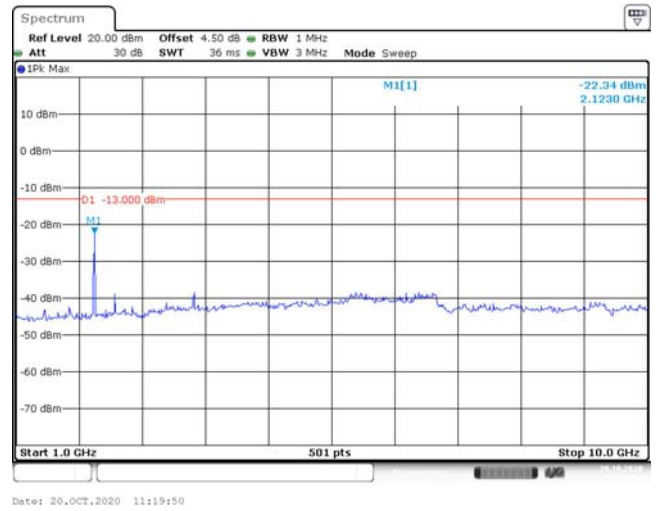
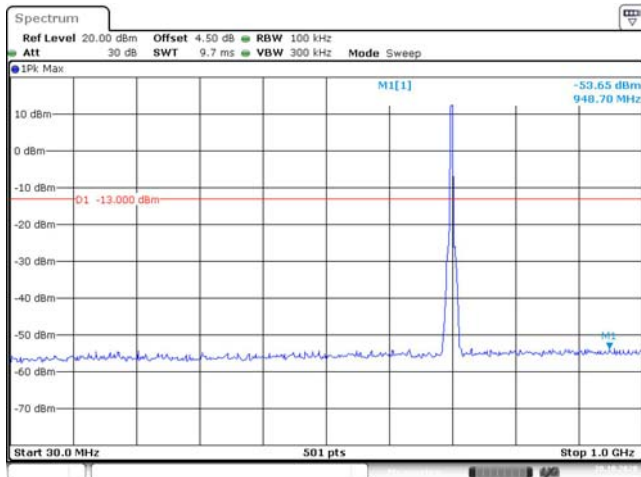
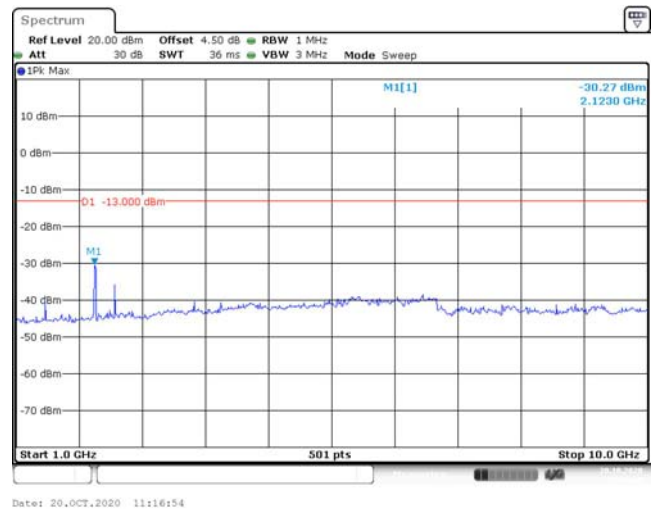
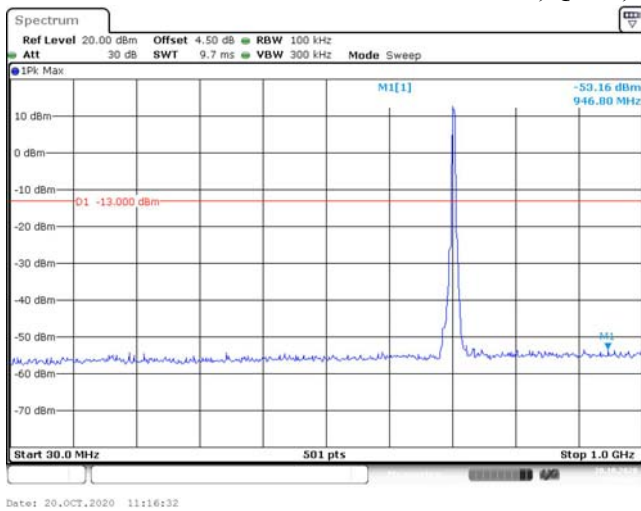
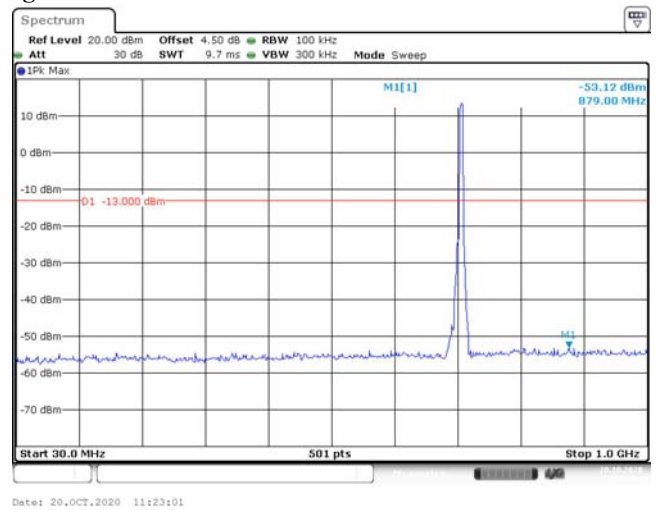
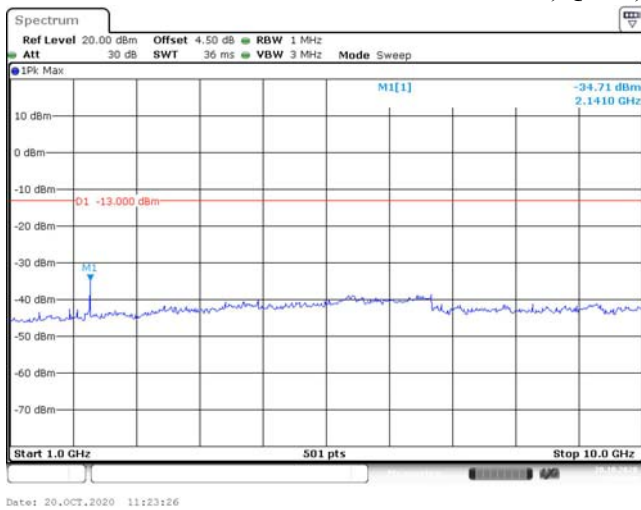
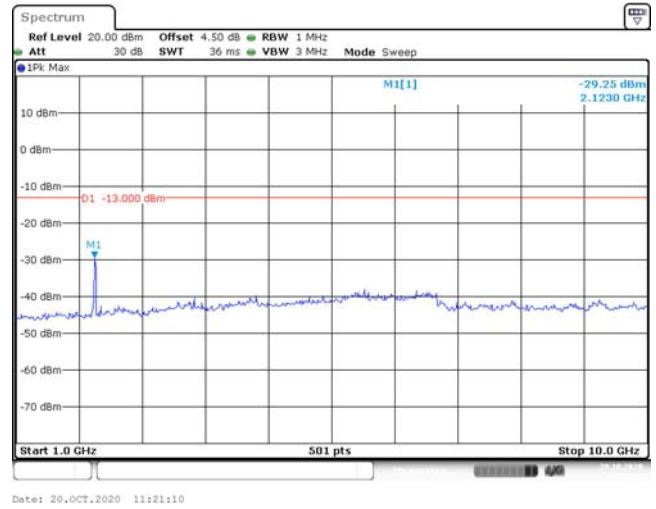
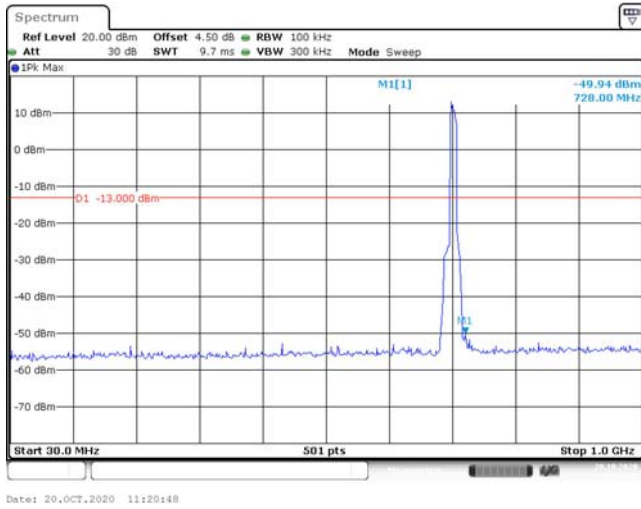
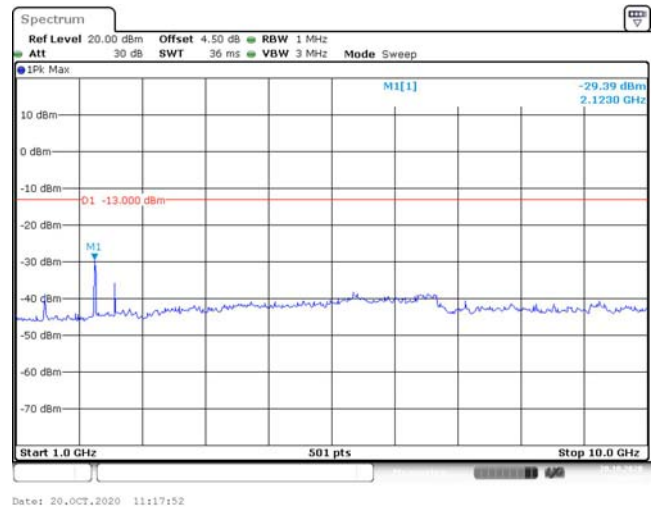
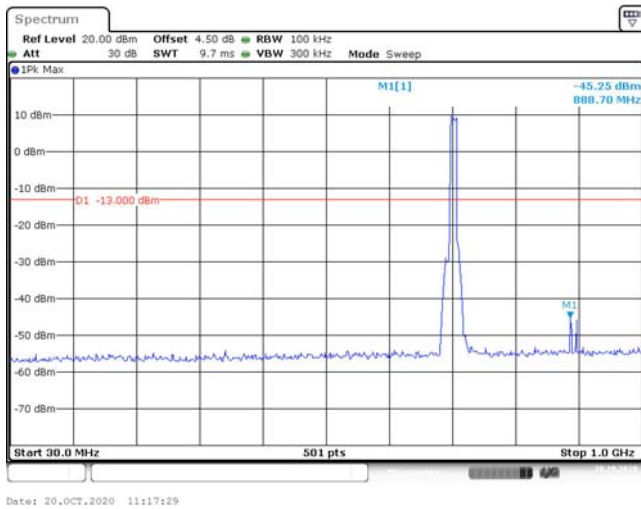


**LTE Band 17:****5M, QPSK, Low Channel****5M, QPSK, Middle Channel****5M, QPSK, High Channel**

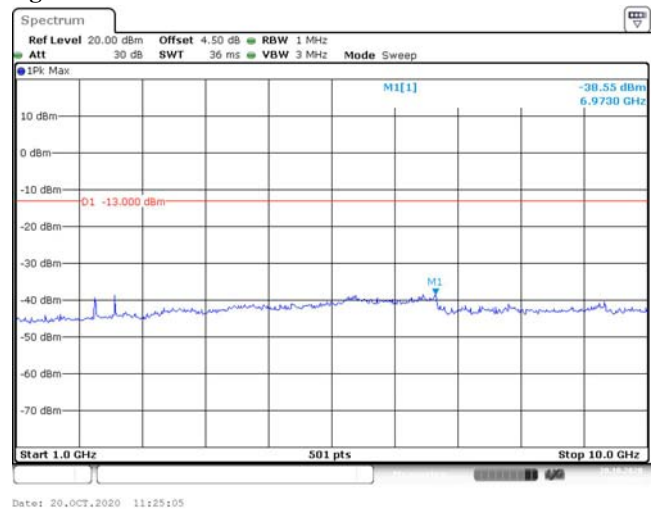
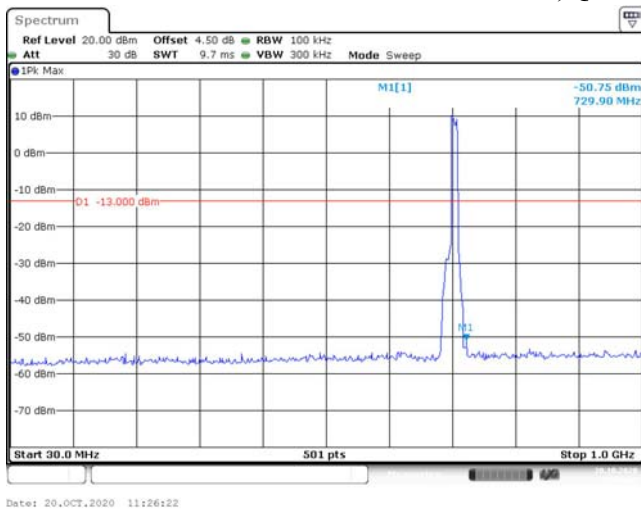
### 10M, QPSK, Low Channel

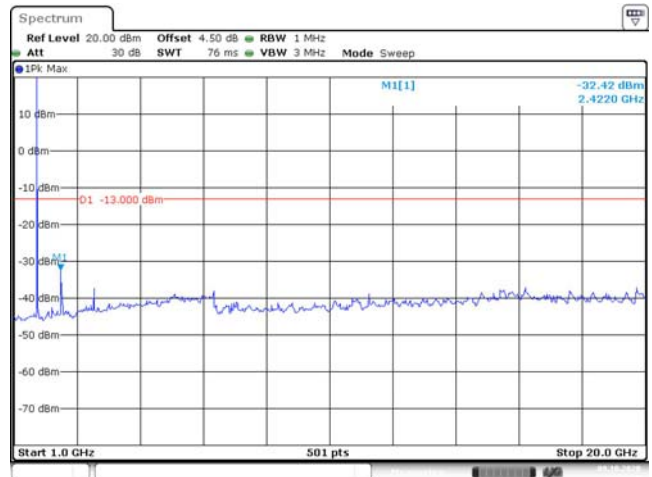
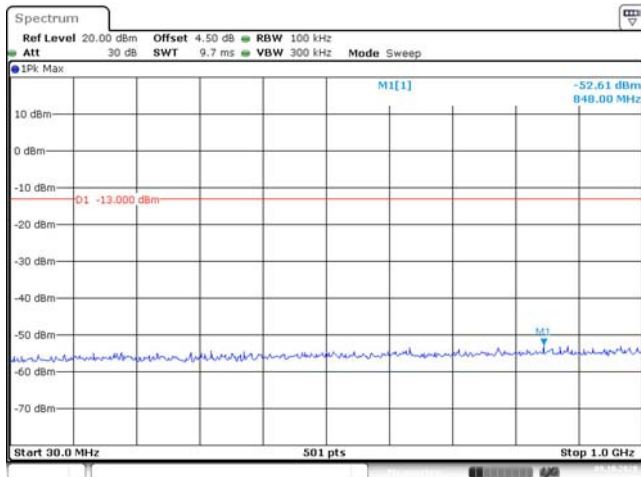
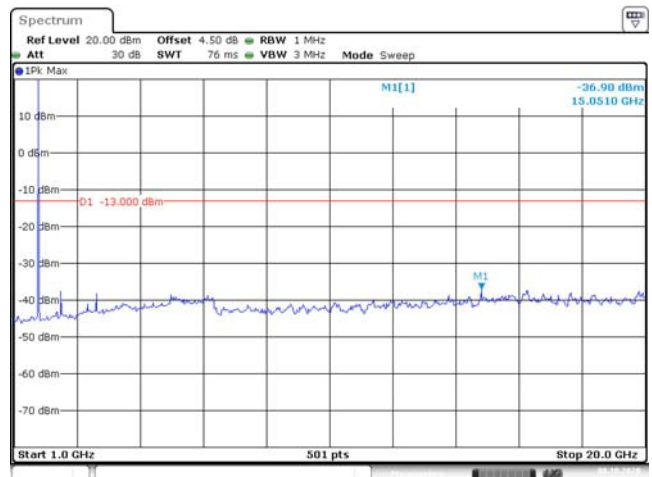
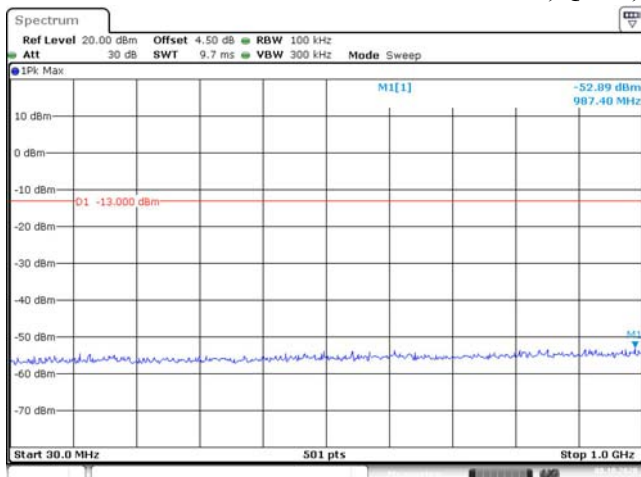
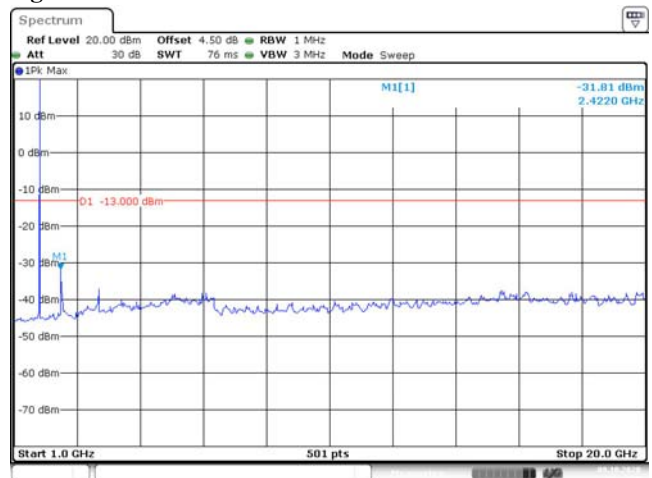
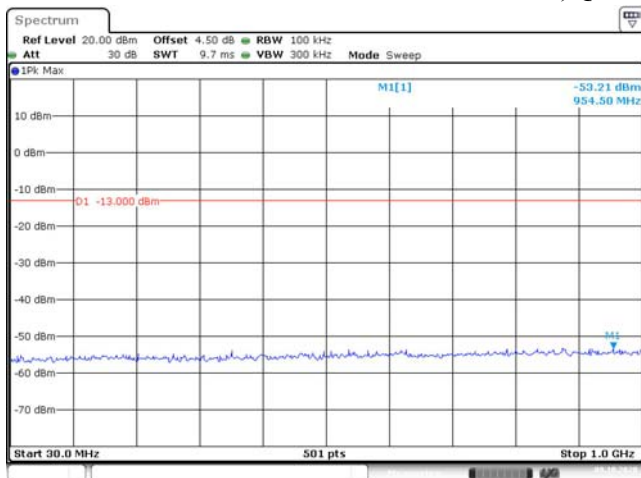


### 10M, QPSK, Middle Channel

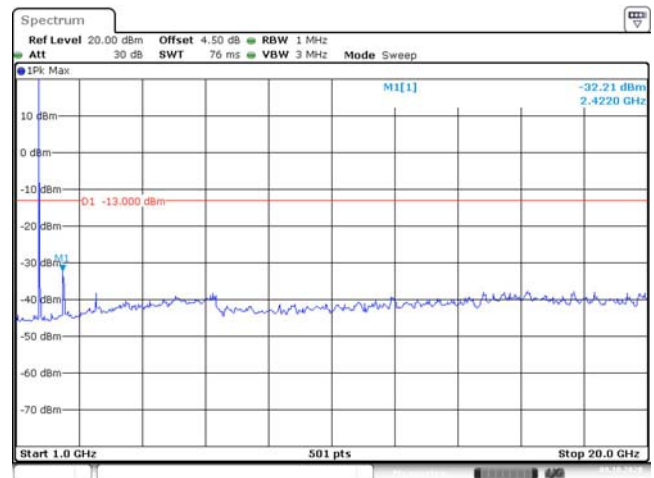
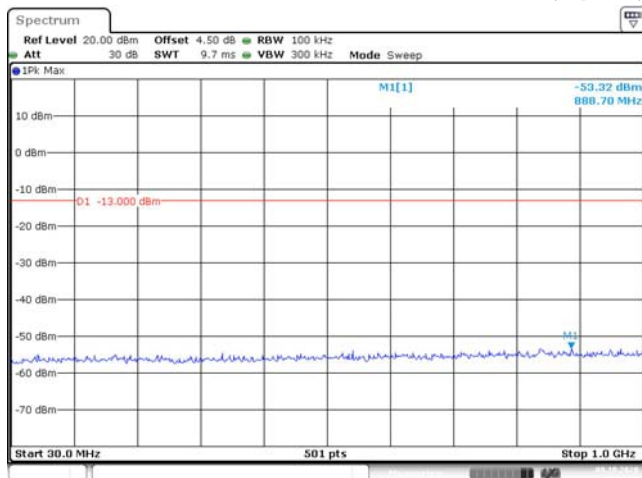


### 10M, QPSK, High Channel

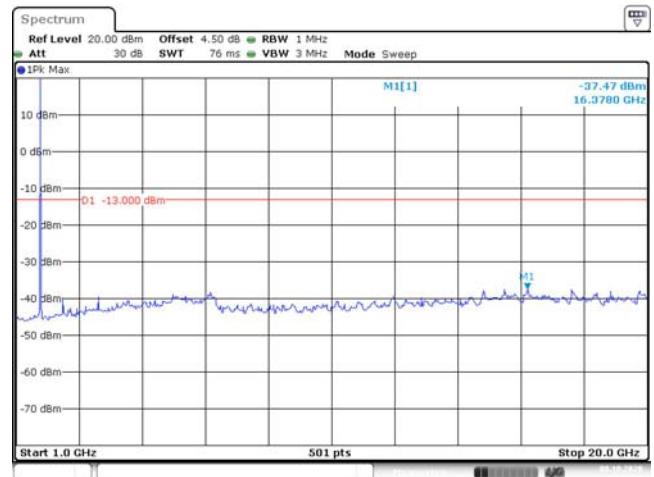
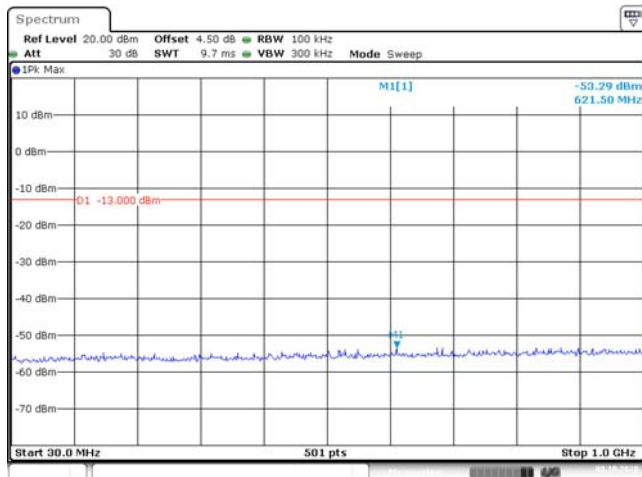


**LTE Band 66:****1.4M, QPSK, Low Channel****1.4M, QPSK, Middle Channel****1.4M, QPSK, High Channel**

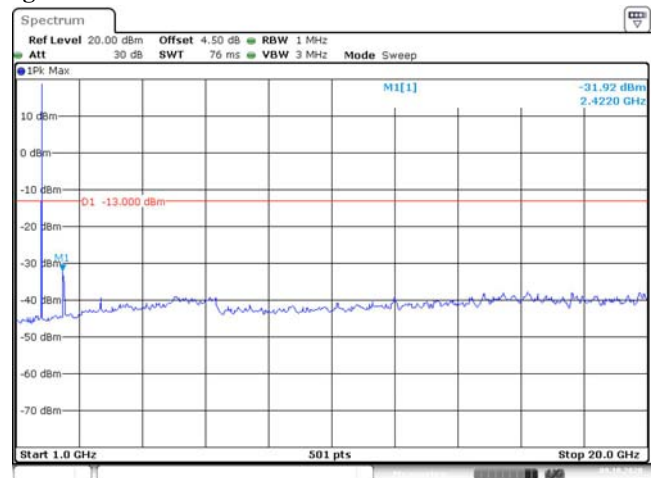
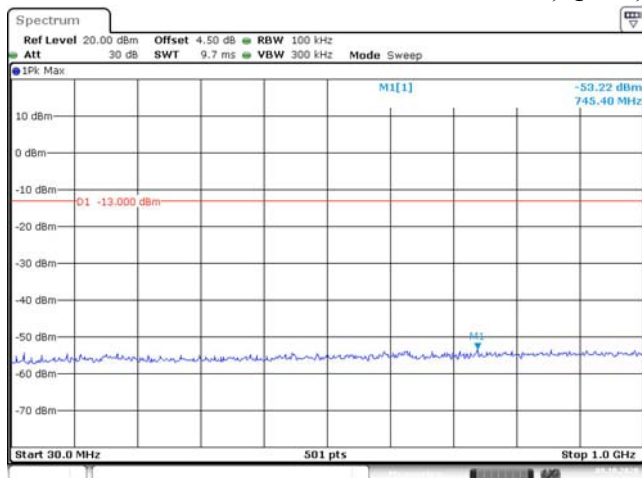
## 3M, QPSK, Low Channel



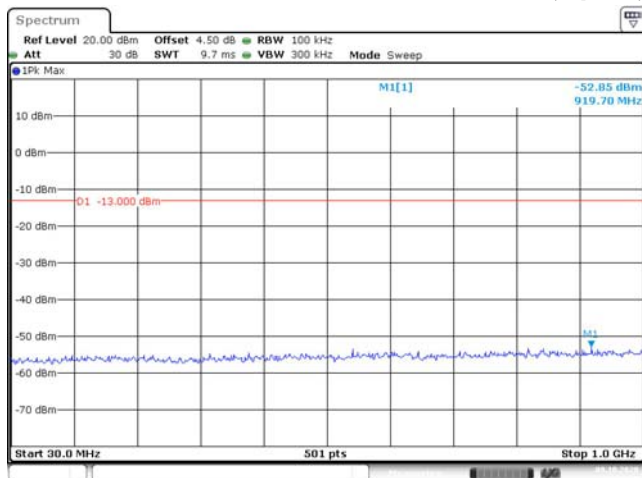
## 3M, QPSK, Middle Channel



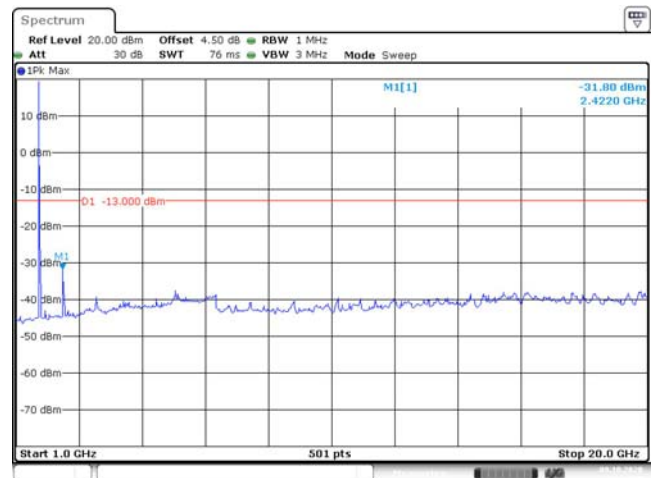
## 3M, QPSK, High Channel



## 5M, QPSK, Low Channel

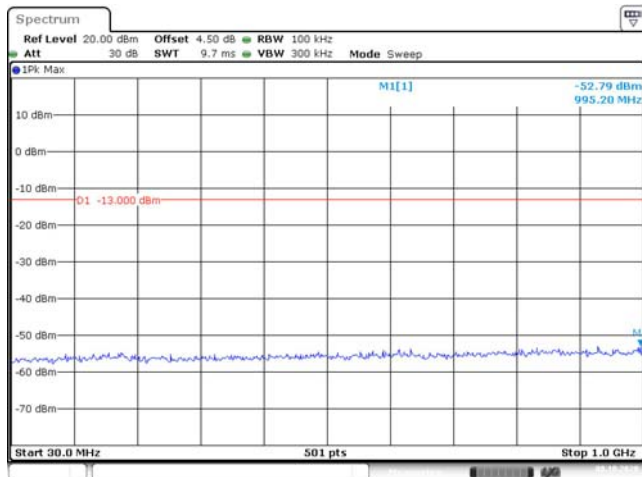


Date: 9.OCT.2020 14:31:54

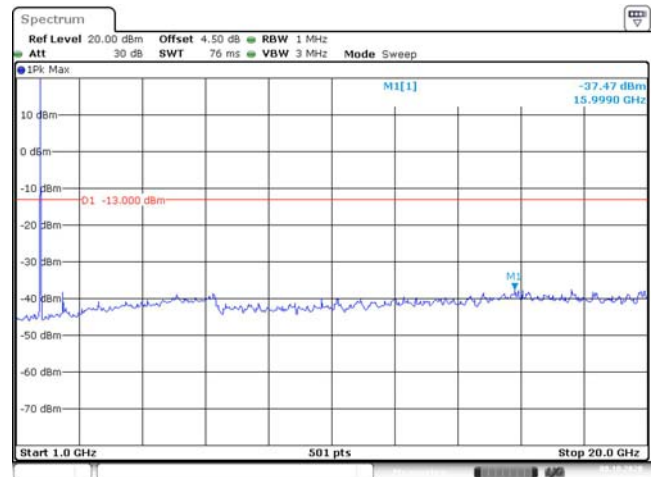


Date: 9.OCT.2020 14:32:19

## 5M, QPSK, Middle Channel

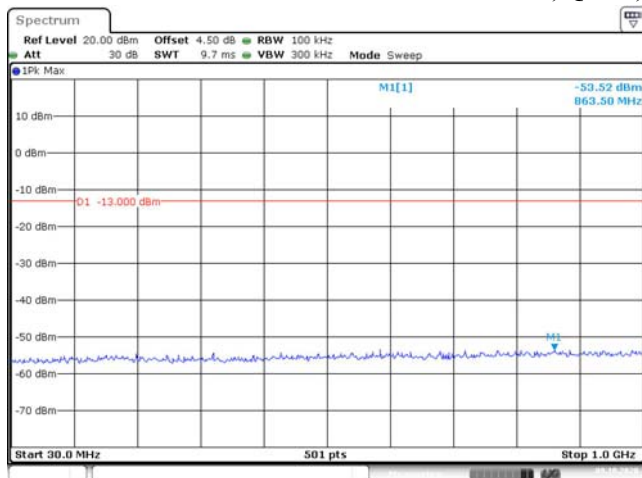


Date: 8.OCT.2020 17:54:22

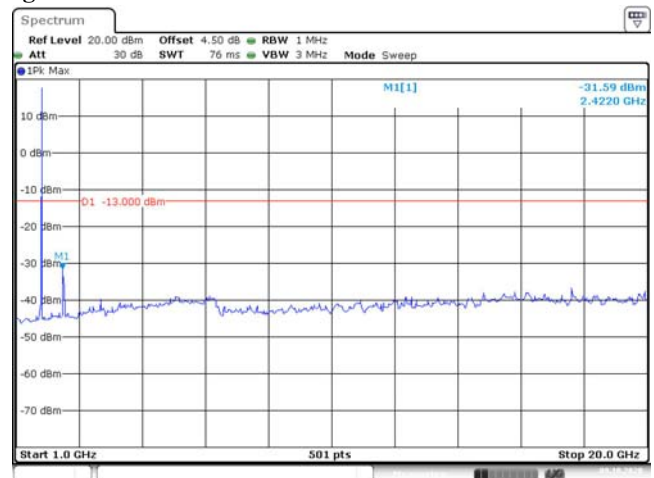


Date: 8.OCT.2020 17:54:44

## 5M, QPSK, High Channel

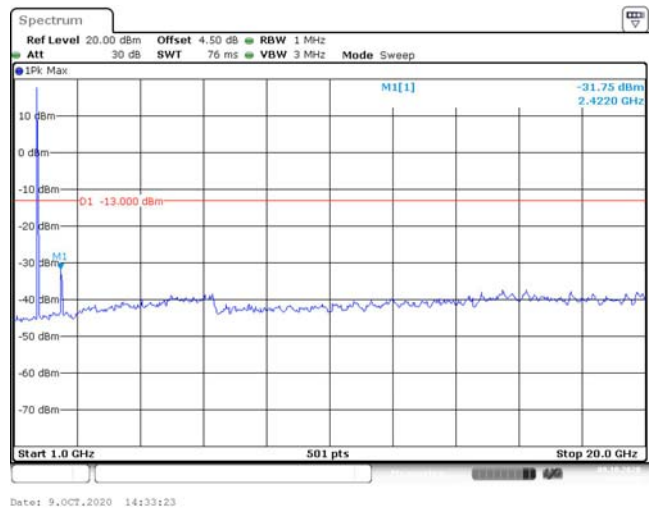
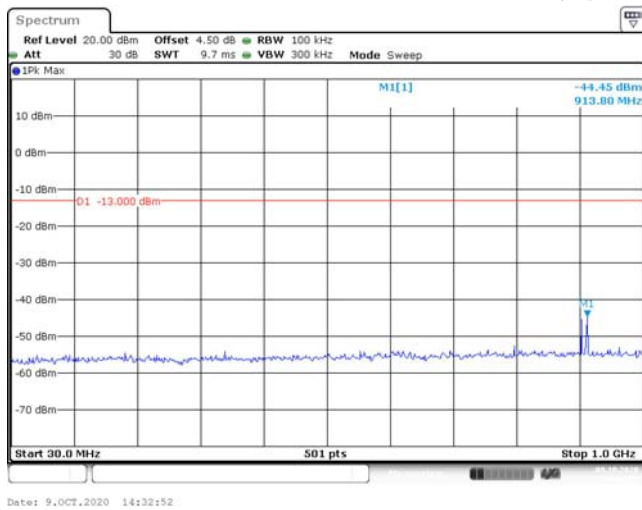


