

# FCC LTE Band Test Data

**FCC ID** : 2BDCL-M616A

**Company:** : Signalinks Communication Technology Co.,Ltd

**EUT** : 4G LTE Mobile Wifi

**Model Number** : M616A

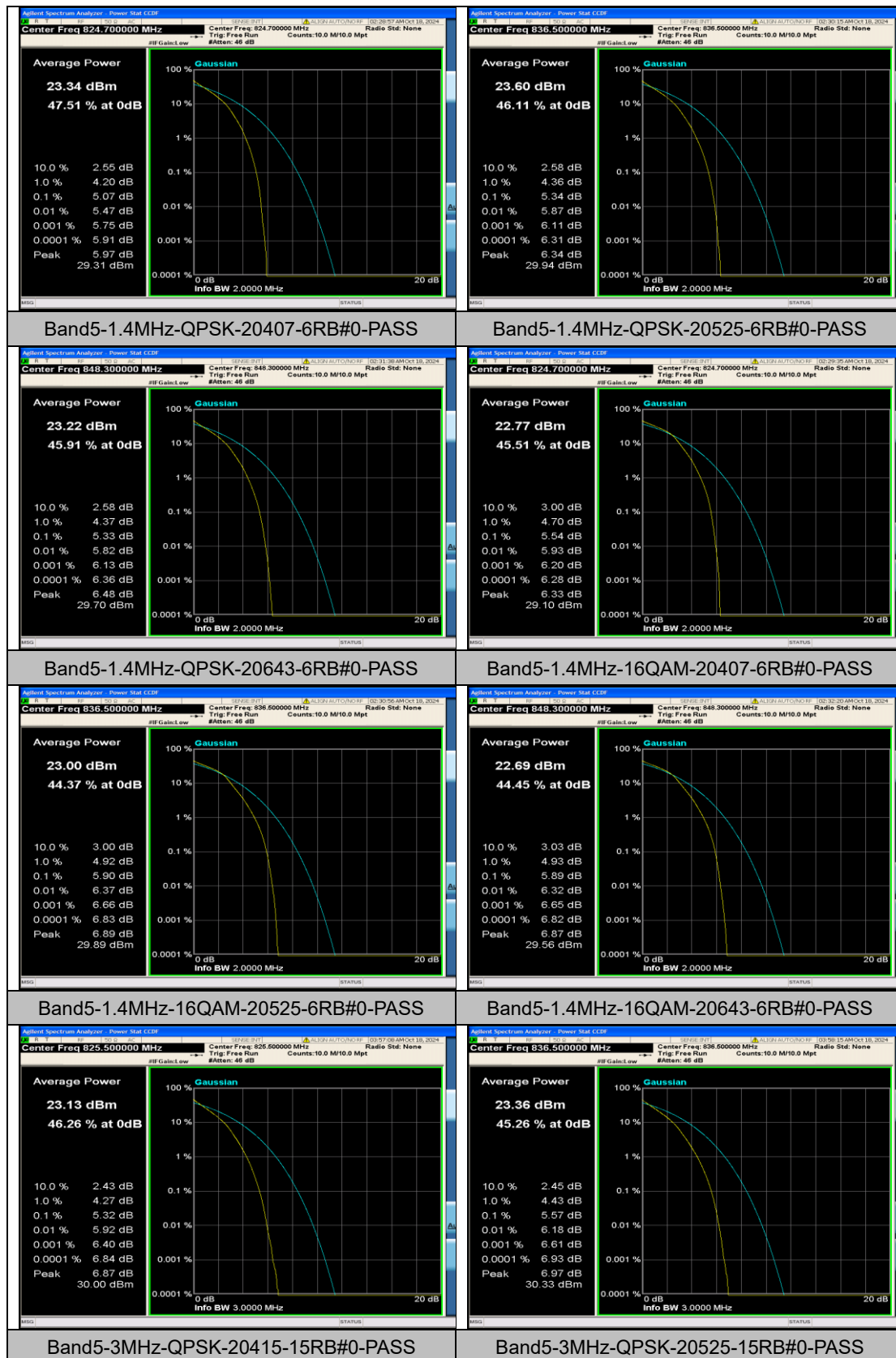
**Reviewed By** : Eric Wang

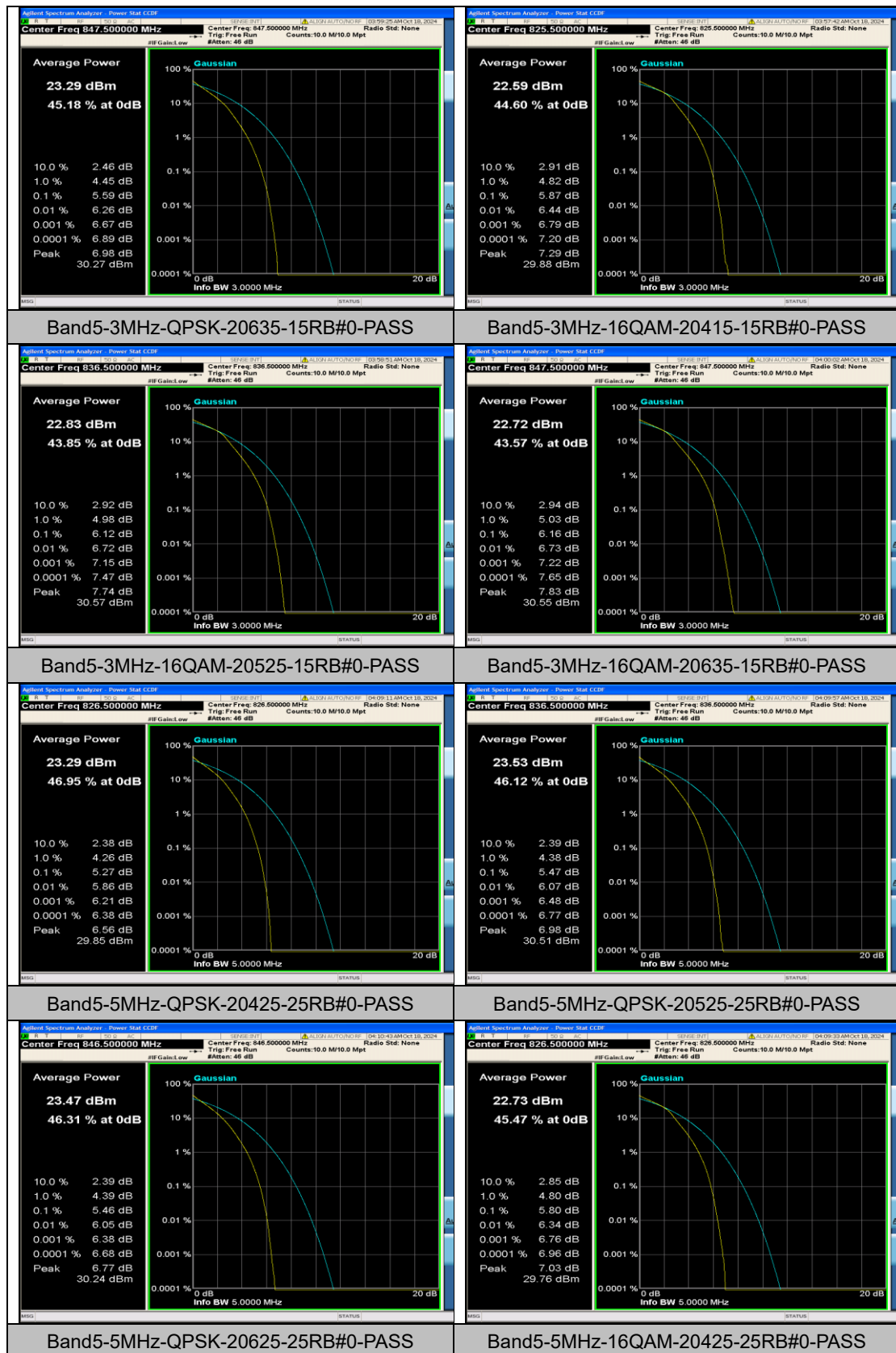
## Appendix B: Peak-to-Average Ratio(CCDF)

