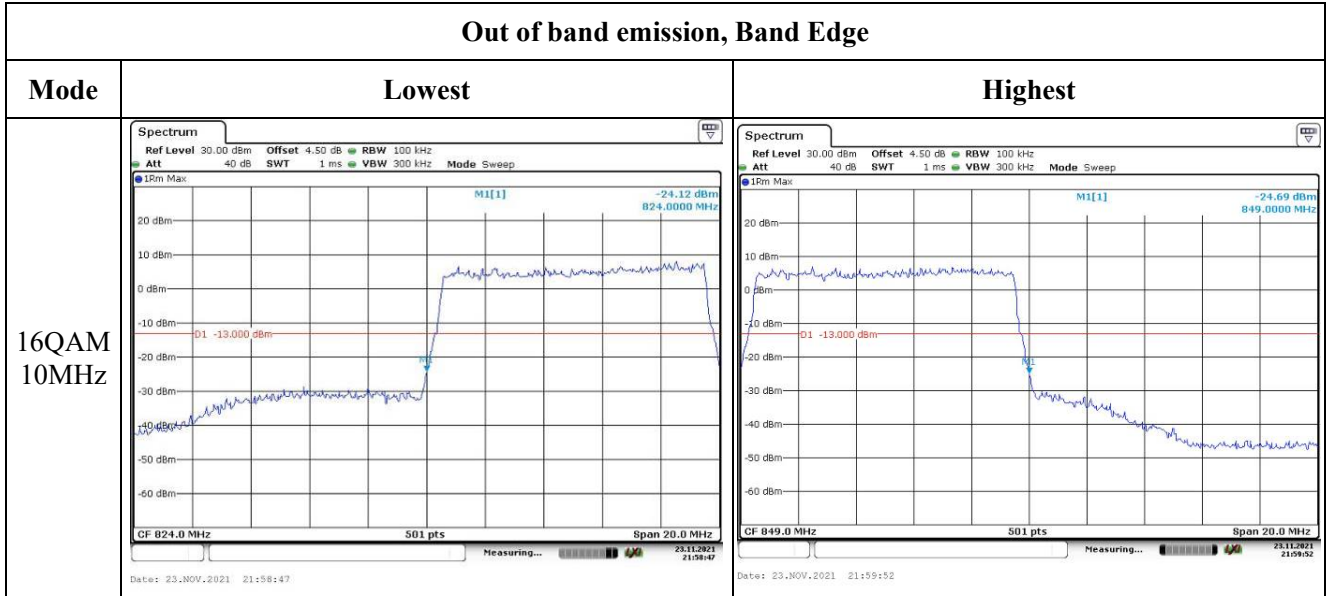


Out of band emission, Band Edge

| Mode | Lowest | Highest |
|-----------------|---|---|
| 16QAM 1.4MHz | <p>Ref Level 30.00 dBm Offset 4.50 dB RBW 30 kHz Att 40 dB SWT 1.1 ms VBW 100 kHz Mode Sweep M1[1] -21.19 dBm 823.90420 MHz D1 -13.000 dBm CF 824.0 MHz 501 pts Span 3.0 MHz Date: 23.NOV.2021 21:52:14</p> | <p>Ref Level 30.00 dBm Offset 4.50 dB RBW 30 kHz Att 40 dB SWT 1.1 ms VBW 100 kHz Mode Sweep M1[1] -17.72 dBm 849.21560 MHz D1 -13.000 dBm CF 849.0 MHz 501 pts Span 3.0 MHz Date: 23.NOV.2021 21:53:19</p> |
| 16QAM 3MHz | <p>Ref Level 30.00 dBm Offset 4.50 dB RBW 30 kHz Att 40 dB SWT 1.1 ms VBW 100 kHz Mode Sweep M1[1] -18.02 dBm 824.00000 MHz D1 -13.000 dBm CF 824.0 MHz 501 pts Span 6.0 MHz Date: 23.NOV.2021 21:54:13</p> | <p>Ref Level 30.00 dBm Offset 4.50 dB RBW 30 kHz Att 40 dB SWT 1.1 ms VBW 100 kHz Mode Sweep M1[1] -21.11 dBm 849.00000 MHz D1 -13.000 dBm CF 849.0 MHz 501 pts Span 6.0 MHz Date: 23.NOV.2021 21:54:54</p> |
| 16QAM 5MHz | <p>Ref Level 30.00 dBm Offset 4.50 dB RBW 100 kHz Att 40 dB SWT 1 ms VBW 300 kHz Mode Sweep M1[1] -16.60 dBm 823.98000 MHz D1 -13.000 dBm CF 824.0 MHz 501 pts Span 10.0 MHz Date: 23.NOV.2021 21:56:39</p> | <p>Ref Level 30.00 dBm Offset 4.50 dB RBW 100 kHz Att 40 dB SWT 1 ms VBW 300 kHz Mode Sweep M1[1] -17.46 dBm 849.00000 MHz D1 -13.000 dBm CF 849.0 MHz 501 pts Span 10.0 MHz Date: 23.NOV.2021 21:57:42</p> |

Out of band emission, Band Edge



4.8 Antenna Port Test Data and Results for LTE Band 12:

| | | | |
|----------------|------------------|--------------|-----------------------|
| Serial Number: | CR21110014-RF-S1 | Test Date: | 2021/11/23~2021/11/26 |
| Test Site: | RF | Test Mode: | Transmitting |
| Tester: | LE Qiao | Test Result: | Pass |

Environmental Conditions:

| | | | | | |
|----------------------|-----------|---------------------------|-------|------------------------|-------------|
| Temperature: (°C) | 21.2~23.5 | Relative Humidity: (%) | 40~41 | ATM Pressure: (kPa) | 101.3~101.7 |
|----------------------|-----------|---------------------------|-------|------------------------|-------------|

Test Equipment List and Details:

| Manufacturer | Description | Model | Serial Number | Calibration Date | Calibration Due Date |
|---------------|-------------------------------------|-----------|---------------|------------------|----------------------|
| R&S | Spectrum Analyzer | FSV40 | 101474 | 2021/7/22 | 2022/7/21 |
| zhuoxiang | Coaxial Cable | SMA-178 | 211001 | Each time | N/A |
| Mini-Circuits | DC Block | BLK-18-S+ | 1554403 | Each time | N/A |
| Weinschel | Coaxial Attenuators | 53-20-34 | LN751 | Each time | N/A |
| R&S | Wideband Radio Communication Tester | CMW500 | 149218 | 2021/7/22 | 2022/7/21 |
| BACL | TEMP&HUMI Test Chamber | BTH-150 | 30026 | 2021/7/22 | 2022/7/22 |
| UNI-T | Multimeter | UT39A+ | C210582554 | 2021/9/30 | 2022/9/30 |
| E-Microwave | Two-way Splitter | ODP-1-6 | OE0120176 | Each Time | N/A |

* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

EUT Information@ LTE Band 12▲:

| | | | | | |
|--------------------------------------|-----|---------------------|------|------------------|-----|
| Antenna Gain (dBi): | 3 | Antenna Gain (dBd): | 0.85 | Cable Loss (dB): | 0 |
| Operation Voltage(V _{DC}): | | | | | |
| Lowest: | 3.5 | Normal: | 3.7 | Highest: | 4.2 |

Test Frequency For Each Mode:

| Operation Bandwidth | Lowest Frequency (MHz) | Middle Frequency (MHz) | Highest Frequency (MHz) |
|---------------------|------------------------|------------------------|-------------------------|
| 1.4MHz | 699.7 | 707.5 | 715.3 |
| 3MHz | 700.5 | 707.5 | 714.5 |
| 5MHz | 701.5 | 707.5 | 713.5 |
| 10MHz | 704 | 707.5 | 711 |

Test Data:**FCC§2.1046;§ 27.50(c) (10)****RF Output Power:**

| Test Bandwidth & Modulation | Resource Block & RB offset | Conducted Average Output Power(dBm) | | | Maximum ERP (dBm) | ERP Limit (dBm) |
|-----------------------------|----------------------------|-------------------------------------|----------------|-----------------|-------------------|-----------------|
| | | Lowest Channel | Middle Channel | Highest Channel | | |
| 1.4MHz QPSK | RB1#0 | 20.71 | 21.02 | 21.04 | 22.02 | 34.77 |
| | RB1#3 | 20.69 | 21.08 | 21.09 | | |
| | RB1#5 | 20.70 | 21.04 | 21.08 | | |
| | RB3#0 | 20.80 | 21.15 | 21.17 | | |
| | RB3#3 | 20.82 | 21.05 | 21.12 | | |
| | RB6#0 | 19.83 | 20.08 | 20.15 | | |
| 1.4MHz 16QAM | RB1#0 | 19.30 | 20.60 | 20.87 | 21.73 | 34.77 |
| | RB1#3 | 19.32 | 20.57 | 20.88 | | |
| | RB1#5 | 19.28 | 20.54 | 20.85 | | |
| | RB3#0 | 19.84 | 20.17 | 19.97 | | |
| | RB3#3 | 19.85 | 20.18 | 20.00 | | |
| | RB6#0 | 19.09 | 19.32 | 19.49 | | |
| 3MHz QPSK | RB1#0 | 20.74 | 21.05 | 20.99 | 21.99 | 34.77 |
| | RB1#8 | 20.67 | 21.02 | 21.03 | | |
| | RB1#14 | 21.01 | 21.05 | 21.14 | | |
| | RB6#0 | 19.87 | 20.17 | 20.07 | | |
| | RB6#9 | 20.02 | 20.09 | 20.15 | | |
| | RB15#0 | 19.81 | 19.98 | 20.05 | | |
| 3MHz 16QAM | RB1#0 | 20.15 | 20.90 | 19.73 | 21.75 | 34.77 |
| | RB1#8 | 20.08 | 20.76 | 19.72 | | |
| | RB1#14 | 20.30 | 20.72 | 19.87 | | |
| | RB6#0 | 19.83 | 19.15 | 19.69 | | |
| | RB6#9 | 19.36 | 19.19 | 19.67 | | |
| | RB15#0 | 19.92 | 19.16 | 19.42 | | |
| 5MHz QPSK | RB1#0 | 20.76 | 21.05 | 20.51 | 21.98 | 34.77 |
| | RB1#13 | 21.00 | 21.13 | 20.96 | | |
| | RB1#24 | 21.00 | 21.06 | 21.00 | | |
| | RB15#0 | 19.83 | 20.11 | 20.04 | | |
| | RB15#10 | 20.03 | 20.09 | 20.12 | | |
| | RB25#0 | 20.07 | 20.12 | 20.06 | | |
| 5MHz 16QAM | RB1#0 | 19.89 | 20.11 | 19.66 | 21.05 | 34.77 |
| | RB1#13 | 19.55 | 20.10 | 19.76 | | |
| | RB1#24 | 19.58 | 20.07 | 19.79 | | |
| | RB15#0 | 20.20 | 19.98 | 19.58 | | |
| | RB15#10 | 19.13 | 19.98 | 19.51 | | |

| | | | | | | |
|-------------|---------|-------|-------|-------|-------|-------|
| | RB25#0 | 19.88 | 19.17 | 19.42 | | |
| 10MHz QPSK | RB1#0 | 20.70 | 20.95 | 21.24 | 22.09 | 34.77 |
| | RB1#25 | 20.95 | 21.01 | 20.93 | | |
| | RB1#49 | 20.97 | 20.96 | 21.21 | | |
| | RB25#0 | 20.04 | 20.08 | 20.04 | | |
| | RB25#25 | 20.10 | 20.02 | 20.03 | | |
| | RB50#0 | 20.12 | 20.09 | 20.06 | | |
| 10MHz 16QAM | RB1#0 | 19.85 | 20.25 | 19.64 | 21.2 | 34.77 |
| | RB1#25 | 20.17 | 20.35 | 19.58 | | |
| | RB1#49 | 20.10 | 20.21 | 19.74 | | |
| | RB25#0 | 19.66 | 19.15 | 19.19 | | |
| | RB25#25 | 19.54 | 19.50 | 19.62 | | |
| | RB50#0 | 19.51 | 19.18 | 19.46 | | |

Note: ERP=Conducted Power(dBm) - Cable loss(dB) + Antenna Gain(dBd)

Result:

Pass

Peak-to-average Ratio(PAR)

| Test Bandwidth & Modulation | Resource Block & RB offset | Peak-to-average Ratio(dB) | | | Limit (dB) |
|-----------------------------|----------------------------|---------------------------|----------------|-----------------|-------------|
| | | Lowest Channel | Middle Channel | Highest Channel | |
| 10MHz QPSK | RB1#0 | 6.84 | 6.09 | 4.32 | 13 |
| | RB50#0 | 5.07 | 4.99 | 5.88 | 13 |
| 10MHz 16QAM | RB1#0 | 7.36 | 7.19 | 5.25 | 13 |
| | RB50#0 | 6.06 | 6.06 | 6.61 | 13 |
| Result: | | | | | Pass |

