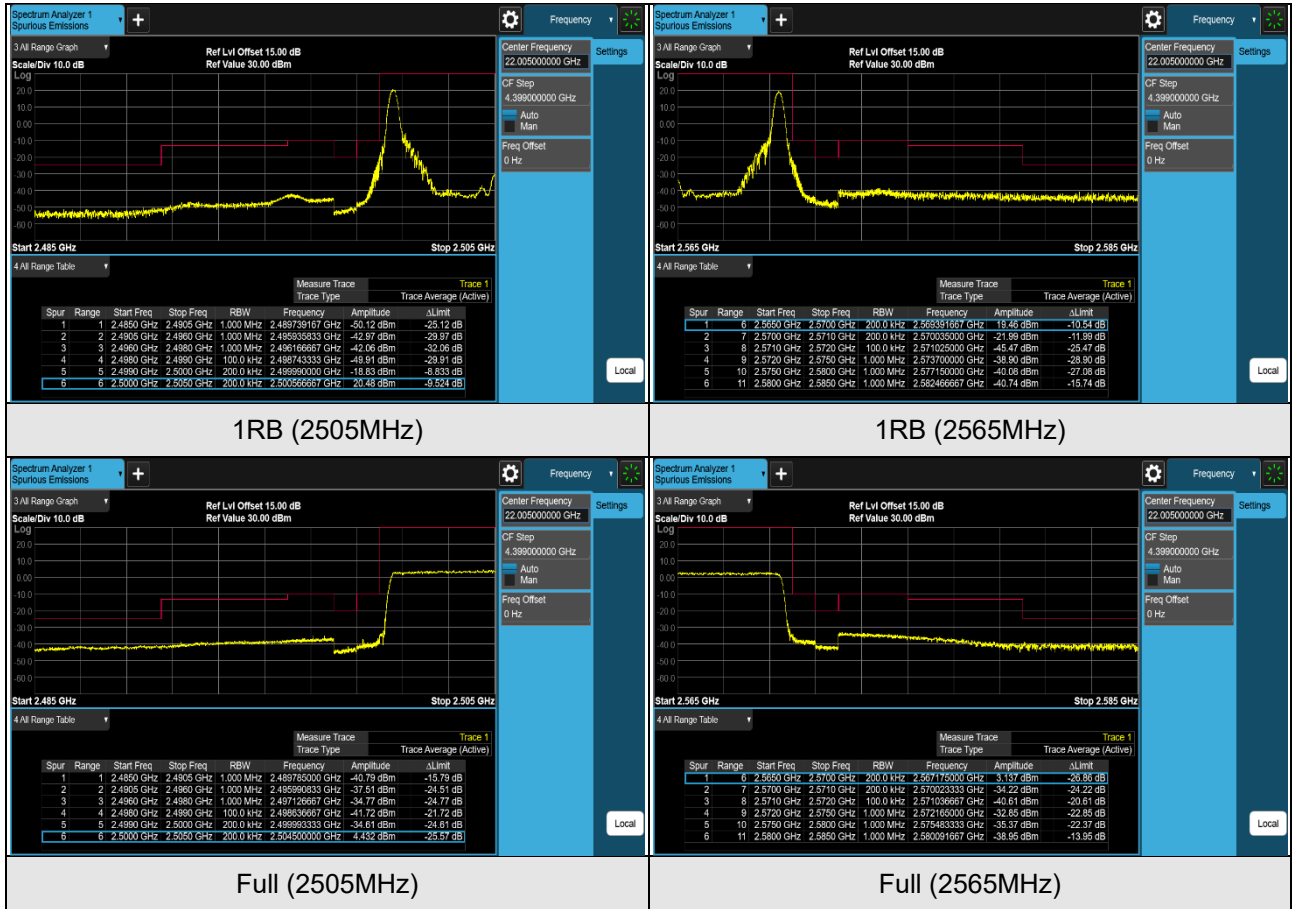


### LTE Band 7 (Channel Bandwidth 10MHz)



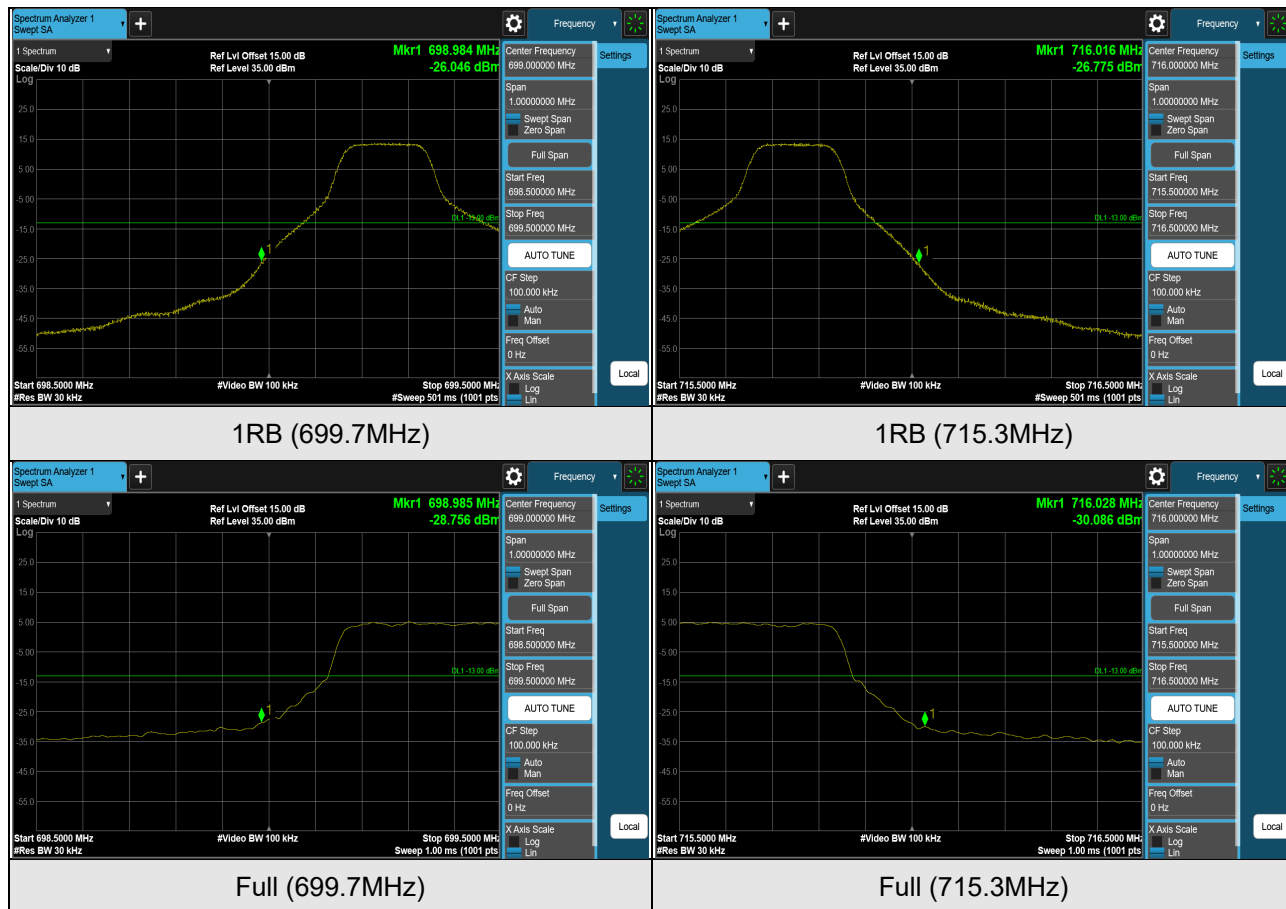
### LTE Band 7 (Channel Bandwidth 15MHz)



