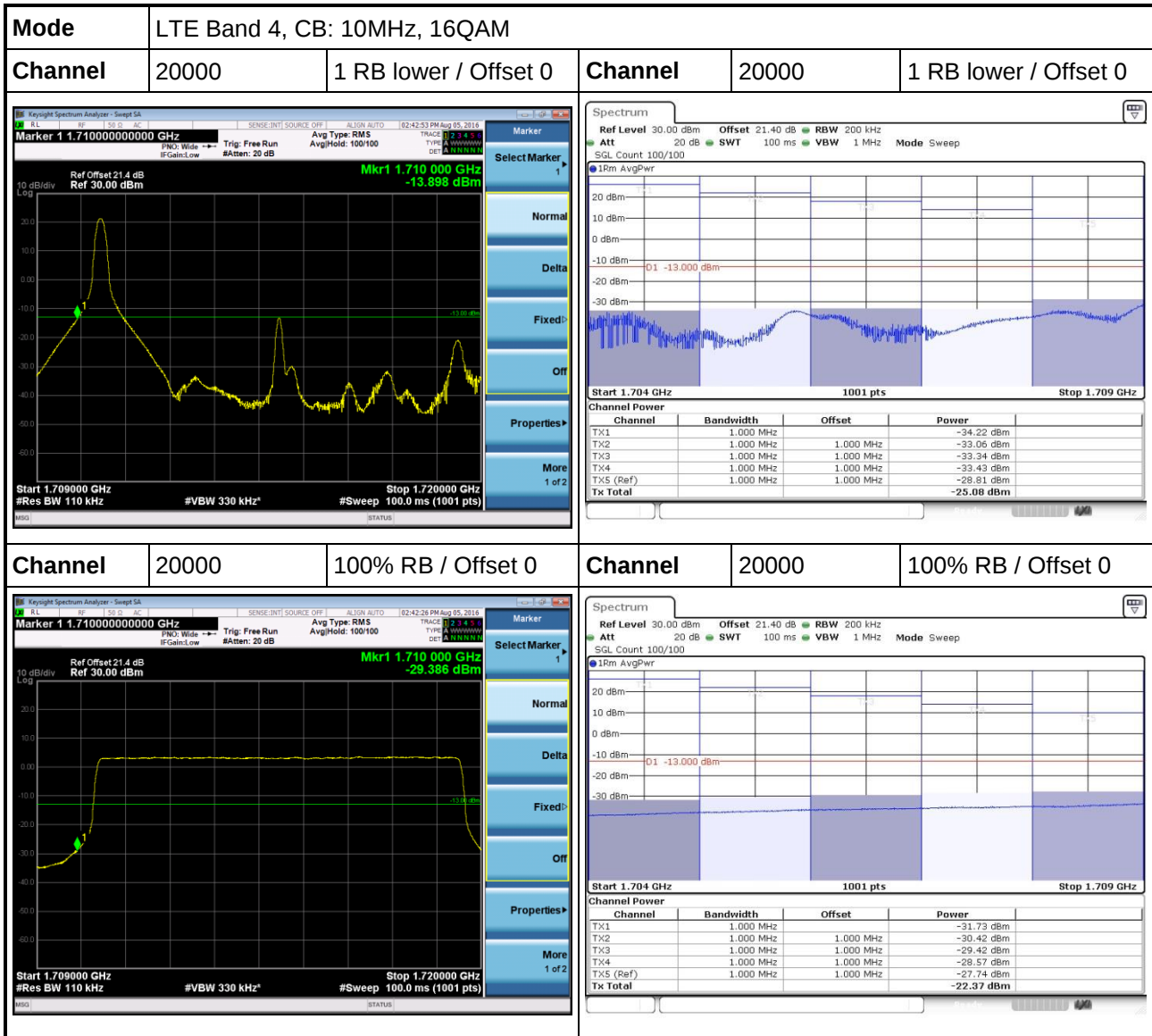




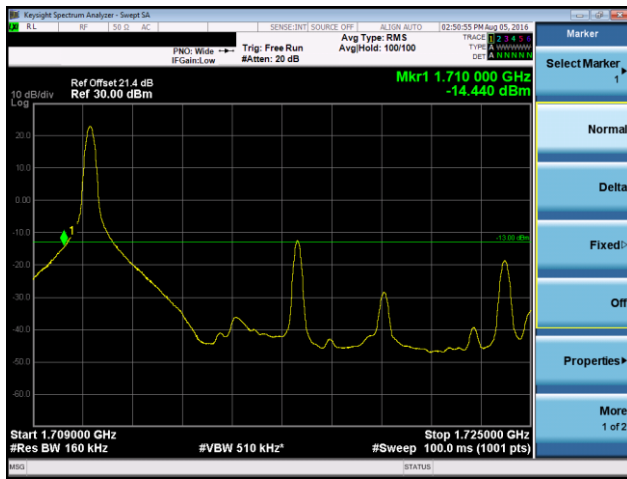
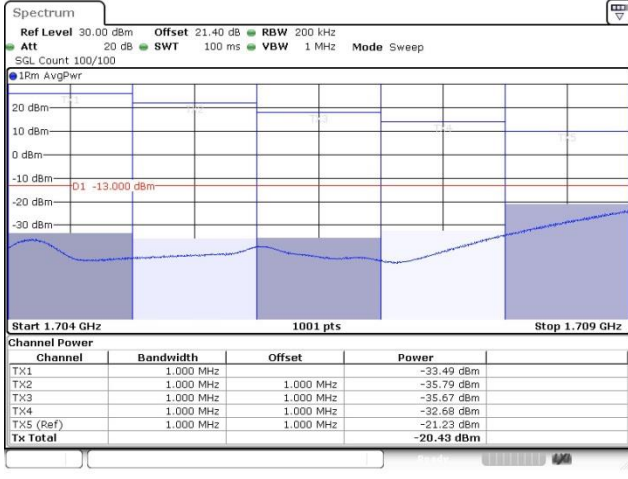
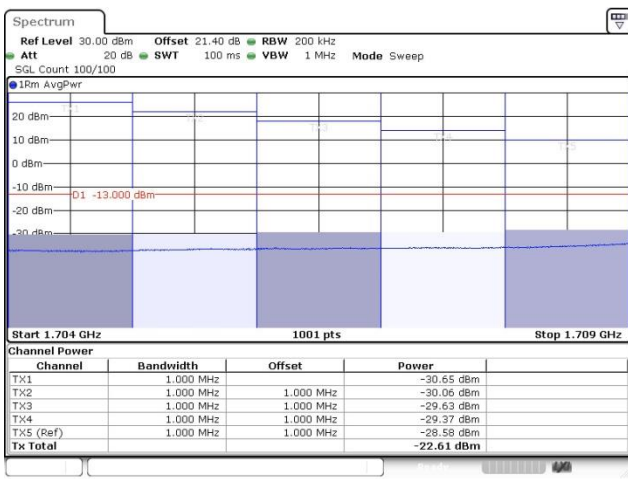


