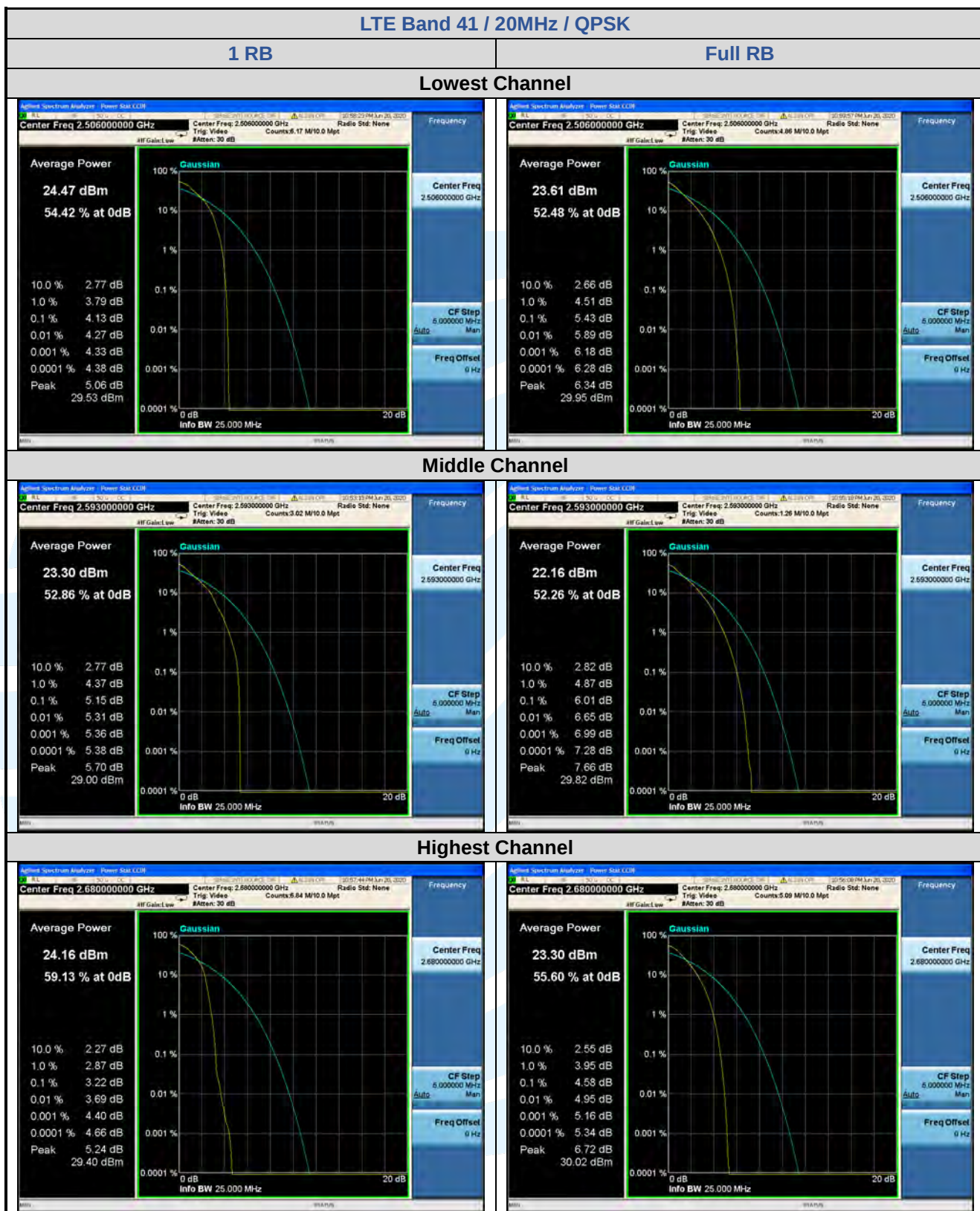
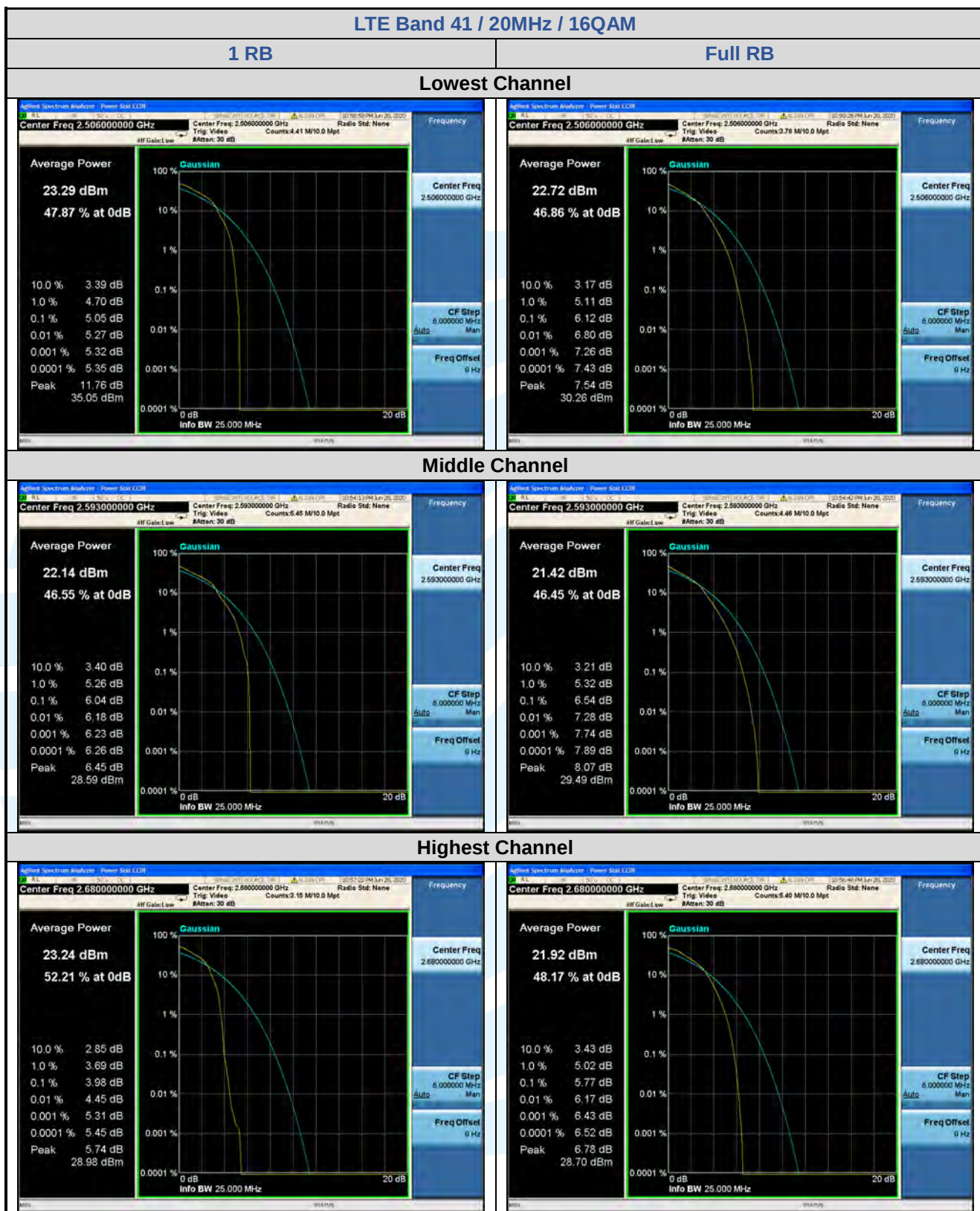


