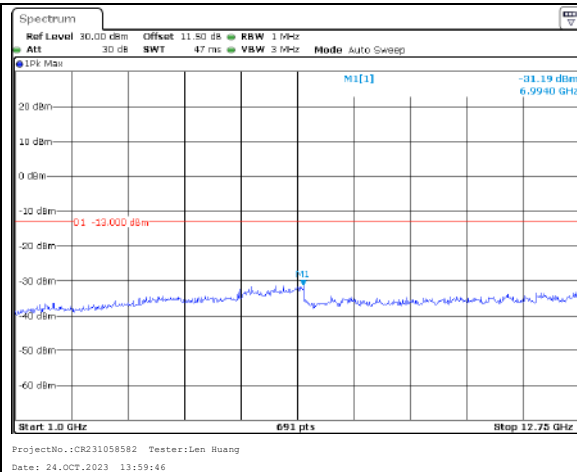
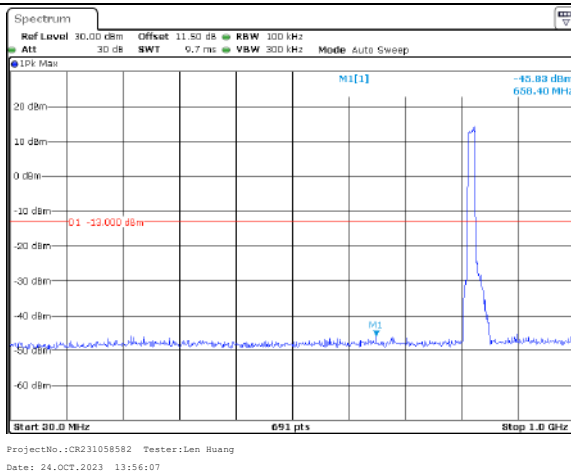
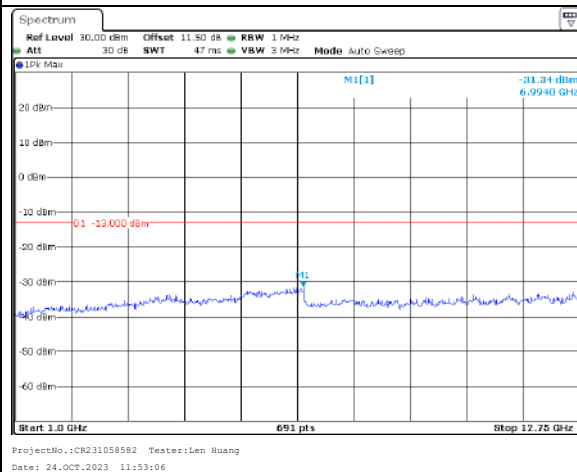
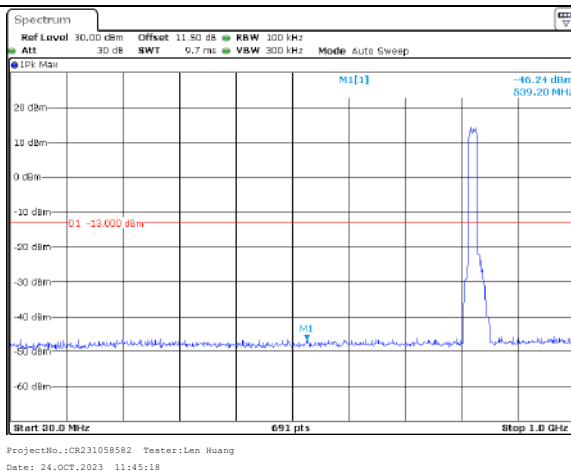


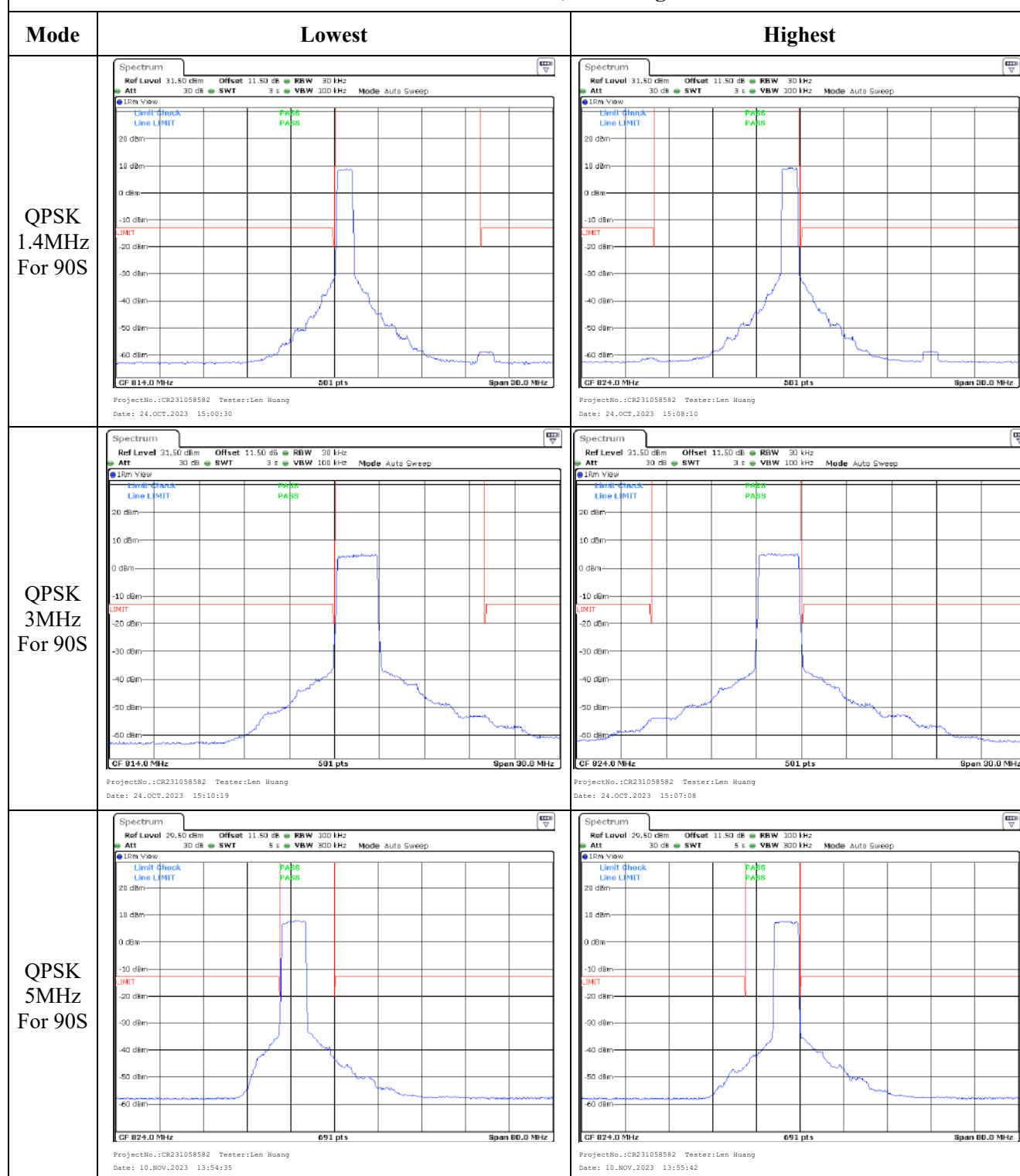
## Spurious Emissions at Antenna Terminal

Channel

15MHz Bandwidth QPSK

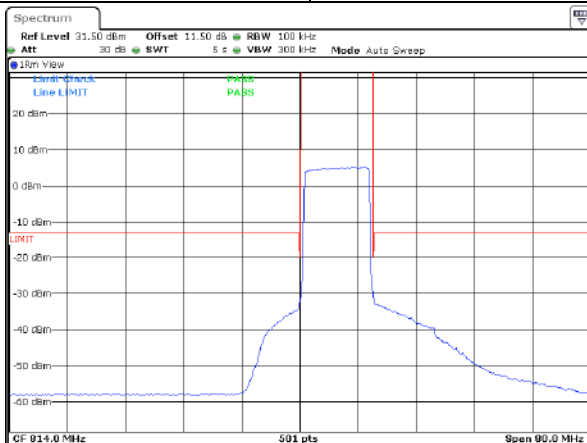
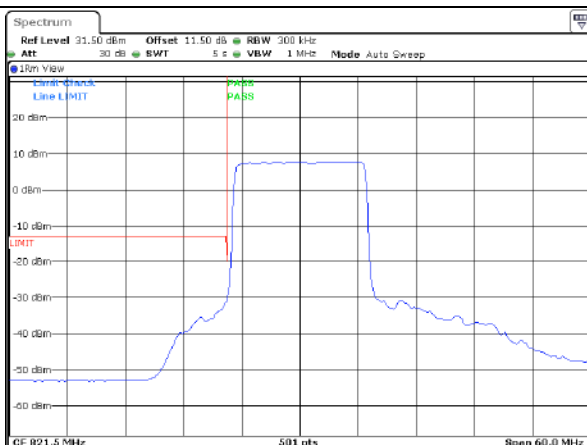
Lowest  
For 90SCross  
Channel

## Out of band emission, Band Edge

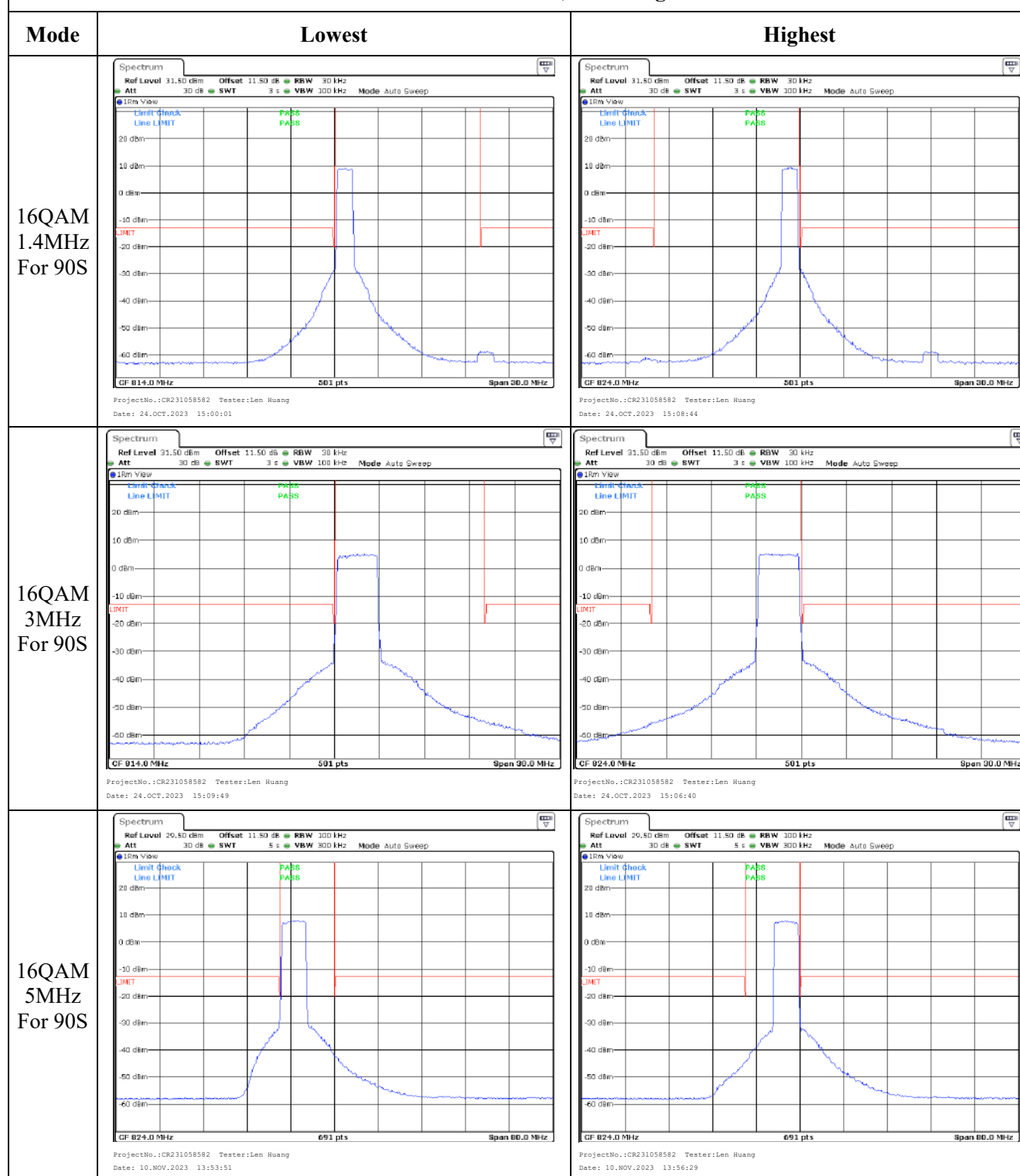


## Out of band emission, Band Edge

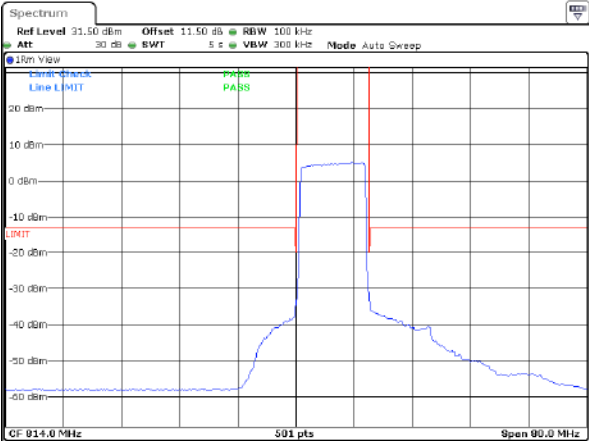
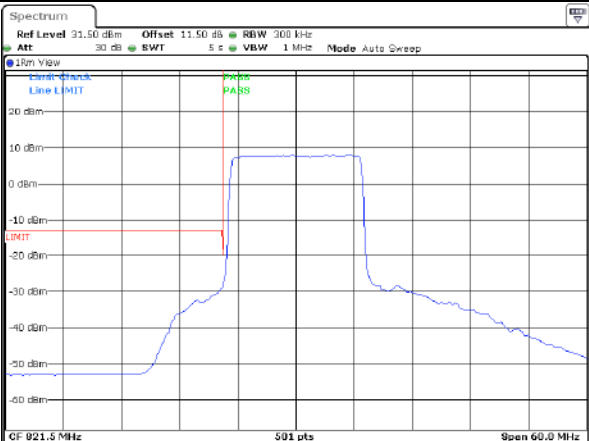
Mode

QPSK  
10MHz  
For 90SQPSK  
15MHz  
Across  
90S and  
22H

## Out of band emission, Band Edge



Out of band emission, Band Edge

| Mode                                       |                                                                                                                                                                             |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 16QAM<br>10MHz<br>For 90S                  | <div><p>ProjectNo.:CR231058582 Tester:Len Huang<br/>Date: 24.OCT.2023 14:47:05</p></div>  |
| 16QAM<br>15MHz<br>Across<br>90S and<br>22H | <div><p>ProjectNo.:CR231058582 Tester:Len Huang<br/>Date: 24.OCT.2023 14:54:13</p></div> |

## 4.12.3 Test Data for Part 22H:

| FCC§2.1046; § 22.913 (a)    |                            |                                     |                          |                           |                   |                 |
|-----------------------------|----------------------------|-------------------------------------|--------------------------|---------------------------|-------------------|-----------------|
| RF Output Power:            |                            |                                     |                          |                           |                   |                 |
| Test Bandwidth & Modulation | Resource Block & RB offset | Conducted Average Output Power(dBm) |                          |                           | Maximum ERP (dBm) | ERP Limit (dBm) |
|                             |                            | Lowest Frequency For 22H            | Middle Frequency For 22H | Highest Frequency For 22H |                   |                 |
| 1.4MHz QPSK                 | RB1#0                      | 23.03                               | 23.29                    | 23.14                     | 17.64             | 38.45           |
|                             | RB1#3                      | 23.03                               | 23.2                     | 23.30                     |                   |                 |
|                             | RB1#5                      | 23.05                               | 23.33                    | 23.34                     |                   |                 |
|                             | RB3#0                      | 24.11                               | 24.49                    | 24.3                      |                   |                 |
|                             | RB3#3                      | 24.06                               | 24.45                    | 24.31                     |                   |                 |
|                             | RB6#0                      | 22.25                               | 22.44                    | 22.30                     |                   |                 |
| 1.4MHz 16QAM                | RB1#0                      | 23                                  | 23.06                    | 21.89                     | 16.56             | 38.45           |
|                             | RB1#3                      | 23                                  | 23.04                    | 22.1                      |                   |                 |
|                             | RB1#5                      | 22.57                               | 23.10                    | 22.10                     |                   |                 |
|                             | RB3#0                      | 23.15                               | 23.28                    | 23.35                     |                   |                 |
|                             | RB3#3                      | 23.25                               | 23.23                    | 23.41                     |                   |                 |
|                             | RB6#0                      | 22.59                               | 22.50                    | 22.57                     |                   |                 |
| 3MHz QPSK                   | RB1#0                      | 22.99                               | 23.22                    | 23.11                     | 16.45             | 38.45           |
|                             | RB1#8                      | 23.1                                | 23.26                    | 23.06                     |                   |                 |
|                             | RB1#14                     | 23.01                               | 23.3                     | 23.19                     |                   |                 |
|                             | RB6#0                      | 22.29                               | 22.5                     | 22.18                     |                   |                 |
|                             | RB6#9                      | 22.08                               | 22.33                    | 22.22                     |                   |                 |
|                             | RB15#0                     | 22.36                               | 22.28                    | 22.1                      |                   |                 |
| 3MHz 16QAM                  | RB1#0                      | 22.8                                | 22.01                    | 22.49                     | 15.95             | 38.45           |
|                             | RB1#8                      | 22.76                               | 21.98                    | 22.44                     |                   |                 |
|                             | RB1#14                     | 22.73                               | 21.98                    | 22.57                     |                   |                 |
|                             | RB6#0                      | 22.46                               | 22.80                    | 22.2                      |                   |                 |
|                             | RB6#9                      | 22.21                               | 22.57                    | 22.43                     |                   |                 |
|                             | RB15#0                     | 22.43                               | 22.36                    | 22.23                     |                   |                 |
| 5MHz QPSK                   | RB1#0                      | 23.05                               | 23.2                     | 23.21                     | 16.4              | 38.45           |
|                             | RB1#13                     | 23.12                               | 23.19                    | 23.13                     |                   |                 |
|                             | RB1#24                     | 23.08                               | 23.17                    | 23.25                     |                   |                 |
|                             | RB15#0                     | 22.31                               | 22.54                    | 22.2                      |                   |                 |
|                             | RB15#10                    | 22.13                               | 22.35                    | 22.15                     |                   |                 |
|                             | RB25#0                     | 22.01                               | 22.27                    | 22.1                      |                   |                 |
| 5MHz 16QAM                  | RB1#0                      | 22.26                               | 22.32                    | 21.24                     | 15.73             | 38.45           |
|                             | RB1#13                     | 22.13                               | 22.34                    | 21.24                     |                   |                 |
|                             | RB1#24                     | 21.99                               | 22.39                    | 21.45                     |                   |                 |
|                             | RB15#0                     | 22.19                               | 22.58                    | 22.3                      |                   |                 |
|                             | RB15#10                    | 22                                  | 22.34                    | 22.33                     |                   |                 |
|                             | RB25#0                     | 22.03                               | 22.48                    | 22.4                      |                   |                 |

|             |         |       |       |       |       |       |
|-------------|---------|-------|-------|-------|-------|-------|
| 10MHz QPSK  | RB1#0   | 23.18 | 22.97 | 23.22 | 16.52 | 38.45 |
|             | RB1#25  | 23.12 | 23.35 | 23.11 |       |       |
|             | RB1#49  | 23.37 | 23.33 | 23.18 |       |       |
|             | RB25#0  | 21.97 | 22.6  | 22.18 |       |       |
|             | RB25#25 | 22    | 22.3  | 22.22 |       |       |
|             | RB50#0  | 22.09 | 22.29 | 22.18 |       |       |
| 10MHz 16QAM | RB1#0   | 22.22 | 21.76 | 22.55 | 15.9  | 38.45 |
|             | RB1#25  | 22.18 | 22.13 | 22.37 |       |       |
|             | RB1#49  | 22.53 | 22.07 | 22.56 |       |       |
|             | RB25#0  | 22.25 | 22.75 | 22.4  |       |       |
|             | RB25#25 | 22.15 | 22.59 | 22.28 |       |       |
|             | RB50#0  | 22.16 | 22.48 | 22.3  |       |       |
| 15MHz QPSK  | RB1#0   | 23.28 | 22.99 | 23.16 | 16.61 | 38.45 |
|             | RB1#38  | 23.1  | 23.23 | 23.26 |       |       |
|             | RB1#74  | 23.46 | 23.2  | 23.31 |       |       |
|             | RB36#0  | 22.04 | 22.28 | 22.38 |       |       |
|             | RB36#39 | 22.48 | 22.21 | 22.2  |       |       |
|             | RB75#0  | 21.96 | 22.24 | 22.33 |       |       |
| 15MHz 16QAM | RB1#0   | 22.2  | 22.28 | 22.82 | 15.98 | 38.45 |
|             | RB1#38  | 22.15 | 22.64 | 22.75 |       |       |
|             | RB1#74  | 22.54 | 22.55 | 22.83 |       |       |
|             | RB36#0  | 22.16 | 22.41 | 22.4  |       |       |
|             | RB36#39 | 22.7  | 22.35 | 22.22 |       |       |
|             | RB75#0  | 22.14 | 22.39 | 22.34 |       |       |

Note:

ERP= Conducted Power(dBm) - Lc(dB) + G<sub>T</sub>(dBd)G<sub>T</sub>(dBd)=G<sub>T</sub>(dBi)-2.15**Result:****Pass****Peak-to-average Ratio (PAR)**

| Test Bandwidth<br>&<br>Modulation | Resource Block<br>& RB offset | Peak-to-average Ratio(dB)      |                                |                                 | Limit<br>(dB) |
|-----------------------------------|-------------------------------|--------------------------------|--------------------------------|---------------------------------|---------------|
|                                   |                               | Lowest<br>Frequency<br>For 22H | Middle<br>Frequency<br>For 22H | Highest<br>Frequency<br>For 22H |               |
| 15MHz QPSK                        | RB1#0                         | 5.42                           | 5.04                           | 4.67                            | 13            |
|                                   | RB75#0                        | 4.96                           | 4.96                           | 5.10                            | 13            |
| 15MHz 16QAM                       | RB1#0                         | 6.06                           | 6.00                           | 5.71                            | 13            |
|                                   | RB75#0                        | 5.68                           | 5.71                           | 6.43                            | 13            |
| <b>Result:</b>                    |                               |                                |                                |                                 | <b>Pass</b>   |

**FCC §2.1049, §22.905: Occupied Bandwidth**

| Operation Mode                                                       | 99% Occupied Bandwidth (MHz) |                |                 | 26 dB Occupied Bandwidth (MHz) |                |                 |
|----------------------------------------------------------------------|------------------------------|----------------|-----------------|--------------------------------|----------------|-----------------|
|                                                                      | Lowest For 22H               | Middle For 22H | Highest For 22H | Lowest For 22H                 | Middle For 22H | Highest For 22H |
| 1.4MHz QPSK                                                          | 1.10                         | 1.10           | 1.102           | 1.25                           | 1.25           | 1.254           |
| 1.4MHz 16QAM                                                         | 1.102                        | 1.10           | 1.102           | 1.266                          | 1.25           | 1.248           |
| 3MHz QPSK                                                            | 2.695                        | 2.695          | 2.683           | 3.012                          | 3.000          | 3.024           |
| 3MHz 16QAM                                                           | 2.683                        | 2.695          | 2.695           | 2.916                          | 3.000          | 3.012           |
| 5MHz QPSK                                                            | 4.511                        | 4.511          | 4.511           | 5.000                          | 4.960          | 5.000           |
| 5MHz 16QAM                                                           | 4.491                        | 4.531          | 4.531           | 4.860                          | 5.000          | 5.000           |
| 10MHz QPSK                                                           | 8.942                        | 8.942          | 8.982           | 9.720                          | 9.760          | 9.760           |
| 10MHz 16QAM                                                          | 8.942                        | 8.942          | 8.982           | 9.720                          | 9.760          | 9.840           |
| 15MHz QPSK                                                           | 13.413                       | 13.533         | 13.473          | 14.820                         | 15.060         | 14.940          |
| 15MHz 16QAM                                                          | 13.533                       | 13.533         | 13.473          | 15.000                         | 14.880         | 14.760          |
| Note: The test plots please refer to the Plots of Occupied Bandwidth |                              |                |                 |                                |                |                 |

