

# Appendix-D LTE Band 17

## Effective (Isotropic) Radiated Power Output Data

### Test Result

| Band   | Bandwidth | Modulation | Channel | RB Configuration | Result (dBm) | ERP (dBm) | Limit (dBm) | Verdict |
|--------|-----------|------------|---------|------------------|--------------|-----------|-------------|---------|
| Band17 | 5MHz      | QPSK       | 23755   | 1RB#0            | 23.63        | 23.06     | 34.77       | PASS    |
| Band17 | 5MHz      | QPSK       | 23755   | 1RB#12           | 23.59        | 23.02     | 34.77       | PASS    |
| Band17 | 5MHz      | QPSK       | 23755   | 1RB#24           | 23.67        | 23.1      | 34.77       | PASS    |
| Band17 | 5MHz      | QPSK       | 23755   | 25RB#0           | 22.63        | 22.06     | 34.77       | PASS    |
| Band17 | 5MHz      | 16QAM      | 23755   | 1RB#0            | 22.74        | 22.17     | 34.77       | PASS    |
| Band17 | 5MHz      | 16QAM      | 23755   | 1RB#12           | 22.89        | 22.32     | 34.77       | PASS    |
| Band17 | 5MHz      | 16QAM      | 23755   | 1RB#24           | 22.5         | 21.93     | 34.77       | PASS    |
| Band17 | 5MHz      | 16QAM      | 23755   | 25RB#0           | 21.67        | 21.1      | 34.77       | PASS    |
| Band17 | 5MHz      | 64QAM      | 23755   | 1RB#0            | 21.86        | 21.29     | 34.77       | PASS    |
| Band17 | 5MHz      | 64QAM      | 23755   | 1RB#12           | 21.83        | 21.26     | 34.77       | PASS    |
| Band17 | 5MHz      | 64QAM      | 23755   | 1RB#24           | 21.78        | 21.21     | 34.77       | PASS    |
| Band17 | 5MHz      | 64QAM      | 23755   | 25RB#0           | 20.78        | 20.21     | 34.77       | PASS    |
| Band17 | 5MHz      | 256QAM     | 23755   | 1RB#0            | 18.79        | 18.22     | 34.77       | PASS    |
| Band17 | 5MHz      | 256QAM     | 23755   | 1RB#12           | 18.74        | 18.17     | 34.77       | PASS    |
| Band17 | 5MHz      | 256QAM     | 23755   | 1RB#24           | 18.67        | 18.1      | 34.77       | PASS    |
| Band17 | 5MHz      | 256QAM     | 23755   | 25RB#0           | 18.71        | 18.14     | 34.77       | PASS    |
| Band17 | 5MHz      | QPSK       | 23790   | 1RB#0            | 23.56        | 22.99     | 34.77       | PASS    |
| Band17 | 5MHz      | QPSK       | 23790   | 1RB#12           | 23.6         | 23.03     | 34.77       | PASS    |
| Band17 | 5MHz      | QPSK       | 23790   | 1RB#24           | 23.54        | 22.97     | 34.77       | PASS    |
| Band17 | 5MHz      | QPSK       | 23790   | 25RB#0           | 22.67        | 22.1      | 34.77       | PASS    |
| Band17 | 5MHz      | 16QAM      | 23790   | 1RB#0            | 22.86        | 22.29     | 34.77       | PASS    |
| Band17 | 5MHz      | 16QAM      | 23790   | 1RB#12           | 22.74        | 22.17     | 34.77       | PASS    |
| Band17 | 5MHz      | 16QAM      | 23790   | 1RB#24           | 22.81        | 22.24     | 34.77       | PASS    |
| Band17 | 5MHz      | 16QAM      | 23790   | 25RB#0           | 21.66        | 21.09     | 34.77       | PASS    |
| Band17 | 5MHz      | 64QAM      | 23790   | 1RB#0            | 21.84        | 21.27     | 34.77       | PASS    |
| Band17 | 5MHz      | 64QAM      | 23790   | 1RB#12           | 21.7         | 21.13     | 34.77       | PASS    |
| Band17 | 5MHz      | 64QAM      | 23790   | 1RB#24           | 21.8         | 21.23     | 34.77       | PASS    |
| Band17 | 5MHz      | 64QAM      | 23790   | 25RB#0           | 20.8         | 20.23     | 34.77       | PASS    |
| Band17 | 5MHz      | 256QAM     | 23790   | 1RB#0            | 18.41        | 17.84     | 34.77       | PASS    |
| Band17 | 5MHz      | 256QAM     | 23790   | 1RB#12           | 18.68        | 18.11     | 34.77       | PASS    |
| Band17 | 5MHz      | 256QAM     | 23790   | 1RB#24           | 18.79        | 18.22     | 34.77       | PASS    |
| Band17 | 5MHz      | 256QAM     | 23790   | 25RB#0           | 18.79        | 18.22     | 34.77       | PASS    |
| Band17 | 5MHz      | QPSK       | 23825   | 1RB#0            | 23.53        | 22.96     | 34.77       | PASS    |
| Band17 | 5MHz      | QPSK       | 23825   | 1RB#12           | 23.57        | 23        | 34.77       | PASS    |
| Band17 | 5MHz      | QPSK       | 23825   | 1RB#24           | 23.55        | 22.98     | 34.77       | PASS    |
| Band17 | 5MHz      | QPSK       | 23825   | 25RB#0           | 22.64        | 22.07     | 34.77       | PASS    |