#### 5.4.11 LTE Band 41

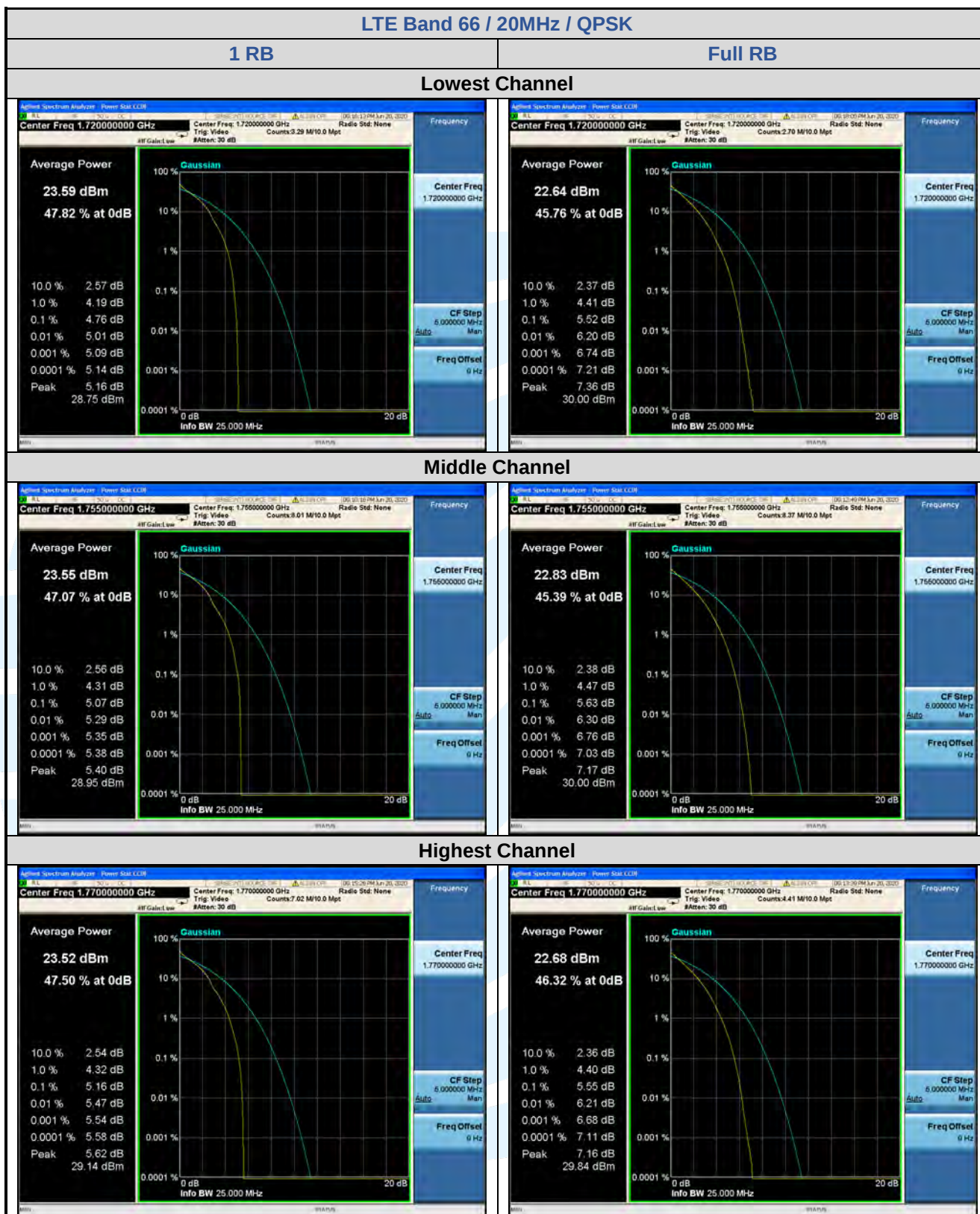
| LTE Band 41 Peak-to-average ratio (dB) |                  |                           |       |       |            |        |
|----------------------------------------|------------------|---------------------------|-------|-------|------------|--------|
| Channel                                | RB Configuration | Channel Bandwidth: 20 MHz |       |       | Limit (dB) | Result |
|                                        |                  | QPSK                      | 16QAM | 64QAM |            |        |
| Lowest                                 | 1 RB             | 3.79                      | 5.05  | /     | 13         | Pass   |
|                                        | Full RB          | 5.43                      | 6.12  | /     | 13         | Pass   |
| Middle                                 | 1 RB             | 5.15                      | 6.04  | /     | 13         | Pass   |
|                                        | Full RB          | 6.01                      | 6.54  | /     | 13         | Pass   |
| Highest                                | 1 RB             | 3.22                      | 3.98  | /     | 13         | Pass   |
|                                        | Full RB          | 4.58                      | 5.77  | /     | 13         | Pass   |

