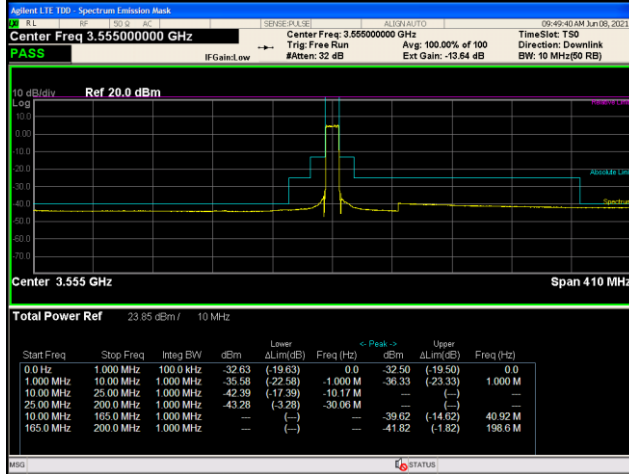


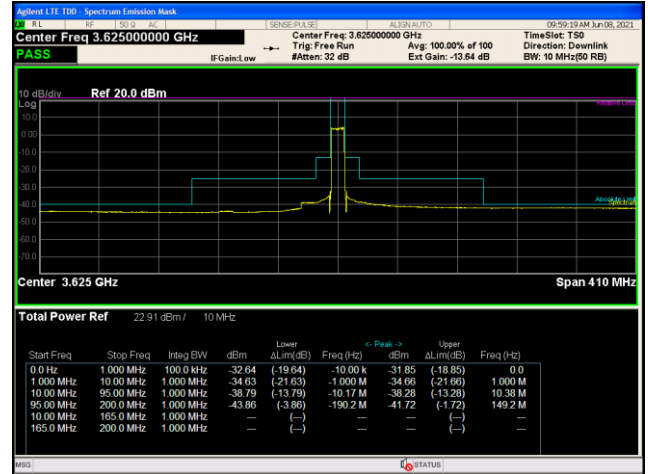
Test plots as below:

10MHz bandwidth-ANT 1

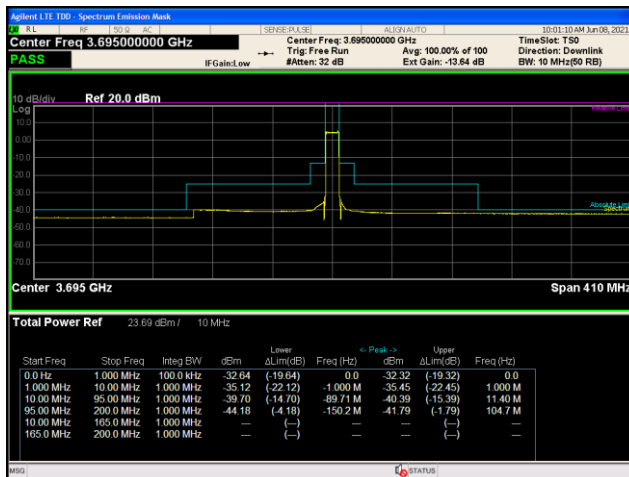
QPKS



Lowest channel

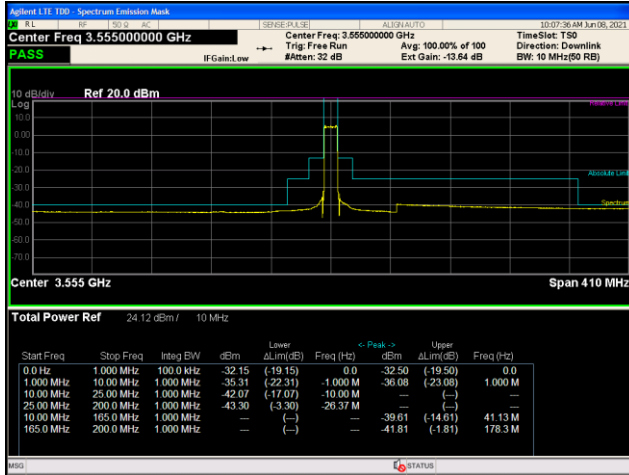


Middle channel

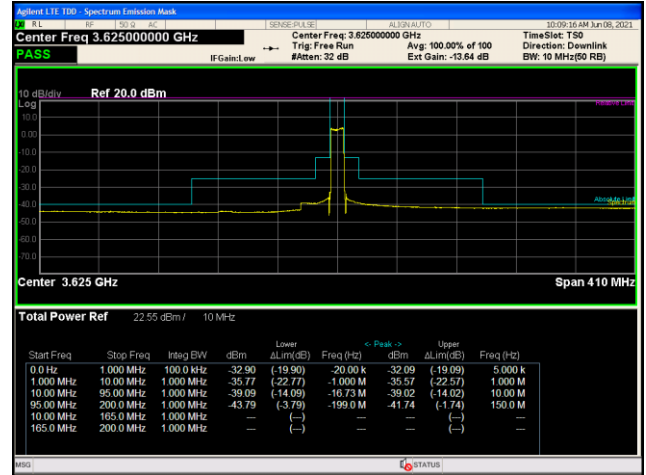


Highest channel

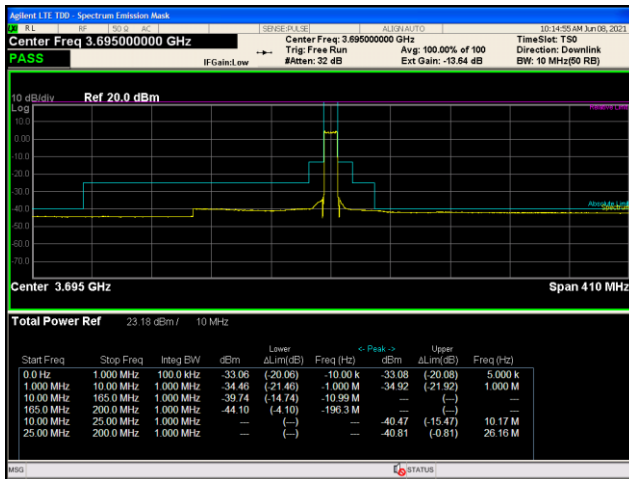
# 10MHz bandwidth-ANT 2 QPKS



Lowest channel

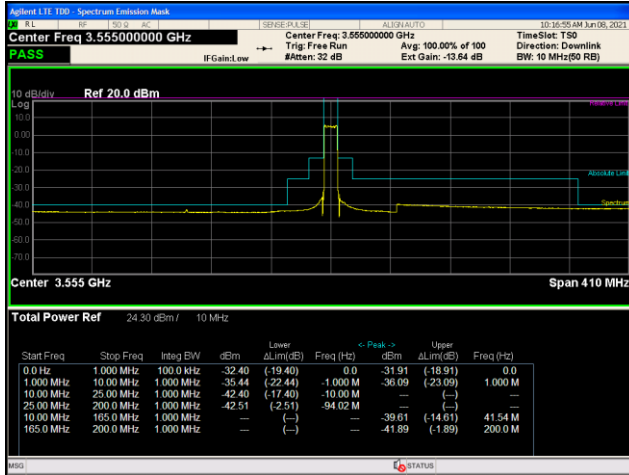


Middle channel

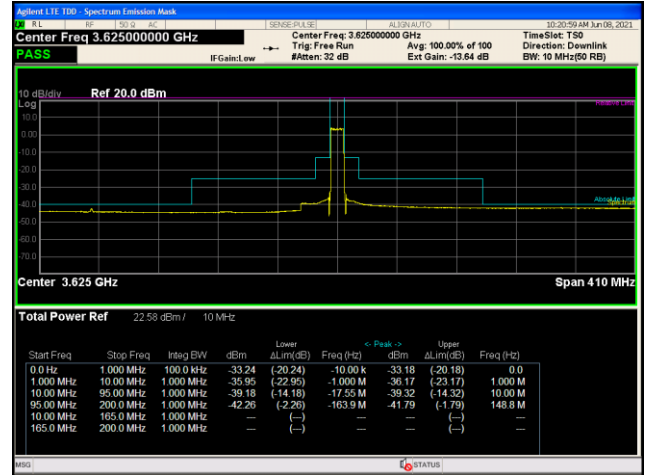


Highest channel

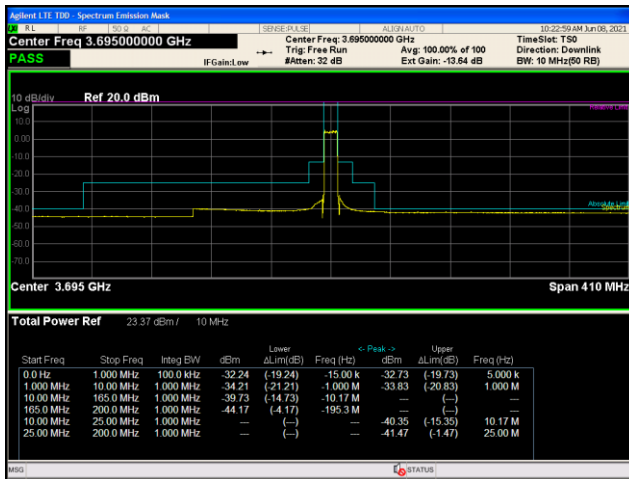
# 10MHz bandwidth-ANT 3 QPKS



Lowest channel

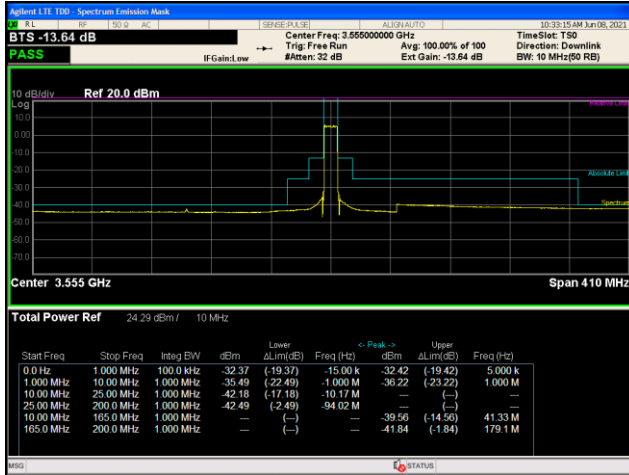


Middle channel

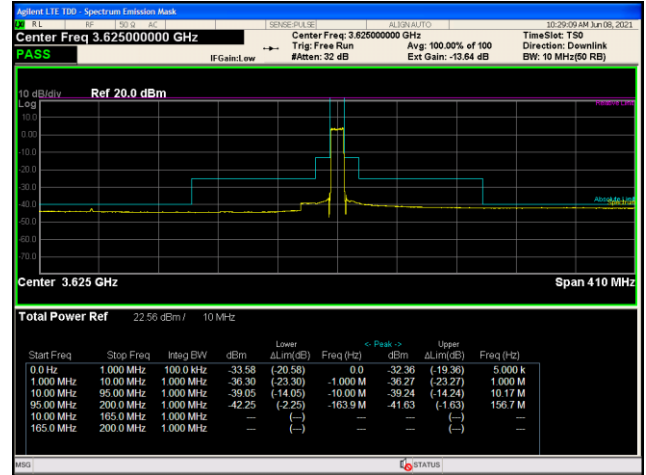


Highest channel

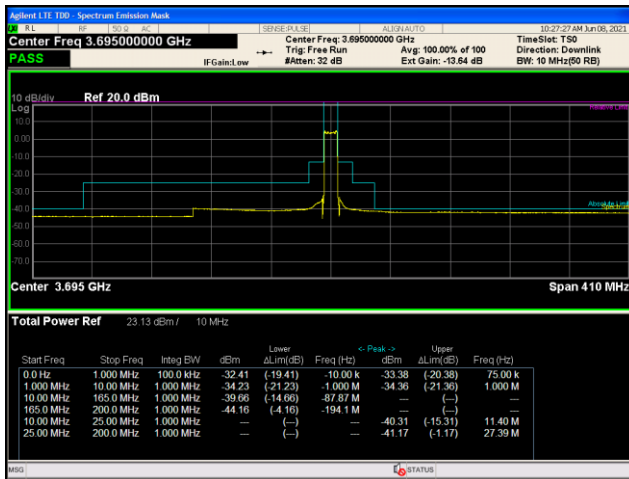
# 10MHz bandwidth-ANT 4 QPKS



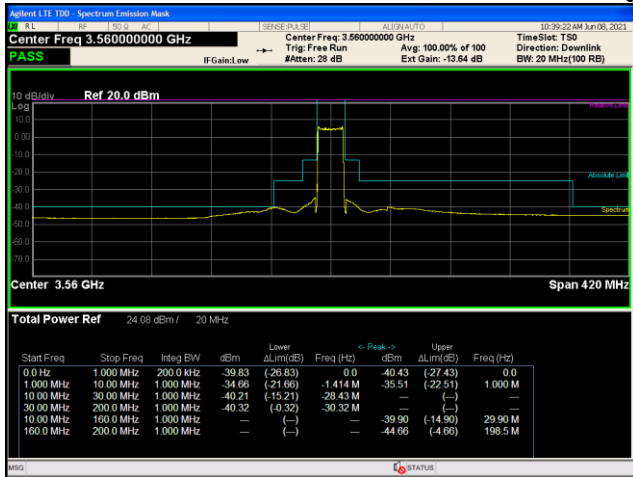
Lowest channel



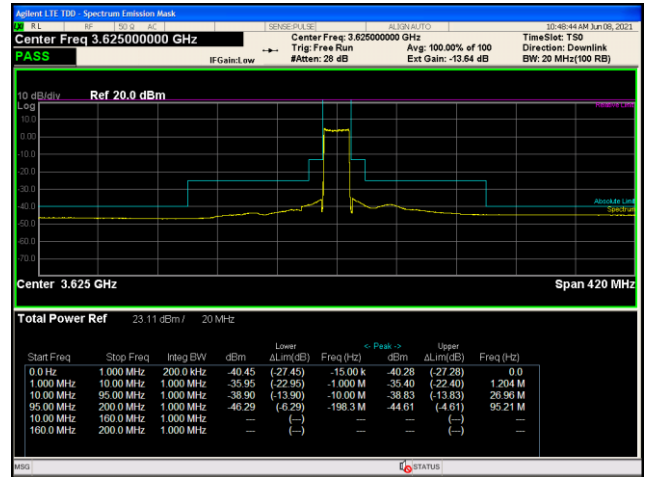
Middle channel



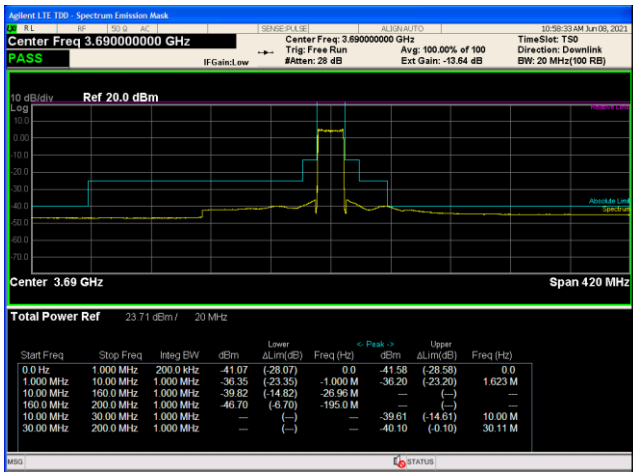
Highest channel

20MHz bandwidth-ANT 1  
QPKS


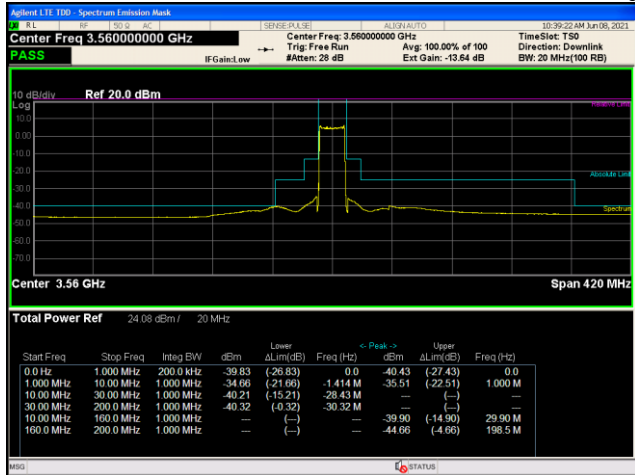
Lowest channel



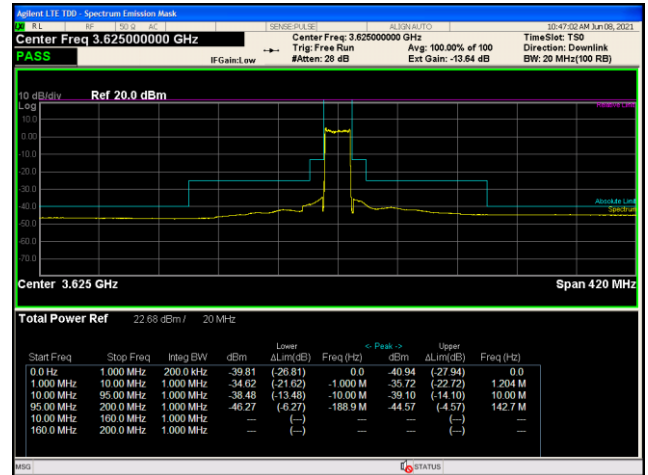
Middle channel



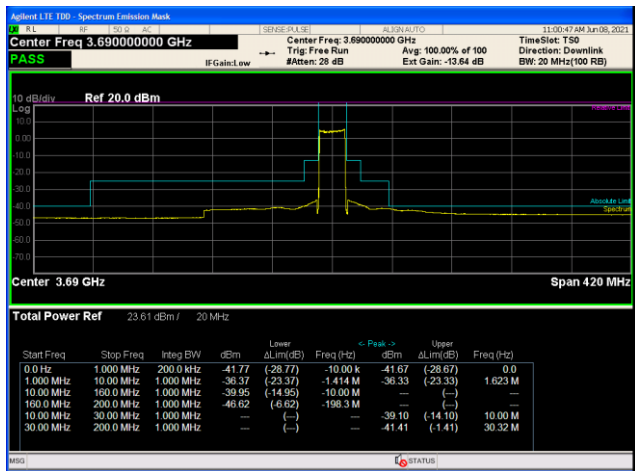
Highest channel

20MHz bandwidth-ANT 2  
QPKS


Lowest channel



Middle channel

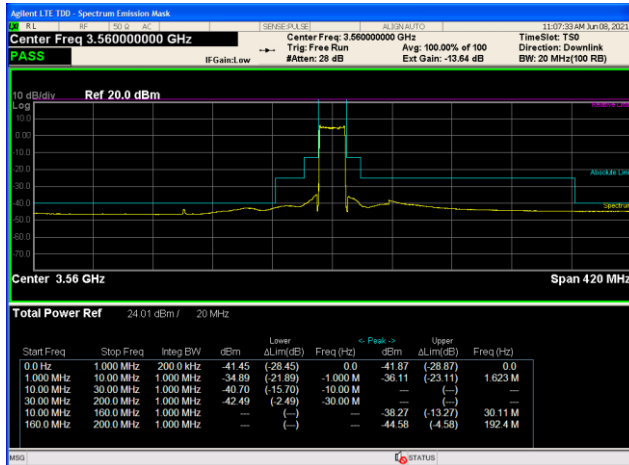


Highest channel

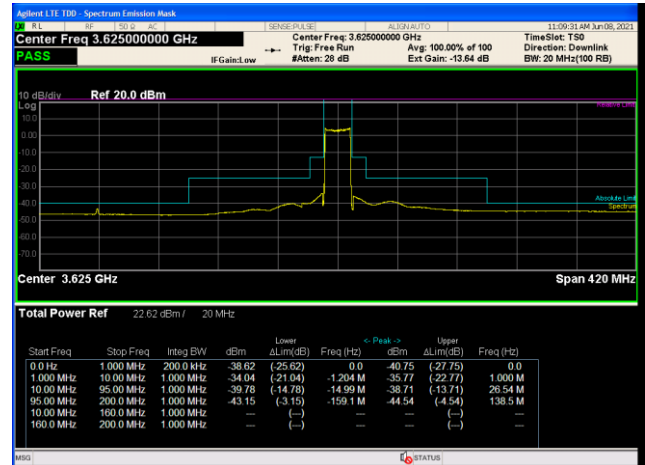
## 20MHz bandwidth-ANT 3

QPKS

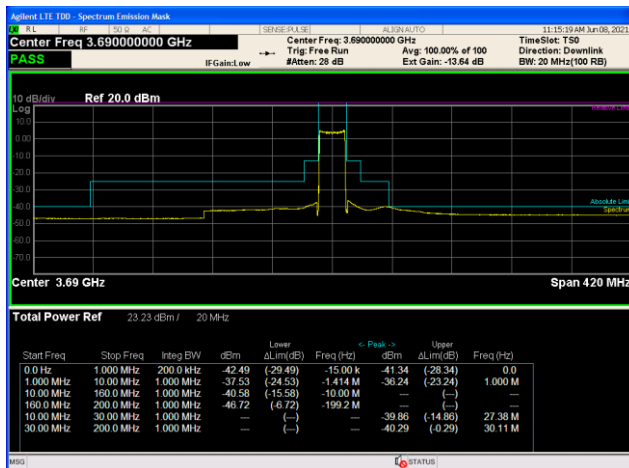
64QAM



Lowest channel

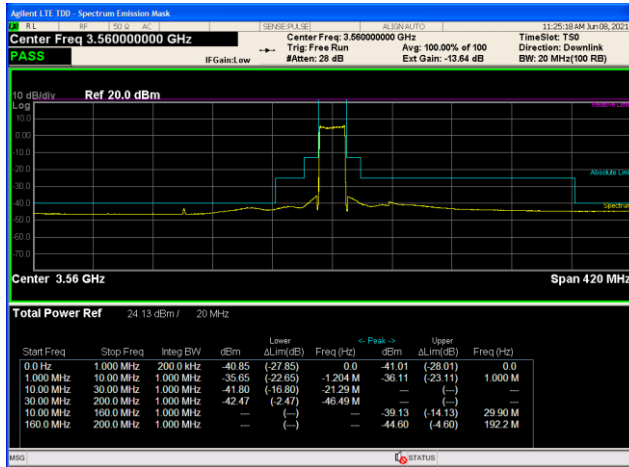


Middle channel

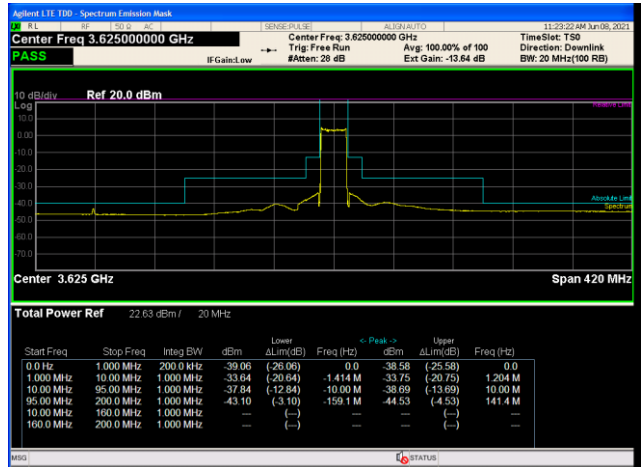


Highest channel

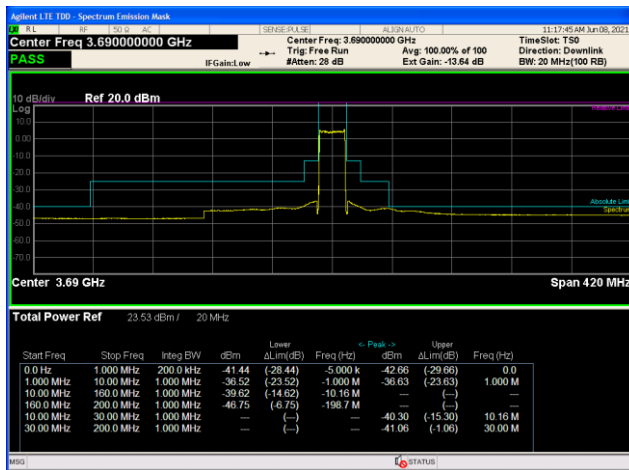
# 20MHz bandwidth-ANT 4 QPKS



Lowest channel

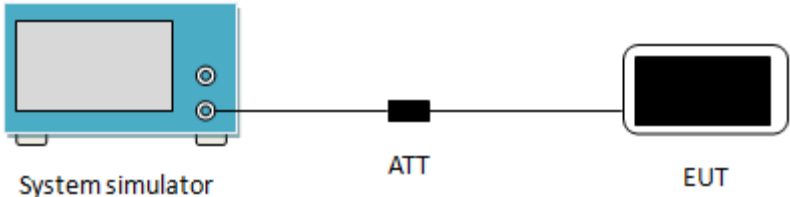


Middle channel



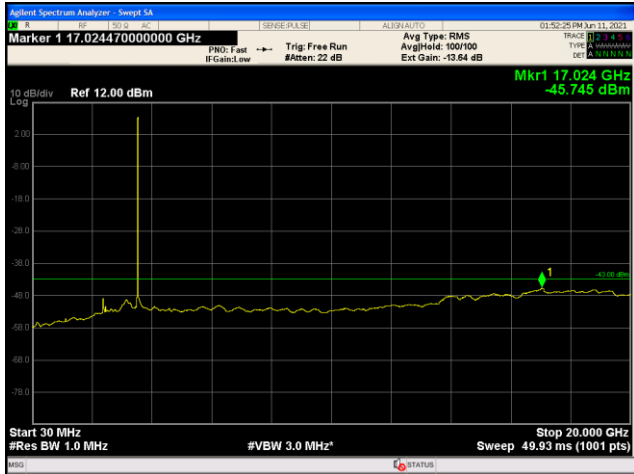
Highest channel

## 6.5 Out of band emission at antenna terminals

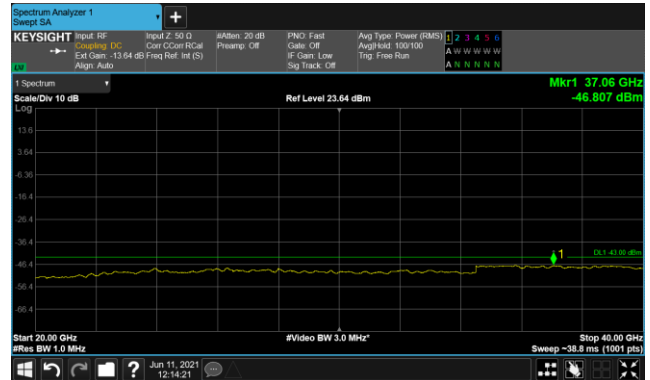
