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Report Template Version: V05

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# TEST REPORT

**Report No.:** CQASZ20240601163E-01  
**Applicant:** Lexar Electronics (Shenzhen) Co., Ltd.  
**Address of Applicant:** Unit 01-04, L4, Tower 1, Qianhai Kerry Center, Qianhai Avenue, Nanshan Street, Qianhai Shenzhen-Hong Kong Cooperation Zone, Shenzhen, China  
**Equipment Under Test (EUT):**  
**Product:** Pexar Digital Picture Frame  
**Model No.:** PX-110, PX-101  
**Test Model No.:** PX-110  
**Brand Name:** N/A  
**FCC ID:** 2BGZN-110  
**Standards:** 47 CFR Part 15, Subpart C  
KDB558074 D01 15.247 Meas Guidance v05r02  
ANSI C63.10:2013  
**Date of Receipt:** 2024-06-25  
**Date of Test:** 2024-06-25 to 2024-07-10  
**Date of Issue:** 2024-08-09  
**Test Result :** **PASS\***

\*In the configuration tested, the EUT complied with the standards specified above

**Tested By:** Lewis Zhou  
( Lewis Zhou )

**Reviewed By:** Timo Lei  
( Timo Lei )

**Approved By:** Alex  
( Alex Wang )



The test report is effective only with both signature and specialized stamp, The result(s) shown in this report refer only to the sample(s) tested. Without written approval of CQA, this report can't be reproduced except in full.

## 1 Version

### Revision History Of Report

| Report No.           | Version | Description    | Issue Date |
|----------------------|---------|----------------|------------|
| CQASZ20240601163E-01 | Rev.01  | Initial report | 2024-08-09 |

## 2 Test Summary

| Test Item                                                               | Test Requirement          | Test method      | Result |
|-------------------------------------------------------------------------|---------------------------|------------------|--------|
| Antenna Requirement                                                     | 47 CFR Part 15.203        | N/A              | PASS   |
| AC Power Line<br>Conducted<br>Emission                                  | 47 CFR Part 15.207        | ANSI C63.10-2013 | PASS   |
| Conducted Peak &<br>Average Output Power                                | 47 CFR Part 15.247        | ANSI C63.10-2013 | PASS   |
| 6dB Occupied<br>Bandwidth                                               | 47 CFR Part 15.247        | ANSI C63.10-2013 | PASS   |
| Power Spectral Density                                                  | 47 CFR Part 15.247        | ANSI C63.10-2013 | PASS   |
| Band-edge for RF<br>Conducted Emissions                                 | 47 CFR Part 15.247        | ANSI C63.10-2013 | PASS   |
| RF Conducted Spurious<br>Emissions                                      | 47 CFR Part 15.247        | ANSI C63.10-2013 | PASS   |
| Radiated Spurious<br>Emissions                                          | 47 CFR Part 15.209        | ANSI C63.10-2013 | PASS   |
| Restricted bands around<br>fundamental frequency<br>(Radiated Emission) | 47 CFR Part 15.205/15.209 | ANSI C63.10-2013 | PASS   |

Remark:

The tested sample(s) and the sample information are provided by the client.

Tx: In this whole report Tx (or tx) means Transmitter.

Rx: In this whole report Rx (or rx) means Receiver.

RF: In this whole report RF means Radiated Frequency.

CH: In this whole report CH means channel.

Volt: In this whole report Volt means Voltage.

Temp: In this whole report Temp means Temperature.

Humid: In this whole report Humid means humidity.

Press: In this whole report Press means Pressure.

N/A: In this whole report not application

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## 4 General Information

### 4.1 Client Information

|                          |                                                                                                                                             |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Applicant:               | Lexar Electronics (Shenzhen) Co., Ltd.                                                                                                      |
| Address of Applicant:    | Unit 01-04, L4, Tower 1, Qianhai Kerry Center, Qianhai Avenue, Nanshan Street, Qianhai Shenzhen-Hong Kong Cooperation Zone, Shenzhen, China |
| Manufacturer:            | Lexar Electronics (Shenzhen) Co., Ltd.                                                                                                      |
| Address of Manufacturer: | Unit 01-04, L4, Tower 1, Qianhai Kerry Center, Qianhai Avenue, Nanshan Street, Qianhai Shenzhen-Hong Kong Cooperation Zone, Shenzhen, China |
| Factory:                 | Lexar Electronics (Shenzhen) Co., Ltd.                                                                                                      |
| Address of Factory:      | Unit 01-04, L4, Tower 1, Qianhai Kerry Center, Qianhai Avenue, Nanshan Street, Qianhai Shenzhen-Hong Kong Cooperation Zone, Shenzhen, China |

### 4.2 General Description of EUT

|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Name:                    | Pexar Digital Picture Frame                                                                                                                                                                                                                                                                                                                                                                                            |
| Model No.:                       | PX-110, PX-101                                                                                                                                                                                                                                                                                                                                                                                                         |
| Test Model No.:                  | PX-110                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Trade Mark:                      | N/A                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Software Version:                | Android 11                                                                                                                                                                                                                                                                                                                                                                                                             |
| Hardware Version:                | DPF1106MK-MT8167N-PCDDR4-MB-VER1.1                                                                                                                                                                                                                                                                                                                                                                                     |
| Power Supply:                    | Power supply DC 12V form adapter<br>1#adapter:<br>Model:TEKA-TB120100XX<br>Input:100-240V~50/60Hz 0.35A MAX<br>Output:12V 1A 12W<br>2#adapter:<br>Model:TEKA-TB120100US<br>Input:100-240V~50/60Hz 0.35A MAX<br>Output:12V 1A<br>3#adapter:<br>Model:RD1201000-225MG<br>Input:100-240V~50/60Hz 0.6A MAX<br>Output:12V 1A<br>4#adapter:<br>Model:TEKA-TC120100XX<br>Input:100-240V~50/60Hz 0.5A MAX<br>Output:12V 1A 12W |
| EUT Supports Radios application: | 2.4GHz: Wi-Fi: 802.11b/g/n(HT20): 2412MHz~2462MHz;<br>802.11n(HT40): 2422MHz~2452MHz                                                                                                                                                                                                                                                                                                                                   |
| Simultaneous Transmission        | <input type="checkbox"/> Simultaneous TX is supported and evaluated in this report.<br><input checked="" type="checkbox"/> Simultaneous TX is not supported.                                                                                                                                                                                                                                                           |

### 4.3 Product Specification subjective to this standard

|                       |                                                                                                                                                                                                                                                                                                                            |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operation Frequency:  | IEEE 802.11b/g/n(HT20): 2412MHz to 2462MHz<br>IEEE 802.11n(HT40): 2422MHz to 2452MHz                                                                                                                                                                                                                                       |
| Channel Numbers:      | IEEE 802.11b/g, IEEE 802.11n HT20: 11 Channels<br>IEEE 802.11n HT40: 7 Channels                                                                                                                                                                                                                                            |
| Channel Separation:   | 5MHz                                                                                                                                                                                                                                                                                                                       |
| Type of Modulation:   | IEEE for 802.11b: DSSS(CCK,DQPSK,DBPSK)<br>IEEE for 802.11g : OFDM(64QAM, 16QAM, QPSK, BPSK)<br>IEEE for 802.11n(HT20 and HT40) : OFDM (64QAM, 16QAM, QPSK, BPSK)                                                                                                                                                          |
| Transfer Rate:        | IEEE for 802.11b:<br>1Mbps/2Mbps/5.5Mbps/11Mbps<br>IEEE for 802.11g :<br>6Mbps/9Mbps/12Mbps/18Mbps/24Mbps/36Mbps/48Mbps/54Mbps<br>IEEE for 802.11n(HT20) :<br>6.5Mbps/13Mbps/19.5Mbps/26Mbps/39Mbps/52Mbps/58.5Mbps/65Mbps<br>IEEE for 802.11n(HT40) :<br>13.5Mbps/27Mbps/40.5Mbps/54Mbps/81Mbps/108Mbps/121.5Mbps/135Mbps |
| Product Type:         | <input checked="" type="checkbox"/> Mobile <input type="checkbox"/> Portable                                                                                                                                                                                                                                               |
| Test Software of EUT: | Android                                                                                                                                                                                                                                                                                                                    |
| Antenna Type:         | FPC antenna                                                                                                                                                                                                                                                                                                                |
| Antenna Gain:         | 2.33dBi                                                                                                                                                                                                                                                                                                                    |

| Operation Frequency each of channel(802.11b/g/n HT20) |           |         |           |         |           |         |           |
|-------------------------------------------------------|-----------|---------|-----------|---------|-----------|---------|-----------|
| Channel                                               | Frequency | Channel | Frequency | Channel | Frequency | Channel | Frequency |
| 1                                                     | 2412MHz   | 4       | 2427MHz   | 7       | 2442MHz   | 10      | 2457MHz   |
| 2                                                     | 2417MHz   | 5       | 2432MHz   | 8       | 2447MHz   | 11      | 2462MHz   |
| 3                                                     | 2422MHz   | 6       | 2437MHz   | 9       | 2452MHz   |         |           |
| Operation Frequency each of channel(802.11n HT40)     |           |         |           |         |           |         |           |
| Channel                                               | Frequency | Channel | Frequency | Channel | Frequency | Channel | Frequency |
| 3                                                     | 2422MHz   | 6       | 2437MHz   | 9       | 2452MHz   |         |           |
| 4                                                     | 2427MHz   | 7       | 2442MHz   |         |           |         |           |
| 5                                                     | 2432MHz   | 8       | 2447MHz   |         |           |         |           |

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

For 802.11b/g/n (HT20):

| Channel             | Frequency |
|---------------------|-----------|
| The Lowest channel  | 2412MHz   |
| The Middle channel  | 2437MHz   |
| The Highest channel | 2462MHz   |

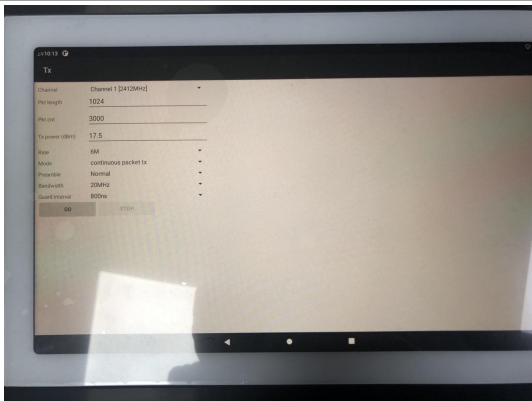
For 802.11n (HT40):

| Channel             | Frequency |
|---------------------|-----------|
| The Lowest channel  | 2422MHz   |
| The Middle channel  | 2437MHz   |
| The Highest channel | 2452MHz   |

Note:

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

## 4.4 Test Environment and Mode

|                                                                                     |                                                                                             |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| <b>Operating Environment:</b>                                                       |                                                                                             |
| <b>Radiated Emissions:</b>                                                          |                                                                                             |
| Temperature:                                                                        | 25.3 °C                                                                                     |
| Humidity:                                                                           | 55 % RH                                                                                     |
| Atmospheric Pressure:                                                               | 1009 mbar                                                                                   |
| <b>Conducted Emissions:</b>                                                         |                                                                                             |
| Temperature:                                                                        | 25.6 °C                                                                                     |
| Humidity:                                                                           | 60 % RH                                                                                     |
| Atmospheric Pressure:                                                               | 1009 mbar                                                                                   |
| <b>Radio conducted item test (RF Conducted test room):</b>                          |                                                                                             |
| Temperature:                                                                        | 25.5 °C                                                                                     |
| Humidity:                                                                           | 52 % RH                                                                                     |
| Atmospheric Pressure:                                                               | 1009 mbar                                                                                   |
| <b>Test mode:</b>                                                                   |                                                                                             |
| Transmitting mode:                                                                  | EUT is set in RF test mode in all supported modulation types, bandwidth and data rate, etc. |
| <b>Run Software:</b>                                                                |                                                                                             |
|  |                                                                                             |



## 4.5 Description of Support Units

The EUT has been tested with associated equipment below.

### 1) Support equipment

| Description | Manufacturer | Model No. | Certification | Supplied by |
|-------------|--------------|-----------|---------------|-------------|
| /           | /            | /         | /             | /           |

### 2) Cable

| Cable No. | Description | Manufacturer | Cable Type/Length | Supplied by |
|-----------|-------------|--------------|-------------------|-------------|
| /         | /           | /            | /                 | /           |

## 4.6 Test Location

All tests were performed at:

Shenzhen Huaxia Testing Technology Co., Ltd.

1F., Block A of Tongsheng Technology Building, Huahui Road, Dalang Street, Longhua New District, Shenzhen, Guangdong, China

## 4.7 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

### • A2LA (Certificate No. 4742.01)

Shenzhen Huaxia Testing Technology Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 4742.01.

### • FCC Registration No.: 522263

Shenzhen Huaxia Testing Technology Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No.:522263

#### 4.8 Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate.

The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities.

The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16 - 4 „Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements“ and is documented in the **Shenzhen Huaxia Testing Technology Co., Ltd.** quality system acc. to DIN EN ISO/IEC 17025.

Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for CQA laboratory is reported:

| No. | Item                               | Uncertainty        | Notes |
|-----|------------------------------------|--------------------|-------|
| 1   | Radiated Emission (Below 1GHz)     | 5.12dB             | (1)   |
| 2   | Radiated Emission (Above 1GHz)     | 4.60dB             | (1)   |
| 3   | Conducted Disturbance (0.15~30MHz) | 3.34dB             | (1)   |
| 4   | Radio Frequency                    | $3 \times 10^{-8}$ | (1)   |
| 5   | Duty cycle                         | 0.6 %.             | (1)   |
| 6   | Occupied Bandwidth                 | 1.1%               | (1)   |
| 7   | RF conducted power                 | 0.86dB             | (1)   |
| 8   | RF power density                   | 0.74               | (1)   |
| 9   | Conducted Spurious emissions       | 0.86dB             | (1)   |
| 10  | Temperature test                   | 0.8℃               | (1)   |
| 11  | Humidity test                      | 2.0%               | (1)   |
| 12  | Supply voltages                    | 0.5 %.             | (1)   |
| 13  | Frequency Error                    | 5.5 Hz             | (1)   |

(1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of  $k=2$ .

#### 4.9 Deviation from Standards

None.

#### 4.10 Abnormalities from Standard Conditions

None.

#### 4.11 Other Information Requested by the Customer

None.

## 4.12 Equipment List

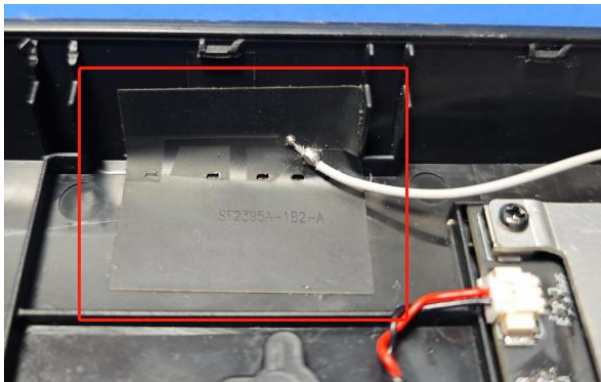
| Test Equipment                            | Manufacturer | Model No.              | Instrument No. | Calibration Date | Calibration Due Date |
|-------------------------------------------|--------------|------------------------|----------------|------------------|----------------------|
| EMI Test Receiver                         | R&S          | ESR7                   | CQA-005        | 2023/09/08       | 2024/09/07           |
| Spectrum analyzer                         | R&S          | FSU26                  | CQA-038        | 2023/09/08       | 2024/09/07           |
| Spectrum analyzer                         | R&S          | FSU40                  | CQA-075        | 2023/09/08       | 2024/09/07           |
| Preamplifier                              | MITEQ        | AFS4-00010300-18-10P-4 | CQA-035        | 2023/09/08       | 2024/09/07           |
| Preamplifier                              | MITEQ        | AMF-6D-02001800-29-20P | CQA-036        | 2023/09/08       | 2024/09/07           |
| Preamplifier                              | EMCI         | EMC184055SE            | CQA-089        | 2023/09/08       | 2024/09/07           |
| Loop antenna                              | Schwarzbeck  | FMZB1516               | CQA-060        | 2021/09/16       | 2024/09/15           |
| Bilog Antenna                             | R&S          | HL562                  | CQA-011        | 2021/09/16       | 2024/09/15           |
| Horn Antenna                              | R&S          | HF906                  | CQA-012        | 2021/09/16       | 2024/09/15           |
| Horn Antenna                              | Schwarzbeck  | BBHA 9170              | CQA-088        | 2021/09/16       | 2024/09/15           |
| Coaxial Cable (Above 1GHz)                | CQA          | N/A                    | C007           | 2023/09/08       | 2024/09/07           |
| Coaxial Cable (Below 1GHz)                | CQA          | N/A                    | C013           | 2023/09/08       | 2024/09/07           |
| RF cable(9KHz~40GHz)                      | CQA          | RF-01                  | CQA-079        | 2023/09/08       | 2024/09/07           |
| Antenna Connector                         | CQA          | RFC-01                 | CQA-080        | 2023/09/08       | 2024/09/07           |
| Power Sensor                              | KEYSIGHT     | U2021XA                | CQA-30         | 2023/09/08       | 2024/09/07           |
| N1918A Power Analysis Manager Power Panel | Agilent      | N1918A                 | CQA-074        | 2023/09/08       | 2024/09/07           |
| Power meter                               | R&S          | NRVD                   | CQA-029        | 2023/09/08       | 2024/09/07           |
| Power divider                             | MIDWEST      | PWD-2533-02-SMA-79     | CQA-067        | 2023/09/08       | 2024/09/07           |
| EMI Test Receiver                         | R&S          | ESR7                   | CQA-005        | 2023/09/08       | 2024/09/07           |
| LISN                                      | R&S          | ENV216                 | CQA-003        | 2023/09/08       | 2024/09/07           |
| Coaxial cable                             | CQA          | N/A                    | CQA-C009       | 2023/09/08       | 2024/09/07           |
| DC power                                  | KEYSIGHT     | E3631A                 | CQA-028        | 2023/09/08       | 2024/09/07           |

Test software:

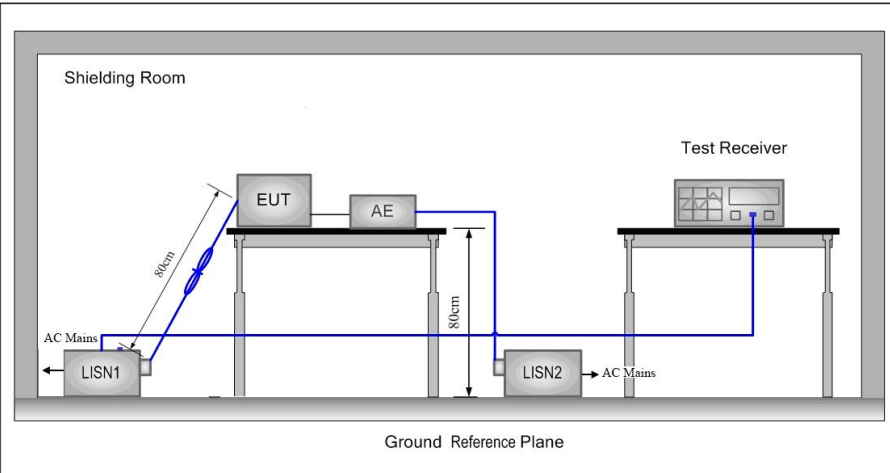
|                                   | Manufacturer | Software brand |
|-----------------------------------|--------------|----------------|
| Radiated Emissions test software  | Tonscend     | JS1120-3       |
| Conducted Emissions test software | Audix        | e3             |
| RF Conducted test software        | Audix        | e3             |

