

## Appendix A: Effective (Isotropic) Radiated Power Output Data

### Test Result

| Band   | Bandwidth | Modulation | Channel | RB Configuration | Conducted Power (dBm) | ERP/EIRP (dBm) | ERP/EIRP Limit (dBm) | Verdict |
|--------|-----------|------------|---------|------------------|-----------------------|----------------|----------------------|---------|
| Band13 | 5MHz      | QPSK       | 23205   | 1RB#0            | 23.28                 | 22.83          | 34.77                | PASS    |
| Band13 | 5MHz      | QPSK       | 23205   | 1RB#12           | 23.42                 | 22.97          | 34.77                | PASS    |
| Band13 | 5MHz      | QPSK       | 23205   | 1RB#24           | 23.28                 | 22.83          | 34.77                | PASS    |
| Band13 | 5MHz      | QPSK       | 23205   | 12RB#0           | 22.29                 | 21.84          | 34.77                | PASS    |
| Band13 | 5MHz      | QPSK       | 23205   | 12RB#6           | 22.32                 | 21.87          | 34.77                | PASS    |
| Band13 | 5MHz      | QPSK       | 23205   | 12RB#11          | 22.33                 | 21.88          | 34.77                | PASS    |
| Band13 | 5MHz      | QPSK       | 23205   | 25RB#0           | 22.38                 | 21.93          | 34.77                | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 1RB#0            | 23.42                 | 22.97          | 34.77                | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 1RB#12           | 23.51                 | 23.06          | 34.77                | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 1RB#24           | 23.42                 | 22.97          | 34.77                | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 12RB#0           | 22.47                 | 22.02          | 34.77                | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 12RB#6           | 22.41                 | 21.96          | 34.77                | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 12RB#11          | 22.39                 | 21.94          | 34.77                | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 25RB#0           | 22.48                 | 22.03          | 34.77                | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 1RB#0            | 23.42                 | 22.97          | 34.77                | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 1RB#12           | 23.54                 | 23.09          | 34.77                | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 1RB#24           | 23.49                 | 23.04          | 34.77                | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 12RB#0           | 22.50                 | 22.05          | 34.77                | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 12RB#6           | 22.45                 | 22             | 34.77                | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 12RB#11          | 22.49                 | 22.04          | 34.77                | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 25RB#0           | 22.49                 | 22.04          | 34.77                | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 1RB#0            | 22.35                 | 21.9           | 34.77                | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 1RB#12           | 22.40                 | 21.95          | 34.77                | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 1RB#24           | 22.31                 | 21.86          | 34.77                | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 12RB#0           | 21.30                 | 20.85          | 34.77                | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 12RB#6           | 21.34                 | 20.89          | 34.77                | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 12RB#11          | 21.36                 | 20.91          | 34.77                | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 25RB#0           | 21.43                 | 20.98          | 34.77                | PASS    |
| Band13 | 5MHz      | 16QAM      | 23230   | 1RB#0            | 22.41                 | 21.96          | 34.77                | PASS    |
| Band13 | 5MHz      | 16QAM      | 23230   | 1RB#12           | 22.52                 | 22.07          | 34.77                | PASS    |
| Band13 | 5MHz      | 16QAM      | 23230   | 1RB#24           | 22.44                 | 21.99          | 34.77                | PASS    |
| Band13 | 5MHz      | 16QAM      | 23230   | 12RB#0           | 21.43                 | 20.98          | 34.77                | PASS    |
| Band13 | 5MHz      | 16QAM      | 23230   | 12RB#6           | 21.39                 | 20.94          | 34.77                | PASS    |
| Band13 | 5MHz      | 16QAM      | 23230   | 12RB#11          | 21.42                 | 20.97          | 34.77                | PASS    |
| Band13 | 5MHz      | 16QAM      | 23230   | 25RB#0           | 21.51                 | 21.06          | 34.77                | PASS    |

|        |       |       |       |         |       |       |       |      |
|--------|-------|-------|-------|---------|-------|-------|-------|------|
| Band13 | 5MHz  | 16QAM | 23255 | 1RB#0   | 22.58 | 22.13 | 34.77 | PASS |
| Band13 | 5MHz  | 16QAM | 23255 | 1RB#12  | 22.75 | 22.3  | 34.77 | PASS |
| Band13 | 5MHz  | 16QAM | 23255 | 1RB#24  | 22.73 | 22.28 | 34.77 | PASS |
| Band13 | 5MHz  | 16QAM | 23255 | 12RB#0  | 21.51 | 21.06 | 34.77 | PASS |
| Band13 | 5MHz  | 16QAM | 23255 | 12RB#6  | 21.49 | 21.04 | 34.77 | PASS |
| Band13 | 5MHz  | 16QAM | 23255 | 12RB#11 | 21.49 | 21.04 | 34.77 | PASS |
| Band13 | 5MHz  | 16QAM | 23255 | 25RB#0  | 21.47 | 21.02 | 34.77 | PASS |
| Band13 | 10MHz | QPSK  | 23230 | 1RB#0   | 23.42 | 22.97 | 34.77 | PASS |
| Band13 | 10MHz | QPSK  | 23230 | 1RB#24  | 23.49 | 23.04 | 34.77 | PASS |
| Band13 | 10MHz | QPSK  | 23230 | 1RB#49  | 23.54 | 23.09 | 34.77 | PASS |
| Band13 | 10MHz | QPSK  | 23230 | 25RB#0  | 22.45 | 22    | 34.77 | PASS |
| Band13 | 10MHz | QPSK  | 23230 | 25RB#12 | 22.41 | 21.96 | 34.77 | PASS |
| Band13 | 10MHz | QPSK  | 23230 | 25RB#24 | 22.40 | 21.95 | 34.77 | PASS |
| Band13 | 10MHz | QPSK  | 23230 | 50RB#0  | 22.47 | 22.02 | 34.77 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 1RB#0   | 22.64 | 22.19 | 34.77 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 1RB#24  | 22.61 | 22.16 | 34.77 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 1RB#49  | 22.74 | 22.29 | 34.77 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 25RB#0  | 21.44 | 20.99 | 34.77 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 25RB#12 | 21.44 | 20.99 | 34.77 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 25RB#24 | 21.44 | 20.99 | 34.77 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 50RB#0  | 21.40 | 20.95 | 34.77 | PASS |

Remark: ERP (dBm) = EIRP (dBm) - 2.15 (dB). (For Band 13 )

