

## **Appendix for Band 13**

Product Name: CelluCORE 24

Model No: 119906

## Appendix A: Average Power Output Data for M1

### Test Result

| Band   | Bandwidth | Channel | Modulation | RB Size | RB Start | NBIndex | Result(dBm) | Verdict |
|--------|-----------|---------|------------|---------|----------|---------|-------------|---------|
| Band13 | 5MHz      | 23205   | QPSK       | 1       | 0        | Low     | 22.28       | PASS    |
| Band13 | 5MHz      | 23205   | QPSK       | 1       | 5        | Low     | 21.94       | PASS    |
| Band13 | 5MHz      | 23205   | QPSK       | 6       | 0        | Low     | 21.12       | PASS    |
| Band13 | 5MHz      | 23230   | QPSK       | 1       | 0        | Low     | 22.09       | PASS    |
| Band13 | 5MHz      | 23230   | QPSK       | 1       | 5        | Low     | 21.75       | PASS    |
| Band13 | 5MHz      | 23230   | QPSK       | 6       | 0        | Low     | 20.92       | PASS    |
| Band13 | 5MHz      | 23255   | QPSK       | 1       | 0        | High    | 22.50       | PASS    |
| Band13 | 5MHz      | 23255   | QPSK       | 1       | 5        | High    | 22.25       | PASS    |
| Band13 | 5MHz      | 23255   | QPSK       | 6       | 0        | High    | 21.27       | PASS    |
| Band13 | 5MHz      | 23205   | 16QAM      | 1       | 0        | Low     | 22.33       | PASS    |
| Band13 | 5MHz      | 23205   | 16QAM      | 1       | 5        | Low     | 21.81       | PASS    |
| Band13 | 5MHz      | 23205   | 16QAM      | 6       | 0        | Low     | 20.97       | PASS    |
| Band13 | 5MHz      | 23230   | 16QAM      | 1       | 0        | Low     | 21.81       | PASS    |
| Band13 | 5MHz      | 23230   | 16QAM      | 1       | 5        | Low     | 21.59       | PASS    |
| Band13 | 5MHz      | 23230   | 16QAM      | 6       | 0        | Low     | 20.92       | PASS    |
| Band13 | 5MHz      | 23255   | 16QAM      | 1       | 0        | High    | 22.71       | PASS    |
| Band13 | 5MHz      | 23255   | 16QAM      | 1       | 5        | High    | 22.47       | PASS    |
| Band13 | 5MHz      | 23255   | 16QAM      | 6       | 0        | High    | 21.07       | PASS    |
| Band13 | 10MHz     | 23230   | QPSK       | 1       | 0        | Low     | 21.94       | PASS    |
| Band13 | 10MHz     | 23230   | QPSK       | 1       | 5        | Low     | 21.66       | PASS    |
| Band13 | 10MHz     | 23230   | QPSK       | 6       | 0        | Low     | 20.80       | PASS    |
| Band13 | 10MHz     | 23230   | 16QAM      | 1       | 0        | Low     | 21.81       | PASS    |
| Band13 | 10MHz     | 23230   | 16QAM      | 1       | 5        | Low     | 21.49       | PASS    |
| Band13 | 10MHz     | 23230   | 16QAM      | 6       | 0        | Low     | 20.81       | PASS    |

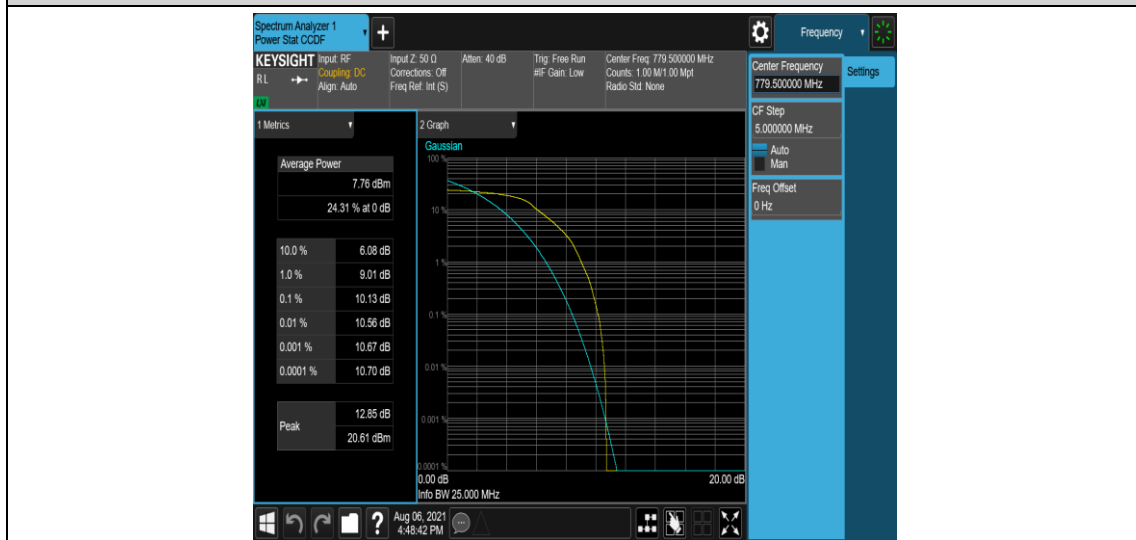
**Appendix B: Peak-to-Average Ratio(CCDF) for M1****Test Result**

| Band   | Bandwidth | Channel | Modulation | RB Size | RB Start | Result(dB) | Limit(dB) | Verdict |
|--------|-----------|---------|------------|---------|----------|------------|-----------|---------|
| Band13 | 5MHz      | 23205   | QPSK       | 1       | 0        | 9.68       | <=13      | PASS    |
| Band13 | 5MHz      | 23205   | QPSK       | 6       | 0        | 10.13      | <=13      | PASS    |
| Band13 | 5MHz      | 23230   | QPSK       | 1       | 0        | 8.49       | <=13      | PASS    |
| Band13 | 5MHz      | 23230   | QPSK       | 6       | 0        | 10.51      | <=13      | PASS    |
| Band13 | 5MHz      | 23255   | QPSK       | 1       | 0        | 8.23       | <=13      | PASS    |
| Band13 | 5MHz      | 23255   | QPSK       | 6       | 0        | 11.18      | <=13      | PASS    |
| Band13 | 5MHz      | 23205   | 16QAM      | 1       | 0        | 10.74      | <=13      | PASS    |
| Band13 | 5MHz      | 23205   | 16QAM      | 6       | 0        | 9.73       | <=13      | PASS    |
| Band13 | 5MHz      | 23230   | 16QAM      | 1       | 0        | 10.53      | <=13      | PASS    |
| Band13 | 5MHz      | 23230   | 16QAM      | 6       | 0        | 11.23      | <=13      | PASS    |
| Band13 | 5MHz      | 23255   | 16QAM      | 1       | 0        | 11.22      | <=13      | PASS    |
| Band13 | 5MHz      | 23255   | 16QAM      | 6       | 0        | 7.90       | <=13      | PASS    |
| Band13 | 10MHz     | 23230   | QPSK       | 1       | 0        | 11.28      | <=13      | PASS    |
| Band13 | 10MHz     | 23230   | QPSK       | 6       | 0        | 10.73      | <=13      | PASS    |
| Band13 | 10MHz     | 23230   | 16QAM      | 1       | 0        | 11.09      | <=13      | PASS    |
| Band13 | 10MHz     | 23230   | 16QAM      | 6       | 0        | 11.25      | <=13      | PASS    |

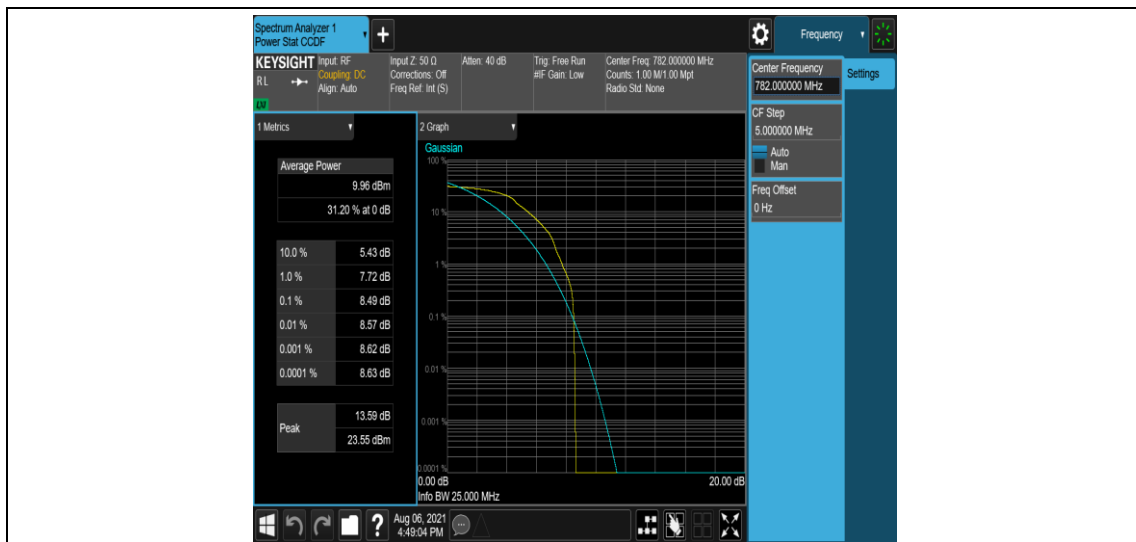
## Test Graphs



Band13-5MHz-QPSK-23205-1-0-Low-9.68-<=13-PASS



Band13-5MHz-QPSK-23205-6-0-Low-10.13-<=13-PASS



Band13-5MHz-QPSK-23230-1-0-Low-8.49-<=13-PASS



Band13-5MHz-QPSK-23230-6-0-Low-10.51-<=13-PASS



Band13-5MHz-QPSK-23255-1-0-High-8.23-<=13-PASS



Band13-5MHz-QPSK-23255-6-0-High-11.18-<=13-PASS



Band13-5MHz-16QAM-23205-1-0-Low-10.74-<=13-PASS



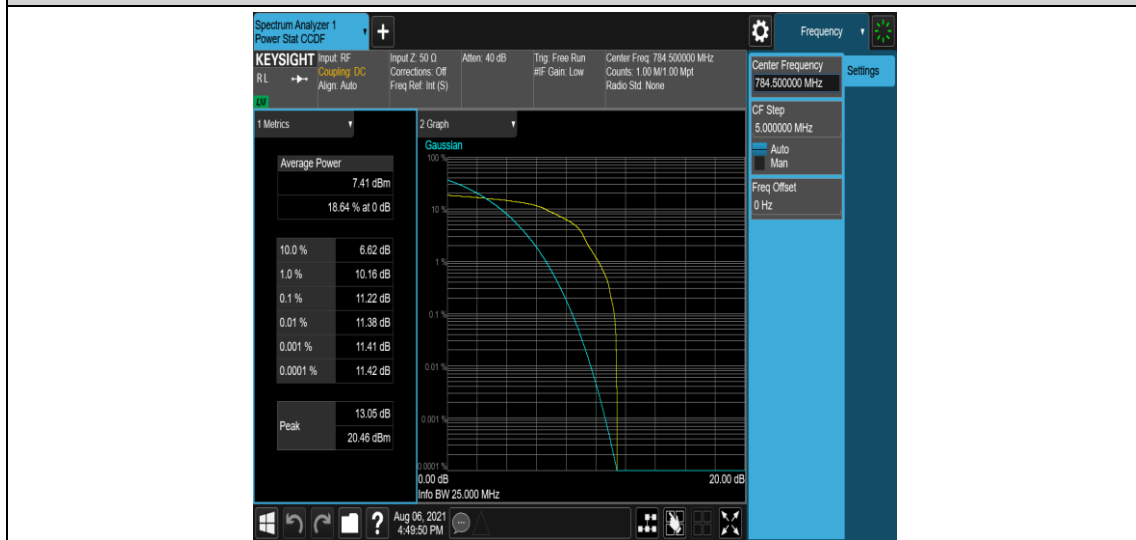
Band13-5MHz-16QAM-23205-6-0-Low-9.73-<=13-PASS