## 5 Test results and Measurement Data

### 5.1 Antenna Requirement

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>Standard requirement:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 47 CFR Part 15C Section 15.203 /247(c)                                              |
| <p>15.203 requirement:<br/> An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.</p> <p>15.247(b) (4) requirement:<br/> The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.</p> |                                                                                     |
| <b>EUT Antenna:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |
| <p>The antenna is FPC antenna.</p> <p>The connection/connection type between the antenna to the EUT's antenna port is: unique coupling. This is either permanently attachment or a unique coupling that satisfies the requirement.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                     |

## 5.2 Conducted Emissions

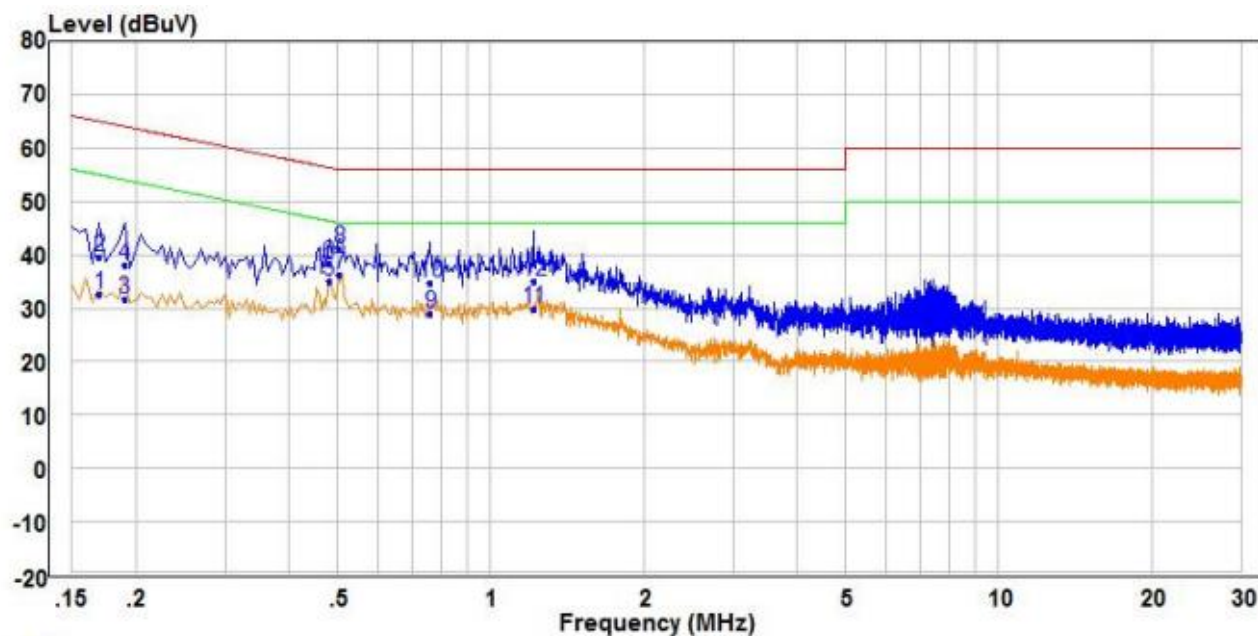
|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |              |           |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------|
| Test Requirement:     | 47 CFR Part 15C Section 15.207                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |              |           |
| Test Method:          | ANSI C63.10: 2013                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |              |           |
| Test Frequency Range: | 150kHz to 30MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |              |           |
| Limit:                | Frequency range (MHz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Limit (dBuV) |           |
|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Quasi-peak   | Average   |
|                       | 0.15-0.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 66 to 56*    | 56 to 46* |
|                       | 0.5-5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 56           | 46        |
|                       | 5-30                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 60           | 50        |
|                       | * Decreases with the logarithm of the frequency.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |              |           |
| Test Procedure:       | <ol style="list-style-type: none"> <li>1) The mains terminal disturbance voltage test was conducted in a shielded room.</li> <li>2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a <math>50\Omega/50\mu\text{H} + 5\Omega</math> linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.</li> <li>3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,</li> <li>4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.</li> <li>5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10: 2013 on conducted measurement.</li> </ol> |              |           |
| Test Setup:           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |              |           |

|                        |                                                                                                                                            |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Exploratory Test Mode: | Transmitting with all kind of modulations, data rates at lowest, middle and highest channel.                                               |
| Final Test Mode:       | Through Pre-scan, find the 1Mbps of rate of 802.11b at middle channel is the worst case.<br>Only the worst case is recorded in the report. |
| Test Voltage:          | AC120V/60Hz                                                                                                                                |
| Test Results:          | Pass                                                                                                                                       |

## Measurement Data

1#

Live Line:



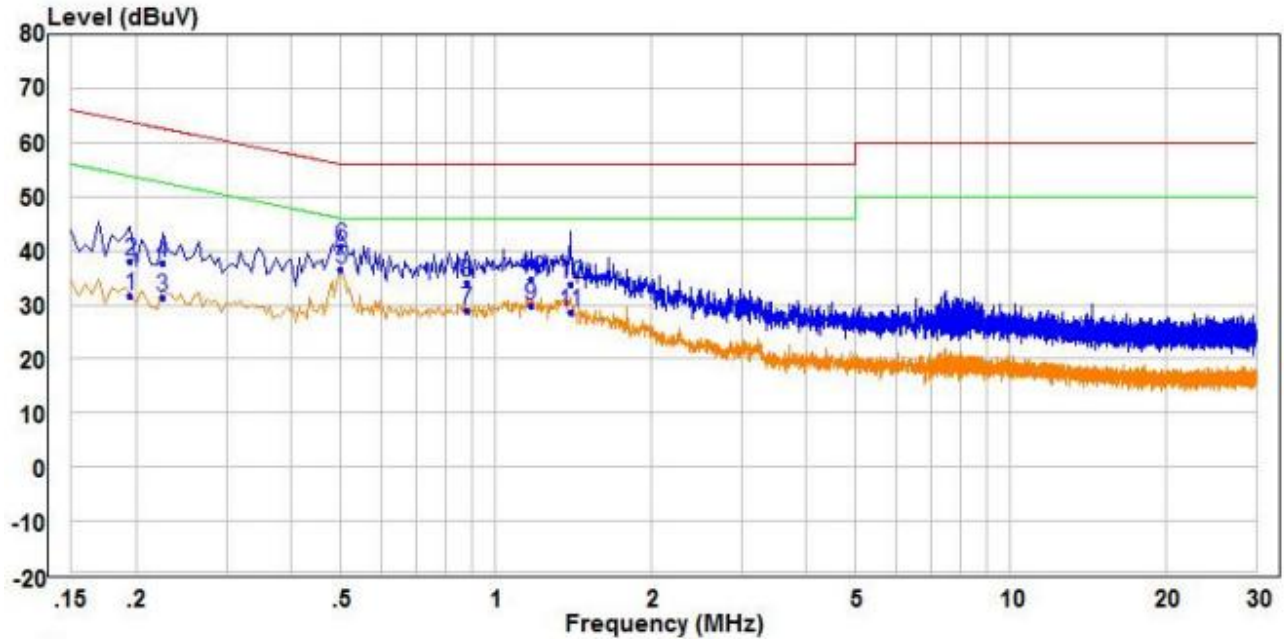
|      |       | Read  |        | Limit | Over  |        |           |
|------|-------|-------|--------|-------|-------|--------|-----------|
|      | Freq  | Level | Factor | Level | Line  | Limit  | Remark    |
|      | MHz   | dBuV  | dB     | dBuV  | dBuV  | dB     | Pol/Phase |
| 1    | 0.170 | 23.17 | 9.49   | 32.66 | 54.96 | -22.30 | Average   |
| 2    | 0.170 | 29.99 | 9.49   | 39.48 | 64.96 | -25.48 | QP        |
| 3    | 0.190 | 22.30 | 9.49   | 31.79 | 54.04 | -22.25 | Average   |
| 4    | 0.190 | 28.47 | 9.49   | 37.96 | 64.04 | -26.08 | QP        |
| 5    | 0.480 | 25.40 | 9.52   | 34.92 | 46.34 | -11.42 | Average   |
| 6    | 0.480 | 28.79 | 9.52   | 38.31 | 56.34 | -18.03 | QP        |
| 7 PP | 0.505 | 26.82 | 9.53   | 36.35 | 46.00 | -9.65  | Average   |
| 8 QP | 0.505 | 31.57 | 9.53   | 41.10 | 56.00 | -14.90 | QP        |
| 9    | 0.760 | 19.14 | 9.80   | 28.94 | 46.00 | -17.06 | Average   |
| 10   | 0.760 | 24.83 | 9.80   | 34.63 | 56.00 | -21.37 | QP        |
| 11   | 1.215 | 20.33 | 9.53   | 29.86 | 46.00 | -16.14 | Average   |
| 12   | 1.215 | 25.56 | 9.53   | 35.09 | 56.00 | -20.91 | QP        |

Remark:

1. The following Quasi-Peak and Average measurements were performed on the EUT:
2. Final Test Level = Receiver Reading + LISN Factor + Cable Loss.
3. If the Peak value under Average limit, the Average value is not recorded in the report.



Neutral Line:



|      | Freq  | Read Level | Factor | Level | Limit Line | Over Limit | Remark  | Pol/Phase |
|------|-------|------------|--------|-------|------------|------------|---------|-----------|
|      | MHz   | dBuV       | dB     | dBuV  | dBuV       | dB         |         |           |
| 1    | 0.195 | 22.03      | 9.62   | 31.65 | 53.82      | -22.17     | Average | Neutral   |
| 2    | 0.195 | 28.49      | 9.62   | 38.11 | 63.82      | -25.71     | QP      | Neutral   |
| 3    | 0.225 | 21.75      | 9.57   | 31.32 | 52.63      | -21.31     | Average | Neutral   |
| 4    | 0.225 | 28.08      | 9.57   | 37.65 | 62.63      | -24.98     | QP      | Neutral   |
| 5 PP | 0.500 | 26.70      | 9.70   | 36.40 | 46.00      | -9.60      | Average | Neutral   |
| 6 QP | 0.500 | 31.23      | 9.70   | 40.93 | 56.00      | -15.07     | QP      | Neutral   |
| 7    | 0.880 | 19.05      | 9.78   | 28.83 | 46.00      | -17.17     | Average | Neutral   |
| 8    | 0.880 | 24.48      | 9.78   | 34.26 | 56.00      | -21.74     | QP      | Neutral   |
| 9    | 1.170 | 20.23      | 9.71   | 29.94 | 46.00      | -16.06     | Average | Neutral   |
| 10   | 1.170 | 25.16      | 9.71   | 34.87 | 56.00      | -21.13     | QP      | Neutral   |
| 11   | 1.395 | 18.96      | 9.72   | 28.68 | 46.00      | -17.32     | Average | Neutral   |
| 12   | 1.395 | 24.18      | 9.72   | 33.90 | 56.00      | -22.10     | QP      | Neutral   |

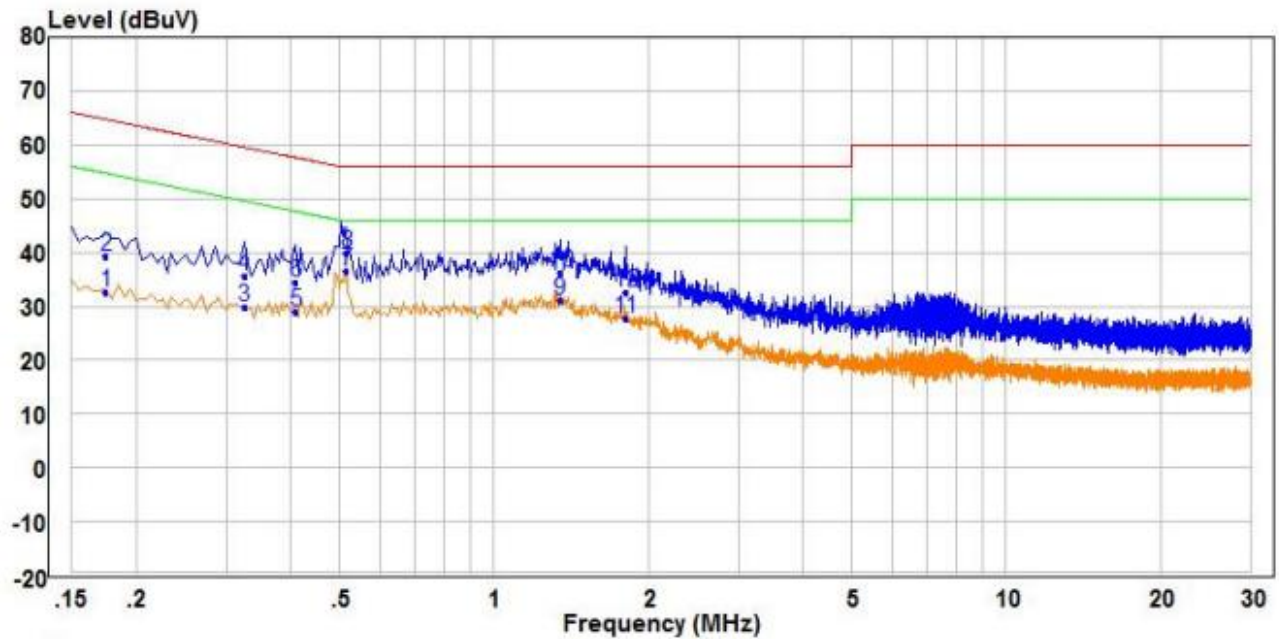
Remark:

1. The following Quasi-Peak and Average measurements were performed on the EUT:
2. Final Test Level = Receiver Reading + LISN Factor + Cable Loss.
3. If the Peak value under Average limit, the Average value is not recorded in the report.



2#

Live Line:

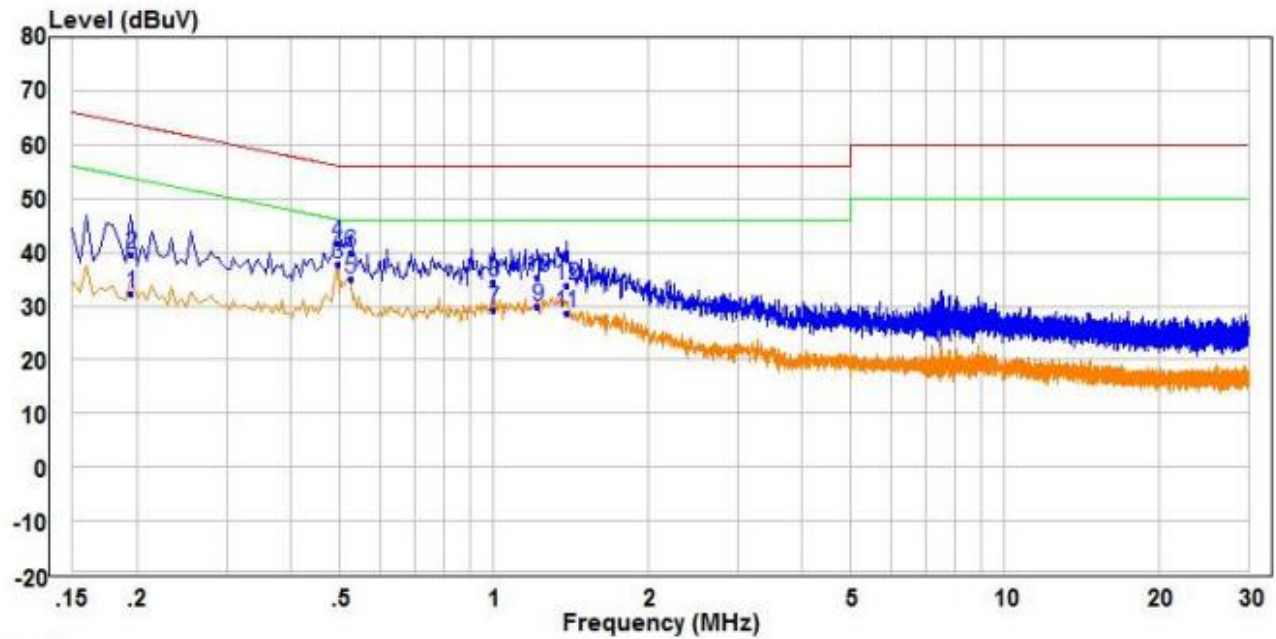


|      |       | Read  |        | Limit | Over  |        |           |
|------|-------|-------|--------|-------|-------|--------|-----------|
|      | Freq  | Level | Factor | Level | Line  | Limit  | Remark    |
|      | MHz   | dBuV  | dB     | dBuV  | dBuV  | dB     | Pol/Phase |
| 1    | 0.175 | 23.01 | 9.65   | 32.66 | 54.72 | -22.06 | Average   |
| 2    | 0.175 | 29.58 | 9.65   | 39.23 | 64.72 | -25.49 | QP        |
| 3    | 0.325 | 20.19 | 9.52   | 29.71 | 49.58 | -19.87 | Average   |
| 4    | 0.325 | 26.16 | 9.52   | 35.68 | 59.58 | -23.90 | QP        |
| 5    | 0.410 | 19.38 | 9.62   | 29.00 | 47.65 | -18.65 | Average   |
| 6    | 0.410 | 24.79 | 9.62   | 34.41 | 57.65 | -23.24 | QP        |
| 7 PP | 0.515 | 26.84 | 9.72   | 36.56 | 46.00 | -9.44  | Average   |
| 8 QP | 0.515 | 30.32 | 9.72   | 40.04 | 56.00 | -15.96 | QP        |
| 9    | 1.345 | 20.62 | 10.53  | 31.15 | 46.00 | -14.85 | Average   |
| 10   | 1.345 | 25.84 | 10.53  | 36.37 | 56.00 | -19.63 | QP        |
| 11   | 1.805 | 16.34 | 11.36  | 27.70 | 46.00 | -18.30 | Average   |
| 12   | 1.805 | 21.26 | 11.36  | 32.62 | 56.00 | -23.38 | QP        |

Remark:

1. The following Quasi-Peak and Average measurements were performed on the EUT:
2. Final Test Level =Receiver Reading + LISN Factor + Cable Loss.
3. If the Peak value under Average limit, the Average value is not recorded in the report.

