

## Appendix for LTE Band 13

### Appendix A: Average Power Output Data

#### Test Result

| Band   | Bandwidth | Modulation | Channel | RB Configuration | Result(dBm) | Verdict |
|--------|-----------|------------|---------|------------------|-------------|---------|
| Band13 | 5MHz      | QPSK       | 23205   | 1RB#0            | 23.64       | PASS    |
| Band13 | 5MHz      | QPSK       | 23205   | 1RB#12           | 23.52       | PASS    |
| Band13 | 5MHz      | QPSK       | 23205   | 1RB#24           | 23.55       | PASS    |
| Band13 | 5MHz      | QPSK       | 23205   | 12RB#0           | 22.65       | PASS    |
| Band13 | 5MHz      | QPSK       | 23205   | 12RB#6           | 22.69       | PASS    |
| Band13 | 5MHz      | QPSK       | 23205   | 12RB#13          | 22.63       | PASS    |
| Band13 | 5MHz      | QPSK       | 23205   | 25RB#0           | 22.66       | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 1RB#0            | 23.61       | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 1RB#12           | 23.61       | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 1RB#24           | 23.47       | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 12RB#0           | 22.61       | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 12RB#6           | 22.57       | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 12RB#13          | 22.49       | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 25RB#0           | 22.57       | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 1RB#0            | 23.56       | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 1RB#12           | 23.47       | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 1RB#24           | 23.33       | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 12RB#0           | 22.45       | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 12RB#6           | 22.43       | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 12RB#13          | 22.38       | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 25RB#0           | 22.45       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 1RB#0            | 22.69       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 1RB#12           | 22.75       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 1RB#24           | 22.71       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 12RB#0           | 21.74       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 12RB#6           | 21.69       | PASS    |

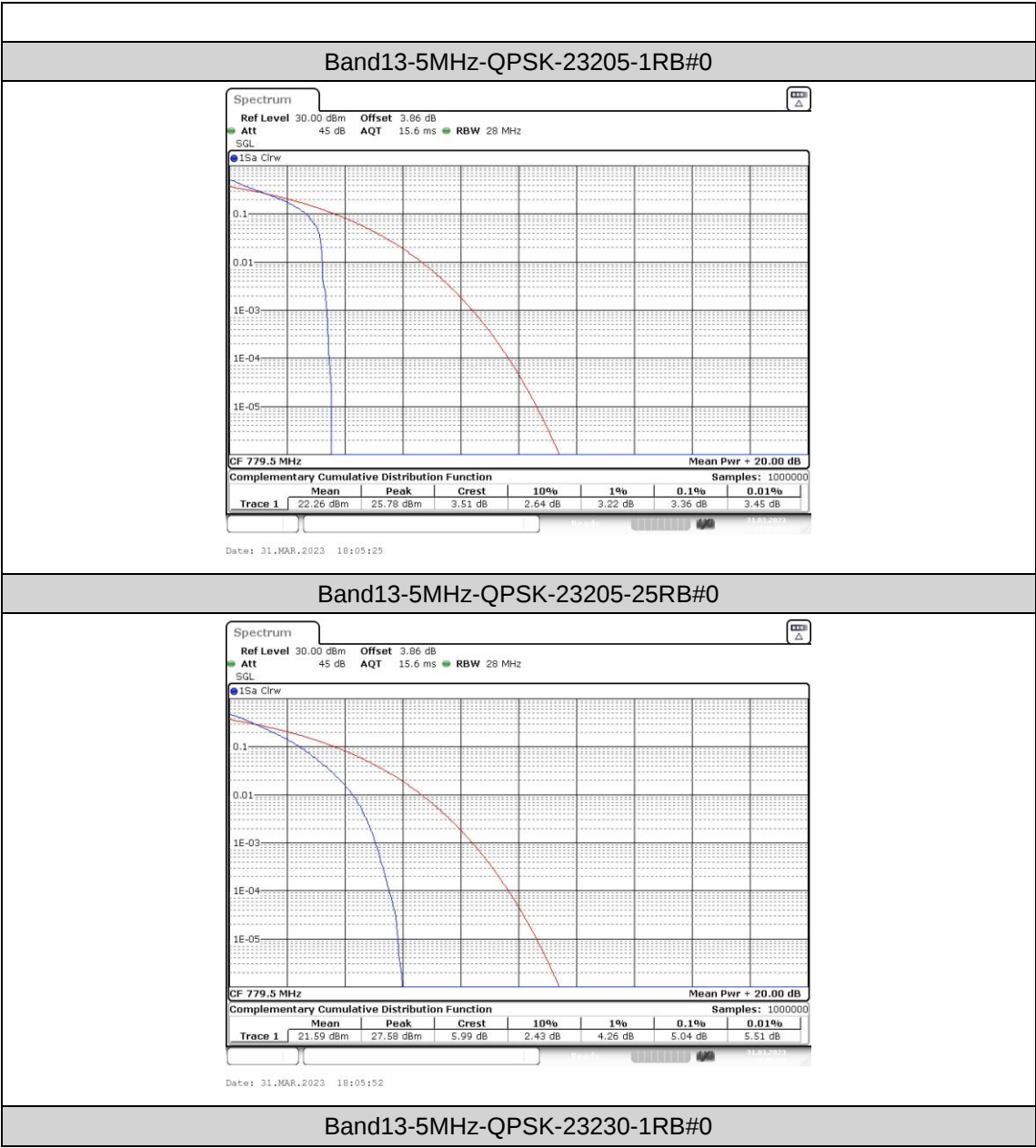
|        |       |       |       |         |       |      |
|--------|-------|-------|-------|---------|-------|------|
| Band13 | 5MHz  | 16QAM | 23205 | 12RB#13 | 21.64 | PASS |
| Band13 | 5MHz  | 16QAM | 23205 | 25RB#0  | 21.65 | PASS |
| Band13 | 5MHz  | 16QAM | 23230 | 1RB#0   | 22.84 | PASS |
| Band13 | 5MHz  | 16QAM | 23230 | 1RB#12  | 22.86 | PASS |
| Band13 | 5MHz  | 16QAM | 23230 | 1RB#24  | 22.69 | PASS |
| Band13 | 5MHz  | 16QAM | 23230 | 12RB#0  | 21.66 | PASS |
| Band13 | 5MHz  | 16QAM | 23230 | 12RB#6  | 21.65 | PASS |
| Band13 | 5MHz  | 16QAM | 23230 | 12RB#13 | 21.60 | PASS |
| Band13 | 5MHz  | 16QAM | 23230 | 25RB#0  | 21.58 | PASS |
| Band13 | 5MHz  | 16QAM | 23255 | 1RB#0   | 22.48 | PASS |
| Band13 | 5MHz  | 16QAM | 23255 | 1RB#12  | 22.58 | PASS |
| Band13 | 5MHz  | 16QAM | 23255 | 1RB#24  | 22.49 | PASS |
| Band13 | 5MHz  | 16QAM | 23255 | 12RB#0  | 21.49 | PASS |
| Band13 | 5MHz  | 16QAM | 23255 | 12RB#6  | 21.52 | PASS |
| Band13 | 5MHz  | 16QAM | 23255 | 12RB#13 | 21.48 | PASS |
| Band13 | 5MHz  | 16QAM | 23255 | 25RB#0  | 21.52 | PASS |
| Band13 | 10MHz | QPSK  | 23230 | 1RB#0   | 23.68 | PASS |
| Band13 | 10MHz | QPSK  | 23230 | 1RB#24  | 23.47 | PASS |
| Band13 | 10MHz | QPSK  | 23230 | 1RB#49  | 23.29 | PASS |
| Band13 | 10MHz | QPSK  | 23230 | 25RB#0  | 22.68 | PASS |
| Band13 | 10MHz | QPSK  | 23230 | 25RB#12 | 22.65 | PASS |
| Band13 | 10MHz | QPSK  | 23230 | 25RB#25 | 22.54 | PASS |
| Band13 | 10MHz | QPSK  | 23230 | 50RB#0  | 22.63 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 1RB#0   | 23.04 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 1RB#24  | 22.79 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 1RB#49  | 22.68 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 25RB#0  | 21.70 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 25RB#12 | 21.68 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 25RB#25 | 21.51 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 50RB#0  | 21.60 | PASS |

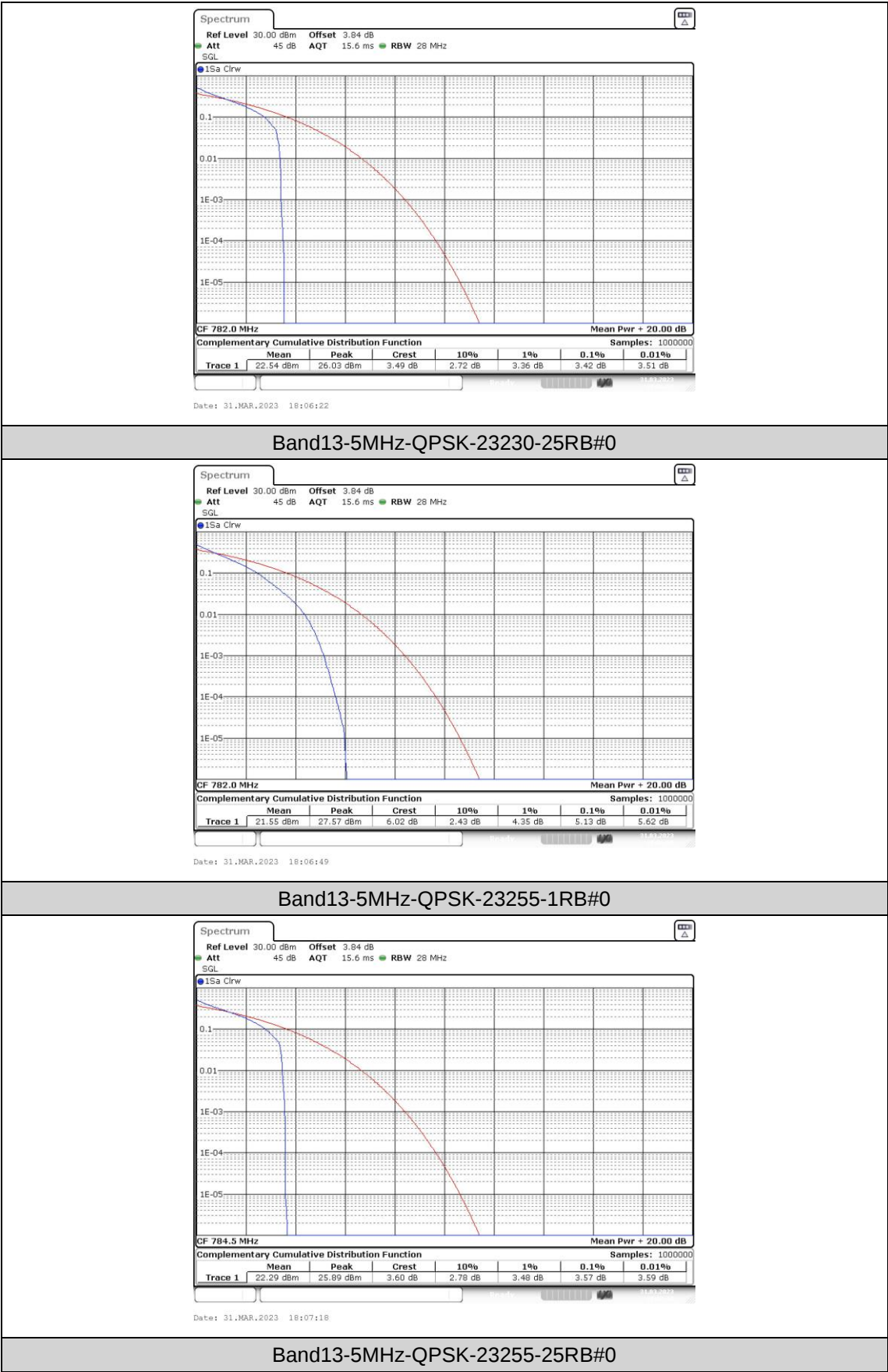
## Appendix B: Peak-to-Average Ratio(CCDF)

