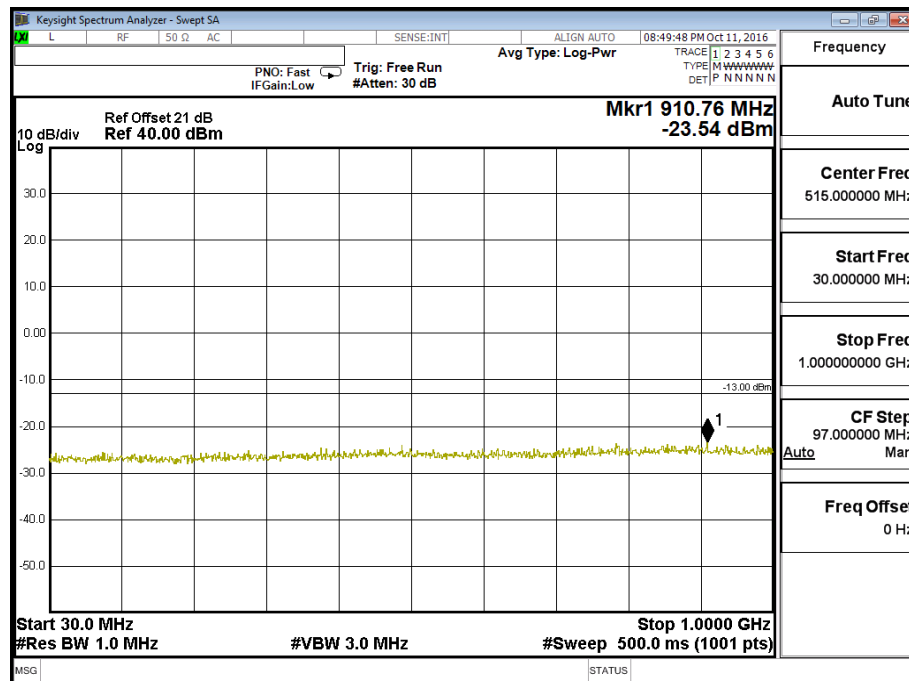
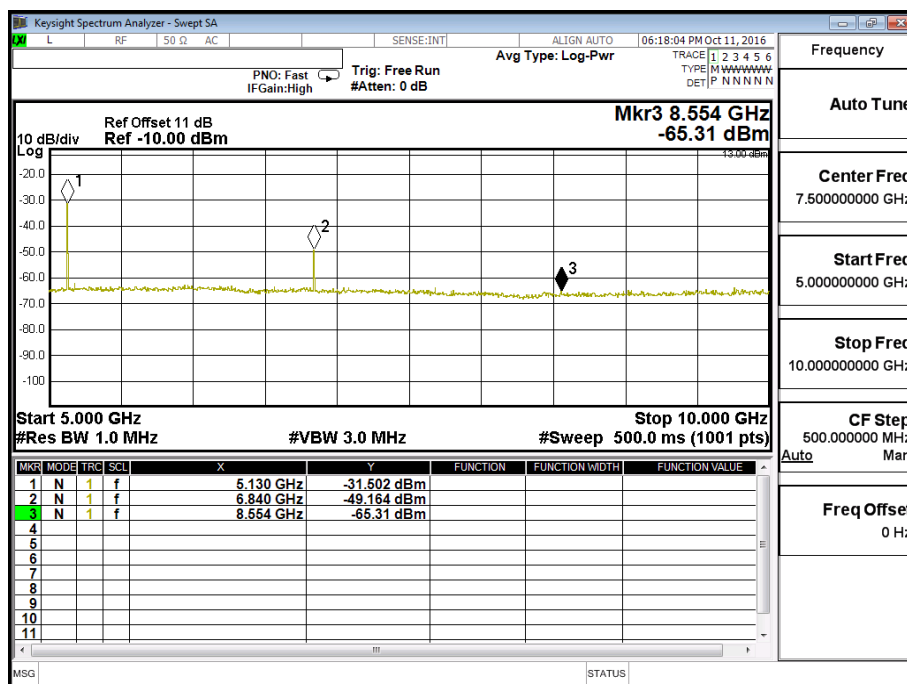
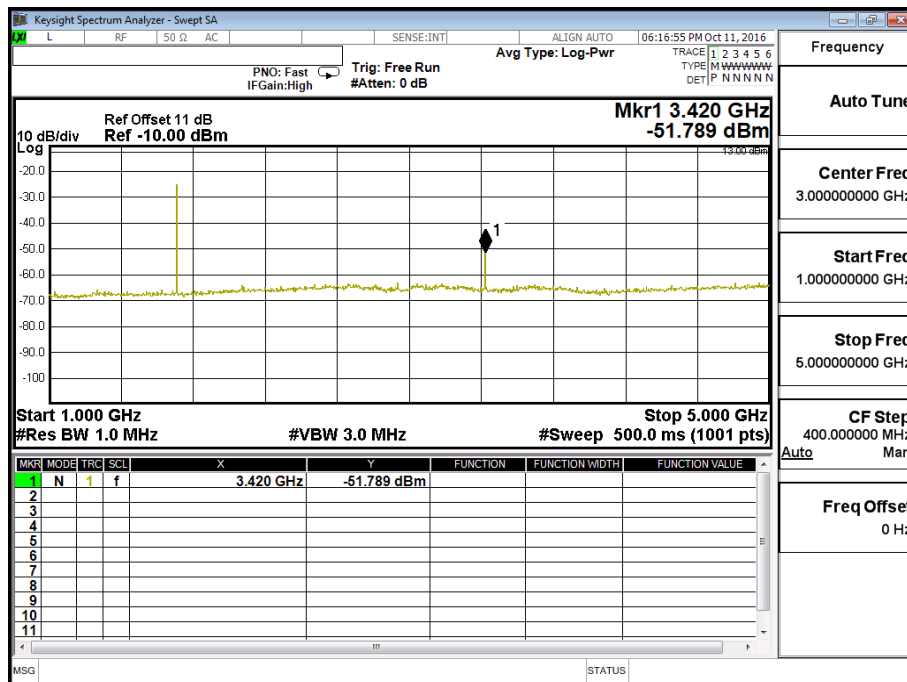


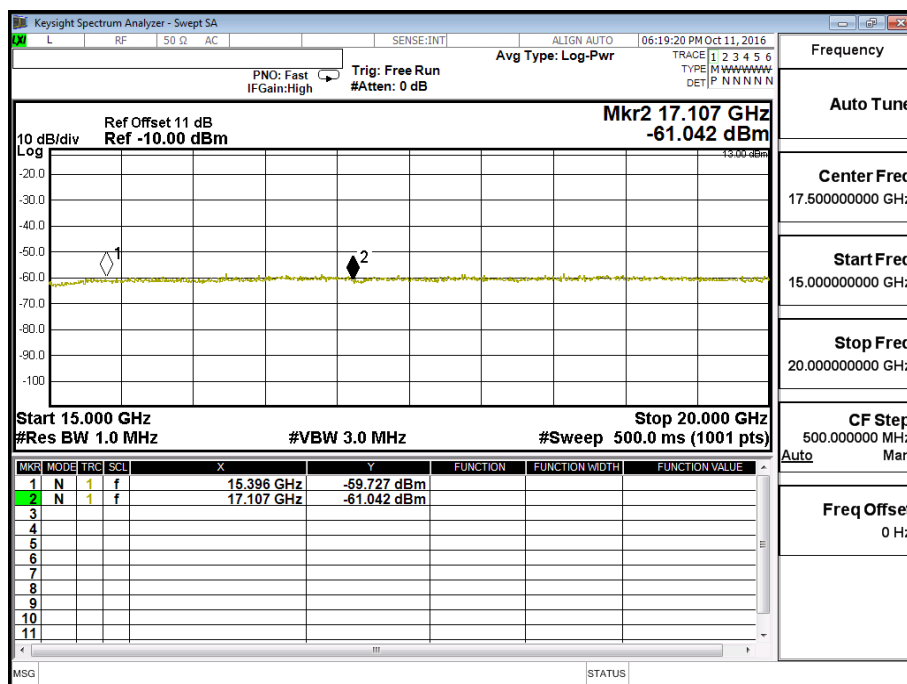
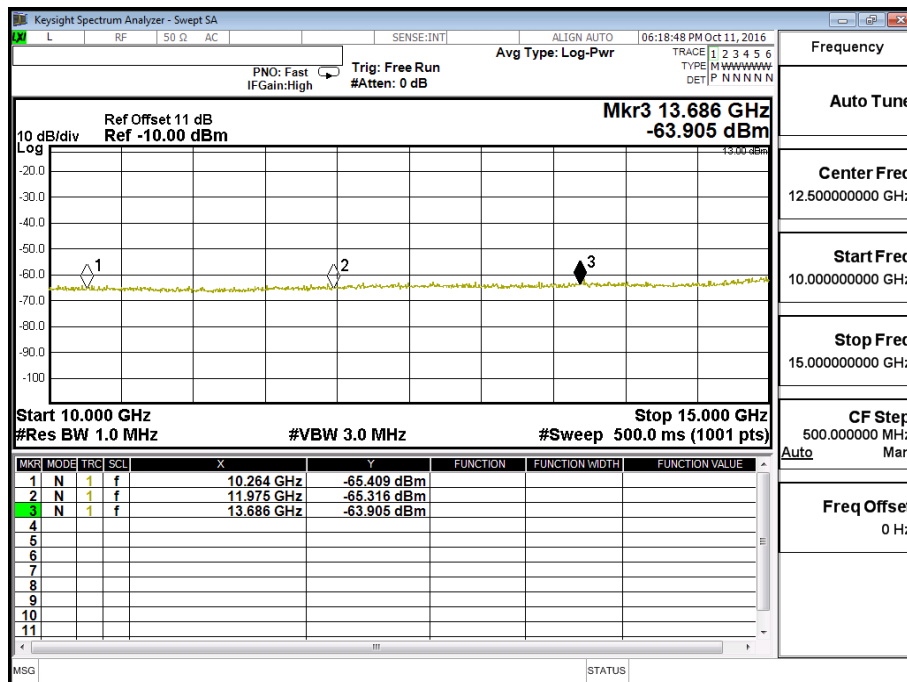
|                |                               |            |             |
|----------------|-------------------------------|------------|-------------|
| Product        | Module                        |            |             |
| Test Mode      | Spurious Emission (Conducted) |            |             |
| Date of Test   | 2016/10/11                    | Test Site  | CTR         |
| Test Condition | LTE-Band 4 (1.4M)             | Test Range | 30MHz~20GHz |

### LTE-Band 4 (1.4M) 16QAM(1,0) CH19957

| Frequency (MHz) | Reading Level (dBm) | Path Loss (dB) | Emission Level (dBm) | Limit (dBm) |
|-----------------|---------------------|----------------|----------------------|-------------|
| 3420            | -51.789             | 1.1            | -50.689              | -13         |
| 5130            | -31.502             | 1.23           | -30.272              | -13         |
| 6840            | -49.164             | 1.59           | -47.574              | -13         |
| 8554            | -65.310             | 1.89           | -63.420              | -13         |
| 10264           | -65.409             | 2.07           | -63.339              | -13         |
| 11975           | -65.316             | 2.26           | -63.056              | -13         |
| 13686           | -63.905             | 2.64           | -61.265              | -13         |
| 15396           | -59.727             | 3.5            | -56.227              | -13         |
| 17107           | -61.042             | 3.7            | -57.342              | -13         |



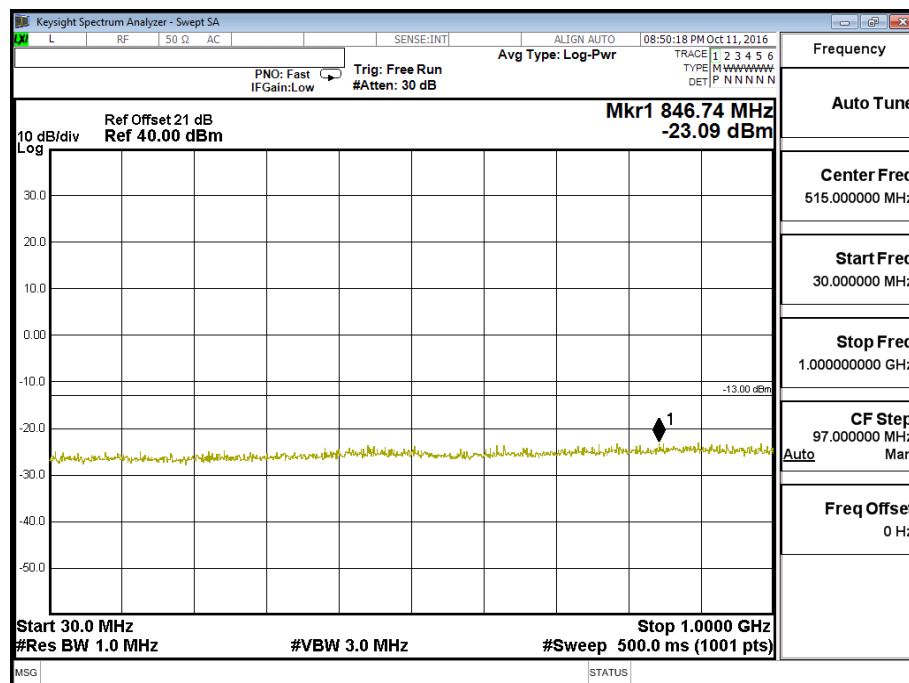


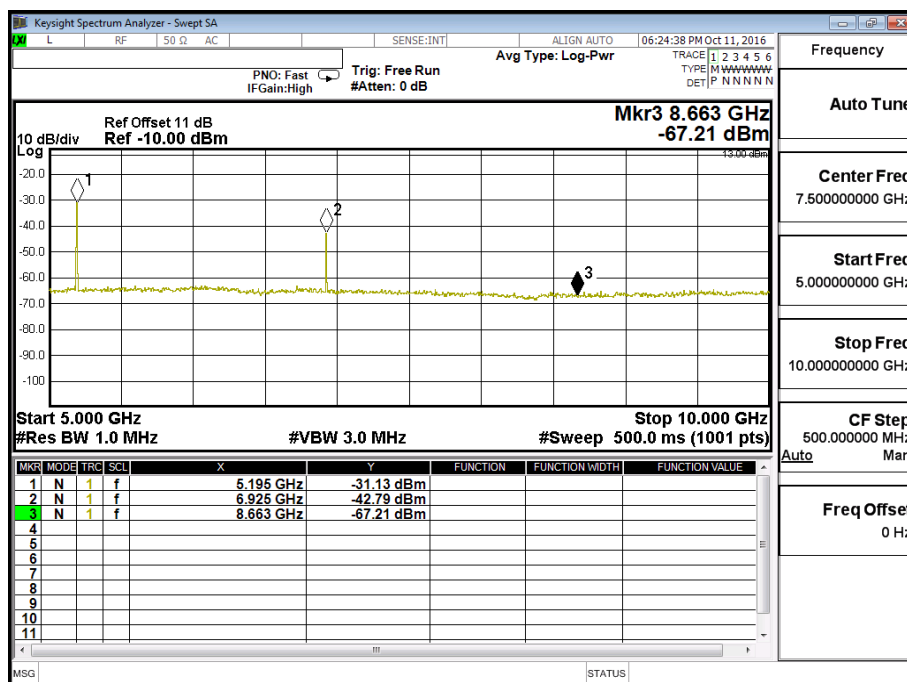
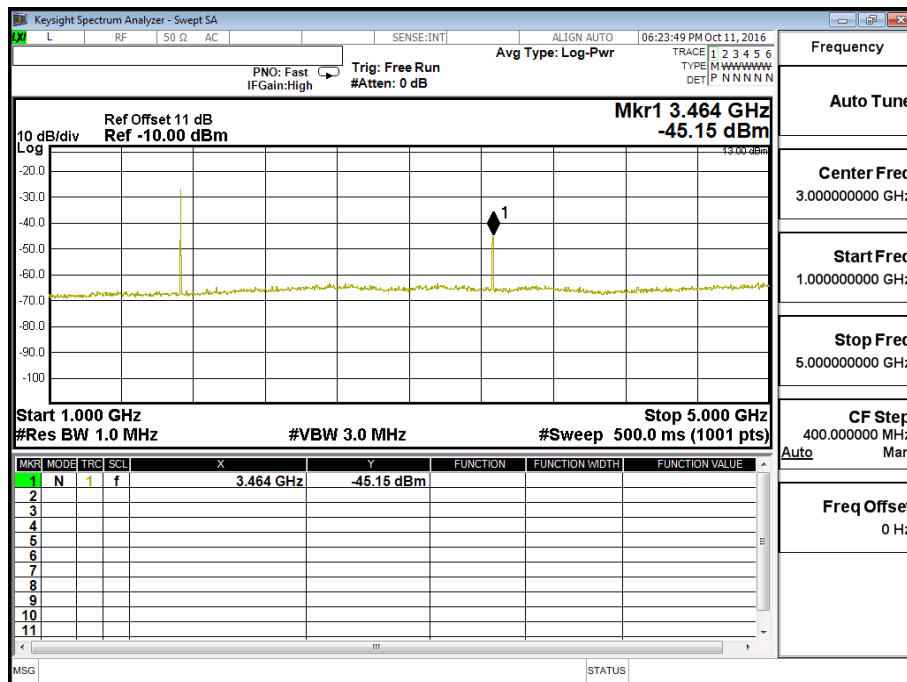


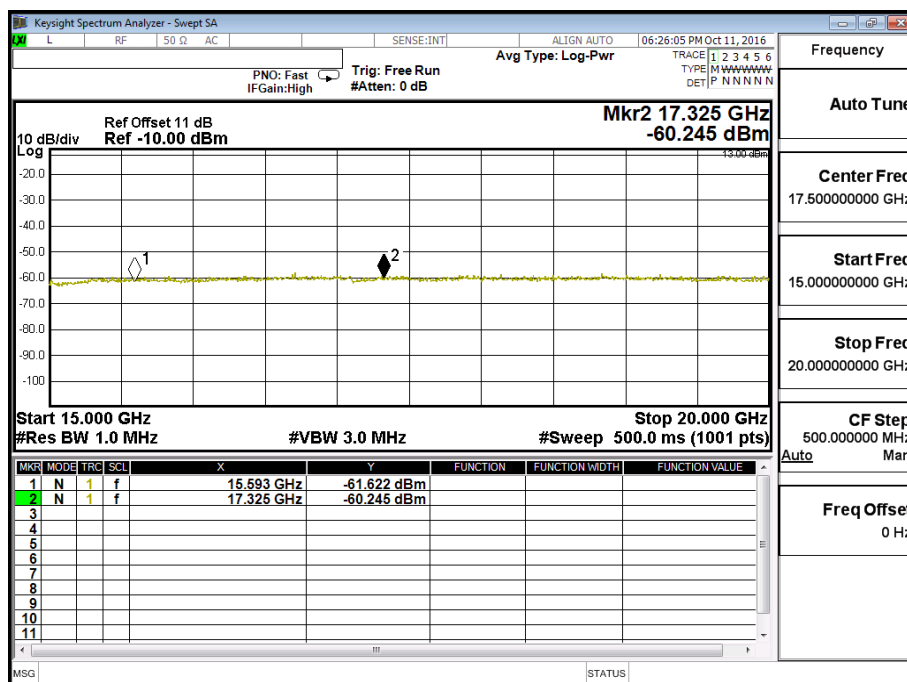
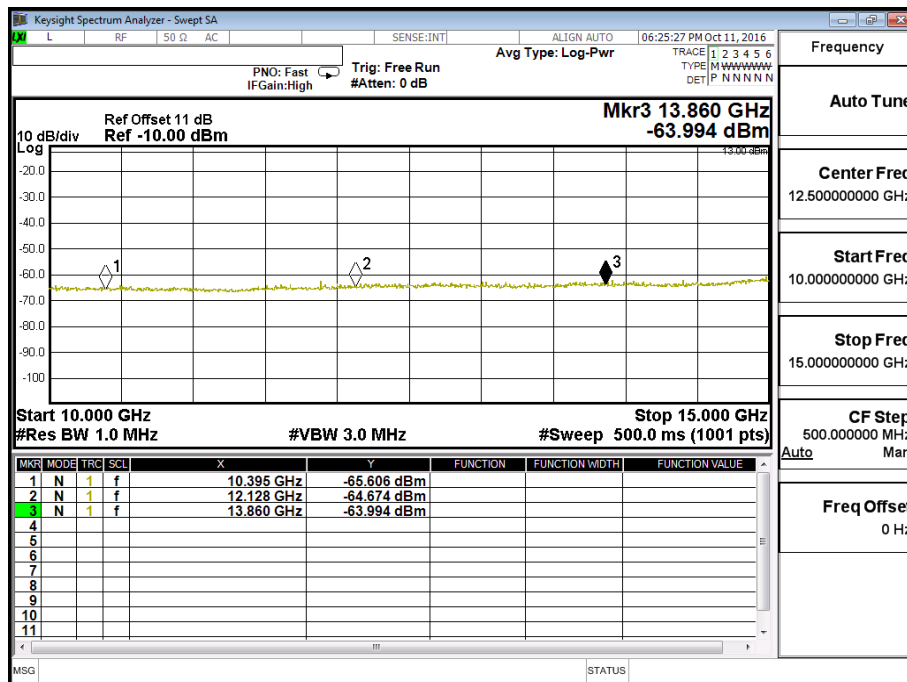
|                |                               |            |             |
|----------------|-------------------------------|------------|-------------|
| Product        | Module                        |            |             |
| Test Mode      | Spurious Emission (Conducted) |            |             |
| Date of Test   | 2016/10/11                    | Test Site  | CTR         |
| Test Condition | LTE-Band 4 (3M)               | Test Range | 30MHz~20GHz |

### LTE-Band 4 (3M) QPSK(1,0) CH20175

| Frequency (MHz) | Reading Level (dBm) | Path Loss (dB) | Emission Level (dBm) | Limit (dBm) |
|-----------------|---------------------|----------------|----------------------|-------------|
| 3464            | -45.150             | 1.1            | -44.050              | -13         |
| 5195            | -31.130             | 1.23           | -29.900              | -13         |
| 6925            | -42.790             | 1.59           | -41.200              | -13         |
| 8663            | -67.210             | 1.89           | -65.320              | -13         |
| 10395           | -65.606             | 2.07           | -63.536              | -13         |
| 12128           | -64.674             | 2.26           | -62.414              | -13         |
| 13860           | -63.994             | 2.64           | -61.354              | -13         |
| 15593           | -61.622             | 3.5            | -58.122              | -13         |
| 17325           | -60.245             | 3.7            | -56.545              | -13         |



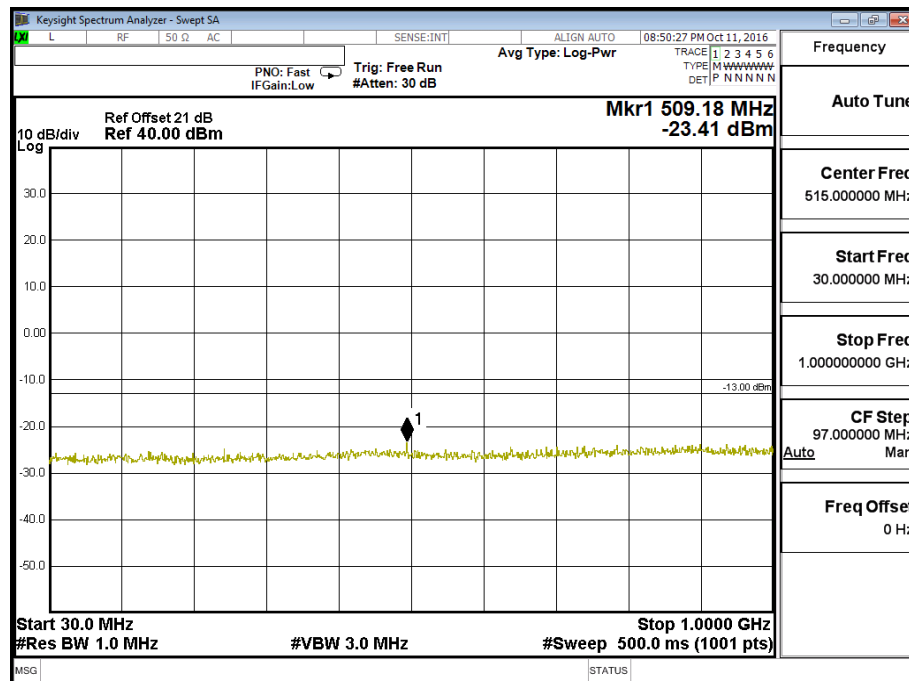


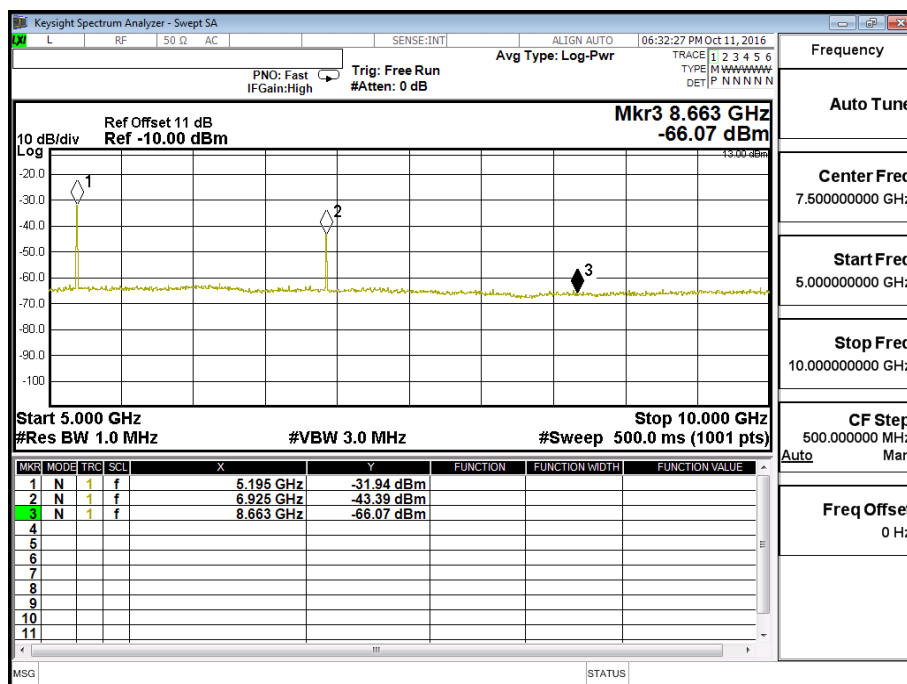
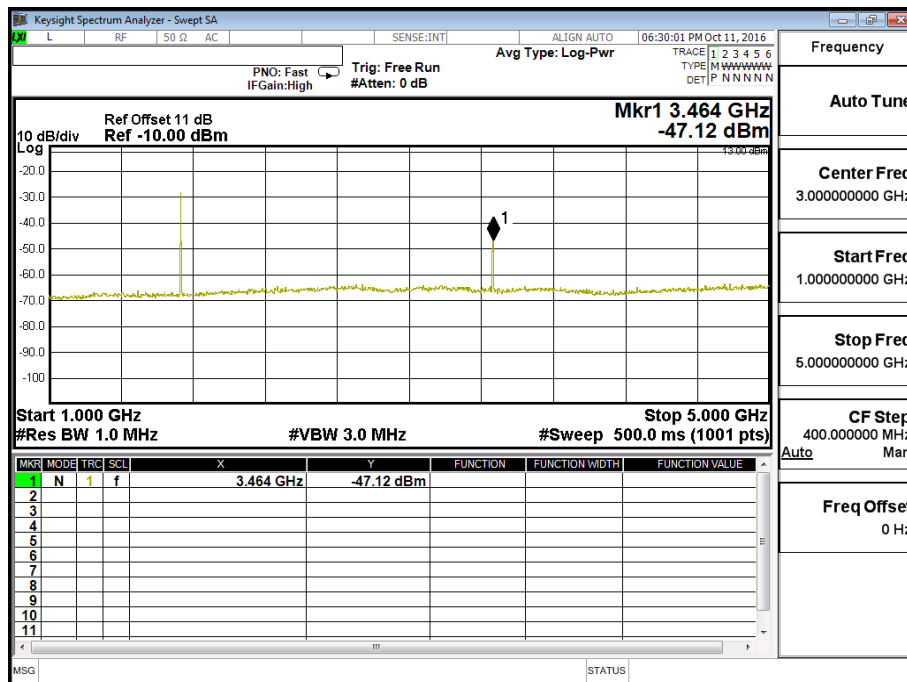


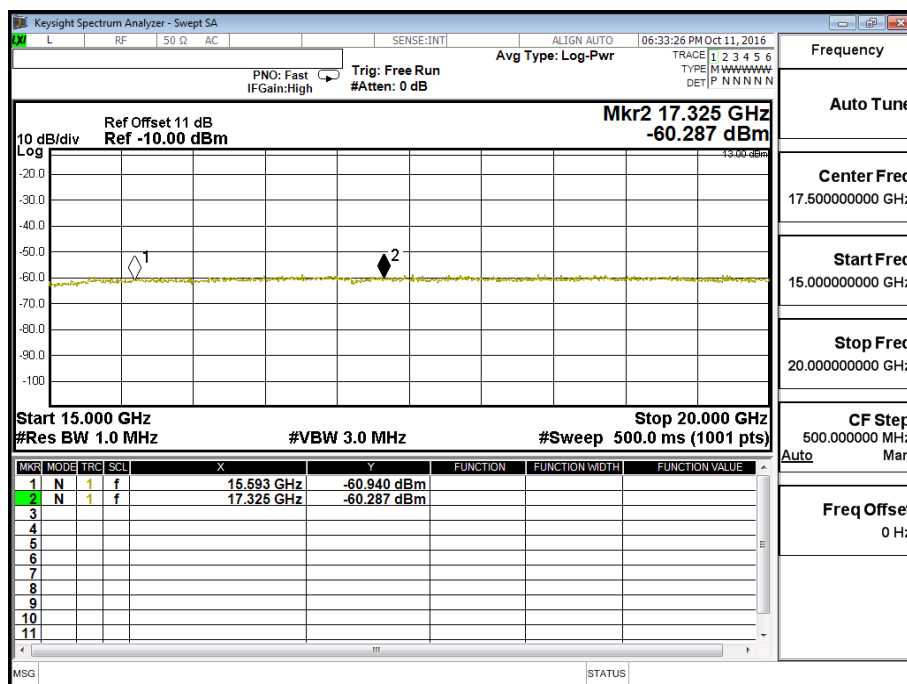
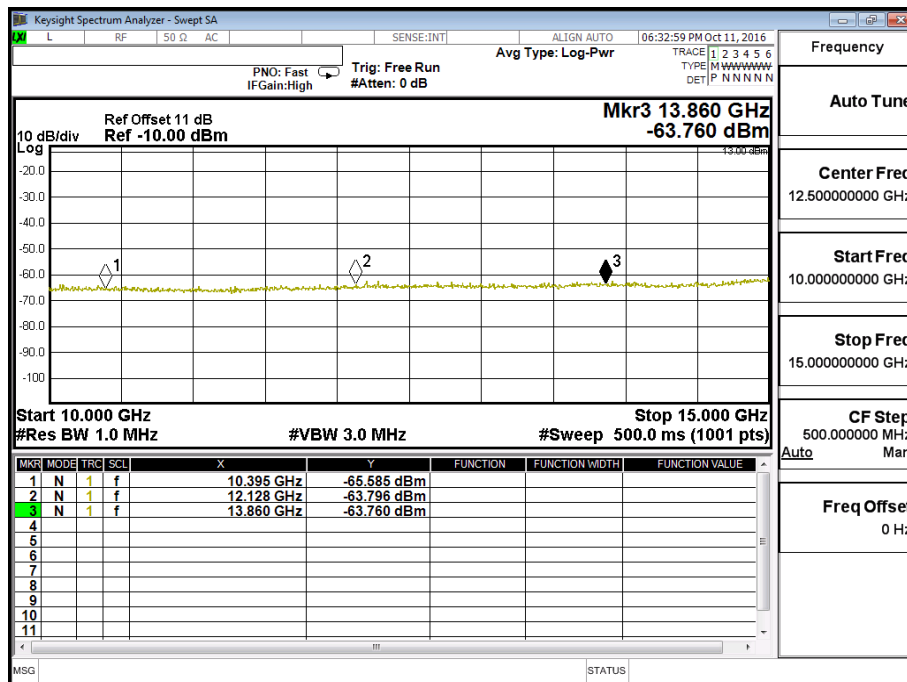
|                |                               |            |             |
|----------------|-------------------------------|------------|-------------|
| Product        | Module                        |            |             |
| Test Mode      | Spurious Emission (Conducted) |            |             |
| Date of Test   | 2016/10/11                    | Test Site  | CTR         |
| Test Condition | LTE-Band 4 (3M)               | Test Range | 30MHz~20GHz |

### LTE-Band 4 (3M) 16QAM(1,0) CH20175

| Frequency (MHz) | Reading Level (dBm) | Path Loss (dB) | Emission Level (dBm) | Limit (dBm) |
|-----------------|---------------------|----------------|----------------------|-------------|
| 3464            | -47.120             | 1.1            | -46.020              | -13         |
| 5195            | -31.940             | 1.23           | -30.710              | -13         |
| 6925            | -43.390             | 1.59           | -41.800              | -13         |
| 8663            | -66.070             | 1.89           | -64.180              | -13         |
| 10395           | -65.585             | 2.07           | -63.515              | -13         |
| 12128           | -63.796             | 2.26           | -61.536              | -13         |
| 13860           | -63.760             | 2.64           | -61.120              | -13         |
| 15593           | -60.940             | 3.5            | -57.440              | -13         |
| 17325           | -60.287             | 3.7            | -56.587              | -13         |



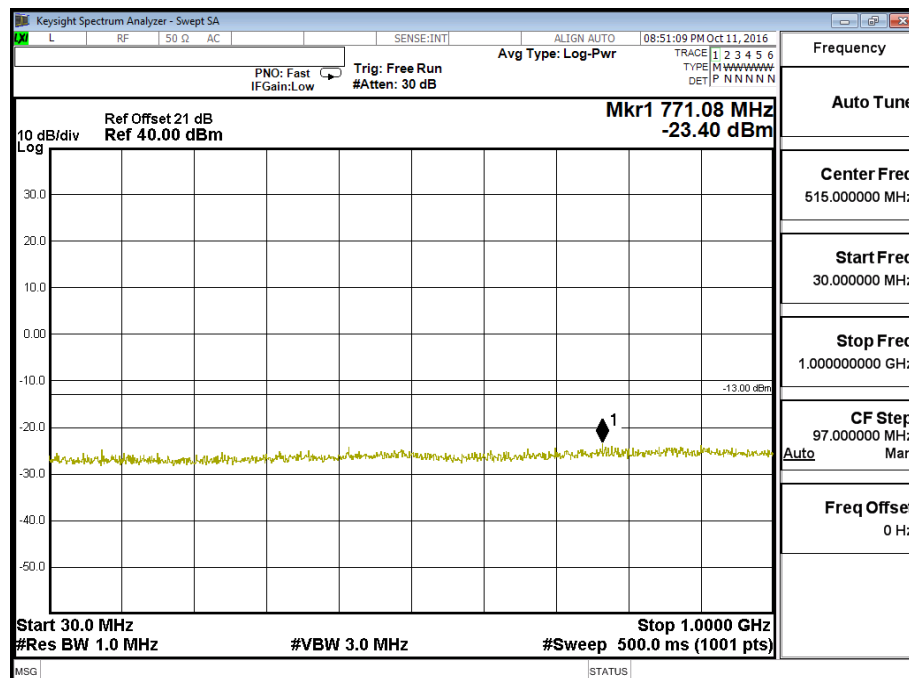


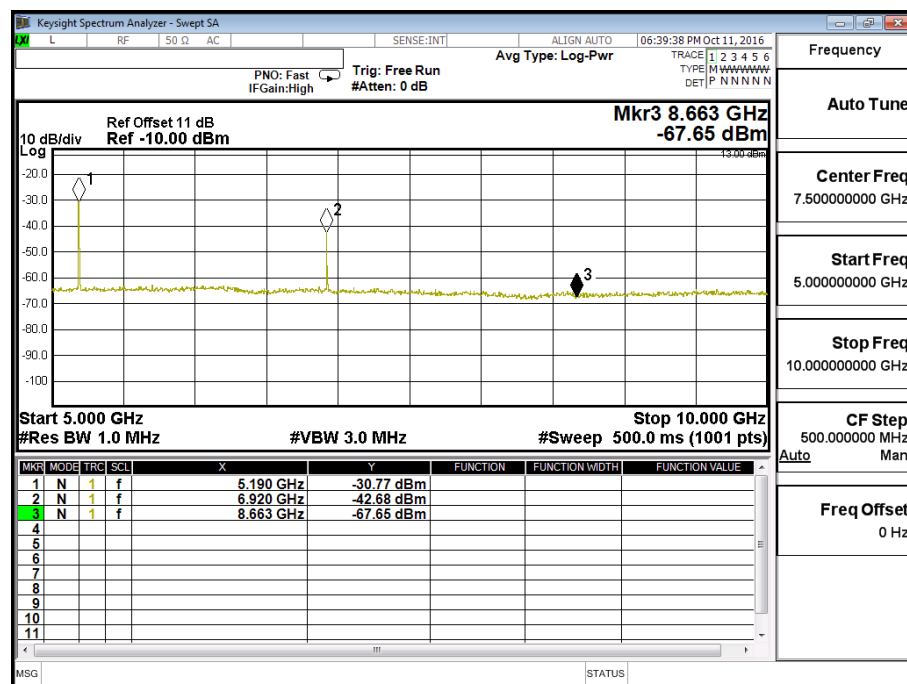
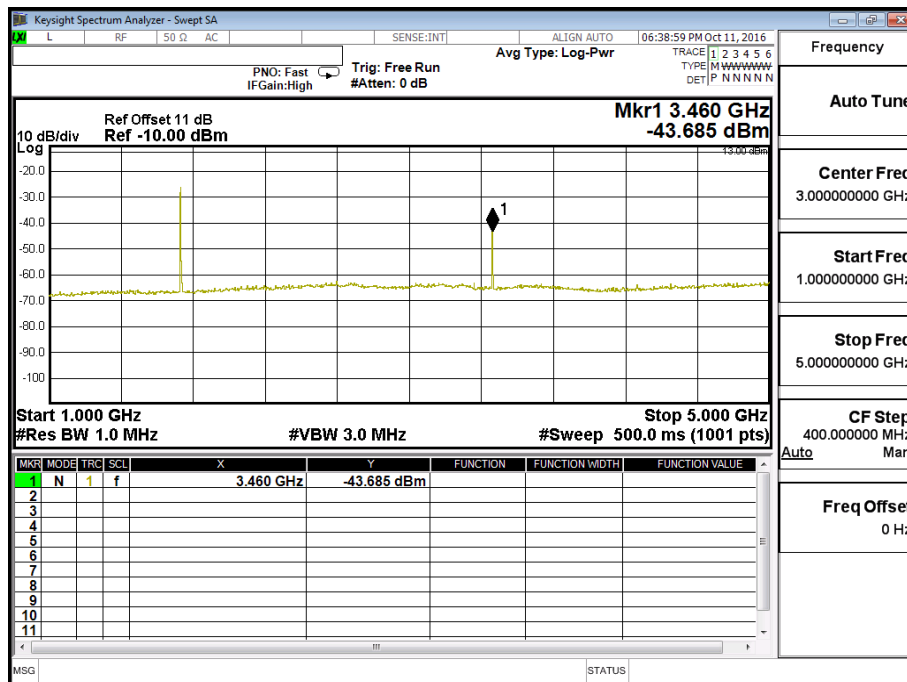