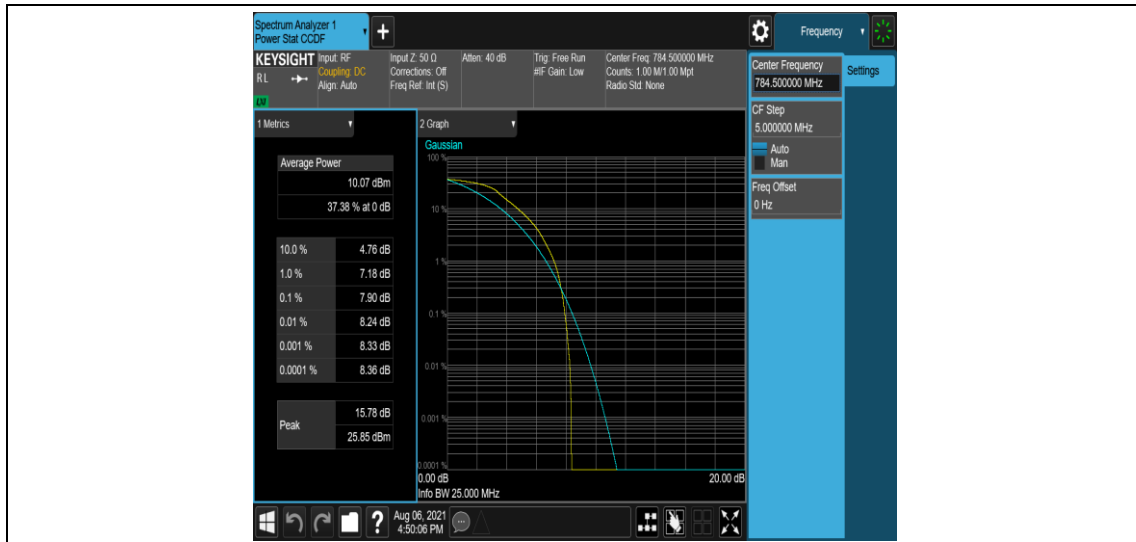
Band13-5MHz-16QAM-23230-1-0-Low-10.53-<=13-PASS



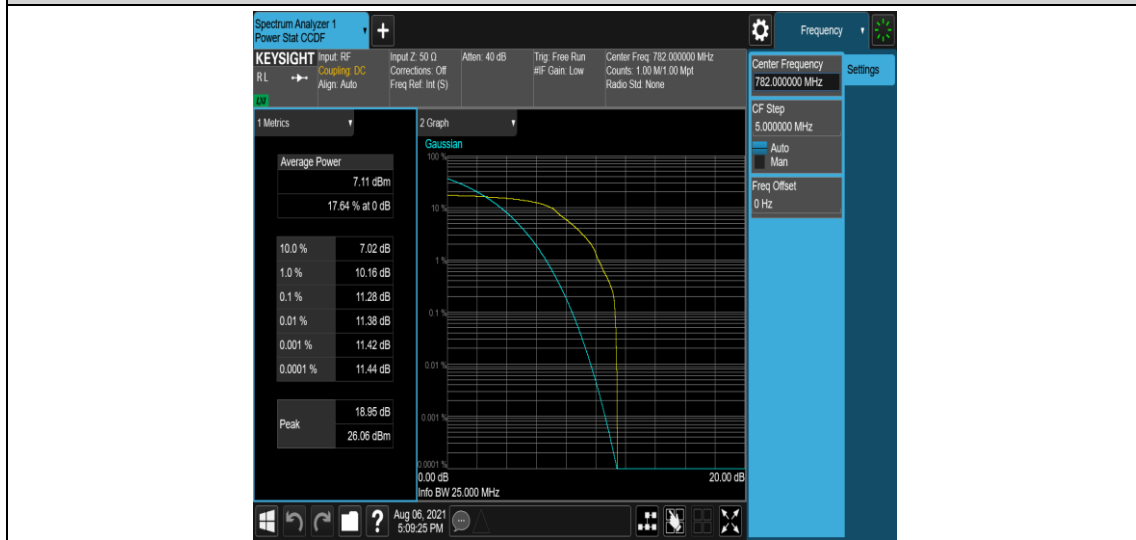
Band13-5MHz-16QAM-23230-6-0-Low-11.23-<=13-PASS



Band13-5MHz-16QAM-23255-1-0-High-11.22-<=13-PASS



Band13-5MHz-16QAM-23255-6-0-High-7.90-<=13-PASS



Band13-10MHz-QPSK-23230-1-0-Low-11.28-<=13-PASS



Band13-10MHz-QPSK-23230-6-0-Low-10.73-<=13-PASS





Band13-10MHz-16QAM-23230-1-0-Low-11.09-<=13-PASS



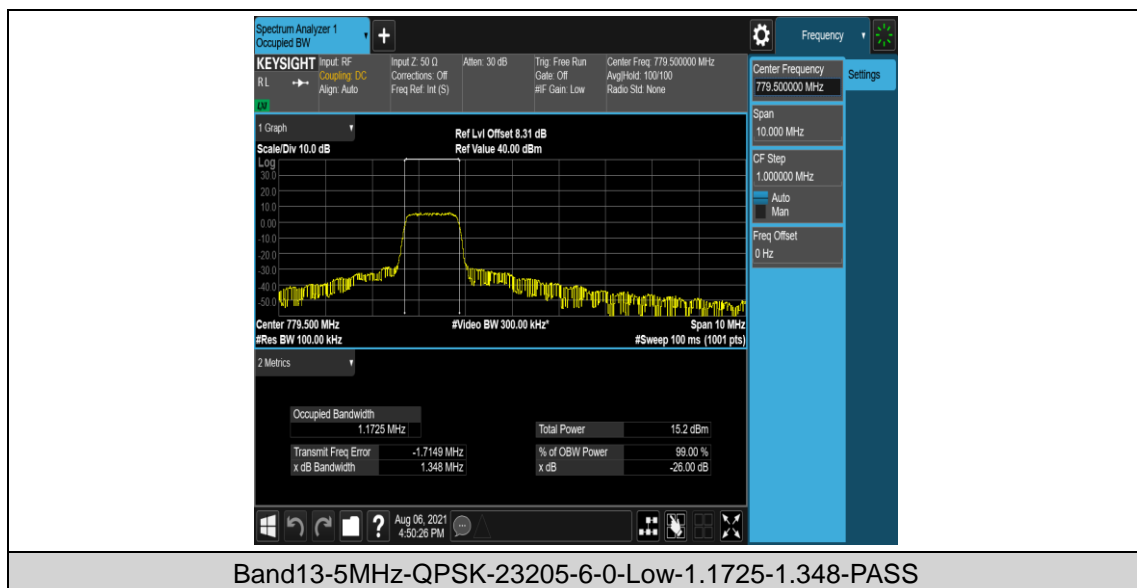
Band13-10MHz-16QAM-23230-6-0-Low-11.25-<=13-PASS

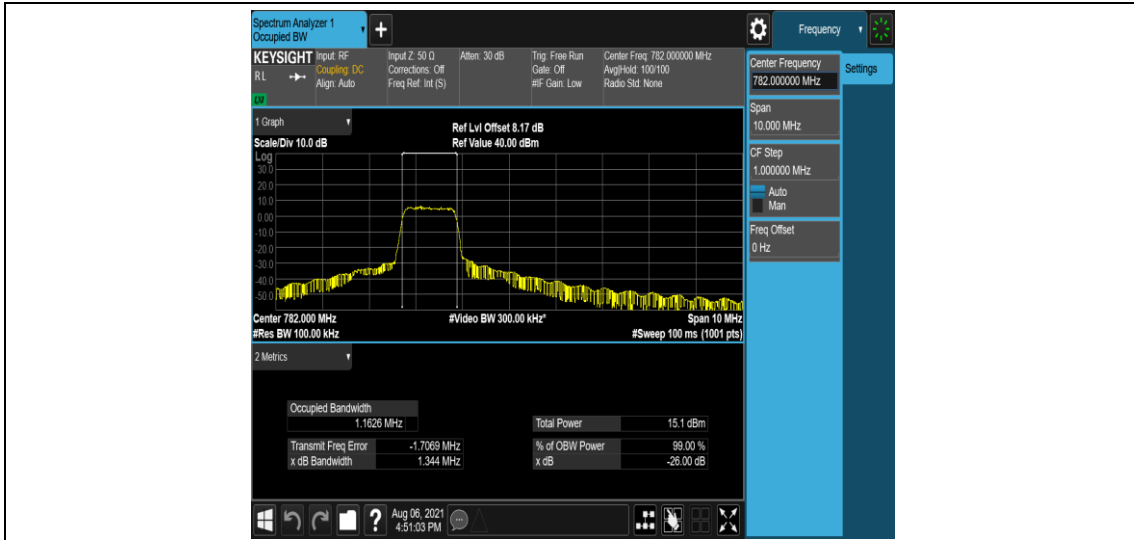
## Appendix C: 26dB Bandwidth and Occupied Bandwidth for M1

