

## **Appendix for NB-IOT Band 13**

Product Name: Remote Street Lighting Controller  
Model No: AGIL LCU 302

## Appendix A: Average Power Output Data

### Test Result

| Band    | OpMode       | SCS     | BW  | Modulation | Channel | Tones | Conducted POWER(dBm) | Verdict |
|---------|--------------|---------|-----|------------|---------|-------|----------------------|---------|
| Band 13 | Stand-Al one | 3.75kHz | NaN | BPSK       | 23181   | 1@0   | 21.24                | PASS    |
| Band 13 | Stand-Al one | 3.75kHz | NaN | BPSK       | 23181   | 1@47  | 21.21                | PASS    |
| Band 13 | Stand-Al one | 3.75kHz | NaN | BPSK       | 23230   | 1@0   | 21.10                | PASS    |
| Band 13 | Stand-Al one | 3.75kHz | NaN | BPSK       | 23230   | 1@47  | 20.96                | PASS    |
| Band 13 | Stand-Al one | 3.75kHz | NaN | BPSK       | 23279   | 1@0   | 21.05                | PASS    |
| Band 13 | Stand-Al one | 3.75kHz | NaN | BPSK       | 23279   | 1@47  | 21.00                | PASS    |
| Band 13 | Stand-Al one | 3.75kHz | NaN | QPSK       | 23181   | 1@0   | 21.31                | PASS    |
| Band 13 | Stand-Al one | 3.75kHz | NaN | QPSK       | 23181   | 1@47  | 21.23                | PASS    |
| Band 13 | Stand-Al one | 3.75kHz | NaN | QPSK       | 23230   | 1@0   | 21.17                | PASS    |
| Band 13 | Stand-Al one | 3.75kHz | NaN | QPSK       | 23230   | 1@47  | 21.00                | PASS    |
| Band 13 | Stand-Al one | 3.75kHz | NaN | QPSK       | 23279   | 1@0   | 21.18                | PASS    |
| Band 13 | Stand-Al one | 3.75kHz | NaN | QPSK       | 23279   | 1@47  | 21.03                | PASS    |
| Band 13 | Stand-Al one | 15kHz   | NaN | BPSK       | 23181   | 1@0   | 21.38                | PASS    |
| Band 13 | Stand-Al one | 15kHz   | NaN | BPSK       | 23181   | 1@11  | 21.35                | PASS    |
| Band 13 | Stand-Al one | 15kHz   | NaN | BPSK       | 23230   | 1@0   | 21.30                | PASS    |
| Band 13 | Stand-Al one | 15kHz   | NaN | BPSK       | 23230   | 1@11  | 21.28                | PASS    |
| Band 13 | Stand-Al one | 15kHz   | NaN | BPSK       | 23279   | 1@0   | 21.26                | PASS    |

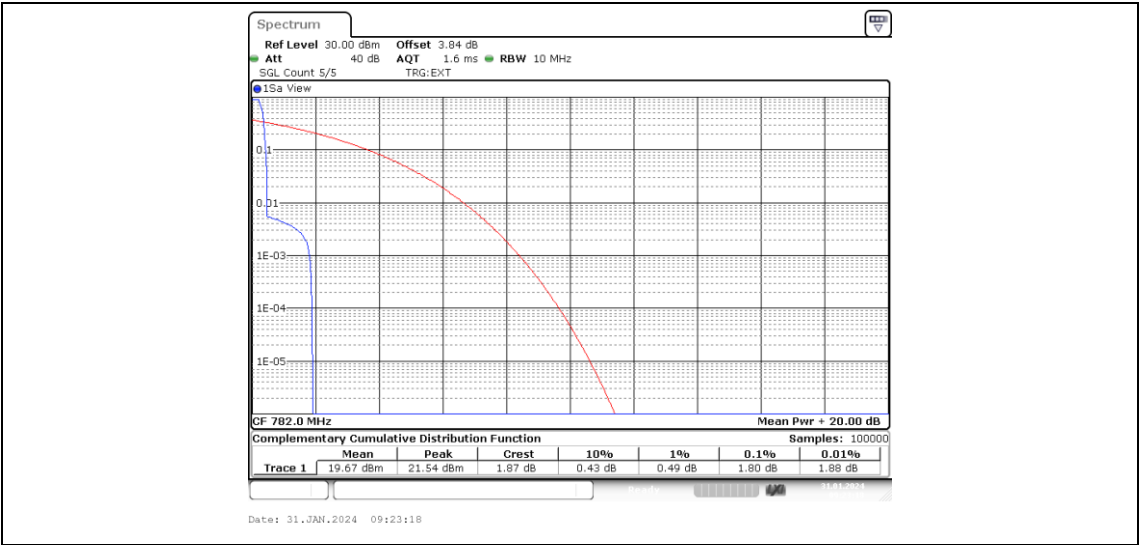
|         |              |       |     |      |       |      |       |      |
|---------|--------------|-------|-----|------|-------|------|-------|------|
| Band 13 | Stand-Al one | 15kHz | NaN | BPSK | 23279 | 1@11 | 21.22 | PASS |
| Band 13 | Stand-Al one | 15kHz | NaN | QPSK | 23181 | 1@0  | 21.46 | PASS |
| Band 13 | Stand-Al one | 15kHz | NaN | QPSK | 23181 | 1@11 | 21.44 | PASS |
| Band 13 | Stand-Al one | 15kHz | NaN | QPSK | 23181 | 3@3  | 21.34 | PASS |
| Band 13 | Stand-Al one | 15kHz | NaN | QPSK | 23230 | 1@0  | 21.44 | PASS |
| Band 13 | Stand-Al one | 15kHz | NaN | QPSK | 23230 | 1@11 | 21.39 | PASS |
| Band 13 | Stand-Al one | 15kHz | NaN | QPSK | 23230 | 3@3  | 21.16 | PASS |
| Band 13 | Stand-Al one | 15kHz | NaN | QPSK | 23279 | 1@0  | 21.40 | PASS |
| Band 13 | Stand-Al one | 15kHz | NaN | QPSK | 23279 | 1@11 | 21.28 | PASS |
| Band 13 | Stand-Al one | 15kHz | NaN | QPSK | 23279 | 3@3  | 21.14 | PASS |

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

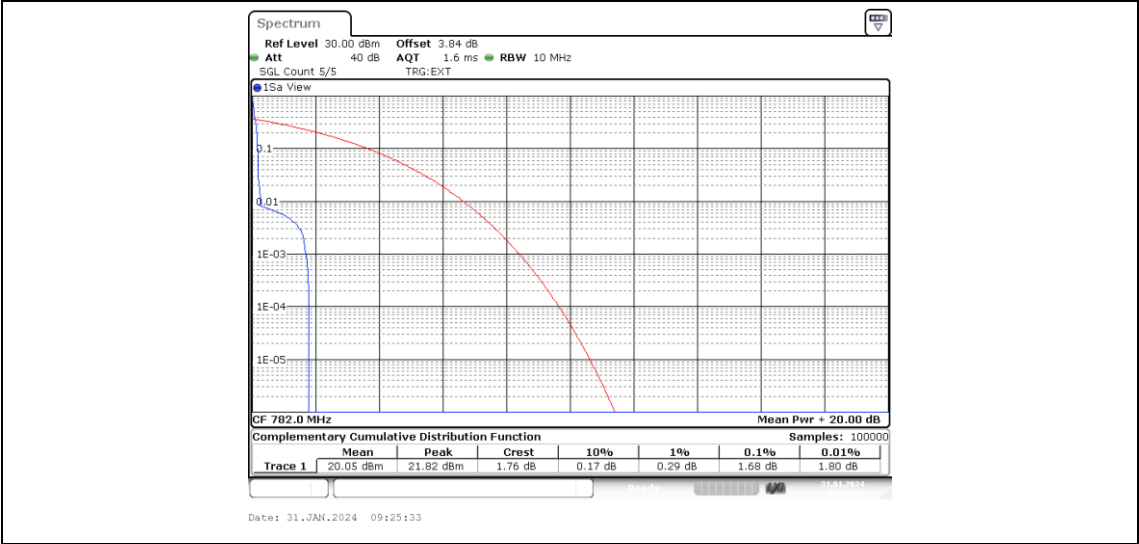
### Test Result

| Band   | OpMode      | SCS     | BW  | Modu | Channel | Tones | Result (dBm) | Limit (dBm) | Verdict |
|--------|-------------|---------|-----|------|---------|-------|--------------|-------------|---------|
| Band13 | Stand-Alone | 3.75kHz | NaN | BPSK | 23230   | 1@0   | 1.8          | <=13        | PASS    |
| Band13 | Stand-Alone | 3.75kHz | NaN | BPSK | 23230   | 1@47  | 1.68         | <=13        | PASS    |
| Band13 | Stand-Alone | 3.75kHz | NaN | QPSK | 23230   | 1@0   | 1.51         | <=13        | PASS    |
| Band13 | Stand-Alone | 3.75kHz | NaN | QPSK | 23230   | 1@47  | 1.39         | <=13        | PASS    |
| Band13 | Stand-Alone | 15kHz   | NaN | BPSK | 23230   | 1@0   | 1.33         | <=13        | PASS    |
| Band13 | Stand-Alone | 15kHz   | NaN | BPSK | 23230   | 1@11  | 1.45         | <=13        | PASS    |
| Band13 | Stand-Alone | 15kHz   | NaN | QPSK | 23230   | 1@0   | 1.42         | <=13        | PASS    |
| Band13 | Stand-Alone | 15kHz   | NaN | QPSK | 23230   | 1@11  | 1.48         | <=13        | PASS    |
| Band13 | Stand-Alone | 15kHz   | NaN | QPSK | 23230   | 3@3   | 3.42         | <=13        | PASS    |

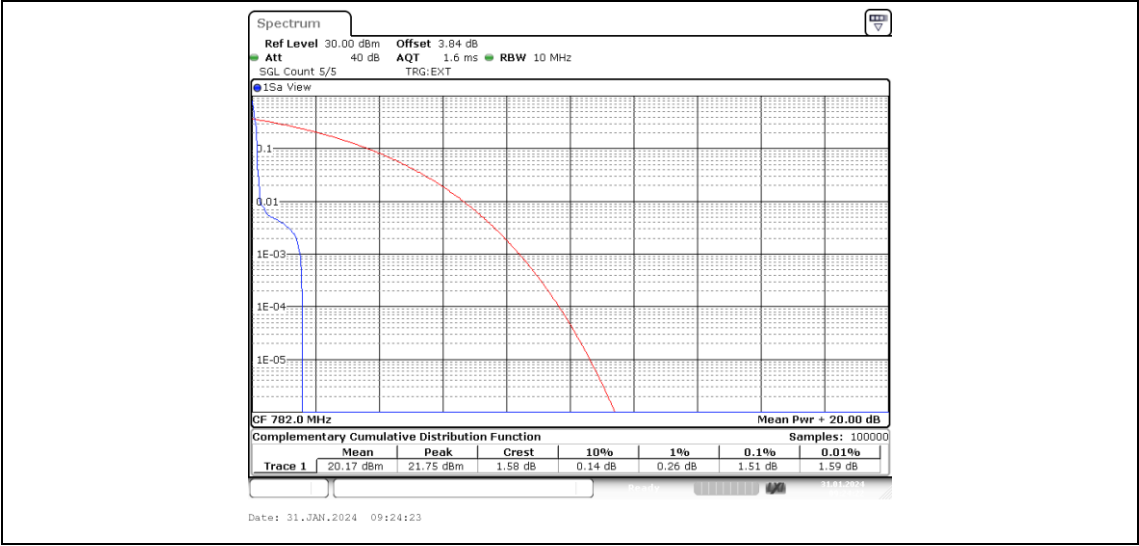
Test Graphs

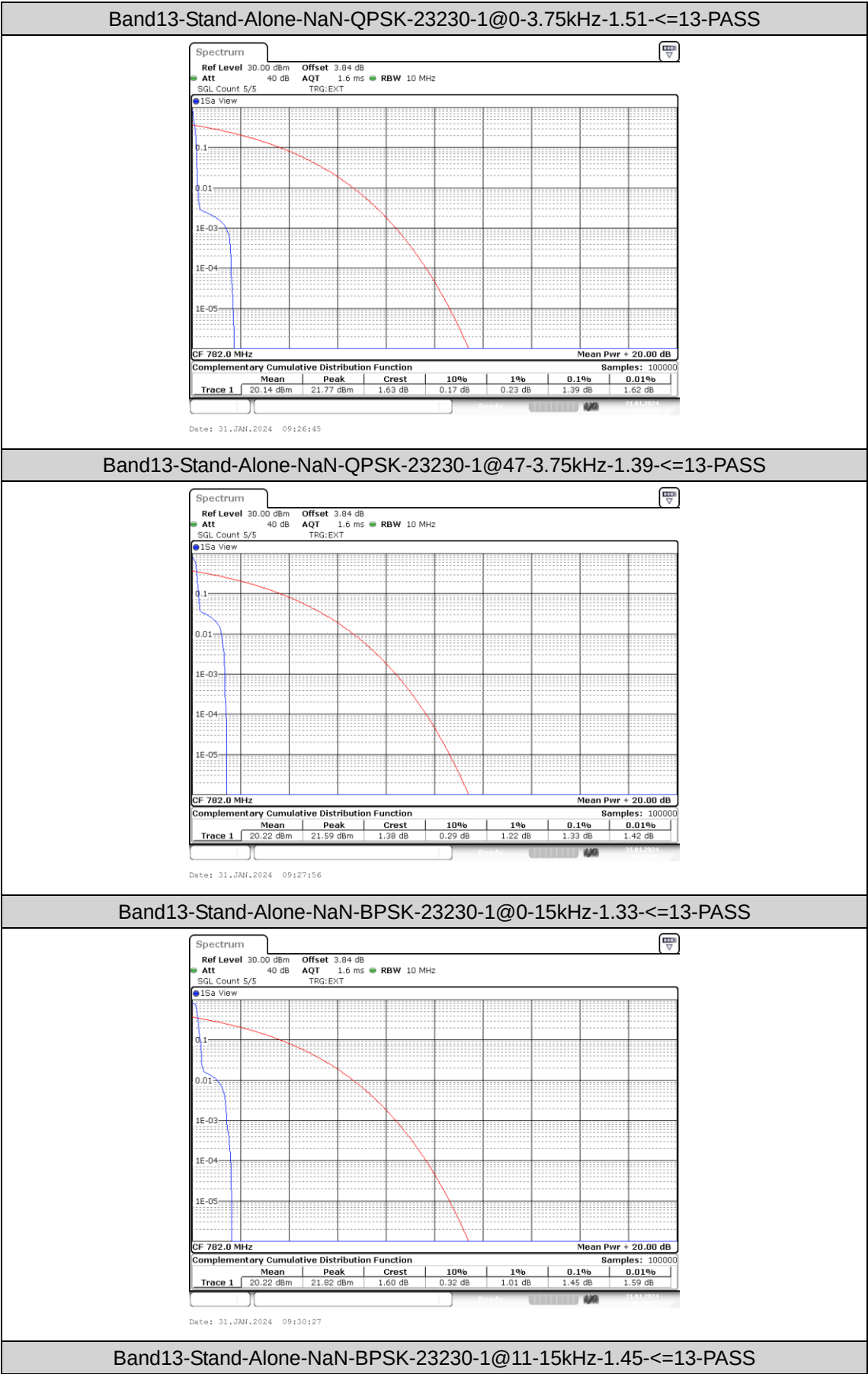


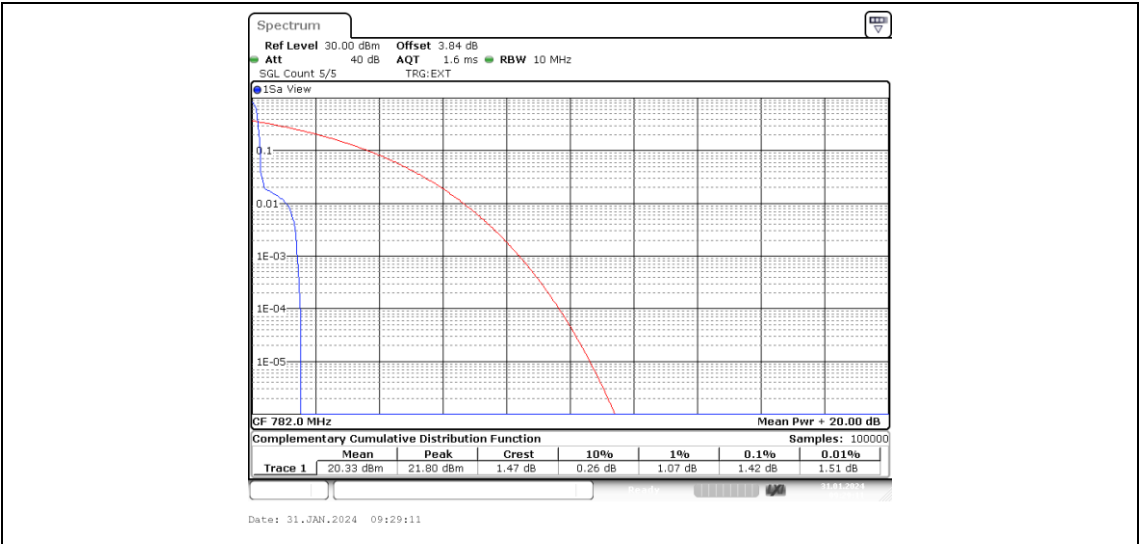
Band13-Stand-Alone-NaN-BPSK-23230-1@0-3.75kHz-1.8-<=13-PASS



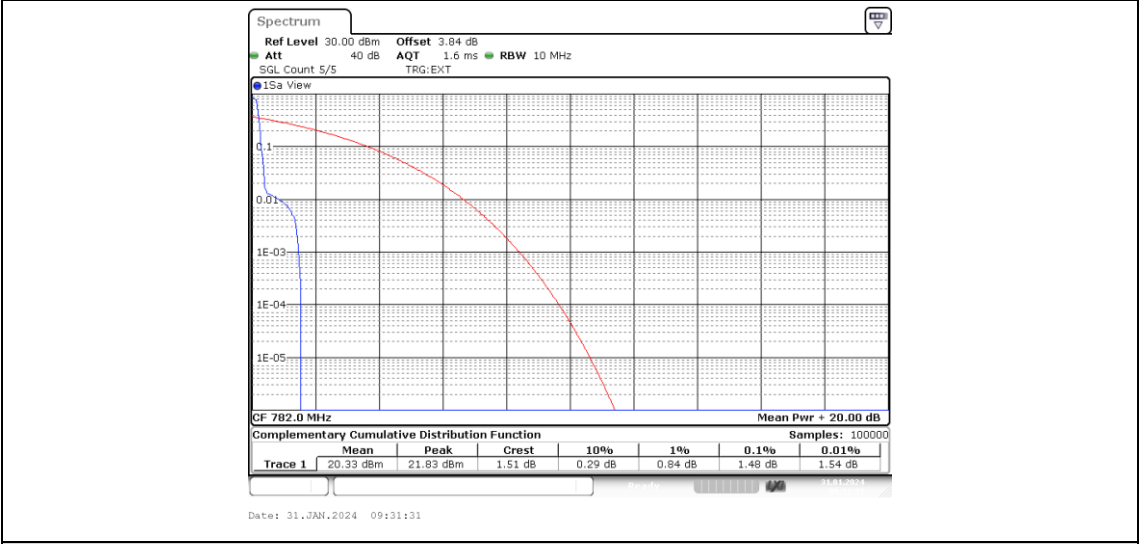
Band13-Stand-Alone-NaN-BPSK-23230-1@47-3.75kHz-1.68-<=13-PASS