FCC §2.1049, §27.53:Occupied Bandwidth

| Operation Mode | 99% Occupied Bandwidth (MHz) | | | 26 dB Occupied Bandwidth (MHz) | | |
|----------------|------------------------------|----------------|--------------|--------------------------------|----------------|--------------|
| | Low Channel | Middle channel | High Channel | Low Channel | Middle Channel | High Channel |
| 1.4MHz QPSK | 1.102 | 1.102 | 1.102 | 1.254 | 1.248 | 1.260 |
| 1.4MHz 16QAM | 1.102 | 1.108 | 1.096 | 1.260 | 1.254 | 1.254 |
| 3MHz QPSK | 2.695 | 2.695 | 2.695 | 3.000 | 3.012 | 3.000 |
| 3MHz 16QAM | 2.695 | 2.683 | 2.695 | 3.012 | 3.000 | 3.024 |
| 5MHz QPSK | 4.511 | 4.511 | 4.531 | 5.000 | 4.960 | 5.000 |
| 5MHz 16QAM | 4.531 | 4.491 | 4.551 | 5.020 | 4.940 | 5.040 |
| 10MHz QPSK | 8.901 | 8.901 | 9.022 | 9.680 | 9.520 | 9.840 |
| 10MHz 16QAM | 8.901 | 8.901 | 9.022 | 9.600 | 9.600 | 9.920 |

Note: The test plots please refer to the Plots of Occupied Bandwidth

FCC §2.1051, §27.53:Spurious Emissions at Antenna Terminal**Result:** Pass, Please refer to the test plots of Spurious Emissions at Antenna Terminal.**FCC §2.1051, §27.53:Out of band emission, Band Edge****Result:** Pass, Please refer to the test plots of Out of band emission, Band Edge.**FCC §2.1055, §27.54: Frequency Stability**

| Test Mode: | 10M QPSK | Test Channel: Lowest for Lower Edge,Highest for Upper Edge | | | | |
|-------------------------------------|------------------|--|------------------|--------|------------------|-------------|
| Test Item | Temperature (°C) | Voltage (V _{DC}) | Lower Edge (MHz) | | Upper Edge (MHz) | |
| | | | Result | Limit | Result | Limit |
| Frequency Stability vs. Temperature | -30 | 3.7 | 699.567 | 699.00 | 715.511 | 716.00 |
| | -20 | 3.7 | 699.568 | 699.00 | 715.512 | 716.00 |
| | -10 | 3.7 | 699.568 | 699.00 | 715.514 | 716.00 |
| | 0 | 3.7 | 699.566 | 699.00 | 715.515 | 716.00 |
| | 10 | 3.7 | 699.565 | 699.00 | 715.516 | 716.00 |
| | 20 | 3.7 | 699.569 | 699.00 | 715.511 | 716.00 |
| | 30 | 3.7 | 699.566 | 699.00 | 715.514 | 716.00 |
| | 40 | 3.7 | 699.564 | 699.00 | 715.518 | 716.00 |
| Frequency Stability vs. Voltage | 20 | 3.5 | 699.562 | 699.00 | 715.510 | 716.00 |
| | 20 | 4.2 | 699.563 | 699.00 | 715.511 | 716.00 |
| | | | | | Result: | Pass |

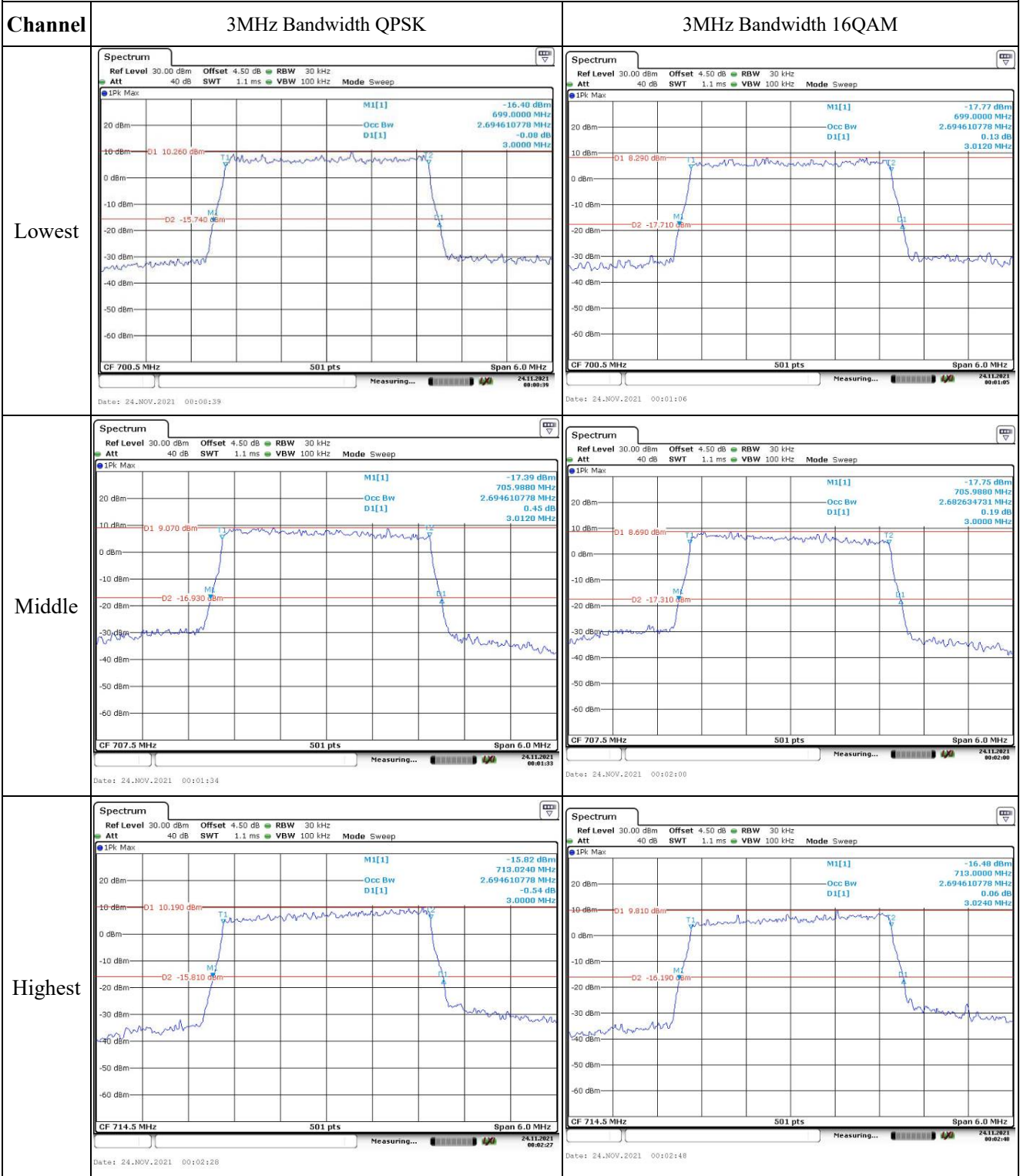
| Test Mode: | 10M 16QAM | Test Channel: Lowest for Lower Edge,Highest for Upper Edge | | | | |
|-------------------------------------|------------------|--|------------------|--------|------------------|-------------|
| Test Item | Temperature (°C) | Voltage (V _{DC}) | Lower Edge (MHz) | | Upper Edge (MHz) | |
| | | | Result | Limit | Result | Limit |
| Frequency Stability vs. Temperature | -30 | 3.7 | 699.608 | 699.00 | 715.511 | 716.00 |
| | -20 | 3.7 | 699.605 | 699.00 | 715.515 | 716.00 |
| | -10 | 3.7 | 699.602 | 699.00 | 715.514 | 716.00 |
| | 0 | 3.7 | 699.606 | 699.00 | 715.513 | 716.00 |
| | 10 | 3.7 | 699.605 | 699.00 | 715.512 | 716.00 |
| | 20 | 3.7 | 699.609 | 699.00 | 715.511 | 716.00 |
| | 30 | 3.7 | 699.604 | 699.00 | 715.517 | 716.00 |
| | 40 | 3.7 | 699.607 | 699.00 | 715.518 | 716.00 |
| Frequency Stability vs. Voltage | 20 | 3.5 | 699.606 | 699.00 | 715.519 | 716.00 |
| | 20 | 4.2 | 699.608 | 699.00 | 715.511 | 716.00 |
| | | | | | Result: | Pass |

Test Plots:

Occupied Bandwidth

| Channel | 1.4MHz Bandwidth QPSK | 1.4MHz Bandwidth 16QAM |
|---------|---|--|
| Lowest | <p>1.4MHz Bandwidth QPSK</p> <p>CF 699.7 MHz 501 pts Span 3.0 MHz</p> <p>Date: 23.NOV.2021 23:58:25</p> | <p>1.4MHz Bandwidth 16QAM</p> <p>CF 699.7 MHz 501 pts Span 3.0 MHz</p> <p>Date: 23.NOV.2021 23:58:42</p> |
| Middle | <p>1.4MHz Bandwidth QPSK</p> <p>CF 707.5 MHz 501 pts Span 3.0 MHz</p> <p>Date: 23.NOV.2021 23:59:07</p> | <p>1.4MHz Bandwidth 16QAM</p> <p>CF 707.5 MHz 501 pts Span 3.0 MHz</p> <p>Date: 23.NOV.2021 23:59:27</p> |
| Highest | <p>1.4MHz Bandwidth QPSK</p> <p>CF 715.3 MHz 501 pts Span 3.0 MHz</p> <p>Date: 23.NOV.2021 23:59:46</p> | <p>1.4MHz Bandwidth 16QAM</p> <p>CF 715.3 MHz 501 pts Span 3.0 MHz</p> <p>Date: 24.NOV.2021 00:00:06</p> |

Occupied Bandwidth



Occupied Bandwidth

| Channel | 5MHz Bandwidth QPSK | 5MHz Bandwidth 16QAM |
|---------|---|---|
| Lowest | <p>Ref Level 30.00 dBm Offset 4.50 dB RBW 100 kHz Att 40 dB SWT 1 ms VBW 300 kHz Mode Sweep 1Pk Max M1[1] -13.18 dBm Occ Bw 4.510978044 MHz D1[1] -0.24 dB D1 12.690 dBm D2 -13.310 dBm CF 701.5 MHz 501 pts Span 10.0 MHz Date: 24.NOV.2021 00:04:11</p> | <p>Ref Level 30.00 dBm Offset 4.50 dB RBW 100 kHz Att 40 dB SWT 1 ms VBW 300 kHz Mode Sweep 1Pk Max M1[1] -14.58 dBm Occ Bw 4.530998124 MHz D1[1] 0.01 dB D1 11.260 dBm D2 -14.740 dBm CF 701.5 MHz 501 pts Span 10.0 MHz Date: 24.NOV.2021 00:04:47</p> |
| Middle | <p>Ref Level 30.00 dBm Offset 4.50 dB RBW 100 kHz Att 40 dB SWT 1 ms VBW 300 kHz Mode Sweep 1Pk Max M1[1] -13.13 dBm Occ Bw 4.510978044 MHz D1[1] 0.09 dB D1 12.880 dBm D2 -13.120 dBm CF 707.5 MHz 501 pts Span 10.0 MHz Date: 24.NOV.2021 00:05:18</p> | <p>Ref Level 30.00 dBm Offset 4.50 dB RBW 100 kHz Att 40 dB SWT 1 ms VBW 300 kHz Mode Sweep 1Pk Max M1[1] -12.75 dBm Occ Bw 4.491017964 MHz D1[1] -0.21 dB D1 12.080 dBm D2 -13.920 dBm CF 707.5 MHz 501 pts Span 10.0 MHz Date: 24.NOV.2021 00:05:47</p> |
| Highest | <p>Ref Level 30.00 dBm Offset 4.50 dB RBW 100 kHz Att 40 dB SWT 1 ms VBW 300 kHz Mode Sweep 1Pk Max M1[1] -13.65 dBm Occ Bw 4.530998124 MHz D1[1] 0.44 dB D1 12.600 dBm D2 -13.400 dBm CF 713.5 MHz 501 pts Span 10.0 MHz Date: 24.NOV.2021 00:06:12</p> | <p>Ref Level 30.00 dBm Offset 4.50 dB RBW 100 kHz Att 40 dB SWT 1 ms VBW 300 kHz Mode Sweep 1Pk Max M1[1] -14.99 dBm Occ Bw 4.550898204 MHz D1[1] 1.14 dB D1 12.320 dBm D2 -13.680 dBm CF 713.5 MHz 501 pts Span 10.0 MHz Date: 24.NOV.2021 00:06:32</p> |