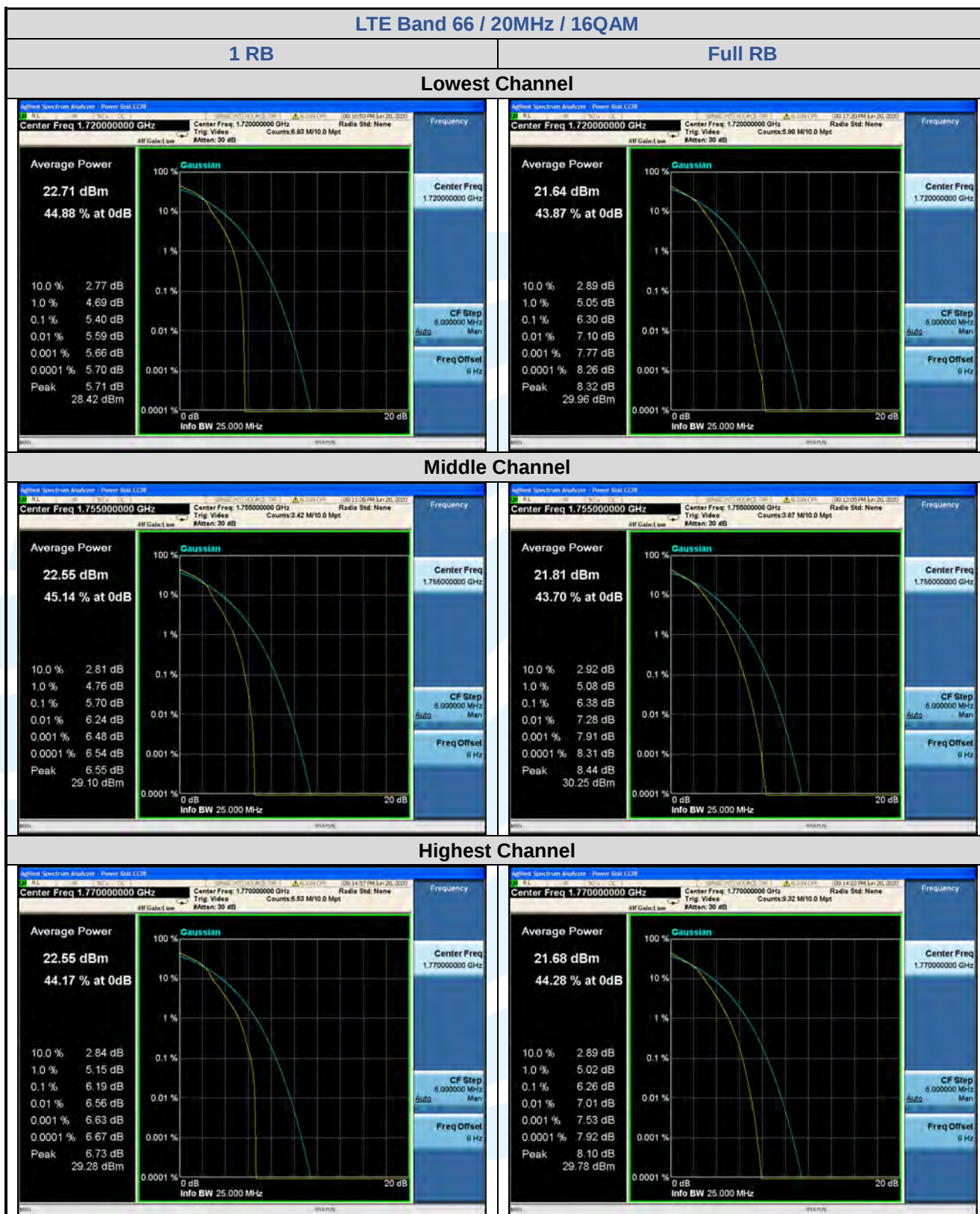




#### 5.4.12 LTE Band 66

| LTE Band 66 Peak-to-average ratio (dB) |                  |                           |       |       |            |        |
|----------------------------------------|------------------|---------------------------|-------|-------|------------|--------|
| Channel                                | RB Configuration | Channel Bandwidth: 20 MHz |       |       | Limit (dB) | Result |
|                                        |                  | QPSK                      | 16QAM | 64QAM |            |        |
| Lowest                                 | 1 RB             | 4.76                      | 5.40  | /     | 13         | Pass   |
|                                        | Full RB          | 5.52                      | 6.30  | /     | 13         | Pass   |
| Middle                                 | 1 RB             | 5.07                      | 5.70  | /     | 13         | Pass   |
|                                        | Full RB          | 5.63                      | 6.38  | /     | 13         | Pass   |
| Highest                                | 1 RB             | 5.16                      | 6.19  | /     | 13         | Pass   |
|                                        | Full RB          | 5.55                      | 6.26  | /     | 13         | Pass   |





### 5.4.13 LTE Band 71

| LTE Band 71 Peak-to-average ratio (dB) |                  |                           |       |       |            |        |
|----------------------------------------|------------------|---------------------------|-------|-------|------------|--------|
| Channel                                | RB Configuration | Channel Bandwidth: 20 MHz |       |       | Limit (dB) | Result |
|                                        |                  | QPSK                      | 16QAM | 64QAM |            |        |
| Lowest                                 | 1 RB             | 4.20                      | 4.96  | /     | 13         | Pass   |
|                                        | Full RB          | 5.42                      | 6.26  | /     | 13         | Pass   |
| Middle                                 | 1 RB             | 4.61                      | 5.49  | /     | 13         | Pass   |
|                                        | Full RB          | 5.44                      | 6.24  | /     | 13         | Pass   |
| Highest                                | 1 RB             | 4.94                      | 5.54  | /     | 13         | Pass   |
|                                        | Full RB          | 5.49                      | 6.24  | /     | 13         | Pass   |





## 5.599%&26DB BANDWIDTH

**Test Requirement:** FCC 47 CFR Part 2.1049(h)

**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                 |                  |        |                |       |       |              |        |       |
|----------------------------|------------------|--------|----------------|-------|-------|--------------|--------|-------|
| Channel                    | RB Configuration |        | 26 dB BW (MHz) |       |       | 99% BW (MHz) |        |       |
|                            | Size             | Offset | QPSK           | 16QAM | 64QAM | QPSK         | 16QAM  | 64QAM |
| Channel Bandwidth: 1.4 MHz |                  |        |                |       |       |              |        |       |
| Lowest                     | 6                | 0      | 1.282          | 1.282 | /     | 1.1017       | 1.0932 | /     |
| Middle                     | 6                | 0      | 1.281          | 1.304 | /     | 1.0932       | 1.0967 | /     |
| Highest                    | 6                | 0      | 1.297          | 1.269 | /     | 1.0948       | 1.0922 | /     |
| Channel Bandwidth: 3 MHz   |                  |        |                |       |       |              |        |       |
| Lowest                     | 15               | 0      | 2.943          | 2.906 | /     | 2.6925       | 2.6817 | /     |
| Middle                     | 15               | 0      | 2.899          | 2.891 | /     | 2.6779       | 2.6823 | /     |
| Highest                    | 15               | 0      | 2.890          | 2.900 | /     | 2.6835       | 2.6744 | /     |
| Channel Bandwidth: 5 MHz   |                  |        |                |       |       |              |        |       |
| Lowest                     | 25               | 0      | 5.178          | 5.233 | /     | 4.5030       | 4.5447 | /     |
| Middle                     | 25               | 0      | 5.190          | 5.161 | /     | 4.5281       | 4.5122 | /     |
| Highest                    | 25               | 0      | 5.196          | 5.116 | /     | 4.5283       | 4.5154 | /     |
| Channel Bandwidth: 10 MHz  |                  |        |                |       |       |              |        |       |
| Lowest                     | 50               | 0      | 10.22          | 9.999 | /     | 9.0121       | 9.0007 | /     |
| Middle                     | 50               | 0      | 9.996          | 10.15 | /     | 9.0018       | 9.0193 | /     |
| Highest                    | 50               | 0      | 10.13          | 10.10 | /     | 9.0085       | 8.9940 | /     |
| Channel Bandwidth: 15 MHz  |                  |        |                |       |       |              |        |       |
| Lowest                     | 75               | 0      | 14.90          | 15.00 | /     | 13.520       | 13.510 | /     |
| Middle                     | 75               | 0      | 14.97          | 14.97 | /     | 13.475       | 13.514 | /     |
| Highest                    | 75               | 0      | 15.12          | 14.95 | /     | 13.479       | 13.485 | /     |
| Channel Bandwidth: 20 MHz  |                  |        |                |       |       |              |        |       |
| Lowest                     | 100              | 0      | 19.72          | 19.82 | /     | 18.009       | 18.032 | /     |
| Middle                     | 100              | 0      | 19.67          | 19.83 | /     | 17.983       | 18.021 | /     |
| Highest                    | 100              | 0      | 19.79          | 19.52 | /     | 17.960       | 17.963 | /     |

## Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F, Block A, Building 6, Baoneng Science and Technology Park, Qingxiang Road No.1, Longhua New District, Shenzhen, China

