



## Appendix E: Conducted Spurious Emission

### Test Result

| Band  | Bandwidth | Modulation | Channel | RB Configuration | Frequency Range | Result (dBm) | Verdict |
|-------|-----------|------------|---------|------------------|-----------------|--------------|---------|
| Band2 | 1.4MHz    | QPSK       | 18607   | 1RB#0            | 30~1000MHz      | -39.02       | PASS    |
| Band2 | 1.4MHz    | QPSK       | 18607   | 1RB#0            | 1000~20000MHz   | -37.55       | PASS    |
| Band2 | 1.4MHz    | QPSK       | 18900   | 1RB#0            | 30~1000MHz      | -37.96       | PASS    |
| Band2 | 1.4MHz    | QPSK       | 18900   | 1RB#0            | 1000~20000MHz   | -37.9        | PASS    |
| Band2 | 1.4MHz    | QPSK       | 19193   | 1RB#0            | 30~1000MHz      | -38.71       | PASS    |
| Band2 | 1.4MHz    | QPSK       | 19193   | 1RB#0            | 1000~20000MHz   | -37.29       | PASS    |
| Band2 | 1.4MHz    | 16QAM      | 18607   | 1RB#0            | 30~1000MHz      | -38.69       | PASS    |
| Band2 | 1.4MHz    | 16QAM      | 18607   | 1RB#0            | 1000~20000MHz   | -37.43       | PASS    |
| Band2 | 1.4MHz    | 16QAM      | 18900   | 1RB#0            | 30~1000MHz      | -38.67       | PASS    |
| Band2 | 1.4MHz    | 16QAM      | 18900   | 1RB#0            | 1000~20000MHz   | -37.39       | PASS    |
| Band2 | 1.4MHz    | 16QAM      | 19193   | 1RB#0            | 30~1000MHz      | -39.1        | PASS    |
| Band2 | 1.4MHz    | 16QAM      | 19193   | 1RB#0            | 1000~20000MHz   | -37.64       | PASS    |
| Band2 | 20MHz     | QPSK       | 18700   | 1RB#0            | 30~1000MHz      | -38.38       | PASS    |
| Band2 | 20MHz     | QPSK       | 18700   | 1RB#0            | 1000~20000MHz   | -37.17       | PASS    |
| Band2 | 20MHz     | QPSK       | 18900   | 1RB#0            | 30~1000MHz      | -38.35       | PASS    |
| Band2 | 20MHz     | QPSK       | 18900   | 1RB#0            | 1000~20000MHz   | -37.23       | PASS    |
| Band2 | 20MHz     | QPSK       | 19100   | 1RB#0            | 30~1000MHz      | -38.15       | PASS    |
| Band2 | 20MHz     | QPSK       | 19100   | 1RB#0            | 1000~20000MHz   | -37.55       | PASS    |
| Band2 | 20MHz     | 16QAM      | 18700   | 1RB#0            | 30~1000MHz      | -38.75       | PASS    |
| Band2 | 20MHz     | 16QAM      | 18700   | 1RB#0            | 1000~20000MHz   | -37.15       | PASS    |
| Band2 | 20MHz     | 16QAM      | 18900   | 1RB#0            | 30~1000MHz      | -37.82       | PASS    |
| Band2 | 20MHz     | 16QAM      | 18900   | 1RB#0            | 1000~20000MHz   | -37.48       | PASS    |
| Band2 | 20MHz     | 16QAM      | 19100   | 1RB#0            | 30~1000MHz      | -37.86       | PASS    |
| Band2 | 20MHz     | 16QAM      | 19100   | 1RB#0            | 1000~20000MHz   | -38.35       | PASS    |
| Band4 | 1.4MHz    | QPSK       | 19957   | 1RB#0            | 30~1000MHz      | -38.59       | PASS    |
| Band4 | 1.4MHz    | QPSK       | 19957   | 1RB#0            | 1000~20000MHz   | -38.08       | PASS    |
| Band4 | 1.4MHz    | QPSK       | 20175   | 1RB#0            | 30~1000MHz      | -37.95       | PASS    |
| Band4 | 1.4MHz    | QPSK       | 20175   | 1RB#0            | 1000~20000MHz   | -37.52       | PASS    |
| Band4 | 1.4MHz    | QPSK       | 20393   | 1RB#0            | 30~1000MHz      | -38.65       | PASS    |
| Band4 | 1.4MHz    | QPSK       | 20393   | 1RB#0            | 1000~20000MHz   | -38.13       | PASS    |
| Band4 | 1.4MHz    | 16QAM      | 19957   | 1RB#0            | 30~1000MHz      | -38.4        | PASS    |

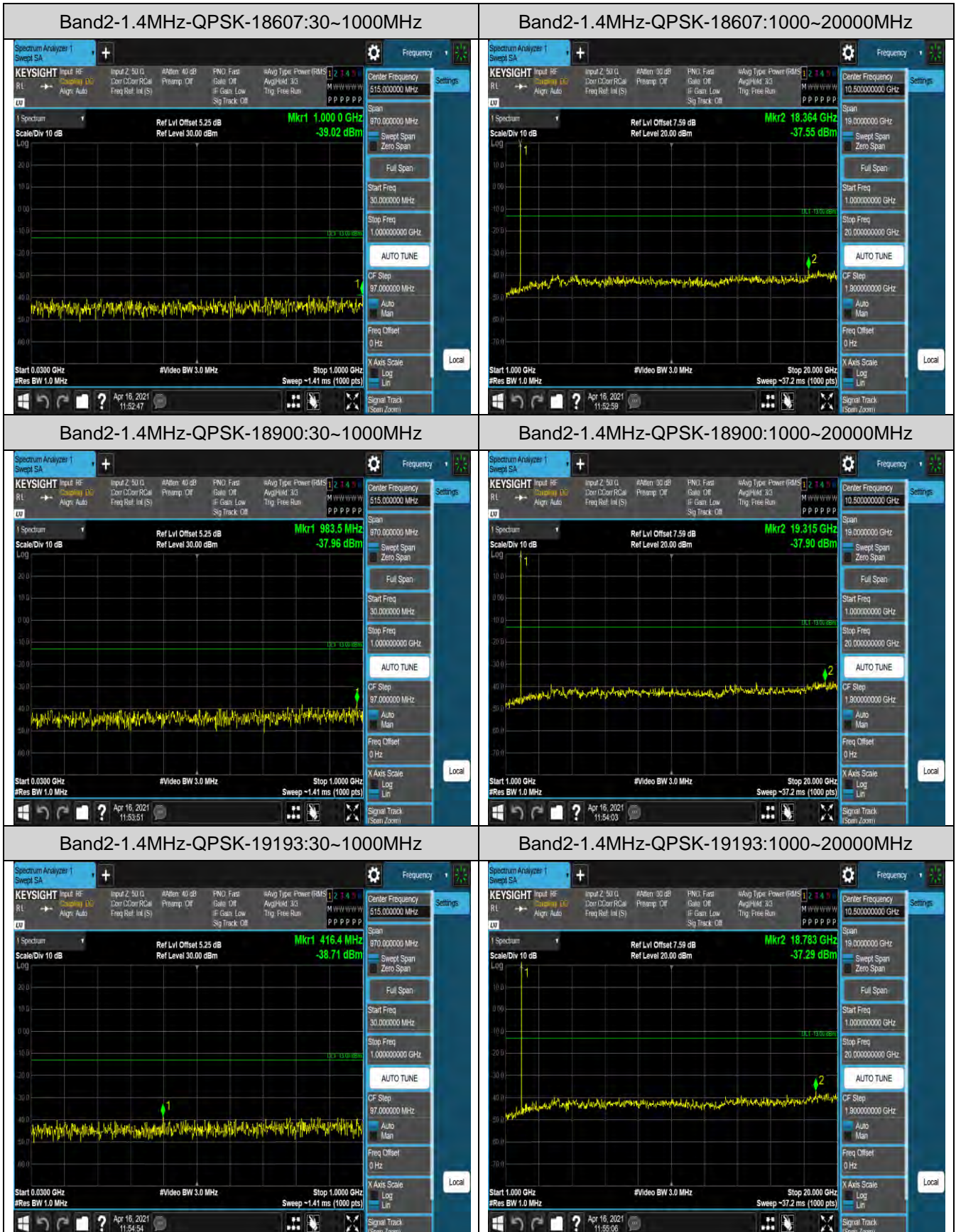


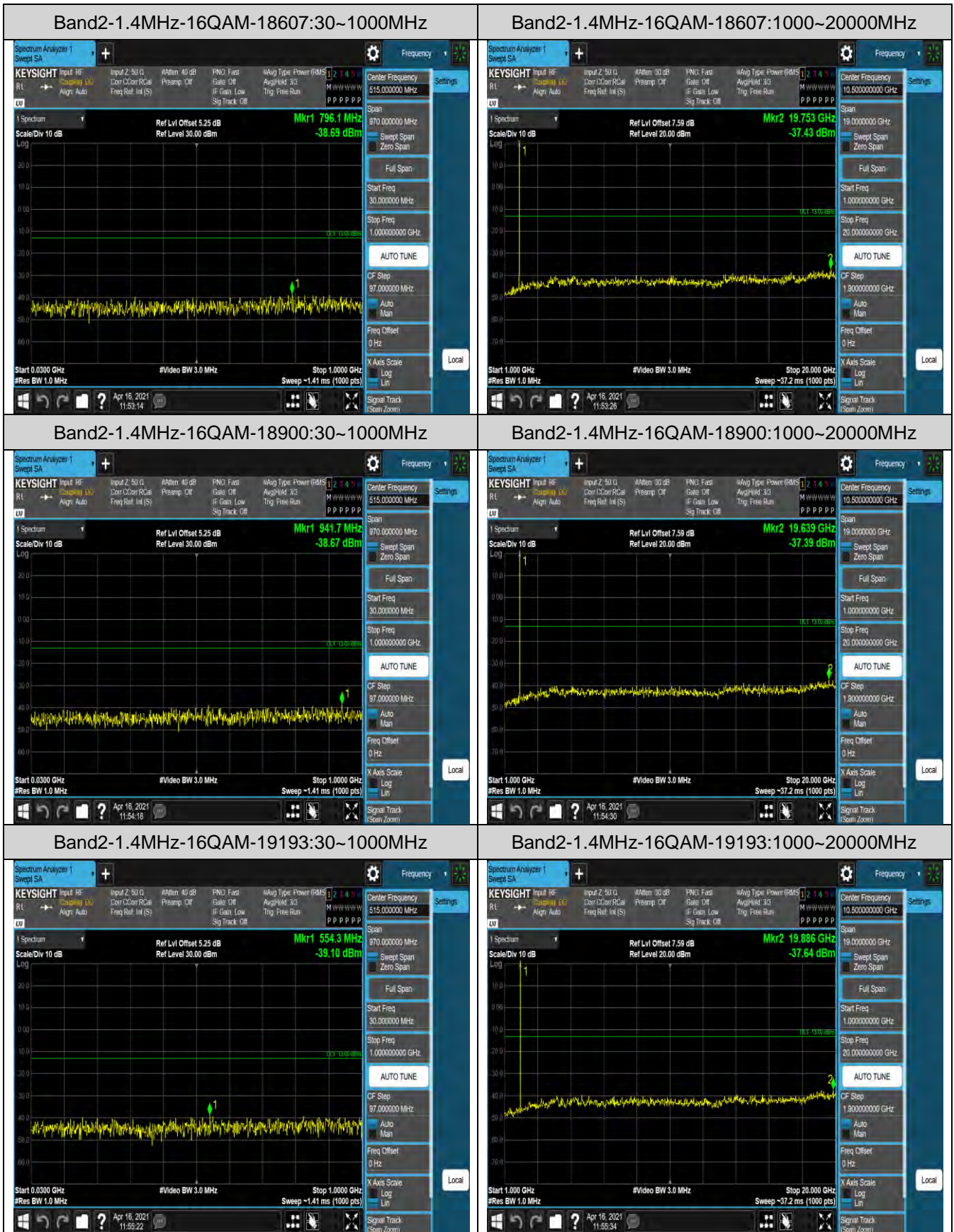
|       |        |       |       |       |               |        |      |
|-------|--------|-------|-------|-------|---------------|--------|------|
| Band4 | 1.4MHz | 16QAM | 19957 | 1RB#0 | 1000~20000MHz | -37.27 | PASS |
| Band4 | 1.4MHz | 16QAM | 20175 | 1RB#0 | 30~1000MHz    | -38.75 | PASS |
| Band4 | 1.4MHz | 16QAM | 20175 | 1RB#0 | 1000~20000MHz | -36.64 | PASS |
| Band4 | 1.4MHz | 16QAM | 20393 | 1RB#0 | 30~1000MHz    | -38.6  | PASS |
| Band4 | 1.4MHz | 16QAM | 20393 | 1RB#0 | 1000~20000MHz | -36.85 | PASS |
| Band4 | 20MHz  | QPSK  | 20050 | 1RB#0 | 30~1000MHz    | -37.34 | PASS |
| Band4 | 20MHz  | QPSK  | 20050 | 1RB#0 | 1000~20000MHz | -37.29 | PASS |
| Band4 | 20MHz  | QPSK  | 20175 | 1RB#0 | 30~1000MHz    | -38.58 | PASS |
| Band4 | 20MHz  | QPSK  | 20175 | 1RB#0 | 1000~20000MHz | -37.22 | PASS |
| Band4 | 20MHz  | QPSK  | 20300 | 1RB#0 | 30~1000MHz    | -37.69 | PASS |
| Band4 | 20MHz  | QPSK  | 20300 | 1RB#0 | 1000~20000MHz | -36.96 | PASS |
| Band4 | 20MHz  | 16QAM | 20050 | 1RB#0 | 30~1000MHz    | -38.29 | PASS |
| Band4 | 20MHz  | 16QAM | 20050 | 1RB#0 | 1000~20000MHz | -37.59 | PASS |
| Band4 | 20MHz  | 16QAM | 20175 | 1RB#0 | 30~1000MHz    | -39.08 | PASS |
| Band4 | 20MHz  | 16QAM | 20175 | 1RB#0 | 1000~20000MHz | -36.69 | PASS |
| Band4 | 20MHz  | 16QAM | 20300 | 1RB#0 | 30~1000MHz    | -38.15 | PASS |
| Band4 | 20MHz  | 16QAM | 20300 | 1RB#0 | 1000~20000MHz | -37.43 | PASS |
| Band5 | 1.4MHz | QPSK  | 20407 | 1RB#0 | 30~1000MHz    | -48.34 | PASS |
| Band5 | 1.4MHz | QPSK  | 20407 | 1RB#0 | 1000~10000MHz | -35.81 | PASS |
| Band5 | 1.4MHz | QPSK  | 20525 | 1RB#0 | 30~1000MHz    | -48.38 | PASS |
| Band5 | 1.4MHz | QPSK  | 20525 | 1RB#0 | 1000~10000MHz | -36.25 | PASS |
| Band5 | 1.4MHz | QPSK  | 20643 | 1RB#0 | 30~1000MHz    | -48.49 | PASS |
| Band5 | 1.4MHz | QPSK  | 20643 | 1RB#0 | 1000~10000MHz | -37.38 | PASS |
| Band5 | 1.4MHz | 16QAM | 20407 | 1RB#0 | 30~1000MHz    | -46.85 | PASS |
| Band5 | 1.4MHz | 16QAM | 20407 | 1RB#0 | 1000~10000MHz | -35.12 | PASS |
| Band5 | 1.4MHz | 16QAM | 20525 | 1RB#0 | 30~1000MHz    | -48.49 | PASS |
| Band5 | 1.4MHz | 16QAM | 20525 | 1RB#0 | 1000~10000MHz | -38.1  | PASS |
| Band5 | 1.4MHz | 16QAM | 20643 | 1RB#0 | 30~1000MHz    | -48.22 | PASS |
| Band5 | 1.4MHz | 16QAM | 20643 | 1RB#0 | 1000~10000MHz | -36.98 | PASS |
| Band5 | 10MHz  | QPSK  | 20450 | 1RB#0 | 30~1000MHz    | -48.17 | PASS |
| Band5 | 10MHz  | QPSK  | 20450 | 1RB#0 | 1000~10000MHz | -39.7  | PASS |
| Band5 | 10MHz  | QPSK  | 20525 | 1RB#0 | 30~1000MHz    | -48.44 | PASS |
| Band5 | 10MHz  | QPSK  | 20525 | 1RB#0 | 1000~10000MHz | -33.13 | PASS |
| Band5 | 10MHz  | QPSK  | 20600 | 1RB#0 | 30~1000MHz    | -48.93 | PASS |
| Band5 | 10MHz  | QPSK  | 20600 | 1RB#0 | 1000~10000MHz | -36.51 | PASS |
| Band5 | 10MHz  | 16QAM | 20450 | 1RB#0 | 30~1000MHz    | -47.33 | PASS |