Occupied Bandwidth

| Channel | 10MHz Bandwidth QPSK | 10MHz Bandwidth 16QAM |
|---------|---|---|
| Lowest | <p>Ref Level 30.00 dBm Offset 4.50 dB RBW 100 kHz Att 40 dB SWT 1 ms VBW 300 kHz Mode Sweep M1[1] -16.70 dBm Occ Bw 9.902195609 MHz D1[1] 9.920 MHz D2 -16.080 dBm CF 704.0 MHz 501 pts Span 20.0 MHz Date: 24.NOV.2021 00:07:05</p> | <p>Ref Level 30.00 dBm Offset 4.50 dB RBW 100 kHz Att 40 dB SWT 1 ms VBW 300 kHz Mode Sweep M1[1] -15.32 dBm Occ Bw 9.972 MHz D1[1] 10.850 MHz D2 -15.150 dBm CF 704.0 MHz 501 pts Span 20.0 MHz Date: 24.NOV.2021 00:07:36</p> |
| Middle | <p>Ref Level 30.00 dBm Offset 4.50 dB RBW 100 kHz Att 40 dB SWT 1 ms VBW 300 kHz Mode Sweep M1[1] -13.13 dBm Occ Bw 9.902195609 MHz D1[1] 11.900 MHz D2 -14.100 dBm CF 707.5 MHz 501 pts Span 20.0 MHz Date: 24.NOV.2021 00:08:01</p> | <p>Ref Level 30.00 dBm Offset 4.50 dB RBW 100 kHz Att 40 dB SWT 1 ms VBW 300 kHz Mode Sweep M1[1] -16.67 dBm Occ Bw 9.79 dB D1[1] 9.710 MHz D2 -16.250 dBm CF 707.5 MHz 501 pts Span 20.0 MHz Date: 24.NOV.2021 00:08:29</p> |
| Highest | <p>Ref Level 30.00 dBm Offset 4.50 dB RBW 100 kHz Att 40 dB SWT 1 ms VBW 300 kHz Mode Sweep M1[1] -14.52 dBm Occ Bw 9.840 MHz D1[1] 10.760 MHz D2 -15.240 dBm CF 711.0 MHz 501 pts Span 20.0 MHz Date: 24.NOV.2021 00:08:58</p> | <p>Ref Level 30.00 dBm Offset 4.50 dB RBW 100 kHz Att 40 dB SWT 1 ms VBW 300 kHz Mode Sweep M1[1] -15.40 dBm Occ Bw 9.920 MHz D1[1] 10.330 MHz D2 -15.670 dBm CF 711.0 MHz 501 pts Span 20.0 MHz Date: 24.NOV.2021 00:09:35</p> |

Spurious Emissions at Antenna Terminal

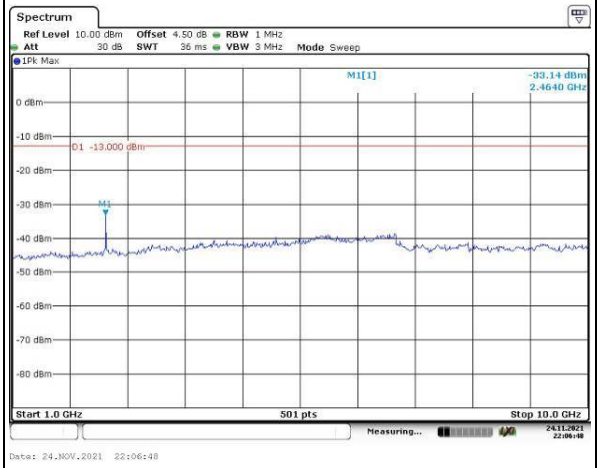
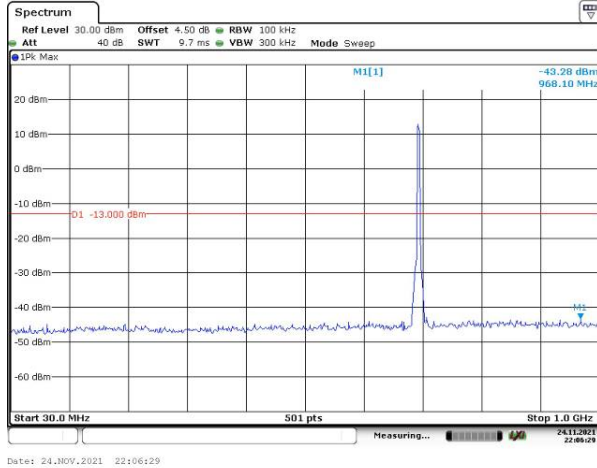
| Channel | 1.4MHz Bandwidth QPSK | |
|---------|--|---|
| Lowest | <p>Spectrum Ref Level 30.00 dBm Offset 4.50 dB RBW 100 kHz Att 40 dB SWT 9.7 ms VBW 300 kHz Mode Sweep 1Pk Max M1[1] -42.66 dBm 977.70 MHz D1 -13.000 dBm Start 30.0 MHz 501 pts Stop 1.0 GHz Date: 24.NOV.2021 22:03:41</p> | <p>Spectrum Ref Level 10.00 dBm Offset 4.50 dB RBW 1 MHz Att 30 dB SWT 36 ms VBW 3 MHz Mode Sweep 1Pk Max M1[1] -33.01 dBm 2.4640 GHz D1 -13.000 dBm Start 1.0 GHz 501 pts Stop 10.0 GHz Date: 24.NOV.2021 22:04:03</p> |
| Middle | <p>Spectrum Ref Level 30.00 dBm Offset 4.50 dB RBW 100 kHz Att 40 dB SWT 9.7 ms VBW 300 kHz Mode Sweep 1Pk Max M1[1] -40.58 dBm 699.90 MHz D1 -13.000 dBm Start 30.0 MHz 501 pts Stop 1.0 GHz Date: 24.NOV.2021 22:04:36</p> | <p>Spectrum Ref Level 10.00 dBm Offset 4.50 dB RBW 1 MHz Att 30 dB SWT 36 ms VBW 3 MHz Mode Sweep 1Pk Max M1[1] -33.19 dBm 2.4640 GHz D1 -13.000 dBm Start 1.0 GHz 501 pts Stop 10.0 GHz Date: 24.NOV.2021 22:04:58</p> |
| Highest | <p>Spectrum Ref Level 30.00 dBm Offset 4.50 dB RBW 100 kHz Att 40 dB SWT 9.7 ms VBW 300 kHz Mode Sweep 1Pk Max M1[1] -42.86 dBm 946.80 MHz D1 -13.000 dBm Start 30.0 MHz 501 pts Stop 1.0 GHz Date: 24.NOV.2021 22:05:25</p> | <p>Spectrum Ref Level 10.00 dBm Offset 4.50 dB RBW 1 MHz Att 30 dB SWT 36 ms VBW 3 MHz Mode Sweep 1Pk Max M1[1] -32.66 dBm 2.4640 GHz D1 -13.000 dBm Start 1.0 GHz 501 pts Stop 10.0 GHz Date: 24.NOV.2021 22:06:00</p> |

Spurious Emissions at Antenna Terminal

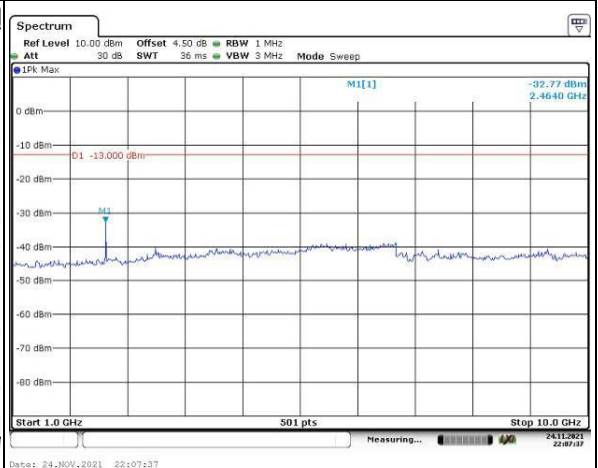
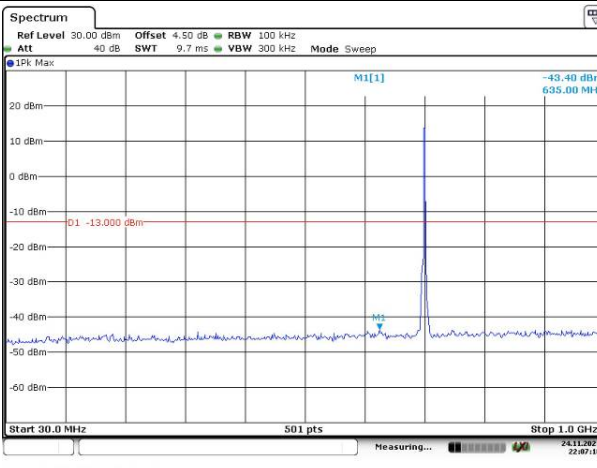
Channel

3MHz Bandwidth QPSK

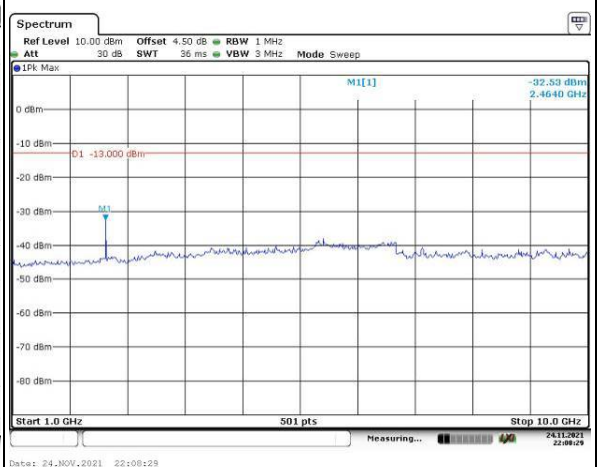
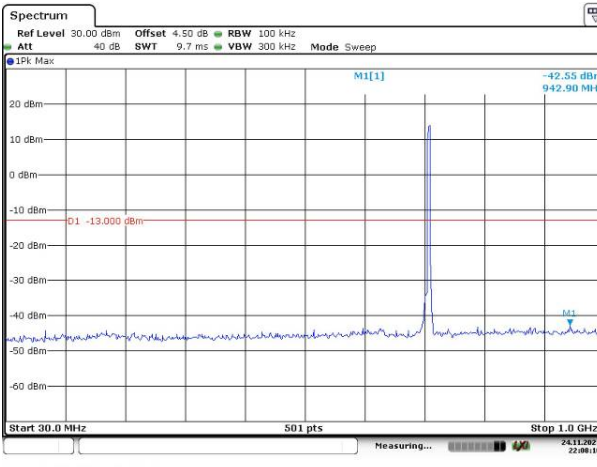
Lowest