Date: 9.OCT.2020 15:19:17

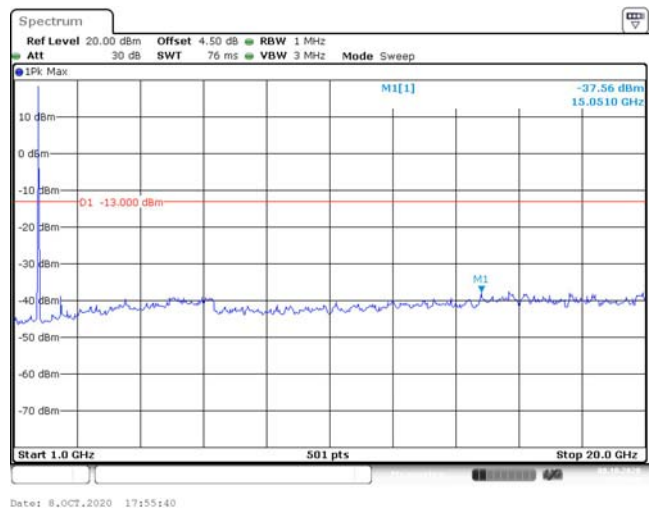
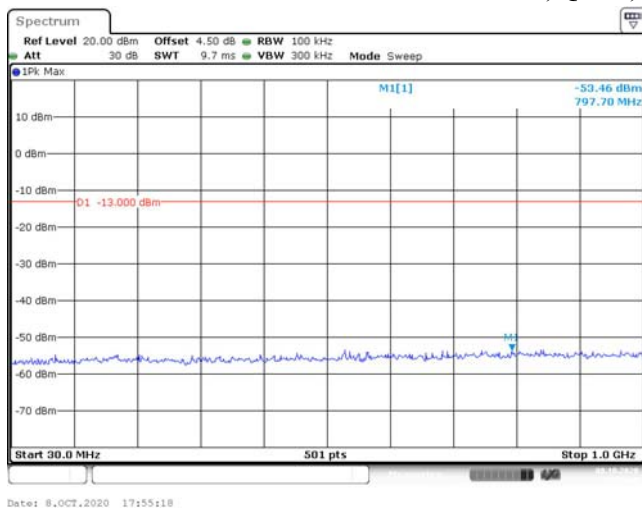


Date: 9.OCT.2020 15:19:43

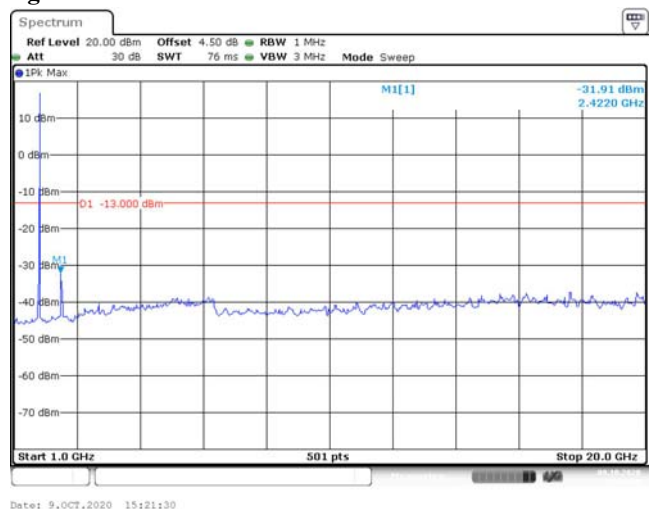
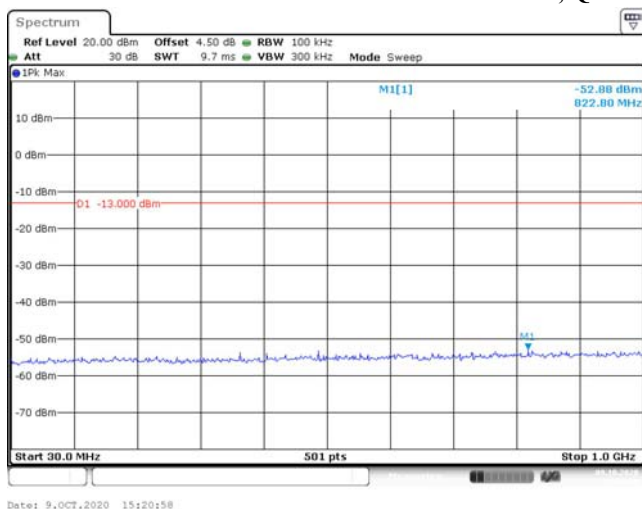
## 10M, QPSK, Low Channel



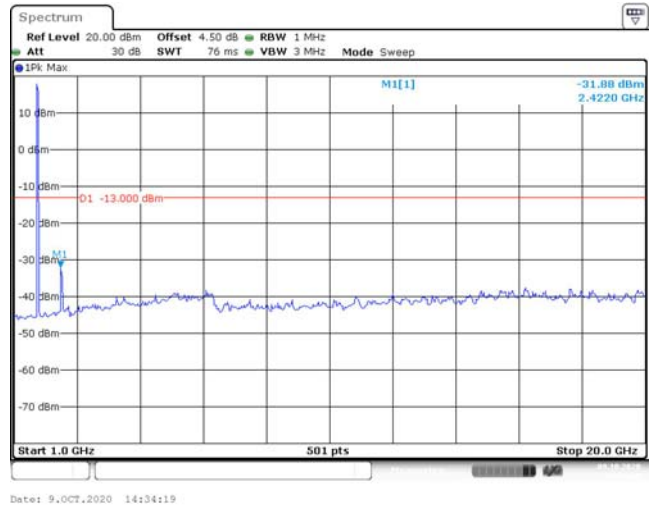
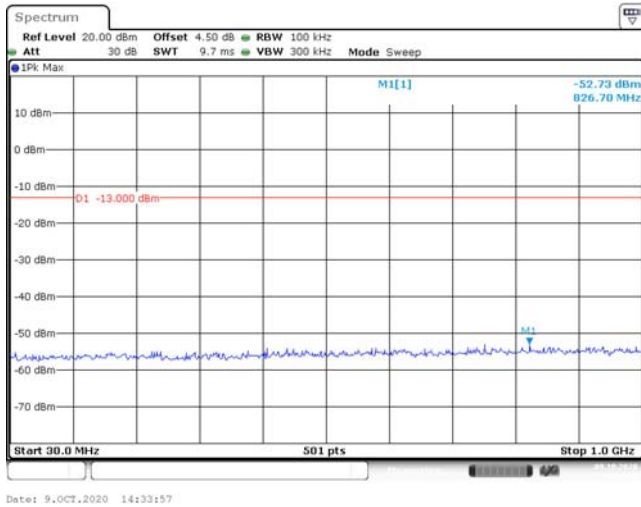
## 10M, QPSK, Middle Channel



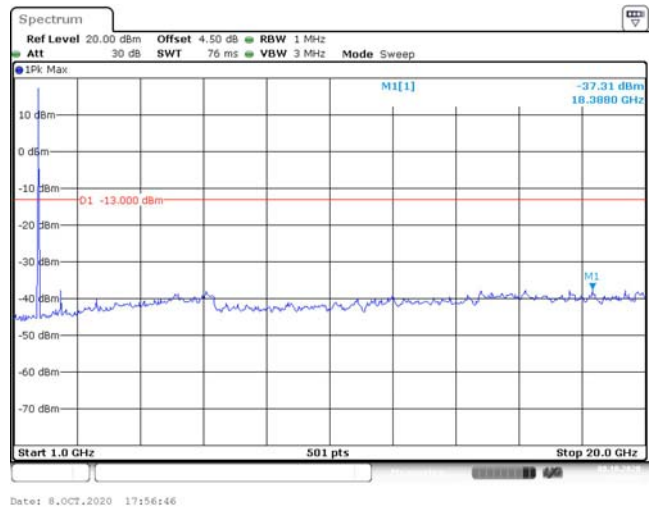
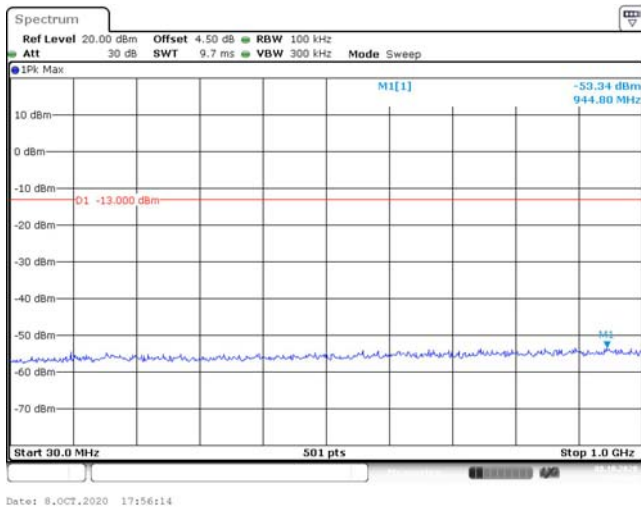
## 10M, QPSK, High Channel



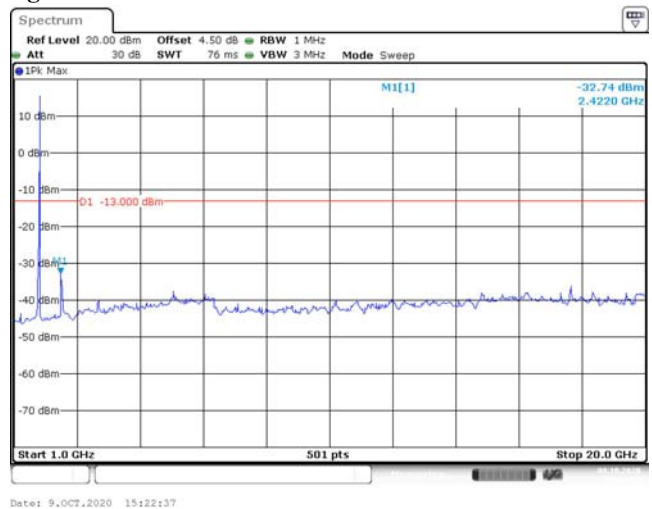
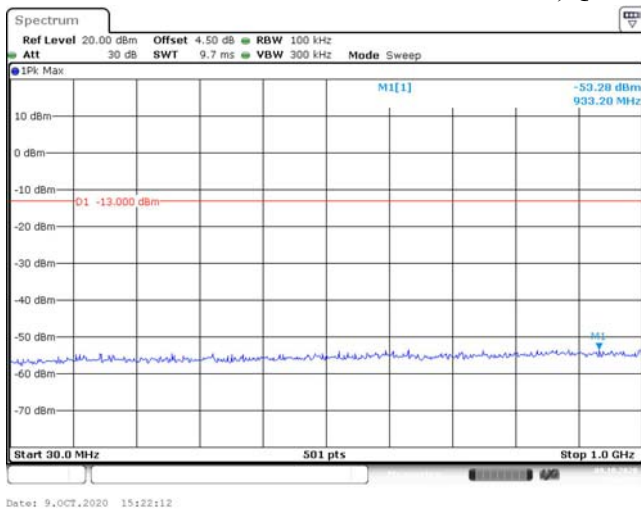
## 15M, QPSK, Low Channel



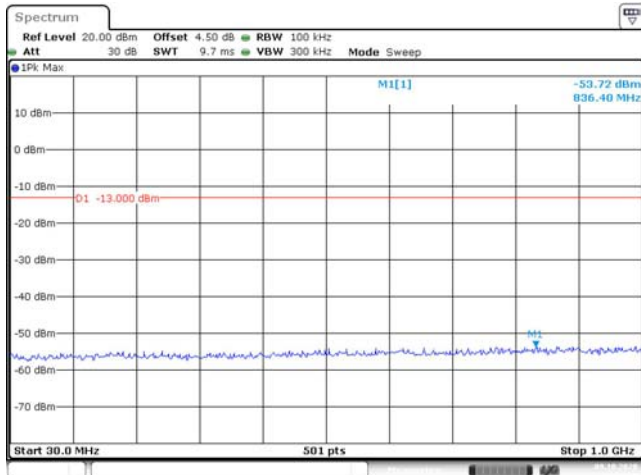
## 15M, QPSK, Middle Channel



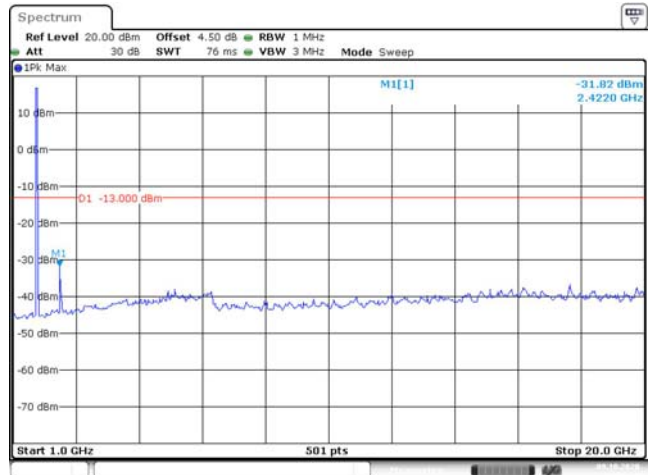
## 15M, QPSK, High Channel



## 20M, QPSK, Low Channel

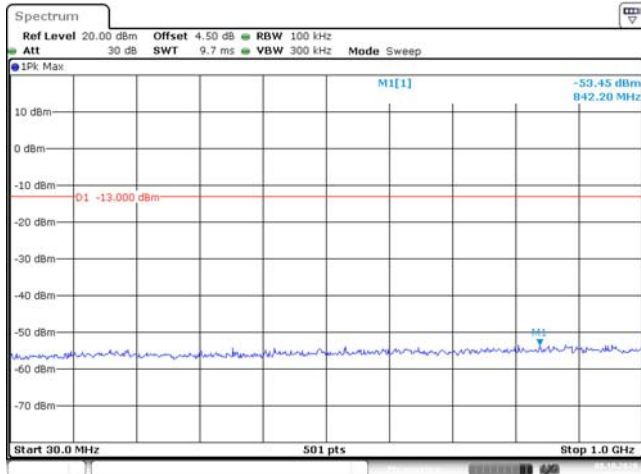


Date: 9.OCT.2020 14:34:59

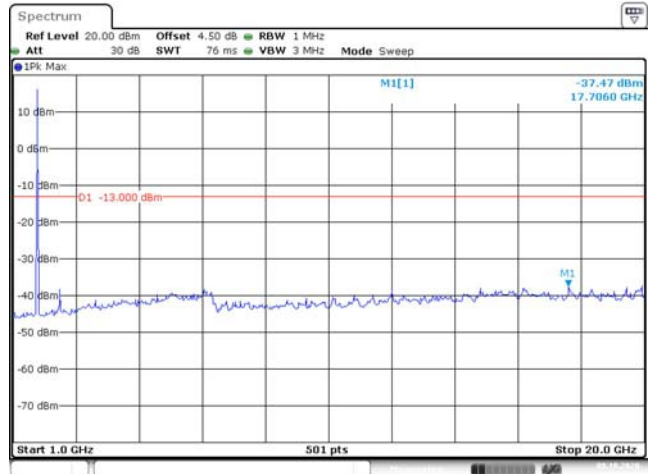


Date: 9.OCT.2020 14:35:27

## 20M, QPSK, Middle Channel

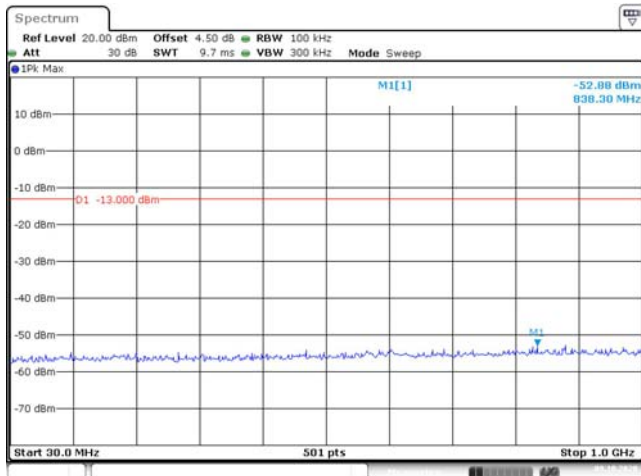


Date: 8.OCT.2020 17:57:25

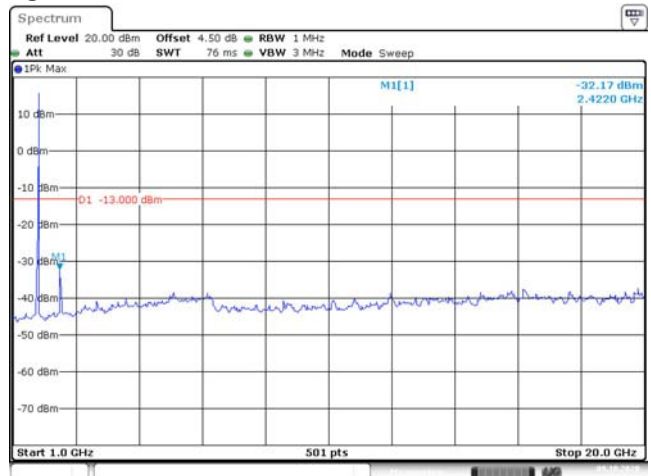


Date: 8.OCT.2020 17:57:47

## 20M, QPSK, High Channel



Date: 9.OCT.2020 15:23:11



Date: 9.OCT.2020 15:23:30

**FCC §2.1053, §22.917 & §24.238 & §27.53 - SPURIOUS RADIATED EMISSIONS**

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**Applicable Standard**

FCC § 2.1053, §22.917, § 24.238 and § 27.53

**Test Procedure**

The transmitter was placed on a wooden turntable, and it was transmitting into a non-radiating load which was also placed on the turntable.

The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis.

The frequency range up to tenth harmonic of the fundamental frequency was investigated.

Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution.

Spurious emissions in dB =  $10 \lg (\text{TXpwr in Watts}/0.001)$  – the absolute level

Spurious attenuation limit in dB =  $43 + 10 \text{Log}_{10} (\text{power out in Watts})$

**Test Equipment List and Details**

| Manufacturer            | Description               | Model                   | Serial Number   | Calibration Date | Calibration Due Date |
|-------------------------|---------------------------|-------------------------|-----------------|------------------|----------------------|
| Radiation Below 1G Test |                           |                         |                 |                  |                      |
| Sunol Sciences          | Antenna                   | JB3                     | A060611-1       | 2017-11-10       | 2020-11-10           |
| R&S                     | EMI Test Receiver         | ESR3                    | 102453          | 2020-09-12       | 2021-09-12           |
| Unknown                 | Coaxial Cable             | C-NJNJ-50               | C-0075-01       | 2020-09-05       | 2021-09-05           |
| Unknown                 | Coaxial Cable             | C-NJNJ-50               | C-0400-01       | 2020-09-05       | 2021-09-05           |
| Unknown                 | Coaxial Cable             | C-NJNJ-50               | C-1400-01       | 2020-05-06       | 2021-05-06           |
| HP                      | Amplifier                 | 8447D                   | 2727A05902      | 2020-09-05       | 2021-09-05           |
| EMCO                    | Adjustable Dipole Antenna | 3121C                   | 9109-753        | N/A              | N/A                  |
| Unknown                 | Coaxial Cable             | C-NJNJ-50               | C-0200-02       | 2020-09-05       | 2021-09-05           |
| Agilent                 | Signal Generator          | E8247C                  | MY43321350      | 2019-12-10       | 2020-12-10           |
| Radiation Above 1G Test |                           |                         |                 |                  |                      |
| Agilent                 | Spectrum Analyzer         | E4440A                  | SG43360054      | 2020-05-09       | 2021-05-09           |
| TDK RF                  | Horn Antenna              | HRN-0118                | 130 084         | 2018-10-12       | 2021-10-12           |
| ETS-Lindgren            | Horn Antenna              | 3115                    | 000 527 35      | 2018-10-12       | 2021-10-12           |
| Unknown                 | Coaxial Cable             | C-SJSJ-50               | C-0800-01       | 2020-09-05       | 2021-09-05           |
| Unknown                 | Coaxial Cable             | C-2.4J2.4J-50           | C-0700-02       | 2020-06-27       | 2021-06-27           |
| Mini-Circuit            | Amplifier                 | ZVA-213-S+              | 54201245        | 2020-09-05       | 2021-09-05           |
| Micro-tronics           | High Pass Filter          | HPM50111                | S/N-G217        | 2020-06-16       | 2021-06-16           |
| Agilent                 | Signal Generator          | E8247C                  | MY43321350      | 2019-12-10       | 2020-12-10           |
| Sinoscite               | Band-stop filter          | BSF1710-1785MN-0383-003 | 0383003         | 2020-06-16       | 2021-06-16           |
| Sinoscite               | Band-stop filter          | BSF1850-1910MS-0935V2   | 0935V2          | 2020-06-16       | 2021-06-16           |
| Ducommun Technologies   | Horn Antenna              | ARH-4223-02             | 1007726-01 1304 | 2017-12-06       | 2020-12-05           |
| Ducommun Technologies   | Horn Antenna              | ARH-4223-02             | 1007726-02 1304 | 2017-12-06       | 2020-12-05           |
| Quinstar                | Amplifier                 | QLW-18405536-JO         | 15964001001     | 2020-06-27       | 2021-06-27           |

\* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

**Test Data****Environmental Conditions**

| Test Items:        | Radiation Below 1GHz  | Radiation Above 1GHz  |
|--------------------|-----------------------|-----------------------|
| Temperature:       | 26.1~27.8°C           | 26.0~30.0°C           |
| Relative Humidity: | 35~46%                | 36~46%                |
| ATM Pressure:      | 100.6~101.2 kPa       | 100.6~101.2 kPa       |
| Tester:            | Jalon Liu, Hanson Li  | Joker Chen, Hanson Li |
| Test Date:         | 2020-09-19~2020-10-20 | 2020-09-19~2020-10-20 |

Test Result: Compliance.

EUT Operation Mode: Transmitting

**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) |                            |                |                |
| WCDMA Band 5 Frequency:826.4 MHz |                |                               |                               |                              |                    |                            |                |                |
| 1652.80                          | H              | 40.32                         | -64.08                        | 10.46                        | 1.28               | -54.90                     | -13.00         | 41.90          |
| 1652.80                          | V              | 40.10                         | -64.23                        | 10.46                        | 1.28               | -55.05                     | -13.00         | 42.05          |
| 2479.20                          | H              | 40.61                         | -62.23                        | 12.17                        | 1.24               | -51.30                     | -13.00         | 38.30          |
| 2479.20                          | V              | 40.22                         | -63.98                        | 12.17                        | 1.24               | -53.05                     | -13.00         | 40.05          |
| 3305.60                          | H              | 39.84                         | -61.43                        | 12.28                        | 1.57               | -50.72                     | -13.00         | 37.72          |
| 3305.60                          | V              | 38.45                         | -61.86                        | 12.28                        | 1.57               | -51.15                     | -13.00         | 38.15          |
| 651.20                           | H              | 50.82                         | -50.95                        | 0.00                         | 0.85               | -51.80                     | -13.00         | 38.80          |
| 748.00                           | V              | 50.30                         | -52.88                        | 0.00                         | 0.94               | -53.82                     | -13.00         | 40.82          |
| WCDMA Band 5 Frequency:836.6MHz  |                |                               |                               |                              |                    |                            |                |                |
| 1673.20                          | H              | 40.52                         | -63.86                        | 10.52                        | 1.27               | -54.61                     | -13.00         | 41.61          |
| 1673.20                          | V              | 40.37                         | -63.94                        | 10.52                        | 1.27               | -54.69                     | -13.00         | 41.69          |
| 2509.80                          | H              | 40.72                         | -62.05                        | 12.20                        | 1.25               | -51.10                     | -13.00         | 38.10          |
| 2509.80                          | V              | 40.02                         | -64.14                        | 12.20                        | 1.25               | -53.19                     | -13.00         | 40.19          |
| 3346.40                          | H              | 39.04                         | -62.15                        | 12.26                        | 1.58               | -51.47                     | -13.00         | 38.47          |
| 3346.40                          | V              | 38.84                         | -61.28                        | 12.26                        | 1.58               | -50.60                     | -13.00         | 37.60          |
| 624.50                           | H              | 50.75                         | -51.21                        | 0.00                         | 0.80               | -52.01                     | -13.00         | 39.01          |
| 784.50                           | V              | 50.75                         | -51.89                        | 0.00                         | 0.93               | -52.82                     | -13.00         | 39.82          |
| WCDMA Band 5 Frequency:846.6MHz  |                |                               |                               |                              |                    |                            |                |                |
| 1693.20                          | H              | 40.88                         | -63.48                        | 10.58                        | 1.26               | -54.16                     | -13.00         | 41.16          |
| 1693.20                          | V              | 40.72                         | -63.57                        | 10.58                        | 1.26               | -54.25                     | -13.00         | 41.25          |
| 2539.80                          | H              | 41.25                         | -61.46                        | 12.22                        | 1.26               | -50.50                     | -13.00         | 37.50          |
| 2539.80                          | V              | 41.08                         | -62.93                        | 12.22                        | 1.26               | -51.97                     | -13.00         | 38.97          |
| 3386.40                          | H              | 39.83                         | -61.28                        | 12.25                        | 1.59               | -50.62                     | -13.00         | 37.62          |
| 3386.40                          | V              | 38.76                         | -61.17                        | 12.25                        | 1.59               | -50.51                     | -13.00         | 37.51          |
| 639.90                           | H              | 50.62                         | -51.23                        | 0.00                         | 0.83               | -52.06                     | -13.00         | 39.06          |
| 729.80                           | V              | 50.60                         | -52.86                        | 0.00                         | 0.94               | -53.80                     | -13.00         | 40.80          |