|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Requirement: | FCC part 96.41(e)(1)(2)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Limit:            | below 3530 MHz and above 3720 MHz $\leq$ -40dBm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                   |  <p style="text-align: center;">System simulator                      ATT                      EUT</p>                                                                                                                                                                                                                                                                                                                                                                                                     |
| Test Procedure:   | <ol style="list-style-type: none"> <li>1 The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation.</li> <li>2 For the out of band: RBW =1 MHz, VBW=3 MHz, Start=30MHz, Stop= 10th harmonic.</li> <li>3 Band Edge Requirements: In the 1 MHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 1 percent of the emission bandwidth of the fundamental emission of the transmitter may be employed to measure the out of band Emissions.(Band Edge test data refer to the Section 6.4)</li> </ol> |
| Test Instruments: | Refer to section 5.10 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Test mode:        | Refer to section 5.3 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Test results:     | Passed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Remark:           | <ol style="list-style-type: none"> <li>1. (Pre-scan all modulation type (QPSK, 16-QAM, 64-QAM), and found the QPKS was the worst case. so only the worst case test data.)</li> <li>2. The emission evaluation for MIMO mode is exempted because all the emissions on SISO mode are lower (at least) by 3.0dB than the limit masks.</li> </ol>                                                                                                                                                                                                                                                |