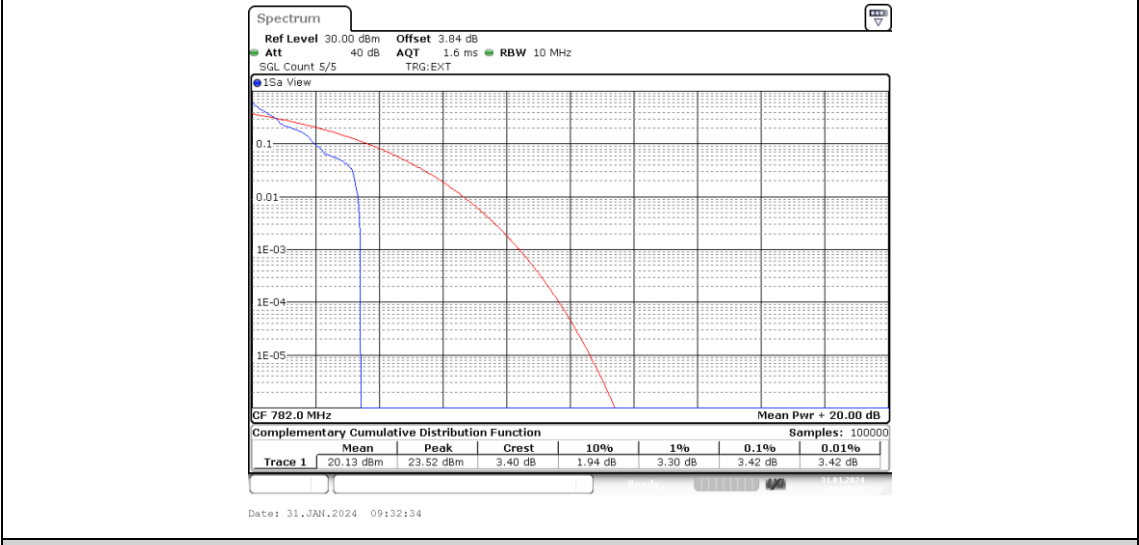




Band13-Stand-Alone-NaN-QPSK-23230-1@0-15kHz-1.42-<=13-PASS



Band13-Stand-Alone-NaN-QPSK-23230-1@11-15kHz-1.48-<=13-PASS



Band13-Stand-Alone-NaN-QPSK-23230-3@3-15kHz-3.42-<=13-PASS

## Appendix C: Emission Bandwidth

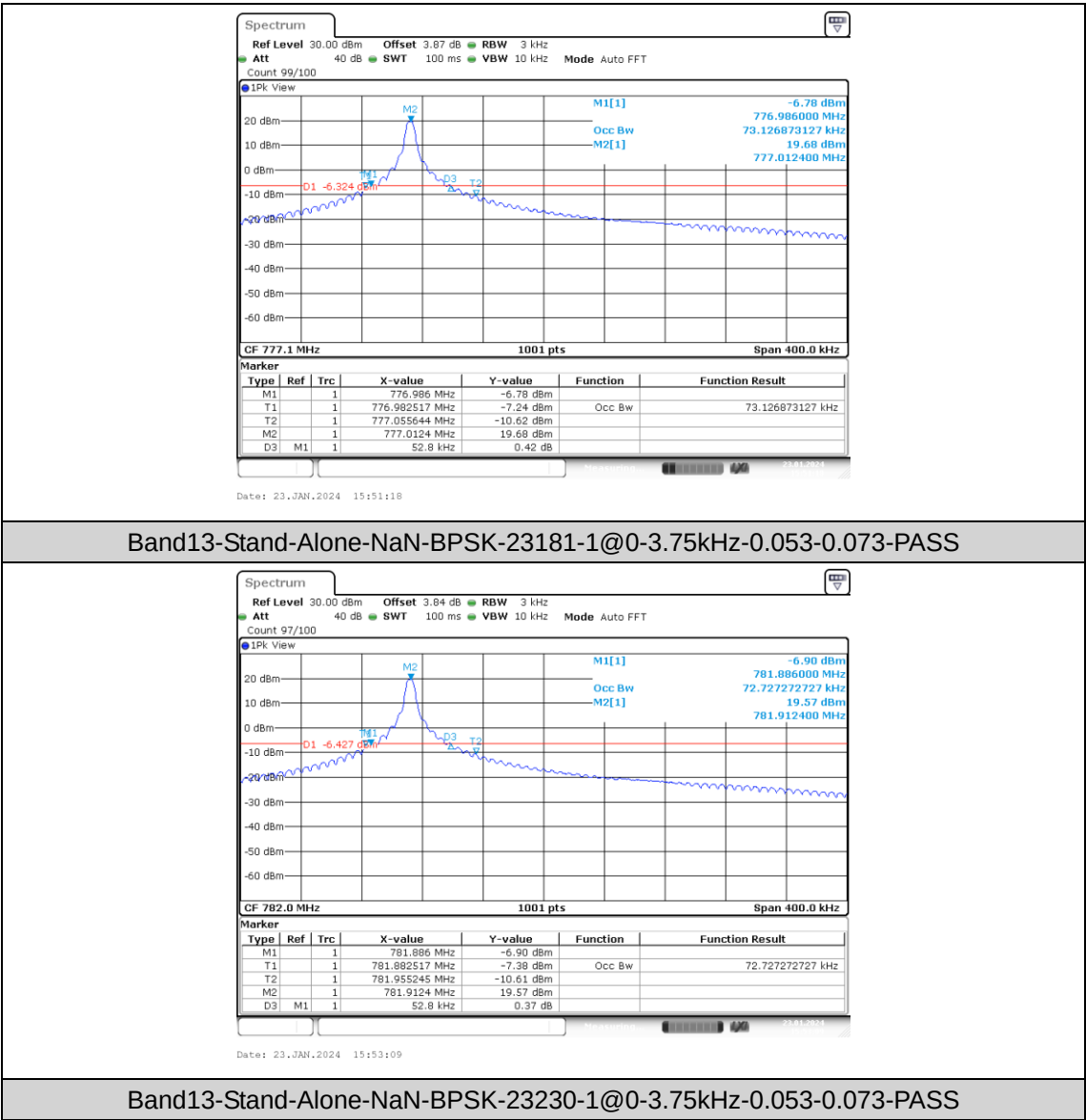
### Test Result

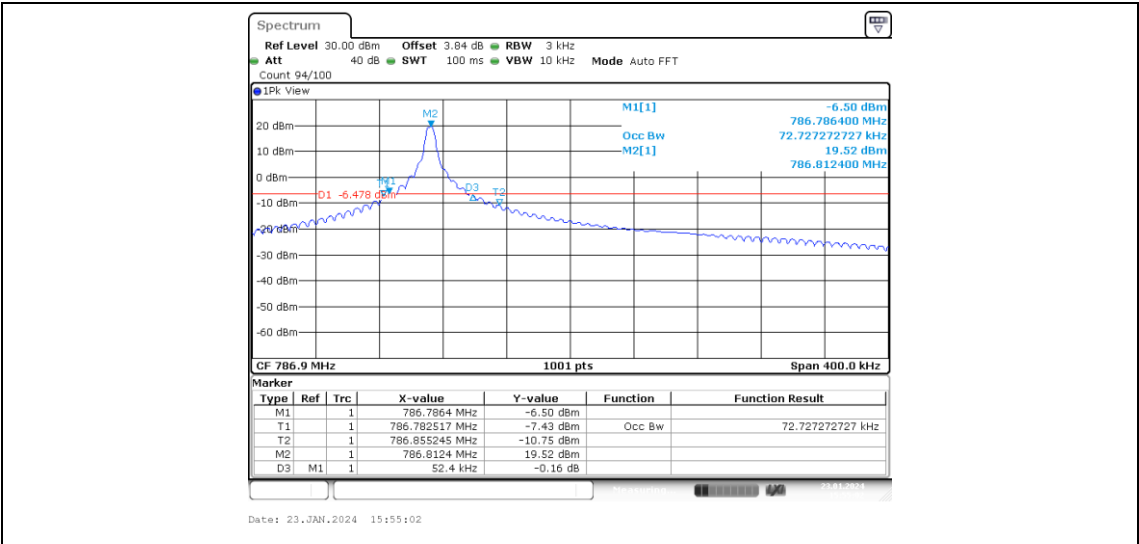
| Band   | OpMode      | SCS     | BW  | Modu | Channel | Tones | OBW(MHz) | EBW(MHz) | Verdict |
|--------|-------------|---------|-----|------|---------|-------|----------|----------|---------|
| Band13 | Stand-Alone | 3.75kHz | NaN | BPSK | 23181   | 1@0   | 0.073    | 0.053    | PASS    |
| Band13 | Stand-Alone | 3.75kHz | NaN | BPSK | 23230   | 1@0   | 0.073    | 0.053    | PASS    |
| Band13 | Stand-Alone | 3.75kHz | NaN | BPSK | 23279   | 1@0   | 0.073    | 0.052    | PASS    |
| Band13 | Stand-Alone | 3.75kHz | NaN | QPSK | 23181   | 1@0   | 0.087    | 0.054    | PASS    |
| Band13 | Stand-Alone | 3.75kHz | NaN | QPSK | 23230   | 1@0   | 0.087    | 0.054    | PASS    |
| Band13 | Stand-Alone | 3.75kHz | NaN | QPSK | 23279   | 1@0   | 0.087    | 0.054    | PASS    |
| Band13 | Stand-Alone | 15kHz   | NaN | BPSK | 23181   | 1@0   | 0.133    | 0.108    | PASS    |
| Band13 | Stand-Alone | 15kHz   | NaN | BPSK | 23181   | 12@0  | 0.184    | 0.250    | PASS    |
| Band13 | Stand-Alone | 15kHz   | NaN | BPSK | 23230   | 1@0   | 0.133    | 0.108    | PASS    |
| Band13 | Stand-Alone | 15kHz   | NaN | BPSK | 23230   | 12@0  | 0.184    | 0.250    | PASS    |
| Band13 | Stand-Alone | 15kHz   | NaN | BPSK | 23279   | 1@0   | 0.133    | 0.108    | PASS    |
| Band13 | Stand-Alone | 15kHz   | NaN | BPSK | 23279   | 12@0  | 0.184    | 0.250    | PASS    |
| Band13 | Stand-Alone | 15kHz   | NaN | QPSK | 23181   | 1@0   | 0.13     | 0.118    | PASS    |
| Band13 | Stand-Alone | 15kHz   | NaN | QPSK | 23181   | 12@0  | 0.184    | 0.250    | PASS    |
| Band13 | Stand-Alone | 15kHz   | NaN | QPSK | 23230   | 1@0   | 0.13     | 0.118    | PASS    |
| Band13 | Stand-Alone | 15kHz   | NaN | QPSK | 23230   | 12@0  | 0.184    | 0.250    | PASS    |
| Band13 | Stand-Alone | 15kHz   | NaN | QPSK | 23279   | 1@0   | 0.13     | 0.118    | PASS    |



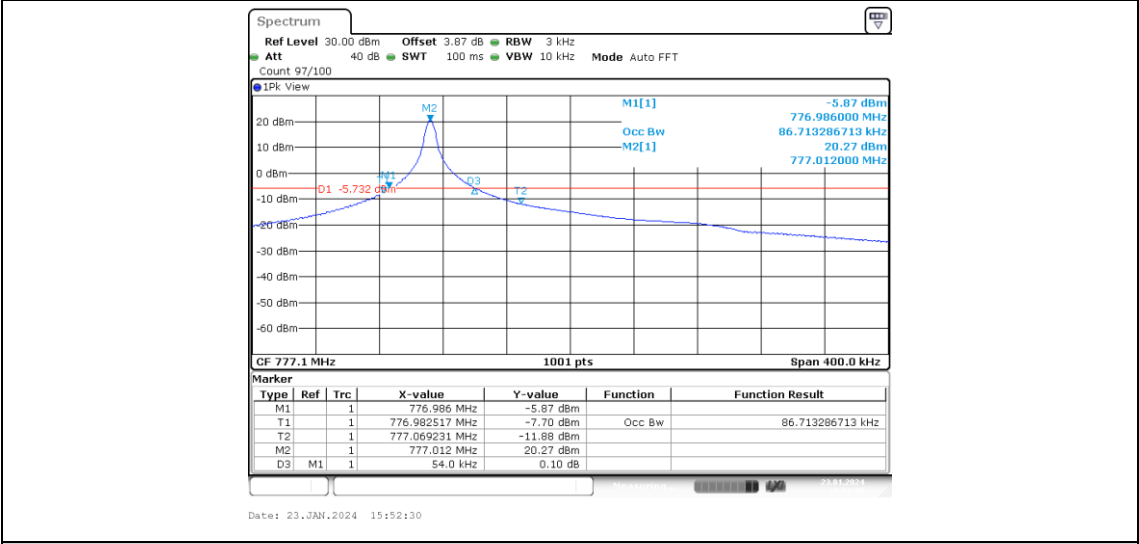
|        |                 |       |     |      |       |      |       |       |      |
|--------|-----------------|-------|-----|------|-------|------|-------|-------|------|
| Band13 | Stand-Al<br>one | 15kHz | NaN | QPSK | 23279 | 12@0 | 0.184 | 0.250 | PASS |
|--------|-----------------|-------|-----|------|-------|------|-------|-------|------|

Test Graphs

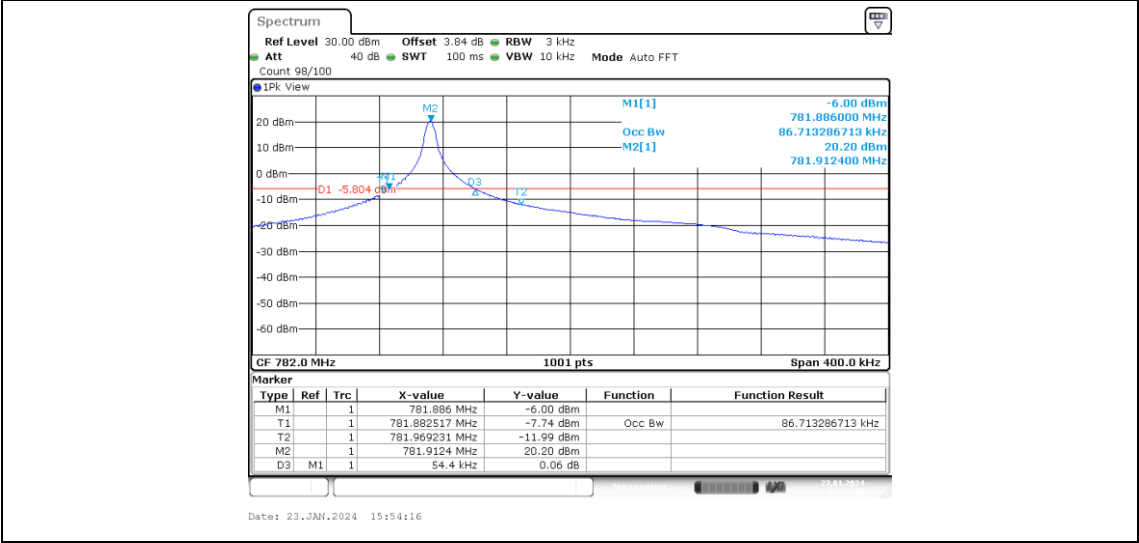




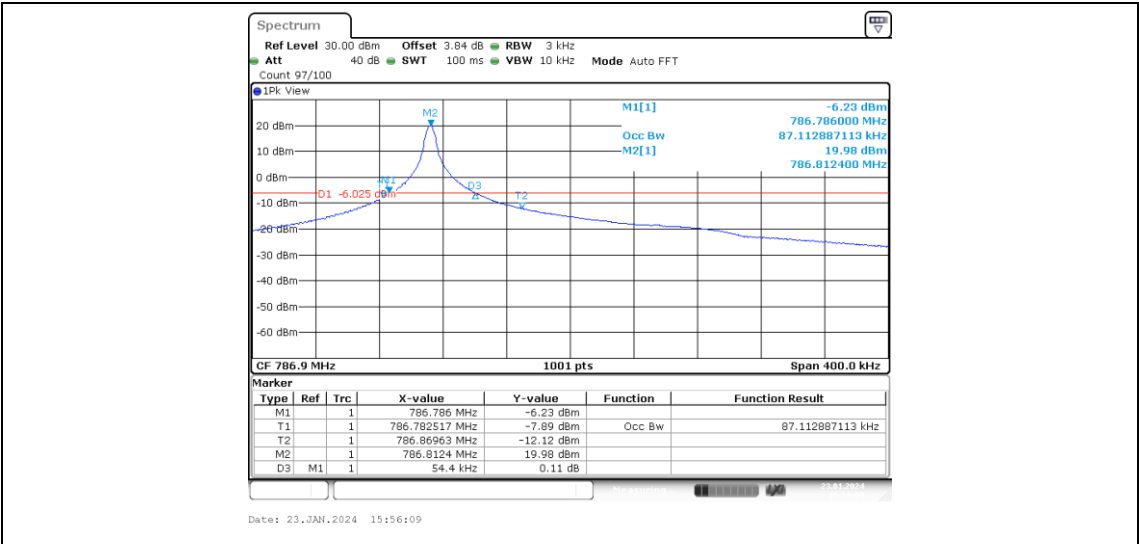
Band13-Stand-Alone-NaN-BPSK-23279-1@0-3.75kHz-0.052-0.073-PASS



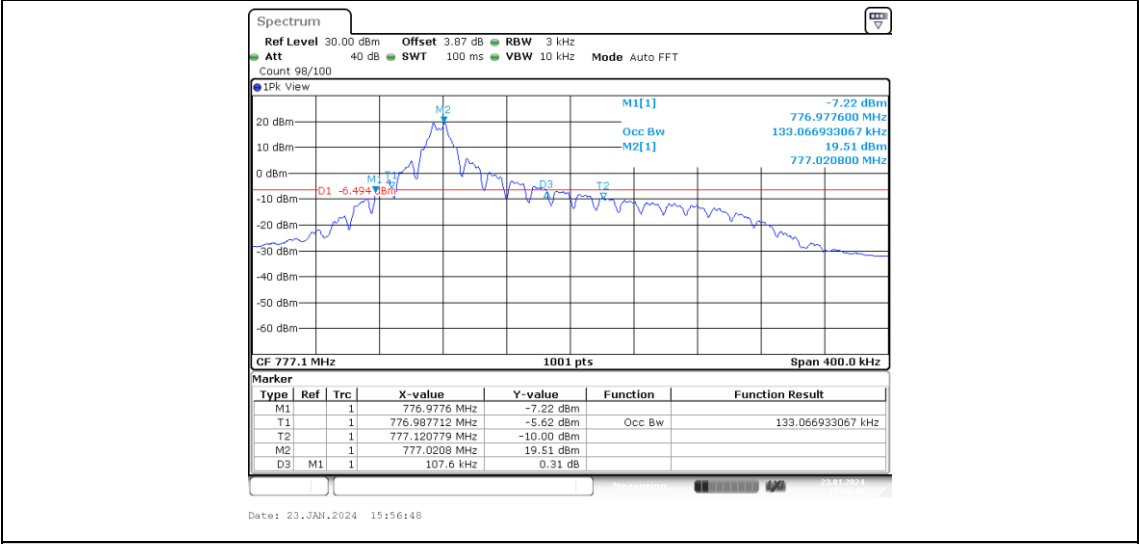
Band13-Stand-Alone-NaN-QPSK-23181-1@0-3.75kHz-0.054-0.087-PASS



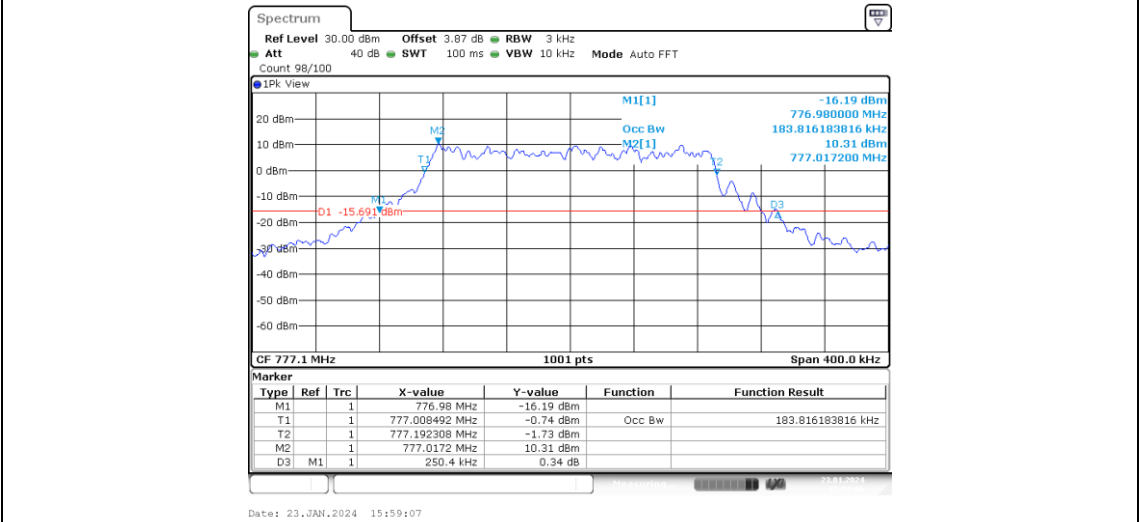
Band13-Stand-Alone-NaN-QPSK-23230-1@0-3.75kHz-0.054-0.087-PASS



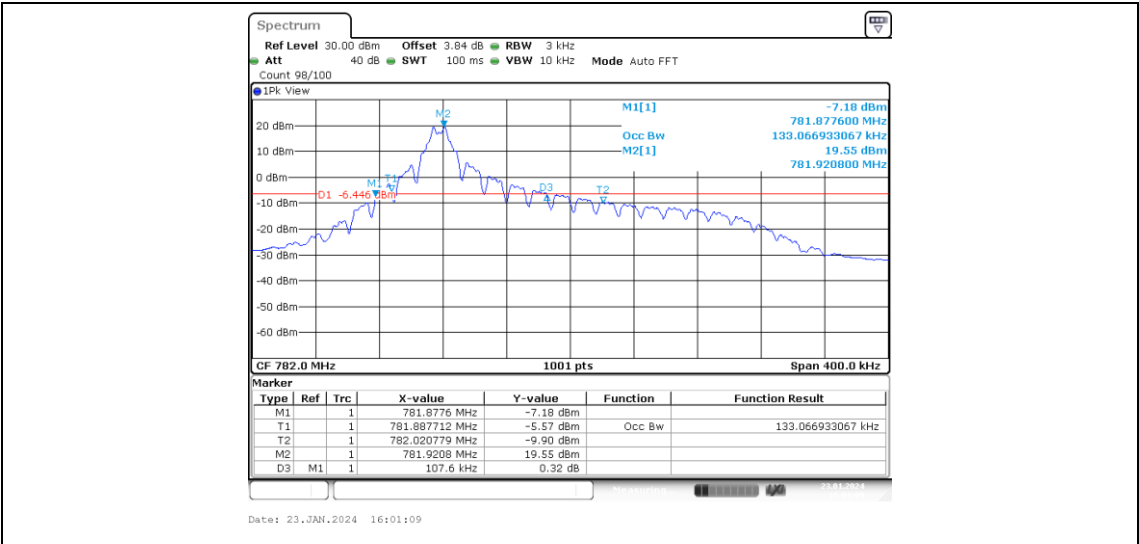
Band13-Stand-Alone-NaN-QPSK-23279-1@0-3.75kHz-0.054-0.087-PASS



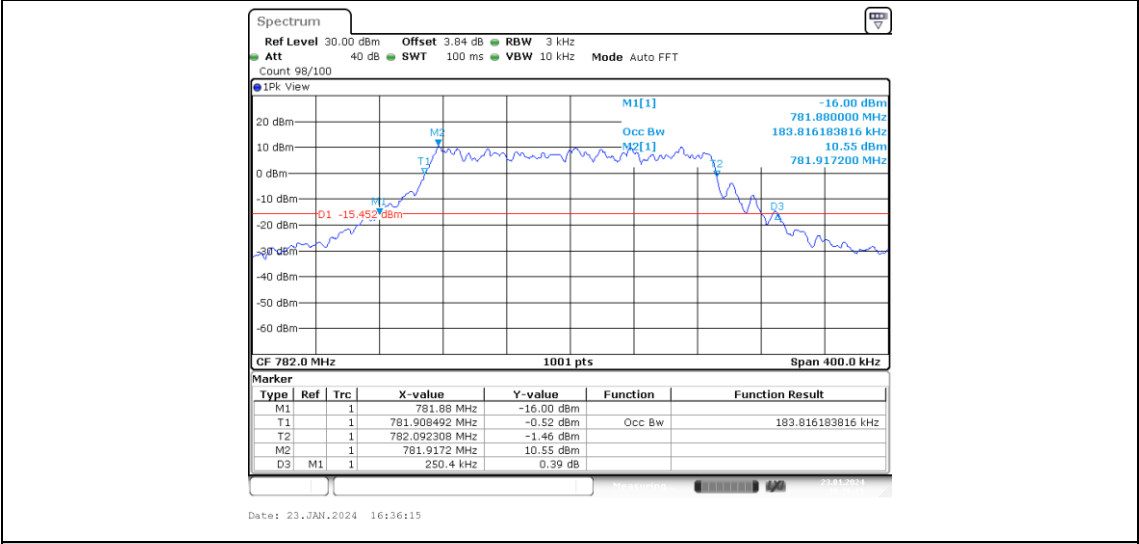
Band13-Stand-Alone-NaN-BPSK-23181-1@0-15kHz-0.108-0.133-PASS



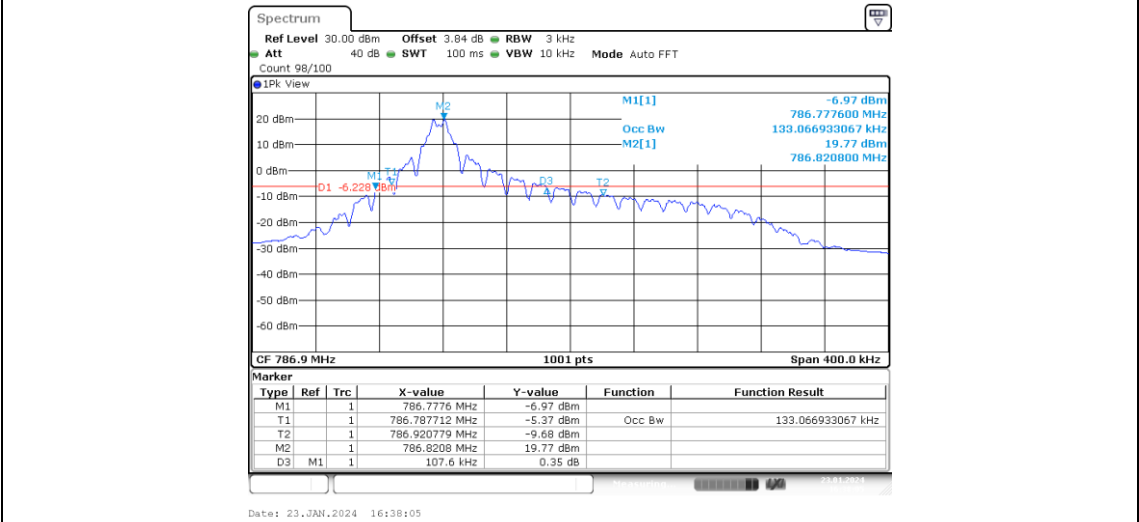
Band13-Stand-Alone-NaN-BPSK-23181-12@0-15kHz-0.250-0.184-PASS



Band13-Stand-Alone-NaN-BPSK-23230-1@0-15kHz-0.108-0.133-PASS



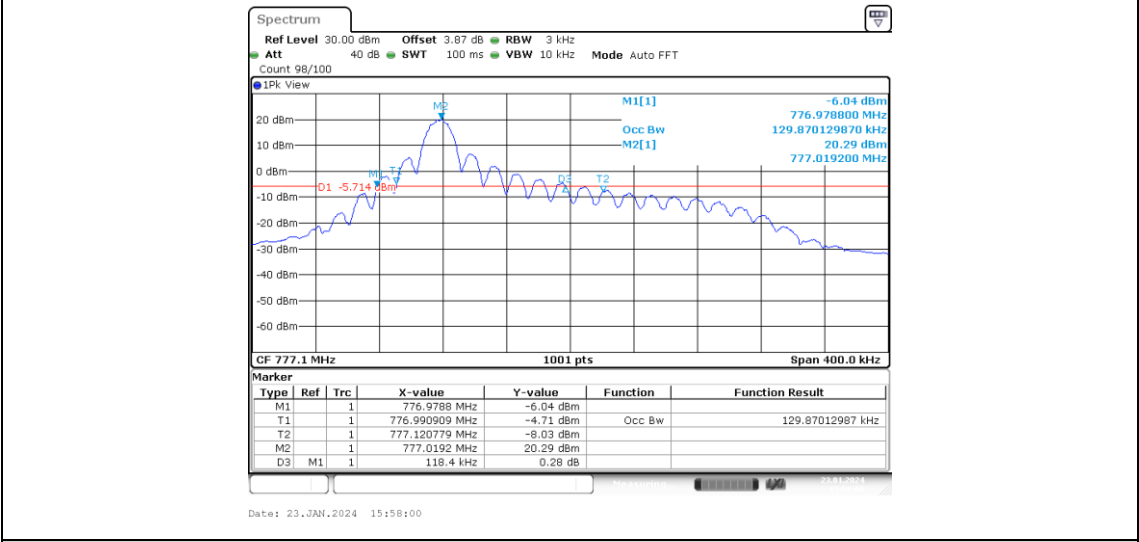
Band13-Stand-Alone-NaN-BPSK-23230-12@0-15kHz-0.250-0.184-PASS



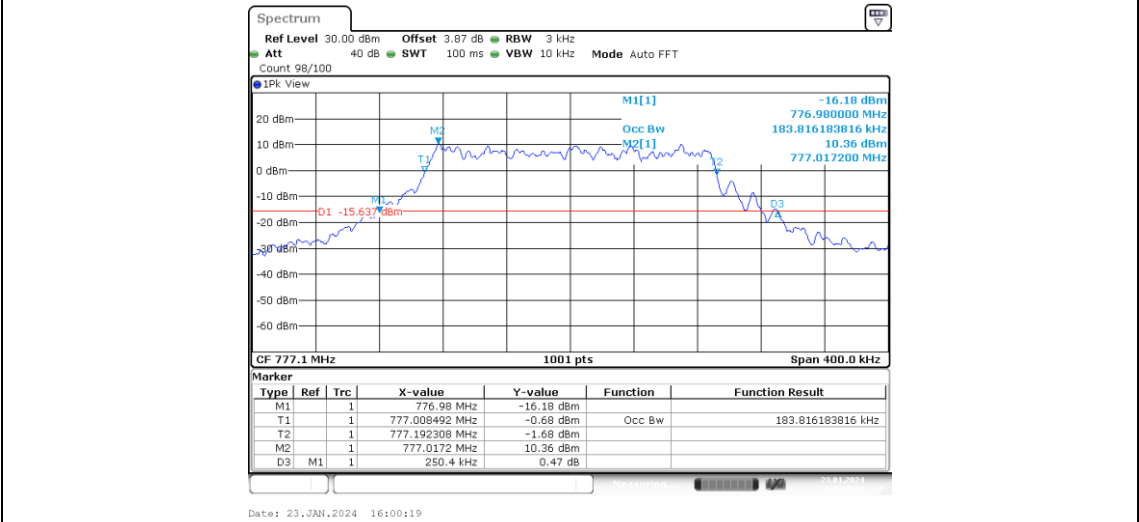
Band13-Stand-Alone-NaN-BPSK-23279-1@0-15kHz-0.108-0.133-PASS



