



N71-10MHz-16QAM-136100-50RB#0



N71-10MHz-64QAM-136100-50RB#0



N71-10MHz-BPSK-136100-50RB#0



N71-10MHz-256QAM-136100-50RB#0



N71-15MHz-QPSK-134100-75RB#0



N71-15MHz-QPSK-136100-75RB#0



N71-15MHz-QPSK-138100-75RB#0



N71-15MHz-16QAM-136100-75RB#0



N71-15MHz-64QAM-136100-75RB#0



N71-15MHz-BPSK-136100-75RB#0



N71-15MHz-256QAM-136100-75RB#0



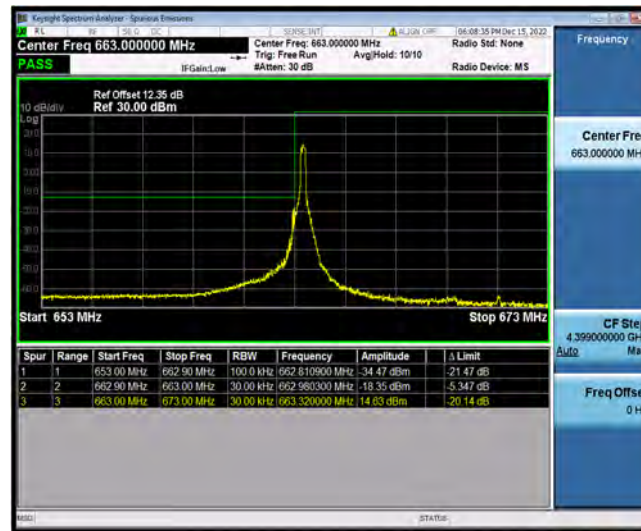
## Band Edge

### Test Result

| Band | Bandwidth | Modulation | Channel | RB Configuration | Result(dBm)   | Verdict |
|------|-----------|------------|---------|------------------|---------------|---------|
| N71  | 5MHz      | QPSK       | 133100  | 1RB#0            | -34.47,-18.35 | PASS    |
| N71  | 5MHz      | QPSK       | 133100  | 25RB#0           | -35.49        | PASS    |
| N71  | 5MHz      | QPSK       | 133447  | 1RB#24           | -25.93,-50.92 | PASS    |
| N71  | 5MHz      | QPSK       | 133447  | 25RB#0           | -29.77,-34.15 | PASS    |
| N71  | 10MHz     | QPSK       | 133600  | 1RB#0            | -32.13,-16.47 | PASS    |
| N71  | 10MHz     | QPSK       | 133600  | 50RB#0           | -37.48,-35.39 | PASS    |
| N71  | 10MHz     | QPSK       | 138600  | 1RB#49           | -42.08,-43.12 | PASS    |
| N71  | 10MHz     | QPSK       | 138600  | 50RB#0           | -38.34,-39.38 | PASS    |
| N71  | 15MHz     | QPSK       | 134100  | 1RB#0            | -42.58,-24.98 | PASS    |
| N71  | 15MHz     | QPSK       | 134100  | 75RB#0           | -39.78,-42.67 | PASS    |
| N71  | 15MHz     | QPSK       | 138100  | 1RB#74           | -54.90,-53.48 | PASS    |
| N71  | 15MHz     | QPSK       | 138100  | 75RB#0           | -49.66,-42.82 | PASS    |

## Test Graphs

N71-5MHz-QPSK-133100-1RB#0



N71-5MHz-QPSK-133100-25RB#0



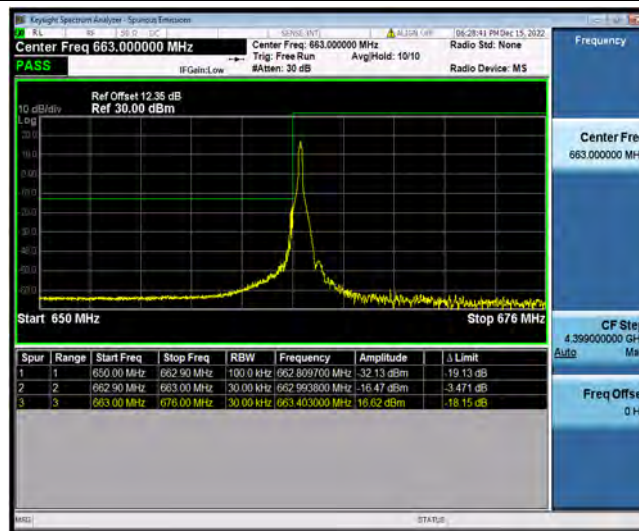
N71-5MHz-QPSK-133447-1RB#24



# N71-5MHz-QPSK-133447-25RB#0



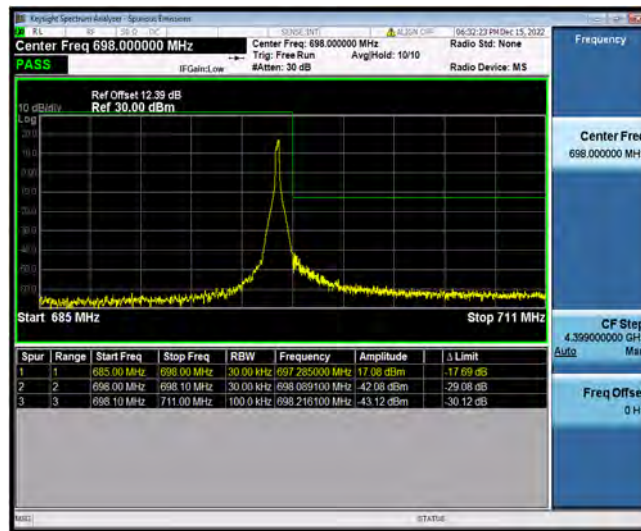
# N71-10MHz-QPSK-133600-1RB#0



# N71-10MHz-QPSK-133600-50RB#0



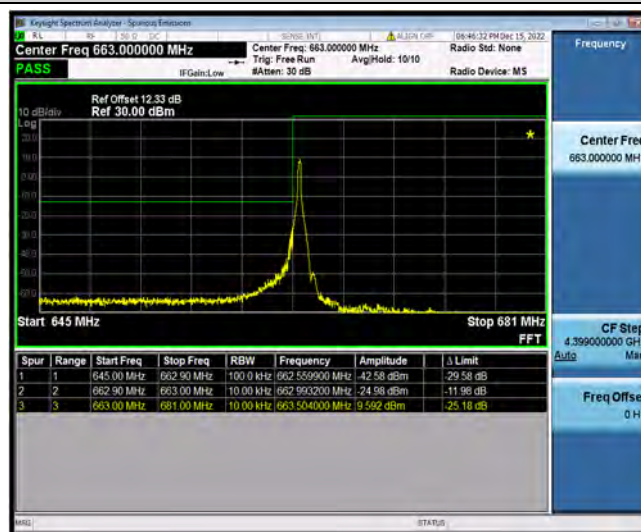
# N71-10MHz-QPSK-138600-1RB#49



N71-10MHz-QPSK-138600-50RB#0



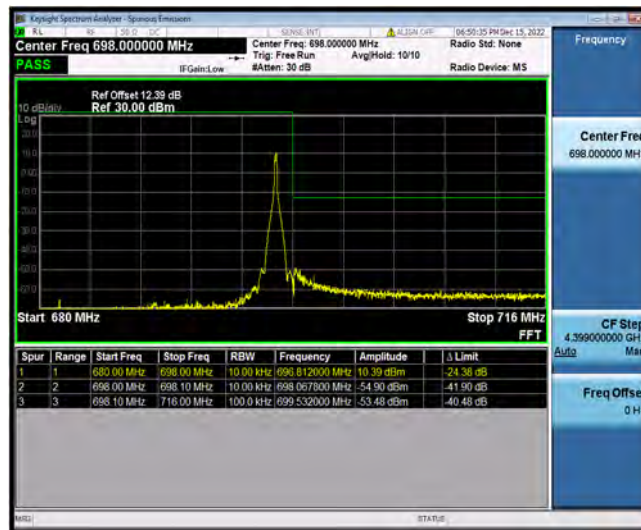
N71-15MHz-QPSK-134100-1RB#0



N71-15MHz-QPSK-134100-75RB#0



N71-15MHz-QPSK-138100-1RB#74



N71-15MHz-QPSK-138100-75RB#0



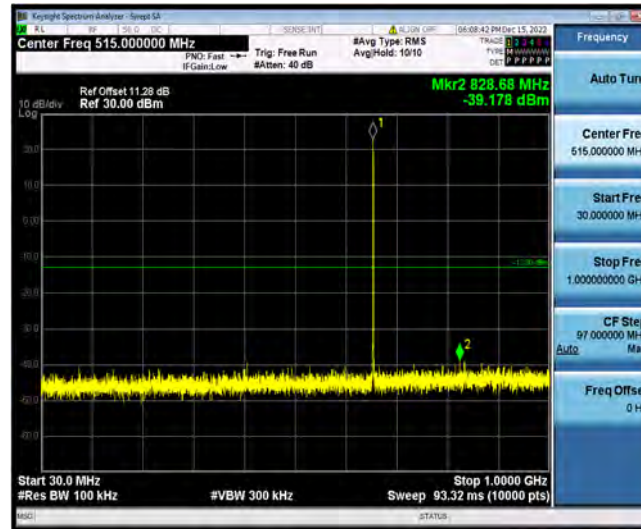
## Conducted Spurious Emission

### Test Result

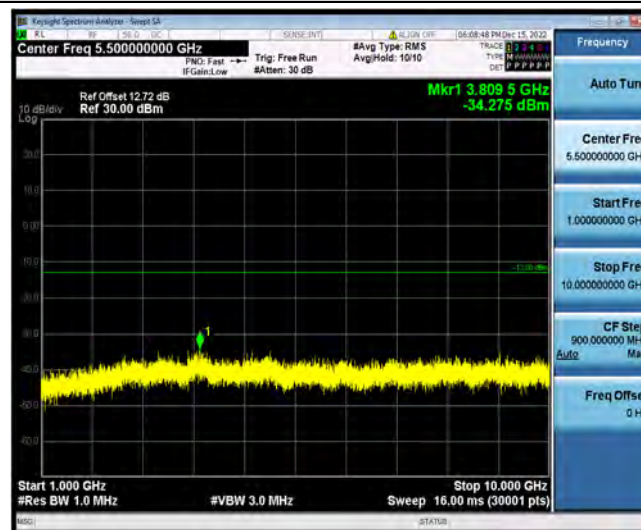
| Band | Bandwidth | Modulation | Channel | RB Configuration | Frequency Range      | Result (dBm) | Verdict |
|------|-----------|------------|---------|------------------|----------------------|--------------|---------|
| N71  | 5MHz      | QPSK       | 133100  | 1RB#0            | Range1:30~1000MHz    | -39.18       | PASS    |
| N71  | 5MHz      | QPSK       | 133100  | 1RB#0            | Range2:1000~10000MHz | -34.28       | PASS    |
| N71  | 5MHz      | QPSK       | 136100  | 1RB#0            | Range1:30~1000MHz    | -39.26       | PASS    |
| N71  | 5MHz      | QPSK       | 136100  | 1RB#0            | Range2:1000~10000MHz | -34.69       | PASS    |
| N71  | 5MHz      | QPSK       | 133447  | 1RB#0            | Range1:30~1000MHz    | -39.76       | PASS    |
| N71  | 5MHz      | QPSK       | 133447  | 1RB#0            | Range2:1000~10000MHz | -34.17       | PASS    |
| N71  | 10MHz     | QPSK       | 133600  | 1RB#0            | Range1:30~1000MHz    | -38.99       | PASS    |
| N71  | 10MHz     | QPSK       | 133600  | 1RB#0            | Range2:1000~10000MHz | -34.28       | PASS    |
| N71  | 10MHz     | QPSK       | 136100  | 1RB#0            | Range1:30~1000MHz    | -38.72       | PASS    |
| N71  | 10MHz     | QPSK       | 136100  | 1RB#0            | Range2:1000~10000MHz | -34.75       | PASS    |
| N71  | 10MHz     | QPSK       | 138600  | 1RB#0            | Range1:30~1000MHz    | -39.33       | PASS    |
| N71  | 10MHz     | QPSK       | 138600  | 1RB#0            | Range2:1000~10000MHz | -34.68       | PASS    |
| N71  | 15MHz     | QPSK       | 134100  | 1RB#0            | Range1:30~1000MHz    | -39.45       | PASS    |
| N71  | 15MHz     | QPSK       | 134100  | 1RB#0            | Range2:1000~10000MHz | -34.65       | PASS    |
| N71  | 15MHz     | QPSK       | 136100  | 1RB#0            | Range1:30~1000MHz    | -39.93       | PASS    |
| N71  | 15MHz     | QPSK       | 136100  | 1RB#0            | Range2:1000~10000MHz | -34.16       | PASS    |
| N71  | 15MHz     | QPSK       | 138100  | 1RB#0            | Range1:30~1000MHz    | -39.28       | PASS    |
| N71  | 15MHz     | QPSK       | 138100  | 1RB#0            | Range2:1000~10000MHz | -33.64       | PASS    |