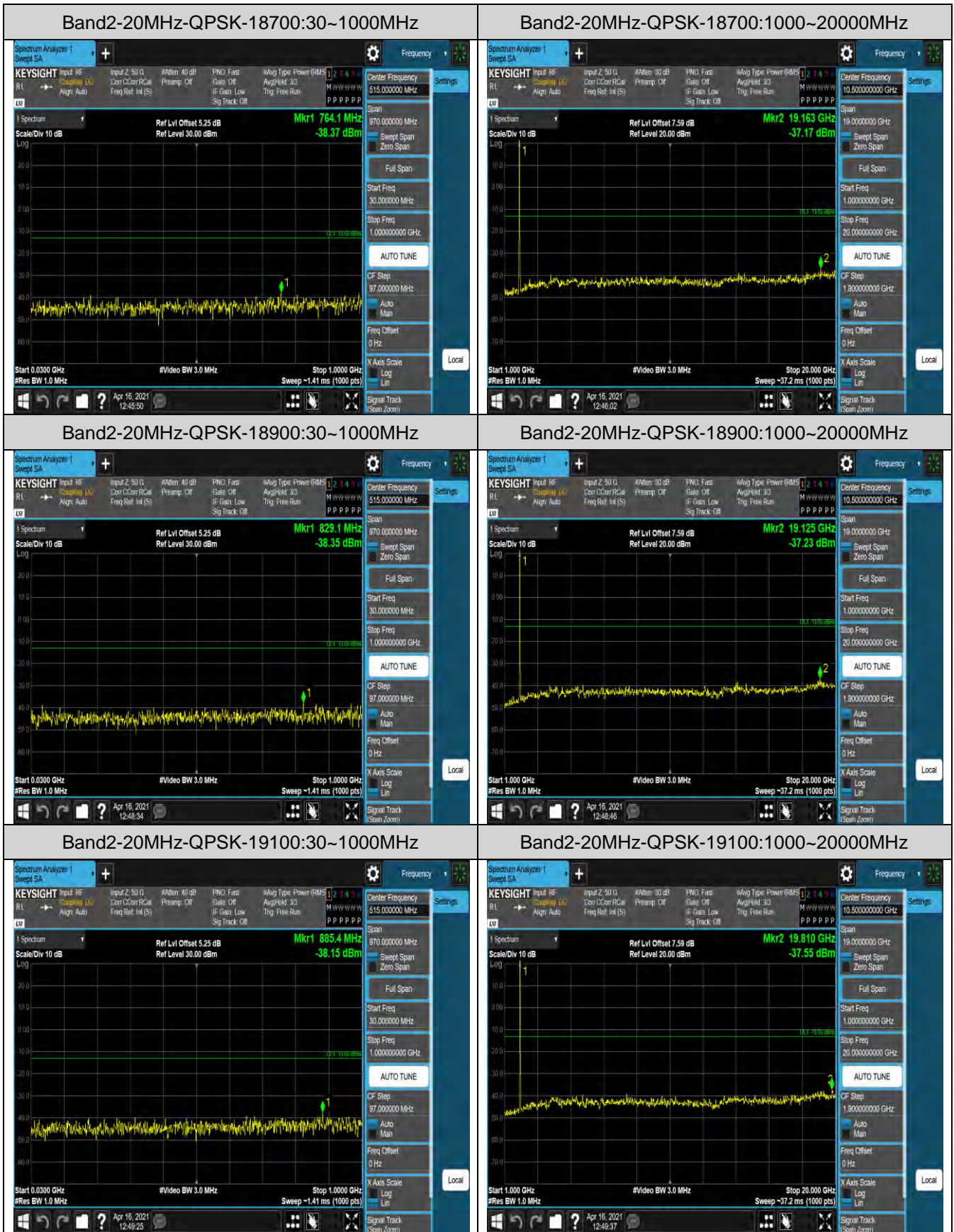
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|--------|--------|-------|--------|-------|---------------|--------|------|
| Band5  | 10MHz  | 16QAM | 20450  | 1RB#0 | 1000~10000MHz | -36.06 | PASS |
| Band5  | 10MHz  | 16QAM | 20525  | 1RB#0 | 30~1000MHz    | -47.83 | PASS |
| Band5  | 10MHz  | 16QAM | 20525  | 1RB#0 | 1000~10000MHz | -35.75 | PASS |
| Band5  | 10MHz  | 16QAM | 20600  | 1RB#0 | 30~1000MHz    | -47.65 | PASS |
| Band5  | 10MHz  | 16QAM | 20600  | 1RB#0 | 1000~10000MHz | -35.37 | PASS |
| Band7  | 5MHz   | QPSK  | 20775  | 1RB#0 | 30~1000MHz    | -48.55 | PASS |
| Band7  | 5MHz   | QPSK  | 20775  | 1RB#0 | 1000~27000MHz | -33.96 | PASS |
| Band7  | 5MHz   | QPSK  | 21100  | 1RB#0 | 30~1000MHz    | -48.64 | PASS |
| Band7  | 5MHz   | QPSK  | 21100  | 1RB#0 | 1000~27000MHz | -32.89 | PASS |
| Band7  | 5MHz   | QPSK  | 21425  | 1RB#0 | 30~1000MHz    | -48.2  | PASS |
| Band7  | 5MHz   | QPSK  | 21425  | 1RB#0 | 1000~27000MHz | -34.43 | PASS |
| Band7  | 5MHz   | 16QAM | 20775  | 1RB#0 | 30~1000MHz    | -47.7  | PASS |
| Band7  | 5MHz   | 16QAM | 20775  | 1RB#0 | 1000~27000MHz | -34.48 | PASS |
| Band7  | 5MHz   | 16QAM | 21100  | 1RB#0 | 30~1000MHz    | -49.06 | PASS |
| Band7  | 5MHz   | 16QAM | 21100  | 1RB#0 | 1000~27000MHz | -34.18 | PASS |
| Band7  | 5MHz   | 16QAM | 21425  | 1RB#0 | 30~1000MHz    | -48.11 | PASS |
| Band7  | 5MHz   | 16QAM | 21425  | 1RB#0 | 1000~27000MHz | -34.16 | PASS |
| Band7  | 20MHz  | QPSK  | 20850  | 1RB#0 | 30~1000MHz    | -48.05 | PASS |
| Band7  | 20MHz  | QPSK  | 20850  | 1RB#0 | 1000~27000MHz | -34.73 | PASS |
| Band7  | 20MHz  | QPSK  | 21100  | 1RB#0 | 30~1000MHz    | -48.34 | PASS |
| Band7  | 20MHz  | QPSK  | 21100  | 1RB#0 | 1000~27000MHz | -34.05 | PASS |
| Band7  | 20MHz  | QPSK  | 21350  | 1RB#0 | 30~1000MHz    | -47.12 | PASS |
| Band7  | 20MHz  | QPSK  | 21350  | 1RB#0 | 1000~27000MHz | -34.1  | PASS |
| Band7  | 20MHz  | 16QAM | 20850  | 1RB#0 | 30~1000MHz    | -48.93 | PASS |
| Band7  | 20MHz  | 16QAM | 20850  | 1RB#0 | 1000~27000MHz | -34.25 | PASS |
| Band7  | 20MHz  | 16QAM | 21100  | 1RB#0 | 30~1000MHz    | -47.41 | PASS |
| Band7  | 20MHz  | 16QAM | 21100  | 1RB#0 | 1000~27000MHz | -34.1  | PASS |
| Band7  | 20MHz  | 16QAM | 21350  | 1RB#0 | 30~1000MHz    | -48.4  | PASS |
| Band7  | 20MHz  | 16QAM | 21350  | 1RB#0 | 1000~27000MHz | -34.62 | PASS |
| Band66 | 1.4MHz | QPSK  | 131979 | 1RB#0 | 30~1000MHz    | -37.72 | PASS |
| Band66 | 1.4MHz | QPSK  | 131979 | 1RB#0 | 1000~20000MHz | -36.66 | PASS |
| Band66 | 1.4MHz | QPSK  | 132322 | 1RB#0 | 30~1000MHz    | -38.01 | PASS |
| Band66 | 1.4MHz | QPSK  | 132322 | 1RB#0 | 1000~20000MHz | -36.54 | PASS |
| Band66 | 1.4MHz | QPSK  | 132665 | 1RB#0 | 30~1000MHz    | -38.57 | PASS |
| Band66 | 1.4MHz | QPSK  | 132665 | 1RB#0 | 1000~20000MHz | -36.51 | PASS |
| Band66 | 1.4MHz | 16QAM | 131979 | 1RB#0 | 30~1000MHz    | -38.72 | PASS |

