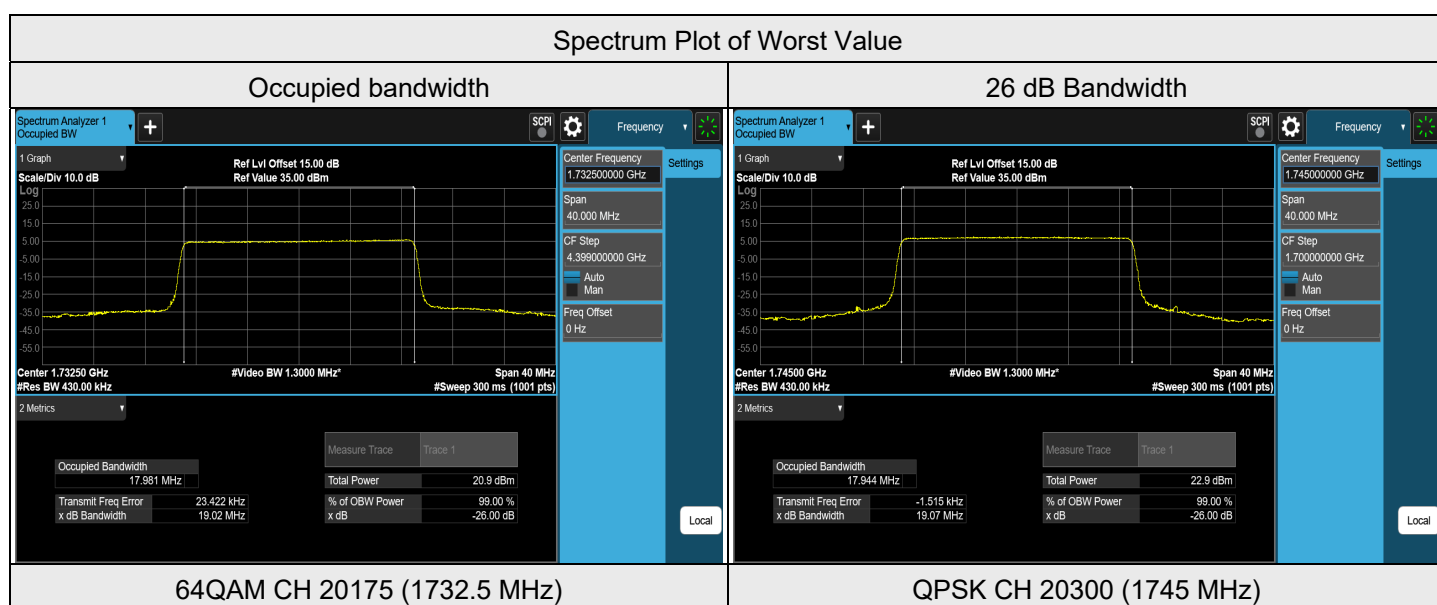


# LTE Band 4, Channel Bandwidth: 20 MHz

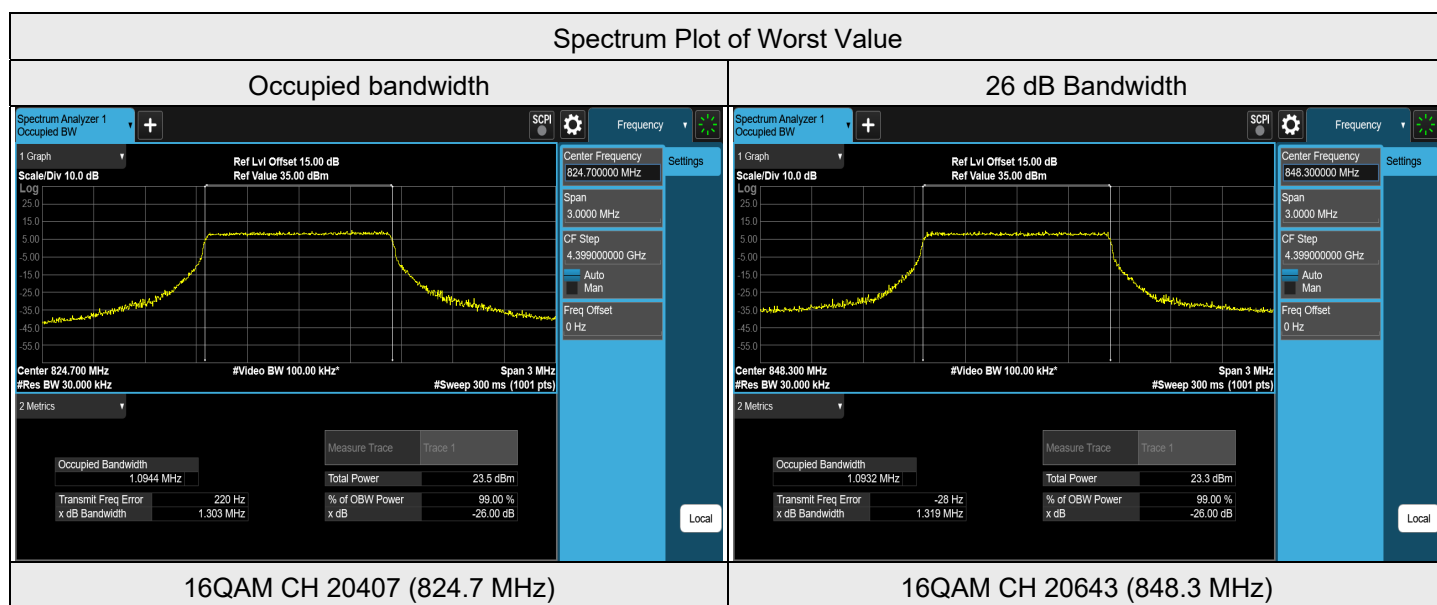
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 20050   | 1720            | 17.9731                  | 19.029                |
| QPSK       | 20175   | 1732.5          | 17.9770                  | 19.041                |
| QPSK       | 20300   | 1745            | 17.9439                  | 19.065                |
| 16QAM      | 20050   | 1720            | 17.9712                  | 19.033                |
| 16QAM      | 20175   | 1732.5          | 17.9747                  | 19.065                |
| 16QAM      | 20300   | 1745            | 17.9418                  | 19.044                |
| 64QAM      | 20050   | 1720            | 17.9753                  | 19.041                |
| 64QAM      | 20175   | 1732.5          | 17.9809                  | 19.023                |
| 64QAM      | 20300   | 1745            | 17.9362                  | 19.032                |
| 256QAM     | 20050   | 1720            | 17.9802                  | 19.054                |
| 256QAM     | 20175   | 1732.5          | 17.9799                  | 19.023                |
| 256QAM     | 20300   | 1745            | 17.9445                  | 19.034                |



### 7.4.3 LTE Band 5

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

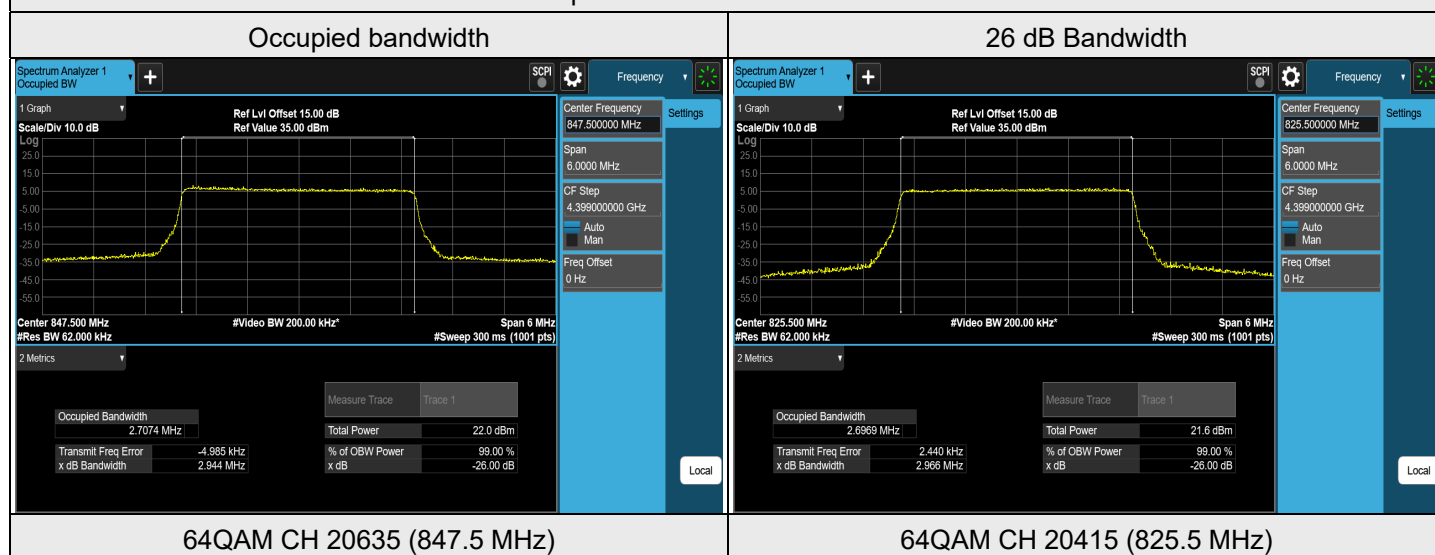
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 20407   | 824.7           | 1.0891                   | 1.297                 |
| QPSK       | 20525   | 836.5           | 1.0903                   | 1.305                 |
| QPSK       | 20643   | 848.3           | 1.0921                   | 1.292                 |
| 16QAM      | 20407   | 824.7           | 1.0944                   | 1.303                 |
| 16QAM      | 20525   | 836.5           | 1.0932                   | 1.313                 |
| 16QAM      | 20643   | 848.3           | 1.0932                   | 1.319                 |
| 64QAM      | 20407   | 824.7           | 1.0888                   | 1.285                 |
| 64QAM      | 20525   | 836.5           | 1.0910                   | 1.314                 |
| 64QAM      | 20643   | 848.3           | 1.0924                   | 1.319                 |
| 256QAM     | 20407   | 824.7           | 1.0893                   | 1.312                 |
| 256QAM     | 20525   | 836.5           | 1.0885                   | 1.297                 |
| 256QAM     | 20643   | 848.3           | 1.0904                   | 1.312                 |



## LTE Band 5, Channel Bandwidth: 3 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 20415   | 825.5           | 2.7006                   | 2.950                 |
| QPSK       | 20525   | 836.5           | 2.7005                   | 2.949                 |
| QPSK       | 20635   | 847.5           | 2.7038                   | 2.953                 |
| 16QAM      | 20415   | 825.5           | 2.7008                   | 2.948                 |
| 16QAM      | 20525   | 836.5           | 2.7052                   | 2.949                 |
| 16QAM      | 20635   | 847.5           | 2.7020                   | 2.962                 |
| 64QAM      | 20415   | 825.5           | 2.6969                   | 2.966                 |
| 64QAM      | 20525   | 836.5           | 2.7044                   | 2.960                 |
| 64QAM      | 20635   | 847.5           | 2.7074                   | 2.944                 |
| 256QAM     | 20415   | 825.5           | 2.6977                   | 2.936                 |
| 256QAM     | 20525   | 836.5           | 2.7050                   | 2.948                 |
| 256QAM     | 20635   | 847.5           | 2.7030                   | 2.952                 |

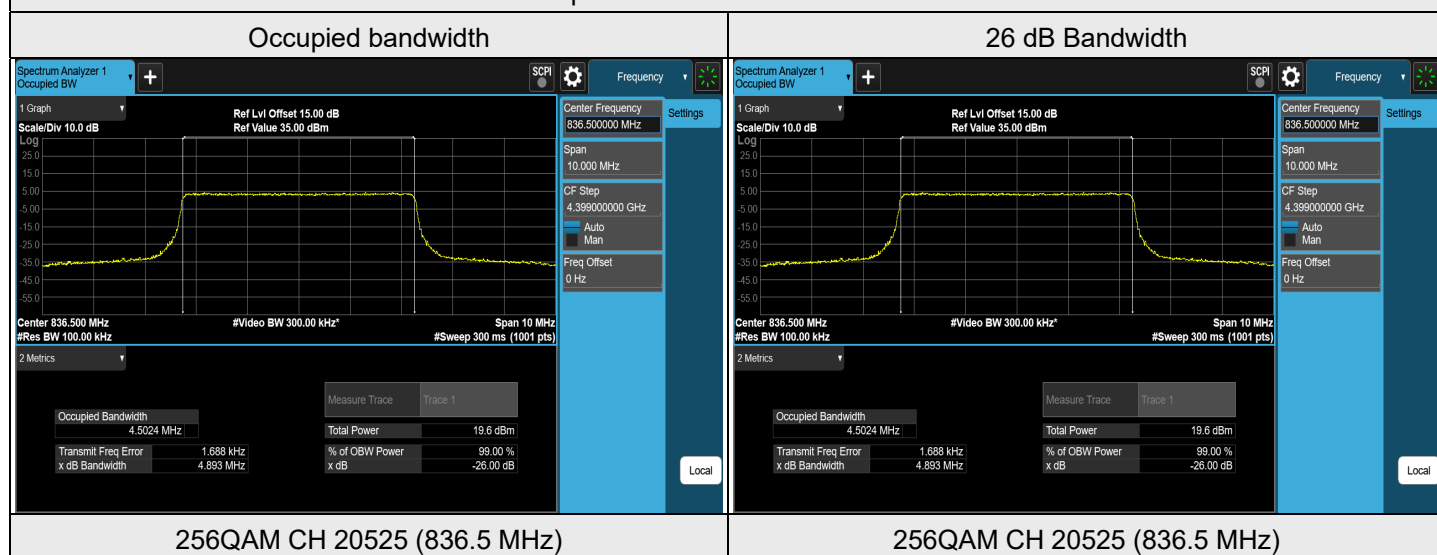
### Spectrum Plot of Worst Value



## LTE Band 5, Channel Bandwidth: 5 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 20425   | 826.5           | 4.4843                   | 4.850                 |
| QPSK       | 20525   | 836.5           | 4.4985                   | 4.887                 |
| QPSK       | 20625   | 846.5           | 4.4967                   | 4.811                 |
| 16QAM      | 20425   | 826.5           | 4.4840                   | 4.831                 |
| 16QAM      | 20525   | 836.5           | 4.4994                   | 4.889                 |
| 16QAM      | 20625   | 846.5           | 4.4957                   | 4.827                 |
| 64QAM      | 20425   | 826.5           | 4.4838                   | 4.879                 |
| 64QAM      | 20525   | 836.5           | 4.4986                   | 4.872                 |
| 64QAM      | 20625   | 846.5           | 4.4968                   | 4.872                 |
| 256QAM     | 20425   | 826.5           | 4.4843                   | 4.841                 |
| 256QAM     | 20525   | 836.5           | 4.5024                   | 4.893                 |
| 256QAM     | 20625   | 846.5           | 4.4947                   | 4.833                 |

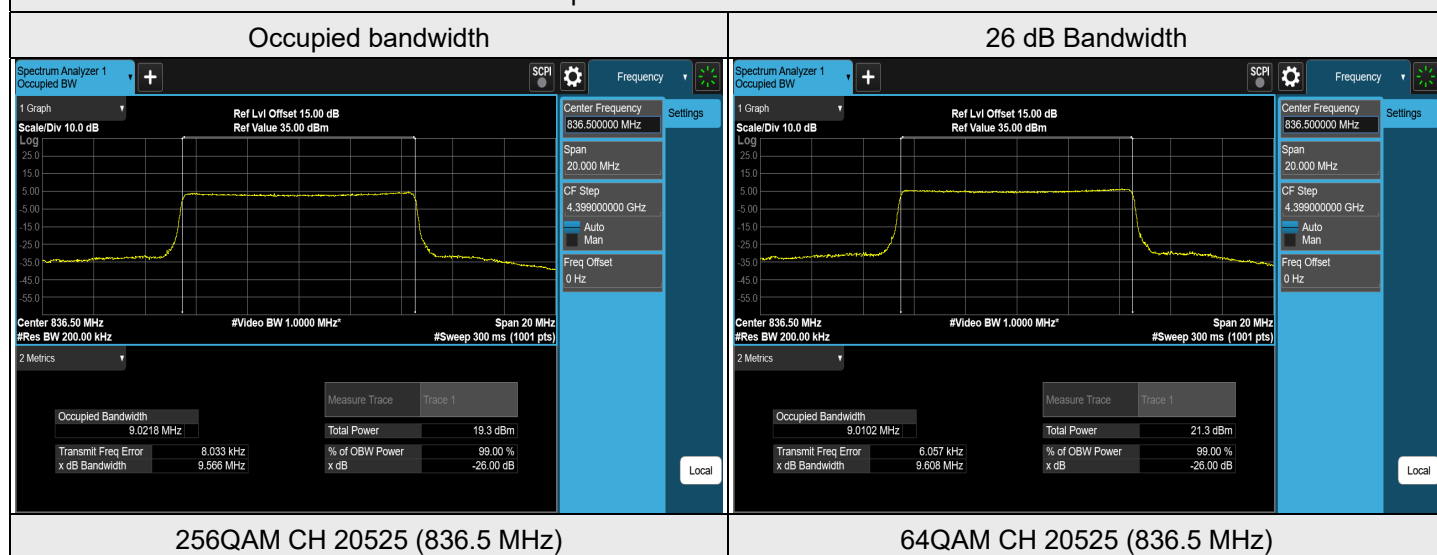
### Spectrum Plot of Worst Value



# LTE Band 5, Channel Bandwidth: 10 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 20450   | 829             | 8.9434                   | 9.500                 |
| QPSK       | 20525   | 836.5           | 9.0081                   | 9.577                 |
| QPSK       | 20600   | 844             | 8.9135                   | 9.477                 |
| 16QAM      | 20450   | 829             | 8.9498                   | 9.495                 |
| 16QAM      | 20525   | 836.5           | 9.0101                   | 9.574                 |
| 16QAM      | 20600   | 844             | 8.9126                   | 9.477                 |
| 64QAM      | 20450   | 829             | 8.9456                   | 9.506                 |
| 64QAM      | 20525   | 836.5           | 9.0102                   | 9.608                 |
| 64QAM      | 20600   | 844             | 8.9162                   | 9.493                 |
| 256QAM     | 20450   | 829             | 8.9440                   | 9.513                 |
| 256QAM     | 20525   | 836.5           | 9.0218                   | 9.566                 |
| 256QAM     | 20600   | 844             | 8.9178                   | 9.456                 |

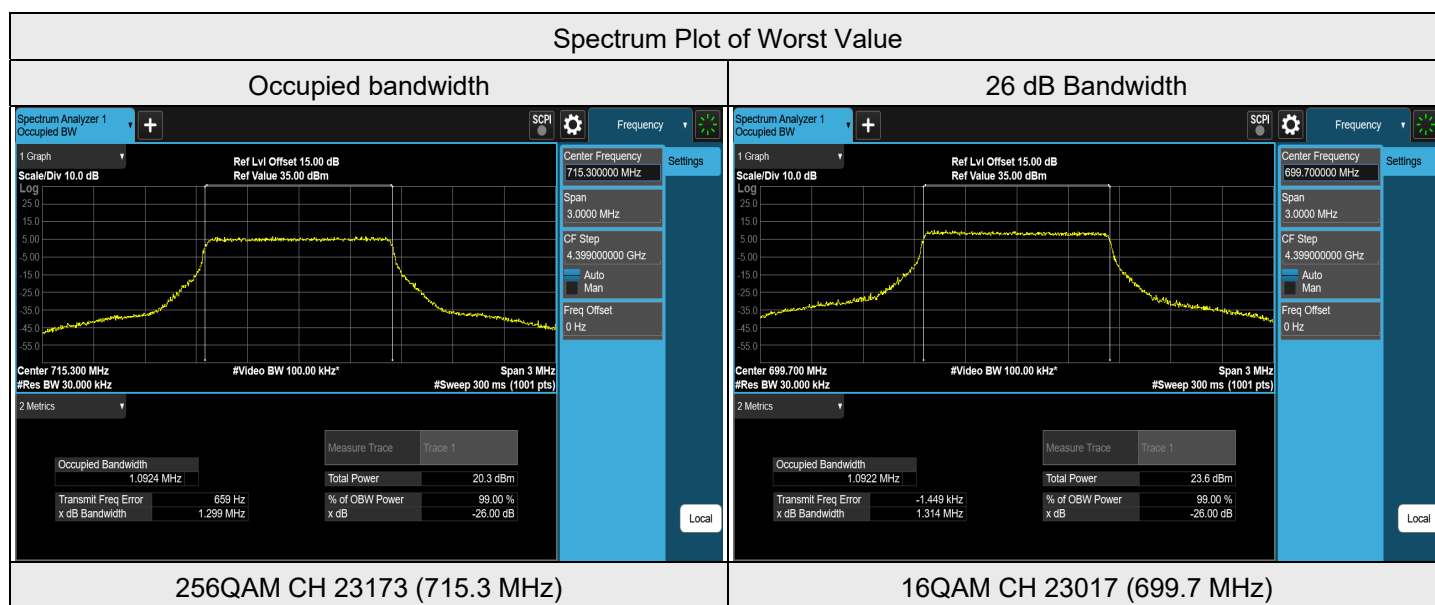
## Spectrum Plot of Worst Value



#### 7.4.4 LTE Band 12

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

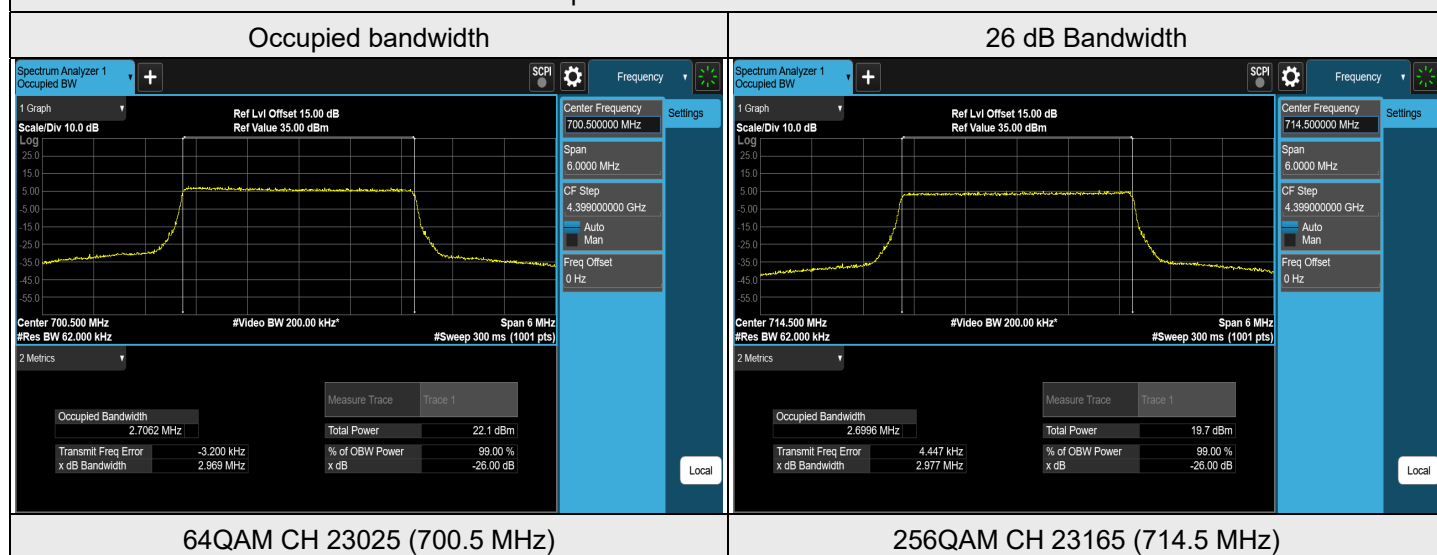
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 23017   | 699.7           | 1.0897                   | 1.296                 |
| QPSK       | 23095   | 707.5           | 1.0894                   | 1.277                 |
| QPSK       | 23173   | 715.3           | 1.0908                   | 1.294                 |
| 16QAM      | 23017   | 699.7           | 1.0922                   | 1.314                 |
| 16QAM      | 23095   | 707.5           | 1.0902                   | 1.293                 |
| 16QAM      | 23173   | 715.3           | 1.0921                   | 1.295                 |
| 64QAM      | 23017   | 699.7           | 1.0896                   | 1.294                 |
| 64QAM      | 23095   | 707.5           | 1.0881                   | 1.285                 |
| 64QAM      | 23173   | 715.3           | 1.0908                   | 1.299                 |
| 256QAM     | 23017   | 699.7           | 1.0903                   | 1.301                 |
| 256QAM     | 23095   | 707.5           | 1.0900                   | 1.301                 |
| 256QAM     | 23173   | 715.3           | 1.0924                   | 1.299                 |