**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) |                            |                |                |
| WCDMA Band II, Frequency:1852.4 MHz |                |                               |                               |                              |                    |                            |                |                |
| 3704.80                             | H              | 40.12                         | -60.24                        | 12.24                        | 1.54               | -49.54                     | -13.00         | 36.54          |
| 3704.80                             | V              | 38.63                         | -61.17                        | 12.24                        | 1.54               | -50.47                     | -13.00         | 37.47          |
| 5557.20                             | H              | 37.74                         | -57.71                        | 12.88                        | 1.26               | -46.09                     | -13.00         | 33.09          |
| 5557.20                             | V              | 36.22                         | -59.62                        | 12.88                        | 1.26               | -48.00                     | -13.00         | 35.00          |
| 689.90                              | H              | 58.65                         | -42.85                        | 0.00                         | 0.92               | -43.77                     | -13.00         | 30.77          |
| 700.30                              | V              | 58.67                         | -45.23                        | 0.00                         | 0.94               | -46.17                     | -13.00         | 33.17          |
| WCDMA Band II, Frequency:1880 MHz   |                |                               |                               |                              |                    |                            |                |                |
| 3760.00                             | H              | 44.31                         | -55.90                        | 12.25                        | 1.53               | -45.18                     | -13.00         | 32.18          |
| 3760.00                             | V              | 43.58                         | -56.33                        | 12.25                        | 1.53               | -45.61                     | -13.00         | 32.61          |
| 5640.00                             | H              | 38.63                         | -56.67                        | 13.00                        | 1.28               | -44.95                     | -13.00         | 31.95          |
| 5640.00                             | V              | 37.21                         | -58.40                        | 13.00                        | 1.28               | -46.68                     | -13.00         | 33.68          |
| 707.30                              | H              | 59.93                         | -41.30                        | 0.00                         | 0.94               | -42.24                     | -13.00         | 29.24          |
| 707.30                              | V              | 58.78                         | -45.01                        | 0.00                         | 0.94               | -45.95                     | -13.00         | 32.95          |
| WCDMA Band II, Frequency:1907.6MHz  |                |                               |                               |                              |                    |                            |                |                |
| 3815.20                             | H              | 43.51                         | -56.55                        | 12.26                        | 1.51               | -45.80                     | -13.00         | 32.80          |
| 3815.20                             | V              | 42.76                         | -57.26                        | 12.26                        | 1.51               | -46.51                     | -13.00         | 33.51          |
| 5722.80                             | H              | 37.44                         | -57.71                        | 13.11                        | 1.31               | -45.91                     | -13.00         | 32.91          |
| 5722.80                             | V              | 36.43                         | -58.94                        | 13.11                        | 1.31               | -47.14                     | -13.00         | 34.14          |
| 712.90                              | H              | 62.24                         | -38.83                        | 0.00                         | 0.94               | -39.77                     | -13.00         | 26.77          |
| 712.90                              | V              | 60.44                         | -43.27                        | 0.00                         | 0.94               | -44.21                     | -13.00         | 31.21          |

**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 |                |                               |                               |                              |                    |                            |                |                |
| 3424.80                             | H              | 39.66                         | -61.38                        | 12.23                        | 1.59               | -50.74                     | -13.00         | 37.74          |
| 3424.80                             | V              | 38.21                         | -61.54                        | 12.23                        | 1.59               | -50.90                     | -13.00         | 37.90          |
| 5137.20                             | H              | 36.14                         | -60.05                        | 12.95                        | 1.39               | -48.49                     | -13.00         | 35.49          |
| 5137.20                             | V              | 37.95                         | -58.12                        | 12.95                        | 1.39               | -46.56                     | -13.00         | 33.56          |
| 734.00                              | H              | 52.01                         | -48.47                        | 0.00                         | 0.94               | -49.41                     | -13.00         | 36.41          |
| 734.00                              | V              | 55.65                         | -47.74                        | 0.00                         | 0.94               | -48.68                     | -13.00         | 35.68          |
| WCDMA Band IV, Frequency:1732.6MHz  |                |                               |                               |                              |                    |                            |                |                |
| 3465.20                             | H              | 40.35                         | -60.62                        | 12.21                        | 1.60               | -50.01                     | -13.00         | 37.01          |
| 3465.20                             | V              | 38.68                         | -60.88                        | 12.21                        | 1.60               | -50.27                     | -13.00         | 37.27          |
| 5197.80                             | H              | 36.82                         | -59.26                        | 12.92                        | 1.36               | -47.70                     | -13.00         | 34.70          |
| 5197.80                             | V              | 38.23                         | -57.82                        | 12.92                        | 1.36               | -46.26                     | -13.00         | 33.26          |
| 736.80                              | H              | 51.26                         | -49.15                        | 0.00                         | 0.94               | -50.09                     | -13.00         | 37.09          |
| 238.50                              | V              | 59.12                         | -53.04                        | 0.00                         | 0.50               | -53.54                     | -13.00         | 40.54          |
| WCDMA Band IV, Frequency:1752.6MHz  |                |                               |                               |                              |                    |                            |                |                |
| 3505.20                             | H              | 40.63                         | -60.26                        | 12.20                        | 1.61               | -49.67                     | -13.00         | 36.67          |
| 3505.20                             | V              | 39.24                         | -60.17                        | 12.20                        | 1.61               | -49.58                     | -13.00         | 36.58          |
| 5257.80                             | H              | 37.06                         | -58.92                        | 12.90                        | 1.34               | -47.36                     | -13.00         | 34.36          |
| 5257.80                             | V              | 38.49                         | -57.55                        | 12.90                        | 1.34               | -45.99                     | -13.00         | 32.99          |
| 753.60                              | H              | 50.67                         | -49.27                        | 0.00                         | 0.93               | -50.20                     | -13.00         | 37.20          |
| 37.70                               | V              | 62.24                         | -21.85                        | -25.30                       | 0.22               | -47.37                     | -13.00         | 34.37          |

**LTE Band 2 (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:1850.7 MHz |                |                               |                               |                              |                    |                            |                |                |
| 3701.40                   | H              | 39.12                         | -61.24                        | 12.24                        | 1.55               | -50.55                     | -13.00         | 37.55          |
| 3701.40                   | V              | 39.36                         | -60.43                        | 12.24                        | 1.55               | -49.74                     | -13.00         | 36.74          |
| 5552.10                   | H              | 35.45                         | -60.01                        | 12.87                        | 1.26               | -48.40                     | -13.00         | 35.40          |
| 5552.10                   | V              | 35.51                         | -60.34                        | 12.87                        | 1.26               | -48.73                     | -13.00         | 35.73          |
| 582.40                    | H              | 35.81                         | -66.69                        | 0.00                         | 0.75               | -67.44                     | -13.00         | 54.44          |
| 61.60                     | V              | 37.96                         | -70.44                        | -9.45                        | 0.23               | -80.12                     | -13.00         | 67.12          |
| QPSK,Frequency:1880 MHz   |                |                               |                               |                              |                    |                            |                |                |
| 3760.00                   | H              | 39.19                         | -61.02                        | 12.25                        | 1.53               | -50.30                     | -13.00         | 37.30          |
| 3760.00                   | V              | 39.56                         | -60.35                        | 12.25                        | 1.53               | -49.63                     | -13.00         | 36.63          |
| 5640.00                   | H              | 35.95                         | -59.35                        | 13.00                        | 1.28               | -47.63                     | -13.00         | 34.63          |
| 5640.00                   | V              | 35.99                         | -59.62                        | 13.00                        | 1.28               | -47.90                     | -13.00         | 34.90          |
| 708.70                    | H              | 35.91                         | -65.28                        | 0.00                         | 0.94               | -66.22                     | -13.00         | 53.22          |
| 51.80                     | V              | 38.02                         | -64.45                        | -14.07                       | 0.21               | -78.73                     | -13.00         | 65.73          |
| QPSK,Frequency:1909.3 MHz |                |                               |                               |                              |                    |                            |                |                |
| 3818.60                   | H              | 39.58                         | -60.47                        | 12.26                        | 1.51               | -49.72                     | -13.00         | 36.72          |
| 3818.60                   | V              | 39.87                         | -60.15                        | 12.26                        | 1.51               | -49.40                     | -13.00         | 36.40          |
| 5727.90                   | H              | 35.98                         | -59.16                        | 13.12                        | 1.31               | -47.35                     | -13.00         | 34.35          |
| 5727.90                   | V              | 36.03                         | -59.33                        | 13.12                        | 1.31               | -47.52                     | -13.00         | 34.52          |
| 728.40                    | H              | 36.54                         | -64.10                        | 0.00                         | 0.94               | -65.04                     | -13.00         | 52.04          |
| 102.30                    | V              | 38.25                         | -74.45                        | 0.00                         | 0.27               | -74.72                     | -13.00         | 61.72          |

**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 |                |                               |                               |                              |                    |                            |                |                |
| 3421.40                   | H              | 37.08                         | -63.97                        | 12.23                        | 1.59               | -53.33                     | -13.00         | 40.33          |
| 3421.40                   | V              | 37.17                         | -62.60                        | 12.23                        | 1.59               | -51.96                     | -13.00         | 38.96          |
| 5132.10                   | H              | 36.01                         | -60.19                        | 12.95                        | 1.39               | -48.63                     | -13.00         | 35.63          |
| 5132.10                   | V              | 36.23                         | -59.84                        | 12.95                        | 1.39               | -48.28                     | -13.00         | 35.28          |
| 708.70                    | H              | 35.21                         | -65.98                        | 0.00                         | 0.94               | -66.92                     | -13.00         | 53.92          |
| 40.50                     | V              | 36.87                         | -50.80                        | -25.74                       | 0.21               | -76.75                     | -13.00         | 63.75          |
| QPSK,Frequency:1732.5 MHz |                |                               |                               |                              |                    |                            |                |                |
| 3465.00                   | H              | 37.13                         | -63.84                        | 12.21                        | 1.60               | -53.23                     | -13.00         | 40.23          |
| 3465.00                   | V              | 37.22                         | -62.34                        | 12.21                        | 1.60               | -51.73                     | -13.00         | 38.73          |
| 5197.50                   | H              | 36.04                         | -60.04                        | 12.92                        | 1.36               | -48.48                     | -13.00         | 35.48          |
| 5197.50                   | V              | 36.44                         | -59.61                        | 12.92                        | 1.36               | -48.05                     | -13.00         | 35.05          |
| 595.00                    | H              | 35.60                         | -66.64                        | 0.00                         | 0.76               | -67.40                     | -13.00         | 54.40          |
| 49.00                     | V              | 37.04                         | -62.71                        | -15.88                       | 0.21               | -78.80                     | -13.00         | 65.80          |
| QPSK,Frequency:1754.3 MHz |                |                               |                               |                              |                    |                            |                |                |
| 3508.60                   | H              | 37.45                         | -63.43                        | 12.20                        | 1.61               | -52.84                     | -13.00         | 39.84          |
| 3508.60                   | V              | 37.62                         | -61.80                        | 12.20                        | 1.61               | -51.21                     | -13.00         | 38.21          |
| 5262.90                   | H              | 36.29                         | -59.68                        | 12.89                        | 1.33               | -48.12                     | -13.00         | 35.12          |
| 5262.90                   | V              | 36.71                         | -59.33                        | 12.89                        | 1.33               | -47.77                     | -13.00         | 34.77          |
| 630.10                    | H              | 35.36                         | -66.56                        | 0.00                         | 0.81               | -67.37                     | -13.00         | 54.37          |
| 50.40                     | V              | 36.95                         | -64.68                        | -14.72                       | 0.21               | -79.61                     | -13.00         | 66.61          |

**LTE Band 5(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: 824.7 MHz |                |                               |                               |                              |                    |                            |                |                |
| 1649.40                    | H              | 41.45                         | -62.95                        | 10.45                        | 1.28               | -53.78                     | -13.00         | 40.78          |
| 1649.40                    | V              | 40.39                         | -63.95                        | 10.45                        | 1.28               | -54.78                     | -13.00         | 41.78          |
| 2474.10                    | H              | 40.22                         | -62.63                        | 12.16                        | 1.23               | -51.70                     | -13.00         | 38.70          |
| 2474.10                    | V              | 41.02                         | -63.18                        | 12.16                        | 1.23               | -52.25                     | -13.00         | 39.25          |
| 3298.80                    | H              | 39.14                         | -62.14                        | 12.28                        | 1.57               | -51.43                     | -13.00         | 38.43          |
| 3298.80                    | V              | 39.09                         | -61.25                        | 12.28                        | 1.57               | -50.54                     | -13.00         | 37.54          |
| 694.70                     | H              | 35.81                         | -65.66                        | 0.00                         | 0.93               | -66.59                     | -13.00         | 53.59          |
| 51.80                      | V              | 37.44                         | -65.03                        | -14.07                       | 0.21               | -79.31                     | -13.00         | 66.31          |
| QPSK, Frequency: 836.5 MHz |                |                               |                               |                              |                    |                            |                |                |
| 1673.00                    | H              | 41.50                         | -62.88                        | 10.52                        | 1.27               | -53.63                     | -13.00         | 40.63          |
| 1673.00                    | V              | 40.41                         | -63.90                        | 10.52                        | 1.27               | -54.65                     | -13.00         | 41.65          |
| 2509.50                    | H              | 40.37                         | -62.40                        | 12.20                        | 1.24               | -51.44                     | -13.00         | 38.44          |
| 2509.50                    | V              | 41.08                         | -63.08                        | 12.20                        | 1.24               | -52.12                     | -13.00         | 39.12          |
| 3346.00                    | H              | 39.21                         | -61.98                        | 12.26                        | 1.58               | -51.30                     | -13.00         | 38.30          |
| 3346.00                    | V              | 39.21                         | -60.91                        | 12.26                        | 1.58               | -50.23                     | -13.00         | 37.23          |
| 705.90                     | H              | 35.58                         | -65.69                        | 0.00                         | 0.94               | -66.63                     | -13.00         | 53.63          |
| 60.20                      | V              | 37.91                         | -69.61                        | -10.19                       | 0.23               | -80.03                     | -13.00         | 67.03          |
| QPSK, Frequency: 848.3 MHz |                |                               |                               |                              |                    |                            |                |                |
| 1696.60                    | H              | 41.56                         | -62.80                        | 10.59                        | 1.26               | -53.47                     | -13.00         | 40.47          |
| 1696.60                    | V              | 40.70                         | -63.59                        | 10.59                        | 1.26               | -54.26                     | -13.00         | 41.26          |
| 2544.90                    | H              | 40.48                         | -62.22                        | 12.22                        | 1.26               | -51.26                     | -13.00         | 38.26          |
| 2544.90                    | V              | 41.29                         | -62.70                        | 12.22                        | 1.26               | -51.74                     | -13.00         | 38.74          |
| 3393.20                    | H              | 39.60                         | -61.50                        | 12.24                        | 1.59               | -50.85                     | -13.00         | 37.85          |
| 3393.20                    | V              | 36.44                         | -63.46                        | 12.24                        | 1.59               | -52.81                     | -13.00         | 39.81          |
| 728.40                     | H              | 35.56                         | -65.08                        | 0.00                         | 0.94               | -66.02                     | -13.00         | 53.02          |
| 61.60                      | V              | 39.11                         | -69.29                        | -9.45                        | 0.23               | -78.97                     | -13.00         | 65.97          |

**LTE Band 12 (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: 699.7 MHz |                |                               |                               |                              |                    |                            |                |                |
| 1399.40                    | H              | 36.98                         | -66.79                        | 9.58                         | 1.23               | -58.44                     | -13.00         | 45.44          |
| 1399.40                    | V              | 37.04                         | -66.82                        | 9.58                         | 1.23               | -58.47                     | -13.00         | 45.47          |
| 2099.10                    | H              | 37.00                         | -66.79                        | 11.64                        | 1.15               | -56.30                     | -13.00         | 43.30          |
| 2099.10                    | V              | 37.62                         | -66.41                        | 11.64                        | 1.15               | -55.92                     | -13.00         | 42.92          |
| 2798.80                    | H              | 35.74                         | -66.48                        | 12.32                        | 1.40               | -55.56                     | -13.00         | 42.56          |
| 2798.80                    | V              | 35.22                         | -67.51                        | 12.32                        | 1.40               | -56.59                     | -13.00         | 43.59          |
| 647.00                     | H              | 31.55                         | -46.83                        | 0.00                         | 0.84               | -47.67                     | -13.00         | 34.67          |
| 366.20                     | V              | 31.00                         | -50.30                        | 0.00                         | 0.58               | -50.88                     | -13.00         | 37.88          |
| QPSK, Frequency: 707.5 MHz |                |                               |                               |                              |                    |                            |                |                |
| 1415.00                    | H              | 37.12                         | -66.77                        | 9.64                         | 1.25               | -58.38                     | -13.00         | 45.38          |
| 1415.00                    | V              | 37.14                         | -66.81                        | 9.64                         | 1.25               | -58.42                     | -13.00         | 45.42          |
| 2122.50                    | H              | 37.22                         | -66.51                        | 11.67                        | 1.16               | -56.00                     | -13.00         | 43.00          |
| 2122.50                    | V              | 37.88                         | -66.16                        | 11.67                        | 1.16               | -55.65                     | -13.00         | 42.65          |
| 2830.00                    | H              | 35.89                         | -66.27                        | 12.33                        | 1.41               | -55.35                     | -13.00         | 42.35          |
| 2830.00                    | V              | 35.24                         | -67.33                        | 12.33                        | 1.41               | -56.41                     | -13.00         | 43.41          |
| 725.60                     | H              | 35.66                         | -65.06                        | 0.00                         | 0.94               | -66.00                     | -13.00         | 53.00          |
| 689.10                     | V              | 35.28                         | -68.78                        | 0.00                         | 0.92               | -69.70                     | -13.00         | 56.70          |
| QPSK, Frequency: 715.3 MHz |                |                               |                               |                              |                    |                            |                |                |
| 1430.60                    | H              | 37.54                         | -66.47                        | 9.71                         | 1.27               | -58.03                     | -13.00         | 45.03          |
| 1430.60                    | V              | 37.66                         | -66.39                        | 9.71                         | 1.27               | -57.95                     | -13.00         | 44.95          |
| 2145.90                    | H              | 37.42                         | -66.26                        | 11.70                        | 1.16               | -55.72                     | -13.00         | 42.72          |
| 2145.90                    | V              | 37.92                         | -66.13                        | 11.70                        | 1.16               | -55.59                     | -13.00         | 42.59          |
| 2861.20                    | H              | 35.97                         | -66.13                        | 12.34                        | 1.43               | -55.22                     | -13.00         | 42.22          |
| 2861.20                    | V              | 35.64                         | -66.78                        | 12.34                        | 1.43               | -55.87                     | -13.00         | 42.87          |
| 536.10                     | H              | 35.52                         | -67.95                        | 0.00                         | 0.73               | -68.68                     | -13.00         | 55.68          |
| 442.00                     | V              | 35.57                         | -72.22                        | 0.00                         | 0.65               | -72.87                     | -13.00         | 59.87          |

**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 |                |                               |                               |                              |                    |                            |                |                |
| 1413.00                    | H              | 37.12                         | -66.75                        | 9.63                         | 1.24               | -58.36                     | -13.00         | 45.36          |
| 1413.00                    | V              | 37.10                         | -66.84                        | 9.63                         | 1.24               | -58.45                     | -13.00         | 45.45          |
| 2119.50                    | H              | 37.25                         | -66.49                        | 11.67                        | 1.16               | -55.98                     | -13.00         | 42.98          |
| 2119.50                    | V              | 37.74                         | -66.29                        | 11.67                        | 1.16               | -55.78                     | -13.00         | 42.78          |
| 2826.00                    | H              | 35.69                         | -66.48                        | 12.33                        | 1.41               | -55.56                     | -13.00         | 42.56          |
| 2826.00                    | V              | 35.14                         | -67.45                        | 12.33                        | 1.41               | -56.53                     | -13.00         | 43.53          |
| 532.60                     | H              | 35.29                         | -68.26                        | 0.00                         | 0.73               | -68.99                     | -13.00         | 55.99          |
| 476.32                     | V              | 35.42                         | -72.06                        | 0.00                         | 0.69               | -72.75                     | -13.00         | 59.75          |
| QPSK, Frequency: 710 MHz   |                |                               |                               |                              |                    |                            |                |                |
| 1420.00                    | H              | 37.05                         | -66.88                        | 9.66                         | 1.25               | -58.47                     | -13.00         | 45.47          |
| 1420.00                    | V              | 37.11                         | -66.88                        | 9.66                         | 1.25               | -58.47                     | -13.00         | 45.47          |
| 2130.00                    | H              | 37.26                         | -66.46                        | 11.68                        | 1.16               | -55.94                     | -13.00         | 42.94          |
| 2130.00                    | V              | 37.68                         | -66.36                        | 11.68                        | 1.16               | -55.84                     | -13.00         | 42.84          |
| 2840.00                    | H              | 35.62                         | -66.52                        | 12.34                        | 1.42               | -55.60                     | -13.00         | 42.60          |
| 2840.00                    | V              | 35.28                         | -67.24                        | 12.34                        | 1.42               | -56.32                     | -13.00         | 43.32          |
| 646.80                     | H              | 35.87                         | -65.93                        | 0.00                         | 0.84               | -66.77                     | -13.00         | 53.77          |
| 836.40                     | V              | 35.84                         | -65.38                        | 0.00                         | 0.97               | -66.35                     | -13.00         | 53.35          |
| QPSK, Frequency: 713.5 MHz |                |                               |                               |                              |                    |                            |                |                |
| 1427.00                    | H              | 37.02                         | -66.96                        | 9.69                         | 1.26               | -58.53                     | -13.00         | 45.53          |
| 1427.00                    | V              | 37.09                         | -66.94                        | 9.69                         | 1.26               | -58.51                     | -13.00         | 45.51          |
| 2140.50                    | H              | 37.23                         | -66.46                        | 11.70                        | 1.16               | -55.92                     | -13.00         | 42.92          |
| 2140.50                    | V              | 37.71                         | -66.33                        | 11.70                        | 1.16               | -55.79                     | -13.00         | 42.79          |
| 2854.00                    | H              | 35.59                         | -66.53                        | 12.34                        | 1.42               | -55.61                     | -13.00         | 42.61          |
| 2854.00                    | V              | 35.31                         | -67.14                        | 12.34                        | 1.42               | -56.22                     | -13.00         | 43.22          |
| 789.60                     | H              | 35.67                         | -63.27                        | 0.00                         | 0.93               | -64.20                     | -13.00         | 51.20          |
| 68.40                      | V              | 37.14                         | -75.55                        | -5.85                        | 0.24               | -81.64                     | -13.00         | 68.64          |

**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 |                |                               |                               |                              |                    |                            |                |                |
| 3421.40                    | H              | 37.46                         | -63.59                        | 12.23                        | 1.59               | -52.95                     | -13.00         | 39.95          |
| 3421.40                    | V              | 37.14                         | -62.63                        | 12.23                        | 1.59               | -51.99                     | -13.00         | 38.99          |
| 5132.10                    | H              | 36.20                         | -60.00                        | 12.95                        | 1.39               | -48.44                     | -13.00         | 35.44          |
| 5132.10                    | V              | 36.26                         | -59.81                        | 12.95                        | 1.39               | -48.25                     | -13.00         | 35.25          |
| 6842.80                    | H              | 36.83                         | -55.39                        | 13.62                        | 1.79               | -43.56                     | -13.00         | 30.56          |
| 6842.80                    | V              | 36.85                         | -55.50                        | 13.62                        | 1.79               | -43.67                     | -13.00         | 30.67          |
| 595.00                     | H              | 36.43                         | -65.81                        | 0.00                         | 0.76               | -66.57                     | -13.00         | 53.57          |
| 61.60                      | V              | 39.20                         | -69.20                        | -9.45                        | 0.23               | -78.88                     | -13.00         | 65.88          |
| QPSK,Frequency: 1745 MHz   |                |                               |                               |                              |                    |                            |                |                |
| 3490.00                    | H              | 37.54                         | -63.38                        | 12.20                        | 1.61               | -52.79                     | -13.00         | 39.79          |
| 3490.00                    | V              | 37.22                         | -62.23                        | 12.20                        | 1.61               | -51.64                     | -13.00         | 38.64          |
| 5235.00                    | H              | 36.27                         | -59.75                        | 12.91                        | 1.35               | -48.19                     | -13.00         | 35.19          |
| 5235.00                    | V              | 36.41                         | -59.64                        | 12.91                        | 1.35               | -48.08                     | -13.00         | 35.08          |
| 6980.00                    | H              | 36.71                         | -55.12                        | 13.43                        | 1.82               | -43.51                     | -13.00         | 30.51          |
| 6980.00                    | V              | 36.70                         | -55.32                        | 13.43                        | 1.82               | -43.71                     | -13.00         | 30.71          |
| 477.10                     | H              | 36.11                         | -68.25                        | 0.00                         | 0.69               | -68.94                     | -13.00         | 55.94          |
| 51.80                      | V              | 37.45                         | -65.02                        | -14.07                       | 0.21               | -79.30                     | -13.00         | 66.30          |
| QPSK,Frequency: 1779.3 MHz |                |                               |                               |                              |                    |                            |                |                |
| 3558.60                    | H              | 37.69                         | -63.05                        | 12.21                        | 1.59               | -52.43                     | -13.00         | 39.43          |
| 3558.60                    | V              | 37.56                         | -61.95                        | 12.21                        | 1.59               | -51.33                     | -13.00         | 38.33          |
| 5337.90                    | H              | 36.40                         | -59.44                        | 12.86                        | 1.30               | -47.88                     | -13.00         | 34.88          |
| 5337.90                    | V              | 36.71                         | -59.32                        | 12.86                        | 1.30               | -47.76                     | -13.00         | 34.76          |
| 7117.20                    | H              | 36.85                         | -54.87                        | 13.26                        | 1.71               | -43.32                     | -13.00         | 30.32          |
| 7117.20                    | V              | 36.93                         | -55.11                        | 13.26                        | 1.71               | -43.56                     | -13.00         | 30.56          |
| 602.00                     | H              | 36.39                         | -65.73                        | 0.00                         | 0.76               | -66.49                     | -13.00         | 53.49          |
| 49.00                      | V              | 37.61                         | -62.14                        | -15.88                       | 0.21               | -78.23                     | -13.00         | 65.23          |

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

## FCC §22.917(a) & §24.238(a) & §27.53 - BAND EDGES

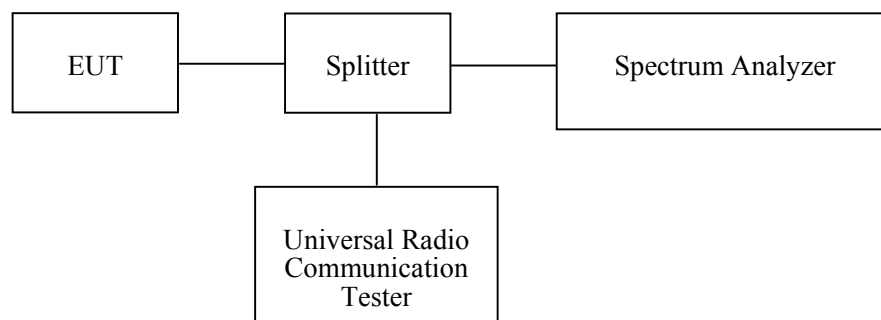
### Applicable Standard

FCC § 2.1053, §22.917, § 24.238 and § 27.53

### Test Procedure

The RF output of the transmitter was connected to the input of the spectrum analyzer through sufficient attenuation.

The center of the spectrum analyzer was set to block edge frequency.



### Test Equipment List and Details

| Manufacturer | Description       | Model         | Serial Number | Calibration Date | Calibration Due Date |
|--------------|-------------------|---------------|---------------|------------------|----------------------|
| R&S          | Spectrum Analyzer | FSU 26        | 200256        | 2020-05-09       | 2021-05-09           |
| R&S          | Spectrum Analyzer | FSV40         | 101474        | 2020-07-07       | 2021-07-07           |
| yzjingcheng  | Coaxial Cable     | KTRFBU-141-50 | 41005011      | Each time        | /                    |
| yzjingcheng  | Coaxial Cable     | KTRFBU-141-50 | 41002201      | Each Time        | /                    |
| E-Microwave  | Two-way Splitter  | ODP-1-6-2S    | OE0120142     | Each Time        | /                    |

\* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

### Test Data

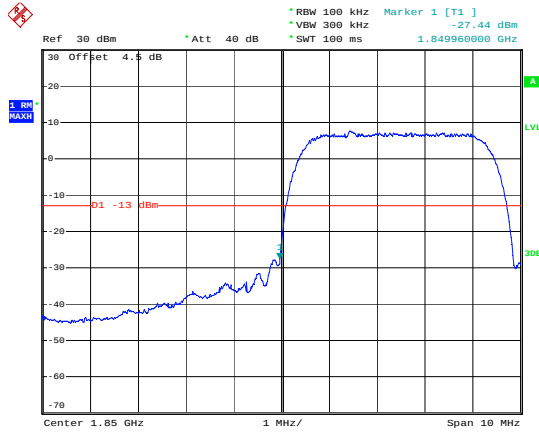
#### Environmental Conditions

|                    |                       |
|--------------------|-----------------------|
| Temperature:       | 25.3~28.0°C           |
| Relative Humidity: | 49~55%                |
| ATM Pressure:      | 100.9~101.0 kPa       |
| Tester:            | Chris Mo, Billy Li    |
| Test Date:         | 2020-09-22~2020-10-20 |

Test Mode: Transmitting

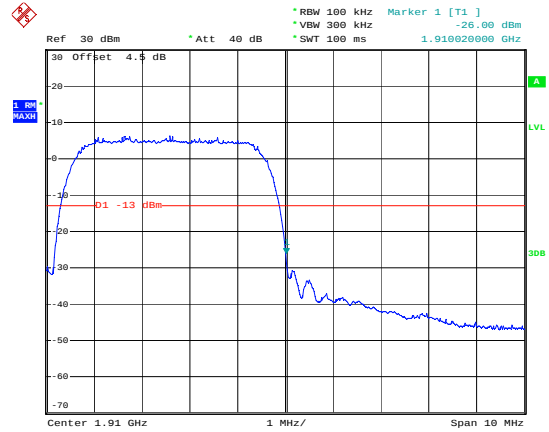
Test Result: Compliance. Please refer to the following plots.

