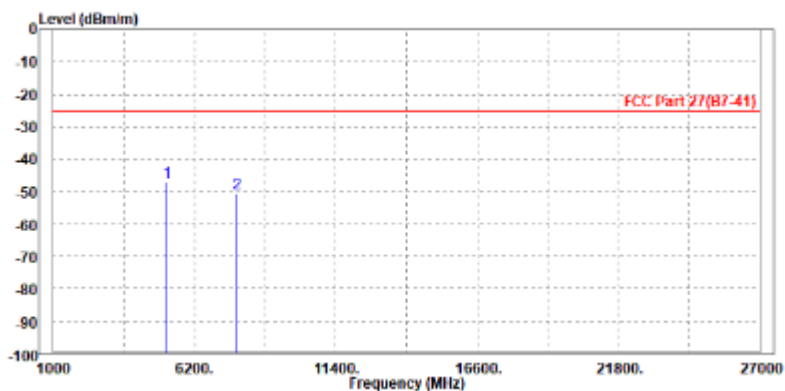


CH40620

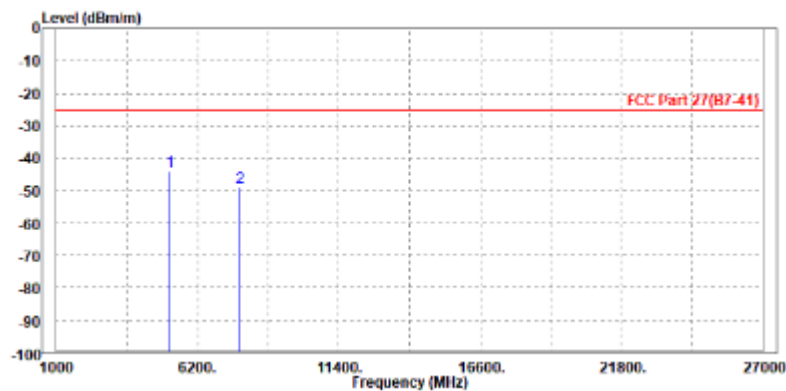
|                                                     |                  |                 |               |
|-----------------------------------------------------|------------------|-----------------|---------------|
| MODE                                                | TX channel 40620 | FREQUENCY RANGE | Above 1000MHz |
| ENVIRONMENTAL CONDITIONS                            | 23deg. C, 70%RH  | INPUT POWER     | AC 120V/60Hz  |
| TESTED BY                                           | Jace Hu          |                 |               |
| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                  |                 |               |

|      | Freq     | Level  | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase  |
|------|----------|--------|------------|------------|------------|--------|--------|------------|
|      | MHz      | dBm/m  | dBm        | dBm/m      | dB         | dB/m   |        |            |
| 1 PP | 5186.000 | -47.18 | -56.26     | -25.00     | -22.18     | 9.08   | Peak   | Horizontal |
| 2    | 7779.000 | -50.69 | -62.16     | -25.00     | -25.69     | 11.47  | Peak   | Horizontal |



|                                                   |                  |                 |               |
|---------------------------------------------------|------------------|-----------------|---------------|
| MODE                                              | TX channel 40620 | FREQUENCY RANGE | Above 1000MHz |
| ENVIRONMENTAL CONDITIONS                          | 23deg. C, 70%RH  | INPUT POWER     | AC 120V/60Hz  |
| TESTED BY                                         | Jace Hu          |                 |               |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M |                  |                 |               |

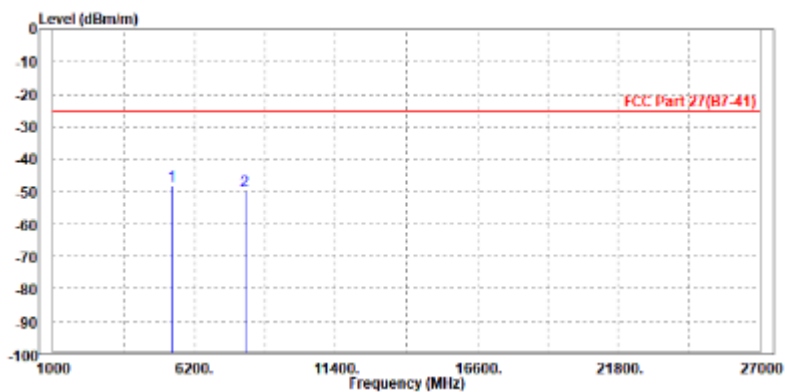
|      | Freq     | Level  | Read<br>Level | Limit<br>Line | Over<br>Limit | Factor | Remark | Pol/Phase |
|------|----------|--------|---------------|---------------|---------------|--------|--------|-----------|
|      | MHz      | dBm/m  | dBm           | dBm/m         | dB            | dB/m   |        |           |
| 1 PP | 5186.000 | -43.95 | -53.78        | -25.00        | -18.95        | 9.83   | Peak   | Vertical  |
| 2    | 7779.000 | -48.88 | -61.73        | -25.00        | -23.88        | 12.85  | Peak   | Vertical  |



CH41540

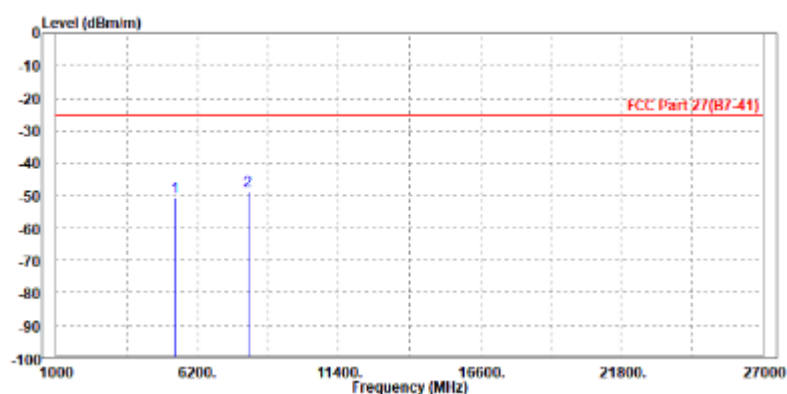
|                                                     |                  |                 |               |
|-----------------------------------------------------|------------------|-----------------|---------------|
| MODE                                                | TX channel 41540 | FREQUENCY RANGE | Above 1000MHz |
| ENVIRONMENTAL CONDITIONS                            | 23deg. C, 70%RH  | INPUT POWER     | AC 120V/60Hz  |
| TESTED BY                                           | Jace Hu          |                 |               |
| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                  |                 |               |

|   | Freq        | Level  | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase  |
|---|-------------|--------|------------|------------|------------|--------|--------|------------|
|   | MHz         | dBm/m  | dBm        | dBm/m      | dB         | dB/m   |        |            |
| 1 | PP 5368.000 | -48.47 | -58.10     | -25.00     | -23.47     | 9.63   | Peak   | Horizontal |
| 2 | 8055.000    | -49.95 | -61.56     | -25.00     | -24.95     | 11.61  | Peak   | Horizontal |



|                                                   |                  |                 |               |
|---------------------------------------------------|------------------|-----------------|---------------|
| MODE                                              | TX channel 41540 | FREQUENCY RANGE | Above 1000MHz |
| ENVIRONMENTAL CONDITIONS                          | 23deg. C, 70%RH  | INPUT POWER     | AC 120V/60Hz  |
| TESTED BY                                         | Jace Hu          |                 |               |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M |                  |                 |               |

|   | Freq        | Level  | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|-------------|--------|------------|------------|------------|--------|--------|-----------|
|   | MHz         | dBm/m  | dBm        | dBm/m      | dB         | dB/m   |        |           |
| 1 | 5368.000    | -50.55 | -60.31     | -25.00     | -25.55     | 9.76   | Peak   | Vertical  |
| 2 | PP 8055.000 | -48.68 | -61.74     | -25.00     | -23.68     | 13.06  | Peak   | Vertical  |





