

#### 5.4.5 LTE Band 13

| LTE Band 13 Peak-to-average ratio (dB) |            |                            |                                       |               |        |
|----------------------------------------|------------|----------------------------|---------------------------------------|---------------|--------|
| Bandwidth                              | Modulation | Channel/<br>Frequency(MHz) | Peak-to-Average<br>Power Ratio (PAPR) | Limit<br>(dB) | Result |
| 5MHz                                   | QPSK       | 23230/782                  | 8.59                                  | 13            | Pass   |
|                                        | 16QAM      | 23230/782                  | 9.39                                  | 13            | Pass   |
| 10MHz                                  | QPSK       | 23230/782                  | 8.68                                  | 13            | Pass   |
|                                        | 16QAM      | 23230/782                  | 9.09                                  | 13            | Pass   |

#### 5.4.6 LTE Band 25

| LTE Band 25 Peak-to-average ratio (dB) |            |                            |                                       |               |        |
|----------------------------------------|------------|----------------------------|---------------------------------------|---------------|--------|
| Bandwidth                              | Modulation | Channel/<br>Frequency(MHz) | Peak-to-Average<br>Power Ratio (PAPR) | Limit<br>(dB) | Result |
| 1.4MHz                                 | QPSK       | 26365/1882,5               | 8.34                                  | 13            | Pass   |
|                                        | 16QAM      | 26365/1882,5               | 8.49                                  | 13            | Pass   |
| 3MHz                                   | QPSK       | 26365/1882,5               | 8.31                                  | 13            | Pass   |
|                                        | 16QAM      | 26365/1882,5               | 8.41                                  | 13            | Pass   |
| 5MHz                                   | QPSK       | 26365/1882,5               | 8.25                                  | 13            | Pass   |
|                                        | 16QAM      | 26365/1882,5               | 8.49                                  | 13            | Pass   |
| 10MHz                                  | QPSK       | 26365/1882,5               | 8.21                                  | 13            | Pass   |
|                                        | 16QAM      | 26365/1882,5               | 8.46                                  | 13            | Pass   |
| 15MHz                                  | QPSK       | 26365/1882,5               | 8.20                                  | 13            | Pass   |
|                                        | 16QAM      | 26365/1882,5               | 8.67                                  | 13            | Pass   |
| 20MHz                                  | QPSK       | 26365/1882,5               | 8.34                                  | 13            | Pass   |
|                                        | 16QAM      | 26365/1882,5               | 8.89                                  | 13            | Pass   |

### 5.4.7 LTE Band 26

| LTE Band 26 Peak-to-average ratio (dB) |            |                            |                                       |               |        |
|----------------------------------------|------------|----------------------------|---------------------------------------|---------------|--------|
| Bandwidth                              | Modulation | Channel/<br>Frequency(MHz) | Peak-to-Average<br>Power Ratio (PAPR) | Limit<br>(dB) | Result |
| 1.4MHz                                 | QPSK       | 26915/836.5                | 8.48                                  | 13            | Pass   |
|                                        | 16QAM      | 26915/836.5                | 8.78                                  | 13            | Pass   |
| 3MHz                                   | QPSK       | 26915/836.5                | 8.32                                  | 13            | Pass   |
|                                        | 16QAM      | 26915/836.5                | 8.54                                  | 13            | Pass   |
| 5MHz                                   | QPSK       | 26915/836.5                | 8.49                                  | 13            | Pass   |
|                                        | 16QAM      | 26915/836.5                | 8.94                                  | 13            | Pass   |
| 10MHz                                  | QPSK       | 26915/836.5                | 8.37                                  | 13            | Pass   |
|                                        | 16QAM      | 26915/836.5                | 8.71                                  | 13            | Pass   |

### 5.4.8 LTE Band 26 (Part 90S)

| LTE Band 26 Peak-to-average ratio (dB) |            |                            |                                       |               |        |
|----------------------------------------|------------|----------------------------|---------------------------------------|---------------|--------|
| Bandwidth                              | Modulation | Channel/<br>Frequency(MHz) | Peak-to-Average<br>Power Ratio (PAPR) | Limit<br>(dB) | Result |
| 1.4MHz                                 | QPSK       | 26740/819                  | 8.46                                  | 13            | Pass   |
|                                        | 16QAM      | 26740/819                  | 8.75                                  | 13            | Pass   |
| 3MHz                                   | QPSK       | 26740/819                  | 8.23                                  | 13            | Pass   |
|                                        | 16QAM      | 26740/819                  | 8.97                                  | 13            | Pass   |
| 5MHz                                   | QPSK       | 26740/819                  | 8.38                                  | 13            | Pass   |
|                                        | 16QAM      | 26740/819                  | 9.01                                  | 13            | Pass   |
| 10MHz                                  | QPSK       | 26740/819                  | 8.56                                  | 13            | Pass   |
|                                        | 16QAM      | 26740/819                  | 8.97                                  | 13            | Pass   |
| 15MHz                                  | QPSK       | 26740/819                  | 8.57                                  | 13            | Pass   |
|                                        | 16QAM      | 26740/819                  | 8.86                                  | 13            | Pass   |

### 5.4.9 LTE Band 66

| LTE Band 66 Peak-to-average ratio (dB) |            |                            |                                       |               |        |
|----------------------------------------|------------|----------------------------|---------------------------------------|---------------|--------|
| Bandwidth                              | Modulation | Channel/<br>Frequency(MHz) | Peak-to-Average<br>Power Ratio (PAPR) | Limit<br>(dB) | Result |
| 1.4MHz                                 | QPSK       | 132422/1755                | 8.41                                  | 13            | Pass   |
|                                        | 16QAM      | 132422/1755                | 9.01                                  | 13            | Pass   |
| 3MHz                                   | QPSK       | 132422/1755                | 8.54                                  | 13            | Pass   |
|                                        | 16QAM      | 132422/1755                | 9.11                                  | 13            | Pass   |
| 5MHz                                   | QPSK       | 132422/1755                | 8.54                                  | 13            | Pass   |
|                                        | 16QAM      | 132422/1755                | 8.99                                  | 13            | Pass   |
| 10MHz                                  | QPSK       | 132422/1755                | 8.65                                  | 13            | Pass   |
|                                        | 16QAM      | 132422/1755                | 8.84                                  | 13            | Pass   |
| 15MHz                                  | QPSK       | 132422/1755                | 8.41                                  | 13            | Pass   |
|                                        | 16QAM      | 132422/1755                | 8.72                                  | 13            | Pass   |
| 20MHz                                  | QPSK       | 132422/1755                | 8.45                                  | 13            | Pass   |
|                                        | 16QAM      | 132422/1755                | 9.01                                  | 13            | Pass   |

## 5.5 99%&26DB BANDWIDTH

**Test Requirement:** FCC 47 CFR Part 2.1049(h)  
RSS-Gen Issue 5, Section 6.7

**Test Method:** ANSI C63.26-2015 & KDB 971168 D01v03r01 Section 4

**Limit:** No Limit, for reporting purposes only.

### Test Procedure:

The transmitter output was connected to a calibrated coaxial cable and coupler, the other end of which was connected to a spectrum analyzer. The occupied bandwidth was measured with the spectrum analyzer at the low, middle and high channel in each band. The 99% and -26dB bandwidths was also measured and recorded.

