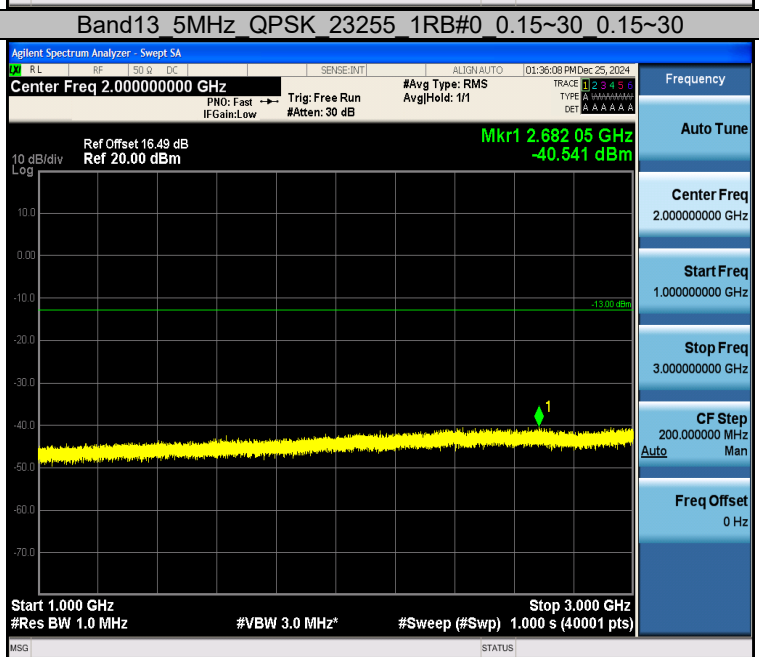
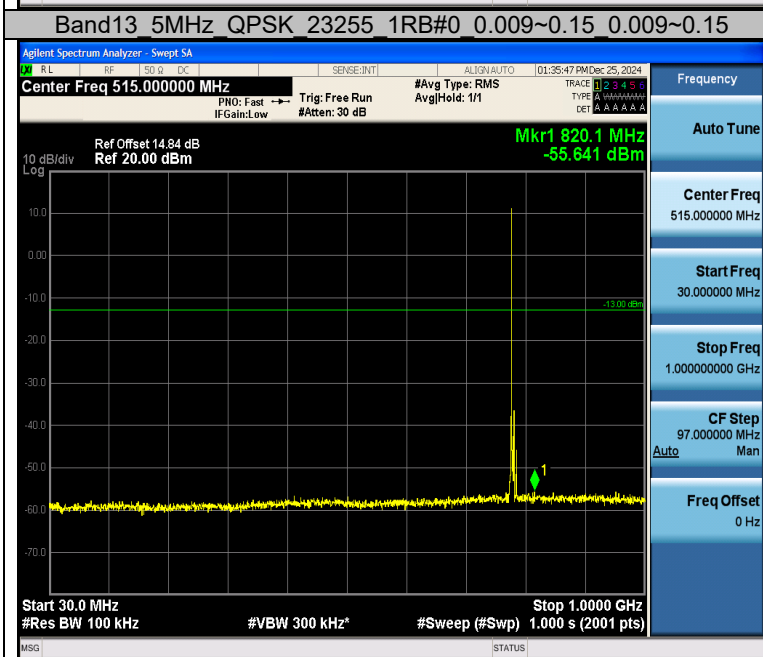
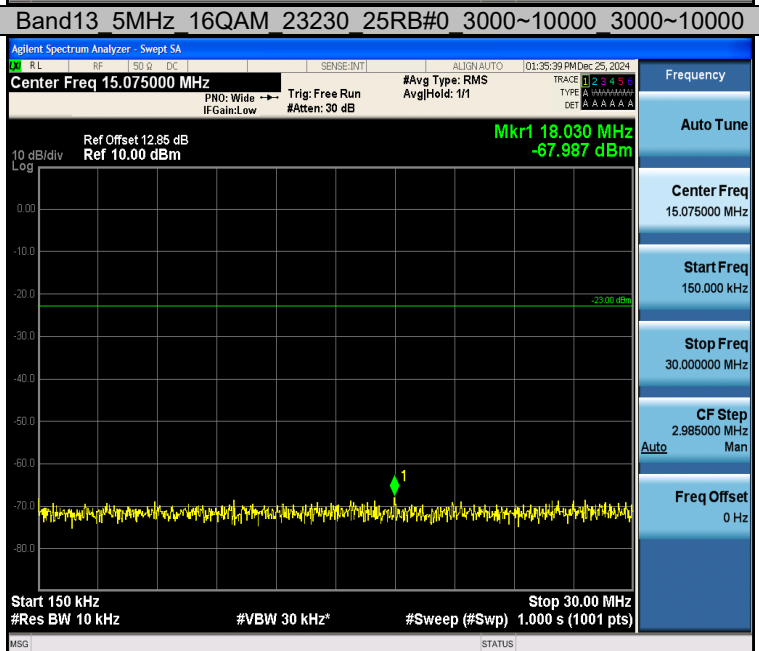
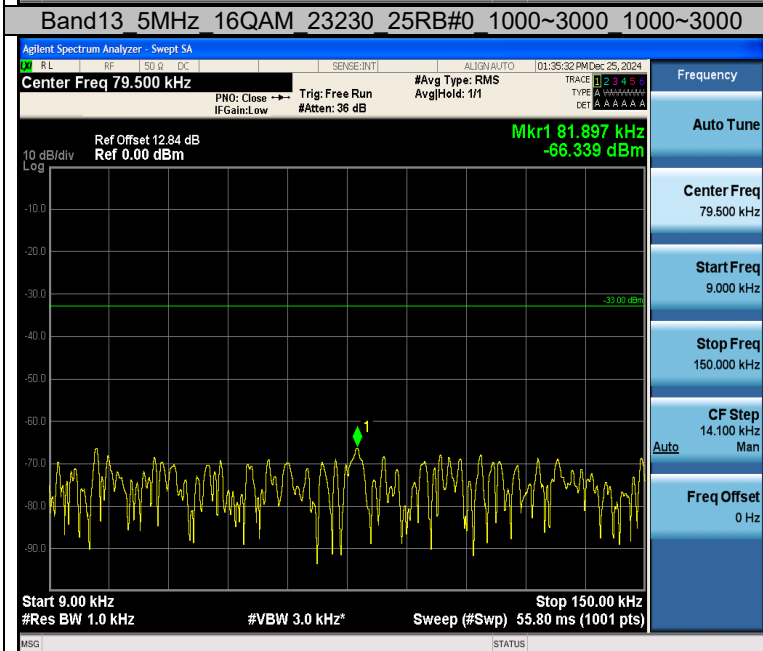
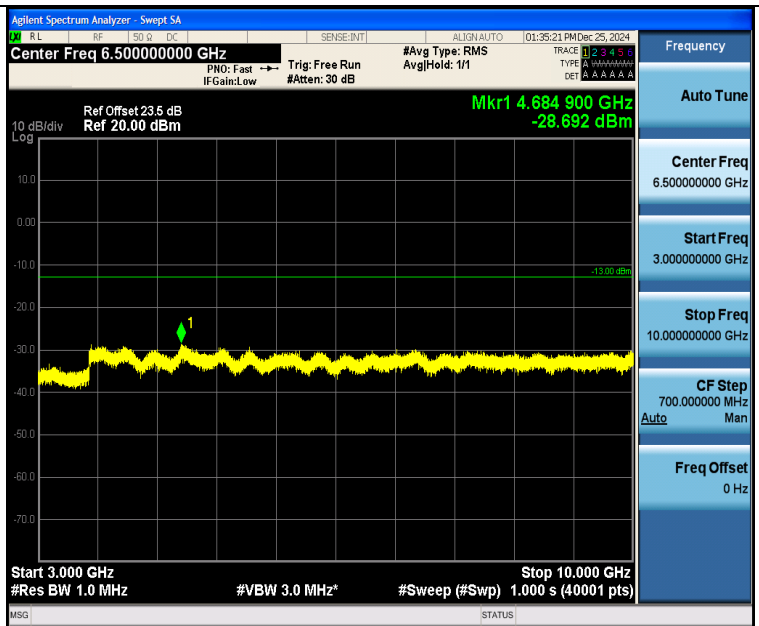
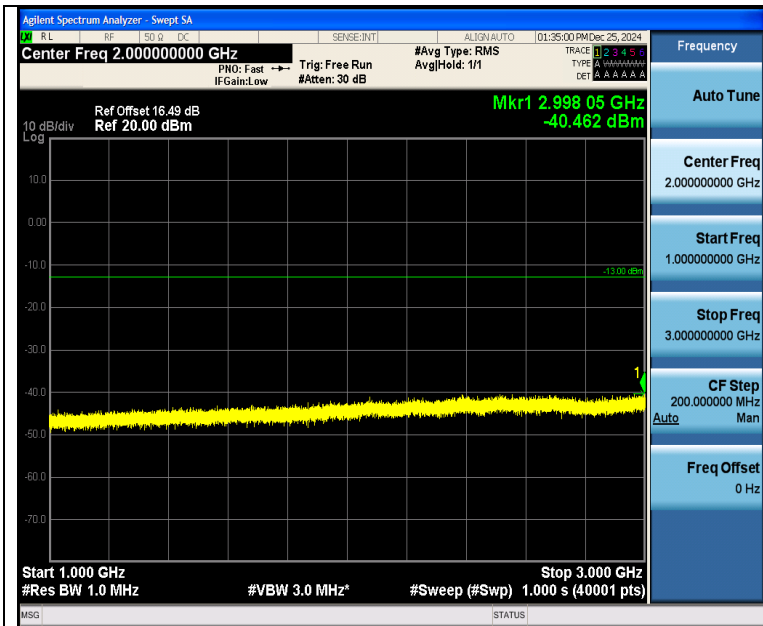
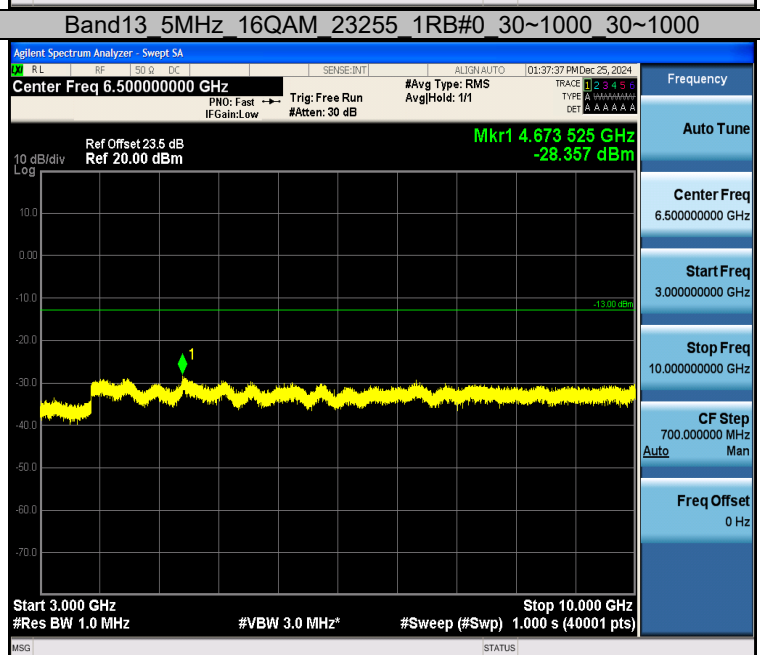
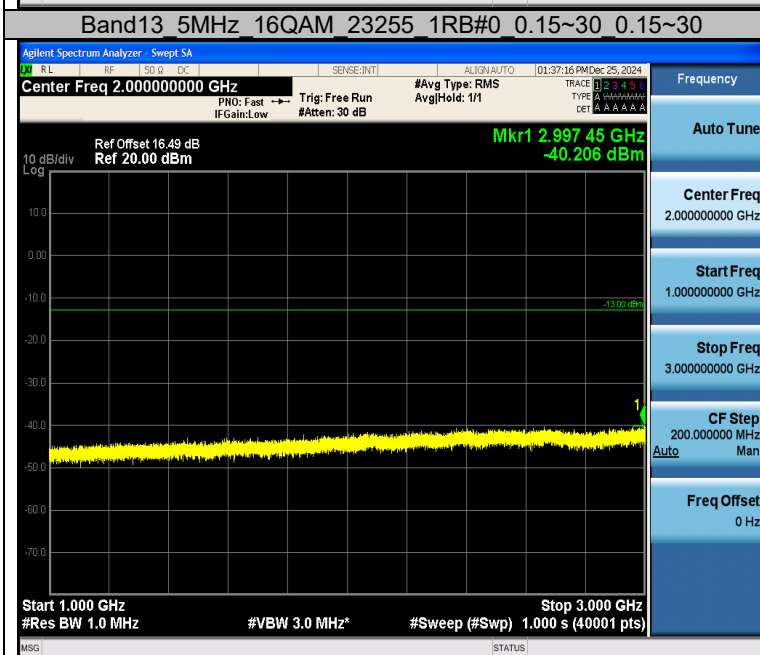
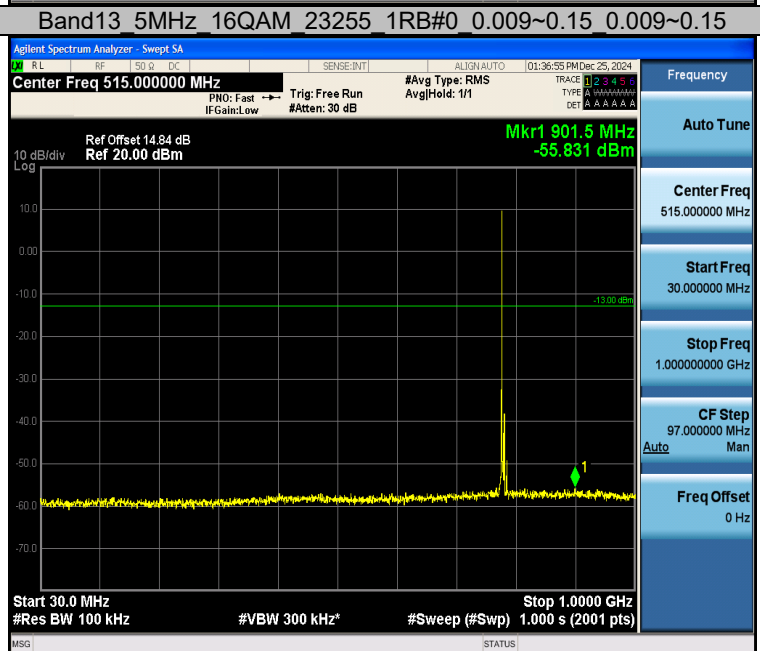
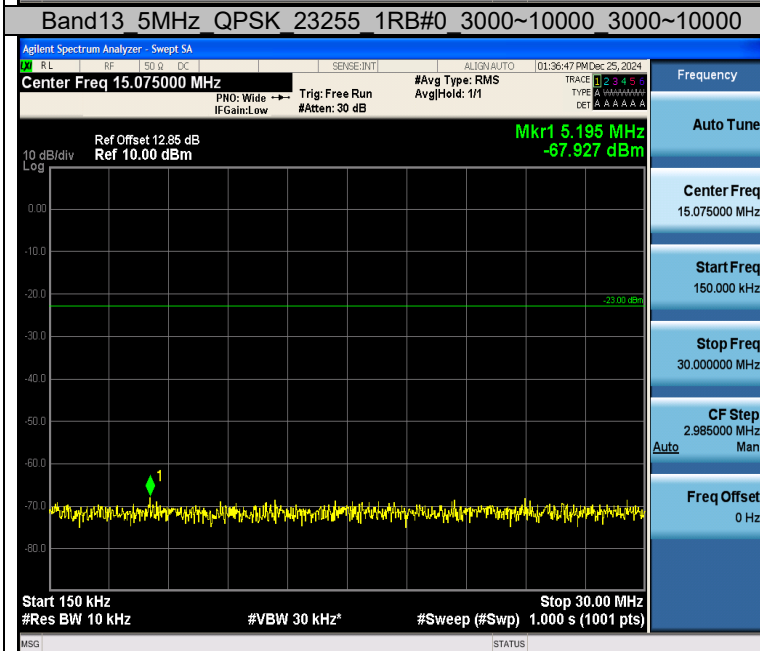
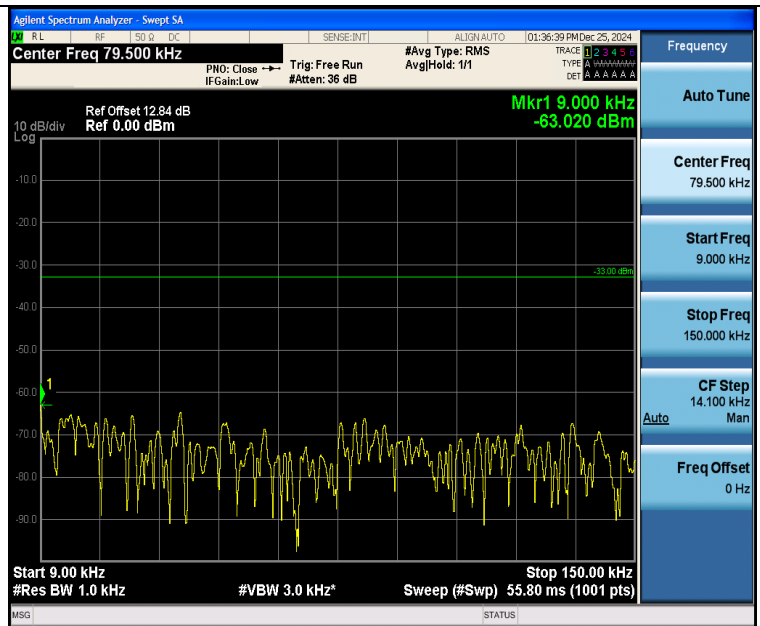
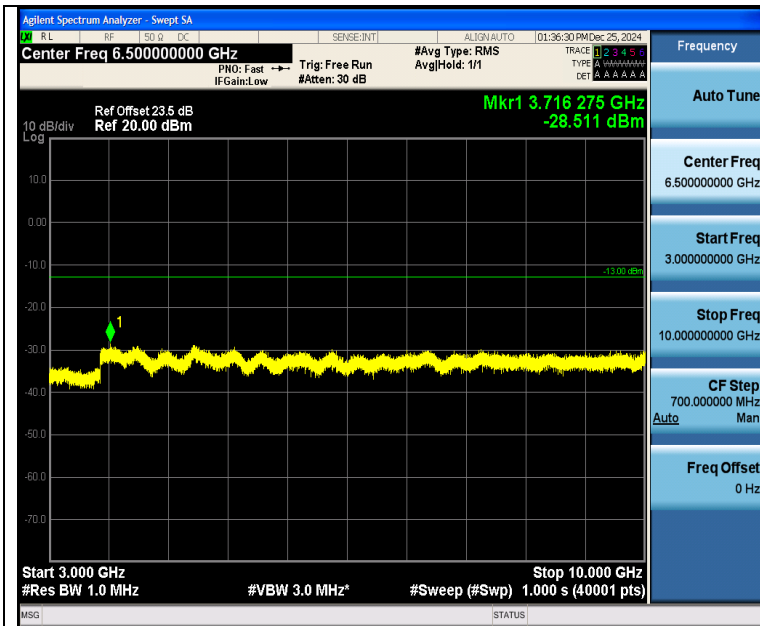