### LTE Band 7 (Channel Bandwidth 20MHz)

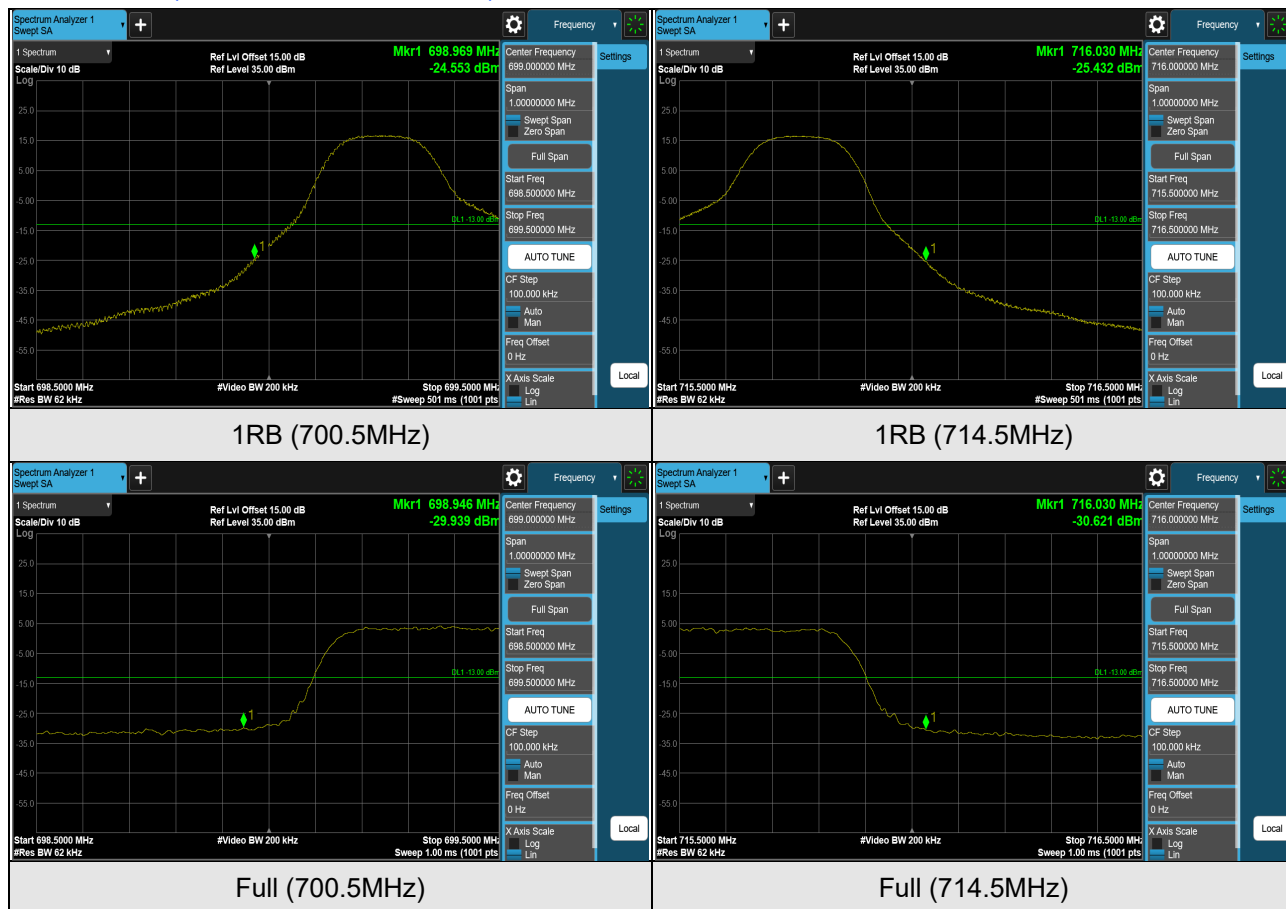


### LTE Band 12 (Channel Bandwidth 1.4MHz)

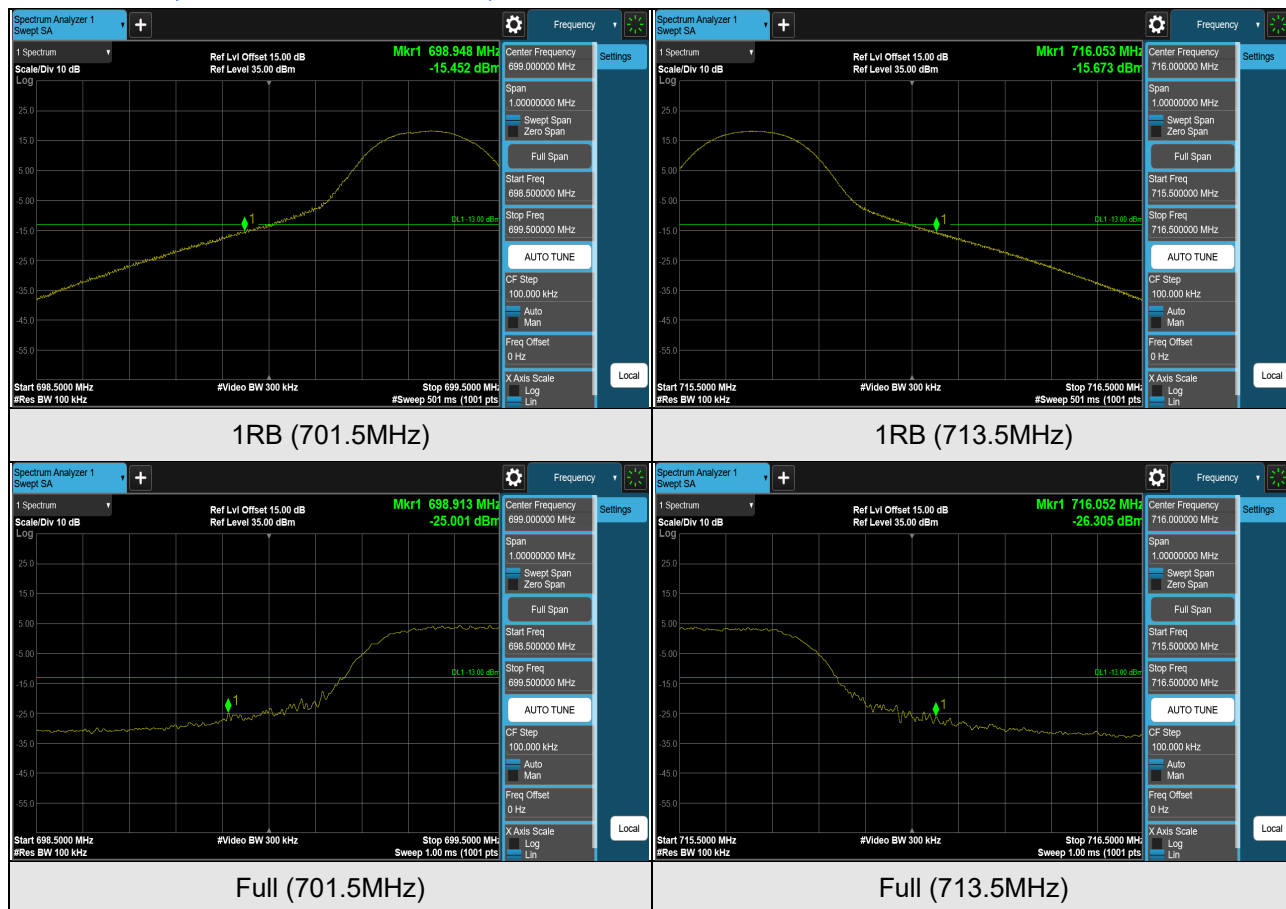




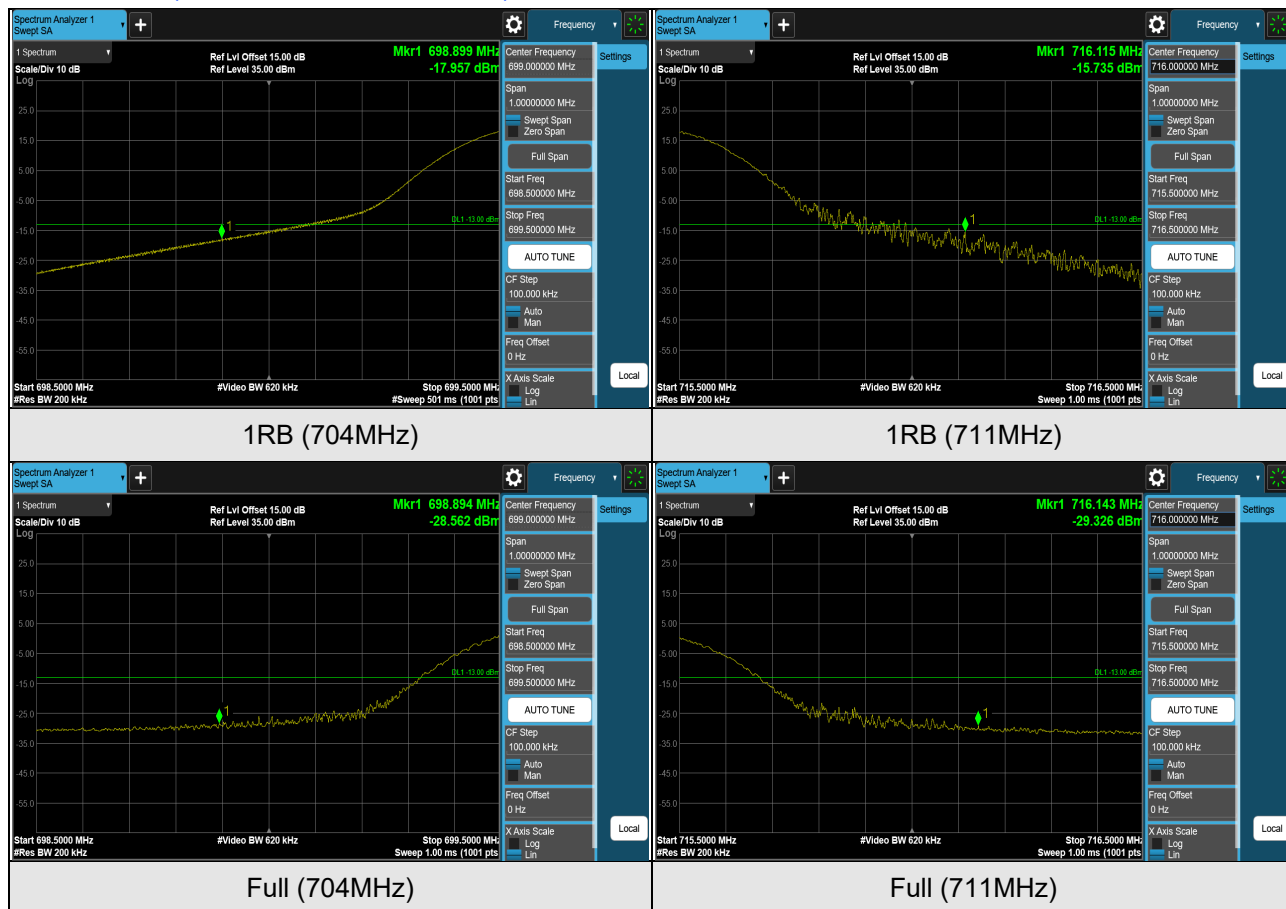
### LTE Band 12 (Channel Bandwidth 3MHz)



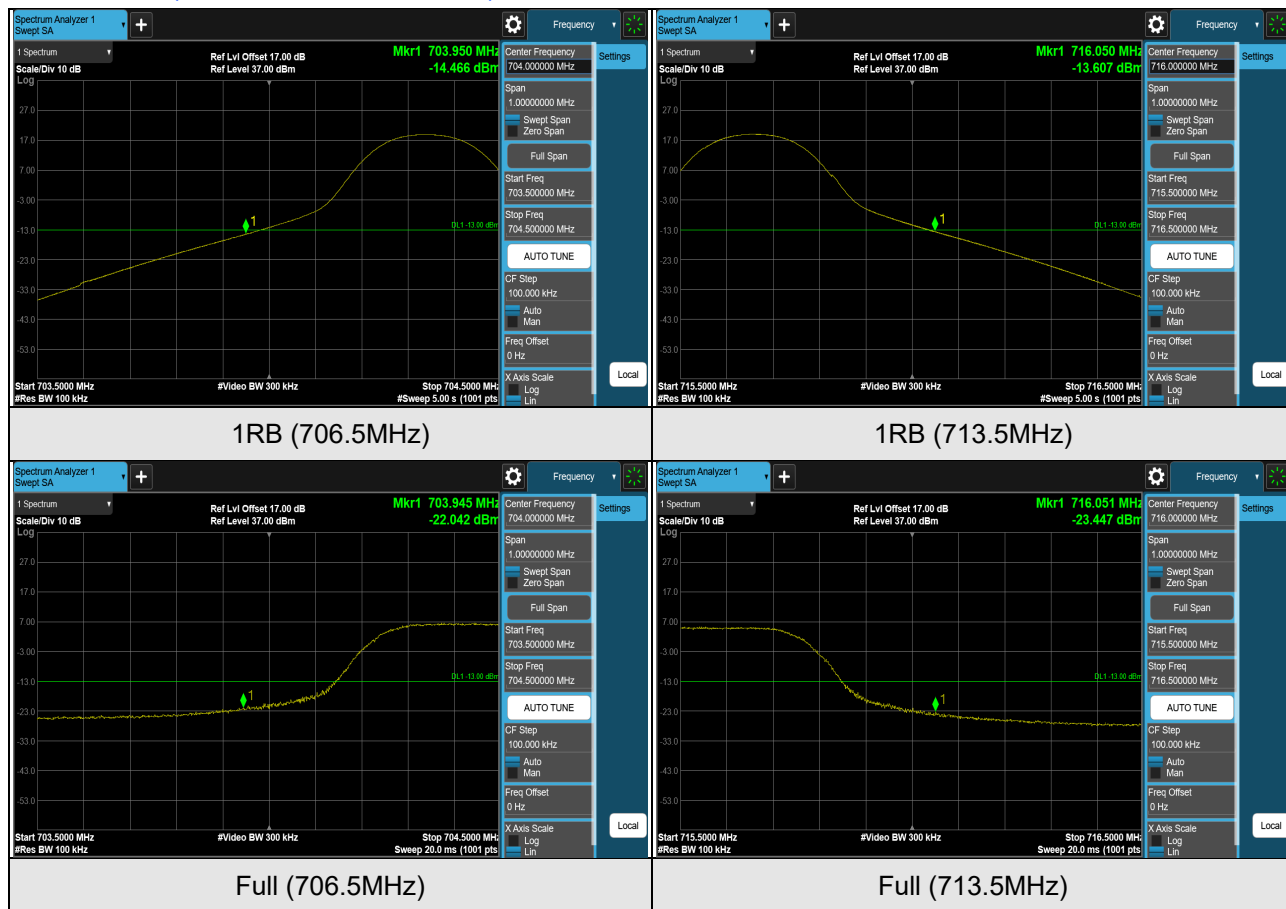
## LTE Band 12 (Channel Bandwidth 5MHz)