### WCDMA Band II,Rel99, Left Band Edge



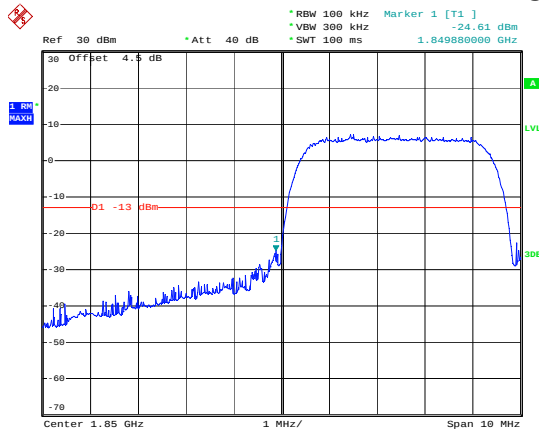
Date: 22.SEP.2020 10:09:31

### WCDMA Band II,Rel99, Right Band Edge



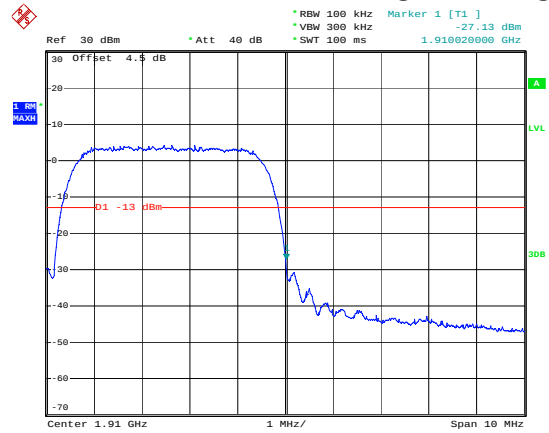
Date: 22.SEP.2020 10:10:15

### WCDMA Band II,HSDPA, Left Band Edge



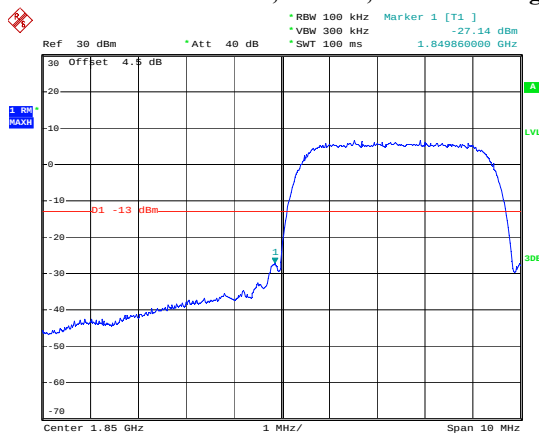
Date: 22.SEP.2020 09:57:30

### WCDMA Band II,HSDPA,Right Band Edge



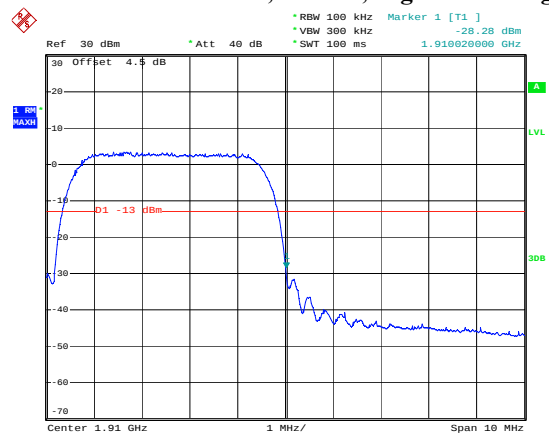
Date: 22.SEP.2020 09:58:22

### WCDMA Band II,HSUPA, Left Band Edge



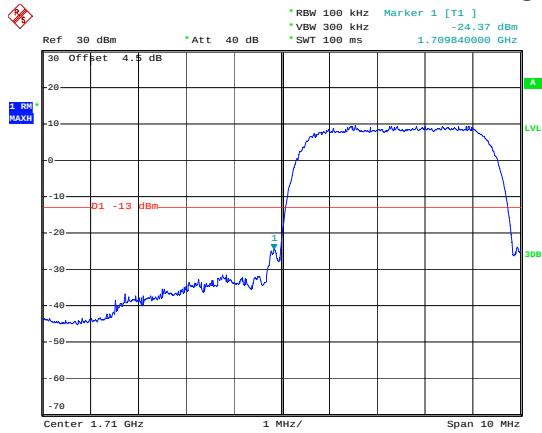
Date: 22.SEP.2020 11:07:15

### WCDMA Band II,HSUPA, Right Band Edge



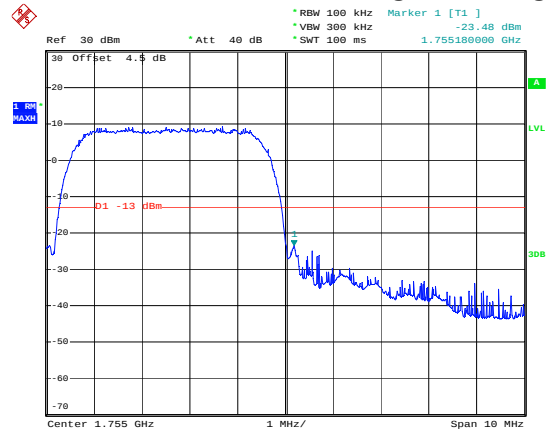
Date: 22.SEP.2020 11:06:24

## WCDMA Band IV, Rel99, Left Band Edge



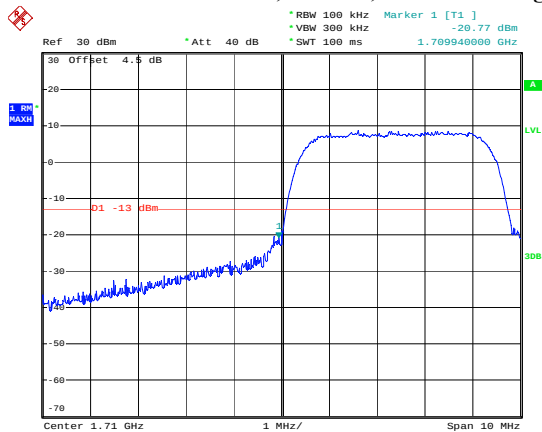
Date: 22.SEP.2020 10:11:24

## WCDMA Band IV, Rel99, Right Band Edge



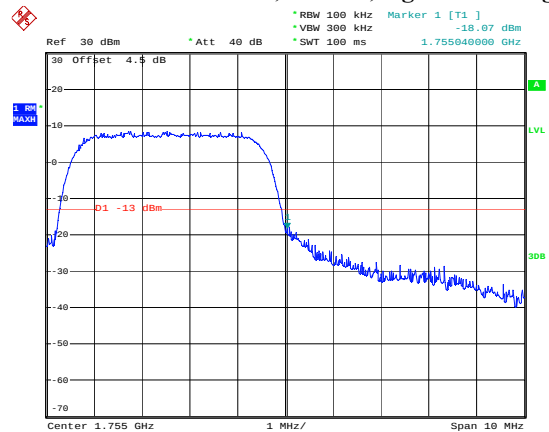
Date: 22.SEP.2020 10:12:06

## WCDMA Band IV, HSDPA, Left Band Edge



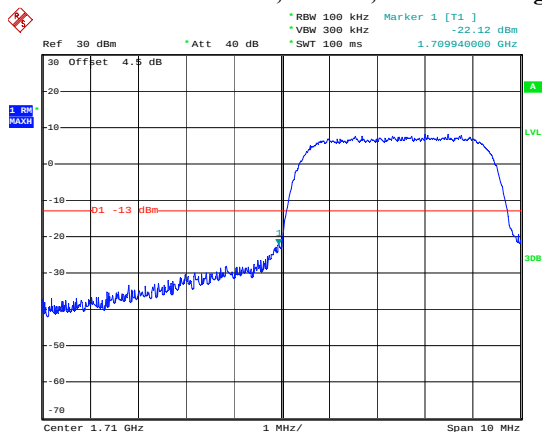
Date: 22.SEP.2020 09:55:33

## WCDMA Band IV, HSDPA, Right Band Edge



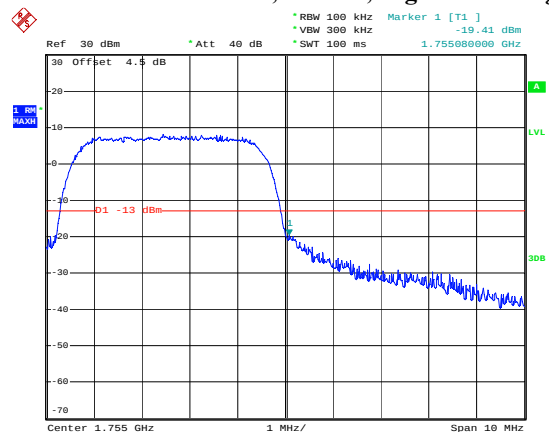
Date: 22.SEP.2020 09:56:20

## WCDMA Band IV, HSUPA, Left Band Edge



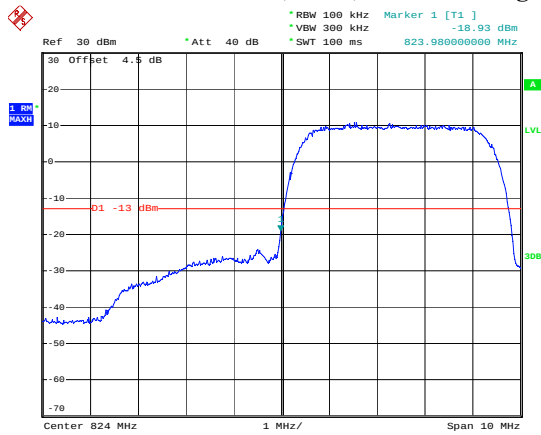
Date: 22.SEP.2020 11:08:15

## WCDMA Band IV, HSUPA, Right Band Edge



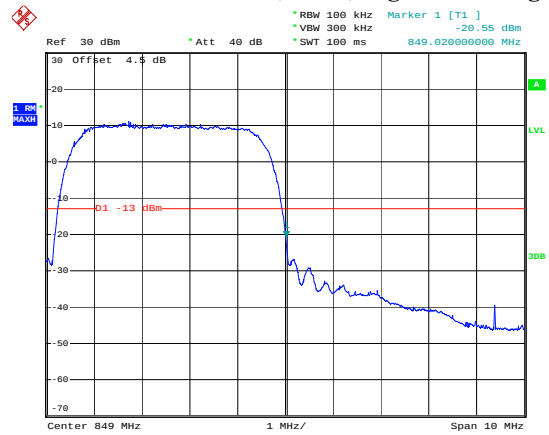
Date: 22.SEP.2020 11:09:06

## WCDMA Band V, Rel99, Left Band Edge



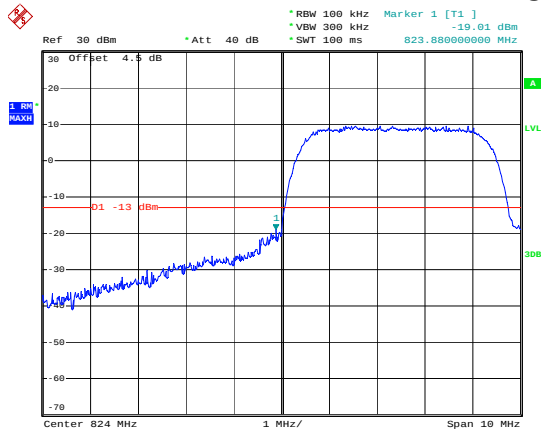
Date: 22.SEP.2020 10:12:59

## WCDMA Band V, Rel99, Right Band Edge



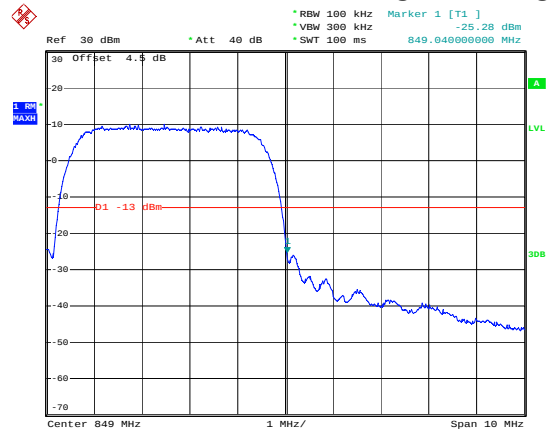
Date: 22.SEP.2020 10:13:46

## WCDMA Band V, HSDPA, Left Band Edge



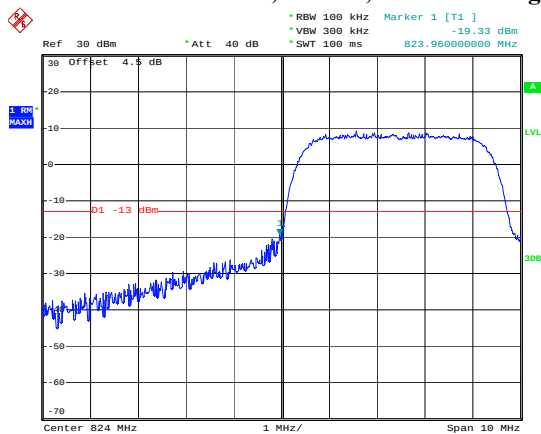
Date: 22.SEP.2020 09:52:32

## WCDMA Band V, HSDPA, Right Band Edge



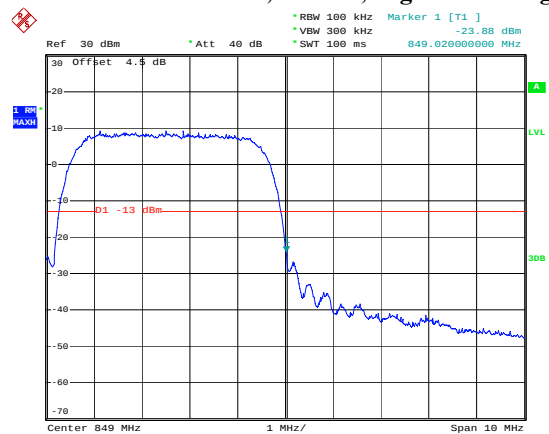
Date: 22.SEP.2020 09:53:42

## WCDMA Band V, HSUPA, Left Band Edge



Date: 22.SEP.2020 11:10:01

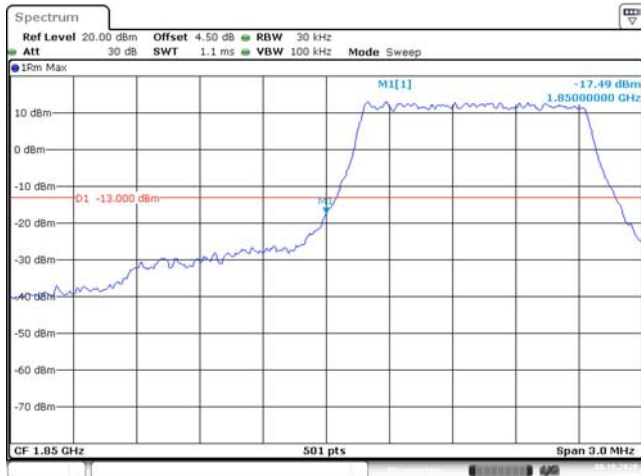
## WCDMA Band V, HSUPA, Right Band Edge



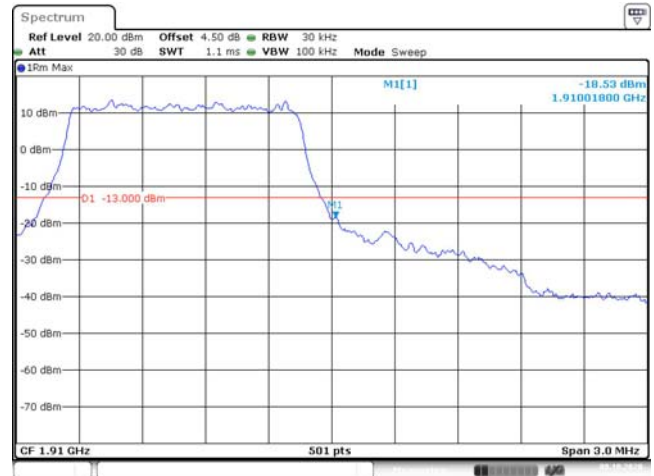
Date: 22.SEP.2020 11:10:41

## LTE Band 2:

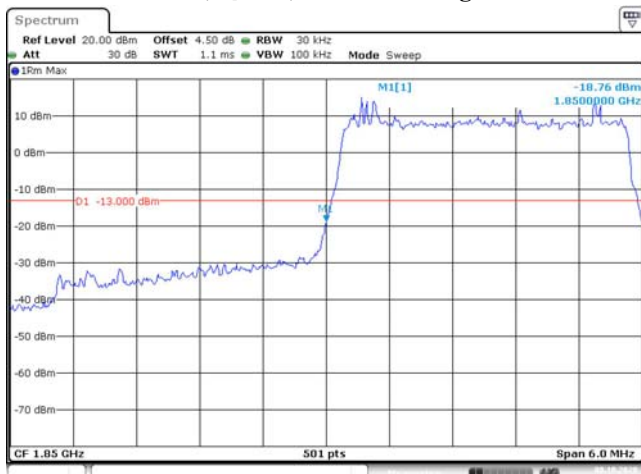
## 1.4M, QPSK, Left Band Edge



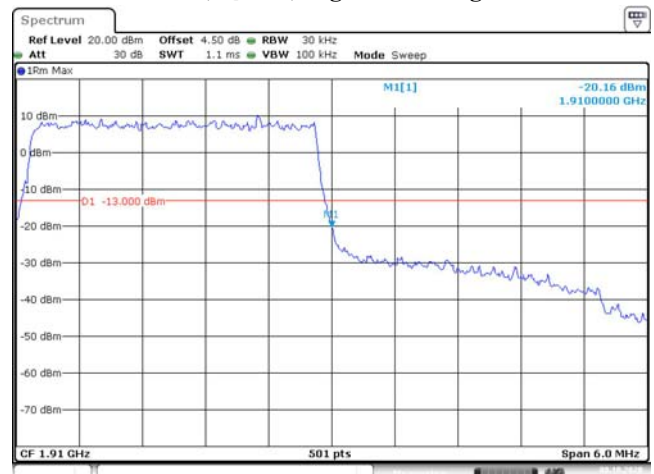
## 1.4M, QPSK, Right Band Edge



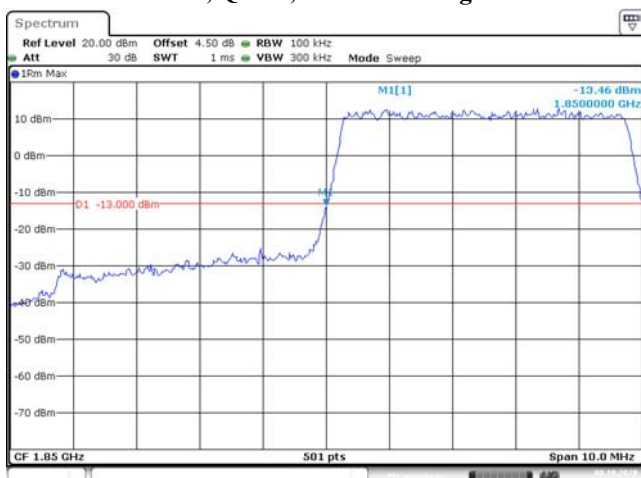
## 3M, QPSK, Left Band Edge



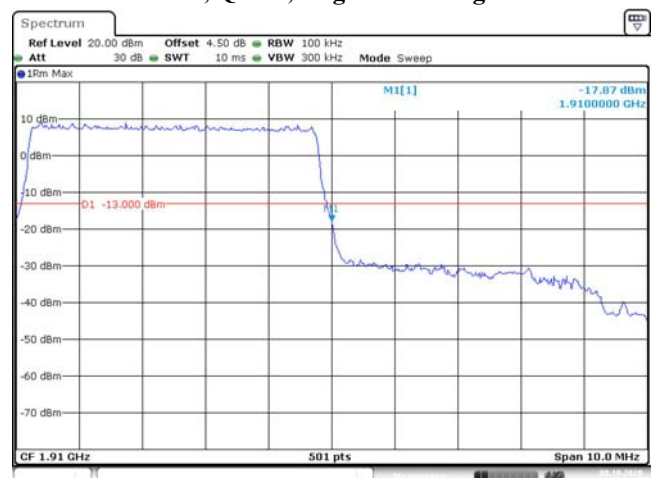