## Test Graphs

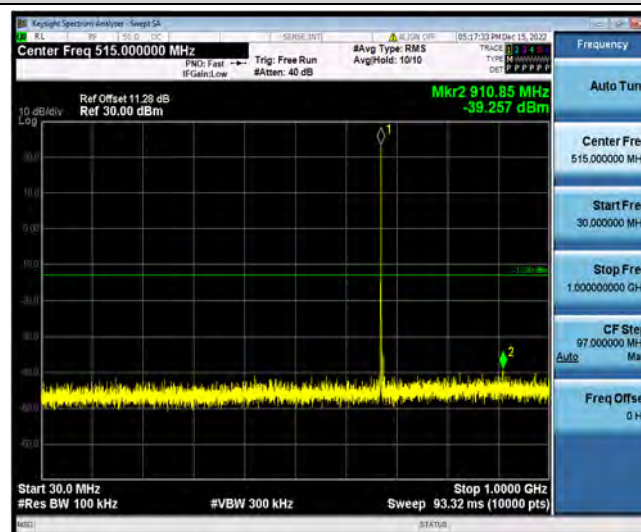
N71-5MHz-QPSK-133100-1RB#0-Range1:30~1000MHz



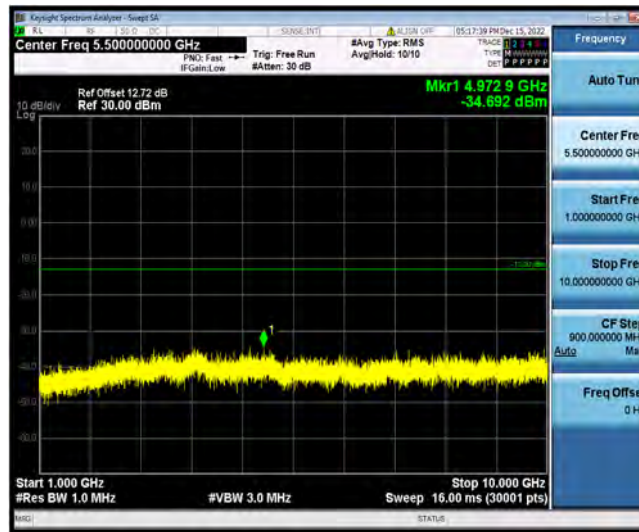
N71-5MHz-QPSK-133100-1RB#0-Range2:1000~10000MHz



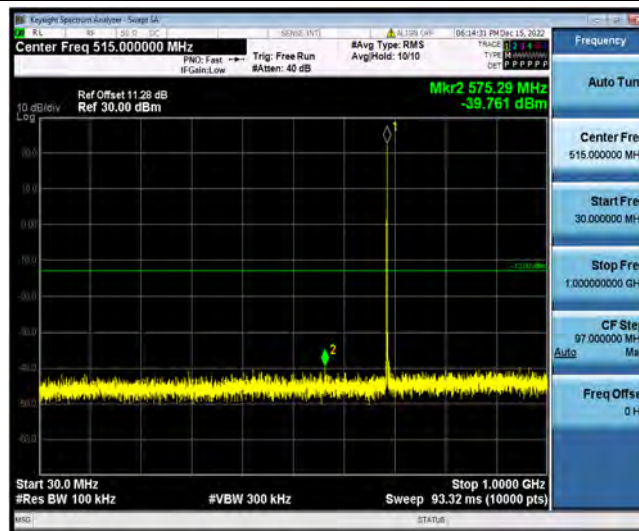
N71-5MHz-QPSK-136100-1RB#0-Range1:30~1000MHz



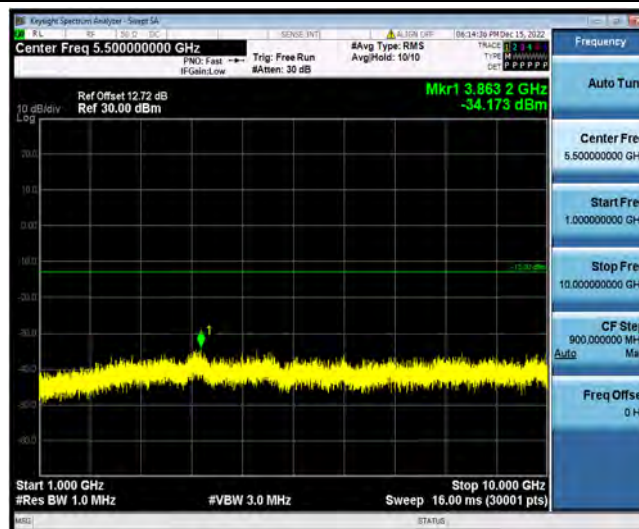
# N71-5MHz-QPSK-136100-1RB#0-Range2:1000~10000MHz



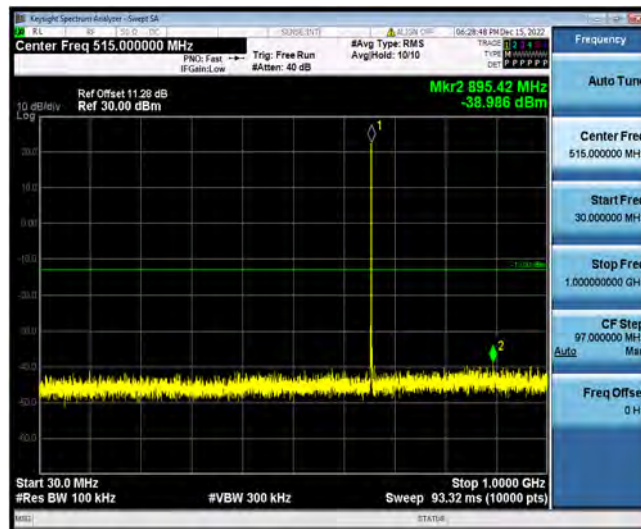
# N71-5MHz-QPSK-133447-1RB#0-Range1:30~1000MHz



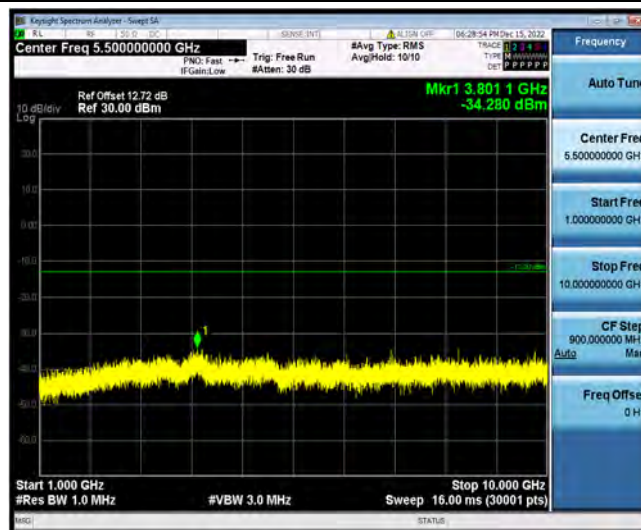
# N71-5MHz-QPSK-133447-1RB#0-Range2:1000~10000MHz



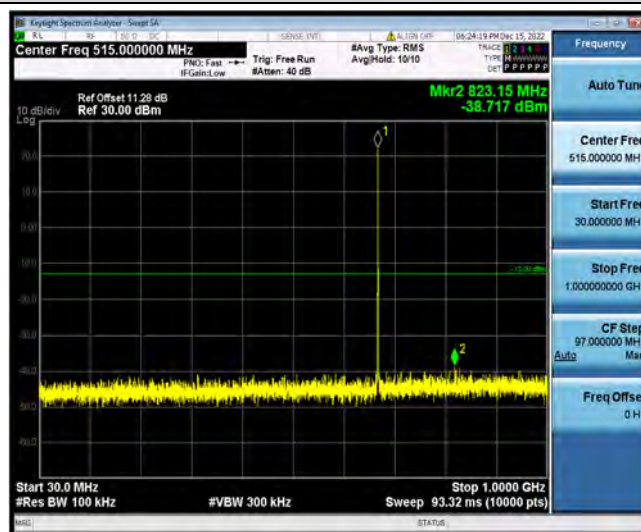
# N71-10MHz-QPSK-133600-1RB#0-Range1:30~1000MHz



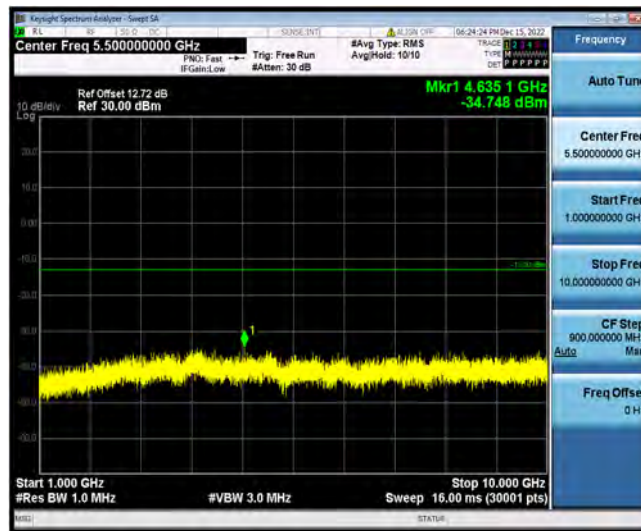
N71-10MHz-QPSK-133600-1RB#0-Range2:1000~10000MHz



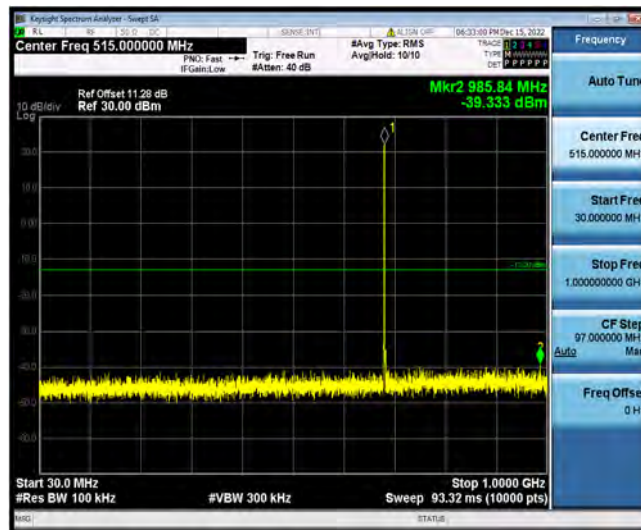
N71-10MHz-QPSK-136100-1RB#0-Range1:30~1000MHz



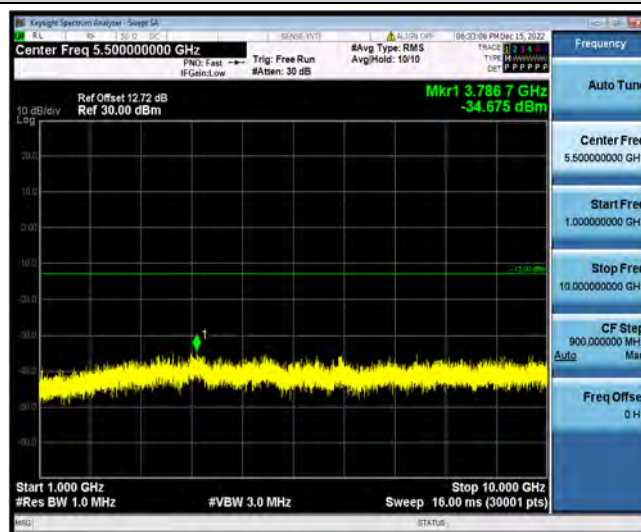
N71-10MHz-QPSK-136100-1RB#0-Range2:1000~10000MHz



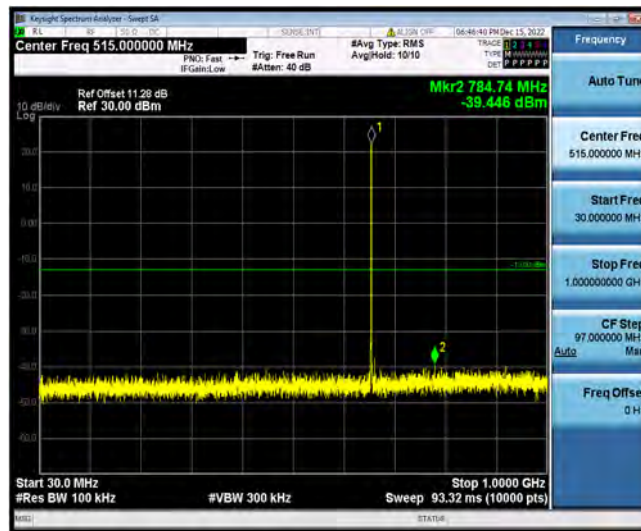
N71-10MHz-QPSK-138600-1RB#0-Range1:30~1000MHz



