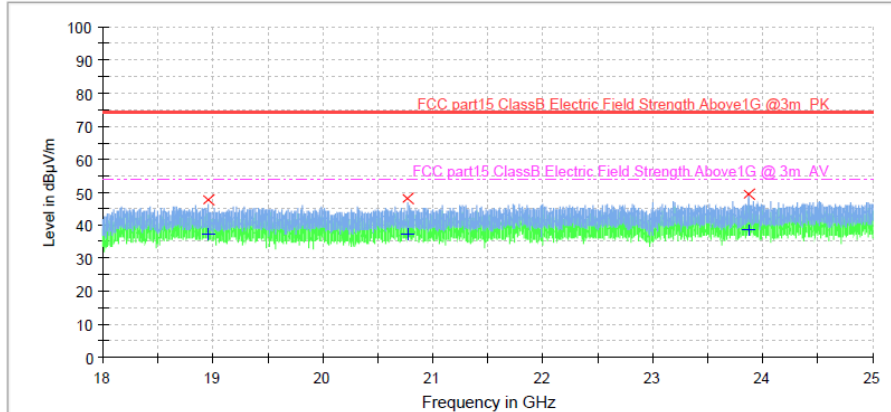
| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - AVG (dB) | Limit - AVG (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 6727.935000     | 35.8             | 1000.0          | 1000.000        | 200.0       | H   | 0.0           | 6.9        | 18.2              | 54.0                 |
| 7440.345000     | 49.2             | 1000.0          | 1000.000        | 200.0       | H   | 0.0           | 7.8        | 4.8               | 54.0                 |
| 11657.405000    | 39.2             | 1000.0          | 1000.000        | 200.0       | H   | 0.0           | 11.6       | 14.8              | 54.0                 |

**1GHz-18GHz, Vertical**

**Limit and Margin-PK**

| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - PK+ (dB) | Limit - PK+ (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 5284.000000     | 44.4             | 1000.0          | 1000.000        | 200.0       | V   | 0.0           | 4.4        | 29.6              | 74.0                 |
| 7439.810000     | 53.8             | 1000.0          | 1000.000        | 200.0       | V   | 0.0           | 7.8        | 20.2              | 74.0                 |
| 11041.155000    | 49.8             | 1000.0          | 1000.000        | 200.0       | V   | 0.0           | 12.0       | 24.2              | 74.0                 |

**Limit and Margin-AV**

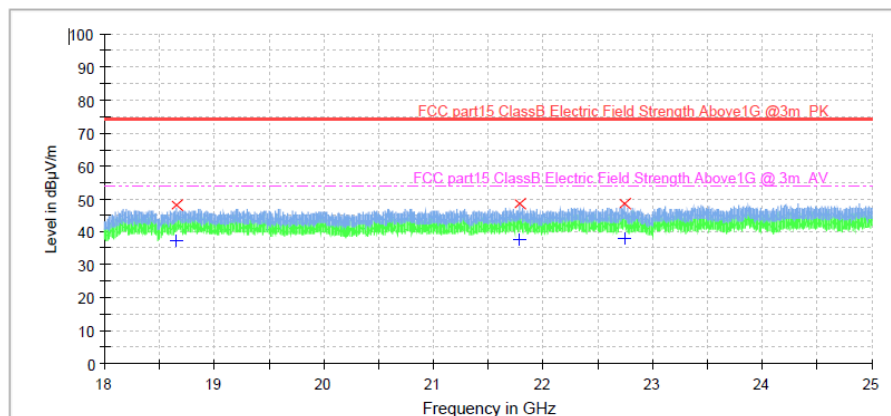
| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - AVG (dB) | Limit - AVG (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 5284.000000     | 33.8             | 1000.0          | 1000.000        | 200.0       | V   | 0.0           | 4.4        | 20.2              | 54.0                 |
| 7439.810000     | 48.9             | 1000.0          | 1000.000        | 200.0       | V   | 0.0           | 7.8        | 5.1               | 54.0                 |
| 11041.155000    | 38.8             | 1000.0          | 1000.000        | 200.0       | V   | 0.0           | 12.0       | 15.2              | 54.0                 |

**18GHz-25GHz, Horizontal**

**Limit and Margin-PK**

| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - PK+ (dB) | Limit - PK+ (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 18950.470000    | 47.7             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -9.9       | 26.3              | 74.0                 |
| 20774.625000    | 48.0             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -8.6       | 26.0              | 74.0                 |
| 23878.250000    | 49.5             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -5.2       | 24.6              | 74.0                 |

**Limit and Margin-AV**

| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - AVG (dB) | Limit - AVG (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 18950.470000    | 37.1             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -9.9       | 16.9              | 54.0                 |
| 20774.625000    | 37.1             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -8.6       | 17.0              | 54.0                 |
| 23878.250000    | 38.7             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -5.2       | 15.3              | 54.0                 |

**18GHz-25GHz, Vertical**

**Limit and Margin-PK**

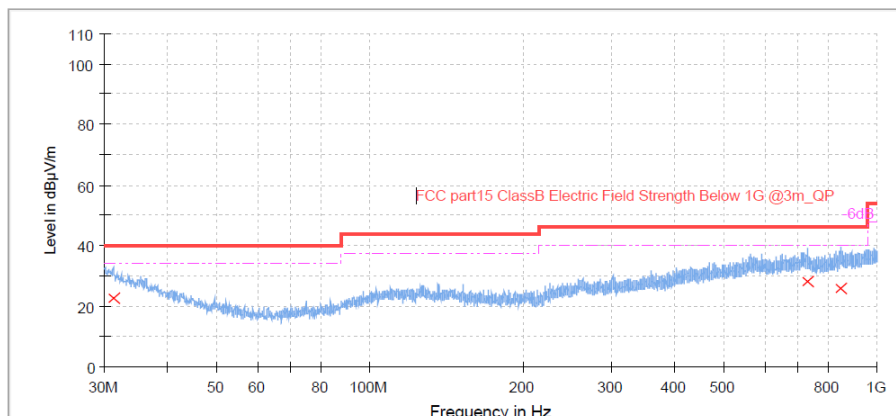
| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - PK+ (dB) | Limit - PK+ (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 18654.280000    | 48.0             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -9.8       | 26.0              | 74.0                 |
| 21785.685000    | 48.6             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -7.2       | 25.5              | 74.0                 |
| 22740.970000    | 48.7             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -5.7       | 25.3              | 74.0                 |