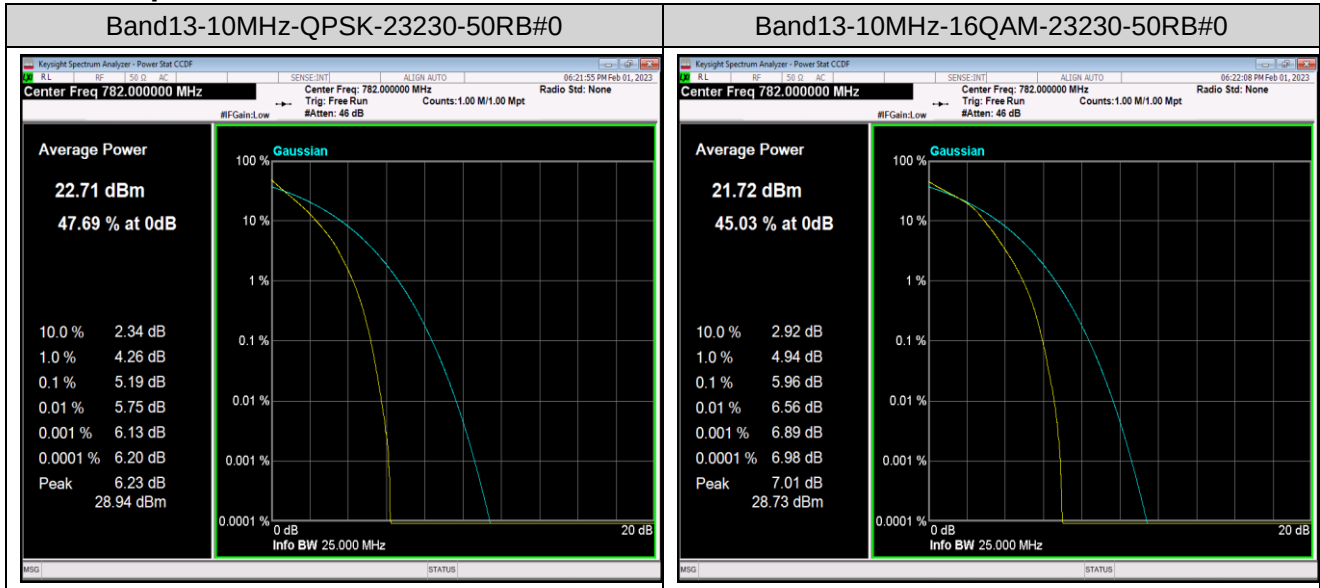
## Appendix B: Peak-to-Average Ratio(CCDF)

### Test Result

| Band   | Bandwidth | Modulation | Channel | RB Configuration | Result(dB) | Limit(dB) | Verdict |
|--------|-----------|------------|---------|------------------|------------|-----------|---------|
| Band13 | 10MHz     | QPSK       | 23230   | 50RB#0           | 5.19       | 13        | PASS    |
| Band13 | 10MHz     | 16QAM      | 23230   | 50RB#0           | 5.96       | 13        | PASS    |

*Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.*

## Test Graphs



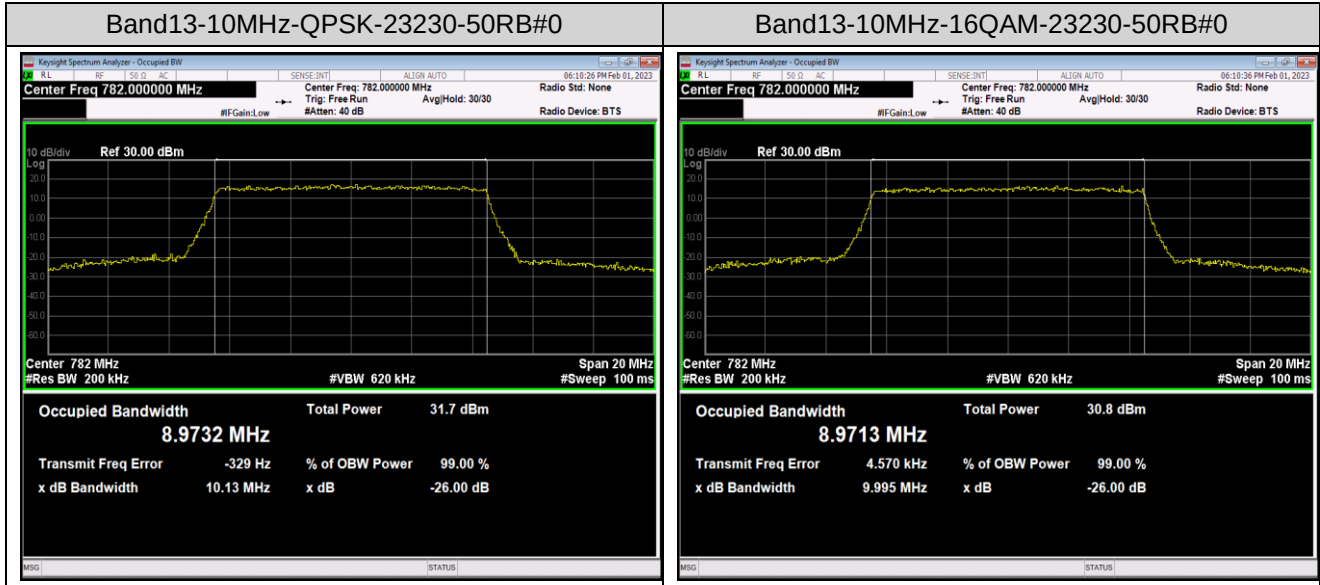
## Appendix C: 26dB Bandwidth and Occupied Bandwidth

### Test Result

| Band   | Bandwidth | Modulation | Channel | RB Configuration | Occupied Bandwidth (MHz) | 26dB Bandwidth (MHz) | Verdict |
|--------|-----------|------------|---------|------------------|--------------------------|----------------------|---------|
| Band13 | 5MHz      | QPSK       | 23205   | 25RB#0           | 4.5329                   | 5.194                | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 25RB#0           | 4.5271                   | 5.222                | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 25RB#0           | 4.5069                   | 5.120                | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 25RB#0           | 4.5136                   | 5.157                | PASS    |
| Band13 | 5MHz      | 16QAM      | 23230   | 25RB#0           | 4.5092                   | 5.145                | PASS    |
| Band13 | 5MHz      | 16QAM      | 23255   | 25RB#0           | 4.5297                   | 5.184                | PASS    |
| Band13 | 10MHz     | QPSK       | 23230   | 50RB#0           | 8.9732                   | 10.13                | PASS    |
| Band13 | 10MHz     | 16QAM      | 23230   | 50RB#0           | 8.9713                   | 9.995                | PASS    |