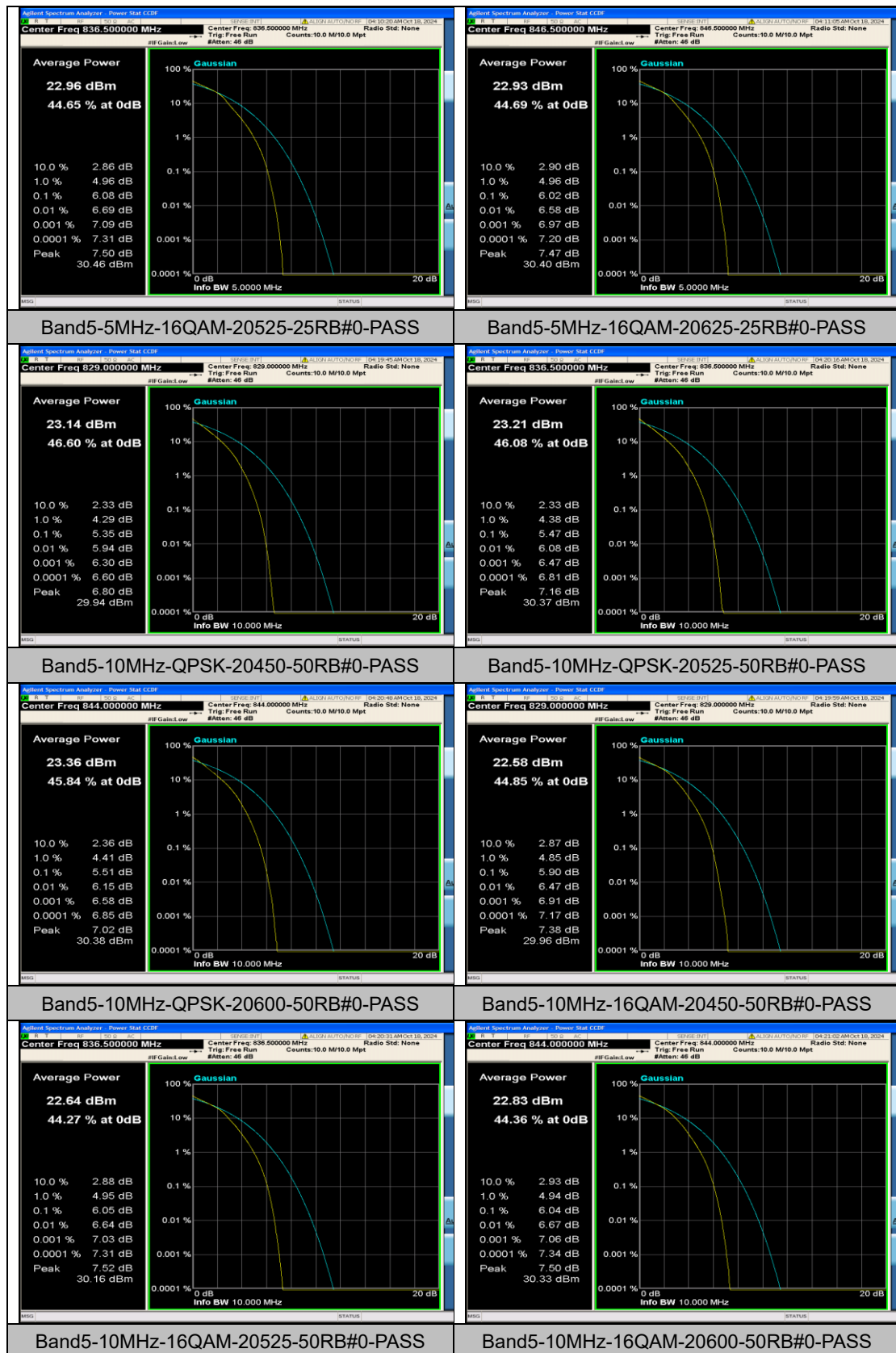
### Test Result

| Band  | Bandwidth | Modulation | Channel | RB Configuration | Result(dB) | Limit(dB) | Verdict |
|-------|-----------|------------|---------|------------------|------------|-----------|---------|
| Band5 | 1.4MHz    | QPSK       | 20407   | 6RB#0            | 5.07       | 13        | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20525   | 6RB#0            | 5.34       | 13        | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20643   | 6RB#0            | 5.33       | 13        | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20407   | 6RB#0            | 5.54       | 13        | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20525   | 6RB#0            | 5.90       | 13        | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20643   | 6RB#0            | 5.89       | 13        | PASS    |
| Band5 | 3MHz      | QPSK       | 20415   | 15RB#0           | 5.32       | 13        | PASS    |
| Band5 | 3MHz      | QPSK       | 20525   | 15RB#0           | 5.57       | 13        | PASS    |
| Band5 | 3MHz      | QPSK       | 20635   | 15RB#0           | 5.59       | 13        | PASS    |
| Band5 | 3MHz      | 16QAM      | 20415   | 15RB#0           | 5.87       | 13        | PASS    |
| Band5 | 3MHz      | 16QAM      | 20525   | 15RB#0           | 6.12       | 13        | PASS    |
| Band5 | 3MHz      | 16QAM      | 20635   | 15RB#0           | 6.16       | 13        | PASS    |
| Band5 | 5MHz      | QPSK       | 20425   | 25RB#0           | 5.27       | 13        | PASS    |
| Band5 | 5MHz      | QPSK       | 20525   | 25RB#0           | 5.47       | 13        | PASS    |
| Band5 | 5MHz      | QPSK       | 20625   | 25RB#0           | 5.46       | 13        | PASS    |
| Band5 | 5MHz      | 16QAM      | 20425   | 25RB#0           | 5.80       | 13        | PASS    |
| Band5 | 5MHz      | 16QAM      | 20525   | 25RB#0           | 6.08       | 13        | PASS    |
| Band5 | 5MHz      | 16QAM      | 20625   | 25RB#0           | 6.02       | 13        | PASS    |
| Band5 | 10MHz     | QPSK       | 20450   | 50RB#0           | 5.35       | 13        | PASS    |
| Band5 | 10MHz     | QPSK       | 20525   | 50RB#0           | 5.47       | 13        | PASS    |
| Band5 | 10MHz     | QPSK       | 20600   | 50RB#0           | 5.51       | 13        | PASS    |
| Band5 | 10MHz     | 16QAM      | 20450   | 50RB#0           | 5.90       | 13        | PASS    |
| Band5 | 10MHz     | 16QAM      | 20525   | 50RB#0           | 6.05       | 13        | PASS    |
| Band5 | 10MHz     | 16QAM      | 20600   | 50RB#0           | 6.04       | 13        | PASS    |