**Limit and Margin-AV**

| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - AVG (dB) | Limit - AVG (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 18654.280000    | 37.4             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -9.8       | 16.6              | 54.0                 |
| 21785.685000    | 37.9             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -7.2       | 16.2              | 54.0                 |
| 22740.970000    | 37.9             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -5.7       | 16.1              | 54.0                 |

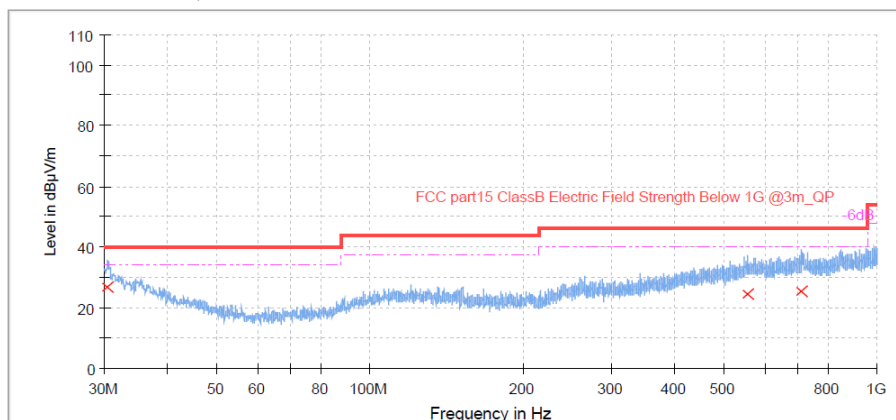
**Figure 16: Spectral Diagrams, Radiated Spurious Emission, Mode B.1**

30MHz-1000MHz, Horizontal

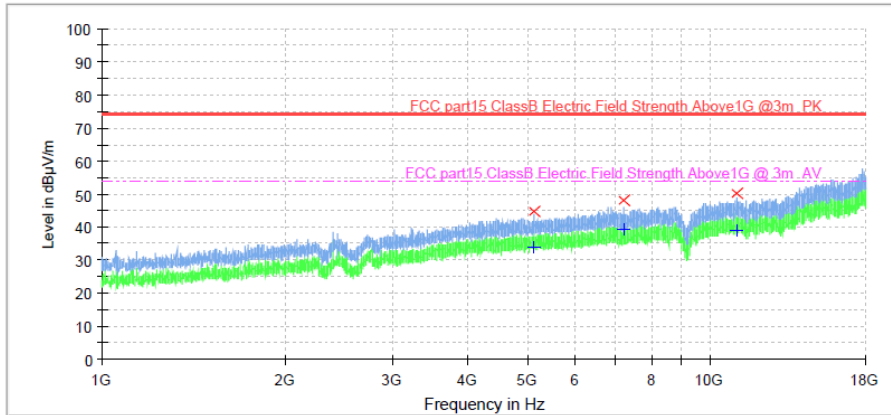

**Limit and Margin**

| Frequency (MHz) | QuasiPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - QPK (dB) | Limit - QPK (dBµV/m) |
|-----------------|--------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 31.240000       | 22.5               | 1000.0          | 120.000         | 100.0       | H   | 11.0          | 25.1       | 17.6              | 40.0                 |
| 728.620000      | 28.0               | 1000.0          | 120.000         | 100.0       | H   | 11.0          | 28.0       | 18.0              | 46.0                 |
| 845.020000      | 25.7               | 1000.0          | 120.000         | 100.0       | H   | 11.0          | 29.4       | 20.3              | 46.0                 |

30MHz-1000MHz, Vertical


**Limit and Margin**

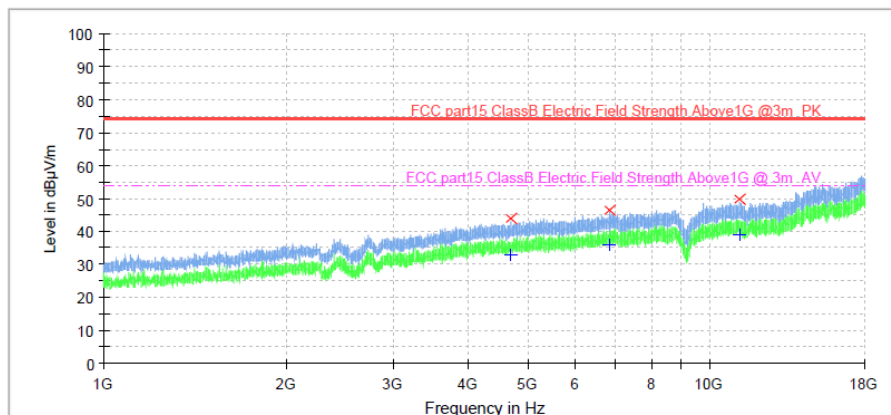
| Frequency (MHz) | QuasiPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - QPK (dB) | Limit - QPK (dBµV/m) |
|-----------------|--------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 30.540000       | 26.7               | 1000.0          | 120.000         | 100.0       | V   | 11.0          | 25.6       | 13.3              | 40.0                 |
| 556.980000      | 24.4               | 1000.0          | 120.000         | 100.0       | V   | 11.0          | 27.4       | 21.6              | 46.0                 |
| 709.000000      | 25.3               | 1000.0          | 120.000         | 100.0       | V   | 11.0          | 27.8       | 20.7              | 46.0                 |

**1GHz-18GHz, Horizontal**

**Limit and Margin-PK**

| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - PK+ (dB) | Limit - PK+ (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 5126.750000     | 44.8             | 1000.0          | 1000.000        | 200.0       | H   | 0.0           | 4.1        | 29.3              | 74.0                 |
| 7206.595000     | 48.3             | 1000.0          | 1000.000        | 200.0       | H   | 0.0           | 7.6        | 25.7              | 74.0                 |
| 11059.220000    | 50.1             | 1000.0          | 1000.000        | 200.0       | H   | 0.0           | 12.0       | 23.9              | 74.0                 |

