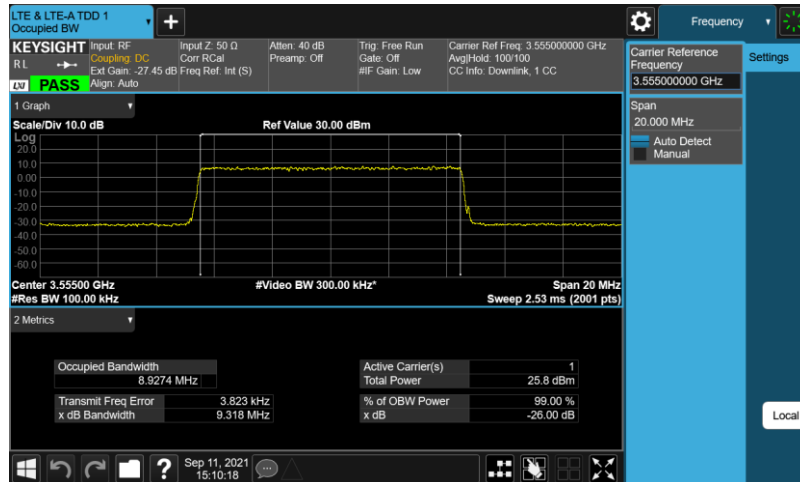
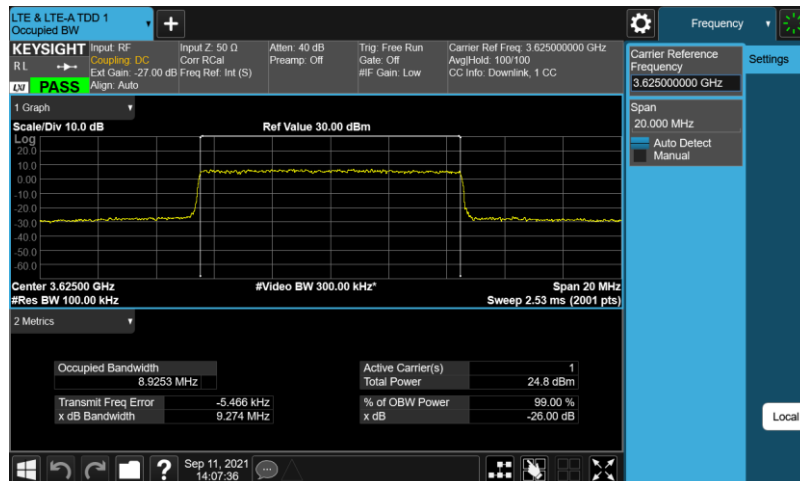