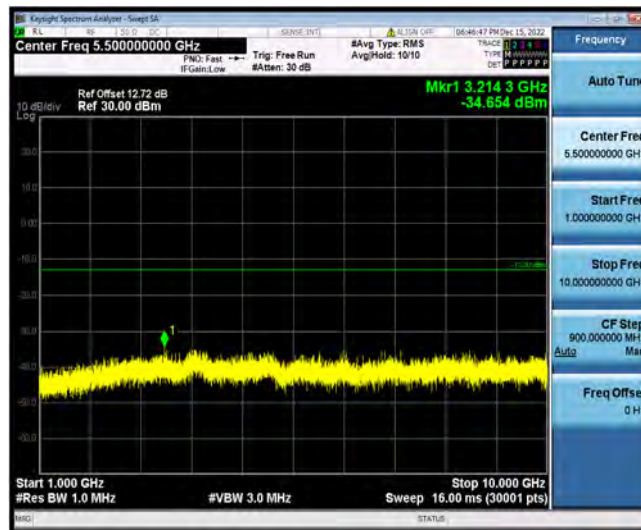
N71-10MHz-QPSK-138600-1RB#0-Range2:1000~10000MHz



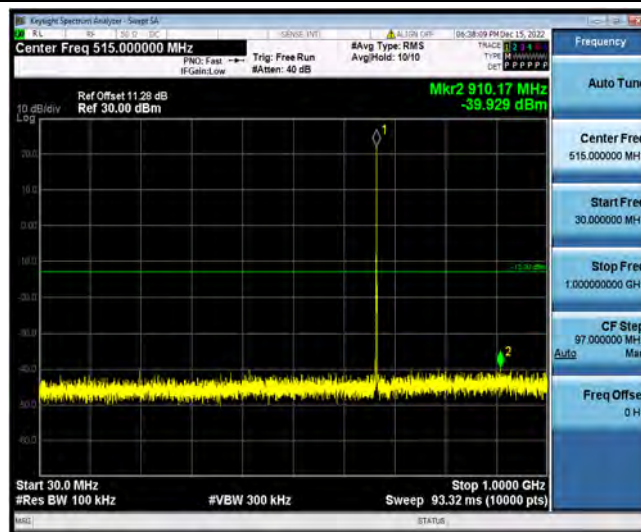
N71-15MHz-QPSK-134100-1RB#0-Range1:30~1000MHz



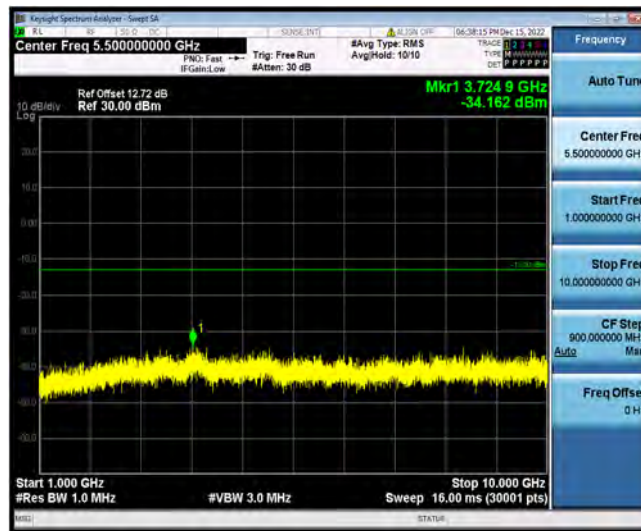
N71-15MHz-QPSK-134100-1RB#0-Range2:1000~10000MHz



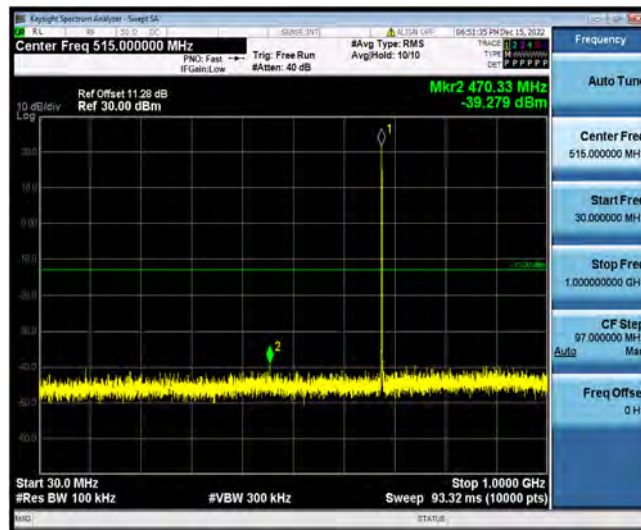
N71-15MHz-QPSK-136100-1RB#0-Range1:30~1000MHz



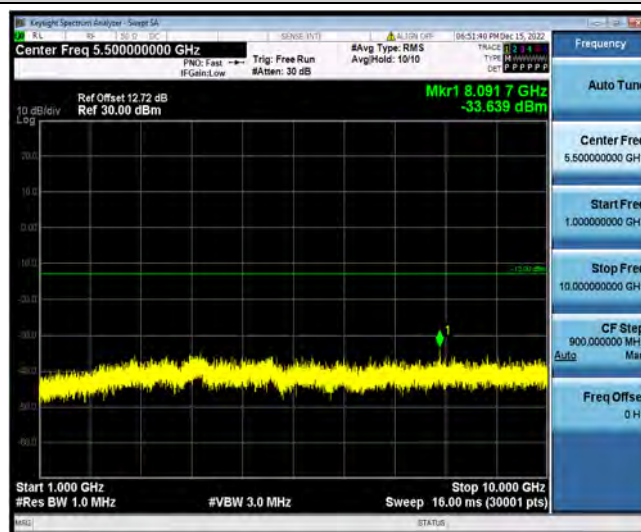
N71-15MHz-QPSK-136100-1RB#0-Range2:1000~10000MHz



N71-15MHz-QPSK-138100-1RB#0-Range1:30~1000MHz



N71-15MHz-QPSK-138100-1RB#0-Range2:1000~10000MHz



## Frequency Stability

### Test Result

| Voltage&Temperature |           |            |         |              |               |                  |                |                 |             |         |
|---------------------|-----------|------------|---------|--------------|---------------|------------------|----------------|-----------------|-------------|---------|
| Band                | Bandwidth | Modulation | Channel | RB Configure | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| N71                 | 20MHz     | QPSK       | 136100  | 50RB#0       | VL            | NT               | 15.68          | 0.023035        | ±2.5        | PASS    |
| N71                 | 20MHz     | QPSK       | 136100  | 50RB#0       | VN            | NT               | 38.43          | 0.022023        | ±2.5        | PASS    |
| N71                 | 20MHz     | QPSK       | 136100  | 50RB#0       | VH            | NT               | 25.33          | 0.014514        | ±2.5        | PASS    |
| N71                 | 20MHz     | QPSK       | 136100  | 50RB#0       | NV            | -30              | 43.67          | 0.025027        | ±2.5        | PASS    |
| N71                 | 20MHz     | QPSK       | 136100  | 50RB#0       | NV            | -20              | 27.67          | 0.015856        | ±2.5        | PASS    |
| N71                 | 20MHz     | QPSK       | 136100  | 50RB#0       | NV            | 0                | 43.46          | 0.024905        | ±2.5        | PASS    |
| N71                 | 20MHz     | QPSK       | 136100  | 50RB#0       | NV            | 10               | 31.50          | 0.018052        | ±2.5        | PASS    |
| N71                 | 20MHz     | QPSK       | 136100  | 50RB#0       | NV            | 20               | 31.35          | 0.017964        | ±2.5        | PASS    |
| N71                 | 20MHz     | QPSK       | 136100  | 50RB#0       | NV            | 30               | 38.14          | 0.021857        | ±2.5        | PASS    |
| N71                 | 20MHz     | QPSK       | 136100  | 50RB#0       | NV            | 40               | 17.89          | 0.010253        | ±2.5        | PASS    |
| N71                 | 20MHz     | QPSK       | 136100  | 50RB#0       | NV            | 50               | 19.10          | 0.010947        | ±2.5        | PASS    |

## N78A

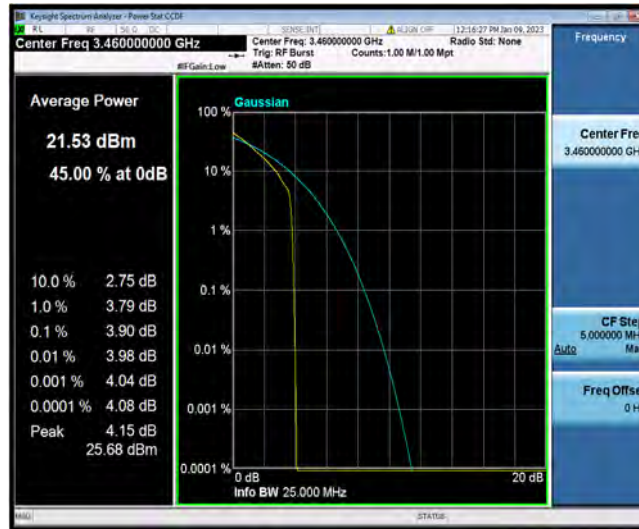
### Peak-to-Average Ratio (CCDF)

#### Test Result

| Band | Bandwidth | Modulation | Channel | RB Configuration | Result(dB) | Limit(dB) | Verdict |
|------|-----------|------------|---------|------------------|------------|-----------|---------|
| N78  | 20MHz     | QPSK       | 630668  | 1RB#0            | 3.90       | 13        | PASS    |
| N78  | 20MHz     | QPSK       | 630668  | 50RB#0           | 5.38       | 13        | PASS    |
| N78  | 20MHz     | QPSK       | 633334  | 1RB#0            | 4.27       | 13        | PASS    |
| N78  | 20MHz     | QPSK       | 633334  | 50RB#0           | 4.62       | 13        | PASS    |
| N78  | 20MHz     | QPSK       | 636000  | 1RB#0            | 4.43       | 13        | PASS    |
| N78  | 20MHz     | QPSK       | 636000  | 50RB#0           | 5.30       | 13        | PASS    |

