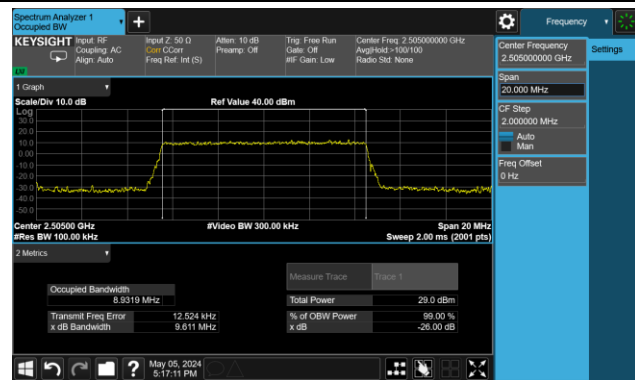
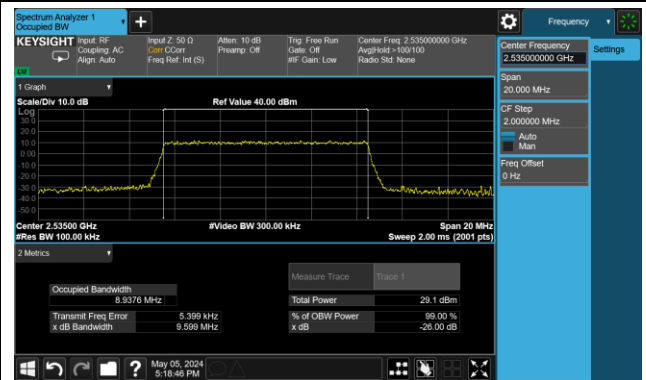


99% Bandwidth – 10MHz Bandwidth 64QAM

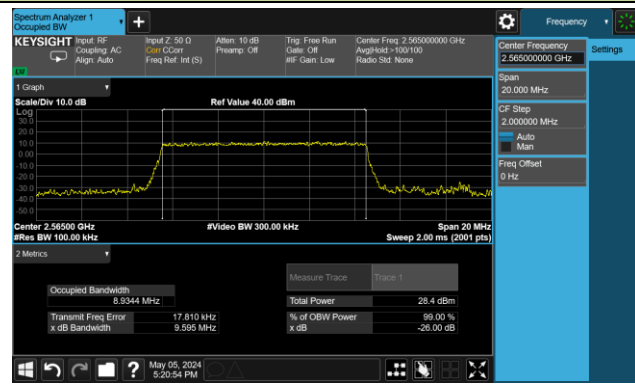
Low Channel Bandwidth



Middle Channel Bandwidth

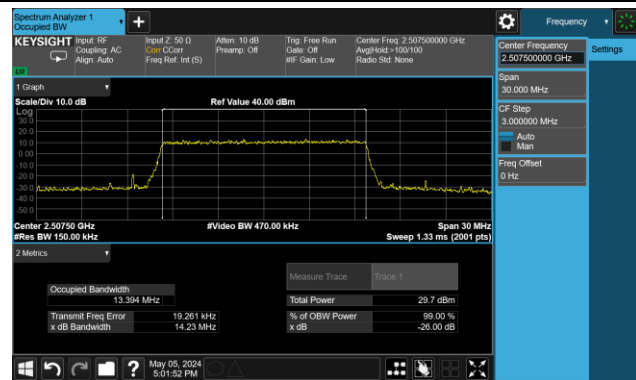


High Channel Bandwidth

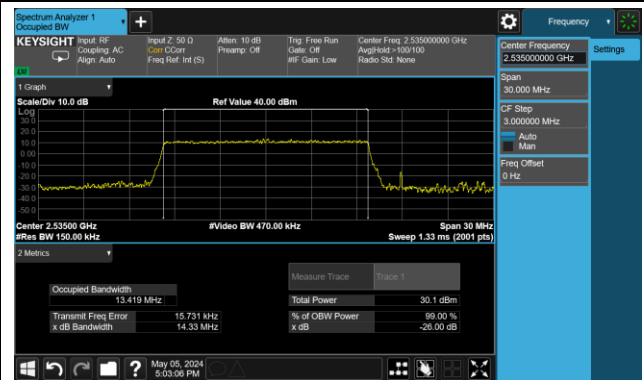


99% Bandwidth – 15MHz Bandwidth 64QAM

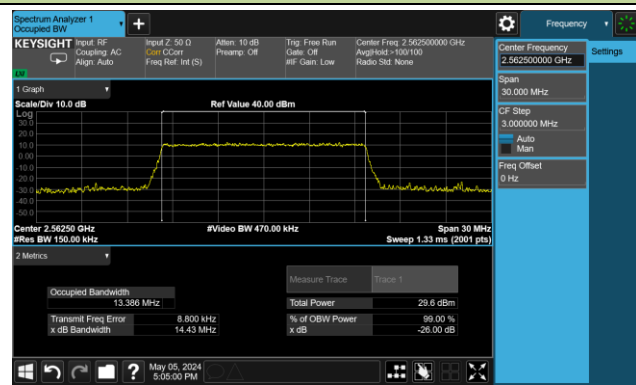
Low Channel Bandwidth



Middle Channel Bandwidth

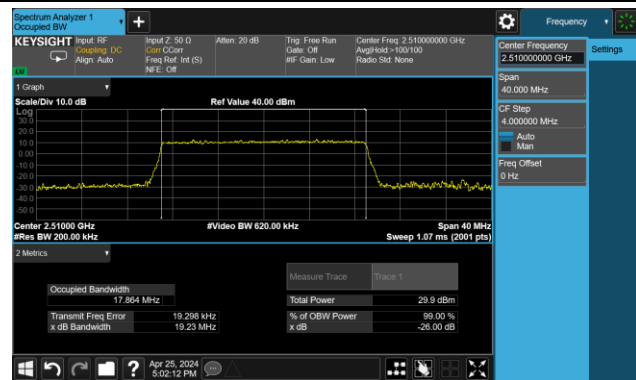


High Channel Bandwidth

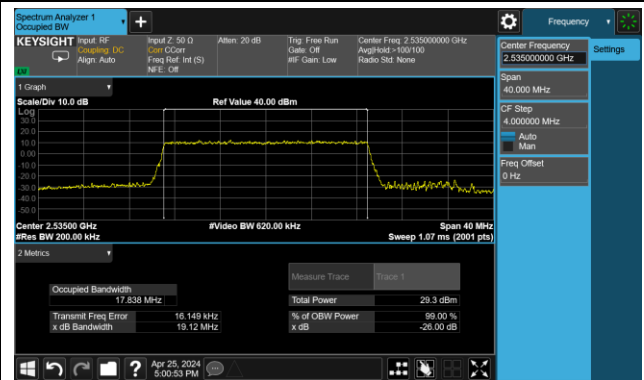


99% Bandwidth – 20MHz Bandwidth 64QAM

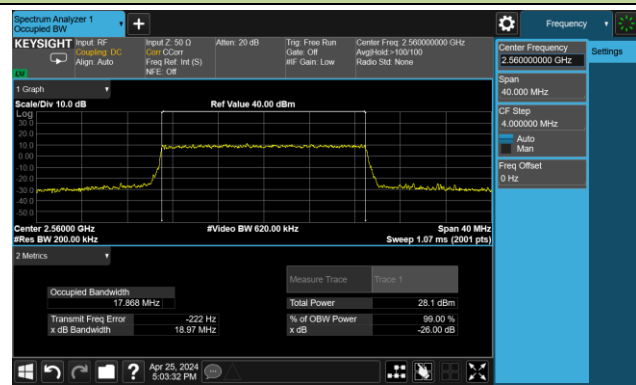
Low Channel Bandwidth



Middle Channel Bandwidth



High Channel Bandwidth



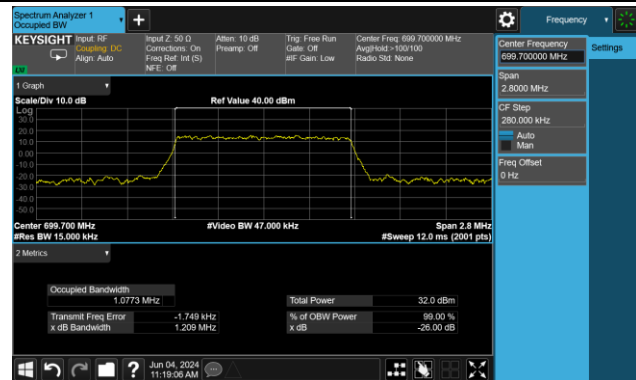
|           |                         |               |              |
|-----------|-------------------------|---------------|--------------|
| Test Site | SIP-SR1                 | Test Engineer | Yoniter Yang |
| Test Date | 2024-05-05 ~ 2024-06-04 | Test Band     | Band 12      |

| Bandwidth (MHz) | Frequency (MHz) | 99% Bandwidth (MHz) |
|-----------------|-----------------|---------------------|
| QPSK            |                 |                     |
| 1.4             | 699.70          | 1.08                |
|                 | 707.50          | 1.08                |
|                 | 715.30          | 1.08                |
| 3               | 700.50          | 2.69                |
|                 | 707.50          | 2.69                |
|                 | 714.50          | 2.68                |
| 5               | 701.50          | 4.46                |
|                 | 707.50          | 4.48                |
|                 | 713.50          | 4.48                |
| 10              | 704.00          | 8.96                |
|                 | 707.50          | 8.93                |
|                 | 711.00          | 8.95                |
| 16QAM           |                 |                     |
| 1.4             | 699.70          | 1.08                |
|                 | 707.50          | 1.08                |
|                 | 715.30          | 1.08                |
| 3               | 700.50          | 2.68                |
|                 | 707.50          | 2.68                |
|                 | 714.50          | 2.68                |
| 5               | 701.50          | 4.47                |
|                 | 707.50          | 4.46                |
|                 | 713.50          | 4.46                |
| 10              | 704.00          | 8.95                |
|                 | 707.50          | 8.94                |
|                 | 711.00          | 8.94                |

