

# Appendix-C LTE Band 5

## Effective (Isotropic) Radiated Power Output Data

### Test Result

| Band  | Bandwidth | Modulation | Channel | RB Configuration | Result (dBm) | ERP (dBm) | Limit (dBm) | Verdict |
|-------|-----------|------------|---------|------------------|--------------|-----------|-------------|---------|
| Band5 | 1.4MHz    | QPSK       | 20407   | 1RB#0            | 23.73        | 23.19     | 38.45       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20407   | 1RB#2            | 23.89        | 23.35     | 38.45       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20407   | 1RB#5            | 23.99        | 23.45     | 38.45       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20407   | 6RB#0            | 22.85        | 22.31     | 38.45       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20525   | 1RB#0            | 23.75        | 23.21     | 38.45       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20525   | 1RB#2            | 23.90        | 23.36     | 38.45       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20525   | 1RB#5            | 23.53        | 22.99     | 38.45       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20525   | 6RB#0            | 22.85        | 22.31     | 38.45       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20643   | 1RB#0            | 23.52        | 22.98     | 38.45       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20643   | 1RB#2            | 23.78        | 23.24     | 38.45       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20643   | 1RB#5            | 23.47        | 22.93     | 38.45       | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20643   | 6RB#0            | 22.45        | 21.91     | 38.45       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20407   | 1RB#0            | 22.89        | 22.35     | 38.45       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20407   | 1RB#2            | 23.19        | 22.65     | 38.45       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20407   | 1RB#5            | 22.80        | 22.26     | 38.45       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20407   | 6RB#0            | 21.91        | 21.37     | 38.45       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20525   | 1RB#0            | 22.68        | 22.14     | 38.45       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20525   | 1RB#2            | 23.19        | 22.65     | 38.45       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20525   | 1RB#5            | 22.83        | 22.29     | 38.45       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20525   | 6RB#0            | 22.08        | 21.54     | 38.45       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20643   | 1RB#0            | 22.10        | 21.56     | 38.45       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20643   | 1RB#2            | 22.70        | 22.16     | 38.45       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20643   | 1RB#5            | 22.43        | 21.89     | 38.45       | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20643   | 6RB#0            | 21.19        | 20.65     | 38.45       | PASS    |
| Band5 | 3MHz      | QPSK       | 20415   | 1RB#0            | 23.87        | 23.33     | 38.45       | PASS    |
| Band5 | 3MHz      | QPSK       | 20415   | 1RB#8            | 23.90        | 23.36     | 38.45       | PASS    |
| Band5 | 3MHz      | QPSK       | 20415   | 1RB#14           | 23.75        | 23.21     | 38.45       | PASS    |
| Band5 | 3MHz      | QPSK       | 20415   | 15RB#0           | 23.02        | 22.48     | 38.45       | PASS    |
| Band5 | 3MHz      | QPSK       | 20525   | 1RB#0            | 23.84        | 23.3      | 38.45       | PASS    |
| Band5 | 3MHz      | QPSK       | 20525   | 1RB#8            | 23.74        | 23.2      | 38.45       | PASS    |
| Band5 | 3MHz      | QPSK       | 20525   | 1RB#14           | 23.89        | 23.35     | 38.45       | PASS    |
| Band5 | 3MHz      | QPSK       | 20525   | 15RB#0           | 22.71        | 22.17     | 38.45       | PASS    |
| Band5 | 3MHz      | QPSK       | 20635   | 1RB#0            | 23.63        | 23.09     | 38.45       | PASS    |
| Band5 | 3MHz      | QPSK       | 20635   | 1RB#8            | 23.39        | 22.85     | 38.45       | PASS    |
| Band5 | 3MHz      | QPSK       | 20635   | 1RB#14           | 23.44        | 22.9      | 38.45       | PASS    |
| Band5 | 3MHz      | QPSK       | 20635   | 15RB#0           | 22.57        | 22.03     | 38.45       | PASS    |
| Band5 | 3MHz      | 16QAM      | 20415   | 1RB#0            | 22.93        | 22.39     | 38.45       | PASS    |