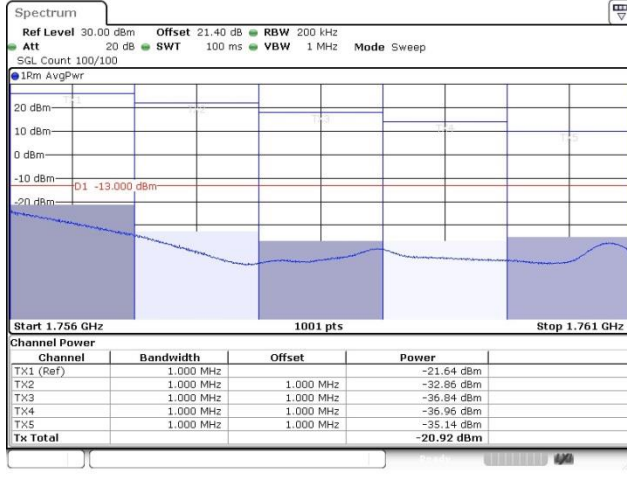
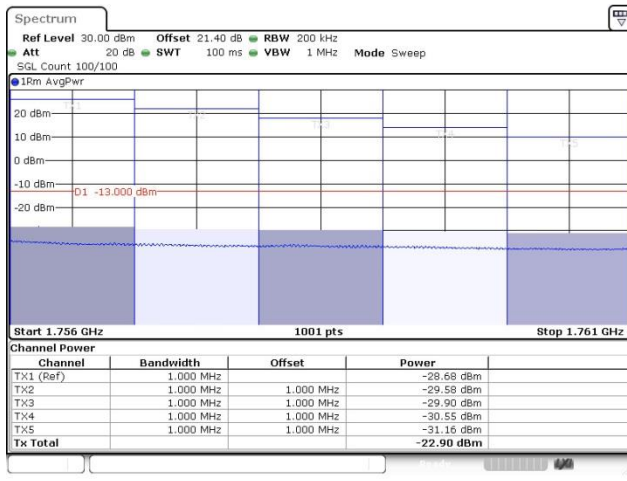


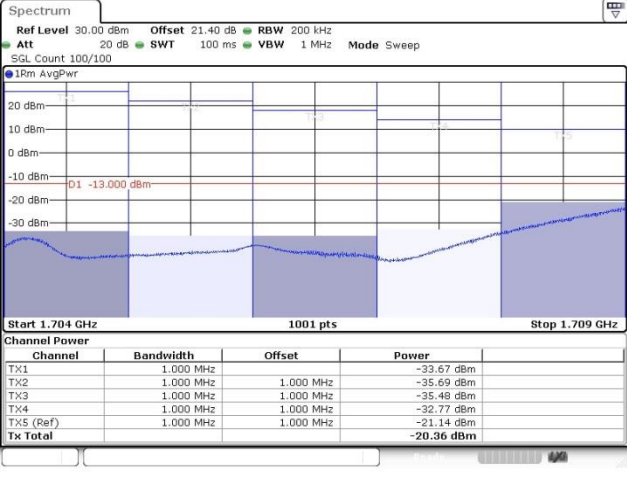
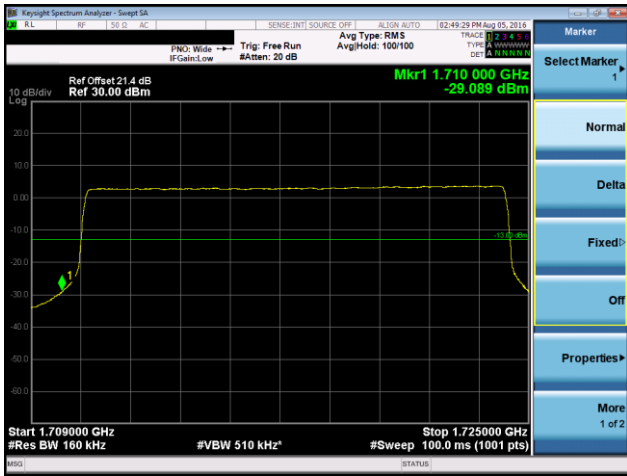
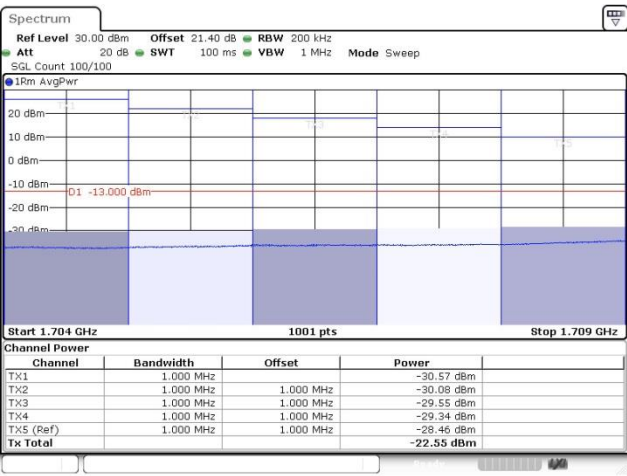