## Test Graphs

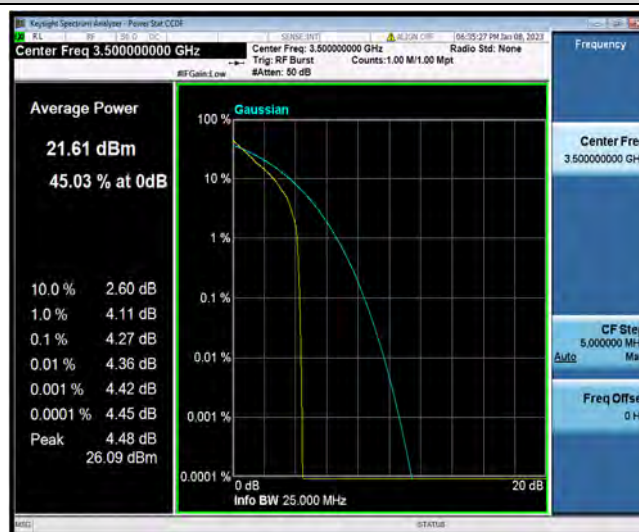
N78-20MHz-QPSK-630668-1RB#0



N78-20MHz-QPSK-630668-50RB#0



N78-20MHz-QPSK-633334-1RB#0



## N78-20MHz-QPSK-633334-50RB#0



## N78-20MHz-QPSK-636000-1RB#0



## N78-20MHz-QPSK-636000-50RB#0



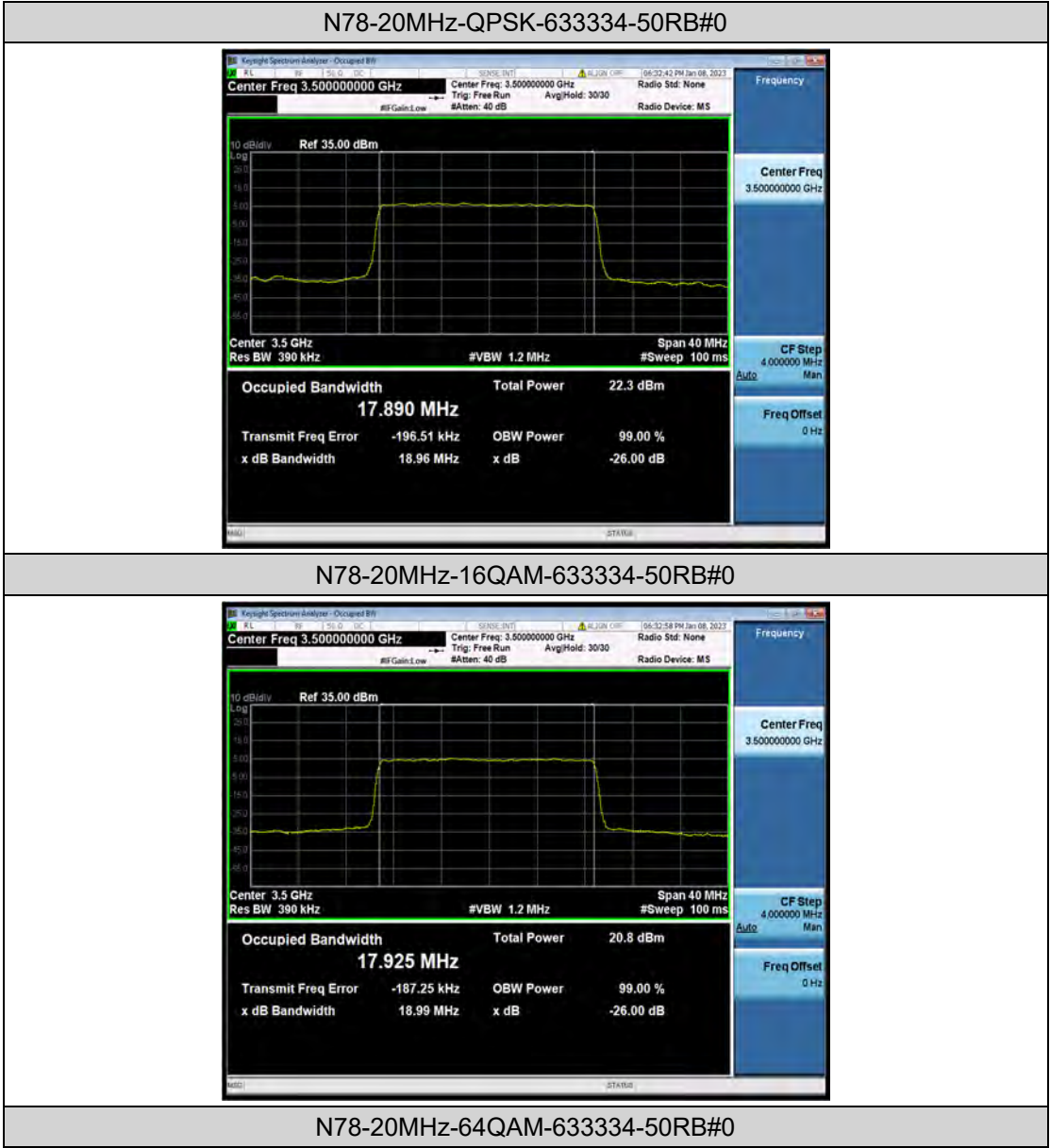
## 26dB Bandwidth and Occupied Bandwidth

### Test Result

| Band | Bandwidth | Modulation | Channel | RB Configuration | Occupied Bandwidth (MHz) | 26dB Bandwidth (MHz) | Verdict |
|------|-----------|------------|---------|------------------|--------------------------|----------------------|---------|
| N78  | 20MHz     | QPSK       | 633334  | 50RB#0           | 17.890                   | 18.96                | PASS    |
| N78  | 20MHz     | 16QAM      | 633334  | 50RB#0           | 17.925                   | 18.99                | PASS    |
| N78  | 20MHz     | 64QAM      | 633334  | 50RB#0           | 17.942                   | 18.99                | PASS    |
| N78  | 20MHz     | 256QAM     | 633334  | 50RB#0           | 17.916                   | 18.97                | PASS    |
| N78  | 20MHz     | BPSK       | 633334  | 50RB#0           | 17.946                   | 18.99                | PASS    |
| N78  | 30MHz     | QPSK       | 633334  | 75RB#0           | 26.791                   | 27.80                | PASS    |
| N78  | 30MHz     | 16QAM      | 633334  | 75RB#0           | 26.773                   | 27.76                | PASS    |
| N78  | 30MHz     | 64QAM      | 633334  | 75RB#0           | 26.747                   | 27.77                | PASS    |
| N78  | 30MHz     | BPSK       | 633334  | 75RB#0           | 26.778                   | 27.75                | PASS    |
| N78  | 30MHz     | 256QAM     | 633334  | 75RB#0           | 26.820                   | 27.77                | PASS    |
| N78  | 40MHz     | QPSK       | 633334  | 100RB#0          | 35.726                   | 37.26                | PASS    |
| N78  | 40MHz     | 16QAM      | 633334  | 100RB#0          | 35.730                   | 37.29                | PASS    |
| N78  | 40MHz     | 64QAM      | 633334  | 100RB#0          | 35.715                   | 37.26                | PASS    |
| N78  | 40MHz     | 256QAM     | 633334  | 100RB#0          | 35.711                   | 37.28                | PASS    |
| N78  | 40MHz     | BPSK       | 633334  | 100RB#0          | 35.703                   | 37.26                | PASS    |
| N78  | 50MHz     | QPSK       | 633334  | 128RB#0          | 45.835                   | 48.43                | PASS    |
| N78  | 50MHz     | 16QAM      | 633334  | 128RB#0          | 45.849                   | 48.44                | PASS    |
| N78  | 50MHz     | 64QAM      | 633334  | 128RB#0          | 45.851                   | 48.45                | PASS    |
| N78  | 50MHz     | BPSK       | 633334  | 128RB#0          | 45.814                   | 48.44                | PASS    |
| N78  | 50MHz     | 256QAM     | 633334  | 128RB#0          | 45.902                   | 48.45                | PASS    |
| N78  | 60MHz     | QPSK       | 633334  | 162RB#0          | 57.925                   | 60.72                | PASS    |
| N78  | 60MHz     | 16QAM      | 633334  | 162RB#0          | 57.985                   | 60.74                | PASS    |
| N78  | 60MHz     | 64QAM      | 633334  | 162RB#0          | 57.958                   | 60.72                | PASS    |
| N78  | 60MHz     | 256QAM     | 633334  | 162RB#0          | 57.960                   | 60.71                | PASS    |
| N78  | 60MHz     | BPSK       | 633334  | 162RB#0          | 57.995                   | 60.73                | PASS    |
| N78  | 80MHz     | QPSK       | 633334  | 216RB#0          | 77.144                   | 80.19                | PASS    |
| N78  | 80MHz     | 16QAM      | 633334  | 216RB#0          | 77.122                   | 80.21                | PASS    |
| N78  | 80MHz     | 64QAM      | 633334  | 216RB#0          | 77.176                   | 80.21                | PASS    |
| N78  | 80MHz     | BPSK       | 633334  | 216RB#0          | 77.112                   | 80.18                | PASS    |
| N78  | 80MHz     | 256QAM     | 633334  | 216RB#0          | 77.173                   | 80.23                | PASS    |
| N78  | 90MHz     | QPSK       | 633334  | 240RB#0          | 85.531                   | 88.78                | PASS    |
| N78  | 90MHz     | 16QAM      | 633334  | 240RB#0          | 85.636                   | 88.81                | PASS    |
| N78  | 90MHz     | 64QAM      | 633334  | 240RB#0          | 85.631                   | 88.79                | PASS    |
| N78  | 90MHz     | BPSK       | 633334  | 240RB#0          | 85.679                   | 88.83                | PASS    |

|     |        |        |        |         |        |       |      |
|-----|--------|--------|--------|---------|--------|-------|------|
| N78 | 90MHz  | 256QAM | 633334 | 240RB#0 | 85.653 | 88.86 | PASS |
| N78 | 100MHz | QPSK   | 633334 | 270RB#0 | 96.313 | 99.68 | PASS |
| N78 | 100MHz | 16QAM  | 633334 | 270RB#0 | 96.455 | 99.69 | PASS |
| N78 | 100MHz | 64QAM  | 633334 | 270RB#0 | 96.259 | 99.63 | PASS |
| N78 | 100MHz | 256QAM | 633334 | 270RB#0 | 96.328 | 99.75 | PASS |
| N78 | 100MHz | BPSK   | 633334 | 270RB#0 | 96.274 | 99.64 | PASS |

Test Graphs



N78-20MHz-16QAM-633334-50RB#0

N78-20MHz-64QAM-633334-50RB#0



N78-20MHz-256QAM-633334-50RB#0



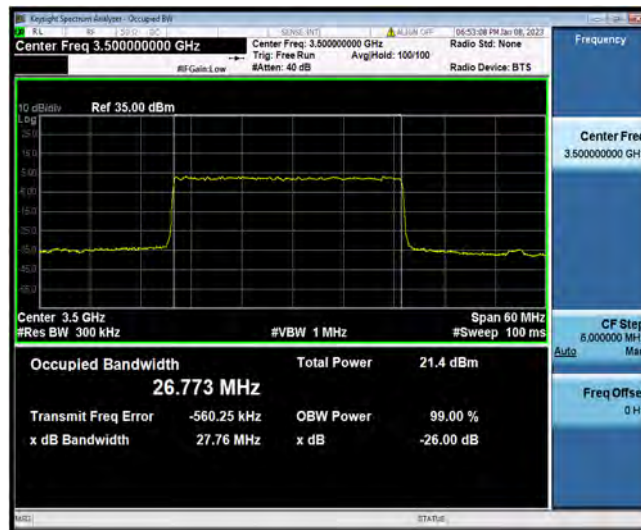
N78-20MHz-BPSK-633334-50RB#0



N78-30MHz-QPSK-633334-75RB#0



N78-30MHz-16QAM-633334-75RB#0



N78-30MHz-64QAM-633334-75RB#0



N78-30MHz-BPSK-633334-75RB#0



N78-30MHz-256QAM-633334-75RB#0



N78-40MHz-QPSK-633334-100RB#0



N78-40MHz-16QAM-633334-100RB#0



N78-40MHz-64QAM-633334-100RB#0



N78-40MHz-256QAM-633334-100RB#0



N78-40MHz-BPSK-633334-100RB#0



N78-50MHz-QPSK-633334-128RB#0



N78-50MHz-16QAM-633334-128RB#0



N78-50MHz-64QAM-633334-128RB#0



N78-50MHz-BPSK-633334-128RB#0



N78-50MHz-256QAM-633334-128RB#0



N78-60MHz-QPSK-633334-162RB#0



N78-60MHz-16QAM-633334-162RB#0



N78-60MHz-64QAM-633334-162RB#0



N78-60MHz-256QAM-633334-162RB#0



N78-60MHz-BPSK-633334-162RB#0



N78-80MHz-QPSK-633334-216RB#0



N78-80MHz-16QAM-633334-216RB#0



N78-80MHz-64QAM-633334-216RB#0



N78-80MHz-BPSK-633334-216RB#0



N78-80MHz-256QAM-633334-216RB#0



Band78-90MHz-QPSK-633334-240RB#0



Band78-90MHz-16QAM-633334-240RB#0



Band78-90MHz-64QAM-633334-240RB#0



Band78-90MHz-BPSK-633334-240RB#0



Band78-90MHz-256QAM-633334-240RB#0



N78-100MHz-QPSK-633334-270RB#0



N78-100MHz-16QAM-633334-270RB#0



N78-100MHz-64QAM-633334-270RB#0



N78-100MHz-256QAM-633334-270RB#0



N78-100MHz-BPSK-633334-270RB#0



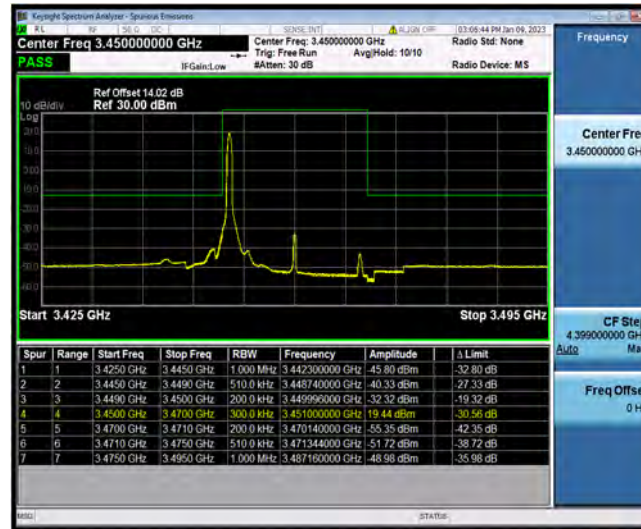
## Band Edge

### Test Result

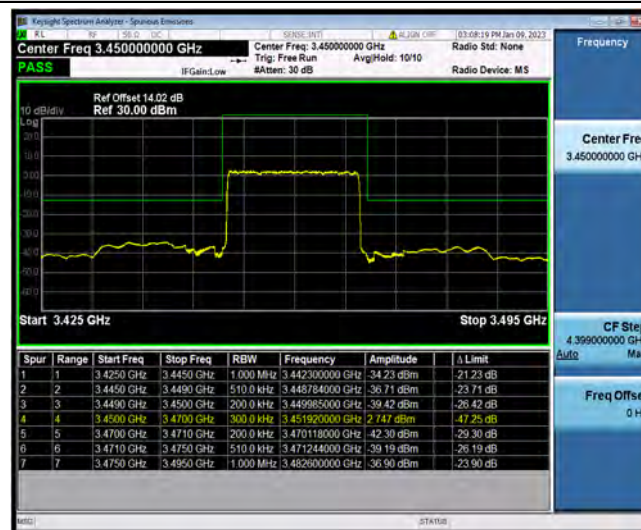
| Band | Bandwidth | Modulation | Channel | RB Configuration | Result(dBm)          | Verdict |
|------|-----------|------------|---------|------------------|----------------------|---------|
| N78  | 20MHz     | QPSK       | 630668  | 1RB#0            | -45.80,-40.33,-32.32 | PASS    |
| N78  | 20MHz     | QPSK       | 630668  | 50RB#0           | -34.23,-36.71,-39.42 | PASS    |
| N78  | 20MHz     | QPSK       | 636000  | 1RB#50           | -32.96,-38.86,-46.59 | PASS    |
| N78  | 20MHz     | QPSK       | 636000  | 50RB#0           | -42.62,-40.35,-37.17 | PASS    |
| N78  | 60MHz     | QPSK       | 632000  | 1RB#0            | -46.15,-39.54,-34.27 | PASS    |
| N78  | 60MHz     | QPSK       | 632000  | 162RB#0          | -33.23,-35.67,-39.04 | PASS    |
| N78  | 60MHz     | QPSK       | 634666  | 1RB#161          | -32.81,-38.96,-46.81 | PASS    |
| N78  | 60MHz     | QPSK       | 634666  | 162RB#0          | -42.07,-38.91,-36.09 | PASS    |
| N78  | 100MHz    | QPSK       | 633334  | 1RB#0            | -55.40,-51.63,-48.08 | PASS    |
| N78  | 100MHz    | QPSK       | 633334  | 1RB#272          | -32.61,-38.90,-46.79 | PASS    |
| N78  | 100MHz    | QPSK       | 633334  | 270RB#0          | -45.43,-41.29,-39.72 | PASS    |