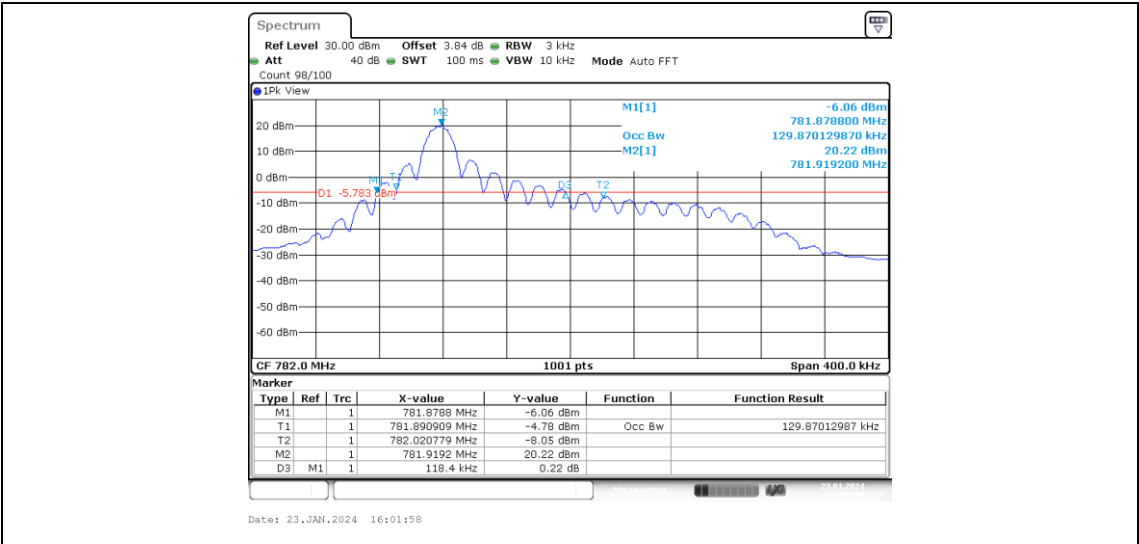
Band13-Stand-Alone-NaN-BPSK-23279-12@0-15kHz-0.250-0.184-PASS



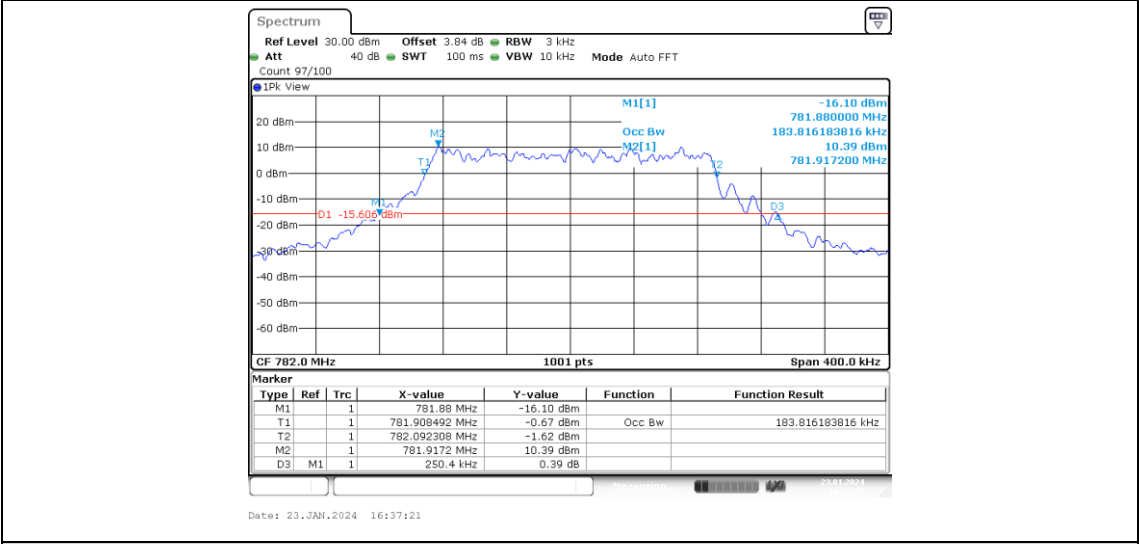
Band13-Stand-Alone-NaN-QPSK-23181-1@0-15kHz-0.118-0.13-PASS



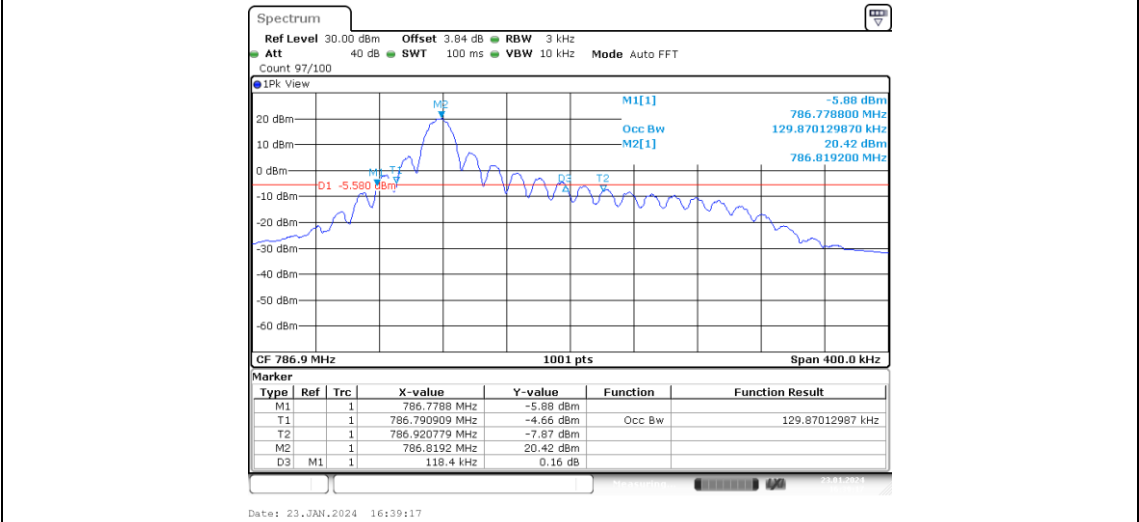
Band13-Stand-Alone-NaN-QPSK-23181-12@0-15kHz-0.250-0.184-PASS



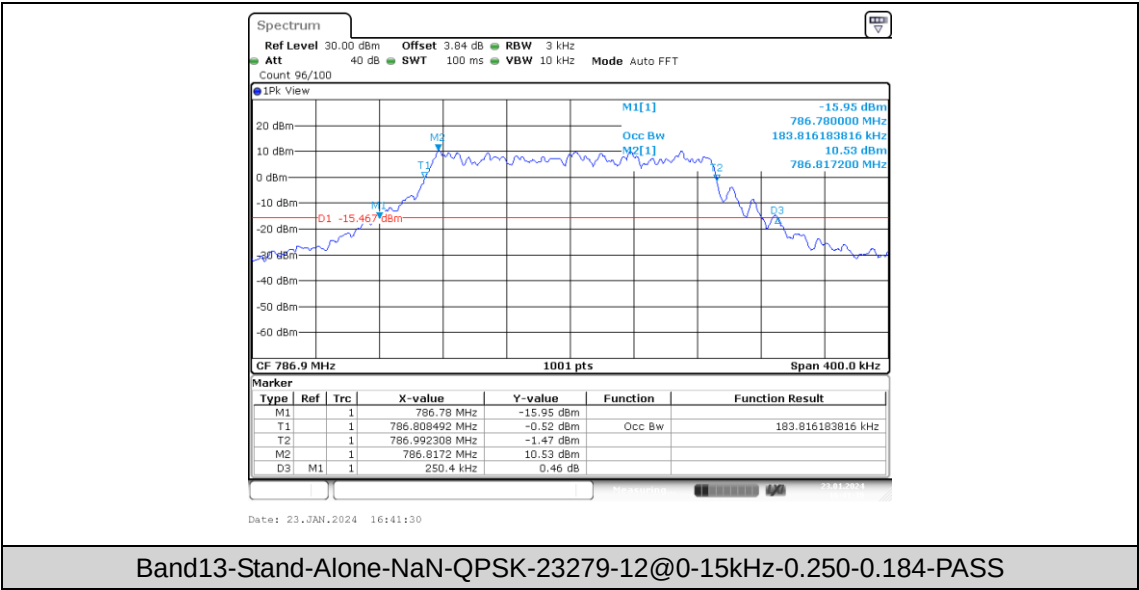
Band13-Stand-Alone-NaN-QPSK-23230-1@0-15kHz-0.118-0.13-PASS



Band13-Stand-Alone-NaN-QPSK-23230-12@0-15kHz-0.250-0.184-PASS



Band13-Stand-Alone-NaN-QPSK-23279-1@0-15kHz-0.118-0.13-PASS





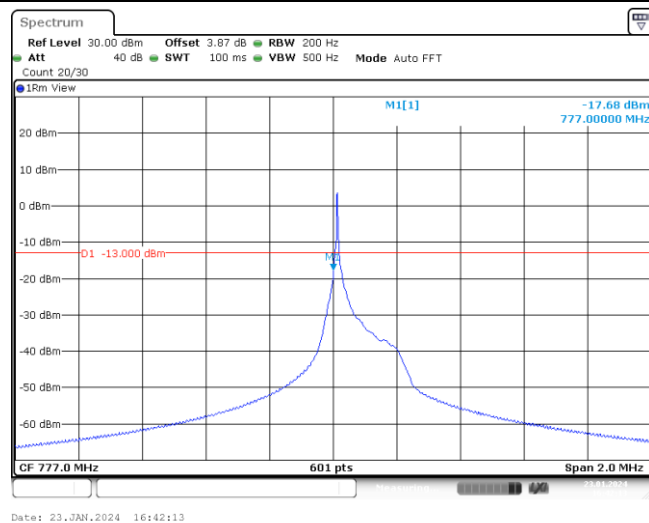
## Appendix D: Band Edge

### Test Result

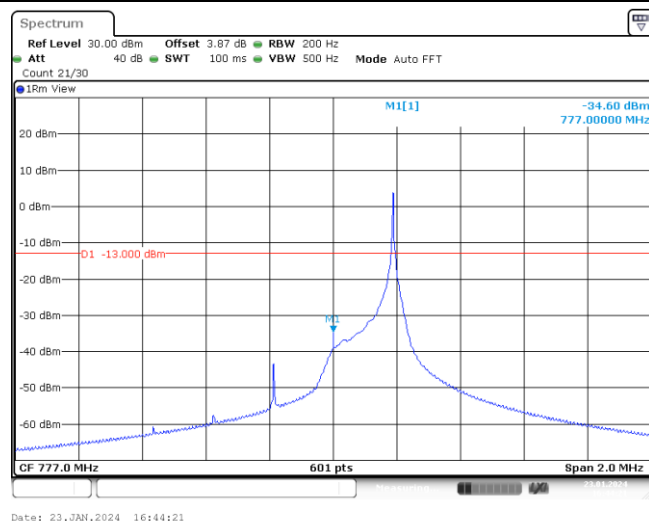
| Band   | OpMode      | SCS     | BW  | Modu | Channel | Tones | Result (dBm) | Verdict |
|--------|-------------|---------|-----|------|---------|-------|--------------|---------|
| Band13 | Stand-Alone | 3.75kHz | NaN | BPSK | 23181   | 1@0   | -17.68       | PASS    |
| Band13 | Stand-Alone | 3.75kHz | NaN | BPSK | 23181   | 1@47  | -34.60       | PASS    |
| Band13 | Stand-Alone | 3.75kHz | NaN | BPSK | 23279   | 1@0   | -39.58       | PASS    |
| Band13 | Stand-Alone | 3.75kHz | NaN | BPSK | 23279   | 1@47  | -18.09       | PASS    |
| Band13 | Stand-Alone | 3.75kHz | NaN | QPSK | 23181   | 1@0   | -19.42       | PASS    |
| Band13 | Stand-Alone | 3.75kHz | NaN | QPSK | 23181   | 1@47  | -35.27       | PASS    |
| Band13 | Stand-Alone | 3.75kHz | NaN | QPSK | 23279   | 1@0   | -41.06       | PASS    |
| Band13 | Stand-Alone | 3.75kHz | NaN | QPSK | 23279   | 1@47  | -19.04       | PASS    |
| Band13 | Stand-Alone | 15kHz   | NaN | BPSK | 23181   | 1@0   | -16.33       | PASS    |
| Band13 | Stand-Alone | 15kHz   | NaN | BPSK | 23181   | 1@11  | -35.59       | PASS    |
| Band13 | Stand-Alone | 15kHz   | NaN | BPSK | 23181   | 12@0  | -25.74       | PASS    |
| Band13 | Stand-Alone | 15kHz   | NaN | BPSK | 23279   | 1@0   | -35.68       | PASS    |
| Band13 | Stand-Alone | 15kHz   | NaN | BPSK | 23279   | 1@11  | -17.02       | PASS    |
| Band13 | Stand-Alone | 15kHz   | NaN | BPSK | 23279   | 12@0  | -26.56       | PASS    |
| Band13 | Stand-Alone | 15kHz   | NaN | QPSK | 23181   | 1@0   | -18.37       | PASS    |
| Band13 | Stand-Alone | 15kHz   | NaN | QPSK | 23181   | 1@11  | -36.44       | PASS    |
| Band13 | Stand-Alone | 15kHz   | NaN | QPSK | 23181   | 12@0  | -24.9        | PASS    |

|        |             |       |     |      |       |      |            |      |
|--------|-------------|-------|-----|------|-------|------|------------|------|
|        |             |       |     |      |       |      | 3          |      |
| Band13 | Stand-Alone | 15kHz | NaN | QPSK | 23279 | 1@0  | -36.3<br>6 | PASS |
| Band13 | Stand-Alone | 15kHz | NaN | QPSK | 23279 | 1@11 | -17.8<br>8 | PASS |
| Band13 | Stand-Alone | 15kHz | NaN | QPSK | 23279 | 12@0 | -24.7<br>1 | PASS |

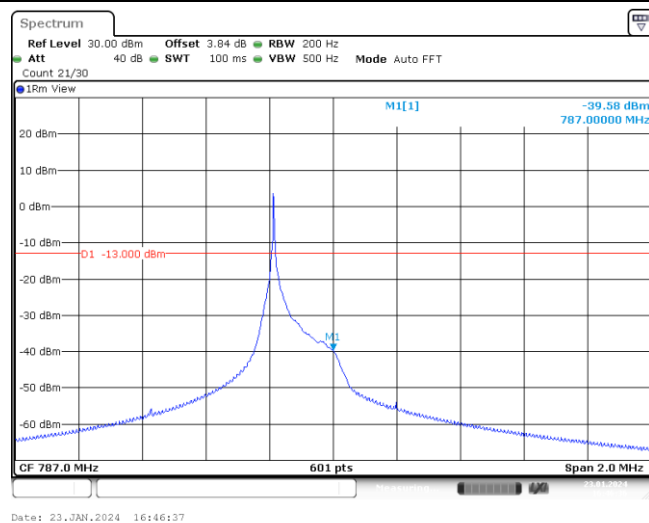
## Test Graphs



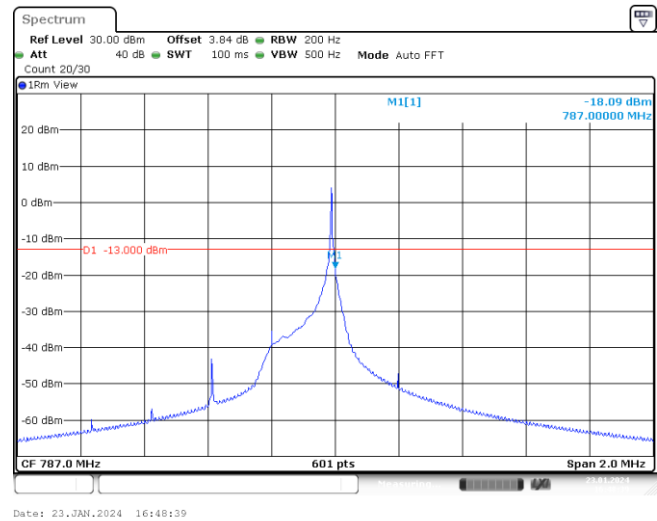
Band13-Stand-Alone-NaN-BPSK-23181-1@0-3.75kHz--17.68-PASS



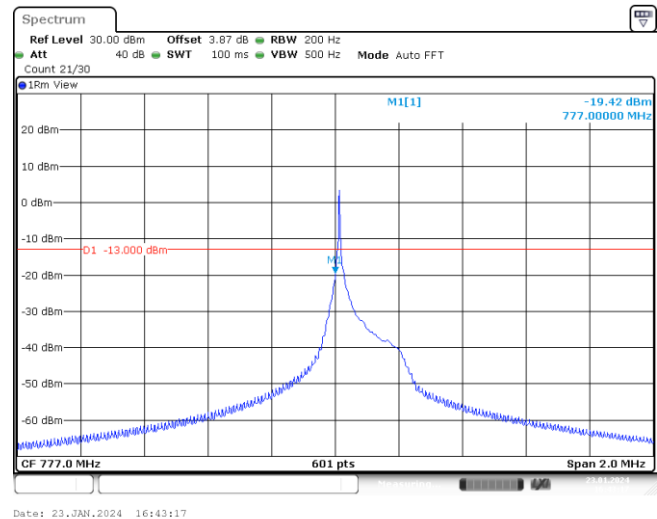
Band13-Stand-Alone-NaN-BPSK-23181-1@47-3.75kHz--34.60-PASS



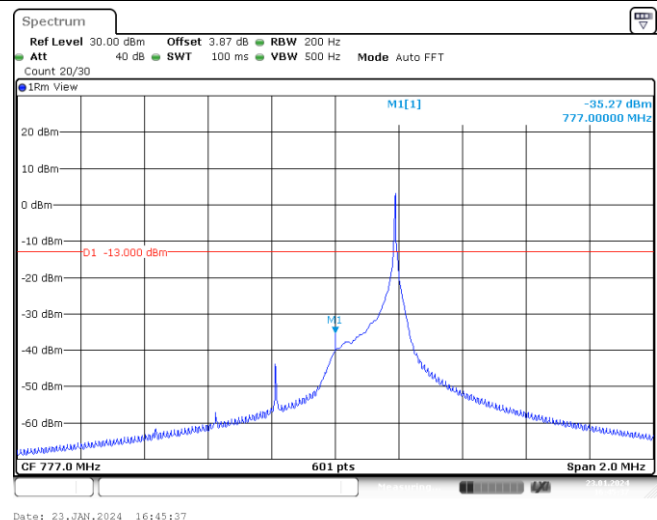
Band13-Stand-Alone-NaN-BPSK-23279-1@0-3.75kHz--39.58-PASS



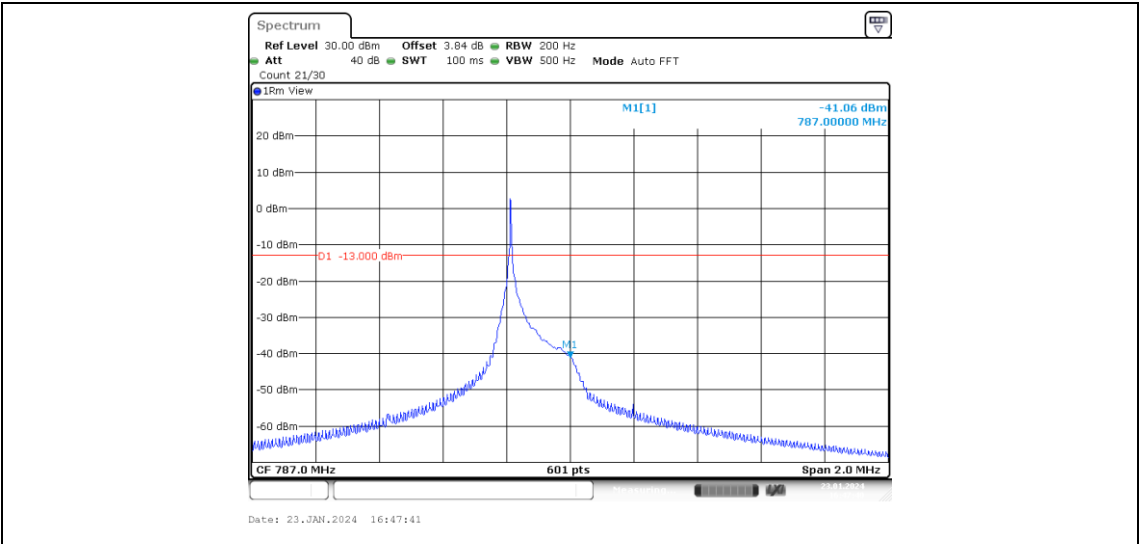
Band13-Stand-Alone-NaN-BPSK-23279-1@47-3.75kHz--18.09-PASS



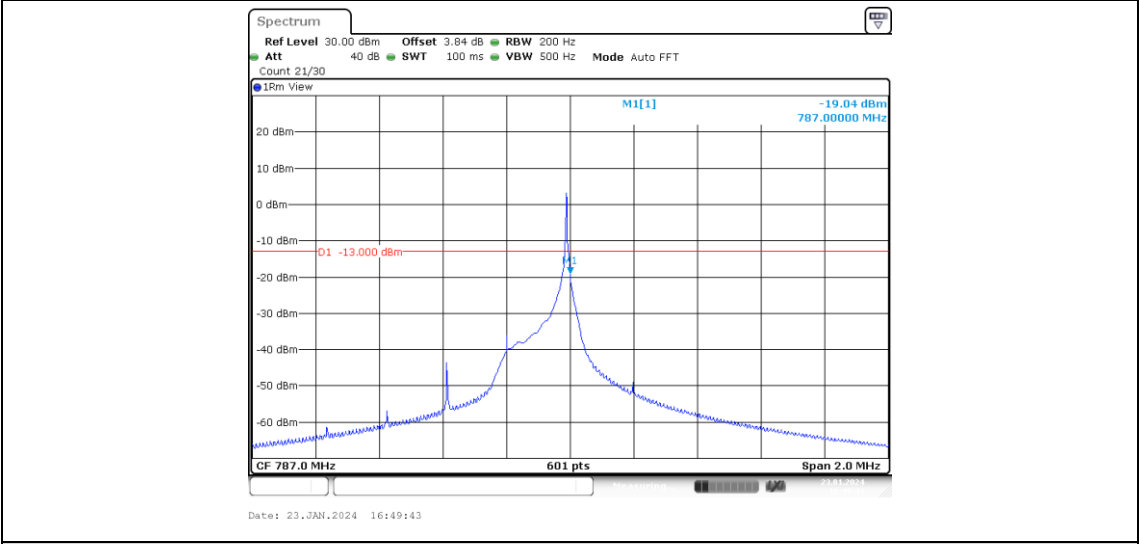
Band13-Stand-Alone-NaN-QPSK-23181-1@0-3.75kHz--19.42-PASS



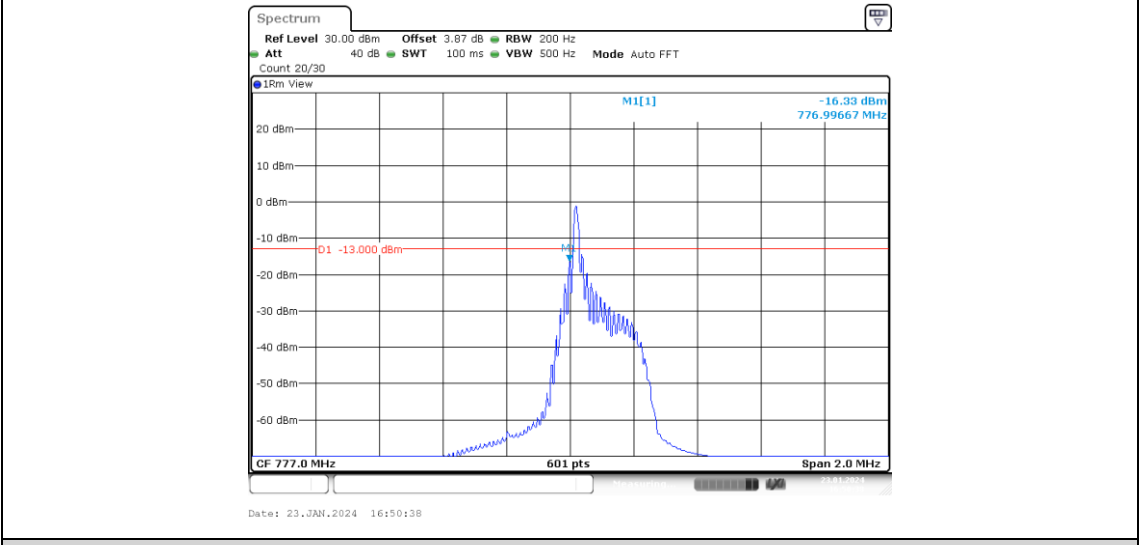
Band13-Stand-Alone-NaN-QPSK-23181-1@47-3.75kHz--35.27-PASS