|       |       |       |       |        |       |       |       |      |
|-------|-------|-------|-------|--------|-------|-------|-------|------|
| Band5 | 3MHz  | 16QAM | 20415 | 1RB#8  | 22.87 | 22.33 | 38.45 | PASS |
| Band5 | 3MHz  | 16QAM | 20415 | 1RB#14 | 22.94 | 22.4  | 38.45 | PASS |
| Band5 | 3MHz  | 16QAM | 20415 | 15RB#0 | 22.11 | 21.57 | 38.45 | PASS |
| Band5 | 3MHz  | 16QAM | 20525 | 1RB#0  | 22.72 | 22.18 | 38.45 | PASS |
| Band5 | 3MHz  | 16QAM | 20525 | 1RB#8  | 22.45 | 21.91 | 38.45 | PASS |
| Band5 | 3MHz  | 16QAM | 20525 | 1RB#14 | 22.60 | 22.06 | 38.45 | PASS |
| Band5 | 3MHz  | 16QAM | 20525 | 15RB#0 | 21.79 | 21.25 | 38.45 | PASS |
| Band5 | 3MHz  | 16QAM | 20635 | 1RB#0  | 22.59 | 22.05 | 38.45 | PASS |
| Band5 | 3MHz  | 16QAM | 20635 | 1RB#8  | 22.18 | 21.64 | 38.45 | PASS |
| Band5 | 3MHz  | 16QAM | 20635 | 1RB#14 | 22.57 | 22.03 | 38.45 | PASS |
| Band5 | 3MHz  | 16QAM | 20635 | 15RB#0 | 21.48 | 20.94 | 38.45 | PASS |
| Band5 | 5MHz  | QPSK  | 20425 | 1RB#0  | 23.73 | 23.19 | 38.45 | PASS |
| Band5 | 5MHz  | QPSK  | 20425 | 1RB#12 | 24.18 | 23.64 | 38.45 | PASS |
| Band5 | 5MHz  | QPSK  | 20425 | 1RB#24 | 23.69 | 23.15 | 38.45 | PASS |
| Band5 | 5MHz  | QPSK  | 20425 | 25RB#0 | 22.83 | 22.29 | 38.45 | PASS |
| Band5 | 5MHz  | QPSK  | 20525 | 1RB#0  | 23.66 | 23.12 | 38.45 | PASS |
| Band5 | 5MHz  | QPSK  | 20525 | 1RB#12 | 23.84 | 23.3  | 38.45 | PASS |
| Band5 | 5MHz  | QPSK  | 20525 | 1RB#24 | 23.73 | 23.19 | 38.45 | PASS |
| Band5 | 5MHz  | QPSK  | 20525 | 25RB#0 | 22.68 | 22.14 | 38.45 | PASS |
| Band5 | 5MHz  | QPSK  | 20625 | 1RB#0  | 23.57 | 23.03 | 38.45 | PASS |
| Band5 | 5MHz  | QPSK  | 20625 | 1RB#12 | 23.72 | 23.18 | 38.45 | PASS |
| Band5 | 5MHz  | QPSK  | 20625 | 1RB#24 | 23.61 | 23.07 | 38.45 | PASS |
| Band5 | 5MHz  | QPSK  | 20625 | 25RB#0 | 22.43 | 21.89 | 38.45 | PASS |
| Band5 | 5MHz  | 16QAM | 20425 | 1RB#0  | 22.68 | 22.14 | 38.45 | PASS |
| Band5 | 5MHz  | 16QAM | 20425 | 1RB#12 | 22.86 | 22.32 | 38.45 | PASS |
| Band5 | 5MHz  | 16QAM | 20425 | 1RB#24 | 22.50 | 21.96 | 38.45 | PASS |
| Band5 | 5MHz  | 16QAM | 20425 | 25RB#0 | 21.89 | 21.35 | 38.45 | PASS |
| Band5 | 5MHz  | 16QAM | 20525 | 1RB#0  | 22.61 | 22.07 | 38.45 | PASS |
| Band5 | 5MHz  | 16QAM | 20525 | 1RB#12 | 22.54 | 22    | 38.45 | PASS |
| Band5 | 5MHz  | 16QAM | 20525 | 1RB#24 | 22.58 | 22.04 | 38.45 | PASS |
| Band5 | 5MHz  | 16QAM | 20525 | 25RB#0 | 21.75 | 21.21 | 38.45 | PASS |
| Band5 | 5MHz  | 16QAM | 20625 | 1RB#0  | 22.51 | 21.97 | 38.45 | PASS |
| Band5 | 5MHz  | 16QAM | 20625 | 1RB#12 | 22.51 | 21.97 | 38.45 | PASS |
| Band5 | 5MHz  | 16QAM | 20625 | 1RB#24 | 22.39 | 21.85 | 38.45 | PASS |
| Band5 | 5MHz  | 16QAM | 20625 | 25RB#0 | 21.48 | 20.94 | 38.45 | PASS |
| Band5 | 10MHz | QPSK  | 20450 | 1RB#0  | 23.77 | 23.23 | 38.45 | PASS |
| Band5 | 10MHz | QPSK  | 20450 | 1RB#24 | 24.06 | 23.52 | 38.45 | PASS |
| Band5 | 10MHz | QPSK  | 20450 | 1RB#49 | 23.58 | 23.04 | 38.45 | PASS |
| Band5 | 10MHz | QPSK  | 20450 | 50RB#0 | 22.87 | 22.33 | 38.45 | PASS |
| Band5 | 10MHz | QPSK  | 20525 | 1RB#0  | 23.56 | 23.02 | 38.45 | PASS |
| Band5 | 10MHz | QPSK  | 20525 | 1RB#24 | 24.00 | 23.46 | 38.45 | PASS |
| Band5 | 10MHz | QPSK  | 20525 | 1RB#49 | 23.50 | 22.96 | 38.45 | PASS |
| Band5 | 10MHz | QPSK  | 20525 | 50RB#0 | 22.86 | 22.32 | 38.45 | PASS |
| Band5 | 10MHz | QPSK  | 20600 | 1RB#0  | 23.75 | 23.21 | 38.45 | PASS |