Neutral Line:



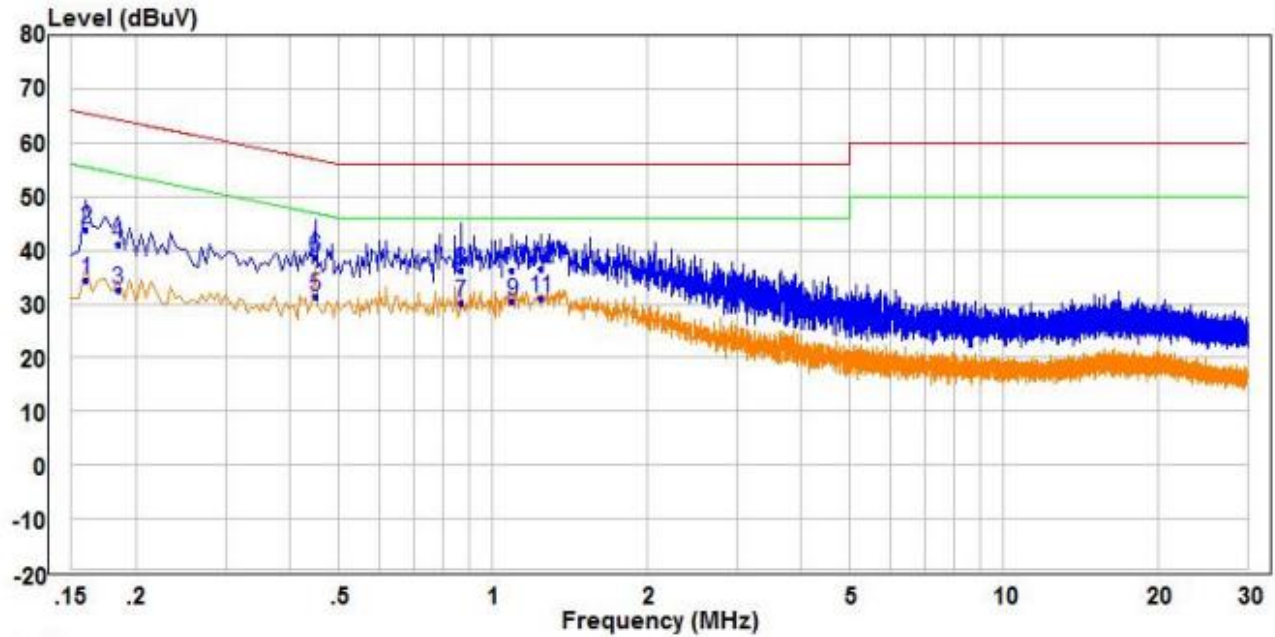
|      | Freq  | Read Level | Factor | Level | Limit Line | Over Limit | Remark  | Pol/Phase |
|------|-------|------------|--------|-------|------------|------------|---------|-----------|
|      | MHz   | dBuV       | dB     | dBuV  | dBuV       | dB         |         |           |
| 1    | 0.195 | 22.72      | 9.62   | 32.34 | 53.82      | -21.48     | Average | Neutral   |
| 2    | 0.195 | 30.02      | 9.62   | 39.64 | 63.82      | -24.18     | QP      | Neutral   |
| 3 PP | 0.495 | 27.97      | 9.70   | 37.67 | 46.08      | -8.41      | Average | Neutral   |
| 4 QP | 0.495 | 32.16      | 9.70   | 41.86 | 56.08      | -14.22     | QP      | Neutral   |
| 5    | 0.525 | 25.25      | 9.72   | 34.97 | 46.00      | -11.03     | Average | Neutral   |
| 6    | 0.525 | 30.29      | 9.72   | 40.01 | 56.00      | -15.99     | QP      | Neutral   |
| 7    | 1.000 | 19.62      | 9.70   | 29.32 | 46.00      | -16.68     | Average | Neutral   |
| 8    | 1.000 | 24.86      | 9.70   | 34.56 | 56.00      | -21.44     | QP      | Neutral   |
| 9    | 1.220 | 20.28      | 9.71   | 29.99 | 46.00      | -16.01     | Average | Neutral   |
| 10   | 1.220 | 25.48      | 9.71   | 35.19 | 56.00      | -20.81     | QP      | Neutral   |
| 11   | 1.385 | 18.86      | 9.72   | 28.58 | 46.00      | -17.42     | Average | Neutral   |
| 12   | 1.385 | 23.95      | 9.72   | 33.67 | 56.00      | -22.33     | QP      | Neutral   |

Remark:

1. The following Quasi-Peak and Average measurements were performed on the EUT:
2. Final Test Level = Receiver Reading + LISN Factor + Cable Loss.
3. If the Peak value under Average limit, the Average value is not recorded in the report.

3#

Live Line:



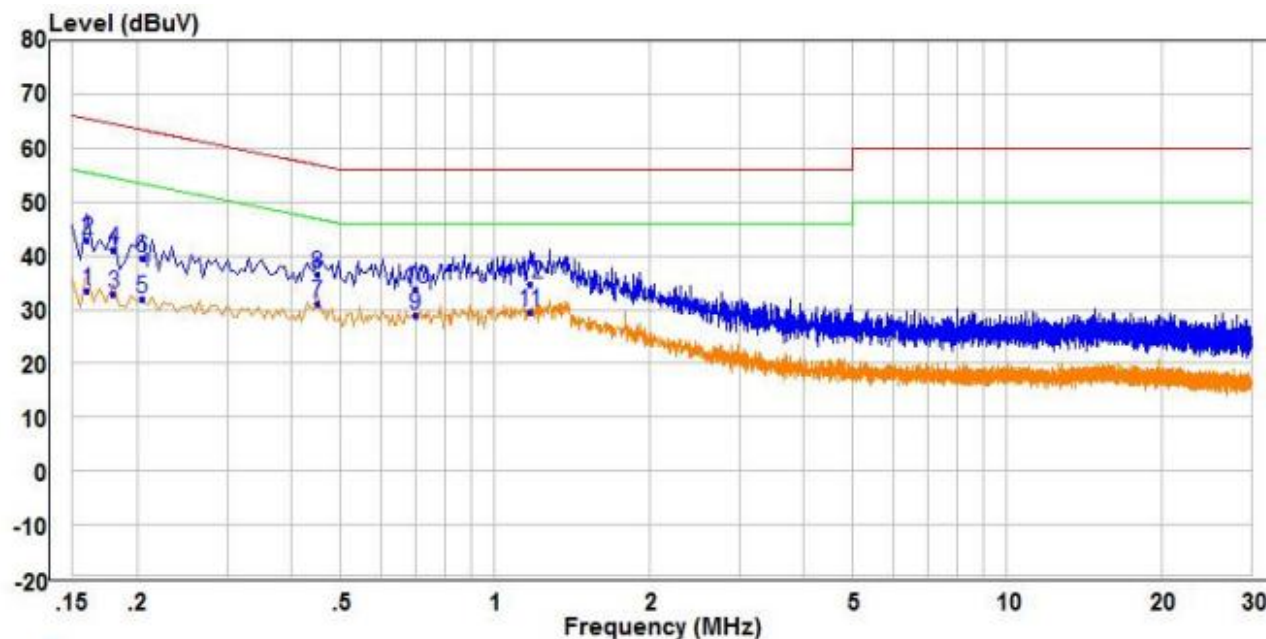
|       | Freq  | Read Level | Factor | Level | Limit Line | Over Limit | Remark  | Pol/Phase |
|-------|-------|------------|--------|-------|------------|------------|---------|-----------|
|       | MHz   | dBuV       | dB     | dBuV  | dBuV       | dB         |         |           |
| 1     | 0.160 | 24.87      | 9.68   | 34.55 | 55.46      | -20.91     | Average | Line      |
| 2     | 0.160 | 34.13      | 9.68   | 43.81 | 65.46      | -21.65     | QP      | Line      |
| 3     | 0.185 | 23.06      | 9.64   | 32.70 | 54.26      | -21.56     | Average | Line      |
| 4     | 0.185 | 31.39      | 9.64   | 41.03 | 64.26      | -23.23     | QP      | Line      |
| 5     | 0.450 | 21.74      | 9.66   | 31.40 | 46.88      | -15.48     | Average | Line      |
| 6 QP  | 0.450 | 29.16      | 9.66   | 38.82 | 56.88      | -18.06     | QP      | Line      |
| 7     | 0.865 | 20.30      | 9.79   | 30.09 | 46.00      | -15.91     | Average | Line      |
| 8     | 0.865 | 26.35      | 9.79   | 36.14 | 56.00      | -19.86     | QP      | Line      |
| 9     | 1.090 | 20.47      | 9.94   | 30.41 | 46.00      | -15.59     | Average | Line      |
| 10    | 1.090 | 26.27      | 9.94   | 36.21 | 56.00      | -19.79     | QP      | Line      |
| 11 PP | 1.240 | 20.66      | 10.30  | 30.96 | 46.00      | -15.04     | Average | Line      |
| 12    | 1.240 | 26.34      | 10.30  | 36.64 | 56.00      | -19.36     | QP      | Line      |

Remark:

1. The following Quasi-Peak and Average measurements were performed on the EUT:
2. Final Test Level =Receiver Reading + LISN Factor + Cable Loss.
3. If the Peak value under Average limit, the Average value is not recorded in the report.



Neutral Line:



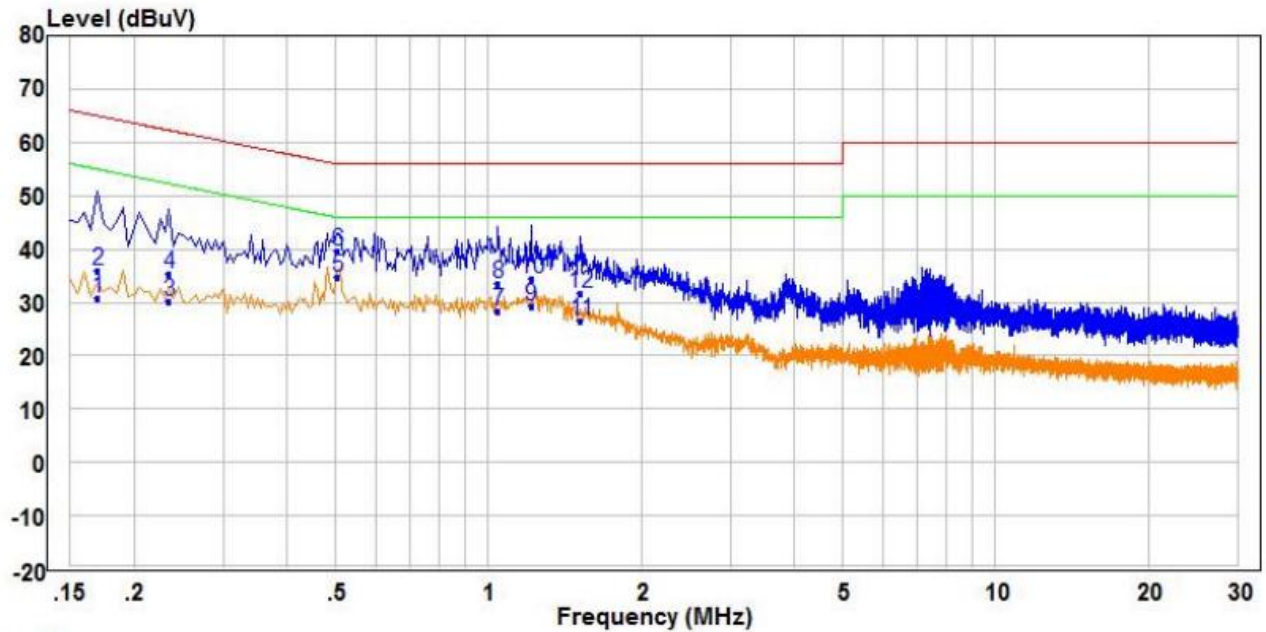
|      | Freq  | Read Level | Factor | Level | Limit Line | Over Limit | Remark  | Pol/Phase |
|------|-------|------------|--------|-------|------------|------------|---------|-----------|
|      | MHz   | dBuV       | dB     | dBuV  | dBuV       | dB         |         |           |
| 1    | 0.160 | 23.94      | 9.68   | 33.62 | 55.46      | -21.84     | Average | Neutral   |
| 2    | 0.160 | 33.31      | 9.68   | 42.99 | 65.46      | -22.47     | QP      | Neutral   |
| 3    | 0.180 | 23.16      | 9.64   | 32.80 | 54.49      | -21.69     | Average | Neutral   |
| 4    | 0.180 | 31.38      | 9.64   | 41.02 | 64.49      | -23.47     | QP      | Neutral   |
| 5    | 0.205 | 22.40      | 9.60   | 32.00 | 53.41      | -21.41     | Average | Neutral   |
| 6    | 0.205 | 30.09      | 9.60   | 39.69 | 63.41      | -23.72     | QP      | Neutral   |
| 7 PP | 0.450 | 21.57      | 9.65   | 31.22 | 46.88      | -15.66     | Average | Neutral   |
| 8 QP | 0.450 | 26.79      | 9.65   | 36.44 | 56.88      | -20.44     | QP      | Neutral   |
| 9    | 0.700 | 19.17      | 9.90   | 29.07 | 46.00      | -16.93     | Average | Neutral   |
| 10   | 0.700 | 23.93      | 9.90   | 33.83 | 56.00      | -22.17     | QP      | Neutral   |
| 11   | 1.170 | 19.94      | 9.71   | 29.65 | 46.00      | -16.35     | Average | Neutral   |
| 12   | 1.170 | 25.07      | 9.71   | 34.78 | 56.00      | -21.22     | QP      | Neutral   |

Remark:

1. The following Quasi-Peak and Average measurements were performed on the EUT:
2. Final Test Level =Receiver Reading + LISN Factor + Cable Loss.
3. If the Peak value under Average limit, the Average value is not recorded in the report.

4#

Live Line:

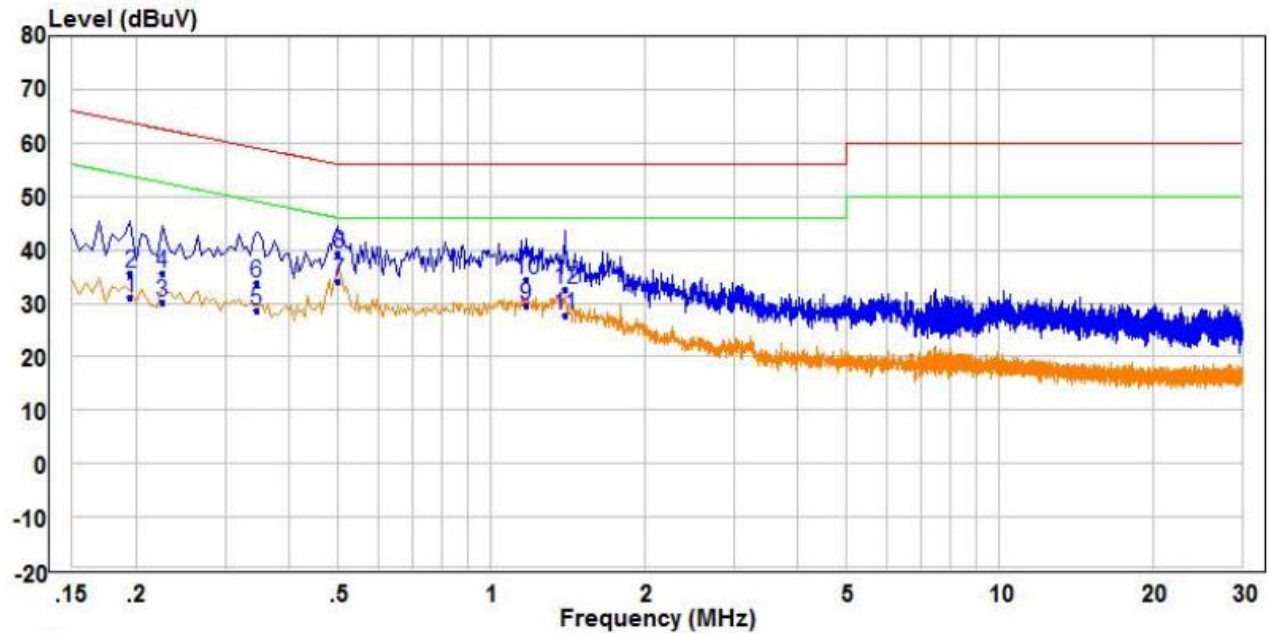


|      | Freq  | Read Level | Factor | Level | Limit Line | Over Limit | Remark  | Pol/Phase |
|------|-------|------------|--------|-------|------------|------------|---------|-----------|
|      | MHz   | dBuV       | dB     | dBuV  | dBuV       | dB         |         |           |
| 1    | 0.170 | 21.32      | 9.49   | 30.81 | 54.96      | -24.15     | Average | Line      |
| 2    | 0.170 | 26.42      | 9.49   | 35.91 | 64.96      | -29.05     | QP      | Line      |
| 3    | 0.235 | 20.79      | 9.49   | 30.28 | 52.27      | -21.99     | Average | Line      |
| 4    | 0.235 | 25.87      | 9.49   | 35.36 | 62.27      | -26.91     | QP      | Line      |
| 5 PP | 0.505 | 25.16      | 9.53   | 34.69 | 46.00      | -11.31     | Average | Line      |
| 6 QP | 0.505 | 30.14      | 9.53   | 39.67 | 56.00      | -16.33     | QP      | Line      |
| 7    | 1.045 | 18.81      | 9.53   | 28.34 | 46.00      | -17.66     | Average | Line      |
| 8    | 1.045 | 24.06      | 9.53   | 33.59 | 56.00      | -22.41     | QP      | Line      |
| 9    | 1.215 | 19.66      | 9.53   | 29.19 | 46.00      | -16.81     | Average | Line      |
| 10   | 1.215 | 24.90      | 9.53   | 34.43 | 56.00      | -21.57     | QP      | Line      |
| 11   | 1.520 | 17.02      | 9.53   | 26.55 | 46.00      | -19.45     | Average | Line      |
| 12   | 1.520 | 22.06      | 9.53   | 31.59 | 56.00      | -24.41     | QP      | Line      |

Remark:

1. The following Quasi-Peak and Average measurements were performed on the EUT:
2. Final Test Level =Receiver Reading + LISN Factor + Cable Loss.
3. If the Peak value under Average limit, the Average value is not recorded in the report.

Neutral Line:

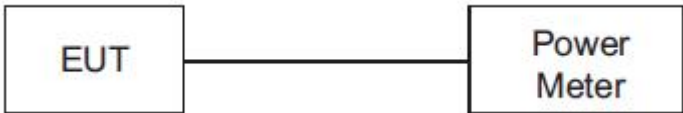
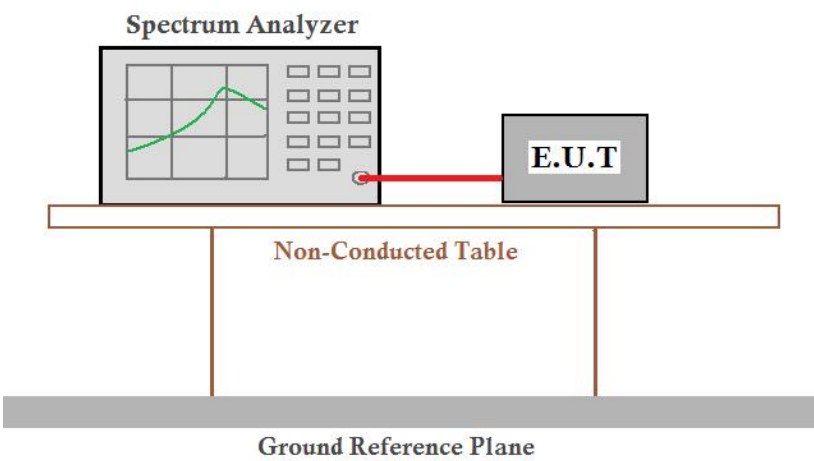


|      | Freq  | Read Level | Factor | Level | Limit Line | Over Limit | Remark  | Pol/Phase |
|------|-------|------------|--------|-------|------------|------------|---------|-----------|
|      | MHz   | dBuV       | dB     | dBuV  | dBuV       | dB         |         |           |
| 1    | 0.195 | 21.38      | 9.62   | 31.00 | 53.82      | -22.82     | Average | Neutral   |
| 2    | 0.195 | 26.17      | 9.62   | 35.79 | 63.82      | -28.03     | QP      | Neutral   |
| 3    | 0.225 | 20.71      | 9.57   | 30.28 | 52.63      | -22.35     | Average | Neutral   |
| 4    | 0.225 | 25.95      | 9.57   | 35.52 | 62.63      | -27.11     | QP      | Neutral   |
| 5    | 0.345 | 19.25      | 9.54   | 28.79 | 49.08      | -20.29     | Average | Neutral   |
| 6    | 0.345 | 24.27      | 9.54   | 33.81 | 59.08      | -25.27     | QP      | Neutral   |
| 7 PP | 0.500 | 24.48      | 9.70   | 34.18 | 46.00      | -11.82     | Average | Neutral   |
| 8 QP | 0.500 | 29.46      | 9.70   | 39.16 | 56.00      | -16.84     | QP      | Neutral   |
| 9    | 1.170 | 19.73      | 9.71   | 29.44 | 46.00      | -16.56     | Average | Neutral   |
| 10   | 1.170 | 24.66      | 9.71   | 34.37 | 56.00      | -21.63     | QP      | Neutral   |
| 11   | 1.395 | 17.94      | 9.72   | 27.66 | 46.00      | -18.34     | Average | Neutral   |
| 12   | 1.395 | 22.79      | 9.72   | 32.51 | 56.00      | -23.49     | QP      | Neutral   |

Remark:

1. The following Quasi-Peak and Average measurements were performed on the EUT:
2. Final Test Level =Receiver Reading + LISN Factor + Cable Loss.
3. If the Peak value under Average limit, the Average value is not recorded in the report.