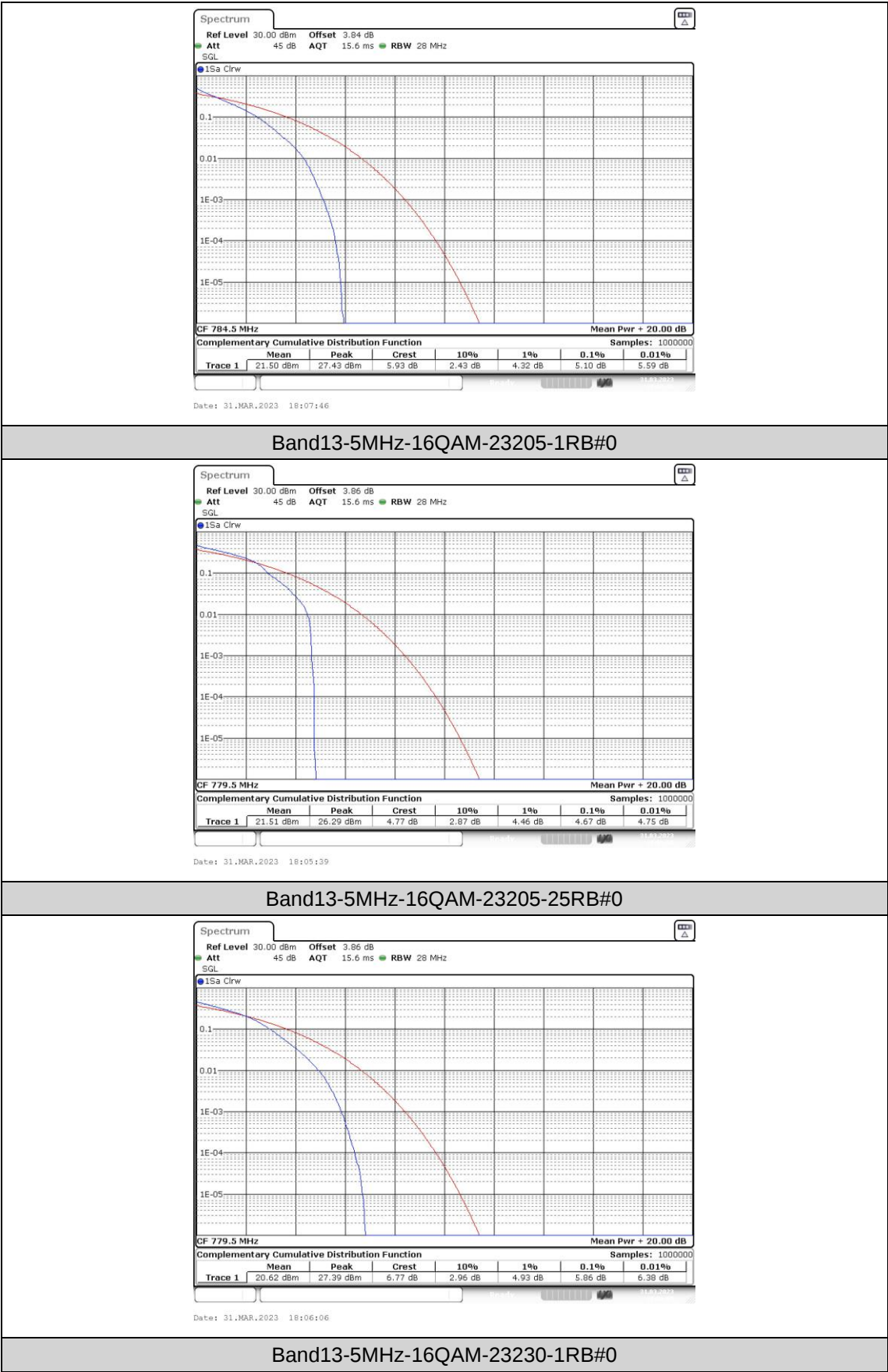
### Test Result

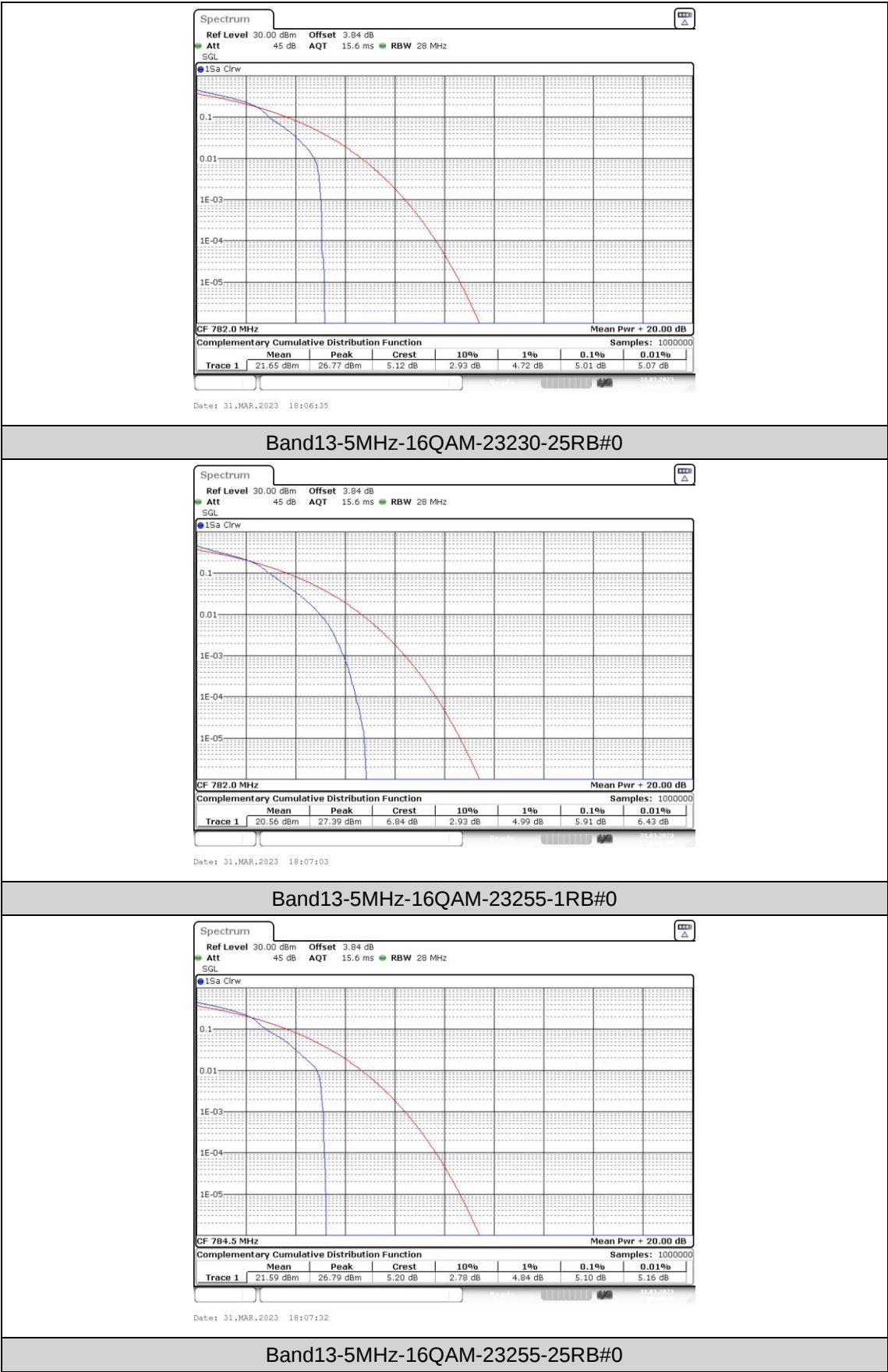
| Band   | Bandwidth | Modulation | Channel | RB Configuration | Result(dB) | Limit(dB) | Verdict |
|--------|-----------|------------|---------|------------------|------------|-----------|---------|
| Band13 | 5MHz      | QPSK       | 23205   | 1RB#0            | 3.36       | 13        | PASS    |
| Band13 | 5MHz      | QPSK       | 23205   | 25RB#0           | 5.04       | 13        | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 1RB#0            | 3.42       | 13        | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 25RB#0           | 5.13       | 13        | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 1RB#0            | 3.57       | 13        | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 25RB#0           | 5.10       | 13        | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 1RB#0            | 4.67       | 13        | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 25RB#0           | 5.86       | 13        | PASS    |
| Band13 | 5MHz      | 16QAM      | 23230   | 1RB#0            | 5.01       | 13        | PASS    |
| Band13 | 5MHz      | 16QAM      | 23230   | 25RB#0           | 5.91       | 13        | PASS    |
| Band13 | 5MHz      | 16QAM      | 23255   | 1RB#0            | 5.10       | 13        | PASS    |
| Band13 | 5MHz      | 16QAM      | 23255   | 25RB#0           | 5.88       | 13        | PASS    |
| Band13 | 10MHz     | QPSK       | 23230   | 1RB#0            | 3.25       | 13        | PASS    |
| Band13 | 10MHz     | QPSK       | 23230   | 50RB#0           | 5.01       | 13        | PASS    |
| Band13 | 10MHz     | 16QAM      | 23230   | 1RB#0            | 4.58       | 13        | PASS    |
| Band13 | 10MHz     | 16QAM      | 23230   | 50RB#0           | 5.91       | 13        | PASS    |