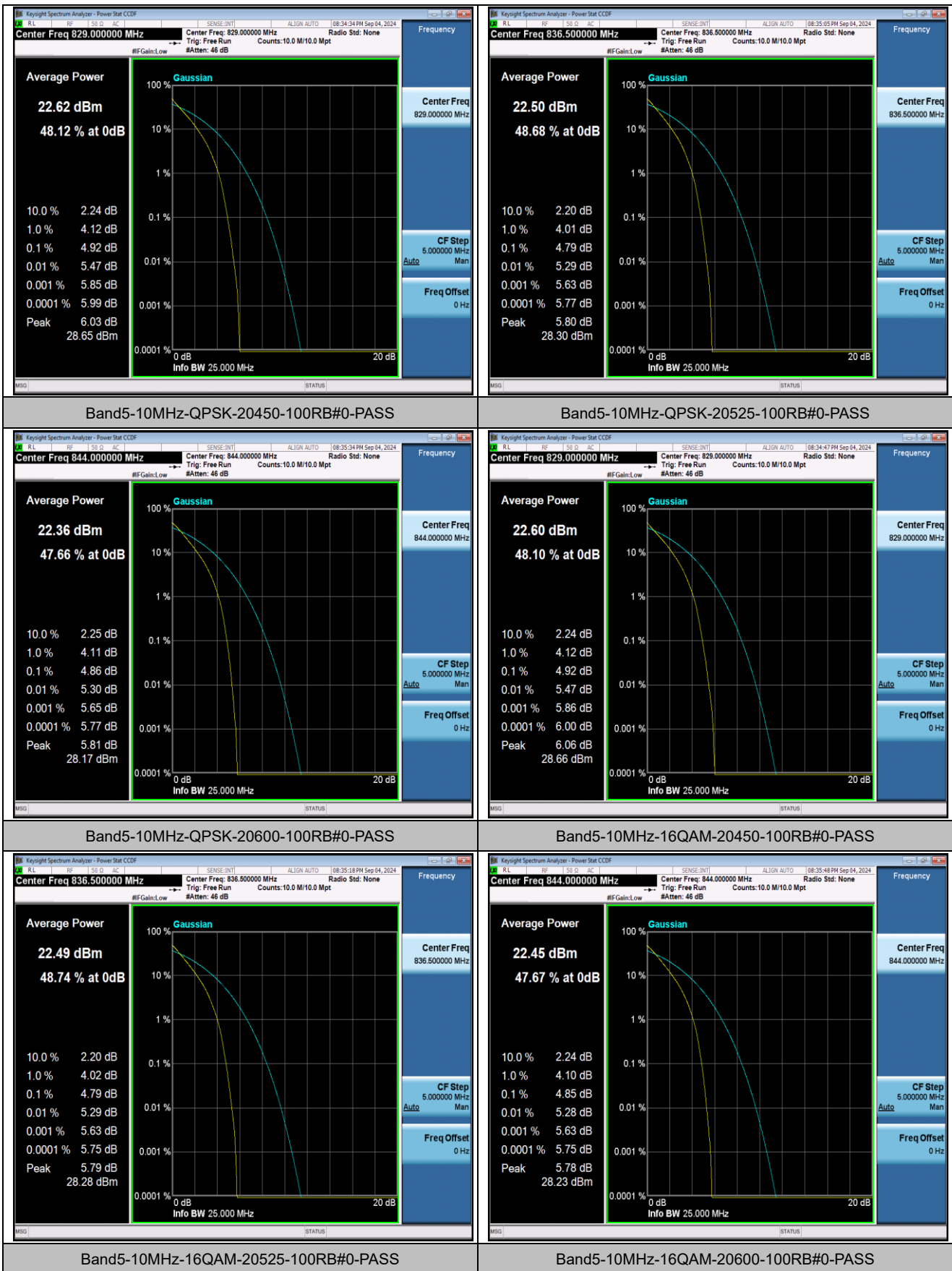
|       |       |       |       |        |       |       |       |      |
|-------|-------|-------|-------|--------|-------|-------|-------|------|
| Band5 | 10MHz | QPSK  | 20600 | 1RB#24 | 23.66 | 23.12 | 38.45 | PASS |
| Band5 | 10MHz | QPSK  | 20600 | 1RB#49 | 23.68 | 23.14 | 38.45 | PASS |
| Band5 | 10MHz | QPSK  | 20600 | 50RB#0 | 22.53 | 21.99 | 38.45 | PASS |
| Band5 | 10MHz | 16QAM | 20450 | 1RB#0  | 22.83 | 22.29 | 38.45 | PASS |
| Band5 | 10MHz | 16QAM | 20450 | 1RB#24 | 22.97 | 22.43 | 38.45 | PASS |
| Band5 | 10MHz | 16QAM | 20450 | 1RB#49 | 22.76 | 22.22 | 38.45 | PASS |
| Band5 | 10MHz | 16QAM | 20450 | 50RB#0 | 21.67 | 21.13 | 38.45 | PASS |
| Band5 | 10MHz | 16QAM | 20525 | 1RB#0  | 22.69 | 22.15 | 38.45 | PASS |
| Band5 | 10MHz | 16QAM | 20525 | 1RB#24 | 23.36 | 22.82 | 38.45 | PASS |
| Band5 | 10MHz | 16QAM | 20525 | 1RB#49 | 22.65 | 22.11 | 38.45 | PASS |
| Band5 | 10MHz | 16QAM | 20525 | 50RB#0 | 21.74 | 21.2  | 38.45 | PASS |
| Band5 | 10MHz | 16QAM | 20600 | 1RB#0  | 22.92 | 22.38 | 38.45 | PASS |
| Band5 | 10MHz | 16QAM | 20600 | 1RB#24 | 22.67 | 22.13 | 38.45 | PASS |
| Band5 | 10MHz | 16QAM | 20600 | 1RB#49 | 22.44 | 21.9  | 38.45 | PASS |
| Band5 | 10MHz | 16QAM | 20600 | 50RB#0 | 21.45 | 20.91 | 38.45 | PASS |

## Peak-to-Average Ratio(CCDF)

### Test Result

| Band  | Bandwidth | Modulation | Channel | RB Configuration | Result (dB) | Limit (dB) | Verdict |
|-------|-----------|------------|---------|------------------|-------------|------------|---------|
| Band5 | 10MHz     | QPSK       | 20450   | 100RB#0          | 4.92        | 13         | PASS    |
| Band5 | 10MHz     | QPSK       | 20525   | 100RB#0          | 4.79        | 13         | PASS    |
| Band5 | 10MHz     | QPSK       | 20600   | 100RB#0          | 4.86        | 13         | PASS    |
| Band5 | 10MHz     | 16QAM      | 20450   | 100RB#0          | 4.92        | 13         | PASS    |
| Band5 | 10MHz     | 16QAM      | 20525   | 100RB#0          | 4.79        | 13         | PASS    |
| Band5 | 10MHz     | 16QAM      | 20600   | 100RB#0          | 4.85        | 13         | PASS    |