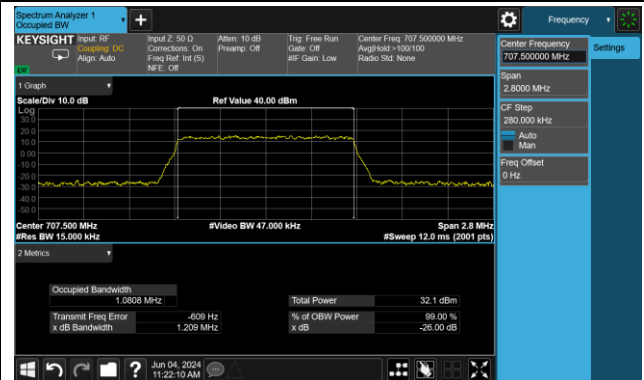
| Bandwidth (MHz) | Frequency (MHz) | 99% Bandwidth (MHz) |
|-----------------|-----------------|---------------------|
| 64QAM           |                 |                     |
| 1.4             | 699.70          | 1.08                |
|                 | 707.50          | 1.08                |
|                 | 715.30          | 1.08                |
| 3               | 700.50          | 2.69                |
|                 | 707.50          | 2.68                |
|                 | 714.50          | 2.69                |
| 5               | 701.50          | 4.47                |
|                 | 707.50          | 4.46                |
|                 | 713.50          | 4.47                |
| 10              | 704.00          | 8.95                |
|                 | 707.50          | 8.93                |
|                 | 711.00          | 8.93                |