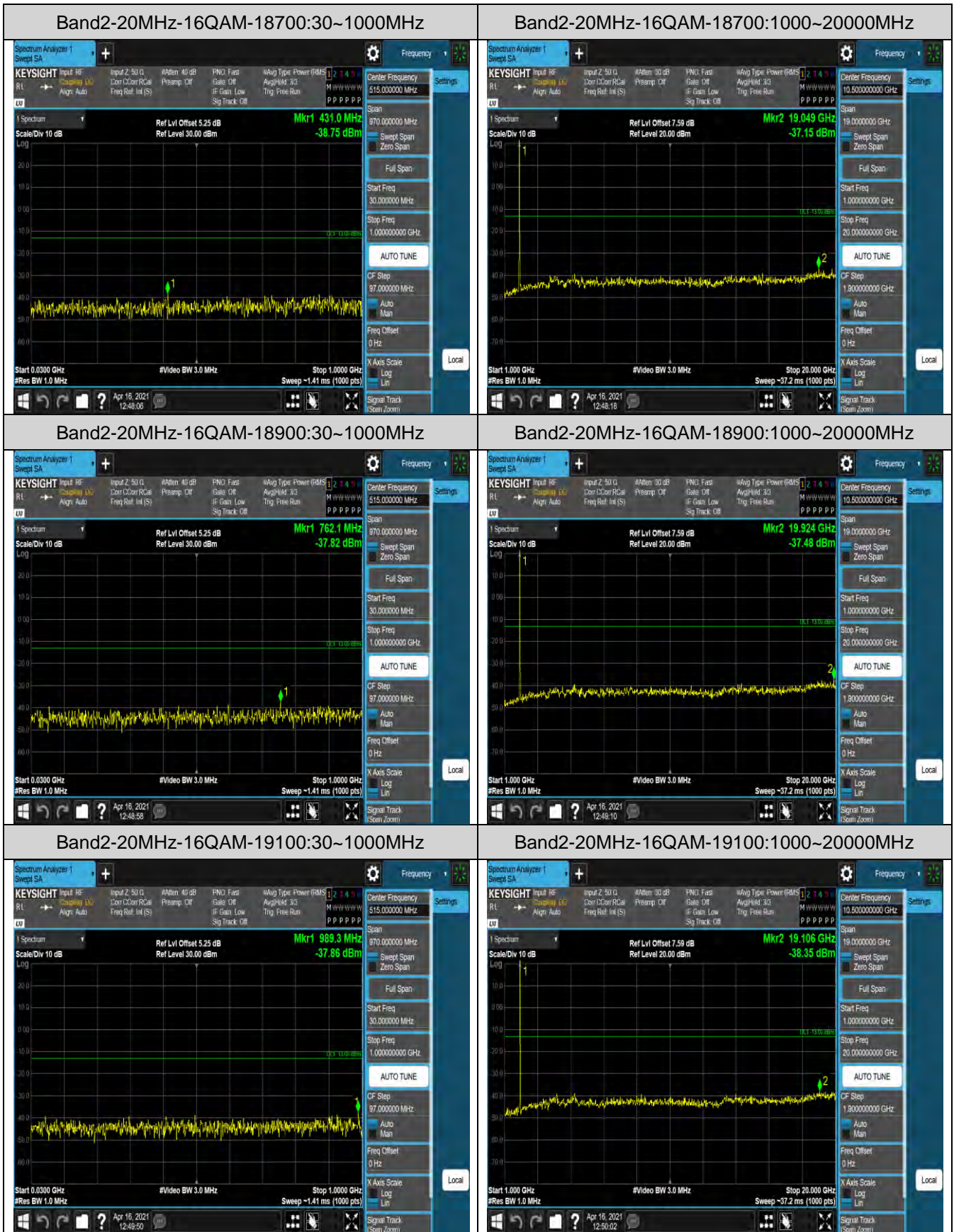
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|--------|--------|-------|--------|-------|---------------|--------|------|
| Band66 | 1.4MHz | 16QAM | 131979 | 1RB#0 | 1000~20000MHz | -37.7  | PASS |
| Band66 | 1.4MHz | 16QAM | 132322 | 1RB#0 | 30~1000MHz    | -38.78 | PASS |
| Band66 | 1.4MHz | 16QAM | 132322 | 1RB#0 | 1000~20000MHz | -37.82 | PASS |
| Band66 | 1.4MHz | 16QAM | 132665 | 1RB#0 | 30~1000MHz    | -39.04 | PASS |
| Band66 | 1.4MHz | 16QAM | 132665 | 1RB#0 | 1000~20000MHz | -37.52 | PASS |
| Band66 | 20MHz  | QPSK  | 132072 | 1RB#0 | 30~1000MHz    | -38.45 | PASS |
| Band66 | 20MHz  | QPSK  | 132072 | 1RB#0 | 1000~20000MHz | -37.21 | PASS |
| Band66 | 20MHz  | QPSK  | 132322 | 1RB#0 | 30~1000MHz    | -38.3  | PASS |
| Band66 | 20MHz  | QPSK  | 132322 | 1RB#0 | 1000~20000MHz | -37.91 | PASS |
| Band66 | 20MHz  | QPSK  | 132572 | 1RB#0 | 30~1000MHz    | -37.7  | PASS |
| Band66 | 20MHz  | QPSK  | 132572 | 1RB#0 | 1000~20000MHz | -37.7  | PASS |
| Band66 | 20MHz  | 16QAM | 132072 | 1RB#0 | 30~1000MHz    | -37.27 | PASS |
| Band66 | 20MHz  | 16QAM | 132072 | 1RB#0 | 1000~20000MHz | -36.98 | PASS |
| Band66 | 20MHz  | 16QAM | 132322 | 1RB#0 | 30~1000MHz    | -38.79 | PASS |
| Band66 | 20MHz  | 16QAM | 132322 | 1RB#0 | 1000~20000MHz | -36.29 | PASS |
| Band66 | 20MHz  | 16QAM | 132572 | 1RB#0 | 30~1000MHz    | -38.88 | PASS |
| Band66 | 20MHz  | 16QAM | 132572 | 1RB#0 | 1000~20000MHz | -37.87 | PASS |