# Test Graphs





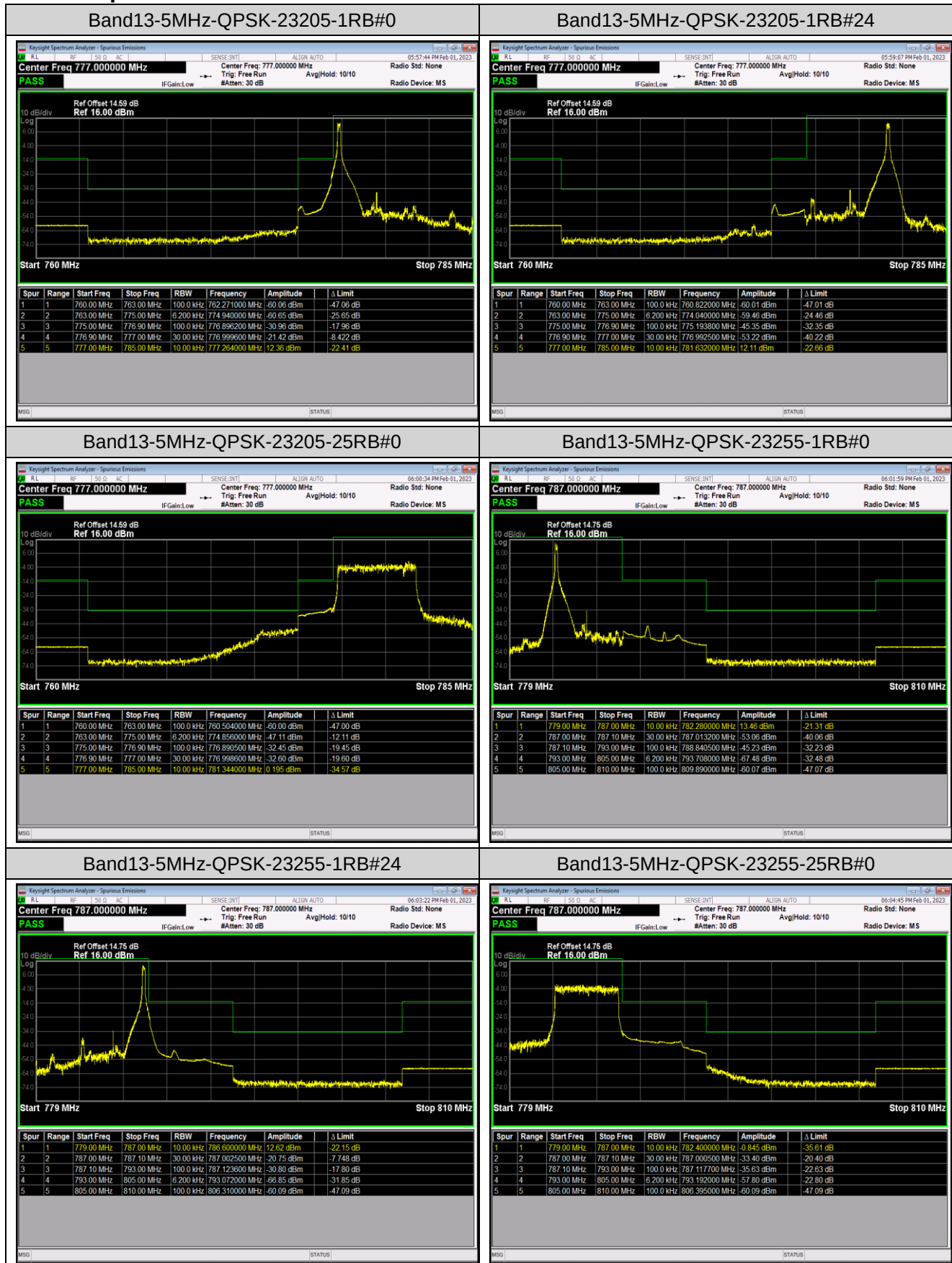
## Appendix D: Band Edge

### Test Result (worst case)

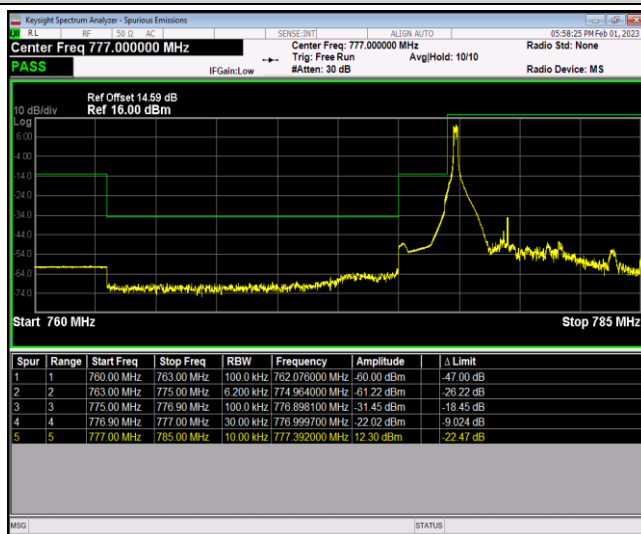
| Band   | Bandwidth | Modulation | Channel | RB Config. | Result (dBm)                                            | Verdict |
|--------|-----------|------------|---------|------------|---------------------------------------------------------|---------|
| Band13 | 5MHz      | QPSK       | 23205   | 1RB#0      | -60.06,-60.65,-30.96,-21.42                             | PASS    |
| Band13 | 5MHz      | QPSK       | 23205   | 1RB#24     | -60.01,-59.46,-45.35,-53.22                             | PASS    |
| Band13 | 5MHz      | QPSK       | 23205   | 25RB#0     | -60.00,-47.11,-32.45,-32.60                             | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 1RB#0      | -53.06,-45.23,-67.48,-60.07                             | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 1RB#24     | -20.75,-30.80,-66.85,-60.09                             | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 25RB#0     | -33.40,-35.63,-57.80,-60.09                             | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 1RB#0      | -60.00,-61.22,-31.45,-22.02                             | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 1RB#24     | -60.05,-59.98,-47.08,-53.13                             | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 25RB#0     | -59.97,-46.91,-33.20,-33.59                             | PASS    |
| Band13 | 5MHz      | 16QAM      | 23255   | 1RB#0      | -53.34,-47.06,-67.45,-60.11                             | PASS    |
| Band13 | 5MHz      | 16QAM      | 23255   | 1RB#24     | -22.00,-31.47,-67.62,-60.15                             | PASS    |
| Band13 | 5MHz      | 16QAM      | 23255   | 25RB#0     | -34.97,-35.99,-59.64,-60.08                             | PASS    |
| Band13 | 10MHz     | QPSK       | 23230   | 1RB#0      | -59.81,-56.71,-35.76,-27.65,-54.77,-46.21,-59.84,-60.08 | PASS    |
| Band13 | 10MHz     | QPSK       | 23230   | 1RB#49     | -59.88,-56.37,-49.97,-54.33,-27.60,-35.94,-64.80,-59.87 | PASS    |
| Band13 | 10MHz     | QPSK       | 23230   | 50RB#0     | -59.84,-45.58,-34.53,-37.64,-39.24,-37.03,-51.73,-60.10 | PASS    |
| Band13 | 10MHz     | 16QAM      | 23230   | 1RB#0      | -59.85,-58.48,-37.23,-28.44,-54.88,-47.78,-60.00,-60.12 | PASS    |
| Band13 | 10MHz     | 16QAM      | 23230   | 1RB#49     | -59.90,-58.49,-50.27,-54.53,-27.19,-36.49,-65.64,-60.12 | PASS    |
| Band13 | 10MHz     | 16QAM      | 23230   | 50RB#0     | -59.88,-46.82,-35.83,-38.94,-40.08,-37.70,-53.09,-60.11 | PASS    |

Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.