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

**Test Setup:** Refer to section 4.2.2 for details.

**Instruments Used:** Refer to section 3 for details

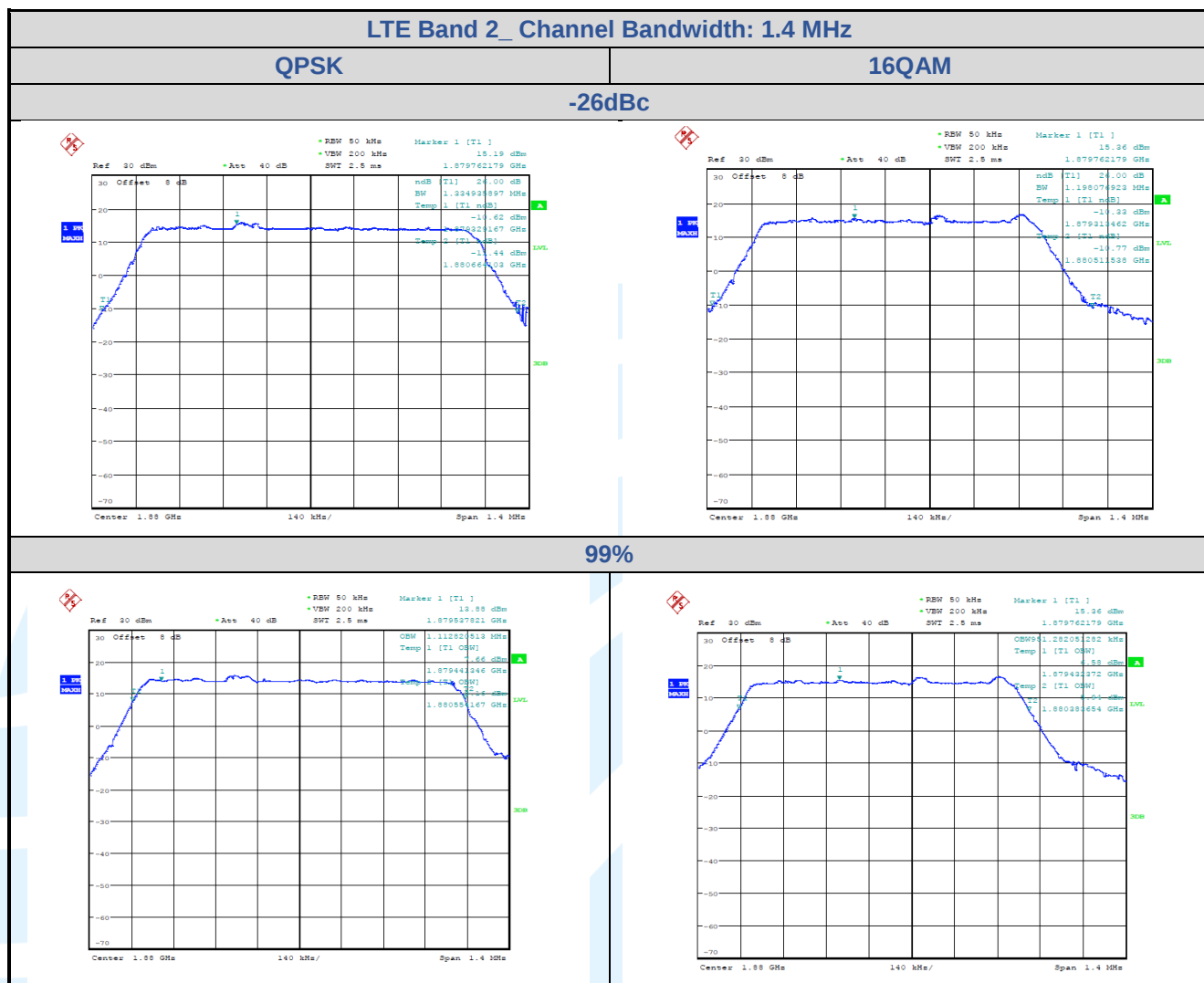
**Test Mode:** Link mode

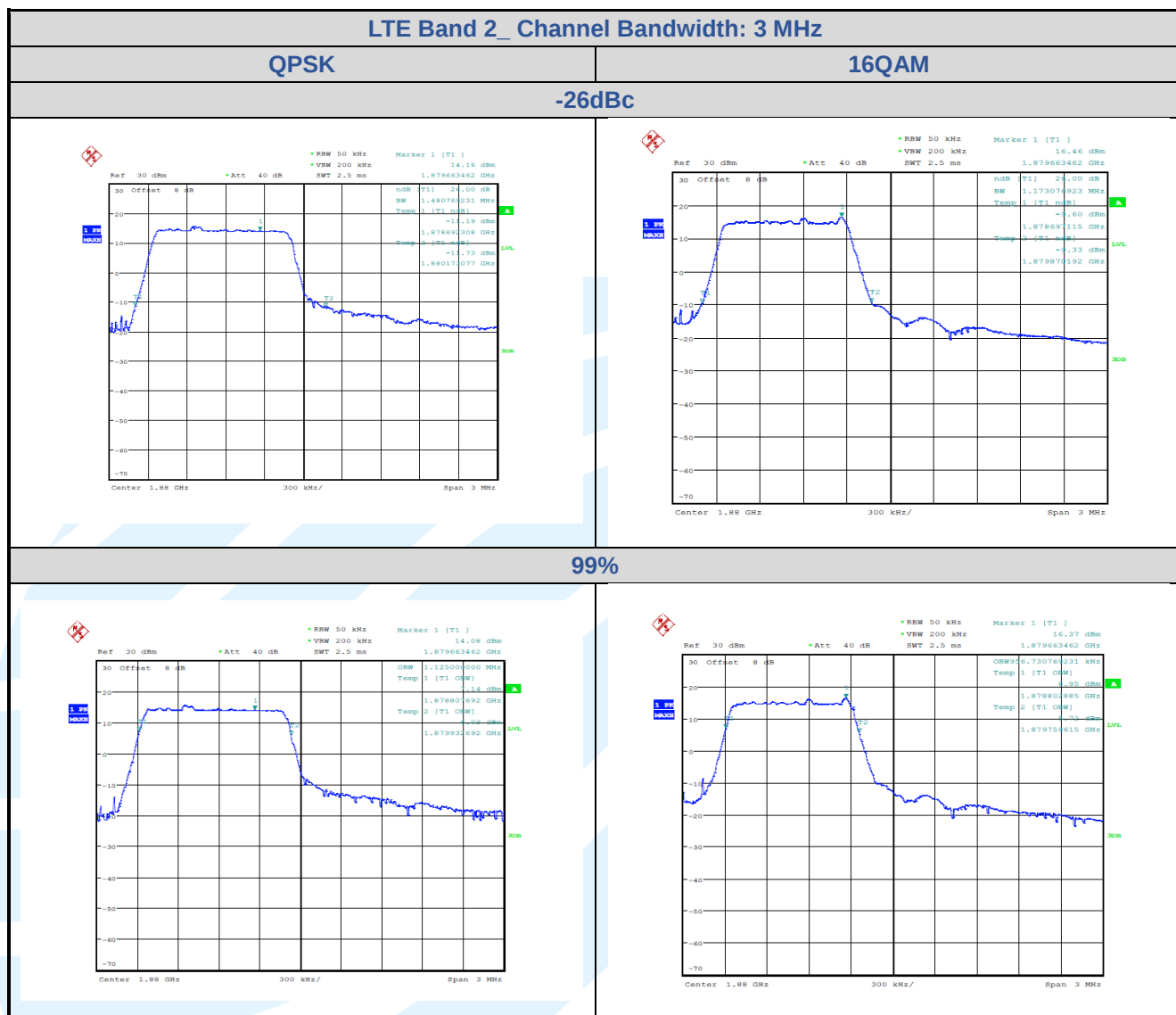
**Test Results:** Pass

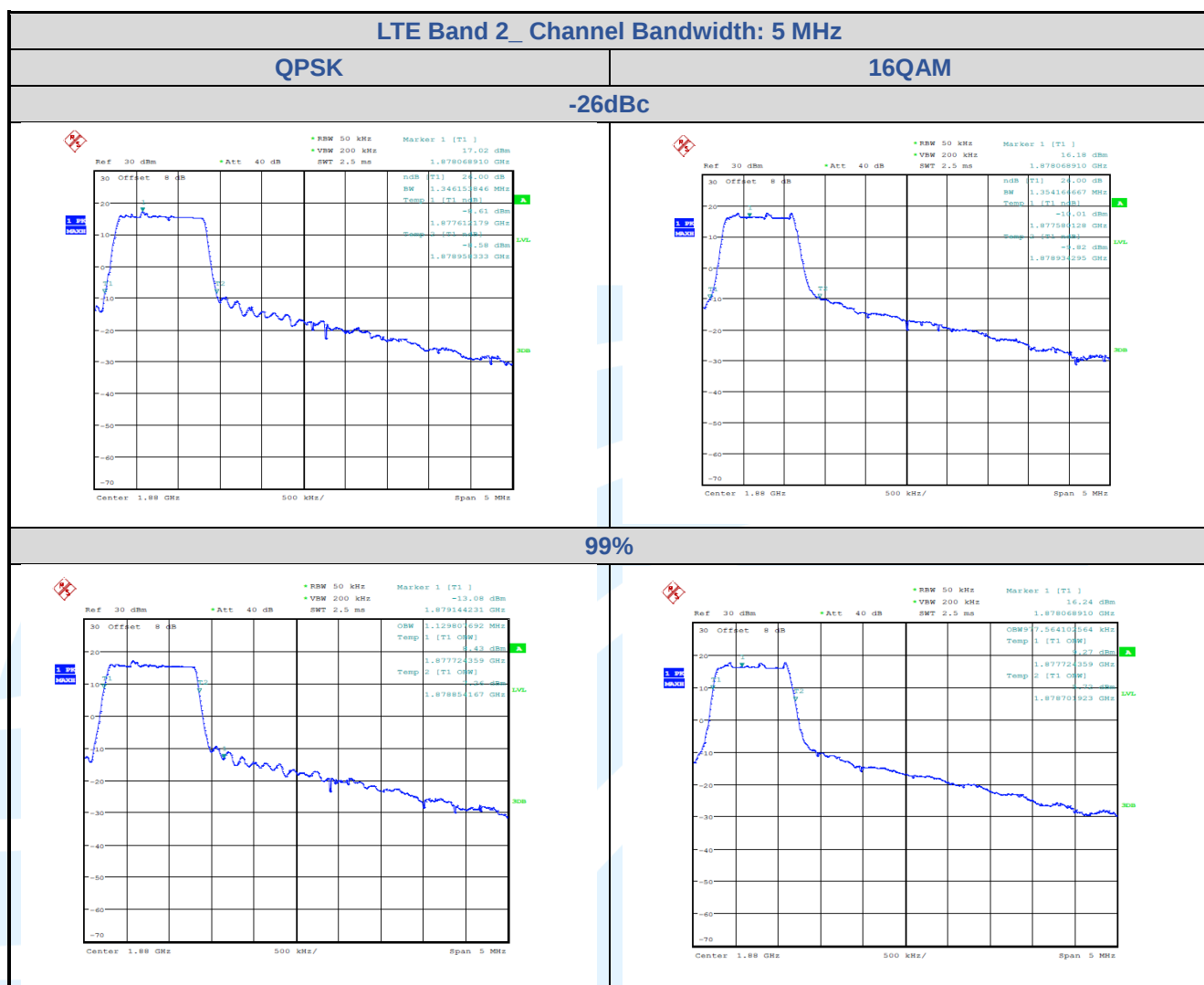
**Test Data:** See table below

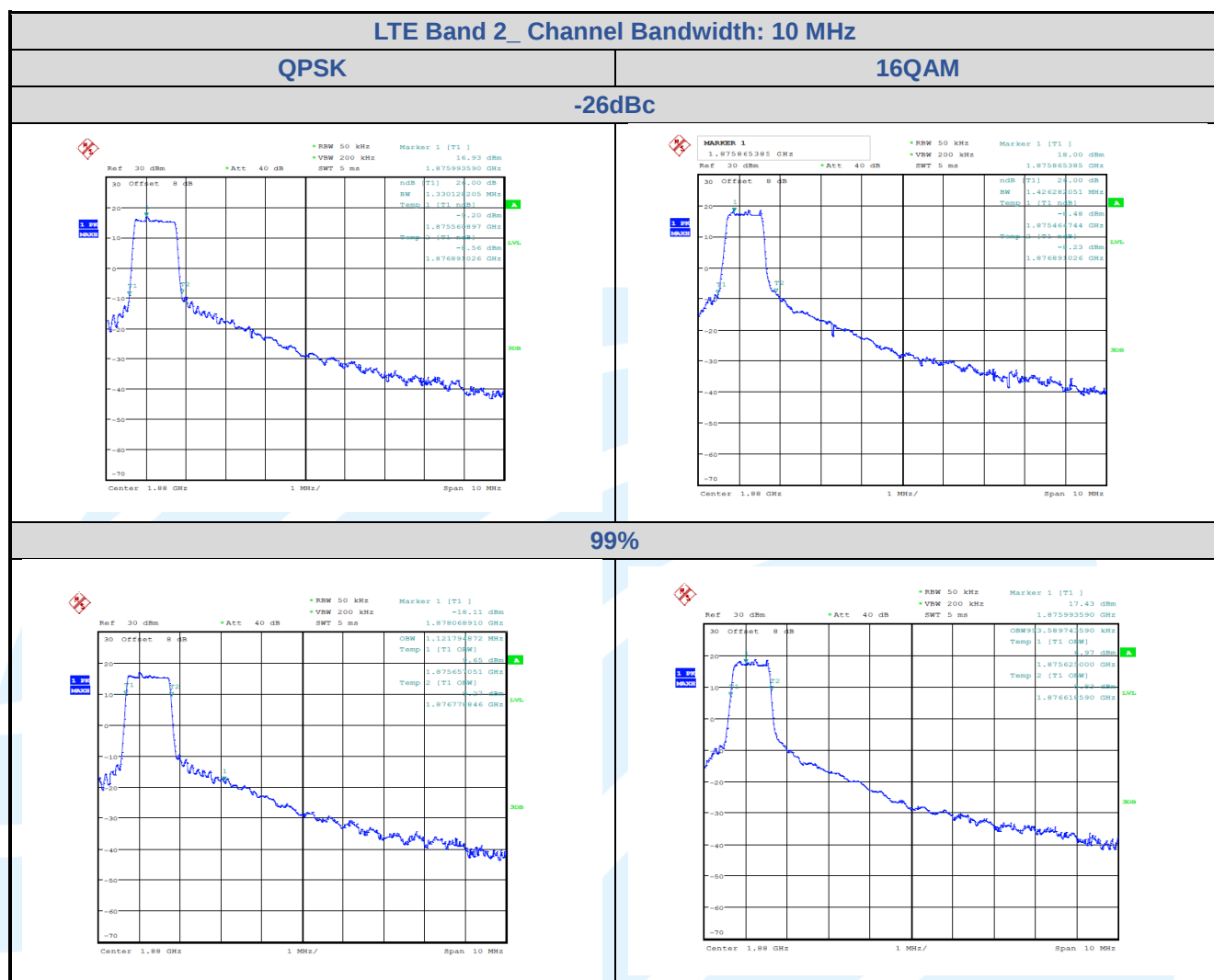
### 5.5.1 LTE Band 2

| LTE Band 2 |            |                |        |
|------------|------------|----------------|--------|
| Bandwidth  | Modulation | Bandwidth(MHz) |        |
|            |            | 99% Power      | -26dBc |
| 1.4MHz     | QPSK       | 1.11           | 1.33   |
|            | 16QAM      | 1.28           | 1.20   |
| 3MHz       | QPSK       | 1.13           | 1.48   |
|            | 16QAM      | 1.87           | 1.17   |
| 5MHz       | QPSK       | 1.13           | 1.35   |
|            | 16QAM      | 0.97           | 1.35   |
| 10MHz      | QPSK       | 1.12           | 1.33   |
|            | 16QAM      | 0.99           | 1.42   |
| 15MHz      | QPSK       | 1.15           | 1.37   |
|            | 16QAM      | 0.99           | 1.35   |
| 20MHz      | QPSK       | 1.15           | 1.41   |
|            | 16QAM      | 0.99           | 1.53   |