## Test Graphs

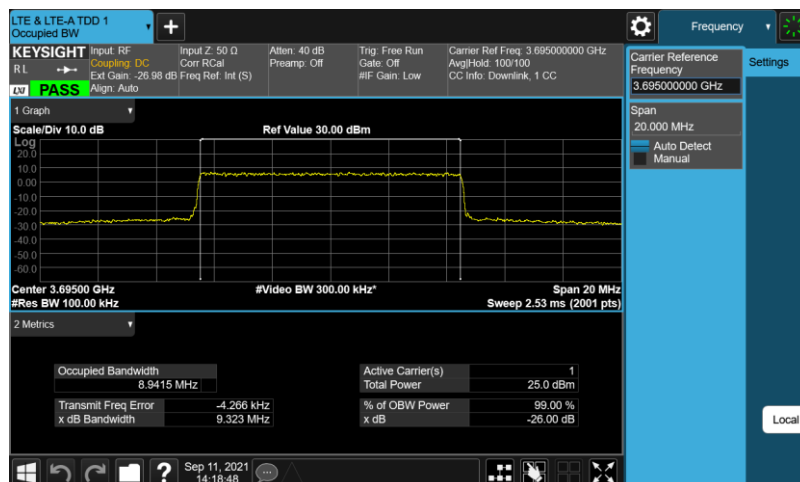
Band48-10MHz-256QAM-55290-E-TM3.1A



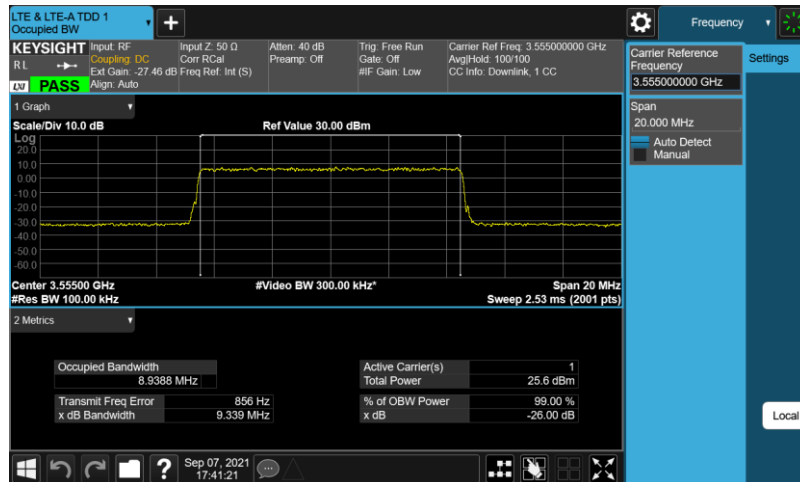
Band48-10MHz-256QAM-55990-E-TM3.1A



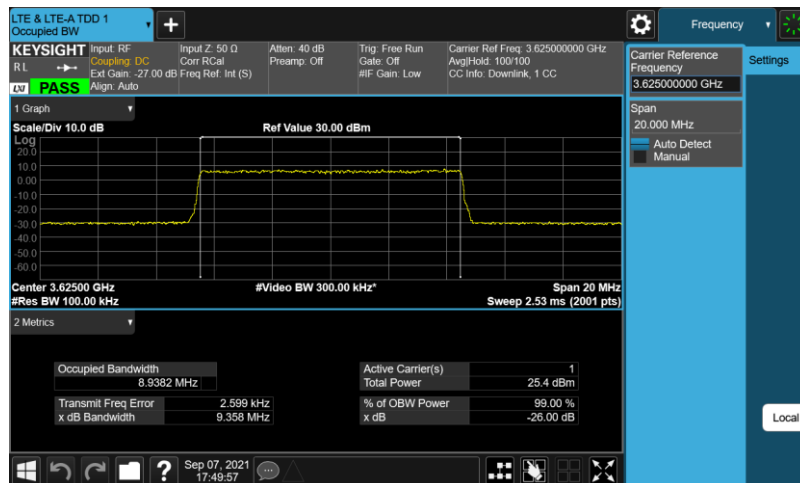
Band48-10MHz-256QAM-56690-E-TM3.1A



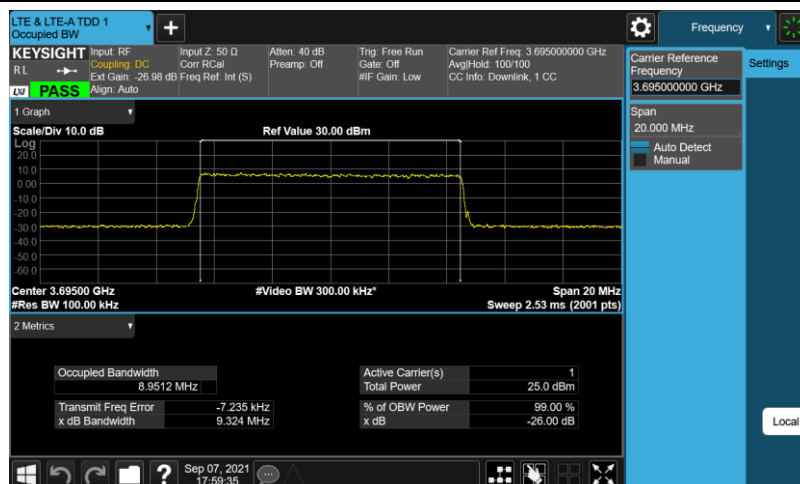
### Band48-10MHz-QPSK-55290-E-TM1.1



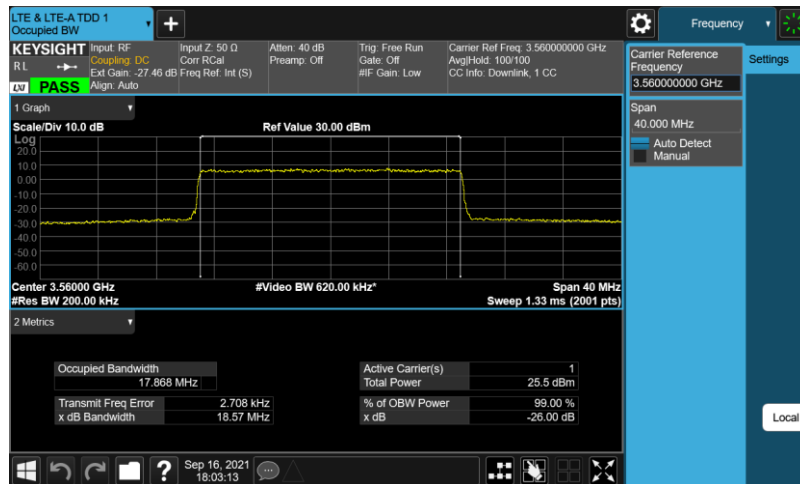
### Band48-10MHz-QPSK-55990-E-TM1.1



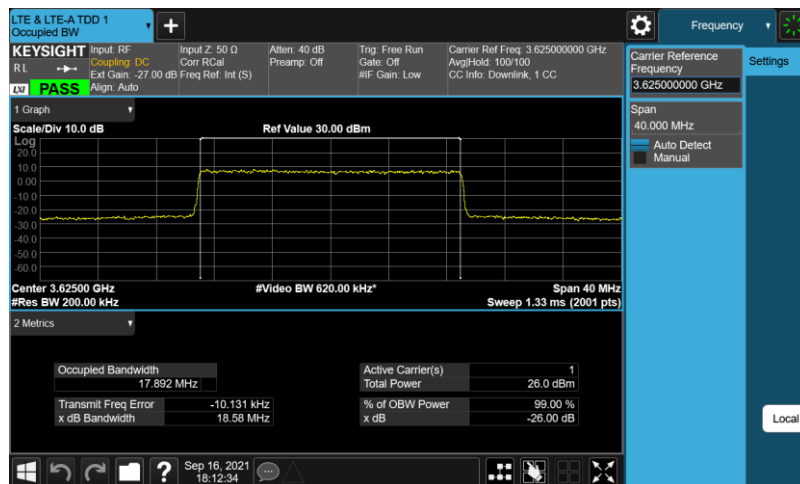
### Band48-10MHz-QPSK-56690-E-TM1.1



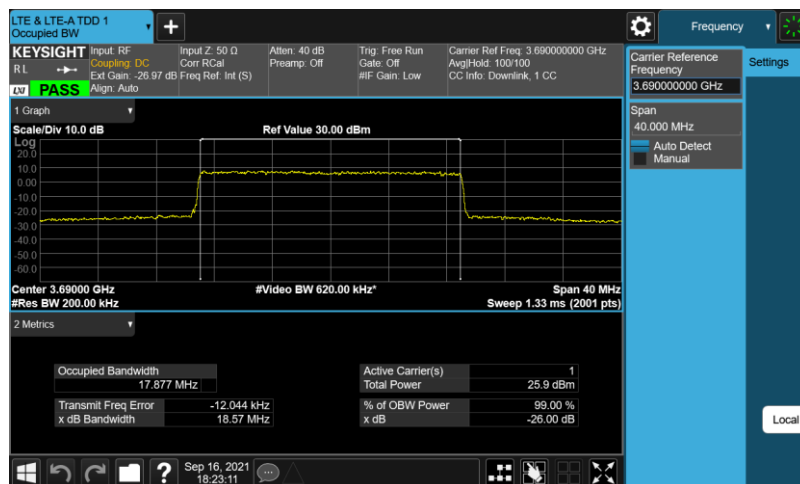
### Band48-20MHz-256QAM-55340-E-TM3.1A



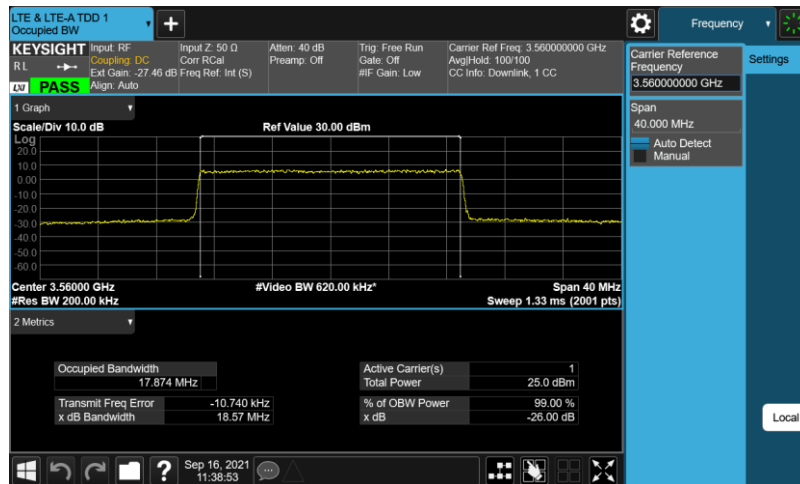
### Band48-20MHz-256QAM-55990-E-TM3.1A



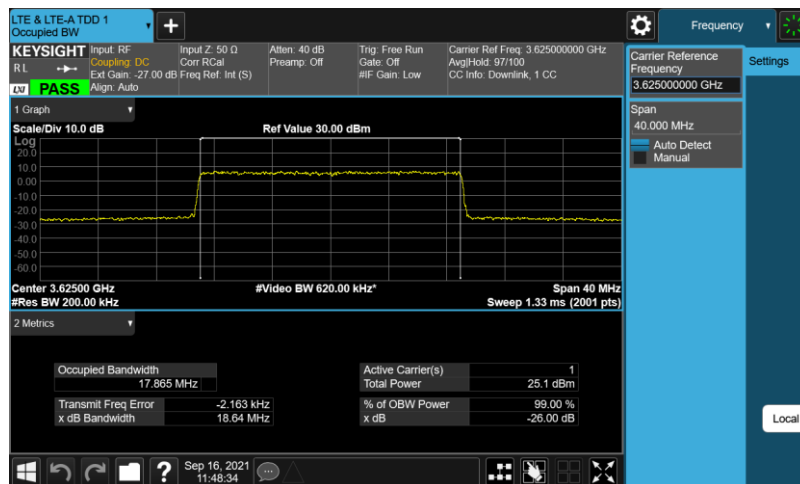
### Band48-20MHz-256QAM-56640-E-TM3.1A



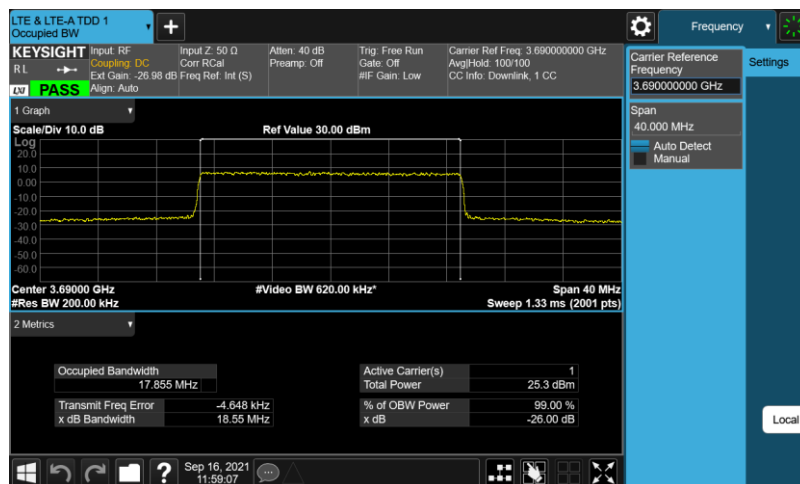
## Band48-20MHz-QPSK-55340-E-TM1.1



## Band48-20MHz-QPSK-55990-E-TM1.1



## Band48-20MHz-QPSK-56640-E-TM1.1



## Appendix D: Frequency Stability

### Test Result

| Voltage measurement |           |            |         |          |               |                  |                |                 |                             |
|---------------------|-----------|------------|---------|----------|---------------|------------------|----------------|-----------------|-----------------------------|
| Band                | Bandwidth | Modulation | Channel | Mode     | Voltage [Vac] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm)                 |
| Band48              | 10MHz     | 256QAM     | 55990   | E-TM3.1A | 102           | 25               | 80             | 0.022           | within the authorized bands |
| Band48              | 10MHz     | 256QAM     | 55990   | E-TM3.1A | 120           | 25               | 76             | 0.021           |                             |
| Band48              | 10MHz     | 256QAM     | 55990   | E-TM3.1A | 138           | 25               | 80             | 0.022           |                             |
| Band48              | 10MHz     | QPSK       | 55990   | E-TM1.1  | 102           | 25               | 77             | 0.021           |                             |
| Band48              | 10MHz     | QPSK       | 55990   | E-TM1.1  | 120           | 25               | 74             | 0.020           |                             |
| Band48              | 10MHz     | QPSK       | 55990   | E-TM1.1  | 138           | 25               | 72             | 0.020           |                             |
| Band48              | 20MHz     | 256QAM     | 55990   | E-TM3.1A | 102           | 25               | 77             | 0.021           |                             |
| Band48              | 20MHz     | 256QAM     | 55990   | E-TM3.1A | 120           | 25               | 78             | 0.022           |                             |
| Band48              | 20MHz     | 256QAM     | 55990   | E-TM3.1A | 138           | 25               | 74             | 0.020           |                             |
| Band48              | 20MHz     | QPSK       | 55990   | E-TM1.1  | 102           | 25               | 75             | 0.021           |                             |
| Band48              | 20MHz     | QPSK       | 55990   | E-TM1.1  | 120           | 25               | 77             | 0.021           |                             |
| Band48              | 20MHz     | QPSK       | 55990   | E-TM1.1  | 138           | 25               | 80             | 0.022           |                             |

| Temperature measurement |           |            |         |          |               |                  |                |                 |                             |
|-------------------------|-----------|------------|---------|----------|---------------|------------------|----------------|-----------------|-----------------------------|
| Band                    | Bandwidth | Modulation | Channel | Mode     | Voltage [Vac] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm)                 |
| Band48                  | 10MHz     | 256QAM     | 55990   | E-TM3.1A | 120           | -30              | 54             | 0.015           | within the authorized bands |
| Band48                  | 10MHz     | 256QAM     | 55990   | E-TM3.1A | 120           | -20              | 48             | 0.013           |                             |
| Band48                  | 10MHz     | 256QAM     | 55990   | E-TM3.1A | 120           | -10              | 50             | 0.014           |                             |
| Band48                  | 10MHz     | 256QAM     | 55990   | E-TM3.1A | 120           | 0                | 48             | 0.013           |                             |
| Band48                  | 10MHz     | 256QAM     | 55990   | E-TM3.1A | 120           | 10               | 49             | 0.014           |                             |
| Band48                  | 10MHz     | 256QAM     | 55990   | E-TM3.1A | 120           | 20               | 52             | 0.014           |                             |
| Band48                  | 10MHz     | 256QAM     | 55990   | E-TM3.1A | 120           | 30               | 54             | 0.015           |                             |
| Band48                  | 10MHz     | 256QAM     | 55990   | E-TM3.1A | 120           | 40               | 49             | 0.014           |                             |
| Band48                  | 10MHz     | 256QAM     | 55990   | E-TM3.1A | 120           | 50               | 52             | 0.014           |                             |
| Band48                  | 10MHz     | QPSK       | 55990   | E-TM1.1  | 120           | -30              | 55             | 0.015           |                             |
| Band48                  | 10MHz     | QPSK       | 55990   | E-TM1.1  | 120           | -20              | 48             | 0.013           |                             |
| Band48                  | 10MHz     | QPSK       | 55990   | E-TM1.1  | 120           | -10              | 46             | 0.013           |                             |
| Band48                  | 10MHz     | QPSK       | 55990   | E-TM1.1  | 120           | 0                | 52             | 0.014           |                             |
| Band48                  | 10MHz     | QPSK       | 55990   | E-TM1.1  | 120           | 10               | 50             | 0.014           |                             |
| Band48                  | 10MHz     | QPSK       | 55990   | E-TM1.1  | 120           | 20               | 56             | 0.015           |                             |
| Band48                  | 10MHz     | QPSK       | 55990   | E-TM1.1  | 120           | 30               | 48             | 0.013           |                             |