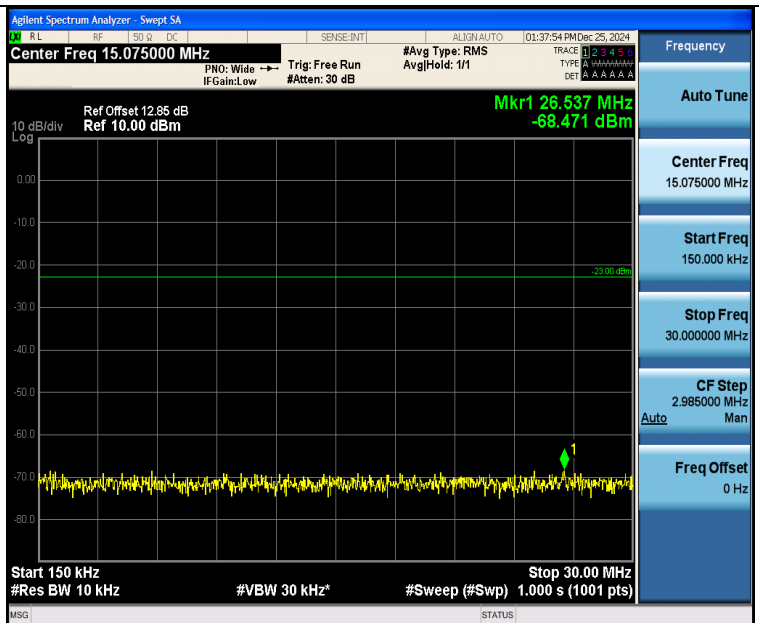
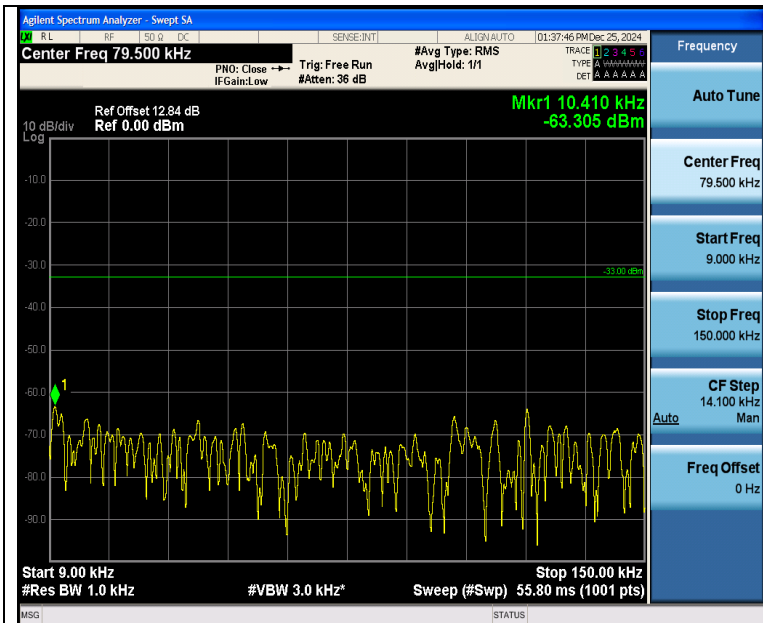
Band13\_5MHz\_QPSK\_23255\_1RB#0\_30~1000\_30~1000

Band13\_5MHz\_QPSK\_23255\_1RB#0\_1000~3000\_1000~3000



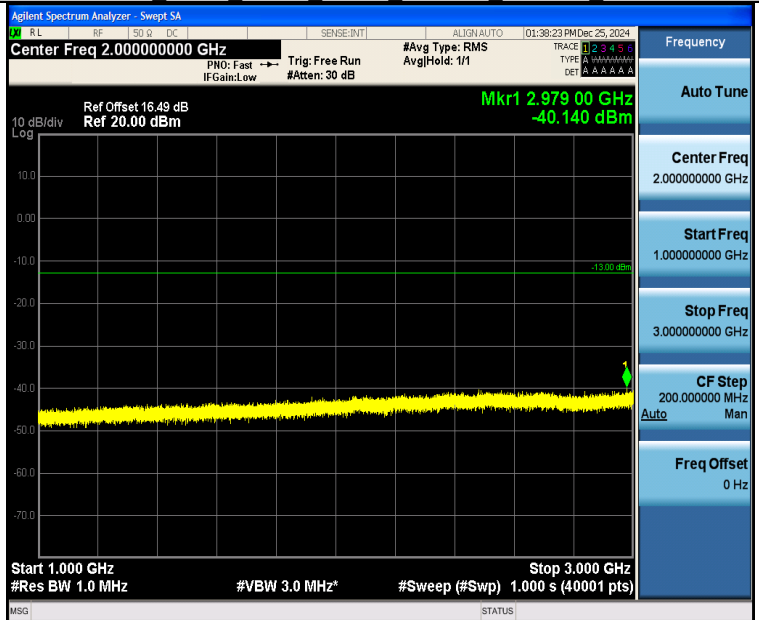
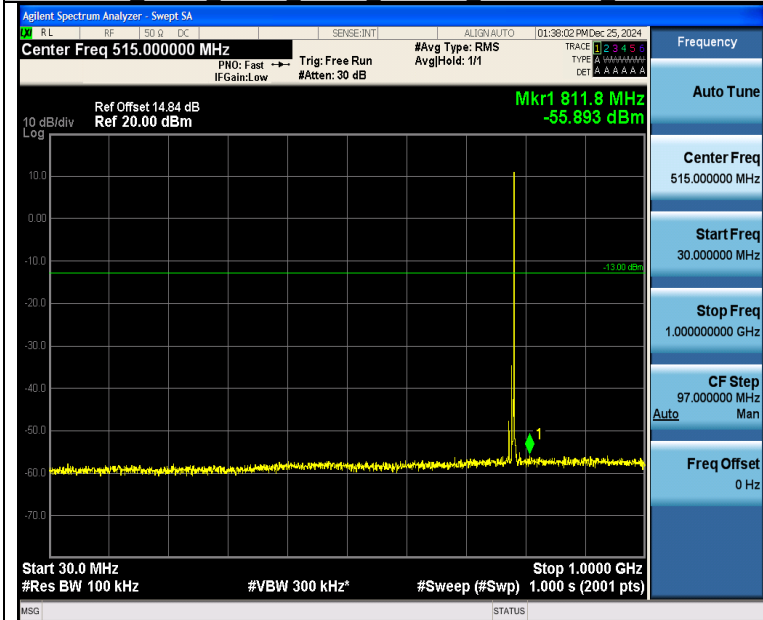
Band13 5MHz 16QAM 23255 1RB#0 1000~3000 1000~3000

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



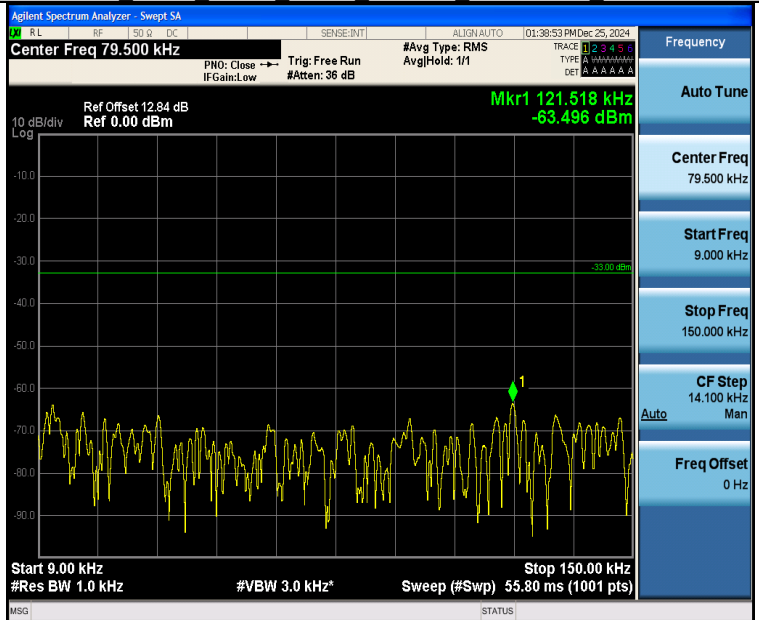
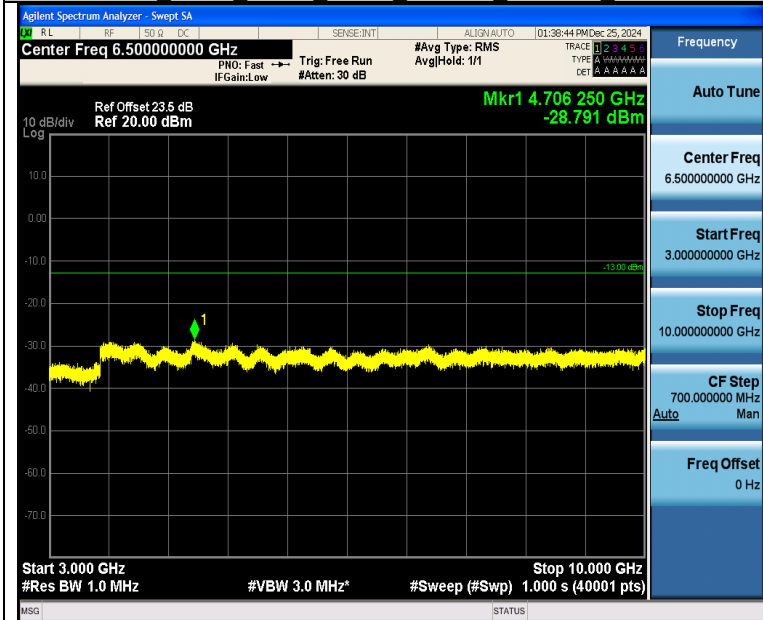
Band13 5MHz QPSK 23255 1RB#24 0.009~0.15 0.009~0.15