**Limit and Margin-AV**

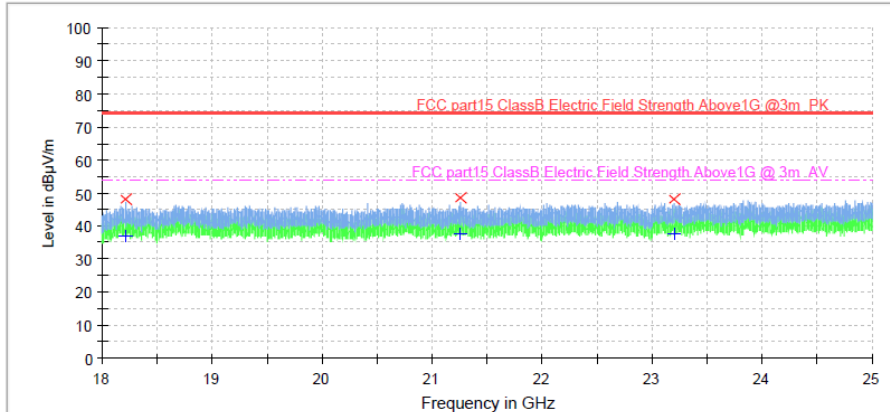
| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - AVG (dB) | Limit - AVG (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 5126.750000     | 34.1             | 1000.0          | 1000.000        | 200.0       | H   | 0.0           | 4.1        | 19.9              | 54.0                 |
| 7206.595000     | 39.4             | 1000.0          | 1000.000        | 200.0       | H   | 0.0           | 7.6        | 14.7              | 54.0                 |
| 11059.220000    | 39.1             | 1000.0          | 1000.000        | 200.0       | H   | 0.0           | 12.0       | 14.9              | 54.0                 |

**1GHz-18GHz, Vertical**

**Limit and Margin-PK**

| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - PK+ (dB) | Limit - PK+ (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 4688.470000     | 33.1             | 1000.0          | 1000.000        | 200.0       | V   | 0.0           | 2.9        | 30.1              | 74.0                 |
| 6838.970000     | 36.1             | 1000.0          | 1000.000        | 200.0       | V   | 0.0           | 7.1        | 27.7              | 74.0                 |
| 11175.030000    | 39.0             | 1000.0          | 1000.000        | 200.0       | V   | 0.0           | 11.9       | 24.4              | 74.0                 |

**Limit and Margin-AV**

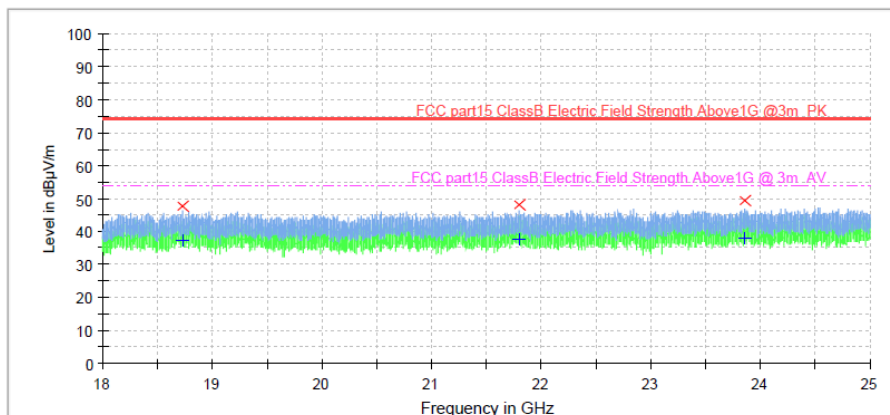
| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - AVG (dB) | Limit - AVG (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 4688.470000     | 33.1             | 1000.0          | 1000.000        | 200.0       | V   | 0.0           | 2.9        | 20.9              | 54.0                 |
| 6838.970000     | 36.1             | 1000.0          | 1000.000        | 200.0       | V   | 0.0           | 7.1        | 17.9              | 54.0                 |
| 11175.030000    | 39.0             | 1000.0          | 1000.000        | 200.0       | V   | 0.0           | 11.9       | 15.0              | 54.0                 |

**18GHz-25GHz, Horizontal**

**Limit and Margin-PK**

| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - PK+ (dB) | Limit - PK+ (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 18215.030000    | 48.2             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -9.9       | 25.8              | 74.0                 |
| 21263.970000    | 48.4             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -7.9       | 25.6              | 74.0                 |
| 23194.435000    | 48.1             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -5.2       | 26.0              | 74.0                 |

**Limit and Margin-AV**

| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - AVG (dB) | Limit - AVG (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 18215.030000    | 37.0             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -9.9       | 17.0              | 54.0                 |
| 21263.970000    | 37.6             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -7.9       | 16.5              | 54.0                 |
| 23194.435000    | 37.7             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -5.2       | 16.3              | 54.0                 |

**18GHz-25GHz, Vertical**

**Limit and Margin-PK**

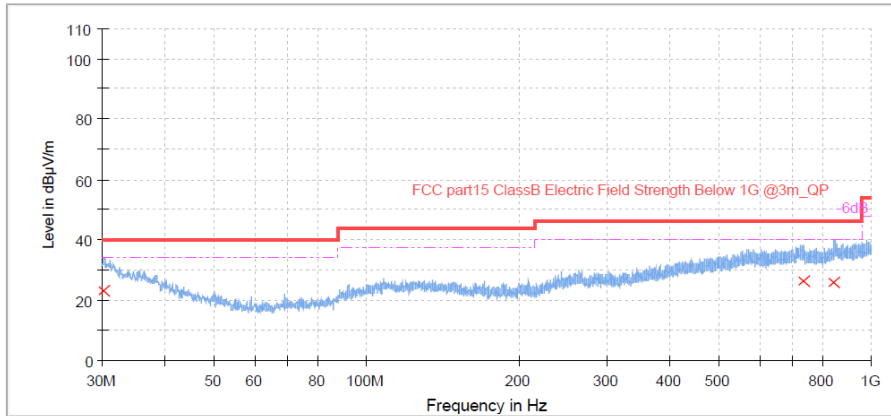
| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - PK+ (dB) | Limit - PK+ (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 18729.530000    | 47.6             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -9.8       | 26.5              | 74.0                 |
| 21797.280000    | 48.3             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -7.2       | 25.7              | 74.0                 |
| 23857.470000    | 49.4             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -5.2       | 24.6              | 74.0                 |

**Limit and Margin-AV**

| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - AVG (dB) | Limit - AVG (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 18729.530000    | 37.4             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -9.8       | 16.6              | 54.0                 |
| 21797.280000    | 37.9             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -7.2       | 16.2              | 54.0                 |
| 23857.470000    | 38.3             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -5.2       | 15.8              | 54.0                 |