**FCC §2.1051, §22.917(a): Spurious Emissions at Antenna Terminal**

**Result:** Pass, please refer to the test plots of Spurious Emissions at Antenna Terminal.

**FCC §2.1051, §22.917(a): Out of band emission, Band Edge**

**Result:** Pass, please refer to the test plots of Out of band emission, Band Edge.

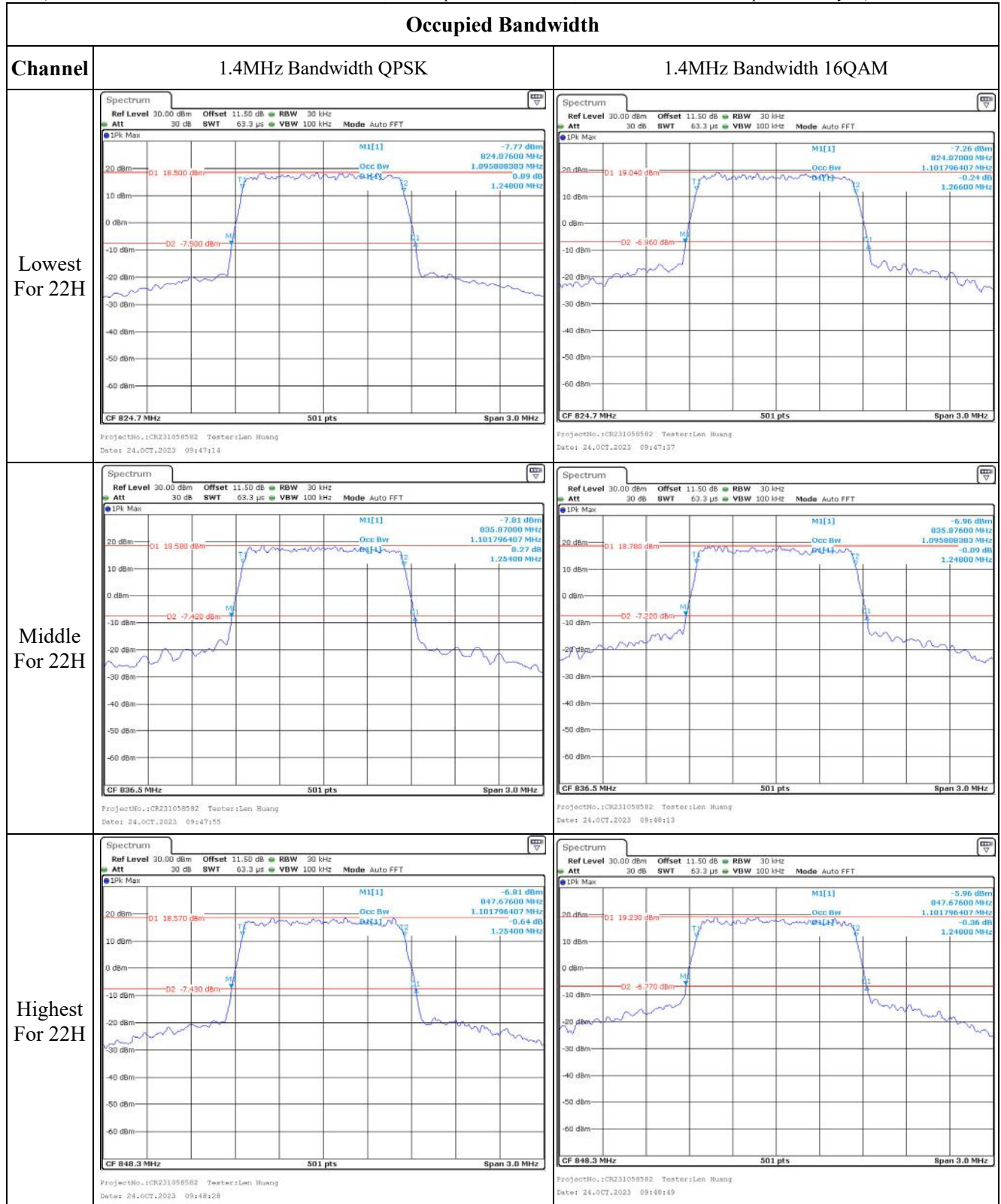
**FCC §2.1055, §22.355: Frequency Stability**

| Test Modulation:                    | 15 MHz QPSK      |                            | Test Channel:   | 831.5       | MHz   |
|-------------------------------------|------------------|----------------------------|-----------------|-------------|-------|
| Test Item                           | Temperature (°C) | Voltage (V <sub>DC</sub> ) | Frequency Error |             | Limit |
|                                     |                  |                            | (Hz)            | (ppm)       | (ppm) |
| Frequency Stability vs. Temperature | -30              | 3.85                       | 117.125         | 0.141       | 2.5   |
|                                     | -20              | 3.85                       | 107.967         | 0.130       | 2.5   |
|                                     | -10              | 3.85                       | 113.506         | 0.137       | 2.5   |
|                                     | 0                | 3.85                       | 112.676         | 0.136       | 2.5   |
|                                     | 10               | 3.85                       | 105.663         | 0.127       | 2.5   |
|                                     | 20               | 3.85                       | 113.431         | 0.136       | 2.5   |
|                                     | 30               | 3.85                       | 112.725         | 0.136       | 2.5   |
|                                     | 40               | 3.85                       | 114.006         | 0.137       | 2.5   |
|                                     | 50               | 3.85                       | 103.014         | 0.124       | 2.5   |
| Frequency Stability vs. Voltage     | 20               | 3.27                       | 119.160         | 0.143       | 2.5   |
|                                     | 20               | 4.43                       | 102.656         | 0.123       | 2.5   |
| <b>Result:</b>                      |                  |                            |                 | <b>Pass</b> |       |

| FCC §2.1055, §22.355: Frequency Stability |                  |                            |                 |                |             |
|-------------------------------------------|------------------|----------------------------|-----------------|----------------|-------------|
| Test Modulation:                          | 15 MHz 16QAM     |                            | Test Channel:   | 831.5          | MHz         |
| Test Item                                 | Temperature (°C) | Voltage (V <sub>DC</sub> ) | Frequency Error |                | Limit       |
|                                           |                  |                            | (Hz)            | (ppm)          | (ppm)       |
| Frequency Stability vs. Temperature       | -30              | 3.85                       | 102.958         | 0.124          | 2.5         |
|                                           | -20              | 3.85                       | 117.717         | 0.142          | 2.5         |
|                                           | -10              | 3.85                       | 107.557         | 0.129          | 2.5         |
|                                           | 0                | 3.85                       | 104.789         | 0.126          | 2.5         |
|                                           | 10               | 3.85                       | 116.706         | 0.140          | 2.5         |
|                                           | 20               | 3.85                       | 102.290         | 0.123          | 2.5         |
|                                           | 30               | 3.85                       | 100.895         | 0.121          | 2.5         |
|                                           | 40               | 3.85                       | 110.289         | 0.133          | 2.5         |
|                                           | 50               | 3.85                       | 116.205         | 0.140          | 2.5         |
| Frequency Stability vs. Voltage           | 20               | 3.27                       | 118.867         | 0.143          | 2.5         |
|                                           | 20               | 4.43                       | 116.997         | 0.141          | 2.5         |
|                                           |                  |                            |                 | <b>Result:</b> | <b>Pass</b> |

#### 4.12.4 Test Plots for Part 22H:

(Note: The 10.5dB is the Insertion loss of the RF cable, Power Splitter and DC Block, which was offset into the Spectrum Analyzer):

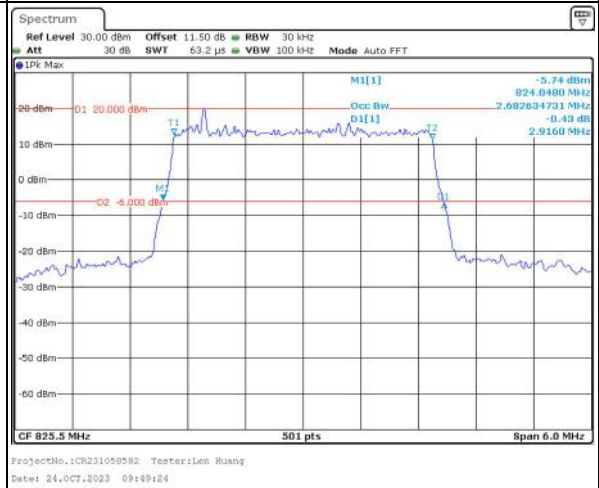
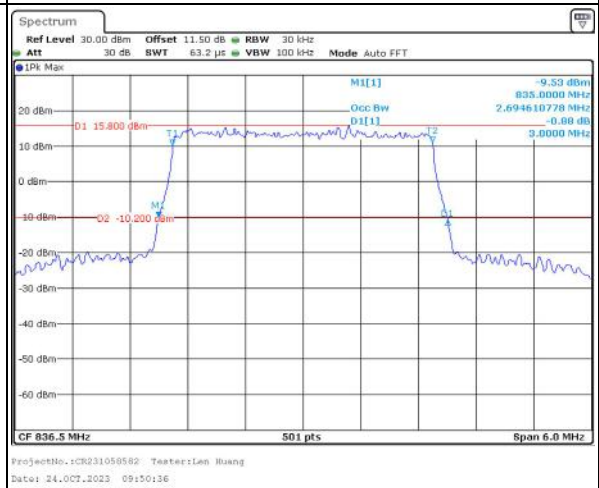
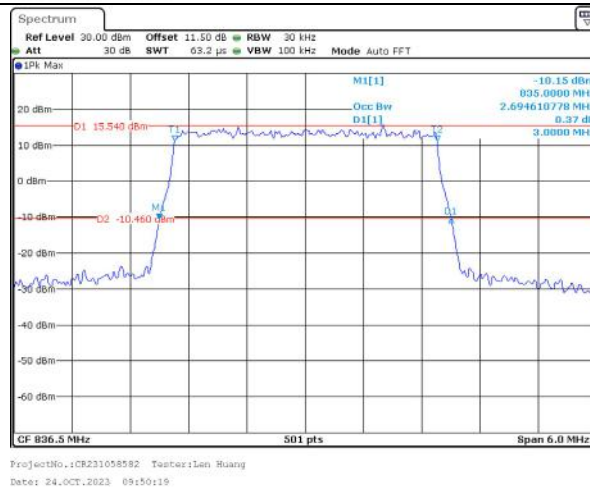
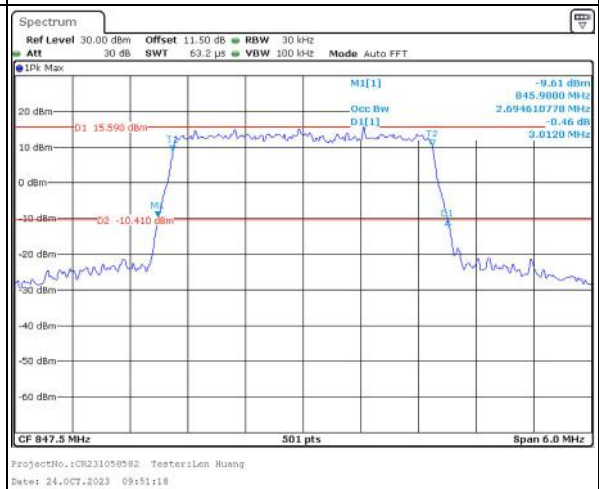
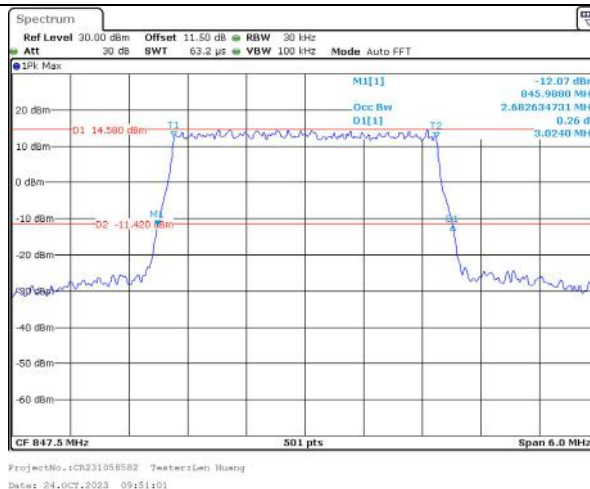


## Occupied Bandwidth

## Channel

## 3MHz Bandwidth QPSK

## 3MHz Bandwidth 16QAM

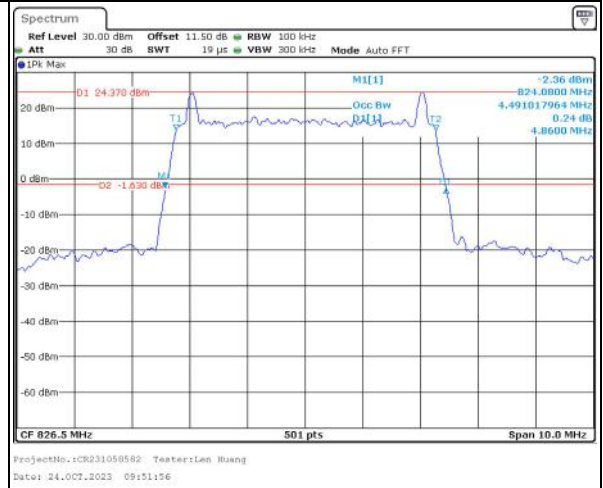
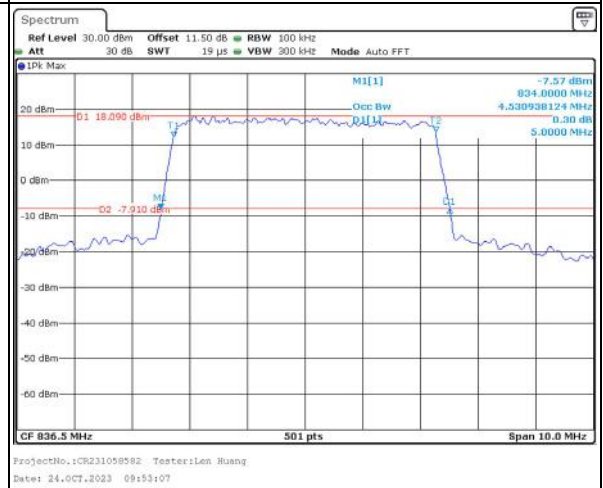
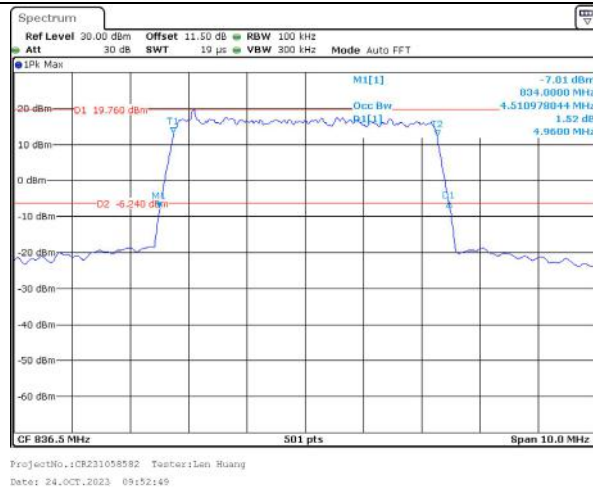
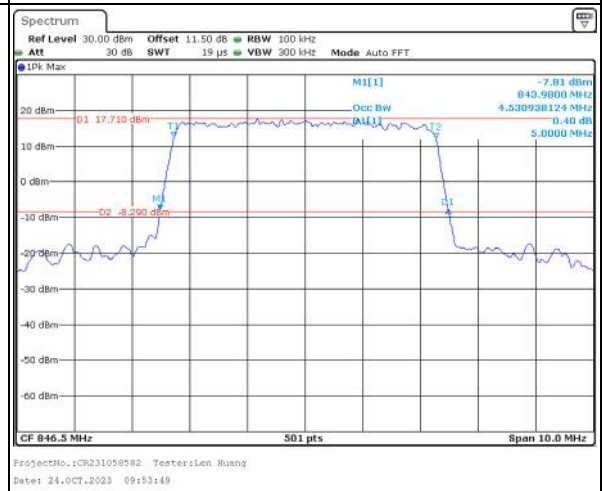
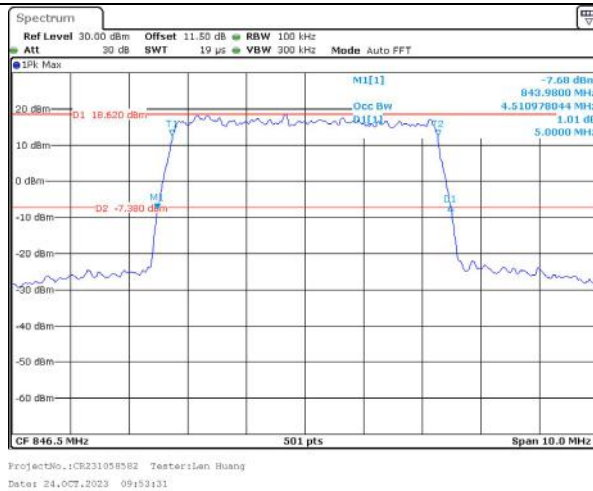
Lowest  
For 22HMiddle  
For 22HHighest  
For 22H

## Occupied Bandwidth

## Channel

## 5MHz Bandwidth QPSK

## 5MHz Bandwidth 16QAM

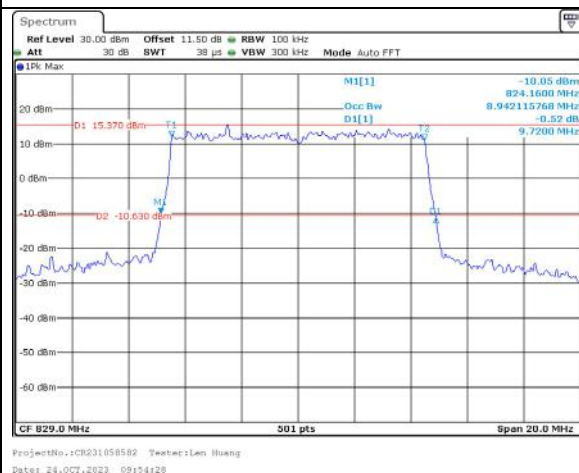
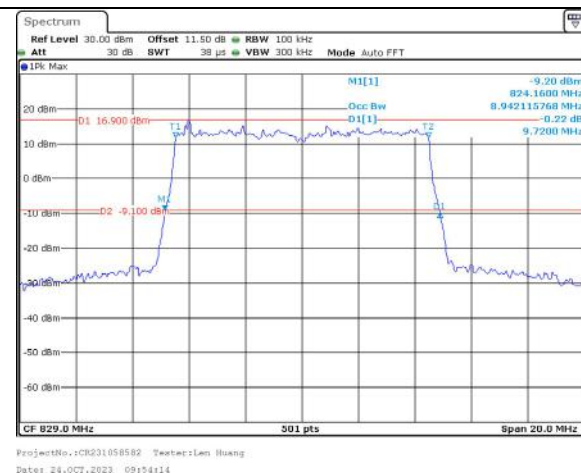
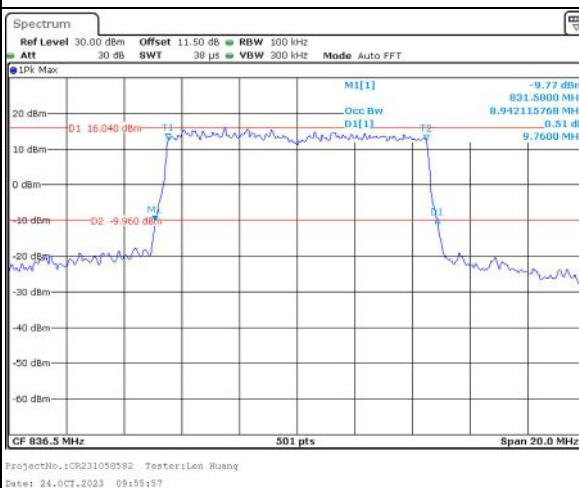
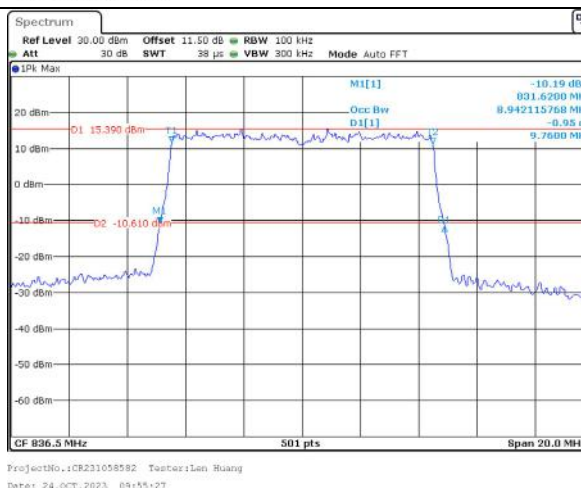
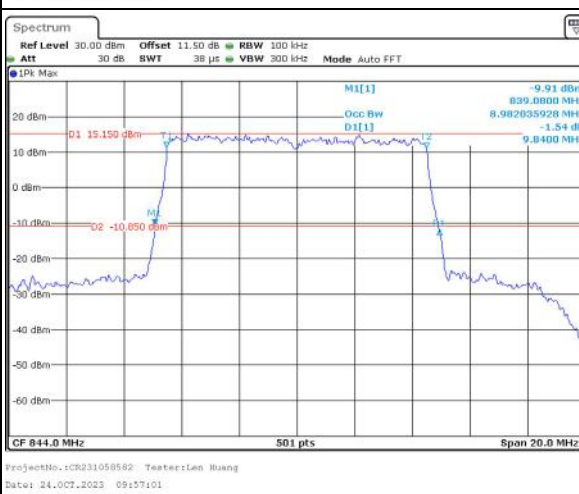
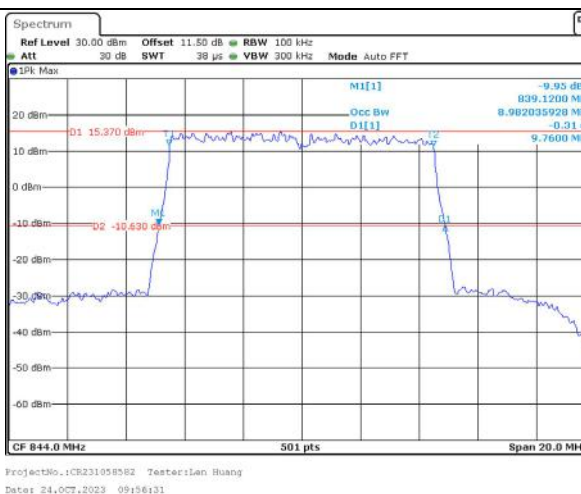
Lowest  
For 22HMiddle  
For 22HHighest  
For 22H

## Occupied Bandwidth

## Channel

## 10MHz Bandwidth QPSK

## 10MHz Bandwidth 16QAM

Lowest  
For 22HMiddle  
For 22HHighest  
For 22H

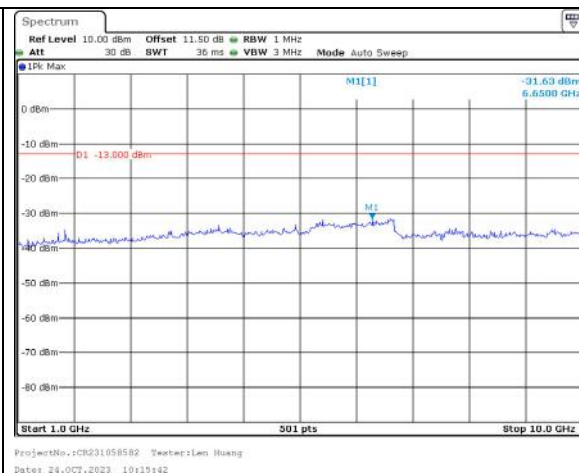
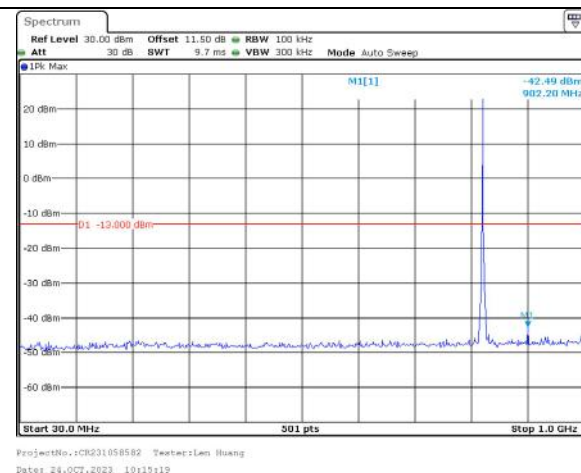
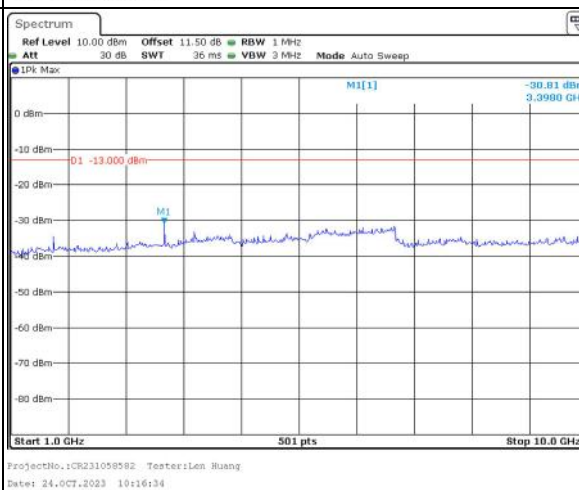
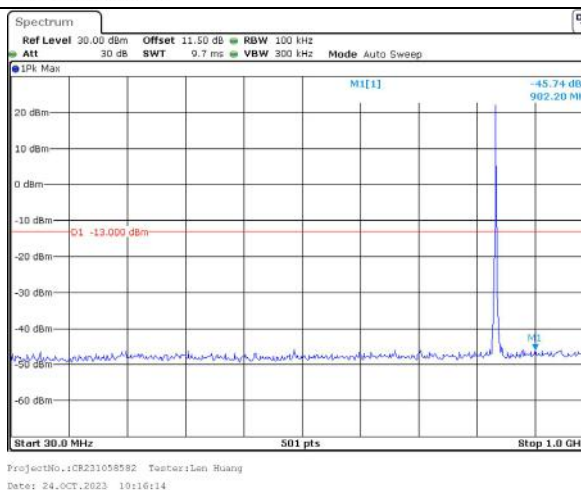
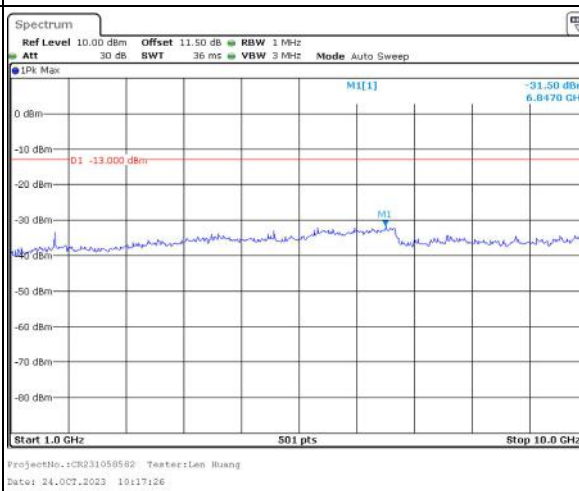
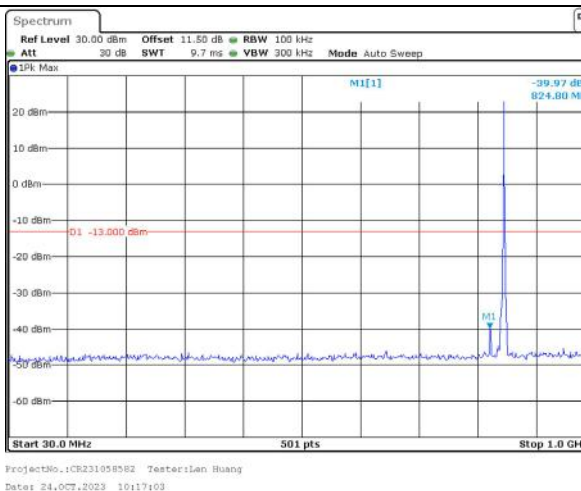
## Occupied Bandwidth

| Channel         | 15MHz Bandwidth QPSK                                                           | 15MHz Bandwidth 16QAM                                                          |
|-----------------|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| Lowest For 22H  | <p>ProjectNo.:CR231058582 Tester:Len Huang<br/>Date: 24.OCT.2023 09:15:133</p> | <p>ProjectNo.:CR231058582 Tester:Len Huang<br/>Date: 24.OCT.2023 09:15:157</p> |
| Middle For 22H  | <p>ProjectNo.:CR231058582 Tester:Len Huang<br/>Date: 24.OCT.2023 09:15:21</p>  | <p>ProjectNo.:CR231058582 Tester:Len Huang<br/>Date: 24.OCT.2023 09:15:31</p>  |
| Highest For 22H | <p>ProjectNo.:CR231058582 Tester:Len Huang<br/>Date: 24.OCT.2023 09:15:109</p> | <p>ProjectNo.:CR231058582 Tester:Len Huang<br/>Date: 24.OCT.2023 09:15:129</p> |