### Test Result

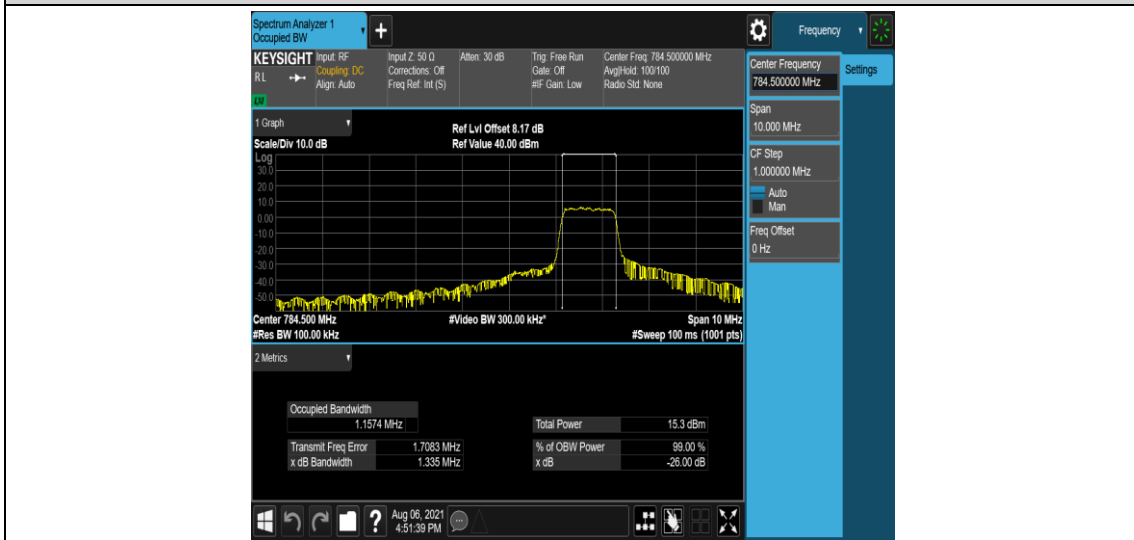
| Band   | Bandwidth | Channel | Modulation | RB Size | RB Start | Occupied Bandwidth (MHz) | 26dB Bandwidth (MHz) | Verdict |
|--------|-----------|---------|------------|---------|----------|--------------------------|----------------------|---------|
| Band13 | 5MHz      | 23205   | QPSK       | 6       | 0        | 1.1725                   | 1.348                | PASS    |
| Band13 | 5MHz      | 23230   | QPSK       | 6       | 0        | 1.1626                   | 1.344                | PASS    |
| Band13 | 5MHz      | 23255   | QPSK       | 6       | 0        | 1.1574                   | 1.335                | PASS    |
| Band13 | 5MHz      | 23205   | 16QAM      | 6       | 0        | 1.1728                   | 1.363                | PASS    |
| Band13 | 5MHz      | 23230   | 16QAM      | 6       | 0        | 1.1632                   | 1.342                | PASS    |
| Band13 | 5MHz      | 23255   | 16QAM      | 6       | 0        | 1.1594                   | 1.335                | PASS    |
| Band13 | 10MHz     | 23230   | QPSK       | 6       | 0        | 1.2977                   | 1.562                | PASS    |
| Band13 | 10MHz     | 23230   | 16QAM      | 6       | 0        | 1.2970                   | 1.569                | PASS    |

### Test Graphs

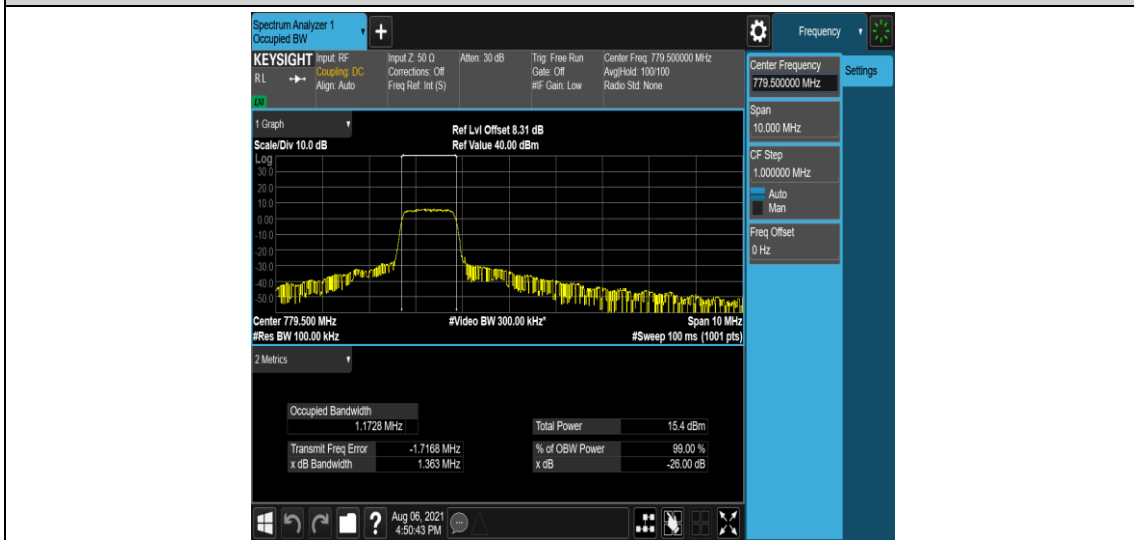




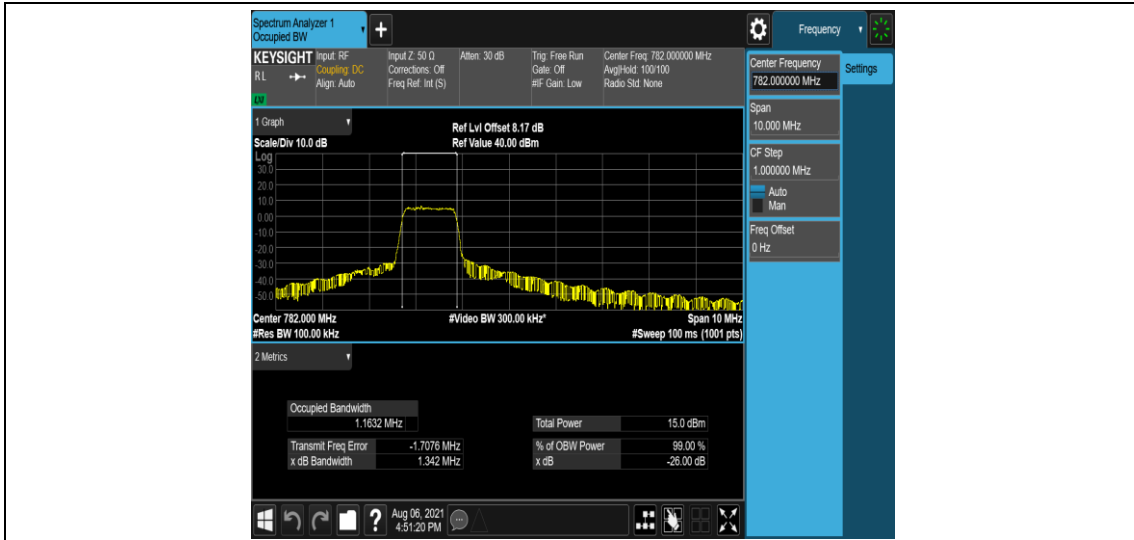
Band13-5MHz-QPSK-23230-6-0-Low-1.1626-1.344-PASS



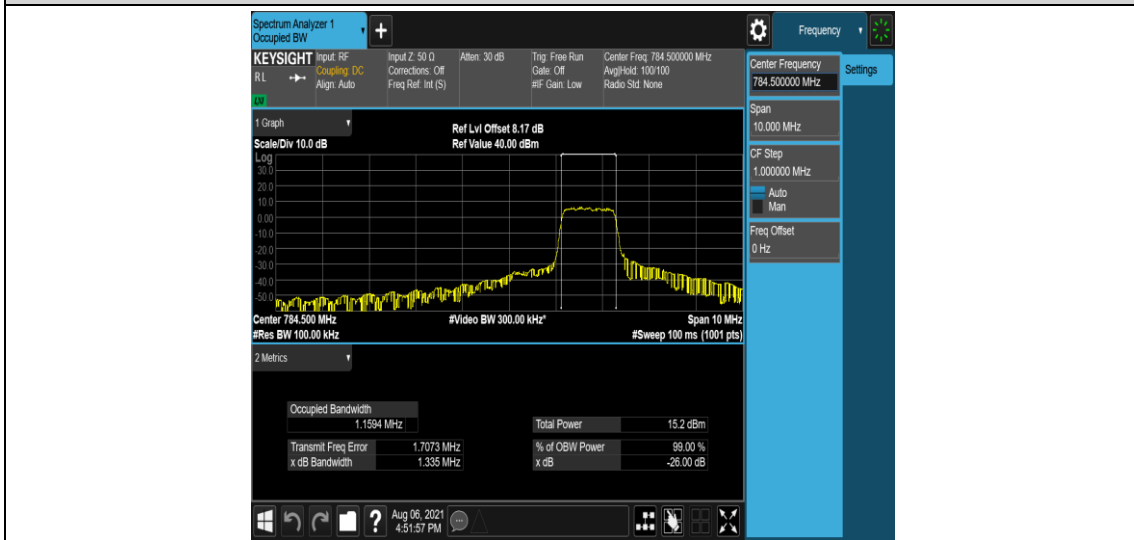
Band13-5MHz-QPSK-23255-6-0-High-1.1574-1.335-PASS



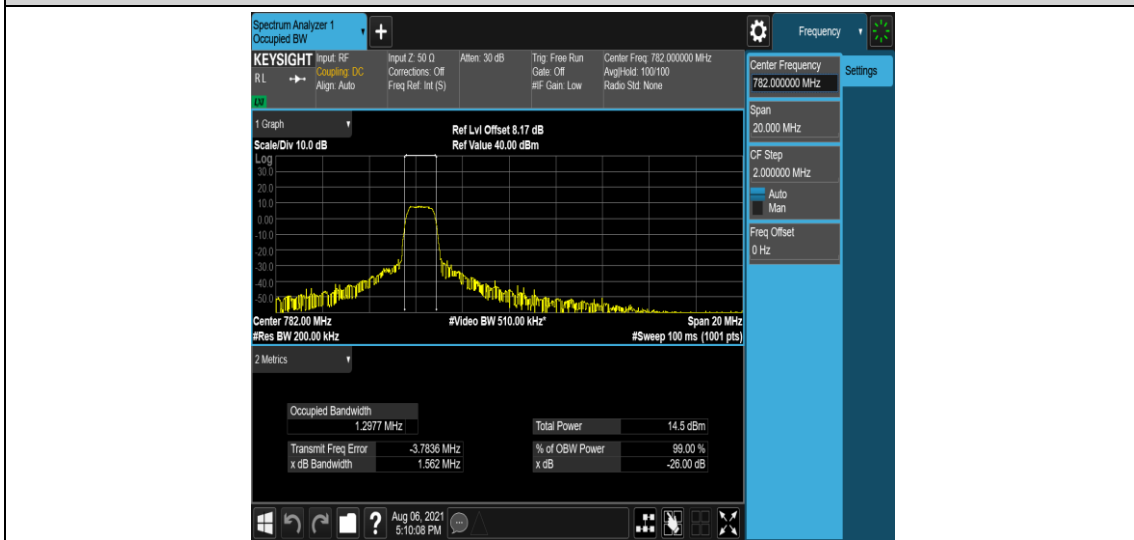
Band13-5MHz-16QAM-23205-6-0-Low-1.1728-1.363-PASS



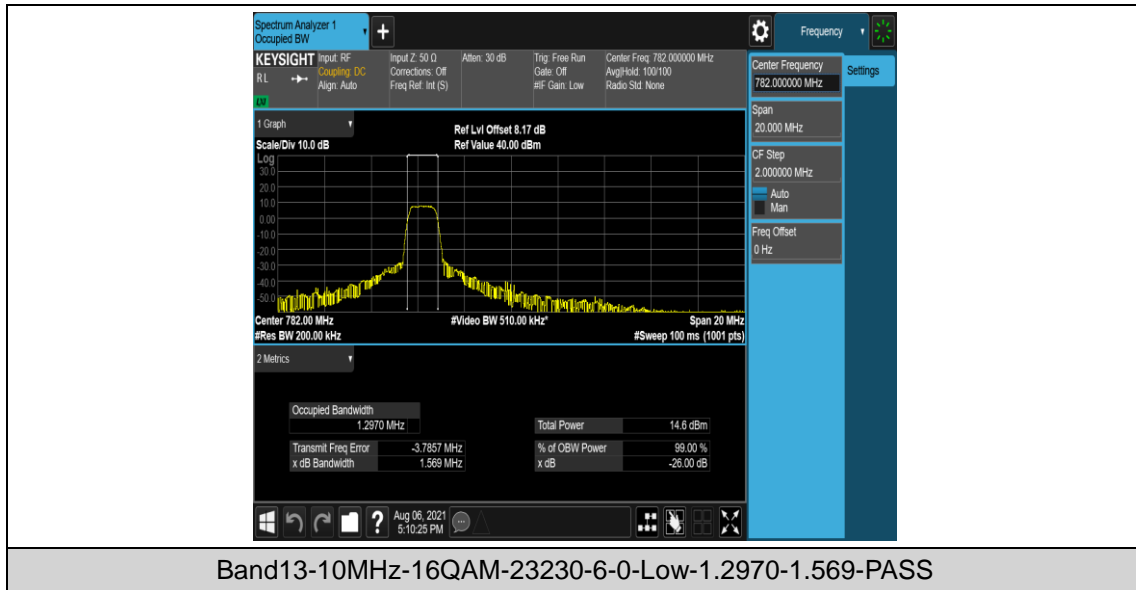
Band13-5MHz-16QAM-23230-6-0-Low-1.1632-1.342-PASS