99% Bandwidth – 1.4MHz Bandwidth QPSK

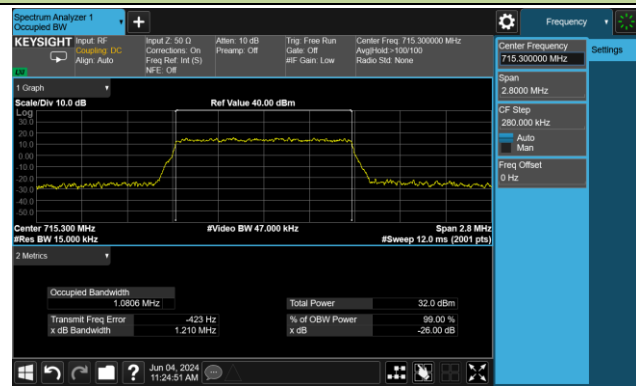
Low Channel Bandwidth



Middle Channel Bandwidth

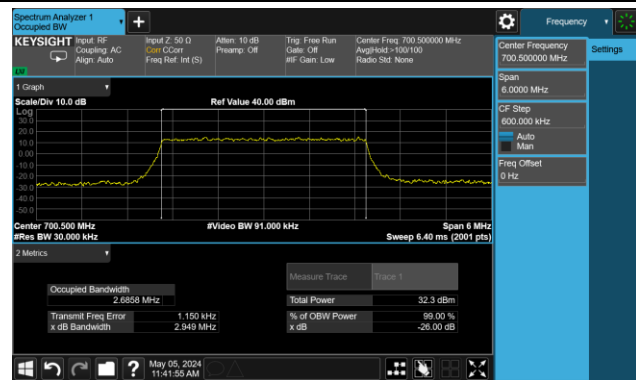


High Channel Bandwidth



99% Bandwidth – 3MHz Bandwidth QPSK

Low Channel Bandwidth



Middle Channel Bandwidth

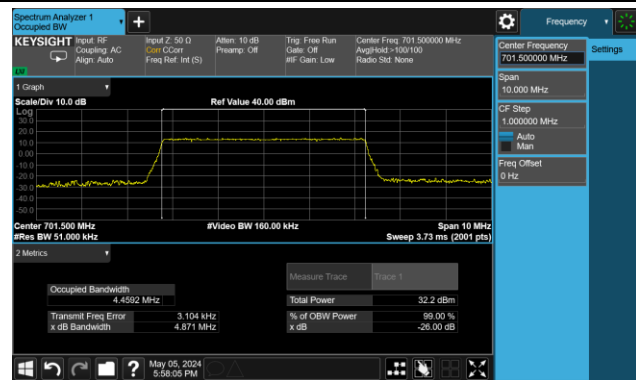


High Channel Bandwidth

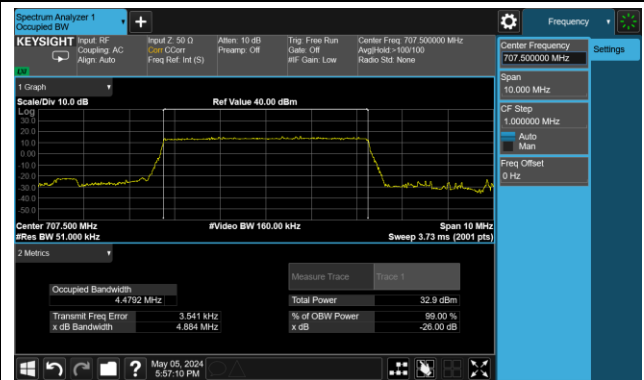


99% Bandwidth – 5MHz Bandwidth QPSK

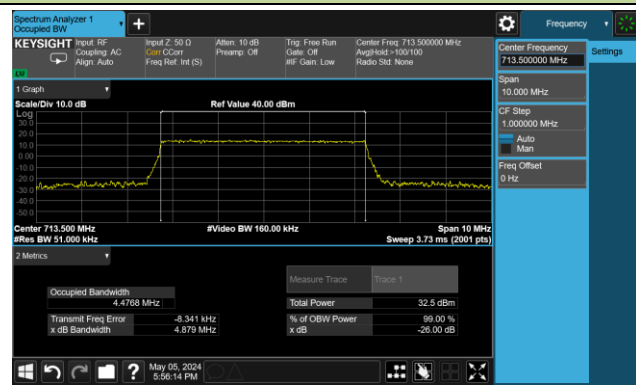
Low Channel Bandwidth



Middle Channel Bandwidth



High Channel Bandwidth



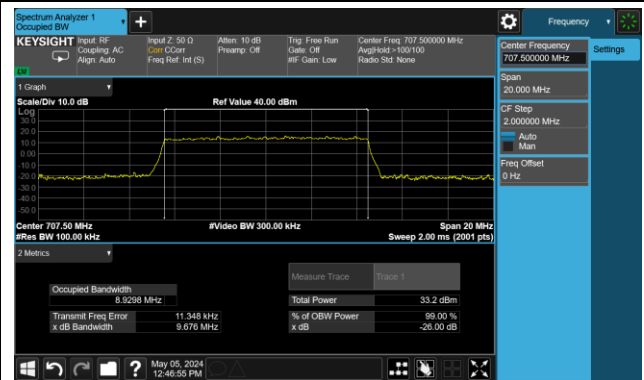


99% Bandwidth – 10MHz Bandwidth QPSK

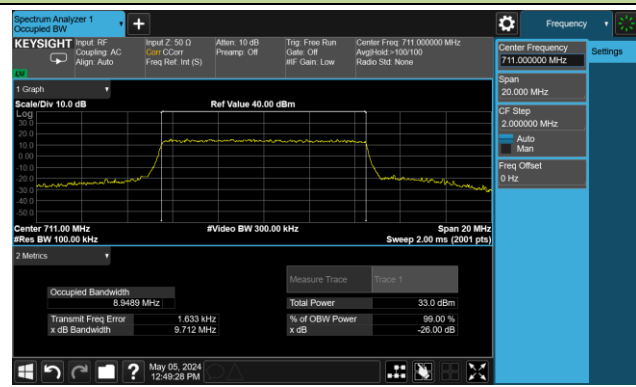
Low Channel Bandwidth



Middle Channel Bandwidth

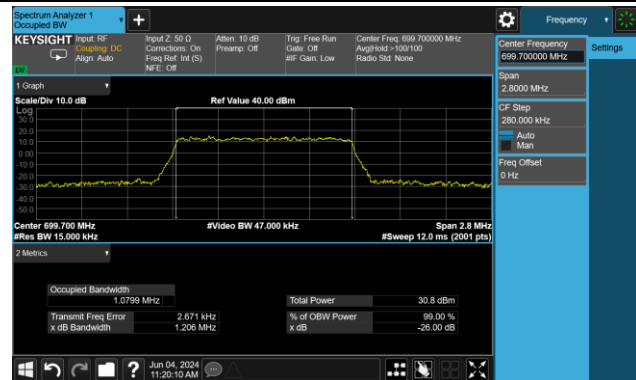


High Channel Bandwidth

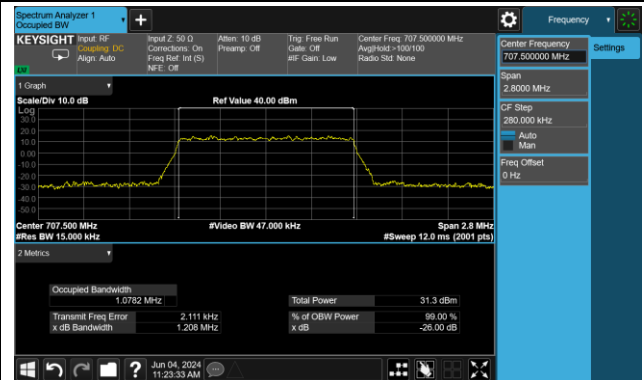


99% Bandwidth – 1.4MHz Bandwidth 16QAM

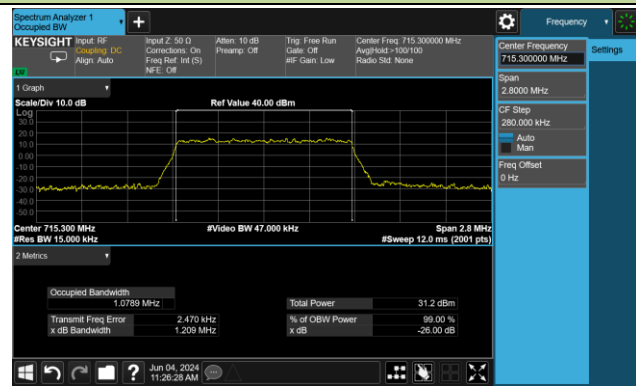
Low Channel Bandwidth



Middle Channel Bandwidth



High Channel Bandwidth



99% Bandwidth – 3MHz Bandwidth 16QAM

Low Channel Bandwidth



Middle Channel Bandwidth

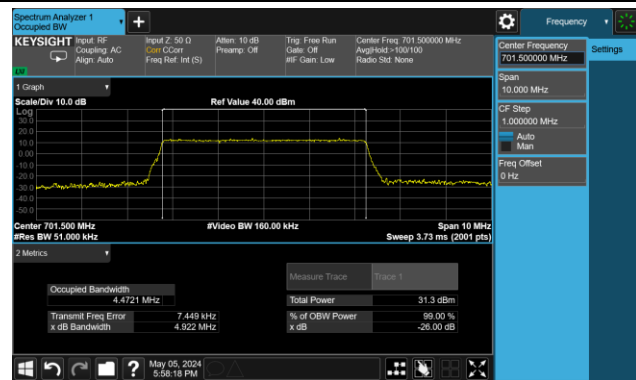


High Channel Bandwidth

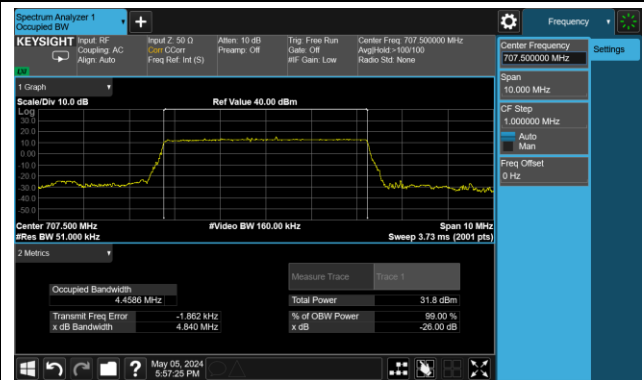


99% Bandwidth – 5MHz Bandwidth 16QAM

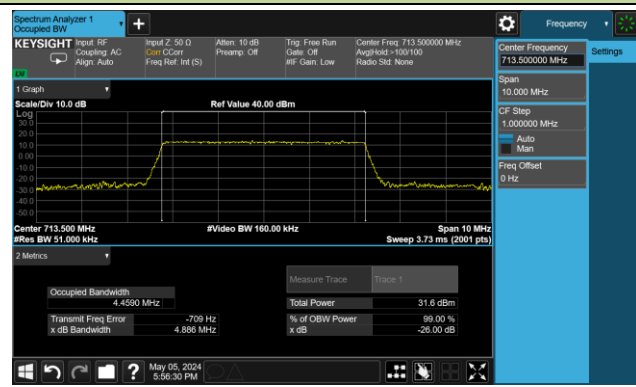
Low Channel Bandwidth



Middle Channel Bandwidth



High Channel Bandwidth

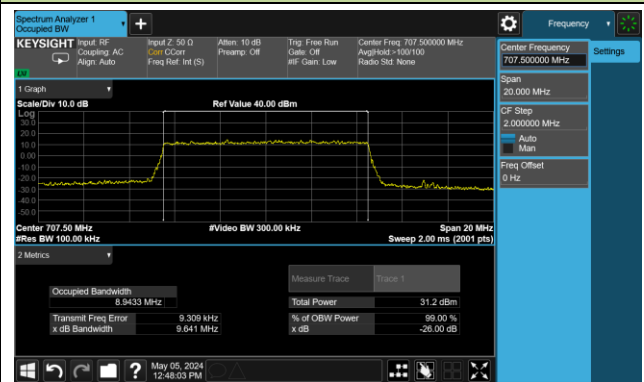


99% Bandwidth – 10MHz Bandwidth 16QAM

Low Channel Bandwidth



Middle Channel Bandwidth

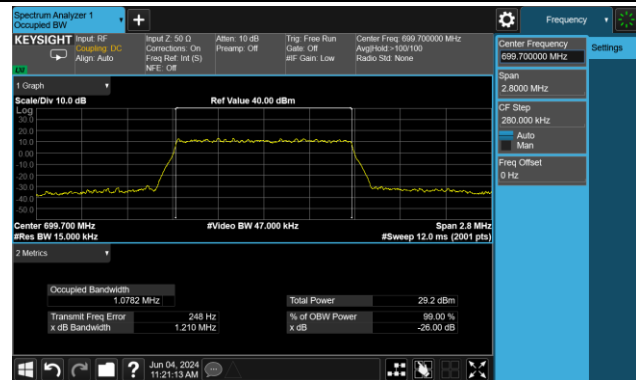


High Channel Bandwidth

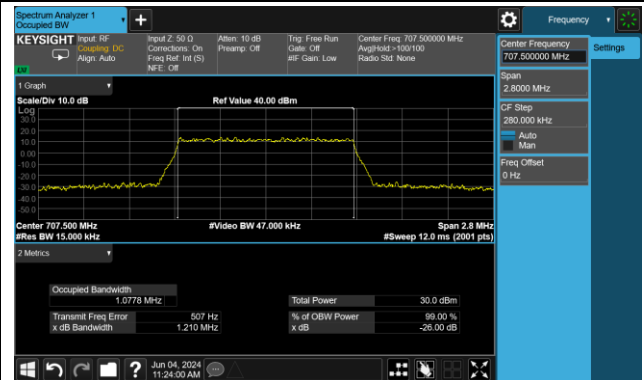


99% Bandwidth – 1.4MHz Bandwidth 64QAM

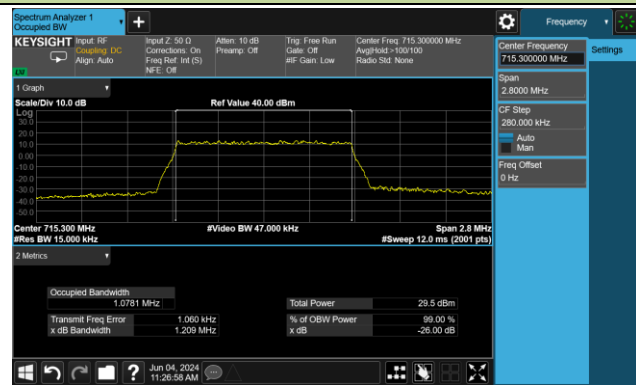
Low Channel Bandwidth



Middle Channel Bandwidth



High Channel Bandwidth

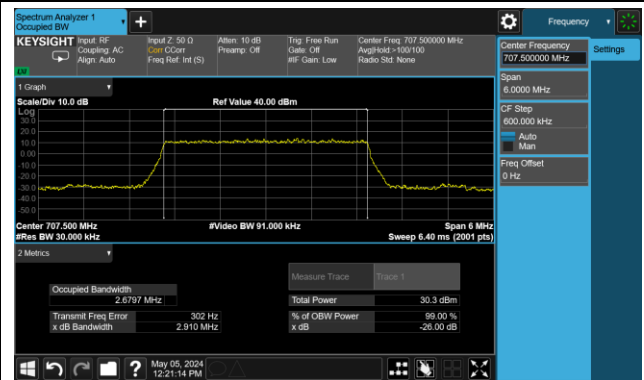


99% Bandwidth – 3MHz Bandwidth 64QAM