Middle



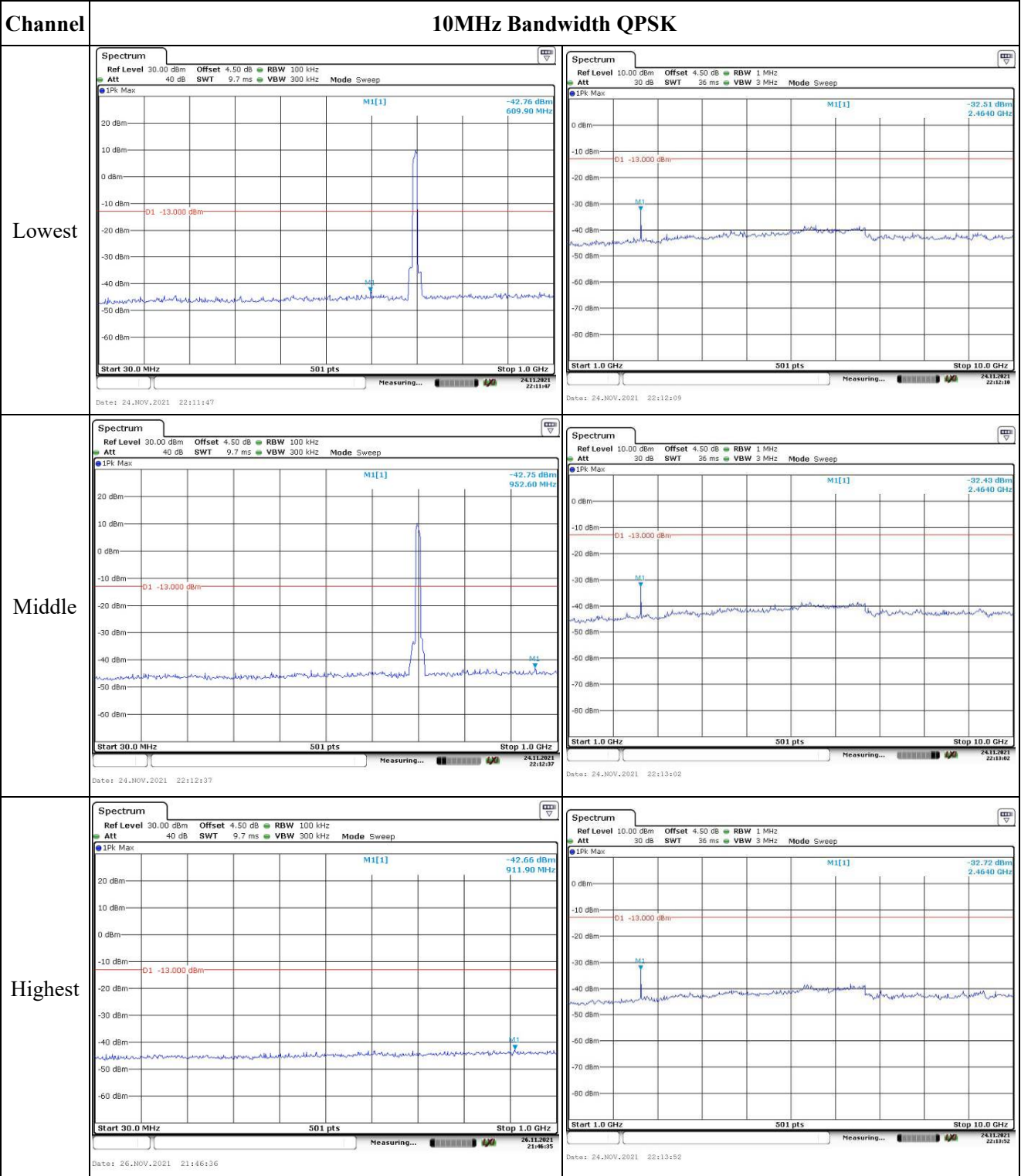
Highest



Spurious Emissions at Antenna Terminal

| Channel | 5MHz Bandwidth QPSK | |
|---------|---|--|
| Lowest | <p>Ref Level 30.00 dBm Offset 4.50 dB RBW 100 kHz Att 40 dB SWT 9.7 ms VBW 300 kHz Mode Sweep</p> <p>1Pk Max M1[1] -42.76 dBm 944.80 MHz</p> <p>D1 -13.000 dBm</p> <p>Start 30.0 MHz 501 pts Stop 1.0 GHz</p> <p>Date: 24.NOV.2021 22:09:03</p> | <p>Ref Level 10.00 dBm Offset 4.50 dB RBW 1 MHz Att 30 dB SWT 36 ms VBW 3 MHz Mode Sweep</p> <p>1Pk Max M1[1] -32.38 dBm 2.4640 GHz</p> <p>D1 -13.000 dBm</p> <p>Start 1.0 GHz 501 pts Stop 10.0 GHz</p> <p>Date: 24.NOV.2021 22:09:28</p> |
| Middle | <p>Ref Level 30.00 dBm Offset 4.50 dB RBW 100 kHz Att 40 dB SWT 9.7 ms VBW 300 kHz Mode Sweep</p> <p>1Pk Max M1[1] -43.52 dBm 886.70 MHz</p> <p>D1 -13.000 dBm</p> <p>Start 30.0 MHz 501 pts Stop 1.0 GHz</p> <p>Date: 24.NOV.2021 22:09:55</p> | <p>Ref Level 10.00 dBm Offset 4.50 dB RBW 1 MHz Att 30 dB SWT 36 ms VBW 3 MHz Mode Sweep</p> <p>1Pk Max M1[1] -32.48 dBm 2.4640 GHz</p> <p>D1 -13.000 dBm</p> <p>Start 1.0 GHz 501 pts Stop 10.0 GHz</p> <p>Date: 24.NOV.2021 22:10:17</p> |
| Highest | <p>Ref Level 30.00 dBm Offset 4.50 dB RBW 100 kHz Att 40 dB SWT 9.7 ms VBW 300 kHz Mode Sweep</p> <p>1Pk Max M1[1] -42.74 dBm 952.60 MHz</p> <p>D1 -13.000 dBm</p> <p>Start 30.0 MHz 501 pts Stop 1.0 GHz</p> <p>Date: 24.NOV.2021 22:10:40</p> | <p>Ref Level 10.00 dBm Offset 4.50 dB RBW 1 MHz Att 30 dB SWT 36 ms VBW 3 MHz Mode Sweep</p> <p>1Pk Max M1[1] -32.16 dBm 2.4640 GHz</p> <p>D1 -13.000 dBm</p> <p>Start 1.0 GHz 501 pts Stop 10.0 GHz</p> <p>Date: 24.NOV.2021 22:11:09</p> |

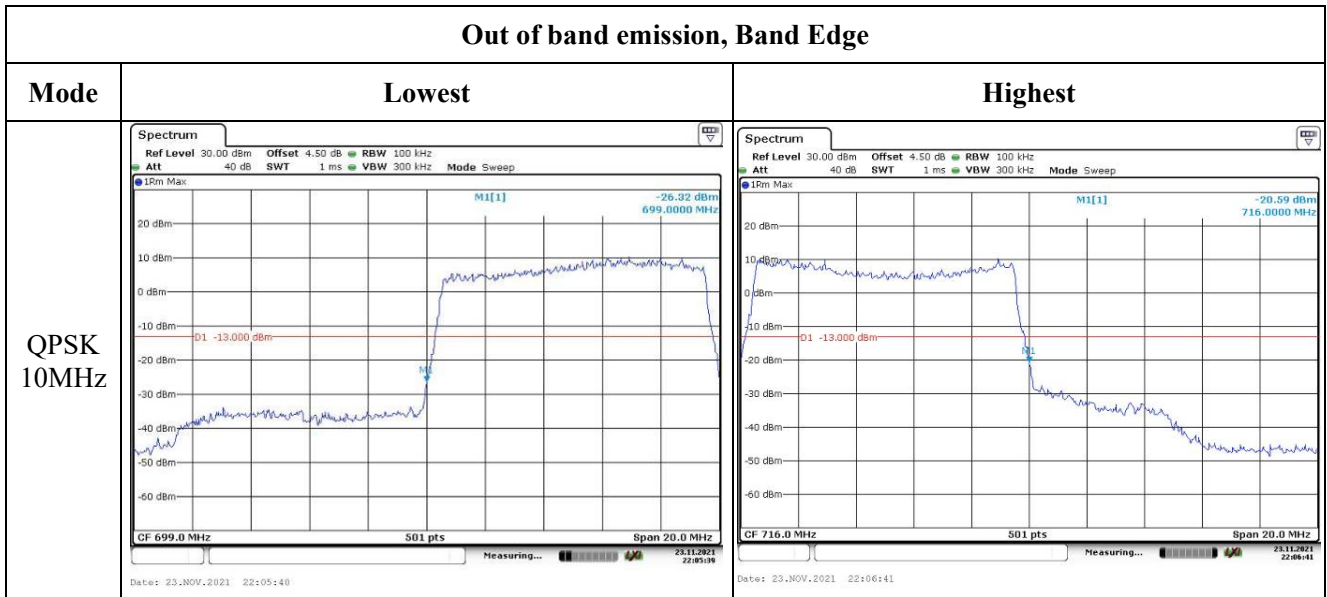
Spurious Emissions at Antenna Terminal



Out of band emission, Band Edge

| Mode | Lowest | Highest |
|----------------|---|---|
| QPSK 1.4MHz | <p>Ref Level 30.00 dBm Offset 4.50 dB RBW 30 kHz Att 40 dB SWT 1.1 ms VBW 100 kHz Mode Sweep 1Fm Max M1[1] -26.27 dBm 698.84430 MHz D1 -13.000 dBm CF 699.0 MHz 501 pts Span 3.0 MHz Date: 23.NOV.2021 22:08:18</p> | <p>Ref Level 30.00 dBm Offset 4.50 dB RBW 30 kHz Att 40 dB SWT 1.1 ms VBW 100 kHz Mode Sweep 1Fm Max M1[1] -20.13 dBm 716.00000 MHz D1 -13.000 dBm CF 716.0 MHz 501 pts Span 3.0 MHz Date: 23.NOV.2021 22:00:52</p> |
| QPSK 3MHz | <p>Ref Level 30.00 dBm Offset 4.50 dB RBW 30 kHz Att 40 dB SWT 1.1 ms VBW 100 kHz Mode Sweep 1Fm Max M1[1] -16.75 dBm 699.00000 MHz D1 -13.000 dBm CF 699.0 MHz 501 pts Span 6.0 MHz Date: 23.NOV.2021 22:01:44</p> | <p>Ref Level 30.00 dBm Offset 4.50 dB RBW 30 kHz Att 40 dB SWT 1.1 ms VBW 100 kHz Mode Sweep 1Fm Max M1[1] -14.19 dBm 716.00000 MHz D1 -13.000 dBm CF 716.0 MHz 501 pts Span 6.0 MHz Date: 23.NOV.2021 22:02:31</p> |
| QPSK 5MHz | <p>Ref Level 30.00 dBm Offset 4.50 dB RBW 100 kHz Att 40 dB SWT 1 ms VBW 300 kHz Mode Sweep 1Fm Max M1[1] -15.81 dBm 699.00000 MHz D1 -13.000 dBm CF 699.0 MHz 501 pts Span 10.0 MHz Date: 23.NOV.2021 22:03:35</p> | <p>Ref Level 30.00 dBm Offset 4.50 dB RBW 100 kHz Att 40 dB SWT 1 ms VBW 300 kHz Mode Sweep 1Fm Max M1[1] -17.28 dBm 699.00000 MHz D1 -13.000 dBm CF 699.0 MHz 501 pts Span 10.0 MHz Date: 23.NOV.2021 22:04:08</p> |

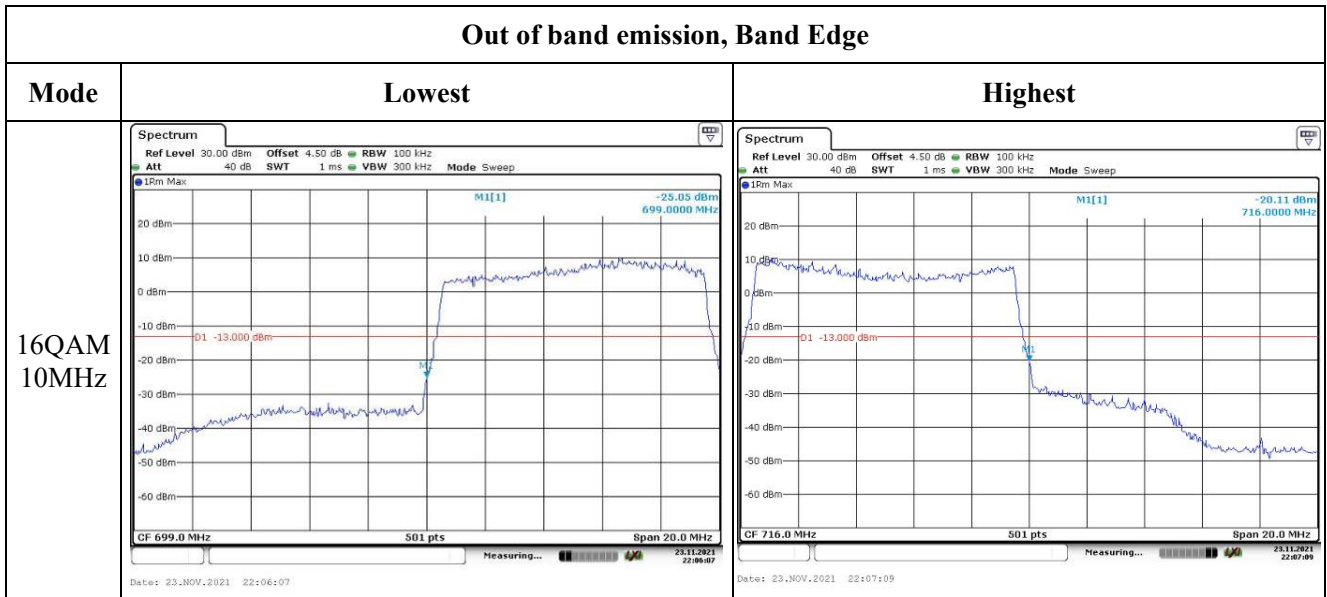
Out of band emission, Band Edge



Out of band emission, Band Edge

| Mode | Lowest | Highest |
|-----------------|--------|---------|
| 16QAM 1.4MHz | | |
| 16QAM 3MHz | | |
| 16QAM 5MHz | | |

Out of band emission, Band Edge



4.9 Antenna Port Test Data and Results for LTE Band 13:

| | | | |
|----------------|------------------|--------------|-----------------------|
| Serial Number: | CR21110014-RF-S1 | Test Date: | 2021/11/23~2021/12/27 |
| Test Site: | RF | Test Mode: | Transmitting |
| Tester: | LE Qiao | Test Result: | Pass |

Environmental Conditions:

| | | | | | |
|----------------------|-----------|---------------------------|-------|------------------------|-------------|
| Temperature: (°C) | 21.2~24.9 | Relative Humidity: (%) | 41~60 | ATM Pressure: (kPa) | 101.3~101.7 |
|----------------------|-----------|---------------------------|-------|------------------------|-------------|

Test Equipment List and Details:

| Manufacturer | Description | Model | Serial Number | Calibration Date | Calibration Due Date |
|---------------|-------------------------------------|-----------|---------------|------------------|----------------------|
| R&S | Spectrum Analyzer | FSV40 | 101474 | 2021/7/22 | 2022/7/21 |
| zhuoxiang | Coaxial Cable | SMA-178 | 211001 | Each time | N/A |
| Mini-Circuits | DC Block | BLK-18-S+ | 1554403 | Each time | N/A |
| Weinschel | Coaxial Attenuators | 53-20-34 | LN751 | Each time | N/A |
| R&S | Wideband Radio Communication Tester | CMW500 | 149218 | 2021/7/22 | 2022/7/21 |
| BACL | TEMP&HUMI Test Chamber | BTH-150 | 30026 | 2021/7/22 | 2022/7/22 |
| UNI-T | Multimeter | UT39A+ | C210582554 | 2021/9/30 | 2022/9/30 |
| E-Microwave | Two-way Splitter | ODP-1-6 | OE0120176 | Each Time | N/A |

* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

EUT Information@LTE Band 13▲:

| | | | | | |
|--------------------------------------|-----|---------------------|------|------------------|-----|
| Antenna Gain (dBi): | 3 | Antenna Gain (dBd): | 0.85 | Cable Loss (dB): | 0 |
| Operation Voltage(V _{DC}): | | | | | |
| Lowest: | 3.5 | Normal: | 3.7 | Highest: | 4.2 |

Test Frequency For Each Mode:

| Operation Bandwidth | Lowest Frequency (MHz) | Middle Frequency (MHz) | Highest Frequency (MHz) |
|---------------------|------------------------|------------------------|-------------------------|
| 5MHz | 779.5 | / | 784.5 |
| 10MHz | / | 782 | / |

Per ANSI C63.25, only Lowest/Highest Channel was tested for the operation frequency range less than 10MHz.