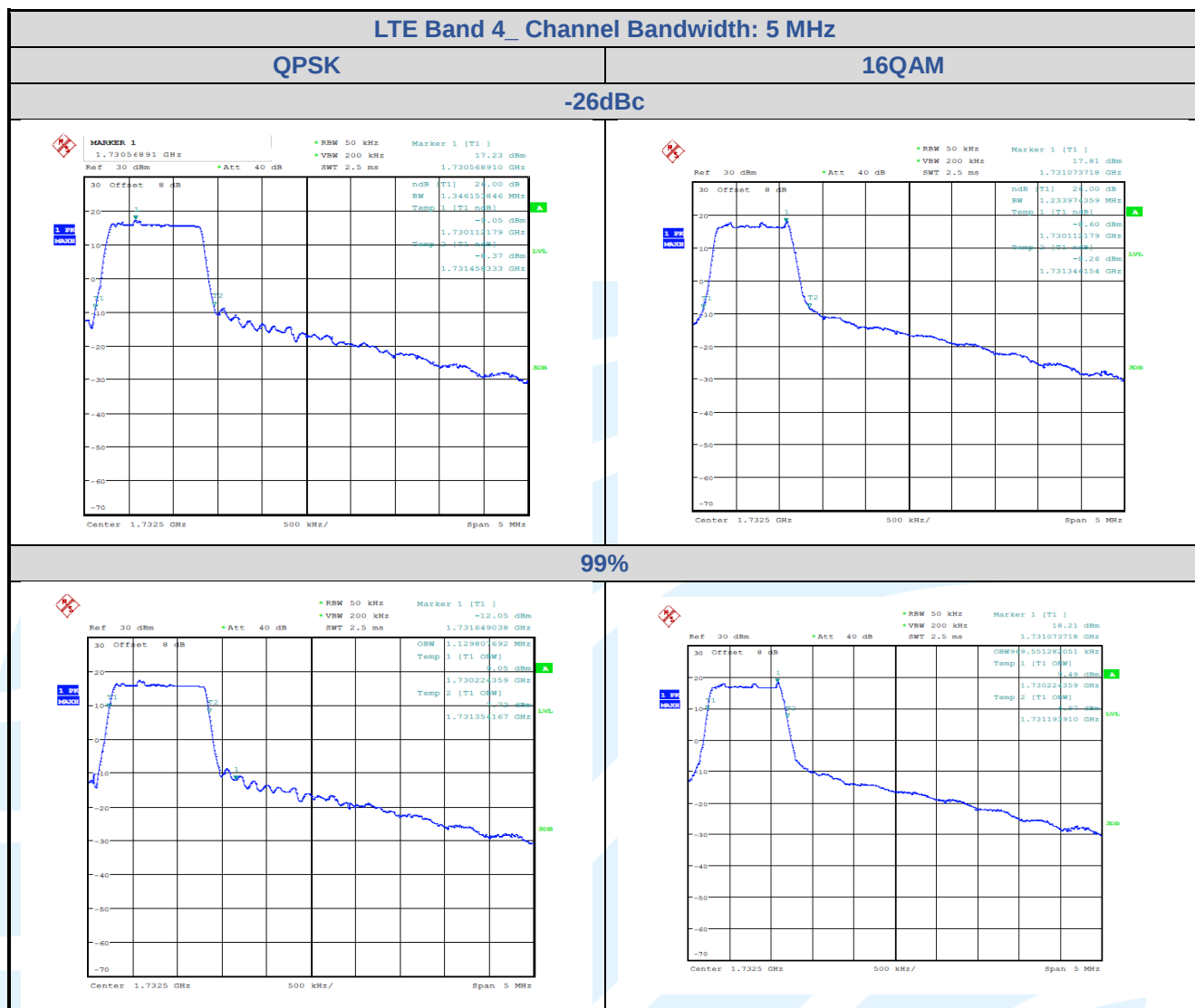


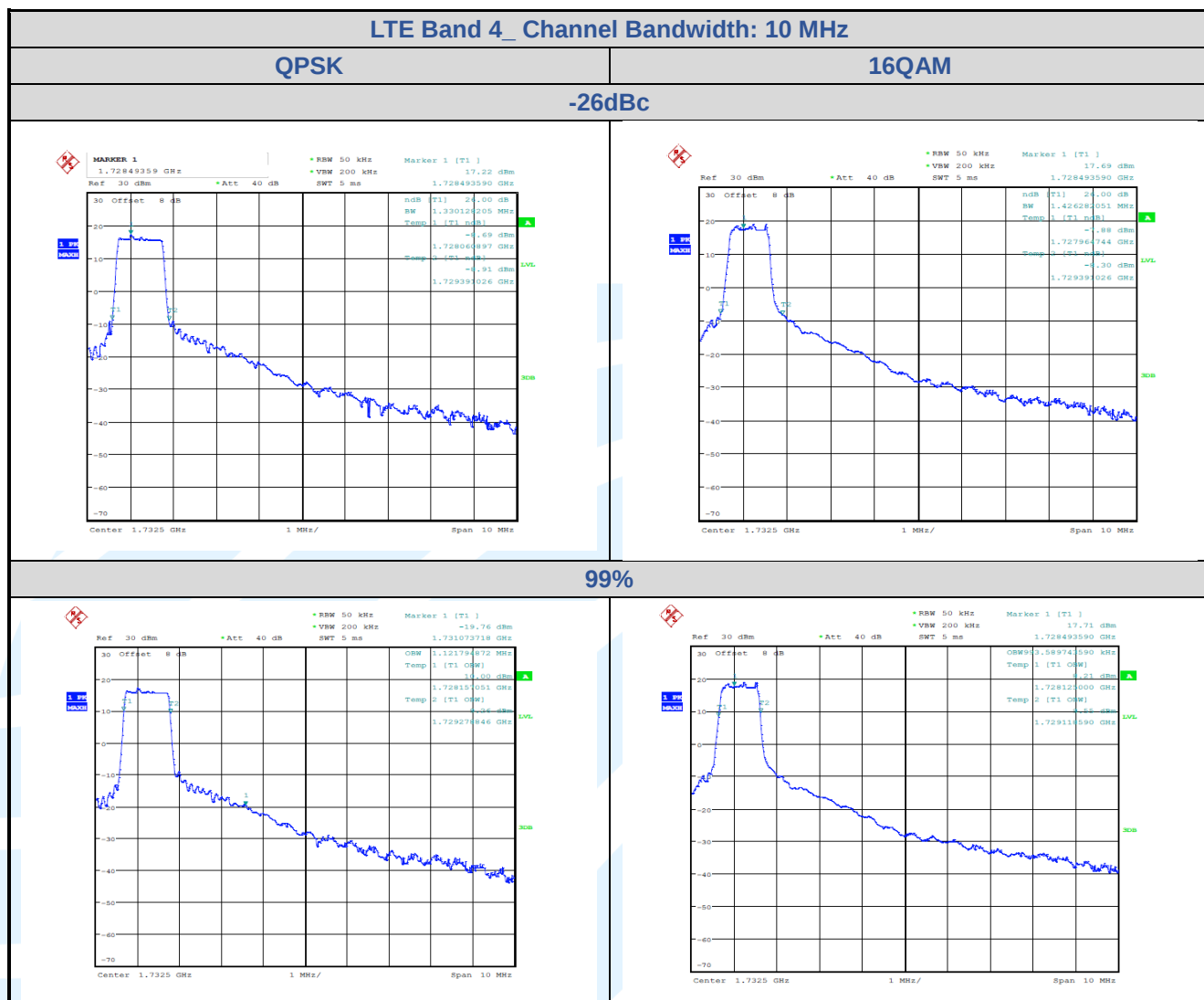
### 5.5.2 LTE Band 4

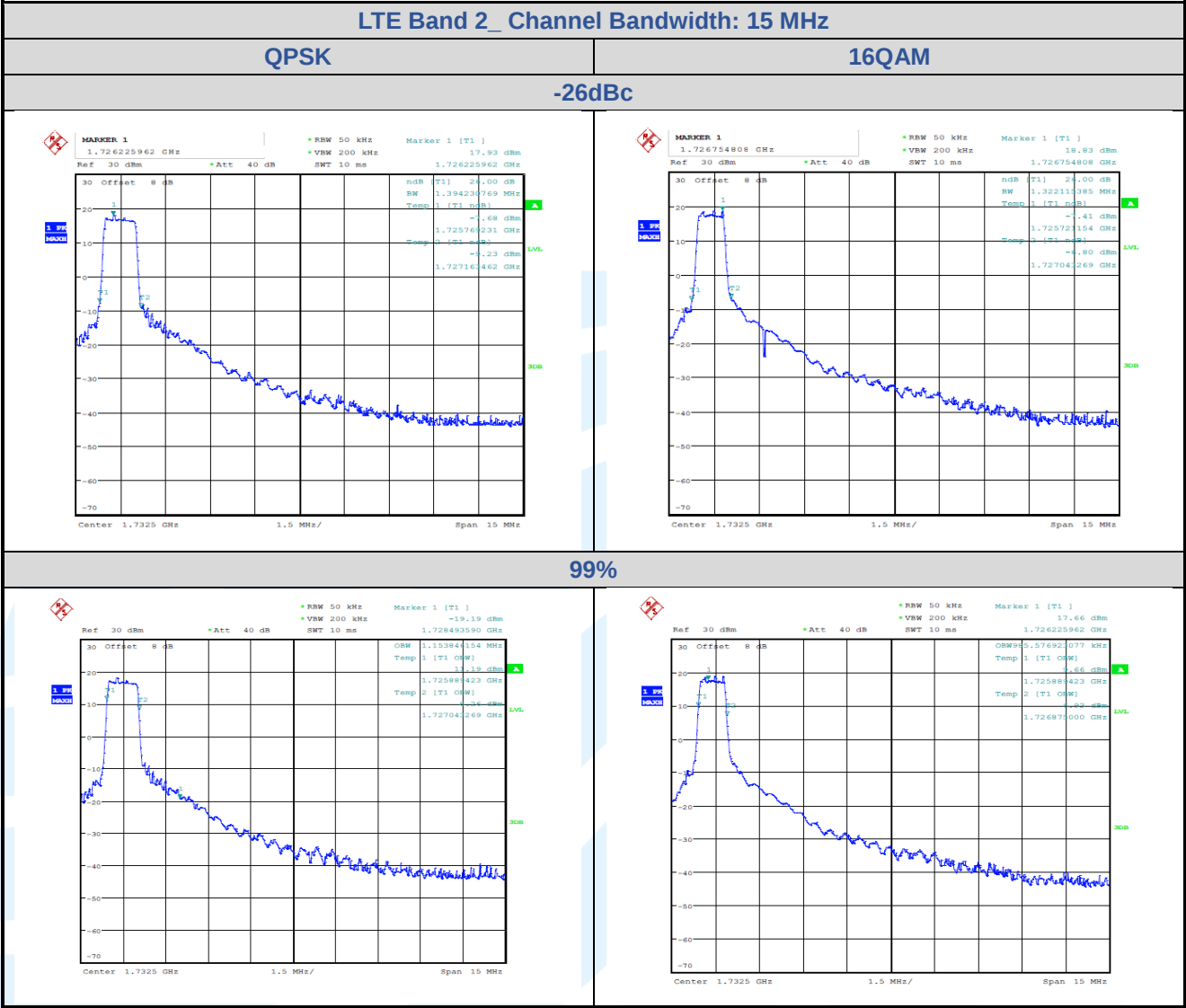
| LTE Band 4 |            |                |        |
|------------|------------|----------------|--------|
| Bandwidth  | Modulation | Bandwidth(MHz) |        |
|            |            | 99% Power      | -26dBc |
| 1.4MHz     | QPSK       | 1.11           | 1.33   |
|            | 16QAM      | 0.99           | 1.18   |
| 3MHz       | QPSK       | 1.13           | 1.41   |
|            | 16QAM      | 0.98           | 1.25   |
| 5MHz       | QPSK       | 1.13           | 1.35   |
|            | 16QAM      | 1.00           | 1.23   |
| 10MHz      | QPSK       | 1.12           | 1.33   |
|            | 16QAM      | 0.94           | 1.43   |
| 15MHz      | QPSK       | 1.15           | 1.39   |
|            | 16QAM      | 0.96           | 1.32   |
| 20MHz      | QPSK       | 1.15           | 1.41   |
|            | 16QAM      | 0.99           | 1.12   |







