

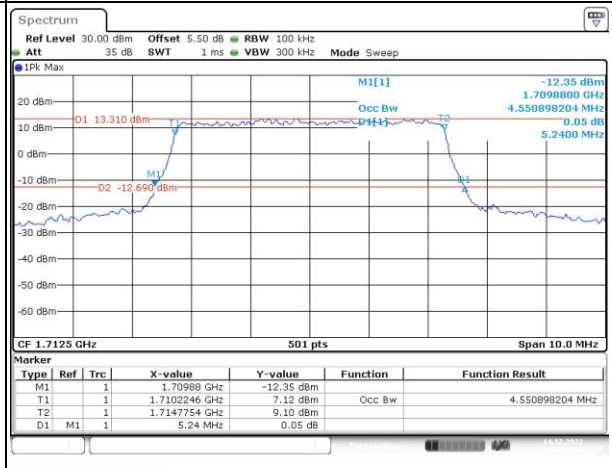
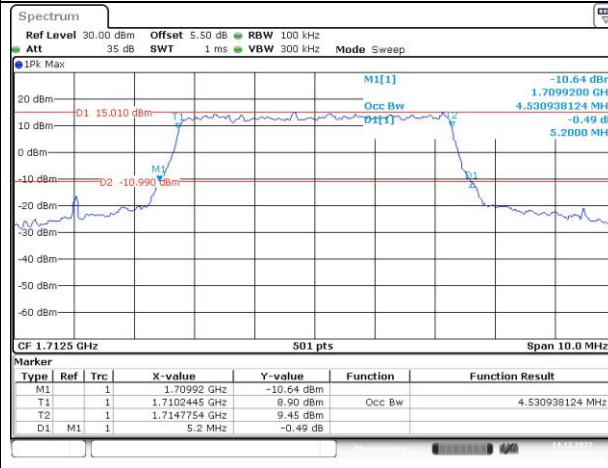
## Occupied Bandwidth

## Channel

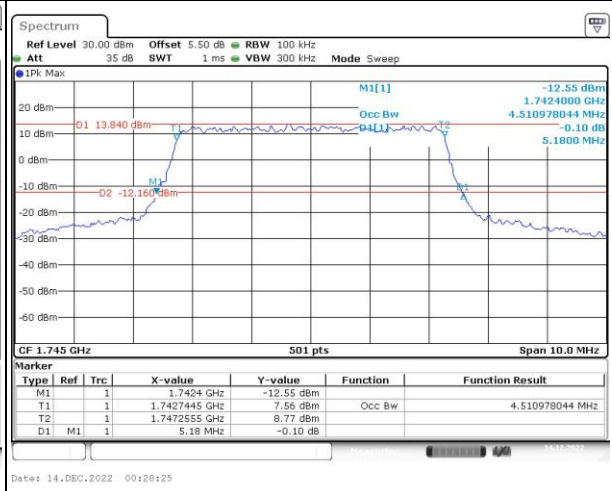
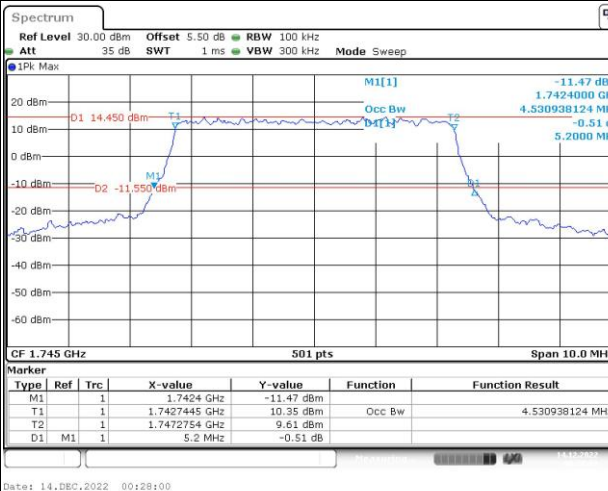
## 5MHz Bandwidth QPSK

## 5MHz Bandwidth 16QAM

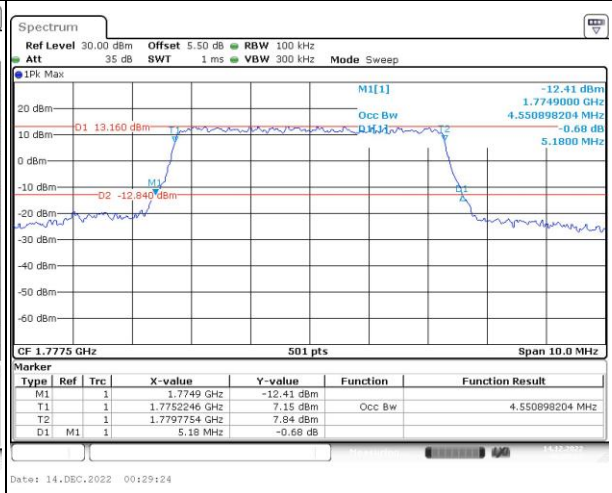
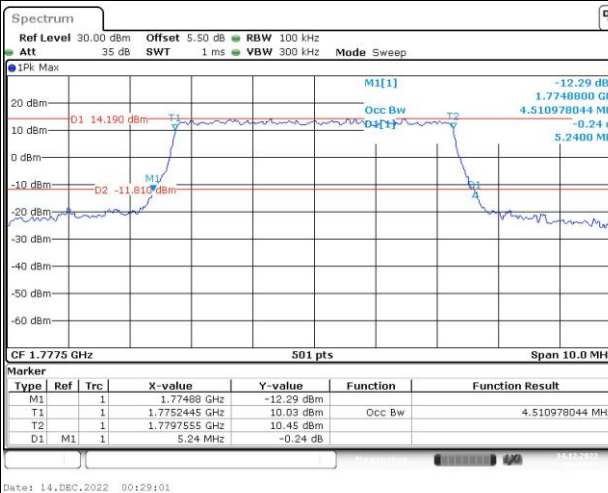
## Lowest



## Middle



## Highest



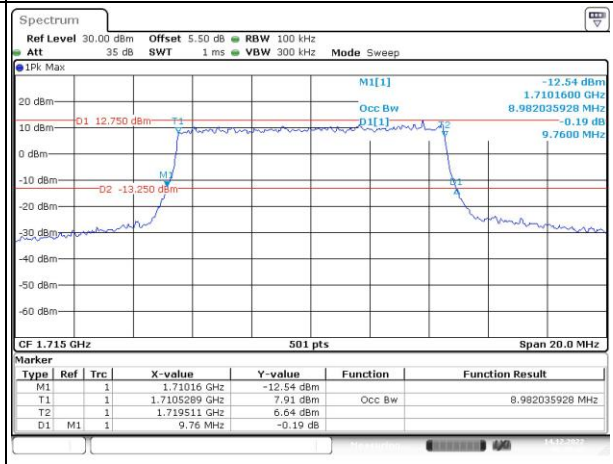
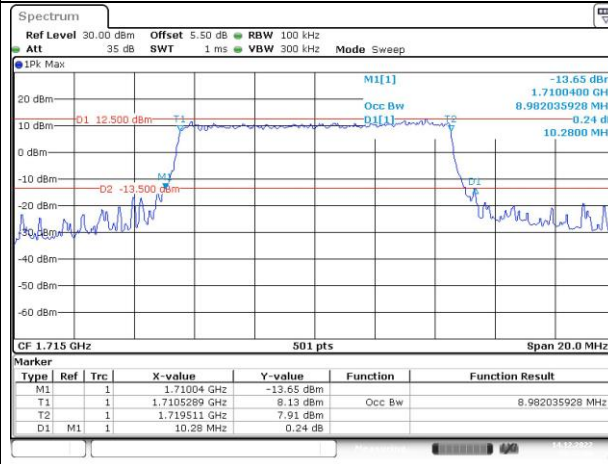
## Occupied Bandwidth

## Channel

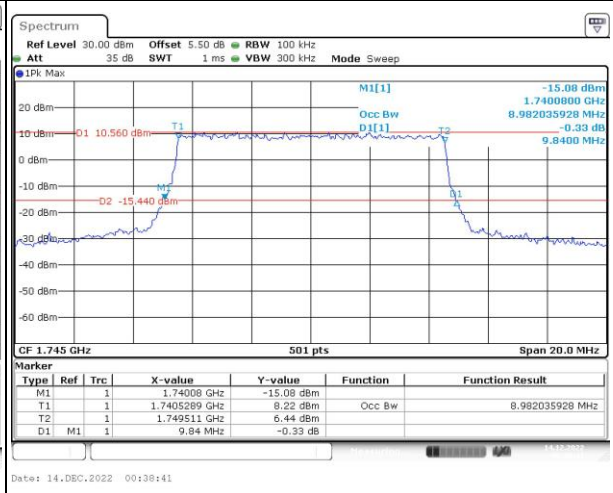
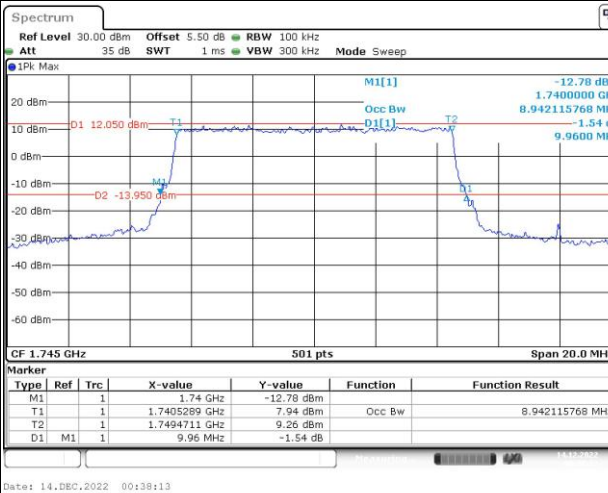
## 10MHz Bandwidth QPSK

## 10MHz Bandwidth 16QAM

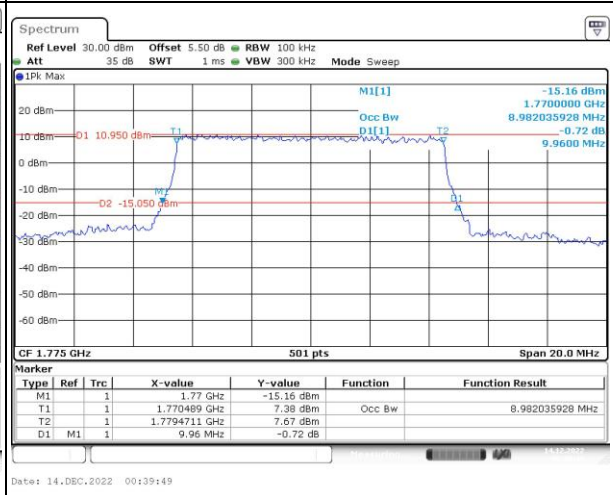
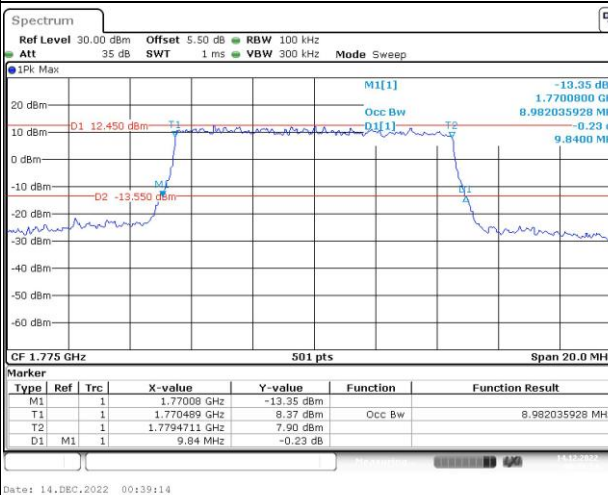
Lowest



Middle



Highest



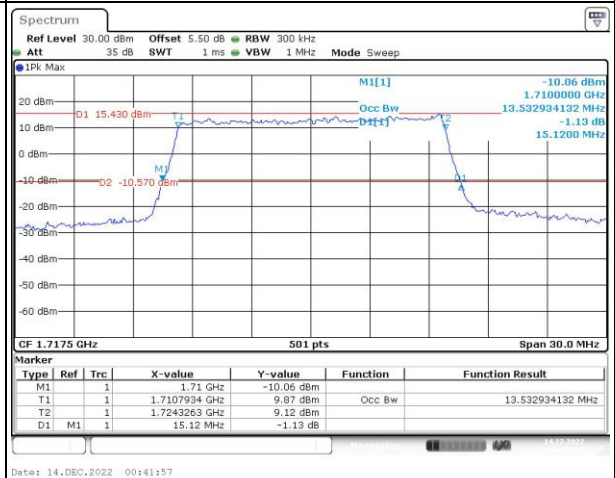
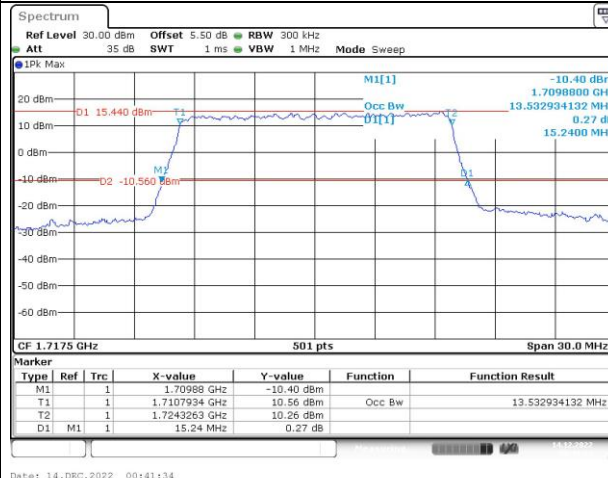
## Occupied Bandwidth

## Channel

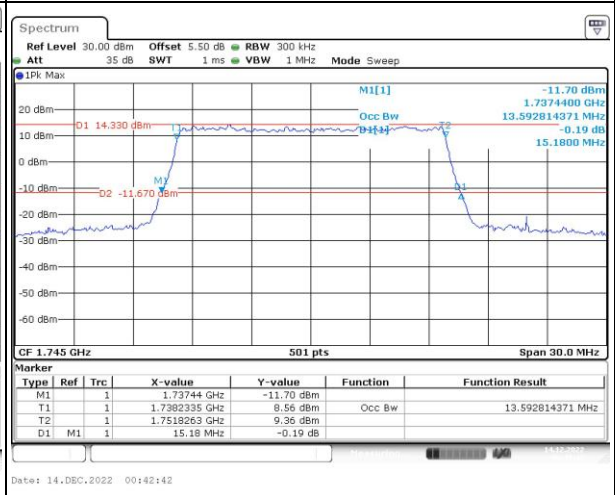
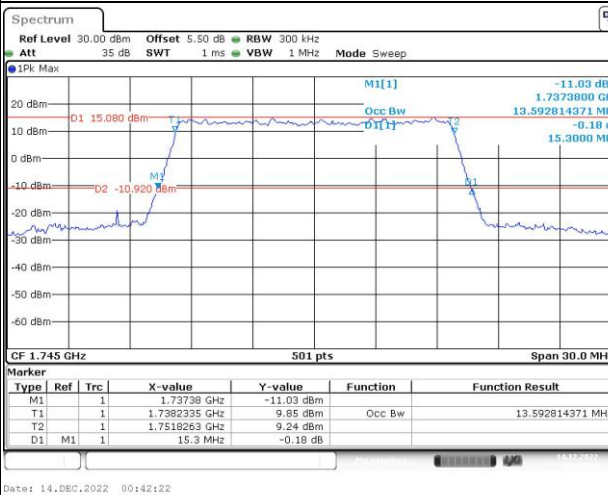
## 15MHz Bandwidth QPSK

