

# LTE Band5 Test Data

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Appendix A: Effective (Isotropic) Radiated Power Output Data

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Appendix B: Peak-to-Average Ratio

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Appendix E: Conducted Spurious Emission

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Appendix F: Frequency Stability

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

### Test Result

| Band  | Bandwidth | Modulation | Channel | RB Configuration | Result(dBm) | Verdict |
|-------|-----------|------------|---------|------------------|-------------|---------|
| Band5 | 1.4MHz    | QPSK       | 20407   | 1RB#0            | 23.92       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20407   | 1RB#2            | 23.97       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20407   | 1RB#5            | 23.91       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20407   | 3RB#0            | 23.90       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20407   | 3RB#1            | 23.90       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20407   | 3RB#3            | 23.91       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20407   | 6RB#0            | 22.94       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20525   | 1RB#0            | 24.02       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20525   | 1RB#2            | 24.04       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20525   | 1RB#5            | 23.96       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20525   | 3RB#0            | 23.97       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20525   | 3RB#1            | 24.00       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20525   | 3RB#3            | 24.00       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20525   | 6RB#0            | 22.98       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20643   | 1RB#0            | 23.93       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20643   | 1RB#2            | 23.93       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20643   | 1RB#5            | 23.93       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20643   | 3RB#0            | 23.86       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20643   | 3RB#1            | 23.89       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20643   | 3RB#3            | 23.88       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20643   | 6RB#0            | 22.93       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20407   | 1RB#0            | 23.11       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20407   | 1RB#2            | 23.26       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20407   | 1RB#5            | 23.13       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20407   | 3RB#0            | 22.85       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20407   | 3RB#1            | 22.83       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20407   | 3RB#3            | 22.84       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20407   | 6RB#0            | 21.82       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20525   | 1RB#0            | 22.87       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20525   | 1RB#2            | 22.94       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20525   | 1RB#5            | 22.85       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20525   | 3RB#0            | 22.84       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20525   | 3RB#1            | 22.81       | PASS    |

|       |        |       |       |        |       |      |
|-------|--------|-------|-------|--------|-------|------|
| Band5 | 1.4MHz | 16QAM | 20525 | 3RB#3  | 22.79 | PASS |
| Band5 | 1.4MHz | 16QAM | 20525 | 6RB#0  | 22.04 | PASS |
| Band5 | 1.4MHz | 16QAM | 20643 | 1RB#0  | 23.13 | PASS |
| Band5 | 1.4MHz | 16QAM | 20643 | 1RB#2  | 23.11 | PASS |
| Band5 | 1.4MHz | 16QAM | 20643 | 1RB#5  | 23.08 | PASS |
| Band5 | 1.4MHz | 16QAM | 20643 | 3RB#0  | 22.79 | PASS |
| Band5 | 1.4MHz | 16QAM | 20643 | 3RB#1  | 22.76 | PASS |
| Band5 | 1.4MHz | 16QAM | 20643 | 3RB#3  | 22.72 | PASS |
| Band5 | 1.4MHz | 16QAM | 20643 | 6RB#0  | 21.98 | PASS |
| Band5 | 3MHz   | QPSK  | 20415 | 1RB#0  | 24.02 | PASS |
| Band5 | 3MHz   | QPSK  | 20415 | 1RB#8  | 24.00 | PASS |
| Band5 | 3MHz   | QPSK  | 20415 | 1RB#14 | 23.98 | PASS |
| Band5 | 3MHz   | QPSK  | 20415 | 8RB#0  | 23.07 | PASS |
| Band5 | 3MHz   | QPSK  | 20415 | 8RB#4  | 23.03 | PASS |
| Band5 | 3MHz   | QPSK  | 20415 | 8RB#7  | 23.06 | PASS |
| Band5 | 3MHz   | QPSK  | 20415 | 15RB#0 | 23.00 | PASS |
| Band5 | 3MHz   | QPSK  | 20525 | 1RB#0  | 24.03 | PASS |
| Band5 | 3MHz   | QPSK  | 20525 | 1RB#8  | 24.07 | PASS |
| Band5 | 3MHz   | QPSK  | 20525 | 1RB#14 | 24.00 | PASS |
| Band5 | 3MHz   | QPSK  | 20525 | 8RB#0  | 23.04 | PASS |
| Band5 | 3MHz   | QPSK  | 20525 | 8RB#4  | 23.02 | PASS |
| Band5 | 3MHz   | QPSK  | 20525 | 8RB#7  | 23.05 | PASS |
| Band5 | 3MHz   | QPSK  | 20525 | 15RB#0 | 23.02 | PASS |
| Band5 | 3MHz   | QPSK  | 20635 | 1RB#0  | 24.01 | PASS |
| Band5 | 3MHz   | QPSK  | 20635 | 1RB#8  | 23.88 | PASS |
| Band5 | 3MHz   | QPSK  | 20635 | 1RB#14 | 23.84 | PASS |
| Band5 | 3MHz   | QPSK  | 20635 | 8RB#0  | 23.01 | PASS |
| Band5 | 3MHz   | QPSK  | 20635 | 8RB#4  | 23.01 | PASS |
| Band5 | 3MHz   | QPSK  | 20635 | 8RB#7  | 22.93 | PASS |
| Band5 | 3MHz   | QPSK  | 20635 | 15RB#0 | 23.00 | PASS |
| Band5 | 3MHz   | 16QAM | 20415 | 1RB#0  | 22.95 | PASS |
| Band5 | 3MHz   | 16QAM | 20415 | 1RB#8  | 22.96 | PASS |
| Band5 | 3MHz   | 16QAM | 20415 | 1RB#14 | 22.81 | PASS |
| Band5 | 3MHz   | 16QAM | 20415 | 8RB#0  | 22.08 | PASS |
| Band5 | 3MHz   | 16QAM | 20415 | 8RB#4  | 22.04 | PASS |
| Band5 | 3MHz   | 16QAM | 20415 | 8RB#7  | 22.05 | PASS |
| Band5 | 3MHz   | 16QAM | 20415 | 15RB#0 | 21.97 | PASS |

|       |      |       |       |         |       |      |
|-------|------|-------|-------|---------|-------|------|
| Band5 | 3MHz | 16QAM | 20525 | 1RB#0   | 23.34 | PASS |
| Band5 | 3MHz | 16QAM | 20525 | 1RB#8   | 23.33 | PASS |
| Band5 | 3MHz | 16QAM | 20525 | 1RB#14  | 23.17 | PASS |
| Band5 | 3MHz | 16QAM | 20525 | 8RB#0   | 22.10 | PASS |
| Band5 | 3MHz | 16QAM | 20525 | 8RB#4   | 22.11 | PASS |
| Band5 | 3MHz | 16QAM | 20525 | 8RB#7   | 22.11 | PASS |
| Band5 | 3MHz | 16QAM | 20525 | 15RB#0  | 22.07 | PASS |
| Band5 | 3MHz | 16QAM | 20635 | 1RB#0   | 23.11 | PASS |
| Band5 | 3MHz | 16QAM | 20635 | 1RB#8   | 23.13 | PASS |
| Band5 | 3MHz | 16QAM | 20635 | 1RB#14  | 23.13 | PASS |
| Band5 | 3MHz | 16QAM | 20635 | 8RB#0   | 22.03 | PASS |
| Band5 | 3MHz | 16QAM | 20635 | 8RB#4   | 22.01 | PASS |
| Band5 | 3MHz | 16QAM | 20635 | 8RB#7   | 22.04 | PASS |
| Band5 | 3MHz | 16QAM | 20635 | 15RB#0  | 21.90 | PASS |
| Band5 | 5MHz | QPSK  | 20425 | 1RB#0   | 24.12 | PASS |
| Band5 | 5MHz | QPSK  | 20425 | 1RB#12  | 24.13 | PASS |
| Band5 | 5MHz | QPSK  | 20425 | 1RB#24  | 24.07 | PASS |
| Band5 | 5MHz | QPSK  | 20425 | 12RB#0  | 23.05 | PASS |
| Band5 | 5MHz | QPSK  | 20425 | 12RB#6  | 23.04 | PASS |
| Band5 | 5MHz | QPSK  | 20425 | 12RB#13 | 22.99 | PASS |
| Band5 | 5MHz | QPSK  | 20425 | 25RB#0  | 23.06 | PASS |
| Band5 | 5MHz | QPSK  | 20525 | 1RB#0   | 24.12 | PASS |
| Band5 | 5MHz | QPSK  | 20525 | 1RB#12  | 24.14 | PASS |
| Band5 | 5MHz | QPSK  | 20525 | 1RB#24  | 24.00 | PASS |
| Band5 | 5MHz | QPSK  | 20525 | 12RB#0  | 23.07 | PASS |
| Band5 | 5MHz | QPSK  | 20525 | 12RB#6  | 23.06 | PASS |
| Band5 | 5MHz | QPSK  | 20525 | 12RB#13 | 23.04 | PASS |
| Band5 | 5MHz | QPSK  | 20525 | 25RB#0  | 23.06 | PASS |
| Band5 | 5MHz | QPSK  | 20625 | 1RB#0   | 24.02 | PASS |
| Band5 | 5MHz | QPSK  | 20625 | 1RB#12  | 24.13 | PASS |
| Band5 | 5MHz | QPSK  | 20625 | 1RB#24  | 23.95 | PASS |
| Band5 | 5MHz | QPSK  | 20625 | 12RB#0  | 23.05 | PASS |
| Band5 | 5MHz | QPSK  | 20625 | 12RB#6  | 23.05 | PASS |
| Band5 | 5MHz | QPSK  | 20625 | 12RB#13 | 23.00 | PASS |
| Band5 | 5MHz | QPSK  | 20625 | 25RB#0  | 23.01 | PASS |
| Band5 | 5MHz | 16QAM | 20425 | 1RB#0   | 23.15 | PASS |
| Band5 | 5MHz | 16QAM | 20425 | 1RB#12  | 23.17 | PASS |

