# FCC LTE Band13 Test Data

| General Description of EUT | |
|---|---|
| **Product Name:** | Industrial router |
| **Test Model:** | ZR2720N |
| **Sample ID:** | 202305-0244-4#2 |
| **Environmental Conditions** | |
| **Temperature:** | 25℃ |
| **Relative Humidity:** | 55% |
| **Test Voltage:** | DC 12V |
| **Test Engineer:** | Huang jian ping |
| Note: For a more detailed features description, please refer to the report TBR-C-202305-0244-51<br>The report only show the worst case data. | |

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# 1. Conducted Power Output Data

## Test Result

| Band | Bandwidth | Modulation | Channel | RB Configuration | Result(dBm) | Verdict |
|---|---|---|---|---|---|---|
| Band13 | 5MHz | QPSK | 23205 | 1RB#0 | 22.45 | PASS |
| Band13 | 5MHz | QPSK | 23205 | 1RB#12 | 23.37 | PASS |
| Band13 | 5MHz | QPSK | 23205 | 1RB#24 | 23.44 | PASS |
| Band13 | 5MHz | QPSK | 23205 | 12RB#0 | 22.33 | PASS |
| Band13 | 5MHz | QPSK | 23205 | 12RB#6 | 22.33 | PASS |
| Band13 | 5MHz | QPSK | 23205 | 12RB#13 | 22.43 | PASS |
| Band13 | 5MHz | QPSK | 23205 | 25RB#0 | 22.41 | PASS |
| Band13 | 5MHz | QPSK | 23230 | 1RB#0 | 23.44 | PASS |
| Band13 | 5MHz | QPSK | 23230 | 1RB#12 | 23.29 | PASS |
| Band13 | 5MHz | QPSK | 23230 | 1RB#24 | 23.38 | PASS |
| Band13 | 5MHz | QPSK | 23230 | 12RB#0 | 22.39 | PASS |
| Band13 | 5MHz | QPSK | 23230 | 12RB#6 | 22.31 | PASS |
| Band13 | 5MHz | QPSK | 23230 | 12RB#13 | 22.36 | PASS |
| Band13 | 5MHz | QPSK | 23230 | 25RB#0 | 22.37 | PASS |
| Band13 | 5MHz | QPSK | 23255 | 1RB#0 | 23.46 | PASS |
| Band13 | 5MHz | QPSK | 23255 | 1RB#12 | 23.63 | PASS |
| Band13 | 5MHz | QPSK | 23255 | 1RB#24 | 23.60 | PASS |
| Band13 | 5MHz | QPSK | 23255 | 12RB#0 | 22.29 | PASS |
| Band13 | 5MHz | QPSK | 23255 | 12RB#6 | 22.30 | PASS |
| Band13 | 5MHz | QPSK | 23255 | 12RB#13 | 22.61 | PASS |
| Band13 | 5MHz | QPSK | 23255 | 25RB#0 | 22.43 | PASS |
| Band13 | 5MHz | 16QAM | 23205 | 1RB#0 | 22.10 | PASS |
| Band13 | 5MHz | 16QAM | 23205 | 1RB#12 | 22.16 | PASS |
| Band13 | 5MHz | 16QAM | 23205 | 1RB#24 | 22.34 | PASS |
| Band13 | 5MHz | 16QAM | 23205 | 12RB#0 | 21.38 | PASS |
| Band13 | 5MHz | 16QAM | 23205 | 12RB#6 | 21.29 | PASS |
| Band13 | 5MHz | 16QAM | 23205 | 12RB#13 | 21.29 | PASS |
| Band13 | 5MHz | 16QAM | 23205 | 25RB#0 | 21.36 | PASS |
| Band13 | 5MHz | 16QAM | 23230 | 1RB#0 | 21.97 | PASS |
| Band13 | 5MHz | 16QAM | 23230 | 1RB#12 | 22.18 | PASS |
| Band13 | 5MHz | 16QAM | 23230 | 1RB#24 | 22.09 | PASS |
| Band13 | 5MHz | 16QAM | 23230 | 12RB#0 | 21.29 | PASS |

| | | | | | | |
|---|---|---|---|---|---|---|
| Band13 | 5MHz | 16QAM | 23230 | 12RB#6 | 21.30 | PASS |
| Band13 | 5MHz | 16QAM | 23230 | 12RB#13 | 21.35 | PASS |
| Band13 | 5MHz | 16QAM | 23230 | 25RB#0 | 21.37 | PASS |
| Band13 | 5MHz | 16QAM | 23255 | 1RB#0 | 22.32 | PASS |
| Band13 | 5MHz | 16QAM | 23255 | 1RB#12 | 22.51 | PASS |
| Band13 | 5MHz | 16QAM | 23255 | 1RB#24 | 22.67 | PASS |
| Band13 | 5MHz | 16QAM | 23255 | 12RB#0 | 21.35 | PASS |
| Band13 | 5MHz | 16QAM | 23255 | 12RB#6 | 21.20 | PASS |
| Band13 | 5MHz | 16QAM | 23255 | 12RB#13 | 21.34 | PASS |
| Band13 | 5MHz | 16QAM | 23255 | 25RB#0 | 21.41 | PASS |
| Band13 | 10MHz | QPSK | 23230 | 1RB#0 | 23.23 | PASS |
| Band13 | 10MHz | QPSK | 23230 | 1RB#24 | 23.26 | PASS |
| Band13 | 10MHz | QPSK | 23230 | 1RB#49 | 23.28 | PASS |
| Band13 | 10MHz | QPSK | 23230 | 25RB#0 | 22.45 | PASS |
| Band13 | 10MHz | QPSK | 23230 | 25RB#12 | 22.35 | PASS |
| Band13 | 10MHz | QPSK | 23230 | 25RB#25 | 22.54 | PASS |
| Band13 | 10MHz | QPSK | 23230 | 50RB#0 | 22.44 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 1RB#0 | 22.20 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 1RB#24 | 22.21 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 1RB#49 | 22.09 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 25RB#0 | 21.35 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 25RB#12 | 21.32 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 25RB#25 | 21.54 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 50RB#0 | 21.08 | PASS |

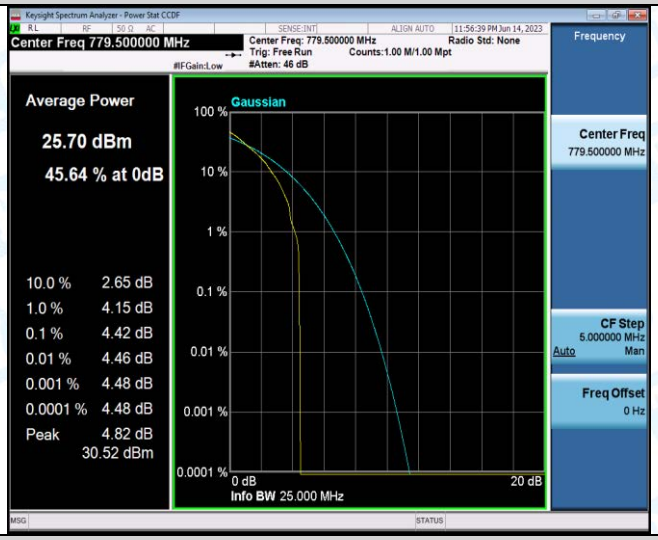
## 2. Peak-to-Average Ratio(CCDF)

### Test Result

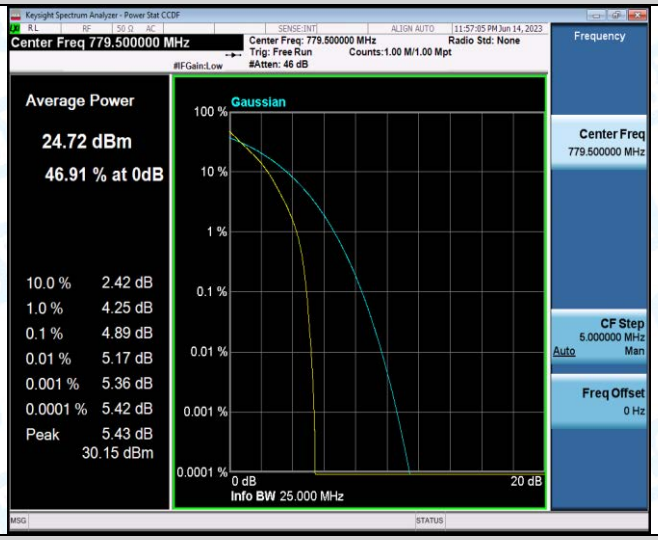
| Band | Bandwidth | Modulation | Channel | RB Configuration | Result(dB) | Limit(dB) | Verdict |
|---|---|---|---|---|---|---|---|
| Band13 | 5MHz | QPSK | 23205 | 1RB#0 | 4.42 | 13 | PASS |
| Band13 | 5MHz | QPSK | 23205 | 25RB#0 | 4.89 | 13 | PASS |
| Band13 | 5MHz | QPSK | 23230 | 1RB#0 | 4.24 | 13 | PASS |
| Band13 | 5MHz | QPSK | 23230 | 25RB#0 | 4.96 | 13 | PASS |
| Band13 | 5MHz | QPSK | 23255 | 1RB#0 | 4.31 | 13 | PASS |
| Band13 | 5MHz | QPSK | 23255 | 25RB#0 | 4.98 | 13 | PASS |
| Band13 | 5MHz | 16QAM | 23205 | 1RB#0 | 5.35 | 13 | PASS |
| Band13 | 5MHz | 16QAM | 23205 | 25RB#0 | 5.84 | 13 | PASS |
| Band13 | 5MHz | 16QAM | 23230 | 1RB#0 | 5.20 | 13 | PASS |
| Band13 | 5MHz | 16QAM | 23230 | 25RB#0 | 5.86 | 13 | PASS |
| Band13 | 5MHz | 16QAM | 23255 | 1RB#0 | 5.04 | 13 | PASS |
| Band13 | 5MHz | 16QAM | 23255 | 25RB#0 | 5.90 | 13 | PASS |
| Band13 | 10MHz | QPSK | 23230 | 1RB#0 | 4.20 | 13 | PASS |
| Band13 | 10MHz | QPSK | 23230 | 50RB#0 | 5.07 | 13 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 1RB#0 | 5.37 | 13 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 50RB#0 | 5.93 | 13 | PASS |