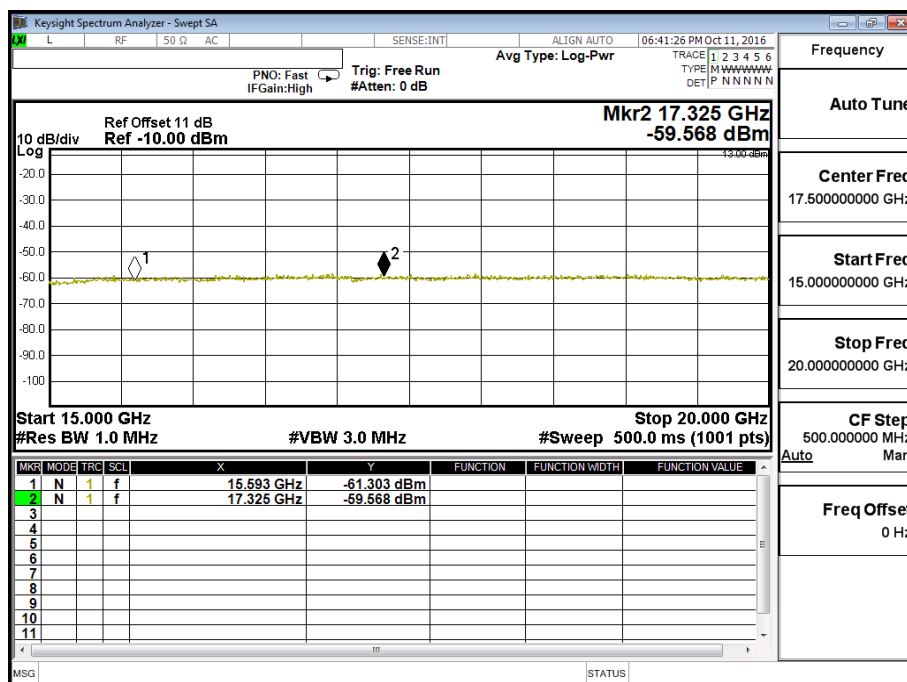
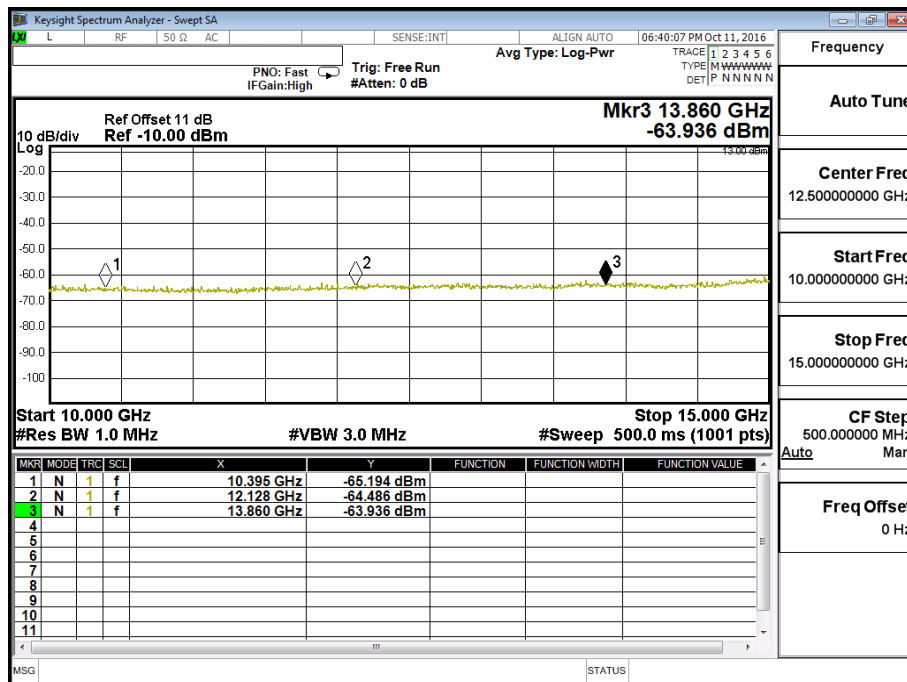
|                |                               |            |             |
|----------------|-------------------------------|------------|-------------|
| Product        | Module                        |            |             |
| Test Mode      | Spurious Emission (Conducted) |            |             |
| Date of Test   | 2016/10/11                    | Test Site  | CTR         |
| Test Condition | LTE-Band 4 (5M)               | Test Range | 30MHz~20GHz |

### LTE-Band 4 (5M) QPSK(1,0) CH20175

| Frequency (MHz) | Reading Level (dBm) | Path Loss (dB) | Emission Level (dBm) | Limit (dBm) |
|-----------------|---------------------|----------------|----------------------|-------------|
| 3460            | -43.685             | 1.1            | -42.585              | -13         |
| 5190            | -30.770             | 1.23           | -29.540              | -13         |
| 6920            | -42.680             | 1.59           | -41.090              | -13         |
| 8663            | -67.650             | 1.89           | -65.760              | -13         |
| 10395           | -65.194             | 2.07           | -63.124              | -13         |
| 12128           | -64.486             | 2.26           | -62.226              | -13         |
| 13860           | -63.936             | 2.64           | -61.296              | -13         |
| 15593           | -61.303             | 3.5            | -57.803              | -13         |
| 17325           | -59.568             | 3.7            | -55.868              | -13         |



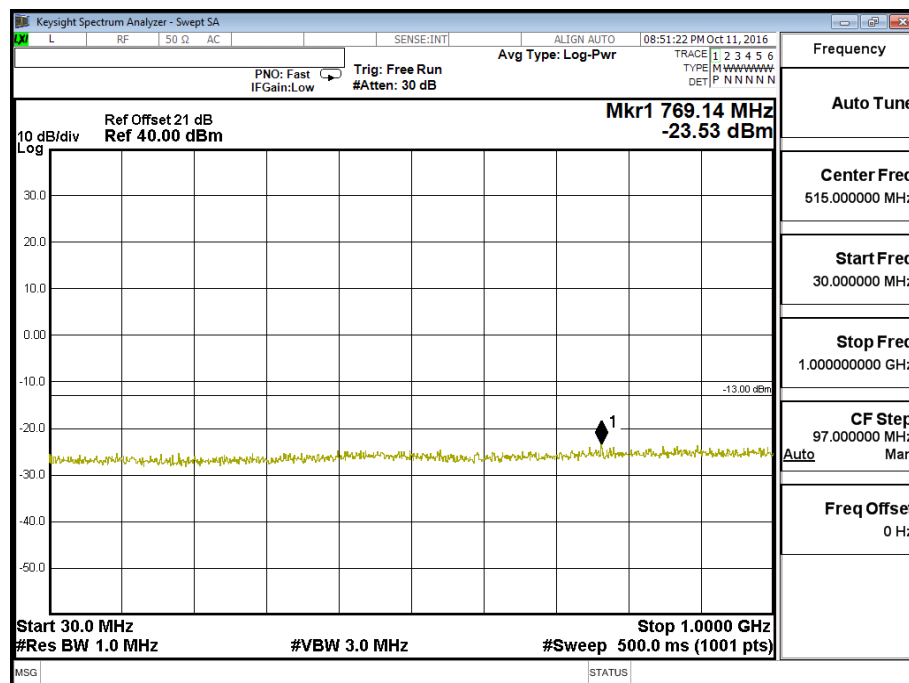


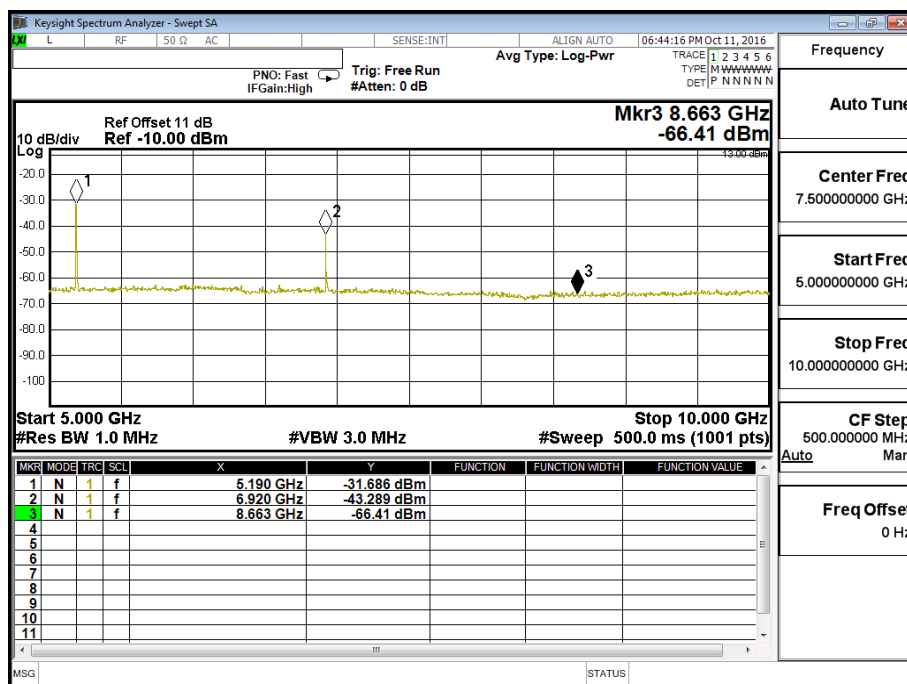
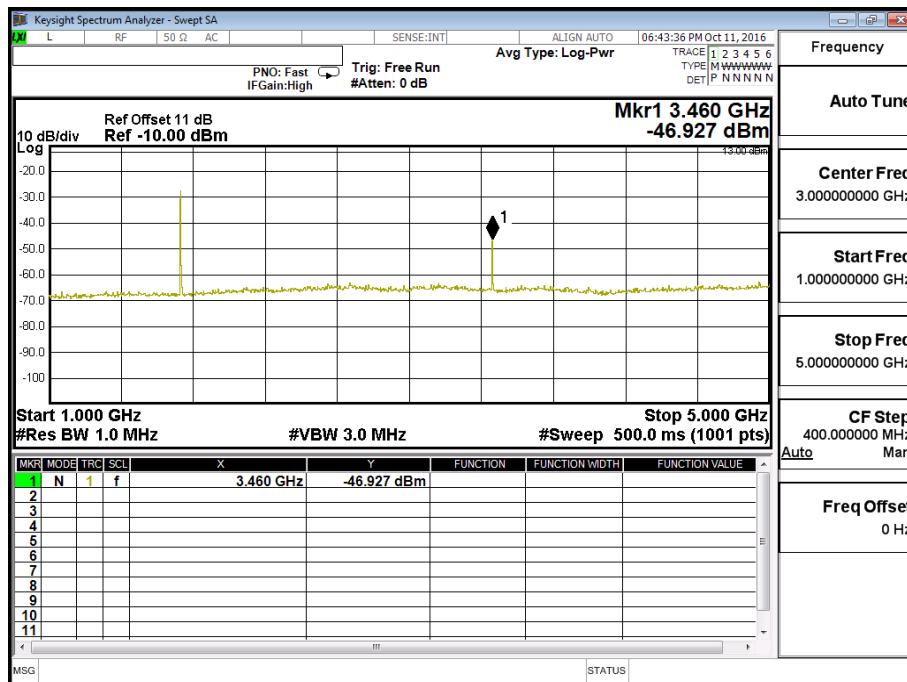


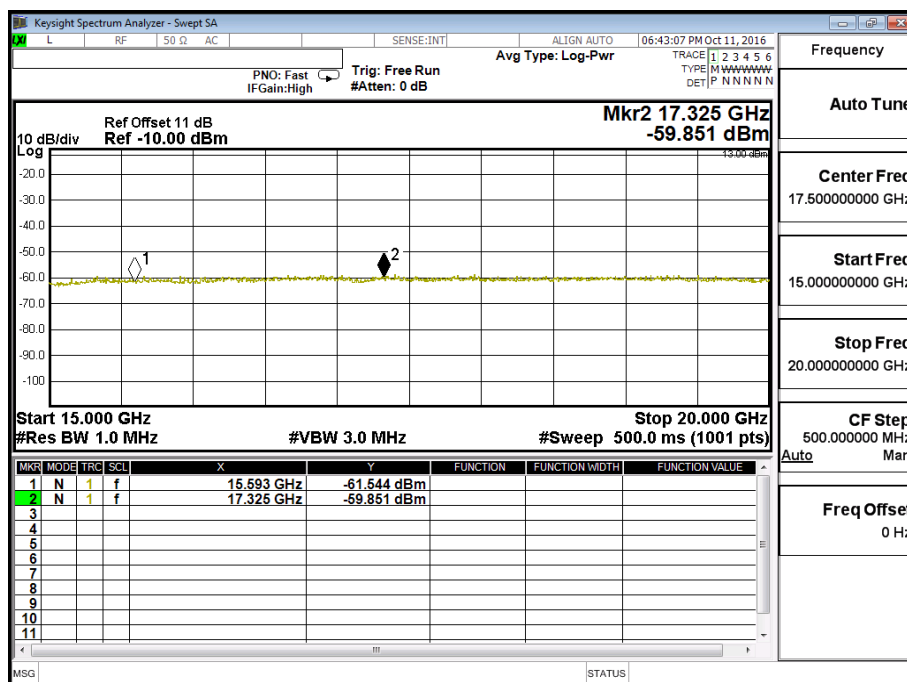
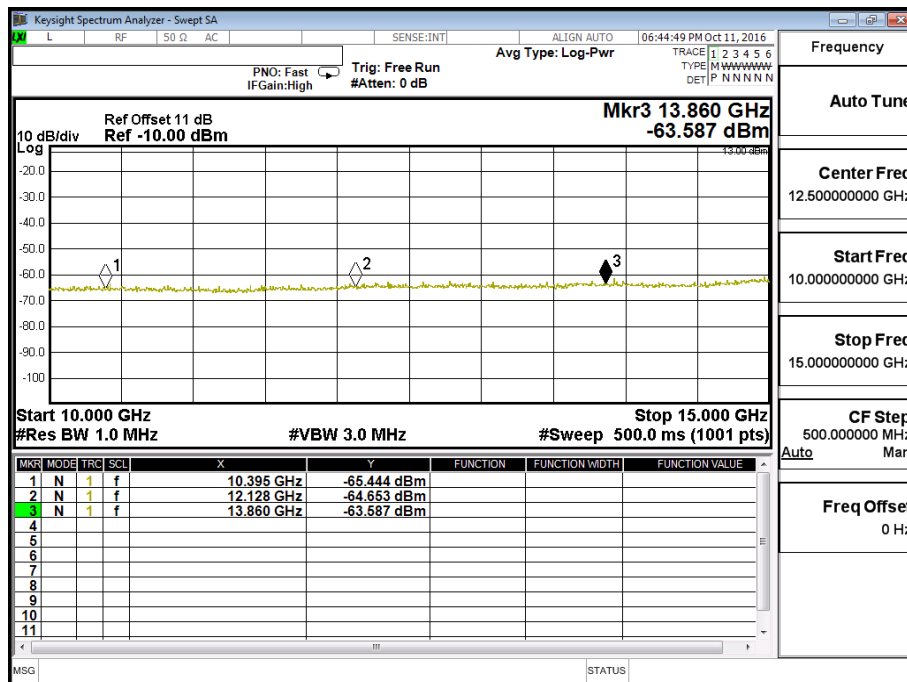
|                |                               |            |             |
|----------------|-------------------------------|------------|-------------|
| Product        | Module                        |            |             |
| Test Mode      | Spurious Emission (Conducted) |            |             |
| Date of Test   | 2016/10/11                    | Test Site  | CTR         |
| Test Condition | LTE-Band 4 (5M)               | Test Range | 30MHz~20GHz |

### LTE- Band 4 (5M) 16QAM(1,0) CH20175

| Frequency (MHz) | Reading Level (dBm) | Path Loss (dB) | Emission Level (dBm) | Limit (dBm) |
|-----------------|---------------------|----------------|----------------------|-------------|
| 3460            | -46.927             | 1.1            | -45.827              | -13         |
| 5190            | -31.686             | 1.23           | -30.456              | -13         |
| 6920            | -43.289             | 1.59           | -41.699              | -13         |
| 8663            | -66.410             | 1.89           | -64.520              | -13         |
| 10395           | -65.444             | 2.07           | -63.374              | -13         |
| 12128           | -64.653             | 2.26           | -62.393              | -13         |
| 13860           | -63.587             | 2.64           | -60.947              | -13         |
| 15593           | -61.544             | 3.5            | -58.044              | -13         |
| 17325           | -59.851             | 3.7            | -56.151              | -13         |



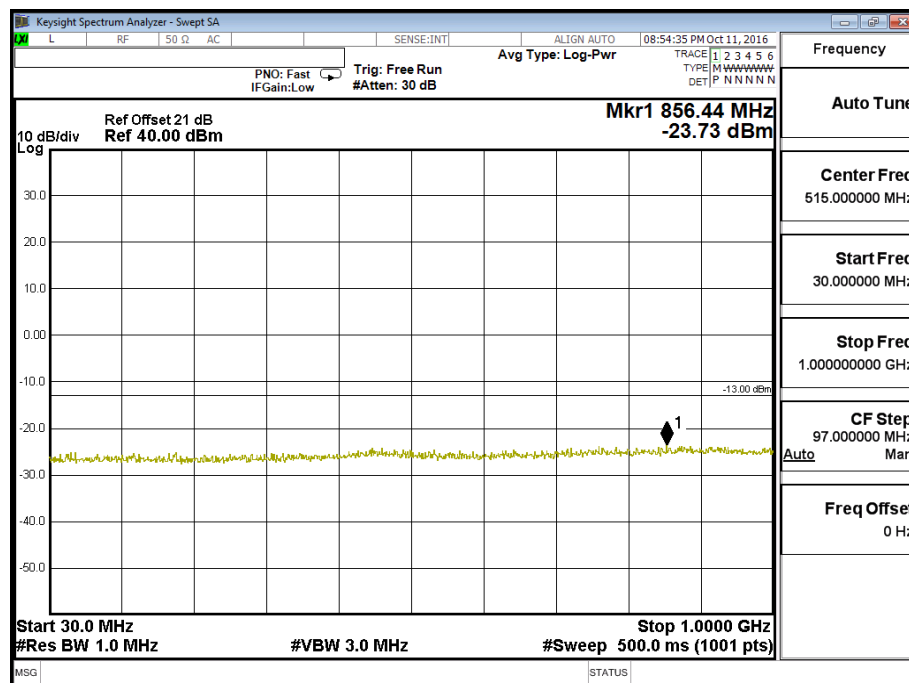


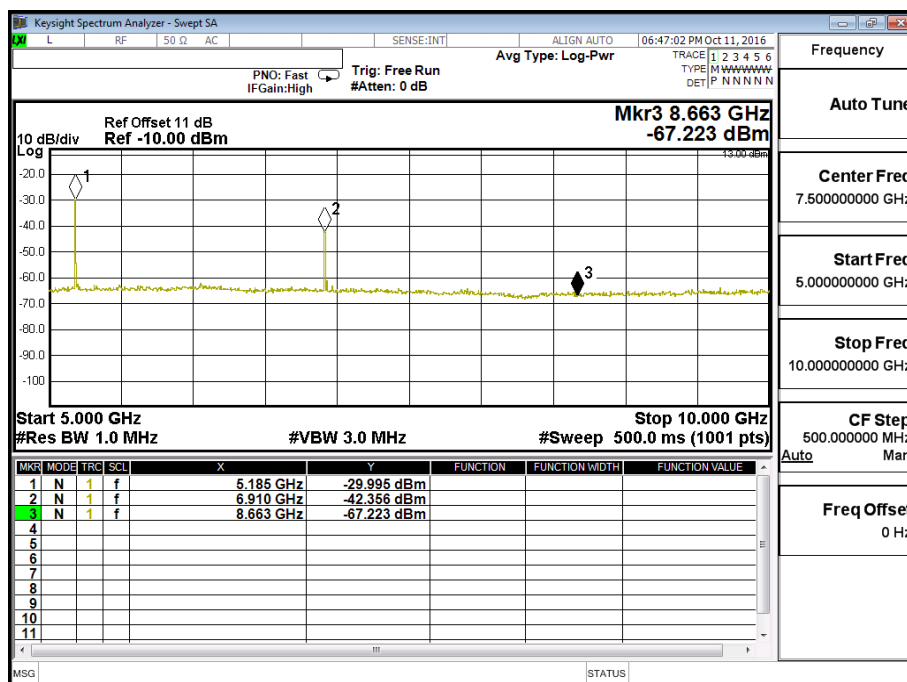
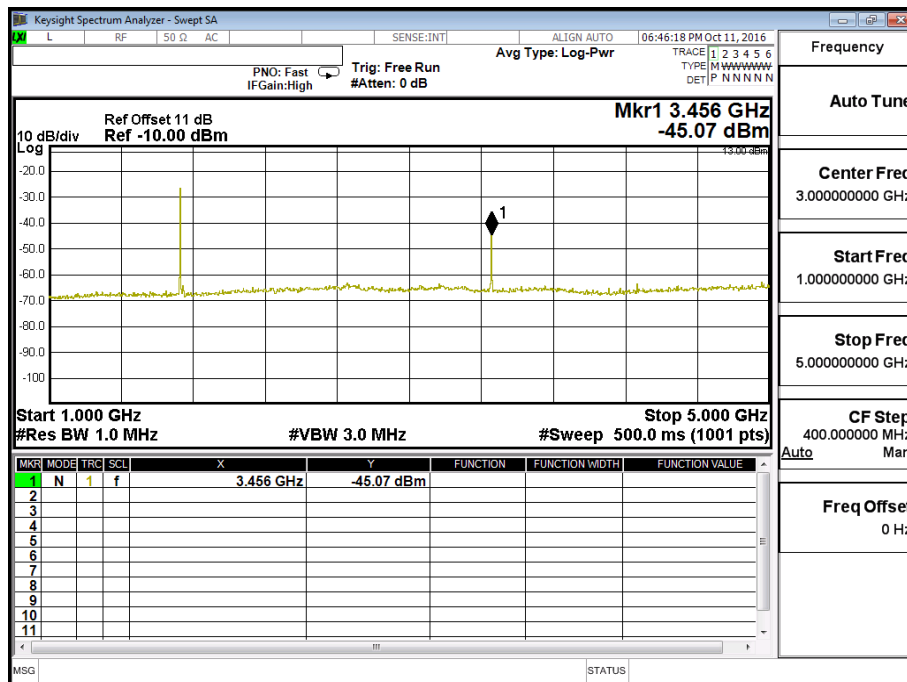


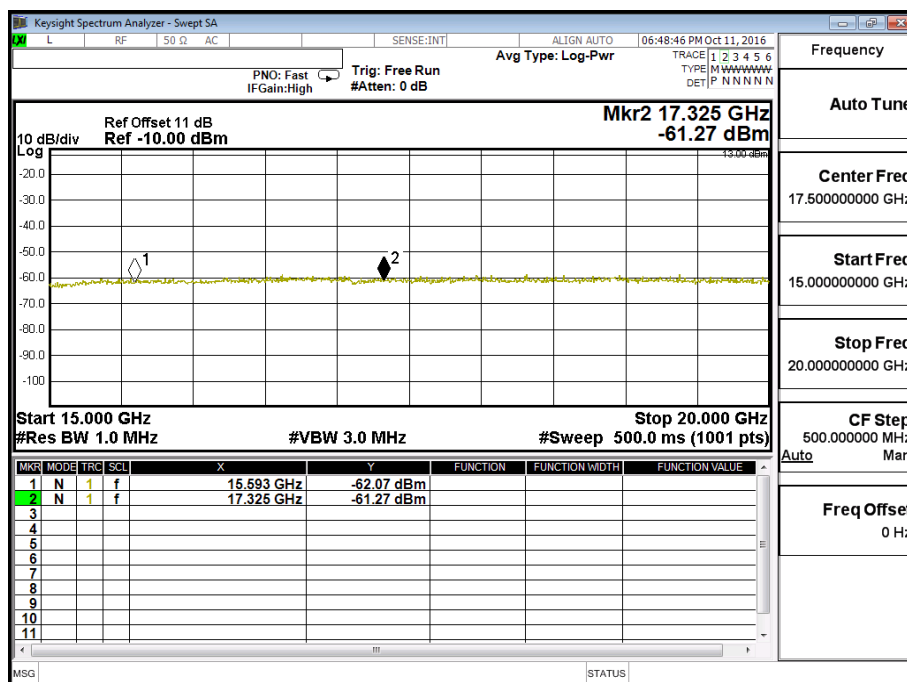
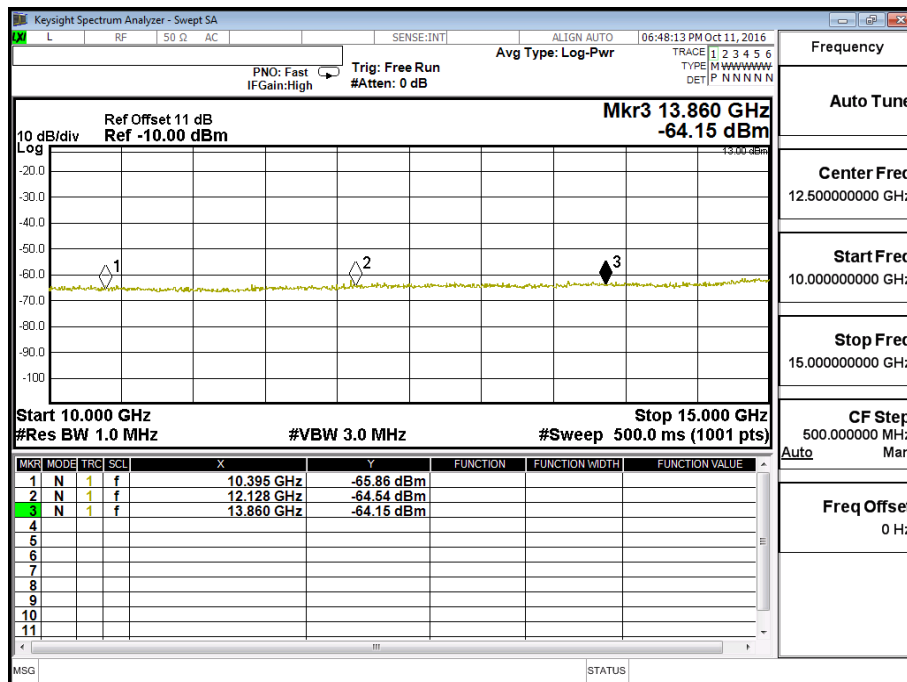
|                |                               |            |             |
|----------------|-------------------------------|------------|-------------|
| Product        | Module                        |            |             |
| Test Mode      | Spurious Emission (Conducted) |            |             |
| Date of Test   | 2016/10/11                    | Test Site  | CTR         |
| Test Condition | LTE-Band 4 (10M)              | Test Range | 30MHz~20GHz |

### LTE- Band 4 (10M) QPSK(1,0) CH20175

| Frequency (MHz) | Reading Level (dBm) | Path Loss (dB) | Emission Level (dBm) | Limit (dBm) |
|-----------------|---------------------|----------------|----------------------|-------------|
| 3456            | -45.070             | 1.1            | -43.970              | -13         |
| 5185            | -29.995             | 1.23           | -28.765              | -13         |
| 6910            | -42.356             | 1.59           | -40.766              | -13         |
| 8663            | -67.223             | 1.89           | -65.333              | -13         |
| 10395           | -65.860             | 2.07           | -63.790              | -13         |
| 12128           | -64.540             | 2.26           | -62.280              | -13         |
| 13860           | -64.150             | 2.64           | -61.510              | -13         |
| 15593           | -62.070             | 3.5            | -58.570              | -13         |
| 17325           | -61.270             | 3.7            | -57.570              | -13         |



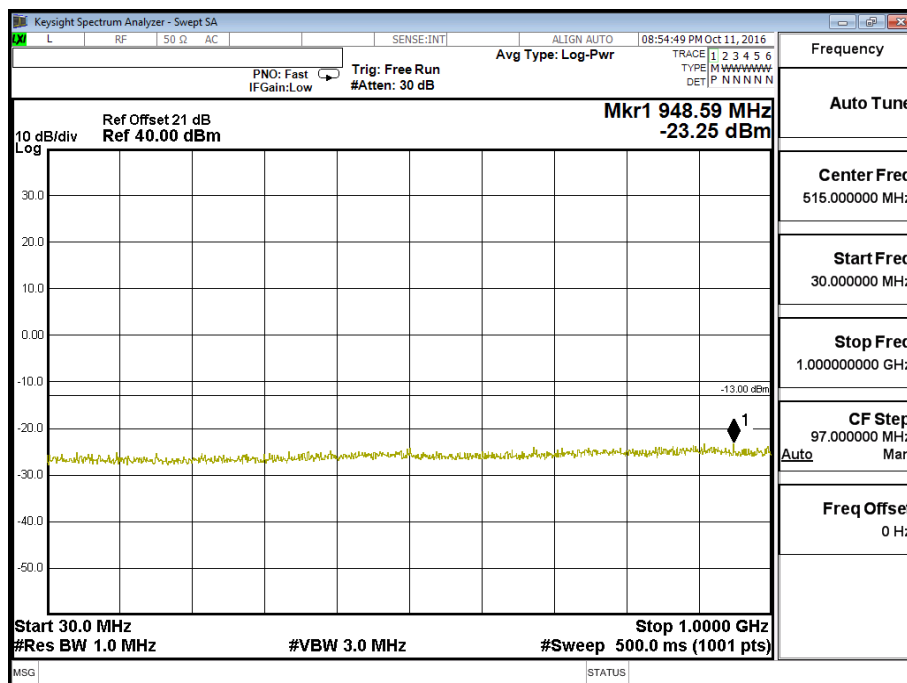


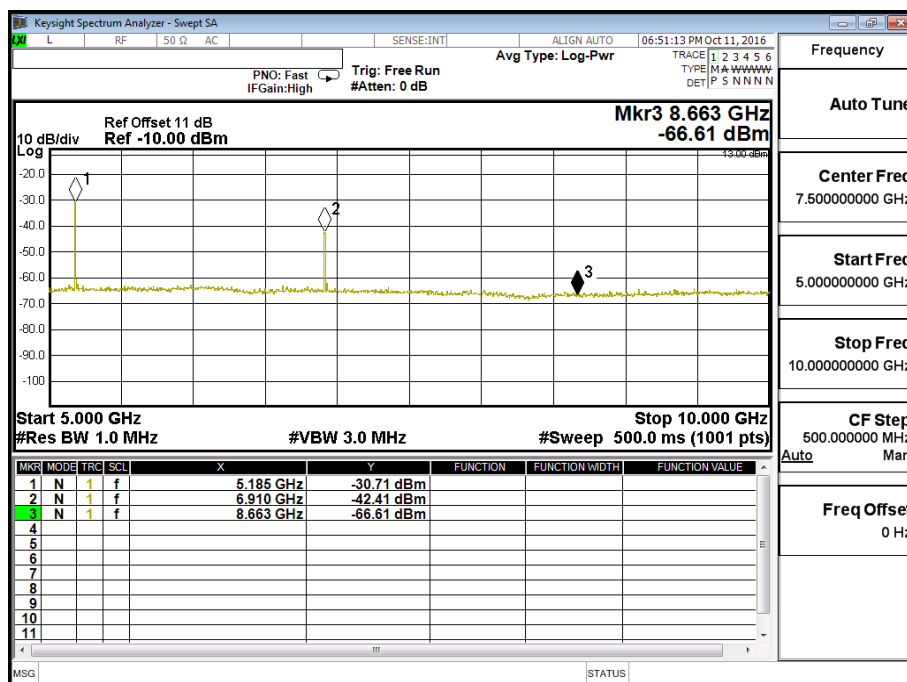
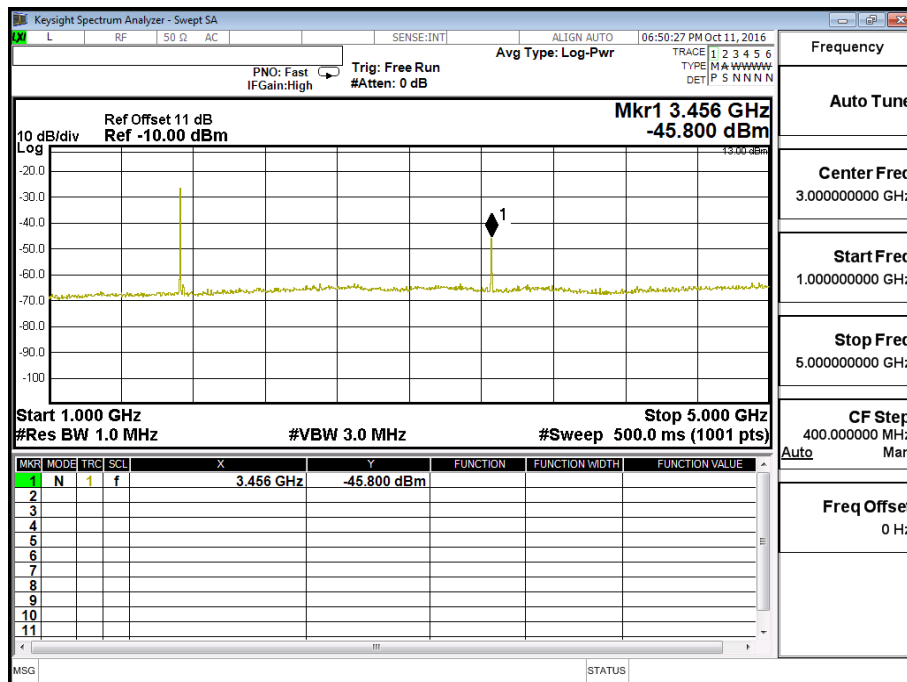


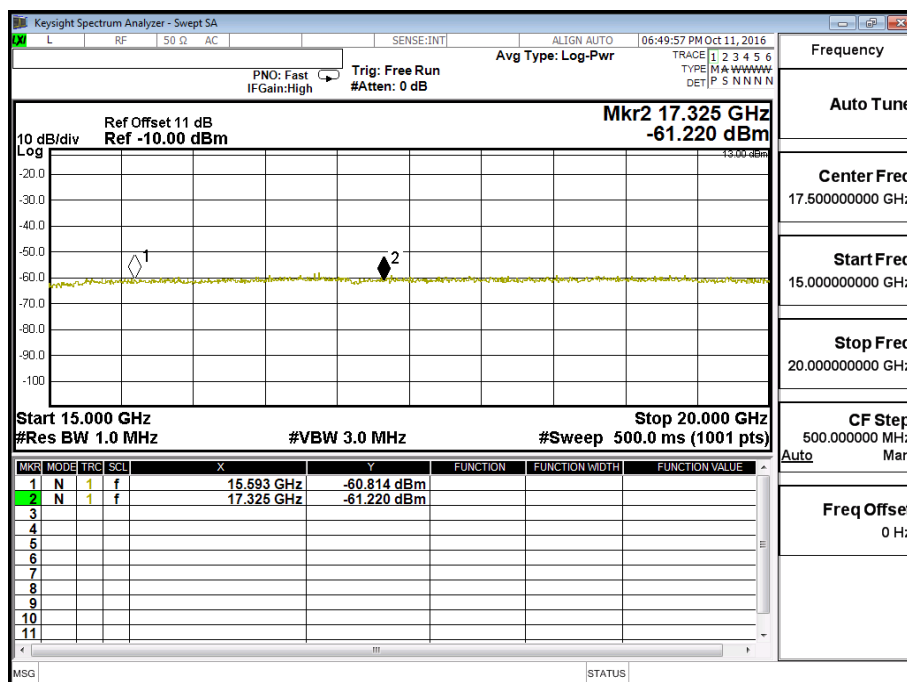
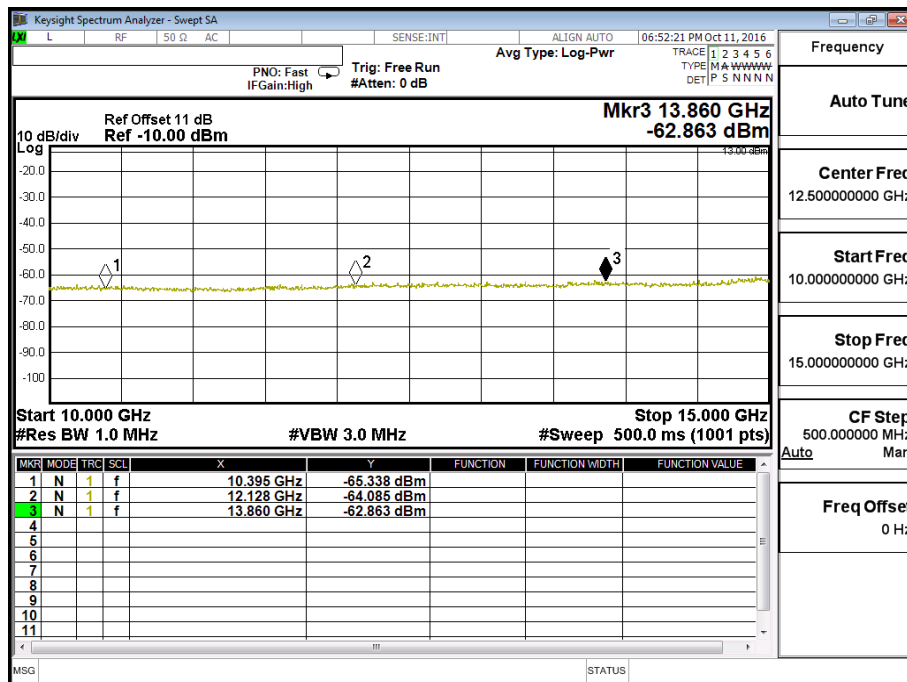
|                |                               |            |             |
|----------------|-------------------------------|------------|-------------|
| Product        | Module                        |            |             |
| Test Mode      | Spurious Emission (Conducted) |            |             |
| Date of Test   | 2016/10/11                    | Test Site  | CTR         |
| Test Condition | LTE-Band 4 (10M)              | Test Range | 30MHz~20GHz |