|        |       |        |       |          |     |     |    |       |  |
|--------|-------|--------|-------|----------|-----|-----|----|-------|--|
| Band48 | 10MHz | QPSK   | 55990 | E-TM1.1  | 120 | 40  | 55 | 0.015 |  |
| Band48 | 10MHz | QPSK   | 55990 | E-TM1.1  | 120 | 50  | 53 | 0.015 |  |
| Band48 | 20MHz | 256QAM | 55990 | E-TM3.1A | 120 | -30 | 58 | 0.016 |  |
| Band48 | 20MHz | 256QAM | 55990 | E-TM3.1A | 120 | -20 | 55 | 0.015 |  |
| Band48 | 20MHz | 256QAM | 55990 | E-TM3.1A | 120 | -10 | 58 | 0.016 |  |
| Band48 | 20MHz | 256QAM | 55990 | E-TM3.1A | 120 | 0   | 54 | 0.015 |  |
| Band48 | 20MHz | 256QAM | 55990 | E-TM3.1A | 120 | 10  | 54 | 0.015 |  |
| Band48 | 20MHz | 256QAM | 55990 | E-TM3.1A | 120 | 20  | 50 | 0.014 |  |
| Band48 | 20MHz | 256QAM | 55990 | E-TM3.1A | 120 | 30  | 58 | 0.016 |  |
| Band48 | 20MHz | 256QAM | 55990 | E-TM3.1A | 120 | 40  | 55 | 0.015 |  |
| Band48 | 20MHz | 256QAM | 55990 | E-TM3.1A | 120 | 50  | 54 | 0.015 |  |
| Band48 | 20MHz | QPSK   | 55990 | E-TM1.1  | 120 | -30 | 52 | 0.014 |  |
| Band48 | 20MHz | QPSK   | 55990 | E-TM1.1  | 120 | -20 | 48 | 0.013 |  |
| Band48 | 20MHz | QPSK   | 55990 | E-TM1.1  | 120 | -10 | 47 | 0.013 |  |
| Band48 | 20MHz | QPSK   | 55990 | E-TM1.1  | 120 | 0   | 47 | 0.013 |  |
| Band48 | 20MHz | QPSK   | 55990 | E-TM1.1  | 120 | 10  | 55 | 0.015 |  |
| Band48 | 20MHz | QPSK   | 55990 | E-TM1.1  | 120 | 20  | 52 | 0.014 |  |
| Band48 | 20MHz | QPSK   | 55990 | E-TM1.1  | 120 | 30  | 52 | 0.014 |  |
| Band48 | 20MHz | QPSK   | 55990 | E-TM1.1  | 120 | 40  | 48 | 0.013 |  |
| Band48 | 20MHz | QPSK   | 55990 | E-TM1.1  | 120 | 50  | 53 | 0.015 |  |

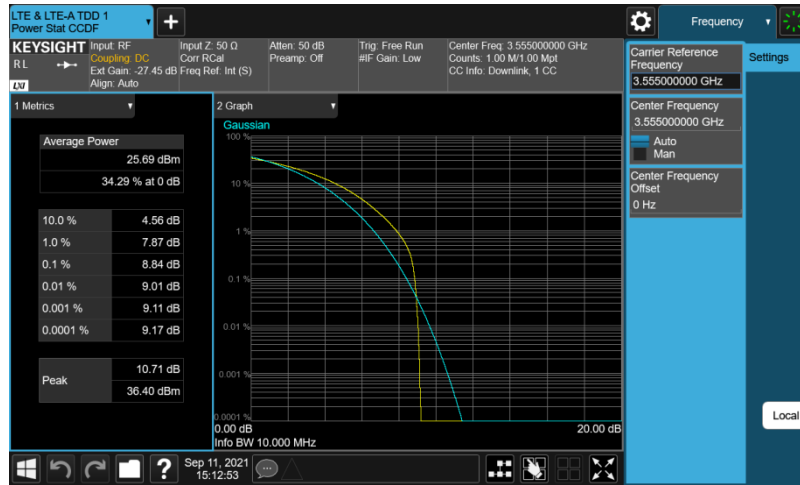
## Appendix E: Peak-to-Average Ratio(CCDF)

### Test Result

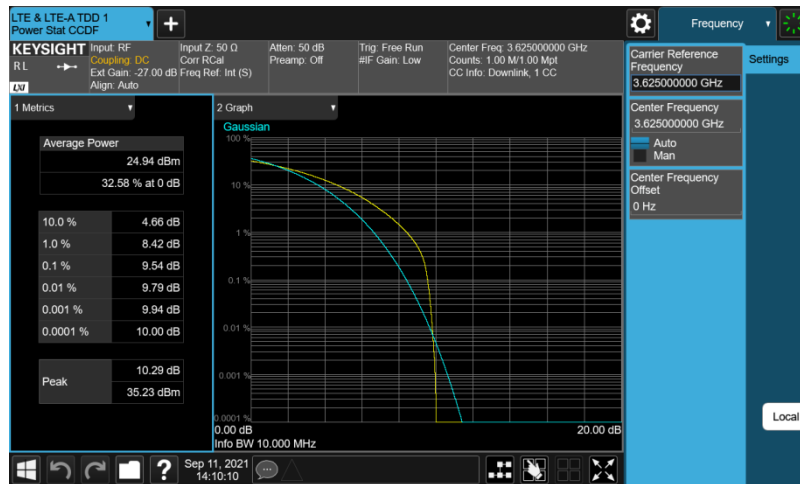
| Band   | Bandwidth | Modulation | Channel | Mode     | Result(dBm) |
|--------|-----------|------------|---------|----------|-------------|
| Band48 | 10MHz     | 256QAM     | 55290   | E-TM3.1A | 8.84        |
| Band48 | 10MHz     | 256QAM     | 55990   | E-TM3.1A | 9.54        |
| Band48 | 10MHz     | 256QAM     | 56690   | E-TM3.1A | 9.45        |
| Band48 | 10MHz     | QPSK       | 55290   | E-TM1.1  | 8.93        |
| Band48 | 10MHz     | QPSK       | 55990   | E-TM1.1  | 9.07        |
| Band48 | 10MHz     | QPSK       | 56690   | E-TM1.1  | 9.10        |
| Band48 | 20MHz     | 256QAM     | 55340   | E-TM3.1A | 9.17        |
| Band48 | 20MHz     | 256QAM     | 55990   | E-TM3.1A | 9.47        |
| Band48 | 20MHz     | 256QAM     | 56640   | E-TM3.1A | 8.94        |
| Band48 | 20MHz     | QPSK       | 55340   | E-TM1.1  | 9.07        |
| Band48 | 20MHz     | QPSK       | 55990   | E-TM1.1  | 9.22        |
| Band48 | 20MHz     | QPSK       | 56640   | E-TM1.1  | 9.07        |