## Test Graphs

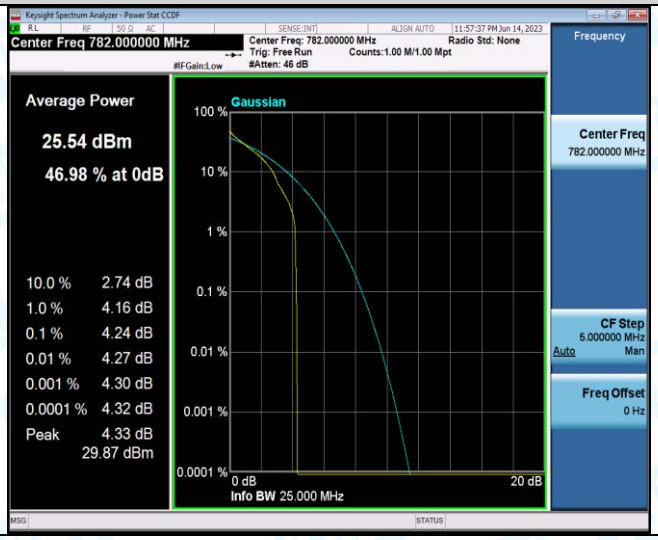
Band13-5MHz-QPSK-23205-1RB#0



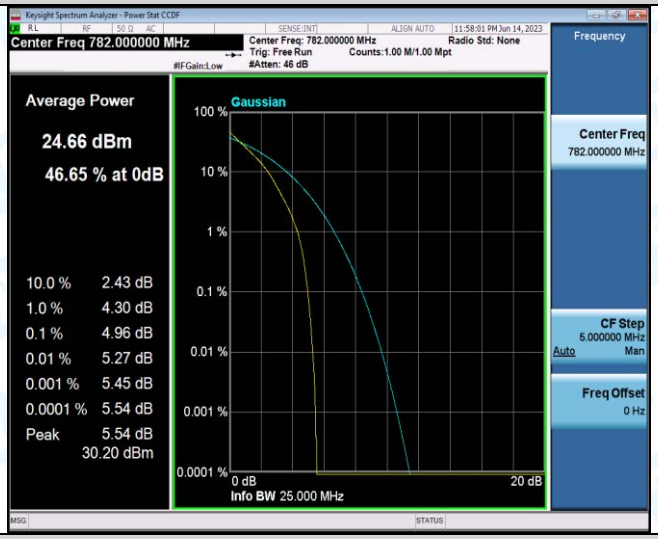

Band13-5MHz-QPSK-23205-25RB#0



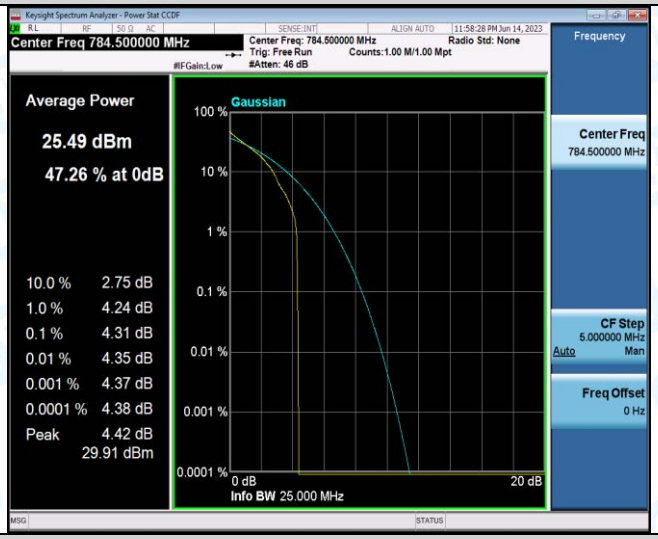

Band13-5MHz-QPSK-23230-1RB#0



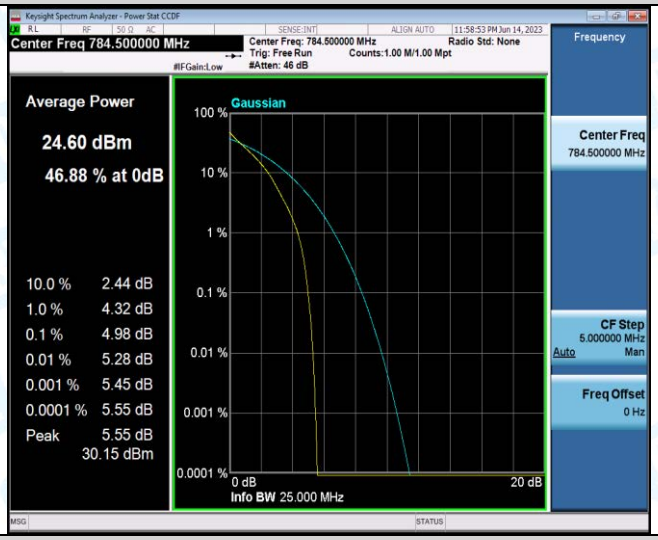
Band13-5MHz-QPSK-23230-25RB#0



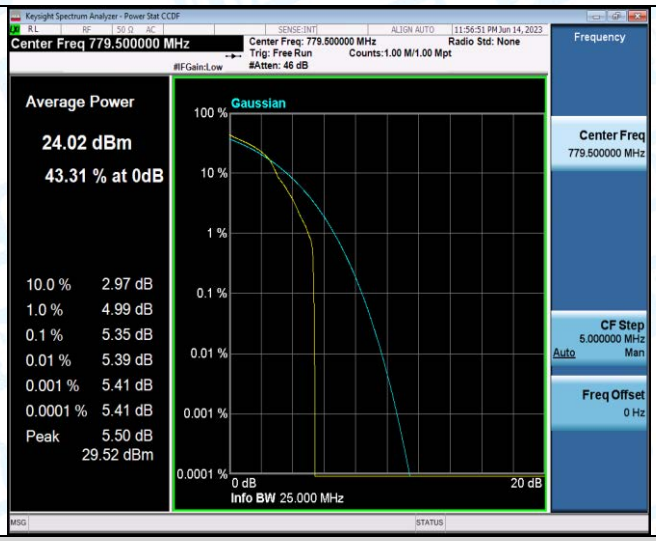

Band13-5MHz-QPSK-23255-1RB#0



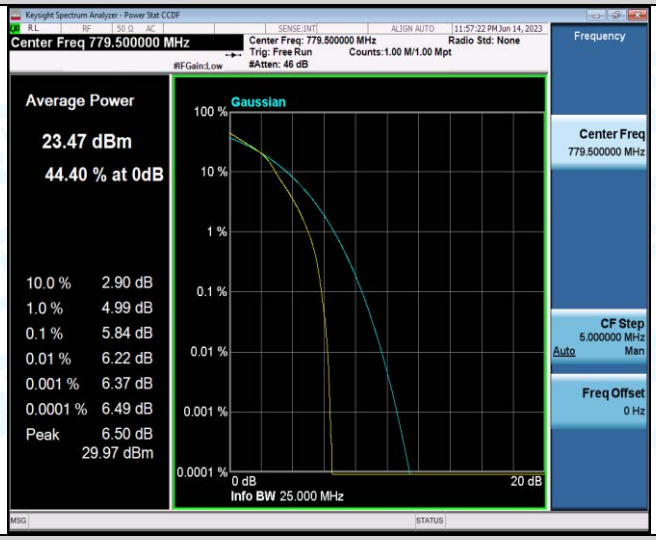

Band13-5MHz-QPSK-23255-25RB#0



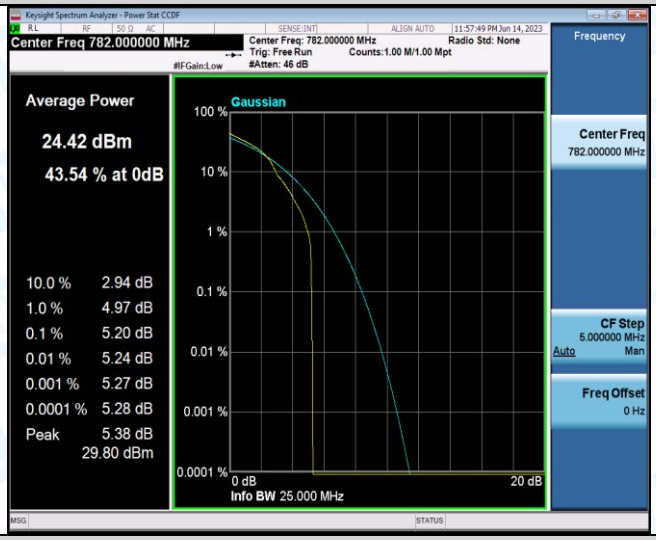

Band13-5MHz-16QAM-23205-1RB#0



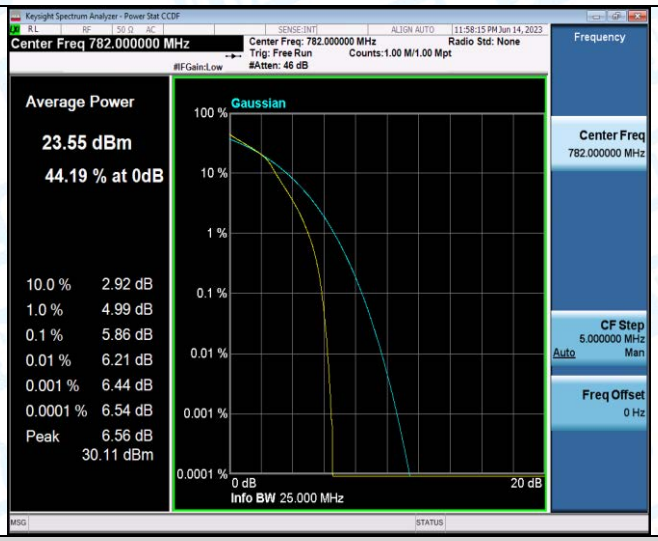

Band13-5MHz-16QAM-23205-25RB#0



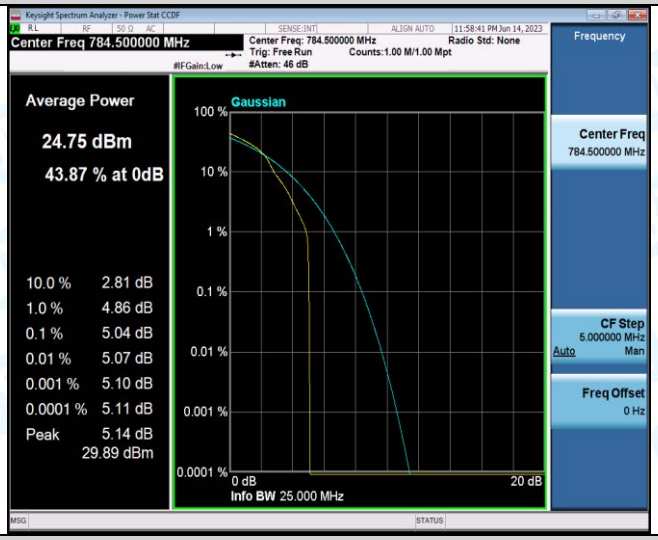

Band13-5MHz-16QAM-23230-1RB#0



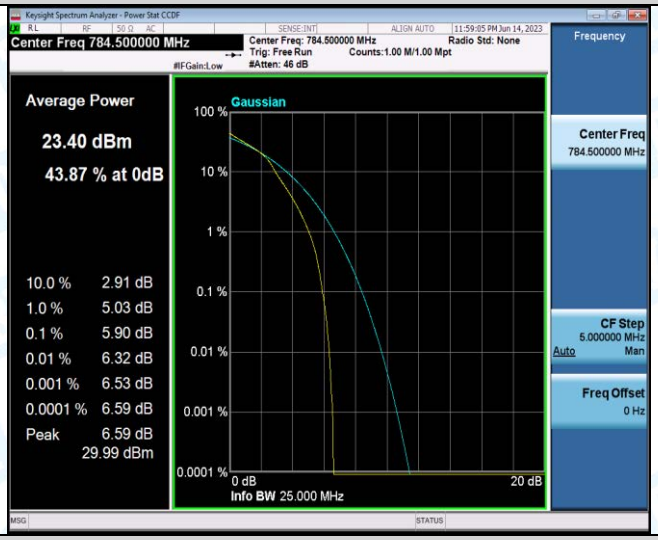

Band13-5MHz-16QAM-23230-25RB#0



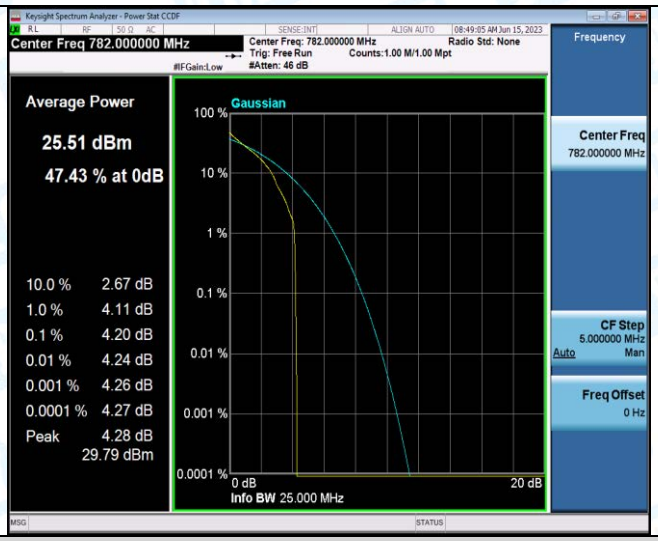

Band13-5MHz-16QAM-23255-1RB#0



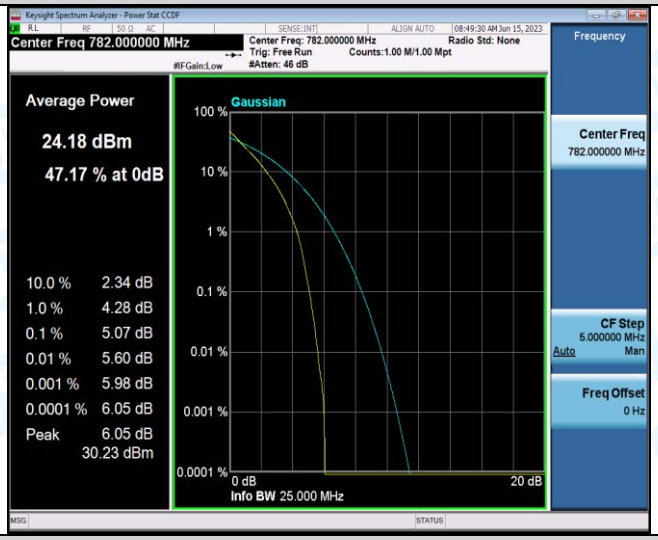

Band13-5MHz-16QAM-23255-25RB#0



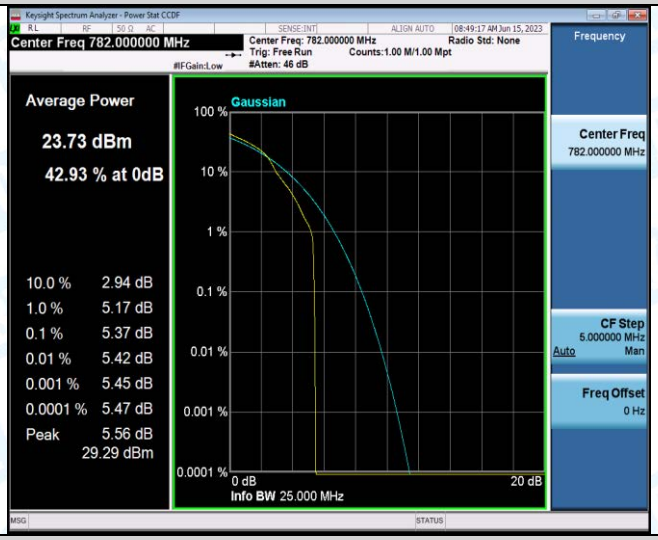

Band13-10MHz-QPSK-23230-1RB#0



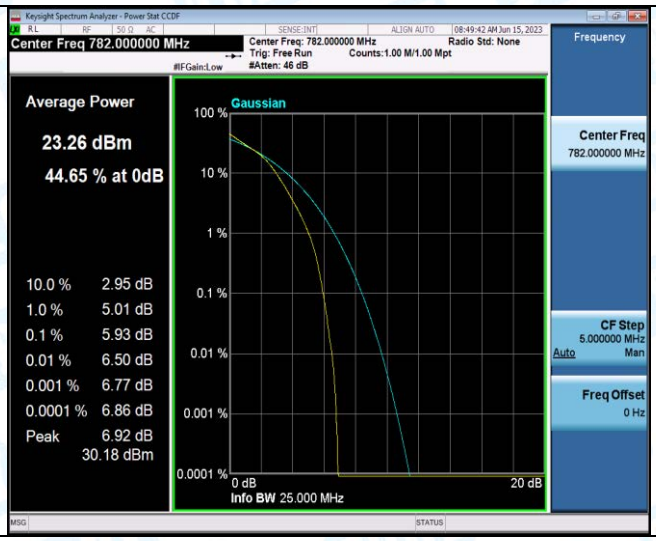

Band13-10MHz-QPSK-23230-50RB#0




Band13-10MHz-16QAM-23230-1RB#0




Band13-10MHz-16QAM-23230-50RB#0


Keysight Spectrum Analyzer - Power Stat CCDF
Center Freq 782.000000 MHz
Center Freq: 782.000000 MHz
Trig: Free Run
#Atten: 46 dB
Counts:1.00 M/1.00 Mpt
Radio Std: None
Frequency
Average Power
23.26 dBm
44.65 % at 0dB
10.0 % 2.95 dB
1.0 % 5.01 dB
0.1 % 5.93 dB
0.01 % 6.50 dB
0.001 % 6.77 dB
0.0001 % 6.86 dB
Peak 6.92 dB
30.18 dBm
Gaussian
100 %
10 %
1 %
0.1 %
0.01 %
0.001 %
0.0001 %
0 dB
20 dB
Info BW 25.000 MHz
Center Freq
782.000000 MHz
CF Step
5.000000 MHz
Auto
Man
Freq Offset
0 Hz

# 3. 26dB Bandwidth and Occupied Bandwidth

## Test Result

| Band | Bandwidth | Modulation | Channel | RB Configuration | Occupied Bandwidth (MHz) | 26dB Bandwidth (MHz) | Verdict |
|---|---|---|---|---|---|---|---|
| Band13 | 5MHz | QPSK | 23205 | 25RB#0 | 4.5161 | 5.026 | PASS |
| Band13 | 5MHz | QPSK | 23230 | 25RB#0 | 4.5172 | 5.029 | PASS |