## Spurious Emissions at Antenna Terminal

Channel

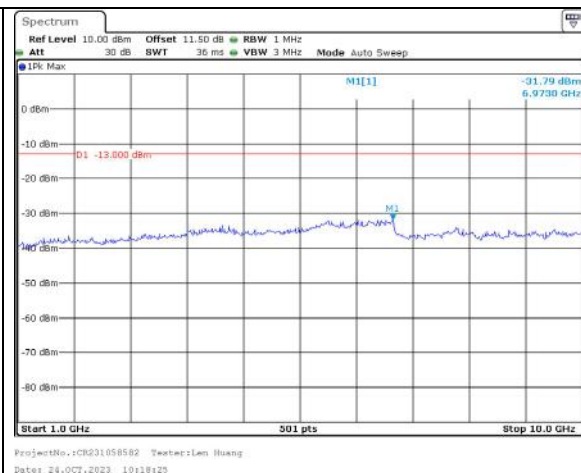
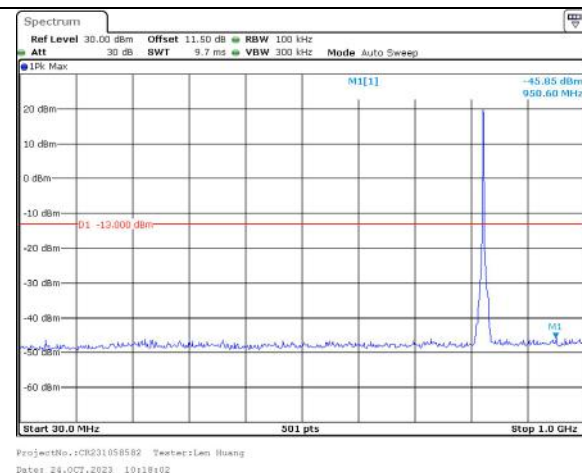
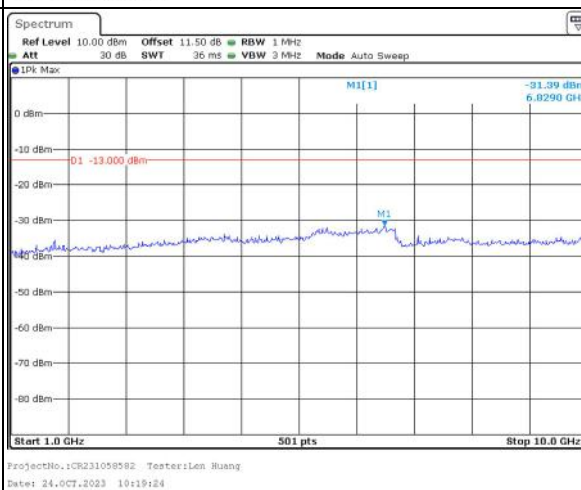
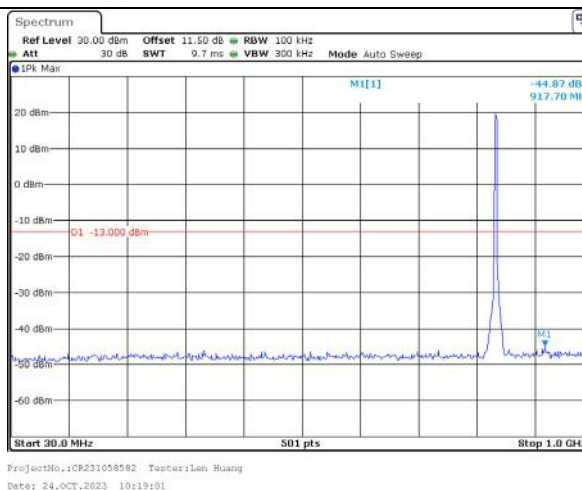
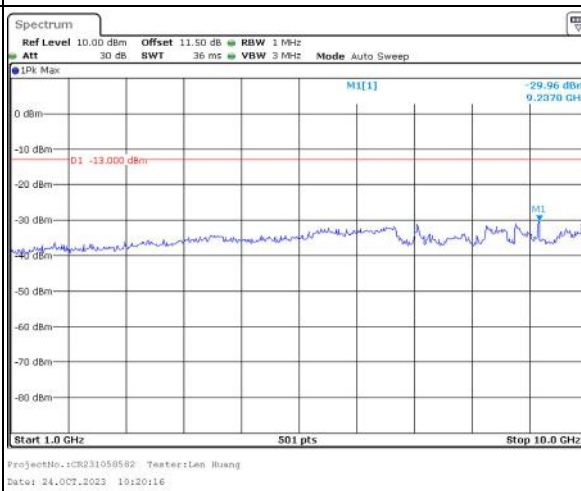
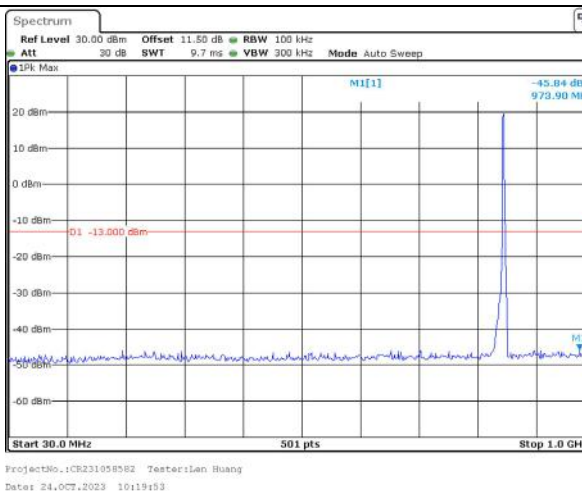
1.4MHz Bandwidth QPSK

Lowest  
For 22HMiddle  
For 22HHighest  
For 22H

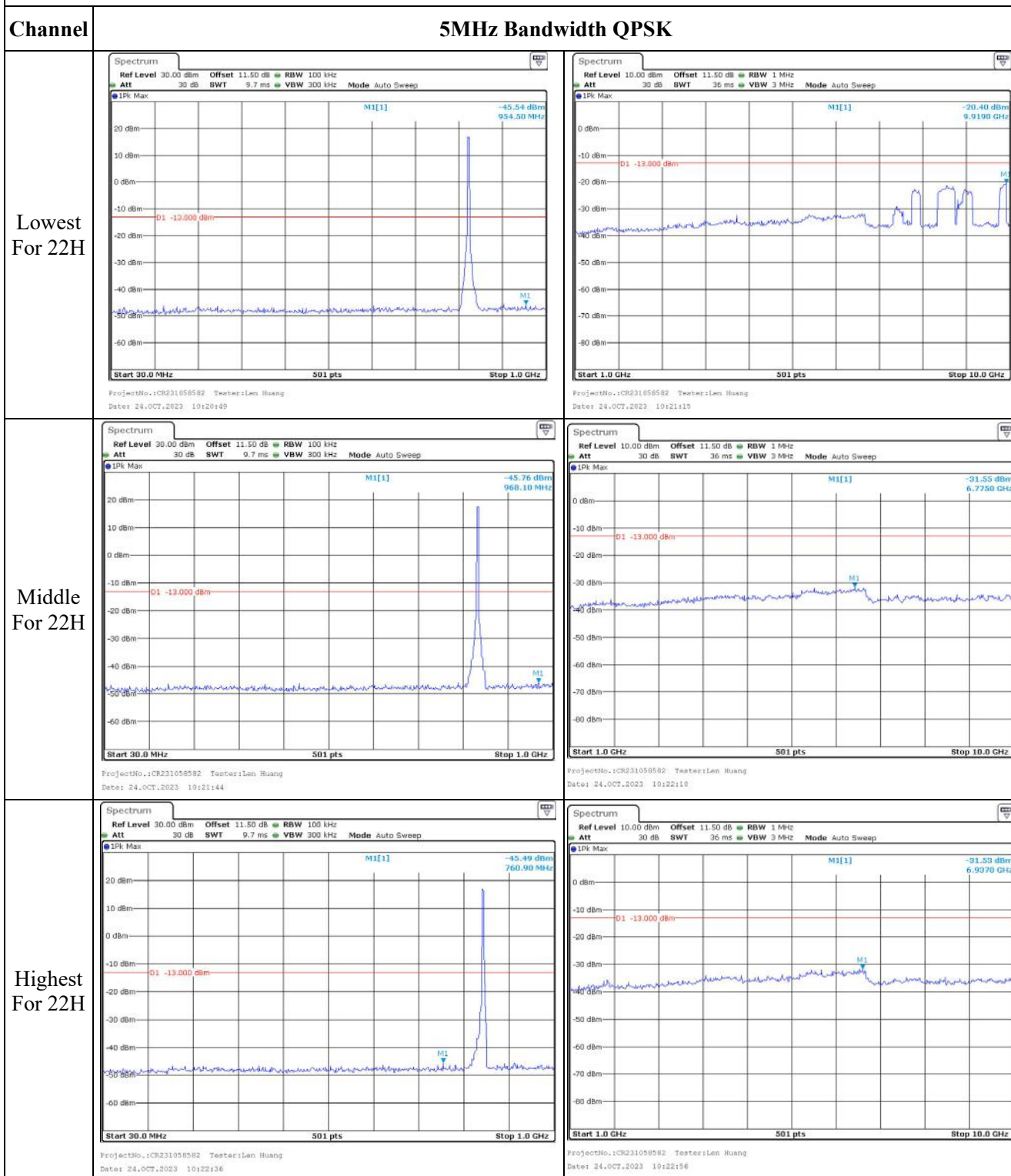
## Spurious Emissions at Antenna Terminal

Channel

3MHz Bandwidth QPSK

Lowest  
For 22HMiddle  
For 22HHighest  
For 22H

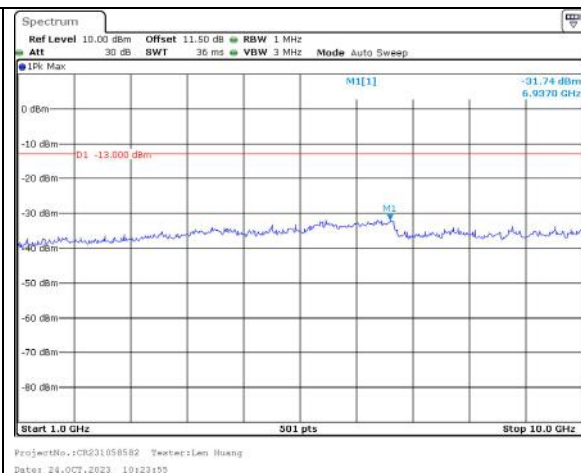
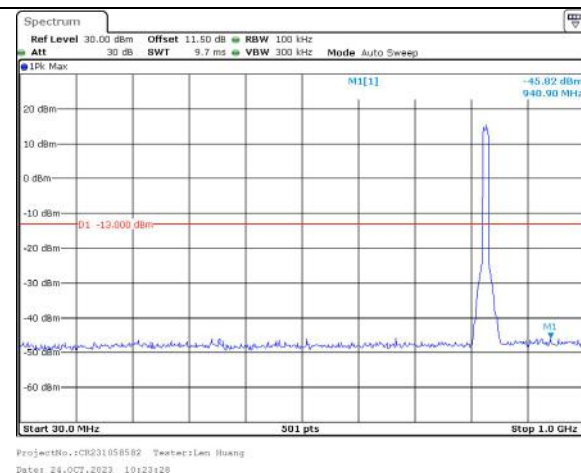
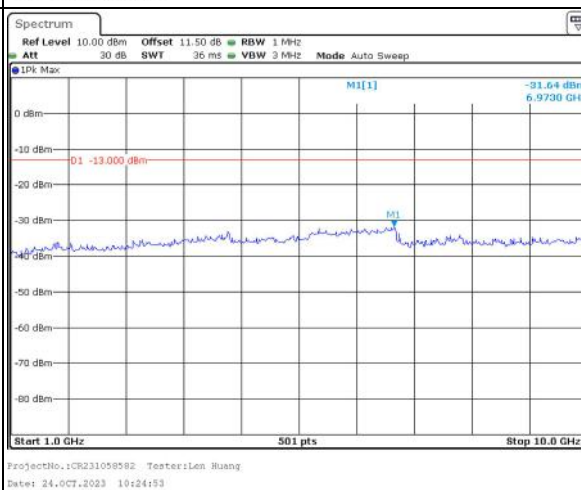
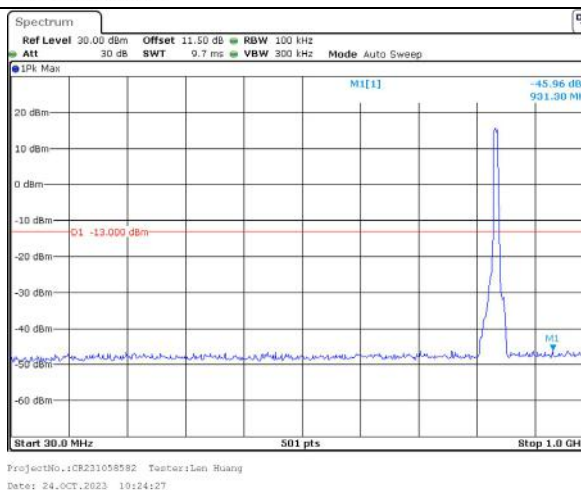
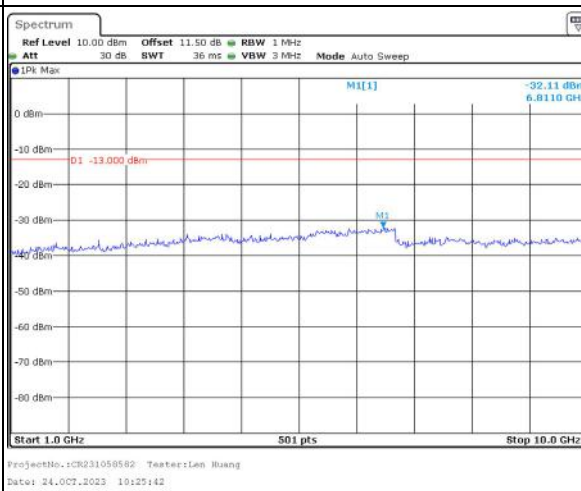
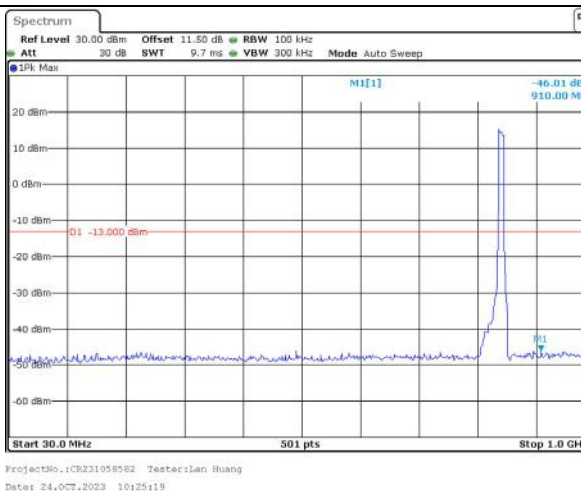
## Spurious Emissions at Antenna Terminal



## Spurious Emissions at Antenna Terminal

Channel

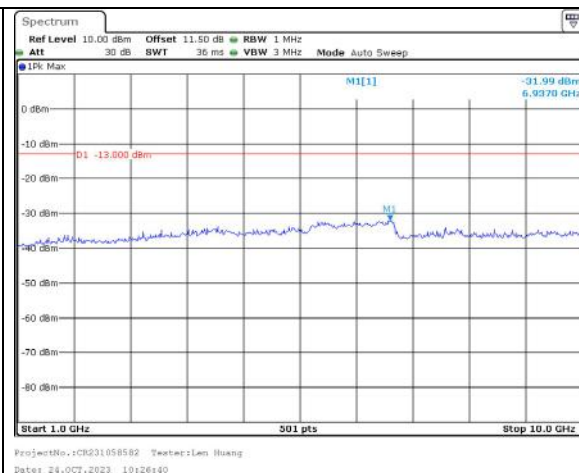
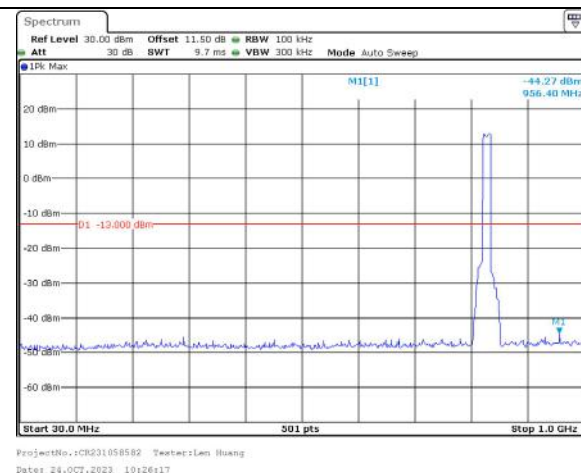
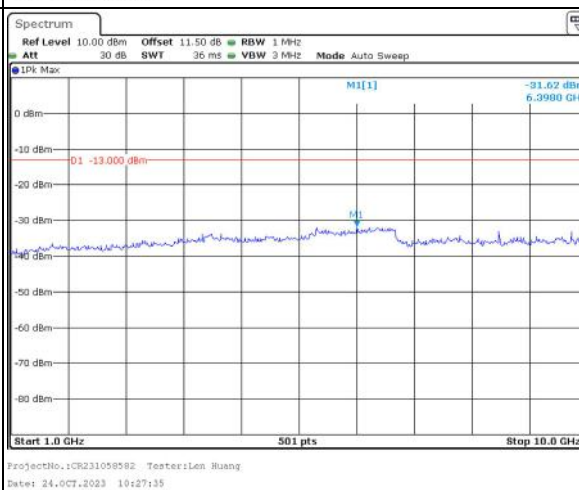
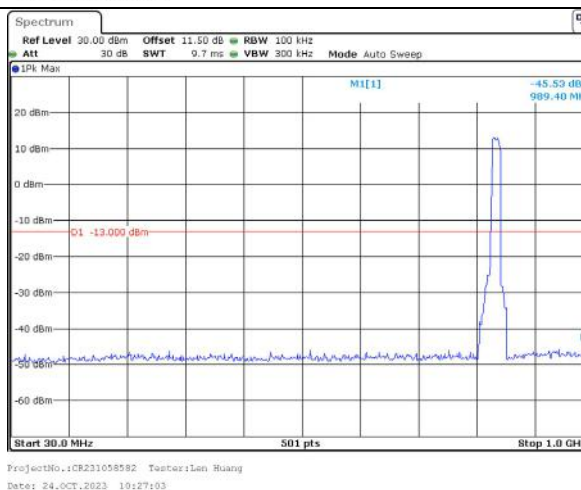
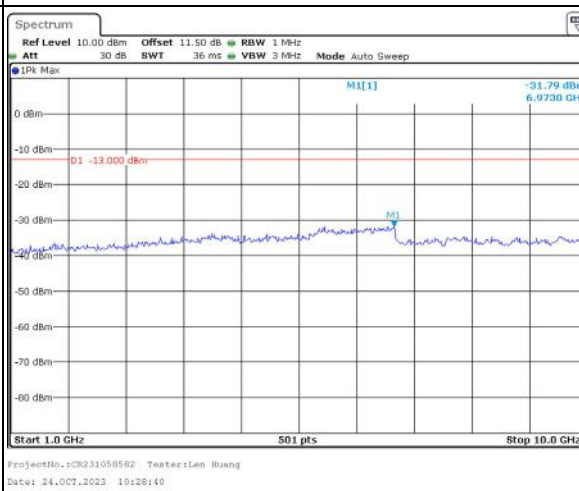
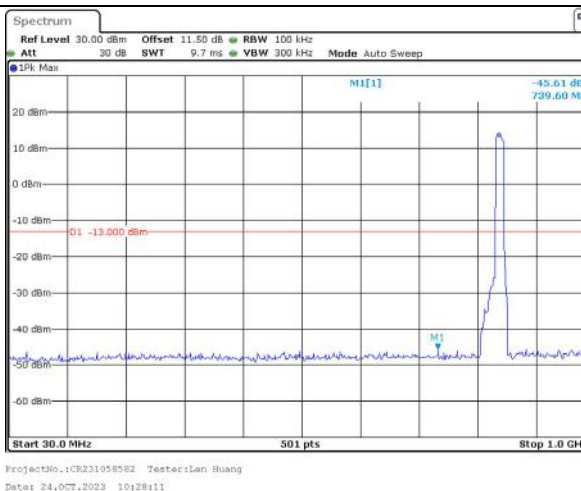
10MHz Bandwidth QPSK

Lowest  
For 22HMiddle  
For 22HHighest  
For 22H

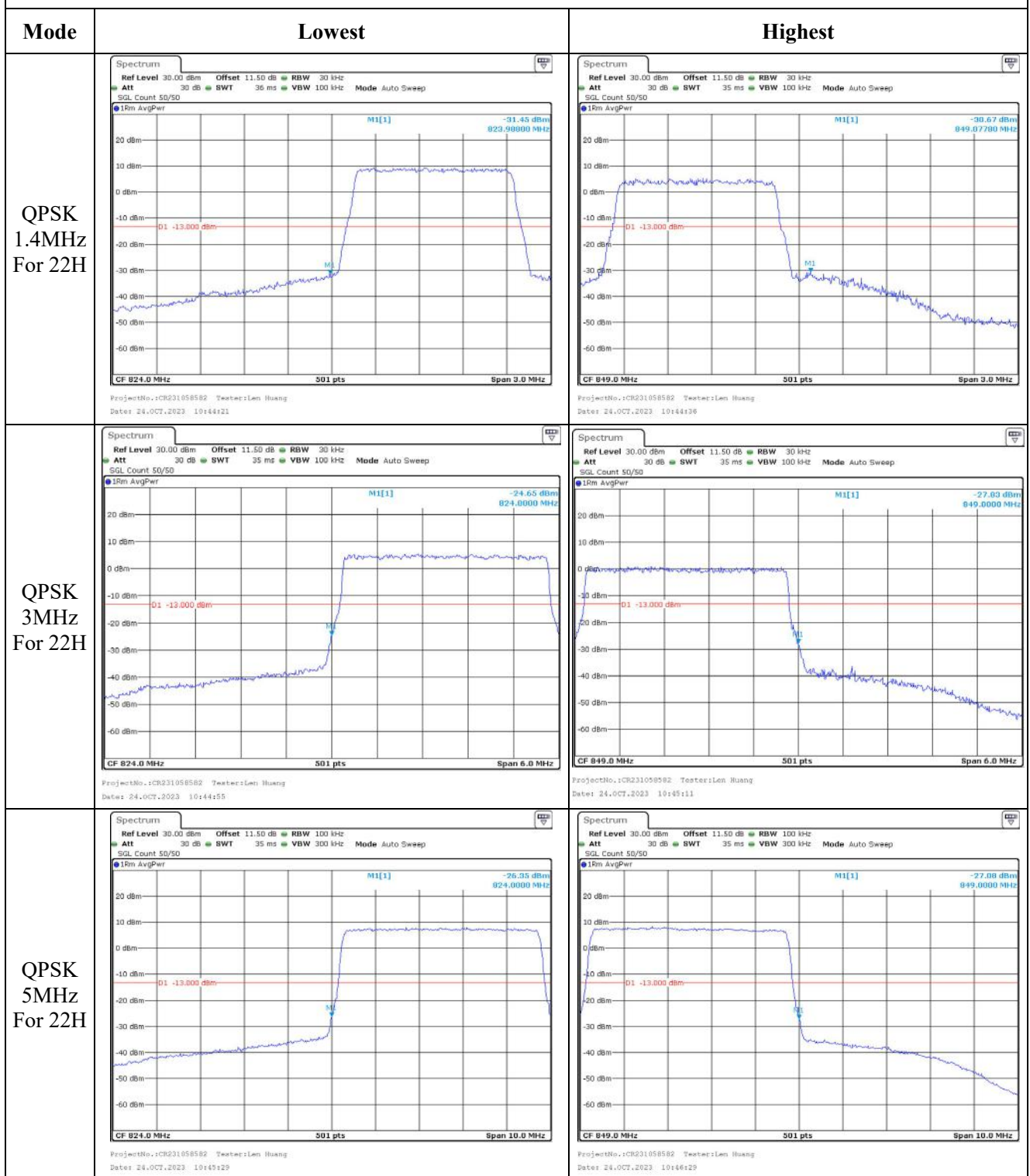
## Spurious Emissions at Antenna Terminal

Channel

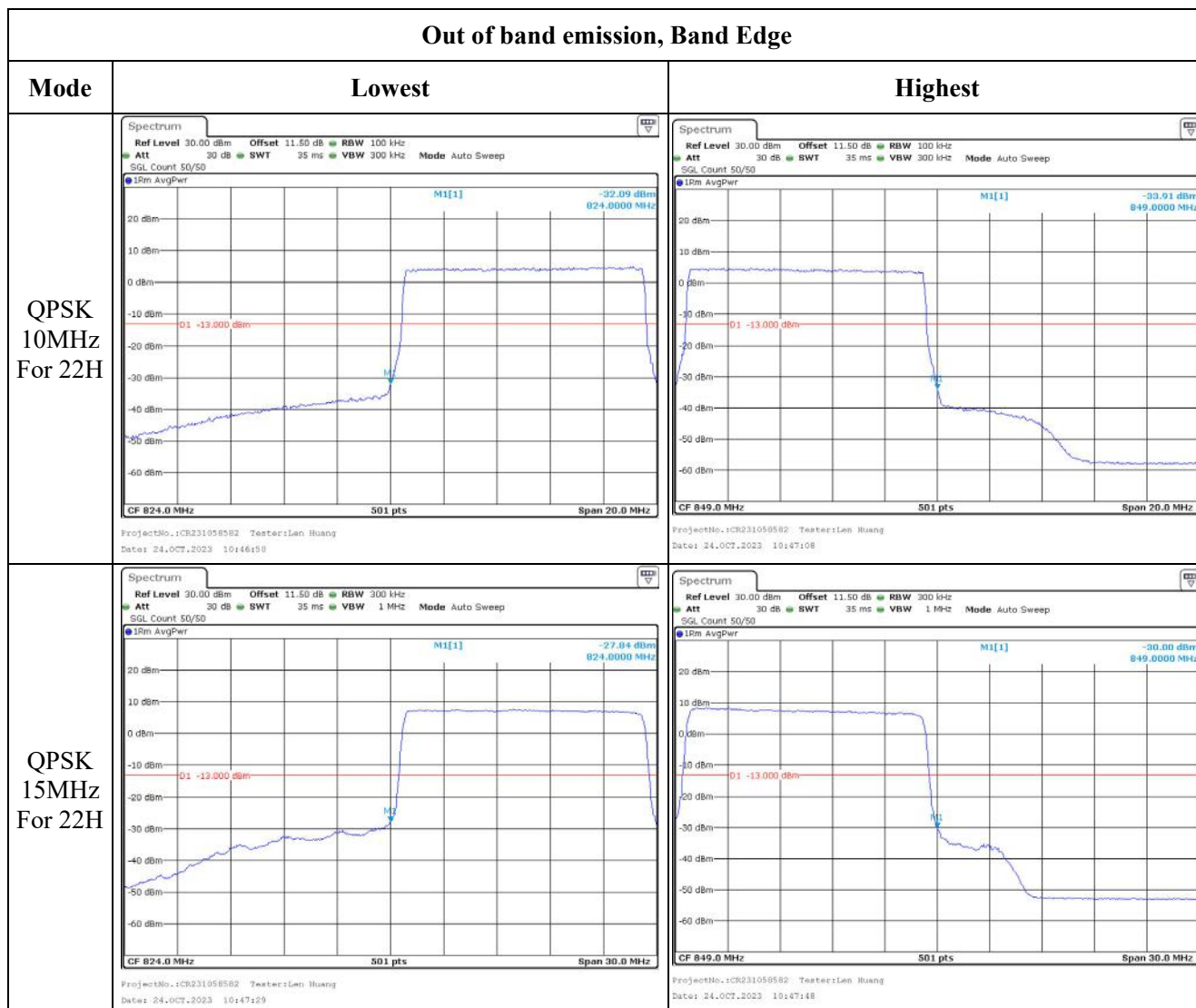
15MHz Bandwidth QPSK

Lowest  
For 22HMiddle  
For 22HHighest  
For 22H

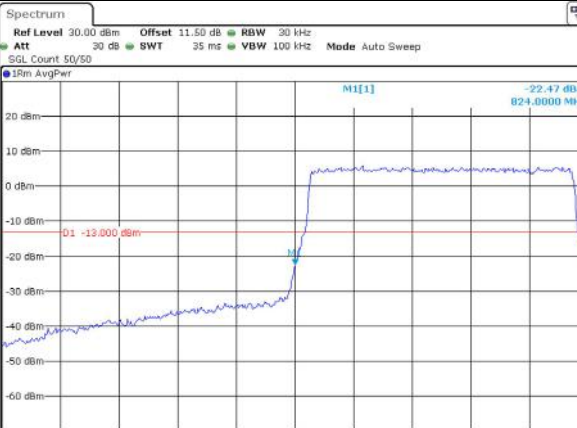
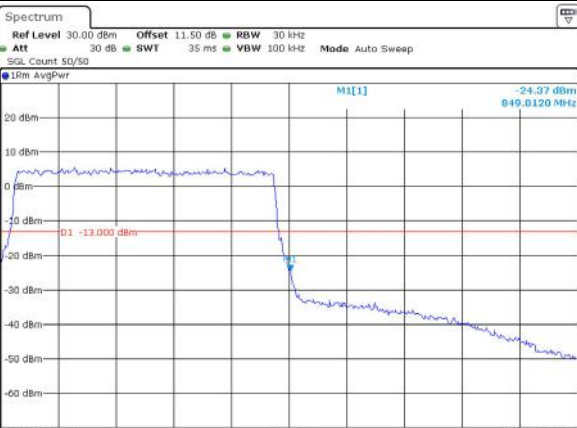
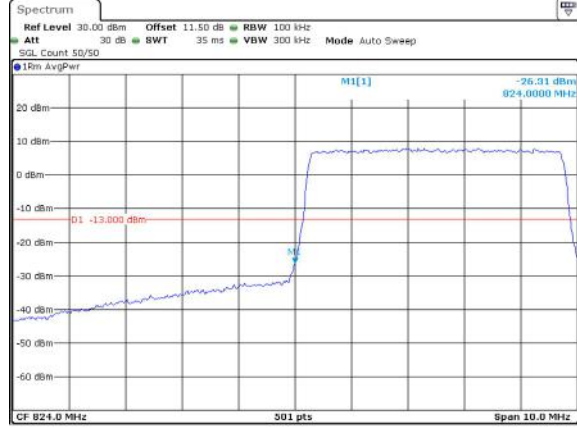
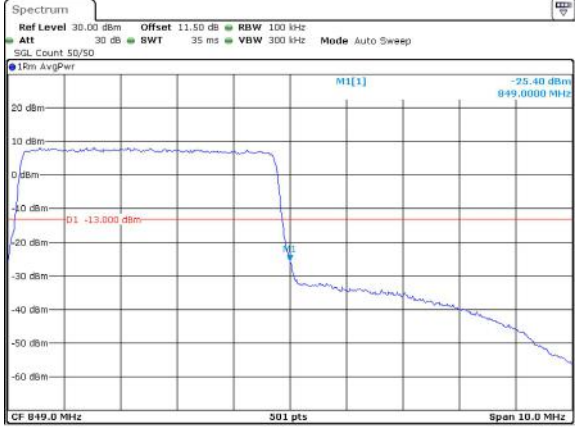
## Out of band emission, Band Edge