## Test Graphs

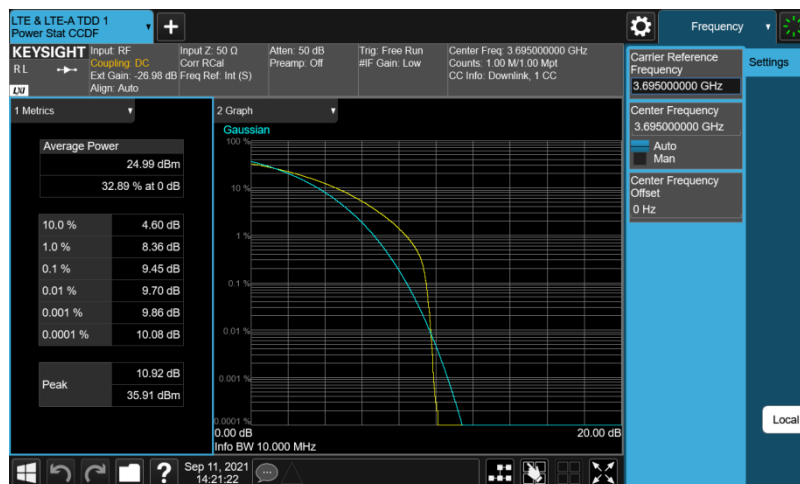
Band48-10MHz-256QAM-55290-E-TM3.1A



Band48-10MHz-256QAM-55990-E-TM3.1A



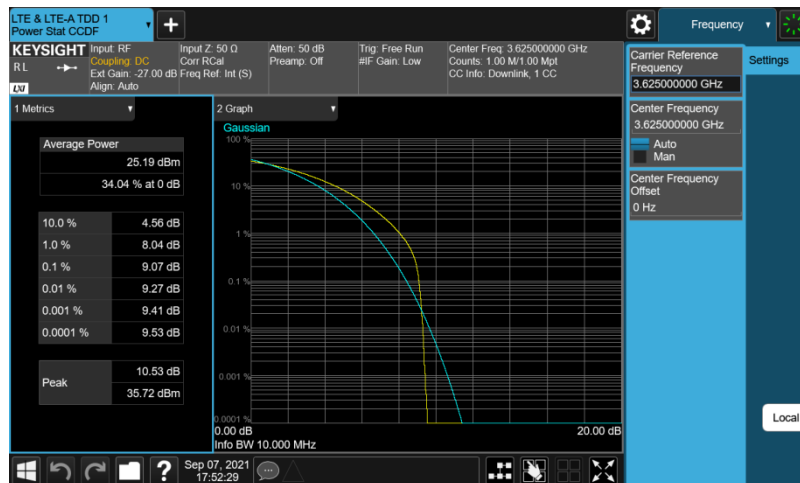
Band48-10MHz-256QAM-56690-E-TM3.1A



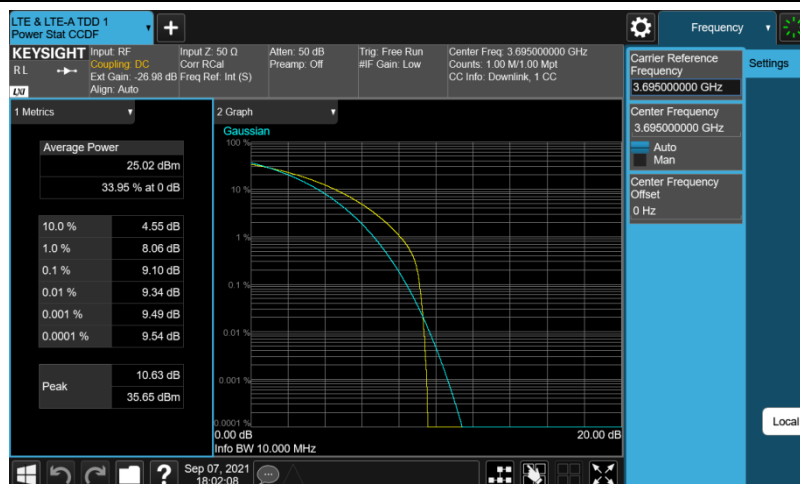
## Band48-10MHz-QPSK-55290-E-TM1.1



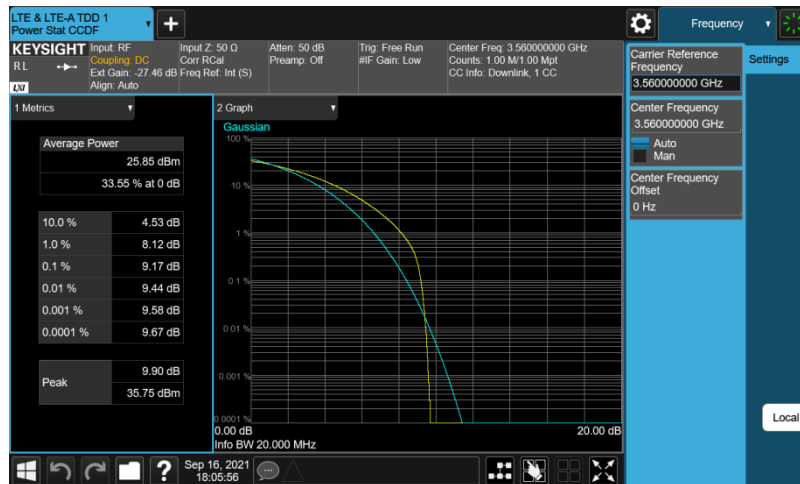
## Band48-10MHz-QPSK-55990-E-TM1.1



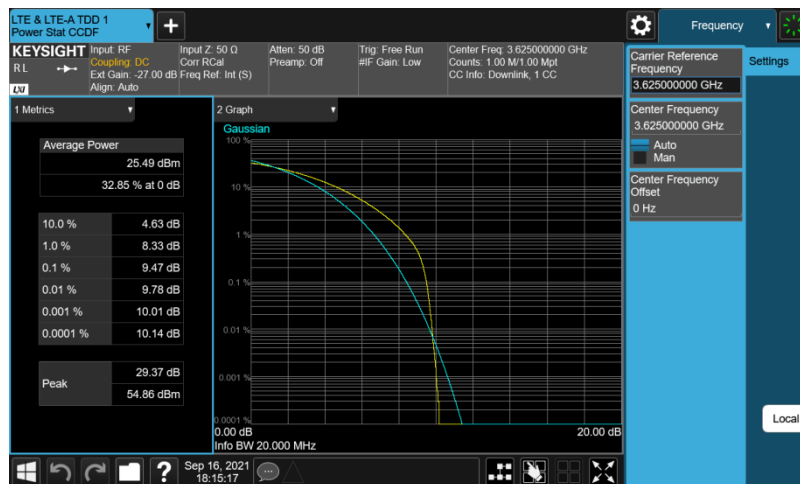
## Band48-10MHz-QPSK-56690-E-TM1.1



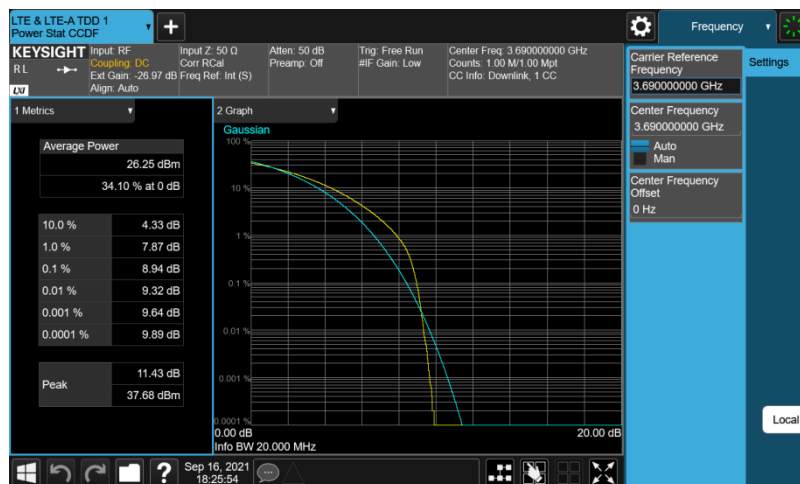
### Band48-20MHz-256QAM-55340-E-TM3.1A



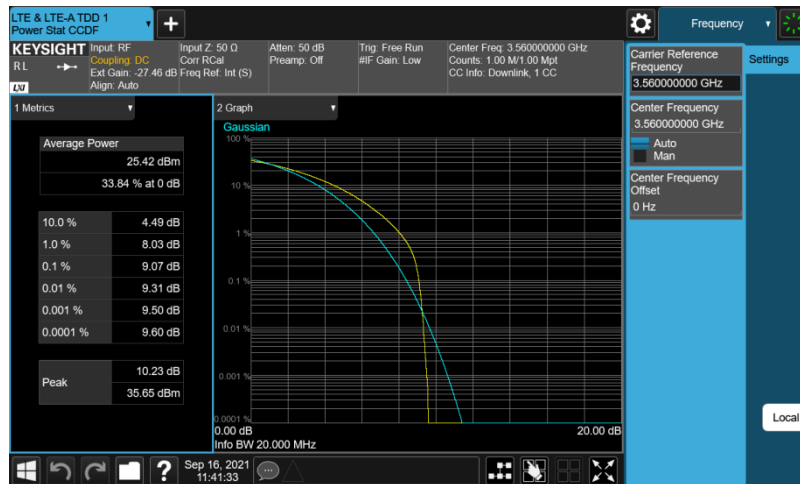
### Band48-20MHz-256QAM-55990-E-TM3.1A



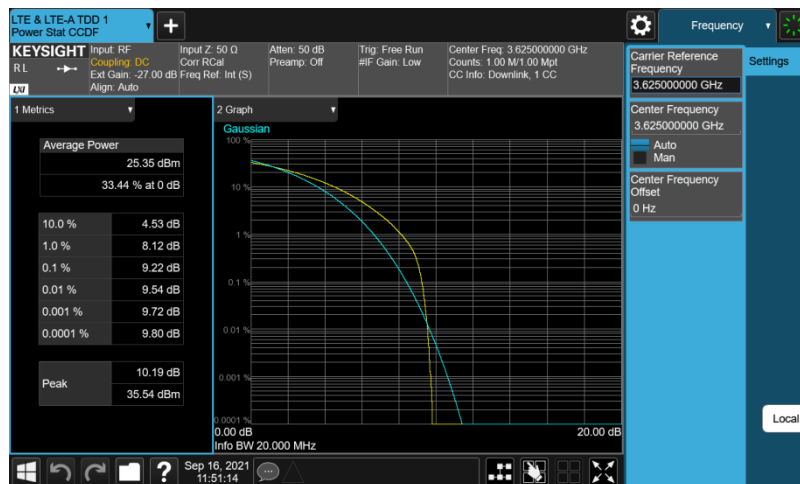