Band13-5MHz-16QAM-23255-6-0-High-1.1594-1.335-PASS



Band13-10MHz-QPSK-23230-6-0-Low-1.2977-1.562-PASS

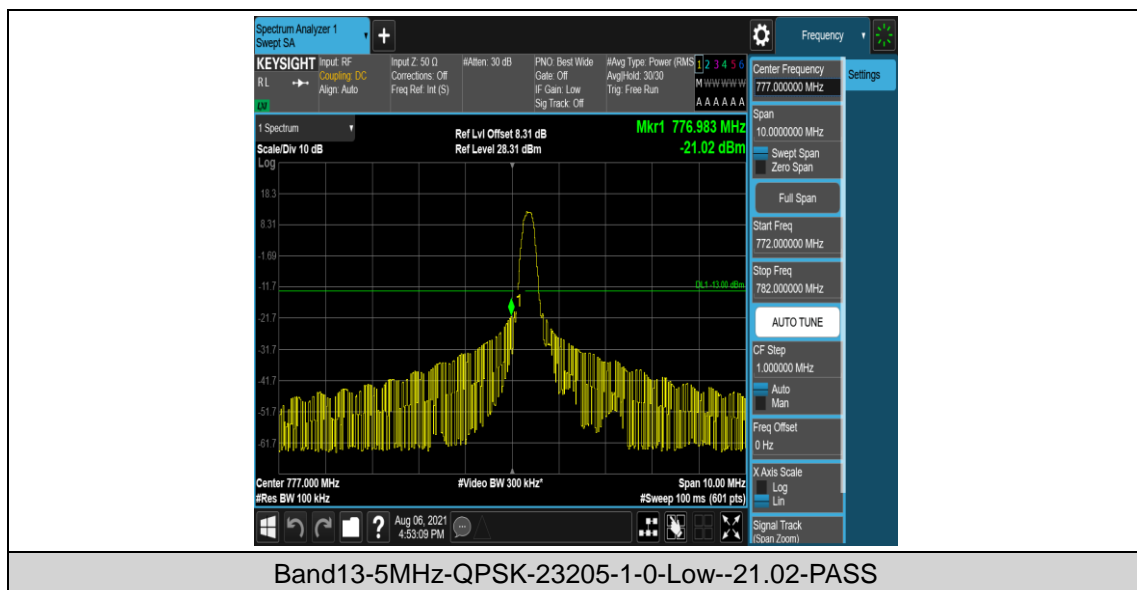


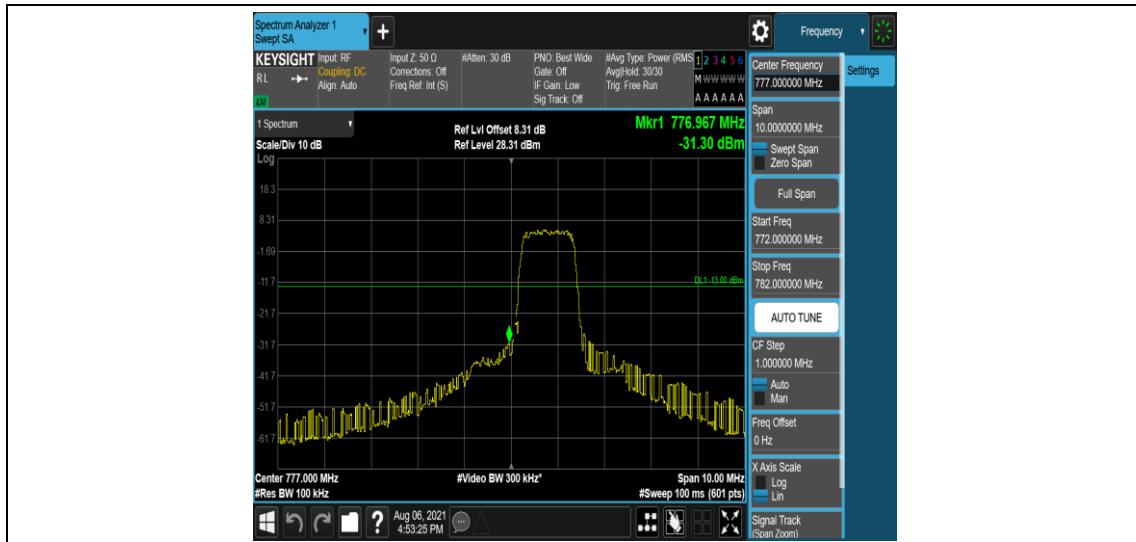
## Appendix D: Band Edge for M1

### Test Result

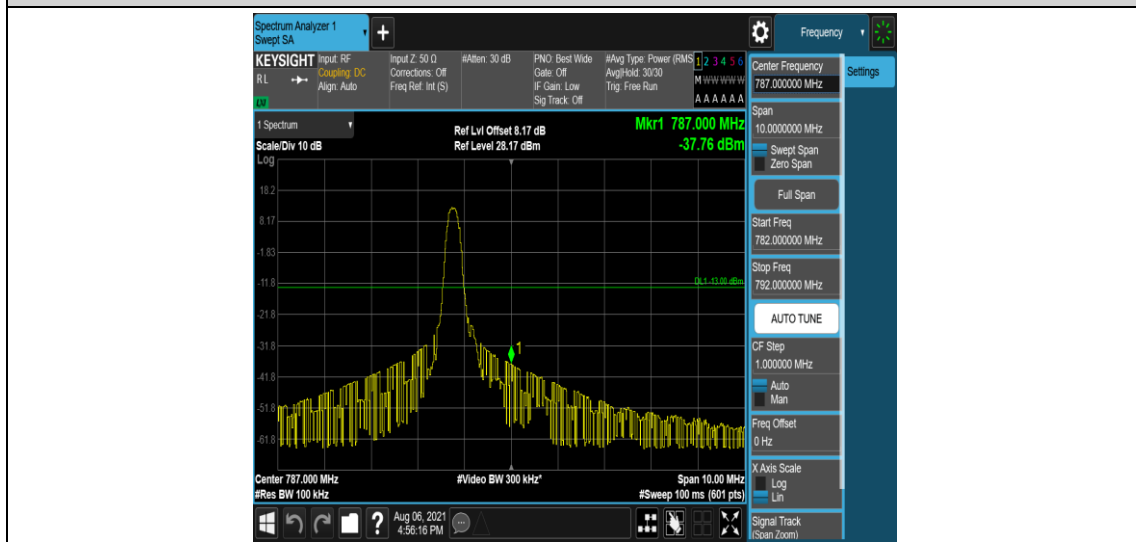
| Band   | Bandwidth | Channel | Modulation | RB Size | RB Start | NB Index | Result(dBm) | Verdict |
|--------|-----------|---------|------------|---------|----------|----------|-------------|---------|
| Band13 | 5MHz      | 23205   | QPSK       | 1       | 0        | Low      | -21.02      | PASS    |
| Band13 | 5MHz      | 23205   | QPSK       | 6       | 0        | Low      | -31.30      | PASS    |
| Band13 | 5MHz      | 23255   | QPSK       | 1       | 0        | High     | -37.76      | PASS    |
| Band13 | 5MHz      | 23255   | QPSK       | 6       | 0        | High     | -29.10      | PASS    |
| Band13 | 5MHz      | 23205   | 16QAM      | 1       | 0        | Low      | -21.49      | PASS    |
| Band13 | 5MHz      | 23205   | 16QAM      | 6       | 0        | Low      | -30.76      | PASS    |
| Band13 | 5MHz      | 23255   | 16QAM      | 1       | 0        | High     | -42.37      | PASS    |
| Band13 | 5MHz      | 23255   | 16QAM      | 6       | 0        | High     | -27.78      | PASS    |

### Test Graphs

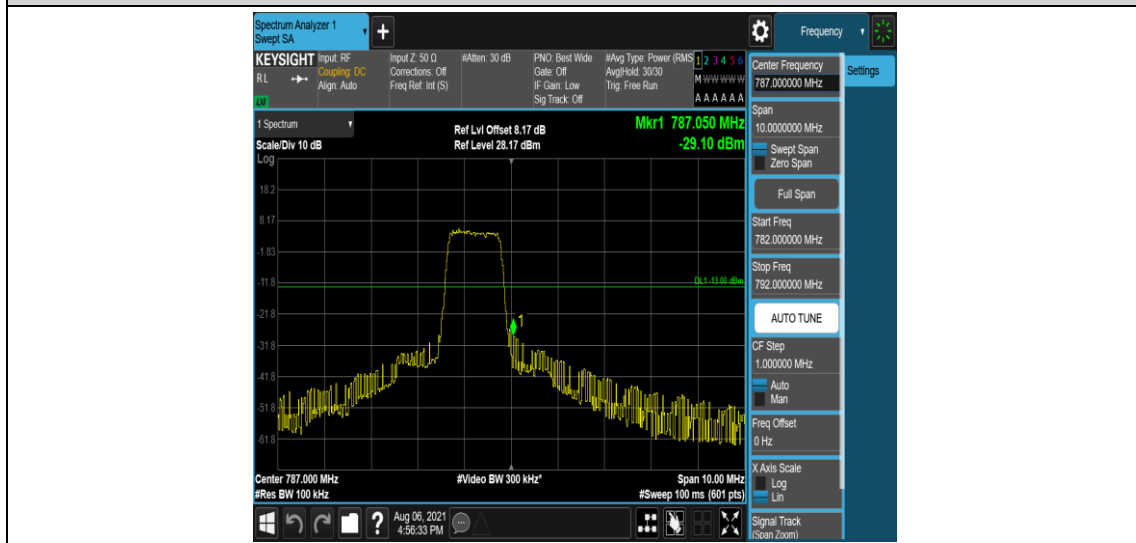




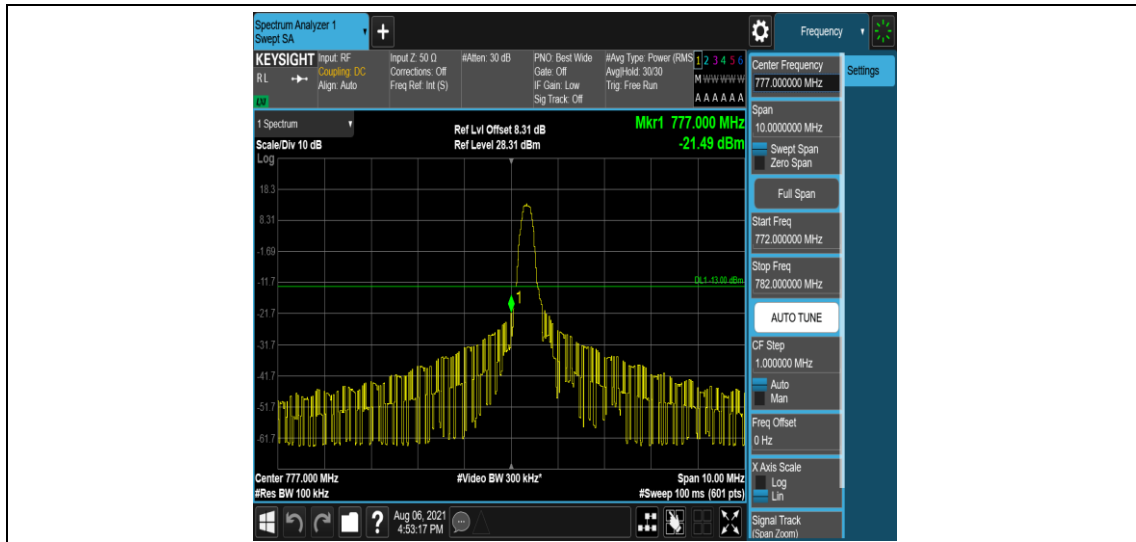
Band13-5MHz-QPSK-23205-6-0-Low--31.30-PASS