**LTE- Band 4 10M 16QAM(1,0) CH20175**

| Frequency<br>(MHz) | Reading Level<br>(dBm) | Path Loss<br>(dB) | Emission Level<br>(dBm) | Limit<br>(dBm) |
|--------------------|------------------------|-------------------|-------------------------|----------------|
| 3456               | -45.800                | 1.1               | -44.700                 | -13            |
| 5185               | -30.710                | 1.23              | -29.480                 | -13            |
| 6910               | -42.410                | 1.59              | -40.820                 | -13            |
| 8663               | -66.610                | 1.89              | -64.720                 | -13            |
| 10395              | -65.338                | 2.07              | -63.268                 | -13            |
| 12128              | -64.085                | 2.26              | -61.825                 | -13            |
| 13860              | -62.863                | 2.64              | -60.223                 | -13            |
| 15593              | -60.814                | 3.5               | -57.314                 | -13            |
| 17325              | -61.220                | 3.7               | -57.520                 | -13            |



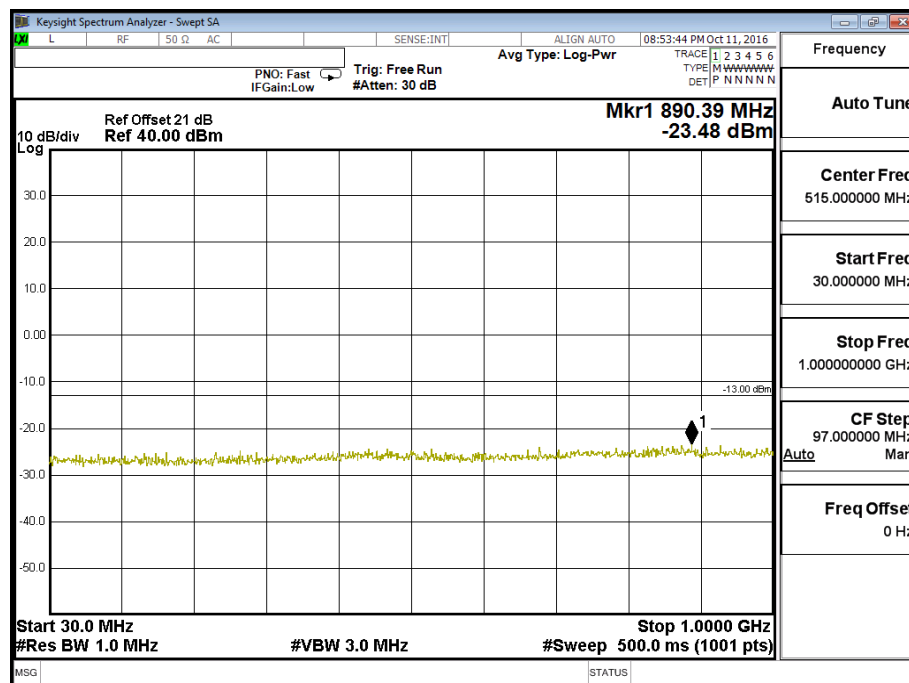


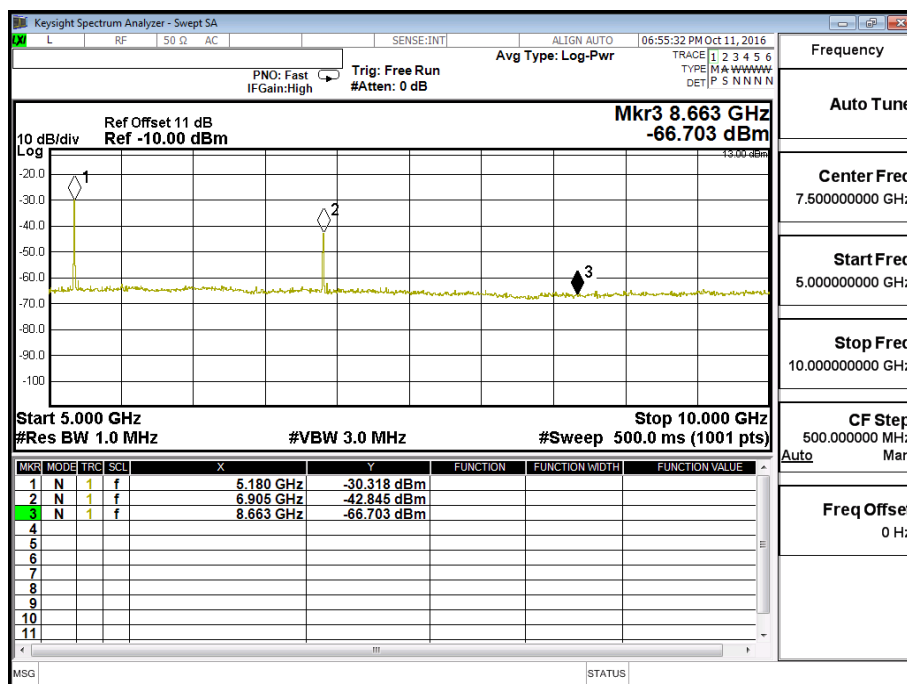
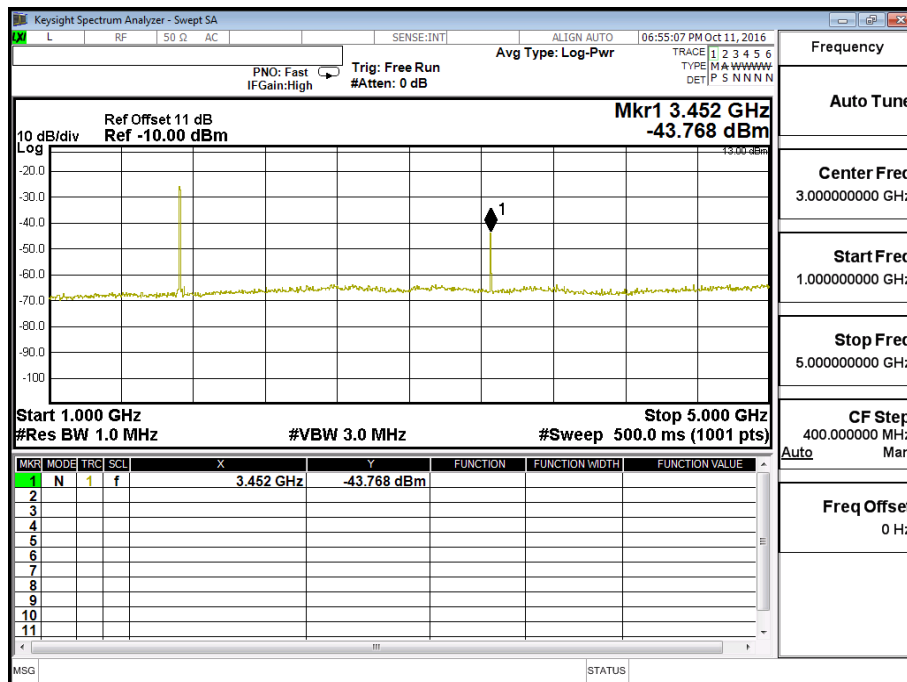


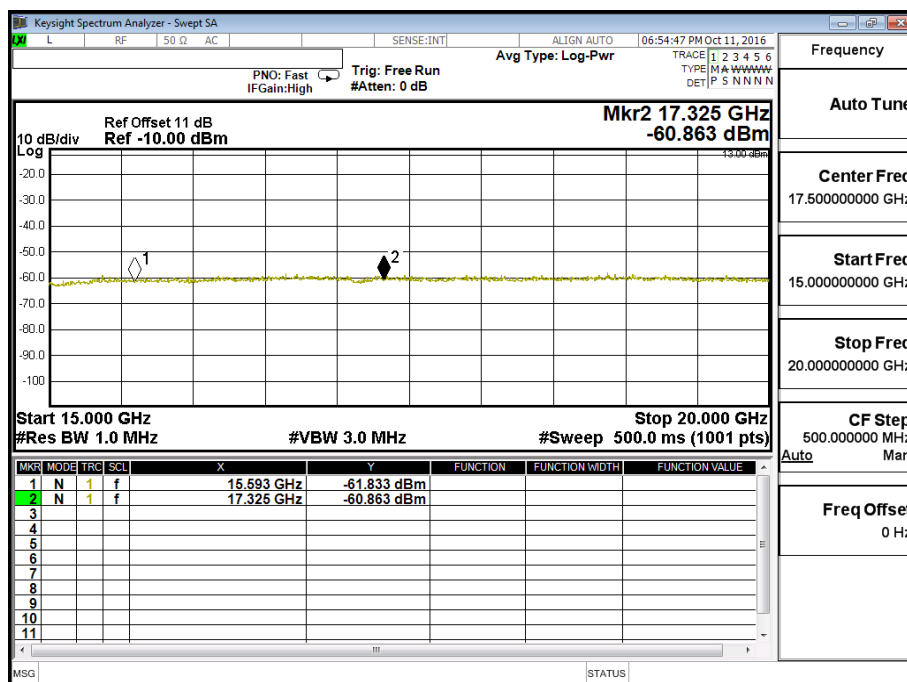
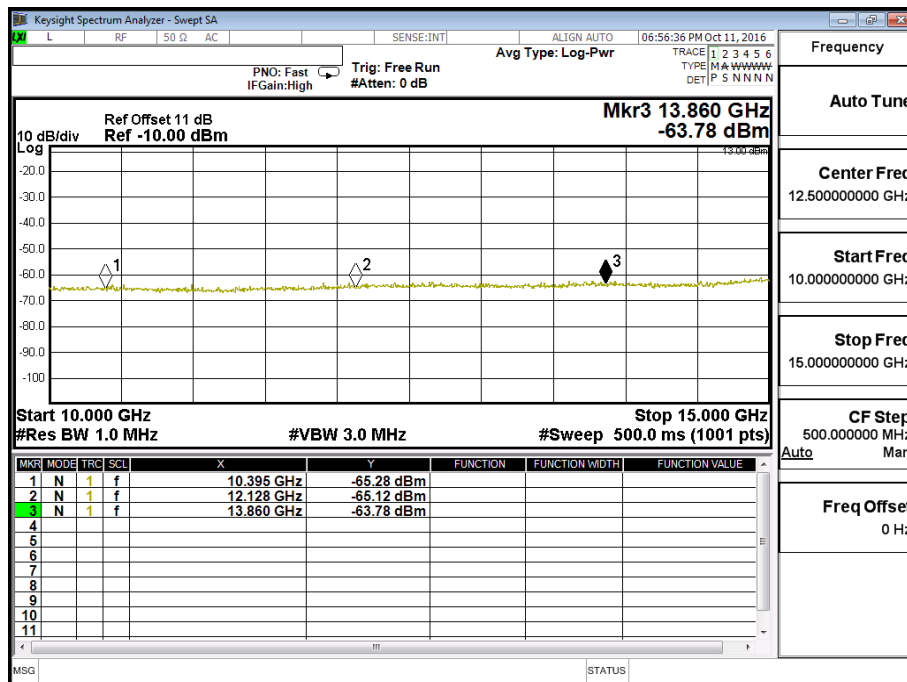
|                |                               |            |             |
|----------------|-------------------------------|------------|-------------|
| Product        | Module                        |            |             |
| Test Mode      | Spurious Emission (Conducted) |            |             |
| Date of Test   | 2016/10/11                    | Test Site  | CTR         |
| Test Condition | LTE-Band 4 15M                | Test Range | 30MHz~20GHz |

### LTE-Band 4 15M QPSK(1,0) CH20175

| Frequency (MHz) | Reading Level (dBm) | Path Loss (dB) | Emission Level (dBm) | Limit (dBm) |
|-----------------|---------------------|----------------|----------------------|-------------|
| 3452            | -43.768             | 1.1            | -42.668              | -13         |
| 5180            | -30.318             | 1.23           | -29.088              | -13         |
| 6905            | -42.845             | 1.59           | -41.255              | -13         |
| 8663            | -66.703             | 1.89           | -64.813              | -13         |
| 10395           | -65.280             | 2.07           | -63.210              | -13         |
| 12128           | -65.120             | 2.26           | -62.860              | -13         |
| 13860           | -63.780             | 2.64           | -61.140              | -13         |
| 15593           | -61.833             | 3.5            | -58.333              | -13         |
| 17325           | -60.863             | 3.7            | -57.163              | -13         |



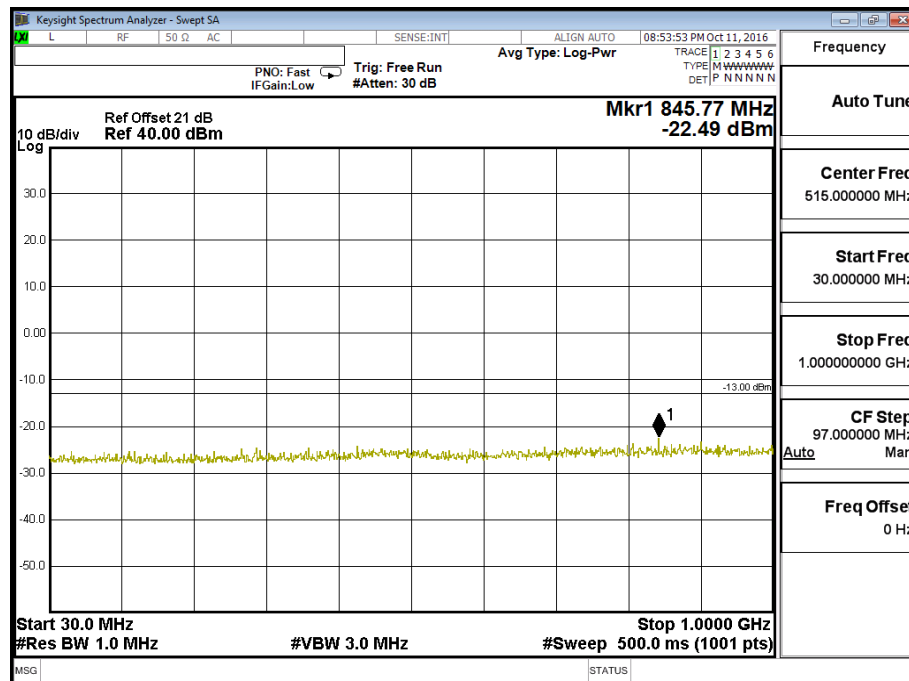


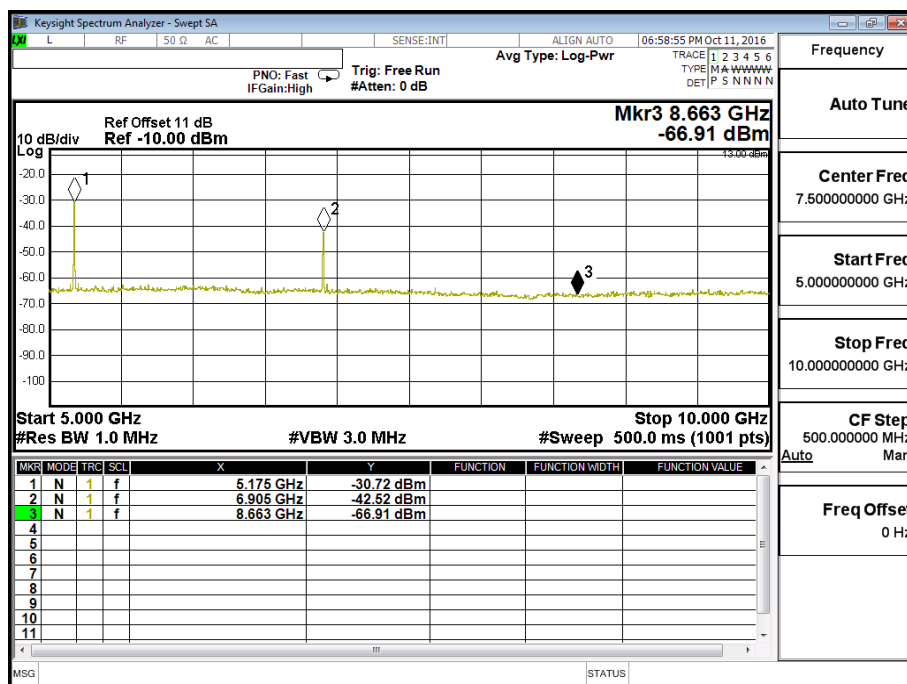
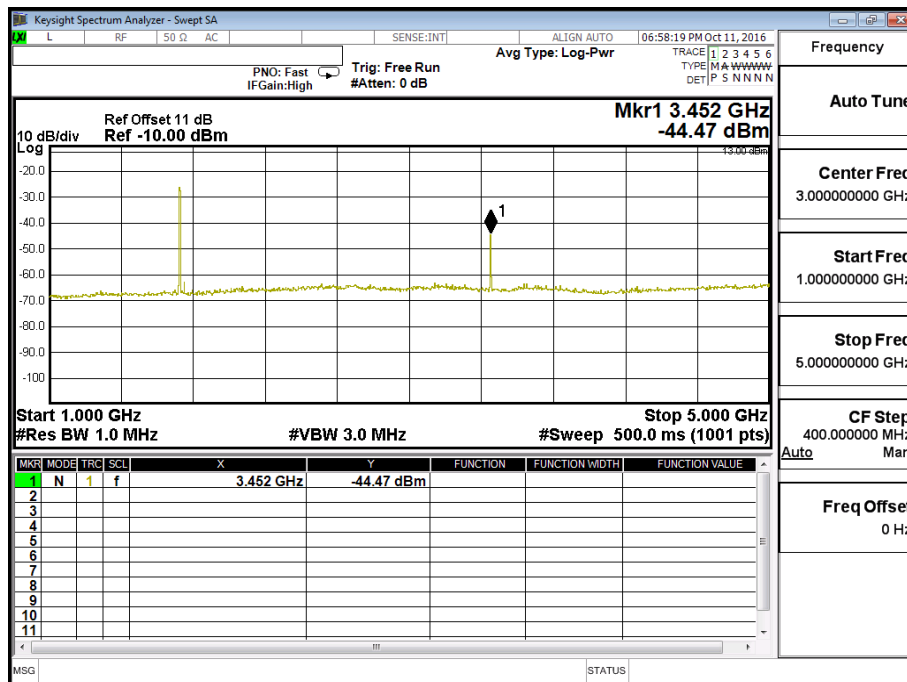


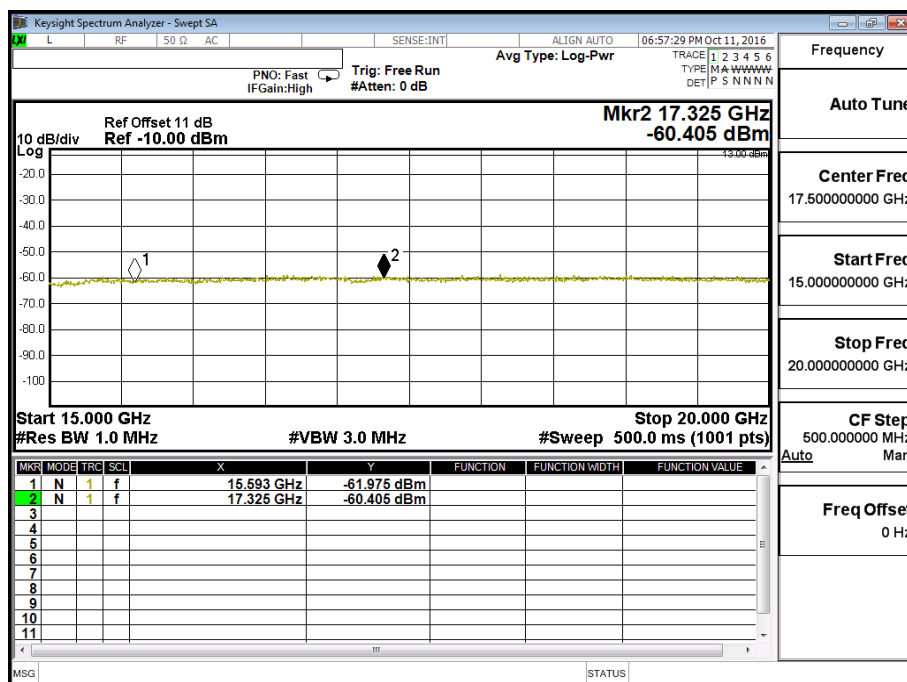
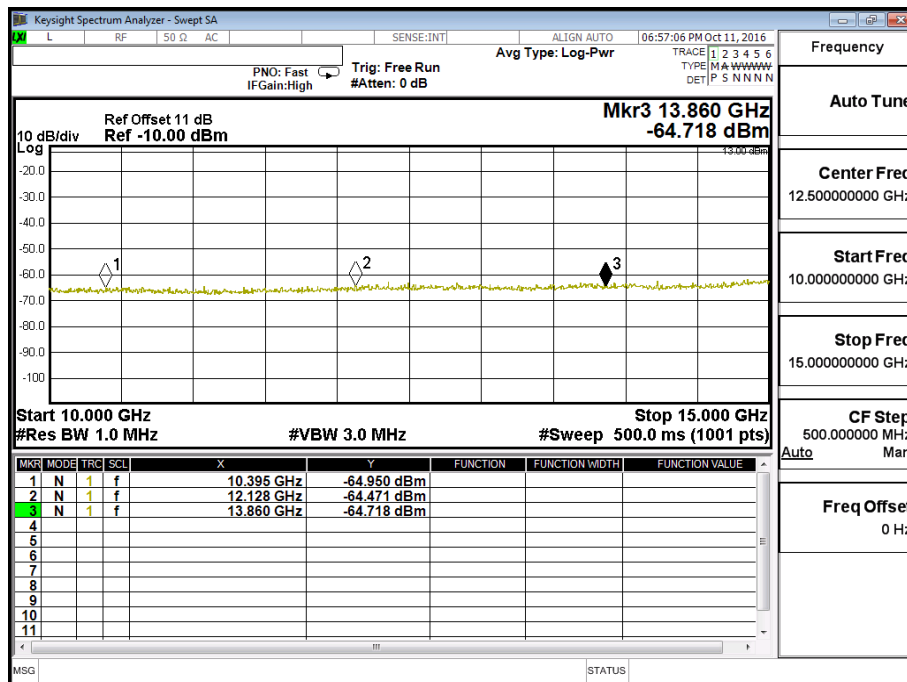
|                |                               |            |             |
|----------------|-------------------------------|------------|-------------|
| Product        | Module                        |            |             |
| Test Mode      | Spurious Emission (Conducted) |            |             |
| Date of Test   | 2016/10/11                    | Test Site  | CTR         |
| Test Condition | LTE-Band 4 (15M)              | Test Range | 30MHz~20GHz |

### LTE-Band 4 (15M) 16QAM(1,0) CH20175

| Frequency (MHz) | Reading Level (dBm) | Path Loss (dB) | Emission Level (dBm) | Limit (dBm) |
|-----------------|---------------------|----------------|----------------------|-------------|
| 3452            | -44.470             | 1.1            | -43.370              | -13         |
| 5175            | -30.720             | 1.23           | -29.490              | -13         |
| 6905            | -42.520             | 1.59           | -40.930              | -13         |
| 8663            | -66.910             | 1.89           | -65.020              | -13         |
| 10395           | -64.950             | 2.07           | -62.880              | -13         |
| 12128           | -64.471             | 2.26           | -62.211              | -13         |
| 13860           | -64.718             | 2.64           | -62.078              | -13         |
| 15593           | -61.975             | 3.5            | -58.475              | -13         |
| 17325           | -60.405             | 3.7            | -56.705              | -13         |



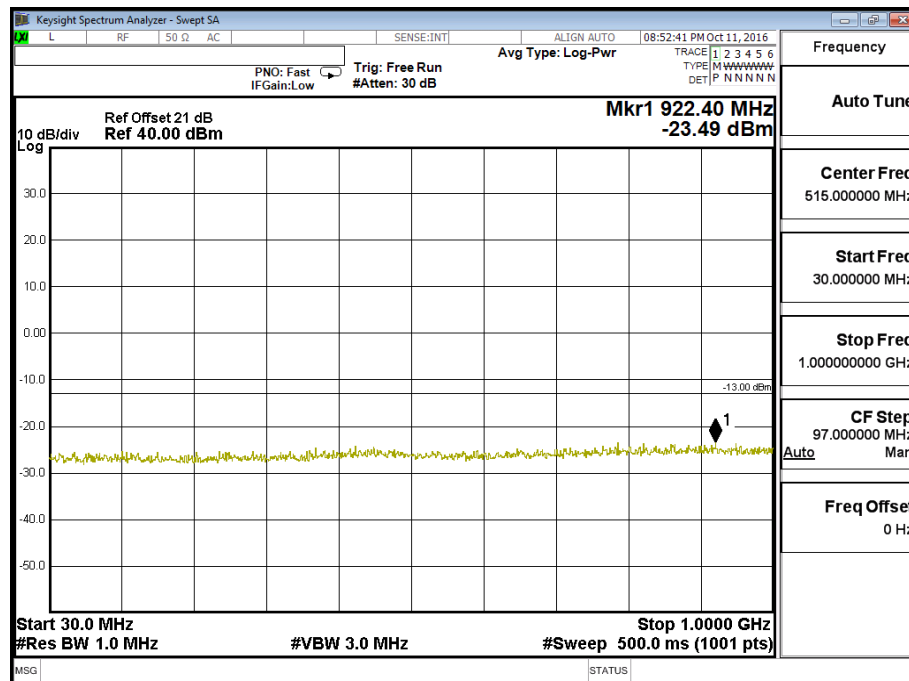


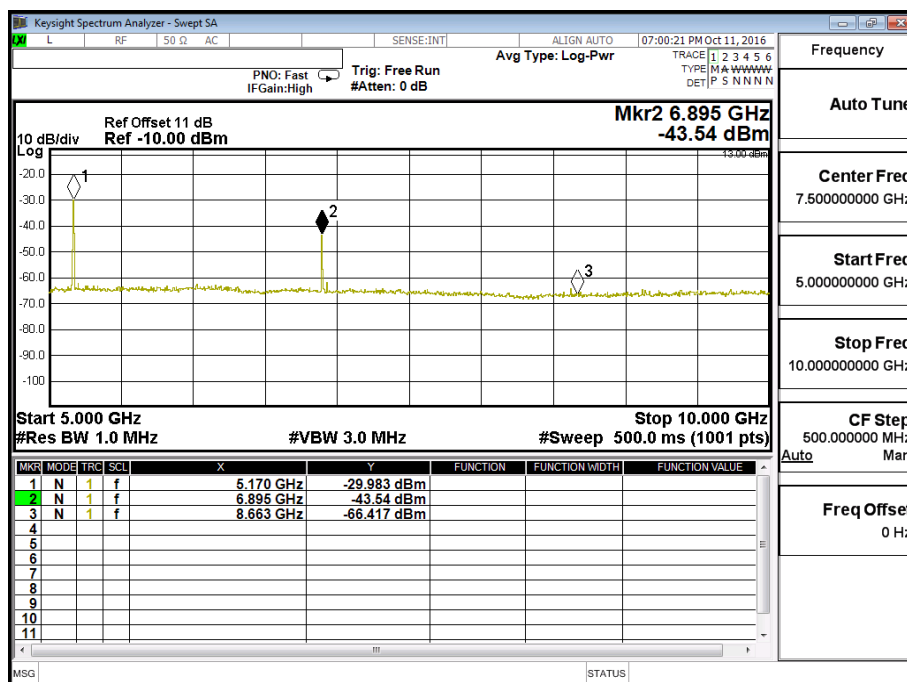
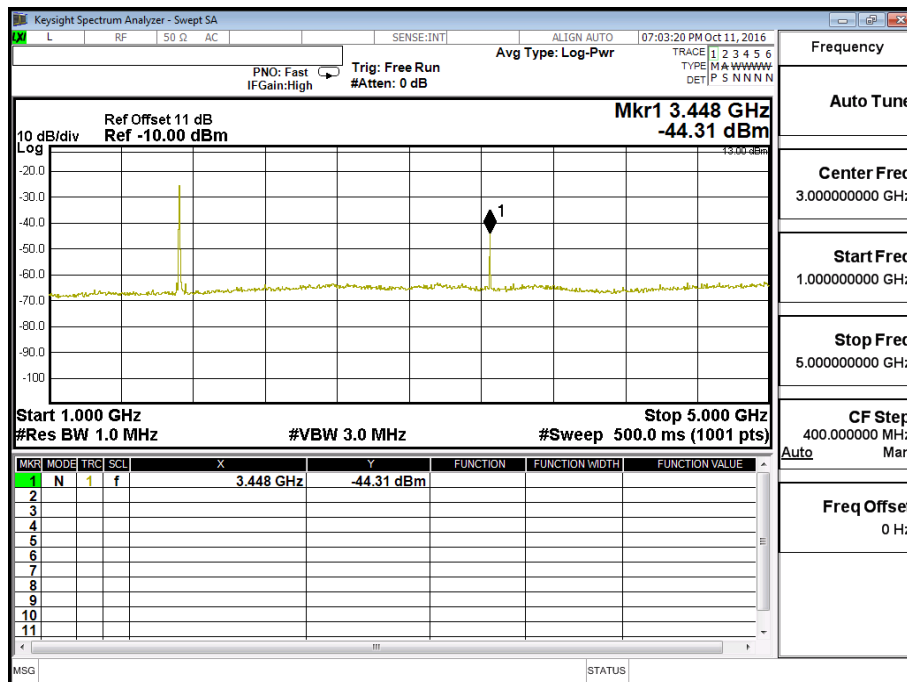


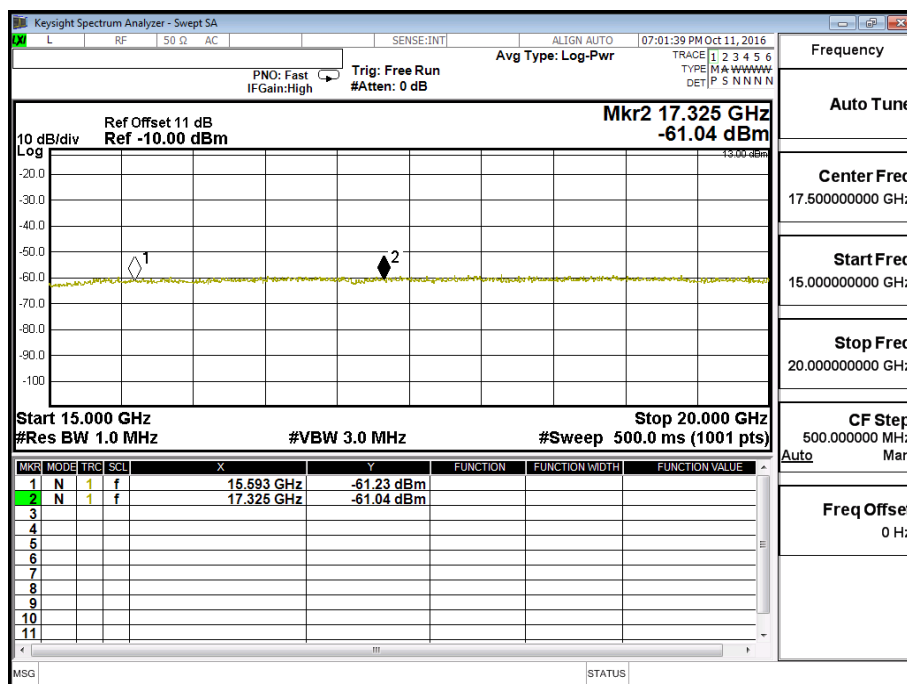
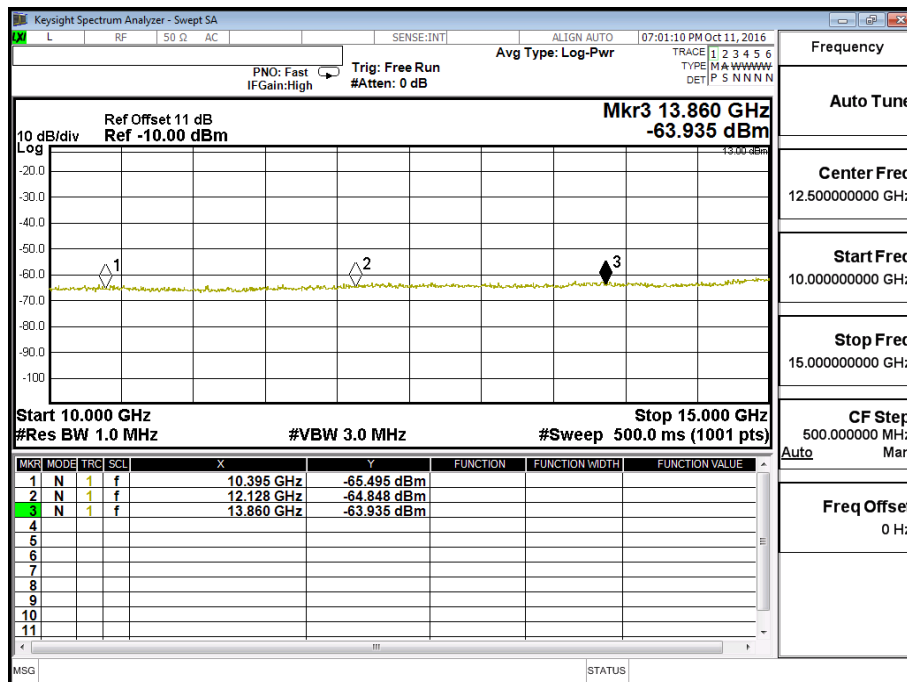
|                |                               |            |             |
|----------------|-------------------------------|------------|-------------|
| Product        | Module                        |            |             |
| Test Mode      | Spurious Emission (Conducted) |            |             |
| Date of Test   | 2016/10/11                    | Test Site  | CTR         |
| Test Condition | LTE-Band 4 (20M)              | Test Range | 30MHz~20GHz |

### LTE-Band 4 (20M) QPSK(1,0) CH20175

| Frequency (MHz) | Reading Level (dBm) | Path Loss (dB) | Emission Level (dBm) | Limit (dBm) |
|-----------------|---------------------|----------------|----------------------|-------------|
| 3448            | -44.310             | 1.1            | -43.210              | -13         |
| 5170            | -29.983             | 1.23           | -28.753              | -13         |
| 6895            | -43.540             | 1.59           | -41.950              | -13         |
| 8663            | -66.417             | 1.89           | -64.527              | -13         |
| 10395           | -65.495             | 2.07           | -63.425              | -13         |
| 12128           | -64.848             | 2.26           | -62.588              | -13         |
| 13860           | -63.935             | 2.64           | -61.295              | -13         |
| 15593           | -61.230             | 3.5            | -57.730              | -13         |
| 17325           | -61.040             | 3.7            | -57.340              | -13         |



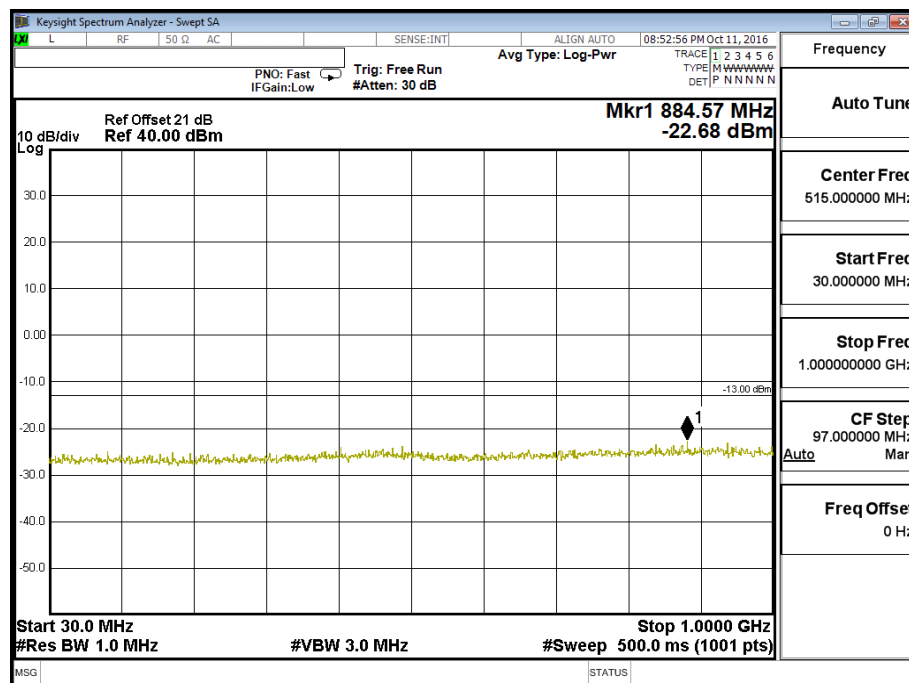


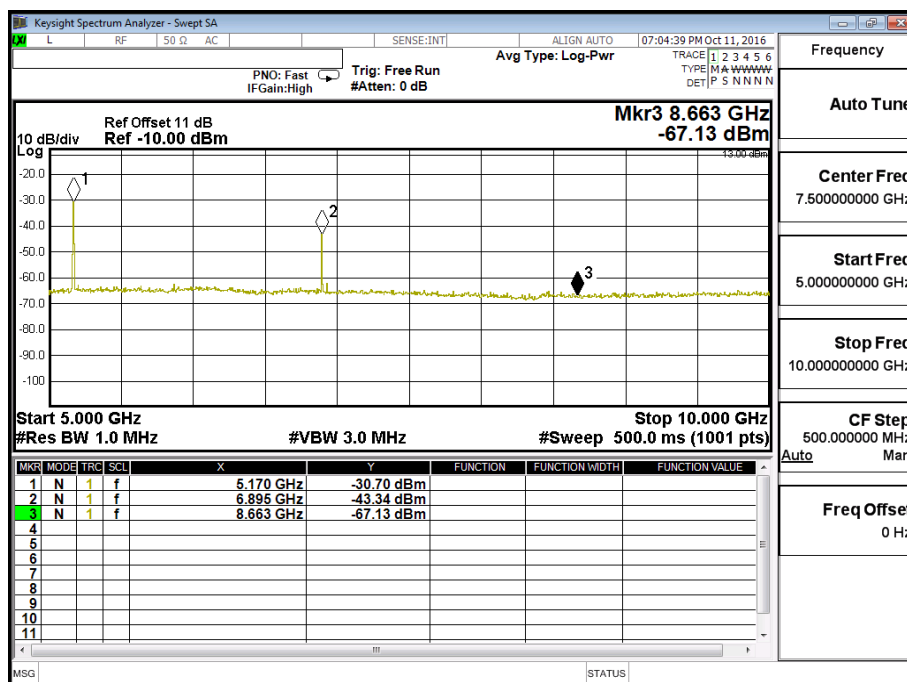
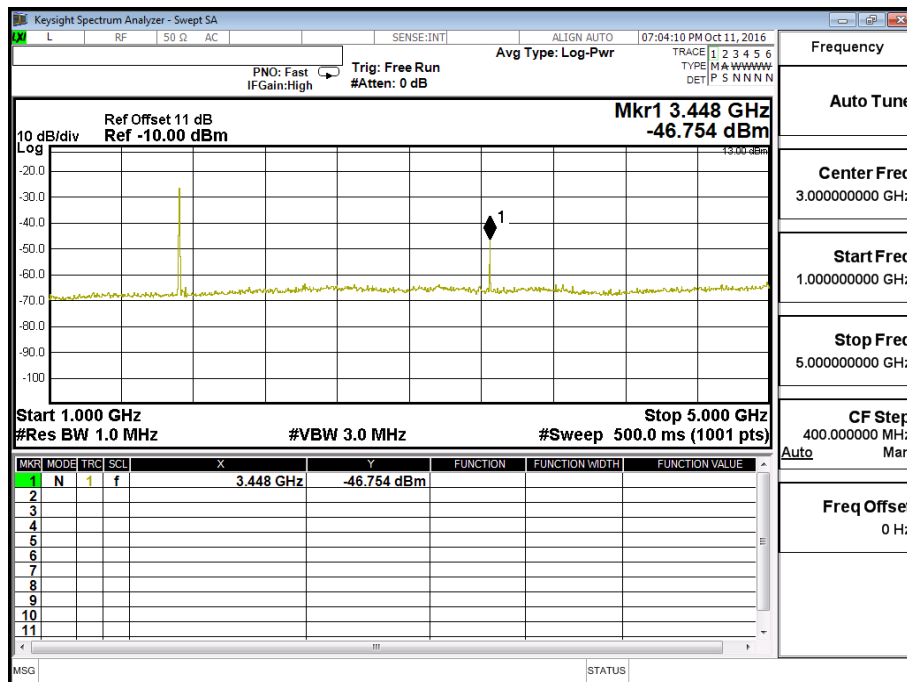