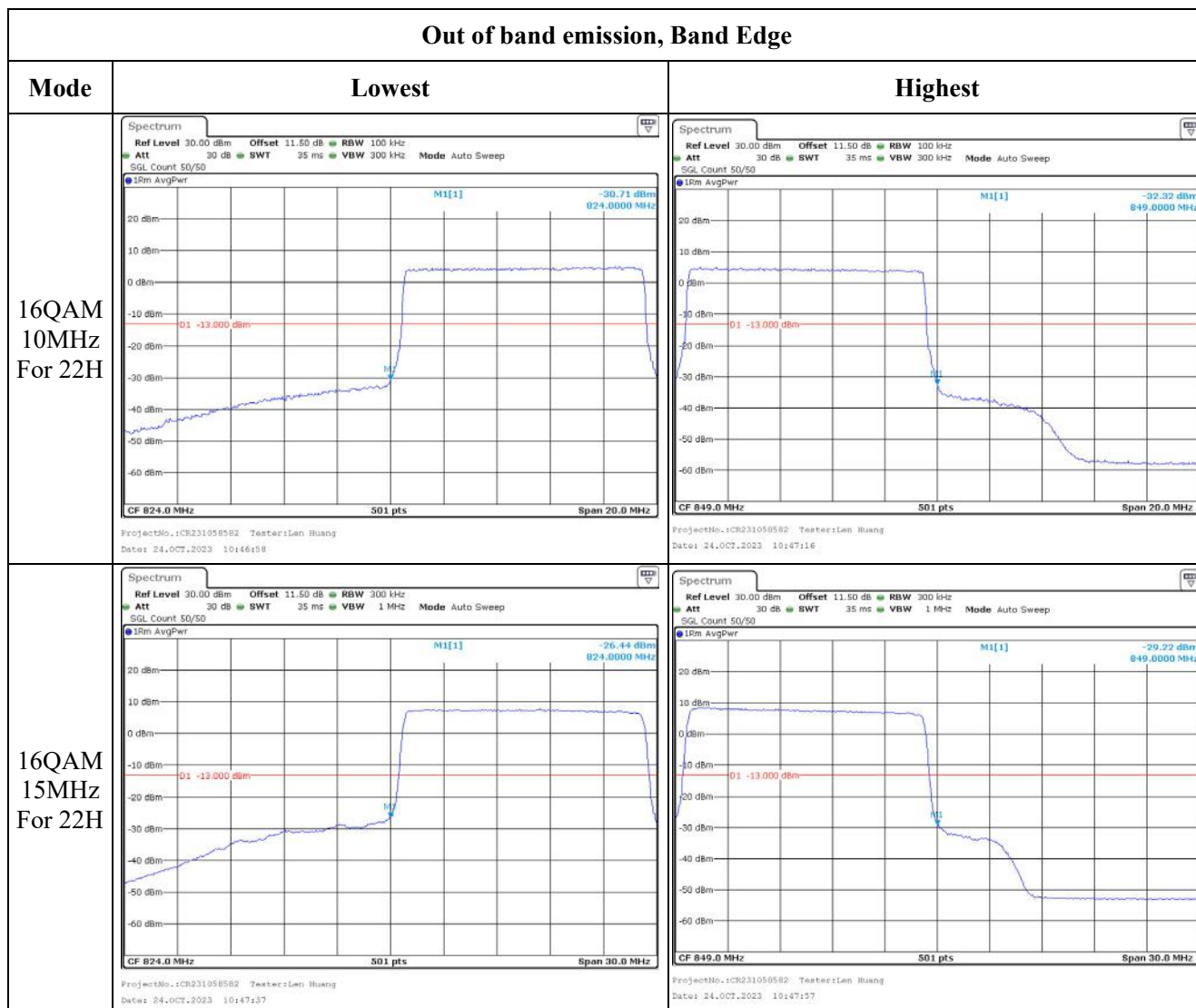
## Out of band emission, Band Edge



## Out of band emission, Band Edge

| Mode                       | Lowest                                                                                                                                                            | Highest                                                                                                                                                            |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 16QAM<br>1.4MHz<br>For 22H |  <p>ProjectNo.:CR231058582 Tester:Len Huang<br/>Date: 24.OCT.2023 10:44:28</p>   |  <p>ProjectNo.:CR231058582 Tester:Len Huang<br/>Date: 24.OCT.2023 10:44:43</p>   |
| 16QAM<br>3MHz<br>For 22H   |  <p>ProjectNo.:CR231058582 Tester:Len Huang<br/>Date: 24.OCT.2023 10:45:03</p>  |  <p>ProjectNo.:CR231058582 Tester:Len Huang<br/>Date: 24.OCT.2023 10:45:18</p>  |
| 16QAM<br>5MHz<br>For 22H   |  <p>ProjectNo.:CR231058582 Tester:Len Huang<br/>Date: 24.OCT.2023 10:45:37</p> |  <p>ProjectNo.:CR231058582 Tester:Len Huang<br/>Date: 24.OCT.2023 10:46:36</p> |

## Out of band emission, Band Edge



**4.13 Antenna Port Test Data and Results for LTE Band 38**

|                |           |              |                     |
|----------------|-----------|--------------|---------------------|
| Serial Number: | 2BZE-3    | Test Date:   | 2023/11/2-2023/11/3 |
| Test Site:     | RF        | Test Mode:   | Transmitting        |
| Tester:        | Len Huang | Test Result: | Pass                |

**Environmental Conditions:**

|                      |           |                           |       |                        |           |
|----------------------|-----------|---------------------------|-------|------------------------|-----------|
| Temperature:<br>(°C) | 24.5-25.5 | Relative Humidity:<br>(%) | 45-46 | ATM Pressure:<br>(kPa) | 101-101.1 |
|----------------------|-----------|---------------------------|-------|------------------------|-----------|

**Test Equipment List and Details:**

| Manufacturer  | Description                         | Model        | Serial Number   | Calibration Date | Calibration Due Date |
|---------------|-------------------------------------|--------------|-----------------|------------------|----------------------|
| R&S           | Spectrum Analyzer                   | FSV40-N      | 102259          | 2023/4/18        | 2024/4/17            |
| zhuoxiang     | Coaxial Cable                       | SMA-178      | 211002          | Each time        | N/A                  |
| Minl-Circuits | Power Splitter                      | ZFRSC-183-S+ | S F448201619    | Each time        | N/A                  |
| R&S           | Wideband Radio Communication Tester | CMW500       | 143458          | 2023/3/31        | 2024/3/30            |
| BACL          | TEMP&HUMI Test Chamber              | BTH-150-40   | 30174           | 2023/3/31        | 2024/3/30            |
| UNI-T         | Multimeter                          | UT39A+       | C210582554      | 2023/9/28        | 2024/9/27            |
| ZHAOXIN       | DC Power Supply                     | RXN-6010D    | 21R6010D0912386 | N/A              | N/A                  |

*\* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

**Test Frequency For Each Mode:**

| Operation Bandwidth | Lowest Frequency (MHz) | Middle Frequency (MHz) | Highest Frequency (MHz) |
|---------------------|------------------------|------------------------|-------------------------|
| 5MHz                | 2572.5                 | 2595                   | 2617.5                  |
| 10MHz               | 2575                   | 2595                   | 2615                    |
| 15MHz               | 2577.5                 | 2595                   | 2612.5                  |
| 20MHz               | 2580                   | 2595                   | 2610                    |

**Test Data:****FCC§2.1046;§ 27.50(h)(2)****RF Output Power:**

| Test Bandwidth<br>&<br>Modulation | Resource Block<br>& RB offset | Conducted Average Output<br>Power(dBm) |                   |                    | Maximum<br>EIRP<br>(dBm) | EIRP Limit<br>(dBm) |
|-----------------------------------|-------------------------------|----------------------------------------|-------------------|--------------------|--------------------------|---------------------|
|                                   |                               | Lowest<br>Channel                      | Middle<br>Channel | Highest<br>Channel |                          |                     |
| 5MHz QPSK                         | RB1#0                         | 22.44                                  | 22.68             | 22.79              | 22.4                     | 33                  |
|                                   | RB1#13                        | 22.49                                  | 22.55             | 22.73              |                          |                     |
|                                   | RB1#24                        | 22.57                                  | 22.64             | 22.8               |                          |                     |
|                                   | RB15#0                        | 21.52                                  | 21.65             | 21.67              |                          |                     |
|                                   | RB15#10                       | 21.52                                  | 21.7              | 21.69              |                          |                     |
|                                   | RB25#0                        | 21.48                                  | 21.65             | 21.67              |                          |                     |
| 5MHz 16QAM                        | RB1#0                         | 21.75                                  | 22.06             | 21.53              | 21.96                    | 33                  |
|                                   | RB1#13                        | 21.73                                  | 22.36             | 21.83              |                          |                     |
|                                   | RB1#24                        | 21.87                                  | 22.19             | 22.12              |                          |                     |
|                                   | RB15#0                        | 20.61                                  | 20.84             | 20.8               |                          |                     |
|                                   | RB15#10                       | 20.66                                  | 20.88             | 20.91              |                          |                     |
|                                   | RB25#0                        | 20.61                                  | 20.63             | 20.99              |                          |                     |
| 10MHz QPSK                        | RB1#0                         | 22.32                                  | 22.86             | 22.67              | 22.46                    | 33                  |
|                                   | RB1#25                        | 22.39                                  | 22.72             | 22.68              |                          |                     |
|                                   | RB1#49                        | 22.49                                  | 22.75             | 22.81              |                          |                     |
|                                   | RB25#0                        | 21.37                                  | 21.54             | 21.58              |                          |                     |
|                                   | RB25#25                       | 21.5                                   | 21.59             | 21.64              |                          |                     |
|                                   | RB50#0                        | 21.36                                  | 21.5              | 21.56              |                          |                     |
| 10MHz 16QAM                       | RB1#0                         | 21.42                                  | 21.77             | 22.41              | 22.01                    | 33                  |
|                                   | RB1#25                        | 21.53                                  | 21.76             | 21.72              |                          |                     |
|                                   | RB1#49                        | 21.72                                  | 21.71             | 22.32              |                          |                     |
|                                   | RB25#0                        | 20.64                                  | 20.62             | 20.8               |                          |                     |
|                                   | RB25#25                       | 20.6                                   | 20.73             | 20.81              |                          |                     |
|                                   | RB50#0                        | 20.47                                  | 20.7              | 20.86              |                          |                     |
| 15MHz QPSK                        | RB1#0                         | 22.65                                  | 22.27             | 22.44              | 22.37                    | 33                  |
|                                   | RB1#38                        | 22.76                                  | 22.21             | 22.6               |                          |                     |
|                                   | RB1#74                        | 22.77                                  | 22.28             | 22.59              |                          |                     |
|                                   | RB36#0                        | 21.4                                   | 21.61             | 21.62              |                          |                     |
|                                   | RB36#39                       | 21.55                                  | 21.71             | 21.61              |                          |                     |
|                                   | RB75#0                        | 21.47                                  | 21.59             | 21.61              |                          |                     |
| 15MHz 16QAM                       | RB1#0                         | 21.77                                  | 21.88             | 21.61              | 21.56                    | 33                  |
|                                   | RB1#38                        | 21.85                                  | 21.86             | 21.63              |                          |                     |
|                                   | RB1#74                        | 21.94                                  | 21.96             | 21.68              |                          |                     |
|                                   | RB36#0                        | 20.46                                  | 20.65             | 20.67              |                          |                     |
|                                   | RB36#39                       | 20.59                                  | 20.71             | 20.65              |                          |                     |
|                                   | RB75#0                        | 20.7                                   | 20.7              | 20.79              |                          |                     |
| 20MHz QPSK                        | RB1#0                         | 22.46                                  | 22.7              | 22.44              | 22.39                    | 33                  |

|             |         |       |       |       |       |    |
|-------------|---------|-------|-------|-------|-------|----|
|             | RB1#50  | 22.63 | 22.75 | 22.55 |       |    |
|             | RB1#99  | 22.67 | 22.79 | 22.48 |       |    |
|             | RB50#0  | 21.48 | 21.59 | 21.77 |       |    |
|             | RB50#50 | 21.6  | 21.72 | 21.75 |       |    |
|             | RB100#0 | 21.51 | 21.57 | 21.76 |       |    |
| 20MHz 16QAM | RB1#0   | 21.36 | 22.74 | 21.4  | 22.36 | 33 |
|             | RB1#50  | 21.42 | 22.45 | 21.56 |       |    |
|             | RB1#99  | 21.65 | 22.76 | 21.49 |       |    |
|             | RB50#0  | 20.65 | 20.82 | 20.95 |       |    |
|             | RB50#50 | 20.78 | 20.8  | 20.96 |       |    |
|             | RB100#0 | 20.53 | 20.76 | 20.81 |       |    |

Note: EIRP=Conducted Power(dBm) - L<sub>c</sub>(dB) + G<sub>T</sub>(dBi)

**Result:** **Pass**

#### Peak-to-average Ratio(PAR)

| Test Bandwidth & Modulation | Resource Block & RB offset | Peak-to-average Ratio(dB) |                |                 | Limit (dB)  |
|-----------------------------|----------------------------|---------------------------|----------------|-----------------|-------------|
|                             |                            | Lowest Channel            | Middle Channel | Highest Channel |             |
| 20MHz QPSK                  | RB1#0                      | 8.87                      | 9.13           | 8.99            | 13          |
|                             | RB100#0                    | 9.01                      | 9.16           | 9.22            | 13          |
| 20MHz 16QAM                 | RB1#0                      | 9.42                      | 9.71           | 9.36            | 13          |
|                             | RB100#0                    | 9.80                      | 9.80           | 9.88            | 13          |
| <b>Result:</b>              |                            |                           |                |                 | <b>Pass</b> |

#### FCC §2.1049, §27.53:Occupied Bandwidth

| Operation Mode | 99% Occupied Bandwidth (MHz) |                |              | 26 dB Occupied Bandwidth (MHz) |                |              |
|----------------|------------------------------|----------------|--------------|--------------------------------|----------------|--------------|
|                | Low Channel                  | Middle channel | High Channel | Low Channel                    | Middle Channel | High Channel |
| 5MHz QPSK      | 4.511                        | 4.511          | 4.511        | 5.100                          | 5.000          | 5.140        |
| 5MHz 16QAM     | 4.511                        | 4.531          | 4.511        | 5.160                          | 5.160          | 5.180        |
| 10MHz QPSK     | 8.942                        | 8.942          | 8.982        | 9.800                          | 9.640          | 9.720        |
| 10MHz 16QAM    | 8.942                        | 8.942          | 8.942        | 9.760                          | 10.240         | 9.800        |
| 15MHz QPSK     | 13.533                       | 13.473         | 13.533       | 16.122                         | 14.940         | 15.060       |
| 15MHz 16QAM    | 13.473                       | 13.533         | 13.533       | 14.880                         | 15.120         | 15.000       |
| 20MHz QPSK     | 17.964                       | 17.964         | 18.044       | 20.400                         | 19.760         | 19.440       |
| 20MHz 16QAM    | 18.044                       | 17.884         | 17.964       | 20.720                         | 19.600         | 19.680       |

Note: The test plots please refer to the Plots of Occupied Bandwidth

#### FCC §2.1051, § 27.53:Spurious Emissions at Antenna Terminal

**Result:** Pass, Please refer to the test plots of Spurious Emissions at Antenna Terminal.

#### FCC §2.1051, § 27.53:Out of band emission, Band Edge

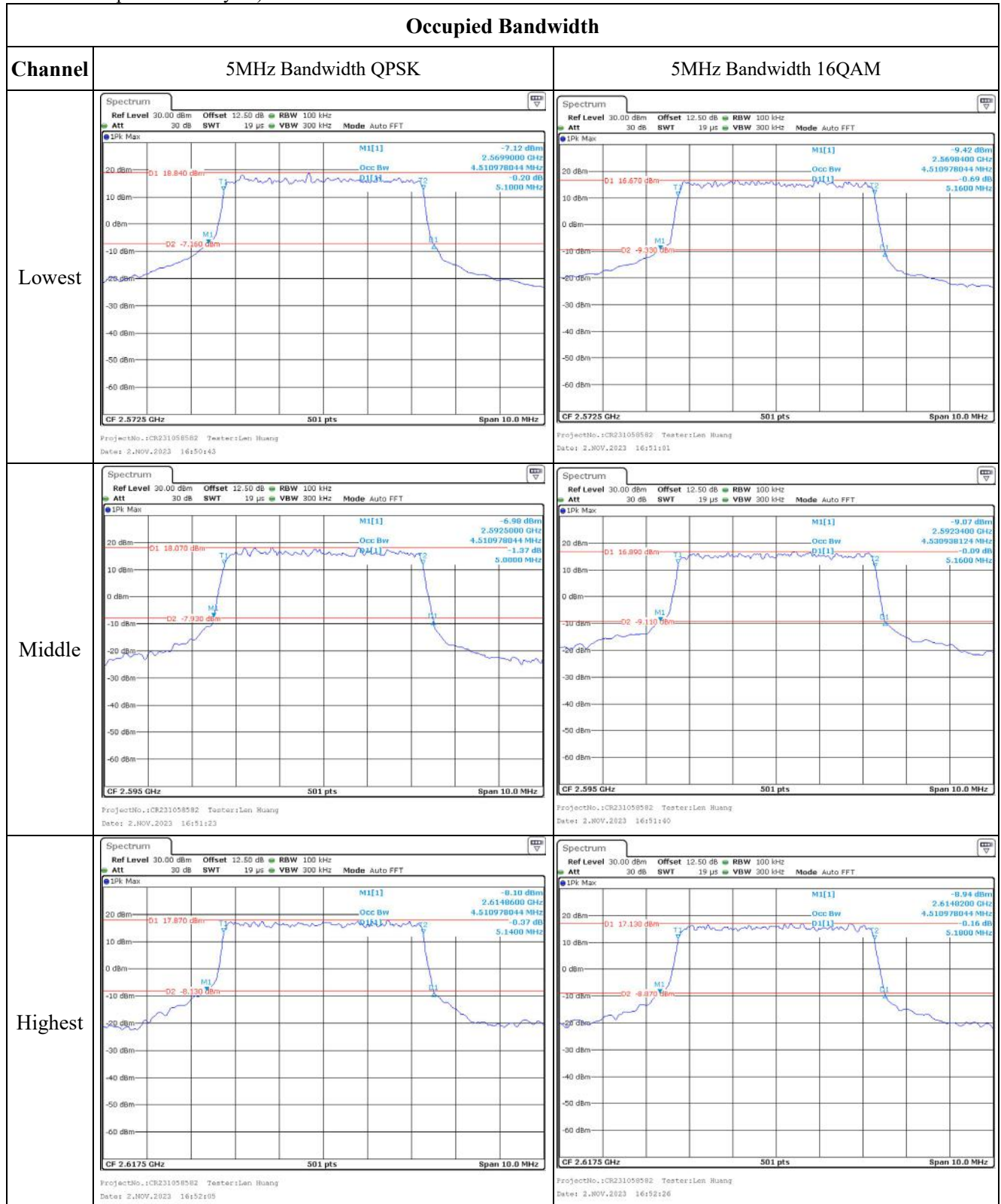
**Result:** Pass, Please refer to the test plots of Out of band emission, Band Edge.

**FCC §2.1055, §27.54: Frequency Stability**

| Test Mode:                          | 20M QPSK         | Test Channel: Lowest for Lower Edge,Highest for Upper Edge |                  |         |                  |             |
|-------------------------------------|------------------|------------------------------------------------------------|------------------|---------|------------------|-------------|
| Test Item                           | Temperature (°C) | Voltage (V <sub>DC</sub> )                                 | Lower Edge (MHz) |         | Upper Edge (MHz) |             |
|                                     |                  |                                                            | Result           | Limit   | Result           | Limit       |
| Frequency Stability vs. Temperature | -30              | 3.85                                                       | 2570.224         | 2570.00 | 2619.916         | 2620        |
|                                     | -20              | 3.85                                                       | 2570.487         | 2570.00 | 2619.970         | 2620        |
|                                     | -10              | 3.85                                                       | 2570.550         | 2570.00 | 2619.940         | 2620        |
|                                     | 0                | 3.85                                                       | 2570.580         | 2570.00 | 2619.949         | 2620        |
|                                     | 10               | 3.85                                                       | 2570.188         | 2570.00 | 2619.913         | 2620        |
|                                     | 20               | 3.85                                                       | 2570.444         | 2570.00 | 2619.956         | 2620        |
|                                     | 30               | 3.85                                                       | 2570.295         | 2570.00 | 2619.979         | 2620        |
|                                     | 40               | 3.85                                                       | 2570.132         | 2570.00 | 2619.924         | 2620        |
|                                     | 50               | 3.85                                                       | 2570.271         | 2570.00 | 2619.962         | 2620        |
| Frequency Stability vs. Voltage     | 20               | 3.27                                                       | 2570.390         | 2570.00 | 2619.944         | 2620        |
|                                     | 20               | 4.43                                                       | 2570.171         | 2570.00 | 2619.965         | 2620        |
|                                     |                  |                                                            |                  |         | <b>Result:</b>   | <b>Pass</b> |

| Test Mode:                          | 20M 16QAM        | Test Channel: Lowest for Lower Edge,Highest for Upper Edge |                  |         |                  |             |
|-------------------------------------|------------------|------------------------------------------------------------|------------------|---------|------------------|-------------|
| Test Item                           | Temperature (°C) | Voltage (V <sub>DC</sub> )                                 | Lower Edge (MHz) |         | Upper Edge (MHz) |             |
|                                     |                  |                                                            | Result           | Limit   | Result           | Limit       |
| Frequency Stability vs. Temperature | -30              | 3.85                                                       | 2570.108         | 2570.00 | 2619.963         | 2620        |
|                                     | -20              | 3.85                                                       | 2570.111         | 2570.00 | 2619.952         | 2620        |
|                                     | -10              | 3.85                                                       | 2570.146         | 2570.00 | 2619.948         | 2620        |
|                                     | 0                | 3.85                                                       | 2570.399         | 2570.00 | 2619.904         | 2620        |
|                                     | 10               | 3.85                                                       | 2570.318         | 2570.00 | 2619.949         | 2620        |
|                                     | 20               | 3.85                                                       | 2570.228         | 2570.00 | 2619.928         | 2620        |
|                                     | 30               | 3.85                                                       | 2570.128         | 2570.00 | 2619.956         | 2620        |
|                                     | 40               | 3.85                                                       | 2570.113         | 2570.00 | 2619.947         | 2620        |
|                                     | 50               | 3.85                                                       | 2570.175         | 2570.00 | 2619.984         | 2620        |
| Frequency Stability vs. Voltage     | 20               | 3.27                                                       | 2570.179         | 2570.00 | 2619.938         | 2620        |
|                                     | 20               | 4.43                                                       | 2570.180         | 2570.00 | 2619.917         | 2620        |
|                                     |                  |                                                            |                  |         | <b>Result:</b>   | <b>Pass</b> |

**Test Plots**(Note: The 11.5dB is the Insertion loss of the RF cable, Power Splitter and DC Block, which was offset into the Spectrum Analyzer):



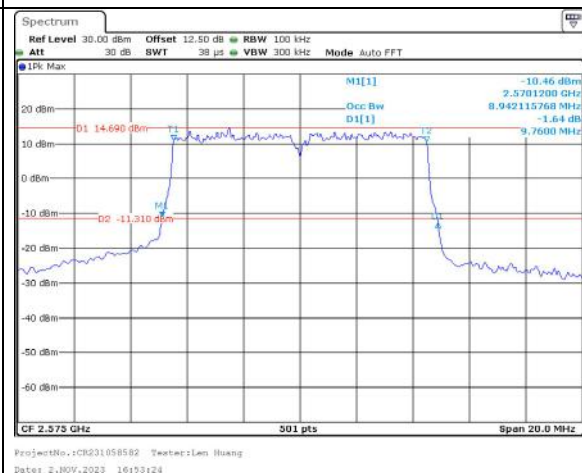
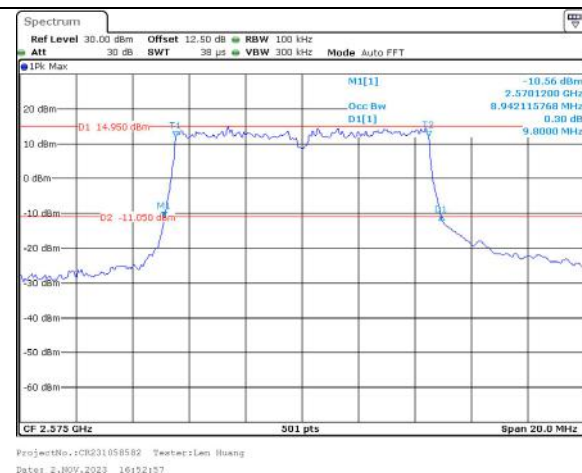
## Occupied Bandwidth