|                                                                                    |  |                             |                       |                                                                                     |         |       |                       |  |
|------------------------------------------------------------------------------------|--|-----------------------------|-----------------------|-------------------------------------------------------------------------------------|---------|-------|-----------------------|--|
| Mode                                                                               |  | LTE Band 4, CB: 15MHz, QPSK |                       |                                                                                     |         |       |                       |  |
| Channel                                                                            |  | 20025                       | 1 RB lower / Offset 0 |                                                                                     | Channel | 20025 | 1 RB lower / Offset 0 |  |
|   |  |                             |                       |   |         |       |                       |  |
| Channel                                                                            |  | 20025                       | 100% RB / Offset 0    |                                                                                     | Channel | 20025 | 100% RB / Offset 0    |  |
|  |  |                             |                       |  |         |       |                       |  |

|                                                                                    |  |                             |                       |  |                                                                                     |  |       |                       |  |
|------------------------------------------------------------------------------------|--|-----------------------------|-----------------------|--|-------------------------------------------------------------------------------------|--|-------|-----------------------|--|
| Mode                                                                               |  | LTE Band 4, CB: 15MHz, QPSK |                       |  |                                                                                     |  |       |                       |  |
| Channel                                                                            |  | 20325                       | 1 RB upper / Offset 0 |  | Channel                                                                             |  | 20325 | 1 RB upper / Offset 0 |  |
|   |  |                             |                       |  |   |  |       |                       |  |
| Channel                                                                            |  | 20325                       | 100% RB / Offset 0    |  | Channel                                                                             |  | 20325 | 100% RB / Offset 0    |  |
|  |  |                             |                       |  |  |  |       |                       |  |

|                                                                                    |  |  |                                                                                     |                       |  |
|------------------------------------------------------------------------------------|--|--|-------------------------------------------------------------------------------------|-----------------------|--|
| <b>Mode</b>                                                                        |  |  | LTE Band 4, CB: 15MHz, 16QAM                                                        |                       |  |
| <b>Channel</b>                                                                     |  |  | 2025                                                                                | 1 RB lower / Offset 0 |  |
|   |  |  |   |                       |  |
| <b>Channel</b>                                                                     |  |  | 2025                                                                                | 100% RB / Offset 0    |  |
|  |  |  |  |                       |  |









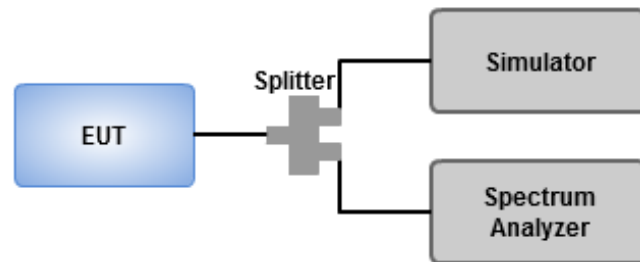


### 3.5 Occupied and 26 dB Bandwidth

#### 3.5.1 Test Procedures

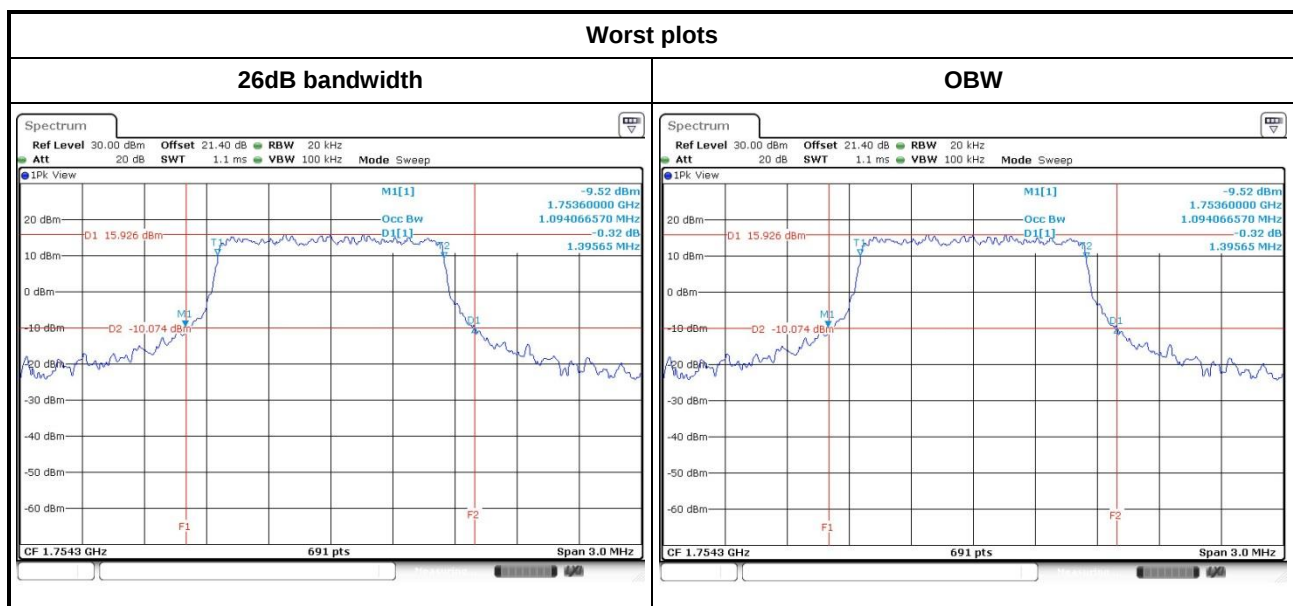
1. Set RBW = 20 / 50 / 100 / 200 / 200 / 300 kHz, VBW = 100 / 200 / 300 / 1000 / 1000 / 1000 kHz for channel bandwidth 1.4 / 3 / 5 / 10 / 15 / 20 MHz.
2. Detector = Peak, Trace mode = max hold.
3. Sweep = auto couple, Allow the trace to stabilize.
4. Using occupied bandwidth measurement function of spectrum analyzer to measure occupied bandwidth.
5. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 26dB relative to the maximum level measured in the fundamental emission.