### Band48-20MHz-256QAM-56640-E-TM3.1A



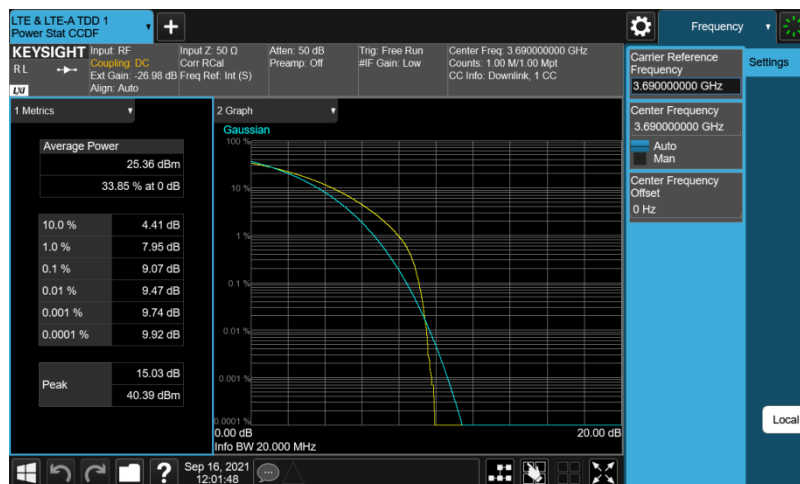
### Band48-20MHz-QPSK-55340-E-TM1.1



### Band48-20MHz-QPSK-55990-E-TM1.1



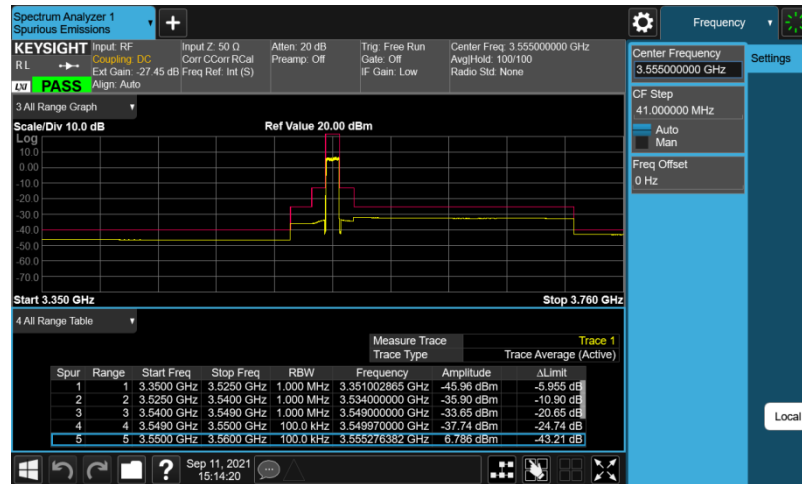
### Band48-20MHz-QPSK-56640-E-TM1.1



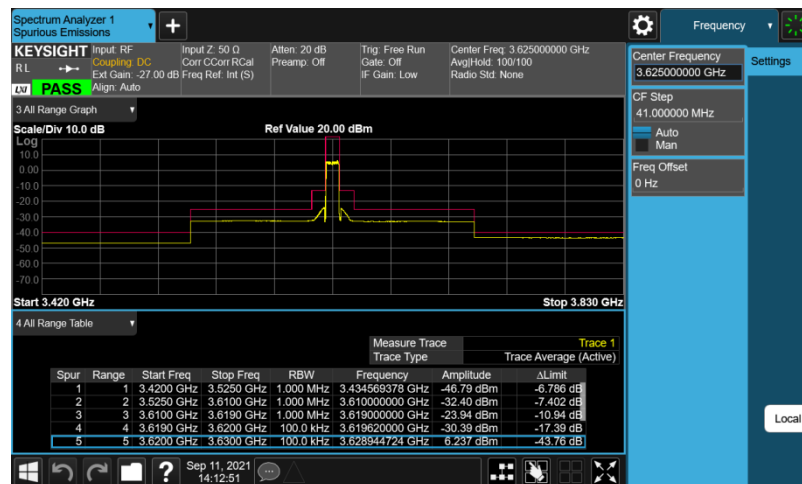
## Appendix F: Emission Mask

### Test Graphs

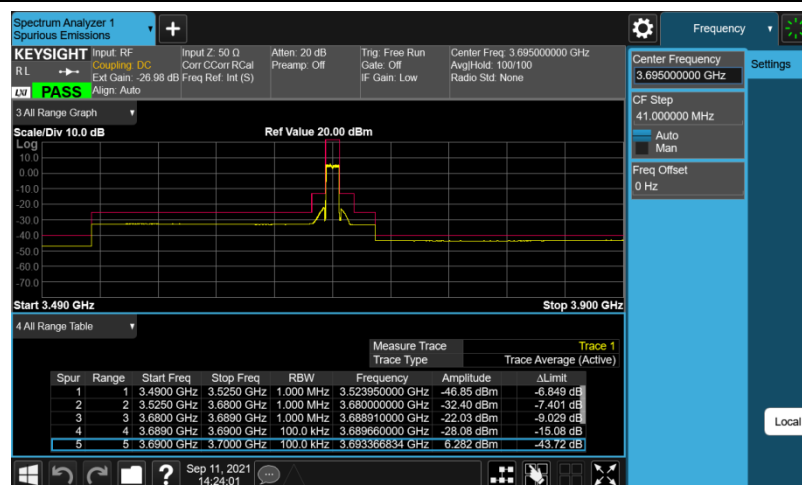
Band48-10MHz-256QAM-55290-E-TM3.1A



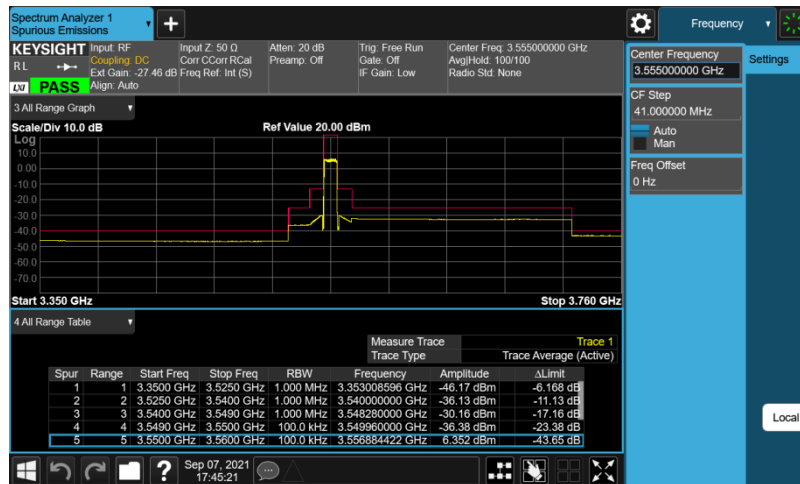
Band48-10MHz-256QAM-55990-E-TM3.1A



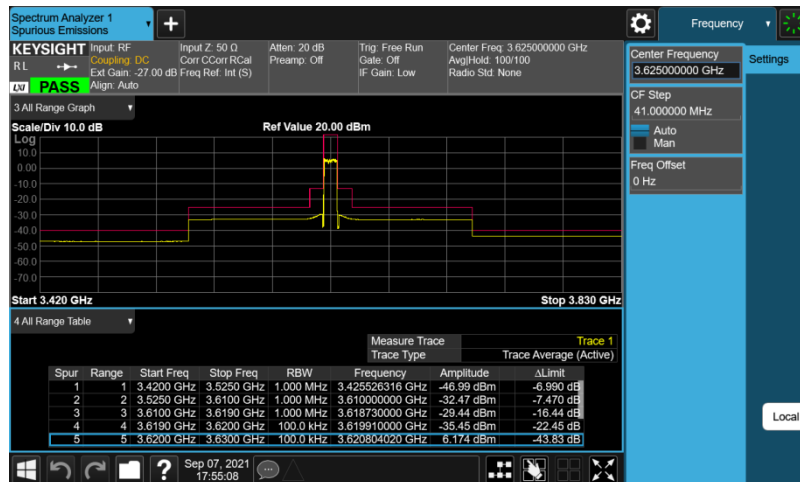
Band48-10MHz-256QAM-56690-E-TM3.1A



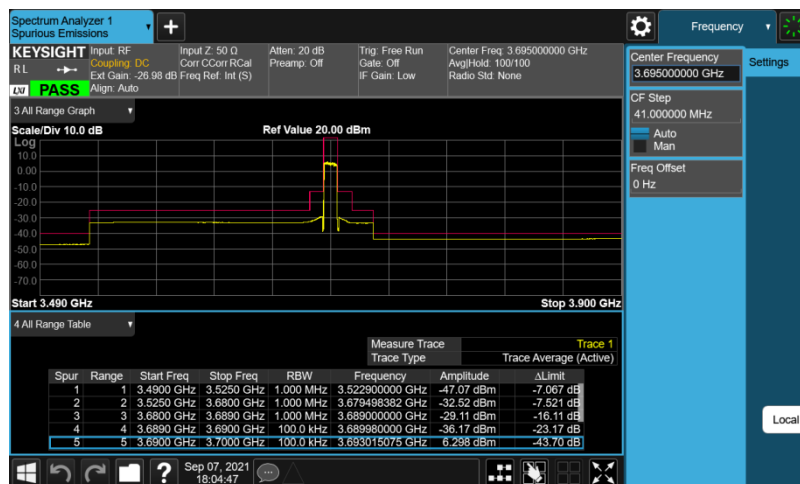