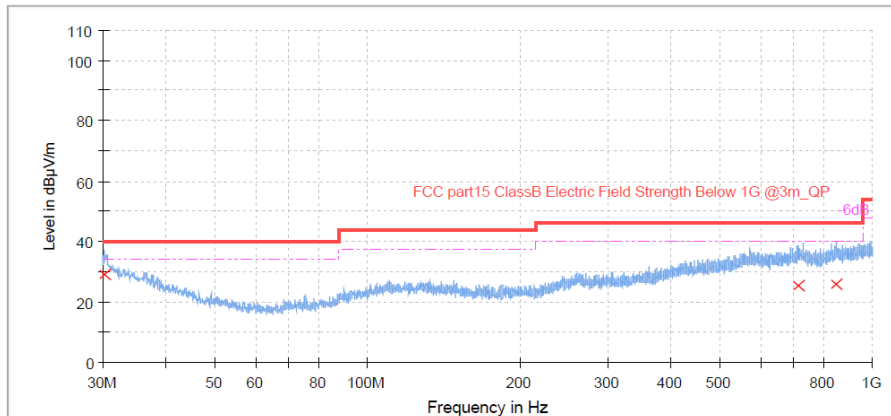
**Figure 17: Spectral Diagrams, Radiated Spurious Emission, Mode B.2**

30MHz-1000MHz, Horizontal

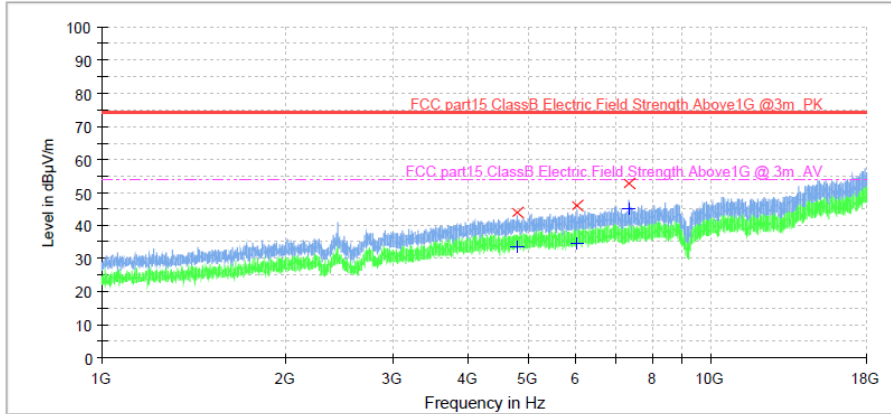

**Limit and Margin**

| Frequency (MHz) | QuasiPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - QPK (dB) | Limit - QPK (dBµV/m) |
|-----------------|--------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 30.320000       | 23.2               | 1000.0          | 120.000         | 100.0       | H   | 11.0          | 25.8       | 16.8              | 40.0                 |
| 733.520000      | 26.2               | 1000.0          | 120.000         | 100.0       | H   | 11.0          | 28.2       | 19.8              | 46.0                 |
| 844.850000      | 25.7               | 1000.0          | 120.000         | 100.0       | H   | 11.0          | 29.4       | 20.3              | 46.0                 |

30MHz-1000MHz, Vertical


**Limit and Margin**

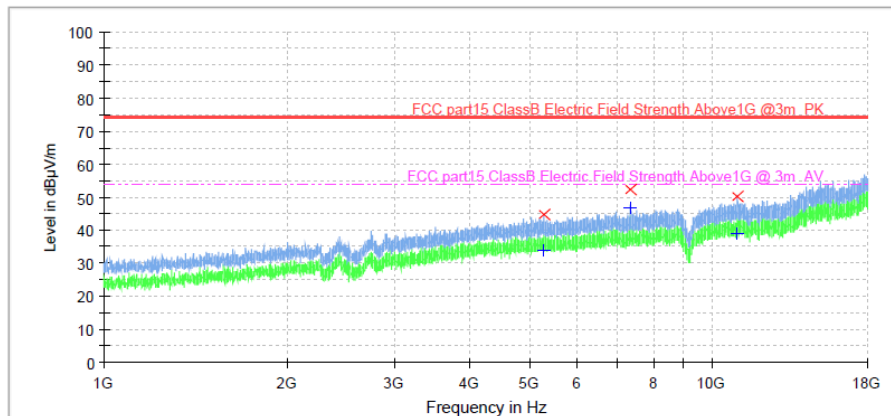
| Frequency (MHz) | QuasiPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - QPK (dB) | Limit - QPK (dBµV/m) |
|-----------------|--------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 30.160000       | 29.0               | 1000.0          | 120.000         | 100.0       | V   | 11.0          | 25.9       | 11.0              | 40.0                 |
| 712.020000      | 25.4               | 1000.0          | 120.000         | 100.0       | V   | 11.0          | 27.8       | 20.6              | 46.0                 |
| 847.220000      | 25.7               | 1000.0          | 120.000         | 100.0       | V   | 11.0          | 29.3       | 20.3              | 46.0                 |

**1GHz-18GHz, Horizontal**

**Limit and Margin-PK**

| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - PK+ (dB) | Limit - PK+ (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 4795.250000     | 43.9             | 1000.0          | 1000.000        | 200.0       | H   | 0.0           | 3.2        | 30.1              | 74.0                 |
| 6033.060000     | 45.9             | 1000.0          | 1000.000        | 200.0       | H   | 0.0           | 5.6        | 28.1              | 74.0                 |
| 7322.405000     | 52.5             | 1000.0          | 1000.000        | 200.0       | H   | 0.0           | 7.7        | 21.5              | 74.0                 |