## Test Graphs





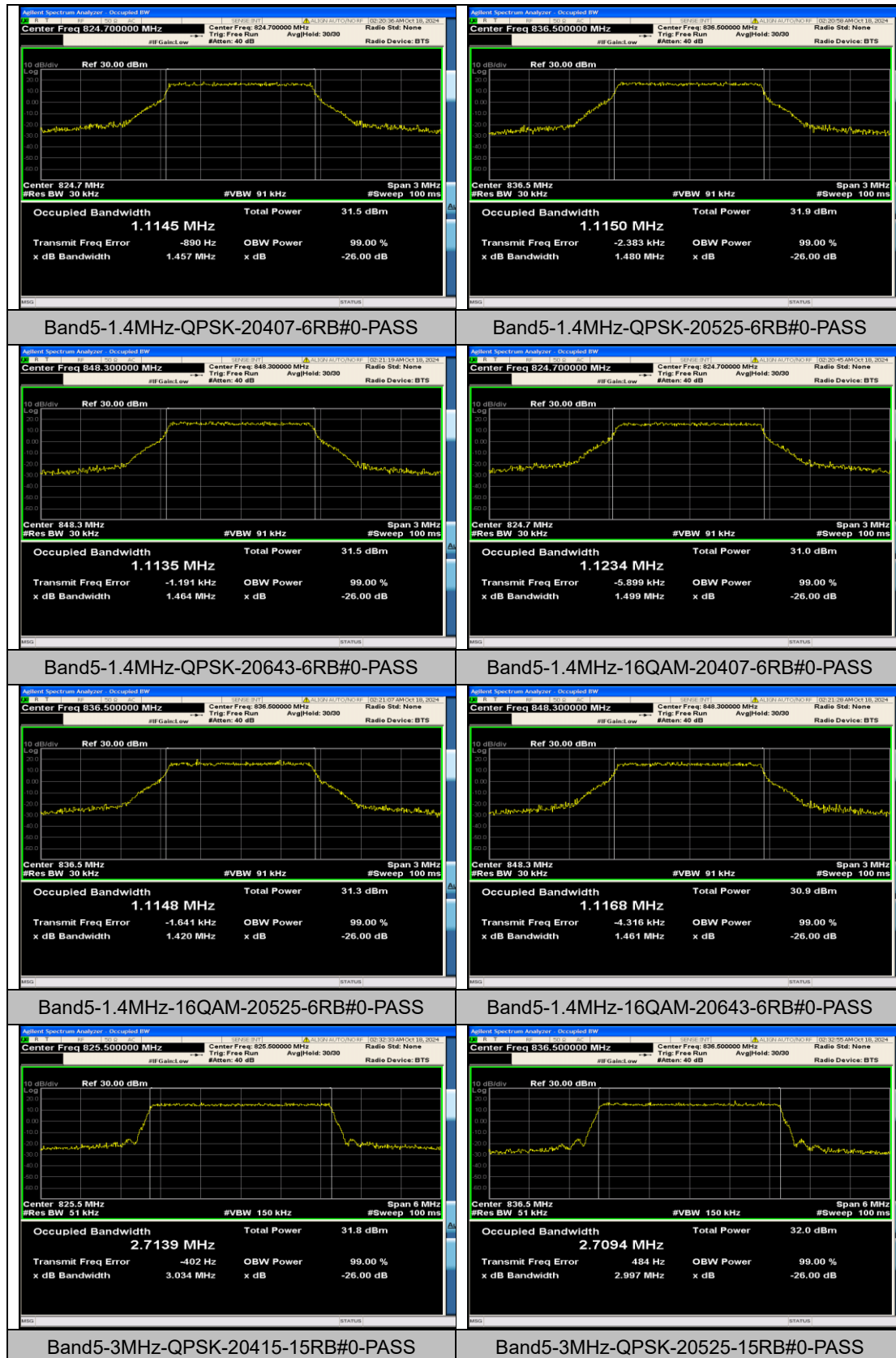


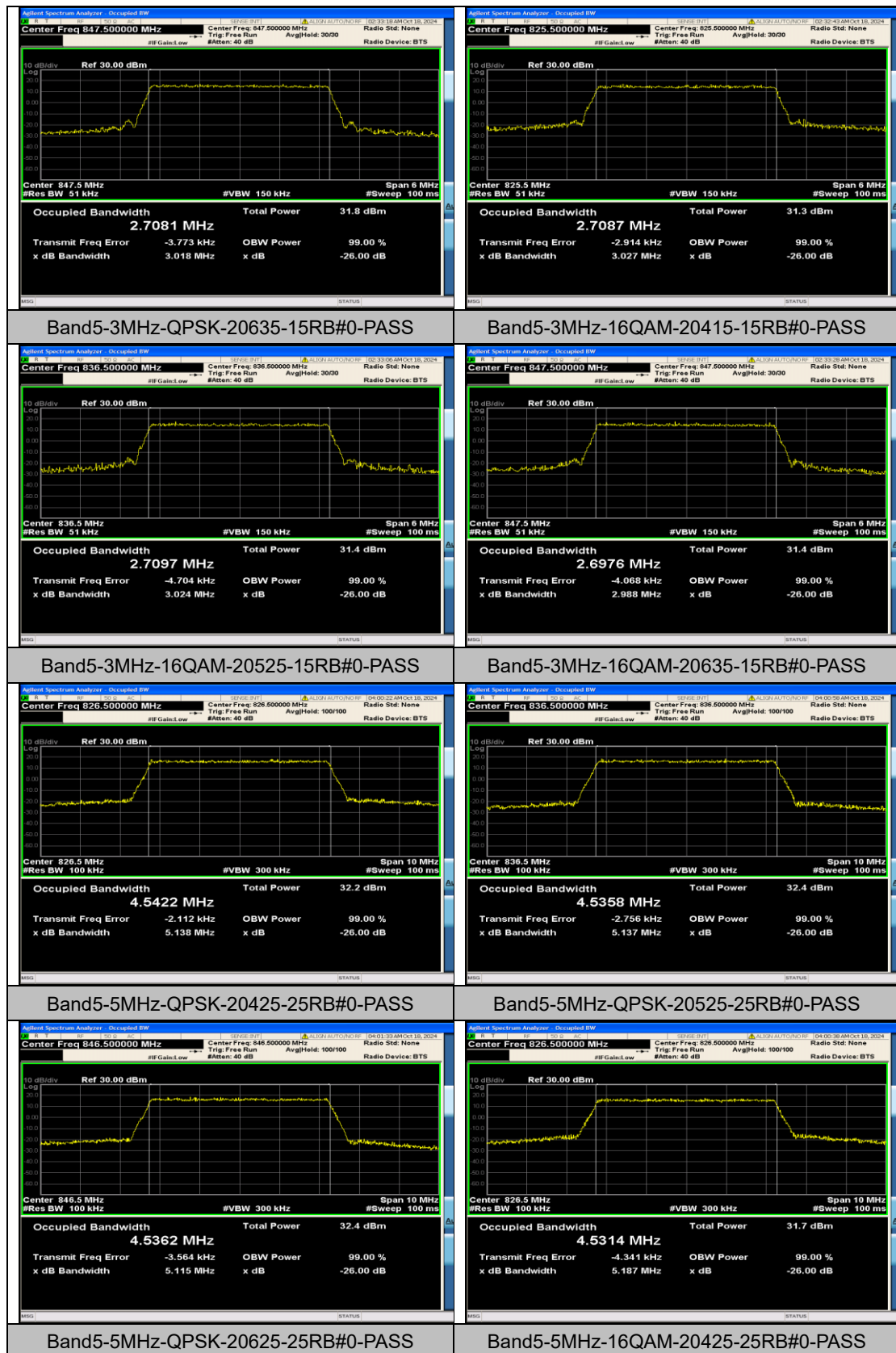
## Appendix C: 26dB Bandwidth and Occupied Bandwidth