#### 3.5.2 Test Setup

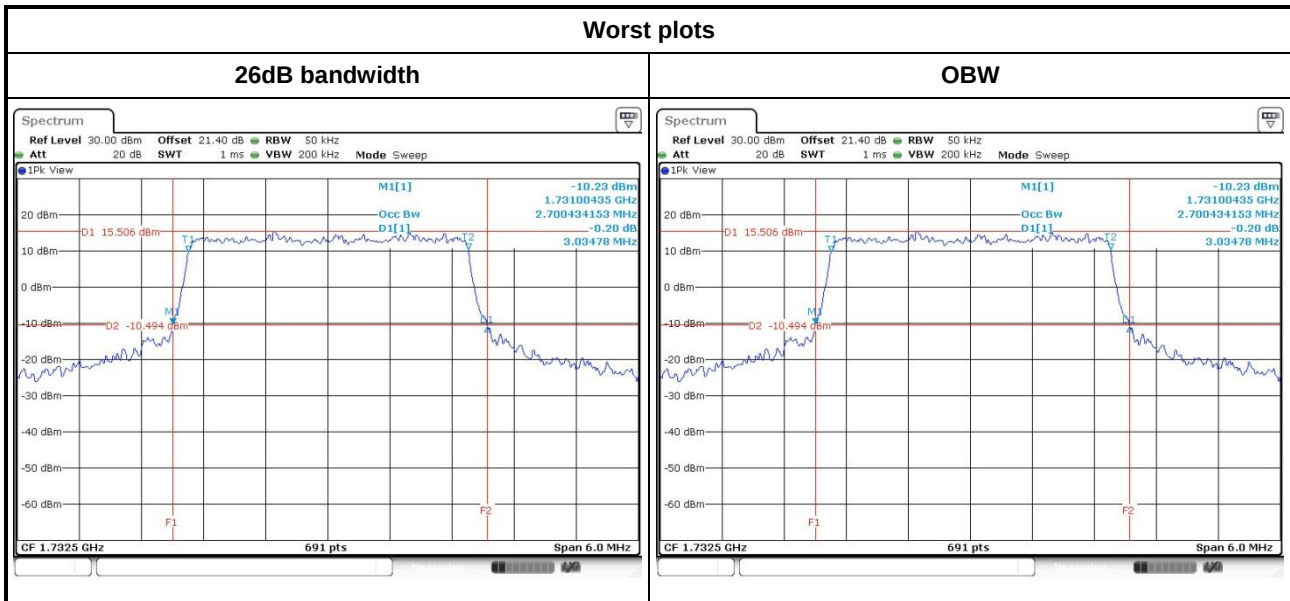


### 3.5.3 Test Result of Occupied Bandwidth

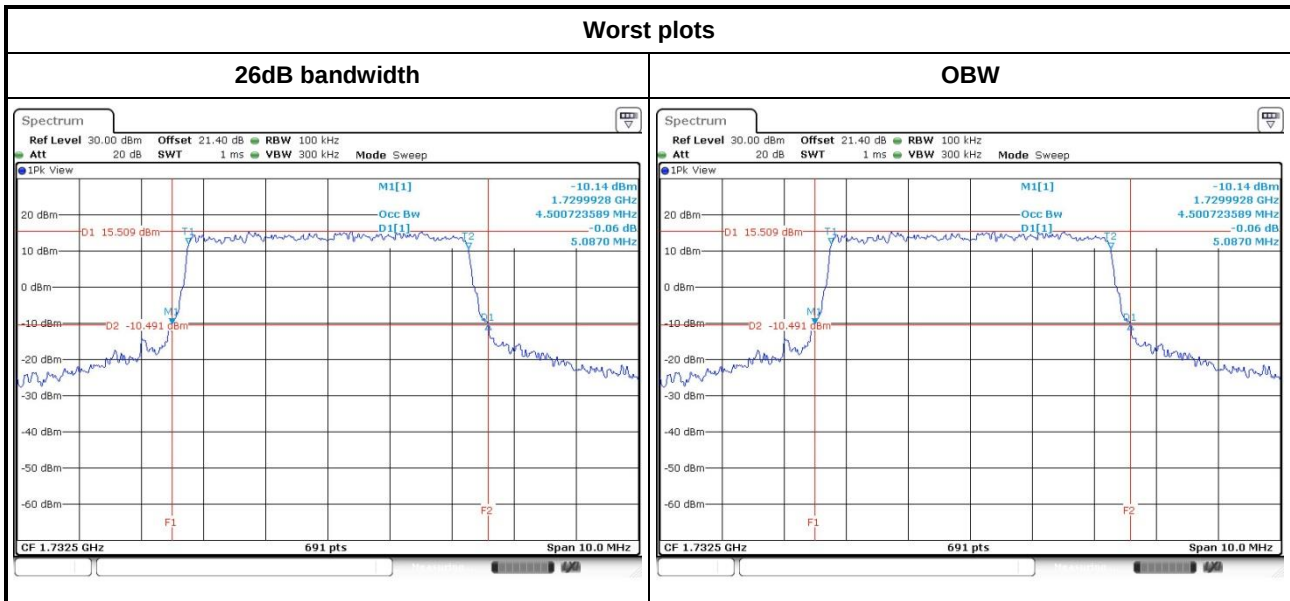
| Mode       | CB (MHz) | Modulation | Channel | Frequency (MHz) | 26dB BW (MHz) | 99% OBW (MHz) |
|------------|----------|------------|---------|-----------------|---------------|---------------|
| LTE Band 4 | 1.4      | QPSK       | 19957   | 1710.7          | 1.3261        | 1.09          |
| LTE Band 4 | 1.4      | QPSK       | 20175   | 1732.5          | 1.3739        | 1.09          |
| LTE Band 4 | 1.4      | QPSK       | 20393   | 1754.3          | 1.3957        | 1.09          |
| LTE Band 4 | 1.4      | 16QAM      | 19957   | 1710.7          | 1.3957        | 1.09          |
| LTE Band 4 | 1.4      | 16QAM      | 20175   | 1732.5          | 1.3696        | 1.09          |
| LTE Band 4 | 1.4      | 16QAM      | 20393   | 1754.3          | 1.3739        | 1.09          |