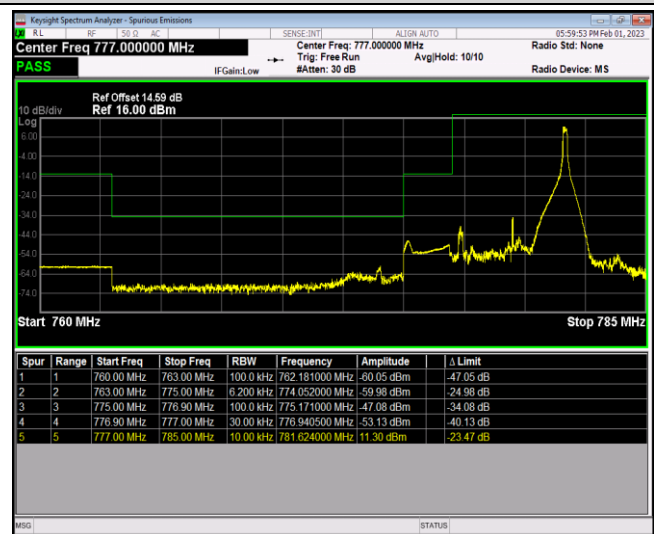
# Test Graphs



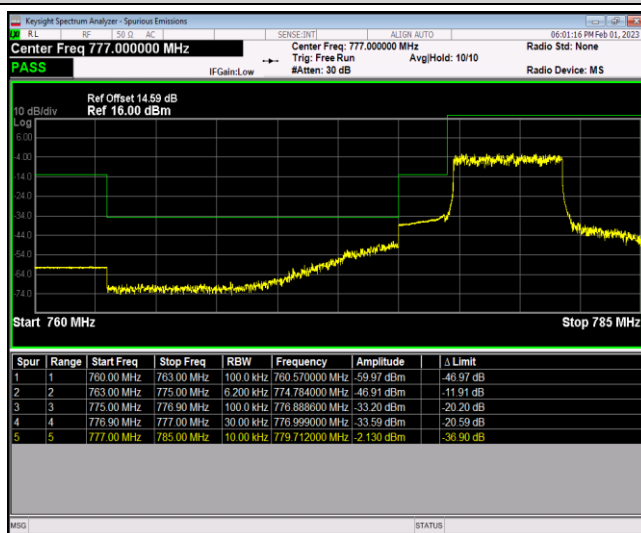
Band13-5MHz-16QAM-23205-1RB#0



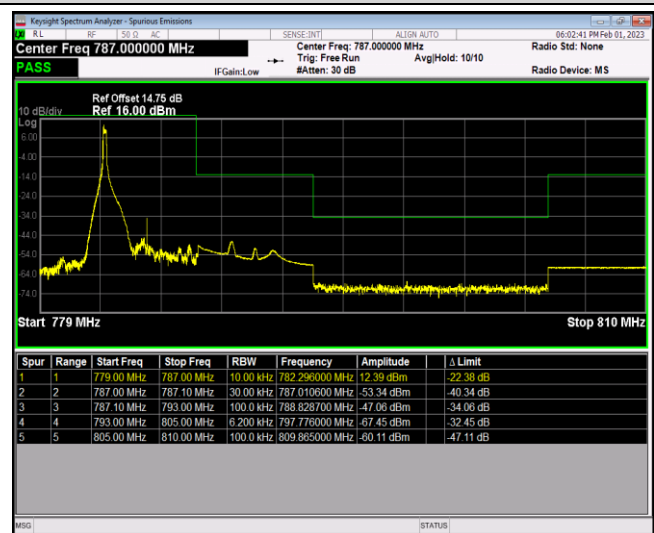
Band13-5MHz-16QAM-23205-1RB#24



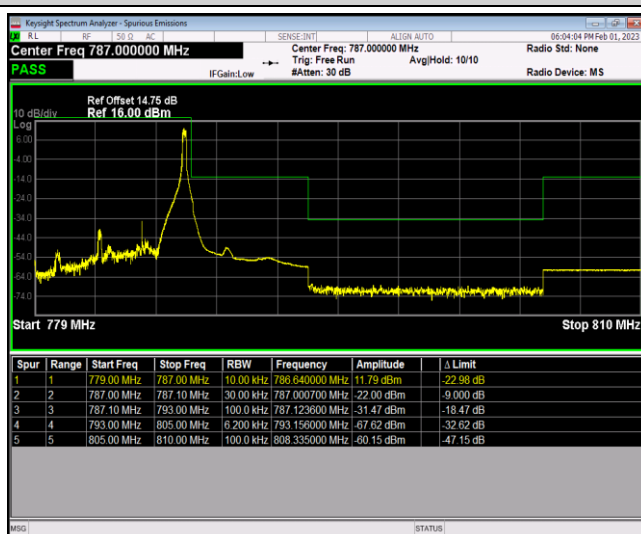
Band13-5MHz-16QAM-23205-25RB#0



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



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



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

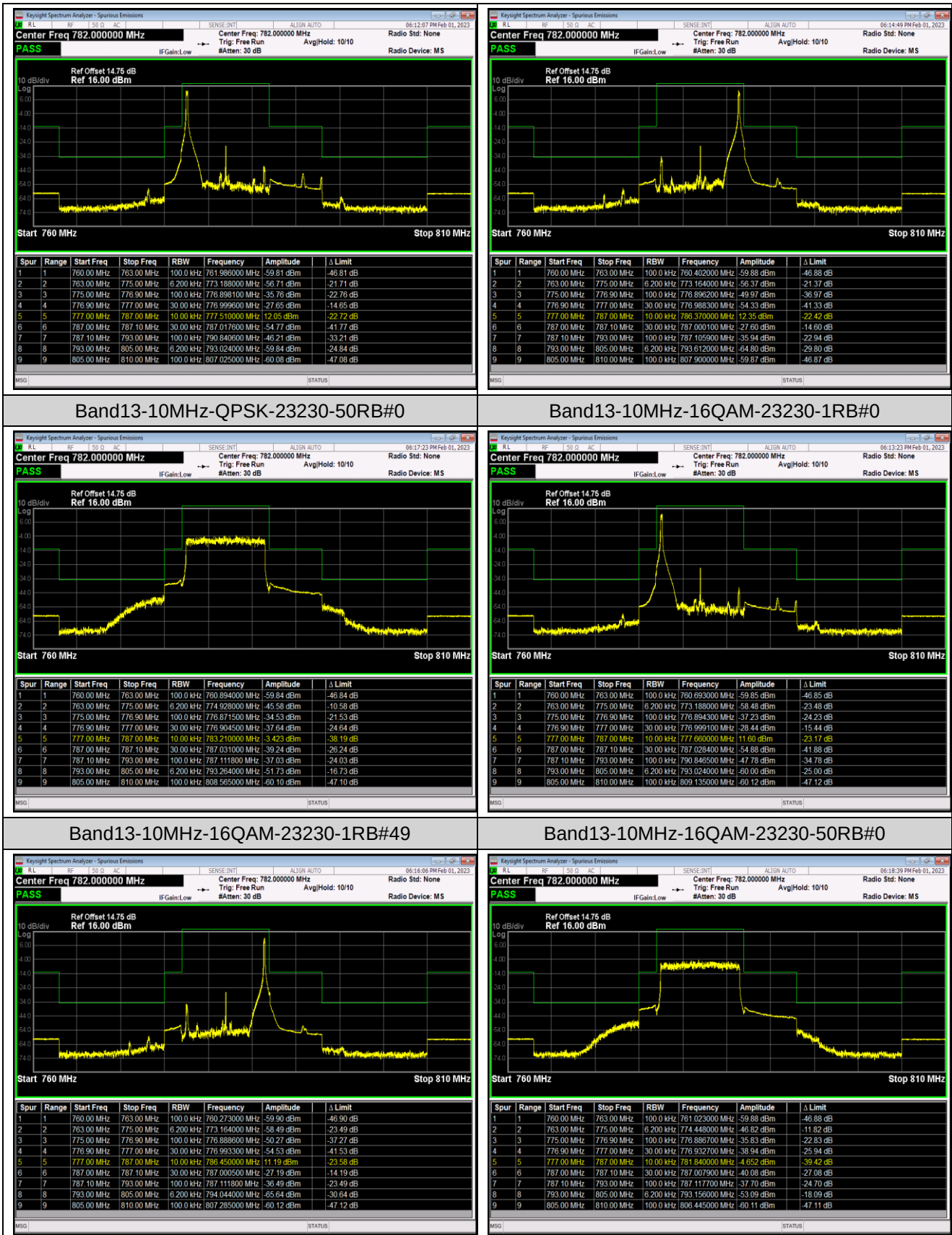


Band13-10MHz-QPSK-23230-1RB#0

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

Project No.: JYTSZR2301027



## Appendix E: Conducted Spurious Emission

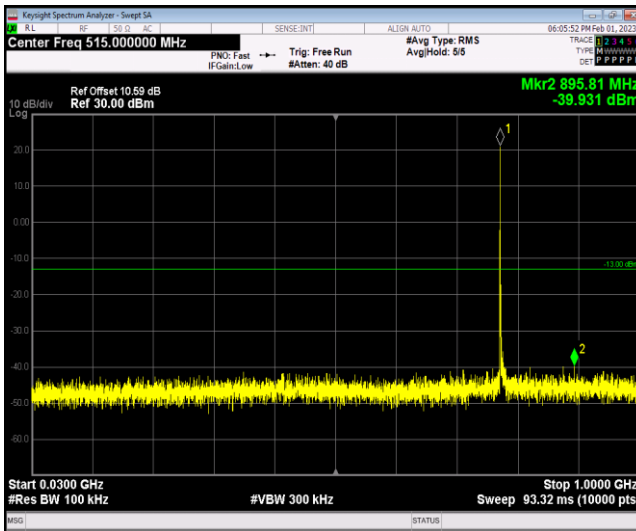
### Test Result (worst case)

| Band   | Bandwidth | Modulation | Channel | RB Configuration | Frequency Range      | Result (dBm) | Verdict |
|--------|-----------|------------|---------|------------------|----------------------|--------------|---------|
| Band13 | 5MHz      | QPSK       | 23205   | 1RB#0            | Range1:30~1000MHz    | -39.93       | PASS    |
| Band13 | 5MHz      | QPSK       | 23205   | 1RB#0            | Range2:1000~10000MHz | -35.35       | PASS    |
| Band13 | 5MHz      | QPSK       | 23205   | 1RB#0            | Range3:1559~1610MHz  | -53.12       | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 1RB#0            | Range1:30~1000MHz    | -40.51       | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 1RB#0            | Range2:1000~10000MHz | -35.56       | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 1RB#0            | Range3:1559~1610MHz  | -53.85       | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 1RB#0            | Range1:30~1000MHz    | -40.13       | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 1RB#0            | Range2:1000~10000MHz | -35.24       | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 1RB#0            | Range3:1559~1610MHz  | -53.29       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 