## Channel

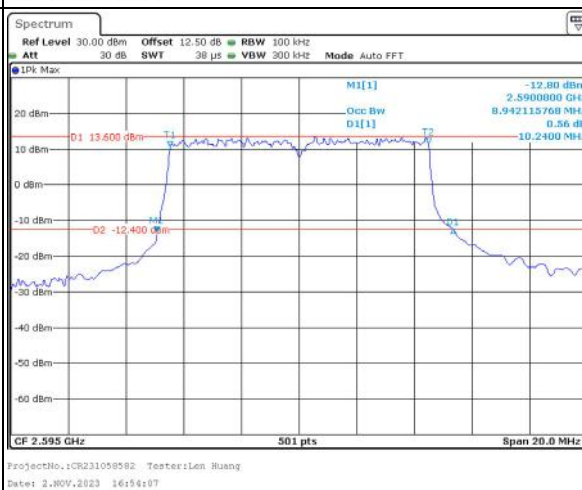
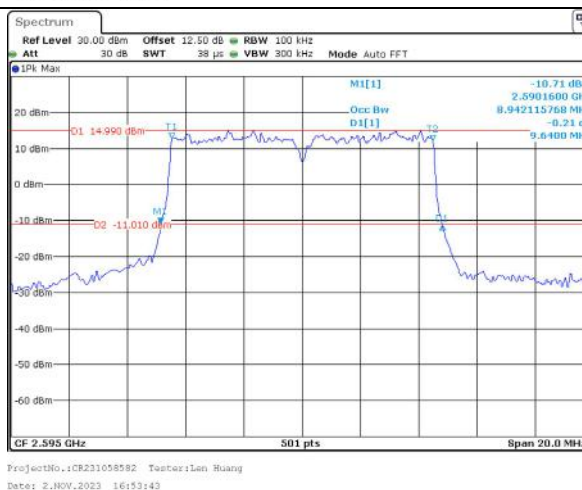
## 10MHz Bandwidth QPSK

## 10MHz Bandwidth 16QAM

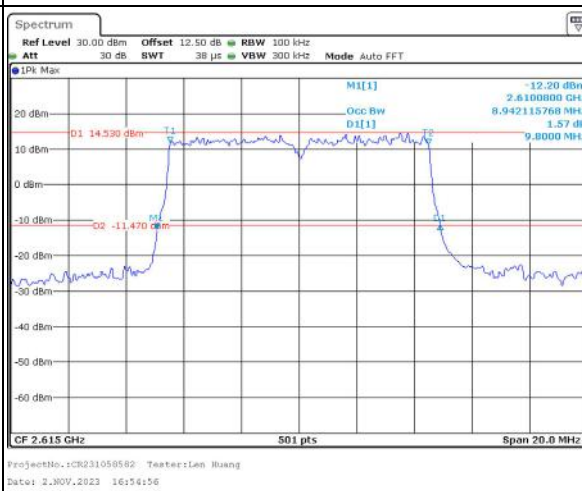
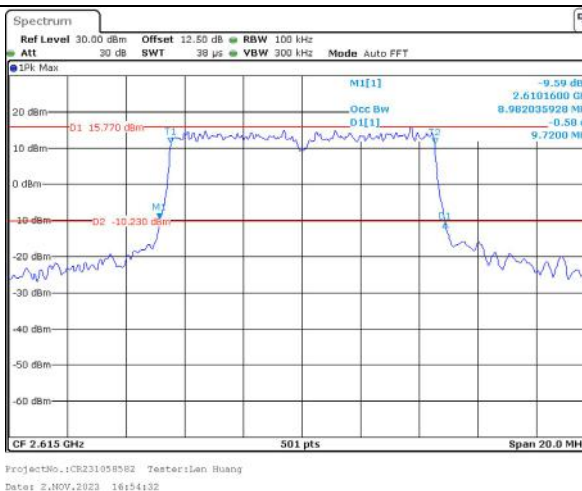
## Lowest



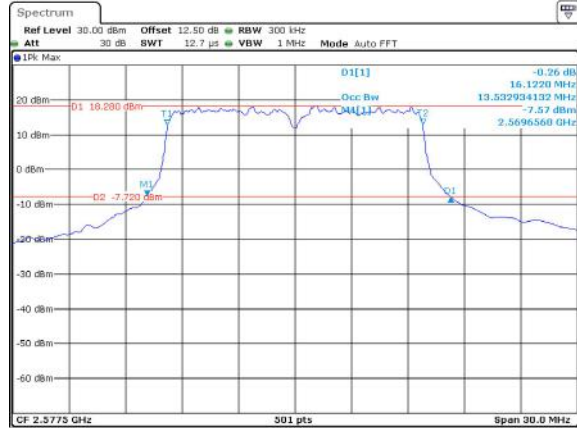
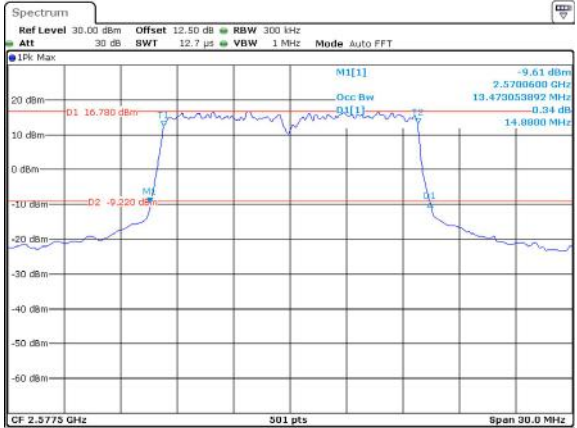
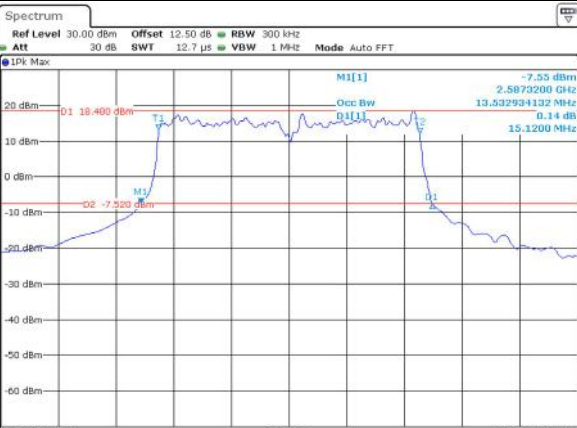
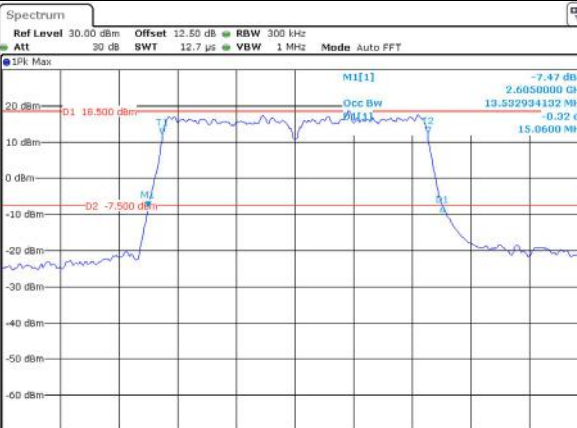
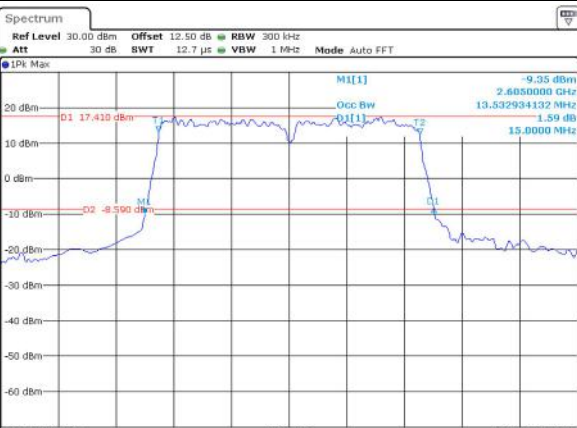
## Middle



## Highest



## Occupied Bandwidth

| Channel | 15MHz Bandwidth QPSK                                                                                                                                             | 15MHz Bandwidth 16QAM                                                                                                                                             |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lowest  |  <p>ProjectNo.:CR231058582 Tester:Len Huang<br/>Date: 2.NOV.2023 16:59:32</p>   |  <p>ProjectNo.:CR231058582 Tester:Len Huang<br/>Date: 2.NOV.2023 17:00:02</p>   |
| Middle  |  <p>ProjectNo.:CR231058582 Tester:Len Huang<br/>Date: 2.NOV.2023 17:00:32</p>  |  <p>ProjectNo.:CR231058582 Tester:Len Huang<br/>Date: 2.NOV.2023 17:00:55</p>  |
| Highest |  <p>ProjectNo.:CR231058582 Tester:Len Huang<br/>Date: 2.NOV.2023 17:01:22</p> |  <p>ProjectNo.:CR231058582 Tester:Len Huang<br/>Date: 2.NOV.2023 17:01:57</p> |

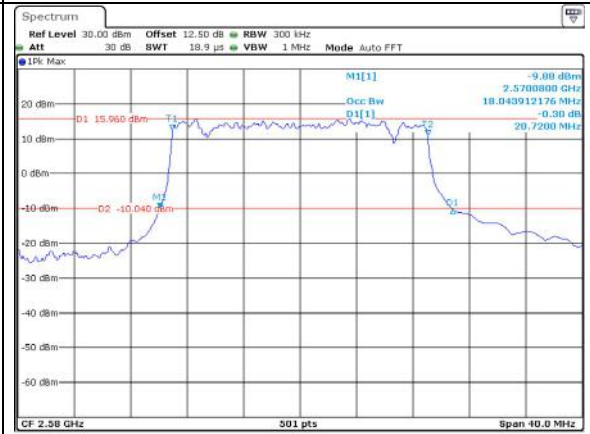
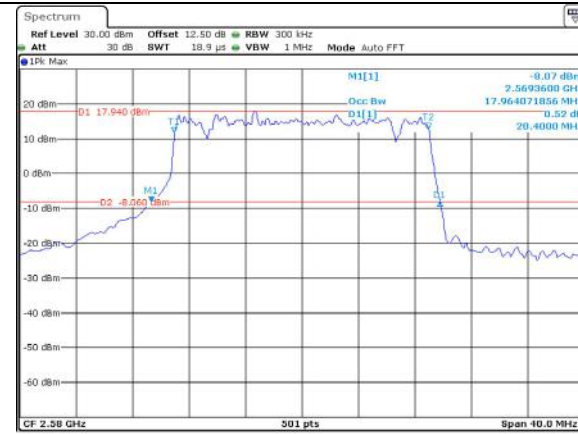
## Occupied Bandwidth

## Channel

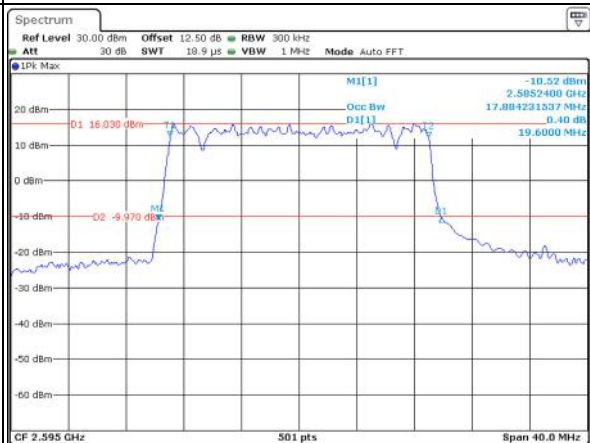
## 20MHz Bandwidth QPSK

## 20MHz Bandwidth 16QAM

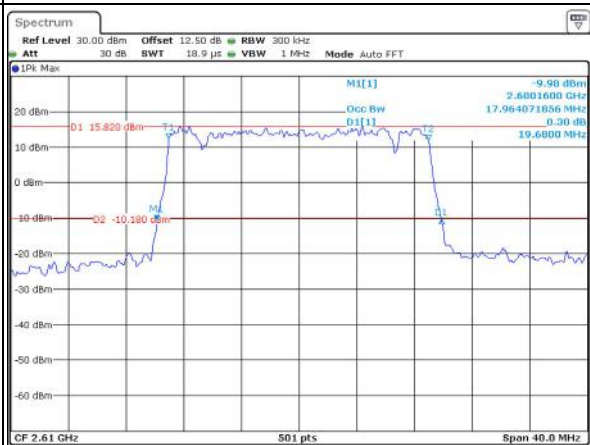
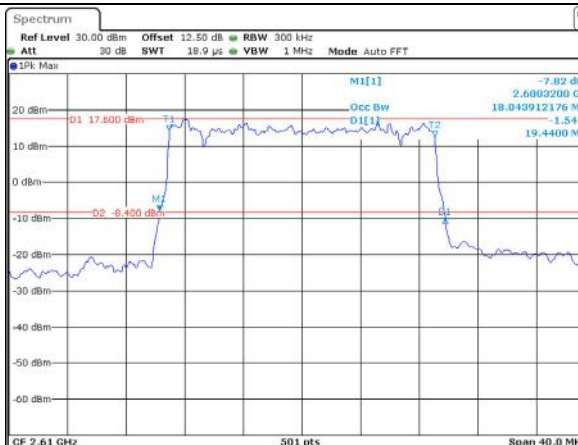
## Lowest



## Middle



## Highest

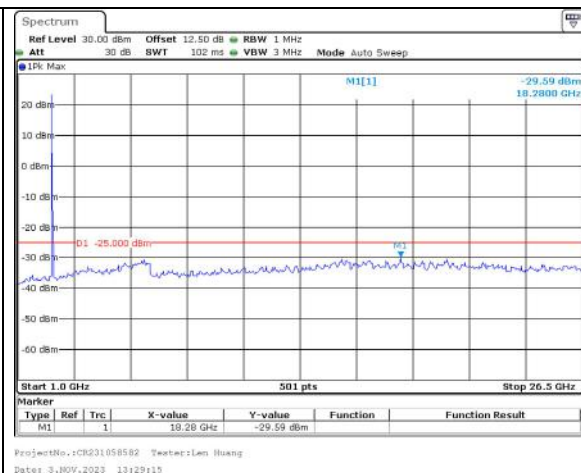
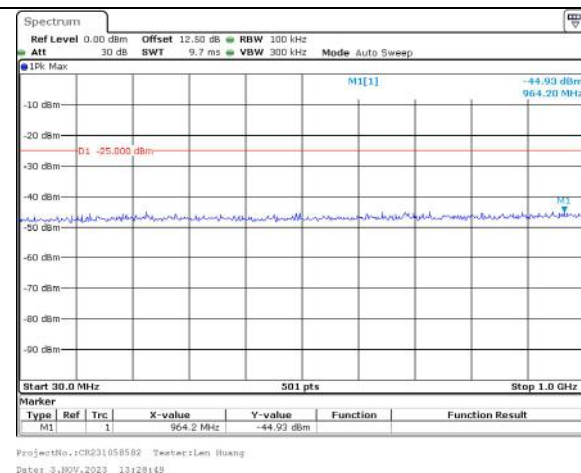


## Spurious Emissions at Antenna Terminal

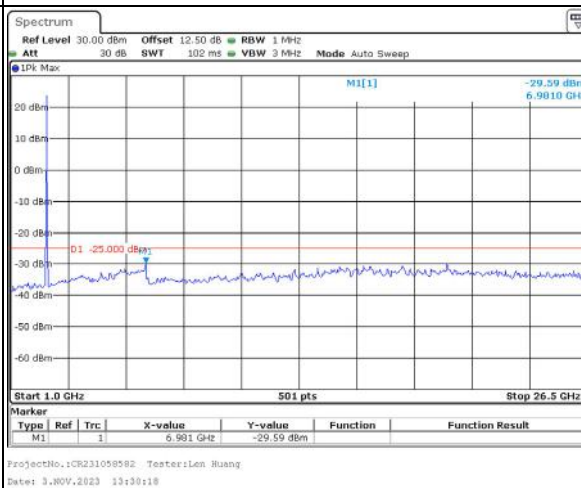
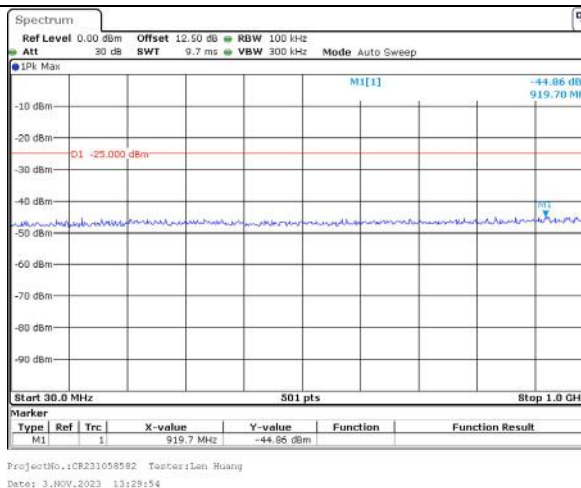
Channel

5MHz Bandwidth QPSK

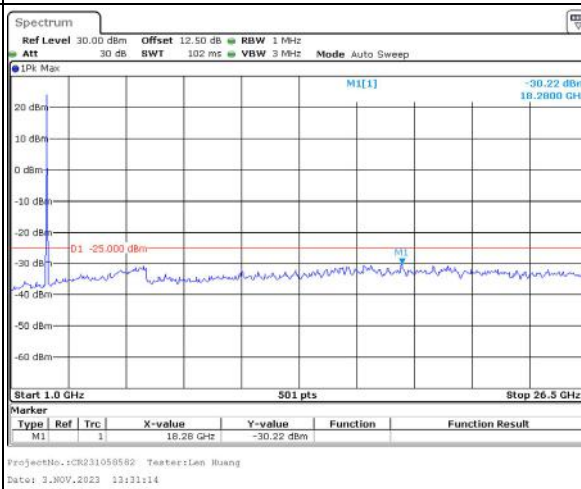
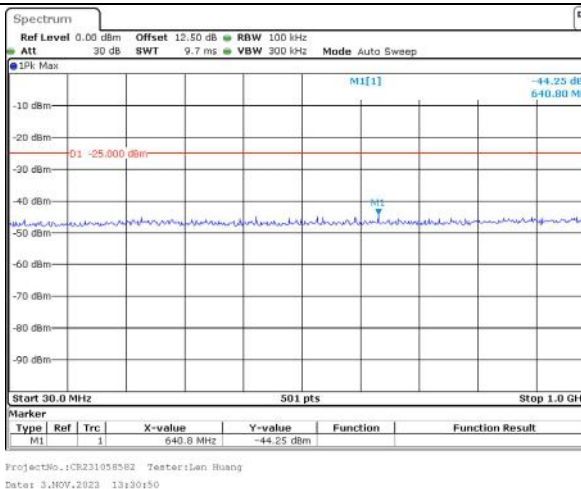
Lowest



Middle



Highest

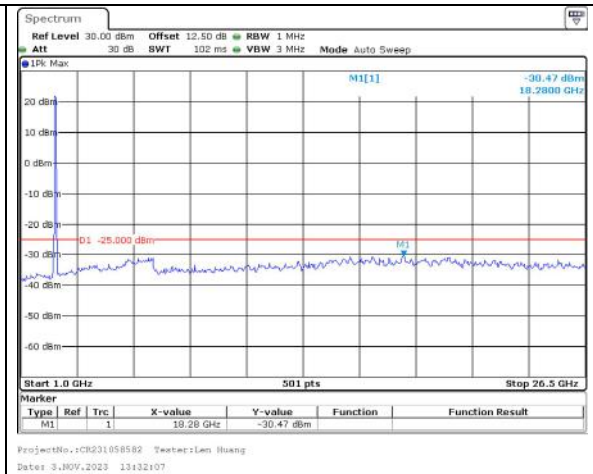
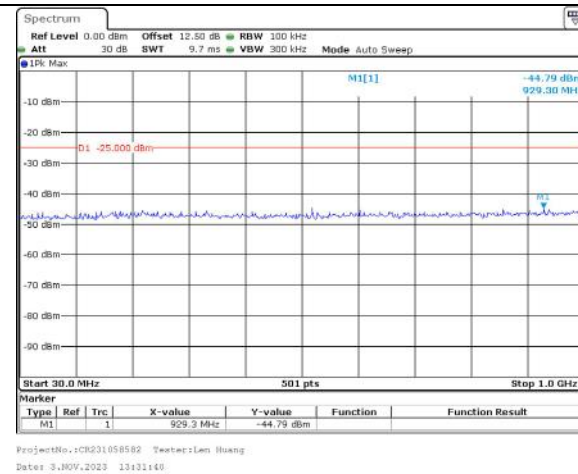


## Spurious Emissions at Antenna Terminal

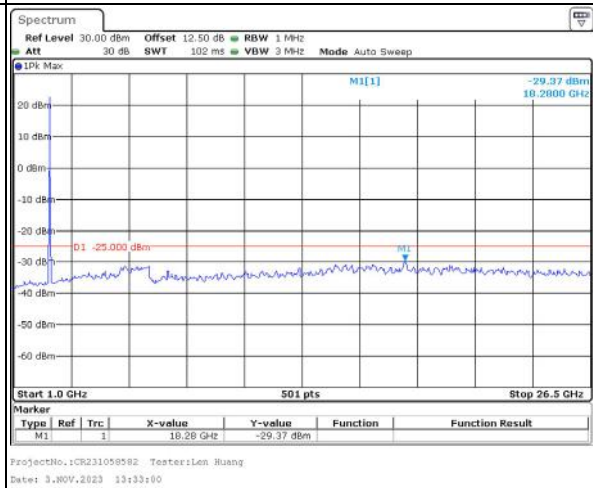
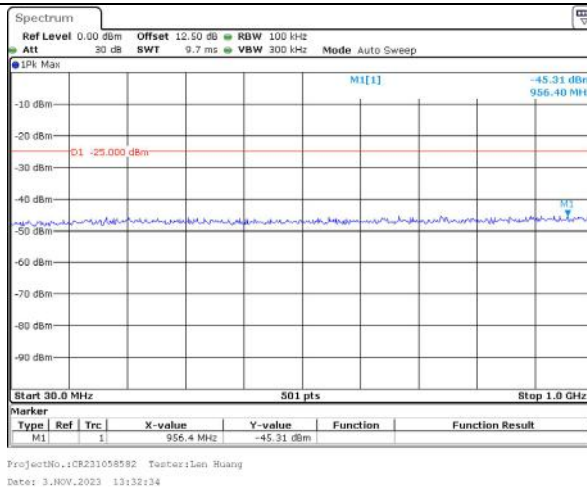
Channel

10MHz Bandwidth QPSK

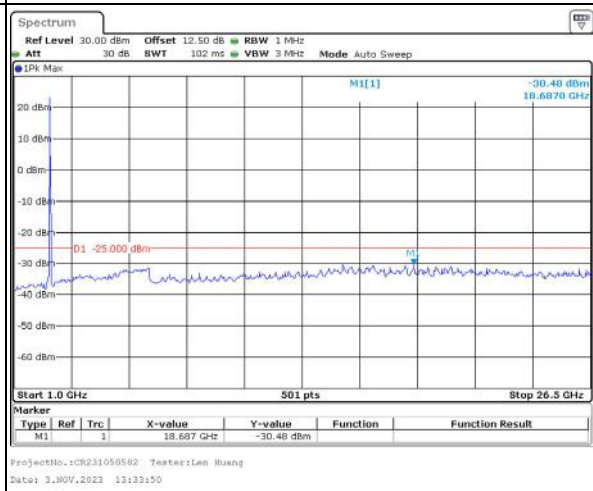
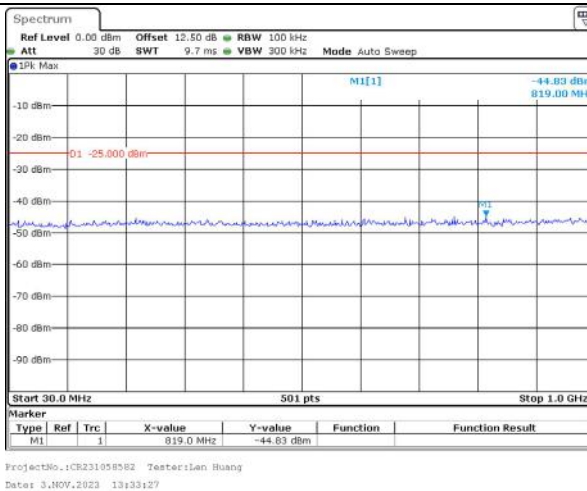
Lowest



Middle



Highest

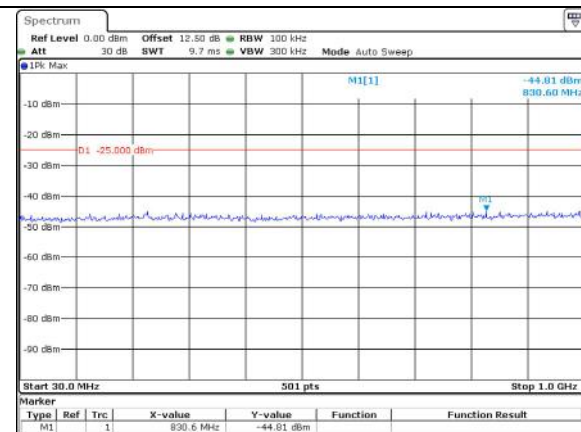
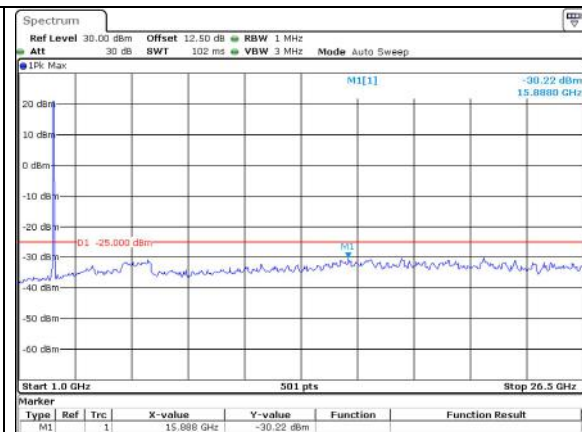


## Spurious Emissions at Antenna Terminal

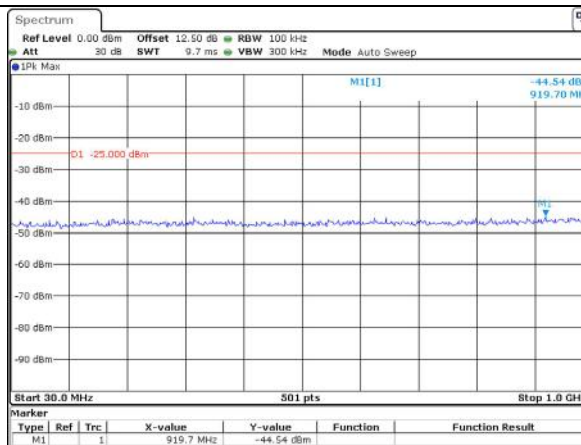
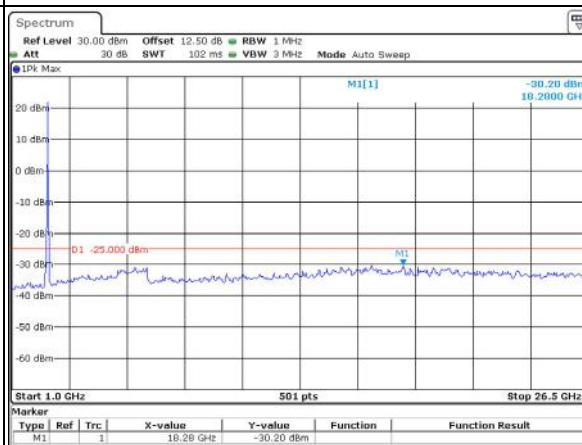
Channel