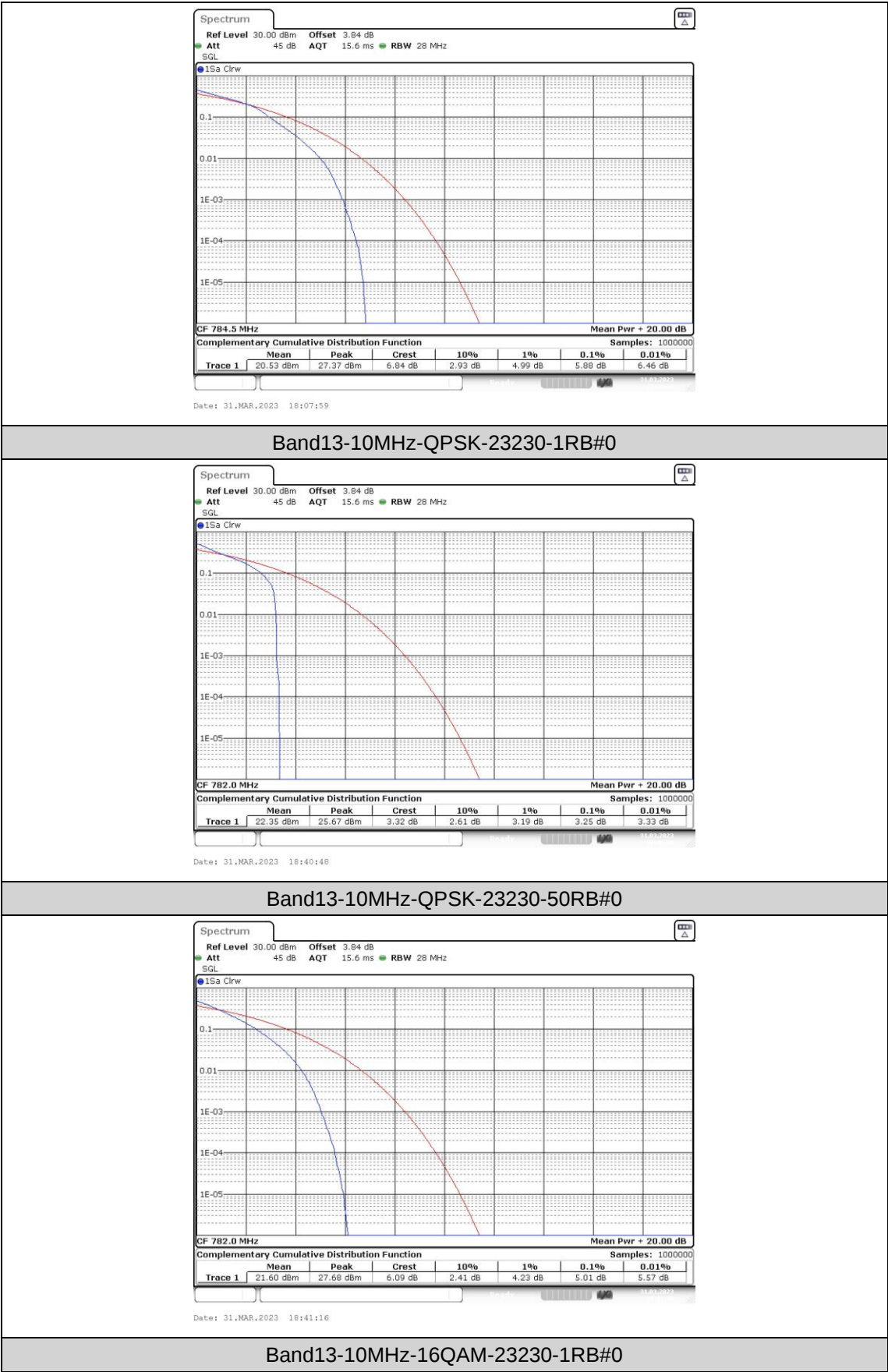
Test Graphs

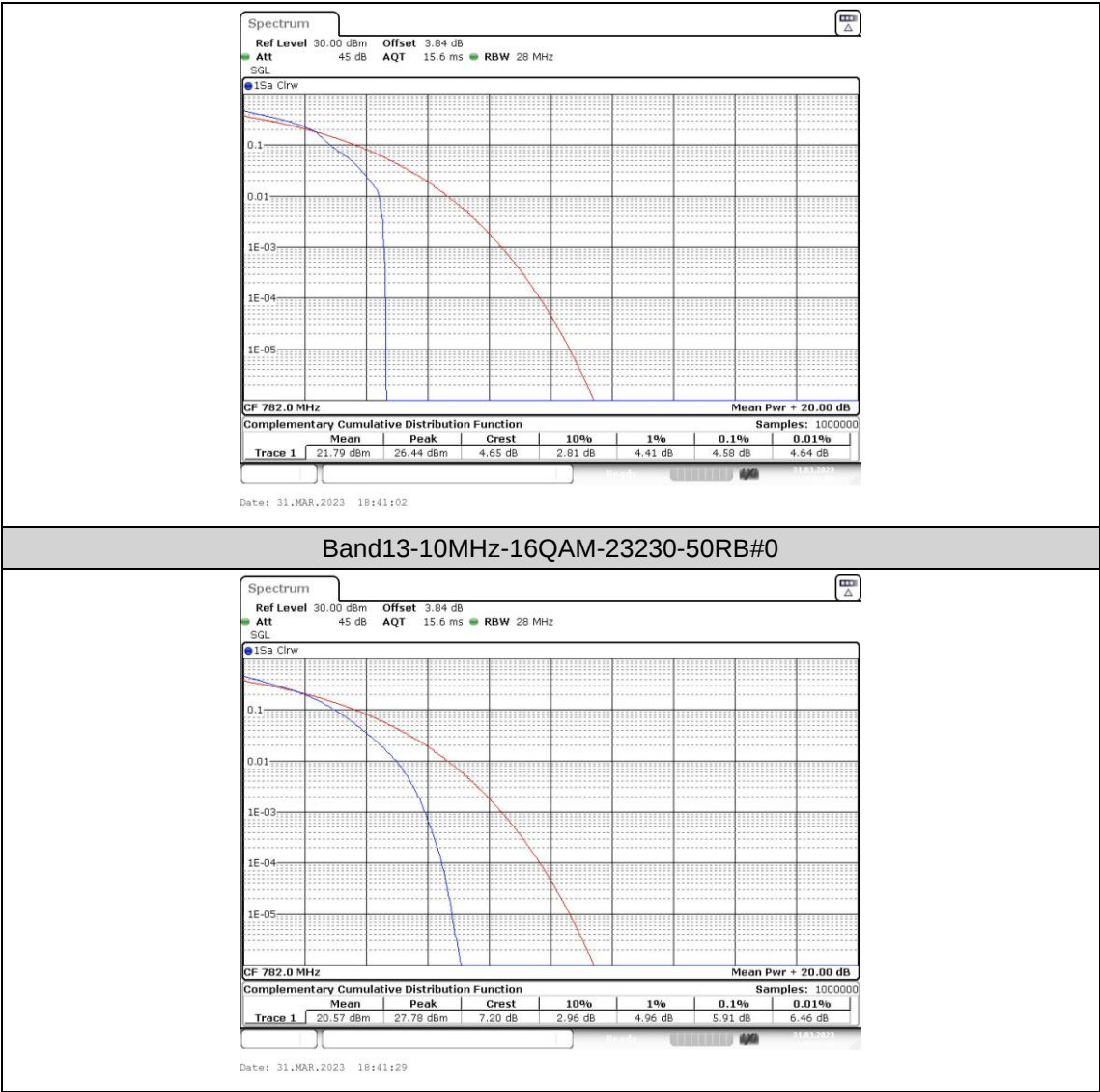










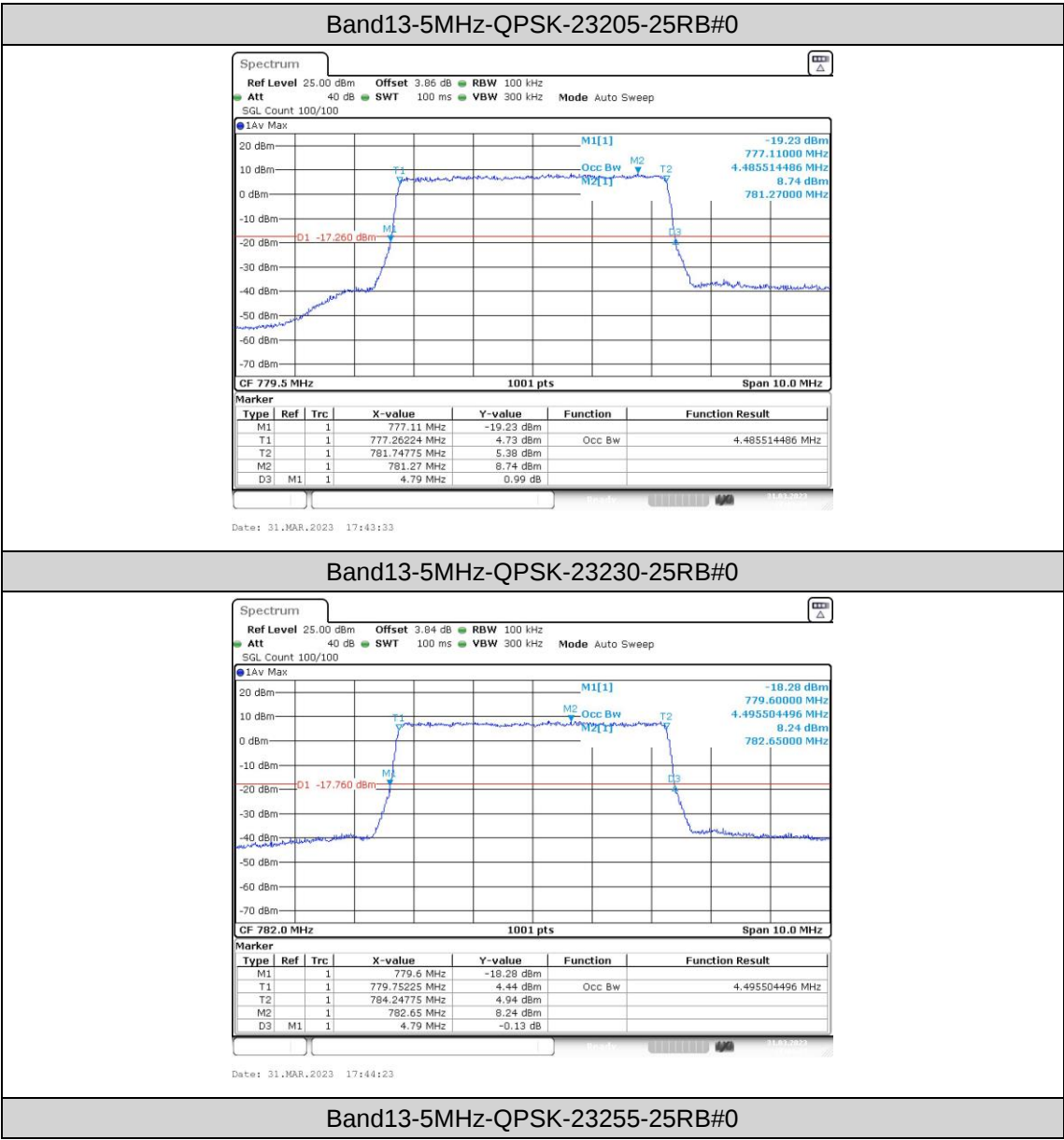


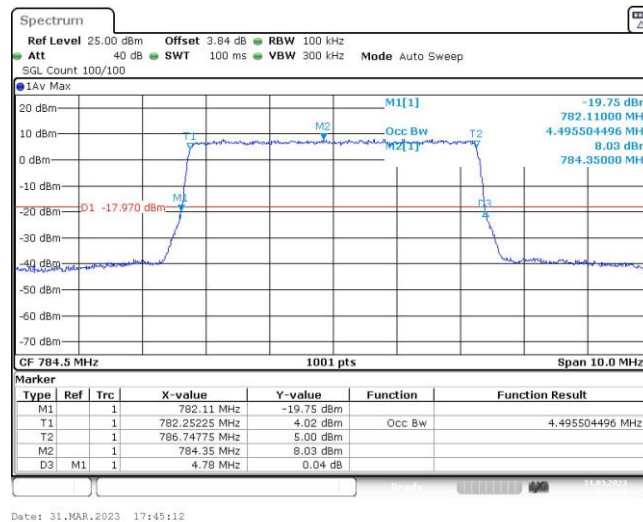
## Appendix C: 26dB Bandwidth and Occupied Bandwidth

### Test Result

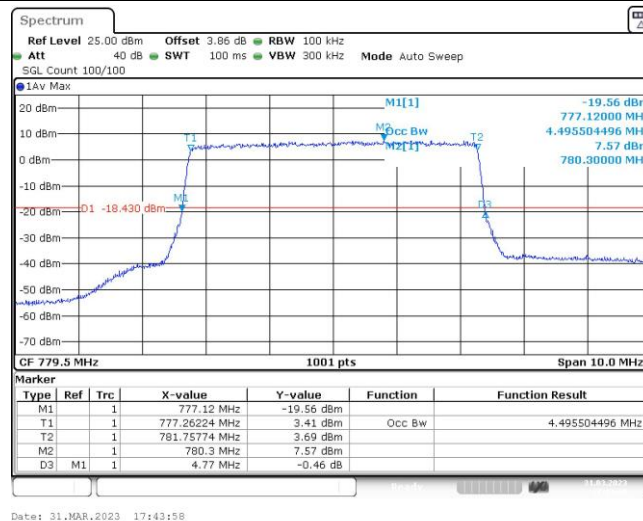
| Band   | Bandwidth | Modulation | Channel | RB Configuration | Occupied Bandwidth (MHz) | 26dB Bandwidth (MHz) | Verdict |
|--------|-----------|------------|---------|------------------|--------------------------|----------------------|---------|
| Band13 | 5MHz      | QPSK       | 23205   | 25RB#0           | 4.486                    | 4.79                 | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 25RB#0           | 4.496                    | 4.79                 | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 25RB#0           | 4.496                    | 4.78                 | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 25RB#0           | 4.496                    | 4.77                 | PASS    |
| Band13 | 5MHz      | 16QAM      | 23230   | 25RB#0           | 4.505                    | 4.78                 | PASS    |
| Band13 | 5MHz      | 16QAM      | 23255   | 25RB#0           | 4.505                    | 4.79                 | PASS    |
| Band13 | 10MHz     | QPSK       | 23230   | 50RB#0           | 8.952                    | 9.53                 | PASS    |
| Band13 | 10MHz     | 16QAM      | 23230   | 50RB#0           | 8.952                    | 9.53                 | PASS    |