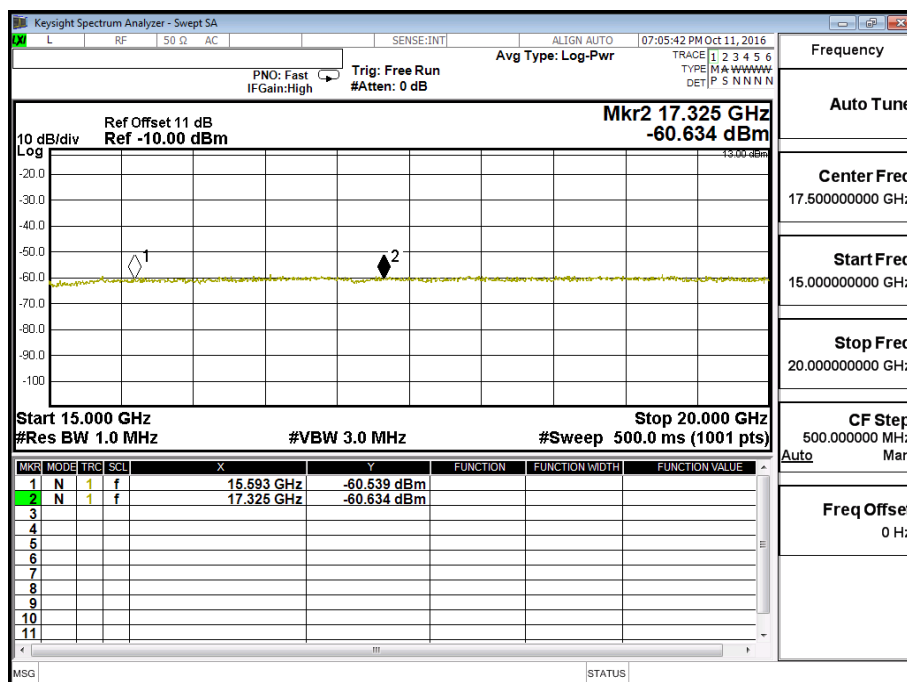
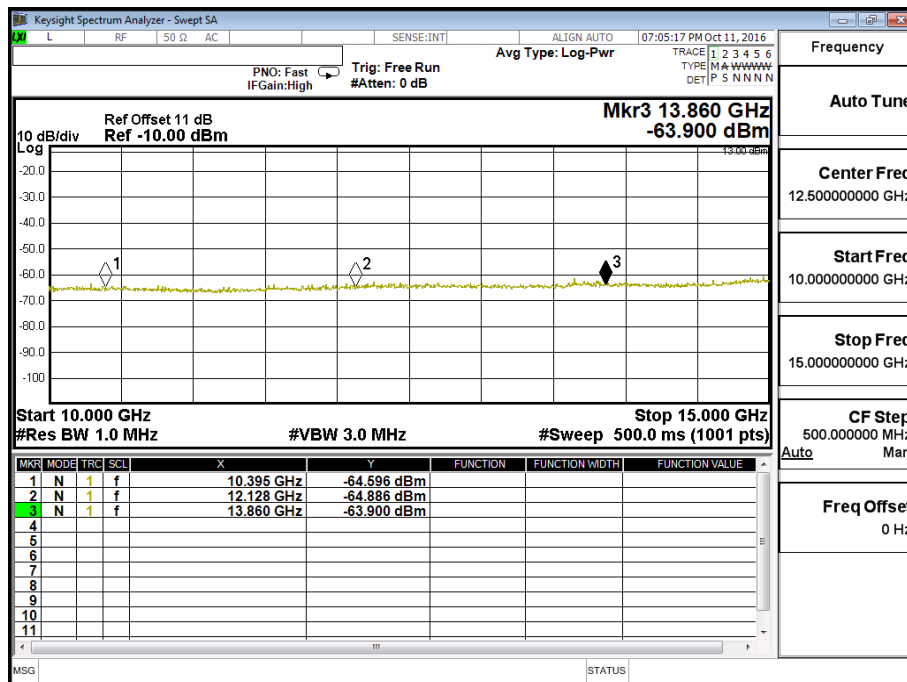
|                |                               |            |             |
|----------------|-------------------------------|------------|-------------|
| Product        | Module                        |            |             |
| Test Mode      | Spurious Emission (Conducted) |            |             |
| Date of Test   | 2016/10/11                    | Test Site  | CTR         |
| Test Condition | LTE-Band 4 (20M)              | Test Range | 30MHz~20GHz |

### LTE-Band 4 (20M) 16QAM(1,0) CH20175

| Frequency (MHz) | Reading Level (dBm) | Path Loss (dB) | Emission Level (dBm) | Limit (dBm) |
|-----------------|---------------------|----------------|----------------------|-------------|
| 3448            | -46.754             | 1.1            | -45.654              | -13         |
| 5170            | -30.700             | 1.23           | -29.470              | -13         |
| 6895            | -43.340             | 1.59           | -41.750              | -13         |
| 8663            | -67.130             | 1.89           | -65.240              | -13         |
| 10395           | -64.596             | 2.07           | -62.526              | -13         |
| 12128           | -64.886             | 2.26           | -62.626              | -13         |
| 13860           | -63.900             | 2.64           | -61.260              | -13         |
| 15593           | -60.539             | 3.5            | -57.039              | -13         |
| 17325           | -60.634             | 3.7            | -56.934              | -13         |



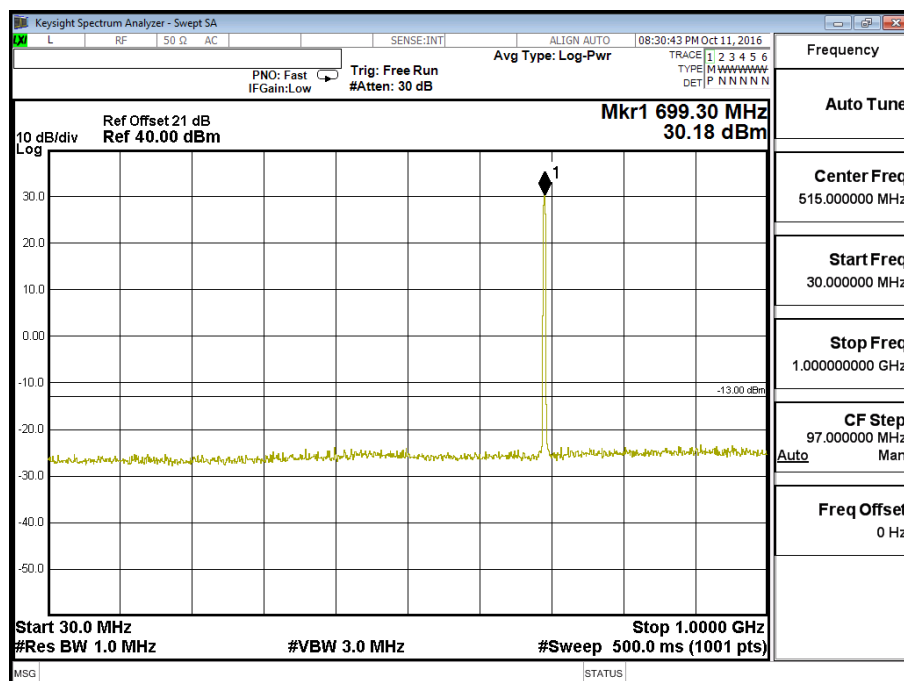


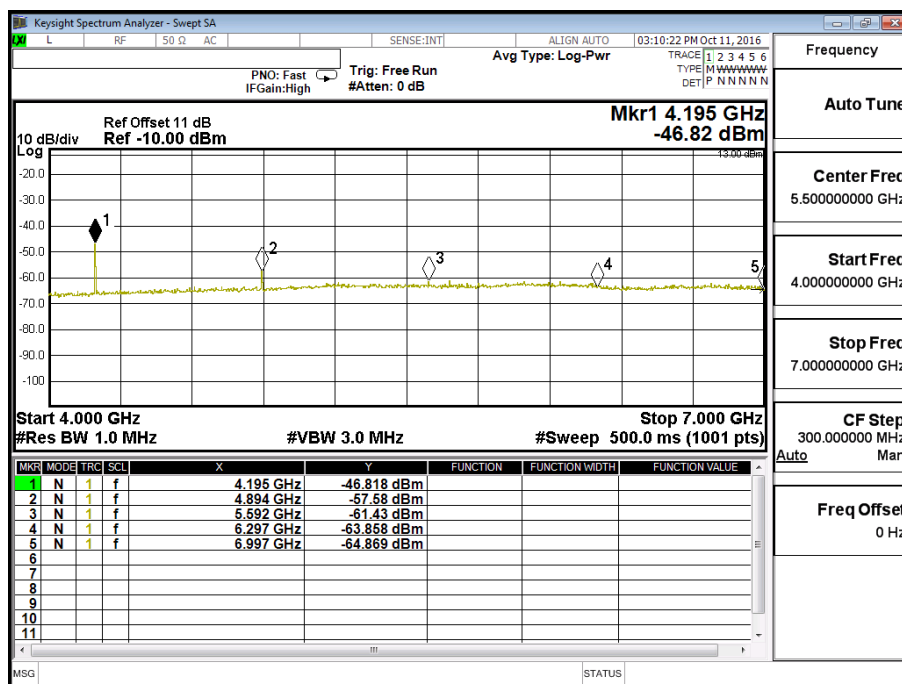
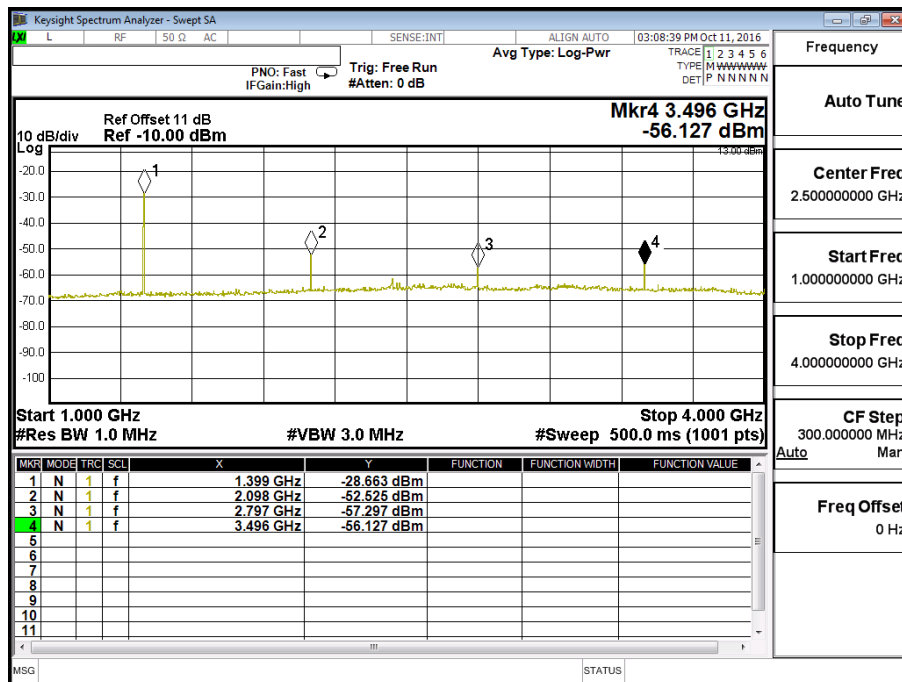


|                |                               |            |             |
|----------------|-------------------------------|------------|-------------|
| Product        | Module                        |            |             |
| Test Mode      | Spurious Emission (Conducted) |            |             |
| Date of Test   | 2016/10/11                    | Test Site  | CTR         |
| Test Condition | LTE-Band 12 (1.4M)            | Test Range | 30MHz~10GHz |

### LTE-Band 12 (1.4M) QPSK(1,0) CH23017

| Frequency (MHz) | Reading Level (dBm) | Path Loss (dB) | Emission Level (dBm) | Limit (dBm) |
|-----------------|---------------------|----------------|----------------------|-------------|
| 1399            | -28.663             | 0.58           | -28.083              | -13         |
| 2098            | -52.525             | 0.7            | -51.825              | -13         |
| 2797            | -57.297             | 1.01           | -56.287              | -13         |
| 3496            | -56.127             | 1.18           | -54.947              | -13         |
| 4195            | -46.818             | 1.23           | -45.588              | -13         |
| 4894            | -57.580             | 1.45           | -56.130              | -13         |
| 5592            | -61.430             | 1.56           | -59.870              | -13         |
| 6297            | -63.858             | 1.59           | -62.268              | -13         |
| 6997            | -64.869             | 1.82           | -63.049              | -13         |

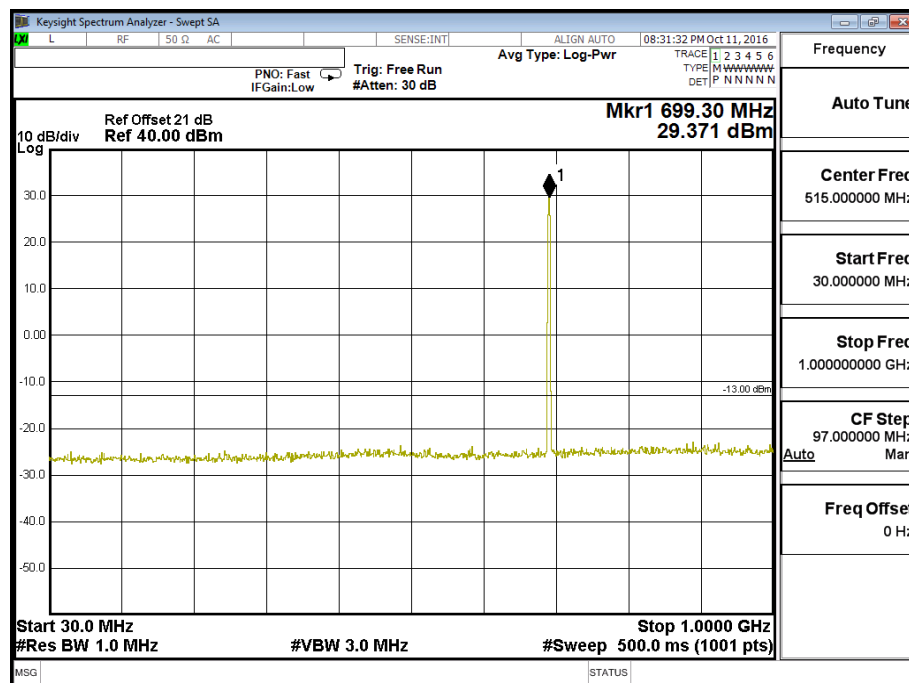


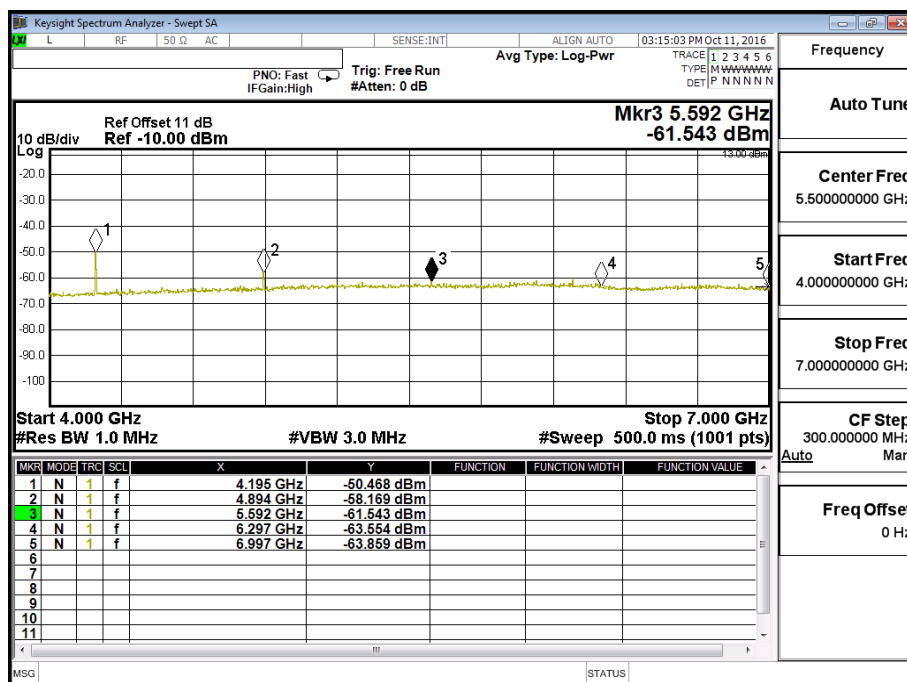
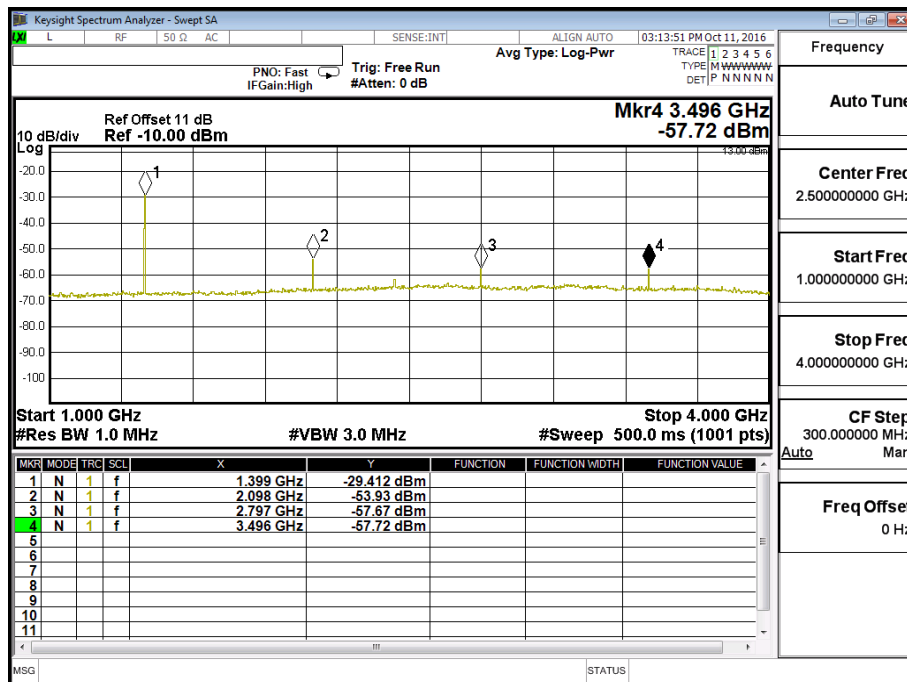


|                |                               |            |             |
|----------------|-------------------------------|------------|-------------|
| Product        | Module                        |            |             |
| Test Mode      | Spurious Emission (Conducted) |            |             |
| Date of Test   | 2016/10/11                    | Test Site  | CTR         |
| Test Condition | LTE-Band 12 (1.4M)            | Test Range | 30MHz~10GHz |

### LTE-Band 12 (1.4M) 16QAM(1,0) CH23017

| Frequency (MHz) | Reading Level (dBm) | Path Loss (dB) | Emission Level (dBm) | Limit (dBm) |
|-----------------|---------------------|----------------|----------------------|-------------|
| 1399            | -29.412             | 0.58           | -28.832              | -13         |
| 2098            | -53.930             | 0.7            | -53.230              | -13         |
| 2797            | -57.670             | 1.01           | -56.660              | -13         |
| 3496            | -57.720             | 1.18           | -56.540              | -13         |
| 4195            | -50.468             | 1.23           | -49.238              | -13         |
| 4894            | -58.169             | 1.45           | -56.719              | -13         |
| 5592            | -61.543             | 1.56           | -59.983              | -13         |
| 6297            | -63.554             | 1.59           | -61.964              | -13         |
| 6997            | -63.859             | 1.82           | -62.039              | -13         |

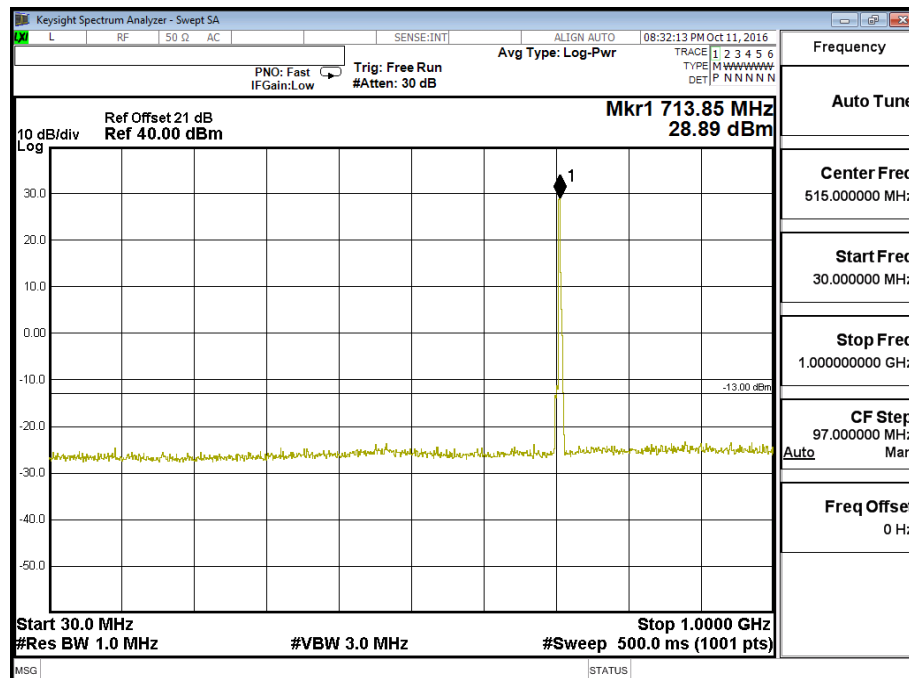


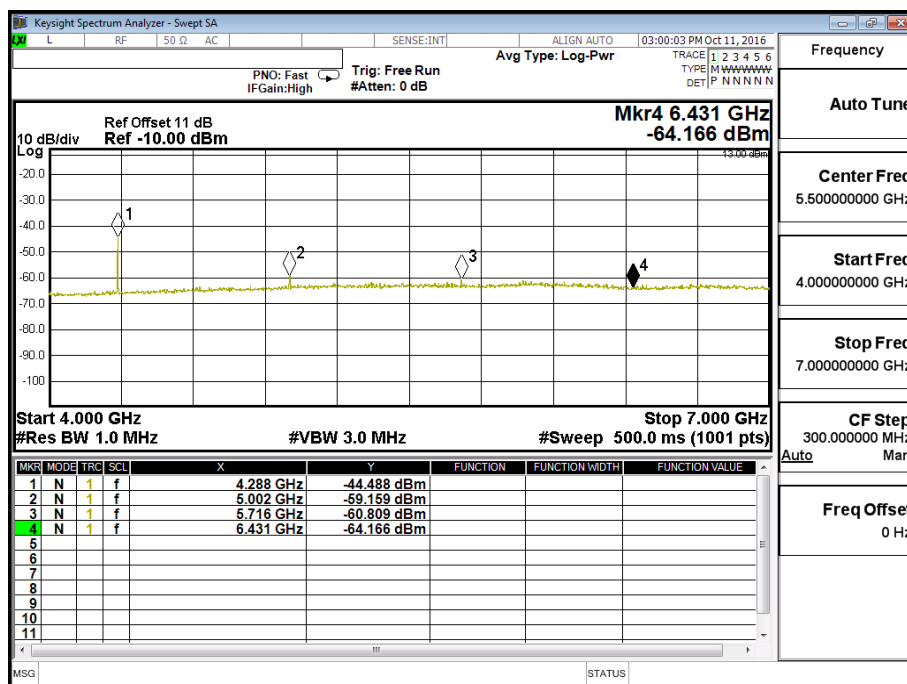
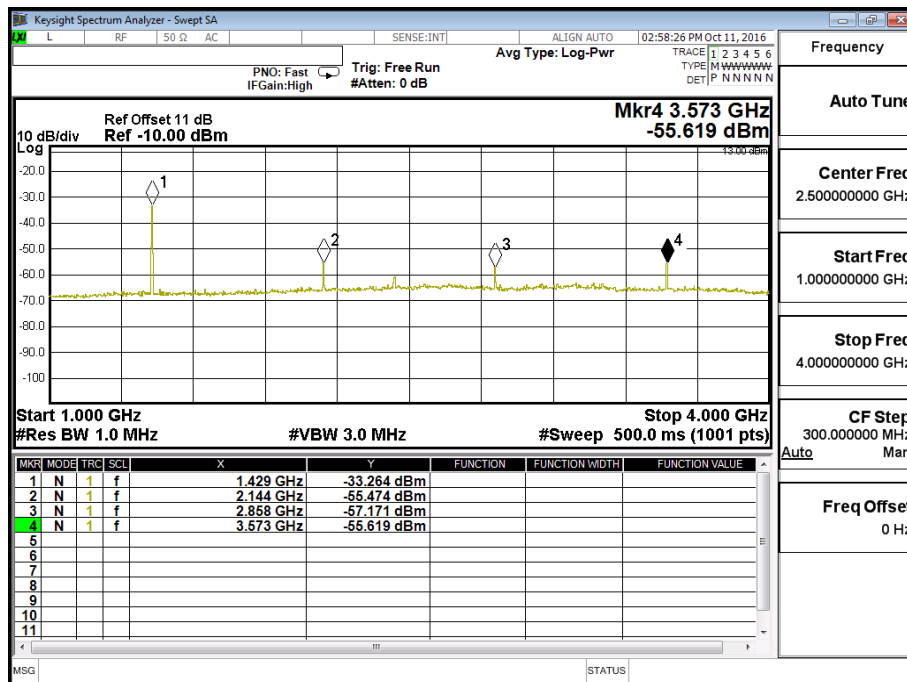


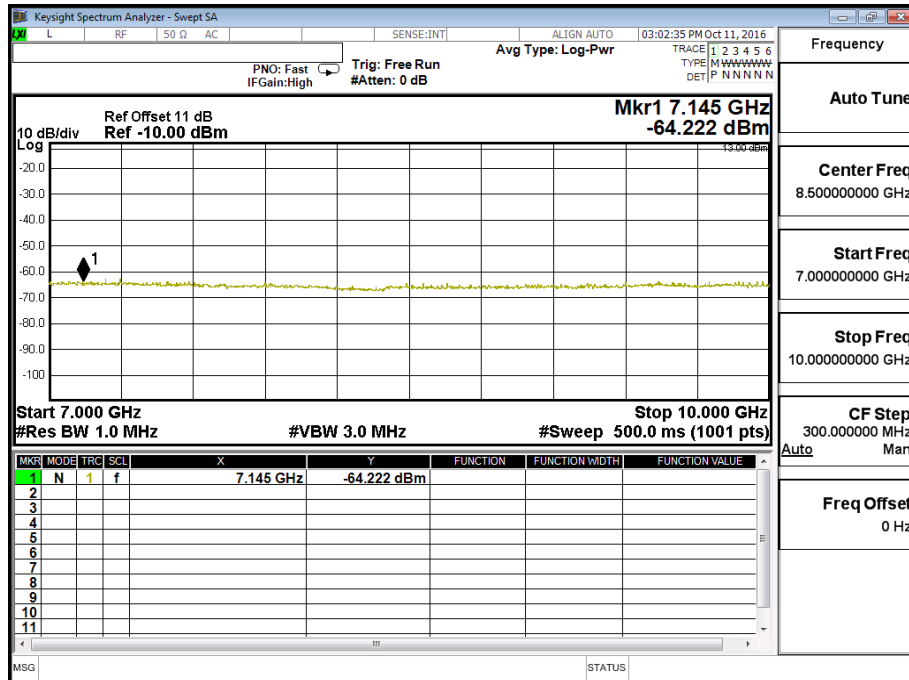
|                |                               |            |             |
|----------------|-------------------------------|------------|-------------|
| Product        | Module                        |            |             |
| Test Mode      | Spurious Emission (Conducted) |            |             |
| Date of Test   | 2016/10/11                    | Test Site  | CTR         |
| Test Condition | LTE-Band 12 (3M)              | Test Range | 30MHz~10GHz |

### LTE-Band 12 (3M) QPSK(1,7) CH23165

| Frequency (MHz) | Reading Level (dBm) | Path Loss (dB) | Emission Level (dBm) | Limit (dBm) |
|-----------------|---------------------|----------------|----------------------|-------------|
| 1429            | -33.264             | 0.58           | -32.684              | -13         |
| 2144            | -55.474             | 0.7            | -54.774              | -13         |
| 2858            | -57.171             | 1.01           | -56.161              | -13         |
| 3573            | -55.619             | 1.18           | -54.439              | -13         |
| 4288            | -44.488             | 1.23           | -43.258              | -13         |
| 5002            | -59.159             | 1.45           | -57.709              | -13         |
| 5716            | -60.809             | 1.56           | -59.249              | -13         |
| 6431            | -64.166             | 1.59           | -62.576              | -13         |
| 7145            | -64.222             | 1.82           | -62.402              | -13         |



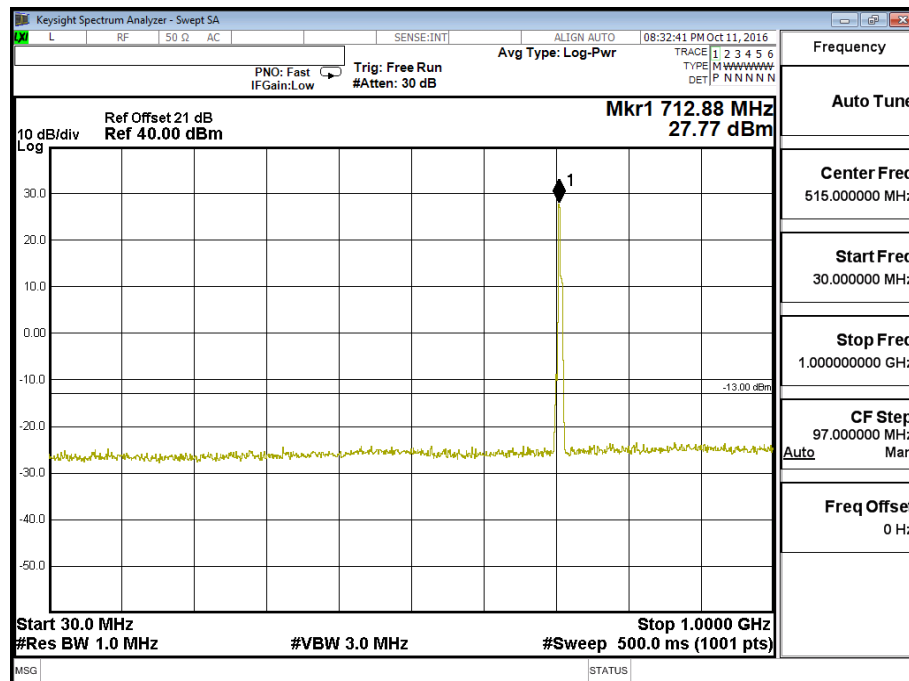


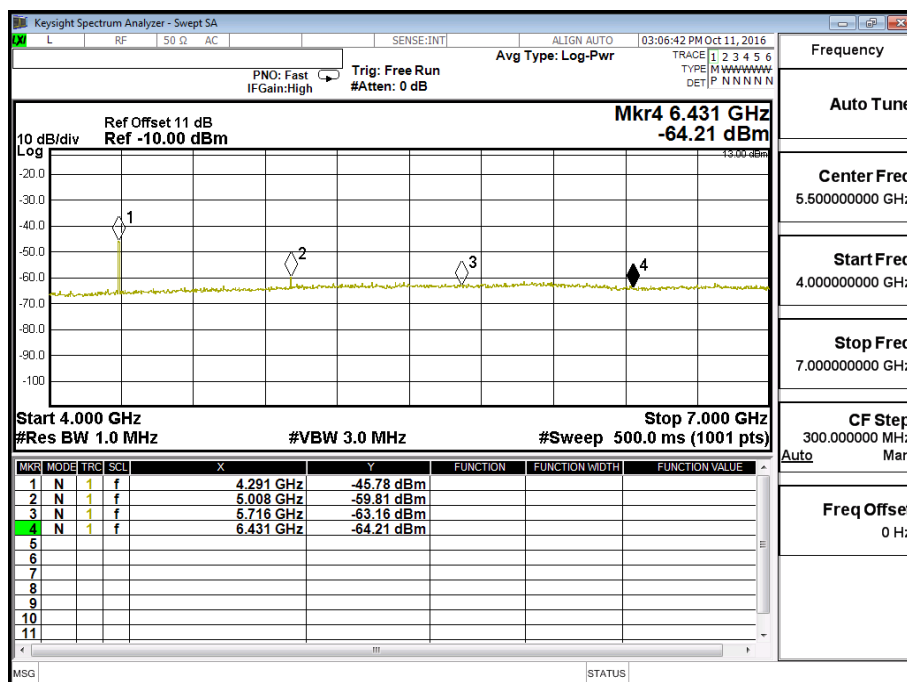
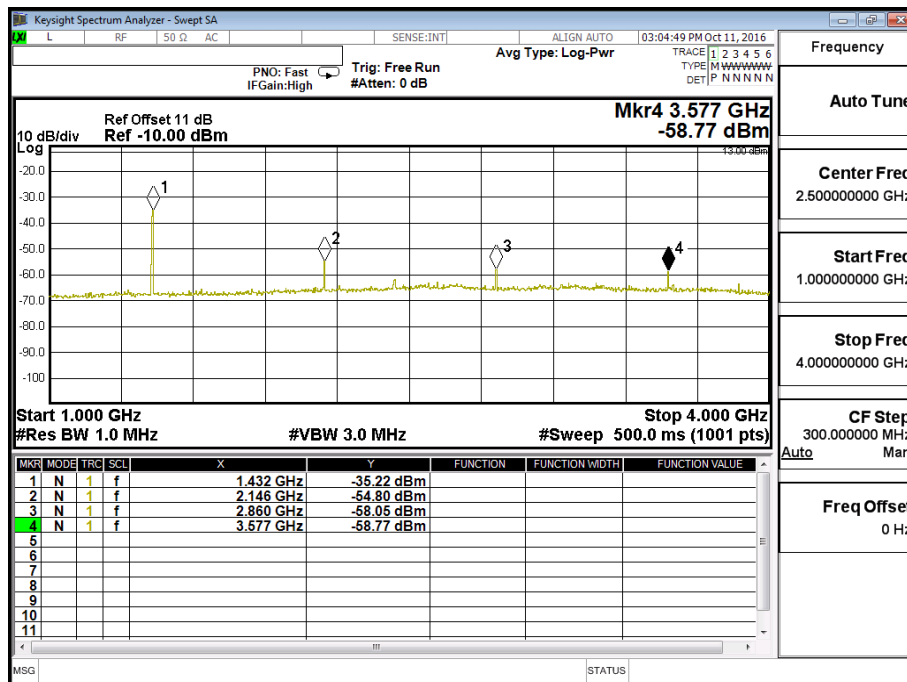


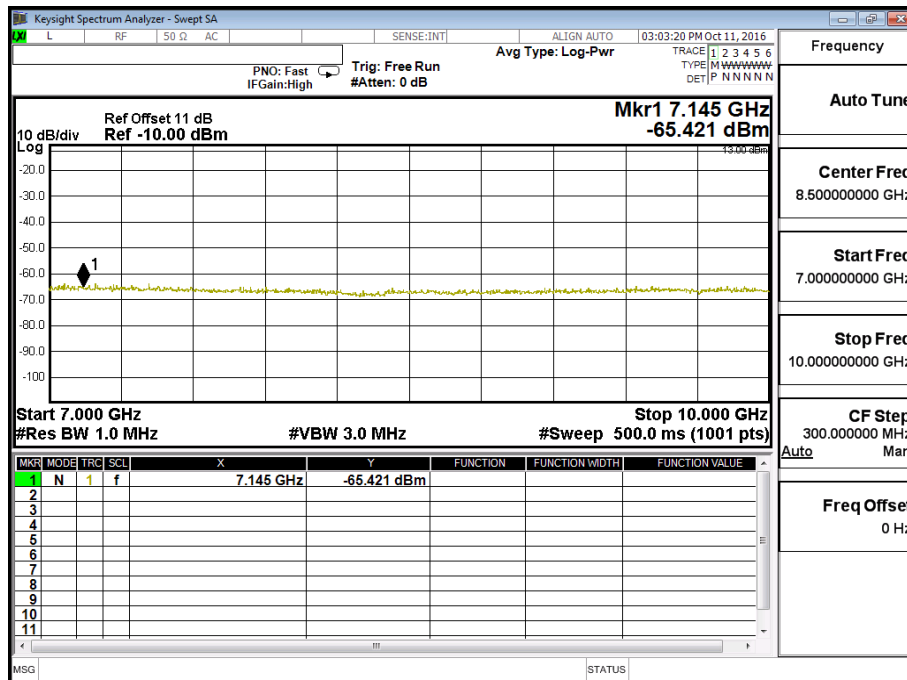
|                |                               |            |             |
|----------------|-------------------------------|------------|-------------|
| Product        | Module                        |            |             |
| Test Mode      | Spurious Emission (Conducted) |            |             |
| Date of Test   | 2016/10/11                    | Test Site  | CTR         |
| Test Condition | LTE-Band 12 (3M)              | Test Range | 30MHz~10GHz |

