



# FCC RF Test Report

APPLICANT : CASTLES TECHNOLOGY CO., LTD.  
EQUIPMENT : POS Terminal  
BRAND NAME :   
MODEL NAME : S1F4 PRO  
FCC ID : WIYS1F4PRO001  
STANDARD : FCC Part 15 Subpart C §15.247  
CLASSIFICATION : (DTS) Digital Transmission System  
TEST DATE(S) : Sep. 13, 2024 ~ Nov. 02, 2024

We, Sporton International Inc. (Kunshan), would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. (Kunshan), the test report shall not be reproduced except in full.

Jason Jia

Approved by: Jason Jia



**Sporton International Inc. (Kunshan)**

**No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300  
People's Republic of China**



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REVISION HISTORY

| REPORT NO. | VERSION | DESCRIPTION             | ISSUED DATE   |
|------------|---------|-------------------------|---------------|
| FR482901C  | Rev. 01 | Initial issue of report | Nov. 18, 2024 |
|            |         |                         |               |
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## SUMMARY OF TEST RESULT

| Report Section | FCC Rule           | Description                                        | Limit                          | Result      | Remark                             |
|----------------|--------------------|----------------------------------------------------|--------------------------------|-------------|------------------------------------|
| 3.1            | 15.247(a)(2)       | 6dB Bandwidth                                      | $\geq 0.5\text{MHz}$           | Pass        | -                                  |
| 3.1            | -                  | 99% Bandwidth                                      | -                              | Report Only | -                                  |
| 3.2            | 15.247(b)          | Power Output Measurement                           | $\leq 30\text{dBm}$            | Pass        | -                                  |
| 3.3            | 15.247(e)          | Power Spectral Density                             | $\leq 8\text{dBm}/3\text{kHz}$ | Pass        | -                                  |
| 3.4            | 15.247(d)          | Conducted Band Edges                               | $\leq 20\text{dBc}$            | Pass        | -                                  |
|                |                    | Conducted Spurious Emission                        |                                | Pass        | -                                  |
| 3.5            | 15.247(d)          | Radiated Band Edges and Radiated Spurious Emission | 15.209(a) & 15.247(d)          | Pass        | Under limit 3.64 dB at 2389.95 MHz |
| 3.6            | 15.207             | AC Conducted Emission                              | 15.207(a)                      | Pass        | Under limit 14.41 dB at 0.379 MHz  |
| 3.7            | 15.203 & 15.247(b) | Antenna Requirement                                | 15.203 & 15.247(b)             | Pass        | -                                  |

## Conformity Assessment Condition:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacture who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the section "Measurement Uncertainty"

## Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

# 1 General Description

## 1.1 Applicant

CASTLES TECHNOLOGY CO., LTD.

6F, NO. 207-5, SEC. 3, BEIXIN RD., XINDIAN DISTRICT, NEW TAIPEI CITY 231030, TAIWAN (R.O.C.)

## 1.2 Manufacturer

CASTLES TECHNOLOGY CO., LTD.

6F, NO. 207-5, SEC. 3, BEIXIN RD., XINDIAN DISTRICT, NEW TAIPEI CITY 231030, TAIWAN (R.O.C.)

## 1.3 Product Feature of Equipment Under Test

| Product Feature |                                                                                                      |
|-----------------|------------------------------------------------------------------------------------------------------|
| Equipment       | POS Terminal                                                                                         |
| Brand Name      |  CASTLES TECHNOLOGY |
| Model Name      | S1F4 PRO                                                                                             |
| FCC ID          | WIYS1F4PRO001                                                                                        |
| SN Code         | Conducted: 5f3fbe0<br>Conduction: 204ddce0<br>Radiation: 399804A2                                    |
| HW Version      | HW-V-1G.00                                                                                           |
| EUT Stage       | Identical Prototype                                                                                  |

**Remark:** The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

## 1.4 Product Specification of Equipment Under Test

| Standards-related Product Specification |                                                                                                                                                |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Tx/Rx Channel Frequency Range           | 2412 MHz ~ 2462 MHz                                                                                                                            |
| Maximum (Peak) Output Power to antenna  | 802.11b : 19.15 dBm (0.0822 W)<br>802.11g : 19.87 dBm (0.0771 W)<br>802.11n HT20 : 19.18 dBm (0.0828 W)<br>802.11n HT40 : 20.37 dBm (0.1089 W) |
| 99% Occupied Bandwidth                  | 802.11b : 13.964MHz<br>802.11g : 17.055MHz<br>802.11n HT20 : 18.255MHz<br>802.11n HT40 : 36.655MHz                                             |
| Antenna Type / Gain                     | PIFA Antenna type with gain 1.2 dBi                                                                                                            |
| Type of Modulation                      | 802.11b : DSSS (DBPSK / DQPSK / CCK)<br>802.11g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM)                                                         |



## 1.5 Modification of EUT

No modifications are made to the EUT during all test items.

## 1.6 Testing Location

Sporton International Inc. (Kunshan) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

|                           |                                                                                                                                                |                            |                                       |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------------|
| <b>Test Firm</b>          | Sporton International Inc. (Kunshan)                                                                                                           |                            |                                       |
| <b>Test Site Location</b> | No. 1098, Pengxi North Road, Kunshan Economic Development Zone<br>Jiangsu Province 215300 People's Republic of China<br>TEL : +86-512-57900158 |                            |                                       |
| <b>Test Site No.</b>      | <b>Sporton Site No.</b>                                                                                                                        | <b>FCC Designation No.</b> | <b>FCC Test Firm Registration No.</b> |
|                           | CO01-KS<br>03CH06-KS<br>TH01-KS                                                                                                                | CN1257                     | 314309                                |

## 1.7 Test Software

| Item | Site      | Manufacturer | Name                                 | Version     |
|------|-----------|--------------|--------------------------------------|-------------|
| 1.   | TH01-KS   | Tonscend     | JS1120-3 test system<br>China_210602 | 3.3.10      |
| 2.   | 03CH06-KS | AUDIX        | E3                                   | 210616      |
| 3.   | CO01-KS   | AUDIX        | E3                                   | 6.2009-8-24 |

## 1.8 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ 47 CFR Part 15 Subpart C §15.247
- ♦ FCC KDB 558074 D01 15.247 Meas Guidance v05r02
- ♦ ANSI C63.10-2013

### Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

## 2 Test Configuration of Equipment Under Test

- a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (Z plane) were recorded in this report.
- b. AC power line Conducted Emission was tested under maximum output power.

### 2.1 Carrier Frequency and Channel

| Frequency Band  | Channel | Freq.<br>(MHz) | Channel | Freq.<br>(MHz) |
|-----------------|---------|----------------|---------|----------------|
| 2400-2483.5 MHz | 1       | 2412           | 7       | 2442           |
|                 | 2       | 2417           | 8       | 2447           |
|                 | 3       | 2422           | 9       | 2452           |
|                 | 4       | 2427           | 10      | 2457           |
|                 | 5       | 2432           | 11      | 2462           |
|                 | 6       | 2437           | -       | -              |



## 2.2 Test Mode

Final test modes are considering the modulation and worse data rates as below table.

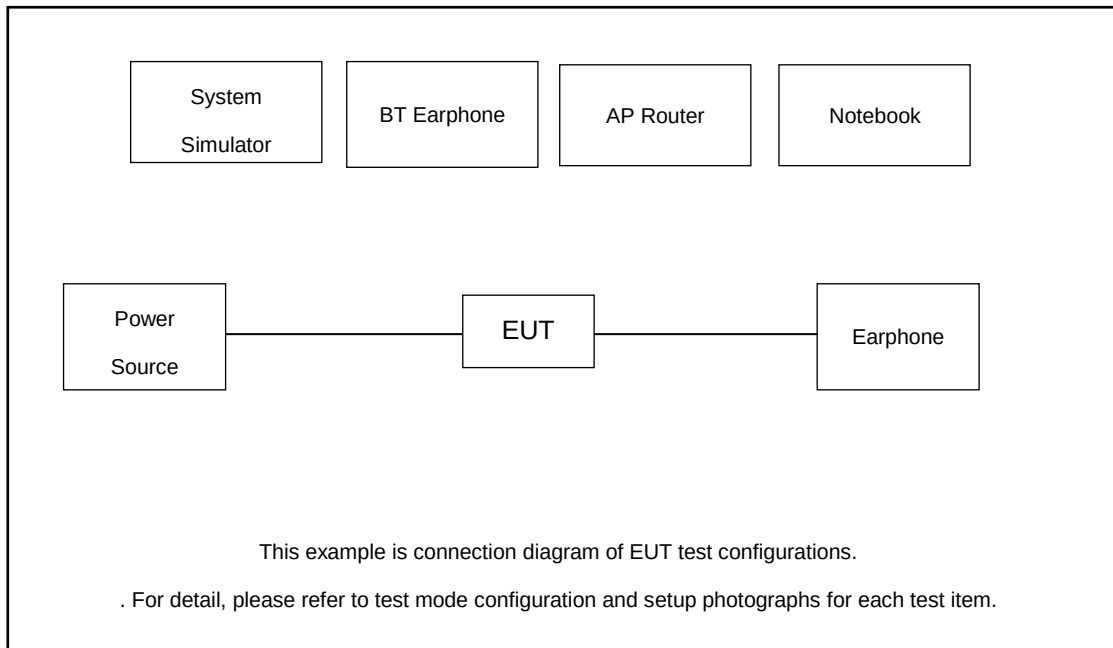
| Modulation   | Data Rate |
|--------------|-----------|
| 802.11b      | 1 Mbps    |
| 802.11g      | 6 Mbps    |
| 802.11n HT20 | MCS0      |
| 802.11n HT40 | MCS0      |

| Test Cases                                                                                                 |                                                                                    |
|------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| AC<br>Conducted<br>Emission                                                                                | Mode 1 :WCDMA B5 Link + WLAN Link(2.4G) + BT Link + Adaptor + USB Cable + Earphone |
| <b>Remark:</b> For Radiated Test Cases, The tests were performance with Adapter , Earphone and USB Cable . |                                                                                    |

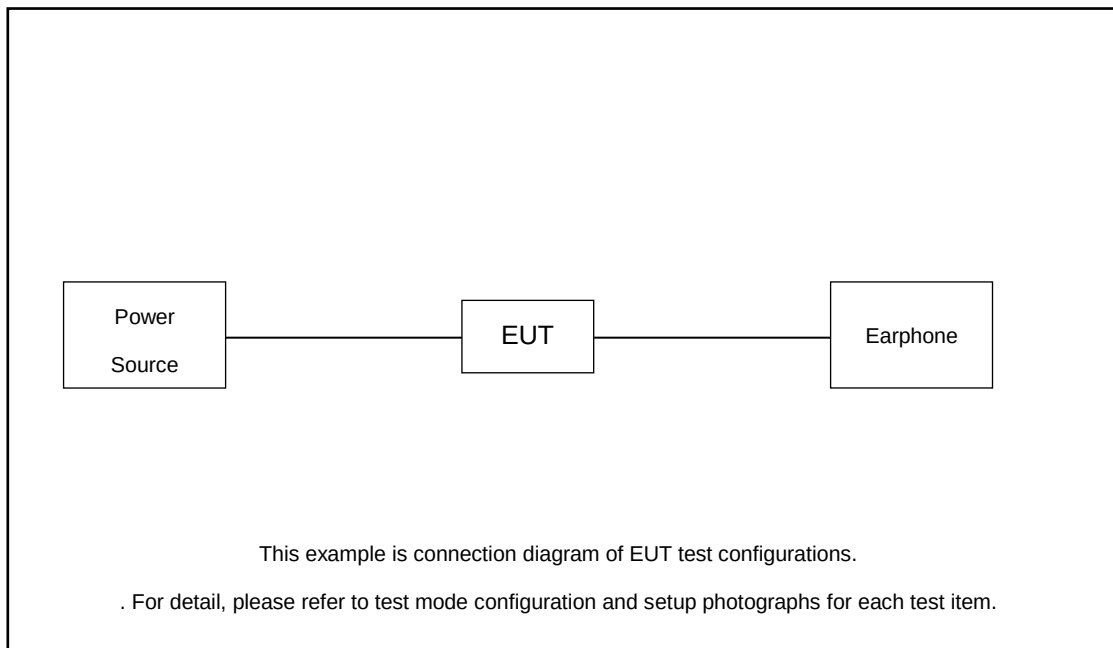


## 2.3 Connection Diagram of Test System

AC Conducted Emission:



Radiated Emission:



## 2.4 Support Unit used in test configuration and system

| Item | Equipment          | Trade Name | Model Name    | FCC ID        | Data Cable | Power Cord                                                   |
|------|--------------------|------------|---------------|---------------|------------|--------------------------------------------------------------|
| 1.   | Base Station       | Anritsu    | MT8821C       | N/A           | N/A        | Unshielded,1.8m                                              |
| 2.   | Bluetooth Earphone | Lenovo     | thinkplus-BH3 | N/A           | N/A        | N/A                                                          |
| 3.   | Notebook           | Lenovo     | G480          | QDS-BRCM1050I | N/A        | shielded cable DC O/P 1.8m ,<br>Unshielded AC I/P cable 1.8m |
| 4.   | WLAN AP            | D-link     | DIR-655       | KA21R655B1    | N/A        | Unshielded,1.8m                                              |
| 5.   | Earphone           | Lenovo     | P121          | N/A           | N/A        | Unshielded,1.2m                                              |

## 2.5 EUT Operation Test Setup

For WLAN RF test items, an engineering test program was provided and enabled to make EUT continuous transmit.

For AC power line conducted emissions, the EUT was set to connect with the WLAN AP under large package sizes transmission.

## 2.6 Measurement Results Explanation Example

### For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

Example:

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

*Offset = RF cable loss + attenuator factor.*

Following shows an offset computation example with cable loss 1.91 dB and 20dB attenuator.

*Offset(dB) = RF cable loss(dB) + attenuator factor(dB).*

*= 1.91 + 20 = 21.91 (dB)*

### 3 Test Result

#### 3.1 6dB and 99% Bandwidth Measurement

##### 3.1.1 Limit of 6dB and 99% Bandwidth

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

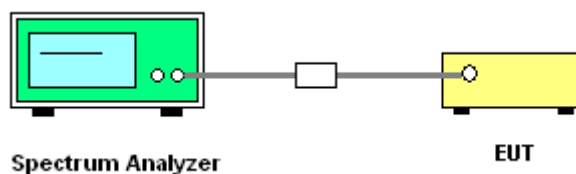
##### 3.1.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

##### 3.1.3 Test Procedures

1. The testing follows ANSI C63.10-2013 clause 11.8
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. Set the Video bandwidth (VBW)  $\geq 3 \times \text{RBW}$ . In order to make an accurate measurement. The 6 dB bandwidth must be greater than 500 kHz.
5. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) = 1%~5% of OBW and set the Video bandwidth (VBW) approximately three times the RBW.
6. Measure and record the results in the test report.

##### 3.1.4 Test Setup



##### 3.1.5 Test Result of 6dB and 99% Occupied Bandwidth

Please refer to Appendix A.

## 3.2 Output Power Measurement

### 3.2.1 Limit of Output Power

For systems using digital modulation in the 2400-2483.5MHz, the limit for peak output power is 30dBm. If transmitting antenna with directional gain greater than 6dBi is used, the peak output power from the intentional radiator shall be reduced below the above stated value by the amount in dB that the directional gain of the antenna exceeds 6 dBi. In case of point-to-point operation, the limit has to be reduced by 1dB for every 3dB that the directional gain of the antenna exceeds 6dBi.

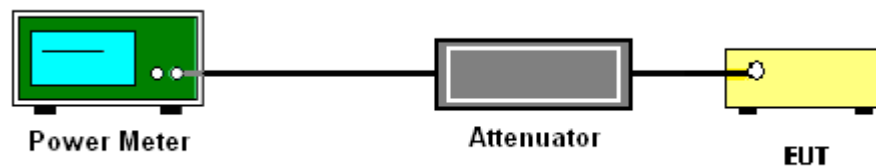
### 3.2.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

### 3.2.3 Test Procedures

1. The testing follows the Measurement Procedure of ANSI C63.10-2013 clause 11.9.1.3 PKPM1 Peak power meter or ANSI C63.10-2013 clause 11.9.2.3.1 Method AVGPM method.
2. The RF output of EUT was connected to the power meter by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Measure the conducted output power and record the results in the test report.

### 3.2.4 Test Setup



**3.2.5 Test Result of Peak Output Power**

| 2.4GHz Band Single Antenna |           |     |     |             |                            |                             |          |                  |                        |            |
|----------------------------|-----------|-----|-----|-------------|----------------------------|-----------------------------|----------|------------------|------------------------|------------|
| Mod.                       | Data Rate | NTX | CH. | Freq. (MHz) | Peak Conducted Power (dBm) | Conducted Power Limit (dBm) | DG (dBi) | EIRP Power (dBm) | EIRP Power Limit (dBm) | Pass /Fail |
|                            |           |     |     |             | Ant1                       | Ant1                        |          | Ant1             | Ant1                   |            |
| 11b                        | 1Mbps     | 1   | 1   | 2412        | 19.15                      | 30.00                       | 1.20     | 20.35            | 36.00                  | Pass       |
| 11b                        | 1Mbps     | 1   | 6   | 2437        | 17.90                      | 30.00                       | 1.20     | 19.10            | 36.00                  | Pass       |
| 11b                        | 1Mbps     | 1   | 11  | 2462        | 19.11                      | 30.00                       | 1.20     | 20.31            | 36.00                  | Pass       |
| 11g                        | 6Mbps     | 1   | 1   | 2412        | 19.87                      | 30.00                       | 1.20     | 21.07            | 36.00                  | Pass       |
| 11g                        | 6Mbps     | 1   | 6   | 2437        | 18.62                      | 30.00                       | 1.20     | 19.82            | 36.00                  | Pass       |
| 11g                        | 6Mbps     | 1   | 11  | 2462        | 19.85                      | 30.00                       | 1.20     | 21.05            | 36.00                  | Pass       |
| HT20                       | MCS0      | 1   | 1   | 2412        | 19.05                      | 30.00                       | 1.20     | 20.25            | 36.00                  | Pass       |
| HT20                       | MCS0      | 1   | 6   | 2437        | 17.77                      | 30.00                       | 1.20     | 18.97            | 36.00                  | Pass       |
| HT20                       | MCS0      | 1   | 11  | 2462        | 19.18                      | 30.00                       | 1.20     | 20.38            | 36.00                  | Pass       |
| HT40                       | MCS0      | 1   | 3   | 2422        | 18.33                      | 30.00                       | 1.20     | 19.53            | 36.00                  | Pass       |
| HT40                       | MCS0      | 1   | 6   | 2437        | 19.92                      | 30.00                       | 1.20     | 21.12            | 36.00                  | Pass       |
| HT40                       | MCS0      | 1   | 9   | 2452        | 20.37                      | 30.00                       | 1.20     | 21.57            | 36.00                  | Pass       |



## 3.2.6 Test Result of Average Output Power (Reporting Only)

| 2.4GHz Band Single Antenna |           |     |     |             |                  |                                                |                             |          |                  |                        |            |               |
|----------------------------|-----------|-----|-----|-------------|------------------|------------------------------------------------|-----------------------------|----------|------------------|------------------------|------------|---------------|
| Mod.                       | Data Rate | NTX | CH. | Freq. (MHz) | Duty Factor (dB) | Average Conducted Power with duty factor (dBm) | Conducted Power Limit (dBm) | DG (dBi) | EIRP Power (dBm) | EIRP Power Limit (dBm) | Pass /Fail | Power setting |
|                            |           |     |     |             | Ant 1            | Ant1                                           | Ant1                        | Ant1     | Ant1             | Ant1                   |            | Ant1          |
| 11b                        | 1Mbps     | 1   | 1   | 2412        | 0.06             | 16.89                                          | 30.00                       | 1.20     | 18.09            | 36.00                  | Pass       | 17.00         |
| 11b                        | 1Mbps     | 1   | 6   | 2437        | 0.06             | 15.75                                          | 30.00                       | 1.20     | 16.95            | 36.00                  | Pass       | 17.00         |
| 11b                        | 1Mbps     | 1   | 11  | 2462        | 0.06             | 16.87                                          | 30.00                       | 1.20     | 18.07            | 36.00                  | Pass       | 17.00         |
| 11g                        | 6Mbps     | 1   | 1   | 2412        | 0.06             | 15.02                                          | 30.00                       | 1.20     | 16.22            | 36.00                  | Pass       | 15.00         |
| 11g                        | 6Mbps     | 1   | 6   | 2437        | 0.06             | 13.91                                          | 30.00                       | 1.20     | 15.11            | 36.00                  | Pass       | 15.00         |
| 11g                        | 6Mbps     | 1   | 11  | 2462        | 0.06             | 14.97                                          | 30.00                       | 1.20     | 16.17            | 36.00                  | Pass       | 15.00         |
| HT20                       | MCS0      | 1   | 1   | 2412        | 0.10             | 14.02                                          | 30.00                       | 1.20     | 15.22            | 36.00                  | Pass       | 14.00         |
| HT20                       | MCS0      | 1   | 6   | 2437        | 0.10             | 12.99                                          | 30.00                       | 1.20     | 14.19            | 36.00                  | Pass       | 14.00         |
| HT20                       | MCS0      | 1   | 11  | 2462        | 0.10             | 14.13                                          | 30.00                       | 1.20     | 15.33            | 36.00                  | Pass       | 14.00         |
| HT40                       | MCS0      | 1   | 3   | 2422        | 0.23             | 11.99                                          | 30.00                       | 1.20     | 13.19            | 36.00                  | Pass       | 12.50         |
| HT40                       | MCS0      | 1   | 6   | 2437        | 0.23             | 13.31                                          | 30.00                       | 1.20     | 14.51            | 36.00                  | Pass       | 14.00         |
| HT40                       | MCS0      | 1   | 9   | 2452        | 0.23             | 13.68                                          | 30.00                       | 1.20     | 14.88            | 36.00                  | Pass       | 14.00         |

### 3.3 Power Spectral Density Measurement

#### 3.3.1 Limit of Power Spectral Density

The peak power spectral density shall not be greater than 8dBm in any 3kHz band at any time interval of continuous transmission.

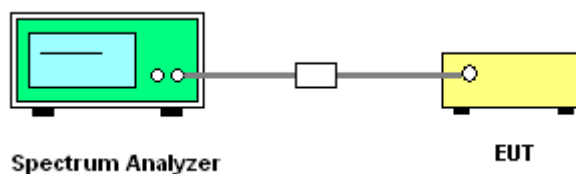
#### 3.3.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

#### 3.3.3 Test Procedures

1. The testing follows Measurement Procedure of ANSI C63.10-2013 clause 11.10.2 Method PKPSD.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 3 kHz. Video bandwidth VBW = 10 kHz In order to make an accurate measurement, set the span to 1.5 times DTS Channel Bandwidth. (6dB BW)
5. Detector = peak, Sweep time = auto couple, Trace mode = max hold, Allow trace to fully stabilize. Use the peak marker function to determine the maximum power level.
6. Measure and record the results in the test report.

#### 3.3.4 Test Setup



#### 3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

## 3.4 Conducted Band Edges and Spurious Emission Measurement

### 3.4.1 Limit of Conducted Band Edges and Spurious Emission Measurement

In any 100 kHz bandwidth outside of the authorized frequency band, the emissions which fall in the non-restricted bands shall be attenuated at least 20 dB / 30dB relative to the maximum PSD level in 100 kHz by RF conducted measurement.

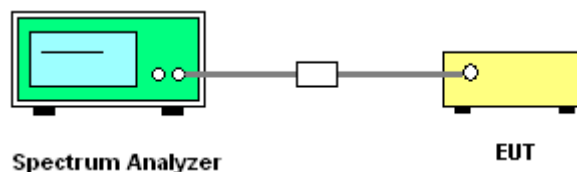
### 3.4.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

### 3.4.3 Test Procedures

1. The testing follows ANSI C63.10-2013 clause 11.11
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Set RBW = 100 kHz, VBW=300 kHz, Peak Detector. Unwanted Emissions measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz when maximum peak conducted output power procedure is used. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB per 15.247(d).
5. Measure and record the results in the test report.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

### 3.4.4 Test Setup



### 3.4.5 Test Result of Conducted Band Edges and Spurious Emission

Please refer to Appendix A.





### 3.5 Radiated Band Edges and Spurious Emission Measurement

#### 3.5.1 Limit of Radiated band edge and Spurious Emission Measurement

In any 100 kHz bandwidth outside the intentional radiator frequency band, all harmonics/spurious must be at least 20 dB below the highest emission level within the authorized band. If the output power of this device was measured by spectrum analyzer, the attenuation under this paragraph shall be 30 dB instead of 20 dB. In addition, radiated emissions which fall in the restricted bands must also comply with the limits as below.

| Frequency<br>(MHz) | Field Strength<br>(microvolts/meter) | Measurement Distance<br>(meters) |
|--------------------|--------------------------------------|----------------------------------|
| 0.009 – 0.490      | 2400/F(kHz)                          | 300                              |
| 0.490 – 1.705      | 24000/F(kHz)                         | 30                               |
| 1.705 – 30.0       | 30                                   | 30                               |
| 30 – 88            | 100                                  | 3                                |
| 88 – 216           | 150                                  | 3                                |
| 216 - 960          | 200                                  | 3                                |
| Above 960          | 500                                  | 3                                |

#### 3.5.2 Measuring Instruments

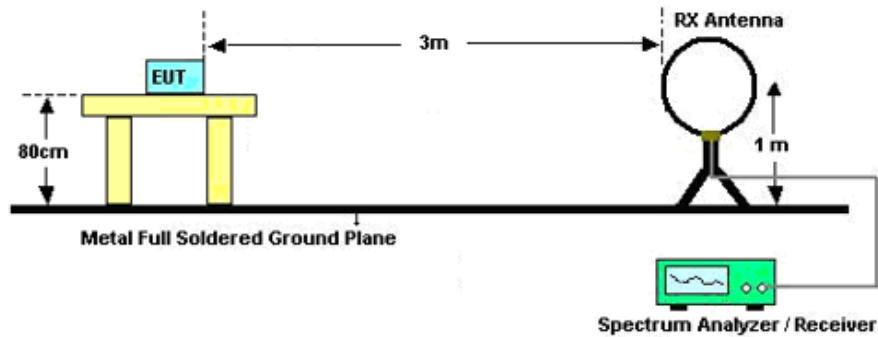
The measuring equipment is listed in the section 4 of this test report.

### 3.5.3 Test Procedures

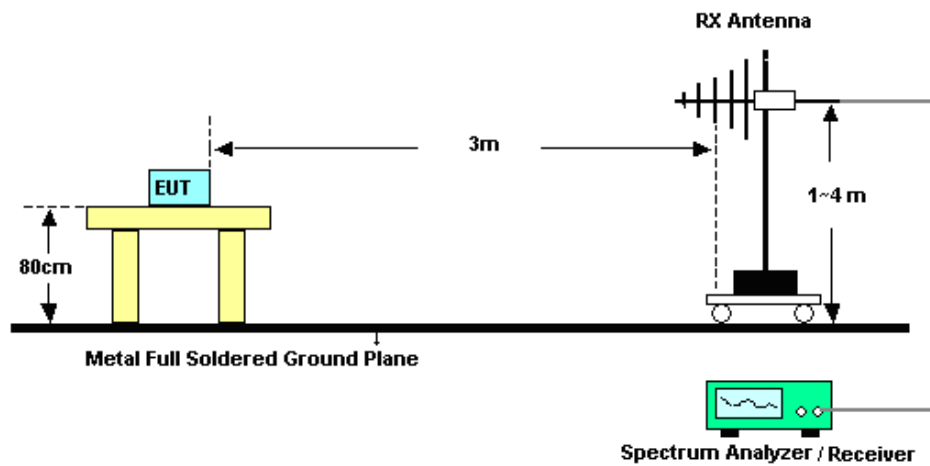
1. The testing follows ANSI C63.10-2013 clause 11.11 & 11.12
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level.
3. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
6. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
7. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than peak limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
8. Use the following spectrum analyzer settings:
  - (1) Span shall wide enough to fully capture the emission being measured;
  - (2) Set RBW=100 kHz for  $f < 1$  GHz;  $VBW \geq RBW$ ; Sweep = auto; Detector function = peak; Trace = max hold;
  - (3) Set RBW = 1 MHz, VBW= 3MHz for  $f \geq 1$  GHz for peak measurement.  
For average measurement:
    - $VBW = 10$  Hz, when duty cycle is no less than 98 percent.
    - $VBW \geq 1/T$ , when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

### 3.5.4 Test Setup

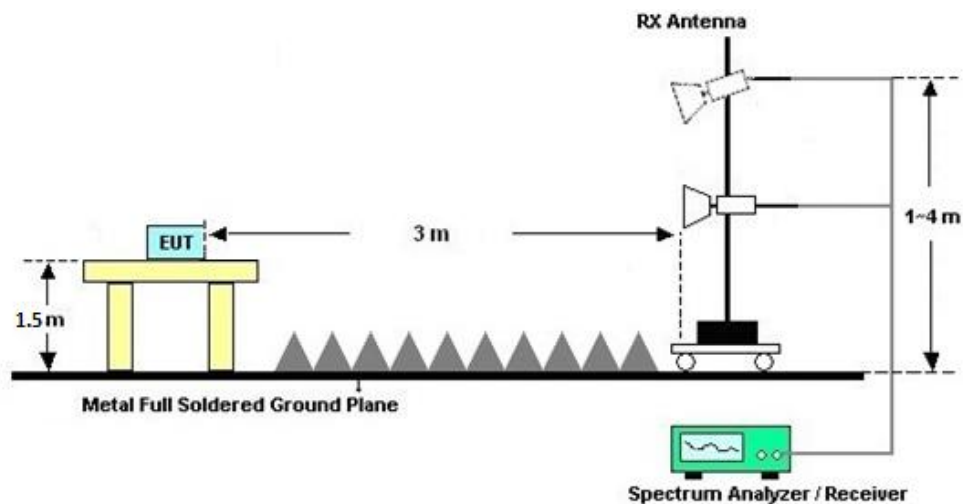
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



**3.5.5 Test Results of Radiated Spurious Emissions (9kHz ~ 30MHz)**

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

There is a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.

**3.5.6 Test Result of Radiated Spurious at Band Edges**

Please refer to Appendix C.

**3.5.7 Duty Cycle**

Please refer to Appendix D.

**3.5.8 Test Result of Radiated Spurious Emission (30MHz ~ 10th Harmonic or 40GHz, whichever is lower)**

Please refer to Appendix C.

## 3.6 AC Conducted Emission Measurement

### 3.6.1 Limit of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

| Frequency of Emission<br>(MHz) | Conducted Limit (dB $\mu$ V) |           |
|--------------------------------|------------------------------|-----------|
|                                | Quasi-Peak                   | Average   |
| 0.15-0.5                       | 66 to 56*                    | 56 to 46* |
| 0.5-5                          | 56                           | 46        |
| 5-30                           | 60                           | 50        |

\*Decreases with the logarithm of the frequency.

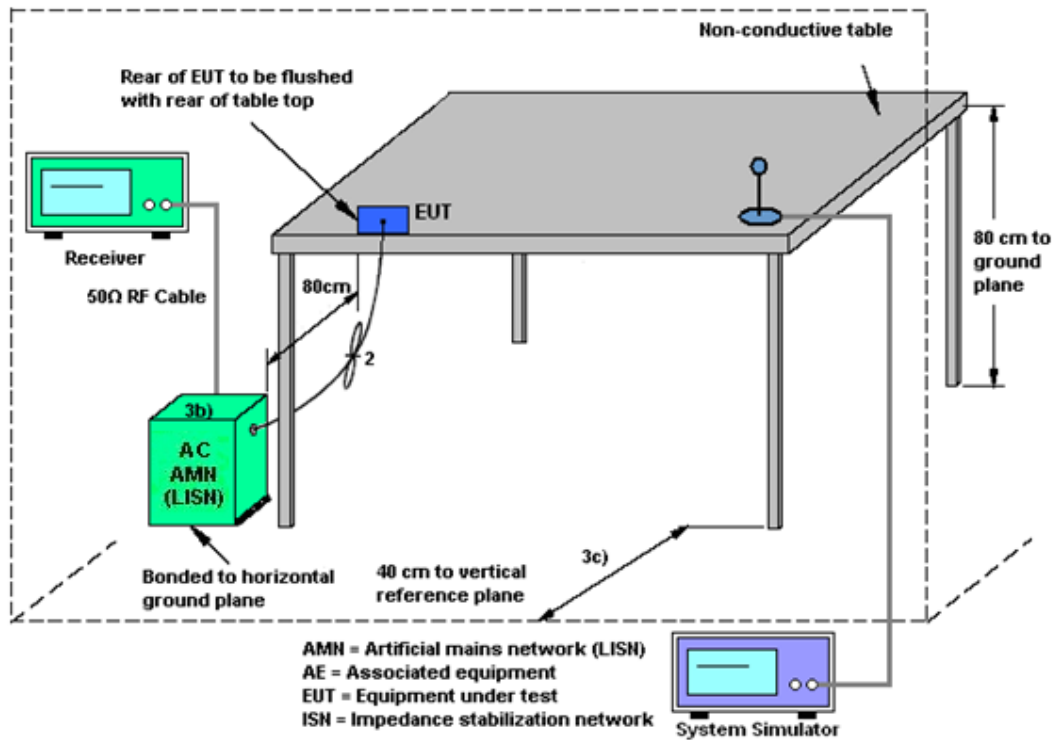
### 3.6.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

### 3.6.3 Test Procedures

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room, and it was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF bandwidth = 9kHz) with Maximum Hold Mode.