Test Graphs

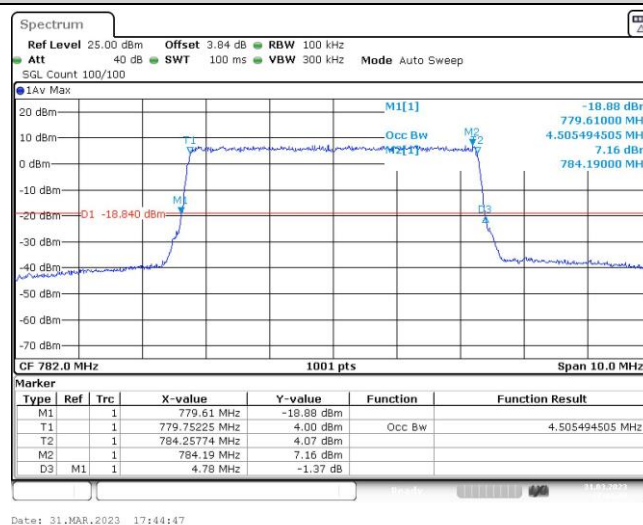




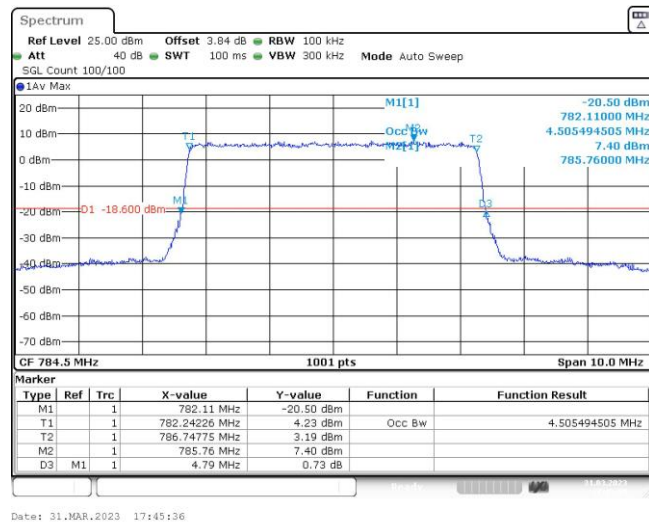
## Band13-5MHz-16QAM-23205-25RB#0



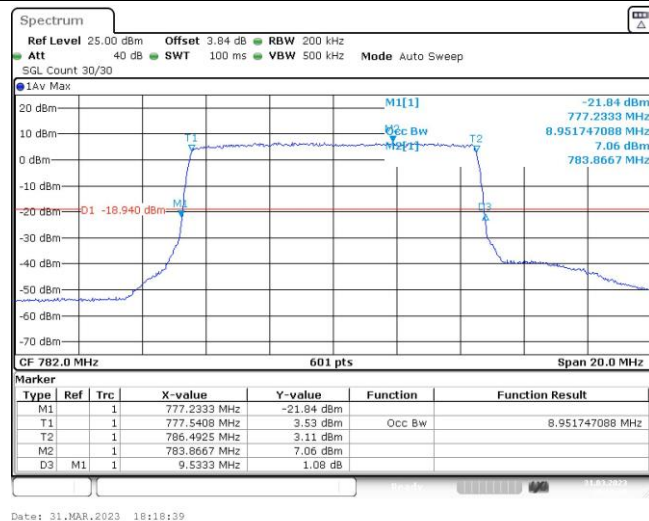
## Band13-5MHz-16QAM-23230-25RB#0



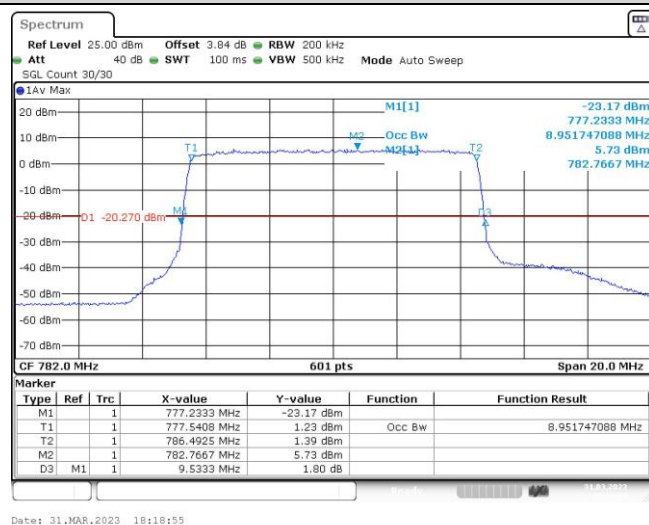
## Band13-5MHz-16QAM-23255-25RB#0



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



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

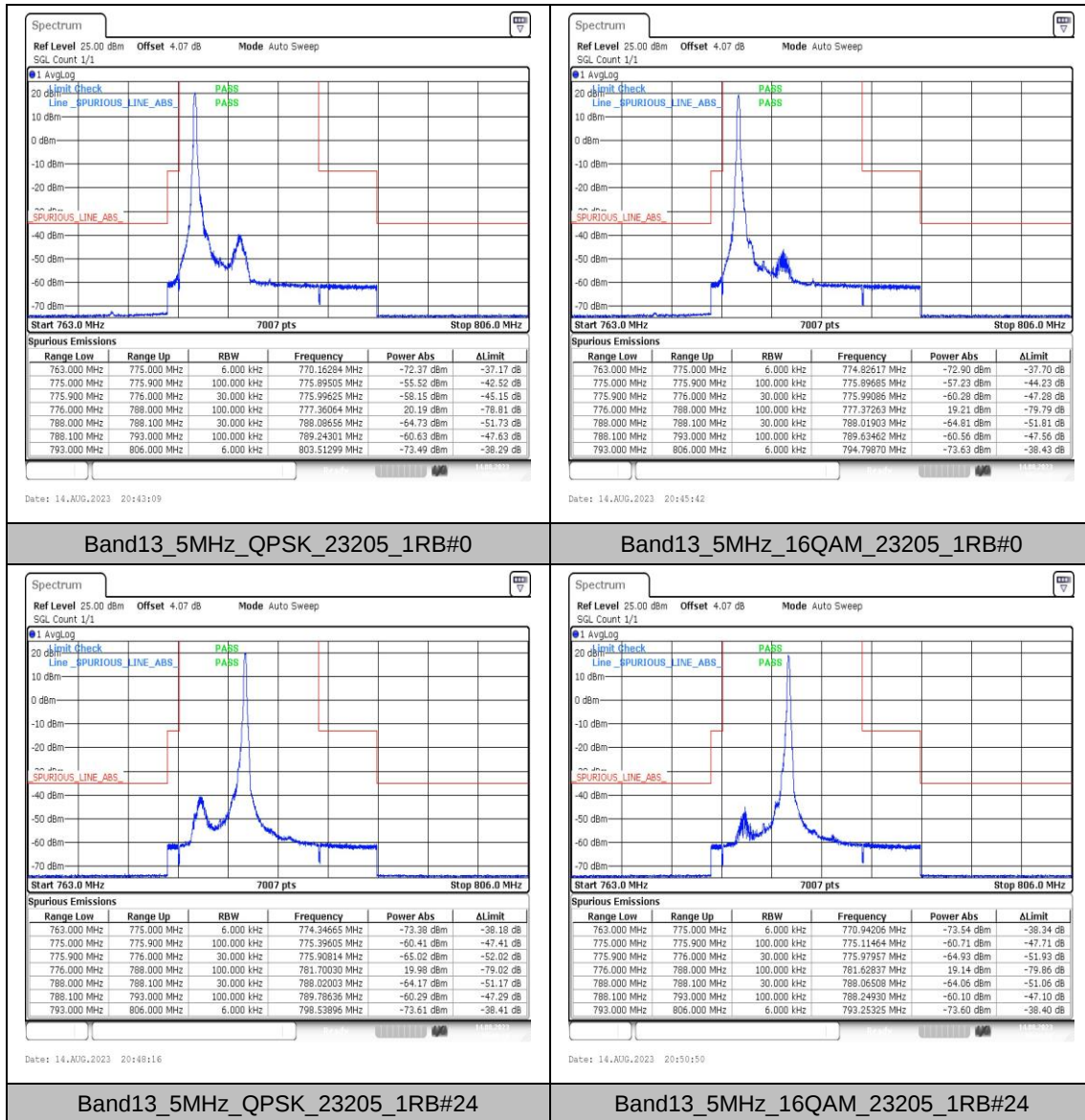


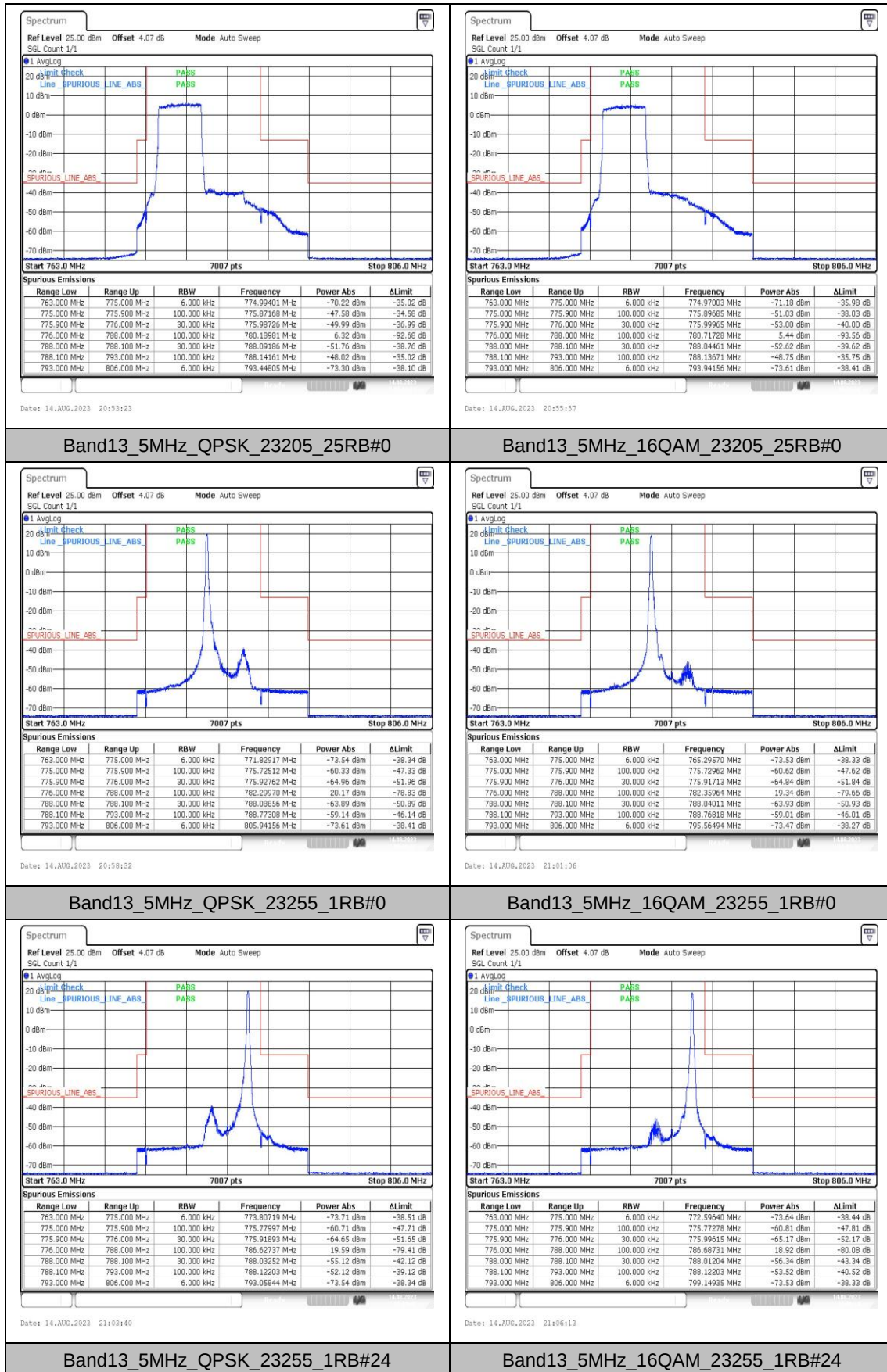
## Appendix D: Band Edge

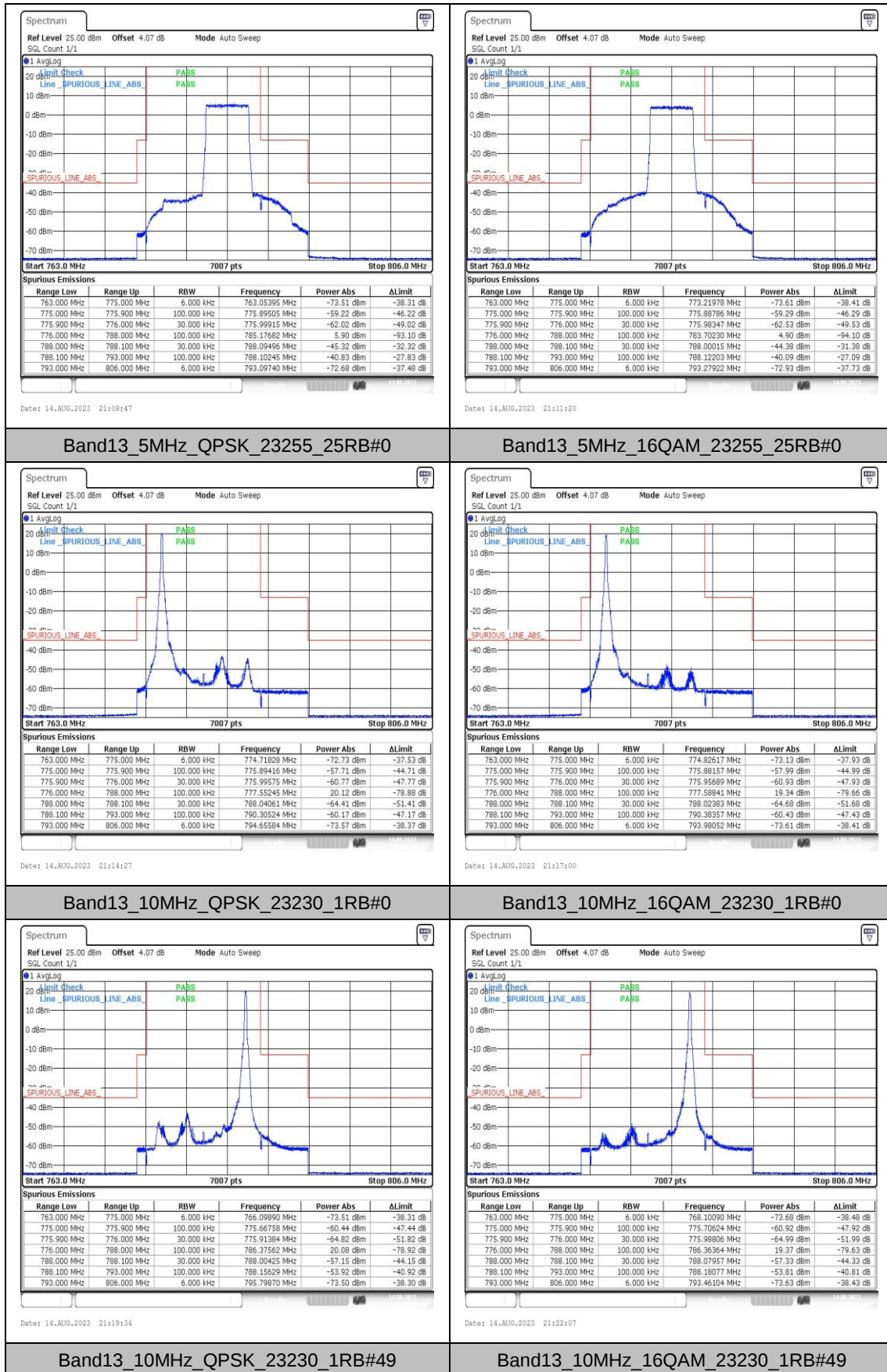
### Test Result

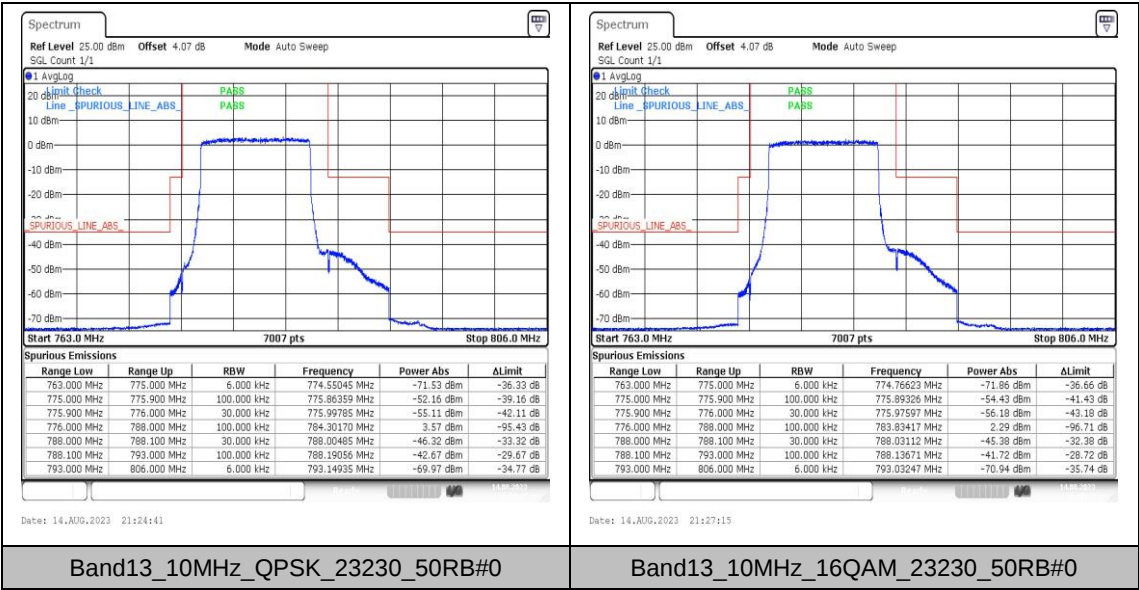
| Band   | Bandwidth | Modulation | Channel | RB Configuration | Result(dBm) | Verdict |
|--------|-----------|------------|---------|------------------|-------------|---------|
| Band13 | 5MHz      | QPSK       | 23205   | 1RB#0            | -72.37      | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 1RB#0            | -72.90      | PASS    |
| Band13 | 5MHz      | QPSK       | 23205   | 1RB#24           | -73.38      | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 1RB#24           | -73.54      | PASS    |
| Band13 | 5MHz      | QPSK       | 23205   | 25RB#0           | -47.58      | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 25RB#0           | -48.75      | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 1RB#0            | -73.54      | PASS    |
| Band13 | 5MHz      | 16QAM      | 23255   | 1RB#0            | -73.47      | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 1RB#24           | -73.54      | PASS    |
| Band13 | 5MHz      | 16QAM      | 23255   | 1RB#24           | -73.53      | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 25RB#0           | -40.83      | PASS    |
| Band13 | 5MHz      | 16QAM      | 23255   | 25RB#0           | -40.09      | PASS    |
| Band13 | 10MHz     | QPSK       | 23230   | 1RB#0            | -72.73      | PASS    |
| Band13 | 10MHz     | 16QAM      | 23230   | 1RB#0            | -73.13      | PASS    |
| Band13 | 10MHz     | QPSK       | 23230   | 1RB#49           | -73.50      | PASS    |
| Band13 | 10MHz     | 16QAM      | 23230   | 1RB#49           | -73.63      | PASS    |
| Band13 | 10MHz     | QPSK       | 23230   | 50RB#0           | -42.67      | PASS    |
| Band13 | 10MHz     | 16QAM      | 23230   | 50RB#0           | -41.72      | PASS    |

## Test Graphs









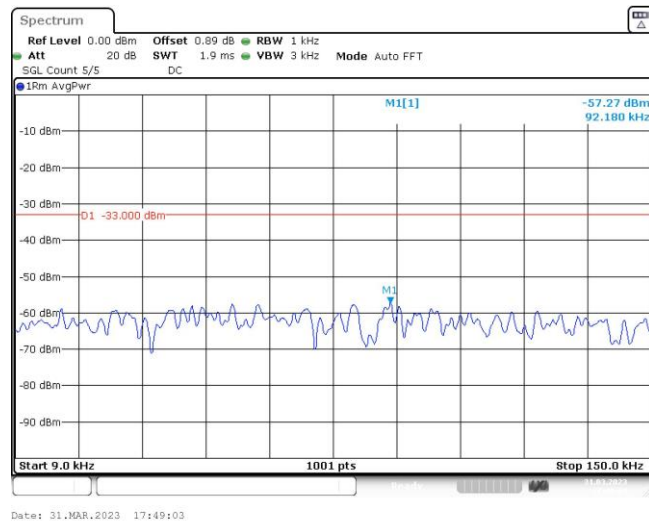
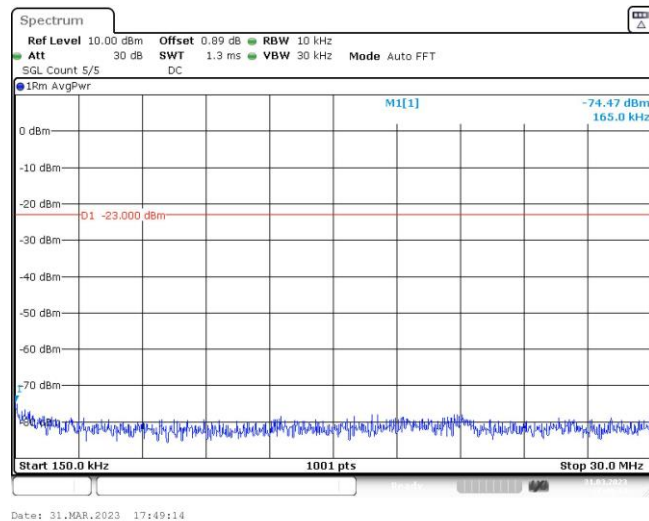
## Appendix E: Conducted Spurious Emission