## 3M, QPSK, Right Band Edge



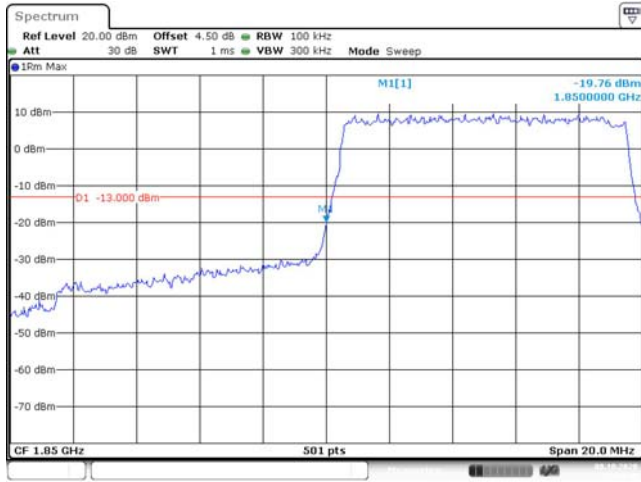
## 5M, QPSK, Left Band Edge



## 5M, QPSK, Right Band Edge

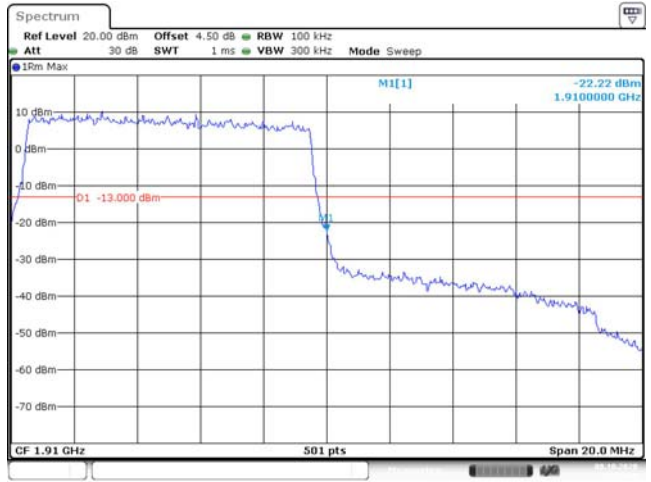


### 10M, QPSK, Left Band Edge



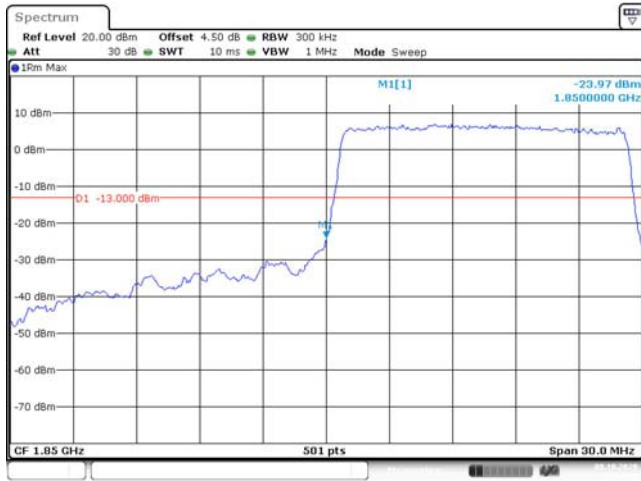
Date: 8.OCT.2020 15:54:40

### 10M, QPSK, Right Band Edge



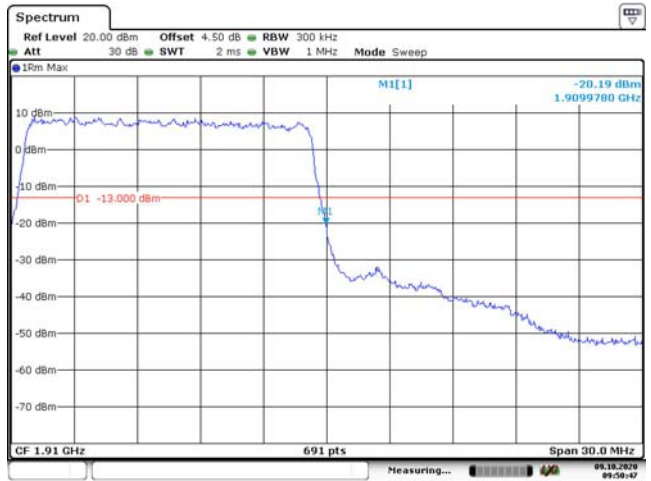
Date: 8.OCT.2020 15:55:39

### 15M, QPSK, Left Band Edge



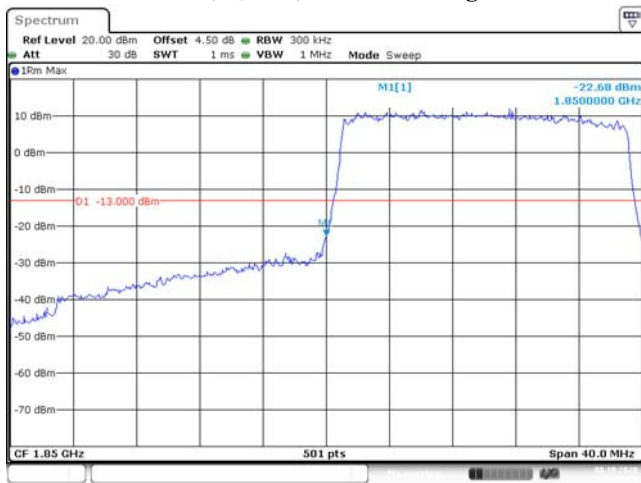
Date: 8.OCT.2020 15:59:26

### 15M, QPSK, Right Band Edge



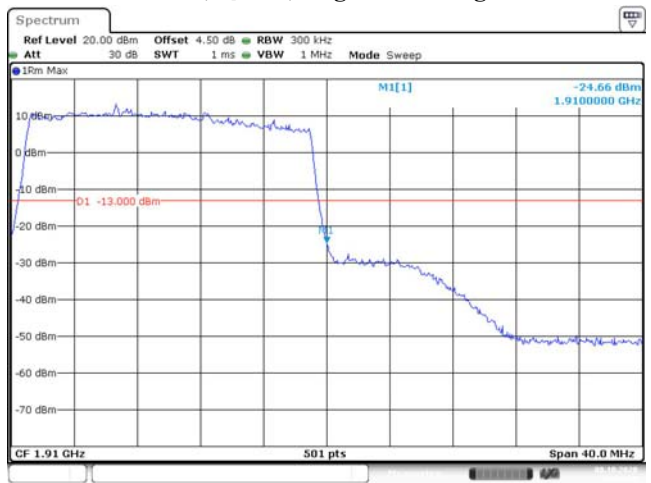
Date: 9.OCT.2020 09:50:47

### 20M, QPSK, Left Band Edge



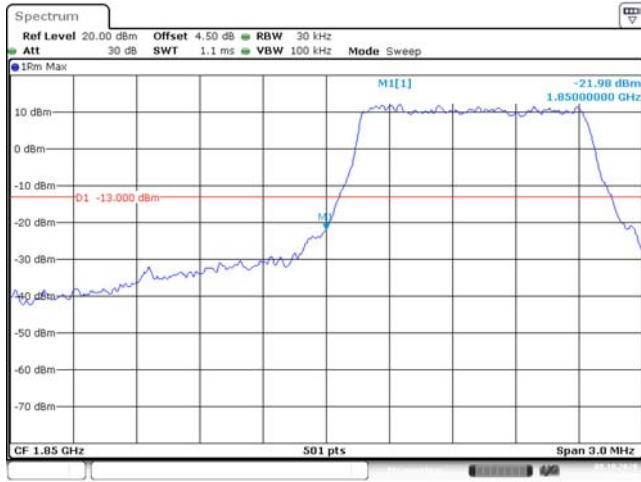
Date: 8.OCT.2020 16:02:27

### 20M, QPSK, Right Band Edge

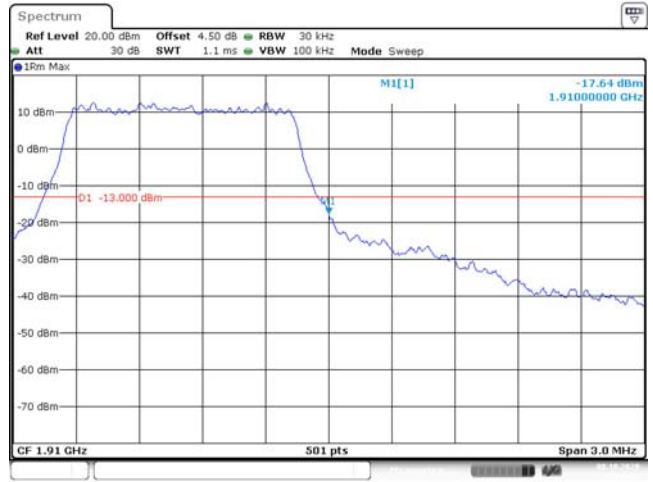


Date: 8.OCT.2020 16:03:50

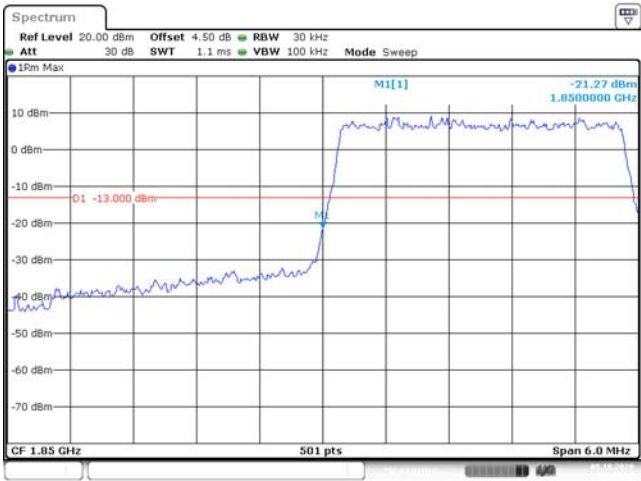
### 1.4M, 16QAM, Left Band Edge



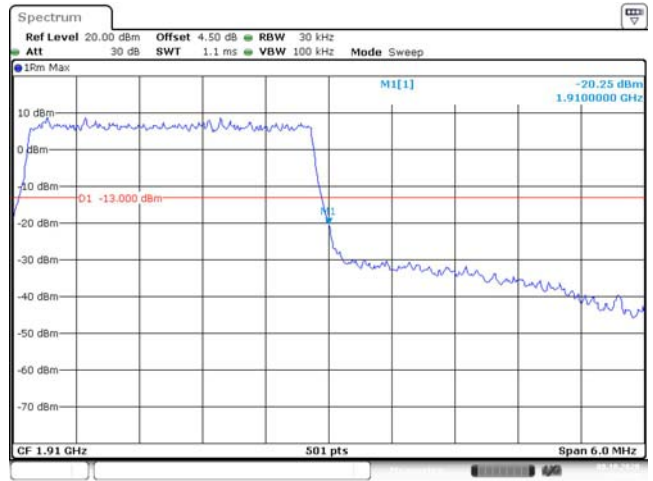
### 1.4M, 16QAM, Right Band Edge



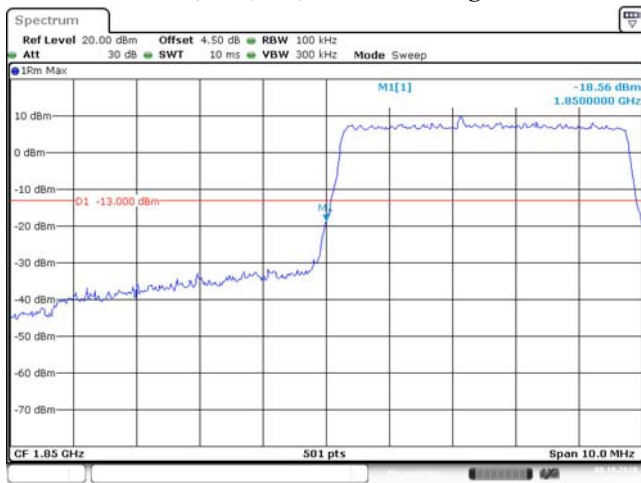
### 3M, 16QAM, Left Band Edge



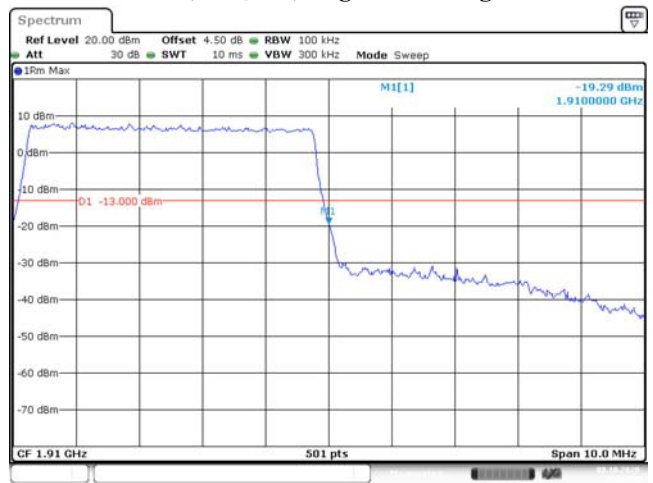
### 3M, 16QAM, Right Band Edge



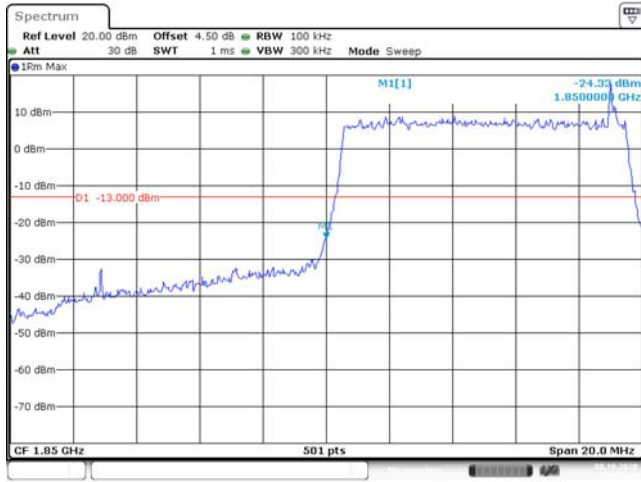
### 5M, 16QAM, Left Band Edge



### 5M, 16QAM, Right Band Edge

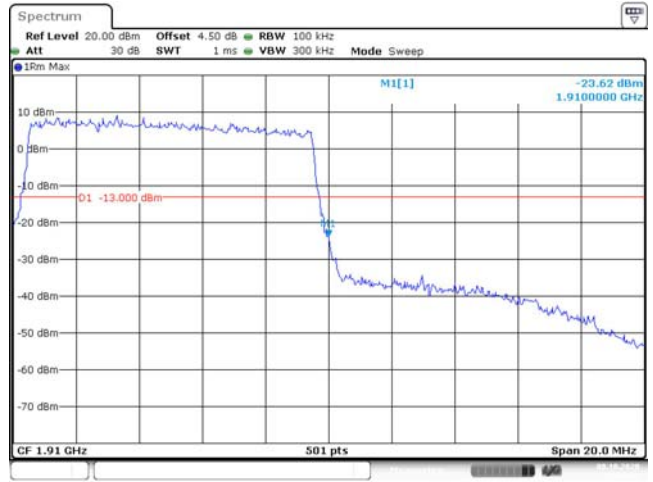


### 10M, 16QAM, Left Band Edge



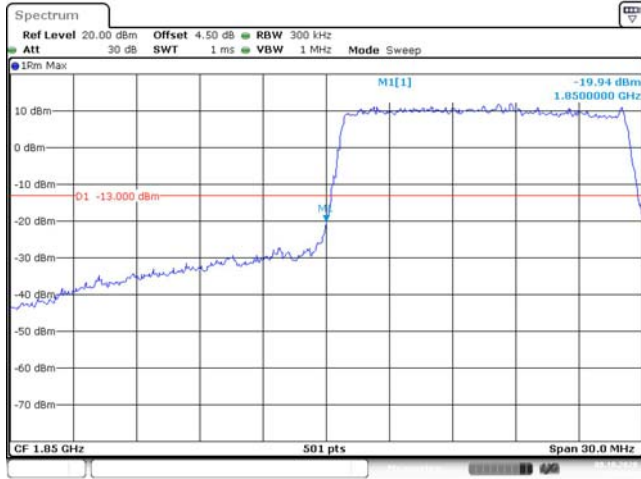
Date: 8.OCT.2020 15:55:09

### 10M, 16QAM, Right Band Edge



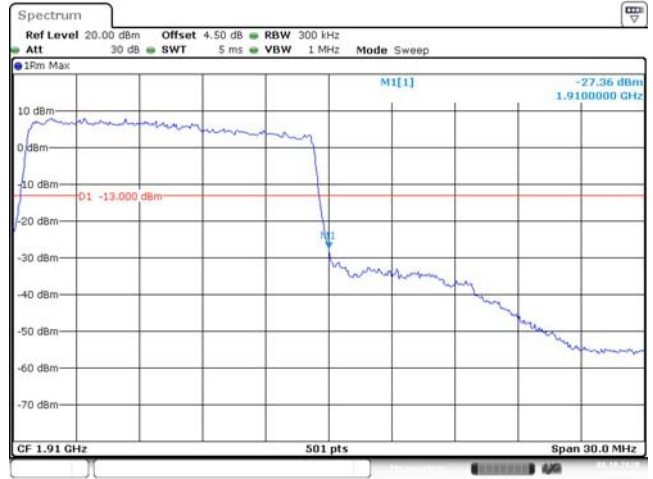
Date: 8.OCT.2020 15:56:05

### 15M, 16QAM, Left Band Edge



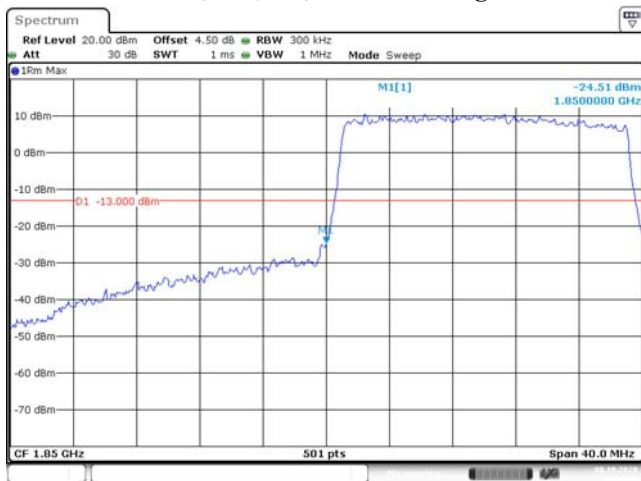
Date: 8.OCT.2020 15:59:51

### 15M, 16QAM, Right Band Edge



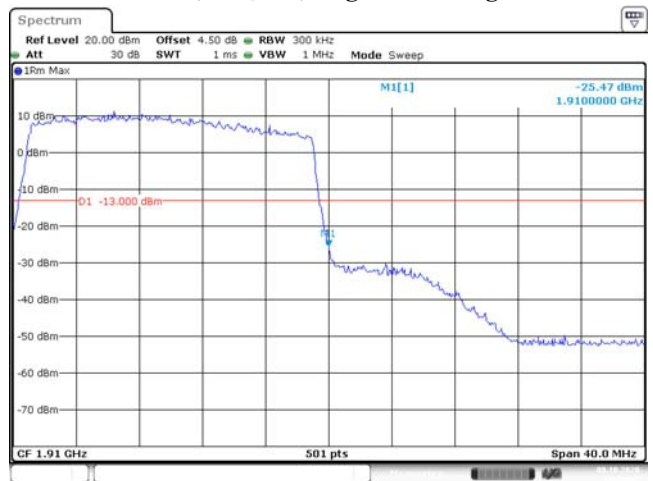
Date: 8.OCT.2020 16:01:58

### 20M, 16QAM, Left Band Edge

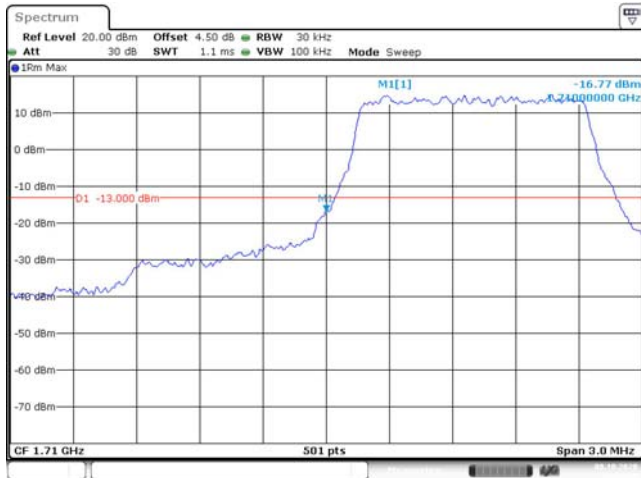
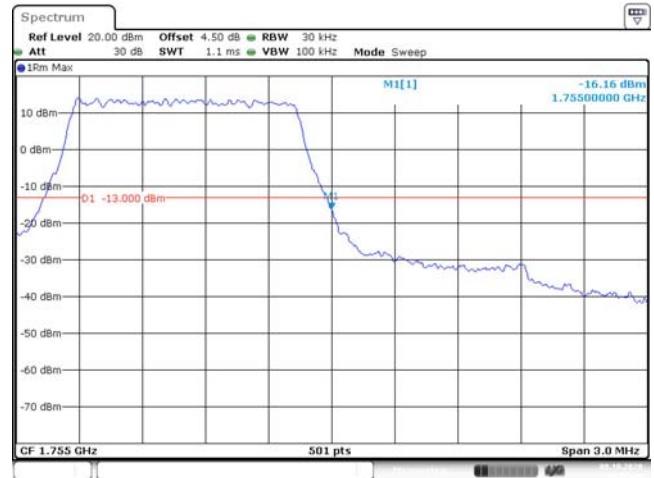
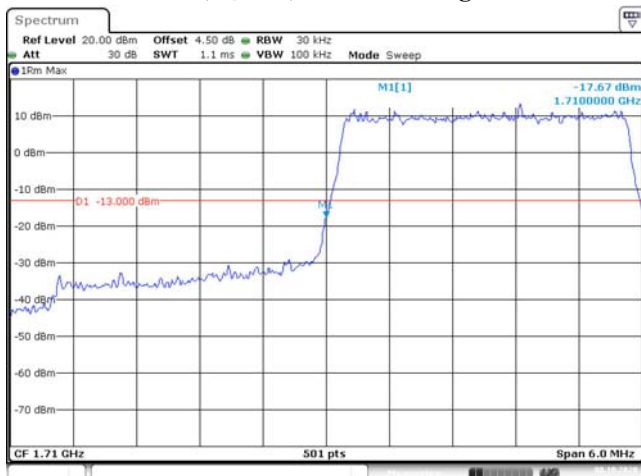
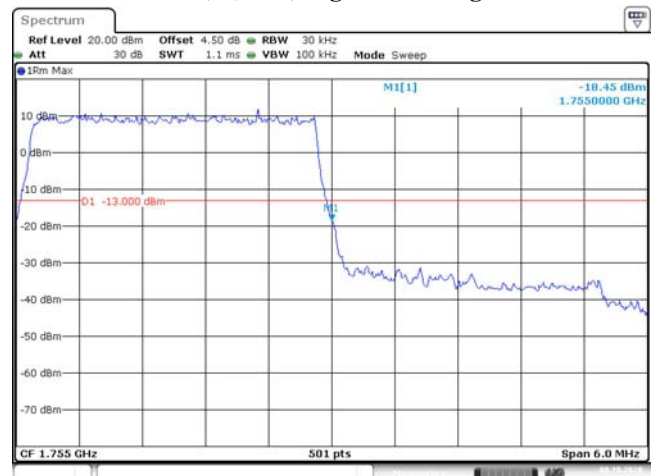
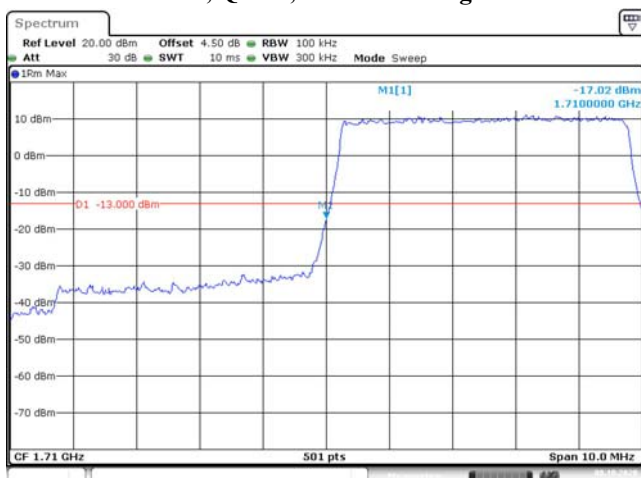
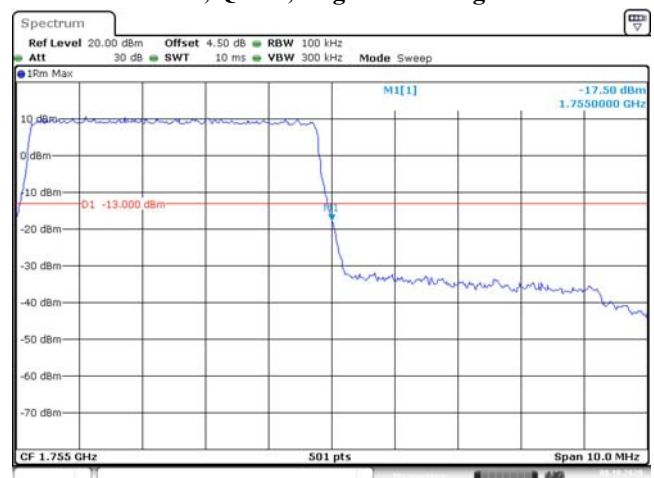


Date: 8.OCT.2020 16:03:11

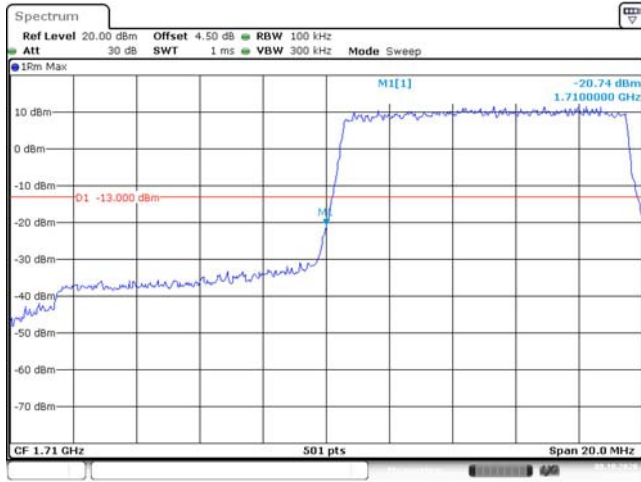
### 20M, 16QAM, Right Band Edge



Date: 8.OCT.2020 16:04:15

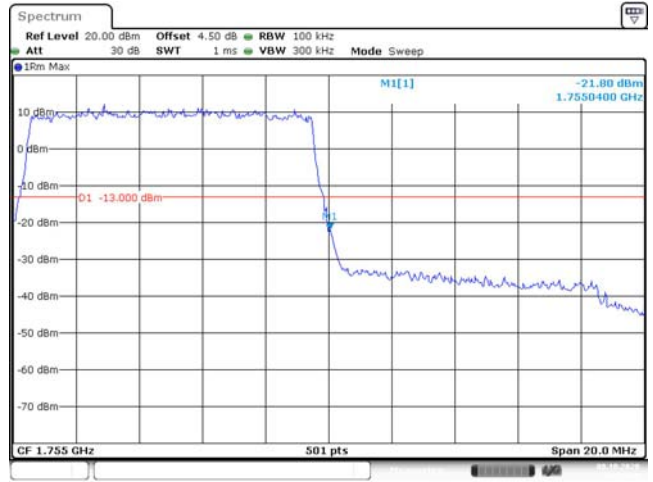
**LTE Band 4:****1.4M, QPSK, Left Band Edge****1.4M, QPSK, Right Band Edge****3M, QPSK, Left Band Edge****3M, QPSK, Right Band Edge****5M, QPSK, Left Band Edge****5M, QPSK, Right Band Edge**