### 3.6.4 Test Setup



### 3.6.5 Test Result of AC Conducted Emission

Please refer to Appendix B.



## **3.7 Antenna Requirements**

### **3.7.1 Standard Applicable**

If directional gain of transmitting Antennas is greater than 6dBi, the power shall be reduced by the same level in dB comparing to gain minus 6dBi. The use of a permanently attached Antenna or of an Antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the rule.

### **3.7.2 Antenna Anti-Replacement Construction**

An embedded-in antenna design is used.

### **3.7.3 Antenna Gain**

The antenna peak gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit.



## 4 List of Measuring Equipment

| Instrument                        | Manufacturer | Model No.              | Serial No.   | Characteristics         | Calibration Date | Test Date                   | Due Date      | Remark                |
|-----------------------------------|--------------|------------------------|--------------|-------------------------|------------------|-----------------------------|---------------|-----------------------|
| EMI Test Receiver                 | Keysight     | N9038A                 | MY56400023   | 3Hz~8.5GHz;Max 30dBm    | Jan. 02, 2024    | Sep. 13, 2024~Sep. 14, 2024 | Jan. 01, 2025 | Radiation (03CH06-KS) |
| EXA Spectrum Analyzer             | Keysight     | N9010B                 | MY57471084   | 10Hz~44GHz              | Jul. 04, 2024    | Sep. 13, 2024~Sep. 14, 2024 | Jul. 03, 2025 | Radiation (03CH06-KS) |
| Loop Antenna                      | R&S          | HFH2-Z2E               | 101125       | 9kHz~30MHz              | Sep. 08, 2024    | Sep. 13, 2024~Sep. 14, 2024 | Sep. 07, 2025 | Radiation (03CH06-KS) |
| Bilog Antenna                     | TeseQ        | CBL6111D               | 59913        | 30MHz~1GHz              | Sep. 03, 2024    | Sep. 13, 2024~Sep. 14, 2024 | Sep. 02, 2025 | Radiation (03CH06-KS) |
| Double Ridge Horn Antenna         | ETS-Lindgren | 3117                   | 00218652     | 1GHz~18GHz              | Apr. 11, 2024    | Sep. 13, 2024~Sep. 14, 2024 | Apr. 10, 2025 | Radiation (03CH06-KS) |
| SHF-EHF Horn                      | Com-power    | AH-840                 | 101093       | 18GHz~40GHz             | Jan. 06, 2024    | Sep. 13, 2024~Sep. 14, 2024 | Jan. 05, 2025 | Radiation (03CH06-KS) |
| Amplifier                         | SONOMA       | 310N                   | 372171       | 9KHz ~1GHZ              | Jan. 02, 2024    | Sep. 13, 2024~Sep. 14, 2024 | Jan. 01, 2025 | Radiation (03CH06-KS) |
| Amplifier                         | EM           | EM18G40GA              | 060728       | 18~40GHz                | Jan. 02, 2024    | Sep. 13, 2024~Sep. 14, 2024 | Jan. 01, 2025 | Radiation (03CH06-KS) |
| high gain Amplifier               | MITEQ        | AMF-7D-00101800-30-10P | 2082395      | 1Ghz-18Ghz              | Jan. 02, 2024    | Sep. 13, 2024~Sep. 14, 2024 | Jan. 01, 2025 | Radiation (03CH06-KS) |
| Amplifier                         | Keysight     | 83017A                 | MY57280119   | 500MHz~26.5GHz          | Oct. 10, 2023    | Sep. 13, 2024~Sep. 14, 2024 | Oct. 09, 2024 | Radiation (03CH06-KS) |
| AC Power Source                   | Chroma       | 61601                  | F104090004   | N/A                     | NCR              | Sep. 13, 2024~Sep. 14, 2024 | NCR           | Radiation (03CH06-KS) |
| Turn Table                        | ChamPro      | EM 1000-T              | 060762-T     | 0~360 degree            | NCR              | Sep. 13, 2024~Sep. 14, 2024 | NCR           | Radiation (03CH06-KS) |
| Antenna Mast                      | ChamPro      | EM 1000-A              | 060762-A     | 1 m~4 m                 | NCR              | Sep. 13, 2024~Sep. 14, 2024 | NCR           | Radiation (03CH06-KS) |
| EMI Receiver                      | R&S          | ESCI7                  | 100768       | 9kHz~7GHz;              | Apr 18, 2024     | Oct. 09, 2024               | Apr 17, 2025  | Conduction (CO01-KS)  |
| AC LISN (for auxiliary equipment) | MessTec      | AN3016                 | 060103       | 9kHz~30MHz              | Aug. 20, 2024    | Oct. 09, 2024               | Aug. 19, 2025 | Conduction (CO01-KS)  |
| AC LISN                           | MessTec      | AN3016                 | 060105       | 9kHz~30MHz              | Apr 18, 2024     | Oct. 09, 2024               | Apr 17, 2025  | Conduction (CO01-KS)  |
| AC Power Source                   | Chroma       | 61602                  | ABP000000811 | AC 0V~300V, 45Hz~1000Hz | Oct. 09, 2024    | Oct. 09, 2024               | Oct. 08, 2025 | Conduction (CO01-KS)  |
| Spectrum Analyzer                 | R&S          | FSV40                  | 101040       | 10Hz~40GHz              | Oct. 11, 2023    | Sep. 21, 2024~Nov. 02, 2024 | Oct. 10, 2024 | Conducted (TH01-KS)   |
| Spectrum Analyzer                 | R&S          | FSV40                  | 101040       | 10Hz~40GHz              | Oct. 10, 2024    |                             | Oct. 09, 2025 | Conducted (TH01-KS)   |
| Pulse Power Sensor                | Anritsu      | MA2411B                | 0917070      | 300MHz~40GHz            | Jan. 02, 2024    | Sep. 21, 2024~Nov. 02, 2024 | Jan. 01, 2025 | Conducted (TH01-KS)   |
| Power Meter                       | Anritsu      | ML2495A                | 1005002      | 50MHz Bandwidth         | Jan. 02, 2024    | Sep. 21, 2024~Nov. 02, 2024 | Jan. 01, 2025 | Conducted (TH01-KS)   |

NCR: No Calibration Required



## 5 Measurement Uncertainty

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI 63.10-2013. All the measurement uncertainty value were shown with a coverage K=2 to indicate 95% level of confidence. The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

### Uncertainty of Conducted Measurement

|                                        |           |
|----------------------------------------|-----------|
| Conducted Spurious Emission & Bandedge | ±2.22 dB  |
| Occupied Channel Bandwidth             | ±0.1%     |
| Conducted Power                        | ±0.50 dB  |
| Conducted Power Spectral Density       | ±0.90 dB  |
| Frequency                              | ±0.04 ppm |

### Uncertainty of AC Conducted Emission Measurement (0.15 MHz ~ 30 MHz)

|                                                                     |         |
|---------------------------------------------------------------------|---------|
| Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y)) | 2.84 dB |
|---------------------------------------------------------------------|---------|

### Uncertainty of Radiated Emission Measurement (9 KHz ~ 30 MHz)

|                                                                     |         |
|---------------------------------------------------------------------|---------|
| Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y)) | 3.30 dB |
|---------------------------------------------------------------------|---------|

### Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

|                                                                     |         |
|---------------------------------------------------------------------|---------|
| Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y)) | 6.06 dB |
|---------------------------------------------------------------------|---------|

### Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

|                                                                     |         |
|---------------------------------------------------------------------|---------|
| Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y)) | 5.18 dB |
|---------------------------------------------------------------------|---------|

### Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

|                                                                     |         |
|---------------------------------------------------------------------|---------|
| Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y)) | 5.38 dB |
|---------------------------------------------------------------------|---------|

----- THE END -----



## **Appendix A. Conducted Test Results**

Ambient Condition: 25 °C, 45 %RHTest Date: 2024.9.21~2024.11.2Test Engineer: Jiang Jun

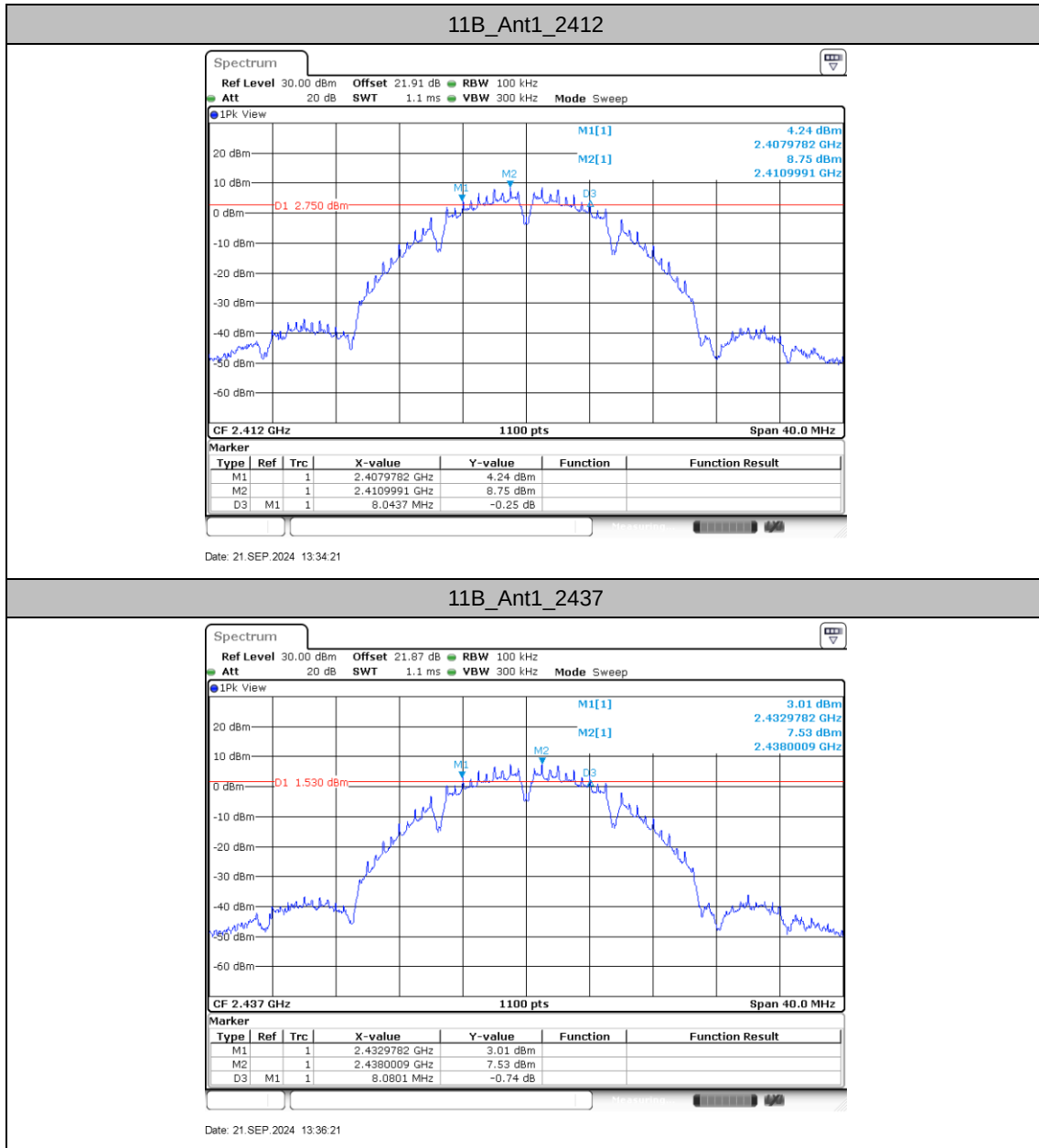
## DTS Bandwidth

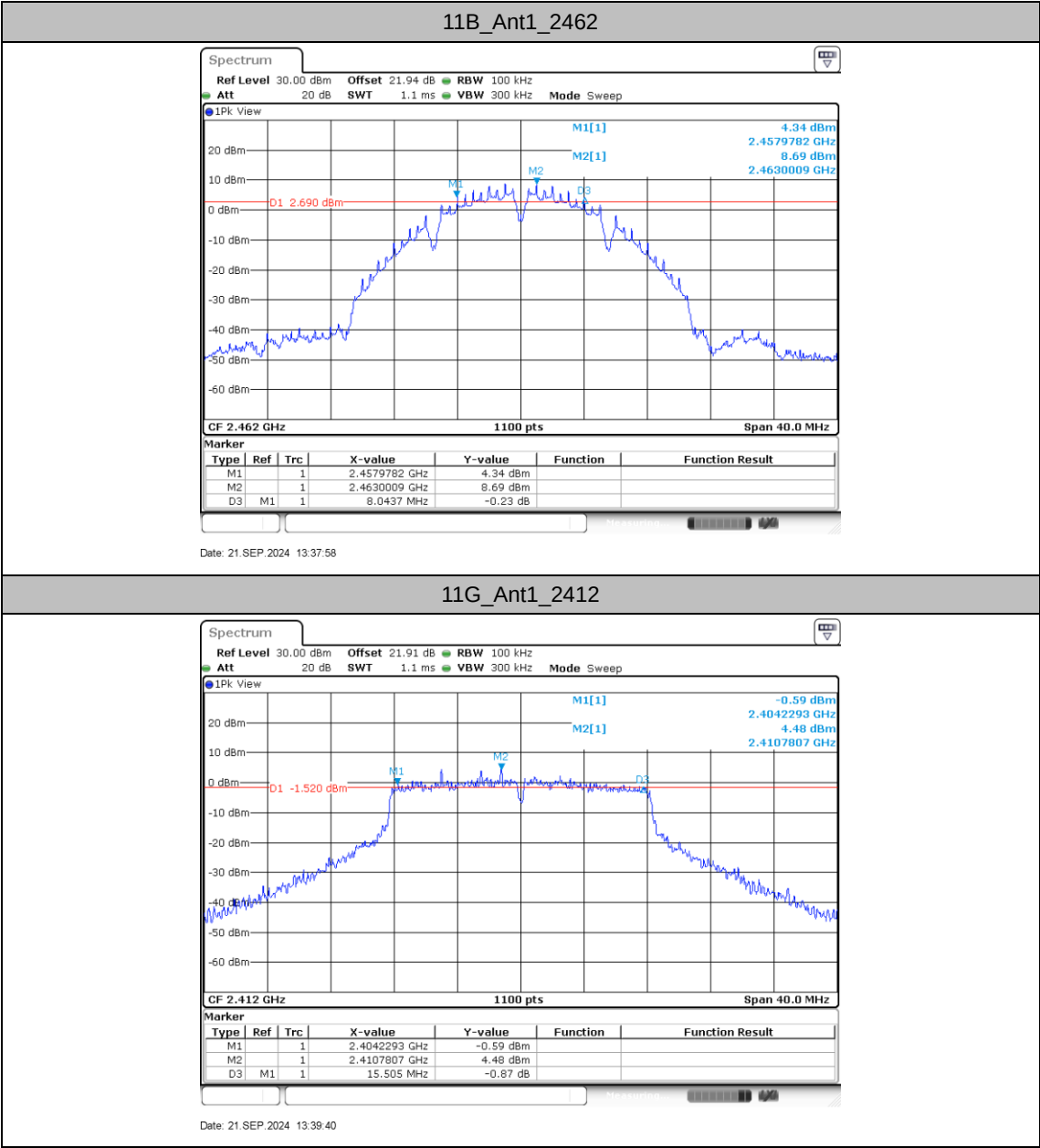
### Test Result

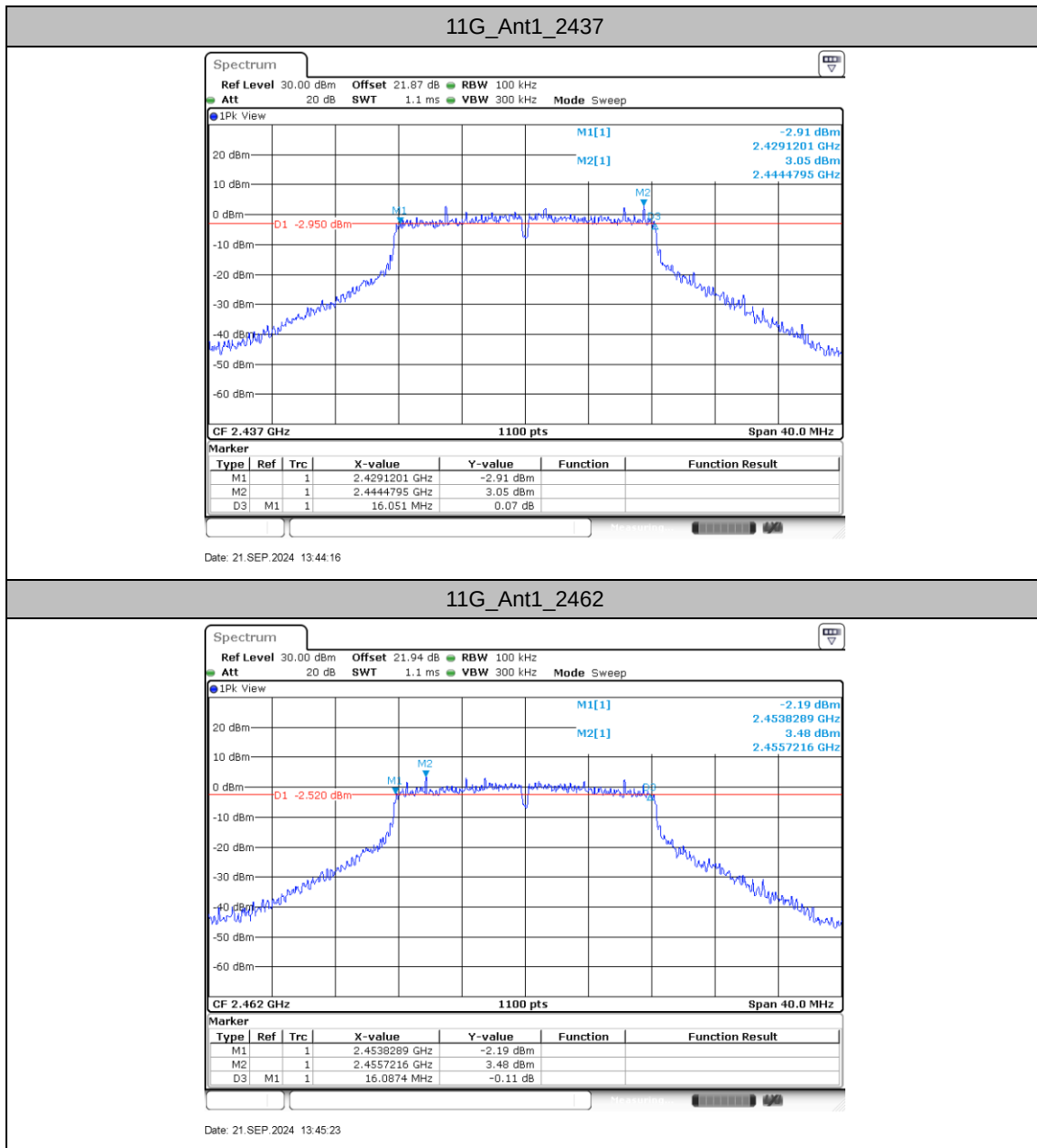
| TestMode  | Antenna | Freq(MHz) | DTS BW<br>[MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|-----------|---------|-----------|-----------------|---------|---------|------------|---------|
| 11B       | Ant1    | 2412      | 8.04            | 2407.98 | 2416.02 | 0.5        | PASS    |
|           |         | 2437      | 8.08            | 2432.98 | 2441.06 | 0.5        | PASS    |
|           |         | 2462      | 8.04            | 2457.98 | 2466.02 | 0.5        | PASS    |
| 11G       | Ant1    | 2412      | 15.51           | 2404.23 | 2419.73 | 0.5        | PASS    |
|           |         | 2437      | 16.05           | 2429.12 | 2445.17 | 0.5        | PASS    |
|           |         | 2462      | 16.09           | 2453.83 | 2469.92 | 0.5        | PASS    |
| 11N20SISO | Ant1    | 2412      | 17.18           | 2403.25 | 2420.43 | 0.5        | PASS    |
|           |         | 2437      | 15.94           | 2429.45 | 2445.39 | 0.5        | PASS    |
|           |         | 2462      | 16.56           | 2453.57 | 2470.13 | 0.5        | PASS    |
| 11N40SISO | Ant1    | 2422      | 35.45           | 2404.13 | 2439.58 | 0.5        | PASS    |
|           |         | 2437      | 35.74           | 2419.42 | 2455.16 | 0.5        | PASS    |
|           |         | 2452      | 35.09           | 2434.49 | 2469.58 | 0.5        | PASS    |