Band13 5MHz QPSK 23255 1RB#24 0.15~30 0.15~30



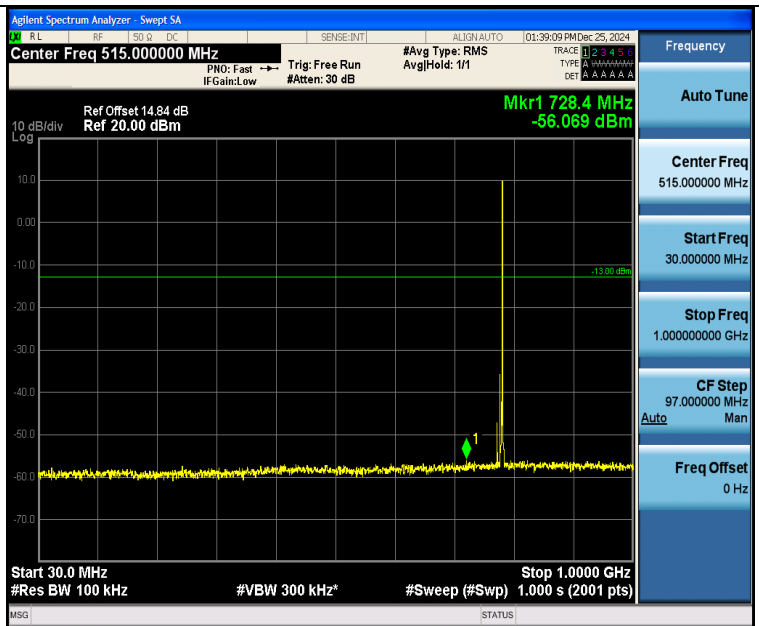
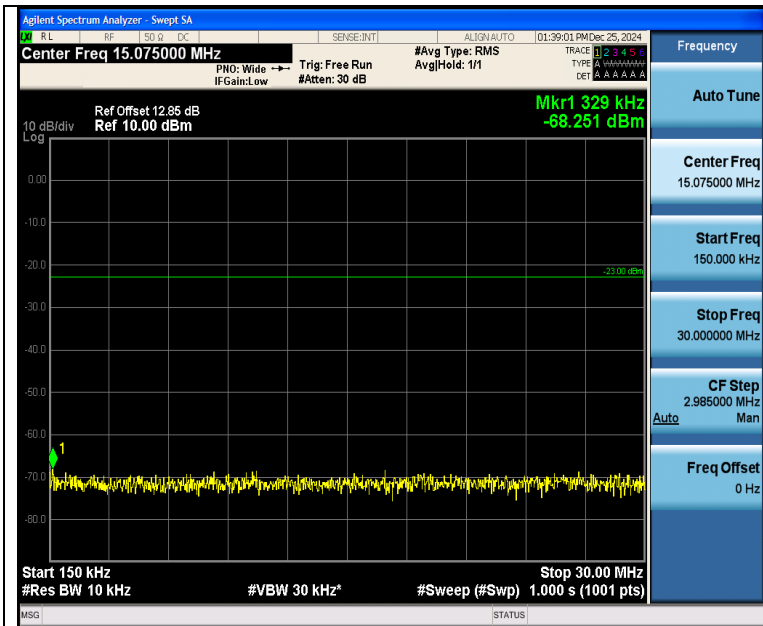
Band13 5MHz QPSK 23255 1RB#24 30~1000 30~1000

Band13 5MHz QPSK 23255 1RB#24 1000~3000 1000~3000



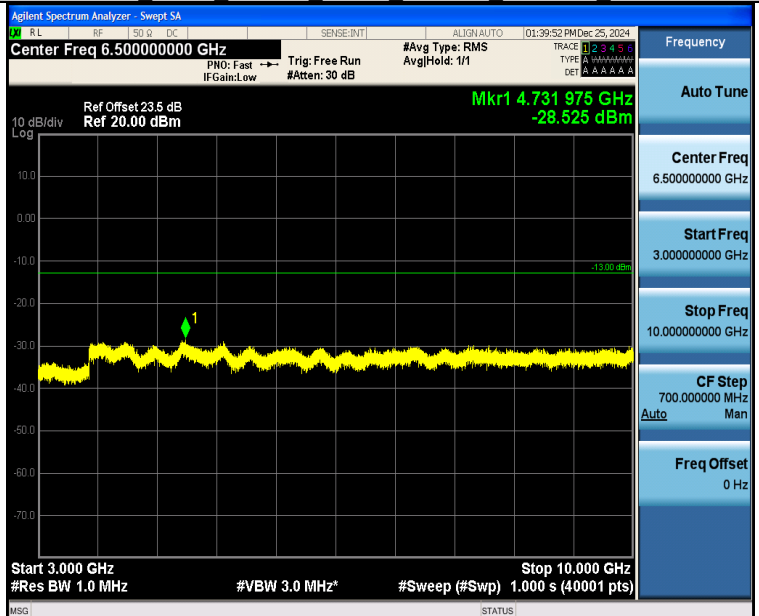
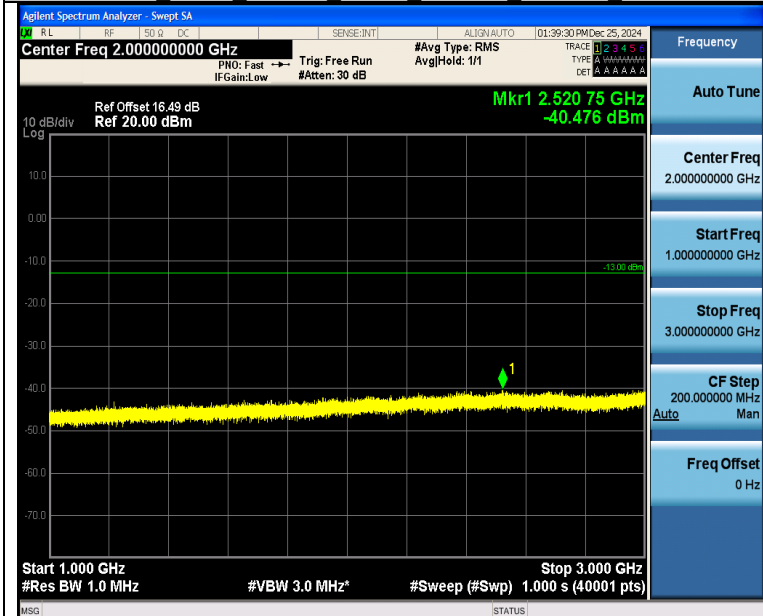
Band13\_5MHz\_QPSK\_23255\_1RB#24\_3000~10000\_3000~10000

Band13\_5MHz\_16QAM\_23255\_1RB#24\_0.009~0.15\_0.009~0.15



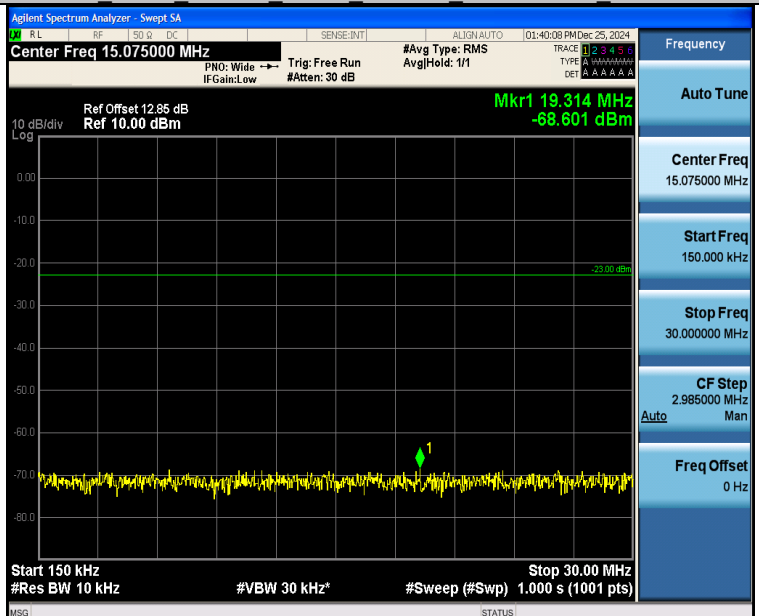
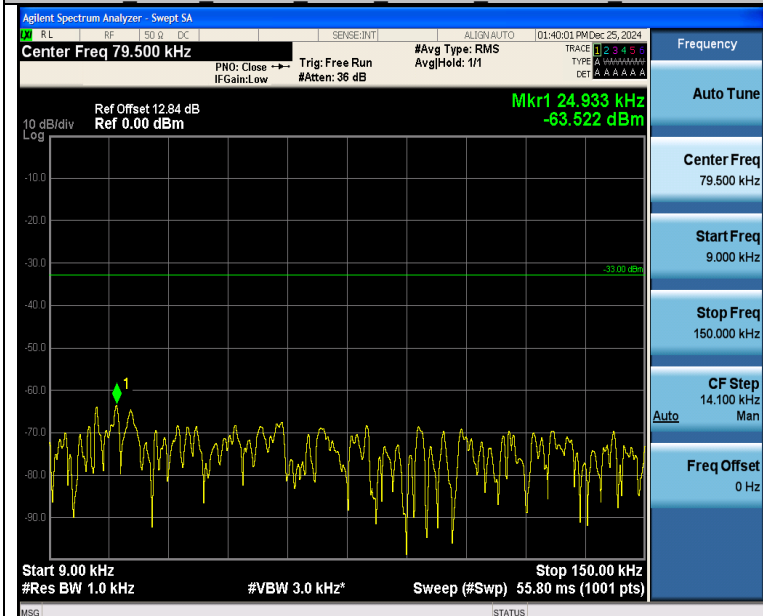
Band13\_5MHz\_16QAM\_23255\_1RB#24\_0.15~30\_0.15~30

Band13\_5MHz\_16QAM\_23255\_1RB#24\_30~1000\_30~1000



Band13\_5MHz\_16QAM\_23255\_1RB#24\_1000~3000\_1000~3000

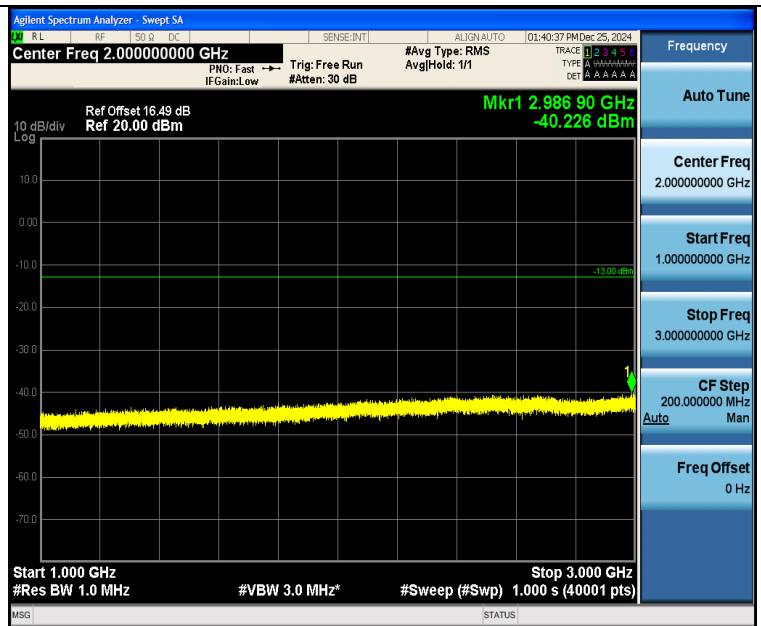
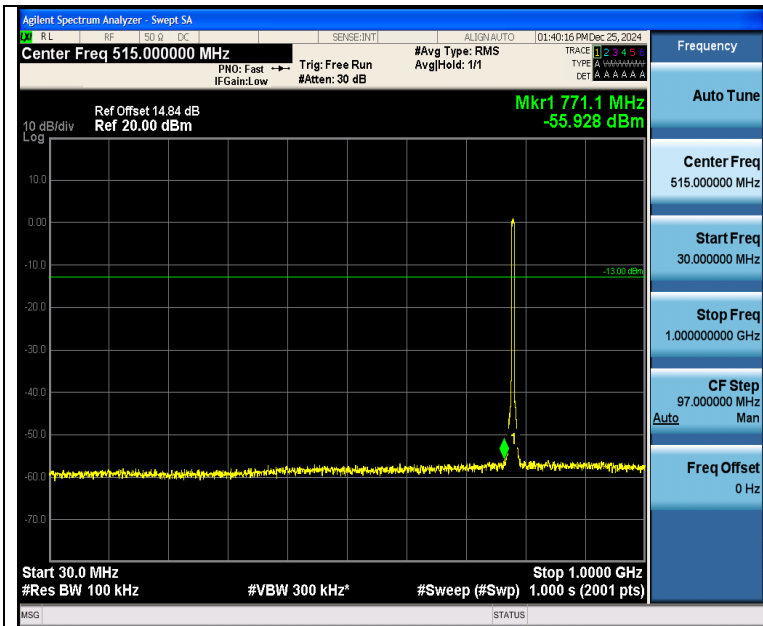
Band13\_5MHz\_16QAM\_23255\_1RB#24\_3000~10000\_3000~10000