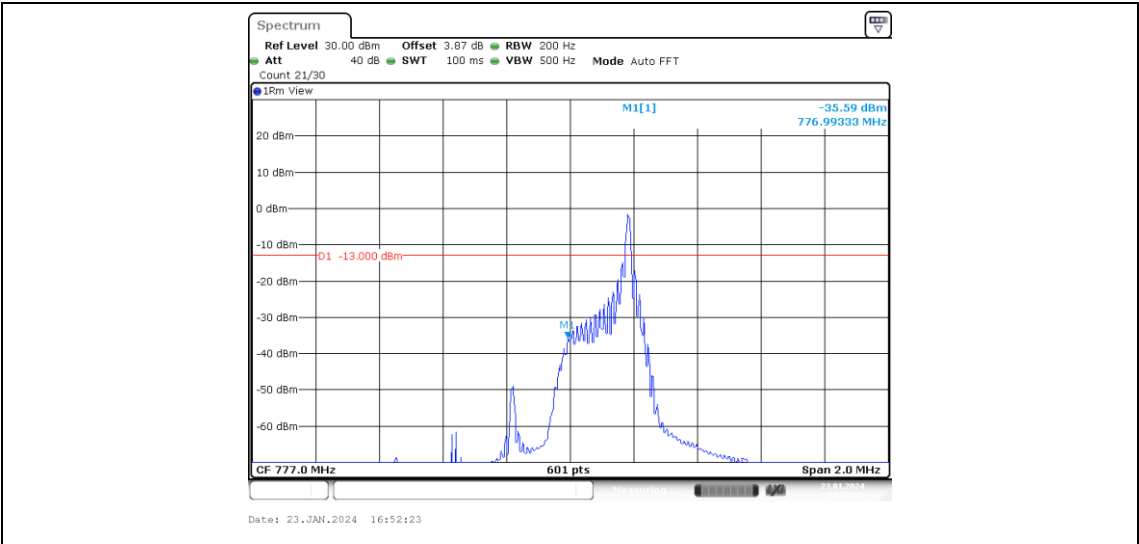
Band13-Stand-Alone-NaN-QPSK-23279-1@0-3.75kHz--41.06-PASS



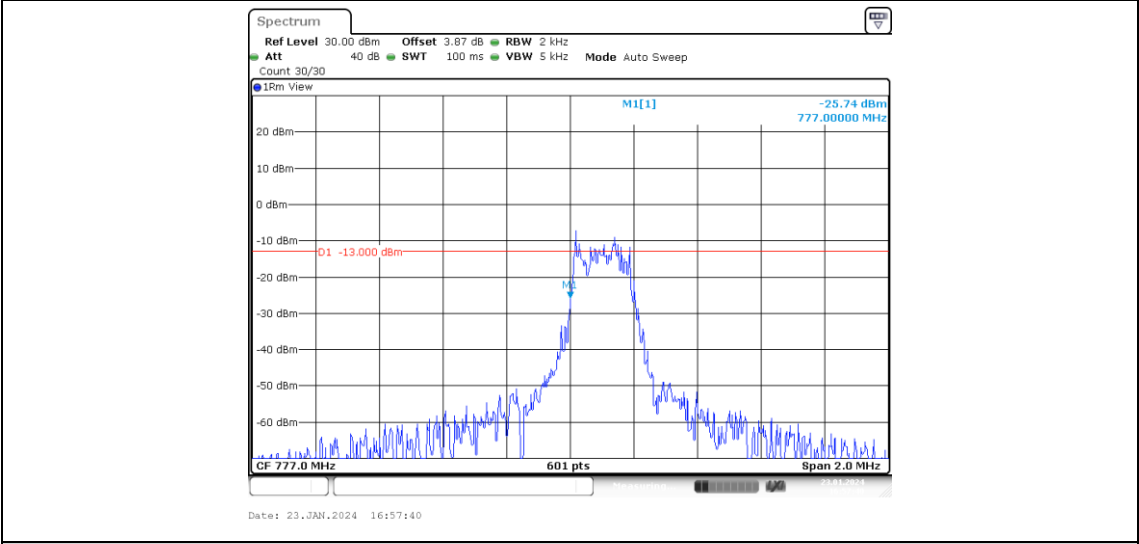
Band13-Stand-Alone-NaN-QPSK-23279-1@47-3.75kHz--19.04-PASS



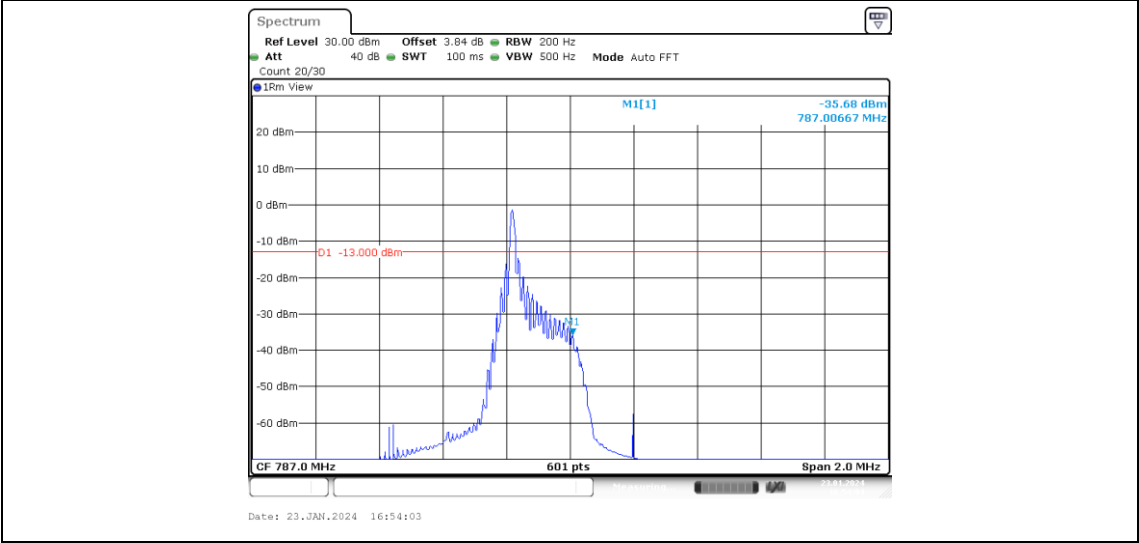
Band13-Stand-Alone-NaN-BPSK-23181-1@0-15kHz--16.33-PASS



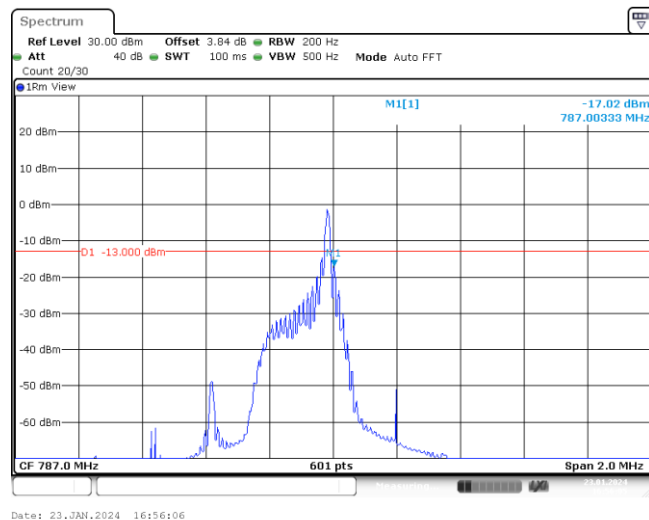
Band13-Stand-Alone-NaN-BPSK-23181-1@11-15kHz--35.59-PASS



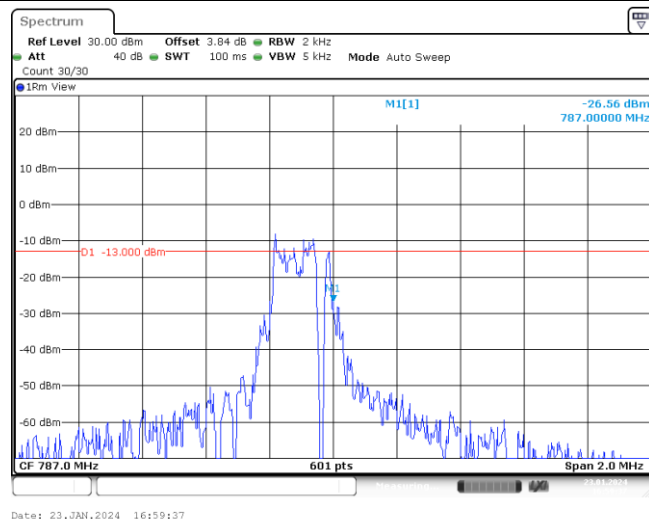
Band13-Stand-Alone-NaN-BPSK-23181-12@0-15kHz--25.74-PASS



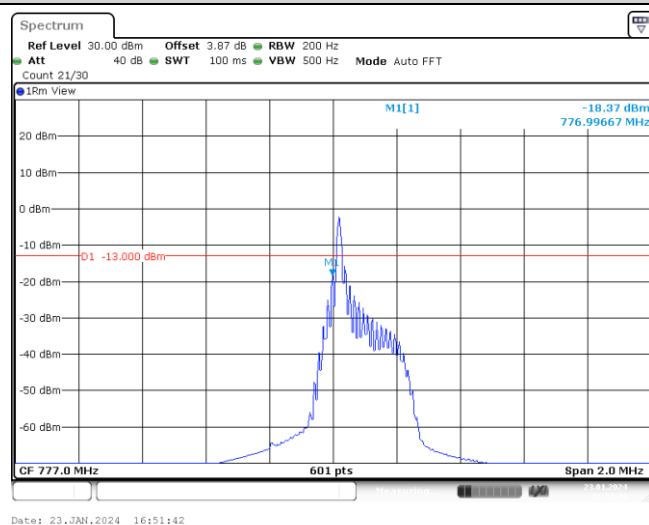
Band13-Stand-Alone-NaN-BPSK-23279-1@0-15kHz--35.68-PASS



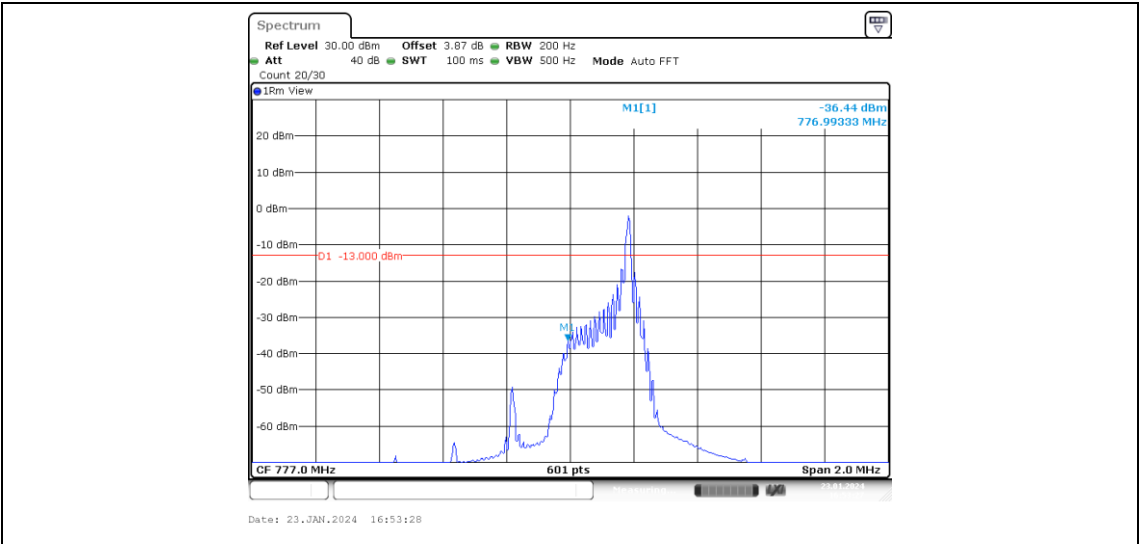
Band13-Stand-Alone-NaN-BPSK-23279-1@11-15kHz--17.02-PASS



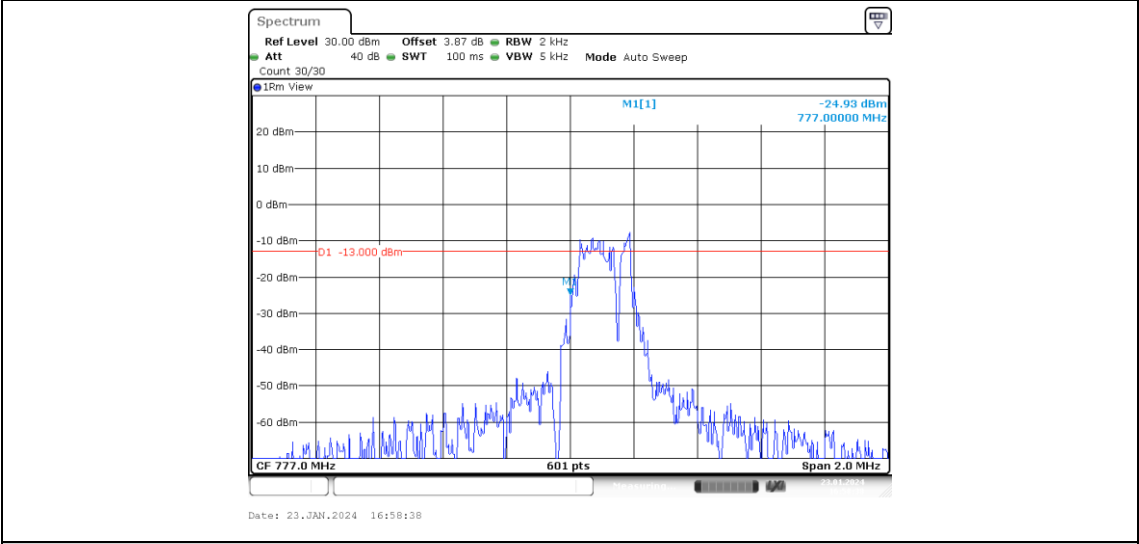
Band13-Stand-Alone-NaN-BPSK-23279-12@0-15kHz--26.56-PASS



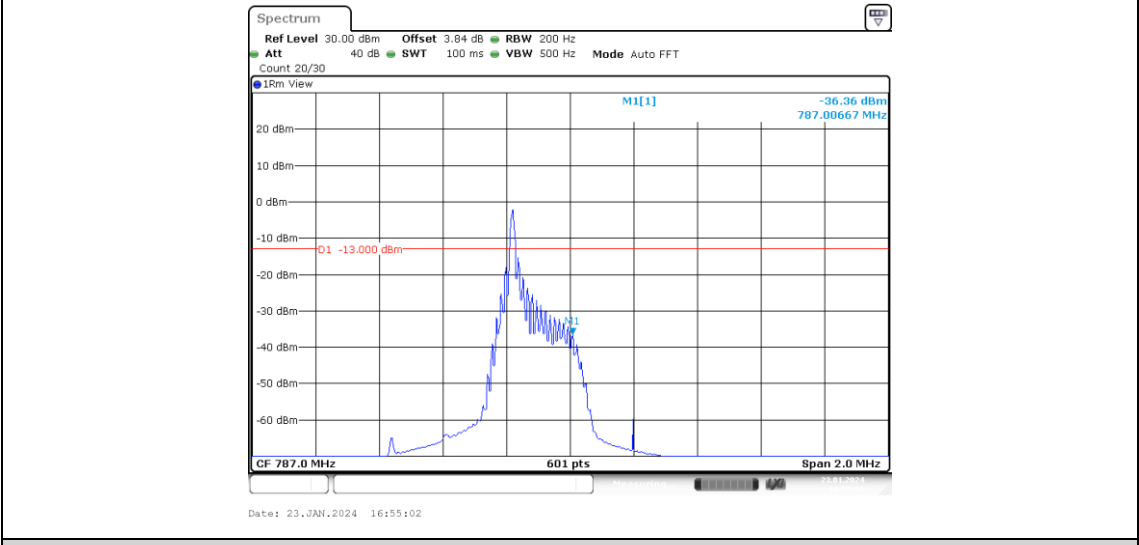
Band13-Stand-Alone-NaN-QPSK-23181-1@0-15kHz--18.37-PASS



Band13-Stand-Alone-NaN-QPSK-23181-1@11-15kHz--36.44-PASS

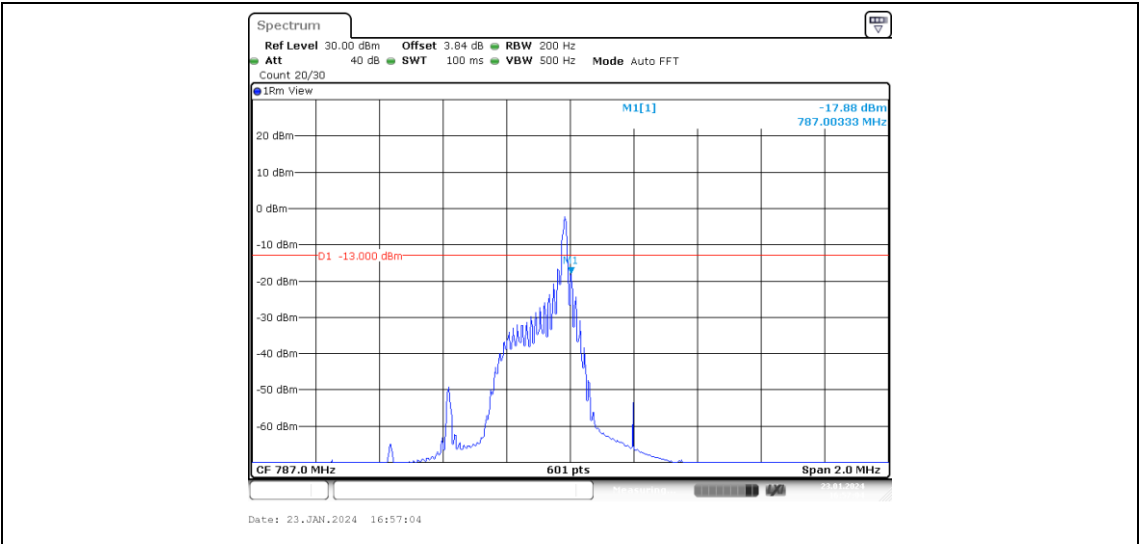


Band13-Stand-Alone-NaN-QPSK-23181-12@0-15kHz--24.93-PASS

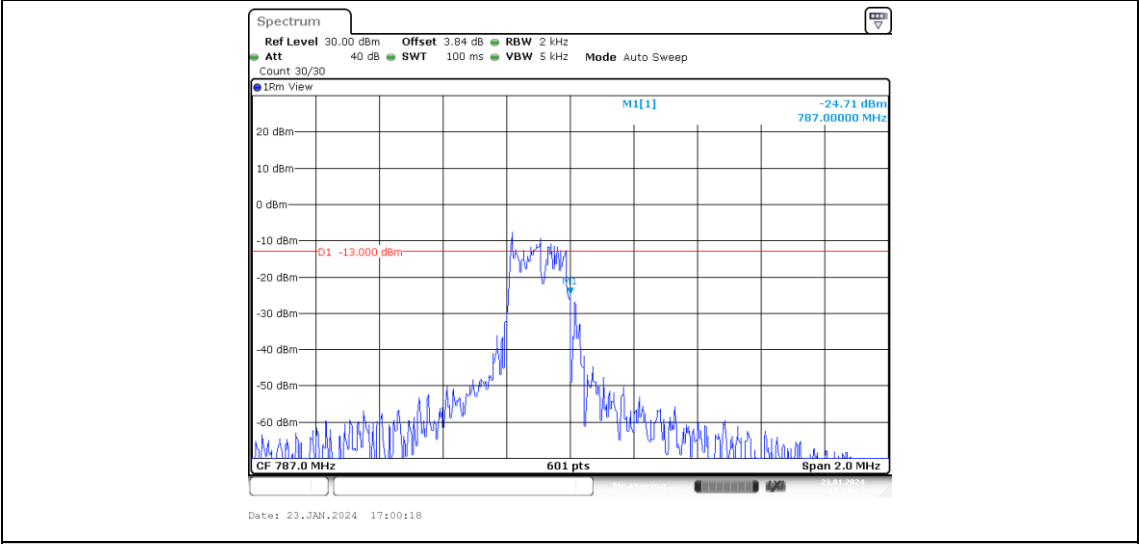


Band13-Stand-Alone-NaN-QPSK-23279-1@0-15kHz--36.36-PASS





Band13-Stand-Alone-NaN-QPSK-23279-1@11-15kHz--17.88-PASS



Band13-Stand-Alone-NaN-QPSK-23279-12@0-15kHz--24.71-PASS

## Appendix E: Conducted Spurious Emission

### Test Result

| Band       | OpMode      | SCS     | BW  | Modu | Channel | Tones | Freq Start [MHz] | Freq Stop [MHz] | Result (dBm) | Limit (dBm) | Verdict |
|------------|-------------|---------|-----|------|---------|-------|------------------|-----------------|--------------|-------------|---------|
| Band1<br>3 | Stand-Alone | 3.75kHz | NaN | QPSK | 23181   | 1@0   | 0.009            | 0.15            | -76.72       | -33         | PASS    |
| Band1<br>3 | Stand-Alone | 3.75kHz | NaN | QPSK | 23181   | 1@0   | 0.15             | 30              | -75.84       | -23         | PASS    |
| Band1<br>3 | Stand-Alone | 3.75kHz | NaN | QPSK | 23181   | 1@0   | 30               | 1000            | -64.62       | -13         | PASS    |
| Band1<br>3 | Stand-Alone | 3.75kHz | NaN | QPSK | 23181   | 1@0   | 763              | 775             | -54.29       | -35         | PASS    |
| Band1<br>3 | Stand-Alone | 3.75kHz | NaN | QPSK | 23181   | 1@0   | 793              | 805             | -61.77       | -35         | PASS    |
| Band1<br>3 | Stand-Alone | 3.75kHz | NaN | QPSK | 23181   | 1@0   | 1000             | 1000<br>0       | -50.16       | -13         | PASS    |
| Band1<br>3 | Stand-Alone | 3.75kHz | NaN | QPSK | 23181   | 1@0   | 1559             | 1610            | -51.49       | -50         | PASS    |
| Band1<br>3 | Stand-Alone | 3.75kHz | NaN | QPSK | 23181   | 1@47  | 0.009            | 0.15            | -74.86       | -33         | PASS    |
| Band1<br>3 | Stand-Alone | 3.75kHz | NaN | QPSK | 23181   | 1@47  | 0.15             | 30              | -73.79       | -23         | PASS    |
| Band1<br>3 | Stand-Alone | 3.75kHz | NaN | QPSK | 23181   | 1@47  | 30               | 1000            | -64.43       | -13         | PASS    |
| Band1<br>3 | Stand-Alone | 3.75kHz | NaN | QPSK | 23181   | 1@47  | 763              | 775             | -53.87       | -35         | PASS    |
| Band1<br>3 | Stand-Alone | 3.75kHz | NaN | QPSK | 23181   | 1@47  | 793              | 805             | -62.5        | -35         | PASS    |
| Band1<br>3 | Stand-Alone | 3.75kHz | NaN | QPSK | 23181   | 1@47  | 1000             | 1000<br>0       | -50.24       | -13         | PASS    |
| Band1<br>3 | Stand-Alone | 3.75kHz | NaN | QPSK | 23181   | 1@47  | 1559             | 1610            | -51.49       | -50         | PASS    |
| Band1<br>3 | Stand-Alone | 3.75kHz | NaN | QPSK | 23230   | 1@0   | 0.009            | 0.15            | -76.65       | -33         | PASS    |
| Band1<br>3 | Stand-Alone | 3.75kHz | NaN | QPSK | 23230   | 1@0   | 0.15             | 30              | -71.92       | -23         | PASS    |
| Band1<br>3 | Stand-Alone | 3.75kHz | NaN | QPSK | 23230   | 1@0   | 30               | 1000            | -64.87       | -13         | PASS    |

|            |                 |         |     |      |       |      |       |           |        |     |      |
|------------|-----------------|---------|-----|------|-------|------|-------|-----------|--------|-----|------|
| Band1<br>3 | Stand-Alon<br>e | 3.75kHz | NaN | QPSK | 23230 | 1@0  | 763   | 775       | -63.01 | -35 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 3.75kHz | NaN | QPSK | 23230 | 1@0  | 793   | 805       | -63.25 | -35 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 3.75kHz | NaN | QPSK | 23230 | 1@0  | 1000  | 1000<br>0 | -50.12 | -13 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 3.75kHz | NaN | QPSK | 23230 | 1@0  | 1559  | 1610      | -51.54 | -50 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 3.75kHz | NaN | QPSK | 23230 | 1@47 | 0.009 | 0.15      | -75.45 | -33 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 3.75kHz | NaN | QPSK | 23230 | 1@47 | 0.15  | 30        | -75.65 | -23 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 3.75kHz | NaN | QPSK | 23230 | 1@47 | 30    | 1000      | -64.96 | -13 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 3.75kHz | NaN | QPSK | 23230 | 1@47 | 763   | 775       | -63.97 | -35 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 3.75kHz | NaN | QPSK | 23230 | 1@47 | 793   | 805       | -63.5  | -35 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 3.75kHz | NaN | QPSK | 23230 | 1@47 | 1000  | 1000<br>0 | -50.37 | -13 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 3.75kHz | NaN | QPSK | 23230 | 1@47 | 1559  | 1610      | -51.47 | -50 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 3.75kHz | NaN | QPSK | 23279 | 1@0  | 0.009 | 0.15      | -76.81 | -33 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 3.75kHz | NaN | QPSK | 23279 | 1@0  | 0.15  | 30        | -75.36 | -23 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 3.75kHz | NaN | QPSK | 23279 | 1@0  | 30    | 1000      | -64.84 | -13 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 3.75kHz | NaN | QPSK | 23279 | 1@0  | 763   | 775       | -63.95 | -35 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 3.75kHz | NaN | QPSK | 23279 | 1@0  | 793   | 805       | -61.08 | -35 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 3.75kHz | NaN | QPSK | 23279 | 1@0  | 1000  | 1000<br>0 | -50.42 | -13 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 3.75kHz | NaN | QPSK | 23279 | 1@0  | 1559  | 1610      | -51.08 | -50 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 3.75kHz | NaN | QPSK | 23279 | 1@47 | 0.009 | 0.15      | -74.09 | -33 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 3.75kHz | NaN | QPSK | 23279 | 1@47 | 0.15  | 30        | -75.73 | -23 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 3.75kHz | NaN | QPSK | 23279 | 1@47 | 30    | 1000      | -64.88 | -13 | PASS |
| Band1      | Stand-Alon      | 3.75kHz | NaN | QPSK | 23279 | 1@47 | 763   | 775       | -63.07 | -35 | PASS |