## Test Graphs

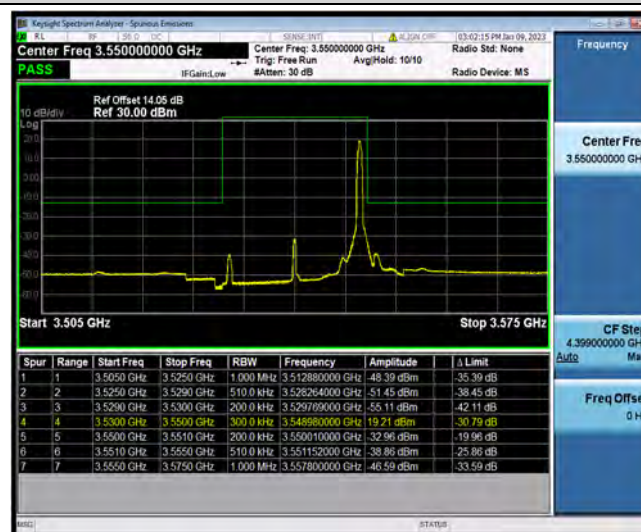
N78-20MHz-QPSK-630668-1RB#0



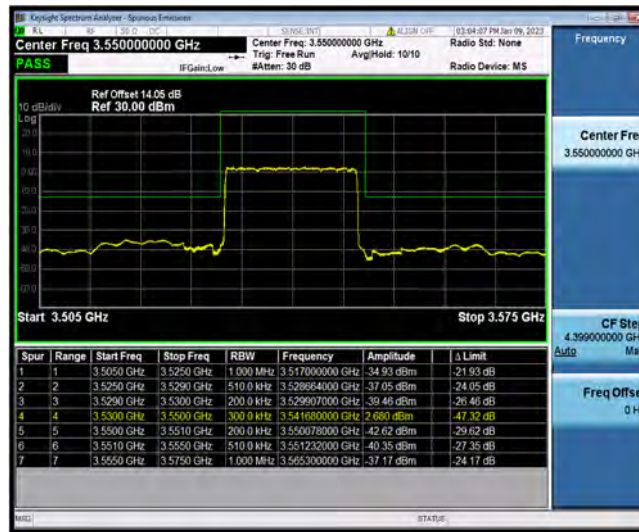
N78-20MHz-QPSK-630668-50RB#0



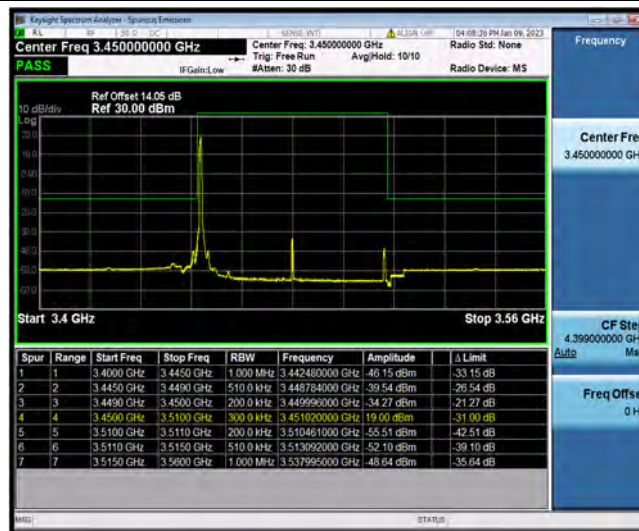
N78-20MHz-QPSK-636000-1RB#50



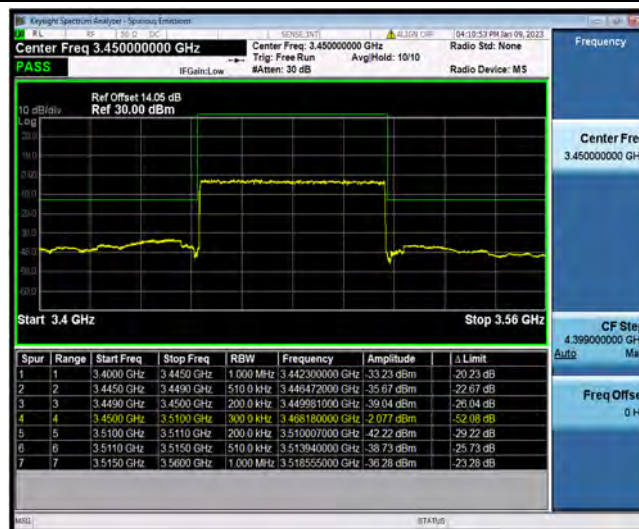
## N78-20MHz-QPSK-636000-50RB#0



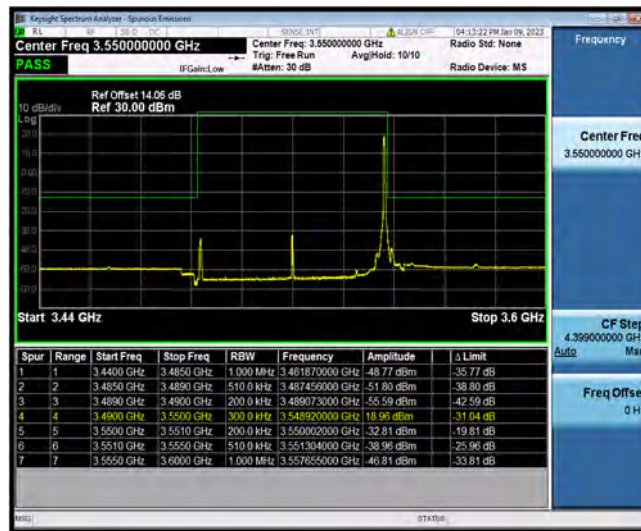
## N78-60MHz-QPSK-632000-1RB#0



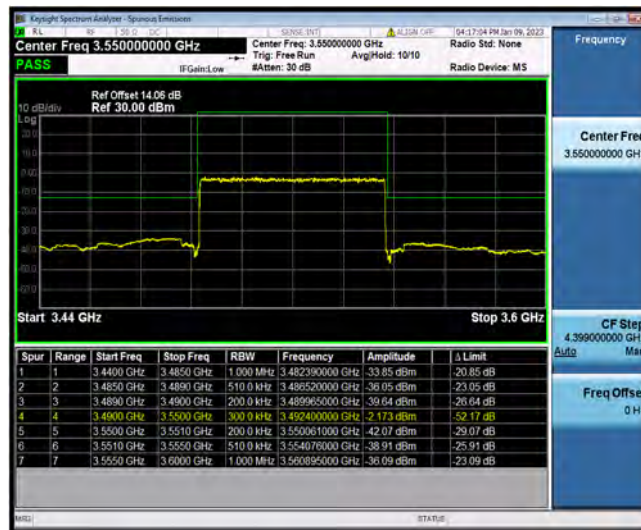
## N78-60MHz-QPSK-632000-162RB#0



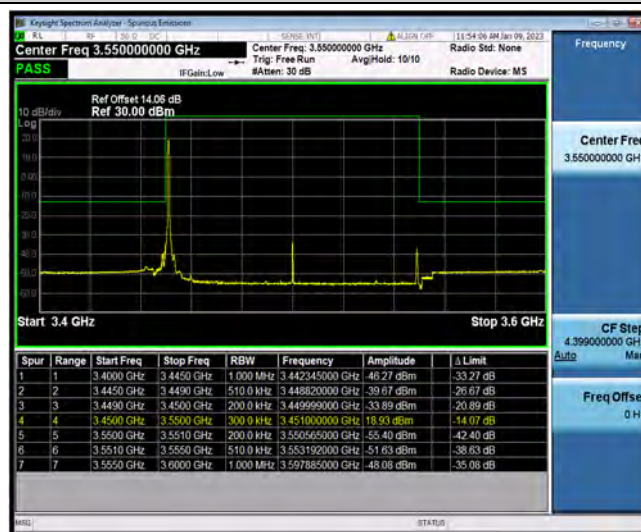
## N78-60MHz-QPSK-634666-1RB#161



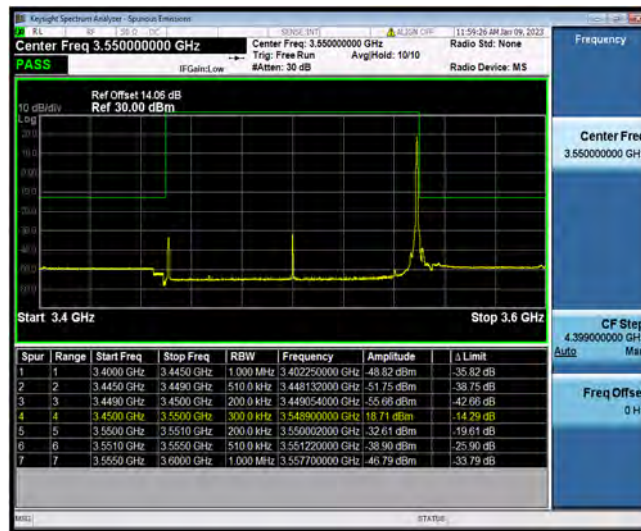
N78-60MHz-QPSK-634666-162RB#0



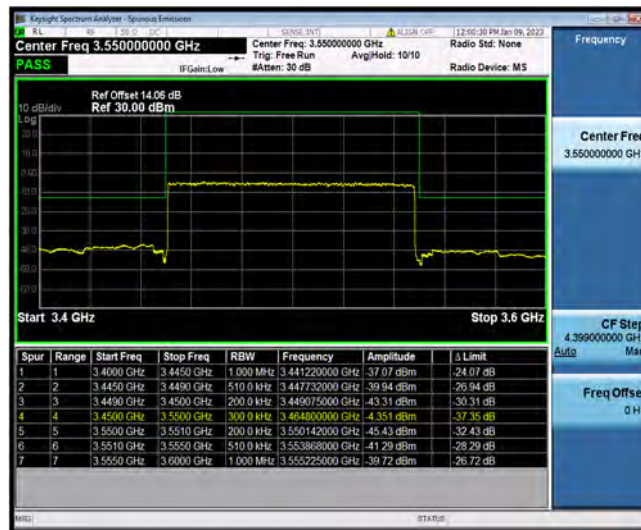
N78-100MHz-QPSK-633334-1RB#0



N78-100MHz-QPSK-633334-1RB#272



N78-100MHz-QPSK-633334-270RB#0



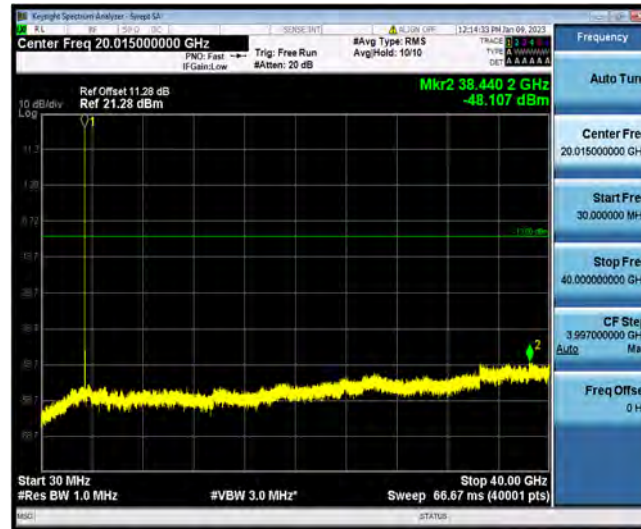
## Conducted Spurious Emission

### Test Result

| Band | Bandwidth | Modulation | Channel | RB<br>Configuration | Frequency<br>Range | Result<br>(dBm) | Verdict |
|------|-----------|------------|---------|---------------------|--------------------|-----------------|---------|
| N78  | 20MHz     | QPSK       | 630668  | 1RB#0               | Range1:30~40000MHz | -48.11          | PASS    |
| N78  | 20MHz     | QPSK       | 633334  | 1RB#0               | Range1:30~40000MHz | -47.68          | PASS    |
| N78  | 20MHz     | QPSK       | 636000  | 1RB#0               | Range1:30~40000MHz | -48.36          | PASS    |
| N78  | 60MHz     | QPSK       | 632000  | 1RB#0               | Range1:30~40000MHz | -47.52          | PASS    |
| N78  | 60MHz     | QPSK       | 633334  | 1RB#0               | Range1:30~40000MHz | -46.98          | PASS    |
| N78  | 60MHz     | QPSK       | 634666  | 1RB#0               | Range1:30~40000MHz | -48.14          | PASS    |
| N78  | 100MHz    | QPSK       | 633334  | 1RB#0               | Range1:30~40000MHz | -47.94          | PASS    |