### LTE-Band 12 (3M) 16QAM(1,7) CH23165

| Frequency (MHz) | Reading Level (dBm) | Path Loss (dB) | Emission Level (dBm) | Limit (dBm) |
|-----------------|---------------------|----------------|----------------------|-------------|
| 1432            | -35.220             | 0.58           | -34.640              | -13         |
| 2146            | -54.800             | 0.7            | -54.100              | -13         |
| 2860            | -58.050             | 1.01           | -57.040              | -13         |
| 3577            | -58.770             | 1.18           | -57.590              | -13         |
| 4291            | -45.780             | 1.23           | -44.550              | -13         |
| 5008            | -59.810             | 1.45           | -58.360              | -13         |
| 5716            | -63.160             | 1.56           | -61.600              | -13         |
| 6431            | -64.210             | 1.59           | -62.620              | -13         |
| 7145            | -65.421             | 1.82           | -63.601              | -13         |



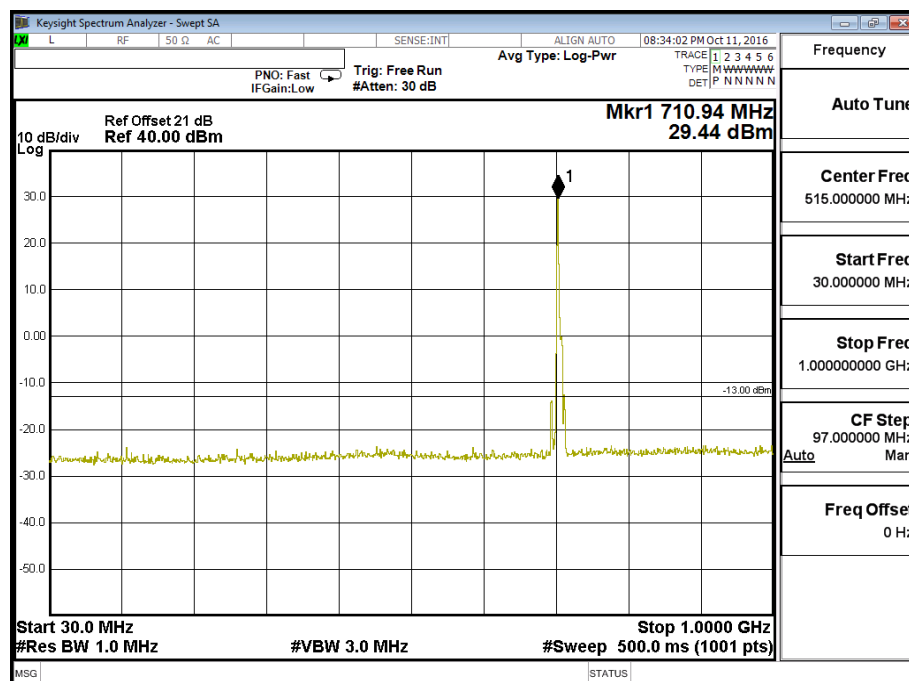


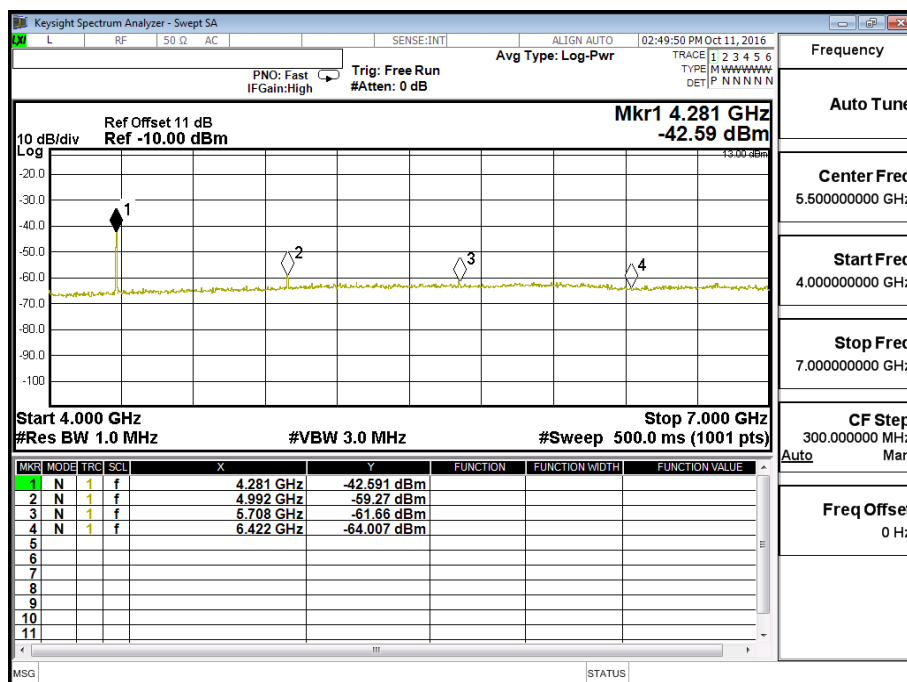
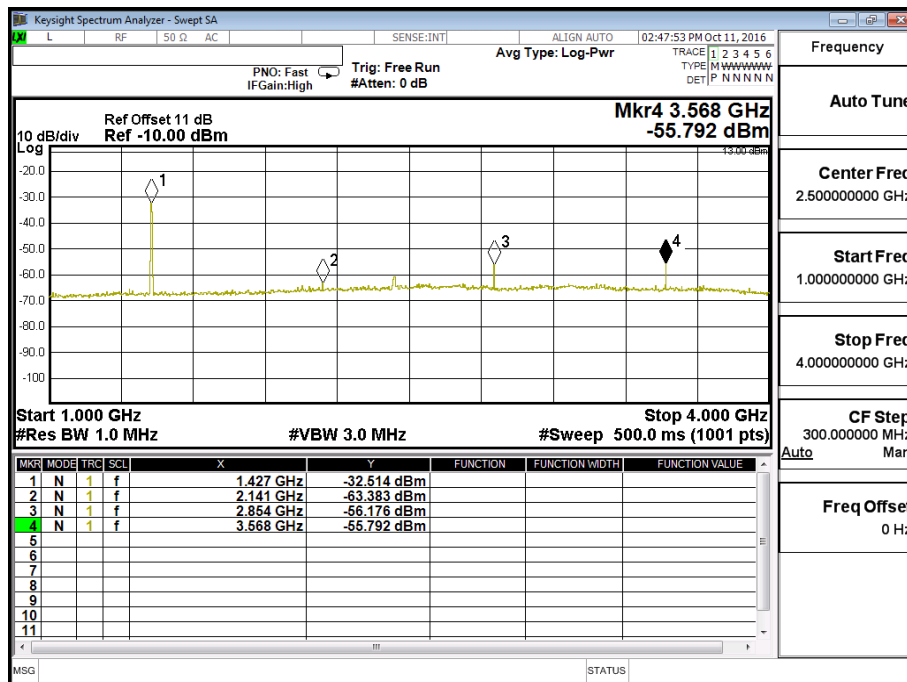


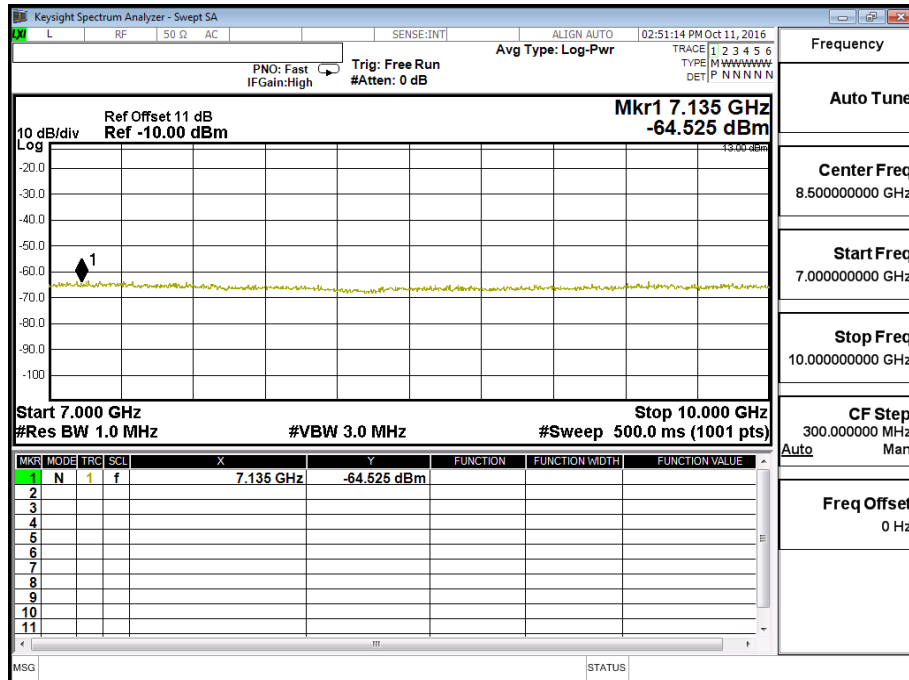
|                |                               |            |             |
|----------------|-------------------------------|------------|-------------|
| Product        | Module                        |            |             |
| Test Mode      | Spurious Emission (Conducted) |            |             |
| Date of Test   | 2016/10/11                    | Test Site  | CTR         |
| Test Condition | LTE-Band 12 (5M)              | Test Range | 30MHz~10GHz |

### LTE-Band 12 (5M) QPSK(1,12) CH23155

| Frequency (MHz) | Reading Level (dBm) | Path Loss (dB) | Emission Level (dBm) | Limit (dBm) |
|-----------------|---------------------|----------------|----------------------|-------------|
| 1427            | -32.514             | 0.58           | -31.934              | -13         |
| 2141            | -63.383             | 0.7            | -62.683              | -13         |
| 2854            | -56.176             | 1.01           | -55.166              | -13         |
| 3568            | -55.792             | 1.18           | -54.612              | -13         |
| 4281            | -42.591             | 1.23           | -41.361              | -13         |
| 4992            | -59.270             | 1.45           | -57.820              | -13         |
| 5708            | -61.660             | 1.56           | -60.100              | -13         |
| 6422            | -64.007             | 1.59           | -62.417              | -13         |
| 7135            | -64.525             | 1.82           | -62.705              | -13         |



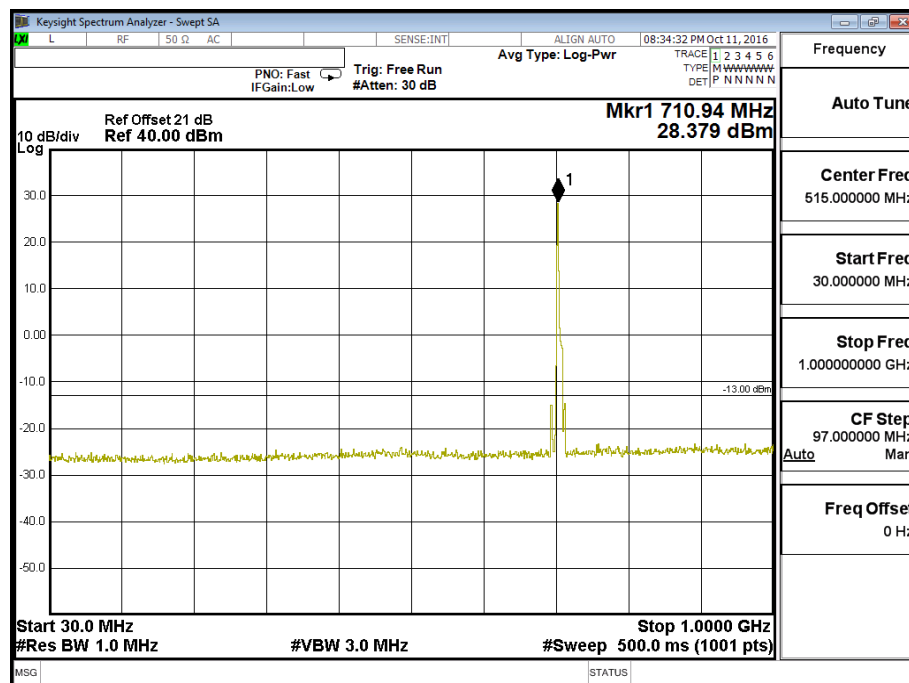


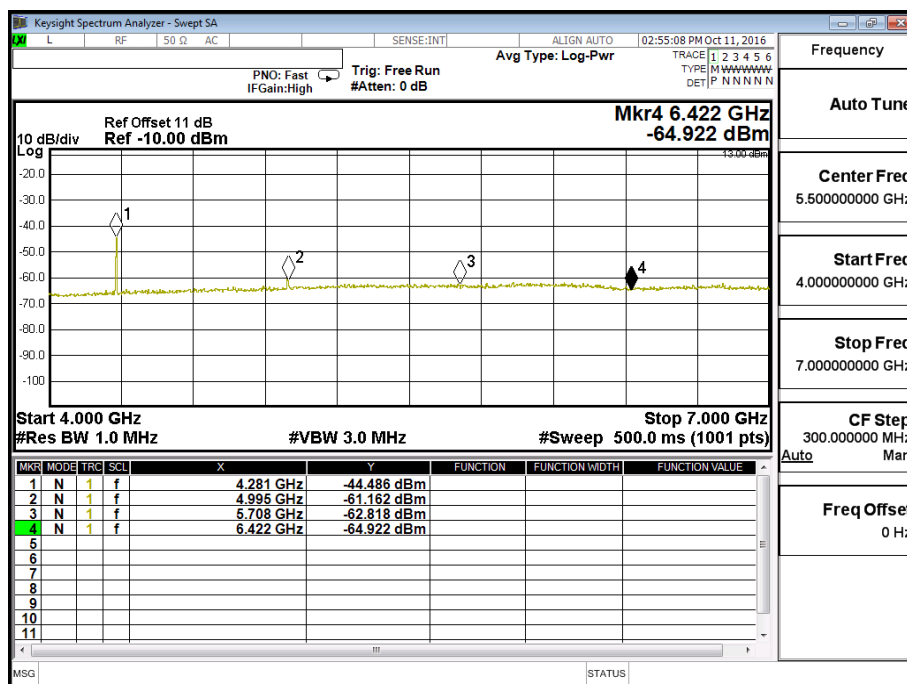
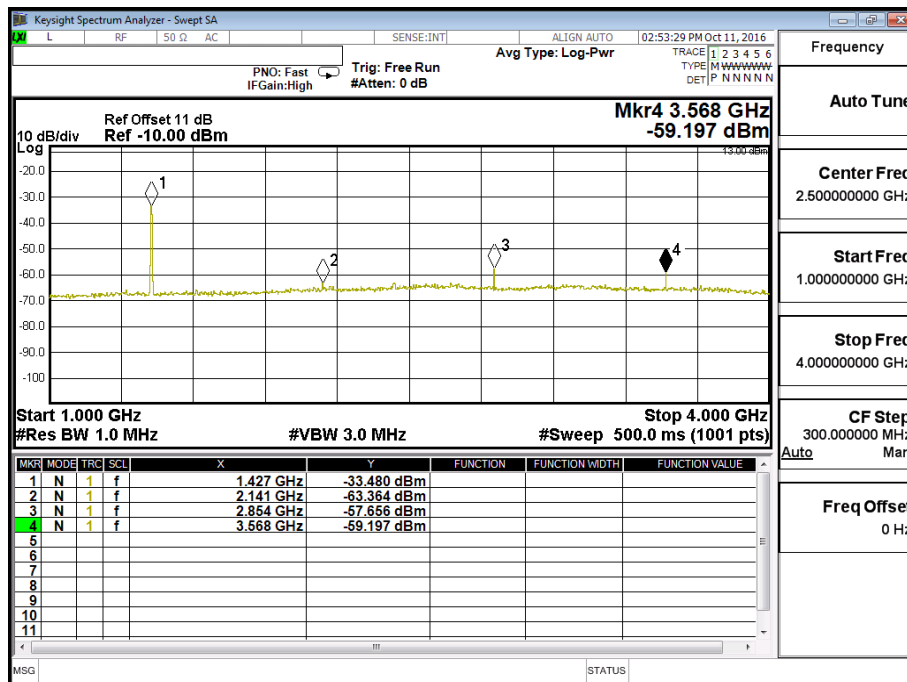


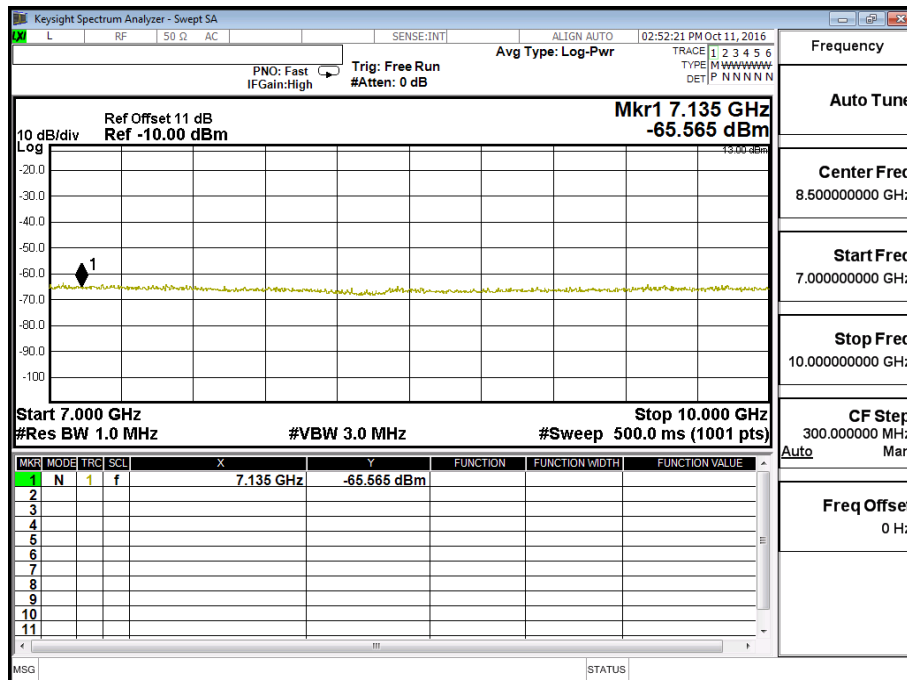
|                |                               |            |             |
|----------------|-------------------------------|------------|-------------|
| Product        | Module                        |            |             |
| Test Mode      | Spurious Emission (Conducted) |            |             |
| Date of Test   | 2016/10/11                    | Test Site  | CTR         |
| Test Condition | LTE-Band 12 (5M)              | Test Range | 30MHz~10GHz |

**LTE-Band 12 (5M) 16QAM(1,12) CH23155**

| Frequency<br>(MHz) | Reading Level<br>(dBm) | Path Loss<br>(dB) | Emission Level<br>(dBm) | Limit<br>(dBm) |
|--------------------|------------------------|-------------------|-------------------------|----------------|
| 1427               | -33.480                | 0.58              | -32.900                 | -13            |
| 2141               | -63.364                | 0.7               | -62.664                 | -13            |
| 2854               | -57.656                | 1.01              | -56.646                 | -13            |
| 3568               | -59.197                | 1.18              | -58.017                 | -13            |
| 4281               | -44.486                | 1.23              | -43.256                 | -13            |
| 4995               | -61.162                | 1.45              | -59.712                 | -13            |
| 5708               | -62.818                | 1.56              | -61.258                 | -13            |
| 6422               | -64.922                | 1.59              | -63.332                 | -13            |
| 7135               | -65.565                | 1.82              | -63.745                 | -13            |



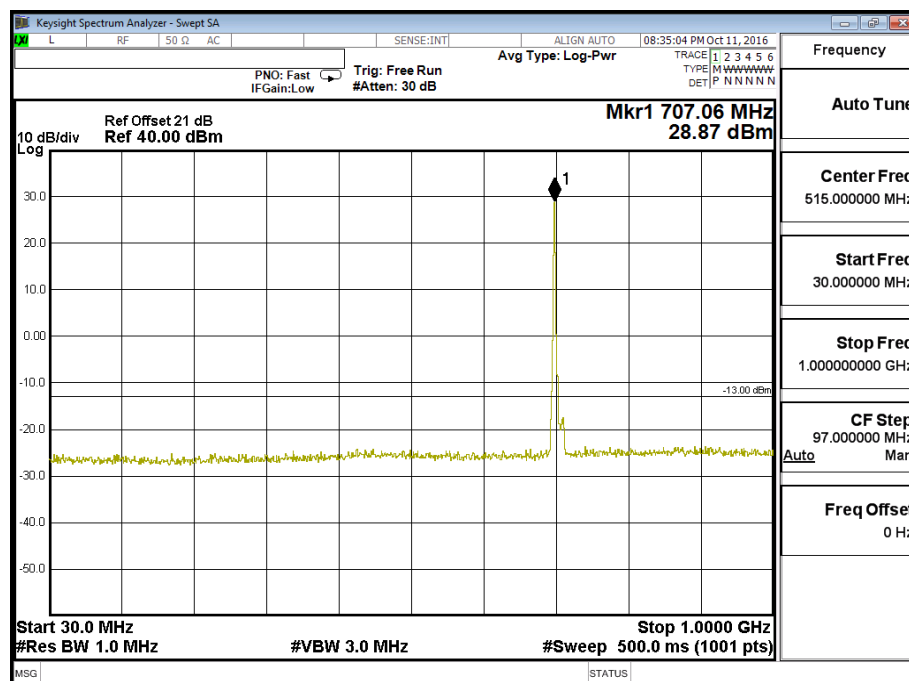


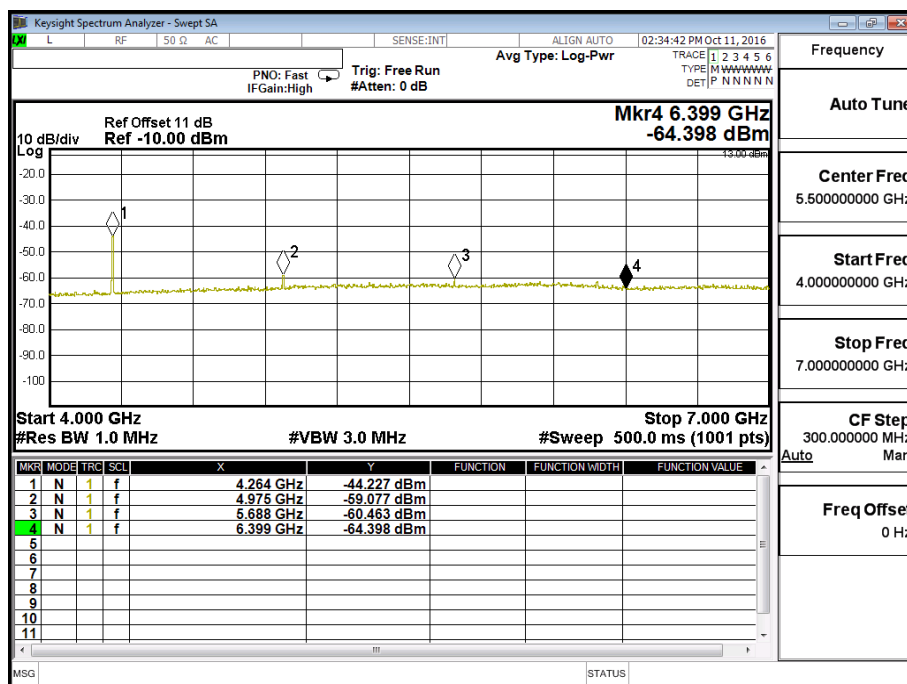
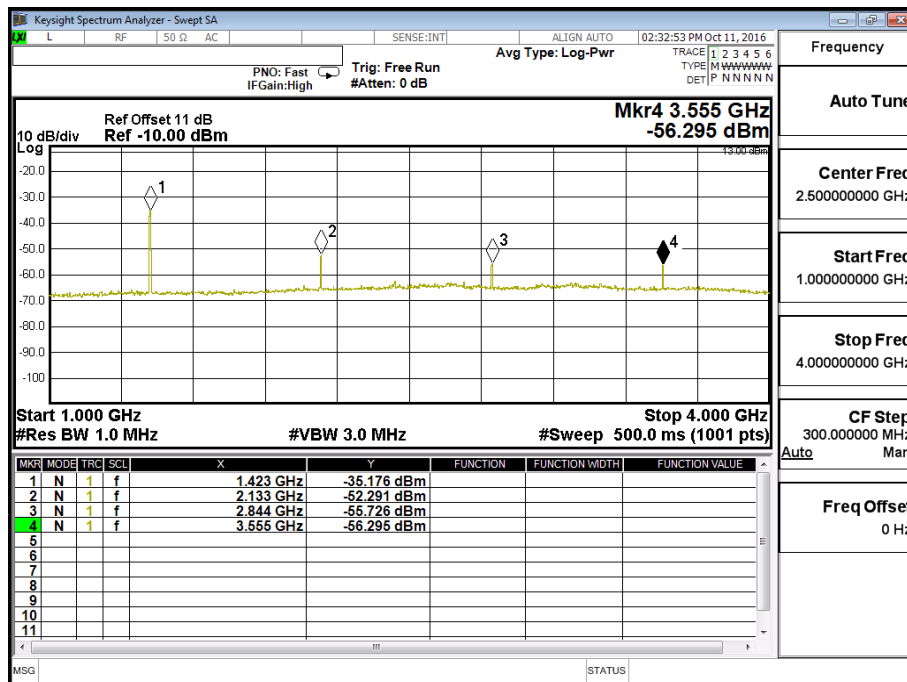


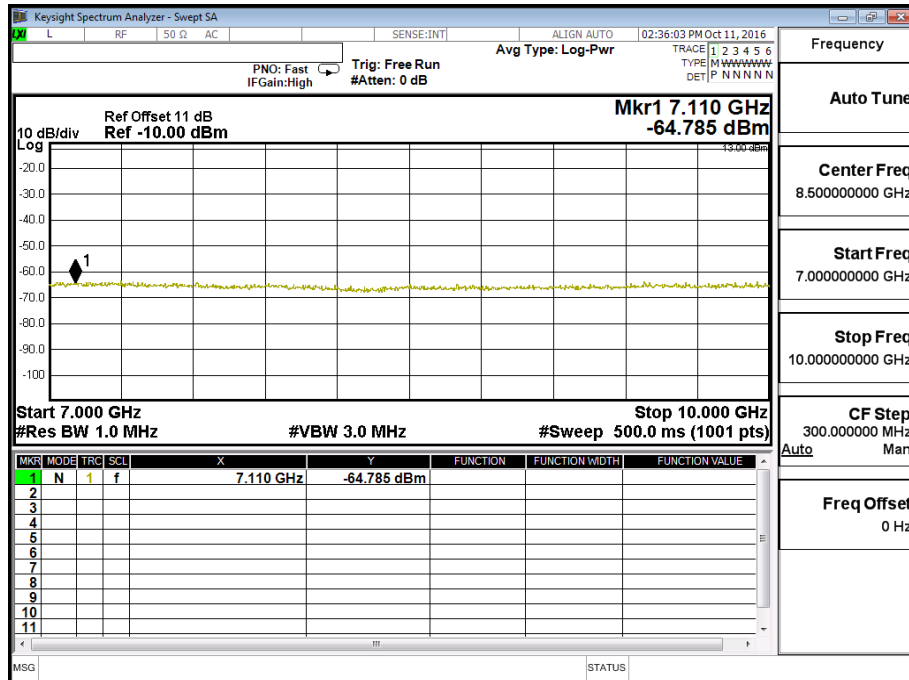
|                |                               |            |             |
|----------------|-------------------------------|------------|-------------|
| Product        | Module                        |            |             |
| Test Mode      | Spurious Emission (Conducted) |            |             |
| Date of Test   | 2016/10/11                    | Test Site  | CTR         |
| Test Condition | LTE-Band 12 (10M)             | Test Range | 30MHz~10GHz |

### LTE-Band 12 (10M) QPSK(1,24) CH23130

| Frequency (MHz) | Reading Level (dBm) | Path Loss (dB) | Emission Level (dBm) | Limit (dBm) |
|-----------------|---------------------|----------------|----------------------|-------------|
| 1423            | -35.176             | 0.58           | -34.596              | -13         |
| 2133            | -52.291             | 0.7            | -51.591              | -13         |
| 2844            | -55.726             | 1.01           | -54.716              | -13         |
| 3555            | -56.295             | 1.18           | -55.115              | -13         |
| 4264            | -44.227             | 1.23           | -42.997              | -13         |
| 4975            | -59.077             | 1.45           | -57.627              | -13         |
| 5688            | -60.463             | 1.56           | -58.903              | -13         |
| 6399            | -64.398             | 1.59           | -62.808              | -13         |
| 7110            | -64.785             | 1.82           | -62.965              | -13         |



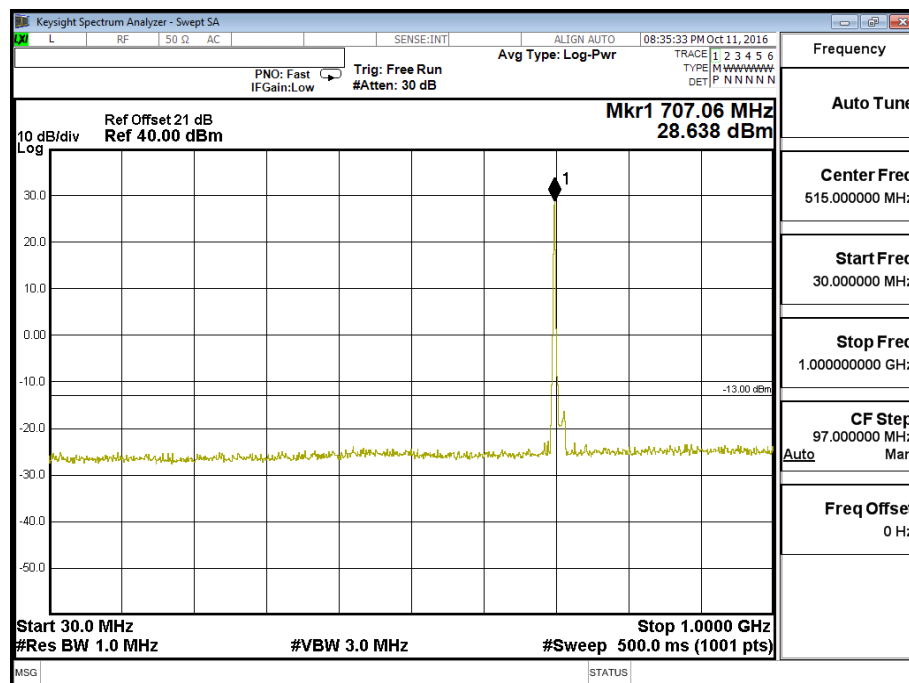


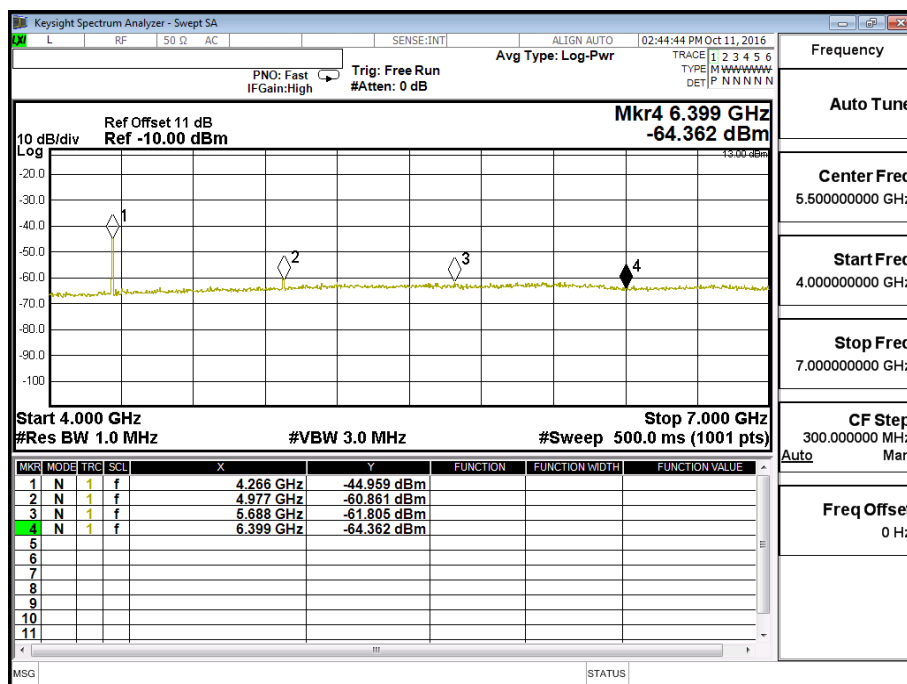
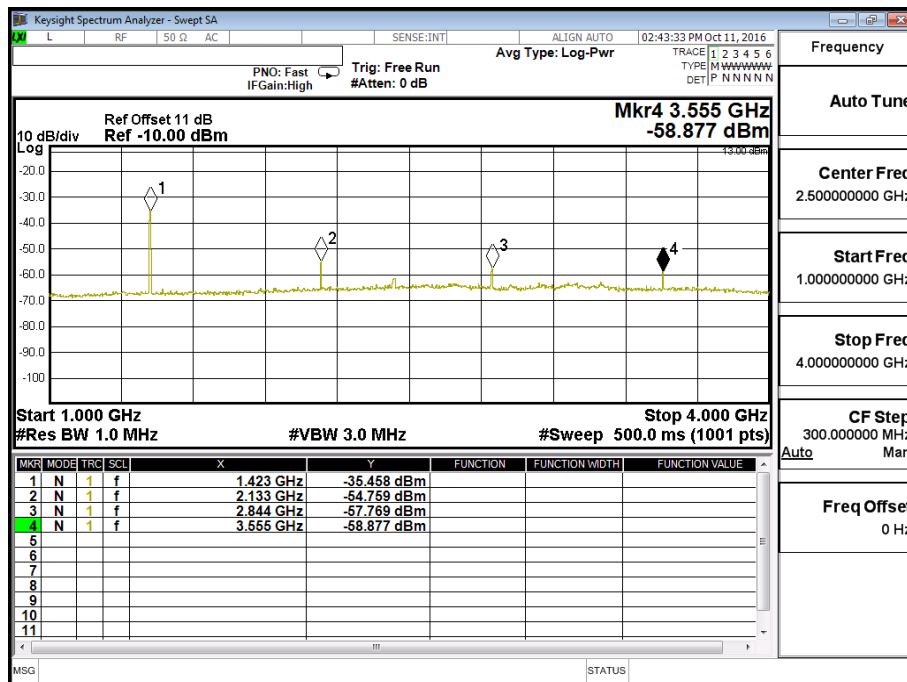


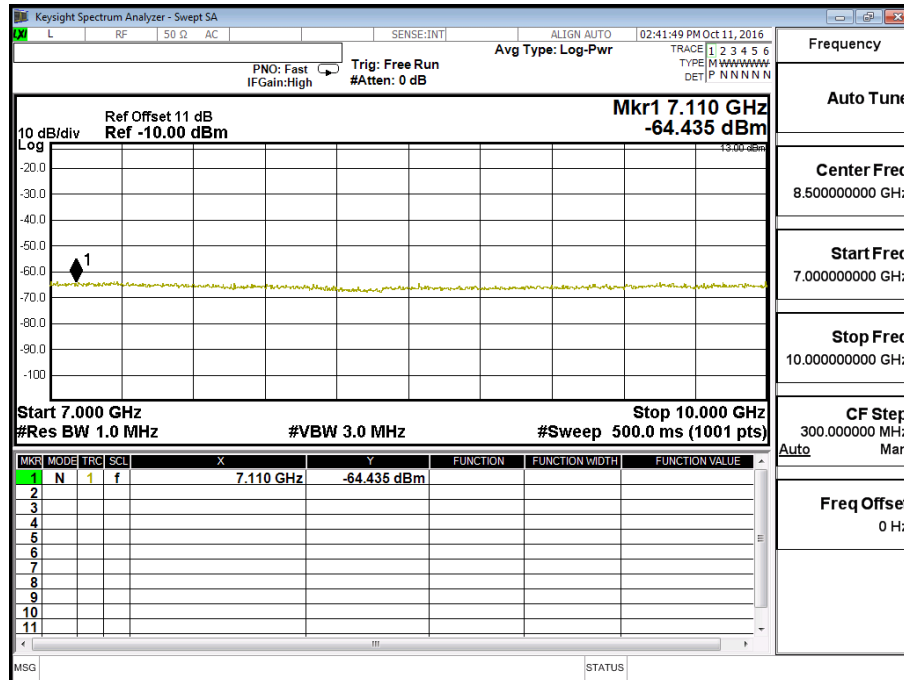
|                |                               |            |             |
|----------------|-------------------------------|------------|-------------|
| Product        | Module                        |            |             |
| Test Mode      | Spurious Emission (Conducted) |            |             |
| Date of Test   | 2016/10/11                    | Test Site  | CTR         |
| Test Condition | LTE-Band 12 (10M)             | Test Range | 30MHz~10GHz |

**LTE-Band 12 (10M) 16QAM(1,24) CH23130**

| Frequency<br>(MHz) | Reading Level<br>(dBm) | Path Loss<br>(dB) | Emission Level<br>(dBm) | Limit<br>(dBm) |
|--------------------|------------------------|-------------------|-------------------------|----------------|
| 1423               | -35.458                | 0.58              | -34.878                 | -13            |
| 2133               | -54.759                | 0.7               | -54.059                 | -13            |
| 2844               | -57.769                | 1.01              | -56.759                 | -13            |
| 3555               | -58.877                | 1.18              | -57.697                 | -13            |
| 4266               | -44.959                | 1.23              | -43.729                 | -13            |
| 4977               | -60.861                | 1.45              | -59.411                 | -13            |
| 5688               | -61.805                | 1.56              | -60.245                 | -13            |
| 6399               | -64.362                | 1.59              | -62.772                 | -13            |
| 7110               | -64.435                | 1.82              | -62.615                 | -13            |







|                |                              |            |             |
|----------------|------------------------------|------------|-------------|
| Product        | Module                       |            |             |
| Test Mode      | Spurious Emission (Radiated) |            |             |
| Date of Test   | 2016/10/14                   | Test Site  | Site3       |
| Test Condition | Band 2 (1.4M) QPSK(1,0)      | Test Range | 9kHz ~20GHz |

| Frequency | Reading Level | Signal Generator Level | Cable Loss | Antenna Gain | EIRP Value | Limit |
|-----------|---------------|------------------------|------------|--------------|------------|-------|
| (GHz)     | (dBm)         | (dBm)                  | (dB)       | (dBi)        | (dBm)      | (dBm) |

**Horizontal Emissions Band 2 (1.4M) QPSK(1,0)**

|       |         |         |       |        |         |     |
|-------|---------|---------|-------|--------|---------|-----|
| 3760  | -46.497 | -46.844 | 2.530 | 12.600 | -36.774 | -13 |
| 5640  | -52.276 | -49.595 | 3.050 | 13.100 | -39.545 | -13 |
| 7520  | -63.431 | -49.063 | 3.650 | 11.500 | -41.213 | -13 |
| 9400  | -64.132 | -48.814 | 3.850 | 12.000 | -40.664 | -13 |
| 11280 | -63.015 | -46.554 | 4.580 | 12.000 | -39.134 | -13 |