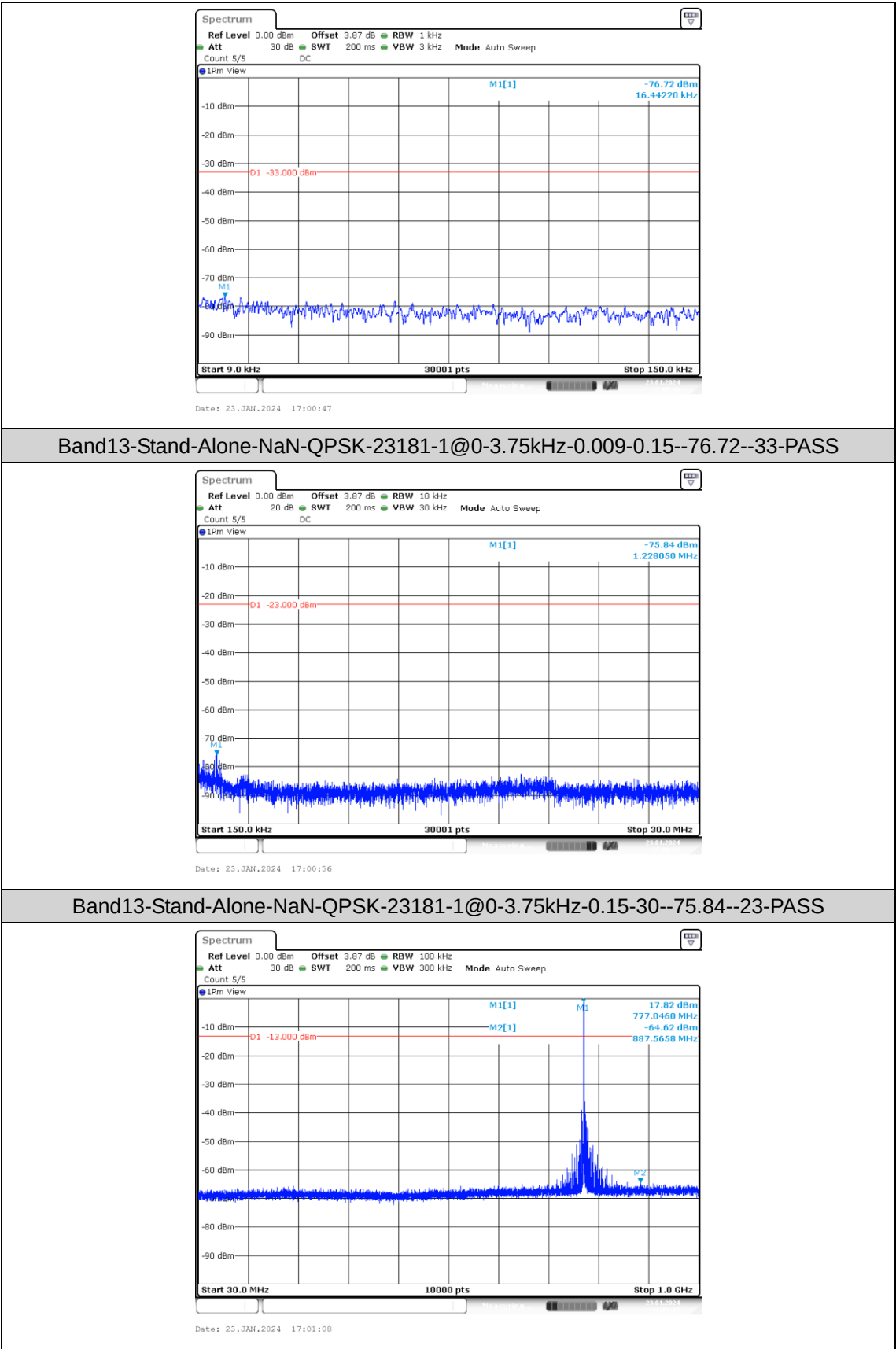
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|------------|-----------------|---------|-----|------|-------|------|-------|-----------|--------|-----|------|
| 3          | e               |         |     |      |       |      |       |           |        |     |      |
| Band1<br>3 | Stand-Alon<br>e | 3.75kHz | NaN | QPSK | 23279 | 1@47 | 793   | 805       | -61.88 | -35 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 3.75kHz | NaN | QPSK | 23279 | 1@47 | 1000  | 1000<br>0 | -50.29 | -13 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 3.75kHz | NaN | QPSK | 23279 | 1@47 | 1559  | 1610      | -51.07 | -50 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz   | NaN | BPSK | 23181 | 1@0  | 0.009 | 0.15      | -76.29 | -33 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz   | NaN | BPSK | 23181 | 1@0  | 0.15  | 30        | -77.07 | -23 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz   | NaN | BPSK | 23181 | 1@0  | 30    | 1000      | -63.78 | -13 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz   | NaN | BPSK | 23181 | 1@0  | 763   | 775       | -66.27 | -35 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz   | NaN | BPSK | 23181 | 1@0  | 793   | 805       | -64    | -35 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz   | NaN | BPSK | 23181 | 1@0  | 1000  | 1000<br>0 | -50.31 | -13 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz   | NaN | BPSK | 23181 | 1@0  | 1559  | 1610      | -51.48 | -50 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz   | NaN | BPSK | 23181 | 1@11 | 0.009 | 0.15      | -75.88 | -33 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz   | NaN | BPSK | 23181 | 1@11 | 0.15  | 30        | -68.99 | -23 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz   | NaN | BPSK | 23181 | 1@11 | 30    | 1000      | -62.5  | -13 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz   | NaN | BPSK | 23181 | 1@11 | 763   | 775       | -66.76 | -35 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz   | NaN | BPSK | 23181 | 1@11 | 793   | 805       | -64.09 | -35 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz   | NaN | BPSK | 23181 | 1@11 | 1000  | 1000<br>0 | -50.24 | -13 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz   | NaN | BPSK | 23181 | 1@11 | 1559  | 1610      | -51.49 | -50 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz   | NaN | BPSK | 23230 | 1@0  | 0.009 | 0.15      | -76.26 | -33 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz   | NaN | BPSK | 23230 | 1@0  | 0.15  | 30        | -75.2  | -23 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz   | NaN | BPSK | 23230 | 1@0  | 30    | 1000      | -60.6  | -13 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz   | NaN | BPSK | 23230 | 1@0  | 763   | 775       | -66.64 | -35 | PASS |

|            |                 |       |     |      |       |      |       |           |        |     |      |
|------------|-----------------|-------|-----|------|-------|------|-------|-----------|--------|-----|------|
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | BPSK | 23230 | 1@0  | 793   | 805       | -63.81 | -35 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | BPSK | 23230 | 1@0  | 1000  | 1000<br>0 | -50.43 | -13 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | BPSK | 23230 | 1@0  | 1559  | 1610      | -51.53 | -50 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | BPSK | 23230 | 1@11 | 0.009 | 0.15      | -75.57 | -33 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | BPSK | 23230 | 1@11 | 0.15  | 30        | -72.69 | -23 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | BPSK | 23230 | 1@11 | 30    | 1000      | -64.77 | -13 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | BPSK | 23230 | 1@11 | 763   | 775       | -66.63 | -35 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | BPSK | 23230 | 1@11 | 793   | 805       | -63.14 | -35 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | BPSK | 23230 | 1@11 | 1000  | 1000<br>0 | -50.37 | -13 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | BPSK | 23230 | 1@11 | 1559  | 1610      | -51.46 | -50 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | BPSK | 23279 | 1@0  | 0.009 | 0.15      | -75.11 | -33 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | BPSK | 23279 | 1@0  | 0.15  | 30        | -74.21 | -23 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | BPSK | 23279 | 1@0  | 30    | 1000      | -58.76 | -13 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | BPSK | 23279 | 1@0  | 763   | 775       | -64.53 | -35 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | BPSK | 23279 | 1@0  | 793   | 805       | -66.26 | -35 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | BPSK | 23279 | 1@0  | 1000  | 1000<br>0 | -50.06 | -13 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | BPSK | 23279 | 1@0  | 1559  | 1610      | -51.42 | -50 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | BPSK | 23279 | 1@11 | 0.009 | 0.15      | -76.43 | -33 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | BPSK | 23279 | 1@11 | 0.15  | 30        | -68.44 | -23 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | BPSK | 23279 | 1@11 | 30    | 1000      | -64.01 | -13 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | BPSK | 23279 | 1@11 | 763   | 775       | -61.74 | -35 | PASS |
| Band1      | Stand-Alon      | 15kHz | NaN | BPSK | 23279 | 1@11 | 793   | 805       | -66.88 | -35 | PASS |

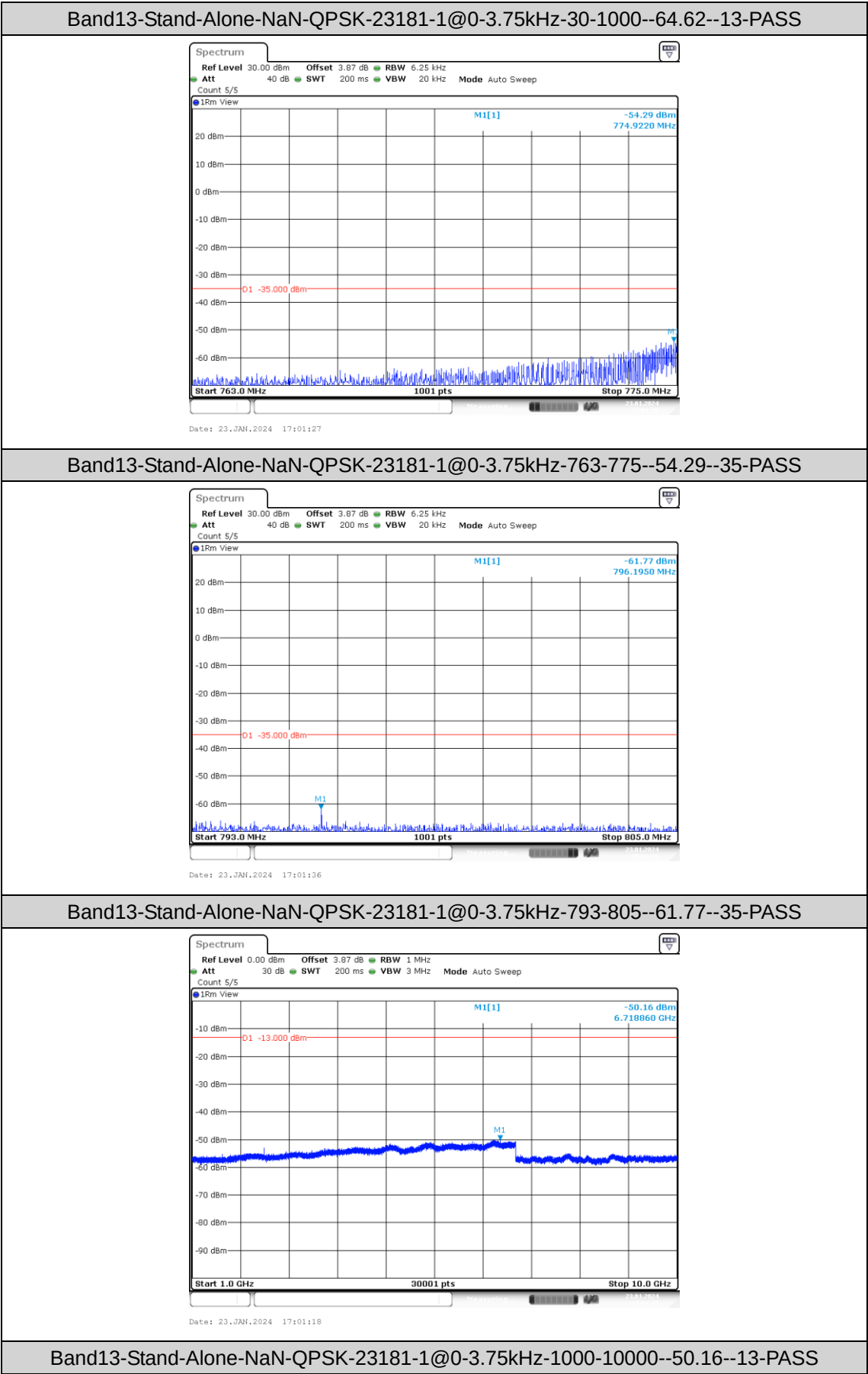
|            |                 |       |     |      |       |      |       |           |        |     |      |
|------------|-----------------|-------|-----|------|-------|------|-------|-----------|--------|-----|------|
| 3          | e               |       |     |      |       |      |       |           |        |     |      |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | BPSK | 23279 | 1@11 | 1000  | 1000<br>0 | -50.2  | -13 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | BPSK | 23279 | 1@11 | 1559  | 1610      | -51.55 | -50 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | QPSK | 23181 | 12@0 | 0.009 | 0.15      | -74.93 | -33 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | QPSK | 23181 | 12@0 | 0.15  | 30        | -71.84 | -23 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | QPSK | 23181 | 12@0 | 30    | 1000      | -64.89 | -13 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | QPSK | 23181 | 12@0 | 763   | 775       | -66.49 | -35 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | QPSK | 23181 | 12@0 | 793   | 805       | -66.61 | -35 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | QPSK | 23181 | 12@0 | 1000  | 1000<br>0 | -50.05 | -13 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | QPSK | 23181 | 12@0 | 1559  | 1610      | -51.49 | -50 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | QPSK | 23230 | 12@0 | 0.009 | 0.15      | -76.11 | -33 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | QPSK | 23230 | 12@0 | 0.15  | 30        | -71.3  | -23 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | QPSK | 23230 | 12@0 | 30    | 1000      | -65.01 | -13 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | QPSK | 23230 | 12@0 | 763   | 775       | -66.45 | -35 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | QPSK | 23230 | 12@0 | 793   | 805       | -66.55 | -35 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | QPSK | 23230 | 12@0 | 1000  | 1000<br>0 | -50.27 | -13 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | QPSK | 23230 | 12@0 | 1559  | 1610      | -51.41 | -50 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | QPSK | 23279 | 12@0 | 0.009 | 0.15      | -75.78 | -33 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | QPSK | 23279 | 12@0 | 0.15  | 30        | -76.06 | -23 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | QPSK | 23279 | 12@0 | 30    | 1000      | -65.04 | -13 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | QPSK | 23279 | 12@0 | 763   | 775       | -66.44 | -35 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | QPSK | 23279 | 12@0 | 793   | 805       | -66.33 | -35 | PASS |

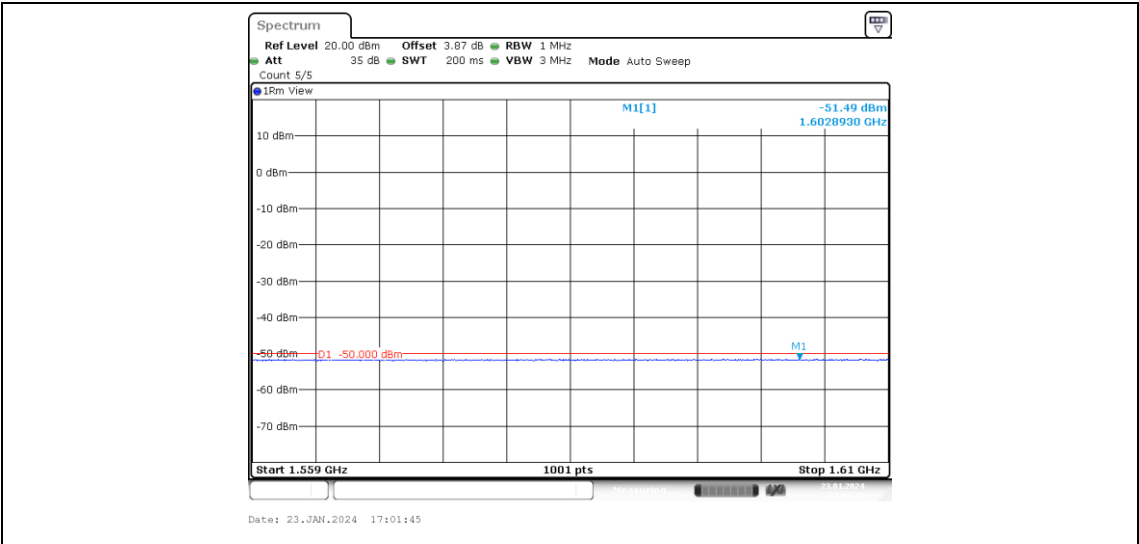
|            |                 |       |     |      |       |      |      |           |        |     |      |
|------------|-----------------|-------|-----|------|-------|------|------|-----------|--------|-----|------|
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | QPSK | 23279 | 12@0 | 1000 | 1000<br>0 | -50.42 | -13 | PASS |
| Band1<br>3 | Stand-Alon<br>e | 15kHz | NaN | QPSK | 23279 | 12@0 | 1559 | 1610      | -51.51 | -50 | PASS |