### LTE Band 12 (Channel Bandwidth 10MHz)

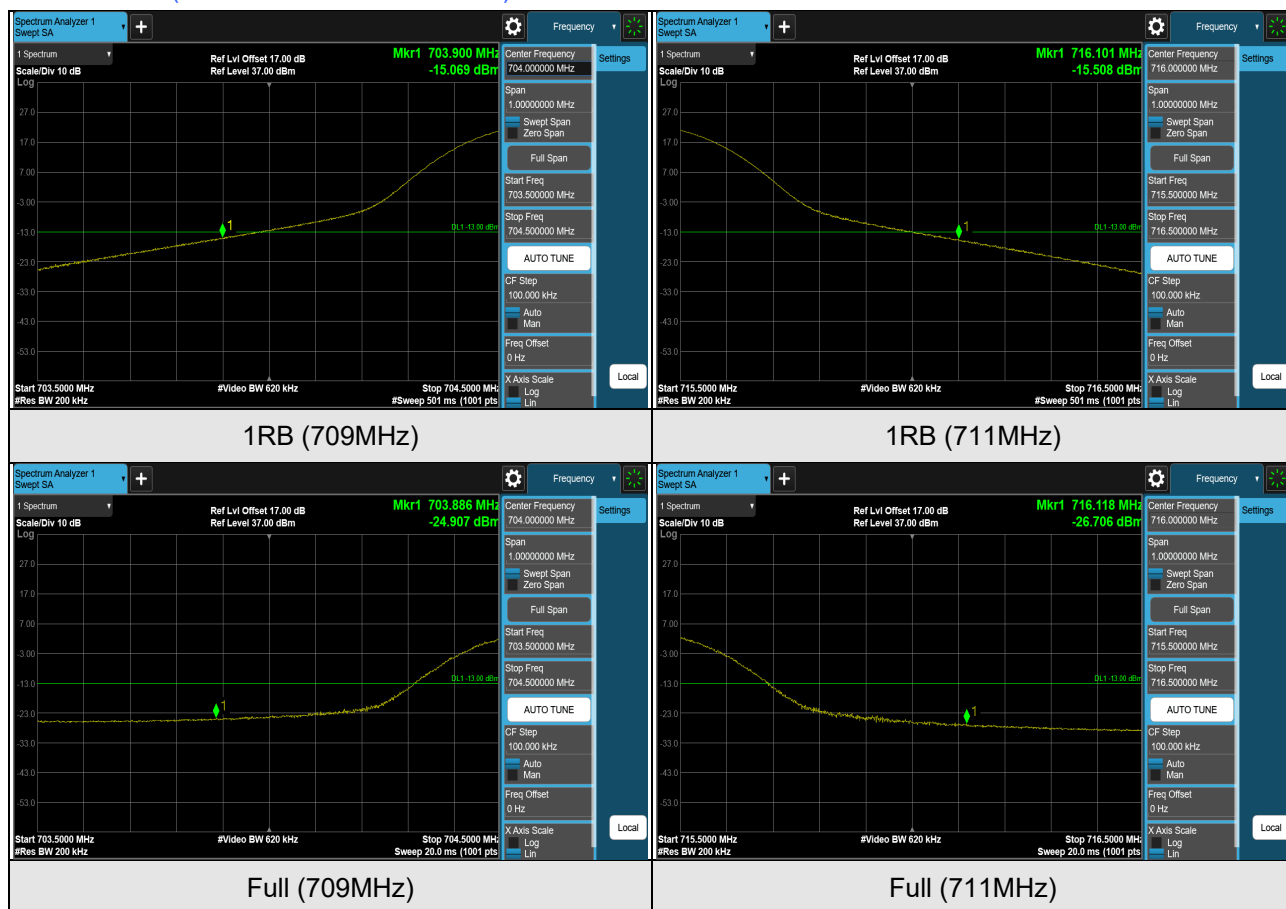


### LTE Band 17 (Channel Bandwidth 5MHz)

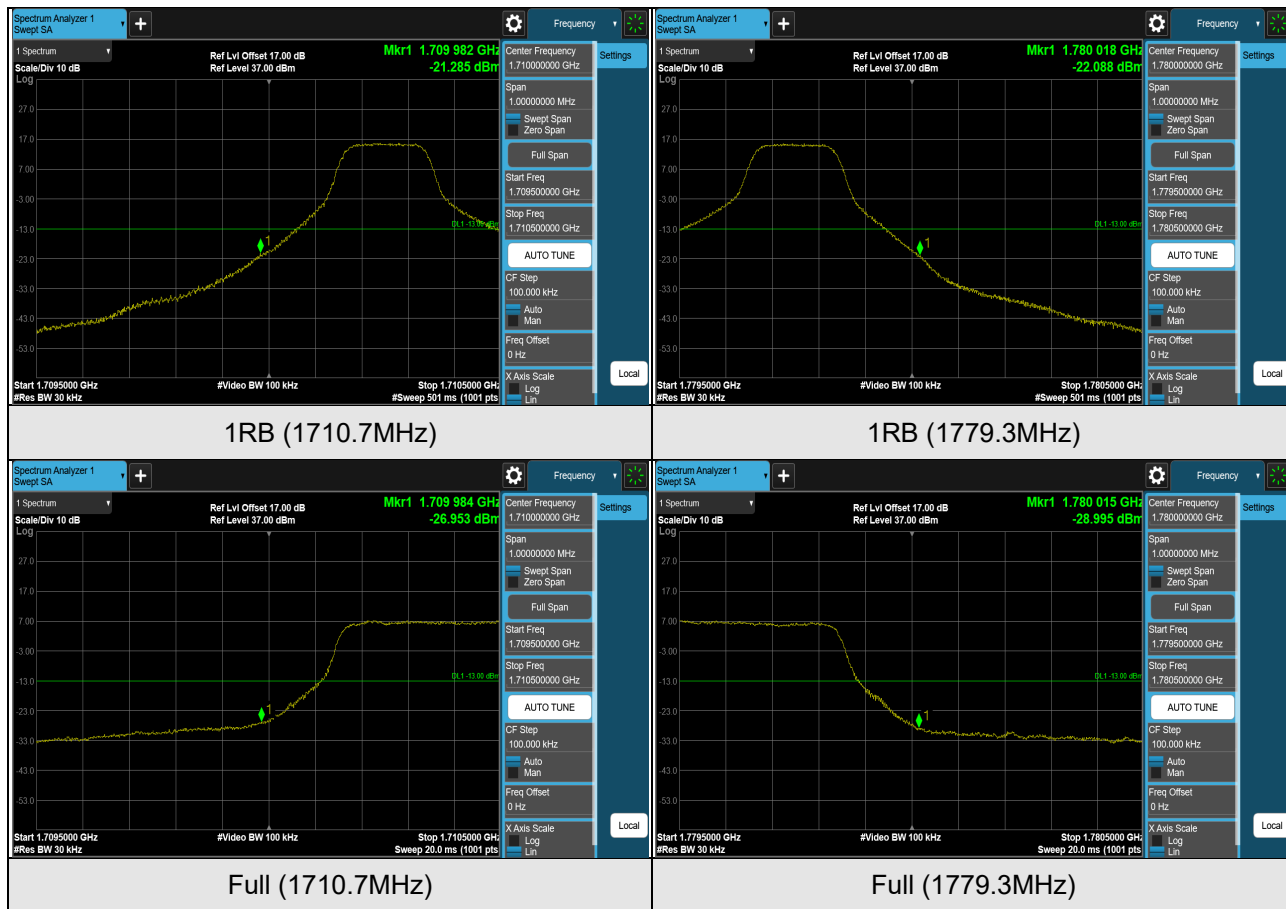




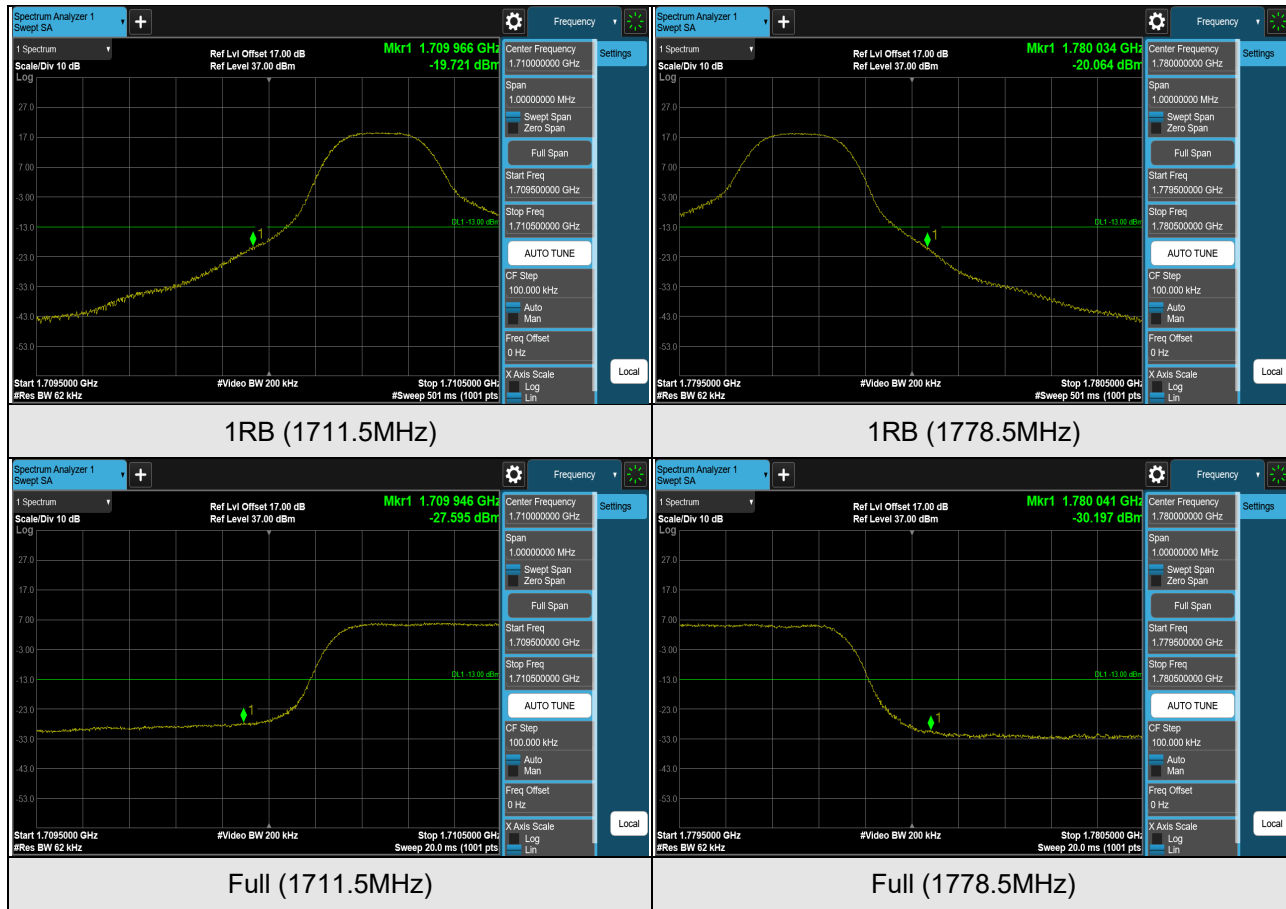
### LTE Band 17 (Channel Bandwidth 10MHz)