|        |       |        |       |        |       |       |       |      |
|--------|-------|--------|-------|--------|-------|-------|-------|------|
| Band17 | 5MHz  | 16QAM  | 23825 | 1RB#0  | 22.74 | 22.17 | 34.77 | PASS |
| Band17 | 5MHz  | 16QAM  | 23825 | 1RB#12 | 22.67 | 22.1  | 34.77 | PASS |
| Band17 | 5MHz  | 16QAM  | 23825 | 1RB#24 | 22.74 | 22.17 | 34.77 | PASS |
| Band17 | 5MHz  | 16QAM  | 23825 | 25RB#0 | 21.65 | 21.08 | 34.77 | PASS |
| Band17 | 5MHz  | 64QAM  | 23825 | 1RB#0  | 21.73 | 21.16 | 34.77 | PASS |
| Band17 | 5MHz  | 64QAM  | 23825 | 1RB#12 | 21.67 | 21.1  | 34.77 | PASS |
| Band17 | 5MHz  | 64QAM  | 23825 | 1RB#24 | 21.77 | 21.2  | 34.77 | PASS |
| Band17 | 5MHz  | 64QAM  | 23825 | 25RB#0 | 20.8  | 20.23 | 34.77 | PASS |
| Band17 | 5MHz  | 256QAM | 23825 | 1RB#0  | 18.41 | 17.84 | 34.77 | PASS |
| Band17 | 5MHz  | 256QAM | 23825 | 1RB#12 | 18.74 | 18.17 | 34.77 | PASS |
| Band17 | 5MHz  | 256QAM | 23825 | 1RB#24 | 18.69 | 18.12 | 34.77 | PASS |
| Band17 | 5MHz  | 256QAM | 23825 | 25RB#0 | 18.76 | 18.19 | 34.77 | PASS |
| Band17 | 10MHz | QPSK   | 23780 | 1RB#0  | 23.56 | 22.99 | 34.77 | PASS |
| Band17 | 10MHz | QPSK   | 23780 | 1RB#24 | 23.59 | 23.02 | 34.77 | PASS |
| Band17 | 10MHz | QPSK   | 23780 | 1RB#49 | 23.69 | 23.12 | 34.77 | PASS |
| Band17 | 10MHz | QPSK   | 23780 | 50RB#0 | 22.68 | 22.11 | 34.77 | PASS |
| Band17 | 10MHz | 16QAM  | 23780 | 1RB#0  | 22.53 | 21.96 | 34.77 | PASS |
| Band17 | 10MHz | 16QAM  | 23780 | 1RB#24 | 22.75 | 22.18 | 34.77 | PASS |
| Band17 | 10MHz | 16QAM  | 23780 | 1RB#49 | 22.77 | 22.2  | 34.77 | PASS |
| Band17 | 10MHz | 16QAM  | 23780 | 50RB#0 | 21.68 | 21.11 | 34.77 | PASS |
| Band17 | 10MHz | 64QAM  | 23780 | 1RB#0  | 21.83 | 21.26 | 34.77 | PASS |
| Band17 | 10MHz | 64QAM  | 23780 | 1RB#24 | 21.81 | 21.24 | 34.77 | PASS |
| Band17 | 10MHz | 64QAM  | 23780 | 1RB#49 | 21.86 | 21.29 | 34.77 | PASS |
| Band17 | 10MHz | 64QAM  | 23780 | 50RB#0 | 20.84 | 20.27 | 34.77 | PASS |
| Band17 | 10MHz | 256QAM | 23780 | 1RB#0  | 18.61 | 18.04 | 34.77 | PASS |
| Band17 | 10MHz | 256QAM | 23780 | 1RB#24 | 18.74 | 18.17 | 34.77 | PASS |
| Band17 | 10MHz | 256QAM | 23780 | 1RB#49 | 18.76 | 18.19 | 34.77 | PASS |
| Band17 | 10MHz | 256QAM | 23780 | 50RB#0 | 18.79 | 18.22 | 34.77 | PASS |
| Band17 | 10MHz | QPSK   | 23790 | 1RB#0  | 23.52 | 22.95 | 34.77 | PASS |
| Band17 | 10MHz | QPSK   | 23790 | 1RB#24 | 23.55 | 22.98 | 34.77 | PASS |