Test Graphs

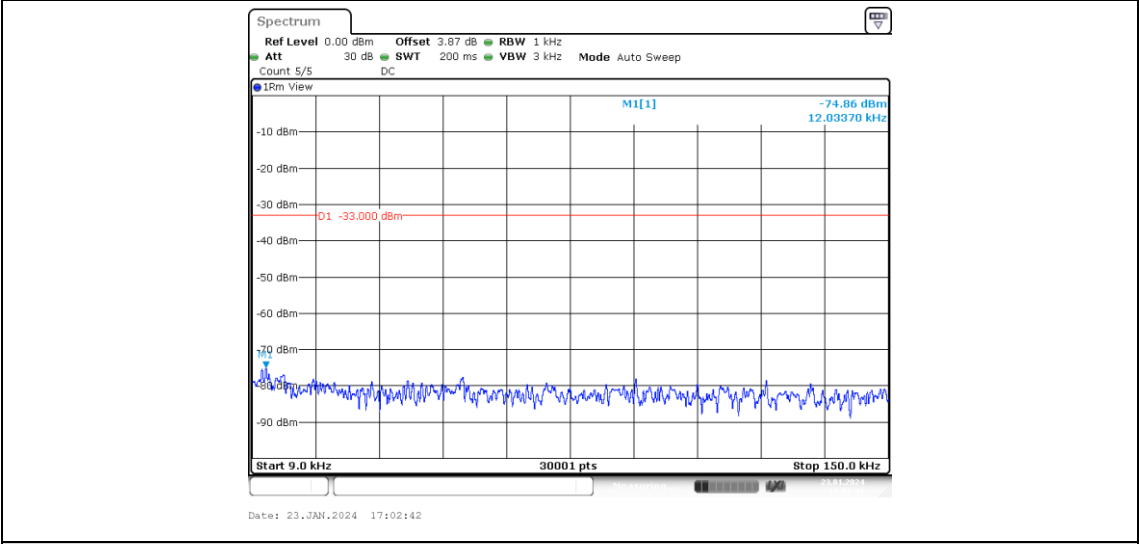




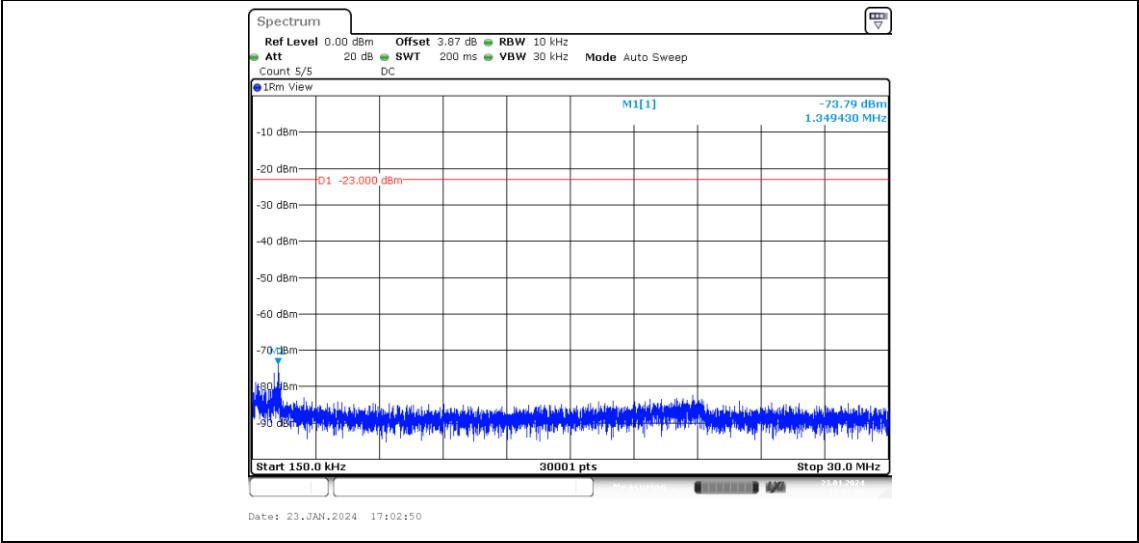




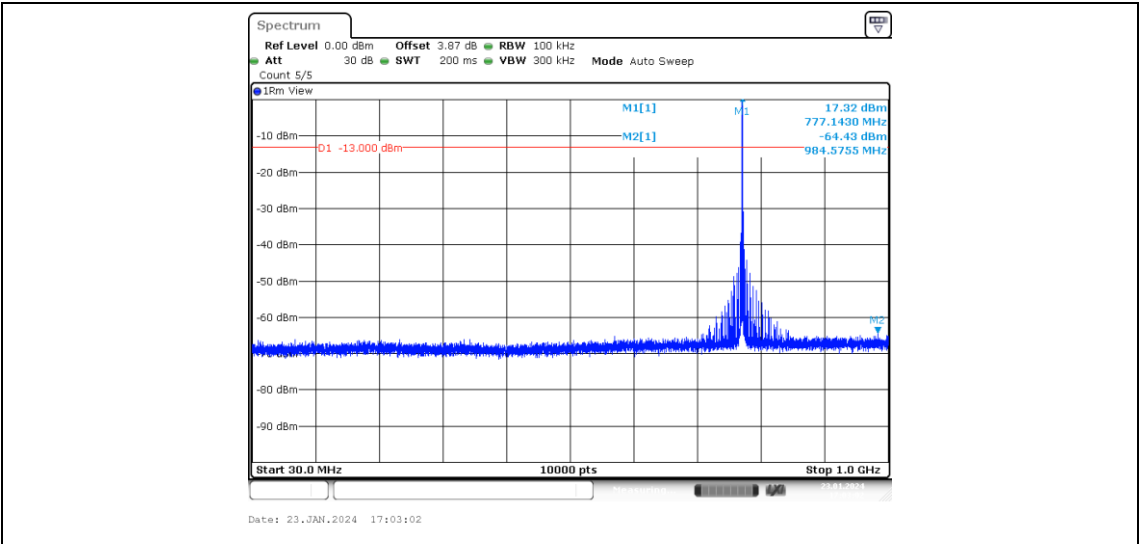
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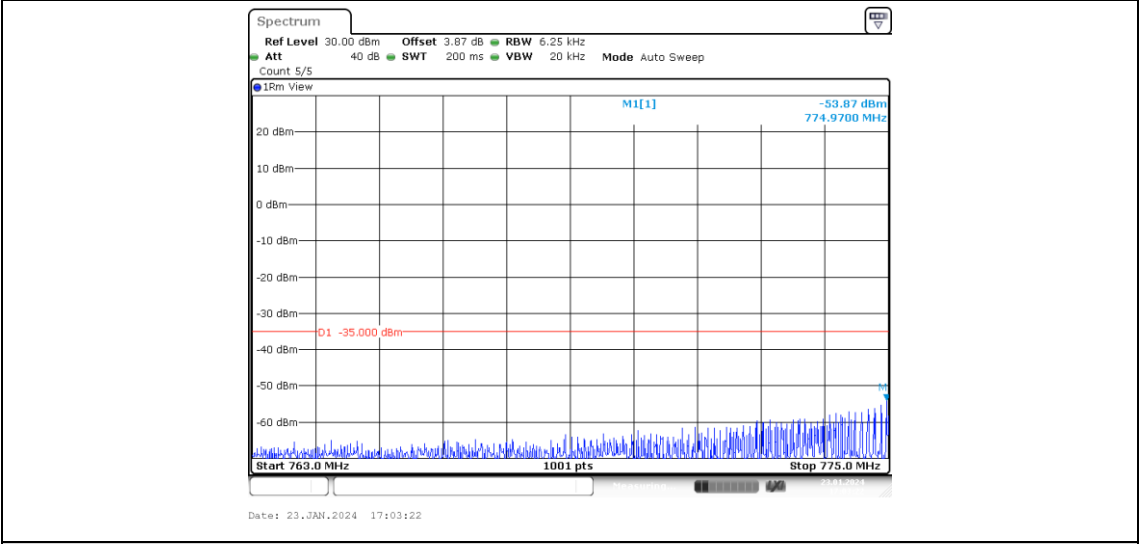
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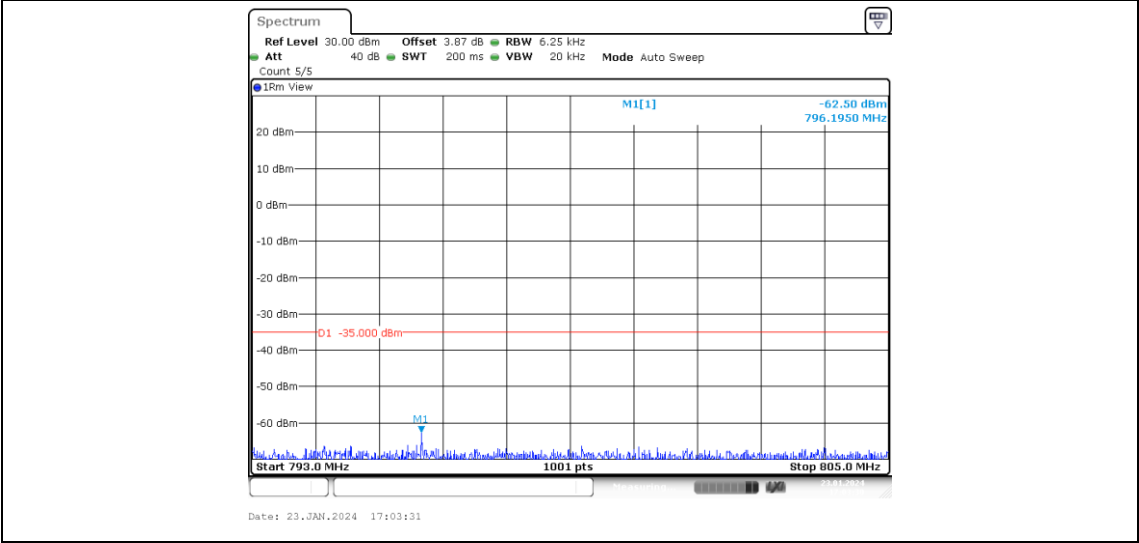
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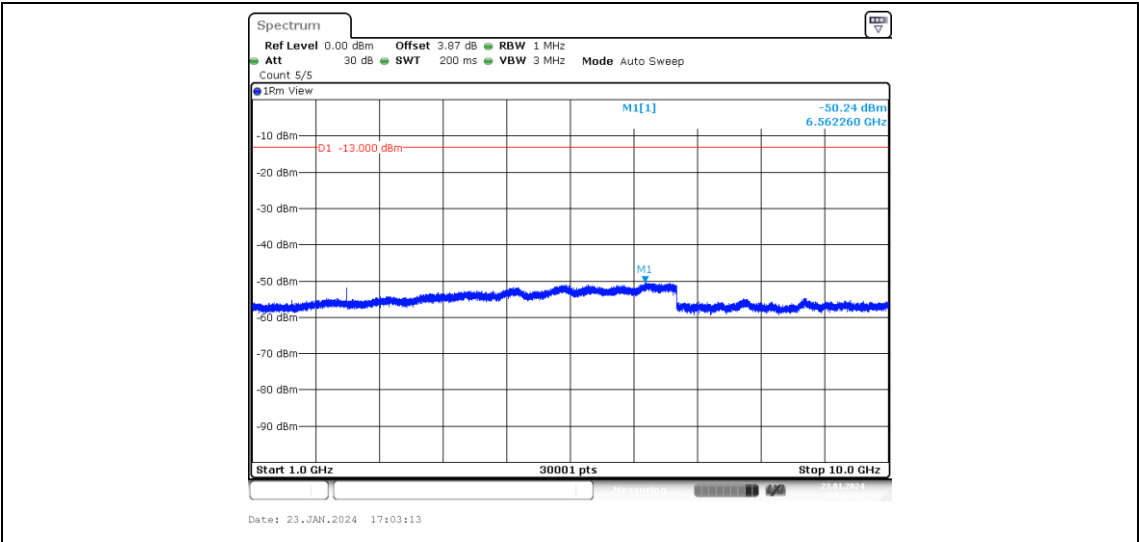
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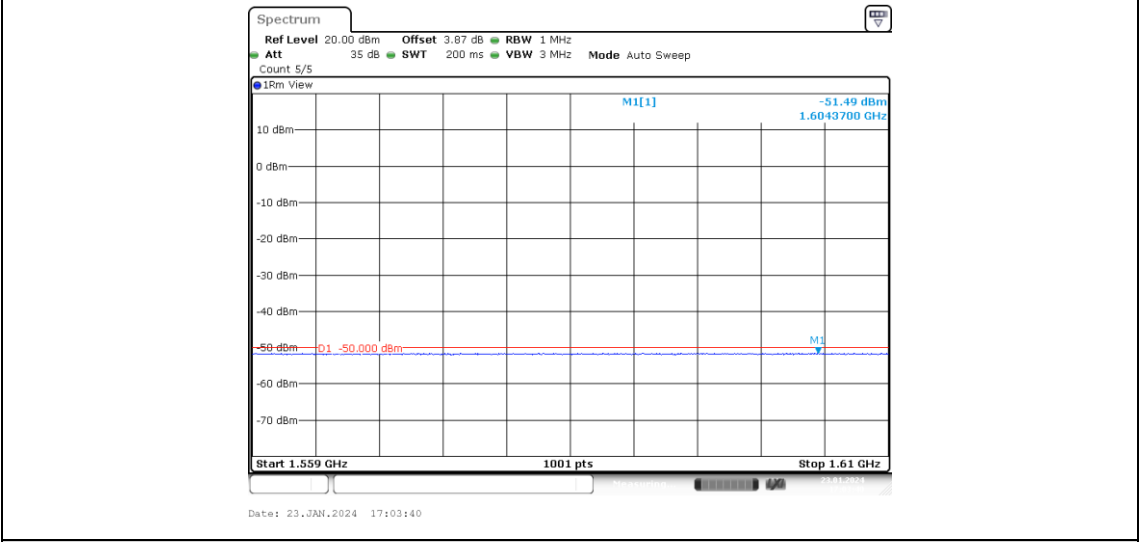
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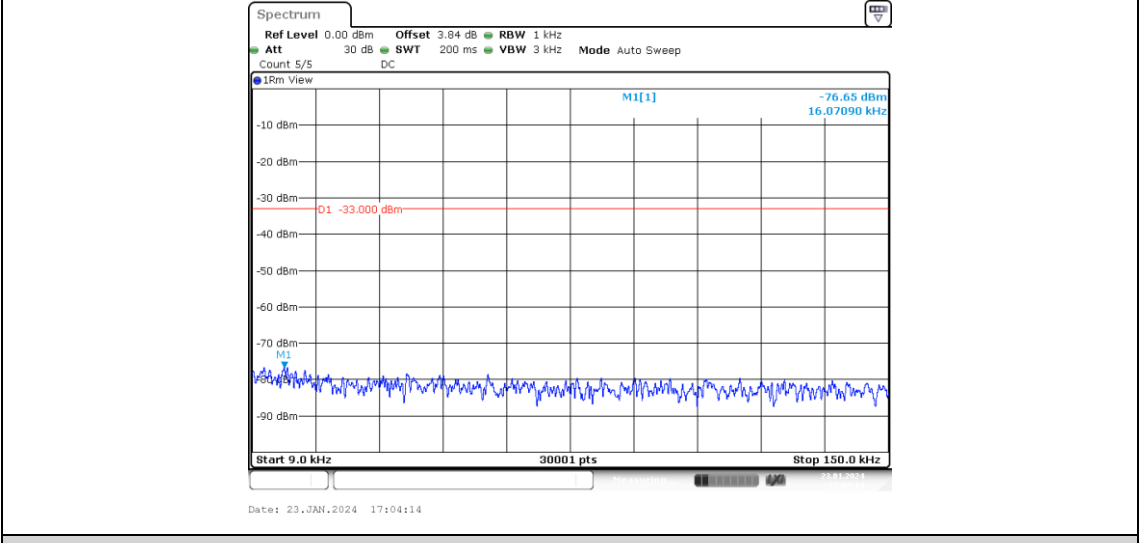
Band13-Stand-Alone-NaN-QPSK-23181-1@47-3.75kHz-793-805--62.5--35-PASS



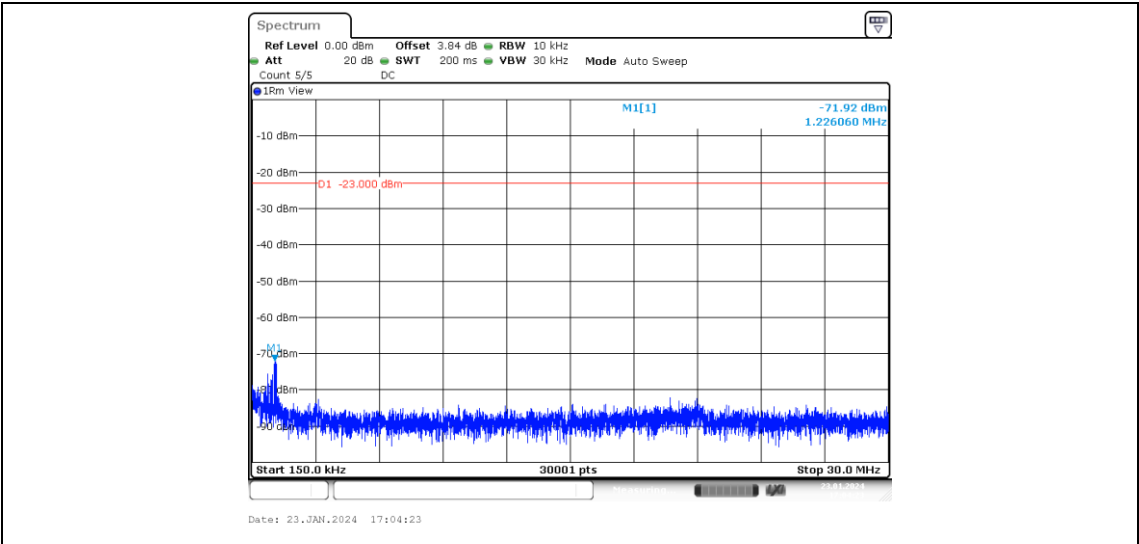
Band13-Stand-Alone-NaN-QPSK-23181-1@47-3.75kHz-1000-10000--50.24--13-PASS



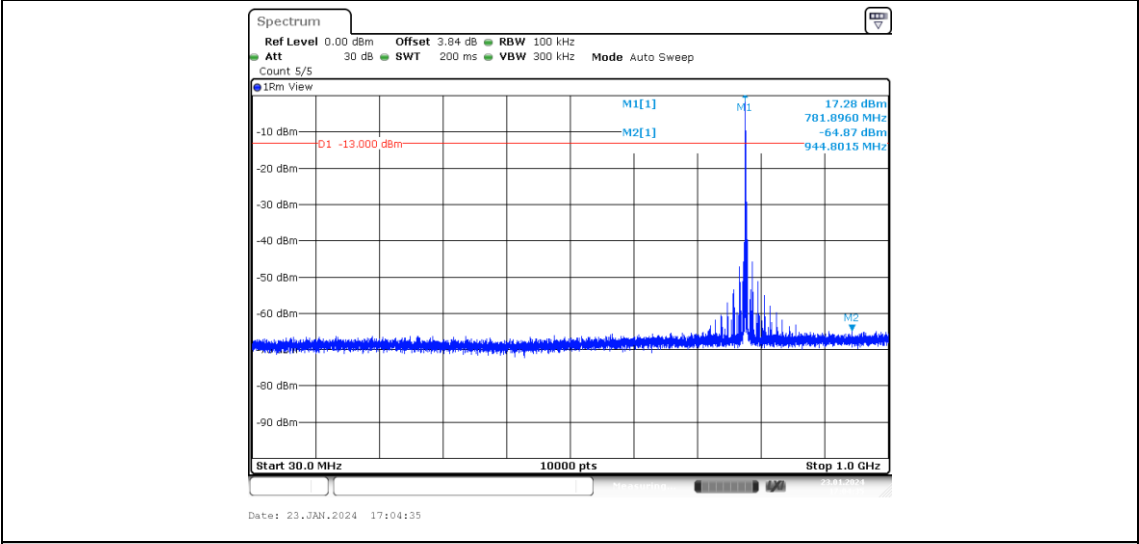
Band13-Stand-Alone-NaN-QPSK-23181-1@47-3.75kHz-1559-1610--51.49--50-PASS



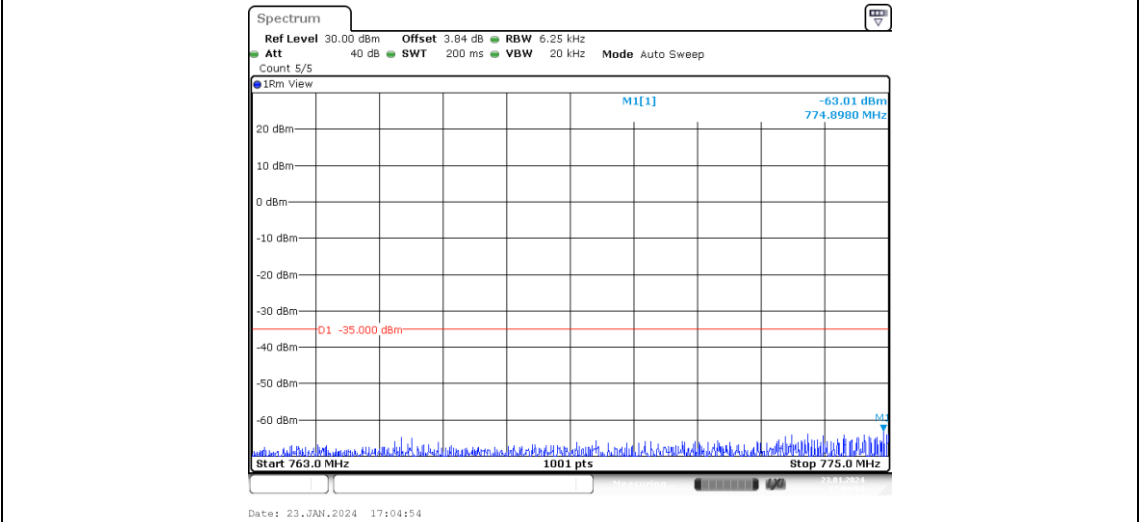
Band13-Stand-Alone-NaN-QPSK-23230-1@0-3.75kHz-0.009-0.15--76.65--33-PASS



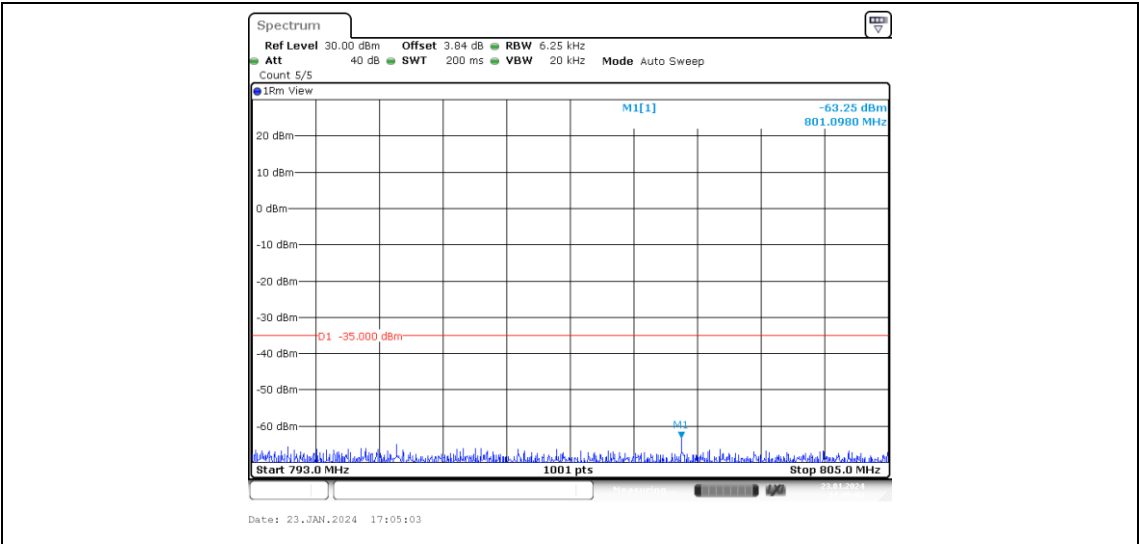
Band13-Stand-Alone-NaN-QPSK-23230-1@0-3.75kHz-0.15-30--71.92--23-PASS



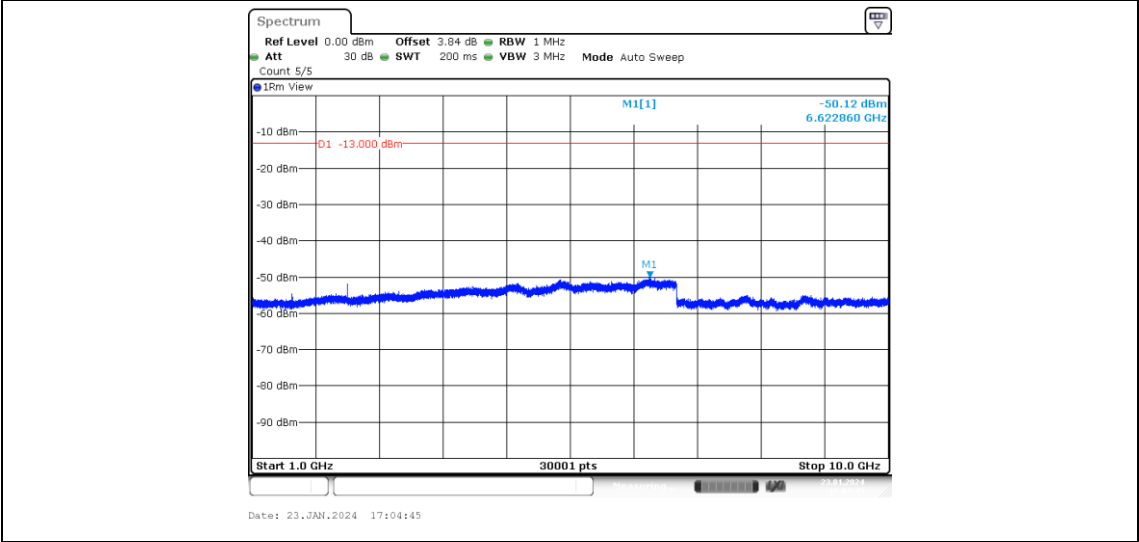
Band13-Stand-Alone-NaN-QPSK-23230-1@0-3.75kHz-30-1000--64.87--13-PASS



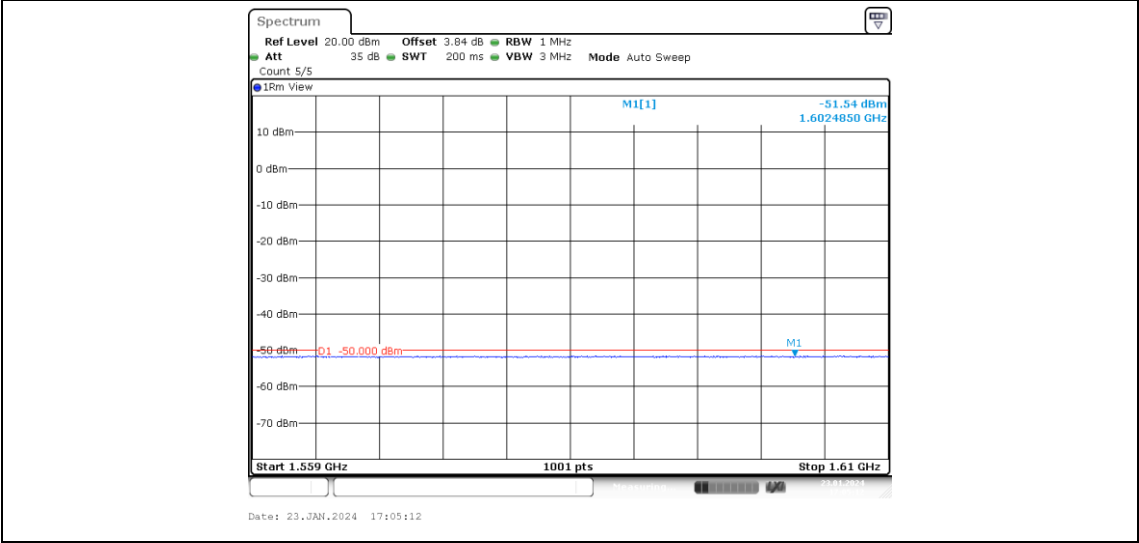
Band13-Stand-Alone-NaN-QPSK-23230-1@0-3.75kHz-763-775--63.01--35-PASS



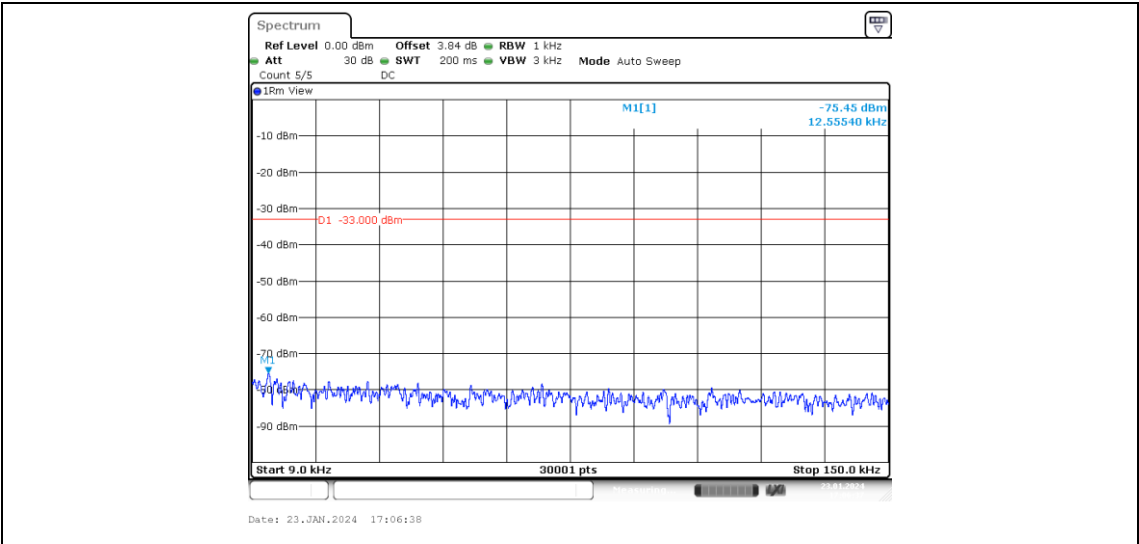
Band13-Stand-Alone-NaN-QPSK-23230-1@0-3.75kHz-793-805--63.25--35-PASS



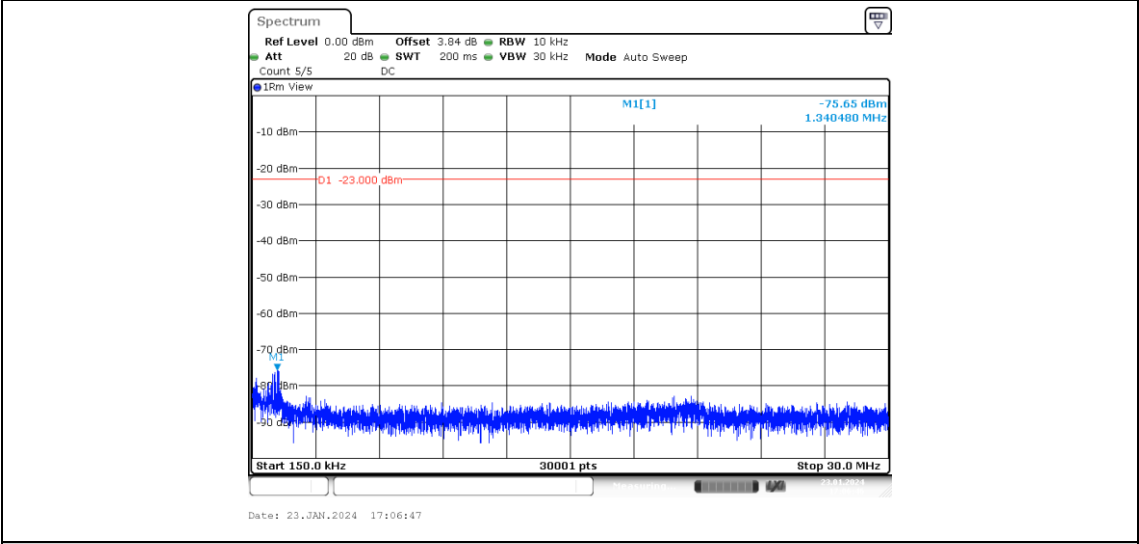
Band13-Stand-Alone-NaN-QPSK-23230-1@0-3.75kHz-1000-10000--50.12--13-PASS



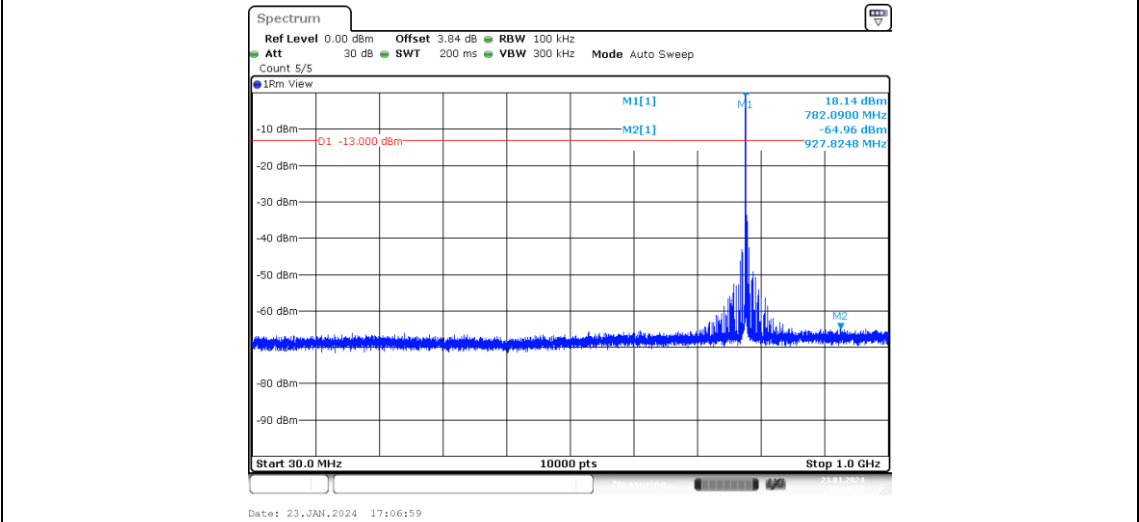
Band13-Stand-Alone-NaN-QPSK-23230-1@0-3.75kHz-1559-1610--51.54--50-PASS