### LTE Band 66 (Channel Bandwidth 1.4MHz)

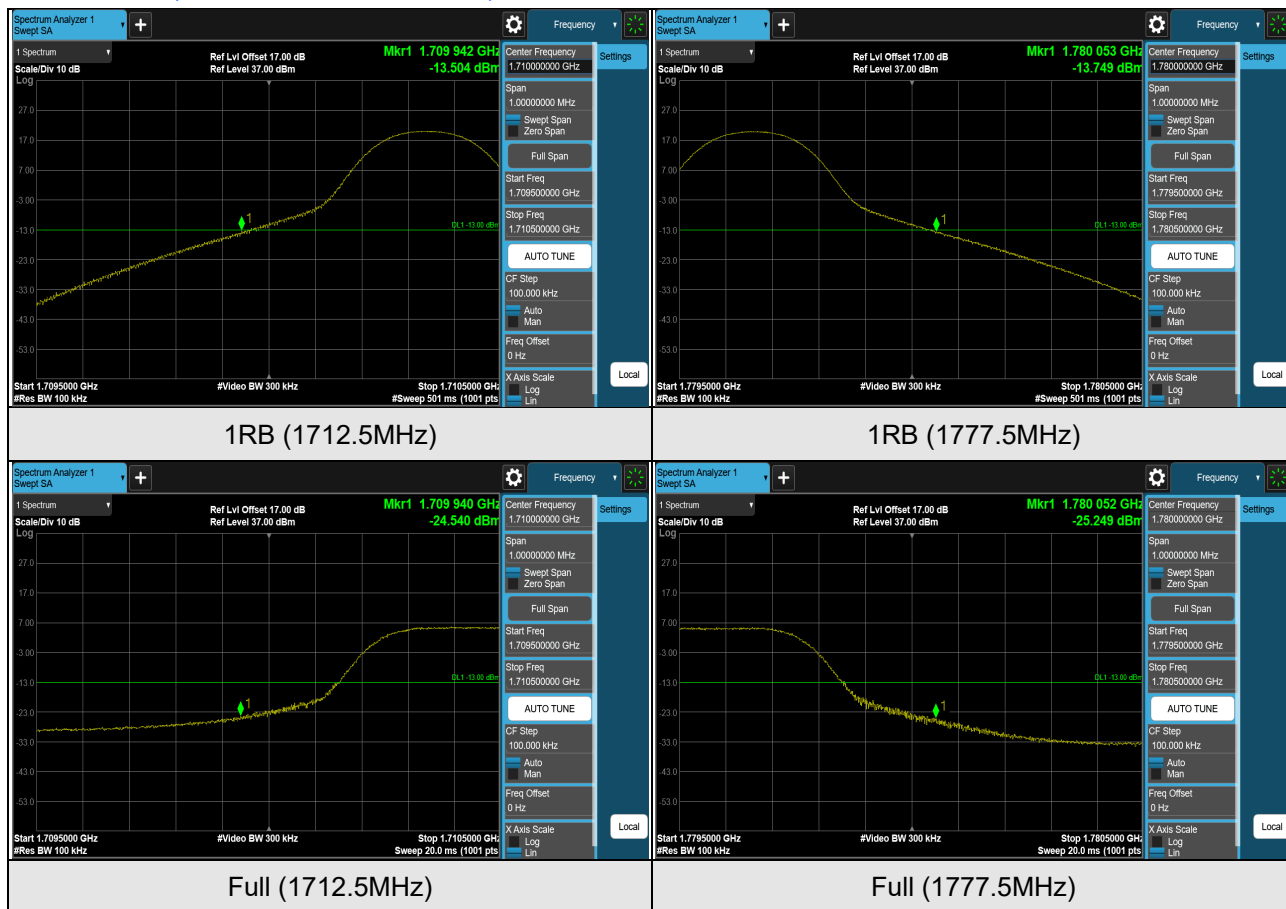


### LTE Band 66 (Channel Bandwidth 3MHz)





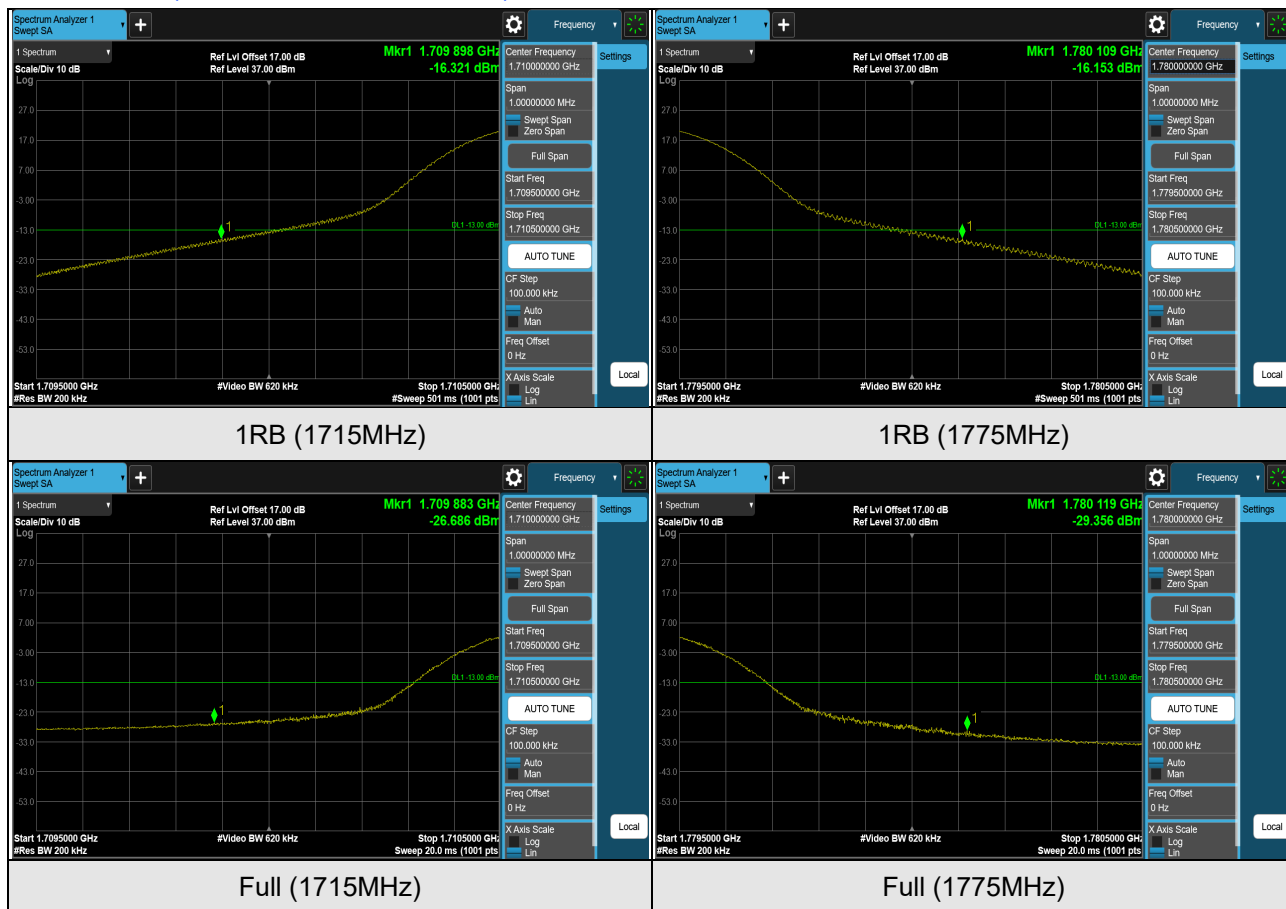
### LTE Band 66 (Channel Bandwidth 5MHz)





BUREAU VERITAS

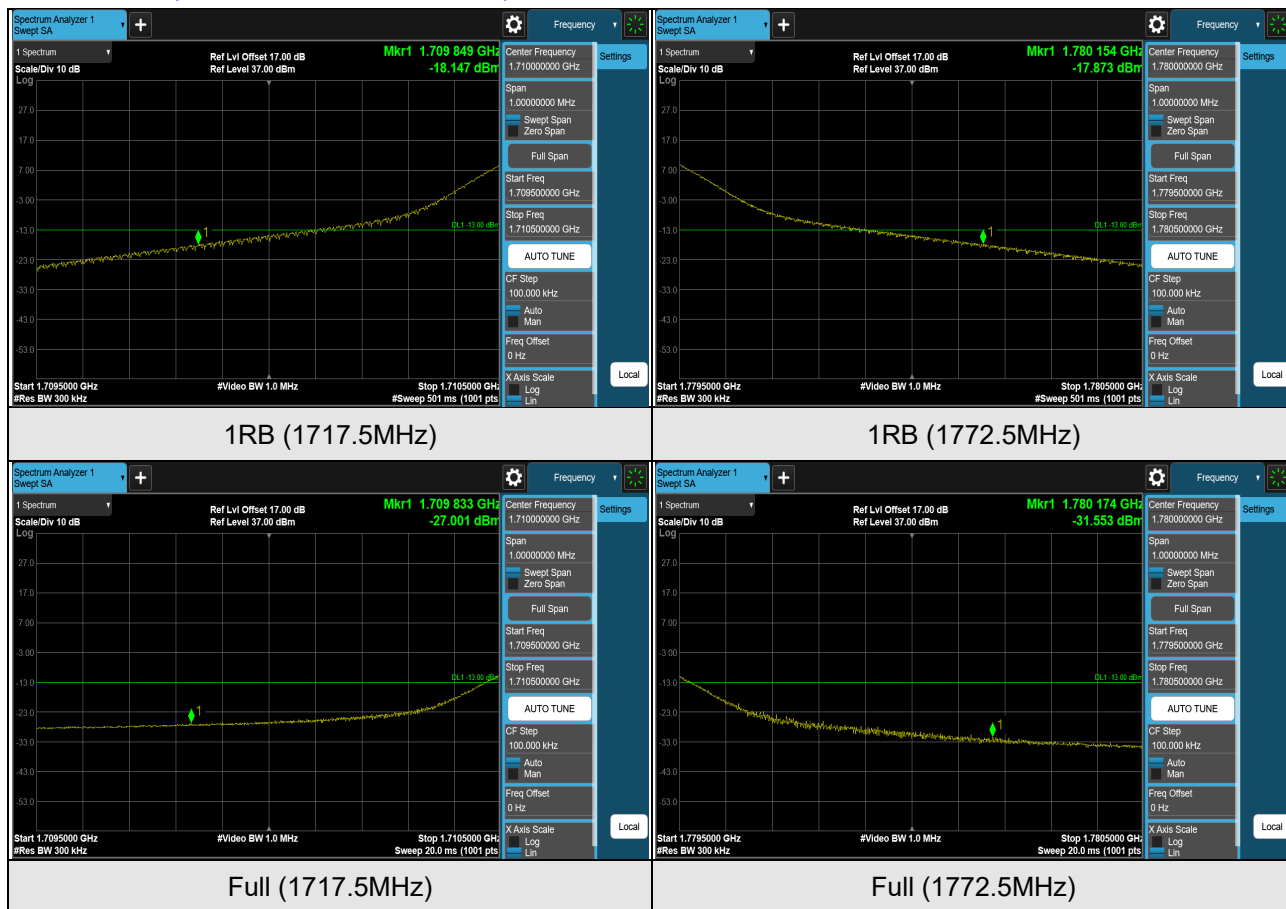
### LTE Band 66 (Channel Bandwidth 10MHz)



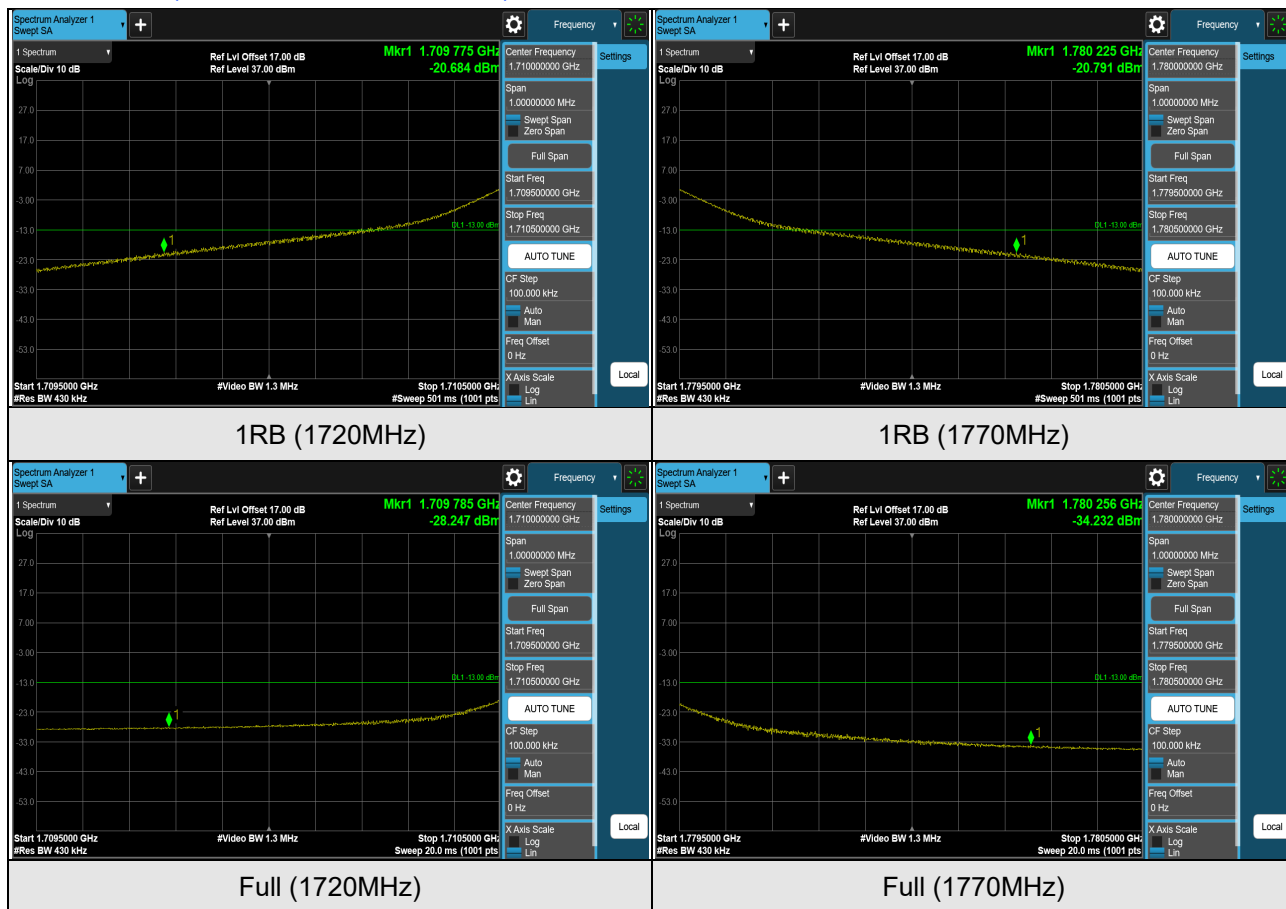


BUREAU  
VERITAS

### LTE Band 66 (Channel Bandwidth 15MHz)



### LTE Band 66 (Channel Bandwidth 20MHz)

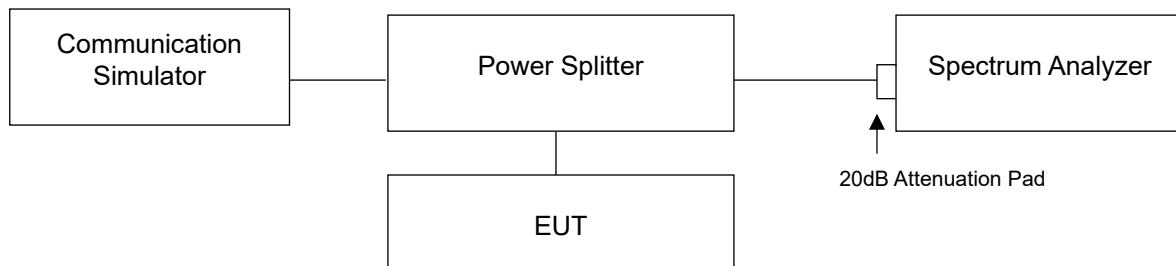


## 4.6 Peak to Average Ratio

### 4.6.1 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

### 4.6.2 Test Setup



### 4.6.3 Test Procedures

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

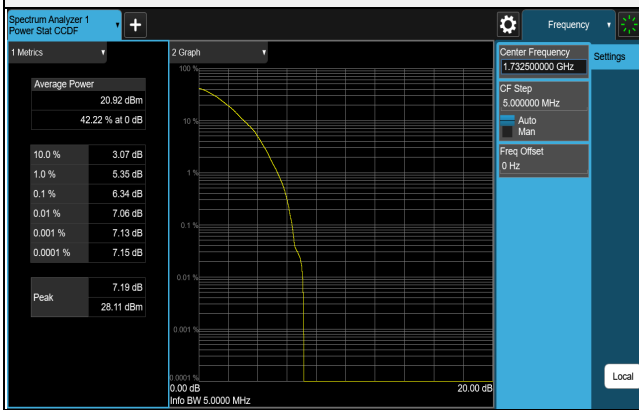


#### 4.6.4 Test Results

##### LTE Band 4 (Channel Bandwidth 1.4MHz)

| Test Condition | Channel | Frequency (MHz) | Measure. Value (dB) | Limit (dB) | Result |
|----------------|---------|-----------------|---------------------|------------|--------|
| QPSK           | 19957   | 1710.7          | 4.76                | 13         | Pass   |
| QPSK           | 20175   | 1732.5          | 4.75                | 13         | Pass   |
| QPSK           | 20393   | 1754.3          | 4.71                | 13         | Pass   |
| 16QAM          | 19957   | 1710.7          | 5.77                | 13         | Pass   |
| 16QAM          | 20175   | 1732.5          | 5.81                | 13         | Pass   |
| 16QAM          | 20393   | 1754.3          | 5.71                | 13         | Pass   |
| 64QAM          | 19957   | 1710.7          | 6.26                | 13         | Pass   |
| 64QAM          | 20175   | 1732.5          | 6.34                | 13         | Pass   |
| 64QAM          | 20393   | 1754.3          | 6.18                | 13         | Pass   |