## Test Graphs

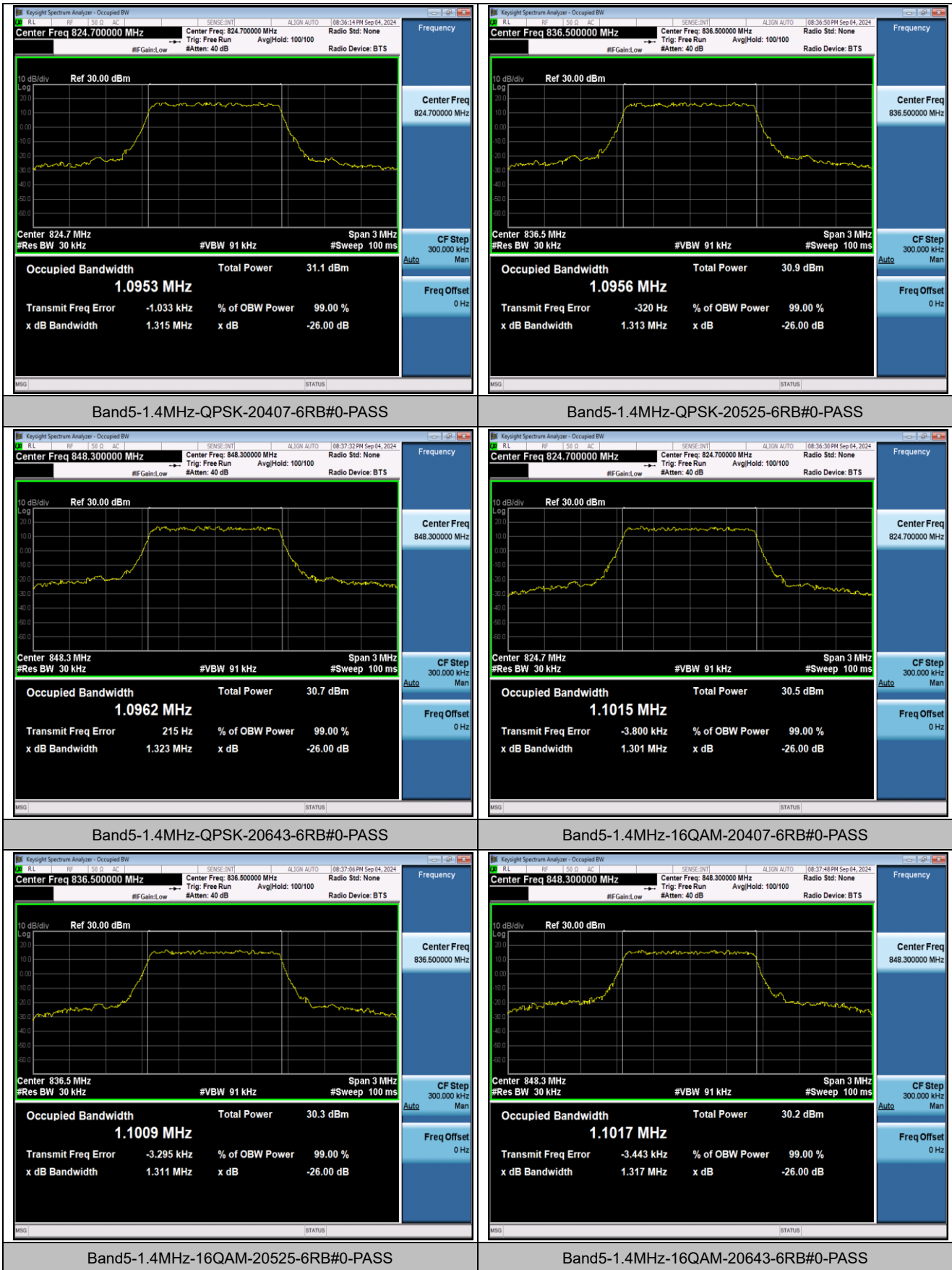


## 26dB Bandwidth and Occupied Bandwidth

### Test Result

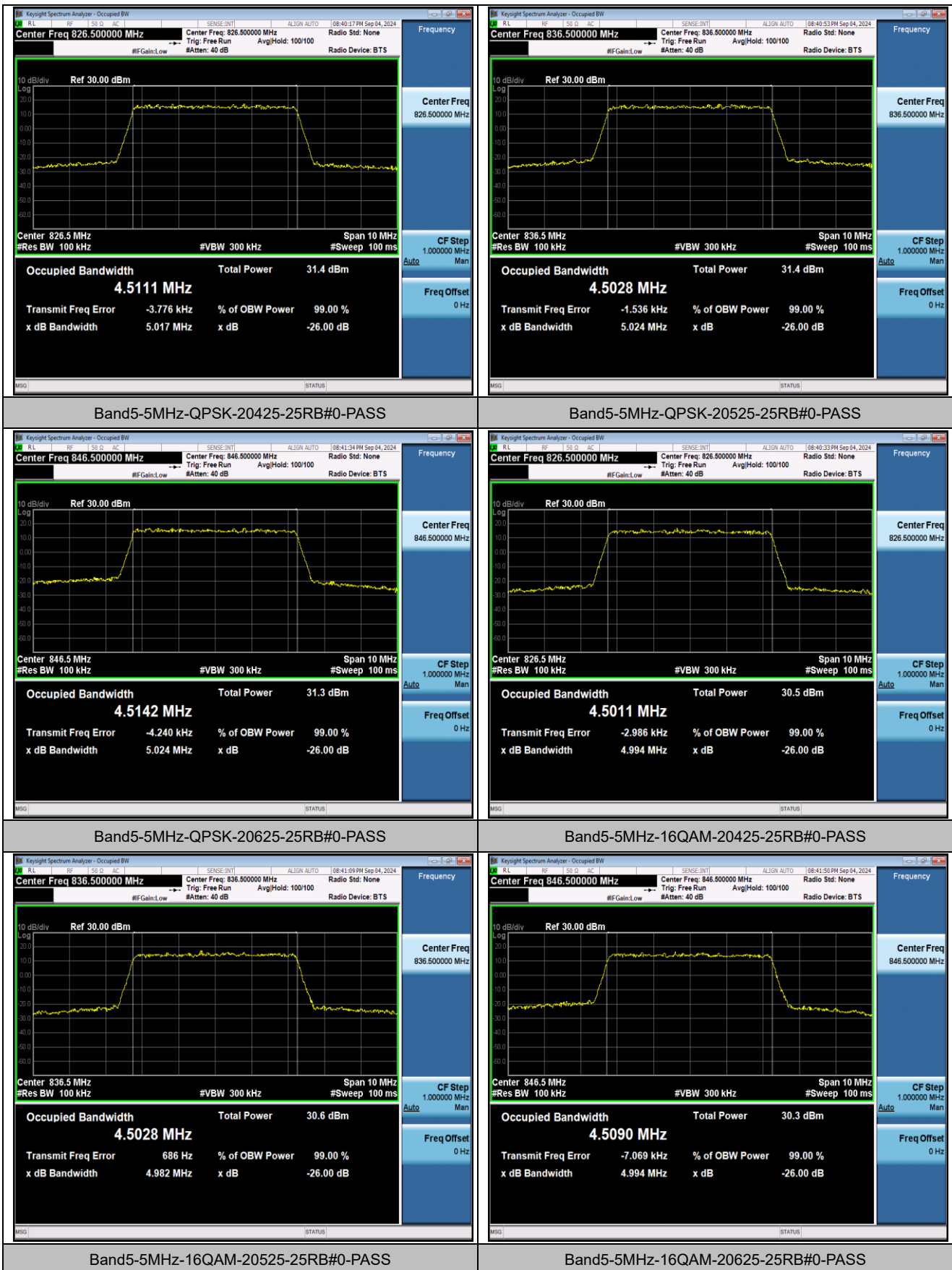
| Band  | Bandwidth | Modulation | Channel | RB Configuration | OBW (MHz) | 26dB EBW (MHz) | Verdict |
|-------|-----------|------------|---------|------------------|-----------|----------------|---------|
| Band5 | 1.4MHz    | QPSK       | 20407   | 6RB#0            | 1.0953    | 1.315          | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20525   | 6RB#0            | 1.0956    | 1.313          | PASS    |
| Band5 | 1.4MHz    | QPSK       | 20643   | 6RB#0            | 1.0962    | 1.323          | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20407   | 6RB#0            | 1.1015    | 1.301          | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20525   | 6RB#0            | 1.1009    | 1.311          | PASS    |
| Band5 | 1.4MHz    | 16QAM      | 20643   | 6RB#0            | 1.1017    | 1.317          | PASS    |
| Band5 | 3MHz      | QPSK       | 20415   | 15RB#0           | 2.7009    | 2.965          | PASS    |
| Band5 | 3MHz      | QPSK       | 20525   | 15RB#0           | 2.7043    | 2.969          | PASS    |
| Band5 | 3MHz      | QPSK       | 20635   | 15RB#0           | 2.7126    | 2.979          | PASS    |
| Band5 | 3MHz      | 16QAM      | 20415   | 15RB#0           | 2.6966    | 2.983          | PASS    |