| Band17 | 10MHz | QPSK   | 23790 | 1RB#49 | 23.58 | 23.01 | 34.77 | PASS |
| Band17 | 10MHz | QPSK   | 23790 | 50RB#0 | 22.71 | 22.14 | 34.77 | PASS |
| Band17 | 10MHz | 16QAM  | 23790 | 1RB#0  | 22.78 | 22.21 | 34.77 | PASS |
| Band17 | 10MHz | 16QAM  | 23790 | 1RB#24 | 22.73 | 22.16 | 34.77 | PASS |
| Band17 | 10MHz | 16QAM  | 23790 | 1RB#49 | 22.86 | 22.29 | 34.77 | PASS |
| Band17 | 10MHz | 16QAM  | 23790 | 50RB#0 | 21.68 | 21.11 | 34.77 | PASS |
| Band17 | 10MHz | 64QAM  | 23790 | 1RB#0  | 21.95 | 21.38 | 34.77 | PASS |
| Band17 | 10MHz | 64QAM  | 23790 | 1RB#24 | 21.93 | 21.36 | 34.77 | PASS |
| Band17 | 10MHz | 64QAM  | 23790 | 1RB#49 | 21.72 | 21.15 | 34.77 | PASS |
| Band17 | 10MHz | 64QAM  | 23790 | 50RB#0 | 20.83 | 20.26 | 34.77 | PASS |
| Band17 | 10MHz | 256QAM | 23790 | 1RB#0  | 18.74 | 18.17 | 34.77 | PASS |
| Band17 | 10MHz | 256QAM | 23790 | 1RB#24 | 18.77 | 18.2  | 34.77 | PASS |
| Band17 | 10MHz | 256QAM | 23790 | 1RB#49 | 18.71 | 18.14 | 34.77 | PASS |
| Band17 | 10MHz | 256QAM | 23790 | 50RB#0 | 18.75 | 18.18 | 34.77 | PASS |

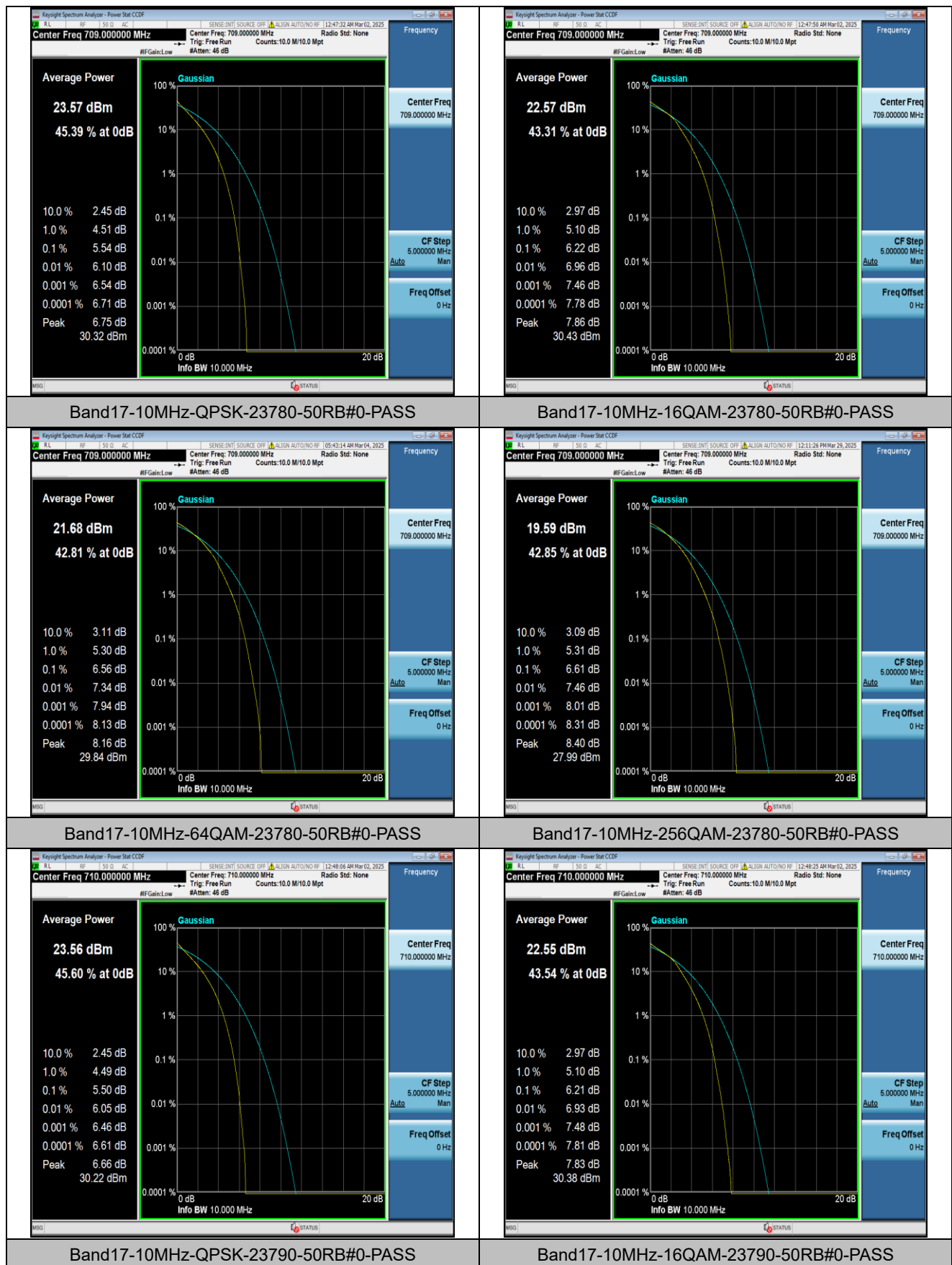
|        |       |        |       |        |       |       |       |      |
|--------|-------|--------|-------|--------|-------|-------|-------|------|
| Band17 | 10MHz | QPSK   | 23800 | 1RB#0  | 23.51 | 22.94 | 34.77 | PASS |
| Band17 | 10MHz | QPSK   | 23800 | 1RB#24 | 23.62 | 23.05 | 34.77 | PASS |
| Band17 | 10MHz | QPSK   | 23800 | 1RB#49 | 23.57 | 23    | 34.77 | PASS |
| Band17 | 10MHz | QPSK   | 23800 | 50RB#0 | 22.66 | 22.09 | 34.77 | PASS |
| Band17 | 10MHz | 16QAM  | 23800 | 1RB#0  | 22.82 | 22.25 | 34.77 | PASS |
| Band17 | 10MHz | 16QAM  | 23800 | 1RB#24 | 22.75 | 22.18 | 34.77 | PASS |
| Band17 | 10MHz | 16QAM  | 23800 | 1RB#49 | 22.62 | 22.05 | 34.77 | PASS |
| Band17 | 10MHz | 16QAM  | 23800 | 50RB#0 | 21.61 | 21.04 | 34.77 | PASS |
| Band17 | 10MHz | 64QAM  | 23800 | 1RB#0  | 21.73 | 21.16 | 34.77 | PASS |
| Band17 | 10MHz | 64QAM  | 23800 | 1RB#24 | 21.88 | 21.31 | 34.77 | PASS |
| Band17 | 10MHz | 64QAM  | 23800 | 1RB#49 | 21.71 | 21.14 | 34.77 | PASS |
| Band17 | 10MHz | 64QAM  | 23800 | 50RB#0 | 20.83 | 20.26 | 34.77 | PASS |
| Band17 | 10MHz | 256QAM | 23800 | 1RB#0  | 18.38 | 17.81 | 34.77 | PASS |
| Band17 | 10MHz | 256QAM | 23800 | 1RB#24 | 18.71 | 18.14 | 34.77 | PASS |
| Band17 | 10MHz | 256QAM | 23800 | 1RB#49 | 18.68 | 18.11 | 34.77 | PASS |
| Band17 | 10MHz | 256QAM | 23800 | 50RB#0 | 18.73 | 18.16 | 34.77 | PASS |