## LTE Band 12, Channel Bandwidth: 3 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 23025   | 700.5           | 2.7047                   | 2.960                 |
| QPSK       | 23095   | 707.5           | 2.6957                   | 2.943                 |
| QPSK       | 23165   | 714.5           | 2.7020                   | 2.967                 |
| 16QAM      | 23025   | 700.5           | 2.7033                   | 2.957                 |
| 16QAM      | 23095   | 707.5           | 2.6950                   | 2.955                 |
| 16QAM      | 23165   | 714.5           | 2.7017                   | 2.943                 |
| 64QAM      | 23025   | 700.5           | 2.7062                   | 2.969                 |
| 64QAM      | 23095   | 707.5           | 2.6951                   | 2.939                 |
| 64QAM      | 23165   | 714.5           | 2.7044                   | 2.937                 |
| 256QAM     | 23025   | 700.5           | 2.7027                   | 2.952                 |
| 256QAM     | 23095   | 707.5           | 2.6946                   | 2.940                 |
| 256QAM     | 23165   | 714.5           | 2.6996                   | 2.977                 |

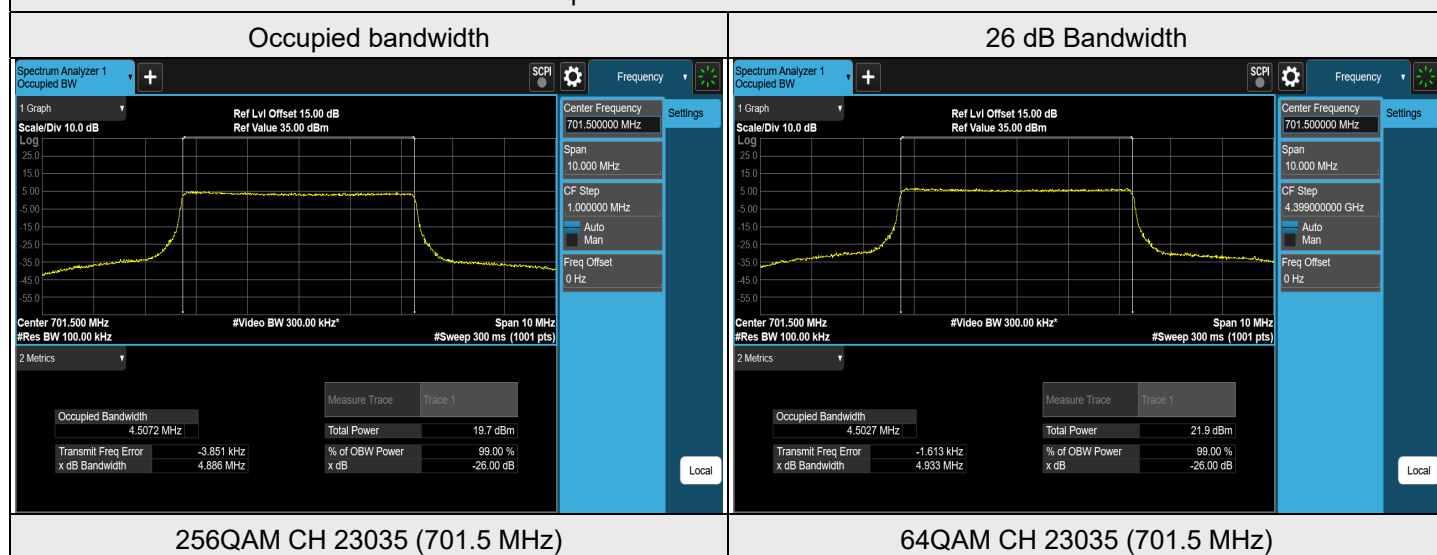
### Spectrum Plot of Worst Value



## LTE Band 12, Channel Bandwidth: 5 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 23035   | 701.5           | 4.5049                   | 4.910                 |
| QPSK       | 23095   | 707.5           | 4.4827                   | 4.856                 |
| QPSK       | 23155   | 713.5           | 4.5042                   | 4.853                 |
| 16QAM      | 23035   | 701.5           | 4.5053                   | 4.908                 |
| 16QAM      | 23095   | 707.5           | 4.4780                   | 4.839                 |
| 16QAM      | 23155   | 713.5           | 4.5044                   | 4.889                 |
| 64QAM      | 23035   | 701.5           | 4.5027                   | 4.933                 |
| 64QAM      | 23095   | 707.5           | 4.4772                   | 4.803                 |
| 64QAM      | 23155   | 713.5           | 4.5018                   | 4.902                 |
| 256QAM     | 23035   | 701.5           | 4.5072                   | 4.886                 |
| 256QAM     | 23095   | 707.5           | 4.4803                   | 4.815                 |
| 256QAM     | 23155   | 713.5           | 4.5031                   | 4.888                 |

### Spectrum Plot of Worst Value

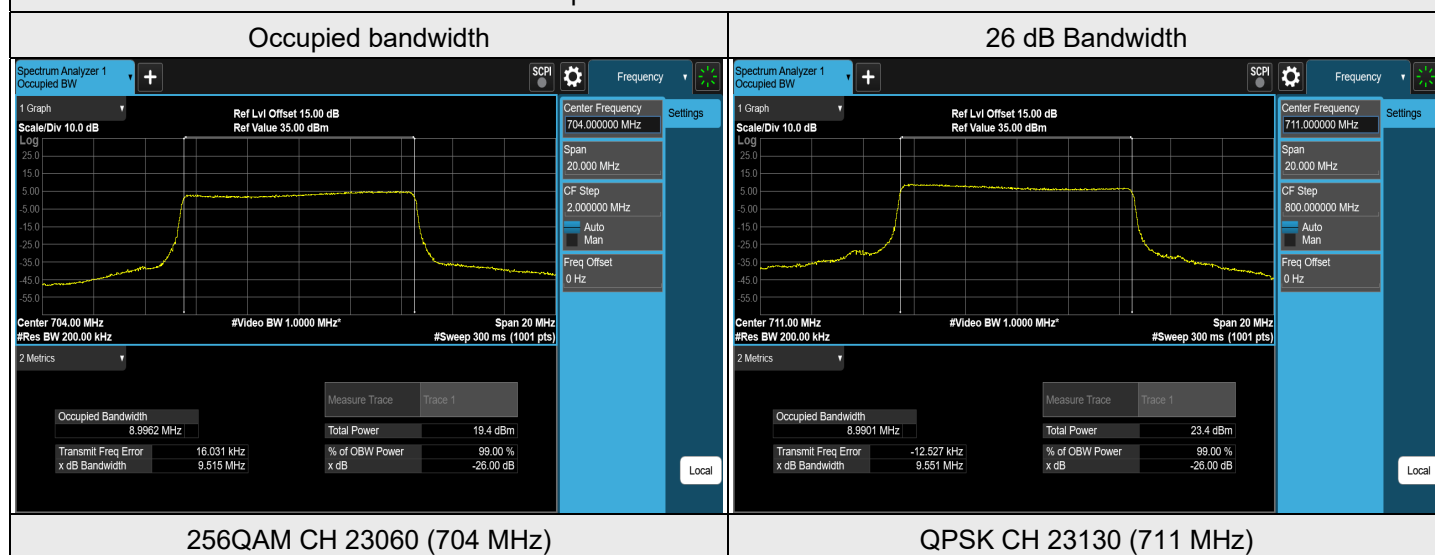




## LTE Band 12, Channel Bandwidth: 10 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 23060   | 704             | 8.9869                   | 9.540                 |
| QPSK       | 23095   | 707.5           | 8.9213                   | 9.493                 |
| QPSK       | 23130   | 711             | 8.9901                   | 9.551                 |
| 16QAM      | 23060   | 704             | 8.9876                   | 9.529                 |
| 16QAM      | 23095   | 707.5           | 8.9204                   | 9.483                 |
| 16QAM      | 23130   | 711             | 8.9948                   | 9.537                 |
| 64QAM      | 23060   | 704             | 8.9917                   | 9.523                 |
| 64QAM      | 23095   | 707.5           | 8.9298                   | 9.479                 |
| 64QAM      | 23130   | 711             | 8.9931                   | 9.520                 |
| 256QAM     | 23060   | 704             | 8.9962                   | 9.515                 |
| 256QAM     | 23095   | 707.5           | 8.9194                   | 9.487                 |
| 256QAM     | 23130   | 711             | 8.9862                   | 9.529                 |

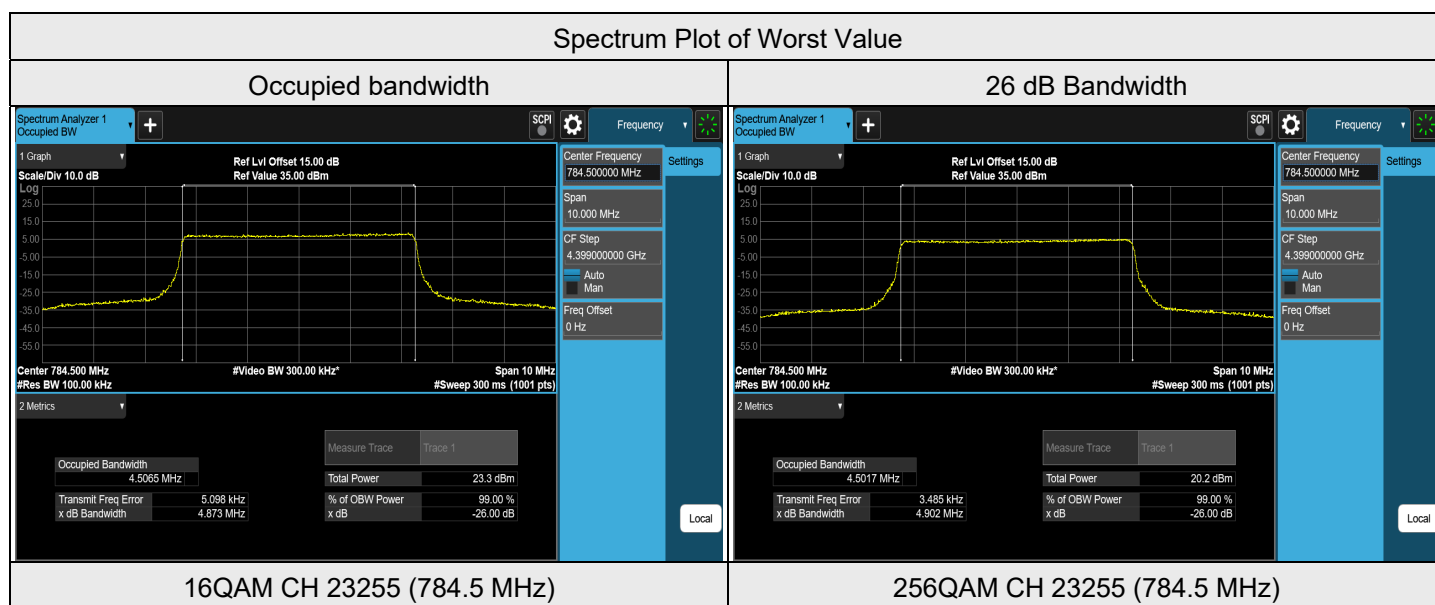
### Spectrum Plot of Worst Value



#### 7.4.5 LTE Band 13

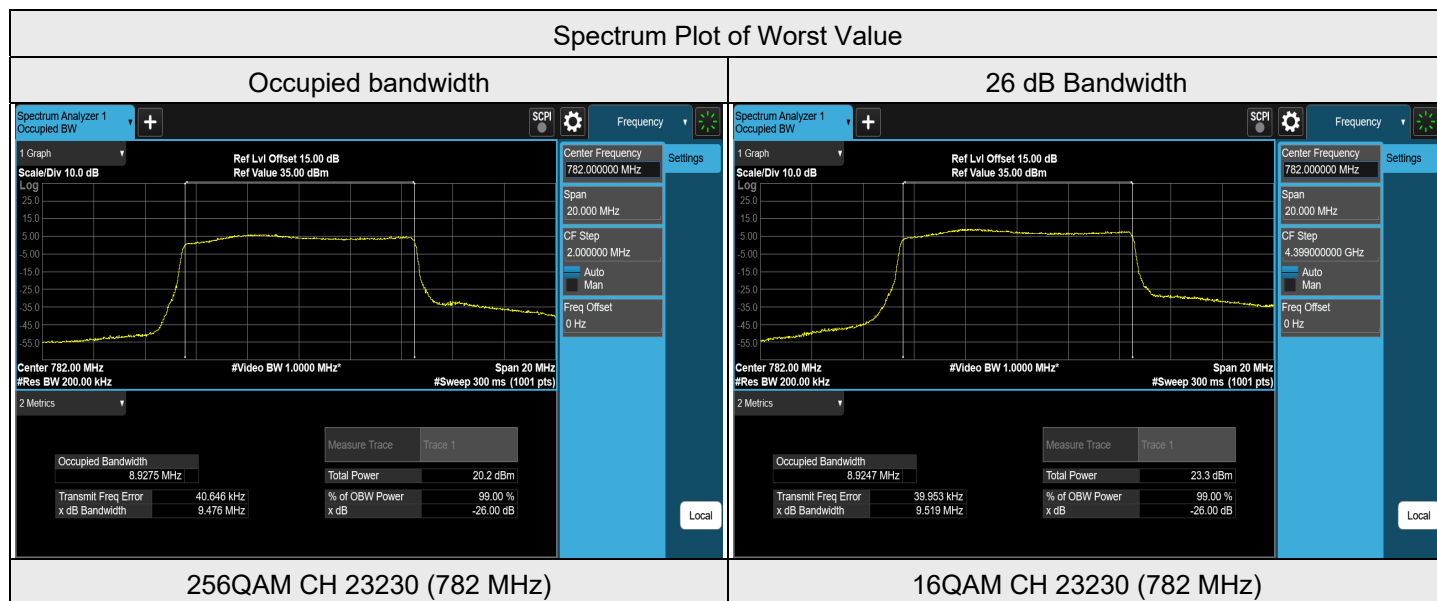
##### LTE Band 13, Channel Bandwidth: 5 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 23205   | 779.5           | 4.4632                   | 4.780                 |
| QPSK       | 23230   | 782             | 4.4936                   | 4.834                 |
| QPSK       | 23255   | 784.5           | 4.5046                   | 4.873                 |
| 16QAM      | 23205   | 779.5           | 4.4622                   | 4.779                 |
| 16QAM      | 23230   | 782             | 4.4891                   | 4.807                 |
| 16QAM      | 23255   | 784.5           | 4.5065                   | 4.873                 |
| 64QAM      | 23205   | 779.5           | 4.4659                   | 4.829                 |
| 64QAM      | 23230   | 782             | 4.4892                   | 4.817                 |
| 64QAM      | 23255   | 784.5           | 4.5028                   | 4.870                 |
| 256QAM     | 23205   | 779.5           | 4.4616                   | 4.768                 |
| 256QAM     | 23230   | 782             | 4.4909                   | 4.829                 |
| 256QAM     | 23255   | 784.5           | 4.5017                   | 4.902                 |



# LTE Band 13, Channel Bandwidth: 10 MHz

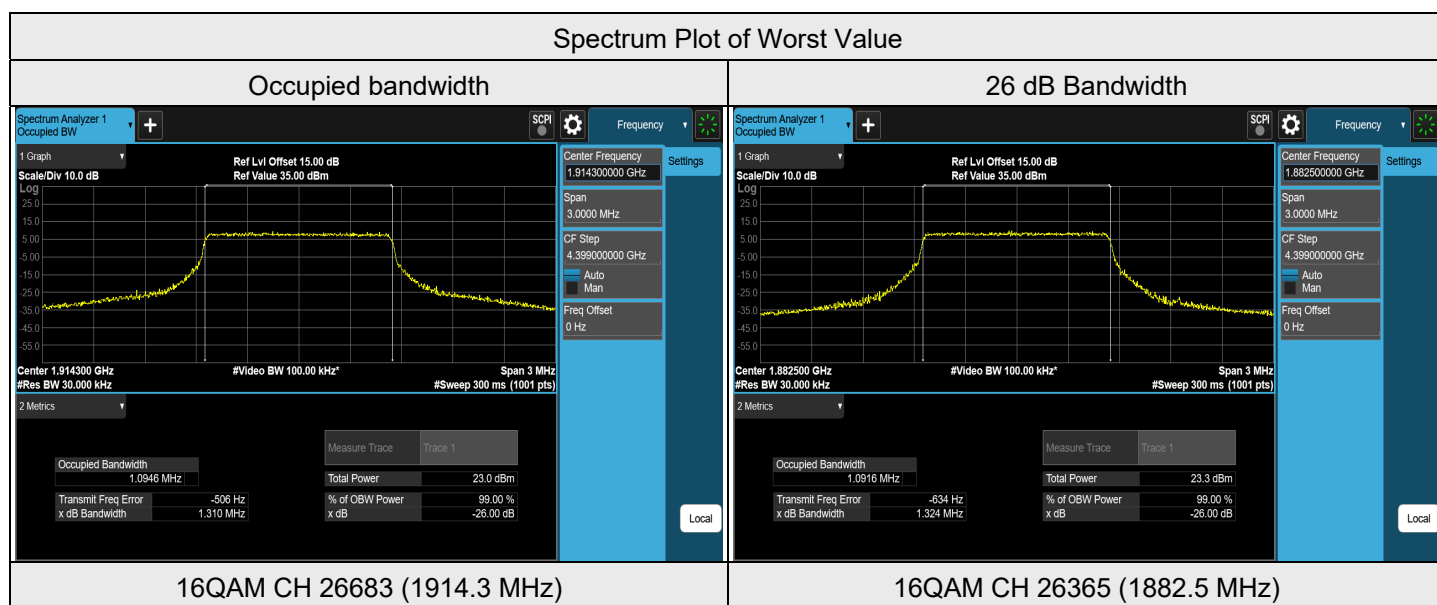
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 23230   | 782             | 8.9208                   | 9.513                 |
| 16QAM      | 23230   | 782             | 8.9247                   | 9.519                 |
| 64QAM      | 23230   | 782             | 8.9258                   | 9.483                 |
| 256QAM     | 23230   | 782             | 8.9275                   | 9.476                 |



#### 7.4.6 LTE Band 25

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

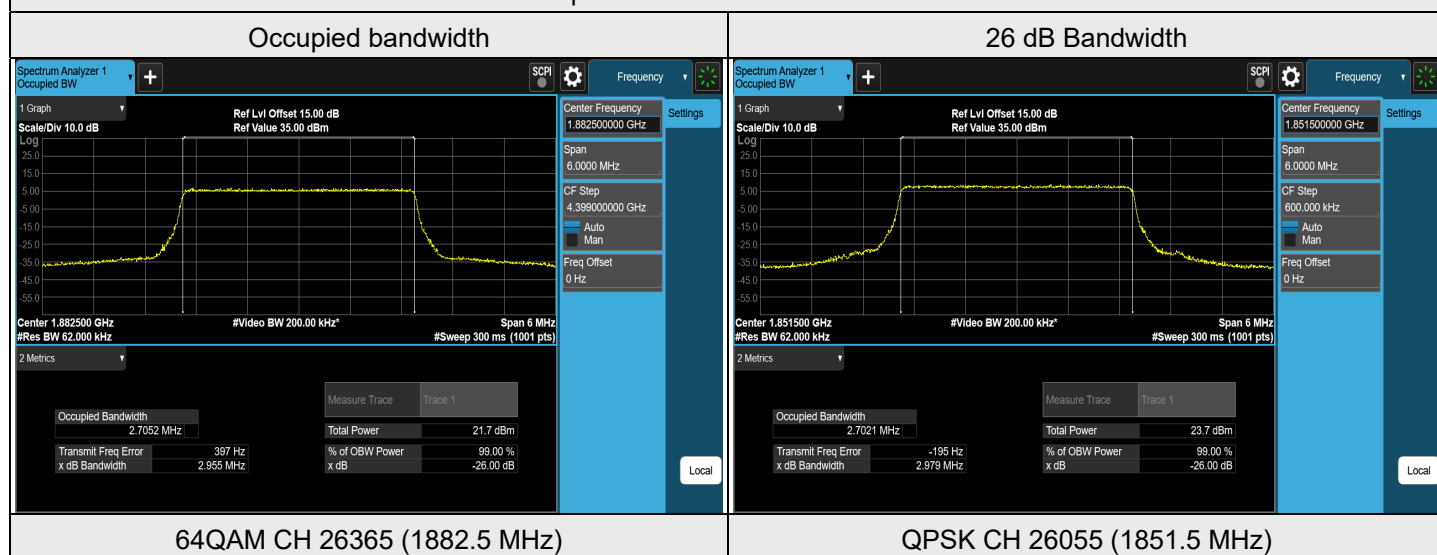
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 26047   | 1850.7          | 1.0893                   | 1.302                 |
| QPSK       | 26365   | 1882.5          | 1.0924                   | 1.286                 |
| QPSK       | 26683   | 1914.3          | 1.0910                   | 1.288                 |
| 16QAM      | 26047   | 1850.7          | 1.0914                   | 1.312                 |
| 16QAM      | 26365   | 1882.5          | 1.0916                   | 1.324                 |
| 16QAM      | 26683   | 1914.3          | 1.0946                   | 1.310                 |
| 64QAM      | 26047   | 1850.7          | 1.0893                   | 1.306                 |
| 64QAM      | 26365   | 1882.5          | 1.0903                   | 1.312                 |
| 64QAM      | 26683   | 1914.3          | 1.0893                   | 1.304                 |
| 256QAM     | 26047   | 1850.7          | 1.0899                   | 1.309                 |
| 256QAM     | 26365   | 1882.5          | 1.0917                   | 1.296                 |
| 256QAM     | 26683   | 1914.3          | 1.0892                   | 1.281                 |



## LTE Band 25, Channel Bandwidth: 3 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 26055   | 1851.5          | 2.7021                   | 2.979                 |
| QPSK       | 26365   | 1882.5          | 2.7035                   | 2.953                 |
| QPSK       | 26675   | 1913.5          | 2.7042                   | 2.957                 |
| 16QAM      | 26055   | 1851.5          | 2.7013                   | 2.962                 |
| 16QAM      | 26365   | 1882.5          | 2.7046                   | 2.963                 |
| 16QAM      | 26675   | 1913.5          | 2.7005                   | 2.962                 |
| 64QAM      | 26055   | 1851.5          | 2.7031                   | 2.952                 |
| 64QAM      | 26365   | 1882.5          | 2.7052                   | 2.955                 |
| 64QAM      | 26675   | 1913.5          | 2.7006                   | 2.951                 |
| 256QAM     | 26055   | 1851.5          | 2.7024                   | 2.962                 |
| 256QAM     | 26365   | 1882.5          | 2.7026                   | 2.947                 |
| 256QAM     | 26675   | 1913.5          | 2.7035                   | 2.967                 |

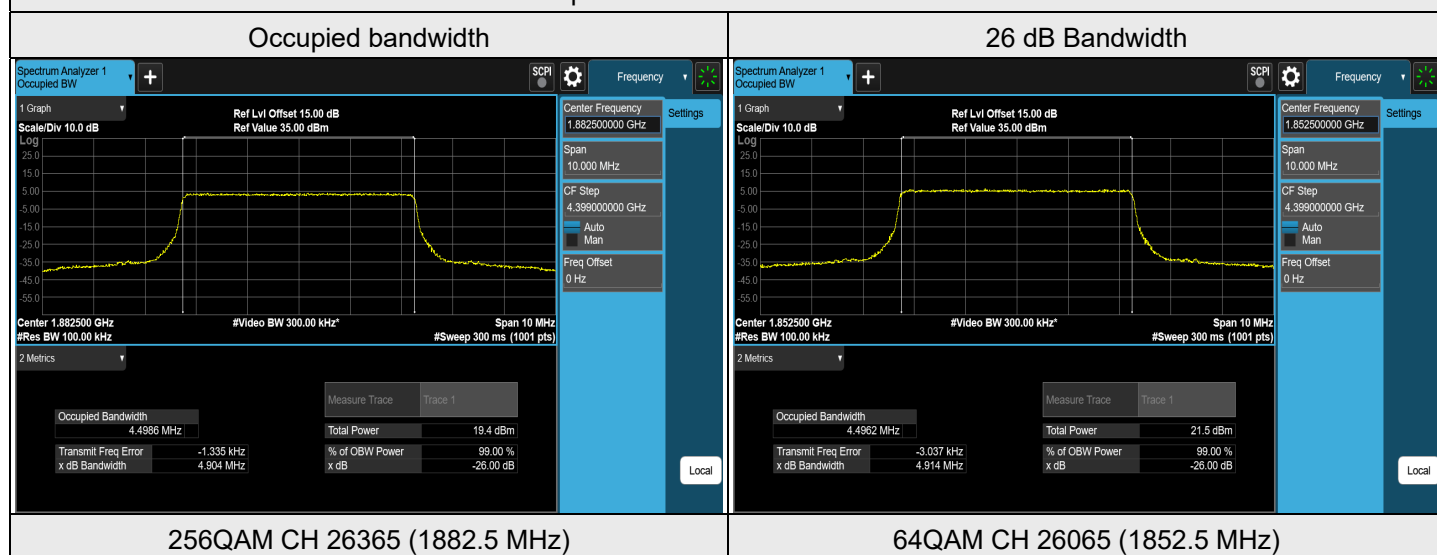
### Spectrum Plot of Worst Value



## LTE Band 25, Channel Bandwidth: 5 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 26065   | 1852.5          | 4.4928                   | 4.890                 |
| QPSK       | 26365   | 1882.5          | 4.4927                   | 4.858                 |
| QPSK       | 26665   | 1912.5          | 4.4924                   | 4.870                 |
| 16QAM      | 26065   | 1852.5          | 4.4957                   | 4.864                 |
| 16QAM      | 26365   | 1882.5          | 4.4952                   | 4.902                 |
| 16QAM      | 26665   | 1912.5          | 4.4944                   | 4.855                 |
| 64QAM      | 26065   | 1852.5          | 4.4962                   | 4.914                 |
| 64QAM      | 26365   | 1882.5          | 4.4975                   | 4.888                 |
| 64QAM      | 26665   | 1912.5          | 4.4865                   | 4.842                 |
| 256QAM     | 26065   | 1852.5          | 4.4983                   | 4.885                 |
| 256QAM     | 26365   | 1882.5          | 4.4986                   | 4.904                 |
| 256QAM     | 26665   | 1912.5          | 4.4932                   | 4.882                 |

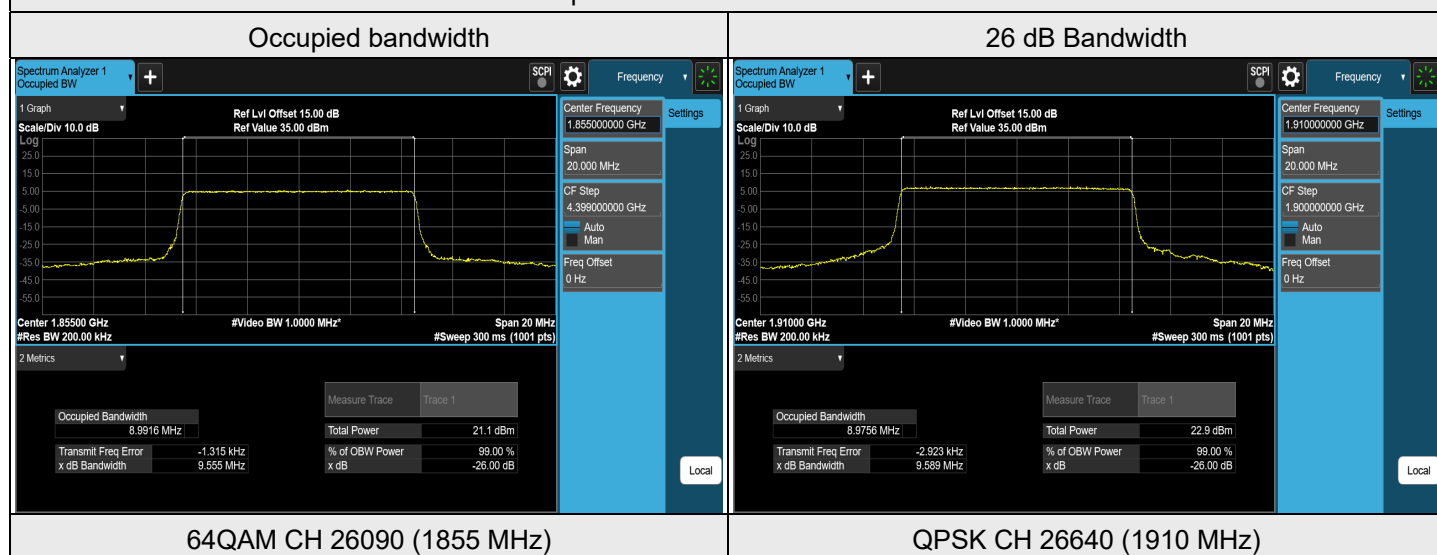
### Spectrum Plot of Worst Value



## LTE Band 25, Channel Bandwidth: 10 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 26090   | 1855            | 8.9875                   | 9.570                 |
| QPSK       | 26365   | 1882.5          | 8.9781                   | 9.543                 |
| QPSK       | 26640   | 1910            | 8.9756                   | 9.589                 |
| 16QAM      | 26090   | 1855            | 8.9793                   | 9.562                 |
| 16QAM      | 26365   | 1882.5          | 8.9849                   | 9.580                 |
| 16QAM      | 26640   | 1910            | 8.9778                   | 9.563                 |
| 64QAM      | 26090   | 1855            | 8.9916                   | 9.555                 |
| 64QAM      | 26365   | 1882.5          | 8.9806                   | 9.581                 |
| 64QAM      | 26640   | 1910            | 8.9765                   | 9.546                 |
| 256QAM     | 26090   | 1855            | 8.9861                   | 9.550                 |
| 256QAM     | 26365   | 1882.5          | 8.9845                   | 9.550                 |
| 256QAM     | 26640   | 1910            | 8.9781                   | 9.553                 |

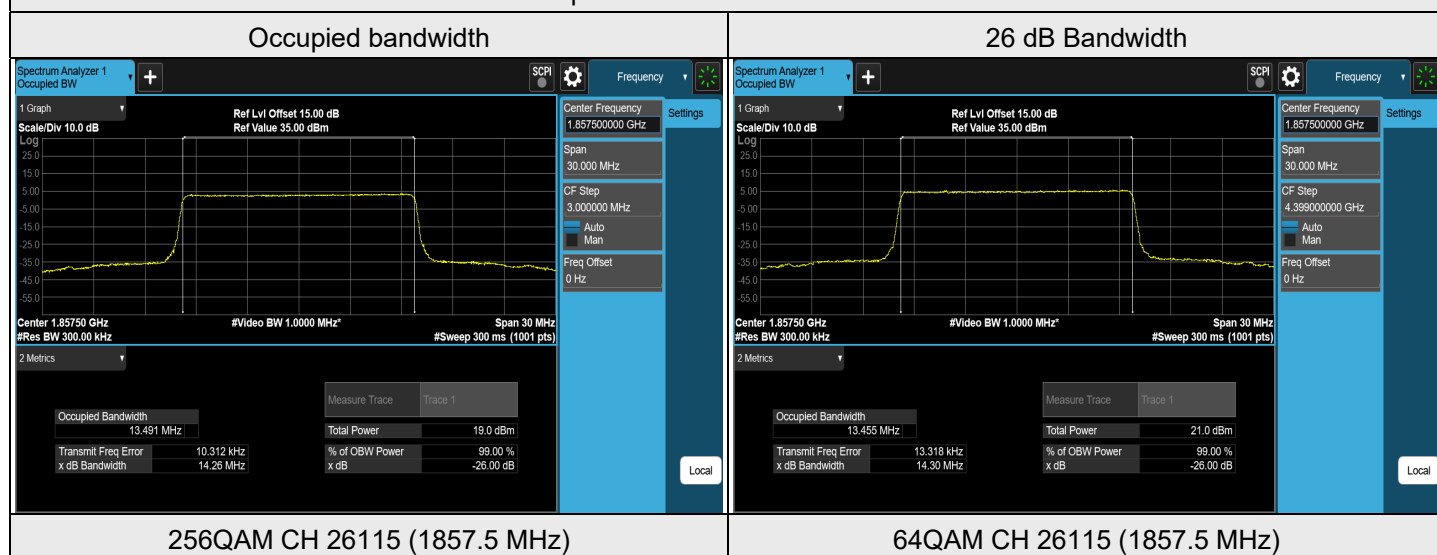
### Spectrum Plot of Worst Value



## LTE Band 25, Channel Bandwidth: 15 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 26115   | 1857.5          | 13.4700                  | 14.270                |
| QPSK       | 26365   | 1882.5          | 13.4694                  | 14.289                |
| QPSK       | 26615   | 1907.5          | 13.4715                  | 14.271                |
| 16QAM      | 26115   | 1857.5          | 13.4711                  | 14.267                |
| 16QAM      | 26365   | 1882.5          | 13.4680                  | 14.278                |
| 16QAM      | 26615   | 1907.5          | 13.4681                  | 14.292                |
| 64QAM      | 26115   | 1857.5          | 13.4554                  | 14.301                |
| 64QAM      | 26365   | 1882.5          | 13.4692                  | 14.300                |
| 64QAM      | 26615   | 1907.5          | 13.4538                  | 14.254                |
| 256QAM     | 26115   | 1857.5          | 13.4912                  | 14.262                |
| 256QAM     | 26365   | 1882.5          | 13.4717                  | 14.255                |
| 256QAM     | 26615   | 1907.5          | 13.4650                  | 14.252                |

### Spectrum Plot of Worst Value

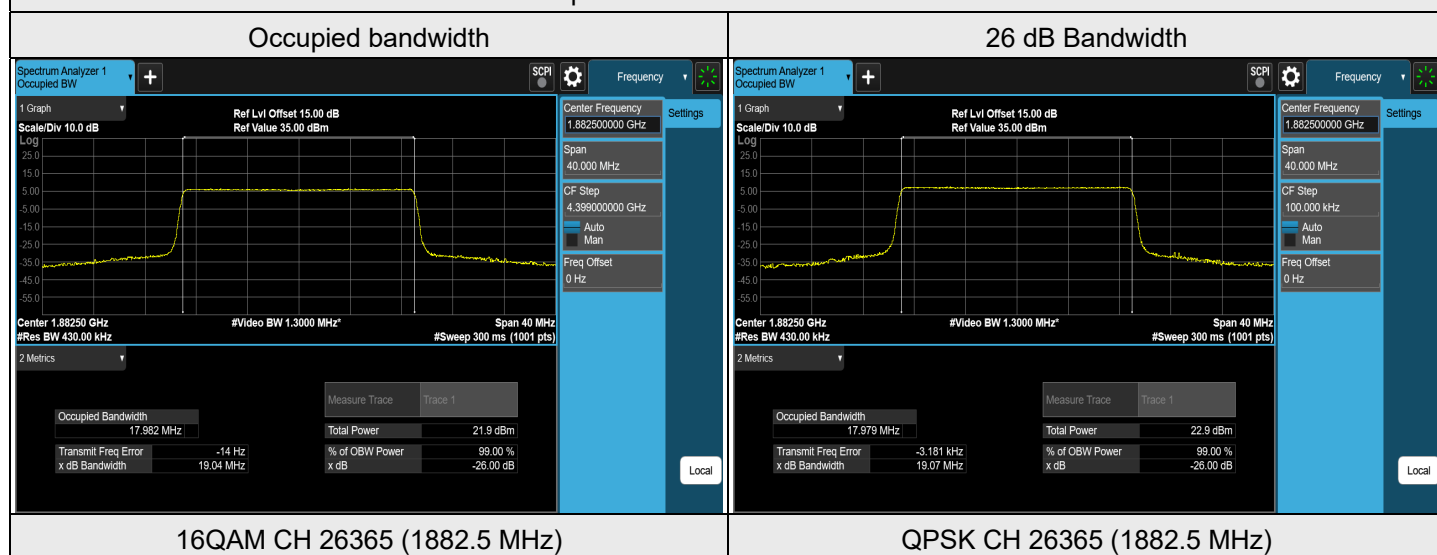




### LTE Band 25, Channel Bandwidth: 20 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 26140   | 1860            | 17.9623                  | 19.056                |
| QPSK       | 26365   | 1882.5          | 17.9788                  | 19.073                |
| QPSK       | 26590   | 1905            | 17.9674                  | 19.050                |
| 16QAM      | 26140   | 1860            | 17.9715                  | 19.039                |
| 16QAM      | 26365   | 1882.5          | 17.9819                  | 19.036                |
| 16QAM      | 26590   | 1905            | 17.9560                  | 19.050                |
| 64QAM      | 26140   | 1860            | 17.9659                  | 19.035                |
| 64QAM      | 26365   | 1882.5          | 17.9772                  | 19.073                |
| 64QAM      | 26590   | 1905            | 17.9644                  | 19.039                |
| 256QAM     | 26140   | 1860            | 17.9717                  | 19.057                |
| 256QAM     | 26365   | 1882.5          | 17.9750                  | 19.071                |
| 256QAM     | 26590   | 1905            | 17.9504                  | 19.030                |

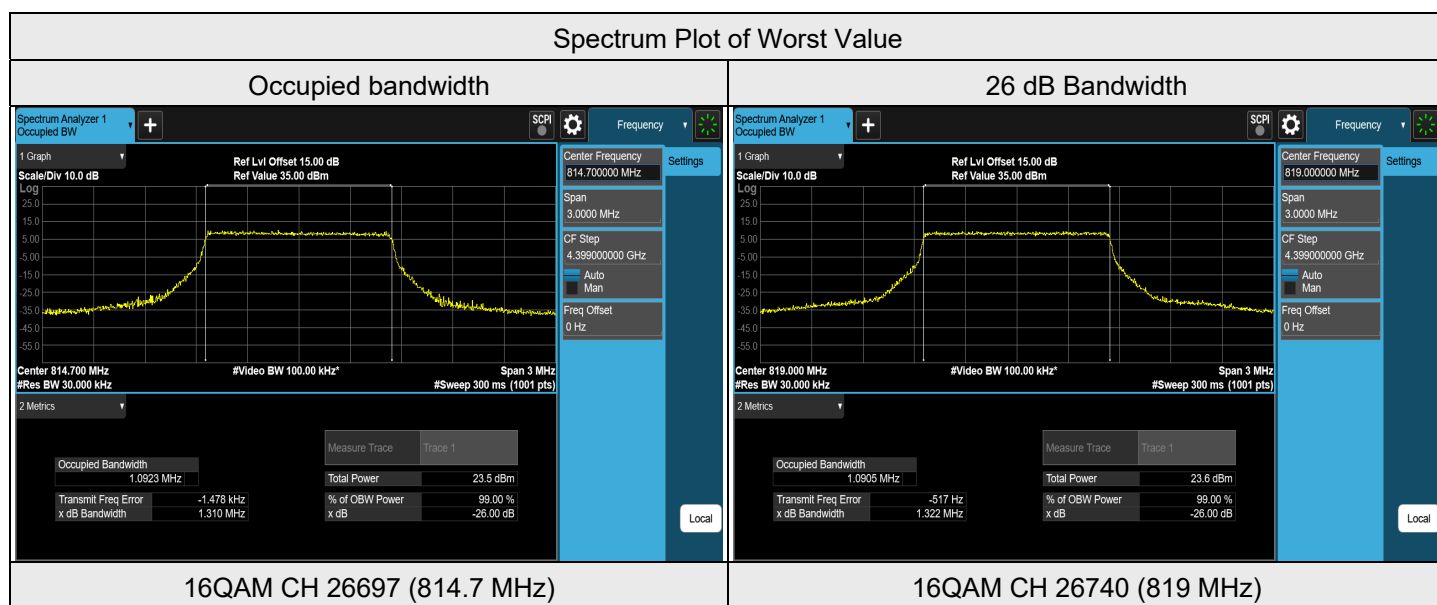
### Spectrum Plot of Worst Value



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

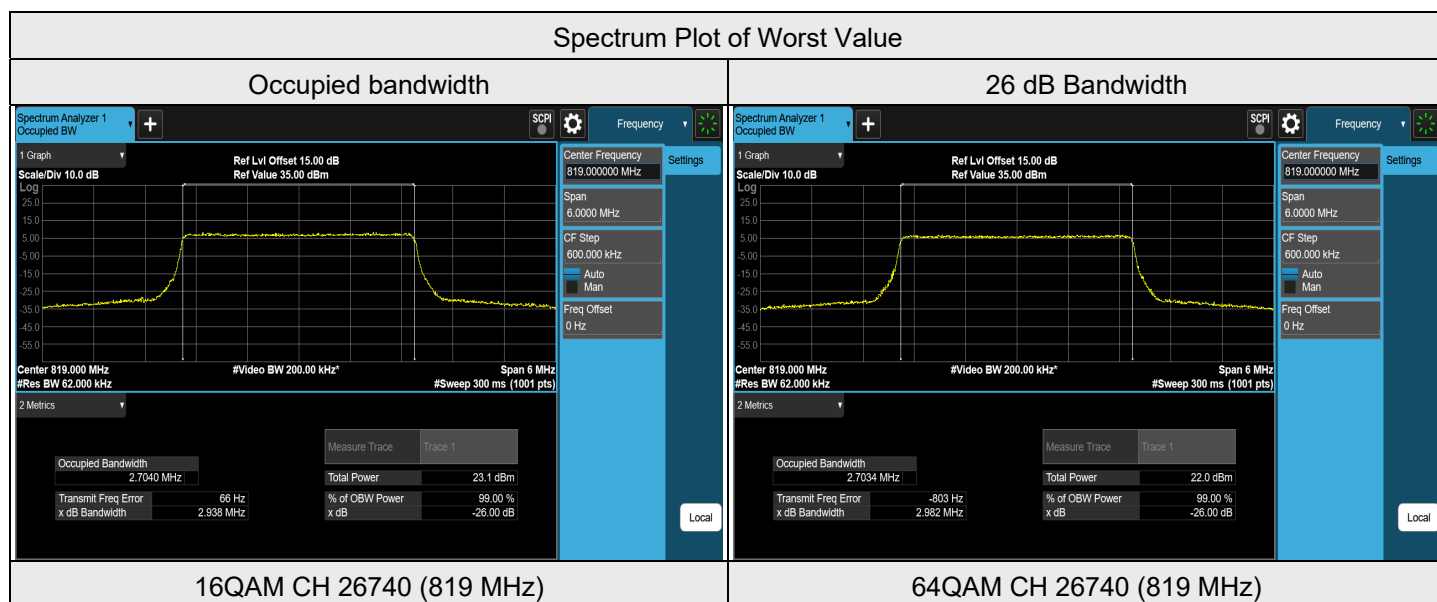
##### LTE Band 26 (814 MHz ~ 824 MHz), Channel Bandwidth: 1.4 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 26697   | 814.7           | 1.0911                   | 1.289                 |
| QPSK       | 26740   | 819             | 1.0920                   | 1.287                 |
| QPSK       | 26783   | 823.3           | 1.0912                   | 1.284                 |
| 16QAM      | 26697   | 814.7           | 1.0923                   | 1.310                 |
| 16QAM      | 26740   | 819             | 1.0905                   | 1.322                 |
| 16QAM      | 26783   | 823.3           | 1.0919                   | 1.310                 |
| 64QAM      | 26697   | 814.7           | 1.0905                   | 1.298                 |
| 64QAM      | 26740   | 819             | 1.0917                   | 1.288                 |
| 64QAM      | 26783   | 823.3           | 1.0899                   | 1.294                 |
| 256QAM     | 26697   | 814.7           | 1.0895                   | 1.302                 |
| 256QAM     | 26740   | 819             | 1.0906                   | 1.307                 |
| 256QAM     | 26783   | 823.3           | 1.0902                   | 1.300                 |



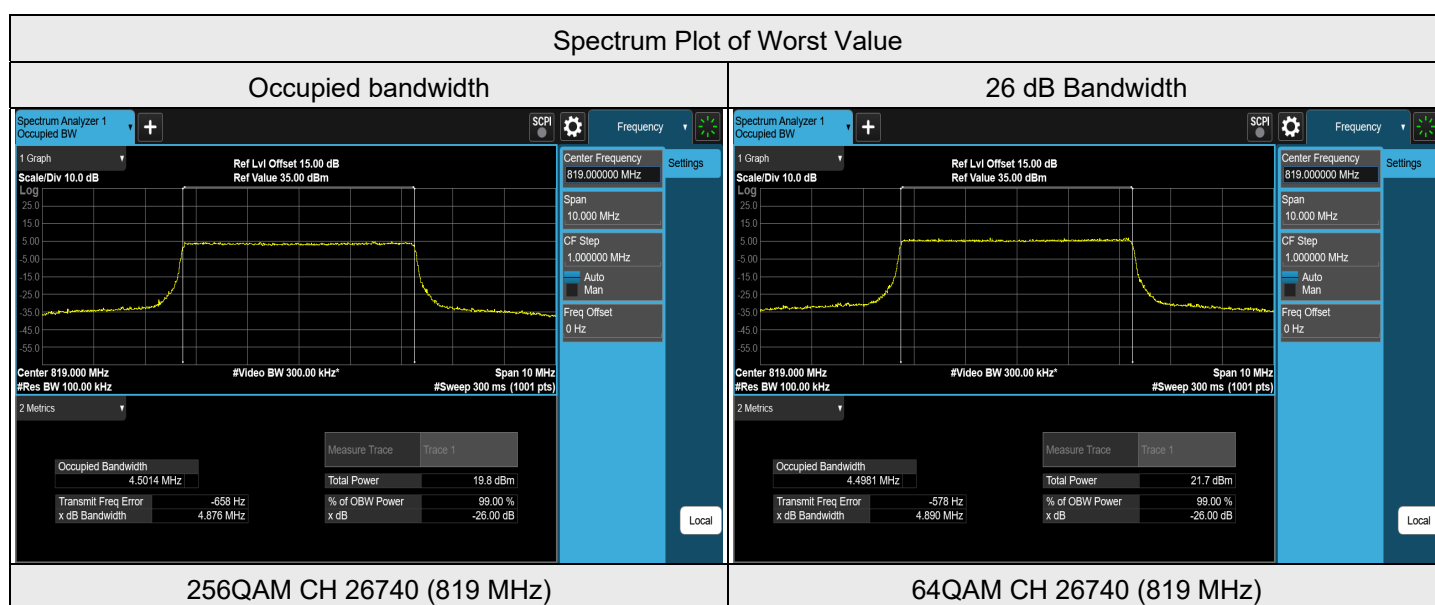
# LTE Band 26 (814 MHz ~ 824 MHz), Channel Bandwidth: 3 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 26705   | 815.5           | 2.7013                   | 2.942                 |
| QPSK       | 26740   | 819             | 2.7016                   | 2.947                 |
| QPSK       | 26775   | 822.5           | 2.6998                   | 2.946                 |
| 16QAM      | 26705   | 815.5           | 2.6970                   | 2.942                 |
| 16QAM      | 26740   | 819             | 2.7040                   | 2.938                 |
| 16QAM      | 26775   | 822.5           | 2.7004                   | 2.957                 |
| 64QAM      | 26705   | 815.5           | 2.6997                   | 2.973                 |
| 64QAM      | 26740   | 819             | 2.7034                   | 2.982                 |
| 64QAM      | 26775   | 822.5           | 2.7000                   | 2.961                 |
| 256QAM     | 26705   | 815.5           | 2.6991                   | 2.923                 |
| 256QAM     | 26740   | 819             | 2.7032                   | 2.947                 |
| 256QAM     | 26775   | 822.5           | 2.7011                   | 2.960                 |



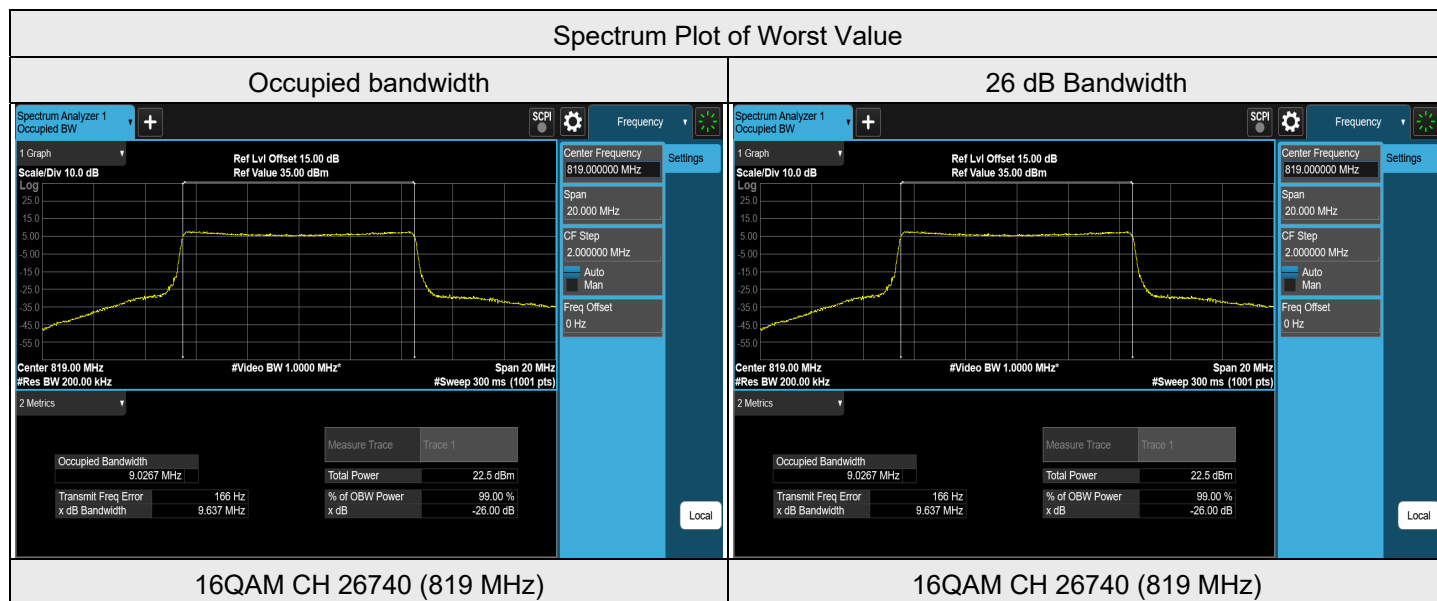
# LTE Band 26 (814 MHz ~ 824 MHz), Channel Bandwidth: 5 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 26715   | 816.5           | 4.4918                   | 4.823                 |
| QPSK       | 26740   | 819             | 4.5001                   | 4.873                 |
| QPSK       | 26765   | 821.5           | 4.4909                   | 4.869                 |
| 16QAM      | 26715   | 816.5           | 4.4962                   | 4.872                 |
| 16QAM      | 26740   | 819             | 4.5004                   | 4.874                 |
| 16QAM      | 26765   | 821.5           | 4.4942                   | 4.857                 |
| 64QAM      | 26715   | 816.5           | 4.4999                   | 4.843                 |
| 64QAM      | 26740   | 819             | 4.4981                   | 4.890                 |
| 64QAM      | 26765   | 821.5           | 4.4929                   | 4.846                 |
| 256QAM     | 26715   | 816.5           | 4.4994                   | 4.836                 |
| 256QAM     | 26740   | 819             | 4.5014                   | 4.876                 |
| 256QAM     | 26765   | 821.5           | 4.4990                   | 4.836                 |



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

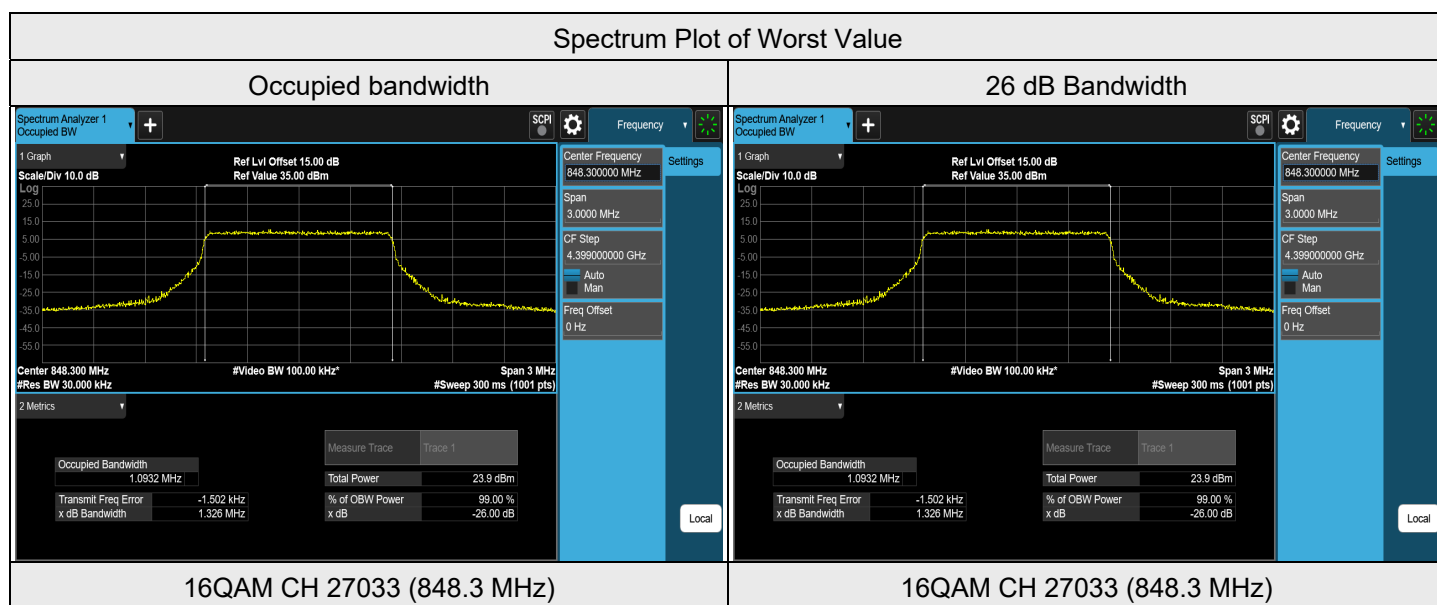
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 26740   | 819             | 9.0217                   | 9.568                 |
| 16QAM      | 26740   | 819             | 9.0267                   | 9.637                 |
| 64QAM      | 26740   | 819             | 9.0227                   | 9.569                 |
| 256QAM     | 26740   | 819             | 9.0223                   | 9.598                 |



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

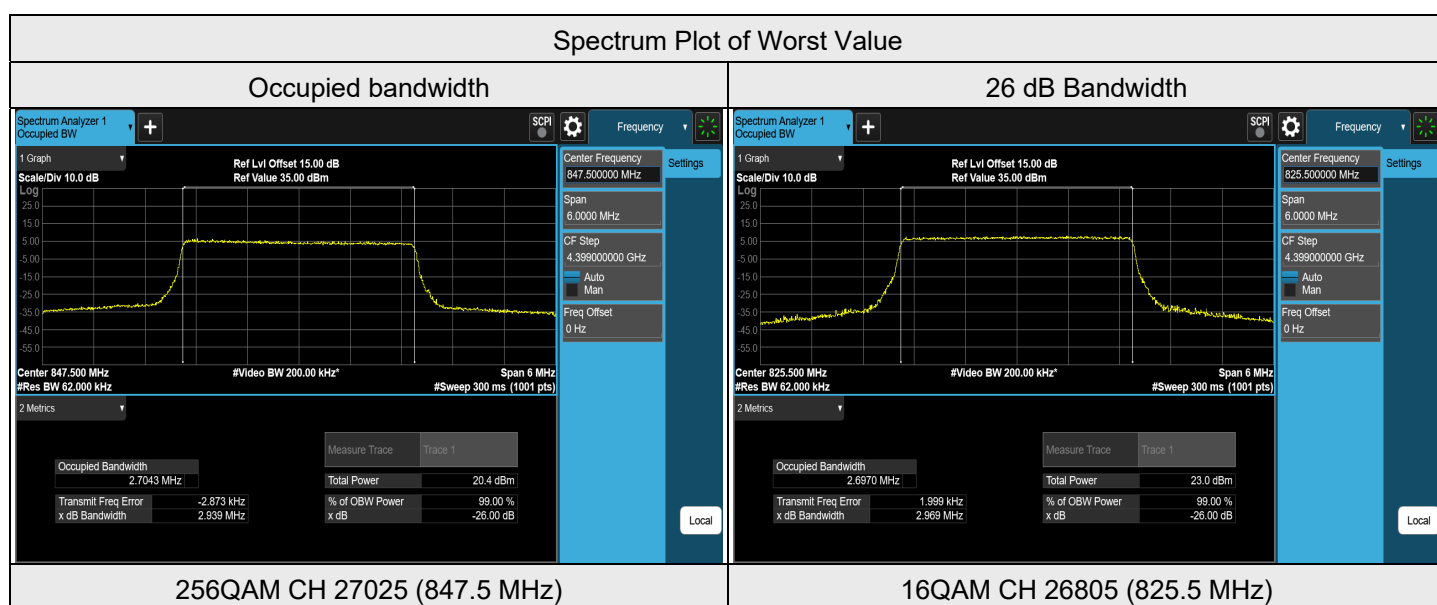
##### LTE Band 26 (824 MHz ~ 849 MHz), Channel Bandwidth: 1.4 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 26797   | 824.7           | 1.0905                   | 1.301                 |
| QPSK       | 26915   | 836.5           | 1.0904                   | 1.312                 |
| QPSK       | 27033   | 848.3           | 1.0920                   | 1.282                 |
| 16QAM      | 26797   | 824.7           | 1.0915                   | 1.317                 |
| 16QAM      | 26915   | 836.5           | 1.0927                   | 1.303                 |
| 16QAM      | 27033   | 848.3           | 1.0932                   | 1.326                 |
| 64QAM      | 26797   | 824.7           | 1.0897                   | 1.301                 |
| 64QAM      | 26915   | 836.5           | 1.0920                   | 1.305                 |
| 64QAM      | 27033   | 848.3           | 1.0914                   | 1.308                 |
| 256QAM     | 26797   | 824.7           | 1.0912                   | 1.322                 |
| 256QAM     | 26915   | 836.5           | 1.0910                   | 1.296                 |
| 256QAM     | 27033   | 848.3           | 1.0905                   | 1.311                 |



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

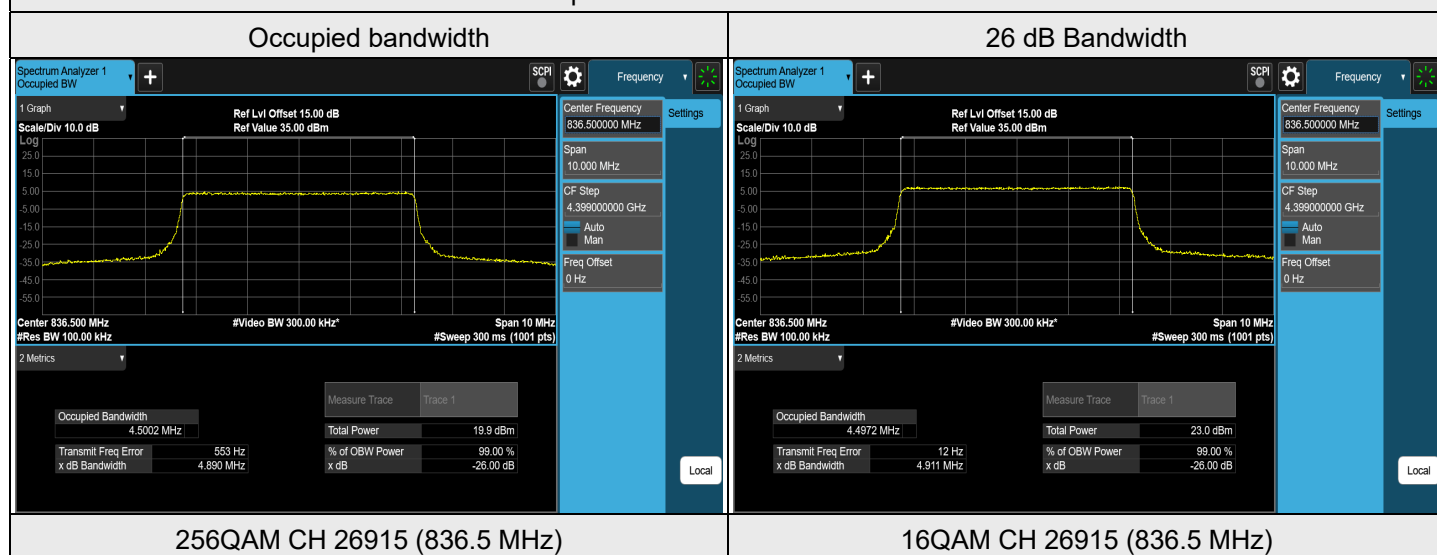
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 26805   | 825.5           | 2.6986                   | 2.946                 |
| QPSK       | 26915   | 836.5           | 2.7024                   | 2.962                 |
| QPSK       | 27025   | 847.5           | 2.7023                   | 2.964                 |
| 16QAM      | 26805   | 825.5           | 2.6970                   | 2.969                 |
| 16QAM      | 26915   | 836.5           | 2.7019                   | 2.952                 |
| 16QAM      | 27025   | 847.5           | 2.7033                   | 2.940                 |
| 64QAM      | 26805   | 825.5           | 2.7004                   | 2.939                 |
| 64QAM      | 26915   | 836.5           | 2.7039                   | 2.945                 |
| 64QAM      | 27025   | 847.5           | 2.7032                   | 2.953                 |
| 256QAM     | 26805   | 825.5           | 2.6988                   | 2.953                 |
| 256QAM     | 26915   | 836.5           | 2.7035                   | 2.950                 |
| 256QAM     | 27025   | 847.5           | 2.7043                   | 2.939                 |



### 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           | 4.4855                   | 4.831                 |
| QPSK       | 26915   | 836.5           | 4.4996                   | 4.873                 |
| QPSK       | 27015   | 846.5           | 4.4947                   | 4.839                 |
| 16QAM      | 26815   | 826.5           | 4.4840                   | 4.832                 |
| 16QAM      | 26915   | 836.5           | 4.4972                   | 4.911                 |
| 16QAM      | 27015   | 846.5           | 4.4951                   | 4.838                 |
| 64QAM      | 26815   | 826.5           | 4.4839                   | 4.814                 |
| 64QAM      | 26915   | 836.5           | 4.4994                   | 4.893                 |
| 64QAM      | 27015   | 846.5           | 4.4922                   | 4.846                 |
| 256QAM     | 26815   | 826.5           | 4.4854                   | 4.842                 |
| 256QAM     | 26915   | 836.5           | 4.5002                   | 4.890                 |
| 256QAM     | 27015   | 846.5           | 4.4962                   | 4.836                 |

### Spectrum Plot of Worst Value

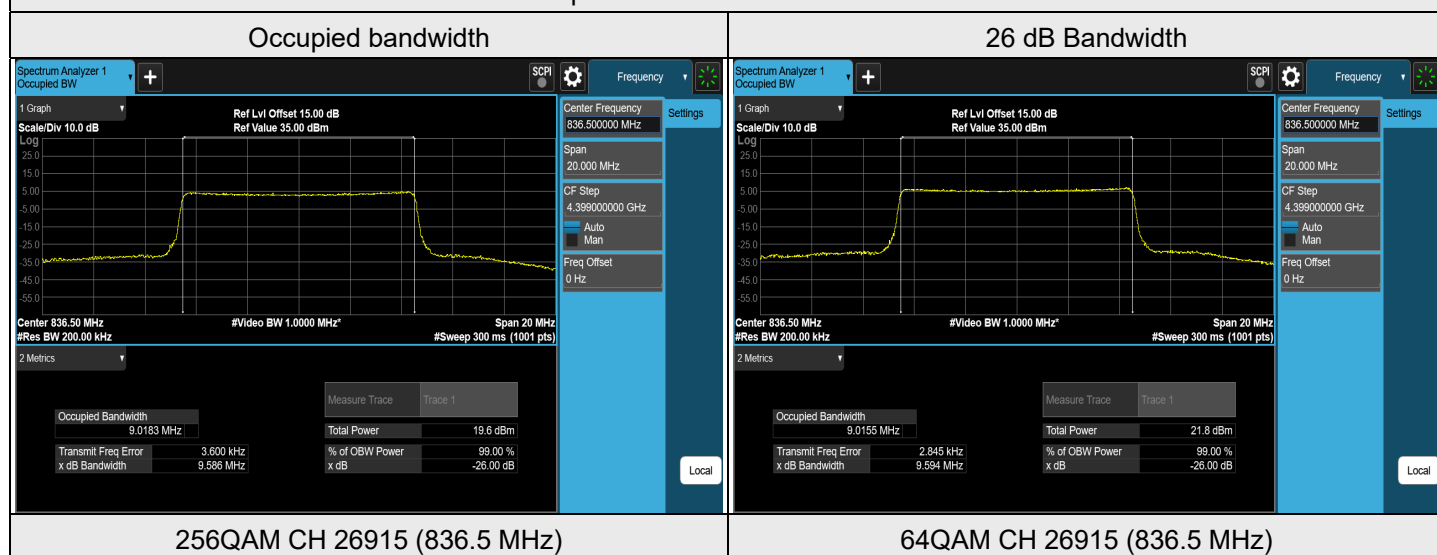




# LTE Band 26 (824 MHz ~ 849 MHz), Channel Bandwidth: 10 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 26840   | 829             | 8.9385                   | 9.488                 |
| QPSK       | 26915   | 836.5           | 9.0128                   | 9.577                 |
| QPSK       | 26990   | 844             | 8.9151                   | 9.465                 |
| 16QAM      | 26840   | 829             | 8.9392                   | 9.533                 |
| 16QAM      | 26915   | 836.5           | 9.0173                   | 9.552                 |
| 16QAM      | 26990   | 844             | 8.9119                   | 9.477                 |
| 64QAM      | 26840   | 829             | 8.9435                   | 9.484                 |
| 64QAM      | 26915   | 836.5           | 9.0155                   | 9.594                 |
| 64QAM      | 26990   | 844             | 8.9129                   | 9.469                 |
| 256QAM     | 26840   | 829             | 8.9476                   | 9.492                 |
| 256QAM     | 26915   | 836.5           | 9.0183                   | 9.586                 |
| 256QAM     | 26990   | 844             | 8.9070                   | 9.459                 |

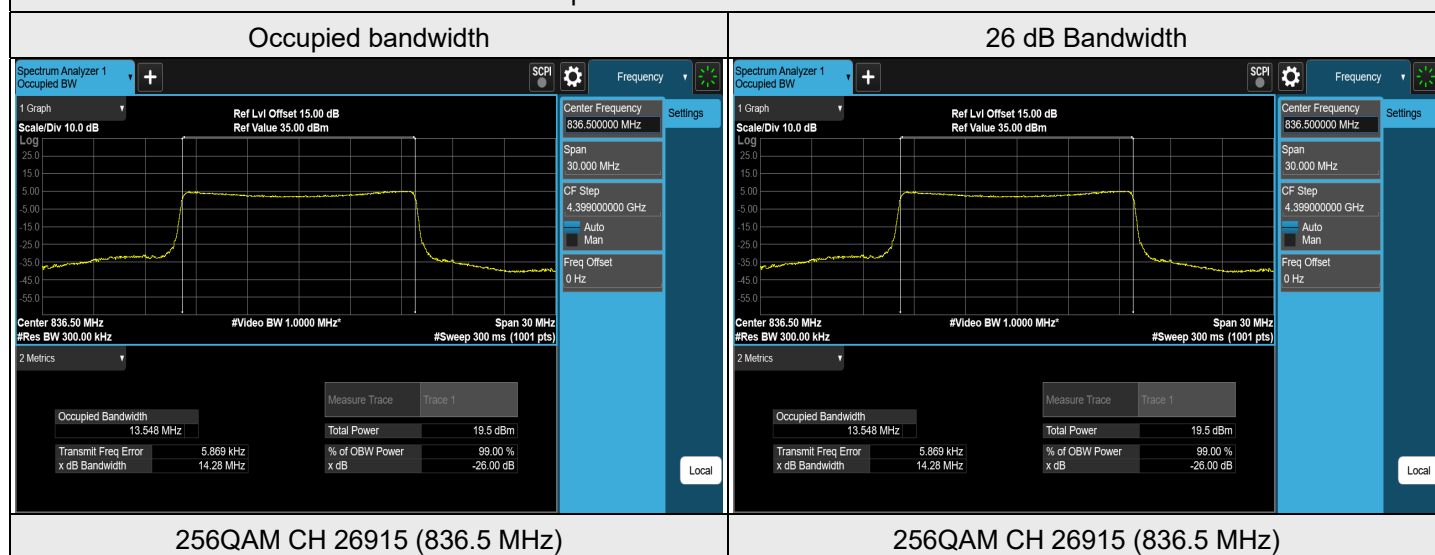
## Spectrum Plot of Worst Value



### 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           | 13.4551                  | 14.214                |
| QPSK       | 26915   | 836.5           | 13.5356                  | 14.245                |
| QPSK       | 26965   | 841.5           | 13.3725                  | 14.183                |
| 16QAM      | 26865   | 831.5           | 13.4581                  | 14.215                |
| 16QAM      | 26915   | 836.5           | 13.5438                  | 14.263                |
| 16QAM      | 26965   | 841.5           | 13.3636                  | 14.180                |
| 64QAM      | 26865   | 831.5           | 13.4486                  | 14.215                |
| 64QAM      | 26915   | 836.5           | 13.5356                  | 14.268                |
| 64QAM      | 26965   | 841.5           | 13.3637                  | 14.175                |
| 256QAM     | 26865   | 831.5           | 13.4451                  | 14.217                |
| 256QAM     | 26915   | 836.5           | 13.5478                  | 14.282                |
| 256QAM     | 26965   | 841.5           | 13.3913                  | 14.179                |

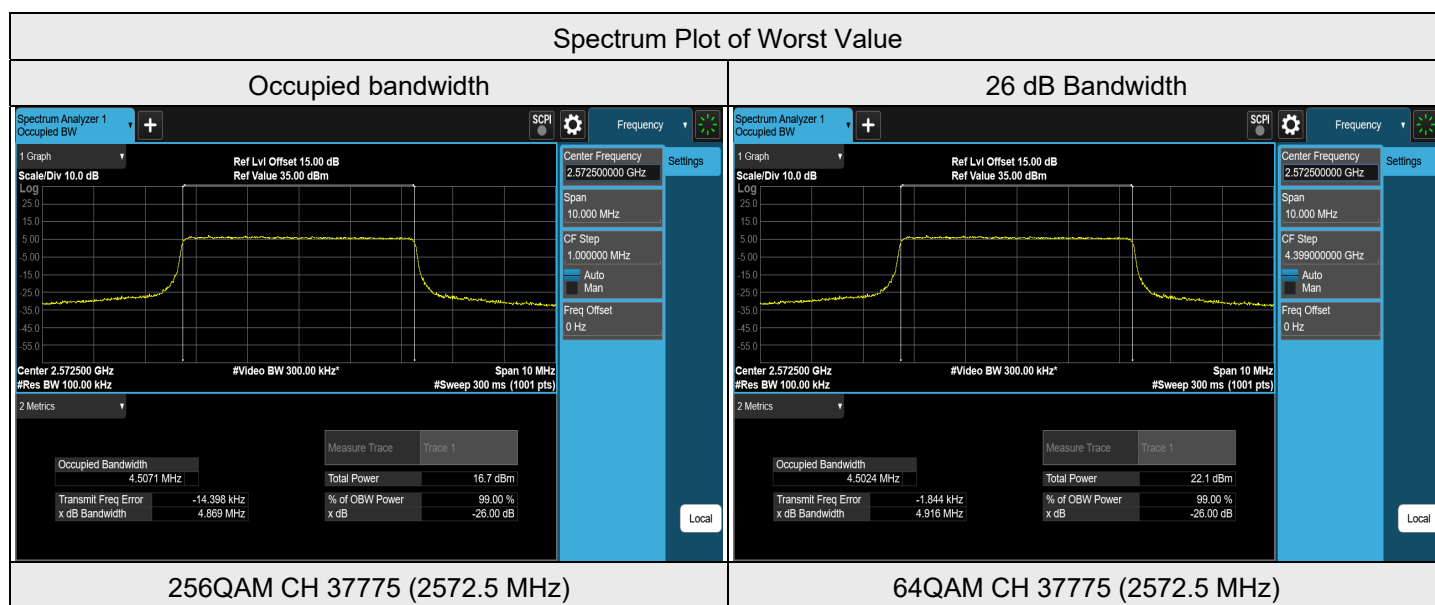
### Spectrum Plot of Worst Value



## 7.4.9 LTE Band 38

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

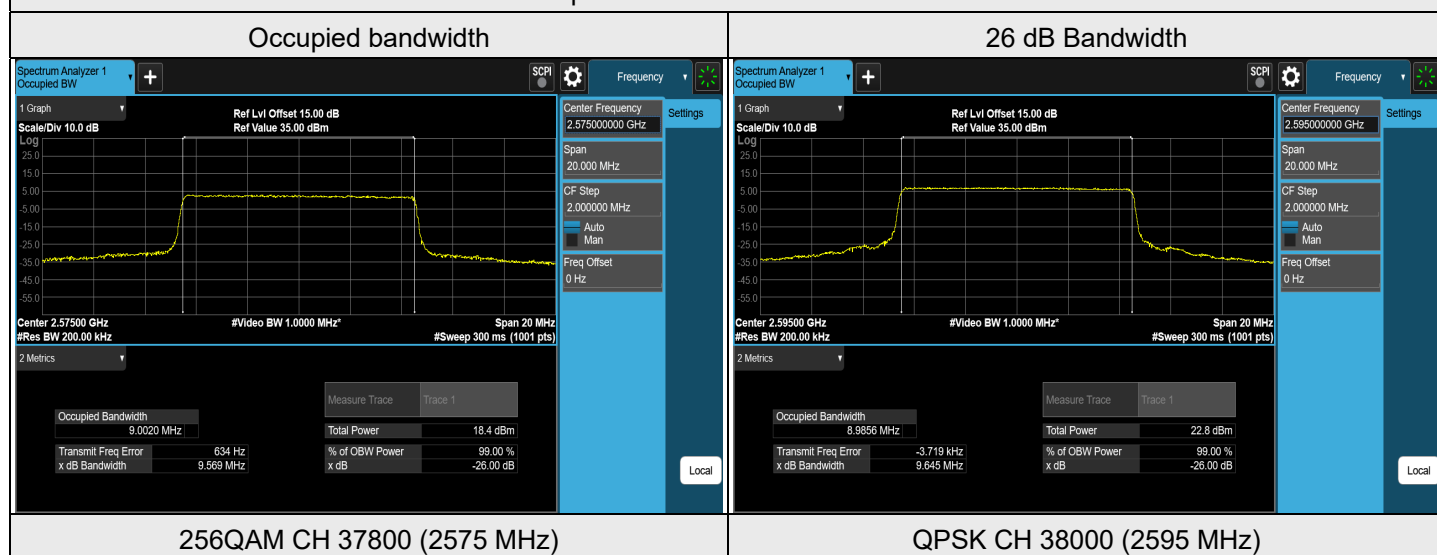
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 37775   | 2572.5          | 4.4944                   | 4.873                 |
| QPSK       | 38000   | 2595            | 4.4991                   | 4.890                 |
| QPSK       | 38225   | 2617.5          | 4.4853                   | 4.881                 |
| 16QAM      | 37775   | 2572.5          | 4.4954                   | 4.879                 |
| 16QAM      | 38000   | 2595            | 4.4961                   | 4.857                 |
| 16QAM      | 38225   | 2617.5          | 4.4941                   | 4.867                 |
| 64QAM      | 37775   | 2572.5          | 4.5024                   | 4.916                 |
| 64QAM      | 38000   | 2595            | 4.4960                   | 4.854                 |
| 64QAM      | 38225   | 2617.5          | 4.4963                   | 4.881                 |
| 256QAM     | 37775   | 2572.5          | 4.5071                   | 4.869                 |
| 256QAM     | 38000   | 2595            | 4.4990                   | 4.871                 |
| 256QAM     | 38225   | 2617.5          | 4.5001                   | 4.890                 |



# LTE Band 38, Channel Bandwidth: 10 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 37800   | 2575            | 8.9824                   | 9.564                 |
| QPSK       | 38000   | 2595            | 8.9856                   | 9.645                 |
| QPSK       | 38200   | 2615            | 8.9774                   | 9.625                 |
| 16QAM      | 37800   | 2575            | 8.9864                   | 9.543                 |
| 16QAM      | 38000   | 2595            | 8.9932                   | 9.620                 |
| 16QAM      | 38200   | 2615            | 8.9801                   | 9.587                 |
| 64QAM      | 37800   | 2575            | 8.9676                   | 9.547                 |
| 64QAM      | 38000   | 2595            | 8.9896                   | 9.583                 |
| 64QAM      | 38200   | 2615            | 8.9754                   | 9.550                 |
| 256QAM     | 37800   | 2575            | 9.0020                   | 9.569                 |
| 256QAM     | 38000   | 2595            | 8.9821                   | 9.547                 |
| 256QAM     | 38200   | 2615            | 8.9893                   | 9.535                 |

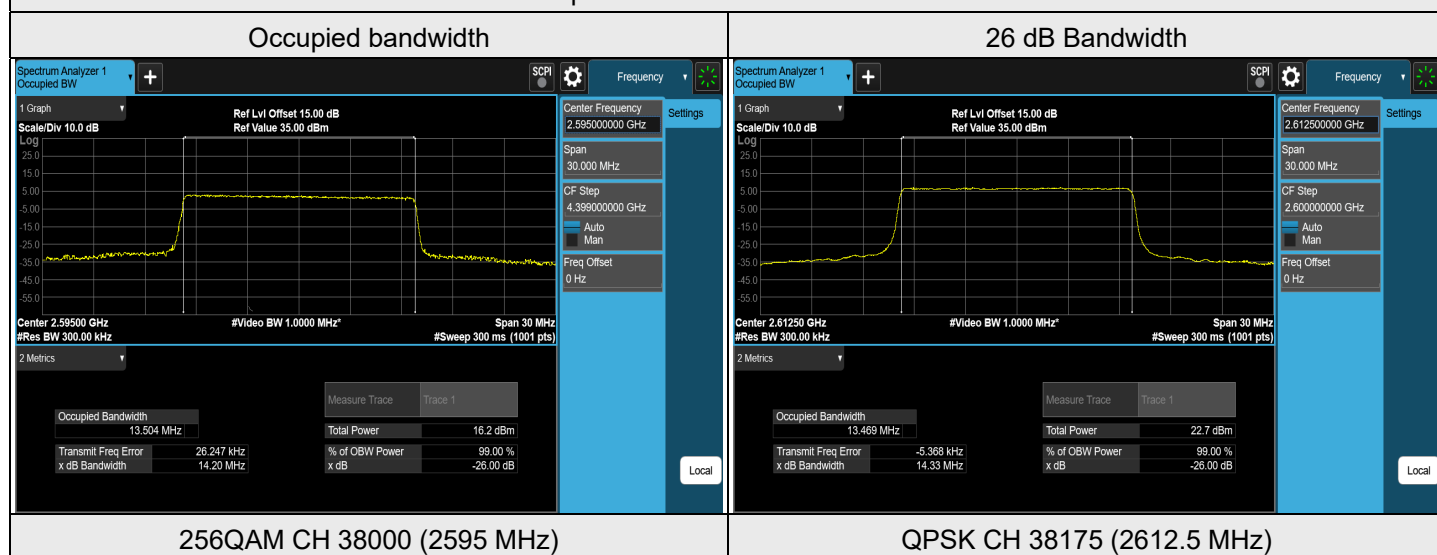
## Spectrum Plot of Worst Value



### LTE Band 38, Channel Bandwidth: 15 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 37825   | 2577.5          | 13.4636                  | 14.309                |
| QPSK       | 38000   | 2595            | 13.4673                  | 14.291                |
| QPSK       | 38175   | 2612.5          | 13.4692                  | 14.326                |
| 16QAM      | 37825   | 2577.5          | 13.4645                  | 14.273                |
| 16QAM      | 38000   | 2595            | 13.4671                  | 14.272                |
| 16QAM      | 38175   | 2612.5          | 13.4688                  | 14.271                |
| 64QAM      | 37825   | 2577.5          | 13.4707                  | 14.273                |
| 64QAM      | 38000   | 2595            | 13.4640                  | 14.263                |
| 64QAM      | 38175   | 2612.5          | 13.4697                  | 14.279                |
| 256QAM     | 37825   | 2577.5          | 13.4578                  | 14.263                |
| 256QAM     | 38000   | 2595            | 13.5043                  | 14.197                |
| 256QAM     | 38175   | 2612.5          | 13.4860                  | 14.261                |

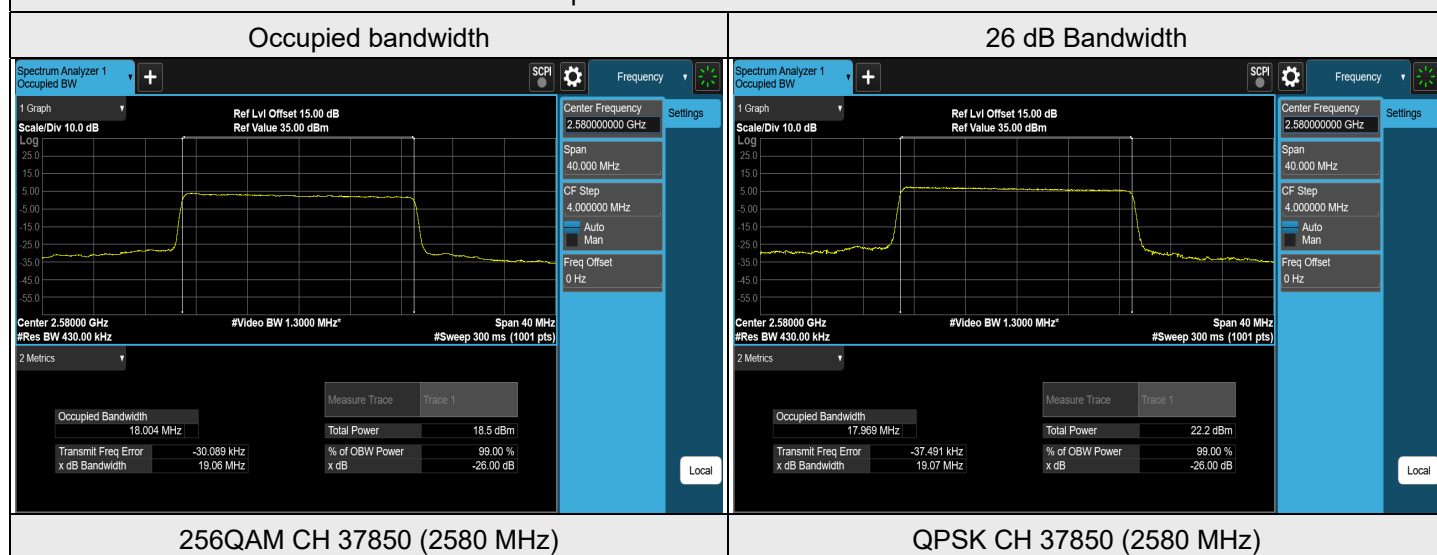
### Spectrum Plot of Worst Value



### LTE Band 38, Channel Bandwidth: 20 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 37850   | 2580            | 17.9694                  | 19.071                |
| QPSK       | 38000   | 2595            | 17.9677                  | 19.041                |
| QPSK       | 38150   | 2610            | 17.9656                  | 19.062                |
| 16QAM      | 37850   | 2580            | 17.9569                  | 19.053                |
| 16QAM      | 38000   | 2595            | 17.9663                  | 19.016                |
| 16QAM      | 38150   | 2610            | 17.9548                  | 19.062                |
| 64QAM      | 37850   | 2580            | 17.9622                  | 19.044                |
| 64QAM      | 38000   | 2595            | 17.9456                  | 19.030                |
| 64QAM      | 38150   | 2610            | 17.9603                  | 19.040                |
| 256QAM     | 37850   | 2580            | 18.0035                  | 19.059                |
| 256QAM     | 38000   | 2595            | 17.9886                  | 18.974                |
| 256QAM     | 38150   | 2610            | 17.9867                  | 19.071                |

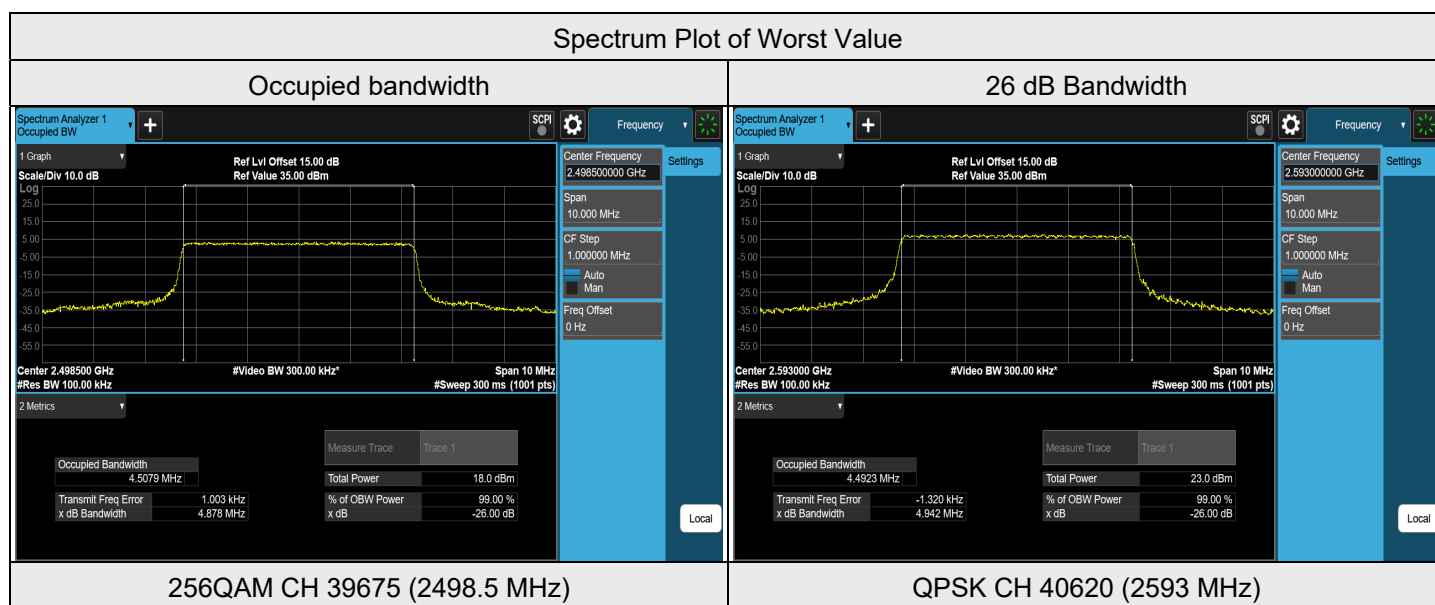
### Spectrum Plot of Worst Value



#### 7.4.10 LTE Band 41

##### LTE Band 41, Channel Bandwidth: 5 MHz

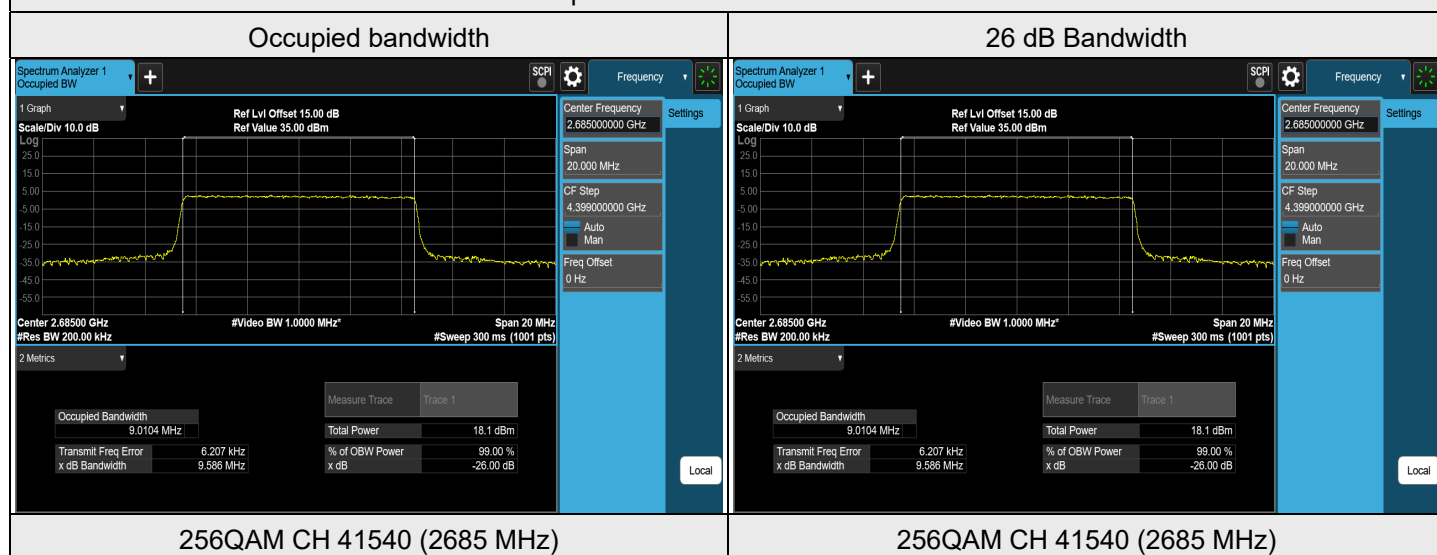
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 39675   | 2498.5          | 4.4862                   | 4.822                 |
| QPSK       | 40620   | 2593            | 4.4923                   | 4.942                 |
| QPSK       | 41565   | 2687.5          | 4.4910                   | 4.867                 |
| 16QAM      | 39675   | 2498.5          | 4.4885                   | 4.832                 |
| 16QAM      | 40620   | 2593            | 4.4934                   | 4.846                 |
| 16QAM      | 41565   | 2687.5          | 4.4938                   | 4.917                 |
| 64QAM      | 39675   | 2498.5          | 4.4922                   | 4.855                 |
| 64QAM      | 40620   | 2593            | 4.4949                   | 4.863                 |
| 64QAM      | 41565   | 2687.5          | 4.4893                   | 4.834                 |
| 256QAM     | 39675   | 2498.5          | 4.5079                   | 4.878                 |
| 256QAM     | 40620   | 2593            | 4.4992                   | 4.856                 |
| 256QAM     | 41565   | 2687.5          | 4.4923                   | 4.851                 |



## LTE Band 41, Channel Bandwidth: 10 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 39700   | 2501            | 8.9709                   | 9.525                 |
| QPSK       | 40620   | 2593            | 8.9630                   | 9.557                 |
| QPSK       | 41540   | 2685            | 8.9830                   | 9.526                 |
| 16QAM      | 39700   | 2501            | 8.9669                   | 9.516                 |
| 16QAM      | 40620   | 2593            | 8.9786                   | 9.550                 |
| 16QAM      | 41540   | 2685            | 8.8994                   | 9.530                 |
| 64QAM      | 39700   | 2501            | 8.9656                   | 9.559                 |
| 64QAM      | 40620   | 2593            | 8.9708                   | 9.525                 |
| 64QAM      | 41540   | 2685            | 8.9772                   | 9.545                 |
| 256QAM     | 39700   | 2501            | 8.9739                   | 9.535                 |
| 256QAM     | 40620   | 2593            | 8.9753                   | 9.555                 |
| 256QAM     | 41540   | 2685            | 9.0104                   | 9.586                 |

### Spectrum Plot of Worst Value

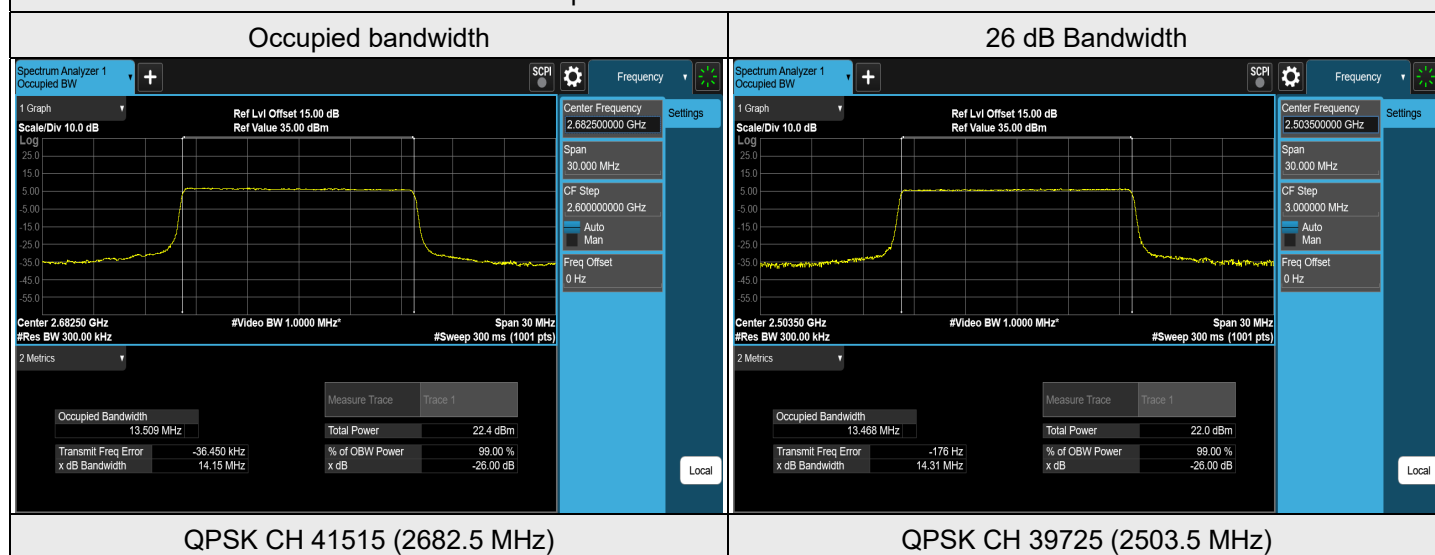




## LTE Band 41, Channel Bandwidth: 15 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 39725   | 2503.5          | 13.4678                  | 14.311                |
| QPSK       | 40620   | 2593            | 13.4671                  | 14.285                |
| QPSK       | 41515   | 2682.5          | 13.5092                  | 14.150                |
| 16QAM      | 39725   | 2503.5          | 13.4709                  | 14.295                |
| 16QAM      | 40620   | 2593            | 13.4684                  | 14.270                |
| 16QAM      | 41515   | 2682.5          | 13.4752                  | 14.294                |
| 64QAM      | 39725   | 2503.5          | 13.4595                  | 14.302                |
| 64QAM      | 40620   | 2593            | 13.4781                  | 14.279                |
| 64QAM      | 41515   | 2682.5          | 13.4774                  | 14.273                |
| 256QAM     | 39725   | 2503.5          | 13.3740                  | 14.259                |
| 256QAM     | 40620   | 2593            | 13.4943                  | 14.216                |
| 256QAM     | 41515   | 2682.5          | 13.4840                  | 14.288                |

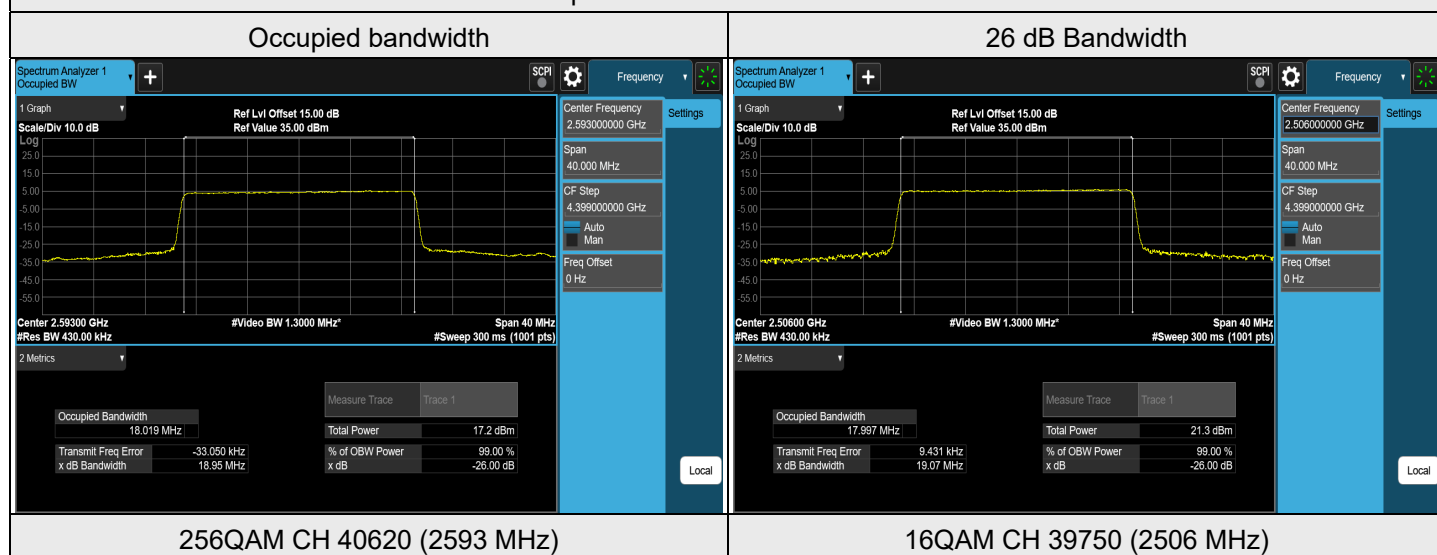
### Spectrum Plot of Worst Value



## LTE Band 41, Channel Bandwidth: 20 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 39750   | 2506            | 17.9820                  | 19.059                |
| QPSK       | 40620   | 2593            | 17.7466                  | 19.066                |
| QPSK       | 41490   | 2680            | 17.9803                  | 19.039                |
| 16QAM      | 39750   | 2506            | 17.9973                  | 19.073                |
| 16QAM      | 40620   | 2593            | 17.9733                  | 19.051                |
| 16QAM      | 41490   | 2680            | 17.9748                  | 19.021                |
| 64QAM      | 39750   | 2506            | 17.9782                  | 19.071                |
| 64QAM      | 40620   | 2593            | 17.9732                  | 19.045                |
| 64QAM      | 41490   | 2680            | 17.9846                  | 19.026                |
| 256QAM     | 39750   | 2506            | 18.0086                  | 19.069                |
| 256QAM     | 40620   | 2593            | 18.0195                  | 18.950                |
| 256QAM     | 41490   | 2680            | 17.9700                  | 19.001                |

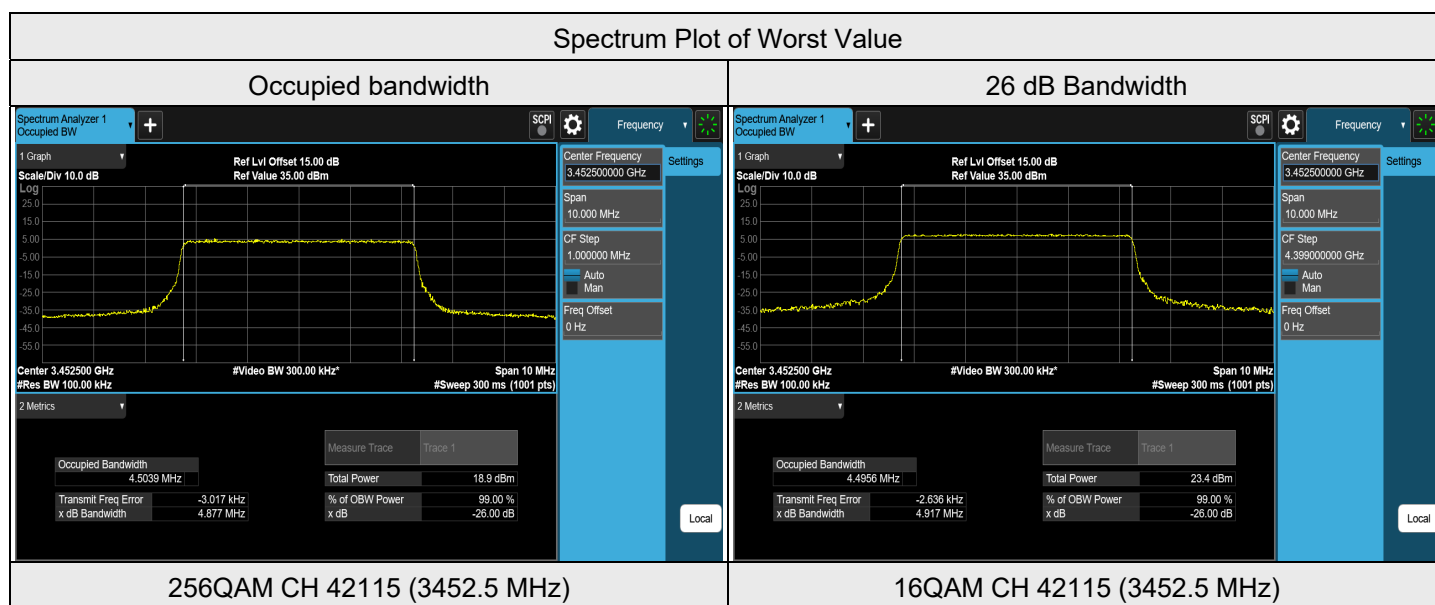
### Spectrum Plot of Worst Value



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

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

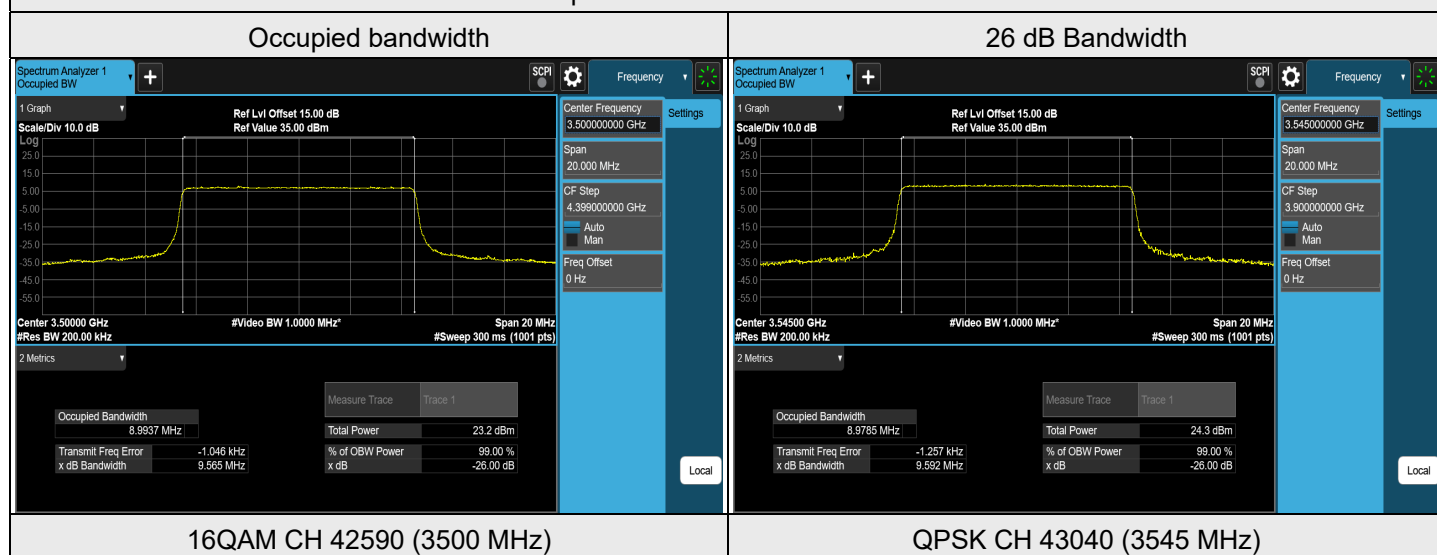
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 42115   | 3452.5          | 4.4963                   | 4.905                 |
| QPSK       | 42590   | 3500            | 4.4955                   | 4.888                 |
| QPSK       | 43065   | 3547.5          | 4.4973                   | 4.877                 |
| 16QAM      | 42115   | 3452.5          | 4.4956                   | 4.917                 |
| 16QAM      | 42590   | 3500            | 4.4927                   | 4.898                 |
| 16QAM      | 43065   | 3547.5          | 4.4910                   | 4.859                 |
| 64QAM      | 42115   | 3452.5          | 4.4923                   | 4.890                 |
| 64QAM      | 42590   | 3500            | 4.4947                   | 4.858                 |
| 64QAM      | 43065   | 3547.5          | 4.4945                   | 4.875                 |
| 256QAM     | 42115   | 3452.5          | 4.5039                   | 4.877                 |
| 256QAM     | 42590   | 3500            | 4.4253                   | 4.773                 |
| 256QAM     | 43065   | 3547.5          | 4.4928                   | 4.823                 |



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

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 42140   | 3455            | 8.9796                   | 9.568                 |
| QPSK       | 42590   | 3500            | 8.9770                   | 9.563                 |
| QPSK       | 43040   | 3545            | 8.9785                   | 9.592                 |
| 16QAM      | 42140   | 3455            | 8.9755                   | 9.555                 |
| 16QAM      | 42590   | 3500            | 8.9937                   | 9.565                 |
| 16QAM      | 43040   | 3545            | 8.9697                   | 9.541                 |
| 64QAM      | 42140   | 3455            | 8.9660                   | 9.520                 |
| 64QAM      | 42590   | 3500            | 8.9813                   | 9.540                 |
| 64QAM      | 43040   | 3545            | 8.9757                   | 9.519                 |
| 256QAM     | 42140   | 3455            | 8.9650                   | 9.527                 |
| 256QAM     | 42590   | 3500            | 8.9794                   | 9.541                 |
| 256QAM     | 43040   | 3545            | 8.9910                   | 9.532                 |

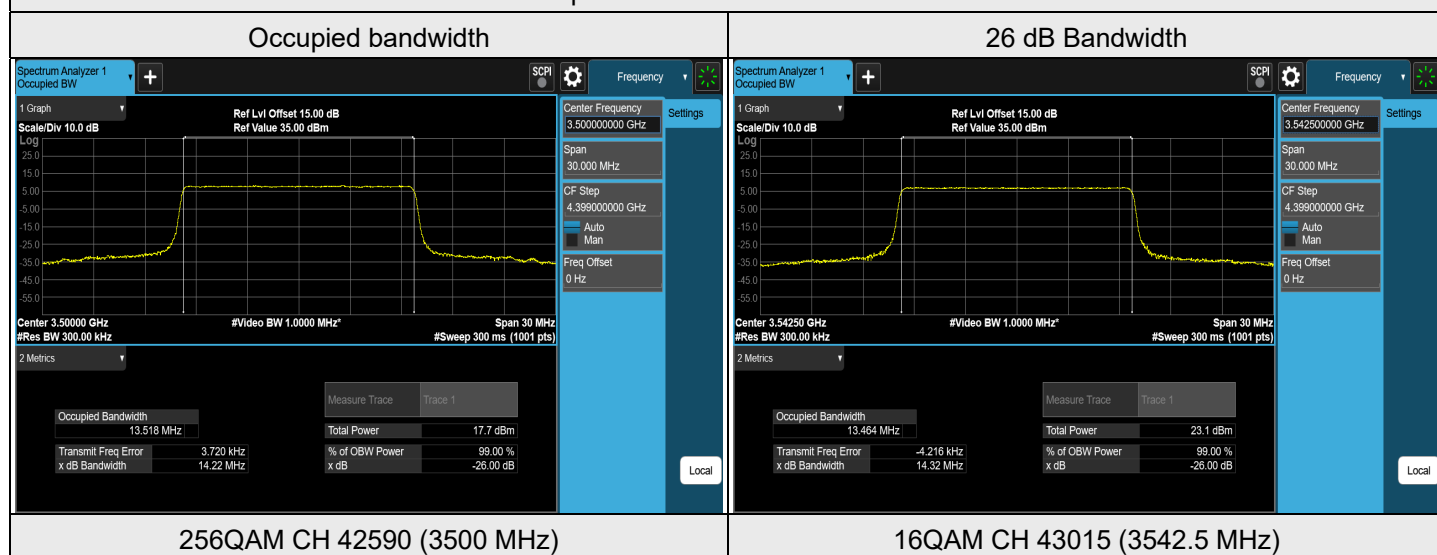
## Spectrum Plot of Worst Value



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

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 42165   | 3457.5          | 13.4683                  | 14.306                |
| QPSK       | 42590   | 3500            | 13.4554                  | 14.264                |
| QPSK       | 43015   | 3542.5          | 13.4654                  | 14.266                |
| 16QAM      | 42165   | 3457.5          | 13.4654                  | 14.312                |
| 16QAM      | 42590   | 3500            | 13.4609                  | 14.279                |
| 16QAM      | 43015   | 3542.5          | 13.4644                  | 14.322                |
| 64QAM      | 42165   | 3457.5          | 13.4597                  | 14.268                |
| 64QAM      | 42590   | 3500            | 13.4592                  | 14.256                |
| 64QAM      | 43015   | 3542.5          | 13.4680                  | 14.295                |
| 256QAM     | 42165   | 3457.5          | 13.4712                  | 14.208                |
| 256QAM     | 42590   | 3500            | 13.5178                  | 14.220                |
| 256QAM     | 43015   | 3542.5          | 13.4735                  | 14.237                |

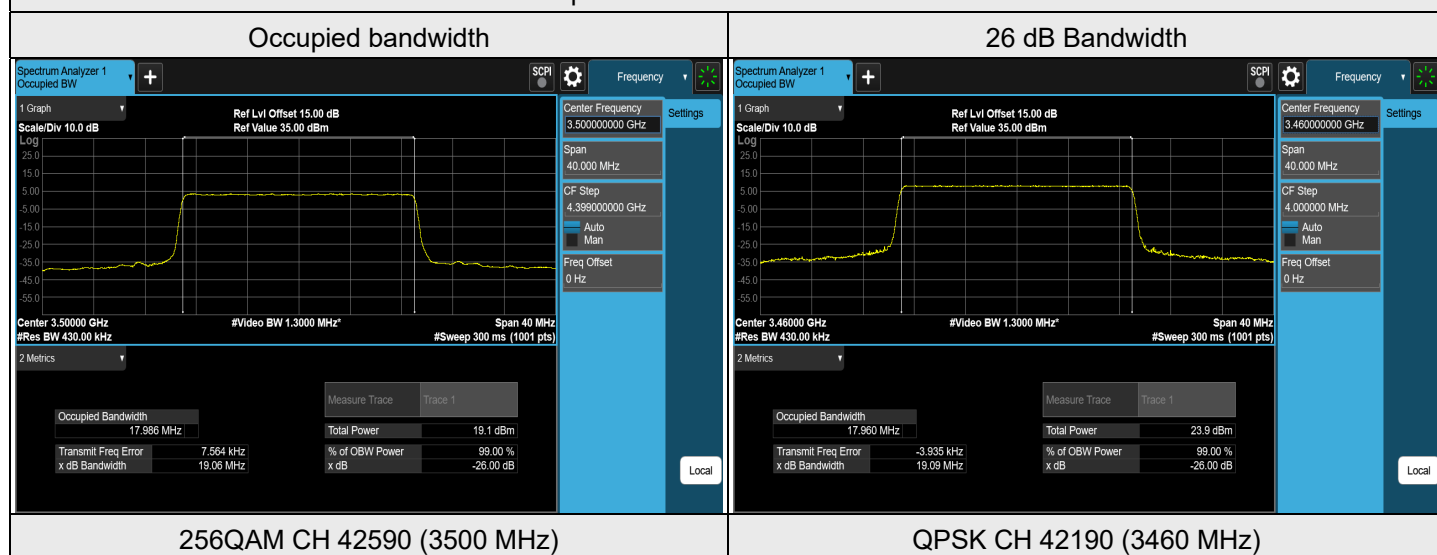
### Spectrum Plot of Worst Value



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

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 42190   | 3460            | 17.9600                  | 19.089                |
| QPSK       | 42590   | 3500            | 17.9680                  | 19.041                |
| QPSK       | 42990   | 3540            | 17.9831                  | 19.072                |
| 16QAM      | 42190   | 3460            | 17.9547                  | 19.049                |
| 16QAM      | 42590   | 3500            | 17.9432                  | 19.059                |
| 16QAM      | 42990   | 3540            | 17.9504                  | 19.035                |
| 64QAM      | 42190   | 3460            | 17.9410                  | 19.027                |
| 64QAM      | 42590   | 3500            | 17.9499                  | 19.050                |
| 64QAM      | 42990   | 3540            | 17.9462                  | 19.056                |
| 256QAM     | 42190   | 3460            | 17.9750                  | 19.065                |
| 256QAM     | 42590   | 3500            | 17.9865                  | 19.058                |
| 256QAM     | 42990   | 3540            | 17.9573                  | 19.020                |

## Spectrum Plot of Worst Value

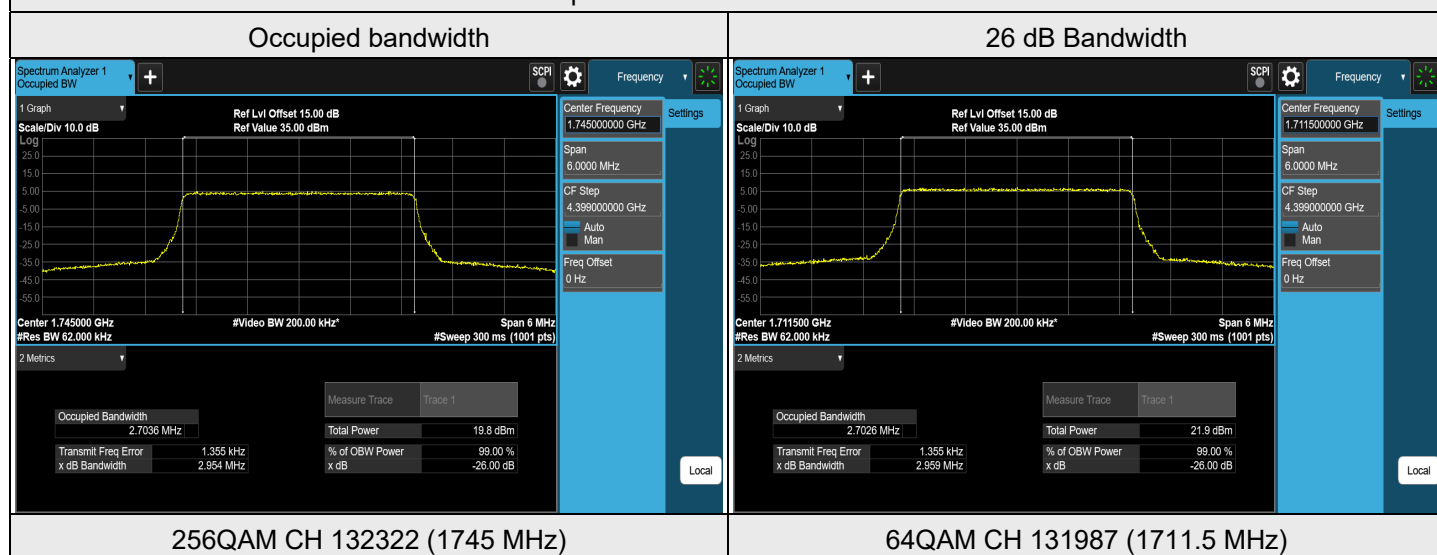




## LTE Band 66, Channel Bandwidth: 3 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 131987  | 1711.5          | 2.7008                   | 2.937                 |
| QPSK       | 132322  | 1745            | 2.6980                   | 2.937                 |
| QPSK       | 132657  | 1778.5          | 2.6991                   | 2.950                 |
| 16QAM      | 131987  | 1711.5          | 2.7006                   | 2.952                 |
| 16QAM      | 132322  | 1745            | 2.7018                   | 2.954                 |
| 16QAM      | 132657  | 1778.5          | 2.7020                   | 2.937                 |
| 64QAM      | 131987  | 1711.5          | 2.7026                   | 2.959                 |
| 64QAM      | 132322  | 1745            | 2.7012                   | 2.959                 |
| 64QAM      | 132657  | 1778.5          | 2.6999                   | 2.947                 |
| 256QAM     | 131987  | 1711.5          | 2.6993                   | 2.955                 |
| 256QAM     | 132322  | 1745            | 2.7036                   | 2.954                 |
| 256QAM     | 132657  | 1778.5          | 2.7024                   | 2.948                 |

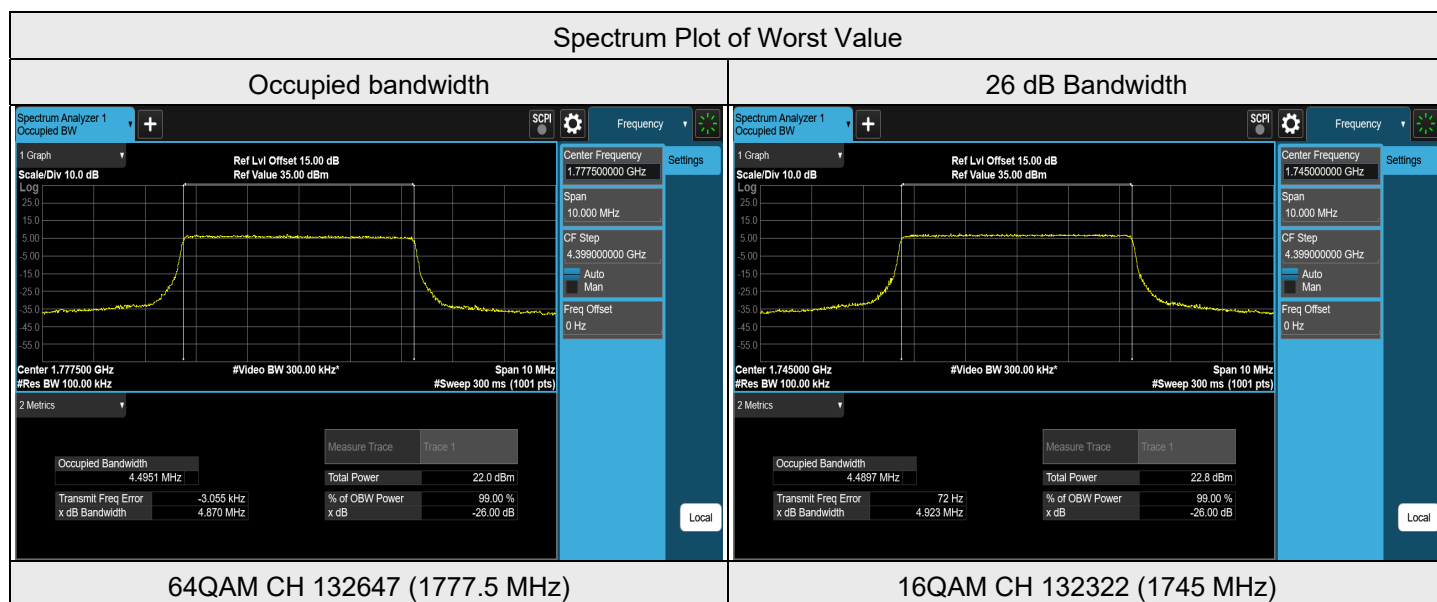
### Spectrum Plot of Worst Value





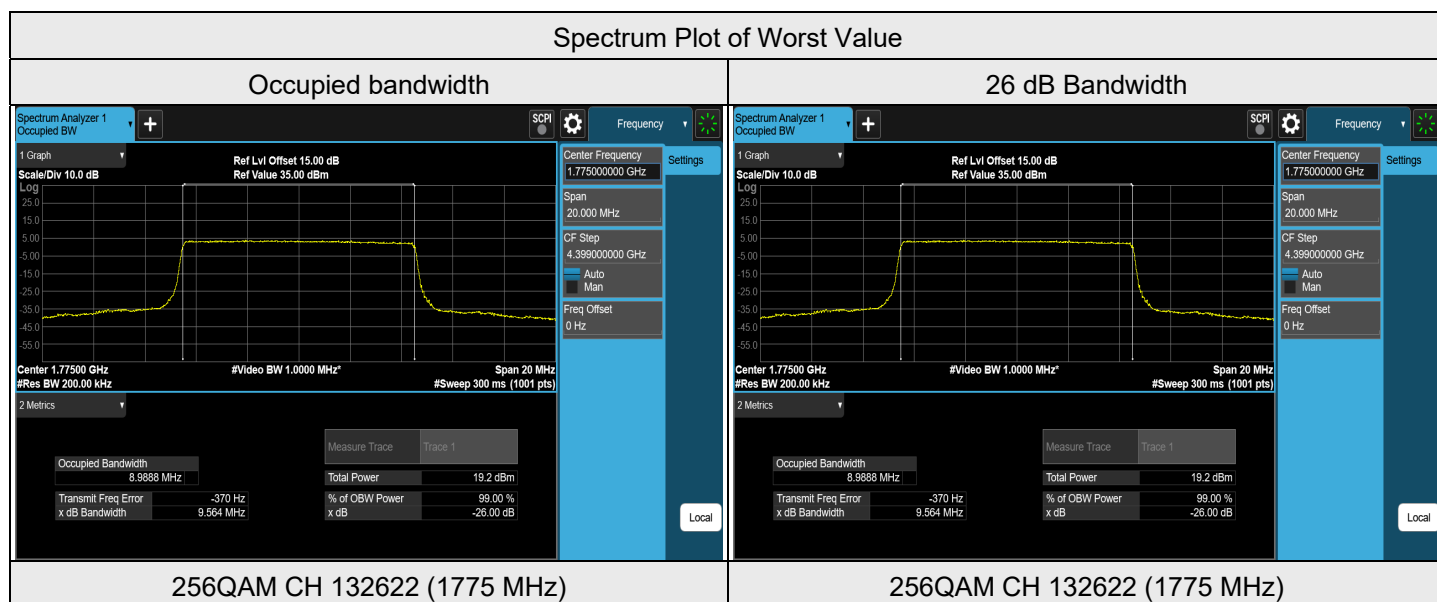
# LTE Band 66, Channel Bandwidth: 5 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 131997  | 1712.5          | 4.4930                   | 4.853                 |
| QPSK       | 132322  | 1745            | 4.4933                   | 4.906                 |
| QPSK       | 132647  | 1777.5          | 4.4891                   | 4.850                 |
| 16QAM      | 131997  | 1712.5          | 4.4918                   | 4.871                 |
| 16QAM      | 132322  | 1745            | 4.4897                   | 4.923                 |
| 16QAM      | 132647  | 1777.5          | 4.4915                   | 4.852                 |
| 64QAM      | 131997  | 1712.5          | 4.4890                   | 4.852                 |
| 64QAM      | 132322  | 1745            | 4.4934                   | 4.901                 |
| 64QAM      | 132647  | 1777.5          | 4.4951                   | 4.870                 |
| 256QAM     | 131997  | 1712.5          | 4.4925                   | 4.857                 |
| 256QAM     | 132322  | 1745            | 4.4926                   | 4.907                 |
| 256QAM     | 132647  | 1777.5          | 4.4936                   | 4.850                 |



# LTE Band 66, Channel Bandwidth: 10 MHz

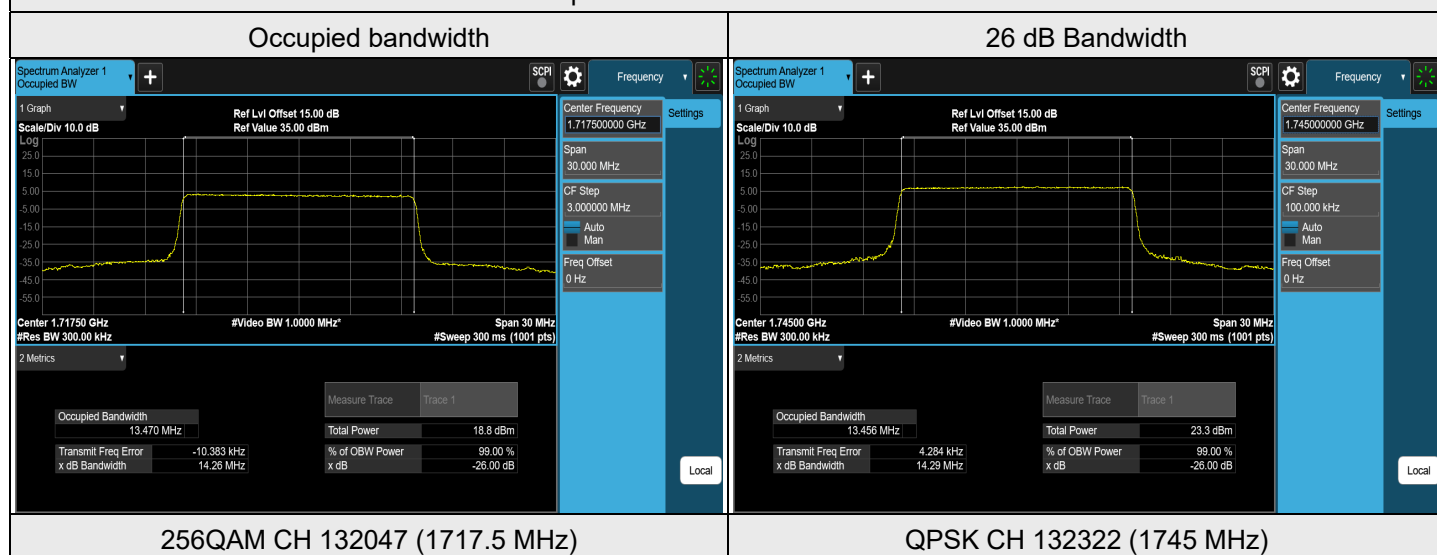
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 132022  | 1715            | 8.9809                   | 9.539                 |
| QPSK       | 132322  | 1745            | 8.9713                   | 9.533                 |
| QPSK       | 132622  | 1775            | 8.9591                   | 9.525                 |
| 16QAM      | 132022  | 1715            | 8.9812                   | 9.541                 |
| 16QAM      | 132322  | 1745            | 8.9743                   | 9.536                 |
| 16QAM      | 132622  | 1775            | 8.9685                   | 9.562                 |
| 64QAM      | 132022  | 1715            | 8.9806                   | 9.522                 |
| 64QAM      | 132322  | 1745            | 8.9712                   | 9.544                 |
| 64QAM      | 132622  | 1775            | 8.9686                   | 9.549                 |
| 256QAM     | 132022  | 1715            | 8.9747                   | 9.515                 |
| 256QAM     | 132322  | 1745            | 8.9753                   | 9.536                 |
| 256QAM     | 132622  | 1775            | 8.9888                   | 9.564                 |



## LTE Band 66, Channel Bandwidth: 15 MHz

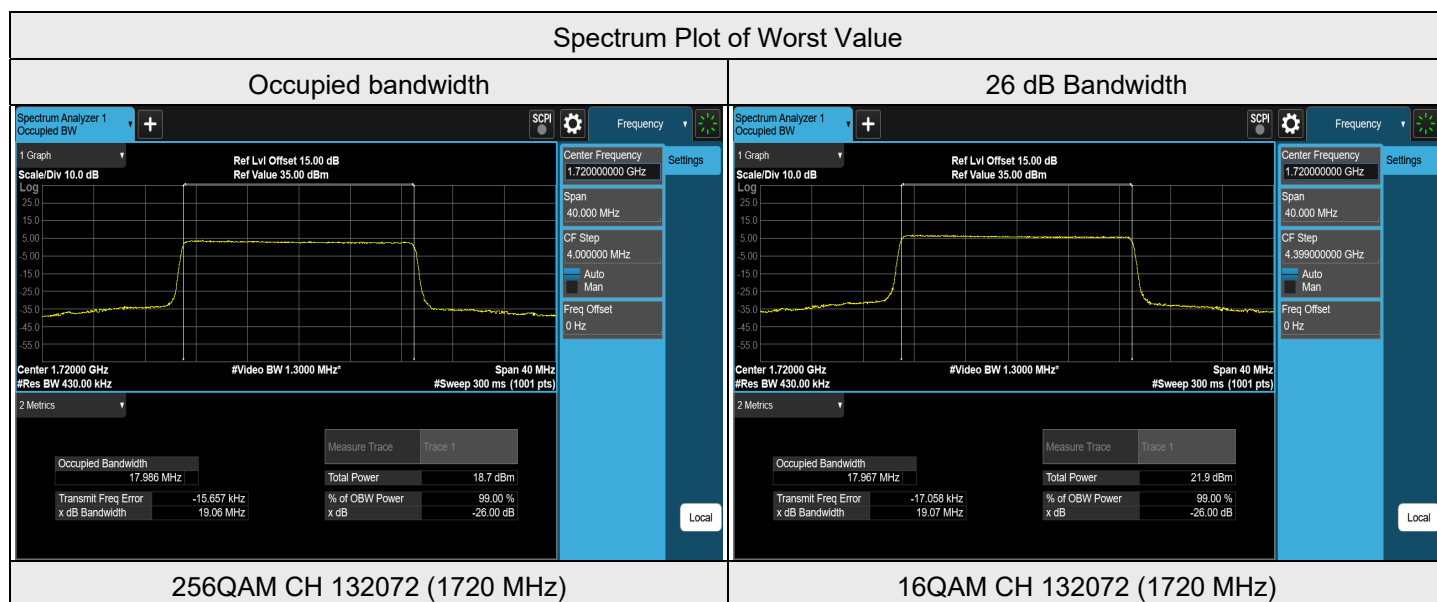
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 132047  | 1717.5          | 13.4646                  | 14.263                |
| QPSK       | 132322  | 1745            | 13.4564                  | 14.287                |
| QPSK       | 132597  | 1772.5          | 13.4425                  | 14.252                |
| 16QAM      | 132047  | 1717.5          | 13.4651                  | 14.271                |
| 16QAM      | 132322  | 1745            | 13.4642                  | 14.262                |
| 16QAM      | 132597  | 1772.5          | 13.4385                  | 14.253                |
| 64QAM      | 132047  | 1717.5          | 13.4629                  | 14.255                |
| 64QAM      | 132322  | 1745            | 13.4505                  | 14.255                |
| 64QAM      | 132597  | 1772.5          | 13.4353                  | 14.246                |
| 256QAM     | 132047  | 1717.5          | 13.4702                  | 14.262                |
| 256QAM     | 132322  | 1745            | 13.4561                  | 14.240                |
| 256QAM     | 132597  | 1772.5          | 13.4483                  | 14.249                |

### Spectrum Plot of Worst Value



# LTE Band 66, Channel Bandwidth: 20 MHz

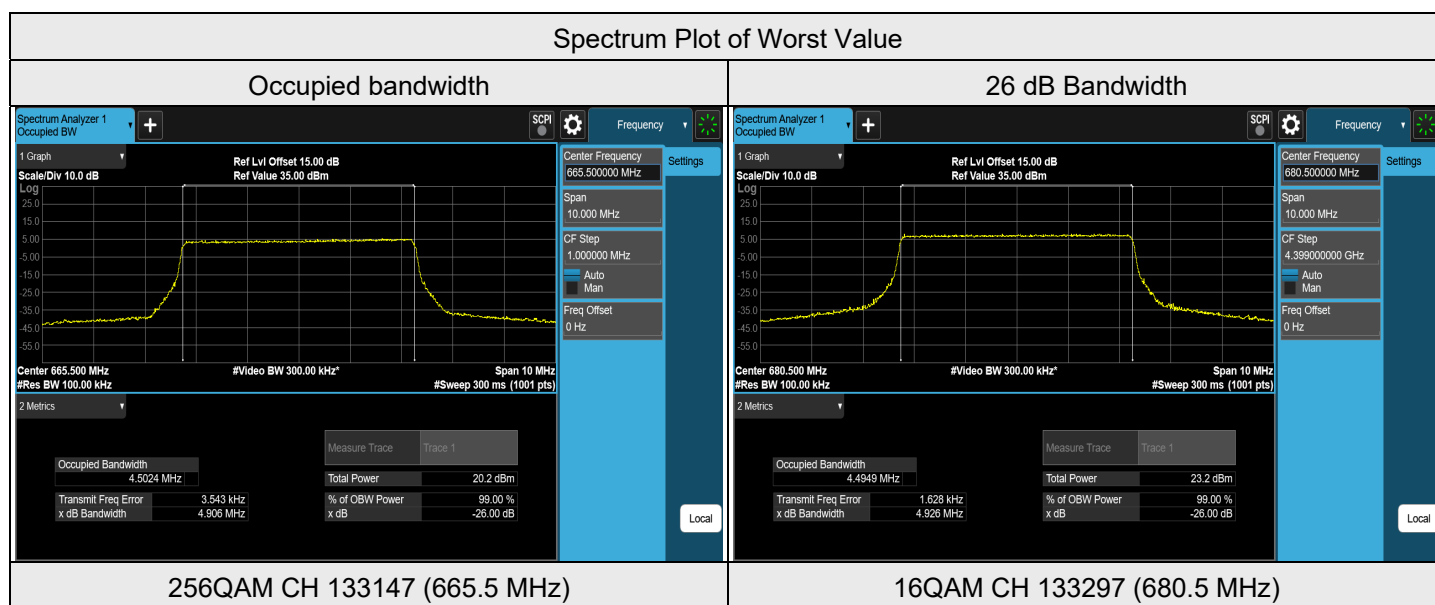
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 132072  | 1720            | 17.9784                  | 19.033                |
| QPSK       | 132322  | 1745            | 17.9445                  | 19.037                |
| QPSK       | 132572  | 1770            | 17.9416                  | 19.045                |
| 16QAM      | 132072  | 1720            | 17.9672                  | 19.068                |
| 16QAM      | 132322  | 1745            | 17.9379                  | 19.044                |
| 16QAM      | 132572  | 1770            | 17.9380                  | 19.040                |
| 64QAM      | 132072  | 1720            | 17.9778                  | 19.059                |
| 64QAM      | 132322  | 1745            | 17.9388                  | 19.045                |
| 64QAM      | 132572  | 1770            | 17.9403                  | 19.048                |
| 256QAM     | 132072  | 1720            | 17.9859                  | 19.057                |
| 256QAM     | 132322  | 1745            | 17.9519                  | 19.051                |
| 256QAM     | 132572  | 1770            | 17.9482                  | 19.029                |



### 7.4.13 LTE Band 71

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

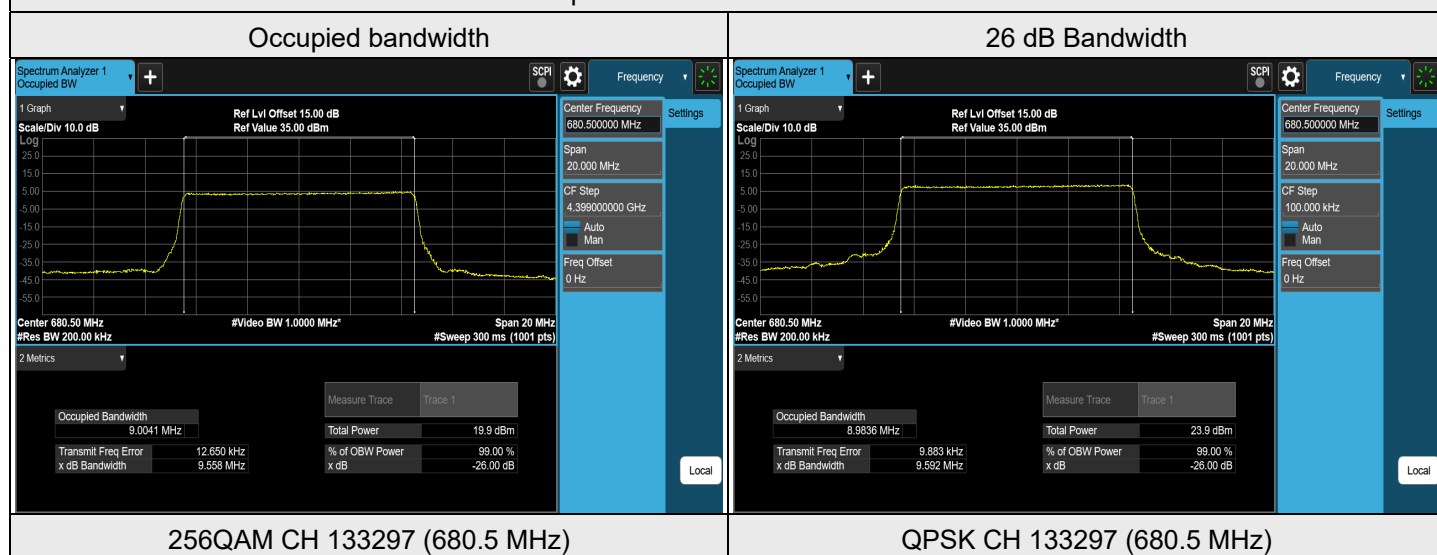
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 133147  | 665.5           | 4.5003                   | 4.888                 |
| QPSK       | 133297  | 680.5           | 4.4961                   | 4.888                 |
| QPSK       | 133447  | 695.5           | 4.4924                   | 4.857                 |
| 16QAM      | 133147  | 665.5           | 4.5011                   | 4.891                 |
| 16QAM      | 133297  | 680.5           | 4.4949                   | 4.926                 |
| 16QAM      | 133447  | 695.5           | 4.4923                   | 4.852                 |
| 64QAM      | 133147  | 665.5           | 4.5008                   | 4.872                 |
| 64QAM      | 133297  | 680.5           | 4.4956                   | 4.879                 |
| 64QAM      | 133447  | 695.5           | 4.4900                   | 4.851                 |
| 256QAM     | 133147  | 665.5           | 4.5024                   | 4.906                 |
| 256QAM     | 133297  | 680.5           | 4.4976                   | 4.865                 |
| 256QAM     | 133447  | 695.5           | 4.4926                   | 4.857                 |



## LTE Band 71, Channel Bandwidth: 10 MHz

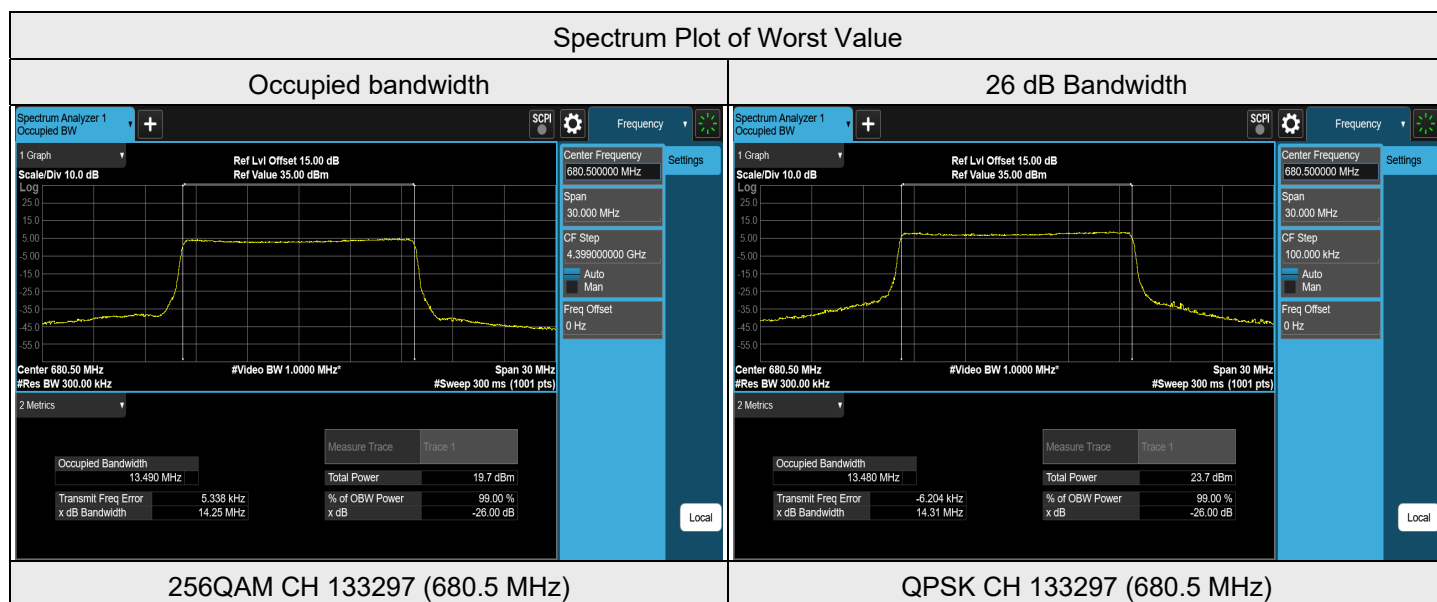
| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 133172  | 668             | 8.9552                   | 9.509                 |
| QPSK       | 133297  | 680.5           | 8.9836                   | 9.592                 |
| QPSK       | 133422  | 693             | 8.9645                   | 9.561                 |
| 16QAM      | 133172  | 668             | 8.9485                   | 9.509                 |
| 16QAM      | 133297  | 680.5           | 8.9875                   | 9.572                 |
| 16QAM      | 133422  | 693             | 8.9688                   | 9.534                 |
| 64QAM      | 133172  | 668             | 8.9581                   | 9.505                 |
| 64QAM      | 133297  | 680.5           | 8.9874                   | 9.589                 |
| 64QAM      | 133422  | 693             | 8.9655                   | 9.513                 |
| 256QAM     | 133172  | 668             | 8.9661                   | 9.523                 |
| 256QAM     | 133297  | 680.5           | 9.0041                   | 9.558                 |
| 256QAM     | 133422  | 693             | 8.9764                   | 9.536                 |

### Spectrum Plot of Worst Value



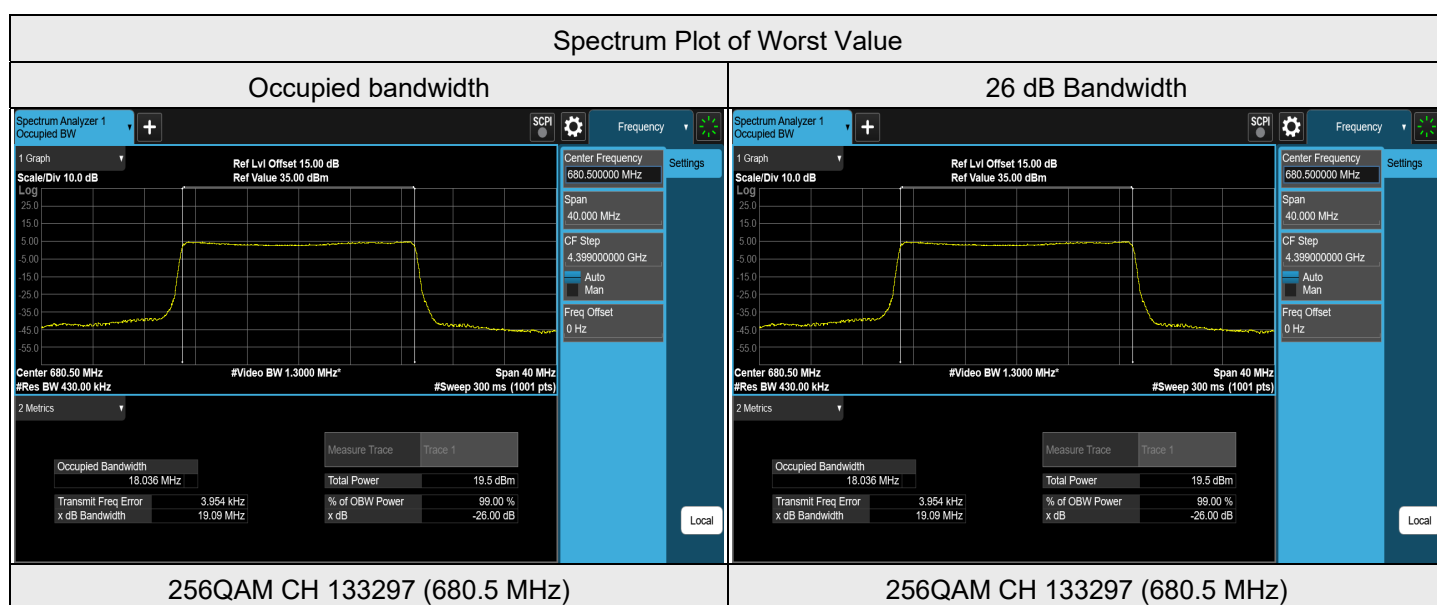
# LTE Band 71, Channel Bandwidth: 15 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 133197  | 670.5           | 13.3803                  | 14.196                |
| QPSK       | 133297  | 680.5           | 13.4795                  | 14.309                |
| QPSK       | 133397  | 690.5           | 13.4299                  | 14.232                |
| 16QAM      | 133197  | 670.5           | 13.3833                  | 14.180                |
| 16QAM      | 133297  | 680.5           | 13.4858                  | 14.280                |
| 16QAM      | 133397  | 690.5           | 13.4194                  | 14.224                |
| 64QAM      | 133197  | 670.5           | 13.3748                  | 14.189                |
| 64QAM      | 133297  | 680.5           | 13.4832                  | 14.260                |
| 64QAM      | 133397  | 690.5           | 13.4141                  | 14.233                |
| 256QAM     | 133197  | 670.5           | 13.3744                  | 14.192                |
| 256QAM     | 133297  | 680.5           | 13.4902                  | 14.253                |
| 256QAM     | 133397  | 690.5           | 13.4169                  | 14.213                |



## LTE Band 71, Channel Bandwidth: 20 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|------------|---------|-----------------|--------------------------|-----------------------|
| QPSK       | 133222  | 673             | 17.8681                  | 18.989                |
| QPSK       | 133297  | 680.5           | 18.0293                  | 19.055                |
| QPSK       | 133372  | 688             | 17.8749                  | 18.985                |
| 16QAM      | 133222  | 673             | 17.8691                  | 18.997                |
| 16QAM      | 133297  | 680.5           | 18.0225                  | 19.075                |
| 16QAM      | 133372  | 688             | 17.8756                  | 18.991                |
| 64QAM      | 133222  | 673             | 17.8664                  | 18.976                |
| 64QAM      | 133297  | 680.5           | 18.0264                  | 19.071                |
| 64QAM      | 133372  | 688             | 17.8747                  | 18.981                |
| 256QAM     | 133222  | 673             | 17.8634                  | 18.967                |
| 256QAM     | 133297  | 680.5           | 18.0355                  | 19.086                |
| 256QAM     | 133372  | 688             | 17.9035                  | 19.005                |





## 7.5 Conducted Spurious Emissions

|              |         |                           |              |            |            |
|--------------|---------|---------------------------|--------------|------------|------------|
| Input Power: | 3.8 Vdc | Environmental Conditions: | 25°C, 67% RH | Tested By: | Noah Chang |
|--------------|---------|---------------------------|--------------|------------|------------|

### 7.5.1 LTE Band 2

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



Note: The signal at 9 kHz is IF signal from spectrum analyzer.