Test Data:**FCC§2.1046;§ 27.50(c) (10)****RF Output Power:**

| Test Bandwidth & Modulation | Resource Block & RB offset | Conducted Average Output Power(dBm) | | | Maximum ERP(dBm) | ERP Limit(dBm) |
|---|----------------------------|-------------------------------------|----------------|-----------------|------------------|----------------|
| | | Lowest Channel | Middle Channel | Highest Channel | | |
| 5MHz QPSK | RB1#0 | 21.04 | / | 20.98 | 22.05 | 34.77 |
| | RB1#13 | 21.10 | / | 21.01 | | |
| | RB1#24 | 21.06 | / | 20.99 | | |
| | RB15#0 | 20.19 | / | 20.05 | | |
| | RB15#10 | 20.09 | / | 20.12 | | |
| | RB25#0 | 20.16 | / | 20.05 | | |
| 5MHz 16QAM | RB1#0 | 19.47 | / | 19.74 | 21.07 | 34.77 |
| | RB1#13 | 19.38 | / | 19.74 | | |
| | RB1#24 | 19.34 | / | 19.84 | | |
| | RB15#0 | 19.34 | / | 19.19 | | |
| | RB15#10 | 19.44 | / | 19.17 | | |
| | RB25#0 | 19.45 | / | 19.04 | | |
| 10MHz QPSK | RB1#0 | / | 21.07 | / | 21.92 | 34.77 |
| | RB1#25 | / | 20.98 | / | | |
| | RB1#49 | / | 21.04 | / | | |
| | RB25#0 | / | 20.16 | / | | |
| | RB25#25 | / | 20.06 | / | | |
| | RB50#0 | / | 20.12 | / | | |
| 10MHz 16QAM | RB1#0 | / | 20.33 | / | 21.18 | 34.77 |
| | RB1#25 | / | 20.21 | / | | |
| | RB1#49 | / | 20.28 | / | | |
| | RB25#0 | / | 19.48 | / | | |
| | RB25#25 | / | 19.56 | / | | |
| | RB50#0 | / | 19.57 | / | | |
| Note: ERP=Conducted Power(dBm) - Cable loss(dB) + Antenna Gain(dBd) | | | | | Result: | Pass |

| Peak-to-average Ratio(PAR) | | | | | |
|-----------------------------------|----------------------------|---------------------------|----------------|-----------------|-------------|
| Test Bandwidth & Modulation | Resource Block & RB offset | Peak-to-average Ratio(dB) | | | Limit (dB) |
| | | Lowest Channel | Middle Channel | Highest Channel | |
| 10MHz QPSK | RB1#0 | / | 4.72 | / | 13 |
| | RB50#0 | / | 4.96 | / | 13 |
| 10MHz 16QAM | RB1#0 | / | 5.36 | / | 13 |
| | RB50#0 | / | 5.97 | / | 13 |
| Result: | | | | | Pass |

FCC §2.1049, §27.53: Occupied Bandwidth

| Operation Mode | 99% Occupied Bandwidth (MHz) | | | 26 dB Occupied Bandwidth (MHz) | | |
|----------------|------------------------------|----------------|--------------|--------------------------------|----------------|--------------|
| | Low Channel | Middle channel | High Channel | Low Channel | Middle Channel | High Channel |
| 5MHz QPSK | 4.551 | / | 4.451 | 5.040 | / | 4.900 |
| 5MHz 16QAM | 4.531 | / | 4.471 | 5.040 | / | 4.940 |
| 10MHz QPSK | / | 8.942 | / | / | 9.56 | / |
| 10MHz 16QAM | / | 8.942 | / | / | 9.6 | / |

Note: The test plots please refer to the Plots of Occupied Bandwidth

FCC §2.1051, §27.53: Spurious Emissions at Antenna Terminal

| | |
|----------------|--|
| Result: | Pass, Please refer to the test plots of Spurious Emissions at Antenna Terminal. |
|----------------|--|

FCC §2.1051, §27.53: Out of band emission, Band Edge

| | |
|----------------|---|
| Result: | Pass, Please refer to the test plots of Out of band emission, Band Edge. |
|----------------|---|

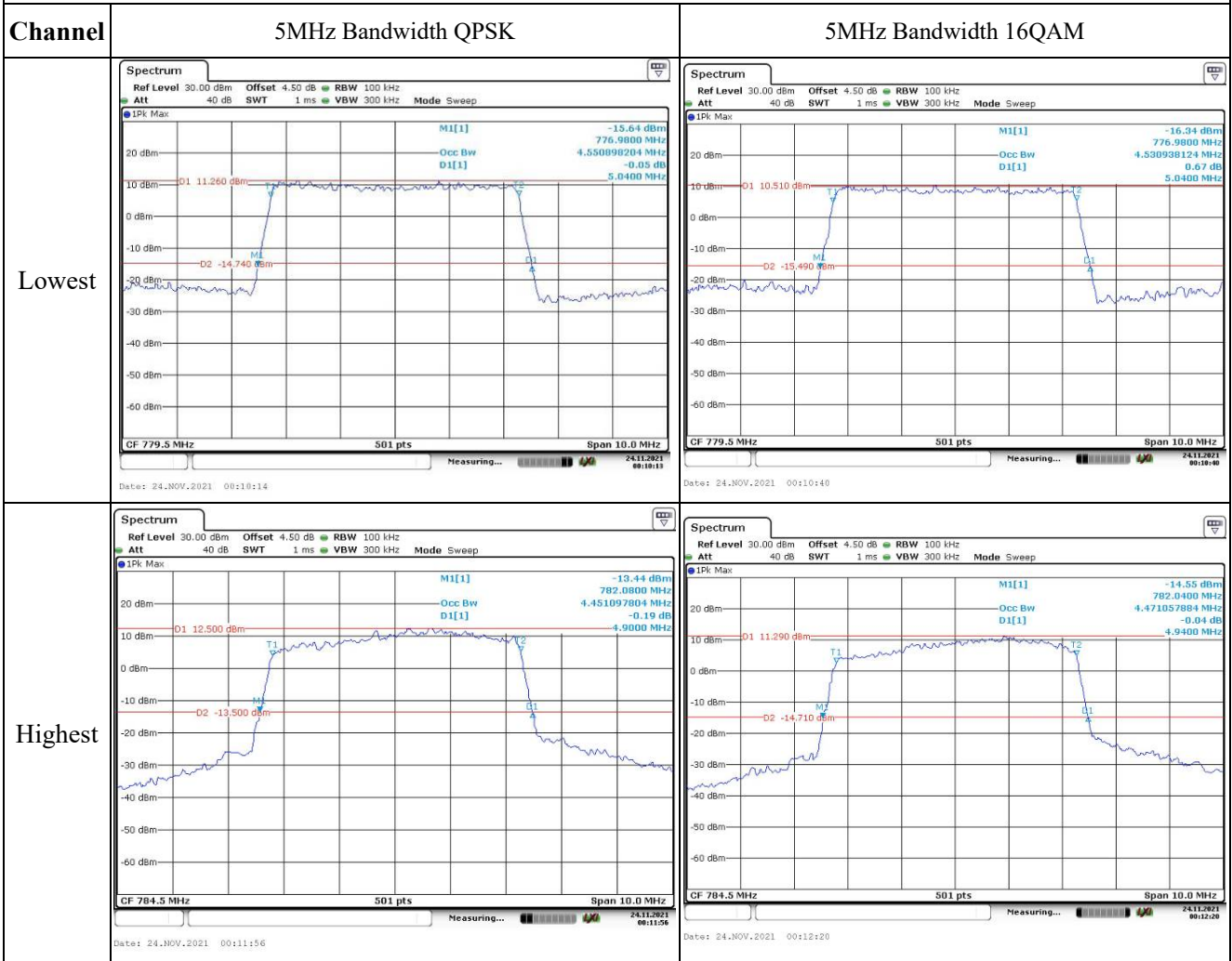
FCC §2.1055, §27.54: Frequency Stability

| Test Mode: | 10M QPSK | Test Channel: Lowest for Lower Edge, Highest for Upper Edge | | | | |
|-------------------------------------|------------------|---|------------------|--------|------------------|-------------|
| Test Item | Temperature (°C) | Voltage (V _{DC}) | Lower Edge (MHz) | | Upper Edge (MHz) | |
| | | | Result | Limit | Result | Limit |
| Frequency Stability vs. Temperature | -30 | 3.7 | 777.543 | 777.00 | 786.488 | 787.00 |
| | -20 | 3.7 | 777.544 | 777.00 | 786.487 | 787.00 |
| | -10 | 3.7 | 777.545 | 777.00 | 786.485 | 787.00 |
| | 0 | 3.7 | 777.547 | 777.00 | 786.481 | 787.00 |
| | 10 | 3.7 | 777.546 | 777.00 | 786.485 | 787.00 |
| | 20 | 3.7 | 777.542 | 777.00 | 786.487 | 787.00 |
| | 30 | 3.7 | 777.541 | 777.00 | 786.485 | 787.00 |
| | 40 | 3.7 | 777.547 | 777.00 | 786.486 | 787.00 |
| Frequency Stability vs. Voltage | 20 | 3.5 | 777.541 | 777.00 | 786.481 | 787.00 |
| | 20 | 4.2 | 777.549 | 777.00 | 786.486 | 787.00 |
| | | | | | Result: | Pass |

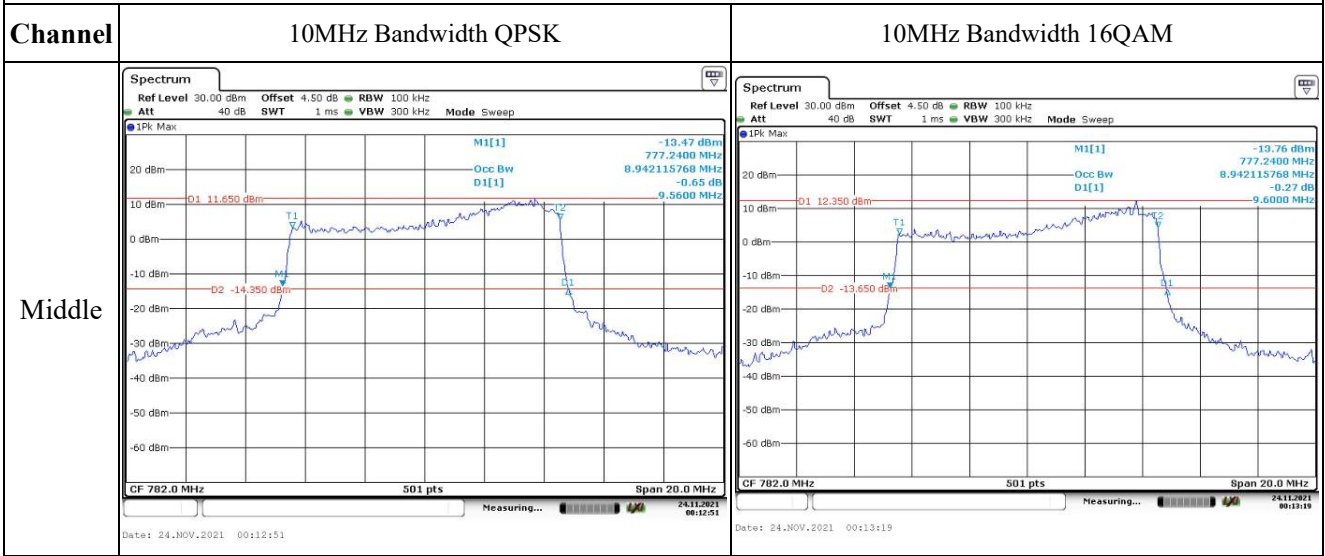
| Test Mode: | 10M 16QAM | Test Channel: Lowest for Lower Edge,Highest for Upper Edge | | | | |
|-------------------------------------|------------------|--|------------------|--------|------------------|-------------|
| Test Item | Temperature (°C) | Voltage (V _{DC}) | Lower Edge (MHz) | | Upper Edge (MHz) | |
| | | | Result | Limit | Result | Limit |
| Frequency Stability vs. Temperature | -30 | 3.7 | 777.549 | 777.00 | 786.486 | 787.00 |
| | -20 | 3.7 | 777.544 | 777.00 | 786.481 | 787.00 |
| | -10 | 3.7 | 777.546 | 777.00 | 786.482 | 787.00 |
| | 0 | 3.7 | 777.544 | 777.00 | 786.483 | 787.00 |
| | 10 | 3.7 | 777.541 | 777.00 | 786.489 | 787.00 |
| | 20 | 3.7 | 777.543 | 777.00 | 786.486 | 787.00 |
| | 30 | 3.7 | 777.544 | 777.00 | 786.487 | 787.00 |
| | 40 | 3.7 | 777.546 | 777.00 | 786.483 | 787.00 |
| | 50 | 3.7 | 777.546 | 777.00 | 786.487 | 787.00 |
| Frequency Stability vs. Voltage | 20 | 3.5 | 777.543 | 777.00 | 786.485 | 787.00 |
| | 20 | 4.2 | 777.548 | 777.00 | 786.489 | 787.00 |
| | | | | | Result: | Pass |

Test Plots:

Occupied Bandwidth



Occupied Bandwidth

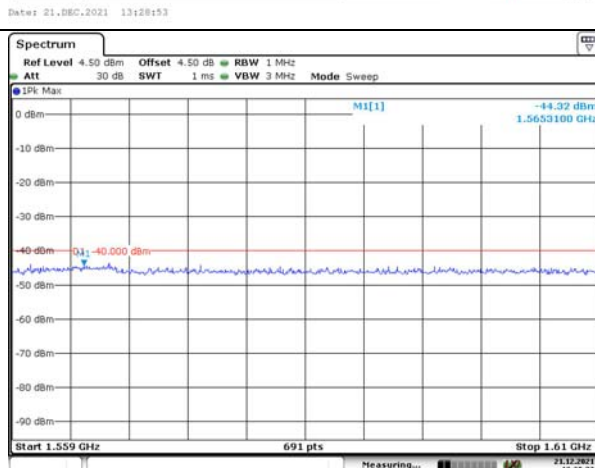
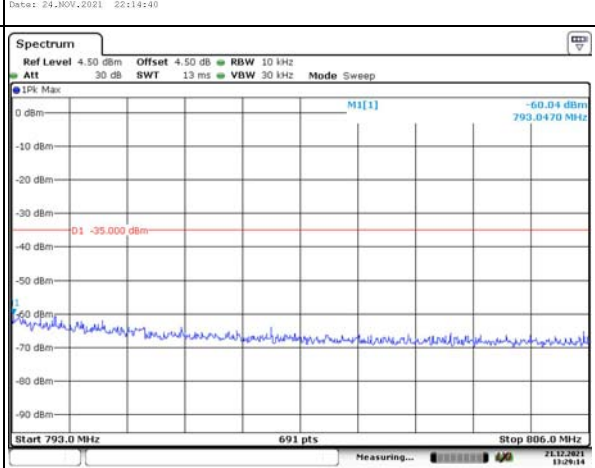
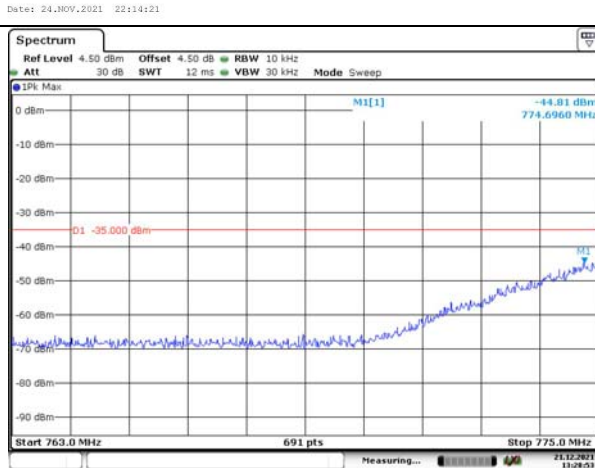
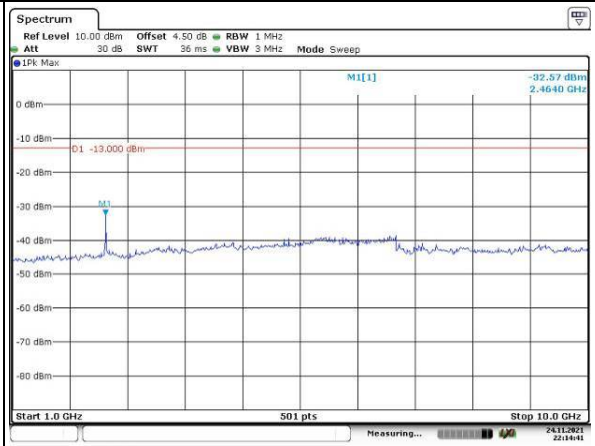
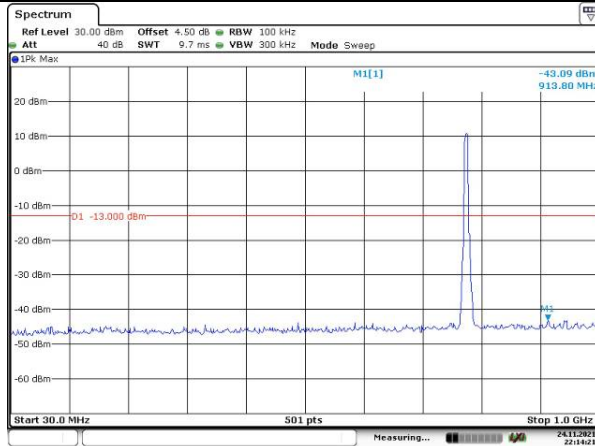


Spurious Emissions at Antenna Terminal

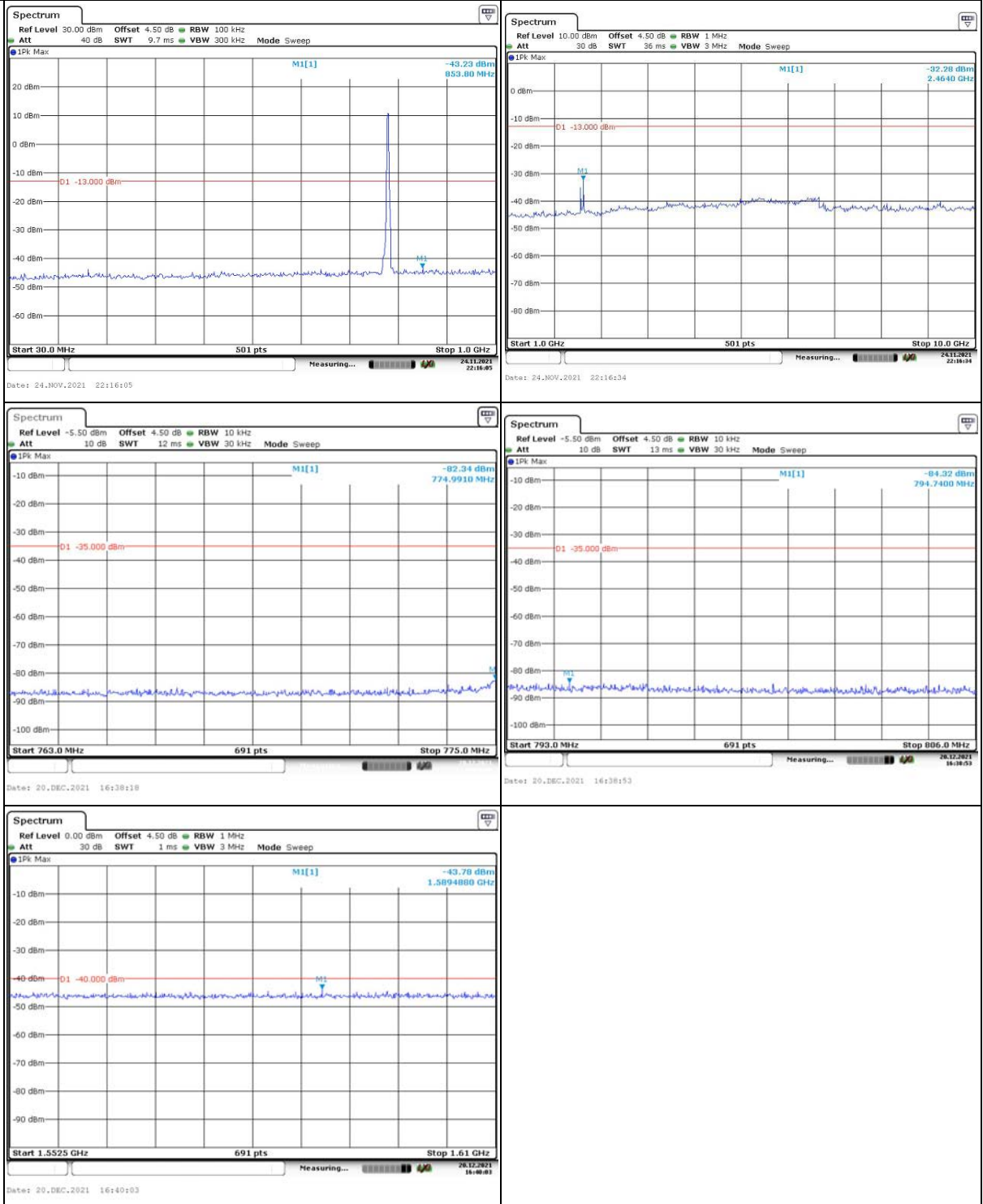
Channel

5MHz Bandwidth QPSK

Lowest



Spurious Emissions at Antenna Terminal



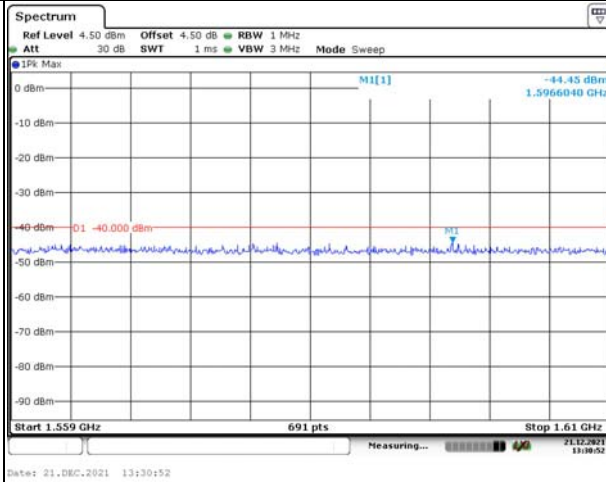
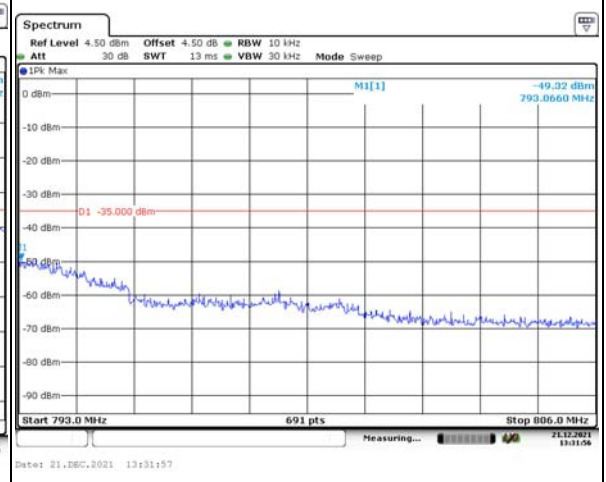
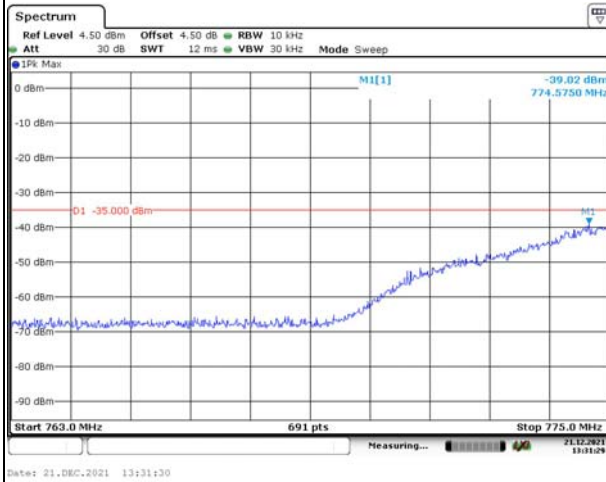
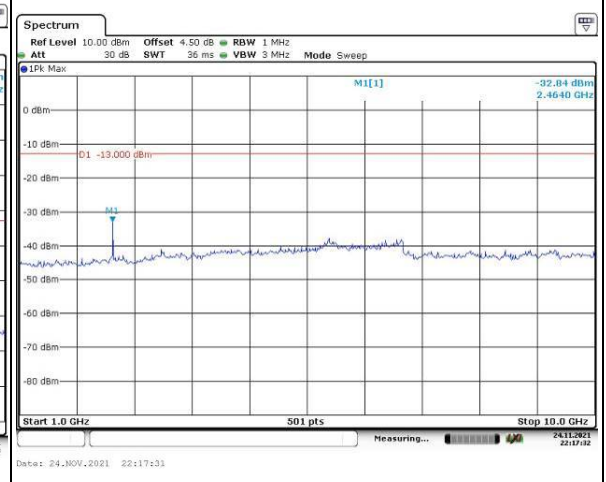
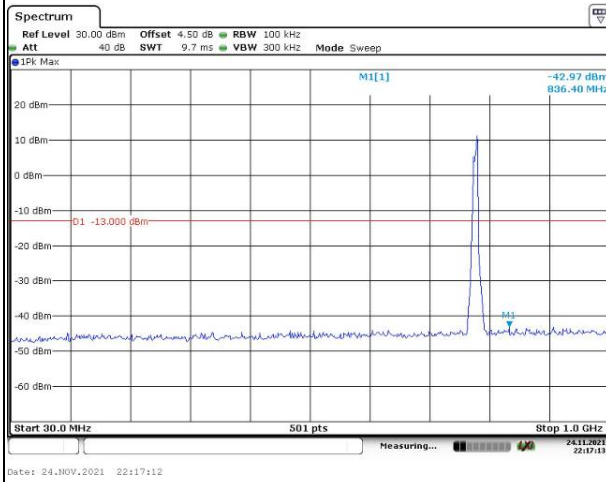
Highest