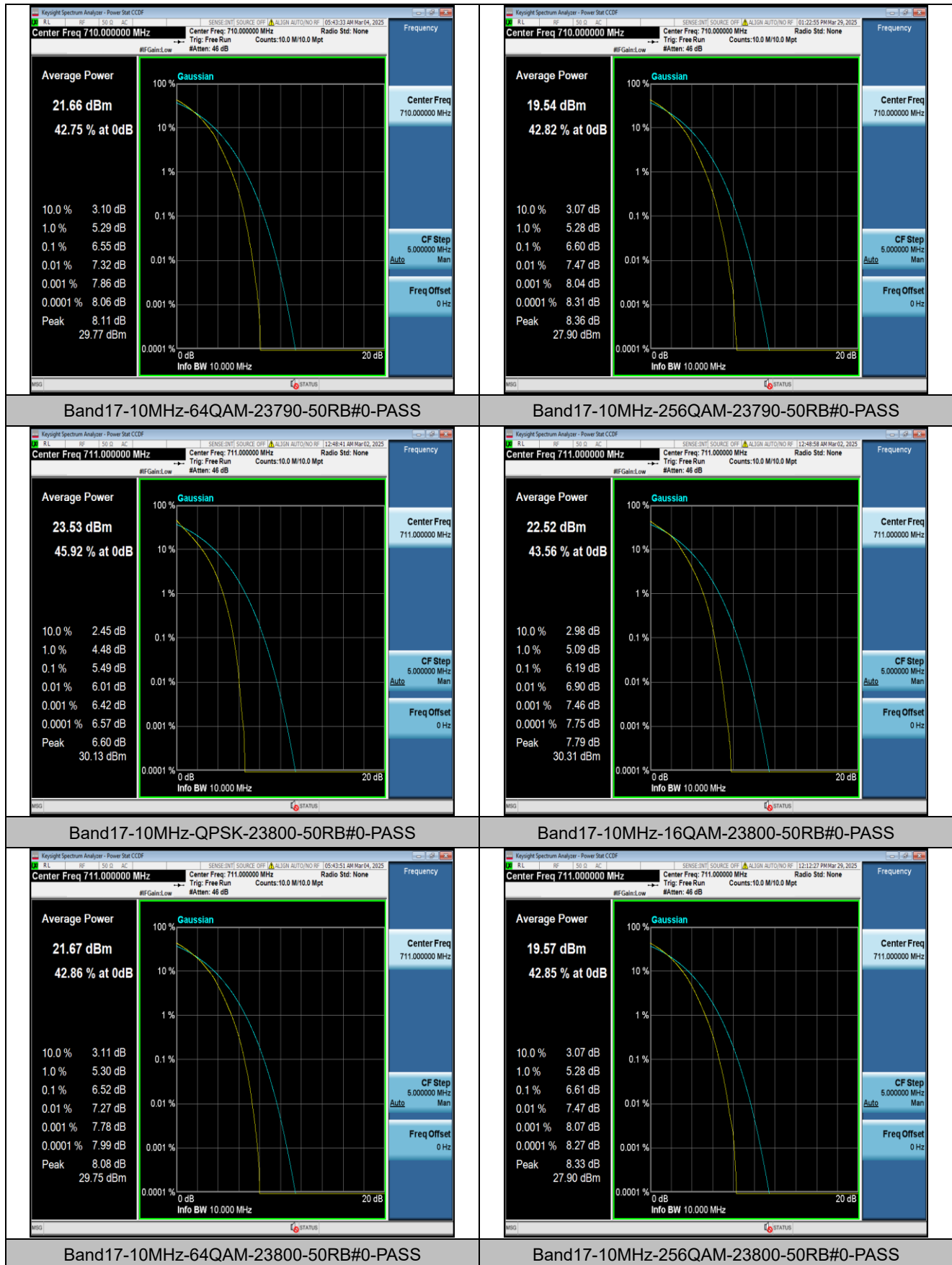
## Peak-to-Average Ratio(CCDF)