Spectrum Plot of Worst Value

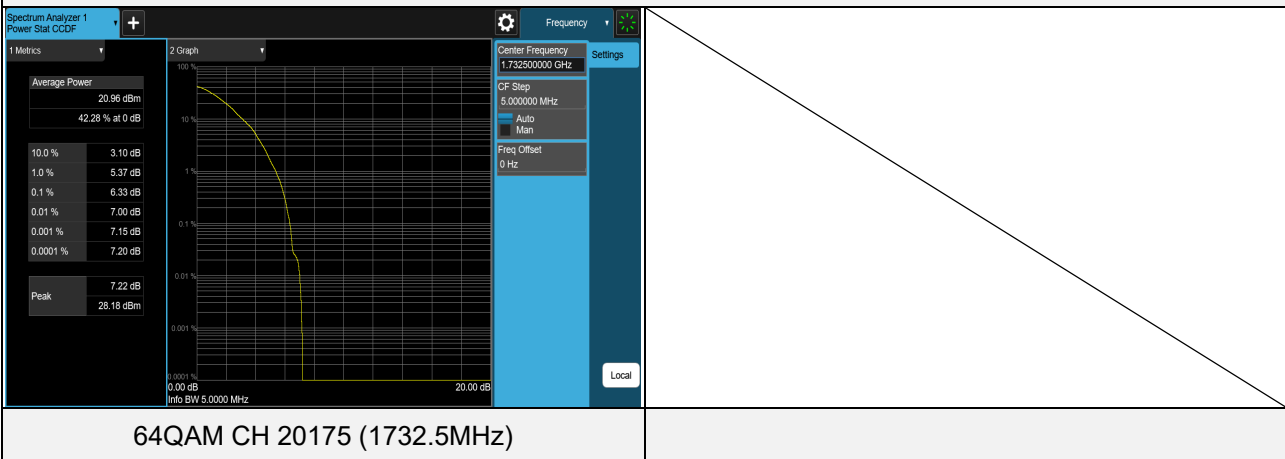


64QAM CH 20175 (1732.5MHz)

LTE Band 4 (Channel Bandwidth 3MHz)

| Test Condition | Channel | Frequency (MHz) | Measure. Value (dB) | Limit (dB) | Result |
|----------------|---------|-----------------|---------------------|------------|--------|
| QPSK           | 19965   | 1711.5          | 4.69                | 13         | Pass   |
| QPSK           | 20175   | 1732.5          | 4.75                | 13         | Pass   |
| QPSK           | 20385   | 1753.5          | 4.60                | 13         | Pass   |
| 16QAM          | 19965   | 1711.5          | 5.69                | 13         | Pass   |
| 16QAM          | 20175   | 1732.5          | 5.80                | 13         | Pass   |
| 16QAM          | 20385   | 1753.5          | 5.65                | 13         | Pass   |
| 64QAM          | 19965   | 1711.5          | 6.23                | 13         | Pass   |
| 64QAM          | 20175   | 1732.5          | 6.33                | 13         | Pass   |
| 64QAM          | 20385   | 1753.5          | 6.07                | 13         | Pass   |

Spectrum Plot of Worst Value

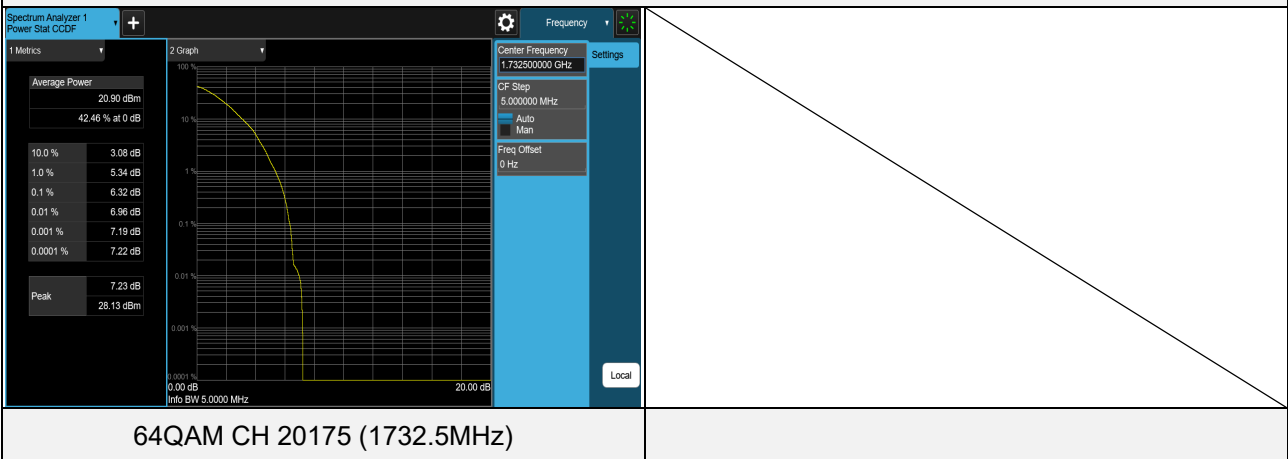


64QAM CH 20175 (1732.5MHz)

LTE Band 4 (Channel Bandwidth 5MHz)

| Test Condition | Channel | Frequency (MHz) | Measure. Value (dB) | Limit (dB) | Result |
|----------------|---------|-----------------|---------------------|------------|--------|
| QPSK           | 19975   | 1712.5          | 4.76                | 13         | Pass   |
| QPSK           | 20175   | 1732.5          | 4.88                | 13         | Pass   |
| QPSK           | 20375   | 1752.5          | 4.69                | 13         | Pass   |
| 16QAM          | 19975   | 1712.5          | 5.78                | 13         | Pass   |
| 16QAM          | 20175   | 1732.5          | 5.95                | 13         | Pass   |
| 16QAM          | 20375   | 1752.5          | 5.68                | 13         | Pass   |
| 64QAM          | 19975   | 1712.5          | 6.30                | 13         | Pass   |
| 64QAM          | 20175   | 1732.5          | 6.32                | 13         | Pass   |
| 64QAM          | 20375   | 1752.5          | 6.16                | 13         | Pass   |

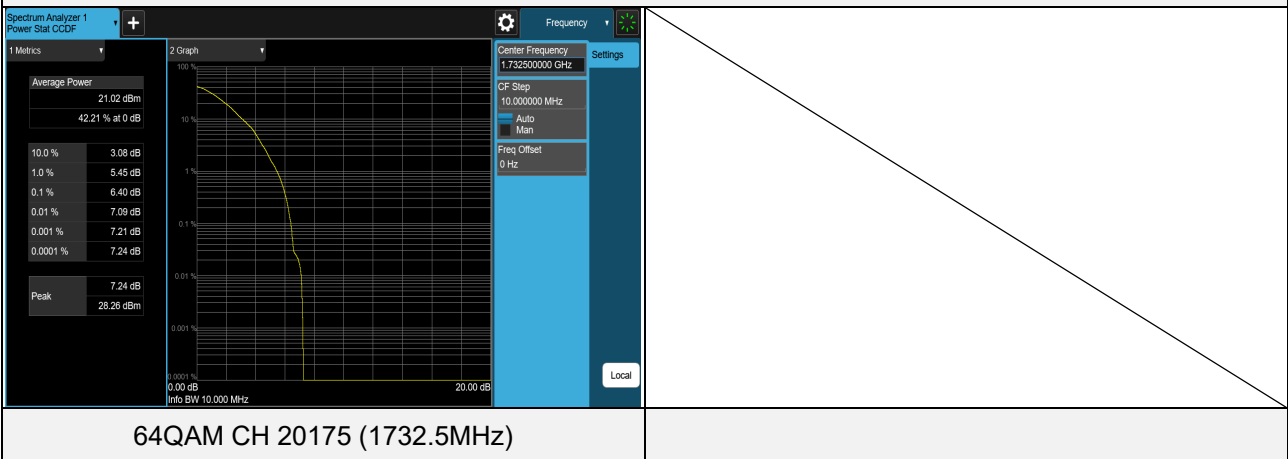
Spectrum Plot of Worst Value



LTE Band 4 (Channel Bandwidth 10MHz)

| Test Condition | Channel | Frequency (MHz) | Measure. Value (dB) | Limit (dB) | Result |
|----------------|---------|-----------------|---------------------|------------|--------|
| QPSK           | 20000   | 1715            | 4.73                | 13         | Pass   |
| QPSK           | 20175   | 1732.5          | 4.86                | 13         | Pass   |
| QPSK           | 20350   | 1750            | 4.56                | 13         | Pass   |
| 16QAM          | 20000   | 1715            | 5.69                | 13         | Pass   |
| 16QAM          | 20175   | 1732.5          | 5.86                | 13         | Pass   |
| 16QAM          | 20350   | 1750            | 5.58                | 13         | Pass   |
| 64QAM          | 20000   | 1715            | 6.31                | 13         | Pass   |
| 64QAM          | 20175   | 1732.5          | 6.40                | 13         | Pass   |
| 64QAM          | 20350   | 1750            | 6.06                | 13         | Pass   |

Spectrum Plot of Worst Value

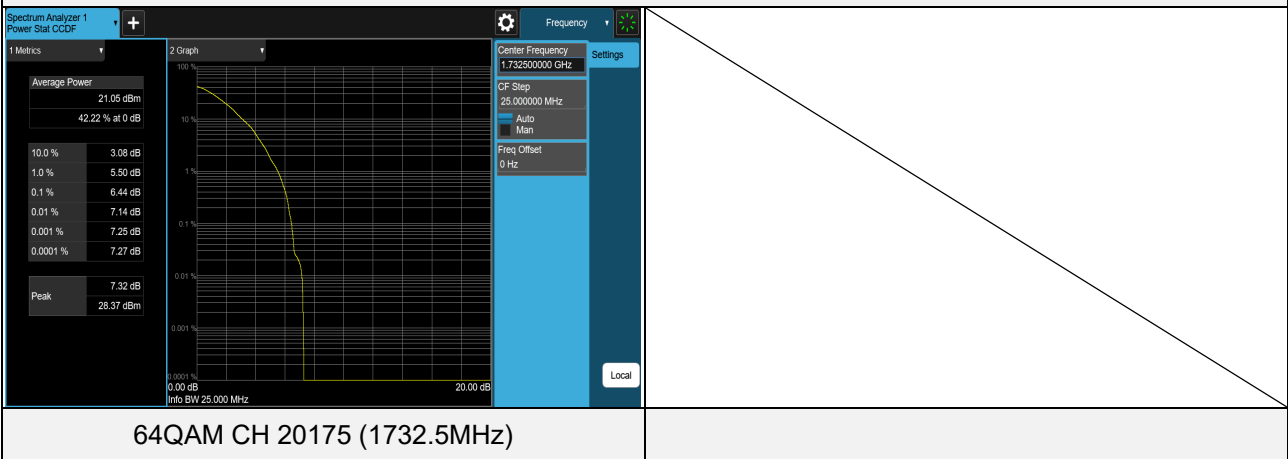


64QAM CH 20175 (1732.5MHz)

LTE Band 4 (Channel Bandwidth 15MHz)

| Test Condition | Channel | Frequency (MHz) | Measure. Value (dB) | Limit (dB) | Result |
|----------------|---------|-----------------|---------------------|------------|--------|
| QPSK           | 20025   | 1717.5          | 4.77                | 13         | Pass   |
| QPSK           | 20175   | 1732.5          | 5.03                | 13         | Pass   |
| QPSK           | 20325   | 1747.5          | 4.62                | 13         | Pass   |
| 16QAM          | 20025   | 1717.5          | 5.71                | 13         | Pass   |
| 16QAM          | 20175   | 1732.5          | 5.93                | 13         | Pass   |
| 16QAM          | 20325   | 1747.5          | 5.67                | 13         | Pass   |
| 64QAM          | 20025   | 1717.5          | 6.19                | 13         | Pass   |
| 64QAM          | 20175   | 1732.5          | 6.44                | 13         | Pass   |
| 64QAM          | 20325   | 1747.5          | 6.00                | 13         | Pass   |

Spectrum Plot of Worst Value

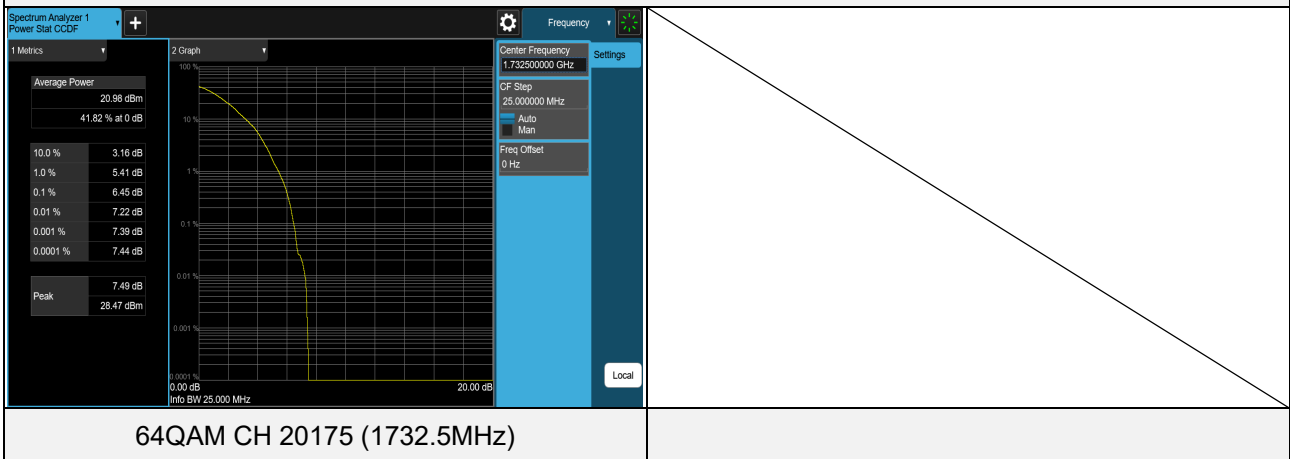


64QAM CH 20175 (1732.5MHz)