**Limit and Margin-AV**

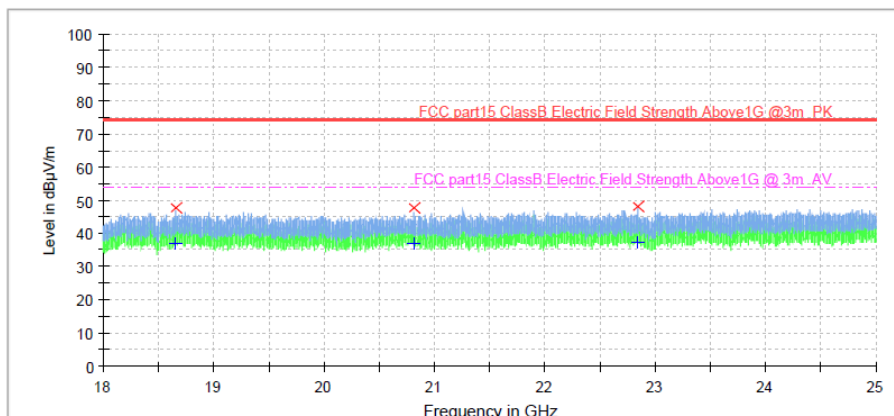
| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - AVG (dB) | Limit - AVG (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 4795.250000     | 33.3             | 1000.0          | 1000.000        | 200.0       | H   | 0.0           | 3.2        | 20.7              | 54.0                 |
| 6033.060000     | 34.6             | 1000.0          | 1000.000        | 200.0       | H   | 0.0           | 5.6        | 19.4              | 54.0                 |
| 7322.405000     | 45.2             | 1000.0          | 1000.000        | 200.0       | H   | 0.0           | 7.7        | 8.9               | 54.0                 |

**1GHz-18GHz, Vertical**

**Limit and Margin-PK**

| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - PK+ (dB) | Limit - PK+ (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 5282.405000     | 44.9             | 1000.0          | 1000.000        | 200.0       | V   | 0.0           | 4.4        | 29.2              | 74.0                 |
| 7322.935000     | 52.4             | 1000.0          | 1000.000        | 200.0       | V   | 0.0           | 7.7        | 21.6              | 74.0                 |
| 11019.905000    | 50.2             | 1000.0          | 1000.000        | 200.0       | V   | 0.0           | 12.0       | 23.8              | 74.0                 |

**Limit and Margin-AV**

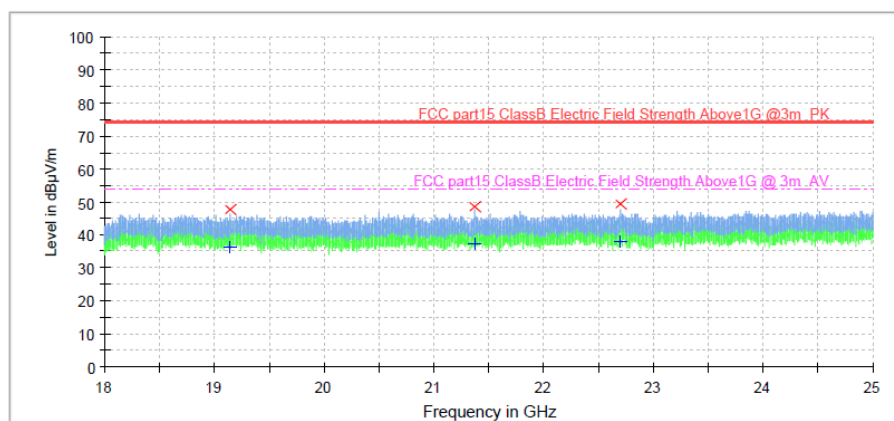
| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - AVG (dB) | Limit - AVG (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 5282.405000     | 34.0             | 1000.0          | 1000.000        | 200.0       | V   | 0.0           | 4.4        | 20.0              | 54.0                 |
| 7322.935000     | 46.7             | 1000.0          | 1000.000        | 200.0       | V   | 0.0           | 7.7        | 7.3               | 54.0                 |
| 11019.905000    | 39.0             | 1000.0          | 1000.000        | 200.0       | V   | 0.0           | 12.0       | 15.0              | 54.0                 |

**18GHz-25GHz, Horizontal**

**Limit and Margin-PK**

| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - PK+ (dB) | Limit - PK+ (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 18655.155000    | 47.8             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -9.8       | 26.2              | 74.0                 |
| 20813.345000    | 47.8             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -8.5       | 26.2              | 74.0                 |
| 22838.970000    | 48.3             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -5.5       | 25.7              | 74.0                 |

**Limit and Margin-AV**

| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - AVG (dB) | Limit - AVG (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 18655.155000    | 36.9             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -9.8       | 17.1              | 54.0                 |
| 20813.345000    | 36.9             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -8.5       | 17.1              | 54.0                 |
| 22838.970000    | 37.1             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -5.5       | 16.9              | 54.0                 |

**18GHz-25GHz, Vertical**

**Limit and Margin-PK**

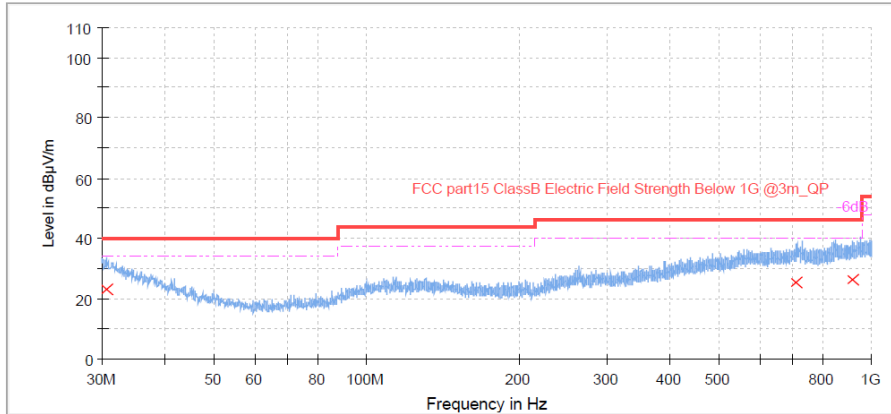
| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - PK+ (dB) | Limit - PK+ (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 19141.000000    | 47.5             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -9.9       | 26.5              | 74.0                 |
| 21375.310000    | 48.3             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -7.7       | 25.7              | 74.0                 |
| 22705.970000    | 49.4             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -5.8       | 24.6              | 74.0                 |

**Limit and Margin-AV**

| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - AVG (dB) | Limit - AVG (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 19141.000000    | 36.5             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -9.9       | 17.5              | 54.0                 |
| 21375.310000    | 37.1             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -7.7       | 16.9              | 54.0                 |
| 22705.970000    | 38.0             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -5.8       | 16.0              | 54.0                 |