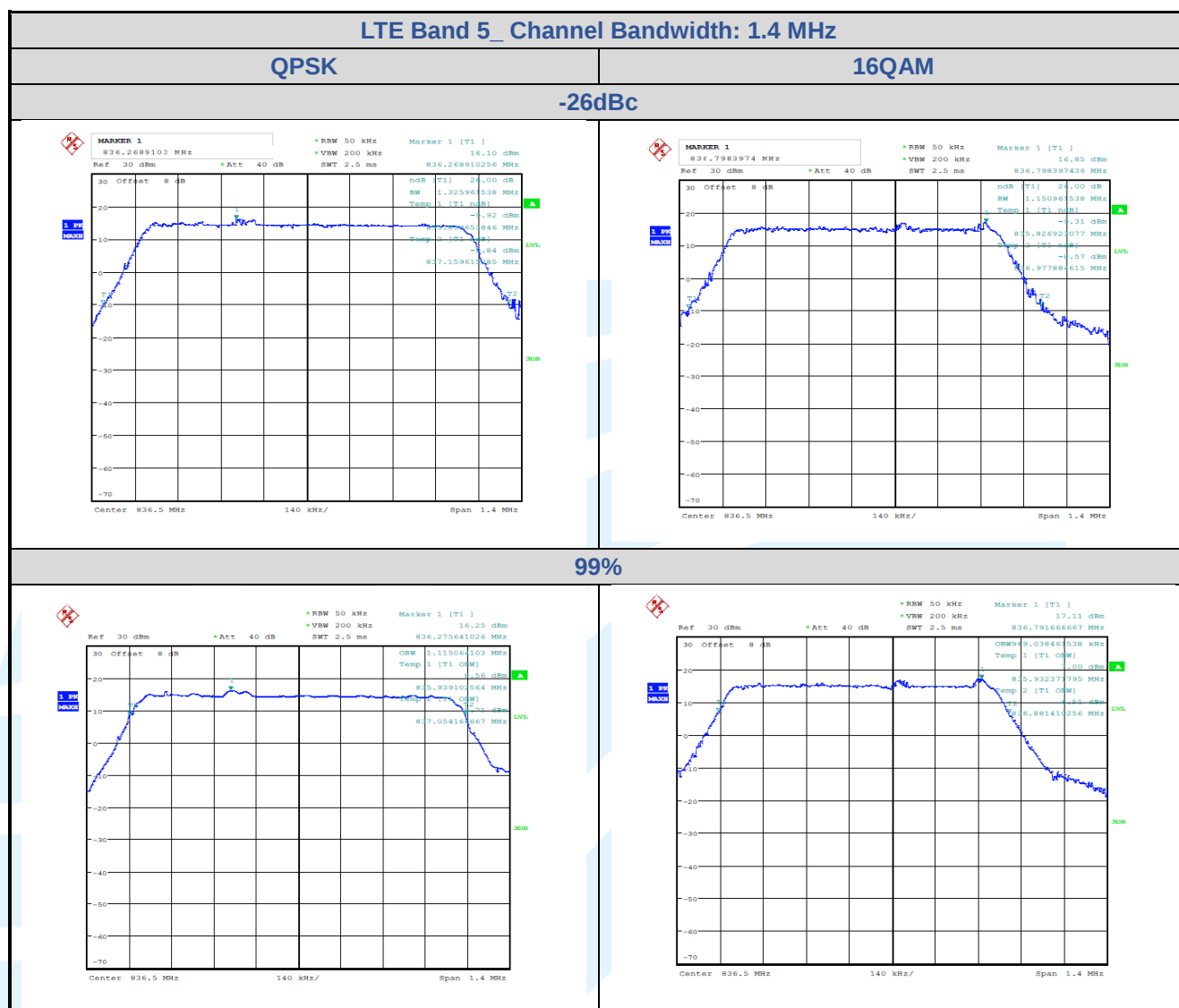




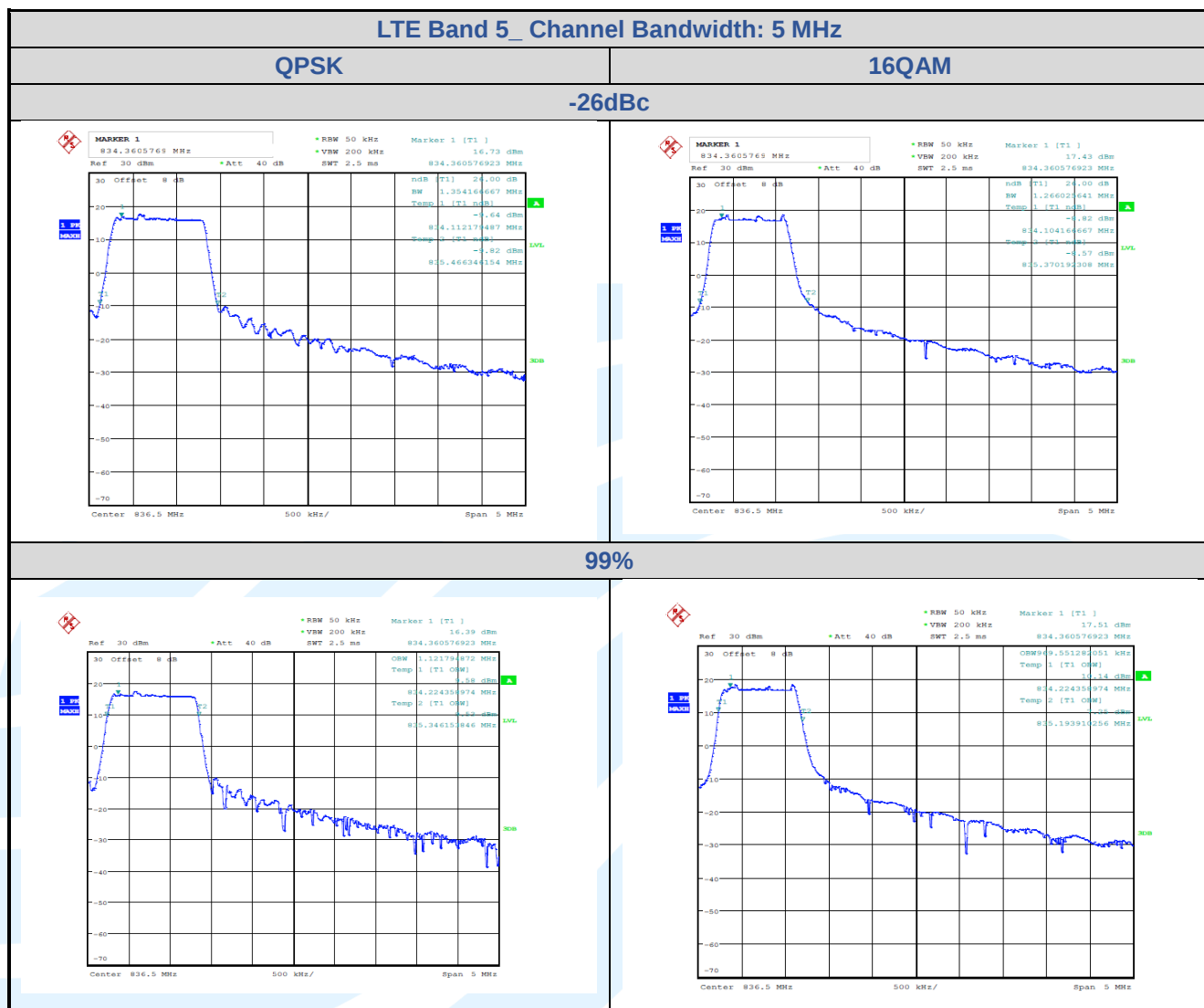


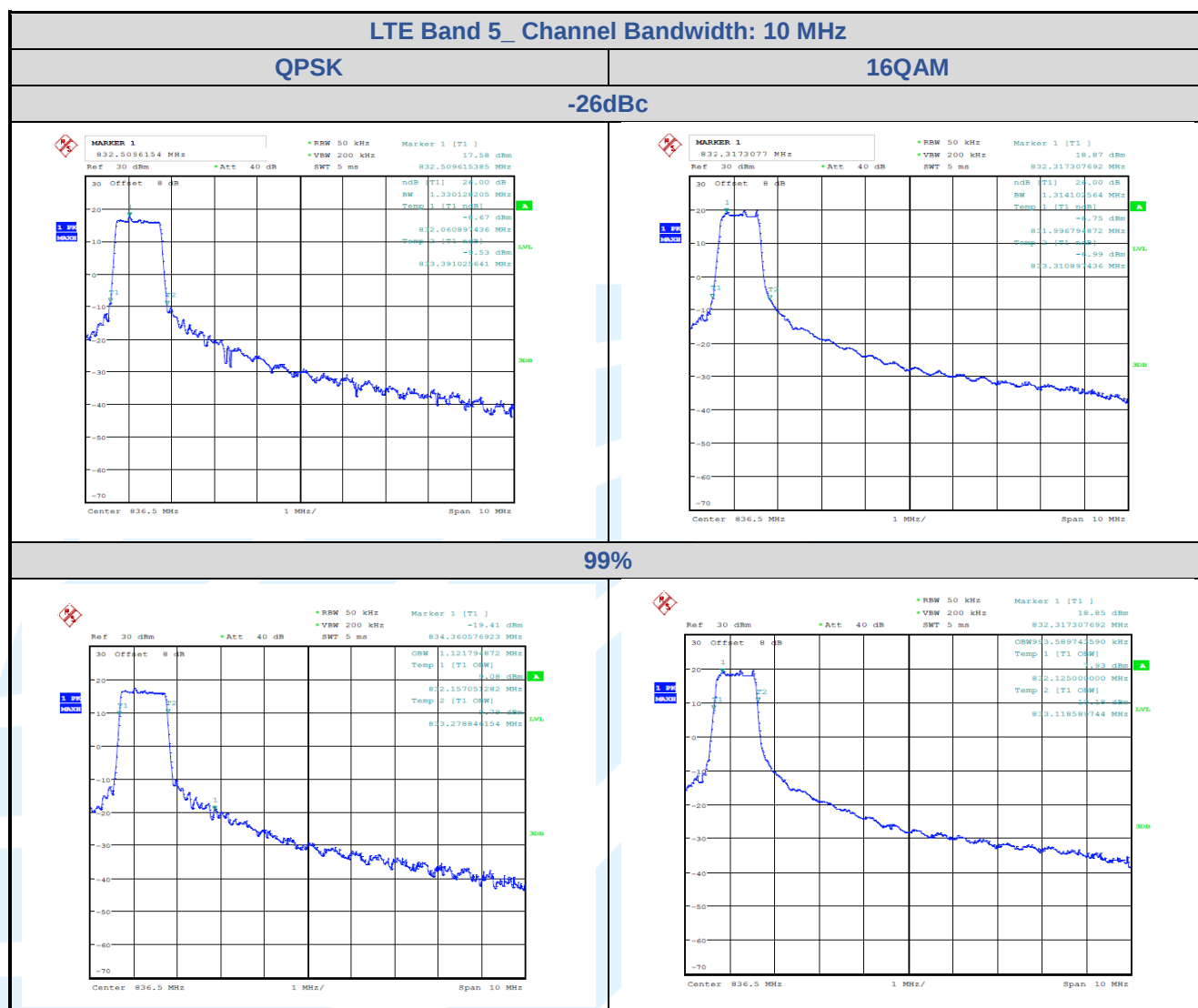
### 5.5.3 LTE Band 5

| LTE Band 5 |            |                |        |
|------------|------------|----------------|--------|
| Bandwidth  | Modulation | Bandwidth(MHz) |        |
|            |            | 99% Power      | -26dBc |
| 1.4MHz     | QPSK       | 1.12           | 1.40   |
|            | 16QAM      | 0.95           | 1.20   |
| 3MHz       | QPSK       | 1.12           | 1.40   |
|            | 16QAM      | 0.95           | 1.20   |
| 5MHz       | QPSK       | 1.12           | 1.35   |
|            | 16QAM      | 0.97           | 1.27   |
| 10MHz      | QPSK       | 1.12           | 1.33   |
|            | 16QAM      | 0.99           | 1.31   |