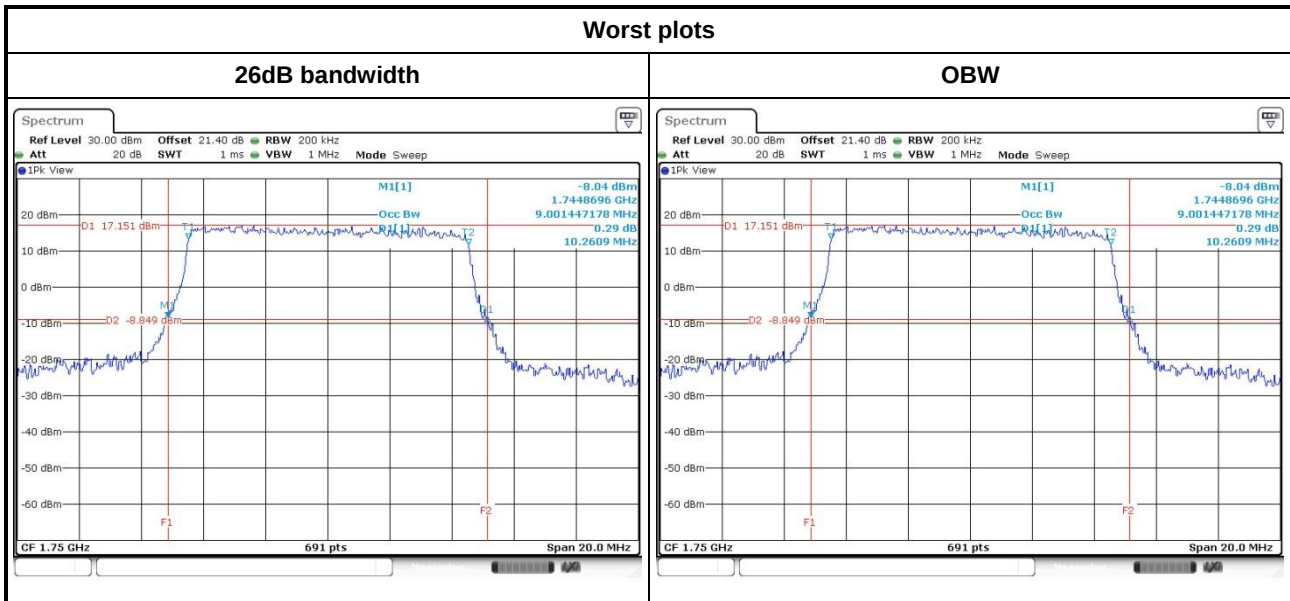
| Mode       | CB (MHz) | Modulation | Channel | Frequency (MHz) | 26dB BW (MHz) | 99% OBW (MHz) |
|------------|----------|------------|---------|-----------------|---------------|---------------|
| LTE Band 4 | 3        | QPSK       | 19965   | 1711.5          | 2.9826        | 2.69          |
| LTE Band 4 | 3        | QPSK       | 20175   | 1732.5          | 2.9739        | 2.69          |
| LTE Band 4 | 3        | QPSK       | 20385   | 1753.5          | 3.0000        | 2.69          |
| LTE Band 4 | 3        | 16QAM      | 19965   | 1711.5          | 3.0000        | 2.70          |
| LTE Band 4 | 3        | 16QAM      | 20175   | 1732.5          | 3.0348        | 2.70          |
| LTE Band 4 | 3        | 16QAM      | 20385   | 1753.5          | 3.0000        | 2.69          |



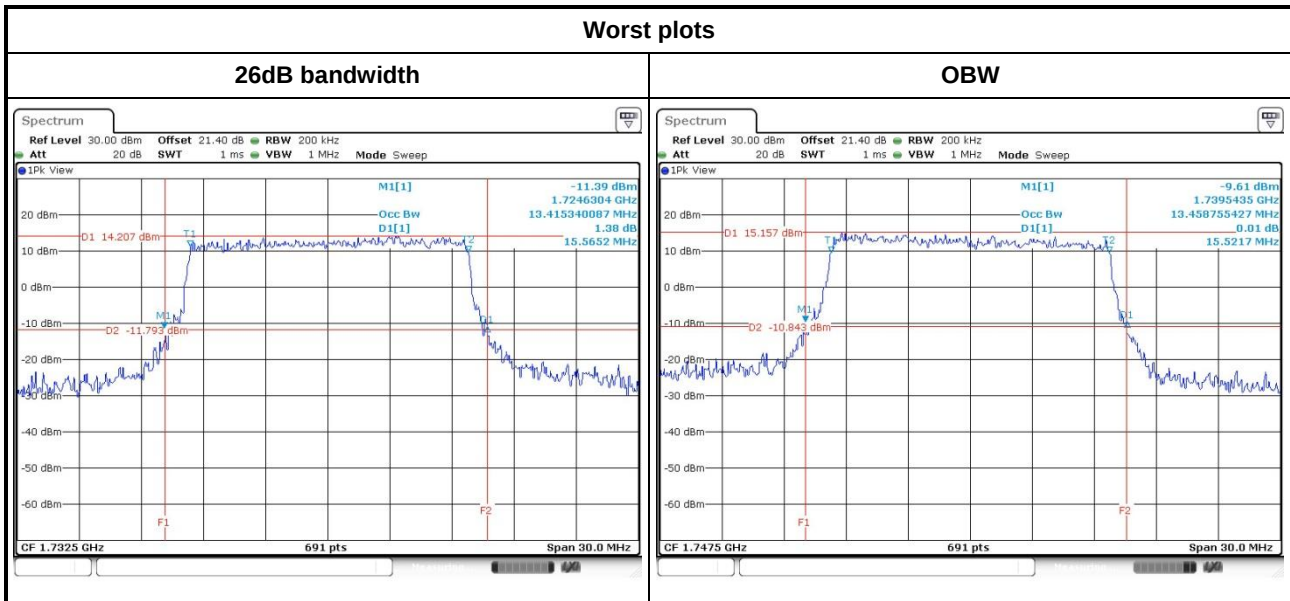
| Mode       | CB (MHz) | Modulation | Channel | Frequency (MHz) | 26dB BW (MHz) | 99% OBW (MHz) |
|------------|----------|------------|---------|-----------------|---------------|---------------|
| LTE Band 4 | 5        | QPSK       | 19975   | 1712.5          | 5.0145        | 4.50          |
| LTE Band 4 | 5        | QPSK       | 20175   | 1732.5          | 5.0290        | 4.50          |
| LTE Band 4 | 5        | QPSK       | 20375   | 1752.5          | 5.0435        | 4.50          |
| LTE Band 4 | 5        | 16QAM      | 19975   | 1712.5          | 4.9710        | 4.50          |
| LTE Band 4 | 5        | 16QAM      | 20175   | 1732.5          | 5.0870        | 4.50          |
| LTE Band 4 | 5        | 16QAM      | 20375   | 1752.5          | 5.0145        | 4.49          |