## Test Graphs

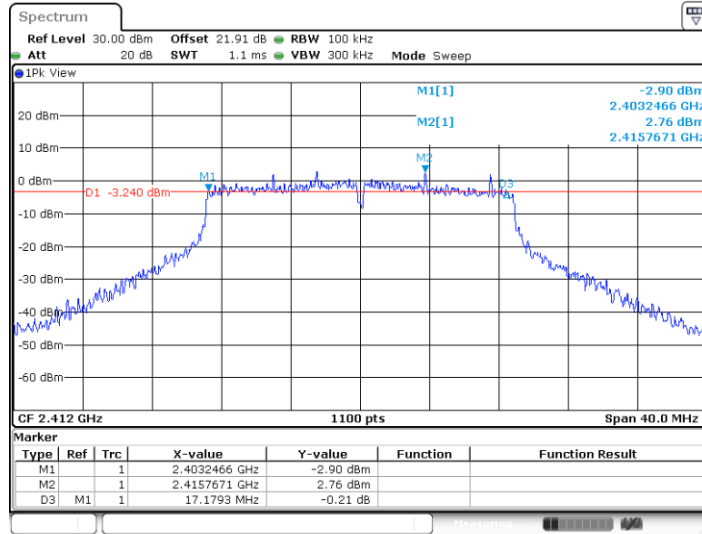






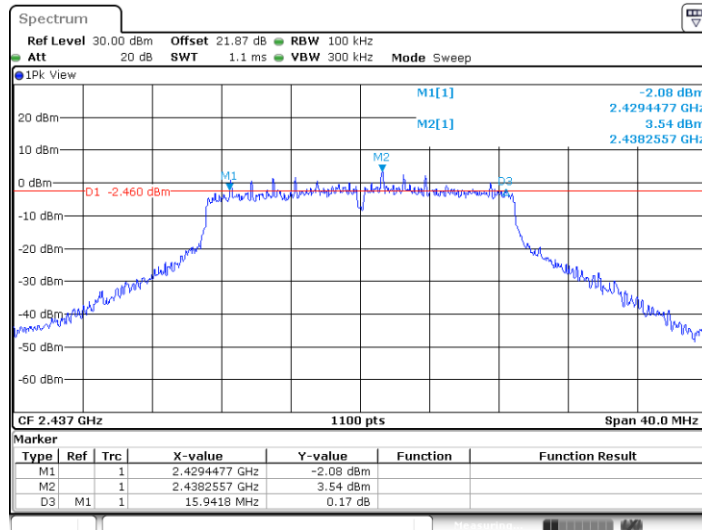


11N20SISO\_Ant1\_2412

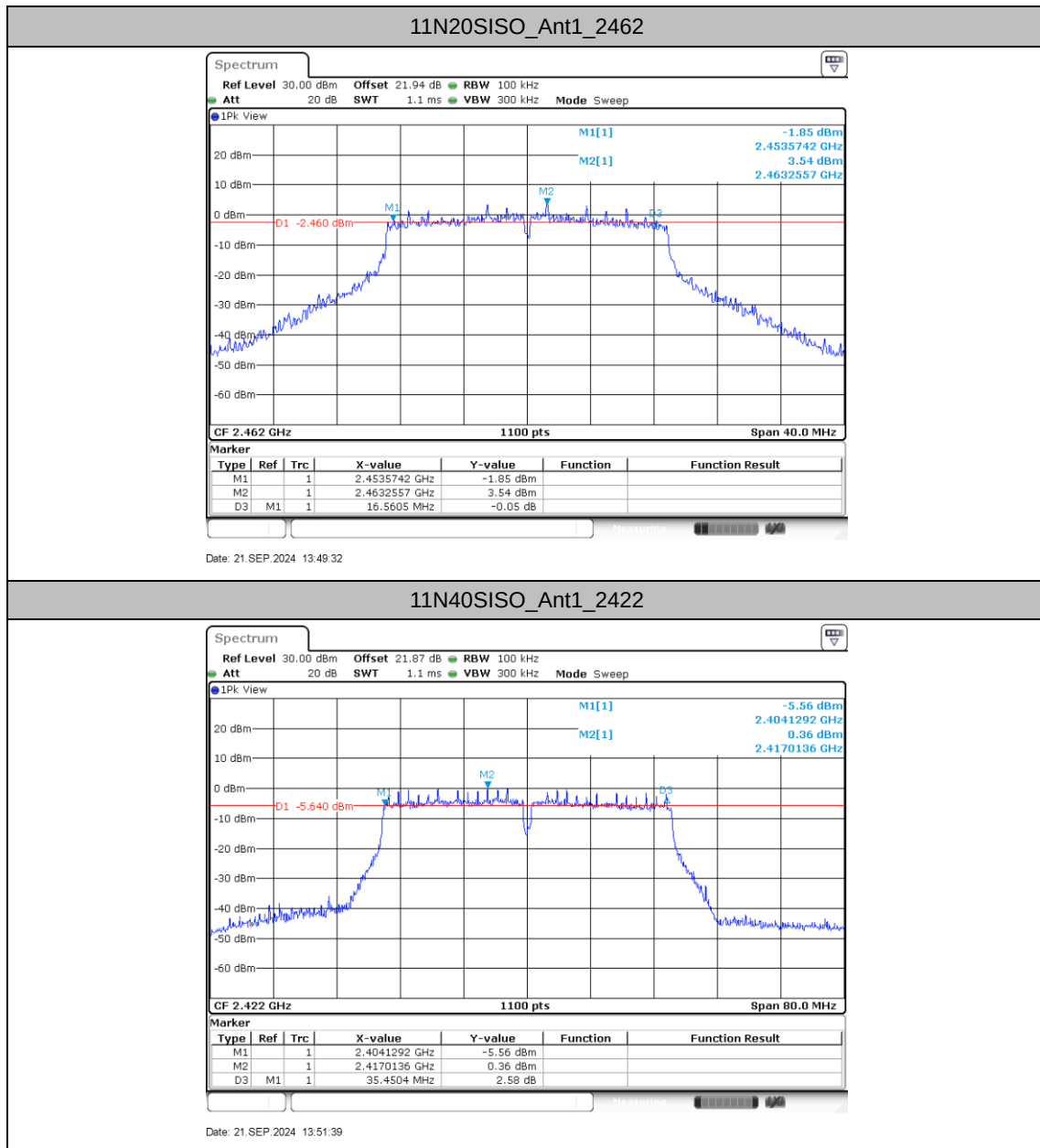


Date: 21.SEP.2024 13:47:04

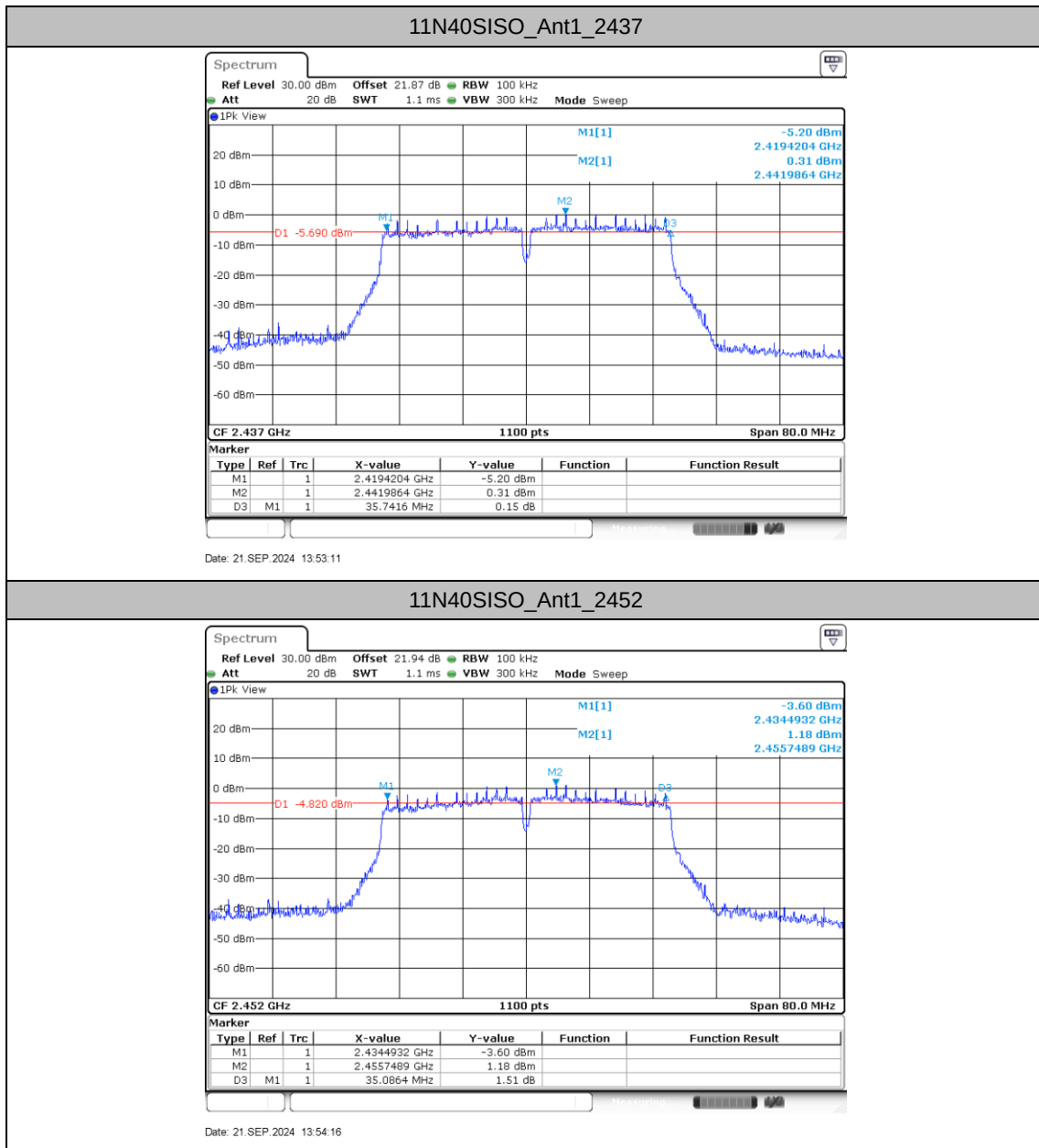
11N20SISO\_Ant1\_2437



Date: 21.SEP.2024 13:48:25









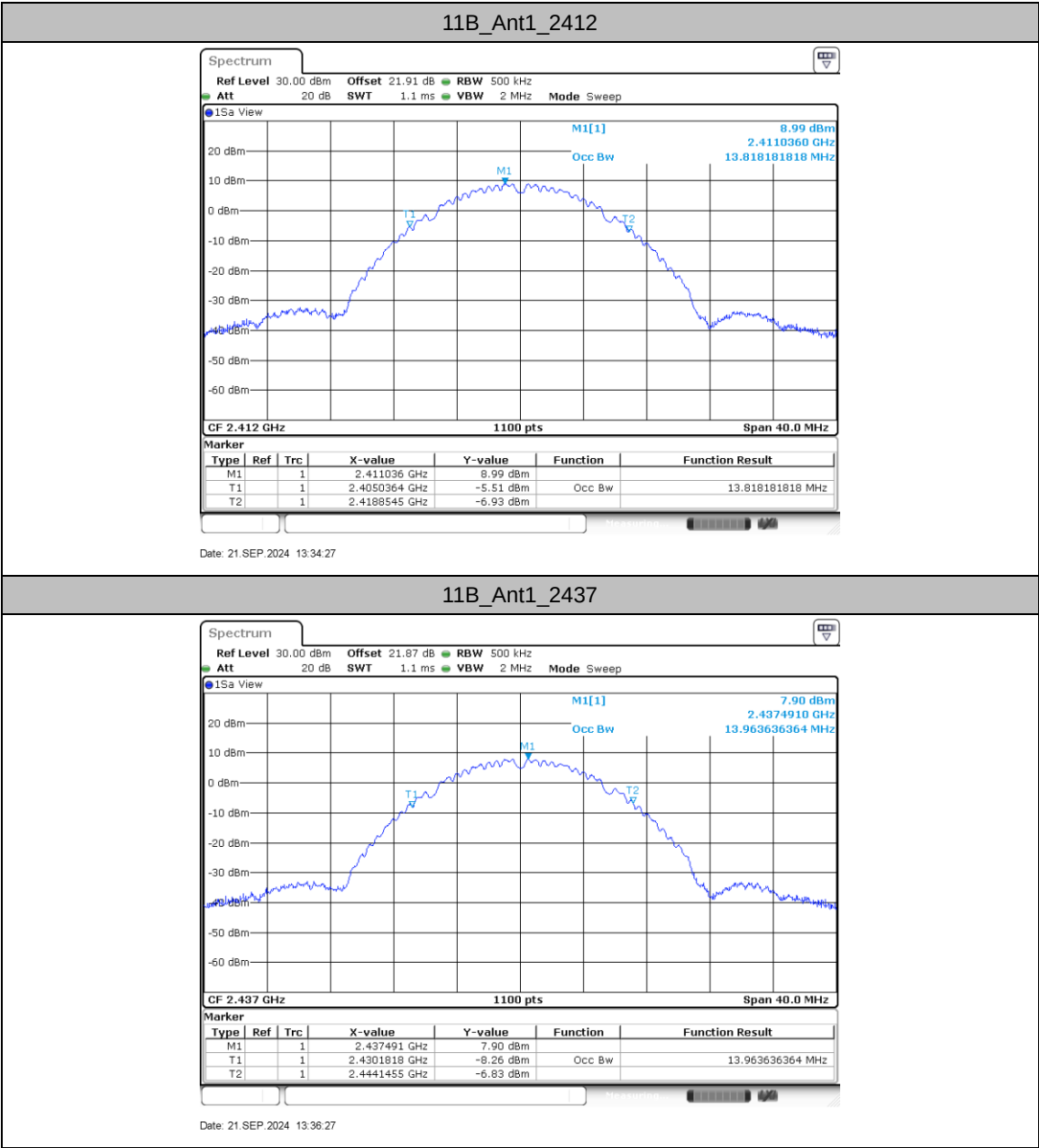
## Occupied Channel Bandwidth

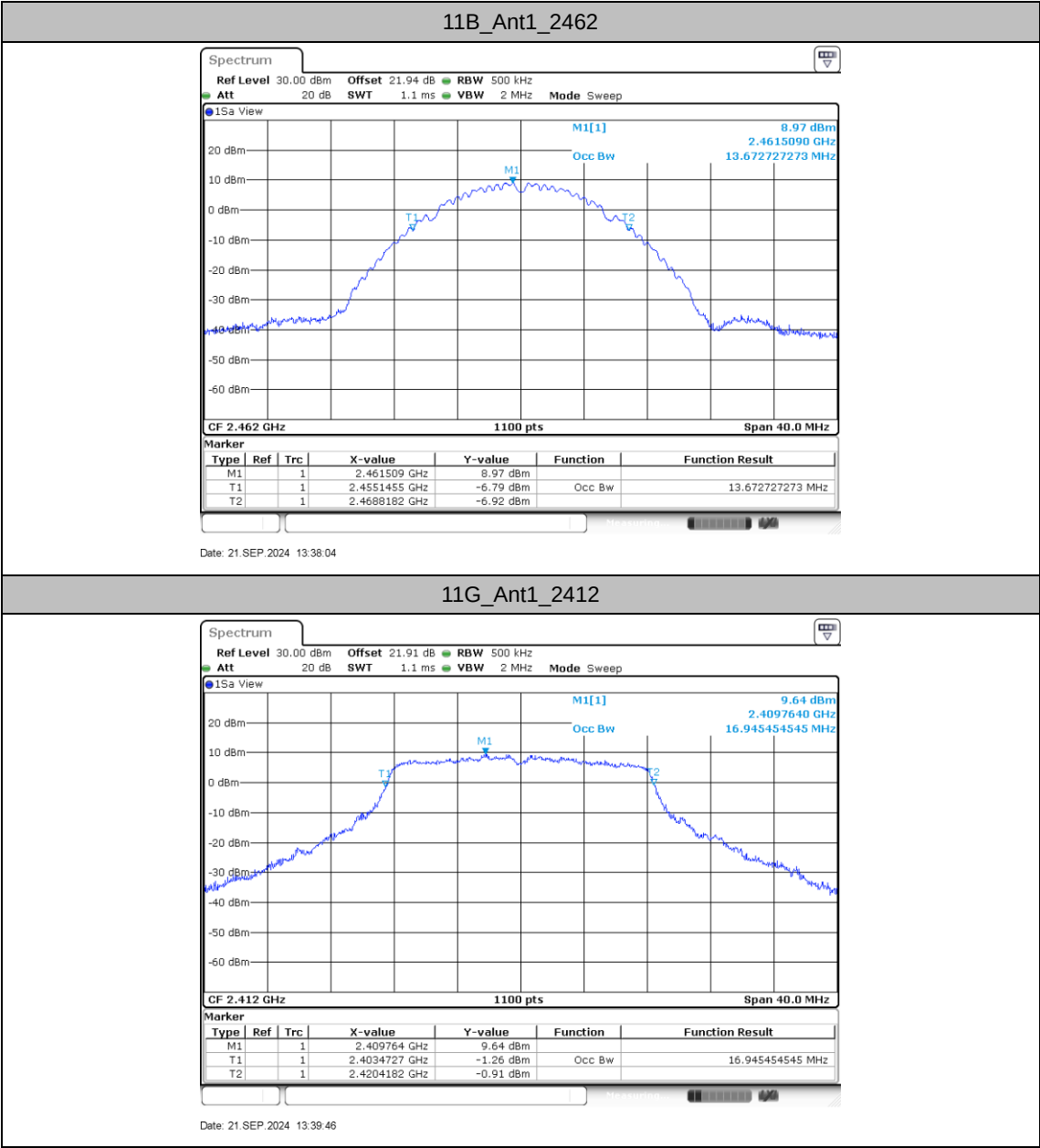
### Test Result

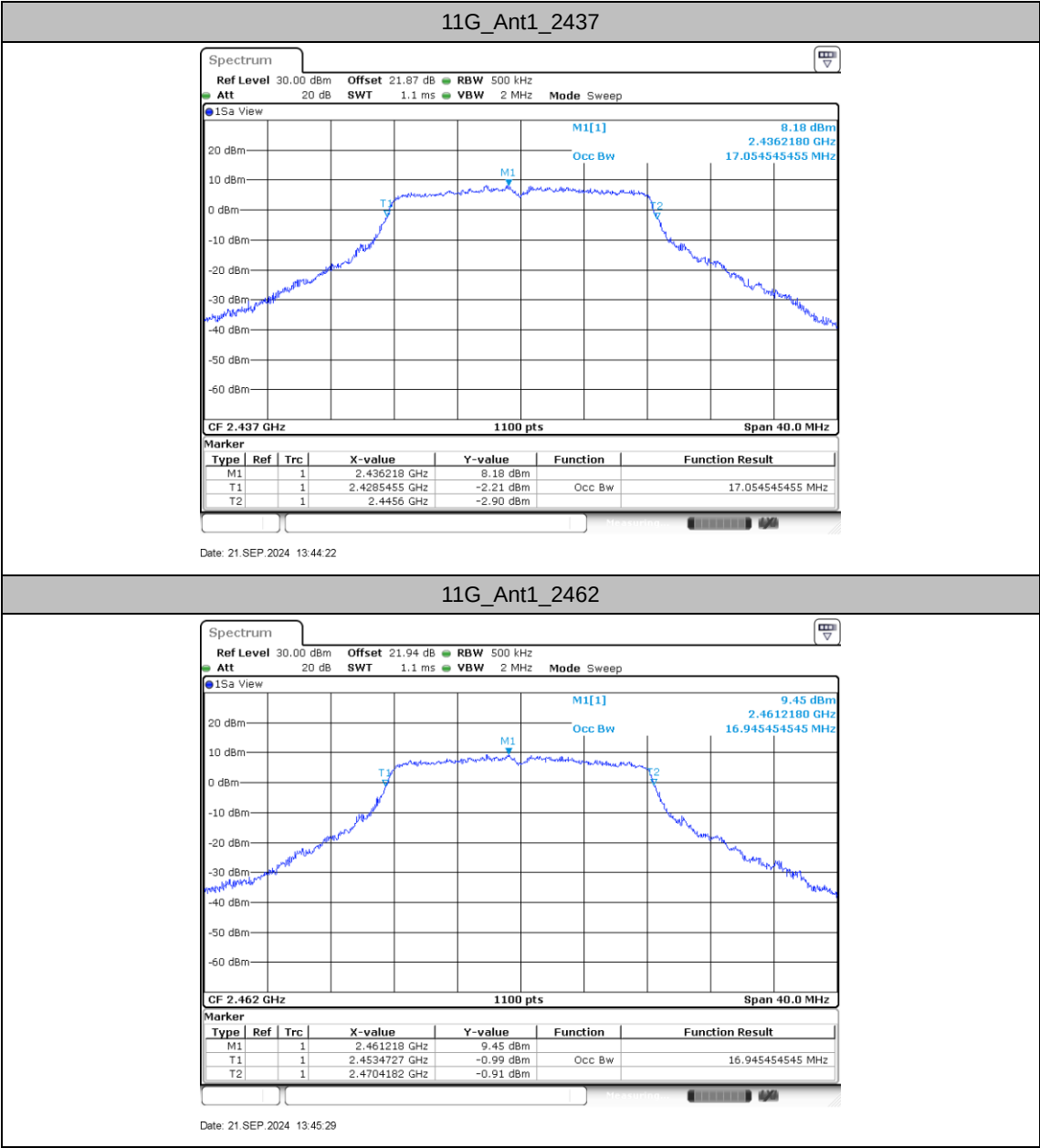
| TestMode  | Antenna | Freq(MHz) | OCB [MHz] | FL[MHz]   | FH[MHz]   | Limit[MHz] | Verdict |
|-----------|---------|-----------|-----------|-----------|-----------|------------|---------|
| 11B       | Ant1    | 2412      | 13.818    | 2405.0364 | 2418.8545 | ---        | ---     |
|           |         | 2437      | 13.964    | 2430.1818 | 2444.1455 | ---        | ---     |
|           |         | 2462      | 13.673    | 2455.1455 | 2468.8182 | ---        | ---     |
| 11G       | Ant1    | 2412      | 16.945    | 2403.4727 | 2420.4182 | ---        | ---     |
|           |         | 2437      | 17.055    | 2428.5455 | 2445.6000 | ---        | ---     |
|           |         | 2462      | 16.945    | 2453.4727 | 2470.4182 | ---        | ---     |
| 11N20SISO | Ant1    | 2412      | 18.109    | 2402.9273 | 2421.0364 | ---        | ---     |
|           |         | 2437      | 18.255    | 2428.0000 | 2446.2545 | ---        | ---     |
|           |         | 2462      | 18.073    | 2452.9636 | 2471.0364 | ---        | ---     |
| 11N40SISO | Ant1    | 2422      | 36.582    | 2403.7091 | 2440.2909 | ---        | ---     |
|           |         | 2437      | 36.655    | 2418.8545 | 2455.5091 | ---        | ---     |
|           |         | 2452      | 36.291    | 2434.0000 | 2470.2909 | ---        | ---     |

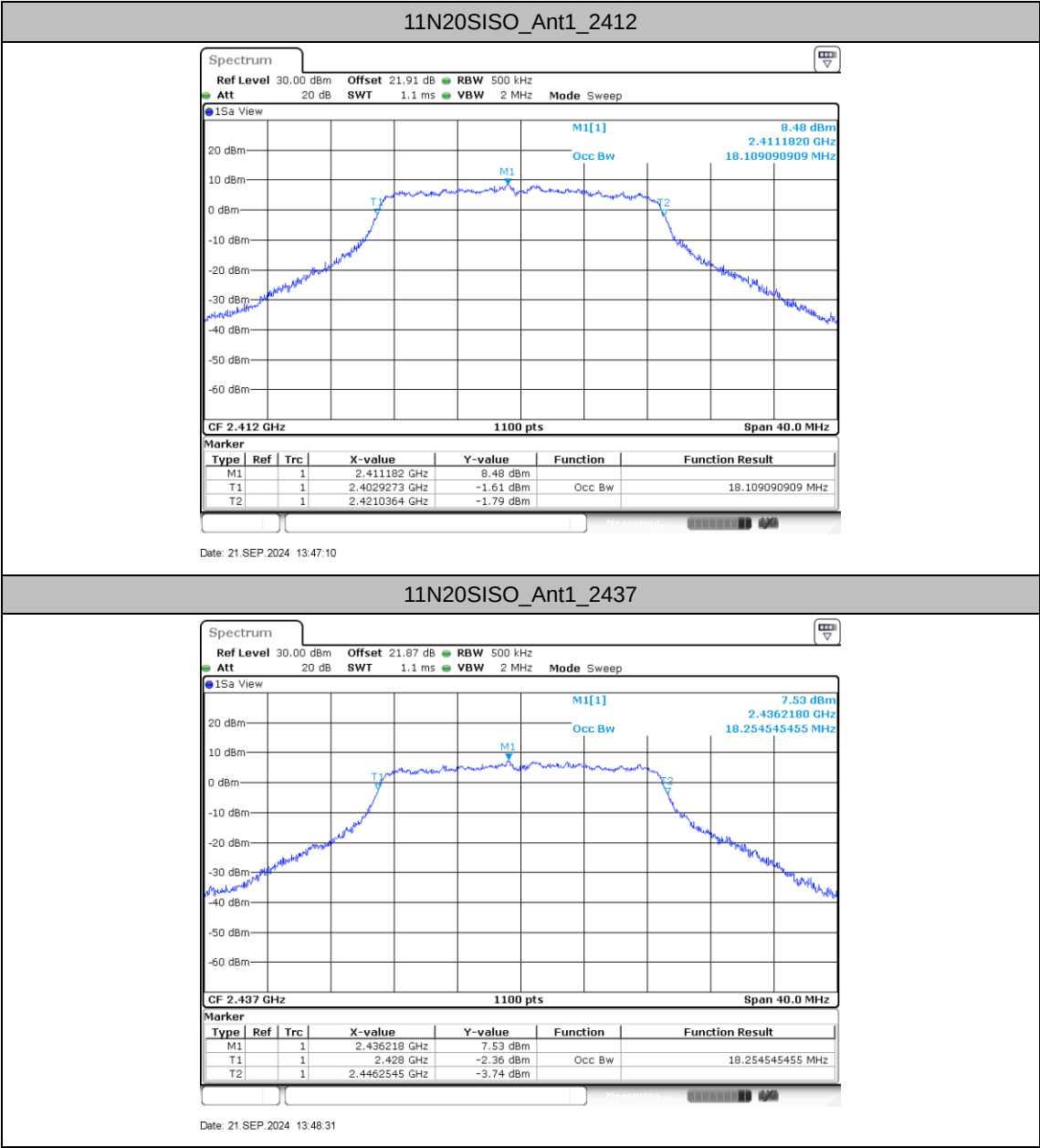


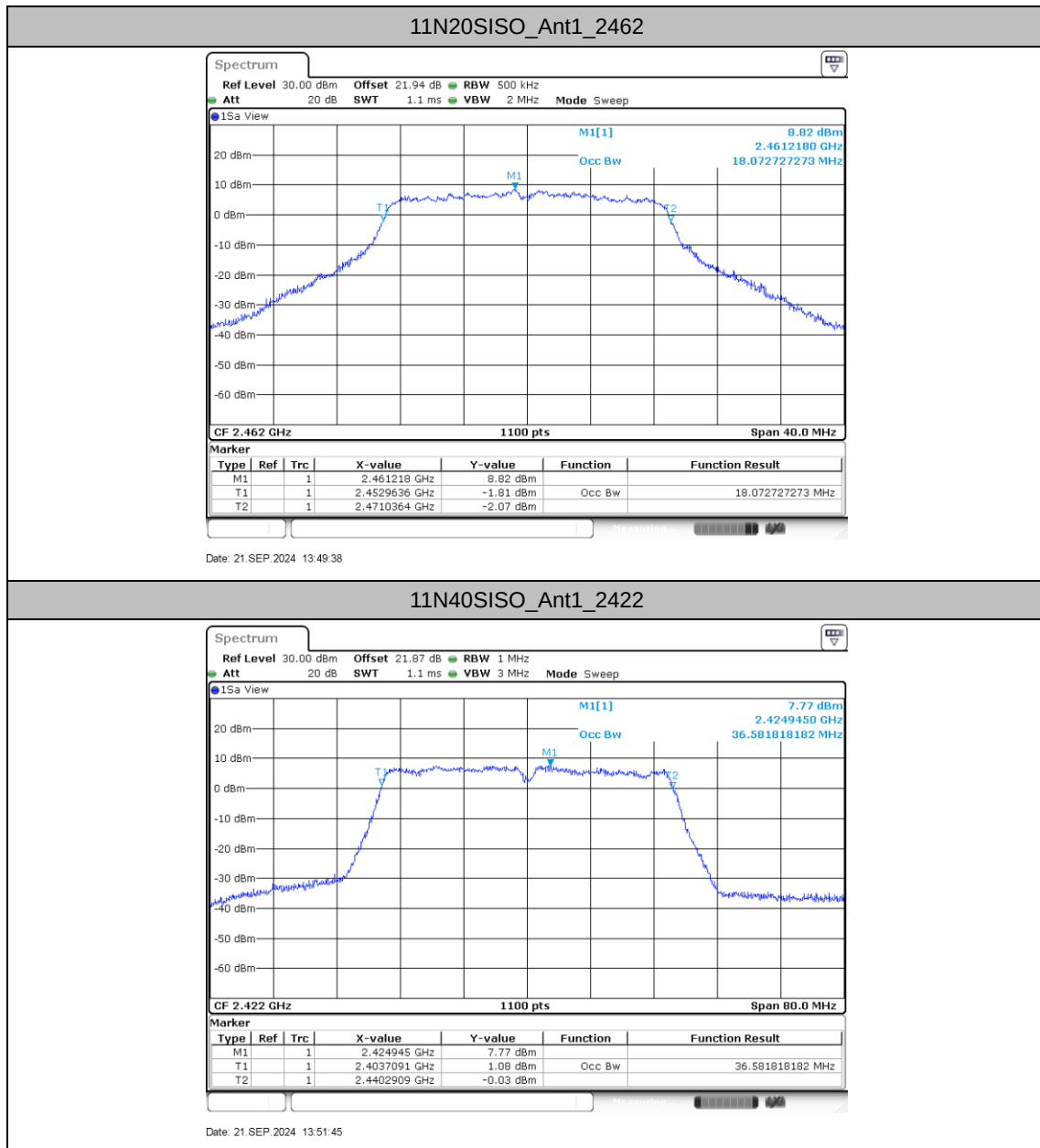
Test Graphs

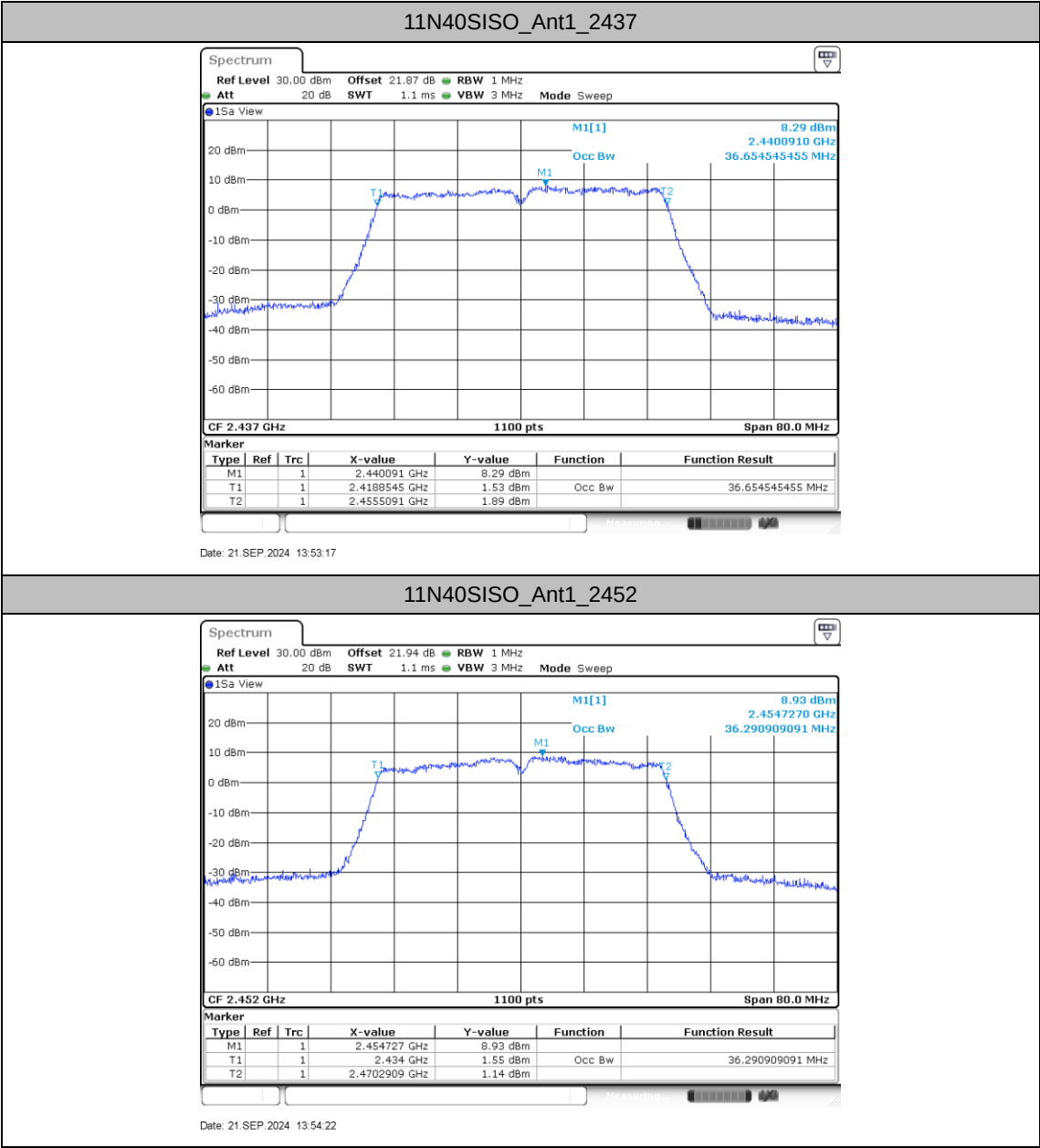
















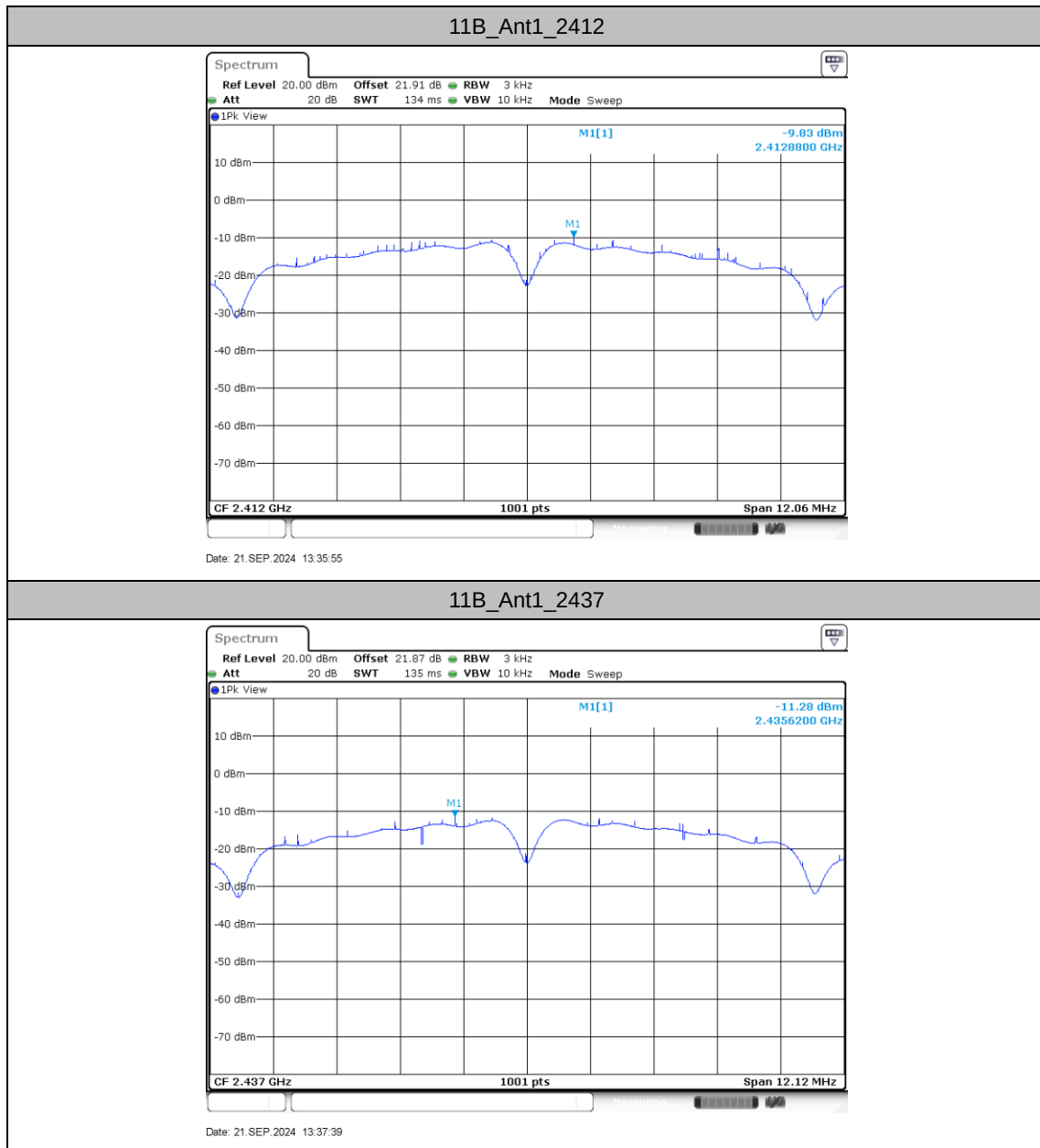
## Maximum power spectral density

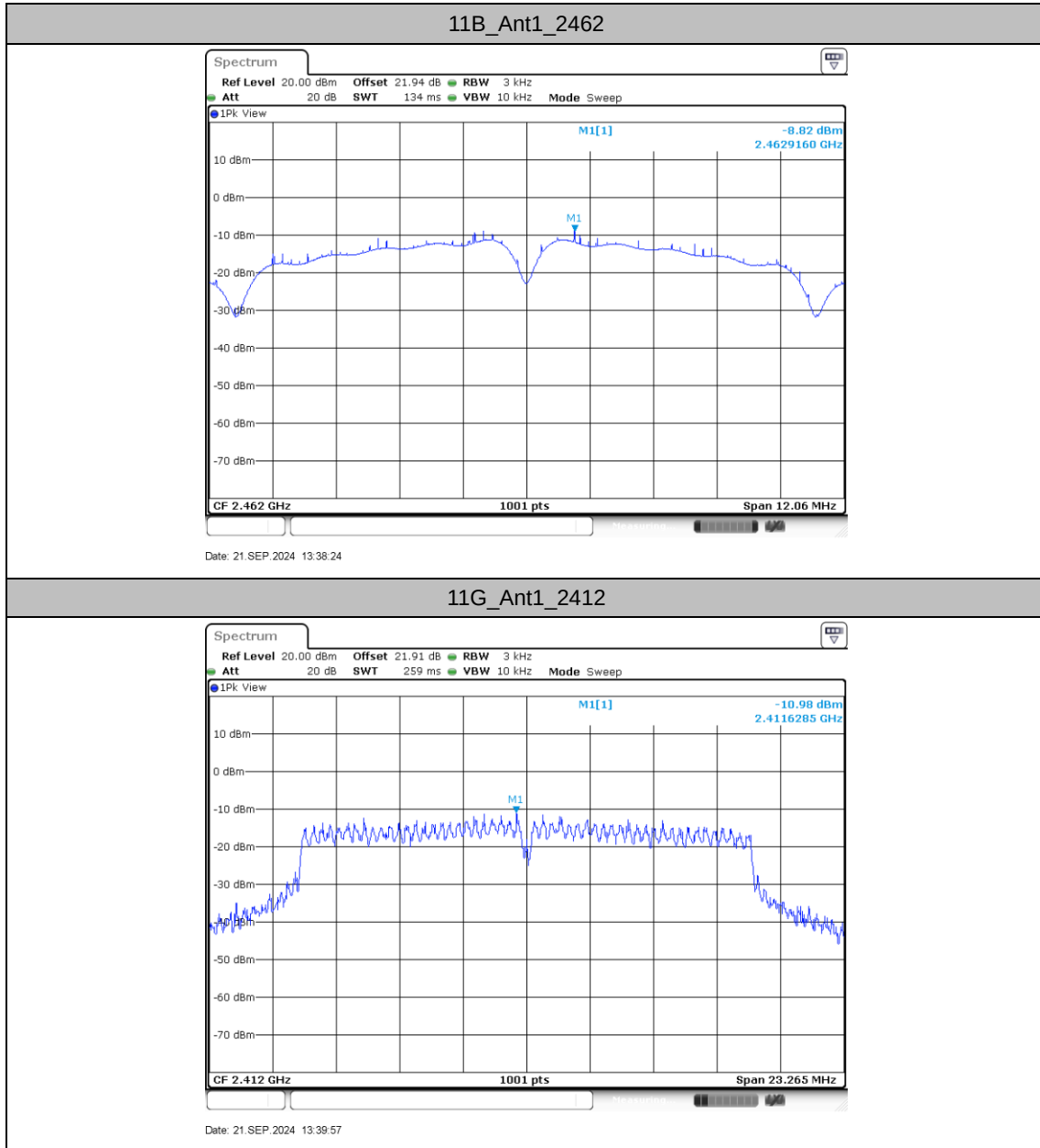
### Test Result

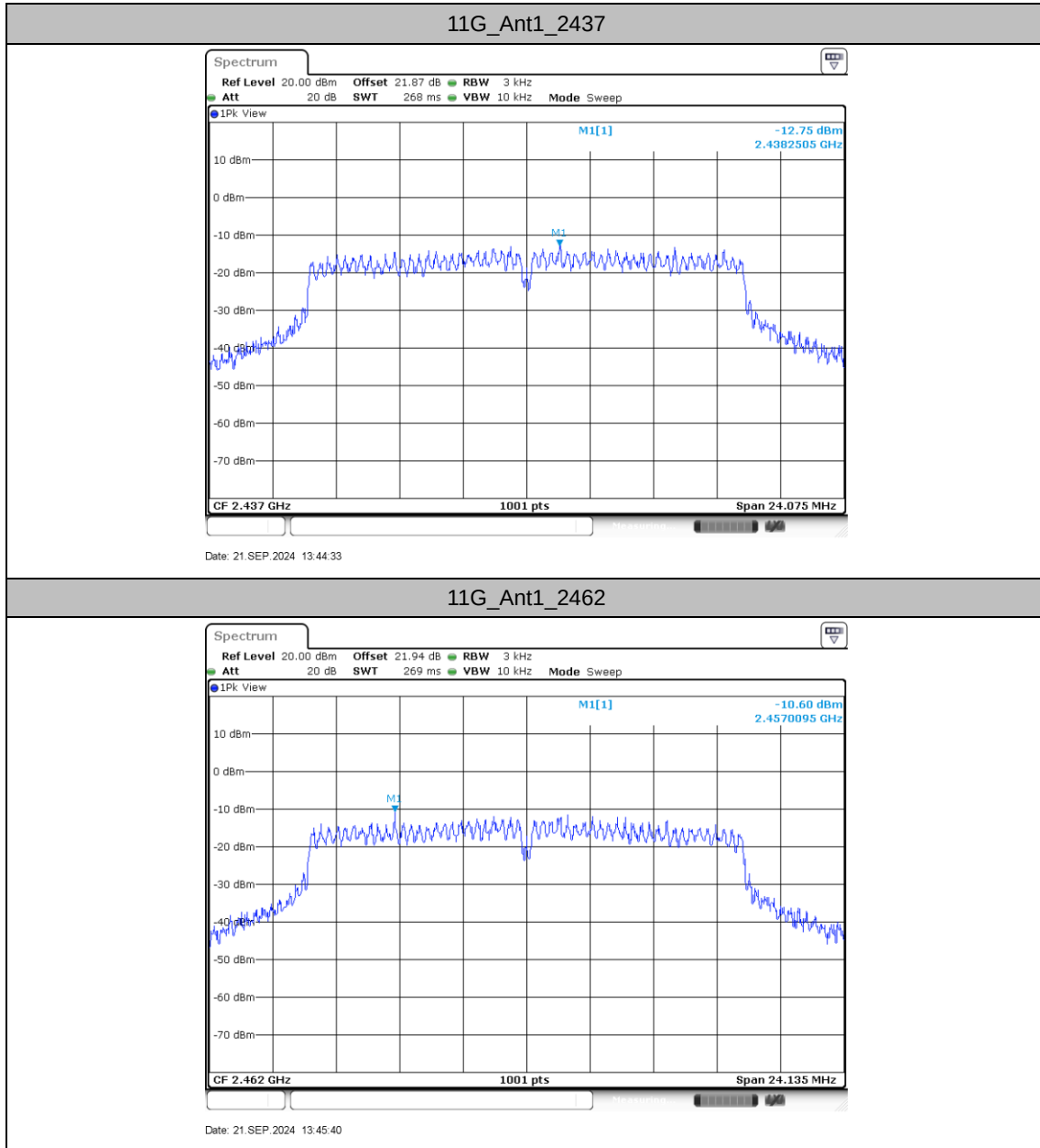
| TestMode  | Antenna | Freq(MHz) | Result<br>[dBm/3kHz] | Limit<br>[dBm/3kHz] | Verdict |
|-----------|---------|-----------|----------------------|---------------------|---------|
| 11B       | Ant1    | 2412      | -9.83                | ≤8.00               | PASS    |
|           |         | 2437      | -11.28               | ≤8.00               | PASS    |
|           |         | 2462      | -8.82                | ≤8.00               | PASS    |
| 11G       | Ant1    | 2412      | -10.98               | ≤8.00               | PASS    |
|           |         | 2437      | -12.75               | ≤8.00               | PASS    |
|           |         | 2462      | -10.6                | ≤8.00               | PASS    |
| 11N20SISO | Ant1    | 2412      | -12.68               | ≤8.00               | PASS    |
|           |         | 2437      | -12.68               | ≤8.00               | PASS    |
|           |         | 2462      | -10.68               | ≤8.00               | PASS    |
| 11N40SISO | Ant1    | 2422      | -16.39               | ≤8.00               | PASS    |
|           |         | 2437      | -15.08               | ≤8.00               | PASS    |
|           |         | 2452      | -14.71               | ≤8.00               | PASS    |