Test plots as follows (worst case):  
Spurious emission

LTE Band 48(10 MHz QPSK)-ANT 1  
Lowest channel

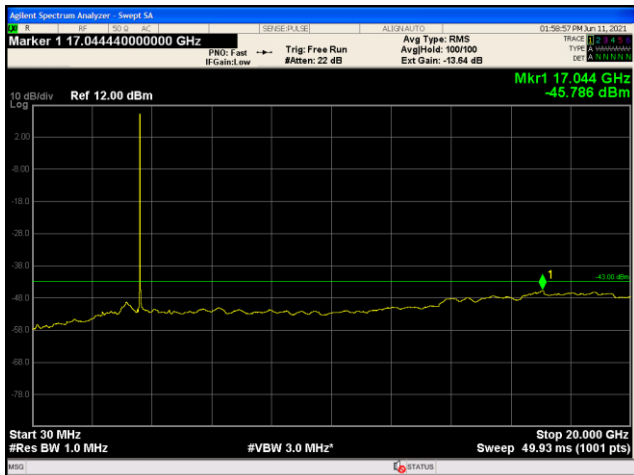


30MHz~20GHz

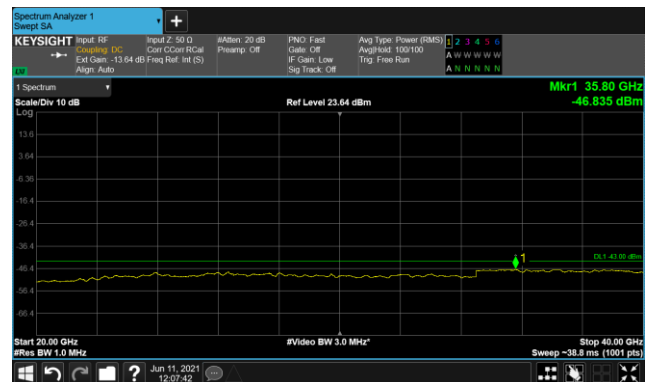


20GHz~40GHz

Middle channel

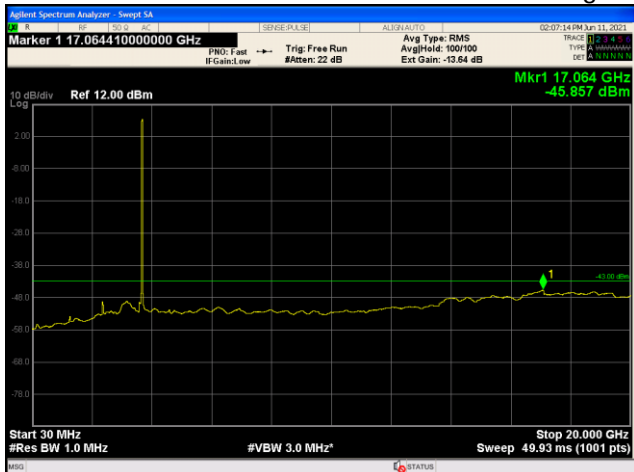


30MHz~20GHz

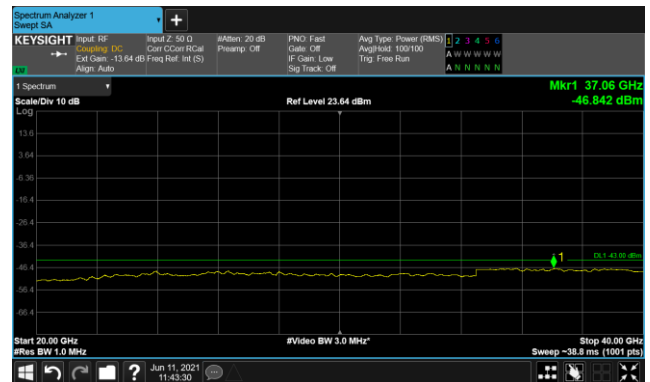


20GHz~40GHz

Highest channel

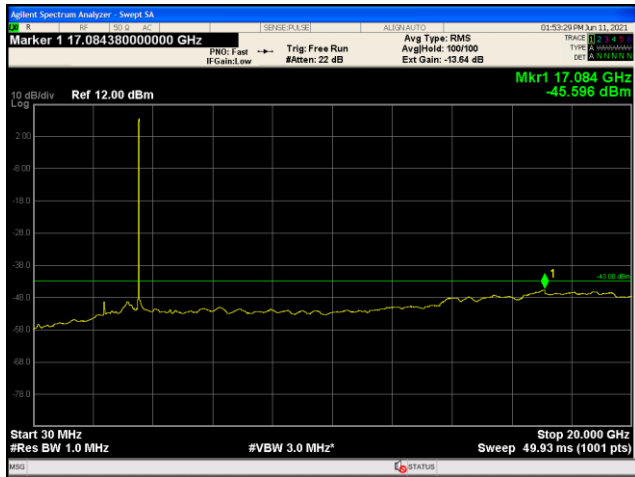


30MHz~20GHz

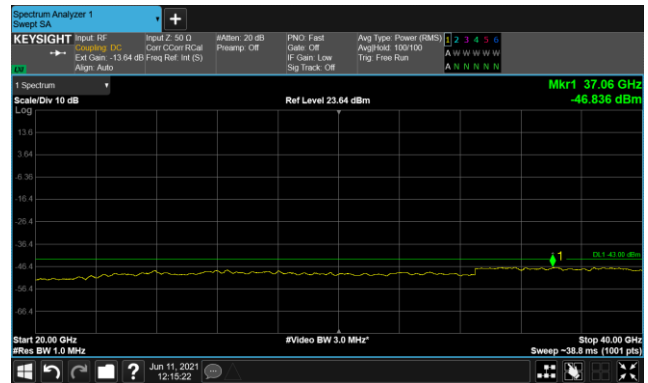


20GHz~40GHz

### LTE Band 48(10 MHz QPSK)-ANT 2 Lowest channel

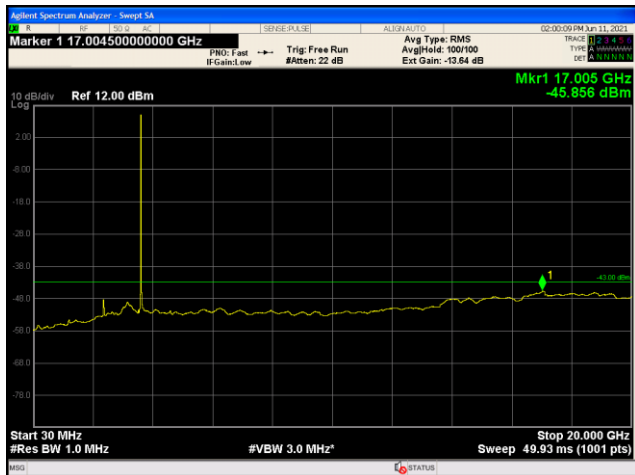


30MHz~20GHz

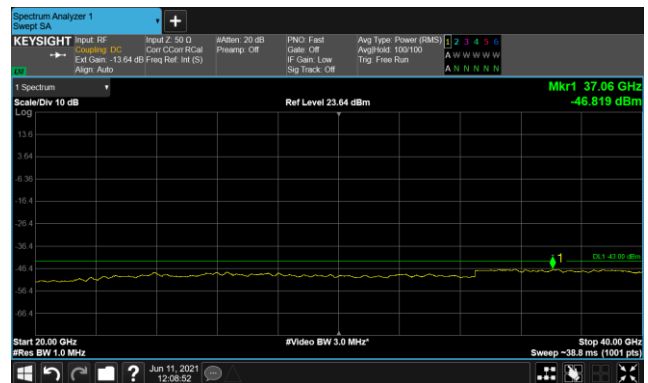


20GHz~40GHz

### Middle channel

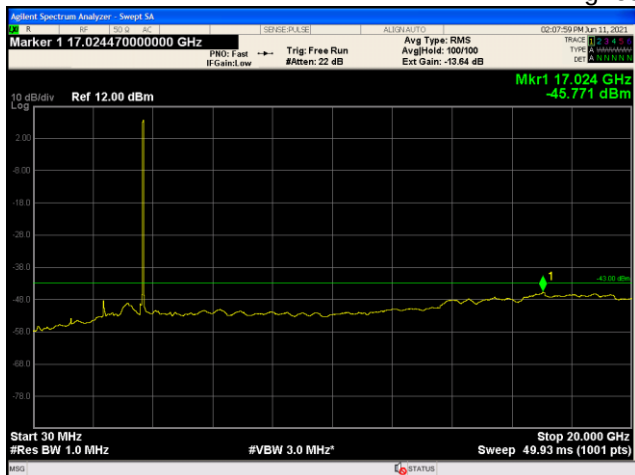


30MHz~20GHz

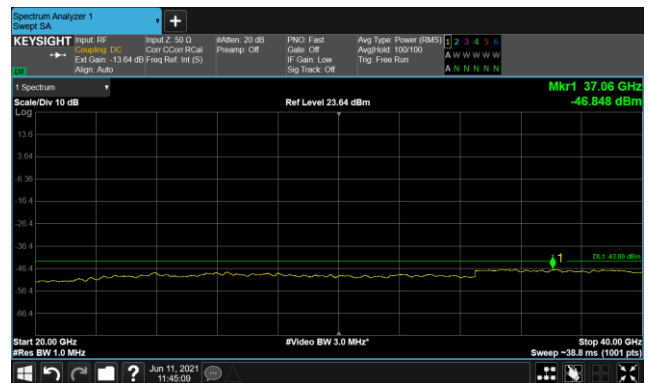


20GHz~40GHz

### Highest channel

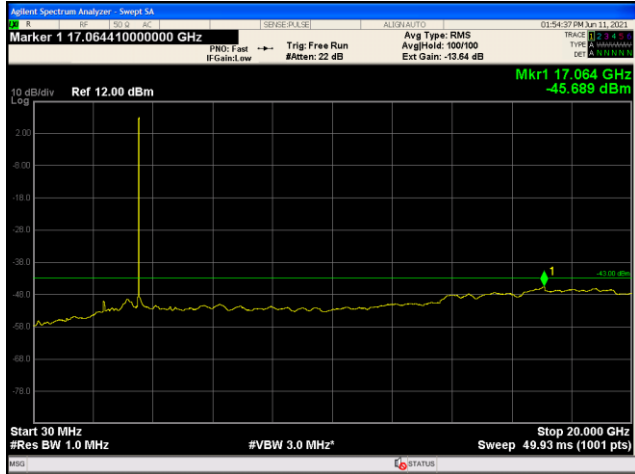


30MHz~20GHz

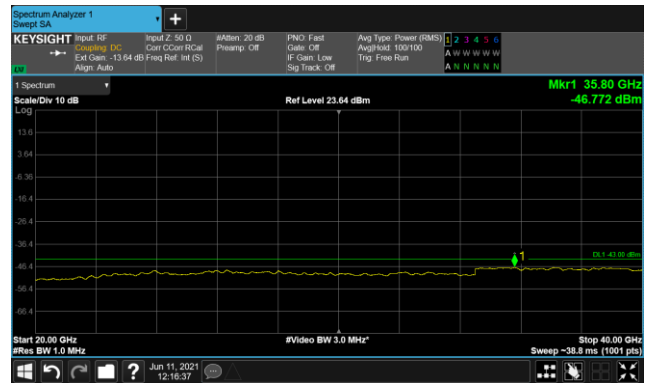


20GHz~40GHz

### LTE Band 48(10 MHz QPSK)-ANT 3 Lowest channel

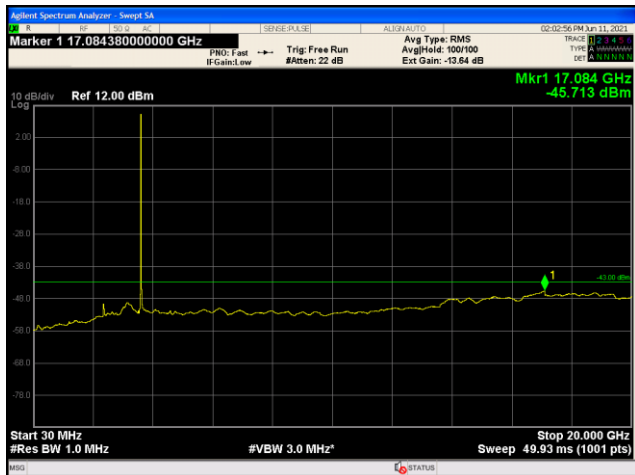


30MHz~20GHz

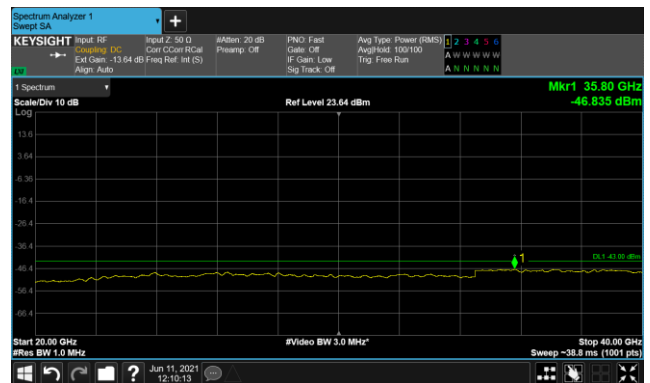


20GHz~40GHz

### Middle channel

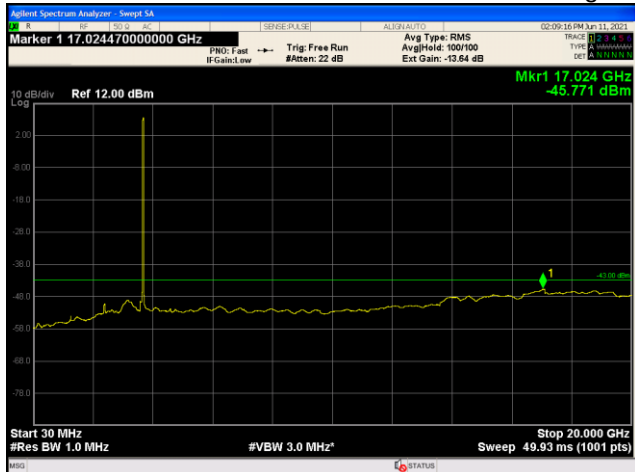


30MHz~20GHz

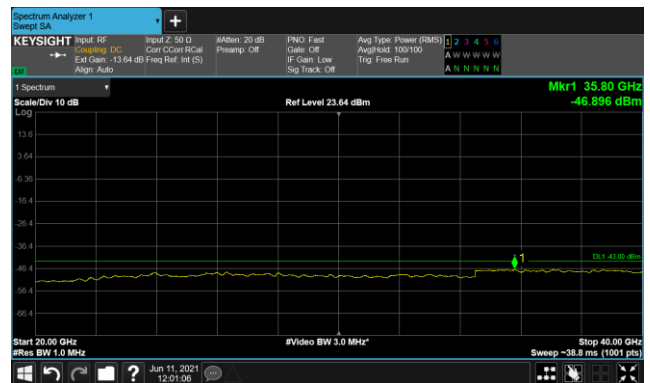


20GHz~40GHz

### Highest channel

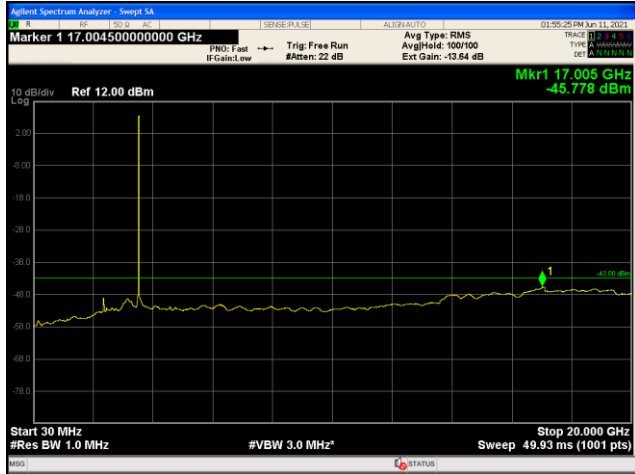


30MHz~20GHz

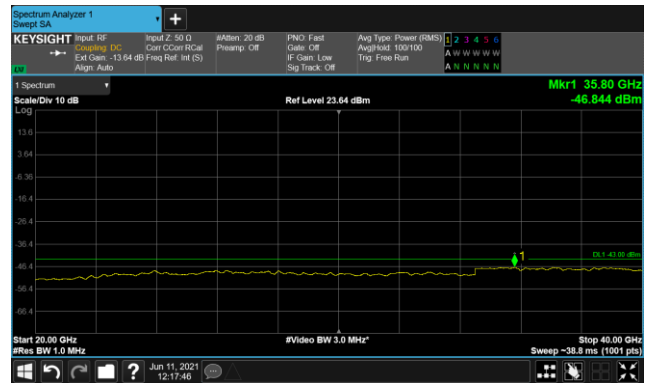


20GHz~40GHz

### LTE Band 48(10 MHz QPSK)-ANT 4 Lowest channel

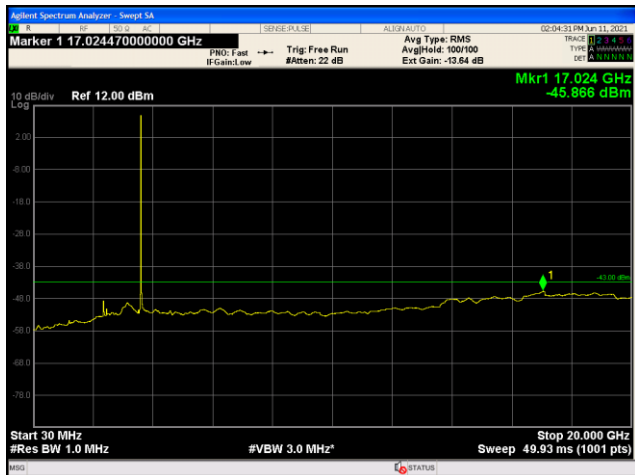


30MHz~20GHz

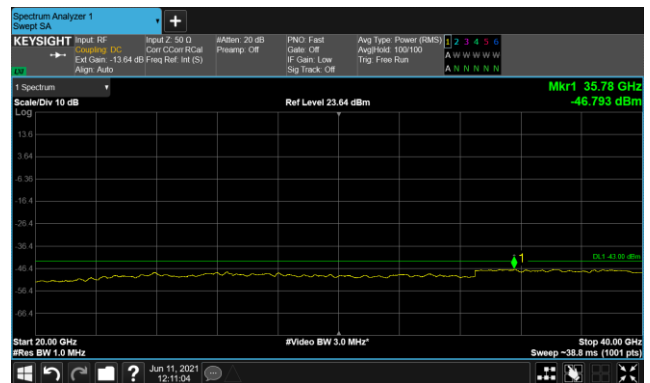


20GHz~40GHz

### Middle channel

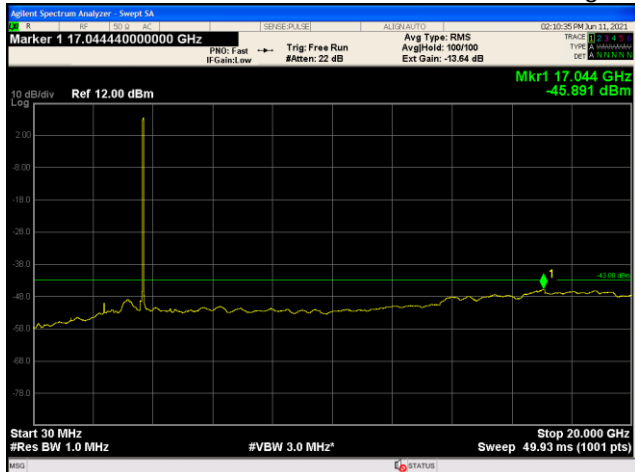


30MHz~20GHz

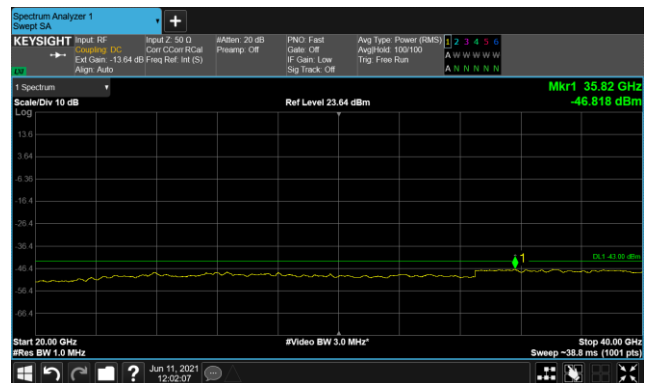


20GHz~40GHz

### Highest channel

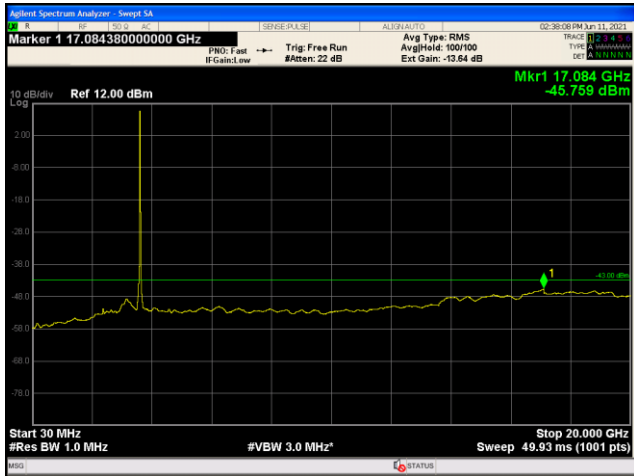


30MHz~20GHz

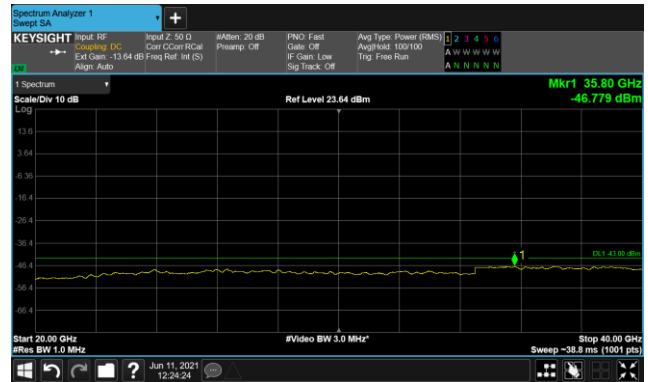


20GHz~40GHz

### LTE Band 48(20 MHz QPSK)-ANT 1 Lowest channel

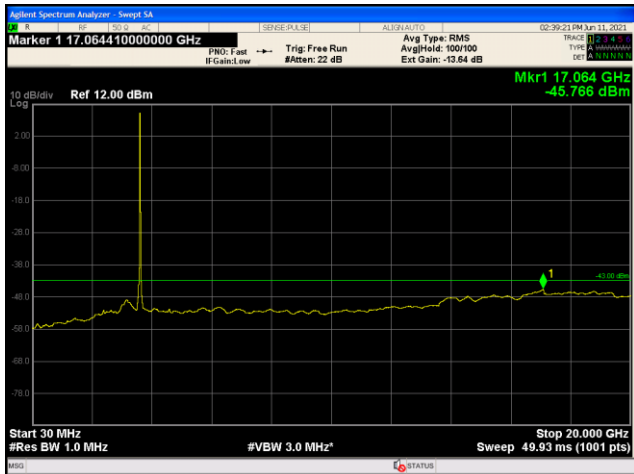


30MHz~20GHz

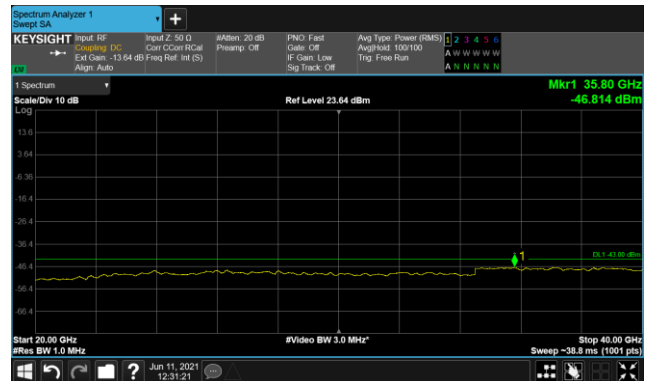


20GHz~40GHz

### Middle channel

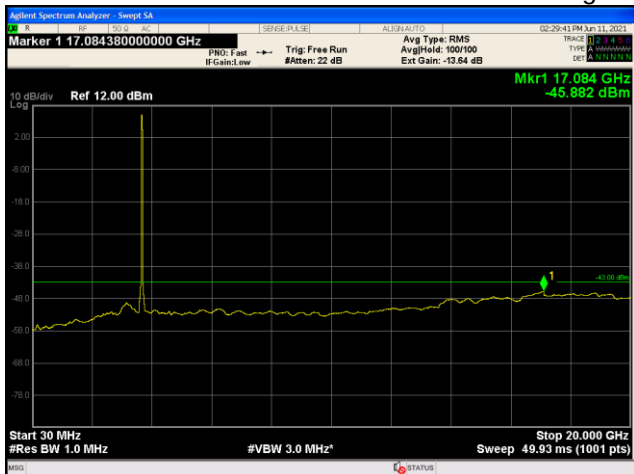


30MHz~20GHz