Tel: +86-755-28230888

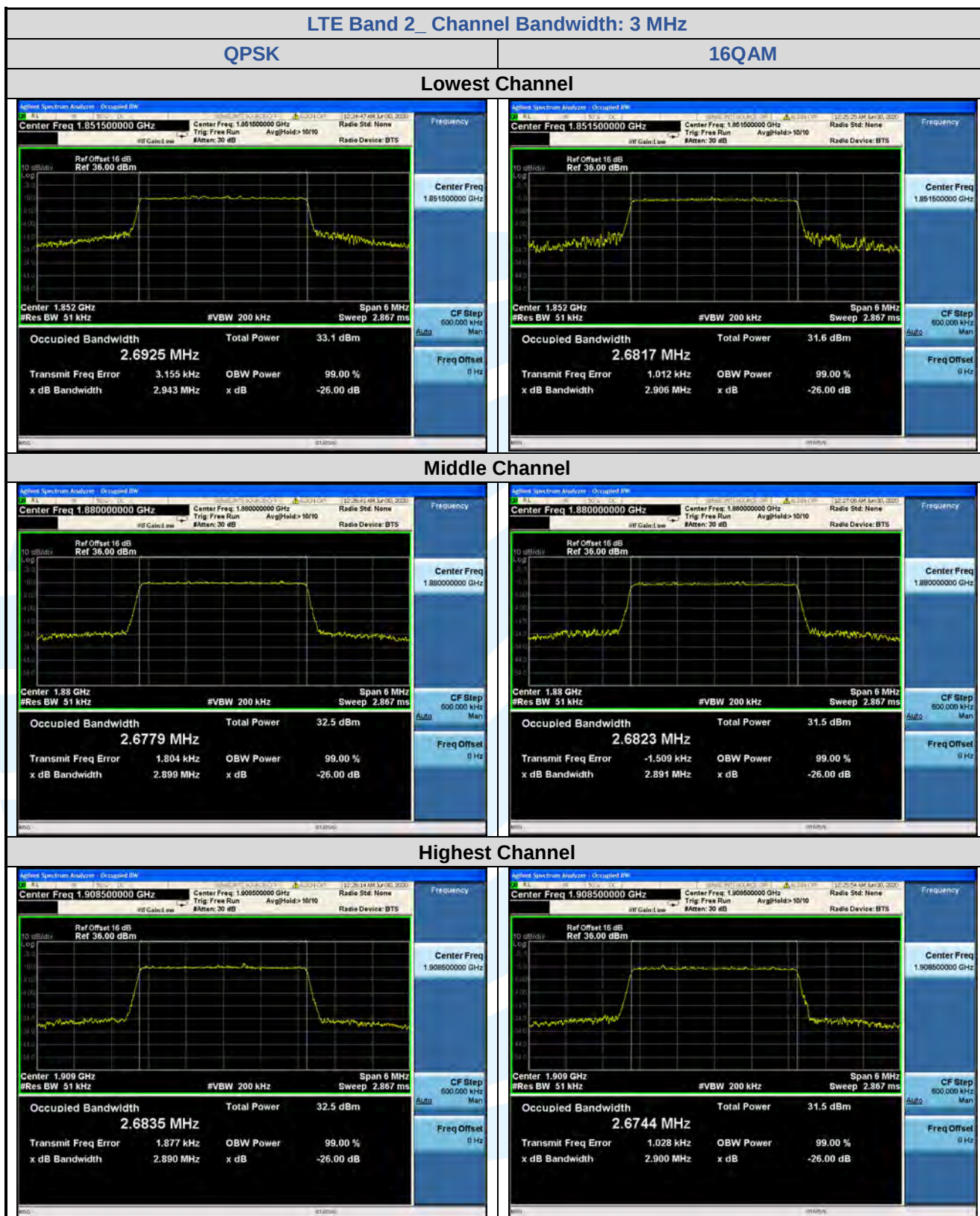
Fax: +86-755-28230886

E-mail: info@uttlab.com

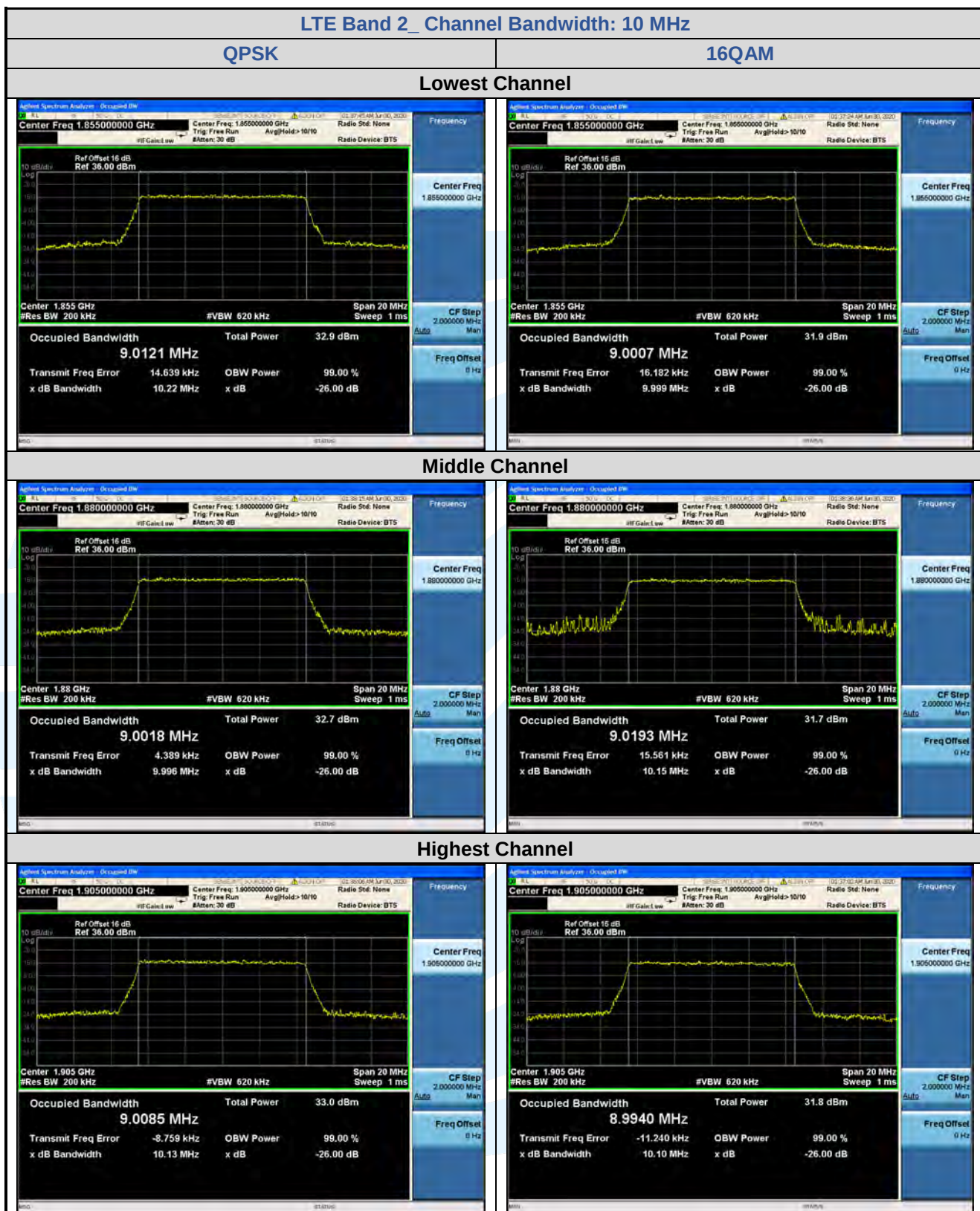
<http://www.uttlab.com>

UTTR-RF-FCC4G-V1.0













### 5.5.2 LTE Band 4

| LTE Band 4                 |                  |        |                |       |       |              |        |       |
|----------------------------|------------------|--------|----------------|-------|-------|--------------|--------|-------|
| Channel                    | RB Configuration |        | 26 dB BW (MHz) |       |       | 99% BW (MHz) |        |       |
|                            | Size             | Offset | QPSK           | 16QAM | 64QAM | QPSK         | 16QAM  | 64QAM |
| Channel Bandwidth: 1.4 MHz |                  |        |                |       |       |              |        |       |
| Lowest                     | 6                | 0      | 1.285          | 1.307 | /     | 1.0924       | 1.0983 | /     |
| Middle                     | 6                | 0      | 1.288          | 1.282 | /     | 1.1020       | 1.0934 | /     |
| Highest                    | 6                | 0      | 1.298          | 1.269 | /     | 1.0947       | 1.0903 | /     |
| Channel Bandwidth: 3 MHz   |                  |        |                |       |       |              |        |       |
| Lowest                     | 15               | 0      | 2.884          | 2.918 | /     | 2.6801       | 2.6743 | /     |
| Middle                     | 15               | 0      | 2.902          | 2.906 | /     | 2.6823       | 2.6845 | /     |
| Highest                    | 15               | 0      | 2.908          | 2.902 | /     | 2.6906       | 2.6789 | /     |
| Channel Bandwidth: 5 MHz   |                  |        |                |       |       |              |        |       |
| Lowest                     | 25               | 0      | 5.156          | 5.171 | /     | 4.5286       | 4.5146 | /     |
| Middle                     | 25               | 0      | 5.196          | 5.165 | /     | 4.5197       | 4.5245 | /     |
| Highest                    | 25               | 0      | 5.134          | 5.193 | /     | 4.5093       | 4.5283 | /     |
| Channel Bandwidth: 10 MHz  |                  |        |                |       |       |              |        |       |
| Lowest                     | 50               | 0      | 10.18          | 10.14 | /     | 9.0117       | 9.0225 | /     |
| Middle                     | 50               | 0      | 10.07          | 10.01 | /     | 8.9890       | 8.9993 | /     |
| Highest                    | 50               | 0      | 10.18          | 9.987 | /     | 9.0225       | 9.0019 | /     |
| Channel Bandwidth: 15 MHz  |                  |        |                |       |       |              |        |       |
| Lowest                     | 75               | 0      | 15.08          | 15.04 | /     | 13.510       | 13.505 | /     |
| Middle                     | 75               | 0      | 15.02          | 14.94 | /     | 13.469       | 13.480 | /     |