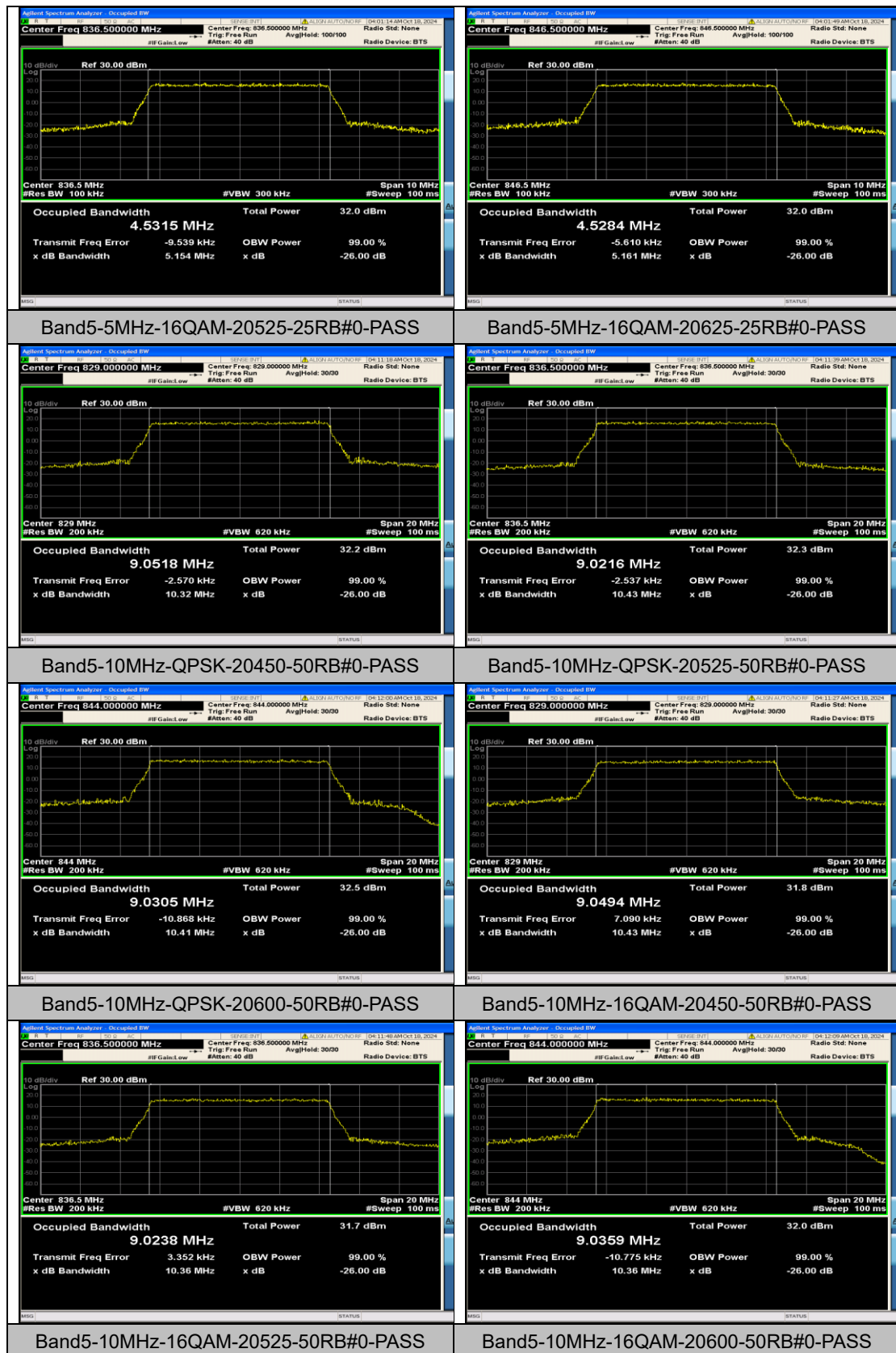
### Test Result

| Band  | Bandwidth | Modulation | Channel | RB Configuration | Occupied Bandwidth (MHz) | 26dB Bandwidth (MHz) | Verdict |
|-------|-----------|------------|---------|------------------|--------------------------|----------------------|---------|
| Band5 | 1.4MHz    | QPSK       | 20407   | 6RB#0            | 1.1145                   | 1.457                | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20525   | 6RB#0            | 1.1150                   | 1.480                | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20643   | 6RB#0            | 1.1135                   | 1.464                | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20407   | 6RB#0            | 1.1234                   | 1.499                | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20525   | 6RB#0            | 1.1148                   | 1.420                | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20643   | 6RB#0            | 1.1168                   | 1.461                | PASS    |
| Band5 | 3MHz      | QPSK       | 20415   | 15RB#0           | 2.7139                   | 3.034                | PASS    |
| Band5 | 3MHz      | QPSK       | 20525   | 15RB#0           | 2.7094                   | 2.997                | PASS    |
| Band5 | 3MHz      | QPSK       | 20635   | 15RB#0           | 2.7081                   | 3.018                | PASS    |
| Band5 | 3MHz      | 16QAM      | 20415   | 15RB#0           | 2.7087                   | 3.027                | PASS    |
| Band5 | 3MHz      | 16QAM      | 20525   | 15RB#0           | 2.7097                   | 3.024                | PASS    |
| Band5 | 3MHz      | 16QAM      | 20635   | 15RB#0           | 2.6976                   | 2.988                | PASS    |
| Band5 | 5MHz      | QPSK       | 20425   | 25RB#0           | 4.5422                   | 5.138                | PASS    |
| Band5 | 5MHz      | QPSK       | 20525   | 25RB#0           | 4.5358                   | 5.137                | PASS    |
| Band5 | 5MHz      | QPSK       | 20625   | 25RB#0           | 4.5362                   | 5.115                | PASS    |
| Band5 | 5MHz      | 16QAM      | 20425   | 25RB#0           | 4.5314                   | 5.187                | PASS    |
| Band5 | 5MHz      | 16QAM      | 20525   | 25RB#0           | 4.5315                   | 5.154                | PASS    |
| Band5 | 5MHz      | 16QAM      | 20625   | 25RB#0           | 4.5284                   | 5.161                | PASS    |
| Band5 | 10MHz     | QPSK       | 20450   | 50RB#0           | 9.0518                   | 10.32                | PASS    |
| Band5 | 10MHz     | QPSK       | 20525   | 50RB#0           | 9.0216                   | 10.43                | PASS    |
| Band5 | 10MHz     | QPSK       | 20600   | 50RB#0           | 9.0305                   | 10.41                | PASS    |
| Band5 | 10MHz     | 16QAM      | 20450   | 50RB#0           | 9.0494                   | 10.43                | PASS    |
| Band5 | 10MHz     | 16QAM      | 20525   | 50RB#0           | 9.0238                   | 10.36                | PASS    |
| Band5 | 10MHz     | 16QAM      | 20600   | 50RB#0           | 9.0359                   | 10.36                | PASS    |