### Test Result

| Band   | Bandwidth | Modulation | Channel | RB Configuration | Result (dB) | Limit (dB) | Verdict |
|--------|-----------|------------|---------|------------------|-------------|------------|---------|
| Band17 | 10MHz     | QPSK       | 23780   | 50RB#0           | 5.54        | 13         | PASS    |
| Band17 | 10MHz     | 16QAM      | 23780   | 50RB#0           | 6.22        | 13         | PASS    |
| Band17 | 10MHz     | 64QAM      | 23780   | 50RB#0           | 6.56        | 13         | PASS    |
| Band17 | 10MHz     | 256QAM     | 23780   | 50RB#0           | 6.61        | 13         | PASS    |
| Band17 | 10MHz     | QPSK       | 23790   | 50RB#0           | 5.50        | 13         | PASS    |
| Band17 | 10MHz     | 16QAM      | 23790   | 50RB#0           | 6.21        | 13         | PASS    |
| Band17 | 10MHz     | 64QAM      | 23790   | 50RB#0           | 6.55        | 13         | PASS    |
| Band17 | 10MHz     | 256QAM     | 23790   | 50RB#0           | 6.60        | 13         | PASS    |
| Band17 | 10MHz     | QPSK       | 23800   | 50RB#0           | 5.49        | 13         | PASS    |
| Band17 | 10MHz     | 16QAM      | 23800   | 50RB#0           | 6.19        | 13         | PASS    |
| Band17 | 10MHz     | 64QAM      | 23800   | 50RB#0           | 6.52        | 13         | PASS    |
| Band17 | 10MHz     | 256QAM     | 23800   | 50RB#0           | 6.61        | 13         | PASS    |

## Test Graphs



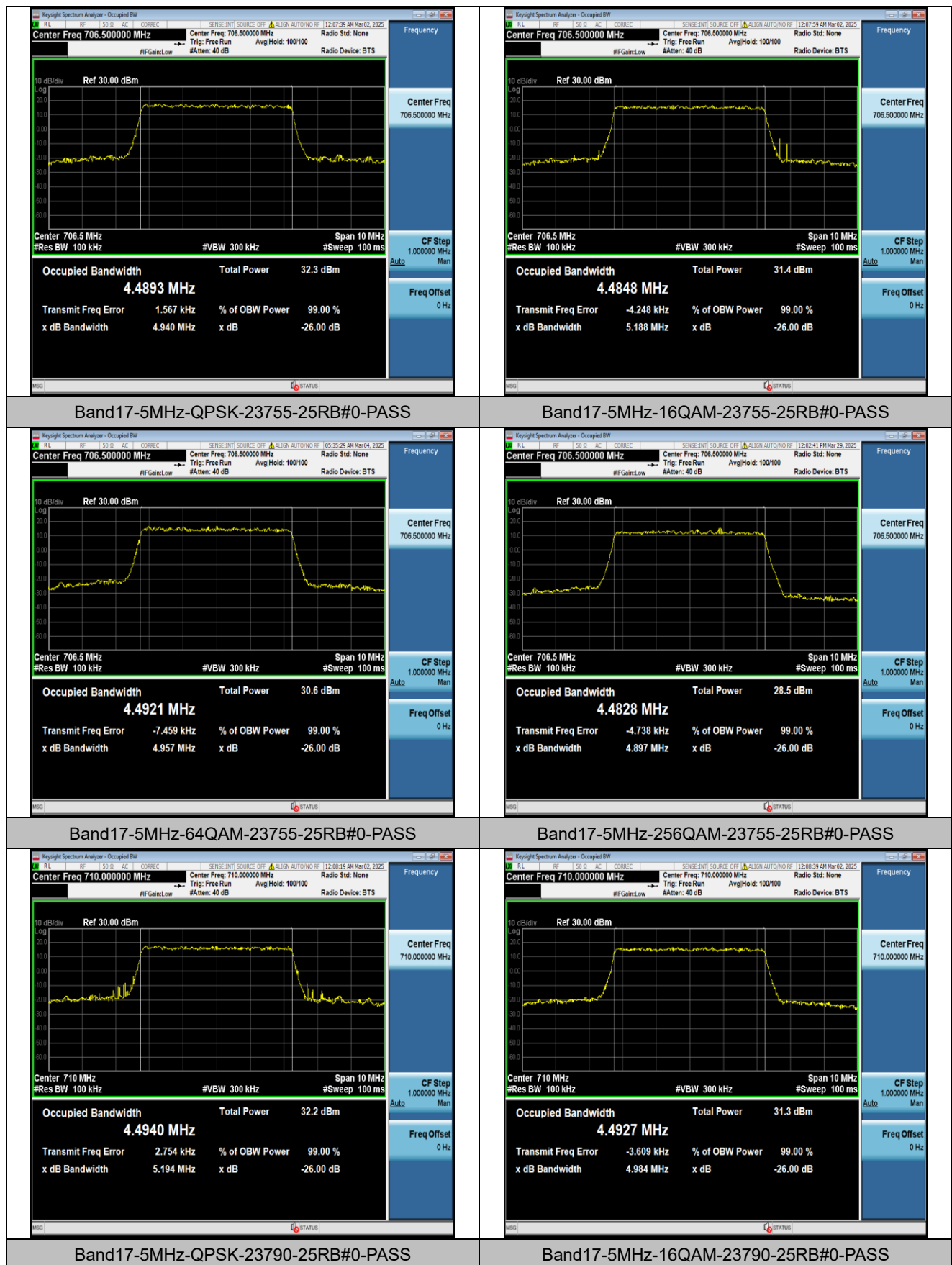


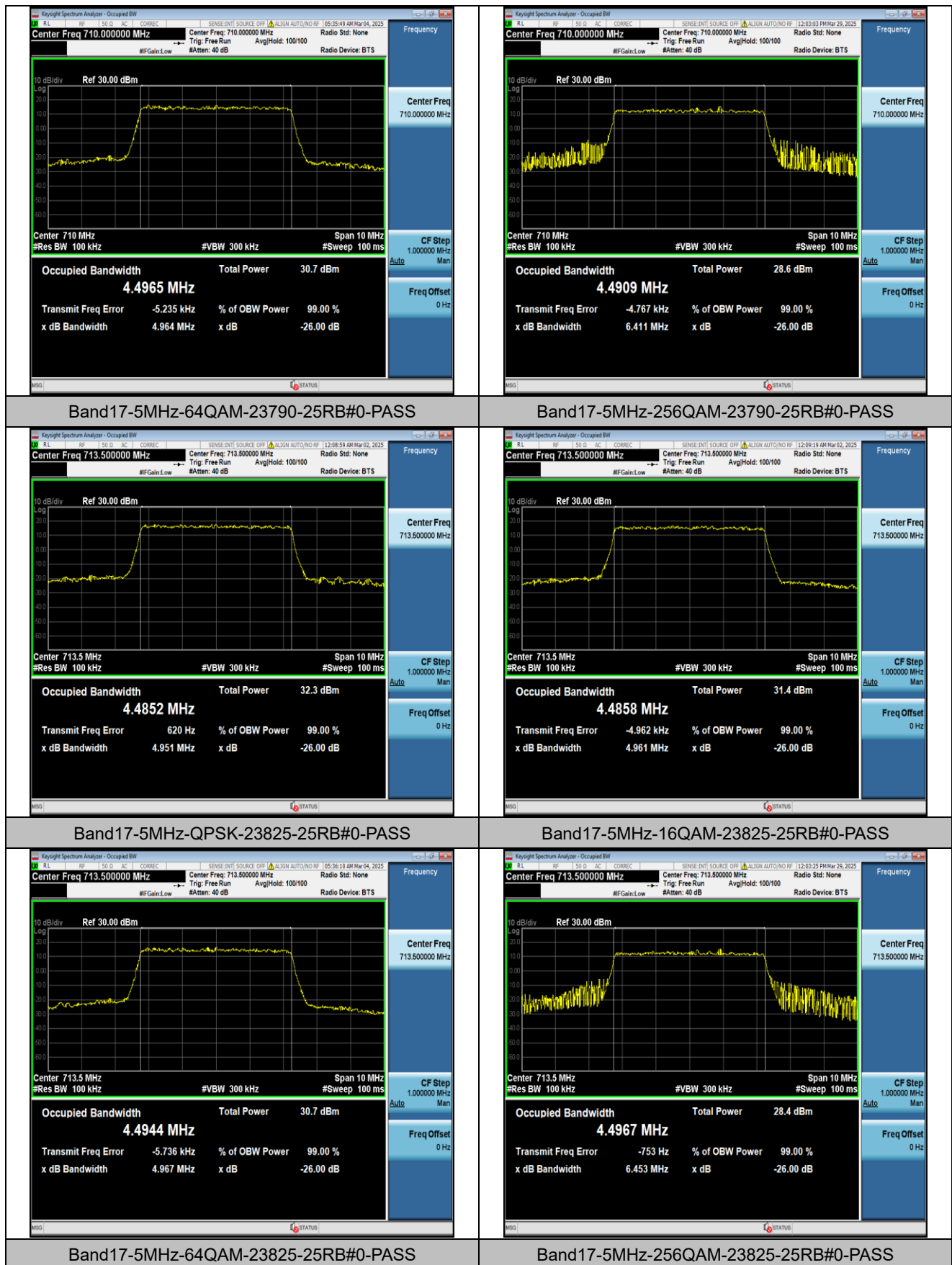
## 26dB Bandwidth and Occupied Bandwidth