## Test Graphs

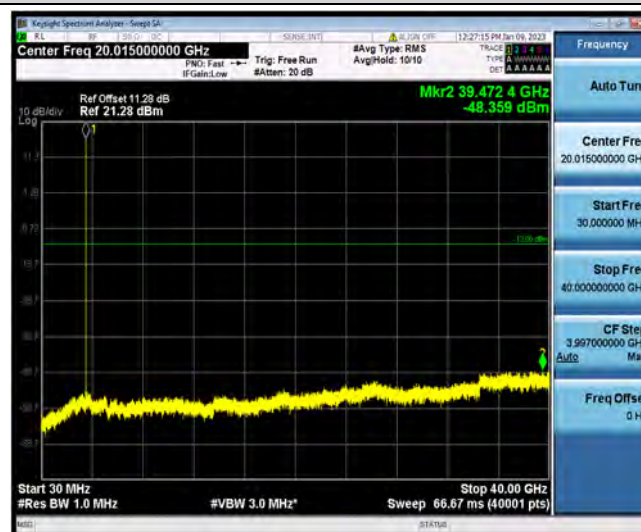
N78-20MHz-QPSK-630668-1RB#0-Range1:30~40000MHz



N78-20MHz-QPSK-633334-1RB#0-Range1:30~40000MHz

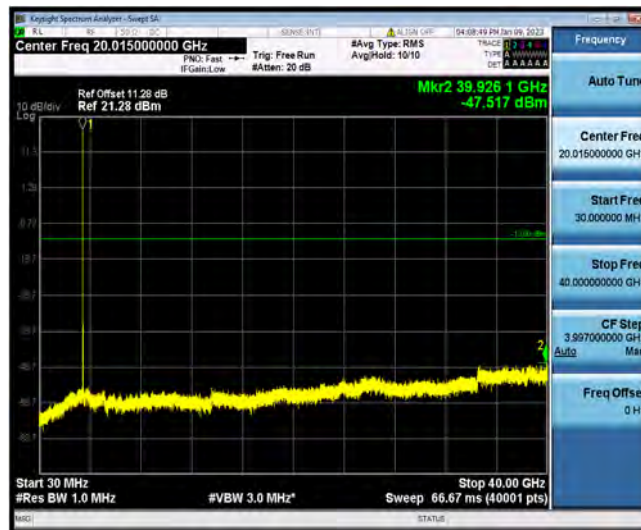


N78-20MHz-QPSK-636000-1RB#0-Range1:30~40000MHz





N78-60MHz-QPSK-632000-1RB#0-Range1:30~40000MHz



N78-60MHz-QPSK-633334-1RB#0-Range1:30~40000MHz



N78-60MHz-QPSK-634666-1RB#0-Range1:30~40000MHz



Band78-100MHz-QPSK-633334-1RB#0-Range1:30~40000MHz



## Frequency Stability

### Test Result

| Voltage&Temperature |                |            |            |                 |                  |                     |                   |                    |                |         |
|---------------------|----------------|------------|------------|-----------------|------------------|---------------------|-------------------|--------------------|----------------|---------|
| Band                | Bandwidth<br>h | Modulation | Channel    | RB<br>Configure | Voltage<br>[Vdc] | Temperature<br>(°C) | Deviation<br>(Hz) | Deviation<br>(ppm) | Limit<br>(ppm) | Verdict |
| N78                 | 20MHz          | QPSK       | 63333<br>4 | 50RB#0          | VL               | NT                  | 19.07             | 0.005447           | ±2.5           | PASS    |
| N78                 | 20MHz          | QPSK       | 63333<br>4 | 50RB#0          | VN               | NT                  | 44.77             | 0.012792           | ±2.5           | PASS    |
| N78                 | 20MHz          | QPSK       | 63333<br>4 | 50RB#0          | VH               | NT                  | 27.41             | 0.007831           | ±2.5           | PASS    |
| N78                 | 20MHz          | QPSK       | 63333<br>4 | 50RB#0          | NV               | -30                 | 33.86             | 0.009675           | ±2.5           | PASS    |
| N78                 | 20MHz          | QPSK       | 63333<br>4 | 50RB#0          | NV               | -20                 | 34.90             | 0.009971           | ±2.5           | PASS    |
| N78                 | 20MHz          | QPSK       | 63333<br>4 | 50RB#0          | NV               | 0                   | 38.26             | 0.010932           | ±2.5           | PASS    |
| N78                 | 20MHz          | QPSK       | 63333<br>4 | 50RB#0          | NV               | 10                  | 28.60             | 0.008171           | ±2.5           | PASS    |
| N78                 | 20MHz          | QPSK       | 63333<br>4 | 50RB#0          | NV               | 20                  | 28.93             | 0.008265           | ±2.5           | PASS    |
| N78                 | 20MHz          | QPSK       | 63333<br>4 | 50RB#0          | NV               | 30                  | 43.59             | 0.012454           | ±2.5           | PASS    |
| N78                 | 20MHz          | QPSK       | 63333<br>4 | 50RB#0          | NV               | 40                  | 14.56             | 0.004159           | ±2.5           | PASS    |
| N78                 | 20MHz          | QPSK       | 63333<br>4 | 50RB#0          | NV               | 50                  | 24.64             | 0.007039           | ±2.5           | PASS    |

## N77C

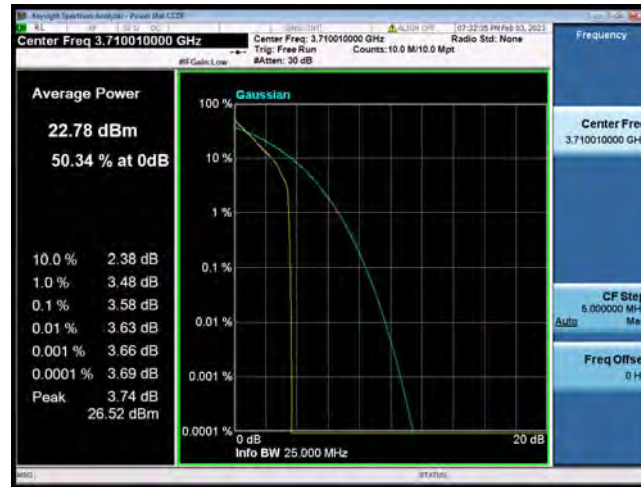
### Peak-to-Average Ratio (CCDF)

#### Test Result

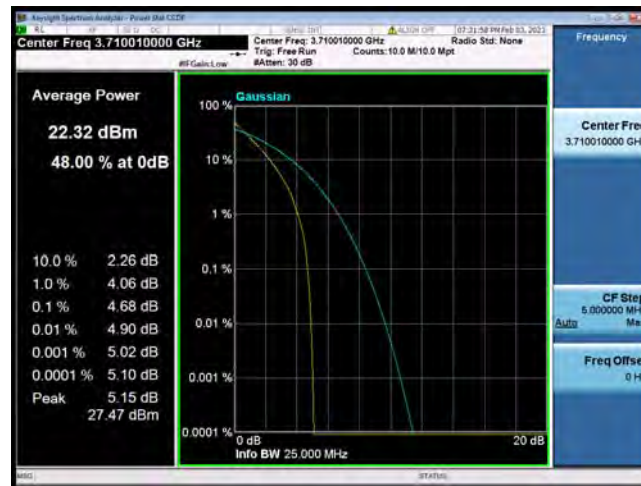
| Band | Bandwidth | Modulation | Channel | RB Configuration | Result(dB) | Limit(dB) | Verdict |
|------|-----------|------------|---------|------------------|------------|-----------|---------|
| N77  | 20MHz     | QPSK       | 647334  | 1RB#0            | 3.58       | 13        | PASS    |
| N77  | 20MHz     | QPSK       | 647334  | 50RB#0           | 4.68       | 13        | PASS    |
| N77  | 20MHz     | QPSK       | 656000  | 1RB#0            | 4.35       | 13        | PASS    |
| N77  | 20MHz     | QPSK       | 656000  | 50RB#0           | 4.85       | 13        | PASS    |
| N77  | 20MHz     | QPSK       | 664666  | 1RB#0            | 3.95       | 13        | PASS    |
| N77  | 20MHz     | QPSK       | 664666  | 50RB#0           | 4.82       | 13        | PASS    |

## Test Graphs

N77-20MHz-QPSK-647334-1RB#0



N77-20MHz-QPSK-647334-50RB#0



N77-20MHz-QPSK-656000-1RB#0



N77-20MHz-QPSK-656000-50RB#0



N77-20MHz-QPSK-664666-1RB#0



N77-20MHz-QPSK-664666-50RB#0



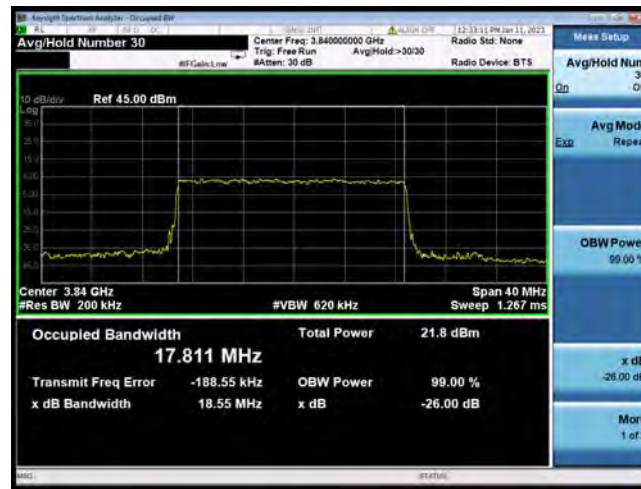
## 26dB Bandwidth and Occupied Bandwidth