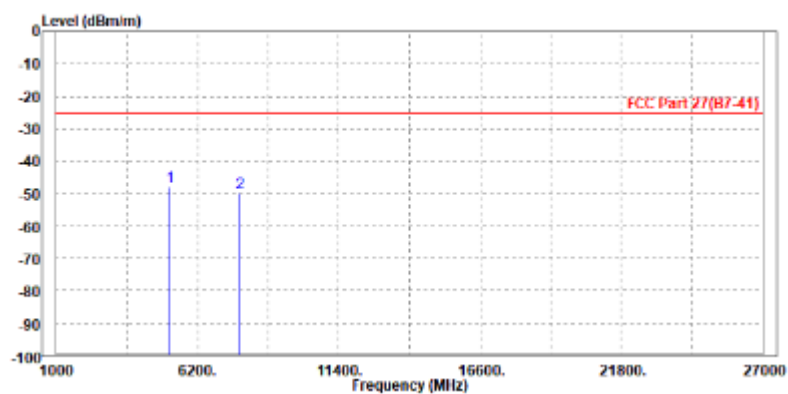
BUREAU  
VERITAS

Test Report No.: W7L-P21080009RF17

CHANNEL BANDWIDTH: 15MHz / QPSK

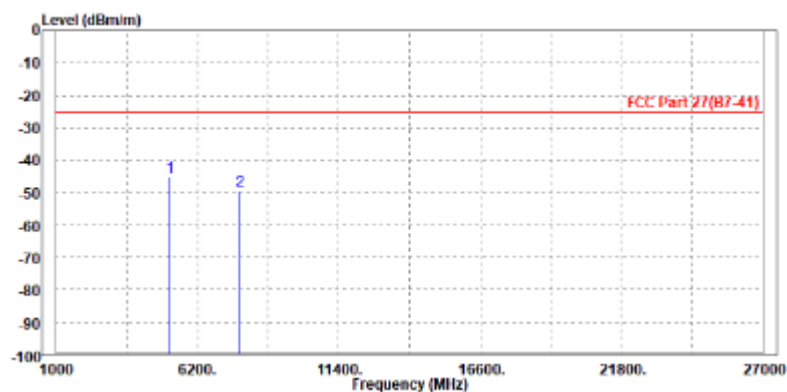
|                                                     |                  |                 |               |
|-----------------------------------------------------|------------------|-----------------|---------------|
| MODE                                                | TX channel 40620 | FREQUENCY RANGE | Above 1000MHz |
| ENVIRONMENTAL CONDITIONS                            | 23deg. C, 70%RH  | INPUT POWER     | AC 120V/60Hz  |
| TESTED BY                                           | Jace Hu          |                 |               |
| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                  |                 |               |

|   |    | Freq     | Level  | Read   | Limit  | Over   |        |        |            |
|---|----|----------|--------|--------|--------|--------|--------|--------|------------|
|   |    | MHz      | dBm/m  | Level  | Line   | Limit  | Factor | Remark | Pol/Phase  |
| 1 | PP | 5186.000 | -47.77 | -56.85 | -25.00 | -22.77 | 9.08   | Peak   | Horizontal |
| 2 |    | 7779.000 | -49.76 | -61.23 | -25.00 | -24.76 | 11.47  | Peak   | Horizontal |



|                                                   |                  |                 |               |
|---------------------------------------------------|------------------|-----------------|---------------|
| MODE                                              | TX channel 40620 | FREQUENCY RANGE | Above 1000MHz |
| ENVIRONMENTAL CONDITIONS                          | 23deg. C, 70%RH  | INPUT POWER     | AC 120V/60Hz  |
| TESTED BY                                         | Jace Hu          |                 |               |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M |                  |                 |               |

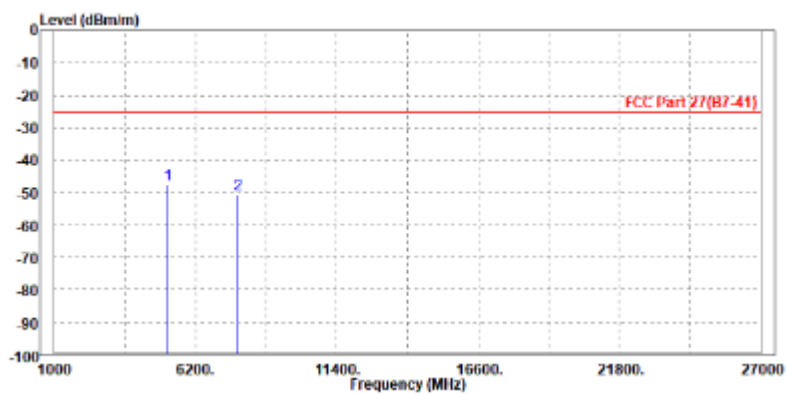
|   | Freq        | Level  | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|-------------|--------|------------|------------|------------|--------|--------|-----------|
|   | MHz         | dBm/m  | dBm        | dBm/m      | dB         | dB/m   |        |           |
| 1 | PP 5186.000 | -45.26 | -55.09     | -25.00     | -20.26     | 9.83   | Peak   | Vertical  |
| 2 | 7779.000    | -49.56 | -62.41     | -25.00     | -24.56     | 12.85  | Peak   | Vertical  |



**CHANNEL BANDWIDTH: 20MHz / QPSK**

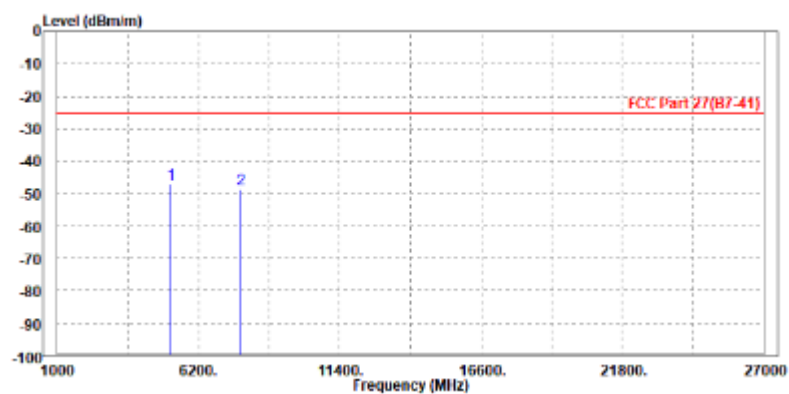
|                                                     |                  |                 |               |
|-----------------------------------------------------|------------------|-----------------|---------------|
| MODE                                                | TX channel 40620 | FREQUENCY RANGE | Above 1000MHz |
| ENVIRONMENTAL CONDITIONS                            | 23deg. C, 70%RH  | INPUT POWER     | AC 120V/60Hz  |
| TESTED BY                                           | Jace Hu          |                 |               |
| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                  |                 |               |

|      | Freq     | Level  | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase  |
|------|----------|--------|------------|------------|------------|--------|--------|------------|
|      | MHz      | dBm/m  | dBm        | dBm/m      | dB         | dB/m   |        |            |
| 1 PP | 5186.000 | -47.53 | -56.61     | -25.00     | -22.53     | 9.08   | Peak   | Horizontal |
| 2    | 7779.000 | -50.66 | -62.13     | -25.00     | -25.66     | 11.47  | Peak   | Horizontal |



|                                                   |                  |                 |               |
|---------------------------------------------------|------------------|-----------------|---------------|
| MODE                                              | TX channel 40620 | FREQUENCY RANGE | Above 1000MHz |
| ENVIRONMENTAL CONDITIONS                          | 23deg. C, 70%RH  | INPUT POWER     | AC 120V/60Hz  |
| TESTED BY                                         | Jace Hu          |                 |               |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M |                  |                 |               |

|   |    | Freq     | Level  | Read Level | Limit Line | Over Limit | Factor | Remark | Pol/Phase |
|---|----|----------|--------|------------|------------|------------|--------|--------|-----------|
|   |    | MHz      | dBm/m  | dBm        | dBm/m      | dB         | dB/m   |        |           |
| 1 | PP | 5186.000 | -47.07 | -56.90     | -25.00     | -22.07     | 9.83   | Peak   | Vertical  |
| 2 |    | 7779.000 | -48.82 | -61.67     | -25.00     | -23.82     | 12.85  | Peak   | Vertical  |



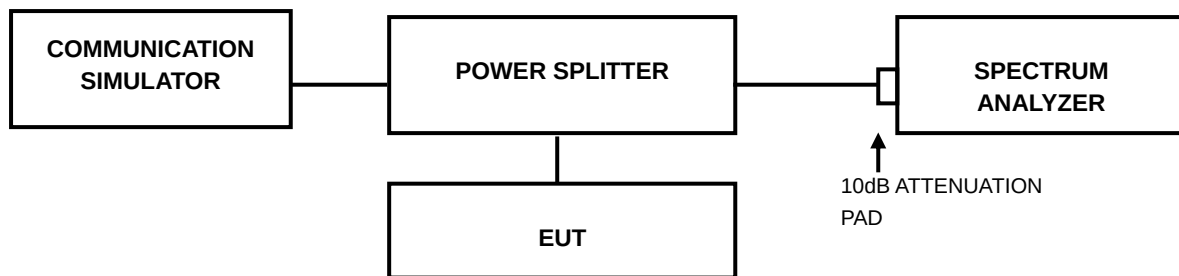


### 3.7 PEAK TO AVERAGE RATIO

#### 3.7.1 LIMITS OF PEAK TO AVERAGE RATIO MEASUREMENT

In measuring transmissions in this band using an average power technique, the peak to-average ratio (PAR) of the transmission may not exceed 13 dB