## 15MHz Bandwidth 16QAM

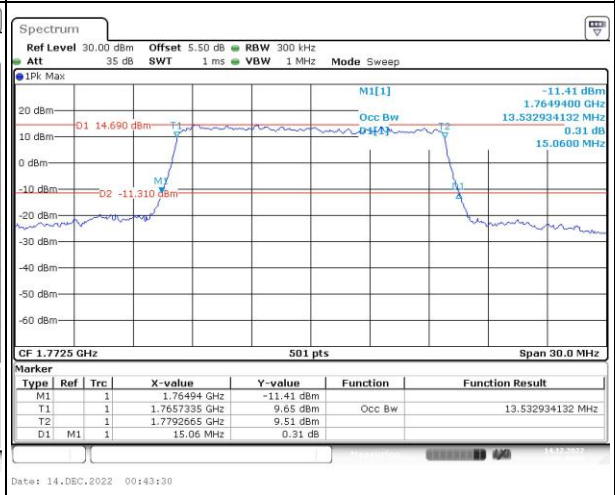
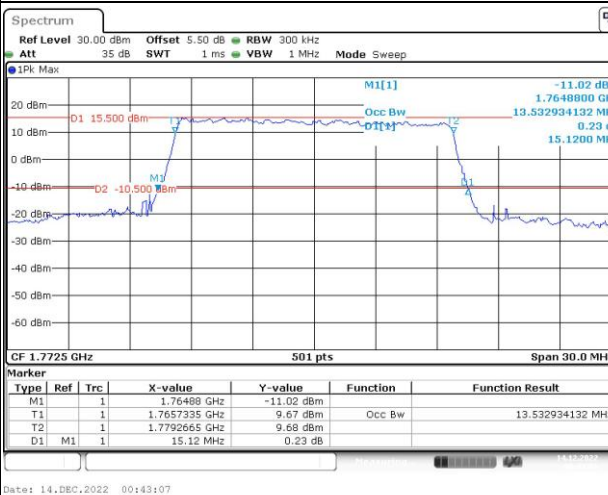
## Lowest



## Middle



## Highest



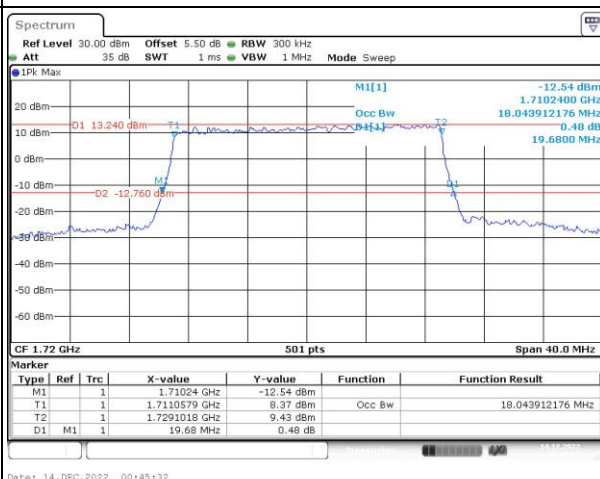
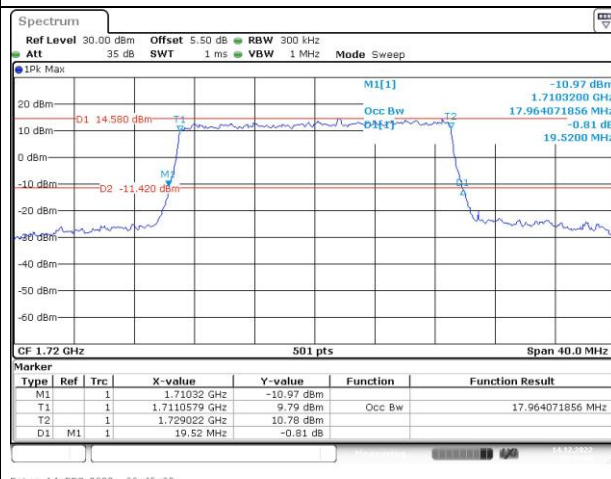
## Occupied Bandwidth

## Channel

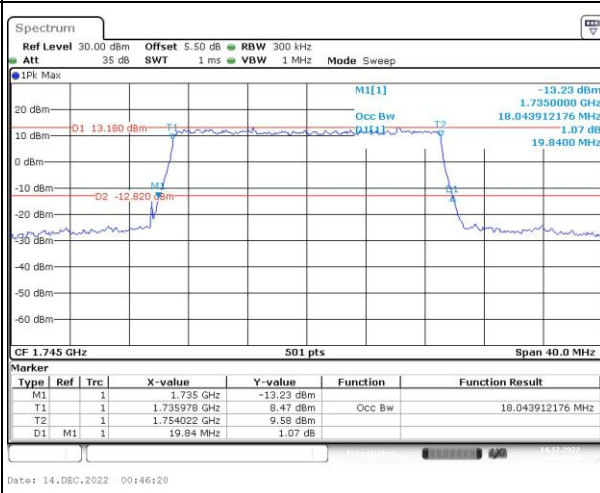
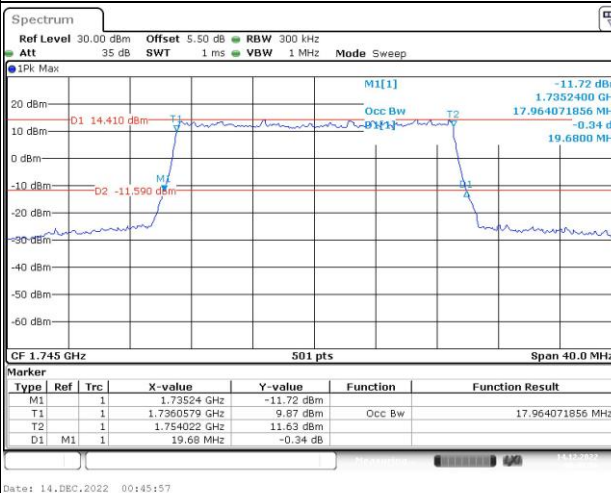
## 20MHz Bandwidth QPSK

## 20MHz Bandwidth 16QAM

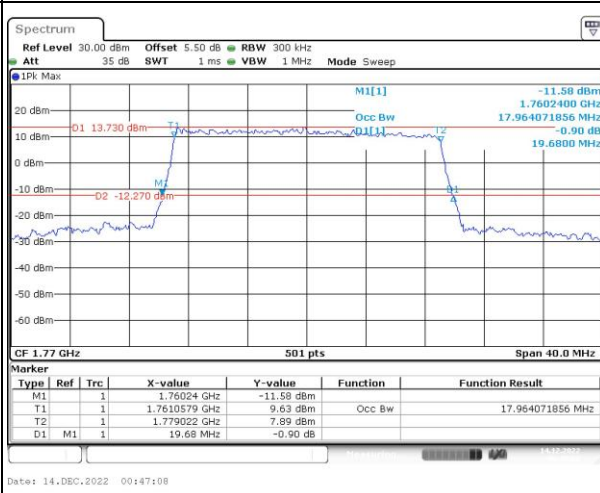
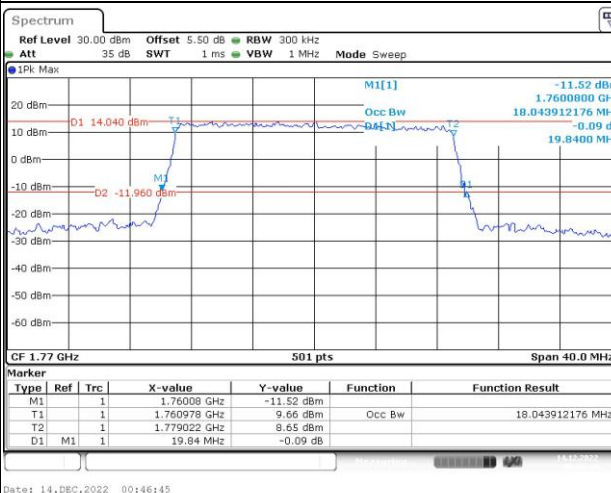
Lowest



Middle



Highest

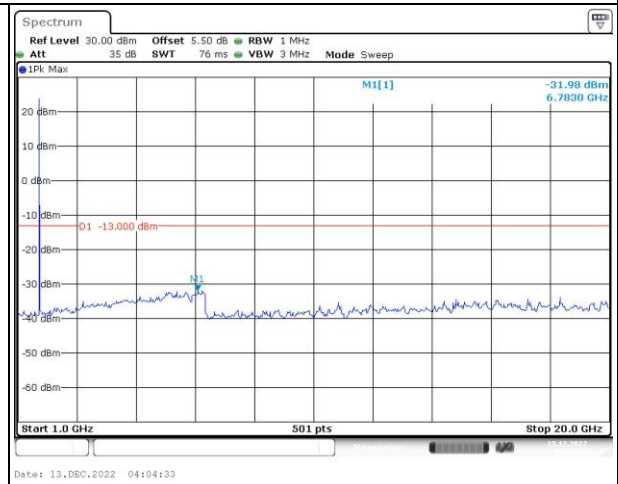
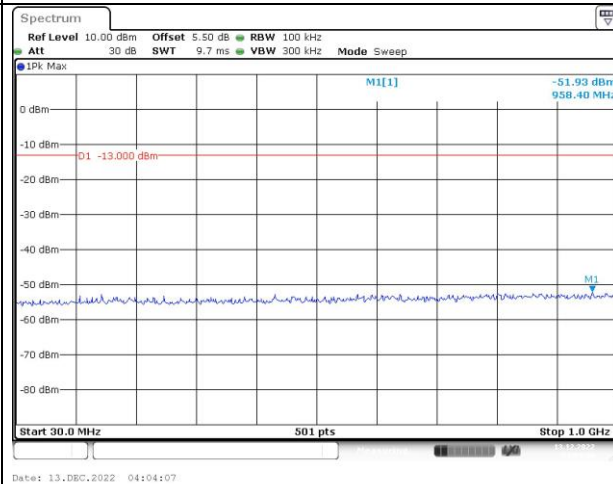


## Spurious Emissions at Antenna Terminal

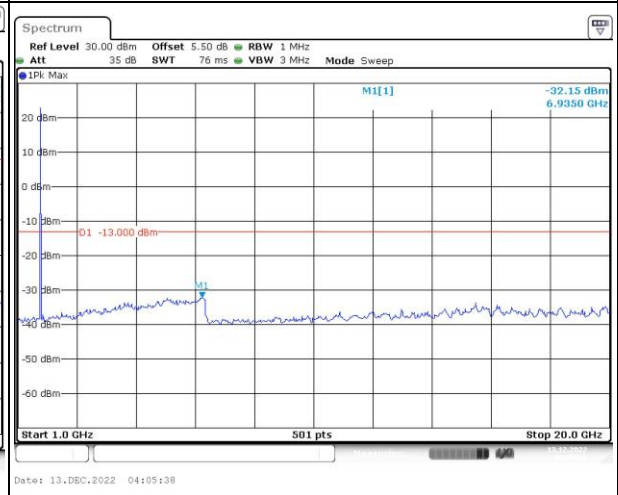
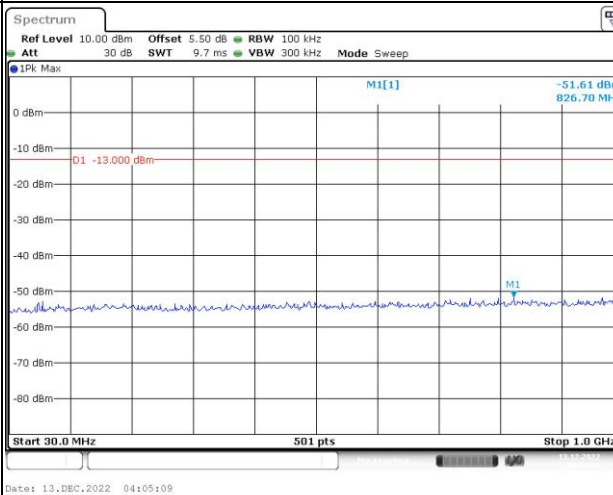
Channel

1.4MHz Bandwidth QPSK

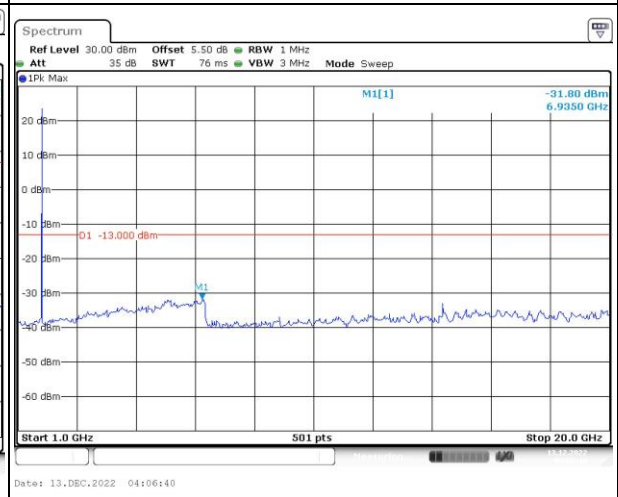
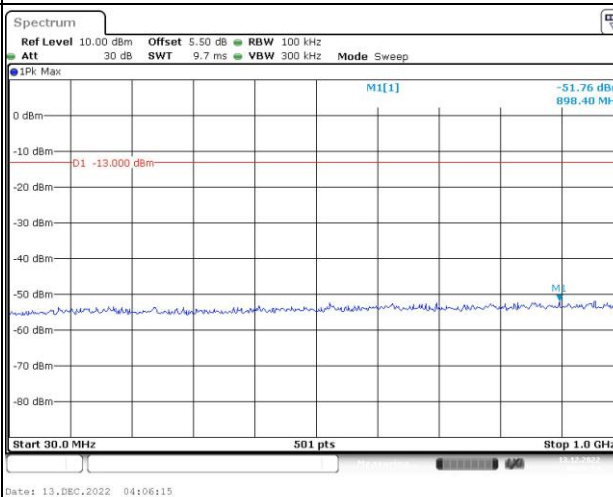
Lowest



Middle



Highest

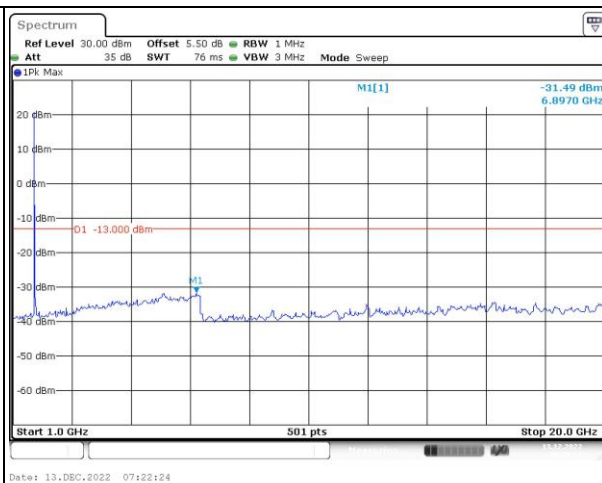
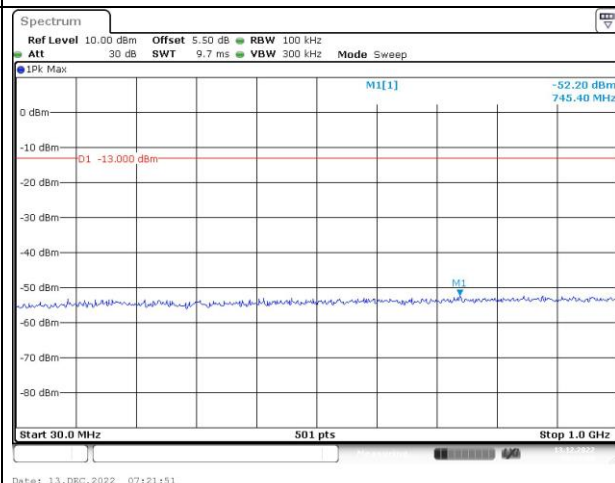


## Spurious Emissions at Antenna Terminal

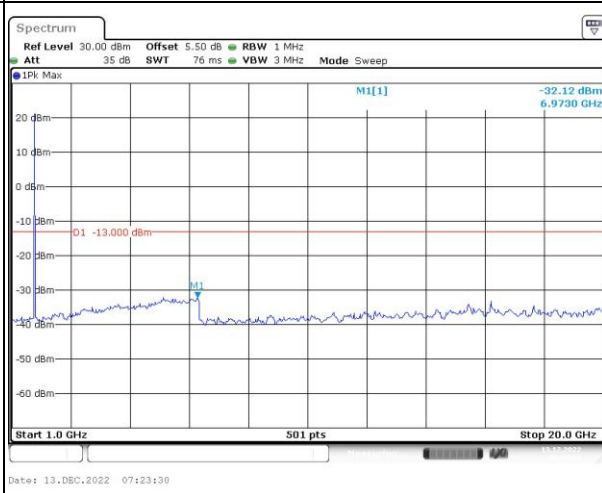
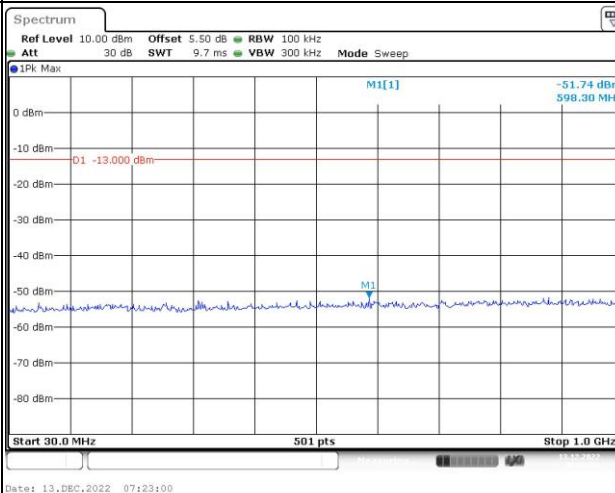
Channel