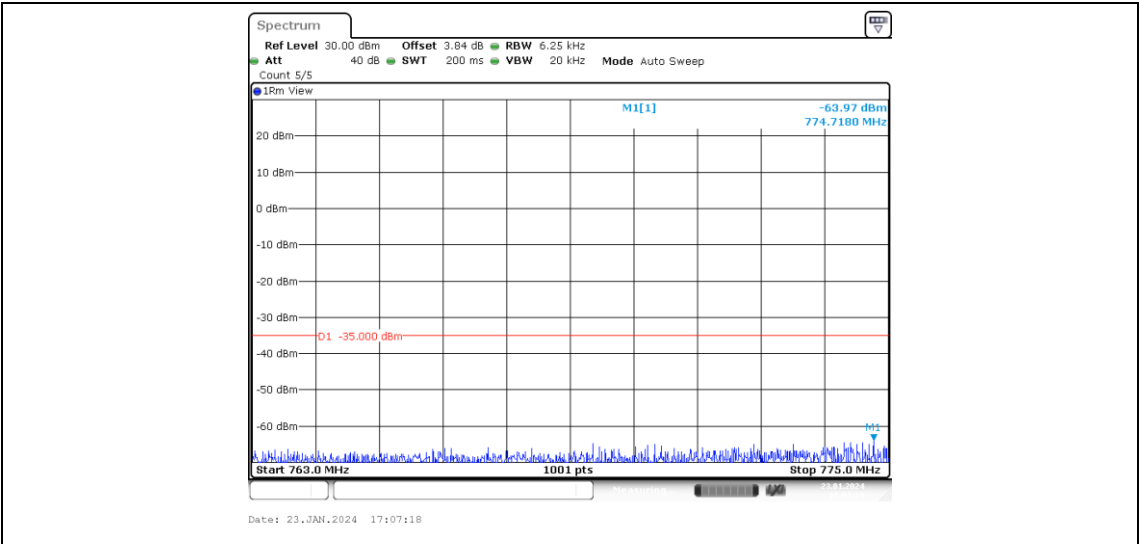
Band13-Stand-Alone-NaN-QPSK-23230-1@47-3.75kHz-0.009-0.15--75.45--33-PASS



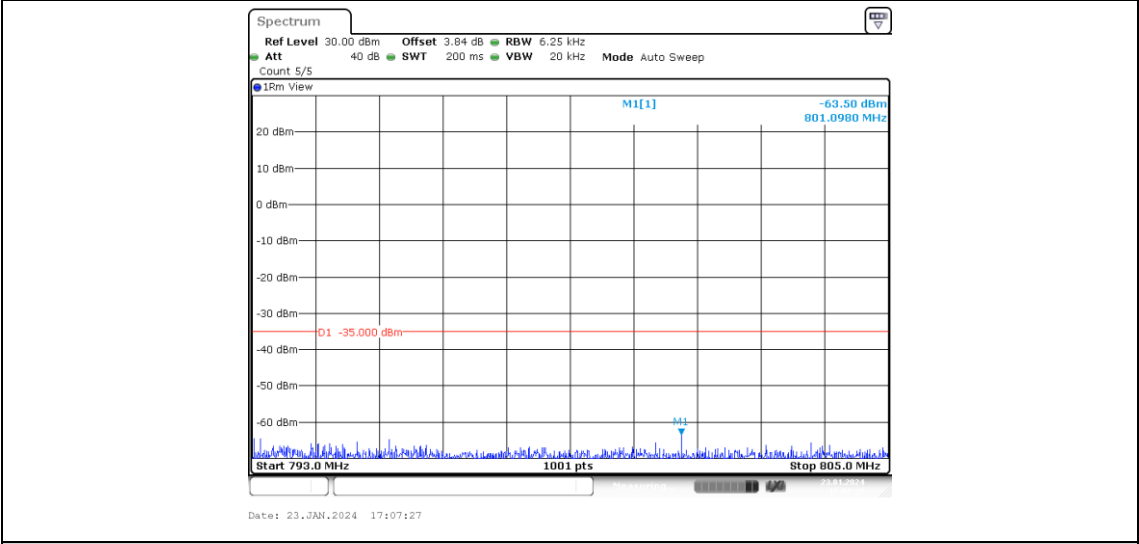
Band13-Stand-Alone-NaN-QPSK-23230-1@47-3.75kHz-0.15-30--75.65--23-PASS



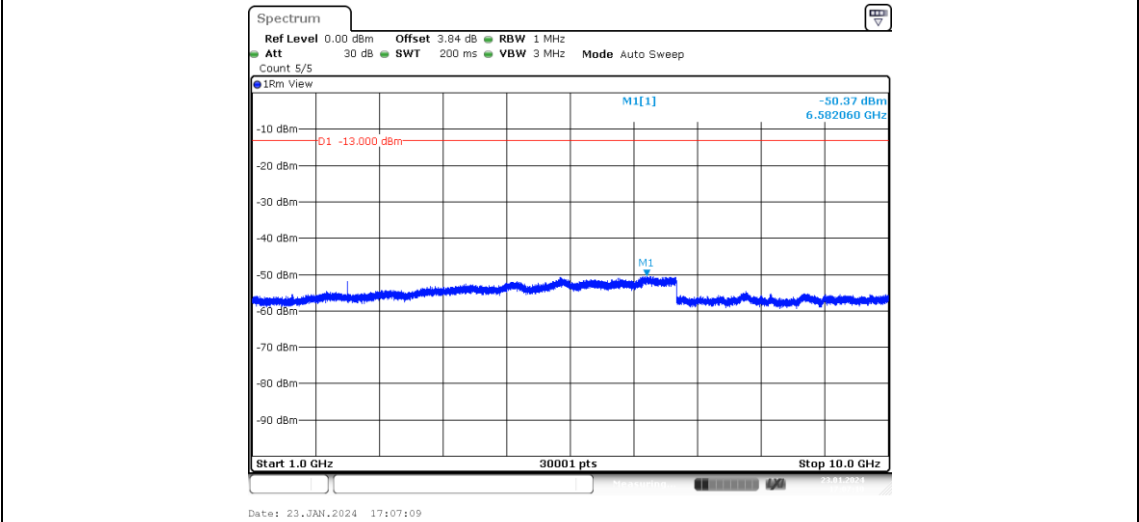
Band13-Stand-Alone-NaN-QPSK-23230-1@47-3.75kHz-30-1000--64.96--13-PASS



Band13-Stand-Alone-NaN-QPSK-23230-1@47-3.75kHz-763-775--63.97--35-PASS

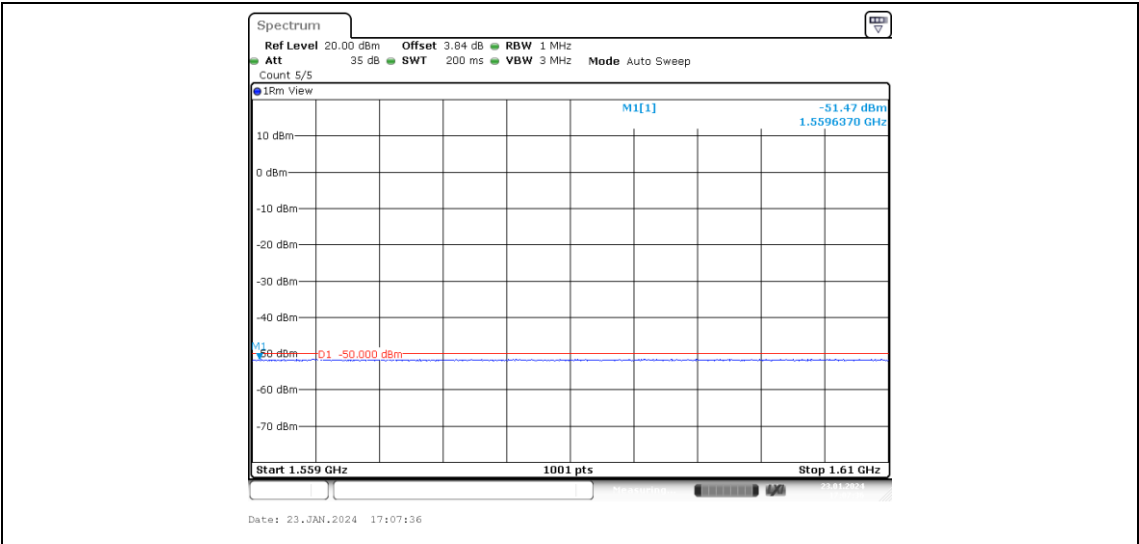


Band13-Stand-Alone-NaN-QPSK-23230-1@47-3.75kHz-793-805--63.5--35-PASS

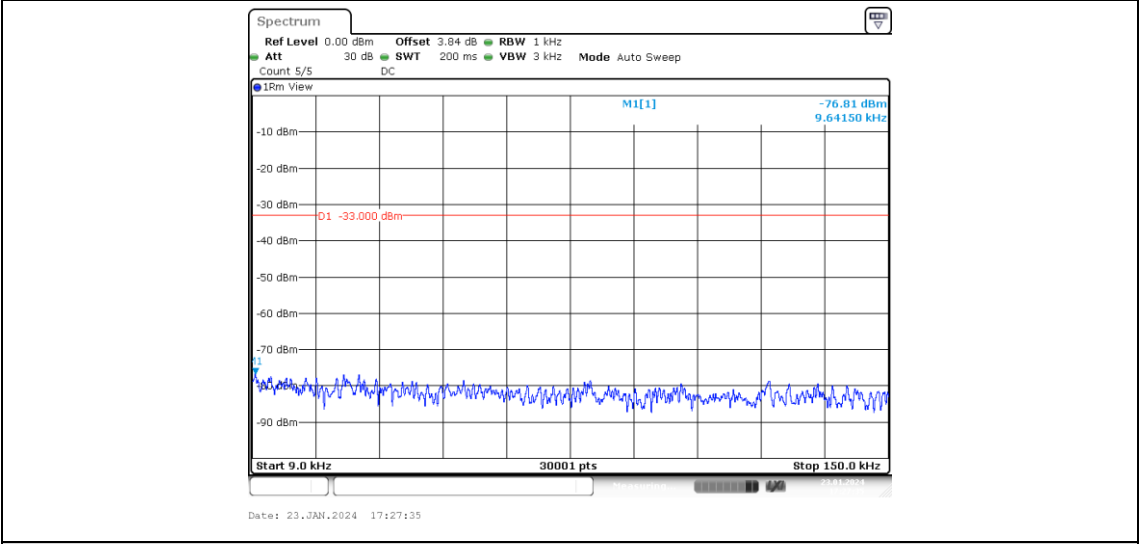


Band13-Stand-Alone-NaN-QPSK-23230-1@47-3.75kHz-1000-10000--50.37--13-PASS

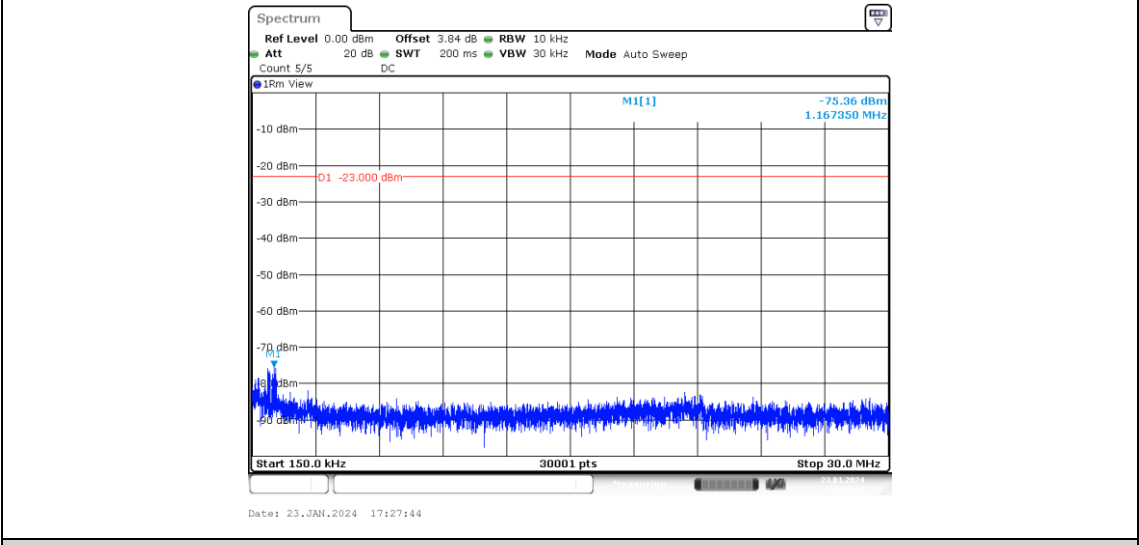




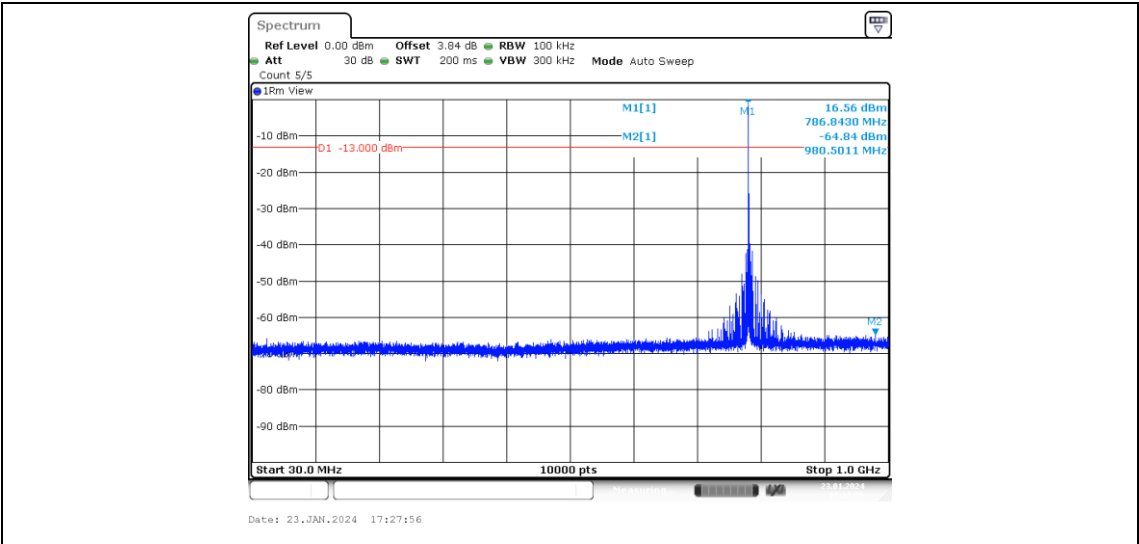
Band13-Stand-Alone-NaN-QPSK-23230-1@47-3.75kHz-1559-1610--51.47--50-PASS



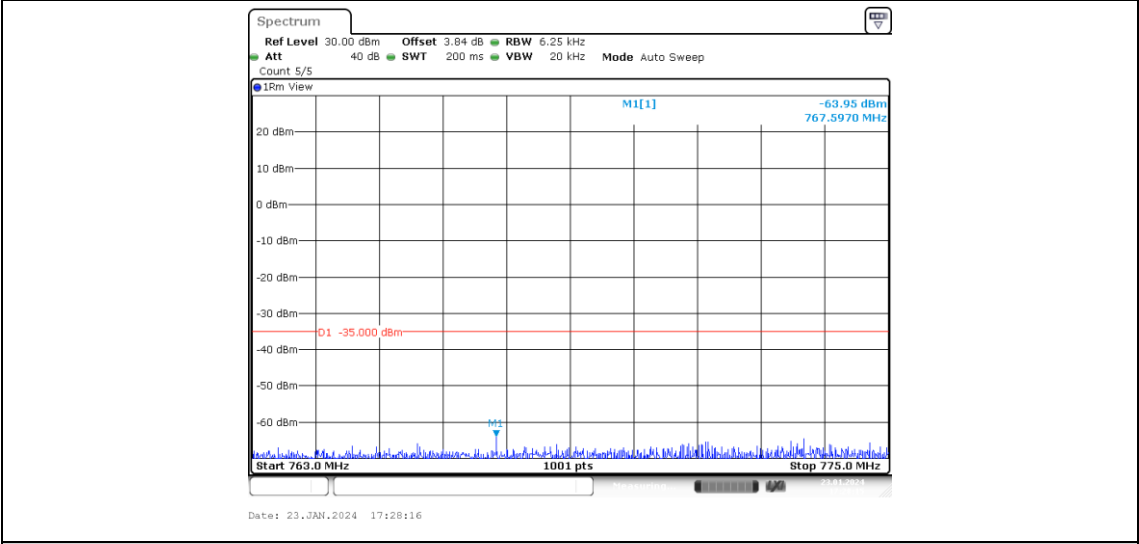
Band13-Stand-Alone-NaN-QPSK-23279-1@0-3.75kHz-0.009-0.15--76.81--33-PASS



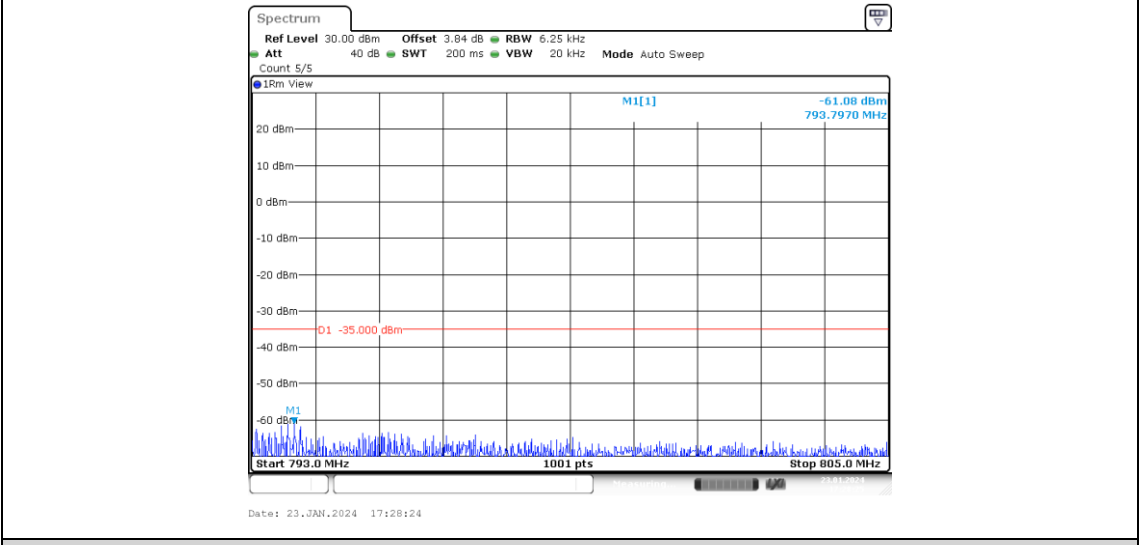
Band13-Stand-Alone-NaN-QPSK-23279-1@0-3.75kHz-0.15-30--75.36--23-PASS



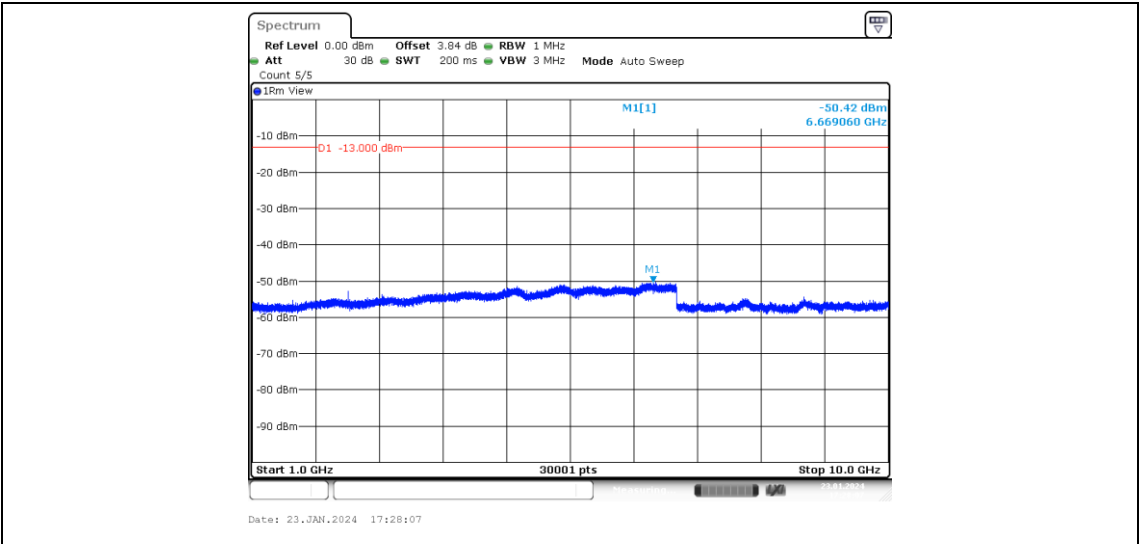
Band13-Stand-Alone-NaN-QPSK-23279-1@0-3.75kHz-30-1000--64.84--13-PASS



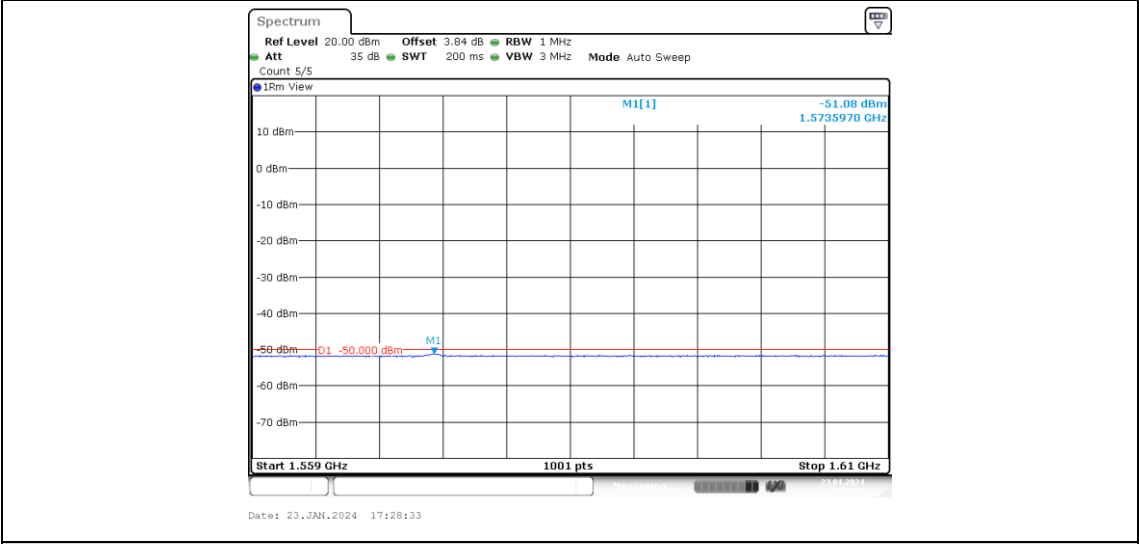
Band13-Stand-Alone-NaN-QPSK-23279-1@0-3.75kHz-763-775--63.95--35-PASS



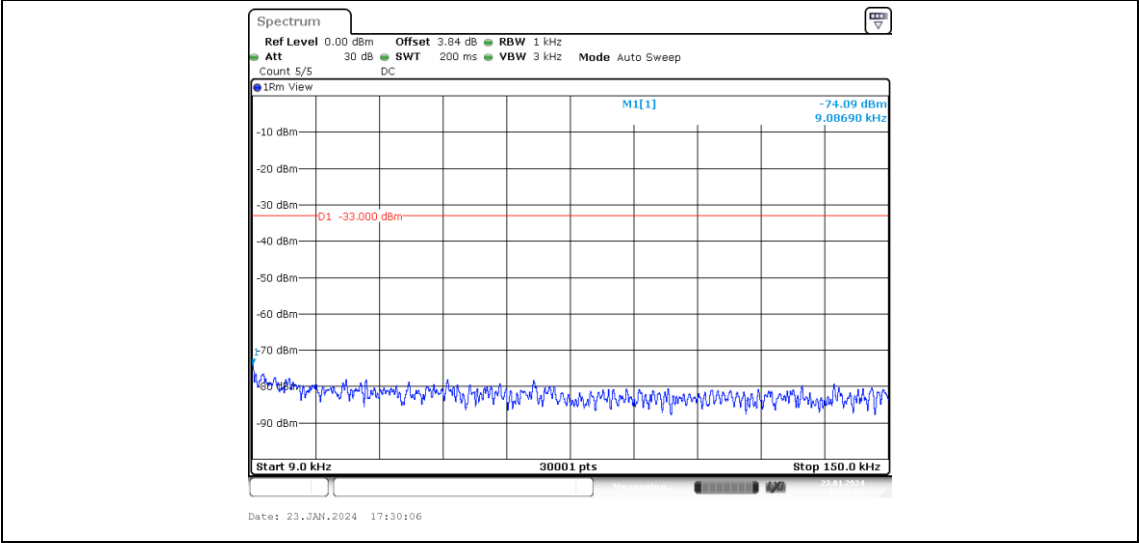
Band13-Stand-Alone-NaN-QPSK-23279-1@0-3.75kHz-793-805--61.08--35-PASS