Spurious Emissions at Antenna Terminal

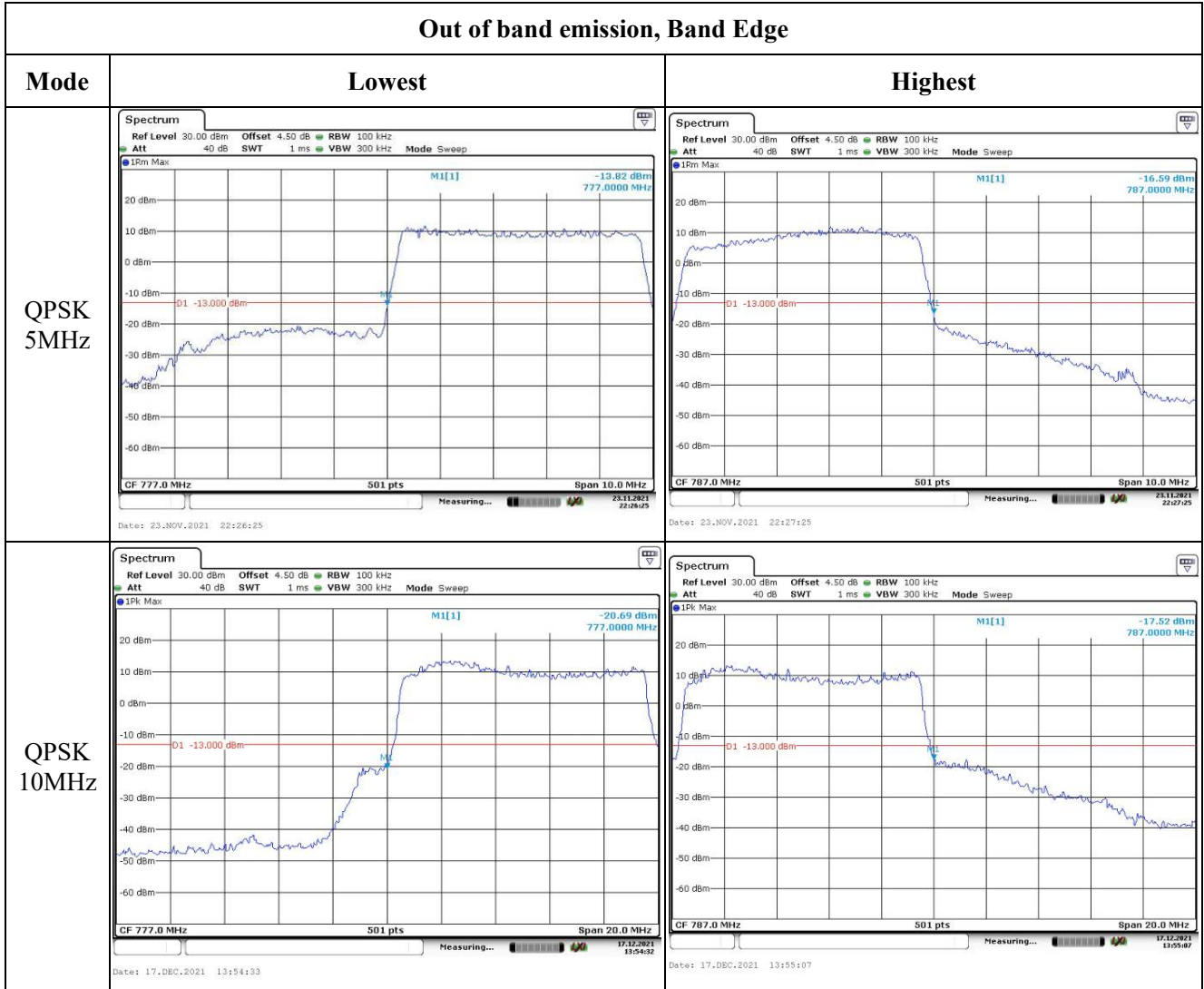
Channel

10MHz Bandwidth QPSK

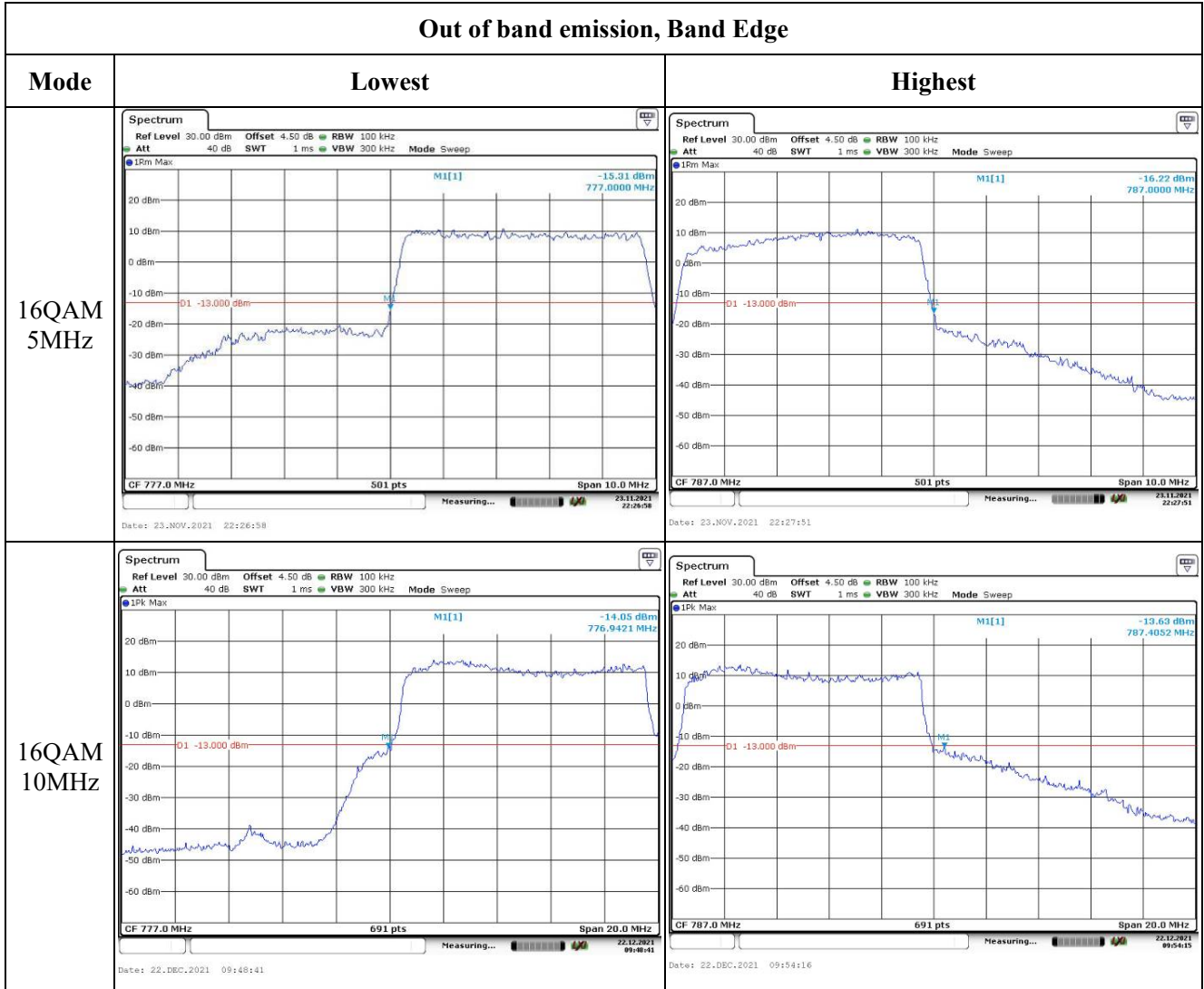
Middle



Out of band emission, Band Edge



Out of band emission, Band Edge



4.10 Antenna Port Test Data and Results for LTE Band 17:

| | | | |
|----------------|------------------|--------------|-----------------------|
| Serial Number: | CR21110014-RF-S1 | Test Date: | 2021/11/24~2021/12/01 |
| Test Site: | RF | Test Mode: | Transmitting |
| Tester: | LE Qiao | Test Result: | Pass |

Environmental Conditions:

| | | | | | |
|----------------------|-----------|---------------------------|-------|------------------------|-------------|
| Temperature: (°C) | 22.1~22.3 | Relative Humidity: (%) | 31~36 | ATM Pressure: (kPa) | 101.7~101.9 |
|----------------------|-----------|---------------------------|-------|------------------------|-------------|

Test Equipment List and Details:

| Manufacturer | Description | Model | Serial Number | Calibration Date | Calibration Due Date |
|---------------|-------------------------------------|-----------|---------------|------------------|----------------------|
| R&S | Spectrum Analyzer | FSV40 | 101474 | 2021/7/22 | 2022/7/21 |
| zhuoxiang | Coaxial Cable | SMA-178 | 211001 | Each time | N/A |
| Mini-Circuits | DC Block | BLK-18-S+ | 1554403 | Each time | N/A |
| Weinschel | Coaxial Attenuators | 53-20-34 | LN751 | Each time | N/A |
| R&S | Wideband Radio Communication Tester | CMW500 | 149218 | 2021/7/22 | 2022/7/21 |
| BACL | TEMP&HUMI Test Chamber | BTH-150 | 30026 | 2021/7/22 | 2022/7/22 |
| UNI-T | Multimeter | UT39A+ | C210582554 | 2021/9/30 | 2022/9/30 |
| E-Microwave | Two-way Splitter | ODP-1-6 | OE0120176 | Each Time | N/A |

* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

EUT Information@LTE Band 17▲:

| | | | | | |
|--------------------------------------|-----|---------------------|------|------------------|-----|
| Antenna Gain (dBi): | 3 | Antenna Gain (dBd): | 0.85 | Cable Loss (dB): | 0 |
| Operation Voltage(V _{DC}): | | | | | |
| Lowest: | 3.5 | Normal: | 3.7 | Highest: | 4.2 |

Test Frequency For Each Mode:

| Operation Bandwidth | Lowest Frequency (MHz) | Middle Frequency (MHz) | Highest Frequency (MHz) |
|---------------------|------------------------|------------------------|-------------------------|
| 5MHz | 706.5 | 710 | 713.5 |
| 10MHz | 709 | 710 | 711 |

Test Data:**FCC§2.1046;§ 27.50(c) (10)****RF Output Power:**

| Test Bandwidth & Modulation | Resource Block & RB offset | Conducted Average Output Power(dBm) | | | Maximum ERP(dBm) | ERP Limit(dBm) |
|-----------------------------|----------------------------|-------------------------------------|----------------|-----------------|------------------|----------------|
| | | Lowest Channel | Middle Channel | Highest Channel | | |
| 5MHz QPSK | RB1#0 | 21.10 | 21.03 | 20.43 | 21.95 | 34.77 |
| | RB1#13 | 21.08 | 20.98 | 20.94 | | |
| | RB1#24 | 21.08 | 20.32 | 21.02 | | |
| | RB15#0 | 20.12 | 20.07 | 20.03 | | |
| | RB15#10 | 20.01 | 20.06 | 20.12 | | |
| | RB25#0 | 20.01 | 20.02 | 20.10 | | |
| 5MHz 16QAM | RB1#0 | 19.69 | 20.07 | 19.74 | 20.92 | 34.77 |
| | RB1#13 | 19.65 | 20.03 | 19.73 | | |
| | RB1#24 | 19.54 | 19.97 | 19.82 | | |
| | RB15#0 | 19.66 | 19.40 | 19.59 | | |
| | RB15#10 | 19.98 | 19.34 | 19.54 | | |
| | RB25#0 | 19.58 | 19.50 | 19.38 | | |
| 10MHz QPSK | RB1#0 | 20.92 | 21.02 | 21.25 | 22.1 | 34.77 |
| | RB1#25 | 20.98 | 20.99 | 20.92 | | |
| | RB1#49 | 20.94 | 20.99 | 21.23 | | |
| | RB25#0 | 20.09 | 20.14 | 20.05 | | |
| | RB25#25 | 20.07 | 20.08 | 20.09 | | |
| | RB50#0 | 20.04 | 20.17 | 20.02 | | |
| 10MHz 16QAM | RB1#0 | 20.16 | 20.38 | 19.66 | 21.23 | 34.77 |
| | RB1#25 | 20.11 | 20.27 | 19.62 | | |
| | RB1#49 | 20.16 | 20.24 | 19.74 | | |
| | RB25#0 | 20.02 | 19.89 | 19.20 | | |
| | RB25#25 | 19.50 | 19.55 | 19.63 | | |
| | RB50#0 | 19.99 | 19.54 | 19.47 | | |

Note: ERP=Conducted Power(dBm) - Cable loss(dB) + Antenna Gain(dBd)

Result:**Pass****Peak-to-average Ratio(PAR)**

| Test Bandwidth & Modulation | Resource Block & RB offset | Peak-to-average Ratio(dB) | | | Limit (dB) |
|-----------------------------|----------------------------|---------------------------|----------------|-----------------|-------------|
| | | Lowest Channel | Middle Channel | Highest Channel | |
| 10MHz QPSK | RB1#0 | 5.42 | 4.52 | 4.90 | 13 |
| | RB50#0 | 5.48 | 5.68 | 5.91 | 13 |
| 10MHz 16QAM | RB1#0 | 6.43 | 5.22 | 5.68 | 13 |
| | RB50#0 | 6.23 | 6.46 | 6.55 | 13 |
| Result: | | | | | Pass |