#### 3.7.2 TEST SETUP



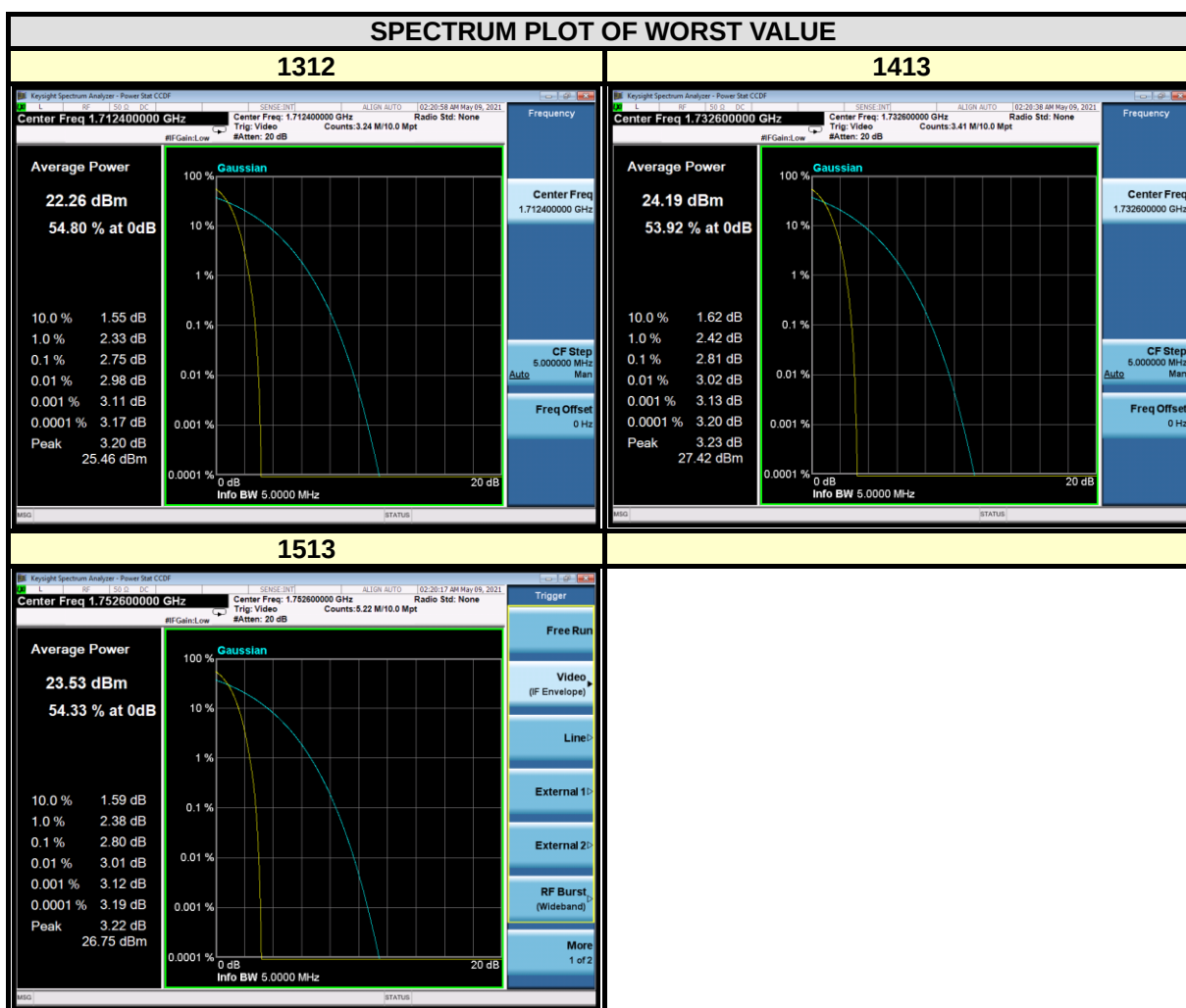
#### 3.7.3 TEST PROCEDURES

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. Record the maximum PAPR level associated with a probability of 0.1%.

### 3.7.4 TEST RESULTS

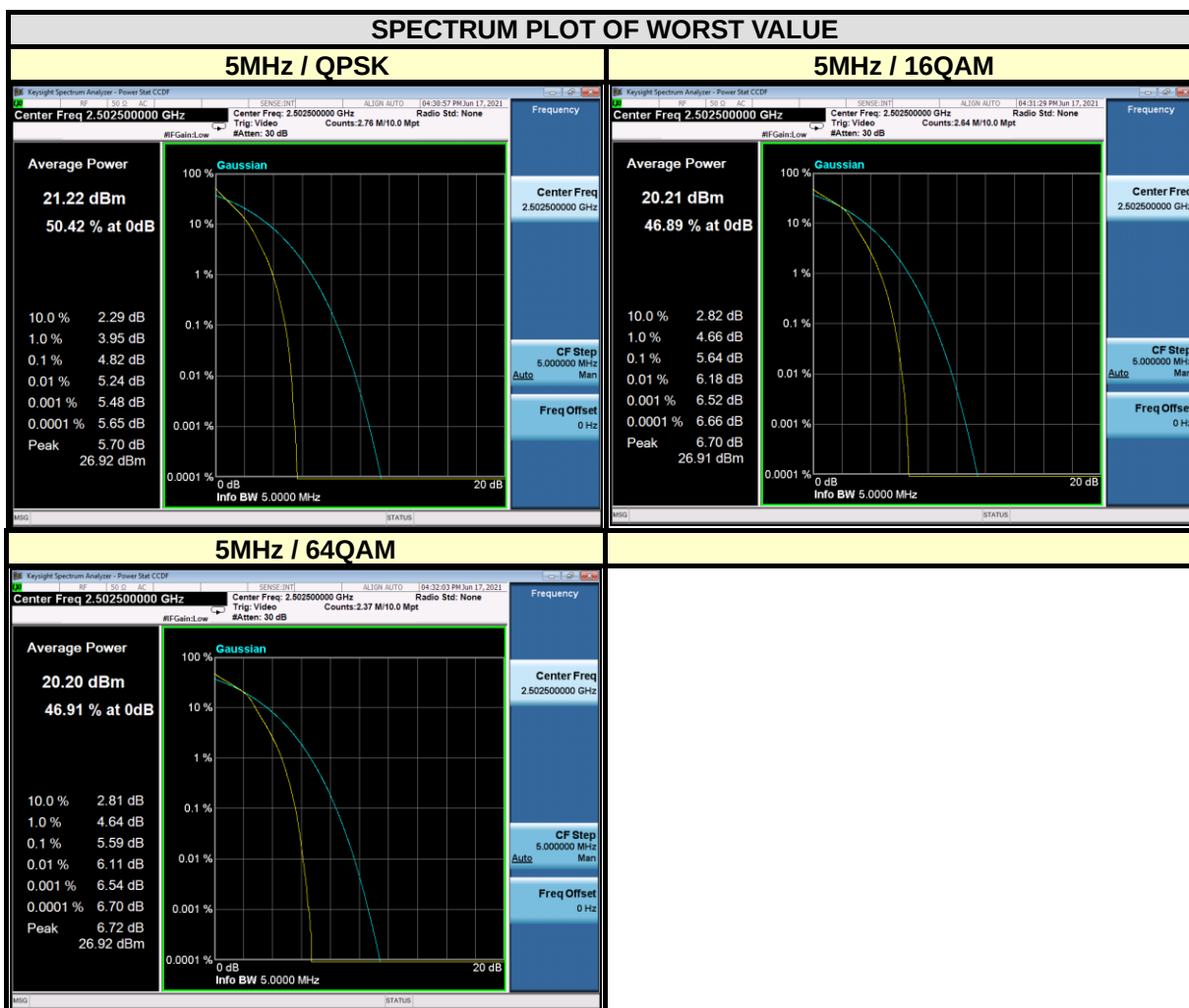
#### WCDMA BAND IV

| CHANNEL | FREQUENCY (MHz) | PEAK TO AVERAGE RATIO (dB) |
|---------|-----------------|----------------------------|
| 1312    | 1712.40         | 2.75                       |
| 1413    | 1732.60         | 2.81                       |
| 1513    | 1752.60         | 2.80                       |