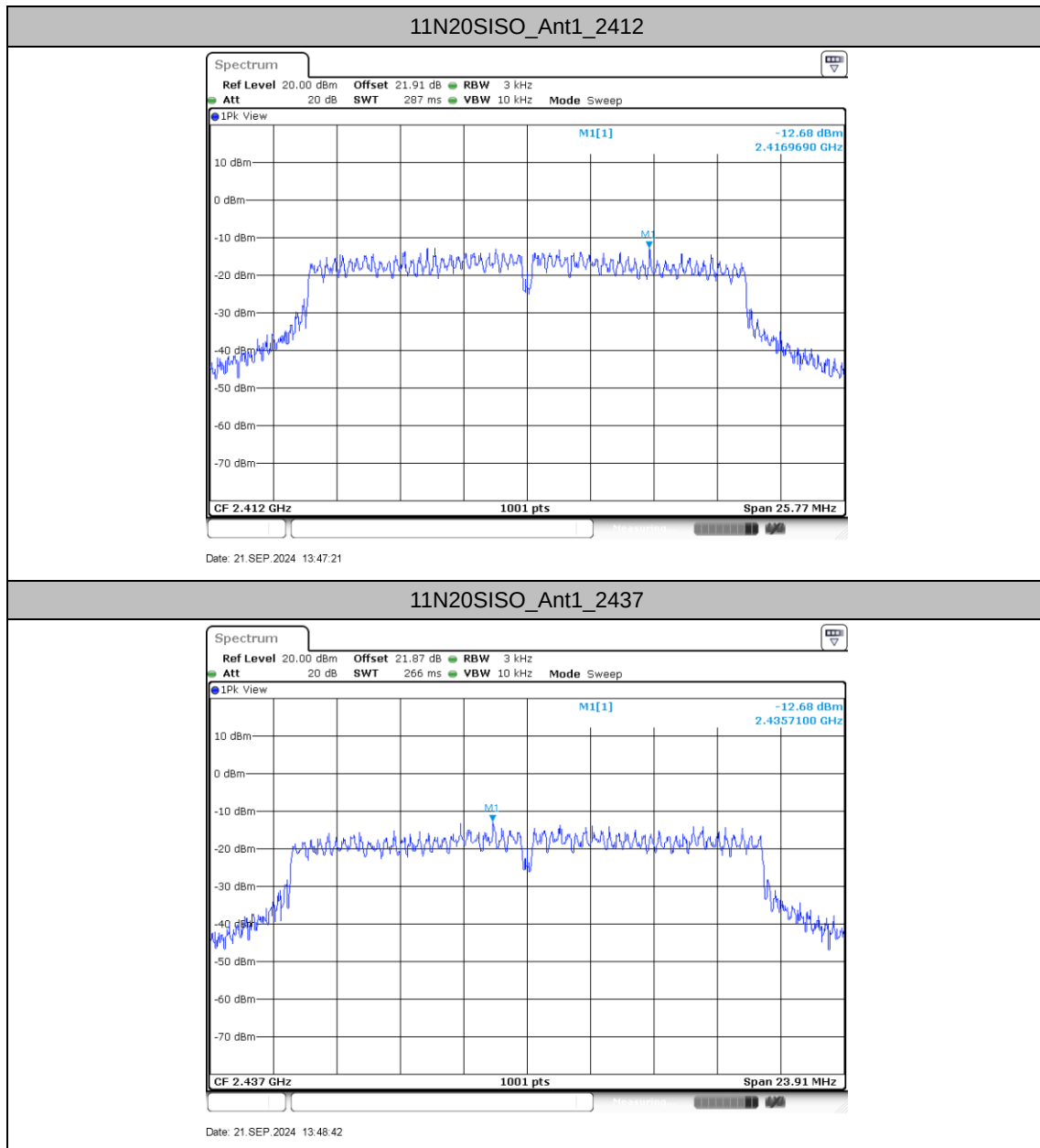


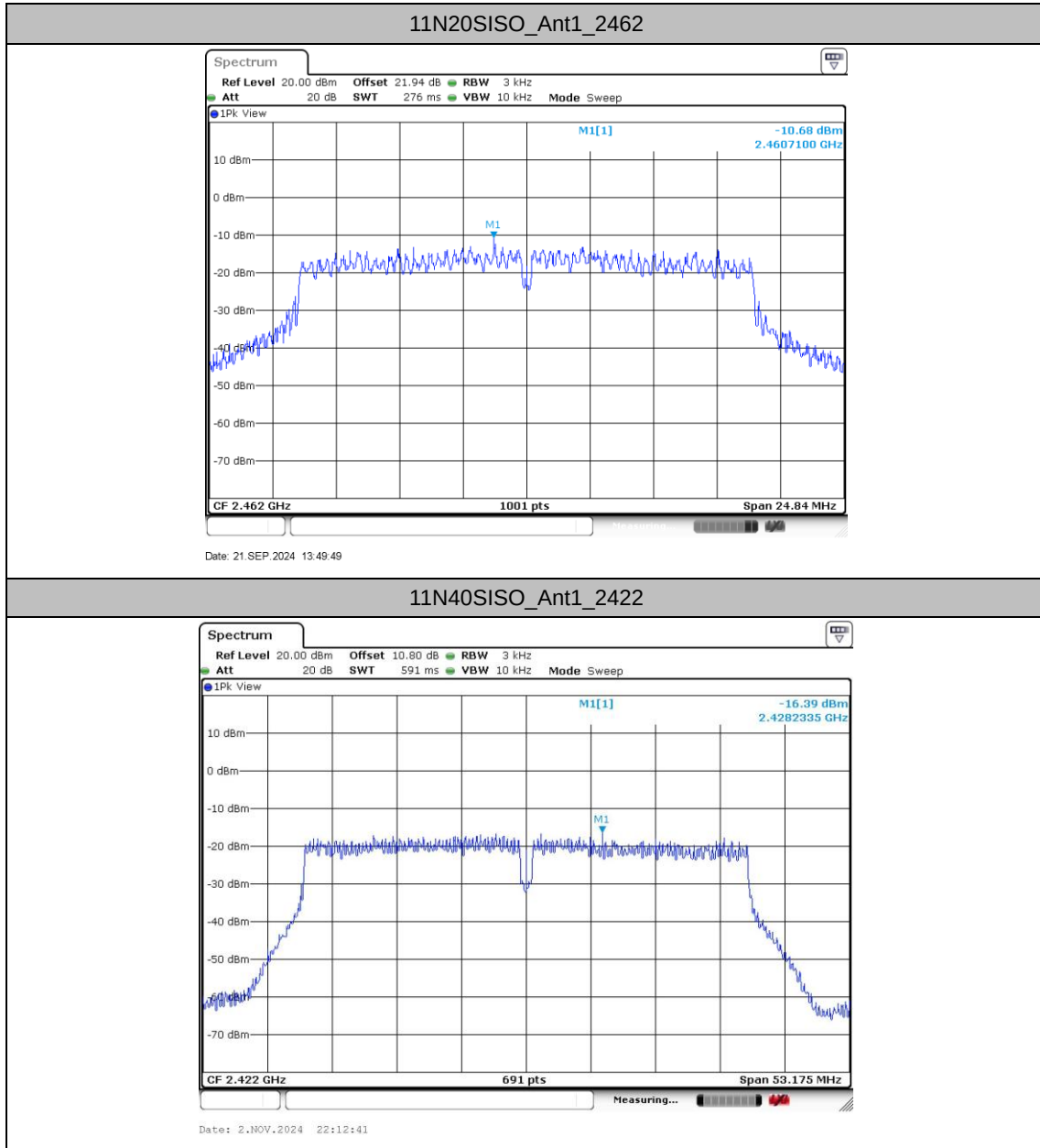
## Test Graphs

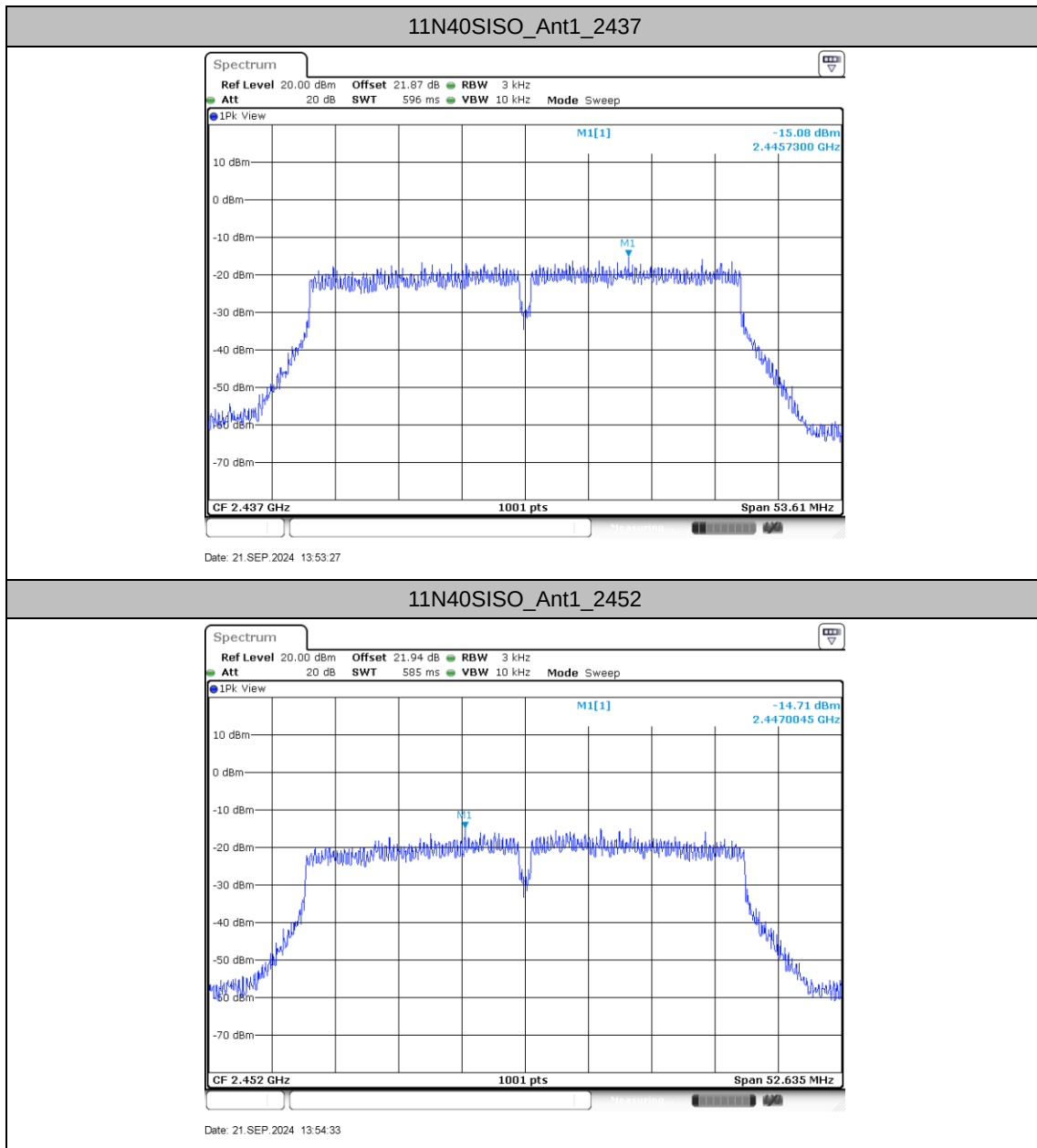














## Reference level measurement

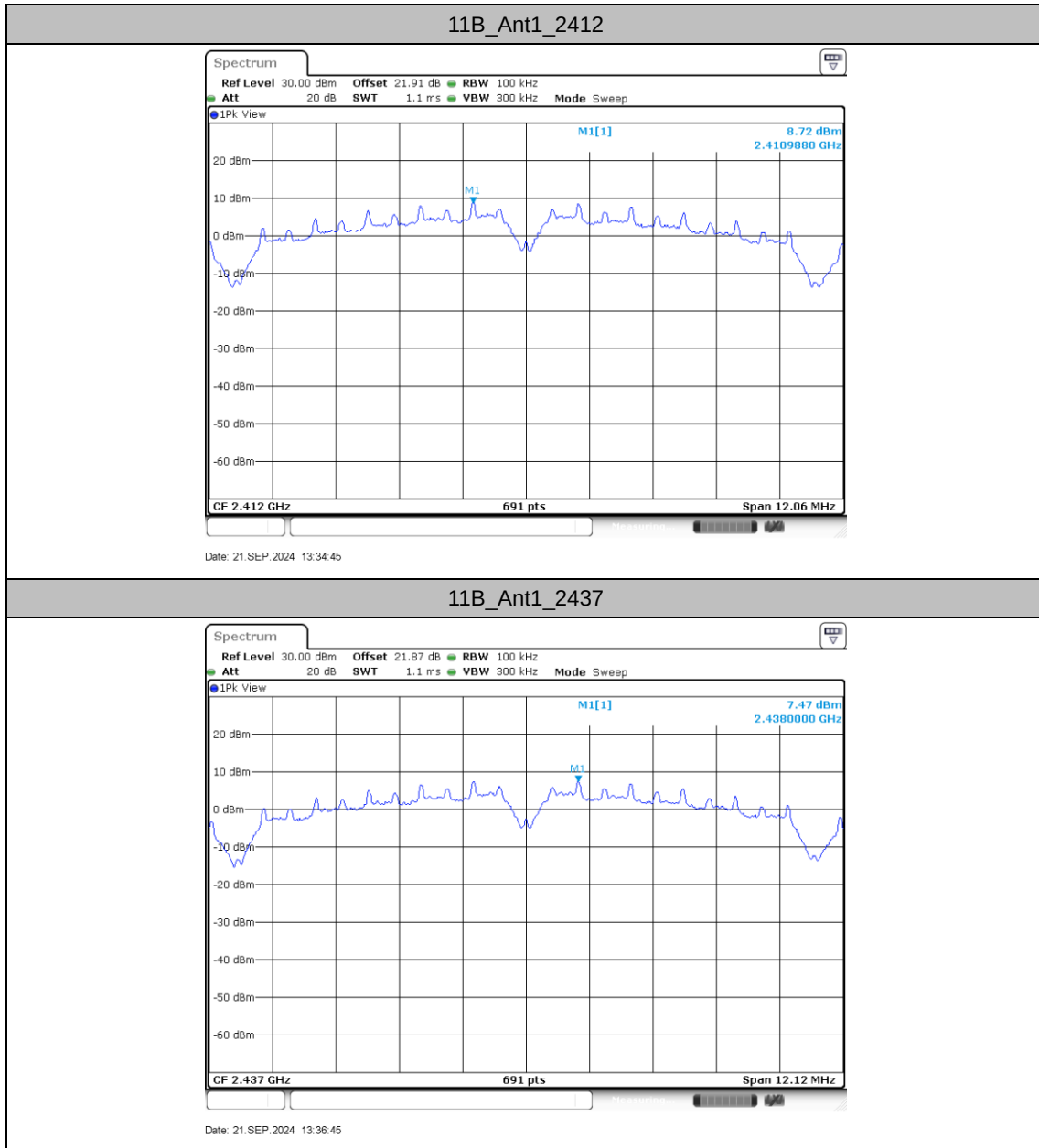
### Test Result

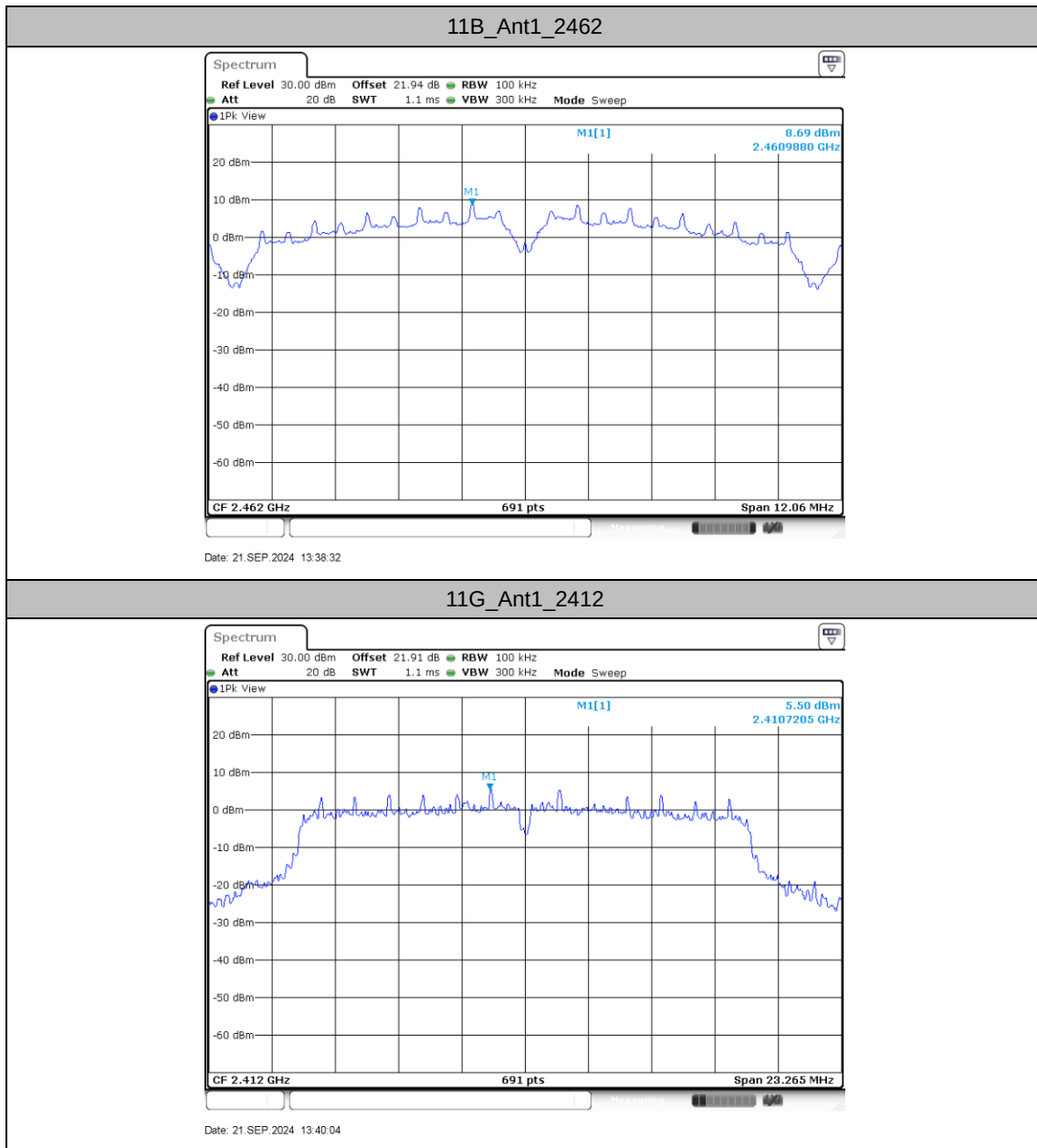
| TestMode  | Antenna | Freq(MHz) | Max.Point[MHz] | Result[dBm/100KHz] |
|-----------|---------|-----------|----------------|--------------------|
| 11B       | Ant1    | 2412      | 2410.99        | 8.72               |
|           |         | 2437      | 2438.00        | 7.47               |
|           |         | 2462      | 2460.99        | 8.69               |
| 11G       | Ant1    | 2412      | 2410.72        | 5.50               |
|           |         | 2437      | 2438.25        | 4.33               |
|           |         | 2462      | 2464.51        | 4.75               |
| 11N20SISO | Ant1    | 2412      | 2414.50        | 3.78               |
|           |         | 2437      | 2438.25        | 3.65               |
|           |         | 2462      | 2460.74        | 4.76               |
| 11N40SISO | Ant1    | 2422      | 2417.00        | 0.39               |
|           |         | 2437      | 2442.04        | 0.18               |
|           |         | 2452      | 2455.73        | 1.04               |