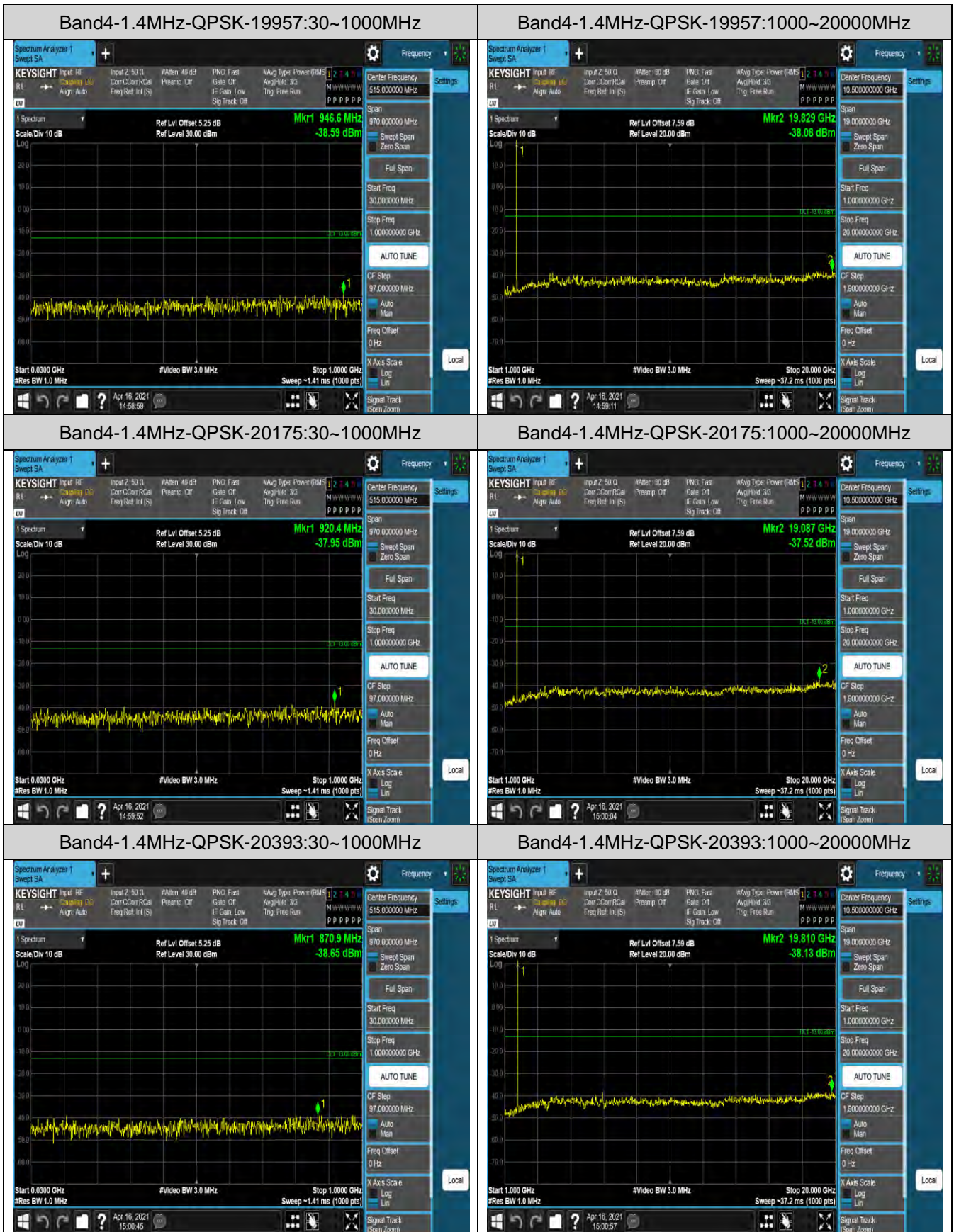
### Test Graphs



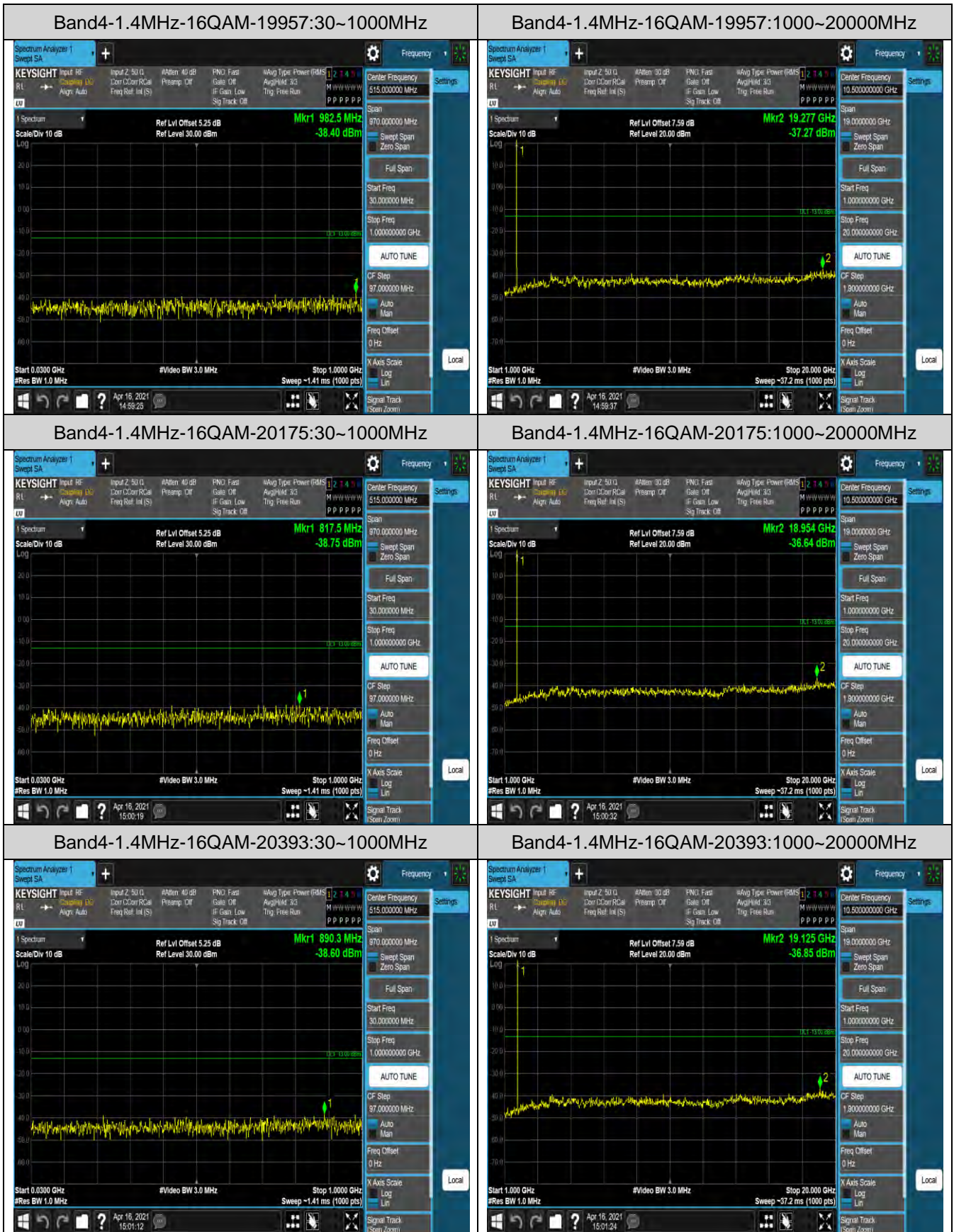


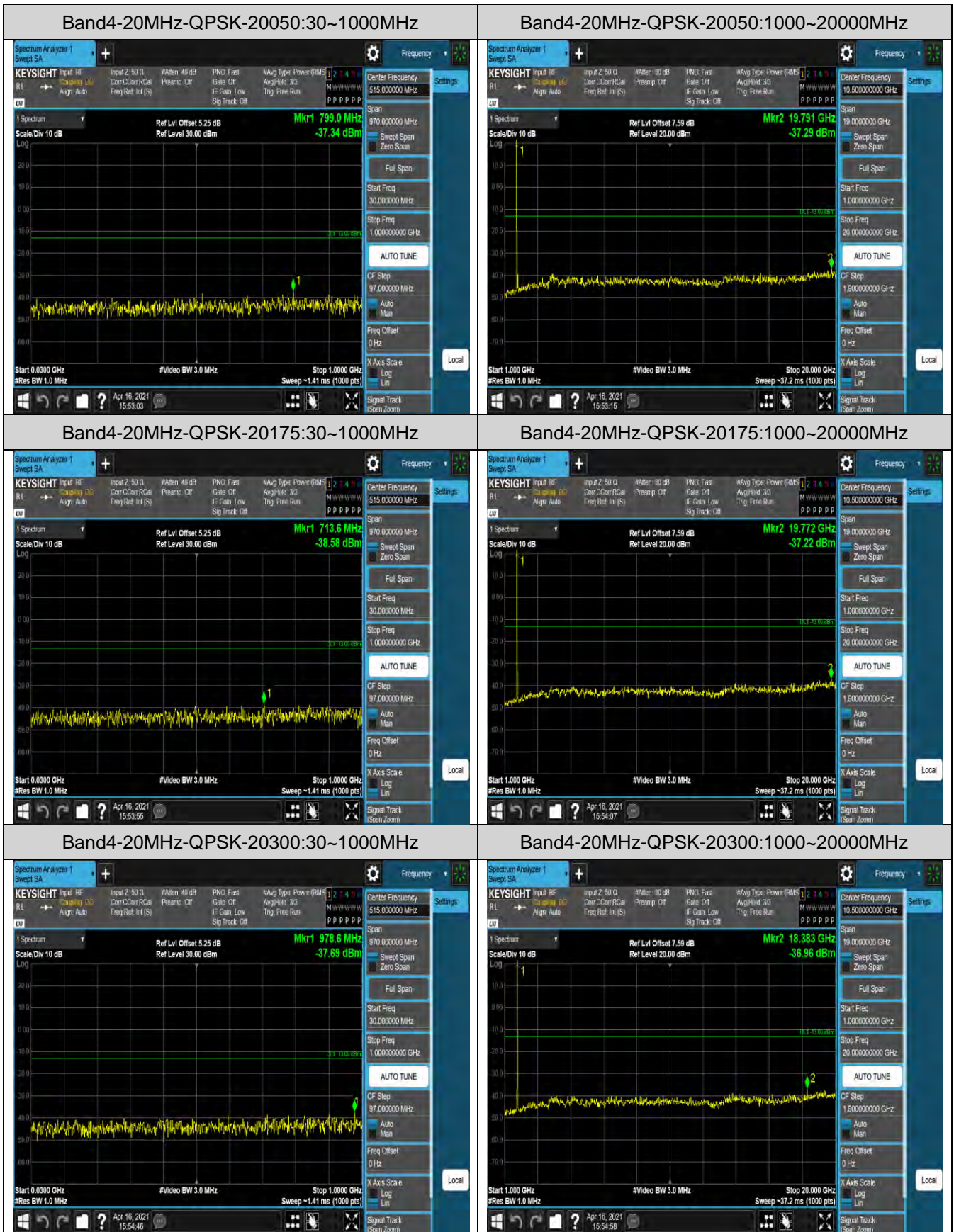


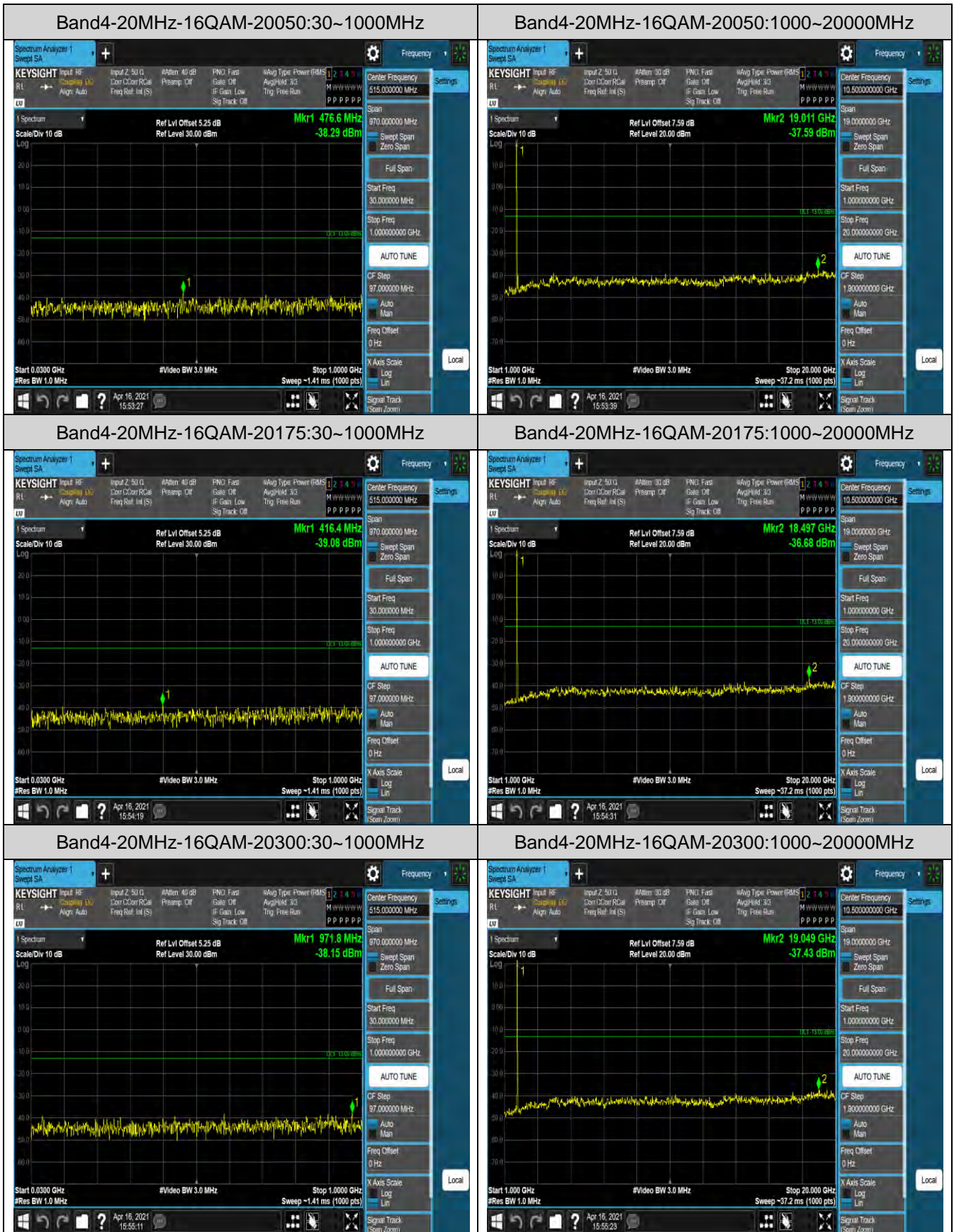