| Highest                    | 75               | 0      | 15.00          | 14.97 | /     | 13.489       | 13.505 | /     |
| Channel Bandwidth: 20 MHz  |                  |        |                |       |       |              |        |       |
| Lowest                     | 100              | 0      | 19.72          | 19.72 | /     | 17.964       | 18.019 | /     |
| Middle                     | 100              | 0      | 19.82          | 19.80 | /     | 18.017       | 18.004 | /     |
| Highest                    | 100              | 0      | 19.41          | 19.65 | /     | 17.972       | 18.025 | /     |













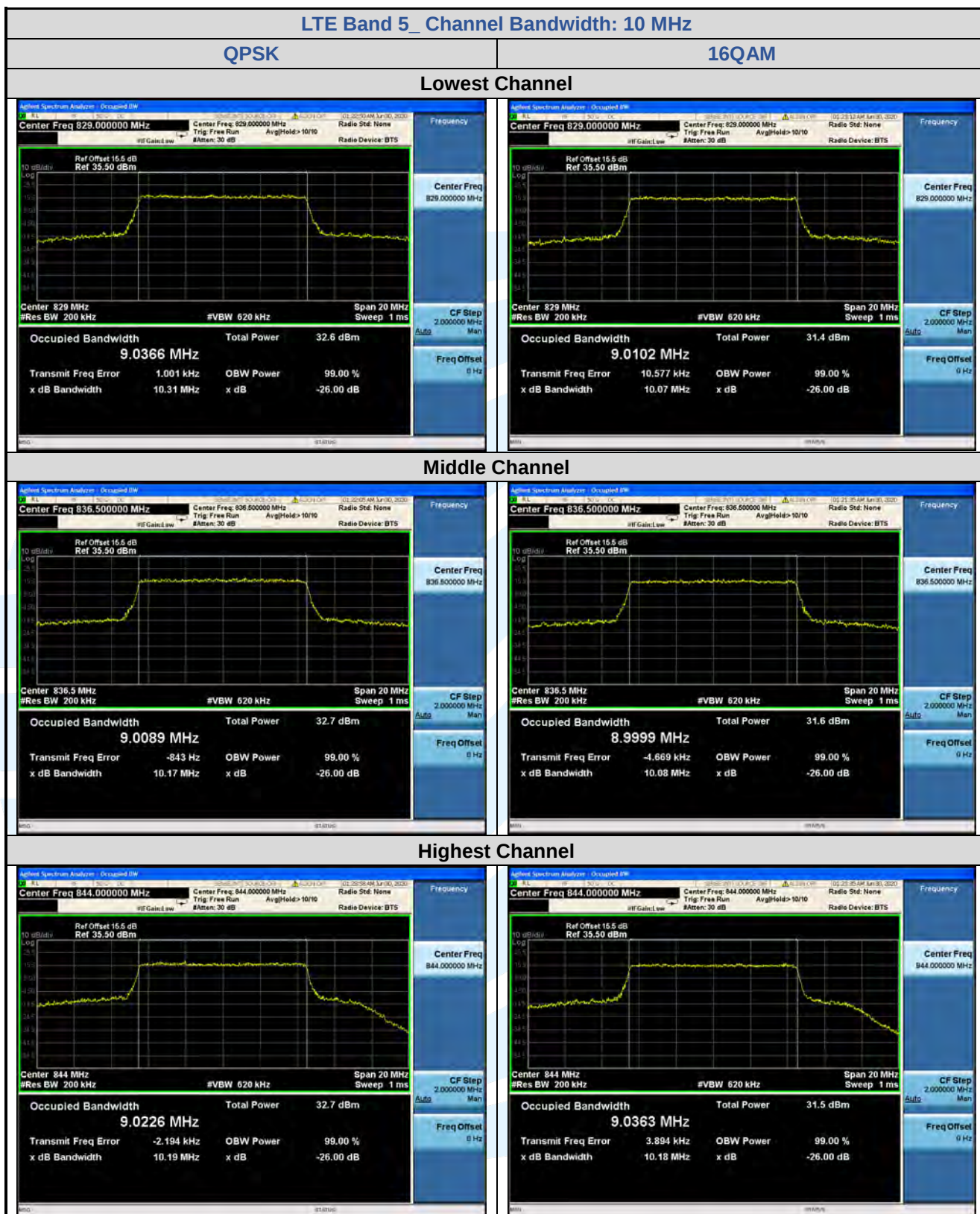
### 5.5.3 LTE Band 5

| LTE Band 5                 |                  |        |                |       |       |              |        |       |
|----------------------------|------------------|--------|----------------|-------|-------|--------------|--------|-------|
| Channel                    | RB Configuration |        | 26 dB BW (MHz) |       |       | 99% BW (MHz) |        |       |
|                            | Size             | Offset | QPSK           | 16QAM | 64QAM | QPSK         | 16QAM  | 64QAM |
| Channel Bandwidth: 1.4 MHz |                  |        |                |       |       |              |        |       |
| Lowest                     | 6                | 0      | 1.292          | 1.275 | /     | 1.0960       | 1.0932 | /     |
| Middle                     | 6                | 0      | 1.328          | 1.302 | /     | 1.0964       | 1.0976 | /     |
| Highest                    | 6                | 0      | 1.312          | 1.316 | /     | 1.1049       | 1.0959 | /     |
| Channel Bandwidth: 3 MHz   |                  |        |                |       |       |              |        |       |
| Lowest                     | 15               | 0      | 2.909          | 2.906 | /     | 2.6907       | 2.6807 | /     |
| Middle                     | 15               | 0      | 2.885          | 2.908 | /     | 2.6844       | 2.6826 | /     |
| Highest                    | 15               | 0      | 2.906          | 2.889 | /     | 2.6930       | 2.6855 | /     |
| Channel Bandwidth: 5 MHz   |                  |        |                |       |       |              |        |       |
| Lowest                     | 25               | 0      | 5.185          | 5.143 | /     | 4.5216       | 4.5370 | /     |
| Middle                     | 25               | 0      | 5.172          | 5.226 | /     | 4.5139       | 4.5394 | /     |
| Highest                    | 25               | 0      | 5.372          | 5.359 | /     | 4.5424       | 4.5278 | /     |
| Channel Bandwidth: 10 MHz  |                  |        |                |       |       |              |        |       |
| Lowest                     | 50               | 0      | 10.31          | 10.07 | /     | 9.0366       | 9.0102 | /     |
| Middle                     | 50               | 0      | 10.17          | 10.08 | /     | 9.0089       | 8.9999 | /     |
| Highest                    | 50               | 0      | 10.19          | 10.18 | /     | 9.0226       | 9.0363 | /     |