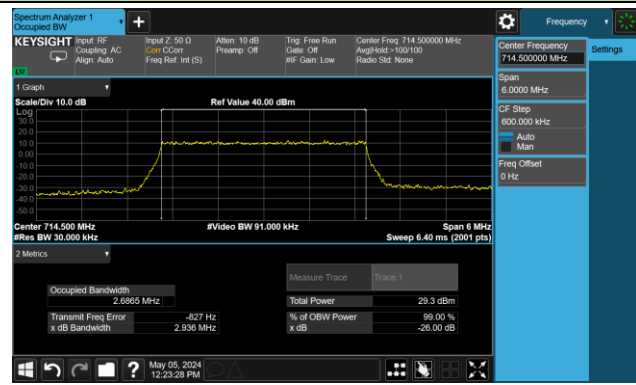
Low Channel Bandwidth



Middle Channel Bandwidth

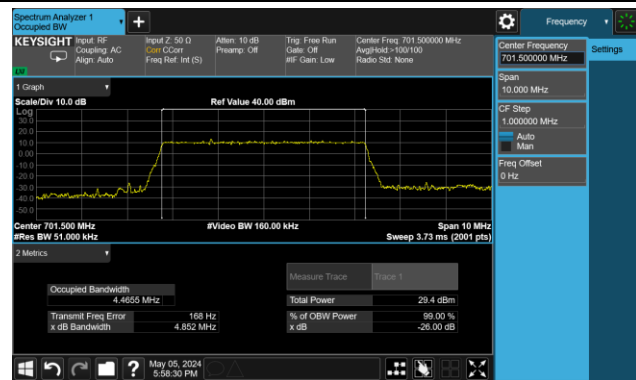


High Channel Bandwidth



99% Bandwidth – 5MHz Bandwidth 64QAM

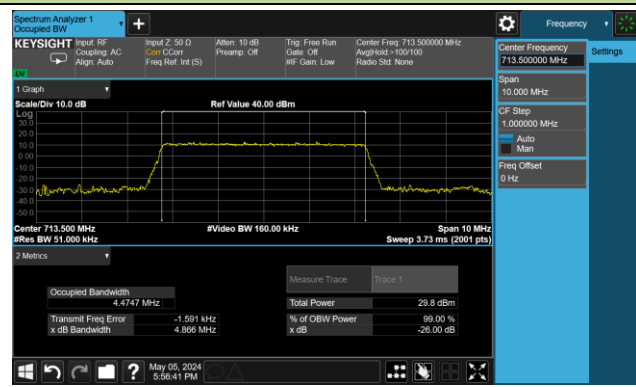
Low Channel Bandwidth



Middle Channel Bandwidth



High Channel Bandwidth



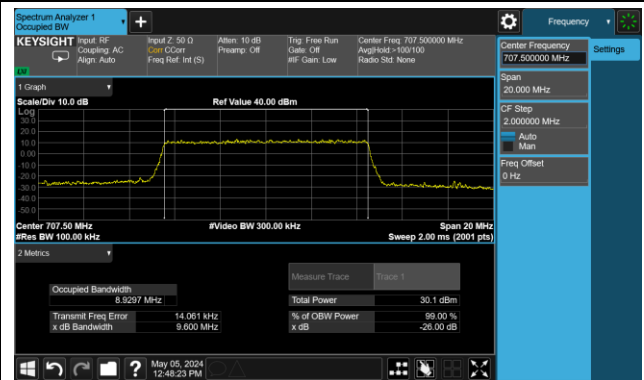


99% Bandwidth – 10MHz Bandwidth 64QAM

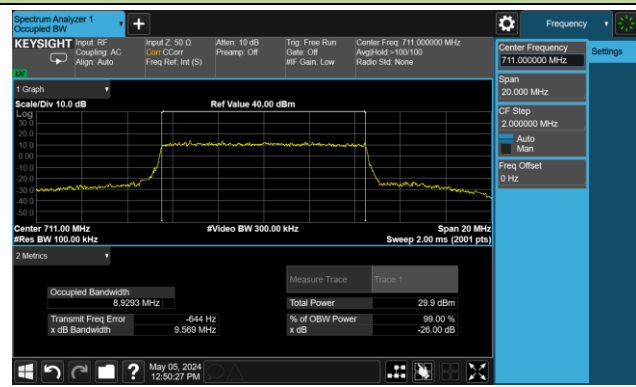
Low Channel Bandwidth



Middle Channel Bandwidth



High Channel Bandwidth



|           |            |               |              |
|-----------|------------|---------------|--------------|
| Test Site | SIP-SR1    | Test Engineer | Yoniter Yang |
| Test Date | 2024-05-05 | Test Band     | Band 13      |

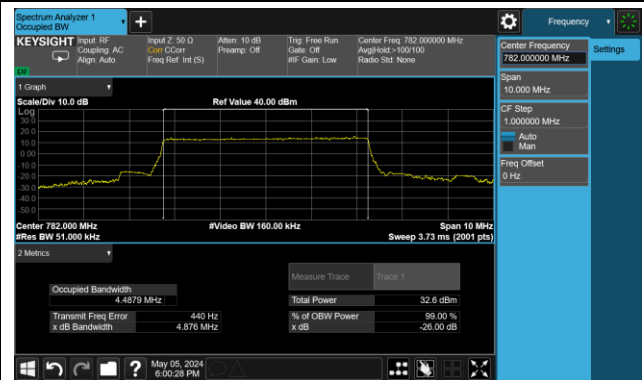
| Bandwidth (MHz) | Frequency (MHz) | 99% Bandwidth (MHz) |
|-----------------|-----------------|---------------------|
| QPSK            |                 |                     |
| 5               | 779.50          | 4.46                |
|                 | 782.00          | 4.49                |
|                 | 784.50          | 4.47                |
| 10              | 782.00          | 8.96                |
| 16QAM           |                 |                     |
| 5               | 779.50          | 4.46                |
|                 | 782.00          | 4.47                |
|                 | 784.50          | 4.46                |
| 10              | 782.00          | 8.94                |
| 64QAM           |                 |                     |
| 5               | 779.50          | 4.45                |
|                 | 782.00          | 4.48                |
|                 | 784.50          | 4.46                |
| 10              | 782.00          | 8.94                |