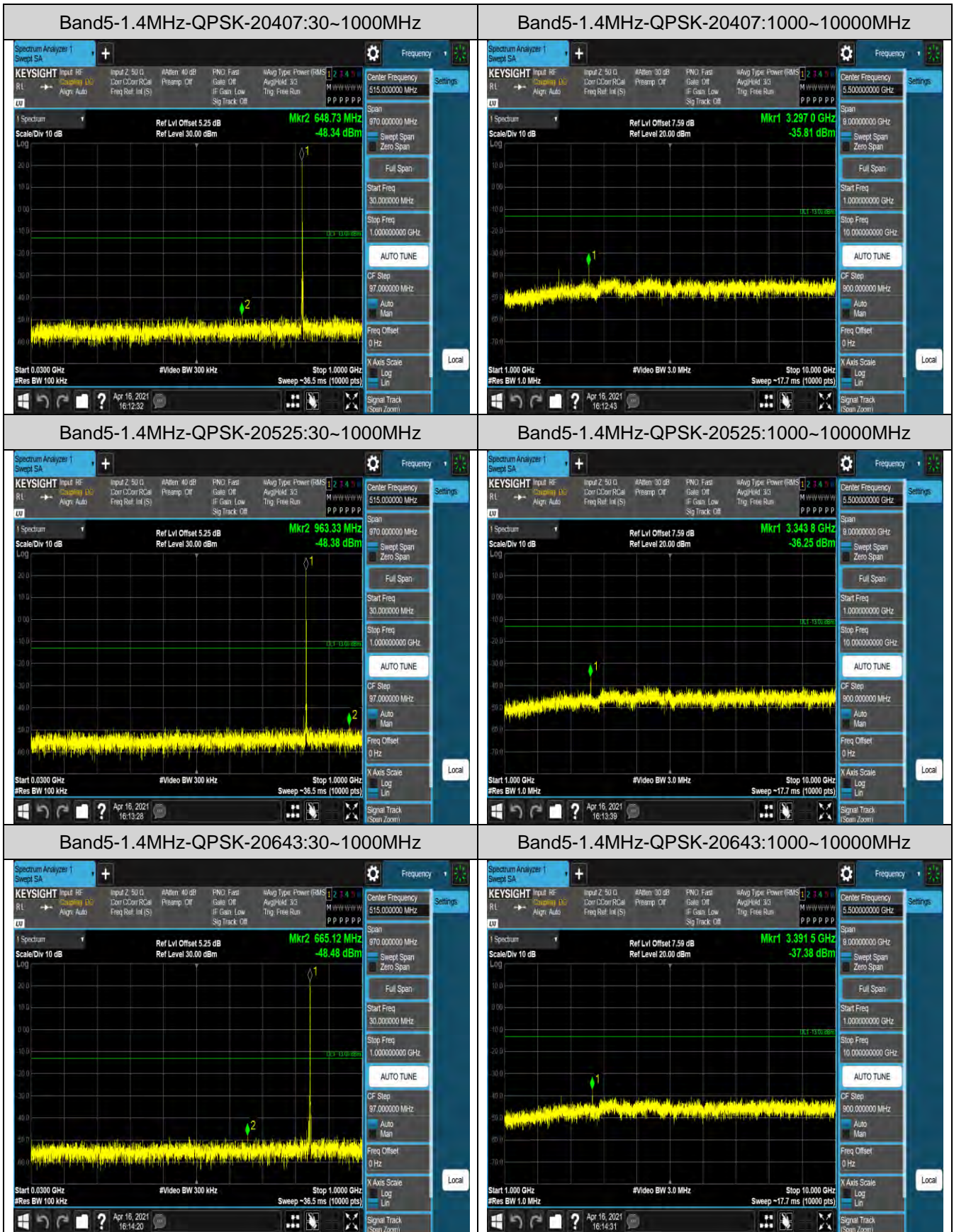


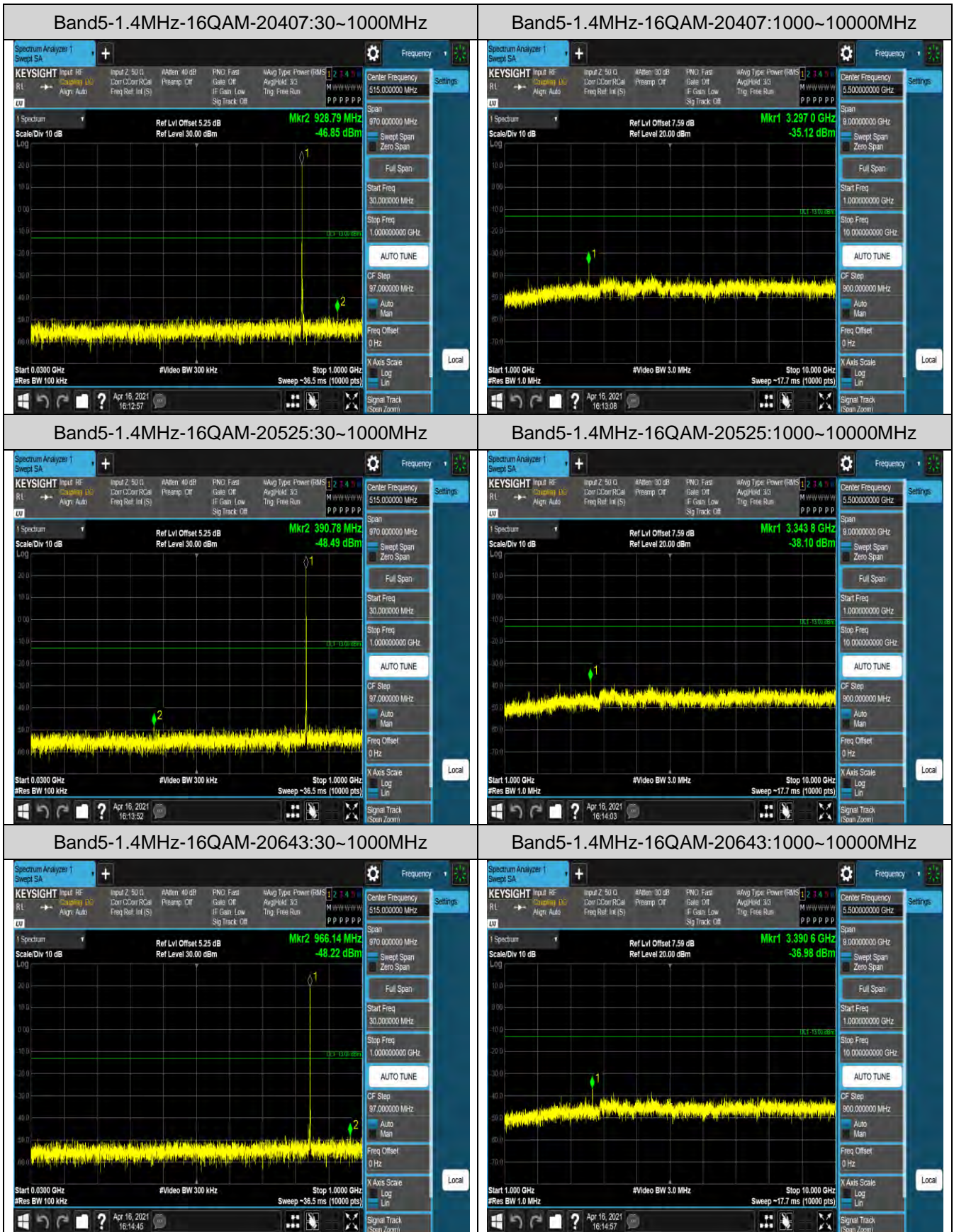


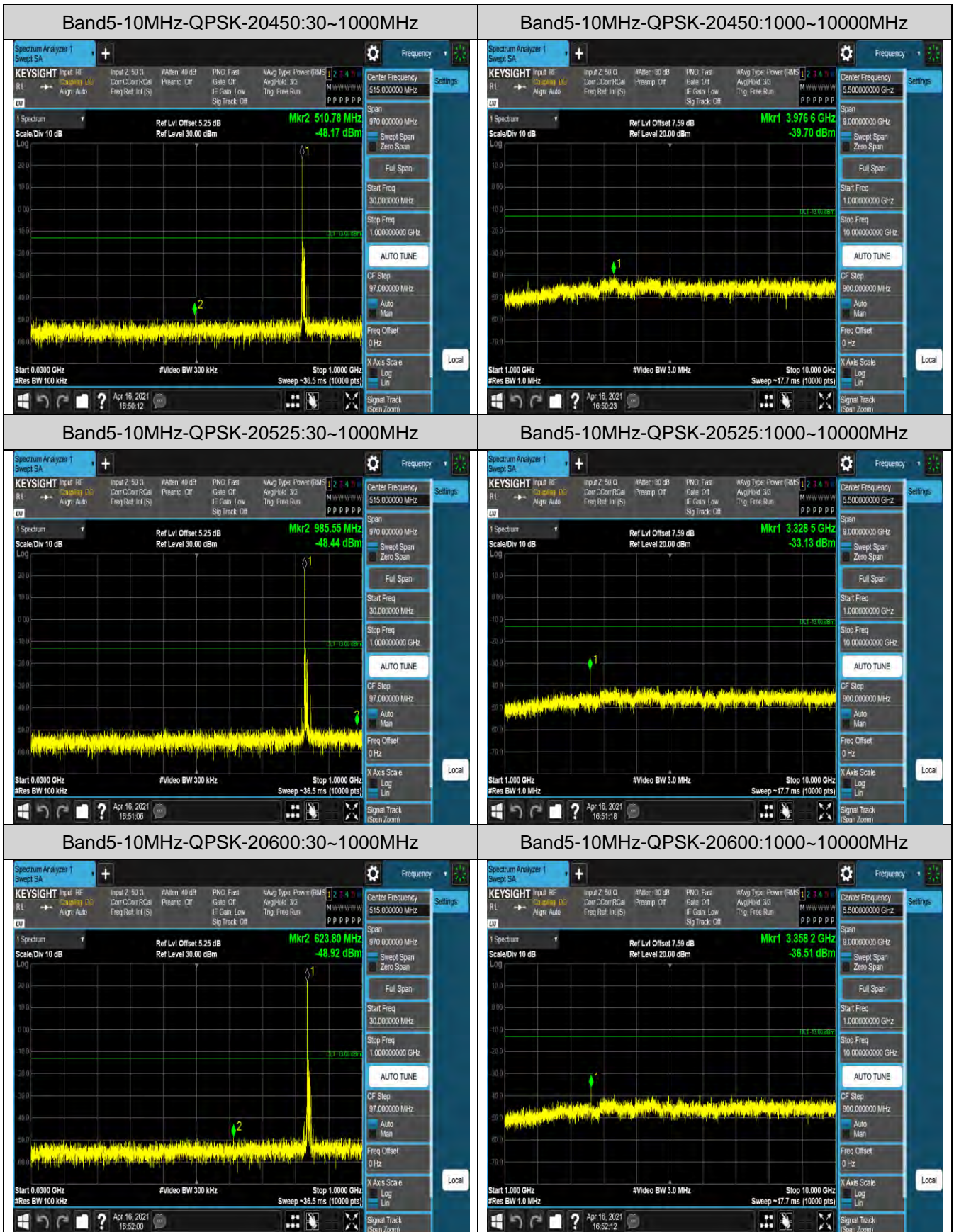


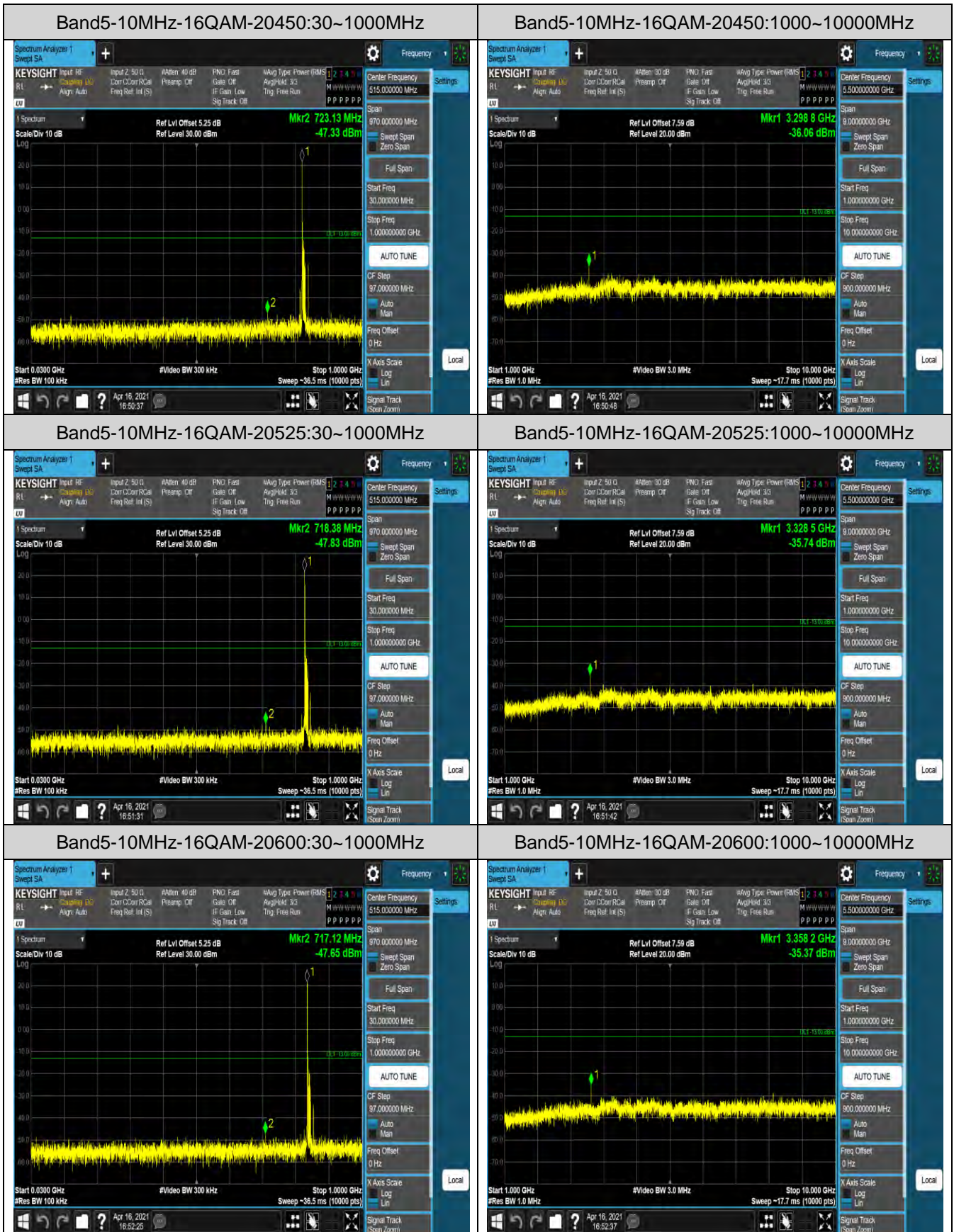


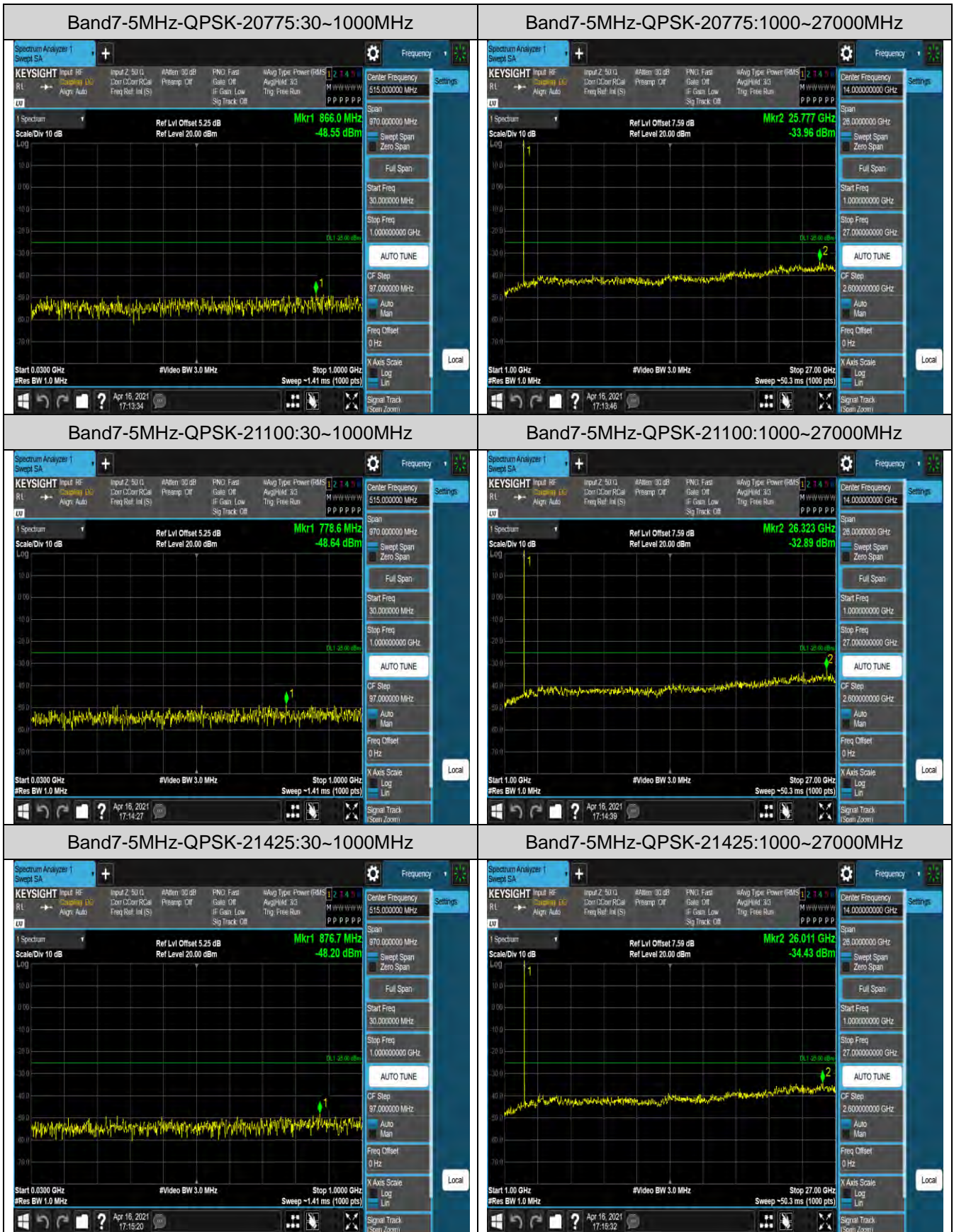