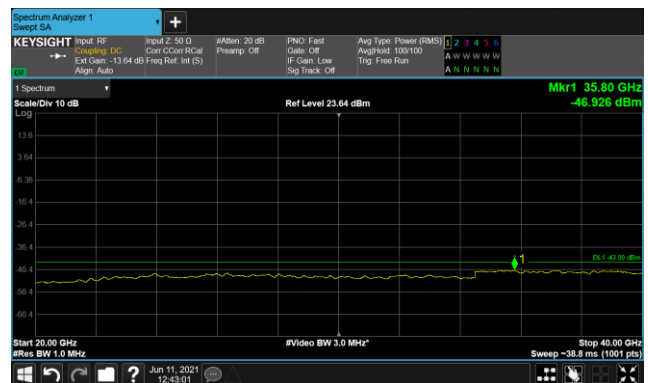


20GHz~40GHz

### Highest channel

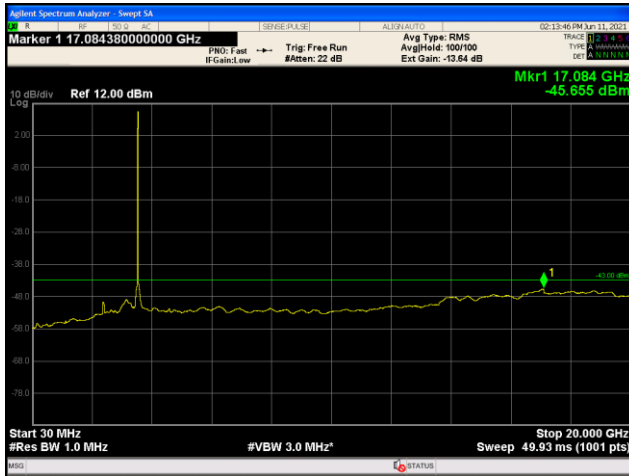


30MHz~20GHz

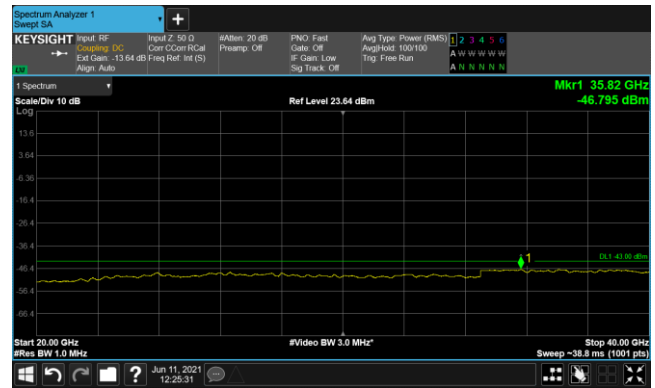


20GHz~40GHz

LTE Band 48(20 MHz QPSK)-ANT 2  
Lowest channel

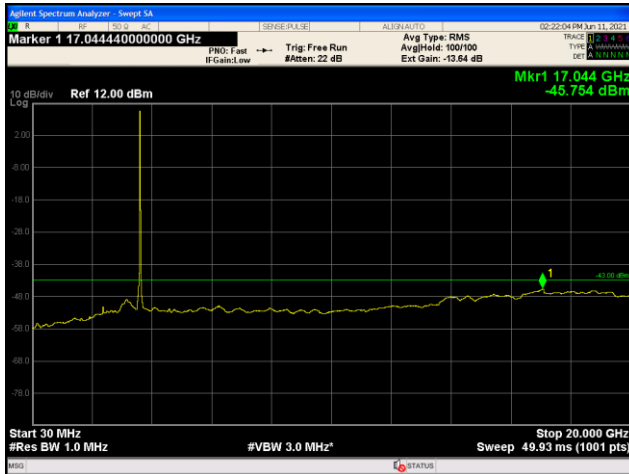


30MHz~20GHz

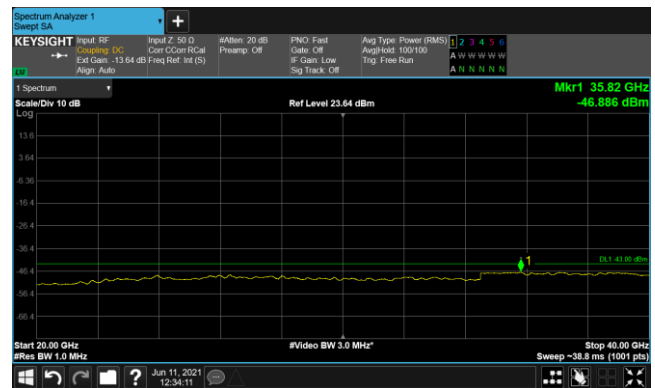


20GHz~40GHz

Middle channel

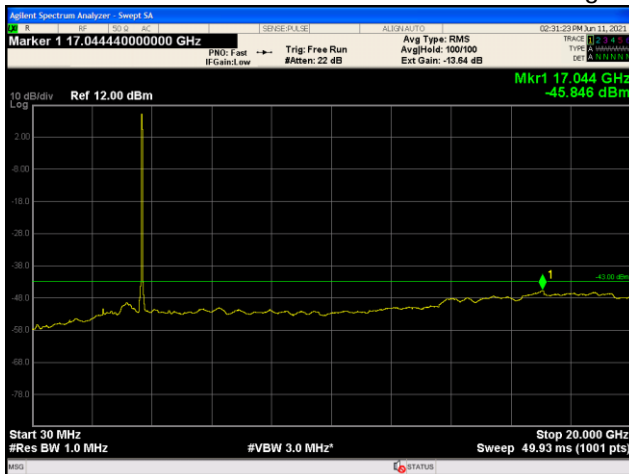


30MHz~20GHz

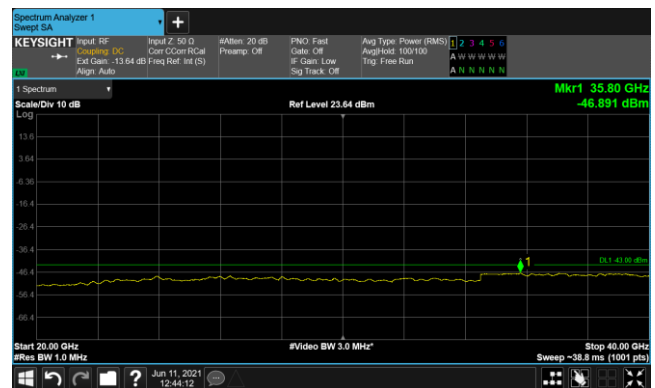


20GHz~40GHz

Highest channel

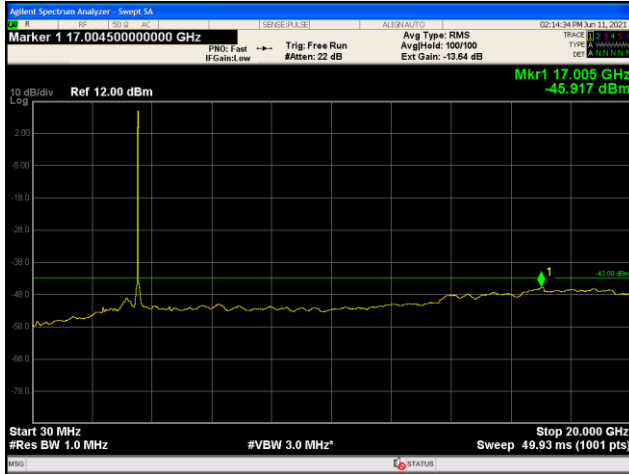


30MHz~20GHz

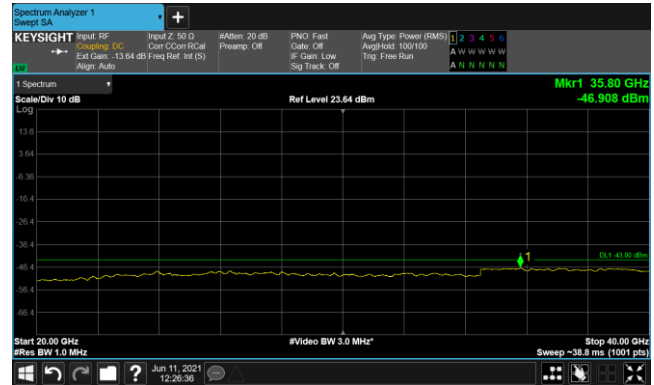


20GHz~40GHz

LTE Band 48(20 MHz QPSK)-ANT 3  
Lowest channel

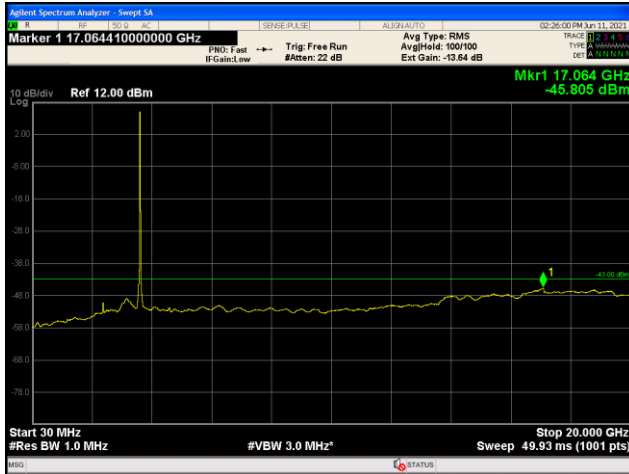


30MHz~20GHz

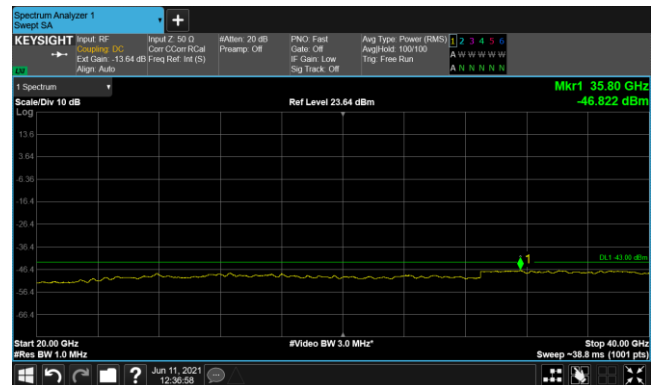


20GHz~40GHz

Middle channel

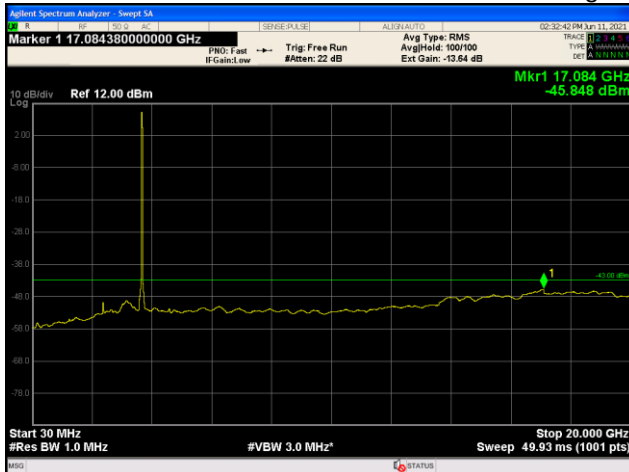


30MHz~20GHz

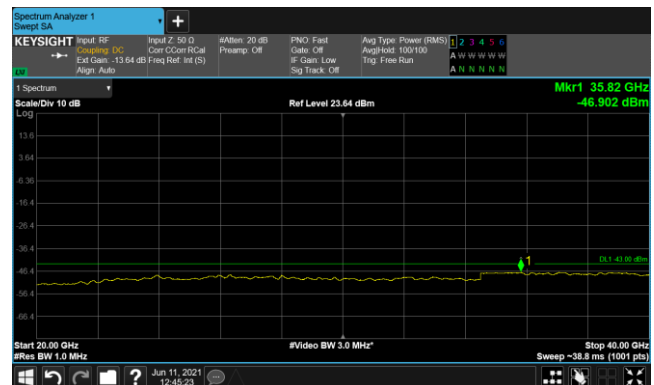


20GHz~40GHz

Highest channel

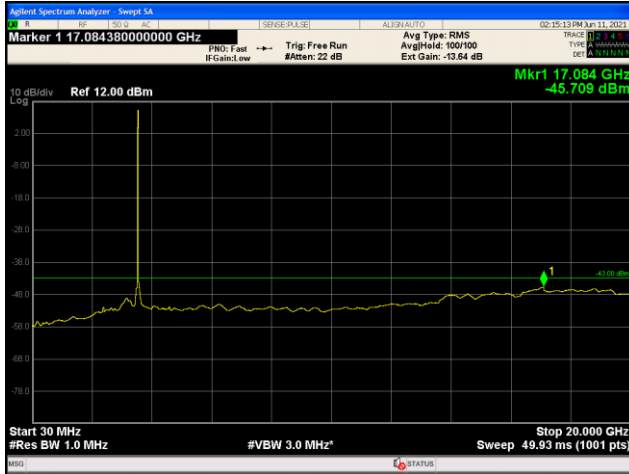


30MHz~20GHz

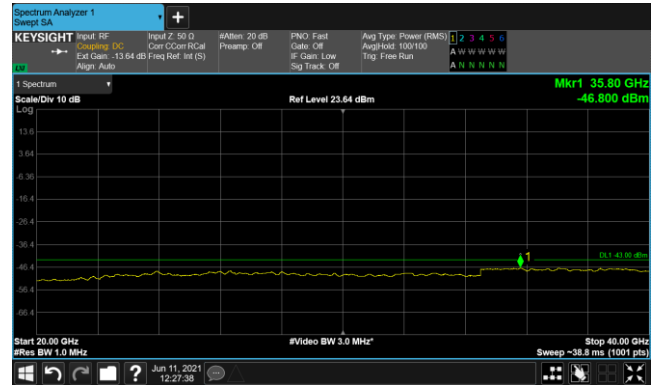


20GHz~40GHz

### LTE Band 48(20 MHz QPSK)-ANT 4 Lowest channel

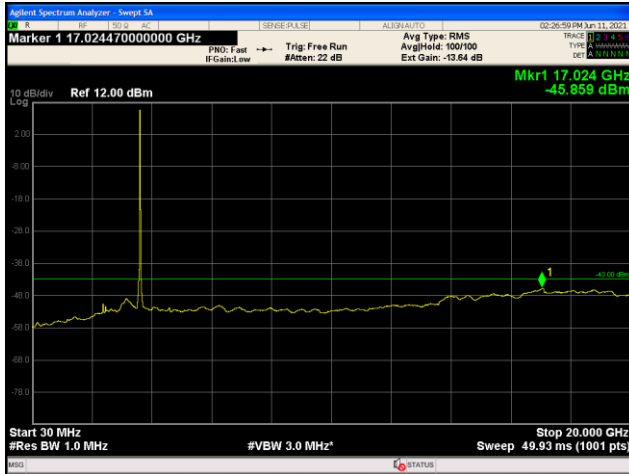


30MHz~20GHz

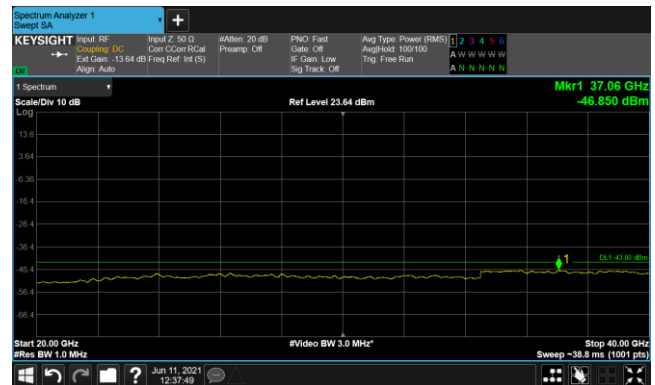


20GHz~40GHz

### Middle channel

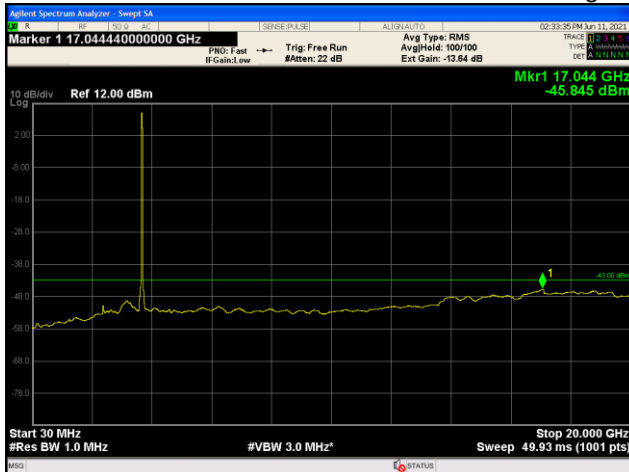


30MHz~20GHz

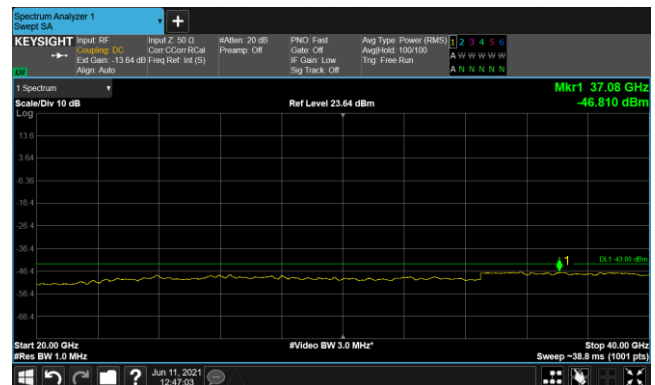


20GHz~40GHz

### Highest channel

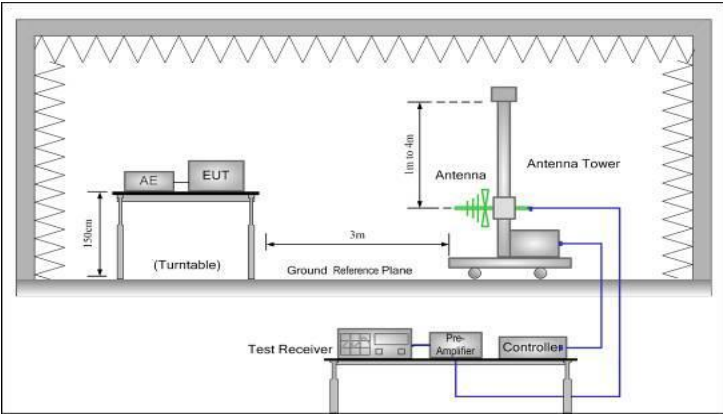
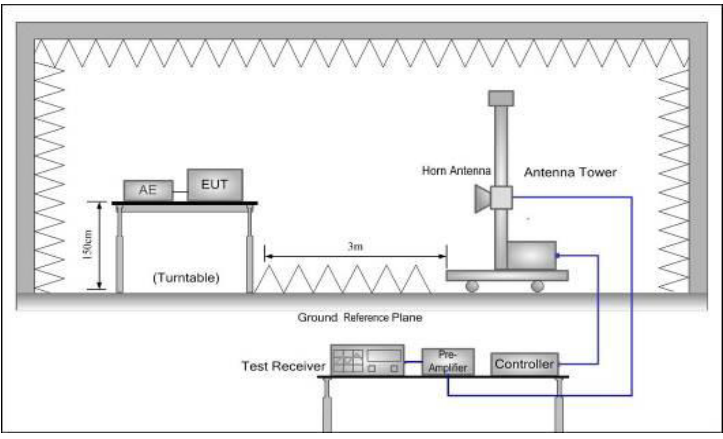
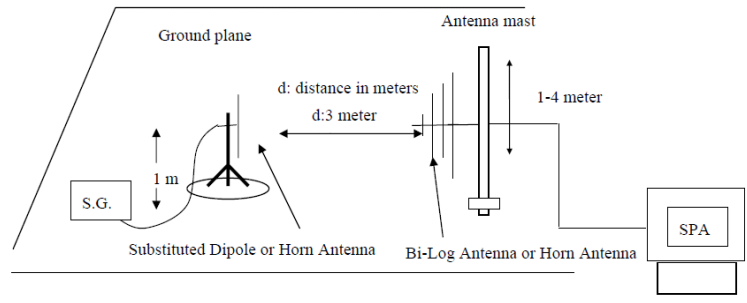


30MHz~20GHz



20GHz~40GHz

## 6.6 Field strength of spurious radiation measurement

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Requirement: | Part 96.41(e)(1)(2)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Limit:            | -40 dBm/MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Test setup:       | <p>Below 1GHz</p>  <p>Above 1GHz</p>  <p>Substituted method:</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Test Procedure:   | <ol style="list-style-type: none"> <li>1. The EUT was placed on an non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer.</li> <li>2. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.</li> <li>3. The frequency range up to tenth harmonic was investigated for each of three fundamental frequency (low, middle and high channels). Once spurious emission was identified, the power of the emission was determined using the substitution method.</li> </ol> |

|                   |                                                                                                                                                                                                                                             |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   | 4. The spurious emissions attenuation was calculated as the difference between radiated power at the fundamental frequency and the spurious emissions frequency.<br>ERP / EIRP = S.G. output (dBm) + Antenna Gain(dB/dBi) – Cable Loss (dB) |
| Test Instruments: | Refer to section 5.10 for details                                                                                                                                                                                                           |
| Test mode:        | Refer to section 5.3 for details.                                                                                                                                                                                                           |
| Test results:     | Passed                                                                                                                                                                                                                                      |
| Remark:           | During the test, pre-scan the QPSK, 64QAM modulation, and found the QPSK modulation is the worst case.                                                                                                                                      |