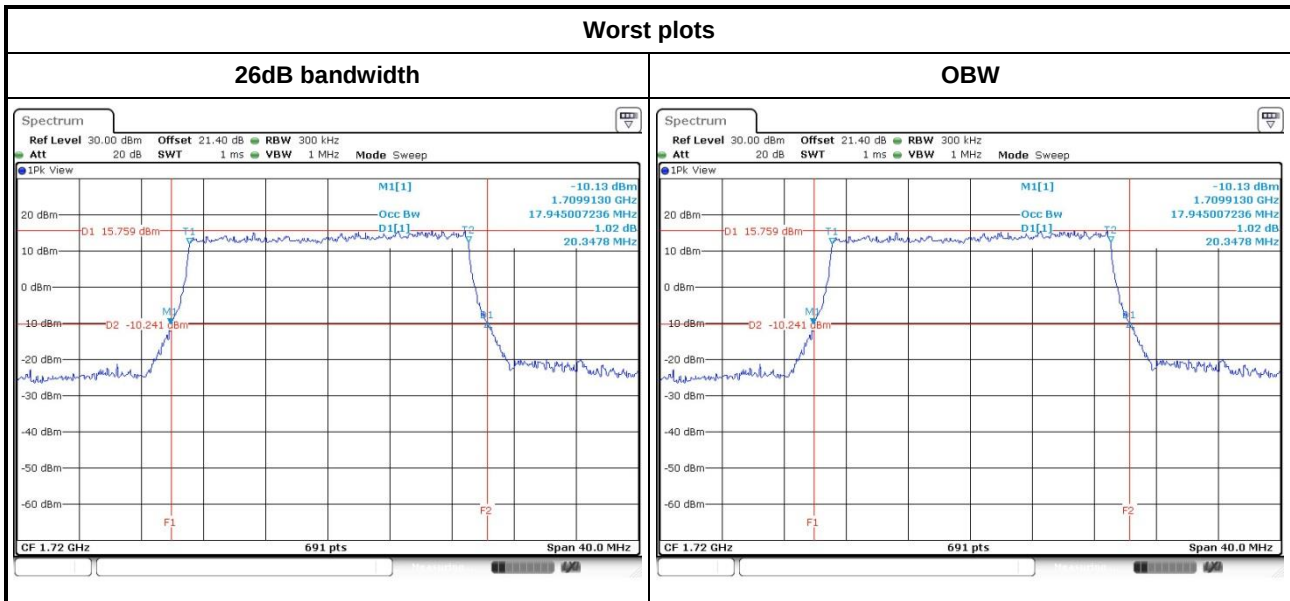
| Mode       | CB (MHz) | Modulation | Channel | Frequency (MHz) | 26dB BW (MHz) | 99% OBW (MHz) |
|------------|----------|------------|---------|-----------------|---------------|---------------|
| LTE Band 4 | 10       | QPSK       | 20000   | 1715.0          | 10.1739       | 9.00          |
| LTE Band 4 | 10       | QPSK       | 20175   | 1732.5          | 10.0870       | 8.97          |
| LTE Band 4 | 10       | QPSK       | 20350   | 1750.0          | 10.2609       | 9.00          |
| LTE Band 4 | 10       | 16QAM      | 20000   | 1715.0          | 10.1739       | 9.00          |
| LTE Band 4 | 10       | 16QAM      | 20175   | 1732.5          | 10.0870       | 9.00          |
| LTE Band 4 | 10       | 16QAM      | 20350   | 1750.0          | 10.0870       | 8.97          |



| Mode       | CB (MHz) | Modulation | Channel | Frequency (MHz) | 26dB BW (MHz) | 99% OBW (MHz) |
|------------|----------|------------|---------|-----------------|---------------|---------------|
| LTE Band 4 | 15       | QPSK       | 20025   | 1717.5          | 15.3043       | 13.42         |
| LTE Band 4 | 15       | QPSK       | 20175   | 1732.5          | 15.0000       | 13.42         |
| LTE Band 4 | 15       | QPSK       | 20325   | 1747.5          | 15.1304       | 13.46         |
| LTE Band 4 | 15       | 16QAM      | 20025   | 1717.5          | 15.3043       | 13.42         |
| LTE Band 4 | 15       | 16QAM      | 20175   | 1732.5          | 15.5652       | 13.42         |
| LTE Band 4 | 15       | 16QAM      | 20325   | 1747.5          | 15.5217       | 13.46         |



| Mode       | CB (MHz) | Modulation | Channel | Frequency (MHz) | 26dB BW (MHz) | 99% OBW (MHz) |
|------------|----------|------------|---------|-----------------|---------------|---------------|
| LTE Band 4 | 20       | QPSK       | 20050   | 1720.0          | 20.3478       | 17.95         |
| LTE Band 4 | 20       | QPSK       | 20175   | 1732.5          | 20.0000       | 17.95         |
| LTE Band 4 | 20       | QPSK       | 20300   | 1745.0          | 20.1159       | 17.95         |
| LTE Band 4 | 20       | 16QAM      | 20050   | 1720.0          | 20.3478       | 17.95         |
| LTE Band 4 | 20       | 16QAM      | 20175   | 1732.5          | 20.1159       | 17.95         |
| LTE Band 4 | 20       | 16QAM      | 20300   | 1745.0          | 20.0000       | 17.95         |