1RB#0            | Range1:30~1000MHz    | -40.66       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 1RB#0            | Range2:1000~10000MHz | -35.52       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 1RB#0            | Range3:1559~1610MHz  | -53.9        | PASS    |
| Band13 | 5MHz      | 16QAM      | 23230   | 1RB#0            | Range1:30~1000MHz    | -39.65       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23230   | 1RB#0            | Range2:1000~10000MHz | -34.99       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23230   | 1RB#0            | Range3:1559~1610MHz  | -53.43       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23255   | 1RB#0            | Range1:30~1000MHz    | -40.3        | PASS    |
| Band13 | 5MHz      | 16QAM      | 23255   | 1RB#0            | Range2:1000~10000MHz | -35.59       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23255   | 1RB#0            | Range3:1559~1610MHz  | -53.04       | PASS    |
| Band13 | 10MHz     | QPSK       | 23230   | 1RB#0            | Range1:30~1000MHz    | -40.71       | PASS    |
| Band13 | 10MHz     | QPSK       | 23230   | 1RB#0            | Range2:1000~10000MHz | -34.92       | PASS    |
| Band13 | 10MHz     | QPSK       | 23230   | 1RB#0            | Range3:1559~1610MHz  | -53.96       | PASS    |
| Band13 | 10MHz     | 16QAM      | 23230   | 1RB#0            | Range1:30~1000MHz    | -40.56       | PASS    |
| Band13 | 10MHz     | 16QAM      | 23230   | 1RB#0            | Range2:1000~10000MHz | -35.35       | PASS    |
| Band13 | 10MHz     | 16QAM      | 23230   | 1RB#0            | Range3:1559~1610MHz  | -53.75       | PASS    |

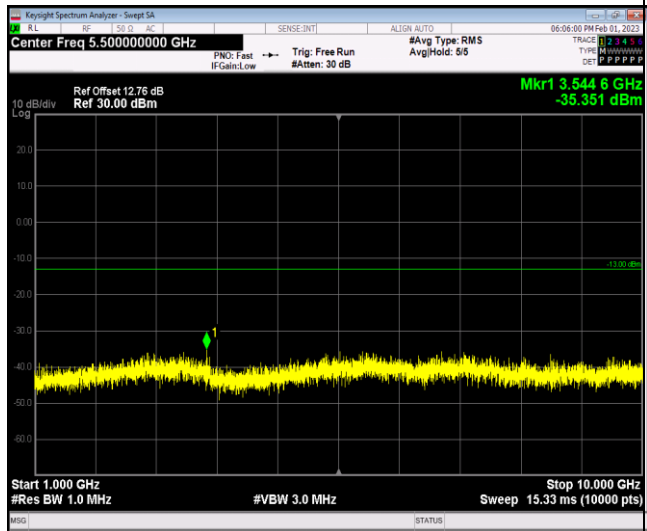
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.

## Test Graphs

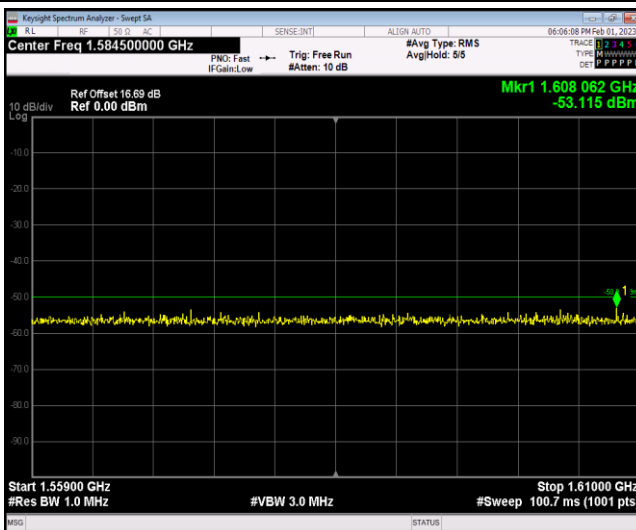
Band13-5MHz-QPSK-23205-1RB#0-Range1:30~100  
0MHz



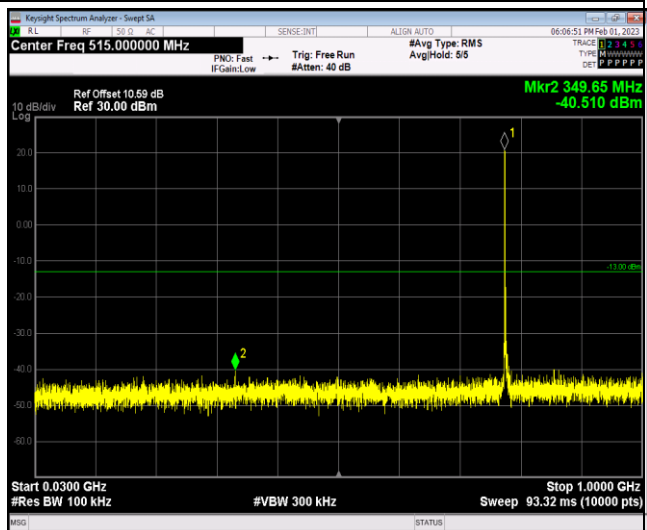
Band13-5MHz-QPSK-23205-1RB#0-Range2:1000~  
10000MHz