FCC §2.1049, §27.53: Occupied Bandwidth

| Operation Mode | 99% Occupied Bandwidth (MHz) | | | 26 dB Occupied Bandwidth (MHz) | | |
|----------------|------------------------------|----------------|--------------|--------------------------------|----------------|--------------|
| | Low Channel | Middle channel | High Channel | Low Channel | Middle Channel | High Channel |
| 5MHz QPSK | 4.491 | 4.531 | 4.511 | 4.940 | 4.980 | 5.000 |
| 5MHz 16QAM | 4.471 | 4.531 | 4.551 | 4.940 | 4.980 | 5.020 |
| 10MHz QPSK | 8.901 | 8.981 | 9.022 | 9.640 | 9.800 | 9.800 |
| 10MHz 16QAM | 8.901 | 8.981 | 9.022 | 9.720 | 9.800 | 9.880 |

Note: The test plots please refer to the Plots of Occupied Bandwidth

FCC §2.1051, §27.53: Spurious Emissions at Antenna Terminal

| | |
|----------------|--|
| Result: | Pass, Please refer to the test plots of Spurious Emissions at Antenna Terminal. |
|----------------|--|

FCC §2.1051, §27.53: Out of band emission, Band Edge

| | |
|----------------|---|
| Result: | Pass, Please refer to the test plots of Out of band emission, Band Edge. |
|----------------|---|

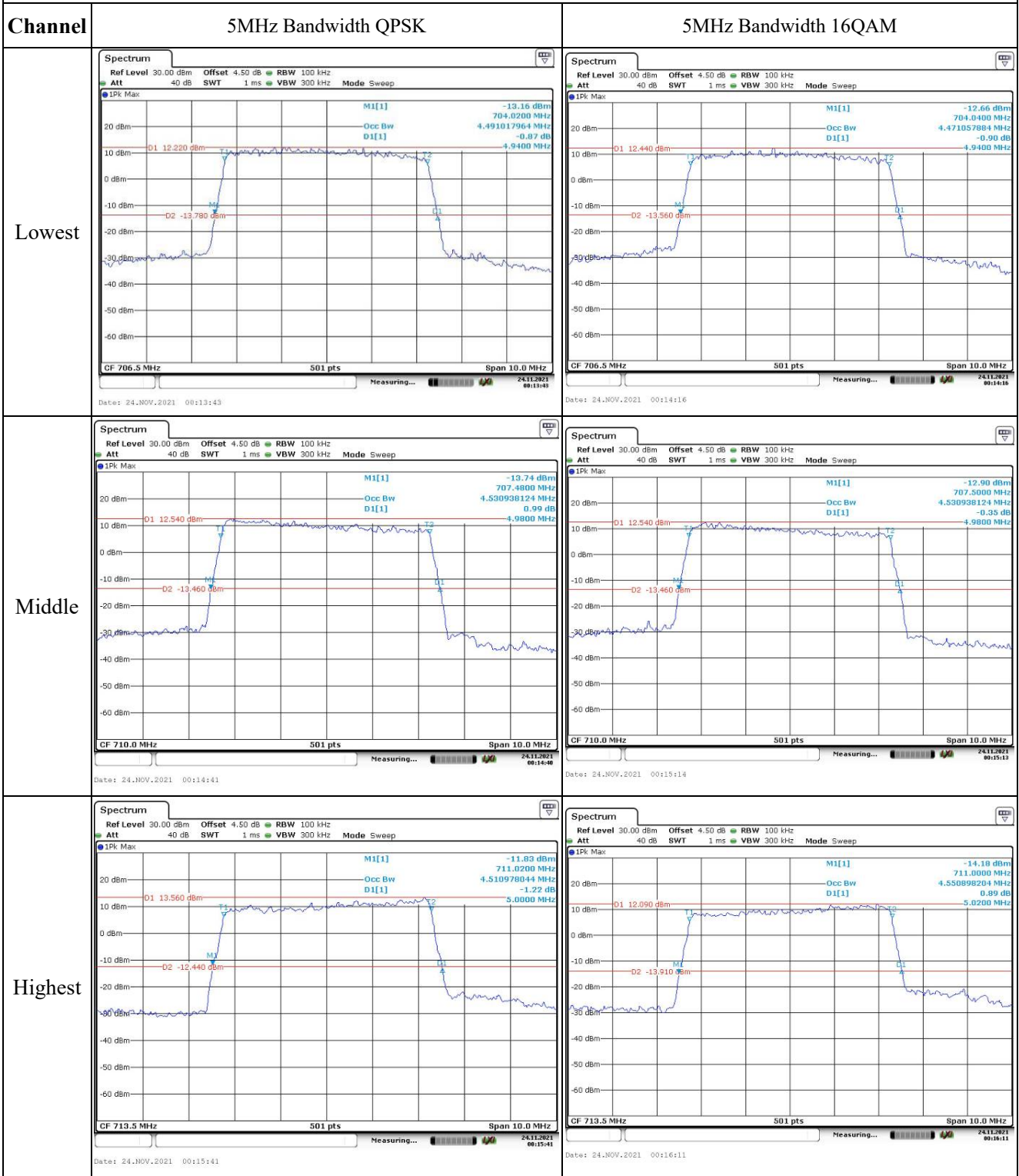
FCC §2.1055, §27.54: Frequency Stability

| Test Mode: | 10M QPSK | Test Channel: Lowest for Lower Edge, Highest for Upper Edge | | | | |
|-------------------------------------|------------------|---|------------------|--------|------------------|-------------|
| Test Item | Temperature (°C) | Voltage (V _{DC}) | Lower Edge (MHz) | | Upper Edge (MHz) | |
| | | | Result | Limit | Result | Limit |
| Frequency Stability vs. Temperature | -30 | 3.7 | 704.485 | 704.00 | 715.511 | 716.00 |
| | -20 | 3.7 | 704.482 | 704.00 | 715.512 | 716.00 |
| | -10 | 3.7 | 704.481 | 704.00 | 715.513 | 716.00 |
| | 0 | 3.7 | 704.483 | 704.00 | 715.512 | 716.00 |
| | 10 | 3.7 | 704.485 | 704.00 | 715.514 | 716.00 |
| | 20 | 3.7 | 704.489 | 704.00 | 715.511 | 716.00 |
| | 30 | 3.7 | 704.488 | 704.00 | 715.515 | 716.00 |
| | 40 | 3.7 | 704.487 | 704.00 | 715.516 | 716.00 |
| Frequency Stability vs. Voltage | 20 | 3.5 | 704.484 | 704.00 | 715.512 | 716.00 |
| | 20 | 4.2 | 704.489 | 704.00 | 715.511 | 716.00 |
| | | | | | Result: | Pass |

| Test Mode: | 10M 16QAM | Test Channel: Lowest for Lower Edge,Highest for Upper Edge | | | | |
|-------------------------------------|------------------|--|------------------|--------|------------------|-------------|
| Test Item | Temperature (°C) | Voltage (V _{DC}) | Lower Edge (MHz) | | Upper Edge (MHz) | |
| | | | Result | Limit | Result | Limit |
| Frequency Stability vs. Temperature | -30 | 3.7 | 704.488 | 704.00 | 715.511 | 716.00 |
| | -20 | 3.7 | 704.481 | 704.00 | 715.512 | 716.00 |
| | -10 | 3.7 | 704.483 | 704.00 | 715.515 | 716.00 |
| | 0 | 3.7 | 704.485 | 704.00 | 715.513 | 716.00 |
| | 10 | 3.7 | 704.488 | 704.00 | 715.515 | 716.00 |
| | 20 | 3.7 | 704.489 | 704.00 | 715.511 | 716.00 |
| | 30 | 3.7 | 704.484 | 704.00 | 715.516 | 716.00 |
| | 40 | 3.7 | 704.485 | 704.00 | 715.517 | 716.00 |
| | 50 | 3.7 | 704.486 | 704.00 | 715.515 | 716.00 |
| Frequency Stability vs. Voltage | 20 | 3.5 | 704.485 | 704.00 | 715.517 | 716.00 |
| | 20 | 4.2 | 704.489 | 704.00 | 715.511 | 716.00 |
| | | | | | Result: | Pass |

Test Plots:

Occupied Bandwidth



Occupied Bandwidth

| Channel | 10MHz Bandwidth QPSK | 10MHz Bandwidth 16QAM |
|---------|--|--|
| Lowest | <p>Ref Level 30.00 dBm Offset 4.50 dB RBW 100 kHz Att 40 dB SWT 1 ms VBW 300 kHz Mode Sweep 1Pk Max -15.96 dBm M1[1] 704.1200 MHz Occ Bw 8.902195609 MHz D1[1] 9.6400 MHz D2 -15.280 dBm CF 709.0 MHz 501 pts Span 20.0 MHz Date: 24.NOV.2021 00:21:38</p> | <p>Ref Level 30.00 dBm Offset 4.50 dB RBW 100 kHz Att 40 dB SWT 1 ms VBW 300 kHz Mode Sweep 1Pk Max -16.10 dBm M1[1] 704.0800 MHz Occ Bw 8.902195609 MHz D1[1] 9.7200 MHz D2 -16.620 dBm CF 709.0 MHz 501 pts Span 20.0 MHz Date: 24.NOV.2021 00:22:06</p> |
| Middle | <p>Ref Level 30.00 dBm Offset 4.50 dB RBW 100 kHz Att 40 dB SWT 1 ms VBW 300 kHz Mode Sweep 1Pk Max -14.80 dBm M1[1] 705.0800 MHz Occ Bw 8.982035928 MHz D1[1] 9.8000 MHz D2 -14.580 dBm CF 710.0 MHz 501 pts Span 20.0 MHz Date: 24.NOV.2021 00:22:38</p> | <p>Ref Level 30.00 dBm Offset 4.50 dB RBW 100 kHz Att 40 dB SWT 1 ms VBW 300 kHz Mode Sweep 1Pk Max -15.22 dBm M1[1] 705.0800 MHz Occ Bw 8.982035928 MHz D1[1] 9.8000 MHz D2 -15.380 dBm CF 710.0 MHz 501 pts Span 20.0 MHz Date: 24.NOV.2021 00:23:12</p> |
| Highest | <p>Ref Level 30.00 dBm Offset 4.50 dB RBW 100 kHz Att 40 dB SWT 1 ms VBW 300 kHz Mode Sweep 1Pk Max -13.95 dBm M1[1] 706.0800 MHz Occ Bw 9.021956088 MHz D1[1] 9.8000 MHz D2 -14.630 dBm CF 711.0 MHz 501 pts Span 20.0 MHz Date: 24.NOV.2021 00:23:44</p> | <p>Ref Level 30.00 dBm Offset 4.50 dB RBW 100 kHz Att 40 dB SWT 1 ms VBW 300 kHz Mode Sweep 1Pk Max -16.55 dBm M1[1] 706.0400 MHz Occ Bw 9.021956088 MHz D1[1] 9.8800 MHz D2 -15.640 dBm CF 711.0 MHz 501 pts Span 20.0 MHz Date: 24.NOV.2021 00:24:12</p> |

Spurious Emissions at Antenna Terminal

| Channel | 5MHz Bandwidth QPSK | |
|---------|---|--|
| Lowest | <p>Ref Level 30.00 dBm Offset 4.50 dB RBW 100 kHz Att 40 dB SWT 9.7 ms VBW 300 kHz Mode Sweep</p> <p>1PK Max M1[1] -43.37 dBm 977.10 MHz</p> <p>D1 -13.000 dBm</p> <p>Start 30.0 MHz 501 pts Stop 1.0 GHz</p> <p>Date: 24.NOV.2021 22:18:03</p> | <p>Ref Level 10.00 dBm Offset 4.50 dB RBW 1 MHz Att 30 dB SWT 36 ms VBW 3 MHz Mode Sweep</p> <p>1PK Max M1[1] -31.95 dBm 2.4640 GHz</p> <p>D1 -13.000 dBm</p> <p>Start 1.0 GHz 501 pts Stop 10.0 GHz</p> <p>Date: 24.NOV.2021 22:18:28</p> |
| Middle | <p>Ref Level 30.00 dBm Offset 4.50 dB RBW 100 kHz Att 40 dB SWT 9.7 ms VBW 300 kHz Mode Sweep</p> <p>1PK Max M1[1] -30.15 dBm 716.40 MHz</p> <p>D1 -13.000 dBm</p> <p>Start 30.0 MHz 501 pts Stop 1.0 GHz</p> <p>Date: 24.NOV.2021 22:18:55</p> | <p>Ref Level 10.00 dBm Offset 4.50 dB RBW 1 MHz Att 30 dB SWT 36 ms VBW 3 MHz Mode Sweep</p> <p>1PK Max M1[1] -32.04 dBm 2.4640 GHz</p> <p>D1 -13.000 dBm</p> <p>Start 1.0 GHz 501 pts Stop 10.0 GHz</p> <p>Date: 24.NOV.2021 22:19:20</p> |
| Highest | <p>Ref Level 30.00 dBm Offset 4.50 dB RBW 100 kHz Att 40 dB SWT 9.7 ms VBW 300 kHz Mode Sweep</p> <p>1PK Max M1[1] -42.51 dBm 940.50 MHz</p> <p>D1 -13.000 dBm</p> <p>Start 30.0 MHz 501 pts Stop 1.0 GHz</p> <p>Date: 24.NOV.2021 22:19:50</p> | <p>Ref Level 10.00 dBm Offset 4.50 dB RBW 1 MHz Att 30 dB SWT 36 ms VBW 3 MHz Mode Sweep</p> <p>1PK Max M1[1] -32.21 dBm 2.4640 GHz</p> <p>D1 -13.000 dBm</p> <p>Start 1.0 GHz 501 pts Stop 10.0 GHz</p> <p>Date: 24.NOV.2021 22:20:14</p> |