## Band48-10MHz-QPSK-55290-E-TM1.1



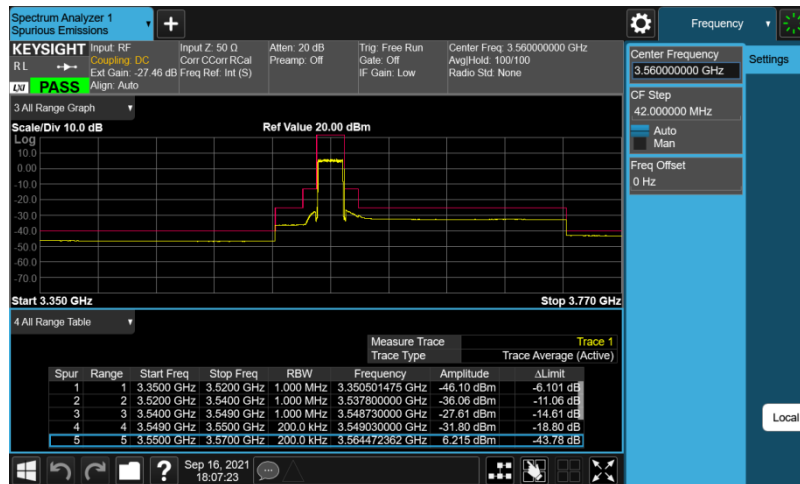
## Band48-10MHz-QPSK-55990-E-TM1.1



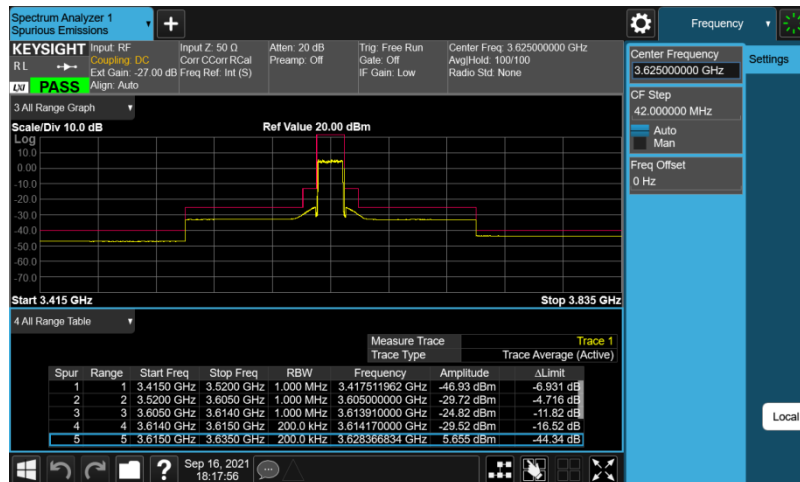
## Band48-10MHz-QPSK-56690-E-TM1.1



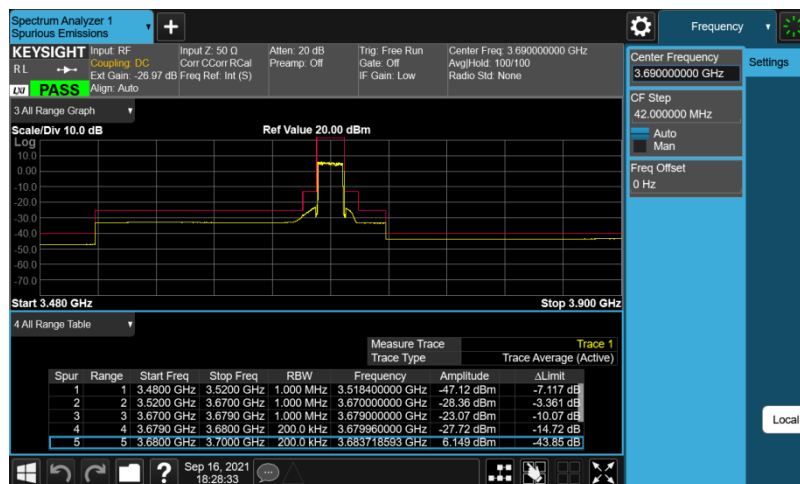
## Band48-20MHz-256QAM-55340-E-TM3.1A



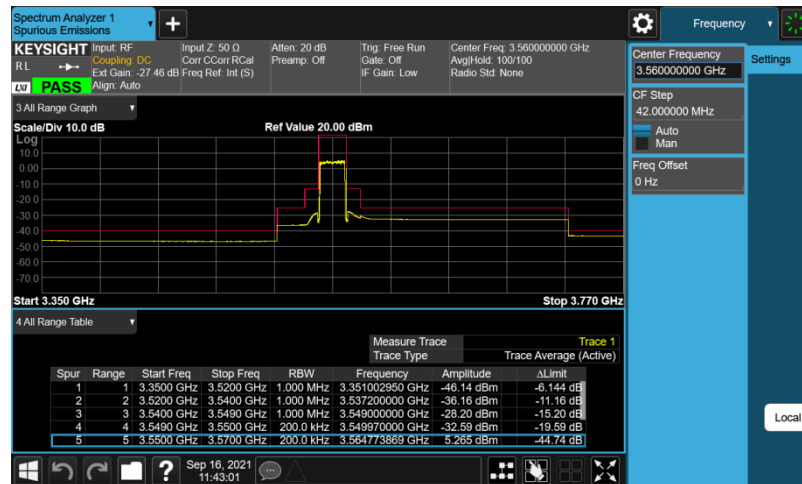
## Band48-20MHz-256QAM-55990-E-TM3.1A



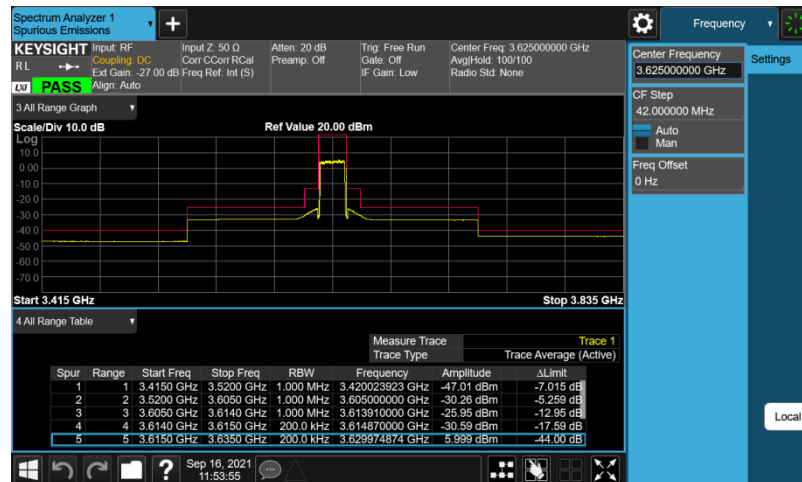
## Band48-20MHz-256QAM-56640-E-TM3.1A



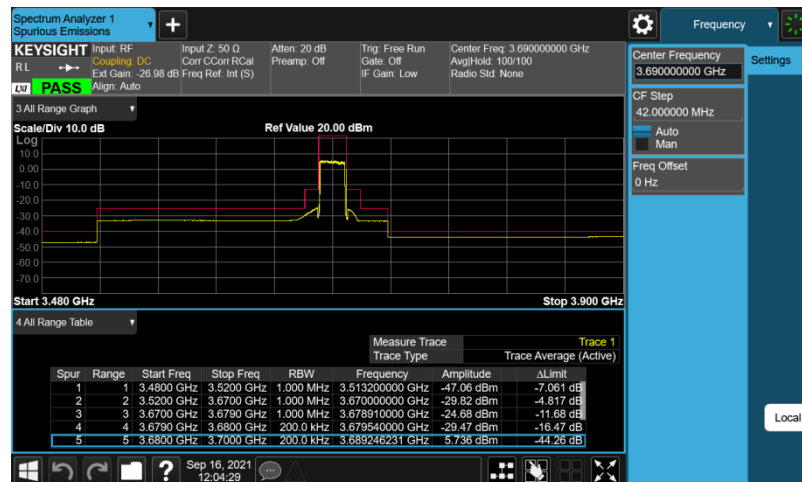
### Band48-20MHz-QPSK-55340-E-TM1.1



### Band48-20MHz-QPSK-55990-E-TM1.1



### Band48-20MHz-QPSK-56640-E-TM1.1



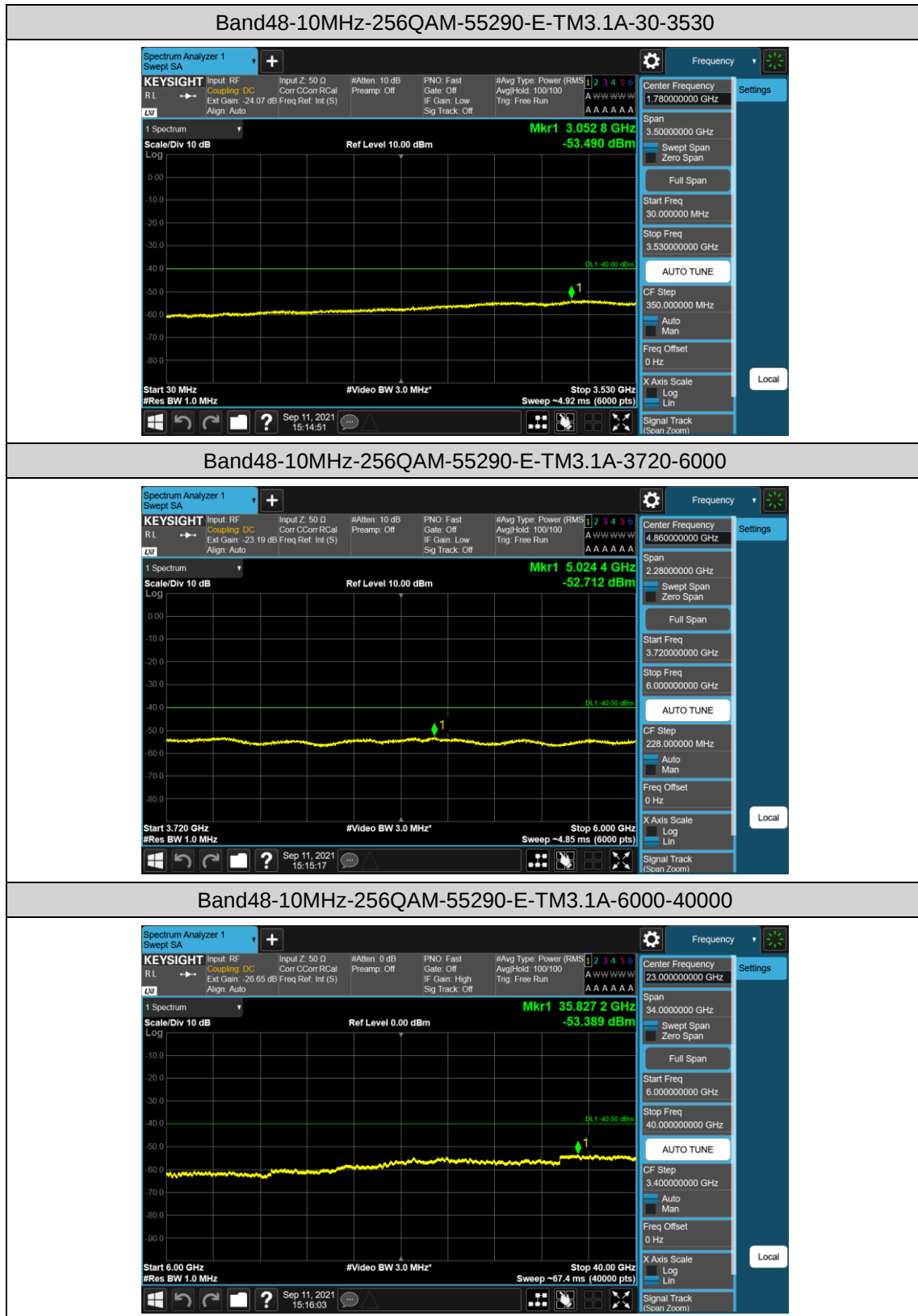
## Appendix G: Conducted Spurious Emission