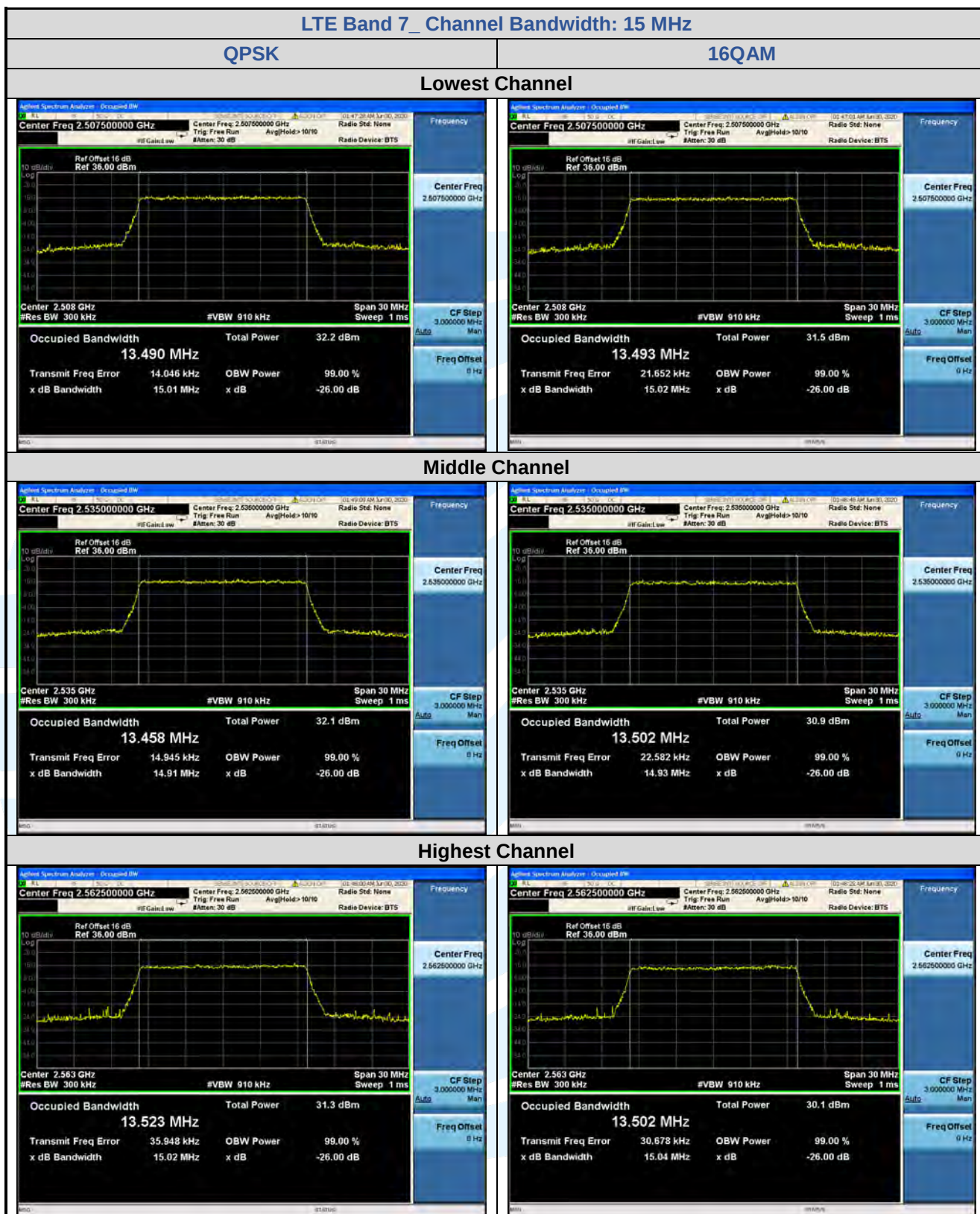


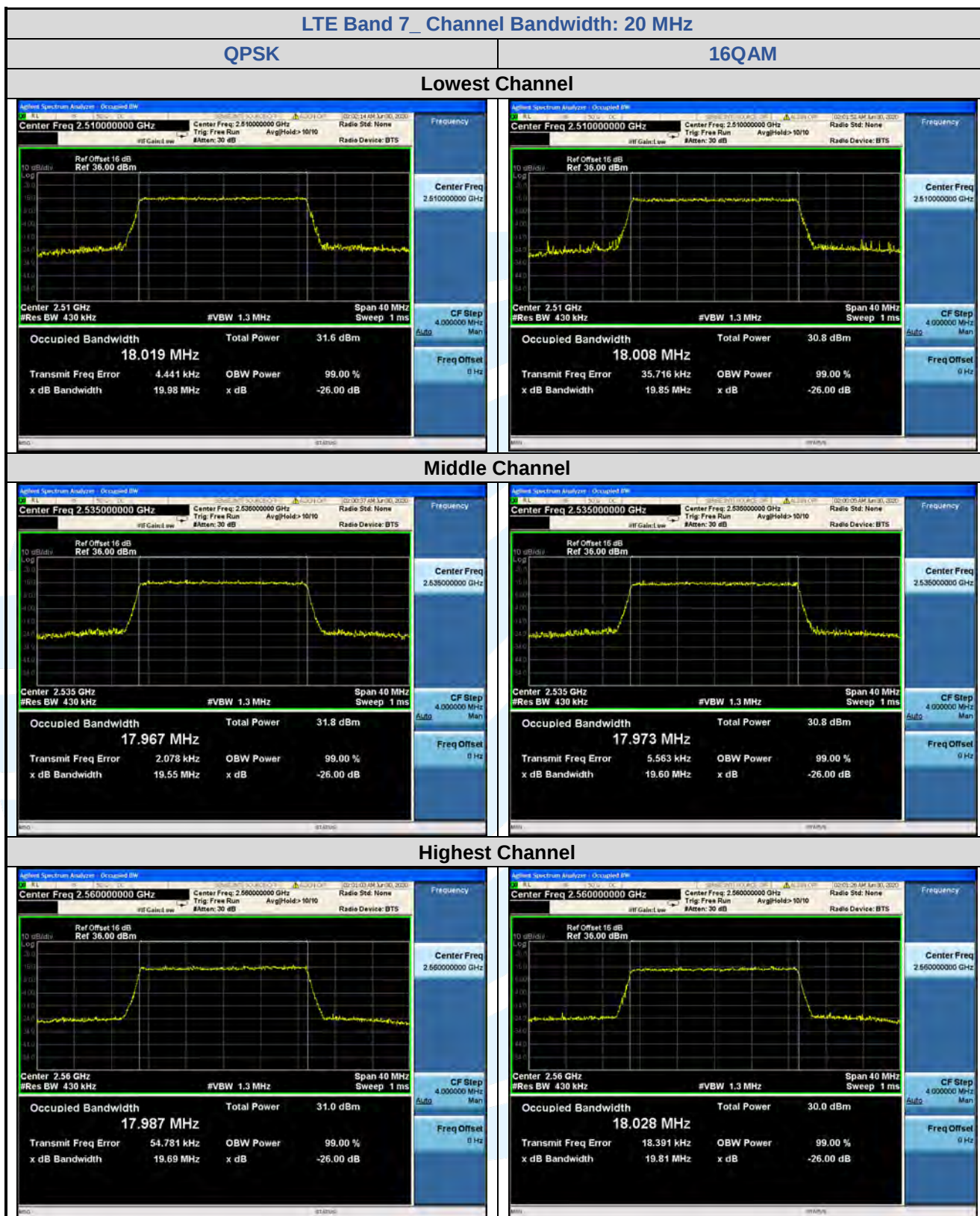
### 5.5.4 LTE Band 7

| LTE Band 7                |                  |        |                |       |       |              |        |       |
|---------------------------|------------------|--------|----------------|-------|-------|--------------|--------|-------|
| Channel                   | RB Configuration |        | 26 dB BW (MHz) |       |       | 99% BW (MHz) |        |       |
|                           | Size             | Offset | QPSK           | 16QAM | 64QAM | QPSK         | 16QAM  | 64QAM |
| Channel Bandwidth: 5 MHz  |                  |        |                |       |       |              |        |       |
| Lowest                    | 25               | 0      | 5.147          | 5.122 | /     | 4.5279       | 4.5193 | /     |
| Middle                    | 25               | 0      | 5.110          | 5.247 | /     | 4.5146       | 4.5467 | /     |
| Highest                   | 25               | 0      | 5.220          | 5.191 | /     | 4.5173       | 4.5297 | /     |
| Channel Bandwidth: 10 MHz |                  |        |                |       |       |              |        |       |
| Lowest                    | 50               | 0      | 10.11          | 10.10 | /     | 9.0090       | 8.9941 | /     |
| Middle                    | 50               | 0      | 9.961          | 10.02 | /     | 8.9876       | 8.9993 | /     |
| Highest                   | 50               | 0      | 10.17          | 10.04 | /     | 9.0144       | 8.9961 | /     |
| Channel Bandwidth: 15 MHz |                  |        |                |       |       |              |        |       |
| Lowest                    | 75               | 0      | 15.01          | 15.02 | /     | 13.490       | 13.493 | /     |
| Middle                    | 75               | 0      | 14.91          | 14.93 | /     | 13.458       | 13.502 | /     |
| Highest                   | 75               | 0      | 15.02          | 15.04 | /     | 13.523       | 13.502 | /     |
| Channel Bandwidth: 20 MHz |                  |        |                |       |       |              |        |       |
| Lowest                    | 100              | 0      | 19.98          | 19.85 | /     | 18.019       | 18.008 | /     |
| Middle                    | 100              | 0      | 19.55          | 19.60 | /     | 17.967       | 17.973 | /     |
| Highest                   | 100              | 0      | 19.69          | 19.81 | /     | 17.987       | 18.028 | /     |









### 5.5.5 LTE Band 12

| LTE Band 12                |                  |        |                |       |       |              |        |       |
|----------------------------|------------------|--------|----------------|-------|-------|--------------|--------|-------|
| Channel                    | RB Configuration |        | 26 dB BW (MHz) |       |       | 99% BW (MHz) |        |       |
|                            | Size             | Offset | QPSK           | 16QAM | 64QAM | QPSK         | 16QAM  | 64QAM |
| Channel Bandwidth: 1.4 MHz |                  |        |                |       |       |              |        |       |
| Lowest                     | 6                | 0      | 1.281          | 1.298 | /     | 1.1019       | 1.0932 | /     |