LTE Band 4 (Channel Bandwidth 20MHz)

| Test Condition | Channel | Frequency (MHz) | Measure. Value (dB) | Limit (dB) | Result |
|----------------|---------|-----------------|---------------------|------------|--------|
| QPSK           | 20050   | 1720            | 4.83                | 13         | Pass   |
| QPSK           | 20175   | 1732.5          | 5.09                | 13         | Pass   |
| QPSK           | 20300   | 1745            | 4.62                | 13         | Pass   |
| 16QAM          | 20050   | 1720            | 5.89                | 13         | Pass   |
| 16QAM          | 20175   | 1732.5          | 6.00                | 13         | Pass   |
| 16QAM          | 20300   | 1745            | 5.70                | 13         | Pass   |
| 64QAM          | 20050   | 1720            | 6.34                | 13         | Pass   |
| 64QAM          | 20175   | 1732.5          | 6.45                | 13         | Pass   |
| 64QAM          | 20300   | 1745            | 6.15                | 13         | Pass   |

Spectrum Plot of Worst Value

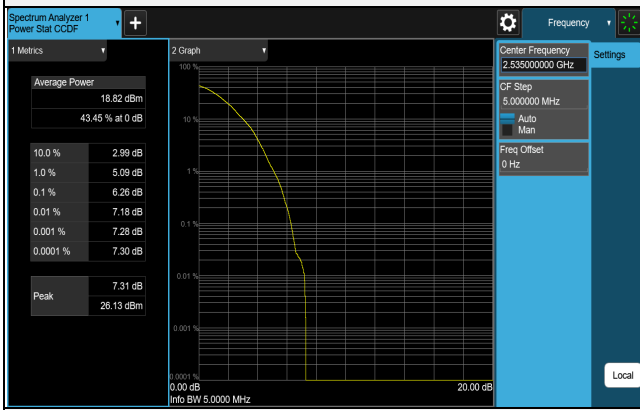


64QAM CH 20175 (1732.5MHz)

LTE Band 7 (Channel Bandwidth 5MHz)

| Test Condition | Channel | Frequency (MHz) | Measure. Value (dB) | Limit (dB) | Result |
|----------------|---------|-----------------|---------------------|------------|--------|
| QPSK           | 20775   | 2502.5          | 4.60                | 13         | Pass   |
| QPSK           | 21100   | 2535            | 4.93                | 13         | Pass   |
| QPSK           | 21425   | 2567.5          | 4.93                | 13         | Pass   |
| 16QAM          | 20775   | 2502.5          | 5.63                | 13         | Pass   |
| 16QAM          | 21100   | 2535            | 6.12                | 13         | Pass   |
| 16QAM          | 21425   | 2567.5          | 6.10                | 13         | Pass   |
| 64QAM          | 20775   | 2502.5          | 6.08                | 13         | Pass   |
| 64QAM          | 21100   | 2535            | 6.26                | 13         | Pass   |
| 64QAM          | 21425   | 2567.5          | 6.23                | 13         | Pass   |

Spectrum Plot of Worst Value

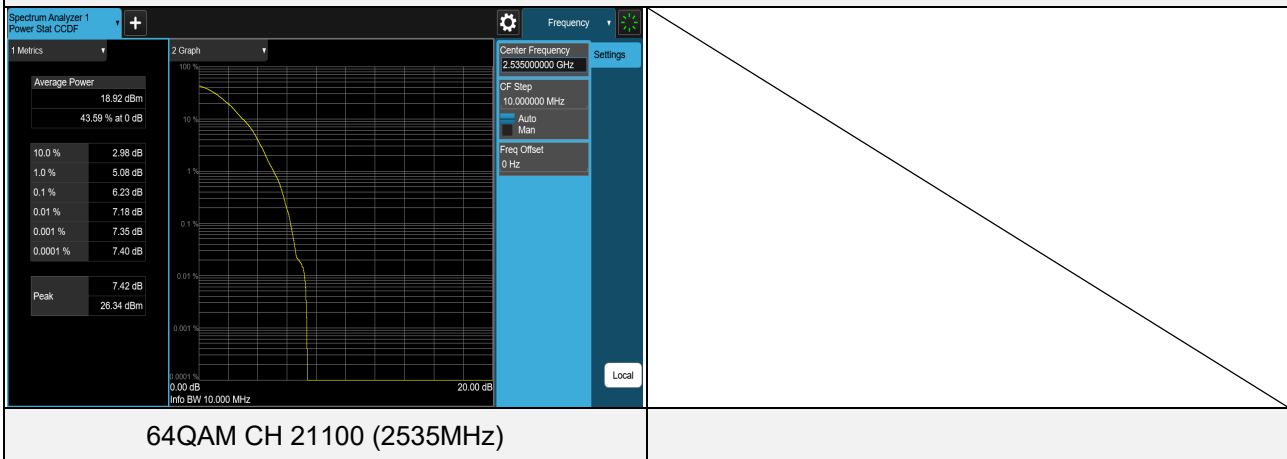


64QAM CH 21100 (2535MHz)

LTE Band 7 (Channel Bandwidth 10MHz)

| Test Condition | Channel | Frequency (MHz) | Measure. Value (dB) | Limit (dB) | Result |
|----------------|---------|-----------------|---------------------|------------|--------|
| QPSK           | 20800   | 2505            | 4.51                | 13         | Pass   |
| QPSK           | 21100   | 2535            | 4.94                | 13         | Pass   |
| QPSK           | 21400   | 2565            | 4.99                | 13         | Pass   |
| 16QAM          | 20800   | 2505            | 5.69                | 13         | Pass   |
| 16QAM          | 21100   | 2535            | 6.21                | 13         | Pass   |
| 16QAM          | 21400   | 2565            | 6.08                | 13         | Pass   |
| 64QAM          | 20800   | 2505            | 6.06                | 13         | Pass   |
| 64QAM          | 21100   | 2535            | 6.23                | 13         | Pass   |
| 64QAM          | 21400   | 2565            | 6.21                | 13         | Pass   |

Spectrum Plot of Worst Value

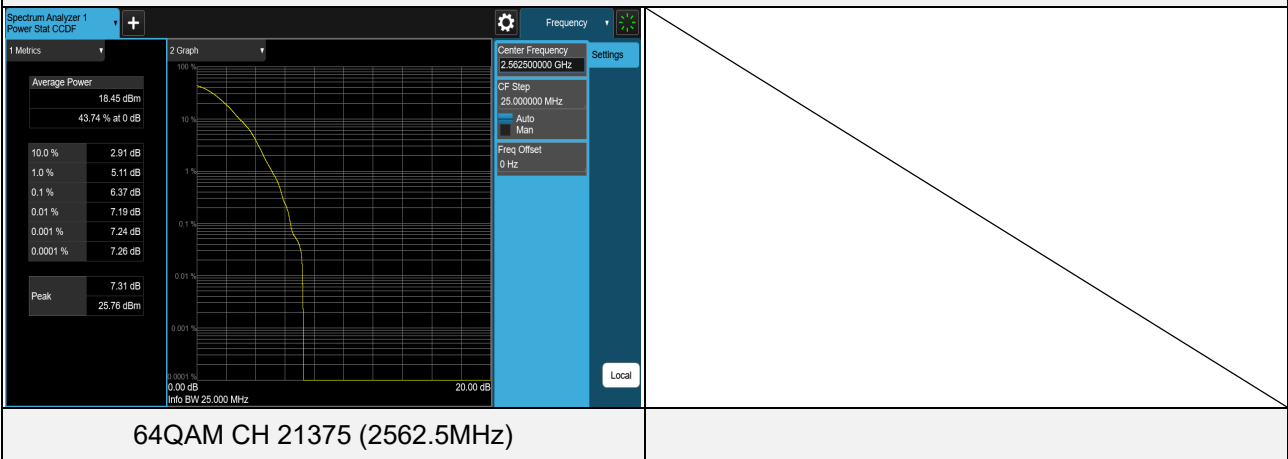




LTE Band 7 (Channel Bandwidth 15MHz)

| Test Condition | Channel | Frequency (MHz) | Measure. Value (dB) | Limit (dB) | Result |
|----------------|---------|-----------------|---------------------|------------|--------|
| QPSK           | 20825   | 2507.5          | 4.55                | 13         | Pass   |
| QPSK           | 21100   | 2535            | 4.92                | 13         | Pass   |
| QPSK           | 21375   | 2562.5          | 4.83                | 13         | Pass   |
| 16QAM          | 20825   | 2507.5          | 5.56                | 13         | Pass   |
| 16QAM          | 21100   | 2535            | 6.13                | 13         | Pass   |
| 16QAM          | 21375   | 2562.5          | 5.97                | 13         | Pass   |
| 64QAM          | 20825   | 2507.5          | 6.01                | 13         | Pass   |
| 64QAM          | 21100   | 2535            | 6.31                | 13         | Pass   |
| 64QAM          | 21375   | 2562.5          | 6.37                | 13         | Pass   |

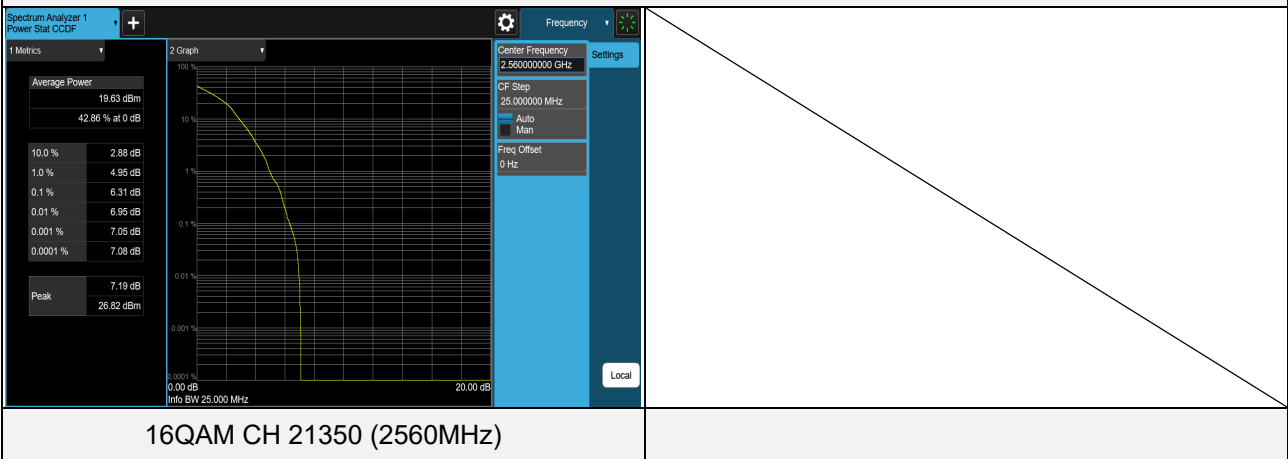
Spectrum Plot of Worst Value



LTE Band 7 (Channel Bandwidth 20MHz)

| Test Condition | Channel | Frequency (MHz) | Measure. Value (dB) | Limit (dB) | Result |
|----------------|---------|-----------------|---------------------|------------|--------|
| QPSK           | 20850   | 2510            | 4.53                | 13         | Pass   |
| QPSK           | 21100   | 2535            | 4.96                | 13         | Pass   |
| QPSK           | 21350   | 2560            | 4.91                | 13         | Pass   |
| 16QAM          | 20850   | 2510            | 5.59                | 13         | Pass   |
| 16QAM          | 21100   | 2535            | 6.23                | 13         | Pass   |
| 16QAM          | 21350   | 2560            | 6.31                | 13         | Pass   |
| 64QAM          | 20850   | 2510            | 6.17                | 13         | Pass   |
| 64QAM          | 21100   | 2535            | 6.21                | 13         | Pass   |
| 64QAM          | 21350   | 2560            | 6.19                | 13         | Pass   |