### Test Result

| Band   | Bandwidth | Modulation | Channel | Mode     | Test Frequency(MHz) | Result (dBm) | Verdict |
|--------|-----------|------------|---------|----------|---------------------|--------------|---------|
| Band48 | 10MHz     | 256QAM     | 55290   | E-TM3.1A | 30-3530             | -53.49       | PASS    |
| Band48 | 10MHz     | 256QAM     | 55290   | E-TM3.1A | 3720-6000           | -52.71       | PASS    |
| Band48 | 10MHz     | 256QAM     | 55290   | E-TM3.1A | 6000-40000          | -53.39       | PASS    |
| Band48 | 10MHz     | 256QAM     | 55990   | E-TM3.1A | 30-3530             | -53.90       | PASS    |
| Band48 | 10MHz     | 256QAM     | 55990   | E-TM3.1A | 3720-6000           | -52.82       | PASS    |
| Band48 | 10MHz     | 256QAM     | 55990   | E-TM3.1A | 6000-40000          | -53.37       | PASS    |
| Band48 | 10MHz     | 256QAM     | 56690   | E-TM3.1A | 30-3530             | -54.12       | PASS    |
| Band48 | 10MHz     | 256QAM     | 56690   | E-TM3.1A | 3720-6000           | -52.46       | PASS    |
| Band48 | 10MHz     | 256QAM     | 56690   | E-TM3.1A | 6000-40000          | -53.21       | PASS    |
| Band48 | 10MHz     | QPSK       | 55290   | E-TM1.1  | 30-3530             | -53.75       | PASS    |
| Band48 | 10MHz     | QPSK       | 55290   | E-TM1.1  | 3720-6000           | -53.18       | PASS    |
| Band48 | 10MHz     | QPSK       | 55290   | E-TM1.1  | 6000-40000          | -53.51       | PASS    |
| Band48 | 10MHz     | QPSK       | 55990   | E-TM1.1  | 30-3530             | -54.35       | PASS    |
| Band48 | 10MHz     | QPSK       | 55990   | E-TM1.1  | 3720-6000           | -52.79       | PASS    |
| Band48 | 10MHz     | QPSK       | 55990   | E-TM1.1  | 6000-40000          | -53.59       | PASS    |
| Band48 | 10MHz     | QPSK       | 56690   | E-TM1.1  | 30-3530             | -54.46       | PASS    |
| Band48 | 10MHz     | QPSK       | 56690   | E-TM1.1  | 3720-6000           | -53.18       | PASS    |
| Band48 | 10MHz     | QPSK       | 56690   | E-TM1.1  | 6000-40000          | -53.58       | PASS    |
| Band48 | 20MHz     | 256QAM     | 55340   | E-TM3.1A | 30-3530             | -53.88       | PASS    |
| Band48 | 20MHz     | 256QAM     | 55340   | E-TM3.1A | 3720-6000           | -53.03       | PASS    |
| Band48 | 20MHz     | 256QAM     | 55340   | E-TM3.1A | 6000-40000          | -53.52       | PASS    |
| Band48 | 20MHz     | 256QAM     | 55990   | E-TM3.1A | 30-3530             | -54.21       | PASS    |
| Band48 | 20MHz     | 256QAM     | 55990   | E-TM3.1A | 3720-6000           | -53.05       | PASS    |
| Band48 | 20MHz     | 256QAM     | 55990   | E-TM3.1A | 6000-40000          | -53.44       | PASS    |
| Band48 | 20MHz     | 256QAM     | 56640   | E-TM3.1A | 30-3530             | -54.24       | PASS    |
| Band48 | 20MHz     | 256QAM     | 56640   | E-TM3.1A | 3720-6000           | -53.02       | PASS    |
| Band48 | 20MHz     | 256QAM     | 56640   | E-TM3.1A | 6000-40000          | -53.71       | PASS    |
| Band48 | 20MHz     | QPSK       | 55340   | E-TM1.1  | 30-3530             | -53.67       | PASS    |
| Band48 | 20MHz     | QPSK       | 55340   | E-TM1.1  | 3720-6000           | -53.20       | PASS    |
| Band48 | 20MHz     | QPSK       | 55340   | E-TM1.1  | 6000-40000          | -53.65       | PASS    |
| Band48 | 20MHz     | QPSK       | 55990   | E-TM1.1  | 30-3530             | -54.12       | PASS    |

|        |       |      |       |         |            |        |      |
|--------|-------|------|-------|---------|------------|--------|------|
| Band48 | 20MHz | QPSK | 55990 | E-TM1.1 | 3720-6000  | -52.84 | PASS |
| Band48 | 20MHz | QPSK | 55990 | E-TM1.1 | 6000-40000 | -53.79 | PASS |
| Band48 | 20MHz | QPSK | 56640 | E-TM1.1 | 30-3530    | -54.29 | PASS |
| Band48 | 20MHz | QPSK | 56640 | E-TM1.1 | 3720-6000  | -52.81 | PASS |
| Band48 | 20MHz | QPSK | 56640 | E-TM1.1 | 6000-40000 | -53.39 | PASS |

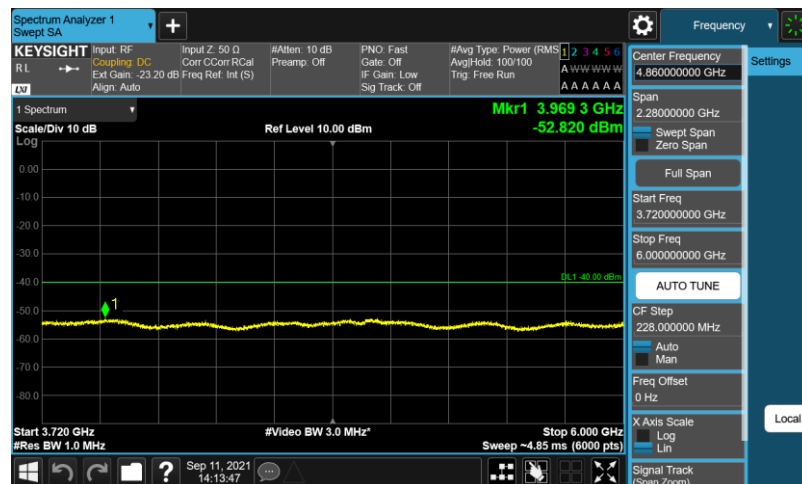
## Test Graphs



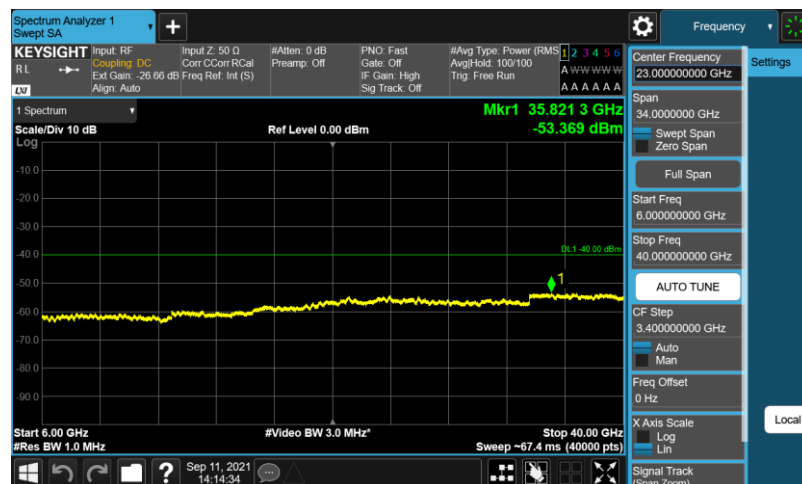
### Band48-10MHz-256QAM-55990-E-TM3.1A-30-3530