Band13-5MHz-QPSK-23205-1RB#0-Range3:1559~1  
610MHz

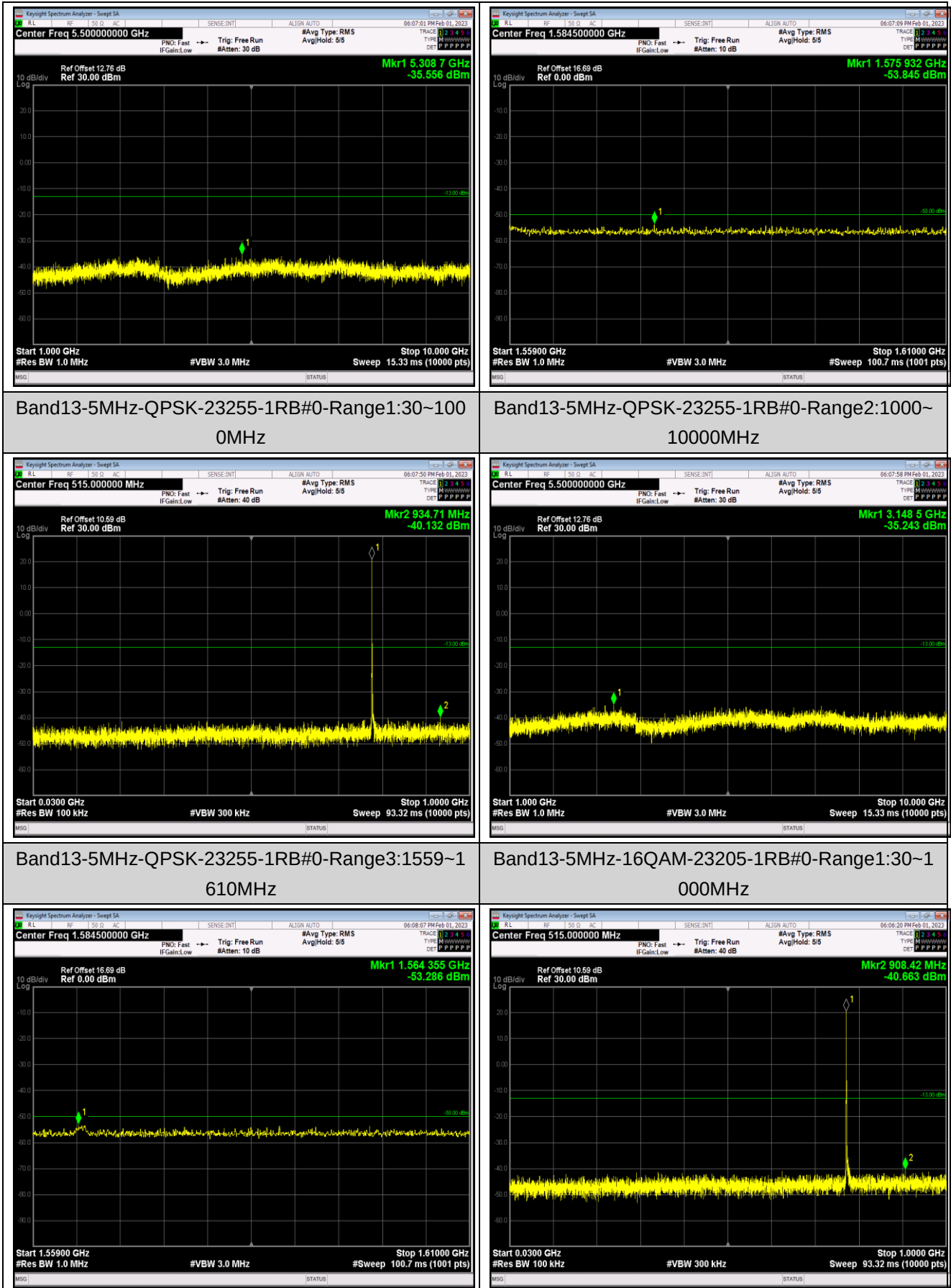


Band13-5MHz-QPSK-23230-1RB#0-Range1:30~10  
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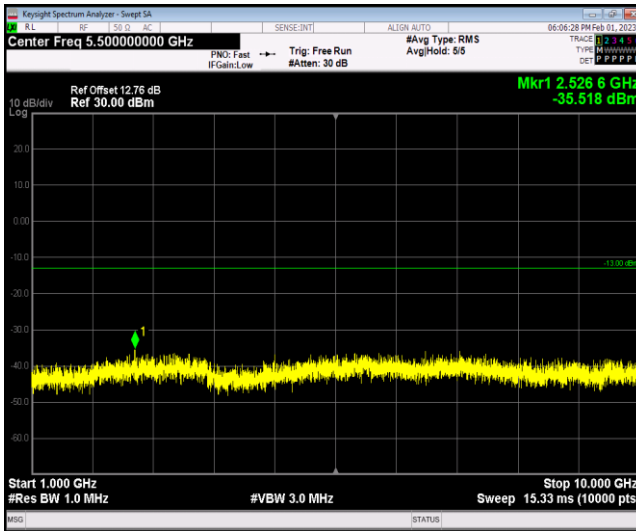


Band13-5MHz-QPSK-23230-1RB#0-Range2:1000~1  
0000MHz

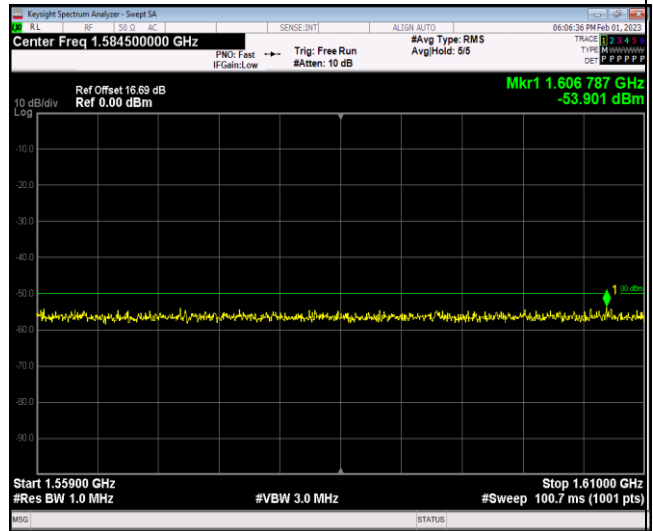
Band13-5MHz-QPSK-23230-1RB#0-Range3:1559~  
1610MHz



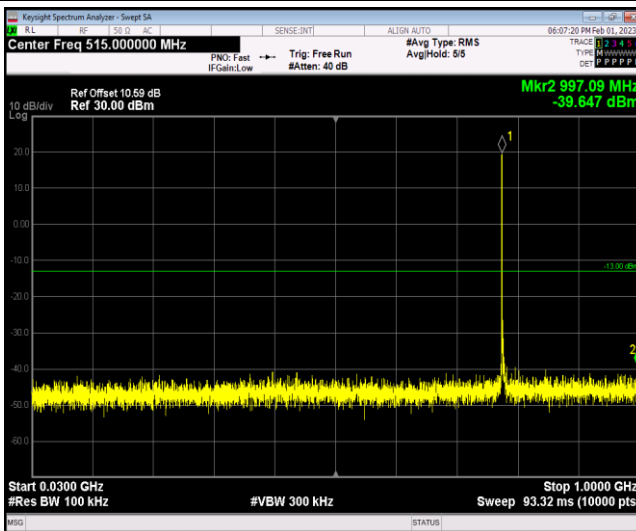
Band13-5MHz-16QAM-23205-1RB#0-Range2:1000~10000MHz