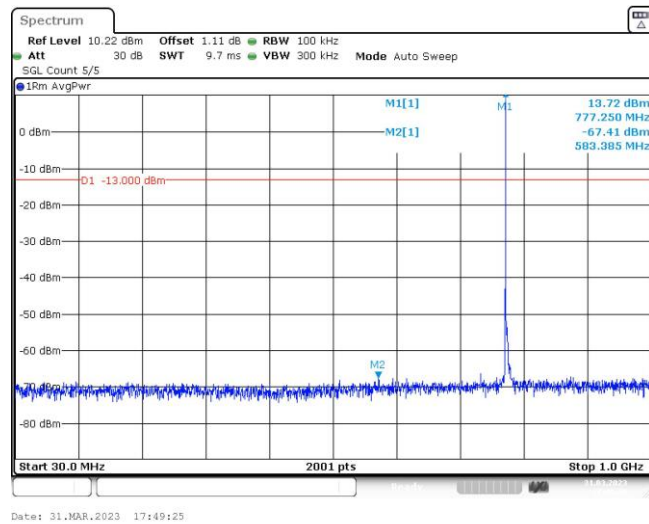
### Test Result

| Band       | Bandwidth | Modulation | Channel | RB Configuration | Frequency Range          | Result (dBm) | Verdict  |
|------------|-----------|------------|---------|------------------|--------------------------|--------------|----------|
| Band1<br>3 | 5MHz      | QPSK       | 23205   | 1RB#0            | Range1:0.009~0.15M<br>Hz | -57.2<br>7   | PAS<br>S |
| Band1<br>3 | 5MHz      | QPSK       | 23205   | 1RB#0            | Range2:0.15~30MHz        | -74.4<br>7   | PAS<br>S |
| Band1<br>3 | 5MHz      | QPSK       | 23205   | 1RB#0            | Range3:30~1000MHz        | -67.4<br>1   | PAS<br>S |
| Band1<br>3 | 5MHz      | QPSK       | 23205   | 1RB#0            | Range4:1000~10000M<br>Hz | -48.1<br>2   | PAS<br>S |
| Band1<br>3 | 5MHz      | QPSK       | 23230   | 1RB#0            | Range1:0.009~0.15M<br>Hz | -55.3<br>2   | PAS<br>S |
| Band1<br>3 | 5MHz      | QPSK       | 23230   | 1RB#0            | Range2:0.15~30MHz        | -73.5<br>5   | PAS<br>S |
| Band1<br>3 | 5MHz      | QPSK       | 23230   | 1RB#0            | Range3:30~1000MHz        | -66.3<br>7   | PAS<br>S |
| Band1<br>3 | 5MHz      | QPSK       | 23230   | 1RB#0            | Range4:1000~10000M<br>Hz | -45.7<br>5   | PAS<br>S |
| Band1<br>3 | 5MHz      | QPSK       | 23255   | 1RB#0            | Range1:0.009~0.15M<br>Hz | -52.8<br>9   | PAS<br>S |
| Band1<br>3 | 5MHz      | QPSK       | 23255   | 1RB#0            | Range2:0.15~30MHz        | -75.0<br>8   | PAS<br>S |
| Band1<br>3 | 5MHz      | QPSK       | 23255   | 1RB#0            | Range3:30~1000MHz        | -67.2<br>1   | PAS<br>S |
| Band1<br>3 | 5MHz      | QPSK       | 23255   | 1RB#0            | Range4:1000~10000M<br>Hz | -46.0<br>8   | PAS<br>S |
| Band1<br>3 | 5MHz      | 16QAM      | 23205   | 1RB#0            | Range1:0.009~0.15M<br>Hz | -55.7<br>6   | PAS<br>S |
| Band1<br>3 | 5MHz      | 16QAM      | 23205   | 1RB#0            | Range2:0.15~30MHz        | -75.0<br>3   | PAS<br>S |
| Band1<br>3 | 5MHz      | 16QAM      | 23205   | 1RB#0            | Range3:30~1000MHz        | -66.5        | PAS<br>S |
| Band1<br>3 | 5MHz      | 16QAM      | 23205   | 1RB#0            | Range4:1000~10000M<br>Hz | -47.6<br>7   | PAS<br>S |
| Band1<br>3 | 5MHz      | 16QAM      | 23230   | 1RB#0            | Range1:0.009~0.15M<br>Hz | -51.2<br>3   | PAS<br>S |

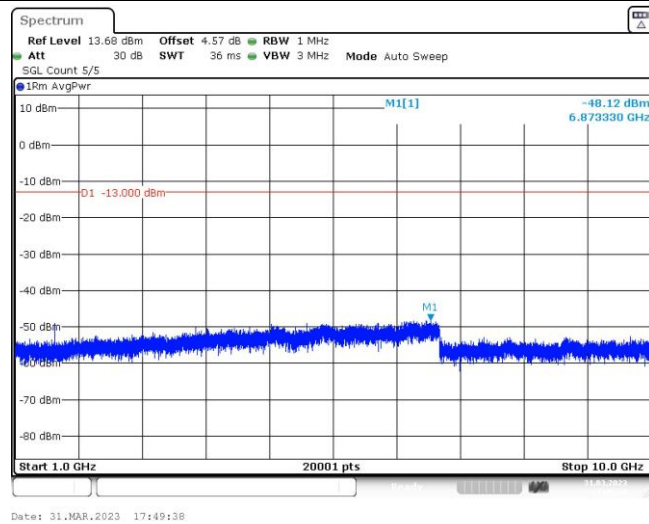
|            |       |       |       |       |                          |            |          |
|------------|-------|-------|-------|-------|--------------------------|------------|----------|
| Band1<br>3 | 5MHz  | 16QAM | 23230 | 1RB#0 | Range2:0.15~30MHz        | -74.5      | PAS<br>S |
| Band1<br>3 | 5MHz  | 16QAM | 23230 | 1RB#0 | Range3:30~1000MHz        | -66.4<br>6 | PAS<br>S |
| Band1<br>3 | 5MHz  | 16QAM | 23230 | 1RB#0 | Range4:1000~10000M<br>Hz | -46.7<br>5 | PAS<br>S |
| Band1<br>3 | 5MHz  | 16QAM | 23255 | 1RB#0 | Range1:0.009~0.15M<br>Hz | -50.1<br>3 | PAS<br>S |
| Band1<br>3 | 5MHz  | 16QAM | 23255 | 1RB#0 | Range2:0.15~30MHz        | -73.9<br>2 | PAS<br>S |
| Band1<br>3 | 5MHz  | 16QAM | 23255 | 1RB#0 | Range3:30~1000MHz        | -67.2<br>2 | PAS<br>S |
| Band1<br>3 | 5MHz  | 16QAM | 23255 | 1RB#0 | Range4:1000~10000M<br>Hz | -45.9<br>7 | PAS<br>S |
| Band1<br>3 | 10MHz | QPSK  | 23230 | 1RB#0 | Range1:0.009~0.15M<br>Hz | -56.0<br>3 | PAS<br>S |
| Band1<br>3 | 10MHz | QPSK  | 23230 | 1RB#0 | Range2:0.15~30MHz        | -75.2<br>2 | PAS<br>S |
| Band1<br>3 | 10MHz | QPSK  | 23230 | 1RB#0 | Range3:30~1000MHz        | -67.3<br>1 | PAS<br>S |
| Band1<br>3 | 10MHz | QPSK  | 23230 | 1RB#0 | Range4:1000~10000M<br>Hz | -47.9<br>6 | PAS<br>S |
| Band1<br>3 | 10MHz | 16QAM | 23230 | 1RB#0 | Range1:0.009~0.15M<br>Hz | -56.3<br>7 | PAS<br>S |
| Band1<br>3 | 10MHz | 16QAM | 23230 | 1RB#0 | Range2:0.15~30MHz        | -74.0<br>3 | PAS<br>S |
| Band1<br>3 | 10MHz | 16QAM | 23230 | 1RB#0 | Range3:30~1000MHz        | -66.8<br>2 | PAS<br>S |
| Band1<br>3 | 10MHz | 16QAM | 23230 | 1RB#0 | Range4:1000~10000M<br>Hz | -47.5<br>7 | PAS<br>S |

## Test Graphs

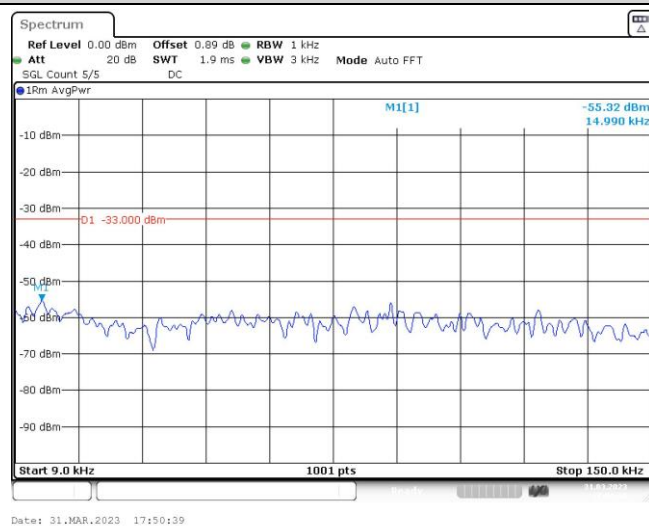
**Band13-5MHz-QPSK-23205-1RB#0-Range1:0.009~0.15MHz****Band13-5MHz-QPSK-23205-1RB#0-Range2:0.15~30MHz****Band13-5MHz-QPSK-23205-1RB#0-Range3:30~1000MHz**



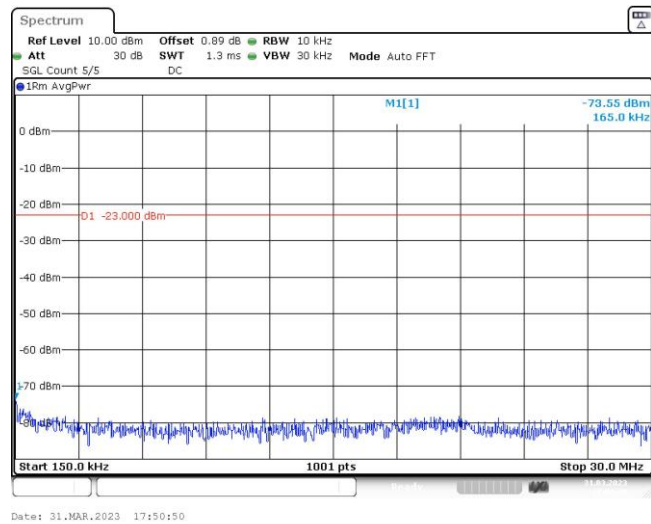
Band13-5MHz-QPSK-23205-1RB#0-Range4:1000~10000MHz



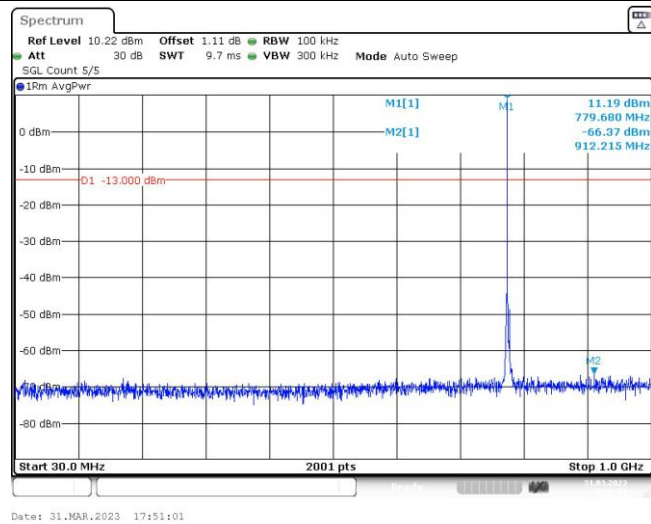
Band13-5MHz-QPSK-23230-1RB#0-Range1:0.009~0.15MHz



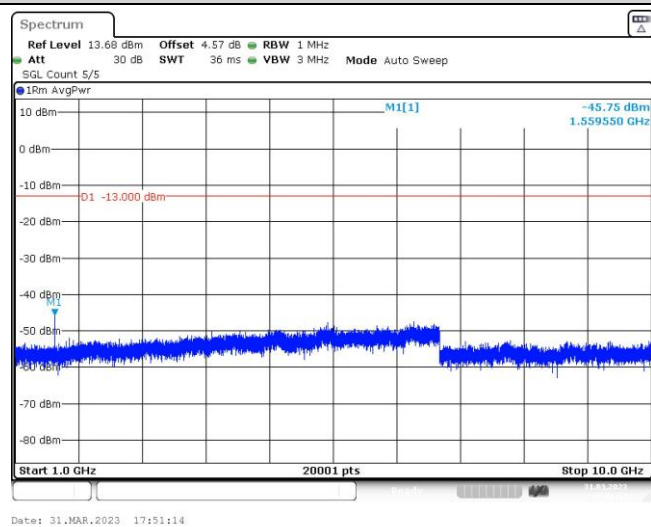
Band13-5MHz-QPSK-23230-1RB#0-Range2:0.15~30MHz



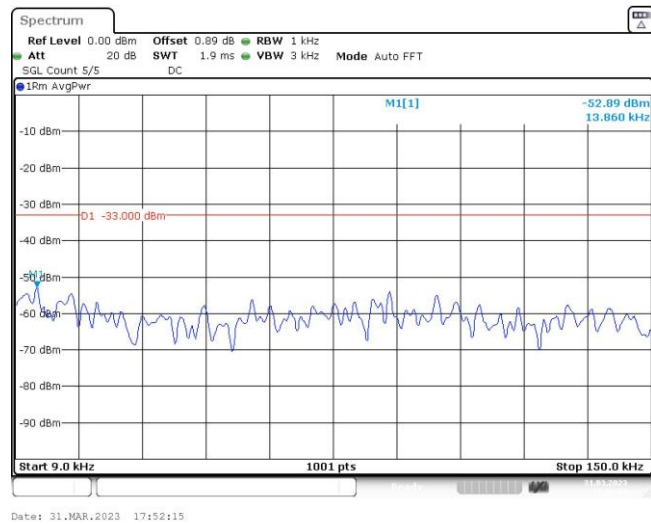
Band13-5MHz-QPSK-23230-1RB#0-Range3:30~1000MHz



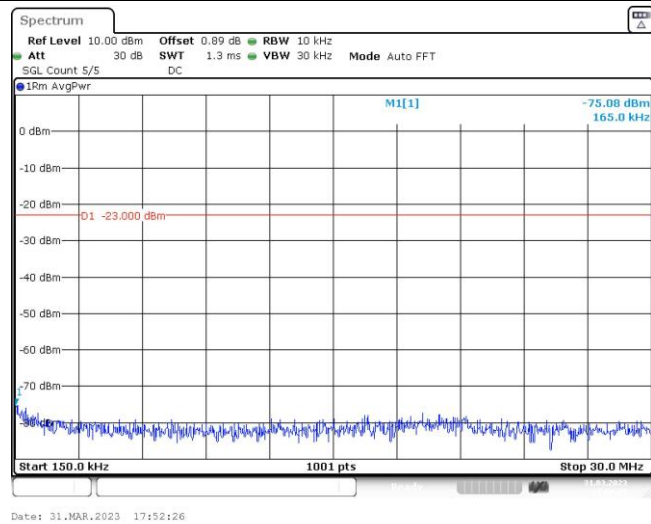
Band13-5MHz-QPSK-23230-1RB#0-Range4:1000~10000MHz