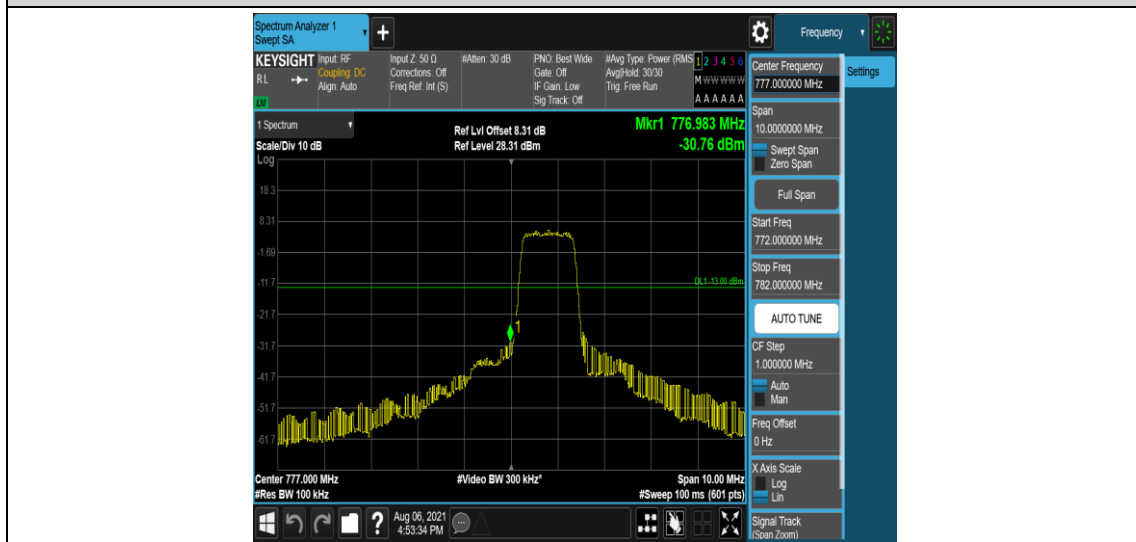
Band13-5MHz-QPSK-23255-1-0-High--37.76-PASS



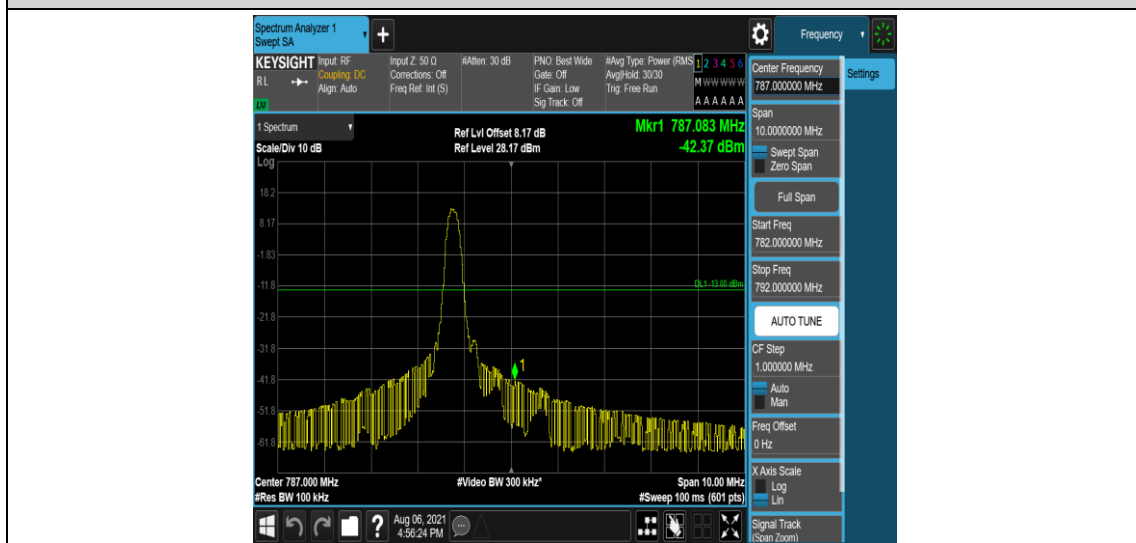
Band13-5MHz-QPSK-23255-6-0-High--29.10-PASS