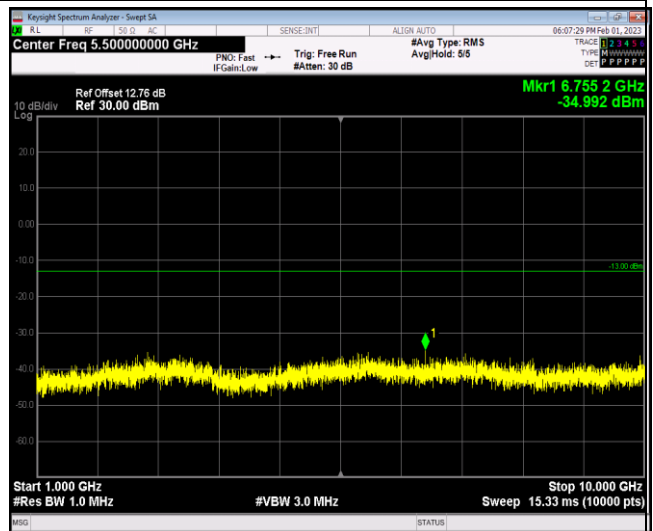
Band13-5MHz-16QAM-23205-1RB#0-Range3:1559~1610MHz



Band13-5MHz-16QAM-23230-1RB#0-Range1:30~1000MHz

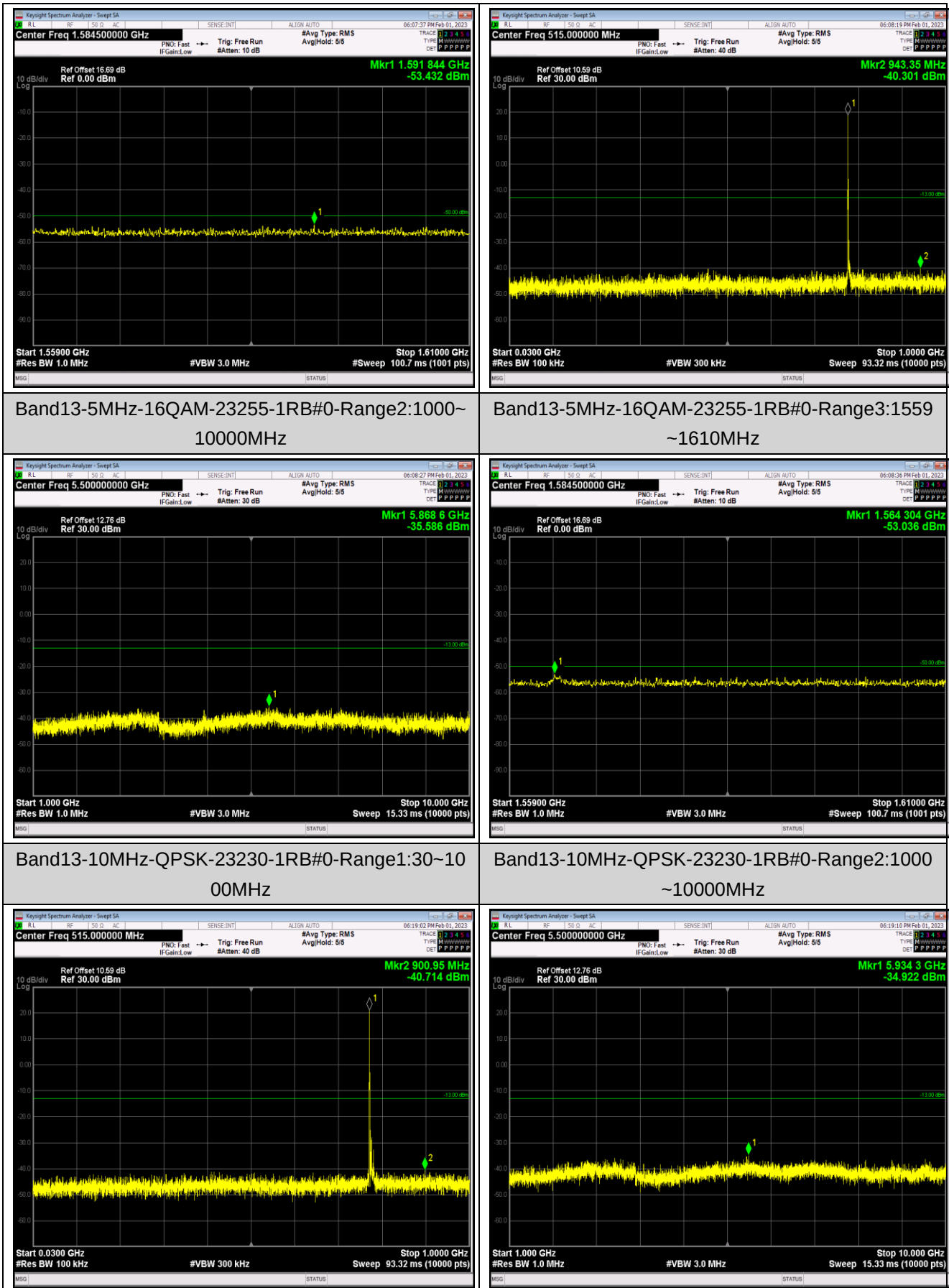


Band13-5MHz-16QAM-23230-1RB#0-Range2:1000~10000MHz

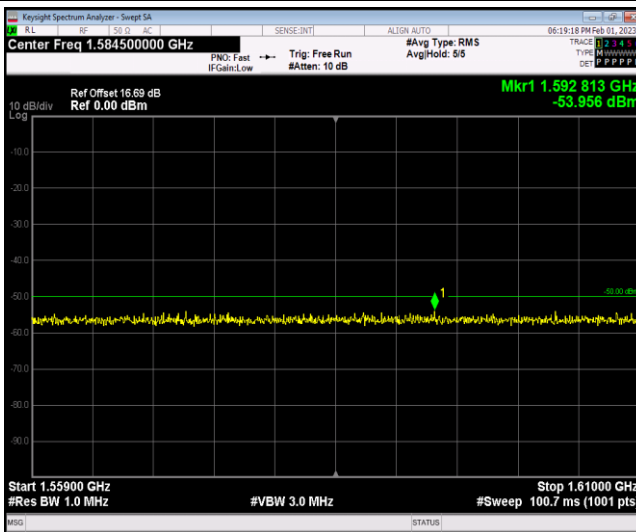


Band13-5MHz-16QAM-23230-1RB#0-Range3:1559~1610MHz

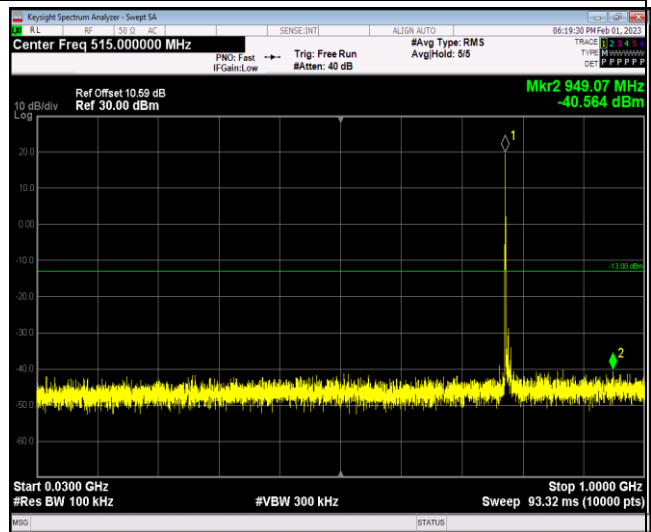
Band13-5MHz-16QAM-23255-1RB#0-Range1:30~1000MHz