| Band5 | 3MHz      | 16QAM      | 20525   | 15RB#0           | 2.6962    | 2.971          | PASS    |
| Band5 | 3MHz      | 16QAM      | 20635   | 15RB#0           | 2.6969    | 2.985          | PASS    |
| Band5 | 5MHz      | QPSK       | 20425   | 25RB#0           | 4.5111    | 5.017          | PASS    |
| Band5 | 5MHz      | QPSK       | 20525   | 25RB#0           | 4.5028    | 5.024          | PASS    |
| Band5 | 5MHz      | QPSK       | 20625   | 25RB#0           | 4.5142    | 5.024          | PASS    |
| Band5 | 5MHz      | 16QAM      | 20425   | 25RB#0           | 4.5011    | 4.994          | PASS    |
| Band5 | 5MHz      | 16QAM      | 20525   | 25RB#0           | 4.5028    | 4.982          | PASS    |
| Band5 | 5MHz      | 16QAM      | 20625   | 25RB#0           | 4.5090    | 4.994          | PASS    |
| Band5 | 10MHz     | QPSK       | 20450   | 50RB#0           | 8.9746    | 9.966          | PASS    |
| Band5 | 10MHz     | QPSK       | 20525   | 50RB#0           | 8.9626    | 9.926          | PASS    |
| Band5 | 10MHz     | QPSK       | 20600   | 50RB#0           | 8.9789    | 9.966          | PASS    |
| Band5 | 10MHz     | 16QAM      | 20450   | 50RB#0           | 8.9743    | 9.875          | PASS    |
| Band5 | 10MHz     | 16QAM      | 20525   | 50RB#0           | 8.9703    | 9.854          | PASS    |
| Band5 | 10MHz     | 16QAM      | 20600   | 50RB#0           | 8.9840    | 9.926          | PASS    |