### 5.3 Conducted Peak & Average Output Power

|                        |                                                                                                                                                                                                                                                                                            |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Requirement:      | 47 CFR Part 15C Section 15.247 (b)(3)                                                                                                                                                                                                                                                      |
| Test Method:           | ANSI C63.10: 2013                                                                                                                                                                                                                                                                          |
| Test Setup:            | <p><i>Setup for Power meter measurement method</i></p>  <p><i>Setup for Spectrum analyser measurement method</i></p>  |
| Exploratory Test Mode: | Transmitting with all kind of modulations, data rates                                                                                                                                                                                                                                      |
| Final Test Mode:       | Only the worst case is recorded in the report.                                                                                                                                                                                                                                             |
| Limit:                 | 30dBm                                                                                                                                                                                                                                                                                      |
| Test Results:          | Pass                                                                                                                                                                                                                                                                                       |



**Test Result**

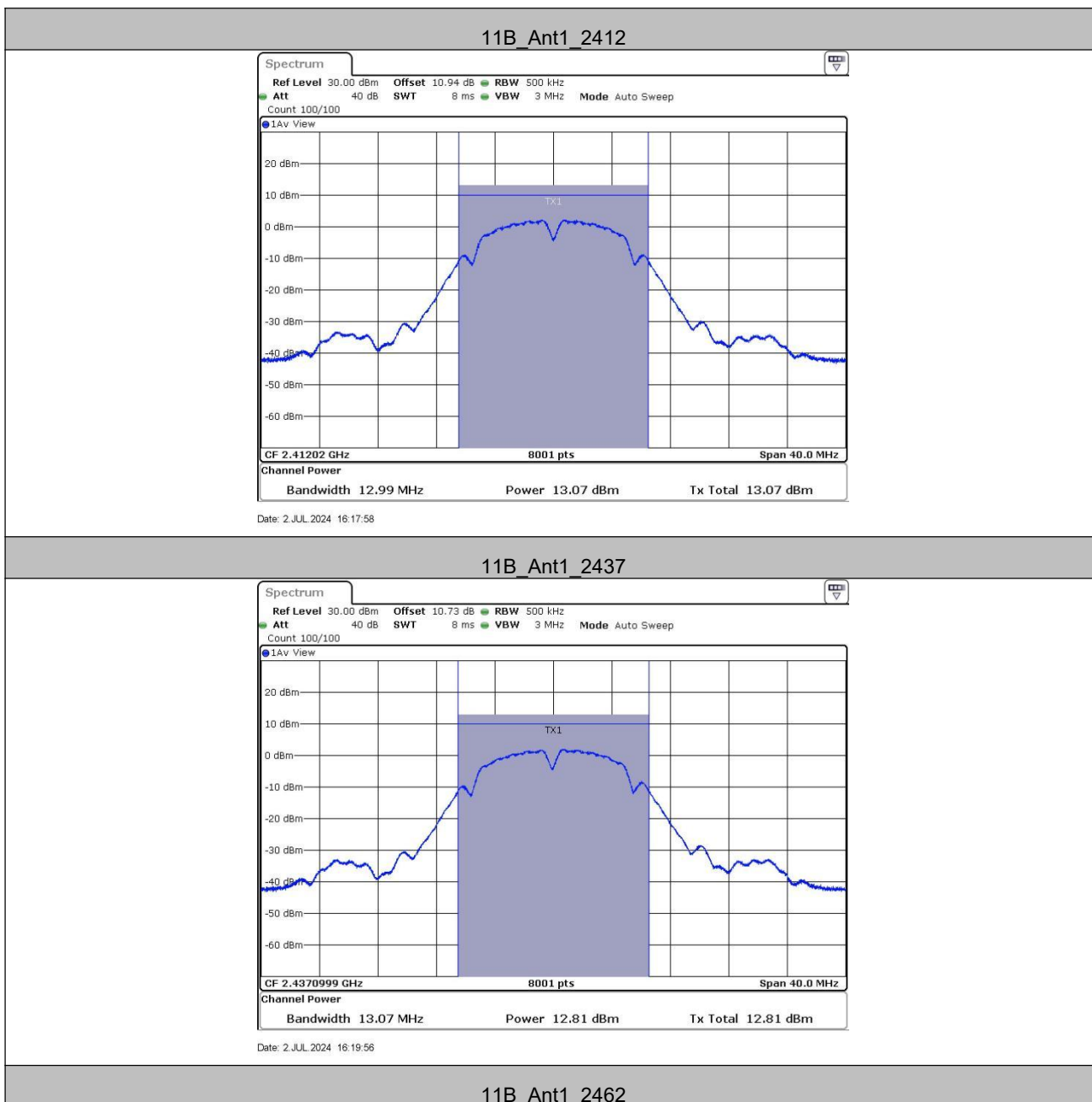
| Test Mode | Frequency[MHz] | Result [dBm] | Limit [dBm] | Verdict |
|-----------|----------------|--------------|-------------|---------|
| 11B       | 2412           | 13.07        | ≤30.00      | PASS    |
|           | 2437           | 12.81        | ≤30.00      | PASS    |
|           | 2462           | 14.03        | ≤30.00      | PASS    |
| 11G       | 2412           | 11.72        | ≤30.00      | PASS    |
|           | 2437           | 11.13        | ≤30.00      | PASS    |
|           | 2462           | 12.20        | ≤30.00      | PASS    |
| 11N20SISO | 2412           | 11.22        | ≤30.00      | PASS    |
|           | 2437           | 11.06        | ≤30.00      | PASS    |
|           | 2462           | 12.22        | ≤30.00      | PASS    |
| 11N40SISO | 2422           | 9.36         | ≤30.00      | PASS    |
|           | 2437           | 9.40         | ≤30.00      | PASS    |
|           | 2452           | 10.35        | ≤30.00      | PASS    |

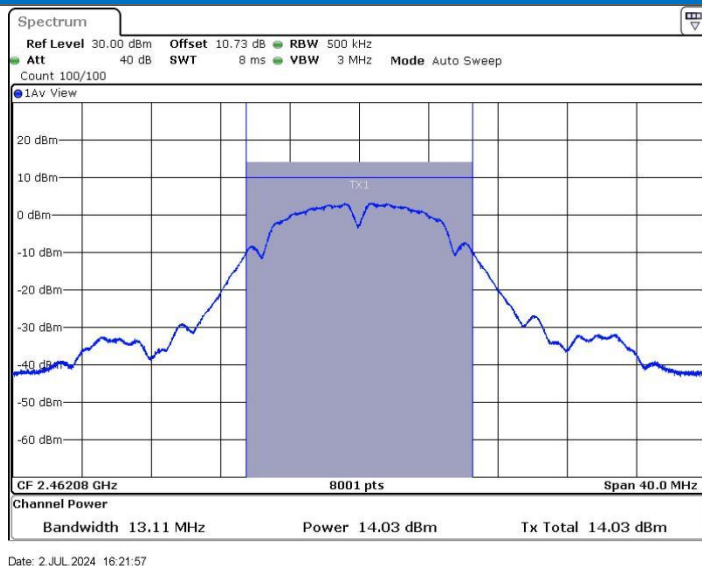
Note:

When Duty cycle &gt;98%, D.C.F is not required.