15MHz Bandwidth QPSK

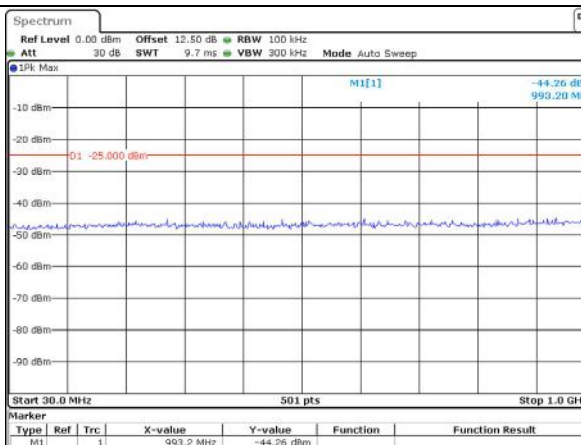
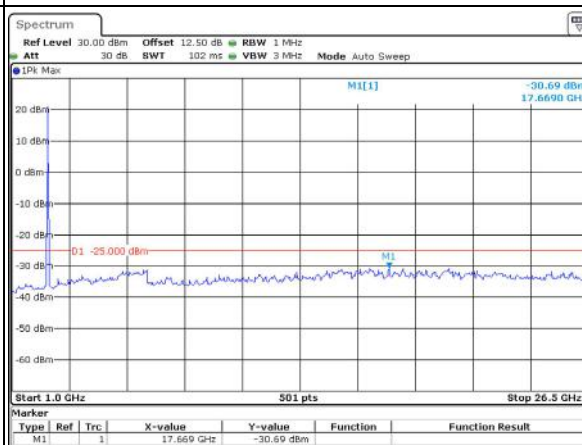
Lowest

ProjectNo.:CR231058582 Tester:Len Huang  
Date: 3.NOV.2023 13:14:25ProjectNo.:CR231058582 Tester:Len Huang  
Date: 3.NOV.2023 13:14:51

Middle

ProjectNo.:CR231058582 Tester:Len Huang  
Date: 3.NOV.2023 13:15:22ProjectNo.:CR231058582 Tester:Len Huang  
Date: 3.NOV.2023 13:15:55

Highest

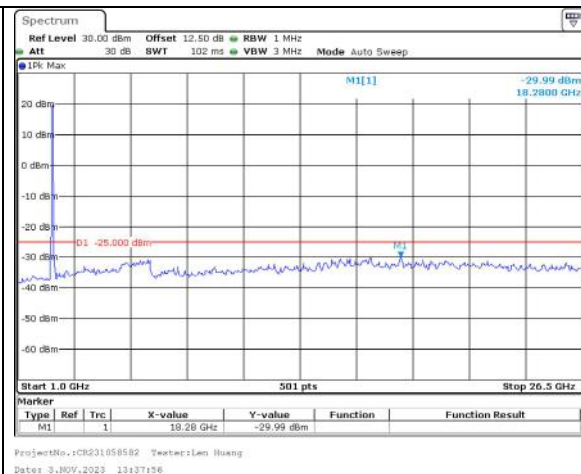
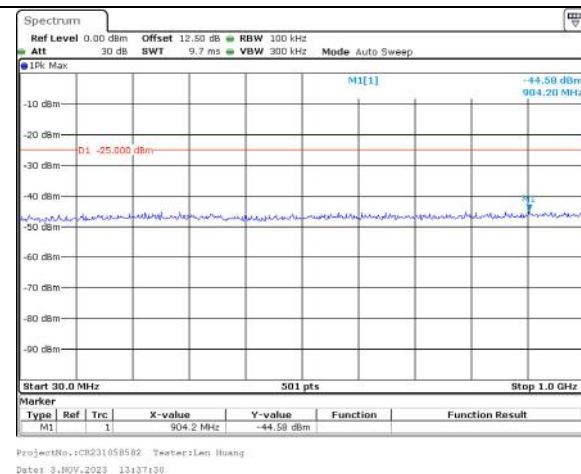
ProjectNo.:CR231058582 Tester:Len Huang  
Date: 3.NOV.2023 13:16:29ProjectNo.:CR231058582 Tester:Len Huang  
Date: 3.NOV.2023 13:16:53

## Spurious Emissions at Antenna Terminal

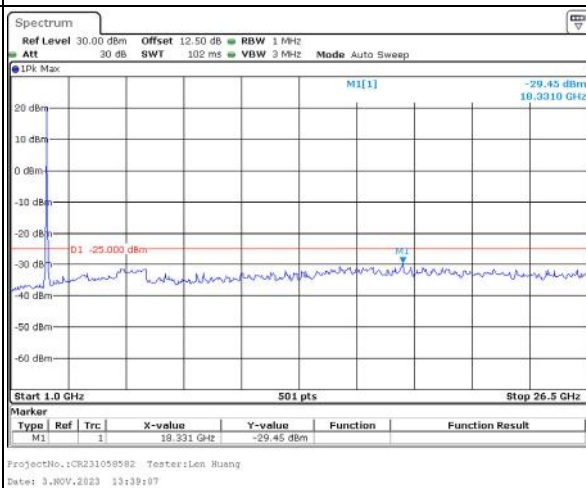
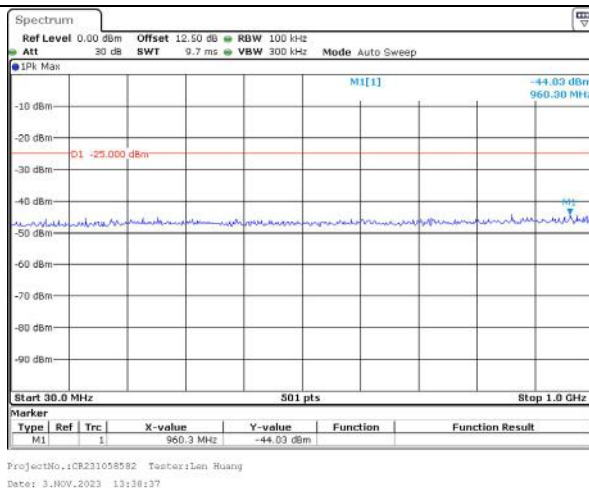
Channel

20MHz Bandwidth QPSK

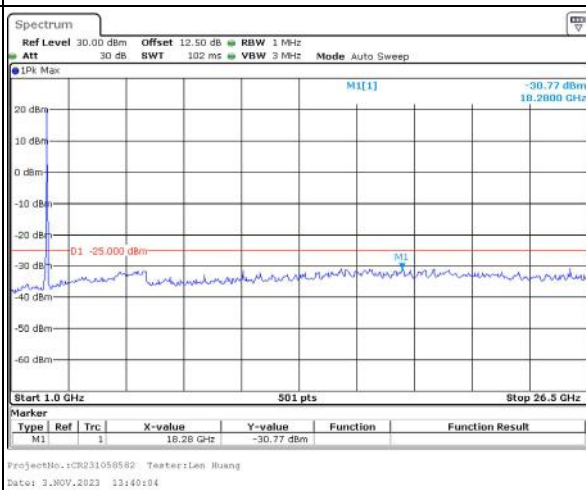
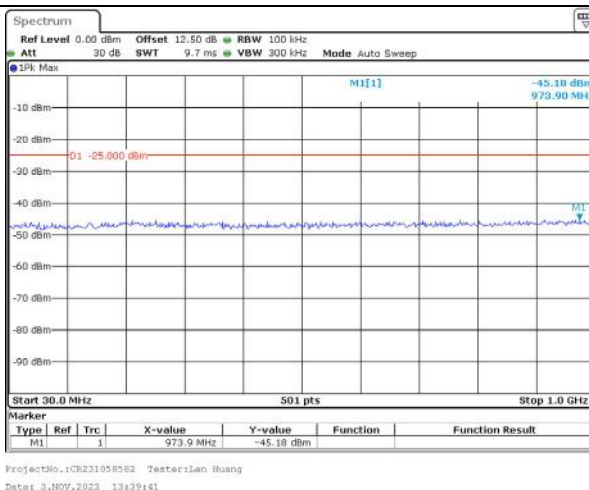
Lowest



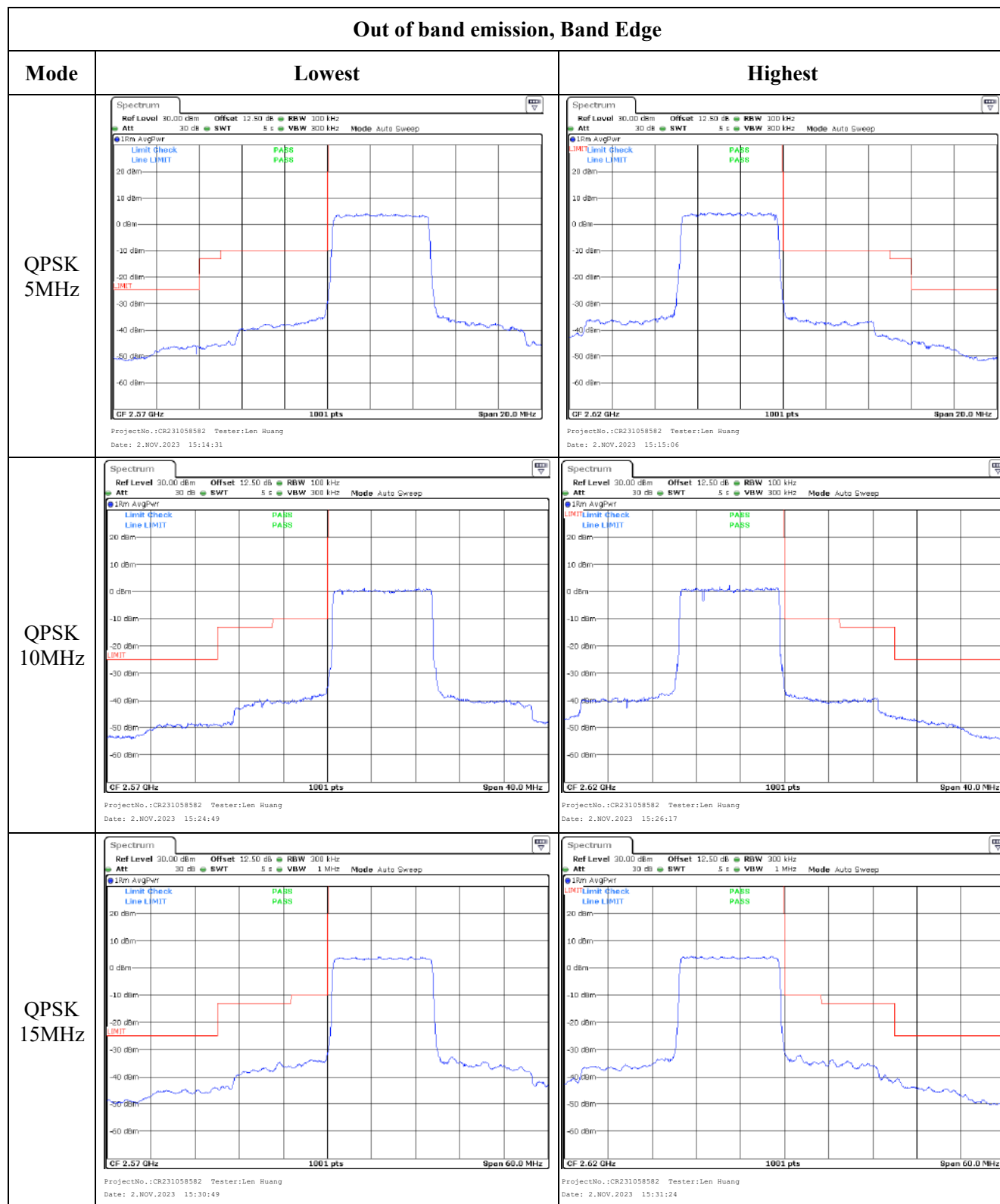
Middle



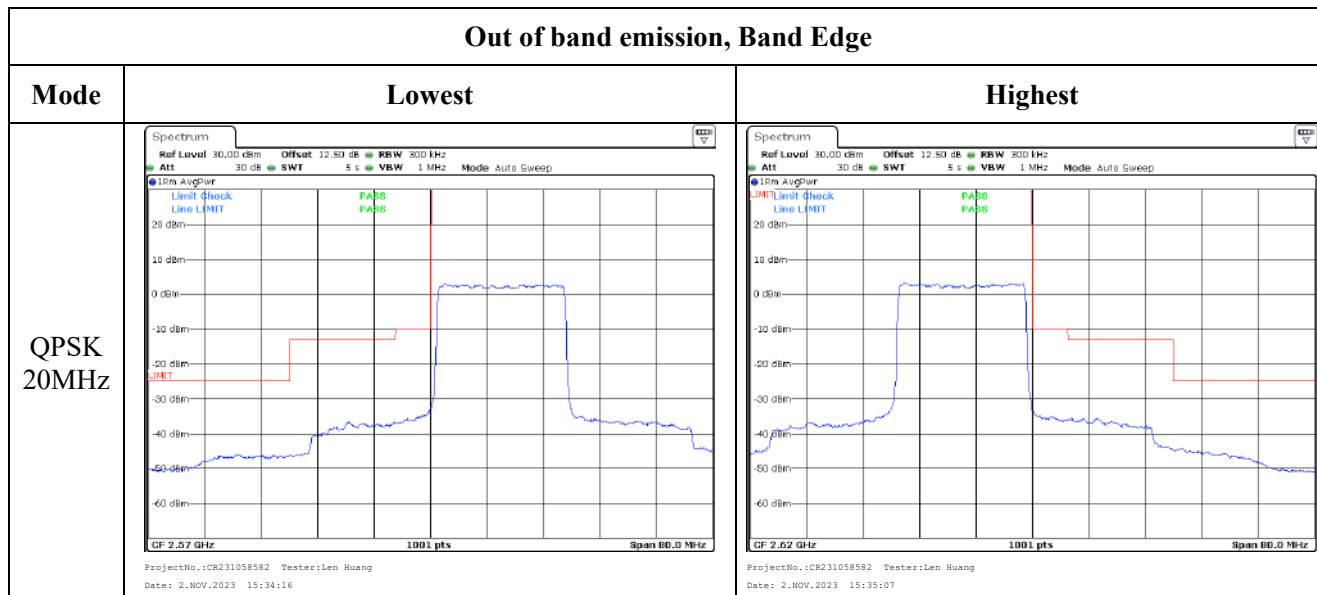
Highest



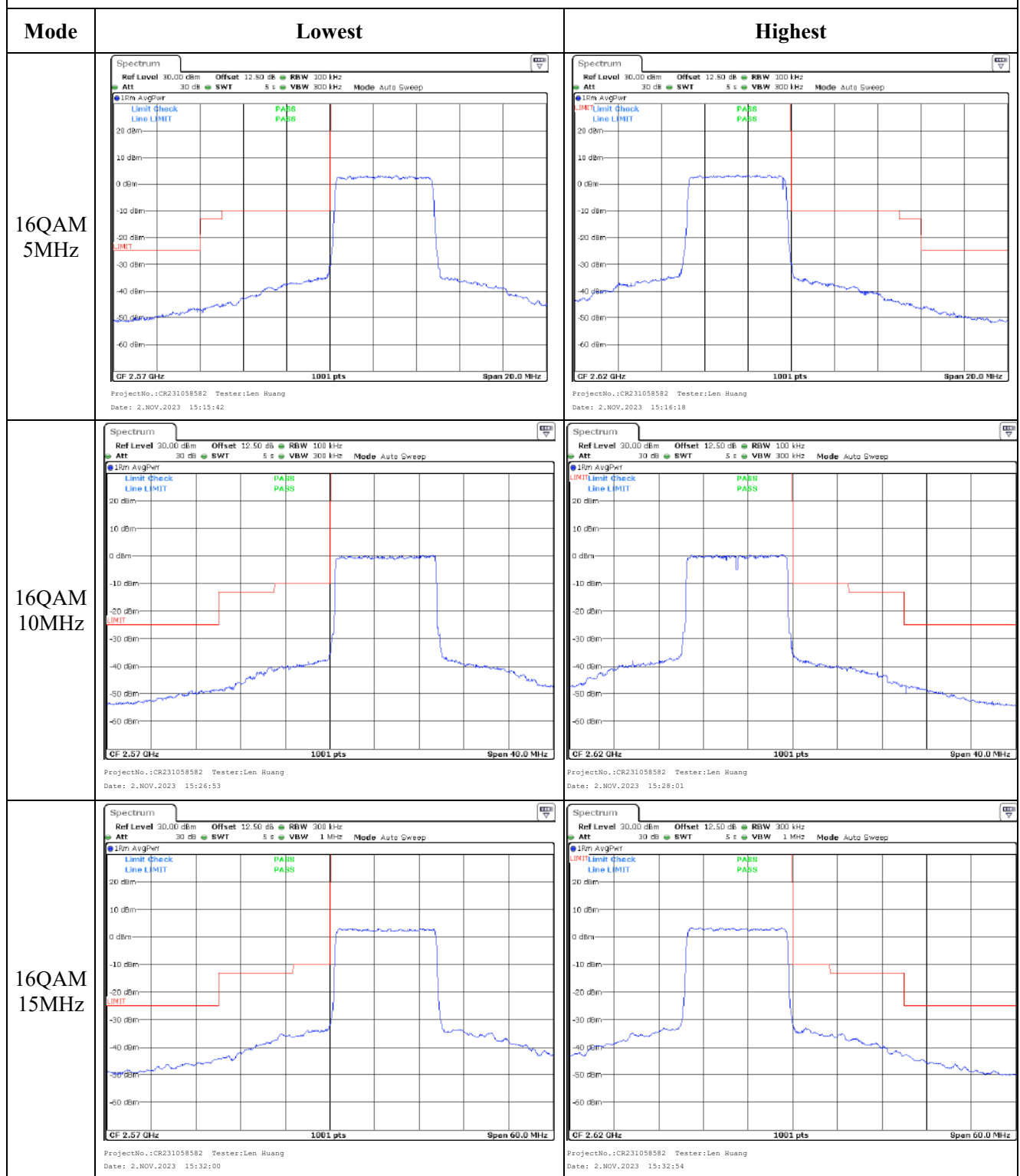
## Out of band emission, Band Edge

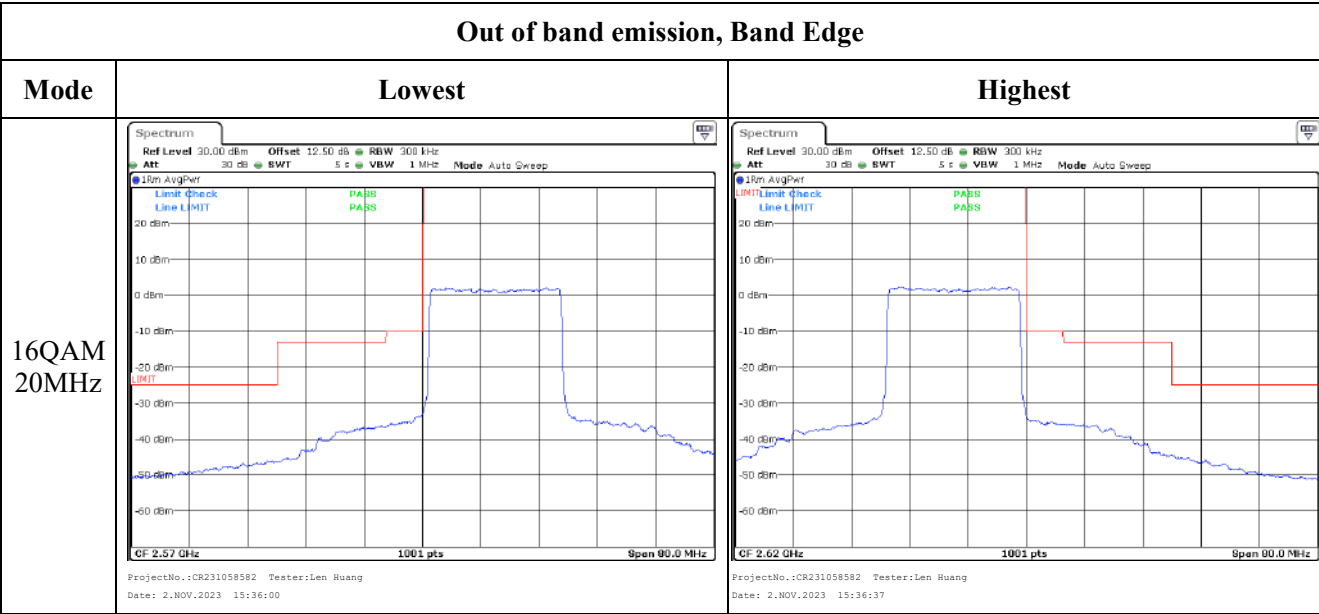


## Out of band emission, Band Edge



## Out of band emission, Band Edge





**4.14 Antenna Port Test Data and Results for LTE Band 40**

|                |           |              |                      |
|----------------|-----------|--------------|----------------------|
| Serial Number: | 2BZE-3    | Test Date:   | 2023/10/24-2023/11/2 |
| Test Site:     | RF        | Test Mode:   | Transmitting         |
| Tester:        | Len Huang | Test Result: | Pass                 |

**Environmental Conditions:**

|                      |           |                           |       |                        |           |
|----------------------|-----------|---------------------------|-------|------------------------|-----------|
| Temperature:<br>(°C) | 25.5-25.6 | Relative Humidity:<br>(%) | 46-50 | ATM Pressure:<br>(kPa) | 101-101.1 |
|----------------------|-----------|---------------------------|-------|------------------------|-----------|

**Test Equipment List and Details:**

| Manufacturer  | Description                         | Model        | Serial Number   | Calibration Date | Calibration Due Date |
|---------------|-------------------------------------|--------------|-----------------|------------------|----------------------|
| R&S           | Spectrum Analyzer                   | FSV40-N      | 102259          | 2023/4/18        | 2024/4/17            |
| zhuoxiang     | Coaxial Cable                       | SMA-178      | 211002          | Each time        | N/A                  |
| Minl-Circuits | Power Splitter                      | ZFRSC-183-S+ | S F448201619    | Each time        | N/A                  |
| R&S           | Wideband Radio Communication Tester | CMW500       | 143458          | 2023/3/31        | 2024/3/30            |
| BACL          | TEMP&HUMI Test Chamber              | BTH-150-40   | 30174           | 2023/3/31        | 2024/3/30            |
| UNI-T         | Multimeter                          | UT39A+       | C210582554      | 2023/9/28        | 2024/9/27            |
| ZHAOXIN       | DC Power Supply                     | RXN-6010D    | 21R6010D0912386 | N/A              | N/A                  |

*\* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

**Test Frequency for Each Mode:**

| Operation Bandwidth | Lowest Frequency (MHz) | Middle Frequency (MHz) | Highest Frequency (MHz) |
|---------------------|------------------------|------------------------|-------------------------|
| 5MHz                | 2307.5                 | /                      | 2312.5                  |
| 10MHz               | /                      | 2310                   | /                       |
| 5MHz                | 2352.5                 | /                      | 2357.5                  |
| 10MHz               | /                      | 2355                   | /                       |

**Test Data:**

(Note:Uplink Downlink configuration 3 was tested)

**FCC§2.1046;§ 27.50(a)(3)****LTE Band 40 Lower:****RF Output Power:**

| Test Bandwidth & Modulation | Resource Block & RB offset | Conducted Average Output Power(dBm) |                |                 | Maximum EIRP (dBm) | Limit (dBm) |
|-----------------------------|----------------------------|-------------------------------------|----------------|-----------------|--------------------|-------------|
|                             |                            | Lowest Channel                      | Middle Channel | Highest Channel |                    |             |
| 5MHz QPSK                   | RB1#0                      | 15.49                               | /              | 15.41           | 15.42              | 24          |
|                             | RB1#13                     | 16.04                               | /              | 16.12           |                    |             |
|                             | RB1#24                     | 15.59                               | /              | 15.8            |                    |             |
|                             | RB15#0                     | 14.75                               | /              | 14.8            |                    |             |
|                             | RB15#10                    | 14.8                                | /              | 14.98           |                    |             |
|                             | RB25#0                     | 14.74                               | /              | 14.85           |                    |             |
| 5MHz 16QAM                  | RB1#0                      | 14.62                               | /              | 14.41           | 14.48              | 24          |
|                             | RB1#13                     | 15.18                               | /              | 15.13           |                    |             |
|                             | RB1#24                     | 14.75                               | /              | 14.81           |                    |             |
|                             | RB15#0                     | 13.85                               | /              | 13.8            |                    |             |
|                             | RB15#10                    | 13.91                               | /              | 13.98           |                    |             |
|                             | RB25#0                     | 13.79                               | /              | 13.87           |                    |             |
| 10MHz QPSK                  | RB1#0                      | /                                   | 15.25          | /               | 15.2               | 24          |
|                             | RB1#25                     | /                                   | 15.9           | /               |                    |             |
|                             | RB1#49                     | /                                   | 15.57          | /               |                    |             |
|                             | RB25#0                     | /                                   | 14.63          | /               |                    |             |
|                             | RB25#25                    | /                                   | 14.75          | /               |                    |             |
|                             | RB50#0                     | /                                   | 14.66          | /               |                    |             |
| 10MHz 16QAM                 | RB1#0                      | /                                   | 14.24          | /               | 14.15              | 24          |
|                             | RB1#25                     | /                                   | 14.85          | /               |                    |             |
|                             | RB1#49                     | /                                   | 14.52          | /               |                    |             |
|                             | RB25#0                     | /                                   | 13.55          | /               |                    |             |
|                             | RB25#25                    | /                                   | 13.67          | /               |                    |             |
|                             | RB50#0                     | /                                   | 13.67          | /               |                    |             |

**Note:**

For 5MHz mode, the channel power is equal to the test result in dBm/5MHz.