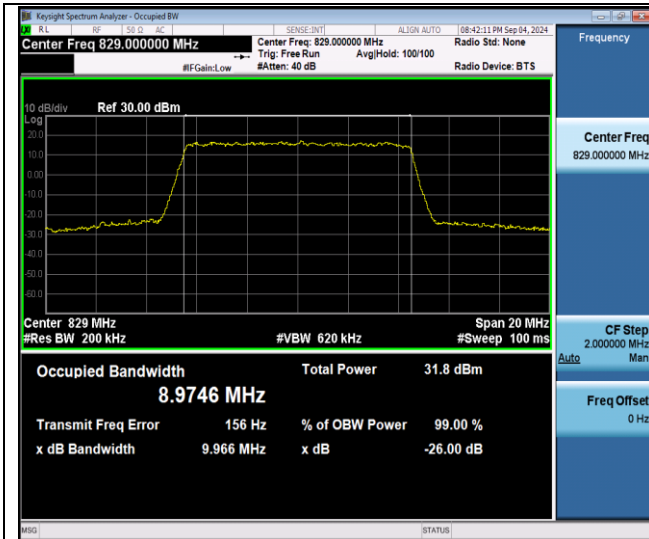
## Test Graphs



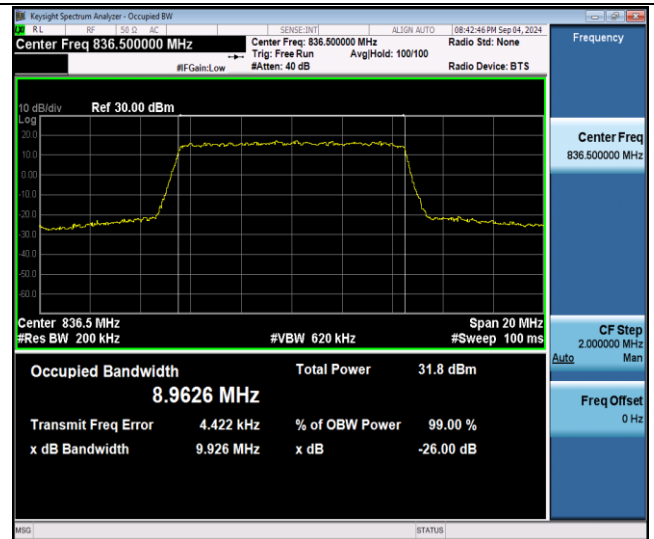








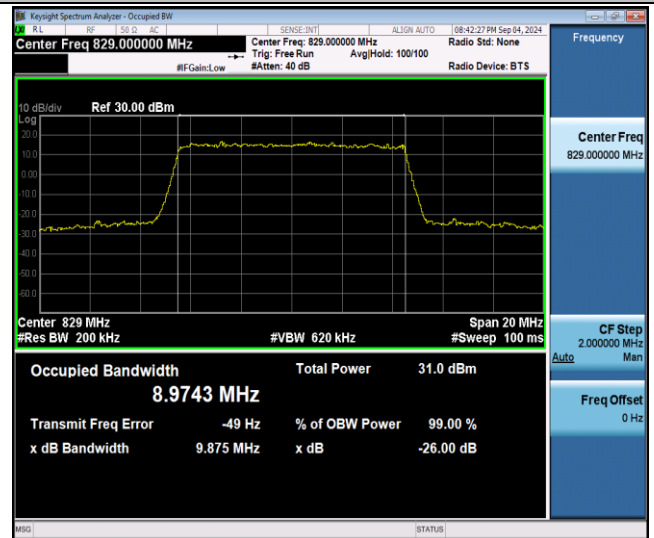
Band5-10MHz-QPSK-20450-50RB#0-PASS



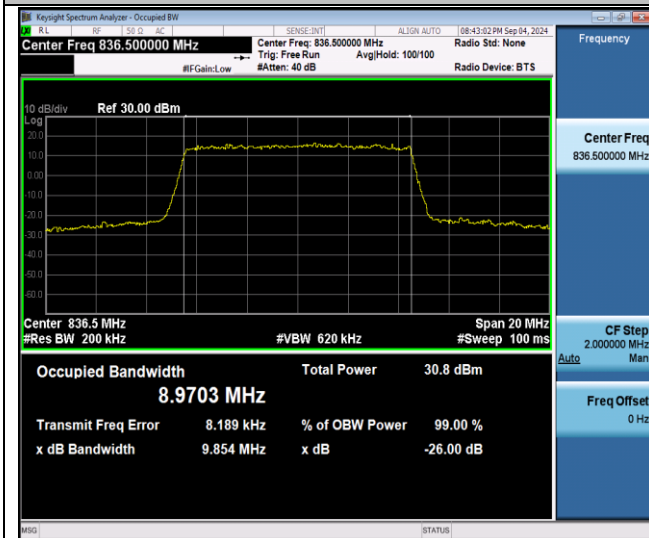
Band5-10MHz-QPSK-20525-50RB#0-PASS



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



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



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



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

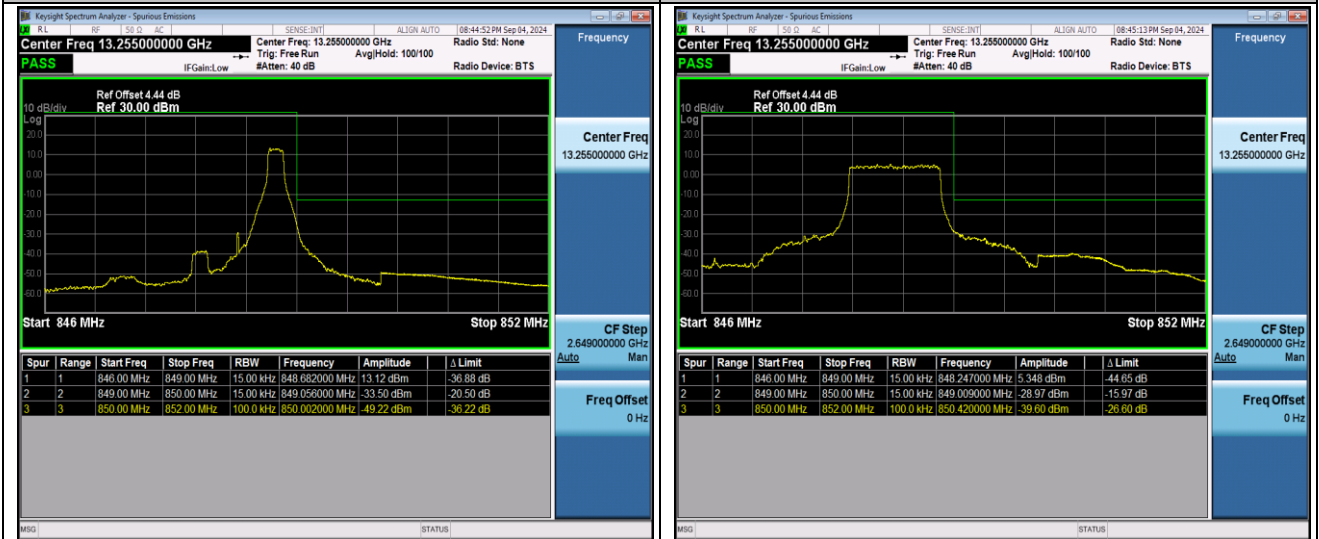