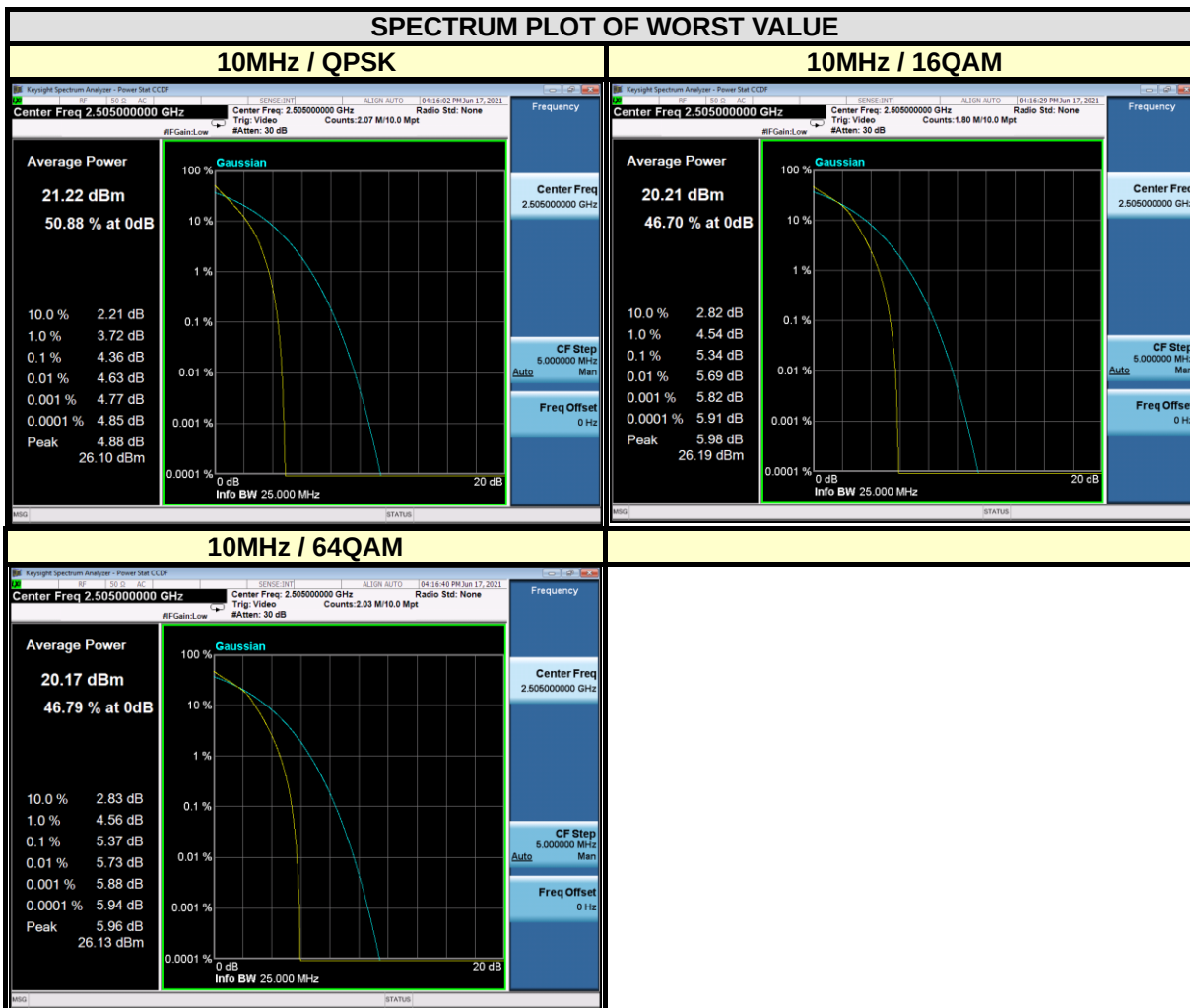


**LTE BAND 7**

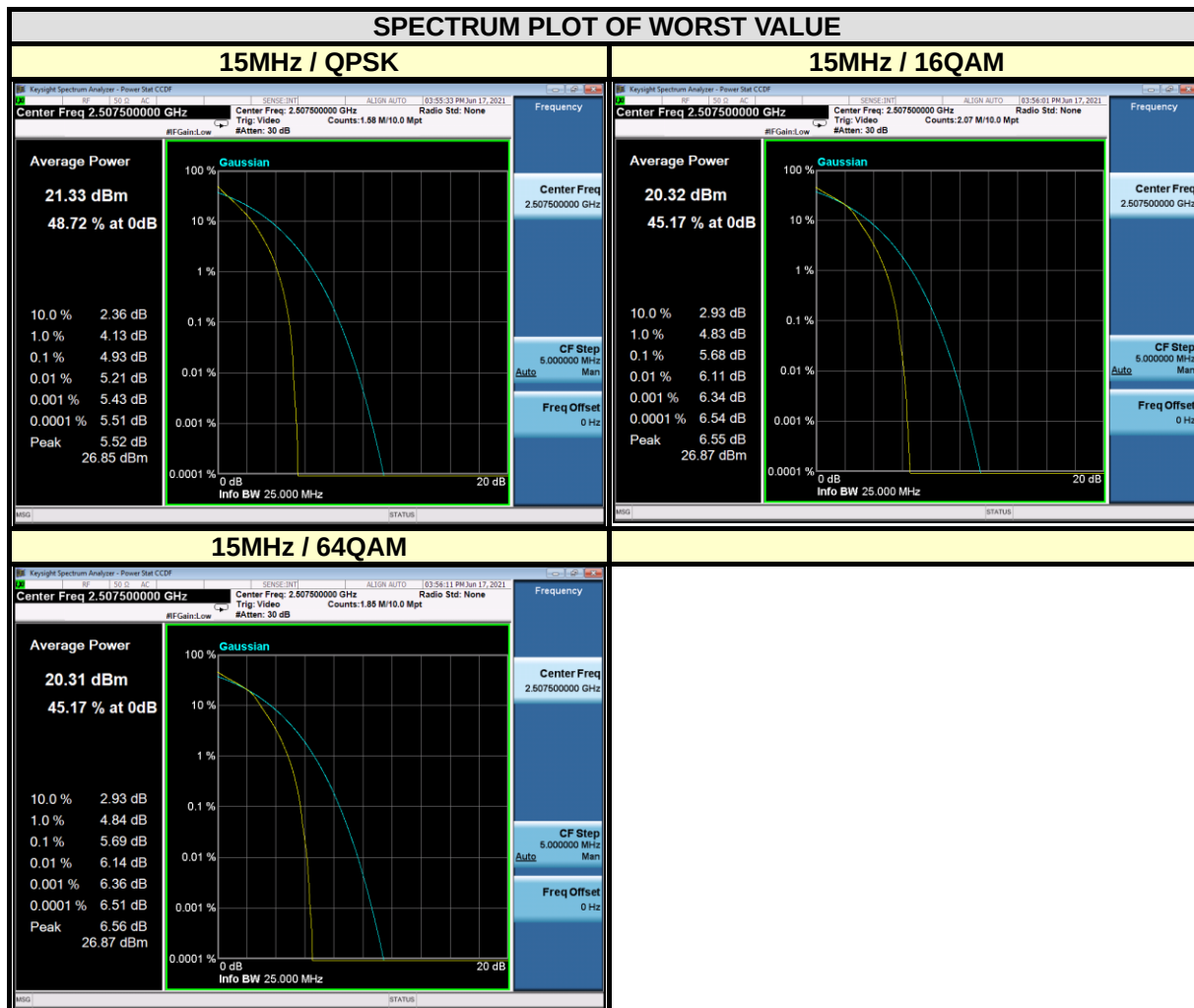
| CHANNEL BANDWIDTH: 5MHz |                 |                            |       |       |
|-------------------------|-----------------|----------------------------|-------|-------|
| CHANNEL                 | Frequency (MHz) | PEAK TO AVERAGE RATIO (dB) |       |       |
|                         |                 | QPSK                       | 16QAM | 64QAM |
| 20775                   | 2502.5          | 4.82                       | 5.64  | 5.59  |
| 21100                   | 2535            | 4.05                       | 5.01  | 5.00  |
| 21425                   | 2567.5          | 4.19                       | 5.16  | 5.16  |