| Middle                     | 6                | 0      | 1.287          | 1.269 | /     | 1.0939       | 1.0871 | /     |
| Highest                    | 6                | 0      | 1.317          | 1.309 | /     | 1.0942       | 1.1010 | /     |
| Channel Bandwidth: 3 MHz   |                  |        |                |       |       |              |        |       |
| Lowest                     | 15               | 0      | 2.900          | 2.893 | /     | 2.6864       | 2.6766 | /     |
| Middle                     | 15               | 0      | 2.896          | 2.918 | /     | 2.6842       | 2.6796 | /     |
| Highest                    | 15               | 0      | 2.891          | 2.901 | /     | 2.6906       | 2.6832 | /     |
| Channel Bandwidth: 5 MHz   |                  |        |                |       |       |              |        |       |
| Lowest                     | 25               | 0      | 5.130          | 5.199 | /     | 4.5037       | 4.5335 | /     |
| Middle                     | 25               | 0      | 5.152          | 5.176 | /     | 4.5182       | 4.5406 | /     |
| Highest                    | 25               | 0      | 5.184          | 5.178 | /     | 4.5333       | 4.5308 | /     |
| Channel Bandwidth: 10 MHz  |                  |        |                |       |       |              |        |       |
| Lowest                     | 50               | 0      | 10.03          | 10.07 | /     | 8.9947       | 8.9894 | /     |
| Middle                     | 50               | 0      | 10.15          | 9.933 | /     | 8.9963       | 9.0034 | /     |
| Highest                    | 50               | 0      | 10.10          | 10.06 | /     | 9.0065       | 9.0201 | /     |









### 5.5.6 LTE Band 17

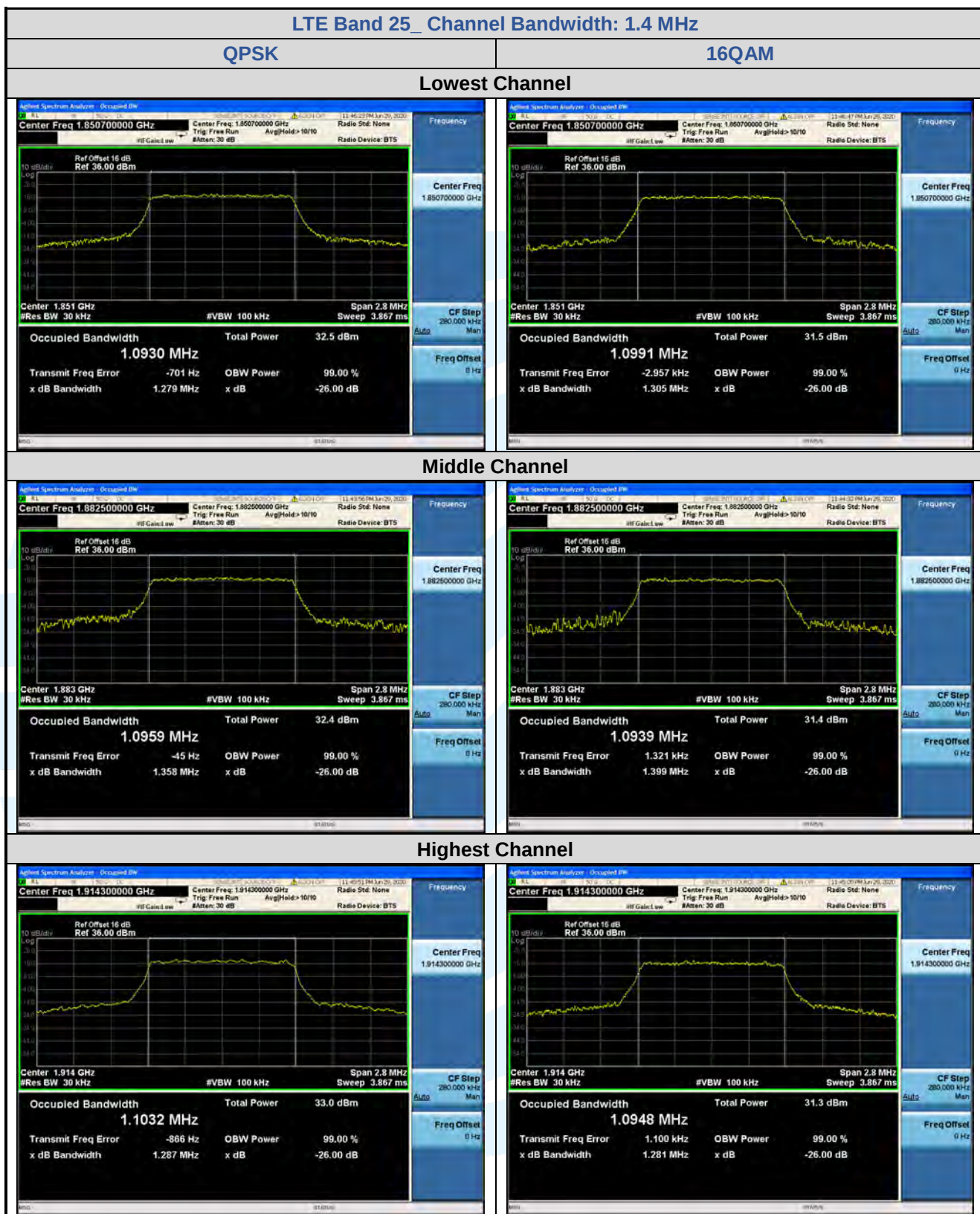
| LTE Band 17               |                  |        |                |       |       |              |        |       |
|---------------------------|------------------|--------|----------------|-------|-------|--------------|--------|-------|
| Channel                   | RB Configuration |        | 26 dB BW (MHz) |       |       | 99% BW (MHz) |        |       |
|                           | Size             | Offset | QPSK           | 16QAM | 64QAM | QPSK         | 16QAM  | 64QAM |
| Channel Bandwidth: 5 MHz  |                  |        |                |       |       |              |        |       |
| Lowest                    | 25               | 0      | 5.132          | 5.225 | /     | 4.5117       | 4.5341 | /     |
| Middle                    | 25               | 0      | 5.167          | 5.137 | /     | 4.5335       | 4.5212 | /     |
| Highest                   | 25               | 0      | 5.167          | 5.169 | /     | 4.5162       | 4.5339 | /     |
| Channel Bandwidth: 10 MHz |                  |        |                |       |       |              |        |       |
| Lowest                    | 50               | 0      | 10.14          | 10.06 | /     | 9.0096       | 9.0080 | /     |
| Middle                    | 50               | 0      | 10.00          | 10.08 | /     | 9.0068       | 9.0122 | /     |
| Highest                   | 50               | 0      | 10.29          | 10.05 | /     | 9.0321       | 9.0244 | /     |