3MHz Bandwidth QPSK

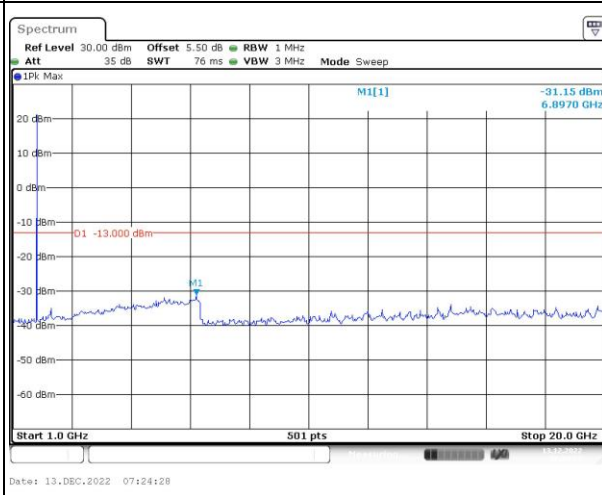
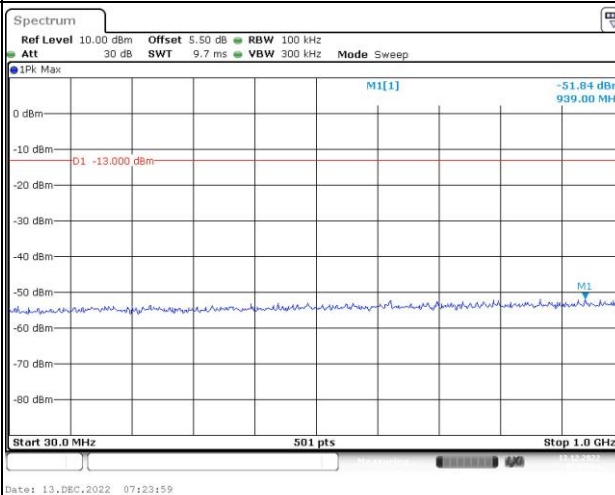
Lowest



Middle



Highest

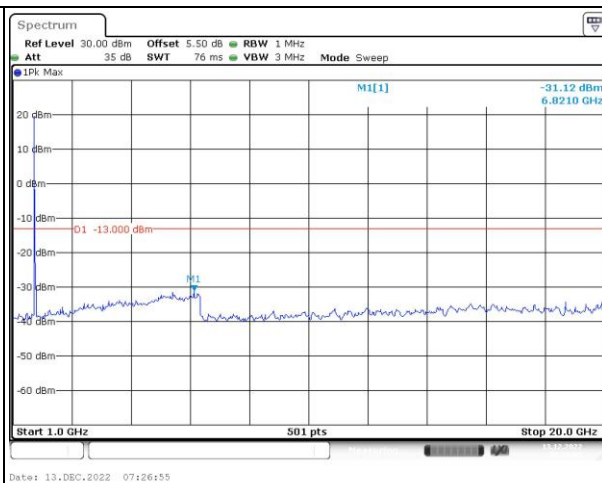
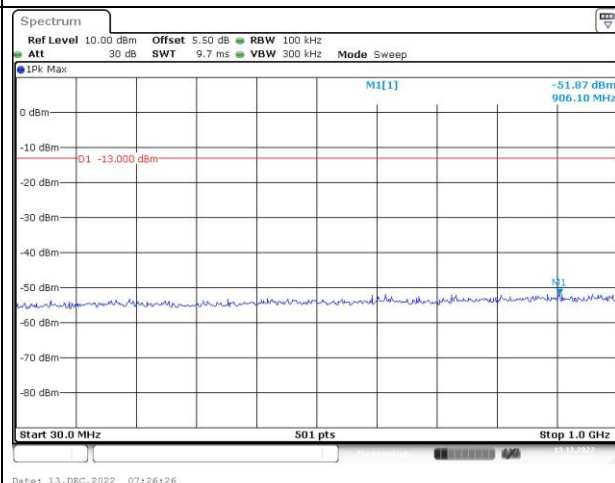


## Spurious Emissions at Antenna Terminal

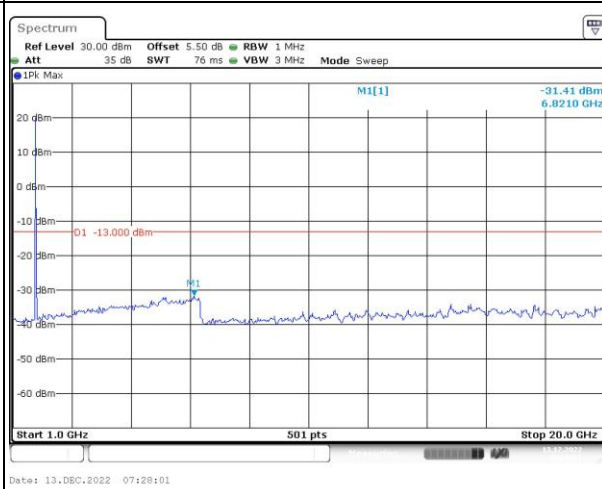
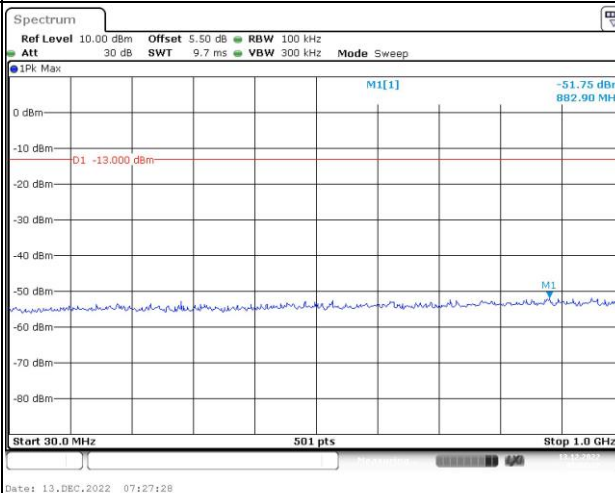
Channel

5MHz Bandwidth QPSK

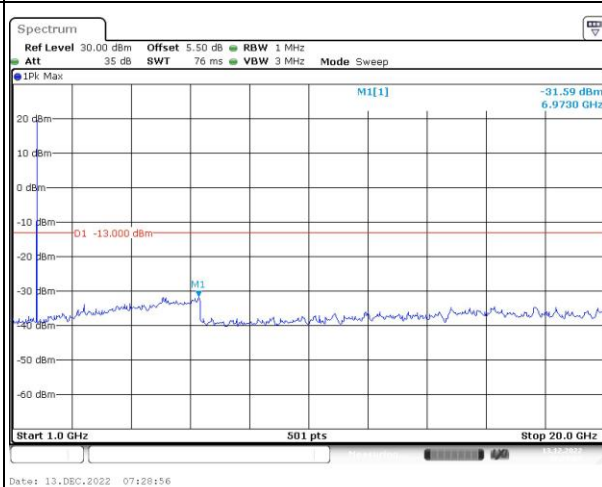
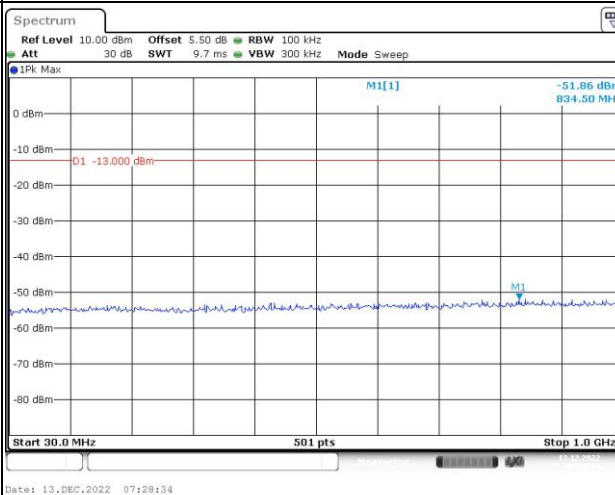
Lowest



Middle



Highest

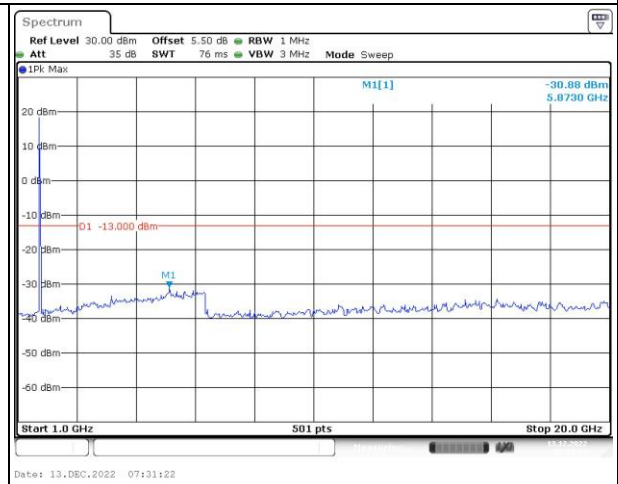
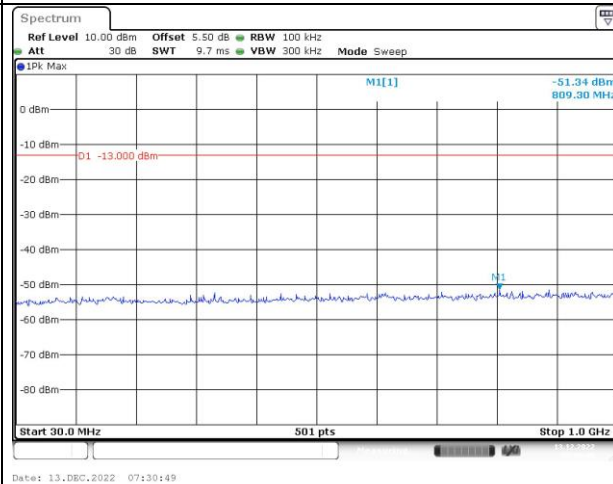


## Spurious Emissions at Antenna Terminal

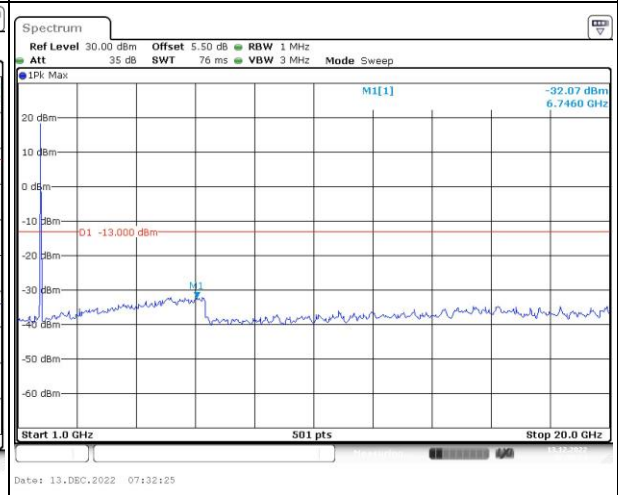
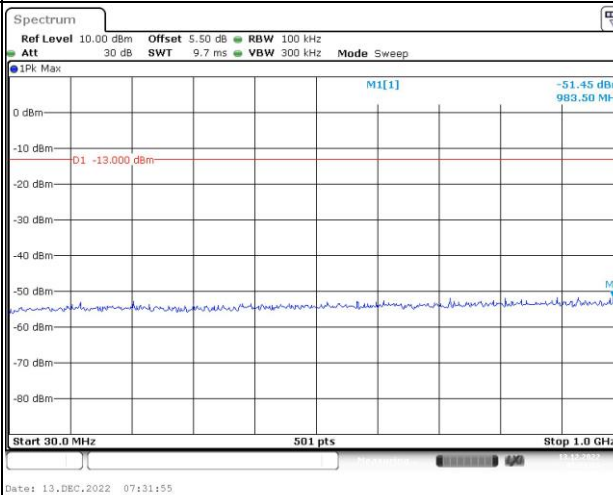
Channel

10MHz Bandwidth QPSK

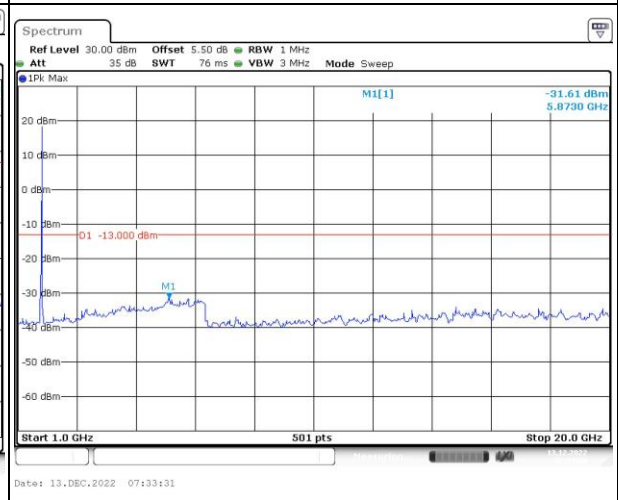
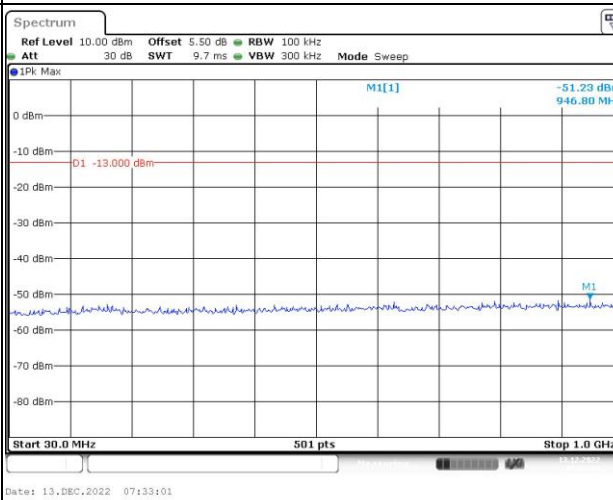
Lowest



Middle



Highest

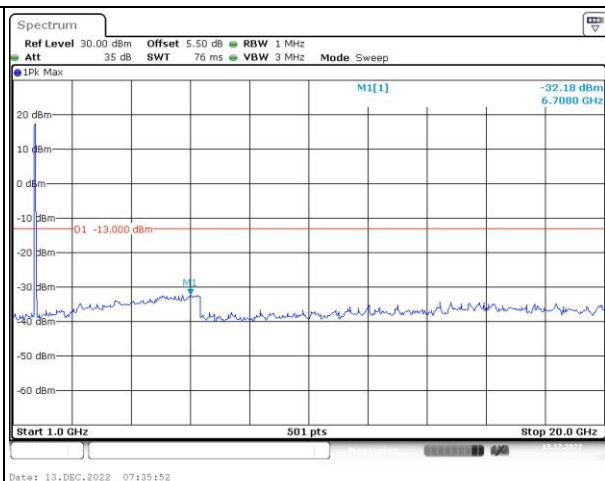
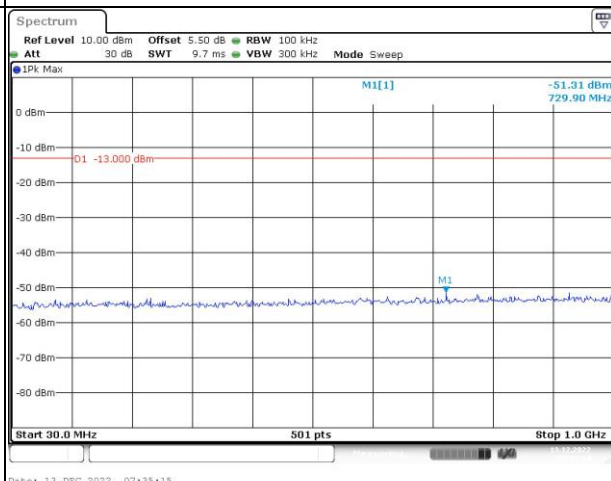