Band13\_5MHz\_QPSK\_23255\_25RB#0\_0.009~0.15\_0.009~0.15

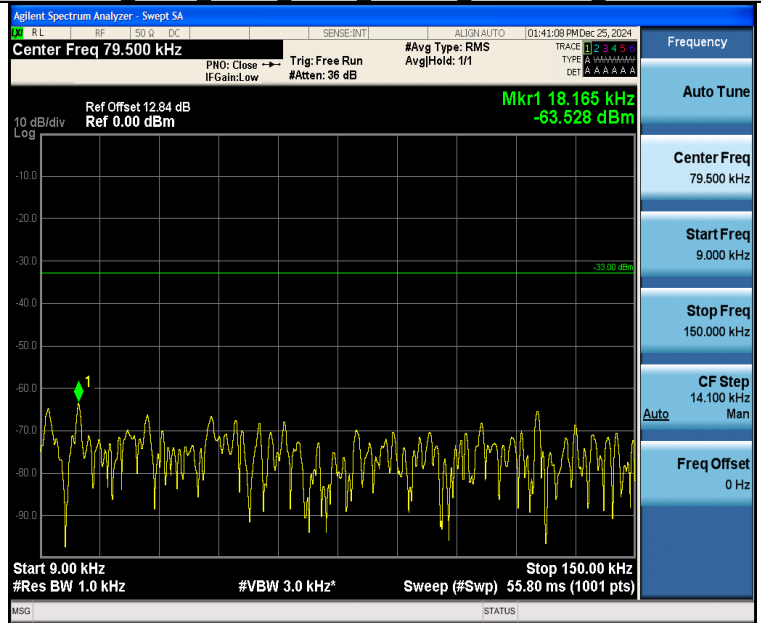
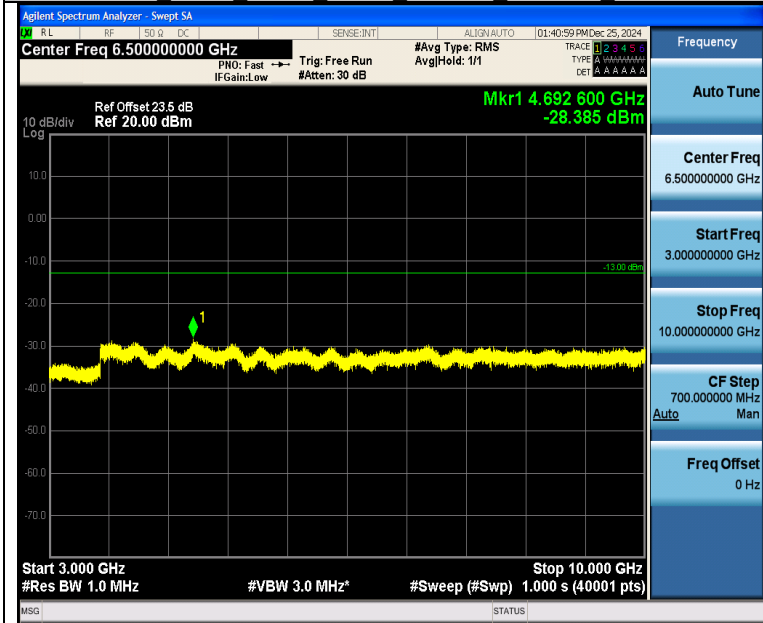
Band13\_5MHz\_QPSK\_23255\_25RB#0\_0.15~30\_0.15~30





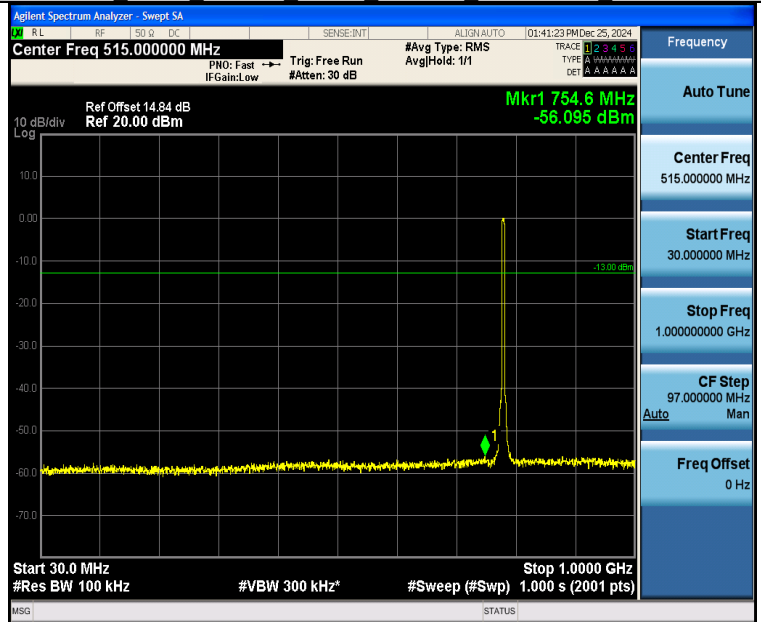
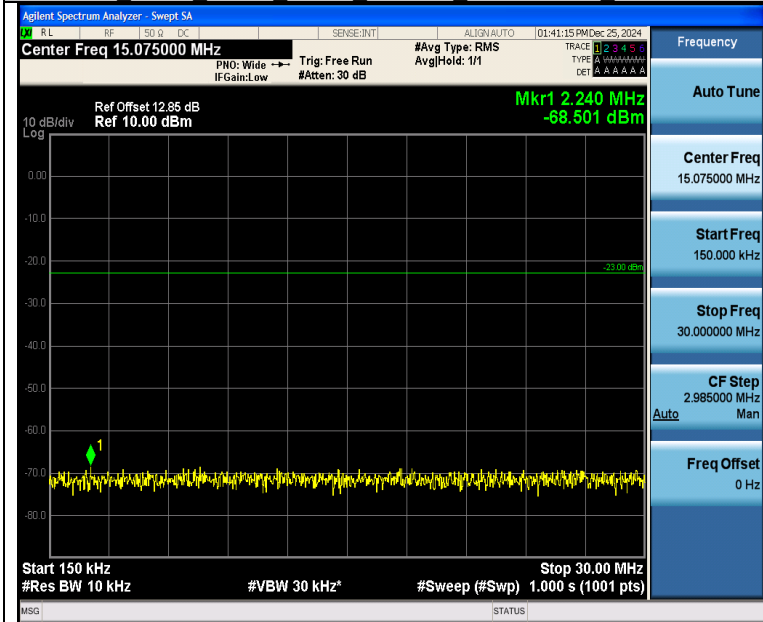
Band13 5MHz QPSK 23255 25RB#0 30~1000 30~1000

Band13 5MHz QPSK 23255 25RB#0 1000~3000 1000~3000



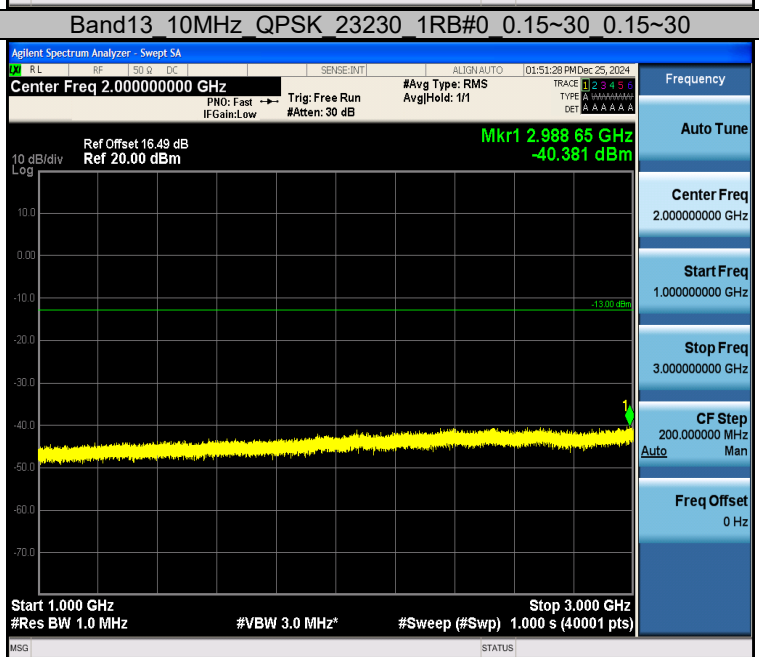
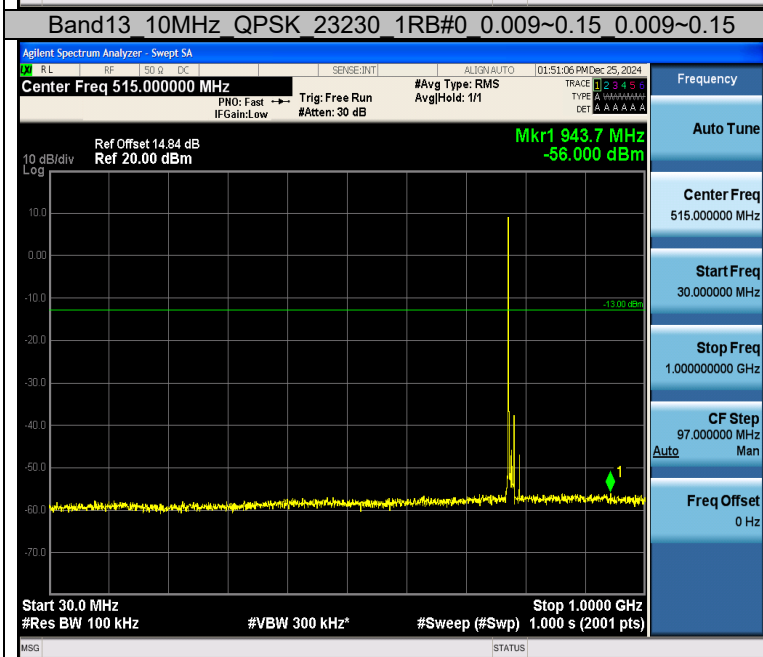
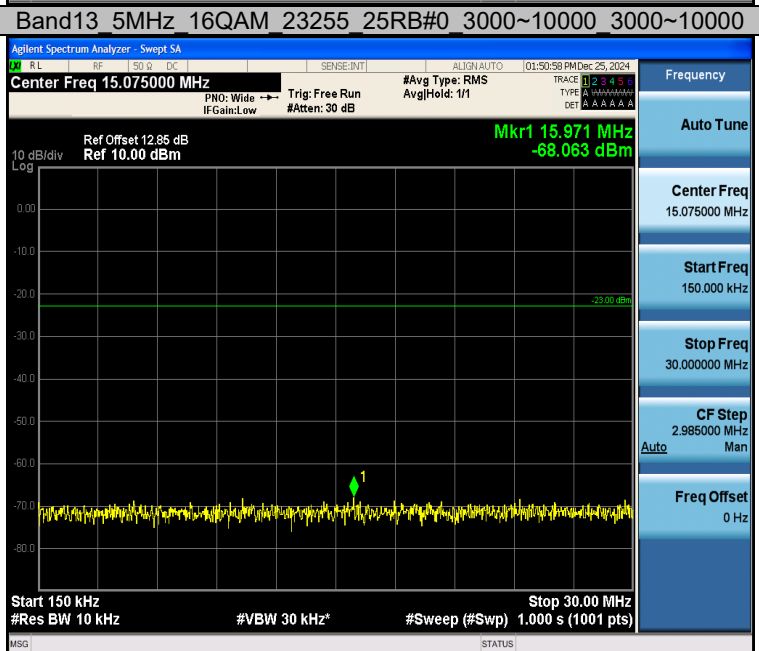
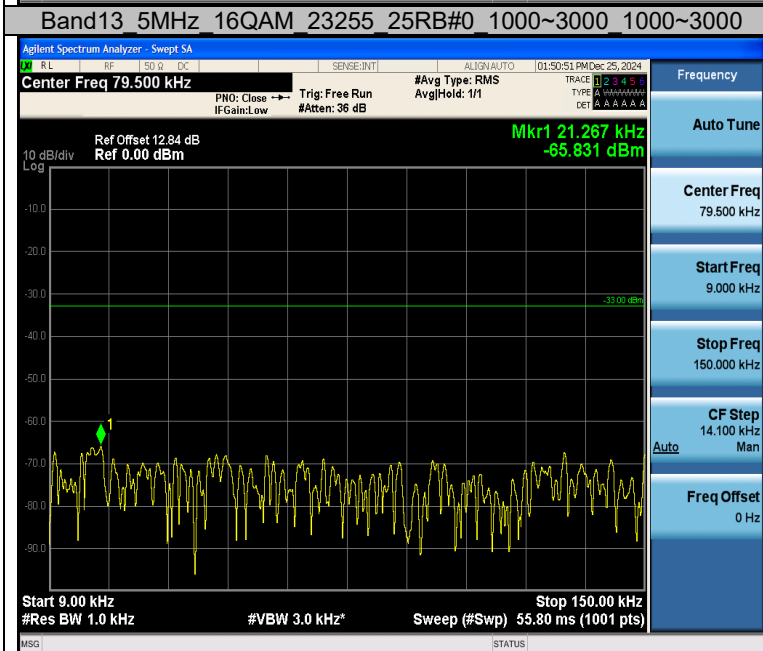
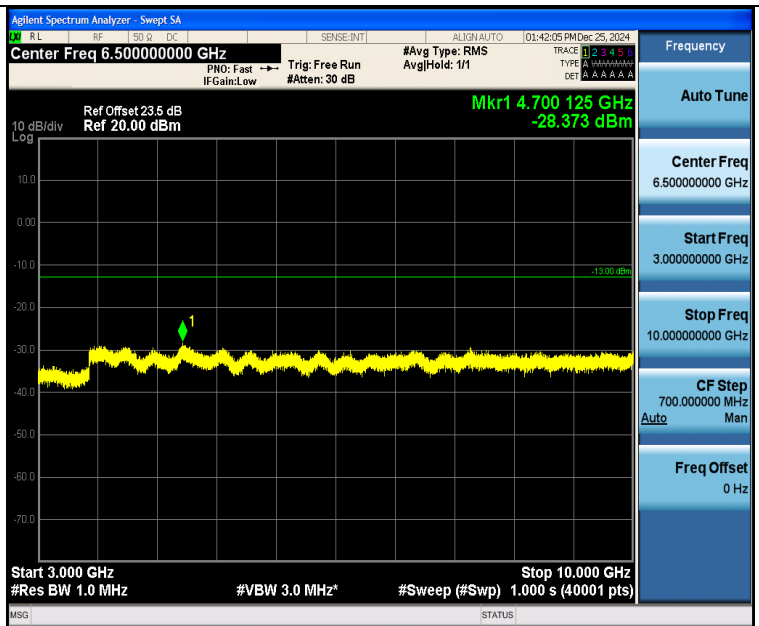
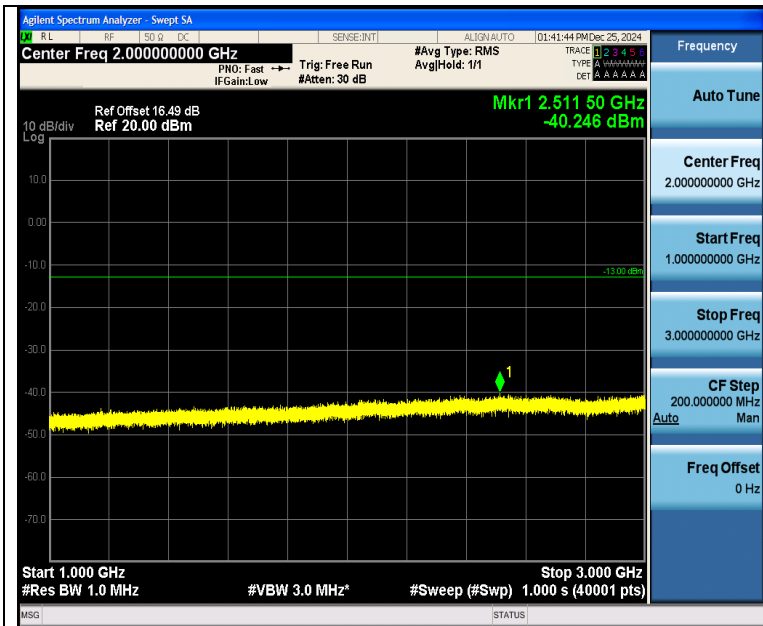
Band13 5MHz QPSK 23255 25RB#0 3000~10000 3000~10000