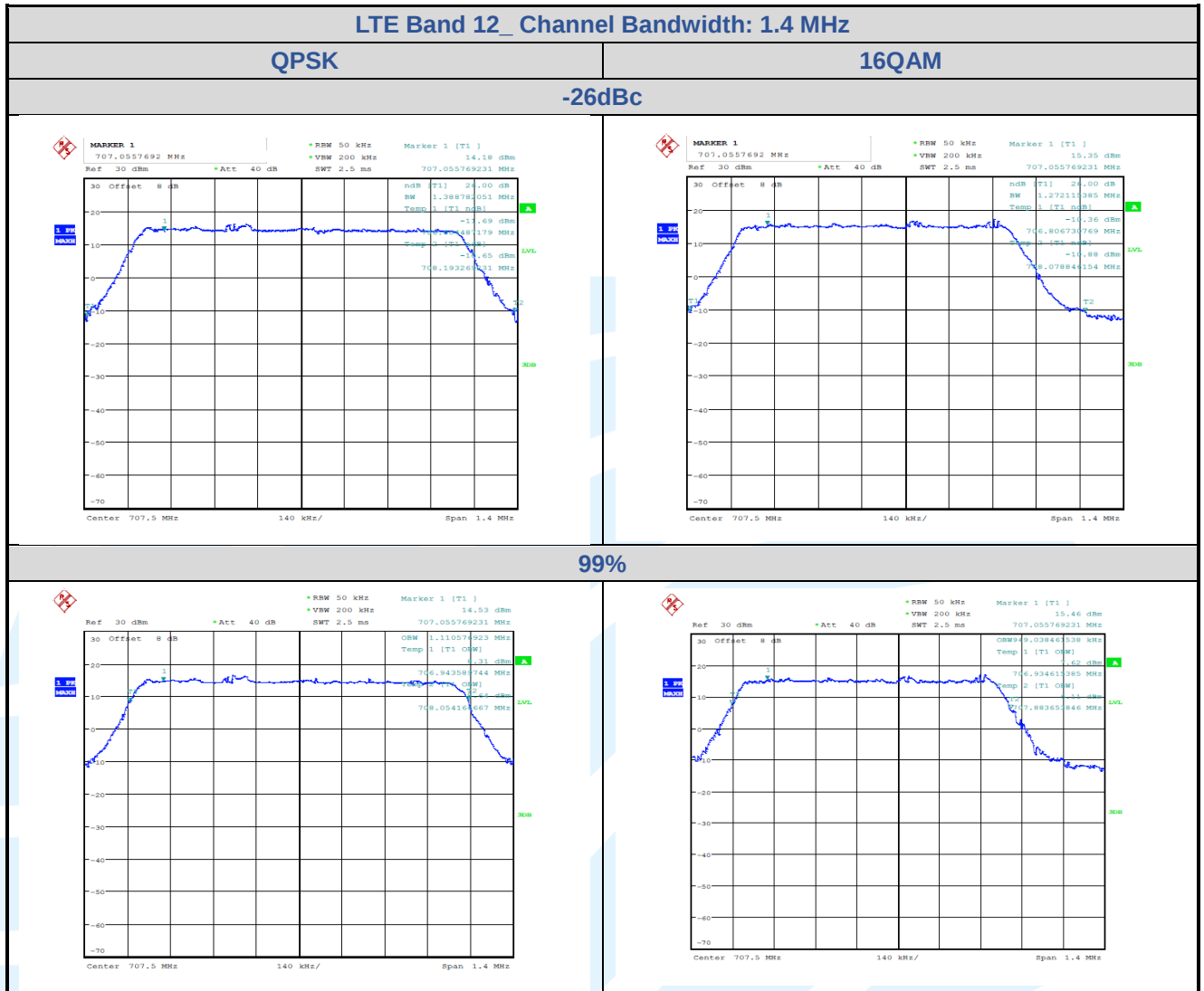


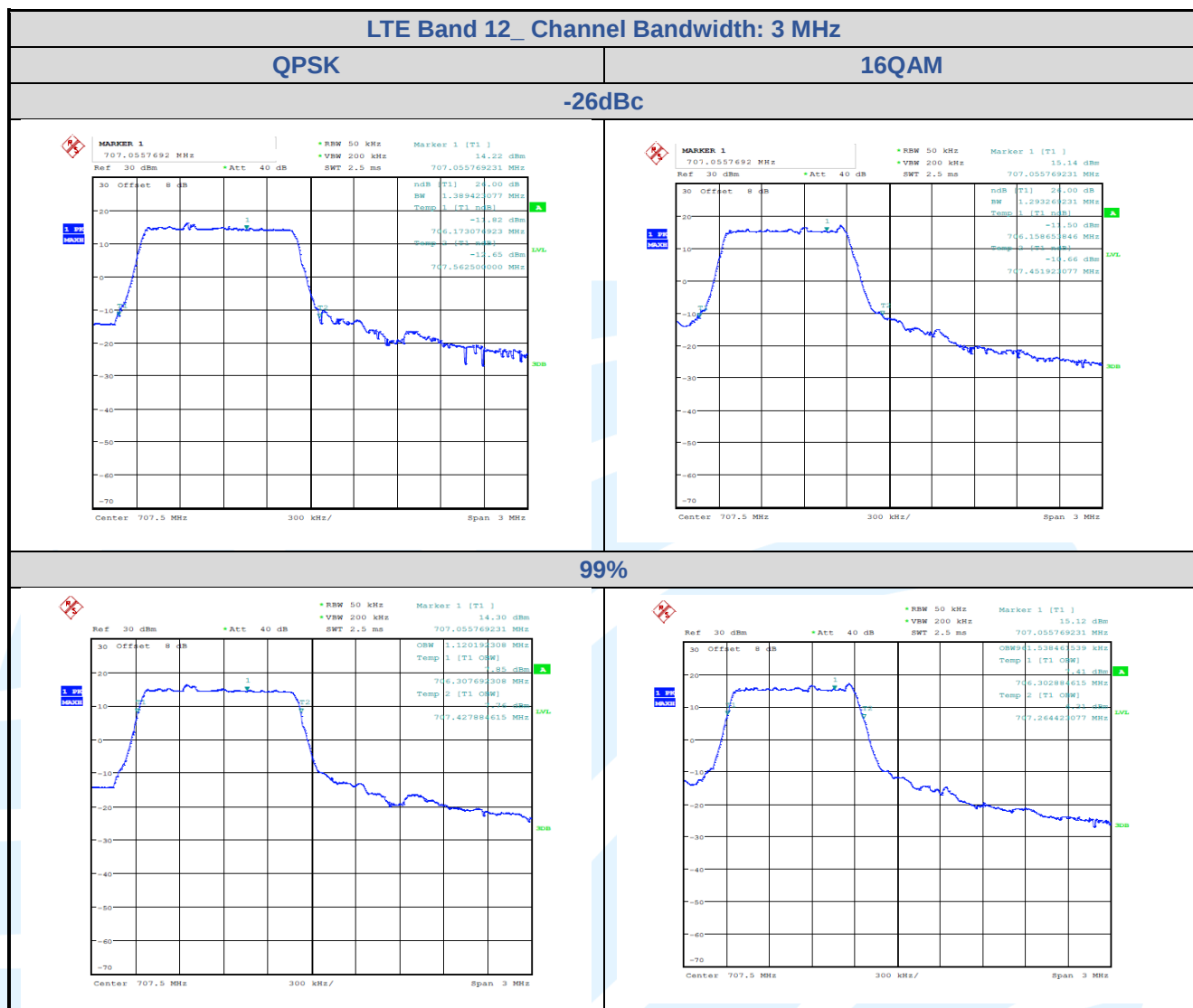




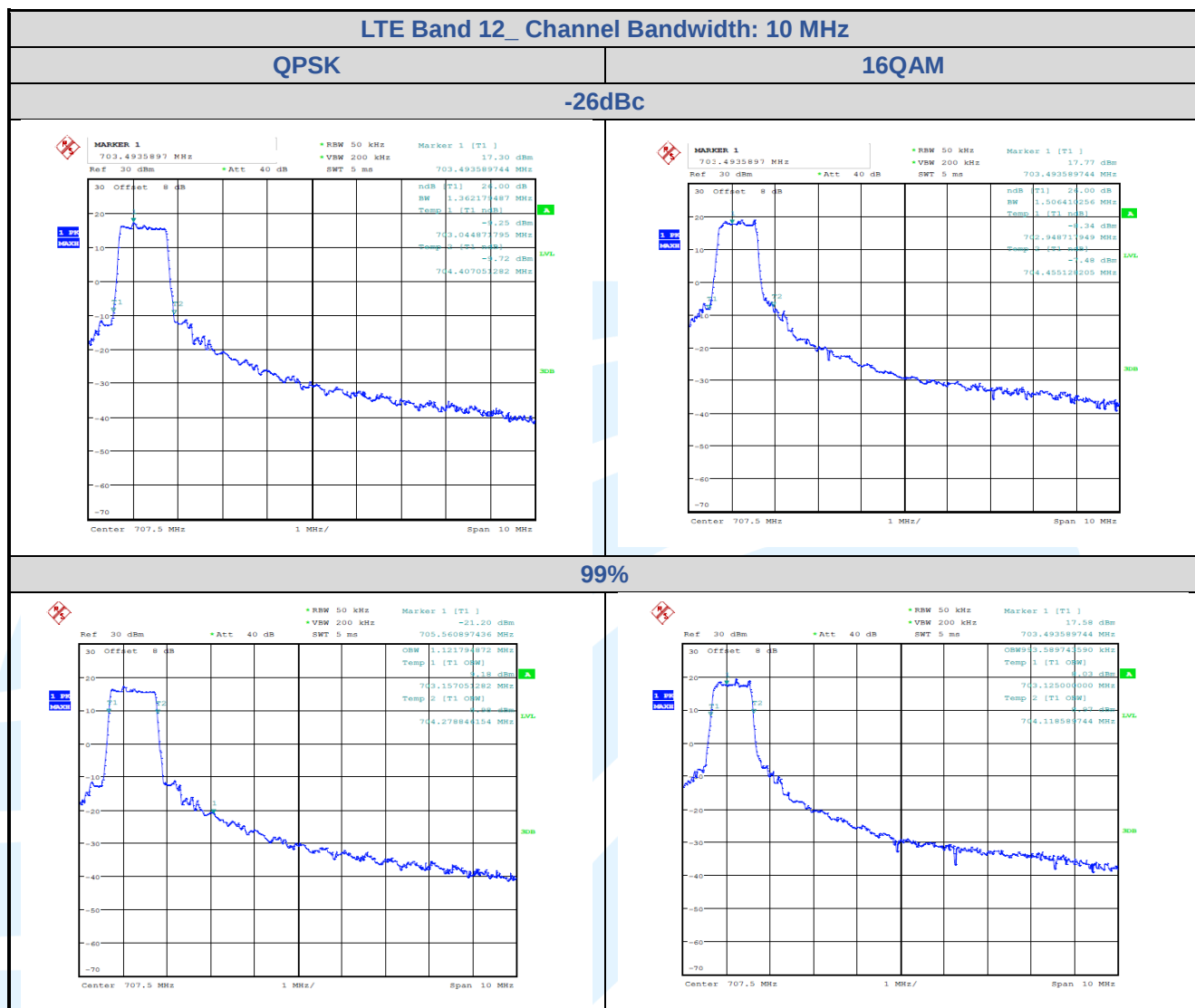
#### 5.5.4 LTE Band 12

| LTE Band 12 |            |                |        |
|-------------|------------|----------------|--------|
| Bandwidth   | Modulation | Bandwidth(MHz) |        |
|             |            | 99% Power      | -26dBc |
| 1.4MHz      | QPSK       | 1.11           | 1.39   |
|             | 16QAM      | 0.95           | 1.27   |
| 3MHz        | QPSK       | 1.12           | 1.39   |
|             | 16QAM      | 0.96           | 1.29   |
| 5MHz        | QPSK       | 1.13           | 1.37   |
|             | 16QAM      | 0.97           | 1.34   |
| 10MHz       | QPSK       | 1.12           | 1.36   |
|             | 16QAM      | 0.99           | 1.51   |