## 3.6 Peak to Average Ratio

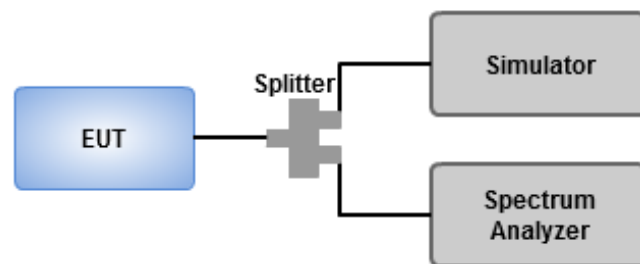
### 3.6.1 Limit of Peak to Average Ratio

The Peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

### 3.6.2 Test Procedures

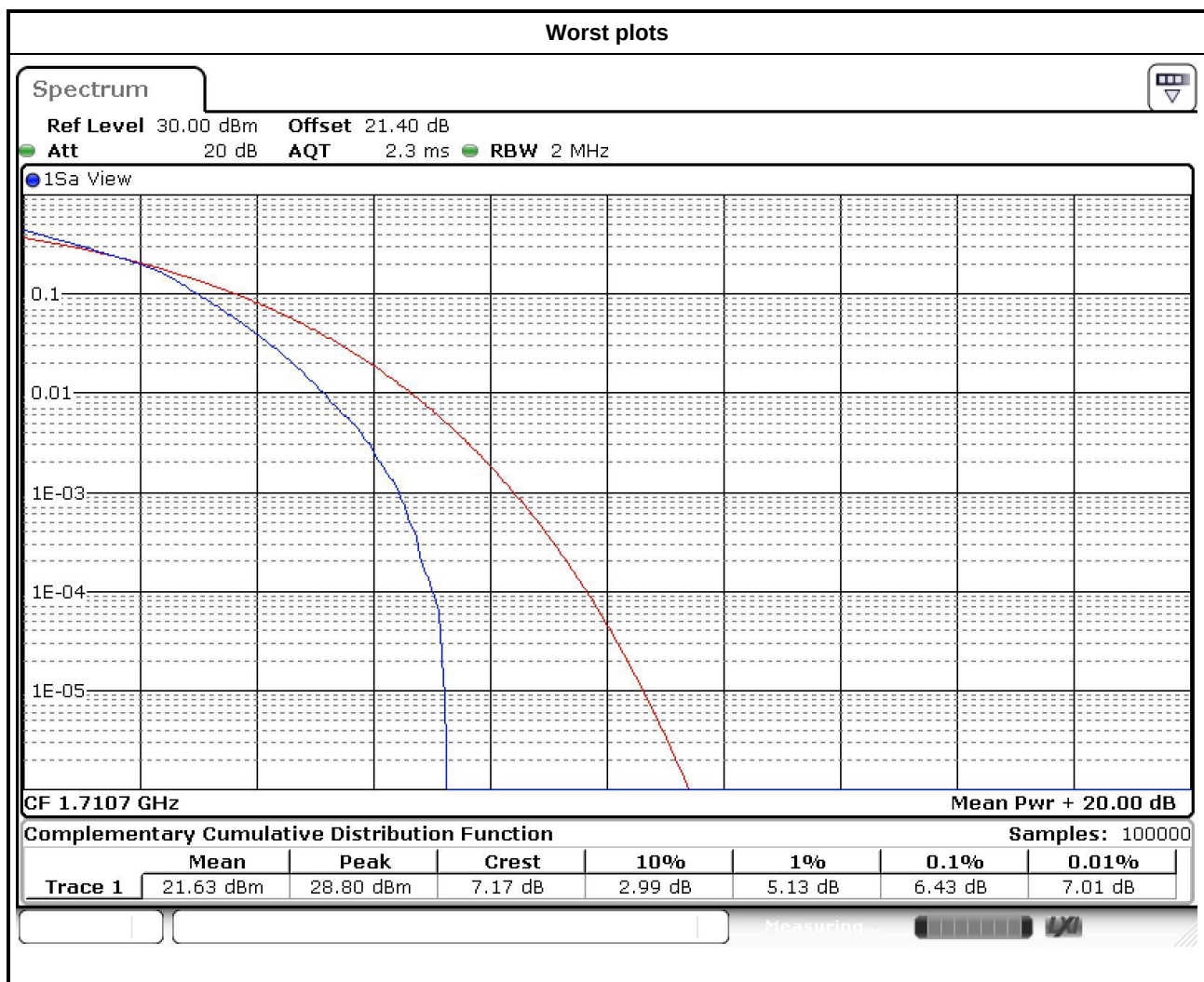
1. Set resolution/measurement bandwidth  $\geq$  signal's occupied bandwidth.
2. Set the number of counts to a value that stabilizes the measured CCDF curve.
3. Set the measurement interval to 1 ms.
4. Record the maximum PAPR level associated with a probability of 0.1%.