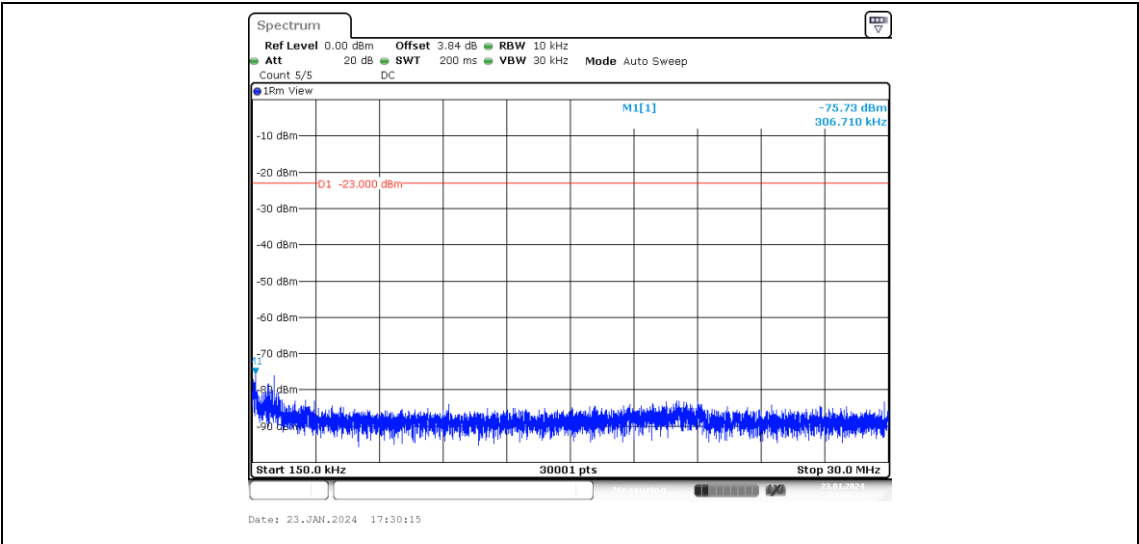
Band13-Stand-Alone-NaN-QPSK-23279-1@0-3.75kHz-1000-10000--50.42--13-PASS



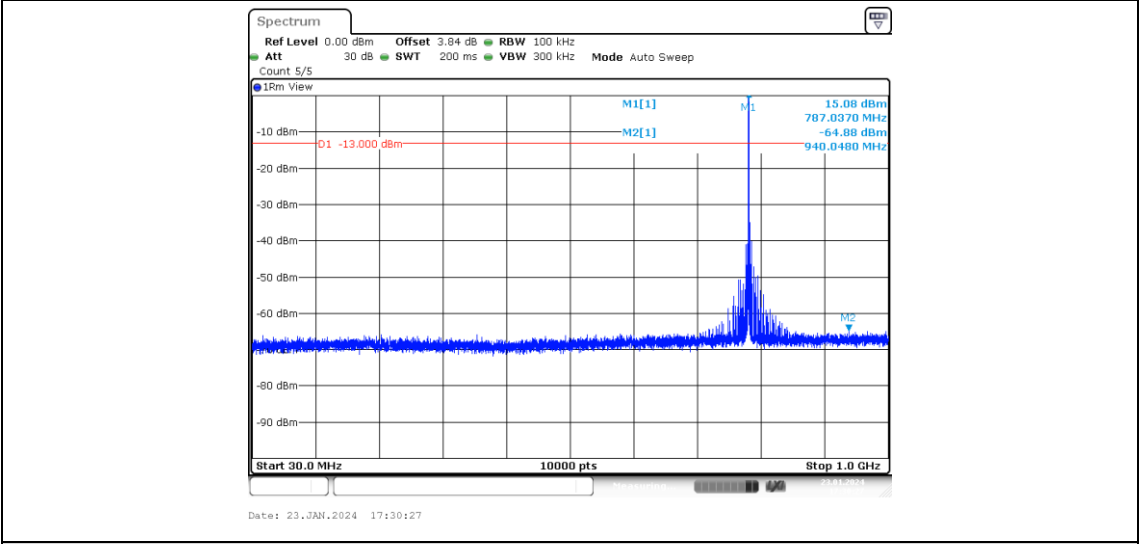
Band13-Stand-Alone-NaN-QPSK-23279-1@0-3.75kHz-1559-1610--51.08--50-PASS



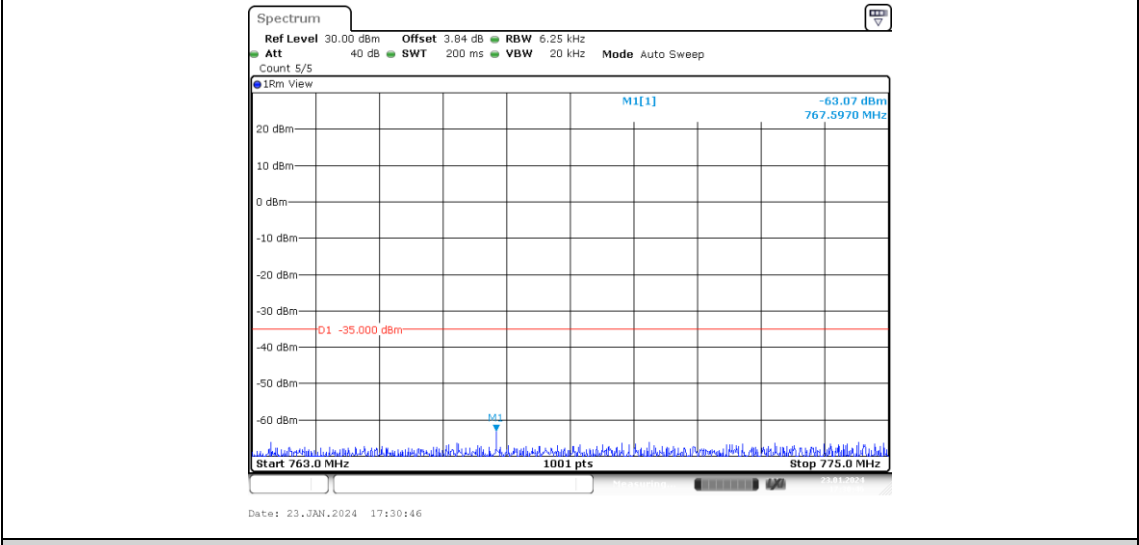
Band13-Stand-Alone-NaN-QPSK-23279-1@47-3.75kHz-0.009-0.15--74.09--33-PASS



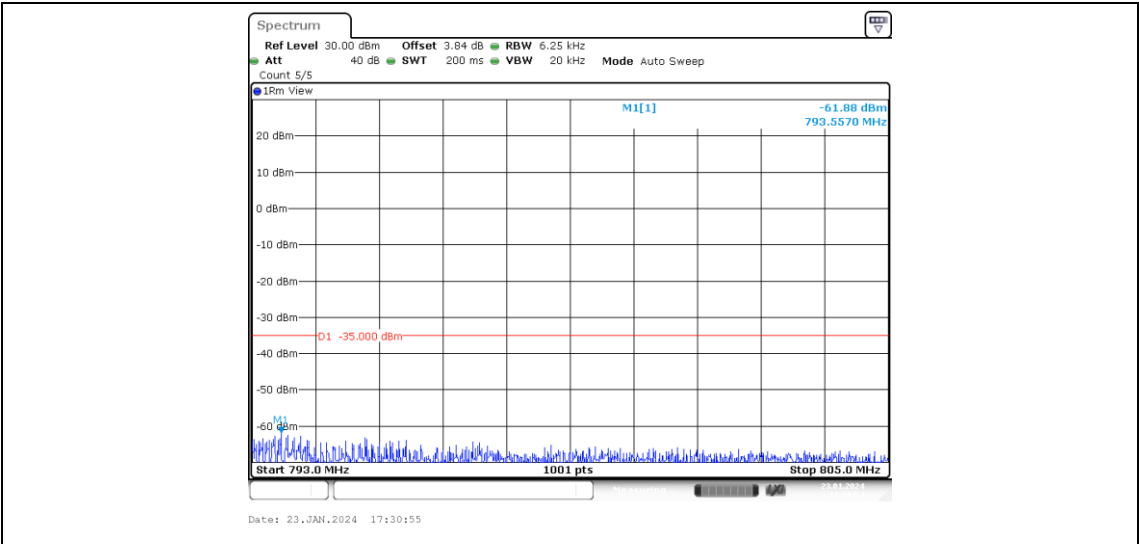
Band13-Stand-Alone-NaN-QPSK-23279-1@47-3.75kHz-0.15-30--75.73--23-PASS



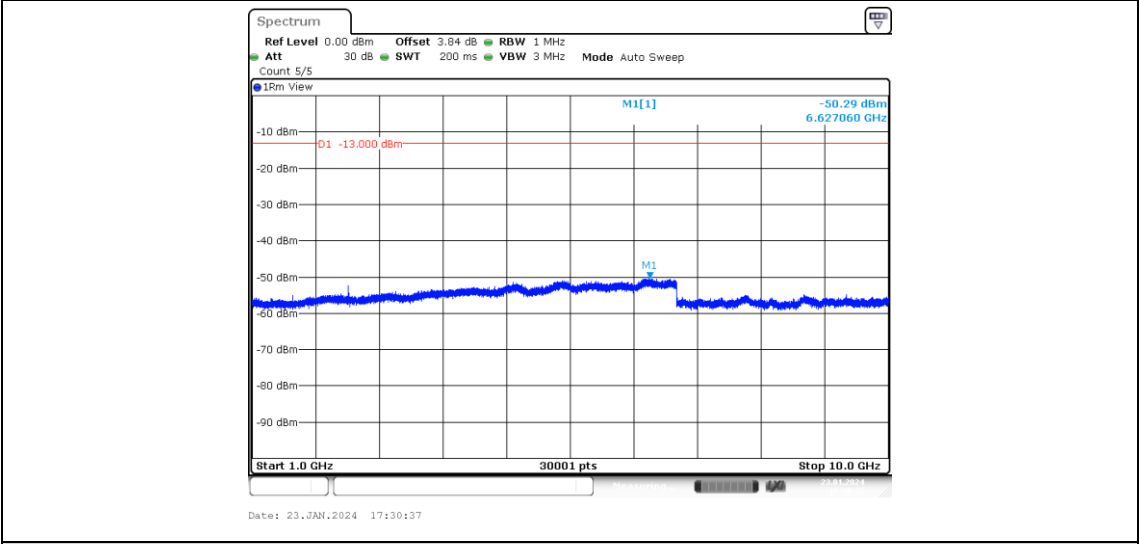
Band13-Stand-Alone-NaN-QPSK-23279-1@47-3.75kHz-30-1000--64.88--13-PASS



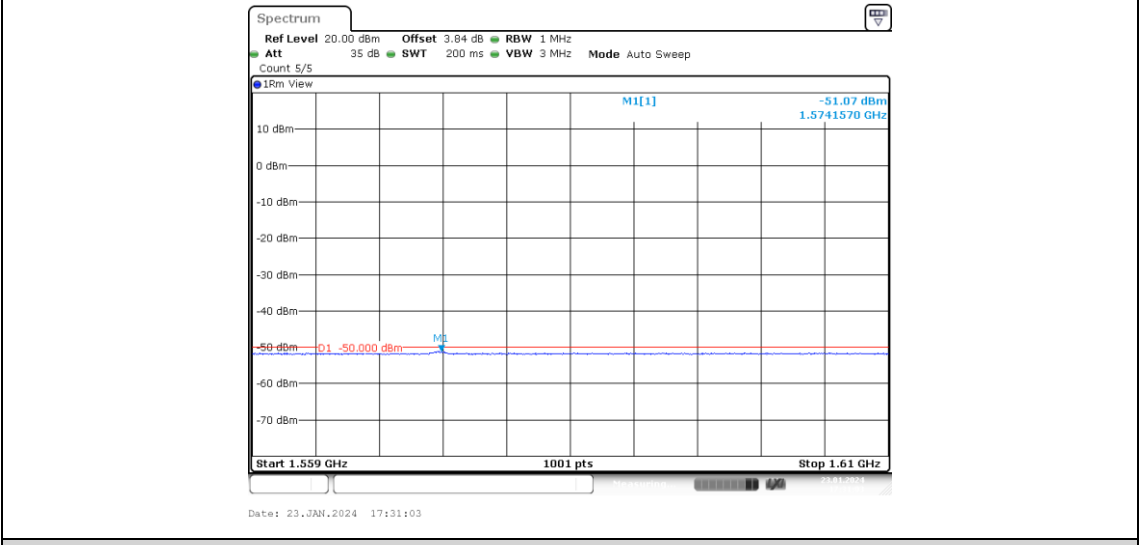
Band13-Stand-Alone-NaN-QPSK-23279-1@47-3.75kHz-763-775--63.07--35-PASS



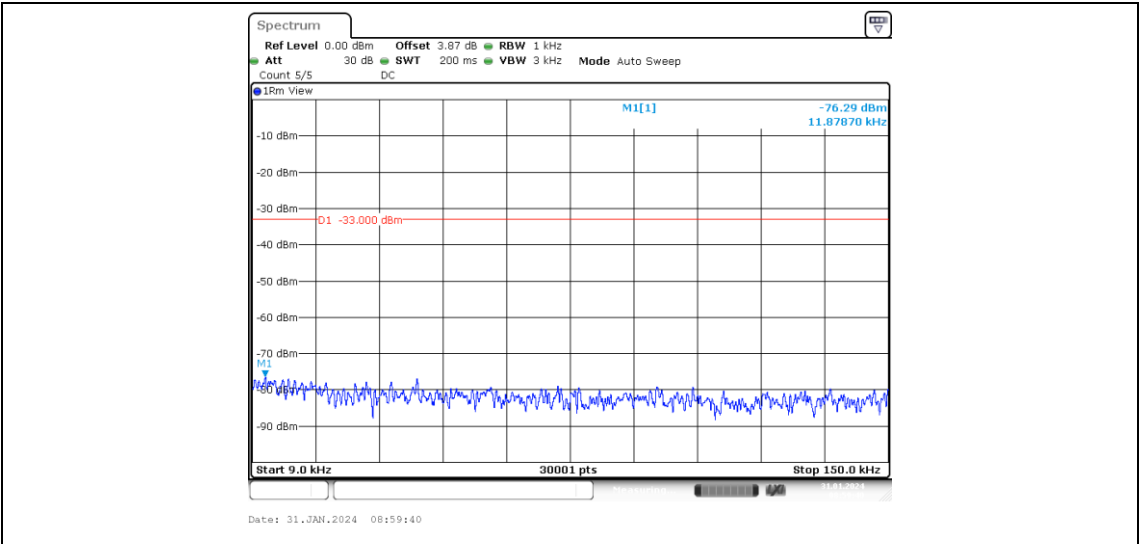
Band13-Stand-Alone-NaN-QPSK-23279-1@47-3.75kHz-793-805--61.88--35-PASS



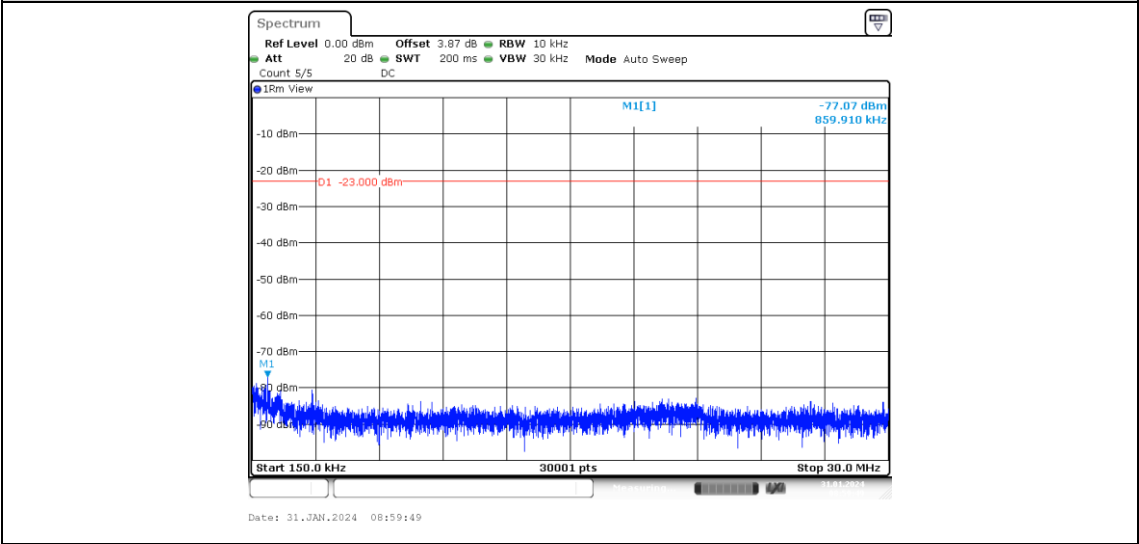
Band13-Stand-Alone-NaN-QPSK-23279-1@47-3.75kHz-1000-10000--50.29--13-PASS



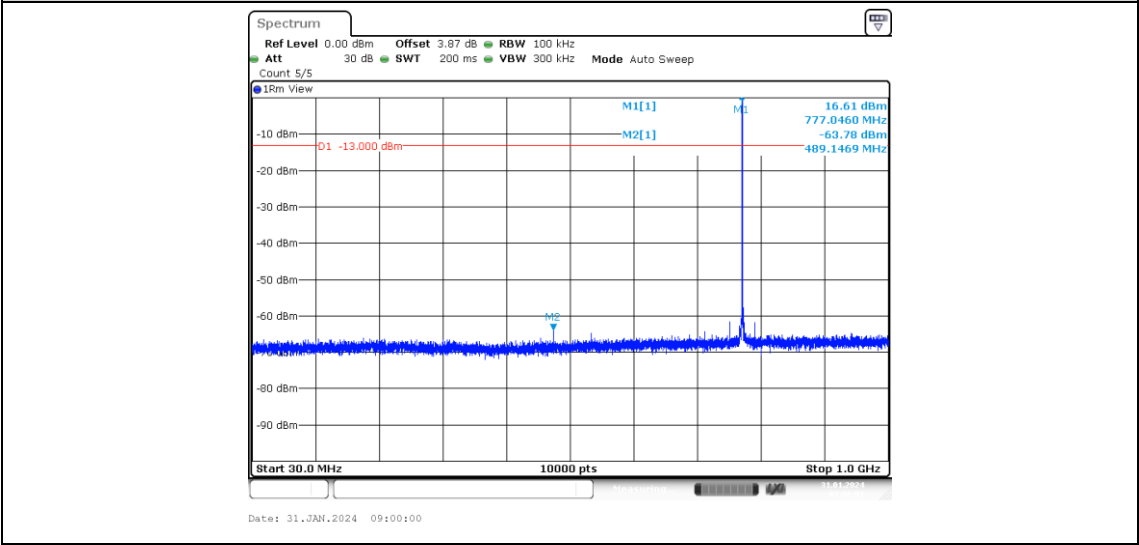
Band13-Stand-Alone-NaN-QPSK-23279-1@47-3.75kHz-1559-1610--51.07--50-PASS



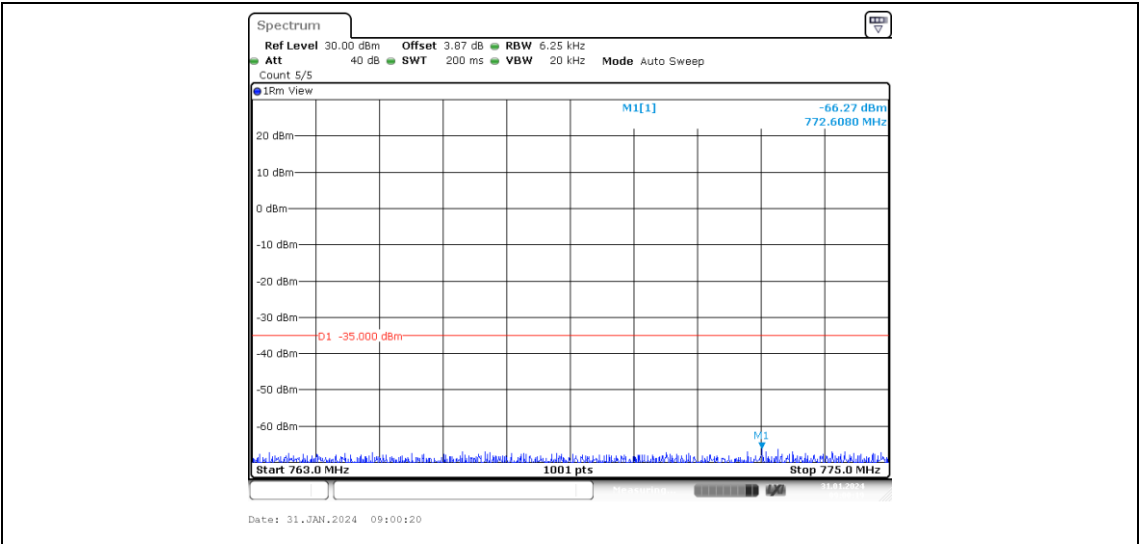
Band13-Stand-Alone-NaN-BPSK-23181-1@0-15kHz-0.009-0.15--76.29--33-PASS



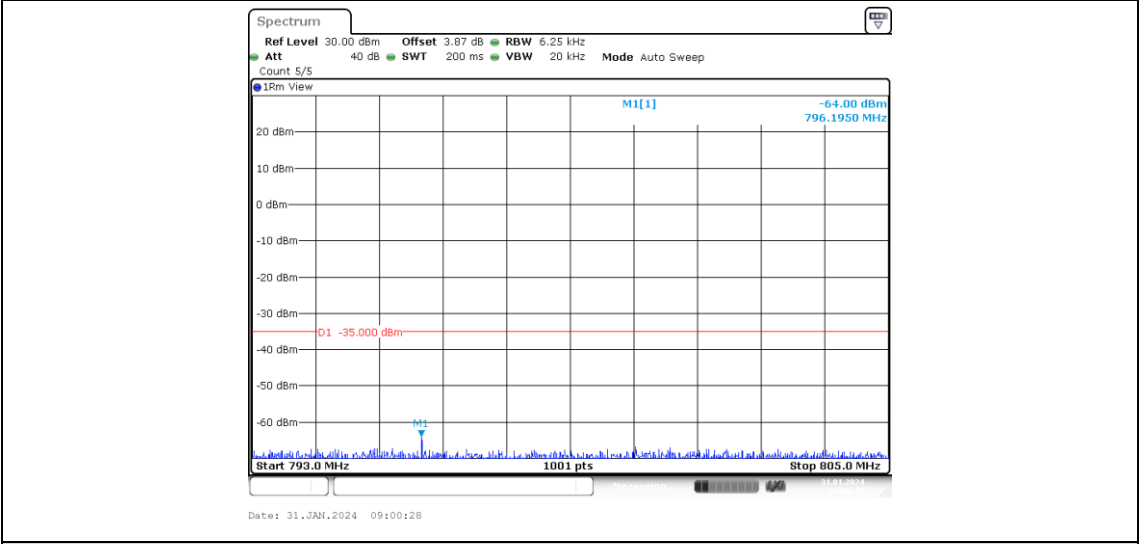
Band13-Stand-Alone-NaN-BPSK-23181-1@0-15kHz-0.15-30--77.07--23-PASS



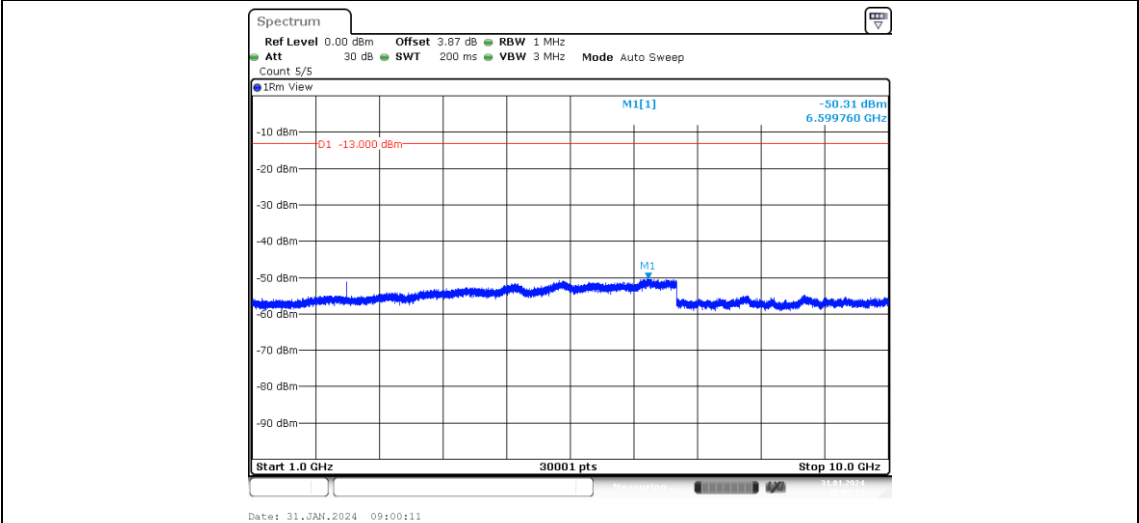
Band13-Stand-Alone-NaN-BPSK-23181-1@0-15kHz-30-1000--63.78--13-PASS



Band13-Stand-Alone-NaN-BPSK-23181-1@0-15kHz-763-775--66.27--35-PASS



Band13-Stand-Alone-NaN-BPSK-23181-1@0-15kHz-793-805--64--35-PASS



Band13-Stand-Alone-NaN-BPSK-23181-1@0-15kHz-1000-10000--50.31--13-PASS