### Test Result

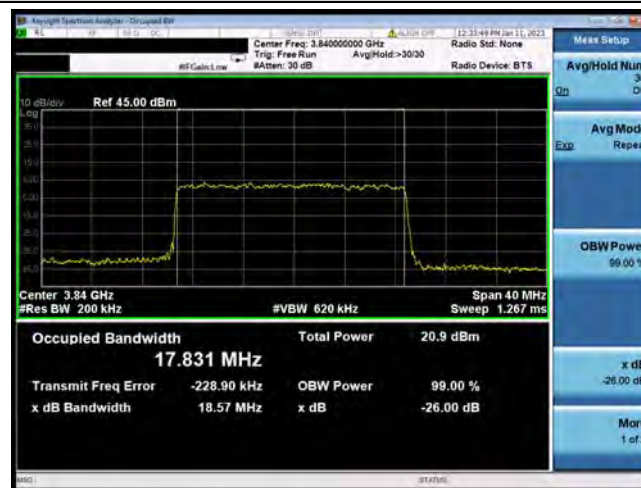
| Band | Bandwidth | Modulation | Channel | RB Configuration | Occupied Bandwidth (MHz) | 26dB Bandwidth (MHz) | Verdict |
|------|-----------|------------|---------|------------------|--------------------------|----------------------|---------|
| N77  | 20MHz     | QPSK       | 656000  | 50RB#0           | 17.811                   | 18.55                | PASS    |
| N77  | 20MHz     | 16QAM      | 656000  | 50RB#0           | 17.831                   | 18.57                | PASS    |
| N77  | 20MHz     | 64QAM      | 656000  | 50RB#0           | 17.869                   | 18.61                | PASS    |
| N77  | 20MHz     | 256QAM     | 656000  | 50RB#0           | 17.867                   | 18.61                | PASS    |
| N77  | 20MHz     | BPSK       | 656000  | 50RB#0           | 17.815                   | 18.55                | PASS    |
| N77  | 30MHz     | QPSK       | 656000  | 75RB#0           | 26.775                   | 27.75                | PASS    |
| N77  | 30MHz     | 16QAM      | 656000  | 75RB#0           | 26.730                   | 27.83                | PASS    |
| N77  | 30MHz     | 64QAM      | 656000  | 75RB#0           | 26.686                   | 27.80                | PASS    |
| N77  | 30MHz     | BPSK       | 656000  | 75RB#0           | 26.756                   | 27.82                | PASS    |
| N77  | 30MHz     | 256QAM     | 656000  | 75RB#0           | 26.833                   | 27.83                | PASS    |
| N77  | 40MHz     | QPSK       | 656000  | 100RB#0          | 35.667                   | 37.19                | PASS    |
| N77  | 40MHz     | 16QAM      | 656000  | 100RB#0          | 35.662                   | 37.20                | PASS    |
| N77  | 40MHz     | 64QAM      | 656000  | 100RB#0          | 35.695                   | 37.24                | PASS    |
| N77  | 40MHz     | 256QAM     | 656000  | 100RB#0          | 35.735                   | 37.19                | PASS    |
| N77  | 40MHz     | BPSK       | 656000  | 100RB#0          | 35.702                   | 37.14                | PASS    |
| N77  | 50MHz     | QPSK       | 656000  | 128RB#0          | 45.696                   | 47.29                | PASS    |
| N77  | 50MHz     | 16QAM      | 656000  | 128RB#0          | 45.651                   | 47.32                | PASS    |
| N77  | 50MHz     | 64QAM      | 656000  | 128RB#0          | 45.603                   | 47.30                | PASS    |
| N77  | 50MHz     | BPSK       | 656000  | 128RB#0          | 45.592                   | 47.31                | PASS    |
| N77  | 50MHz     | 256QAM     | 656000  | 128RB#0          | 45.676                   | 47.30                | PASS    |
| N77  | 60MHz     | QPSK       | 656000  | 162RB#0          | 57.859                   | 60.54                | PASS    |
| N77  | 60MHz     | 16QAM      | 656000  | 162RB#0          | 57.880                   | 60.59                | PASS    |
| N77  | 60MHz     | 64QAM      | 656000  | 162RB#0          | 57.996                   | 60.57                | PASS    |
| N77  | 60MHz     | 256QAM     | 656000  | 162RB#0          | 57.879                   | 60.57                | PASS    |
| N77  | 60MHz     | BPSK       | 656000  | 162RB#0          | 57.870                   | 60.57                | PASS    |
| N77  | 80MHz     | QPSK       | 656000  | 216RB#0          | 77.106                   | 79.98                | PASS    |
| N77  | 80MHz     | 16QAM      | 656000  | 216RB#0          | 77.050                   | 79.99                | PASS    |
| N77  | 80MHz     | 64QAM      | 656000  | 216RB#0          | 77.043                   | 80.06                | PASS    |
| N77  | 80MHz     | BPSK       | 656000  | 216RB#0          | 77.038                   | 80.07                | PASS    |
| N77  | 80MHz     | 256QAM     | 656000  | 216RB#0          | 77.033                   | 79.99                | PASS    |
| N77  | 100MHz    | QPSK       | 656000  | 270RB#0          | 96.262                   | 99.58                | PASS    |
| N77  | 100MHz    | 16QAM      | 656000  | 270RB#0          | 96.289                   | 99.52                | PASS    |
| N77  | 100MHz    | 64QAM      | 656000  | 270RB#0          | 96.280                   | 99.54                | PASS    |
| N77  | 100MHz    | 256QAM     | 656000  | 270RB#0          | 96.174                   | 99.49                | PASS    |
| N77  | 100MHz    | BPSK       | 656000  | 270RB#0          | 96.254                   | 99.51                | PASS    |