| Band13 | 5MHz | QPSK | 23255 | 25RB#0 | 4.4926 | 4.986 | PASS |
| Band13 | 5MHz | 16QAM | 23205 | 25RB#0 | 4.4956 | 4.988 | PASS |
| Band13 | 5MHz | 16QAM | 23230 | 25RB#0 | 4.4983 | 4.987 | PASS |
| Band13 | 5MHz | 16QAM | 23255 | 25RB#0 | 4.5089 | 5.028 | PASS |
| Band13 | 10MHz | QPSK | 23230 | 50RB#0 | 8.9751 | 9.897 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 50RB#0 | 8.9714 | 9.871 | PASS |

## Test Graphs

Band13-5MHz-QPSK-23205-25RB#0

Band13-5MHz-QPSK-23230-25RB#0

Band13-5MHz-QPSK-23255-25RB#0

Band13-5MHz-16QAM-23205-25RB#0

Band13-5MHz-16QAM-23230-25RB#0

Band13-5MHz-16QAM-23255-25RB#0

Band13-10MHz-QPSK-23230-50RB#0

Band13-10MHz-16QAM-23230-50RB#0

# 4. Band Edge

## Test Result

| Band | Bandwidth | Modulation | Channel | RB Config. | Result (dBm) | Verdict |
|---|---|---|---|---|---|---|
| Band13 | 5MHz | QPSK | 23205 | 1RB#0 | -14.89 | PASS |
| Band13 | 5MHz | QPSK | 23205 | 1RB#24 | -50.64 | PASS |
| Band13 | 5MHz | QPSK | 23205 | 25RB#0 | -23.19 | PASS |
| Band13 | 5MHz | QPSK | 23255 | 1RB#0 | -50.68 | PASS |
| Band13 | 5MHz | QPSK | 23255 | 1RB#24 | -14.92 | PASS |
| Band13 | 5MHz | QPSK | 23255 | 25RB#0 | -28.84 | PASS |
| Band13 | 5MHz | 16QAM | 23205 | 1RB#0 | -16.30 | PASS |
| Band13 | 5MHz | 16QAM | 23205 | 1RB#24 | -51.31 | PASS |
| Band13 | 5MHz | 16QAM | 23205 | 25RB#0 | -24.28 | PASS |
| Band13 | 5MHz | 16QAM | 23255 | 1RB#0 | -51.29 | PASS |
| Band13 | 5MHz | 16QAM | 23255 | 1RB#24 | -17.13 | PASS |
| Band13 | 5MHz | 16QAM | 23255 | 25RB#0 | -24.51 | PASS |
| Band13 | 10MHz | QPSK | 23230 | 1RB#0 | -22.92,-46.90 | PASS |
| Band13 | 10MHz | QPSK | 23230 | 1RB#49 | -46.64,-26.71 | PASS |
| Band13 | 10MHz | QPSK | 23230 | 50RB#0 | -25.68,-27.17 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 1RB#0 | -25.25,-47.01 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 1RB#49 | -46.69,-26.60 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 50RB#0 | -26.68,-28.06 | PASS |