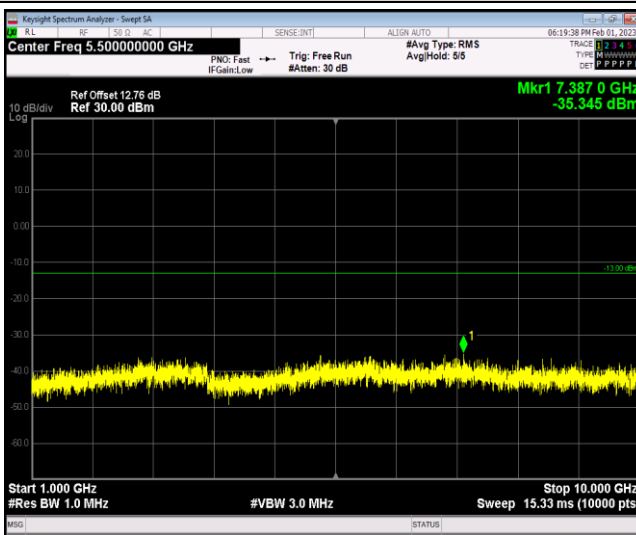
Band13-10MHz-QPSK-23230-1RB#0-Range3:1559~1610MHz



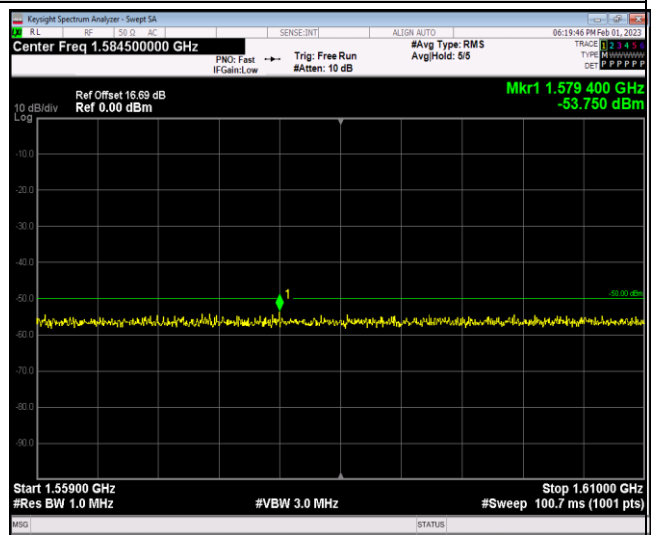
Band13-10MHz-16QAM-23230-1RB#0-Range1:30~1000MHz



Band13-10MHz-16QAM-23230-1RB#0-Range2:1000~10000MHz



Band13-10MHz-16QAM-23230-1RB#0-Range3:1559~1610MHz



## Appendix F: Frequency Stability

### Test Result

LTE Band 13 part:

| Reference Frequency: LTE Band 13(10MHz) Middle channel=23230 Frequency=782.0MHz                                  |                      |                 |           |                                    |        |
|------------------------------------------------------------------------------------------------------------------|----------------------|-----------------|-----------|------------------------------------|--------|
| Temperature                                                                                                      |                      |                 |           |                                    |        |
| Power supplied (Vdc)                                                                                             | Temperature (°C)     | Frequency error |           | Limit (ppm)                        | Result |
|                                                                                                                  |                      | Hz              | ppm       |                                    |        |
| QPSK                                                                                                             |                      |                 |           |                                    |        |
| 3.85                                                                                                             | -30                  | -9.44           | -0.012072 | Within authorized band for Band 13 | Pass   |
|                                                                                                                  | -20                  | -7.50           | -0.009591 |                                    |        |
|                                                                                                                  | -10                  | -10.93          | -0.013977 |                                    |        |
|                                                                                                                  | 0                    | -11.84          | -0.015141 |                                    |        |
|                                                                                                                  | 10                   | -7.35           | -0.009399 |                                    |        |
|                                                                                                                  | 20                   | -3.85           | -0.004923 |                                    |        |
|                                                                                                                  | 30                   | -14.42          | -0.018440 |                                    |        |
|                                                                                                                  | 40                   | -10.00          | -0.012788 |                                    |        |
|                                                                                                                  | 50                   | -12.30          | -0.015729 |                                    |        |
| 16QAM                                                                                                            |                      |                 |           |                                    |        |
| 3.85                                                                                                             | -30                  | -10.31          | -0.013184 | Within authorized band for Band 13 | Pass   |
|                                                                                                                  | -20                  | -11.64          | -0.014885 |                                    |        |
|                                                                                                                  | -10                  | -4.42           | -0.005652 |                                    |        |
|                                                                                                                  | 0                    | -11.86          | -0.015166 |                                    |        |
|                                                                                                                  | 10                   | -13.29          | -0.016995 |                                    |        |
|                                                                                                                  | 20                   | -6.85           | -0.008760 |                                    |        |
|                                                                                                                  | 30                   | -10.39          | -0.013286 |                                    |        |
|                                                                                                                  | 40                   | -7.15           | -0.009143 |                                    |        |
|                                                                                                                  | 50                   | -3.88           | -0.004962 |                                    |        |
| Voltage                                                                                                          |                      |                 |           |                                    |        |
| Temperature (°C)                                                                                                 | Power supplied (Vdc) | Frequency error |           | Limit (ppm)                        | Result |
|                                                                                                                  |                      | Hz              | ppm       |                                    |        |
| QPSK                                                                                                             |                      |                 |           |                                    |        |
| 25                                                                                                               | 3.45                 | -9.47           | -0.012110 | Within authorized band for Band 13 | Pass   |
|                                                                                                                  | 3.85                 | -12.80          | -0.016368 |                                    |        |
|                                                                                                                  | 4.35                 | -8.60           | -0.010997 |                                    |        |
| 16QAM                                                                                                            |                      |                 |           |                                    |        |
| 25                                                                                                               | 3.45                 | -6.52           | -0.008338 | Within authorized band for Band 13 | Pass   |
|                                                                                                                  | 3.85                 | -10.26          | -0.013120 |                                    |        |
|                                                                                                                  | 4.35                 | -11.52          | -0.014731 |                                    |        |
| Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report. |                      |                 |           |                                    |        |

## Appendix G: Modulation Characteristics

### Test Result

| Band   | Bandwidth | Modulation | Channel | RB Configuration | Result | Verdict |
|--------|-----------|------------|---------|------------------|--------|---------|
| Band13 | 10MHz     | QPSK       | 23230   | 50RB#0           | PASS   | PASS    |
| Band13 | 10MHz     | 16QAM      | 23230   | 50RB#0           | PASS   | PASS    |
| Band13 | 10MHz     | 64QAM      | 23230   | 50RB#0           | PASS   | PASS    |

*Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.*

## Test Graphs