99% Bandwidth – 5MHz Bandwidth QPSK

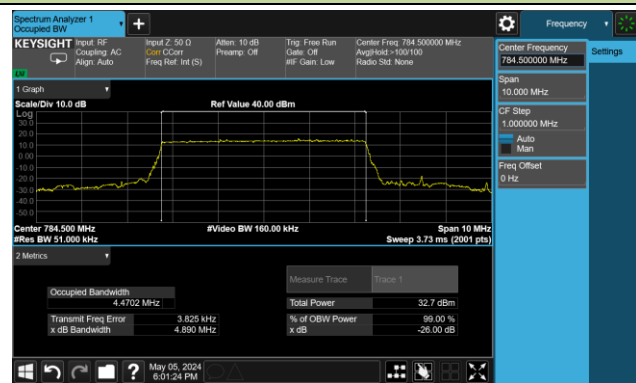
Low Channel Bandwidth



Middle Channel Bandwidth



High Channel Bandwidth



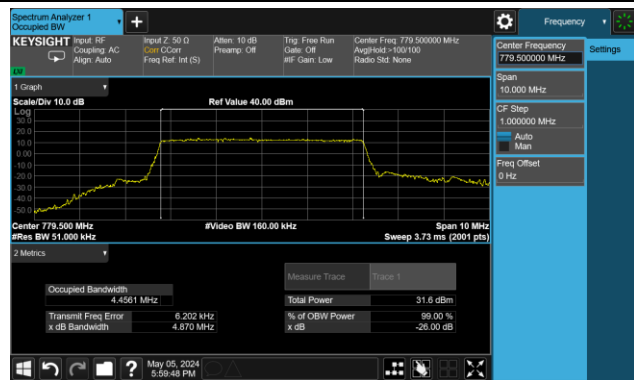
99% Bandwidth – 10MHz Bandwidth QPSK

Middle Channel Bandwidth

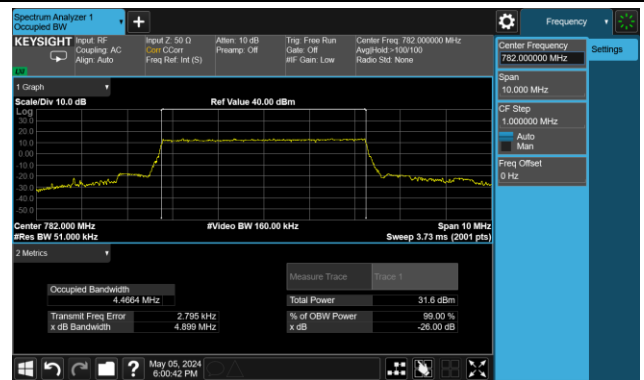


99% Bandwidth – 5MHz Bandwidth 16QAM

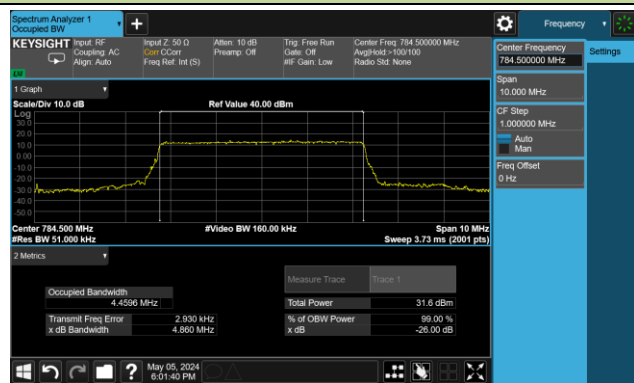
Low Channel Bandwidth



Middle Channel Bandwidth

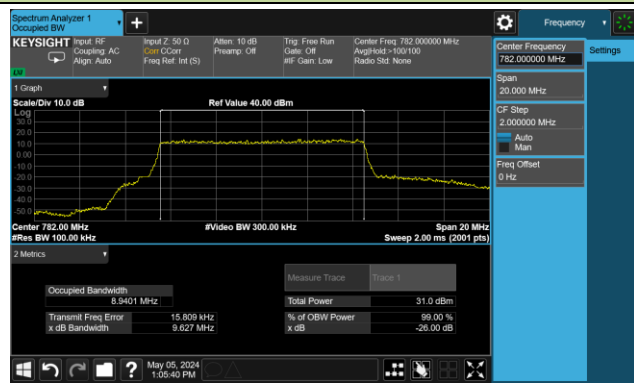


High Channel Bandwidth



99% Bandwidth – 10MHz Bandwidth 16QAM

Middle Channel Bandwidth

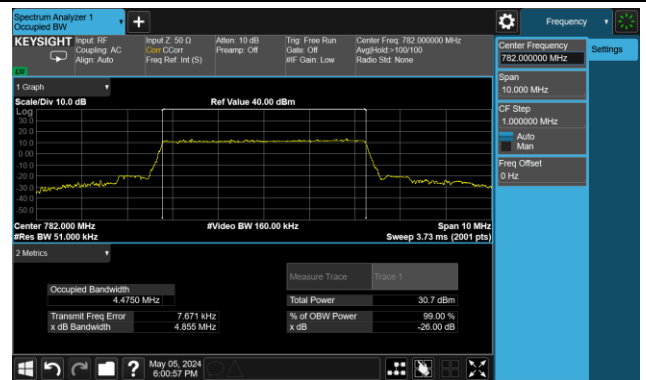


99% Bandwidth – 5MHz Bandwidth 64QAM

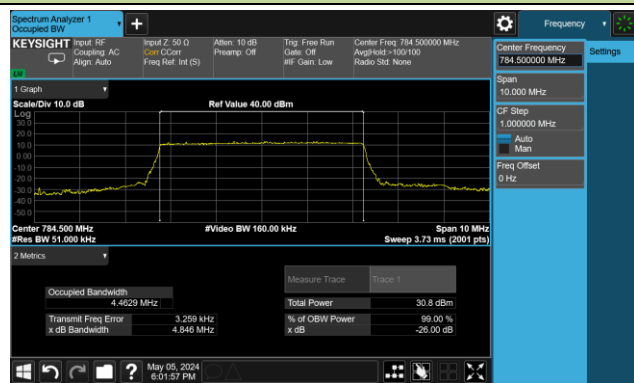
Low Channel Bandwidth



Middle Channel Bandwidth



High Channel Bandwidth



99% Bandwidth – 10MHz Bandwidth 64QAM

Middle Channel Bandwidth



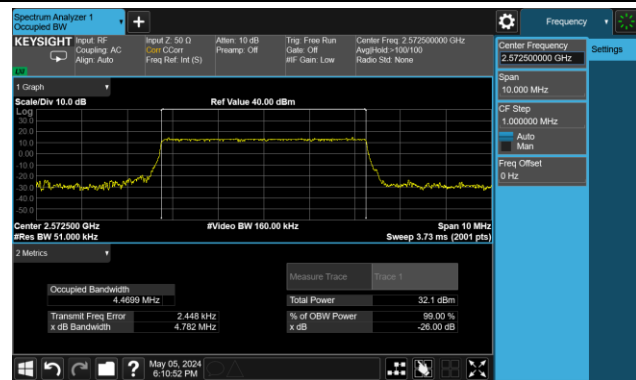
|           |            |               |              |
|-----------|------------|---------------|--------------|
| Test Site | SIP-SR1    | Test Engineer | Yoniter Yang |
| Test Date | 2024-05-05 | Test Band     | Band 38      |

| Bandwidth (MHz) | Frequency (MHz) | 99% Bandwidth (MHz) |
|-----------------|-----------------|---------------------|
| QPSK            |                 |                     |
| 5               | 2572.50         | 4.47                |
|                 | 2595.00         | 4.46                |
|                 | 2617.50         | 4.46                |
| 10              | 2575.00         | 8.93                |
|                 | 2595.00         | 8.94                |
|                 | 2615.00         | 8.94                |
| 15              | 2577.50         | 13.39               |
|                 | 2595.00         | 13.37               |
|                 | 2612.50         | 13.40               |
| 20              | 2580.00         | 17.83               |
|                 | 2595.00         | 17.82               |
|                 | 2610.00         | 17.85               |
| 16QAM           |                 |                     |
| 5               | 2572.50         | 4.46                |
|                 | 2595.00         | 4.46                |
|                 | 2617.50         | 4.45                |
| 10              | 2575.00         | 8.94                |
|                 | 2595.00         | 8.93                |
|                 | 2615.00         | 8.93                |
| 15              | 2577.50         | 13.41               |
|                 | 2595.00         | 13.40               |
|                 | 2612.50         | 13.43               |
| 20              | 2580.00         | 17.85               |
|                 | 2595.00         | 17.85               |
|                 | 2610.00         | 17.88               |

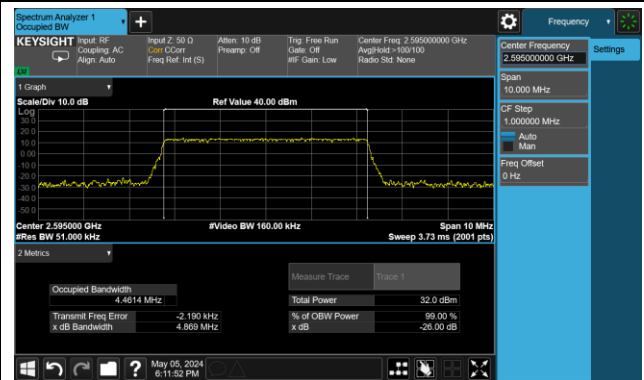
| Bandwidth (MHz) | Frequency (MHz) | 99% Bandwidth (MHz) |
|-----------------|-----------------|---------------------|
| 64QAM           |                 |                     |
| 5               | 2572.50         | 4.45                |
|                 | 2595.00         | 4.46                |
|                 | 2617.50         | 4.46                |
| 10              | 2575.00         | 8.96                |
|                 | 2595.00         | 8.93                |
|                 | 2615.00         | 8.95                |
| 15              | 2577.50         | 13.39               |
|                 | 2595.00         | 13.39               |
|                 | 2612.50         | 13.40               |
| 20              | 2580.00         | 17.84               |
|                 | 2595.00         | 17.83               |
|                 | 2610.00         | 17.88               |