**Vertical Emissions Band 2 (1.4M) QPSK(1,0)**

|       |         |         |       |        |         |     |
|-------|---------|---------|-------|--------|---------|-----|
| 3760  | -52.677 | -50.695 | 2.530 | 12.600 | -40.625 | -13 |
| 5640  | -49.383 | -46.233 | 3.050 | 13.100 | -36.183 | -13 |
| 7520  | -62.548 | -47.566 | 3.650 | 11.500 | -39.716 | -13 |
| 9400  | -64.306 | -48.475 | 3.850 | 12.000 | -40.325 | -13 |
| 11280 | -62.023 | -45.345 | 4.580 | 12.000 | -37.925 | -13 |

Note:

1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 12 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

|                |                              |            |             |
|----------------|------------------------------|------------|-------------|
| Product        | Module                       |            |             |
| Test Mode      | Spurious Emission (Radiated) |            |             |
| Date of Test   | 2016/10/14                   | Test Site  | Site3       |
| Test Condition | Band 2 (3M) QPSK(1,0)        | Test Range | 9kHz ~20GHz |

| Frequency | Reading Level | Signal Generator Level | Cable Loss | Antenna Gain | EIRP Value | Limit |
|-----------|---------------|------------------------|------------|--------------|------------|-------|
| (GHz)     | (dBm)         | (dBm)                  | (dB)       | (dBi)        | (dBm)      | (dBm) |

#### Horizontal Emissions Band 2 (3M) QPSK(1,0)

|        |         |         |       |        |         |     |
|--------|---------|---------|-------|--------|---------|-----|
| 3816   | -49.702 | -50.090 | 2.530 | 12.600 | -40.02  | -13 |
| 5720   | -42.866 | -40.749 | 3.050 | 13.100 | -30.699 | -13 |
| 7634   | -63.614 | -49.795 | 3.650 | 11.500 | -41.945 | -13 |
| 9542.5 | -64.165 | -49.666 | 3.850 | 12.000 | -41.516 | -13 |
| 11451  | -63.715 | -45.183 | 4.580 | 12.000 | -37.763 | -13 |

#### Vertical Emissions Band 2 (3M) QPSK(1,0)

|        |         |         |       |        |         |     |
|--------|---------|---------|-------|--------|---------|-----|
| 3816   | -51.319 | -49.177 | 2.530 | 12.600 | -39.107 | -13 |
| 5720   | -44.242 | -42.020 | 3.050 | 13.100 | -31.97  | -13 |
| 7634   | -61.395 | -46.944 | 3.650 | 11.500 | -39.094 | -13 |
| 9542.5 | -63.08  | -47.988 | 3.850 | 12.000 | -39.838 | -13 |
| 11451  | -63.594 | -45.174 | 4.580 | 12.000 | -37.754 | -13 |

Note:

1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 12 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

|                |                              |            |             |
|----------------|------------------------------|------------|-------------|
| Product        | Module                       |            |             |
| Test Mode      | Spurious Emission (Radiated) |            |             |
| Date of Test   | 2016/10/14                   | Test Site  | Site3       |
| Test Condition | Band 2 (5M) QPSK(1,0)        | Test Range | 9kHz ~20GHz |

| Frequency | Reading Level | Signal Generator Level | Cable Loss | Antenna Gain | EIRP Value | Limit |
|-----------|---------------|------------------------|------------|--------------|------------|-------|
| (GHz)     | (dBm)         | (dBm)                  | (dB)       | (dBi)        | (dBm)      | (dBm) |

**Horizontal Emissions Band 2 (5M) QPSK(1,0)**

|        |         |         |       |        |         |     |
|--------|---------|---------|-------|--------|---------|-----|
| 3812   | -48.298 | -48.668 | 2.530 | 12.600 | -38.598 | -13 |
| 5715   | -47.105 | -44.957 | 3.050 | 13.100 | -34.907 | -13 |
| 7630   | -63.741 | -49.882 | 3.650 | 11.500 | -42.032 | -13 |
| 9537.5 | -63.936 | -49.379 | 3.850 | 12.000 | -41.229 | -13 |
| 11445  | -64.078 | -45.634 | 4.580 | 12.000 | -38.214 | -13 |

**Vertical Emissions Band 2 (5M) QPSK(1,0)**

|        |         |         |       |        |         |     |
|--------|---------|---------|-------|--------|---------|-----|
| 3812   | -51.822 | -49.658 | 2.530 | 12.600 | -39.588 | -13 |
| 5715   | -47.048 | -44.796 | 3.050 | 13.100 | -34.746 | -13 |
| 7630   | -62.369 | -47.845 | 3.650 | 11.500 | -39.995 | -13 |
| 9537.5 | -63.858 | -48.717 | 3.850 | 12.000 | -40.567 | -13 |
| 11445  | -63.907 | -45.577 | 4.580 | 12.000 | -38.157 | -13 |

Note:

1. Receiver setting (Peak Detector) : RBW:3MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 12 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

|                |                              |            |             |
|----------------|------------------------------|------------|-------------|
| Product        | Module                       |            |             |
| Test Mode      | Spurious Emission (Radiated) |            |             |
| Date of Test   | 2016/10/14                   | Test Site  | Site3       |
| Test Condition | Band 2 (10M) QPSK(1,0)       | Test Range | 9KHz ~20GHz |

| Frequency | Reading Level | Signal Generator Level | Cable Loss | Antenna Gain | EIRP Value | Limit |
|-----------|---------------|------------------------|------------|--------------|------------|-------|
| (GHz)     | (dBm)         | (dBm)                  | (dB)       | (dBi)        | (dBm)      | (dBm) |

#### Horizontal Emissions Band 2 (10M) QPSK(1,0)

|       |         |         |       |        |         |     |
|-------|---------|---------|-------|--------|---------|-----|
| 3800  | -47.34  | -47.657 | 2.530 | 12.600 | -37.587 | -13 |
| 5700  | -48.058 | -45.815 | 3.050 | 13.100 | -35.765 | -13 |
| 7620  | -63.542 | -49.604 | 3.650 | 11.500 | -41.754 | -13 |
| 9525  | -63.893 | -49.220 | 3.850 | 12.000 | -41.07  | -13 |
| 11430 | -63.786 | -45.610 | 4.580 | 12.000 | -38.19  | -13 |

#### Vertical Emissions Band 2 (10M) QPSK(1,0)

|       |         |         |       |        |         |     |
|-------|---------|---------|-------|--------|---------|-----|
| 3800  | -51.492 | -49.303 | 2.530 | 12.600 | -39.233 | -13 |
| 5700  | -45.676 | -43.304 | 3.050 | 13.100 | -33.254 | -13 |
| 7620  | -64.015 | -49.491 | 3.650 | 11.500 | -41.641 | -13 |
| 9525  | -63.383 | -48.145 | 3.850 | 12.000 | -39.995 | -13 |
| 11430 | -64.651 | -46.591 | 4.580 | 12.000 | -39.171 | -13 |

Note:

1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. ERP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 12 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

|                |                              |            |             |
|----------------|------------------------------|------------|-------------|
| Product        | Module                       |            |             |
| Test Mode      | Spurious Emission (Radiated) |            |             |
| Date of Test   | 2016/10/14                   | Test Site  | Site3       |
| Test Condition | Band 2 (15M) QPSK(1,0)       | Test Range | 9KHz ~20GHz |

| Frequency | Reading Level | Signal Generator Level | Cable Loss | Antenna Gain | EIRP Value | Limit |
|-----------|---------------|------------------------|------------|--------------|------------|-------|
| (GHz)     | (dBm)         | (dBm)                  | (dB)       | (dBi)        | (dBm)      | (dBm) |

**Horizontal Emissions Band 2 (15M) QPSK(1,0)**

|        |         |         |       |        |         |     |
|--------|---------|---------|-------|--------|---------|-----|
| 3792   | -46.875 | -47.156 | 2.530 | 12.600 | -37.086 | -13 |
| 5690   | -44.947 | -42.640 | 3.050 | 13.100 | -32.59  | -13 |
| 7610   | -63.885 | -49.868 | 3.650 | 11.500 | -42.018 | -13 |
| 9512.5 | -63.993 | -49.146 | 3.850 | 12.000 | -40.996 | -13 |
| 11415  | -63.857 | -45.947 | 4.580 | 12.000 | -38.527 | -13 |

**Vertical Emissions Band 2 (15M) QPSK(1,0)**

|        |         |         |       |        |         |     |
|--------|---------|---------|-------|--------|---------|-----|
| 3792   | -49.08  | -46.913 | 2.530 | 12.600 | -36.843 | -13 |
| 5685   | -44.205 | -41.663 | 3.050 | 13.100 | -31.613 | -13 |
| 7610   | -63.842 | -49.247 | 3.650 | 11.500 | -41.397 | -13 |
| 9512.5 | -63.74  | -48.357 | 3.850 | 12.000 | -40.207 | -13 |
| 11415  | -63.768 | -45.978 | 4.580 | 12.000 | -38.558 | -13 |

Note:

1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 12 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

|                |                              |            |             |
|----------------|------------------------------|------------|-------------|
| Product        | Module                       |            |             |
| Test Mode      | Spurious Emission (Radiated) |            |             |
| Date of Test   | 2016/10/14                   | Test Site  | Site3       |
| Test Condition | Band 2 (20M) QPSK(1,0)       | Test Range | 9KHz ~20GHz |

| Frequency | Reading Level | Signal Generator Level | Cable Loss | Antenna Gain | EIRP Value | Limit |
|-----------|---------------|------------------------|------------|--------------|------------|-------|
| (GHz)     | (dBm)         | (dBm)                  | (dB)       | (dBi)        | (dBm)      | (dBm) |

#### Horizontal Emissions Band 2 (20M) QPSK(1,0)

|       |         |         |       |        |         |     |
|-------|---------|---------|-------|--------|---------|-----|
| 3780  | -47.363 | -47.642 | 2.530 | 12.600 | -37.572 | -13 |
| 5675  | -45.213 | -42.801 | 3.050 | 13.100 | -32.751 | -13 |
| 7600  | -64.167 | -50.072 | 3.650 | 11.500 | -42.222 | -13 |
| 9500  | -63.813 | -48.850 | 3.850 | 12.000 | -40.7   | -13 |
| 11400 | -64.195 | -46.552 | 4.580 | 12.000 | -39.132 | -13 |

#### Vertical Emissions Band 2 (20M) QPSK(1,0)

|       |         |         |       |        |         |     |
|-------|---------|---------|-------|--------|---------|-----|
| 3784  | -48.62  | -46.489 | 2.530 | 12.600 | -36.419 | -13 |
| 5675  | -45.317 | -42.640 | 3.050 | 13.100 | -32.59  | -13 |
| 7600  | -61.388 | -46.582 | 3.650 | 11.500 | -38.732 | -13 |
| 9500  | -63.156 | -47.676 | 3.850 | 12.000 | -39.526 | -13 |
| 11400 | -63.927 | -46.379 | 4.580 | 12.000 | -38.959 | -13 |

Note:

1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 12 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

|                |                              |            |             |
|----------------|------------------------------|------------|-------------|
| Product        | Module                       |            |             |
| Test Mode      | Spurious Emission (Radiated) |            |             |
| Date of Test   | 2016/10/14                   | Test Site  | Site3       |
| Test Condition | Band 4 (1.4M) QPSK(1,0)      | Test Range | 9kHz ~20GHz |

| Frequency | Reading Level | Signal Generator Level | Cable Loss | Antenna Gain | EIRP Value | Limit |
|-----------|---------------|------------------------|------------|--------------|------------|-------|
| (GHz)     | (dBm)         | (dBm)                  | (dB)       | (dBi)        | (dBm)      | (dBm) |

#### Horizontal Emissions Band 4 (1.4M) QPSK(1,0)

|        |         |         |       |        |         |     |
|--------|---------|---------|-------|--------|---------|-----|
| 3464   | -35.172 | -35.966 | 2.530 | 12.600 | -25.896 | -13 |
| 5195   | -42.22  | -38.173 | 3.050 | 13.100 | -28.123 | -13 |
| 6930   | -58.985 | -47.126 | 3.650 | 11.500 | -39.276 | -13 |
| 8662.5 | -64.072 | -48.579 | 3.850 | 12.000 | -40.429 | -13 |
| 10395  | -61.588 | -44.867 | 4.580 | 12.000 | -37.447 | -13 |

#### Vertical Emissions Band 4 (1.4M) QPSK(1,0)

|        |         |         |       |        |         |     |
|--------|---------|---------|-------|--------|---------|-----|
| 3464   | -38.518 | -38.420 | 2.530 | 12.600 | -28.35  | -13 |
| 5195   | -40.905 | -36.559 | 3.050 | 13.100 | -26.509 | -13 |
| 6930   | -56.033 | -43.671 | 3.650 | 11.500 | -35.821 | -13 |
| 8662.5 | -64.72  | -48.716 | 3.850 | 12.000 | -40.566 | -13 |
| 10395  | -62.868 | -45.931 | 4.580 | 12.000 | -38.511 | -13 |

Note:

1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 12 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

|                |                              |            |             |
|----------------|------------------------------|------------|-------------|
| Product        | Module                       |            |             |
| Test Mode      | Spurious Emission (Radiated) |            |             |
| Date of Test   | 2016/10/14                   | Test Site  | Site3       |
| Test Condition | Band 4 (3M) QPSK(1,0)        | Test Range | 9kHz ~20GHz |

| Frequency | Reading Level | Signal Generator Level | Cable Loss | Antenna Gain | EIRP Value | Limit |
|-----------|---------------|------------------------|------------|--------------|------------|-------|
| (GHz)     | (dBm)         | (dBm)                  | (dB)       | (dBi)        | (dBm)      | (dBm) |

#### Horizontal Emissions Band 4 (3M) QPSK(1,0)

|        |         |         |       |        |         |     |
|--------|---------|---------|-------|--------|---------|-----|
| 3464   | -34.917 | -35.711 | 2.530 | 12.600 | -25.641 | -13 |
| 5195   | -42.387 | -38.340 | 3.050 | 13.100 | -28.29  | -13 |
| 6925   | -58.396 | -46.615 | 3.650 | 11.500 | -38.765 | -13 |
| 8662.5 | -64.682 | -49.190 | 3.850 | 12.000 | -41.04  | -13 |
| 10395  | -63.364 | -46.644 | 4.580 | 12.000 | -39.224 | -13 |

#### Vertical Emissions Band 4 (3M) QPSK(1,0)

|        |         |         |       |        |         |     |
|--------|---------|---------|-------|--------|---------|-----|
| 3464   | -37.605 | -37.506 | 2.530 | 12.600 | -27.436 | -13 |
| 5195   | -39.953 | -35.607 | 3.050 | 13.100 | -25.557 | -13 |
| 6925   | -55.088 | -42.810 | 3.650 | 11.500 | -34.96  | -13 |
| 8662.5 | -63.977 | -47.973 | 3.850 | 12.000 | -39.823 | -13 |
| 10395  | -63.384 | -46.446 | 4.580 | 12.000 | -39.026 | -13 |

Note:

1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 12 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

|                |                              |            |             |
|----------------|------------------------------|------------|-------------|
| Product        | Module                       |            |             |
| Test Mode      | Spurious Emission (Radiated) |            |             |
| Date of Test   | 2016/10/14                   | Test Site  | Site3       |
| Test Condition | Band 4 (5M) QPSK(1,0)        | Test Range | 9kHz ~20GHz |

| Frequency | Reading Level | Signal Generator Level | Cable Loss | Antenna Gain | EIRP Value | Limit |
|-----------|---------------|------------------------|------------|--------------|------------|-------|
| (GHz)     | (dBm)         | (dBm)                  | (dB)       | (dBi)        | (dBm)      | (dBm) |

**Horizontal Emissions Band 4 (5M) QPSK(1,0)**

|        |         |         |       |        |         |     |
|--------|---------|---------|-------|--------|---------|-----|
| 3460   | -34.695 | -35.536 | 2.530 | 12.600 | -25.466 | -13 |
| 5190   | -42.315 | -38.277 | 3.050 | 13.100 | -28.227 | -13 |
| 6920   | -58.236 | -46.532 | 3.650 | 11.500 | -38.682 | -13 |
| 8662.5 | -64.813 | -49.320 | 3.850 | 12.000 | -41.17  | -13 |
| 10395  | -63.459 | -46.739 | 4.580 | 12.000 | -39.319 | -13 |

**Vertical Emissions Band 4 (5M) QPSK(1,0)**

|        |         |         |       |        |         |     |
|--------|---------|---------|-------|--------|---------|-----|
| 3460   | -37.122 | -37.060 | 2.530 | 12.600 | -26.99  | -13 |
| 5190   | -39.344 | -34.982 | 3.050 | 13.100 | -24.932 | -13 |
| 6920   | -54.632 | -42.440 | 3.650 | 11.500 | -34.59  | -13 |
| 8662.5 | -63.521 | -47.517 | 3.850 | 12.000 | -39.367 | -13 |
| 10395  | -61.018 | -44.042 | 4.580 | 12.000 | -36.622 | -13 |

Note:

1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 12 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

|                |                              |            |             |
|----------------|------------------------------|------------|-------------|
| Product        | Module                       |            |             |
| Test Mode      | Spurious Emission (Radiated) |            |             |
| Date of Test   | 2016/10/14                   | Test Site  | Site3       |
| Test Condition | Band 4 (10M) QPSK(1,0)       | Test Range | 9KHz ~20GHz |

| Frequency | Reading Level | Signal Generator Level | Cable Loss | Antenna Gain | EIRP Value | Limit |
|-----------|---------------|------------------------|------------|--------------|------------|-------|
| (GHz)     | (dBm)         | (dBm)                  | (dB)       | (dBi)        | (dBm)      | (dBm) |

#### Horizontal Emissions Band 4 (10M) QPSK(1,0)

|        |         |         |       |        |         |     |
|--------|---------|---------|-------|--------|---------|-----|
| 3456   | -33.983 | -34.871 | 2.530 | 12.600 | -24.801 | -13 |
| 5185   | -40.86  | -36.831 | 3.050 | 13.100 | -26.781 | -13 |
| 6915   | -57.622 | -45.996 | 3.650 | 11.500 | -38.146 | -13 |
| 8662.5 | -64.553 | -49.060 | 3.850 | 12.000 | -40.91  | -13 |
| 10395  | -63.122 | -46.402 | 4.580 | 12.000 | -38.982 | -13 |

#### Vertical Emissions Band 4 (10M) QPSK(1,0)

|        |         |         |       |        |         |     |
|--------|---------|---------|-------|--------|---------|-----|
| 3456   | -36.945 | -36.920 | 2.530 | 12.600 | -26.85  | -13 |
| 5185   | -39.04  | -34.662 | 3.050 | 13.100 | -24.612 | -13 |
| 6910   | -54.841 | -42.816 | 3.650 | 11.500 | -34.966 | -13 |
| 8662.5 | -64.74  | -48.736 | 3.850 | 12.000 | -40.586 | -13 |
| 10395  | -63.303 | -46.366 | 4.580 | 12.000 | -38.946 | -13 |

Note:

1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 12 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

|                |                              |            |             |
|----------------|------------------------------|------------|-------------|
| Product        | Module                       |            |             |
| Test Mode      | Spurious Emission (Radiated) |            |             |
| Date of Test   | 2016/10/14                   | Test Site  | Site3       |
| Test Condition | Band 4 (15M) QPSK(1,0)       | Test Range | 9KHz ~20GHz |

| Frequency | Reading Level | Signal Generator Level | Cable Loss | Antenna Gain | EIRP Value | Limit |
|-----------|---------------|------------------------|------------|--------------|------------|-------|
| (GHz)     | (dBm)         | (dBm)                  | (dB)       | (dBi)        | (dBm)      | (dBm) |

**Horizontal Emissions Band 4 (15M) QPSK(1,0)**

|        |         |         |       |        |         |     |
|--------|---------|---------|-------|--------|---------|-----|
| 3452   | -32.397 | -36.443 | 2.530 | 12.600 | -26.373 | -13 |
| 5175   | -41.122 | -37.069 | 3.050 | 13.100 | -27.019 | -13 |
| 6905   | -58.496 | -47.025 | 3.650 | 11.500 | -39.175 | -13 |
| 8662.5 | -64.618 | -49.125 | 3.850 | 12.000 | -40.975 | -13 |
| 10395  | -62.748 | -46.027 | 4.580 | 12.000 | -38.607 | -13 |

**Vertical Emissions Band 4 (15M) QPSK(1,0)**

|        |         |         |       |        |         |     |
|--------|---------|---------|-------|--------|---------|-----|
| 3452   | -35.162 | -35.173 | 2.530 | 12.600 | -25.103 | -13 |
| 5180   | -38.984 | -34.590 | 3.050 | 13.100 | -24.54  | -13 |
| 6905   | -54.228 | -42.285 | 3.650 | 11.500 | -34.435 | -13 |
| 8662.5 | -64.408 | -48.403 | 3.850 | 12.000 | -40.253 | -13 |
| 10395  | -62.99  | -46.053 | 4.580 | 12.000 | -38.633 | -13 |

Note:

1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 12 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

|                |                              |            |             |
|----------------|------------------------------|------------|-------------|
| Product        | Module                       |            |             |
| Test Mode      | Spurious Emission (Radiated) |            |             |
| Date of Test   | 2016/10/14                   | Test Site  | Site3       |
| Test Condition | Band 4 (20M) QPSK(1,0)       | Test Range | 9KHz ~20GHz |

| Frequency | Reading Level | Signal Generator Level | Cable Loss | Antenna Gain | EIRP Value | Limit |
|-----------|---------------|------------------------|------------|--------------|------------|-------|
| (GHz)     | (dBm)         | (dBm)                  | (dB)       | (dBi)        | (dBm)      | (dBm) |

#### Horizontal Emissions Band 4 (20M) QPSK(1,0)

|        |         |         |       |        |         |     |
|--------|---------|---------|-------|--------|---------|-----|
| 3448   | -33.592 | -34.575 | 2.530 | 12.600 | -24.505 | -13 |
| 5170   | -41.404 | -37.331 | 3.050 | 13.100 | -27.281 | -13 |
| 6930   | -61.758 | -49.899 | 3.650 | 11.500 | -42.049 | -13 |
| 8662.5 | -64.7   | -49.207 | 3.850 | 12.000 | -41.057 | -13 |
| 10395  | -62.624 | -45.903 | 4.580 | 12.000 | -38.483 | -13 |

#### Vertical Emissions Band 4 (20M) QPSK(1,0)

|        |         |         |       |        |         |     |
|--------|---------|---------|-------|--------|---------|-----|
| 3448   | -36.932 | -36.980 | 2.530 | 12.600 | -26.91  | -13 |
| 5170   | -38.487 | -34.061 | 3.050 | 13.100 | -24.011 | -13 |
| 6895   | -56.299 | -44.479 | 3.650 | 11.500 | -36.629 | -13 |
| 8662.5 | -65.034 | -49.030 | 3.850 | 12.000 | -40.88  | -13 |
| 10395  | -62.035 | -45.097 | 4.580 | 12.000 | -37.677 | -13 |

Note:

1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 12 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

|                |                              |            |             |
|----------------|------------------------------|------------|-------------|
| Product        | Module                       |            |             |
| Test Mode      | Spurious Emission (Radiated) |            |             |
| Date of Test   | 2016/10/14                   | Test Site  | Site3       |
| Test Condition | Band 12 (1.4M) QPSK(1,0)     | Test Range | 9KHz ~10GHz |

| Frequency | Reading Level | Signal Generator Level | Cable Loss | Antenna Gain | EIRP Value | Limit |
|-----------|---------------|------------------------|------------|--------------|------------|-------|
| (GHz)     | (dBm)         | (dBm)                  | (dB)       | (dBi)        | (dBm)      | (dBm) |

**Horizontal Emissions Band 12 (1.4M) QPSK(1,0)**

|        |         |         |       |        |         |     |
|--------|---------|---------|-------|--------|---------|-----|
| 1399.4 | -36.988 | -41.389 | 1.630 | 9.800  | -33.219 | -13 |
| 2099.1 | -60.697 | -61.438 | 2.100 | 10.600 | -52.938 | -13 |
| 2798.8 | -43.021 | -44.762 | 2.350 | 12.300 | -34.812 | -13 |
| 3498.5 | -58.979 | -59.392 | 2.700 | 12.600 | -49.492 | -13 |
| 4198.2 | -61.812 | -60.821 | 2.830 | 12.700 | -50.951 | -13 |
| 4897.9 | -58.437 | -54.424 | 3.200 | 13.000 | -44.624 | -13 |

**Vertical Emissions Band 12 (1.4M) QPSK(1,0)**

|        |         |         |       |        |         |     |
|--------|---------|---------|-------|--------|---------|-----|
| 1399.4 | -47.269 | -50.706 | 1.630 | 9.800  | -42.536 | -13 |
| 2099.1 | -61.953 | -62.815 | 2.100 | 10.600 | -54.315 | -13 |
| 2798.8 | -49.229 | -49.688 | 2.350 | 12.300 | -39.738 | -13 |
| 3498.5 | -62.99  | -62.399 | 2.700 | 12.600 | -52.499 | -13 |
| 4198.2 | -63.867 | -61.490 | 2.830 | 12.700 | -51.62  | -13 |
| 4897.9 | -56.442 | -52.047 | 3.200 | 13.000 | -42.247 | -13 |

Note:

1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 5 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

|                |                              |            |             |
|----------------|------------------------------|------------|-------------|
| Product        | Module                       |            |             |
| Test Mode      | Spurious Emission (Radiated) |            |             |
| Date of Test   | 2016/10/14                   | Test Site  | Site3       |
| Test Condition | Band 12 (3M) QPSK(1,7)       | Test Range | 9KHz ~10GHz |

| Frequency | Reading Level | Signal Generator Level | Cable Loss | Antenna Gain | EIRP Value | Limit |
|-----------|---------------|------------------------|------------|--------------|------------|-------|
| (GHz)     | (dBm)         | (dBm)                  | (dB)       | (dBi)        | (dBm)      | (dBm) |

**Horizontal Emissions Band 12 (3M) QPSK(1,7)**

|        |         |         |       |        |         |     |
|--------|---------|---------|-------|--------|---------|-----|
| 1429   | -37.673 | -42.188 | 1.630 | 9.800  | -34.018 | -13 |
| 2143.5 | -61.904 | -62.167 | 2.100 | 10.600 | -53.667 | -13 |
| 2857   | -47.839 | -49.753 | 2.350 | 12.300 | -39.803 | -13 |
| 3572.5 | -61.34  | -61.811 | 2.700 | 12.600 | -51.911 | -13 |
| 4287   | -63.195 | -60.892 | 2.830 | 12.700 | -51.022 | -13 |

**Vertical Emissions Band 12 (3M) QPSK(1,7)**

|        |         |         |       |        |         |     |
|--------|---------|---------|-------|--------|---------|-----|
| 1429   | -46.051 | -49.489 | 1.630 | 9.800  | -41.319 | -13 |
| 2143.5 | -61.918 | -62.513 | 2.100 | 10.600 | -54.013 | -13 |
| 2857   | -52.032 | -52.723 | 2.350 | 12.300 | -42.773 | -13 |
| 3572.5 | -62.557 | -61.226 | 2.700 | 12.600 | -51.326 | -13 |
| 4287   | -61.203 | -57.634 | 2.830 | 12.700 | -47.764 | -13 |

Note:

1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 5 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

|                |                              |            |             |
|----------------|------------------------------|------------|-------------|
| Product        | Module                       |            |             |
| Test Mode      | Spurious Emission (Radiated) |            |             |
| Date of Test   | 2016/10/14                   | Test Site  | Site3       |
| Test Condition | Band 12 (5M) QPSK(1,12)      | Test Range | 9KHz ~10GHz |

| Frequency | Reading Level | Signal Generator Level | Cable Loss | Antenna Gain | EIRP Value | Limit |
|-----------|---------------|------------------------|------------|--------------|------------|-------|
| (GHz)     | (dBm)         | (dBm)                  | (dB)       | (dBi)        | (dBm)      | (dBm) |

**Horizontal Emissions Band 12 (5M) QPSK(1,12)**

|        |         |         |       |        |         |     |
|--------|---------|---------|-------|--------|---------|-----|
| 1427   | -41.324 | -45.816 | 1.630 | 9.800  | -37.646 | -13 |
| 2140.5 | -54.277 | -54.636 | 2.100 | 10.600 | -46.136 | -13 |
| 2854   | -46.319 | -48.199 | 2.350 | 12.300 | -38.249 | -13 |
| 3567.5 | -62.946 | -63.413 | 2.700 | 12.600 | -53.513 | -13 |
| 4281   | -63.344 | -61.027 | 2.830 | 12.700 | -51.157 | -13 |
| 4994.5 | -58.46  | -54.195 | 3.200 | 13.000 | -44.395 | -13 |

**Vertical Emissions Band 12 (5M) QPSK(1,12)**

|        |         |         |       |        |         |     |
|--------|---------|---------|-------|--------|---------|-----|
| 1427   | -49.664 | -53.090 | 1.630 | 9.800  | -44.92  | -13 |
| 2140.5 | -59.857 | -60.490 | 2.100 | 10.600 | -51.99  | -13 |
| 2854   | -51.082 | -51.720 | 2.350 | 12.300 | -41.77  | -13 |
| 3567.5 | -60.225 | -58.832 | 2.700 | 12.600 | -48.932 | -13 |
| 4281   | -63.551 | -60.177 | 2.830 | 12.700 | -50.307 | -13 |
| 4994.5 | -57.431 | -52.482 | 3.200 | 13.000 | -42.682 | -13 |

Note:

1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 5 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

|                |                              |            |             |
|----------------|------------------------------|------------|-------------|
| Product        | Module                       |            |             |
| Test Mode      | Spurious Emission (Radiated) |            |             |
| Date of Test   | 2016/10/14                   | Test Site  | Site3       |
| Test Condition | Band 12 (10M) QPSK(1,24)     | Test Range | 9KHz ~10GHz |

| Frequency | Reading Level | Signal Generator Level | Cable Loss | Antenna Gain | EIRP Value | Limit |
|-----------|---------------|------------------------|------------|--------------|------------|-------|
| (GHz)     | (dBm)         | (dBm)                  | (dB)       | (dBi)        | (dBm)      | (dBm) |

**Horizontal Emissions Band 12 (10M) QPSK(1,24)**

|      |         |         |       |        |         |     |
|------|---------|---------|-------|--------|---------|-----|
| 1423 | -41.2   | -45.692 | 1.630 | 9.800  | -37.522 | -13 |
| 2131 | -57.495 | -57.886 | 2.100 | 10.600 | -49.386 | -13 |
| 2845 | -43.392 | -45.272 | 2.350 | 12.300 | -35.322 | -13 |
| 3555 | -62.092 | -62.551 | 2.700 | 12.600 | -52.651 | -13 |
| 4266 | -63.141 | -61.039 | 2.830 | 12.700 | -51.169 | -13 |
| 4977 | -58.387 | -54.122 | 3.200 | 13.000 | -44.322 | -13 |

**Vertical Emissions Band 12 (10M) QPSK(1,24)**

|      |         |         |       |        |         |     |
|------|---------|---------|-------|--------|---------|-----|
| 1423 | -51.01  | -54.436 | 1.630 | 9.800  | -46.266 | -13 |
| 2133 | -61.589 | -62.223 | 2.100 | 10.600 | -53.723 | -13 |
| 2845 | -48.547 | -49.184 | 2.350 | 12.300 | -39.234 | -13 |
| 3555 | -63.092 | -61.916 | 2.700 | 12.600 | -52.016 | -13 |
| 4266 | -63.422 | -60.238 | 2.830 | 12.700 | -50.368 | -13 |
| 4977 | -57.251 | -52.302 | 3.200 | 13.000 | -42.502 | -13 |

Note:

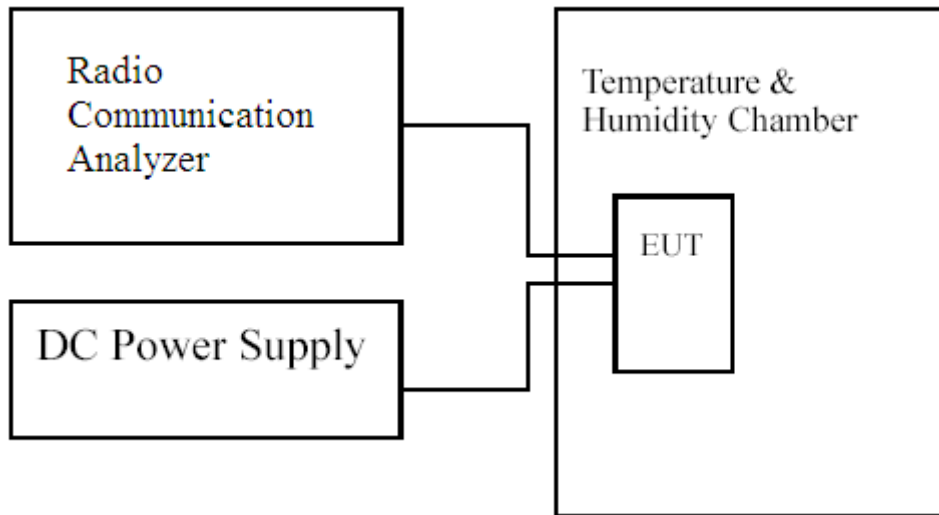
1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 5 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

## 7. Frequency Stability Under Temperature & Voltage Variations

### 7.1. Test Specification

According to Part 2.1055, 24.235, 27.54

### 7.2. Test Setup



### 7.3. Limits

| Limit | <±2.5ppm |
|-------|----------|
|-------|----------|

### 7.4. Test Procedure

The frequency stability of transmitter is measured by:

- Temperature: The temperature is varied from -30 °C to 50 °C in 10 °C increment using a standard temperature & Humidity chamber.
- Primary Supply Voltage: The primary supply voltage is varied 85% to 115% of the nominal value for non hand-carried equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating endpoint which shall be specified by the manufacturer.

The EUT was connected via the base station simulator. Universal Radio Communication Tester, (MT8820C), was used to measure The Frequency Error. The maximum result of measurements was recorded.