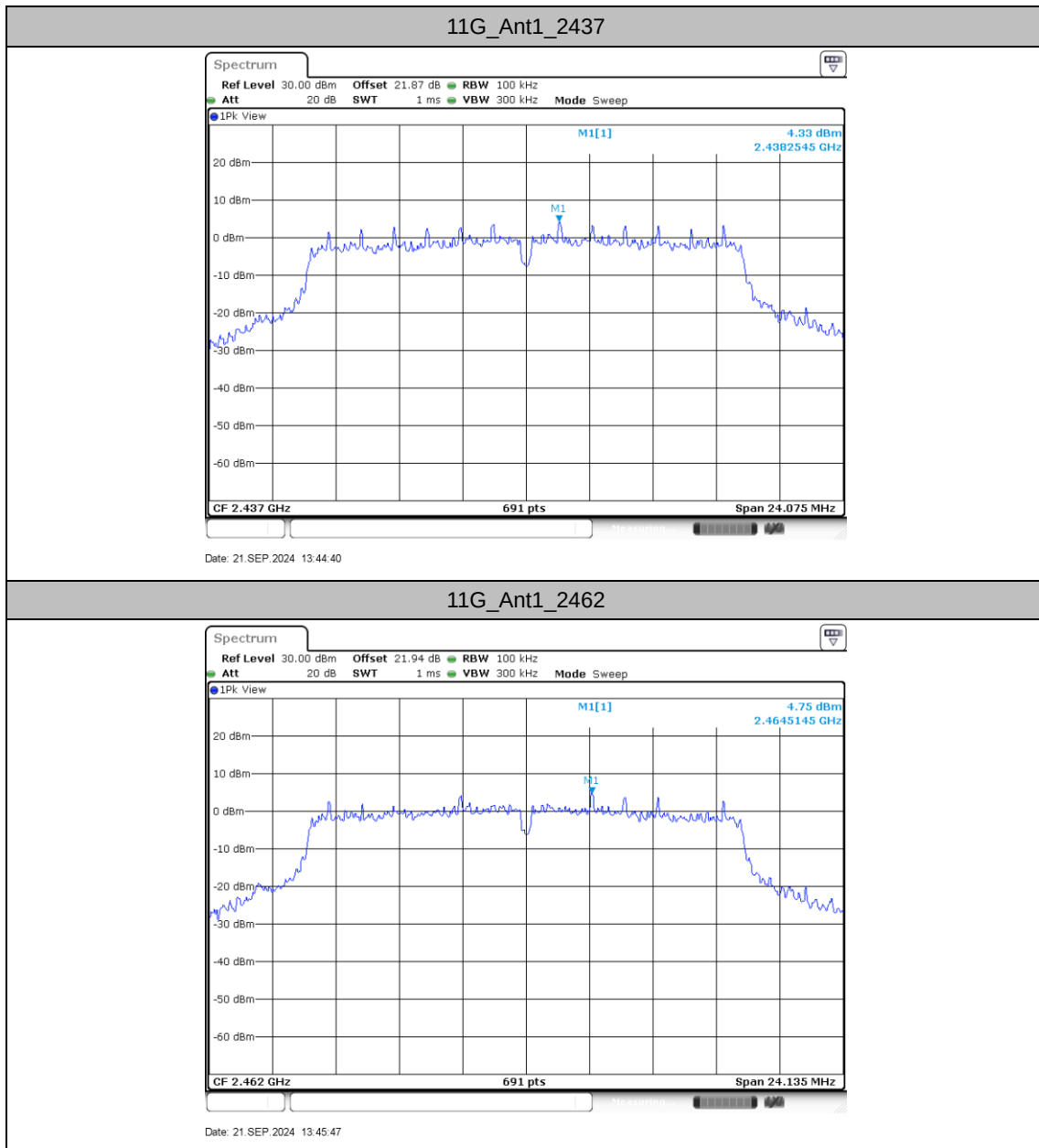


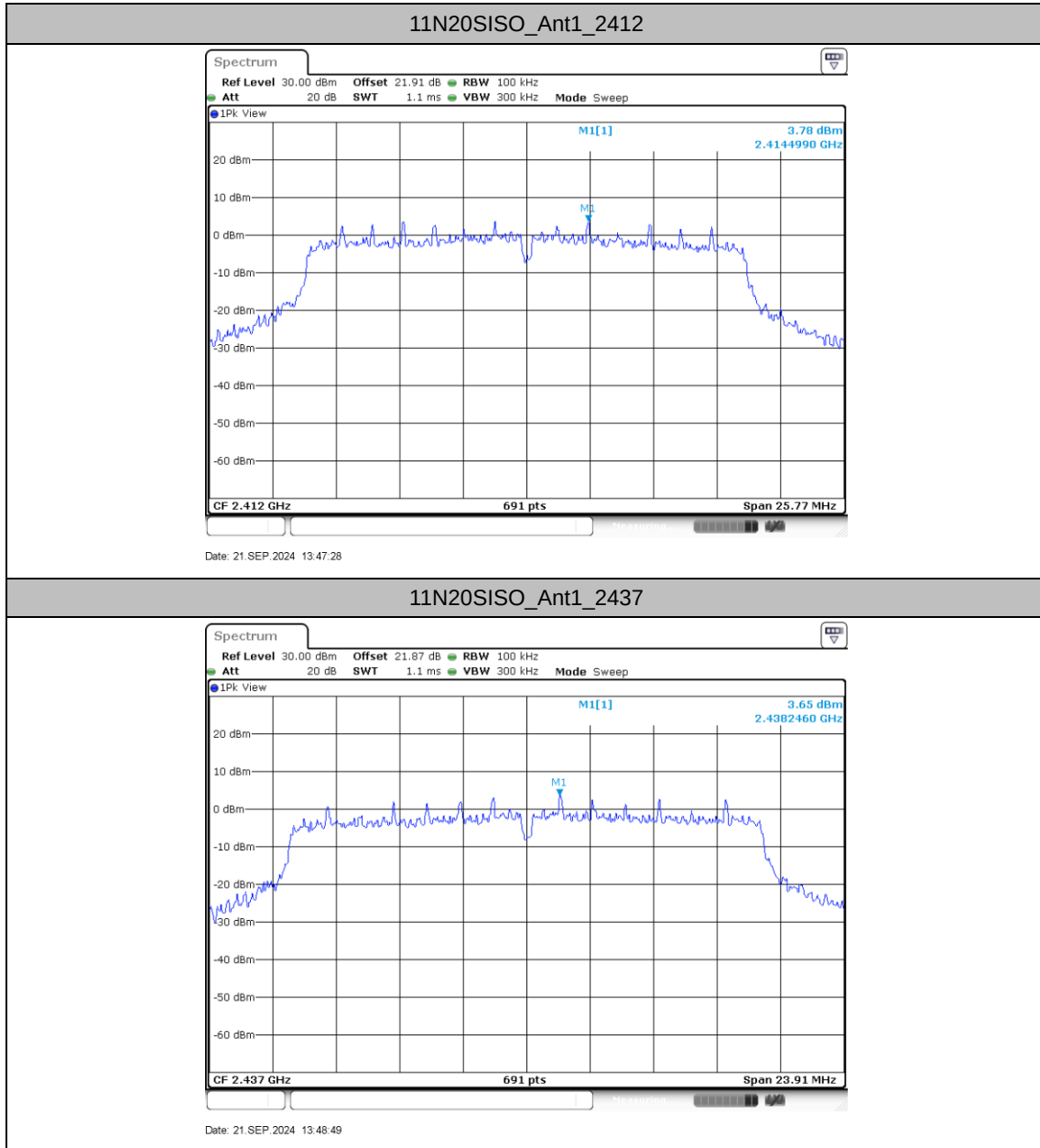


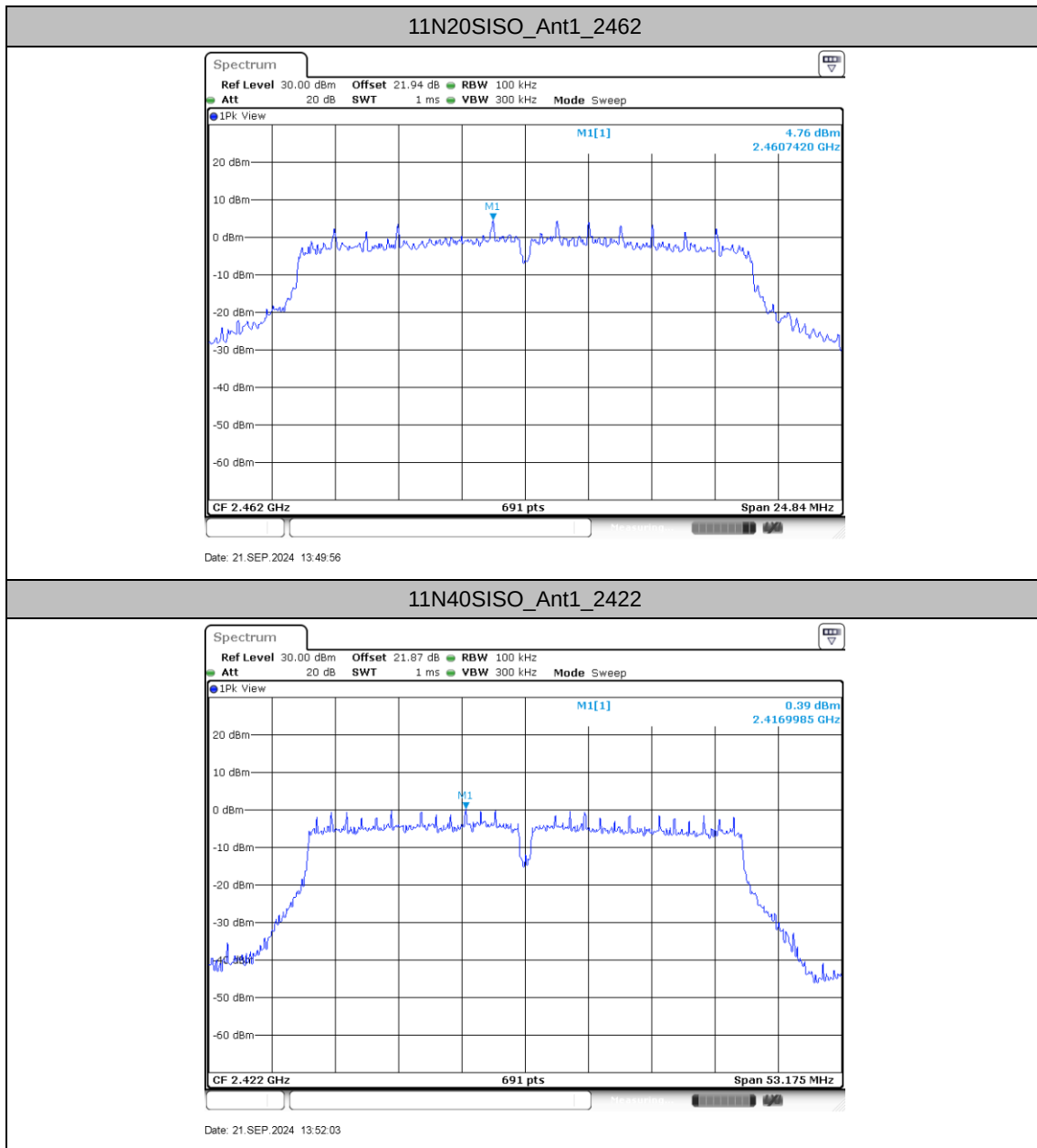
## Test Graphs

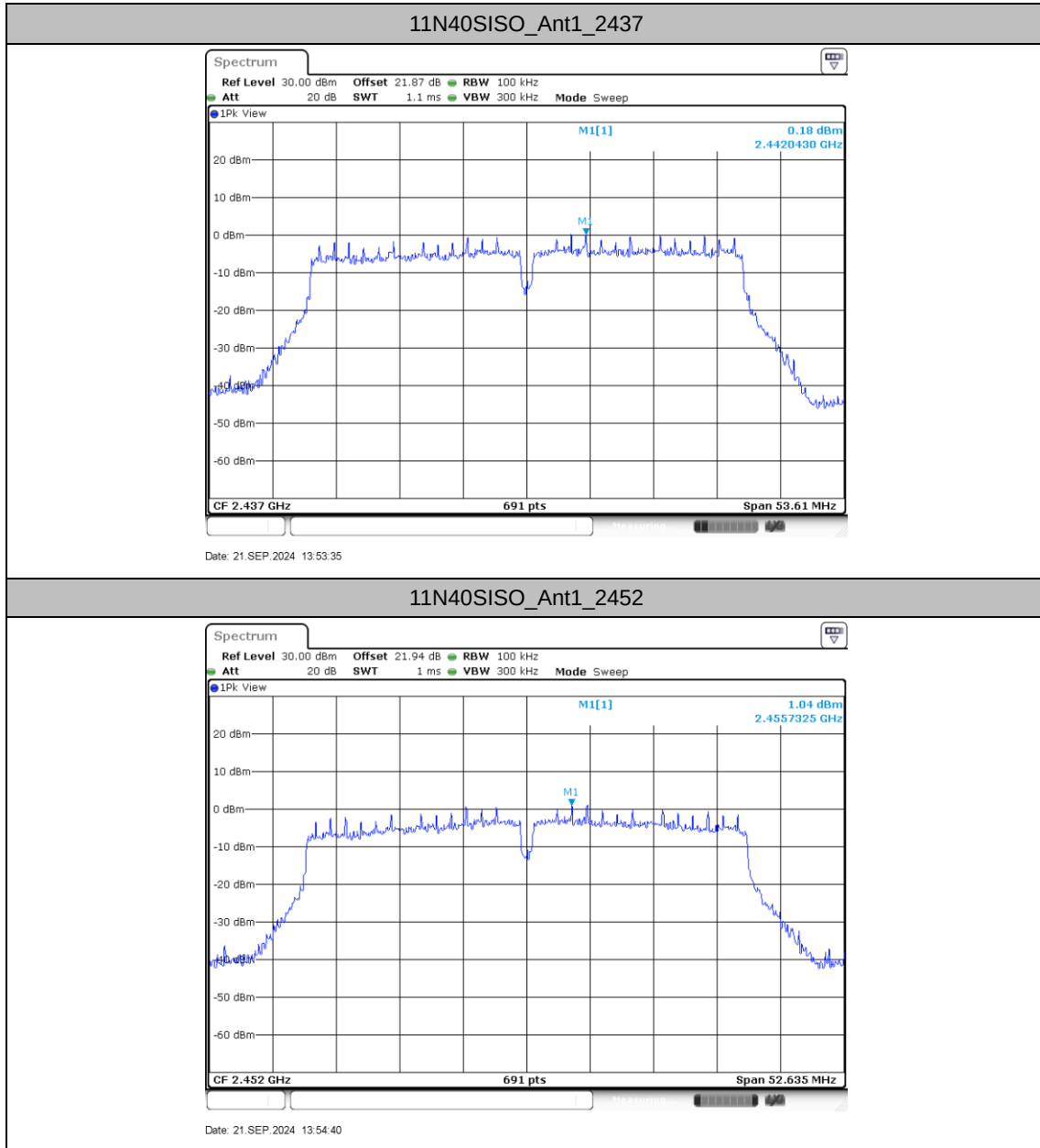














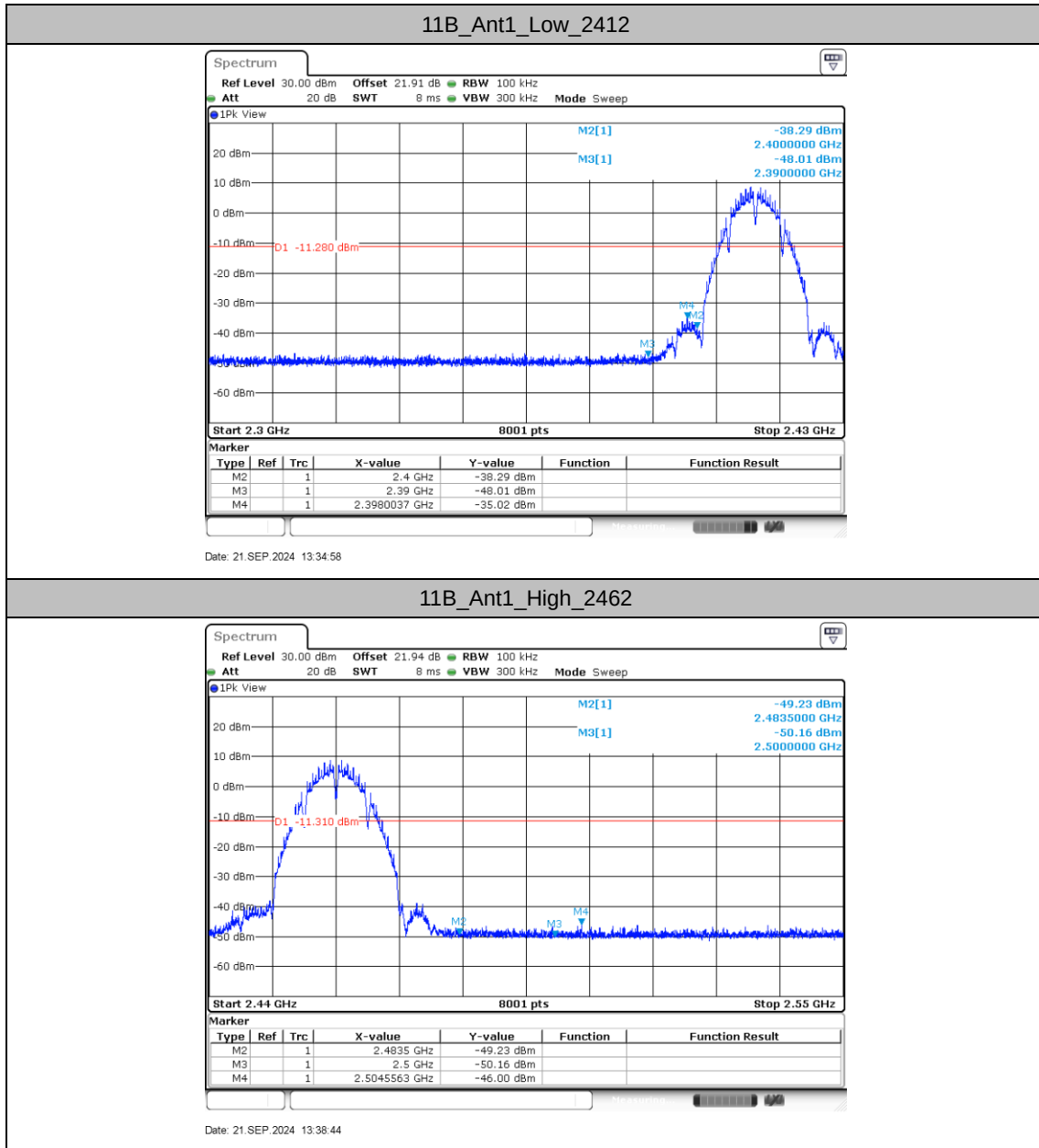
## Band edge measurements

### Test Result

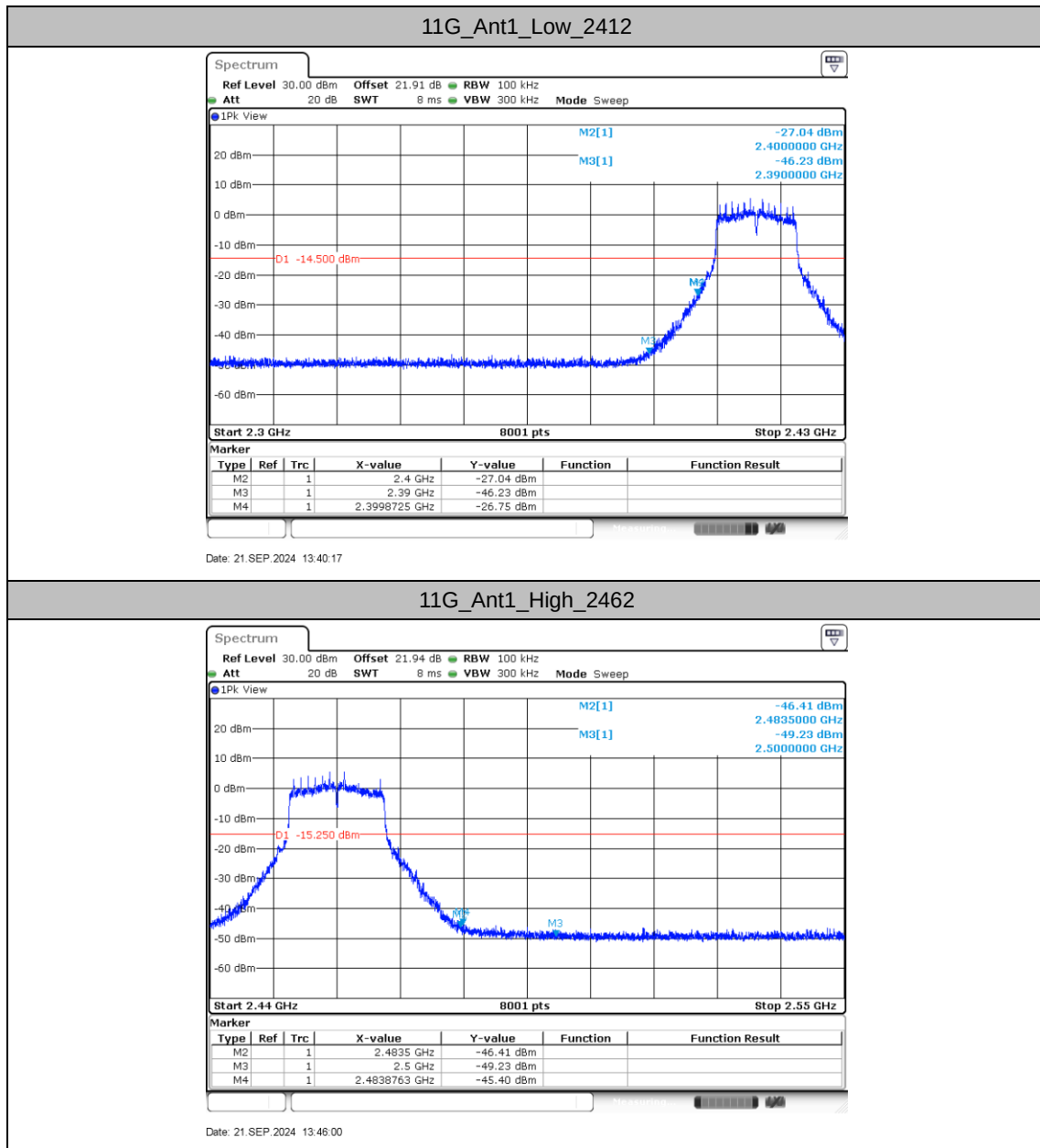
| TestMode  | Antenna | ChName | Freq(MHz) | RefLevel[dBm<br>/100KHz] | Result[dBm<br>/100KHz] | Limit[dBm<br>/100KHz] | Verdict |
|-----------|---------|--------|-----------|--------------------------|------------------------|-----------------------|---------|
| 11B       | Ant1    | Low    | 2412      | 8.72                     | -35.02                 | ≤-11.28               | PASS    |
|           |         | High   | 2462      | 8.69                     | -46                    | ≤-11.31               | PASS    |
| 11G       | Ant1    | Low    | 2412      | 5.50                     | -26.75                 | ≤-14.5                | PASS    |
|           |         | High   | 2462      | 4.75                     | -45.4                  | ≤-15.25               | PASS    |
| 11N20SISO | Ant1    | Low    | 2412      | 3.78                     | -25.15                 | ≤-16.22               | PASS    |
|           |         | High   | 2462      | 4.76                     | -44.41                 | ≤-15.24               | PASS    |
| 11N40SISO | Ant1    | Low    | 2422      | 0.39                     | -35.05                 | ≤-19.61               | PASS    |
|           |         | High   | 2452      | 1.04                     | -40.09                 | ≤-18.96               | PASS    |

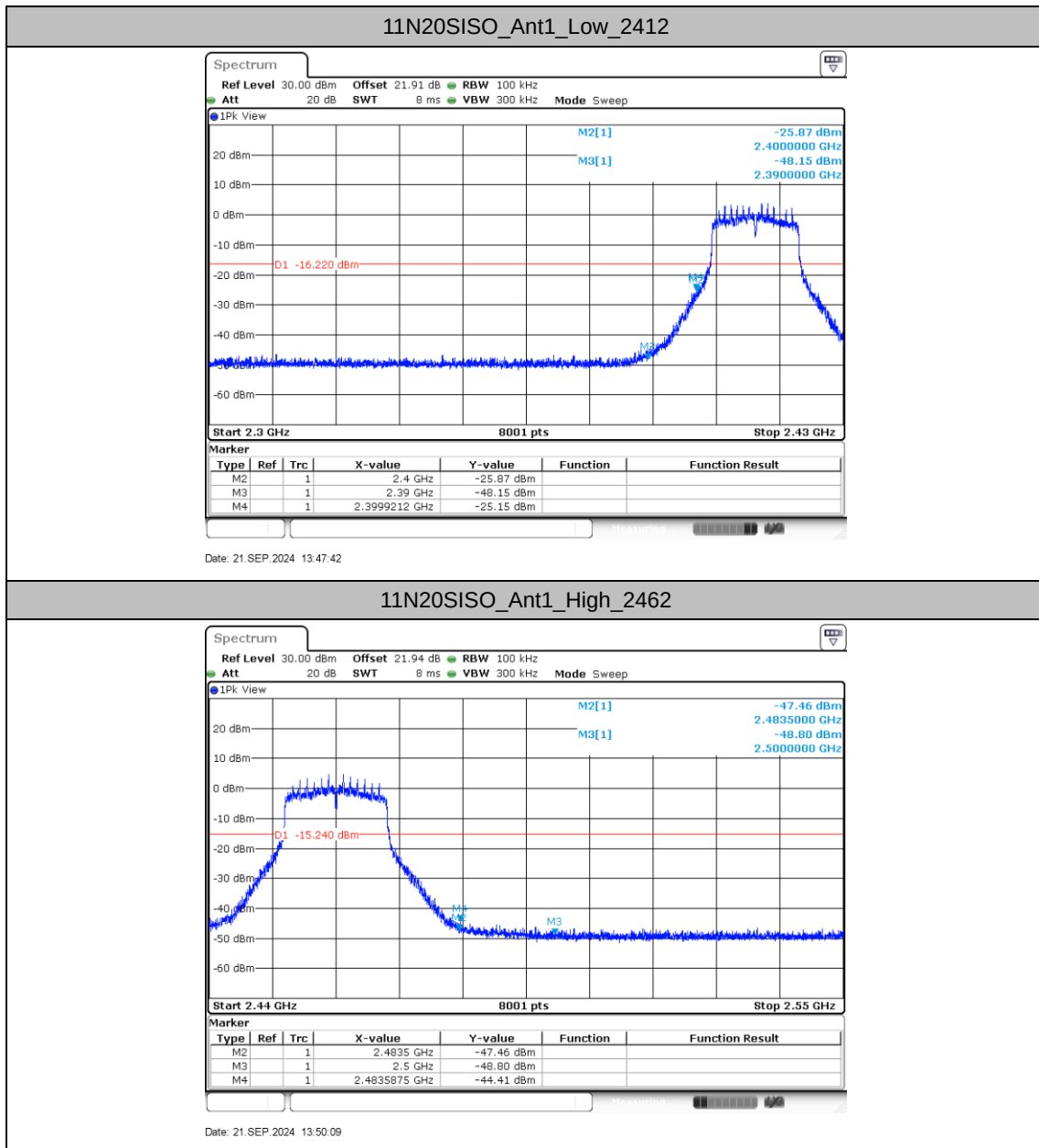


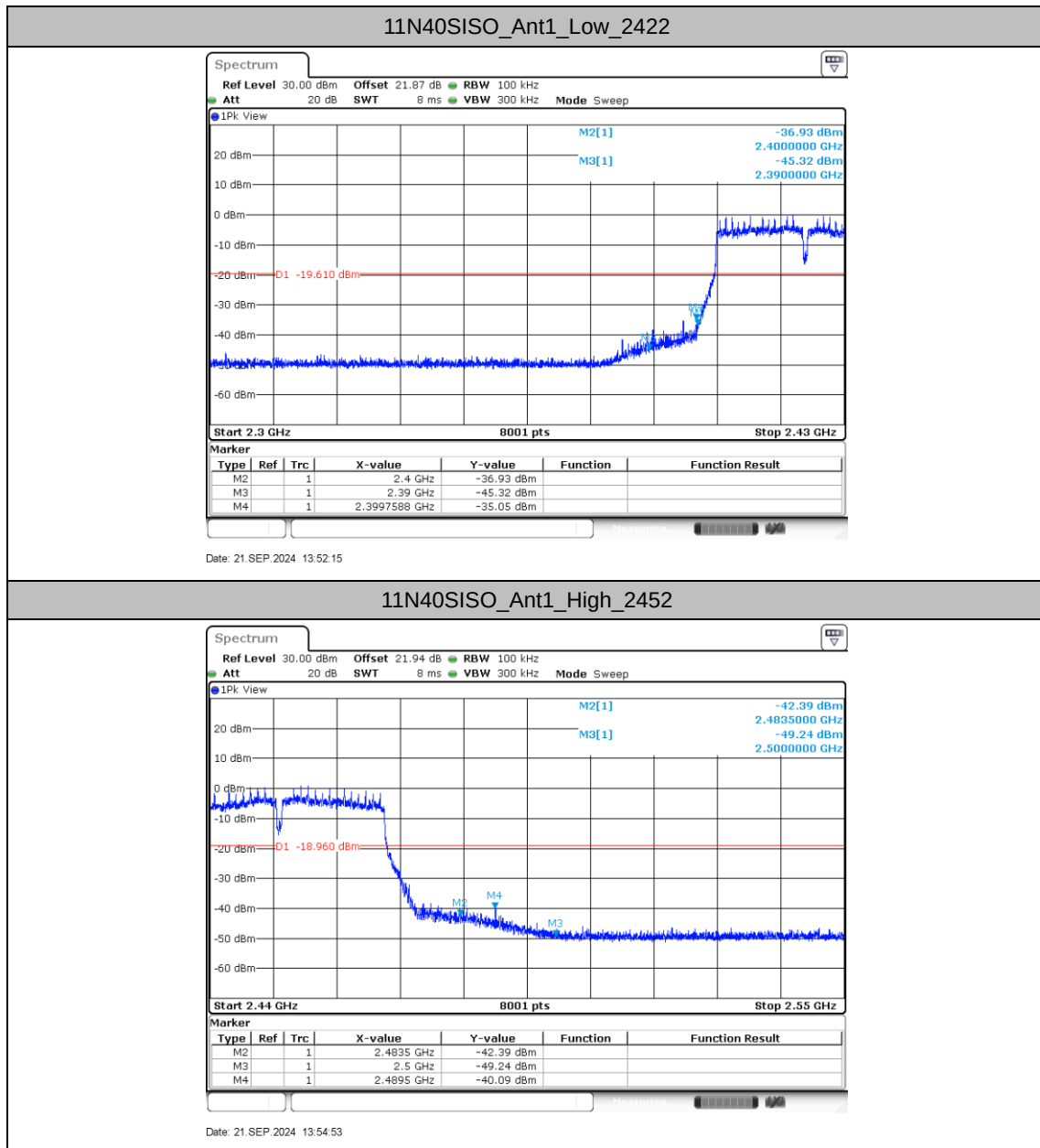
## Test Graphs













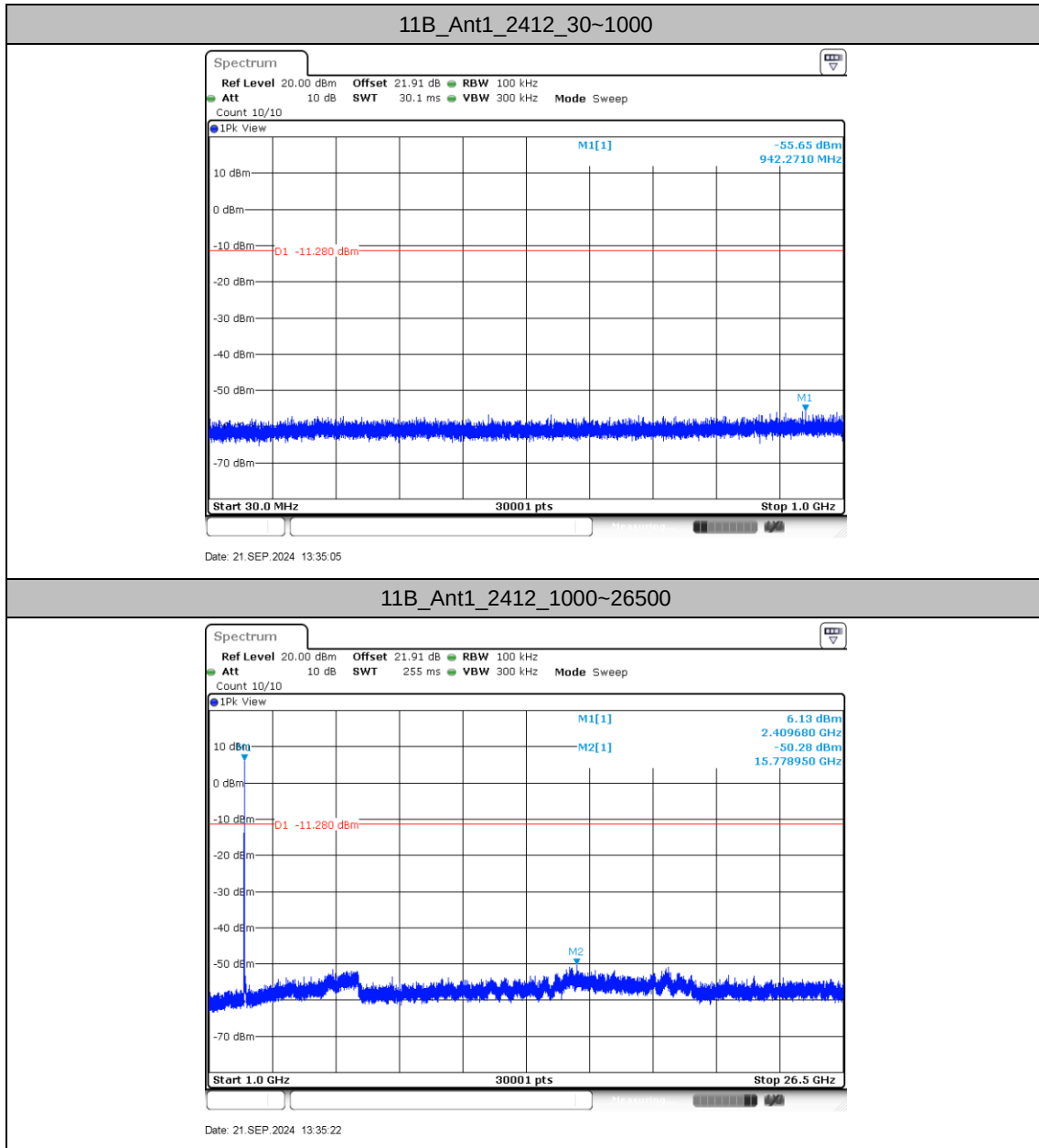
## Conducted Spurious Emission

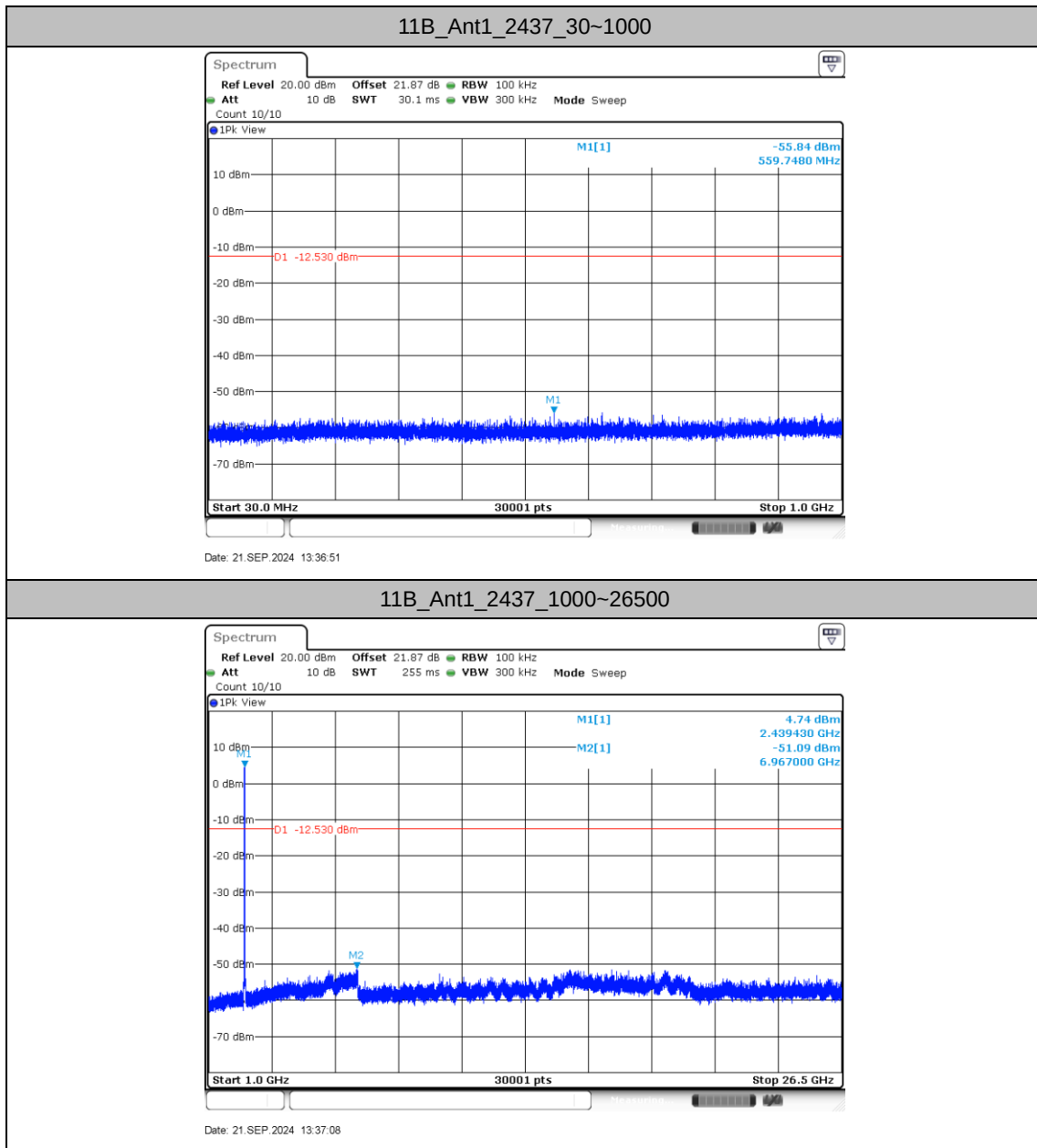
### Test Result

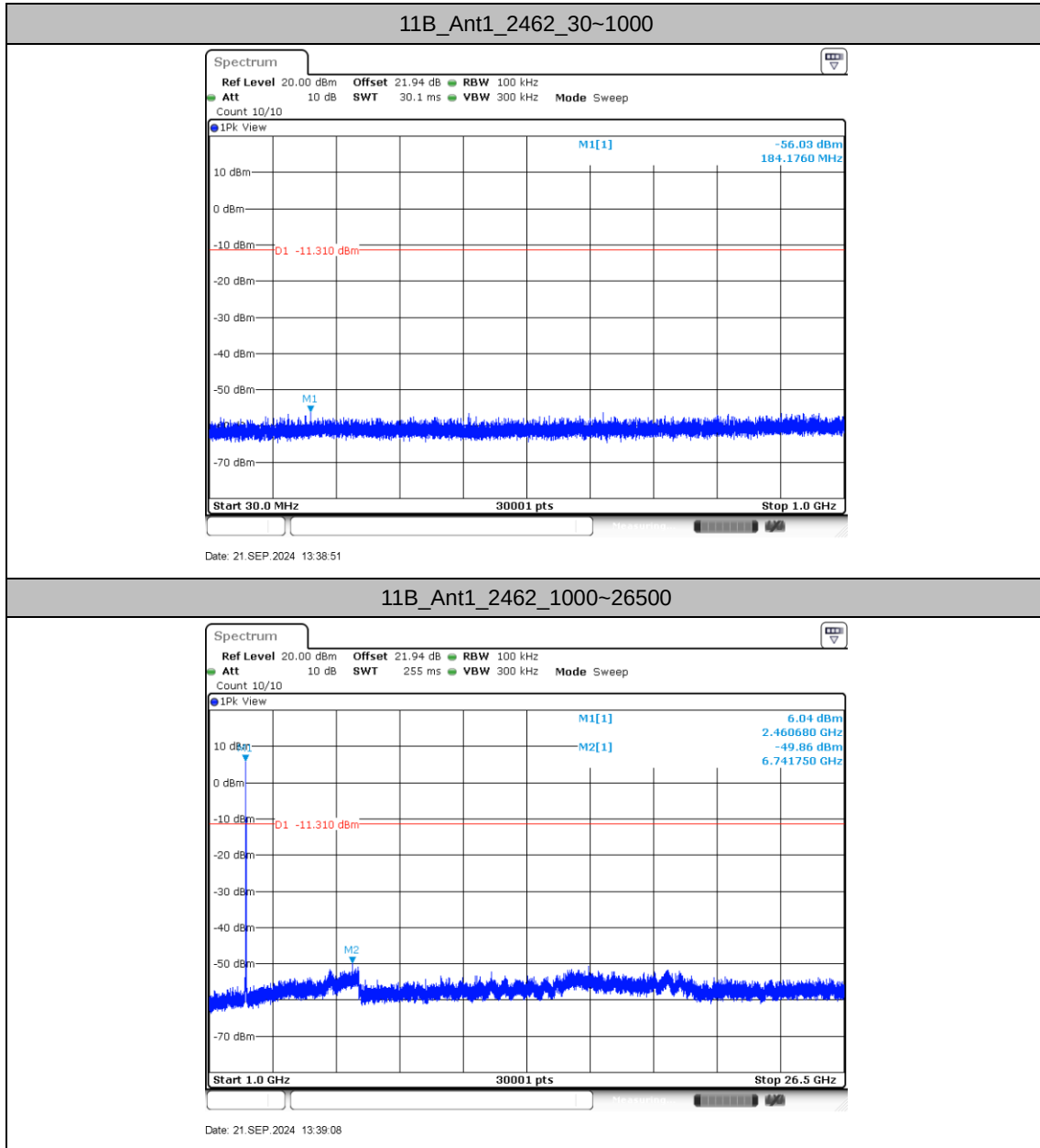
| TestMode  | Antenna | Freq(MHz) | FreqRange [Mhz] | RefLevel [dBm/100KHz] | Result [dBm/100KHz] | Limit [dBm/100KHz] | Verdict |
|-----------|---------|-----------|-----------------|-----------------------|---------------------|--------------------|---------|
| 11B       | Ant1    | 2412      | 30~1000         | 8.72                  | -55.65              | ≤-11.28            | PASS    |
|           |         |           | 1000~26500      | 8.72                  | -50.28              | ≤-11.28            | PASS    |
|           |         | 2437      | 30~1000         | 7.47                  | -55.84              | ≤-12.53            | PASS    |
|           |         |           | 1000~26500      | 7.47                  | -51.09              | ≤-12.53            | PASS    |
|           |         | 2462      | 30~1000         | 8.69                  | -56.03              | ≤-11.31            | PASS    |
|           |         |           | 1000~26500      | 8.69                  | -49.86              | ≤-11.31            | PASS    |
| 11G       | Ant1    | 2412      | 30~1000         | 5.50                  | -56.24              | ≤-14.5             | PASS    |
|           |         |           | 1000~26500      | 5.50                  | -50.55              | ≤-14.5             | PASS    |
|           |         | 2437      | 30~1000         | 4.33                  | -55.85              | ≤-15.67            | PASS    |
|           |         |           | 1000~26500      | 4.33                  | -51.03              | ≤-15.67            | PASS    |
|           |         | 2462      | 30~1000         | 4.75                  | -56.04              | ≤-15.25            | PASS    |
|           |         |           | 1000~26500      | 4.75                  | -49.44              | ≤-15.25            | PASS    |
| 11N20SISO | Ant1    | 2412      | 30~1000         | 3.78                  | -56.3               | ≤-16.22            | PASS    |
|           |         |           | 1000~26500      | 3.78                  | -50.82              | ≤-16.22            | PASS    |
|           |         | 2437      | 30~1000         | 3.65                  | -55.39              | ≤-16.35            | PASS    |
|           |         |           | 1000~26500      | 3.65                  | -50.99              | ≤-16.35            | PASS    |
|           |         | 2462      | 30~1000         | 4.76                  | -55.73              | ≤-15.24            | PASS    |
|           |         |           | 1000~26500      | 4.76                  | -50.86              | ≤-15.24            | PASS    |
| 11N40SISO | Ant1    | 2422      | 30~1000         | 0.39                  | -55.51              | ≤-19.61            | PASS    |
|           |         |           | 1000~26500      | 0.39                  | -50.05              | ≤-19.61            | PASS    |
|           |         | 2437      | 30~1000         | 0.18                  | -55.98              | ≤-19.82            | PASS    |
|           |         |           | 1000~26500      | 0.18                  | -50.8               | ≤-19.82            | PASS    |
|           |         | 2452      | 30~1000         | 1.04                  | -55.9               | ≤-18.96            | PASS    |
|           |         |           | 1000~26500      | 1.04                  | -51.09              | ≤-18.96            | PASS    |