### Band48-10MHz-256QAM-55990-E-TM3.1A-3720-6000



### Band48-10MHz-256QAM-55990-E-TM3.1A-6000-40000



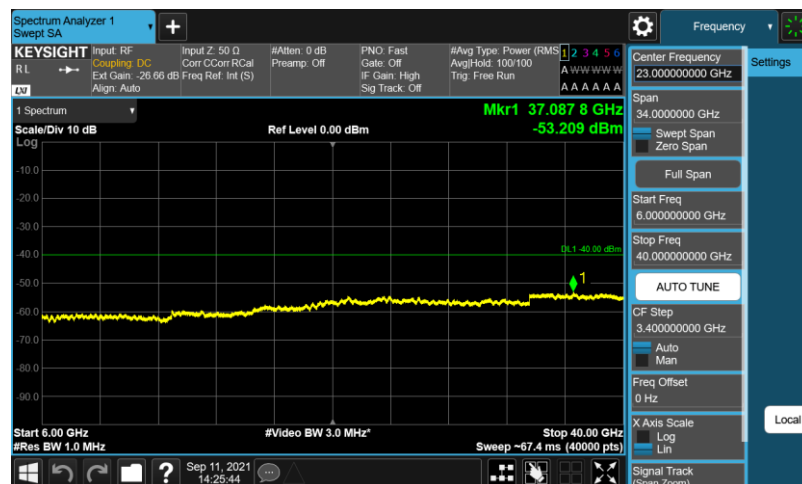
### Band48-10MHz-256QAM-56690-E-TM3.1A-30-3530



### Band48-10MHz-256QAM-56690-E-TM3.1A-3720-6000



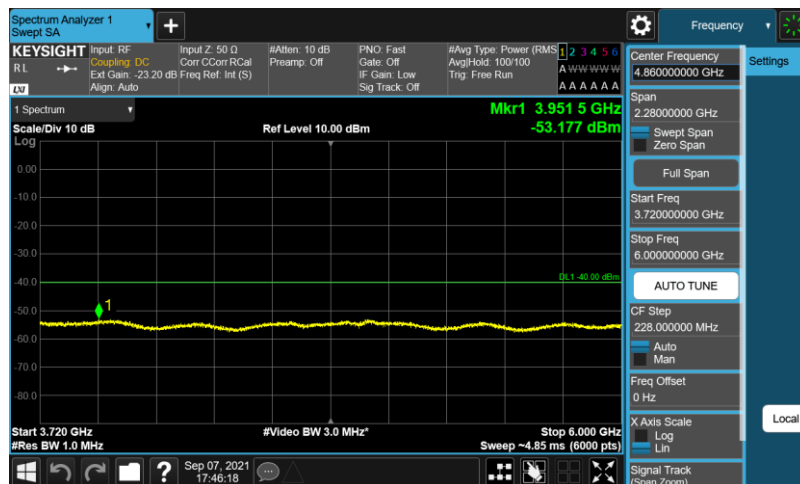
### Band48-10MHz-256QAM-56690-E-TM3.1A-6000-40000



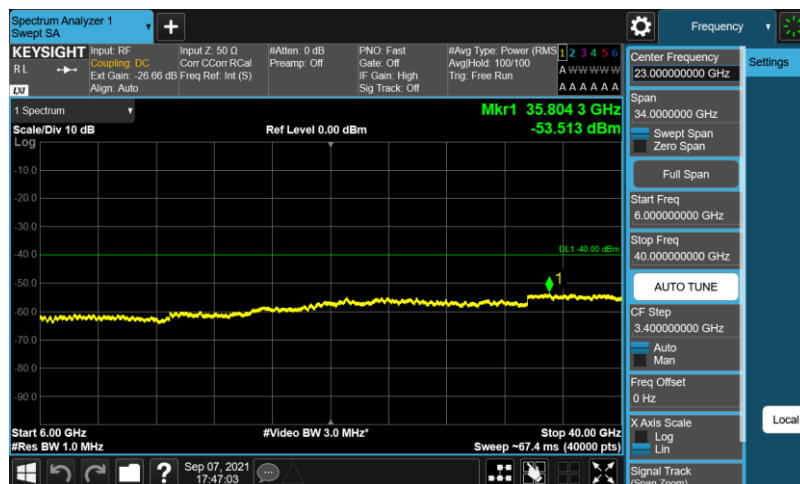
### Band48-10MHz-QPSK-55290-E-TM1.1-30-3530



### Band48-10MHz-QPSK-55290-E-TM1.1-3720-6000



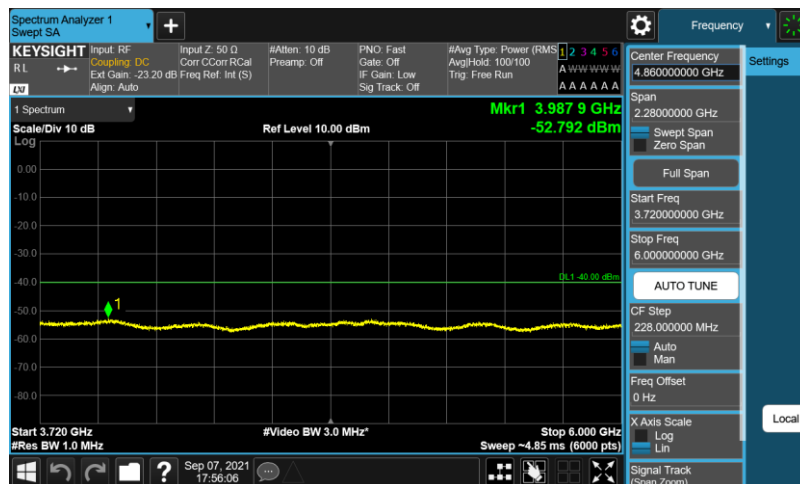
### Band48-10MHz-QPSK-55290-E-TM1.1-6000-40000



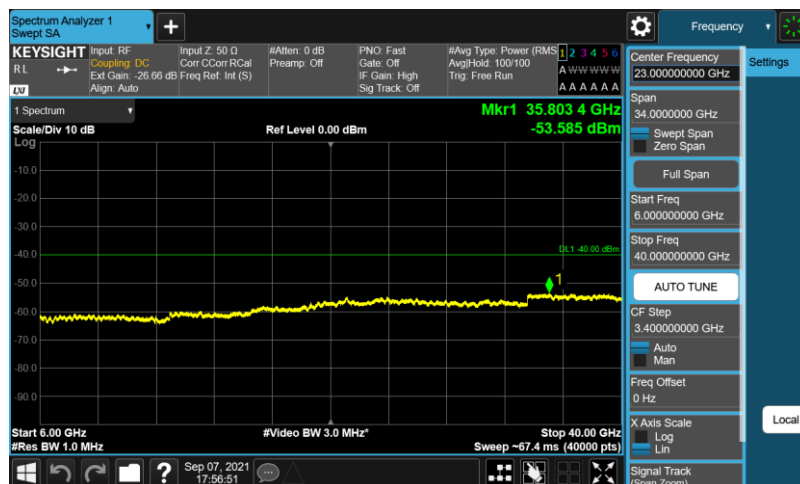
### Band48-10MHz-QPSK-55990-E-TM1.1-30-3530



### Band48-10MHz-QPSK-55990-E-TM1.1-3720-6000



### Band48-10MHz-QPSK-55990-E-TM1.1-6000-40000



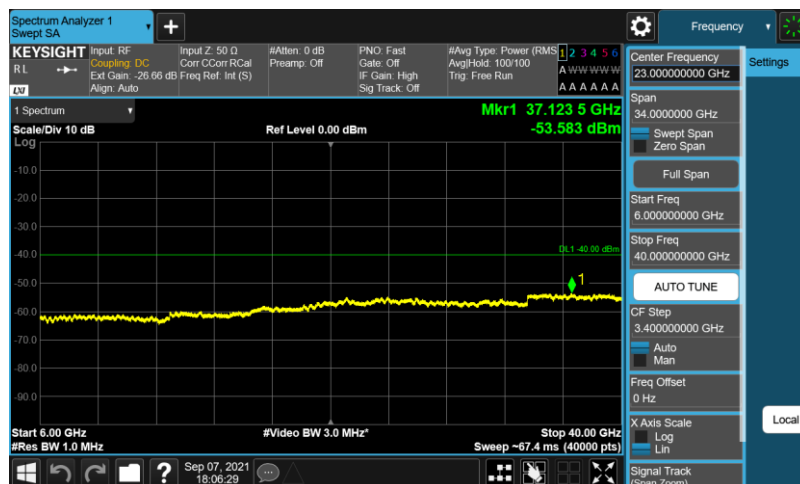
### Band48-10MHz-QPSK-56690-E-TM1.1-30-3530



### Band48-10MHz-QPSK-56690-E-TM1.1-3720-6000



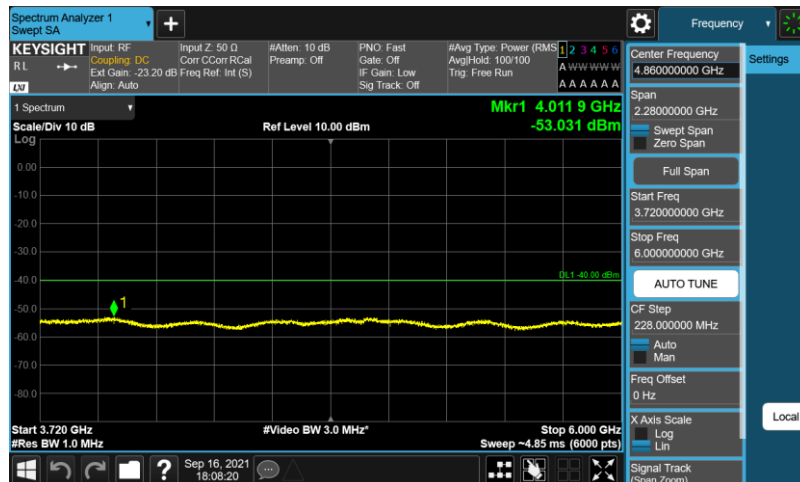
### Band48-10MHz-QPSK-56690-E-TM1.1-6000-40000



## Band48-20MHz-256QAM-55340-E-TM3.1A-30-3530



## Band48-20MHz-256QAM-55340-E-TM3.1A-3720-6000



## Band48-20MHz-256QAM-55340-E-TM3.1A-6000-40000