99% Bandwidth – 5MHz Bandwidth QPSK

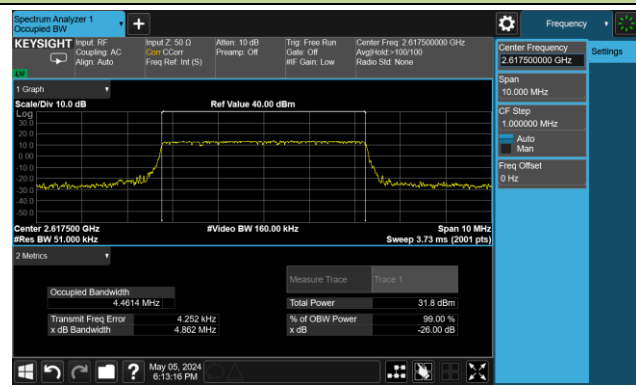
Low Channel Bandwidth



Middle Channel Bandwidth



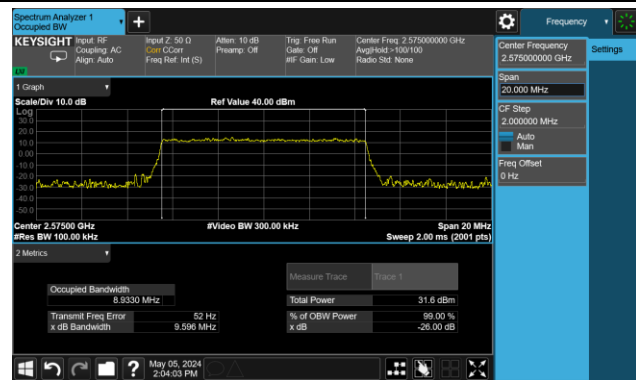
High Channel Bandwidth



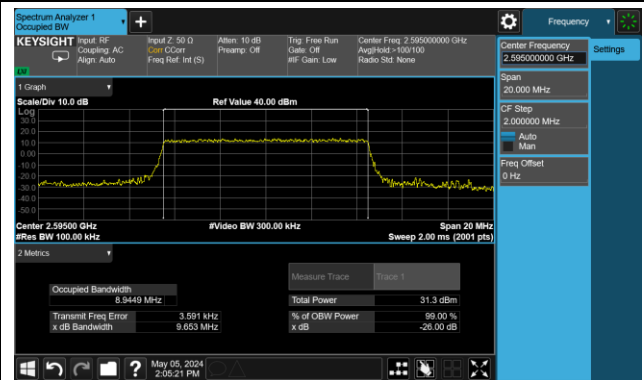


99% Bandwidth – 10MHz Bandwidth QPSK

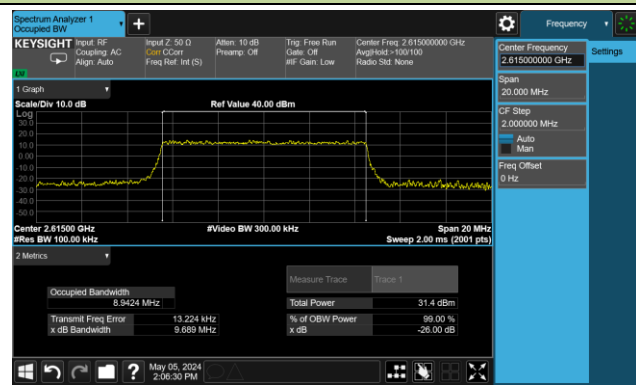
Low Channel Bandwidth



Middle Channel Bandwidth

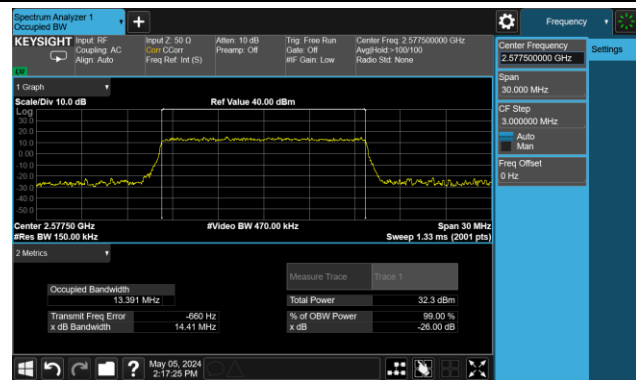


High Channel Bandwidth

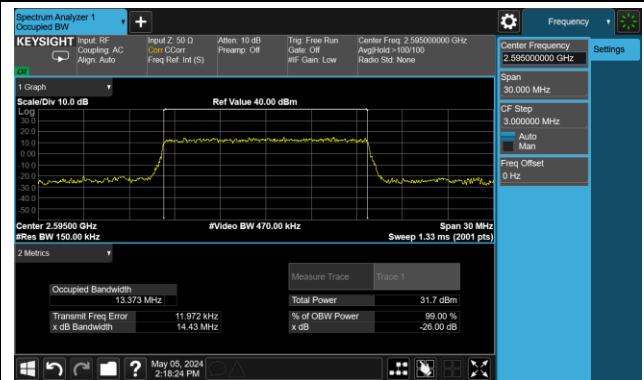


99% Bandwidth – 15MHz Bandwidth QPSK

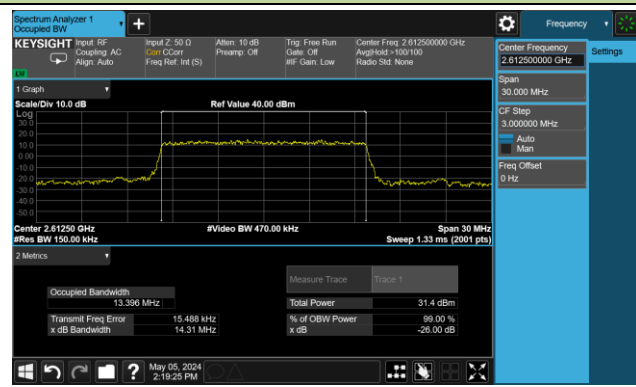
Low Channel Bandwidth

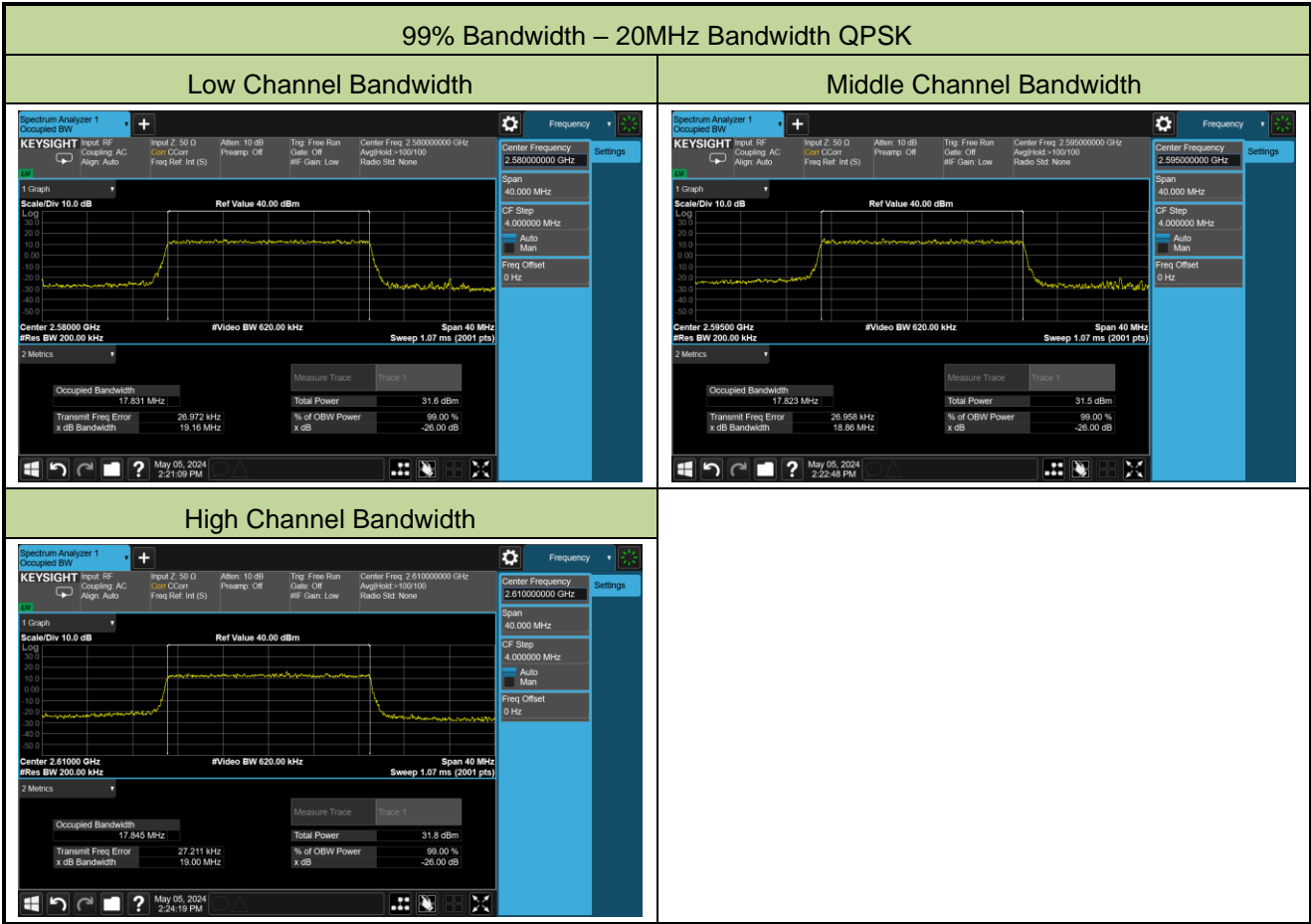


Middle Channel Bandwidth



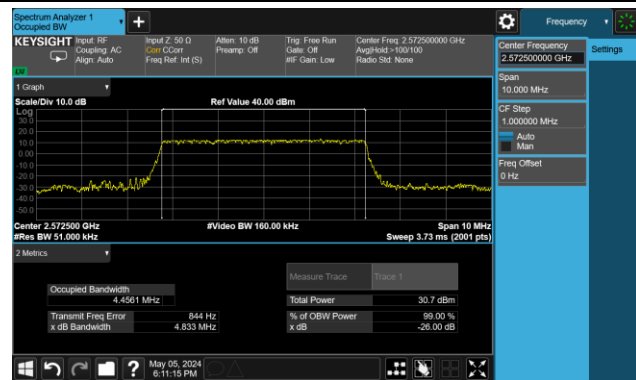
High Channel Bandwidth



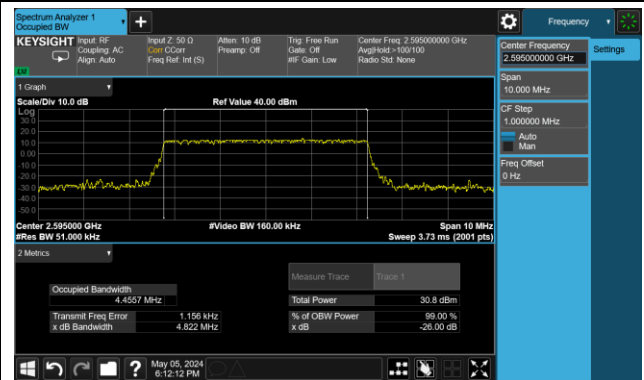


99% Bandwidth – 5MHz Bandwidth 16QAM

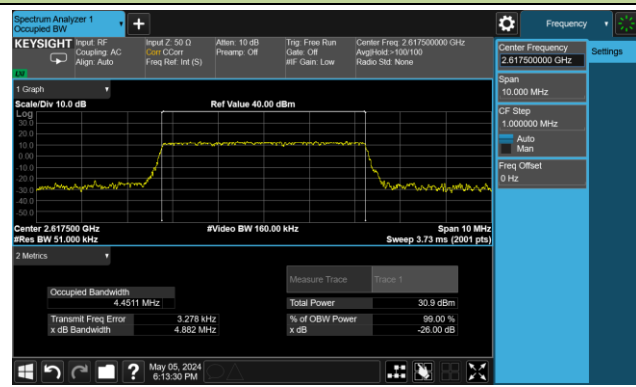
Low Channel Bandwidth



Middle Channel Bandwidth

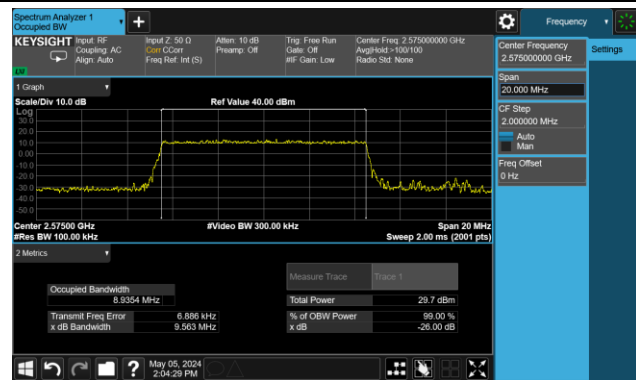


High Channel Bandwidth

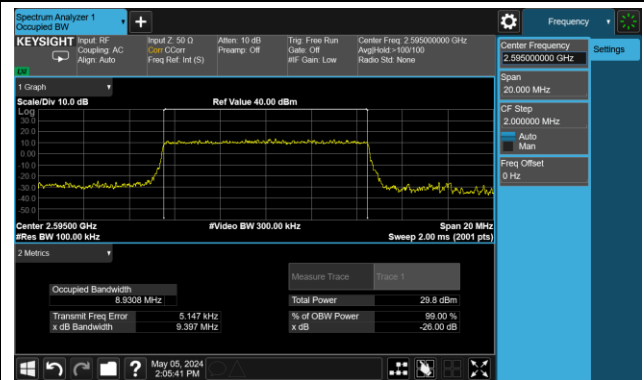


99% Bandwidth – 10MHz Bandwidth 16QAM

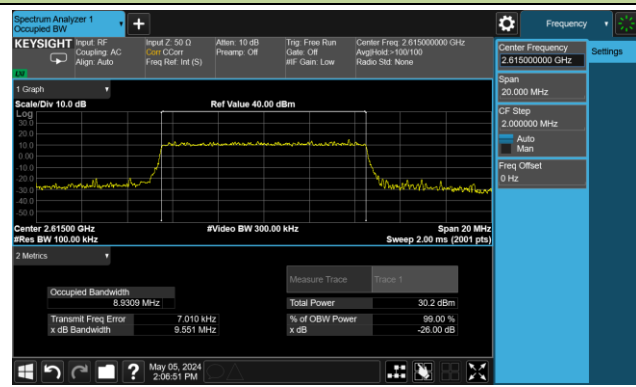
Low Channel Bandwidth



Middle Channel Bandwidth

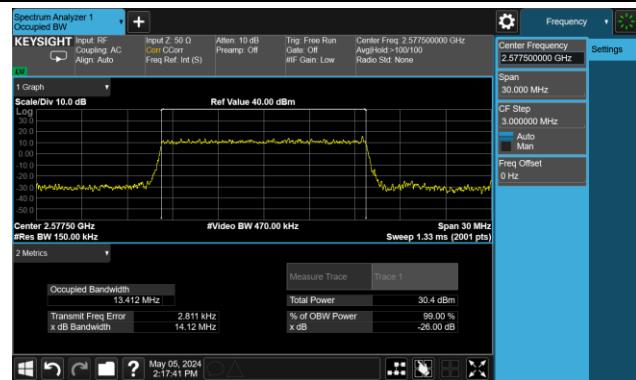


High Channel Bandwidth

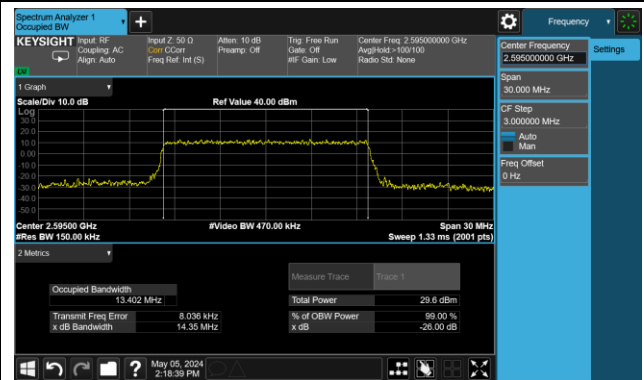


99% Bandwidth – 15MHz Bandwidth 16QAM

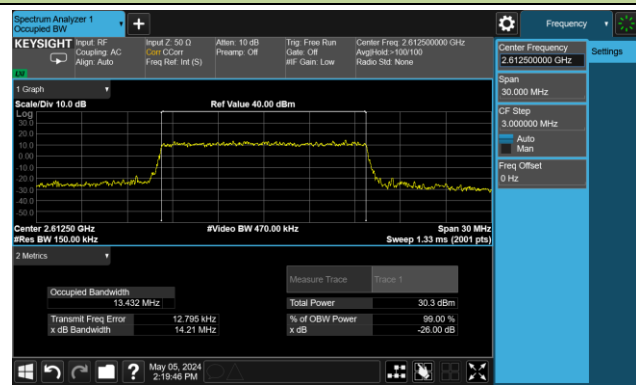
Low Channel Bandwidth



Middle Channel Bandwidth

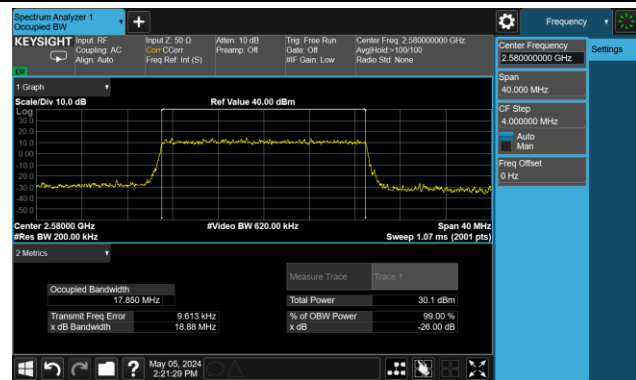


High Channel Bandwidth

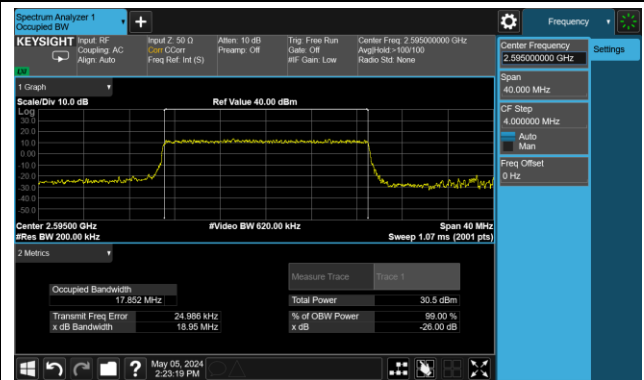


99% Bandwidth – 20MHz Bandwidth 16QAM

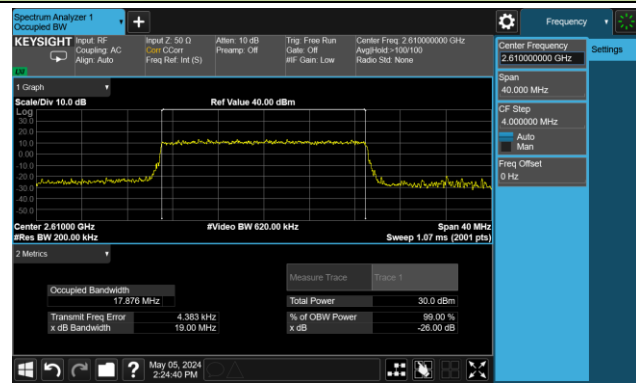
Low Channel Bandwidth



Middle Channel Bandwidth

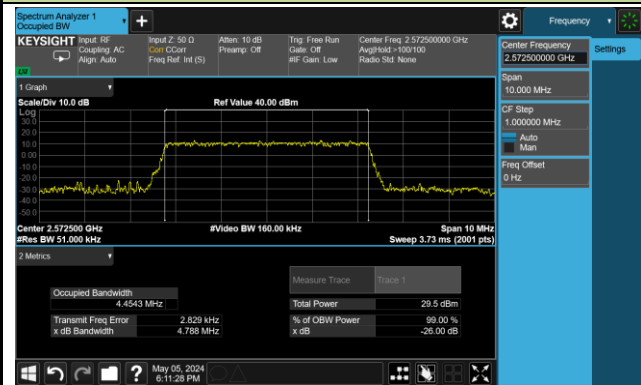


High Channel Bandwidth

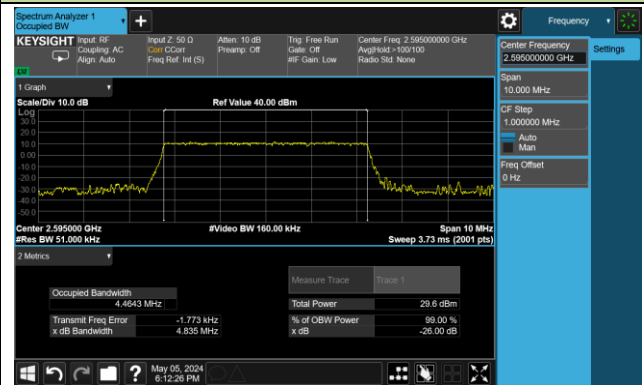


99% Bandwidth – 5MHz Bandwidth 64QAM

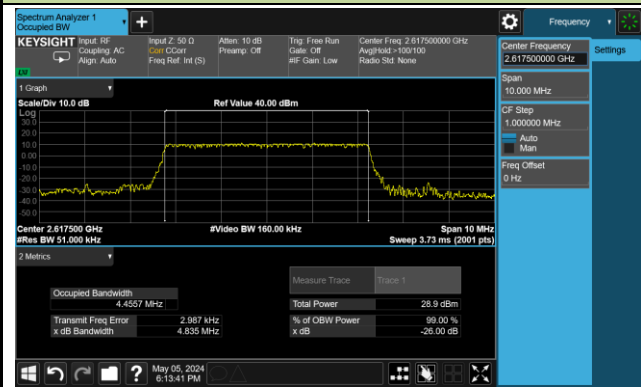