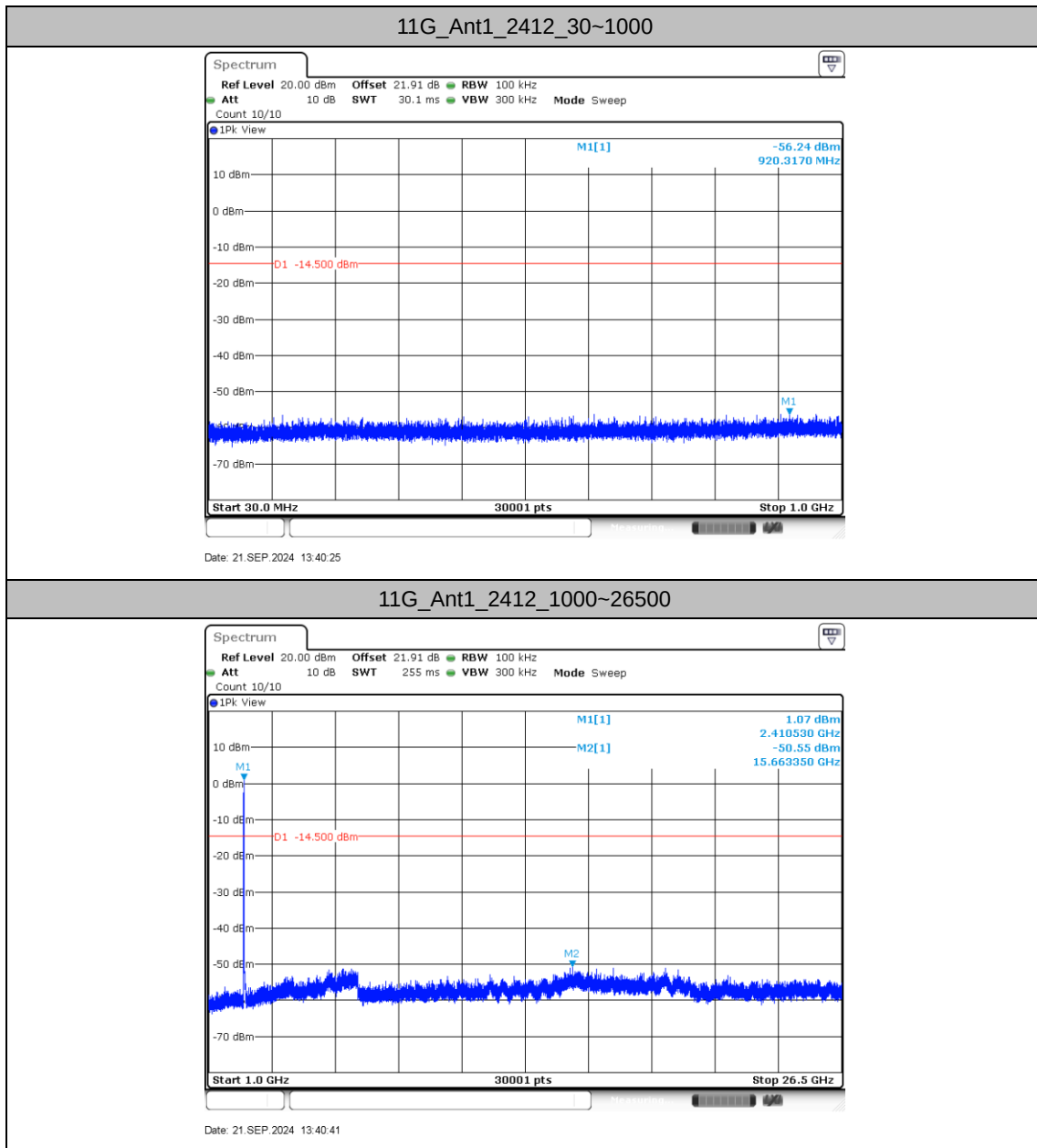


## Test Graphs

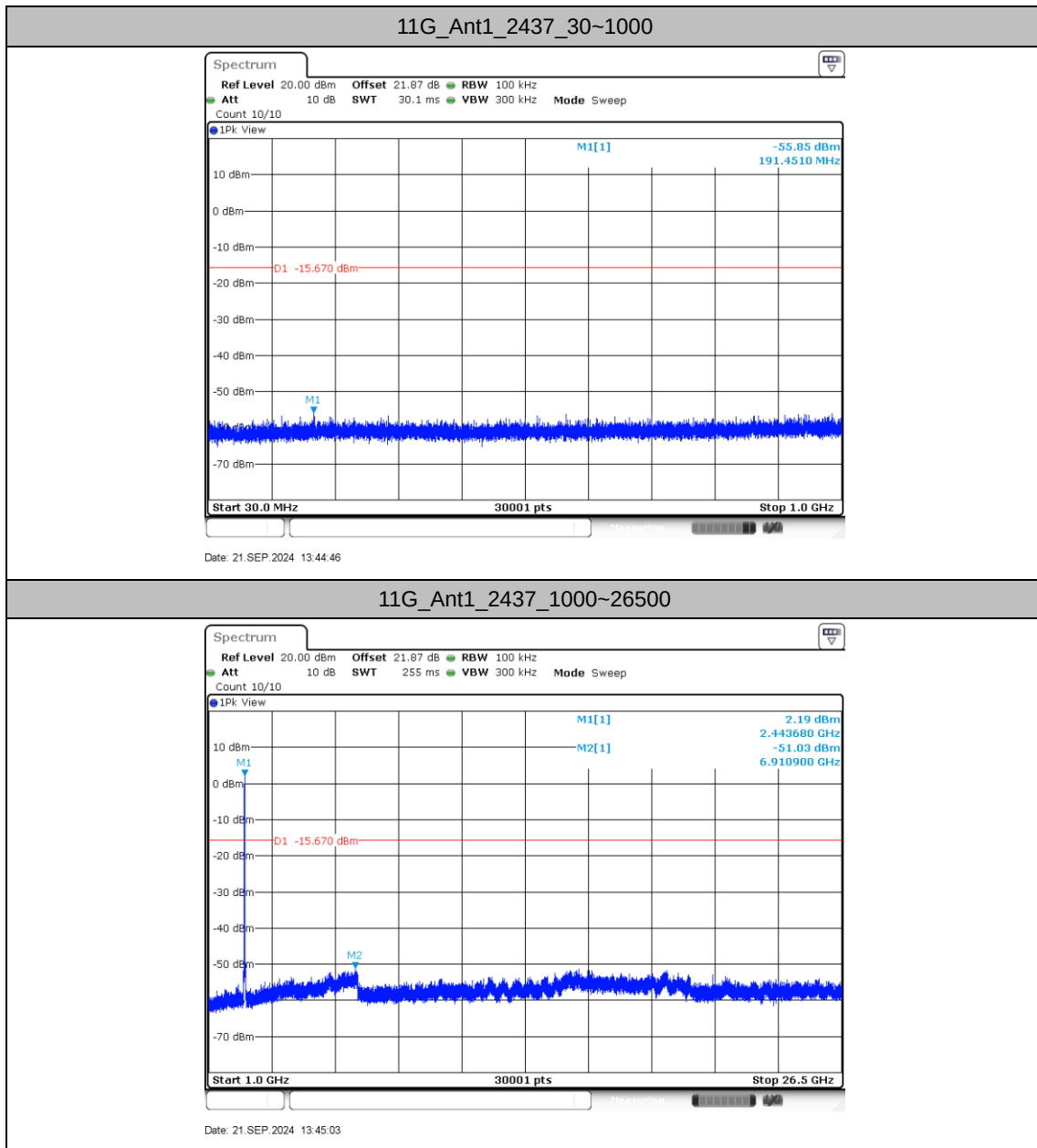


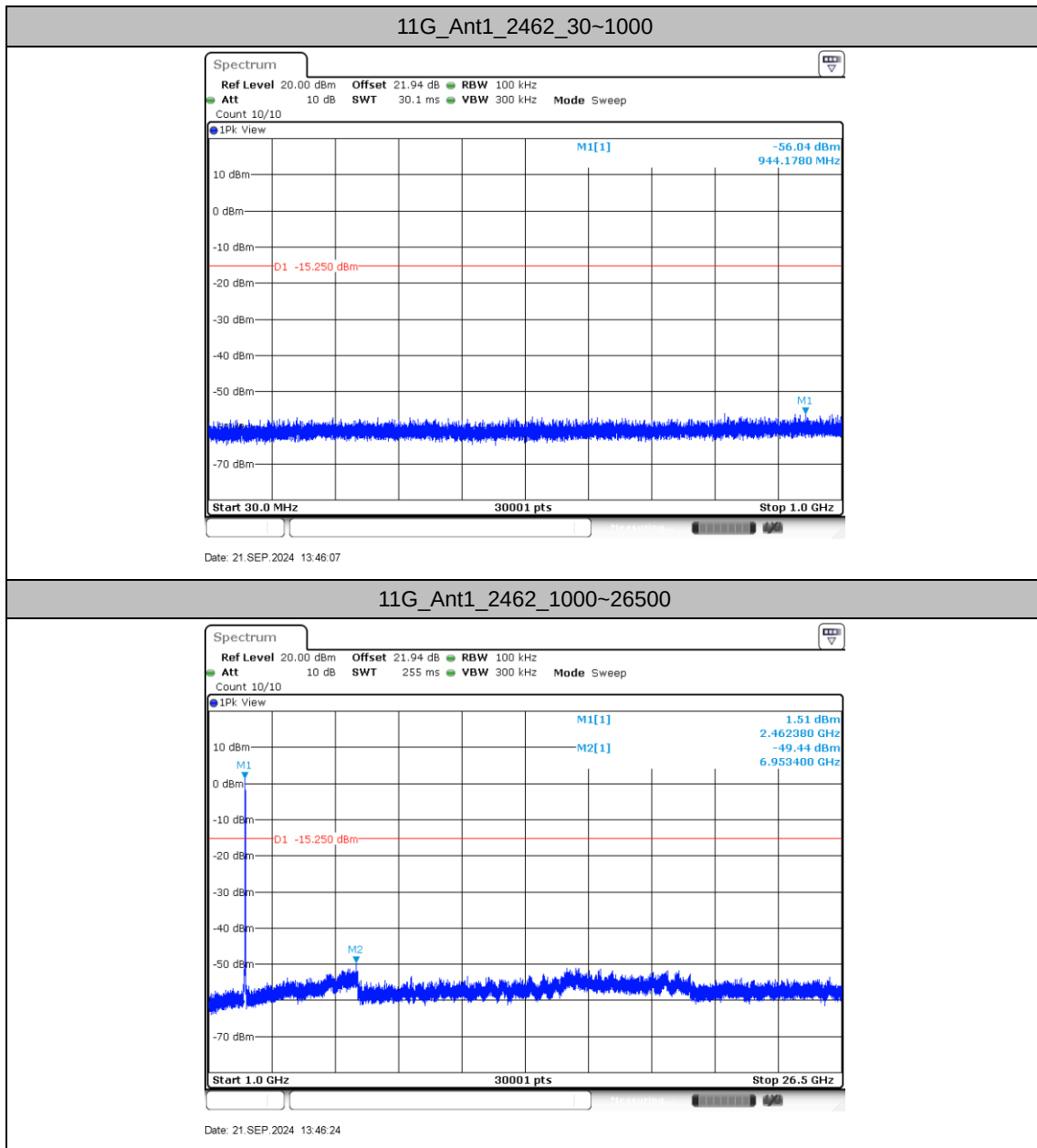


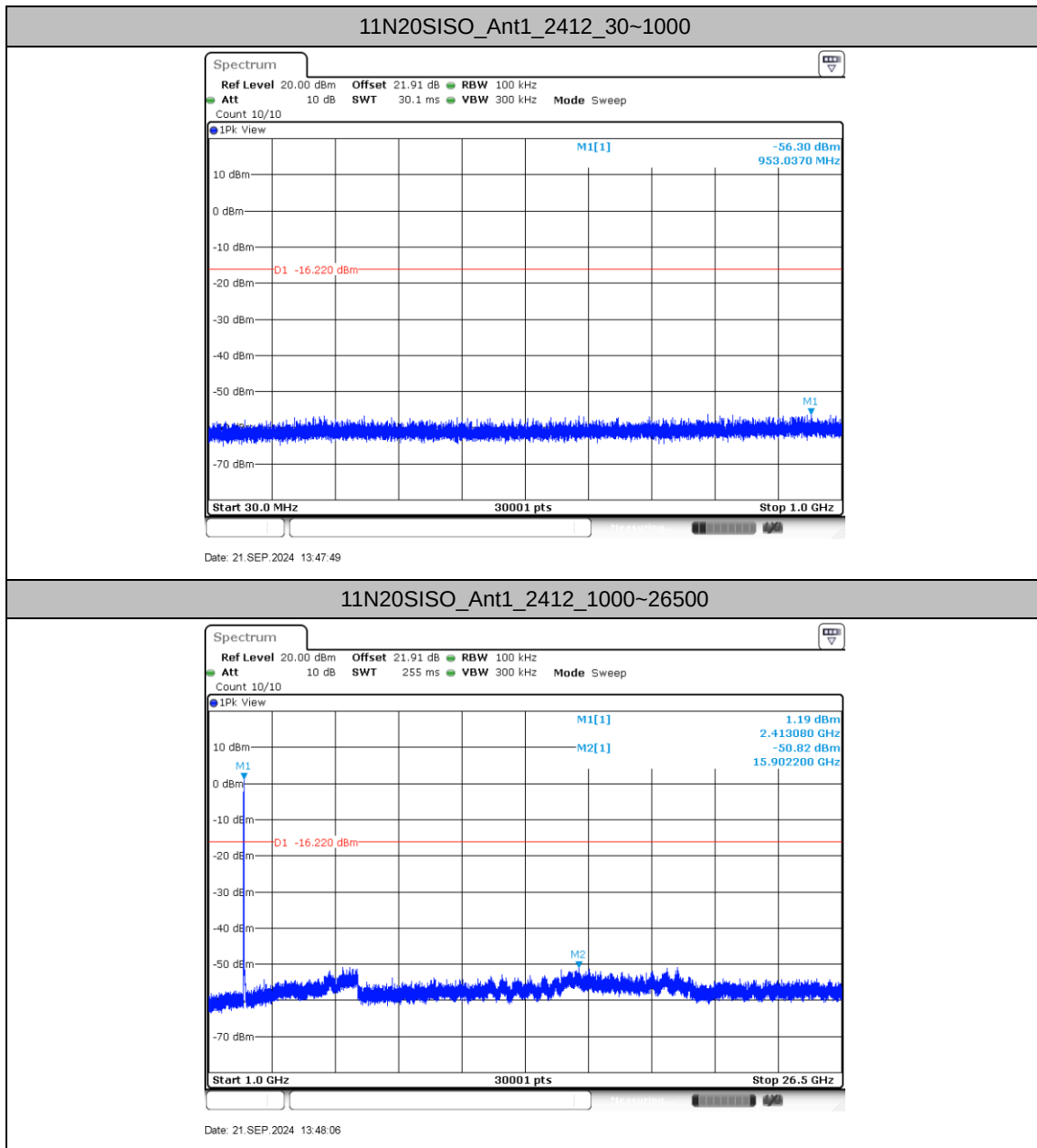


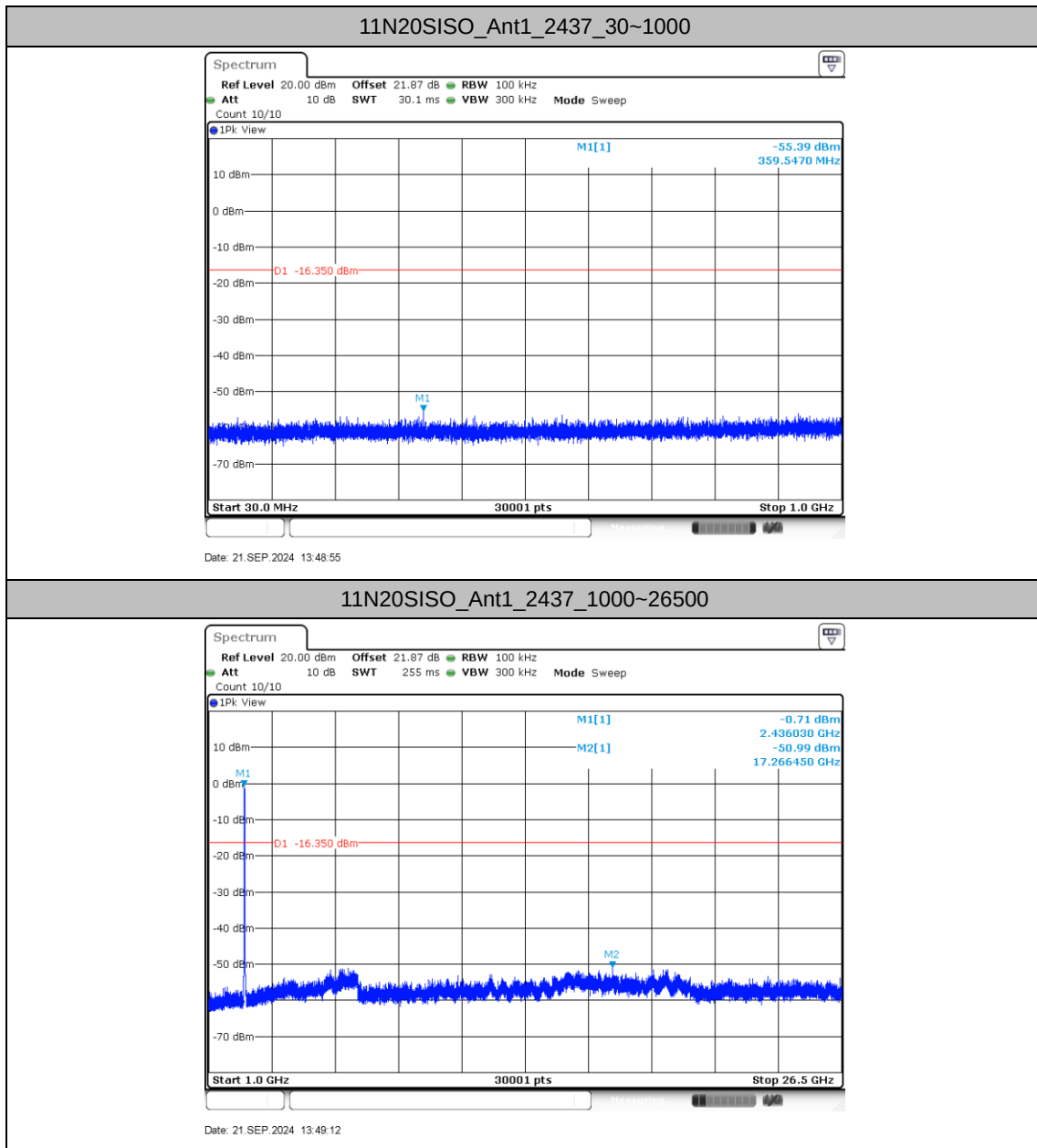


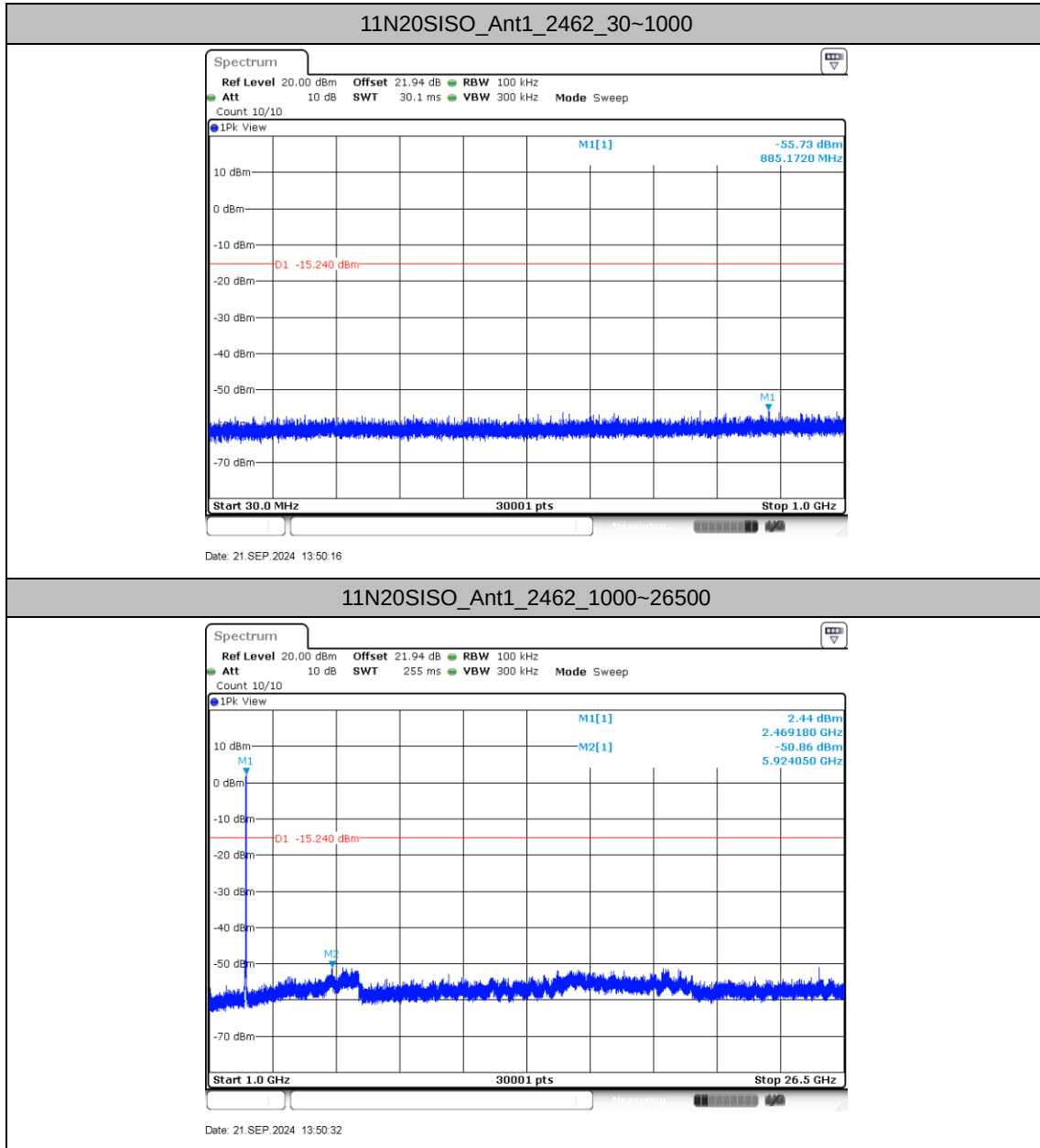


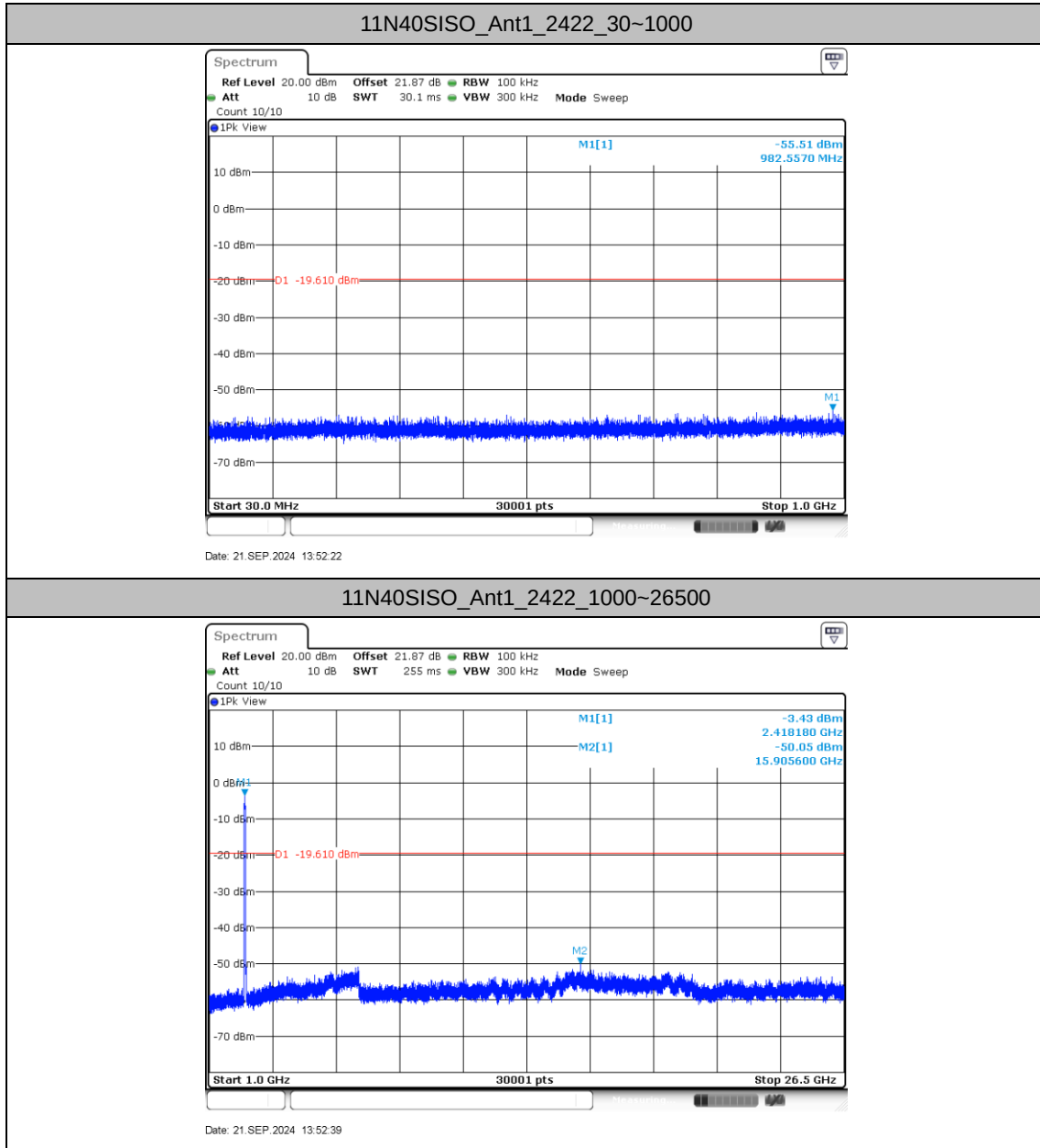


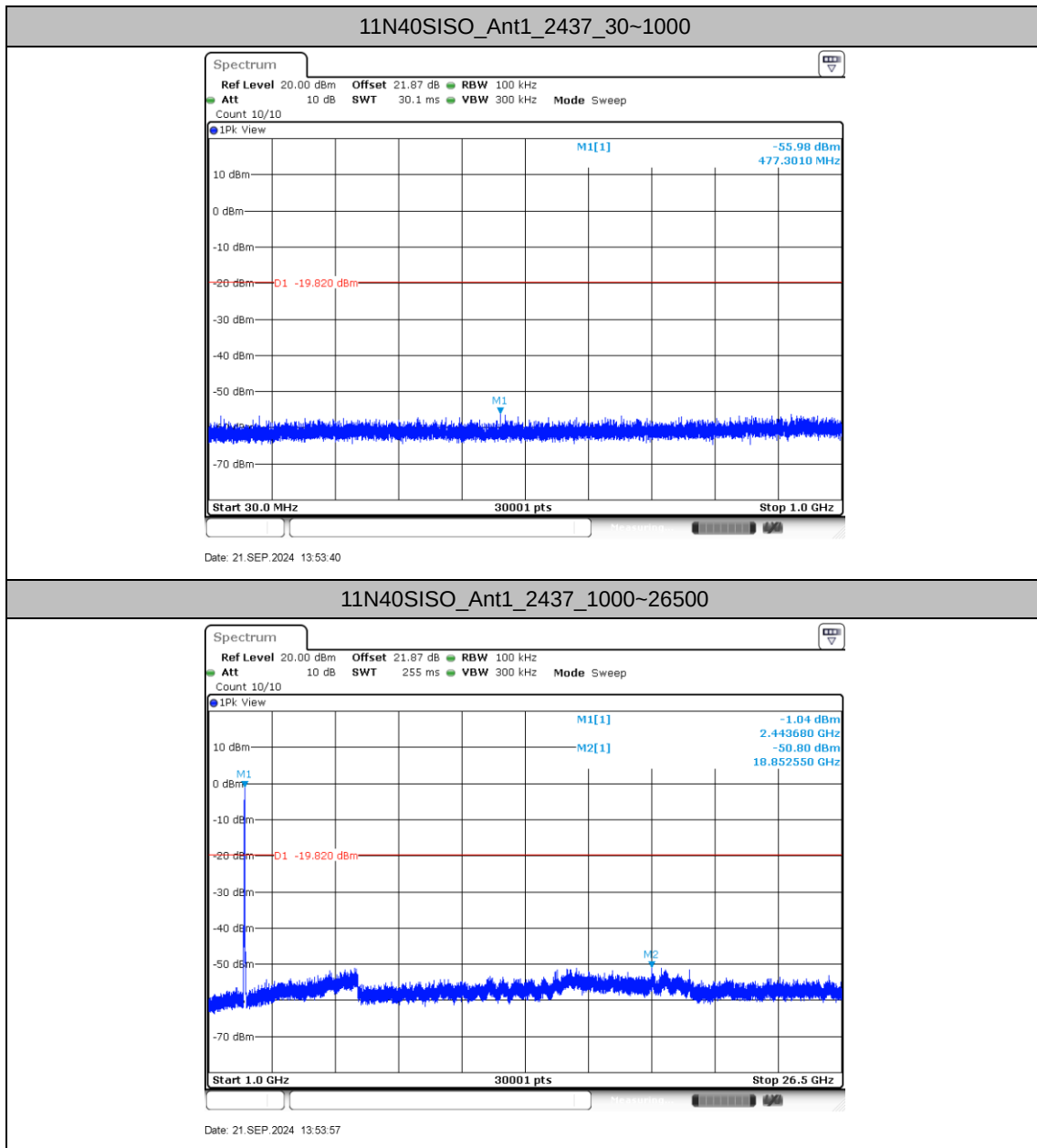


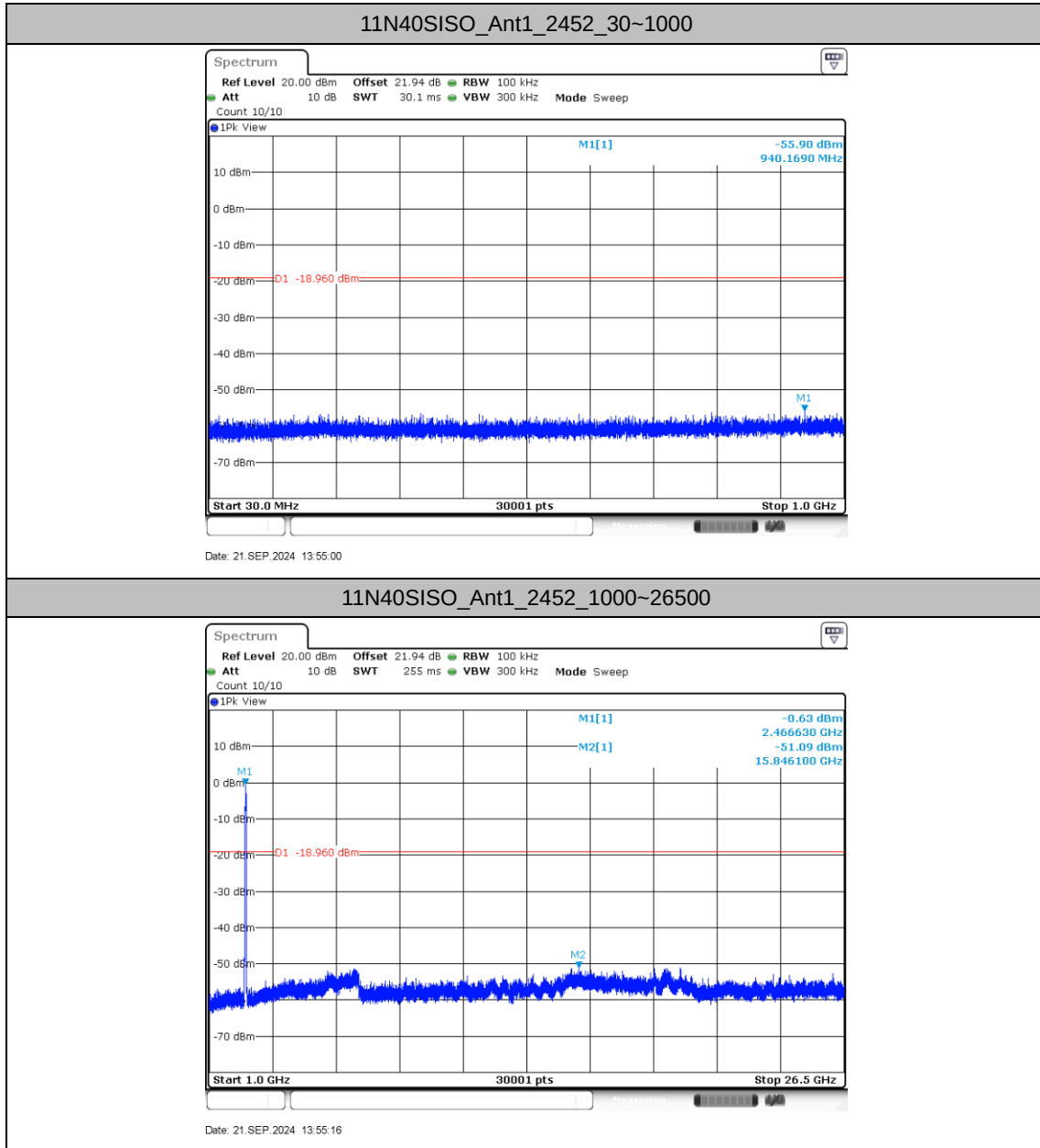








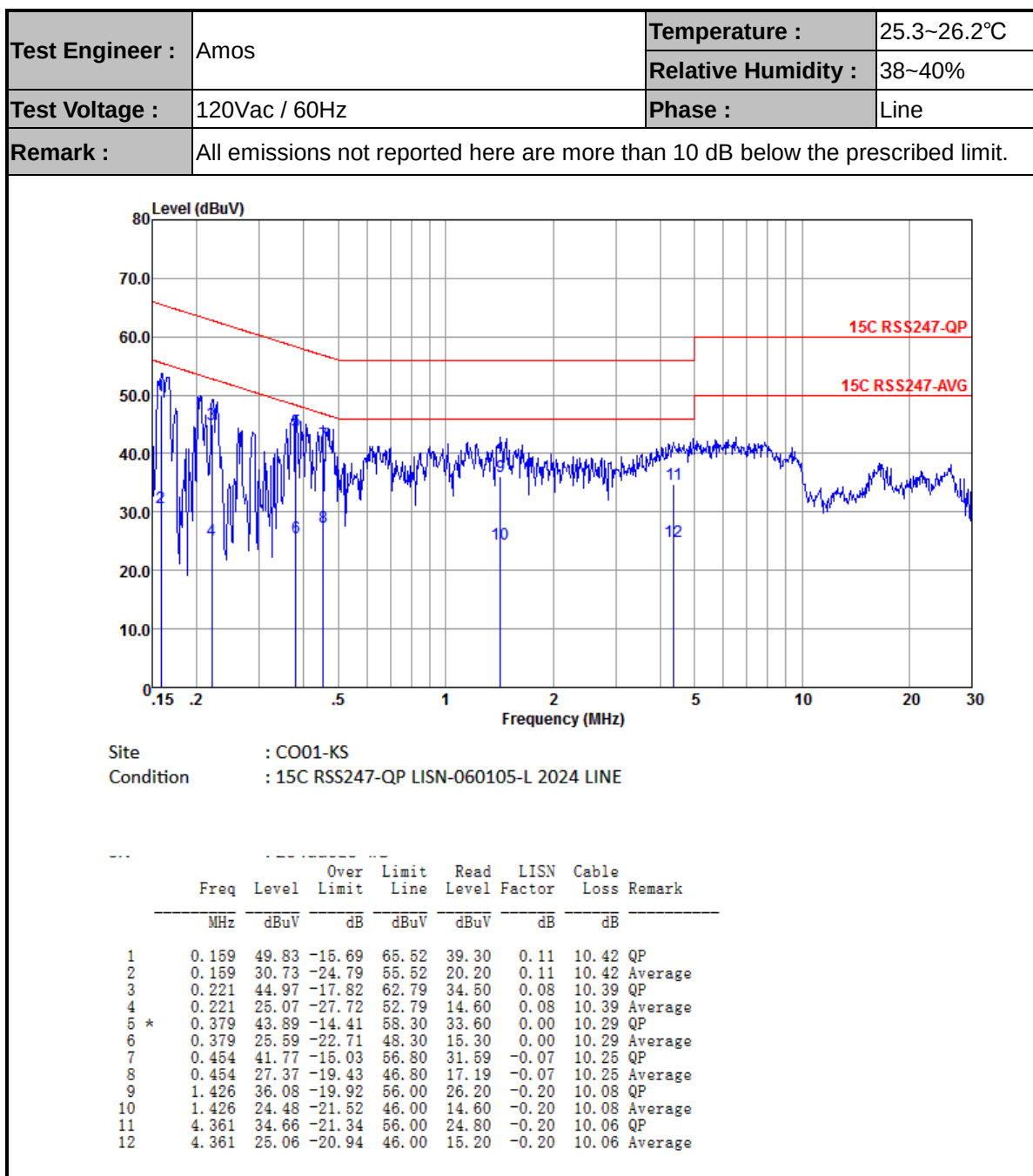






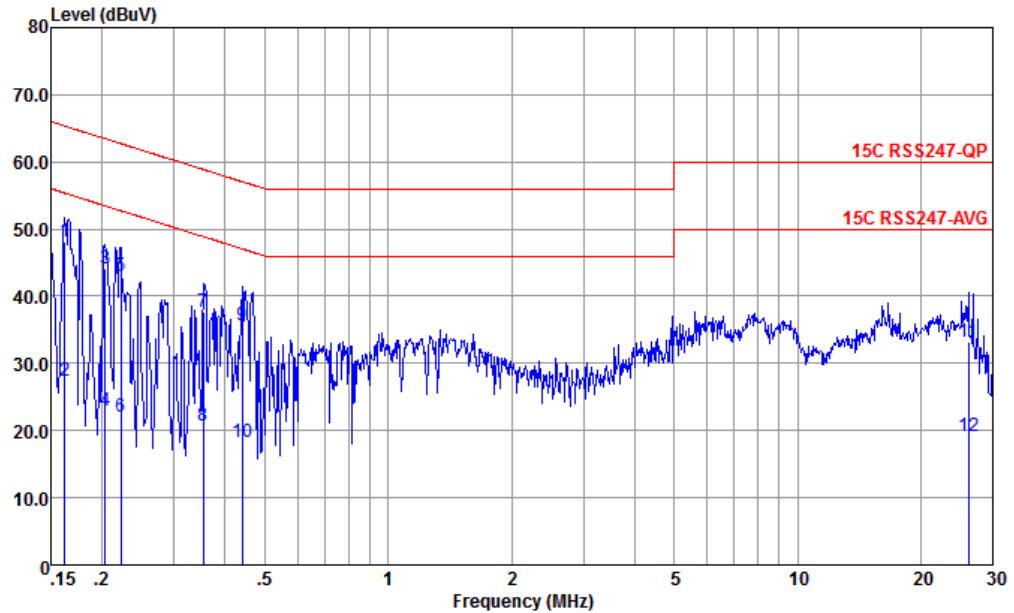


## Appendix B. AC Conducted Emission Test Results





|                 |                                                                                 |                     |             |
|-----------------|---------------------------------------------------------------------------------|---------------------|-------------|
| Test Engineer : | Amos                                                                            | Temperature :       | 25.3~26.2°C |
|                 |                                                                                 | Relative Humidity : | 38~40%      |
| Test Voltage :  | 120Vac / 60Hz                                                                   | Phase :             | Neutral     |
| Remark :        | All emissions not reported here are more than 10 dB below the prescribed limit. |                     |             |



Site : CO01-KS  
Condition : 15C RSS247-QP LISN-060105-N 2024 NEUTRAL

|     | Freq   | Level | Over   | Limit | Read  | LISN   | Cable |         |
|-----|--------|-------|--------|-------|-------|--------|-------|---------|
|     | MHz    | dBuV  | Limit  | Line  | Level | Factor | Loss  | Remark  |
|     |        |       | dB     | dBuV  | dBuV  | dB     | dB    |         |
| 1 * | 0.162  | 48.14 | -17.20 | 65.34 | 37.60 | 0.12   | 10.42 | QP      |
| 2   | 0.162  | 27.44 | -27.90 | 55.34 | 16.90 | 0.12   | 10.42 | Average |
| 3   | 0.204  | 44.12 | -19.33 | 63.45 | 33.60 | 0.11   | 10.41 | QP      |
| 4   | 0.204  | 23.02 | -30.43 | 53.45 | 12.50 | 0.11   | 10.41 | Average |
| 5   | 0.222  | 43.06 | -19.68 | 62.74 | 32.61 | 0.06   | 10.39 | QP      |
| 6   | 0.222  | 21.96 | -30.78 | 52.74 | 11.51 | 0.06   | 10.39 | Average |
| 7   | 0.354  | 37.67 | -21.20 | 58.87 | 27.50 | -0.13  | 10.30 | QP      |
| 8   | 0.354  | 20.67 | -28.20 | 48.87 | 10.50 | -0.13  | 10.30 | Average |
| 9   | 0.440  | 35.71 | -21.36 | 57.07 | 25.60 | -0.14  | 10.25 | QP      |
| 10  | 0.440  | 18.31 | -28.76 | 47.07 | 8.20  | -0.14  | 10.25 | Average |
| 11  | 26.139 | 33.26 | -26.74 | 60.00 | 22.20 | -0.50  | 11.56 | QP      |
| 12  | 26.139 | 19.26 | -30.74 | 50.00 | 8.20  | -0.50  | 11.56 | Average |

Note:

1. Level(dBμV) = Read Level(dBμV) + LISN Factor(dB) + Cable Loss(dB)
2. Over Limit(dB) = Level(dBμV) – Limit Line(dBμV)



## Appendix C Radiated Spurious Emission Test Data

|                 |          |                     |         |
|-----------------|----------|---------------------|---------|
| Test Engineer : | Jerry Xu | Relative Humidity : | 41~42%  |
|                 |          | Temperature :       | 22~23°C |

### Radiated Spurious Emission Test Modes

| Mode    | Band (MHz)  | Antenna | Modulation   | Channel | Frequency | Data Rate | RU | Remark |
|---------|-------------|---------|--------------|---------|-----------|-----------|----|--------|
| Mode 1  | 2400-2483.5 | 1       | 802.11b      | 01      | 2412      | 1Mbps     | -  | -      |
| Mode 2  | 2400-2483.5 | 1       | 802.11b      | 06      | 2437      | 1Mbps     | -  | -      |
| Mode 3  | 2400-2483.5 | 1       | 802.11b      | 11      | 2462      | 1Mbps     | -  | -      |
| Mode 4  | 2400-2483.5 | 1       | 802.11g      | 01      | 2412      | 6Mbps     | -  | -      |
| Mode 5  | 2400-2483.5 | 1       | 802.11g      | 06      | 2437      | 6Mbps     | -  | -      |
| Mode 6  | 2400-2483.5 | 1       | 802.11g      | 11      | 2462      | 6Mbps     | -  | -      |
| Mode 7  | 2400-2483.5 | 1       | 802.11n HT20 | 01      | 2412      | MCS0      | -  | -      |
| Mode 8  | 2400-2483.5 | 1       | 802.11n HT20 | 06      | 2437      | MCS0      | -  | -      |
| Mode 9  | 2400-2483.5 | 1       | 802.11n HT20 | 11      | 2462      | MCS0      | -  | -      |
| Mode 10 | 2400-2483.5 | 1       | 802.11n HT40 | 03      | 2422      | MCS0      | -  | -      |
| Mode 11 | 2400-2483.5 | 1       | 802.11n HT40 | 06      | 2437      | MCS0      | -  | -      |
| Mode 12 | 2400-2483.5 | 1       | 802.11n HT40 | 09      | 2452      | MCS0      | -  | -      |

### Summary of each worse mode

| Mode | Modulation   | Ch. | Freq. (MHz) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Pol. | Peak Avg. | Result | Remark    |
|------|--------------|-----|-------------|----------------|----------------|-------------|------|-----------|--------|-----------|
| 1    | 802.11b      | 01  | 2389.69     | 44.36          | 54.00          | -9.64       | V    | AVERAGE   | Pass   | Band Edge |
| 1    | 802.11b      | 01  | 4824.00     | 42.00          | 74.00          | -32.00      | H    | PEAK      | Pass   | Harmonic  |
| 2    | 802.11b      | 06  | -           | -              | -              | -           | -    | -         | -      | Band Edge |
| 2    | 802.11b      | 06  | 7311.00     | 44.27          | 74.00          | -29.73      | V    | PEAK      | Pass   | Harmonic  |
| 3    | 802.11b      | 11  | 2486.92     | 45.37          | 54.00          | -8.63       | H    | AVERAGE   | Pass   | Band Edge |
| 3    | 802.11b      | 11  | 7386.00     | 43.48          | 74.00          | -30.52      | V    | PEAK      | Pass   | Harmonic  |
| 4    | 802.11g      | 01  | 2389.95     | 48.44          | 54.00          | -5.56       | H    | AVERAGE   | Pass   | Band Edge |
| 4    | 802.11g      | 01  | 4824.00     | 41.77          | 74.00          | -32.23      | V    | PEAK      | Pass   | Harmonic  |
| 5    | 802.11g      | 06  | -           | -              | -              | -           | -    | -         | -      | Band Edge |
| 5    | 802.11g      | 06  | 7311.00     | 44.34          | 74.00          | -29.66      | H    | PEAK      | Pass   | Harmonic  |
| 6    | 802.11g      | 11  | 2483.50     | 46.45          | 54.00          | -7.55       | H    | AVERAGE   | Pass   | Band Edge |
| 6    | 802.11g      | 11  | 7386.00     | 43.47          | 74.00          | -30.53      | H    | PEAK      | Pass   | Harmonic  |
| 7    | 802.11n HT20 | 01  | 2389.95     | 48.24          | 54.00          | -5.76       | H    | AVERAGE   | Pass   | Band Edge |
| 7    | 802.11n HT20 | 01  | 4824.00     | 41.46          | 74.00          | -32.54      | H    | PEAK      | Pass   | Harmonic  |
| 8    | 802.11n HT20 | 06  | -           | -              | -              | -           | -    | -         | -      | Band Edge |
| 8    | 802.11n HT20 | 06  | 7311.00     | 44.09          | 74.00          | -29.91      | V    | PEAK      | Pass   | Harmonic  |
| 9    | 802.11n HT20 | 11  | 2483.50     | 46.10          | 54.00          | -7.90       | H    | AVERAGE   | Pass   | Band Edge |
| 9    | 802.11n HT20 | 11  | 7386.00     | 43.66          | 74.00          | -30.34      | V    | PEAK      | Pass   | Harmonic  |
| 10   | 802.11n HT40 | 03  | 2389.95     | 50.36          | 54.00          | -3.64       | H    | AVERAGE   | Pass   | Band Edge |
| 10   | 802.11n HT40 | 03  | 7266.00     | 43.83          | 74.00          | -30.17      | H    | PEAK      | Pass   | Harmonic  |
| 11   | 802.11n HT40 | 06  | 2389.95     | 48.98          | 54.00          | -5.02       | H    | AVERAGE   | Pass   | Band Edge |
| 11   | 802.11n HT40 | 06  | 7311.00     | 43.62          | 74.00          | -30.38      | H    | PEAK      | Pass   | Harmonic  |
| 12   | 802.11n HT40 | 09  | 2483.62     | 48.34          | 54.00          | -5.66       | H    | AVERAGE   | Pass   | Band Edge |
| 12   | 802.11n HT40 | 09  | 7356.00     | 43.47          | 74.00          | -30.53      | H    | PEAK      | Pass   | Harmonic  |

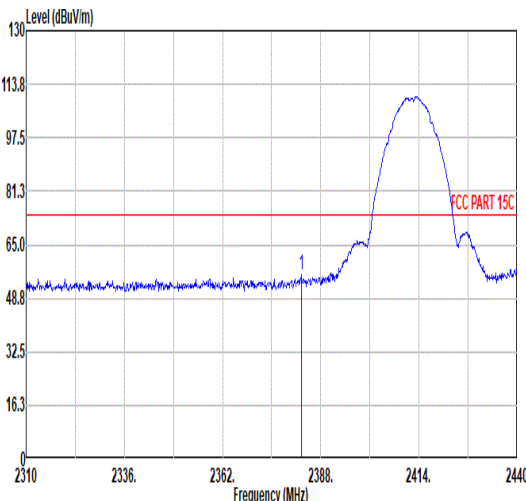
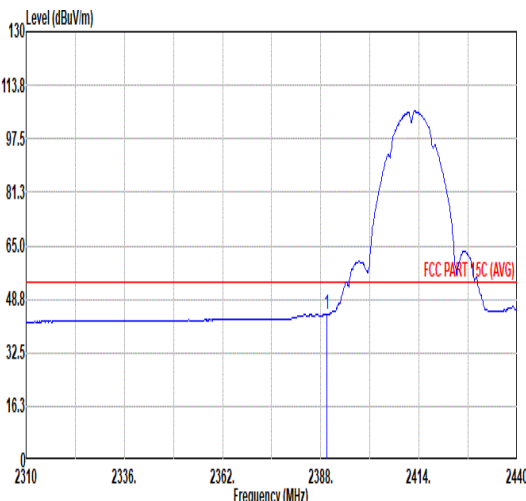
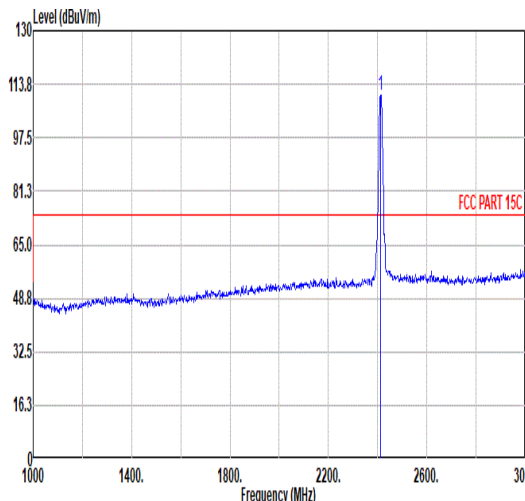
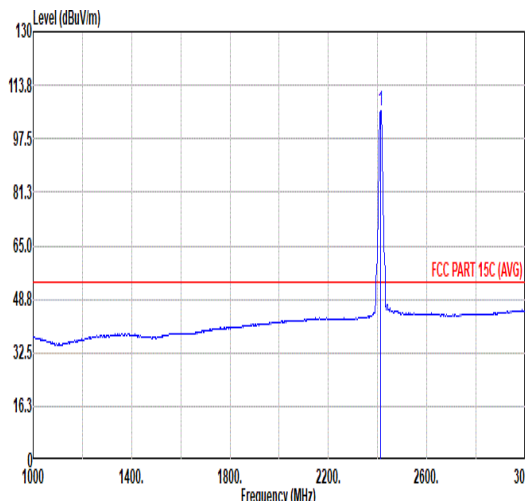
**Co-location****Radiated Spurious Emission Test Modes**

| Mode    | Band (MHz)        | Antenna | Modulation   | Channel | Frequency | Data Rate | RU | Remark |
|---------|-------------------|---------|--------------|---------|-----------|-----------|----|--------|
| Mode 13 | 2400-2483.5       | 1       | 802.11n HT40 | 3       | 2422      | MCS0      | -  | -      |
|         | Part27F B13 BW=5M |         |              |         |           |           |    |        |

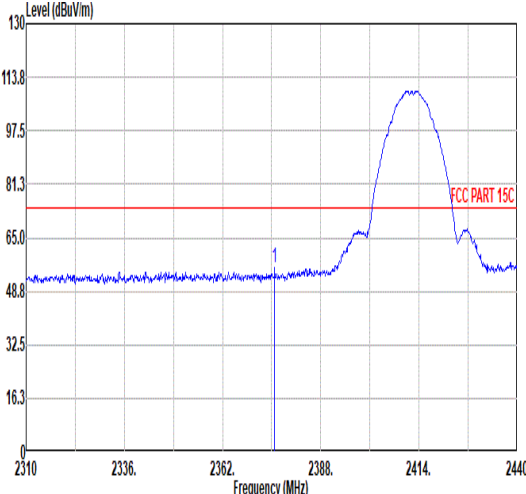
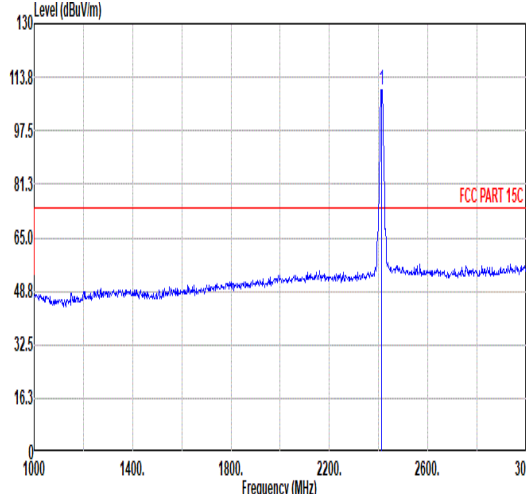
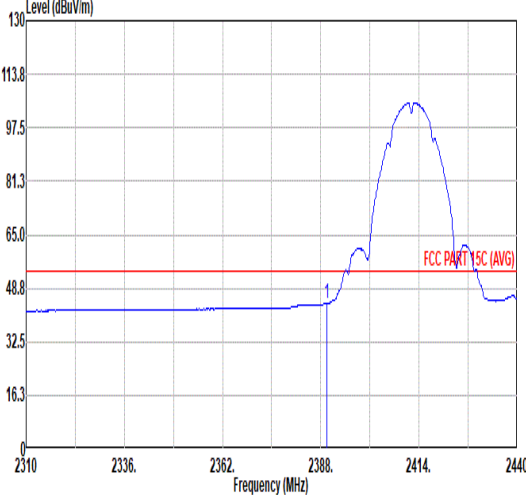
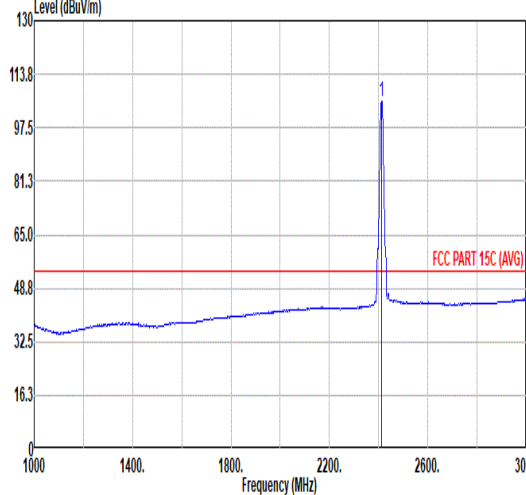
**Summary of each worse mode**

| Mode | Modulation   | Ch. | Freq. (MHz) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Pol. | Peak Avg. | Result | Remark    |
|------|--------------|-----|-------------|----------------|----------------|-------------|------|-----------|--------|-----------|
| 13   | 802.11n HT40 | 3   | 2389.43     | 50.12          | 54.00          | -3.88       | H    | AVERAGE   | Pass   | Band Edge |
| 13   | 802.11n HT40 | 3   | 7266.00     | 43.92          | 74.00          | -30.08      | V    | PEAK      | Pass   | Harmonic  |

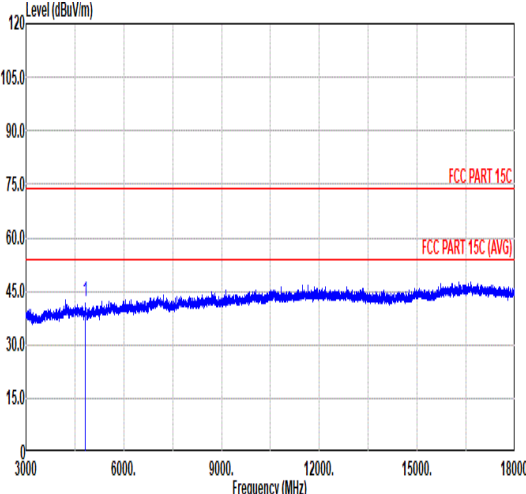


| Mode | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |        |        |        |        |        |        |        |      |        |            |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |        |       |        |       |       |      |       |      |     |            |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|------|--------|------------|--|-------|------|------|-----|-------|--------|-----|------|------|--|------|-------|------|-------|-------|--------|------|--------|--------|--|--------|--|-----|--------|--------|----|------|------|----|----|----|-----|---|---------|--------|-------|--------|-------|-------|------|-------|------|-----|------------|
|      | Band Edge                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |        |        |        |        |        |        |        |      |        |            |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |        |       |        |       |       |      |       |      |     |            |
|      | 2400-2483.5_802.11b_CH01_2412MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |        |        |        |        |        |        |      |        |            |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |        |       |        |       |       |      |       |      |     |            |
| ANT  | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |        |        |        |        |        |        |        |      |        |            |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |        |       |        |       |       |      |       |      |     |            |