## Test Graphs

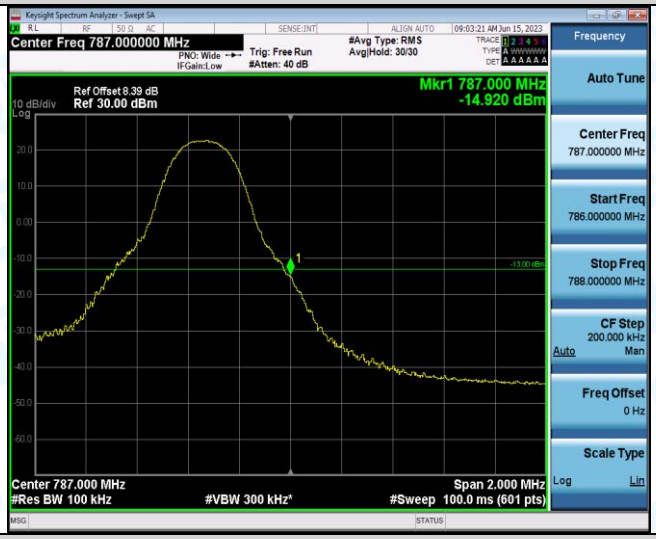
Band13-5MHz-QPSK-23205-1RB#0

Band13-5MHz-QPSK-23205-1RB#24

Band13-5MHz-QPSK-23205-25RB#0

Band13-5MHz-QPSK-23255-1RB#0

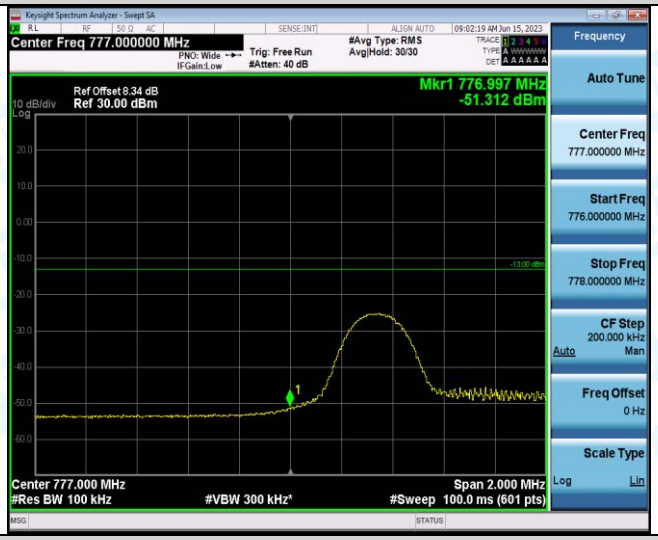
Band13-5MHz-QPSK-23255-1RB#24




Band13-5MHz-QPSK-23255-25RB#0

Band13-5MHz-16QAM-23205-1RB#0

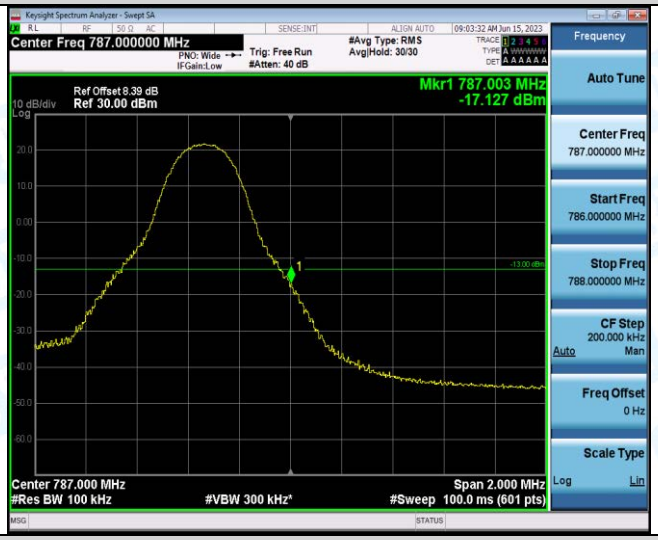
Band13-5MHz-16QAM-23205-1RB#24




Band13-5MHz-16QAM-23205-25RB#0

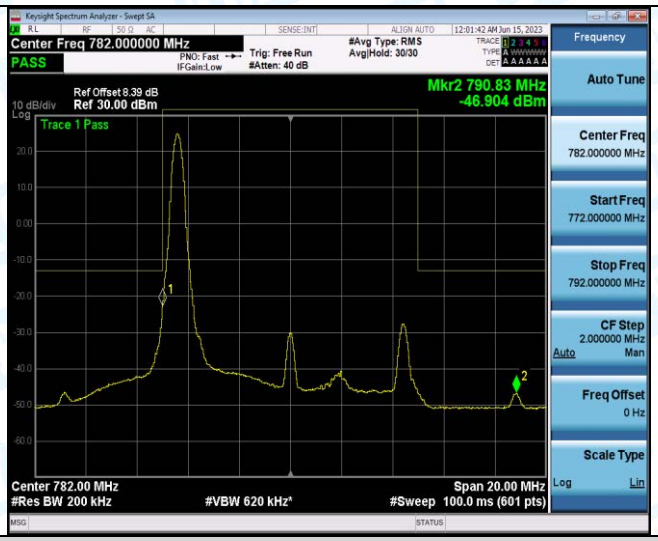
Band13-5MHz-16QAM-23255-1RB#0

Band13-5MHz-16QAM-23255-1RB#24




Band13-5MHz-16QAM-23255-25RB#0

Band13-10MHz-QPSK-23230-1RB#0

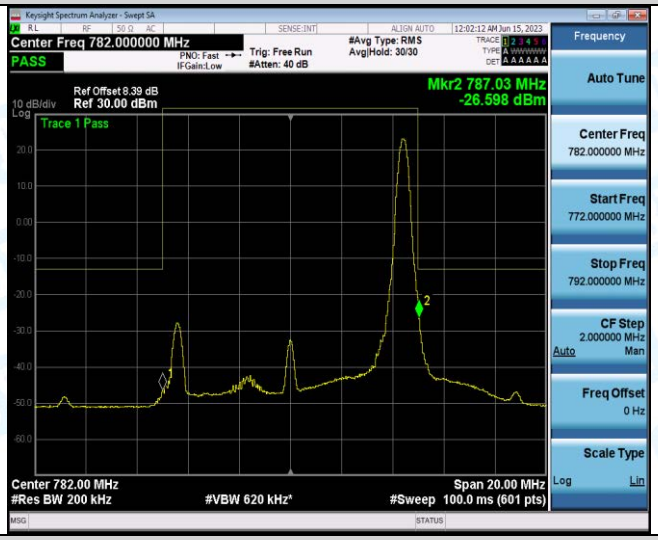



Band13-10MHz-QPSK-23230-1RB#49

Band13-10MHz-QPSK-23230-50RB#0

Band13-10MHz-16QAM-23230-1RB#0

Band13-10MHz-16QAM-23230-1RB#49




Band13-10MHz-16QAM-23230-50RB#0

# 5. Conducted Spurious Emission

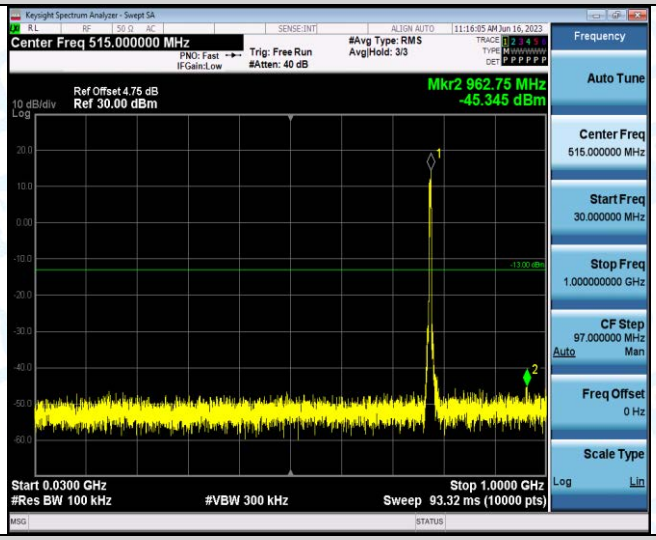
## Test Result

| Band | Bandwidth | Modulation | Channel | RB Configuration | Frequency Range | Result (dBm) | Verdict |
|---|---|---|---|---|---|---|---|
| Band13 | 5MHz | QPSK | 23205 | 1RB#0 | Range2:30~1000MHz | -45.35 | PASS |
| Band13 | 5MHz | QPSK | 23205 | 1RB#0 | Range3:1000~3000MHz | -39.57 | PASS |
| Band13 | 5MHz | QPSK | 23205 | 1RB#0 | Range1:1559~1610MHz | -55.7 | PASS |
| Band13 | 5MHz | QPSK | 23205 | 1RB#0 | Range4:3000~10000MHz | -34.8 | PASS |
| Band13 | 5MHz | QPSK | 23230 | 1RB#0 | Range2:30~1000MHz | -45.03 | PASS |
| Band13 | 5MHz | QPSK | 23230 | 1RB#0 | Range3:1000~3000MHz | -38.7 | PASS |
| Band13 | 5MHz | QPSK | 23230 | 1RB#0 | Range1:1559~1610MHz | -54.18 | PASS |
| Band13 | 5MHz | QPSK | 23230 | 1RB#0 | Range4:3000~10000MHz | -34.89 | PASS |
| Band13 | 5MHz | QPSK | 23255 | 1RB#0 | Range2:30~1000MHz | -45.97 | PASS |
| Band13 | 5MHz | QPSK | 23255 | 1RB#0 | Range3:1000~3000MHz | -38.68 | PASS |
| Band13 | 5MHz | QPSK | 23255 | 1RB#0 | Range1:1559~1610MHz | -51.8 | PASS |
| Band13 | 5MHz | QPSK | 23255 | 1RB#0 | Range4:3000~10000MHz | -35.08 | PASS |
| Band13 | 5MHz | 16QAM | 23205 | 1RB#0 | Range2:30~1000MHz | -45.82 | PASS |
| Band13 | 5MHz | 16QAM | 23205 | 1RB#0 | Range3:1000~3000MHz | -39.56 | PASS |
| Band13 | 5MHz | 16QAM | 23205 | 1RB#0 | Range1:1559~1610MHz | -60.14 | PASS |
| Band13 | 5MHz | 16QAM | 23205 | 1RB#0 | Range4:3000~10000MHz | -34.04 | PASS |
| Band13 | 5MHz | 16QAM | 23230 | 1RB#0 | Range2:30~1000MHz | -44.07 | PASS |
| Band13 | 5MHz | 16QAM | 23230 | 1RB#0 | Range3:1000~3000MHz | -39.49 | PASS |
| Band13 | 5MHz | 16QAM | 23230 | 1RB#0 | Range1:1559~1610MHz | -54.85 | PASS |
| Band13 | 5MHz | 16QAM | 23230 | 1RB#0 | Range4:3000~10000MHz | -34.05 | PASS |
| Band13 | 5MHz | 16QAM | 23255 | 1RB#0 | Range2:30~1000MHz | -45.46 | PASS |
| Band13 | 5MHz | 16QAM | 23255 | 1RB#0 | Range3:1000~3000MHz | -38.96 | PASS |
| Band13 | 5MHz | 16QAM | 23255 | 1RB#0 | Range1:1559~1610MHz | -51.88 | PASS |
| Band13 | 5MHz | 16QAM | 23255 | 1RB#0 | Range4:3000~10000MHz | -34.54 | PASS |
| Band13 | 10MHz | QPSK | 23230 | 1RB#0 | Range2:30~1000MHz | -45.28 | PASS |
| Band13 | 10MHz | QPSK | 23230 | 1RB#0 | Range3:1000~3000MHz | -37.18 | PASS |
| Band13 | 10MHz | QPSK | 23230 | 1RB#0 | Range1:1559~1610MHz | -59.77 | PASS |
| Band13 | 10MHz | QPSK | 23230 | 1RB#0 | Range4:3000~10000MHz | -34.54 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 1RB#0 | Range2:30~1000MHz | -45.11 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 1RB#0 | Range3:1000~3000MHz | -38.91 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 1RB#0 | Range1:1559~1610MHz | -60.2 | PASS |

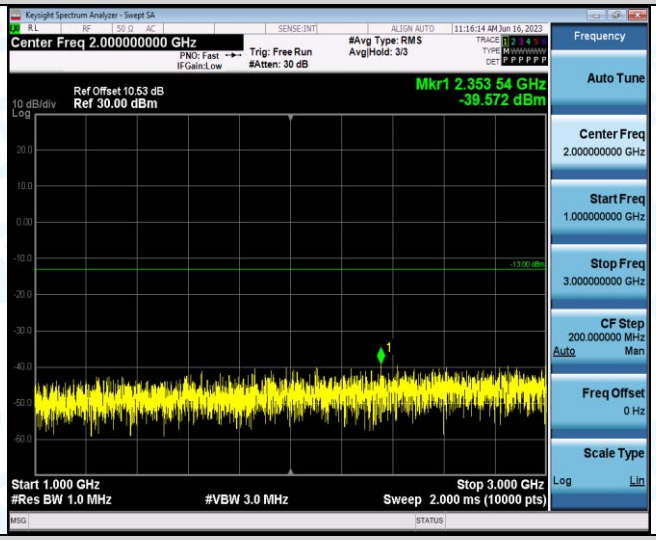
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Band13 | 10MHz | 16QAM | 23230 | 1RB#0 | Range4:3000~10000MHz | -34.57 | PASS |

## Test Graphs

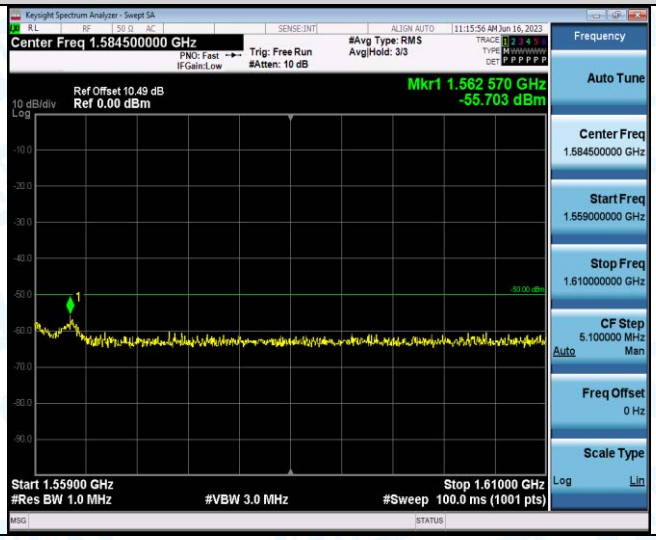
Band13-5MHz-QPSK-23205-1RB#0-Range2:30~1000MHz



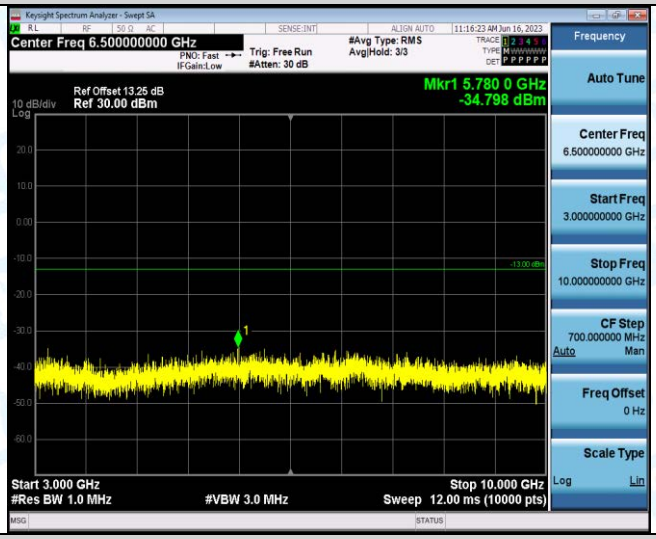

Band13-5MHz-QPSK-23205-1RB#0-Range3:1000~3000MHz



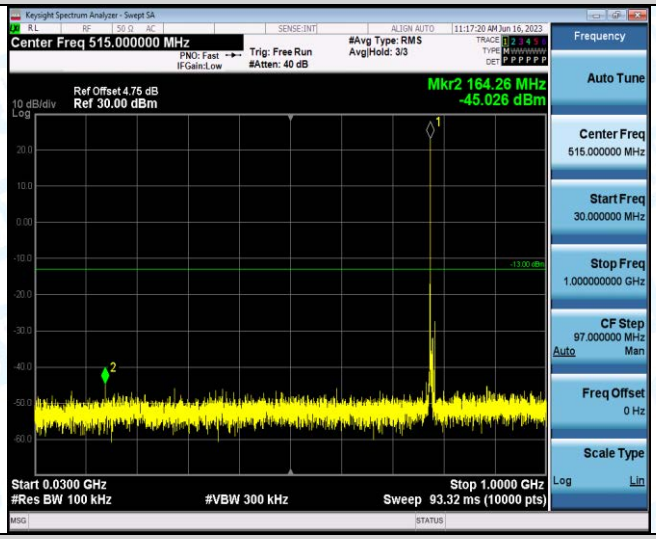

Band13-5MHz-QPSK-23205-1RB#0-Range1:1559~1610MHz



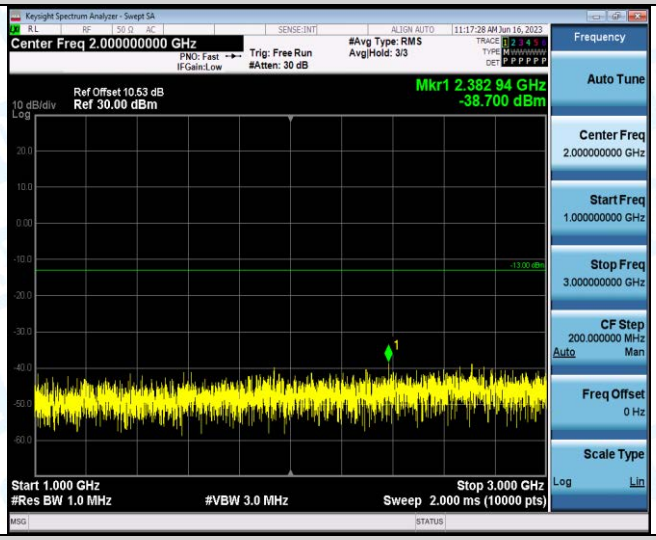
Band13-5MHz-QPSK-23205-1RB#0-Range4:3000~10000MHz