## Spurious Emissions at Antenna Terminal

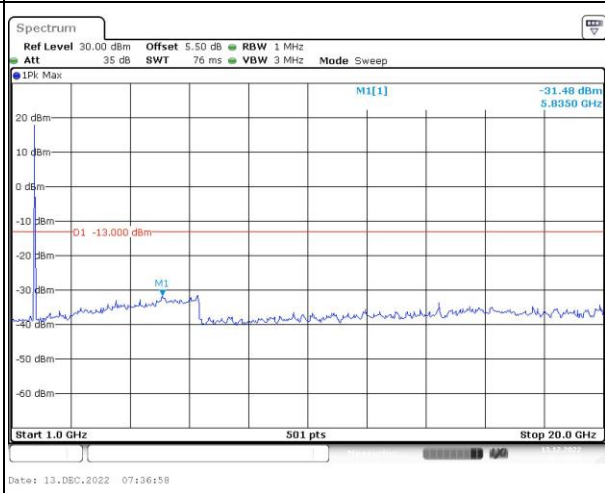
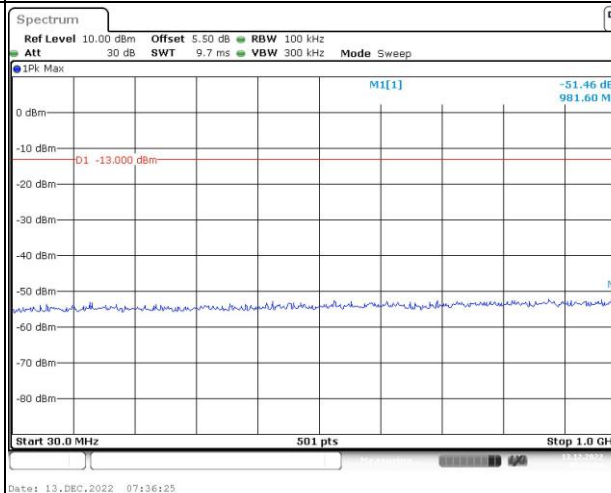
Channel

15MHz Bandwidth QPSK

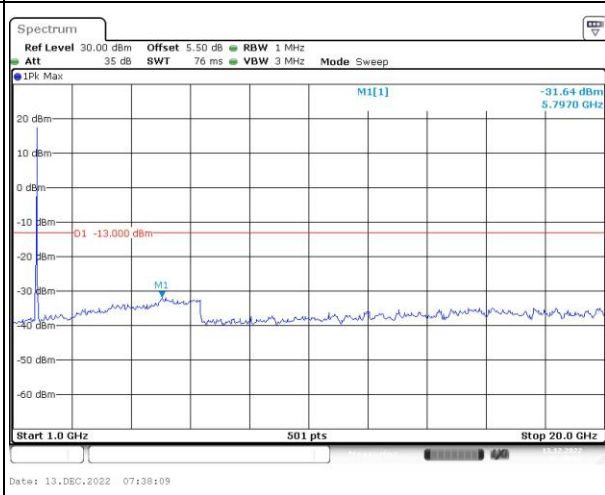
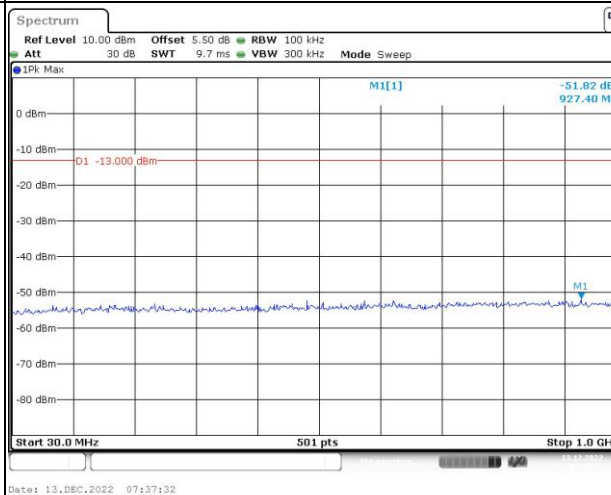
Lowest



Middle



Highest

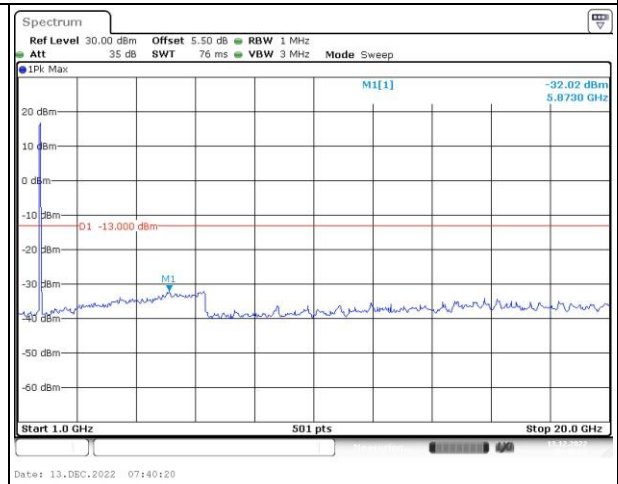
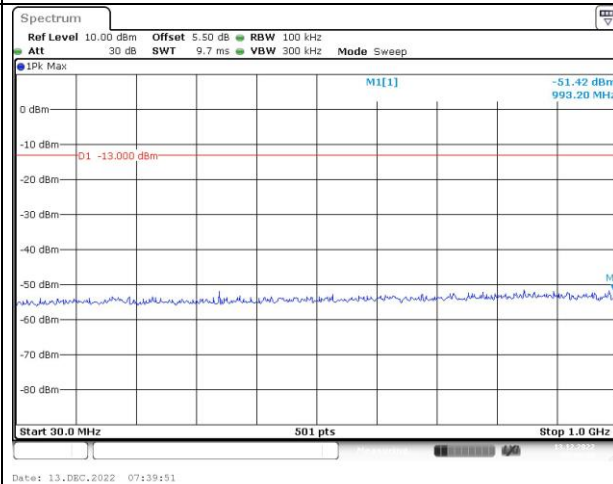


## Spurious Emissions at Antenna Terminal

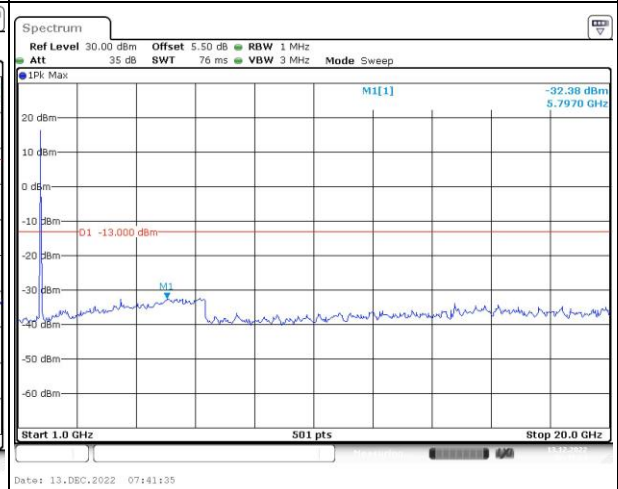
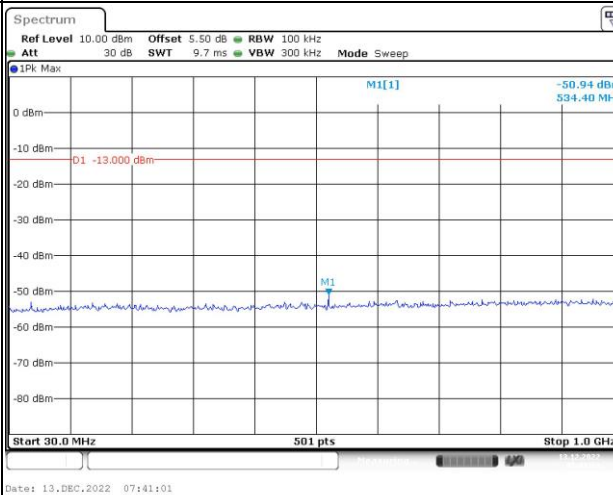
Channel

20MHz Bandwidth QPSK

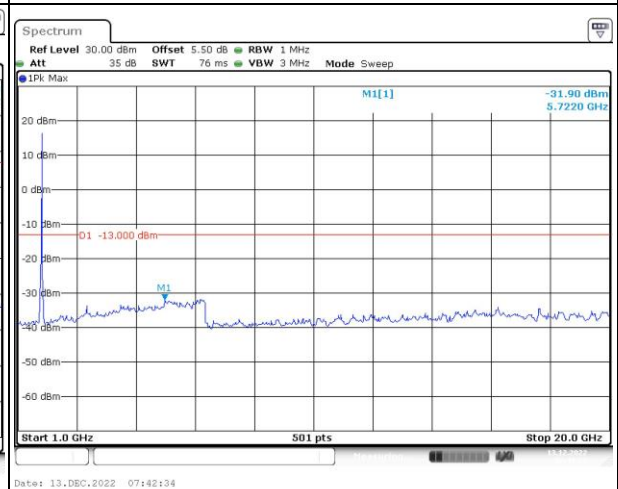
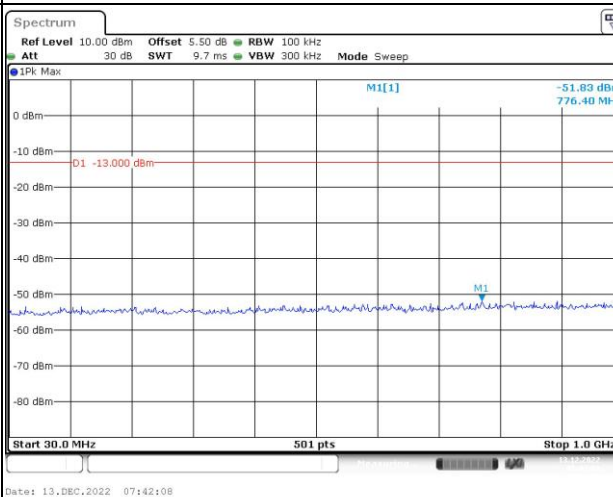
Lowest