|       |       |       |       |         |       |      |
|-------|-------|-------|-------|---------|-------|------|
| Band5 | 5MHz  | 16QAM | 20425 | 1RB#24  | 23.07 | PASS |
| Band5 | 5MHz  | 16QAM | 20425 | 12RB#0  | 22.07 | PASS |
| Band5 | 5MHz  | 16QAM | 20425 | 12RB#6  | 22.07 | PASS |
| Band5 | 5MHz  | 16QAM | 20425 | 12RB#13 | 21.99 | PASS |
| Band5 | 5MHz  | 16QAM | 20425 | 25RB#0  | 22.03 | PASS |
| Band5 | 5MHz  | 16QAM | 20525 | 1RB#0   | 23.34 | PASS |
| Band5 | 5MHz  | 16QAM | 20525 | 1RB#12  | 23.38 | PASS |
| Band5 | 5MHz  | 16QAM | 20525 | 1RB#24  | 23.21 | PASS |
| Band5 | 5MHz  | 16QAM | 20525 | 12RB#0  | 22.15 | PASS |
| Band5 | 5MHz  | 16QAM | 20525 | 12RB#6  | 22.14 | PASS |
| Band5 | 5MHz  | 16QAM | 20525 | 12RB#13 | 22.12 | PASS |
| Band5 | 5MHz  | 16QAM | 20525 | 25RB#0  | 22.06 | PASS |
| Band5 | 5MHz  | 16QAM | 20625 | 1RB#0   | 23.05 | PASS |
| Band5 | 5MHz  | 16QAM | 20625 | 1RB#12  | 23.12 | PASS |
| Band5 | 5MHz  | 16QAM | 20625 | 1RB#24  | 23.07 | PASS |
| Band5 | 5MHz  | 16QAM | 20625 | 12RB#0  | 22.13 | PASS |
| Band5 | 5MHz  | 16QAM | 20625 | 12RB#6  | 22.13 | PASS |
| Band5 | 5MHz  | 16QAM | 20625 | 12RB#13 | 22.06 | PASS |
| Band5 | 5MHz  | 16QAM | 20625 | 25RB#0  | 22.09 | PASS |
| Band5 | 10MHz | QPSK  | 20450 | 1RB#0   | 23.88 | PASS |
| Band5 | 10MHz | QPSK  | 20450 | 1RB#24  | 23.86 | PASS |
| Band5 | 10MHz | QPSK  | 20450 | 1RB#49  | 23.80 | PASS |
| Band5 | 10MHz | QPSK  | 20450 | 25RB#0  | 22.99 | PASS |
| Band5 | 10MHz | QPSK  | 20450 | 25RB#12 | 22.95 | PASS |
| Band5 | 10MHz | QPSK  | 20450 | 25RB#25 | 22.90 | PASS |
| Band5 | 10MHz | QPSK  | 20450 | 50RB#0  | 22.96 | PASS |
| Band5 | 10MHz | QPSK  | 20525 | 1RB#0   | 24.01 | PASS |
| Band5 | 10MHz | QPSK  | 20525 | 1RB#24  | 24.00 | PASS |
| Band5 | 10MHz | QPSK  | 20525 | 1RB#49  | 23.91 | PASS |
| Band5 | 10MHz | QPSK  | 20525 | 25RB#0  | 23.11 | PASS |
| Band5 | 10MHz | QPSK  | 20525 | 25RB#12 | 23.17 | PASS |
| Band5 | 10MHz | QPSK  | 20525 | 25RB#25 | 23.00 | PASS |
| Band5 | 10MHz | QPSK  | 20525 | 50RB#0  | 23.04 | PASS |
| Band5 | 10MHz | QPSK  | 20600 | 1RB#0   | 24.08 | PASS |
| Band5 | 10MHz | QPSK  | 20600 | 1RB#24  | 23.90 | PASS |
| Band5 | 10MHz | QPSK  | 20600 | 1RB#49  | 23.84 | PASS |
| Band5 | 10MHz | QPSK  | 20600 | 25RB#0  | 23.00 | PASS |

|       |       |       |       |         |       |      |
|-------|-------|-------|-------|---------|-------|------|
| Band5 | 10MHz | QPSK  | 20600 | 25RB#12 | 23.01 | PASS |
| Band5 | 10MHz | QPSK  | 20600 | 25RB#25 | 23.04 | PASS |
| Band5 | 10MHz | QPSK  | 20600 | 50RB#0  | 22.98 | PASS |
| Band5 | 10MHz | 16QAM | 20450 | 1RB#0   | 23.07 | PASS |
| Band5 | 10MHz | 16QAM | 20450 | 1RB#24  | 23.17 | PASS |
| Band5 | 10MHz | 16QAM | 20450 | 1RB#49  | 23.10 | PASS |
| Band5 | 10MHz | 16QAM | 20450 | 25RB#0  | 22.00 | PASS |
| Band5 | 10MHz | 16QAM | 20450 | 25RB#12 | 21.96 | PASS |
| Band5 | 10MHz | 16QAM | 20450 | 25RB#25 | 21.88 | PASS |
| Band5 | 10MHz | 16QAM | 20450 | 50RB#0  | 21.88 | PASS |
| Band5 | 10MHz | 16QAM | 20525 | 1RB#0   | 23.32 | PASS |
| Band5 | 10MHz | 16QAM | 20525 | 1RB#24  | 23.32 | PASS |
| Band5 | 10MHz | 16QAM | 20525 | 1RB#49  | 23.16 | PASS |
| Band5 | 10MHz | 16QAM | 20525 | 25RB#0  | 22.18 | PASS |
| Band5 | 10MHz | 16QAM | 20525 | 25RB#12 | 22.19 | PASS |
| Band5 | 10MHz | 16QAM | 20525 | 25RB#25 | 22.08 | PASS |
| Band5 | 10MHz | 16QAM | 20525 | 50RB#0  | 22.09 | PASS |
| Band5 | 10MHz | 16QAM | 20600 | 1RB#0   | 23.01 | PASS |
| Band5 | 10MHz | 16QAM | 20600 | 1RB#24  | 22.92 | PASS |
| Band5 | 10MHz | 16QAM | 20600 | 1RB#49  | 22.88 | PASS |
| Band5 | 10MHz | 16QAM | 20600 | 25RB#0  | 22.04 | PASS |
| Band5 | 10MHz | 16QAM | 20600 | 25RB#12 | 22.04 | PASS |
| Band5 | 10MHz | 16QAM | 20600 | 25RB#25 | 22.07 | PASS |
| Band5 | 10MHz | 16QAM | 20600 | 50RB#0  | 21.99 | PASS |



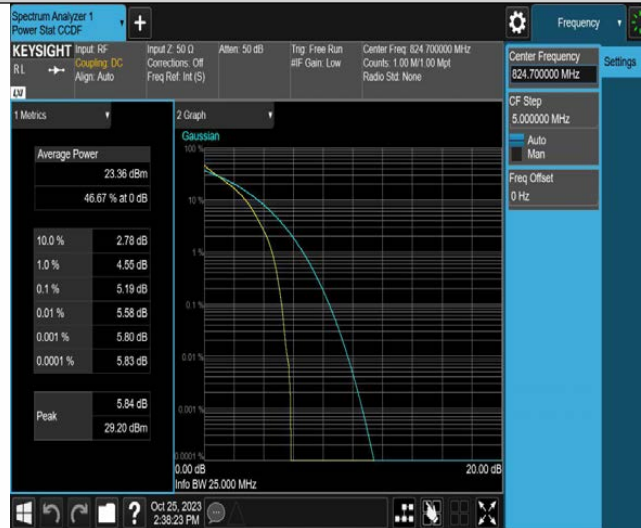
## Appendix B: Peak-to-Average Ratio(CCDF)

### Test Result

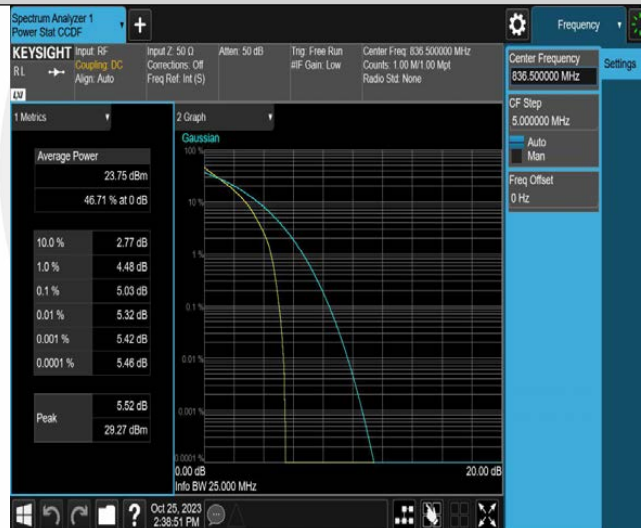
| Band  | Bandwidth | Modulation | Channel | RB Configuration | Result(dB) | Limit(dB) | Verdict |
|-------|-----------|------------|---------|------------------|------------|-----------|---------|
| Band5 | 1.4MHz    | QPSK       | 20407   | 6RB#0            | 5.19       | 13        | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20525   | 6RB#0            | 5.03       | 13        | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20643   | 6RB#0            | 4.74       | 13        | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20407   | 6RB#0            | 6.03       | 13        | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20525   | 6RB#0            | 5.95       | 13        | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20643   | 6RB#0            | 5.66       | 13        | PASS    |
| Band5 | 3MHz      | QPSK       | 20415   | 15RB#0           | 5.15       | 13        | PASS    |
| Band5 | 3MHz      | QPSK       | 20525   | 15RB#0           | 4.94       | 13        | PASS    |
| Band5 | 3MHz      | QPSK       | 20635   | 15RB#0           | 4.54       | 13        | PASS    |
| Band5 | 3MHz      | 16QAM      | 20415   | 15RB#0           | 6.06       | 13        | PASS    |
| Band5 | 3MHz      | 16QAM      | 20525   | 15RB#0           | 5.86       | 13        | PASS    |
| Band5 | 3MHz      | 16QAM      | 20635   | 15RB#0           | 5.50       | 13        | PASS    |
| Band5 | 5MHz      | QPSK       | 20425   | 25RB#0           | 5.21       | 13        | PASS    |
| Band5 | 5MHz      | QPSK       | 20525   | 25RB#0           | 4.98       | 13        | PASS    |
| Band5 | 5MHz      | QPSK       | 20625   | 25RB#0           | 4.62       | 13        | PASS    |
| Band5 | 5MHz      | 16QAM      | 20425   | 25RB#0           | 6.05       | 13        | PASS    |
| Band5 | 5MHz      | 16QAM      | 20525   | 25RB#0           | 5.86       | 13        | PASS    |
| Band5 | 5MHz      | 16QAM      | 20625   | 25RB#0           | 5.48       | 13        | PASS    |
| Band5 | 10MHz     | QPSK       | 20450   | 50RB#0           | 5.20       | 13        | PASS    |
| Band5 | 10MHz     | QPSK       | 20525   | 50RB#0           | 5.09       | 13        | PASS    |
| Band5 | 10MHz     | QPSK       | 20600   | 50RB#0           | 4.90       | 13        | PASS    |
| Band5 | 10MHz     | 16QAM      | 20450   | 50RB#0           | 6.08       | 13        | PASS    |
| Band5 | 10MHz     | 16QAM      | 20525   | 50RB#0           | 5.93       | 13        | PASS    |
| Band5 | 10MHz     | 16QAM      | 20600   | 50RB#0           | 5.81       | 13        | PASS    |