| Pol. | Horizontal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |        |        |        |        |        |        |        |      |        |            |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |        |       |        |       |       |      |       |      |     |            |
| Peak | Fundamental                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |        |        |        |        |        |        |      |        |            |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |        |       |        |       |       |      |       |      |     |            |
|      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |        |        |        |        |        |        |        |      |        |            |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |        |       |        |       |       |      |       |      |     |            |
|      | <table><tr><th></th><th>Limit</th><th>Over</th><th>Read</th><th>Ant</th><th>Cable</th><th>Preamp</th><th>Aux</th><th>APos</th><th>TPos</th><th></th></tr><tr><th>Freq</th><th>Level</th><th>Line</th><th>Limit</th><th>Level</th><th>Factor</th><th>Loss</th><th>Factor</th><th>Factor</th><th></th><th>Remark</th></tr><tr><th></th><th>MHz</th><th>dBuV/m</th><th>dBuV/m</th><th>dB</th><th>dBuV</th><th>dB/m</th><th>dB</th><th>dB</th><th>cm</th><th>deg</th></tr><tr><td>1</td><td>2382.80</td><td>56.02</td><td>74.00</td><td>-17.98</td><td>43.23</td><td>32.39</td><td>6.59</td><td>32.19</td><td>6.00</td><td>115</td><td>38 PEAK</td></tr></table>    |        |        |        |        |        |        |        |      |        |            |  | Limit | Over | Read | Ant | Cable | Preamp | Aux | APos | TPos |  | Freq | Level | Line | Limit | Level | Factor | Loss | Factor | Factor |  | Remark |  | MHz | dBuV/m | dBuV/m | dB | dBuV | dB/m | dB | dB | cm | deg | 1 | 2382.80 | 56.02  | 74.00 | -17.98 | 43.23 | 32.39 | 6.59 | 32.19 | 6.00 | 115 | 38 PEAK    |
|      | Limit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Over   | Read   | Ant    | Cable  | Preamp | Aux    | APos   | TPos |        |            |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |        |       |        |       |       |      |       |      |     |            |
| Freq | Level                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Line   | Limit  | Level  | Factor | Loss   | Factor | Factor |      | Remark |            |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |        |       |        |       |       |      |       |      |     |            |
|      | MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | dBuV/m | dBuV/m | dB     | dBuV   | dB/m   | dB     | dB     | cm   | deg    |            |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |        |       |        |       |       |      |       |      |     |            |
| 1    | 2382.80                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 56.02  | 74.00  | -17.98 | 43.23  | 32.39  | 6.59   | 32.19  | 6.00 | 115    | 38 PEAK    |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |        |       |        |       |       |      |       |      |     |            |
| Avg  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |        |        |        |        |        |        |        |      |        |            |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |        |       |        |       |       |      |       |      |     |            |
|      | <table><tr><th></th><th>Limit</th><th>Over</th><th>Read</th><th>Ant</th><th>Cable</th><th>Preamp</th><th>Aux</th><th>APos</th><th>TPos</th><th></th></tr><tr><th>Freq</th><th>Level</th><th>Line</th><th>Limit</th><th>Level</th><th>Factor</th><th>Loss</th><th>Factor</th><th>Factor</th><th></th><th>Remark</th></tr><tr><th></th><th>MHz</th><th>dBuV/m</th><th>dBuV/m</th><th>dB</th><th>dBuV</th><th>dB/m</th><th>dB</th><th>dB</th><th>cm</th><th>deg</th></tr><tr><td>1</td><td>2389.69</td><td>44.36</td><td>54.00</td><td>-9.64</td><td>31.46</td><td>32.48</td><td>6.60</td><td>32.18</td><td>6.00</td><td>115</td><td>38 AVERAGE</td></tr></table>  |        |        |        |        |        |        |        |      |        |            |  | Limit | Over | Read | Ant | Cable | Preamp | Aux | APos | TPos |  | Freq | Level | Line | Limit | Level | Factor | Loss | Factor | Factor |  | Remark |  | MHz | dBuV/m | dBuV/m | dB | dBuV | dB/m | dB | dB | cm | deg | 1 | 2389.69 | 44.36  | 54.00 | -9.64  | 31.46 | 32.48 | 6.60 | 32.18 | 6.00 | 115 | 38 AVERAGE |
|      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Limit  | Over   | Read   | Ant    | Cable  | Preamp | Aux    | APos | TPos   |            |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |        |       |        |       |       |      |       |      |     |            |
| Freq | Level                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Line   | Limit  | Level  | Factor | Loss   | Factor | Factor |      | Remark |            |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |        |       |        |       |       |      |       |      |     |            |
|      | MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | dBuV/m | dBuV/m | dB     | dBuV   | dB/m   | dB     | dB     | cm   | deg    |            |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |        |       |        |       |       |      |       |      |     |            |
| 1    | 2389.69                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 44.36  | 54.00  | -9.64  | 31.46  | 32.48  | 6.60   | 32.18  | 6.00 | 115    | 38 AVERAGE |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |        |       |        |       |       |      |       |      |     |            |
| Peak |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |        |        |        |        |        |        |        |      |        |            |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |        |       |        |       |       |      |       |      |     |            |
|      | <table><tr><th></th><th>Limit</th><th>Over</th><th>Read</th><th>Ant</th><th>Cable</th><th>Preamp</th><th>Aux</th><th>APos</th><th>TPos</th><th></th></tr><tr><th>Freq</th><th>Level</th><th>Line</th><th>Limit</th><th>Level</th><th>Factor</th><th>Loss</th><th>Factor</th><th>Factor</th><th></th><th>Remark</th></tr><tr><th></th><th>MHz</th><th>dBuV/m</th><th>dBuV/m</th><th>dB</th><th>dBuV</th><th>dB/m</th><th>dB</th><th>dB</th><th>cm</th><th>deg</th></tr><tr><td>1</td><td>2412.00</td><td>110.40</td><td>-----</td><td>-----</td><td>97.41</td><td>32.54</td><td>6.64</td><td>32.19</td><td>6.00</td><td>115</td><td>38 PEAK</td></tr></table>    |        |        |        |        |        |        |        |      |        |            |  | Limit | Over | Read | Ant | Cable | Preamp | Aux | APos | TPos |  | Freq | Level | Line | Limit | Level | Factor | Loss | Factor | Factor |  | Remark |  | MHz | dBuV/m | dBuV/m | dB | dBuV | dB/m | dB | dB | cm | deg | 1 | 2412.00 | 110.40 | ----- | -----  | 97.41 | 32.54 | 6.64 | 32.19 | 6.00 | 115 | 38 PEAK    |
|      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Limit  | Over   | Read   | Ant    | Cable  | Preamp | Aux    | APos | TPos   |            |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |        |       |        |       |       |      |       |      |     |            |
| Freq | Level                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Line   | Limit  | Level  | Factor | Loss   | Factor | Factor |      | Remark |            |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |        |       |        |       |       |      |       |      |     |            |
|      | MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | dBuV/m | dBuV/m | dB     | dBuV   | dB/m   | dB     | dB     | cm   | deg    |            |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |        |       |        |       |       |      |       |      |     |            |
| 1    | 2412.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 110.40 | -----  | -----  | 97.41  | 32.54  | 6.64   | 32.19  | 6.00 | 115    | 38 PEAK    |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |        |       |        |       |       |      |       |      |     |            |
| Avg  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |        |        |        |        |        |        |        |      |        |            |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |        |       |        |       |       |      |       |      |     |            |
|      | <table><tr><th></th><th>Limit</th><th>Over</th><th>Read</th><th>Ant</th><th>Cable</th><th>Preamp</th><th>Aux</th><th>APos</th><th>TPos</th><th></th></tr><tr><th>Freq</th><th>Level</th><th>Line</th><th>Limit</th><th>Level</th><th>Factor</th><th>Loss</th><th>Factor</th><th>Factor</th><th></th><th>Remark</th></tr><tr><th></th><th>MHz</th><th>dBuV/m</th><th>dBuV/m</th><th>dB</th><th>dBuV</th><th>dB/m</th><th>dB</th><th>dB</th><th>cm</th><th>deg</th></tr><tr><td>1</td><td>2412.00</td><td>106.02</td><td>-----</td><td>-----</td><td>93.03</td><td>32.55</td><td>6.63</td><td>32.19</td><td>6.00</td><td>115</td><td>38 AVERAGE</td></tr></table> |        |        |        |        |        |        |        |      |        |            |  | Limit | Over | Read | Ant | Cable | Preamp | Aux | APos | TPos |  | Freq | Level | Line | Limit | Level | Factor | Loss | Factor | Factor |  | Remark |  | MHz | dBuV/m | dBuV/m | dB | dBuV | dB/m | dB | dB | cm | deg | 1 | 2412.00 | 106.02 | ----- | -----  | 93.03 | 32.55 | 6.63 | 32.19 | 6.00 | 115 | 38 AVERAGE |
|      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Limit  | Over   | Read   | Ant    | Cable  | Preamp | Aux    | APos | TPos   |            |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |        |       |        |       |       |      |       |      |     |            |
| Freq | Level                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Line   | Limit  | Level  | Factor | Loss   | Factor | Factor |      | Remark |            |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |        |       |        |       |       |      |       |      |     |            |
|      | MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | dBuV/m | dBuV/m | dB     | dBuV   | dB/m   | dB     | dB     | cm   | deg    |            |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |        |       |        |       |       |      |       |      |     |            |
| 1    | 2412.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 106.02 | -----  | -----  | 93.03  | 32.55  | 6.63   | 32.19  | 6.00 | 115    | 38 AVERAGE |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |        |       |        |       |       |      |       |      |     |            |