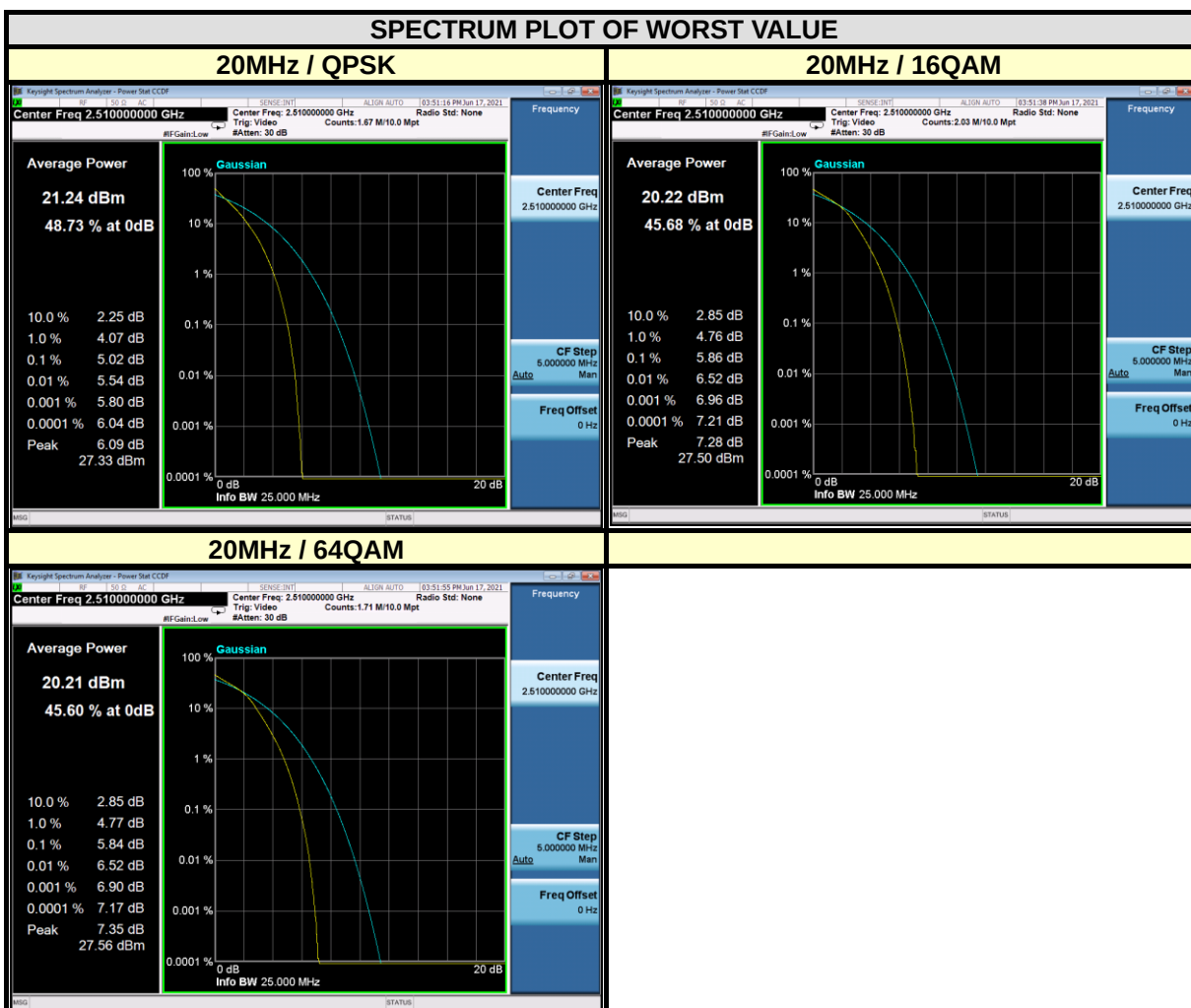
| CHANNEL BANDWIDTH: 10MHz |                 |                            |       |       |
|--------------------------|-----------------|----------------------------|-------|-------|
| CHANNEL                  | Frequency (MHz) | PEAK TO AVERAGE RATIO (dB) |       |       |
|                          |                 | QPSK                       | 16QAM | 64QAM |
| 20800                    | 2505            | 4.36                       | 5.34  | 5.37  |
| 21100                    | 2535            | 3.08                       | 4.63  | 4.58  |
| 21400                    | 2565            | 3.56                       | 4.82  | 4.78  |



| CHANNEL BANDWIDTH: 15MHz |                 |                            |       |       |
|--------------------------|-----------------|----------------------------|-------|-------|
| CHANNEL                  | Frequency (MHz) | PEAK TO AVERAGE RATIO (dB) |       |       |
|                          |                 | QPSK                       | 16QAM | 64QAM |
| 20825                    | 2507.5          | 4.93                       | 5.68  | 5.69  |
| 21100                    | 2535            | 4.27                       | 5.19  | 5.20  |
| 21375                    | 2562.5          | 4.41                       | 5.37  | 5.39  |

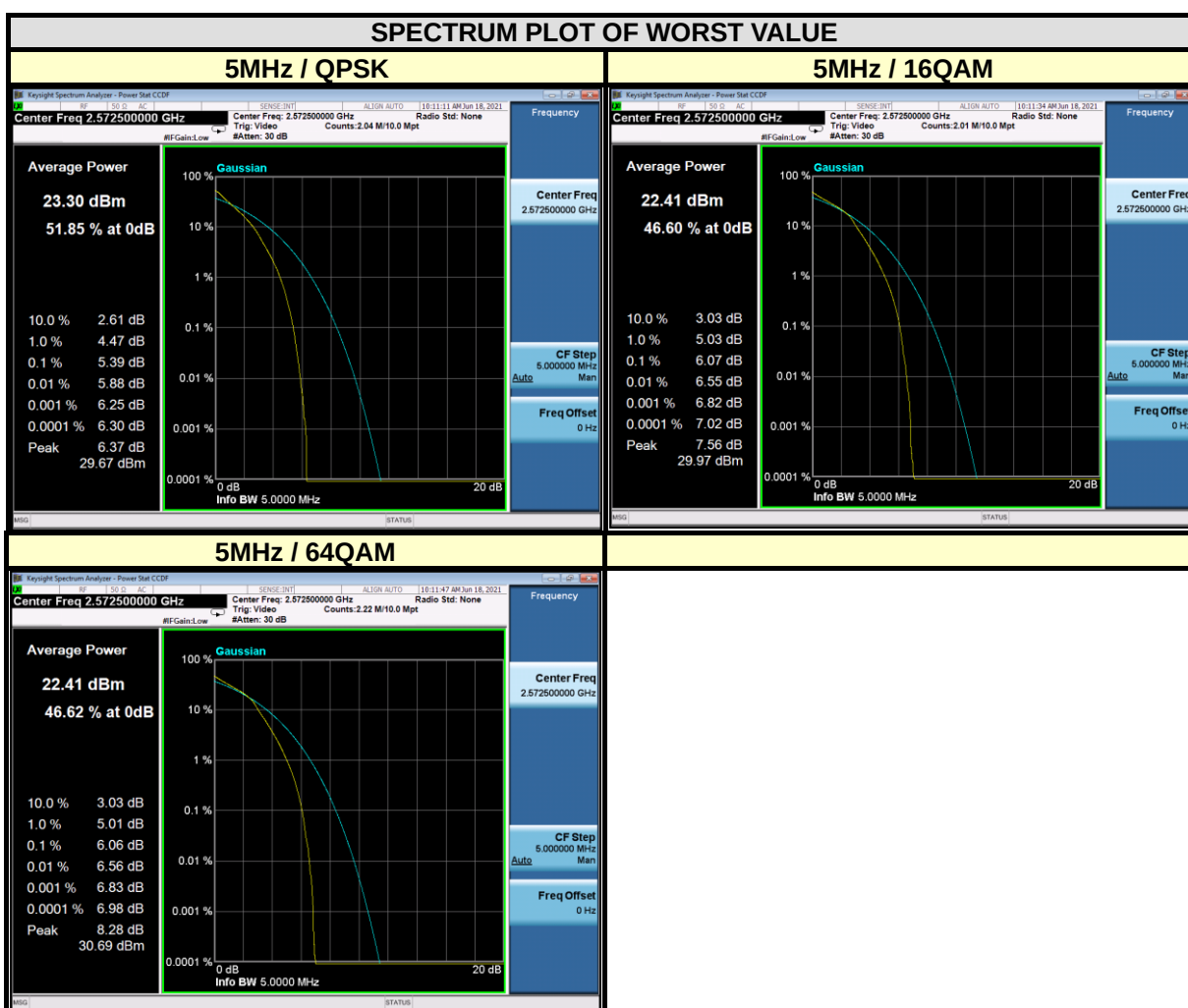


| CHANNEL BANDWIDTH: 20MHz |                 |                            |       |       |
|--------------------------|-----------------|----------------------------|-------|-------|
| CHANNEL                  | Frequency (MHz) | PEAK TO AVERAGE RATIO (dB) |       |       |
|                          |                 | QPSK                       | 16QAM | 64QAM |
| 20850                    | 2510            | 5.02                       | 5.86  | 5.84  |
| 21100                    | 2535            | 4.63                       | 5.50  | 5.49  |
| 21350                    | 2560            | 4.68                       | 5.57  | 5.57  |