## Test Graphs

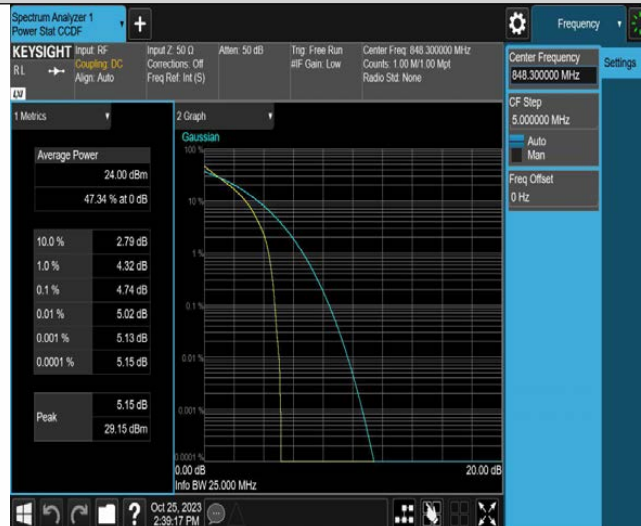
Band5-1.4MHz-QPSK-20407-6RB#0



Band5-1.4MHz-QPSK-20525-6RB#0

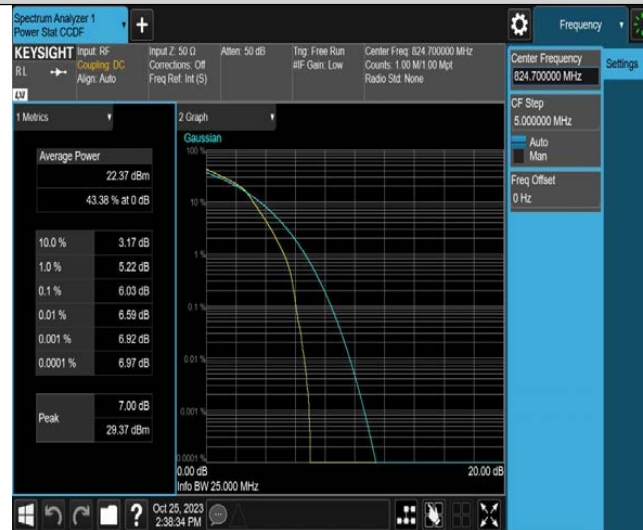


Band5-1.4MHz-QPSK-20643-6RB#0





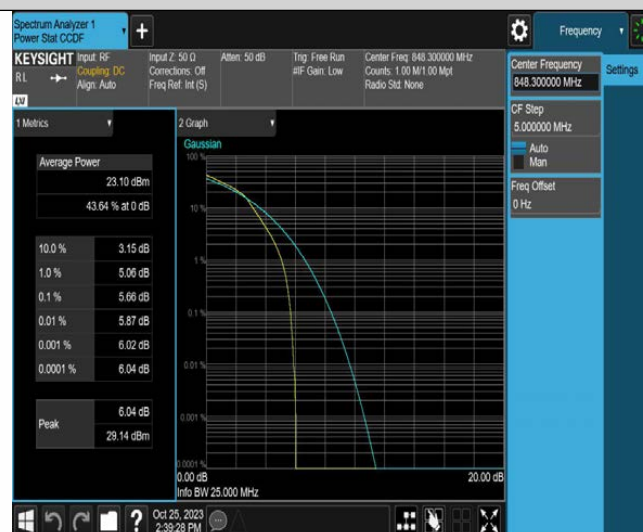
**Band5-1.4MHz-16QAM-20407-6RB#0**



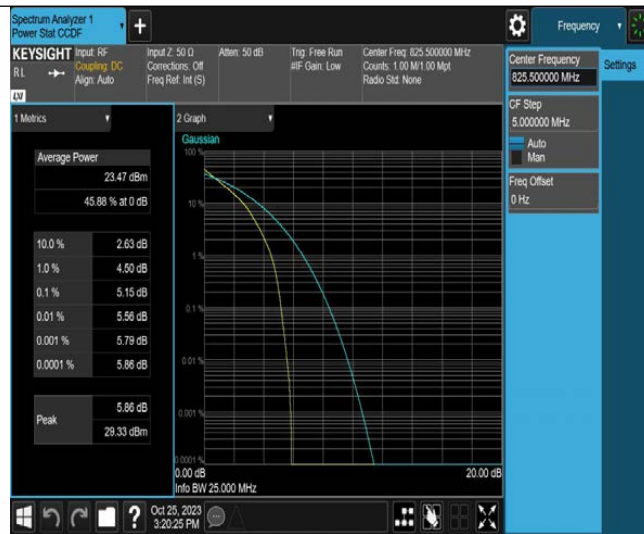
**Band5-1.4MHz-16QAM-20525-6RB#0**



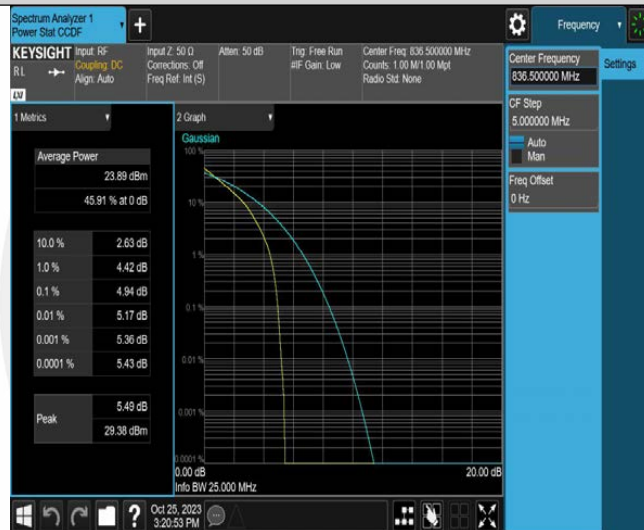
**Band5-1.4MHz-16QAM-20643-6RB#0**



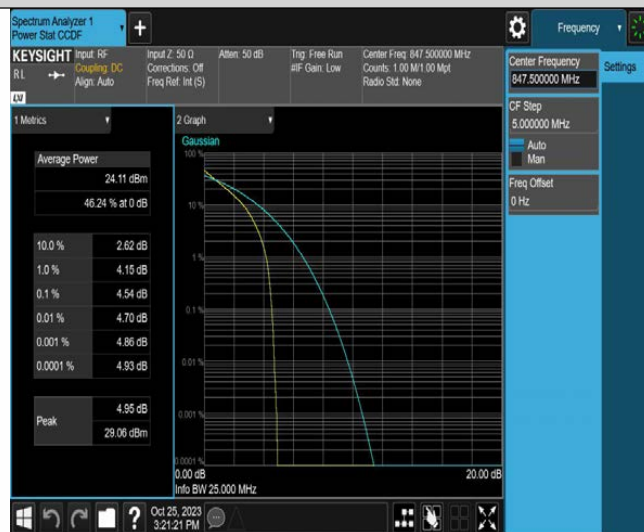
**Band5-3MHz-QPSK-20415-15RB#0**



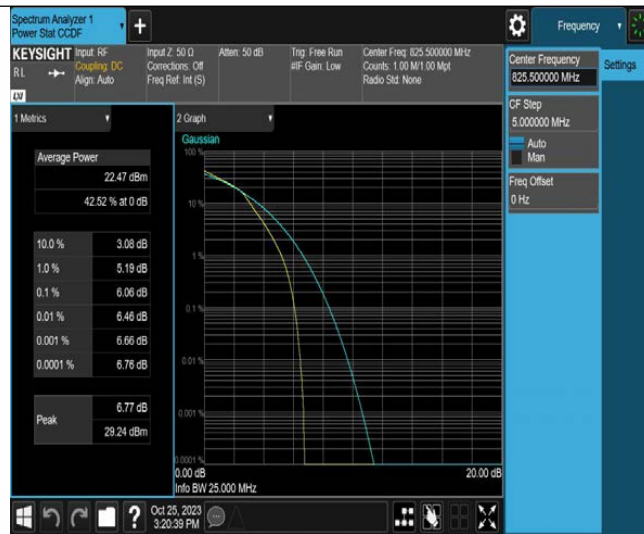
Band5-3MHz-QPSK-20525-15RB#0



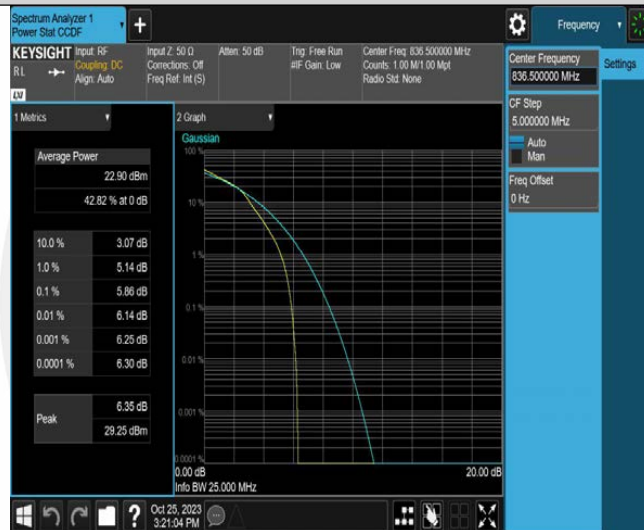
Band5-3MHz-QPSK-20635-15RB#0



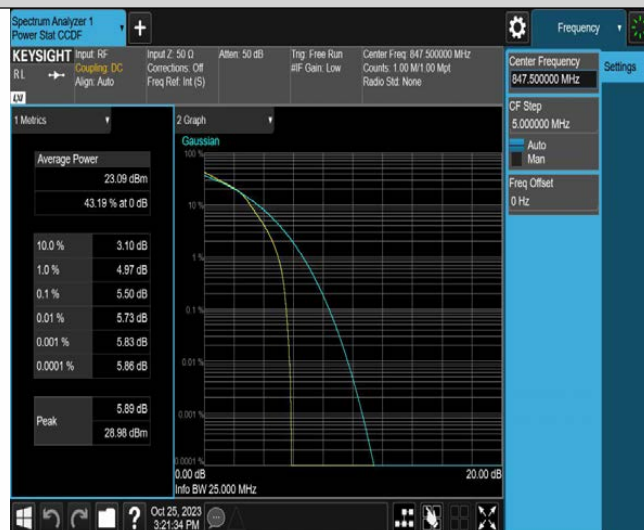
Band5-3MHz-16QAM-20415-15RB#0



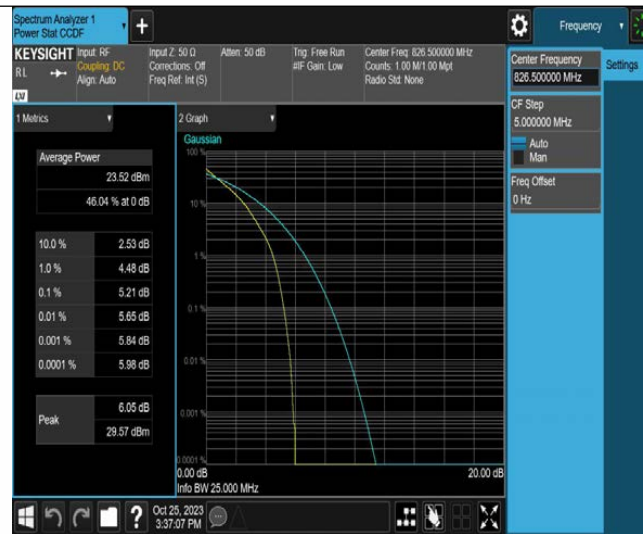
Band5-3MHz-16QAM-20525-15RB#0



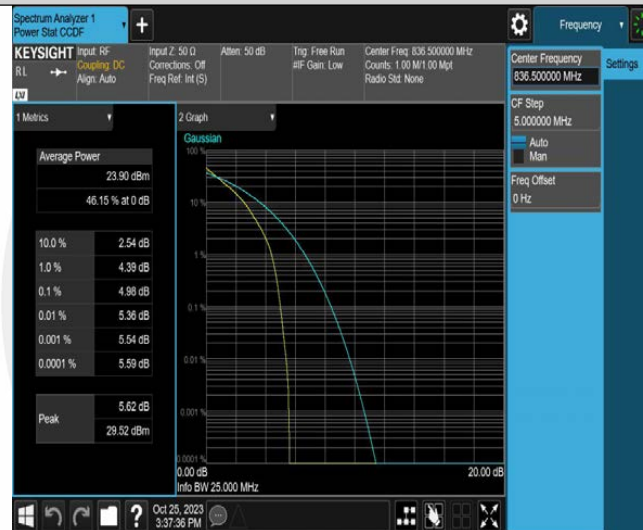
Band5-3MHz-16QAM-20635-15RB#0



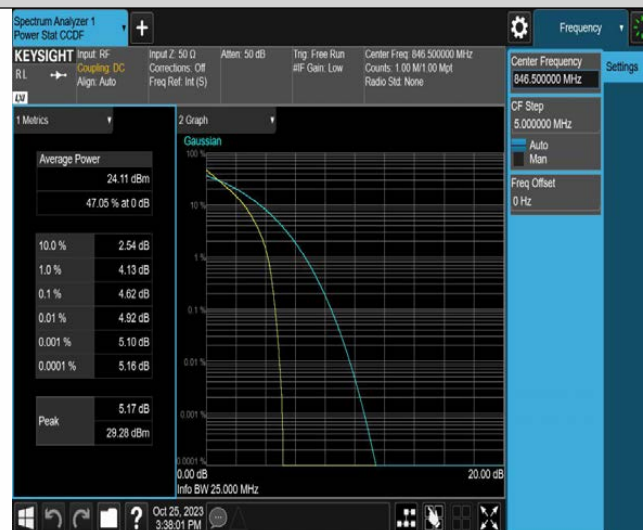
Band5-5MHz-QPSK-20425-25RB#0



Band5-5MHz-QPSK-20525-25RB#0

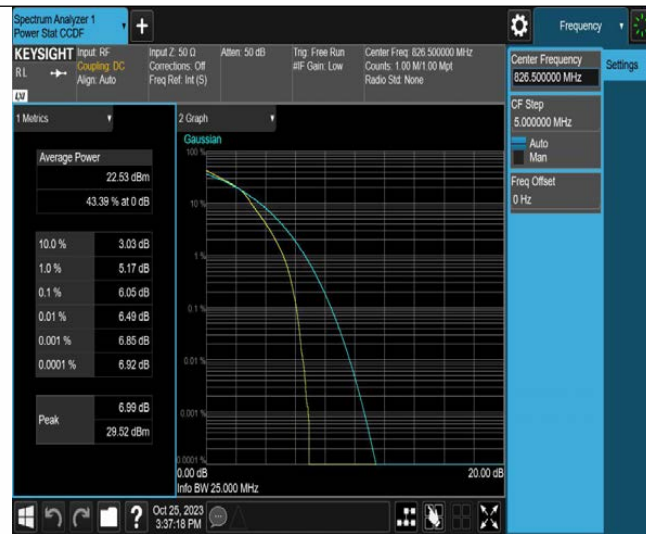


Band5-5MHz-QPSK-20625-25RB#0

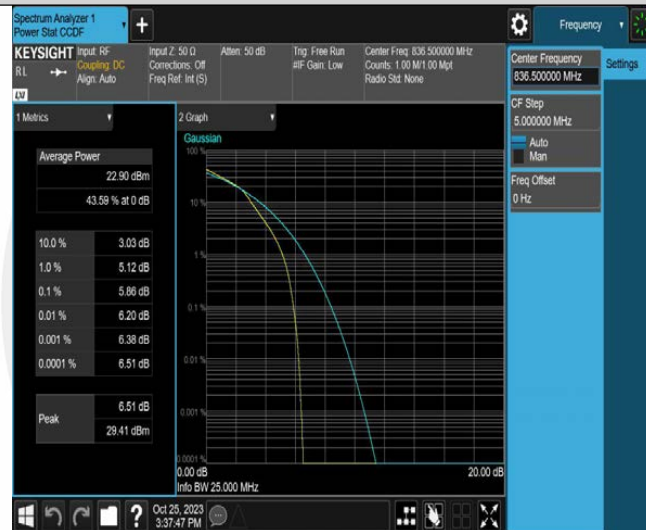


Band5-5MHz-16QAM-20425-25RB#0

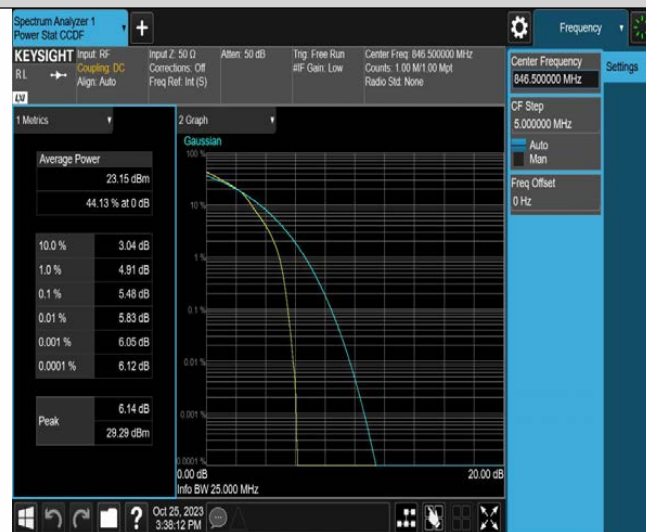




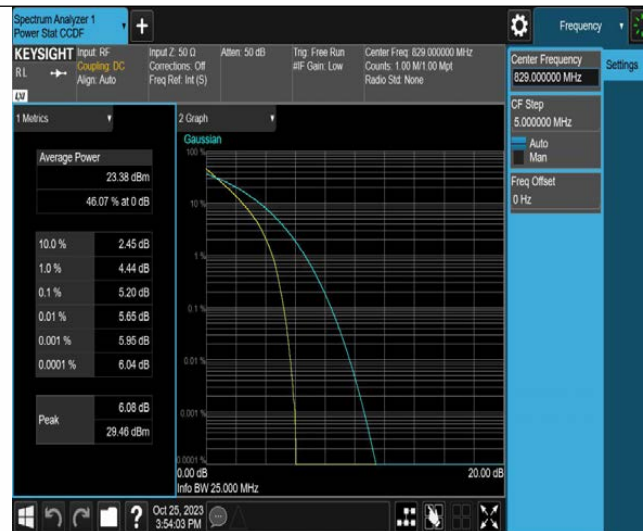
Band5-5MHz-16QAM-20525-25RB#0



Band5-5MHz-16QAM-20625-25RB#0



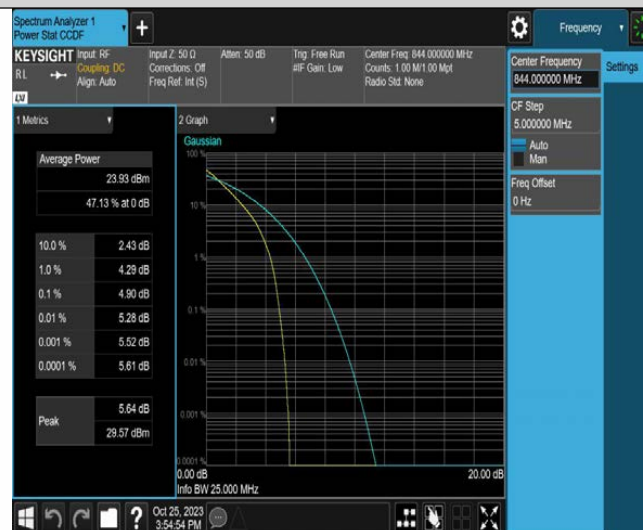
Band5-10MHz-QPSK-20450-50RB#0



Band5-10MHz-QPSK-20525-50RB#0

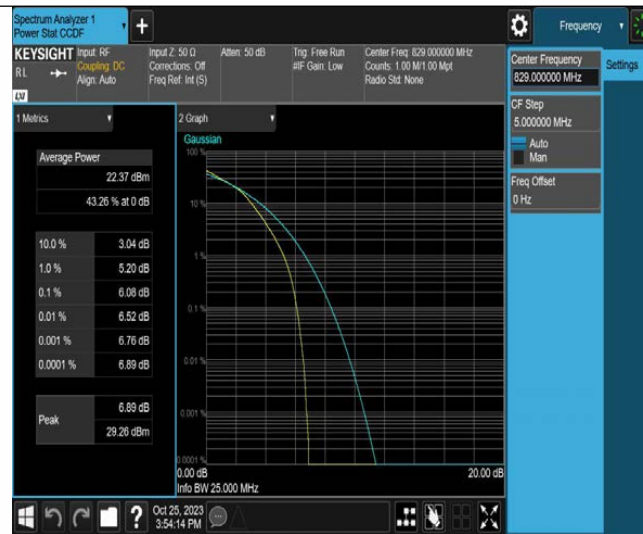


Band5-10MHz-QPSK-20600-50RB#0

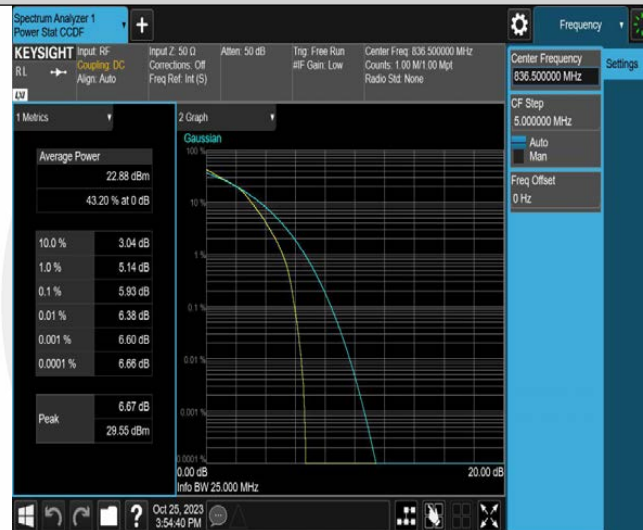


Band5-10MHz-16QAM-20450-50RB#0

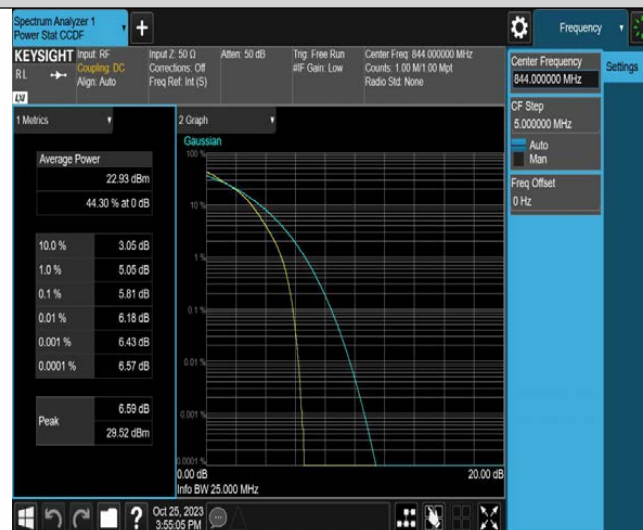




Band5-10MHz-16QAM-20525-50RB#0



Band5-10MHz-16QAM-20600-50RB#0



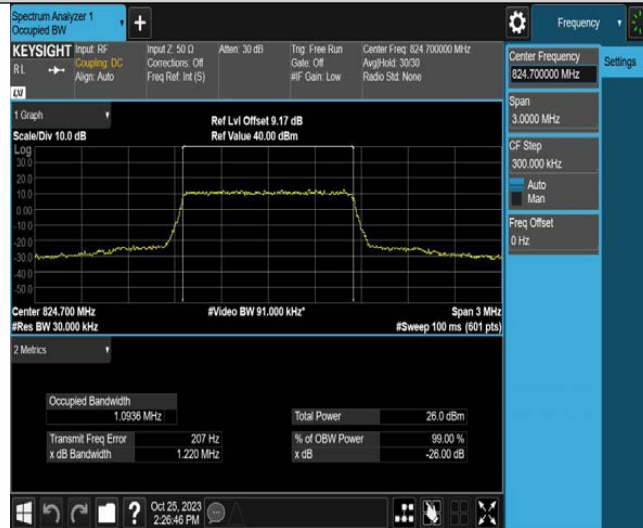