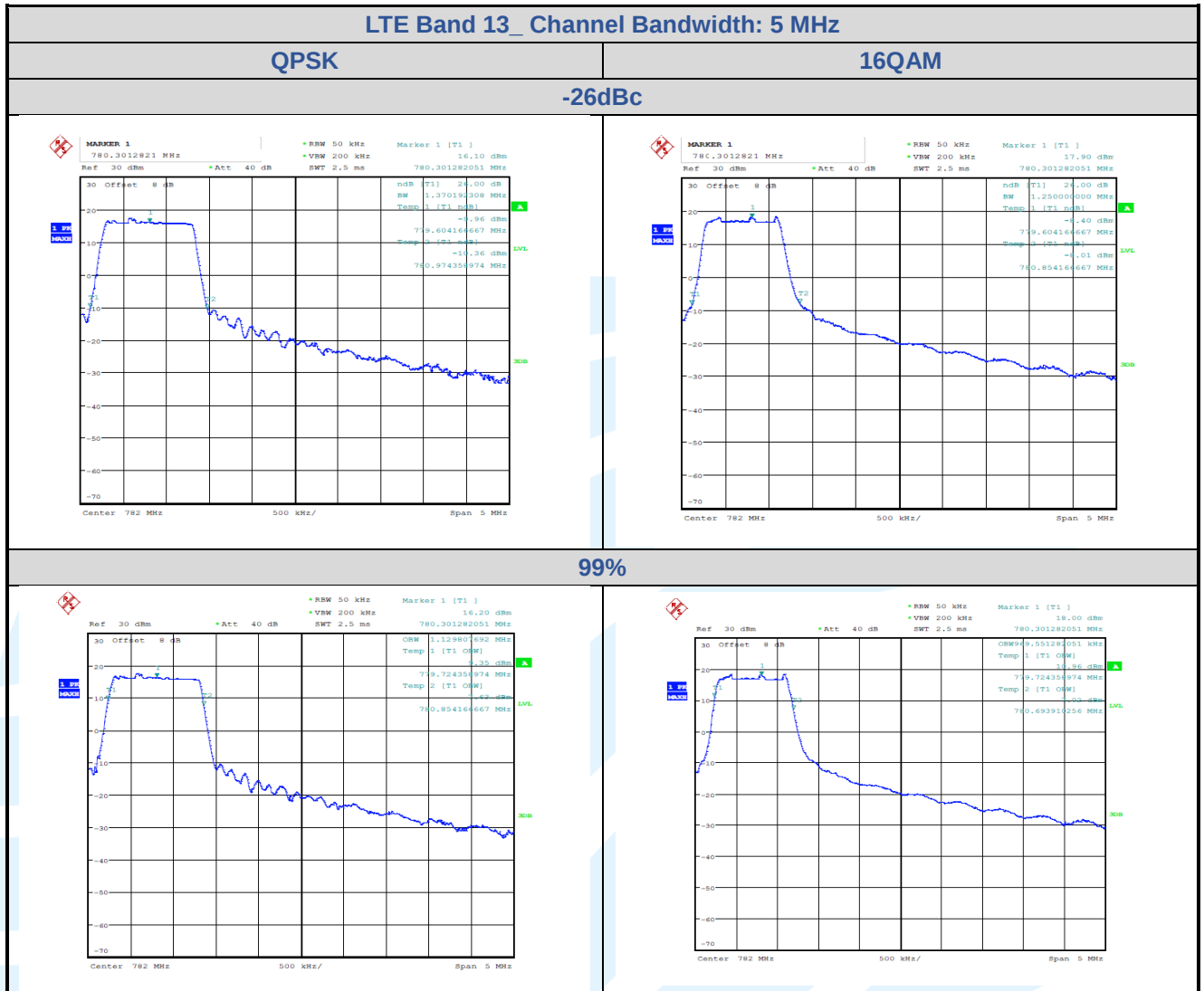


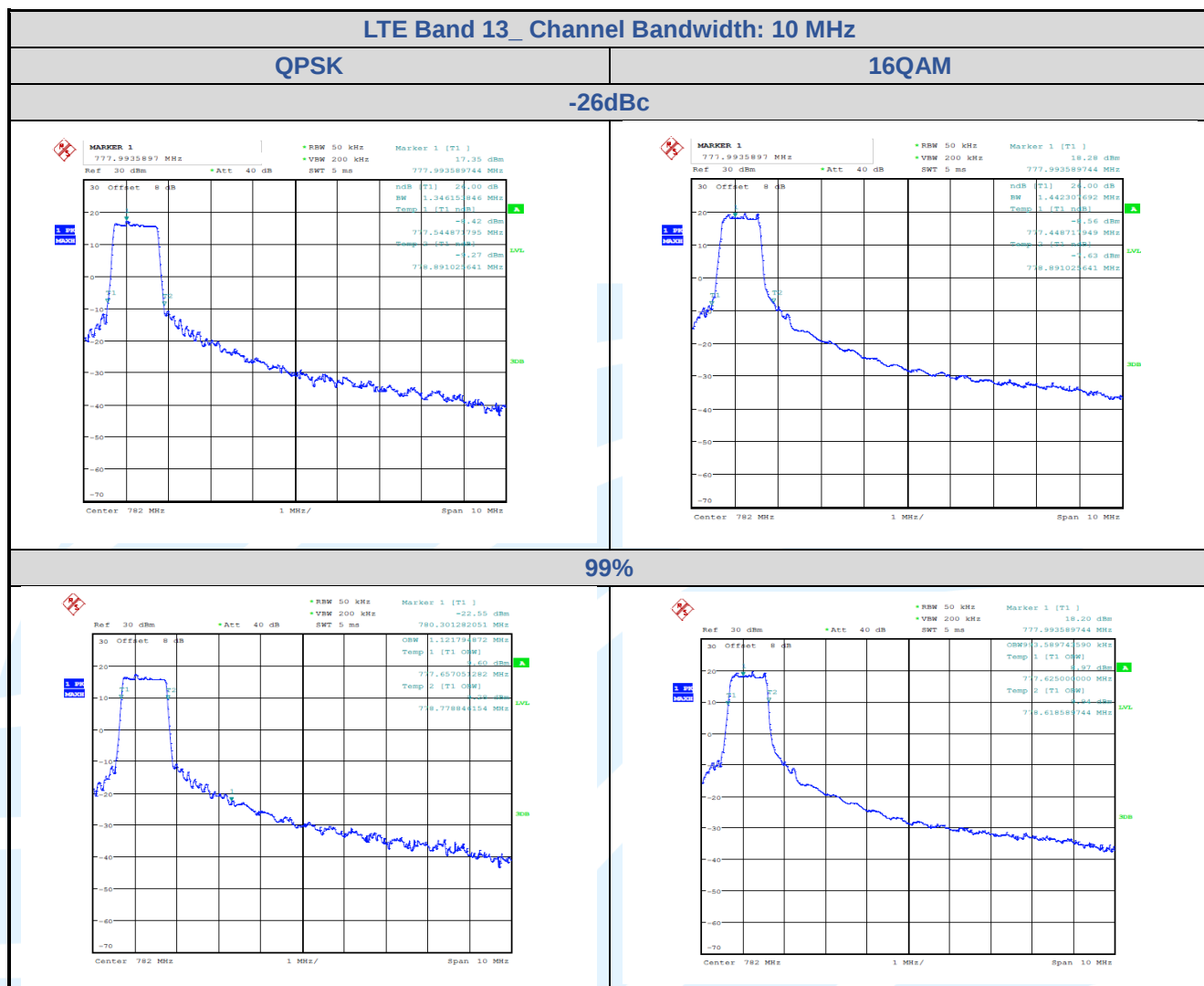




### 5.5.5 LTE Band 13

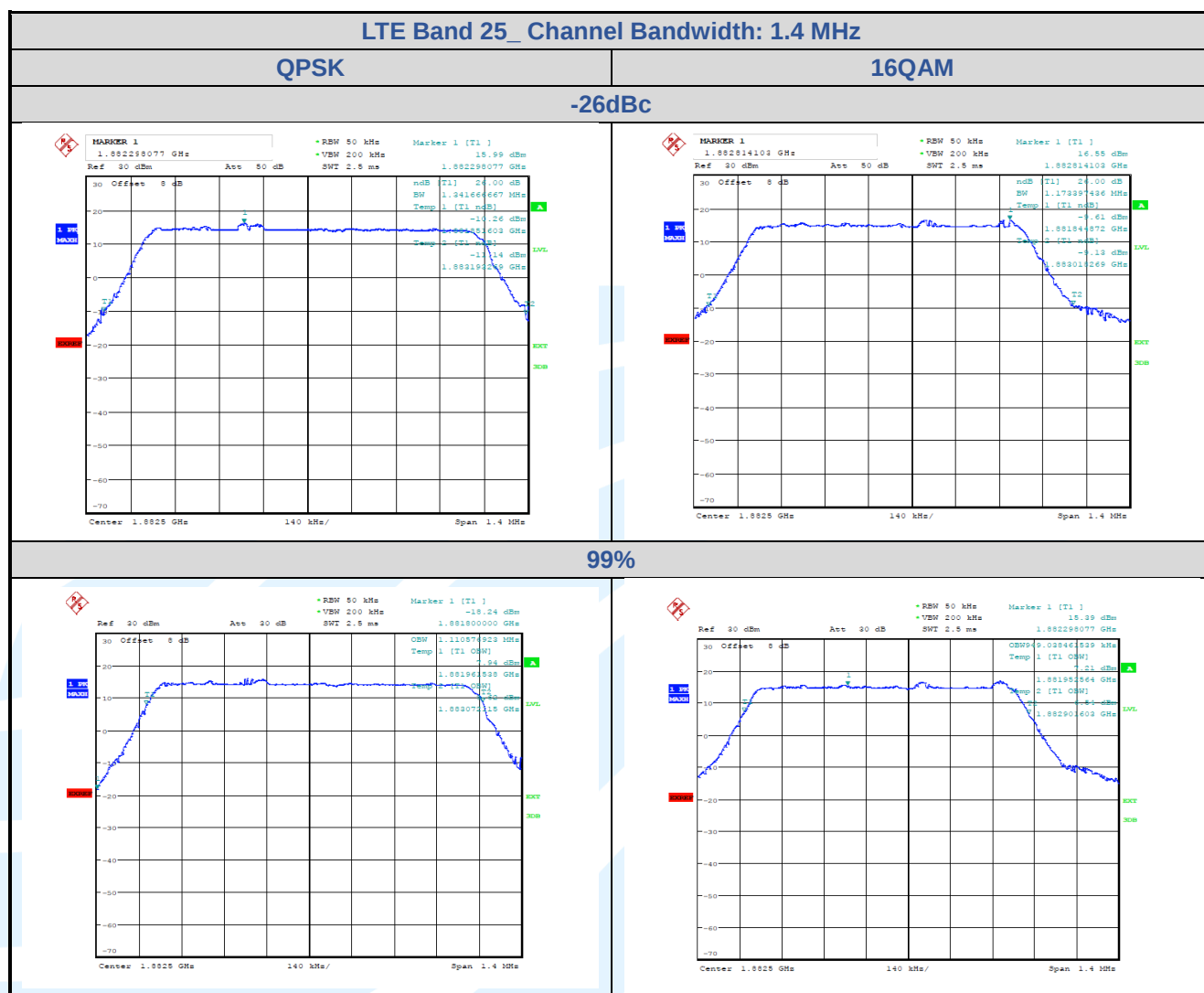
| LTE Band 13 |            |                |        |
|-------------|------------|----------------|--------|
| Bandwidth   | Modulation | Bandwidth(MHz) |        |
|             |            | 99% Power      | -26dBc |
| 5MHz        | QPSK       | 1.13           | 1.37   |
|             | 16QAM      | 0.97           | 1.25   |
| 10MHz       | QPSK       | 1.12           | 1.35   |
|             | 16QAM      | 0.99           | 1.44   |