For 10MHz mode, the channel power is sum of 10MHz bandwidth, the result is less than 24dBm, so in any 5MHz bandwidth, it's will not exceed limit

EIRP=Conducted Power(dBm) - Lc(dB) + Gt(dBi)

EIRP PSD=Conducted PSD(dBm/5MHz) - Lc(dB) + Gt(dBi)

**LTE Band 40 Upper:****RF Output Power:**

| Test Bandwidth & Modulation                                                                                                                                                                                                                                                                                                                                                                                 | Resource Block & RB offset | Conducted Average Output Power(dBm) |                |                 | Maximum EIRP (dBm) | EIRP Limit (dBm) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-------------------------------------|----------------|-----------------|--------------------|------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                             |                            | Lowest Channel                      | Middle Channel | Highest Channel |                    |                  |
| 5MHz QPSK                                                                                                                                                                                                                                                                                                                                                                                                   | RB1#0                      | 15.4                                | /              | 14.97           | 15.15              | 24               |
|                                                                                                                                                                                                                                                                                                                                                                                                             | RB1#13                     | 15.85                               | /              | 15.44           |                    |                  |
|                                                                                                                                                                                                                                                                                                                                                                                                             | RB1#24                     | 15.3                                | /              | 14.9            |                    |                  |
|                                                                                                                                                                                                                                                                                                                                                                                                             | RB15#0                     | 14.57                               | /              | 14.23           |                    |                  |
|                                                                                                                                                                                                                                                                                                                                                                                                             | RB15#10                    | 14.54                               | /              | 14.23           |                    |                  |
|                                                                                                                                                                                                                                                                                                                                                                                                             | RB25#0                     | 14.51                               | /              | 14.19           |                    |                  |
| 5MHz 16QAM                                                                                                                                                                                                                                                                                                                                                                                                  | RB1#0                      | 14.49                               | /              | 13.95           | 14.27              | 24               |
|                                                                                                                                                                                                                                                                                                                                                                                                             | RB1#13                     | 14.97                               | /              | 14.46           |                    |                  |
|                                                                                                                                                                                                                                                                                                                                                                                                             | RB1#24                     | 14.4                                | /              | 13.92           |                    |                  |
|                                                                                                                                                                                                                                                                                                                                                                                                             | RB15#0                     | 13.76                               | /              | 13.64           |                    |                  |
|                                                                                                                                                                                                                                                                                                                                                                                                             | RB15#10                    | 13.73                               | /              | 13.63           |                    |                  |
|                                                                                                                                                                                                                                                                                                                                                                                                             | RB25#0                     | 13.66                               | /              | 13.62           |                    |                  |
| 10MHz QPSK                                                                                                                                                                                                                                                                                                                                                                                                  | RB1#0                      | /                                   | 15.09          | /               | 14.76              | 24               |
|                                                                                                                                                                                                                                                                                                                                                                                                             | RB1#25                     | /                                   | 15.46          | /               |                    |                  |
|                                                                                                                                                                                                                                                                                                                                                                                                             | RB1#49                     | /                                   | 14.92          | /               |                    |                  |
|                                                                                                                                                                                                                                                                                                                                                                                                             | RB25#0                     | /                                   | 14.26          | /               |                    |                  |
|                                                                                                                                                                                                                                                                                                                                                                                                             | RB25#25                    | /                                   | 14.23          | /               |                    |                  |
|                                                                                                                                                                                                                                                                                                                                                                                                             | RB50#0                     | /                                   | 14.21          | /               |                    |                  |
| 10MHz 16QAM                                                                                                                                                                                                                                                                                                                                                                                                 | RB1#0                      | /                                   | 13.94          | /               | 13.7               | 24               |
|                                                                                                                                                                                                                                                                                                                                                                                                             | RB1#25                     | /                                   | 14.4           | /               |                    |                  |
|                                                                                                                                                                                                                                                                                                                                                                                                             | RB1#49                     | /                                   | 13.87          | /               |                    |                  |
|                                                                                                                                                                                                                                                                                                                                                                                                             | RB25#0                     | /                                   | 13.58          | /               |                    |                  |
|                                                                                                                                                                                                                                                                                                                                                                                                             | RB25#25                    | /                                   | 13.57          | /               |                    |                  |
|                                                                                                                                                                                                                                                                                                                                                                                                             | RB50#0                     | /                                   | 13.63          | /               |                    |                  |
| Note:<br>For 5MHz mode, the channel power is equal to the test result in dBm/5MHz.<br>For 10MHz mode, the channel power is sum of 10MHz bandwidth, the result is less than 24dBm, so in any 5MHz bandwidth, it's will not exceed limit<br>$EIRP = \text{Conducted Power(dBm)} - L_c(\text{dB}) + G_T(\text{dBi})$<br>$EIRP \text{ PSD} = \text{Conducted PSD(dBm/5MHz)} - L_c(\text{dB}) + G_T(\text{dBi})$ |                            |                                     |                |                 | <b>Result:</b>     | <b>Pass</b>      |

**Duty Cycle**

| Operation Band    | Modulation | Bandwidth | Ton (ms) | Ton+off (ms) | Duty Cycle (%) | Limit (%) |
|-------------------|------------|-----------|----------|--------------|----------------|-----------|
| LTE Band 40 Lower | QPSK       | 5M        | 2.995    | 10.005       | 29.94          | 38        |
|                   |            | 10M       | 3        | 10.005       | 29.99          | 38        |
|                   | 16QAM      | 5M        | 3        | 10.005       | 29.99          | 38        |
|                   |            | 10M       | 3        | 10.005       | 29.99          | 38        |
| LTE Band 40 Upper | QPSK       | 5M        | 3        | 10.005       | 29.99          | 38        |
|                   |            | 10M       | 3        | 10.005       | 29.99          | 38        |
|                   | 16QAM      | 5M        | 3        | 10.005       | 29.99          | 38        |
|                   |            | 10M       | 3        | 10.005       | 29.99          | 38        |
|                   |            |           |          |              | Result:        | Pass      |

**FCC §2.1049, §27.53:Occupied Bandwidth****LTE Band 40 Lower:**

| Operation Mode | 99% Occupied Bandwidth (MHz) |                |              | 26 dB Occupied Bandwidth (MHz) |                |              |
|----------------|------------------------------|----------------|--------------|--------------------------------|----------------|--------------|
|                | Low Channel                  | Middle channel | High Channel | Low Channel                    | Middle channel | High Channel |
| 5MHz QPSK      | 4.511                        | 4.511          | 4.511        | 5.160                          | 4.980          | 5.080        |
| 5MHz 16QAM     | 4.511                        | 4.511          | 4.491        | 5.100                          | 4.980          | 4.960        |
| 10MHz QPSK     | /                            | 8.982          | /            | /                              | 9.840          | /            |
| 10MHz 16QAM    | /                            | 8.942          | /            | /                              | 9.720          | /            |

**LTE Band 40 Upper:**

| Operation Mode | 99% Occupied Bandwidth (MHz) |                |              | 26 dB Occupied Bandwidth (MHz) |                |              |
|----------------|------------------------------|----------------|--------------|--------------------------------|----------------|--------------|
|                | Low Channel                  | Middle channel | High Channel | Low Channel                    | Middle channel | High Channel |
| 5MHz QPSK      | 4.511                        | 4.511          | 4.511        | 5.080                          | 4.980          | 5.120        |
| 5MHz 16QAM     | 4.511                        | 4.511          | 4.511        | 5.120                          | 5.160          | 5.160        |
| 10MHz QPSK     | /                            | 8.942          | /            | /                              | 9.760          | /            |
| 10MHz 16QAM    | /                            | 8.942          | /            | /                              | 9.360          | /            |

Note: The test plots please refer to the Plots of Occupied Bandwidth

**FCC §2.1051, § 27.53:Spurious Emissions at Antenna Terminal**

|                |                                                                                 |
|----------------|---------------------------------------------------------------------------------|
| <b>Result:</b> | Pass, Please refer to the test plots of Spurious Emissions at Antenna Terminal. |
|----------------|---------------------------------------------------------------------------------|

**FCC §2.1051, § 27.53:Out of band emission, Band Edge**

|                |                                                                          |
|----------------|--------------------------------------------------------------------------|
| <b>Result:</b> | Pass, Please refer to the test plots of Out of band emission, Band Edge. |
|----------------|--------------------------------------------------------------------------|

| <b>FCC §2.1055, §27.54: Frequency Stability</b> |                  |                                                            |                  |          |                  |             |
|-------------------------------------------------|------------------|------------------------------------------------------------|------------------|----------|------------------|-------------|
| <b>LTE Band 40 Lower:</b>                       |                  |                                                            |                  |          |                  |             |
| Test Mode:                                      | 10M QPSK         | Test Channel: Lowest for Lower Edge,Highest for Upper Edge |                  |          |                  |             |
| Test Item                                       | Temperature (°C) | Voltage (V <sub>DC</sub> )                                 | Lower Edge (MHz) |          | Upper Edge (MHz) |             |
|                                                 |                  |                                                            | Result           | Limit    | Result           | Limit       |
| Frequency Stability vs. Temperature             | -30              | 3.85                                                       | 2305.082         | 2305.000 | 2314.770         | 2315.000    |
|                                                 | -20              | 3.85                                                       | 2305.650         | 2305.000 | 2314.409         | 2315.000    |
|                                                 | -10              | 3.85                                                       | 2305.544         | 2305.000 | 2314.498         | 2315.000    |
|                                                 | 0                | 3.85                                                       | 2305.305         | 2305.000 | 2314.016         | 2315.000    |
|                                                 | 10               | 3.85                                                       | 2305.401         | 2305.000 | 2314.164         | 2315.000    |
|                                                 | 20               | 3.85                                                       | 2305.296         | 2305.000 | 2314.409         | 2315.000    |
|                                                 | 30               | 3.85                                                       | 2305.169         | 2305.000 | 2314.138         | 2315.000    |
|                                                 | 40               | 3.85                                                       | 2305.417         | 2305.000 | 2314.507         | 2315.000    |
|                                                 | 50               | 3.85                                                       | 2305.806         | 2305.000 | 2314.645         | 2315.000    |
| Frequency Stability vs. Voltage                 | 20               | 3.27                                                       | 2305.593         | 2305.000 | 2314.183         | 2315.000    |
|                                                 | 20               | 4.43                                                       | 2305.155         | 2305.000 | 2314.238         | 2315.000    |
|                                                 |                  |                                                            |                  |          | <b>Result:</b>   | <b>Pass</b> |

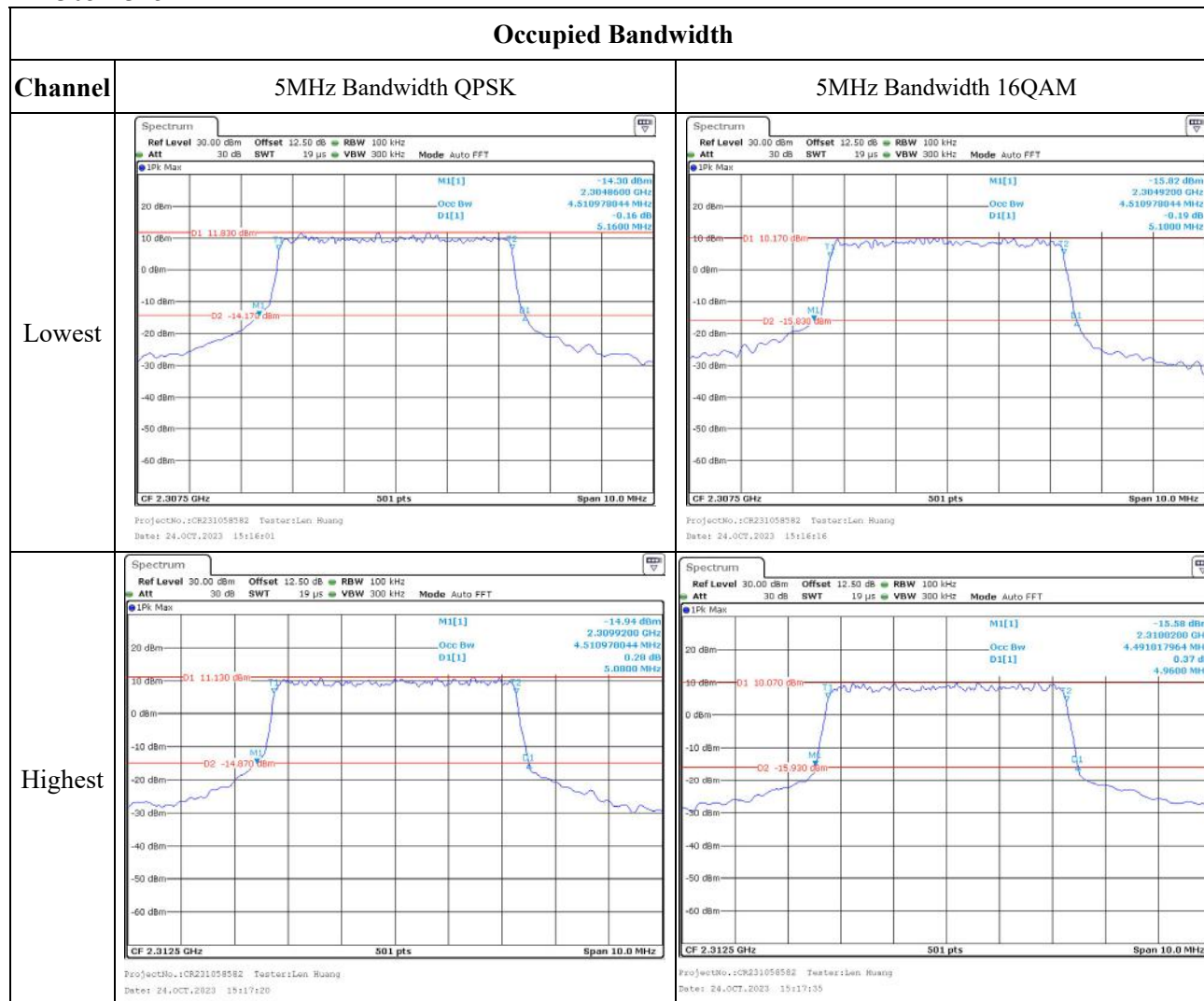
| Test Mode:                          | 10M 16QAM        | Test Channel: Lowest for Lower Edge,Highest for Upper Edge |                  |          |                  |             |
|-------------------------------------|------------------|------------------------------------------------------------|------------------|----------|------------------|-------------|
| Test Item                           | Temperature (°C) | Voltage (V <sub>DC</sub> )                                 | Lower Edge (MHz) |          | Upper Edge (MHz) |             |
|                                     |                  |                                                            | Result           | Limit    | Result           | Limit       |
| Frequency Stability vs. Temperature | -30              | 3.85                                                       | 2305.049         | 2305.000 | 2314.299         | 2315.000    |
|                                     | -20              | 3.85                                                       | 2305.933         | 2305.000 | 2314.588         | 2315.000    |
|                                     | -10              | 3.85                                                       | 2305.867         | 2305.000 | 2314.685         | 2315.000    |
|                                     | 0                | 3.85                                                       | 2305.077         | 2305.000 | 2314.951         | 2315.000    |
|                                     | 10               | 3.85                                                       | 2305.859         | 2305.000 | 2314.602         | 2315.000    |
|                                     | 20               | 3.85                                                       | 2305.707         | 2305.000 | 2314.207         | 2315.000    |
|                                     | 30               | 3.85                                                       | 2305.321         | 2305.000 | 2314.325         | 2315.000    |
|                                     | 40               | 3.85                                                       | 2305.761         | 2305.000 | 2314.081         | 2315.000    |
|                                     | 50               | 3.85                                                       | 2305.071         | 2305.000 | 2314.968         | 2315.000    |
| Frequency Stability vs. Voltage     | 20               | 3.27                                                       | 2305.880         | 2305.000 | 2314.017         | 2315.000    |
|                                     | 20               | 4.43                                                       | 2305.791         | 2305.000 | 2314.781         | 2315.000    |
|                                     |                  |                                                            |                  |          | <b>Result:</b>   | <b>Pass</b> |

| <b>LTE Band 40 Upper:</b>           |                  |                                                            |                  |          |                  |          |
|-------------------------------------|------------------|------------------------------------------------------------|------------------|----------|------------------|----------|
| Test Mode:                          | 10M QPSK         | Test Channel: Lowest for Lower Edge,Highest for Upper Edge |                  |          |                  |          |
| Test Item                           | Temperature (°C) | Voltage (V <sub>DC</sub> )                                 | Lower Edge (MHz) |          | Upper Edge (MHz) |          |
|                                     |                  |                                                            | Result           | Limit    | Result           | Limit    |
| Frequency Stability vs. Temperature | -30              | 3.85                                                       | 2350.244         | 2350.000 | 2359.125         | 2360.000 |
|                                     | -20              | 3.85                                                       | 2350.080         | 2350.000 | 2359.146         | 2360.000 |
|                                     | -10              | 3.85                                                       | 2350.804         | 2350.000 | 2359.395         | 2360.000 |
|                                     | 0                | 3.85                                                       | 2350.912         | 2350.000 | 2359.399         | 2360.000 |

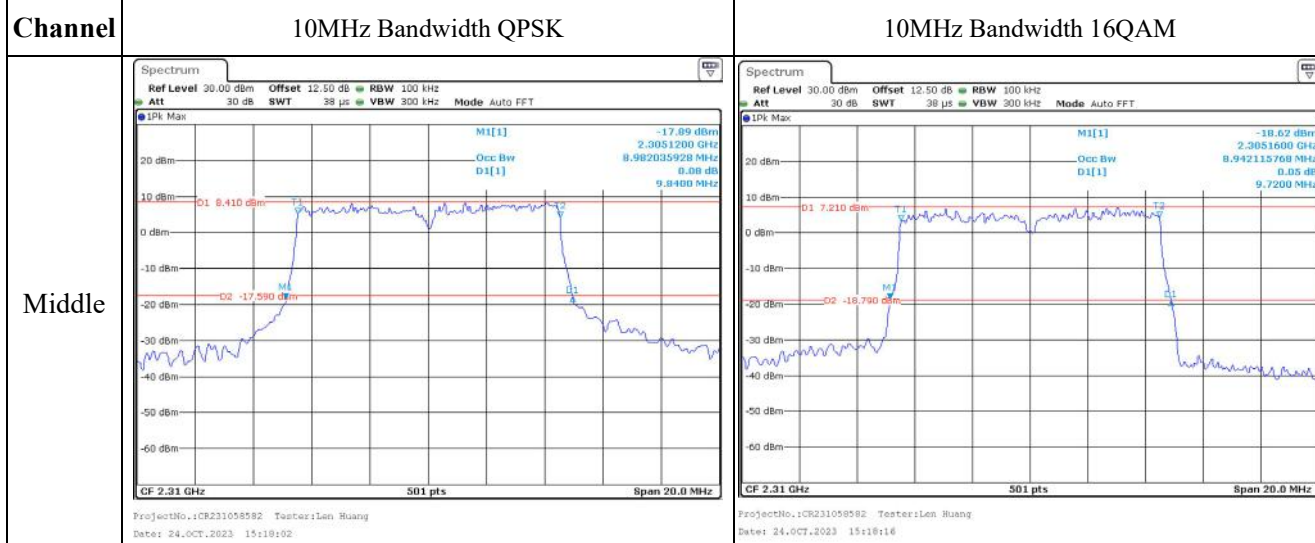
|                                 |    |      |          |          |                |             |
|---------------------------------|----|------|----------|----------|----------------|-------------|
|                                 | 10 | 3.85 | 2350.873 | 2350.000 | 2359.683       | 2360.000    |
|                                 | 20 | 3.85 | 2350.043 | 2350.000 | 2359.756       | 2360.000    |
|                                 | 30 | 3.85 | 2350.076 | 2350.000 | 2359.869       | 2360.000    |
|                                 | 40 | 3.85 | 2350.922 | 2350.000 | 2359.456       | 2360.000    |
|                                 | 50 | 3.85 | 2350.030 | 2350.000 | 2359.884       | 2360.000    |
| Frequency Stability vs. Voltage | 20 | 3.27 | 2350.915 | 2350.000 | 2359.756       | 2360.000    |
|                                 | 20 | 4.43 | 2350.505 | 2350.000 | 2359.077       | 2360.000    |
|                                 |    |      |          |          | <b>Result:</b> | <b>Pass</b> |

| Test Mode:                          | 10M 16QAM        | Test Channel: Lowest for Lower Edge,Highest for Upper Edge |                  |          |                  |             |
|-------------------------------------|------------------|------------------------------------------------------------|------------------|----------|------------------|-------------|
| Test Item                           | Temperature (°C) | Voltage (V <sub>DC</sub> )                                 | Lower Edge (MHz) |          | Upper Edge (MHz) |             |
|                                     |                  |                                                            | Result           | Limit    | Result           | Limit       |
| Frequency Stability vs. Temperature | -30              | 3.85                                                       | 2350.416         | 2350.000 | 2359.935         | 2360.000    |
|                                     | -20              | 3.85                                                       | 2350.194         | 2350.000 | 2359.811         | 2360.000    |
|                                     | -10              | 3.85                                                       | 2350.035         | 2350.000 | 2359.685         | 2360.000    |
|                                     | 0                | 3.85                                                       | 2350.779         | 2350.000 | 2359.788         | 2360.000    |
|                                     | 10               | 3.85                                                       | 2350.356         | 2350.000 | 2359.794         | 2360.000    |
|                                     | 20               | 3.85                                                       | 2350.905         | 2350.000 | 2359.811         | 2360.000    |
|                                     | 30               | 3.85                                                       | 2350.656         | 2350.000 | 2359.337         | 2360.000    |
|                                     | 40               | 3.85                                                       | 2350.839         | 2350.000 | 2359.862         | 2360.000    |
|                                     | 50               | 3.85                                                       | 2350.663         | 2350.000 | 2359.414         | 2360.000    |
| Frequency Stability vs. Voltage     | 20               | 3.27                                                       | 2350.857         | 2350.000 | 2359.778         | 2360.000    |
|                                     | 20               | 4.43                                                       | 2350.762         | 2350.000 | 2359.804         | 2360.000    |
|                                     |                  |                                                            |                  |          | <b>Result:</b>   | <b>Pass</b> |

**Test Plots** (Note: The 11.5 dB is the Insertion loss of the RF cable and Power Splitter, which was offset into the Spectrum Analyzer):  
2305-2315 MHz:



## Occupied Bandwidth



2350-2360 MHz:

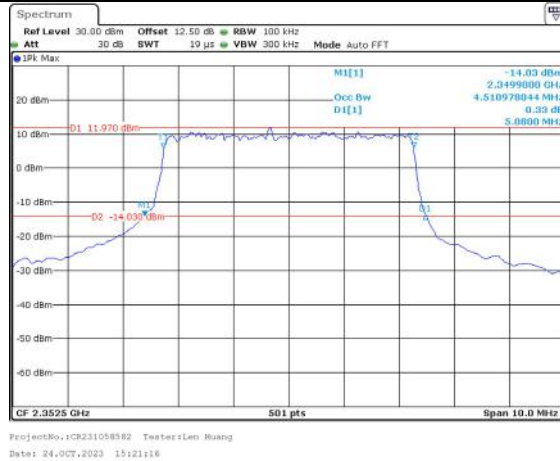
## Occupied Bandwidth

Channel

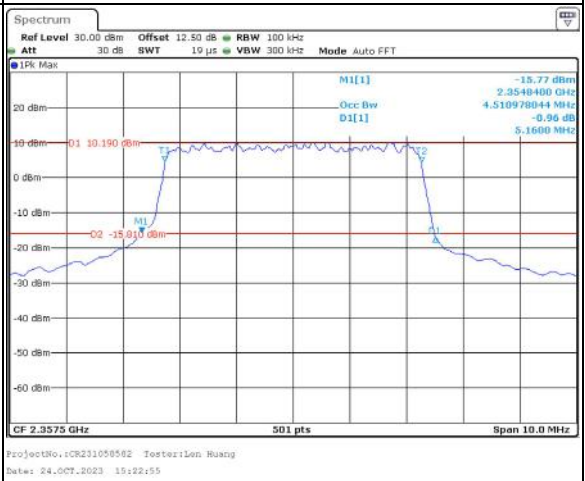
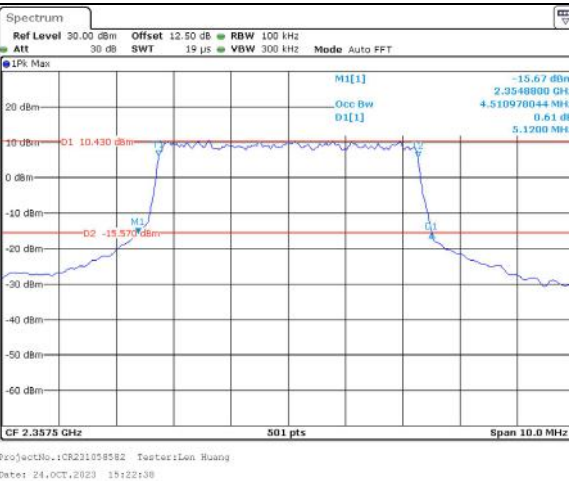
5MHz Bandwidth QPSK

5MHz Bandwidth 16QAM

Lowest



Highest



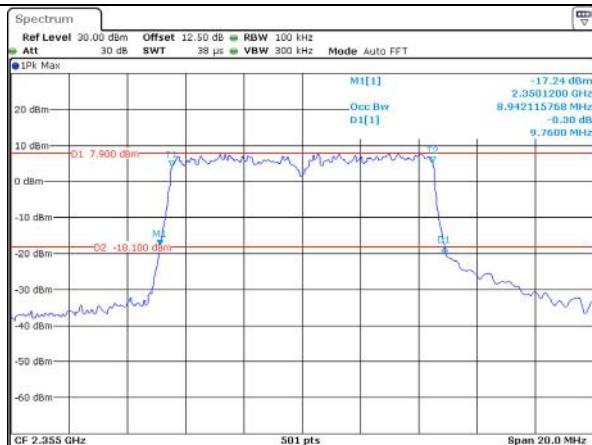
## Occupied Bandwidth

Channel

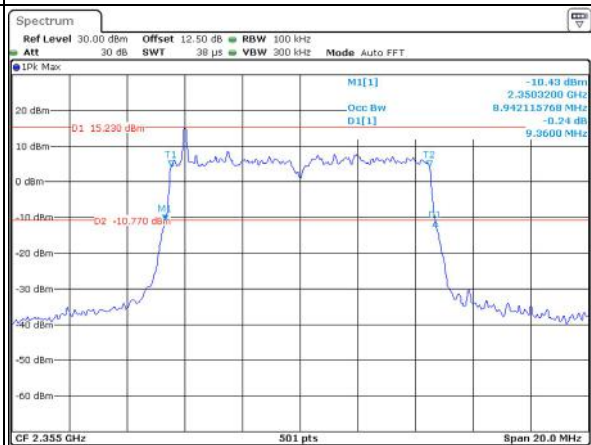
10MHz Bandwidth QPSK

10MHz Bandwidth 16QAM

Middle



ProjectNo.:CR231058582 Tester:Len Ruang  
Date: 24.OCT.2023 15:23:19



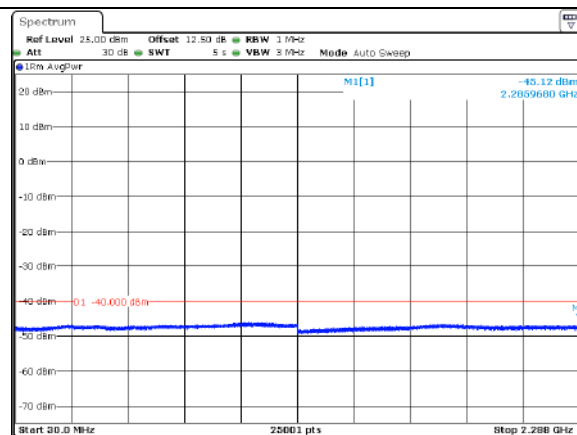
ProjectNo.:CR231058582 Tester:Len Ruang  
Date: 24.OCT.2023 15:23:55

2305-2315 MHz:

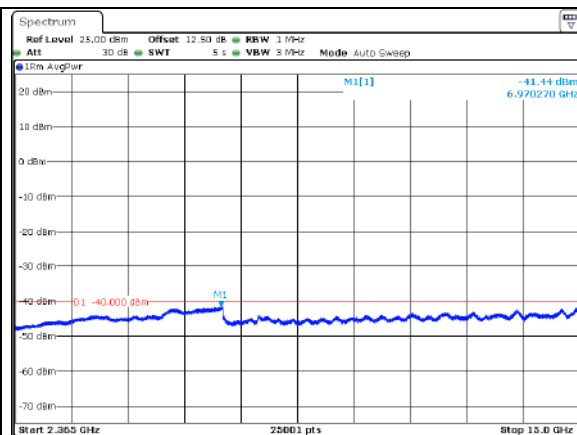
## Spurious Emissions at Antenna Terminal