## Appendix C: 26dB Bandwidth and Occupied Bandwidth

### Test Result

| Band  | Bandwidth | Modulation | Channel | RB Configuration | Occupied Bandwidth (MHz) | 26dB Bandwidth (MHz) | Verdict |
|-------|-----------|------------|---------|------------------|--------------------------|----------------------|---------|
| Band5 | 1.4MHz    | QPSK       | 20407   | 6RB#0            | 1.0936                   | 1.220                | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20525   | 6RB#0            | 1.0890                   | 1.225                | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20643   | 6RB#0            | 1.0895                   | 1.211                | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20407   | 6RB#0            | 1.0877                   | 1.228                | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20525   | 6RB#0            | 1.0898                   | 1.213                | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20643   | 6RB#0            | 1.0913                   | 1.226                | PASS    |
| Band5 | 3MHz      | QPSK       | 20415   | 15RB#0           | 2.6996                   | 2.926                | PASS    |
| Band5 | 3MHz      | QPSK       | 20525   | 15RB#0           | 2.6997                   | 2.931                | PASS    |
| Band5 | 3MHz      | QPSK       | 20635   | 15RB#0           | 2.6952                   | 2.929                | PASS    |
| Band5 | 3MHz      | 16QAM      | 20415   | 15RB#0           | 2.6928                   | 2.930                | PASS    |
| Band5 | 3MHz      | 16QAM      | 20525   | 15RB#0           | 2.6971                   | 2.908                | PASS    |