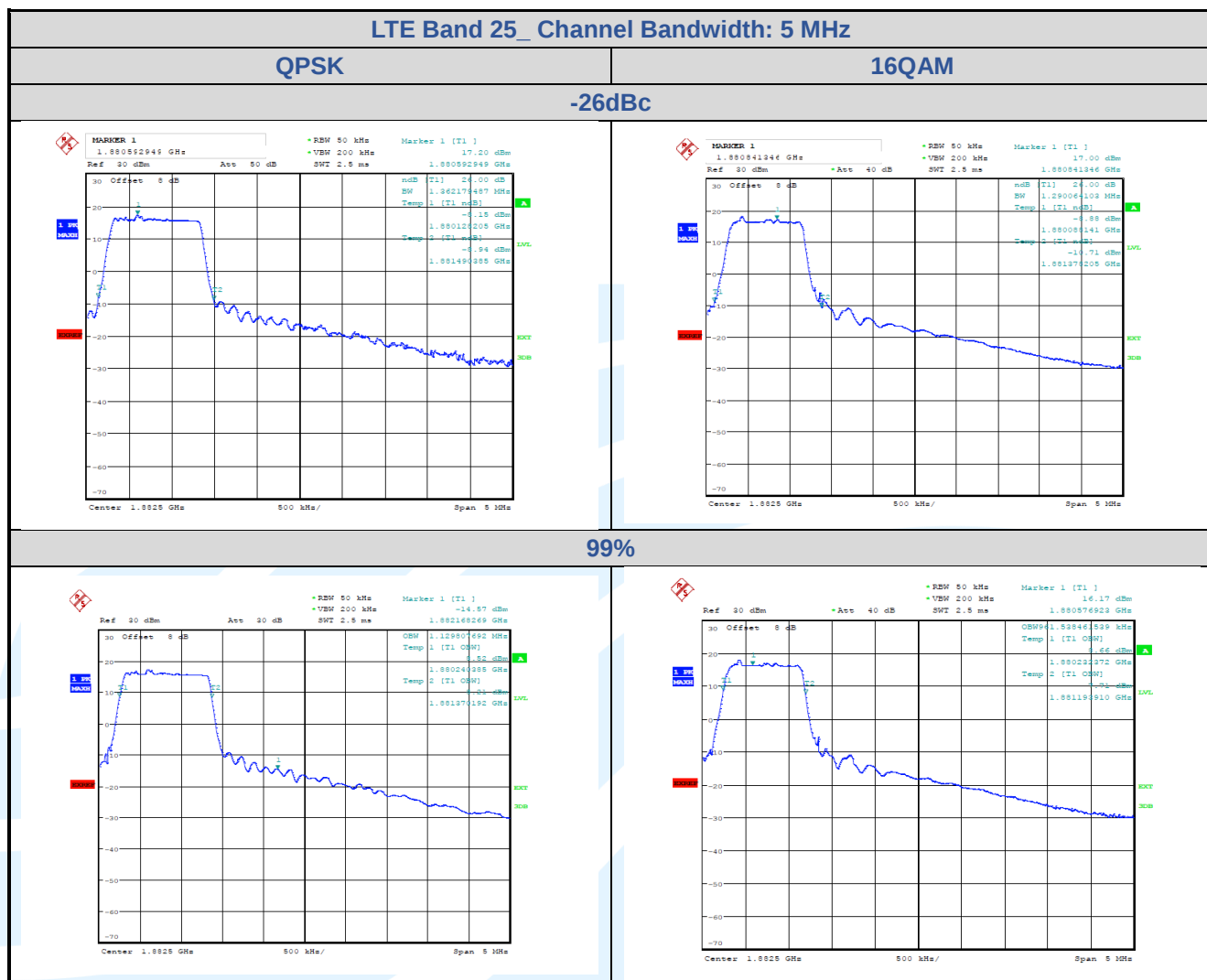


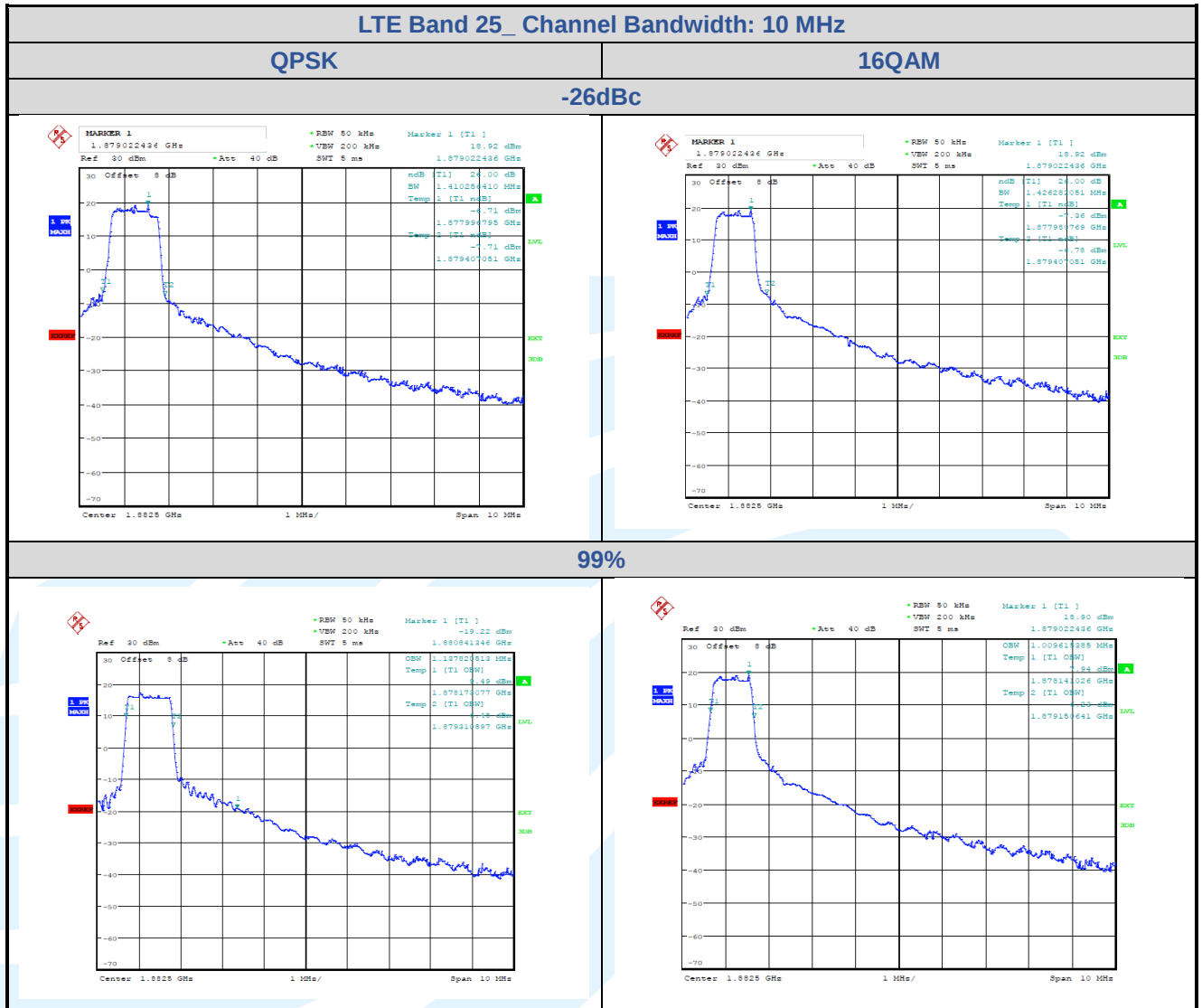
### 5.5.6 LTE Band 25

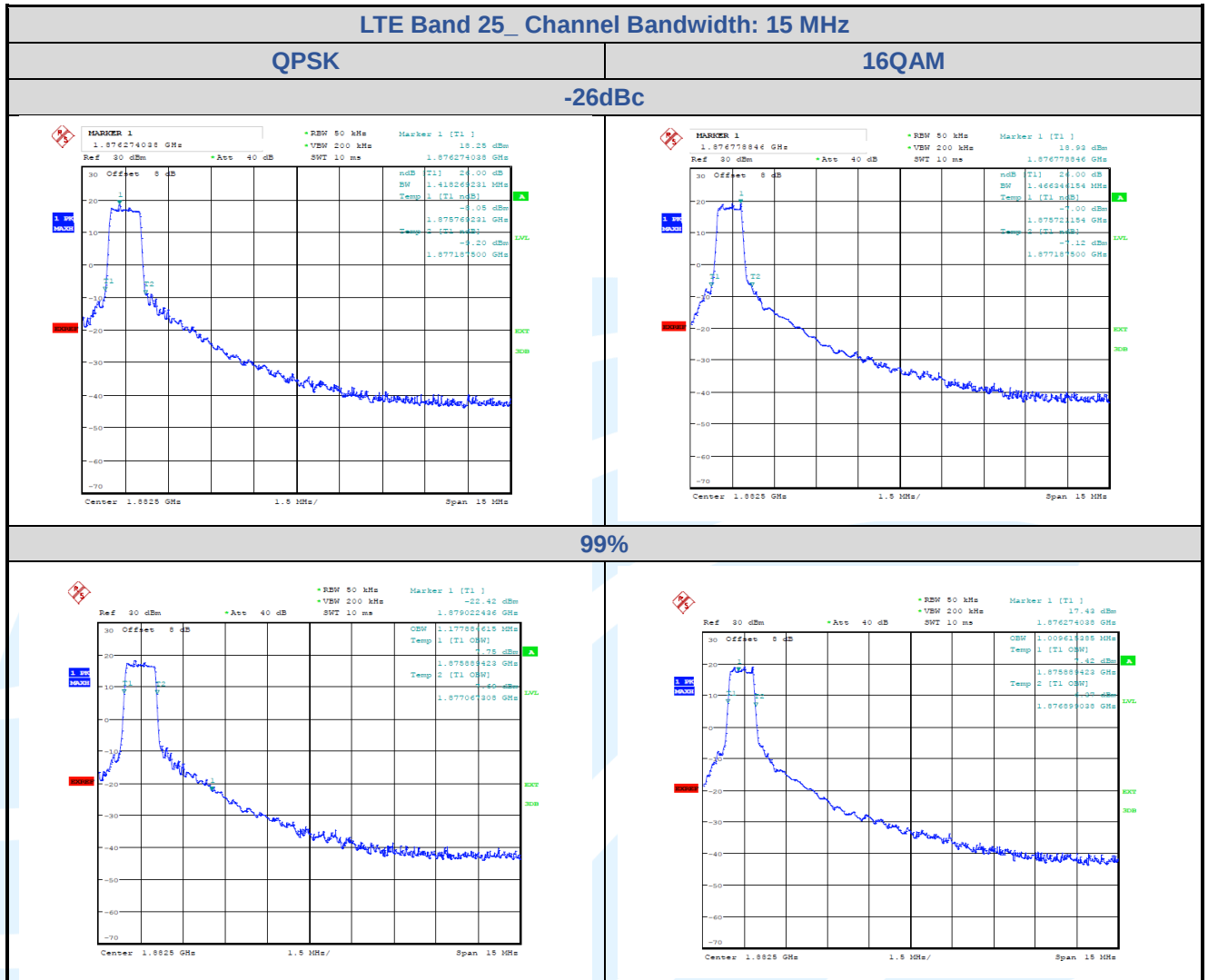
| LTE Band 25 |            |                |        |
|-------------|------------|----------------|--------|
| Bandwidth   | Modulation | Bandwidth(MHz) |        |
|             |            | 99% Power      | -26dBc |
| 1.4MHz      | QPSK       | 1.12           | 1.34   |
|             | 16QAM      | 0.95           | 1.17   |
| 3MHz        | QPSK       | 1.13           | 1.39   |
|             | 16QAM      | 0.96           | 1.18   |
| 5MHz        | QPSK       | 1.13           | 1.36   |
|             | 16QAM      | 0.96           | 1.18   |
| 10MHz       | QPSK       | 1.13           | 1.36   |
|             | 16QAM      | 0.96           | 1.29   |
| 15MHz       | QPSK       | 1.13           | 1.41   |
|             | 16QAM      | 1.01           | 1.47   |