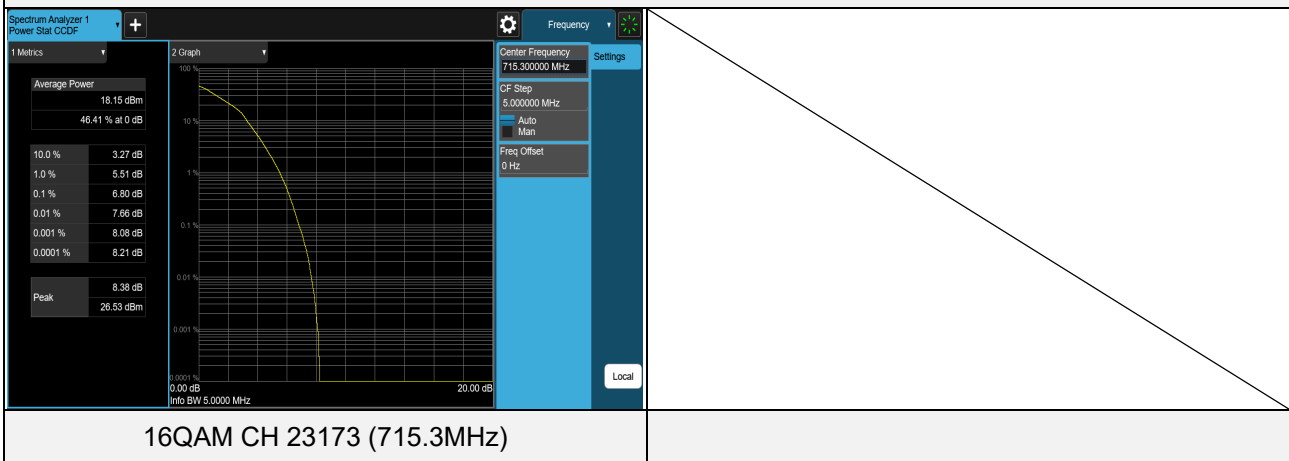
Spectrum Plot of Worst Value



LTE Band 12 (Channel Bandwidth 1.4MHz)

| Test Condition | Channel | Frequency (MHz) | Measure. Value (dB) | Limit (dB) | Result |
|----------------|---------|-----------------|---------------------|------------|--------|
| QPSK           | 23017   | 699.7           | 5.40                | 13         | Pass   |
| QPSK           | 23095   | 707.5           | 5.62                | 13         | Pass   |
| QPSK           | 23173   | 715.3           | 5.61                | 13         | Pass   |
| 16QAM          | 23017   | 699.7           | 6.26                | 13         | Pass   |
| 16QAM          | 23095   | 707.5           | 6.32                | 13         | Pass   |
| 16QAM          | 23173   | 715.3           | 6.80                | 13         | Pass   |
| 64QAM          | 23017   | 699.7           | 6.38                | 13         | Pass   |
| 64QAM          | 23095   | 707.5           | 6.41                | 13         | Pass   |
| 64QAM          | 23173   | 715.3           | 6.44                | 13         | Pass   |

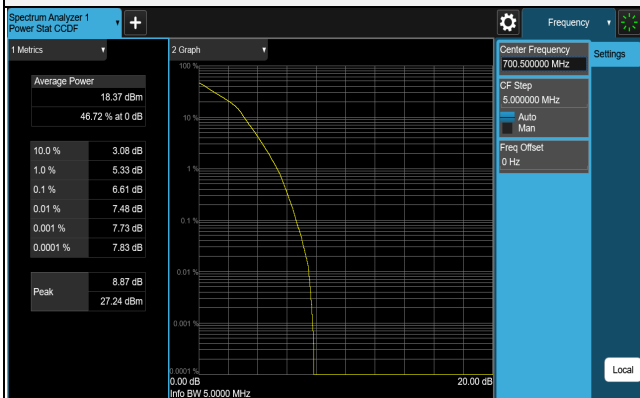
Spectrum Plot of Worst Value



LTE Band 12 (Channel Bandwidth 3MHz)

| Test Condition | Channel | Frequency (MHz) | Measure. Value (dB) | Limit (dB) | Result |
|----------------|---------|-----------------|---------------------|------------|--------|
| QPSK           | 23025   | 700.5           | 5.52                | 13         | Pass   |
| QPSK           | 23095   | 707.5           | 5.58                | 13         | Pass   |
| QPSK           | 23165   | 714.5           | 5.58                | 13         | Pass   |
| 16QAM          | 23025   | 700.5           | 6.61                | 13         | Pass   |
| 16QAM          | 23095   | 707.5           | 6.40                | 13         | Pass   |
| 16QAM          | 23165   | 714.5           | 6.41                | 13         | Pass   |
| 64QAM          | 23025   | 700.5           | 6.34                | 13         | Pass   |
| 64QAM          | 23095   | 707.5           | 6.45                | 13         | Pass   |
| 64QAM          | 23165   | 714.5           | 6.47                | 13         | Pass   |

Spectrum Plot of Worst Value

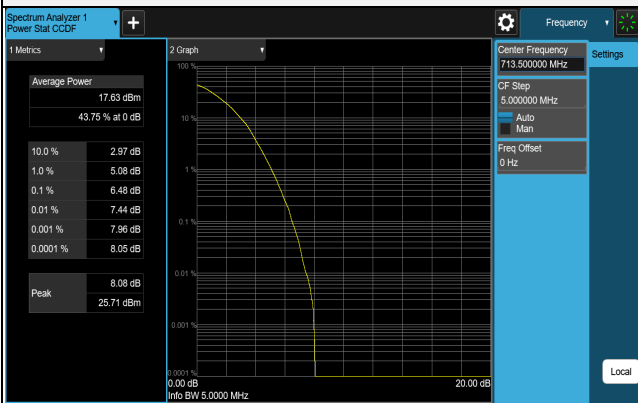


16QAM CH 23025 (700.5MHz)

LTE Band 12 (Channel Bandwidth 5MHz)

| Test Condition | Channel | Frequency (MHz) | Measure. Value (dB) | Limit (dB) | Result |
|----------------|---------|-----------------|---------------------|------------|--------|
| QPSK           | 23035   | 701.5           | 5.62                | 13         | Pass   |
| QPSK           | 23095   | 707.5           | 5.70                | 13         | Pass   |
| QPSK           | 23155   | 713.5           | 5.65                | 13         | Pass   |
| 16QAM          | 23035   | 701.5           | 6.31                | 13         | Pass   |
| 16QAM          | 23095   | 707.5           | 6.27                | 13         | Pass   |
| 16QAM          | 23155   | 713.5           | 6.20                | 13         | Pass   |
| 64QAM          | 23035   | 701.5           | 6.42                | 13         | Pass   |
| 64QAM          | 23095   | 707.5           | 6.48                | 13         | Pass   |
| 64QAM          | 23155   | 713.5           | 6.48                | 13         | Pass   |

Spectrum Plot of Worst Value

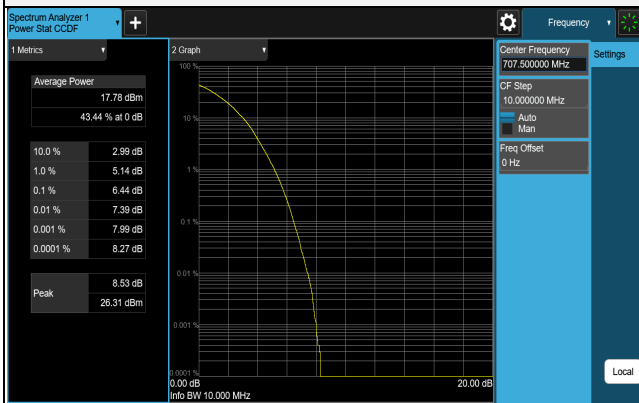


64QAM CH 23155 (713.5MHz)

LTE Band 12 (Channel Bandwidth 10MHz)

| Test Condition | Channel | Frequency (MHz) | Measure. Value (dB) | Limit (dB) | Result |
|----------------|---------|-----------------|---------------------|------------|--------|
| QPSK           | 23060   | 704             | 5.81                | 13         | Pass   |
| QPSK           | 23095   | 707.5           | 5.79                | 13         | Pass   |
| QPSK           | 23130   | 711             | 5.64                | 13         | Pass   |
| 16QAM          | 23060   | 704             | 6.32                | 13         | Pass   |
| 16QAM          | 23095   | 707.5           | 6.37                | 13         | Pass   |
| 16QAM          | 23130   | 711             | 6.34                | 13         | Pass   |
| 64QAM          | 23060   | 704             | 6.42                | 13         | Pass   |
| 64QAM          | 23095   | 707.5           | 6.44                | 13         | Pass   |
| 64QAM          | 23130   | 711             | 6.40                | 13         | Pass   |

Spectrum Plot of Worst Value

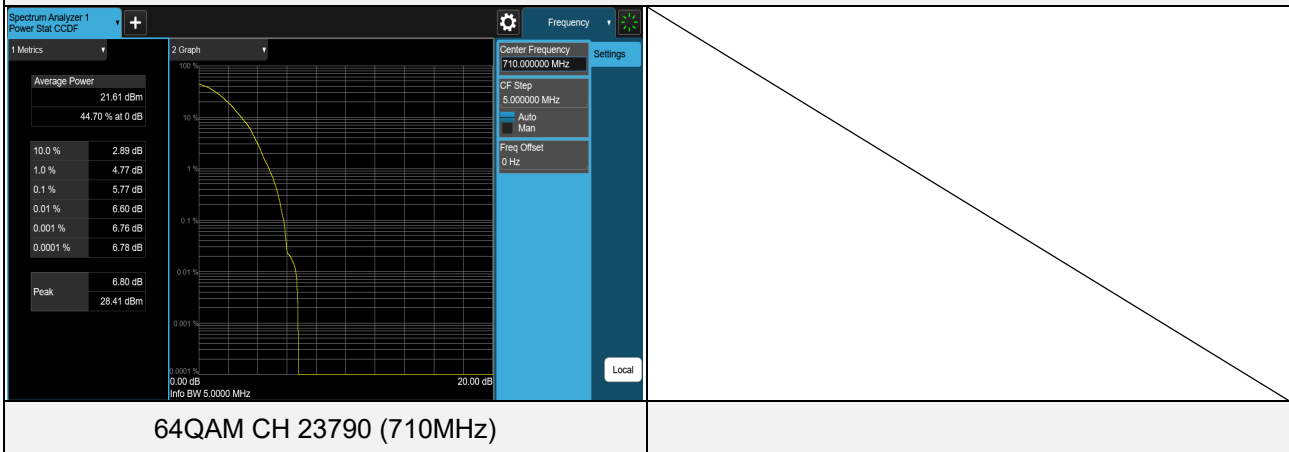


64QAM CH 23095 (707.5MHz)

LTE Band 17 (Channel Bandwidth 5MHz)

| Test Condition | Channel | Frequency (MHz) | Measure. Value (dB) | Limit (dB) | Result |
|----------------|---------|-----------------|---------------------|------------|--------|
| QPSK           | 23755   | 706.5           | 3.97                | 13         | Pass   |
| QPSK           | 23790   | 710             | 4.46                | 13         | Pass   |
| QPSK           | 23825   | 713.5           | 4.12                | 13         | Pass   |
| 16QAM          | 23755   | 706.5           | 4.91                | 13         | Pass   |
| 16QAM          | 23790   | 710             | 5.52                | 13         | Pass   |
| 16QAM          | 23825   | 713.5           | 5.18                | 13         | Pass   |
| 64QAM          | 23755   | 706.5           | 5.50                | 13         | Pass   |
| 64QAM          | 23790   | 710             | 5.77                | 13         | Pass   |
| 64QAM          | 23825   | 713.5           | 5.54                | 13         | Pass   |

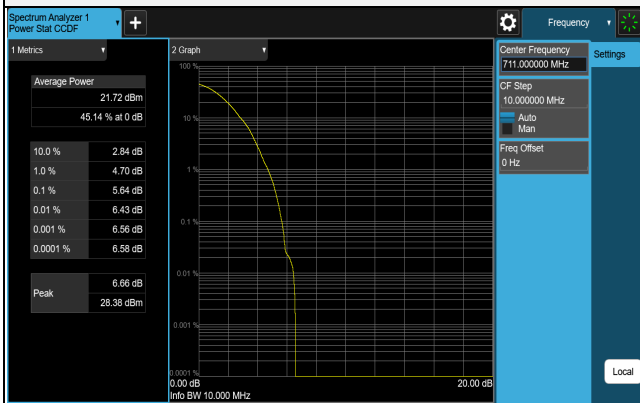
Spectrum Plot of Worst Value



LTE Band 17 (Channel Bandwidth 10MHz)

| Test Condition | Channel | Frequency (MHz) | Measure. Value (dB) | Limit (dB) | Result |
|----------------|---------|-----------------|---------------------|------------|--------|
| QPSK           | 23780   | 709             | 4.15                | 13         | Pass   |
| QPSK           | 23790   | 710             | 4.25                | 13         | Pass   |
| QPSK           | 23800   | 711             | 4.40                | 13         | Pass   |
| 16QAM          | 23780   | 709             | 5.11                | 13         | Pass   |
| 16QAM          | 23790   | 710             | 5.32                | 13         | Pass   |
| 16QAM          | 23800   | 711             | 5.37                | 13         | Pass   |
| 64QAM          | 23780   | 709             | 5.49                | 13         | Pass   |
| 64QAM          | 23790   | 710             | 5.57                | 13         | Pass   |
| 64QAM          | 23800   | 711             | 5.64                | 13         | Pass   |

Spectrum Plot of Worst Value



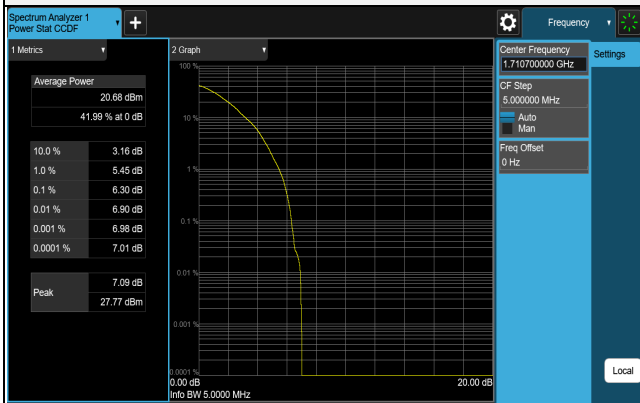
64QAM CH 23800 (711MHz)