| Band5 | 3MHz      | 16QAM      | 20635   | 15RB#0           | 2.6929                   | 2.952                | PASS    |
| Band5 | 5MHz      | QPSK       | 20425   | 25RB#0           | 4.5060                   | 4.868                | PASS    |
| Band5 | 5MHz      | QPSK       | 20525   | 25RB#0           | 4.5005                   | 4.862                | PASS    |
| Band5 | 5MHz      | QPSK       | 20625   | 25RB#0           | 4.5013                   | 4.840                | PASS    |
| Band5 | 5MHz      | 16QAM      | 20425   | 25RB#0           | 4.5051                   | 4.861                | PASS    |
| Band5 | 5MHz      | 16QAM      | 20525   | 25RB#0           | 4.5026                   | 4.892                | PASS    |
| Band5 | 5MHz      | 16QAM      | 20625   | 25RB#0           | 4.5016                   | 4.846                | PASS    |
| Band5 | 10MHz     | QPSK       | 20450   | 50RB#0           | 8.9703                   | 9.531                | PASS    |
| Band5 | 10MHz     | QPSK       | 20525   | 50RB#0           | 8.9831                   | 9.536                | PASS    |
| Band5 | 10MHz     | QPSK       | 20600   | 50RB#0           | 8.9448                   | 9.525                | PASS    |
| Band5 | 10MHz     | 16QAM      | 20450   | 50RB#0           | 8.9582                   | 9.519                | PASS    |
| Band5 | 10MHz     | 16QAM      | 20525   | 50RB#0           | 8.9872                   | 9.560                | PASS    |
| Band5 | 10MHz     | 16QAM      | 20600   | 50RB#0           | 8.9606                   | 9.514                | PASS    |