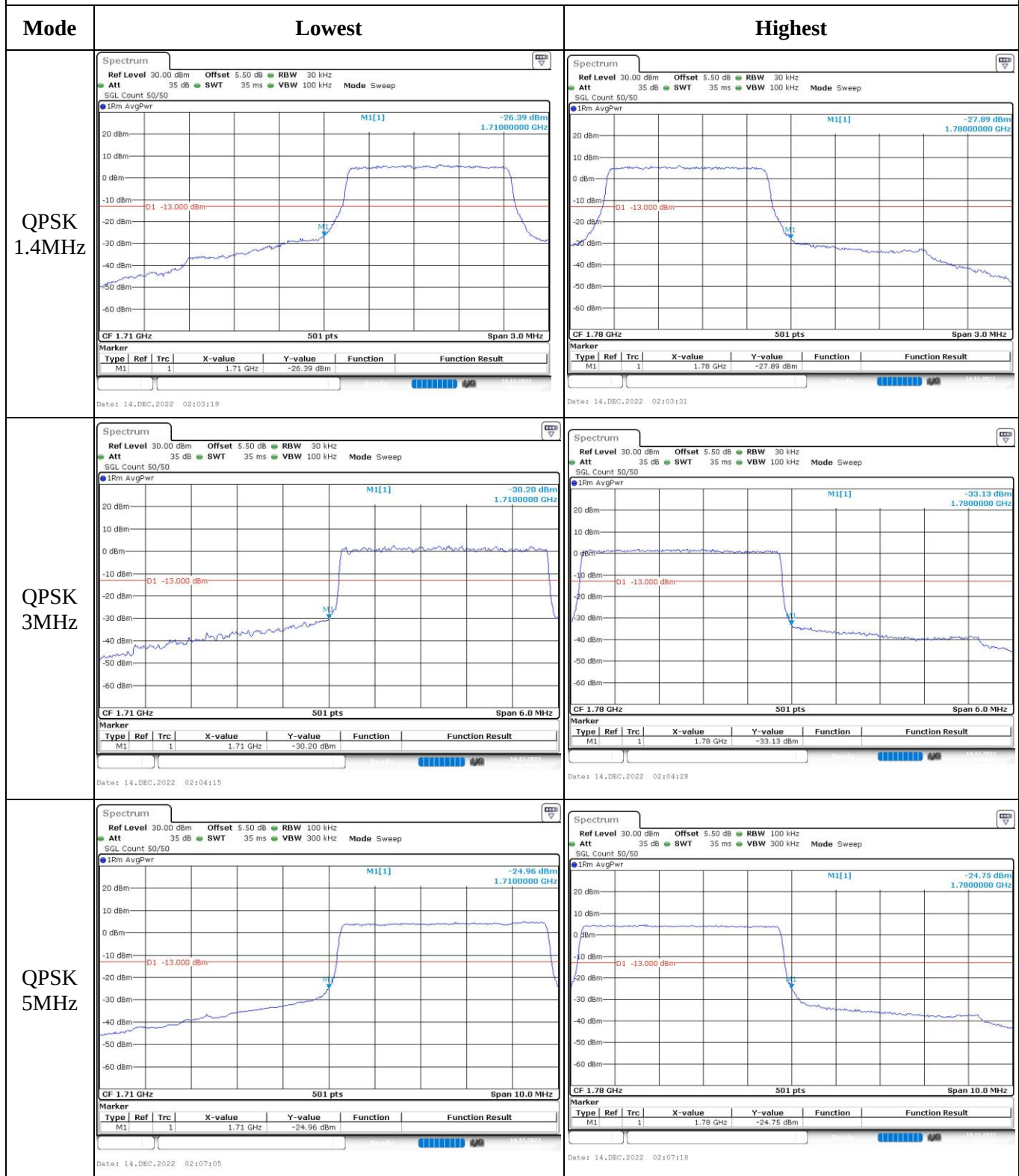
iddle



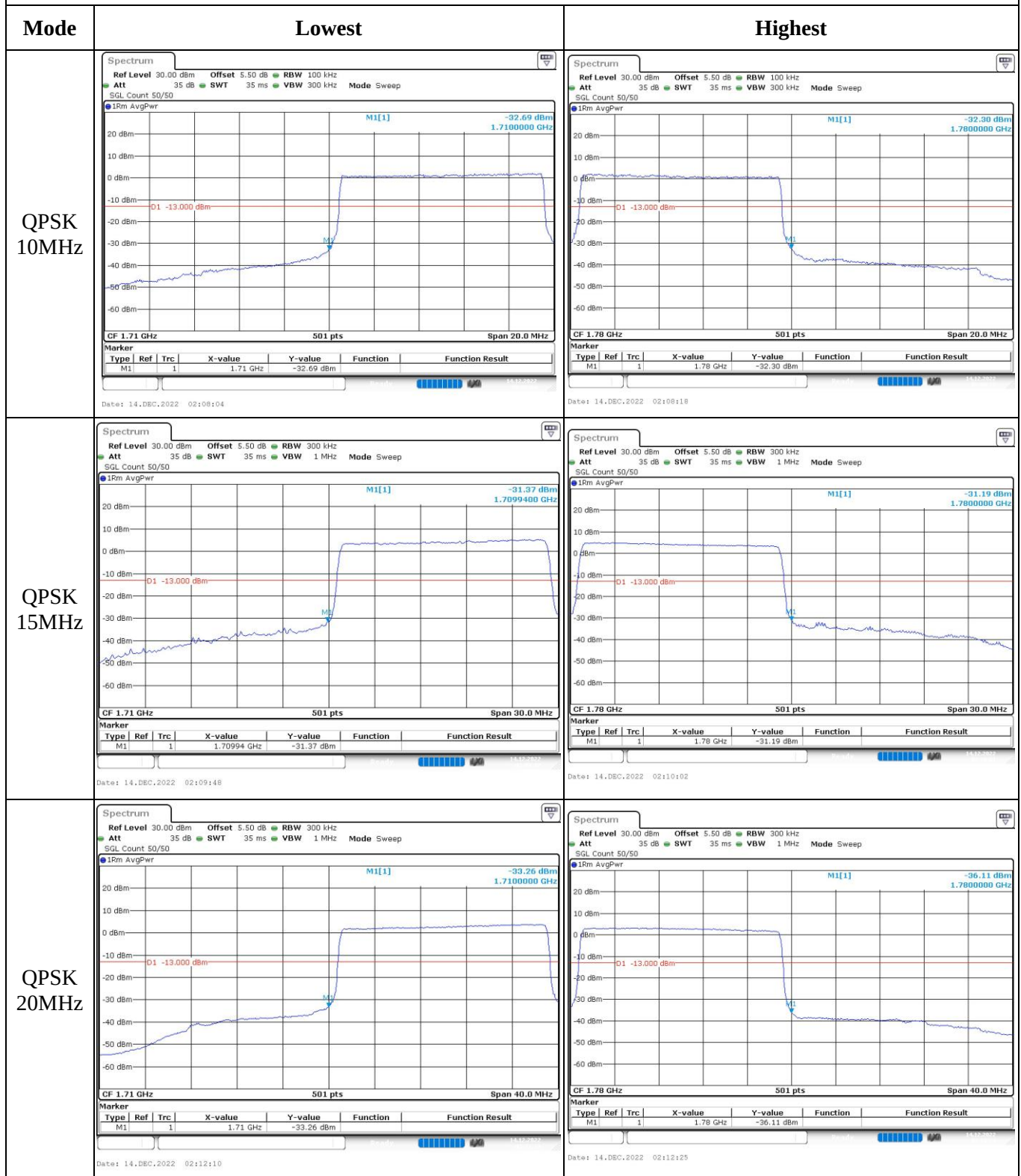
Highest



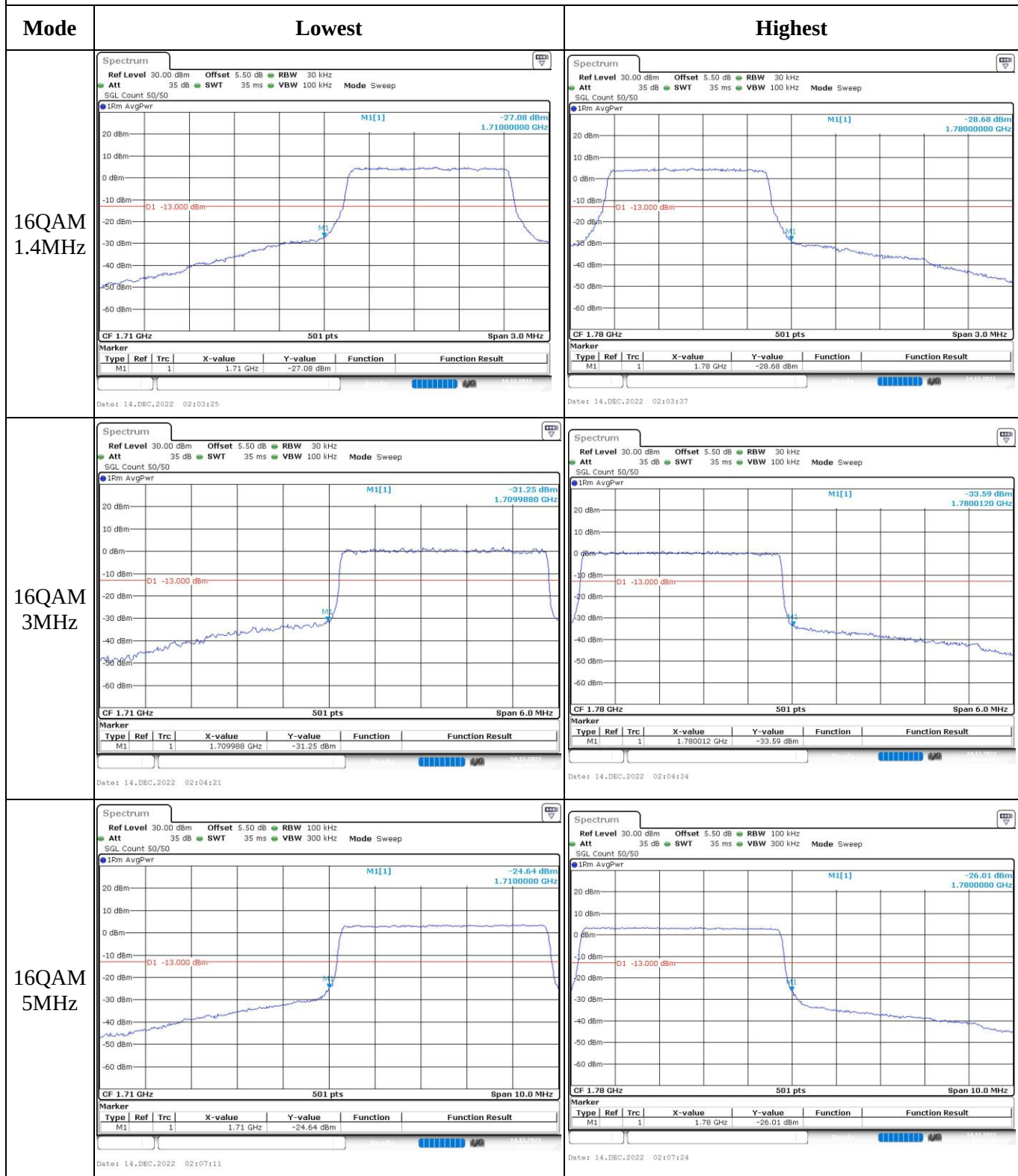
## Out of band emission, Band Edge



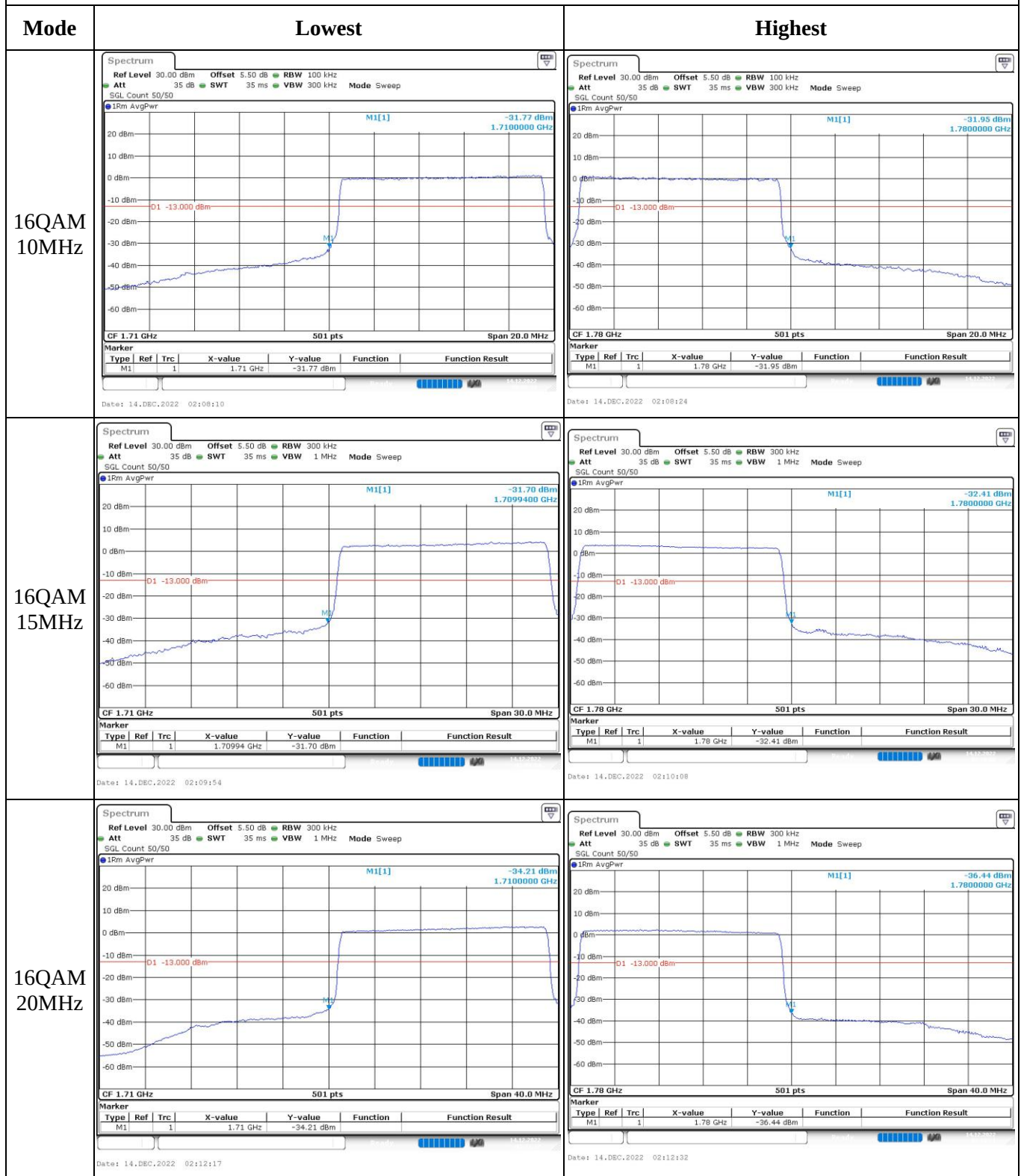
## Out of band emission, Band Edge



## Out of band emission, Band Edge



## Out of band emission, Band Edge



**4.15 Radiated Spurious Emissions**

|                |                     |              |                       |
|----------------|---------------------|--------------|-----------------------|
| Serial Number: | 1TSA                | Test Date:   | 2022/12/26~2022/12/28 |
| Test Site:     | 966-1, 966-2        | Test Mode:   | Transmitting          |
| Tester:        | Carl Xue, coco Tian | Test Result: | Pass                  |

**Environmental Conditions:**

|                      |         |                           |       |                           |             |
|----------------------|---------|---------------------------|-------|---------------------------|-------------|
| Temperature:<br>(°C) | 21~23.3 | Relative Humidity:<br>(%) | 38~53 | ATM<br>Pressure:<br>(kPa) | 101.4~101.7 |
|----------------------|---------|---------------------------|-------|---------------------------|-------------|

**Test Equipment List and Details:**

| Manufacturer    | Description                     | Model                 | Serial Number | Calibration Date | Calibration Due Date |
|-----------------|---------------------------------|-----------------------|---------------|------------------|----------------------|
| Sunol Sciences  | Antenna                         | JB6                   | A082520-5     | 2020/10/19       | 2023/10/18           |
| R&S             | EMI Test Receiver               | ESR3                  | 102724        | 2022/7/15        | 2023/7/14            |
| TIMES MICROWAVE | Coaxial Cable                   | LMR-600-UltraFlex     | C-0470-02     | 2022/7/17        | 2023/7/16            |
| TIMES MICROWAVE | Coaxial Cable                   | LMR-600-UltraFlex     | C-0780-01     | 2022/7/17        | 2023/7/16            |
| EMCO            | Adjustable Dipole Antenna       | 3121C                 | 9109-756      | N/A              | N/A                  |
| MICRO-COAX      | Coaxial Cable                   | UFA210B-0-0720-300300 | 99G1448       | 2022/4/1         | 2023/3/31            |
| Agilent         | Signal Generator                | E8247C                | MY43321352    | 2022/4/1         | 2023/3/31            |
| ETS-Lindgren    | Horn Antenna                    | 3115                  | 9912-5985     | 2020/10/13       | 2023/10/12           |
| R&S             | Spectrum Analyzer               | FSV40                 | 101591        | 2022/7/15        | 2023/7/14            |
| MICRO-COAX      | Coaxial Cable                   | UFA210A-1-1200-70U300 | 217423-008    | 2022/8/7         | 2023/8/6             |
| MICRO-COAX      | Coaxial Cable                   | UFA210A-1-2362-300300 | 235780-001    | 2022/8/7         | 2023/8/6             |
| Mini            | Pre-amplifier                   | ZVA-183-S+            | 5969001149    | 2022/11/9        | 2023/11/8            |
| AH              | Double Ridge Guide Horn Antenna | SAS-571               | 1396          | 2021/10/18       | 2024/10/17           |
| MICRO-COAX      | Coaxial Cable                   | UFA210B-0-0720-300300 | 99G1448       | 2022/7/17        | 2023/7/16            |
| PASTERNAK       | Horn Antenna                    | PE9852/2F-20          | 112002        | 2021/2/5         | 2024/2/4             |
| PASTERNAK       | Horn Antenna                    | PE9852/2F-20          | 112001        | 2021/2/5         | 2024/2/4             |
| AH              | Preamplifier                    | PAM-1840VH            | 190           | 2022/11/9        | 2023/11/8            |
| PASTERNAK       | Horn Antenna                    | PE9850/2F-20          | 072001        | 2021/2/5         | 2024/2/4             |
| PASTERNAK       | Horn Antenna                    | PE9850/2F-20          | 072002        | 2021/2/5         | 2024/2/4             |
| MICRO-COAX      | Coaxial Cable                   | UFB142A-1-2362-200200 | 235772-001    | 2022/8/7         | 2023/8/6             |

**\* 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).

**Test Data:**

Please refer to the below table and plots.

Note: The device can be mounted in multiple orientations, test was performed with X,Y, Z Axis according to C63.26 figure 5, the worst orientation was photographed and it's data was recorded.

**Cellular Band (PART 22H)****30 MHz-10 GHz:**

| Frequency<br>(MHz)         | Polar<br>(H/V) | Receiver<br>Reading<br>(dBμV) | Substituted Method            |                              |                    | Absolute<br>Level<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|----------------------------|----------------|-------------------------------|-------------------------------|------------------------------|--------------------|----------------------------|----------------|----------------|
|                            |                |                               | Substituted<br>Level<br>(dBm) | Antenna<br>Gain<br>(dBd/dBi) | Cable Loss<br>(dB) |                            |                |                |
| GSM 850 Frequency:824.2MHz |                |                               |                               |                              |                    |                            |                |                |
| 726.89                     | H              | 20.71                         | -52.07                        | 0.00                         | 0.52               | -52.59                     | -13.00         | 39.59          |
| 719.29                     | V              | 20.88                         | -48.62                        | 0.00                         | 0.49               | -49.11                     | -13.00         | 36.11          |
| 1648.400                   | H              | 47.71                         | -56.62                        | 8.68                         | 0.80               | -48.74                     | -13.00         | 35.74          |
| 1648.400                   | V              | 52.82                         | -51.59                        | 8.68                         | 0.80               | -43.71                     | -13.00         | 30.71          |
| 2472.600                   | H              | 48.74                         | -52.04                        | 9.38                         | 1.00               | -43.66                     | -13.00         | 30.66          |
| 2472.600                   | V              | 42.10                         | -58.63                        | 9.38                         | 1.00               | -50.25                     | -13.00         | 37.25          |
| 3296.800                   | H              | 33.55                         | -63.13                        | 10.32                        | 1.15               | -53.96                     | -13.00         | 40.96          |
| 3296.800                   | V              | 35.42                         | -61.02                        | 10.32                        | 1.15               | -51.85                     | -13.00         | 38.85          |
| GSM 850 Frequency:836.6MHz |                |                               |                               |                              |                    |                            |                |                |
| 716.78                     | H              | 20.62                         | -52.36                        | 0.00                         | 0.50               | -52.86                     | -13.00         | 39.86          |
| 709.28                     | V              | 21.17                         | -48.55                        | 0.00                         | 0.52               | -49.07                     | -13.00         | 36.07          |
| 1673.200                   | H              | 46.23                         | -58.08                        | 8.71                         | 0.85               | -50.22                     | -13.00         | 37.22          |
| 1673.200                   | V              | 51.63                         | -52.78                        | 8.71                         | 0.85               | -44.92                     | -13.00         | 31.92          |
| 2509.800                   | H              | 47.97                         | -52.64                        | 9.42                         | 1.01               | -44.23                     | -13.00         | 31.23          |
| 2509.800                   | V              | 43.03                         | -57.59                        | 9.42                         | 1.01               | -49.18                     | -13.00         | 36.18          |
| 3346.400                   | H              | 39.18                         | -57.99                        | 10.34                        | 1.16               | -48.81                     | -13.00         | 35.81          |
| 3346.400                   | V              | 36.57                         | -60.46                        | 10.34                        | 1.16               | -51.28                     | -13.00         | 38.28          |
| GSM 850 Frequency:848.8MHz |                |                               |                               |                              |                    |                            |                |                |
| 524.80                     | H              | 21.21                         | -54.13                        | 0.00                         | 0.42               | -54.55                     | -13.00         | 41.55          |
| 726.91                     | V              | 21.29                         | -48.04                        | 0.00                         | 0.52               | -48.56                     | -13.00         | 35.56          |
| 1697.600                   | H              | 48.43                         | -55.86                        | 8.74                         | 0.90               | -48.02                     | -13.00         | 35.02          |
| 1697.600                   | V              | 51.53                         | -52.89                        | 8.74                         | 0.90               | -45.05                     | -13.00         | 32.05          |
| 2546.400                   | H              | 45.45                         | -54.88                        | 9.47                         | 1.01               | -46.42                     | -13.00         | 33.42          |
| 2546.400                   | V              | 41.89                         | -58.39                        | 9.47                         | 1.01               | -49.93                     | -13.00         | 36.93          |
| 3395.200                   | H              | 35.97                         | -61.72                        | 10.36                        | 1.19               | -52.55                     | -13.00         | 39.55          |
| 3395.200                   | V              | 33.97                         | -63.69                        | 10.36                        | 1.19               | -54.52                     | -13.00         | 41.52          |