Low Channel Bandwidth



Middle Channel Bandwidth



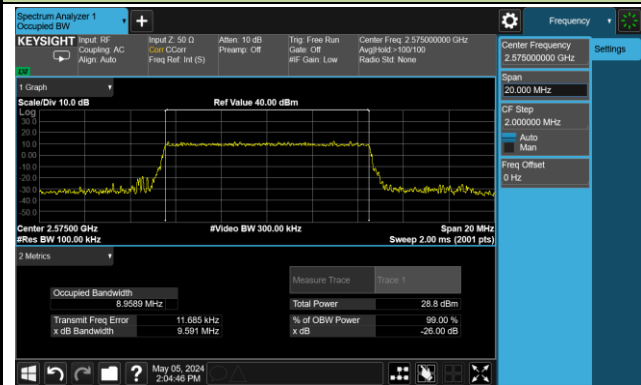
High Channel Bandwidth



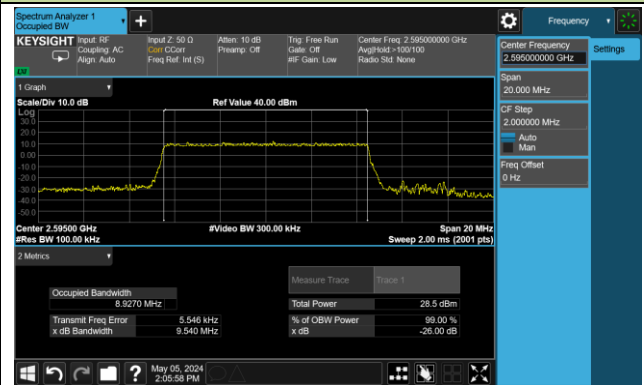


99% Bandwidth – 10MHz Bandwidth 64QAM

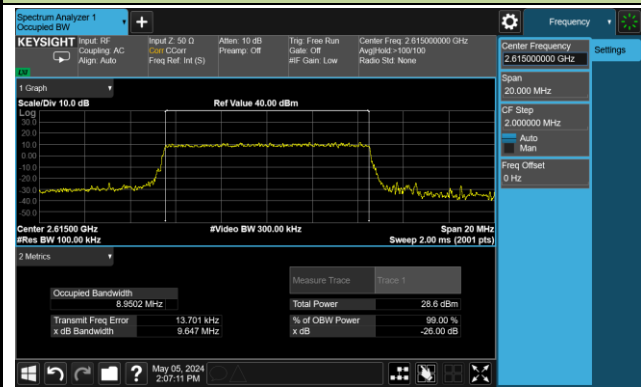
Low Channel Bandwidth



Middle Channel Bandwidth



High Channel Bandwidth

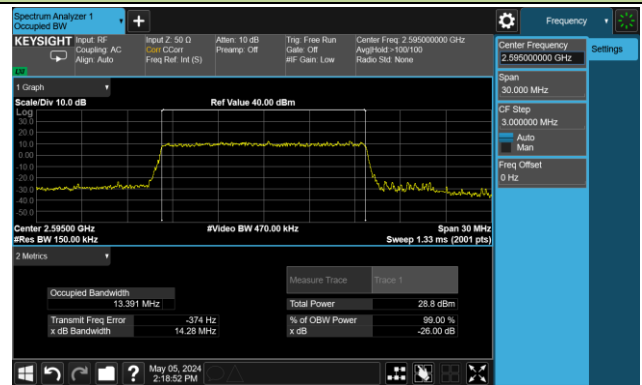


99% Bandwidth – 15MHz Bandwidth 64QAM

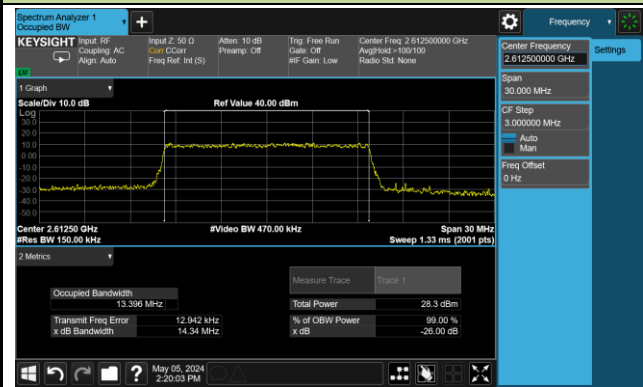
Low Channel Bandwidth



Middle Channel Bandwidth

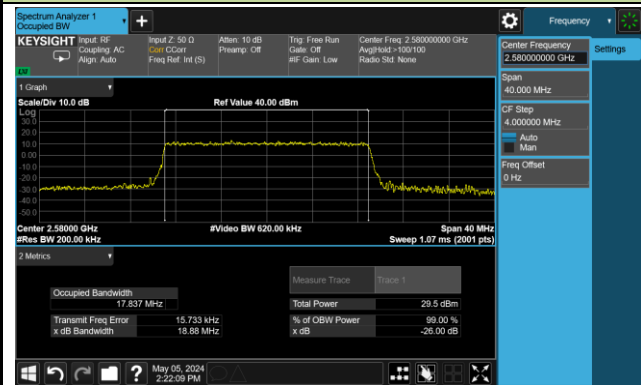


High Channel Bandwidth

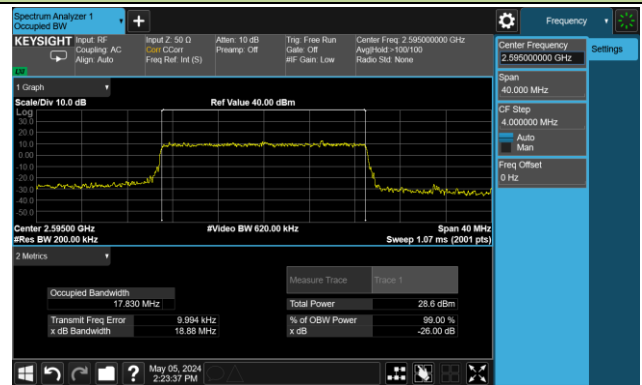


99% Bandwidth – 20MHz Bandwidth 64QAM

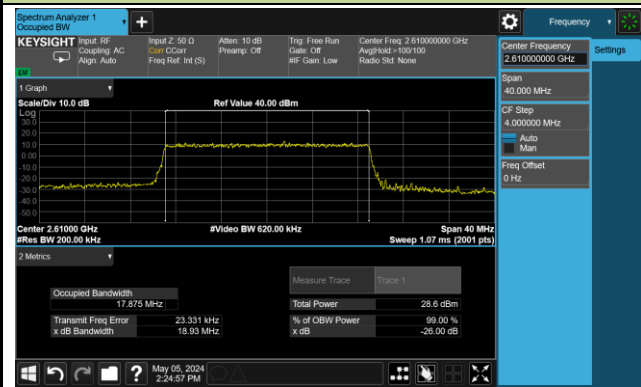
Low Channel Bandwidth



Middle Channel Bandwidth



High Channel Bandwidth



|           |                         |               |              |
|-----------|-------------------------|---------------|--------------|
| Test Site | SIP-SR1                 | Test Engineer | Yoniter Yang |
| Test Date | 2024-04-25 ~ 2024-05-06 | Test Band     | Band 41_HPUE |

| Bandwidth (MHz) | Frequency (MHz) | 99% Bandwidth (MHz) |
|-----------------|-----------------|---------------------|
| QPSK            |                 |                     |
| 5               | 2498.50         | 4.46                |
|                 | 2593.00         | 4.48                |
|                 | 2687.50         | 4.46                |
| 10              | 2501.00         | 8.94                |
|                 | 2593.00         | 8.94                |
|                 | 2685.00         | 8.94                |
| 15              | 2503.50         | 13.40               |
|                 | 2593.00         | 13.39               |
|                 | 2682.50         | 13.40               |
| 20              | 2506.00         | 17.88               |