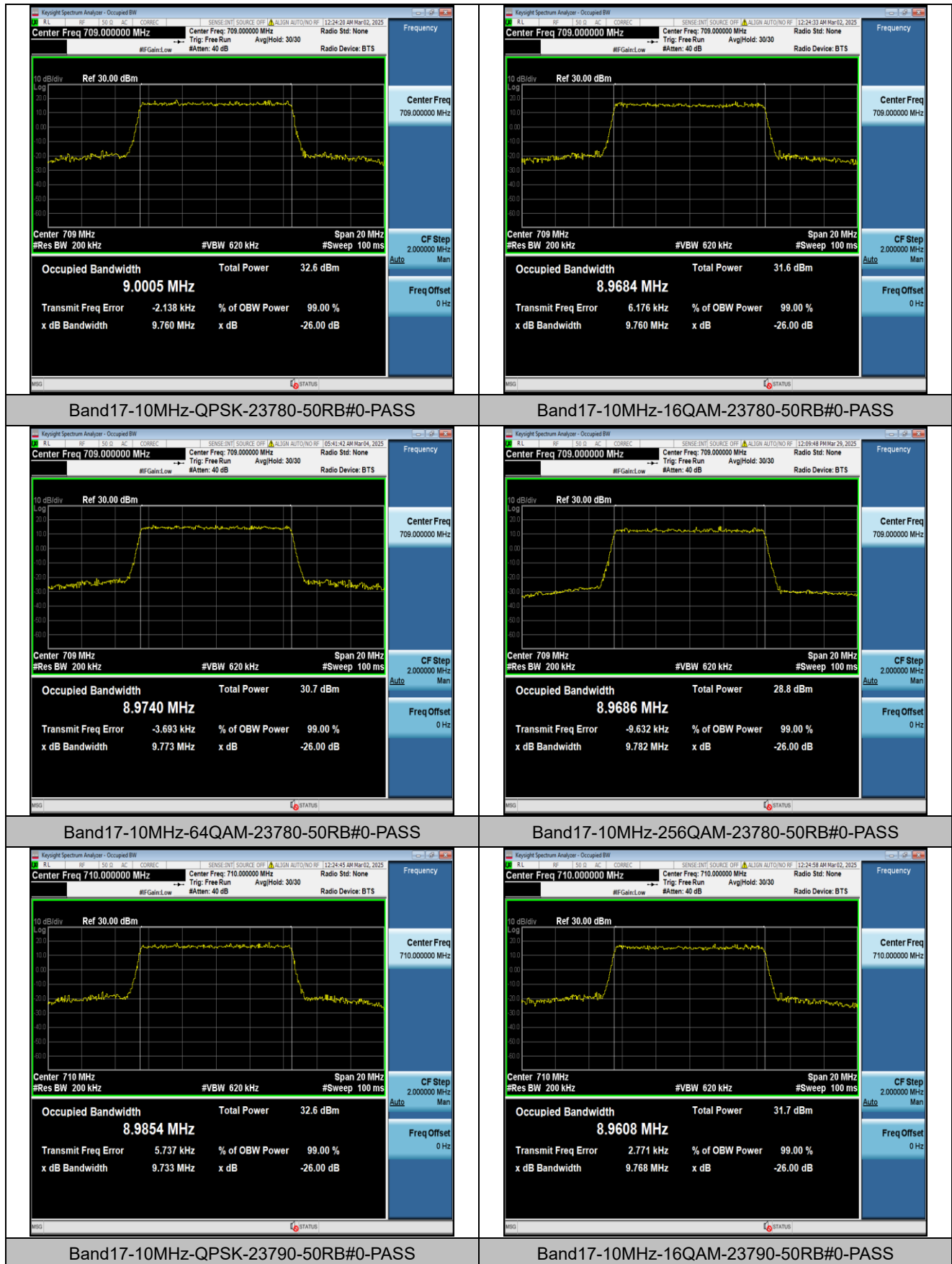
### Test Result

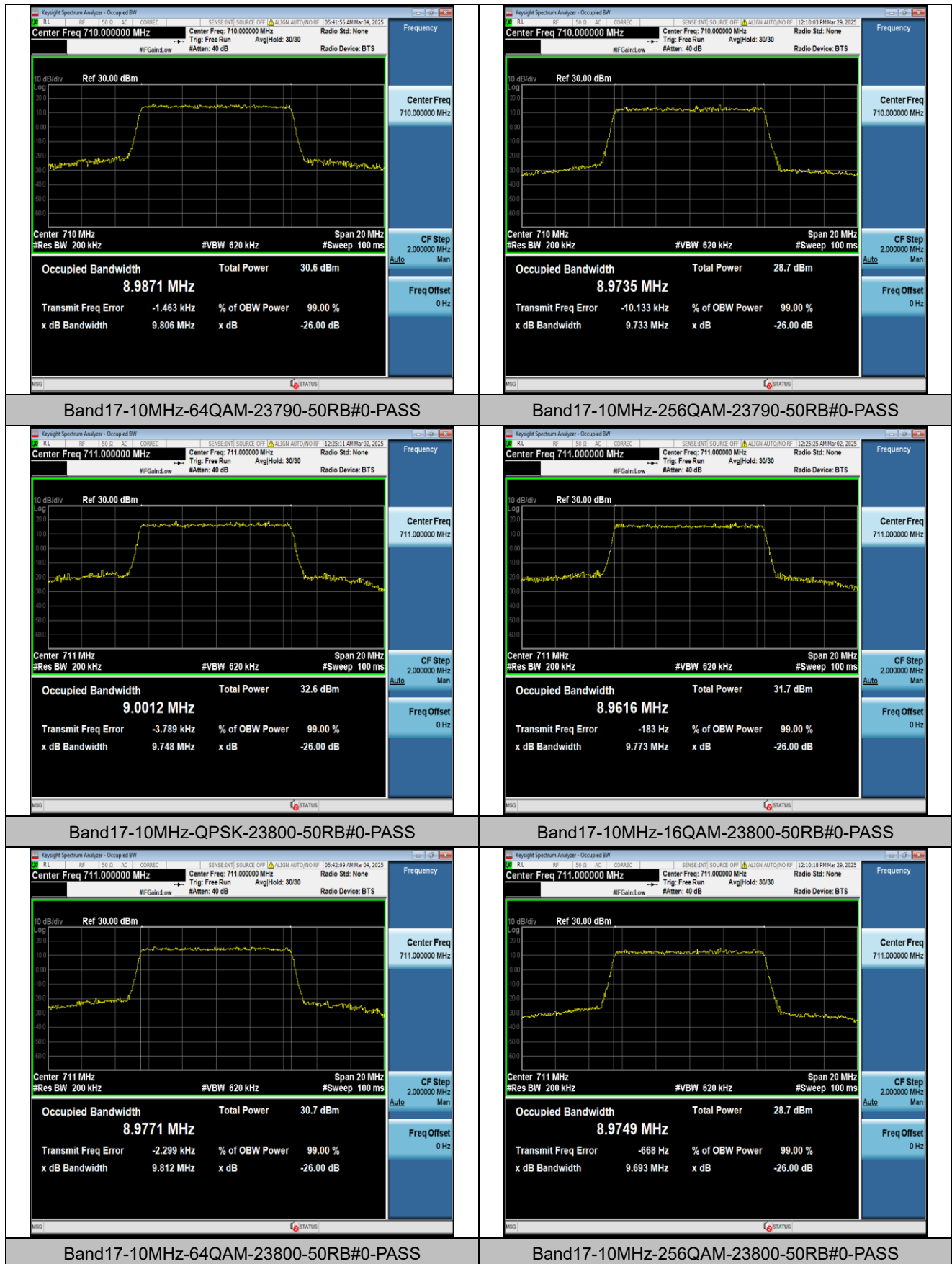
| Band   | Bandwidth | Modulation | Channel | RB Configuration | OBW (MHz) | 26dB EBW (MHz) | Verdict |
|--------|-----------|------------|---------|------------------|-----------|----------------|---------|
| Band17 | 5MHz      | QPSK       | 23755   | 25RB#0           | 4.4893    | 4.940          | PASS    |
| Band17 | 5MHz      | 16QAM      | 23755   | 25RB#0           | 4.4848    | 5.188          | PASS    |
| Band17 | 5MHz      | 64QAM      | 23755   | 25RB#0           | 4.4921    | 4.957          | PASS    |
| Band17 | 5MHz      | 256QAM     | 23755   | 25RB#0           | 4.4828    | 4.897          | PASS    |
| Band17 | 5MHz      | QPSK       | 23790   | 25RB#0           | 4.4940    | 5.194          | PASS    |
| Band17 | 5MHz      | 16QAM      | 23790   | 25RB#0           | 4.4927    | 4.984          | PASS    |
| Band17 | 5MHz      | 64QAM      | 23790   | 25RB#0           | 4.4965    | 4.964          | PASS    |
| Band17 | 5MHz      | 256QAM     | 23790   | 25RB#0           | 4.4909    | 6.411          | PASS    |
| Band17 | 5MHz      | QPSK       | 23825   | 25RB#0           | 4.4852    | 4.951          | PASS    |
| Band17 | 5MHz      | 16QAM      | 23825   | 25RB#0           | 4.4858    | 4.961          | PASS    |
| Band17 | 5MHz      | 64QAM      | 23825   | 25RB#0           | 4.4944    | 4.967          | PASS    |
| Band17 | 5MHz      | 256QAM     | 23825   | 25RB#0           | 4.4967    | 6.453          | PASS    |
| Band17 | 10MHz     | QPSK       | 23780   | 50RB#0           | 9.0005    | 9.760          | PASS    |
| Band17 | 10MHz     | 16QAM      | 23780   | 50RB#0           | 8.9684    | 9.760          | PASS    |
| Band17 | 10MHz     | 64QAM      | 23780   | 50RB#0           | 8.9740    | 9.773          | PASS    |
| Band17 | 10MHz     | 256QAM     | 23780   | 50RB#0           | 8.9686    | 9.782          | PASS    |
| Band17 | 10MHz     | QPSK       | 23790   | 50RB#0           | 8.9854    | 9.733          | PASS    |
| Band17 | 10MHz     | 16QAM      | 23790   | 50RB#0           | 8.9608    | 9.768          | PASS    |
| Band17 | 10MHz     | 64QAM      | 23790   | 50RB#0           | 8.9871    | 9.806          | PASS    |
| Band17 | 10MHz     | 256QAM     | 23790   | 50RB#0           | 8.9735    | 9.733          | PASS    |
| Band17 | 10MHz     | QPSK       | 23800   | 50RB#0           | 9.0012    | 9.748          | PASS    |
| Band17 | 10MHz     | 16QAM      | 23800   | 50RB#0           | 8.9616    | 9.773          | PASS    |
| Band17 | 10MHz     | 64QAM      | 23800   | 50RB#0           | 8.9771    | 9.812          | PASS    |
| Band17 | 10MHz     | 256QAM     | 23800   | 50RB#0           | 8.9749    | 9.693          | PASS    |