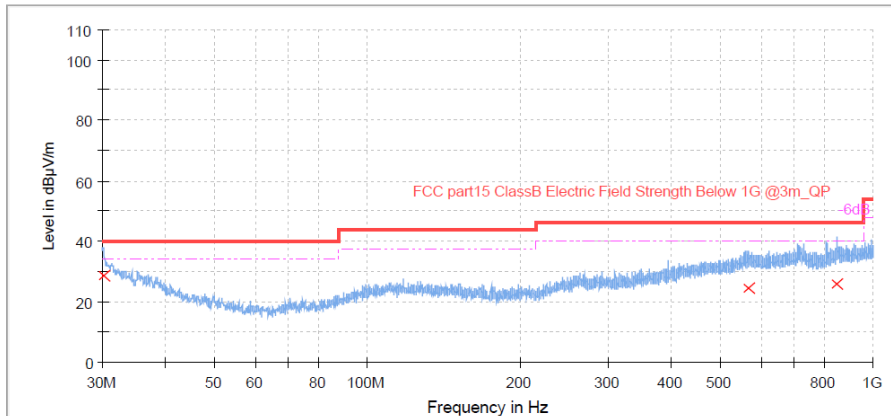
**Figure 18: Spectral Diagrams, Radiated Spurious Emission, Mode B.3**

30MHz-1000MHz, Horizontal

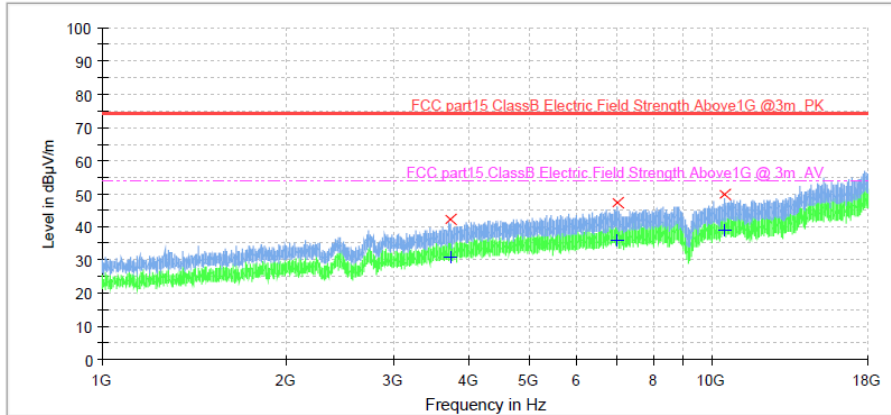

**Limit and Margin**

| Frequency (MHz) | QuasiPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - QPK (dB) | Limit - QPK (dBµV/m) |
|-----------------|--------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 30.650000       | 22.9               | 1000.0          | 120.000         | 100.0       | H   | 11.0          | 25.6       | 17.1              | 40.0                 |
| 710.190000      | 25.3               | 1000.0          | 120.000         | 100.0       | H   | 11.0          | 27.8       | 20.7              | 46.0                 |
| 918.140000      | 26.3               | 1000.0          | 120.000         | 100.0       | H   | 11.0          | 29.9       | 19.7              | 46.0                 |

30MHz-1000MHz, Vertical


**Limit and Margin**

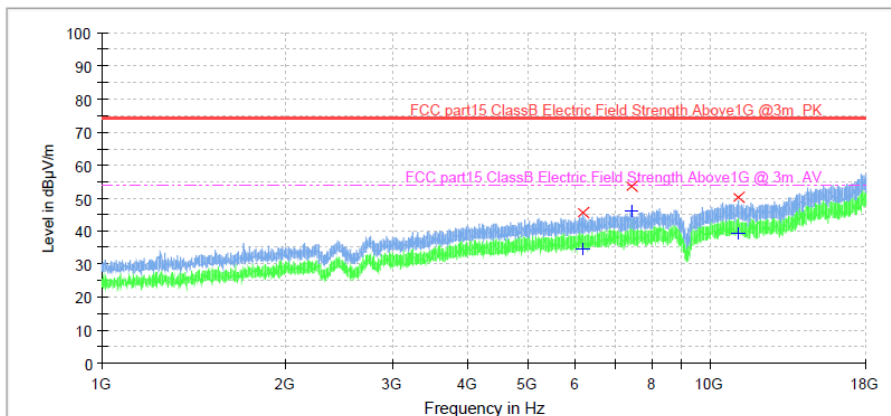
| Frequency (MHz) | QuasiPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - QPK (dB) | Limit - QPK (dBµV/m) |
|-----------------|--------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 30.110000       | 28.7               | 1000.0          | 120.000         | 100.0       | V   | 11.0          | 25.9       | 11.3              | 40.0                 |
| 565.550000      | 24.5               | 1000.0          | 120.000         | 100.0       | V   | 11.0          | 27.4       | 21.5              | 46.0                 |
| 845.120000      | 25.7               | 1000.0          | 120.000         | 100.0       | V   | 11.0          | 29.4       | 20.3              | 46.0                 |

**1GHz-18GHz, Horizontal**

**Limit and Margin-PK**

| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - PK+ (dB) | Limit - PK+ (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 3724.780000     | 42.2             | 1000.0          | 1000.000        | 200.0       | H   | 267.0         | 0.5        | 31.8              | 74.0                 |
| 6990.905000     | 47.3             | 1000.0          | 1000.000        | 200.0       | H   | 267.0         | 7.3        | 26.7              | 74.0                 |
| 10488.655000    | 50.0             | 1000.0          | 1000.000        | 200.0       | H   | 267.0         | 11.2       | 24.0              | 74.0                 |

**Limit and Margin-AV**

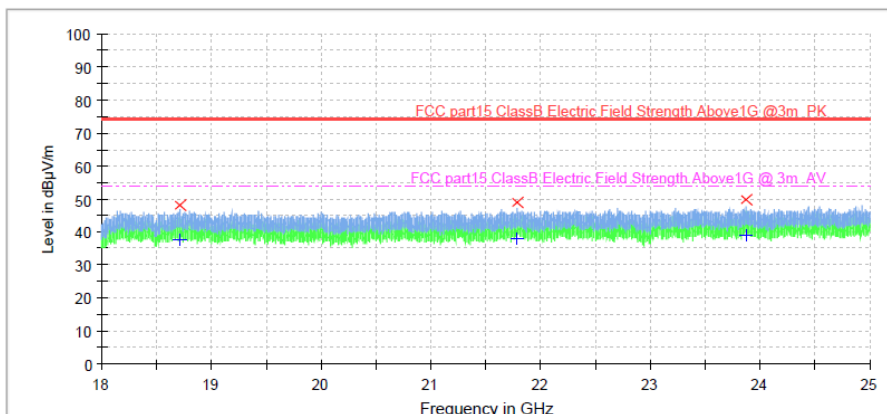
| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - AVG (dB) | Limit - AVG (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 3724.780000     | 31.0             | 1000.0          | 1000.000        | 200.0       | H   | 267.0         | 0.5        | 23.0              | 54.0                 |
| 6990.905000     | 36.1             | 1000.0          | 1000.000        | 200.0       | H   | 267.0         | 7.3        | 17.9              | 54.0                 |
| 10488.655000    | 39.0             | 1000.0          | 1000.000        | 200.0       | H   | 267.0         | 11.2       | 15.0              | 54.0                 |