|                 | 2593.00         | 17.85               |
|                 | 2680.00         | 17.84               |
| 16QAM           |                 |                     |
| 5               | 2498.50         | 4.47                |
|                 | 2593.00         | 4.46                |
|                 | 2687.50         | 4.46                |
| 10              | 2501.00         | 8.94                |
|                 | 2593.00         | 8.91                |
|                 | 2685.00         | 8.94                |
| 15              | 2503.50         | 13.39               |
|                 | 2593.00         | 13.40               |
|                 | 2682.50         | 13.38               |
| 20              | 2506.00         | 17.87               |
|                 | 2593.00         | 17.84               |
|                 | 2680.00         | 17.86               |

| Bandwidth (MHz) | Frequency (MHz) | 99% Bandwidth (MHz) |
|-----------------|-----------------|---------------------|
| 64QAM           |                 |                     |
| 5               | 2498.5          | 4.44                |
|                 | 2593.0          | 4.46                |
|                 | 2687.5          | 4.46                |
| 10              | 2501.0          | 8.93                |
|                 | 2593.0          | 8.95                |
|                 | 2685.0          | 8.94                |
| 15              | 2503.5          | 13.37               |
|                 | 2593.0          | 13.41               |
|                 | 2682.5          | 13.38               |
| 20              | 2506.0          | 17.85               |
|                 | 2593.0          | 17.86               |
|                 | 2680.0          | 17.88               |