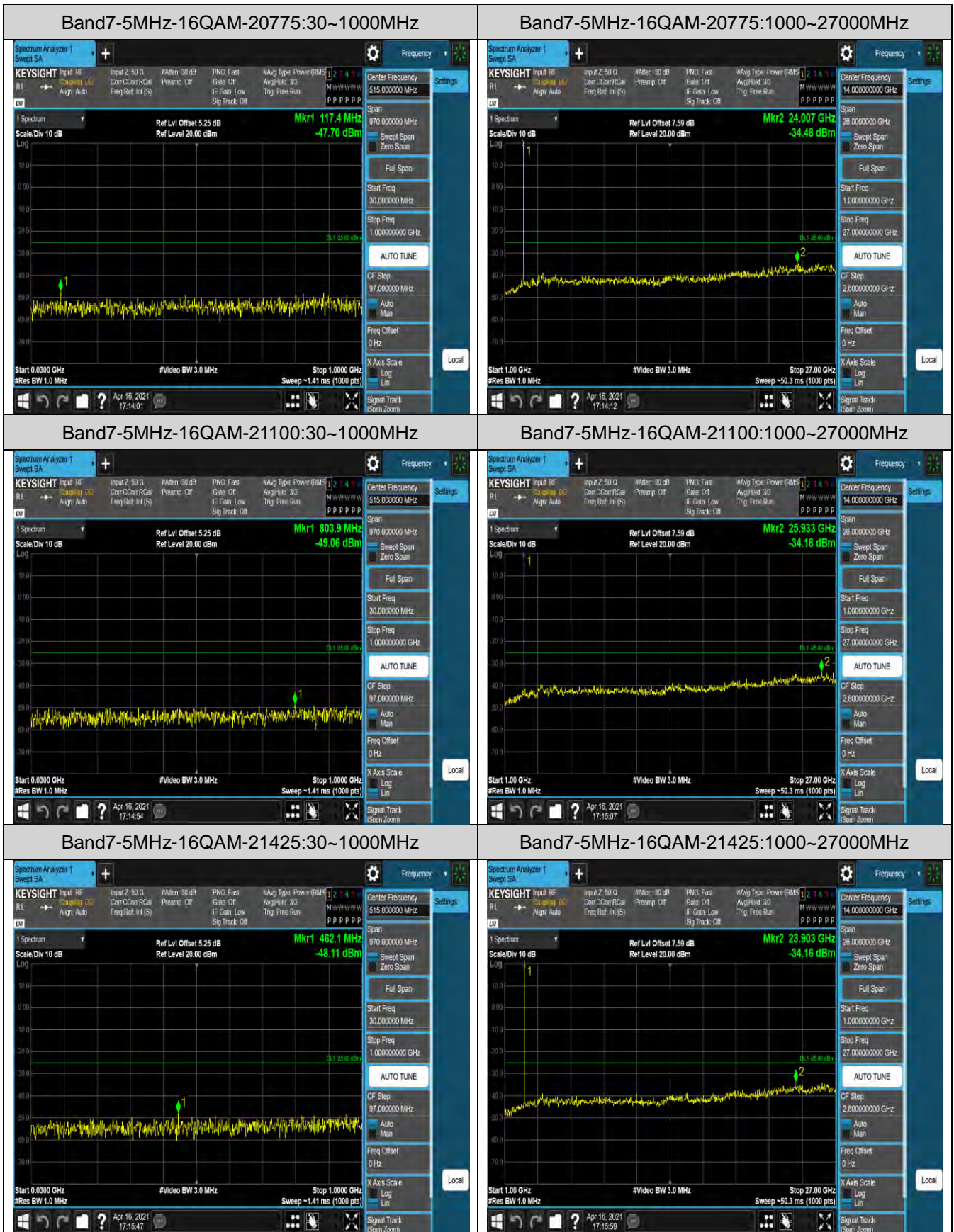


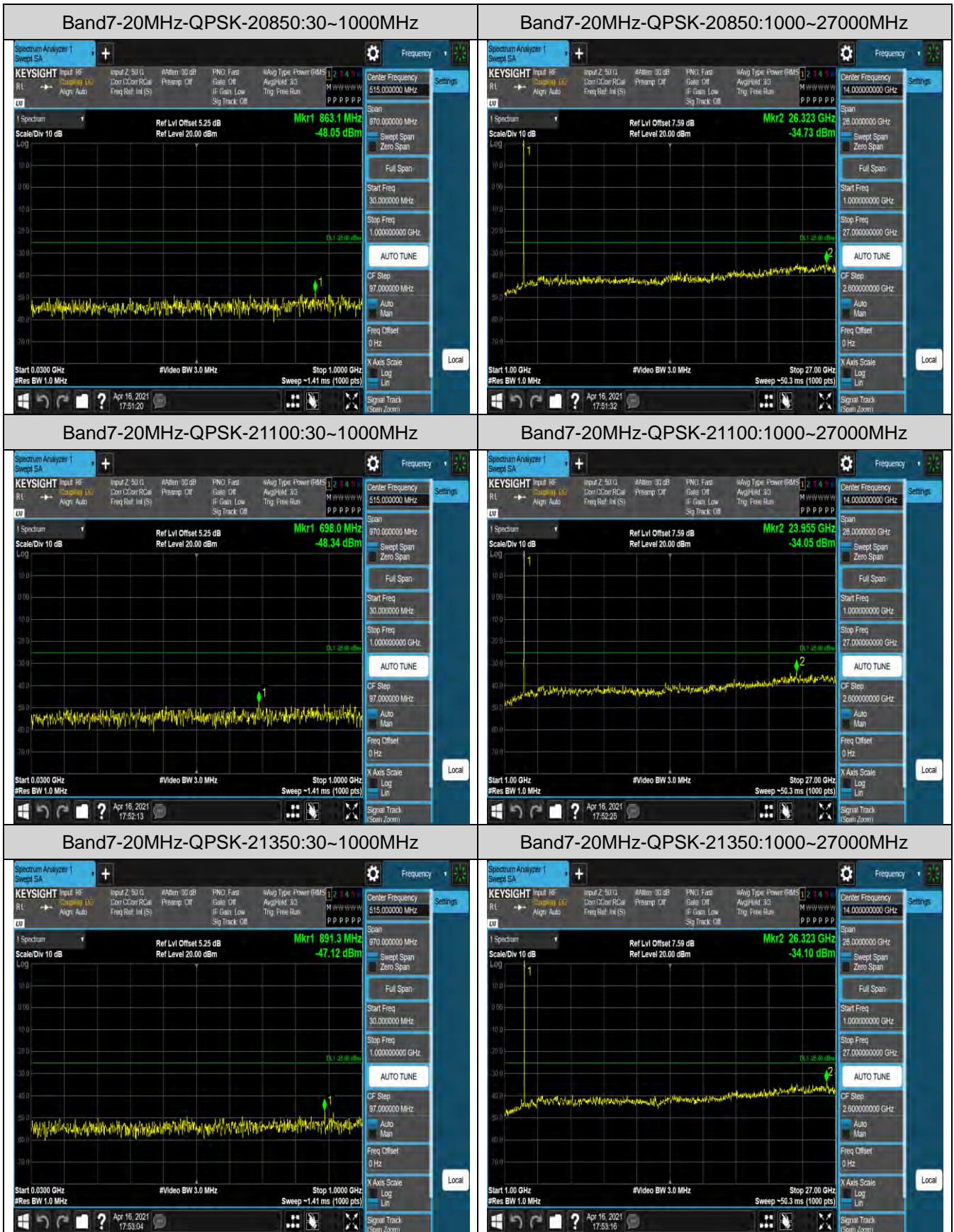


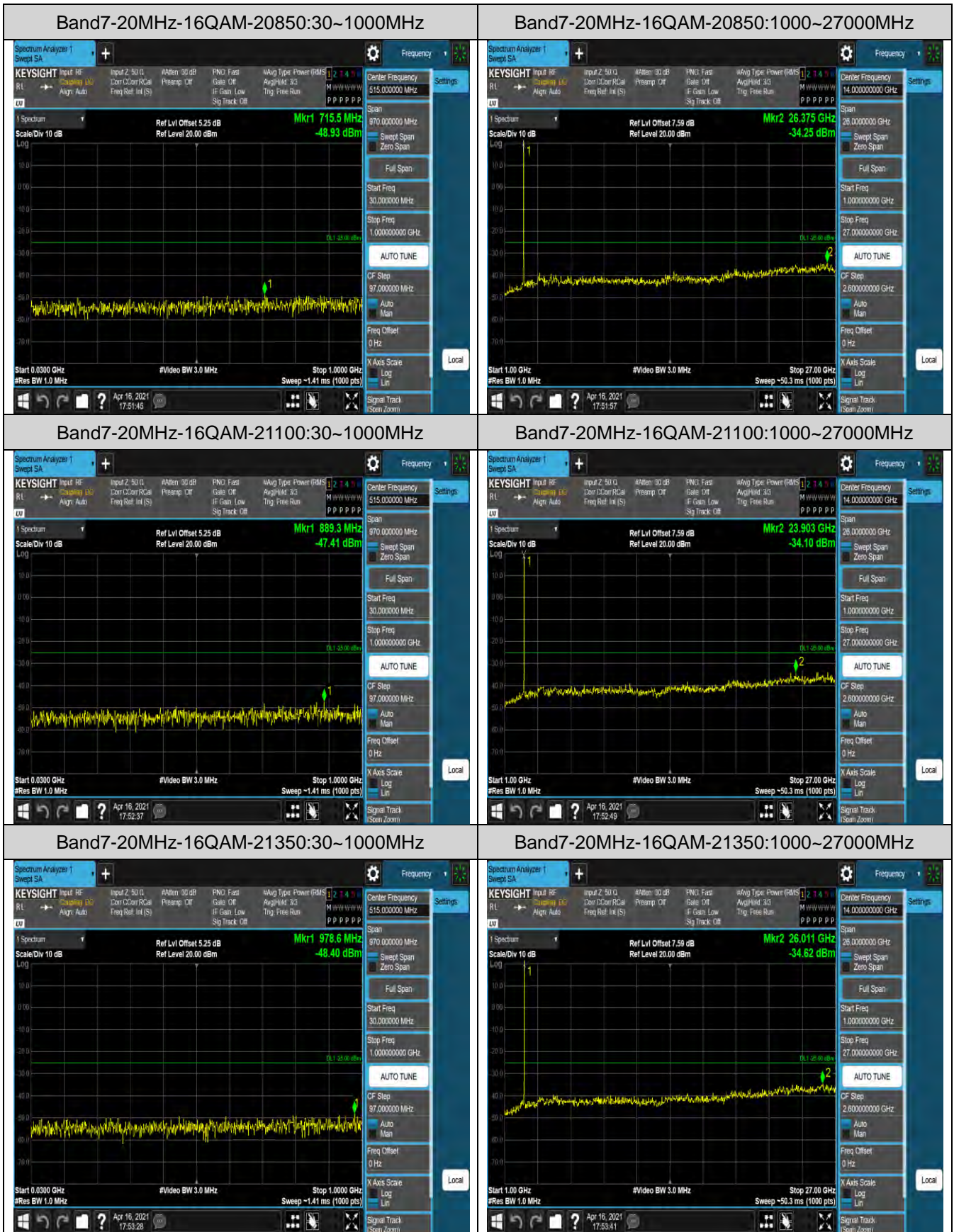


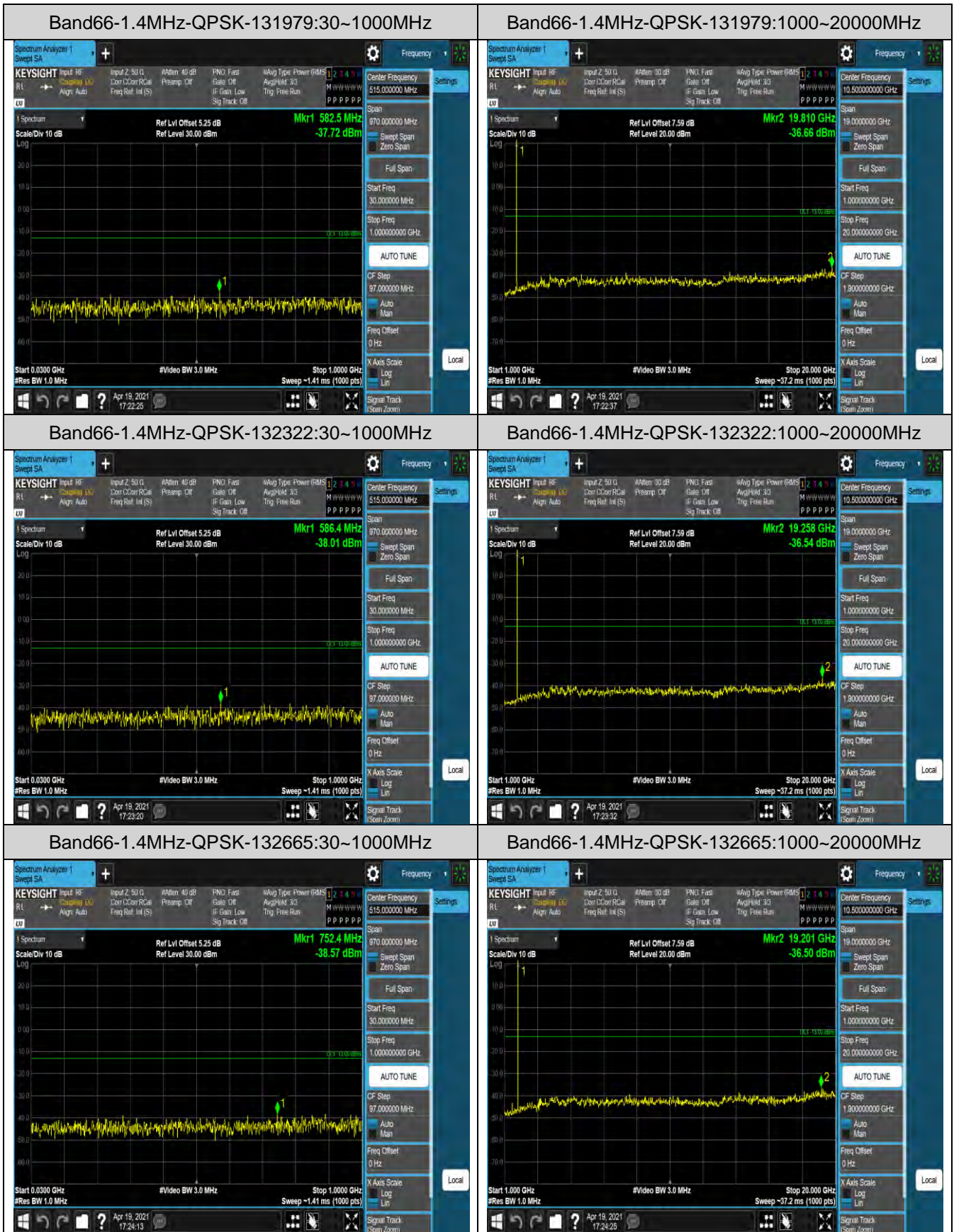


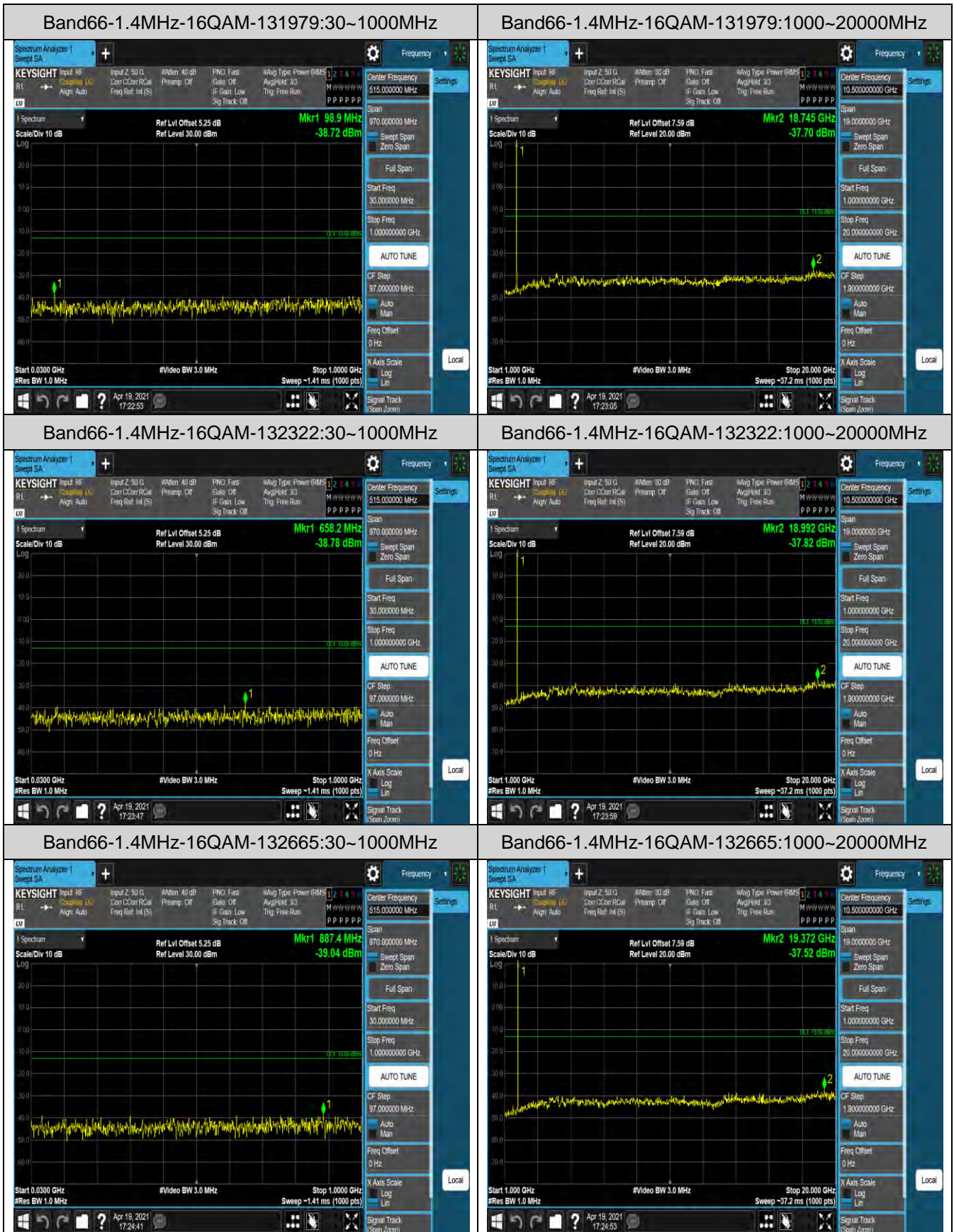