**1GHz-18GHz, Vertical**

**Limit and Margin-PK**

| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - PK+ (dB) | Limit - PK+ (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 6165.875000     | 45.6             | 1000.0          | 1000.000        | 200.0       | V   | 0.0           | 5.9        | 28.4              | 74.0                 |
| 7439.280000     | 53.6             | 1000.0          | 1000.000        | 200.0       | V   | 0.0           | 7.8        | 20.4              | 74.0                 |
| 11107.030000    | 50.2             | 1000.0          | 1000.000        | 200.0       | V   | 0.0           | 11.9       | 23.8              | 74.0                 |

**Limit and Margin-AV**

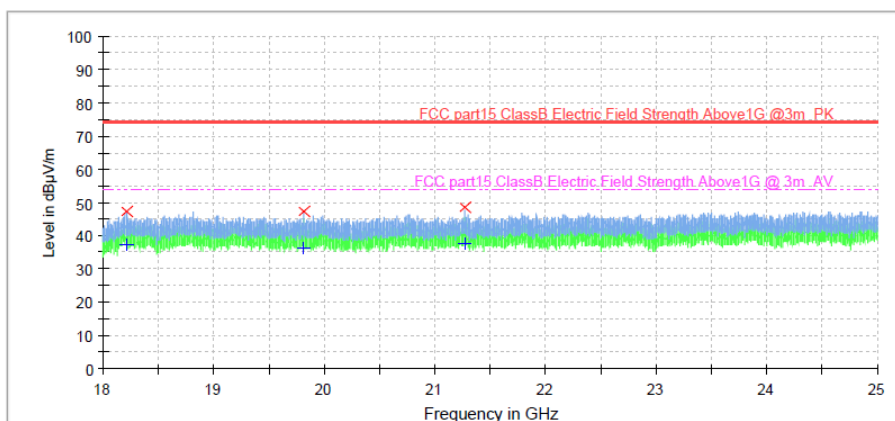
| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - AVG (dB) | Limit - AVG (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 6165.875000     | 34.8             | 1000.0          | 1000.000        | 200.0       | V   | 0.0           | 5.9        | 19.2              | 54.0                 |
| 7439.280000     | 46.0             | 1000.0          | 1000.000        | 200.0       | V   | 0.0           | 7.8        | 8.0               | 54.0                 |
| 11107.030000    | 39.3             | 1000.0          | 1000.000        | 200.0       | V   | 0.0           | 11.9       | 14.7              | 54.0                 |

**18GHz-25GHz, Horizontal**

**Limit and Margin-PK**

| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - PK+ (dB) | Limit - PK+ (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 18710.280000    | 48.1             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -9.8       | 25.9              | 74.0                 |
| 21791.155000    | 48.8             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -7.2       | 25.2              | 74.0                 |
| 23873.000000    | 49.8             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -5.2       | 24.2              | 74.0                 |

**Limit and Margin-AV**

| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - AVG (dB) | Limit - AVG (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 18710.280000    | 37.6             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -9.8       | 16.4              | 54.0                 |
| 21791.155000    | 38.0             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -7.2       | 16.0              | 54.0                 |
| 23873.000000    | 39.0             | 1000.0          | 1000.000        | 150.0       | H   | 0.0           | -5.2       | 15.0              | 54.0                 |

**18GHz-25GHz, Vertical**

**Limit and Margin-PK**

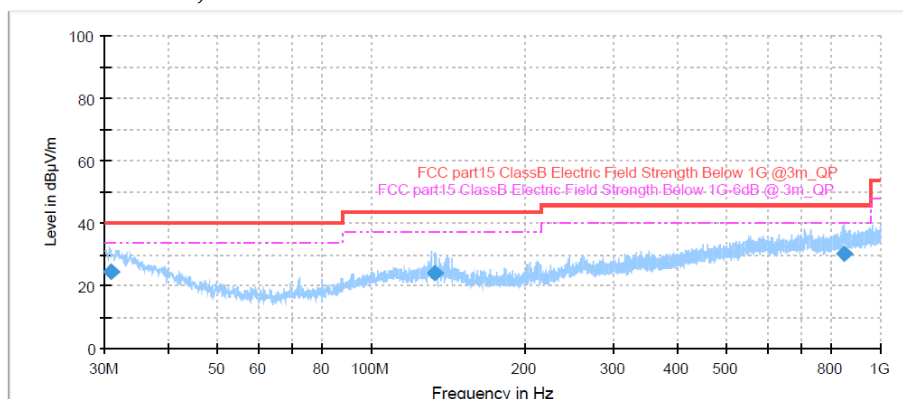
| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - PK+ (dB) | Limit - PK+ (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 18213.720000    | 47.2             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -9.9       | 26.8              | 74.0                 |
| 19807.750000    | 47.3             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -9.7       | 26.7              | 74.0                 |
| 21265.935000    | 48.7             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -7.9       | 25.3              | 74.0                 |

**Limit and Margin-AV**

| Frequency (MHz) | Average (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Margin - AVG (dB) | Limit - AVG (dBµV/m) |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|-------------------|----------------------|
| 18213.720000    | 37.0             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -9.9       | 17.0              | 54.0                 |
| 19807.750000    | 36.4             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -9.7       | 17.7              | 54.0                 |
| 21265.935000    | 37.5             | 1000.0          | 1000.000        | 150.0       | V   | 0.0           | -7.9       | 16.5              | 54.0                 |