Channel

5MHz Bandwidth QPSK

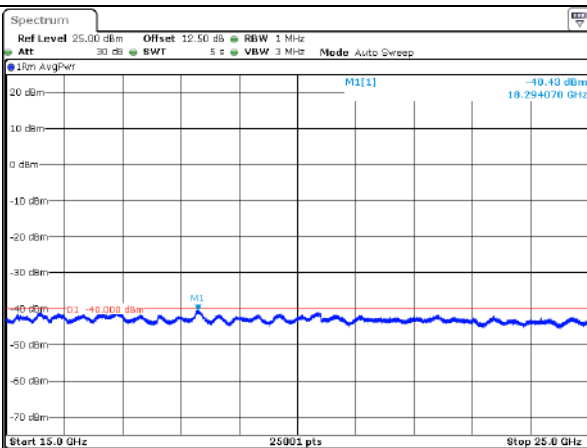


ProjectNo.:CR231058582 Tester:Len Huang  
Date: 2.NOV.2023 16:21:00



ProjectNo.:CR231058582 Tester:Len Huang  
Date: 2.NOV.2023 16:21:21

Lowest



ProjectNo.:CR231058582 Tester:Len Huang  
Date: 2.NOV.2023 16:21:57

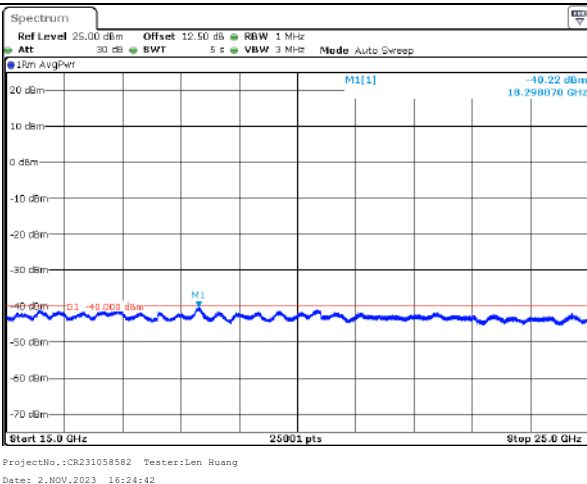
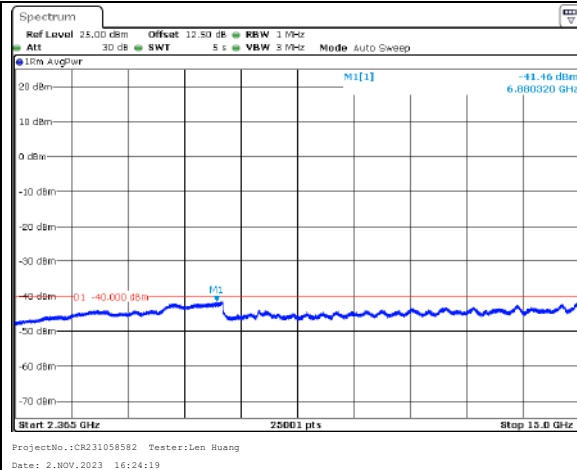
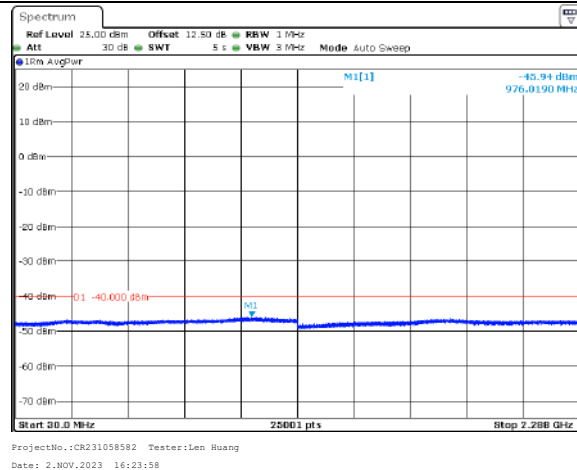
/

## Spurious Emissions at Antenna Terminal

Channel

5MHz Bandwidth QPSK

Highest



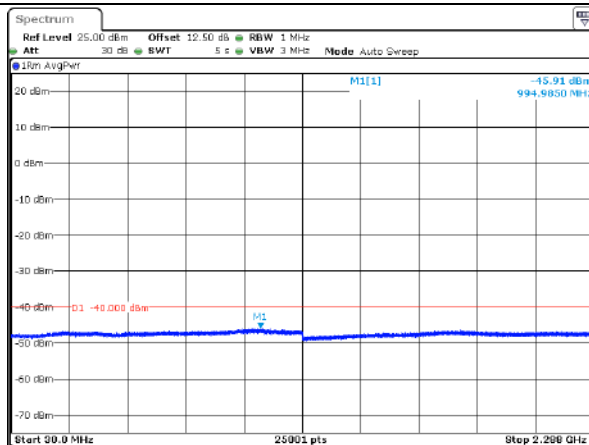
/

## Spurious Emissions at Antenna Terminal

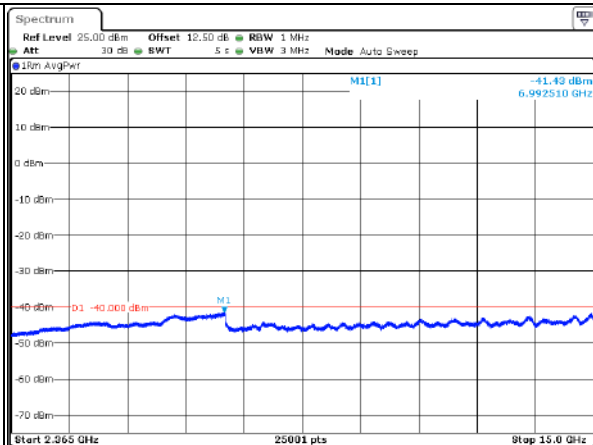
Channel

10MHz Bandwidth QPSK

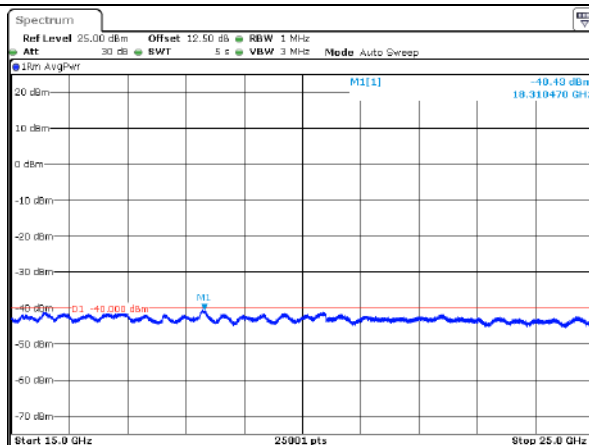
Middle



ProjectNo.: CR231058582 Tester: Len Huang  
Date: 2.NOV.2023 16:25:29

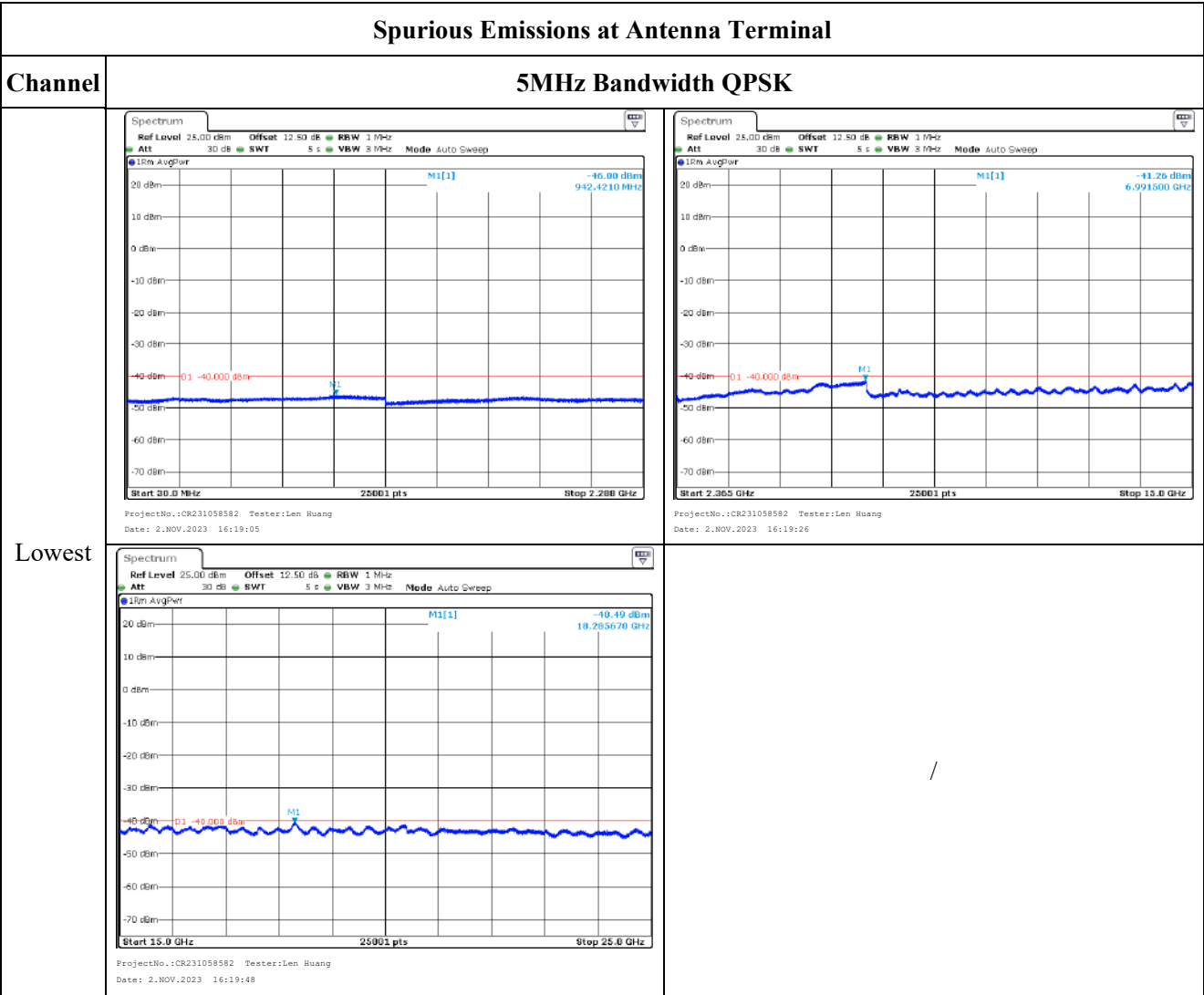


ProjectNo.: CR231058582 Tester: Len Huang  
Date: 2.NOV.2023 16:25:51



ProjectNo.: CR231058582 Tester: Len Huang  
Date: 2.NOV.2023 16:26:13

2350-2360 MHz:

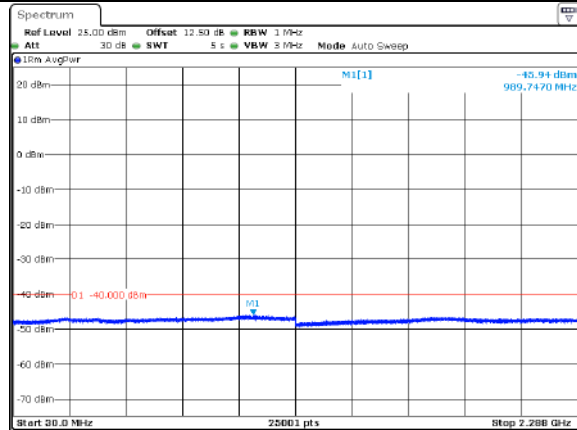


Spurious Emissions at Antenna Terminal

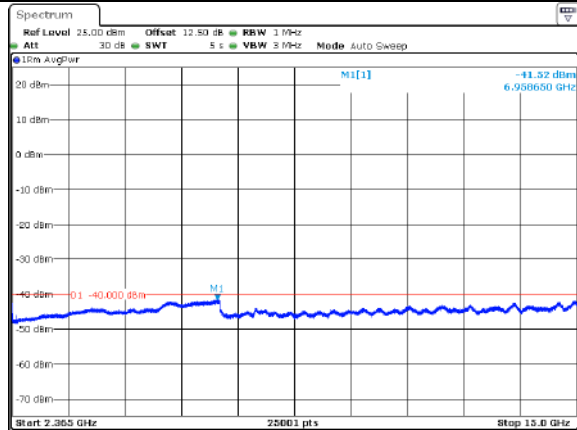
Channel

5MHz Bandwidth QPSK

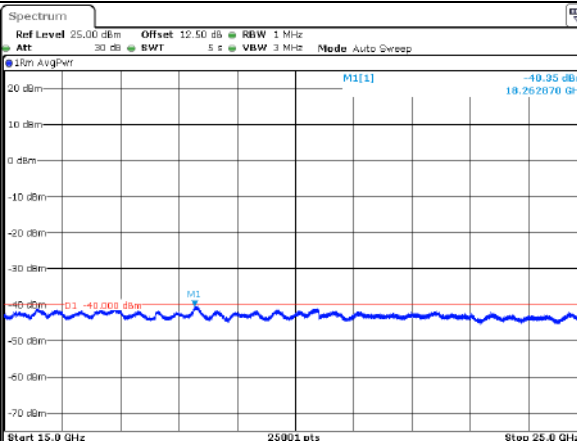
Highest



ProjectNo.:CR231058582 Tester:Len Huang  
Date: 2.NOV.2023 16:13:31



ProjectNo.:CR231058582 Tester:Len Huang  
Date: 2.NOV.2023 16:13:54



ProjectNo.:CR231058582 Tester:Len Huang  
Date: 2.NOV.2023 16:14:15

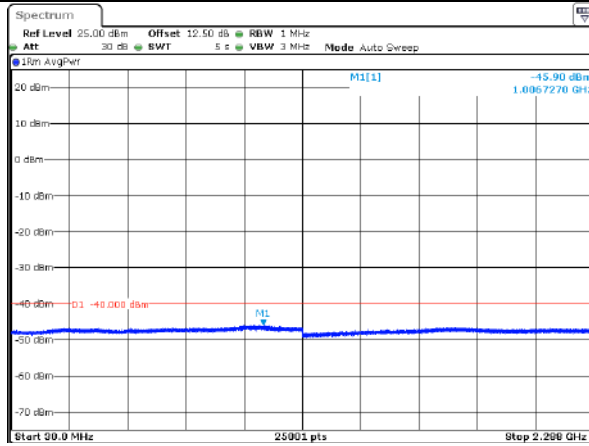
/

## Spurious Emissions at Antenna Terminal

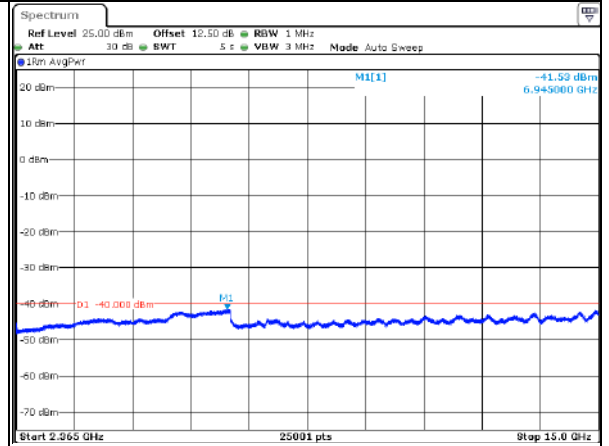
Channel

10MHz Bandwidth QPSK

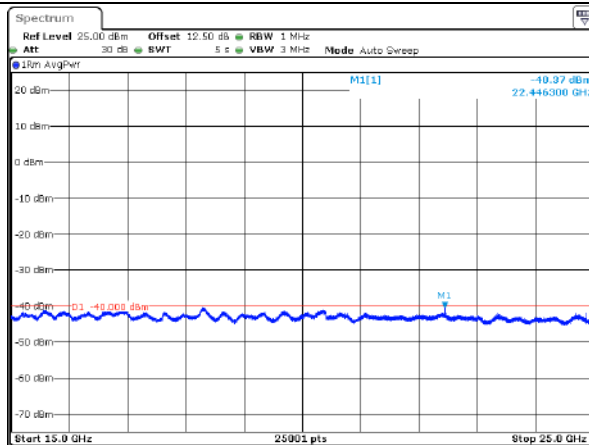
Middle



ProjectNo.:CR231058582 Tester:Len Ruang  
Date: 2.NOV.2023 16:15:07



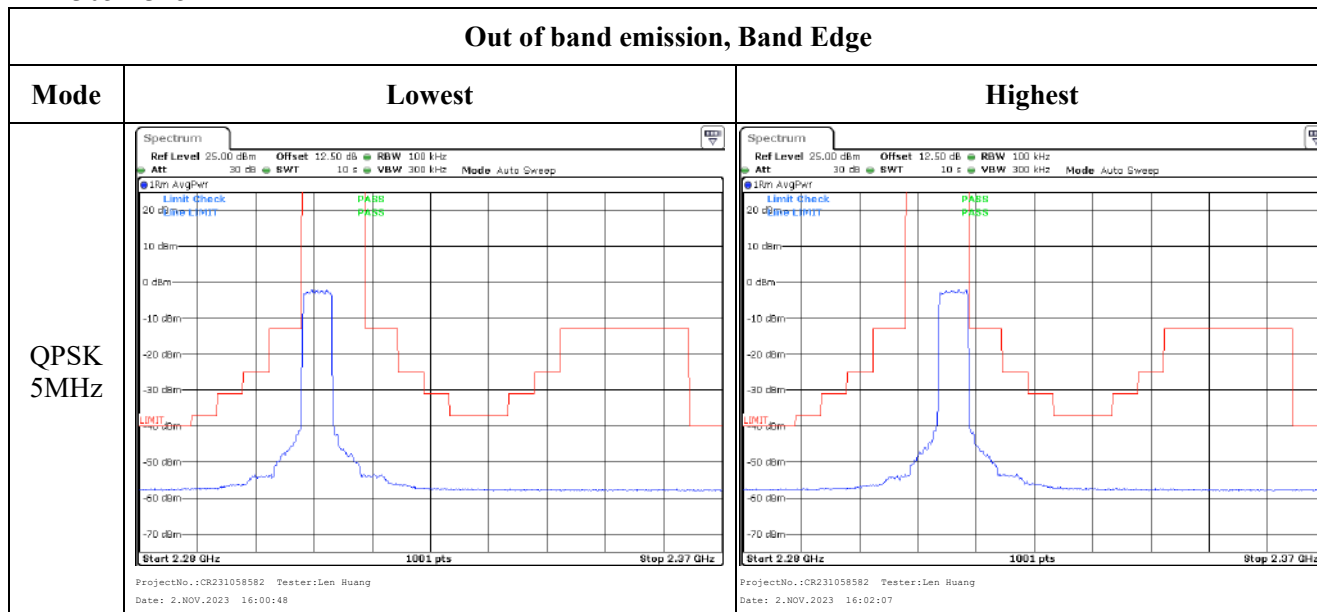
ProjectNo.:CR231058582 Tester:Len Ruang  
Date: 2.NOV.2023 16:17:11



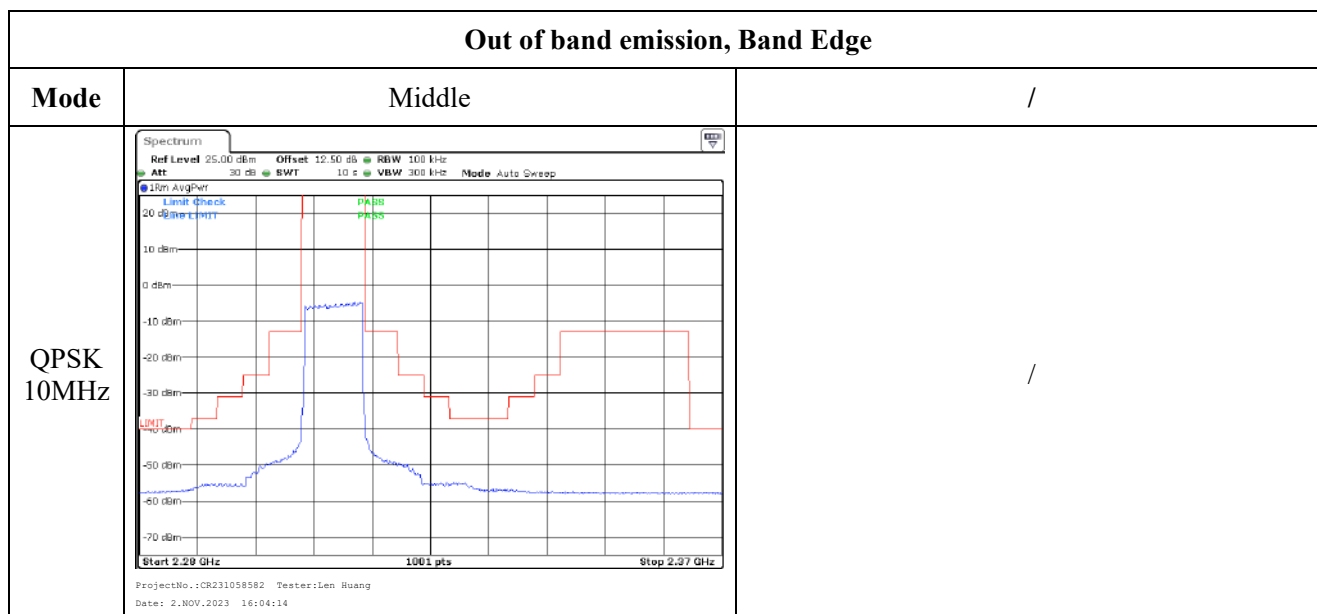
ProjectNo.:CR231058582 Tester:Len Ruang  
Date: 2.NOV.2023 16:15:50

2305-2315 MHz:

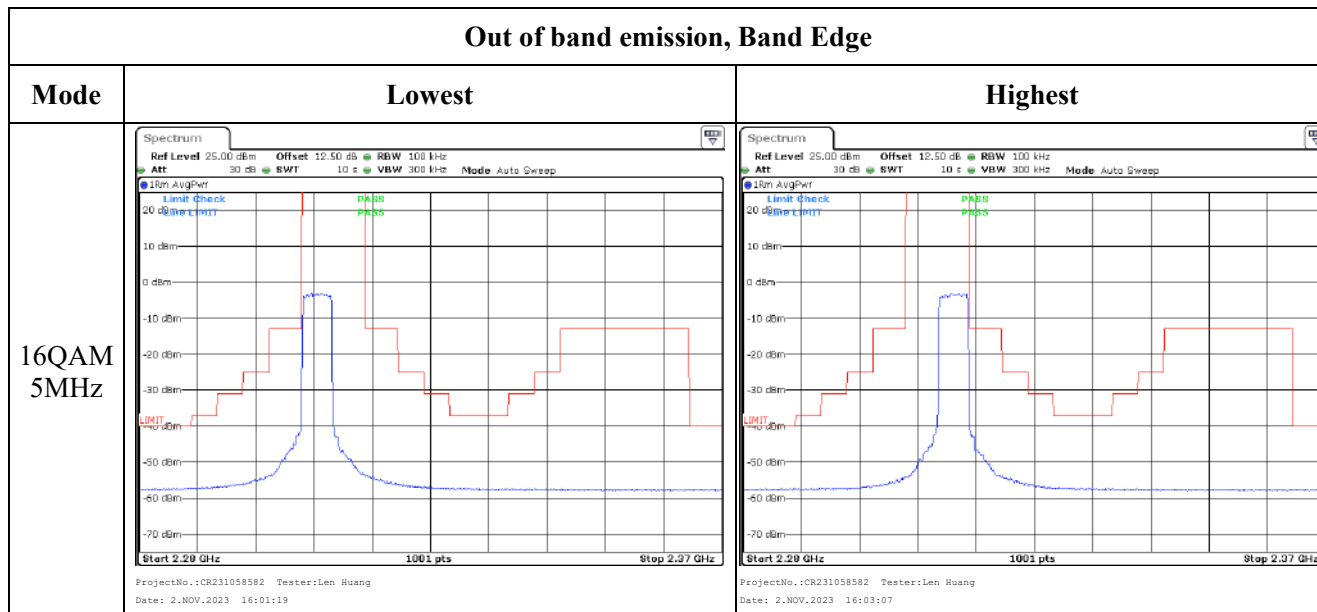
## Out of band emission, Band Edge



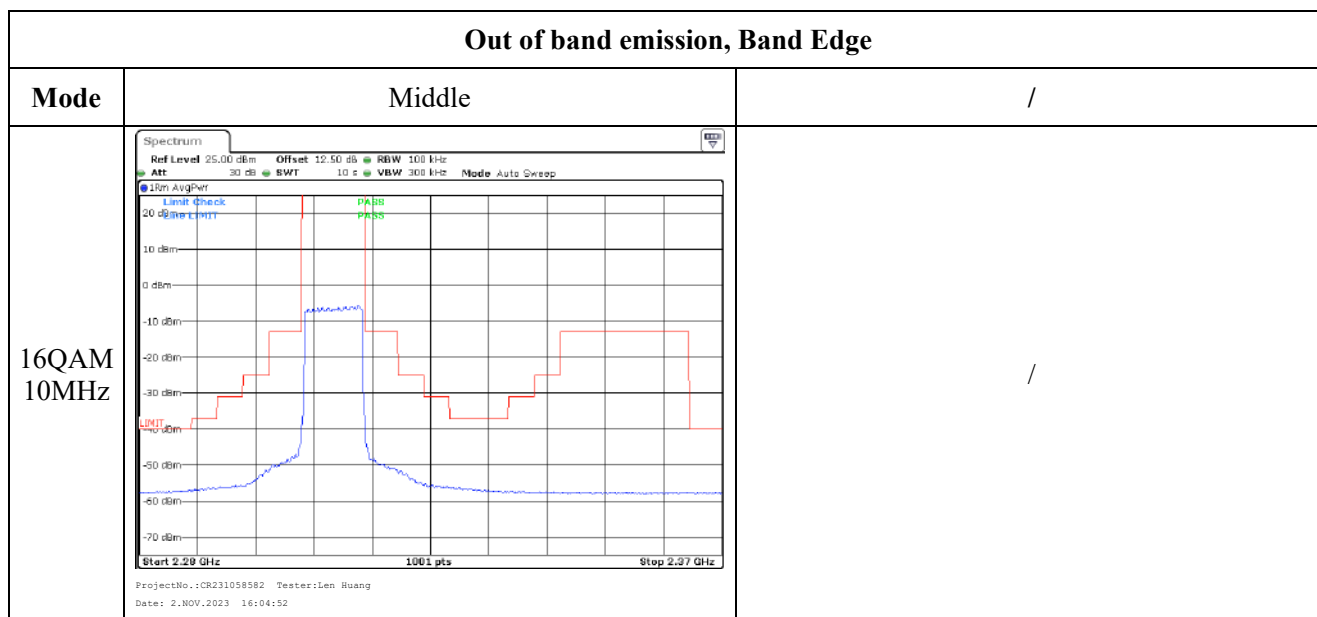
## Out of band emission, Band Edge



## Out of band emission, Band Edge



## Out of band emission, Band Edge



2350-2360 MHz:

