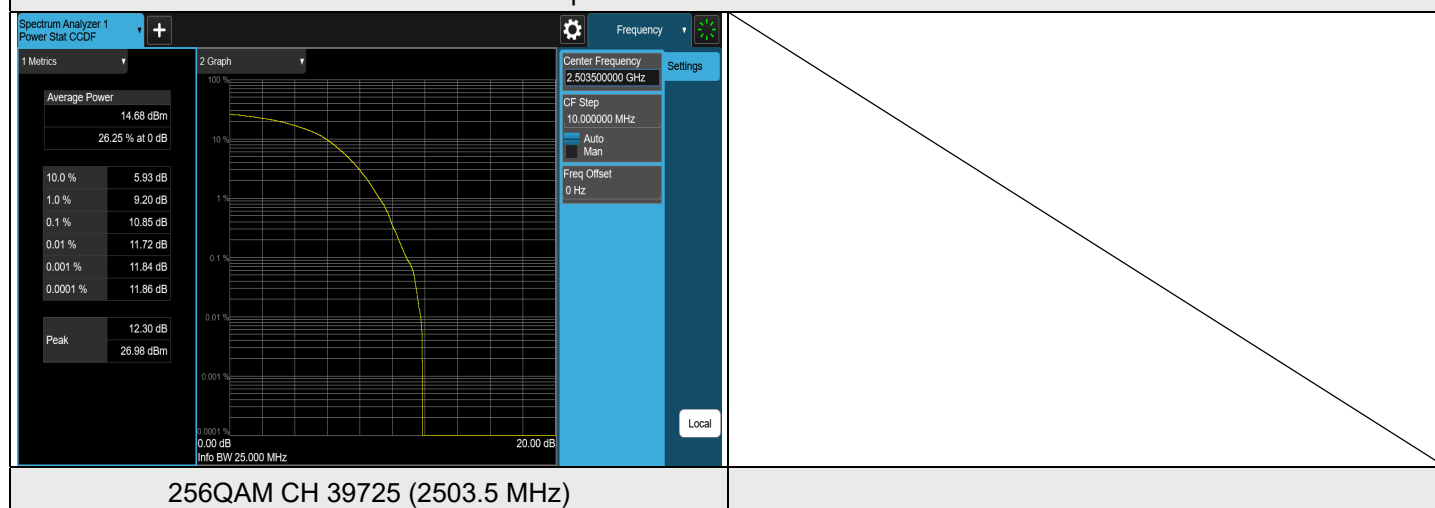


# LTE Band 41, Channel Bandwidth: 15 MHz

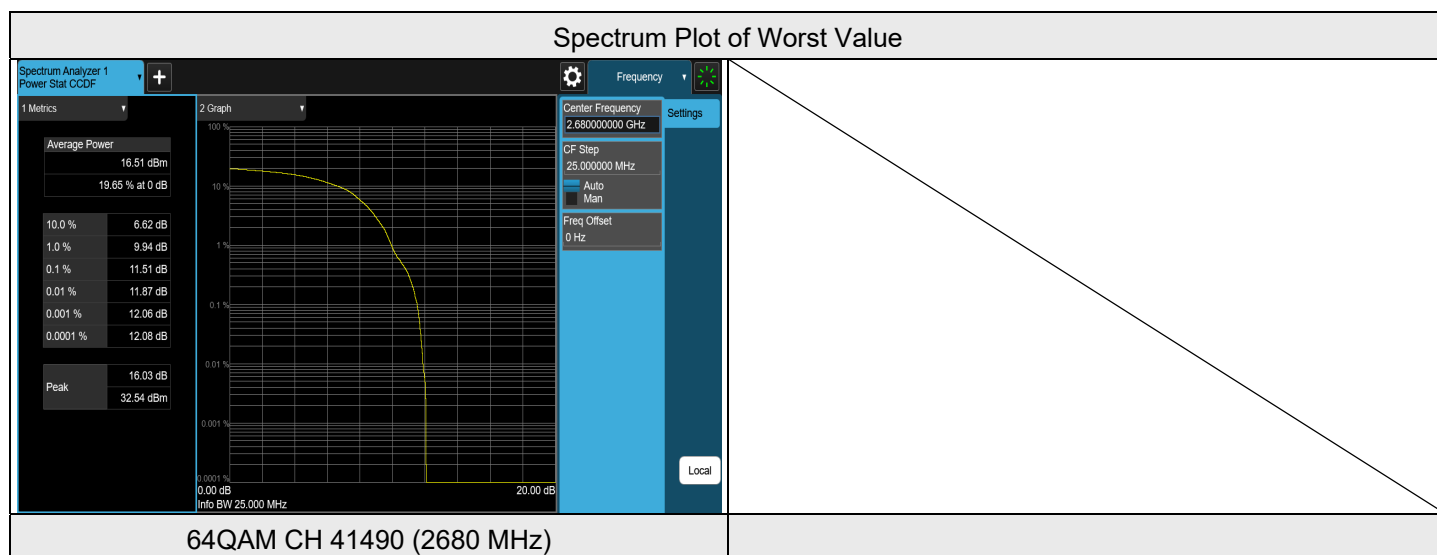
| Modulation | Channel | Frequency (MHz) | Measurement Value(dB) | Limit (dB) | Result |
|------------|---------|-----------------|-----------------------|------------|--------|
| QPSK       | 39725   | 2503.5          | 7.91                  | 13         | PASS   |
| QPSK       | 40620   | 2593            | 9.61                  | 13         | PASS   |
| QPSK       | 41515   | 2682.5          | 7.72                  | 13         | PASS   |
| 16QAM      | 39725   | 2503.5          | 9.89                  | 13         | PASS   |
| 16QAM      | 40620   | 2593            | 10.65                 | 13         | PASS   |
| 16QAM      | 41515   | 2682.5          | 8.95                  | 13         | PASS   |
| 64QAM      | 39725   | 2503.5          | 9.35                  | 13         | PASS   |
| 64QAM      | 40620   | 2593            | 9.23                  | 13         | PASS   |
| 64QAM      | 41515   | 2682.5          | 9.53                  | 13         | PASS   |
| 256QAM     | 39725   | 2503.5          | 10.85                 | 13         | PASS   |
| 256QAM     | 40620   | 2593            | 10.36                 | 13         | PASS   |
| 256QAM     | 41515   | 2682.5          | 8.37                  | 13         | PASS   |

Spectrum Plot of Worst Value



# LTE Band 41, Channel Bandwidth: 20 MHz

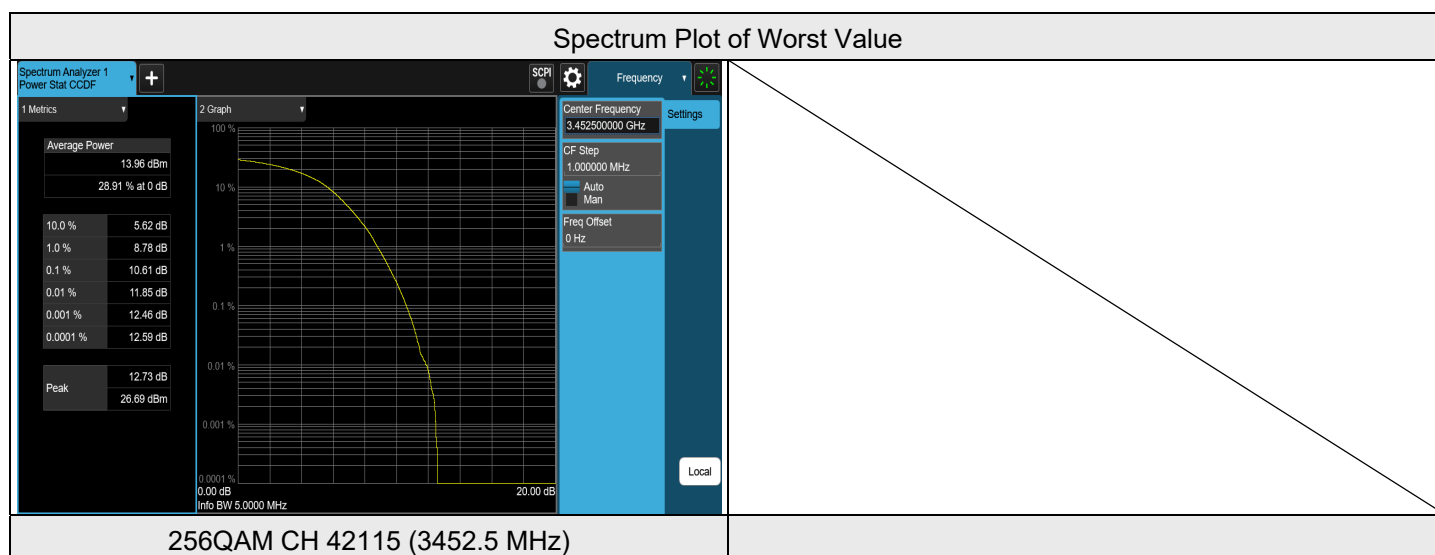
| Modulation | Channel | Frequency (MHz) | Measurement Value(dB) | Limit (dB) | Result |
|------------|---------|-----------------|-----------------------|------------|--------|
| QPSK       | 39750   | 2506            | 10.02                 | 13         | PASS   |
| QPSK       | 40620   | 2593            | 11.11                 | 13         | PASS   |
| QPSK       | 41490   | 2680            | 8.89                  | 13         | PASS   |
| 16QAM      | 39750   | 2506            | 7.24                  | 13         | PASS   |
| 16QAM      | 40620   | 2593            | 8.02                  | 13         | PASS   |
| 16QAM      | 41490   | 2680            | 9.02                  | 13         | PASS   |
| 64QAM      | 39750   | 2506            | 10.17                 | 13         | PASS   |
| 64QAM      | 40620   | 2593            | 10.51                 | 13         | PASS   |
| 64QAM      | 41490   | 2680            | 11.51                 | 13         | PASS   |
| 256QAM     | 39750   | 2506            | 10.46                 | 13         | PASS   |
| 256QAM     | 40620   | 2593            | 9.08                  | 13         | PASS   |
| 256QAM     | 41490   | 2680            | 10.61                 | 13         | PASS   |



### 7.3.15LTE Band 42 (3.45 GHz ~ 3.55 GHz)

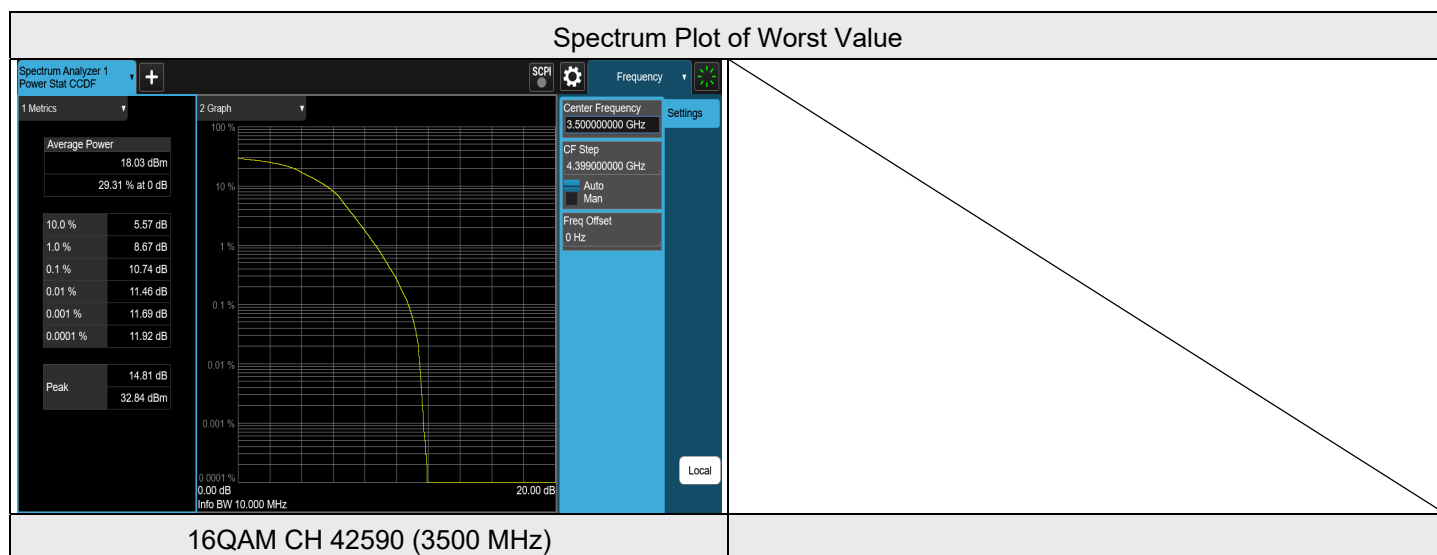
#### LTE Band 42 (3.45 GHz ~ 3.55 GHz), Channel Bandwidth: 5 MHz

| Modulation | Channel | Frequency (MHz) | Measurement Value(dB) | Limit (dB) | Result |
|------------|---------|-----------------|-----------------------|------------|--------|
| QPSK       | 42115   | 3452.5          | 9.63                  | 13         | PASS   |
| QPSK       | 42590   | 3500            | 9.72                  | 13         | PASS   |
| QPSK       | 43065   | 3547.5          | 9.79                  | 13         | PASS   |
| 16QAM      | 42115   | 3452.5          | 10.41                 | 13         | PASS   |
| 16QAM      | 42590   | 3500            | 10.21                 | 13         | PASS   |
| 16QAM      | 43065   | 3547.5          | 10.36                 | 13         | PASS   |
| 64QAM      | 42115   | 3452.5          | 10.41                 | 13         | PASS   |
| 64QAM      | 42590   | 3500            | 10.25                 | 13         | PASS   |
| 64QAM      | 43065   | 3547.5          | 10.29                 | 13         | PASS   |
| 256QAM     | 42115   | 3452.5          | 10.61                 | 13         | PASS   |
| 256QAM     | 42590   | 3500            | 10.12                 | 13         | PASS   |
| 256QAM     | 43065   | 3547.5          | 10.15                 | 13         | PASS   |



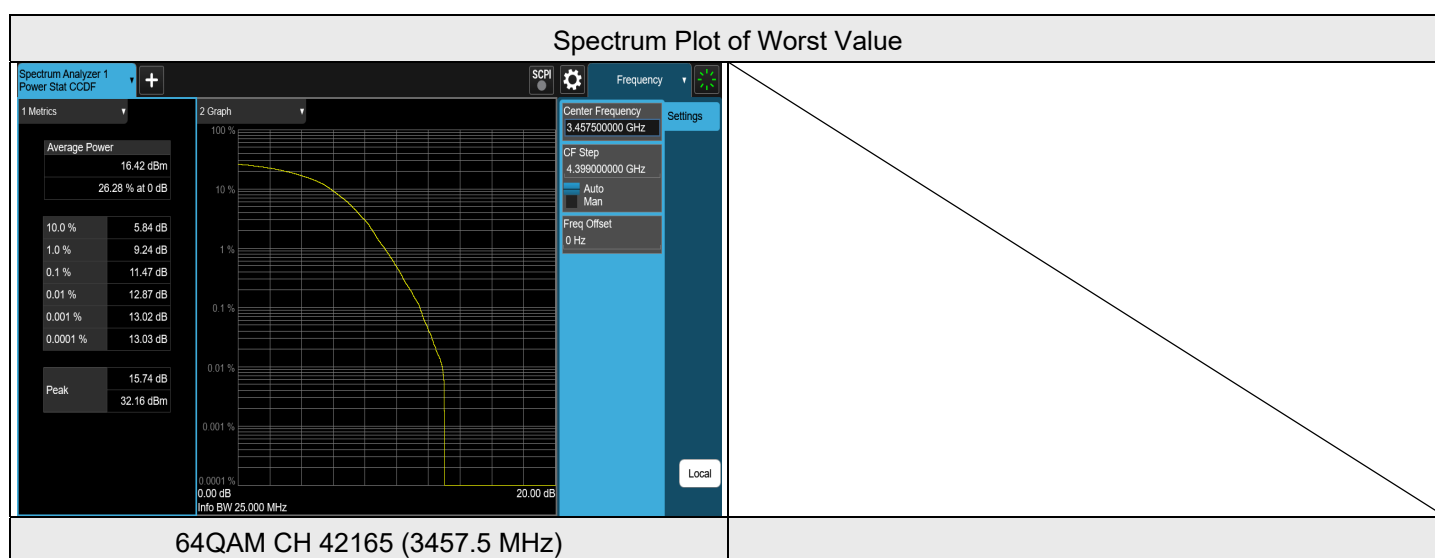
# LTE Band 42 (3.45 GHz ~ 3.55 GHz), Channel Bandwidth: 10 MHz

| Modulation | Channel | Frequency (MHz) | Measurement Value(dB) | Limit (dB) | Result |
|------------|---------|-----------------|-----------------------|------------|--------|
| QPSK       | 42140   | 3455            | 9.76                  | 13         | PASS   |
| QPSK       | 42590   | 3500            | 9.61                  | 13         | PASS   |
| QPSK       | 43040   | 3545            | 9.76                  | 13         | PASS   |
| 16QAM      | 42140   | 3455            | 10.39                 | 13         | PASS   |
| 16QAM      | 42590   | 3500            | 10.74                 | 13         | PASS   |
| 16QAM      | 43040   | 3545            | 10.31                 | 13         | PASS   |
| 64QAM      | 42140   | 3455            | 10.03                 | 13         | PASS   |
| 64QAM      | 42590   | 3500            | 10.12                 | 13         | PASS   |
| 64QAM      | 43040   | 3545            | 10.44                 | 13         | PASS   |
| 256QAM     | 42140   | 3455            | 10.33                 | 13         | PASS   |
| 256QAM     | 42590   | 3500            | 10.28                 | 13         | PASS   |
| 256QAM     | 43040   | 3545            | 10.11                 | 13         | PASS   |



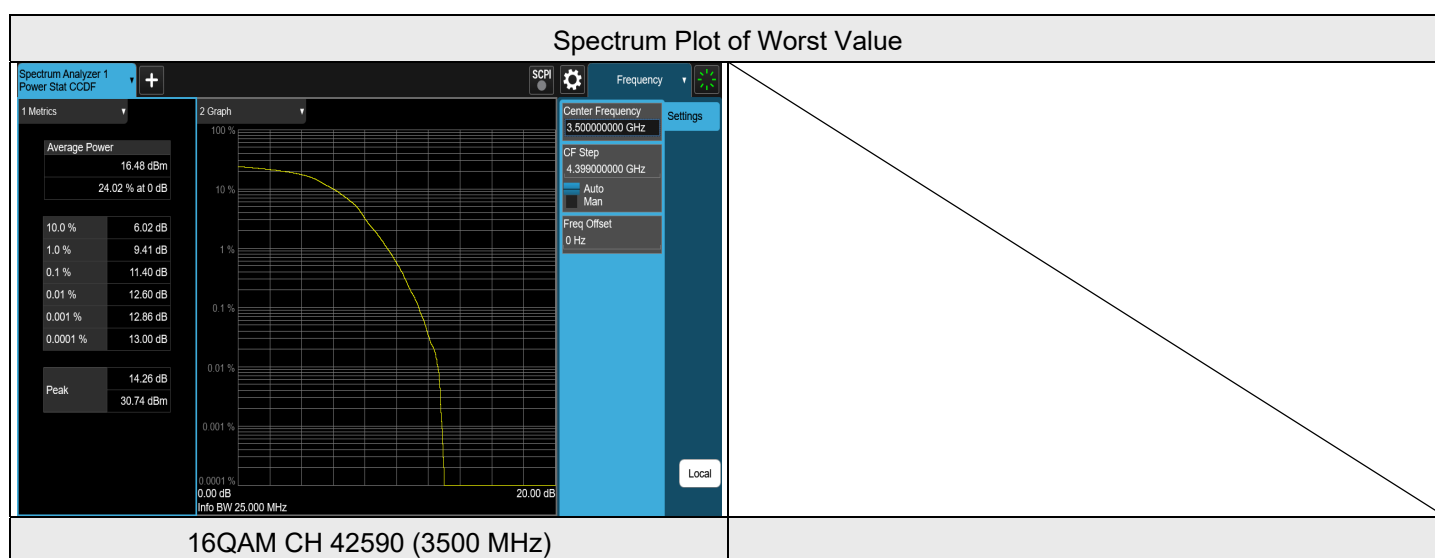
# LTE Band 42 (3.45 GHz ~ 3.55 GHz), Channel Bandwidth: 15 MHz

| Modulation | Channel | Frequency (MHz) | Measurement Value(dB) | Limit (dB) | Result |
|------------|---------|-----------------|-----------------------|------------|--------|
| QPSK       | 42165   | 3457.5          | 9.46                  | 13         | PASS   |
| QPSK       | 42590   | 3500            | 8.11                  | 13         | PASS   |
| QPSK       | 43015   | 3542.5          | 10.26                 | 13         | PASS   |
| 16QAM      | 42165   | 3457.5          | 10.23                 | 13         | PASS   |
| 16QAM      | 42590   | 3500            | 9.41                  | 13         | PASS   |
| 16QAM      | 43015   | 3542.5          | 10.19                 | 13         | PASS   |
| 64QAM      | 42165   | 3457.5          | 11.47                 | 13         | PASS   |
| 64QAM      | 42590   | 3500            | 11.27                 | 13         | PASS   |
| 64QAM      | 43015   | 3542.5          | 9.84                  | 13         | PASS   |
| 256QAM     | 42165   | 3457.5          | 9.96                  | 13         | PASS   |
| 256QAM     | 42590   | 3500            | 10.67                 | 13         | PASS   |
| 256QAM     | 43015   | 3542.5          | 10.17                 | 13         | PASS   |



# LTE Band 42 (3.45 GHz ~ 3.55 GHz), Channel Bandwidth: 20 MHz

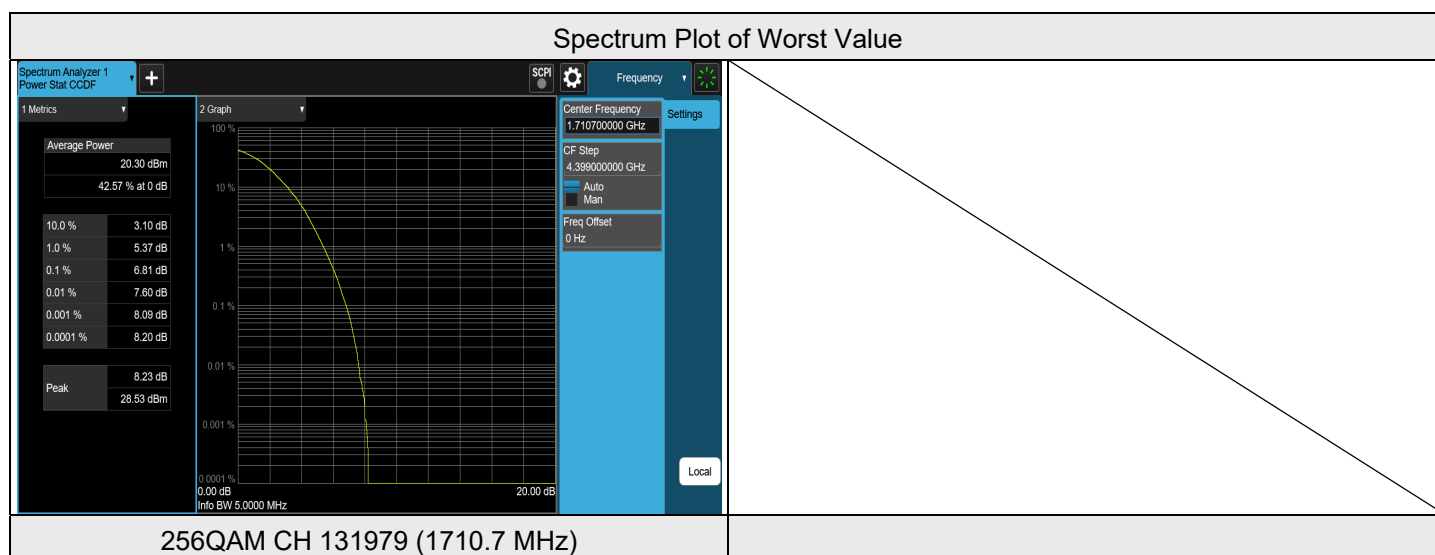
| Modulation | Channel | Frequency (MHz) | Measurement Value(dB) | Limit (dB) | Result |
|------------|---------|-----------------|-----------------------|------------|--------|
| QPSK       | 42190   | 3460            | 11.14                 | 13         | PASS   |
| QPSK       | 42590   | 3500            | 10.39                 | 13         | PASS   |
| QPSK       | 42990   | 3540            | 10.61                 | 13         | PASS   |
| 16QAM      | 42190   | 3460            | 10.32                 | 13         | PASS   |
| 16QAM      | 42590   | 3500            | 11.40                 | 13         | PASS   |
| 16QAM      | 42990   | 3540            | 11.19                 | 13         | PASS   |
| 64QAM      | 42190   | 3460            | 9.65                  | 13         | PASS   |
| 64QAM      | 42590   | 3500            | 9.30                  | 13         | PASS   |
| 64QAM      | 42990   | 3540            | 10.58                 | 13         | PASS   |
| 256QAM     | 42190   | 3460            | 9.80                  | 13         | PASS   |
| 256QAM     | 42590   | 3500            | 10.92                 | 13         | PASS   |
| 256QAM     | 42990   | 3540            | 10.96                 | 13         | PASS   |



### 7.3.16LTE Band 66

#### LTE Band 66, Channel Bandwidth: 1.4 MHz

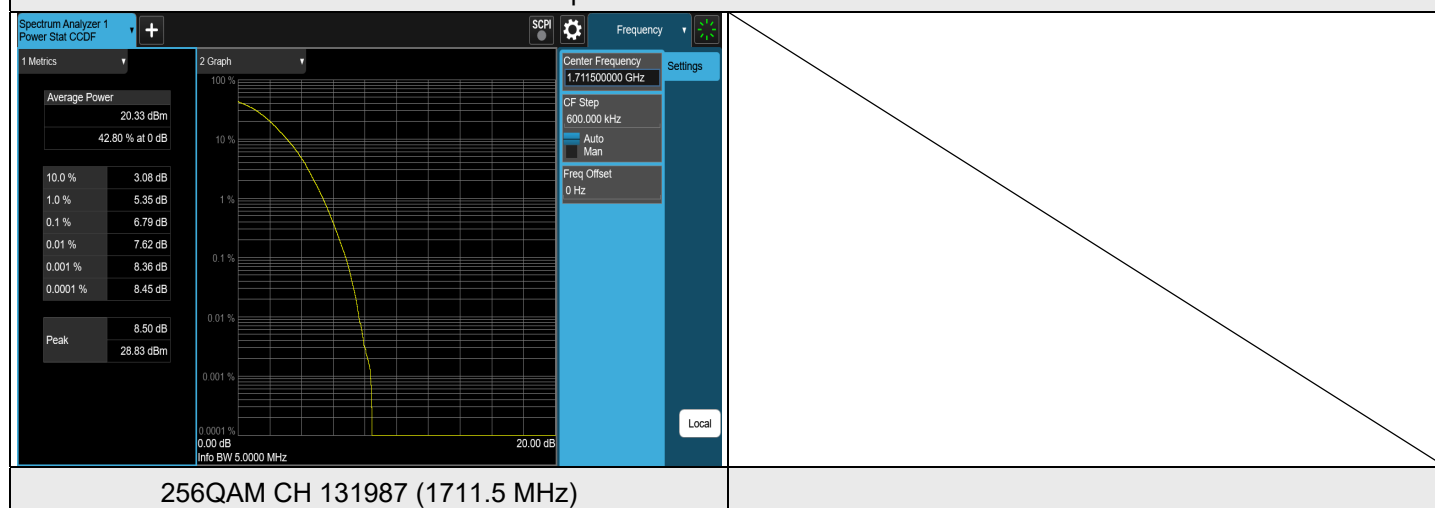
| Modulation | Channel | Frequency (MHz) | Measurement Value(dB) | Limit (dB) | Result |
|------------|---------|-----------------|-----------------------|------------|--------|
| QPSK       | 131979  | 1710.7          | 4.36                  | 13         | PASS   |
| QPSK       | 132322  | 1745            | 4.33                  | 13         | PASS   |
| QPSK       | 132665  | 1779.3          | 4.03                  | 13         | PASS   |
| 16QAM      | 131979  | 1710.7          | 5.22                  | 13         | PASS   |
| 16QAM      | 132322  | 1745            | 5.11                  | 13         | PASS   |
| 16QAM      | 132665  | 1779.3          | 4.75                  | 13         | PASS   |
| 64QAM      | 131979  | 1710.7          | 5.92                  | 13         | PASS   |
| 64QAM      | 132322  | 1745            | 5.80                  | 13         | PASS   |
| 64QAM      | 132665  | 1779.3          | 5.57                  | 13         | PASS   |
| 256QAM     | 131979  | 1710.7          | 6.81                  | 13         | PASS   |
| 256QAM     | 132322  | 1745            | 6.68                  | 13         | PASS   |
| 256QAM     | 132665  | 1779.3          | 6.61                  | 13         | PASS   |



### LTE Band 66, Channel Bandwidth: 3 MHz

| Modulation | Channel | Frequency (MHz) | Measurement Value(dB) | Limit (dB) | Result |
|------------|---------|-----------------|-----------------------|------------|--------|
| QPSK       | 131987  | 1711.5          | 4.43                  | 13         | PASS   |
| QPSK       | 132322  | 1745            | 4.33                  | 13         | PASS   |
| QPSK       | 132657  | 1778.5          | 4.08                  | 13         | PASS   |
| 16QAM      | 131987  | 1711.5          | 5.20                  | 13         | PASS   |
| 16QAM      | 132322  | 1745            | 5.12                  | 13         | PASS   |
| 16QAM      | 132657  | 1778.5          | 4.80                  | 13         | PASS   |
| 64QAM      | 131987  | 1711.5          | 5.91                  | 13         | PASS   |
| 64QAM      | 132322  | 1745            | 5.85                  | 13         | PASS   |
| 64QAM      | 132657  | 1778.5          | 5.64                  | 13         | PASS   |
| 256QAM     | 131987  | 1711.5          | 6.79                  | 13         | PASS   |
| 256QAM     | 132322  | 1745            | 6.65                  | 13         | PASS   |
| 256QAM     | 132657  | 1778.5          | 6.65                  | 13         | PASS   |

Spectrum Plot of Worst Value



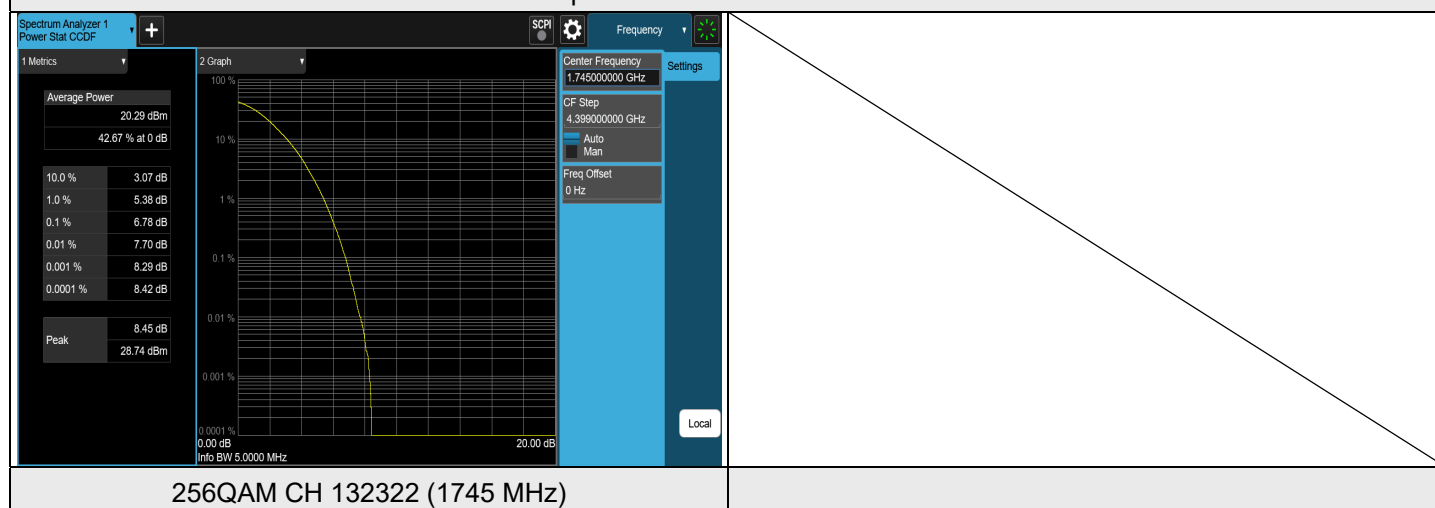
256QAM CH 131987 (1711.5 MHz)



### LTE Band 66, Channel Bandwidth: 5 MHz

| Modulation | Channel | Frequency (MHz) | Measurement Value(dB) | Limit (dB) | Result |
|------------|---------|-----------------|-----------------------|------------|--------|
| QPSK       | 131997  | 1712.5          | 4.45                  | 13         | PASS   |
| QPSK       | 132322  | 1745            | 4.38                  | 13         | PASS   |
| QPSK       | 132647  | 1777.5          | 4.15                  | 13         | PASS   |
| 16QAM      | 131997  | 1712.5          | 5.22                  | 13         | PASS   |
| 16QAM      | 132322  | 1745            | 5.16                  | 13         | PASS   |
| 16QAM      | 132647  | 1777.5          | 4.91                  | 13         | PASS   |
| 64QAM      | 131997  | 1712.5          | 5.92                  | 13         | PASS   |
| 64QAM      | 132322  | 1745            | 5.82                  | 13         | PASS   |
| 64QAM      | 132647  | 1777.5          | 5.62                  | 13         | PASS   |
| 256QAM     | 131997  | 1712.5          | 6.69                  | 13         | PASS   |
| 256QAM     | 132322  | 1745            | 6.78                  | 13         | PASS   |
| 256QAM     | 132647  | 1777.5          | 6.71                  | 13         | PASS   |

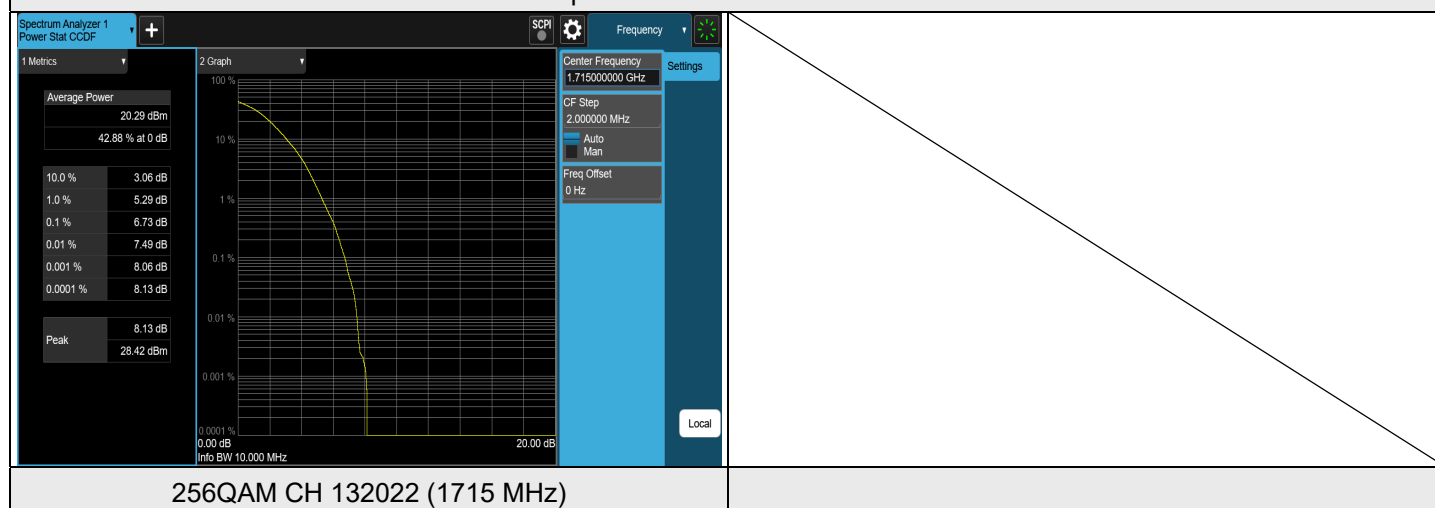
Spectrum Plot of Worst Value



# LTE Band 66, Channel Bandwidth: 10 MHz

| Modulation | Channel | Frequency (MHz) | Measurement Value(dB) | Limit (dB) | Result |
|------------|---------|-----------------|-----------------------|------------|--------|
| QPSK       | 132022  | 1715            | 4.49                  | 13         | PASS   |
| QPSK       | 132322  | 1745            | 4.39                  | 13         | PASS   |
| QPSK       | 132622  | 1775            | 4.25                  | 13         | PASS   |
| 16QAM      | 132022  | 1715            | 5.28                  | 13         | PASS   |
| 16QAM      | 132322  | 1745            | 5.22                  | 13         | PASS   |
| 16QAM      | 132622  | 1775            | 5.07                  | 13         | PASS   |
| 64QAM      | 132022  | 1715            | 5.91                  | 13         | PASS   |
| 64QAM      | 132322  | 1745            | 5.86                  | 13         | PASS   |
| 64QAM      | 132622  | 1775            | 5.71                  | 13         | PASS   |
| 256QAM     | 132022  | 1715            | 6.73                  | 13         | PASS   |
| 256QAM     | 132322  | 1745            | 6.73                  | 13         | PASS   |
| 256QAM     | 132622  | 1775            | 6.58                  | 13         | PASS   |

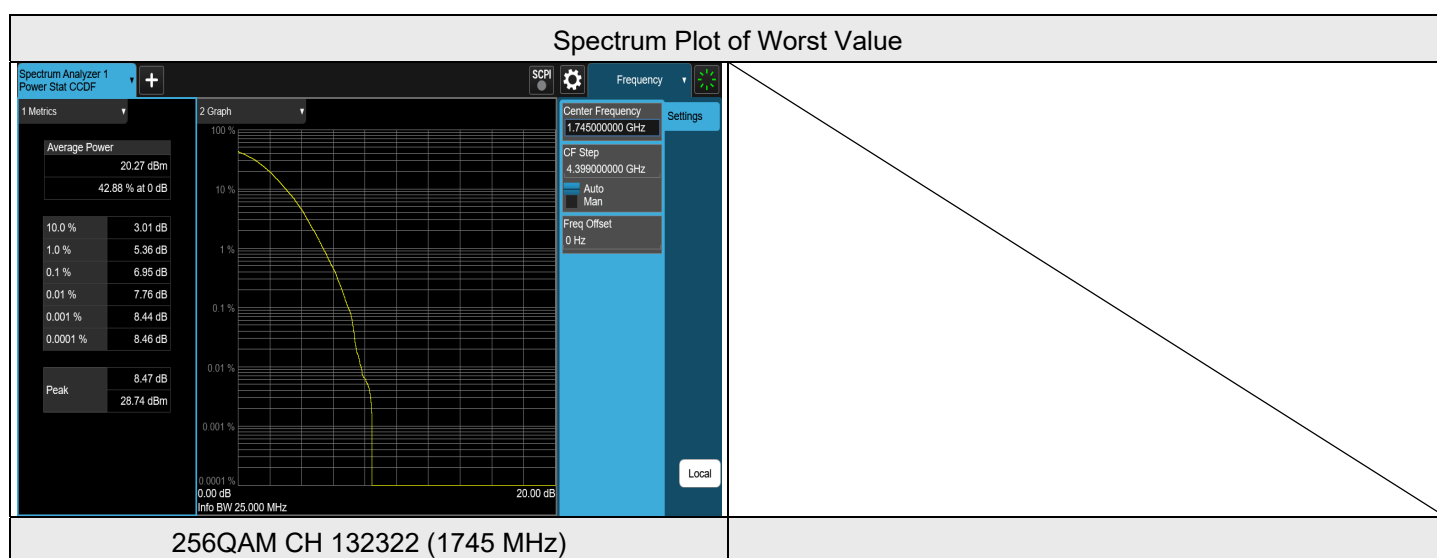
Spectrum Plot of Worst Value



256QAM CH 132022 (1715 MHz)

# LTE Band 66, Channel Bandwidth: 15 MHz

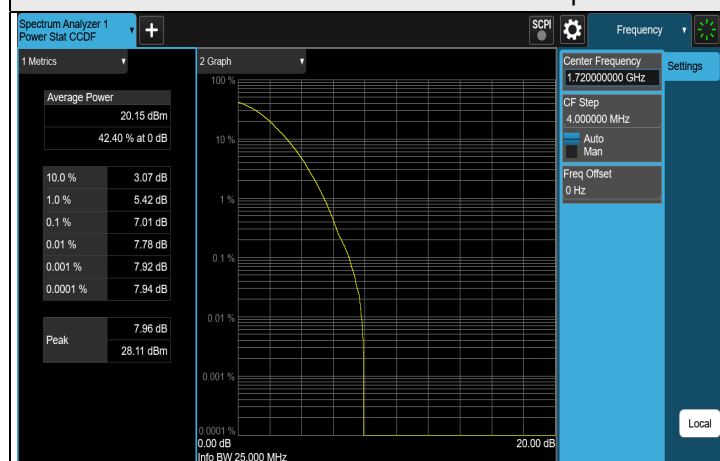
| Modulation | Channel | Frequency (MHz) | Measurement Value(dB) | Limit (dB) | Result |
|------------|---------|-----------------|-----------------------|------------|--------|
| QPSK       | 132047  | 1717.5          | 4.58                  | 13         | PASS   |
| QPSK       | 132322  | 1745            | 4.46                  | 13         | PASS   |
| QPSK       | 132597  | 1772.5          | 4.50                  | 13         | PASS   |
| 16QAM      | 132047  | 1717.5          | 5.39                  | 13         | PASS   |
| 16QAM      | 132322  | 1745            | 5.18                  | 13         | PASS   |
| 16QAM      | 132597  | 1772.5          | 5.40                  | 13         | PASS   |
| 64QAM      | 132047  | 1717.5          | 6.06                  | 13         | PASS   |
| 64QAM      | 132322  | 1745            | 5.78                  | 13         | PASS   |
| 64QAM      | 132597  | 1772.5          | 5.80                  | 13         | PASS   |
| 256QAM     | 132047  | 1717.5          | 6.62                  | 13         | PASS   |
| 256QAM     | 132322  | 1745            | 6.95                  | 13         | PASS   |
| 256QAM     | 132597  | 1772.5          | 6.66                  | 13         | PASS   |



# LTE Band 66, Channel Bandwidth: 20 MHz

| Modulation | Channel | Frequency (MHz) | Measurement Value(dB) | Limit (dB) | Result |
|------------|---------|-----------------|-----------------------|------------|--------|
| QPSK       | 132072  | 1720            | 4.60                  | 13         | PASS   |
| QPSK       | 132322  | 1745            | 4.50                  | 13         | PASS   |
| QPSK       | 132572  | 1770            | 4.44                  | 13         | PASS   |
| 16QAM      | 132072  | 1720            | 5.34                  | 13         | PASS   |
| 16QAM      | 132322  | 1745            | 5.34                  | 13         | PASS   |
| 16QAM      | 132572  | 1770            | 5.30                  | 13         | PASS   |
| 64QAM      | 132072  | 1720            | 6.06                  | 13         | PASS   |
| 64QAM      | 132322  | 1745            | 5.87                  | 13         | PASS   |
| 64QAM      | 132572  | 1770            | 5.85                  | 13         | PASS   |
| 256QAM     | 132072  | 1720            | 7.01                  | 13         | PASS   |
| 256QAM     | 132322  | 1745            | 6.77                  | 13         | PASS   |
| 256QAM     | 132572  | 1770            | 6.69                  | 13         | PASS   |

Spectrum Plot of Worst Value

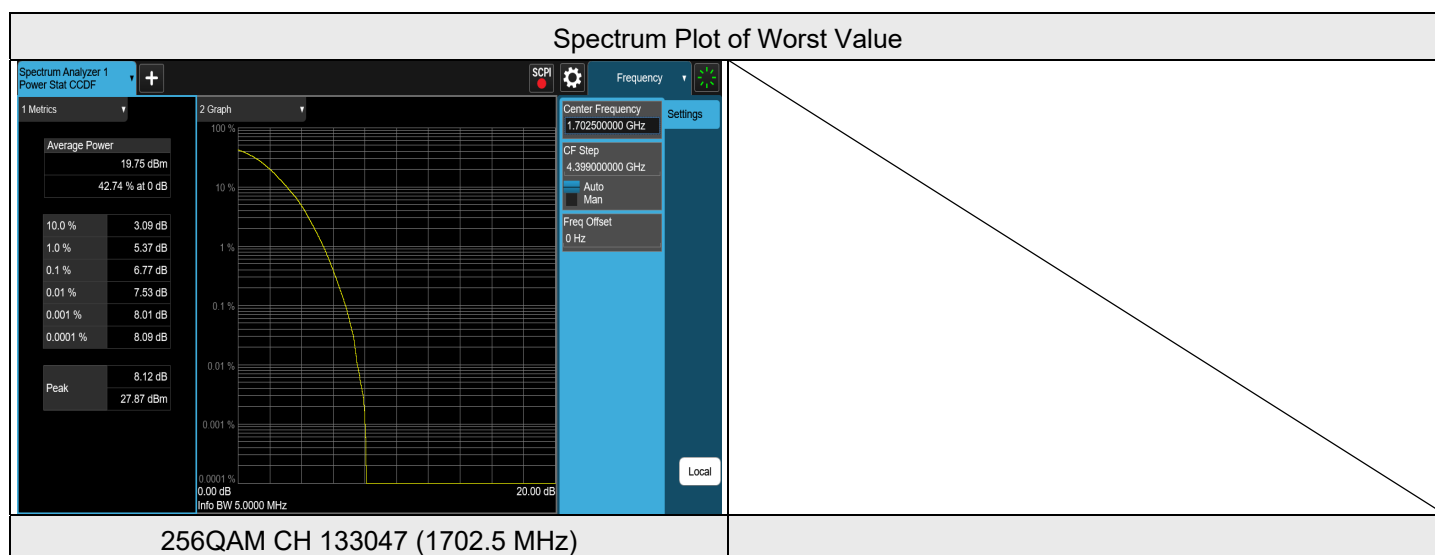


256QAM CH 132072 (1720 MHz)

### 7.3.17LTE Band 70

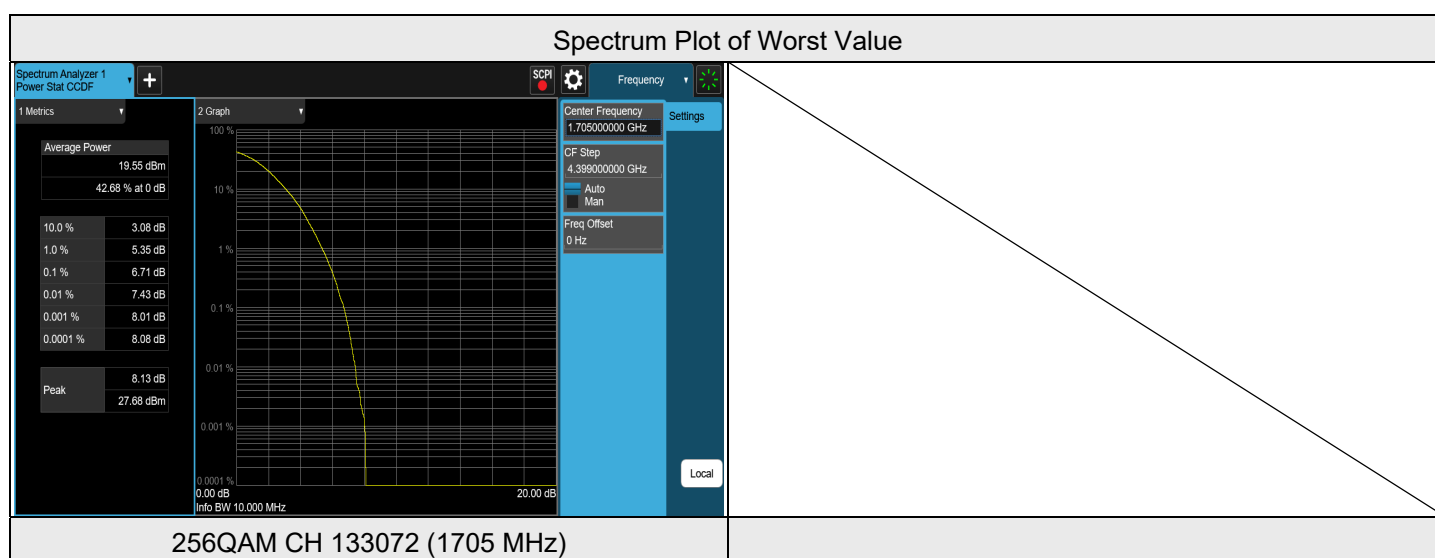
#### LTE Band 70, Channel Bandwidth: 5 MHz

| Modulation | Channel | Frequency (MHz) | Measurement Value(dB) | Limit (dB) | Result |
|------------|---------|-----------------|-----------------------|------------|--------|
| QPSK       | 132997  | 1697.5          | 3.70                  | 13         | PASS   |
| QPSK       | 133047  | 1702.5          | 3.77                  | 13         | PASS   |
| QPSK       | 133097  | 1707.5          | 3.98                  | 13         | PASS   |
| 16QAM      | 132997  | 1697.5          | 4.46                  | 13         | PASS   |
| 16QAM      | 133047  | 1702.5          | 4.51                  | 13         | PASS   |
| 16QAM      | 133097  | 1707.5          | 4.73                  | 13         | PASS   |
| 64QAM      | 132997  | 1697.5          | 4.51                  | 13         | PASS   |
| 64QAM      | 133047  | 1702.5          | 4.60                  | 13         | PASS   |
| 64QAM      | 133097  | 1707.5          | 4.80                  | 13         | PASS   |
| 256QAM     | 132997  | 1697.5          | 6.59                  | 13         | PASS   |
| 256QAM     | 133047  | 1702.5          | 6.77                  | 13         | PASS   |
| 256QAM     | 133097  | 1707.5          | 6.56                  | 13         | PASS   |



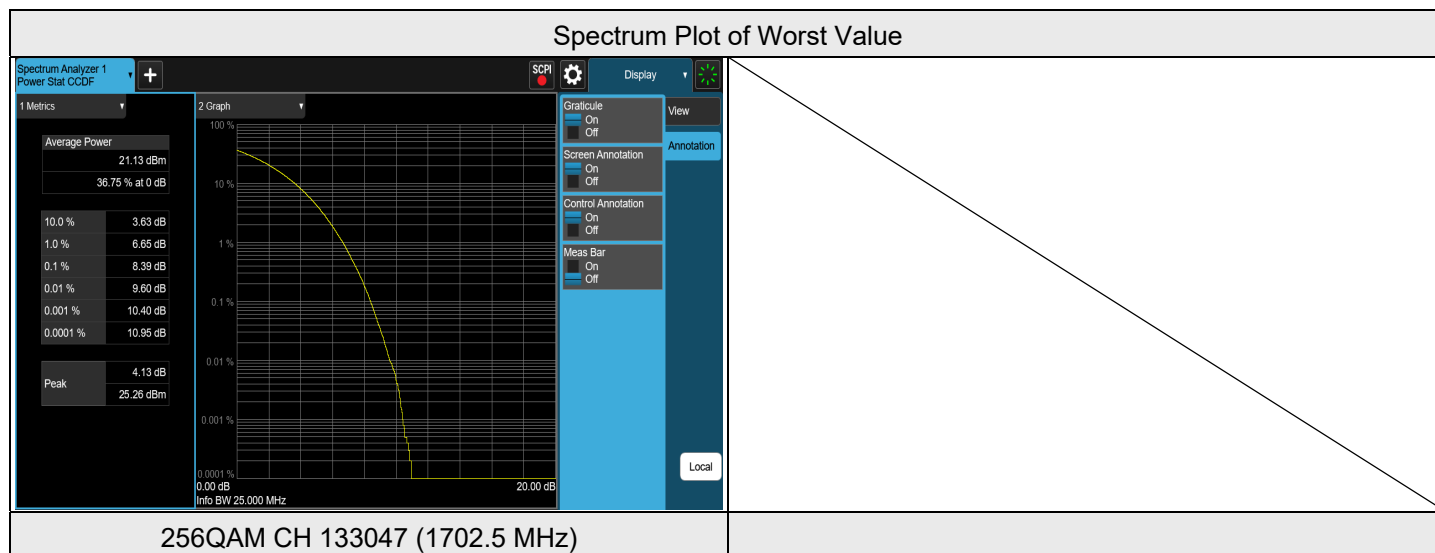
# LTE Band 70, Channel Bandwidth: 10 MHz

| Modulation | Channel | Frequency (MHz) | Measurement Value(dB) | Limit (dB) | Result |
|------------|---------|-----------------|-----------------------|------------|--------|
| QPSK       | 133022  | 1700            | 3.77                  | 13         | PASS   |
| QPSK       | 133047  | 1702.5          | 3.80                  | 13         | PASS   |
| QPSK       | 133072  | 1705            | 3.86                  | 13         | PASS   |
| 16QAM      | 133022  | 1700            | 4.56                  | 13         | PASS   |
| 16QAM      | 133047  | 1702.5          | 4.65                  | 13         | PASS   |
| 16QAM      | 133072  | 1705            | 4.60                  | 13         | PASS   |
| 64QAM      | 133022  | 1700            | 5.25                  | 13         | PASS   |
| 64QAM      | 133047  | 1702.5          | 5.41                  | 13         | PASS   |
| 64QAM      | 133072  | 1705            | 5.45                  | 13         | PASS   |
| 256QAM     | 133022  | 1700            | 6.56                  | 13         | PASS   |
| 256QAM     | 133047  | 1702.5          | 6.59                  | 13         | PASS   |
| 256QAM     | 133072  | 1705            | 6.71                  | 13         | PASS   |



# LTE Band 70, Channel Bandwidth: 15 MHz

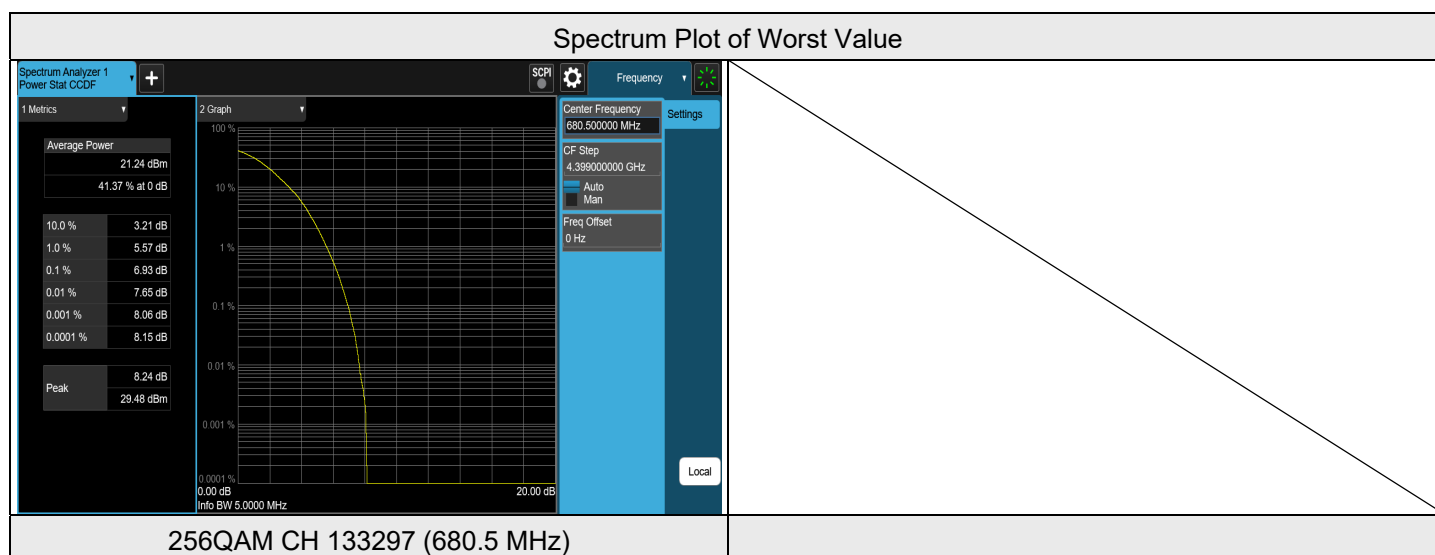
| Modulation | Channel | Frequency (MHz) | Measurement Value(dB) | Limit (dB) | Result |
|------------|---------|-----------------|-----------------------|------------|--------|
| QPSK       | 133047  | 1702.5          | 3.96                  | 13         | PASS   |
| 16QAM      | 133047  | 1702.5          | 4.75                  | 13         | PASS   |
| 64QAM      | 133047  | 1702.5          | 5.47                  | 13         | PASS   |
| 256QAM     | 133047  | 1702.5          | 8.39                  | 13         | PASS   |



### 7.3.18LTE Band 71

#### LTE Band 71, Channel Bandwidth: 5 MHz

| Modulation | Channel | Frequency (MHz) | Measurement Value(dB) | Limit (dB) | Result |
|------------|---------|-----------------|-----------------------|------------|--------|
| QPSK       | 133147  | 665.5           | 4.63                  | 13         | PASS   |
| QPSK       | 133297  | 680.5           | 4.76                  | 13         | PASS   |
| QPSK       | 133447  | 695.5           | 4.41                  | 13         | PASS   |
| 16QAM      | 133147  | 665.5           | 5.44                  | 13         | PASS   |
| 16QAM      | 133297  | 680.5           | 5.63                  | 13         | PASS   |
| 16QAM      | 133447  | 695.5           | 5.20                  | 13         | PASS   |
| 64QAM      | 133147  | 665.5           | 5.96                  | 13         | PASS   |
| 64QAM      | 133297  | 680.5           | 6.23                  | 13         | PASS   |
| 64QAM      | 133447  | 695.5           | 5.88                  | 13         | PASS   |
| 256QAM     | 133147  | 665.5           | 6.69                  | 13         | PASS   |
| 256QAM     | 133297  | 680.5           | 6.93                  | 13         | PASS   |
| 256QAM     | 133447  | 695.5           | 6.86                  | 13         | PASS   |

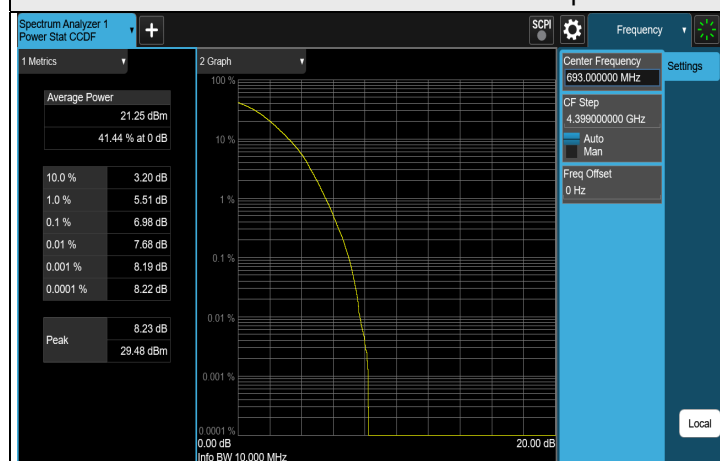




# LTE Band 71, Channel Bandwidth: 10 MHz

| Modulation | Channel | Frequency (MHz) | Measurement Value(dB) | Limit (dB) | Result |
|------------|---------|-----------------|-----------------------|------------|--------|
| QPSK       | 133172  | 668             | 4.60                  | 13         | PASS   |
| QPSK       | 133297  | 680.5           | 4.84                  | 13         | PASS   |
| QPSK       | 133422  | 693             | 4.75                  | 13         | PASS   |
| 16QAM      | 133172  | 668             | 5.45                  | 13         | PASS   |
| 16QAM      | 133297  | 680.5           | 5.74                  | 13         | PASS   |
| 16QAM      | 133422  | 693             | 5.63                  | 13         | PASS   |
| 64QAM      | 133172  | 668             | 5.98                  | 13         | PASS   |
| 64QAM      | 133297  | 680.5           | 6.29                  | 13         | PASS   |
| 64QAM      | 133422  | 693             | 6.19                  | 13         | PASS   |
| 256QAM     | 133172  | 668             | 6.85                  | 13         | PASS   |
| 256QAM     | 133297  | 680.5           | 6.86                  | 13         | PASS   |
| 256QAM     | 133422  | 693             | 6.98                  | 13         | PASS   |

Spectrum Plot of Worst Value

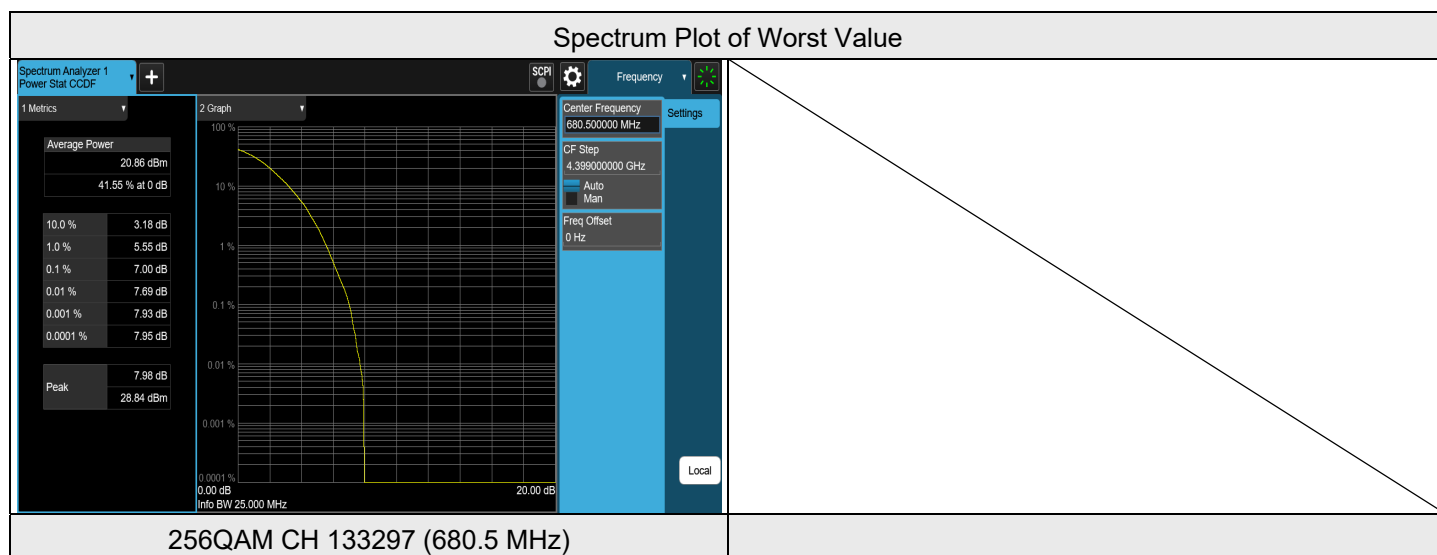


256QAM CH 133422 (693 MHz)



# LTE Band 71, Channel Bandwidth: 20 MHz

| Modulation | Channel | Frequency (MHz) | Measurement Value(dB) | Limit (dB) | Result |
|------------|---------|-----------------|-----------------------|------------|--------|
| QPSK       | 133222  | 673             | 4.70                  | 13         | PASS   |
| QPSK       | 133297  | 680.5           | 4.91                  | 13         | PASS   |
| QPSK       | 133372  | 688             | 4.83                  | 13         | PASS   |
| 16QAM      | 133222  | 673             | 5.55                  | 13         | PASS   |
| 16QAM      | 133297  | 680.5           | 5.82                  | 13         | PASS   |
| 16QAM      | 133372  | 688             | 5.69                  | 13         | PASS   |
| 64QAM      | 133222  | 673             | 6.28                  | 13         | PASS   |
| 64QAM      | 133297  | 680.5           | 6.45                  | 13         | PASS   |
| 64QAM      | 133372  | 688             | 6.25                  | 13         | PASS   |
| 256QAM     | 133222  | 673             | 6.99                  | 13         | PASS   |
| 256QAM     | 133297  | 680.5           | 7.00                  | 13         | PASS   |
| 256QAM     | 133372  | 688             | 6.95                  | 13         | PASS   |



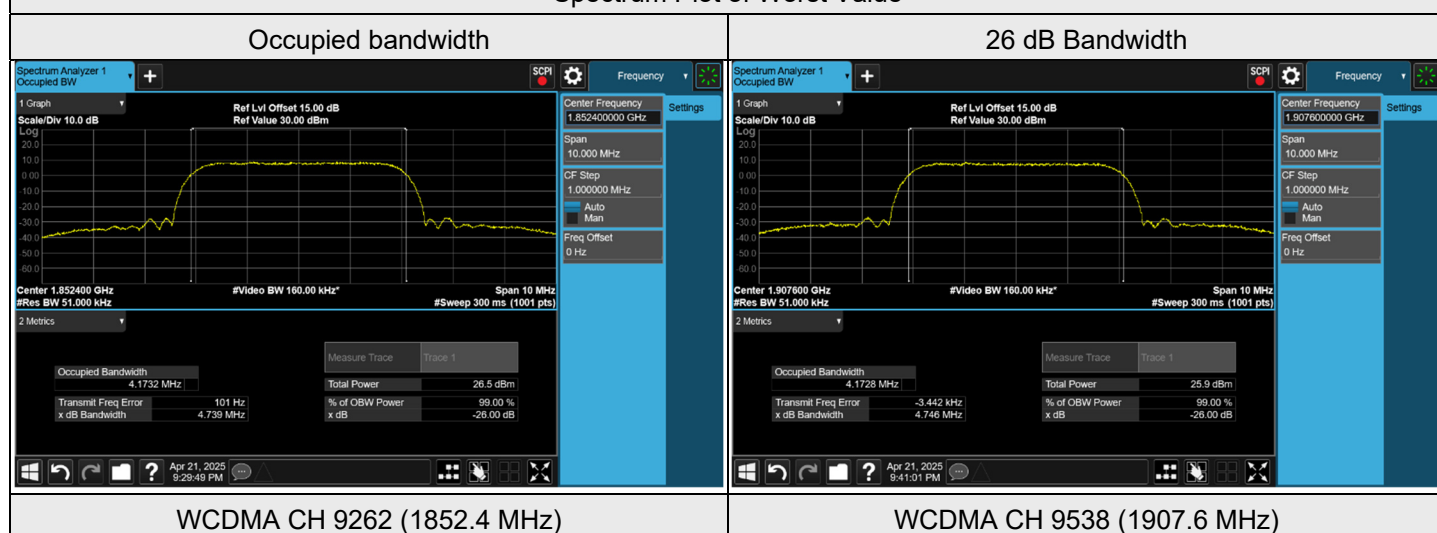
## 7.4 Bandwidth

|              |          |                           |              |            |            |
|--------------|----------|---------------------------|--------------|------------|------------|
| Input Power: | 3.85 Vdc | Environmental Conditions: | 25°C, 66% RH | Tested By: | James Yang |
|--------------|----------|---------------------------|--------------|------------|------------|

### 7.4.1 WCDMA Band 2

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| WCDMA      | 9262    | 1852.4          | 4.1732                   | 4.739                 |
| WCDMA      | 9400    | 1880            | 4.1691                   | 4.736                 |
| WCDMA      | 9538    | 1907.6          | 4.1728                   | 4.746                 |
| HSDPA      | 9262    | 1852.4          | 4.1698                   | 4.710                 |
| HSDPA      | 9400    | 1880            | 4.1631                   | 4.707                 |
| HSDPA      | 9538    | 1907.6          | 4.1578                   | 4.703                 |
| HSUPA      | 9262    | 1852.4          | 4.1655                   | 4.711                 |
| HSUPA      | 9400    | 1880            | 4.1620                   | 4.709                 |
| HSUPA      | 9538    | 1907.6          | 4.1650                   | 4.716                 |

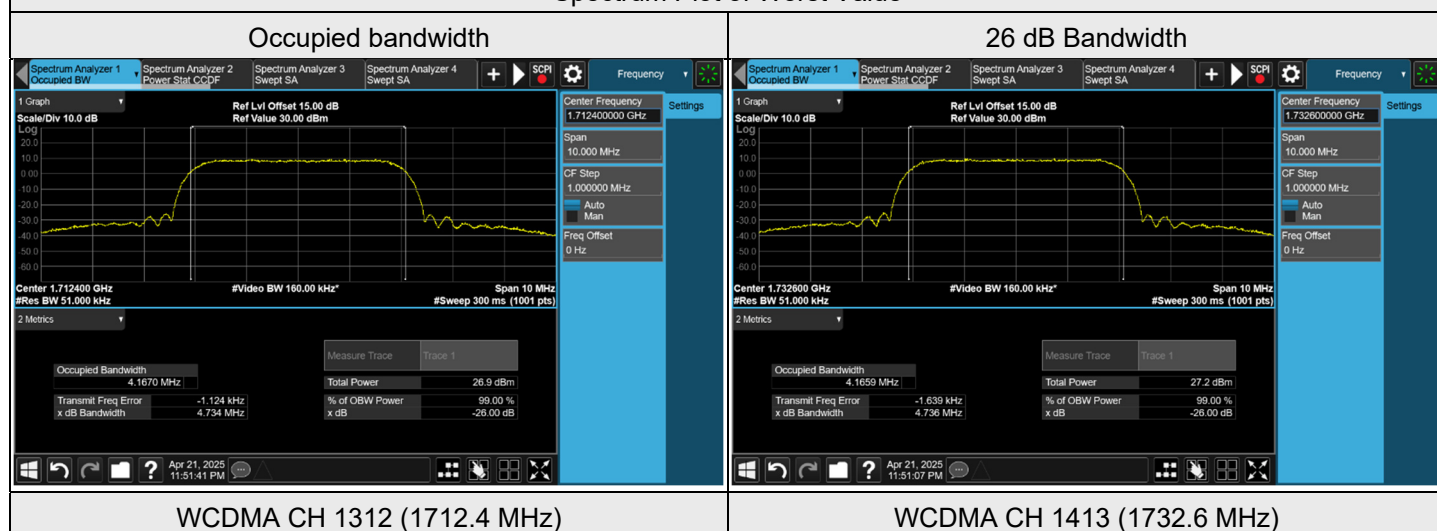
Spectrum Plot of Worst Value



#### 7.4.2 WCDMA Band 4

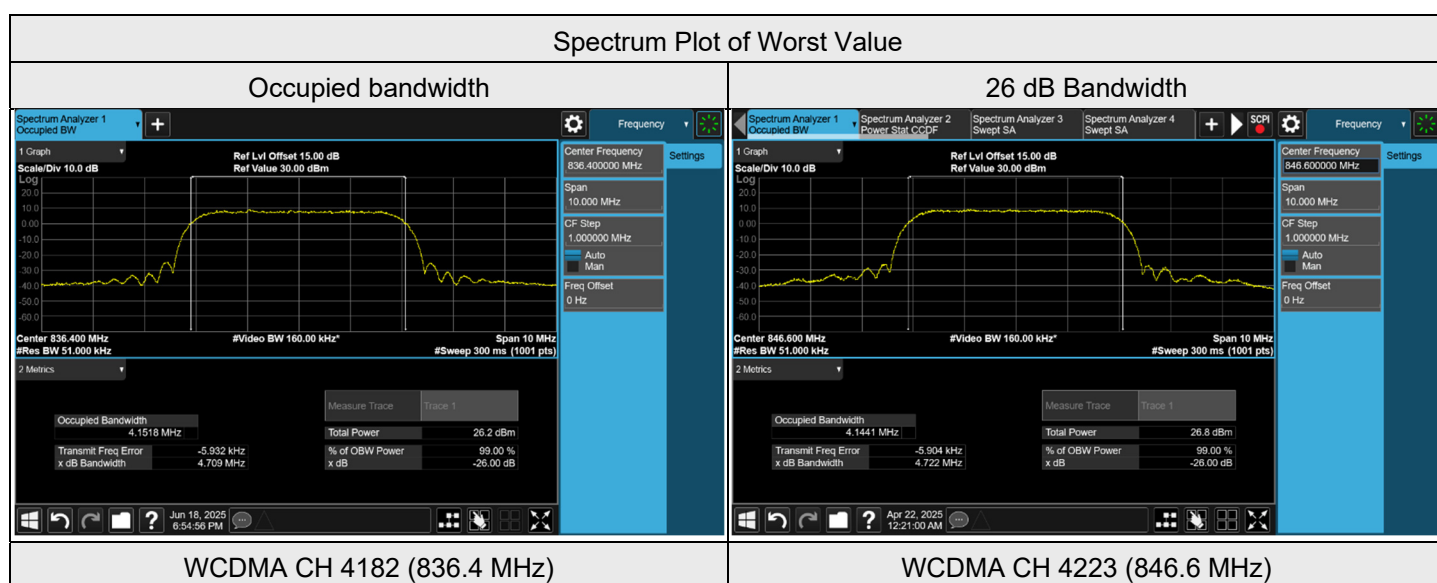
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| WCDMA      | 1312    | 1712.4          | 4.1670                   | 4.734                 |
| WCDMA      | 1413    | 1732.6          | 4.1659                   | 4.736                 |
| WCDMA      | 1513    | 1752.6          | 4.1616                   | 4.733                 |
| HSDPA      | 1312    | 1712.4          | 4.1595                   | 4.705                 |
| HSDPA      | 1413    | 1732.6          | 4.1610                   | 4.713                 |
| HSDPA      | 1513    | 1752.6          | 4.1595                   | 4.702                 |
| HSUPA      | 1312    | 1712.4          | 4.1626                   | 4.717                 |
| HSUPA      | 1413    | 1732.6          | 4.1639                   | 4.714                 |
| HSUPA      | 1513    | 1752.6          | 4.1591                   | 4.709                 |

Spectrum Plot of Worst Value



### 7.4.3 WCDMA Band 5

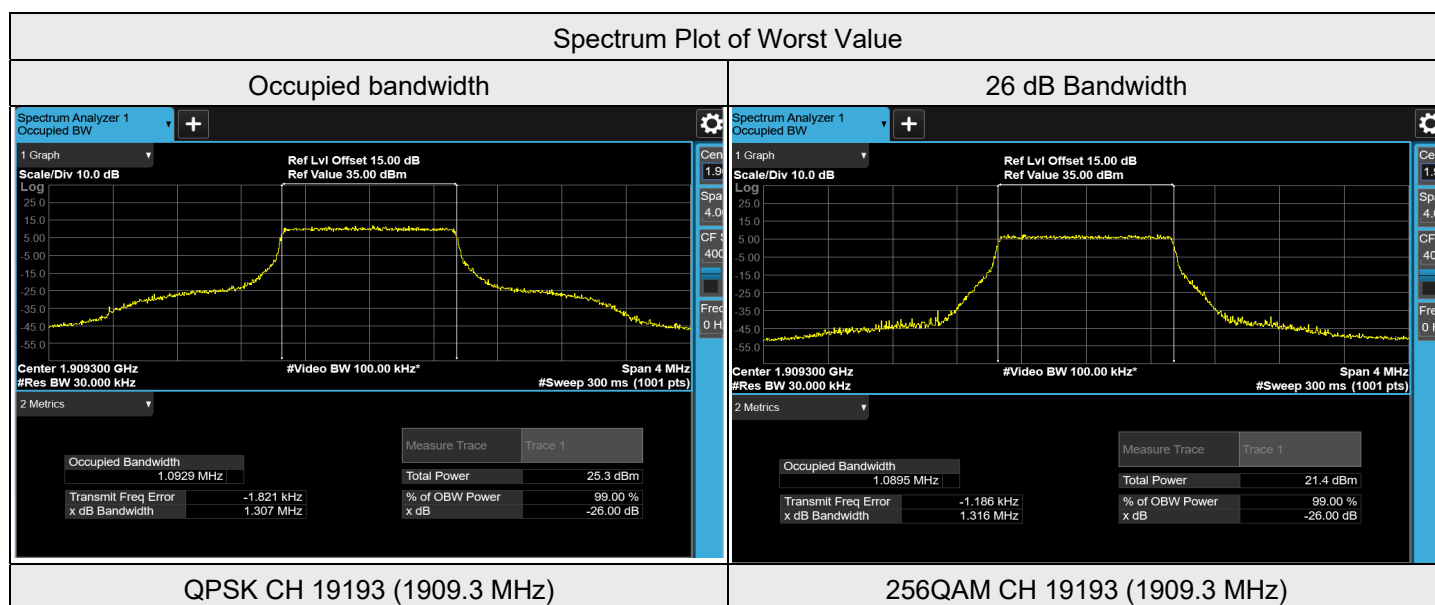
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| WCDMA      | 4132    | 826.4           | 4.1450                   | 4.694                 |
| WCDMA      | 4182    | 836.4           | 4.1458                   | 4.702                 |
| WCDMA      | 4223    | 846.6           | 4.1441                   | 4.722                 |
| HSDPA      | 4132    | 826.4           | 4.1408                   | 4.704                 |
| HSDPA      | 4182    | 836.4           | 4.1450                   | 4.706                 |
| HSDPA      | 4223    | 846.6           | 4.1380                   | 4.700                 |
| HSUPA      | 4132    | 826.4           | 4.1430                   | 4.705                 |
| HSUPA      | 4182    | 836.4           | 4.1518                   | 4.709                 |
| HSUPA      | 4223    | 846.6           | 4.1388                   | 4.695                 |



#### 7.4.4 LTE Band 2

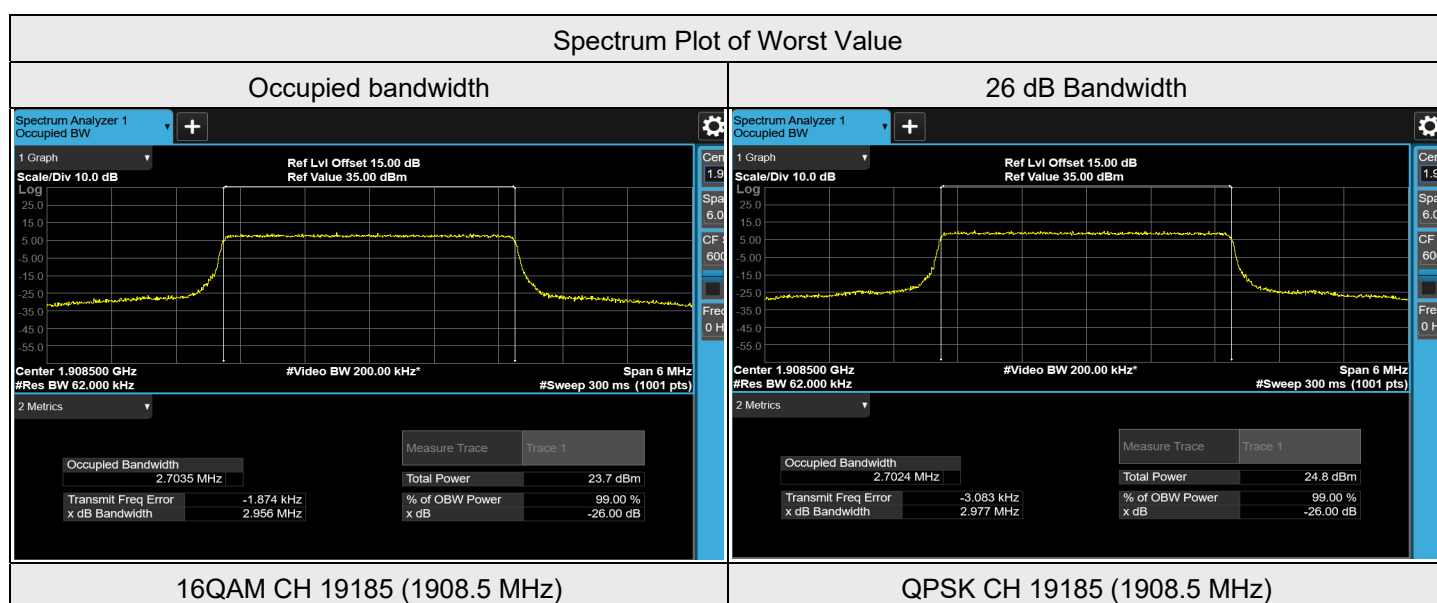
##### LTE Band 2, Channel Bandwidth: 1.4 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 18607   | 1850.7          | 1.0901                   | 1.292                 |
| QPSK       | 18900   | 1880            | 1.0915                   | 1.283                 |
| QPSK       | 19193   | 1909.3          | 1.0929                   | 1.307                 |
| 16QAM      | 18607   | 1850.7          | 1.0902                   | 1.288                 |
| 16QAM      | 18900   | 1880            | 1.0905                   | 1.306                 |
| 16QAM      | 19193   | 1909.3          | 1.0908                   | 1.291                 |
| 64QAM      | 18607   | 1850.7          | 1.0898                   | 1.296                 |
| 64QAM      | 18900   | 1880            | 1.0893                   | 1.312                 |
| 64QAM      | 19193   | 1909.3          | 1.0908                   | 1.301                 |
| 256QAM     | 18607   | 1850.7          | 1.0906                   | 1.303                 |
| 256QAM     | 18900   | 1880            | 1.0887                   | 1.300                 |
| 256QAM     | 19193   | 1909.3          | 1.0895                   | 1.316                 |



### LTE Band 2, Channel Bandwidth: 3 MHz

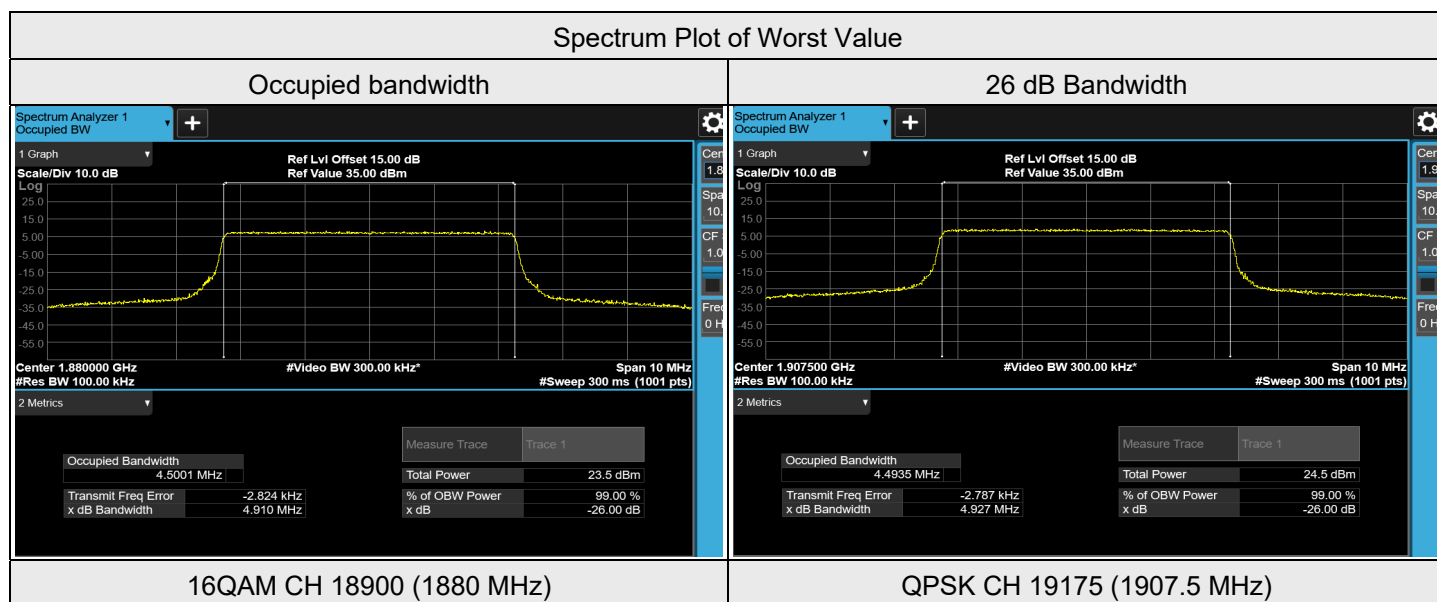
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 18615   | 1851.5          | 2.7002                   | 2.972                 |
| QPSK       | 18900   | 1880            | 2.7013                   | 2.948                 |
| QPSK       | 19185   | 1908.5          | 2.7024                   | 2.977                 |
| 16QAM      | 18615   | 1851.5          | 2.7011                   | 2.949                 |
| 16QAM      | 18900   | 1880            | 2.7016                   | 2.959                 |
| 16QAM      | 19185   | 1908.5          | 2.7035                   | 2.956                 |
| 64QAM      | 18615   | 1851.5          | 2.7012                   | 2.950                 |
| 64QAM      | 18900   | 1880            | 2.7010                   | 2.957                 |
| 64QAM      | 19185   | 1908.5          | 2.7030                   | 2.947                 |
| 256QAM     | 18615   | 1851.5          | 2.6979                   | 2.960                 |
| 256QAM     | 18900   | 1880            | 2.7006                   | 2.933                 |
| 256QAM     | 19185   | 1908.5          | 2.7001                   | 2.946                 |





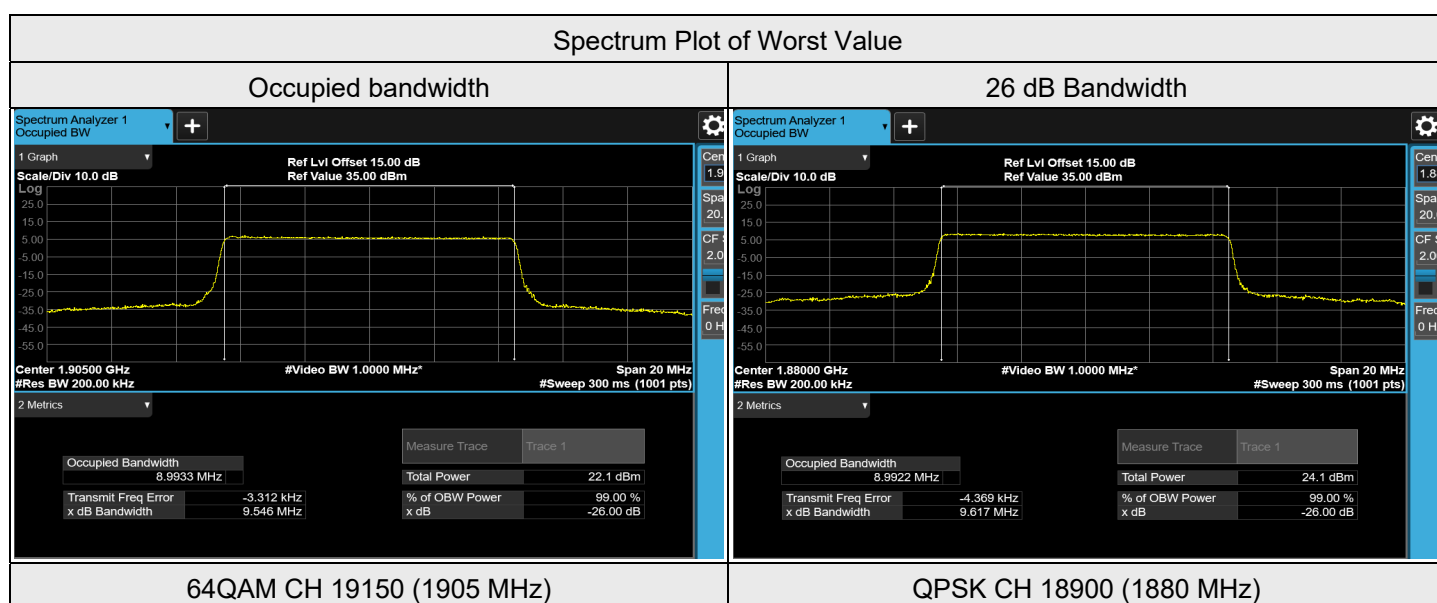
## LTE Band 2, Channel Bandwidth: 5 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 18625   | 1852.5          | 4.4969                   | 4.907                 |
| QPSK       | 18900   | 1880            | 4.4970                   | 4.898                 |
| QPSK       | 19175   | 1907.5          | 4.4935                   | 4.927                 |
| 16QAM      | 18625   | 1852.5          | 4.4939                   | 4.852                 |
| 16QAM      | 18900   | 1880            | 4.5001                   | 4.910                 |
| 16QAM      | 19175   | 1907.5          | 4.4968                   | 4.875                 |
| 64QAM      | 18625   | 1852.5          | 4.4927                   | 4.892                 |
| 64QAM      | 18900   | 1880            | 4.4930                   | 4.858                 |
| 64QAM      | 19175   | 1907.5          | 4.4959                   | 4.875                 |
| 256QAM     | 18625   | 1852.5          | 4.4922                   | 4.901                 |
| 256QAM     | 18900   | 1880            | 4.4942                   | 4.860                 |
| 256QAM     | 19175   | 1907.5          | 4.4963                   | 4.849                 |



# LTE Band 2, Channel Bandwidth: 10 MHz

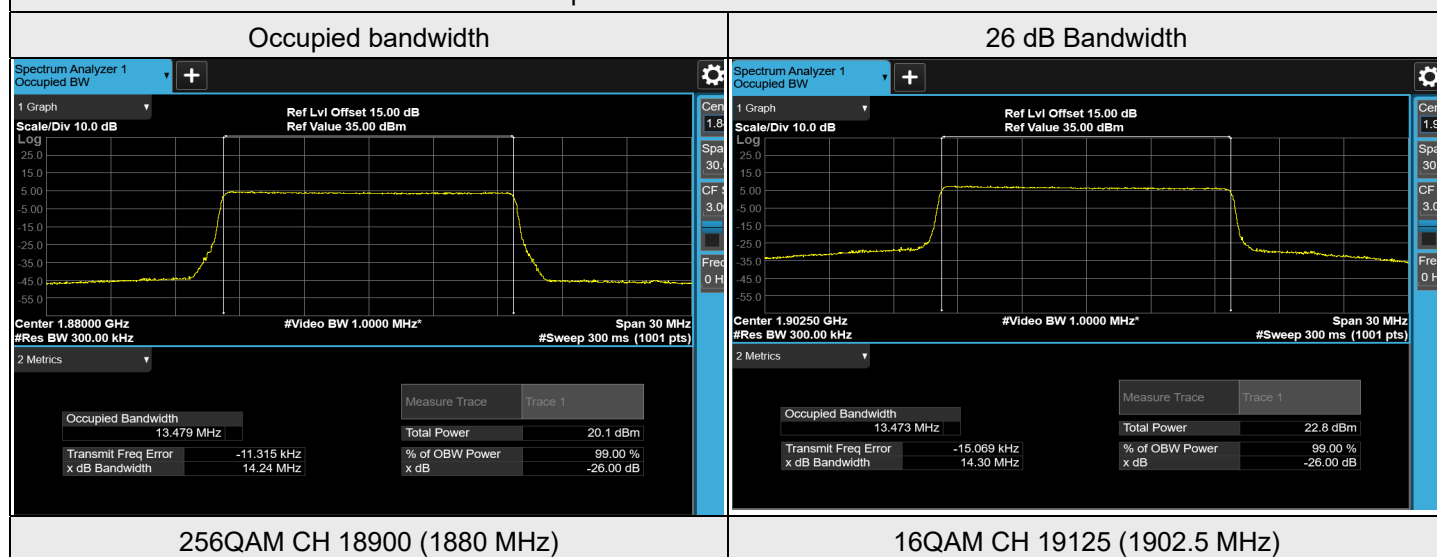
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 18650   | 1855            | 8.9926                   | 9.600                 |
| QPSK       | 18900   | 1880            | 8.9922                   | 9.617                 |
| QPSK       | 19150   | 1905            | 8.9863                   | 9.609                 |
| 16QAM      | 18650   | 1855            | 8.9907                   | 9.581                 |
| 16QAM      | 18900   | 1880            | 8.9900                   | 9.553                 |
| 16QAM      | 19150   | 1905            | 8.9885                   | 9.563                 |
| 64QAM      | 18650   | 1855            | 8.9816                   | 9.536                 |
| 64QAM      | 18900   | 1880            | 8.9889                   | 9.553                 |
| 64QAM      | 19150   | 1905            | 8.9933                   | 9.546                 |
| 256QAM     | 18650   | 1855            | 8.9837                   | 9.545                 |
| 256QAM     | 18900   | 1880            | 8.9805                   | 9.546                 |
| 256QAM     | 19150   | 1905            | 8.9875                   | 9.545                 |



## LTE Band 2, Channel Bandwidth: 15 MHz

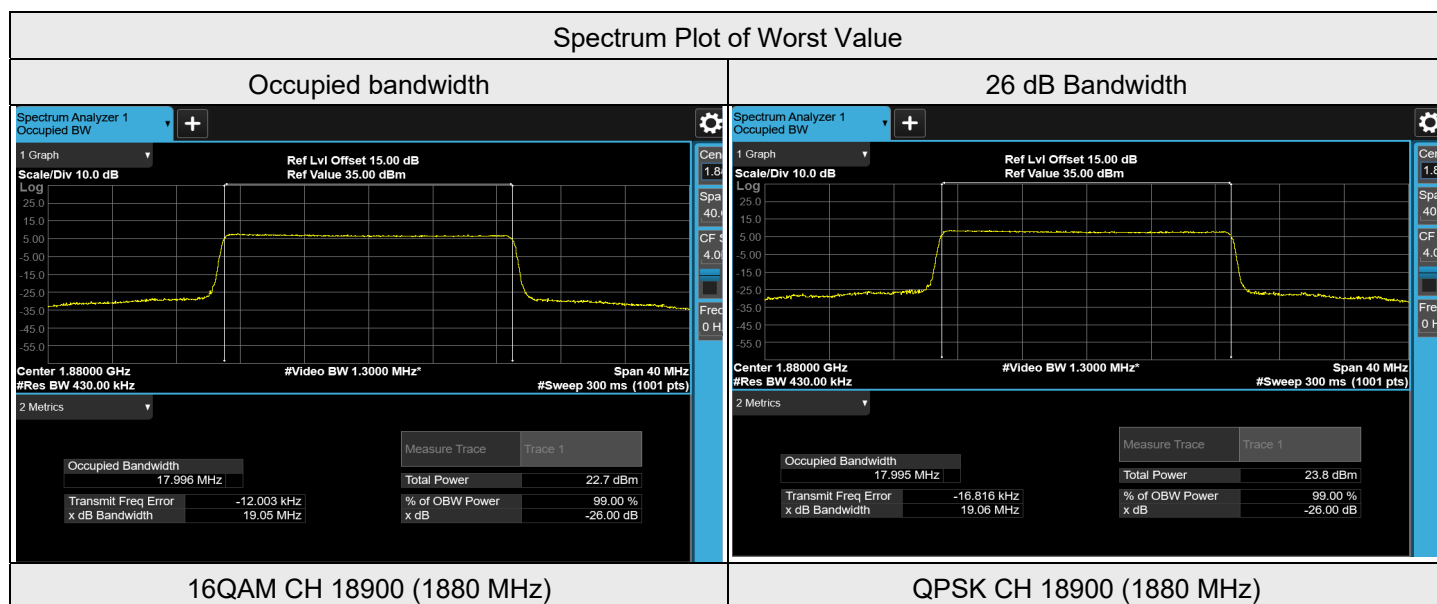
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 18675   | 1857.5          | 13.4702                  | 14.264                |
| QPSK       | 18900   | 1880            | 13.4746                  | 14.281                |
| QPSK       | 19125   | 1902.5          | 13.4770                  | 14.282                |
| 16QAM      | 18675   | 1857.5          | 13.4646                  | 14.261                |
| 16QAM      | 18900   | 1880            | 13.4717                  | 14.275                |
| 16QAM      | 19125   | 1902.5          | 13.4734                  | 14.298                |
| 64QAM      | 18675   | 1857.5          | 13.4642                  | 14.252                |
| 64QAM      | 18900   | 1880            | 13.4742                  | 14.273                |
| 64QAM      | 19125   | 1902.5          | 13.4714                  | 14.247                |
| 256QAM     | 18675   | 1857.5          | 13.4559                  | 14.284                |
| 256QAM     | 18900   | 1880            | 13.4795                  | 14.244                |
| 256QAM     | 19125   | 1902.5          | 13.4673                  | 14.274                |

### Spectrum Plot of Worst Value



## LTE Band 2, Channel Bandwidth: 20 MHz

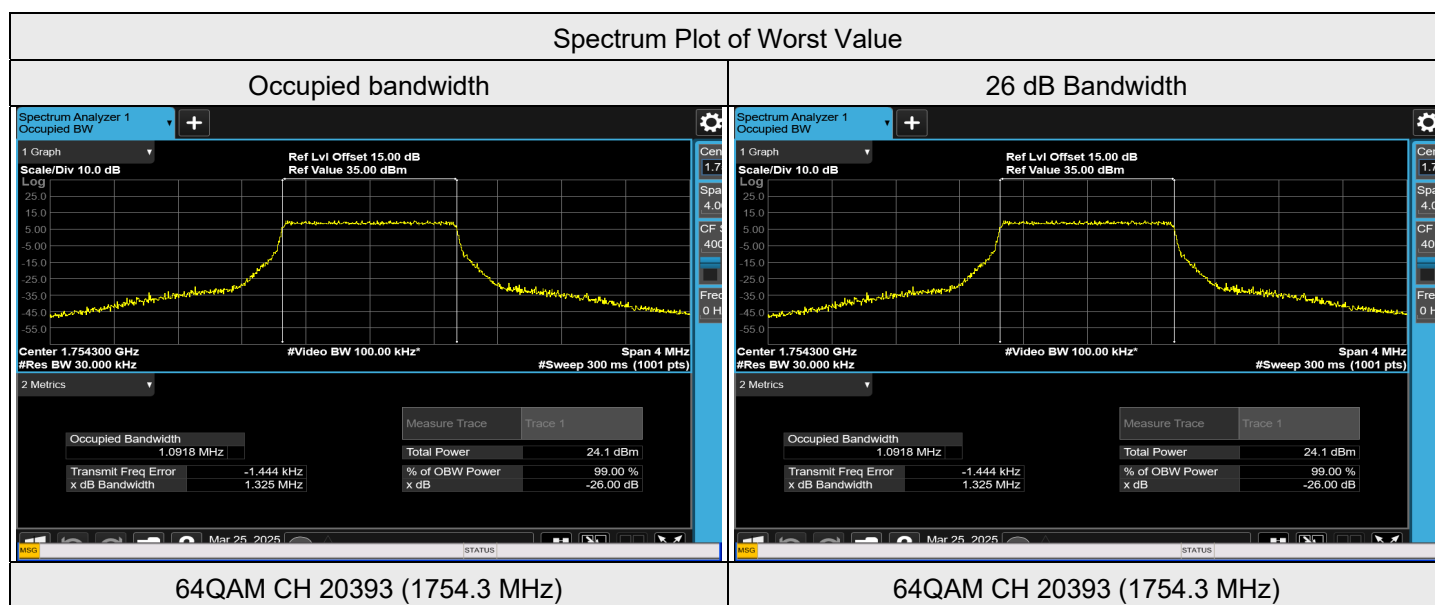
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 18700   | 1860            | 17.9581                  | 19.060                |
| QPSK       | 18900   | 1880            | 17.9954                  | 19.062                |
| QPSK       | 19100   | 1900            | 17.9532                  | 19.034                |
| 16QAM      | 18700   | 1860            | 17.9655                  | 19.038                |
| 16QAM      | 18900   | 1880            | 17.9958                  | 19.048                |
| 16QAM      | 19100   | 1900            | 17.9598                  | 19.033                |
| 64QAM      | 18700   | 1860            | 17.9552                  | 19.029                |
| 64QAM      | 18900   | 1880            | 17.9852                  | 19.043                |
| 64QAM      | 19100   | 1900            | 17.9615                  | 19.038                |
| 256QAM     | 18700   | 1860            | 17.9560                  | 19.031                |
| 256QAM     | 18900   | 1880            | 17.9915                  | 19.052                |
| 256QAM     | 19100   | 1900            | 17.9613                  | 19.028                |



## 7.4.5 LTE Band 4

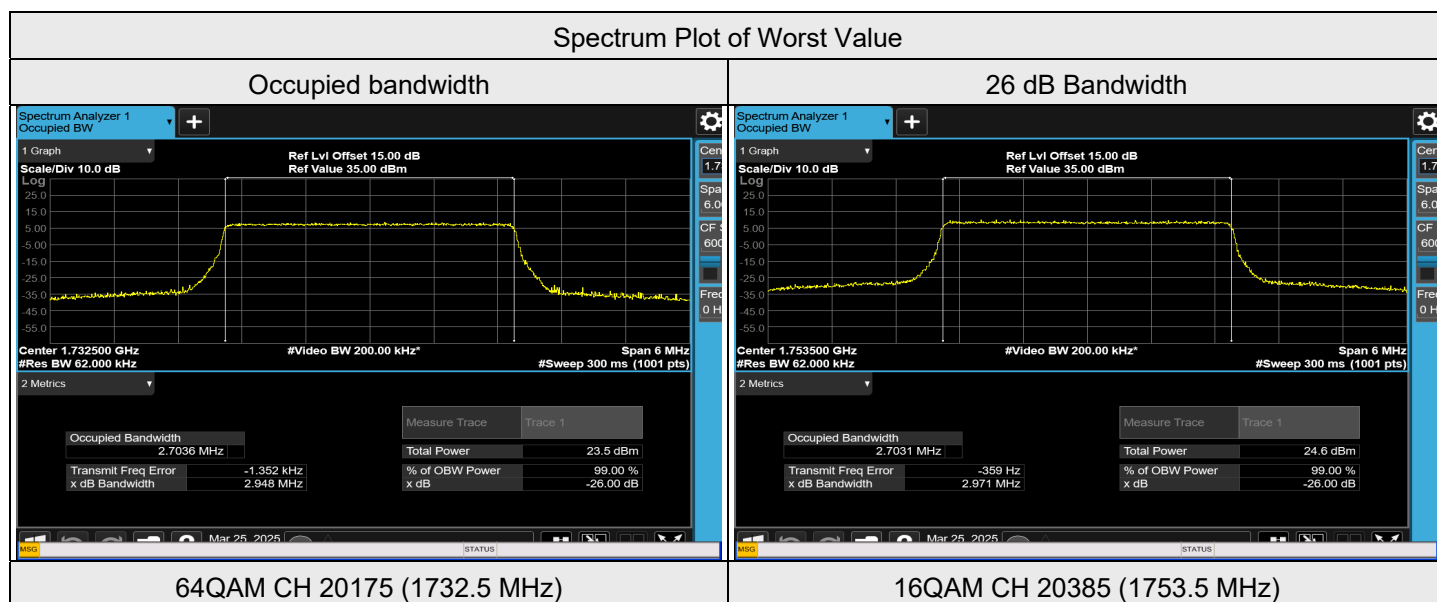
### LTE Band 4, Channel Bandwidth: 1.4 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 19957   | 1710.7          | 1.0907                   | 1.303                 |
| QPSK       | 20175   | 1732.5          | 1.0896                   | 1.278                 |
| QPSK       | 20393   | 1754.3          | 1.0906                   | 1.303                 |
| 16QAM      | 19957   | 1710.7          | 1.0907                   | 1.304                 |
| 16QAM      | 20175   | 1732.5          | 1.0905                   | 1.301                 |
| 16QAM      | 20393   | 1754.3          | 1.0904                   | 1.296                 |
| 64QAM      | 19957   | 1710.7          | 1.0899                   | 1.290                 |
| 64QAM      | 20175   | 1732.5          | 1.0893                   | 1.289                 |
| 64QAM      | 20393   | 1754.3          | 1.0918                   | 1.325                 |
| 256QAM     | 19957   | 1710.7          | 1.0877                   | 1.272                 |
| 256QAM     | 20175   | 1732.5          | 1.0900                   | 1.282                 |
| 256QAM     | 20393   | 1754.3          | 1.0905                   | 1.274                 |



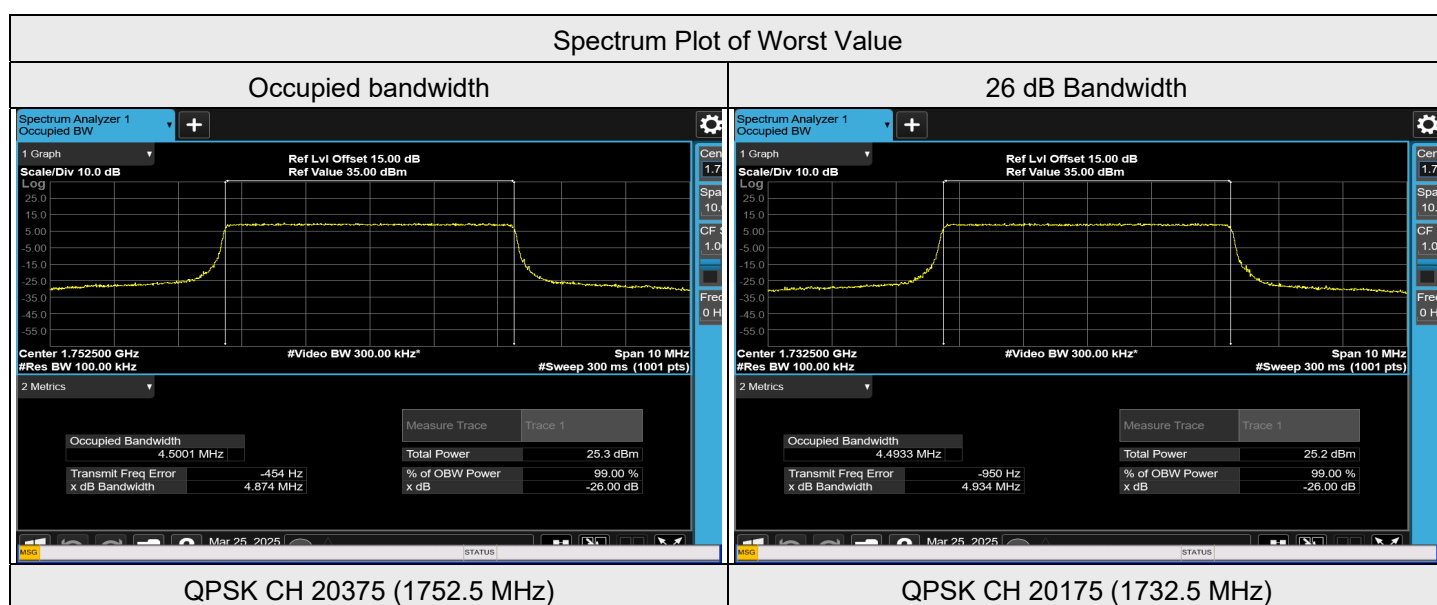
# LTE Band 4, Channel Bandwidth: 3 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 19965   | 1711.5          | 2.7012                   | 2.940                 |
| QPSK       | 20175   | 1732.5          | 2.6989                   | 2.964                 |
| QPSK       | 20385   | 1753.5          | 2.6982                   | 2.962                 |
| 16QAM      | 19965   | 1711.5          | 2.7004                   | 2.955                 |
| 16QAM      | 20175   | 1732.5          | 2.7003                   | 2.946                 |
| 16QAM      | 20385   | 1753.5          | 2.7031                   | 2.971                 |
| 64QAM      | 19965   | 1711.5          | 2.6998                   | 2.947                 |
| 64QAM      | 20175   | 1732.5          | 2.7036                   | 2.948                 |
| 64QAM      | 20385   | 1753.5          | 2.7030                   | 2.955                 |
| 256QAM     | 19965   | 1711.5          | 2.6979                   | 2.957                 |
| 256QAM     | 20175   | 1732.5          | 2.7024                   | 2.951                 |
| 256QAM     | 20385   | 1753.5          | 2.7010                   | 2.956                 |



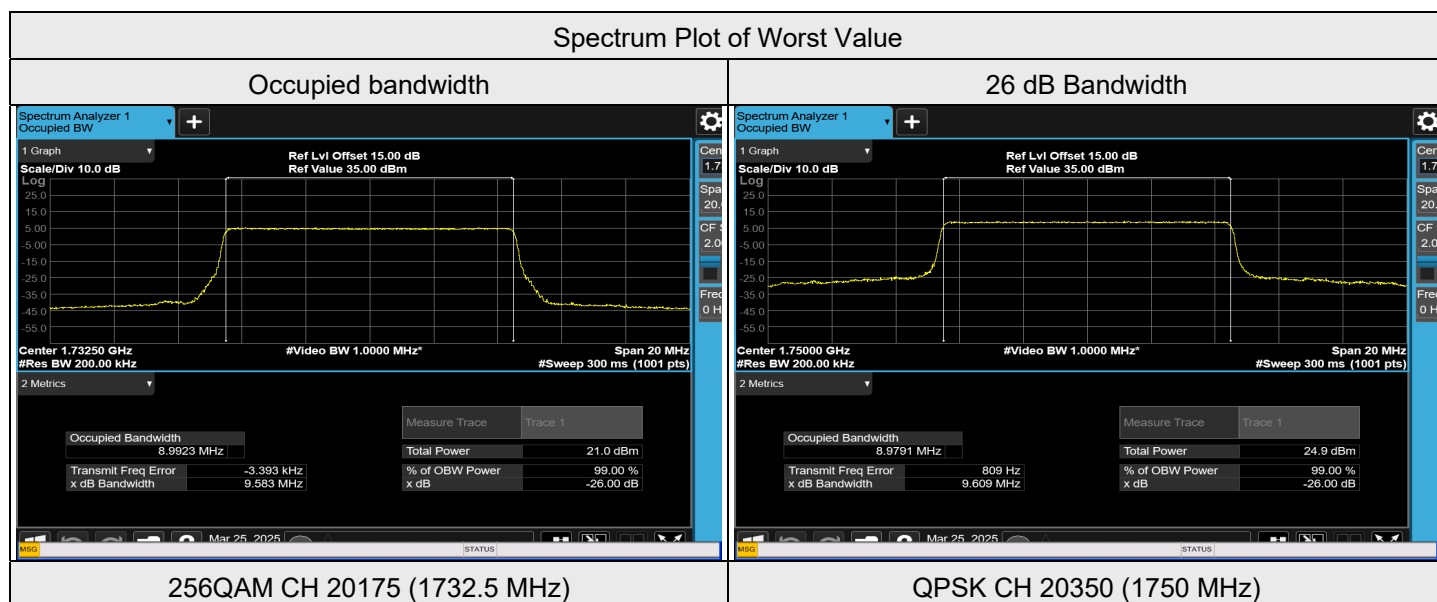
# LTE Band 4, Channel Bandwidth: 5 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 19975   | 1712.5          | 4.4975                   | 4.881                 |
| QPSK       | 20175   | 1732.5          | 4.4933                   | 4.934                 |
| QPSK       | 20375   | 1752.5          | 4.5001                   | 4.874                 |
| 16QAM      | 19975   | 1712.5          | 4.4952                   | 4.855                 |
| 16QAM      | 20175   | 1732.5          | 4.4922                   | 4.864                 |
| 16QAM      | 20375   | 1752.5          | 4.4987                   | 4.879                 |
| 64QAM      | 19975   | 1712.5          | 4.4960                   | 4.863                 |
| 64QAM      | 20175   | 1732.5          | 4.4961                   | 4.875                 |
| 64QAM      | 20375   | 1752.5          | 4.4946                   | 4.863                 |
| 256QAM     | 19975   | 1712.5          | 4.4956                   | 4.858                 |
| 256QAM     | 20175   | 1732.5          | 4.4967                   | 4.854                 |
| 256QAM     | 20375   | 1752.5          | 4.4920                   | 4.903                 |



# LTE Band 4, Channel Bandwidth: 10 MHz

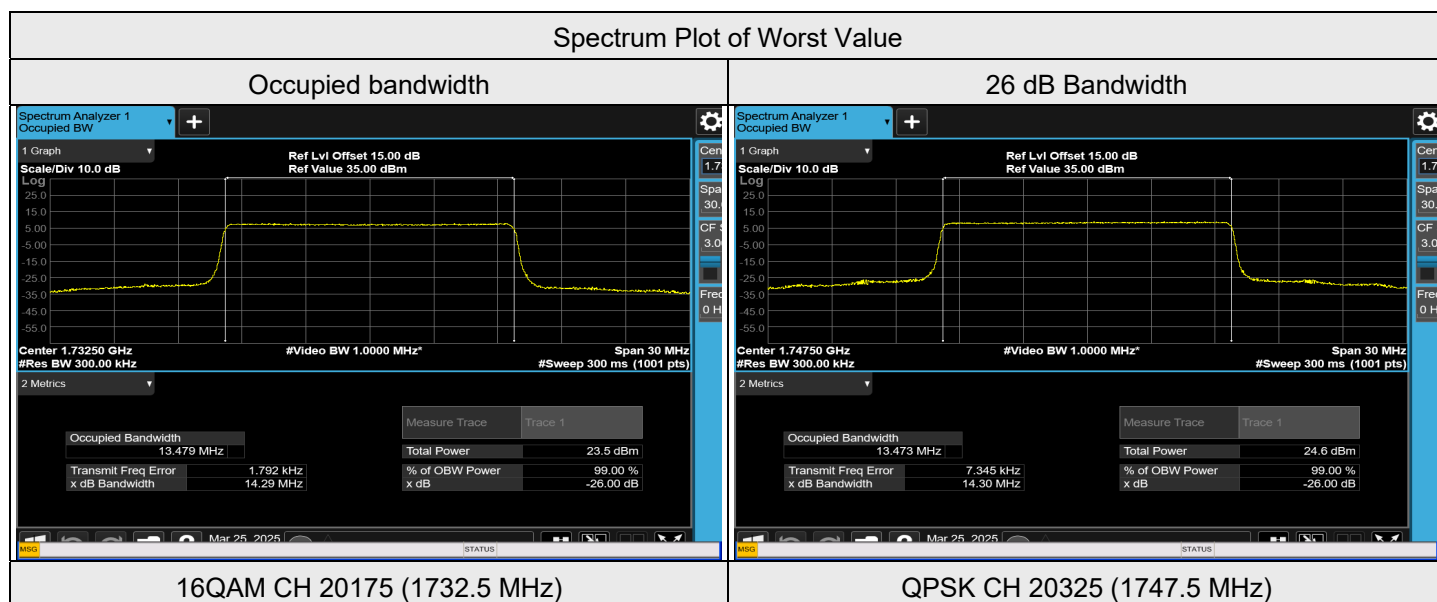
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 20000   | 1715            | 8.9789                   | 9.601                 |
| QPSK       | 20175   | 1732.5          | 8.9878                   | 9.602                 |
| QPSK       | 20350   | 1750            | 8.9791                   | 9.609                 |
| 16QAM      | 20000   | 1715            | 8.9805                   | 9.562                 |
| 16QAM      | 20175   | 1732.5          | 8.9811                   | 9.567                 |
| 16QAM      | 20350   | 1750            | 8.9864                   | 9.586                 |
| 64QAM      | 20000   | 1715            | 8.9769                   | 9.559                 |
| 64QAM      | 20175   | 1732.5          | 8.9895                   | 9.575                 |
| 64QAM      | 20350   | 1750            | 8.9818                   | 9.560                 |
| 256QAM     | 20000   | 1715            | 8.9832                   | 9.545                 |
| 256QAM     | 20175   | 1732.5          | 8.9923                   | 9.583                 |
| 256QAM     | 20350   | 1750            | 8.9815                   | 9.561                 |





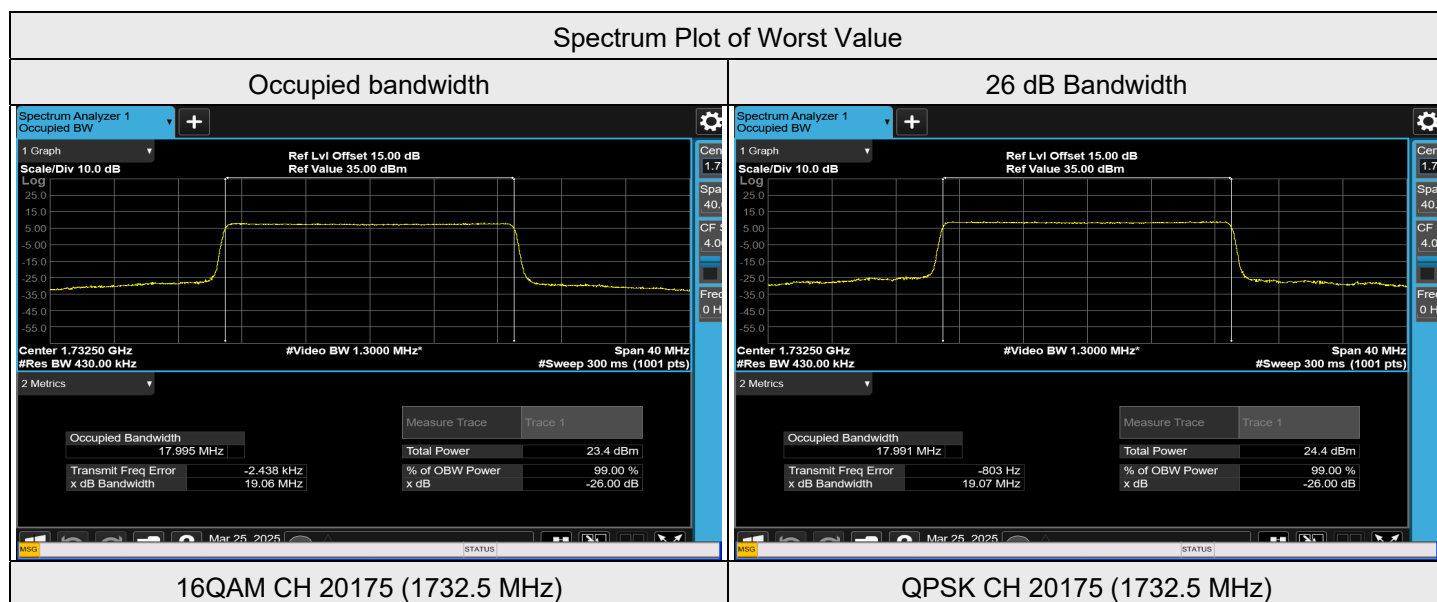
# LTE Band 4, Channel Bandwidth: 15 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 20025   | 1717.5          | 13.4710                  | 14.271                |
| QPSK       | 20175   | 1732.5          | 13.4782                  | 14.288                |
| QPSK       | 20325   | 1747.5          | 13.4731                  | 14.296                |
| 16QAM      | 20025   | 1717.5          | 13.4616                  | 14.254                |
| 16QAM      | 20175   | 1732.5          | 13.4793                  | 14.295                |
| 16QAM      | 20325   | 1747.5          | 13.4614                  | 14.270                |
| 64QAM      | 20025   | 1717.5          | 13.4626                  | 14.267                |
| 64QAM      | 20175   | 1732.5          | 13.4744                  | 14.276                |
| 64QAM      | 20325   | 1747.5          | 13.4746                  | 14.246                |
| 256QAM     | 20025   | 1717.5          | 13.4605                  | 14.261                |
| 256QAM     | 20175   | 1732.5          | 13.4689                  | 14.261                |
| 256QAM     | 20325   | 1747.5          | 13.4644                  | 14.256                |



### LTE Band 4, Channel Bandwidth: 20 MHz

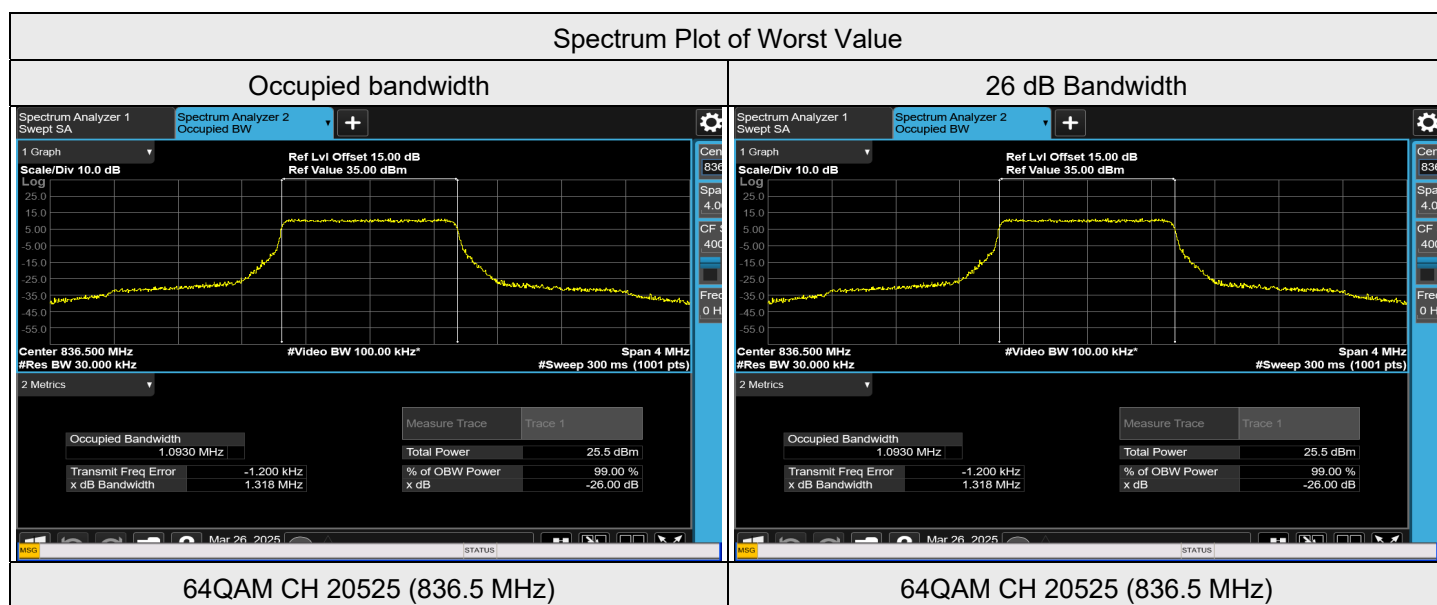
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 20050   | 1720            | 17.9706                  | 19.060                |
| QPSK       | 20175   | 1732.5          | 17.9912                  | 19.074                |
| QPSK       | 20300   | 1745            | 17.9730                  | 19.067                |
| 16QAM      | 20050   | 1720            | 17.9596                  | 19.035                |
| 16QAM      | 20175   | 1732.5          | 17.9949                  | 19.061                |
| 16QAM      | 20300   | 1745            | 17.9683                  | 19.060                |
| 64QAM      | 20050   | 1720            | 17.9559                  | 19.038                |
| 64QAM      | 20175   | 1732.5          | 17.9880                  | 19.060                |
| 64QAM      | 20300   | 1745            | 17.9671                  | 19.044                |
| 256QAM     | 20050   | 1720            | 17.9613                  | 19.055                |
| 256QAM     | 20175   | 1732.5          | 17.9869                  | 19.048                |
| 256QAM     | 20300   | 1745            | 17.9596                  | 19.024                |



#### 7.4.6 LTE Band 5

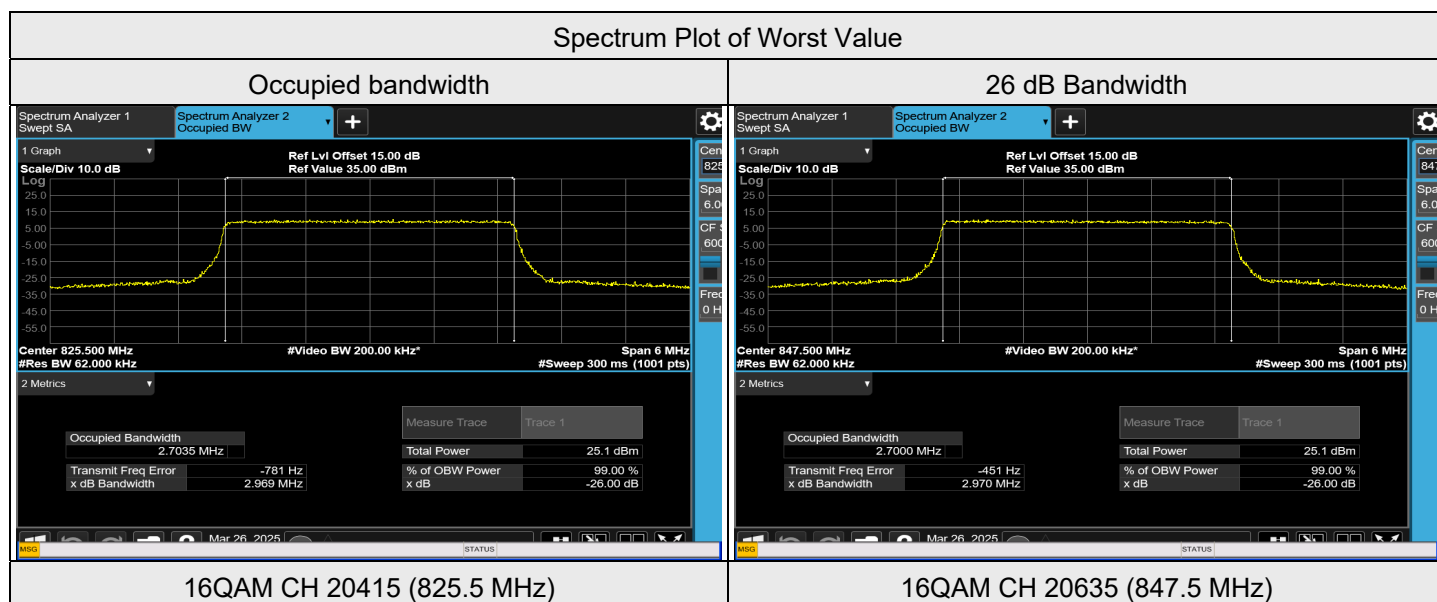
#### LTE Band 5, Channel Bandwidth: 1.4 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 20407   | 824.7           | 1.0924                   | 1.312                 |
| QPSK       | 20525   | 836.5           | 1.0894                   | 1.292                 |
| QPSK       | 20643   | 848.3           | 1.0919                   | 1.289                 |
| 16QAM      | 20407   | 824.7           | 1.0919                   | 1.297                 |
| 16QAM      | 20525   | 836.5           | 1.0889                   | 1.283                 |
| 16QAM      | 20643   | 848.3           | 1.0890                   | 1.305                 |
| 64QAM      | 20407   | 824.7           | 1.0899                   | 1.317                 |
| 64QAM      | 20525   | 836.5           | 1.0930                   | 1.318                 |
| 64QAM      | 20643   | 848.3           | 1.0908                   | 1.292                 |
| 256QAM     | 20407   | 824.7           | 1.0900                   | 1.301                 |
| 256QAM     | 20525   | 836.5           | 1.0901                   | 1.305                 |
| 256QAM     | 20643   | 848.3           | 1.0891                   | 1.284                 |



## LTE Band 5, Channel Bandwidth: 3 MHz

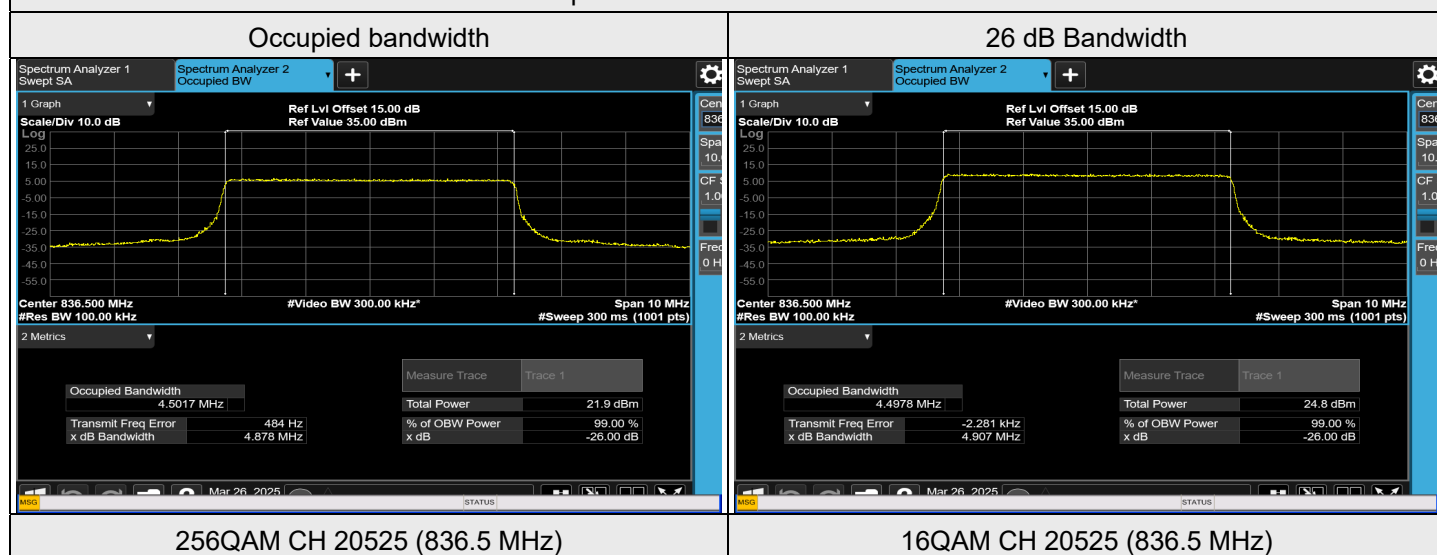
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 20415   | 825.5           | 2.7025                   | 2.944                 |
| QPSK       | 20525   | 836.5           | 2.6983                   | 2.952                 |
| QPSK       | 20635   | 847.5           | 2.7009                   | 2.957                 |
| 16QAM      | 20415   | 825.5           | 2.7035                   | 2.969                 |
| 16QAM      | 20525   | 836.5           | 2.7001                   | 2.955                 |
| 16QAM      | 20635   | 847.5           | 2.7000                   | 2.970                 |
| 64QAM      | 20415   | 825.5           | 2.7016                   | 2.961                 |
| 64QAM      | 20525   | 836.5           | 2.6997                   | 2.956                 |
| 64QAM      | 20635   | 847.5           | 2.7016                   | 2.952                 |
| 256QAM     | 20415   | 825.5           | 2.7001                   | 2.954                 |
| 256QAM     | 20525   | 836.5           | 2.7024                   | 2.967                 |
| 256QAM     | 20635   | 847.5           | 2.6985                   | 2.951                 |



## LTE Band 5, Channel Bandwidth: 5 MHz

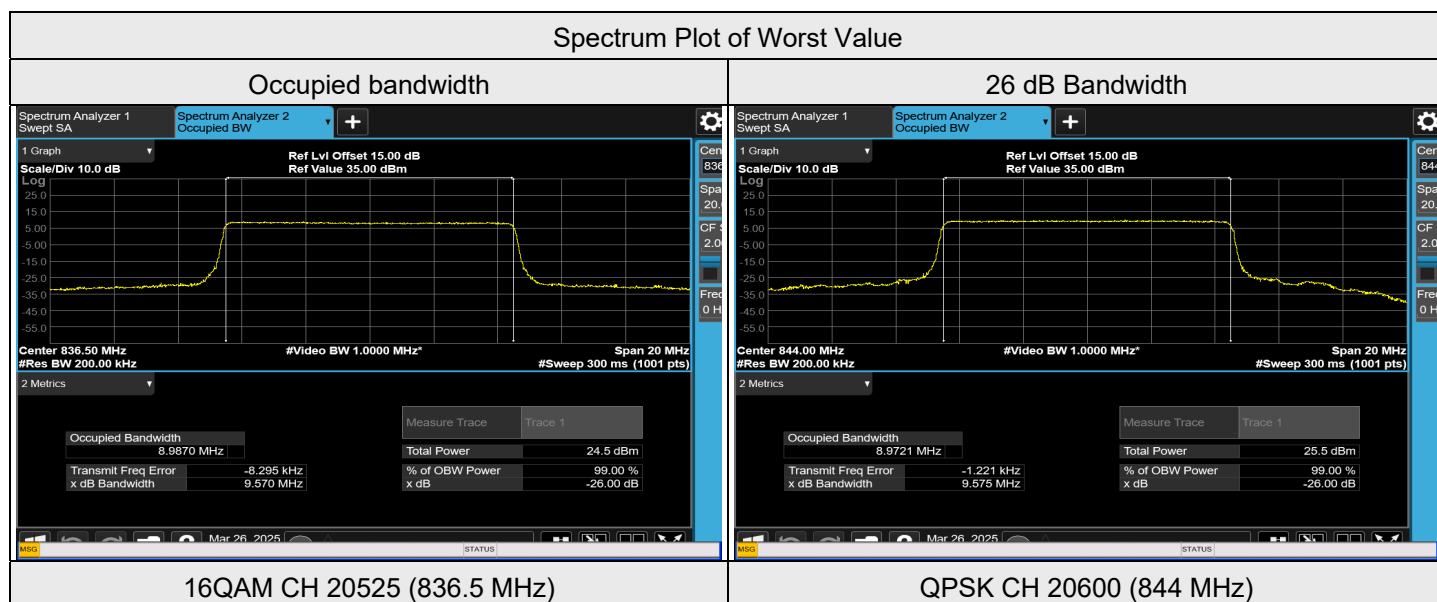
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 20425   | 826.5           | 4.4924                   | 4.882                 |
| QPSK       | 20525   | 836.5           | 4.4967                   | 4.844                 |
| QPSK       | 20625   | 846.5           | 4.4910                   | 4.879                 |
| 16QAM      | 20425   | 826.5           | 4.4917                   | 4.891                 |
| 16QAM      | 20525   | 836.5           | 4.4978                   | 4.907                 |
| 16QAM      | 20625   | 846.5           | 4.4952                   | 4.888                 |
| 64QAM      | 20425   | 826.5           | 4.4950                   | 4.906                 |
| 64QAM      | 20525   | 836.5           | 4.4974                   | 4.876                 |
| 64QAM      | 20625   | 846.5           | 4.4935                   | 4.858                 |
| 256QAM     | 20425   | 826.5           | 4.4959                   | 4.881                 |
| 256QAM     | 20525   | 836.5           | 4.5017                   | 4.878                 |
| 256QAM     | 20625   | 846.5           | 4.4922                   | 4.859                 |

### Spectrum Plot of Worst Value



## LTE Band 5, Channel Bandwidth: 10 MHz

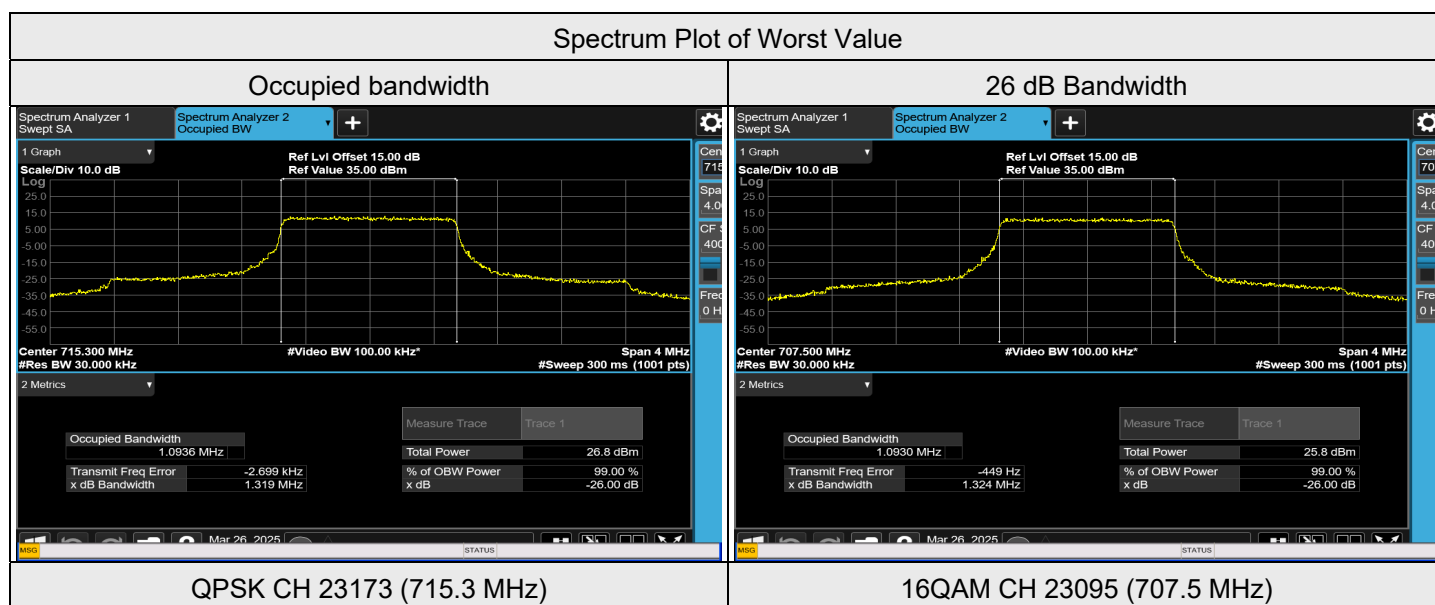
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 20450   | 829             | 8.9686                   | 9.548                 |
| QPSK       | 20525   | 836.5           | 8.9854                   | 9.562                 |
| QPSK       | 20600   | 844             | 8.9721                   | 9.575                 |
| 16QAM      | 20450   | 829             | 8.9659                   | 9.566                 |
| 16QAM      | 20525   | 836.5           | 8.9870                   | 9.570                 |
| 16QAM      | 20600   | 844             | 8.9703                   | 9.557                 |
| 64QAM      | 20450   | 829             | 8.9743                   | 9.522                 |
| 64QAM      | 20525   | 836.5           | 8.9867                   | 9.536                 |
| 64QAM      | 20600   | 844             | 8.9711                   | 9.550                 |
| 256QAM     | 20450   | 829             | 8.9708                   | 9.537                 |
| 256QAM     | 20525   | 836.5           | 8.9846                   | 9.572                 |
| 256QAM     | 20600   | 844             | 8.9739                   | 9.559                 |



## 7.4.7 LTE Band 12

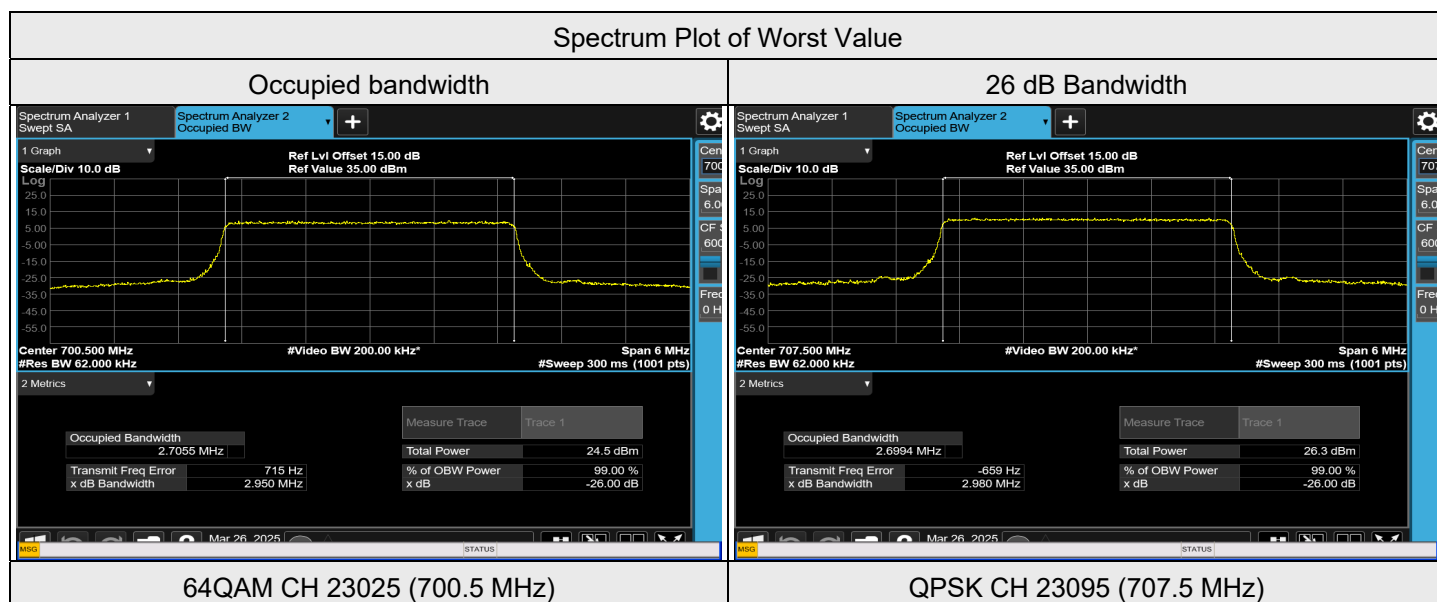
### LTE Band 12, Channel Bandwidth: 1.4 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 23017   | 699.7           | 1.0895                   | 1.318                 |
| QPSK       | 23095   | 707.5           | 1.0895                   | 1.298                 |
| QPSK       | 23173   | 715.3           | 1.0936                   | 1.319                 |
| 16QAM      | 23017   | 699.7           | 1.0915                   | 1.286                 |
| 16QAM      | 23095   | 707.5           | 1.0930                   | 1.324                 |
| 16QAM      | 23173   | 715.3           | 1.0916                   | 1.299                 |
| 64QAM      | 23017   | 699.7           | 1.0918                   | 1.291                 |
| 64QAM      | 23095   | 707.5           | 1.0906                   | 1.316                 |
| 64QAM      | 23173   | 715.3           | 1.0921                   | 1.294                 |
| 256QAM     | 23017   | 699.7           | 1.0918                   | 1.298                 |
| 256QAM     | 23095   | 707.5           | 1.0897                   | 1.304                 |
| 256QAM     | 23173   | 715.3           | 1.0896                   | 1.305                 |



# LTE Band 12, Channel Bandwidth: 3 MHz

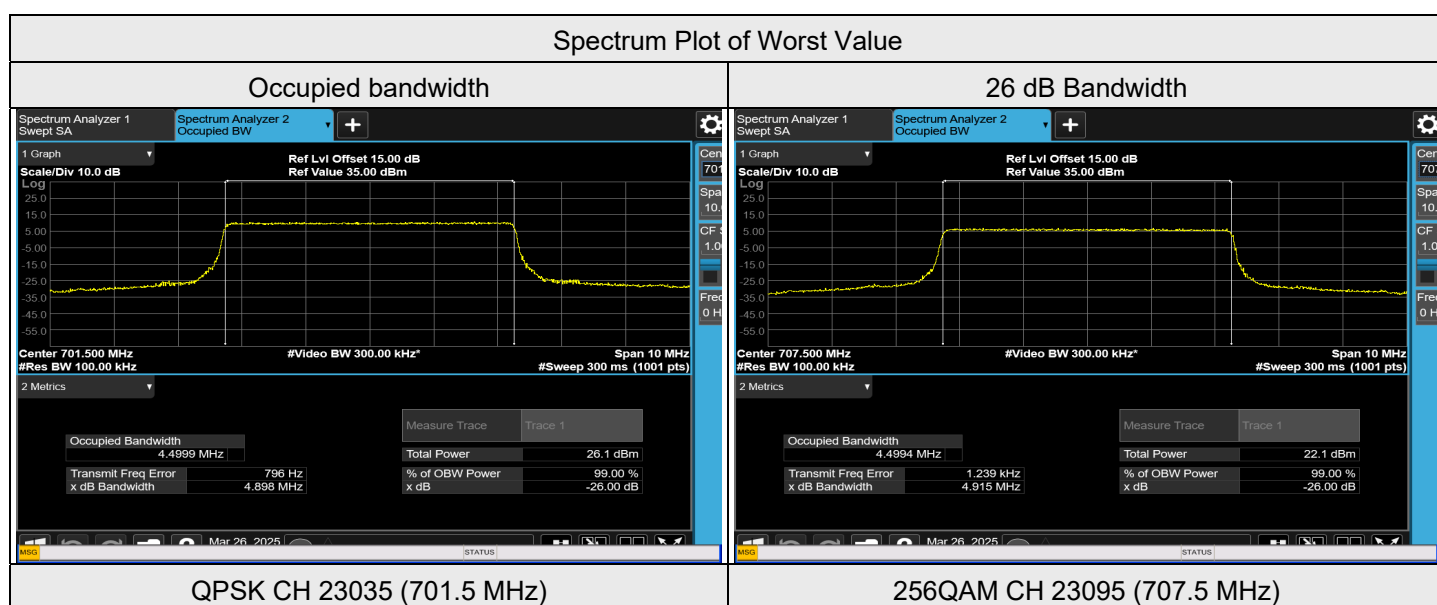
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 23025   | 700.5           | 2.7000                   | 2.955                 |
| QPSK       | 23095   | 707.5           | 2.6994                   | 2.980                 |
| QPSK       | 23165   | 714.5           | 2.6980                   | 2.955                 |
| 16QAM      | 23025   | 700.5           | 2.7044                   | 2.964                 |
| 16QAM      | 23095   | 707.5           | 2.7004                   | 2.980                 |
| 16QAM      | 23165   | 714.5           | 2.7014                   | 2.935                 |
| 64QAM      | 23025   | 700.5           | 2.7055                   | 2.950                 |
| 64QAM      | 23095   | 707.5           | 2.6984                   | 2.948                 |
| 64QAM      | 23165   | 714.5           | 2.7016                   | 2.958                 |
| 256QAM     | 23025   | 700.5           | 2.6993                   | 2.960                 |
| 256QAM     | 23095   | 707.5           | 2.6990                   | 2.956                 |
| 256QAM     | 23165   | 714.5           | 2.7005                   | 2.969                 |





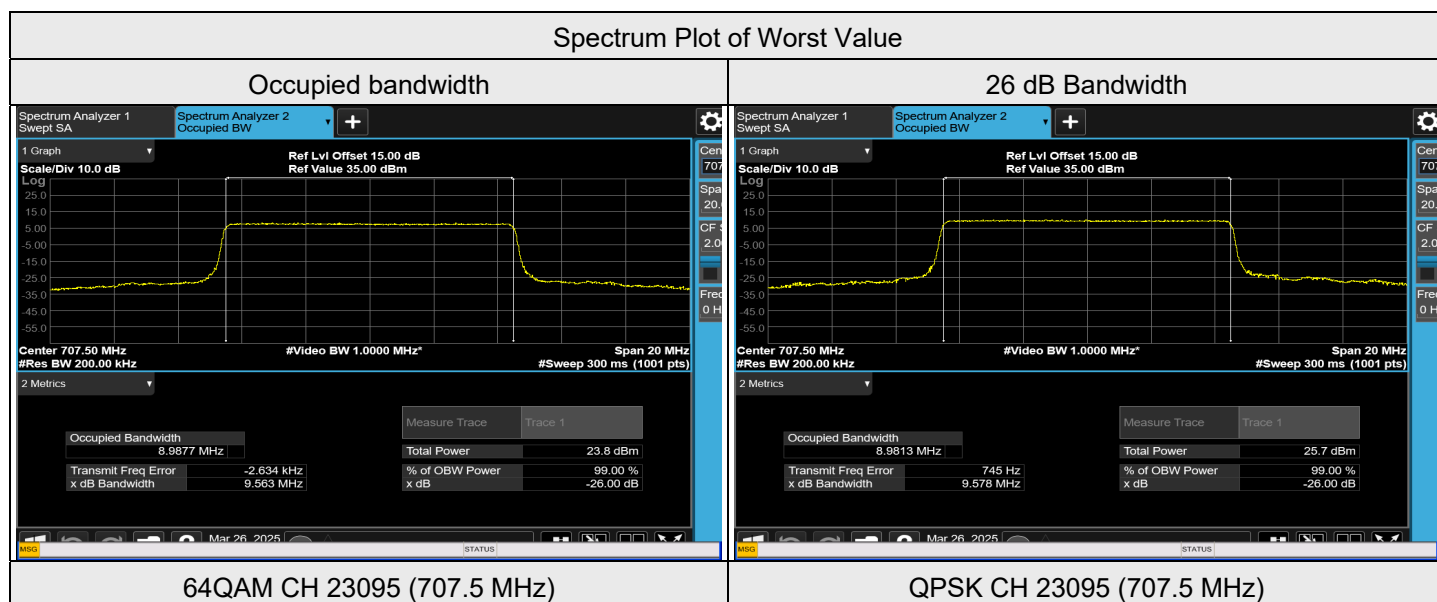
## LTE Band 12, Channel Bandwidth: 5 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 23035   | 701.5           | 4.4999                   | 4.898                 |
| QPSK       | 23095   | 707.5           | 4.4997                   | 4.896                 |
| QPSK       | 23155   | 713.5           | 4.4911                   | 4.882                 |
| 16QAM      | 23035   | 701.5           | 4.4953                   | 4.885                 |
| 16QAM      | 23095   | 707.5           | 4.4995                   | 4.890                 |
| 16QAM      | 23155   | 713.5           | 4.4938                   | 4.897                 |
| 64QAM      | 23035   | 701.5           | 4.4987                   | 4.869                 |
| 64QAM      | 23095   | 707.5           | 4.4954                   | 4.877                 |
| 64QAM      | 23155   | 713.5           | 4.4965                   | 4.902                 |
| 256QAM     | 23035   | 701.5           | 4.4994                   | 4.882                 |
| 256QAM     | 23095   | 707.5           | 4.4994                   | 4.915                 |
| 256QAM     | 23155   | 713.5           | 4.4960                   | 4.862                 |



## LTE Band 12, Channel Bandwidth: 10 MHz

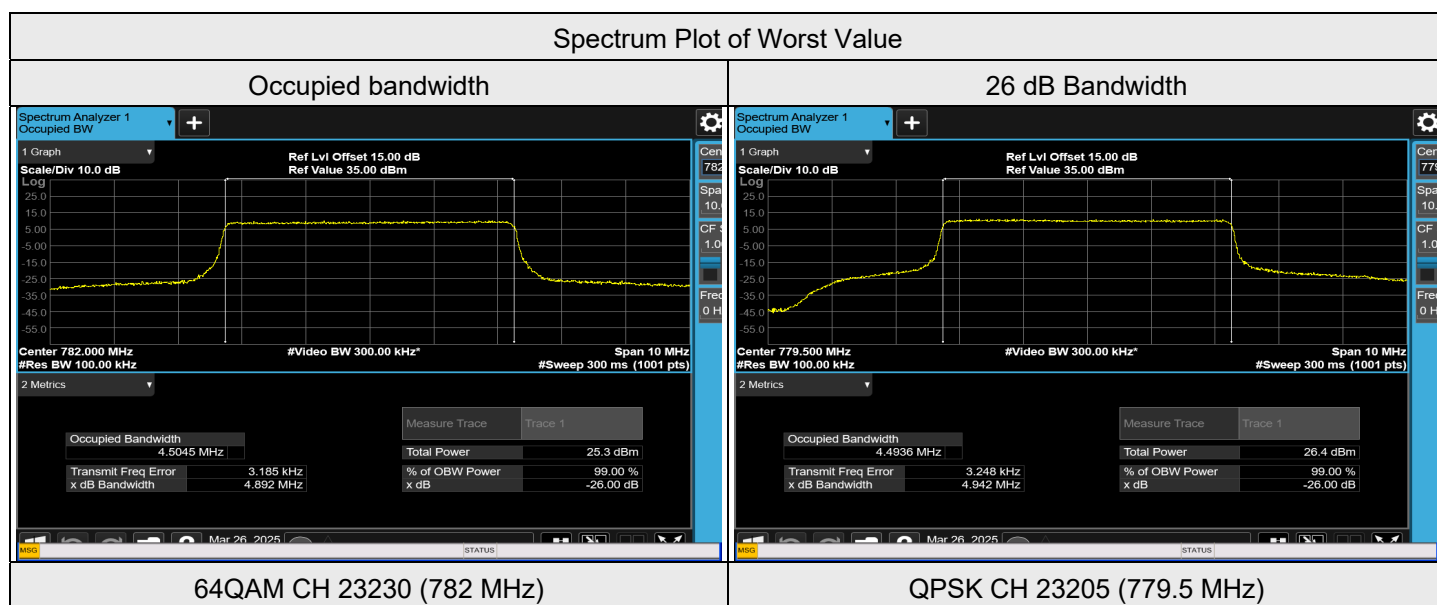
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 23060   | 704             | 8.9728                   | 9.556                 |
| QPSK       | 23095   | 707.5           | 8.9813                   | 9.578                 |
| QPSK       | 23130   | 711             | 8.9716                   | 9.548                 |
| 16QAM      | 23060   | 704             | 8.9681                   | 9.551                 |
| 16QAM      | 23095   | 707.5           | 8.9858                   | 9.545                 |
| 16QAM      | 23130   | 711             | 8.9718                   | 9.538                 |
| 64QAM      | 23060   | 704             | 8.9759                   | 9.538                 |
| 64QAM      | 23095   | 707.5           | 8.9877                   | 9.563                 |
| 64QAM      | 23130   | 711             | 8.9747                   | 9.525                 |
| 256QAM     | 23060   | 704             | 8.9763                   | 9.545                 |
| 256QAM     | 23095   | 707.5           | 8.9816                   | 9.571                 |
| 256QAM     | 23130   | 711             | 8.9734                   | 9.551                 |



## 7.4.8 LTE Band 13

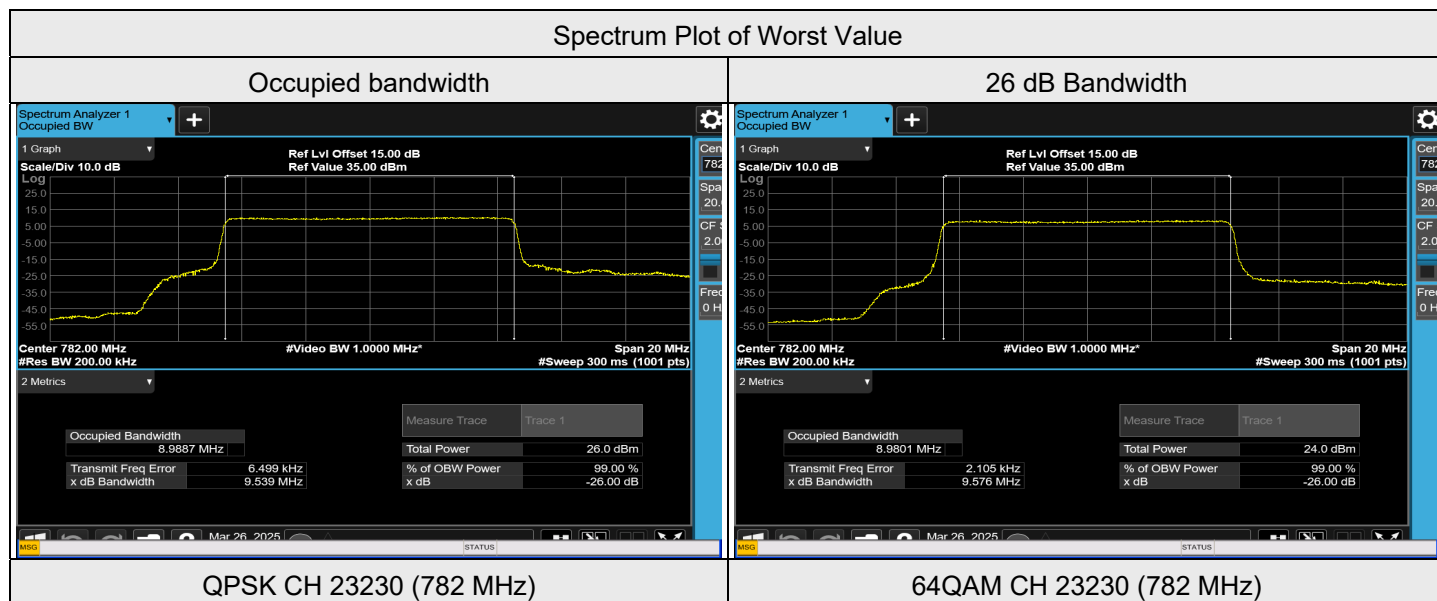
### LTE Band 13, Channel Bandwidth: 5 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 23205   | 779.5           | 4.4936                   | 4.942                 |
| QPSK       | 23230   | 782             | 4.4999                   | 4.888                 |
| QPSK       | 23255   | 784.5           | 4.4946                   | 4.908                 |
| 16QAM      | 23205   | 779.5           | 4.4966                   | 4.872                 |
| 16QAM      | 23230   | 782             | 4.4980                   | 4.890                 |
| 16QAM      | 23255   | 784.5           | 4.4930                   | 4.876                 |
| 64QAM      | 23205   | 779.5           | 4.4914                   | 4.878                 |
| 64QAM      | 23230   | 782             | 4.5045                   | 4.892                 |
| 64QAM      | 23255   | 784.5           | 4.4961                   | 4.903                 |
| 256QAM     | 23205   | 779.5           | 4.4921                   | 4.896                 |
| 256QAM     | 23230   | 782             | 4.5004                   | 4.873                 |
| 256QAM     | 23255   | 784.5           | 4.4931                   | 4.905                 |



### LTE Band 13, Channel Bandwidth: 10 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 23230   | 782             | 8.9887                   | 9.539                 |
| 16QAM      | 23230   | 782             | 8.9777                   | 9.548                 |
| 64QAM      | 23230   | 782             | 8.9801                   | 9.576                 |
| 256QAM     | 23230   | 782             | 8.9764                   | 9.534                 |

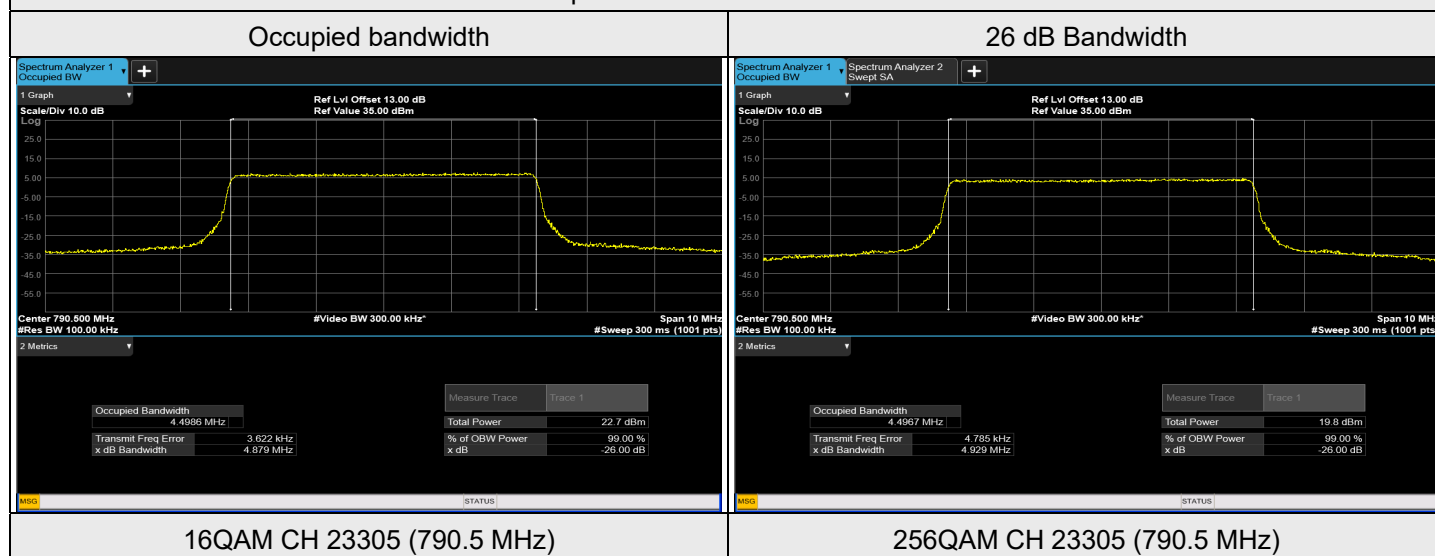


## 7.4.9 LTE Band 14

### LTE Band 14, Channel Bandwidth: 5 MHz

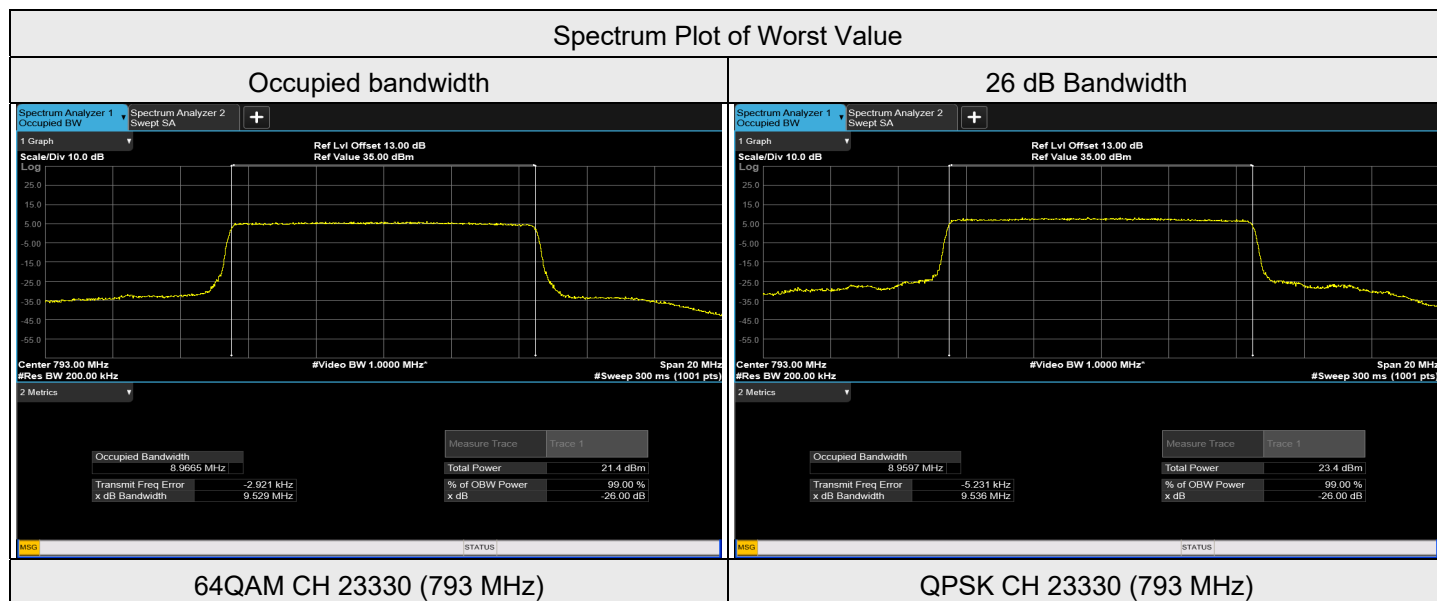
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 23305   | 790.5           | 4.4982                   | 4.884                 |
| QPSK       | 23330   | 793             | 4.4955                   | 4.871                 |
| QPSK       | 23355   | 795.5           | 4.4918                   | 4.921                 |
| 16QAM      | 23305   | 790.5           | 4.4986                   | 4.879                 |
| 16QAM      | 23330   | 793             | 4.4930                   | 4.860                 |
| 16QAM      | 23355   | 795.5           | 4.4927                   | 4.872                 |
| 64QAM      | 23305   | 790.5           | 4.4958                   | 4.918                 |
| 64QAM      | 23330   | 793             | 4.4947                   | 4.873                 |
| 64QAM      | 23355   | 795.5           | 4.4927                   | 4.869                 |
| 256QAM     | 23305   | 790.5           | 4.4967                   | 4.929                 |
| 256QAM     | 23330   | 793             | 4.4939                   | 4.887                 |
| 256QAM     | 23355   | 795.5           | 4.4981                   | 4.866                 |

### Spectrum Plot of Worst Value



## LTE Band 14, Channel Bandwidth: 10 MHz

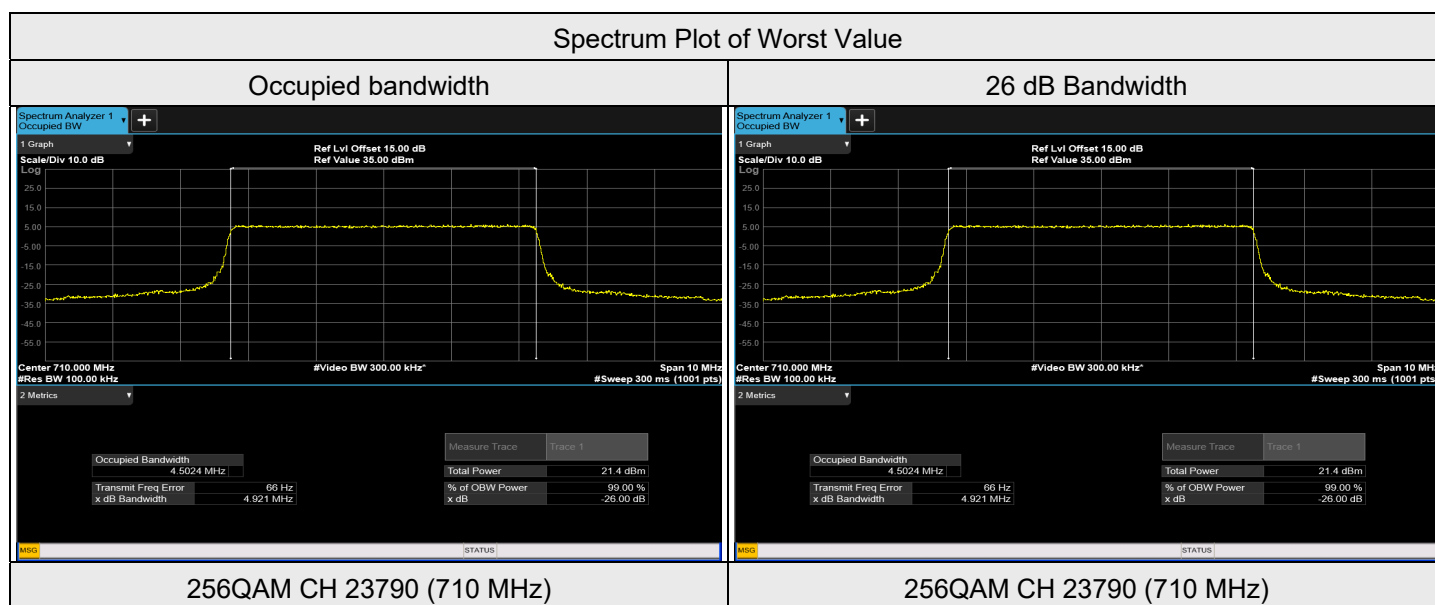
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 23330   | 793             | 8.9597                   | 9.536                 |
| 16QAM      | 23330   | 793             | 8.9596                   | 9.536                 |
| 64QAM      | 23330   | 793             | 8.9665                   | 9.529                 |
| 256QAM     | 23330   | 793             | 8.9654                   | 9.523                 |



#### 7.4.10LTE Band 17

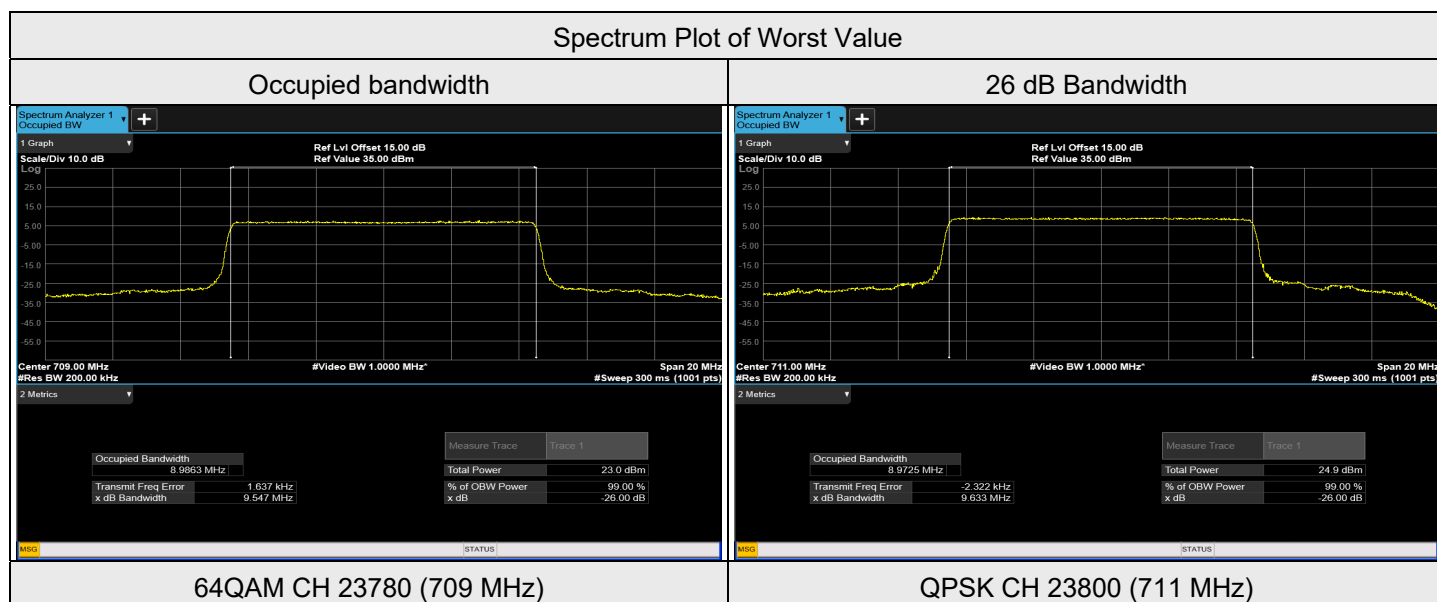
#### LTE Band 17, Channel Bandwidth: 5 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 23755   | 706.5           | 4.4947                   | 4.874                 |
| QPSK       | 23790   | 710             | 4.4962                   | 4.912                 |
| QPSK       | 23825   | 713.5           | 4.4949                   | 4.879                 |
| 16QAM      | 23755   | 706.5           | 4.4939                   | 4.873                 |
| 16QAM      | 23790   | 710             | 4.5011                   | 4.877                 |
| 16QAM      | 23825   | 713.5           | 4.4945                   | 4.877                 |
| 64QAM      | 23755   | 706.5           | 4.4934                   | 4.874                 |
| 64QAM      | 23790   | 710             | 4.5003                   | 4.900                 |
| 64QAM      | 23825   | 713.5           | 4.4929                   | 4.867                 |
| 256QAM     | 23755   | 706.5           | 4.4961                   | 4.863                 |
| 256QAM     | 23790   | 710             | 4.5024                   | 4.921                 |
| 256QAM     | 23825   | 713.5           | 4.4928                   | 4.881                 |



# LTE Band 17, Channel Bandwidth: 10 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 23780   | 709             | 8.9805                   | 9.540                 |
| QPSK       | 23790   | 710             | 8.9772                   | 9.549                 |
| QPSK       | 23800   | 711             | 8.9725                   | 9.633                 |
| 16QAM      | 23780   | 709             | 8.9823                   | 9.543                 |
| 16QAM      | 23790   | 710             | 8.9845                   | 9.566                 |
| 16QAM      | 23800   | 711             | 8.9767                   | 9.572                 |
| 64QAM      | 23780   | 709             | 8.9863                   | 9.547                 |
| 64QAM      | 23790   | 710             | 8.9800                   | 9.547                 |
| 64QAM      | 23800   | 711             | 8.9784                   | 9.552                 |
| 256QAM     | 23780   | 709             | 8.9860                   | 9.566                 |
| 256QAM     | 23790   | 710             | 8.9845                   | 9.557                 |
| 256QAM     | 23800   | 711             | 8.9697                   | 9.565                 |

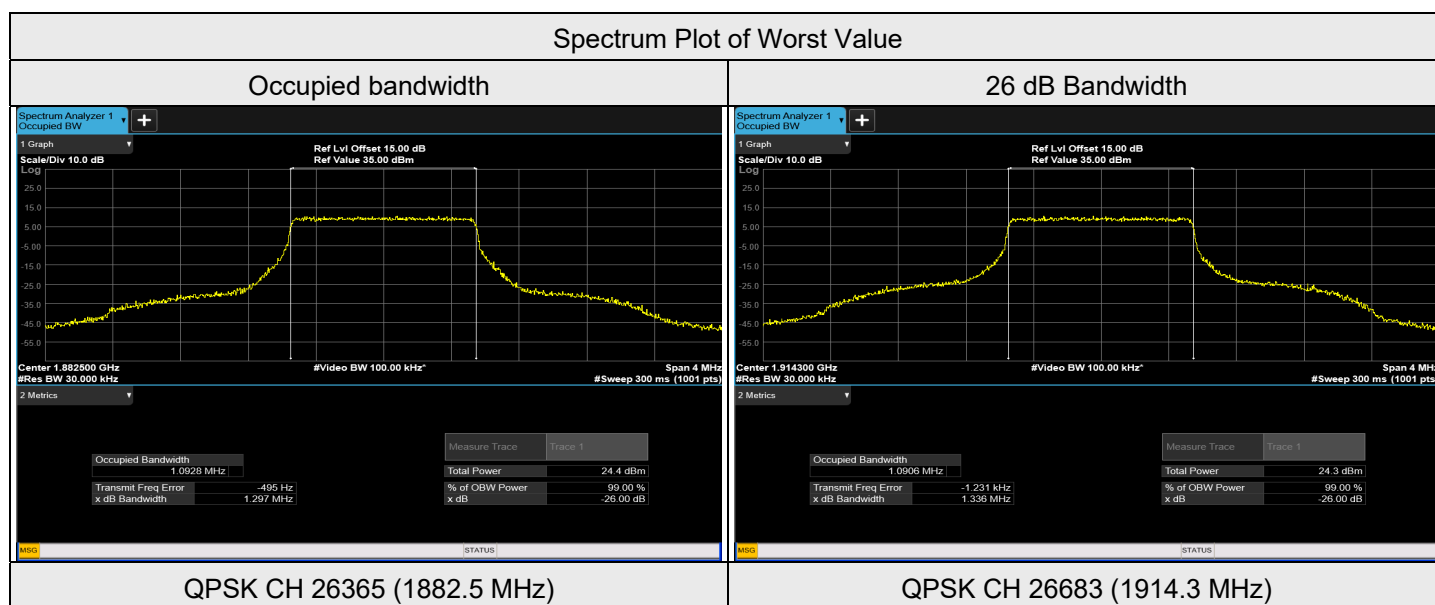




#### 7.4.11 LTE Band 25

#### LTE Band 25, Channel Bandwidth: 1.4 MHz

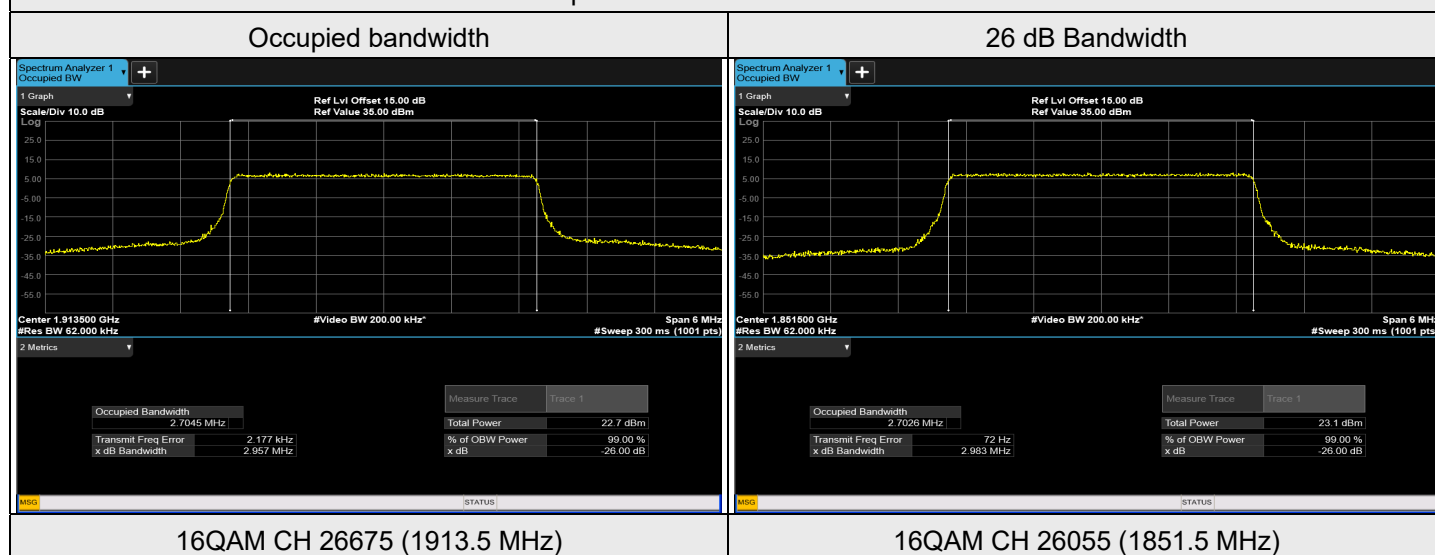
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 26047   | 1850.7          | 1.0908                   | 1.308                 |
| QPSK       | 26365   | 1882.5          | 1.0928                   | 1.297                 |
| QPSK       | 26683   | 1914.3          | 1.0906                   | 1.336                 |
| 16QAM      | 26047   | 1850.7          | 1.0901                   | 1.309                 |
| 16QAM      | 26365   | 1882.5          | 1.0911                   | 1.297                 |
| 16QAM      | 26683   | 1914.3          | 1.0907                   | 1.317                 |
| 64QAM      | 26047   | 1850.7          | 1.0890                   | 1.296                 |
| 64QAM      | 26365   | 1882.5          | 1.0900                   | 1.291                 |
| 64QAM      | 26683   | 1914.3          | 1.0890                   | 1.303                 |
| 256QAM     | 26047   | 1850.7          | 1.0890                   | 1.306                 |
| 256QAM     | 26365   | 1882.5          | 1.0892                   | 1.302                 |
| 256QAM     | 26683   | 1914.3          | 1.0910                   | 1.297                 |



### LTE Band 25, Channel Bandwidth: 3 MHz

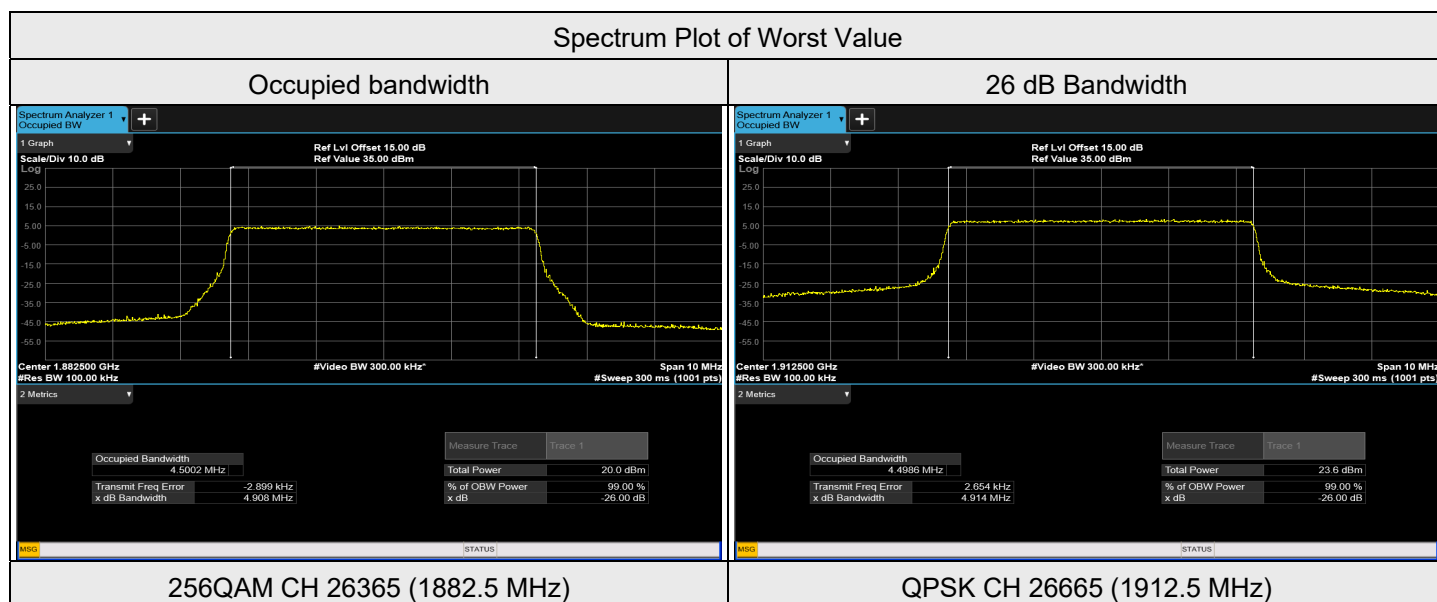
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 26055   | 1851.5          | 2.7020                   | 2.933                 |
| QPSK       | 26365   | 1882.5          | 2.6996                   | 2.963                 |
| QPSK       | 26675   | 1913.5          | 2.7017                   | 2.975                 |
| 16QAM      | 26055   | 1851.5          | 2.7026                   | 2.983                 |
| 16QAM      | 26365   | 1882.5          | 2.7028                   | 2.963                 |
| 16QAM      | 26675   | 1913.5          | 2.7045                   | 2.957                 |
| 64QAM      | 26055   | 1851.5          | 2.7032                   | 2.960                 |
| 64QAM      | 26365   | 1882.5          | 2.7030                   | 2.971                 |
| 64QAM      | 26675   | 1913.5          | 2.7026                   | 2.965                 |
| 256QAM     | 26055   | 1851.5          | 2.7016                   | 2.955                 |
| 256QAM     | 26365   | 1882.5          | 2.7015                   | 2.952                 |
| 256QAM     | 26675   | 1913.5          | 2.7013                   | 2.943                 |

### Spectrum Plot of Worst Value



# LTE Band 25, Channel Bandwidth: 5 MHz

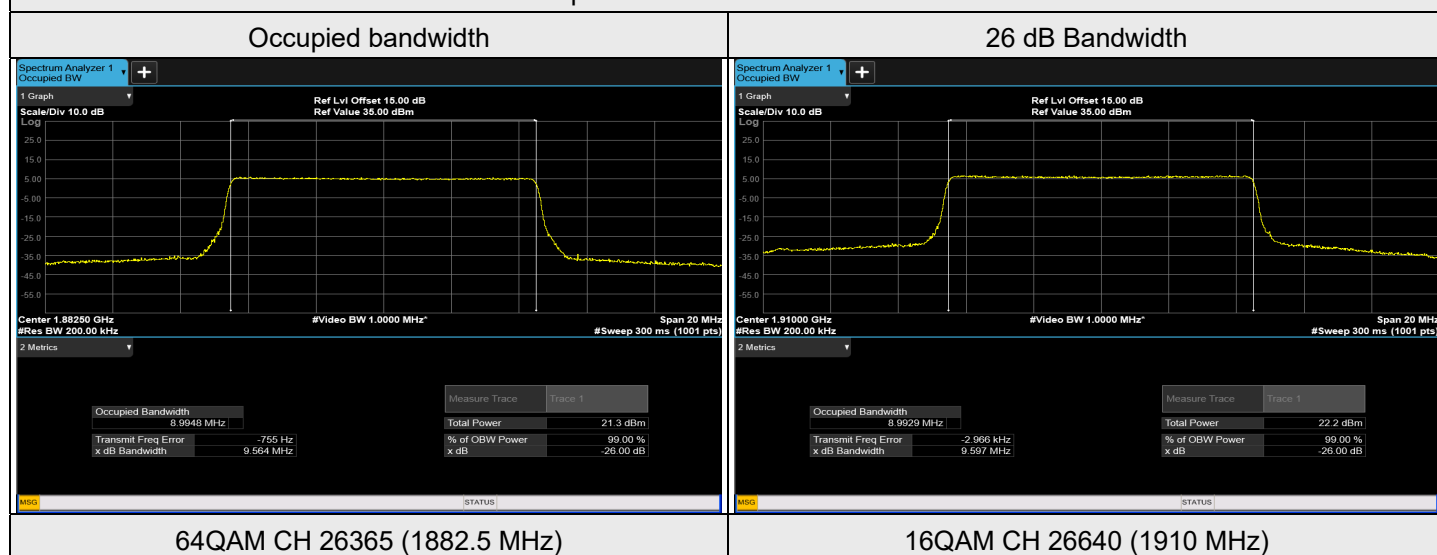
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 26065   | 1852.5          | 4.4981                   | 4.896                 |
| QPSK       | 26365   | 1882.5          | 4.4934                   | 4.912                 |
| QPSK       | 26665   | 1912.5          | 4.4986                   | 4.914                 |
| 16QAM      | 26065   | 1852.5          | 4.4961                   | 4.875                 |
| 16QAM      | 26365   | 1882.5          | 4.4950                   | 4.877                 |
| 16QAM      | 26665   | 1912.5          | 4.4953                   | 4.867                 |
| 64QAM      | 26065   | 1852.5          | 4.4956                   | 4.884                 |
| 64QAM      | 26365   | 1882.5          | 4.4951                   | 4.906                 |
| 64QAM      | 26665   | 1912.5          | 4.4911                   | 4.884                 |
| 256QAM     | 26065   | 1852.5          | 4.4974                   | 4.872                 |
| 256QAM     | 26365   | 1882.5          | 4.5002                   | 4.908                 |
| 256QAM     | 26665   | 1912.5          | 4.4978                   | 4.911                 |



# LTE Band 25, Channel Bandwidth: 10 MHz

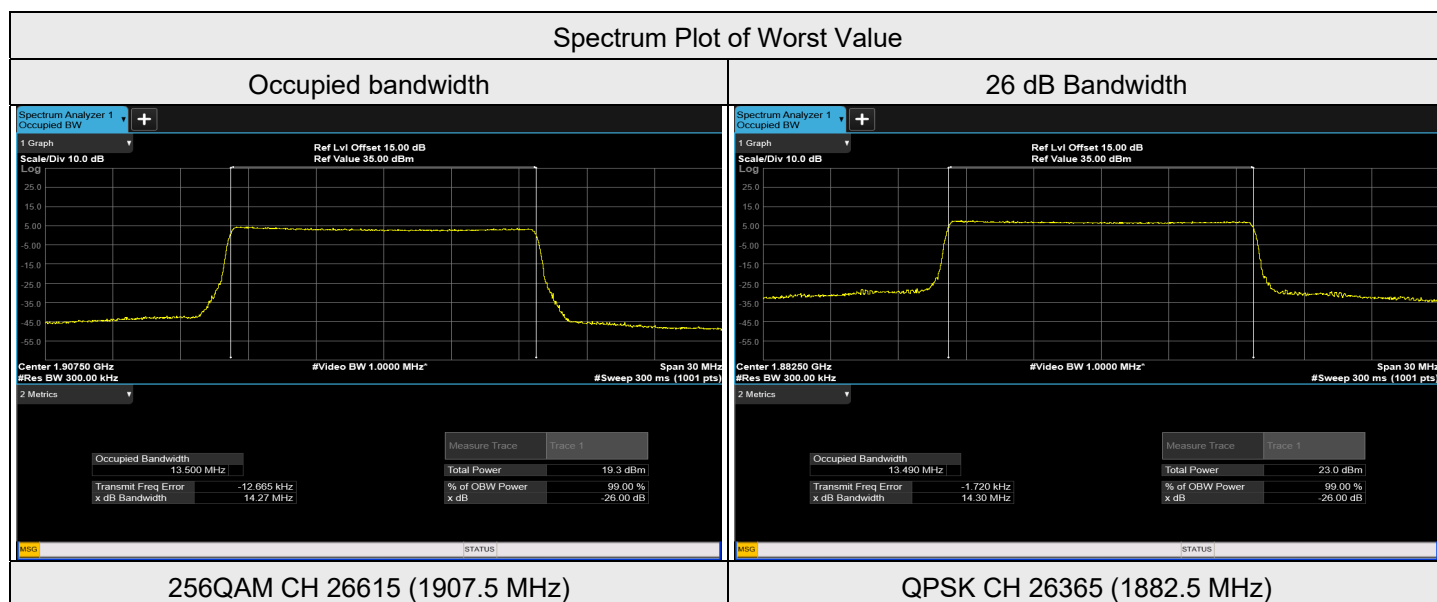
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 26090   | 1855            | 8.9893                   | 9.569                 |
| QPSK       | 26365   | 1882.5          | 8.9879                   | 9.564                 |
| QPSK       | 26640   | 1910            | 8.9892                   | 9.580                 |
| 16QAM      | 26090   | 1855            | 8.9905                   | 9.543                 |
| 16QAM      | 26365   | 1882.5          | 8.9868                   | 9.586                 |
| 16QAM      | 26640   | 1910            | 8.9929                   | 9.597                 |
| 64QAM      | 26090   | 1855            | 8.9914                   | 9.550                 |
| 64QAM      | 26365   | 1882.5          | 8.9948                   | 9.564                 |
| 64QAM      | 26640   | 1910            | 8.9910                   | 9.552                 |
| 256QAM     | 26090   | 1855            | 8.9861                   | 9.561                 |
| 256QAM     | 26365   | 1882.5          | 8.9872                   | 9.570                 |
| 256QAM     | 26640   | 1910            | 8.9909                   | 9.541                 |

## Spectrum Plot of Worst Value



# LTE Band 25, Channel Bandwidth: 15 MHz

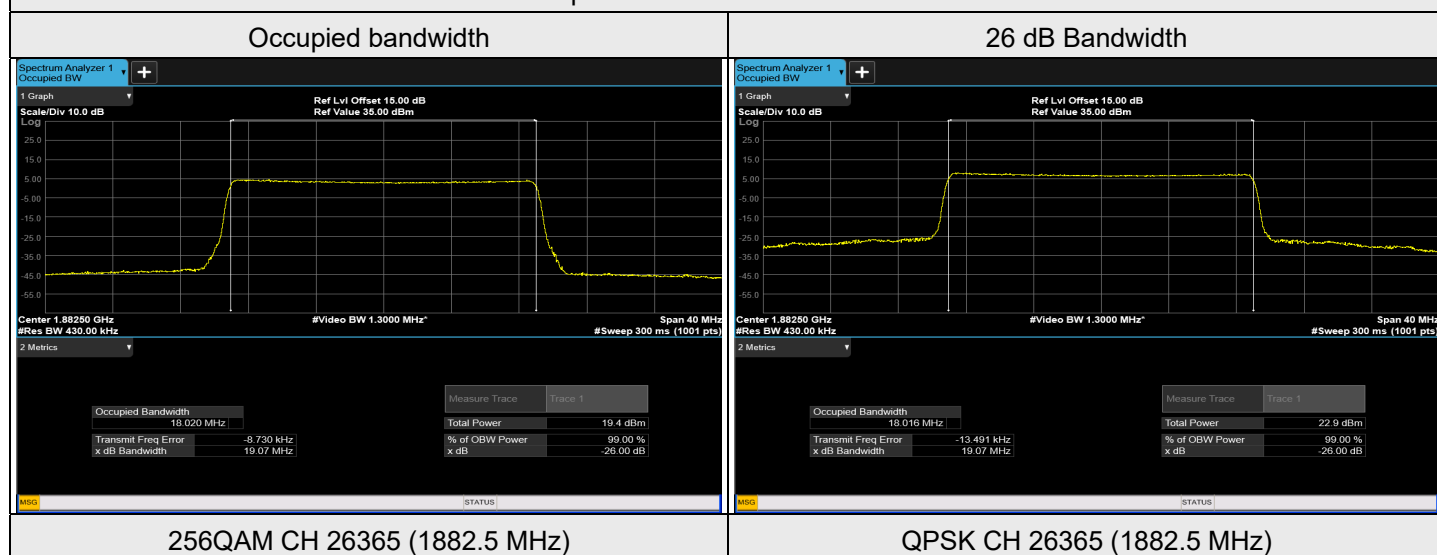
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 26115   | 1857.5          | 13.4710                  | 14.263                |
| QPSK       | 26365   | 1882.5          | 13.4898                  | 14.296                |
| QPSK       | 26615   | 1907.5          | 13.4911                  | 14.280                |
| 16QAM      | 26115   | 1857.5          | 13.4714                  | 14.265                |
| 16QAM      | 26365   | 1882.5          | 13.4826                  | 14.275                |
| 16QAM      | 26615   | 1907.5          | 13.4922                  | 14.295                |
| 64QAM      | 26115   | 1857.5          | 13.4723                  | 14.272                |
| 64QAM      | 26365   | 1882.5          | 13.4826                  | 14.260                |
| 64QAM      | 26615   | 1907.5          | 13.4909                  | 14.264                |
| 256QAM     | 26115   | 1857.5          | 13.4665                  | 14.272                |
| 256QAM     | 26365   | 1882.5          | 13.4864                  | 14.279                |
| 256QAM     | 26615   | 1907.5          | 13.4997                  | 14.270                |



# LTE Band 25, Channel Bandwidth: 20 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 26140   | 1860            | 17.9681                  | 19.036                |
| QPSK       | 26365   | 1882.5          | 18.0160                  | 19.072                |
| QPSK       | 26590   | 1905            | 17.9977                  | 19.024                |
| 16QAM      | 26140   | 1860            | 17.9561                  | 19.041                |
| 16QAM      | 26365   | 1882.5          | 18.0115                  | 19.070                |
| 16QAM      | 26590   | 1905            | 18.0105                  | 19.052                |
| 64QAM      | 26140   | 1860            | 17.9545                  | 19.043                |
| 64QAM      | 26365   | 1882.5          | 18.0060                  | 19.054                |
| 64QAM      | 26590   | 1905            | 18.0043                  | 19.028                |
| 256QAM     | 26140   | 1860            | 17.9491                  | 19.035                |
| 256QAM     | 26365   | 1882.5          | 18.0196                  | 19.066                |
| 256QAM     | 26590   | 1905            | 17.9972                  | 19.038                |

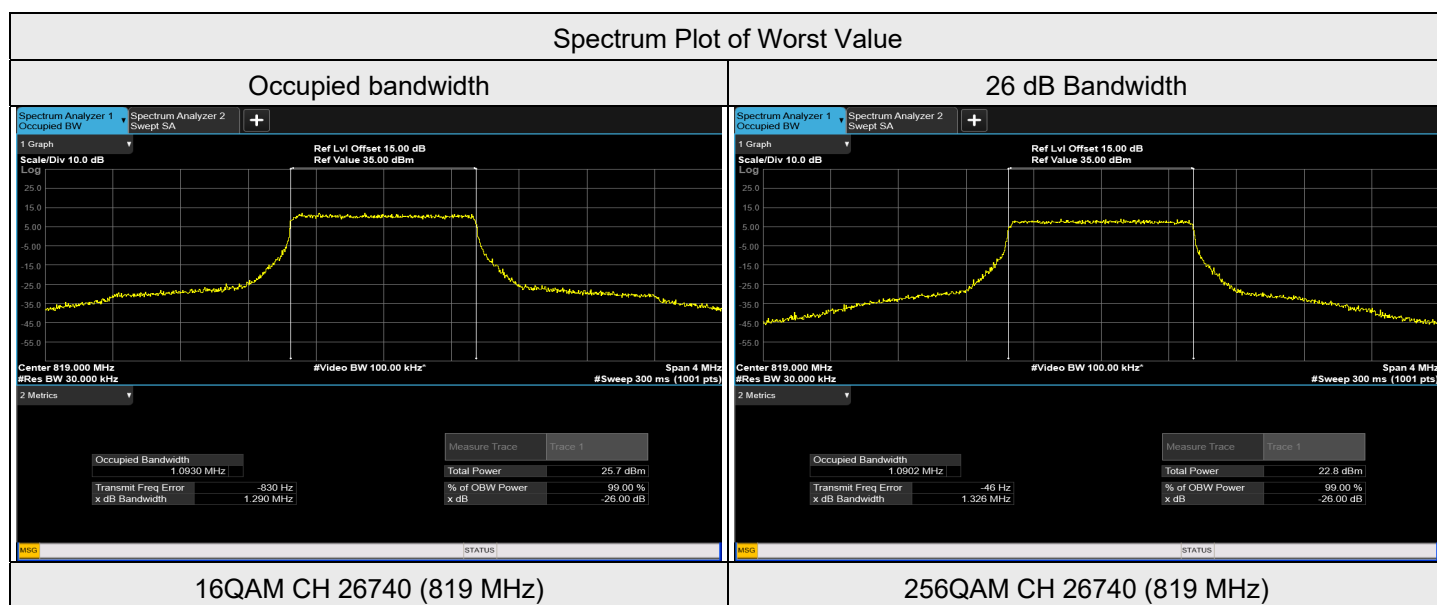
## Spectrum Plot of Worst Value



#### 7.4.12LTE Band 26 (814 MHz ~ 824 MHz)

#### LTE Band 26 (814 MHz ~ 824 MHz), Channel Bandwidth: 1.4 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 26697   | 814.7           | 1.0893                   | 1.294                 |
| QPSK       | 26740   | 819             | 1.0909                   | 1.286                 |
| QPSK       | 26783   | 823.3           | 1.0915                   | 1.279                 |
| 16QAM      | 26697   | 814.7           | 1.0915                   | 1.307                 |
| 16QAM      | 26740   | 819             | 1.0930                   | 1.290                 |
| 16QAM      | 26783   | 823.3           | 1.0920                   | 1.300                 |
| 64QAM      | 26697   | 814.7           | 1.0896                   | 1.287                 |
| 64QAM      | 26740   | 819             | 1.0910                   | 1.302                 |
| 64QAM      | 26783   | 823.3           | 1.0898                   | 1.290                 |
| 256QAM     | 26697   | 814.7           | 1.0901                   | 1.302                 |
| 256QAM     | 26740   | 819             | 1.0902                   | 1.326                 |
| 256QAM     | 26783   | 823.3           | 1.0913                   | 1.321                 |



# LTE Band 26 (814 MHz ~ 824 MHz), Channel Bandwidth: 3 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 26705   | 815.5           | 2.7044                   | 2.959                 |
| QPSK       | 26740   | 819             | 2.7031                   | 2.969                 |
| QPSK       | 26775   | 822.5           | 2.7026                   | 2.947                 |
| 16QAM      | 26705   | 815.5           | 2.6998                   | 2.953                 |
| 16QAM      | 26740   | 819             | 2.7027                   | 2.961                 |
| 16QAM      | 26775   | 822.5           | 2.7016                   | 2.943                 |
| 64QAM      | 26705   | 815.5           | 2.7045                   | 2.947                 |
| 64QAM      | 26740   | 819             | 2.7003                   | 2.967                 |
| 64QAM      | 26775   | 822.5           | 2.6991                   | 2.957                 |
| 256QAM     | 26705   | 815.5           | 2.7025                   | 2.956                 |
| 256QAM     | 26740   | 819             | 2.7044                   | 2.941                 |
| 256QAM     | 26775   | 822.5           | 2.7011                   | 2.939                 |

## Spectrum Plot of Worst Value

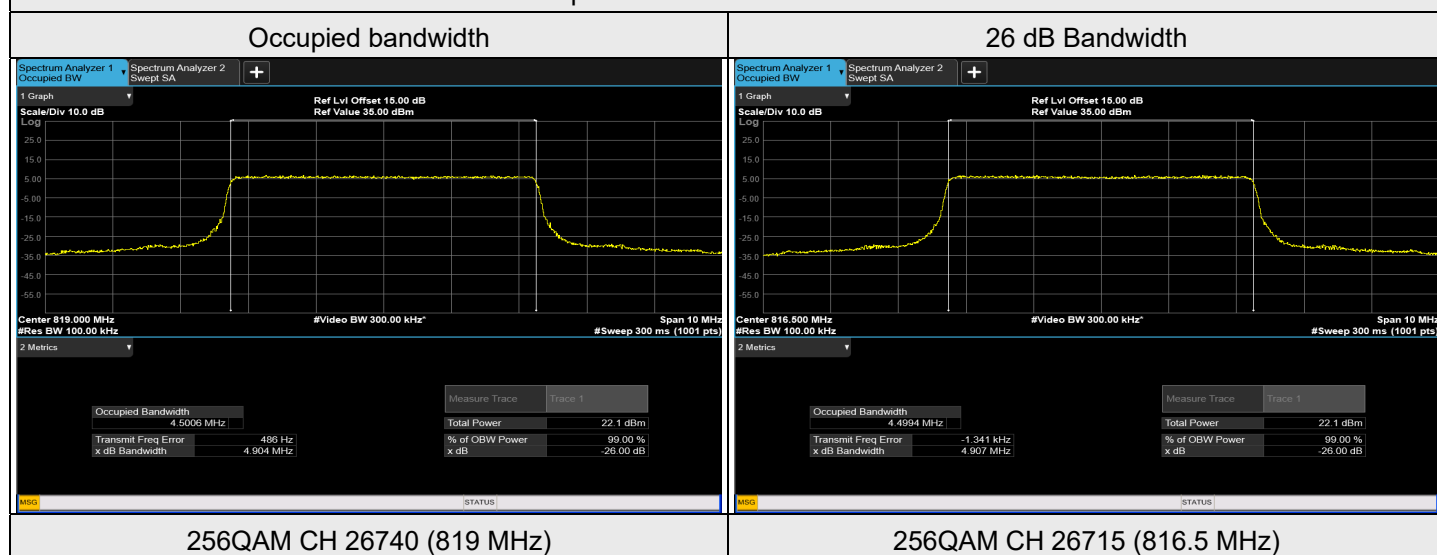




# LTE Band 26 (814 MHz ~ 824 MHz), Channel Bandwidth: 5 MHz

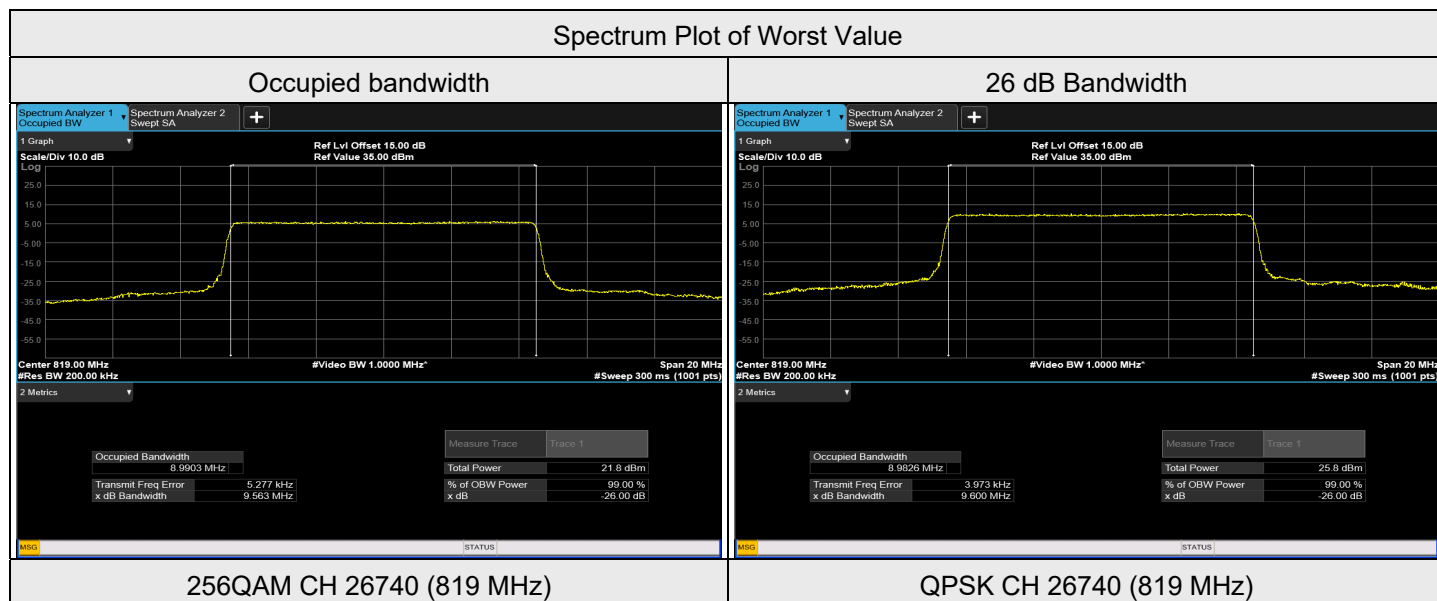
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 26715   | 816.5           | 4.4979                   | 4.889                 |
| QPSK       | 26740   | 819             | 4.4973                   | 4.881                 |
| QPSK       | 26765   | 821.5           | 4.4912                   | 4.860                 |
| 16QAM      | 26715   | 816.5           | 4.5000                   | 4.892                 |
| 16QAM      | 26740   | 819             | 4.4963                   | 4.884                 |
| 16QAM      | 26765   | 821.5           | 4.4934                   | 4.869                 |
| 64QAM      | 26715   | 816.5           | 4.4955                   | 4.893                 |
| 64QAM      | 26740   | 819             | 4.4952                   | 4.891                 |
| 64QAM      | 26765   | 821.5           | 4.4961                   | 4.883                 |
| 256QAM     | 26715   | 816.5           | 4.4994                   | 4.907                 |
| 256QAM     | 26740   | 819             | 4.5006                   | 4.904                 |
| 256QAM     | 26765   | 821.5           | 4.4969                   | 4.865                 |