Band13 5MHz 16QAM 23255 25RB#0 0.009~0.15 0.009~0.15



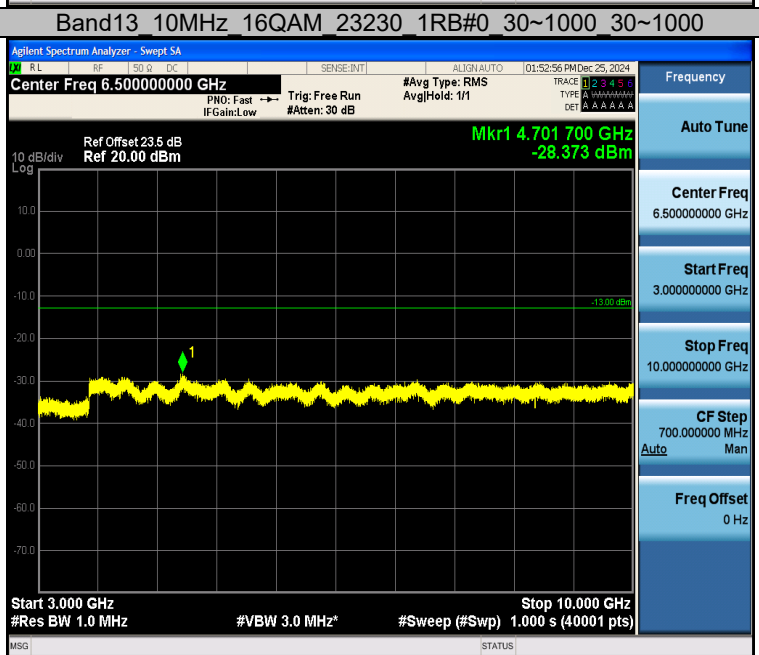
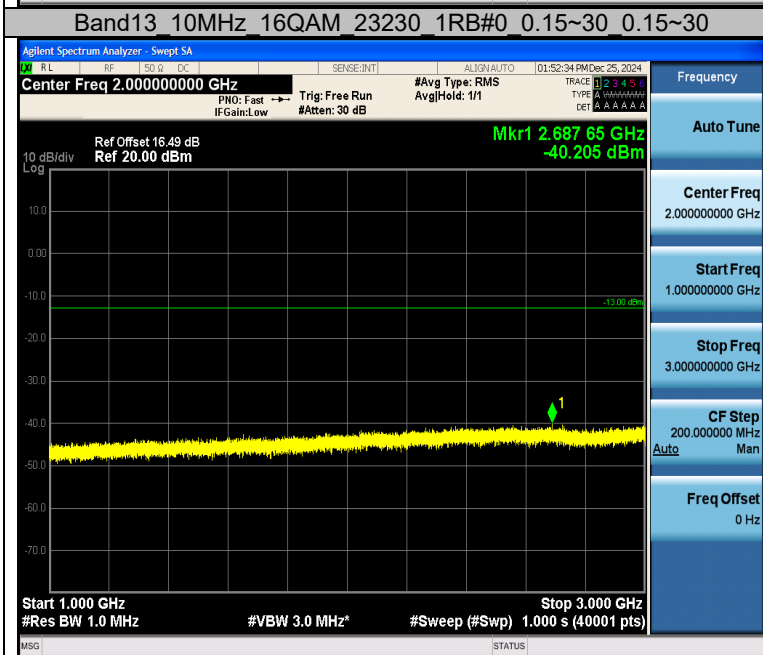
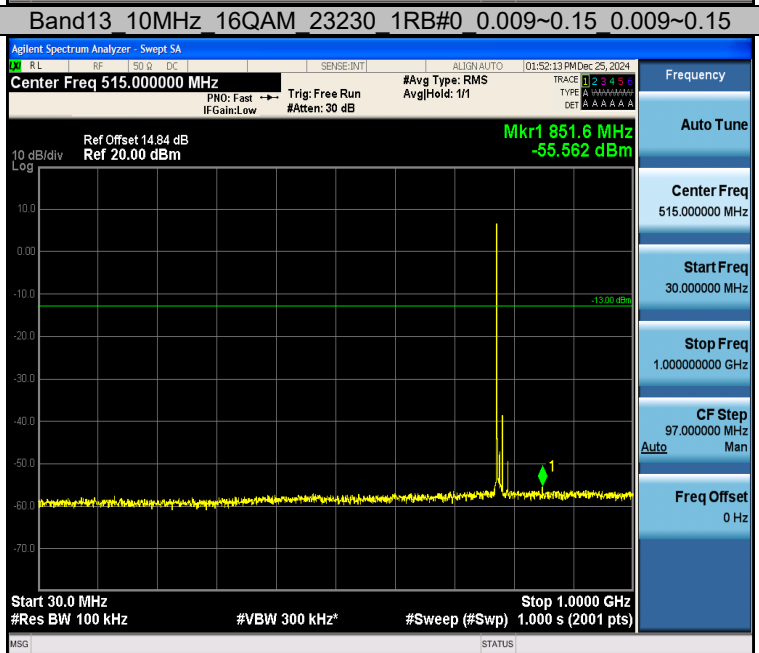
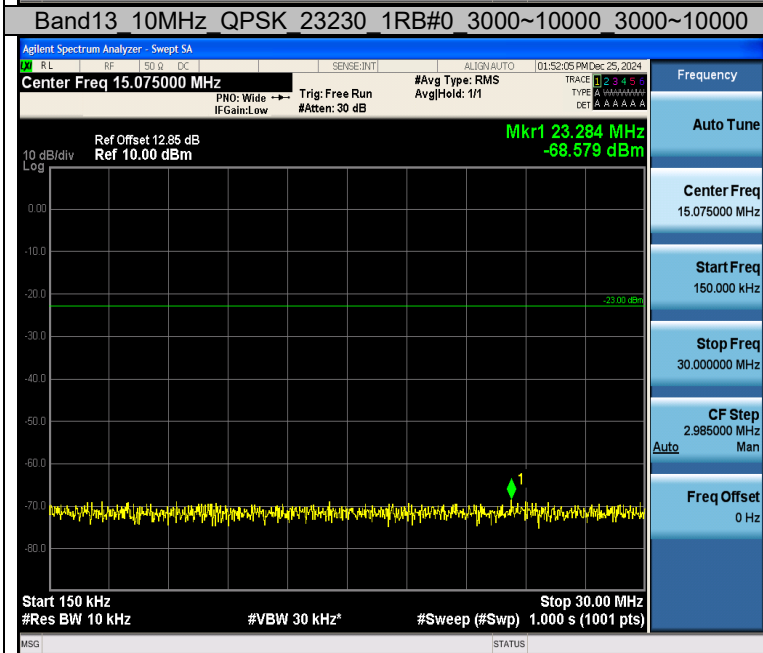
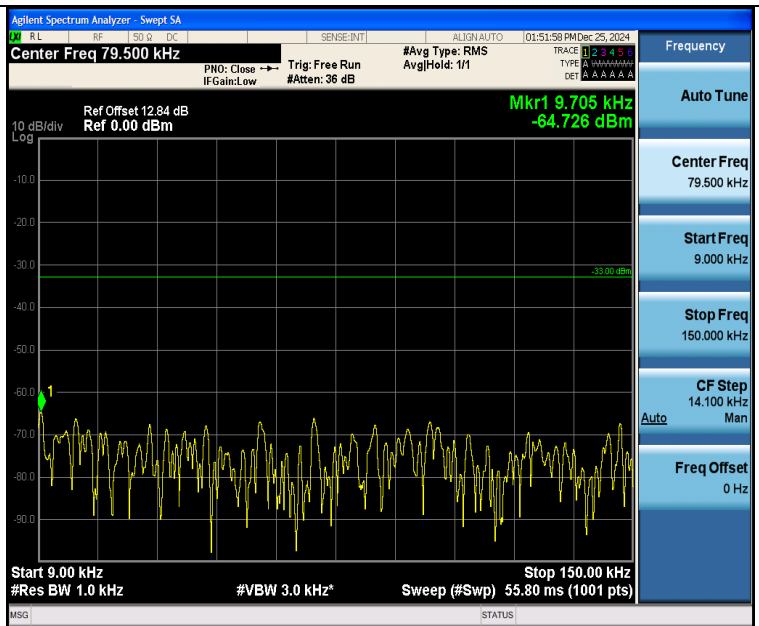
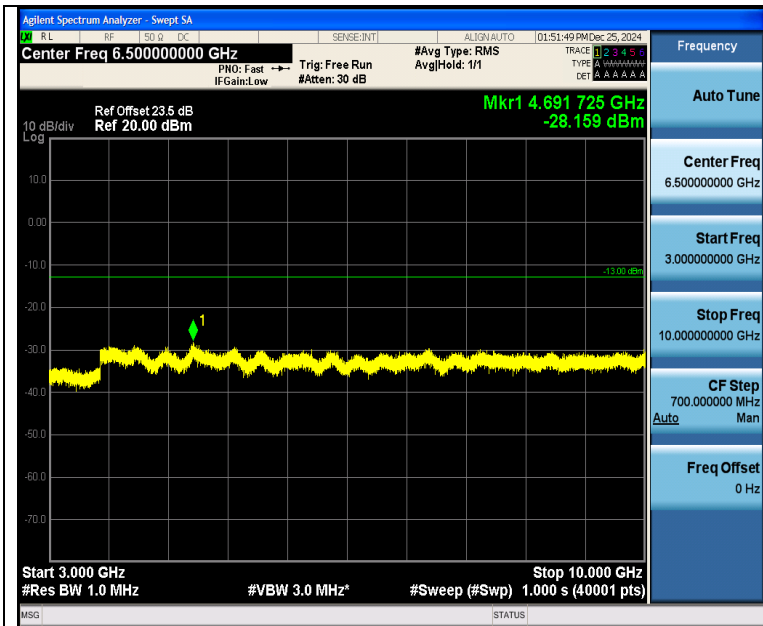
Band13\_5MHz\_16QAM\_23255\_25RB#0\_0.15~30\_0.15~30

Band13\_5MHz\_16QAM\_23255\_25RB#0\_30~1000\_30~1000



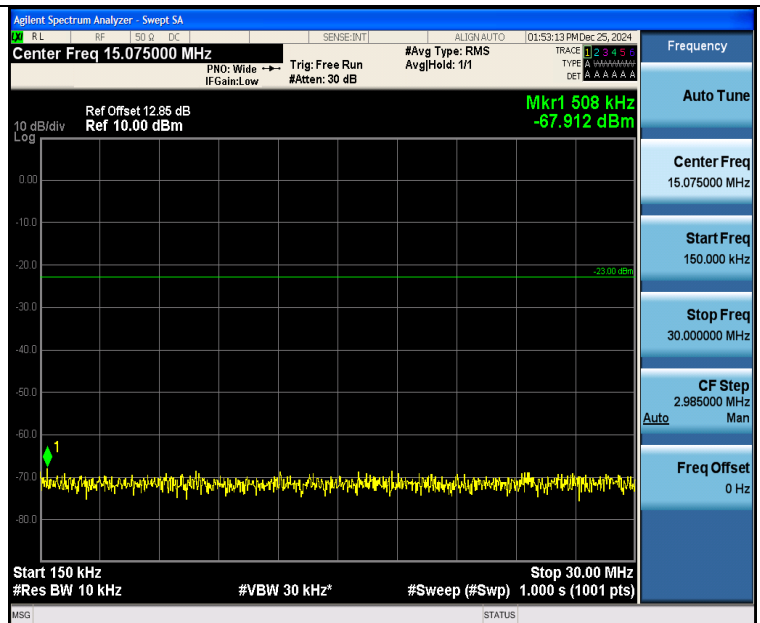
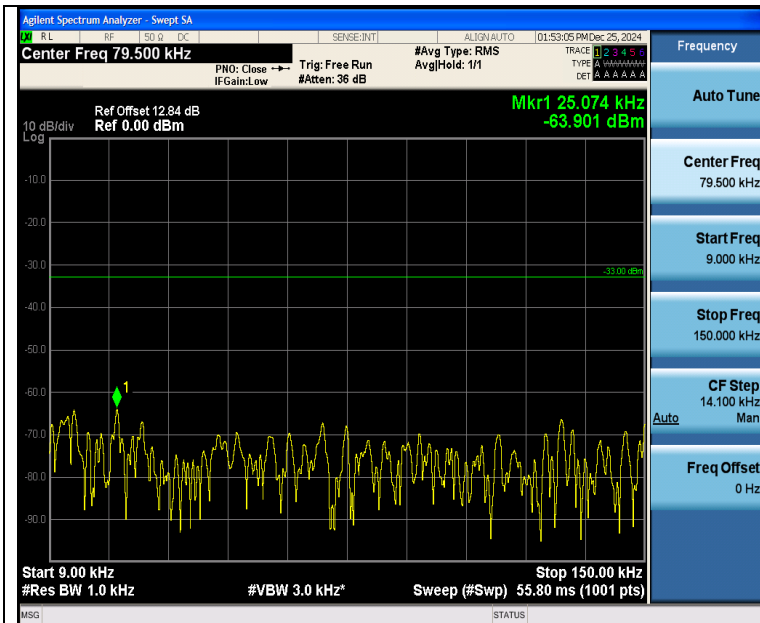
Band13\_10MHz\_QPSK\_23230\_1RB#0\_30~1000\_30~1000