Band13-5MHz-16QAM-23205-1-0-Low--21.49-PASS

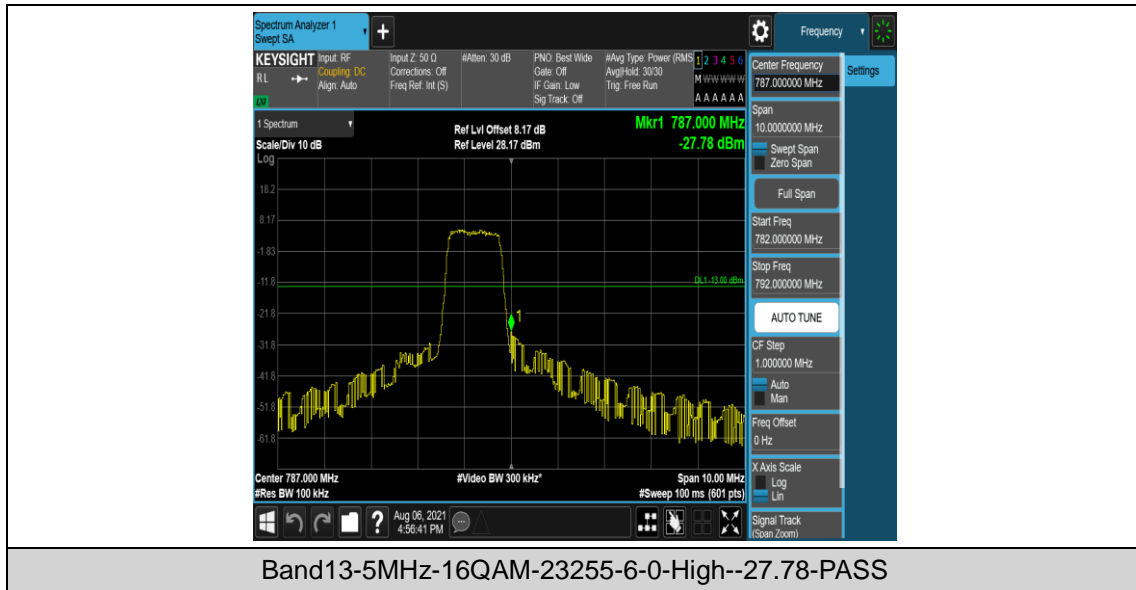


Band13-5MHz-16QAM-23205-6-0-Low--30.76-PASS



Band13-5MHz-16QAM-23255-1-0-High--42.37-PASS





## Appendix E: Conducted Spurious Emission for M1

### Test Result

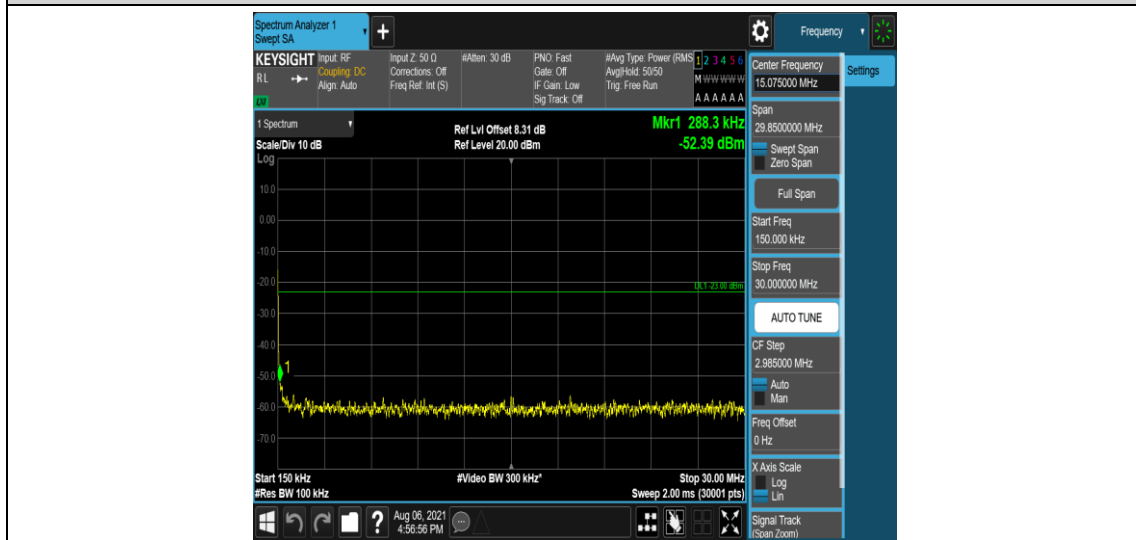
| Band   | Bandwidth | Channel | Modulation | RB Size | RB Start | Start Freq | Stop Freq | Result (dBm) | Verdict |
|--------|-----------|---------|------------|---------|----------|------------|-----------|--------------|---------|
| Band13 | 5MHz      | 23205   | QPSK       | 1       | 0        | 0.009      | 0.15      | -51.56       | PASS    |
| Band13 | 5MHz      | 23205   | QPSK       | 1       | 0        | 0.15       | 30        | -52.39       | PASS    |
| Band13 | 5MHz      | 23205   | QPSK       | 1       | 0        | 30         | 1000      | -34.78       | PASS    |
| Band13 | 5MHz      | 23205   | QPSK       | 1       | 0        | 1000       | 5000      | -36.62       | PASS    |
| Band13 | 5MHz      | 23205   | QPSK       | 1       | 0        | 5000       | 12000     | -57.92       | PASS    |
| Band13 | 5MHz      | 23205   | QPSK       | 1       | 0        | 12000      | 26500     | -52.46       | PASS    |
| Band13 | 5MHz      | 23230   | QPSK       | 1       | 0        | 0.009      | 0.15      | -52.79       | PASS    |
| Band13 | 5MHz      | 23230   | QPSK       | 1       | 0        | 0.15       | 30        | -50.65       | PASS    |
| Band13 | 5MHz      | 23230   | QPSK       | 1       | 0        | 30         | 1000      | -34.18       | PASS    |
| Band13 | 5MHz      | 23230   | QPSK       | 1       | 0        | 1000       | 5000      | -36.89       | PASS    |
| Band13 | 5MHz      | 23230   | QPSK       | 1       | 0        | 5000       | 12000     | -58.02       | PASS    |
| Band13 | 5MHz      | 23230   | QPSK       | 1       | 0        | 12000      | 26500     | -52.42       | PASS    |
| Band13 | 5MHz      | 23255   | QPSK       | 1       | 0        | 0.009      | 0.15      | -53.06       | PASS    |
| Band13 | 5MHz      | 23255   | QPSK       | 1       | 0        | 0.15       | 30        | -51.69       | PASS    |
| Band13 | 5MHz      | 23255   | QPSK       | 1       | 0        | 30         | 1000      | -35.37       | PASS    |
| Band13 | 5MHz      | 23255   | QPSK       | 1       | 0        | 1000       | 5000      | -36.78       | PASS    |
| Band13 | 5MHz      | 23255   | QPSK       | 1       | 0        | 5000       | 12000     | -58.07       | PASS    |
| Band13 | 5MHz      | 23255   | QPSK       | 1       | 0        | 12000      | 26500     | -52.41       | PASS    |
| Band13 | 5MHz      | 23205   | 16QAM      | 1       | 0        | 0.009      | 0.15      | -52.29       | PASS    |
| Band13 | 5MHz      | 23205   | 16QAM      | 1       | 0        | 0.15       | 30        | -50.52       | PASS    |
| Band13 | 5MHz      | 23205   | 16QAM      | 1       | 0        | 30         | 1000      | -34.62       | PASS    |
| Band13 | 5MHz      | 23205   | 16QAM      | 1       | 0        | 1000       | 5000      | -36.72       | PASS    |
| Band13 | 5MHz      | 23205   | 16QAM      | 1       | 0        | 5000       | 12000     | -57.79       | PASS    |
| Band13 | 5MHz      | 23205   | 16QAM      | 1       | 0        | 12000      | 26500     | -52.38       | PASS    |
| Band13 | 5MHz      | 23230   | 16QAM      | 1       | 0        | 0.009      | 0.15      | -51.67       | PASS    |
| Band13 | 5MHz      | 23230   | 16QAM      | 1       | 0        | 0.15       | 30        | -49.16       | PASS    |
| Band13 | 5MHz      | 23230   | 16QAM      | 1       | 0        | 30         | 1000      | -33.66       | PASS    |
| Band13 | 5MHz      | 23230   | 16QAM      | 1       | 0        | 1000       | 5000      | -36.84       | PASS    |
| Band13 | 5MHz      | 23230   | 16QAM      | 1       | 0        | 5000       | 12000     | -58.16       | PASS    |
| Band13 | 5MHz      | 23230   | 16QAM      | 1       | 0        | 12000      | 26500     | -52.6        | PASS    |
| Band13 | 5MHz      | 23255   | 16QAM      | 1       | 0        | 0.009      | 0.15      | -51.67       | PASS    |
| Band13 | 5MHz      | 23255   | 16QAM      | 1       | 0        | 0.15       | 30        | -52.14       | PASS    |
| Band13 | 5MHz      | 23255   | 16QAM      | 1       | 0        | 30         | 1000      | -35.12       | PASS    |
| Band13 | 5MHz      | 23255   | 16QAM      | 1       | 0        | 1000       | 5000      | -36.82       | PASS    |

|        |      |       |       |   |   |       |       |        |      |
|--------|------|-------|-------|---|---|-------|-------|--------|------|
| Band13 | 5MHz | 23255 | 16QAM | 1 | 0 | 5000  | 12000 | -57.88 | PASS |
| Band13 | 5MHz | 23255 | 16QAM | 1 | 0 | 12000 | 26500 | -52.59 | PASS |

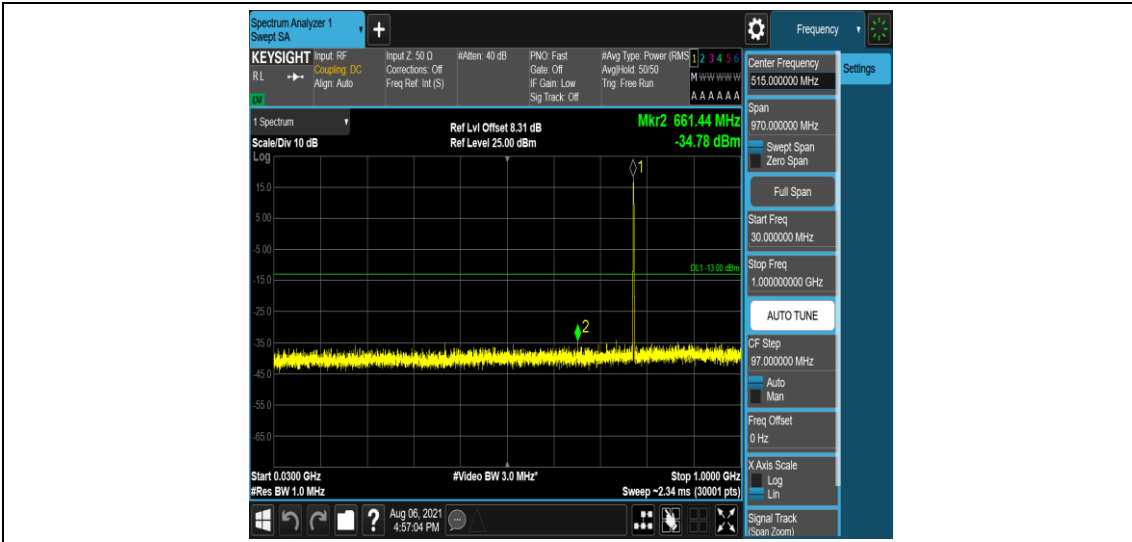
### Test Graphs



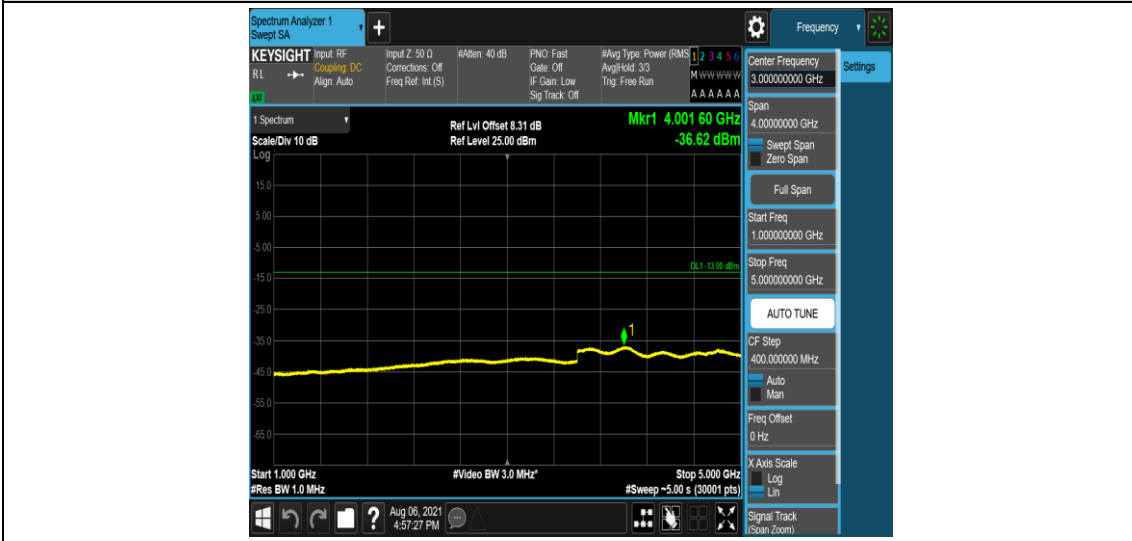
Band13-5MHz-QPSK-23205-1-0-Low-0.009-0.15--51.56-PASS



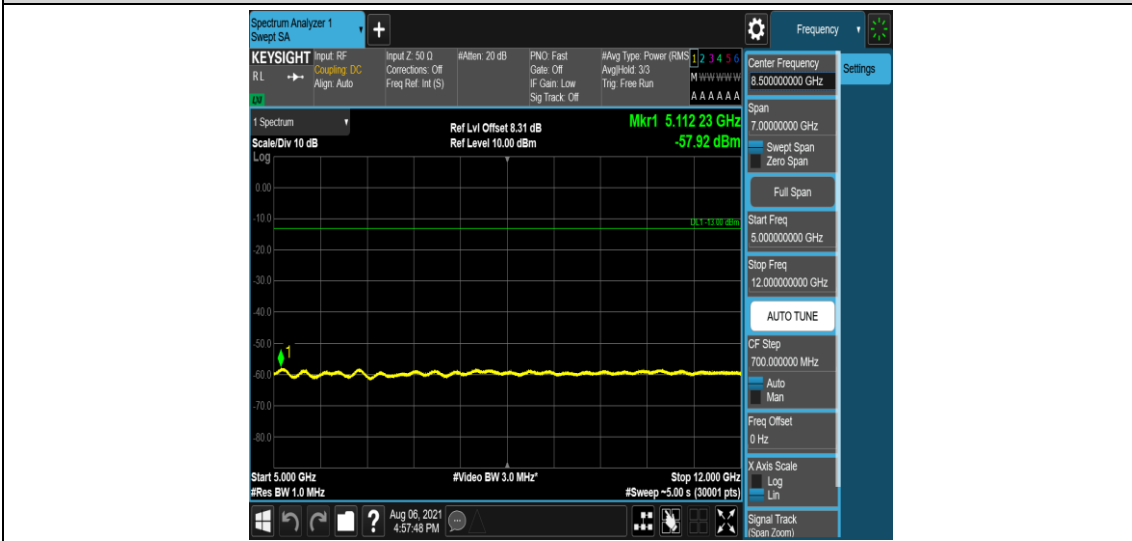
Band13-5MHz-QPSK-23205-1-0-Low-0.15-30--52.39-PASS



Band13-5MHz-QPSK-23205-1-0-Low-30-1000--34.78-PASS



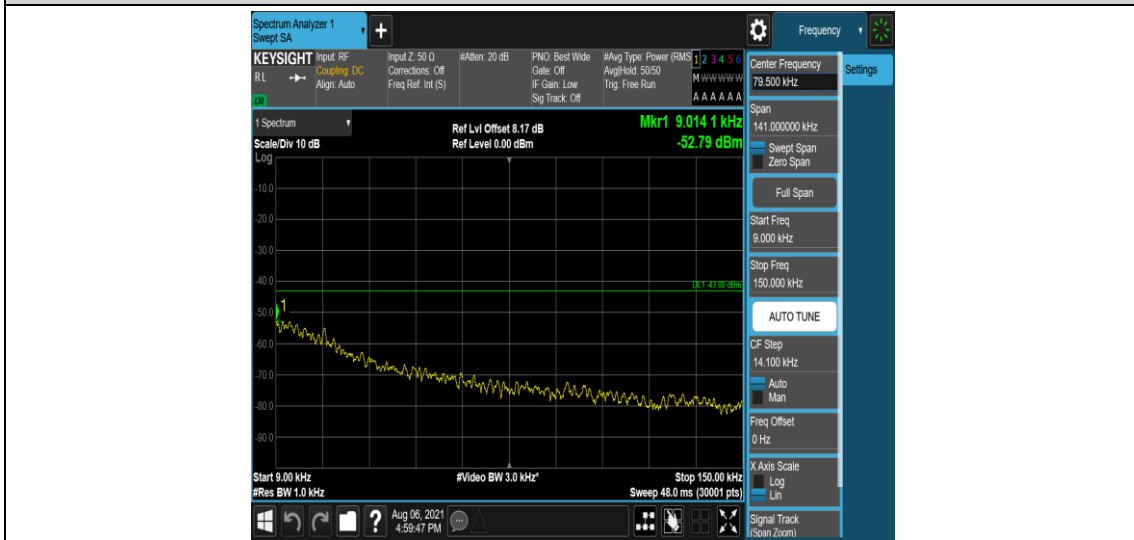
Band13-5MHz-QPSK-23205-1-0-Low-1000-5000--36.62-PASS