## Spectrum Plot of Worst Value



# LTE Band 26 (814 MHz ~ 824 MHz), Channel Bandwidth: 10 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 26740   | 819             | 8.9826                   | 9.600                 |
| 16QAM      | 26740   | 819             | 8.9868                   | 9.541                 |
| 64QAM      | 26740   | 819             | 8.9870                   | 9.574                 |
| 256QAM     | 26740   | 819             | 8.9903                   | 9.563                 |

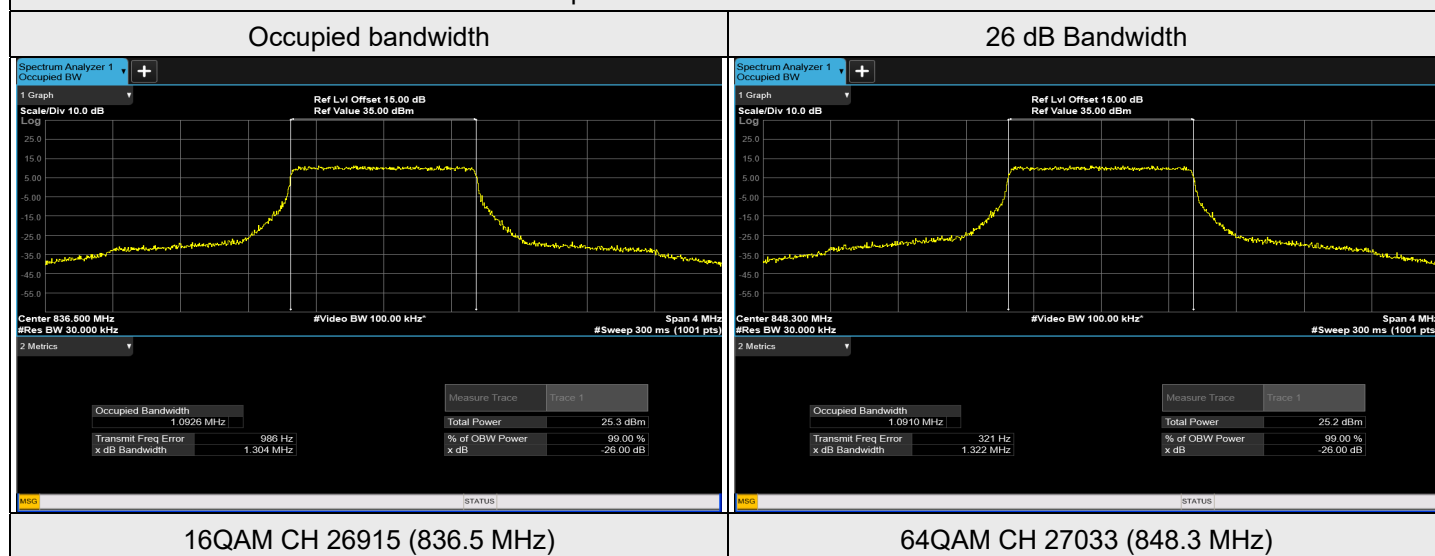


#### 7.4.13LTE Band 26 (824 MHz ~ 849 MHz)

#### LTE Band 26 (824 MHz ~ 849 MHz), Channel Bandwidth: 1.4 MHz

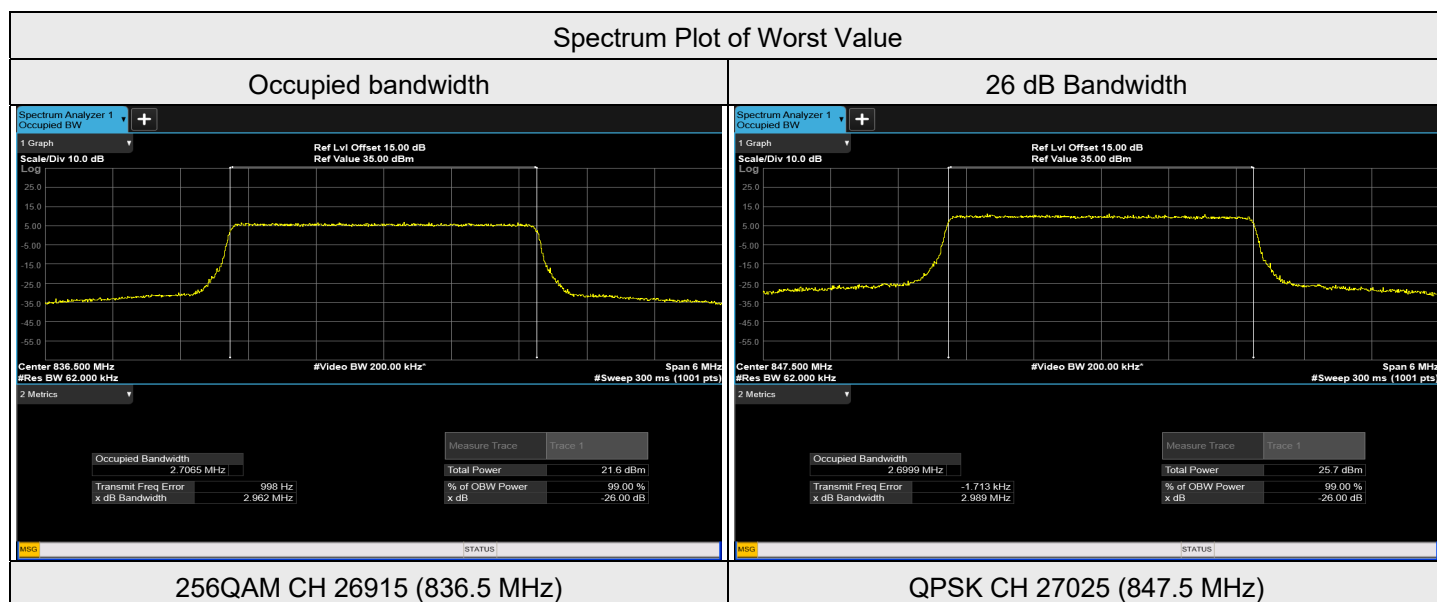
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 26797   | 824.7           | 1.0898                   | 1.306                 |
| QPSK       | 26915   | 836.5           | 1.0913                   | 1.303                 |
| QPSK       | 27033   | 848.3           | 1.0915                   | 1.301                 |
| 16QAM      | 26797   | 824.7           | 1.0915                   | 1.305                 |
| 16QAM      | 26915   | 836.5           | 1.0926                   | 1.304                 |
| 16QAM      | 27033   | 848.3           | 1.0907                   | 1.303                 |
| 64QAM      | 26797   | 824.7           | 1.0920                   | 1.293                 |
| 64QAM      | 26915   | 836.5           | 1.0912                   | 1.301                 |
| 64QAM      | 27033   | 848.3           | 1.0910                   | 1.322                 |
| 256QAM     | 26797   | 824.7           | 1.0892                   | 1.300                 |
| 256QAM     | 26915   | 836.5           | 1.0913                   | 1.298                 |
| 256QAM     | 27033   | 848.3           | 1.0909                   | 1.308                 |

#### Spectrum Plot of Worst Value



# LTE Band 26 (824 MHz ~ 849 MHz), Channel Bandwidth: 3 MHz

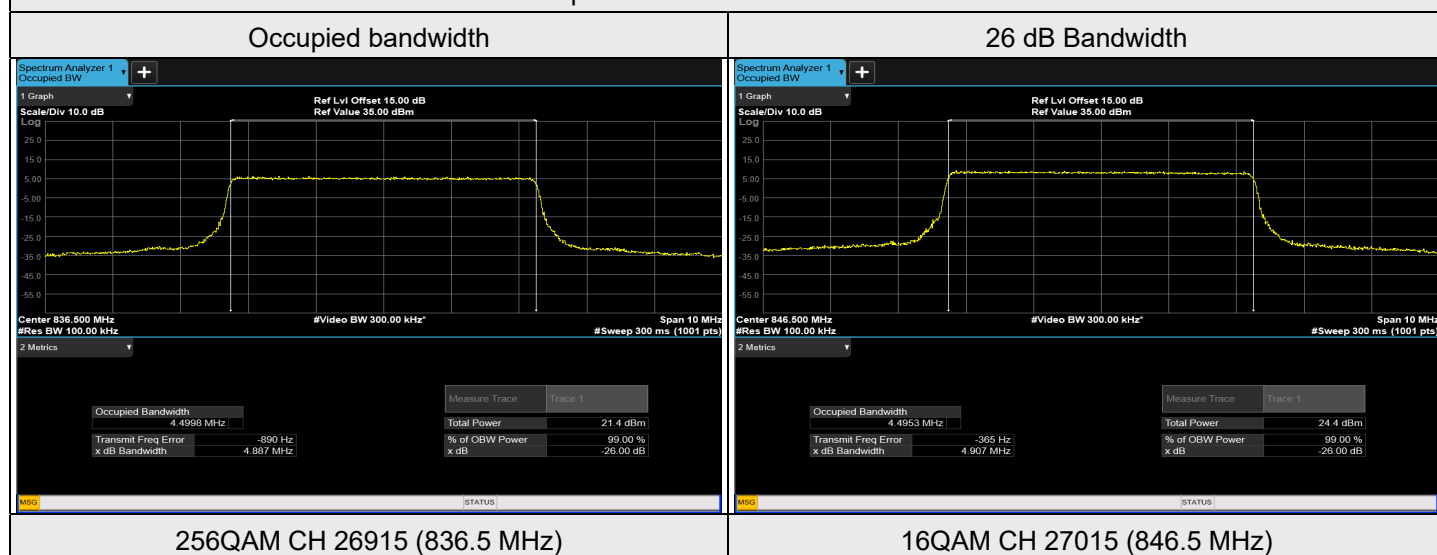
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 26805   | 825.5           | 2.7019                   | 2.955                 |
| QPSK       | 26915   | 836.5           | 2.7053                   | 2.952                 |
| QPSK       | 27025   | 847.5           | 2.6999                   | 2.989                 |
| 16QAM      | 26805   | 825.5           | 2.7047                   | 2.942                 |
| 16QAM      | 26915   | 836.5           | 2.7016                   | 2.950                 |
| 16QAM      | 27025   | 847.5           | 2.7027                   | 2.947                 |
| 64QAM      | 26805   | 825.5           | 2.7025                   | 2.976                 |
| 64QAM      | 26915   | 836.5           | 2.7015                   | 2.964                 |
| 64QAM      | 27025   | 847.5           | 2.7028                   | 2.947                 |
| 256QAM     | 26805   | 825.5           | 2.7033                   | 2.956                 |
| 256QAM     | 26915   | 836.5           | 2.7065                   | 2.962                 |
| 256QAM     | 27025   | 847.5           | 2.7012                   | 2.963                 |



### LTE Band 26 (824 MHz ~ 849 MHz), Channel Bandwidth: 5 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 26815   | 826.5           | 4.4946                   | 4.863                 |
| QPSK       | 26915   | 836.5           | 4.4953                   | 4.868                 |
| QPSK       | 27015   | 846.5           | 4.4911                   | 4.887                 |
| 16QAM      | 26815   | 826.5           | 4.4924                   | 4.888                 |
| 16QAM      | 26915   | 836.5           | 4.4966                   | 4.844                 |
| 16QAM      | 27015   | 846.5           | 4.4953                   | 4.907                 |
| 64QAM      | 26815   | 826.5           | 4.4935                   | 4.874                 |
| 64QAM      | 26915   | 836.5           | 4.4959                   | 4.896                 |
| 64QAM      | 27015   | 846.5           | 4.4946                   | 4.870                 |
| 256QAM     | 26815   | 826.5           | 4.4967                   | 4.881                 |
| 256QAM     | 26915   | 836.5           | 4.4998                   | 4.887                 |
| 256QAM     | 27015   | 846.5           | 4.4966                   | 4.866                 |

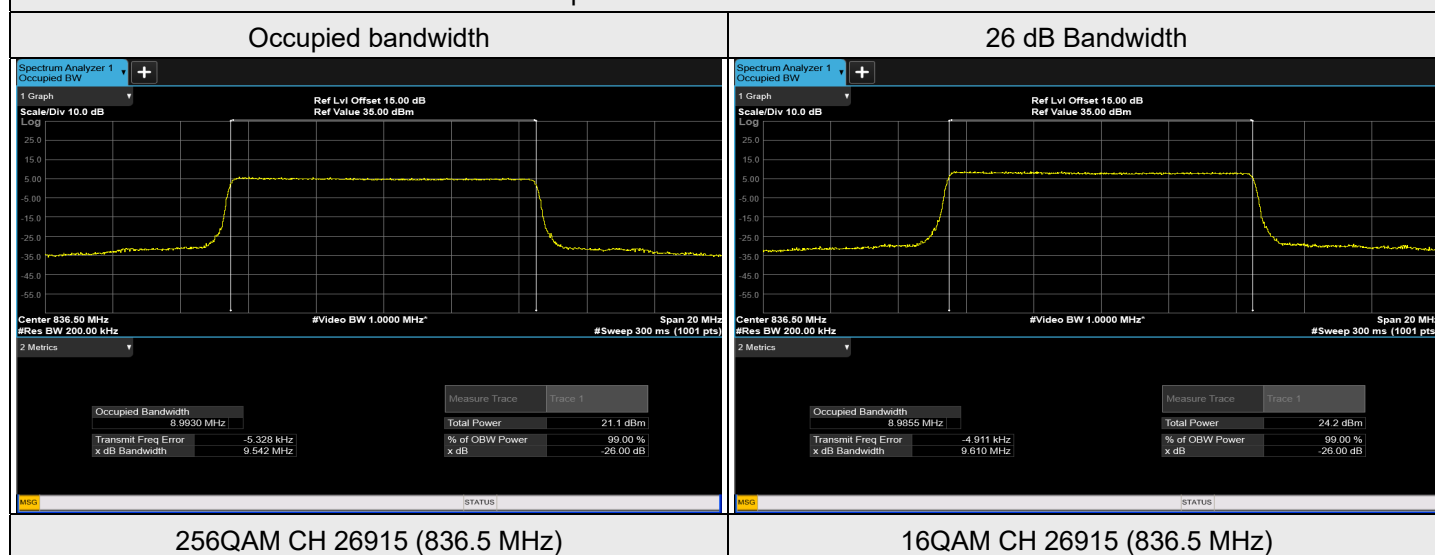
### Spectrum Plot of Worst Value



### LTE Band 26 (824 MHz ~ 849 MHz), Channel Bandwidth: 10 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 26840   | 829             | 8.9744                   | 9.540                 |
| QPSK       | 26915   | 836.5           | 8.9887                   | 9.598                 |
| QPSK       | 26990   | 844             | 8.9706                   | 9.572                 |
| 16QAM      | 26840   | 829             | 8.9764                   | 9.573                 |
| 16QAM      | 26915   | 836.5           | 8.9855                   | 9.610                 |
| 16QAM      | 26990   | 844             | 8.9710                   | 9.522                 |
| 64QAM      | 26840   | 829             | 8.9788                   | 9.558                 |
| 64QAM      | 26915   | 836.5           | 8.9869                   | 9.552                 |
| 64QAM      | 26990   | 844             | 8.9719                   | 9.557                 |
| 256QAM     | 26840   | 829             | 8.9687                   | 9.514                 |
| 256QAM     | 26915   | 836.5           | 8.9930                   | 9.542                 |
| 256QAM     | 26990   | 844             | 8.9711                   | 9.573                 |

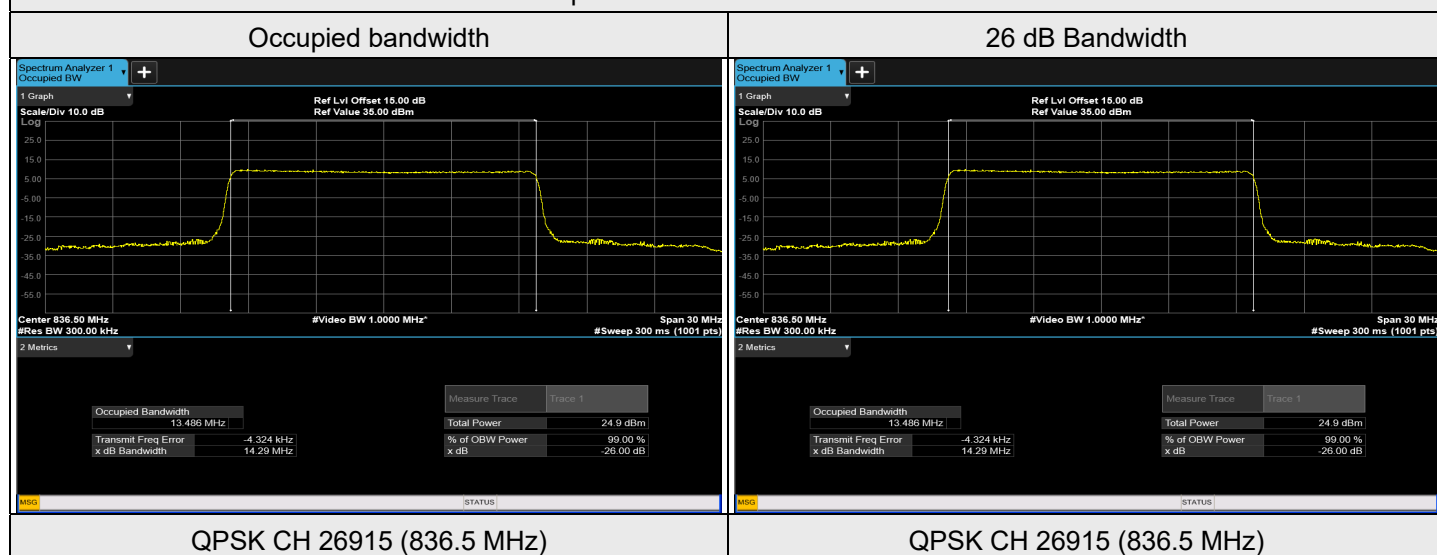
### Spectrum Plot of Worst Value



### LTE Band 26 (824 MHz ~ 849 MHz), Channel Bandwidth: 15 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 26865   | 831.5           | 13.4647                  | 14.261                |
| QPSK       | 26915   | 836.5           | 13.4857                  | 14.292                |
| QPSK       | 26965   | 841.5           | 13.4576                  | 14.265                |
| 16QAM      | 26865   | 831.5           | 13.4672                  | 14.260                |
| 16QAM      | 26915   | 836.5           | 13.4825                  | 14.284                |
| 16QAM      | 26965   | 841.5           | 13.4535                  | 14.258                |
| 64QAM      | 26865   | 831.5           | 13.4717                  | 14.241                |
| 64QAM      | 26915   | 836.5           | 13.4813                  | 14.275                |
| 64QAM      | 26965   | 841.5           | 13.4606                  | 14.280                |
| 256QAM     | 26865   | 831.5           | 13.4644                  | 14.246                |
| 256QAM     | 26915   | 836.5           | 13.4850                  | 14.263                |
| 256QAM     | 26965   | 841.5           | 13.4602                  | 14.287                |

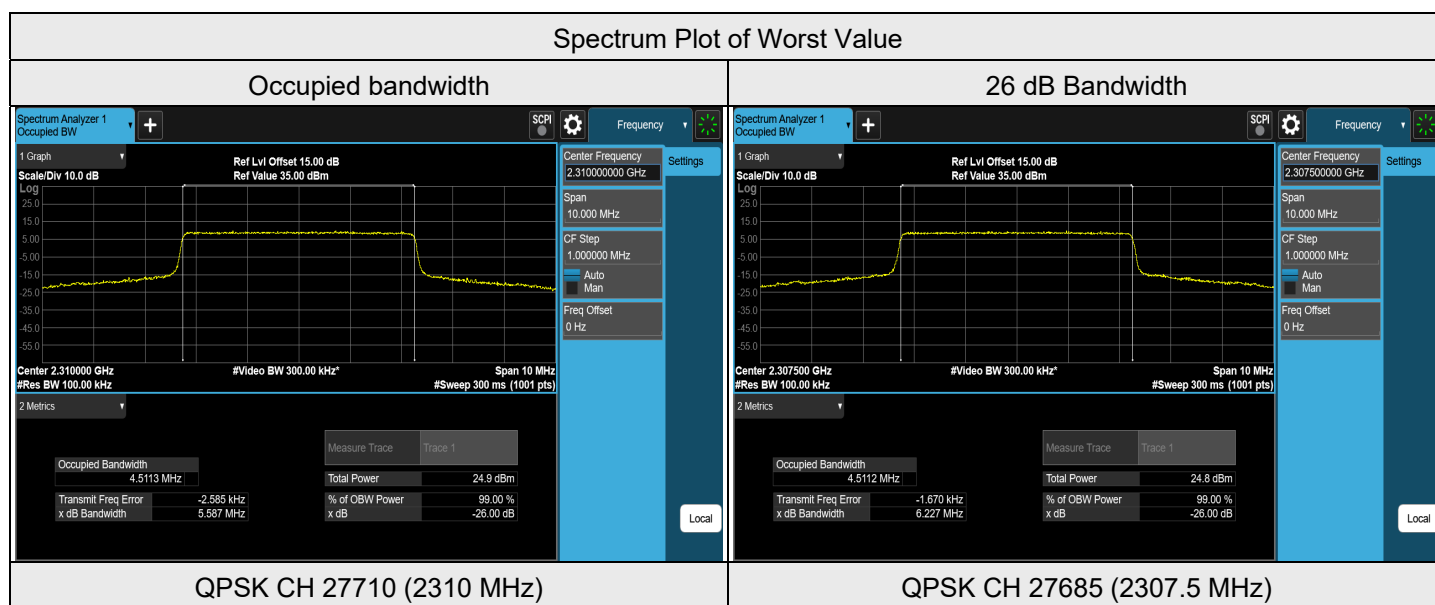
### Spectrum Plot of Worst Value



#### 7.4.14LTE Band 30

#### LTE Band 30, Channel Bandwidth: 5 MHz

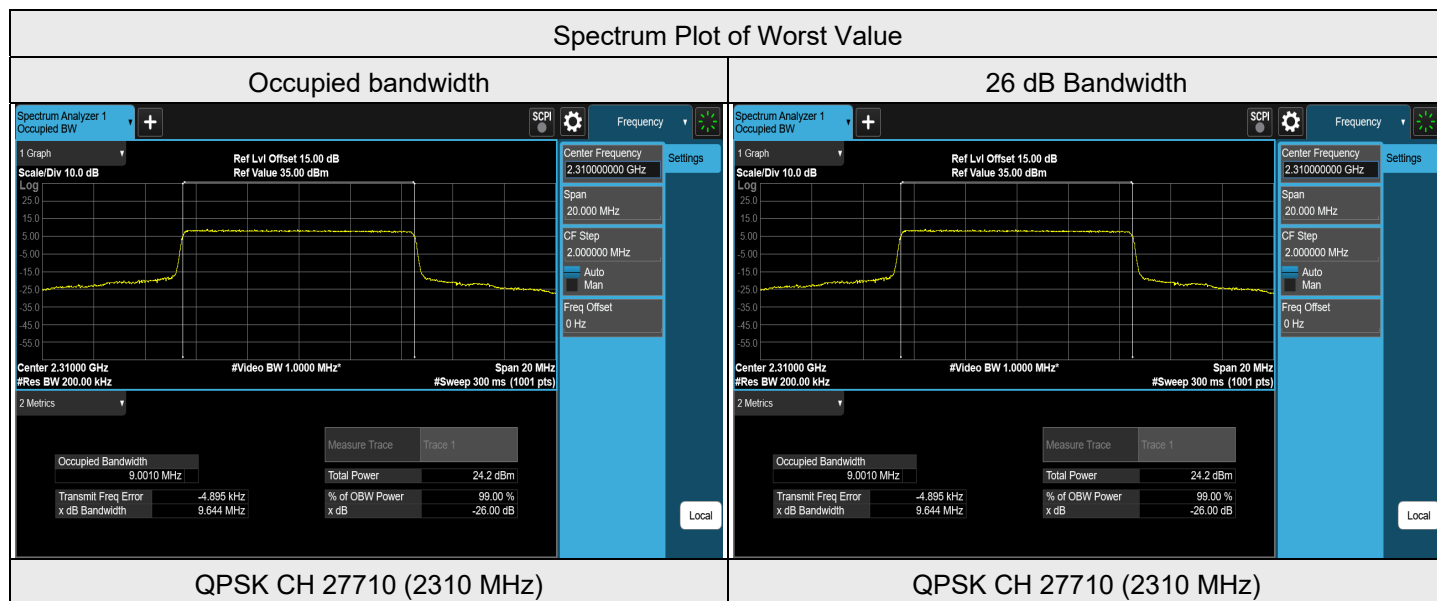
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 27685   | 2307.5          | 4.5112                   | 6.227                 |
| QPSK       | 27710   | 2310            | 4.5113                   | 5.587                 |
| QPSK       | 27735   | 2312.5          | 4.5066                   | 5.201                 |
| 16QAM      | 27685   | 2307.5          | 4.4459                   | 4.721                 |
| 16QAM      | 27710   | 2310            | 4.5008                   | 4.947                 |
| 16QAM      | 27735   | 2312.5          | 4.5029                   | 4.989                 |
| 64QAM      | 27685   | 2307.5          | 4.5061                   | 5.076                 |
| 64QAM      | 27710   | 2310            | 4.5038                   | 4.933                 |
| 64QAM      | 27735   | 2312.5          | 4.5017                   | 4.976                 |
| 256QAM     | 27685   | 2307.5          | 4.4961                   | 4.896                 |
| 256QAM     | 27710   | 2310            | 4.4977                   | 4.884                 |
| 256QAM     | 27735   | 2312.5          | 4.4948                   | 4.869                 |





# LTE Band 30, Channel Bandwidth: 10 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 27710   | 2310            | 9.0010                   | 9.644                 |
| 16QAM      | 27710   | 2310            | 8.9907                   | 9.642                 |
| 64QAM      | 27710   | 2310            | 8.9865                   | 9.586                 |
| 256QAM     | 27710   | 2310            | 8.9849                   | 9.587                 |



#### 7.4.15LTE Band 38

#### LTE Band 38, Channel Bandwidth: 5 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 37775   | 2572.5          | 4.4914                   | 4.837                 |
| QPSK       | 38000   | 2595            | 4.4953                   | 4.847                 |
| QPSK       | 38225   | 2617.5          | 4.4975                   | 4.883                 |
| 16QAM      | 37775   | 2572.5          | 4.4926                   | 4.876                 |
| 16QAM      | 38000   | 2595            | 4.4895                   | 4.893                 |
| 16QAM      | 38225   | 2617.5          | 4.4896                   | 4.855                 |
| 64QAM      | 37775   | 2572.5          | 4.4932                   | 4.861                 |
| 64QAM      | 38000   | 2595            | 4.4900                   | 4.847                 |
| 64QAM      | 38225   | 2617.5          | 4.4911                   | 4.886                 |
| 256QAM     | 37775   | 2572.5          | 4.4906                   | 4.845                 |
| 256QAM     | 38000   | 2595            | 4.4940                   | 4.887                 |
| 256QAM     | 38225   | 2617.5          | 4.4924                   | 4.876                 |