Band13\_10MHz\_QPSK\_23230\_1RB#0\_1000~3000\_1000~3000



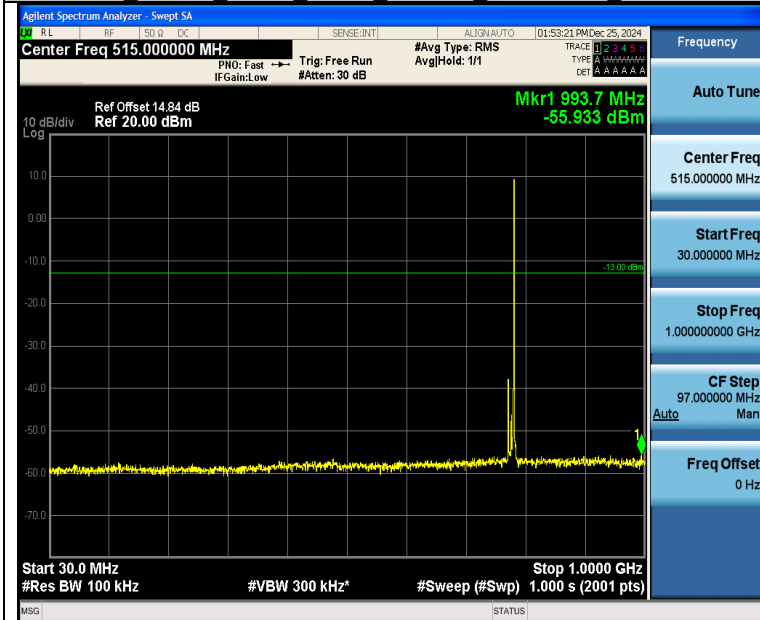
Band13\_10MHz\_16QAM\_23230\_1RB#0\_1000~3000\_1000~3000

Band13\_10MHz\_16QAM\_23230\_1RB#0\_3000~10000\_3000~10000



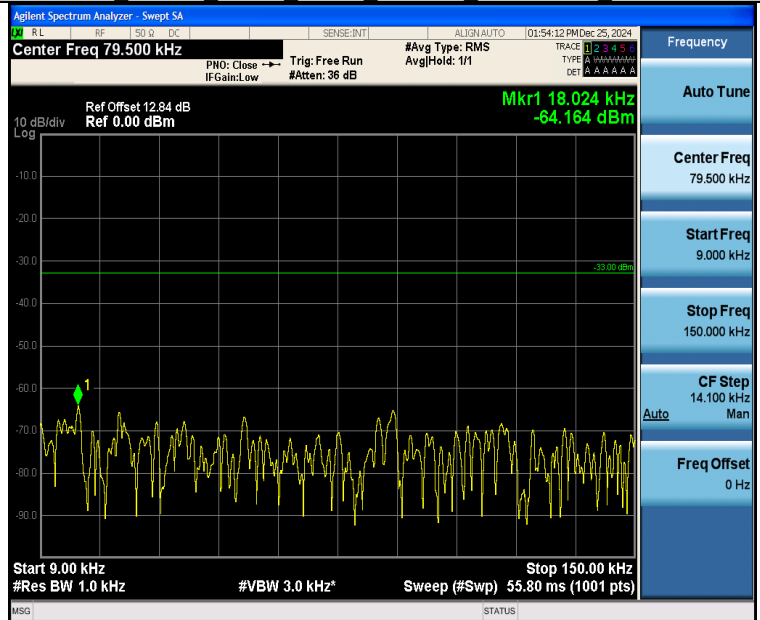
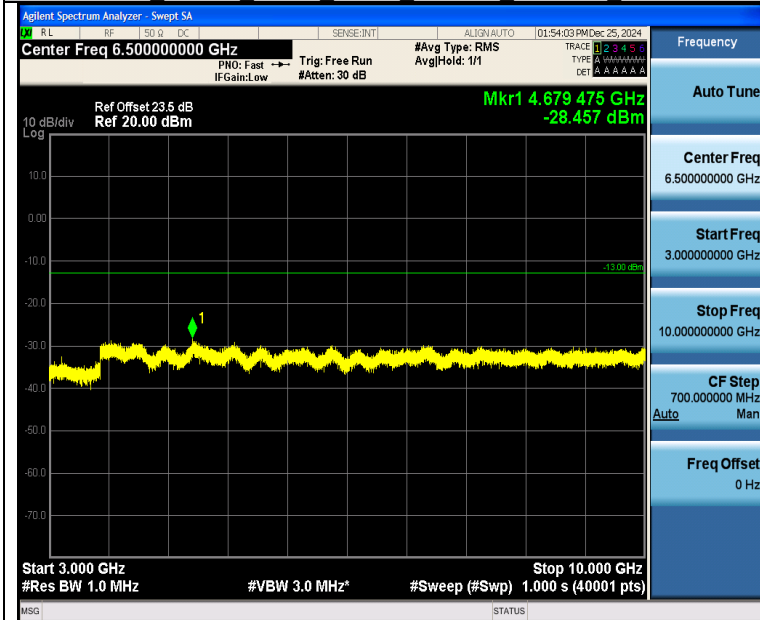
Band13 10MHz QPSK 23230 1RB#49 0.009~0.15 0.009~0.15

Band13 10MHz QPSK 23230 1RB#49 0.15~30 0.15~30



Band13 10MHz QPSK 23230 1RB#49 30~1000 30~1000

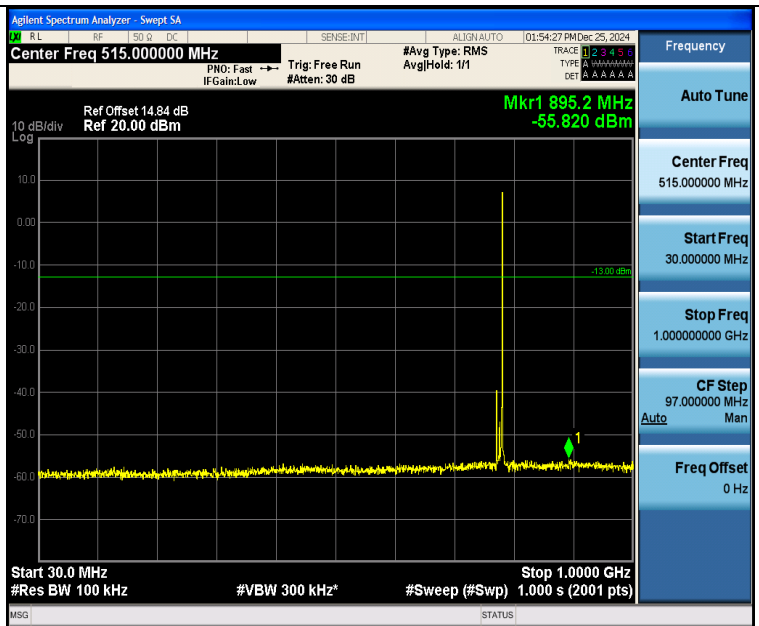
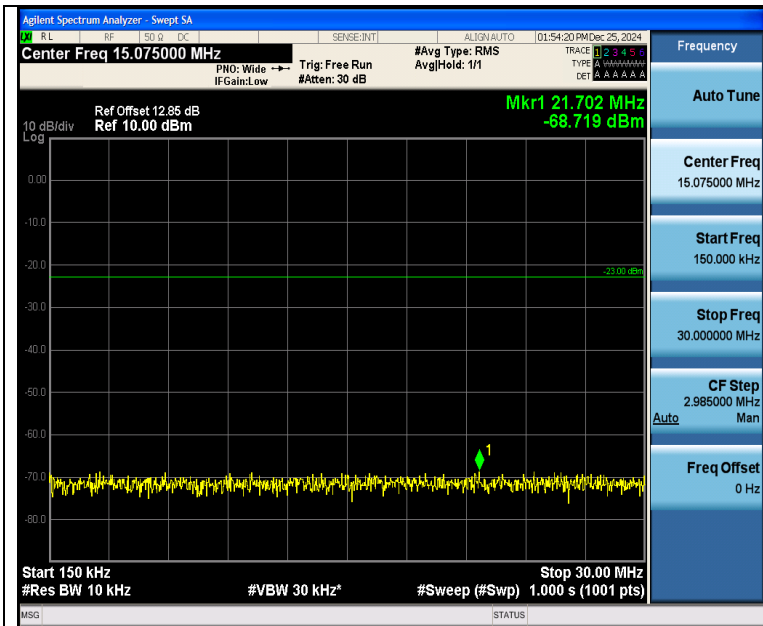
Band13 10MHz QPSK 23230 1RB#49 1000~3000 1000~3000



Band13\_10MHz\_QPSK\_23230\_1RB#49\_3000~10000\_3000~10000

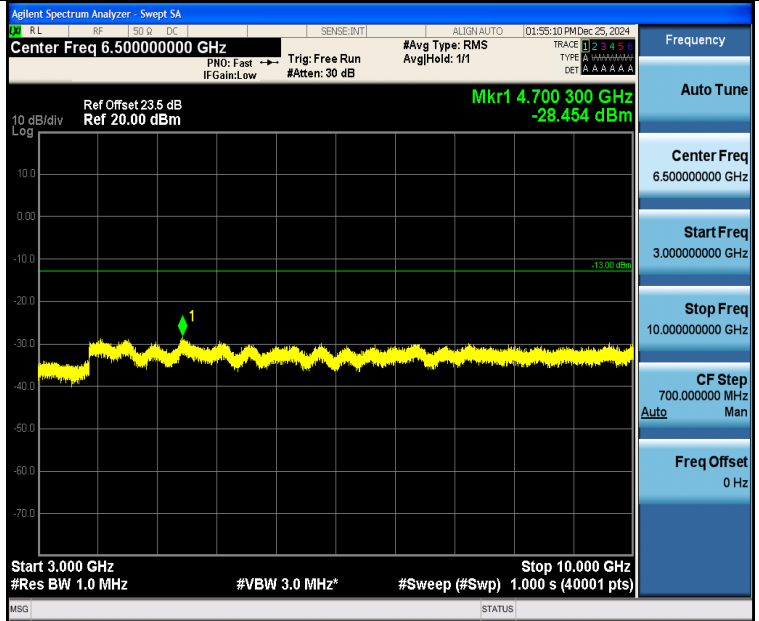
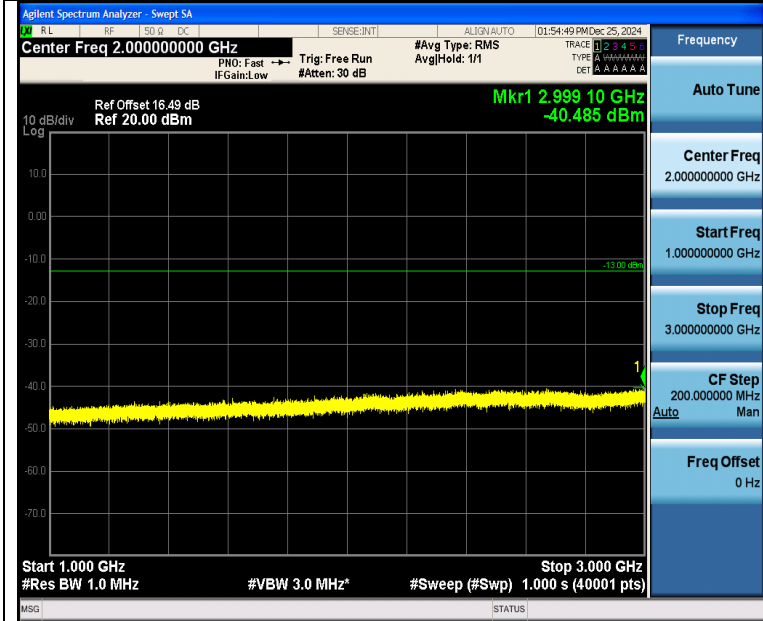
Band13\_10MHz\_16QAM\_23230\_1RB#49\_0.009~0.15\_0.009~0.15





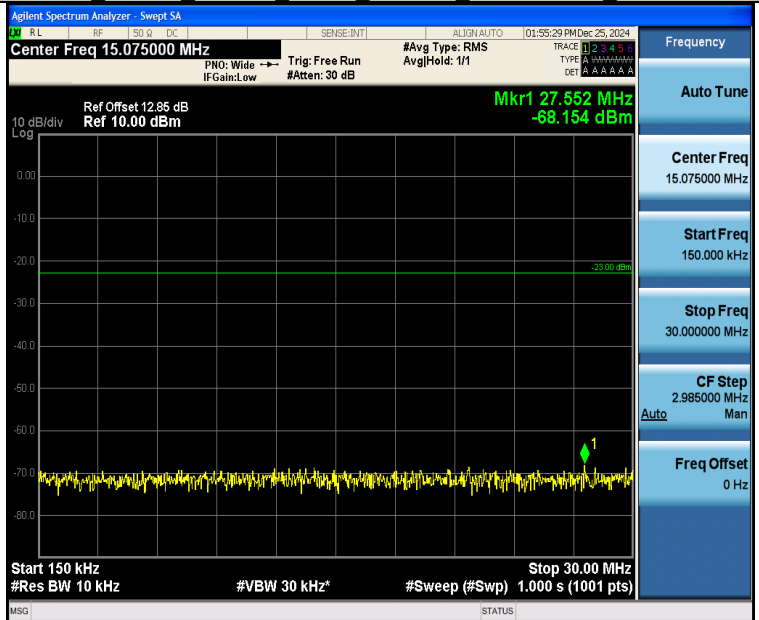
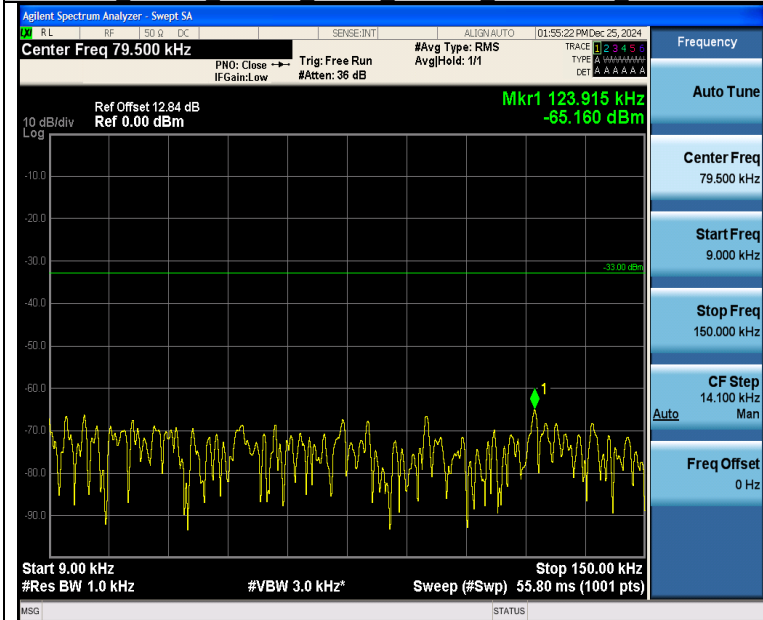
Band13 10MHz 16QAM 23230 1RB#49 0.15~30 0.15~30