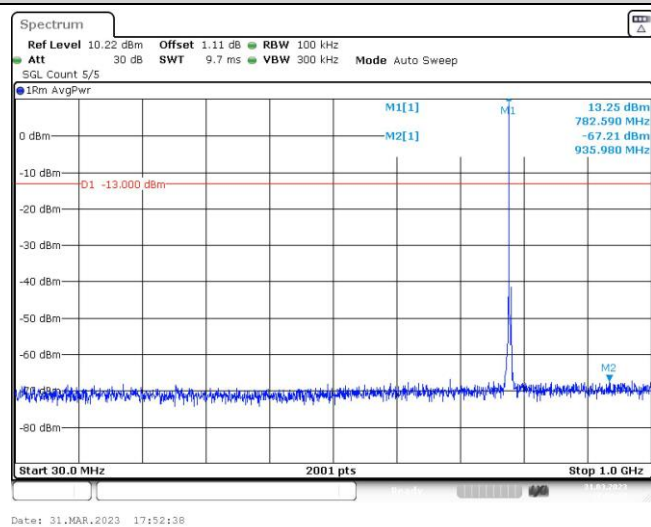
Band13-5MHz-QPSK-23255-1RB#0-Range1:0.009~0.15MHz



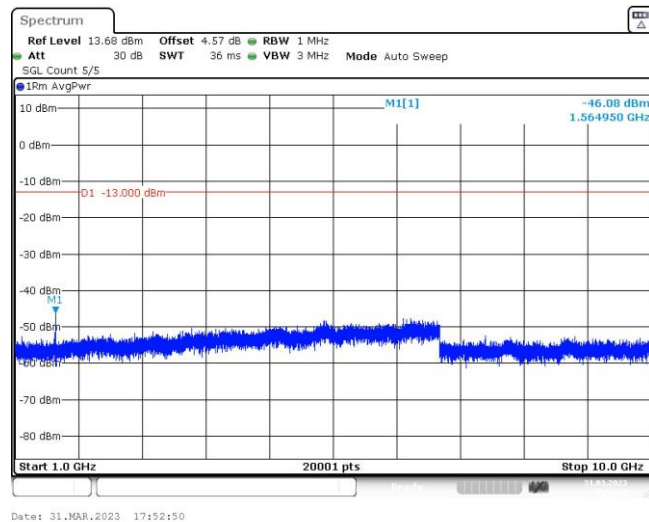
## Band13-5MHz-QPSK-23255-1RB#0-Range2:0.15~30MHz



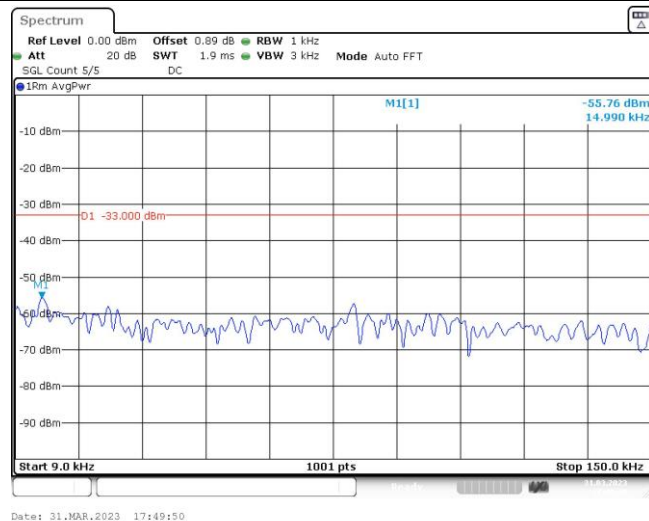
## Band13-5MHz-QPSK-23255-1RB#0-Range3:30~1000MHz



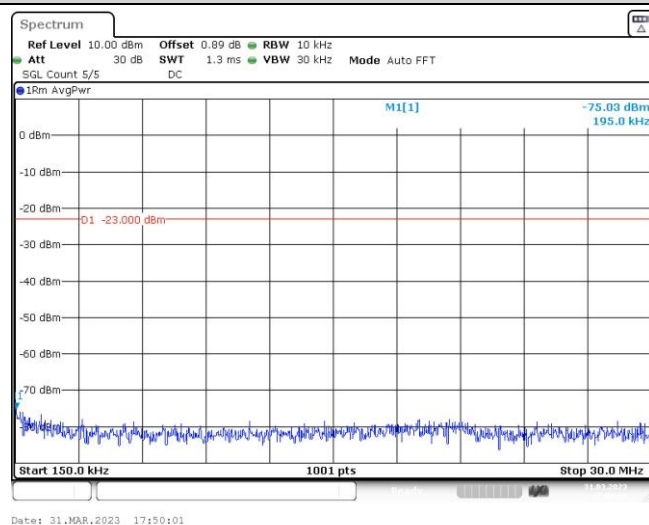
## Band13-5MHz-QPSK-23255-1RB#0-Range4:1000~10000MHz



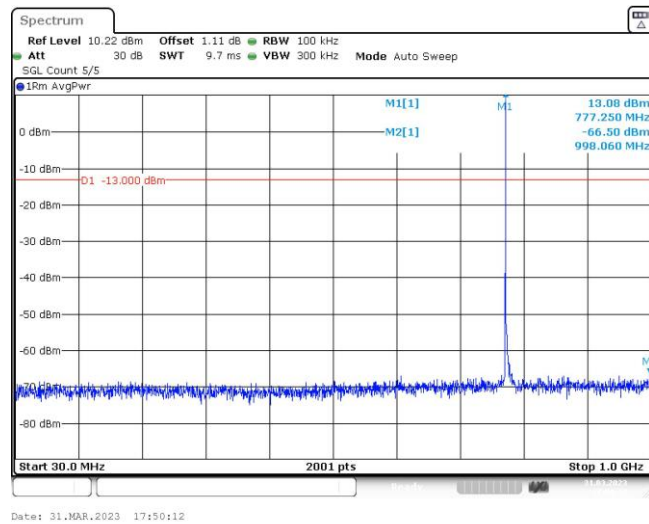
## Band13-5MHz-16QAM-23205-1RB#0-Range1:0.009~0.15MHz



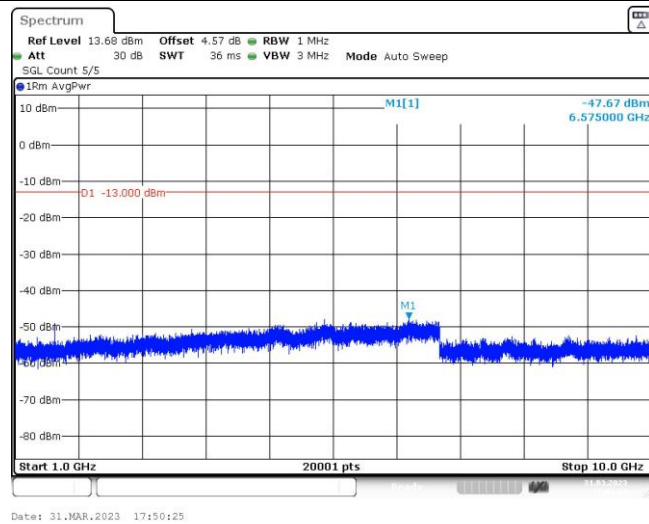
## Band13-5MHz-16QAM-23205-1RB#0-Range2:0.15~30MHz



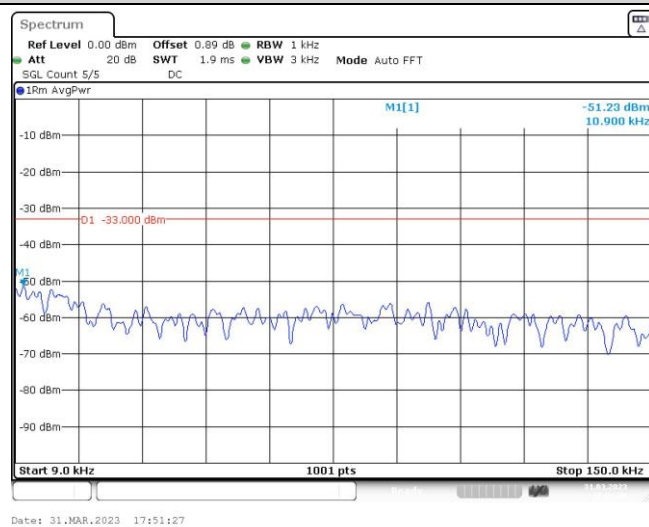
## Band13-5MHz-16QAM-23205-1RB#0-Range3:30~1000MHz



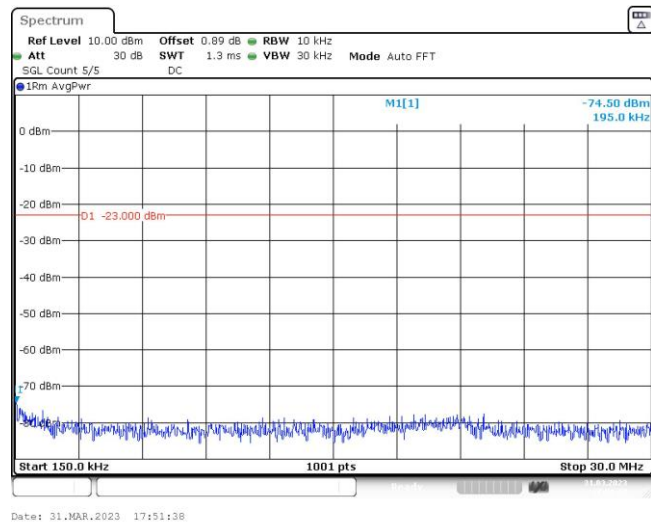
Band13-5MHz-16QAM-23205-1RB#0-Range4:1000~10000MHz



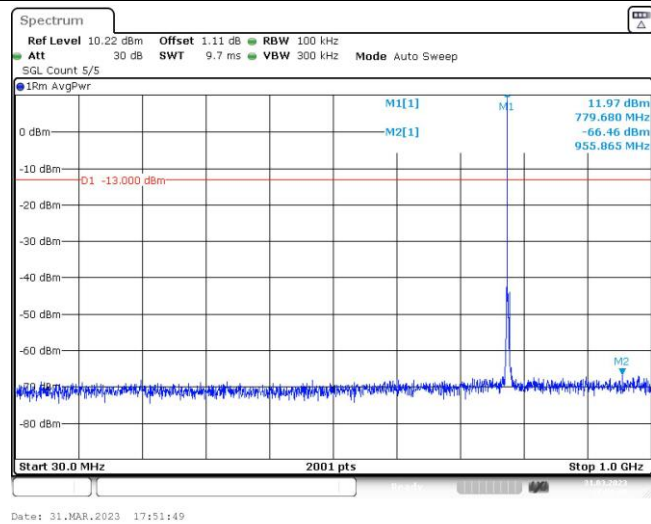
Band13-5MHz-16QAM-23230-1RB#0-Range1:0.009~0.15MHz



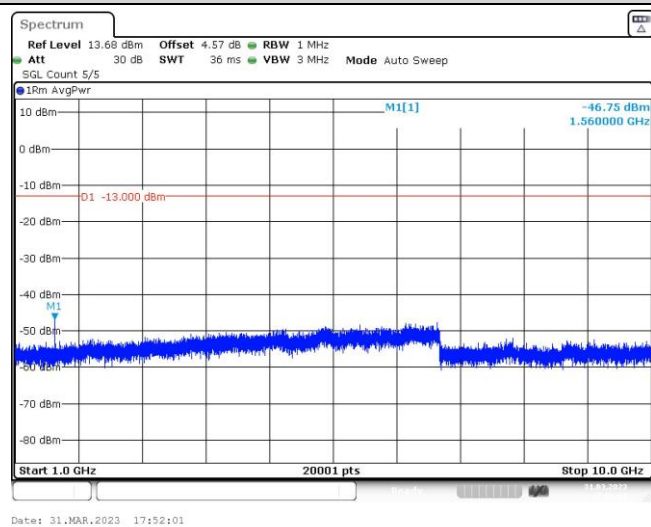
Band13-5MHz-16QAM-23230-1RB#0-Range2:0.15~30MHz



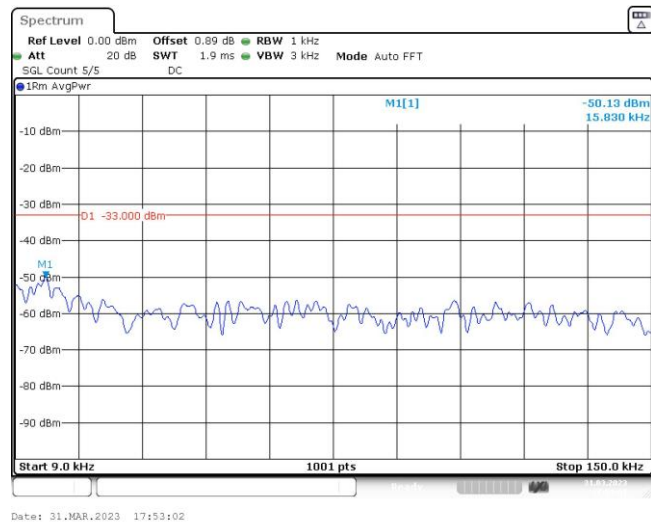
## Band13-5MHz-16QAM-23230-1RB#0-Range3:30~1000MHz



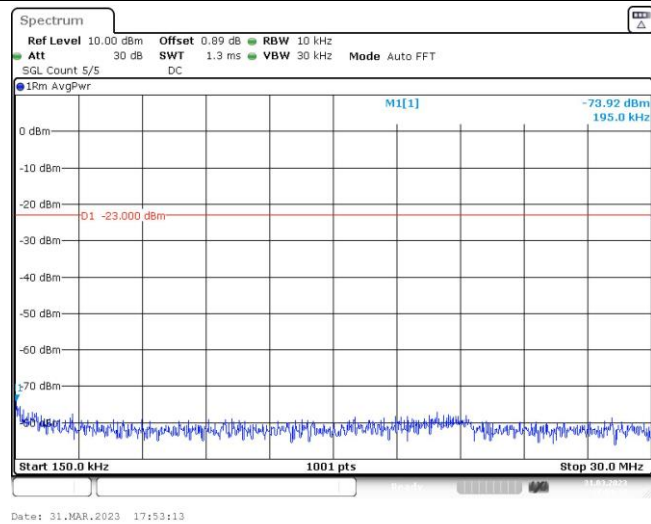
## Band13-5MHz-16QAM-23230-1RB#0-Range4:1000~10000MHz