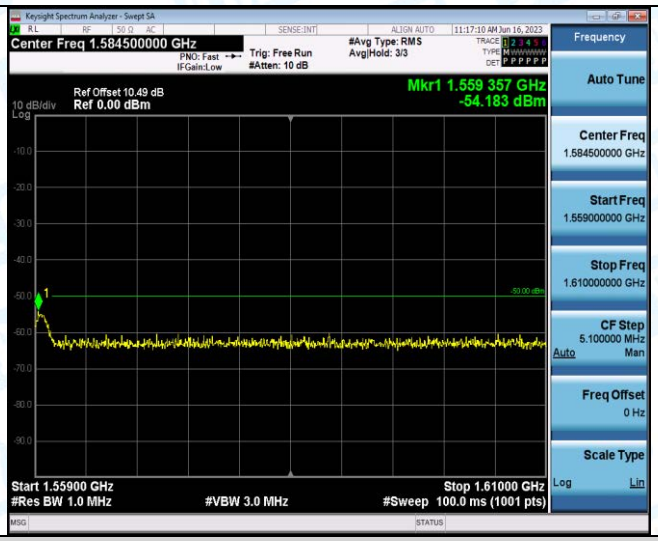

Band13-5MHz-QPSK-23230-1RB#0-Range2:30~1000MHz



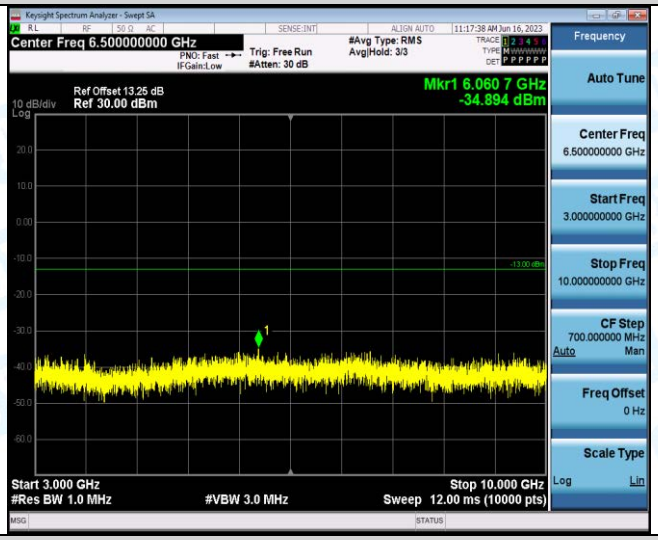

Band13-5MHz-QPSK-23230-1RB#0-Range3:1000~3000MHz



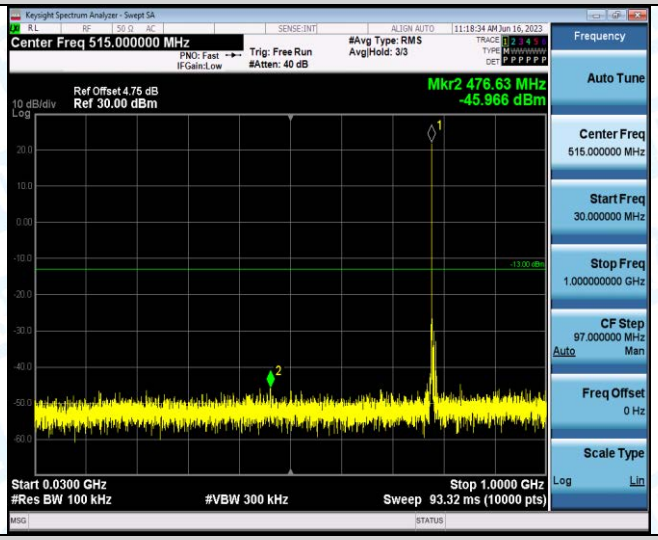

Band13-5MHz-QPSK-23230-1RB#0-Range1:1559~1610MHz



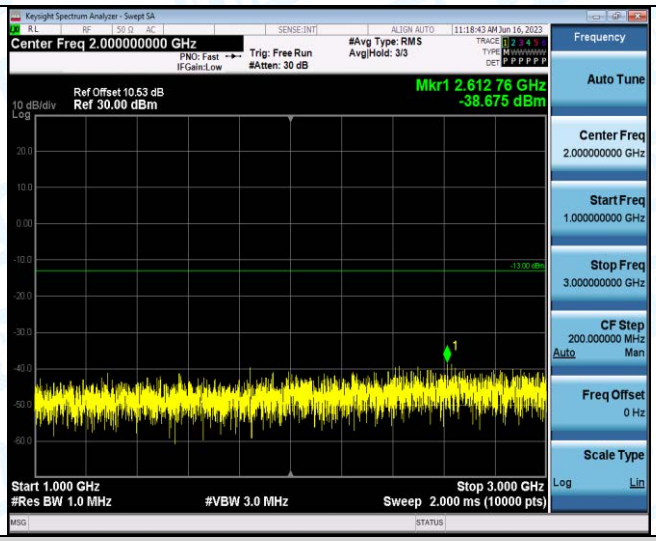

Band13-5MHz-QPSK-23230-1RB#0-Range4:3000~10000MHz



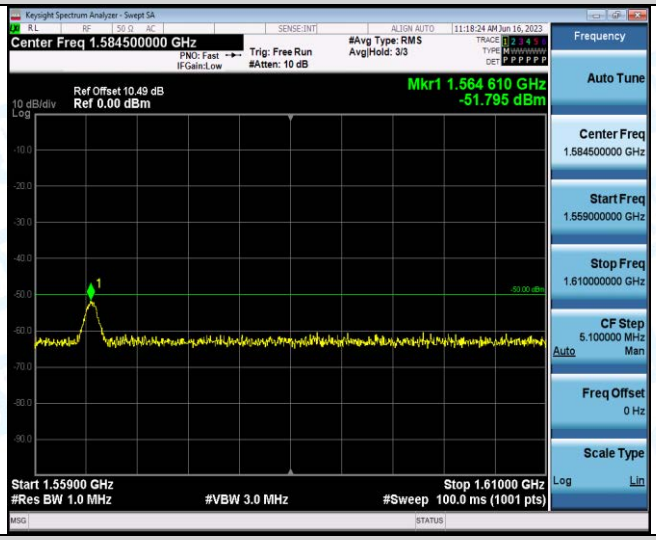

Band13-5MHz-QPSK-23255-1RB#0-Range2:30~1000MHz



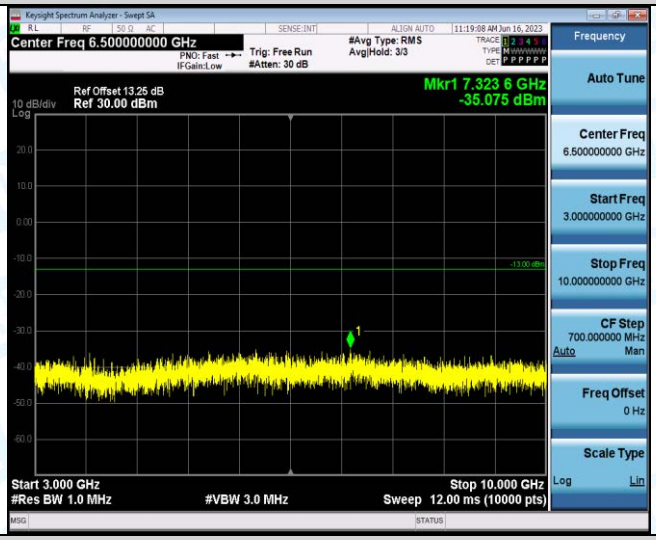

Band13-5MHz-QPSK-23255-1RB#0-Range3:1000~3000MHz



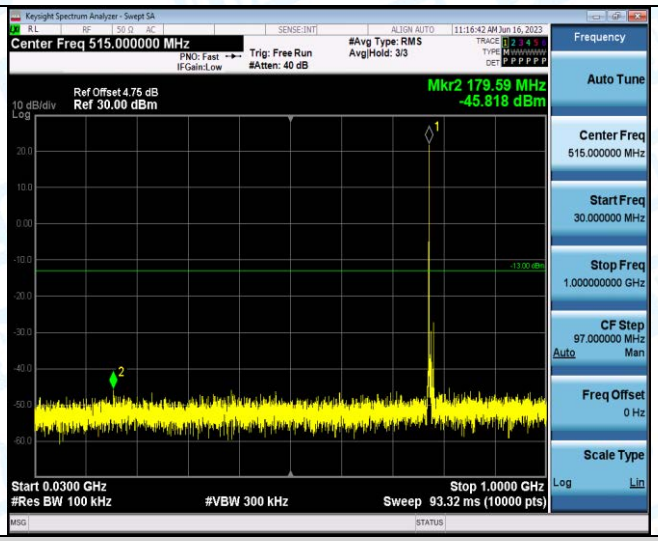

Band13-5MHz-QPSK-23255-1RB#0-Range1:1559~1610MHz



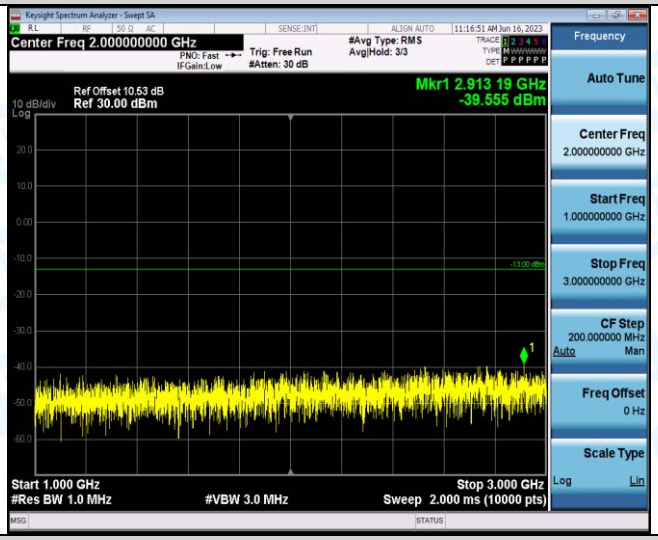

Band13-5MHz-QPSK-23255-1RB#0-Range4:3000~10000MHz



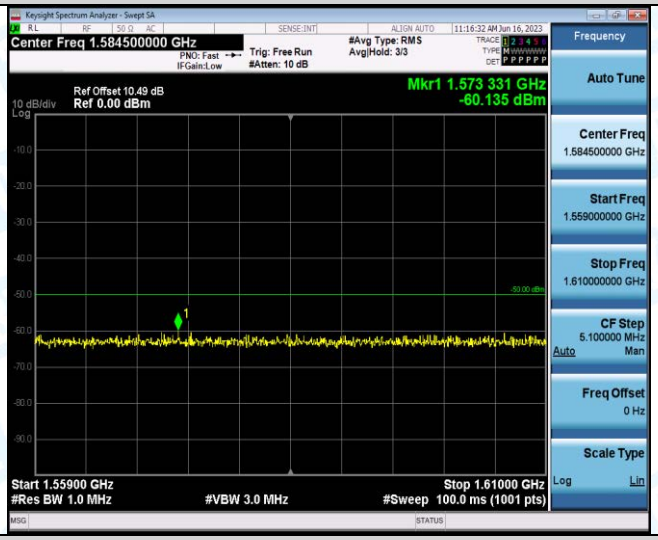

Band13-5MHz-16QAM-23205-1RB#0-Range2:30~1000MHz



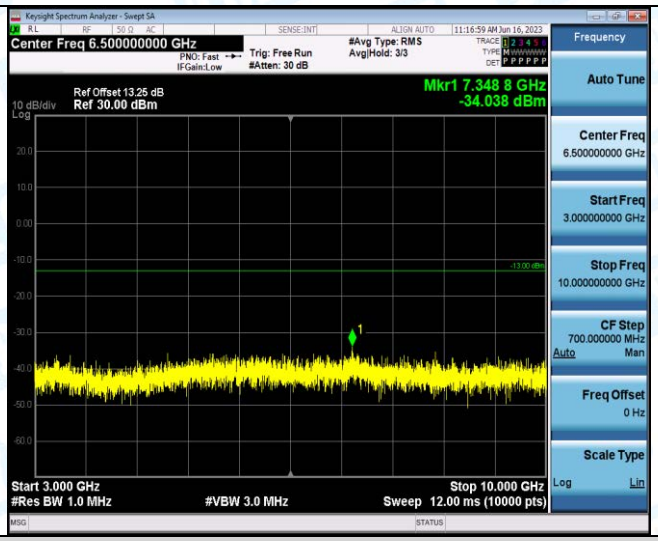

Band13-5MHz-16QAM-23205-1RB#0-Range3:1000~3000MHz



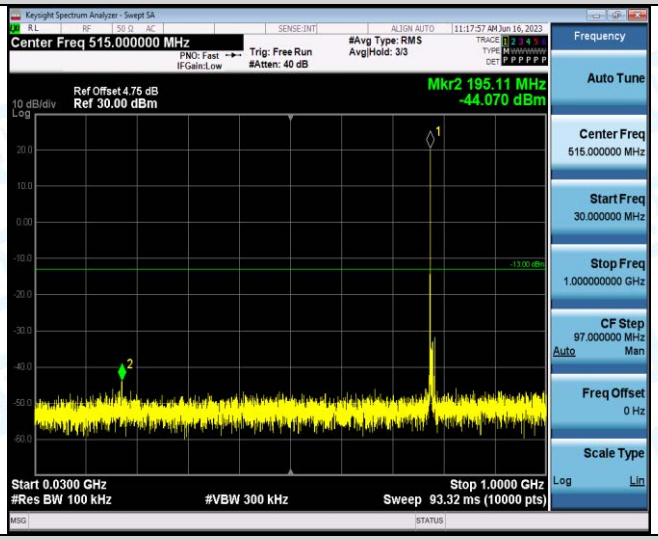

Band13-5MHz-16QAM-23205-1RB#0-Range1:1559~1610MHz



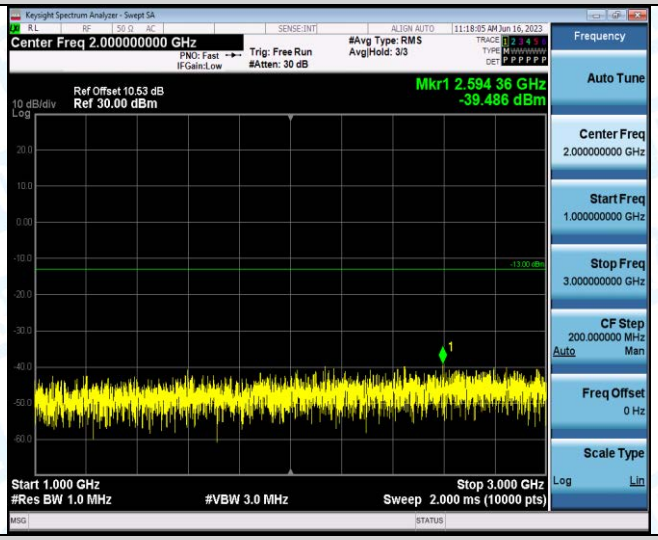

Band13-5MHz-16QAM-23205-1RB#0-Range4:3000~10000MHz



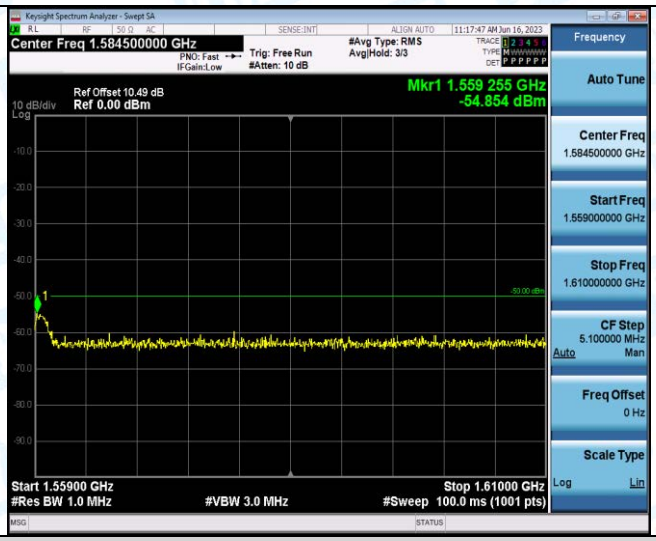

Band13-5MHz-16QAM-23230-1RB#0-Range2:30~1000MHz



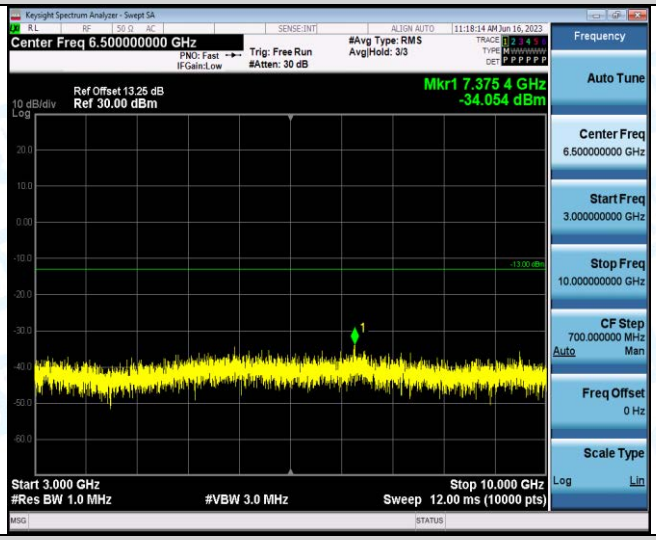

Band13-5MHz-16QAM-23230-1RB#0-Range3:1000~3000MHz



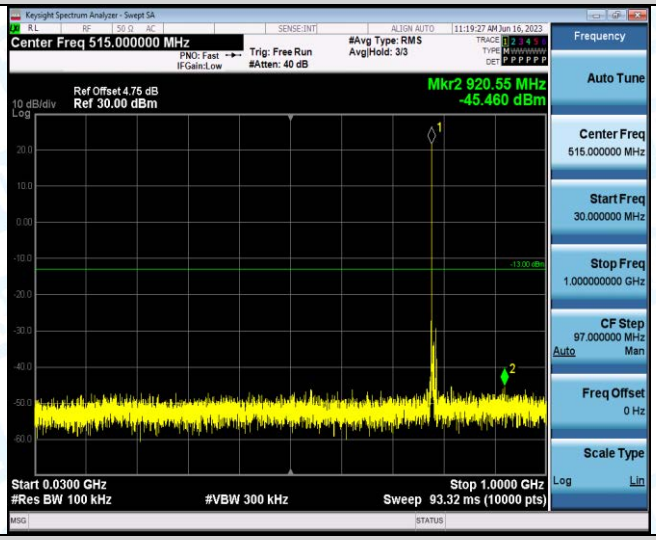

Band13-5MHz-16QAM-23230-1RB#0-Range1:1559~1610MHz



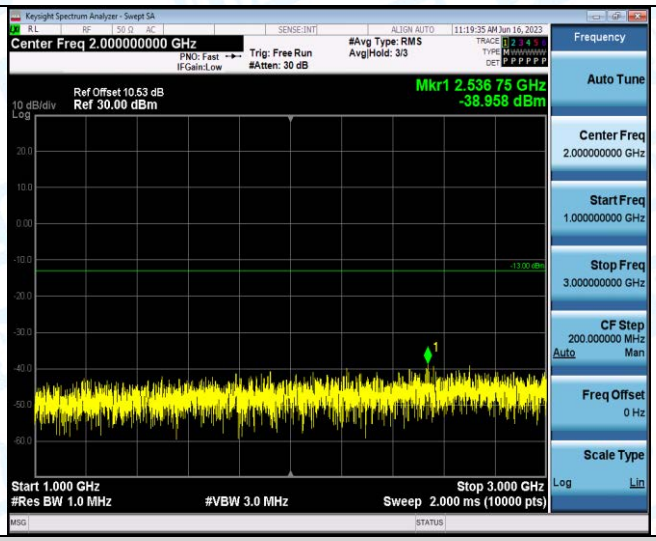

Band13-5MHz-16QAM-23230-1RB#0-Range4:3000~10000MHz



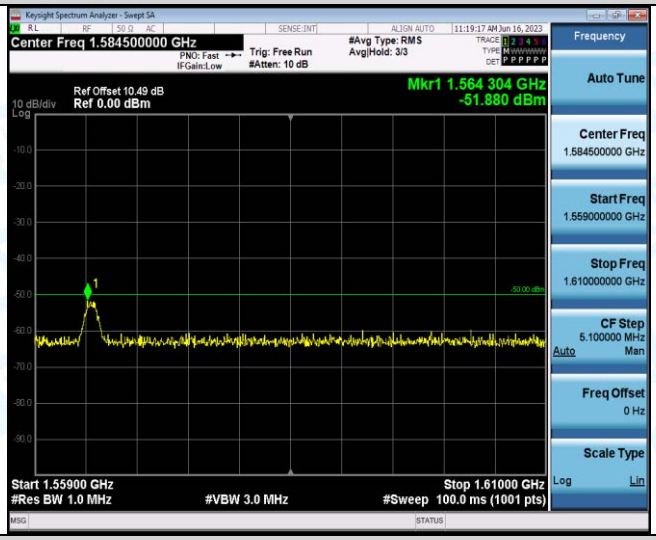

Band13-5MHz-16QAM-23255-1RB#0-Range2:30~1000MHz



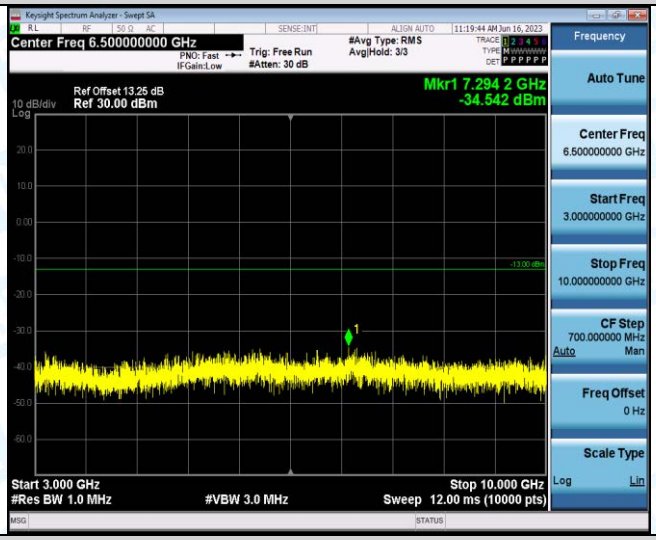