| Frequency<br>(MHz)               | Polar<br>(H/V) | Receiver<br>Reading<br>(dBμV) | Substituted Method            |                              |                    | Absolute<br>Level<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|----------------------------------|----------------|-------------------------------|-------------------------------|------------------------------|--------------------|----------------------------|----------------|----------------|
|                                  |                |                               | Substituted<br>Level<br>(dBm) | Antenna<br>Gain<br>(dBd/dBi) | Cable Loss<br>(dB) |                            |                |                |
| WCDMA Band 5 Frequency:826.4 MHz |                |                               |                               |                              |                    |                            |                |                |
| 706.81                           | H              | 21.84                         | -51.34                        | 0.00                         | 0.54               | -51.88                     | -13.00         | 38.88          |
| 716.78                           | V              | 21.73                         | -47.82                        | 0.00                         | 0.50               | -48.32                     | -13.00         | 35.32          |
| 1652.800                         | H              | 37.41                         | -66.92                        | 8.68                         | 0.81               | -59.05                     | -13.00         | 46.05          |
| 1652.800                         | V              | 34.81                         | -69.60                        | 8.68                         | 0.81               | -61.73                     | -13.00         | 48.73          |
| 2479.200                         | H              | 36.13                         | -64.63                        | 9.39                         | 1.01               | -56.25                     | -13.00         | 43.25          |
| 2479.200                         | V              | 34.32                         | -66.41                        | 9.39                         | 1.01               | -58.03                     | -13.00         | 45.03          |
| 3305.600                         | H              | 35.11                         | -61.62                        | 10.32                        | 1.15               | -52.45                     | -13.00         | 39.45          |
| 3305.600                         | V              | 34.97                         | -61.53                        | 10.32                        | 1.15               | -52.36                     | -13.00         | 39.36          |
| WCDMA Band 5 Frequency:836.6MHz  |                |                               |                               |                              |                    |                            |                |                |
| 716.79                           | H              | 21.31                         | -51.67                        | 0.00                         | 0.50               | -52.17                     | -13.00         | 39.17          |
| 724.36                           | V              | 21.97                         | -47.42                        | 0.00                         | 0.51               | -47.93                     | -13.00         | 34.93          |
| 1673.200                         | H              | 37.39                         | -66.92                        | 8.71                         | 0.85               | -59.06                     | -13.00         | 46.06          |
| 1673.200                         | V              | 37.31                         | -67.10                        | 8.71                         | 0.85               | -59.24                     | -13.00         | 46.24          |
| 2509.800                         | H              | 42.09                         | -58.52                        | 9.42                         | 1.01               | -50.11                     | -13.00         | 37.11          |
| 2509.800                         | V              | 34.37                         | -66.25                        | 9.42                         | 1.01               | -57.84                     | -13.00         | 44.84          |
| 3346.400                         | H              | 33.86                         | -63.31                        | 10.34                        | 1.16               | -54.13                     | -13.00         | 41.13          |
| 3346.400                         | V              | 33.80                         | -63.23                        | 10.34                        | 1.16               | -54.05                     | -13.00         | 41.05          |
| WCDMA Band 5 Frequency:846.6MHz  |                |                               |                               |                              |                    |                            |                |                |
| 545.41                           | H              | 21.58                         | -53.36                        | 0.00                         | 0.47               | -53.83                     | -13.00         | 40.83          |
| 726.91                           | V              | 21.14                         | -48.19                        | 0.00                         | 0.52               | -48.71                     | -13.00         | 35.71          |
| 1693.200                         | H              | 36.25                         | -68.05                        | 8.73                         | 0.89               | -60.21                     | -13.00         | 47.21          |
| 1693.200                         | V              | 37.20                         | -67.22                        | 8.73                         | 0.89               | -59.38                     | -13.00         | 46.38          |
| 2539.800                         | H              | 36.61                         | -63.77                        | 9.46                         | 1.01               | -55.32                     | -13.00         | 42.32          |
| 2539.800                         | V              | 35.49                         | -64.85                        | 9.46                         | 1.01               | -56.40                     | -13.00         | 43.40          |
| 3386.400                         | H              | 35.06                         | -62.53                        | 10.35                        | 1.18               | -53.36                     | -13.00         | 40.36          |
| 3386.400                         | V              | 35.22                         | -62.32                        | 10.35                        | 1.18               | -53.15                     | -13.00         | 40.15          |

**PCS Band (PART 24E)****30 MHz-20 GHz:**

| Frequency<br>(MHz)           | Polar<br>(H/V) | Receiver<br>Reading<br>(dBμV) | Substituted Method            |                              |                    | Absolute<br>Level<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|------------------------------|----------------|-------------------------------|-------------------------------|------------------------------|--------------------|----------------------------|----------------|----------------|
|                              |                |                               | Substituted<br>Level<br>(dBm) | Antenna<br>Gain<br>(dBd/dBi) | Cable Loss<br>(dB) |                            |                |                |
| GSM 1900 Frequency:1850.2MHz |                |                               |                               |                              |                    |                            |                |                |
| 711.91                       | H              | 20.98                         | -52.10                        | 0.00                         | 0.51               | -52.61                     | -13.00         | 39.61          |
| 727.03                       | V              | 21.24                         | -48.09                        | 0.00                         | 0.52               | -48.61                     | -13.00         | 35.61          |
| 3700.400                     | H              | 42.57                         | -54.75                        | 10.60                        | 1.25               | -45.40                     | -13.00         | 32.40          |
| 3700.400                     | V              | 41.32                         | -55.98                        | 10.60                        | 1.25               | -46.63                     | -13.00         | 33.63          |
| 5550.600                     | H              | 38.37                         | -54.89                        | 11.44                        | 1.49               | -44.94                     | -13.00         | 31.94          |
| 5550.600                     | V              | 32.83                         | -60.27                        | 11.44                        | 1.49               | -50.32                     | -13.00         | 37.32          |
| GSM 1900 Frequency:1880MHz   |                |                               |                               |                              |                    |                            |                |                |
| 729.58                       | H              | 21.69                         | -51.03                        | 0.00                         | 0.53               | -51.56                     | -13.00         | 38.56          |
| 702.01                       | V              | 21.33                         | -48.55                        | 0.00                         | 0.55               | -49.10                     | -13.00         | 36.10          |
| 3760.000                     | H              | 39.32                         | -57.09                        | 10.66                        | 1.24               | -47.67                     | -13.00         | 34.67          |
| 3760.000                     | V              | 40.75                         | -55.54                        | 10.66                        | 1.24               | -46.12                     | -13.00         | 33.12          |
| 5640.000                     | H              | 44.88                         | -48.57                        | 11.33                        | 1.54               | -38.78                     | -13.00         | 25.78          |
| 5640.000                     | V              | 41.86                         | -51.47                        | 11.33                        | 1.54               | -41.68                     | -13.00         | 28.68          |
| GSM 1900 Frequency:1909.8MHz |                |                               |                               |                              |                    |                            |                |                |
| 724.37                       | H              | 21.47                         | -51.36                        | 0.00                         | 0.51               | -51.87                     | -13.00         | 38.87          |
| 709.19                       | V              | 21.68                         | -48.04                        | 0.00                         | 0.52               | -48.56                     | -13.00         | 35.56          |
| 3819.600                     | H              | 45.15                         | -50.71                        | 10.72                        | 1.29               | -41.28                     | -13.00         | 28.28          |
| 3819.600                     | V              | 39.64                         | -56.08                        | 10.72                        | 1.29               | -46.65                     | -13.00         | 33.65          |
| 5729.400                     | H              | 45.71                         | -47.77                        | 11.22                        | 1.59               | -38.14                     | -13.00         | 25.14          |
| 5729.400                     | V              | 44.38                         | -48.98                        | 11.22                        | 1.59               | -39.35                     | -13.00         | 26.35          |

| Frequency<br>(MHz)                  | Polar<br>(H/V) | Receiver<br>Reading<br>(dBμV) | Substituted Method            |                              |                    | Absolute<br>Level<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|-------------------------------------|----------------|-------------------------------|-------------------------------|------------------------------|--------------------|----------------------------|----------------|----------------|
|                                     |                |                               | Substituted<br>Level<br>(dBm) | Antenna<br>Gain<br>(dBd/dBi) | Cable Loss<br>(dB) |                            |                |                |
| WCDMA Band II, Frequency:1852.4 MHz |                |                               |                               |                              |                    |                            |                |                |
| 721.96                              | H              | 21.48                         | -51.40                        | 0.00                         | 0.50               | -51.90                     | -13.00         | 38.90          |
| 716.92                              | V              | 21.10                         | -48.45                        | 0.00                         | 0.50               | -48.95                     | -13.00         | 35.95          |
| 3704.800                            | H              | 40.53                         | -56.73                        | 10.60                        | 1.25               | -47.38                     | -13.00         | 34.38          |
| 3704.800                            | V              | 38.58                         | -58.65                        | 10.60                        | 1.25               | -49.30                     | -13.00         | 36.30          |
| 5557.200                            | H              | 34.81                         | -58.47                        | 11.43                        | 1.49               | -48.53                     | -13.00         | 35.53          |
| 5557.200                            | V              | 35.37                         | -57.76                        | 11.43                        | 1.49               | -47.82                     | -13.00         | 34.82          |
| WCDMA Band II, Frequency:1880 MHz   |                |                               |                               |                              |                    |                            |                |                |
| 729.58                              | H              | 21.12                         | -51.60                        | 0.00                         | 0.53               | -52.13                     | -13.00         | 39.13          |
| 666.07                              | V              | 21.38                         | -49.15                        | 0.00                         | 0.50               | -49.65                     | -13.00         | 36.65          |
| 3760.000                            | H              | 39.52                         | -56.89                        | 10.66                        | 1.24               | -47.47                     | -13.00         | 34.47          |
| 3760.000                            | V              | 37.91                         | -58.38                        | 10.66                        | 1.24               | -48.96                     | -13.00         | 35.96          |
| 5640.000                            | H              | 34.53                         | -58.92                        | 11.33                        | 1.54               | -49.13                     | -13.00         | 36.13          |
| 5640.000                            | V              | 45.22                         | -48.11                        | 11.33                        | 1.54               | -38.32                     | -13.00         | 25.32          |
| WCDMA Band II, Frequency:1907.6MHz  |                |                               |                               |                              |                    |                            |                |                |
| 721.72                              | H              | 21.20                         | -51.68                        | 0.00                         | 0.50               | -52.18                     | -13.00         | 39.18          |
| 709.19                              | V              | 21.23                         | -48.49                        | 0.00                         | 0.52               | -49.01                     | -13.00         | 36.01          |
| 3815.200                            | H              | 39.56                         | -56.29                        | 10.72                        | 1.29               | -46.86                     | -13.00         | 33.86          |
| 3815.200                            | V              | 39.65                         | -56.04                        | 10.72                        | 1.29               | -46.61                     | -13.00         | 33.61          |
| 5722.800                            | H              | 45.79                         | -47.70                        | 11.23                        | 1.58               | -38.05                     | -13.00         | 25.05          |
| 5722.800                            | V              | 34.78                         | -58.57                        | 11.23                        | 1.58               | -48.92                     | -13.00         | 35.92          |

**AWS Band(Part 27)****30 MHz-20 GHz:**

| Frequency<br>(MHz)                  | Polar<br>(H/V) | Receiver<br>Reading<br>(dBμV) | Substituted Method            |                              |                    | Absolute<br>Level<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|-------------------------------------|----------------|-------------------------------|-------------------------------|------------------------------|--------------------|----------------------------|----------------|----------------|
|                                     |                |                               | Substituted<br>Level<br>(dBm) | Antenna<br>Gain<br>(dBd/dBi) | Cable Loss<br>(dB) |                            |                |                |
| WCDMA Band IV, Frequency:1712.4 MHz |                |                               |                               |                              |                    |                            |                |                |
| 726.90                              | H              | 21.05                         | -51.73                        | 0.00                         | 0.52               | -52.25                     | -13.00         | 39.25          |
| 729.45                              | V              | 21.33                         | -47.95                        | 0.00                         | 0.53               | -48.48                     | -13.00         | 35.48          |
| 3424.800                            | H              | 35.52                         | -62.25                        | 10.37                        | 1.17               | -53.05                     | -13.00         | 40.05          |
| 3424.800                            | V              | 35.50                         | -62.24                        | 10.37                        | 1.17               | -53.04                     | -13.00         | 40.04          |
| 5137.200                            | H              | 40.82                         | -52.80                        | 11.28                        | 1.46               | -42.98                     | -13.00         | 29.98          |
| 5137.200                            | V              | 39.15                         | -54.35                        | 11.28                        | 1.46               | -44.53                     | -13.00         | 31.53          |
| WCDMA Band IV, Frequency:1732.6 MHz |                |                               |                               |                              |                    |                            |                |                |
| 726.80                              | H              | 21.20                         | -51.58                        | 0.00                         | 0.52               | -52.10                     | -13.00         | 39.10          |
| 714.40                              | V              | 21.24                         | -48.37                        | 0.00                         | 0.50               | -48.87                     | -13.00         | 35.87          |
| 3465.200                            | H              | 36.11                         | -61.70                        | 10.39                        | 1.15               | -52.46                     | -13.00         | 39.46          |
| 3465.200                            | V              | 35.87                         | -61.90                        | 10.39                        | 1.15               | -52.66                     | -13.00         | 39.66          |
| 5197.800                            | H              | 34.31                         | -59.82                        | 11.32                        | 1.44               | -49.94                     | -13.00         | 36.94          |
| 5197.800                            | V              | 34.78                         | -59.20                        | 11.32                        | 1.44               | -49.32                     | -13.00         | 36.32          |
| WCDMA Band IV, Frequency:1752.6MHz  |                |                               |                               |                              |                    |                            |                |                |
| 711.90                              | H              | 21.49                         | -51.59                        | 0.00                         | 0.51               | -52.10                     | -13.00         | 39.10          |
| 706.90                              | V              | 21.31                         | -48.46                        | 0.00                         | 0.54               | -49.00                     | -13.00         | 36.00          |
| 3505.200                            | H              | 36.42                         | -61.41                        | 10.41                        | 1.18               | -52.18                     | -13.00         | 39.18          |
| 3505.200                            | V              | 35.61                         | -62.16                        | 10.41                        | 1.18               | -52.93                     | -13.00         | 39.93          |
| 5257.800                            | H              | 37.23                         | -56.50                        | 11.35                        | 1.47               | -46.62                     | -13.00         | 33.62          |
| 5257.800                            | V              | 34.52                         | -58.99                        | 11.35                        | 1.47               | -49.11                     | -13.00         | 36.11          |

**LTE Bands:**  
(The Worst modulation and bandwidth was below)

**LTE Band 2 (30MHz-20GHz):**

| EYE Band 2 (50MHz - 20GHz). |                |                               |                               |                              |                    |                            |                |                |
|-----------------------------|----------------|-------------------------------|-------------------------------|------------------------------|--------------------|----------------------------|----------------|----------------|
| Frequency<br>(MHz)          | Polar<br>(H/V) | Receiver<br>Reading<br>(dBμV) | Substituted Method            |                              |                    | Absolute<br>Level<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|                             |                |                               | Substituted<br>Level<br>(dBm) | Antenna<br>Gain<br>(dBd/dBi) | Cable Loss<br>(dB) |                            |                |                |
| QPSK, Frequency: 1850.7 MHz |                |                               |                               |                              |                    |                            |                |                |
| 729.45                      | H              | 21.24                         | -51.49                        | 0.00                         | 0.53               | -52.02                     | -13.00         | 39.02          |
| 701.88                      | V              | 21.58                         | -48.30                        | 0.00                         | 0.55               | -48.85                     | -13.00         | 35.85          |
| 3701.400                    | H              | 34.55                         | -62.76                        | 10.60                        | 1.25               | -53.41                     | -13.00         | 40.41          |
| 3701.400                    | V              | 34.61                         | -62.68                        | 10.60                        | 1.25               | -53.33                     | -13.00         | 40.33          |
| 5552.100                    | H              | 34.41                         | -58.86                        | 11.44                        | 1.49               | -48.91                     | -13.00         | 35.91          |
| 5552.100                    | V              | 34.54                         | -58.56                        | 11.44                        | 1.49               | -48.61                     | -13.00         | 35.61          |
| QPSK, Frequency: 1880 MHz   |                |                               |                               |                              |                    |                            |                |                |
| 722.51                      | H              | 21.85                         | -51.02                        | 0.00                         | 0.50               | -51.52                     | -13.00         | 38.52          |
| 732.69                      | V              | 20.51                         | -48.70                        | 0.00                         | 0.54               | -49.24                     | -13.00         | 36.24          |
| 3760.000                    | H              | 34.83                         | -61.58                        | 10.66                        | 1.24               | -52.16                     | -13.00         | 39.16          |
| 3760.000                    | V              | 34.85                         | -61.44                        | 10.66                        | 1.24               | -52.02                     | -13.00         | 39.02          |
| 5640.000                    | H              | 33.97                         | -59.48                        | 11.33                        | 1.54               | -49.69                     | -13.00         | 36.69          |
| 5640.000                    | V              | 34.18                         | -59.15                        | 11.33                        | 1.54               | -49.36                     | -13.00         | 36.36          |
| QPSK, Frequency: 1909.3 MHz |                |                               |                               |                              |                    |                            |                |                |
| 721.83                      | H              | 21.32                         | -51.56                        | 0.00                         | 0.50               | -52.06                     | -13.00         | 39.06          |
| 726.90                      | V              | 22.23                         | -47.10                        | 0.00                         | 0.52               | -47.62                     | -13.00         | 34.62          |
| 3818.600                    | H              | 35.06                         | -60.80                        | 10.72                        | 1.29               | -51.37                     | -13.00         | 38.37          |
| 3818.600                    | V              | 35.27                         | -60.44                        | 10.72                        | 1.29               | -51.01                     | -13.00         | 38.01          |
| 5727.900                    | H              | 35.83                         | -57.65                        | 11.23                        | 1.59               | -48.01                     | -13.00         | 35.01          |
| 5727.900                    | V              | 34.38                         | -58.98                        | 11.23                        | 1.59               | -49.34                     | -13.00         | 36.34          |