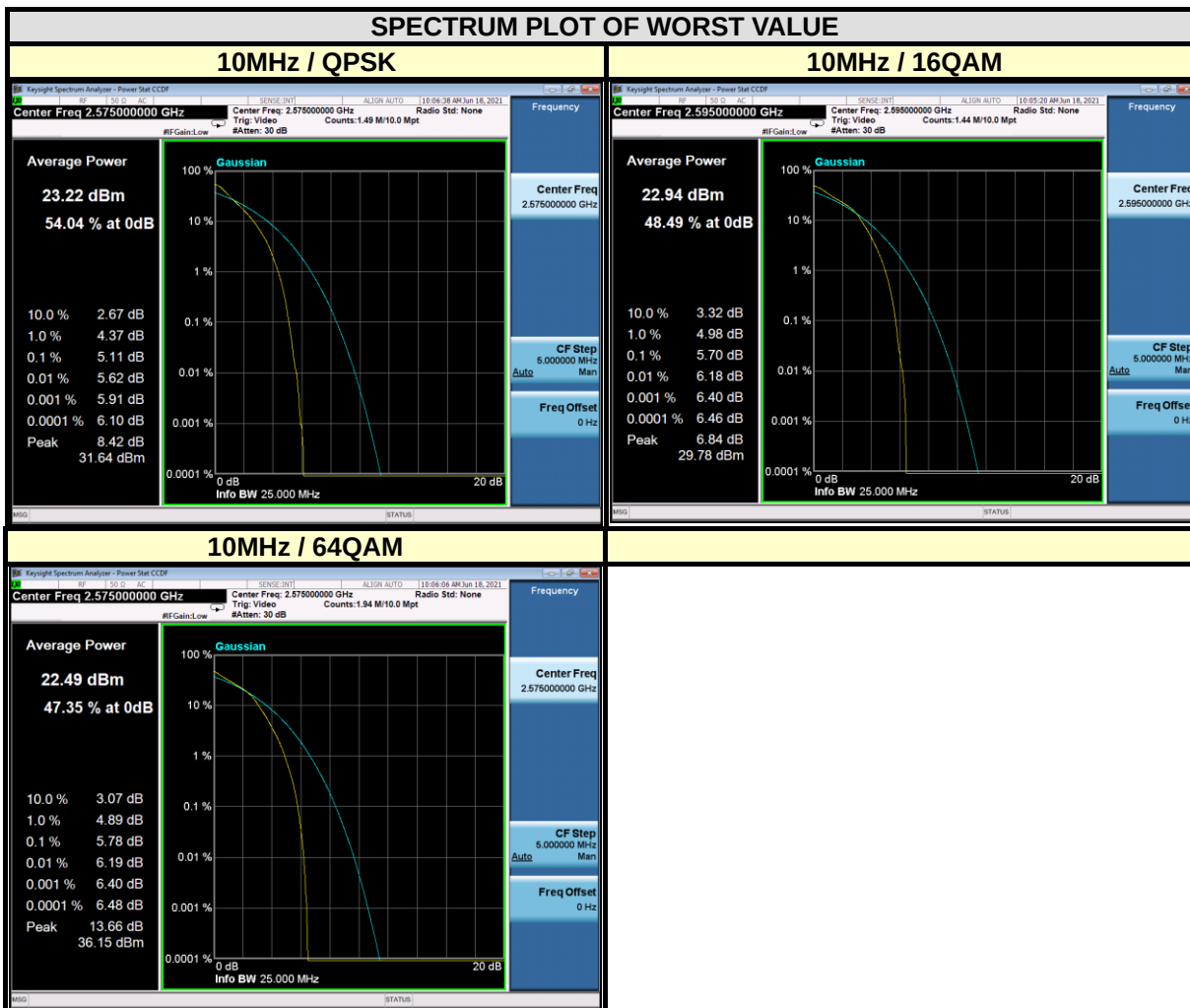


**LTE BAND 38**

| CHANNEL BANDWIDTH: 5MHz |                 |                            |       |       |
|-------------------------|-----------------|----------------------------|-------|-------|
| CHANNEL                 | Frequency (MHz) | PEAK TO AVERAGE RATIO (dB) |       |       |
|                         |                 | QPSK                       | 16QAM | 64QAM |
| 37775                   | 2572.5          | 5.39                       | 6.07  | 6.06  |
| 38000                   | 2595            | 5.33                       | 5.83  | 5.80  |
| 38225                   | 2617.5          | 4.96                       | 5.54  | 5.39  |

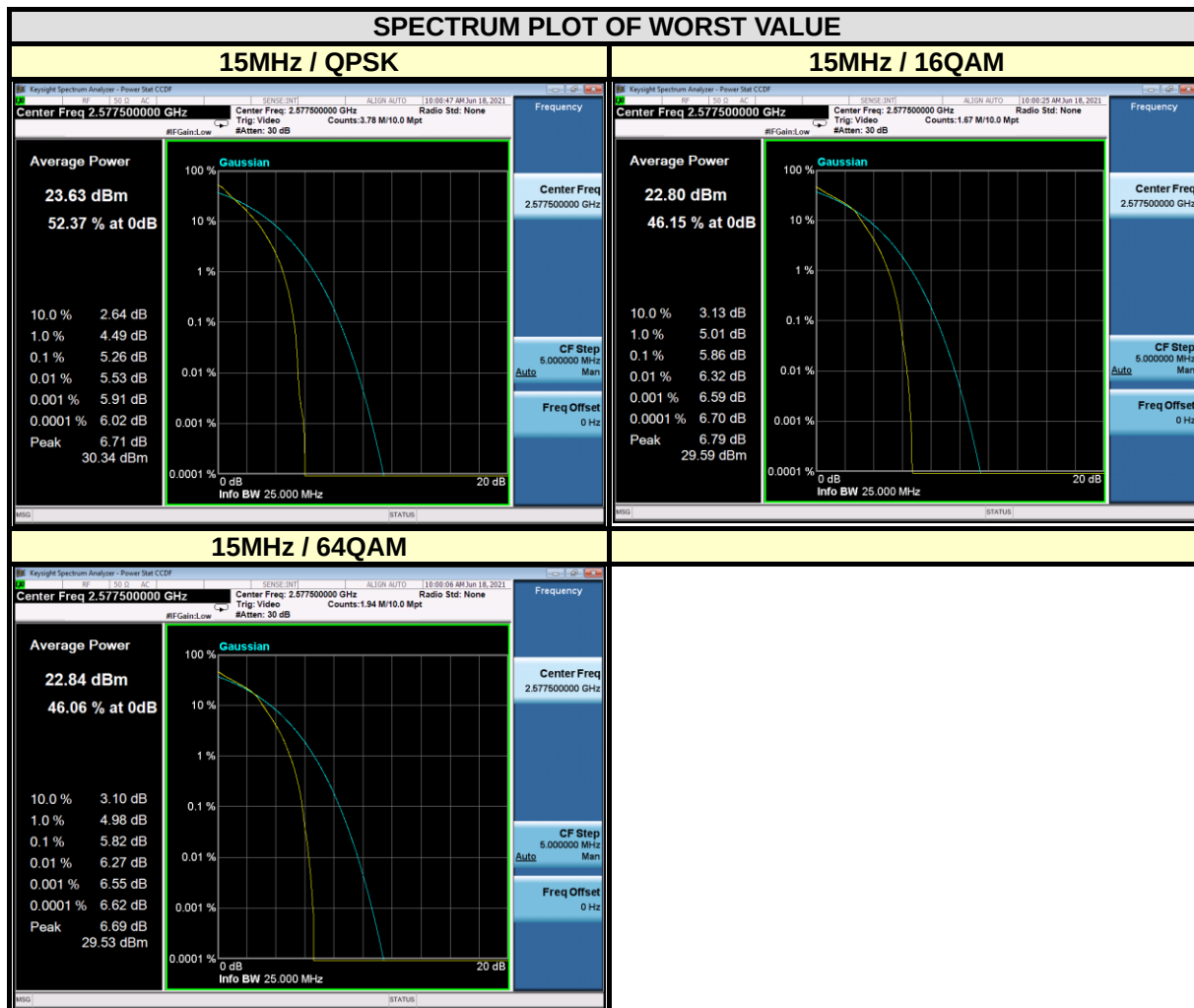


| CHANNEL BANDWIDTH: 10MHz |                    |                            |       |       |
|--------------------------|--------------------|----------------------------|-------|-------|
| CHANNEL                  | Frequency<br>(MHz) | PEAK TO AVERAGE RATIO (dB) |       |       |
|                          |                    | QPSK                       | 16QAM | 64QAM |
| 37800                    | 2575               | 5.11                       | 5.63  | 5.78  |
| 38000                    | 2595               | 4.28                       | 5.70  | 5.59  |
| 38200                    | 2615               | 4.17                       | 5.03  | 5.36  |