## 7.5. Test Result of Frequency Stability Under Temperature Variations

|                |                                                                       |            |              |
|----------------|-----------------------------------------------------------------------|------------|--------------|
| Product        | Module                                                                |            |              |
| Test Mode      | Frequency Stability Under Temperature Variations & Voltage Variations |            |              |
| Date of Test   | 2016/10/17                                                            | Test Site  | CTR          |
| Test Condition | Band 2 (1.4M) CH18900(1880MHz) –QPSK                                  | Test Range | -20°C ~+50°C |

### Frequency Stability Under Temperature Variations

| Temperature Interval(°C) | Test Frequency (GHz) | Deviation (kHz) | Limit (kHz) |
|--------------------------|----------------------|-----------------|-------------|
| -30                      | 1.88                 | 0.0093          | ±4.70       |
| -20                      | 1.88                 | -0.0113         | ±4.70       |
| -10                      | 1.88                 | 0.0162          | ±4.70       |
| 0                        | 1.88                 | 0.0087          | ±4.70       |
| 10                       | 1.88                 | 0.0128          | ±4.70       |
| 20                       | 1.88                 | -0.0127         | ±4.70       |
| 30                       | 1.88                 | 0.0089          | ±4.70       |
| 40                       | 1.88                 | 0.0145          | ±4.70       |
| 50                       | 1.88                 | -0.0107         | ±4.70       |

### Voltage Variations

| AC Voltage (V) | Test Frequency (GHz) | Deviation (kHz) | Limit (kHz) |
|----------------|----------------------|-----------------|-------------|
| 4.5            | 1.88                 | -0.0146         | ±4.70       |
| 3.7            | 1.88                 | -0.0127         | ±4.70       |
| 3.2            | 1.88                 | -0.0143         | ±4.70       |

|                |                                                                       |            |              |
|----------------|-----------------------------------------------------------------------|------------|--------------|
| Product        | Module                                                                |            |              |
| Test Mode      | Frequency Stability Under Temperature Variations & Voltage Variations |            |              |
| Date of Test   | 2016/10/17                                                            | Test Site  | CTR          |
| Test Condition | Band 2 (1.4M) CH18900(1880MHz) –16QAM                                 | Test Range | -20°C ~+50°C |

#### Frequency Stability Under Temperature Variations

| Temperature Interval(°C) | Test Frequency (GHz) | Deviation (kHz) | Limit (kHz) |
|--------------------------|----------------------|-----------------|-------------|
| -30                      | 1.88                 | 0.0165          | ±4.70       |
| -20                      | 1.88                 | 0.0099          | ±4.70       |
| -10                      | 1.88                 | -0.0129         | ±4.70       |
| 0                        | 1.88                 | -0.0080         | ±4.70       |
| 10                       | 1.88                 | -0.0115         | ±4.70       |
| 20                       | 1.88                 | 0.0180          | ±4.70       |
| 30                       | 1.88                 | 0.0139          | ±4.70       |
| 40                       | 1.88                 | 0.0162          | ±4.70       |
| 50                       | 1.88                 | -0.0139         | ±4.70       |

#### Voltage Variations

| AC Voltage (V) | Test Frequency (GHz) | Deviation (kHz) | Limit (kHz) |
|----------------|----------------------|-----------------|-------------|
| 4.5            | 1.88                 | 0.0097          | ±4.70       |
| 3.7            | 1.88                 | 0.0180          | ±4.70       |
| 3.2            | 1.88                 | 0.0133          | ±4.70       |

|                |                                                                       |            |              |
|----------------|-----------------------------------------------------------------------|------------|--------------|
| Product        | Module                                                                |            |              |
| Test Mode      | Frequency Stability Under Temperature Variations & Voltage Variations |            |              |
| Date of Test   | 2016/10/17                                                            | Test Site  | CTR          |
| Test Condition | Band 2 (3M) CH18900(1880MHz) –QPSK                                    | Test Range | -30°C ~+50°C |

#### Frequency Stability Under Temperature Variations

| Temperature Interval(°C) | Test Frequency (GHz) | Deviation (kHz) | Limit (kHz) |
|--------------------------|----------------------|-----------------|-------------|
| -30                      | 1.88                 | -0.0111         | ±4.70       |
| -20                      | 1.88                 | 0.0101          | ±4.70       |
| -10                      | 1.88                 | -0.0205         | ±4.70       |
| 0                        | 1.88                 | 0.0107          | ±4.70       |
| 10                       | 1.88                 | 0.0088          | ±4.70       |
| 20                       | 1.88                 | -0.0167         | ±4.70       |
| 30                       | 1.88                 | -0.0098         | ±4.70       |
| 40                       | 1.88                 | -0.0096         | ±4.70       |
| 50                       | 1.88                 | 0.0134          | ±4.70       |

#### Voltage Variations

| AC Voltage (V) | Test Frequency (GHz) | Deviation (kHz) | Limit (kHz) |
|----------------|----------------------|-----------------|-------------|
| 4.5            | 1.88                 | -0.0183         | ±4.70       |
| 3.7            | 1.88                 | -0.0167         | ±4.70       |
| 3.2            | 1.88                 | -0.0136         | ±4.70       |

|                |                                                                       |            |              |
|----------------|-----------------------------------------------------------------------|------------|--------------|
| Product        | Module                                                                |            |              |
| Test Mode      | Frequency Stability Under Temperature Variations & Voltage Variations |            |              |
| Date of Test   | 2016/10/17                                                            | Test Site  | CTR          |
| Test Condition | Band 2 (3M) CH18900(1880MHz) –16QAM                                   | Test Range | -30°C ~+50°C |

#### Frequency Stability Under Temperature Variations

| Temperature Interval(°C) | Test Frequency (GHz) | Deviation (kHz) | Limit (kHz) |
|--------------------------|----------------------|-----------------|-------------|
| -30                      | 1.88                 | -0.0111         | ±4.70       |
| -20                      | 1.88                 | 0.0089          | ±4.70       |
| -10                      | 1.88                 | -0.0104         | ±4.70       |
| 0                        | 1.88                 | 0.0155          | ±4.70       |
| 10                       | 1.88                 | -0.0110         | ±4.70       |
| 20                       | 1.88                 | -0.0108         | ±4.70       |
| 30                       | 1.88                 | 0.0163          | ±4.70       |
| 40                       | 1.88                 | 0.0117          | ±4.70       |
| 50                       | 1.88                 | -0.0129         | ±4.70       |

#### Voltage Variations

| AC Voltage (V) | Test Frequency (GHz) | Deviation (kHz) | Limit (kHz) |
|----------------|----------------------|-----------------|-------------|
| 4.5            | 1.88                 | -0.0102         | ±4.70       |
| 3.7            | 1.88                 | -0.0108         | ±4.70       |
| 3.2            | 1.88                 | 0.0099          | ±4.70       |

|                |                                                                       |            |              |
|----------------|-----------------------------------------------------------------------|------------|--------------|
| Product        | Module                                                                |            |              |
| Test Mode      | Frequency Stability Under Temperature Variations & Voltage Variations |            |              |
| Date of Test   | 2016/10/17                                                            | Test Site  | CTR          |
| Test Condition | Band 2 (5M) CH18900(1880MHz) –QPSK                                    | Test Range | -20°C ~+50°C |

#### Frequency Stability Under Temperature Variations

| Temperature Interval(°C) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|--------------------------|----------------------|-----------------|-------------|
| -30                      | 1.88                 | 0.0113          | ±4.70       |
| -20                      | 1.88                 | 0.0135          | ±4.70       |
| -10                      | 1.88                 | -0.0117         | ±4.70       |
| 0                        | 1.88                 | 0.0125          | ±4.70       |
| 10                       | 1.88                 | 0.0131          | ±4.70       |
| 20                       | 1.88                 | 0.0110          | ±4.70       |
| 30                       | 1.88                 | 0.0116          | ±4.70       |
| 40                       | 1.88                 | 0.0112          | ±4.70       |
| 50                       | 1.88                 | 0.0130          | ±4.70       |

#### Voltage Variations

| AC Voltage (V) | Test Frequency (GHz) | Deviation (Hz) | Limit (KHz) |
|----------------|----------------------|----------------|-------------|
| 4.5            | 1.88                 | -0.0185        | ±4.70       |
| 3.7            | 1.88                 | 0.0110         | ±4.70       |
| 3.2            | 1.88                 | 0.0109         | ±4.70       |

|                |                                                                       |            |              |
|----------------|-----------------------------------------------------------------------|------------|--------------|
| Product        | Module                                                                |            |              |
| Test Mode      | Frequency Stability Under Temperature Variations & Voltage Variations |            |              |
| Date of Test   | 2016/10/17                                                            | Test Site  | CTR          |
| Test Condition | Band 2 (5M) CH18900(1880MHz) –16QAM                                   | Test Range | -20°C ~+50°C |

#### Frequency Stability Under Temperature Variations

| Temperature Interval(°C) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|--------------------------|----------------------|-----------------|-------------|
| -30                      | 1.88                 | 0.0103          | ±4.70       |
| -20                      | 1.88                 | 0.0115          | ±4.70       |
| -10                      | 1.88                 | -0.0116         | ±4.70       |
| 0                        | 1.88                 | 0.0123          | ±4.70       |
| 10                       | 1.88                 | -0.0104         | ±4.70       |
| 20                       | 1.88                 | -0.0165         | ±4.70       |
| 30                       | 1.88                 | -0.0127         | ±4.70       |
| 40                       | 1.88                 | -0.0106         | ±4.70       |
| 50                       | 1.88                 | 0.0095          | ±4.70       |

#### Voltage Variations

| AC Voltage (V) | Test Frequency (GHz) | Deviation (Hz) | Limit (KHz) |
|----------------|----------------------|----------------|-------------|
| 4.5            | 1.88                 | 0.0100         | ±4.70       |
| 3.7            | 1.88                 | -0.0165        | ±4.70       |
| 3.2            | 1.88                 | -0.0202        | ±4.70       |

|                |                                                                       |            |              |
|----------------|-----------------------------------------------------------------------|------------|--------------|
| Product        | Module                                                                |            |              |
| Test Mode      | Frequency Stability Under Temperature Variations & Voltage Variations |            |              |
| Date of Test   | 2016/10/17                                                            | Test Site  | CTR          |
| Test Condition | Band 2 (10M) CH18900(1880MHz) –QPSK                                   | Test Range | -30°C ~+50°C |

#### Frequency Stability Under Temperature Variations

| Temperature Interval(°C) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|--------------------------|----------------------|-----------------|-------------|
| -30                      | 1.88                 | 0.0079          | ±4.70       |
| -20                      | 1.88                 | -0.0129         | ±4.70       |
| -10                      | 1.88                 | -0.0156         | ±4.70       |
| 0                        | 1.88                 | 0.0133          | ±4.70       |
| 10                       | 1.88                 | -0.0096         | ±4.70       |
| 20                       | 1.88                 | -0.0116         | ±4.70       |
| 30                       | 1.88                 | -0.0113         | ±4.70       |
| 40                       | 1.88                 | 0.0099          | ±4.70       |
| 50                       | 1.88                 | 0.0089          | ±4.70       |

#### Voltage Variations

| AC Voltage (V) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|----------------|----------------------|-----------------|-------------|
| 4.5            | 1.88                 | -0.0115         | ±4.70       |
| 3.7            | 1.88                 | -0.0116         | ±4.70       |
| 3.2            | 1.88                 | 0.0127          | ±4.70       |

|                |                                                                       |            |              |
|----------------|-----------------------------------------------------------------------|------------|--------------|
| Product        | Module                                                                |            |              |
| Test Mode      | Frequency Stability Under Temperature Variations & Voltage Variations |            |              |
| Date of Test   | 2016/10/17                                                            | Test Site  | CTR          |
| Test Condition | Band 2 (10M) CH18900(1880MHz) -16QAM                                  | Test Range | -30°C ~+50°C |

#### Frequency Stability Under Temperature Variations

| Temperature Interval(°C) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|--------------------------|----------------------|-----------------|-------------|
| -30                      | 1.88                 | 0.0117          | ±4.70       |
| -20                      | 1.88                 | -0.0139         | ±4.70       |
| -10                      | 1.88                 | -0.0111         | ±4.70       |
| 0                        | 1.88                 | 0.0157          | ±4.70       |
| 10                       | 1.88                 | 0.0114          | ±4.70       |
| 20                       | 1.88                 | 0.0121          | ±4.70       |
| 30                       | 1.88                 | 0.0165          | ±4.70       |
| 40                       | 1.88                 | 0.0107          | ±4.70       |
| 50                       | 1.88                 | -0.0078         | ±4.70       |

#### Voltage Variations

| AC Voltage (V) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|----------------|----------------------|-----------------|-------------|
| 4.5            | 1.88                 | -0.0109         | ±4.70       |
| 3.7            | 1.88                 | 0.0121          | ±4.70       |
| 3.2            | 1.88                 | -0.0118         | ±4.70       |

|                |                                                                       |            |              |
|----------------|-----------------------------------------------------------------------|------------|--------------|
| Product        | Module                                                                |            |              |
| Test Mode      | Frequency Stability Under Temperature Variations & Voltage Variations |            |              |
| Date of Test   | 2016/10/17                                                            | Test Site  | CTR          |
| Test Condition | Band 2 (15M) CH18900(1880MHz) -QPSK                                   | Test Range | -30°C ~+50°C |

#### Frequency Stability Under Temperature Variations

| Temperature Interval(°C) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|--------------------------|----------------------|-----------------|-------------|
| -30                      | 1.88                 | -0.0074         | ±4.70       |
| -20                      | 1.88                 | 0.0141          | ±4.70       |
| -10                      | 1.88                 | -0.0129         | ±4.70       |
| 0                        | 1.88                 | 0.0099          | ±4.70       |
| 10                       | 1.88                 | -0.0083         | ±4.70       |
| 20                       | 1.88                 | -0.0137         | ±4.70       |
| 30                       | 1.88                 | 0.0109          | ±4.70       |
| 40                       | 1.88                 | 0.0101          | ±4.70       |
| 50                       | 1.88                 | -0.0126         | ±4.70       |

#### Voltage Variations

| AC Voltage (V) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|----------------|----------------------|-----------------|-------------|
| 4.5            | 1.88                 | -0.0119         | ±4.70       |
| 3.7            | 1.88                 | -0.0137         | ±4.70       |
| 3.2            | 1.88                 | -0.0114         | ±4.70       |

|                |                                                                       |            |              |
|----------------|-----------------------------------------------------------------------|------------|--------------|
| Product        | Module                                                                |            |              |
| Test Mode      | Frequency Stability Under Temperature Variations & Voltage Variations |            |              |
| Date of Test   | 2016/10/17                                                            | Test Site  | CTR          |
| Test Condition | Band 2 (15M) CH18900(1880MHz) -16QAM                                  | Test Range | -30°C ~+50°C |

#### Frequency Stability Under Temperature Variations

| Temperature Interval(°C) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|--------------------------|----------------------|-----------------|-------------|
| -30                      | 1.88                 | -0.0090         | ±4.70       |
| -20                      | 1.88                 | 0.0118          | ±4.70       |
| -10                      | 1.88                 | 0.0119          | ±4.70       |
| 0                        | 1.88                 | 0.0073          | ±4.70       |
| 10                       | 1.88                 | -0.0076         | ±4.70       |
| 20                       | 1.88                 | 0.0123          | ±4.70       |
| 30                       | 1.88                 | 0.0164          | ±4.70       |
| 40                       | 1.88                 | -0.0102         | ±4.70       |
| 50                       | 1.88                 | 0.0106          | ±4.70       |

#### Voltage Variations

| AC Voltage (V) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|----------------|----------------------|-----------------|-------------|
| 4.5            | 1.88                 | 0.013           | ±4.70       |
| 3.7            | 1.88                 | 0.0123          | ±4.70       |
| 3.2            | 1.88                 | 0.0127          | ±4.70       |

|                |                                                                       |            |              |
|----------------|-----------------------------------------------------------------------|------------|--------------|
| Product        | Module                                                                |            |              |
| Test Mode      | Frequency Stability Under Temperature Variations & Voltage Variations |            |              |
| Date of Test   | 2016/10/17                                                            | Test Site  | CTR          |
| Test Condition | Band 2 (20M) CH18900(1880MHz) –QPSK                                   | Test Range | -30°C ~+50°C |

#### Frequency Stability Under Temperature Variations

| Temperature Interval(°C) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|--------------------------|----------------------|-----------------|-------------|
| -30                      | 1.88                 | -0.0156         | ±4.70       |
| -20                      | 1.88                 | -0.0144         | ±4.70       |
| -10                      | 1.88                 | 0.0107          | ±4.70       |
| 0                        | 1.88                 | -0.0102         | ±4.70       |
| 10                       | 1.88                 | -0.0080         | ±4.70       |
| 20                       | 1.88                 | 0.0107          | ±4.70       |
| 30                       | 1.88                 | -0.0091         | ±4.70       |
| 40                       | 1.88                 | 0.0097          | ±4.70       |
| 50                       | 1.88                 | 0.0084          | ±4.70       |

#### Voltage Variations

| AC Voltage (V) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|----------------|----------------------|-----------------|-------------|
| 4.5            | 1.88                 | 0.0183          | ±4.70       |
| 3.7            | 1.88                 | 0.0107          | ±4.70       |
| 3.2            | 1.88                 | 0.0082          | ±4.70       |

|                |                                                                       |            |              |
|----------------|-----------------------------------------------------------------------|------------|--------------|
| Product        | Module                                                                |            |              |
| Test Mode      | Frequency Stability Under Temperature Variations & Voltage Variations |            |              |
| Date of Test   | 2016/10/17                                                            | Test Site  | CTR          |
| Test Condition | Band 2 (20M) CH18900(1880MHz) -16QAM                                  | Test Range | -30°C ~+50°C |

#### Frequency Stability Under Temperature Variations

| Temperature Interval(°C) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|--------------------------|----------------------|-----------------|-------------|
| -30                      | 1.88                 | -0.0113         | ±4.70       |
| -20                      | 1.88                 | 0.0128          | ±4.70       |
| -10                      | 1.88                 | -0.0102         | ±4.70       |
| 0                        | 1.88                 | 0.0209          | ±4.70       |
| 10                       | 1.88                 | -0.0096         | ±4.70       |
| 20                       | 1.88                 | -0.0155         | ±4.70       |
| 30                       | 1.88                 | 0.0149          | ±4.70       |
| 40                       | 1.88                 | -0.0126         | ±4.70       |
| 50                       | 1.88                 | 0.0099          | ±4.70       |

#### Voltage Variations

| AC Voltage (V) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|----------------|----------------------|-----------------|-------------|
| 4.5            | 1.88                 | 0.0094          | ±4.70       |
| 3.7            | 1.88                 | -0.0155         | ±4.70       |
| 3.2            | 1.88                 | -0.0127         | ±4.70       |

|                |                                                                       |            |              |
|----------------|-----------------------------------------------------------------------|------------|--------------|
| Product        | Module                                                                |            |              |
| Test Mode      | Frequency Stability Under Temperature Variations & Voltage Variations |            |              |
| Date of Test   | 2016/10/17                                                            | Test Site  | CTR          |
| Test Condition | Band 4 (1.4M) CH20175(1732.5MHz) –QPSK                                | Test Range | -20°C ~+50°C |

#### Frequency Stability Under Temperature Variations

| Temperature Interval(°C) | Test Frequency (GHz) | Deviation (kHz) | Limit (kHz) |
|--------------------------|----------------------|-----------------|-------------|
| -30                      | 1.73                 | -0.0100         | ±4.33       |
| -20                      | 1.73                 | -0.0155         | ±4.33       |
| -10                      | 1.73                 | 0.0109          | ±4.33       |
| 0                        | 1.73                 | -0.0114         | ±4.33       |
| 10                       | 1.73                 | -0.0134         | ±4.33       |
| 20                       | 1.73                 | -0.0167         | ±4.33       |
| 30                       | 1.73                 | 0.0145          | ±4.33       |
| 40                       | 1.73                 | -0.0090         | ±4.33       |
| 50                       | 1.73                 | -0.0163         | ±4.33       |

#### Voltage Variations

| AC Voltage (V) | Test Frequency (GHz) | Deviation (kHz) | Limit (kHz) |
|----------------|----------------------|-----------------|-------------|
| 4.5            | 1.73                 | -0.0216         | ±4.33       |
| 3.7            | 1.73                 | -0.0167         | ±4.33       |
| 3.2            | 1.73                 | -0.0215         | ±4.33       |

|                |                                                                       |            |              |
|----------------|-----------------------------------------------------------------------|------------|--------------|
| Product        | Module                                                                |            |              |
| Test Mode      | Frequency Stability Under Temperature Variations & Voltage Variations |            |              |
| Date of Test   | 2016/10/17                                                            | Test Site  | CTR          |
| Test Condition | Band 4 (1.4M) CH20175(1732.5MHz) –16QAM                               | Test Range | -20°C ~+50°C |

#### Frequency Stability Under Temperature Variations

| Temperature Interval(°C) | Test Frequency (GHz) | Deviation (kHz) | Limit (kHz) |
|--------------------------|----------------------|-----------------|-------------|
| -30                      | 1.73                 | -0.0131         | ±4.33       |
| -20                      | 1.73                 | 0.0119          | ±4.33       |
| -10                      | 1.73                 | 0.0120          | ±4.33       |
| 0                        | 1.73                 | 0.0143          | ±4.33       |
| 10                       | 1.73                 | -0.0121         | ±4.33       |
| 20                       | 1.73                 | -0.0151         | ±4.33       |
| 30                       | 1.73                 | -0.0122         | ±4.33       |
| 40                       | 1.73                 | 0.0134          | ±4.33       |
| 50                       | 1.73                 | -0.0166         | ±4.33       |

#### Voltage Variations

| AC Voltage (V) | Test Frequency (GHz) | Deviation (kHz) | Limit (kHz) |
|----------------|----------------------|-----------------|-------------|
| 4.5            | 1.73                 | -0.0110         | ±4.33       |
| 3.7            | 1.73                 | -0.0151         | ±4.33       |
| 3.2            | 1.73                 | -0.0169         | ±4.33       |

|                |                                                                       |            |              |
|----------------|-----------------------------------------------------------------------|------------|--------------|
| Product        | Module                                                                |            |              |
| Test Mode      | Frequency Stability Under Temperature Variations & Voltage Variations |            |              |
| Date of Test   | 2016/10/17                                                            | Test Site  | CTR          |
| Test Condition | Band 4 (3M) CH20175(1732.5MHz) –QPSK                                  | Test Range | -30°C ~+50°C |

#### Frequency Stability Under Temperature Variations

| Temperature Interval(°C) | Test Frequency (GHz) | Deviation (kHz) | Limit (kHz) |
|--------------------------|----------------------|-----------------|-------------|
| -30                      | 1.73                 | -0.0225         | ±4.33       |
| -20                      | 1.73                 | -0.0162         | ±4.33       |
| -10                      | 1.73                 | -0.0164         | ±4.33       |
| 0                        | 1.73                 | -0.0123         | ±4.33       |
| 10                       | 1.73                 | -0.0121         | ±4.33       |
| 20                       | 1.73                 | -0.0172         | ±4.33       |
| 30                       | 1.73                 | -0.0124         | ±4.33       |
| 40                       | 1.73                 | -0.0173         | ±4.33       |
| 50                       | 1.73                 | -0.0126         | ±4.33       |

#### Voltage Variations

| AC Voltage (V) | Test Frequency (GHz) | Deviation (kHz) | Limit (kHz) |
|----------------|----------------------|-----------------|-------------|
| 4.5            | 1.73                 | -0.0169         | ±4.33       |
| 3.7            | 1.73                 | -0.0172         | ±4.33       |
| 3.2            | 1.73                 | -0.0177         | ±4.33       |

|                |                                                                       |            |              |
|----------------|-----------------------------------------------------------------------|------------|--------------|
| Product        | Module                                                                |            |              |
| Test Mode      | Frequency Stability Under Temperature Variations & Voltage Variations |            |              |
| Date of Test   | 2016/10/17                                                            | Test Site  | CTR          |
| Test Condition | Band 4 (3M) CH20175(1732.5MHz) –16QAM                                 | Test Range | -30°C ~+50°C |

#### Frequency Stability Under Temperature Variations

| Temperature Interval(°C) | Test Frequency (GHz) | Deviation (kHz) | Limit (kHz) |
|--------------------------|----------------------|-----------------|-------------|
| -30                      | 1.73                 | -0.0153         | ±4.33       |
| -20                      | 1.73                 | -0.0122         | ±4.33       |
| -10                      | 1.73                 | -0.0112         | ±4.33       |
| 0                        | 1.73                 | 0.0108          | ±4.33       |
| 10                       | 1.73                 | 0.0112          | ±4.33       |
| 20                       | 1.73                 | -0.0147         | ±4.33       |
| 30                       | 1.73                 | 0.0105          | ±4.33       |
| 40                       | 1.73                 | -0.0173         | ±4.33       |
| 50                       | 1.73                 | -0.0108         | ±4.33       |

#### Voltage Variations

| AC Voltage (V) | Test Frequency (GHz) | Deviation (kHz) | Limit (kHz) |
|----------------|----------------------|-----------------|-------------|
| 4.5            | 1.73                 | -0.0108         | ±4.33       |
| 3.7            | 1.73                 | -0.0147         | ±4.33       |
| 3.2            | 1.73                 | -0.0139         | ±4.33       |

|                |                                                                       |            |              |
|----------------|-----------------------------------------------------------------------|------------|--------------|
| Product        | Module                                                                |            |              |
| Test Mode      | Frequency Stability Under Temperature Variations & Voltage Variations |            |              |
| Date of Test   | 2016/10/17                                                            | Test Site  | CTR          |
| Test Condition | Band 4 (5M) CH20175(1732.5MHz) –QPSK                                  | Test Range | -20°C ~+50°C |

#### Frequency Stability Under Temperature Variations

| Temperature Interval(°C) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|--------------------------|----------------------|-----------------|-------------|
| -30                      | 1.73                 | -0.0135         | ±4.33       |
| -20                      | 1.73                 | 0.0104          | ±4.33       |
| -10                      | 1.73                 | 0.0111          | ±4.33       |
| 0                        | 1.73                 | 0.0128          | ±4.33       |
| 10                       | 1.73                 | -0.0163         | ±4.33       |
| 20                       | 1.73                 | -0.0191         | ±4.33       |
| 30                       | 1.73                 | -0.0169         | ±4.33       |
| 40                       | 1.73                 | -0.0134         | ±4.33       |
| 50                       | 1.73                 | -0.0111         | ±4.33       |

#### Voltage Variations

| AC Voltage (V) | Test Frequency (GHz) | Deviation (Hz) | Limit (KHz) |
|----------------|----------------------|----------------|-------------|
| 4.5            | 1.73                 | -0.0183        | ±4.33       |
| 3.7            | 1.73                 | -0.0191        | ±4.33       |
| 3.2            | 1.73                 | -0.0159        | ±4.33       |

|                |                                                                       |            |              |
|----------------|-----------------------------------------------------------------------|------------|--------------|
| Product        | Module                                                                |            |              |
| Test Mode      | Frequency Stability Under Temperature Variations & Voltage Variations |            |              |
| Date of Test   | 2016/10/17                                                            | Test Site  | CTR          |
| Test Condition | Band 4 (5M) CH20175(1732.5MHz) –16QAM                                 | Test Range | -20°C ~+50°C |

#### Frequency Stability Under Temperature Variations

| Temperature Interval(°C) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|--------------------------|----------------------|-----------------|-------------|
| -30                      | 1.73                 | 0.0178          | ±4.33       |
| -20                      | 1.73                 | -0.0126         | ±4.33       |
| -10                      | 1.73                 | 0.0131          | ±4.33       |
| 0                        | 1.73                 | 0.0135          | ±4.33       |
| 10                       | 1.73                 | -0.0107         | ±4.33       |
| 20                       | 1.73                 | -0.0134         | ±4.33       |
| 30                       | 1.73                 | -0.0152         | ±4.33       |
| 40                       | 1.73                 | 0.0140          | ±4.33       |
| 50                       | 1.73                 | -0.0119         | ±4.33       |

#### Voltage Variations

| AC Voltage (V) | Test Frequency (GHz) | Deviation (Hz) | Limit (KHz) |
|----------------|----------------------|----------------|-------------|
| 4.5            | 1.73                 | -0.0207        | ±4.33       |
| 3.7            | 1.73                 | -0.0134        | ±4.33       |
| 3.2            | 1.73                 | -0.0166        | ±4.33       |

|                |                                                                       |            |             |
|----------------|-----------------------------------------------------------------------|------------|-------------|
| Product        | Module                                                                |            |             |
| Test Mode      | Frequency Stability Under Temperature Variations & Voltage Variations |            |             |
| Date of Test   | 2016/10/17                                                            | Test Site  | CTR         |
| Test Condition | Band 4 (10M) CH20175(1732.5MHz)-QPSK                                  | Test Range | -30°C~+50°C |

#### Frequency Stability Under Temperature Variations

| Temperature Interval(°C) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|--------------------------|----------------------|-----------------|-------------|
| -30                      | 1.73                 | -0.0108         | ±4.33       |
| -20                      | 1.73                 | 0.0111          | ±4.33       |
| -10                      | 1.73                 | -0.0102         | ±4.33       |
| 0                        | 1.73                 | 0.0099          | ±4.33       |
| 10                       | 1.73                 | -0.0101         | ±4.33       |
| 20                       | 1.73                 | 0.0139          | ±4.33       |
| 30                       | 1.73                 | -0.0137         | ±4.33       |
| 40                       | 1.73                 | -0.0132         | ±4.33       |
| 50                       | 1.73                 | -0.0094         | ±4.33       |

#### Voltage Variations

| AC Voltage (V) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|----------------|----------------------|-----------------|-------------|
| 4.5            | 1.73                 | -0.0107         | ±4.33       |
| 3.7            | 1.73                 | 0.0139          | ±4.33       |
| 3.2            | 1.73                 | -0.0125         | ±4.33       |

|                |                                                                       |            |              |
|----------------|-----------------------------------------------------------------------|------------|--------------|
| Product        | Module                                                                |            |              |
| Test Mode      | Frequency Stability Under Temperature Variations & Voltage Variations |            |              |
| Date of Test   | 2016/10/17                                                            | Test Site  | CTR          |
| Test Condition | Band 4 (10M) CH20175(1732.5MHz)-16QAM                                 | Test Range | -30°C ~+50°C |

#### Frequency Stability Under Temperature Variations

| Temperature Interval(°C) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|--------------------------|----------------------|-----------------|-------------|
| -30                      | 1.73                 | -0.0126         | ±4.33       |
| -20                      | 1.73                 | -0.0146         | ±4.33       |
| -10                      | 1.73                 | -0.0137         | ±4.33       |
| 0                        | 1.73                 | 0.0106          | ±4.33       |
| 10                       | 1.73                 | -0.0104         | ±4.33       |
| 20                       | 1.73                 | -0.0121         | ±4.33       |
| 30                       | 1.73                 | -0.0129         | ±4.33       |
| 40                       | 1.73                 | 0.0128          | ±4.33       |
| 50                       | 1.73                 | 0.0085          | ±4.33       |

#### Voltage Variations

| AC Voltage (V) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|----------------|----------------------|-----------------|-------------|
| 4.5            | 1.73                 | -0.0133         | ±4.33       |
| 3.7            | 1.73                 | -0.0121         | ±4.33       |
| 3.2            | 1.73                 | -0.0146         | ±4.33       |

|                |                                                                       |            |             |
|----------------|-----------------------------------------------------------------------|------------|-------------|
| Product        | Module                                                                |            |             |
| Test Mode      | Frequency Stability Under Temperature Variations & Voltage Variations |            |             |
| Date of Test   | 2016/10/17                                                            | Test Site  | CTR         |
| Test Condition | Band 4 (15M) CH20175(1732.5MHz)-QPSK                                  | Test Range | -30°C~+50°C |

#### Frequency Stability Under Temperature Variations

| Temperature Interval(°C) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|--------------------------|----------------------|-----------------|-------------|
| -30                      | 1.73                 | 0.0129          | ±4.33       |
| -20                      | 1.73                 | 0.0160          | ±4.33       |
| -10                      | 1.73                 | 0.0132          | ±4.33       |
| 0                        | 1.73                 | 0.0099          | ±4.33       |
| 10                       | 1.73                 | -0.0119         | ±4.33       |
| 20                       | 1.73                 | -0.0144         | ±4.33       |
| 30                       | 1.73                 | -0.0129         | ±4.33       |
| 40                       | 1.73                 | 0.0103          | ±4.33       |
| 50                       | 1.73                 | -0.0134         | ±4.33       |

#### Voltage Variations

| AC Voltage (V) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|----------------|----------------------|-----------------|-------------|
| 4.5            | 1.73                 | -0.0163         | ±4.33       |
| 3.7            | 1.73                 | -0.0144         | ±4.33       |
| 3.2            | 1.73                 | 0.0135          | ±4.33       |

|                |                                                                       |            |              |
|----------------|-----------------------------------------------------------------------|------------|--------------|
| Product        | Module                                                                |            |              |
| Test Mode      | Frequency Stability Under Temperature Variations & Voltage Variations |            |              |
| Date of Test   | 2016/10/17                                                            | Test Site  | CTR          |
| Test Condition | Band 4 (15M) CH20175(1732.5MHz)-16QAM                                 | Test Range | -30°C ~+50°C |

#### Frequency Stability Under Temperature Variations

| Temperature Interval(°C) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|--------------------------|----------------------|-----------------|-------------|
| -30                      | 1.73                 | -0.0185         | ±4.33       |
| -20                      | 1.73                 | 0.0251          | ±4.33       |
| -10                      | 1.73                 | -0.0118         | ±4.33       |
| 0                        | 1.73                 | -0.0143         | ±4.33       |
| 10                       | 1.73                 | -0.0150         | ±4.33       |
| 20                       | 1.73                 | -0.0105         | ±4.33       |
| 30                       | 1.73                 | 0.0101          | ±4.33       |
| 40                       | 1.73                 | -0.0117         | ±4.33       |
| 50                       | 1.73                 | -0.0198         | ±4.33       |

#### Voltage Variations

| AC Voltage (V) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|----------------|----------------------|-----------------|-------------|
| 4.5            | 1.73                 | -0.0117         | ±4.33       |
| 3.7            | 1.73                 | -0.0105         | ±4.33       |
| 3.2            | 1.73                 | -0.0098         | ±4.33       |

|                |                                                                       |            |              |
|----------------|-----------------------------------------------------------------------|------------|--------------|
| Product        | Module                                                                |            |              |
| Test Mode      | Frequency Stability Under Temperature Variations & Voltage Variations |            |              |
| Date of Test   | 2016/10/17                                                            | Test Site  | CTR          |
| Test Condition | Band 4 (20M) CH20175(1732.5MHz)-QPSK                                  | Test Range | -30°C ~+50°C |

#### Frequency Stability Under Temperature Variations

| Temperature Interval(°C) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|--------------------------|----------------------|-----------------|-------------|
| -30                      | 1.73                 | 0.0119          | ±4.33       |
| -20                      | 1.73                 | 0.0113          | ±4.33       |
| -10                      | 1.73                 | -0.0108         | ±4.33       |
| 0                        | 1.73                 | -0.0092         | ±4.33       |
| 10                       | 1.73                 | -0.0120         | ±4.33       |
| 20                       | 1.73                 | -0.0164         | ±4.33       |
| 30                       | 1.73                 | -0.0142         | ±4.33       |
| 40                       | 1.73                 | 0.0127          | ±4.33       |
| 50                       | 1.73                 | -0.0123         | ±4.33       |

#### Voltage Variations

| AC Voltage (V) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|----------------|----------------------|-----------------|-------------|
| 4.5            | 1.73                 | -0.0197         | ±4.33       |
| 3.7            | 1.73                 | -0.0164         | ±4.33       |
| 3.2            | 1.73                 | -0.0123         | ±4.33       |

|                |                                                                       |            |              |
|----------------|-----------------------------------------------------------------------|------------|--------------|
| Product        | Module                                                                |            |              |
| Test Mode      | Frequency Stability Under Temperature Variations & Voltage Variations |            |              |
| Date of Test   | 2016/10/17                                                            | Test Site  | CTR          |
| Test Condition | Band 4 (20M) CH20175(1732.5MHz)-16QAM                                 | Test Range | -30°C ~+50°C |

#### Frequency Stability Under Temperature Variations

| Temperature Interval(°C) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|--------------------------|----------------------|-----------------|-------------|
| -30                      | 1.73                 | -0.0101         | ±4.33       |
| -20                      | 1.73                 | -0.0146         | ±4.33       |
| -10                      | 1.73                 | 0.0122          | ±4.33       |
| 0                        | 1.73                 | 0.0101          | ±4.33       |
| 10                       | 1.73                 | -0.0103         | ±4.33       |
| 20                       | 1.73                 | -0.0178         | ±4.33       |
| 30                       | 1.73                 | -0.0112         | ±4.33       |
| 40                       | 1.73                 | -0.0136         | ±4.33       |
| 50                       | 1.73                 | -0.0096         | ±4.33       |

#### Voltage Variations

| AC Voltage (V) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|----------------|----------------------|-----------------|-------------|
| 4.5            | 1.73                 | -0.0106         | ±4.33       |
| 3.7            | 1.73                 | -0.0178         | ±4.33       |
| 3.2            | 1.73                 | -0.0127         | ±4.33       |

|                |                                                                       |            |             |
|----------------|-----------------------------------------------------------------------|------------|-------------|
| Product        | Module                                                                |            |             |
| Test Mode      | Frequency Stability Under Temperature Variations & Voltage Variations |            |             |
| Date of Test   | 2016/10/17                                                            | Test Site  | CTR         |
| Test Condition | Band 12 (1.4M) CH23095(707.5MHz)-QPSK                                 | Test Range | -30°C~+50°C |

#### Frequency Stability Under Temperature Variations

| Temperature Interval(°C) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|--------------------------|----------------------|-----------------|-------------|
| -30                      | 0.708                | 0.0084          | ±1.77       |
| -20                      | 0.708                | 0.0068          | ±1.77       |
| -10                      | 0.708                | 0.0070          | ±1.77       |
| 0                        | 0.708                | 0.0052          | ±1.77       |
| 10                       | 0.708                | 0.0065          | ±1.77       |
| 20                       | 0.708                | 0.0133          | ±1.77       |
| 30                       | 0.708                | 0.0098          | ±1.77       |
| 40                       | 0.708                | 0.0052          | ±1.77       |
| 50                       | 0.708                | 0.0069          | ±1.77       |

#### Voltage Variations

| AC Voltage (V) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|----------------|----------------------|-----------------|-------------|
| 4.5            | 0.708                | 0.0112          | ±1.77       |
| 3.7            | 0.708                | 0.0133          | ±1.77       |
| 3.2            | 0.708                | 0.0100          | ±1.77       |

|                |                                                                       |            |              |
|----------------|-----------------------------------------------------------------------|------------|--------------|
| Product        | Module                                                                |            |              |
| Test Mode      | Frequency Stability Under Temperature Variations & Voltage Variations |            |              |
| Date of Test   | 2016/10/17                                                            | Test Site  | CTR          |
| Test Condition | Band 12 (1.4M) CH23095(707.5MHz)-16QAM                                | Test Range | -30°C ~+50°C |

#### Frequency Stability Under Temperature Variations

| Temperature Interval(°C) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|--------------------------|----------------------|-----------------|-------------|
| -30                      | 0.708                | 0.0070          | ±1.77       |
| -20                      | 0.708                | 0.0072          | ±1.77       |
| -10                      | 0.708                | 0.0048          | ±1.77       |
| 0                        | 0.708                | 0.0050          | ±1.77       |
| 10                       | 0.708                | 0.0065          | ±1.77       |
| 20                       | 0.708                | 0.0101          | ±1.77       |
| 30                       | 0.708                | 0.0070          | ±1.77       |
| 40                       | 0.708                | 0.0100          | ±1.77       |
| 50                       | 0.708                | 0.0087          | ±1.77       |

#### Voltage Variations

| AC Voltage (V) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|----------------|----------------------|-----------------|-------------|
| 4.5            | 0.708                | 0.0093          | ±1.77       |
| 3.7            | 0.708                | 0.0101          | ±1.77       |
| 3.2            | 0.708                | 0.0106          | ±1.77       |

|                |                                                                       |            |             |
|----------------|-----------------------------------------------------------------------|------------|-------------|
| Product        | Module                                                                |            |             |
| Test Mode      | Frequency Stability Under Temperature Variations & Voltage Variations |            |             |
| Date of Test   | 2016/10/17                                                            | Test Site  | CTR         |
| Test Condition | Band 12 (3M) CH23095(707.5MHz)-QPSK                                   | Test Range | -30°C~+50°C |

#### Frequency Stability Under Temperature Variations

| Temperature Interval(°C) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|--------------------------|----------------------|-----------------|-------------|
| -30                      | 0.708                | 0.0060          | ±1.77       |
| -20                      | 0.708                | 0.0052          | ±1.77       |
| -10                      | 0.708                | 0.0071          | ±1.77       |
| 0                        | 0.708                | 0.0063          | ±1.77       |
| 10                       | 0.708                | 0.0044          | ±1.77       |
| 20                       | 0.708                | 0.0086          | ±1.77       |
| 30                       | 0.708                | 0.0042          | ±1.77       |
| 40                       | 0.708                | 0.0069          | ±1.77       |
| 50                       | 0.708                | 0.0053          | ±1.77       |

#### Voltage Variations

| AC Voltage (V) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|----------------|----------------------|-----------------|-------------|
| 4.5            | 0.708                | 0.0089          | ±1.77       |
| 3.7            | 0.708                | 0.0086          | ±1.77       |
| 3.2            | 0.708                | 0.0063          | ±1.77       |

|                |                                                                       |            |              |
|----------------|-----------------------------------------------------------------------|------------|--------------|
| Product        | Module                                                                |            |              |
| Test Mode      | Frequency Stability Under Temperature Variations & Voltage Variations |            |              |
| Date of Test   | 2016/10/17                                                            | Test Site  | CTR          |
| Test Condition | Band 12 (3M) CH23095(707.5MHz)-16QAM                                  | Test Range | -30°C ~+50°C |

#### Frequency Stability Under Temperature Variations

| Temperature Interval(°C) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|--------------------------|----------------------|-----------------|-------------|
| -30                      | 0.708                | 0.0065          | ±1.77       |
| -20                      | 0.708                | 0.0061          | ±1.77       |
| -10                      | 0.708                | -0.0048         | ±1.77       |
| 0                        | 0.708                | 0.0055          | ±1.77       |
| 10                       | 0.708                | 0.0059          | ±1.77       |
| 20                       | 0.708                | -0.0104         | ±1.77       |
| 30                       | 0.708                | 0.0080          | ±1.77       |
| 40                       | 0.708                | 0.0071          | ±1.77       |
| 50                       | 0.708                | 0.0097          | ±1.77       |

#### Voltage Variations

| AC Voltage (V) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|----------------|----------------------|-----------------|-------------|
| 4.5            | 0.708                | 0.0077          | ±1.77       |
| 3.7            | 0.708                | -0.0104         | ±1.77       |
| 3.2            | 0.708                | 0.0046          | ±1.77       |

|                |                                                                       |            |             |
|----------------|-----------------------------------------------------------------------|------------|-------------|
| Product        | Module                                                                |            |             |
| Test Mode      | Frequency Stability Under Temperature Variations & Voltage Variations |            |             |
| Date of Test   | 2016/10/17                                                            | Test Site  | CTR         |
| Test Condition | Band 12 (5M) CH23095(707.5MHz)-QPSK                                   | Test Range | -30°C~+50°C |

#### Frequency Stability Under Temperature Variations

| Temperature Interval(°C) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|--------------------------|----------------------|-----------------|-------------|
| -30                      | 0.708                | 0.0082          | ±1.77       |
| -20                      | 0.708                | 0.0070          | ±1.77       |
| -10                      | 0.708                | 0.0057          | ±1.77       |
| 0                        | 0.708                | 0.0081          | ±1.77       |
| 10                       | 0.708                | 0.0063          | ±1.77       |
| 20                       | 0.708                | 0.0094          | ±1.77       |
| 30                       | 0.708                | 0.0078          | ±1.77       |
| 40                       | 0.708                | 0.0073          | ±1.77       |
| 50                       | 0.708                | 0.0056          | ±1.77       |