LTE Band 66 (Channel Bandwidth 1.4MHz)

| Test Condition | Channel | Frequency (MHz) | Measure. Value (dB) | Limit (dB) | Result |
|----------------|---------|-----------------|---------------------|------------|--------|
| QPSK           | 131979  | 1710.7          | 4.63                | 13         | Pass   |
| QPSK           | 132322  | 1745            | 4.46                | 13         | Pass   |
| QPSK           | 132665  | 1779.3          | 3.74                | 13         | Pass   |
| 16QAM          | 131979  | 1710.7          | 5.65                | 13         | Pass   |
| 16QAM          | 132322  | 1745            | 5.59                | 13         | Pass   |
| 16QAM          | 132665  | 1779.3          | 4.86                | 13         | Pass   |
| 64QAM          | 131979  | 1710.7          | 6.30                | 13         | Pass   |
| 64QAM          | 132322  | 1745            | 6.06                | 13         | Pass   |
| 64QAM          | 132665  | 1779.3          | 5.53                | 13         | Pass   |

Spectrum Plot of Worst Value

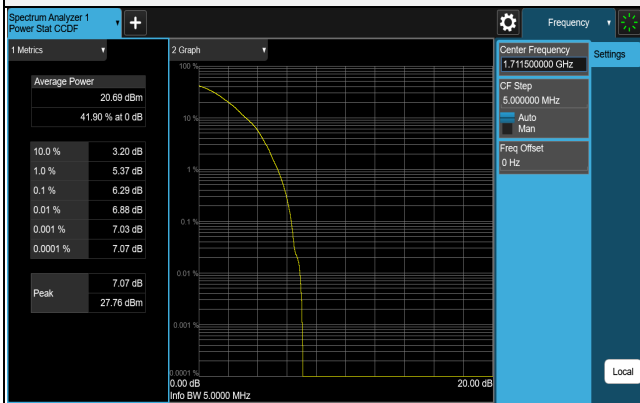


64QAM CH 131979 (1710.7MHz)

LTE Band 66 (Channel Bandwidth 3MHz)

| Test Condition | Channel | Frequency (MHz) | Measure. Value (dB) | Limit (dB) | Result |
|----------------|---------|-----------------|---------------------|------------|--------|
| QPSK           | 131987  | 1711.5          | 4.54                | 13         | Pass   |
| QPSK           | 132322  | 1745            | 4.42                | 13         | Pass   |
| QPSK           | 132657  | 1778.5          | 3.92                | 13         | Pass   |
| 16QAM          | 131987  | 1711.5          | 5.53                | 13         | Pass   |
| 16QAM          | 132322  | 1745            | 5.43                | 13         | Pass   |
| 16QAM          | 132657  | 1778.5          | 4.92                | 13         | Pass   |
| 64QAM          | 131987  | 1711.5          | 6.29                | 13         | Pass   |
| 64QAM          | 132322  | 1745            | 6.07                | 13         | Pass   |
| 64QAM          | 132657  | 1778.5          | 5.64                | 13         | Pass   |

Spectrum Plot of Worst Value

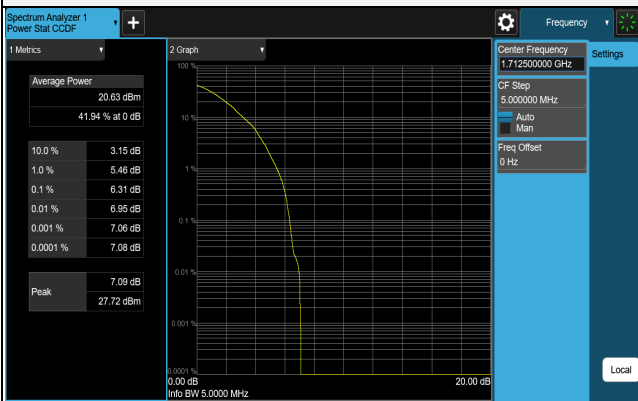


64QAM CH 131987 (1711.5MHz)

LTE Band 66 (Channel Bandwidth 5MHz)

| Test Condition | Channel | Frequency (MHz) | Measure. Value (dB) | Limit (dB) | Result |
|----------------|---------|-----------------|---------------------|------------|--------|
| QPSK           | 131997  | 1712.5          | 4.61                | 13         | Pass   |
| QPSK           | 132322  | 1745            | 4.57                | 13         | Pass   |
| QPSK           | 132647  | 1777.5          | 4.19                | 13         | Pass   |
| 16QAM          | 131997  | 1712.5          | 5.66                | 13         | Pass   |
| 16QAM          | 132322  | 1745            | 5.58                | 13         | Pass   |
| 16QAM          | 132647  | 1777.5          | 5.22                | 13         | Pass   |
| 64QAM          | 131997  | 1712.5          | 6.31                | 13         | Pass   |
| 64QAM          | 132322  | 1745            | 6.12                | 13         | Pass   |
| 64QAM          | 132647  | 1777.5          | 5.81                | 13         | Pass   |

Spectrum Plot of Worst Value

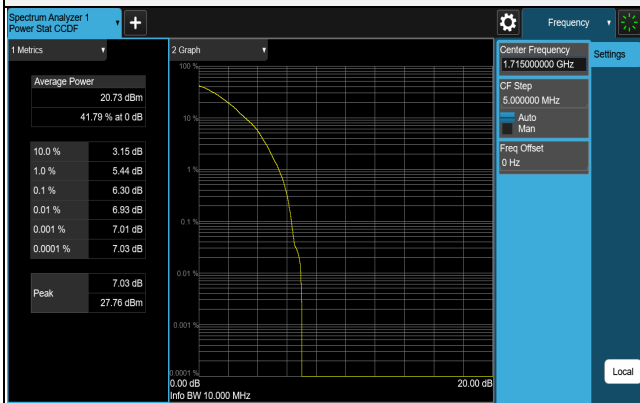


64QAM CH 131997 (1712.5MHz)

LTE Band 66 (Channel Bandwidth 10MHz)

| Test Condition | Channel | Frequency (MHz) | Measure. Value (dB) | Limit (dB) | Result |
|----------------|---------|-----------------|---------------------|------------|--------|
| QPSK           | 132022  | 1715            | 4.70                | 13         | Pass   |
| QPSK           | 132322  | 1745            | 4.56                | 13         | Pass   |
| QPSK           | 132622  | 1775            | 4.40                | 13         | Pass   |
| 16QAM          | 132022  | 1715            | 5.66                | 13         | Pass   |
| 16QAM          | 132322  | 1745            | 5.58                | 13         | Pass   |
| 16QAM          | 132622  | 1775            | 5.37                | 13         | Pass   |
| 64QAM          | 132022  | 1715            | 6.30                | 13         | Pass   |
| 64QAM          | 132322  | 1745            | 6.09                | 13         | Pass   |
| 64QAM          | 132622  | 1775            | 5.98                | 13         | Pass   |

Spectrum Plot of Worst Value

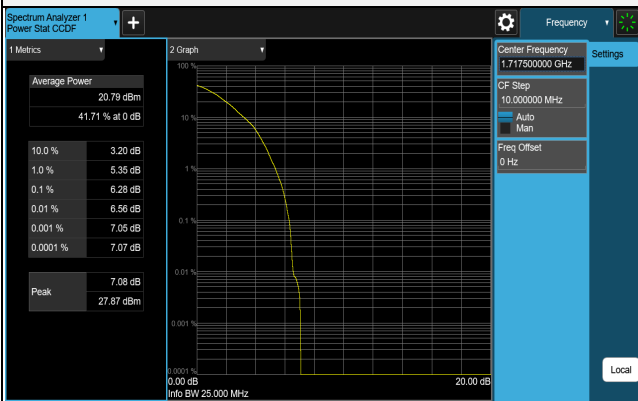


64QAM CH 132022 (1715MHz)

LTE Band 66 (Channel Bandwidth 15MHz)

| Test Condition | Channel | Frequency (MHz) | Measure. Value (dB) | Limit (dB) | Result |
|----------------|---------|-----------------|---------------------|------------|--------|
| QPSK           | 132047  | 1717.5          | 4.72                | 13         | Pass   |
| QPSK           | 132322  | 1745            | 4.57                | 13         | Pass   |
| QPSK           | 132597  | 1772.5          | 4.60                | 13         | Pass   |
| 16QAM          | 132047  | 1717.5          | 6.04                | 13         | Pass   |
| 16QAM          | 132322  | 1745            | 5.88                | 13         | Pass   |
| 16QAM          | 132597  | 1772.5          | 5.53                | 13         | Pass   |
| 64QAM          | 132047  | 1717.5          | 6.28                | 13         | Pass   |
| 64QAM          | 132322  | 1745            | 6.14                | 13         | Pass   |
| 64QAM          | 132597  | 1772.5          | 6.22                | 13         | Pass   |

Spectrum Plot of Worst Value

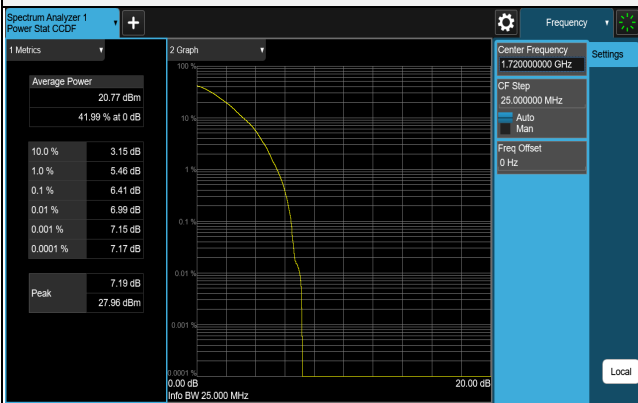


64QAM CH 132047 (1717.5MHz)

LTE Band 66 (Channel Bandwidth 20MHz)

| Test Condition | Channel | Frequency (MHz) | Measure. Value (dB) | Limit (dB) | Result |
|----------------|---------|-----------------|---------------------|------------|--------|
| QPSK           | 132072  | 1720            | 4.84                | 13         | Pass   |
| QPSK           | 132322  | 1745            | 4.79                | 13         | Pass   |
| QPSK           | 132572  | 1770            | 4.72                | 13         | Pass   |
| 16QAM          | 132072  | 1720            | 5.82                | 13         | Pass   |
| 16QAM          | 132322  | 1745            | 5.81                | 13         | Pass   |
| 16QAM          | 132572  | 1770            | 5.80                | 13         | Pass   |
| 64QAM          | 132072  | 1720            | 6.41                | 13         | Pass   |
| 64QAM          | 132322  | 1745            | 6.22                | 13         | Pass   |
| 64QAM          | 132572  | 1770            | 6.26                | 13         | Pass   |

Spectrum Plot of Worst Value



64QAM CH 132072 (1720MHz)

## 4.7 Conducted Spurious Emissions

### 4.7.1 Limits of Conducted Spurious Emissions Measurement

For LTE Band 4, LTE Band 66:

According to FCC 27.53(h), for operations in the 1695-1710MHz, 1710-1755MHz, 1755-1780 MHz bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least  $43 + 10 \log (P)$  dB.

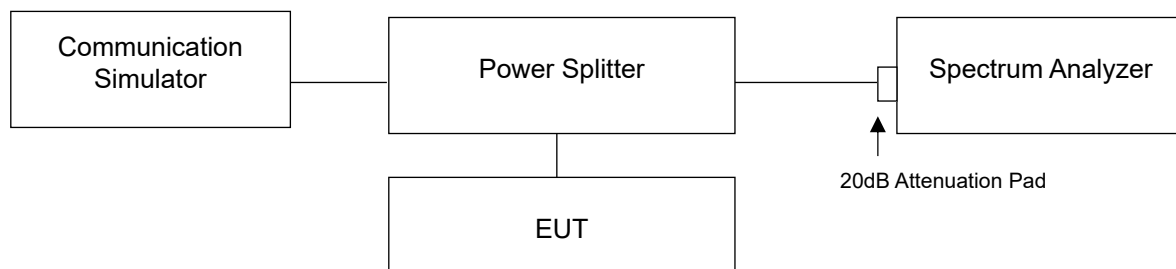
For LTE Band 7:

According to FCC 27.53(m)(4), on any frequency outside a licensee's frequency block, The power of any emission shall be attenuated below the transmitter power (P) by at least  $55 + 10 \log (P)$  dB. The emission limit equal to  $-25$ dBm.

For LTE Band 12, LTE Band 17:

According to FCC 27.53(g), for operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least  $43 + 10 \log (P)$  dB. The limit of emissions is equal to  $-13$  dBm.

### 4.7.2 Test Setup



### 4.7.3 Test Procedure

- All measurements were done at low, middle and high channels operational frequency range.
- Measuring frequency range is from 9kHz to 8GHz / 9GHz / 18GHz / 26GHz. 20dB attenuation pad is connected with spectrum. RBW=1MHz and VBW=3MHz is used for conducted emission measurement.