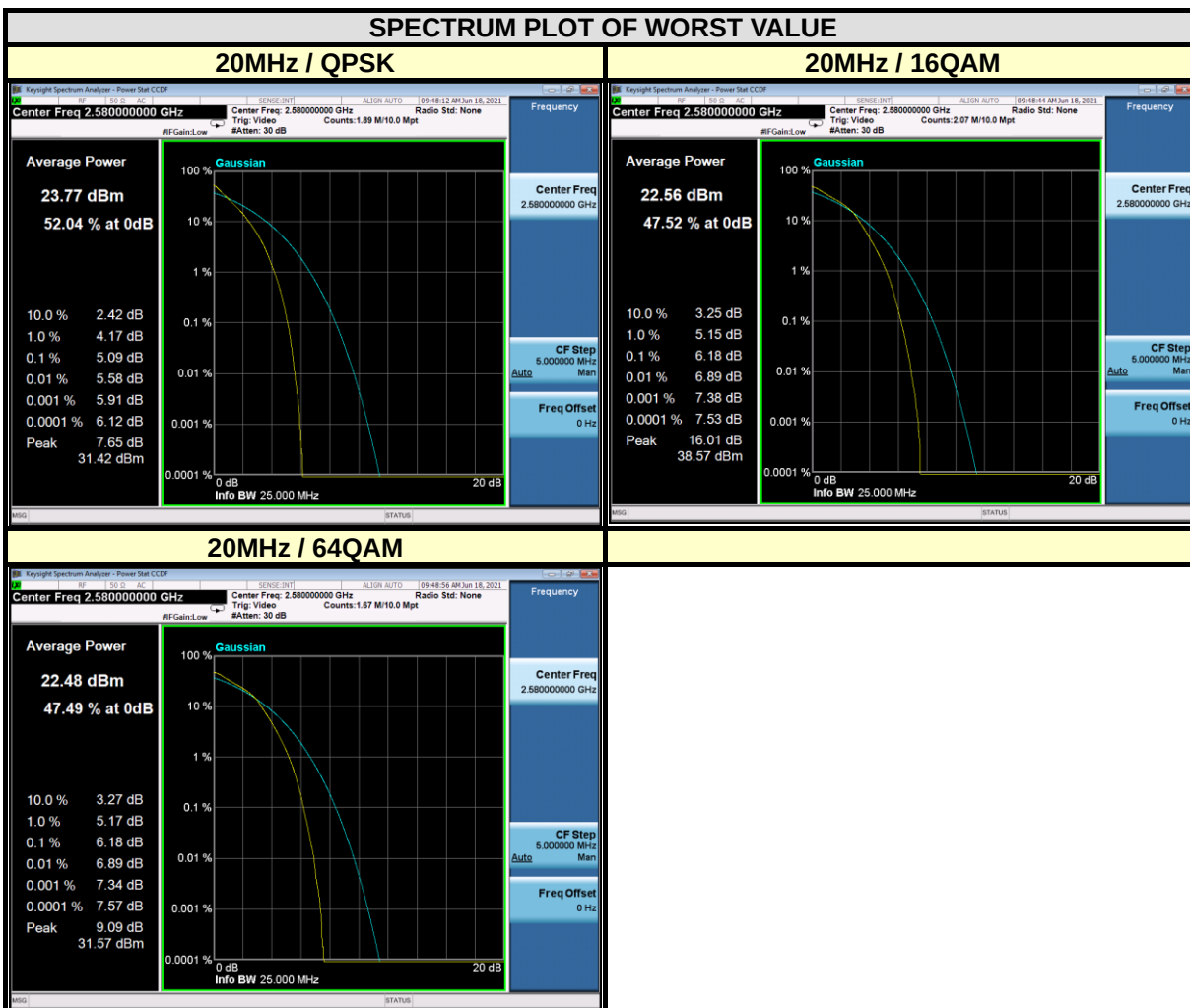




| CHANNEL BANDWIDTH: 15MHz |                 |                            |       |       |
|--------------------------|-----------------|----------------------------|-------|-------|
| CHANNEL                  | Frequency (MHz) | PEAK TO AVERAGE RATIO (dB) |       |       |
|                          |                 | QPSK                       | 16QAM | 64QAM |
| 37825                    | 2577.5          | 5.26                       | 5.86  | 5.82  |
| 38000                    | 2595            | 4.85                       | 5.83  | 5.64  |
| 38175                    | 2612.5          | 4.96                       | 5.64  | 5.57  |

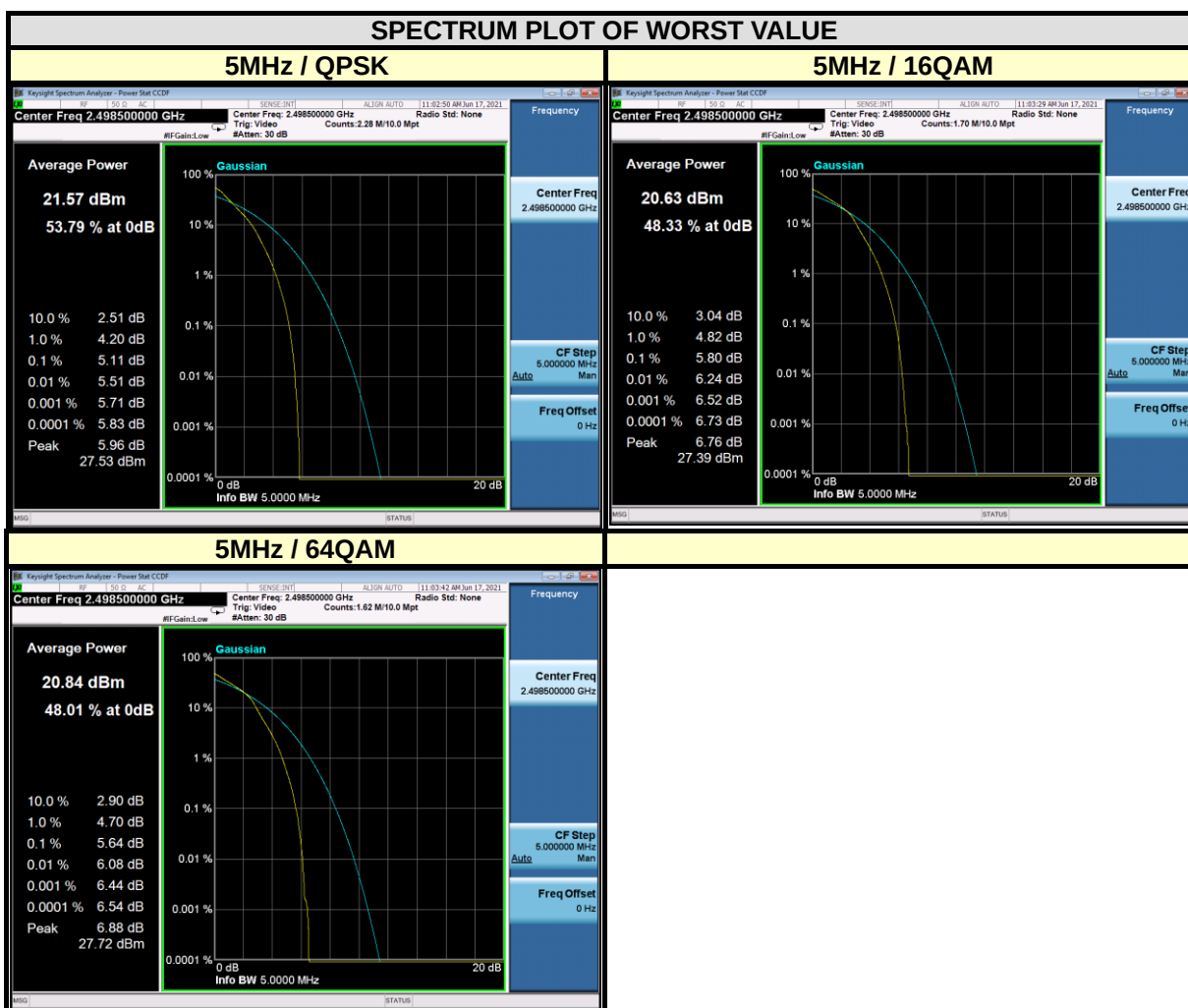


| CHANNEL BANDWIDTH: 20MHz |                 |                            |       |       |
|--------------------------|-----------------|----------------------------|-------|-------|
| CHANNEL                  | Frequency (MHz) | PEAK TO AVERAGE RATIO (dB) |       |       |
|                          |                 | QPSK                       | 16QAM | 64QAM |
| 37850                    | 2580            | 5.09                       | 6.18  | 6.18  |
| 38000                    | 2595            | 4.86                       | 5.72  | 5.63  |
| 38150                    | 2610            | 4.87                       | 5.95  | 5.69  |