### 3.6.3 Test Setup

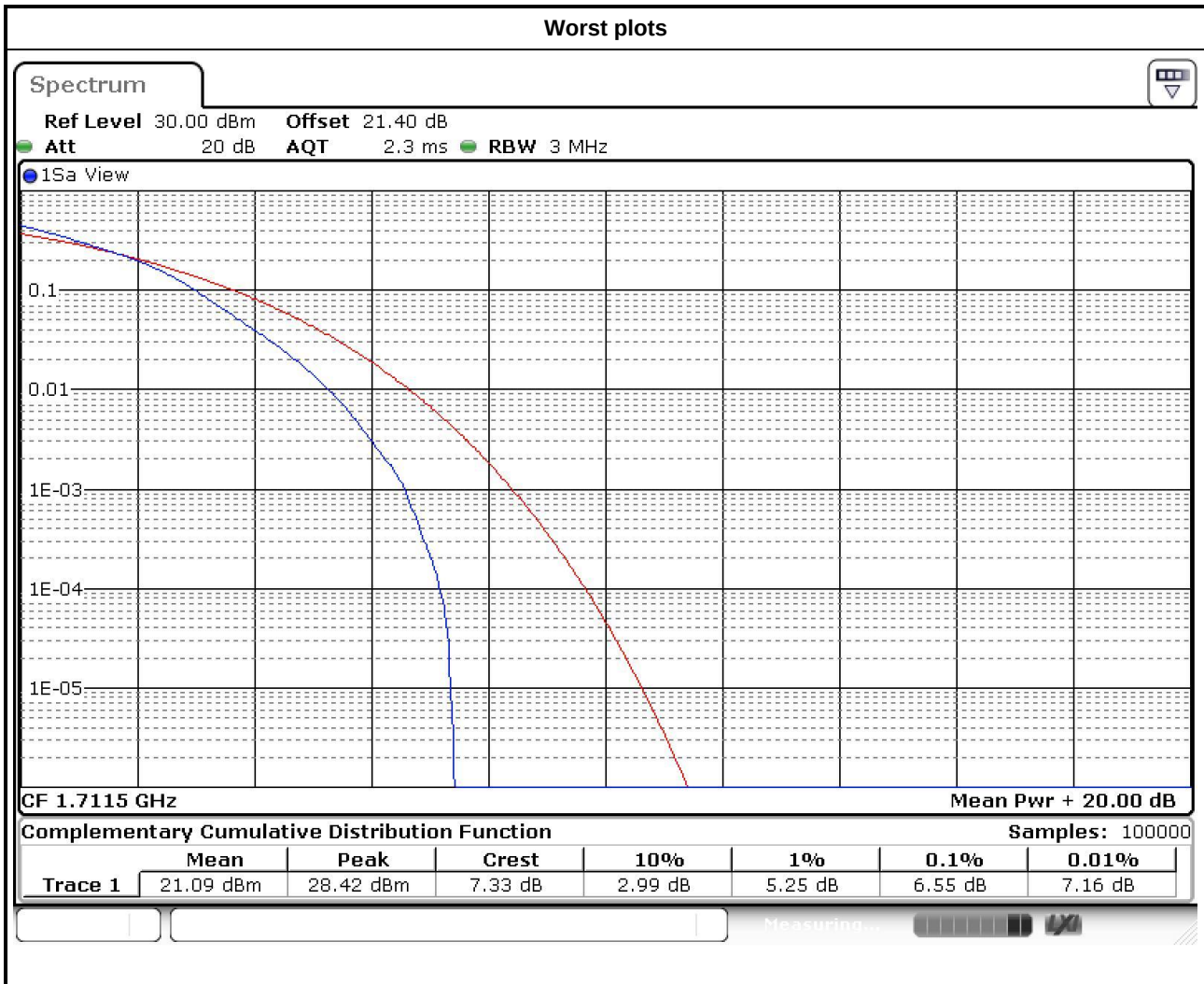


### 3.6.4 Test Result of Peak to Average Ratio

| Mode       | CB (MHz) | Modulation | Channel | Frequency (MHz) | Peak to Average ratio (dB) |
|------------|----------|------------|---------|-----------------|----------------------------|
| LTE Band 4 | 1.4      | QPSK       | 19957   | 1710.7          | 5.68                       |
| LTE Band 4 | 1.4      | QPSK       | 20175   | 1732.5          | 5.42                       |
| LTE Band 4 | 1.4      | QPSK       | 20393   | 1754.3          | 5.68                       |
| LTE Band 4 | 1.4      | 16QAM      | 19957   | 1710.7          | 6.43                       |
| LTE Band 4 | 1.4      | 16QAM      | 20175   | 1732.5          | 6.14                       |
| LTE Band 4 | 1.4      | 16QAM      | 20393   | 1754.3          | 6.41                       |



| Mode       | CB (MHz) | Modulation | Channel | Frequency (MHz) | Peak to Average ratio (dB) |
|------------|----------|------------|---------|-----------------|----------------------------|
| LTE Band 4 | 3        | QPSK       | 19965   | 1711.5          | 5.57                       |
| LTE Band 4 | 3        | QPSK       | 20175   | 1732.5          | 5.25                       |
| LTE Band 4 | 3        | QPSK       | 20385   | 1753.5          | 5.42                       |
| LTE Band 4 | 3        | 16QAM      | 19965   | 1711.5          | 6.55                       |
| LTE Band 4 | 3        | 16QAM      | 20175   | 1732.5          | 6.17                       |
| LTE Band 4 | 3        | 16QAM      | 20385   | 1753.5          | 6.46                       |



| Mode       | CB (MHz) | Modulation | Channel | Frequency (MHz) | Peak to Average ratio (dB) |
|------------|----------|------------|---------|-----------------|----------------------------|
| LTE Band 4 | 5        | QPSK       | 19975   | 1712.5          | 5.39                       |
| LTE Band 4 | 5        | QPSK       | 20175   | 1732.5          | 5.10                       |
| LTE Band 4 | 5        | QPSK       | 20375   | 1752.5          | 5.30                       |
| LTE Band 4 | 5        | 16QAM      | 19975   | 1712.5          | 6.29                       |
| LTE Band 4 | 5        | 16QAM      | 20175   | 1732.5          | 6.06                       |
| LTE Band 4 | 5        | 16QAM      | 20375   | 1752.5          | 6.35                       |