**Measurement Data (worst case):**

| Band 48 (10 MHz) QPSK                                                                                           |                                  |                               |                  |                               |                  |                  |              |
|-----------------------------------------------------------------------------------------------------------------|----------------------------------|-------------------------------|------------------|-------------------------------|------------------|------------------|--------------|
| Lowest channel                                                                                                  |                                  |                               |                  |                               |                  |                  |              |
| Frequency (MHz)                                                                                                 | Level at antenna terminals (dBm) | Substitute antenna gain (dBi) | Cable Loss (dBi) | Spurious Emission level (dBm) | Limit Line (dBm) | Over Limit (dBm) | Polarization |
| 7110.00                                                                                                         | -51.03                           | 11.27                         | 1.36             | -41.12                        | -40.00           | -1.12            | Vertical     |
| 10665.00                                                                                                        | -51.81                           | 11.30                         | 1.85             | -42.36                        | -40.00           | -2.36            | Vertical     |
| 14220.00                                                                                                        | -52.23                           | 11.63                         | 1.98             | -42.58                        | -40.00           | -2.58            | Vertical     |
| 7110.00                                                                                                         | -51.74                           | 11.27                         | 1.36             | -41.83                        | -40.00           | -1.83            | Horizontal   |
| 10665.00                                                                                                        | -52.42                           | 11.30                         | 1.85             | -42.97                        | -40.00           | -2.97            | Horizontal   |
| 14220.00                                                                                                        | -52.89                           | 11.63                         | 1.98             | -43.24                        | -40.00           | -3.24            | Horizontal   |
| Middle channel                                                                                                  |                                  |                               |                  |                               |                  |                  |              |
| Frequency (MHz)                                                                                                 | Level at antenna terminals (dBm) | Substitute antenna gain (dBi) | Cable Loss (dBi) | Spurious Emission level (dBm) | Limit Line (dBm) | Over Limit (dBm) | Polarization |
| 7250.00                                                                                                         | -51.75                           | 11.35                         | 1.37             | -41.77                        | -40.00           | -1.77            | Vertical     |
| 10875.00                                                                                                        | -51.29                           | 11.18                         | 1.86             | -41.97                        | -40.00           | -1.97            | Vertical     |
| 14500.00                                                                                                        | -52.92                           | 12.05                         | 1.99             | -42.86                        | -40.00           | -2.86            | Vertical     |
| 7250.00                                                                                                         | -51.39                           | 11.35                         | 1.37             | -41.41                        | -40.00           | -1.41            | Horizontal   |
| 10875.00                                                                                                        | -52.07                           | 11.18                         | 1.86             | -42.75                        | -40.00           | -2.75            | Horizontal   |
| 14500.00                                                                                                        | -52.95                           | 12.05                         | 1.99             | -42.89                        | -40.00           | -2.89            | Horizontal   |
| Highest channel                                                                                                 |                                  |                               |                  |                               |                  |                  |              |
| Frequency (MHz)                                                                                                 | Level at antenna terminals (dBm) | Substitute antenna gain (dBi) | Cable Loss (dBi) | Spurious Emission level (dBm) | Limit Line (dBm) | Over Limit (dBm) | Polarization |
| 7390.00                                                                                                         | -51.26                           | 11.43                         | 1.41             | -41.24                        | -40.00           | -1.24            | Vertical     |
| 11085.00                                                                                                        | -51.17                           | 11.23                         | 1.88             | -41.82                        | -40.00           | -1.82            | Vertical     |
| 14780.00                                                                                                        | -53.52                           | 12.47                         | 2.01             | -43.06                        | -40.00           | -3.06            | Vertical     |
| 7390.00                                                                                                         | -51.59                           | 11.43                         | 1.41             | -41.57                        | -40.00           | -1.57            | Horizontal   |
| 11085.00                                                                                                        | -52.40                           | 11.23                         | 1.88             | -43.05                        | -40.00           | -3.05            | Horizontal   |
| 14780.00                                                                                                        | -53.36                           | 12.47                         | 2.01             | -42.9                         | -40.00           | -2.90            | Horizontal   |
| <b>Remark:</b><br>The emission levels of below 1 GHz are lower than the limit 20dB and not show in test report. |                                  |                               |                  |                               |                  |                  |              |

| Band 48 (20 MHz) QPSK                                                                         |                                  |                               |                  |                               |                  |                  |              |
|-----------------------------------------------------------------------------------------------|----------------------------------|-------------------------------|------------------|-------------------------------|------------------|------------------|--------------|
| Lowest channel                                                                                |                                  |                               |                  |                               |                  |                  |              |
| Frequency (MHz)                                                                               | Level at antenna terminals (dBm) | Substitute antenna gain (dBi) | Cable Loss (dBi) | Spurious Emission level (dBm) | Limit Line (dBm) | Over Limit (dBm) | Polarization |
| 7120.00                                                                                       | -51.64                           | 11.27                         | 1.36             | -41.73                        | -40.00           | -1.73            | Vertical     |
| 10680.00                                                                                      | -52.17                           | 11.29                         | 1.85             | -42.73                        | -40.00           | -2.73            | Vertical     |
| 14240.00                                                                                      | -52.37                           | 11.66                         | 1.99             | -42.7                         | -40.00           | -2.70            | Vertical     |
| 7120.00                                                                                       | -51.28                           | 11.27                         | 1.36             | -41.37                        | -40.00           | -1.37            | Horizontal   |
| 10680.00                                                                                      | -52.26                           | 11.29                         | 1.85             | -42.82                        | -40.00           | -2.82            | Horizontal   |
| 14240.00                                                                                      | -53.32                           | 11.66                         | 1.99             | -43.65                        | -40.00           | -3.65            | Horizontal   |
| Middle channel                                                                                |                                  |                               |                  |                               |                  |                  |              |
| Frequency (MHz)                                                                               | Level at antenna terminals (dBm) | Substitute antenna gain (dBi) | Cable Loss (dBi) | Spurious Emission level (dBm) | Limit Line (dBm) | Over Limit (dBm) | Polarization |
| 7250.00                                                                                       | -51.33                           | 11.35                         | 1.37             | -41.35                        | -40.00           | -1.35            | Vertical     |
| 10875.00                                                                                      | -51.23                           | 11.18                         | 1.86             | -41.91                        | -40.00           | -1.91            | Vertical     |
| 14500.00                                                                                      | -52.39                           | 12.05                         | 1.99             | -42.33                        | -40.00           | -2.33            | Vertical     |
| 7250.00                                                                                       | -51.98                           | 11.35                         | 1.37             | -42.00                        | -40.00           | -2.00            | Horizontal   |
| 10875.00                                                                                      | -52.51                           | 11.18                         | 1.86             | -43.19                        | -40.00           | -3.19            | Horizontal   |
| 14500.00                                                                                      | -53.47                           | 12.05                         | 1.99             | -43.41                        | -40.00           | -3.41            | Horizontal   |
| Highest channel                                                                               |                                  |                               |                  |                               |                  |                  |              |
| Frequency (MHz)                                                                               | Level at antenna terminals (dBm) | Substitute antenna gain (dBi) | Cable Loss (dBi) | Spurious Emission level (dBm) | Limit Line (dBm) | Over Limit (dBm) | Polarization |
| 7380.00                                                                                       | -51.86                           | 11.43                         | 1.41             | -41.84                        | -40.00           | -1.84            | Vertical     |
| 11070.00                                                                                      | -51.04                           | 11.21                         | 1.88             | -41.71                        | -40.00           | -1.71            | Vertical     |
| 14760.00                                                                                      | -52.31                           | 12.44                         | 2.00             | -41.87                        | -40.00           | -1.87            | Vertical     |
| 7380.00                                                                                       | -51.89                           | 11.43                         | 1.41             | -41.87                        | -40.00           | -1.87            | Horizontal   |
| 11070.00                                                                                      | -53.02                           | 11.21                         | 1.88             | -43.69                        | -40.00           | -3.69            | Horizontal   |
| 14760.00                                                                                      | -53.99                           | 12.44                         | 2.00             | -43.55                        | -40.00           | -3.55            | Horizontal   |
| Remark:                                                                                       |                                  |                               |                  |                               |                  |                  |              |
| The emission levels of below 1 GHz are lower than the limit 20dB and not show in test report. |                                  |                               |                  |                               |                  |                  |              |

## 6.7 Frequency stability V.S. Temperature measurement

| Test Requirement:     | FCC Part 2.1055(a)(b)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|--------------------------------|------------------------|--|---------------------------|------------------------------|----------|-----|-----|-----|-------|----|----|----|-------|---|--|----|---------|---|---|----|---------|-----|--|-----|---------|-----|-----|-----|---------|-----|---|---|---------|-----|-----|-----|---------|-----|-----|-----|---------|-----|-----|-----|---------|-----|-----|-----|---------|-----|-----|-----|---------|-----|-----|-----|---------|-----|-----|-----|---------|-----|--|--|---------|-----|-----|-----|-----------|-----|-----|-----|------------|--|--|--|
| Limit:                | <div>FCC:</div> <table><thead><tr><th rowspan="2">Frequency range (MHz)</th><th rowspan="2">Fixed and base stations (±ppm)</th><th colspan="2">Mobile stations (±ppm)</th></tr><tr><th>Over 2 watts output power</th><th>2 watts or less output power</th></tr></thead><tbody><tr><td>Below 25</td><td>100</td><td>100</td><td>200</td></tr><tr><td>25-50</td><td>20</td><td>20</td><td>50</td></tr><tr><td>72-76</td><td>5</td><td></td><td>50</td></tr><tr><td>150-174</td><td>5</td><td>5</td><td>50</td></tr><tr><td>216-220</td><td>1.0</td><td></td><td>1.0</td></tr><tr><td>220-222</td><td>0.1</td><td>1.5</td><td>1.5</td></tr><tr><td>421-512</td><td>2.5</td><td>5</td><td>5</td></tr><tr><td>806-809</td><td>1.0</td><td>1.5</td><td>1.5</td></tr><tr><td>809-824</td><td>1.5</td><td>2.5</td><td>2.5</td></tr><tr><td>851-854</td><td>1.0</td><td>1.5</td><td>1.5</td></tr><tr><td>854-869</td><td>1.5</td><td>2.5</td><td>2.5</td></tr><tr><td>896-901</td><td>0.1</td><td>1.5</td><td>1.5</td></tr><tr><td>902-928</td><td>2.5</td><td>2.5</td><td>2.5</td></tr><tr><td>902-928</td><td>2.5</td><td>2.5</td><td>2.5</td></tr><tr><td>929-930</td><td>1.5</td><td></td><td></td></tr><tr><td>935-940</td><td>0.1</td><td>1.5</td><td>1.5</td></tr><tr><td>1427-1435</td><td>300</td><td>300</td><td>300</td></tr><tr><td>Above 2450</td><td></td><td></td><td></td></tr></tbody></table> | Frequency range (MHz)     | Fixed and base stations (±ppm) | Mobile stations (±ppm) |  | Over 2 watts output power | 2 watts or less output power | Below 25 | 100 | 100 | 200 | 25-50 | 20 | 20 | 50 | 72-76 | 5 |  | 50 | 150-174 | 5 | 5 | 50 | 216-220 | 1.0 |  | 1.0 | 220-222 | 0.1 | 1.5 | 1.5 | 421-512 | 2.5 | 5 | 5 | 806-809 | 1.0 | 1.5 | 1.5 | 809-824 | 1.5 | 2.5 | 2.5 | 851-854 | 1.0 | 1.5 | 1.5 | 854-869 | 1.5 | 2.5 | 2.5 | 896-901 | 0.1 | 1.5 | 1.5 | 902-928 | 2.5 | 2.5 | 2.5 | 902-928 | 2.5 | 2.5 | 2.5 | 929-930 | 1.5 |  |  | 935-940 | 0.1 | 1.5 | 1.5 | 1427-1435 | 300 | 300 | 300 | Above 2450 |  |  |  |
| Frequency range (MHz) | Fixed and base stations (±ppm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           |                                | Mobile stations (±ppm) |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Over 2 watts output power | 2 watts or less output power   |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| Below 25              | 100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 100                       | 200                            |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| 25-50                 | 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 20                        | 50                             |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| 72-76                 | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           | 50                             |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| 150-174               | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 5                         | 50                             |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| 216-220               | 1.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | 1.0                            |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| 220-222               | 0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1.5                       | 1.5                            |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| 421-512               | 2.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 5                         | 5                              |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| 806-809               | 1.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1.5                       | 1.5                            |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| 809-824               | 1.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 2.5                       | 2.5                            |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| 851-854               | 1.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1.5                       | 1.5                            |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| 854-869               | 1.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 2.5                       | 2.5                            |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| 896-901               | 0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1.5                       | 1.5                            |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| 902-928               | 2.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 2.5                       | 2.5                            |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| 902-928               | 2.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 2.5                       | 2.5                            |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| 929-930               | 1.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| 935-940               | 0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1.5                       | 1.5                            |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| 1427-1435             | 300                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 300                       | 300                            |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| Above 2450            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| Test setup:           | <div><div><div><div>Spectrum analyzer</div><div></div></div><div>Att.</div><div><div>Temperature Chamber</div><div><div>EUT</div><div><div>Variable Power Supply</div></div></div></div></div></div> <div>Note : Measurement setup for testing on Antenna connector</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |                                |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| Test procedure:       | <div><div><div>1. The equipment under test was connected to an external DC power supply and input rated voltage.</div><div>2. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators.</div><div>3. The EUT was placed inside the temperature chamber.</div><div>4. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 25°C operating frequency as reference frequency.</div><div>5. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached</div></div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                                |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| Test Instruments:     | Refer to section 5.10 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                                |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| Test mode:            | Refer to section 5.3 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           |                                |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| Test results:         | Passed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |                                |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| Remark:               | All three channels of all modulations have been tested, but only the worst channel and the worst modulation show in this test item.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |

**Measurement Data (the worst channel):**

| Reference Frequency: Lowest channel=3555.0MHz(10MHz for QPSK) |                  |                 |          |
|---------------------------------------------------------------|------------------|-----------------|----------|
| Power supplied (Vac)                                          | Temperature (°C) | Frequency error |          |
|                                                               |                  | Hz              | ppm      |
| 120.00                                                        | -40              | 190             | 0.053446 |
|                                                               | -30              | 183             | 0.051477 |
|                                                               | -20              | 176             | 0.049508 |
|                                                               | -10              | 167             | 0.046976 |
|                                                               | 0                | 159             | 0.044726 |
|                                                               | 10               | 142             | 0.039944 |
|                                                               | 20               | 132             | 0.037131 |
|                                                               | 30               | 124             | 0.034880 |
|                                                               | 40               | 150             | 0.042194 |
|                                                               | 50               | 116             | 0.053446 |
|                                                               | 55               | 108             | 0.051477 |
| Reference Frequency: Lowest channel=3560.0MHz(20MHz for QPSK) |                  |                 |          |
| Power supplied (Vac)                                          | Temperature (°C) | Frequency error |          |
|                                                               |                  | Hz              | ppm      |
| 120.00                                                        | -40              | 192             | 0.053933 |
|                                                               | -30              | 141             | 0.039607 |
|                                                               | -20              | 132             | 0.037079 |
|                                                               | -10              | 126             | 0.035393 |
|                                                               | 0                | 186             | 0.052247 |
|                                                               | 10               | 177             | 0.049719 |
|                                                               | 20               | 168             | 0.047191 |
|                                                               | 30               | 158             | 0.044382 |
|                                                               | 40               | 149             | 0.041854 |
|                                                               | 50               | 117             | 0.053933 |
|                                                               | 55               | 110             | 0.039607 |

| Reference Frequency: Lowest channel=3555.0MHz(10MHz for 64QAM) |                  |                 |          |
|----------------------------------------------------------------|------------------|-----------------|----------|
| Power supplied (Vac)                                           | Temperature (°C) | Frequency error |          |
|                                                                |                  | Hz              | ppm      |
| 120.00                                                         | -40              | 201             | 0.056540 |
|                                                                | -30              | 194             | 0.054571 |
|                                                                | -20              | 187             | 0.052602 |
|                                                                | -10              | 168             | 0.047257 |
|                                                                | 0                | 157             | 0.044163 |
|                                                                | 10               | 143             | 0.040225 |
|                                                                | 20               | 132             | 0.037131 |
|                                                                | 30               | 120             | 0.033755 |
|                                                                | 40               | 117             | 0.032911 |
|                                                                | 50               | 108             | 0.056540 |
|                                                                | 55               | 180             | 0.054571 |
| Reference Frequency: Lowest channel=3560.0MHz(20MHz for 64QAM) |                  |                 |          |
| Power supplied (Vac)                                           | Temperature (°C) | Frequency error |          |
|                                                                |                  | Hz              | ppm      |
| 120.00                                                         | -40              | 203             | 0.057022 |
|                                                                | -30              | 194             | 0.054494 |
|                                                                | -20              | 183             | 0.051404 |
|                                                                | -10              | 175             | 0.049157 |
|                                                                | 0                | 167             | 0.046910 |
|                                                                | 10               | 150             | 0.042135 |
|                                                                | 20               | 142             | 0.039888 |
|                                                                | 30               | 133             | 0.037360 |
|                                                                | 40               | 160             | 0.044944 |
|                                                                | 50               | 122             | 0.057022 |
|                                                                | 55               | 111             | 0.054494 |

## 6.8 Frequency stability V.S. Voltage measurement

| Test Requirement:     | FCC Part 2.1055(b)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           |                                |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|--------------------------------|------------------------|--|---------------------------|------------------------------|----------|-----|-----|-----|-------|----|----|----|-------|---|--|----|---------|---|---|----|---------|-----|--|-----|---------|-----|-----|-----|---------|-----|---|---|---------|-----|-----|-----|---------|-----|-----|-----|---------|-----|-----|-----|---------|-----|-----|-----|---------|-----|-----|-----|---------|-----|-----|-----|---------|-----|-----|-----|---------|-----|--|--|---------|-----|-----|-----|-----------|-----|-----|-----|------------|--|--|--|
| Limit:                | <div>FCC:</div> <table><thead><tr><th rowspan="2">Frequency range (MHz)</th><th rowspan="2">Fixed and base stations (±ppm)</th><th colspan="2">Mobile stations (±ppm)</th></tr><tr><th>Over 2 watts output power</th><th>2 watts or less output power</th></tr></thead><tbody><tr><td>Below 25</td><td>100</td><td>100</td><td>200</td></tr><tr><td>25–50</td><td>20</td><td>20</td><td>50</td></tr><tr><td>72–76</td><td>5</td><td></td><td>50</td></tr><tr><td>150–174</td><td>5</td><td>5</td><td>50</td></tr><tr><td>216–220</td><td>1.0</td><td></td><td>1.0</td></tr><tr><td>220–222</td><td>0.1</td><td>1.5</td><td>1.5</td></tr><tr><td>421–512</td><td>2.5</td><td>5</td><td>5</td></tr><tr><td>806–809</td><td>1.0</td><td>1.5</td><td>1.5</td></tr><tr><td>809–824</td><td>1.5</td><td>2.5</td><td>2.5</td></tr><tr><td>851–854</td><td>1.0</td><td>1.5</td><td>1.5</td></tr><tr><td>854–869</td><td>1.5</td><td>2.5</td><td>2.5</td></tr><tr><td>896–901</td><td>0.1</td><td>1.5</td><td>1.5</td></tr><tr><td>902–928</td><td>2.5</td><td>2.5</td><td>2.5</td></tr><tr><td>902–928</td><td>2.5</td><td>2.5</td><td>2.5</td></tr><tr><td>929–930</td><td>1.5</td><td></td><td></td></tr><tr><td>935–940</td><td>0.1</td><td>1.5</td><td>1.5</td></tr><tr><td>1427–1435</td><td>300</td><td>300</td><td>300</td></tr><tr><td>Above 2450</td><td></td><td></td><td></td></tr></tbody></table> | Frequency range (MHz)     | Fixed and base stations (±ppm) | Mobile stations (±ppm) |  | Over 2 watts output power | 2 watts or less output power | Below 25 | 100 | 100 | 200 | 25–50 | 20 | 20 | 50 | 72–76 | 5 |  | 50 | 150–174 | 5 | 5 | 50 | 216–220 | 1.0 |  | 1.0 | 220–222 | 0.1 | 1.5 | 1.5 | 421–512 | 2.5 | 5 | 5 | 806–809 | 1.0 | 1.5 | 1.5 | 809–824 | 1.5 | 2.5 | 2.5 | 851–854 | 1.0 | 1.5 | 1.5 | 854–869 | 1.5 | 2.5 | 2.5 | 896–901 | 0.1 | 1.5 | 1.5 | 902–928 | 2.5 | 2.5 | 2.5 | 902–928 | 2.5 | 2.5 | 2.5 | 929–930 | 1.5 |  |  | 935–940 | 0.1 | 1.5 | 1.5 | 1427–1435 | 300 | 300 | 300 | Above 2450 |  |  |  |
| Frequency range (MHz) | Fixed and base stations (±ppm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           |                                | Mobile stations (±ppm) |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Over 2 watts output power | 2 watts or less output power   |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| Below 25              | 100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 100                       | 200                            |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| 25–50                 | 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 20                        | 50                             |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| 72–76                 | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           | 50                             |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| 150–174               | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 5                         | 50                             |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| 216–220               | 1.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | 1.0                            |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| 220–222               | 0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1.5                       | 1.5                            |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| 421–512               | 2.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 5                         | 5                              |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| 806–809               | 1.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1.5                       | 1.5                            |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| 809–824               | 1.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 2.5                       | 2.5                            |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| 851–854               | 1.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1.5                       | 1.5                            |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| 854–869               | 1.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 2.5                       | 2.5                            |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| 896–901               | 0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1.5                       | 1.5                            |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| 902–928               | 2.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 2.5                       | 2.5                            |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| 902–928               | 2.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 2.5                       | 2.5                            |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| 929–930               | 1.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| 935–940               | 0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1.5                       | 1.5                            |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| 1427–1435             | 300                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 300                       | 300                            |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| Above 2450            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| Test setup:           | <div><div><div><div><div>Spectrum analyzer</div><div></div></div><div>Att.</div></div><div><div>Temperature Chamber</div><div><div>EUT</div><div></div></div></div></div><div>Variable Power Supply</div></div> <div>Note : Measurement setup for testing on Antenna connector</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| Test procedure:       | <div><div>1. Set chamber temperature to 25°C. Use a variable DC power source to power the EUT and set the voltage to rated voltage.</div><div>2. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.</div><div>3. Reduce the input voltage to specify extreme voltage variation (+/- 15%) and endpoint, record the maximum frequency change.</div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                                |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| Test Instruments:     | Refer to section 5.10 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                                |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| Test mode:            | Refer to section 5.3 for details, and all channels have been tested, only shows the worst channel data in this report.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |                                |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| Test results:         | Passed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |                                |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |
| Remark:               | All three channels of all modulations have been tested, but only the worst channel and the worst modulation show in this test item.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                |                        |  |                           |                              |          |     |     |     |       |    |    |    |       |   |  |    |         |   |   |    |         |     |  |     |         |     |     |     |         |     |   |   |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |     |     |         |     |  |  |         |     |     |     |           |     |     |     |            |  |  |  |

**Measurement Data (the worst channel):**

| Reference Frequency: Lowest channel=3555.0MHz(10MHz for QPSK) |                      |                 |          |
|---------------------------------------------------------------|----------------------|-----------------|----------|
| Temperature (°C)                                              | Power supplied (Vac) | Frequency error |          |
|                                                               |                      | Hz              | ppm      |
| 25                                                            | 102.00               | 90              | 0.025316 |
|                                                               | 120.00               | 80              | 0.022504 |
|                                                               | 138.00               | 68              | 0.019128 |
| Reference Frequency: Lowest channel=3560.0MHz(20MHz for QPSK) |                      |                 |          |
| Temperature (°C)                                              | Power supplied (Vac) | Frequency error |          |
|                                                               |                      | Hz              | ppm      |
| 25                                                            | 102.00               | 92              | 0.025843 |
|                                                               | 120.00               | 76              | 0.021348 |
|                                                               | 138.00               | 60              | 0.016854 |

| Reference Frequency: Lowest channel=3555.0MHz(10MHz for 64QAM) |                      |                 |          |
|----------------------------------------------------------------|----------------------|-----------------|----------|
| Temperature (°C)                                               | Power supplied (Vac) | Frequency error |          |
|                                                                |                      | Hz              | ppm      |
| 25                                                             | 102.00               | 88              | 0.024754 |
|                                                                | 120.00               | 94              | 0.026442 |
|                                                                | 138.00               | 67              | 0.018847 |
| Reference Frequency: Lowest channel=3560.0MHz(20MHz for 64QAM) |                      |                 |          |
| Temperature (°C)                                               | Power supplied (Vac) | Frequency error |          |
|                                                                |                      | Hz              | ppm      |
| 25                                                             | 102.00               | 94              | 0.026404 |
|                                                                | 120.00               | 80              | 0.022472 |
|                                                                | 138.00               | 71              | 0.019944 |