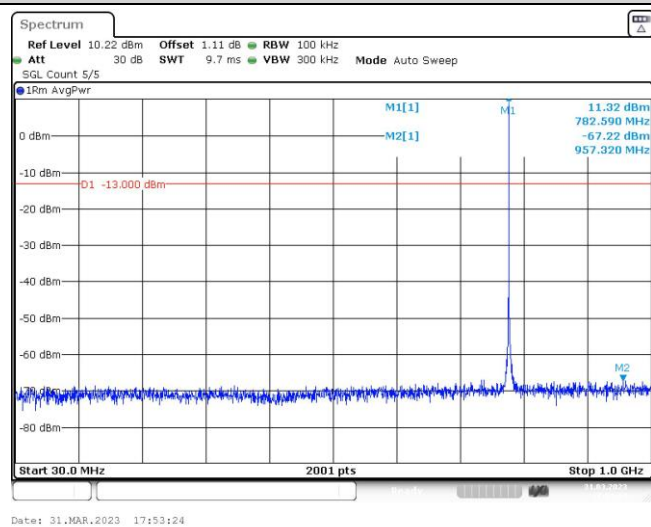
## Band13-5MHz-16QAM-23255-1RB#0-Range1:0.009~0.15MHz



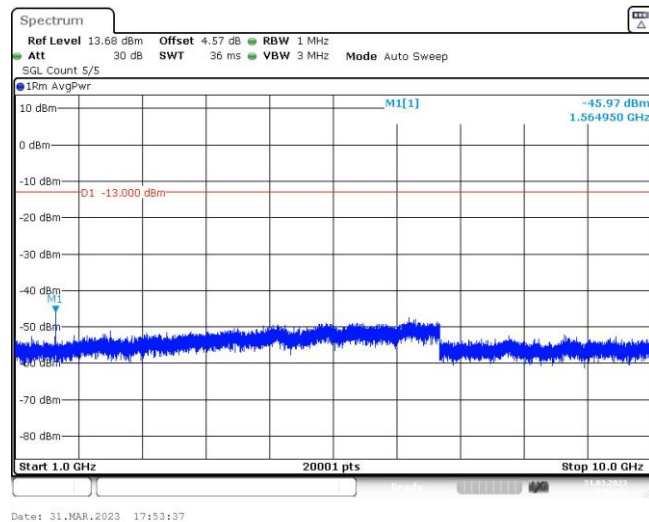
## Band13-5MHz-16QAM-23255-1RB#0-Range2:0.15~30MHz



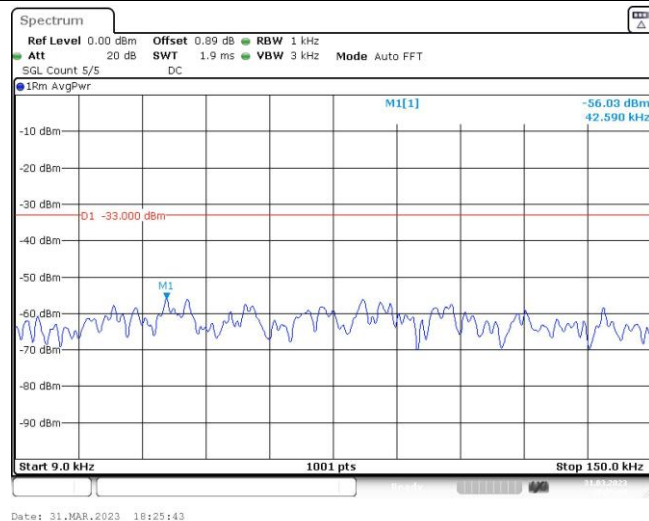
## Band13-5MHz-16QAM-23255-1RB#0-Range3:30~1000MHz



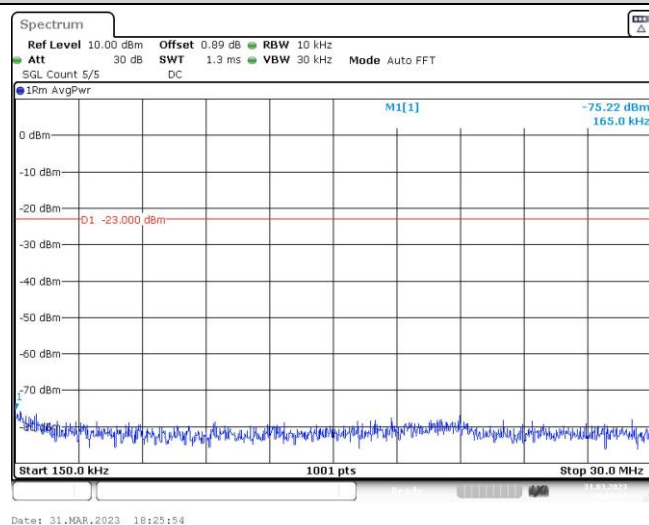
## Band13-5MHz-16QAM-23255-1RB#0-Range4:1000~10000MHz



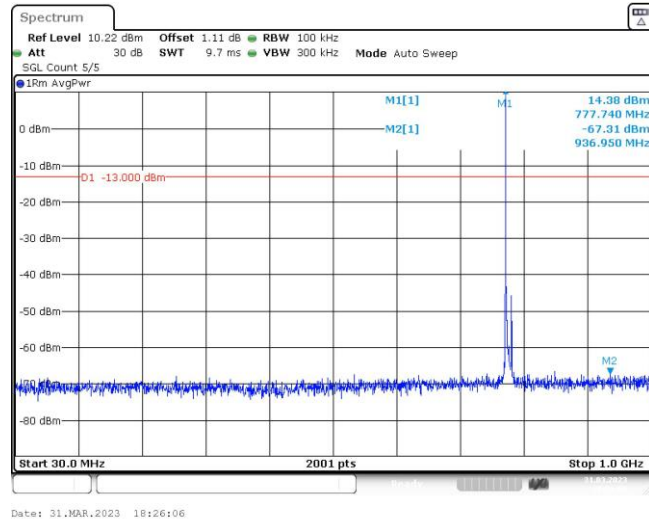
## Band13-10MHz-QPSK-23230-1RB#0-Range1:0.009~0.15MHz



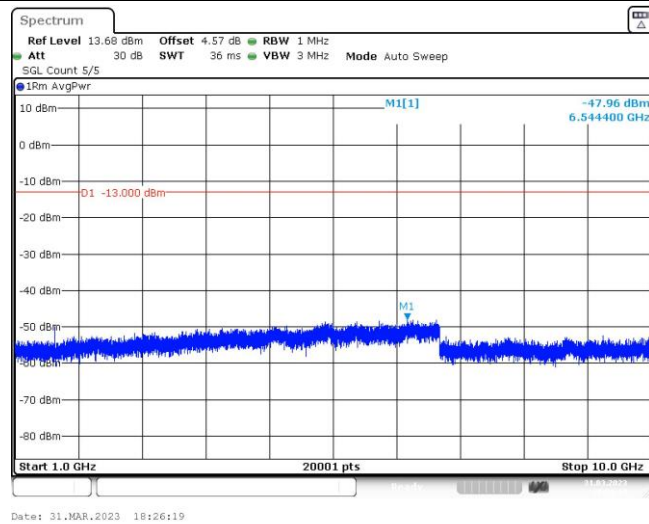
## Band13-10MHz-QPSK-23230-1RB#0-Range2:0.15~30MHz



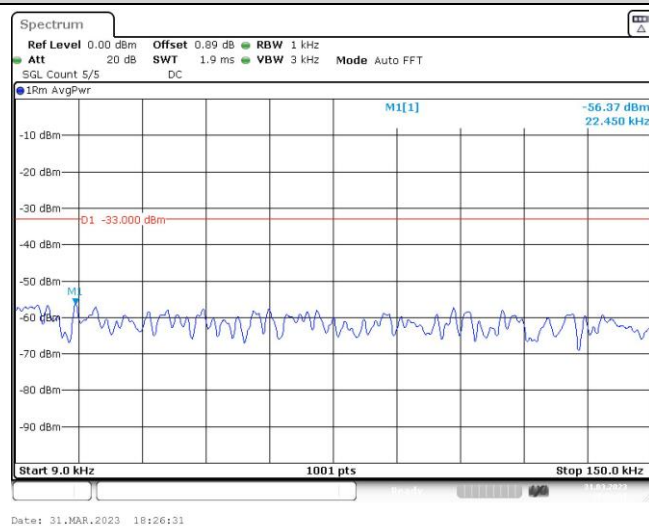
## Band13-10MHz-QPSK-23230-1RB#0-Range3:30~1000MHz



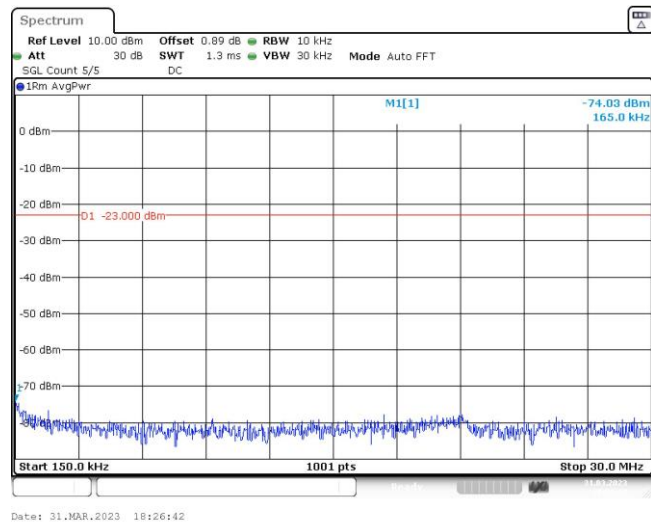
Band13-10MHz-QPSK-23230-1RB#0-Range4:1000~10000MHz



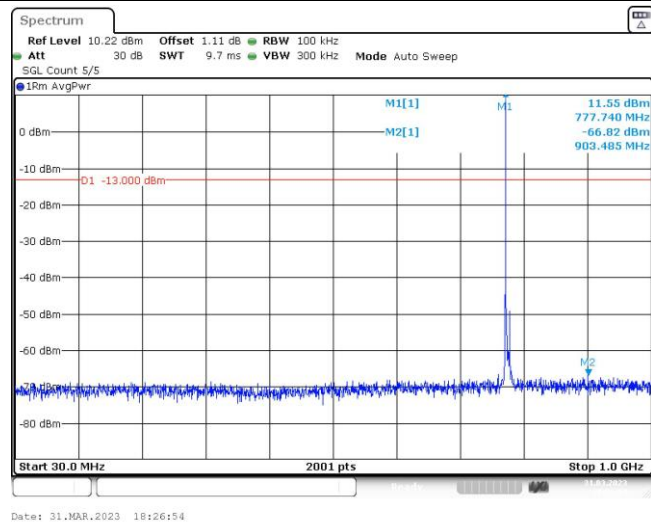
Band13-10MHz-16QAM-23230-1RB#0-Range1:0.009~0.15MHz



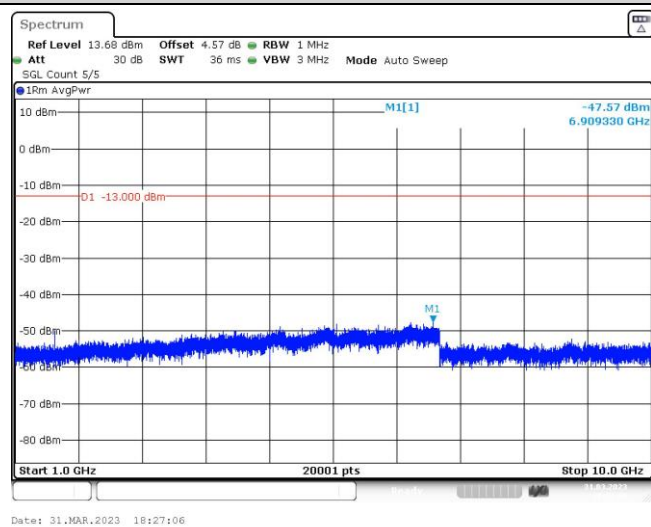
Band13-10MHz-16QAM-23230-1RB#0-Range2:0.15~30MHz



## Band13-10MHz-16QAM-23230-1RB#0-Range3:30~1000MHz



## Band13-10MHz-16QAM-23230-1RB#0-Range4:1000~10000MHz



## Appendix F: Frequency Stability

### Test Result

| Voltage    |           |            |         |              |               |                  |                |                 |             |         |
|------------|-----------|------------|---------|--------------|---------------|------------------|----------------|-----------------|-------------|---------|
| Band       | Bandwidth | Modulation | Channel | RB Configure | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| Band1<br>3 | 5MHz      | QPSK       | 23205   | 25RB#0       | VL            | NT               | 5.21           | 0.006684        | ±2.5        | PASS    |
| Band1<br>3 | 5MHz      | QPSK       | 23205   | 25RB#0       | VN            | NT               | 4.35           | 0.005581        | ±2.5        | PASS    |
| Band1<br>3 | 5MHz      | QPSK       | 23205   | 25RB#0       | VH            | NT               | 5.84           | 0.007492        | ±2.5        | PASS    |
| Band1<br>3 | 5MHz      | QPSK       | 23230   | 25RB#0       | VL            | NT               | 4.21           | 0.005384        | ±2.5        | PASS    |
| Band1<br>3 | 5MHz      | QPSK       | 23230   | 25RB#0       | VN            | NT               | 1.86           | 0.002379        | ±2.5        | PASS    |
| Band1<br>3 | 5MHz      | QPSK       | 23230   | 25RB#0       | VH            | NT               | 3.56           | 0.004552        | ±2.5        | PASS    |
| Band1<br>3 | 5MHz      | QPSK       | 23255   | 25RB#0       | VL            | NT               | -2.43          | -0.003098       | ±2.5        | PASS    |
| Band1<br>3 | 5MHz      | QPSK       | 23255   | 25RB#0       | VN            | NT               | 3.63           | 0.004627        | ±2.5        | PASS    |
| Band1<br>3 | 5MHz      | QPSK       | 23255   | 25RB#0       | VH            | NT               | -2.96          | -0.003773       | ±2.5        | PASS    |
| Band1<br>3 | 5MHz      | 16QAM      | 23205   | 25RB#0       | VL            | NT               | 2.43           | 0.003117        | ±2.5        | PASS    |
| Band1<br>3 | 5MHz      | 16QAM      | 23205   | 25RB#0       | VN            | NT               | 2.78           | 0.003566        | ±2.5        | PASS    |
| Band1<br>3 | 5MHz      | 16QAM      | 23205   | 25RB#0       | VH            | NT               | -2.96          | -0.003797       | ±2.5        | PASS    |
| Band1<br>3 | 5MHz      | 16QAM      | 23230   | 25RB#0       | VL            | NT               | -2.83          | -0.003619       | ±2.5        | PASS    |
| Band1<br>3 | 5MHz      | 16QAM      | 23230   | 25RB#0       | VN            | NT               | 3.12           | 0.003990        | ±2.5        | PASS    |
| Band1<br>3 | 5MHz      | 16QAM      | 23230   | 25RB#0       | VH            | NT               | -1.83          | -0.002340       | ±2.5        | PASS    |
| Band1<br>3 | 5MHz      | 16QAM      | 23255   | 25RB#0       | VL            | NT               | 1.49           | 0.001899        | ±2.5        | PASS    |
| Band1<br>3 | 5MHz      | 16QAM      | 23255   | 25RB#0       | VN            | NT               | -2.30          | -0.002932       | ±2.5        | PASS    |