## Test Graphs





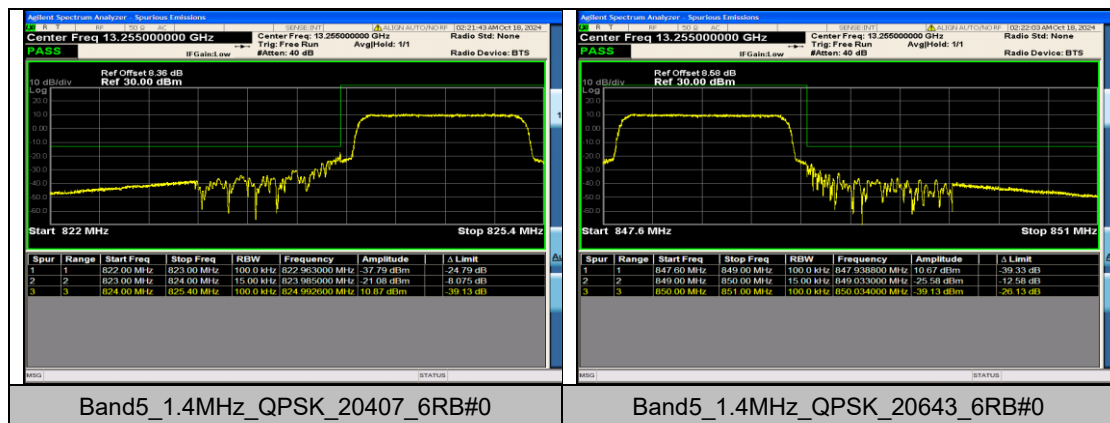


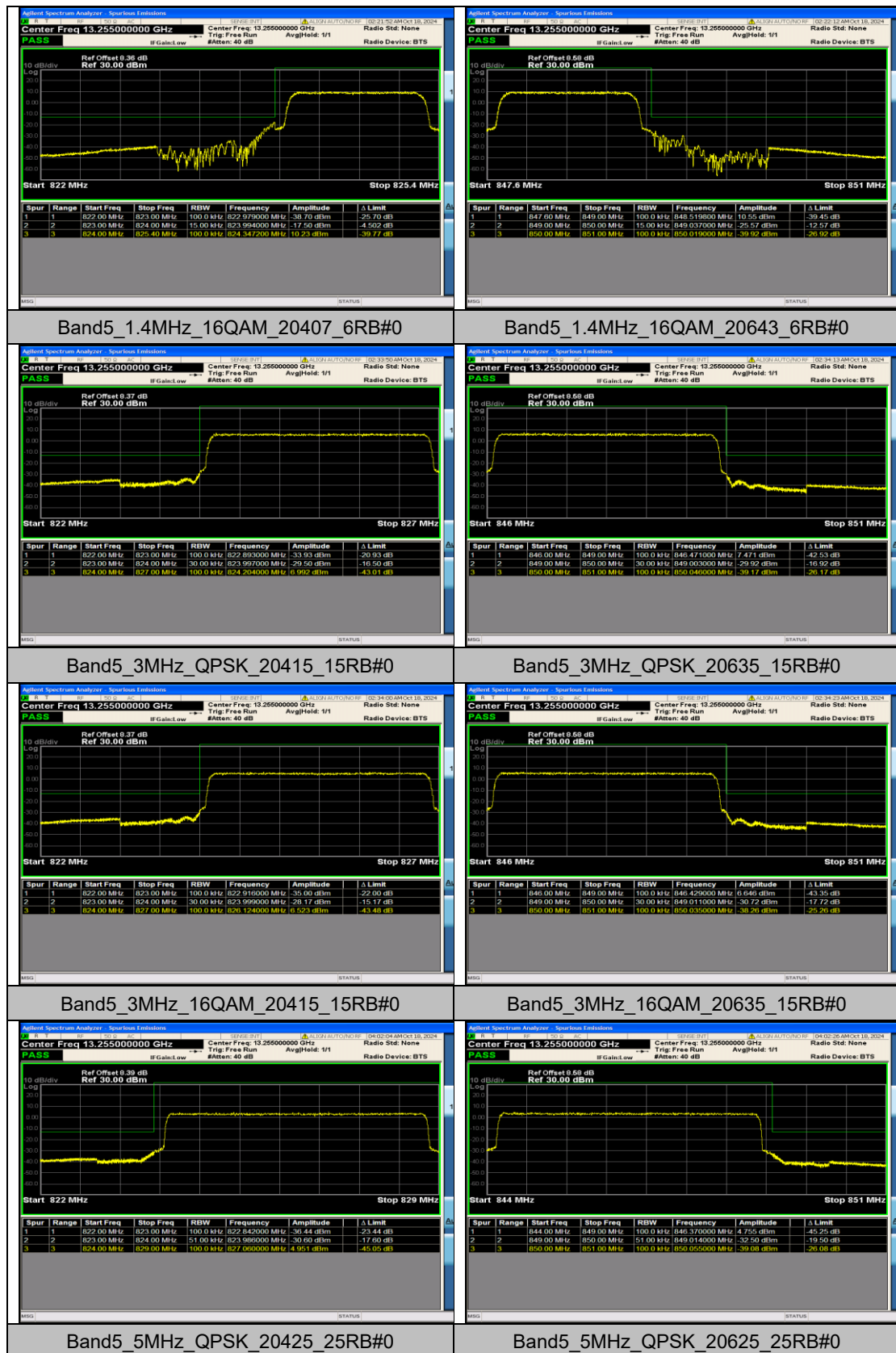
## Appendix D: Band Edge

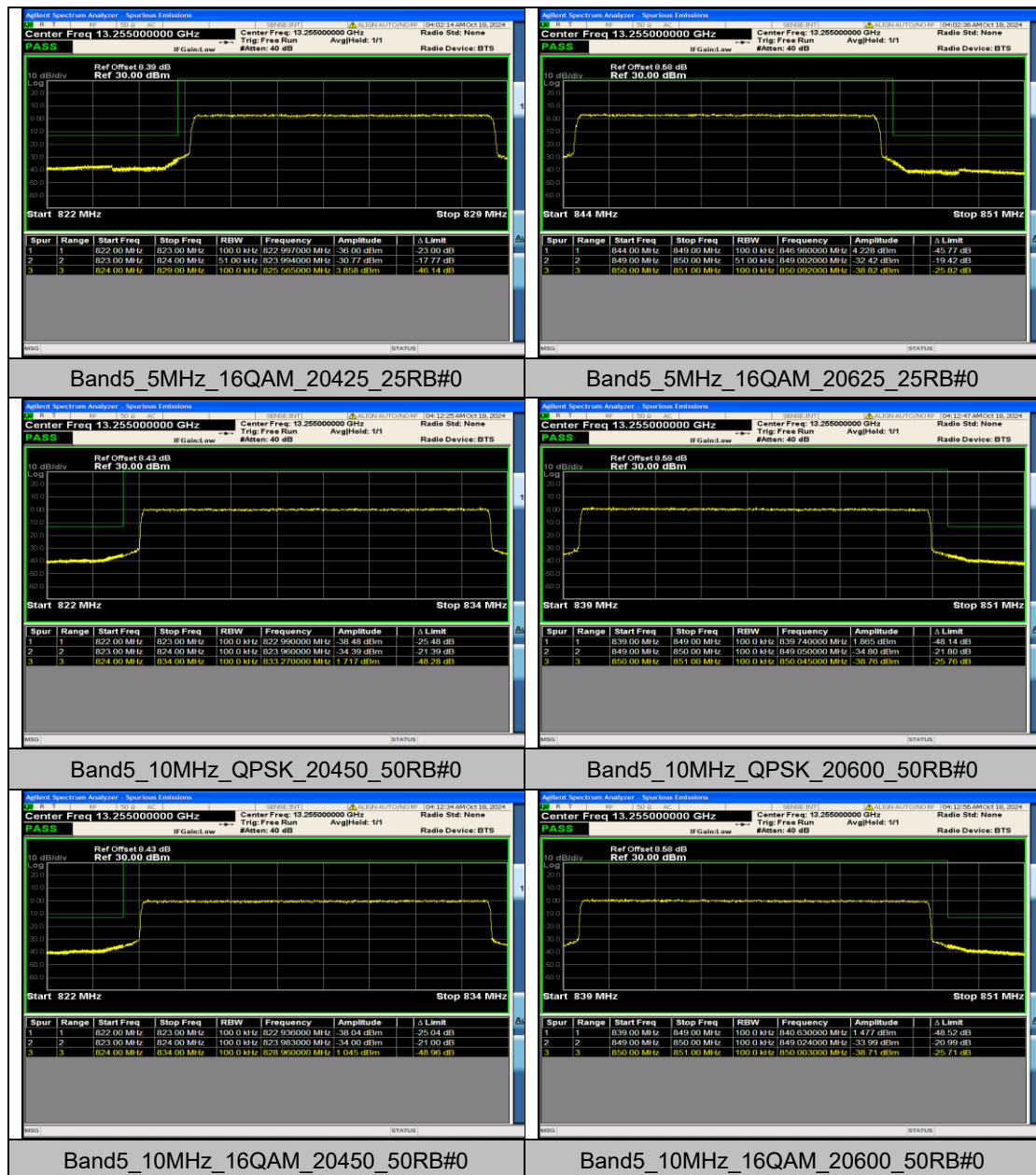
### Test Result

| Band  | Bandwidth | Modulation | Channel | RB Configuration | Result(dBm) | Verdict |
|-------|-----------|------------|---------|------------------|-------------|---------|
| Band5 | 1.4MHz    | QPSK       | 20407   | 6RB#0            | -21.08      | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20643   | 6RB#0            | -25.58      | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20407   | 6RB#0            | -17.50      | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20643   | 6RB#0            | -25.57      | PASS    |
| Band5 | 3MHz      | QPSK       | 20415   | 15RB#0           | -29.50      | PASS    |
| Band5 | 3MHz      | QPSK       | 20635   | 15RB#0           | -29.92      | PASS    |
| Band5 | 3MHz      | 16QAM      | 20415   | 15RB#0           | -28.17      | PASS    |
| Band5 | 3MHz      | 16QAM      | 20635   | 15RB#0           | -30.72      | PASS    |
| Band5 | 5MHz      | QPSK       | 20425   | 25RB#0           | -30.60      | PASS    |
| Band5 | 5MHz      | QPSK       | 20625   | 25RB#0           | -32.50      | PASS    |
| Band5 | 5MHz      | 16QAM      | 20425   | 25RB#0           | -30.77      | PASS    |
| Band5 | 5MHz      | 16QAM      | 20625   | 25RB#0           | -32.42      | PASS    |
| Band5 | 10MHz     | QPSK       | 20450   | 50RB#0           | -34.39      | PASS    |
| Band5 | 10MHz     | QPSK       | 20600   | 50RB#0           | -34.80      | PASS    |
| Band5 | 10MHz     | 16QAM      | 20450   | 50RB#0           | -34.00      | PASS    |
| Band5 | 10MHz     | 16QAM      | 20600   | 50RB#0           | -33.99      | PASS    |