Band13-5MHz-QPSK-23205-1-0-Low-5000-12000--57.92-PASS



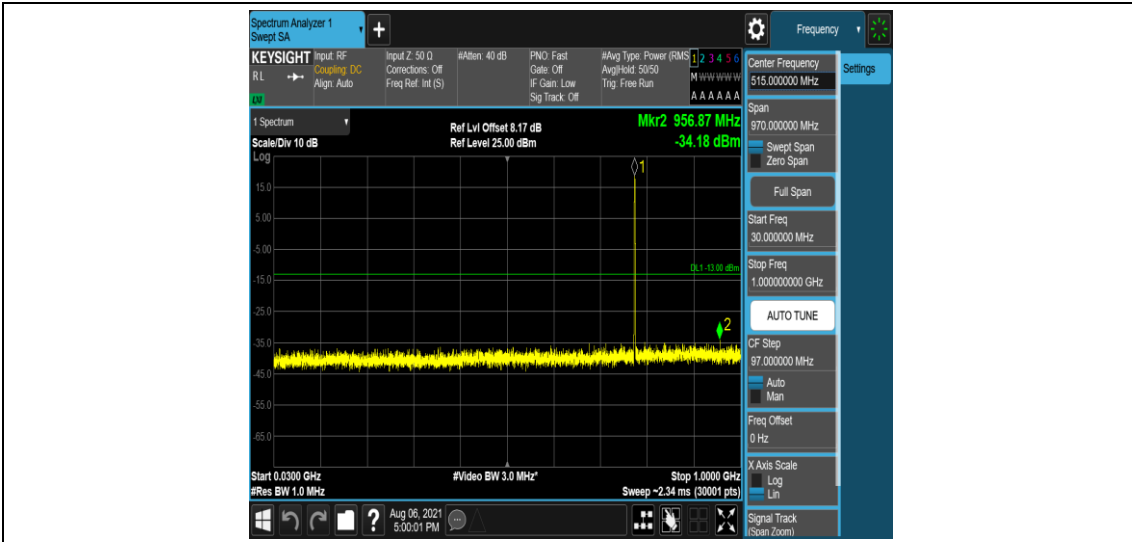
Band13-5MHz-QPSK-23205-1-0-Low-12000-26500--52.46-PASS



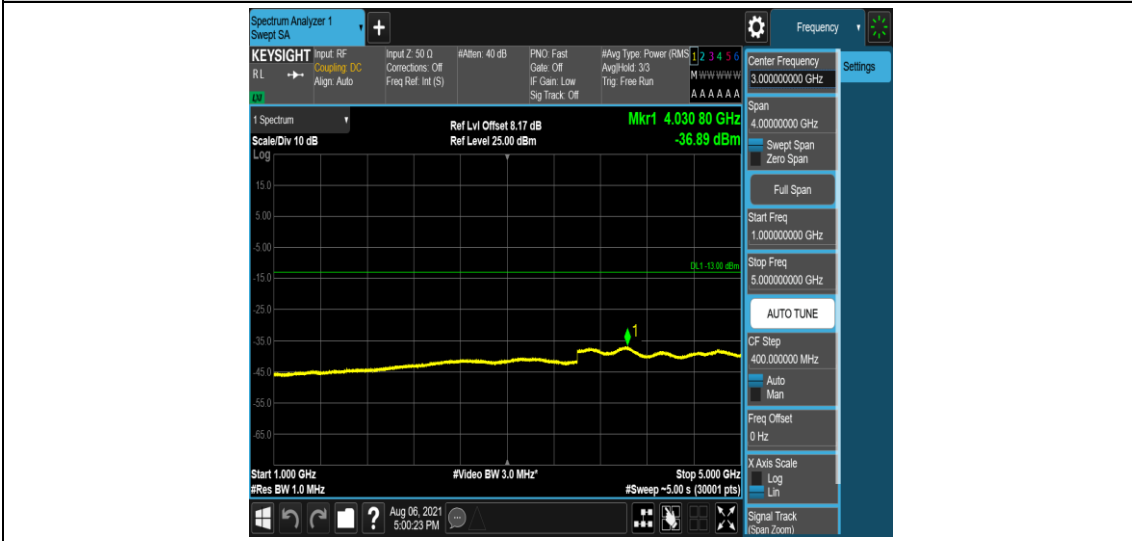
Band13-5MHz-QPSK-23230-1-0-Low-0.009-0.15--52.79-PASS



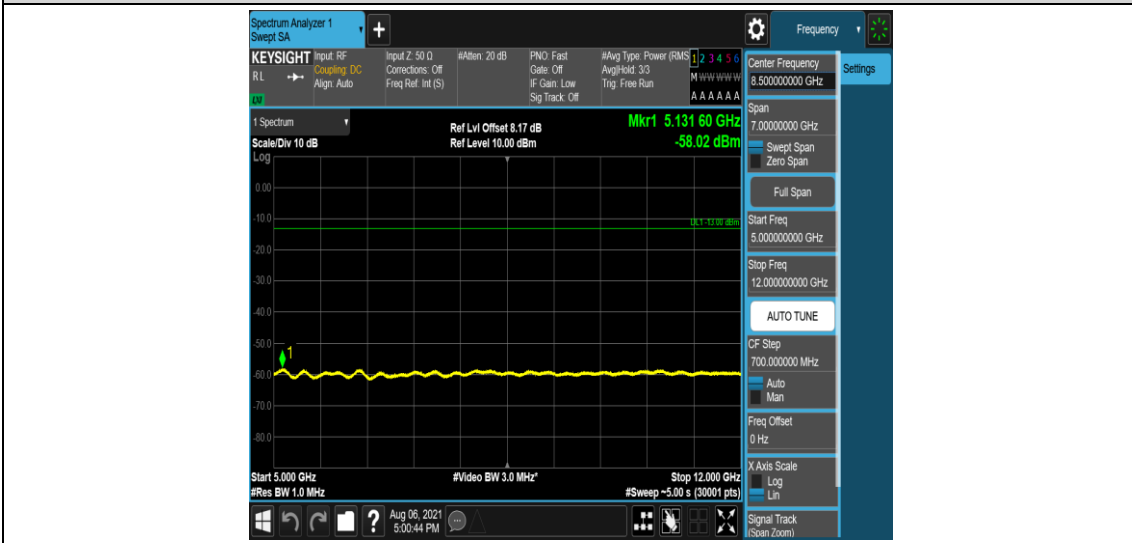
Band13-5MHz-QPSK-23230-1-0-Low-0.15-30--50.65-PASS



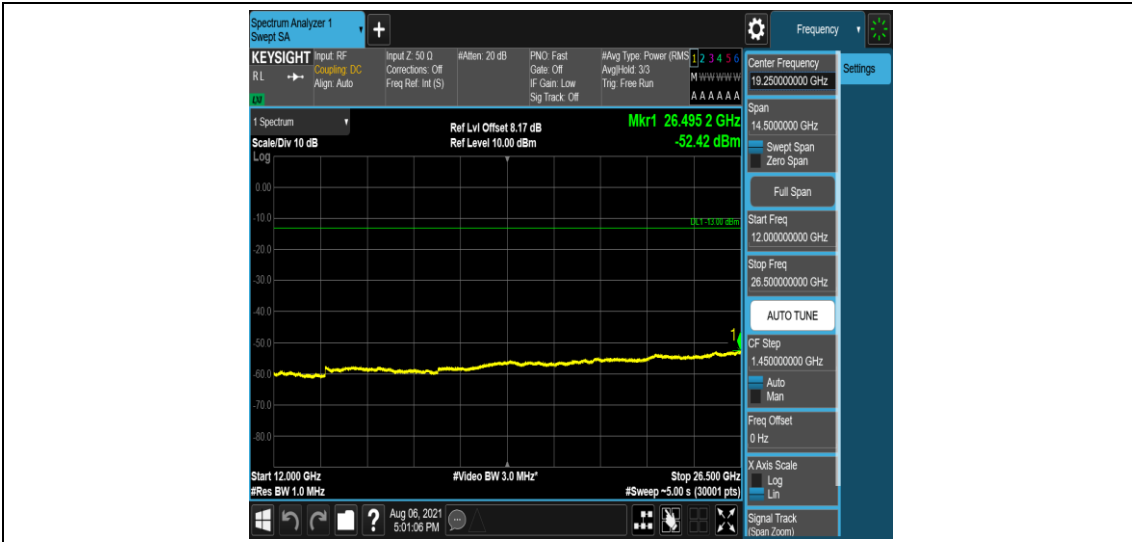
Band13-5MHz-QPSK-23230-1-0-Low-30-1000--34.18-PASS



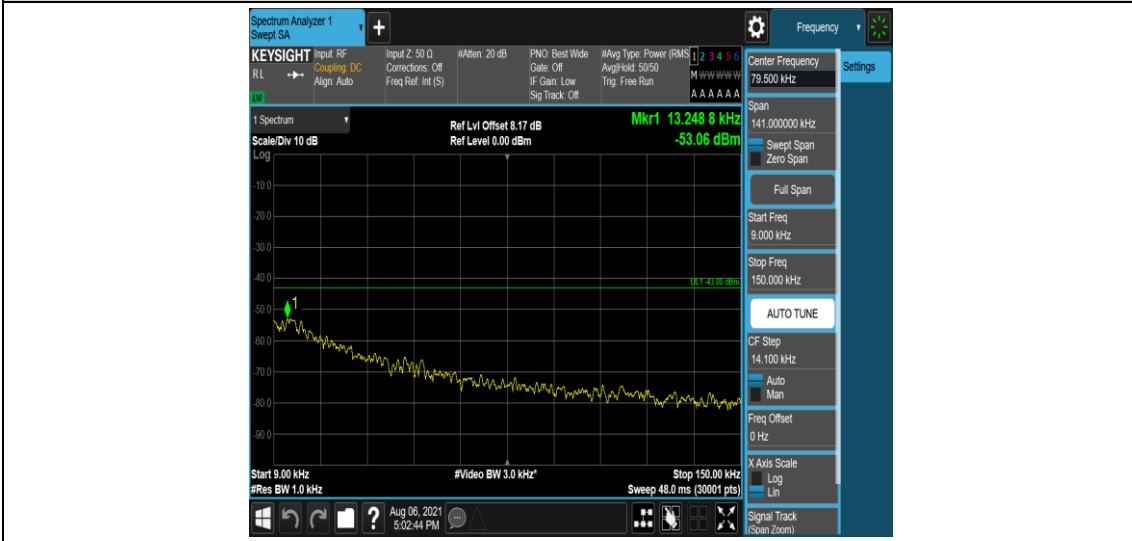
Band13-5MHz-QPSK-23230-1-0-Low-1000-5000--36.89-PASS