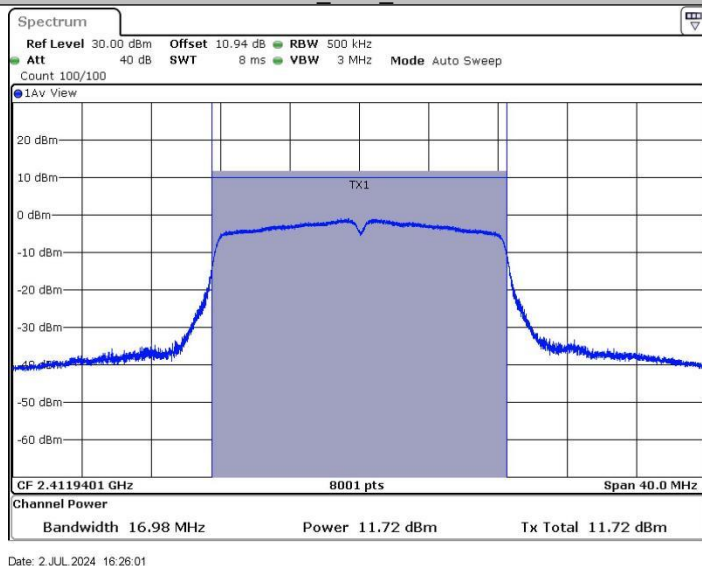


## Test Graphs

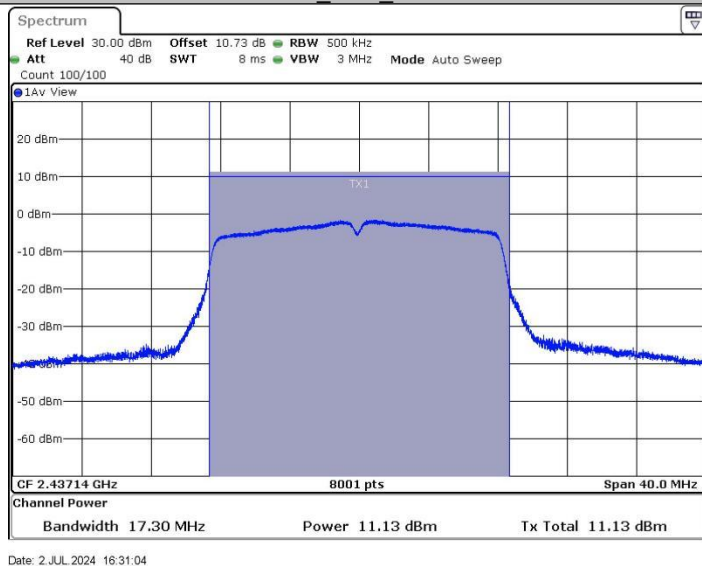




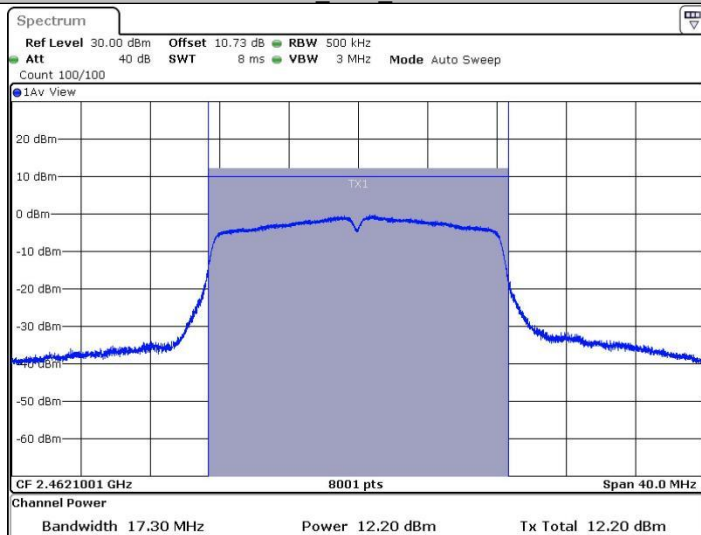
11G\_Ant1\_2412



11G\_Ant1\_2437

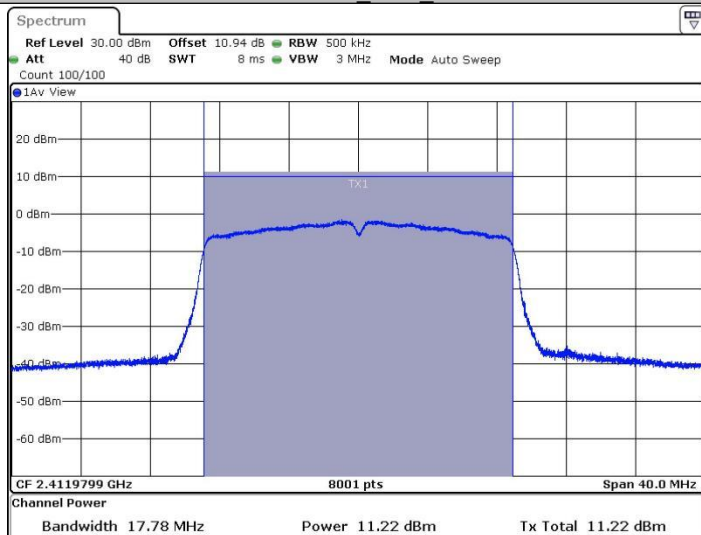


11G\_Ant1\_2462



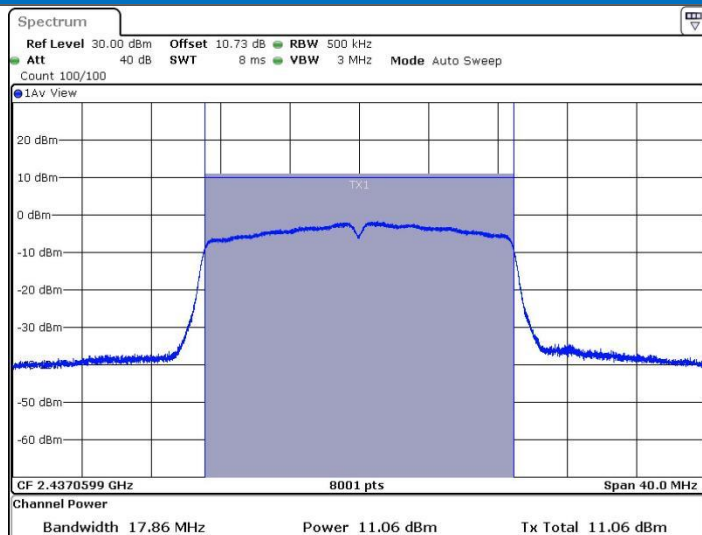
Date: 2 JUL 2024 16:32:54

11N20SISO\_Ant1\_2412



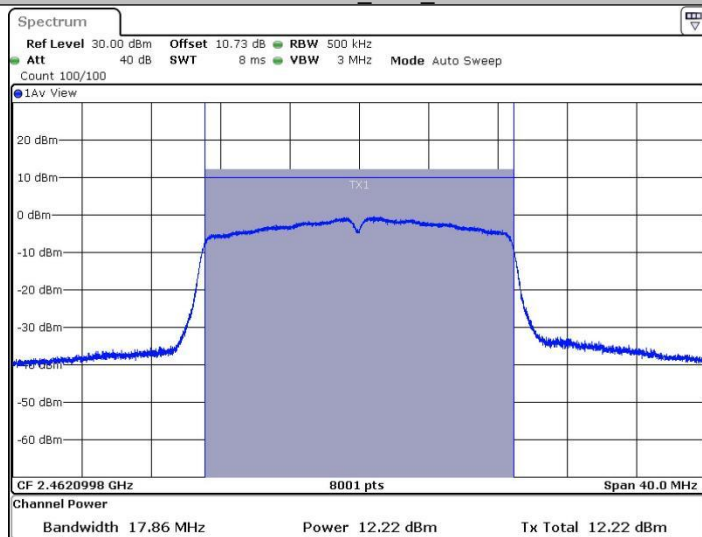
Date: 2 JUL 2024 16:40:37

11N20SISO\_Ant1\_2437



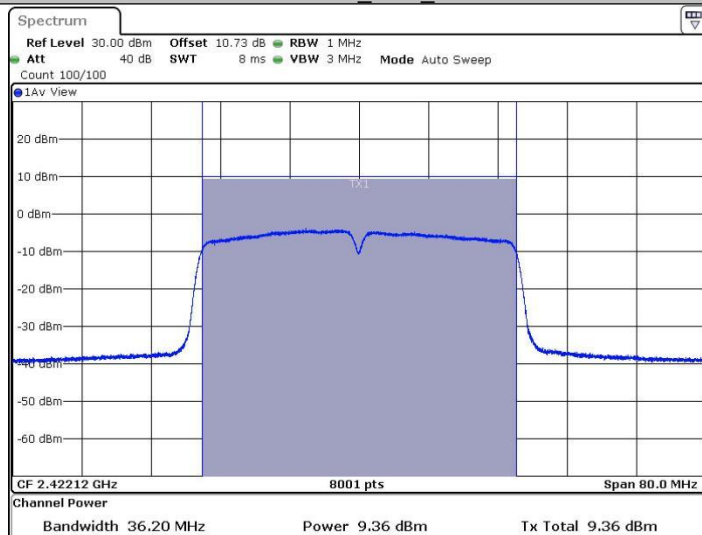
Date: 2 JUL 2024 19:02:06

11N20SISO\_Ant1\_2462



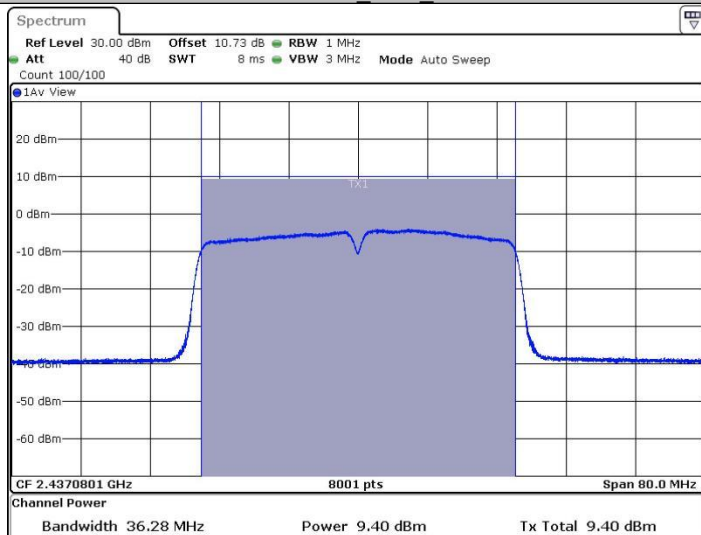
Date: 2 JUL 2024 19:05:39

11N40SISO\_Ant1\_2422

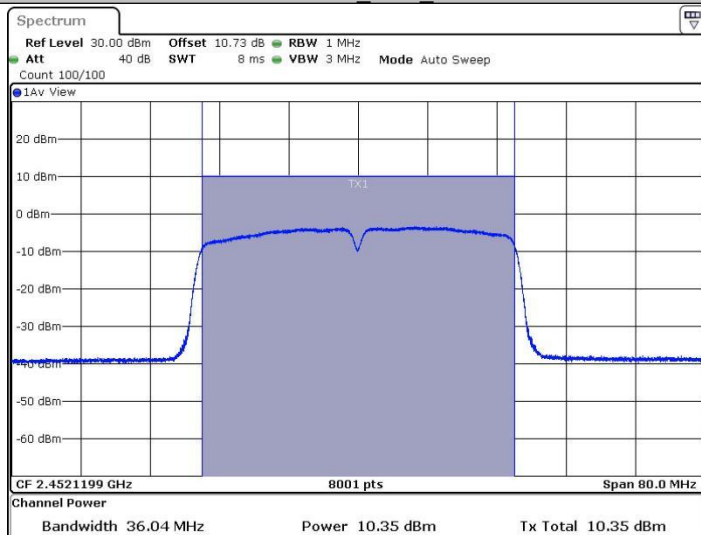


Date: 2 JUL 2024 19:15:50

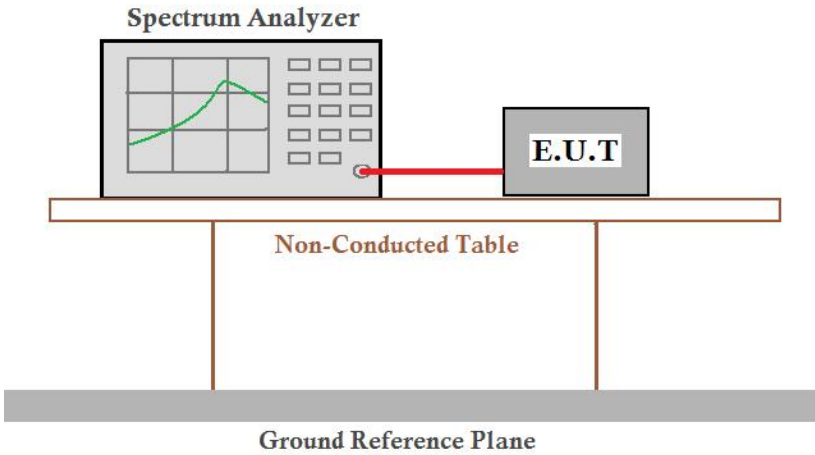
11N40SISO\_Ant1\_2437



11N40SISO\_Ant1\_2452



## 5.4 6dB Occupied Bandwidth

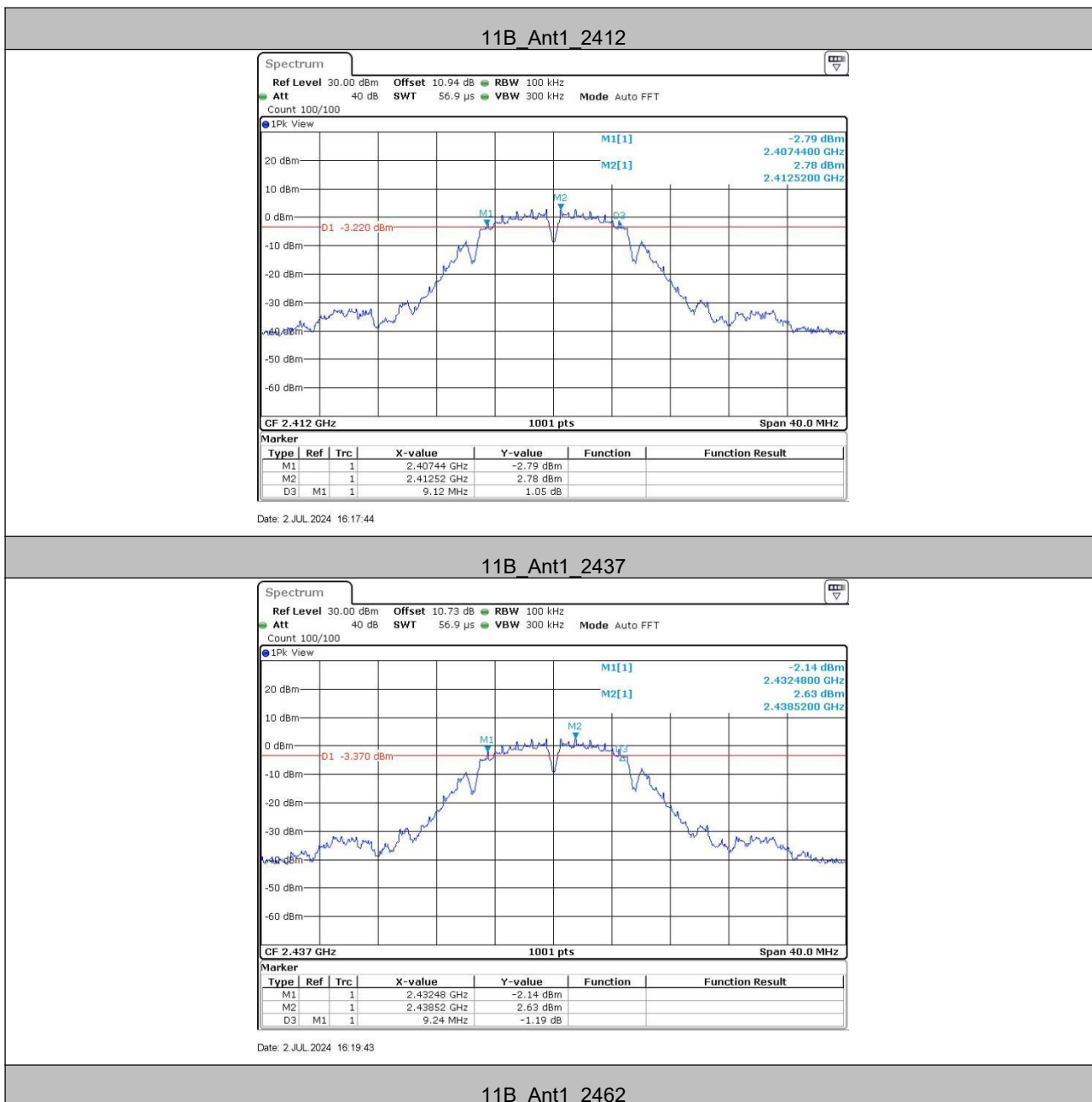
|                        |                                                                                                                                 |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Test Requirement:      | 47 CFR Part 15C Section 15.247 (a)(2)                                                                                           |
| Test Method:           | ANSI C63.10: 2013                                                                                                               |
| Test Setup:            |  <p>Offset=cable loss+ attenuation factor</p> |
| Exploratory Test Mode: | Transmitting with all kind of modulations, data rates                                                                           |
| Final Test Mode:       | Only the worst case is recorded in the report.                                                                                  |
| Limit:                 | $\geq 500$ kHz                                                                                                                  |
| Test Results:          | Pass                                                                                                                            |

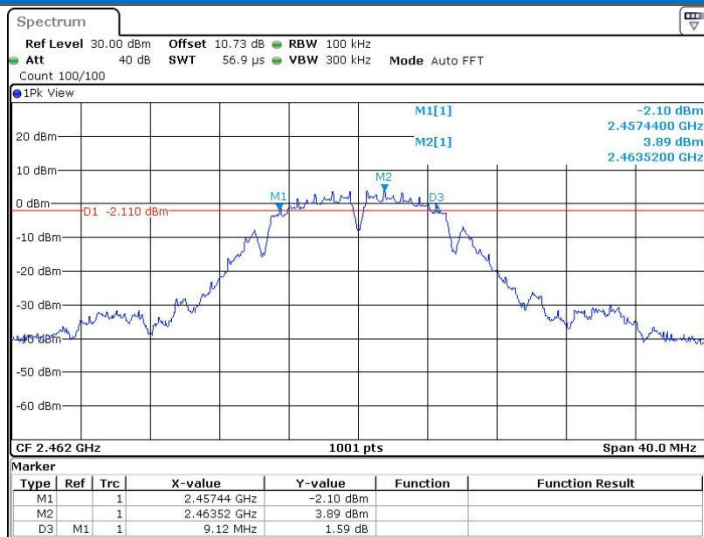


**Test Result**

| TestMode  | Antenna | Channel | DTS BW [MHz] | Limit[MHz] | Verdict |
|-----------|---------|---------|--------------|------------|---------|
| 11B       | Ant1    | 2412    | 9.12         | 0.5        | PASS    |
|           |         | 2437    | 9.24         | 0.5        | PASS    |
|           |         | 2462    | 9.12         | 0.5        | PASS    |
| 11G       | Ant1    | 2412    | 16.32        | 0.5        | PASS    |
|           |         | 2437    | 16.36        | 0.5        | PASS    |
|           |         | 2462    | 16.32        | 0.5        | PASS    |
| 11N20SISO | Ant1    | 2412    | 17.56        | 0.5        | PASS    |
|           |         | 2437    | 17.56        | 0.5        | PASS    |
|           |         | 2462    | 17.56        | 0.5        | PASS    |
| 11N40SISO | Ant1    | 2422    | 36.32        | 0.5        | PASS    |
|           |         | 2437    | 36.32        | 0.5        | PASS    |
|           |         | 2452    | 36.40        | 0.5        | PASS    |

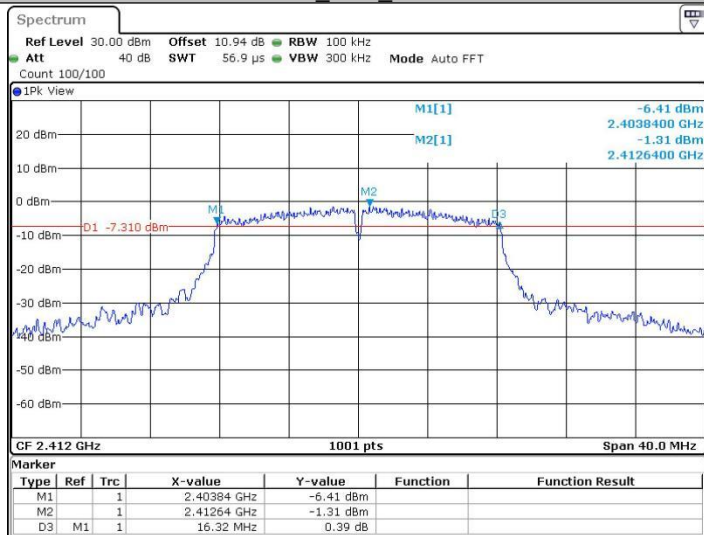
## Test Graphs





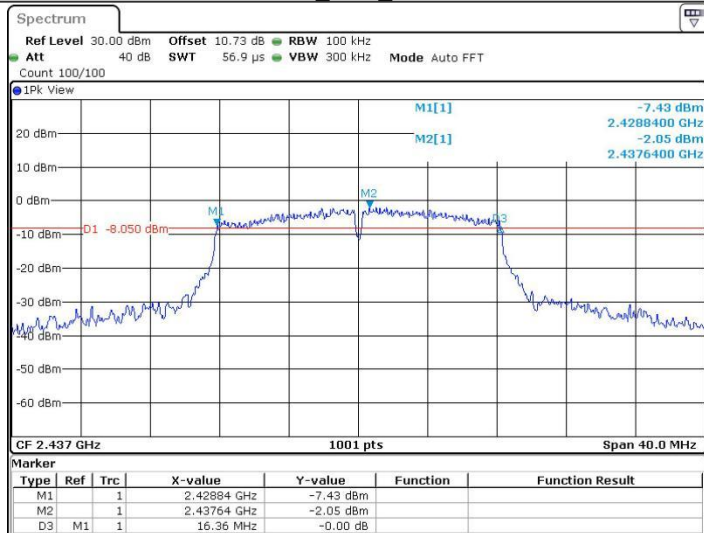
Date: 2 JUL 2024 16:21:44

### 11G\_Ant1\_2412



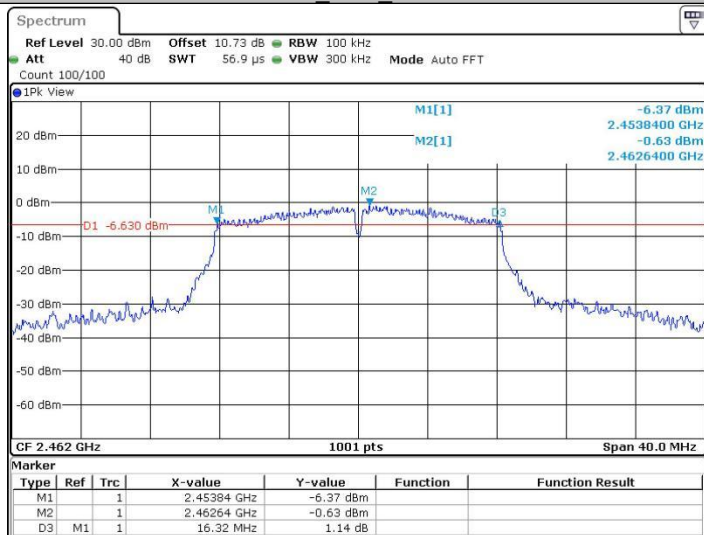
Date: 2 JUL 2024 16:25:48

### 11G\_Ant1\_2437



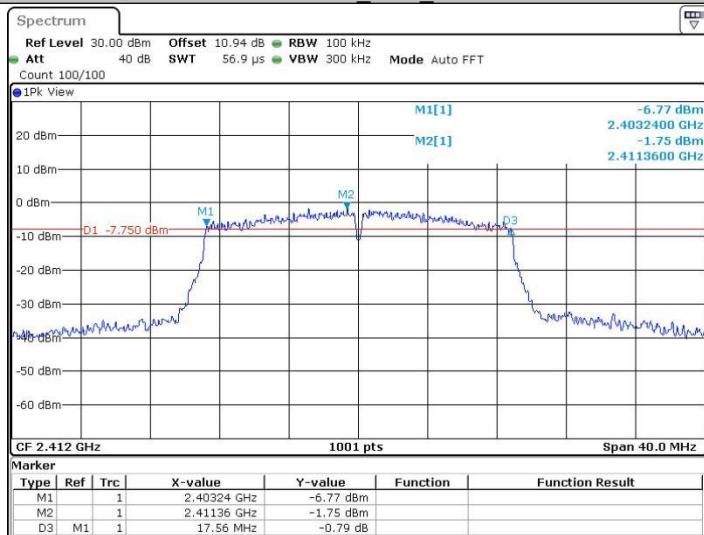
Date: 2 JUL 2024 16:30:51

11G\_Ant1\_2462



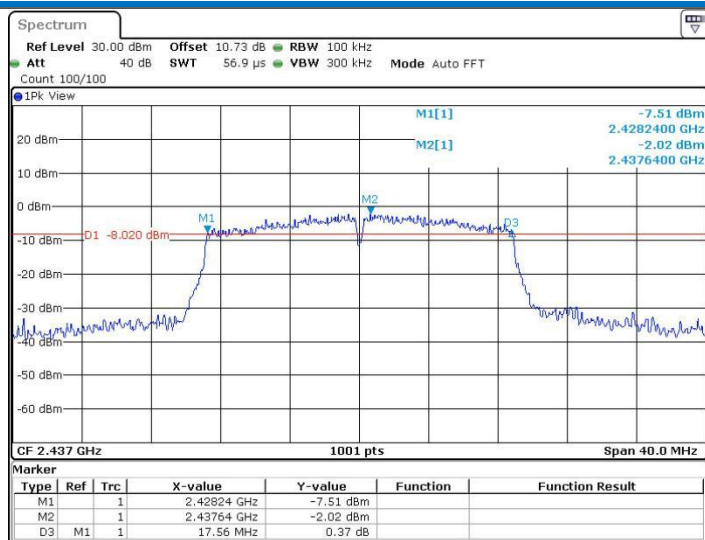
Date: 2 JUL 2024 16:32:41

11N20SISO\_Ant1\_2412



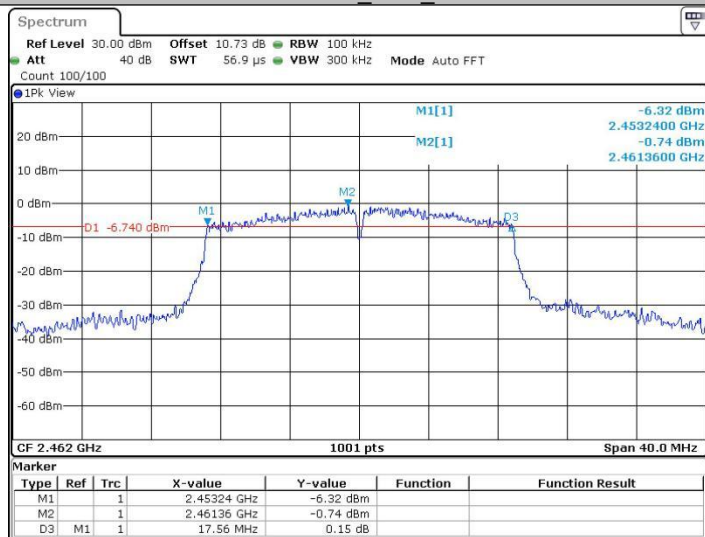
Date: 2 JUL 2024 16:40:24

11N20SISO\_Ant1\_2437



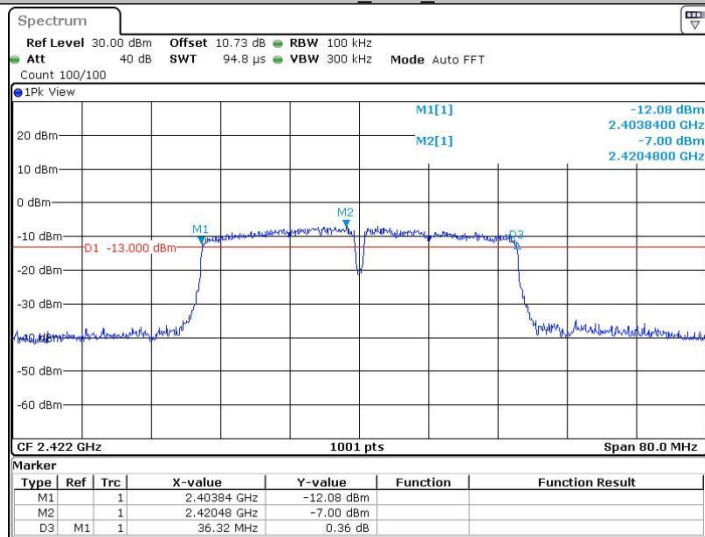
Date: 2 JUL 2024 19:01:53

### 11N20SISO\_Ant1\_2462



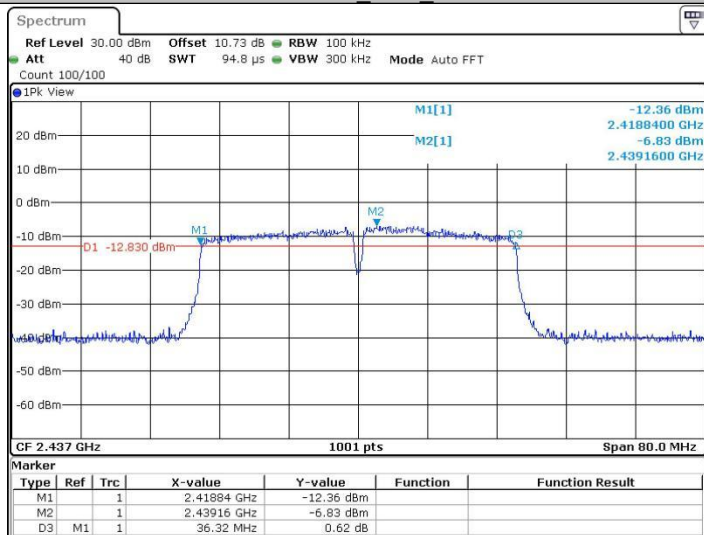
Date: 2 JUL 2024 19:05:25

### 11N40SISO\_Ant1\_2422



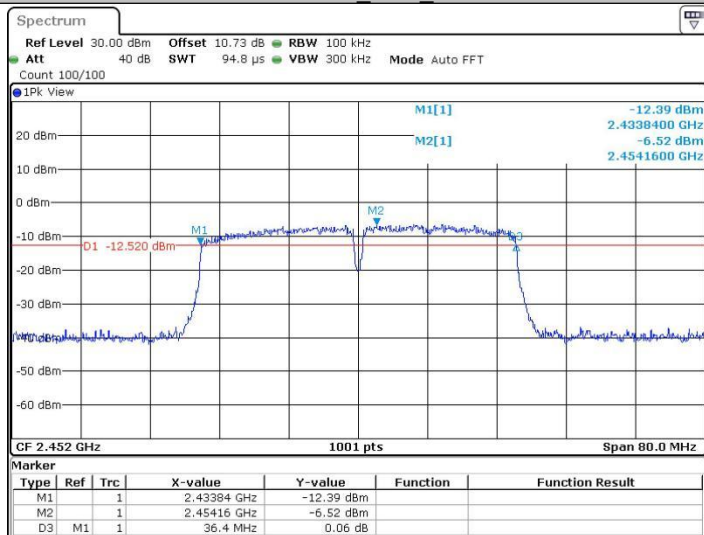
Date: 2 JUL 2024 19:15:37

11N40SISO\_Ant1\_2437



Date: 2 JUL 2024 19:17:40

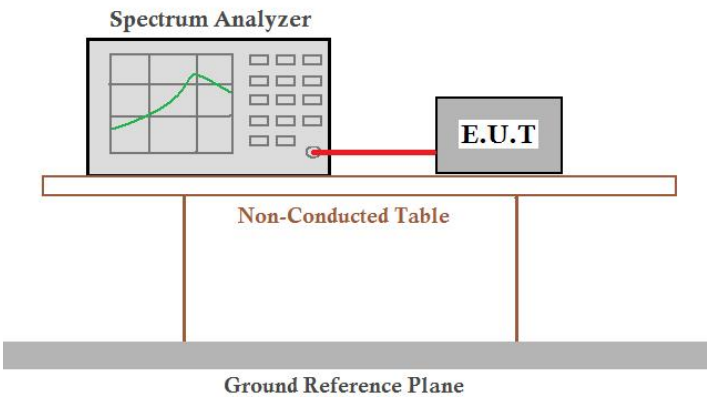
11N40SISO\_Ant1\_2452



Date: 2 JUL 2024 19:19:27



## 5.5 Power Spectral Density

|                        |                                                                                                                                 |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Test Requirement:      | 47 CFR Part 15C Section 15.247 (e)                                                                                              |
| Test Method:           | ANSI C63.10: 2013                                                                                                               |
| Test Setup:            |  <p>Offset=cable loss+ attenuation factor</p> |
| Exploratory Test Mode: | Transmitting with all kind of modulations, data rates                                                                           |
| Final Test Mode:       | Only the worst case is recorded in the report.                                                                                  |
| Limit:                 | ≤8.00dBm/3kHz                                                                                                                   |
| Test Results:          | Pass                                                                                                                            |