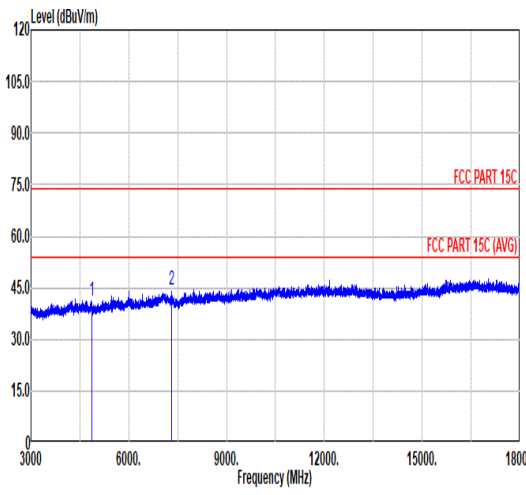
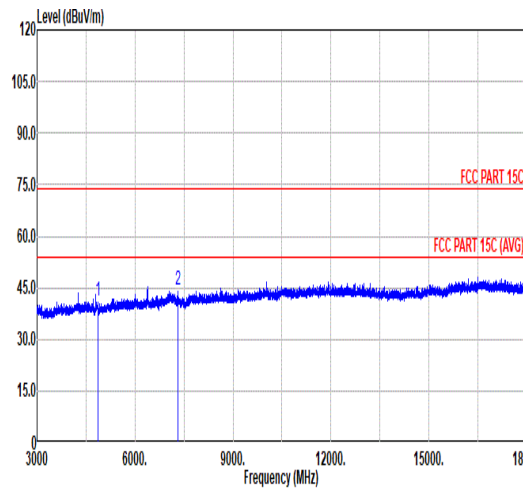


| Mode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |        |        |        |        |        |             |        |      |        |            |        |        |      |      |      |       |        |       |       |       |        |        |        |        |        |        |        |      |        |        |        |        |      |      |        |        |     |      |         |         |       |       |       |       |         |        |       |        |            |            |      |       |      |     |         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|--------|--------|-------------|--------|------|--------|------------|--------|--------|------|------|------|-------|--------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|------|--------|--------|--------|--------|------|------|--------|--------|-----|------|---------|---------|-------|-------|-------|-------|---------|--------|-------|--------|------------|------------|------|-------|------|-----|---------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Band Edge                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |        |        |        |        |        |             |        |      |        |            |        |        |      |      |      |       |        |       |       |       |        |        |        |        |        |        |        |      |        |        |        |        |      |      |        |        |     |      |         |         |       |       |       |       |         |        |       |        |            |            |      |       |      |     |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2400-2483.5_802.11b_CH01_2412MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |        |        |        |        |        |             |        |      |        |            |        |        |      |      |      |       |        |       |       |       |        |        |        |        |        |        |        |      |        |        |        |        |      |      |        |        |     |      |         |         |       |       |       |       |         |        |       |        |            |            |      |       |      |     |         |
| ANT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |        |        |        |        |        |             |        |      |        |            |        |        |      |      |      |       |        |       |       |       |        |        |        |        |        |        |        |      |        |        |        |        |      |      |        |        |     |      |         |         |       |       |       |       |         |        |       |        |            |            |      |       |      |     |         |
| Pol.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Vertical                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |        |        |        |        |        | Fundamental |        |      |        |            |        |        |      |      |      |       |        |       |       |       |        |        |        |        |        |        |        |      |        |        |        |        |      |      |        |        |     |      |         |         |       |       |       |       |         |        |       |        |            |            |      |       |      |     |         |
| Peak                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |        |        |        |        |        |             |        |      |        |            |        |        |      |      |      |       |        |       |       |       |        |        |        |        |        |        |        |      |        |        |        |        |      |      |        |        |     |      |         |         |       |       |       |       |         |        |       |        |            |            |      |       |      |     |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <table><tr><th></th><th>Limit</th><th>Over</th><th>Read</th><th>Ant</th><th>Cable</th><th>Preamp</th><th>Aux</th><th>APos</th><th>TPos</th><th></th></tr><tr><th>Freq</th><th>Level</th><th>Line</th><th>Limit</th><th>Level</th><th>Factor</th><th>Loss</th><th>Factor</th><th>Factor</th><th></th><th>Remark</th></tr><tr><th></th><th>MHz</th><th>dBuV/m</th><th>dBuV/m</th><th>dB</th><th>dBuV</th><th>dB/m</th><th>dB</th><th>dB</th><th>cm</th><th>deg</th></tr><tr><td>1</td><td>2375.78</td><td>55.87</td><td>74.00</td><td>-18.13</td><td>43.17</td><td>32.31</td><td>6.58</td><td>32.19</td><td>6.00</td><td>100</td><td>12 PEAK</td></tr></table>   |        |        |        |        |        |             |        |      |        |            |        | Limit  | Over | Read | Ant  | Cable | Preamp | Aux   | APos  | TPos  |        | Freq   | Level  | Line   | Limit  | Level  | Factor | Loss | Factor | Factor |        | Remark |      | MHz  | dBuV/m | dBuV/m | dB  | dBuV | dB/m    | dB      | dB    | cm    | deg   | 1     | 2375.78 | 55.87  | 74.00 | -18.13 | 43.17      | 32.31      | 6.58 | 32.19 | 6.00 | 100 | 12 PEAK |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Limit  | Over   | Read   | Ant    | Cable  | Preamp      | Aux    | APos | TPos   |            |        |        |      |      |      |       |        |       |       |       |        |        |        |        |        |        |        |      |        |        |        |        |      |      |        |        |     |      |         |         |       |       |       |       |         |        |       |        |            |            |      |       |      |     |         |
| Freq                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Level                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Line   | Limit  | Level  | Factor | Loss   | Factor      | Factor |      | Remark |            |        |        |      |      |      |       |        |       |       |       |        |        |        |        |        |        |        |      |        |        |        |        |      |      |        |        |     |      |         |         |       |       |       |       |         |        |       |        |            |            |      |       |      |     |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | dBuV/m | dBuV/m | dB     | dBuV   | dB/m   | dB          | dB     | cm   | deg    |            |        |        |      |      |      |       |        |       |       |       |        |        |        |        |        |        |        |      |        |        |        |        |      |      |        |        |     |      |         |         |       |       |       |       |         |        |       |        |            |            |      |       |      |     |         |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2375.78                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 55.87  | 74.00  | -18.13 | 43.17  | 32.31  | 6.58        | 32.19  | 6.00 | 100    | 12 PEAK    |        |        |      |      |      |       |        |       |       |       |        |        |        |        |        |        |        |      |        |        |        |        |      |      |        |        |     |      |         |         |       |       |       |       |         |        |       |        |            |            |      |       |      |     |         |
| Fundamental                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |        |        |        |        |        |             |        |      |        |            |        |        |      |      |      |       |        |       |       |       |        |        |        |        |        |        |        |      |        |        |        |        |      |      |        |        |     |      |         |         |       |       |       |       |         |        |       |        |            |            |      |       |      |     |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <table><tr><th></th><th>Limit</th><th>Over</th><th>Read</th><th>Ant</th><th>Cable</th><th>Preamp</th><th>Aux</th><th>APos</th><th>TPos</th><th></th></tr><tr><th>Freq</th><th>Level</th><th>Line</th><th>Limit</th><th>Level</th><th>Factor</th><th>Loss</th><th>Factor</th><th>Factor</th><th></th><th>Remark</th></tr><tr><th></th><th>MHz</th><th>dBuV/m</th><th>dBuV/m</th><th>dB</th><th>dBuV</th><th>dB/m</th><th>dB</th><th>dB</th><th>cm</th><th>deg</th></tr><tr><td>1</td><td>2412.00</td><td>110.05</td><td>-----</td><td>-----</td><td>97.06</td><td>32.55</td><td>6.63</td><td>32.19</td><td>6.00</td><td>100</td><td>12 PEAK</td></tr></table>   |        |        |        |        |        |             |        |      |        |            |        | Limit  | Over | Read | Ant  | Cable | Preamp | Aux   | APos  | TPos  |        | Freq   | Level  | Line   | Limit  | Level  | Factor | Loss | Factor | Factor |        | Remark |      | MHz  | dBuV/m | dBuV/m | dB  | dBuV | dB/m    | dB      | dB    | cm    | deg   | 1     | 2412.00 | 110.05 | ----- | -----  | 97.06      | 32.55      | 6.63 | 32.19 | 6.00 | 100 | 12 PEAK |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Limit  | Over   | Read   | Ant    | Cable  | Preamp      | Aux    | APos | TPos   |            |        |        |      |      |      |       |        |       |       |       |        |        |        |        |        |        |        |      |        |        |        |        |      |      |        |        |     |      |         |         |       |       |       |       |         |        |       |        |            |            |      |       |      |     |         |
| Freq                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Level                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Line   | Limit  | Level  | Factor | Loss   | Factor      | Factor |      | Remark |            |        |        |      |      |      |       |        |       |       |       |        |        |        |        |        |        |        |      |        |        |        |        |      |      |        |        |     |      |         |         |       |       |       |       |         |        |       |        |            |            |      |       |      |     |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | dBuV/m | dBuV/m | dB     | dBuV   | dB/m   | dB          | dB     | cm   | deg    |            |        |        |      |      |      |       |        |       |       |       |        |        |        |        |        |        |        |      |        |        |        |        |      |      |        |        |     |      |         |         |       |       |       |       |         |        |       |        |            |            |      |       |      |     |         |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2412.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 110.05 | -----  | -----  | 97.06  | 32.55  | 6.63        | 32.19  | 6.00 | 100    | 12 PEAK    |        |        |      |      |      |       |        |       |       |       |        |        |        |        |        |        |        |      |        |        |        |        |      |      |        |        |     |      |         |         |       |       |       |       |         |        |       |        |            |            |      |       |      |     |         |
| Avg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |        |        |        |        |        |             |        |      |        |            |        |        |      |      |      |       |        |       |       |       |        |        |        |        |        |        |        |      |        |        |        |        |      |      |        |        |     |      |         |         |       |       |       |       |         |        |       |        |            |            |      |       |      |     |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <table><tr><th></th><th>Limit</th><th>Over</th><th>Read</th><th>Ant</th><th>Cable</th><th>Preamp</th><th>Aux</th><th>APos</th><th>TPos</th><th></th></tr><tr><th>Freq</th><th>Level</th><th>Line</th><th>Limit</th><th>Level</th><th>Factor</th><th>Loss</th><th>Factor</th><th>Factor</th><th></th><th>Remark</th></tr><tr><th></th><th>MHz</th><th>dBuV/m</th><th>dBuV/m</th><th>dB</th><th>dBuV</th><th>dB/m</th><th>dB</th><th>dB</th><th>cm</th><th>deg</th></tr><tr><td>1</td><td>2389.69</td><td>44.36</td><td>54.00</td><td>-9.64</td><td>31.46</td><td>32.48</td><td>6.60</td><td>32.18</td><td>6.00</td><td>100</td><td>12 AVERAGE</td></tr></table> |        |        |        |        |        |             | Limit  | Over | Read   | Ant        | Cable  | Preamp | Aux  | APos | TPos |       | Freq   | Level | Line  | Limit | Level  | Factor | Loss   | Factor | Factor |        | Remark |      | MHz    | dBuV/m | dBuV/m | dB     | dBuV | dB/m | dB     | dB     | cm  | deg  | 1       | 2389.69 | 44.36 | 54.00 | -9.64 | 31.46 | 32.48   | 6.60   | 32.18 | 6.00   | 100        | 12 AVERAGE |      |       |      |     |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Limit  | Over   | Read   | Ant    | Cable  | Preamp      | Aux    | APos | TPos   |            |        |        |      |      |      |       |        |       |       |       |        |        |        |        |        |        |        |      |        |        |        |        |      |      |        |        |     |      |         |         |       |       |       |       |         |        |       |        |            |            |      |       |      |     |         |
| Freq                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Level                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Line   | Limit  | Level  | Factor | Loss   | Factor      | Factor |      | Remark |            |        |        |      |      |      |       |        |       |       |       |        |        |        |        |        |        |        |      |        |        |        |        |      |      |        |        |     |      |         |         |       |       |       |       |         |        |       |        |            |            |      |       |      |     |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | dBuV/m | dBuV/m | dB     | dBuV   | dB/m   | dB          | dB     | cm   | deg    |            |        |        |      |      |      |       |        |       |       |       |        |        |        |        |        |        |        |      |        |        |        |        |      |      |        |        |     |      |         |         |       |       |       |       |         |        |       |        |            |            |      |       |      |     |         |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2389.69                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 44.36  | 54.00  | -9.64  | 31.46  | 32.48  | 6.60        | 32.18  | 6.00 | 100    | 12 AVERAGE |        |        |      |      |      |       |        |       |       |       |        |        |        |        |        |        |        |      |        |        |        |        |      |      |        |        |     |      |         |         |       |       |       |       |         |        |       |        |            |            |      |       |      |     |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |        |        |        |        |             |        |      |        |            |        |        |      |      |      |       |        |       |       |       |        |        |        |        |        |        |        |      |        |        |        |        |      |      |        |        |     |      |         |         |       |       |       |       |         |        |       |        |            |            |      |       |      |     |         |
| <table><tr><th></th><th>Limit</th><th>Over</th><th>Read</th><th>Ant</th><th>Cable</th><th>Preamp</th><th>Aux</th><th>APos</th><th>TPos</th><th></th></tr><tr><th>Freq</th><th>Level</th><th>Line</th><th>Limit</th><th>Level</th><th>Factor</th><th>Loss</th><th>Factor</th><th>Factor</th><th></th><th>Remark</th></tr><tr><th></th><th>MHz</th><th>dBuV/m</th><th>dBuV/m</th><th>dB</th><th>dBuV</th><th>dB/m</th><th>dB</th><th>dB</th><th>cm</th><th>deg</th></tr><tr><td>1</td><td>2412.00</td><td>105.34</td><td>-----</td><td>-----</td><td>92.35</td><td>32.55</td><td>6.63</td><td>32.19</td><td>6.00</td><td>100</td><td>12 AVERAGE</td></tr></table> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |        |        |        |        | Limit       | Over   | Read | Ant    | Cable      | Preamp | Aux    | APos | TPos |      | Freq  | Level  | Line  | Limit | Level | Factor | Loss   | Factor | Factor |        | Remark |        | MHz  | dBuV/m | dBuV/m | dB     | dBuV   | dB/m | dB   | dB     | cm     | deg | 1    | 2412.00 | 105.34  | ----- | ----- | 92.35 | 32.55 | 6.63    | 32.19  | 6.00  | 100    | 12 AVERAGE |            |      |       |      |     |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Limit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Over   | Read   | Ant    | Cable  | Preamp | Aux         | APos   | TPos |        |            |        |        |      |      |      |       |        |       |       |       |        |        |        |        |        |        |        |      |        |        |        |        |      |      |        |        |     |      |         |         |       |       |       |       |         |        |       |        |            |            |      |       |      |     |         |
| Freq                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Level                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Line   | Limit  | Level  | Factor | Loss   | Factor      | Factor |      | Remark |            |        |        |      |      |      |       |        |       |       |       |        |        |        |        |        |        |        |      |        |        |        |        |      |      |        |        |     |      |         |         |       |       |       |       |         |        |       |        |            |            |      |       |      |     |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | dBuV/m | dBuV/m | dB     | dBuV   | dB/m   | dB          | dB     | cm   | deg    |            |        |        |      |      |      |       |        |       |       |       |        |        |        |        |        |        |        |      |        |        |        |        |      |      |        |        |     |      |         |         |       |       |       |       |         |        |       |        |            |            |      |       |      |     |         |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2412.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 105.34 | -----  | -----  | 92.35  | 32.55  | 6.63        | 32.19  | 6.00 | 100    | 12 AVERAGE |        |        |      |      |      |       |        |       |       |       |        |        |        |        |        |        |        |      |        |        |        |        |      |      |        |        |     |      |         |         |       |       |       |       |         |        |       |        |            |            |      |       |      |     |         |



| Mode            | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |        |        |        |       |        |        |        |        |      |        |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|-------|--------|--------|--------|--------|------|--------|--|-------|------|------|-----|-------|--------|-----|------|------|--|------|-------|------|-------|-------|--------|------|--------|--------|--|--------|--|-----|--------|--------|----|------|------|----|----|----|-----|---|---------|-------|-------|--------|-------|-------|------|-------|------|-----|------|
|                 | Harmonic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |        |        |        |       |        |        |        |        |      |        |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |
|                 | 2400-2483.5_802.11b_CH01_2412MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        |        |        |       |        |        |        |        |      |        |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |
| ANT             | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |        |        |        |       |        |        |        |        |      |        |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |
| Pol.            | Horizontal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |        |        |       |        |        |        |        |      |        |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |
| Peak<br><br>Avg |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |        |        |        |       |        |        |        |        |      |        |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |
|                 | <table><tr><th></th><th>Limit</th><th>Over</th><th>Read</th><th>Ant</th><th>Cable</th><th>Preamp</th><th>Aux</th><th>APos</th><th>TPos</th><th></th></tr><tr><th>Freq</th><th>Level</th><th>Line</th><th>Limit</th><th>Level</th><th>Factor</th><th>Loss</th><th>Factor</th><th>Factor</th><th></th><th>Remark</th></tr><tr><th></th><th>MHz</th><th>dBuV/m</th><th>dBuV/m</th><th>dB</th><th>dBuV</th><th>dB/m</th><th>dB</th><th>dB</th><th>cm</th><th>deg</th></tr><tr><td>1</td><td>4824.00</td><td>42.00</td><td>74.00</td><td>-32.00</td><td>59.60</td><td>34.20</td><td>9.47</td><td>61.27</td><td>0.00</td><td>---</td><td>PEAK</td></tr></table> |        |        |        |       |        |        |        |        |      |        |  | Limit | Over | Read | Ant | Cable | Preamp | Aux | APos | TPos |  | Freq | Level | Line | Limit | Level | Factor | Loss | Factor | Factor |  | Remark |  | MHz | dBuV/m | dBuV/m | dB | dBuV | dB/m | dB | dB | cm | deg | 1 | 4824.00 | 42.00 | 74.00 | -32.00 | 59.60 | 34.20 | 9.47 | 61.27 | 0.00 | --- | PEAK |
|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Limit  | Over   | Read   | Ant   | Cable  | Preamp | Aux    | APos   | TPos |        |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |
|                 | Freq                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Level  | Line   | Limit  | Level | Factor | Loss   | Factor | Factor |      | Remark |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |
|                 | MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | dBuV/m | dBuV/m | dB     | dBuV  | dB/m   | dB     | dB     | cm     | deg  |        |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |
| 1               | 4824.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 42.00  | 74.00  | -32.00 | 59.60 | 34.20  | 9.47   | 61.27  | 0.00   | ---  | PEAK   |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |
|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |        |        |        |       |        |        |        |        |      |        |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |
|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |        |        |        |       |        |        |        |        |      |        |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |
|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |        |        |        |       |        |        |        |        |      |        |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |
|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |        |        |        |       |        |        |        |        |      |        |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |
|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |        |        |        |       |        |        |        |        |      |        |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |
|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |        |        |        |       |        |        |        |        |      |        |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |
|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |        |        |        |       |        |        |        |        |      |        |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |
|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |        |        |        |       |        |        |        |        |      |        |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |
|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |        |        |        |       |        |        |        |        |      |        |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |
|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |        |        |        |       |        |        |        |        |      |        |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |
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|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |        |        |        |       |        |        |        |        |      |        |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |  |     |        |        |    |      |      |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |
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| Pol. | Horizontal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |        |       |        |        |        | Vertical                                                                            |        |      |        |      |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |     |        |        |    |      |      |    |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |   |         |       |       |        |       |       |       |       |      |     |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |     |        |        |    |      |      |    |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |   |         |       |       |        |       |       |       |       |      |     |      |
| Peak |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |        |       |        |        |        |  |        |      |        |      |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |     |        |        |    |      |      |    |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |   |         |       |       |        |       |       |       |       |      |     |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |     |        |        |    |      |      |    |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |   |         |       |       |        |       |       |       |       |      |     |      |
|      | <table><tr><th></th><th>Limit</th><th>Over</th><th>Read</th><th>Ant</th><th>Cable</th><th>Preamp</th><th>Aux</th><th>APos</th><th>TPos</th><th></th></tr><tr><th>Freq</th><th>Level</th><th>Line</th><th>Limit</th><th>Level</th><th>Factor</th><th>Loss</th><th>Factor</th><th>Factor</th><th></th><th>Remark</th></tr><tr><th>MHz</th><th>dBuV/m</th><th>dBuV/m</th><th>dB</th><th>dBuV</th><th>dB/m</th><th>dB</th><th>dB</th><th>dB</th><th>cm</th><th>deg</th></tr><tr><td>1</td><td>4874.00</td><td>41.01</td><td>74.00</td><td>-32.99</td><td>58.57</td><td>34.15</td><td>9.52</td><td>61.23</td><td>0.00</td><td>---</td><td>PEAK</td></tr><tr><td>2</td><td>7311.00</td><td>44.21</td><td>74.00</td><td>-29.79</td><td>57.55</td><td>35.70</td><td>11.69</td><td>60.73</td><td>0.00</td><td>---</td><td>PEAK</td></tr></table> |        |       |        |        |        |                                                                                     | Limit  | Over | Read   | Ant  | Cable | Preamp | Aux | APos | TPos |  | Freq | Level | Line | Limit | Level | Factor | Loss | Factor | Factor |  | Remark | MHz | dBuV/m | dBuV/m | dB | dBuV | dB/m | dB | dB | dB | cm | deg | 1 | 4874.00 | 41.01 | 74.00 | -32.99 | 58.57 | 34.15 | 9.52 | 61.23 | 0.00 | --- | PEAK | 2 | 7311.00 | 44.21 | 74.00 | -29.79 | 57.55 | 35.70 | 11.69 | 60.73 | 0.00 | --- | PEAK | <table><tr><th></th><th>Limit</th><th>Over</th><th>Read</th><th>Ant</th><th>Cable</th><th>Preamp</th><th>Aux</th><th>APos</th><th>TPos</th><th></th></tr><tr><th>Freq</th><th>Level</th><th>Line</th><th>Limit</th><th>Level</th><th>Factor</th><th>Loss</th><th>Factor</th><th>Factor</th><th></th><th>Remark</th></tr><tr><th>MHz</th><th>dBuV/m</th><th>dBuV/m</th><th>dB</th><th>dBuV</th><th>dB/m</th><th>dB</th><th>dB</th><th>dB</th><th>cm</th><th>deg</th></tr><tr><td>1</td><td>4874.00</td><td>41.02</td><td>74.00</td><td>-32.98</td><td>58.58</td><td>34.15</td><td>9.52</td><td>61.23</td><td>0.00</td><td>---</td><td>PEAK</td></tr><tr><td>2</td><td>7311.00</td><td>44.27</td><td>74.00</td><td>-29.73</td><td>57.61</td><td>35.70</td><td>11.69</td><td>60.73</td><td>0.00</td><td>---</td><td>PEAK</td></tr></table> |  |  |  |  |  | Limit | Over | Read | Ant | Cable | Preamp | Aux | APos | TPos |  | Freq | Level | Line | Limit | Level | Factor | Loss | Factor | Factor |  | Remark | MHz | dBuV/m | dBuV/m | dB | dBuV | dB/m | dB | dB | dB | cm | deg | 1 | 4874.00 | 41.02 | 74.00 | -32.98 | 58.58 | 34.15 | 9.52 | 61.23 | 0.00 | --- | PEAK | 2 | 7311.00 | 44.27 | 74.00 | -29.73 | 57.61 | 35.70 | 11.69 | 60.73 | 0.00 | --- | PEAK |
|      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Limit  | Over  | Read   | Ant    | Cable  | Preamp                                                                              | Aux    | APos | TPos   |      |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |     |        |        |    |      |      |    |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |   |         |       |       |        |       |       |       |       |      |     |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |     |        |        |    |      |      |    |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |   |         |       |       |        |       |       |       |       |      |     |      |
| Freq | Level                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Line   | Limit | Level  | Factor | Loss   | Factor                                                                              | Factor |      | Remark |      |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |     |        |        |    |      |      |    |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |   |         |       |       |        |       |       |       |       |      |     |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |     |        |        |    |      |      |    |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |   |         |       |       |        |       |       |       |       |      |     |      |
| MHz  | dBuV/m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | dBuV/m | dB    | dBuV   | dB/m   | dB     | dB                                                                                  | dB     | cm   | deg    |      |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |     |        |        |    |      |      |    |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |   |         |       |       |        |       |       |       |       |      |     |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |     |        |        |    |      |      |    |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |   |         |       |       |        |       |       |       |       |      |     |      |
| 1    | 4874.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 41.01  | 74.00 | -32.99 | 58.57  | 34.15  | 9.52                                                                                | 61.23  | 0.00 | ---    | PEAK |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |     |        |        |    |      |      |    |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |   |         |       |       |        |       |       |       |       |      |     |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |     |        |        |    |      |      |    |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |   |         |       |       |        |       |       |       |       |      |     |      |
| 2    | 7311.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 44.21  | 74.00 | -29.79 | 57.55  | 35.70  | 11.69                                                                               | 60.73  | 0.00 | ---    | PEAK |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |     |        |        |    |      |      |    |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |   |         |       |       |        |       |       |       |       |      |     |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |     |        |        |    |      |      |    |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |   |         |       |       |        |       |       |       |       |      |     |      |
|      | Limit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Over   | Read  | Ant    | Cable  | Preamp | Aux                                                                                 | APos   | TPos |        |      |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |     |        |        |    |      |      |    |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |   |         |       |       |        |       |       |       |       |      |     |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |     |        |        |    |      |      |    |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |   |         |       |       |        |       |       |       |       |      |     |      |
| Freq | Level                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Line   | Limit | Level  | Factor | Loss   | Factor                                                                              | Factor |      | Remark |      |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |     |        |        |    |      |      |    |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |   |         |       |       |        |       |       |       |       |      |     |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |     |        |        |    |      |      |    |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |   |         |       |       |        |       |       |       |       |      |     |      |
| MHz  | dBuV/m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | dBuV/m | dB    | dBuV   | dB/m   | dB     | dB                                                                                  | dB     | cm   | deg    |      |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |     |        |        |    |      |      |    |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |   |         |       |       |        |       |       |       |       |      |     |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |     |        |        |    |      |      |    |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |   |         |       |       |        |       |       |       |       |      |     |      |
| 1    | 4874.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 41.02  | 74.00 | -32.98 | 58.58  | 34.15  | 9.52                                                                                | 61.23  | 0.00 | ---    | PEAK |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |     |        |        |    |      |      |    |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |   |         |       |       |        |       |       |       |       |      |     |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |     |        |        |    |      |      |    |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |   |         |       |       |        |       |       |       |       |      |     |      |
| 2    | 7311.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 44.27  | 74.00 | -29.73 | 57.61  | 35.70  | 11.69                                                                               | 60.73  | 0.00 | ---    | PEAK |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |     |        |        |    |      |      |    |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |   |         |       |       |        |       |       |       |       |      |     |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |     |        |        |    |      |      |    |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |   |         |       |       |        |       |       |       |       |      |     |      |
| Avg  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |        |       |        |        |        |                                                                                     |        |      |        |      |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |     |        |        |    |      |      |    |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |   |         |       |       |        |       |       |       |       |      |     |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |  |       |      |      |     |       |        |     |      |      |  |      |       |      |       |       |        |      |        |        |  |        |     |        |        |    |      |      |    |    |    |    |     |   |         |       |       |        |       |       |      |       |      |     |      |   |         |       |       |        |       |       |       |       |      |     |      |