### Test Graphs







## Appendix E: Conducted Spurious Emission

### Test Result

| Band  | Bandwidth | Modulation | Channel | RB Configuration | Frequency Range | Result (dBm) | Verdict |
|-------|-----------|------------|---------|------------------|-----------------|--------------|---------|
| Band5 | 1.4MHz    | QPSK       | 20407   | 6RB#0            | 0.009~0.15      | -47.44       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20407   | 6RB#0            | 0.15~30         | -53.78       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20407   | 6RB#0            | 30~1000         | -50.84       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20407   | 6RB#0            | 1000~3000       | -42.40       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20407   | 6RB#0            | 3000~10000      | -35.69       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20525   | 6RB#0            | 0.009~0.15      | -49.72       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20525   | 6RB#0            | 0.15~30         | -53.71       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20525   | 6RB#0            | 30~1000         | -53.51       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20525   | 6RB#0            | 1000~3000       | -45.67       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20525   | 6RB#0            | 3000~10000      | -32.44       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20643   | 6RB#0            | 0.009~0.15      | -47.24       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20643   | 6RB#0            | 0.15~30         | -51.45       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20643   | 6RB#0            | 30~1000         | -48.25       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20643   | 6RB#0            | 1000~3000       | -44.44       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20643   | 6RB#0            | 3000~10000      | -32.48       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20407   | 6RB#0            | 0.009~0.15      | -46.79       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20407   | 6RB#0            | 0.15~30         | -54.32       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20407   | 6RB#0            | 30~1000         | -53.24       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20407   | 6RB#0            | 1000~3000       | -42.74       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20407   | 6RB#0            | 3000~10000      | -35.39       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20525   | 6RB#0            | 0.009~0.15      | -47.12       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20525   | 6RB#0            | 0.15~30         | -52.95       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20525   | 6RB#0            | 30~1000         | -55.50       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20525   | 6RB#0            | 1000~3000       | -45.68       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20525   | 6RB#0            | 3000~10000      | -34.33       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20643   | 6RB#0            | 0.009~0.15      | -49.04       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20643   | 6RB#0            | 0.15~30         | -53.46       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20643   | 6RB#0            | 30~1000         | -51.86       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20643   | 6RB#0            | 1000~3000       | -44.62       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20643   | 6RB#0            | 3000~10000      | -31.84       | PASS    |
| Band5 | 3MHz      | QPSK       | 20415   | 15RB#0           | 0.009~0.15      | -49.12       | PASS    |
| Band5 | 3MHz      | QPSK       | 20415   | 15RB#0           | 0.15~30         | -54.39       | PASS    |
| Band5 | 3MHz      | QPSK       | 20415   | 15RB#0           | 30~1000         | -52.02       | PASS    |
| Band5 | 3MHz      | QPSK       | 20415   | 15RB#0           | 1000~3000       | -45.90       | PASS    |
| Band5 | 3MHz      | QPSK       | 20415   | 15RB#0           | 3000~10000      | -37.69       | PASS    |
| Band5 | 3MHz      | QPSK       | 20525   | 15RB#0           | 0.009~0.15      | -48.25       | PASS    |

|       |      |       |       |        |            |        |      |
|-------|------|-------|-------|--------|------------|--------|------|
| Band5 | 3MHz | QPSK  | 20525 | 15RB#0 | 0.15~30    | -55.39 | PASS |
| Band5 | 3MHz | QPSK  | 20525 | 15RB#0 | 30~1000    | -51.88 | PASS |
| Band5 | 3MHz | QPSK  | 20525 | 15RB#0 | 1000~3000  | -46.66 | PASS |
| Band5 | 3MHz | QPSK  | 20525 | 15RB#0 | 3000~10000 | -36.10 | PASS |
| Band5 | 3MHz | QPSK  | 20635 | 15RB#0 | 0.009~0.15 | -47.39 | PASS |
| Band5 | 3MHz | QPSK  | 20635 | 15RB#0 | 0.15~30    | -53.94 | PASS |
| Band5 | 3MHz | QPSK  | 20635 | 15RB#0 | 30~1000    | -50.61 | PASS |
| Band5 | 3MHz | QPSK  | 20635 | 15RB#0 | 1000~3000  | -46.52 | PASS |
| Band5 | 3MHz | QPSK  | 20635 | 15RB#0 | 3000~10000 | -35.17 | PASS |
| Band5 | 3MHz | 16QAM | 20415 | 15RB#0 | 0.009~0.15 | -48.05 | PASS |
| Band5 | 3MHz | 16QAM | 20415 | 15RB#0 | 0.15~30    | -53.97 | PASS |
| Band5 | 3MHz | 16QAM | 20415 | 15RB#0 | 30~1000    | -52.33 | PASS |
| Band5 | 3MHz | 16QAM | 20415 | 15RB#0 | 1000~3000  | -45.82 | PASS |
| Band5 | 3MHz | 16QAM | 20415 | 15RB#0 | 3000~10000 | -37.79 | PASS |
| Band5 | 3MHz | 16QAM | 20525 | 15RB#0 | 0.009~0.15 | -45.68 | PASS |
| Band5 | 3MHz | 16QAM | 20525 | 15RB#0 | 0.15~30    | -52.98 | PASS |
| Band5 | 3MHz | 16QAM | 20525 | 15RB#0 | 30~1000    | -52.47 | PASS |
| Band5 | 3MHz | 16QAM | 20525 | 15RB#0 | 1000~3000  | -46.61 | PASS |
| Band5 | 3MHz | 16QAM | 20525 | 15RB#0 | 3000~10000 | -37.36 | PASS |
| Band5 | 3MHz | 16QAM | 20635 | 15RB#0 | 0.009~0.15 | -46.93 | PASS |
| Band5 | 3MHz | 16QAM | 20635 | 15RB#0 | 0.15~30    | -52.94 | PASS |
| Band5 | 3MHz | 16QAM | 20635 | 15RB#0 | 30~1000    | -51.43 | PASS |
| Band5 | 3MHz | 16QAM | 20635 | 15RB#0 | 1000~3000  | -46.74 | PASS |
| Band5 | 3MHz | 16QAM | 20635 | 15RB#0 | 3000~10000 | -36.04 | PASS |
| Band5 | 5MHz | QPSK  | 20425 | 25RB#0 | 0.009~0.15 | -48.80 | PASS |
| Band5 | 5MHz | QPSK  | 20425 | 25RB#0 | 0.15~30    | -54.47 | PASS |
| Band5 | 5MHz | QPSK  | 20425 | 25RB#0 | 30~1000    | -53.15 | PASS |
| Band5 | 5MHz | QPSK  | 20425 | 25RB#0 | 1000~3000  | -46.65 | PASS |
| Band5 | 5MHz | QPSK  | 20425 | 25RB#0 | 3000~10000 | -37.59 | PASS |
| Band5 | 5MHz | QPSK  | 20525 | 25RB#0 | 0.009~0.15 | -46.70 | PASS |
| Band5 | 5MHz | QPSK  | 20525 | 25RB#0 | 0.15~30    | -53.82 | PASS |
| Band5 | 5MHz | QPSK  | 20525 | 25RB#0 | 30~1000    | -53.21 | PASS |
| Band5 | 5MHz | QPSK  | 20525 | 25RB#0 | 1000~3000  | -46.01 | PASS |
| Band5 | 5MHz | QPSK  | 20525 | 25RB#0 | 3000~10000 | -36.66 | PASS |
| Band5 | 5MHz | QPSK  | 20625 | 25RB#0 | 0.009~0.15 | -44.70 | PASS |
| Band5 | 5MHz | QPSK  | 20625 | 25RB#0 | 0.15~30    | -54.23 | PASS |
| Band5 | 5MHz | QPSK  | 20625 | 25RB#0 | 30~1000    | -52.51 | PASS |
| Band5 | 5MHz | QPSK  | 20625 | 25RB#0 | 1000~3000  | -46.65 | PASS |
| Band5 | 5MHz | QPSK  | 20625 | 25RB#0 | 3000~10000 | -35.39 | PASS |
| Band5 | 5MHz | 16QAM | 20425 | 25RB#0 | 0.009~0.15 | -48.92 | PASS |
| Band5 | 5MHz | 16QAM | 20425 | 25RB#0 | 0.15~30    | -53.63 | PASS |
| Band5 | 5MHz | 16QAM | 20425 | 25RB#0 | 30~1000    | -53.72 | PASS |
| Band5 | 5MHz | 16QAM | 20425 | 25RB#0 | 1000~3000  | -46.78 | PASS |