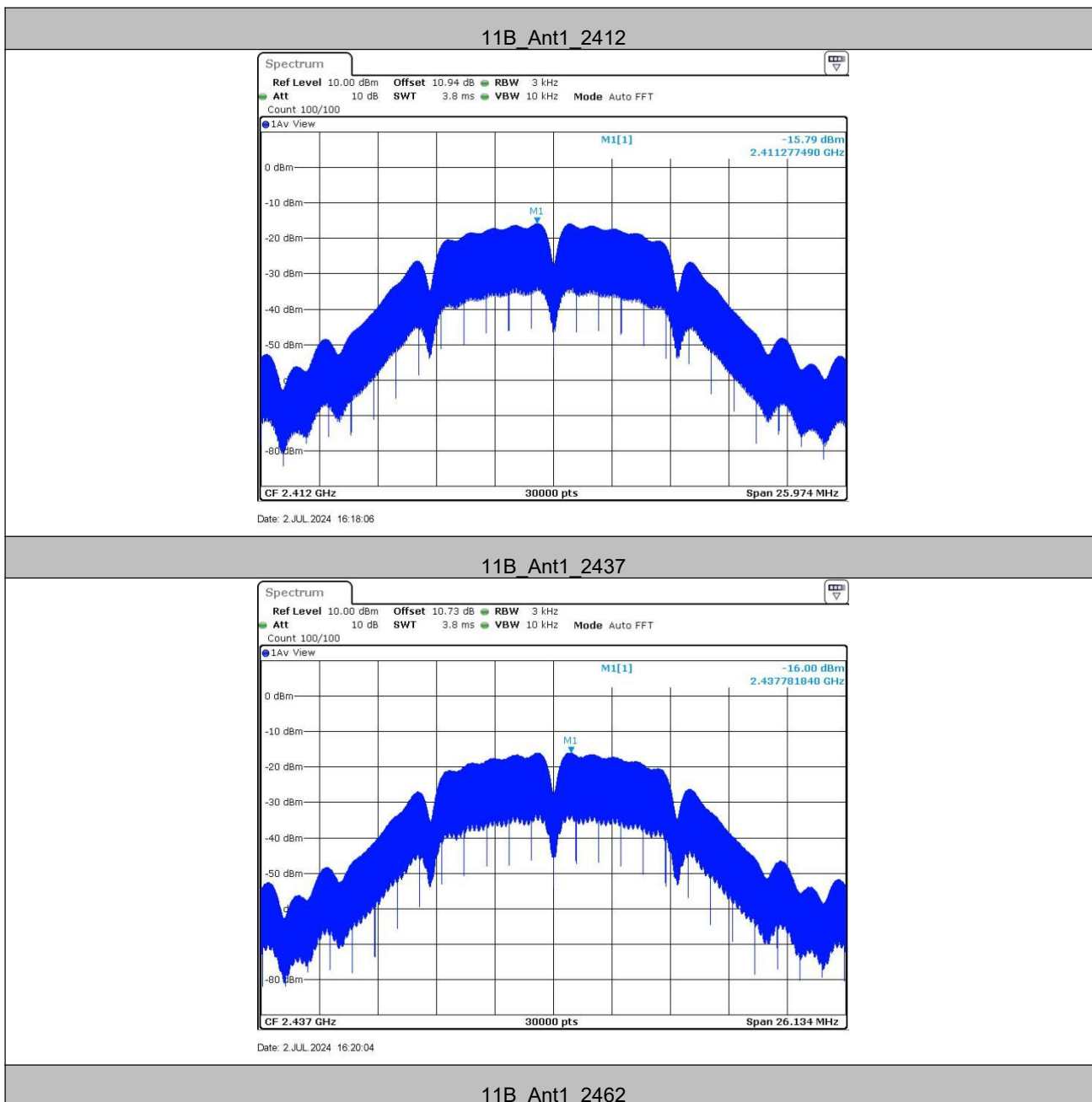
## Test Result

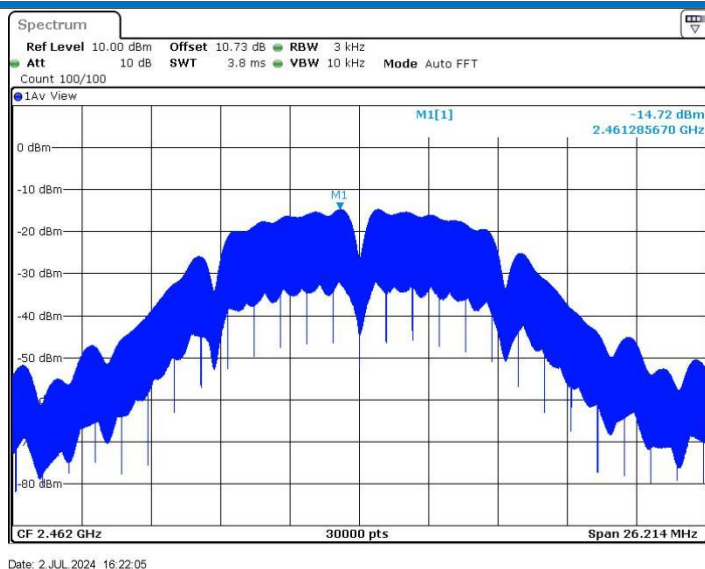
| TestMode  | Frequency[MHz] | Result[dBm/3-100kHz] | Limit[dBm/3kHz] | Verdict |
|-----------|----------------|----------------------|-----------------|---------|
| 11B       | 2412           | -15.79               | ≤8.00           | PASS    |
|           | 2437           | -16                  | ≤8.00           | PASS    |
|           | 2462           | -14.72               | ≤8.00           | PASS    |
| 11G       | 2412           | -19.13               | ≤8.00           | PASS    |
|           | 2437           | -19.45               | ≤8.00           | PASS    |
|           | 2462           | -18.39               | ≤8.00           | PASS    |
| 11N20SISO | 2412           | -20.52               | ≤8.00           | PASS    |
|           | 2437           | -20.56               | ≤8.00           | PASS    |
|           | 2462           | -19.33               | ≤8.00           | PASS    |
| 11N40SISO | 2422           | -24.72               | ≤8.00           | PASS    |
|           | 2437           | -24.44               | ≤8.00           | PASS    |
|           | 2452           | -23.66               | ≤8.00           | PASS    |

Note:

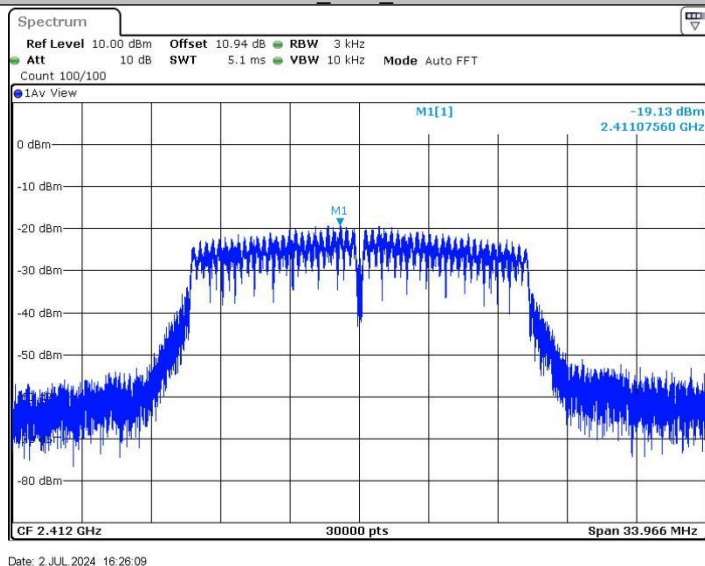
When Duty cycle >98%, D.C.F is not required.