### 5.5.7 LTE Band 25

| LTE Band 25                |                  |        |                |       |       |              |        |       |
|----------------------------|------------------|--------|----------------|-------|-------|--------------|--------|-------|
| Channel                    | RB Configuration |        | 26 dB BW (MHz) |       |       | 99% BW (MHz) |        |       |
|                            | Size             | Offset | QPSK           | 16QAM | 64QAM | QPSK         | 16QAM  | 64QAM |
| Channel Bandwidth: 1.4 MHz |                  |        |                |       |       |              |        |       |
| Lowest                     | 6                | 0      | 1.279          | 1.305 | /     | 1.0930       | 1.0991 | /     |
| Middle                     | 6                | 0      | 1.358          | 1.399 | /     | 1.0959       | 1.0939 | /     |
| Highest                    | 6                | 0      | 1.287          | 1.281 | /     | 1.1032       | 1.0948 | /     |
| Channel Bandwidth: 3 MHz   |                  |        |                |       |       |              |        |       |
| Lowest                     | 15               | 0      | 2.907          | 2.899 | /     | 2.6831       | 2.6741 | /     |
| Middle                     | 15               | 0      | 2.883          | 2.917 | /     | 2.6816       | 2.6801 | /     |
| Highest                    | 15               | 0      | 2.900          | 2.901 | /     | 2.6903       | 2.6840 | /     |
| Channel Bandwidth: 5 MHz   |                  |        |                |       |       |              |        |       |
| Lowest                     | 25               | 0      | 5.125          | 5.228 | /     | 4.5033       | 4.5347 | /     |
| Middle                     | 25               | 0      | 5.187          | 5.160 | /     | 4.5185       | 4.5306 | /     |
| Highest                    | 25               | 0      | 5.178          | 5.139 | /     | 4.5263       | 4.5184 | /     |
| Channel Bandwidth: 10 MHz  |                  |        |                |       |       |              |        |       |
| Lowest                     | 50               | 0      | 10.09          | 10.10 | /     | 9.0165       | 8.9881 | /     |
| Middle                     | 50               | 0      | 10.04          | 10.12 | /     | 8.9882       | 9.0078 | /     |
| Highest                    | 50               | 0      | 10.18          | 9.968 | /     | 9.0271       | 9.0119 | /     |
| Channel Bandwidth: 15 MHz  |                  |        |                |       |       |              |        |       |
| Lowest                     | 75               | 0      | 15.04          | 14.95 | /     | 13.504       | 13.515 | /     |
| Middle                     | 75               | 0      | 14.99          | 14.93 | /     | 13.475       | 13.490 | /     |
| Highest                    | 75               | 0      | 14.96          | 14.90 | /     | 13.515       | 13.489 | /     |
| Channel Bandwidth: 20 MHz  |                  |        |                |       |       |              |        |       |
| Lowest                     | 100              | 0      | 19.53          | 19.72 | /     | 18.012       | 17.994 | /     |
| Middle                     | 100              | 0      | 19.99          | 19.78 | /     | 18.031       | 17.997 | /     |
| Highest                    | 100              | 0      | 19.63          | 19.87 | /     | 17.942       | 17.991 | /     |













### 5.5.8 LTE Band 26

| LTE Band 26                |                  |        |                |       |       |              |        |       |
|----------------------------|------------------|--------|----------------|-------|-------|--------------|--------|-------|
| Channel                    | RB Configuration |        | 26 dB BW (MHz) |       |       | 99% BW (MHz) |        |       |
|                            | Size             | Offset | QPSK           | 16QAM | 64QAM | QPSK         | 16QAM  | 64QAM |
| Channel Bandwidth: 1.4 MHz |                  |        |                |       |       |              |        |       |
| Lowest                     | 6                | 0      | 1.283          | 1.303 | /     | 1.0924       | 1.0985 | /     |
| Middle                     | 6                | 0      | 1.298          | 1.274 | /     | 1.0947       | 1.0922 | /     |
| Highest                    | 6                | 0      | 1.282          | 1.293 | /     | 1.1006       | 1.0928 | /     |
| Channel Bandwidth: 3 MHz   |                  |        |                |       |       |              |        |       |
| Lowest                     | 15               | 0      | 2.901          | 2.898 | /     | 2.6899       | 2.6810 | /     |
| Middle                     | 15               | 0      | 2.897          | 2.899 | /     | 2.6888       | 2.6846 | /     |
| Highest                    | 15               | 0      | 2.898          | 2.910 | /     | 2.6812       | 2.6793 | /     |
| Channel Bandwidth: 5 MHz   |                  |        |                |       |       |              |        |       |
| Lowest                     | 25               | 0      | 5.150          | 5.214 | /     | 4.5109       | 4.5435 | /     |
| Middle                     | 25               | 0      | 5.158          | 5.173 | /     | 4.5141       | 4.5350 | /     |
| Highest                    | 25               | 0      | 5.175          | 5.165 | /     | 4.5302       | 4.5127 | /     |
| Channel Bandwidth: 10 MHz  |                  |        |                |       |       |              |        |       |
| Lowest                     | 50               | 0      | 10.11          | 10.15 | /     | 9.0152       | 9.0087 | /     |
| Middle                     | 50               | 0      | 10.08          | 10.02 | /     | 8.9802       | 8.9901 | /     |
| Highest                    | 50               | 0      | 10.32          | 9.995 | /     | 9.0198       | 9.0219 | /     |
| Channel Bandwidth: 15 MHz  |                  |        |                |       |       |              |        |       |
| Lowest                     | 75               | 0      | 15.10          | 15.03 | /     | 13.532       | 13.494 | /     |
| Middle                     | 75               | 0      | 15.03          | 14.89 | /     | 13.475       | 13.494 | /     |
| Highest                    | 75               | 0      | 14.99          | 14.91 | /     | 13.476       | 13.505 | /     |