## Test Graphs

N77-20MHz-QPSK-656000-50RB#0



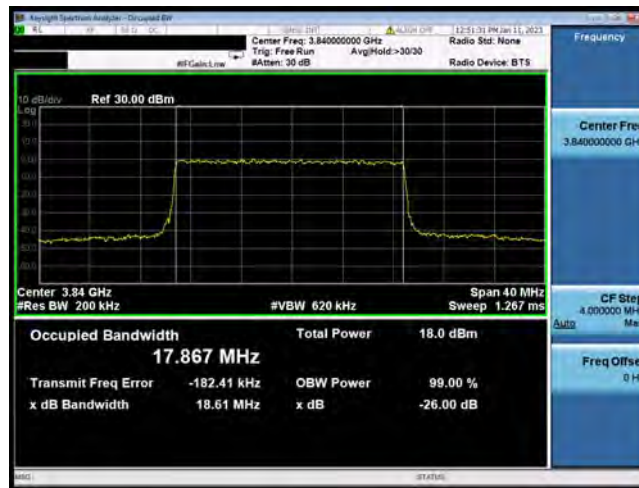
N77-20MHz-16QAM-656000-50RB#0



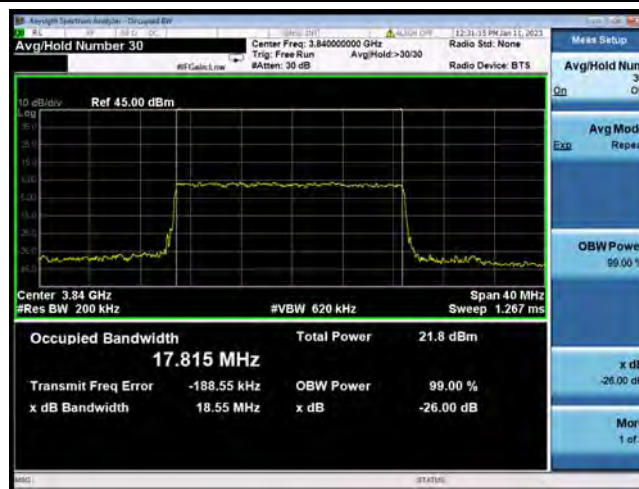
N77-20MHz-64QAM-656000-50RB#0



N77-20MHz-256QAM-656000-50RB#0



N77-20MHz-BPSK-656000-50RB#0



N77-30MHz-QPSK-656000-75RB#0



N77-30MHz-16QAM-656000-75RB#0



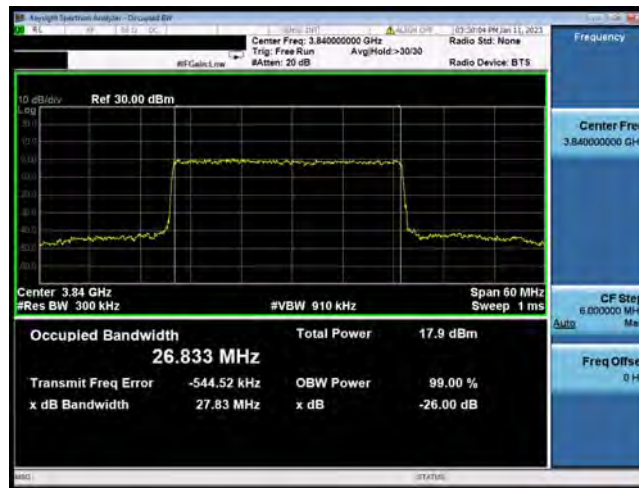
N77-30MHz-64QAM-656000-75RB#0



N77-30MHz-BPSK-656000-75RB#0



N77-30MHz-256QAM-656000-75RB#0



N77-40MHz-QPSK-656000-100RB#0



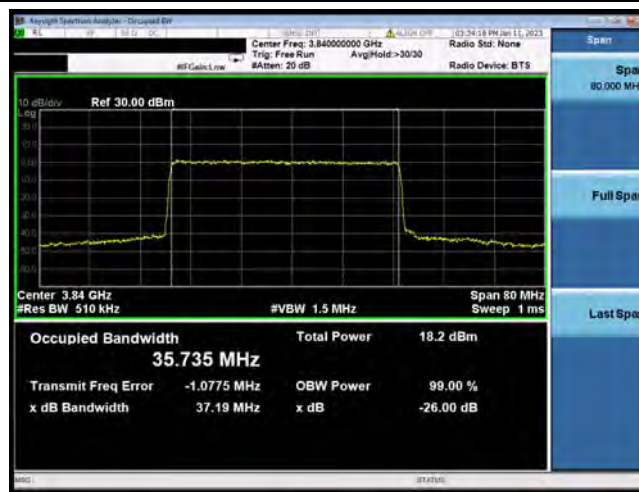
N77-40MHz-16QAM-656000-100RB#0



N77-40MHz-64QAM-656000-100RB#0



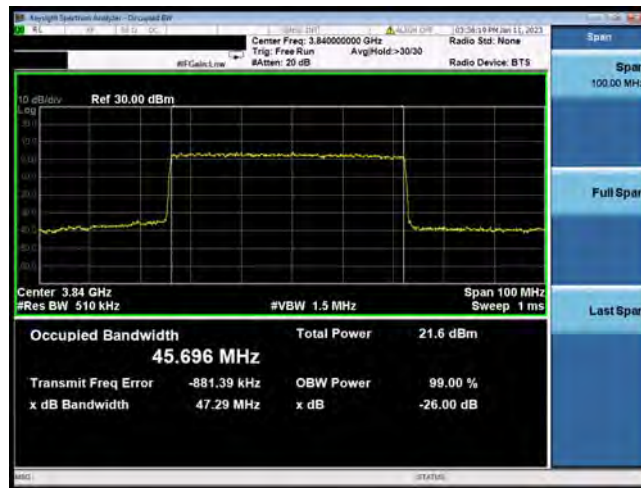
N77-40MHz-256QAM-656000-100RB#0



N77-40MHz-BPSK-656000-100RB#0



N77-50MHz-QPSK-656000-128RB#0



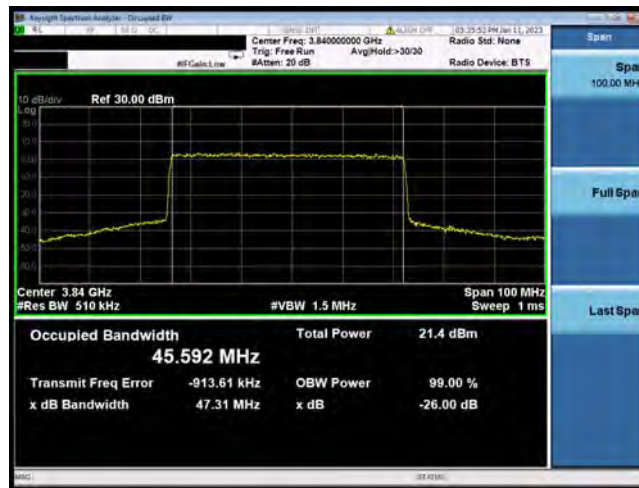
N77-50MHz-16QAM-656000-128RB#0



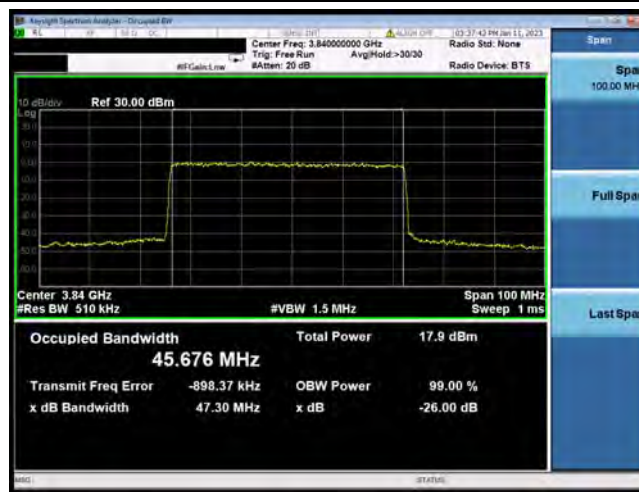
N77-50MHz-64QAM-656000-128RB#0



N77-50MHz-BPSK-656000-128RB#0



N77-50MHz-256QAM-656000-128RB#0



N77-60MHz-QPSK-656000-162RB#0



N77-60MHz-16QAM-656000-162RB#0



N77-60MHz-64QAM-656000-162RB#0



N77-60MHz-256QAM-656000-162RB#0



N77-60MHz-BPSK-656000-162RB#0



N77-80MHz-QPSK-656000-216RB#0



N77-80MHz-16QAM-656000-216RB#0



N77-80MHz-64QAM-656000-216RB#0



N77-80MHz-BPSK-656000-216RB#0



N77-80MHz-256QAM-656000-216RB#0



N77-100MHz-QPSK-656000-270RB#0



N77-100MHz-16QAM-656000-270RB#0



N77-100MHz-64QAM-656000-270RB#0



N77-100MHz-256QAM-656000-270RB#0



N77-100MHz-BPSK-656000-270RB#0



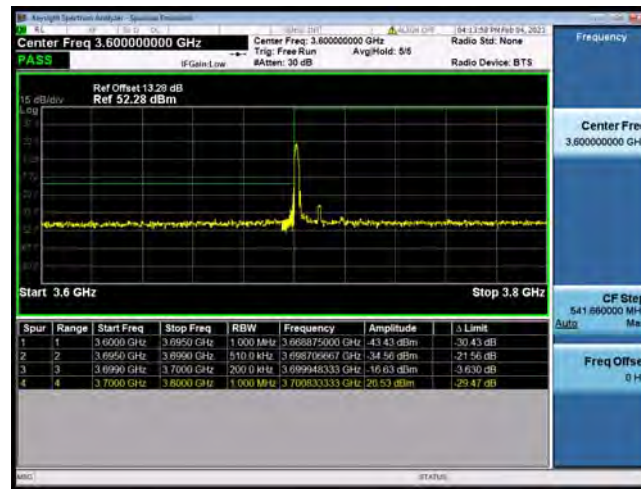
## Band Edge

### Test Result

| Band | Bandwidth | Modulation | Channel | RB Configuration | Result(dBm)           | Verdict |
|------|-----------|------------|---------|------------------|-----------------------|---------|
| N77  | 20MHz     | QPSK       | 647334  | 1RB#0            | -43.43,34.56,16.63    | PASS    |
| N77  | 20MHz     | QPSK       | 647334  | 50RB#0           | -40.09,-26.88,-28.79  | PASS    |
| N77  | 20MHz     | QPSK       | 664666  | 1RB#50           | -19.14,-35.30,-44.56  | PASS    |
| N77  | 20MHz     | QPSK       | 664666  | 50RB#0           | -31.42,-29.70,-43.51  | PASS    |
| N77  | 60MHz     | QPSK       | 648668  | 1RB#0            | --43.83,-35.32,-17.38 | PASS    |
| N77  | 60MHz     | QPSK       | 648668  | 162RB#0          | -33.44,-32.42,-35.61  | PASS    |
| N77  | 60MHz     | QPSK       | 663332  | 1RB#161          | -18.49,-35.48,-35.48  | PASS    |
| N77  | 60MHz     | QPSK       | 663332  | 162RB#0          | -35.82,-33.10,-29.69  | PASS    |
| N77  | 100MHz    | QPSK       | 650000  | 1RB#0            | -43.08,-36.61,-17.68  | PASS    |
| N77  | 100MHz    | QPSK       | 650000  | 1RB#272          | -39.44,-36.95,-35.73  | PASS    |
| N77  | 100MHz    | QPSK       | 662000  | 270RB#0          | -16.97,-33.80,-44.60  | PASS    |
| N77  | 100MHz    | QPSK       | 662000  | 270RB#0          | -40.08,-35.37,-39.42  | PASS    |

## Test Graphs

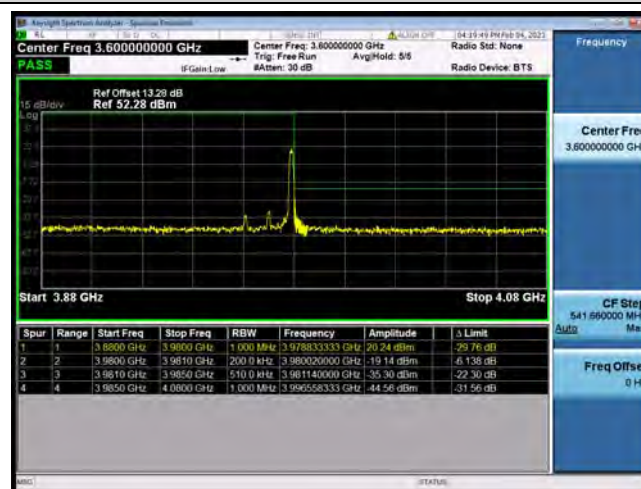
N77-20MHz-QPSK-647334-1RB#0



N77-20MHz-QPSK-647334-50RB#0



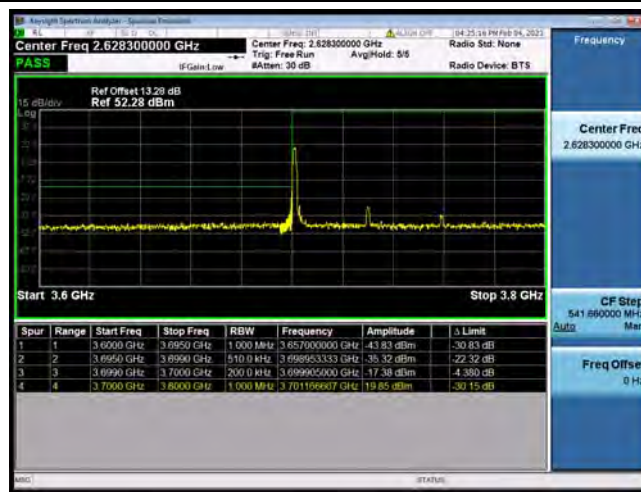
N77-20MHz-QPSK-664666-1RB#0



N77-20MHz-QPSK-664666-50RB#0



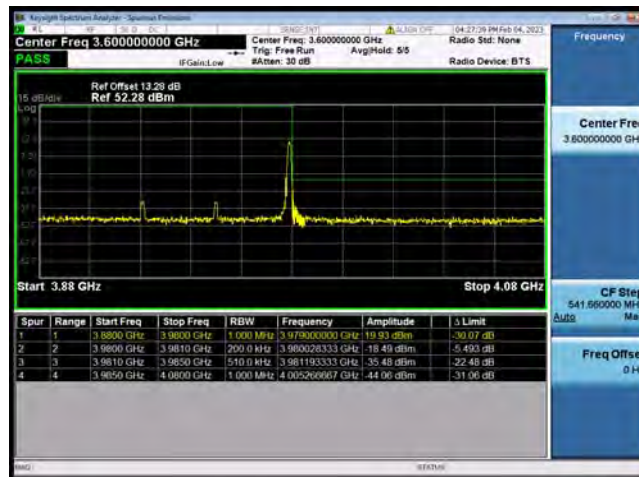
N77-60MHz-QPSK-648668-1RB#0



N77-60MHz-QPSK-648668-162RB#0



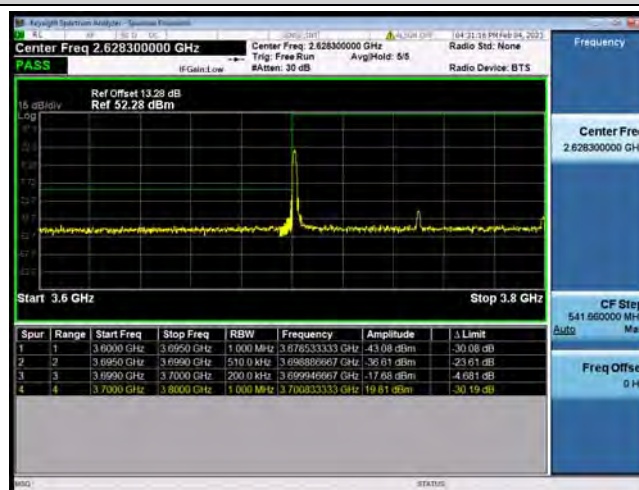
N77-60MHz-QPSK-663332-1RB#161



N77-60MHz-QPSK-663332-162RB#0



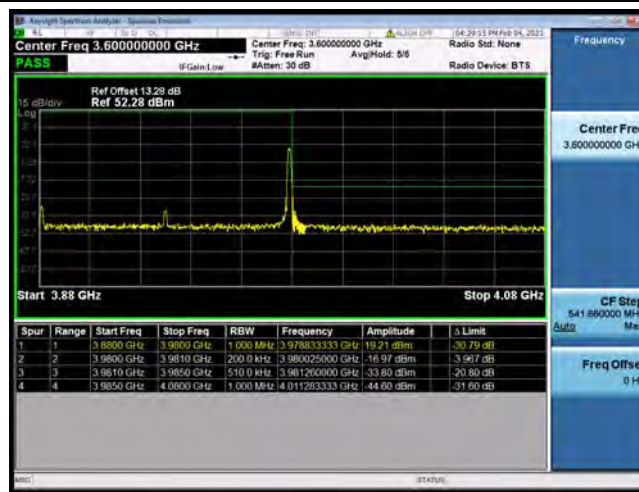
N77-100MHz-QPSK-650000-1RB#0



N77-100MHz-QPSK-650000-270RB#0



N77-100MHz-QPSK-662000-1RB#272



N77-100MHz-QPSK-662000-270RB#0



## Conducted Spurious Emission

### Test Result

| Band | Bandwidth | Modulation | Channel | RB<br>Configuration | Frequency<br>Range | Result<br>(dBm) | Verdict |
|------|-----------|------------|---------|---------------------|--------------------|-----------------|---------|
| N77  | 20MHz     | QPSK       | 647334  | 1RB#0               | Range1:30~40000MHz | -40.90          | PASS    |
| N77  | 20MHz     | QPSK       | 656000  | 1RB#0               | Range1:30~40000MHz | -40.92          | PASS    |
| N77  | 20MHz     | QPSK       | 664666  | 1RB#0               | Range1:30~40000MHz | -40.58          | PASS    |
| N77  | 60MHz     | QPSK       | 648668  | 1RB#0               | Range1:30~40000MHz | -40.95          | PASS    |
| N77  | 60MHz     | QPSK       | 656000  | 1RB#0               | Range1:30~40000MHz | -39.98          | PASS    |
| N77  | 60MHz     | QPSK       | 663332  | 1RB#0               | Range1:30~40000MHz | -40.05          | PASS    |
| N77  | 100MHz    | QPSK       | 650000  | 1RB#0               | Range1:30~40000MHz | -49.77          | PASS    |
| N77  | 100MHz    | QPSK       | 656000  | 1RB#0               | Range1:30~40000MHz | -50.49          | PASS    |
| N77  | 100MHz    | QPSK       | 662000  | 1RB#0               | Range1:30~40000MHz | -50.06          | PASS    |

## Test Graphs

N77-20MHz-QPSK-647334-1RB#0-Range1:30~40000MHz



N77-20MHz-QPSK-656000-1RB#0-Range1:30~40000MHz



N77-20MHz-QPSK-664666-1RB#0-Range1:30~40000MHz



N77-60MHz-QPSK-648668-1RB#0-Range1:30~40000MHz



N77-60MHz-QPSK-656000-1RB#0-Range1:30~40000MHz



N77-60MHz-QPSK-663332-1RB#0-Range1:30~40000MHz



Band78-100MHz-QPSK-650000-1RB#0-Range1:30~40000MHz



Band78-100MHz-QPSK-656000-1RB#0-Range1:30~40000MHz



Band78-100MHz-QPSK-662000-1RB#0-Range1:30~40000MHz



## Frequency Stability

### Test Result

| Voltage&Temperature |                |            |            |                 |                  |                     |                   |                    |                |         |
|---------------------|----------------|------------|------------|-----------------|------------------|---------------------|-------------------|--------------------|----------------|---------|
| Band                | Bandwidth<br>h | Modulation | Channel    | RB<br>Configure | Voltage<br>[Vdc] | Temperature<br>(°C) | Deviation<br>(Hz) | Deviation<br>(ppm) | Limit<br>(ppm) | Verdict |
| n77                 | 20MHz          | QPSK       | 65600<br>0 | 50RB#0          | VL               | NT                  | 27.61             | 0.007189           | ±2.5           | PASS    |
| n77                 | 20MHz          | QPSK       | 65600<br>0 | 50RB#0          | VN               | NT                  | 49.47             | 0.012884           | ±2.5           | PASS    |
| n77                 | 20MHz          | QPSK       | 65600<br>0 | 50RB#0          | VH               | NT                  | 35.89             | 0.009348           | ±2.5           | PASS    |
| n77                 | 20MHz          | QPSK       | 65600<br>0 | 50RB#0          | NV               | -30                 | 49.83             | 0.012977           | ±2.5           | PASS    |
| n77                 | 20MHz          | QPSK       | 65600<br>0 | 50RB#0          | NV               | -20                 | 35.92             | 0.009355           | ±2.5           | PASS    |
| n77                 | 20MHz          | QPSK       | 65600<br>0 | 50RB#0          | NV               | 0                   | 52.84             | 0.013760           | ±2.5           | PASS    |
| n77                 | 20MHz          | QPSK       | 65600<br>0 | 50RB#0          | NV               | 10                  | 40.43             | 0.010528           | ±2.5           | PASS    |
| n77                 | 20MHz          | QPSK       | 65600<br>0 | 50RB#0          | NV               | 20                  | 45.51             | 0.011851           | ±2.5           | PASS    |
| n77                 | 20MHz          | QPSK       | 65600<br>0 | 50RB#0          | NV               | 30                  | 48.25             | 0.012565           | ±2.5           | PASS    |
| n77                 | 20MHz          | QPSK       | 65600<br>0 | 50RB#0          | NV               | 40                  | 25.38             | 0.006610           | ±2.5           | PASS    |
| n77                 | 20MHz          | QPSK       | 65600<br>0 | 50RB#0          | NV               | 50                  | 25.88             | 0.006740           | ±2.5           | PASS    |