Band13-5MHz-16QAM-23255-1RB#0-Range3:1000~3000MHz



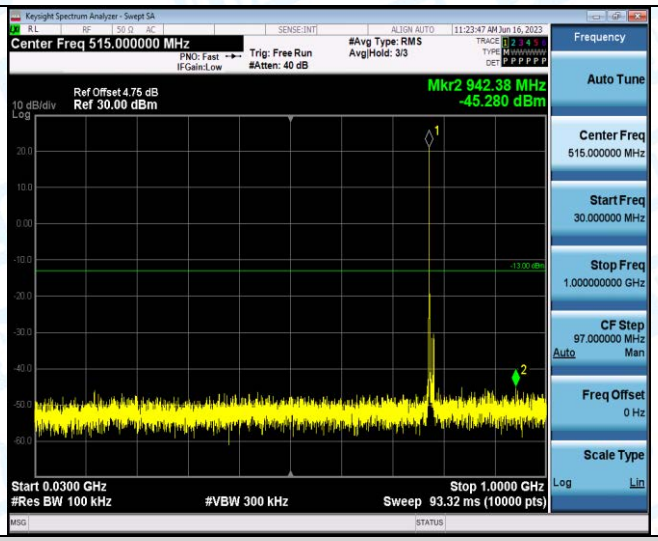

Band13-5MHz-16QAM-23255-1RB#0-Range1:1559~1610MHz



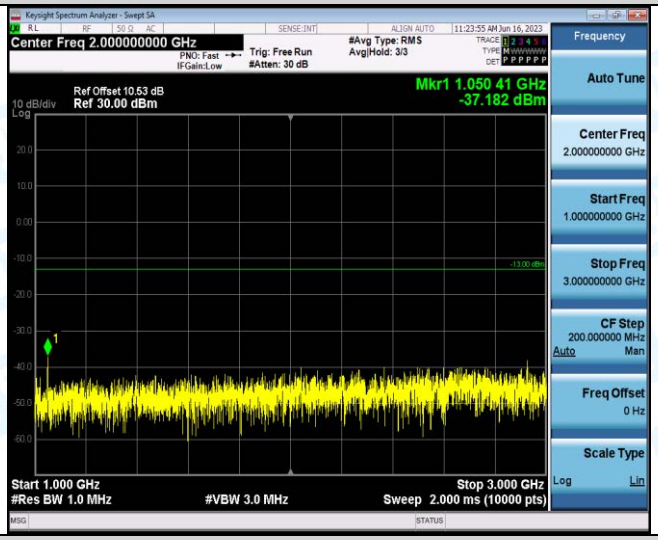

Band13-5MHz-16QAM-23255-1RB#0-Range4:3000~10000MHz



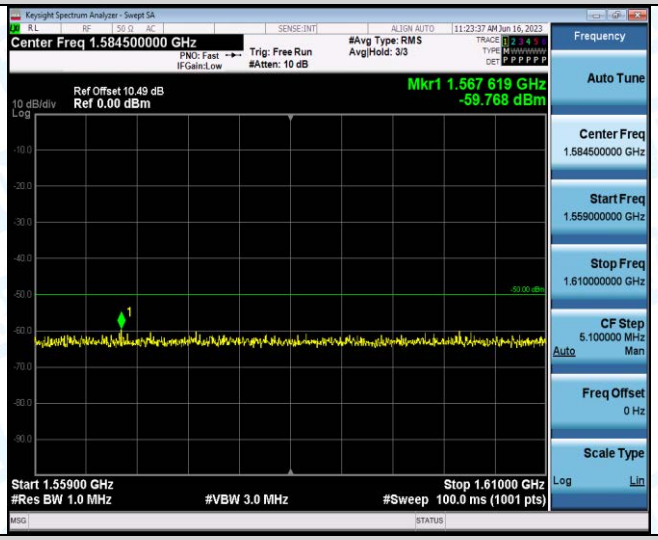

Band13-10MHz-QPSK-23230-1RB#0-Range2:30~1000MHz



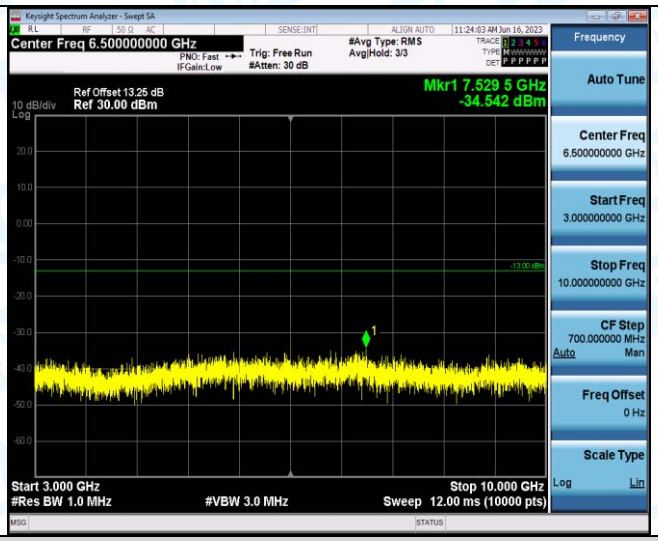

Band13-10MHz-QPSK-23230-1RB#0-Range3:1000~3000MHz



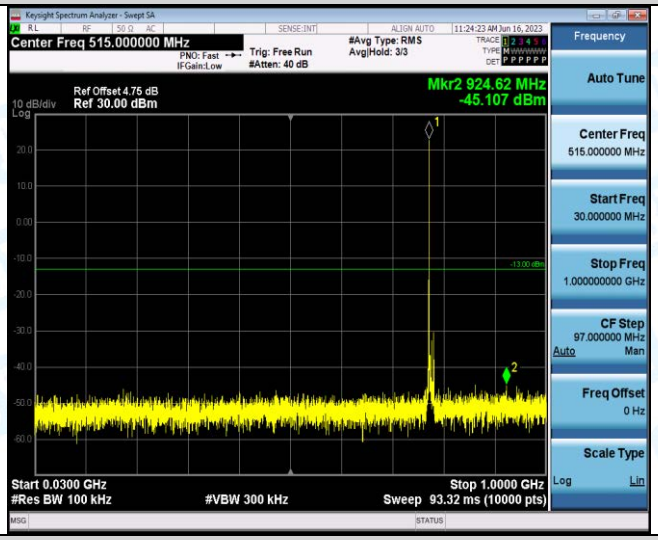

Band13-10MHz-QPSK-23230-1RB#0-Range1:1559~1610MHz



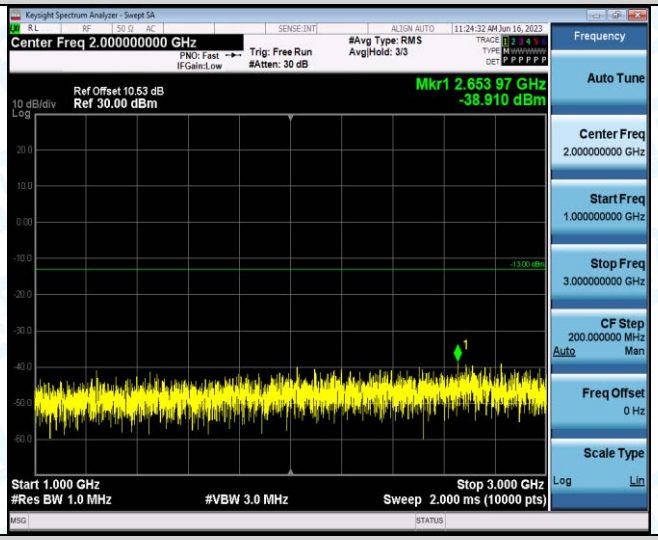

Band13-10MHz-QPSK-23230-1RB#0-Range4:3000~10000MHz



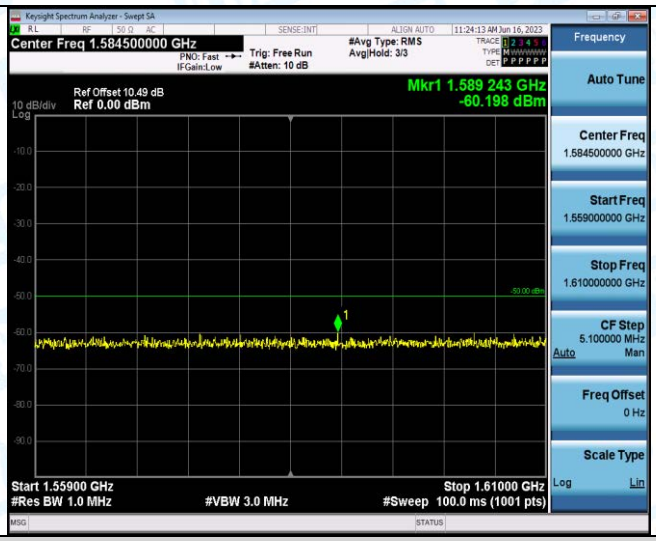

Band13-10MHz-16QAM-23230-1RB#0-Range2:30~1000MHz



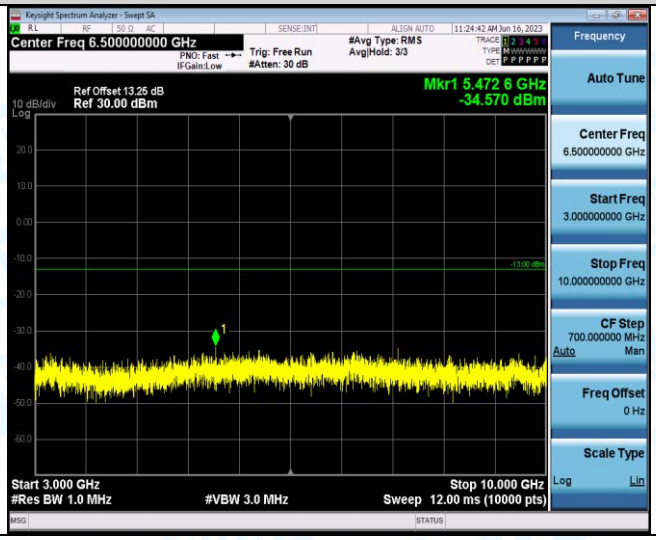

Band13-10MHz-16QAM-23230-1RB#0-Range3:1000~3000MHz




Band13-10MHz-16QAM-23230-1RB#0-Range1:1559~1610MHz




Band13-10MHz-16QAM-23230-1RB#0-Range4:3000~10000MHz



# 6. Frequency Stability

## Test Result

| Voltage | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Band | Bandwidth | Modulation | Channel | RB Configure | Voltage [Vdc] | Temperature (℃) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| Band13 | 5MHz | QPSK | 23205 | 25RB#0 | VL | NT | -4.92 | -0.006312 | ±2.5 | PASS |
| Band13 | 5MHz | QPSK | 23205 | 25RB#0 | VN | NT | -2.62 | -0.003361 | ±2.5 | PASS |
| Band13 | 5MHz | QPSK | 23205 | 25RB#0 | VH | NT | -4.16 | -0.005337 | ±2.5 | PASS |
| Band13 | 5MHz | QPSK | 23230 | 25RB#0 | VL | NT | -1.50 | -0.001918 | ±2.5 | PASS |
| Band13 | 5MHz | QPSK | 23230 | 25RB#0 | VN | NT | -7.08 | -0.009054 | ±2.5 | PASS |