#### Voltage Variations

| AC Voltage (V) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|----------------|----------------------|-----------------|-------------|
| 4.5            | 0.708                | 0.0082          | ±1.77       |
| 3.7            | 0.708                | 0.0094          | ±1.77       |
| 3.2            | 0.708                | 0.0079          | ±1.77       |

|                |                                                                       |            |              |
|----------------|-----------------------------------------------------------------------|------------|--------------|
| Product        | Module                                                                |            |              |
| Test Mode      | Frequency Stability Under Temperature Variations & Voltage Variations |            |              |
| Date of Test   | 2016/10/17                                                            | Test Site  | CTR          |
| Test Condition | Band 12 (5M) CH23095(707.5MHz)-16QAM                                  | Test Range | -30°C ~+50°C |

#### Frequency Stability Under Temperature Variations

| Temperature Interval(°C) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|--------------------------|----------------------|-----------------|-------------|
| -30                      | 0.708                | 0.0077          | ±1.77       |
| -20                      | 0.708                | -0.0088         | ±1.77       |
| -10                      | 0.708                | -0.0050         | ±1.77       |
| 0                        | 0.708                | 0.0088          | ±1.77       |
| 10                       | 0.708                | -0.0050         | ±1.77       |
| 20                       | 0.708                | 0.0094          | ±1.77       |
| 30                       | 0.708                | -0.0072         | ±1.77       |
| 40                       | 0.708                | -0.0056         | ±1.77       |
| 50                       | 0.708                | 0.0095          | ±1.77       |

#### Voltage Variations

| AC Voltage (V) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|----------------|----------------------|-----------------|-------------|
| 4.5            | 0.708                | 0.0080          | ±1.77       |
| 3.7            | 0.708                | 0.0094          | ±1.77       |
| 3.2            | 0.708                | 0.0101          | ±1.77       |

|                |                                                                       |            |             |
|----------------|-----------------------------------------------------------------------|------------|-------------|
| Product        | Module                                                                |            |             |
| Test Mode      | Frequency Stability Under Temperature Variations & Voltage Variations |            |             |
| Date of Test   | 2016/10/17                                                            | Test Site  | CTR         |
| Test Condition | Band 12 (10M) CH23095(707.5MHz)-QPSK                                  | Test Range | -30°C~+50°C |

#### Frequency Stability Under Temperature Variations

| Temperature Interval(°C) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|--------------------------|----------------------|-----------------|-------------|
| -30                      | 0.708                | 0.0064          | ±1.77       |
| -20                      | 0.708                | 0.0097          | ±1.77       |
| -10                      | 0.708                | -0.0079         | ±1.77       |
| 0                        | 0.708                | -0.0068         | ±1.77       |
| 10                       | 0.708                | -0.0052         | ±1.77       |
| 20                       | 0.708                | 0.0053          | ±1.77       |
| 30                       | 0.708                | -0.0083         | ±1.77       |
| 40                       | 0.708                | -0.0058         | ±1.77       |
| 50                       | 0.708                | -0.0068         | ±1.77       |

#### Voltage Variations

| AC Voltage (V) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|----------------|----------------------|-----------------|-------------|
| 4.5            | 0.708                | 0.0105          | ±1.77       |
| 3.7            | 0.708                | 0.0053          | ±1.77       |
| 3.2            | 0.708                | 0.0055          | ±1.77       |

|                |                                                                       |            |              |
|----------------|-----------------------------------------------------------------------|------------|--------------|
| Product        | Module                                                                |            |              |
| Test Mode      | Frequency Stability Under Temperature Variations & Voltage Variations |            |              |
| Date of Test   | 2016/10/17                                                            | Test Site  | CTR          |
| Test Condition | Band 12 (10M) CH23095(707.5MHz)-16QAM                                 | Test Range | -30°C ~+50°C |

#### Frequency Stability Under Temperature Variations

| Temperature Interval(°C) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|--------------------------|----------------------|-----------------|-------------|
| -30                      | 0.708                | -0.0068         | ±1.77       |
| -20                      | 0.708                | -0.0077         | ±1.77       |
| -10                      | 0.708                | -0.0039         | ±1.77       |
| 0                        | 0.708                | -0.0053         | ±1.77       |
| 10                       | 0.708                | -0.0061         | ±1.77       |
| 20                       | 0.708                | 0.0072          | ±1.77       |
| 30                       | 0.708                | -0.0078         | ±1.77       |
| 40                       | 0.708                | 0.0064          | ±1.77       |
| 50                       | 0.708                | 0.0053          | ±1.77       |

#### Voltage Variations

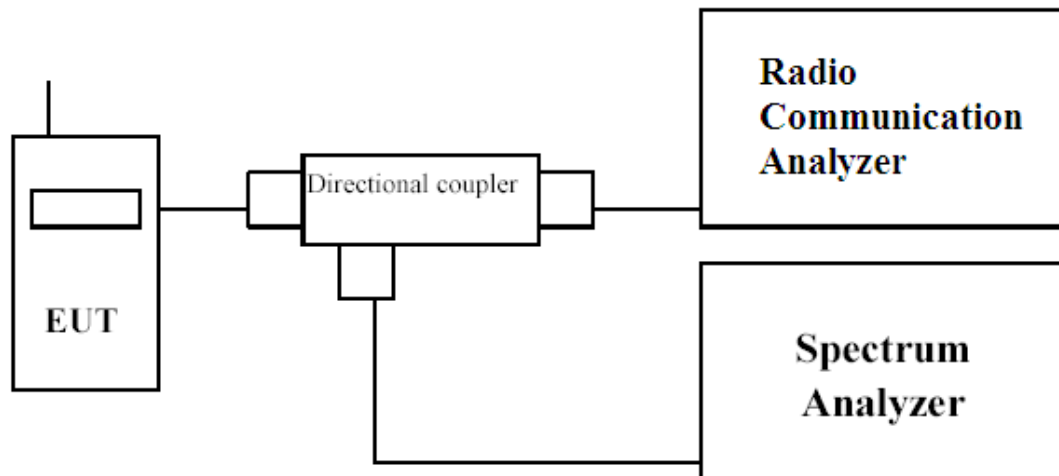
| AC Voltage (V) | Test Frequency (GHz) | Deviation (KHz) | Limit (KHz) |
|----------------|----------------------|-----------------|-------------|
| 4.5            | 0.708                | 0.0085          | ±1.77       |
| 3.7            | 0.708                | 0.0072          | ±1.77       |
| 3.2            | 0.708                | -0.0065         | ±1.77       |

## 8. Peak to Average Ratio

### 8.1 Test Specification

According to Part 27.50(a).

### 8.2 Test Setup



### 8.3 Limits

The peak-to-average power ratio (PAPR) of the transmitter output power must not exceed 13 dB. The PAPR measurements should be made using either an instrument with complementary cumulative distribution function (CCDF) capabilities to determine that PAPR will not exceed 13 dB for more than 0.1 percent of the time or other Commission approved procedure.

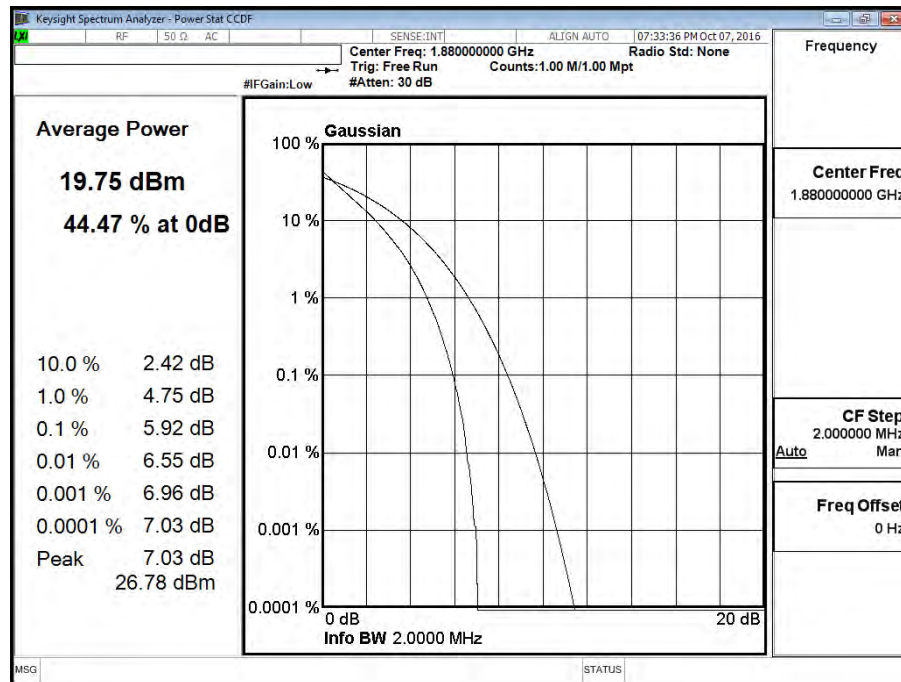
### 8.4 Test Procedure

- a) Refer to instrument's analyzer instruction manual for details on how to use the power statistics/CCDF function;
- b) Set resolution/measurement bandwidth  $\geq$  signal's occupied bandwidth;
- c) Set the number of counts to a value that stabilizes the measured CCDF curve;
- d) Set the measurement interval as follows:
  - 1) for continuous transmissions, set to 1 ms,
  - 2) for burst transmissions, employ an external trigger that is synchronized with the EUT burst timing sequence, or use the internal burst trigger with a trigger level that allows the burst to stabilize and set the measurement interval to a time that is less than or equal to the burst duration.
- e) Record the maximum PAPR level associated with a probability of 0.1%.

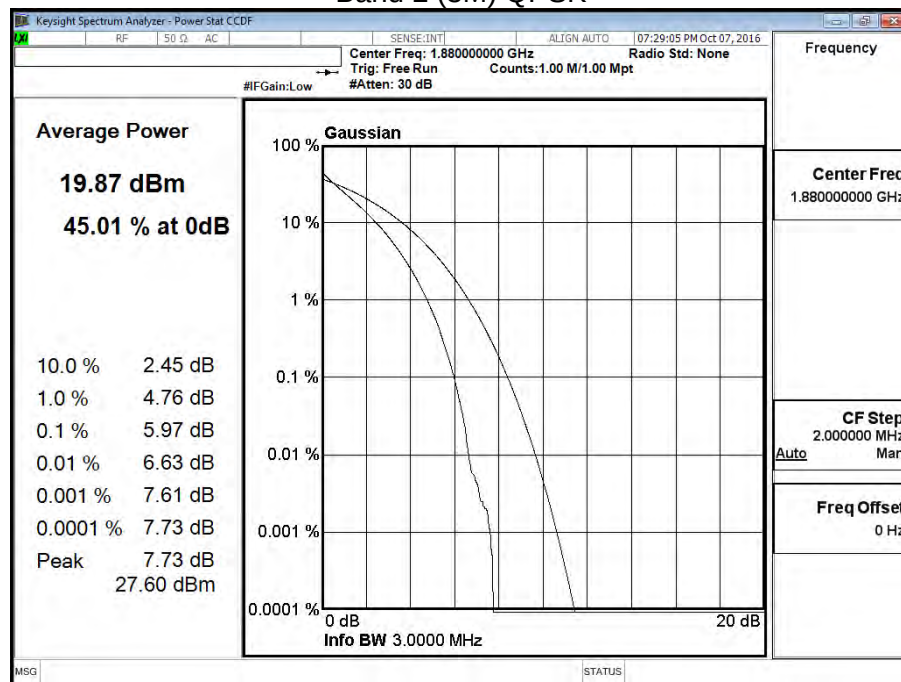
## 8.5 Test Result of Spurious Emission

|                |                       |           |     |
|----------------|-----------------------|-----------|-----|
| Product        | Module                |           |     |
| Test Mode      | Peak to Average Ratio |           |     |
| Date of Test   | 2016/10/07            | Test Site | CTR |
| Test Condition | LTE-Band 2            |           |     |

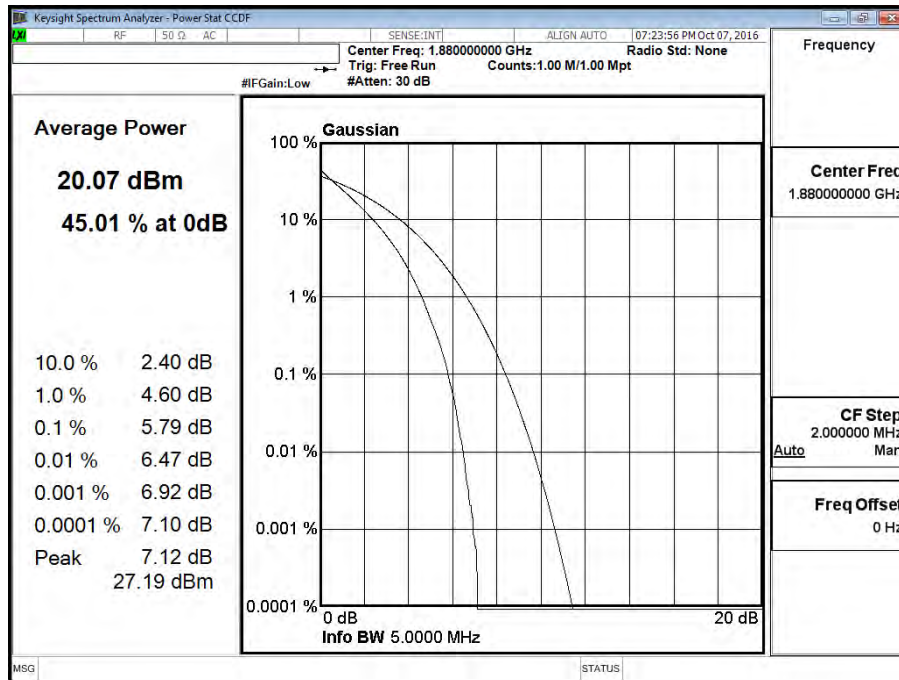
### Band 2 (1.4M) QPSK



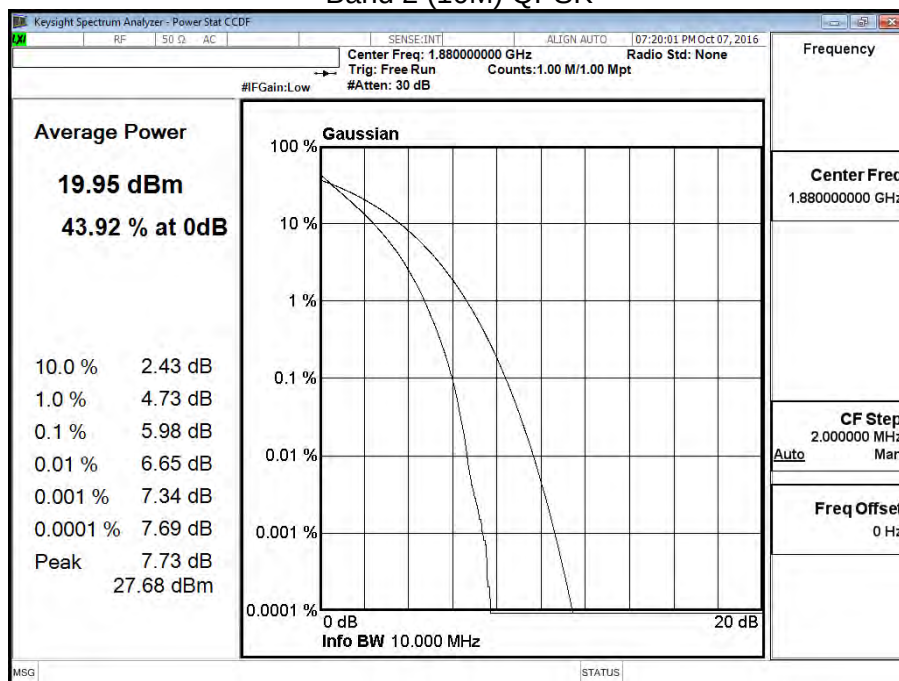
### Band 2 (3M) QPSK



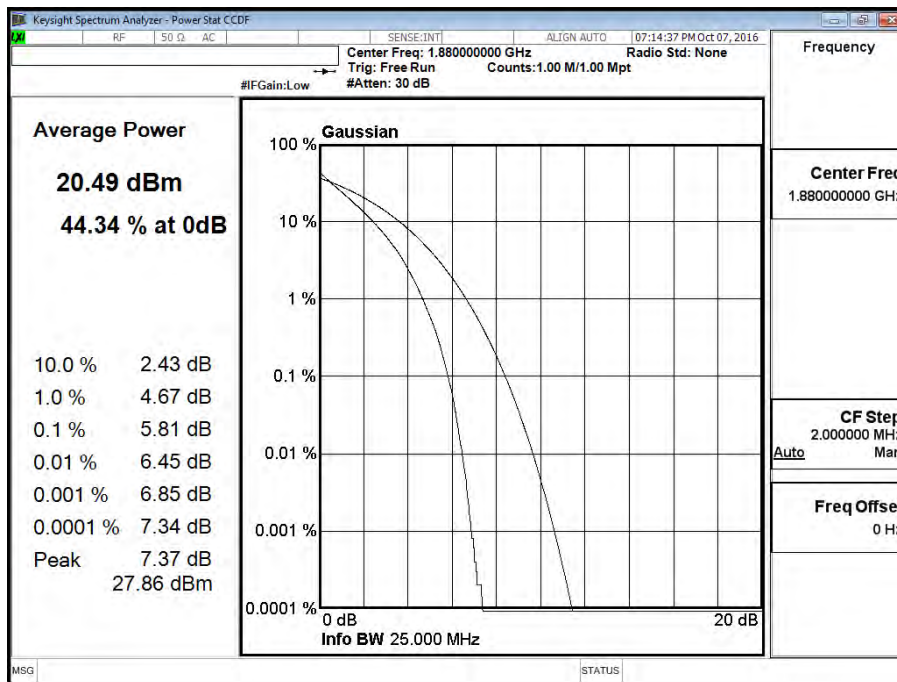
### Band 2 (5M) QPSK



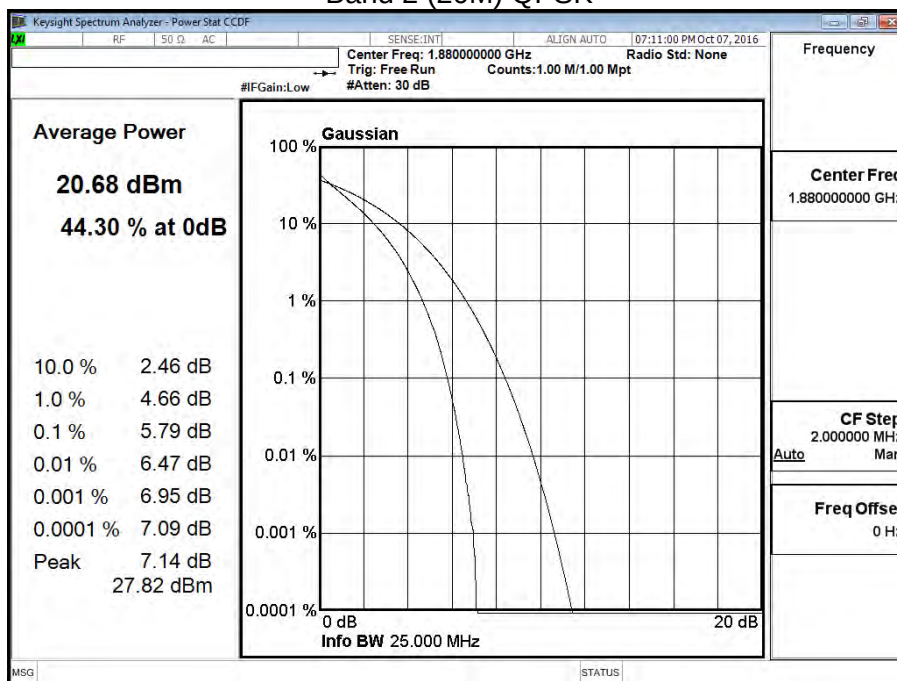
### Band 2 (10M) QPSK



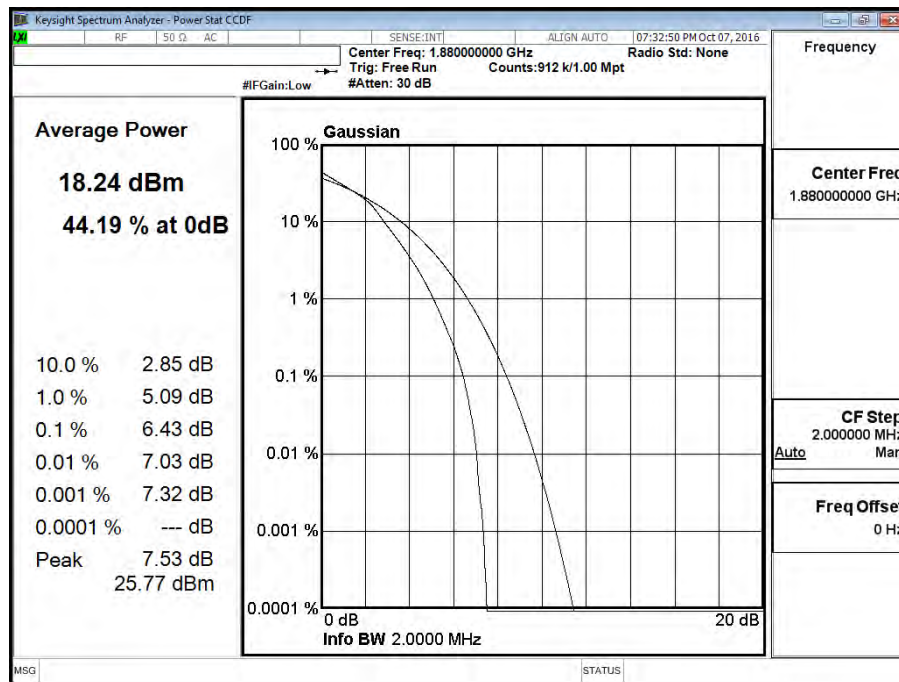
### Band 2 (15M) QPSK



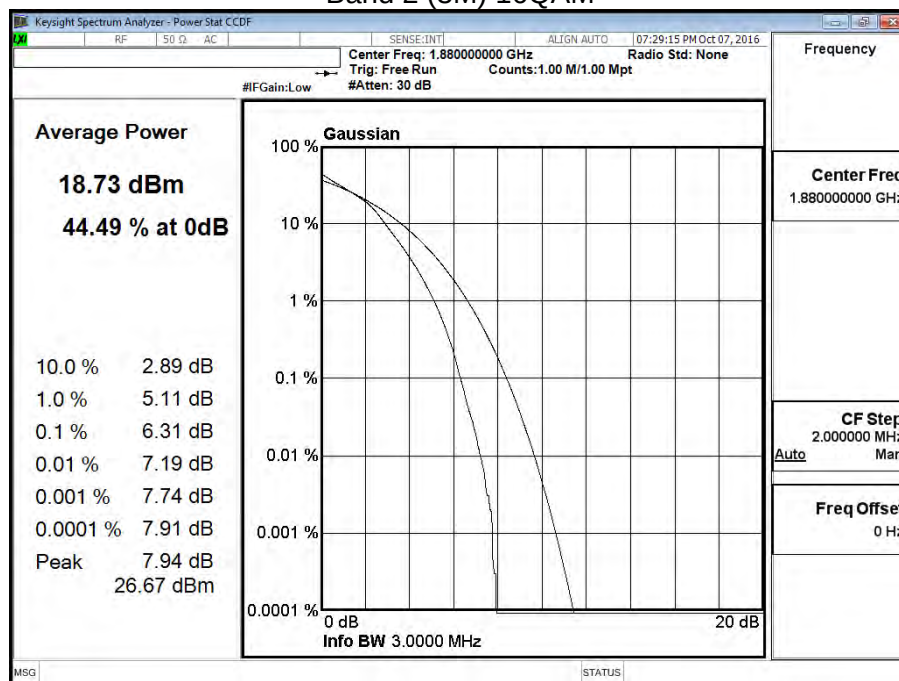
### Band 2 (20M) QPSK



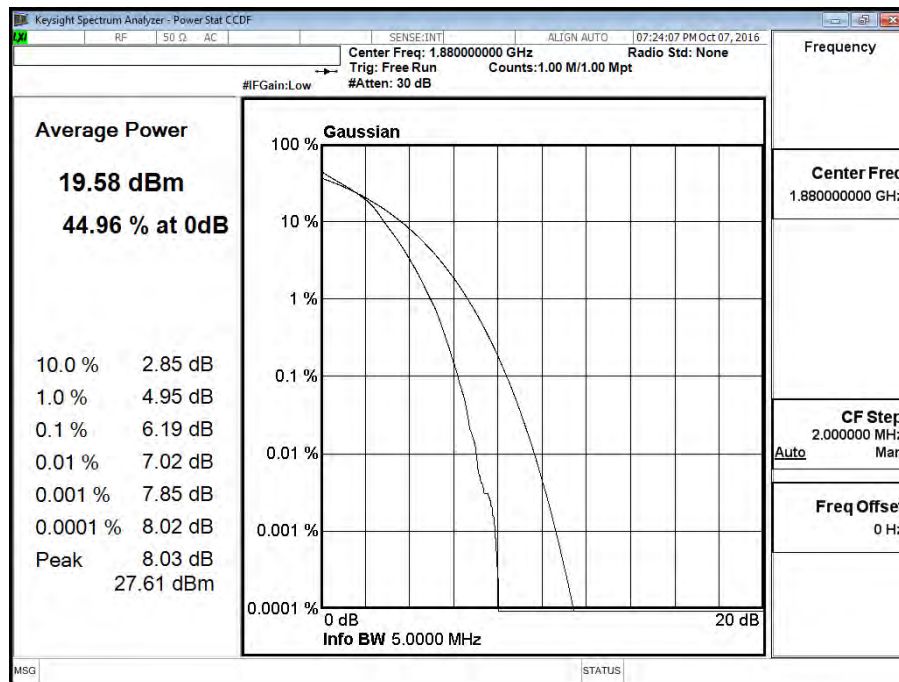
### Band 2 (1.4M) 16QAM



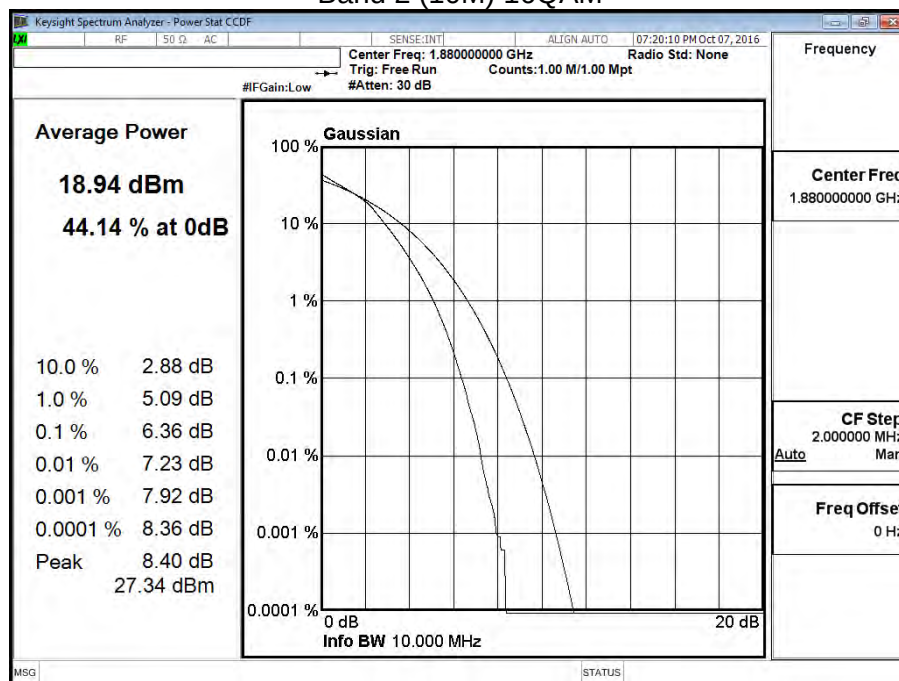
### Band 2 (3M) 16QAM



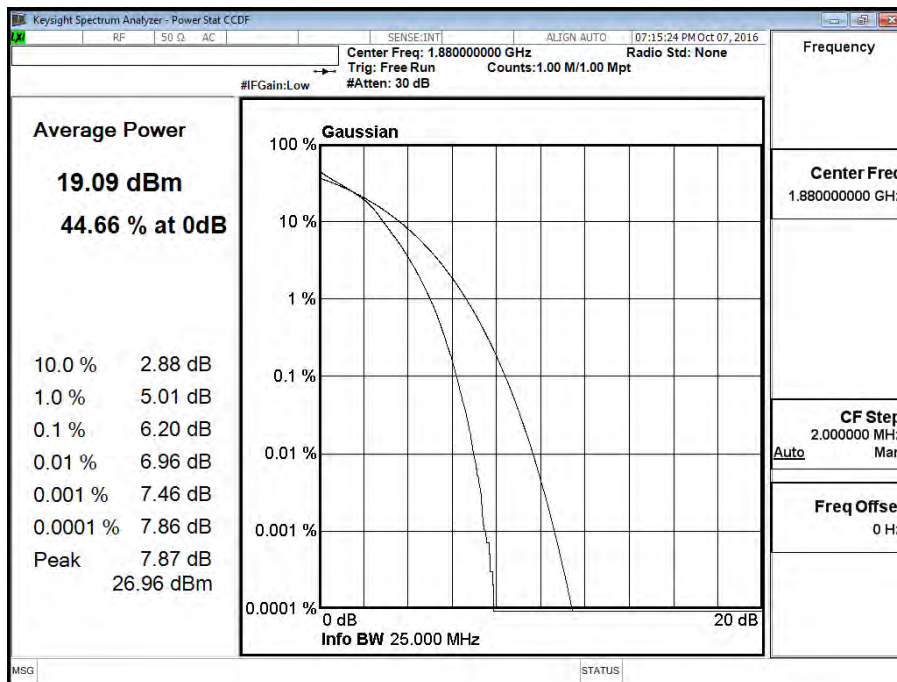
### Band 2 (5M) 16QAM



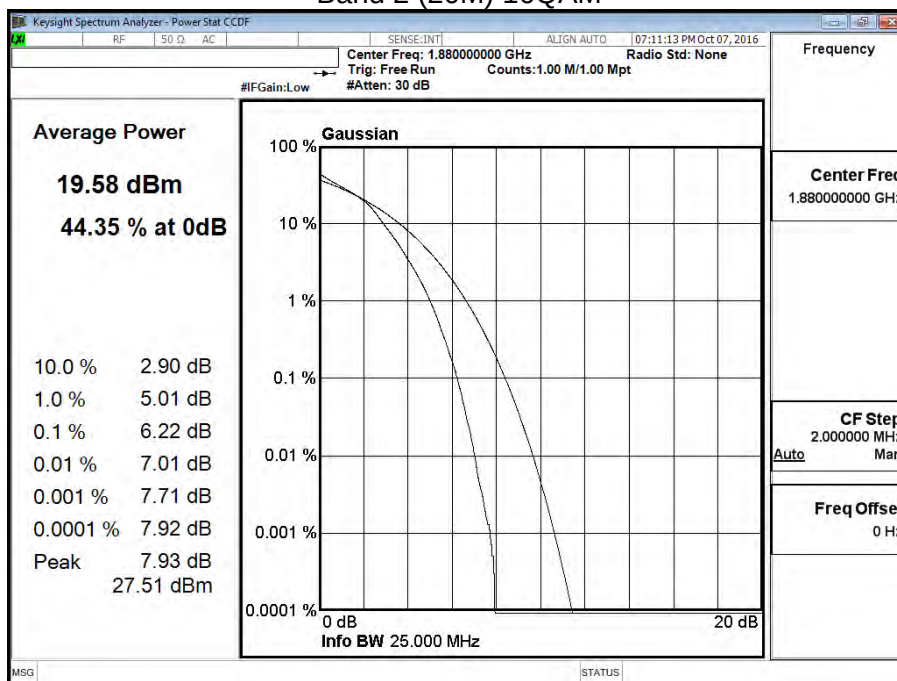
### Band 2 (10M) 16QAM



### Band 2 (15M) 16QAM

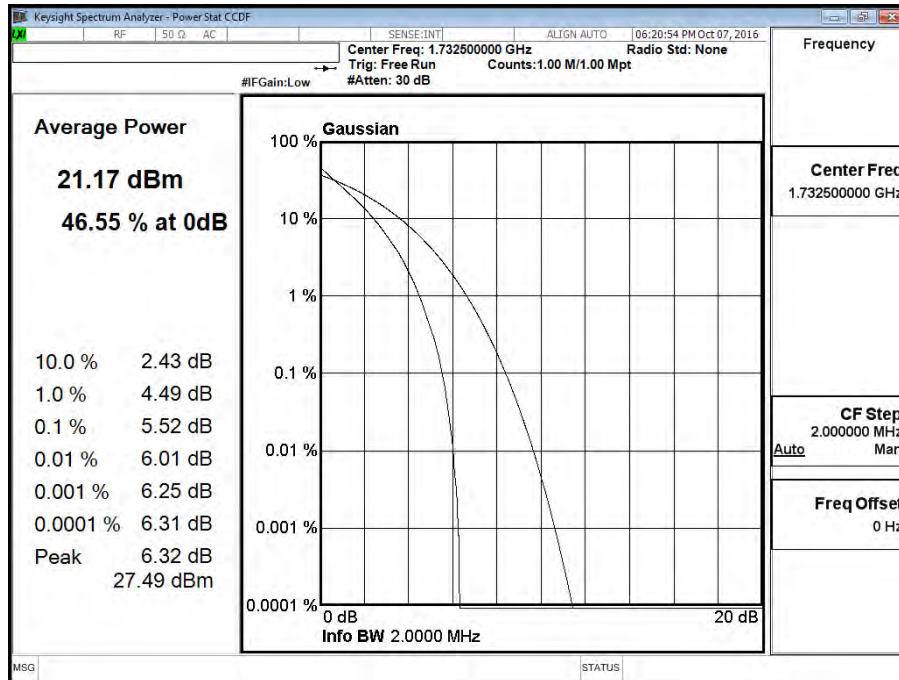


### Band 2 (20M) 16QAM

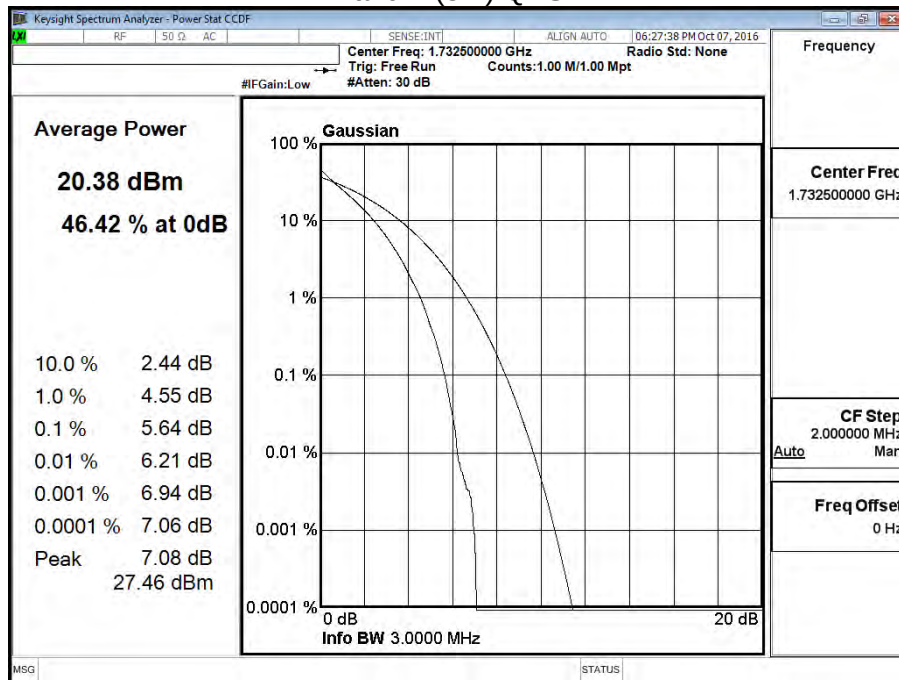


|                |                       |           |     |
|----------------|-----------------------|-----------|-----|
| Product        | Module                |           |     |
| Test Mode      | Peak to Average Ratio |           |     |
| Date of Test   | 2016/10/07            | Test Site | CTR |
| Test Condition | LTE-Band 4            |           |     |

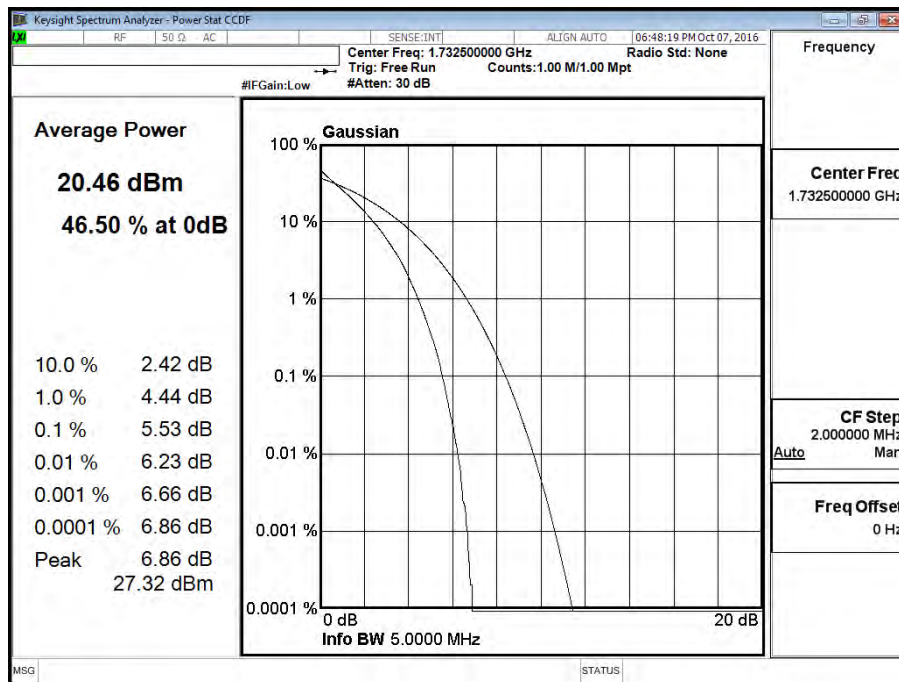
### Band 4 (1.4M) QPSK



### Band 4 (3M) QPSK



### Band 4 (5M) QPSK



### Band 4 (10M) QPSK