|            |       |       |       |        |    |    |       |           |      |      |
|------------|-------|-------|-------|--------|----|----|-------|-----------|------|------|
| Band1<br>3 | 5MHz  | 16QAM | 23255 | 25RB#0 | VH | NT | -4.05 | -0.005163 | ±2.5 | PASS |
| Band1<br>3 | 10MHz | QPSK  | 23230 | 50RB#0 | VL | NT | -1.16 | -0.001483 | ±2.5 | PASS |
| Band1<br>3 | 10MHz | QPSK  | 23230 | 50RB#0 | VN | NT | 2.00  | 0.002558  | ±2.5 | PASS |
| Band1<br>3 | 10MHz | QPSK  | 23230 | 50RB#0 | VH | NT | 1.89  | 0.002417  | ±2.5 | PASS |
| Band1<br>3 | 10MHz | 16QAM | 23230 | 50RB#0 | VL | NT | -2.26 | -0.002890 | ±2.5 | PASS |
| Band1<br>3 | 10MHz | 16QAM | 23230 | 50RB#0 | VN | NT | 1.96  | 0.002506  | ±2.5 | PASS |
| Band1<br>3 | 10MHz | 16QAM | 23230 | 50RB#0 | VH | NT | -2.37 | -0.003031 | ±2.5 | PASS |

| Temperature |           |            |         |                  |               |                  |                |                 |             |         |
|-------------|-----------|------------|---------|------------------|---------------|------------------|----------------|-----------------|-------------|---------|
| Band        | Bandwidth | Modulation | Channel | RB Configuration | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| Band1<br>3  | 5MHz      | QPSK       | 23205   | 25RB#0           | NV            | -30              | 2.62           | 0.003361        | ±2.5        | PASS    |
| Band1<br>3  | 5MHz      | QPSK       | 23205   | 25RB#0           | NV            | -20              | 2.60           | 0.003335        | ±2.5        | PASS    |
| Band1<br>3  | 5MHz      | QPSK       | 23205   | 25RB#0           | NV            | -10              | 2.02           | 0.002591        | ±2.5        | PASS    |
| Band1<br>3  | 5MHz      | QPSK       | 23205   | 25RB#0           | NV            | 0                | 3.15           | 0.004041        | ±2.5        | PASS    |
| Band1<br>3  | 5MHz      | QPSK       | 23205   | 25RB#0           | NV            | 10               | 2.49           | 0.003194        | ±2.5        | PASS    |
| Band1<br>3  | 5MHz      | QPSK       | 23205   | 25RB#0           | NV            | 20               | -3.16          | -0.004054       | ±2.5        | PASS    |
| Band1<br>3  | 5MHz      | QPSK       | 23205   | 25RB#0           | NV            | 30               | -2.30          | -0.002951       | ±2.5        | PASS    |
| Band1<br>3  | 5MHz      | QPSK       | 23205   | 25RB#0           | NV            | 40               | -1.37          | -0.001758       | ±2.5        | PASS    |
| Band1<br>3  | 5MHz      | QPSK       | 23205   | 25RB#0           | NV            | 50               | -1.52          | -0.001950       | ±2.5        | PASS    |
| Band1<br>3  | 5MHz      | QPSK       | 23230   | 25RB#0           | NV            | -30              | 3.20           | 0.004092        | ±2.5        | PASS    |
| Band1<br>3  | 5MHz      | QPSK       | 23230   | 25RB#0           | NV            | -20              | 2.12           | 0.002711        | ±2.5        | PASS    |
| Band1       | 5MHz      | QPSK       | 23230   | 25RB#0           | NV            | -10              | 1.66           | 0.002123        | ±2.5        | PASS    |

|            |      |       |       |        |    |     |       |           |      |      |
|------------|------|-------|-------|--------|----|-----|-------|-----------|------|------|
| 3          |      |       |       |        |    |     |       |           |      |      |
| Band1<br>3 | 5MHz | QPSK  | 23230 | 25RB#0 | NV | 0   | 3.48  | 0.004450  | ±2.5 | PASS |
| Band1<br>3 | 5MHz | QPSK  | 23230 | 25RB#0 | NV | 10  | 2.40  | 0.003069  | ±2.5 | PASS |
| Band1<br>3 | 5MHz | QPSK  | 23230 | 25RB#0 | NV | 20  | 2.88  | 0.003683  | ±2.5 | PASS |
| Band1<br>3 | 5MHz | QPSK  | 23230 | 25RB#0 | NV | 30  | 2.90  | 0.003708  | ±2.5 | PASS |
| Band1<br>3 | 5MHz | QPSK  | 23230 | 25RB#0 | NV | 40  | 2.40  | 0.003069  | ±2.5 | PASS |
| Band1<br>3 | 5MHz | QPSK  | 23230 | 25RB#0 | NV | 50  | -2.29 | -0.002928 | ±2.5 | PASS |
| Band1<br>3 | 5MHz | QPSK  | 23255 | 25RB#0 | NV | -30 | 1.49  | 0.001899  | ±2.5 | PASS |
| Band1<br>3 | 5MHz | QPSK  | 23255 | 25RB#0 | NV | -20 | 3.15  | 0.004015  | ±2.5 | PASS |
| Band1<br>3 | 5MHz | QPSK  | 23255 | 25RB#0 | NV | -10 | 1.27  | 0.001619  | ±2.5 | PASS |
| Band1<br>3 | 5MHz | QPSK  | 23255 | 25RB#0 | NV | 0   | 2.53  | 0.003225  | ±2.5 | PASS |
| Band1<br>3 | 5MHz | QPSK  | 23255 | 25RB#0 | NV | 10  | 2.47  | 0.003149  | ±2.5 | PASS |
| Band1<br>3 | 5MHz | QPSK  | 23255 | 25RB#0 | NV | 20  | 1.66  | 0.002116  | ±2.5 | PASS |
| Band1<br>3 | 5MHz | QPSK  | 23255 | 25RB#0 | NV | 30  | -1.27 | -0.001619 | ±2.5 | PASS |
| Band1<br>3 | 5MHz | QPSK  | 23255 | 25RB#0 | NV | 40  | -2.13 | -0.002715 | ±2.5 | PASS |
| Band1<br>3 | 5MHz | QPSK  | 23255 | 25RB#0 | NV | 50  | -1.39 | -0.001772 | ±2.5 | PASS |
| Band1<br>3 | 5MHz | 16QAM | 23205 | 25RB#0 | NV | -30 | 0.99  | 0.001270  | ±2.5 | PASS |
| Band1<br>3 | 5MHz | 16QAM | 23205 | 25RB#0 | NV | -20 | 2.50  | 0.003207  | ±2.5 | PASS |
| Band1<br>3 | 5MHz | 16QAM | 23205 | 25RB#0 | NV | -10 | -1.70 | -0.002181 | ±2.5 | PASS |
| Band1<br>3 | 5MHz | 16QAM | 23205 | 25RB#0 | NV | 0   | 3.26  | 0.004182  | ±2.5 | PASS |
| Band1<br>3 | 5MHz | 16QAM | 23205 | 25RB#0 | NV | 10  | 1.77  | 0.002271  | ±2.5 | PASS |
| Band1      | 5MHz | 16QAM | 23205 | 25RB#0 | NV | 20  | 2.59  | 0.003323  | ±2.5 | PASS |

|            |      |       |       |        |    |     |       |           |      |      |
|------------|------|-------|-------|--------|----|-----|-------|-----------|------|------|
| 3          |      |       |       |        |    |     |       |           |      |      |
| Band1<br>3 | 5MHz | 16QAM | 23205 | 25RB#0 | NV | 30  | 2.46  | 0.003156  | ±2.5 | PASS |
| Band1<br>3 | 5MHz | 16QAM | 23205 | 25RB#0 | NV | 40  | 3.18  | 0.004080  | ±2.5 | PASS |
| Band1<br>3 | 5MHz | 16QAM | 23205 | 25RB#0 | NV | 50  | 2.03  | 0.002604  | ±2.5 | PASS |
| Band1<br>3 | 5MHz | 16QAM | 23230 | 25RB#0 | NV | -30 | -1.37 | -0.001752 | ±2.5 | PASS |
| Band1<br>3 | 5MHz | 16QAM | 23230 | 25RB#0 | NV | -20 | 2.20  | 0.002813  | ±2.5 | PASS |
| Band1<br>3 | 5MHz | 16QAM | 23230 | 25RB#0 | NV | -10 | 2.43  | 0.003107  | ±2.5 | PASS |
| Band1<br>3 | 5MHz | 16QAM | 23230 | 25RB#0 | NV | 0   | 3.12  | 0.003990  | ±2.5 | PASS |
| Band1<br>3 | 5MHz | 16QAM | 23230 | 25RB#0 | NV | 10  | -1.42 | -0.001816 | ±2.5 | PASS |
| Band1<br>3 | 5MHz | 16QAM | 23230 | 25RB#0 | NV | 20  | 2.72  | 0.003478  | ±2.5 | PASS |
| Band1<br>3 | 5MHz | 16QAM | 23230 | 25RB#0 | NV | 30  | -1.89 | -0.002417 | ±2.5 | PASS |
| Band1<br>3 | 5MHz | 16QAM | 23230 | 25RB#0 | NV | 40  | 4.01  | 0.005128  | ±2.5 | PASS |
| Band1<br>3 | 5MHz | 16QAM | 23230 | 25RB#0 | NV | 50  | 1.95  | 0.002494  | ±2.5 | PASS |
| Band1<br>3 | 5MHz | 16QAM | 23255 | 25RB#0 | NV | -30 | -1.92 | -0.002447 | ±2.5 | PASS |
| Band1<br>3 | 5MHz | 16QAM | 23255 | 25RB#0 | NV | -20 | 1.75  | 0.002231  | ±2.5 | PASS |
| Band1<br>3 | 5MHz | 16QAM | 23255 | 25RB#0 | NV | -10 | -1.43 | -0.001823 | ±2.5 | PASS |
| Band1<br>3 | 5MHz | 16QAM | 23255 | 25RB#0 | NV | 0   | 3.42  | 0.004359  | ±2.5 | PASS |
| Band1<br>3 | 5MHz | 16QAM | 23255 | 25RB#0 | NV | 10  | 1.39  | 0.001772  | ±2.5 | PASS |
| Band1<br>3 | 5MHz | 16QAM | 23255 | 25RB#0 | NV | 20  | 1.92  | 0.002447  | ±2.5 | PASS |
| Band1<br>3 | 5MHz | 16QAM | 23255 | 25RB#0 | NV | 30  | -2.95 | -0.003760 | ±2.5 | PASS |
| Band1<br>3 | 5MHz | 16QAM | 23255 | 25RB#0 | NV | 40  | -2.05 | -0.002613 | ±2.5 | PASS |
| Band1      | 5MHz | 16QAM | 23255 | 25RB#0 | NV | 50  | 2.93  | 0.003735  | ±2.5 | PASS |

|            |       |       |       |        |    |     |       |           |      |      |
|------------|-------|-------|-------|--------|----|-----|-------|-----------|------|------|
| 3          |       |       |       |        |    |     |       |           |      |      |
| Band1<br>3 | 10MHz | QPSK  | 23230 | 50RB#0 | NV | -30 | -1.62 | -0.002072 | ±2.5 | PASS |
| Band1<br>3 | 10MHz | QPSK  | 23230 | 50RB#0 | NV | -20 | 3.75  | 0.004795  | ±2.5 | PASS |
| Band1<br>3 | 10MHz | QPSK  | 23230 | 50RB#0 | NV | -10 | -2.35 | -0.003005 | ±2.5 | PASS |
| Band1<br>3 | 10MHz | QPSK  | 23230 | 50RB#0 | NV | 0   | -2.09 | -0.002673 | ±2.5 | PASS |
| Band1<br>3 | 10MHz | QPSK  | 23230 | 50RB#0 | NV | 10  | 2.89  | 0.003696  | ±2.5 | PASS |
| Band1<br>3 | 10MHz | QPSK  | 23230 | 50RB#0 | NV | 20  | -1.59 | -0.002033 | ±2.5 | PASS |
| Band1<br>3 | 10MHz | QPSK  | 23230 | 50RB#0 | NV | 30  | 1.86  | 0.002379  | ±2.5 | PASS |
| Band1<br>3 | 10MHz | QPSK  | 23230 | 50RB#0 | NV | 40  | -1.12 | -0.001432 | ±2.5 | PASS |
| Band1<br>3 | 10MHz | QPSK  | 23230 | 50RB#0 | NV | 50  | 3.48  | 0.004450  | ±2.5 | PASS |
| Band1<br>3 | 10MHz | 16QAM | 23230 | 50RB#0 | NV | -30 | -1.22 | -0.001560 | ±2.5 | PASS |
| Band1<br>3 | 10MHz | 16QAM | 23230 | 50RB#0 | NV | -20 | 1.93  | 0.002468  | ±2.5 | PASS |
| Band1<br>3 | 10MHz | 16QAM | 23230 | 50RB#0 | NV | -10 | 2.40  | 0.003069  | ±2.5 | PASS |
| Band1<br>3 | 10MHz | 16QAM | 23230 | 50RB#0 | NV | 0   | 2.33  | 0.002980  | ±2.5 | PASS |
| Band1<br>3 | 10MHz | 16QAM | 23230 | 50RB#0 | NV | 10  | -1.99 | -0.002545 | ±2.5 | PASS |
| Band1<br>3 | 10MHz | 16QAM | 23230 | 50RB#0 | NV | 20  | -1.60 | -0.002046 | ±2.5 | PASS |
| Band1<br>3 | 10MHz | 16QAM | 23230 | 50RB#0 | NV | 30  | -3.03 | -0.003875 | ±2.5 | PASS |
| Band1<br>3 | 10MHz | 16QAM | 23230 | 50RB#0 | NV | 40  | -1.79 | -0.002289 | ±2.5 | PASS |
| Band1<br>3 | 10MHz | 16QAM | 23230 | 50RB#0 | NV | 50  | 0.96  | 0.001228  | ±2.5 | PASS |