## Test Graphs

Band5-1.4MHz-QPSK-20407-6RB#0



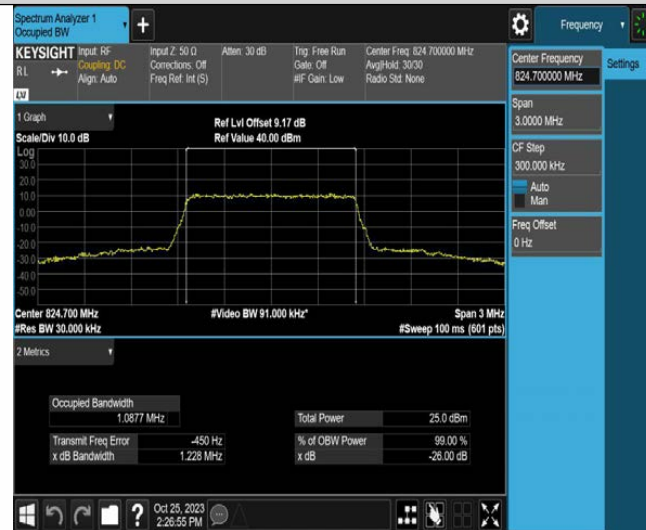
Band5-1.4MHz-QPSK-20525-6RB#0



Band5-1.4MHz-QPSK-20643-6RB#0



### Band5-1.4MHz-16QAM-20407-6RB#0



### Band5-1.4MHz-16QAM-20525-6RB#0



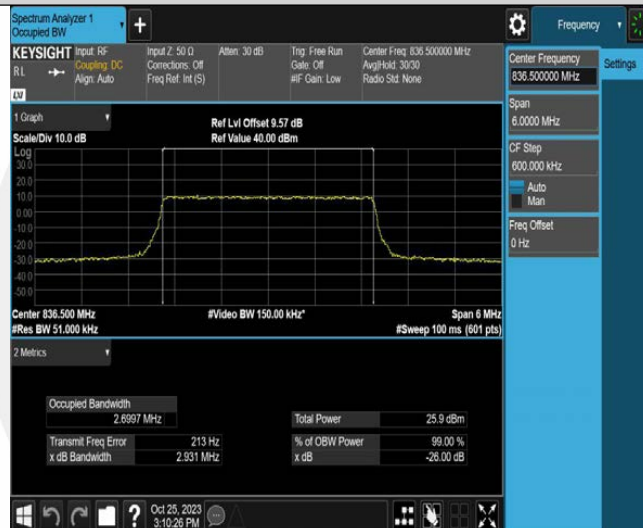
### Band5-1.4MHz-16QAM-20643-6RB#0



### Band5-3MHz-QPSK-20415-15RB#0



Band5-3MHz-QPSK-20525-15RB#0



Band5-3MHz-QPSK-20635-15RB#0

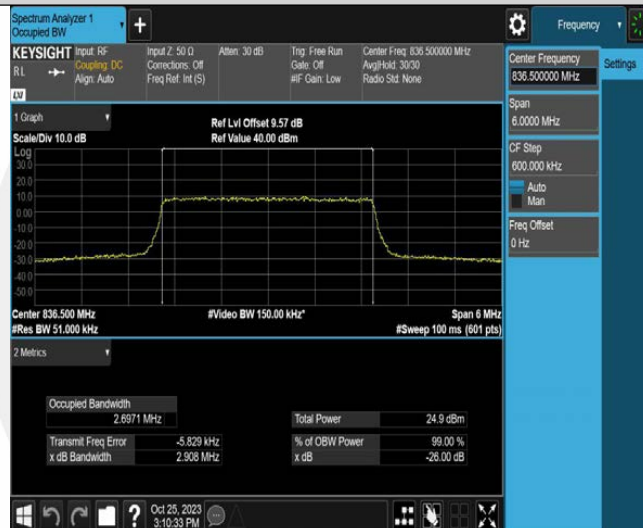


Band5-3MHz-16QAM-20415-15RB#0





Band5-3MHz-16QAM-20525-15RB#0



Band5-3MHz-16QAM-20635-15RB#0



Band5-5MHz-QPSK-20425-25RB#0



Band5-5MHz-QPSK-20525-25RB#0



Band5-5MHz-QPSK-20625-25RB#0



Band5-5MHz-16QAM-20425-25RB#0



Band5-5MHz-16QAM-20525-25RB#0



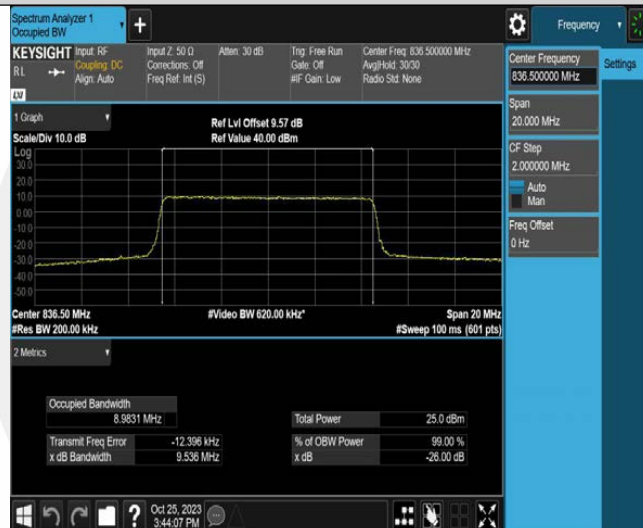
Band5-5MHz-16QAM-20625-25RB#0



Band5-10MHz-QPSK-20450-50RB#0



Band5-10MHz-QPSK-20525-50RB#0



Band5-10MHz-QPSK-20600-50RB#0



Band5-10MHz-16QAM-20450-50RB#0



Band5-10MHz-16QAM-20525-50RB#0



Band5-10MHz-16QAM-20600-50RB#0





## Appendix D: Band Edge

### Test Result

| Band  | Bandwidth | Modulation | Channel | RB Config. | Result (dBm) | Verdict |
|-------|-----------|------------|---------|------------|--------------|---------|
| Band5 | 1.4MHz    | QPSK       | 20407   | 6RB#0      | -26.17       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20643   | 6RB#0      | -27.42       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20407   | 6RB#0      | -25.68       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20643   | 6RB#0      | -27.06       | PASS    |
| Band5 | 3MHz      | QPSK       | 20415   | 15RB#0     | -22.53       | PASS    |
| Band5 | 3MHz      | QPSK       | 20635   | 15RB#0     | -24.37       | PASS    |
| Band5 | 3MHz      | 16QAM      | 20415   | 15RB#0     | -23.18       | PASS    |
| Band5 | 3MHz      | 16QAM      | 20635   | 15RB#0     | -23.49       | PASS    |
| Band5 | 5MHz      | QPSK       | 20425   | 25RB#0     | -24.72       | PASS    |
| Band5 | 5MHz      | QPSK       | 20625   | 25RB#0     | -25.15       | PASS    |
| Band5 | 5MHz      | 16QAM      | 20425   | 25RB#0     | -25.44       | PASS    |
| Band5 | 5MHz      | 16QAM      | 20625   | 25RB#0     | -25.23       | PASS    |
| Band5 | 10MHz     | QPSK       | 20450   | 50RB#0     | -26.64       | PASS    |
| Band5 | 10MHz     | QPSK       | 20600   | 50RB#0     | -27.13       | PASS    |
| Band5 | 10MHz     | 16QAM      | 20450   | 50RB#0     | -27.74       | PASS    |
| Band5 | 10MHz     | 16QAM      | 20600   | 50RB#0     | -27.27       | PASS    |

## Test Graphs

Band5-1.4MHz-QPSK-20407-6RB#0



Band5-1.4MHz-QPSK-20643-6RB#0



Band5-1.4MHz-16QAM-20407-6RB#0



Band5-1.4MHz-16QAM-20643-6RB#0



Band5-3MHz-QPSK-20415-15RB#0



Band5-3MHz-QPSK-20635-15RB#0



Band5-3MHz-16QAM-20415-15RB#0



Band5-3MHz-16QAM-20635-15RB#0



Band5-5MHz-QPSK-20425-25RB#0



Band5-5MHz-QPSK-20625-25RB#0



Band5-5MHz-16QAM-20425-25RB#0



Band5-5MHz-16QAM-20625-25RB#0



Band5-10MHz-QPSK-20450-50RB#0





Band5-10MHz-QPSK-20600-50RB#0



Band5-10MHz-16QAM-20450-50RB#0



Band5-10MHz-16QAM-20600-50RB#0



## Appendix E: Conducted Spurious Emission

### Test Result

| Band  | Bandwidth | Modulation | Channel | RB Configuration | Frequency Range      | Result (dBm) | Verdict |
|-------|-----------|------------|---------|------------------|----------------------|--------------|---------|
| Band5 | 1.4MHz    | QPSK       | 20407   | 1RB#0            | Range1:30~1000MHz    | -45.85       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20407   | 1RB#0            | Range2:1000~10000MHz | -35.46       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20525   | 1RB#0            | Range1:30~1000MHz    | -45.69       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20525   | 1RB#0            | Range2:1000~10000MHz | -36.24       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20643   | 1RB#0            | Range1:30~1000MHz    | -46.34       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20643   | 1RB#0            | Range2:1000~10000MHz | -35.38       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20407   | 1RB#0            | Range1:30~1000MHz    | -45.47       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20407   | 1RB#0            | Range2:1000~10000MHz | -35.44       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20525   | 1RB#0            | Range1:30~1000MHz    | -45.27       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20525   | 1RB#0            | Range2:1000~10000MHz | -35.3        | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20643   | 1RB#0            | Range1:30~1000MHz    | -45.33       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20643   | 1RB#0            | Range2:1000~10000MHz | -35.82       | PASS    |
| Band5 | 3MHz      | QPSK       | 20415   | 1RB#0            | Range1:30~1000MHz    | -46.02       | PASS    |
| Band5 | 3MHz      | QPSK       | 20415   | 1RB#0            | Range2:1000~10000MHz | -35.36       | PASS    |
| Band5 | 3MHz      | QPSK       | 20525   | 1RB#0            | Range1:30~1000MHz    | -46.38       | PASS    |
| Band5 | 3MHz      | QPSK       | 20525   | 1RB#0            | Range2:1000~10000MHz | -35.49       | PASS    |
| Band5 | 3MHz      | QPSK       | 20635   | 1RB#0            | Range1:30~1000MHz    | -45.97       | PASS    |