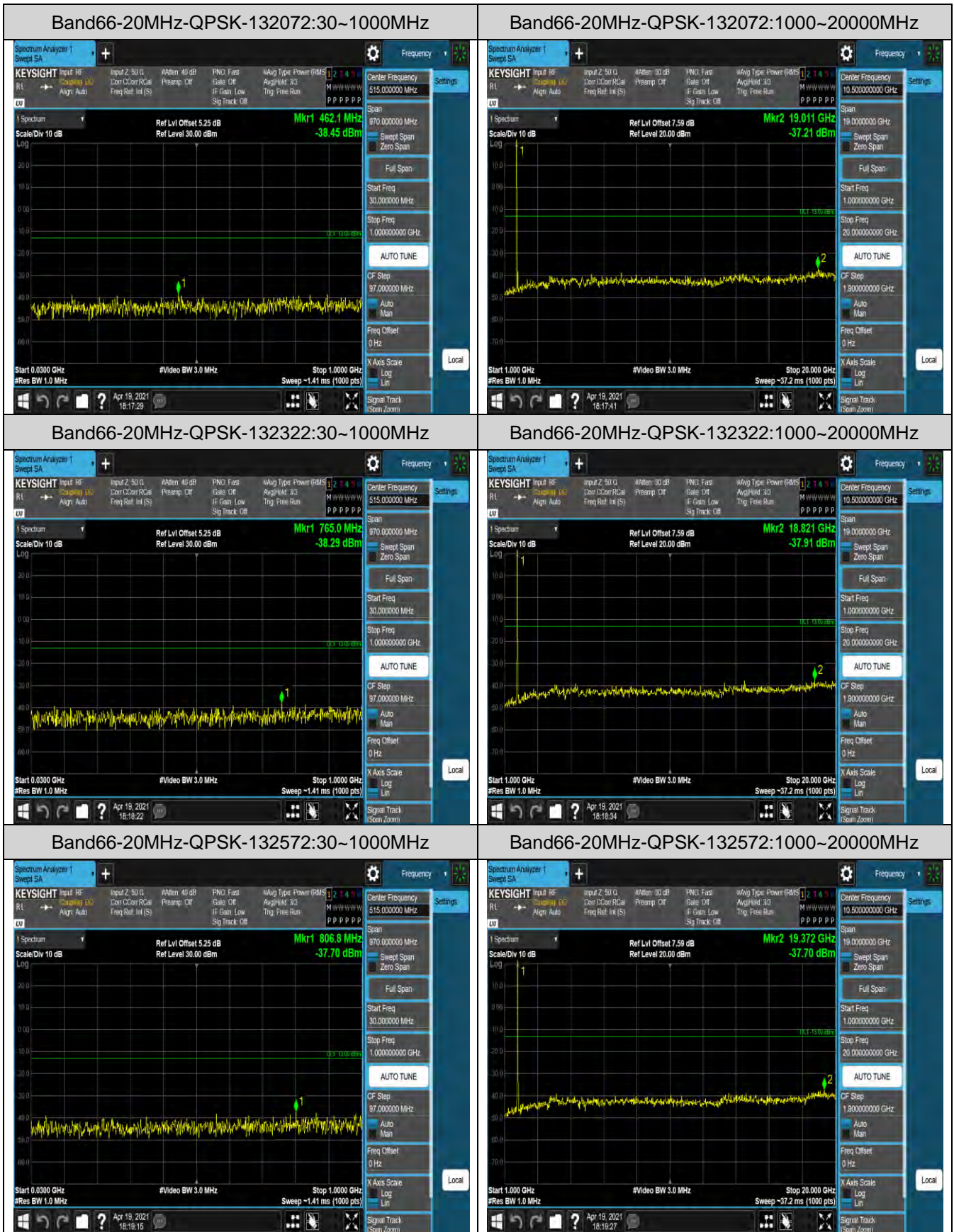


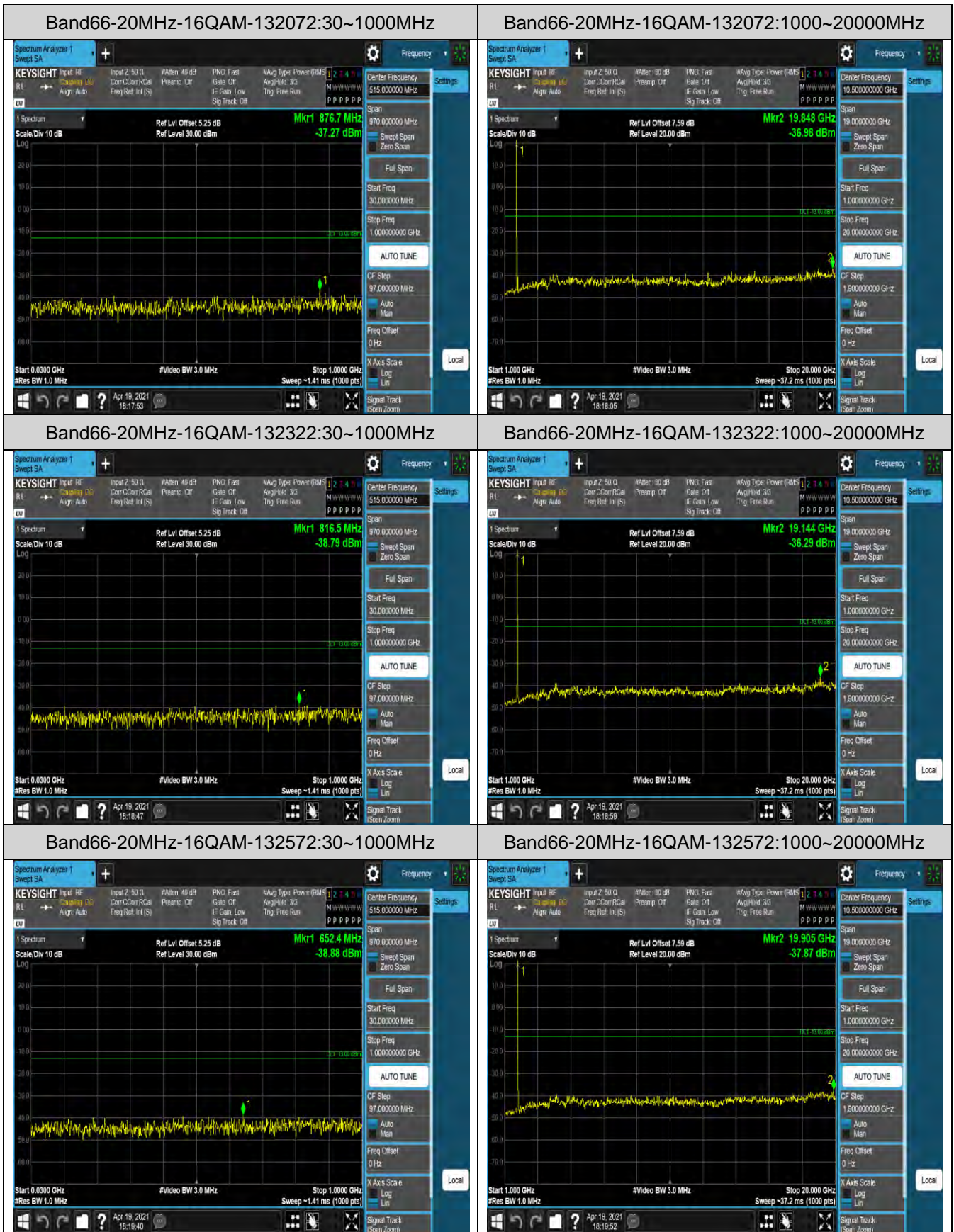












## Appendix F: Frequency Stability

### Test Result (worst case)

LTE Band 2 part:

| Reference Frequency: LTE Band 2 (10MHz) Middle channel=18900 Frequency=1880.0MHz |                      |                 |           |                                   |        |
|--|----------------------|-----------------|-----------|-----------------------------------|--------|
| Temperature  |                      |                 |           |                                   |        |
| Power supplied (Vdc)   | Temperature (°C)     | Frequency error |           | Limit (ppm)                       | Result |
|  |                      | Hz              | ppm       |                                   |        |
| QPSK   |                      |                 |           |                                   |        |
| 3.85   | -30                  | -35.25          | -0.018750 | Within authorized band for Band 2 | Pass   |
|  | -20                  | -24.00          | -0.012766 |                                   |        |
|  | -10                  | -34.07          | -0.018122 |                                   |        |
|  | 0                    | -18.28          | -0.009723 |                                   |        |
|  | 10                   | -34.25          | -0.018218 |                                   |        |
|  | 20                   | -10.54          | -0.005606 |                                   |        |
|  | 30                   | -45.43          | -0.024165 |                                   |        |
|  | 40                   | -29.41          | -0.015644 |                                   |        |
|  | 50                   | 12.19           | 0.006484  |                                   |        |
| 16QAM  |                      |                 |           |                                   |        |
| 3.85   | -30                  | -23.86          | -0.012691 | Within authorized band for Band 2 | Pass   |
|  | -20                  | -32.93          | -0.017516 |                                   |        |
|  | -10                  | -32.94          | -0.017521 |                                   |        |
|  | 0                    | -32.37          | -0.017218 |                                   |        |
|  | 10                   | -40.04          | -0.021298 |                                   |        |
|  | 20                   | -36.98          | -0.019670 |                                   |        |
|  | 30                   | -49.80          | -0.026489 |                                   |        |
|  | 40                   | -50.64          | -0.026936 |                                   |        |
|  | 50                   | -53.00          | -0.028191 |                                   |        |
| Voltage  |                      |                 |           |                                   |        |
| Temperature (°C)   | Power supplied (Vdc) | Frequency error |           | Limit (ppm)                       | Result |
|  |                      | Hz              | ppm       |                                   |        |
| QPSK   |                      |                 |           |                                   |        |
| 25   | 3.50                 | -51.26          | -0.027266 | Within authorized band for Band 2 | Pass   |
|  | 3.85                 | -40.01          | -0.021282 |                                   |        |
|  | 4.40                 | -25.75          | -0.013697 |                                   |        |
| 16QAM  |                      |                 |           |                                   |        |
| 25   | 3.50                 | -19.48          | -0.010362 | Within authorized band for Band 2 | Pass   |
|  | 3.85                 | -19.68          | -0.010468 |                                   |        |
|  | 4.40                 | -12.20          | -0.006489 |                                   |        |

Note: Only the worst case shown in the report.



## LTE Band 4 part:

| Reference Frequency: LTE Band 4(10MHz) Middle channel=20175 Frequency=1732.5MHz |                      |                 |           |                                   |        |
|---|----------------------|-----------------|-----------|-----------------------------------|--------|
| Temperature   |                      |                 |           |                                   |        |
| Power supplied (Vdc)  | Temperature (°C)     | Frequency error |           | Limit (ppm)                       | Result |
|   |                      | Hz              | ppm       |                                   |        |
| QPSK  |                      |                 |           |                                   |        |
| 3.85  | -30                  | -29.93          | -0.017276 | Within authorized band for Band 4 | Pass   |
|   | -20                  | -34.16          | -0.019717 |                                   |        |
|   | -10                  | -28.02          | -0.016173 |                                   |        |
|   | 0                    | -17.64          | -0.010182 |                                   |        |
|   | 10                   | -33.47          | -0.019319 |                                   |        |
|   | 20                   | -6.39           | -0.003688 |                                   |        |
|   | 30                   | -13.25          | -0.007648 |                                   |        |
|   | 40                   | -23.67          | -0.013662 |                                   |        |
|   | 50                   | -28.42          | -0.016404 |                                   |        |
| 16QAM   |                      |                 |           |                                   |        |
| 3.85  | -30                  | -33.03          | -0.019065 | Within authorized band for Band 4 | Pass   |
|   | -20                  | -27.17          | -0.015683 |                                   |        |
|   | -10                  | -26.76          | -0.015446 |                                   |        |
|   | 0                    | -32.44          | -0.018724 |                                   |        |
|   | 10                   | -31.44          | -0.018147 |                                   |        |
|   | 20                   | -36.08          | -0.020825 |                                   |        |
|   | 30                   | -29.33          | -0.016929 |                                   |        |
|   | 40                   | -28.65          | -0.016537 |                                   |        |
|   | 50                   | -29.01          | -0.016745 |                                   |        |
| Voltage   |                      |                 |           |                                   |        |
| Temperature (°C)  | Power supplied (Vdc) | Frequency error |           | Limit (ppm)                       | Result |
|   |                      | Hz              | ppm       |                                   |        |
| QPSK  |                      |                 |           |                                   |        |
| 25  | 3.50                 | 7.95            | 0.004589  | Within authorized band for Band 4 | Pass   |
|   | 3.85                 | -46.19          | -0.026661 |                                   |        |
|   | 4.40                 | -36.15          | -0.020866 |                                   |        |
| 16QAM   |                      |                 |           |                                   |        |
| 25  | 3.50                 | -28.58          | -0.016496 | Within authorized band for Band 4 | Pass   |
|   | 3.85                 | -40.08          | -0.023134 |                                   |        |
|   | 4.40                 | -34.39          | -0.019850 |                                   |        |

Note: Only the worst case shown in the report.

## LTE Band 5 part:

| Reference Frequency: LTE Band 5(10MHz) Middle channel=20525 Frequency=836.5MHz |                      |                 |           |             |        |
|--|----------------------|-----------------|-----------|-------------|--------|
| Temperature  |                      |                 |           |             |        |
| Power supplied (Vdc)   | Temperature (°C)     | Frequency error |           | Limit (ppm) | Result |
|  |                      | Hz              | ppm       |             |        |
| QPSK   |                      |                 |           |             |        |
| 3.85   | -30                  | -3.03           | -0.003622 | ±2.5        | Pass   |
|  | -20                  | -20.01          | -0.023921 |             |        |
|  | -10                  | -25.81          | -0.030855 |             |        |
|  | 0                    | -32.52          | -0.038876 |             |        |
|  | 10                   | -34.53          | -0.041279 |             |        |
|  | 20                   | -42.21          | -0.050460 |             |        |
|  | 30                   | -44.79          | -0.053545 |             |        |
|  | 40                   | -9.50           | -0.011357 |             |        |
|  | 50                   | -10.67          | -0.012756 |             |        |
| 16QAM  |                      |                 |           |             |        |
| 3.85   | -30                  | -3.13           | -0.003742 | ±2.5        | Pass   |
|  | -20                  | 4.86            | 0.005810  |             |        |
|  | -10                  | -3.91           | -0.004674 |             |        |
|  | 0                    | 4.41            | 0.005272  |             |        |
|  | 10                   | 3.25            | 0.003885  |             |        |
|  | 20                   | 2.50            | 0.002989  |             |        |
|  | 30                   | 4.02            | 0.004806  |             |        |
|  | 40                   | 8.75            | 0.010460  |             |        |
|  | 50                   | 5.62            | 0.006718  |             |        |
| Voltage  |                      |                 |           |             |        |
| Temperature (°C)   | Power supplied (Vdc) | Frequency error |           | Limit (ppm) | Result |
|  |                      | Hz              | ppm       |             |        |
| QPSK   |                      |                 |           |             |        |
| 25   | 3.50                 | -32.52          | -0.038876 | ±2.5        | Pass   |
|  | 3.85                 | 9.10            | 0.010879  |             |        |
|  | 4.40                 | -27.79          | -0.033222 |             |        |
| 16QAM  |                      |                 |           |             |        |
| 25   | 3.50                 | -7.52           | -0.008990 | ±2.5        | Pass   |
|  | 3.85                 | -12.87          | -0.015386 |             |        |
|  | 4.40                 | -4.91           | -0.005870 |             |        |

Note: Only the worst case shown in the report.

## LTE Band 7 part:

| Reference Frequency: LTE Band 7(10MHz) Middle channel=21100 Frequency=2535.0MHz |                      |                 |           |                                   |        |
|---|----------------------|-----------------|-----------|-----------------------------------|--------|
| Temperature   |                      |                 |           |                                   |        |
| Power supplied (Vdc)  | Temperature (°C)     | Frequency error |           | Limit (ppm)                       | Result |
|   |                      | Hz              | ppm       |                                   |        |
| QPSK  |                      |                 |           |                                   |        |
| 3.85  | -30                  | -33.06          | -0.013041 | Within authorized band for Band 7 | Pass   |
|   | -20                  | -19.57          | -0.007720 |                                   |        |
|   | -10                  | -13.03          | -0.005140 |                                   |        |
|   | 0                    | -31.20          | -0.012308 |                                   |        |
|   | 10                   | -38.48          | -0.015179 |                                   |        |
|   | 20                   | 12.86           | 0.005073  |                                   |        |
|   | 30                   | -12.19          | -0.004809 |                                   |        |
|   | 40                   | -13.70          | -0.005404 |                                   |        |
|   | 50                   | -15.54          | -0.006130 |                                   |        |
| 16QAM   |                      |                 |           |                                   |        |
| 3.85  | -30                  | -32.29          | -0.012738 | Within authorized band for Band 7 | Pass   |
|   | -20                  | -32.33          | -0.012753 |                                   |        |
|   | -10                  | -31.86          | -0.012568 |                                   |        |
|   | 0                    | -39.88          | -0.015732 |                                   |        |
|   | 10                   | -34.56          | -0.013633 |                                   |        |
|   | 20                   | -34.76          | -0.013712 |                                   |        |
|   | 30                   | -32.84          | -0.012955 |                                   |        |
|   | 40                   | -44.13          | -0.017408 |                                   |        |
|   | 50                   | -39.88          | -0.015732 |                                   |        |
| Voltage   |                      |                 |           |                                   |        |
| Temperature (°C)  | Power supplied (Vdc) | Frequency error |           | Limit (ppm)                       | Result |
|   |                      | Hz              | ppm       |                                   |        |
| QPSK  |                      |                 |           |                                   |        |
| 25  | 3.50                 | -29.60          | -0.011677 | Within authorized band for Band 7 | Pass   |
|   | 3.85                 | -23.06          | -0.009097 |                                   |        |
|   | 4.40                 | -38.12          | -0.015037 |                                   |        |
| 16QAM   |                      |                 |           |                                   |        |
| 25  | 3.50                 | -14.96          | -0.005901 | Within authorized band for Band 7 | Pass   |
|   | 3.85                 | -26.24          | -0.010351 |                                   |        |
|   | 4.40                 | -33.14          | -0.013073 |                                   |        |

Note: Only the worst case shown in the report.

**LTE Band 66 part:**

| Reference Frequency: LTE Band 66 (10MHz) Middle channel=132322 Frequency=1745.0MHz |                      |                 |           |                                    |        |
|--|----------------------|-----------------|-----------|------------------------------------|--------|
| Temperature  |                      |                 |           |                                    |        |
| Power supplied (Vdc)   | Temperature (°C)     | Frequency error |           | Limit (ppm)                        | Result |
|  |                      | Hz              | ppm       |                                    |        |
| <b>QPSK</b>  |                      |                 |           |                                    |        |
| 3.85   | -30                  | -40.84          | -0.023404 | Within authorized band for Band 66 | Pass   |
|  | -20                  | -24.83          | -0.014229 |                                    |        |
|  | -10                  | -40.74          | -0.023347 |                                    |        |
|  | 0                    | -9.30           | -0.005330 |                                    |        |
|  | 10                   | -16.59          | -0.009507 |                                    |        |
|  | 20                   | -21.27          | -0.012189 |                                    |        |
|  | 30                   | -22.22          | -0.012734 |                                    |        |
|  | 40                   | -28.88          | -0.016550 |                                    |        |
|  | 50                   | -35.61          | -0.020407 |                                    |        |
| <b>16QAM</b>   |                      |                 |           |                                    |        |
| 3.85   | -30                  | -20.61          | -0.011811 | Within authorized band for Band 66 | Pass   |
|  | -20                  | -21.94          | -0.012573 |                                    |        |
|  | -10                  | -20.91          | -0.011983 |                                    |        |
|  | 0                    | -21.20          | -0.012149 |                                    |        |
|  | 10                   | -10.89          | -0.006241 |                                    |        |
|  | 20                   | -14.85          | -0.008510 |                                    |        |
|  | 30                   | -5.62           | -0.003221 |                                    |        |
|  | 40                   | -7.47           | -0.004281 |                                    |        |
|  | 50                   | 4.36            | 0.002499  |                                    |        |
| <b>Voltage</b>   |                      |                 |           |                                    |        |
| Temperature (°C)   | Power supplied (Vdc) | Frequency error |           | Limit (ppm)                        | Result |
|  |                      | Hz              | ppm       |                                    |        |
| <b>QPSK</b>  |                      |                 |           |                                    |        |
| 25   | 3.50                 | -28.51          | -0.016338 | Within authorized band for Band 66 | Pass   |
|  | 3.85                 | -40.10          | -0.022980 |                                    |        |
|  | 4.40                 | 14.10           | 0.008080  |                                    |        |
| <b>16QAM</b>   |                      |                 |           |                                    |        |
| 25   | 3.50                 | -27.87          | -0.015971 | Within authorized band for Band 66 | Pass   |
|  | 3.85                 | -43.26          | -0.024791 |                                    |        |
|  | 4.40                 | -26.92          | -0.015427 |                                    |        |

Note: Only the worst case shown in the report.