**LTE Band 4 (30MHz-20GHz):**

| Frequency<br>(MHz)        | Polar<br>(H/V) | Receiver<br>Reading<br>(dBμV) | Substituted Method            |                              |                    | Absolute<br>Level<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|---------------------------|----------------|-------------------------------|-------------------------------|------------------------------|--------------------|----------------------------|----------------|----------------|
|                           |                |                               | Substituted<br>Level<br>(dBm) | Antenna<br>Gain<br>(dBd/dBi) | Cable Loss<br>(dB) |                            |                |                |
| QPSK,Frequency:1710.7 MHz |                |                               |                               |                              |                    |                            |                |                |
| 557.10                    | H              | 21.34                         | -53.37                        | 0.00                         | 0.48               | -53.85                     | -13.00         | 40.85          |
| 727.03                    | V              | 21.78                         | -47.55                        | 0.00                         | 0.52               | -48.07                     | -13.00         | 35.07          |
| 3421.400                  | H              | 39.52                         | -58.24                        | 10.37                        | 1.17               | -49.04                     | -13.00         | 36.04          |
| 3421.400                  | V              | 38.73                         | -59.00                        | 10.37                        | 1.17               | -49.80                     | -13.00         | 36.80          |
| 5132.100                  | H              | 34.74                         | -58.83                        | 11.28                        | 1.47               | -49.02                     | -13.00         | 36.02          |
| 5132.100                  | V              | 34.25                         | -59.21                        | 11.28                        | 1.47               | -49.40                     | -13.00         | 36.40          |
| QPSK,Frequency:1732.5 MHz |                |                               |                               |                              |                    |                            |                |                |
| 729.58                    | H              | 21.71                         | -51.01                        | 0.00                         | 0.53               | -51.54                     | -13.00         | 38.54          |
| 727.03                    | V              | 21.29                         | -48.04                        | 0.00                         | 0.52               | -48.56                     | -13.00         | 35.56          |
| 3465.000                  | H              | 37.64                         | -60.17                        | 10.39                        | 1.15               | -50.93                     | -13.00         | 37.93          |
| 3465.000                  | V              | 39.47                         | -58.30                        | 10.39                        | 1.15               | -49.06                     | -13.00         | 36.06          |
| 5197.500                  | H              | 35.22                         | -58.91                        | 11.32                        | 1.44               | -49.03                     | -13.00         | 36.03          |
| 5197.500                  | V              | 34.27                         | -59.71                        | 11.32                        | 1.44               | -49.83                     | -13.00         | 36.83          |
| QPSK,Frequency:1754.3MHz  |                |                               |                               |                              |                    |                            |                |                |
| 729.58                    | H              | 21.25                         | -51.47                        | 0.00                         | 0.53               | -52.00                     | -13.00         | 39.00          |
| 709.42                    | V              | 22.02                         | -47.69                        | 0.00                         | 0.52               | -48.21                     | -13.00         | 35.21          |
| 3508.600                  | H              | 38.26                         | -59.56                        | 10.41                        | 1.19               | -50.34                     | -13.00         | 37.34          |
| 3508.600                  | V              | 37.44                         | -60.32                        | 10.41                        | 1.19               | -51.10                     | -13.00         | 38.10          |
| 5262.900                  | H              | 34.82                         | -58.88                        | 11.36                        | 1.47               | -48.99                     | -13.00         | 35.99          |
| 5262.900                  | V              | 34.56                         | -58.91                        | 11.36                        | 1.47               | -49.02                     | -13.00         | 36.02          |

**LTE Band 5(30MHz-10GHz):**

| EYE Data (QPSK, 10GHz)     |                |                               |                               |                              |                    |                            |                |                |
|----------------------------|----------------|-------------------------------|-------------------------------|------------------------------|--------------------|----------------------------|----------------|----------------|
| Frequency<br>(MHz)         | Polar<br>(H/V) | Receiver<br>Reading<br>(dBμV) | Substituted Method            |                              |                    | Absolute<br>Level<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|                            |                |                               | Substituted<br>Level<br>(dBm) | Antenna<br>Gain<br>(dBd/dBi) | Cable Loss<br>(dB) |                            |                |                |
| QPSK, Frequency: 824.7 MHz |                |                               |                               |                              |                    |                            |                |                |
| 638.53                     | H              | 21.07                         | -52.58                        | 0.00                         | 0.52               | -53.10                     | -13.00         | 40.10          |
| 724.35                     | V              | 21.25                         | -48.14                        | 0.00                         | 0.51               | -48.65                     | -13.00         | 35.65          |
| 1649.400                   | H              | 45.61                         | -58.72                        | 8.68                         | 0.80               | -50.84                     | -13.00         | 37.84          |
| 1649.400                   | V              | 43.20                         | -61.21                        | 8.68                         | 0.80               | -53.33                     | -13.00         | 40.33          |
| 2474.100                   | H              | 40.52                         | -60.26                        | 9.38                         | 1.00               | -51.88                     | -13.00         | 38.88          |
| 2474.100                   | V              | 36.10                         | -64.63                        | 9.38                         | 1.00               | -56.25                     | -13.00         | 43.25          |
| 3298.800                   | H              | 34.89                         | -61.79                        | 10.32                        | 1.15               | -52.62                     | -13.00         | 39.62          |
| 3298.800                   | V              | 34.78                         | -61.66                        | 10.32                        | 1.15               | -52.49                     | -13.00         | 39.49          |
| QPSK, Frequency: 836.5 MHz |                |                               |                               |                              |                    |                            |                |                |
| 729.45                     | H              | 21.10                         | -51.63                        | 0.00                         | 0.53               | -52.16                     | -13.00         | 39.16          |
| 704.34                     | V              | 20.85                         | -48.98                        | 0.00                         | 0.55               | -49.53                     | -13.00         | 36.53          |
| 1673.000                   | H              | 47.58                         | -56.73                        | 8.71                         | 0.85               | -48.87                     | -13.00         | 35.87          |
| 1673.000                   | V              | 45.31                         | -59.10                        | 8.71                         | 0.85               | -51.24                     | -13.00         | 38.24          |
| 2509.500                   | H              | 39.64                         | -60.97                        | 9.42                         | 1.01               | -52.56                     | -13.00         | 39.56          |
| 2509.500                   | V              | 36.42                         | -64.20                        | 9.42                         | 1.01               | -55.79                     | -13.00         | 42.79          |
| 3346.000                   | H              | 34.91                         | -62.25                        | 10.34                        | 1.16               | -53.07                     | -13.00         | 40.07          |
| 3346.000                   | V              | 33.79                         | -63.23                        | 10.34                        | 1.16               | -54.05                     | -13.00         | 41.05          |
| QPSK, Frequency: 848.3 MHz |                |                               |                               |                              |                    |                            |                |                |
| 719.30                     | H              | 20.86                         | -52.07                        | 0.00                         | 0.49               | -52.56                     | -13.00         | 39.56          |
| 726.89                     | V              | 21.41                         | -47.92                        | 0.00                         | 0.52               | -48.44                     | -13.00         | 35.44          |
| 1696.600                   | H              | 47.33                         | -56.96                        | 8.74                         | 0.89               | -49.11                     | -13.00         | 36.11          |
| 1696.600                   | V              | 49.38                         | -55.04                        | 8.74                         | 0.89               | -47.19                     | -13.00         | 34.19          |
| 2544.900                   | H              | 41.02                         | -59.32                        | 9.47                         | 1.01               | -50.86                     | -13.00         | 37.86          |
| 2544.900                   | V              | 39.04                         | -61.26                        | 9.47                         | 1.01               | -52.80                     | -13.00         | 39.80          |
| 3393.200                   | H              | 35.59                         | -62.08                        | 10.36                        | 1.19               | -52.91                     | -13.00         | 39.91          |
| 3393.200                   | V              | 35.34                         | -62.29                        | 10.36                        | 1.19               | -53.12                     | -13.00         | 40.12          |

**LTE Band 7 (30MHz-26.5GHz):**

| Frequency<br>(MHz)          | Polar<br>(H/V) | Receiver<br>Reading<br>(dBμV) | Substituted Method            |                              |                    | Absolute<br>Level<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|-----------------------------|----------------|-------------------------------|-------------------------------|------------------------------|--------------------|----------------------------|----------------|----------------|
|                             |                |                               | Substituted<br>Level<br>(dBm) | Antenna<br>Gain<br>(dBd/dBi) | Cable Loss<br>(dB) |                            |                |                |
| QPSK, Frequency: 2502.5 MHz |                |                               |                               |                              |                    |                            |                |                |
| 705.90                      | H              | 21.12                         | -52.08                        | 0.00                         | 0.54               | -52.62                     | -25.00         | 27.62          |
| 704.93                      | V              | 20.98                         | -48.83                        | 0.00                         | 0.55               | -49.38                     | -25.00         | 24.38          |
| 5005.000                    | H              | 49.51                         | -43.45                        | 11.20                        | 1.47               | -33.72                     | -25.00         | 8.72           |
| 5005.000                    | V              | 48.52                         | -44.30                        | 11.20                        | 1.47               | -34.57                     | -25.00         | 9.57           |
| 7507.500                    | H              | 41.05                         | -48.74                        | 10.90                        | 1.95               | -39.79                     | -25.00         | 14.79          |
| 7507.500                    | V              | 40.87                         | -49.42                        | 10.90                        | 1.95               | -40.47                     | -25.00         | 15.47          |
| QPSK, Frequency:2535 MHz    |                |                               |                               |                              |                    |                            |                |                |
| 691.36                      | H              | 20.79                         | -52.58                        | 0.00                         | 0.54               | -53.12                     | -25.00         | 28.12          |
| 717.53                      | V              | 21.09                         | -48.45                        | 0.00                         | 0.49               | -48.94                     | -25.00         | 23.94          |
| 5070.000                    | H              | 51.90                         | -41.29                        | 11.24                        | 1.47               | -31.52                     | -25.00         | 6.52           |
| 5070.000                    | V              | 49.81                         | -43.28                        | 11.24                        | 1.47               | -33.51                     | -25.00         | 8.51           |
| 7605.000                    | H              | 42.58                         | -46.89                        | 10.88                        | 2.01               | -38.02                     | -25.00         | 13.02          |
| 7605.000                    | V              | 40.38                         | -49.81                        | 10.88                        | 2.01               | -40.94                     | -25.00         | 15.94          |
| QPSK, Frequency: 2567.5 MHz |                |                               |                               |                              |                    |                            |                |                |
| 728.19                      | H              | 20.87                         | -51.88                        | 0.00                         | 0.52               | -52.40                     | -25.00         | 27.40          |
| 719.47                      | V              | 21.15                         | -48.35                        | 0.00                         | 0.49               | -48.84                     | -25.00         | 23.84          |
| 5135.000                    | H              | 52.34                         | -41.26                        | 11.28                        | 1.47               | -31.45                     | -25.00         | 6.45           |
| 5135.000                    | V              | 51.84                         | -41.65                        | 11.28                        | 1.47               | -31.84                     | -25.00         | 6.84           |
| 7702.500                    | H              | 40.46                         | -49.06                        | 10.86                        | 1.97               | -40.17                     | -25.00         | 15.17          |
| 7702.500                    | V              | 39.30                         | -50.88                        | 10.86                        | 1.97               | -41.99                     | -25.00         | 16.99          |

**LTE Band 12 (30MHz-10GHz):**

| EYE Band 12 (50MHz to 6GHz). |                |                               |                               |                              |                    |                            |                |                |
|------------------------------|----------------|-------------------------------|-------------------------------|------------------------------|--------------------|----------------------------|----------------|----------------|
| Frequency<br>(MHz)           | Polar<br>(H/V) | Receiver<br>Reading<br>(dBμV) | Substituted Method            |                              |                    | Absolute<br>Level<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|                              |                |                               | Substituted<br>Level<br>(dBm) | Antenna<br>Gain<br>(dBd/dBi) | Cable Loss<br>(dB) |                            |                |                |
| QPSK, Frequency: 699.7 MHz   |                |                               |                               |                              |                    |                            |                |                |
| 722.37                       | H              | 20.92                         | -51.95                        | 0.00                         | 0.50               | -52.45                     | -13.00         | 39.45          |
| 562.48                       | V              | 21.22                         | -50.45                        | 0.00                         | 0.47               | -50.92                     | -13.00         | 37.92          |
| 1399.400                     | H              | 44.35                         | -59.35                        | 8.22                         | 0.71               | -51.84                     | -13.00         | 38.84          |
| 1399.400                     | V              | 40.89                         | -62.86                        | 8.22                         | 0.71               | -55.35                     | -13.00         | 42.35          |
| 2099.100                     | H              | 40.03                         | -61.85                        | 9.16                         | 0.91               | -53.60                     | -13.00         | 40.60          |
| 2099.100                     | V              | 40.06                         | -61.77                        | 9.16                         | 0.91               | -53.52                     | -13.00         | 40.52          |
| 2798.800                     | H              | 36.51                         | -63.42                        | 9.88                         | 1.04               | -54.58                     | -13.00         | 41.58          |
| 2798.800                     | V              | 36.42                         | -63.38                        | 9.88                         | 1.04               | -54.54                     | -13.00         | 41.54          |
| QPSK, Frequency:707.5 MHz    |                |                               |                               |                              |                    |                            |                |                |
| 582.94                       | H              | 20.64                         | -53.56                        | 0.00                         | 0.46               | -54.02                     | -13.00         | 41.02          |
| 649.81                       | V              | 21.28                         | -49.55                        | 0.00                         | 0.52               | -50.07                     | -13.00         | 37.07          |
| 1415.000                     | H              | 40.79                         | -62.88                        | 8.26                         | 0.72               | -55.34                     | -13.00         | 42.34          |
| 1415.000                     | V              | 43.59                         | -60.13                        | 8.26                         | 0.72               | -52.59                     | -13.00         | 39.59          |
| 2122.500                     | H              | 36.78                         | -65.21                        | 9.17                         | 0.92               | -56.96                     | -13.00         | 43.96          |
| 2122.500                     | V              | 35.64                         | -66.33                        | 9.17                         | 0.92               | -58.08                     | -13.00         | 45.08          |
| 2830.000                     | H              | 36.21                         | -63.59                        | 9.93                         | 1.06               | -54.72                     | -13.00         | 41.72          |
| 2830.000                     | V              | 35.88                         | -63.85                        | 9.93                         | 1.06               | -54.98                     | -13.00         | 41.98          |
| QPSK, Frequency: 715.3 MHz   |                |                               |                               |                              |                    |                            |                |                |
| 560.54                       | H              | 20.95                         | -53.69                        | 0.00                         | 0.47               | -54.16                     | -13.00         | 41.16          |
| 507.25                       | V              | 21.89                         | -49.70                        | 0.00                         | 0.45               | -50.15                     | -13.00         | 37.15          |
| 1430.600                     | H              | 44.23                         | -59.40                        | 8.31                         | 0.73               | -51.82                     | -13.00         | 38.82          |
| 1430.600                     | V              | 44.73                         | -58.96                        | 8.31                         | 0.73               | -51.38                     | -13.00         | 38.38          |
| 2145.900                     | H              | 41.34                         | -60.76                        | 9.19                         | 0.93               | -52.50                     | -13.00         | 39.50          |
| 2145.900                     | V              | 40.87                         | -61.24                        | 9.19                         | 0.93               | -52.98                     | -13.00         | 39.98          |
| 2861.200                     | H              | 40.56                         | -59.09                        | 9.98                         | 1.07               | -50.18                     | -13.00         | 37.18          |
| 2861.200                     | V              | 39.46                         | -60.21                        | 9.98                         | 1.07               | -51.30                     | -13.00         | 38.30          |