|       |      |       |       |       |                      |        |      |
|-------|------|-------|-------|-------|----------------------|--------|------|
|       |      |       |       |       | 00MHz                |        |      |
| Band5 | 3MHz | QPSK  | 20635 | 1RB#0 | Range2:1000~10000MHz | -36.21 | PASS |
| Band5 | 3MHz | 16QAM | 20415 | 1RB#0 | Range1:30~1000MHz    | -46.05 | PASS |
| Band5 | 3MHz | 16QAM | 20415 | 1RB#0 | Range2:1000~10000MHz | -34.06 | PASS |
| Band5 | 3MHz | 16QAM | 20525 | 1RB#0 | Range1:30~1000MHz    | -44.87 | PASS |
| Band5 | 3MHz | 16QAM | 20525 | 1RB#0 | Range2:1000~10000MHz | -36.57 | PASS |
| Band5 | 3MHz | 16QAM | 20635 | 1RB#0 | Range1:30~1000MHz    | -45.99 | PASS |
| Band5 | 3MHz | 16QAM | 20635 | 1RB#0 | Range2:1000~10000MHz | -35.76 | PASS |
| Band5 | 5MHz | QPSK  | 20425 | 1RB#0 | Range1:30~1000MHz    | -45.01 | PASS |
| Band5 | 5MHz | QPSK  | 20425 | 1RB#0 | Range2:1000~10000MHz | -35.99 | PASS |
| Band5 | 5MHz | QPSK  | 20525 | 1RB#0 | Range1:30~1000MHz    | -45.72 | PASS |
| Band5 | 5MHz | QPSK  | 20525 | 1RB#0 | Range2:1000~10000MHz | -35.81 | PASS |
| Band5 | 5MHz | QPSK  | 20625 | 1RB#0 | Range1:30~1000MHz    | -45.95 | PASS |
| Band5 | 5MHz | QPSK  | 20625 | 1RB#0 | Range2:1000~10000MHz | -35.67 | PASS |
| Band5 | 5MHz | 16QAM | 20425 | 1RB#0 | Range1:30~1000MHz    | -45    | PASS |
| Band5 | 5MHz | 16QAM | 20425 | 1RB#0 | Range2:1000~10000MHz | -36.01 | PASS |
| Band5 | 5MHz | 16QAM | 20525 | 1RB#0 | Range1:30~1000MHz    | -46.11 | PASS |
| Band5 | 5MHz | 16QAM | 20525 | 1RB#0 | Range2:1000~10000MHz | -34.72 | PASS |
| Band5 | 5MHz | 16QAM | 20625 | 1RB#0 | Range1:30~1000MHz    | -45.63 | PASS |

|       |       |       |       |       |                      |        |      |
|-------|-------|-------|-------|-------|----------------------|--------|------|
| Band5 | 5MHz  | 16QAM | 20625 | 1RB#0 | Range2:1000~10000MHz | -35.64 | PASS |
| Band5 | 10MHz | QPSK  | 20450 | 1RB#0 | Range1:30~1000MHz    | -46.02 | PASS |
| Band5 | 10MHz | QPSK  | 20450 | 1RB#0 | Range2:1000~10000MHz | -34.93 | PASS |
| Band5 | 10MHz | QPSK  | 20525 | 1RB#0 | Range1:30~1000MHz    | -45.83 | PASS |
| Band5 | 10MHz | QPSK  | 20525 | 1RB#0 | Range2:1000~10000MHz | -36.04 | PASS |
| Band5 | 10MHz | QPSK  | 20600 | 1RB#0 | Range1:30~1000MHz    | -45.63 | PASS |
| Band5 | 10MHz | QPSK  | 20600 | 1RB#0 | Range2:1000~10000MHz | -36.53 | PASS |
| Band5 | 10MHz | 16QAM | 20450 | 1RB#0 | Range1:30~1000MHz    | -45.66 | PASS |
| Band5 | 10MHz | 16QAM | 20450 | 1RB#0 | Range2:1000~10000MHz | -35.54 | PASS |
| Band5 | 10MHz | 16QAM | 20525 | 1RB#0 | Range1:30~1000MHz    | -45.77 | PASS |
| Band5 | 10MHz | 16QAM | 20525 | 1RB#0 | Range2:1000~10000MHz | -35.81 | PASS |
| Band5 | 10MHz | 16QAM | 20600 | 1RB#0 | Range1:30~1000MHz    | -44.81 | PASS |
| Band5 | 10MHz | 16QAM | 20600 | 1RB#0 | Range2:1000~10000MHz | -36.14 | PASS |



## Test Graphs

Band5-1.4MHz-QPSK-20407-1RB#0-Range1:30~1000MHz



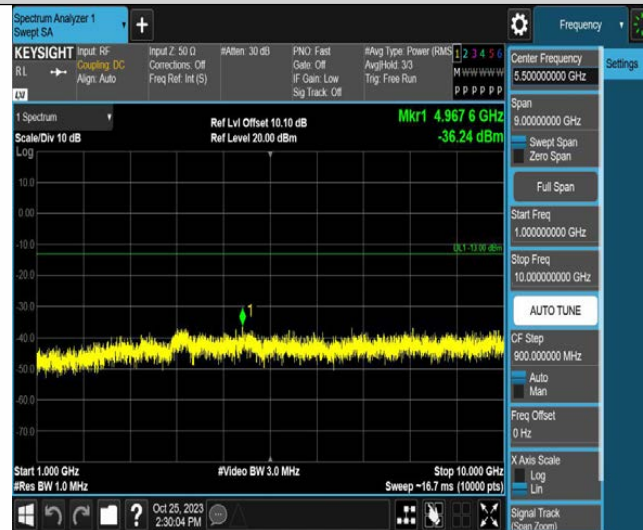
Band5-1.4MHz-QPSK-20407-1RB#0-Range2:1000~10000MHz



Band5-1.4MHz-QPSK-20525-1RB#0-Range1:30~1000MHz



## Band5-1.4MHz-QPSK-20525-1RB#0-Range2:1000~10000MHz



## Band5-1.4MHz-QPSK-20643-1RB#0-Range1:30~1000MHz



## Band5-1.4MHz-QPSK-20643-1RB#0-Range2:1000~10000MHz



## Band5-1.4MHz-16QAM-20407-1RB#0-Range1:30~1000MHz



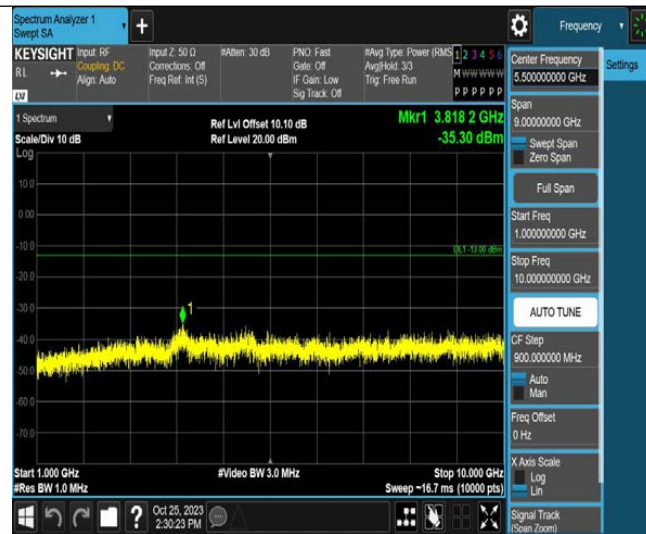
Band5-1.4MHz-16QAM-20407-1RB#0-Range2:1000~10000MHz



Band5-1.4MHz-16QAM-20525-1RB#0-Range1:30~1000MHz



Band5-1.4MHz-16QAM-20525-1RB#0-Range2:1000~10000MHz



Band5-1.4MHz-16QAM-20643-1RB#0-Range1:30~1000MHz



Band5-1.4MHz-16QAM-20643-1RB#0-Range2:1000~10000MHz



Band5-3MHz-QPSK-20415-1RB#0-Range1:30~1000MHz

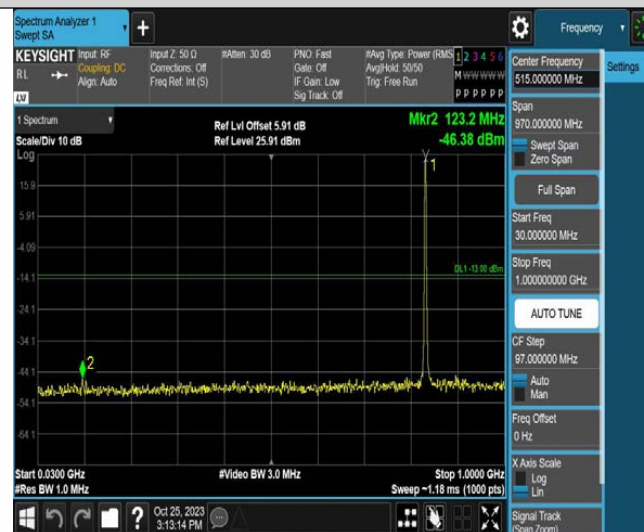




Band5-3MHz-QPSK-20415-1RB#0-Range2:1000~10000MHz

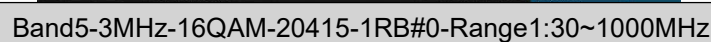
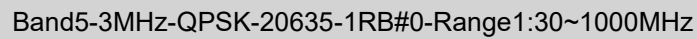


Band5-3MHz-QPSK-20525-1RB#0-Range1:30~1000MHz



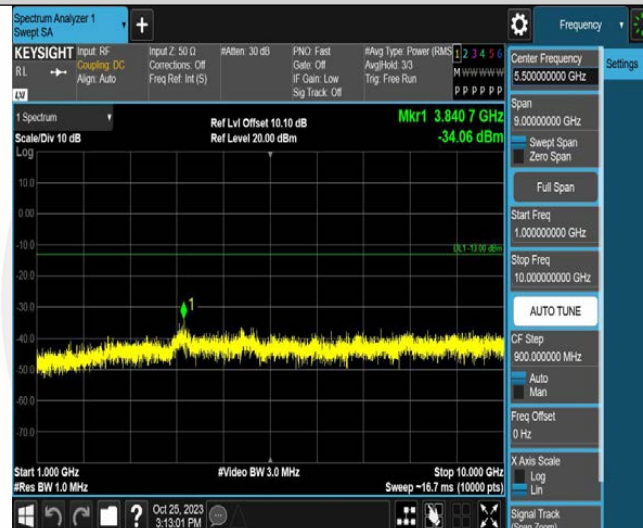
Band5-3MHz-QPSK-20525-1RB#0-Range2:1000~10000MHz







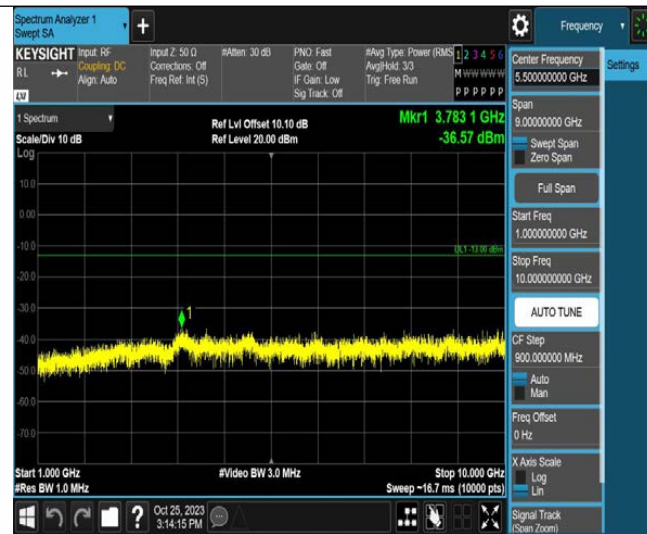
Band5-3MHz-16QAM-20415-1RB#0-Range2:1000~10000MHz