## Test Graphs





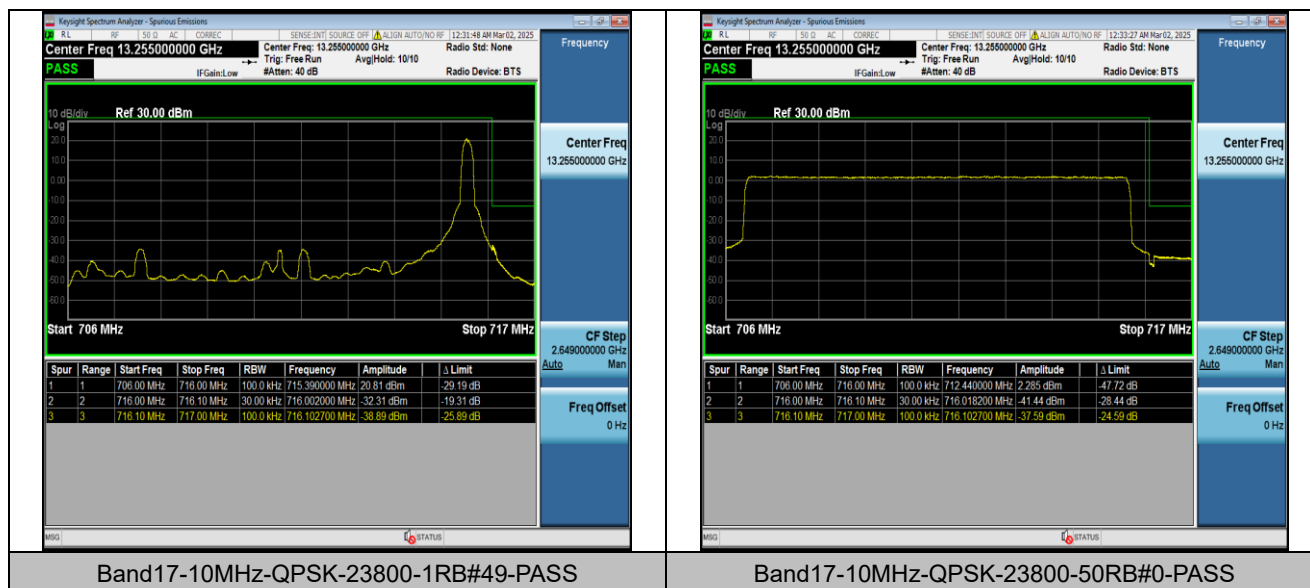




# Band Edge

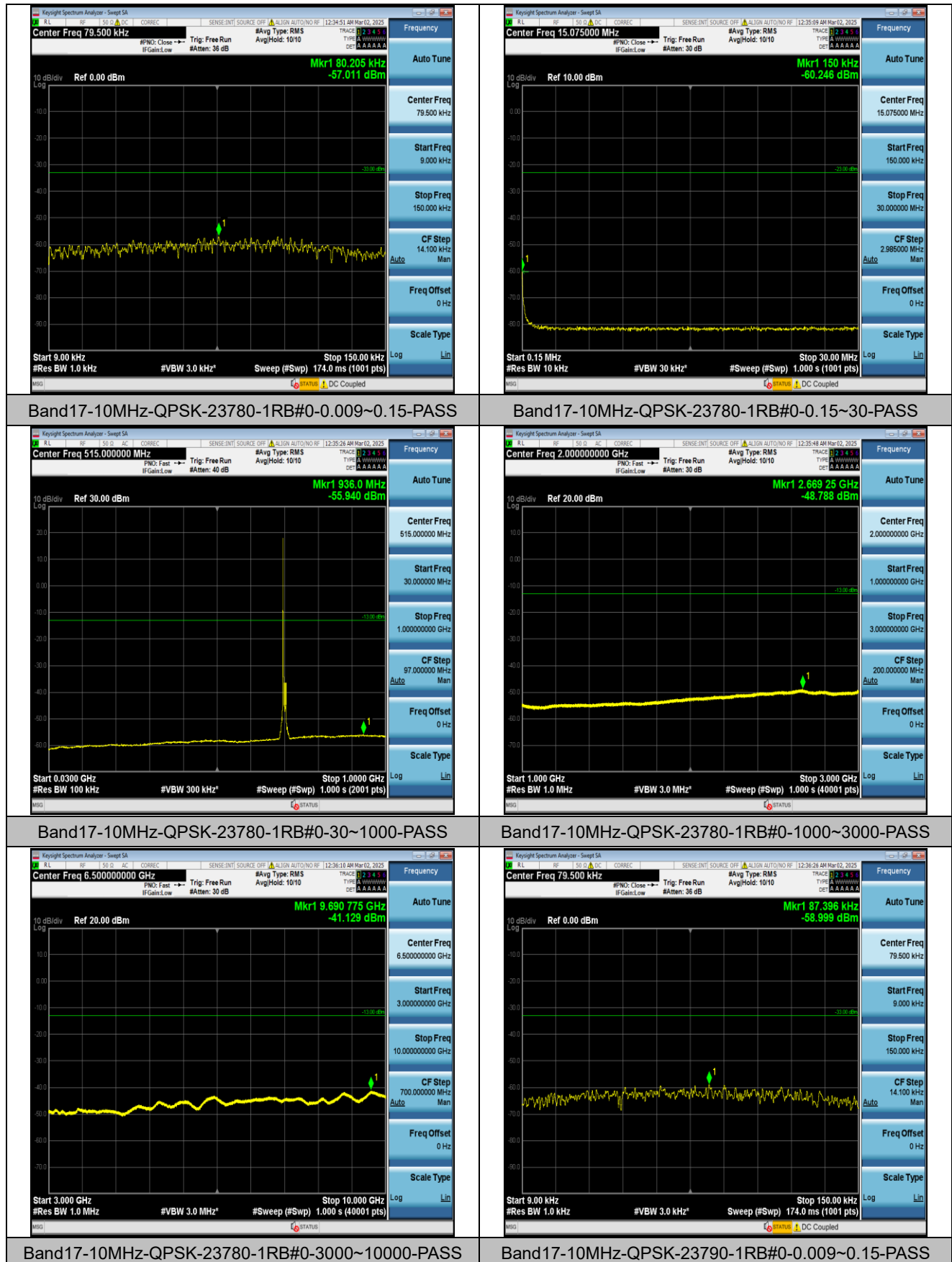
## Test Graphs

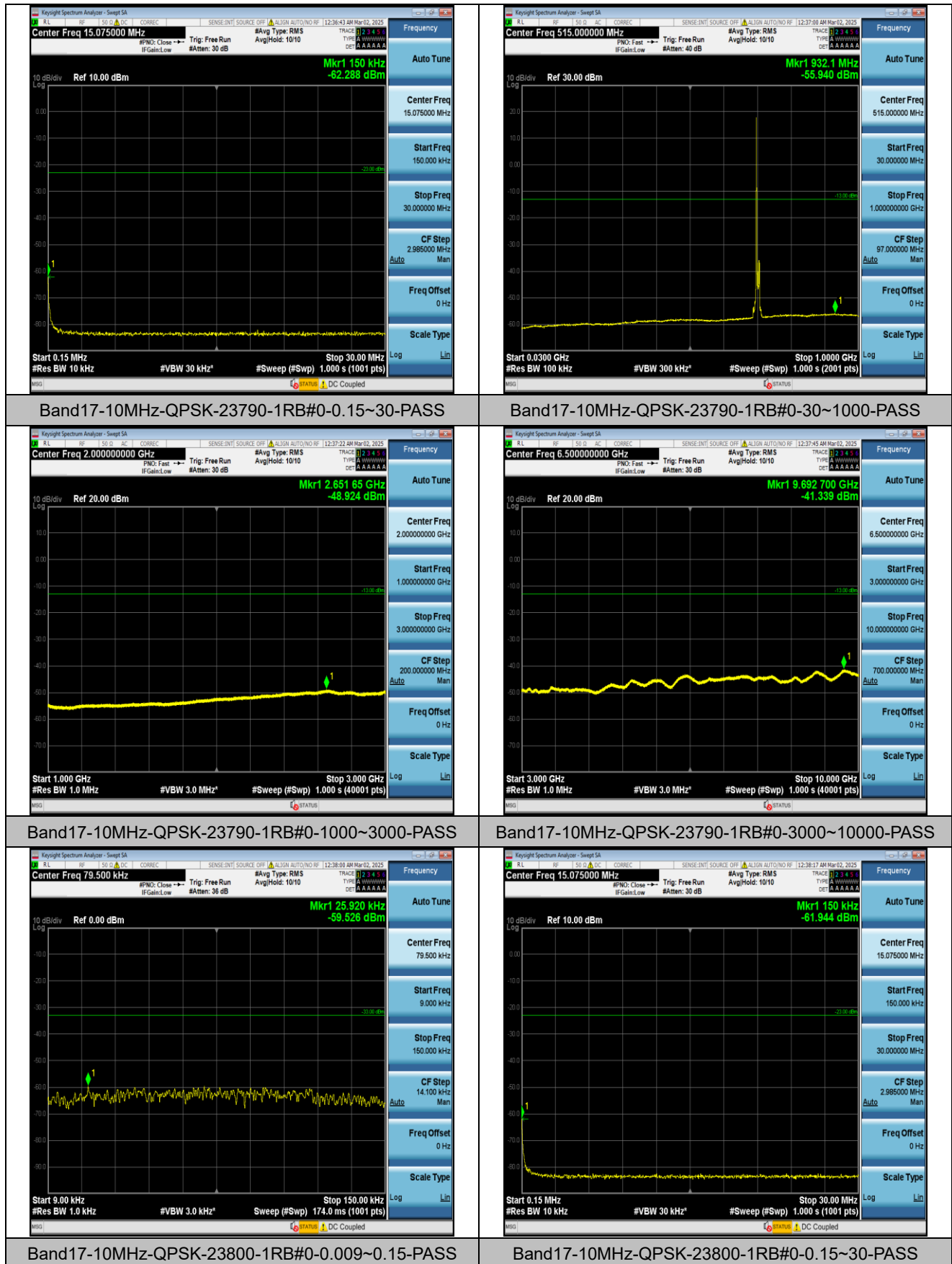


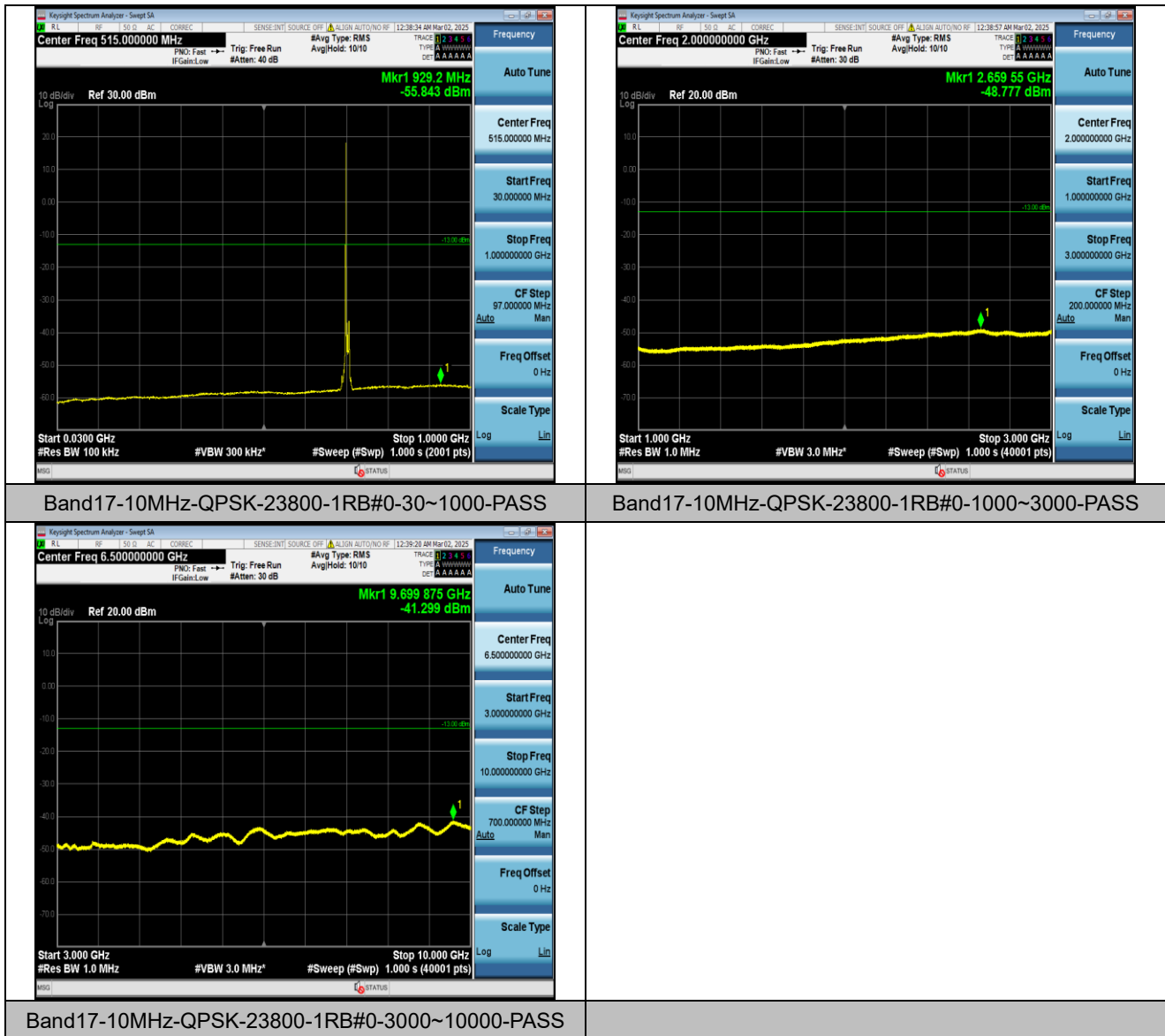


# Conducted Spurious Emission

## Test Graphs







## Frequency Stability

### Test Result

| Voltage |           |            |         |              |               |                  |                |                 |         |
|---------|-----------|------------|---------|--------------|---------------|------------------|----------------|-----------------|---------|
| Band    | Bandwidth | Modulation | Channel | RB Configure | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Verdict |
| Band17  | 10MHz     | QPSK       | 23790   | 50RB#0       | VN            | NT               | 2.00           | 0.002817        | PASS    |
| Band17  | 10MHz     | QPSK       | 23790   | 50RB#0       | VL            | NT               | -2.80          | -0.003944       | PASS    |
| Band17  | 10MHz     | QPSK       | 23790   | 50RB#0       | VH            | NT               | 0.70           | 0.000986        | PASS    |

| Temperature |           |            |         |              |               |                  |                |                 |         |
|-------------|-----------|------------|---------|--------------|---------------|------------------|----------------|-----------------|---------|