### 10M, QPSK, Left Band Edge



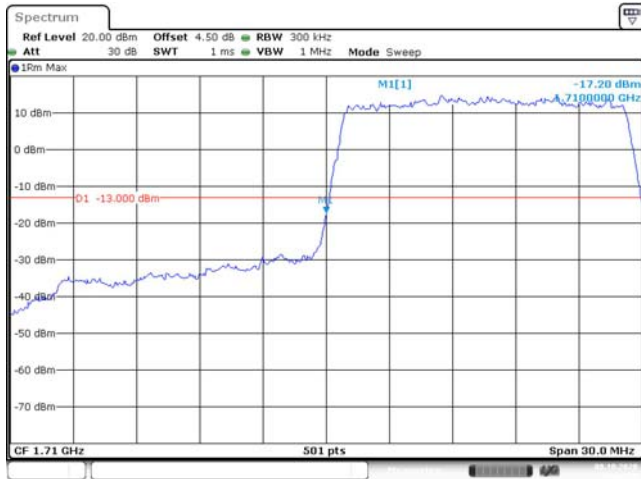
Date: 8.OCT.2020 16:10:47

### 10M, QPSK, Right Band Edge



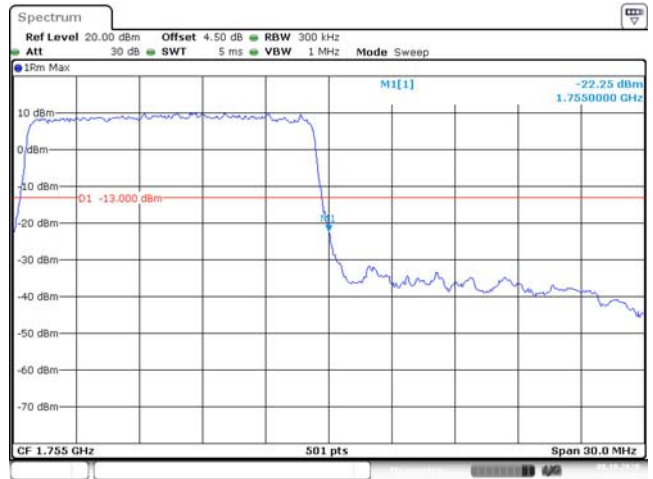
Date: 8.OCT.2020 16:11:49

### 15M, QPSK, Left Band Edge



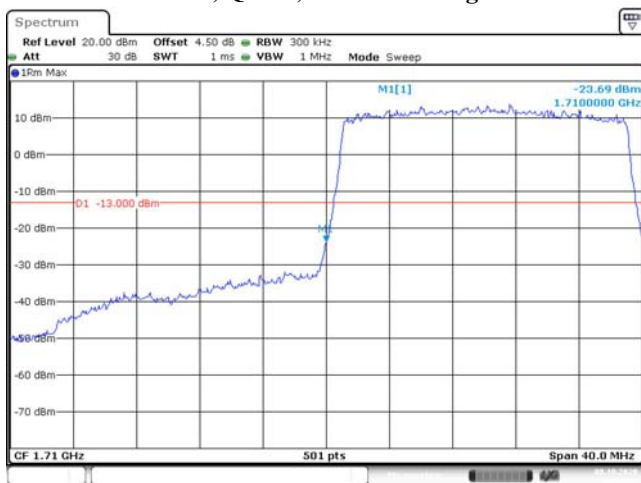
Date: 8.OCT.2020 16:12:50

### 15M, QPSK, Right Band Edge



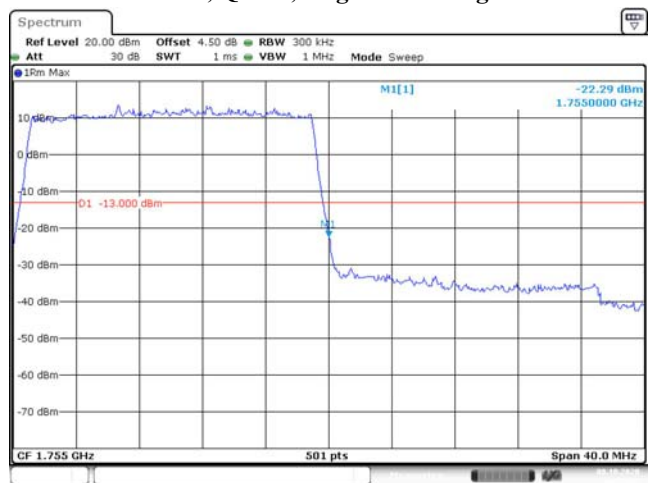
Date: 8.OCT.2020 16:14:12

### 20M, QPSK, Left Band Edge



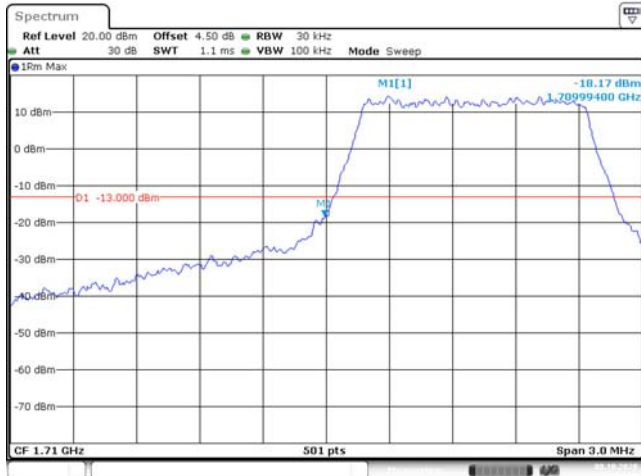
Date: 8.OCT.2020 16:20:42

### 20M, QPSK, Right Band Edge

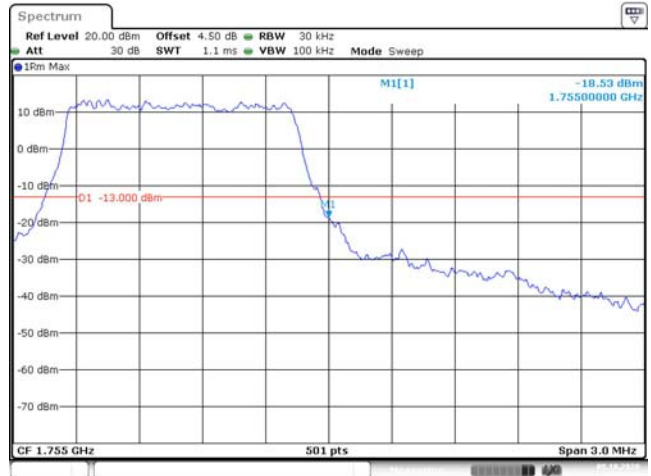


Date: 8.OCT.2020 16:21:45

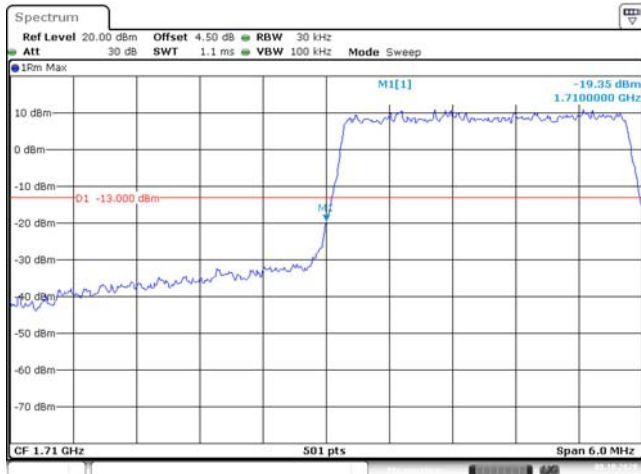
## 1.4M, 16QAM, Left Band Edge



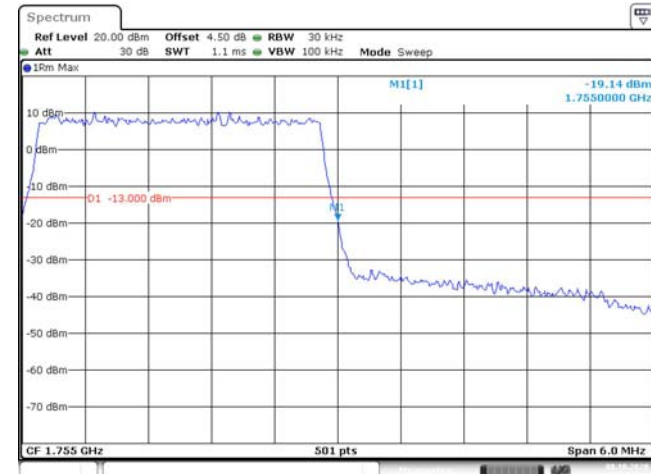
## 1.4M, 16QAM, Right Band Edge



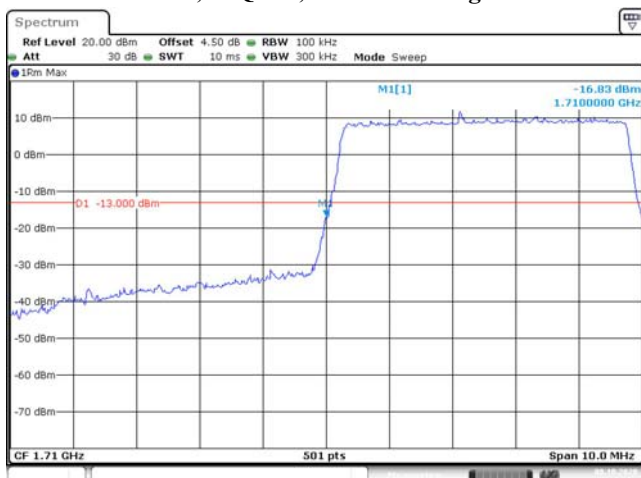
## 3M, 16QAM, Left Band Edge



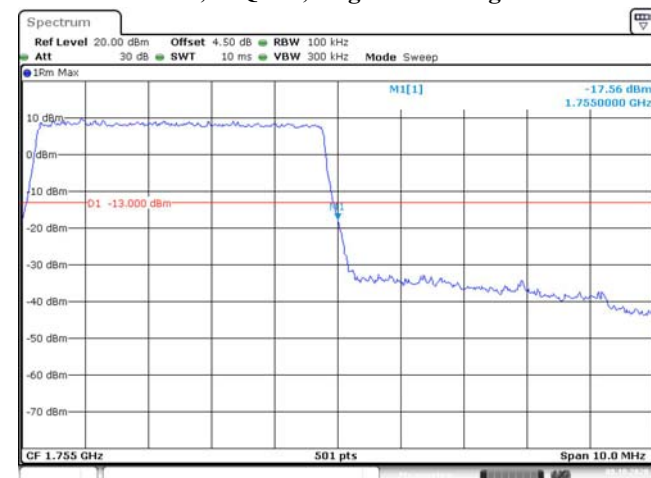
## 3M, 16QAM, Right Band Edge



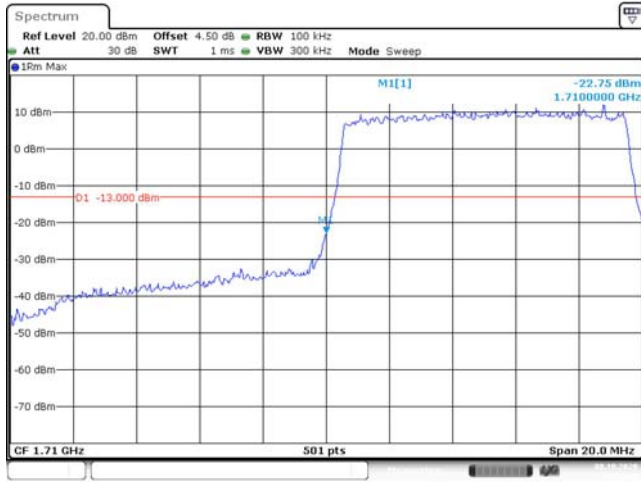
## 5M, 16QAM, Left Band Edge



## 5M, 16QAM, Right Band Edge

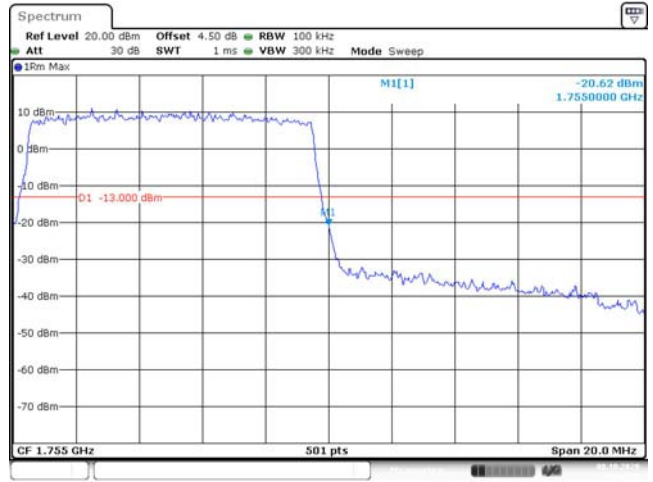


### 10M, 16QAM, Left Band Edge



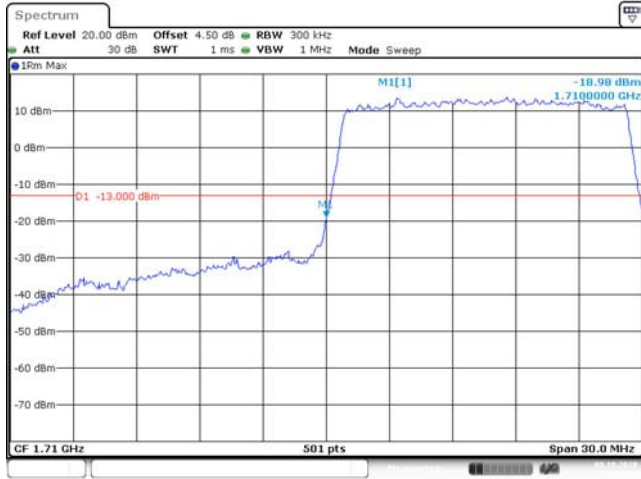
Date: 8.OCT.2020 16:11:19

### 10M, 16QAM, Right Band Edge



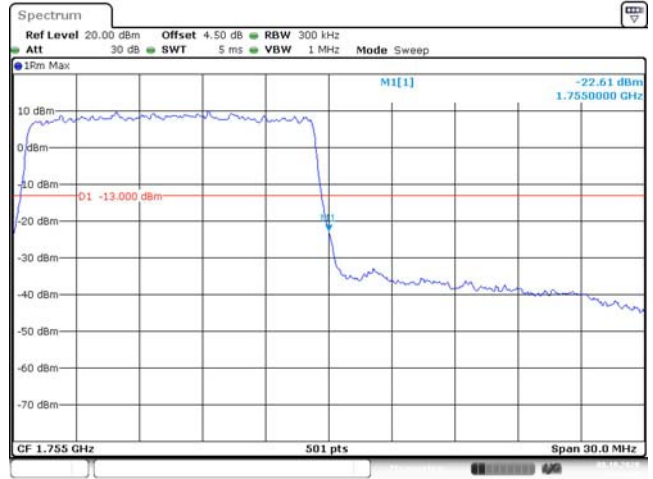
Date: 8.OCT.2020 16:12:18

### 15M, 16QAM, Left Band Edge



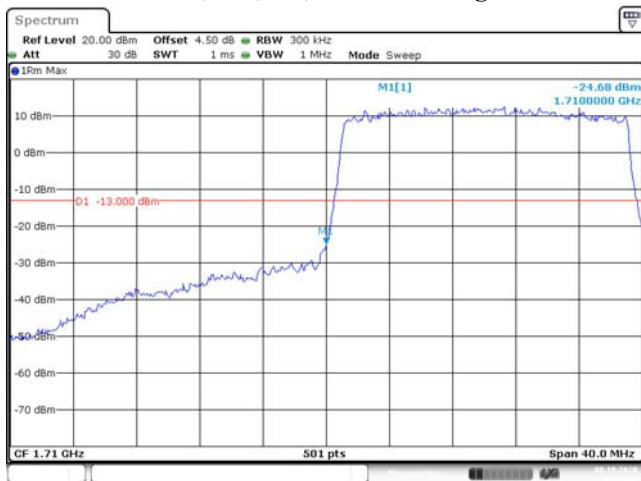
Date: 8.OCT.2020 16:13:31

### 15M, 16QAM, Right Band Edge



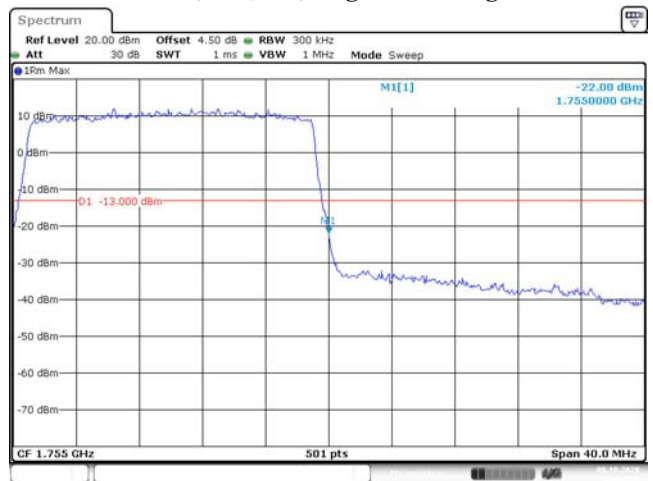
Date: 8.OCT.2020 16:16:28

### 20M, 16QAM, Left Band Edge

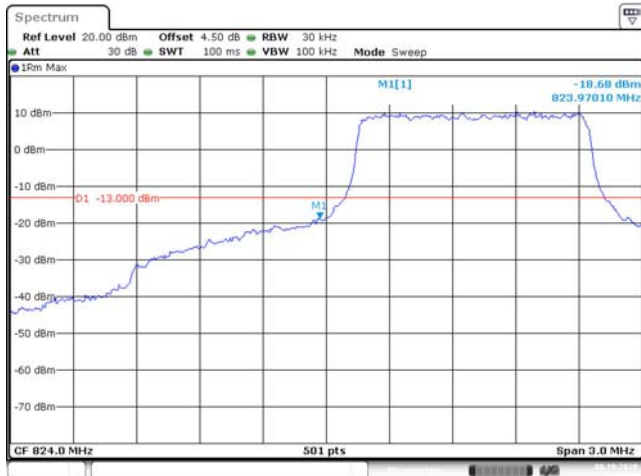


Date: 8.OCT.2020 16:21:16

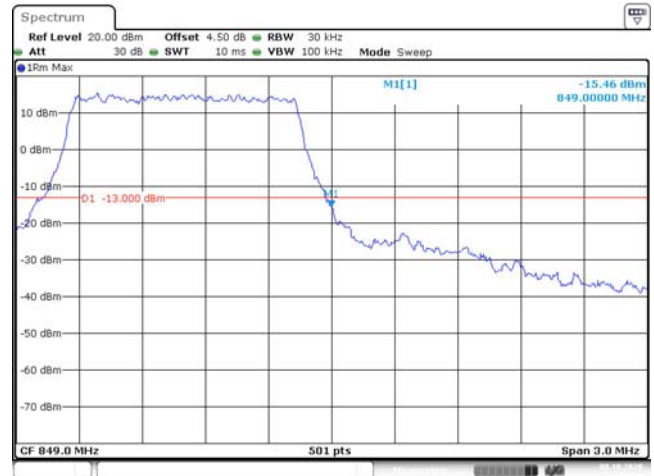
### 20M, 16QAM, Right Band Edge



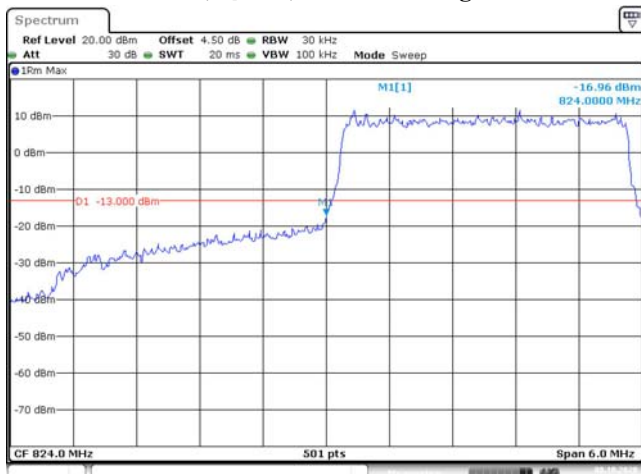
Date: 8.OCT.2020 16:22:16

**LTE Band 5:****1.4M, QPSK, Left Band Edge**

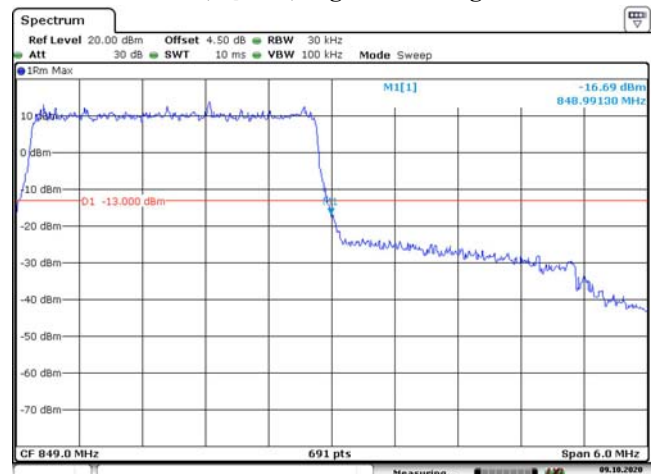
Date: 8,OCT,2020 16:23:00

**1.4M, QPSK, Right Band Edge**

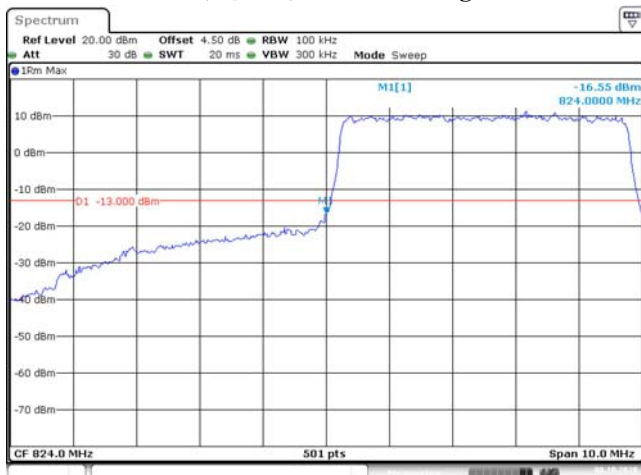
Date: 8,OCT,2020 16:24:14

**3M, QPSK, Left Band Edge**

Date: 8,OCT,2020 16:41:52

**3M, QPSK, Right Band Edge**

Date: 9,OCT,2020 09:53:52

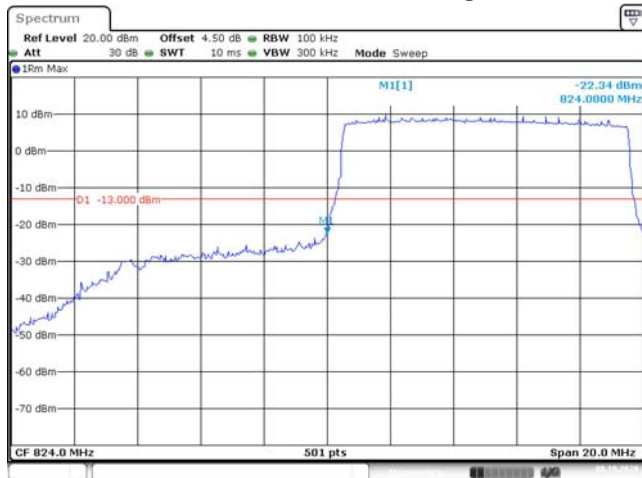
**5M, QPSK, Left Band Edge**

Date: 8,OCT,2020 16:44:28

**5M, QPSK, Right Band Edge**

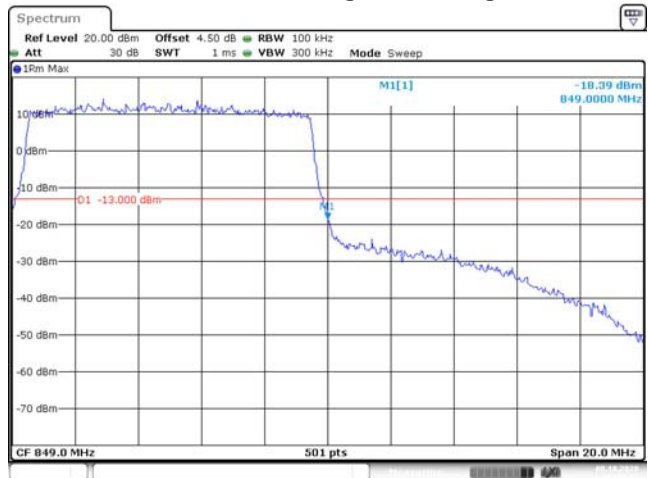
Date: 8,OCT,2020 16:45:39

## 10M, QPSK, Left Band Edge



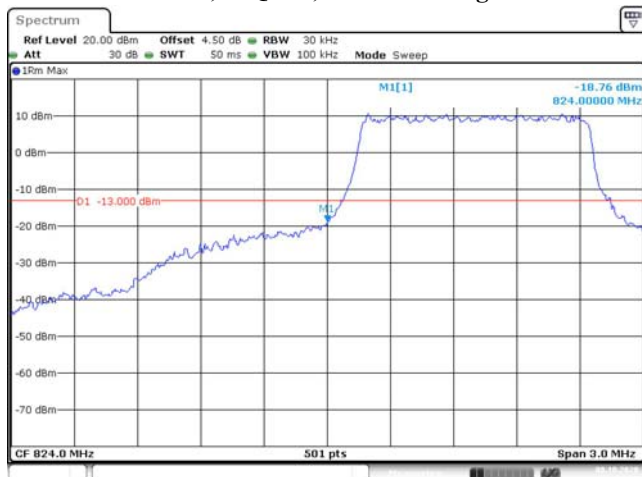
Date: 8.OCT.2020 16:47:05

## 10M, QPSK, Right Band Edge



Date: 8.OCT.2020 16:48:13

## 1.4M, 16QAM, Left Band Edge



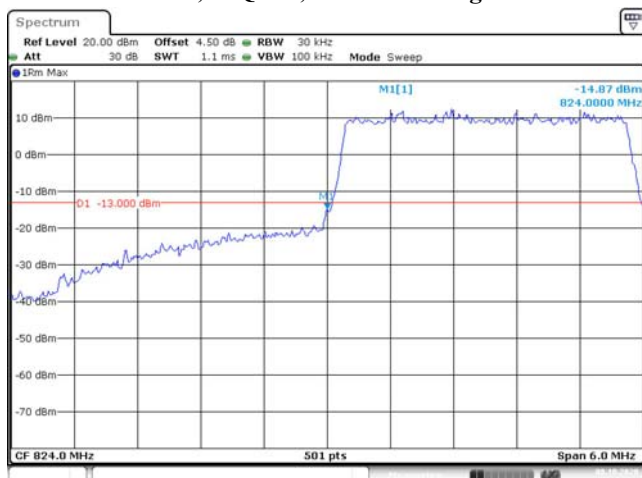
Date: 8.OCT.2020 16:23:30

## 1.4M, 16QAM, Right Band Edge



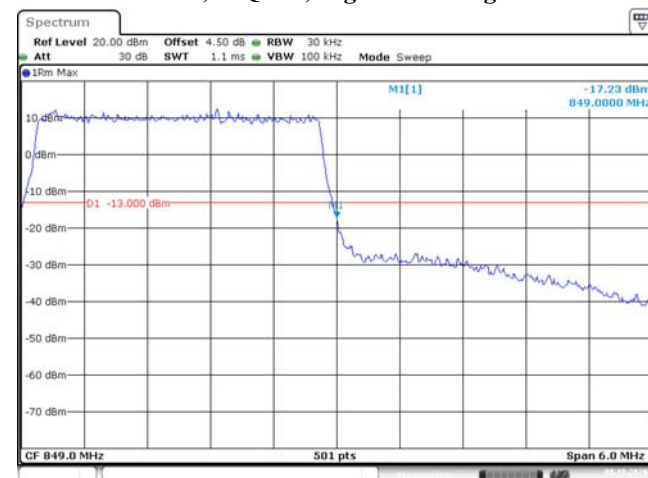
Date: 8.OCT.2020 16:24:30

## 3M, 16QAM, Left Band Edge



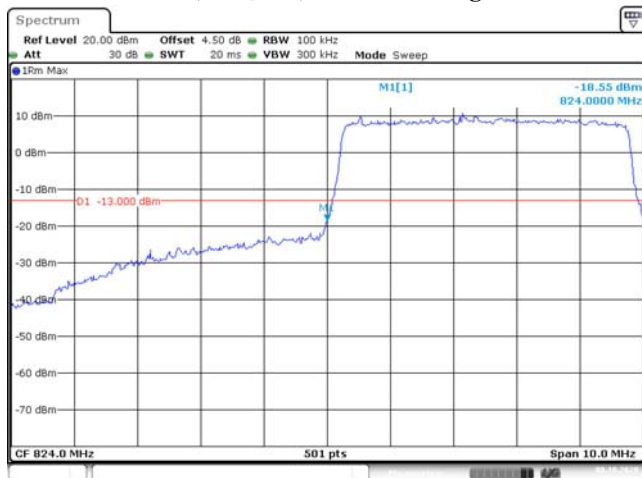
Date: 8.OCT.2020 16:42:14

## 3M, 16QAM, Right Band Edge



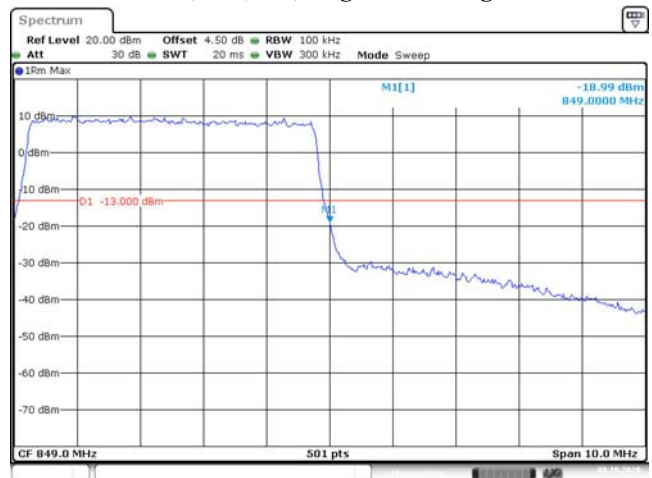
Date: 8.OCT.2020 16:43:47

## 5M, 16QAM, Left Band Edge



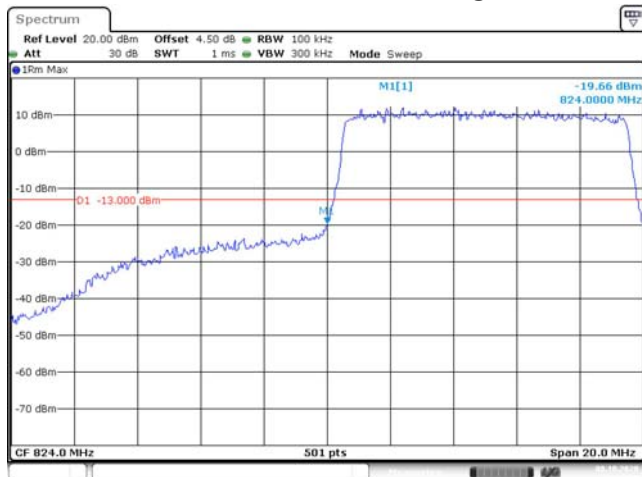
Date: 8.OCT.2020 16:45:04

## 5M, 16QAM, Right Band Edge



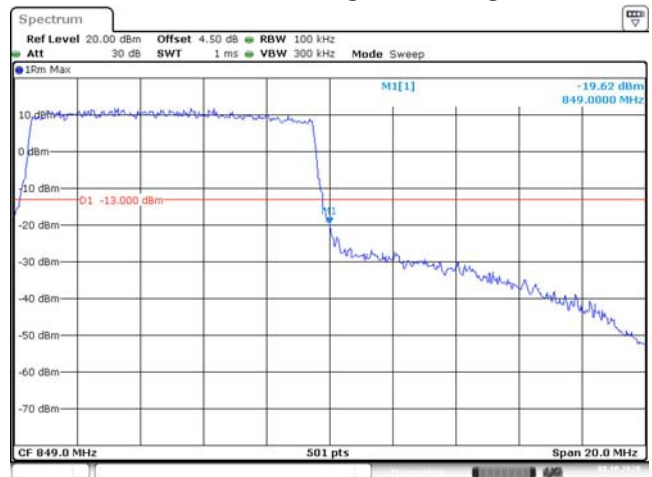
Date: 8.OCT.2020 16:46:13

## 10M, 16QAM, Left Band Edge



Date: 8.OCT.2020 16:47:34

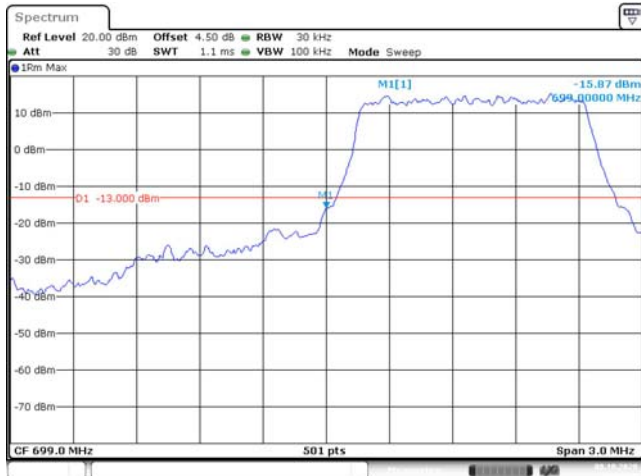
## 10M, 16QAM, Right Band Edge



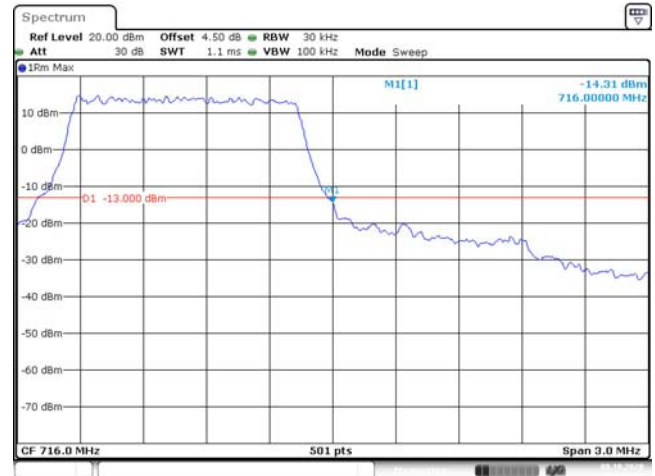
Date: 8.OCT.2020 16:48:42

## LTE Band 12:

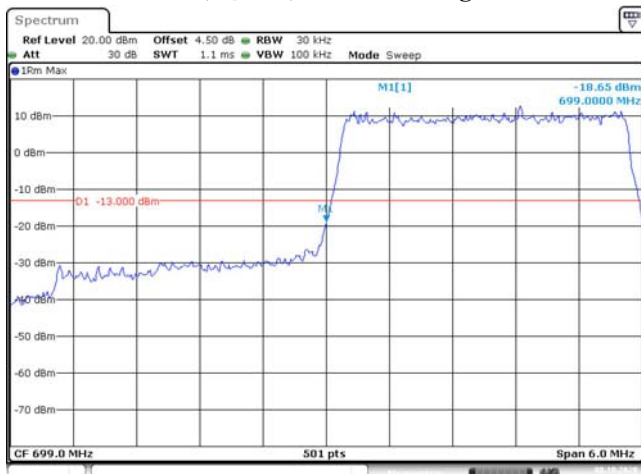
## 1.4M, QPSK, Left Band Edge



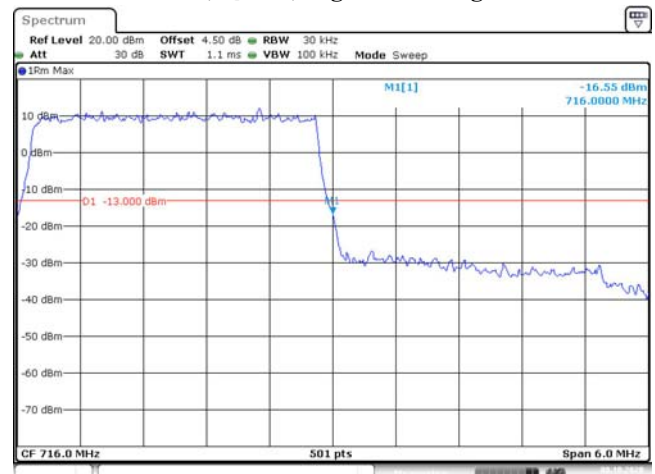
## 1.4M, QPSK, Right Band Edge



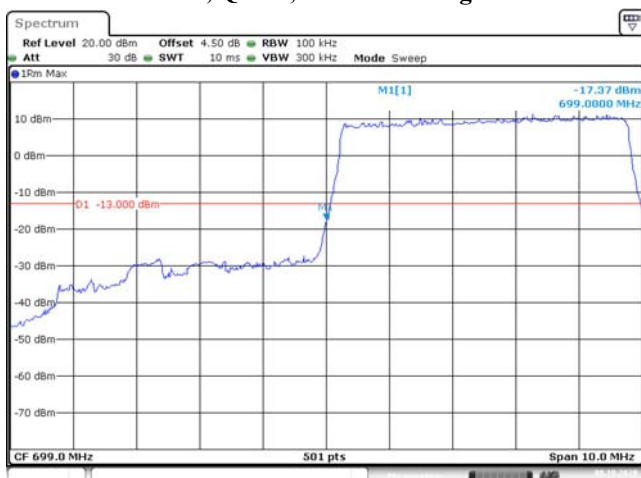
## 3M, QPSK, Left Band Edge



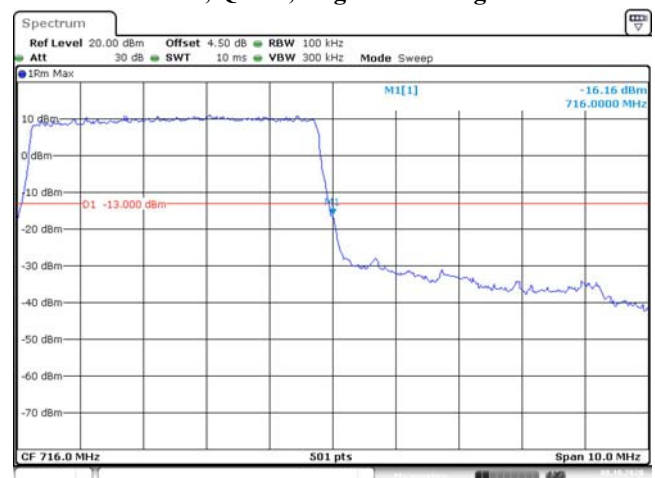
## 3M, QPSK, Right Band Edge



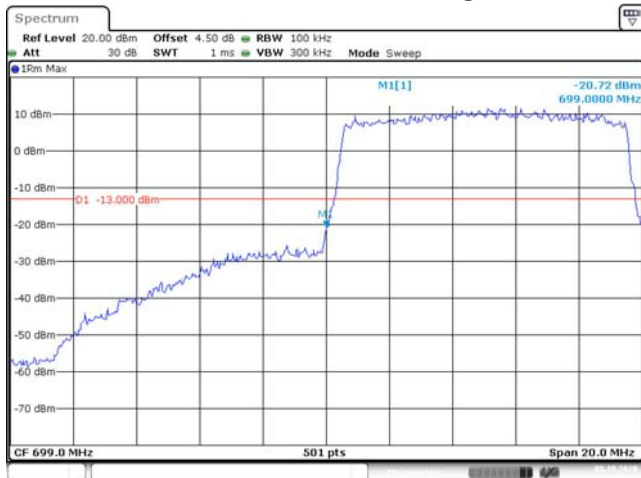
## 5M, QPSK, Left Band Edge



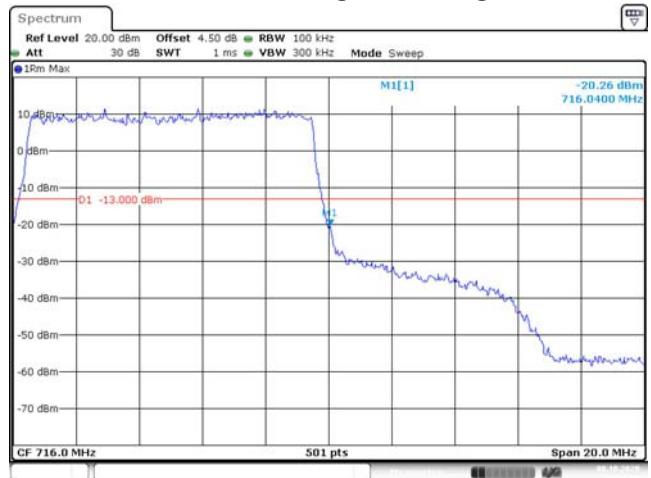
## 5M, QPSK, Right Band Edge



10M, QPSK, Left Band Edge



10M, QPSK, Right Band Edge



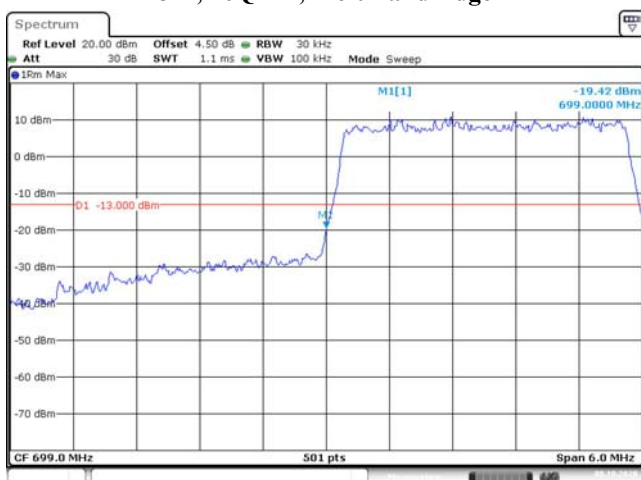
1.4M, 16QAM, Left Band Edge



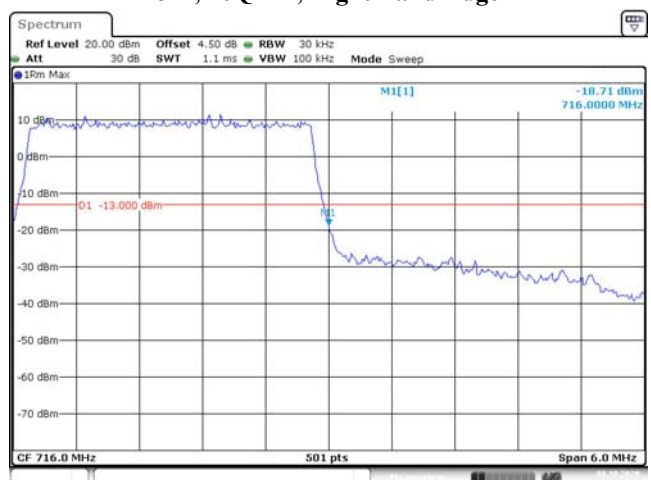
1.4M, 16QAM, Right Band Edge



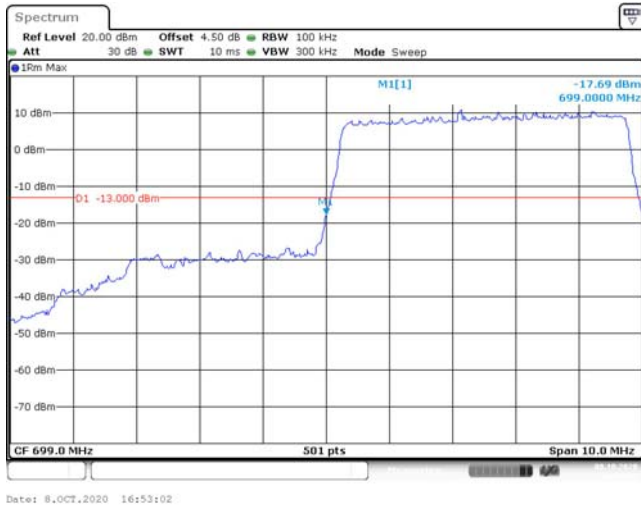
3M, 16QAM, Left Band Edge



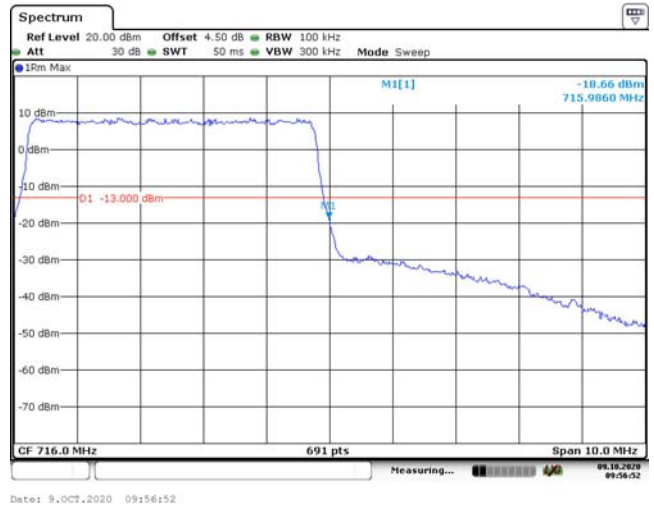
3M, 16QAM, Right Band Edge



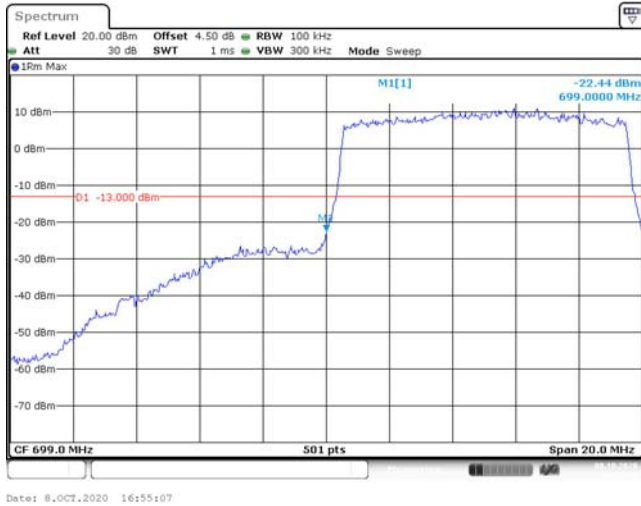
### 5M, 16QAM, Left Band Edge



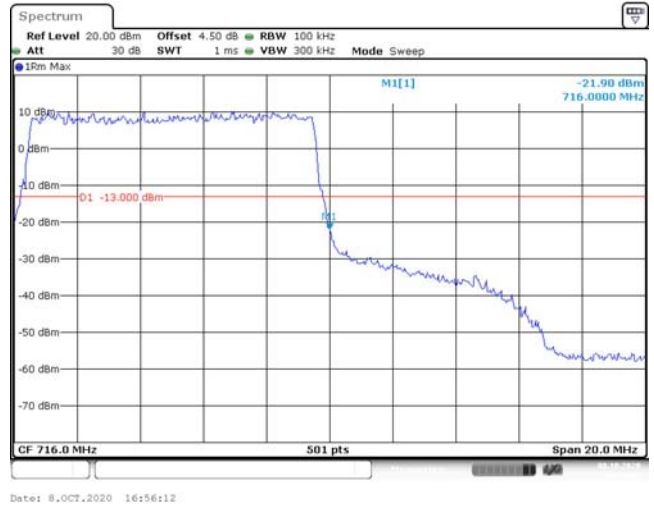
### 5M, 16QAM, Right Band Edge



### 10M, 16QAM, Left Band Edge

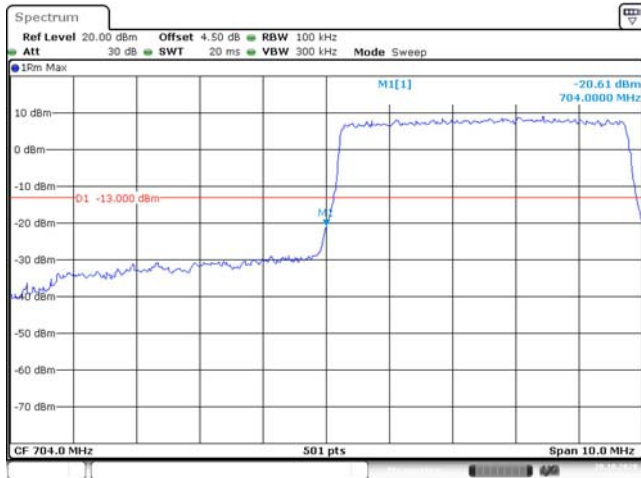


### 10M, 16QAM, Right Band Edge

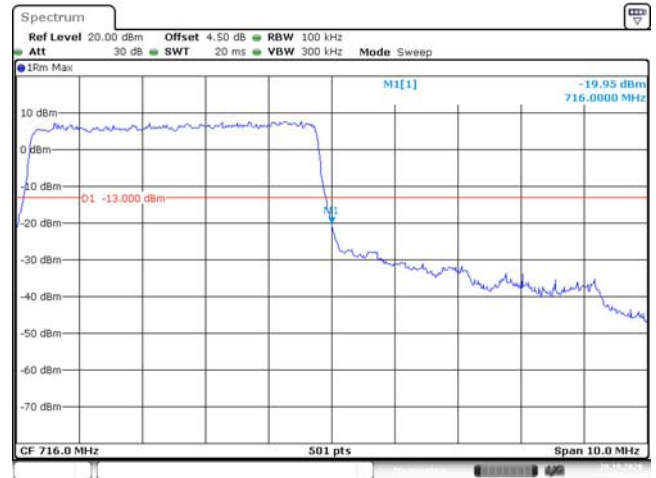


**LTE Band 17:**

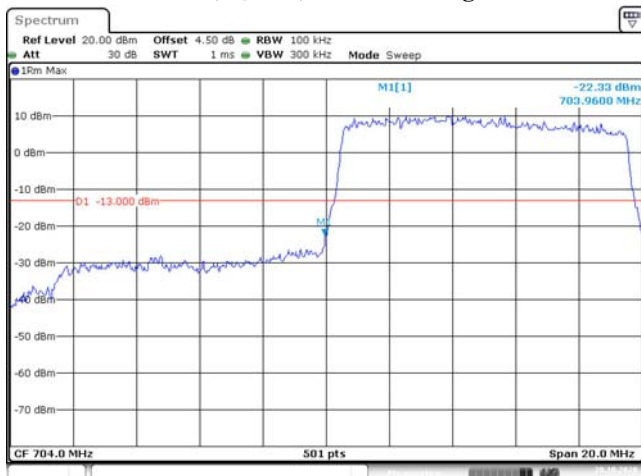
**5M, QPSK, Left Band Edge**



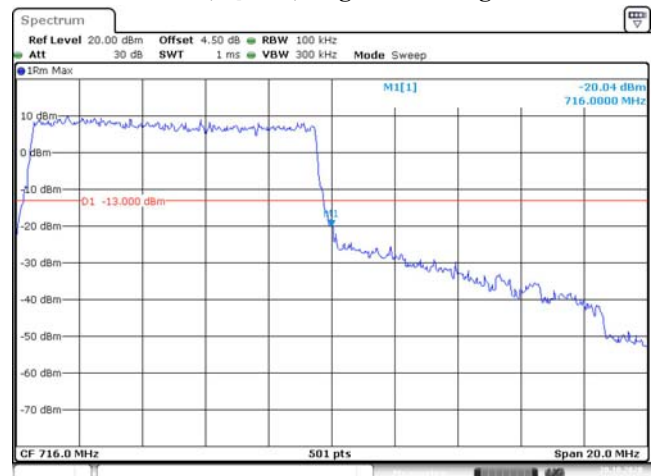
**5M, QPSK, Right Band Edge**



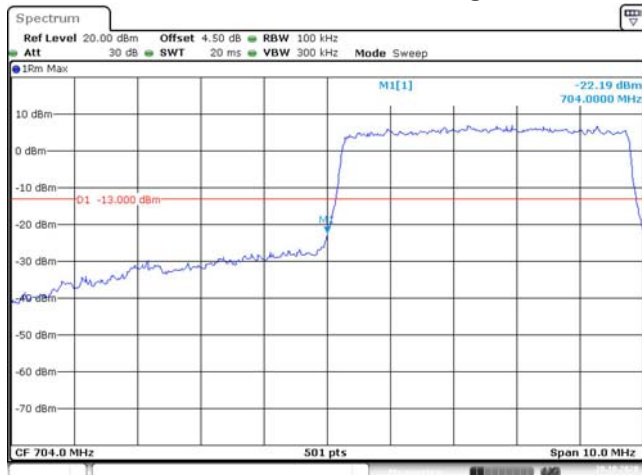
**10M, QPSK, Left Band Edge**



**10M, QPSK, Right Band Edge**

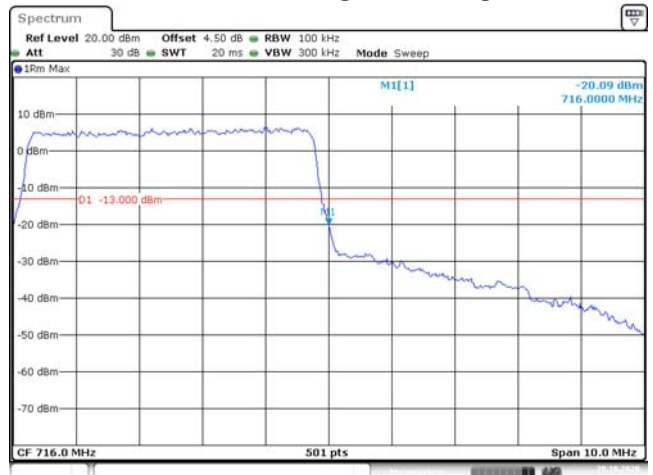


## 5M, 16QAM, Left Band Edge



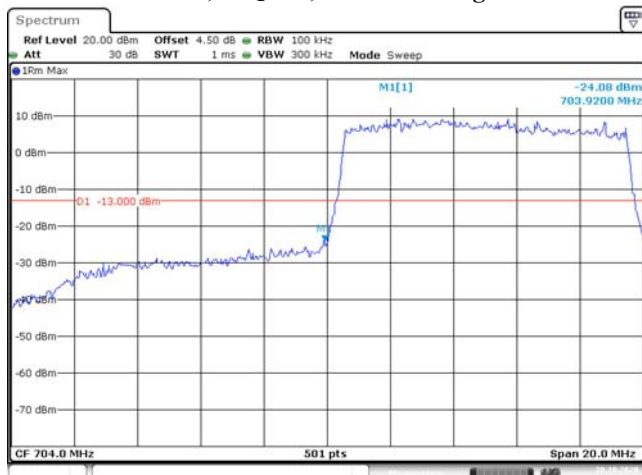
Date: 20.OCT.2020 11:12:03

## 5M, 16QAM, Right Band Edge



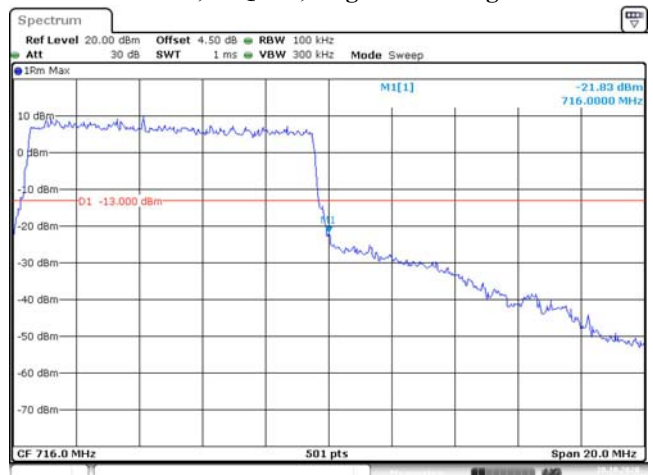
Date: 20.OCT.2020 11:13:15

## 10M, 16QAM, Left Band Edge



Date: 20.OCT.2020 11:14:28

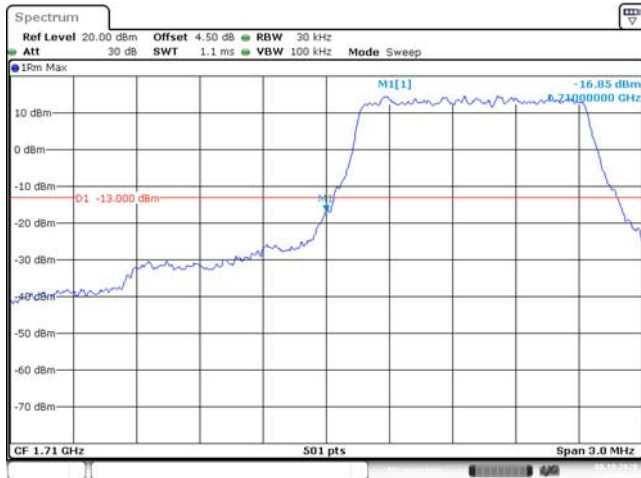
## 10M, 16QAM, Right Band Edge



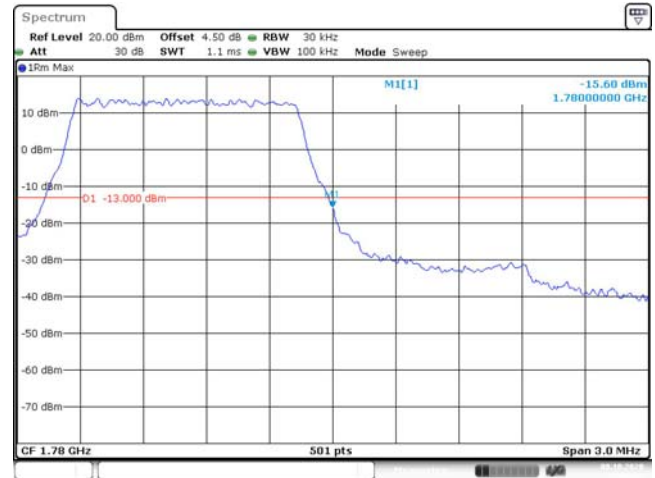
Date: 20.OCT.2020 11:15:37

**LTE Band 66:**

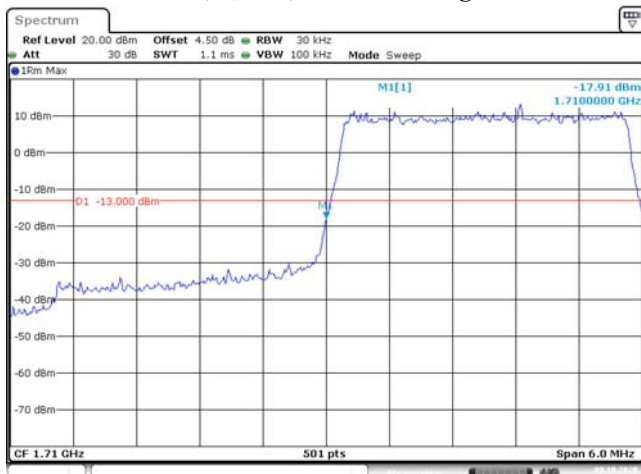
**1.4M, QPSK, Left Band Edge**



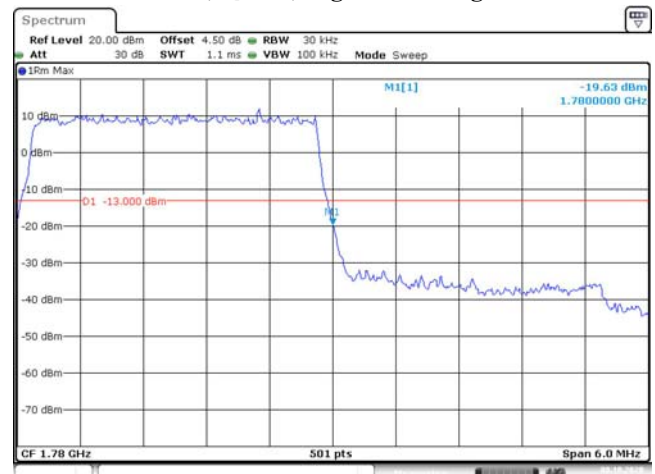
**1.4M, QPSK, Right Band Edge**



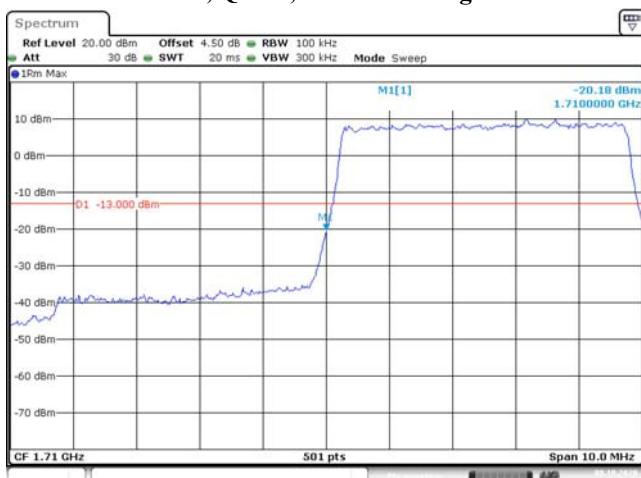
**3M, QPSK, Left Band Edge**



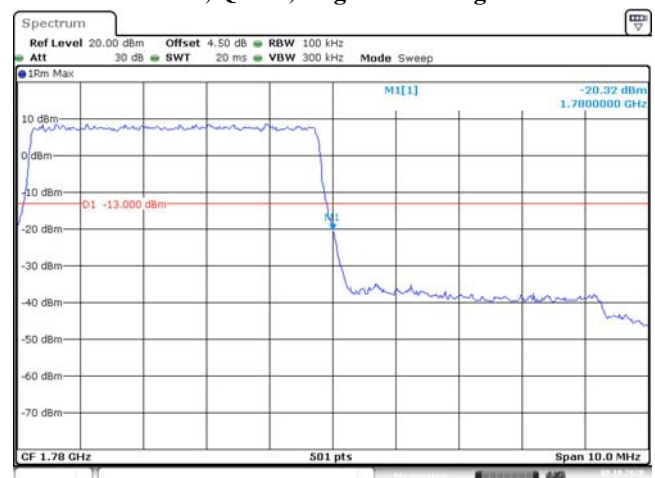
**3M, QPSK, Right Band Edge**



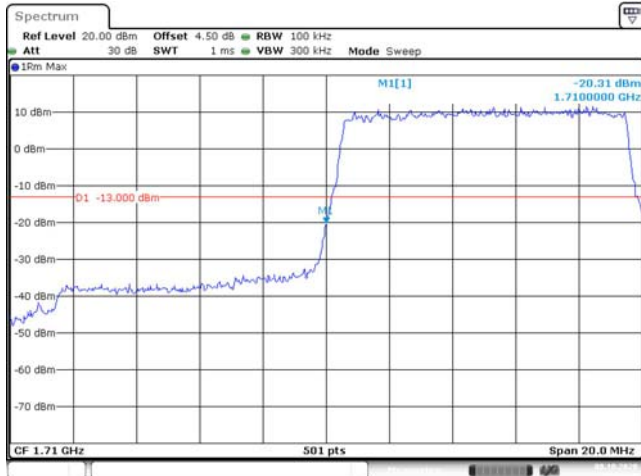
**5M, QPSK, Left Band Edge**



**5M, QPSK, Right Band Edge**

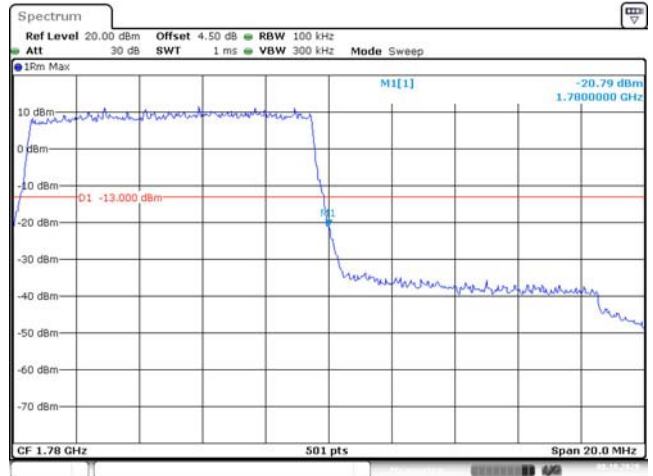


### 10M, QPSK, Left Band Edge



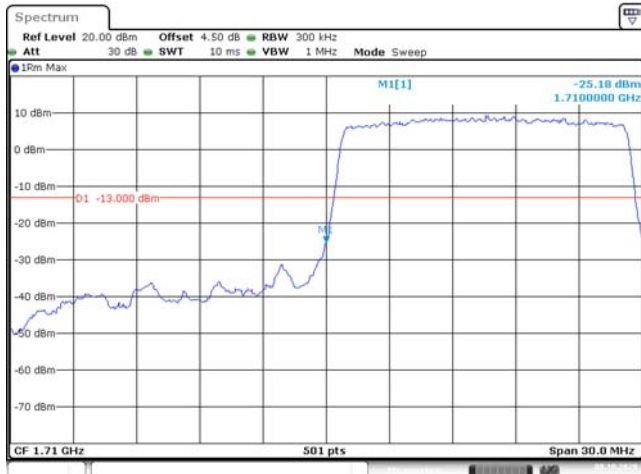
Date: 8.OCT.2020 17:14:17

### 10M, QPSK, Right Band Edge



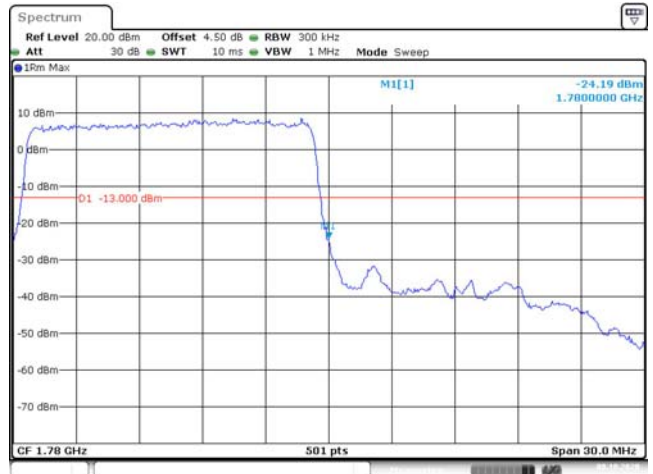
Date: 8.OCT.2020 17:15:12

### 15M, QPSK, Left Band Edge



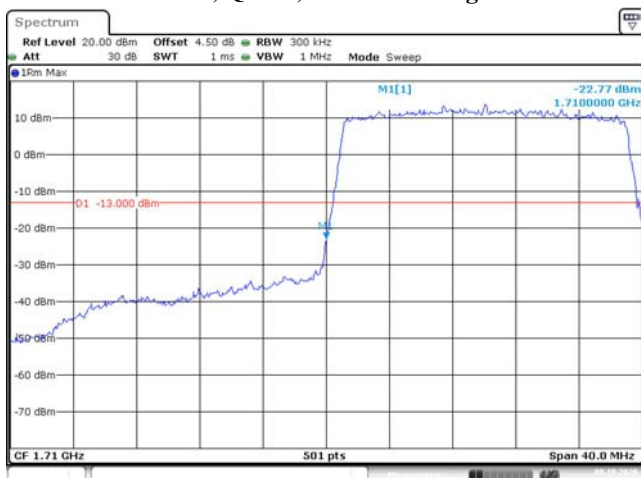
Date: 8.OCT.2020 17:16:24

### 15M, QPSK, Right Band Edge



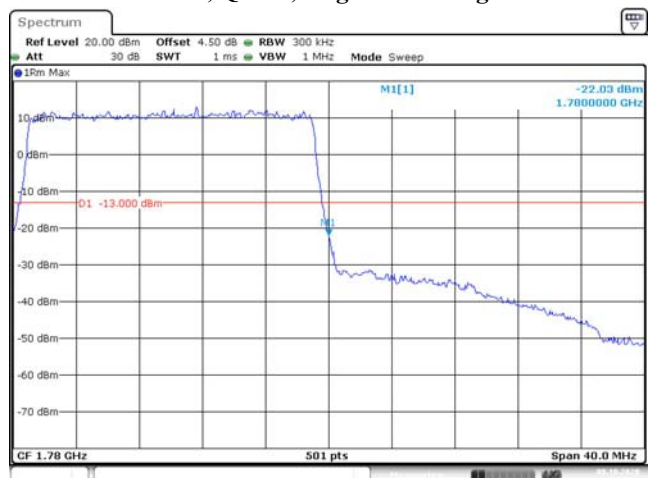
Date: 8.OCT.2020 17:17:35

### 20M, QPSK, Left Band Edge



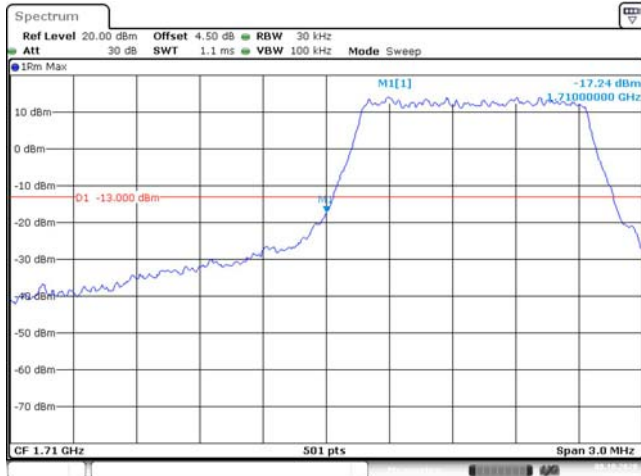
Date: 8.OCT.2020 17:24:58

### 20M, QPSK, Right Band Edge



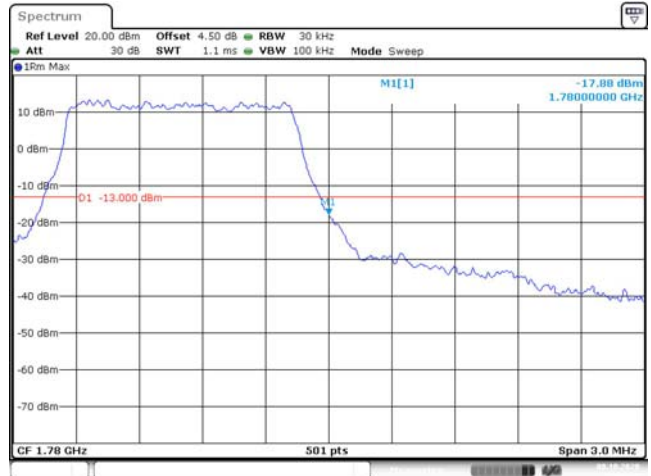
Date: 8.OCT.2020 17:25:58

## 1.4M, 16QAM, Left Band Edge



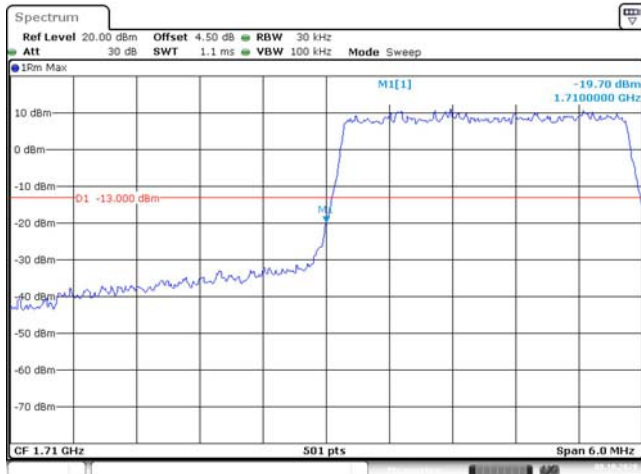
Date: 8.OCT.2020 17:08:36

## 1.4M, 16QAM, Right Band Edge



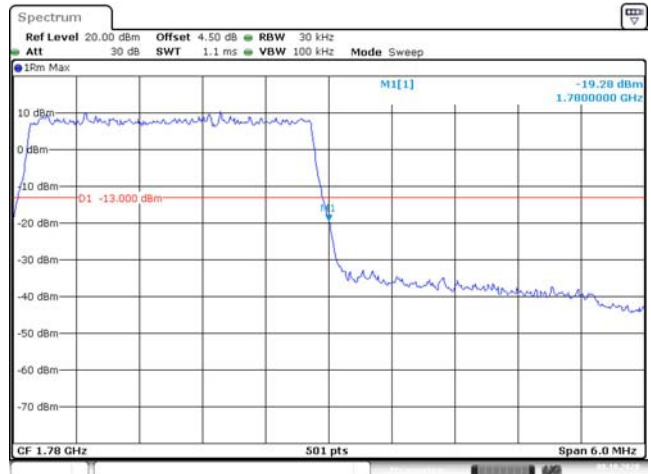
Date: 8.OCT.2020 17:09:23

## 3M, 16QAM, Left Band Edge



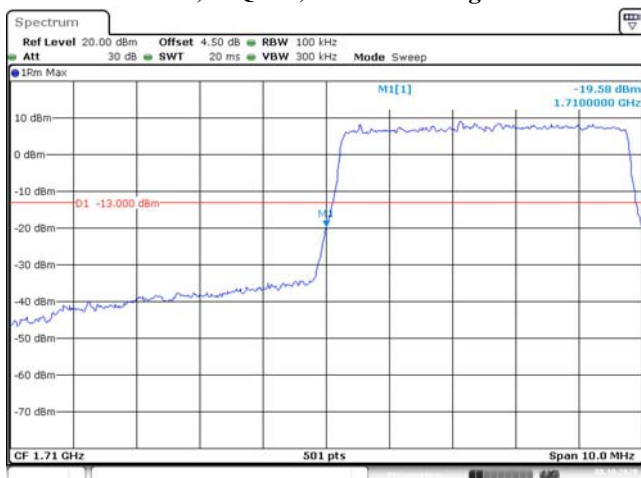
Date: 8.OCT.2020 17:10:08

## 3M, 16QAM, Right Band Edge



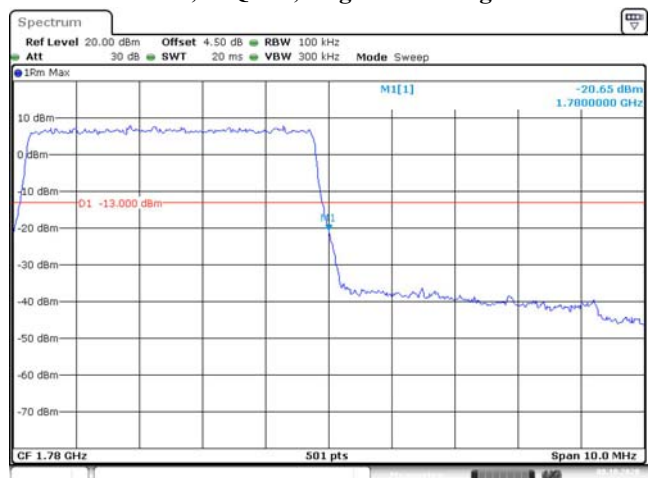
Date: 8.OCT.2020 17:10:58

## 5M, 16QAM, Left Band Edge



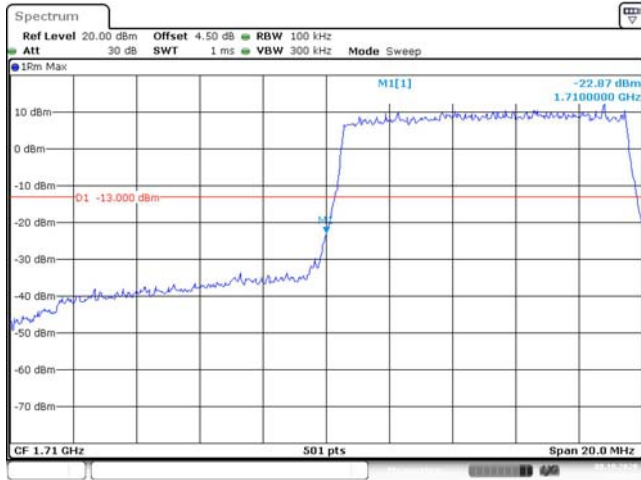
Date: 8.OCT.2020 17:12:18

## 5M, 16QAM, Right Band Edge



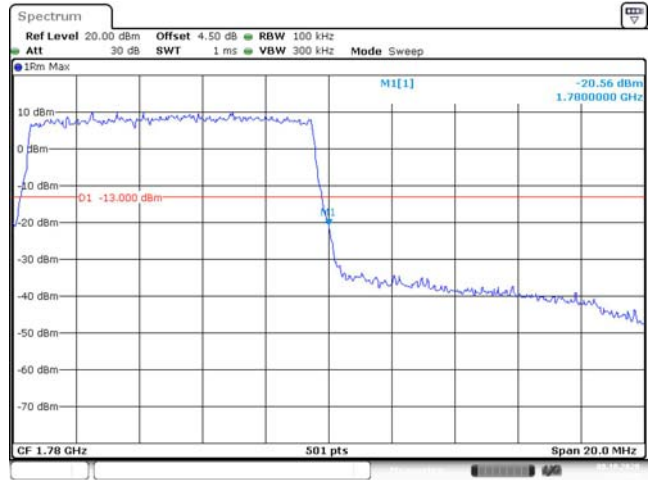
Date: 8.OCT.2020 17:13:40

## 10M, 16QAM, Left Band Edge



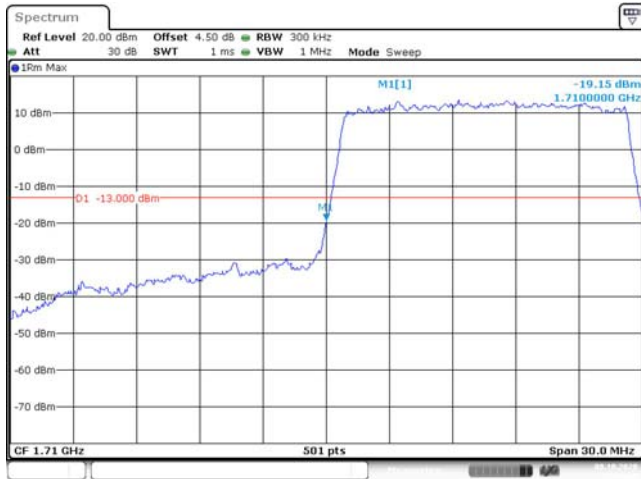
Date: 8.OCT.2020 17:14:42

## 10M, 16QAM, Right Band Edge



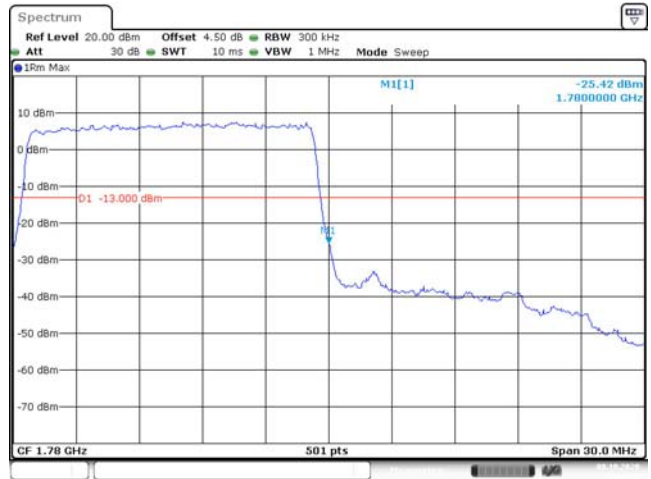
Date: 8.OCT.2020 17:15:44

## 15M, 16QAM, Left Band Edge



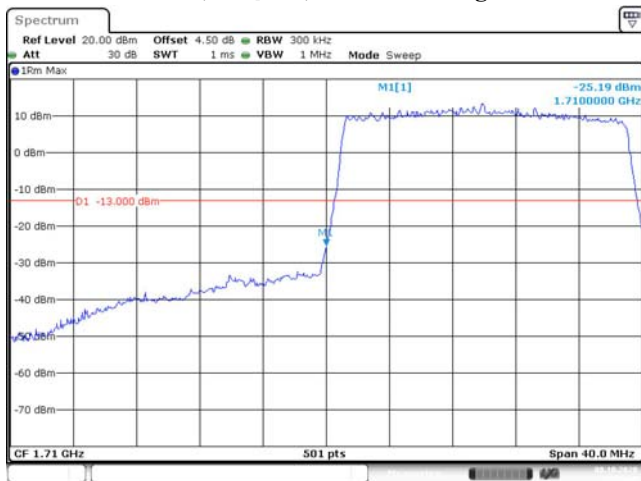
Date: 8.OCT.2020 17:16:59

## 15M, 16QAM, Right Band Edge



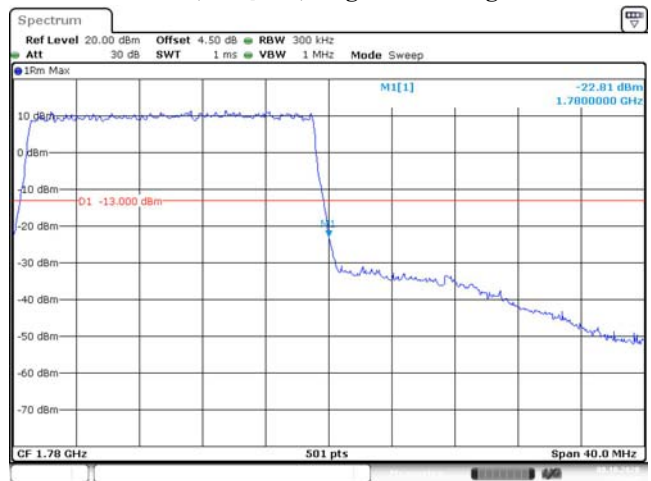
Date: 8.OCT.2020 17:18:13

## 20M, 16QAM, Left Band Edge



Date: 8.OCT.2020 17:25:29

## 20M, 16QAM, Right Band Edge



Date: 8.OCT.2020 17:26:29

**FCC §2.1055, §22.355 & §24.235 & §27.54 - FREQUENCY STABILITY**

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**Applicable Standard**

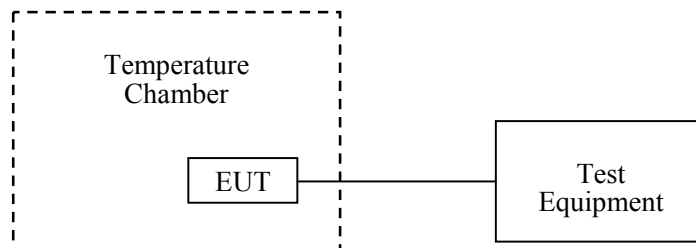
FCC § 2.1055 (a), § 2.1055 (d), §22.355, §24.235, §27.54

**Test Procedure**

Frequency Stability vs. Temperature: The equipment under test was connected to an external DC power supply and the RF output was connected to communication test set via feed-through attenuators. The EUT was placed inside the temperature chamber. The leads and RF output cable exited the chamber through an opening made for the purpose.

After the temperature stabilized for approximately 20 minutes, the frequency output was recorded from the communication test set.

Frequency Stability vs. Voltage: An external variable DC power supply was connected to the battery terminals of the equipment under test. The voltage was set from 85% to 115% of the nominal value and was then decreased until the transmitter light no longer illuminated; i.e., the battery end point. The output frequency was recorded for each battery voltage.



**Test Equipment List and Details**

| Manufacturer   | Description                              | Model         | Serial Number | Calibration Date | Calibration Due Date |
|----------------|------------------------------------------|---------------|---------------|------------------|----------------------|
| R&S            | Spectrum Analyzer                        | FSU 26        | 200256        | 2020-05-09       | 2021-05-09           |
| R&S            | Spectrum Analyzer                        | FSV40         | 101474        | 2020-07-07       | 2021-07-07           |
| yzjingcheng    | Coaxial Cable                            | KTRFBU-141-50 | 41005011      | Each time        | /                    |
| yzjingcheng    | Coaxial Cable                            | KTRFBU-141-50 | 41002201      | Each Time        | /                    |
| E-Microwave    | Blocking Control                         | EMDCB-00036   | 0E01201048    | Each time        | /                    |
| E-Microwave    | Coaxial Attenuators                      | EMCA10-5RN-6  | OE01203239    | Each time        | /                    |
| E-Microwave    | Two-way Splitter                         | ODP-1-6-2S    | OE0120142     | Each Time        | /                    |
| ESPEC          | Constant temperature and humidity Tester | ESX-4CA       | 018 463       | 2020-03-10       | 2021-03-09           |
| UNI-T          | Multimeter                               | UT39A         | M130199938    | 2020-07-24       | 2021-07-24           |
| Pro instrument | DC Power Supply                          | pps3300       | 3300012       | N/A              | N/A                  |
| R&S            | Wideband Radio Communication Tester      | CMW500        | 147473        | 2020-09-12       | 2021-09-12           |

\* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

**Test Data****Environmental Conditions**

|                           |                       |
|---------------------------|-----------------------|
| <b>Temperature:</b>       | 25.3~27.5°C           |
| <b>Relative Humidity:</b> | 49~58%                |
| <b>ATM Pressure:</b>      | 100.8~101.0 kPa       |
| <b>Tester:</b>            | Chris Mo, Billy Li    |
| <b>Test Date:</b>         | 2020-09-22~2020-10-20 |

*Test Result: Compliance.*

**WCDMA Band II: R99**

| Middle Channel, $f_c = 1880.0$ MHz |                 |                 |                 |        |
|------------------------------------|-----------------|-----------------|-----------------|--------|
| Temperature                        | Voltage         | Frequency Error | Frequency Error | Result |
| °C                                 | V <sub>DC</sub> | Hz              | ppm             |        |
| -30                                | 3.8             | -1              | -0.00053        | Pass   |
| -20                                |                 | -1              | -0.00053        |        |
| -10                                |                 | -3              | -0.00160        |        |
| 0                                  |                 | -4              | -0.00213        |        |
| 10                                 |                 | -5              | -0.00266        |        |
| 20                                 |                 | -6              | -0.00319        |        |
| 30                                 |                 | -3              | -0.00160        |        |
| 40                                 |                 | -5              | -0.00266        |        |
| 50                                 |                 | -6              | -0.00319        |        |
| 20                                 | 4.35            | -4              | -0.00213        |        |
| 20                                 | 3.6             | -7              | -0.00372        |        |

**WCDMA Band IV: R99**

| QPSK, Channel Bandwidth:10MHz |             |                |       |                |       |
|-------------------------------|-------------|----------------|-------|----------------|-------|
| Power Supplied                | Temperature | F <sub>L</sub> | Limit | F <sub>H</sub> | Limit |
| Vdc                           | °C          | MHz            | MHz   | MHz            | MHz   |
| 3.8                           | -30         | 1.710319       | 1710  | 1.754664       | 1755  |
|                               | -20         | 1.710321       |       | 1.754667       |       |
|                               | -10         | 1.710314       |       | 1.754669       |       |
|                               | 0           | 1.710316       |       | 1.754665       |       |
|                               | 10          | 1.710321       |       | 1.754666       |       |
|                               | 20          | 1.710340       |       | 1.754660       |       |
|                               | 30          | 1.710318       |       | 1.754664       |       |
|                               | 40          | 1.710316       |       | 1.754669       |       |
|                               | 50          | 1.710317       |       | 1.754671       |       |
| 4.35                          | 20          | 1.710319       |       | 1.754668       |       |
| 3.6                           | 20          | 1.710323       |       | 1.754669       |       |

**WCDMA Band V: R99**

| Middle Channel, $f_c = 836.6$ MHz |                 |                 |                 |              |
|-----------------------------------|-----------------|-----------------|-----------------|--------------|
| Temperature                       | Voltage         | Frequency Error | Frequency Error | Limits (ppm) |
| °C                                | V <sub>DC</sub> | Hz              | ppm             |              |