**Figure 19: Spectral Diagrams, Radiated Emission, Mode C**

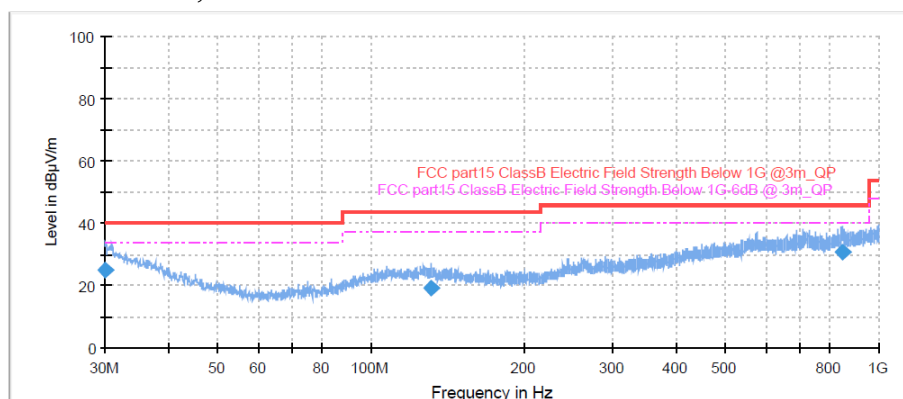
30MHz-1000MHz, Horizontal



### Final Result

| Frequency (MHz) | QuasiPeak (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|-----------------|--------------------|----------------|-------------|-----------------|-----------------|-------------|-----|---------------|------------|
| 30.854444       | 24.38              | 40.00          | 15.62       | 1000.0          | 120.000         | 164.0       | H   | 71.0          | 25.4       |
| 133.472778      | 23.82              | 43.50          | 19.68       | 1000.0          | 120.000         | 229.0       | H   | 142.0         | 18.8       |
| 845.177222      | 30.39              | 46.00          | 15.61       | 1000.0          | 120.000         | 204.0       | H   | 321.0         | 29.4       |

30MHz-1000MHz, Vertical

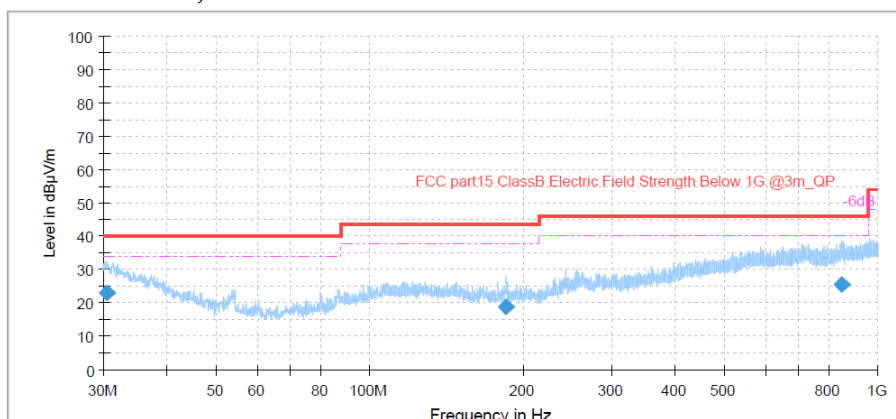


### Final Result

| Frequency (MHz) | QuasiPeak (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|-----------------|--------------------|----------------|-------------|-----------------|-----------------|-------------|-----|---------------|------------|
| 30.053890       | 24.91              | 40.00          | 15.09       | 1000.0          | 120.000         | 250.0       | V   | 87.0          | 25.9       |
| 131.183333      | 18.94              | 43.50          | 24.56       | 1000.0          | 120.000         | 124.0       | V   | 132.0         | 18.8       |
| 845.291111      | 30.45              | 46.00          | 15.55       | 1000.0          | 120.000         | 165.0       | V   | 19.0          | 29.3       |

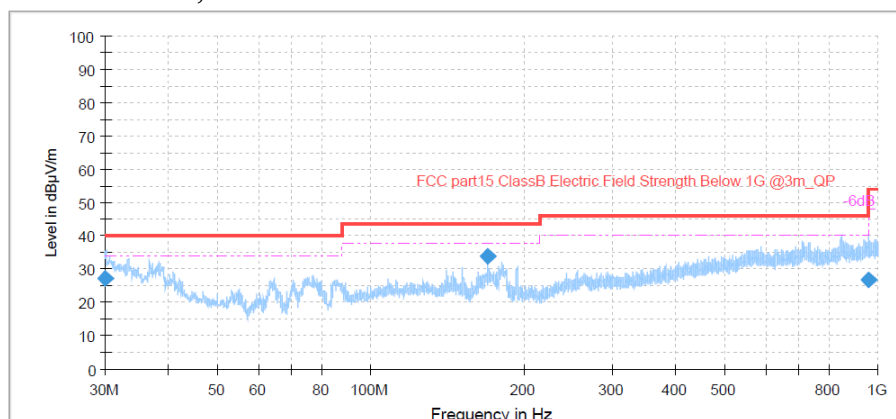
**Figure 20: Spectral Diagrams, Radiated Emission, Mode D**

30MHz-1000MHz, Horizontal


**Final Result**

| Frequency (MHz) | QuasiPeak (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|-----------------|--------------------|----------------|-------------|-----------------|-----------------|-------------|-----|---------------|------------|
| 30.343333       | 22.96              | 40.00          | 17.04       | 1000.0          | 120.000         | 100.0       | H   | 168.0         | 25.8       |
| 184.966111      | 18.68              | 43.50          | 24.82       | 1000.0          | 120.000         | 193.0       | H   | 133.0         | 16.3       |
| 845.009444      | 25.49              | 46.00          | 20.51       | 1000.0          | 120.000         | 250.0       | H   | 268.0         | 29.4       |

30MHz-1000MHz, Vertical


**Final Result**

| Frequency (MHz) | QuasiPeak (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|-----------------|--------------------|----------------|-------------|-----------------|-----------------|-------------|-----|---------------|------------|
| 30.040000       | 27.29              | 40.00          | 12.71       | 1000.0          | 120.000         | 117.0       | V   | 101.0         | 25.9       |
| 170.025000      | 34.07              | 43.50          | 9.43        | 1000.0          | 120.000         | 100.0       | V   | 169.0         | 17.0       |
| 959.142778      | 26.90              | 46.00          | 19.10       | 1000.0          | 120.000         | 161.0       | V   | 114.0         | 30.3       |

## 5. List of Tables

|                                                                   |    |
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