| Band13 | 5MHz | QPSK | 23230 | 25RB#0 | VH | NT | -4.22 | -0.005396 | ±2.5 | PASS |
| Band13 | 5MHz | QPSK | 23255 | 25RB#0 | VL | NT | -1.67 | -0.002129 | ±2.5 | PASS |
| Band13 | 5MHz | QPSK | 23255 | 25RB#0 | VN | NT | 4.32 | 0.005507 | ±2.5 | PASS |
| Band13 | 5MHz | QPSK | 23255 | 25RB#0 | VH | NT | 3.39 | 0.004321 | ±2.5 | PASS |
| Band13 | 5MHz | 16QAM | 23205 | 25RB#0 | VL | NT | -3.00 | -0.003849 | ±2.5 | PASS |
| Band13 | 5MHz | 16QAM | 23205 | 25RB#0 | VN | NT | -3.30 | -0.004233 | ±2.5 | PASS |
| Band13 | 5MHz | 16QAM | 23205 | 25RB#0 | VH | NT | -3.52 | -0.004516 | ±2.5 | PASS |
| Band13 | 5MHz | 16QAM | 23230 | 25RB#0 | VL | NT | 1.33 | 0.001701 | ±2.5 | PASS |
| Band13 | 5MHz | 16QAM | 23230 | 25RB#0 | VN | NT | -1.60 | -0.002046 | ±2.5 | PASS |
| Band13 | 5MHz | 16QAM | 23230 | 25RB#0 | VH | NT | -2.79 | -0.003568 | ±2.5 | PASS |
| Band13 | 5MHz | 16QAM | 23255 | 25RB#0 | VL | NT | -2.22 | -0.002830 | ±2.5 | PASS |
| Band13 | 5MHz | 16QAM | 23255 | 25RB#0 | VN | NT | 1.99 | 0.002537 | ±2.5 | PASS |
| Band13 | 5MHz | 16QAM | 23255 | 25RB#0 | VH | NT | 4.03 | 0.005137 | ±2.5 | PASS |
| Band13 | 10MHz | QPSK | 23230 | 50RB#0 | VL | NT | -2.79 | -0.003568 | ±2.5 | PASS |
| Band13 | 10MHz | QPSK | 23230 | 50RB#0 | VN | NT | -2.65 | -0.003389 | ±2.5 | PASS |
| Band13 | 10MHz | QPSK | 23230 | 50RB#0 | VH | NT | -3.81 | -0.004872 | ±2.5 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 50RB#0 | VL | NT | 2.13 | 0.002724 | ±2.5 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 50RB#0 | VN | NT | -3.05 | -0.003900 | ±2.5 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 50RB#0 | VH | NT | 1.73 | 0.002212 | ±2.5 | PASS |