| -30                               | 3.8             | -2              | -0.00239        | 2.5          |
| -20                               |                 | -1              | -0.00120        |              |
| -10                               |                 | -3              | -0.00359        |              |
| 0                                 |                 | -4              | -0.00478        |              |
| 10                                |                 | -6              | -0.00717        |              |
| 20                                |                 | -10             | -0.01195        |              |
| 30                                |                 | -8              | -0.00956        |              |
| 40                                |                 | -9              | -0.01076        |              |
| 50                                |                 | -7              | -0.00837        |              |
| 20                                | 4.35            | -5              | -0.00598        |              |
| 20                                | 3.6             | -10             | -0.01195        |              |

**LTE Band 2:**

| QPSK, Channel Bandwidth:10MHz<br>Middle Channel, $f_c = 1880$ MHz |                 |                 |                 |        |
|-------------------------------------------------------------------|-----------------|-----------------|-----------------|--------|
| Temperature                                                       | Voltage         | Frequency Error | Frequency Error | Result |
| °C                                                                | V <sub>DC</sub> | Hz              | ppm             |        |
| -30                                                               | 3.8             | -2.78           | -0.0015         | Pass   |
| -20                                                               |                 | -0.84           | -0.0004         |        |
| -10                                                               |                 | 10.34           | 0.0055          |        |
| 0                                                                 |                 | 6.96            | 0.0037          |        |
| 10                                                                |                 | 8.86            | 0.0047          |        |
| 20                                                                |                 | -6.54           | -0.0035         |        |
| 30                                                                |                 | 4.64            | 0.0025          |        |
| 40                                                                |                 | 4.22            | 0.0022          |        |
| 50                                                                |                 | -0.21           | -0.0001         |        |
| 20                                                                | 4.35            | 8.23            | 0.0044          |        |
| 20                                                                | 3.6             | 2.36            | 0.0013          |        |

| 16QAM, Channel Bandwidth:10MHz<br>Middle Channel, $f_c = 1880$ MHz |                 |                 |                 |        |
|--------------------------------------------------------------------|-----------------|-----------------|-----------------|--------|
| Temperature                                                        | Voltage         | Frequency Error | Frequency Error | Result |
| °C                                                                 | V <sub>DC</sub> | Hz              | ppm             |        |
| -30                                                                | 3.8             | -2.37           | -0.0013         | Pass   |
| -20                                                                |                 | -12.45          | -0.0066         |        |
| -10                                                                |                 | 6.75            | 0.0036          |        |
| 0                                                                  |                 | 6.33            | 0.0034          |        |
| 10                                                                 |                 | 8.65            | 0.0046          |        |
| 20                                                                 |                 | 5.91            | 0.0031          |        |
| 30                                                                 |                 | -2.32           | -0.0012         |        |
| 40                                                                 |                 | -7.60           | -0.004          |        |
| 50                                                                 |                 | 2.95            | 0.0016          |        |
| 20                                                                 | 4.35            | 6.54            | 0.0035          |        |
| 20                                                                 | 3.6             | 3.25            | 0.0017          |        |

**LTE Band 4**

| <b>QPSK, Channel Bandwidth:20MHz</b> |                    |                      |              |                      |              |
|--------------------------------------|--------------------|----------------------|--------------|----------------------|--------------|
| <b>Power Supplied</b>                | <b>Temperature</b> | <b>F<sub>L</sub></b> | <b>Limit</b> | <b>F<sub>H</sub></b> | <b>Limit</b> |
| <b>Vdc</b>                           | <b>°C</b>          | <b>MHz</b>           | <b>MHz</b>   | <b>MHz</b>           | <b>MHz</b>   |
| 3.8                                  | -30                | 1710.545             | 1710         | 1754.454             | 1755         |
|                                      | -20                | 1710.539             |              | 1754.449             |              |
|                                      | -10                | 1710.535             |              | 1754.453             |              |
|                                      | 0                  | 1710.532             |              | 1754.451             |              |
|                                      | 10                 | 1710.530             |              | 1754.449             |              |
|                                      | 20                 | 1710.543             |              | 1754.457             |              |
|                                      | 30                 | 1710.548             |              | 1754.460             |              |
|                                      | 40                 | 1710.542             |              | 1754.461             |              |
|                                      | 50                 | 1710.544             |              | 1754.467             |              |
| 4.35                                 | 20                 | 1710.538             | 1710         | 1754.465             | 1755         |
| 3.6                                  | 20                 | 1710.542             |              | 1754.461             |              |

| <b>16QAM, Channel Bandwidth:20MHz</b> |                    |                      |              |                      |              |
|---------------------------------------|--------------------|----------------------|--------------|----------------------|--------------|
| <b>Power Supplied</b>                 | <b>Temperature</b> | <b>F<sub>L</sub></b> | <b>Limit</b> | <b>F<sub>H</sub></b> | <b>Limit</b> |
| <b>Vdc</b>                            | <b>°C</b>          | <b>MHz</b>           | <b>MHz</b>   | <b>MHz</b>           | <b>MHz</b>   |
| 3.8                                   | -30                | 1710.547             | 1710         | 1754.459             | 1755         |
|                                       | -20                | 1710.544             |              | 1754.456             |              |
|                                       | -10                | 1710.543             |              | 1754.455             |              |
|                                       | 0                  | 1710.540             |              | 1754.453             |              |
|                                       | 10                 | 1710.540             |              | 1754.455             |              |
|                                       | 20                 | 1710.543             |              | 1754.457             |              |
|                                       | 30                 | 1710.541             |              | 1754.460             |              |
|                                       | 40                 | 1710.543             |              | 1754.460             |              |
|                                       | 50                 | 1710.548             |              | 1754.464             |              |
| 4.35                                  | 20                 | 1710.553             | 1710         | 1754.461             | 1755         |
| 3.6                                   | 20                 | 1710.551             |              | 1754.463             |              |

**LTE Band 5**

| <b>QPSK, Channel Bandwidth:10MHz</b>                |                       |                        |                        |              |
|-----------------------------------------------------|-----------------------|------------------------|------------------------|--------------|
| <b>Middle Channel, <math>f_c = 836.5</math> MHz</b> |                       |                        |                        |              |
| <b>Temperature</b>                                  | <b>Voltage</b>        | <b>Frequency Error</b> | <b>Frequency Error</b> | <b>Limit</b> |
| <b>°C</b>                                           | <b>V<sub>DC</sub></b> | <b>Hz</b>              | <b>ppm</b>             | <b>ppm</b>   |
| -30                                                 | 3.8                   | -0.5900                | -0.0007                | 2.5          |
| -20                                                 |                       | 3.1950                 | 0.0038                 |              |
| -10                                                 |                       | -1.7040                | -0.0020                |              |
| 0                                                   |                       | -3.6210                | -0.0043                |              |
| 10                                                  |                       | -1.7040                | -0.0020                |              |
| 20                                                  |                       | -9.1590                | -0.0109                |              |
| 30                                                  |                       | 1.9170                 | 0.0023                 |              |
| 40                                                  |                       | 3.6210                 | 0.0043                 |              |
| 50                                                  |                       | -3.6210                | -0.0043                |              |
| 20                                                  | 4.35                  | 4.0470                 | 0.0048                 |              |
| 20                                                  | 3.6                   | 5.7510                 | 0.0069                 |              |

| <b>16QAM, Channel Bandwidth:10MHz</b>               |                       |                        |                        |              |
|-----------------------------------------------------|-----------------------|------------------------|------------------------|--------------|
| <b>Middle Channel, <math>f_c = 836.5</math> MHz</b> |                       |                        |                        |              |
| <b>Temperature</b>                                  | <b>Voltage</b>        | <b>Frequency Error</b> | <b>Frequency Error</b> | <b>Limit</b> |
| <b>°C</b>                                           | <b>V<sub>DC</sub></b> | <b>Hz</b>              | <b>ppm</b>             | <b>ppm</b>   |
| -30                                                 | 3.8                   | -0.5100                | -0.0006                | 2.5          |
| -20                                                 |                       | -1.7040                | -0.0020                |              |
| -10                                                 |                       | 4.6860                 | 0.0056                 |              |
| 0                                                   |                       | -8.7330                | -0.0104                |              |
| 10                                                  |                       | -3.8340                | -0.0046                |              |
| 20                                                  |                       | -5.3250                | -0.0064                |              |
| 30                                                  |                       | -3.4080                | -0.0041                |              |
| 40                                                  |                       | -6.1770                | -0.0074                |              |
| 50                                                  |                       | 1.4910                 | 0.0018                 |              |
| 20                                                  | 4.35                  | -3.8340                | -0.0046                |              |
| 20                                                  | 3.6                   | 5.7510                 | 0.0069                 |              |

**LTE Band 12:**

| <b>QPSK, Channel Bandwidth:10MHz</b> |                 |                          |                |                    |                |