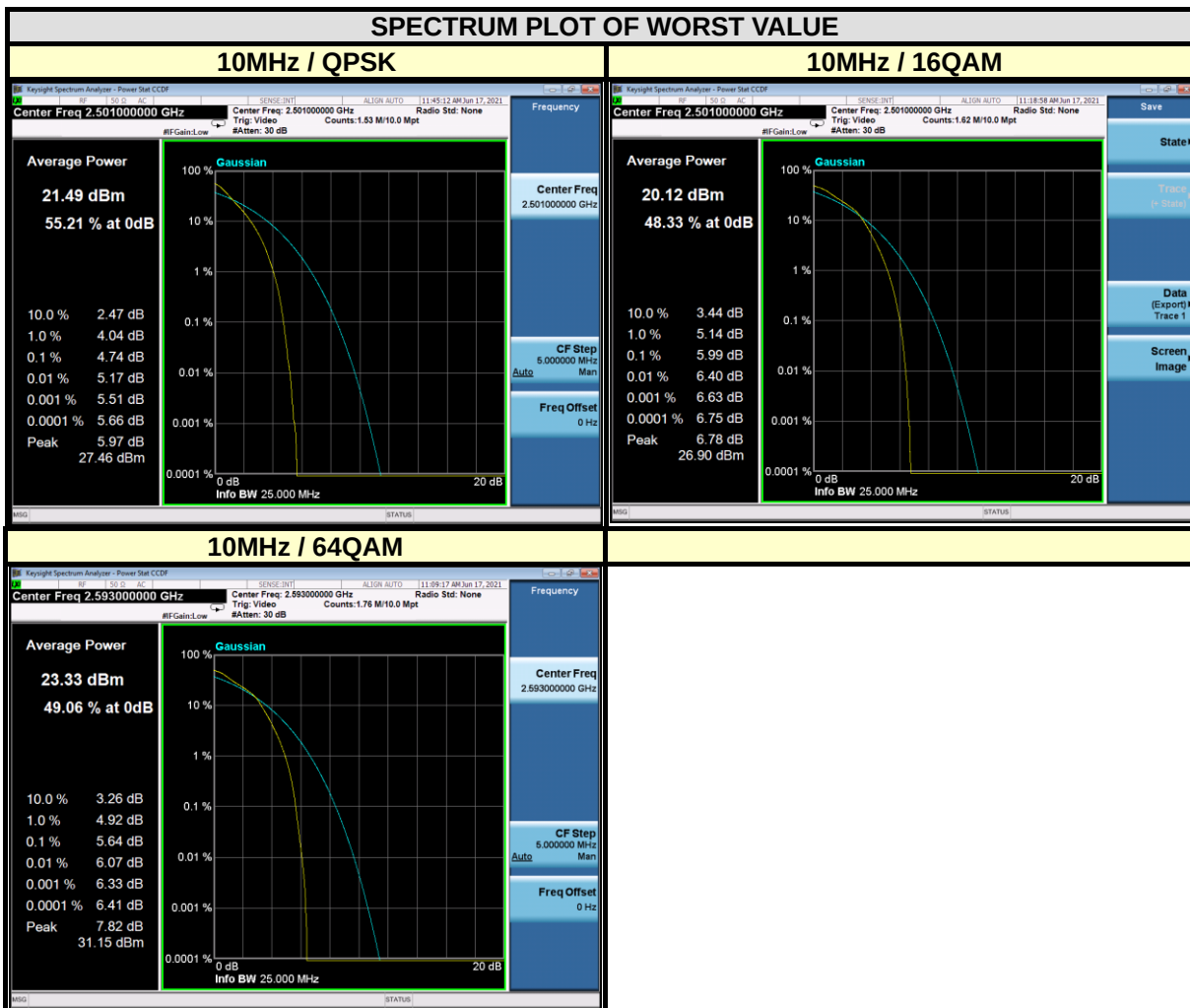


**LTE BAND 41**

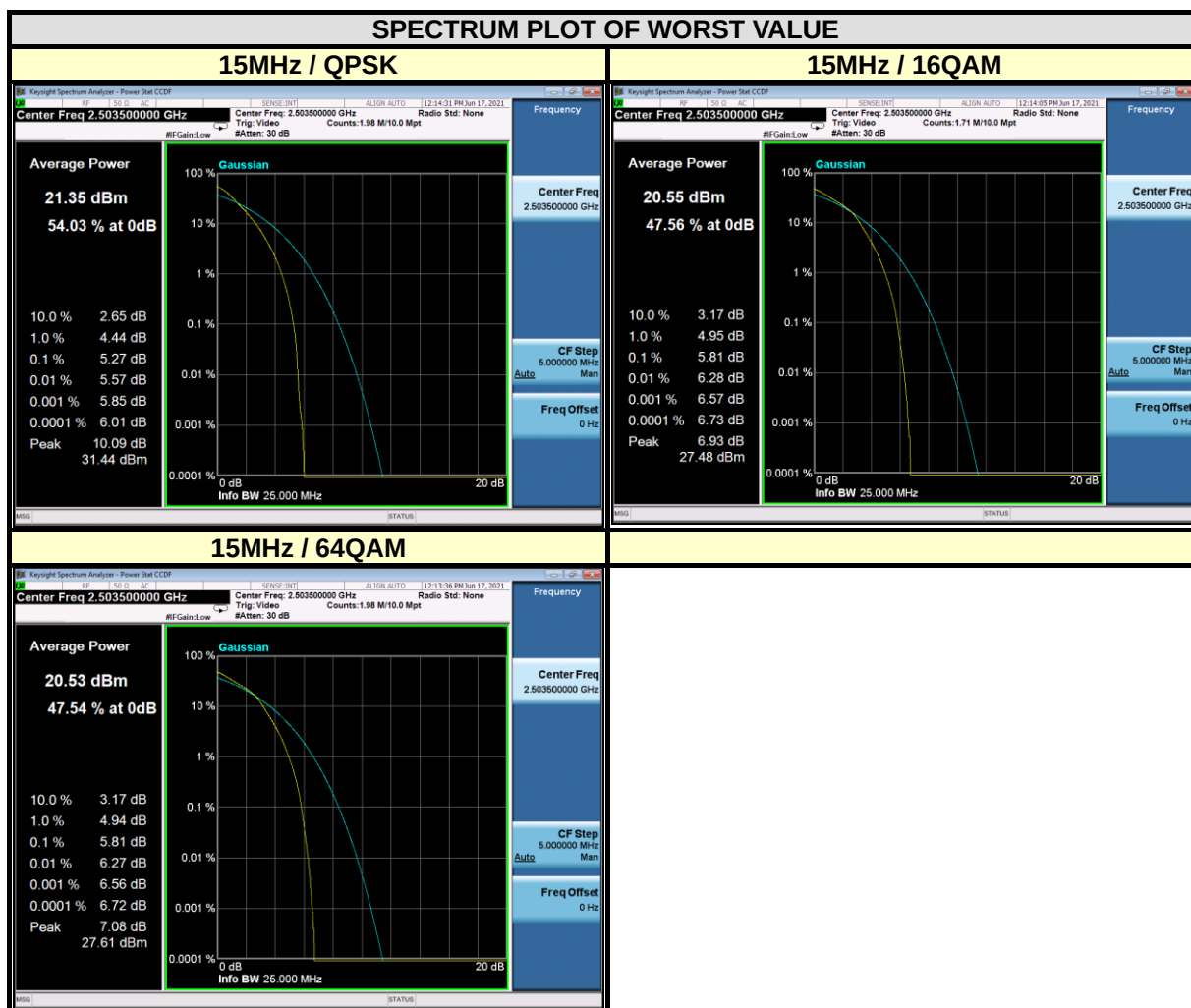
| CHANNEL BANDWIDTH: 5MHz |                 |                            |       |       |
|-------------------------|-----------------|----------------------------|-------|-------|
| CHANNEL                 | Frequency (MHz) | PEAK TO AVERAGE RATIO (dB) |       |       |
|                         |                 | QPSK                       | 16QAM | 64QAM |
| 39675                   | 2498.5          | 5.11                       | 5.80  | 5.64  |
| 40620                   | 2593            | 5.08                       | 5.65  | 5.60  |
| 41565                   | 2687.5          | 3.67                       | 4.27  | 4.35  |



| CHANNEL BANDWIDTH: 10MHz |                 |                            |       |       |
|--------------------------|-----------------|----------------------------|-------|-------|
| CHANNEL                  | Frequency (MHz) | PEAK TO AVERAGE RATIO (dB) |       |       |
|                          |                 | QPSK                       | 16QAM | 64QAM |
| 39700                    | 2501            | 4.74                       | 5.99  | 5.56  |
| 40620                    | 2593            | 4.17                       | 5.53  | 5.64  |
| 41540                    | 2685            | 2.66                       | 3.40  | 3.54  |



| CHANNEL BANDWIDTH: 15MHz |                 |                            |       |       |
|--------------------------|-----------------|----------------------------|-------|-------|
| CHANNEL                  | Frequency (MHz) | PEAK TO AVERAGE RATIO (dB) |       |       |
|                          |                 | QPSK                       | 16QAM | 64QAM |
| 39725                    | 2503.5          | 5.27                       | 5.81  | 5.81  |
| 40620                    | 2593            | 5.14                       | 5.58  | 5.62  |
| 41515                    | 2682.5          | 3.44                       | 4.52  | 4.51  |



| CHANNEL BANDWIDTH: 20MHz |                 |                            |       |       |
|--------------------------|-----------------|----------------------------|-------|-------|
| CHANNEL                  | Frequency (MHz) | PEAK TO AVERAGE RATIO (dB) |       |       |
|                          |                 | QPSK                       | 16QAM | 64QAM |
| 39750                    | 2506            | 3.31                       | 3.78  | 3.86  |
| 40620                    | 2593            | 4.95                       | 5.72  | 5.81  |
| 41490                    | 2680            | 3.22                       | 3.95  | 3.66  |





Test Report No.: W7L-P21080009RF17

## 4 INFORMATION ON THE TESTING LABORATORIES

We, BV 7LAYERS COMMUNICATIONS TECHNOLOGY (SHENZHEN) CO. LTD., were founded in 2015 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

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Tel: +86-755-88696566

Fax: +86-755-88696577

**Email:** [customerservice.sw@cn.bureauveritas.com](mailto:customerservice.sw@cn.bureauveritas.com)

**Web Site:** [www.adt.com.tw](http://www.adt.com.tw)

The address and road map of all our labs can be found in our web site also.



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## 5 APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No any modifications are made to the EUT by the lab during the test.

---END---