Band5-3MHz-16QAM-20525-1RB#0-Range1:30~1000MHz



Band5-3MHz-16QAM-20525-1RB#0-Range2:1000~10000MHz



Band5-3MHz-16QAM-20635-1RB#0-Range1:30~1000MHz



Band5-3MHz-16QAM-20635-1RB#0-Range2:1000~10000MHz



Band5-5MHz-QPSK-20425-1RB#0-Range1:30~1000MHz



Band5-5MHz-QPSK-20425-1RB#0-Range2:1000~10000MHz

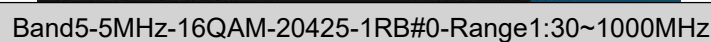
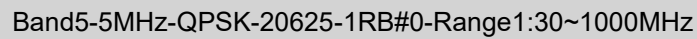


Band5-5MHz-QPSK-20525-1RB#0-Range1:30~1000MHz



Band5-5MHz-QPSK-20525-1RB#0-Range2:1000~10000MHz

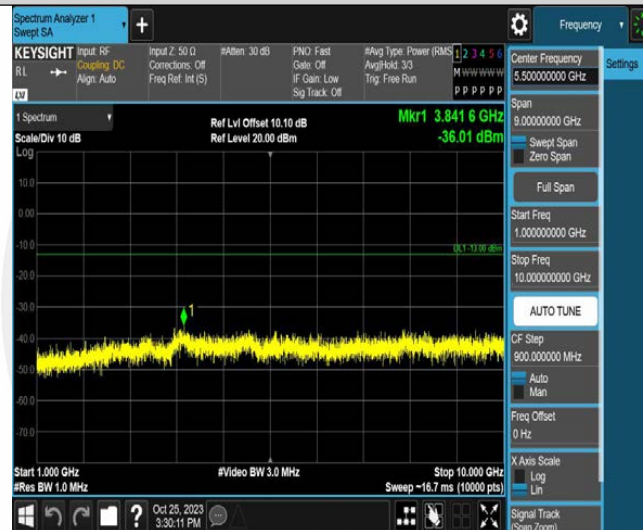








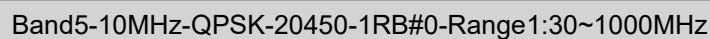
Band5-5MHz-16QAM-20425-1RB#0-Range2:1000~10000MHz

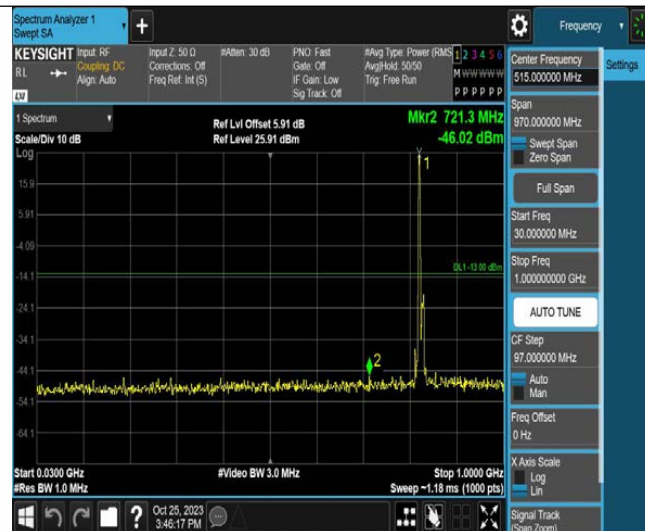


Band5-5MHz-16QAM-20525-1RB#0-Range1:30~1000MHz



Band5-5MHz-16QAM-20525-1RB#0-Range2:1000~10000MHz





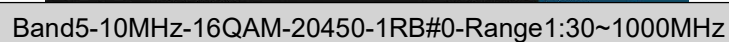
Band5-10MHz-QPSK-20450-1RB#0-Range2:1000~10000MHz



Band5-10MHz-QPSK-20525-1RB#0-Range1:30~1000MHz



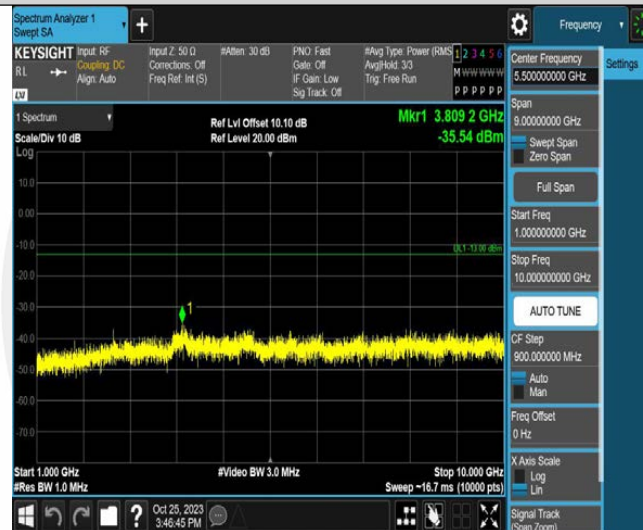
Band5-10MHz-QPSK-20525-1RB#0-Range2:1000~10000MHz







Band5-10MHz-16QAM-20450-1RB#0-Range2:1000~10000MHz



Band5-10MHz-16QAM-20525-1RB#0-Range1:30~1000MHz

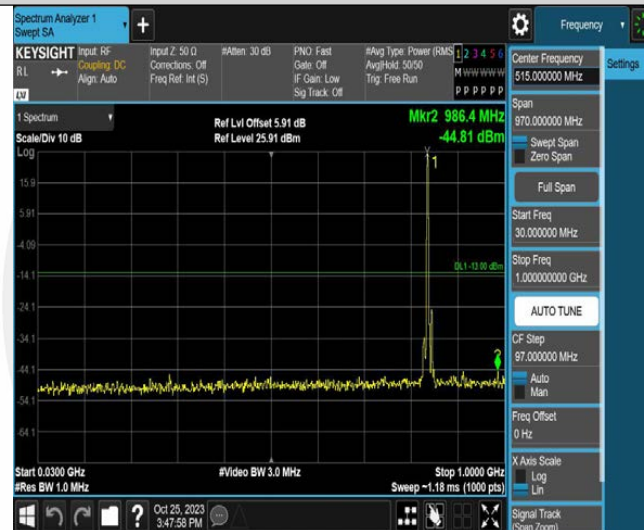


Band5-10MHz-16QAM-20525-1RB#0-Range2:1000~10000MHz





Band5-10MHz-16QAM-20600-1RB#0-Range1:30~1000MHz



Band5-10MHz-16QAM-20600-1RB#0-Range2:1000~10000MHz



## Appendix F: Frequency Stability

### Test Result

| Voltage |           |            |         |              |               |                  |                |                 |             |         |
|---------|-----------|------------|---------|--------------|---------------|------------------|----------------|-----------------|-------------|---------|
| Band    | Bandwidth | Modulation | Channel | RB Configure | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| Band5   | 1.4MHz    | QPSK       | 20407   | 6RB#0        | VL            | NT               | 15.99          | 0.019389        | ±2.5        | PASS    |
| Band5   | 1.4MHz    | QPSK       | 20407   | 6RB#0        | VN            | NT               | 15.01          | 0.018201        | ±2.5        | PASS    |
| Band5   | 1.4MHz    | QPSK       | 20407   | 6RB#0        | VH            | NT               | 9.04           | 0.010962        | ±2.5        | PASS    |
| Band5   | 1.4MHz    | QPSK       | 20525   | 6RB#0        | VL            | NT               | -24.72         | -0.029552       | ±2.5        | PASS    |
| Band5   | 1.4MHz    | QPSK       | 20525   | 6RB#0        | VN            | NT               | -28.14         | -0.033640       | ±2.5        | PASS    |
| Band5   | 1.4MHz    | QPSK       | 20525   | 6RB#0        | VH            | NT               | -20.17         | -0.024112       | ±2.5        | PASS    |
| Band5   | 1.4MHz    | QPSK       | 20643   | 6RB#0        | VL            | NT               | -15.26         | -0.017989       | ±2.5        | PASS    |
| Band5   | 1.4MHz    | QPSK       | 20643   | 6RB#0        | VN            | NT               | -23.98         | -0.028268       | ±2.5        | PASS    |
| Band5   | 1.4MHz    | QPSK       | 20643   | 6RB#0        | VH            | NT               | -8.90          | -0.010492       | ±2.5        | PASS    |
| Band5   | 1.4MHz    | 16QAM      | 20407   | 6RB#0        | VL            | NT               | -2.96          | -0.003589       | ±2.5        | PASS    |
| Band5   | 1.4MHz    | 16QAM      | 20407   | 6RB#0        | VN            | NT               | -2.80          | -0.003395       | ±2.5        | PASS    |
| Band5   | 1.4MHz    | 16QAM      | 20407   | 6RB#0        | VH            | NT               | -7.67          | -0.009300       | ±2.5        | PASS    |
| Band5   | 1.4MHz    | 16QAM      | 20525   | 6RB#0        | VL            | NT               | -8.33          | -0.009958       | ±2.5        | PASS    |
| Band5   | 1.4MHz    | 16QAM      | 20525   | 6RB#0        | VN            | NT               | -5.65          | -0.006754       | ±2.5        | PASS    |
| Band5   | 1.4MHz    | 16QAM      | 20525   | 6RB#0        | VH            | NT               | -2.96          | -0.003539       | ±2.5        | PASS    |
| Band5   | 1.4MHz    | 16QAM      | 20643   | 6RB#0        | VL            | NT               | -7.31          | -0.008617       | ±2.5        | PASS    |