|--------------------------------------|-----------------|--------------------------|----------------|--------------------|----------------|
| <b>Temperature</b>                   | <b>Voltage</b>  | <b>Test Result (MHz)</b> |                | <b>Limit (MHz)</b> |                |
| °C                                   | V <sub>DC</sub> | F <sub>L</sub>           | F <sub>H</sub> | F <sub>L</sub>     | F <sub>H</sub> |
| -30                                  | 3.8             | 699.515                  | 715.454        | 699                | 716            |
| -20                                  |                 | 699.515                  | 715.457        | 699                | 716            |
| -10                                  |                 | 699.517                  | 715.458        | 699                | 716            |
| 0                                    |                 | 699.515                  | 715.455        | 699                | 716            |
| 10                                   |                 | 699.515                  | 715.452        | 699                | 716            |
| 20                                   |                 | 699.514                  | 715.457        | 699                | 716            |
| 30                                   |                 | 699.514                  | 715.456        | 699                | 716            |
| 40                                   |                 | 699.512                  | 715.459        | 699                | 716            |
| 50                                   |                 | 699.515                  | 715.463        | 699                | 716            |
| 20                                   | 4.35            | 699.512                  | 715.466        | 699                | 716            |
| 20                                   | 3.6             | 699.514                  | 715.467        | 699                | 716            |

| <b>16QAM, Channel Bandwidth:10MHz</b> |                 |                          |                |                    |                |
|---------------------------------------|-----------------|--------------------------|----------------|--------------------|----------------|
| <b>Temperature</b>                    | <b>Voltage</b>  | <b>Test Result (MHz)</b> |                | <b>Limit (MHz)</b> |                |
| °C                                    | V <sub>DC</sub> | F <sub>L</sub>           | F <sub>H</sub> | F <sub>L</sub>     | F <sub>H</sub> |
| -30                                   | 3.8             | 699.509                  | 715.460        | 699                | 716            |
| -20                                   |                 | 699.504                  | 715.464        | 699                | 716            |
| -10                                   |                 | 699.506                  | 715.466        | 699                | 716            |
| 0                                     |                 | 699.508                  | 715.465        | 699                | 716            |
| 10                                    |                 | 699.503                  | 715.467        | 699                | 716            |
| 20                                    |                 | 699.514                  | 715.457        | 699                | 716            |
| 30                                    |                 | 699.510                  | 715.462        | 699                | 716            |
| 40                                    |                 | 699.514                  | 715.465        | 699                | 716            |
| 50                                    |                 | 699.518                  | 715.463        | 699                | 716            |
| 20                                    | 4.35            | 699.516                  | 715.466        | 699                | 716            |
| 20                                    | 3.6             | 699.519                  | 715.468        | 699                | 716            |

**LTE Band 17**

| <b>QPSK, Channel Bandwidth:10MHz</b> |                       |                          |                      |                      |                      |
|--------------------------------------|-----------------------|--------------------------|----------------------|----------------------|----------------------|
| <b>Temperature</b>                   | <b>Voltage</b>        | <b>Test Result (MHz)</b> |                      | <b>Limit (MHz)</b>   |                      |
| <b>°C</b>                            | <b>V<sub>DC</sub></b> | <b>F<sub>L</sub></b>     | <b>F<sub>H</sub></b> | <b>F<sub>L</sub></b> | <b>F<sub>H</sub></b> |
| -30                                  | 3.8                   | 704.523                  | 715.476              | 704                  | 716                  |
| -20                                  |                       | 704.521                  | 715.479              | 704                  | 716                  |
| -10                                  |                       | 704.518                  | 715.468              | 704                  | 716                  |
| 0                                    |                       | 704.524                  | 715.465              | 704                  | 716                  |
| 10                                   |                       | 704.523                  | 715.467              | 704                  | 716                  |
| 20                                   |                       | 704.529                  | 715.471              | 704                  | 716                  |
| 30                                   |                       | 704.519                  | 715.479              | 704                  | 716                  |
| 40                                   |                       | 704.522                  | 715.473              | 704                  | 716                  |
| 50                                   |                       | 704.526                  | 715.472              | 704                  | 716                  |
| 20                                   | 4.35                  | 704.518                  | 715.466              | 704                  | 716                  |
| 20                                   | 3.6                   | 704.525                  | 715.469              | 704                  | 716                  |

| <b>16QAM, Channel Bandwidth:10MHz</b> |                       |                          |                      |                      |                      |
|---------------------------------------|-----------------------|--------------------------|----------------------|----------------------|----------------------|
| <b>Temperature</b>                    | <b>Voltage</b>        | <b>Test Result (MHz)</b> |                      | <b>Limit (MHz)</b>   |                      |
| <b>°C</b>                             | <b>V<sub>DC</sub></b> | <b>F<sub>L</sub></b>     | <b>F<sub>H</sub></b> | <b>F<sub>L</sub></b> | <b>F<sub>H</sub></b> |
| -30                                   | 3.8                   | 704.526                  | 715.473              | 704                  | 716                  |
| -20                                   |                       | 704.524                  | 715.478              | 704                  | 716                  |
| -10                                   |                       | 704.518                  | 715.464              | 704                  | 716                  |
| 0                                     |                       | 704.519                  | 715.468              | 704                  | 716                  |
| 10                                    |                       | 704.521                  | 715.462              | 704                  | 716                  |
| 20                                    |                       | 704.529                  | 715.471              | 704                  | 716                  |
| 30                                    |                       | 704.524                  | 715.469              | 704                  | 716                  |
| 40                                    |                       | 704.517                  | 715.478              | 704                  | 716                  |
| 50                                    |                       | 704.513                  | 715.464              | 704                  | 716                  |
| 20                                    | 4.35                  | 704.518                  | 715.465              | 704                  | 716                  |
| 20                                    | 3.6                   | 704.526                  | 715.473              | 704                  | 716                  |

**LTE Band 66:**

| <b>QPSK, Channel Bandwidth:20MHz</b> |                       |                          |                      |                      |                      |
|--------------------------------------|-----------------------|--------------------------|----------------------|----------------------|----------------------|
| <b>Temperature</b>                   | <b>Voltage</b>        | <b>Test Result (MHz)</b> |                      | <b>Limit (MHz)</b>   |                      |
| <b>°C</b>                            | <b>V<sub>DC</sub></b> | <b>F<sub>L</sub></b>     | <b>F<sub>H</sub></b> | <b>F<sub>L</sub></b> | <b>F<sub>H</sub></b> |
| -30                                  | 3.8                   | 1710.542                 | 1779.454             | 1710                 | 1780                 |
| -20                                  |                       | 1710.541                 | 1779.458             | 1710                 | 1780                 |
| -10                                  |                       | 1710.542                 | 1779.461             | 1710                 | 1780                 |
| 0                                    |                       | 1710.545                 | 1779.456             | 1710                 | 1780                 |
| 10                                   |                       | 1710.540                 | 1779.461             | 1710                 | 1780                 |
| 20                                   |                       | 1710.543                 | 1779.457             | 1710                 | 1780                 |
| 30                                   |                       | 1710.548                 | 1779.452             | 1710                 | 1780                 |
| 40                                   |                       | 1710.546                 | 1779.453             | 1710                 | 1780                 |
| 50                                   |                       | 1710.550                 | 1779.457             | 1710                 | 1780                 |
| 20                                   | 4.35                  | 1710.546                 | 1779.452             | 1710                 | 1780                 |
| 20                                   | 3.6                   | 1710.544                 | 1779.451             | 1710                 | 1780                 |

| <b>16QAM, Channel Bandwidth:20MHz</b> |                       |                          |                      |                      |                      |
|---------------------------------------|-----------------------|--------------------------|----------------------|----------------------|----------------------|
| <b>Temperature</b>                    | <b>Voltage</b>        | <b>Test Result (MHz)</b> |                      | <b>Limit (MHz)</b>   |                      |
| <b>°C</b>                             | <b>V<sub>DC</sub></b> | <b>F<sub>L</sub></b>     | <b>F<sub>H</sub></b> | <b>F<sub>L</sub></b> | <b>F<sub>H</sub></b> |
| -30                                   | 3.8                   | 1710.544                 | 1779.459             | 1710                 | 1780                 |
| -20                                   |                       | 1710.548                 | 1779.464             | 1710                 | 1780                 |
| -10                                   |                       | 1710.550                 | 1779.462             | 1710                 | 1780                 |
| 0                                     |                       | 1710.547                 | 1779.466             | 1710                 | 1780                 |
| 10                                    |                       | 1710.543                 | 1779.471             | 1710                 | 1780                 |
| 20                                    |                       | 1710.543                 | 1779.457             | 1710                 | 1780                 |
| 30                                    |                       | 1710.538                 | 1779.456             | 1710                 | 1780                 |
| 40                                    |                       | 1710.543                 | 1779.453             | 1710                 | 1780                 |
| 50                                    |                       | 1710.547                 | 1779.456             | 1710                 | 1780                 |
| 20                                    | 4.35                  | 1710.552                 | 1779.457             | 1710                 | 1780                 |
| 20                                    | 3.6                   | 1710.554                 | 1779.460             | 1710                 | 1780                 |

Note: The fundamental emissions stay within the authorized bands of operation based on the frequency deviation measured is small, the extreme voltage was declared by applicant.

**\*\*\*\*\* END OF REPORT \*\*\*\*\***