|       |       |       |       |        |            |        |      |
|-------|-------|-------|-------|--------|------------|--------|------|
| Band5 | 5MHz  | 16QAM | 20425 | 25RB#0 | 3000~10000 | -38.81 | PASS |
| Band5 | 5MHz  | 16QAM | 20525 | 25RB#0 | 0.009~0.15 | -47.51 | PASS |
| Band5 | 5MHz  | 16QAM | 20525 | 25RB#0 | 0.15~30    | -55.54 | PASS |
| Band5 | 5MHz  | 16QAM | 20525 | 25RB#0 | 30~1000    | -53.24 | PASS |
| Band5 | 5MHz  | 16QAM | 20525 | 25RB#0 | 1000~3000  | -46.71 | PASS |
| Band5 | 5MHz  | 16QAM | 20525 | 25RB#0 | 3000~10000 | -39.05 | PASS |
| Band5 | 5MHz  | 16QAM | 20625 | 25RB#0 | 0.009~0.15 | -47.20 | PASS |
| Band5 | 5MHz  | 16QAM | 20625 | 25RB#0 | 0.15~30    | -54.02 | PASS |
| Band5 | 5MHz  | 16QAM | 20625 | 25RB#0 | 30~1000    | -54.20 | PASS |
| Band5 | 5MHz  | 16QAM | 20625 | 25RB#0 | 1000~3000  | -46.69 | PASS |
| Band5 | 5MHz  | 16QAM | 20625 | 25RB#0 | 3000~10000 | -38.05 | PASS |
| Band5 | 10MHz | QPSK  | 20450 | 50RB#0 | 0.009~0.15 | -47.40 | PASS |
| Band5 | 10MHz | QPSK  | 20450 | 50RB#0 | 0.15~30    | -52.93 | PASS |
| Band5 | 10MHz | QPSK  | 20450 | 50RB#0 | 30~1000    | -61.95 | PASS |
| Band5 | 10MHz | QPSK  | 20450 | 50RB#0 | 1000~3000  | -46.52 | PASS |
| Band5 | 10MHz | QPSK  | 20450 | 50RB#0 | 3000~10000 | -37.82 | PASS |
| Band5 | 10MHz | QPSK  | 20525 | 50RB#0 | 0.009~0.15 | -50.55 | PASS |
| Band5 | 10MHz | QPSK  | 20525 | 50RB#0 | 0.15~30    | -55.15 | PASS |
| Band5 | 10MHz | QPSK  | 20525 | 50RB#0 | 30~1000    | -56.55 | PASS |
| Band5 | 10MHz | QPSK  | 20525 | 50RB#0 | 1000~3000  | -46.50 | PASS |
| Band5 | 10MHz | QPSK  | 20525 | 50RB#0 | 3000~10000 | -37.99 | PASS |
| Band5 | 10MHz | QPSK  | 20600 | 50RB#0 | 0.009~0.15 | -50.57 | PASS |
| Band5 | 10MHz | QPSK  | 20600 | 50RB#0 | 0.15~30    | -54.12 | PASS |
| Band5 | 10MHz | QPSK  | 20600 | 50RB#0 | 30~1000    | -55.31 | PASS |
| Band5 | 10MHz | QPSK  | 20600 | 50RB#0 | 1000~3000  | -46.74 | PASS |
| Band5 | 10MHz | QPSK  | 20600 | 50RB#0 | 3000~10000 | -37.15 | PASS |
| Band5 | 10MHz | 16QAM | 20450 | 50RB#0 | 0.009~0.15 | -49.26 | PASS |
| Band5 | 10MHz | 16QAM | 20450 | 50RB#0 | 0.15~30    | -51.91 | PASS |
| Band5 | 10MHz | 16QAM | 20450 | 50RB#0 | 30~1000    | -61.78 | PASS |
| Band5 | 10MHz | 16QAM | 20450 | 50RB#0 | 1000~3000  | -46.73 | PASS |
| Band5 | 10MHz | 16QAM | 20450 | 50RB#0 | 3000~10000 | -41.19 | PASS |
| Band5 | 10MHz | 16QAM | 20525 | 50RB#0 | 0.009~0.15 | -47.05 | PASS |
| Band5 | 10MHz | 16QAM | 20525 | 50RB#0 | 0.15~30    | -53.70 | PASS |
| Band5 | 10MHz | 16QAM | 20525 | 50RB#0 | 30~1000    | -57.67 | PASS |
| Band5 | 10MHz | 16QAM | 20525 | 50RB#0 | 1000~3000  | -46.76 | PASS |
| Band5 | 10MHz | 16QAM | 20525 | 50RB#0 | 3000~10000 | -41.16 | PASS |
| Band5 | 10MHz | 16QAM | 20600 | 50RB#0 | 0.009~0.15 | -47.85 | PASS |
| Band5 | 10MHz | 16QAM | 20600 | 50RB#0 | 0.15~30    | -54.97 | PASS |
| Band5 | 10MHz | 16QAM | 20600 | 50RB#0 | 30~1000    | -55.79 | PASS |
| Band5 | 10MHz | 16QAM | 20600 | 50RB#0 | 1000~3000  | -46.49 | PASS |
| Band5 | 10MHz | 16QAM | 20600 | 50RB#0 | 3000~10000 | -40.47 | PASS |

## Test Graphs