| Temperature | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Band | Bandwidth | Modulation | Channel | RB Configure | Voltage [Vdc] | Temperature (℃) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| Band13 | 5MHz | QPSK | 23205 | 25RB#0 | NV | -30 | -5.15 | -0.006607 | ±2.5 | PASS |
| Band13 | 5MHz | QPSK | 23205 | 25RB#0 | NV | -20 | -3.23 | -0.004144 | ±2.5 | PASS |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Band13 | 5MHz | QPSK | 23205 | 25RB#0 | NV | -10 | -2.63 | -0.003374 | ±2.5 | PASS |
| Band13 | 5MHz | QPSK | 23205 | 25RB#0 | NV | 0 | -2.72 | -0.003489 | ±2.5 | PASS |
| Band13 | 5MHz | QPSK | 23205 | 25RB#0 | NV | 10 | -4.23 | -0.005427 | ±2.5 | PASS |
| Band13 | 5MHz | QPSK | 23205 | 25RB#0 | NV | 20 | 2.10 | 0.002694 | ±2.5 | PASS |
| Band13 | 5MHz | QPSK | 23205 | 25RB#0 | NV | 30 | -2.56 | -0.003284 | ±2.5 | PASS |
| Band13 | 5MHz | QPSK | 23205 | 25RB#0 | NV | 40 | -4.12 | -0.005285 | ±2.5 | PASS |
| Band13 | 5MHz | QPSK | 23205 | 25RB#0 | NV | 50 | -2.47 | -0.003169 | ±2.5 | PASS |
| Band13 | 5MHz | QPSK | 23230 | 25RB#0 | NV | -30 | -3.35 | -0.004284 | ±2.5 | PASS |
| Band13 | 5MHz | QPSK | 23230 | 25RB#0 | NV | -20 | -2.85 | -0.003645 | ±2.5 | PASS |
| Band13 | 5MHz | QPSK | 23230 | 25RB#0 | NV | -10 | -2.68 | -0.003427 | ±2.5 | PASS |
| Band13 | 5MHz | QPSK | 23230 | 25RB#0 | NV | 0 | 2.05 | 0.002621 | ±2.5 | PASS |
| Band13 | 5MHz | QPSK | 23230 | 25RB#0 | NV | 10 | -1.86 | -0.002379 | ±2.5 | PASS |
| Band13 | 5MHz | QPSK | 23230 | 25RB#0 | NV | 20 | 1.79 | 0.002289 | ±2.5 | PASS |
| Band13 | 5MHz | QPSK | 23230 | 25RB#0 | NV | 30 | -2.29 | -0.002928 | ±2.5 | PASS |
| Band13 | 5MHz | QPSK | 23230 | 25RB#0 | NV | 40 | -2.88 | -0.003683 | ±2.5 | PASS |
| Band13 | 5MHz | QPSK | 23230 | 25RB#0 | NV | 50 | -2.57 | -0.003286 | ±2.5 | PASS |
| Band13 | 5MHz | QPSK | 23255 | 25RB#0 | NV | -30 | -1.22 | -0.001555 | ±2.5 | PASS |
| Band13 | 5MHz | QPSK | 23255 | 25RB#0 | NV | -20 | -2.63 | -0.003352 | ±2.5 | PASS |
| Band13 | 5MHz | QPSK | 23255 | 25RB#0 | NV | -10 | -1.96 | -0.002498 | ±2.5 | PASS |
| Band13 | 5MHz | QPSK | 23255 | 25RB#0 | NV | 0 | -1.60 | -0.002040 | ±2.5 | PASS |
| Band13 | 5MHz | QPSK | 23255 | 25RB#0 | NV | 10 | 2.98 | 0.003799 | ±2.5 | PASS |
| Band13 | 5MHz | QPSK | 23255 | 25RB#0 | NV | 20 | -1.83 | -0.002333 | ±2.5 | PASS |
| Band13 | 5MHz | QPSK | 23255 | 25RB#0 | NV | 30 | -3.96 | -0.005048 | ±2.5 | PASS |
| Band13 | 5MHz | QPSK | 23255 | 25RB#0 | NV | 40 | -2.59 | -0.003301 | ±2.5 | PASS |
| Band13 | 5MHz | QPSK | 23255 | 25RB#0 | NV | 50 | -2.72 | -0.003467 | ±2.5 | PASS |
| Band13 | 5MHz | 16QAM | 23205 | 25RB#0 | NV | -30 | -2.50 | -0.003207 | ±2.5 | PASS |
| Band13 | 5MHz | 16QAM | 23205 | 25RB#0 | NV | -20 | -2.29 | -0.002938 | ±2.5 | PASS |
| Band13 | 5MHz | 16QAM | 23205 | 25RB#0 | NV | -10 | -1.87 | -0.002399 | ±2.5 | PASS |
| Band13 | 5MHz | 16QAM | 23205 | 25RB#0 | NV | 0 | -1.49 | -0.001911 | ±2.5 | PASS |
| Band13 | 5MHz | 16QAM | 23205 | 25RB#0 | NV | 10 | -3.26 | -0.004182 | ±2.5 | PASS |
| Band13 | 5MHz | 16QAM | 23205 | 25RB#0 | NV | 20 | -2.03 | -0.002604 | ±2.5 | PASS |
| Band13 | 5MHz | 16QAM | 23205 | 25RB#0 | NV | 30 | -4.51 | -0.005786 | ±2.5 | PASS |
| Band13 | 5MHz | 16QAM | 23205 | 25RB#0 | NV | 40 | -5.69 | -0.007300 | ±2.5 | PASS |
| Band13 | 5MHz | 16QAM | 23205 | 25RB#0 | NV | 50 | -5.84 | -0.007492 | ±2.5 | PASS |
| Band13 | 5MHz | 16QAM | 23230 | 25RB#0 | NV | -30 | -3.19 | -0.004079 | ±2.5 | PASS |
| Band13 | 5MHz | 16QAM | 23230 | 25RB#0 | NV | -20 | -3.98 | -0.005090 | ±2.5 | PASS |

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|---|---|---|---|---|---|---|---|---|---|---|
| Band13 | 5MHz | 16QAM | 23230 | 25RB#0 | NV | -10 | -3.82 | -0.004885 | ±2.5 | PASS |
| Band13 | 5MHz | 16QAM | 23230 | 25RB#0 | NV | 0 | -3.10 | -0.003964 | ±2.5 | PASS |
| Band13 | 5MHz | 16QAM | 23230 | 25RB#0 | NV | 10 | -2.57 | -0.003286 | ±2.5 | PASS |
| Band13 | 5MHz | 16QAM | 23230 | 25RB#0 | NV | 20 | -3.28 | -0.004194 | ±2.5 | PASS |
| Band13 | 5MHz | 16QAM | 23230 | 25RB#0 | NV | 30 | -1.67 | -0.002136 | ±2.5 | PASS |
| Band13 | 5MHz | 16QAM | 23230 | 25RB#0 | NV | 40 | -3.81 | -0.004872 | ±2.5 | PASS |
| Band13 | 5MHz | 16QAM | 23230 | 25RB#0 | NV | 50 | -3.85 | -0.004923 | ±2.5 | PASS |
| Band13 | 5MHz | 16QAM | 23255 | 25RB#0 | NV | -30 | -3.03 | -0.003862 | ±2.5 | PASS |
| Band13 | 5MHz | 16QAM | 23255 | 25RB#0 | NV | -20 | -2.98 | -0.003799 | ±2.5 | PASS |
| Band13 | 5MHz | 16QAM | 23255 | 25RB#0 | NV | -10 | -3.26 | -0.004156 | ±2.5 | PASS |
| Band13 | 5MHz | 16QAM | 23255 | 25RB#0 | NV | 0 | -3.40 | -0.004334 | ±2.5 | PASS |
| Band13 | 5MHz | 16QAM | 23255 | 25RB#0 | NV | 10 | -3.22 | -0.004105 | ±2.5 | PASS |
| Band13 | 5MHz | 16QAM | 23255 | 25RB#0 | NV | 20 | -2.35 | -0.002996 | ±2.5 | PASS |
| Band13 | 5MHz | 16QAM | 23255 | 25RB#0 | NV | 30 | -3.16 | -0.004028 | ±2.5 | PASS |
| Band13 | 5MHz | 16QAM | 23255 | 25RB#0 | NV | 40 | -3.55 | -0.004525 | ±2.5 | PASS |
| Band13 | 5MHz | 16QAM | 23255 | 25RB#0 | NV | 50 | -3.42 | -0.004359 | ±2.5 | PASS |
| Band13 | 10MHz | QPSK | 23230 | 50RB#0 | NV | -30 | -3.26 | -0.004169 | ±2.5 | PASS |
| Band13 | 10MHz | QPSK | 23230 | 50RB#0 | NV | -20 | -1.85 | -0.002366 | ±2.5 | PASS |
| Band13 | 10MHz | QPSK | 23230 | 50RB#0 | NV | -10 | -3.23 | -0.004130 | ±2.5 | PASS |
| Band13 | 10MHz | QPSK | 23230 | 50RB#0 | NV | 0 | -2.10 | -0.002685 | ±2.5 | PASS |
| Band13 | 10MHz | QPSK | 23230 | 50RB#0 | NV | 10 | -3.18 | -0.004066 | ±2.5 | PASS |
| Band13 | 10MHz | QPSK | 23230 | 50RB#0 | NV | 20 | -2.03 | -0.002596 | ±2.5 | PASS |
| Band13 | 10MHz | QPSK | 23230 | 50RB#0 | NV | 30 | -1.76 | -0.002251 | ±2.5 | PASS |
| Band13 | 10MHz | QPSK | 23230 | 50RB#0 | NV | 40 | -4.95 | -0.006330 | ±2.5 | PASS |
| Band13 | 10MHz | QPSK | 23230 | 50RB#0 | NV | 50 | -2.95 | -0.003772 | ±2.5 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 50RB#0 | NV | -30 | 2.26 | 0.002890 | ±2.5 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 50RB#0 | NV | -20 | -2.76 | -0.003529 | ±2.5 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 50RB#0 | NV | -10 | -3.10 | -0.003964 | ±2.5 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 50RB#0 | NV | 0 | -3.32 | -0.004246 | ±2.5 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 50RB#0 | NV | 10 | -3.33 | -0.004258 | ±2.5 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 50RB#0 | NV | 20 | -2.63 | -0.003363 | ±2.5 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 50RB#0 | NV | 30 | -2.50 | -0.003197 | ±2.5 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 50RB#0 | NV | 40 | 1.97 | 0.002519 | ±2.5 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 50RB#0 | NV | 50 | -3.15 | -0.004028 | ±2.5 | PASS |

**----END OF THE REPORT-----**