Band13 10MHz 16QAM 23230 1RB#49 30~1000 30~1000



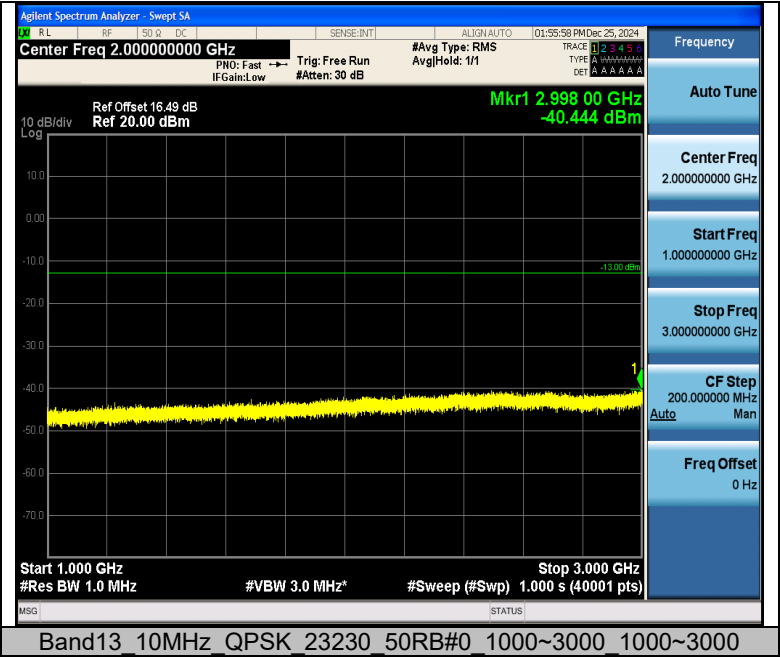
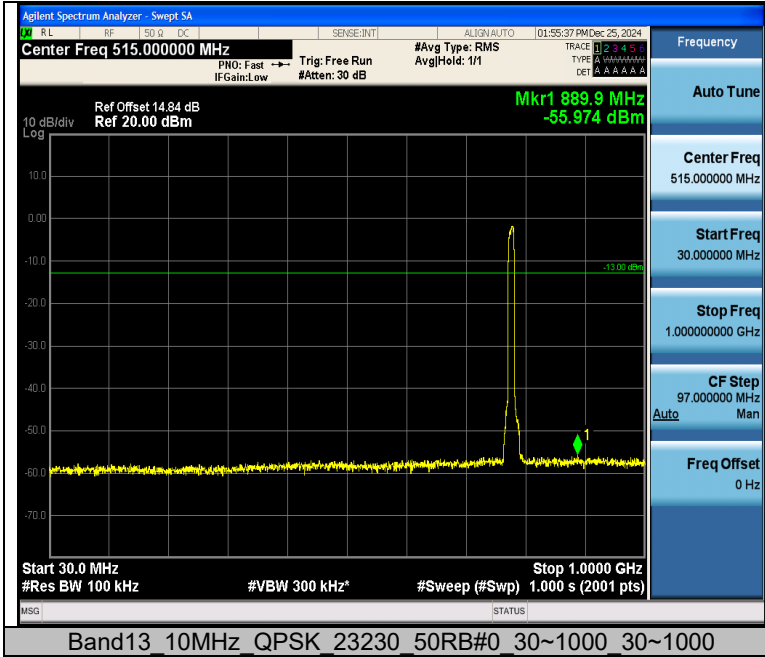
Band13 10MHz 16QAM 23230 1RB#49 1000~3000 1000~3000

Band13 10MHz 16QAM 23230 1RB#49 3000~10000 3000~10000



Band13\_10MHz\_QPSK\_23230\_50RB#0\_0.009~0.15 0.009~0.15

Band13\_10MHz\_QPSK\_23230\_50RB#0\_0.15~30 0.15~30



# Appendix F: Frequency Stability

## Test Result

| Voltage |           |            |         |              |               |                  |                |                 |             |         |
|---------|-----------|------------|---------|--------------|---------------|------------------|----------------|-----------------|-------------|---------|
| Band    | Bandwidth | Modulation | Channel | RB Configure | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| Band13  | 5MHz      | QPSK       | 23205   | 25RB#0       | VN            | NT               | -3.68          | -0.004721       | ±2.5        | PASS    |
| Band13  | 5MHz      | QPSK       | 23205   | 25RB#0       | VL            | NT               | -4.56          | -0.005850       | ±2.5        | PASS    |
| Band13  | 5MHz      | QPSK       | 23205   | 25RB#0       | VH            | NT               | -2.85          | -0.003656       | ±2.5        | PASS    |
| Band13  | 5MHz      | 16QAM      | 23205   | 25RB#0       | VN            | NT               | -3.05          | -0.003913       | ±2.5        | PASS    |
| Band13  | 5MHz      | 16QAM      | 23205   | 25RB#0       | VL            | NT               | -2.46          | -0.003156       | ±2.5        | PASS    |
| Band13  | 5MHz      | 16QAM      | 23205   | 25RB#0       | VH            | NT               | -5.12          | -0.006568       | ±2.5        | PASS    |
| Band13  | 5MHz      | QPSK       | 23230   | 25RB#0       | VN            | NT               | -4.69          | -0.005997       | ±2.5        | PASS    |
| Band13  | 5MHz      | QPSK       | 23230   | 25RB#0       | VL            | NT               | 2.85           | 0.003645        | ±2.5        | PASS    |
| Band13  | 5MHz      | QPSK       | 23230   | 25RB#0       | VH            | NT               | -2.59          | -0.003312       | ±2.5        | PASS    |
| Band13  | 5MHz      | 16QAM      | 23230   | 25RB#0       | VN            | NT               | 2.80           | 0.003581        | ±2.5        | PASS    |
| Band13  | 5MHz      | 16QAM      | 23230   | 25RB#0       | VL            | NT               | -2.45          | -0.003133       | ±2.5        | PASS    |
| Band13  | 5MHz      | 16QAM      | 23230   | 25RB#0       | VH            | NT               | -2.46          | -0.003146       | ±2.5        | PASS    |
| Band13  | 5MHz      | QPSK       | 23255   | 25RB#0       | VN            | NT               | -2.06          | -0.002626       | ±2.5        | PASS    |
| Band13  | 5MHz      | QPSK       | 23255   | 25RB#0       | VL            | NT               | -3.08          | -0.003926       | ±2.5        | PASS    |
| Band13  | 5MHz      | QPSK       | 23255   | 25RB#0       | VH            | NT               | 2.76           | 0.003518        | ±2.5        | PASS    |
| Band13  | 5MHz      | 16QAM      | 23255   | 25RB#0       | VN            | NT               | -1.37          | -0.001746       | ±2.5        | PASS    |
| Band13  | 5MHz      | 16QAM      | 23255   | 25RB#0       | VL            | NT               | -1.43          | -0.001823       | ±2.5        | PASS    |
| Band13  | 5MHz      | 16QAM      | 23255   | 25RB#0       | VH            | NT               | -1.75          | -0.002231       | ±2.5        | PASS    |
| Band13  | 10MHz     | QPSK       | 23230   | 50RB#0       | VN            | NT               | -2.82          | -0.003606       | ±2.5        | PASS    |
| Band13  | 10MHz     | QPSK       | 23230   | 50RB#0       | VL            | NT               | -3.42          | -0.004373       | ±2.5        | PASS    |
| Band13  | 10MHz     | QPSK       | 23230   | 50RB#0       | VH            | NT               | -2.96          | -0.003785       | ±2.5        | PASS    |

| Temperature |           |            |         |              |               |                  |                |                 |             |         |
|-------------|-----------|------------|---------|--------------|---------------|------------------|----------------|-----------------|-------------|---------|
| Band        | Bandwidth | Modulation | Channel | RB Configure | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| Band13      | 5MHz      | QPSK       | 23205   | 25RB#0       | NV            | -30              | -2.60          | -0.003335       | ±2.5        | PASS    |
| Band13      | 5MHz      | QPSK       | 23205   | 25RB#0       | NV            | -20              | -3.18          | -0.004080       | ±2.5        | PASS    |
| Band13      | 5MHz      | QPSK       | 23205   | 25RB#0       | NV            | -10              | -2.35          | -0.003015       | ±2.5        | PASS    |
| Band13      | 5MHz      | QPSK       | 23205   | 25RB#0       | NV            | 0                | -1.82          | -0.002335       | ±2.5        | PASS    |
| Band13      | 5MHz      | QPSK       | 23205   | 25RB#0       | NV            | 10               | -3.56          | -0.004567       | ±2.5        | PASS    |
| Band13      | 5MHz      | QPSK       | 23205   | 25RB#0       | NV            | 20               | -4.18          | -0.005362       | ±2.5        | PASS    |
| Band13      | 5MHz      | QPSK       | 23205   | 25RB#0       | NV            | 30               | -6.22          | -0.007979       | ±2.5        | PASS    |
| Band13      | 5MHz      | QPSK       | 23205   | 25RB#0       | NV            | 40               | -3.63          | -0.004657       | ±2.5        | PASS    |
| Band13      | 5MHz      | QPSK       | 23205   | 25RB#0       | NV            | 50               | -2.90          | -0.003720       | ±2.5        | PASS    |
| Band13      | 5MHz      | 16QAM      | 23205   | 25RB#0       | NV            | -30              | -3.96          | -0.005080       | ±2.5        | PASS    |
| Band13      | 5MHz      | 16QAM      | 23205   | 25RB#0       | NV            | -20              | -3.73          | -0.004785       | ±2.5        | PASS    |
| Band13      | 5MHz      | 16QAM      | 23205   | 25RB#0       | NV            | -10              | -3.82          | -0.004901       | ±2.5        | PASS    |
| Band13      | 5MHz      | 16QAM      | 23205   | 25RB#0       | NV            | 0                | -2.63          | -0.003374       | ±2.5        | PASS    |
| Band13      | 5MHz      | 16QAM      | 23205   | 25RB#0       | NV            | 10               | -3.85          | -0.004939       | ±2.5        | PASS    |
| Band13      | 5MHz      | 16QAM      | 23205   | 25RB#0       | NV            | 20               | -4.46          | -0.005722       | ±2.5        | PASS    |
| Band13      | 5MHz      | 16QAM      | 23205   | 25RB#0       | NV            | 30               | -2.65          | -0.003400       | ±2.5        | PASS    |
| Band13      | 5MHz      | 16QAM      | 23205   | 25RB#0       | NV            | 40               | -3.00          | -0.003849       | ±2.5        | PASS    |
| Band13      | 5MHz      | 16QAM      | 23205   | 25RB#0       | NV            | 50               | -4.58          | -0.005876       | ±2.5        | PASS    |
| Band13      | 5MHz      | QPSK       | 23230   | 25RB#0       | NV            | -30              | -2.47          | -0.003159       | ±2.5        | PASS    |
| Band13      | 5MHz      | QPSK       | 23230   | 25RB#0       | NV            | -20              | 1.27           | 0.001624        | ±2.5        | PASS    |
| Band13      | 5MHz      | QPSK       | 23230   | 25RB#0       | NV            | -10              | -2.50          | -0.003197       | ±2.5        | PASS    |
| Band13      | 5MHz      | QPSK       | 23230   | 25RB#0       | NV            | 0                | -5.12          | -0.006547       | ±2.5        | PASS    |
| Band13      | 5MHz      | QPSK       | 23230   | 25RB#0       | NV            | 10               | -4.01          | -0.005128       | ±2.5        | PASS    |
| Band13      | 5MHz      | QPSK       | 23230   | 25RB#0       | NV            | 20               | -1.53          | -0.001957       | ±2.5        | PASS    |
| Band13      | 5MHz      | QPSK       | 23230   | 25RB#0       | NV            | 30               | -1.69          | -0.002161       | ±2.5        | PASS    |
| Band13      | 5MHz      | QPSK       | 23230   | 25RB#0       | NV            | 40               | -1.79          | -0.002289       | ±2.5        | PASS    |
| Band13      | 5MHz      | QPSK       | 23230   | 25RB#0       | NV            | 50               | -2.88          | -0.003683       | ±2.5        | PASS    |
| Band13      | 5MHz      | 16QAM      | 23230   | 25RB#0       | NV            | -30              | 2.02           | 0.002583        | ±2.5        | PASS    |
| Band13      | 5MHz      | 16QAM      | 23230   | 25RB#0       | NV            | -20              | -3.20          | -0.004092       | ±2.5        | PASS    |
| Band13      | 5MHz      | 16QAM      | 23230   | 25RB#0       | NV            | -10              | -1.65          | -0.002110       | ±2.5        | PASS    |