## Test Graphs

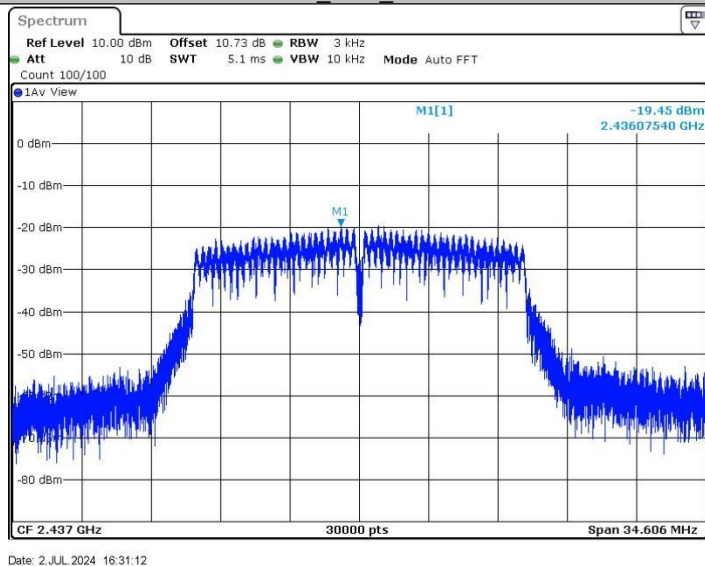




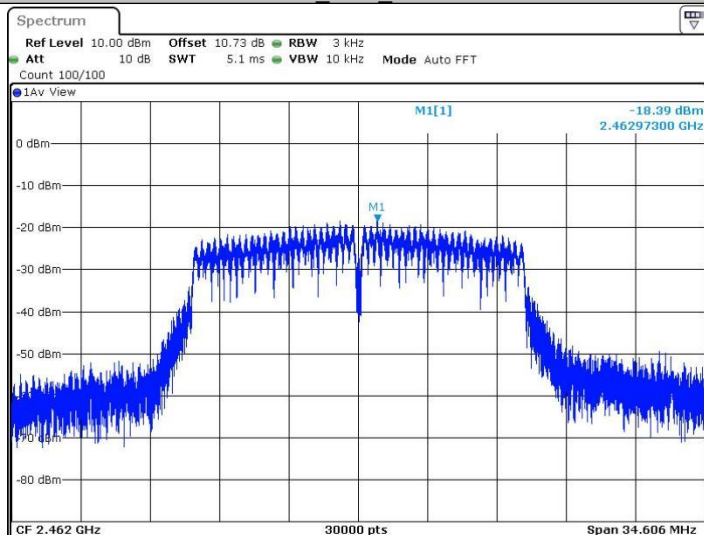
11G\_Ant1\_2412



11G\_Ant1\_2437

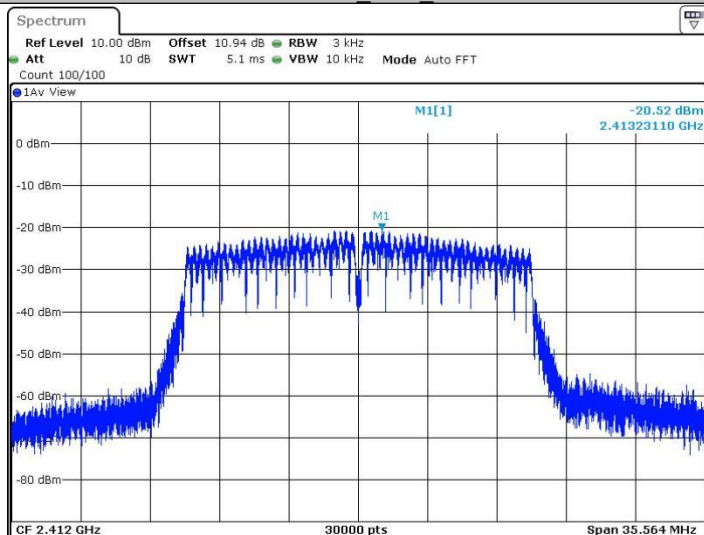


11G\_Ant1\_2462



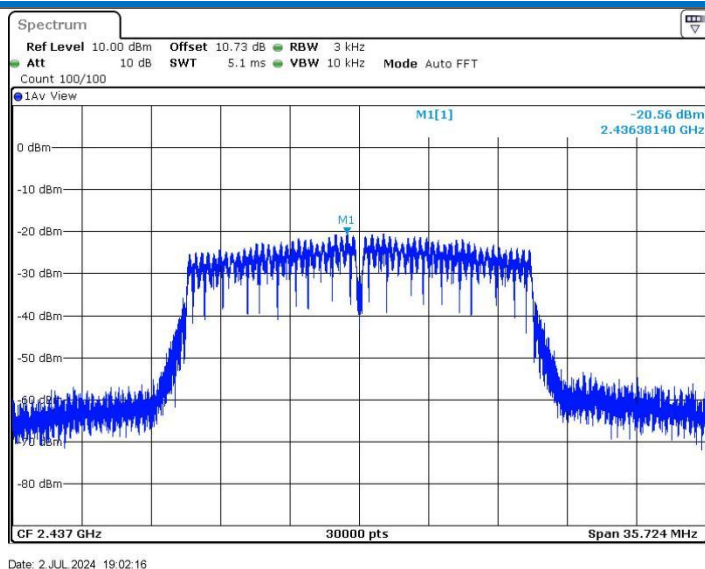
Date: 2 JUL 2024 16:33:02

11N20SISO\_Ant1\_2412

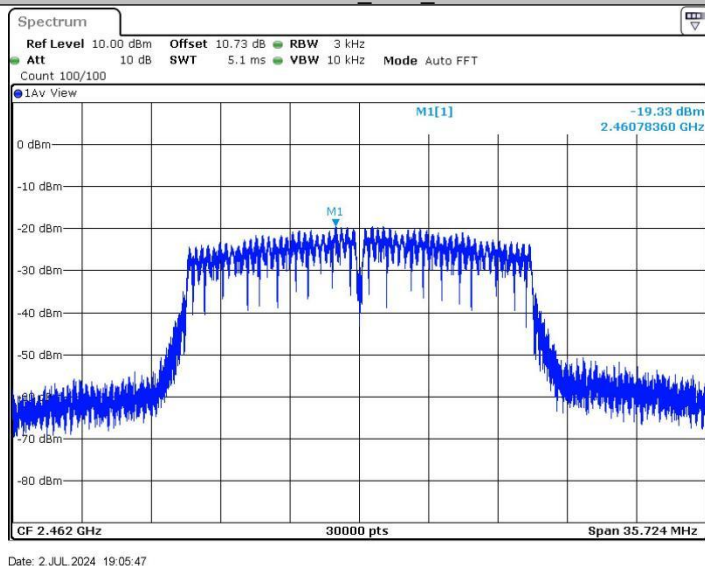


Date: 2 JUL 2024 16:40:45

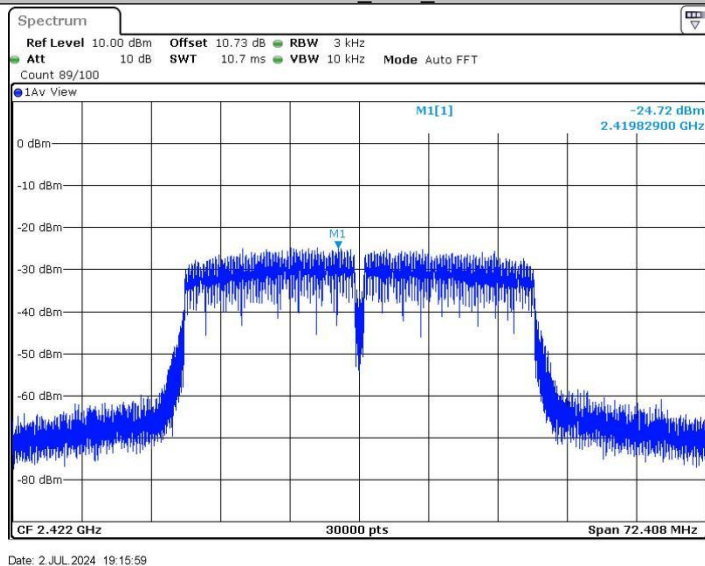
11N20SISO\_Ant1\_2437



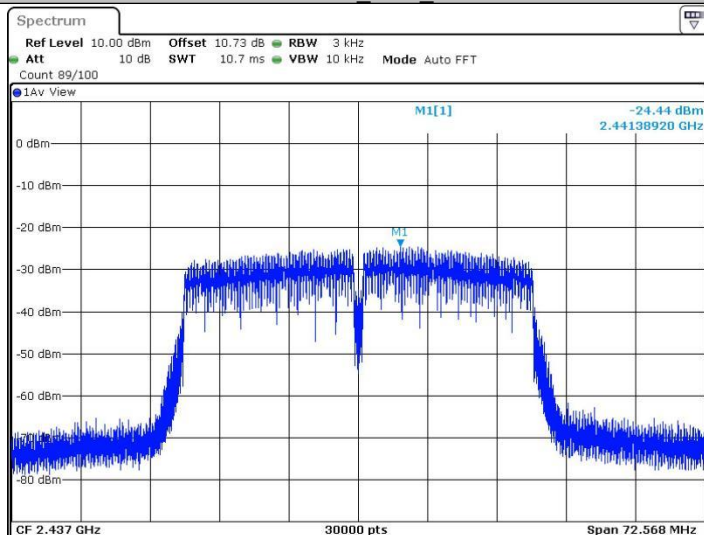
11N20SISO\_Ant1\_2462



11N40SISO\_Ant1\_2422

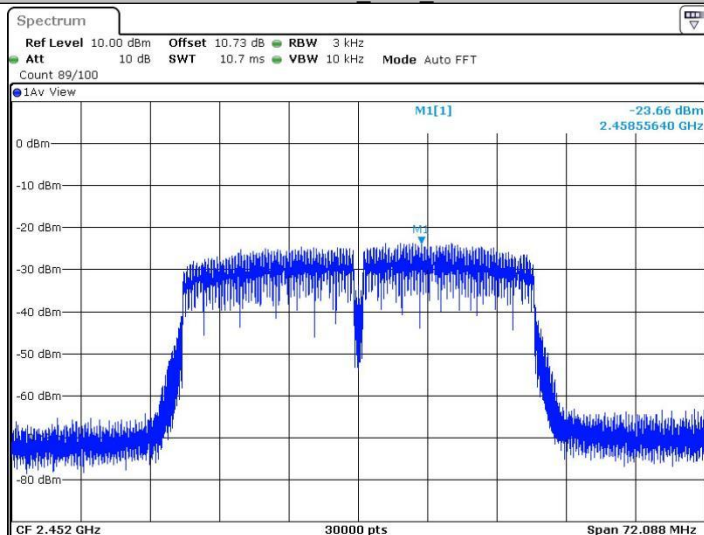


11N40SISO\_Ant1\_2437



Date: 2 JUL 2024 19:18:01

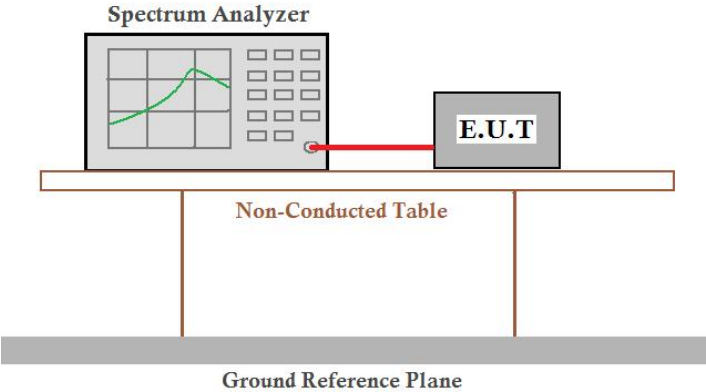
11N40SISO\_Ant1\_2452



Date: 2 JUL 2024 19:19:49



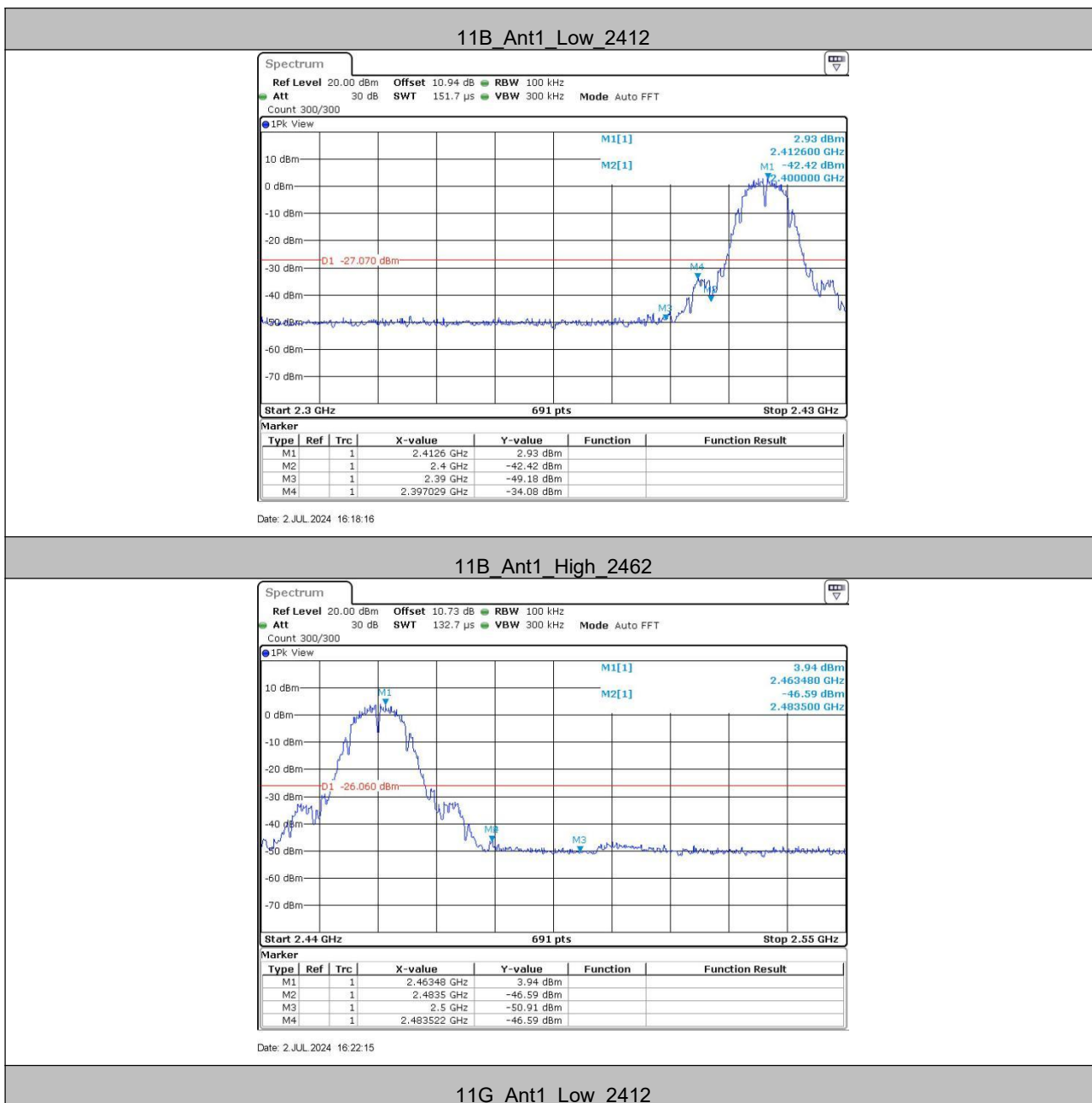
## 5.6 Band-edge for RF Conducted Emissions

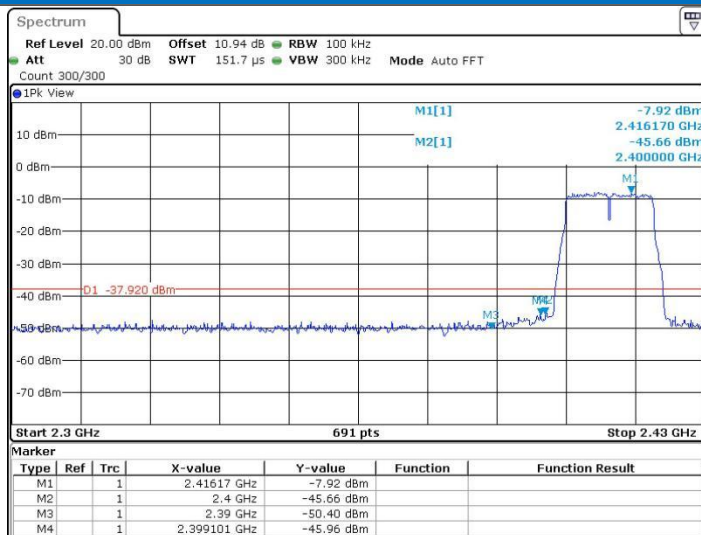
|                        |                                                                                                                                                                                                                                                                                                                                                                                         |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Requirement:      | 47 CFR Part 15C Section 15.247 (d)                                                                                                                                                                                                                                                                                                                                                      |
| Test Method:           | ANSI C63.10: 2013                                                                                                                                                                                                                                                                                                                                                                       |
| Test Setup:            |  <p>Offset=cable loss+ attenuation factor</p>                                                                                                                                                                                                                                                         |
| Exploratory Test Mode: | Transmitting with all kind of modulations, data rates                                                                                                                                                                                                                                                                                                                                   |
| Final Test Mode:       | Only the worst case is recorded in the report.                                                                                                                                                                                                                                                                                                                                          |
| Limit:                 | In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 30 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. |
| Test Results:          | Pass                                                                                                                                                                                                                                                                                                                                                                                    |

**Test Result**

| TestMode  | ChName | Frequency[MHz] | RefLevel[dBm] | Result[dBm] | Limit[dBm]    | Verdict |
|-----------|--------|----------------|---------------|-------------|---------------|---------|
| 11B       | Low    | 2412           | 2.93          | -34.08      | $\leq -27.07$ | PASS    |
|           | High   | 2462           | 3.94          | -46.59      | $\leq -26.06$ | PASS    |
| 11G       | Low    | 2412           | -7.92         | -45.96      | $\leq -37.92$ | PASS    |
|           | High   | 2462           | -0.53         | -38.66      | $\leq -30.53$ | PASS    |
| 11N20SISO | Low    | 2412           | -1.52         | -35.62      | $\leq -31.52$ | PASS    |
|           | High   | 2462           | -0.64         | -37.02      | $\leq -30.64$ | PASS    |
| 11N40SISO | Low    | 2422           | -6.96         | -38.55      | $\leq -36.96$ | PASS    |
|           | High   | 2452           | -6.36         | -40.13      | $\leq -36.36$ | PASS    |

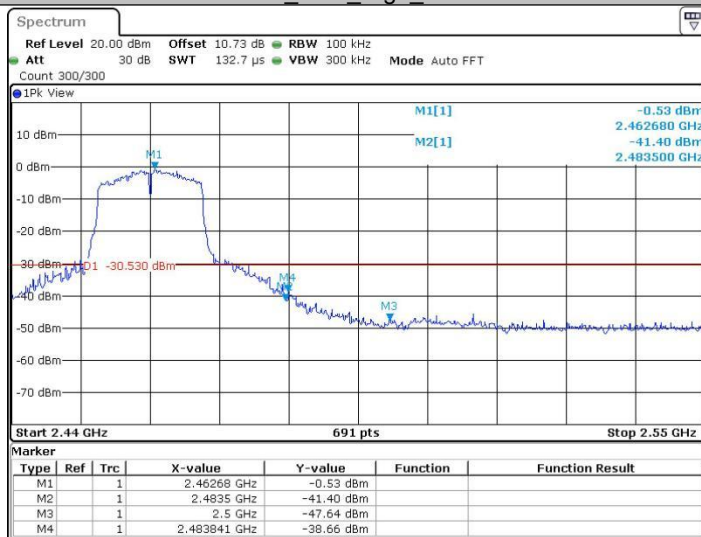
## 5.6.1 Test Graphs





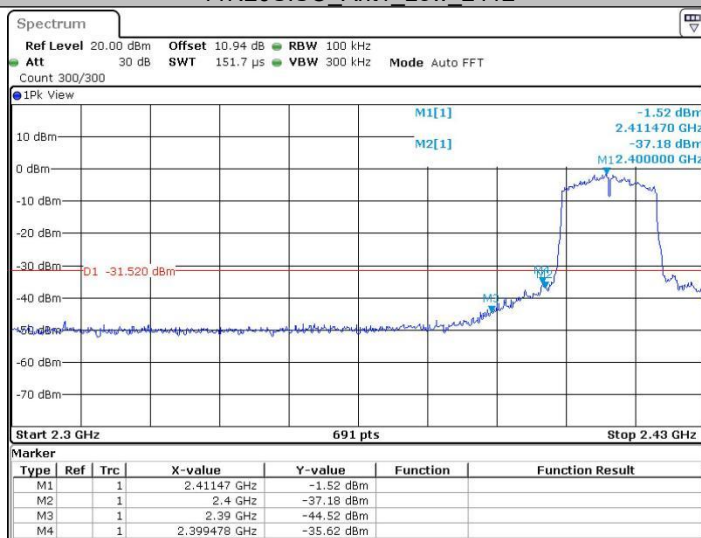
Date: 2 JUL 2024 19:23:16

### 11G\_Ant1\_High\_2462



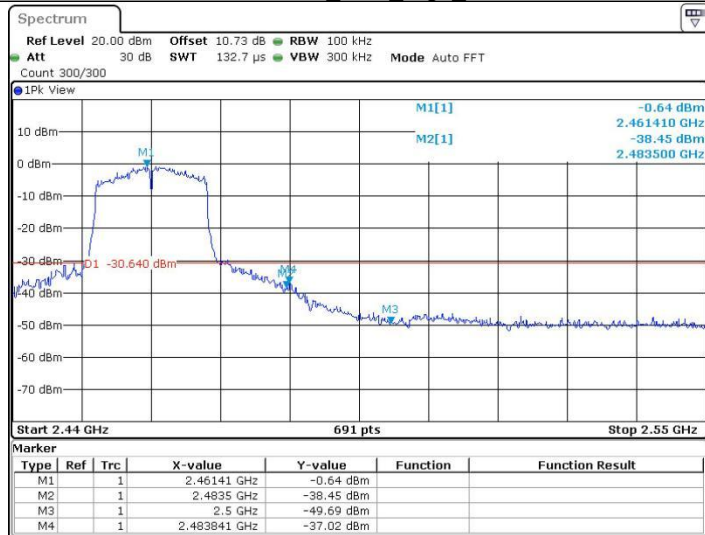
Date: 2 JUL 2024 16:33:13

### 11N20SISO\_Ant1\_Low\_2412



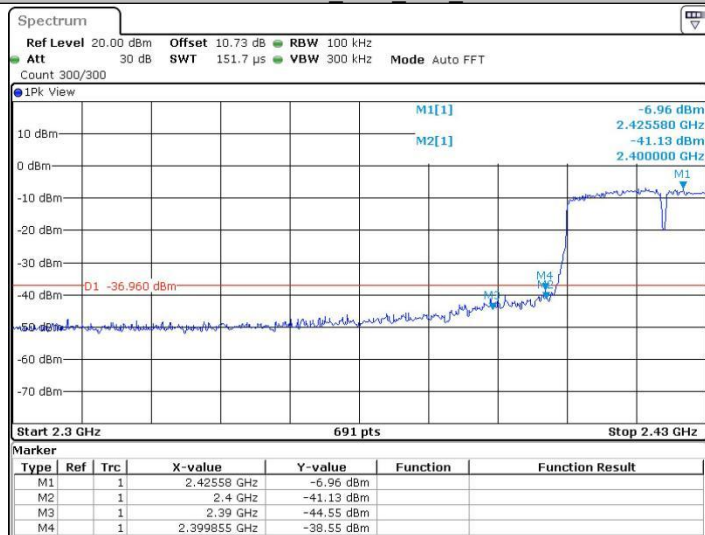
Date: 2 JUL 2024 16:40:55

11N20SISO\_Ant1\_High\_2462



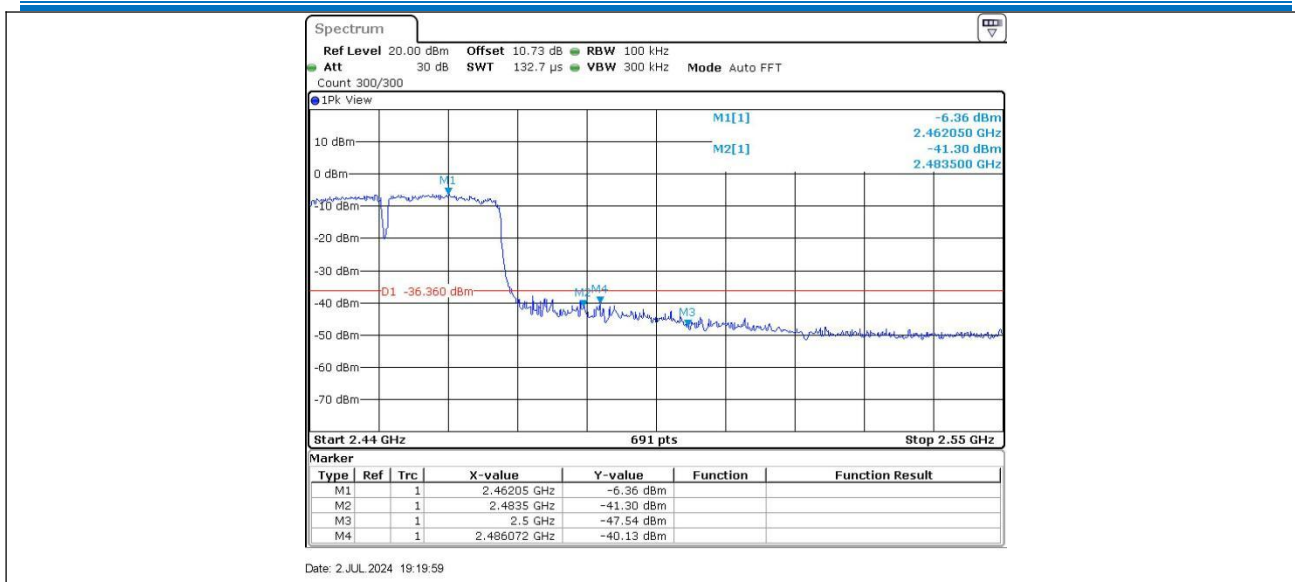
Date: 2 JUL 2024 19:05:57

11N40SISO\_Ant1\_Low\_2422

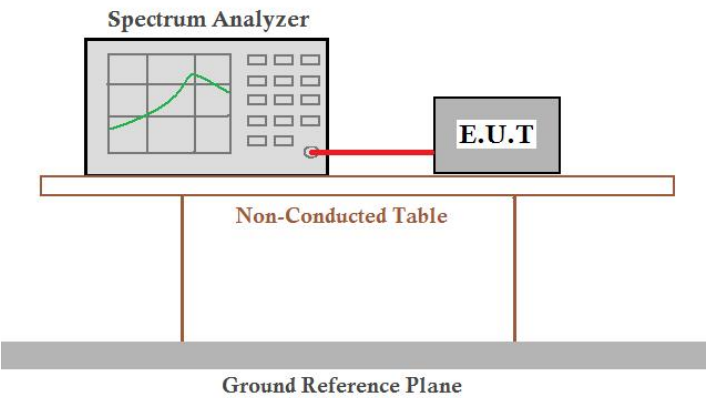


Date: 2 JUL 2024 19:16:09

11N40SISO\_Ant1\_High\_2452



## 5.7 RF Conducted Spurious Emissions

|                        |                                                                                                                                                                                                                                                                                                                                                                                         |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Requirement:      | 47 CFR Part 15C Section 15.247 (d)                                                                                                                                                                                                                                                                                                                                                      |
| Test Method:           | ANSI C63.10: 2013                                                                                                                                                                                                                                                                                                                                                                       |
| Test Setup:            |  <p>Offset=cable loss+ attenuation factor</p>                                                                                                                                                                                                                                                         |
| Exploratory Test Mode: | Transmitting with all kind of modulations, data rates                                                                                                                                                                                                                                                                                                                                   |
| Final Test Mode:       | Only the worst case is recorded in the report.                                                                                                                                                                                                                                                                                                                                          |
| Limit:                 | In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 30 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. |
| Test Results:          | Pass                                                                                                                                                                                                                                                                                                                                                                                    |