**LTE Band 17 (30MHz-10GHz):**

| Frequency<br>(MHz)         | Polar<br>(H/V) | Receiver<br>Reading<br>(dBμV) | Substituted Method            |                              |                    | Absolute<br>Level<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|----------------------------|----------------|-------------------------------|-------------------------------|------------------------------|--------------------|----------------------------|----------------|----------------|
|                            |                |                               | Substituted<br>Level<br>(dBm) | Antenna<br>Gain<br>(dBd/dBi) | Cable Loss<br>(dB) |                            |                |                |
| QPSK, Frequency: 706.5 MHz |                |                               |                               |                              |                    |                            |                |                |
| 549.16                     | H              | 20.94                         | -53.92                        | 0.00                         | 0.47               | -54.39                     | -13.00         | 41.39          |
| 578.78                     | V              | 21.05                         | -50.65                        | 0.00                         | 0.46               | -51.11                     | -13.00         | 38.11          |
| 1413.000                   | H              | 40.25                         | -63.42                        | 8.26                         | 0.72               | -55.88                     | -13.00         | 42.88          |
| 1413.000                   | V              | 40.37                         | -63.35                        | 8.26                         | 0.72               | -55.81                     | -13.00         | 42.81          |
| 2119.500                   | H              | 36.24                         | -65.73                        | 9.17                         | 0.92               | -57.48                     | -13.00         | 44.48          |
| 2119.500                   | V              | 35.81                         | -66.14                        | 9.17                         | 0.92               | -57.89                     | -13.00         | 44.89          |
| 2826.000                   | H              | 36.56                         | -63.25                        | 9.92                         | 1.06               | -54.39                     | -13.00         | 41.39          |
| 2826.000                   | V              | 36.43                         | -63.31                        | 9.92                         | 1.06               | -54.45                     | -13.00         | 41.45          |
| QPSK, Frequency:710 MHz    |                |                               |                               |                              |                    |                            |                |                |
| 629.55                     | H              | 21.12                         | -52.58                        | 0.00                         | 0.48               | -53.06                     | -13.00         | 40.06          |
| 633.98                     | V              | 20.79                         | -50.32                        | 0.00                         | 0.51               | -50.83                     | -13.00         | 37.83          |
| 1420.000                   | H              | 42.34                         | -61.32                        | 8.28                         | 0.73               | -53.77                     | -13.00         | 40.77          |
| 1420.000                   | V              | 40.71                         | -63.00                        | 8.28                         | 0.73               | -55.45                     | -13.00         | 42.45          |
| 2130.000                   | H              | 37.67                         | -64.35                        | 9.18                         | 0.92               | -56.09                     | -13.00         | 43.09          |
| 2130.000                   | V              | 36.22                         | -65.79                        | 9.18                         | 0.92               | -57.53                     | -13.00         | 44.53          |
| 2840.000                   | H              | 36.06                         | -63.69                        | 9.94                         | 1.06               | -54.81                     | -13.00         | 41.81          |
| 2840.000                   | V              | 35.81                         | -63.90                        | 9.94                         | 1.06               | -55.02                     | -13.00         | 42.02          |
| QPSK, Frequency: 713.5 MHz |                |                               |                               |                              |                    |                            |                |                |
| 595.24                     | H              | 20.78                         | -53.17                        | 0.00                         | 0.51               | -53.68                     | -13.00         | 40.68          |
| 597.33                     | V              | 21.11                         | -50.62                        | 0.00                         | 0.51               | -51.13                     | -13.00         | 38.13          |
| 1427.000                   | H              | 41.34                         | -62.30                        | 8.30                         | 0.73               | -54.73                     | -13.00         | 41.73          |
| 1427.000                   | V              | 42.69                         | -61.00                        | 8.30                         | 0.73               | -53.43                     | -13.00         | 40.43          |
| 2140.500                   | H              | 36.35                         | -65.72                        | 9.18                         | 0.93               | -57.47                     | -13.00         | 44.47          |
| 2140.500                   | V              | 36.36                         | -65.72                        | 9.18                         | 0.93               | -57.47                     | -13.00         | 44.47          |
| 2854.000                   | H              | 35.95                         | -63.74                        | 9.97                         | 1.07               | -54.84                     | -13.00         | 41.84          |
| 2854.000                   | V              | 36.91                         | -62.77                        | 9.97                         | 1.07               | -53.87                     | -13.00         | 40.87          |

**LTE Band 38 (30MHz-26.5GHz):**

| Frequency<br>(MHz)          | Polar<br>(H/V) | Receiver<br>Reading<br>(dBμV) | Substituted Method            |                              |                    | Absolute<br>Level<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|-----------------------------|----------------|-------------------------------|-------------------------------|------------------------------|--------------------|----------------------------|----------------|----------------|
|                             |                |                               | Substituted<br>Level<br>(dBm) | Antenna<br>Gain<br>(dBd/dBi) | Cable Loss<br>(dB) |                            |                |                |
| QPSK, Frequency: 2572.5 MHz |                |                               |                               |                              |                    |                            |                |                |
| 723.34                      | H              | 21.43                         | -51.42                        | 0.00                         | 0.50               | -51.92                     | -25.00         | 26.92          |
| 710.74                      | V              | 21.13                         | -48.56                        | 0.00                         | 0.52               | -49.08                     | -25.00         | 24.08          |
| 5145.000                    | H              | 45.34                         | -48.34                        | 11.29                        | 1.44               | -38.49                     | -25.00         | 13.49          |
| 5145.000                    | V              | 45.77                         | -47.80                        | 11.29                        | 1.44               | -37.95                     | -25.00         | 12.95          |
| 7717.500                    | H              | 38.11                         | -51.40                        | 10.86                        | 1.99               | -42.53                     | -25.00         | 17.53          |
| 7717.500                    | V              | 39.10                         | -51.03                        | 10.86                        | 1.99               | -42.16                     | -25.00         | 17.16          |
| QPSK, Frequency:2595 MHz    |                |                               |                               |                              |                    |                            |                |                |
| 786.33                      | H              | 21.18                         | -50.40                        | 0.00                         | 0.57               | -50.97                     | -25.00         | 25.97          |
| 726.25                      | V              | 20.86                         | -48.49                        | 0.00                         | 0.52               | -49.01                     | -25.00         | 24.01          |
| 5190.000                    | H              | 46.04                         | -48.03                        | 11.31                        | 1.44               | -38.16                     | -25.00         | 13.16          |
| 5190.000                    | V              | 46.58                         | -47.34                        | 11.31                        | 1.44               | -37.47                     | -25.00         | 12.47          |
| 7785.000                    | H              | 40.03                         | -49.46                        | 10.84                        | 1.99               | -40.61                     | -25.00         | 15.61          |
| 7785.000                    | V              | 37.86                         | -52.06                        | 10.84                        | 1.99               | -43.21                     | -25.00         | 18.21          |
| QPSK, Frequency: 2617.5 MHz |                |                               |                               |                              |                    |                            |                |                |
| 728.19                      | H              | 20.90                         | -51.85                        | 0.00                         | 0.52               | -52.37                     | -25.00         | 27.37          |
| 728.19                      | V              | 20.76                         | -48.55                        | 0.00                         | 0.52               | -49.07                     | -25.00         | 24.07          |
| 5235.000                    | H              | 49.16                         | -44.74                        | 11.34                        | 1.46               | -34.86                     | -25.00         | 9.86           |
| 5235.000                    | V              | 42.61                         | -51.10                        | 11.34                        | 1.46               | -41.22                     | -25.00         | 16.22          |
| 7852.500                    | H              | 35.12                         | -54.07                        | 10.83                        | 2.03               | -45.27                     | -25.00         | 20.27          |
| 7852.500                    | V              | 34.06                         | -55.52                        | 10.83                        | 2.03               | -46.72                     | -25.00         | 21.72          |

**LTE Band 40 (30MHz-25GHz):**  
**Lower:**

| Frequency<br>(MHz)        | Polar<br>(H/V) | Receiver<br>Reading<br>(dBμV) | Substituted Method            |                              |                    | Absolute<br>Level<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|---------------------------|----------------|-------------------------------|-------------------------------|------------------------------|--------------------|----------------------------|----------------|----------------|
|                           |                |                               | Substituted<br>Level<br>(dBm) | Antenna<br>Gain<br>(dBd/dBi) | Cable Loss<br>(dB) |                            |                |                |
| QPSK,Frequency:2307.5MHz  |                |                               |                               |                              |                    |                            |                |                |
| 708.81                    | H              | 21.28                         | -51.86                        | 0.00                         | 0.53               | -52.39                     | -40.00         | 12.39          |
| 727.22                    | V              | 21.14                         | -48.19                        | 0.00                         | 0.52               | -48.71                     | -40.00         | 8.71           |
| 4615.000                  | H              | 40.29                         | -55.07                        | 10.74                        | 1.41               | -45.74                     | -40.00         | 5.74           |
| 4615.000                  | V              | 41.89                         | -53.33                        | 10.74                        | 1.41               | -44.00                     | -40.00         | 4.00           |
| 6922.500                  | H              | 40.31                         | -50.71                        | 11.22                        | 1.88               | -41.37                     | -40.00         | 1.37           |
| 6922.500                  | V              | 36.37                         | -54.52                        | 11.22                        | 1.88               | -45.18                     | -40.00         | 5.18           |
| QPSK,Frequency:2312.5 MHz |                |                               |                               |                              |                    |                            |                |                |
| 723.34                    | H              | 20.89                         | -51.96                        | 0.00                         | 0.50               | -52.46                     | -40.00         | 12.46          |
| 706.87                    | V              | 21.26                         | -48.51                        | 0.00                         | 0.54               | -49.05                     | -40.00         | 9.05           |
| 4625.000                  | H              | 41.62                         | -53.67                        | 10.75                        | 1.41               | -44.33                     | -40.00         | 4.33           |
| 4625.000                  | V              | 40.37                         | -54.80                        | 10.75                        | 1.41               | -45.46                     | -40.00         | 5.46           |
| 6937.500                  | H              | 40.09                         | -50.89                        | 11.21                        | 1.90               | -41.58                     | -40.00         | 1.58           |
| 6937.500                  | V              | 40.11                         | -50.73                        | 11.21                        | 1.90               | -41.42                     | -40.00         | 1.42           |

**Upper:**

| Frequency<br>(MHz)        | Polar<br>(H/V) | Receiver<br>Reading<br>(dBμV) | Substituted Method            |                              |                    | Absolute<br>Level<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|---------------------------|----------------|-------------------------------|-------------------------------|------------------------------|--------------------|----------------------------|----------------|----------------|
|                           |                |                               | Substituted<br>Level<br>(dBm) | Antenna<br>Gain<br>(dBd/dBi) | Cable Loss<br>(dB) |                            |                |                |
| QPSK,Frequency:2352.5MHz  |                |                               |                               |                              |                    |                            |                |                |
| 723.34                    | H              | 20.89                         | -51.96                        | 0.00                         | 0.50               | -52.46                     | -40.00         | 12.46          |
| 706.87                    | V              | 21.26                         | -48.51                        | 0.00                         | 0.54               | -49.05                     | -40.00         | 9.05           |
| 4705.000                  | H              | 44.03                         | -50.75                        | 10.85                        | 1.41               | -41.31                     | -40.00         | 1.31           |
| 4705.000                  | V              | 42.29                         | -52.51                        | 10.85                        | 1.41               | -43.07                     | -40.00         | 3.07           |
| 7057.500                  | H              | 39.66                         | -50.35                        | 11.17                        | 1.92               | -41.10                     | -40.00         | 1.10           |
| 7057.500                  | V              | 38.02                         | -51.88                        | 11.17                        | 1.92               | -42.63                     | -40.00         | 2.63           |
| QPSK,Frequency:2357.5 MHz |                |                               |                               |                              |                    |                            |                |                |
| 725.28                    | H              | 21.15                         | -51.66                        | 0.00                         | 0.51               | -52.17                     | -40.00         | 12.17          |
| 723.43                    | V              | 21.45                         | -47.96                        | 0.00                         | 0.50               | -48.46                     | -40.00         | 8.46           |
| 4715.000                  | H              | 40.93                         | -53.78                        | 10.86                        | 1.41               | -44.33                     | -40.00         | 4.33           |
| 4715.000                  | V              | 42.37                         | -52.34                        | 10.86                        | 1.41               | -42.89                     | -40.00         | 2.89           |
| 7072.500                  | H              | 39.25                         | -50.55                        | 11.16                        | 1.91               | -41.30                     | -40.00         | 1.30           |
| 7072.500                  | V              | 37.38                         | -52.33                        | 11.16                        | 1.91               | -43.08                     | -40.00         | 3.08           |

**LTE Band 66(30MHz-20GHz):**

| Frequency<br>(MHz)          | Polar<br>(H/V) | Receiver<br>Reading<br>(dBμV) | Substituted Method            |                              |                    | Absolute<br>Level<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|-----------------------------|----------------|-------------------------------|-------------------------------|------------------------------|--------------------|----------------------------|----------------|----------------|
|                             |                |                               | Substituted<br>Level<br>(dBm) | Antenna<br>Gain<br>(dBd/dBi) | Cable Loss<br>(dB) |                            |                |                |
| QPSK, Frequency: 1710.7 MHz |                |                               |                               |                              |                    |                            |                |                |
| 727.22                      | H              | 20.55                         | -52.22                        | 0.00                         | 0.52               | -52.74                     | -13.00         | 39.74          |
| 582.83                      | V              | 21.22                         | -50.48                        | 0.00                         | 0.46               | -50.94                     | -13.00         | 37.94          |
| 3421.400                    | H              | 35.24                         | -62.52                        | 10.37                        | 1.17               | -53.32                     | -13.00         | 40.32          |
| 3421.400                    | V              | 34.67                         | -63.06                        | 10.37                        | 1.17               | -53.86                     | -13.00         | 40.86          |
| 5132.100                    | H              | 35.26                         | -58.31                        | 11.28                        | 1.47               | -48.50                     | -13.00         | 35.50          |
| 5132.100                    | V              | 35.03                         | -58.43                        | 11.28                        | 1.47               | -48.62                     | -13.00         | 35.62          |
| QPSK, Frequency:1745 MHz    |                |                               |                               |                              |                    |                            |                |                |
| 728.19                      | H              | 21.80                         | -50.95                        | 0.00                         | 0.52               | -51.47                     | -13.00         | 38.47          |
| 711.91                      | V              | 20.96                         | -48.70                        | 0.00                         | 0.51               | -49.21                     | -13.00         | 36.21          |
| 3490.000                    | H              | 35.67                         | -62.17                        | 10.40                        | 1.17               | -52.94                     | -13.00         | 39.94          |
| 3490.000                    | V              | 35.91                         | -61.87                        | 10.40                        | 1.17               | -52.64                     | -13.00         | 39.64          |
| 5235.000                    | H              | 34.77                         | -59.13                        | 11.34                        | 1.46               | -49.25                     | -13.00         | 36.25          |
| 5235.000                    | V              | 34.56                         | -59.15                        | 11.34                        | 1.46               | -49.27                     | -13.00         | 36.27          |
| QPSK, Frequency: 1779.3 MHz |                |                               |                               |                              |                    |                            |                |                |
| 679.74                      | H              | 21.12                         | -52.31                        | 0.00                         | 0.52               | -52.83                     | -13.00         | 39.83          |
| 615.78                      | V              | 21.44                         | -50.00                        | 0.00                         | 0.48               | -50.48                     | -13.00         | 37.48          |
| 3558.600                    | H              | 36.24                         | -61.43                        | 10.46                        | 1.22               | -52.19                     | -13.00         | 39.19          |
| 3558.600                    | V              | 35.20                         | -62.37                        | 10.46                        | 1.22               | -53.13                     | -13.00         | 40.13          |
| 5337.900                    | H              | 34.13                         | -59.34                        | 11.40                        | 1.47               | -49.41                     | -13.00         | 36.41          |
| 5337.900                    | V              | 35.20                         | -58.13                        | 11.40                        | 1.47               | -48.20                     | -13.00         | 35.20          |

Note:

- 1) The unit of Antenna Gain is dBd for frequency below 1GHz, and the unit of Antenna Gain is dBi for frequency above 1GHz.
- 2) Absolute Level = Substituted Level - Cable loss + Antenna Gain
- 3) Margin = Limit-Absolute Level

**==== END OF REPORT =====**