| Band        | Bandwidth | Modulation | Channel | RB Configure | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Verdict |
| Band17      | 10MHz     | QPSK       | 23790   | 50RB#0       | NV            | -30              | 0.70           | 0.000986        | PASS    |
| Band17      | 10MHz     | QPSK       | 23790   | 50RB#0       | NV            | -20              | -0.60          | -0.000845       | PASS    |
| Band17      | 10MHz     | QPSK       | 23790   | 50RB#0       | NV            | -10              | -2.90          | -0.004085       | PASS    |
| Band17      | 10MHz     | QPSK       | 23790   | 50RB#0       | NV            | 0                | 0.10           | 0.000141        | PASS    |
| Band17      | 10MHz     | QPSK       | 23790   | 50RB#0       | NV            | 10               | 1.00           | 0.001408        | PASS    |
| Band17      | 10MHz     | QPSK       | 23790   | 50RB#0       | NV            | 20               | 0.70           | 0.000986        | PASS    |
| Band17      | 10MHz     | QPSK       | 23790   | 50RB#0       | NV            | 30               | 0.10           | 0.000141        | PASS    |
| Band17      | 10MHz     | QPSK       | 23790   | 50RB#0       | NV            | 40               | 0.00           | 0.000000        | PASS    |
| Band17      | 10MHz     | QPSK       | 23790   | 50RB#0       | NV            | 50               | -3.50          | -0.004930       | PASS    |

~The End~