## Band Edge

### Test Graphs



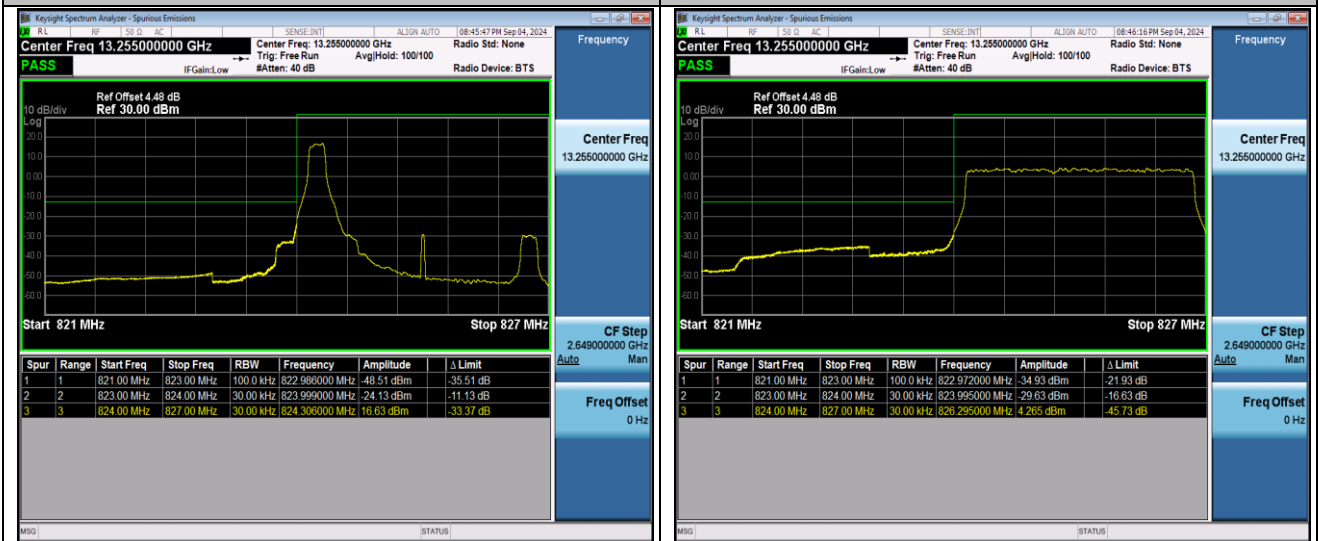
Band5-1.4MHz-QPSK-20407-1RB#0-PASS

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



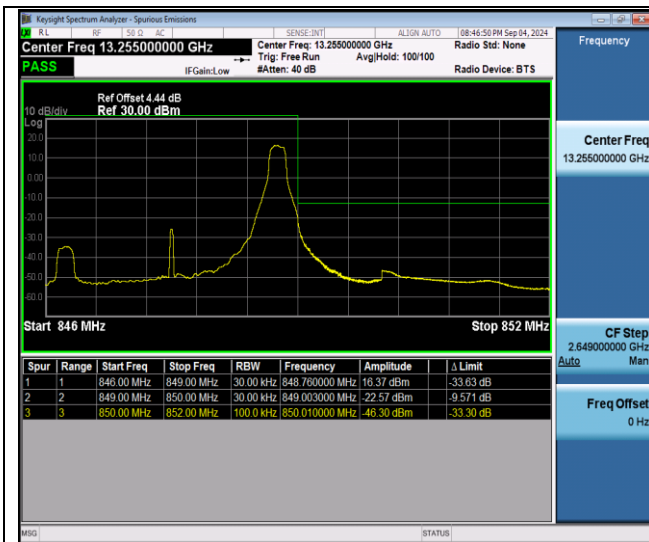
Band5-1.4MHz-QPSK-20643-1RB#5-PASS

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



Band5-3MHz-QPSK-20415-1RB#0-PASS

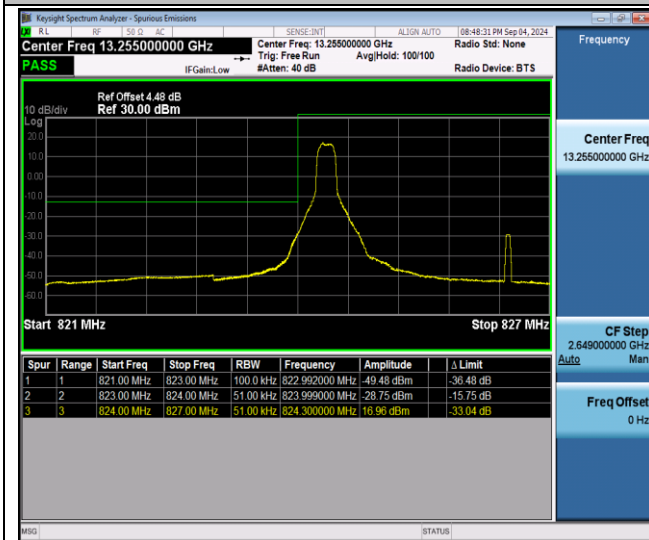
Band5-3MHz-QPSK-20415-15RB#0-PASS



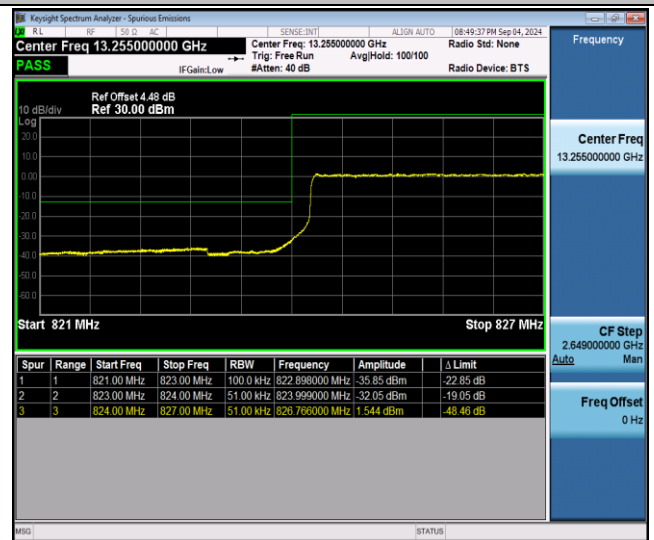
Band5-3MHz-QPSK-20635-1RB#14-PASS



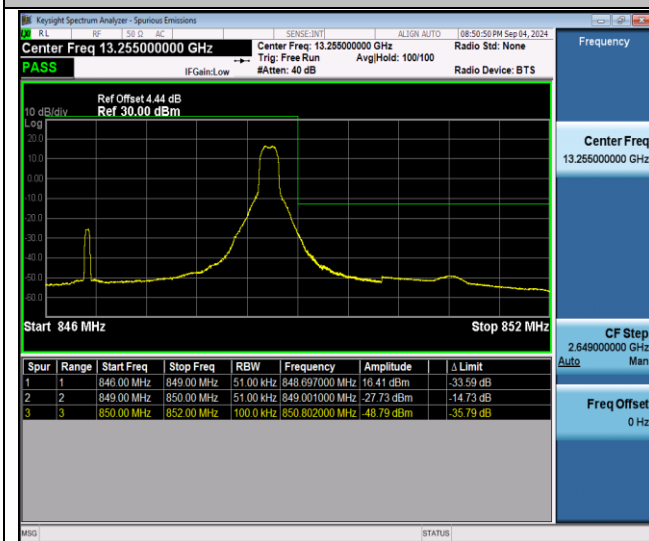