| 20MHz       | QPSK       | 1.12           | 1.41   |
|             | 16QAM      | 1.03           | 1.44   |

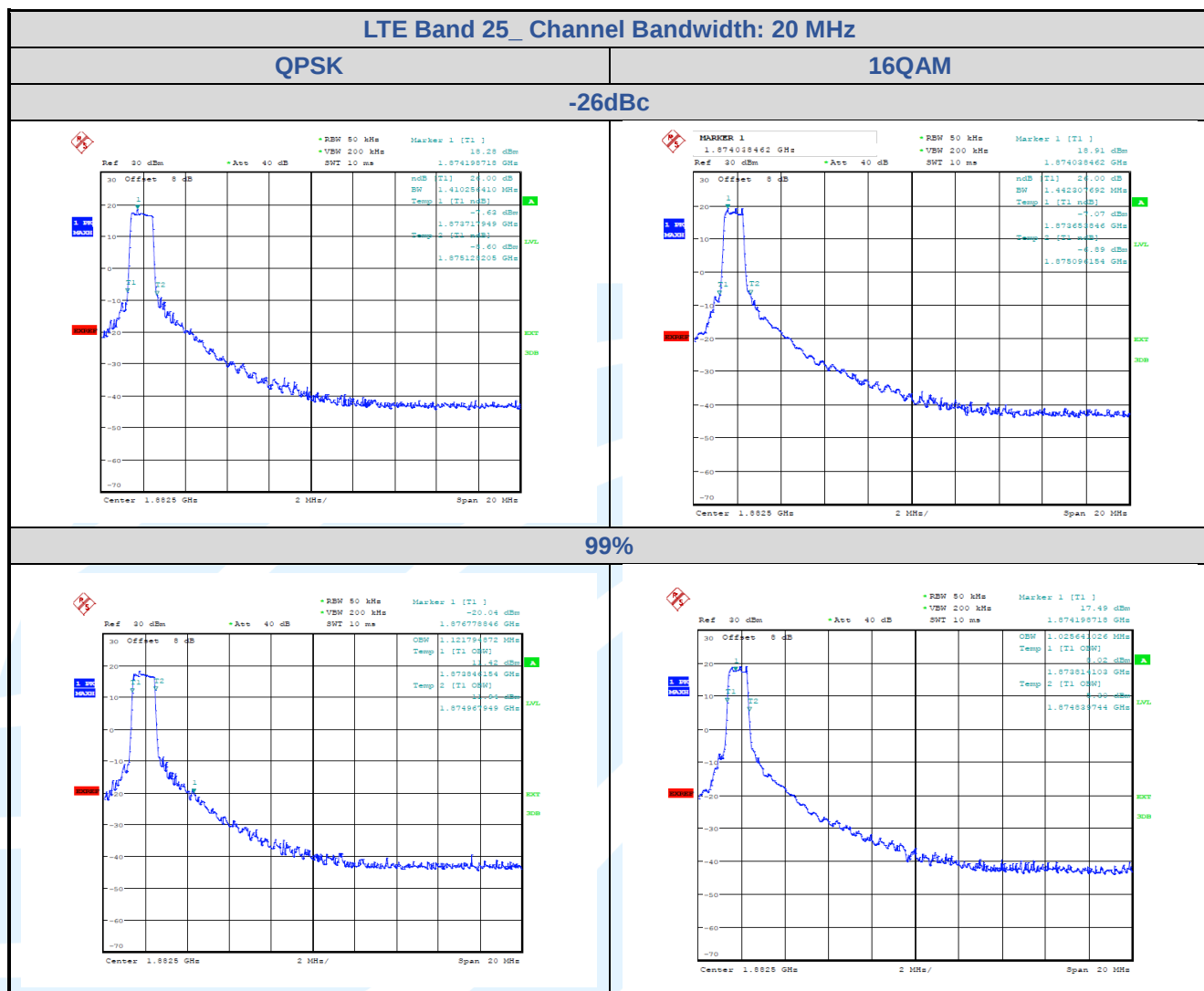












### 5.5.7 LTE Band 26

| LTE Band 26 |            |                |        |
|-------------|------------|----------------|--------|
| Bandwidth   | Modulation | Bandwidth(MHz) |        |
|             |            | 99% Power      | -26dBc |
| 1.4MHz      | QPSK       | 1.12           | 1.33   |
|             | 16QAM      | 0.96           | 1.20   |
| 3MHz        | QPSK       | 1.12           | 1.38   |
|             | 16QAM      | 0.95           | 1.20   |
| 5MHz        | QPSK       | 1.13           | 1.35   |
|             | 16QAM      | 0.97           | 1.23   |
| 10MHz       | QPSK       | 1.12           | 1.33   |
|             | 16QAM      | 0.98           | 1.35   |
| 15MHz       | QPSK       | 1.15           | 1.39   |
|             | 16QAM      | 0.99           | 1.42   |