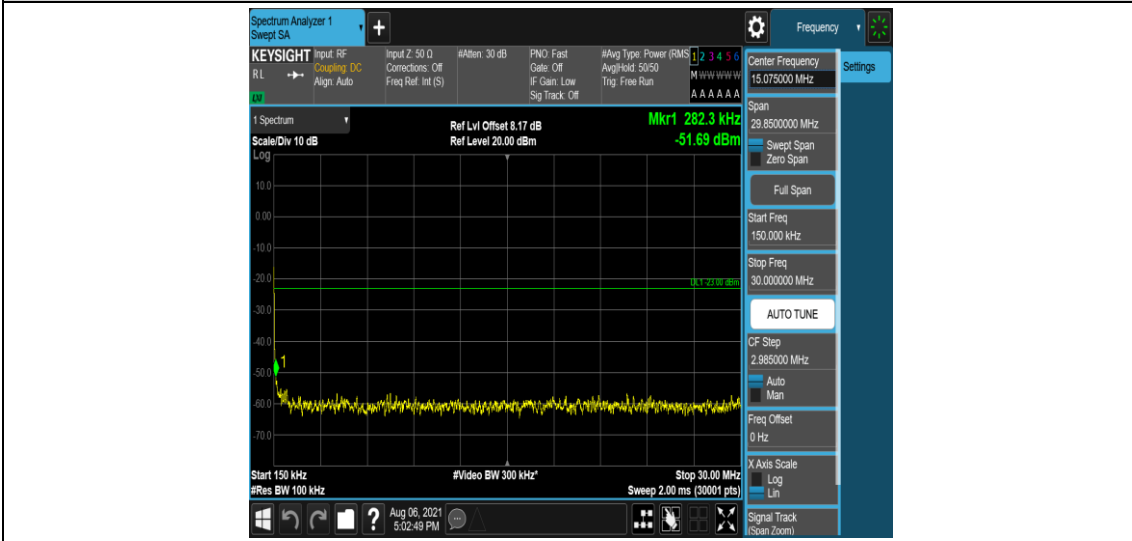
Band13-5MHz-QPSK-23230-1-0-Low-5000-12000--58.02-PASS



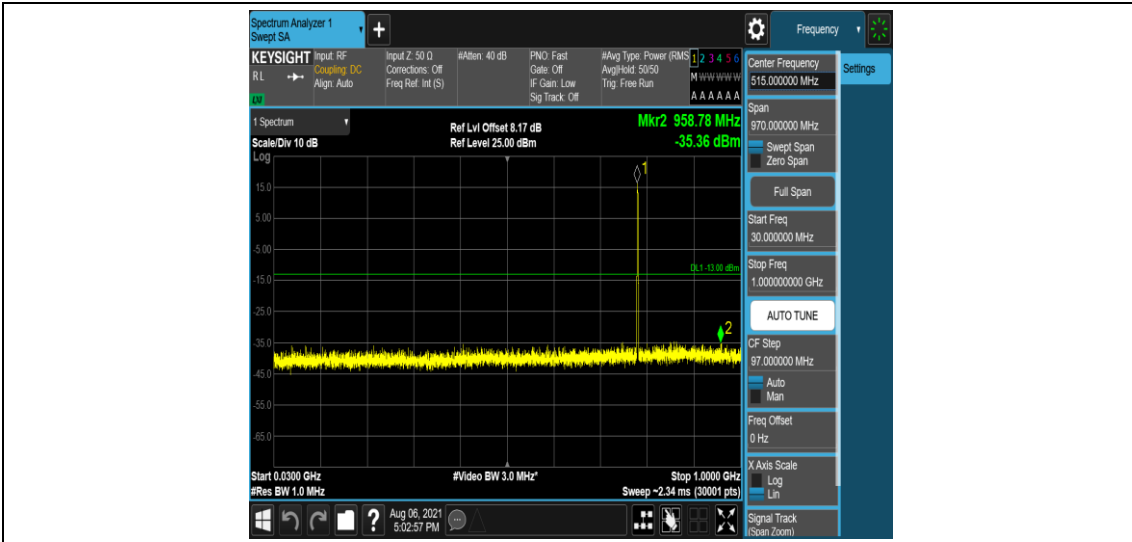
Band13-5MHz-QPSK-23230-1-0-Low-12000-26500--52.42-PASS



Band13-5MHz-QPSK-23255-1-0-High-0.009-0.15--53.06-PASS



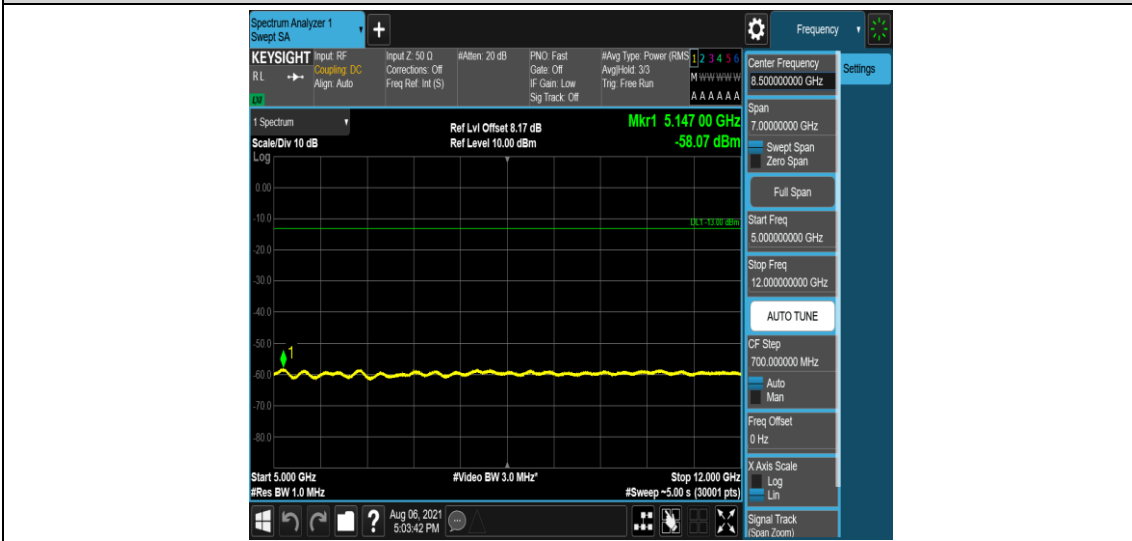
Band13-5MHz-QPSK-23255-1-0-High-0.15-30--51.69-PASS



Band13-5MHz-QPSK-23255-1-0-High-30-1000--35.37-PASS



Band13-5MHz-QPSK-23255-1-0-High-1000-5000--36.78-PASS

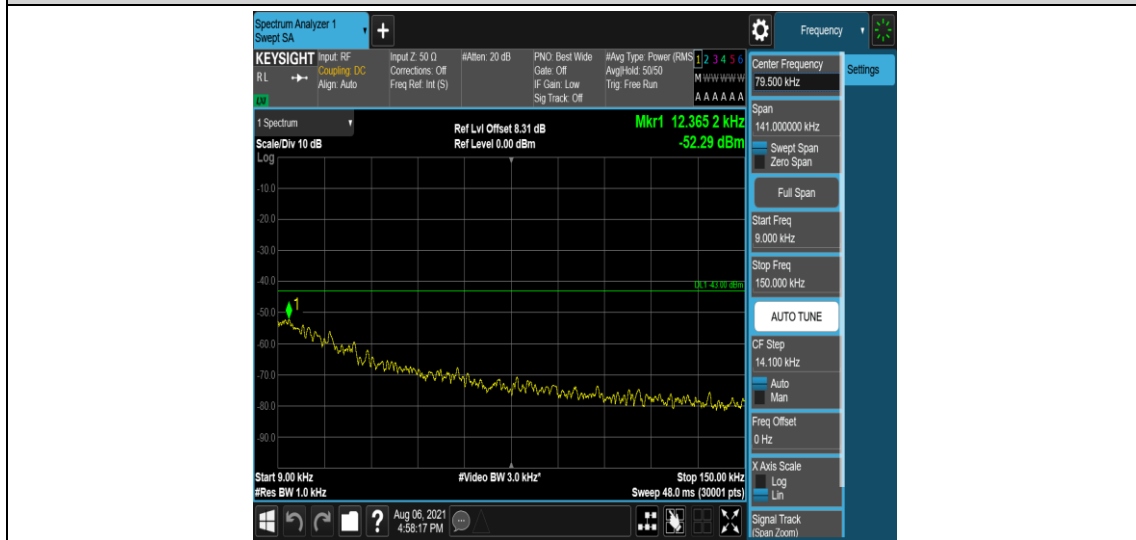


Band13-5MHz-QPSK-23255-1-0-High-5000-12000--58.07-PASS





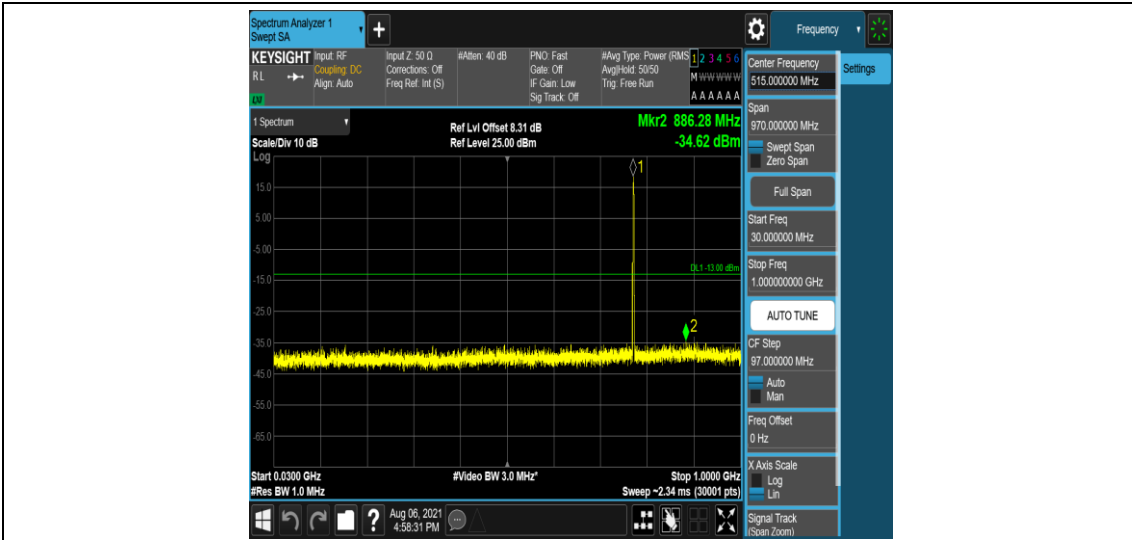
Band13-5MHz-QPSK-23255-1-0-High-12000-26500--52.41-PASS



Band13-5MHz-16QAM-23205-1-0-Low-0.009-0.15--52.29-PASS



Band13-5MHz-16QAM-23205-1-0-Low-0.15-30--50.52-PASS



Band13-5MHz-16QAM-23205-1-0-Low-30-1000--34.62-PASS



Band13-5MHz-16QAM-23205-1-0-Low-1000-5000--36.72-PASS



Band13-5MHz-16QAM-23205-1-0-Low-5000-12000--57.79-PASS