Band5-3MHz-QPSK-20635-15RB#0-PASS



Band5-5MHz-QPSK-20425-1RB#0-PASS



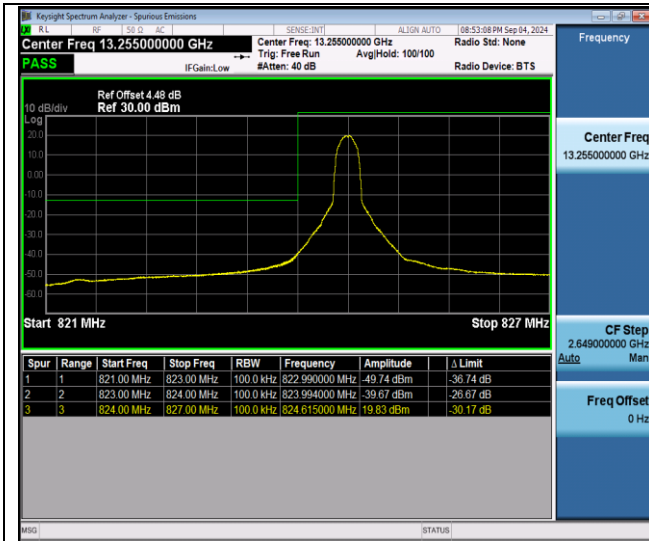
Band5-5MHz-QPSK-20425-25RB#0-PASS



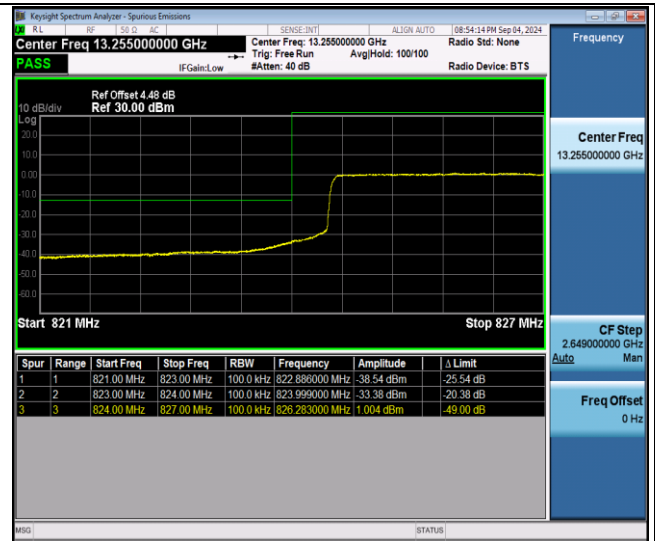
Band5-5MHz-QPSK-20625-1RB#24-PASS



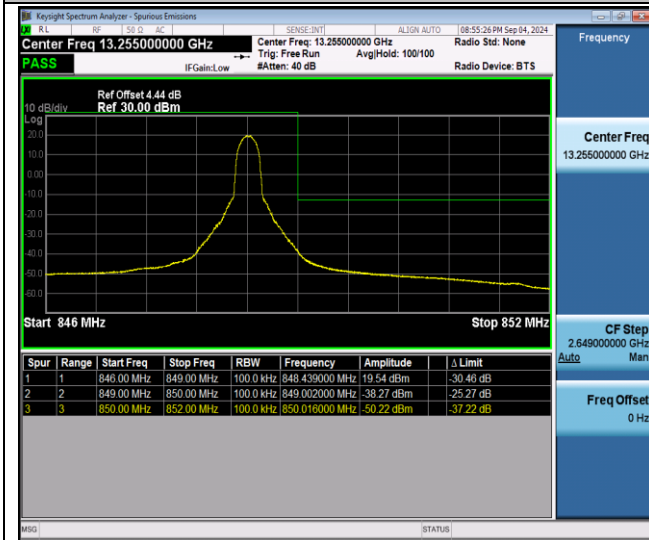
Band5-5MHz-QPSK-20625-25RB#0-PASS



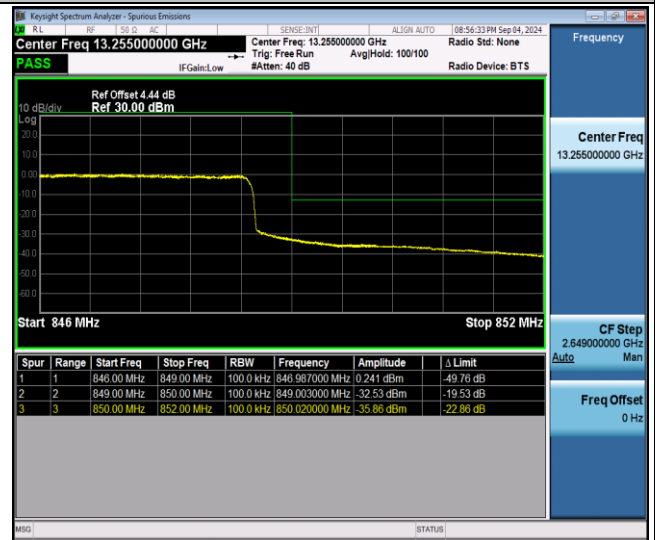
Band5-10MHz-QPSK-20450-1RB#0-PASS



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



Band5-10MHz-QPSK-20600-1RB#49-PASS



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