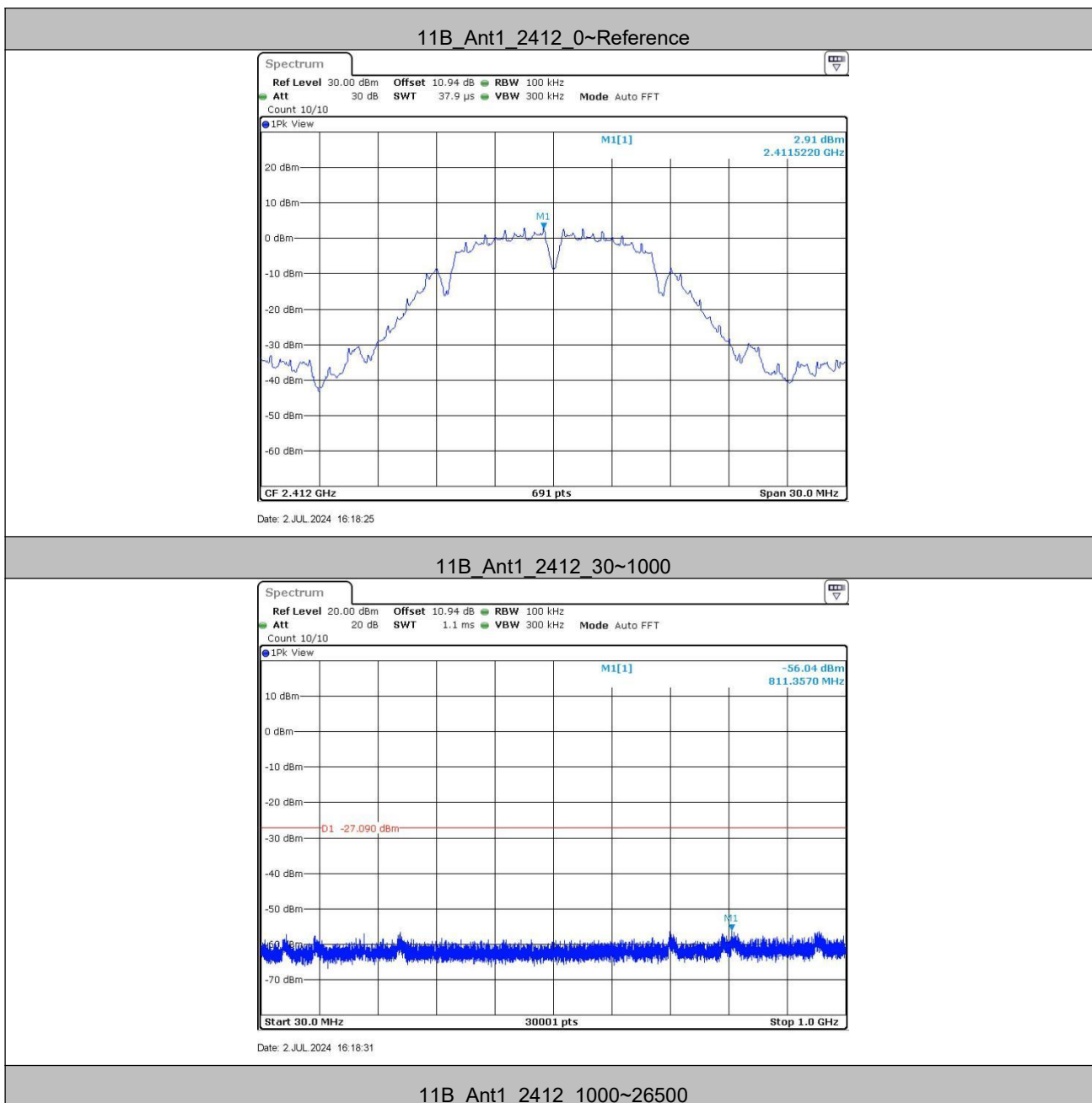


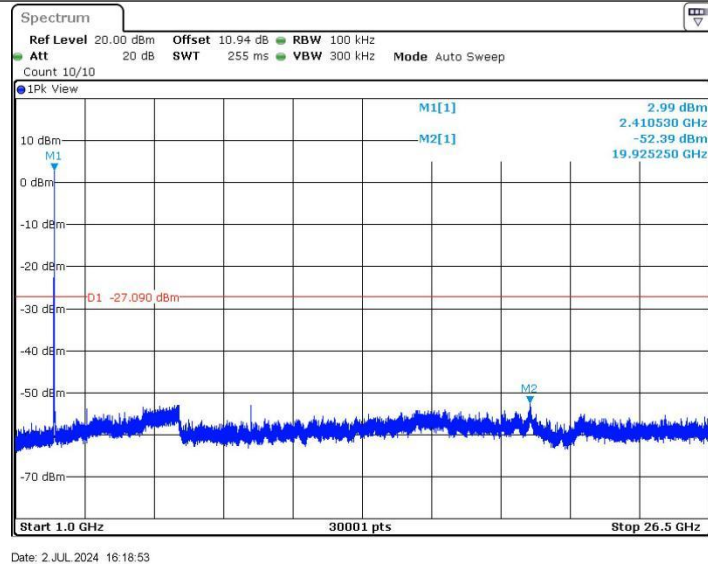
## Test Result

| TestMode  | Frequency[MHz] | FreqRange<br>[Mhz] | RefLevel<br>[dBm] | Result<br>[dBm] | Limit<br>[dBm] | Verdict |
|-----------|----------------|--------------------|-------------------|-----------------|----------------|---------|
| 11B       | 2412           | Reference          | 2.91              | 2.91            | ---            | PASS    |
|           |                | 30~1000            | 2.91              | -56.04          | $\leq -27.09$  | PASS    |
|           |                | 1000~26500         | 2.91              | -52.39          | $\leq -27.09$  | PASS    |
|           | 2437           | Reference          | 2.62              | 2.62            | ---            | PASS    |
|           |                | 30~1000            | 2.62              | -54.94          | $\leq -27.38$  | PASS    |
|           |                | 1000~26500         | 2.62              | -52.49          | $\leq -27.38$  | PASS    |
|           | 2462           | Reference          | 3.84              | 3.84            | ---            | PASS    |
|           |                | 30~1000            | 3.84              | -55.83          | $\leq -26.16$  | PASS    |
|           |                | 1000~26500         | 3.84              | -51.35          | $\leq -26.16$  | PASS    |
| 11G       | 2412           | Reference          | -1.34             | -1.34           | ---            | PASS    |
|           |                | 30~1000            | -1.34             | -55.2           | $\leq -31.34$  | PASS    |
|           |                | 1000~26500         | -1.34             | -51.9           | $\leq -31.34$  | PASS    |
|           | 2437           | Reference          | -1.87             | -1.87           | ---            | PASS    |
|           |                | 30~1000            | -1.87             | -55.36          | $\leq -31.87$  | PASS    |
|           |                | 1000~26500         | -1.87             | -52.54          | $\leq -31.87$  | PASS    |
|           | 2462           | Reference          | -0.69             | -0.69           | ---            | PASS    |
|           |                | 30~1000            | -0.69             | -56.34          | $\leq -30.69$  | PASS    |
|           |                | 1000~26500         | -0.69             | -52.98          | $\leq -30.69$  | PASS    |
| 11N20SISO | 2412           | Reference          | -1.55             | -1.55           | ---            | PASS    |
|           |                | 30~1000            | -1.55             | -55.83          | $\leq -31.55$  | PASS    |
|           |                | 1000~26500         | -1.55             | -52.4           | $\leq -31.55$  | PASS    |
|           | 2437           | Reference          | -1.88             | -1.88           | ---            | PASS    |
|           |                | 30~1000            | -1.88             | -55.79          | $\leq -31.88$  | PASS    |
|           |                | 1000~26500         | -1.88             | -52.17          | $\leq -31.88$  | PASS    |
|           | 2462           | Reference          | -0.82             | -0.82           | ---            | PASS    |
|           |                | 30~1000            | -0.82             | -55.54          | $\leq -30.82$  | PASS    |
|           |                | 1000~26500         | -0.82             | -52.39          | $\leq -30.82$  | PASS    |
| 11N40SISO | 2422           | Reference          | -7.05             | -7.05           | ---            | PASS    |
|           |                | 30~1000            | -7.05             | -56.07          | $\leq -37.05$  | PASS    |
|           |                | 1000~26500         | -7.05             | -52.69          | $\leq -37.05$  | PASS    |
|           | 2437           | Reference          | -6.19             | -6.19           | ---            | PASS    |
|           |                | 30~1000            | -6.19             | -56.05          | $\leq -36.19$  | PASS    |
|           |                | 1000~26500         | -6.19             | -53.14          | $\leq -36.19$  | PASS    |
|           | 2452           | Reference          | -6.06             | -6.06           | ---            | PASS    |

|  |  |            |       |        |               |      |
|--|--|------------|-------|--------|---------------|------|
|  |  | 30~1000    | -6.06 | -56.24 | $\leq -36.06$ | PASS |
|  |  | 1000~26500 | -6.06 | -51.38 | $\leq -36.06$ | PASS |

## Test Graphs

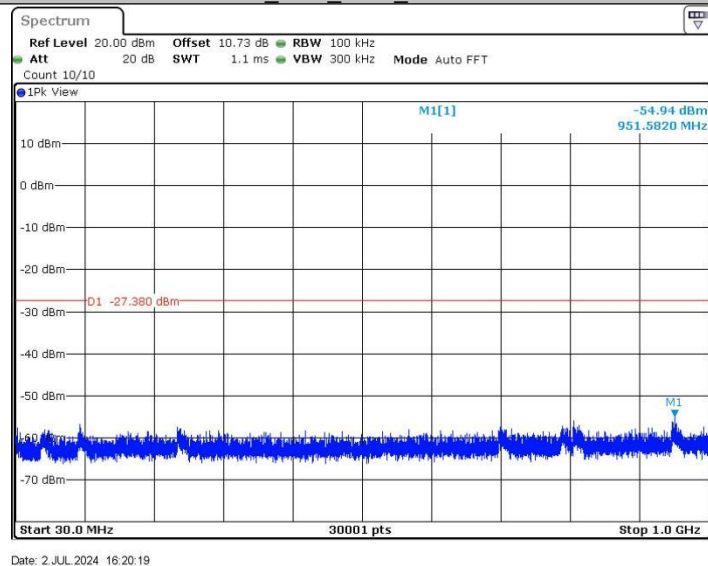




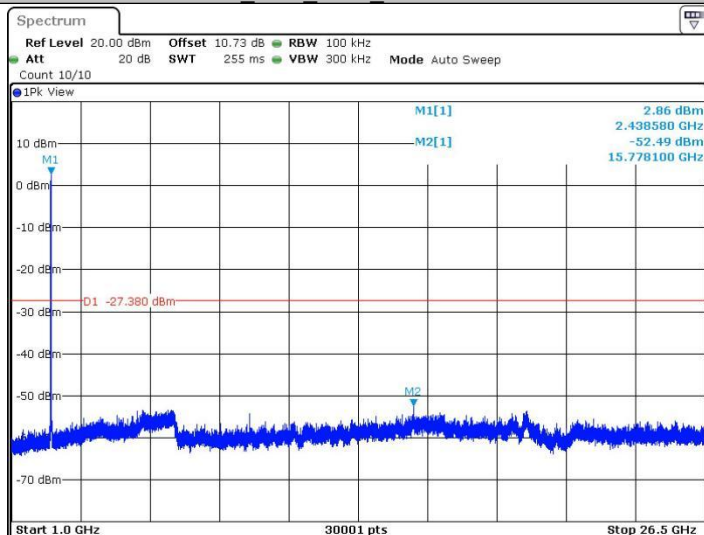
11B\_Ant1\_2437\_0~Reference



11B\_Ant1\_2437\_30~1000



11B\_Ant1\_2437\_1000~26500



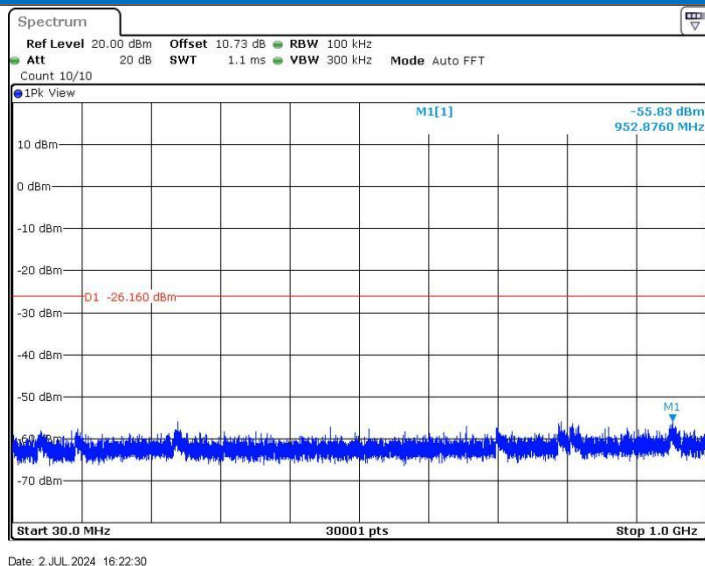
Date: 2 JUL 2024 16:20:41

11B\_Ant1\_2462\_0~Reference

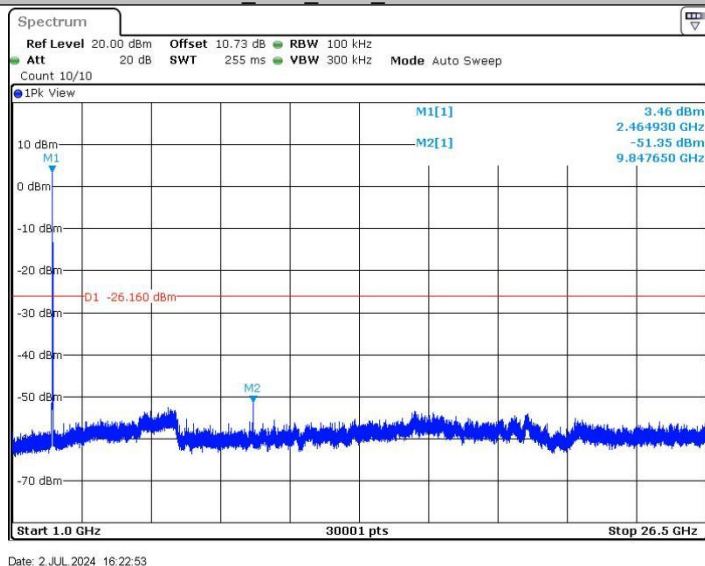


Date: 2 JUL 2024 16:22:24

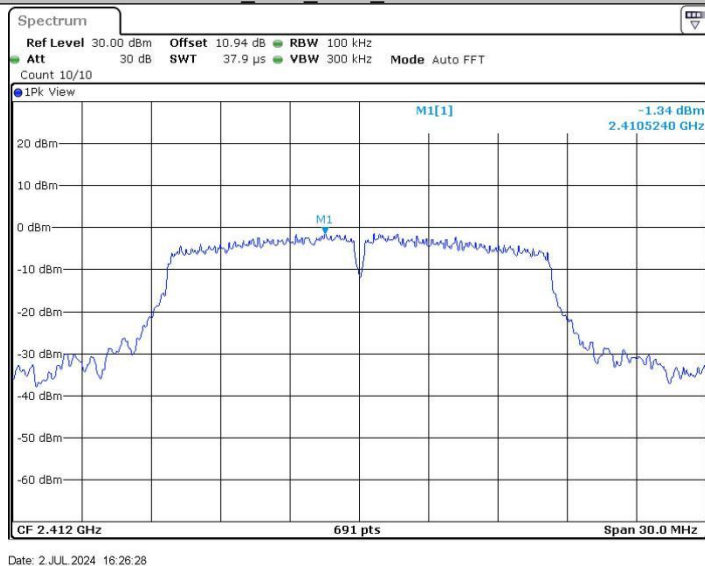
11B\_Ant1\_2462\_30~1000



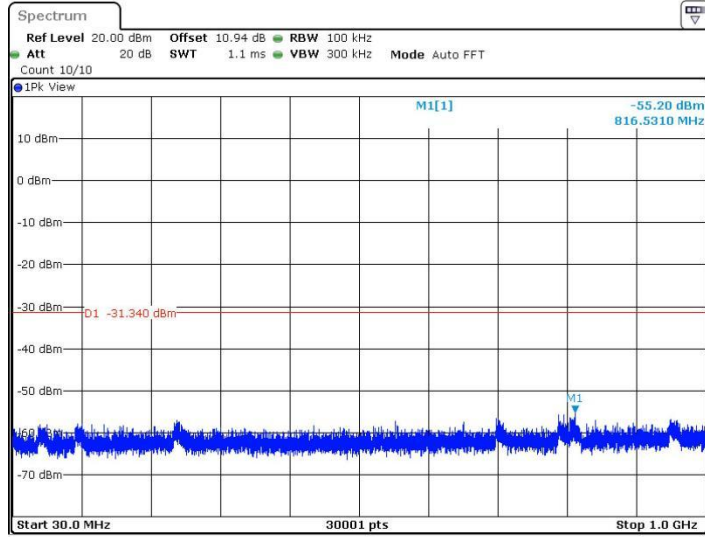
11B\_Ant1\_2462\_1000~26500



11G\_Ant1\_2412\_0~Reference

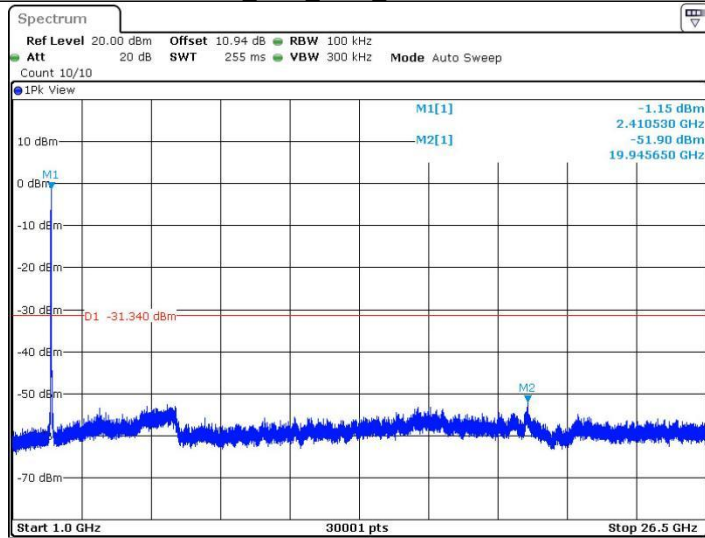


11G\_Ant1\_2412\_30~1000



Date: 2 JUL 2024 16:26:35

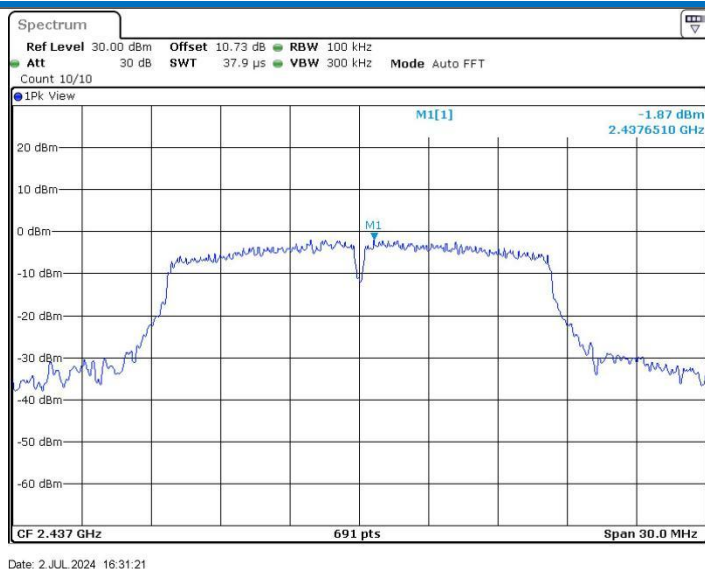
11G\_Ant1\_2412\_1000~26500



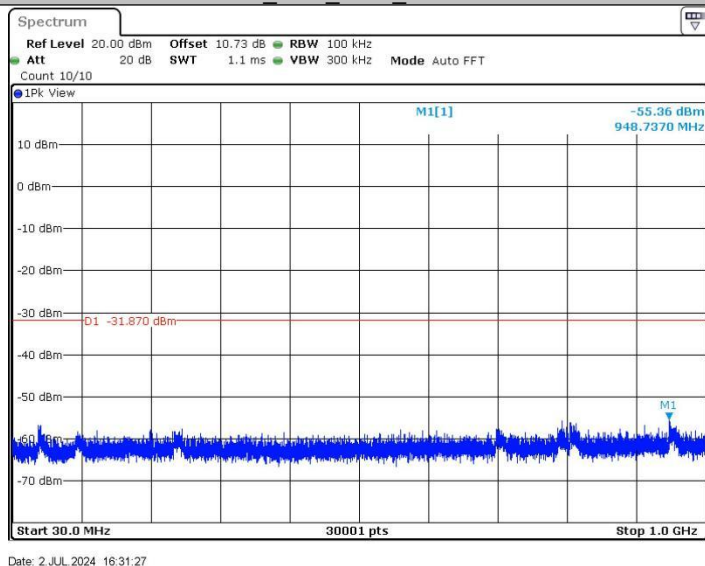
Date: 2 JUL 2024 16:26:57

11G\_Ant1\_2437\_0~Reference





11G\_Ant1\_2437\_30~1000



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