|        |       |       |       |        |    |     |       |           |      |      |
|--------|-------|-------|-------|--------|----|-----|-------|-----------|------|------|
| Band13 | 5MHz  | 16QAM | 23230 | 25RB#0 | NV | 0   | -2.22 | -0.002839 | ±2.5 | PASS |
| Band13 | 5MHz  | 16QAM | 23230 | 25RB#0 | NV | 10  | -2.03 | -0.002596 | ±2.5 | PASS |
| Band13 | 5MHz  | 16QAM | 23230 | 25RB#0 | NV | 20  | 2.76  | 0.003529  | ±2.5 | PASS |
| Band13 | 5MHz  | 16QAM | 23230 | 25RB#0 | NV | 30  | -2.15 | -0.002749 | ±2.5 | PASS |
| Band13 | 5MHz  | 16QAM | 23230 | 25RB#0 | NV | 40  | -2.90 | -0.003708 | ±2.5 | PASS |
| Band13 | 5MHz  | 16QAM | 23230 | 25RB#0 | NV | 50  | -3.12 | -0.003990 | ±2.5 | PASS |
| Band13 | 5MHz  | QPSK  | 23255 | 25RB#0 | NV | -30 | 1.56  | 0.001989  | ±2.5 | PASS |
| Band13 | 5MHz  | QPSK  | 23255 | 25RB#0 | NV | -20 | -2.10 | -0.002677 | ±2.5 | PASS |
| Band13 | 5MHz  | QPSK  | 23255 | 25RB#0 | NV | -10 | -2.79 | -0.003556 | ±2.5 | PASS |
| Band13 | 5MHz  | QPSK  | 23255 | 25RB#0 | NV | 0   | 2.45  | 0.003123  | ±2.5 | PASS |
| Band13 | 5MHz  | QPSK  | 23255 | 25RB#0 | NV | 10  | -1.73 | -0.002205 | ±2.5 | PASS |
| Band13 | 5MHz  | QPSK  | 23255 | 25RB#0 | NV | 20  | 2.68  | 0.003416  | ±2.5 | PASS |
| Band13 | 5MHz  | QPSK  | 23255 | 25RB#0 | NV | 30  | -2.49 | -0.003174 | ±2.5 | PASS |
| Band13 | 5MHz  | QPSK  | 23255 | 25RB#0 | NV | 40  | -1.80 | -0.002294 | ±2.5 | PASS |
| Band13 | 5MHz  | QPSK  | 23255 | 25RB#0 | NV | 50  | -2.85 | -0.003633 | ±2.5 | PASS |
| Band13 | 5MHz  | 16QAM | 23255 | 25RB#0 | NV | -30 | -1.80 | -0.002294 | ±2.5 | PASS |
| Band13 | 5MHz  | 16QAM | 23255 | 25RB#0 | NV | -20 | -1.30 | -0.001657 | ±2.5 | PASS |
| Band13 | 5MHz  | 16QAM | 23255 | 25RB#0 | NV | -10 | 2.82  | 0.003595  | ±2.5 | PASS |
| Band13 | 5MHz  | 16QAM | 23255 | 25RB#0 | NV | 0   | 2.12  | 0.002702  | ±2.5 | PASS |
| Band13 | 5MHz  | 16QAM | 23255 | 25RB#0 | NV | 10  | 2.92  | 0.003722  | ±2.5 | PASS |
| Band13 | 5MHz  | 16QAM | 23255 | 25RB#0 | NV | 20  | 2.00  | 0.002549  | ±2.5 | PASS |
| Band13 | 5MHz  | 16QAM | 23255 | 25RB#0 | NV | 30  | -2.55 | -0.003250 | ±2.5 | PASS |
| Band13 | 5MHz  | 16QAM | 23255 | 25RB#0 | NV | 40  | -3.65 | -0.004653 | ±2.5 | PASS |
| Band13 | 5MHz  | 16QAM | 23255 | 25RB#0 | NV | 50  | -1.89 | -0.002409 | ±2.5 | PASS |
| Band13 | 10MHz | QPSK  | 23230 | 50RB#0 | NV | -30 | -3.02 | -0.003862 | ±2.5 | PASS |
| Band13 | 10MHz | QPSK  | 23230 | 50RB#0 | NV | -20 | -3.45 | -0.004412 | ±2.5 | PASS |
| Band13 | 10MHz | QPSK  | 23230 | 50RB#0 | NV | -10 | -1.10 | -0.001407 | ±2.5 | PASS |
| Band13 | 10MHz | QPSK  | 23230 | 50RB#0 | NV | 0   | -3.48 | -0.004450 | ±2.5 | PASS |
| Band13 | 10MHz | QPSK  | 23230 | 50RB#0 | NV | 10  | -2.56 | -0.003274 | ±2.5 | PASS |
| Band13 | 10MHz | QPSK  | 23230 | 50RB#0 | NV | 20  | -1.29 | -0.001650 | ±2.5 | PASS |
| Band13 | 10MHz | QPSK  | 23230 | 50RB#0 | NV | 30  | -1.87 | -0.002391 | ±2.5 | PASS |
| Band13 | 10MHz | QPSK  | 23230 | 50RB#0 | NV | 40  | -1.24 | -0.001586 | ±2.5 | PASS |
| Band13 | 10MHz | QPSK  | 23230 | 50RB#0 | NV | 50  | -1.67 | -0.002136 | ±2.5 | PASS |

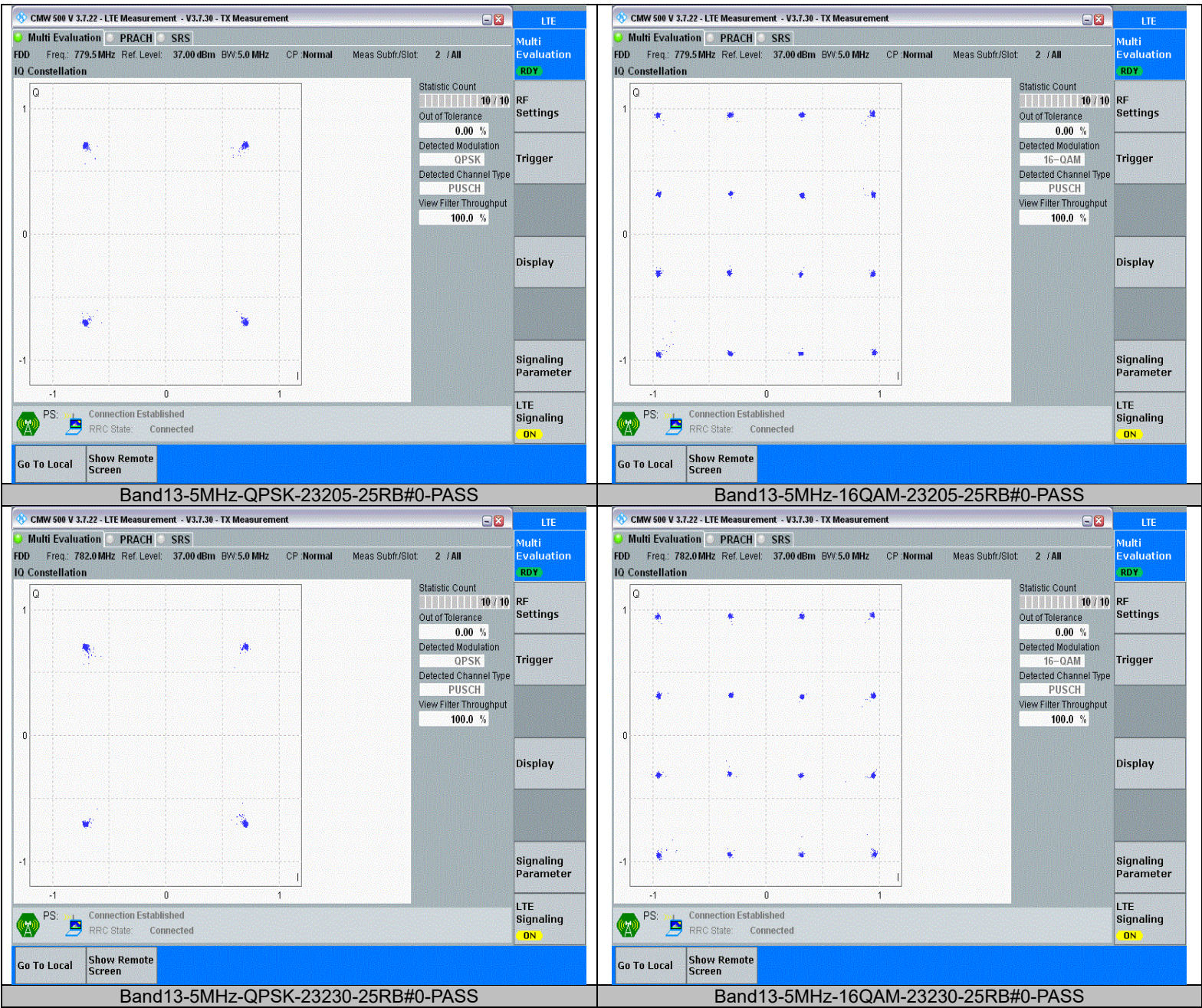


# Appendix G: Modulation Characteristics

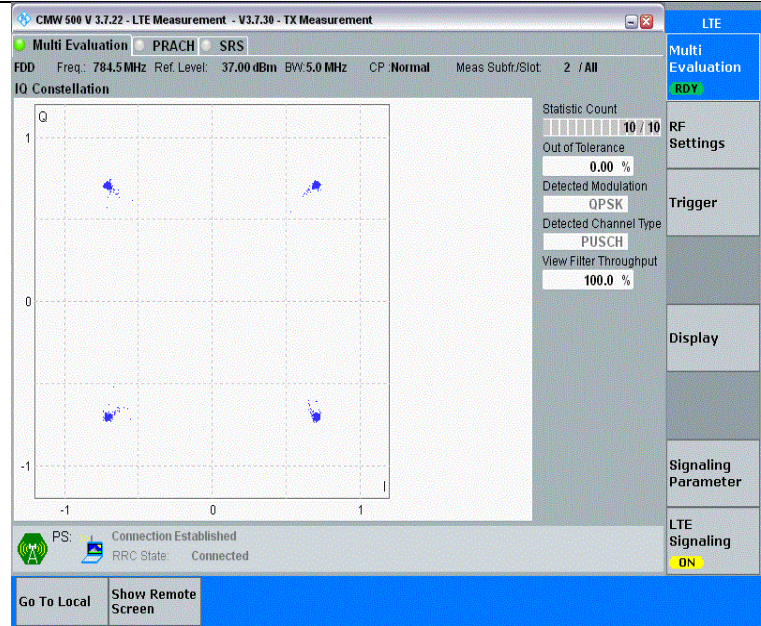
## Test Result

| Band   | Bandwidth | Modulation | Channel | RB Configuration | Verdict |
|--------|-----------|------------|---------|------------------|---------|
| Band13 | 5MHz      | QPSK       | 23205   | 25RB#0           | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 25RB#0           | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 25RB#0           | PASS    |
| Band13 | 5MHz      | 16QAM      | 23230   | 25RB#0           | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 25RB#0           | PASS    |
| Band13 | 5MHz      | 16QAM      | 23255   | 25RB#0           | PASS    |
| Band13 | 10MHz     | QPSK       | 23230   | 50RB#0           | PASS    |
| Band13 | 10MHz     | 16QAM      | 23230   | 1RB#0            | PASS    |

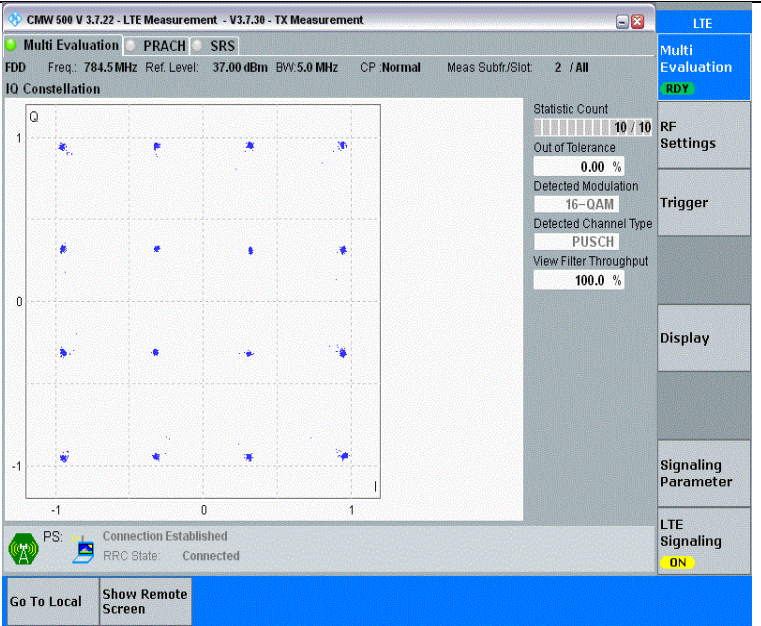
## Test Graphs



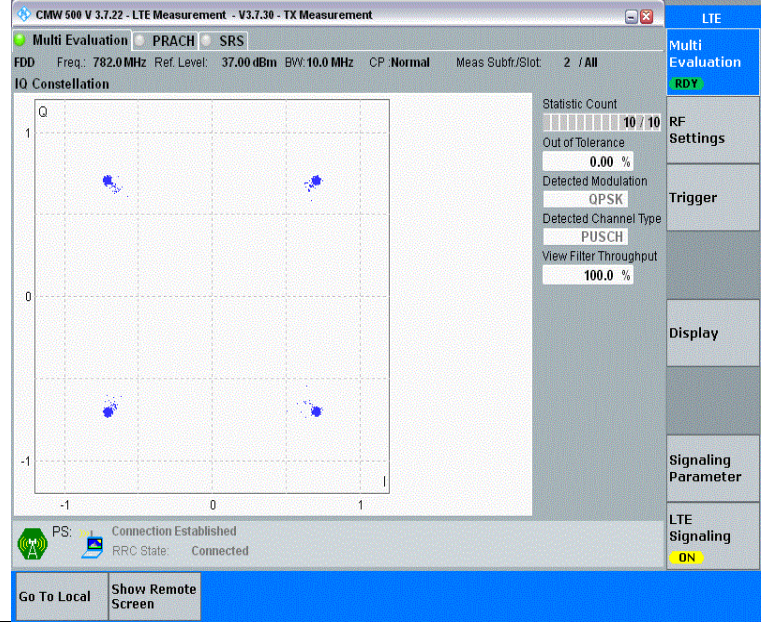




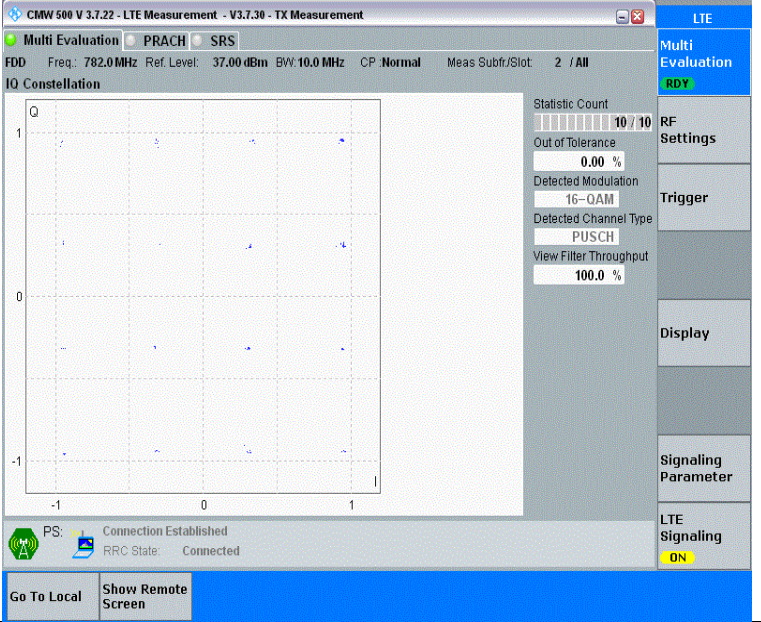
Band13-5MHz-QPSK-23255-25RB#0-PASS



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



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



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