

| | | | | |
|--------|--------|--------|--------|------|
| 2 | QPSK | Low | 874.00 | 8.04 |
| | | Middle | 881.50 | 8.04 |
| | | High | 889.00 | 8.03 |
| | 16QAM | Low | 874.00 | 8.02 |
| | | Middle | 881.50 | 7.99 |
| | | High | 889.00 | 8.06 |
| | 64QAM | Low | 874.00 | 7.97 |
| | | Middle | 881.50 | 7.99 |
| | | High | 889.00 | 8.04 |
| 256QAM | Low | 874.00 | 8.03 | |
| | Middle | 881.50 | 8.05 | |
| | High | 889.00 | 8.04 | |
| 3 | QPSK | Low | 874.00 | 8.04 |
| | | Middle | 881.50 | 8.02 |
| | | High | 889.00 | 8.02 |
| | 16QAM | Low | 874.00 | 8.01 |
| | | Middle | 881.50 | 8.01 |
| | | High | 889.00 | 7.96 |
| | 64QAM | Low | 874.00 | 7.99 |
| | | Middle | 881.50 | 8.05 |
| | | High | 889.00 | 8.01 |
| 256QAM | Low | 874.00 | 8.04 | |
| | Middle | 881.50 | 8.02 | |
| | High | 889.00 | 8.04 | |

(4 Port)5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier]

| Ant. | Modulation | Channel | Frequency (MHz) | 0.1 % PAPR (dB) |
|------|------------|---------|-----------------|-----------------|
| 0 | QPSK | Low | 879.00 | 8.42 |
| | | Middle | 881.50 | 8.36 |
| | | High | 884.00 | 8.42 |
| | 16QAM | Low | 879.00 | 8.40 |
| | | Middle | 881.50 | 8.39 |
| | | High | 884.00 | 8.36 |
| | 64QAM | Low | 879.00 | 8.37 |
| | | Middle | 881.50 | 8.38 |
| | | High | 884.00 | 8.44 |
| | 256QAM | Low | 879.00 | 8.46 |
| | | Middle | 881.50 | 8.37 |
| | | High | 884.00 | 8.37 |
| 1 | QPSK | Low | 879.00 | 8.45 |
| | | Middle | 881.50 | 8.41 |
| | | High | 884.00 | 8.39 |
| | 16QAM | Low | 879.00 | 8.39 |
| | | Middle | 881.50 | 8.36 |
| | | High | 884.00 | 8.36 |
| | 64QAM | Low | 879.00 | 8.44 |
| | | Middle | 881.50 | 8.37 |
| | | High | 884.00 | 8.35 |
| | 256QAM | Low | 879.00 | 8.46 |
| | | Middle | 881.50 | 8.41 |
| | | High | 884.00 | 8.43 |

| | | | | |
|--------|--------|--------|--------|------|
| 2 | QPSK | Low | 879.00 | 8.01 |
| | | Middle | 881.50 | 8.01 |
| | | High | 884.00 | 7.98 |
| | 16QAM | Low | 879.00 | 8.02 |
| | | Middle | 881.50 | 8.00 |
| | | High | 884.00 | 8.02 |
| | 64QAM | Low | 879.00 | 8.04 |
| | | Middle | 881.50 | 8.00 |
| | | High | 884.00 | 7.99 |
| 256QAM | Low | 879.00 | 7.98 | |
| | Middle | 881.50 | 7.99 | |
| | High | 884.00 | 7.99 | |
| 3 | QPSK | Low | 879.00 | 7.72 |
| | | Middle | 881.50 | 7.66 |
| | | High | 884.00 | 7.61 |
| | 16QAM | Low | 879.00 | 7.76 |
| | | Middle | 881.50 | 7.67 |
| | | High | 884.00 | 7.99 |
| | 64QAM | Low | 879.00 | 7.74 |
| | | Middle | 881.50 | 7.67 |
| | | High | 884.00 | 7.60 |
| 256QAM | Low | 879.00 | 7.73 | |
| | Middle | 881.50 | 7.67 | |
| | High | 884.00 | 7.60 | |

(4 Port)B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier]

| Ant. | Modulation | Channel | Frequency (MHz) | 0.1 % PAPR (dB) |
|------|------------|---------|-----------------|-----------------|
| 0 | QPSK | Low | 879.00 | 8.83 |
| | | Middle | 881.50 | 8.42 |
| | | High | 884.00 | 8.34 |
| | 16QAM | Low | 879.00 | 8.38 |
| | | Middle | 881.50 | 8.43 |
| | | High | 884.00 | 8.37 |
| | 64QAM | Low | 879.00 | 8.77 |
| | | Middle | 881.50 | 8.33 |
| | | High | 884.00 | 8.37 |
| | 256QAM | Low | 879.00 | 8.71 |
| | | Middle | 881.50 | 8.38 |
| | | High | 884.00 | 8.37 |
| 1 | QPSK | Low | 879.00 | 8.70 |
| | | Middle | 881.50 | 8.39 |
| | | High | 884.00 | 8.35 |
| | 16QAM | Low | 879.00 | 8.41 |
| | | Middle | 881.50 | 8.42 |
| | | High | 884.00 | 8.44 |
| | 64QAM | Low | 879.00 | 8.97 |
| | | Middle | 881.50 | 8.39 |
| | | High | 884.00 | 8.30 |
| | 256QAM | Low | 879.00 | 8.97 |
| | | Middle | 881.50 | 8.45 |
| | | High | 884.00 | 8.29 |

| | | | | |
|--------|--------|--------|--------|------|
| 2 | QPSK | Low | 879.00 | 8.45 |
| | | Middle | 881.50 | 8.06 |
| | | High | 884.00 | 8.11 |
| | 16QAM | Low | 879.00 | 8.09 |
| | | Middle | 881.50 | 8.11 |
| | | High | 884.00 | 8.12 |
| | 64QAM | Low | 879.00 | 8.29 |
| | | Middle | 881.50 | 8.09 |
| | | High | 884.00 | 8.09 |
| 256QAM | Low | 879.00 | 8.53 | |
| | Middle | 881.50 | 8.09 | |
| | High | 884.00 | 8.10 | |
| 3 | QPSK | Low | 879.00 | 8.57 |
| | | Middle | 881.50 | 8.09 |
| | | High | 884.00 | 8.13 |
| | 16QAM | Low | 879.00 | 8.08 |
| | | Middle | 881.50 | 8.09 |
| | | High | 884.00 | 8.10 |
| | 64QAM | Low | 879.00 | 8.78 |
| | | Middle | 881.50 | 8.10 |
| | | High | 884.00 | 8.14 |
| 256QAM | Low | 879.00 | 8.55 | |
| | Middle | 881.50 | 8.08 | |
| | High | 884.00 | 8.13 | |

(4 Port)5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier]

| Ant. | Modulation | Channel | Frequency (MHz) | 0.1 % PAPR (dB) |
|------|------------|---------|-----------------|-----------------|
| 0 | QPSK | Low | 874.00 | 8.44 |
| | | Middle | 881.50 | 8.33 |
| | | High | 889.00 | 8.43 |
| | 16QAM | Low | 874.00 | 8.45 |
| | | Middle | 881.50 | 8.45 |
| | | High | 889.00 | 8.51 |
| | 64QAM | Low | 874.00 | 8.41 |
| | | Middle | 881.50 | 8.39 |
| | | High | 889.00 | 8.39 |
| | 256QAM | Low | 874.00 | 8.36 |
| | | Middle | 881.50 | 8.40 |
| | | High | 889.00 | 8.35 |
| 1 | QPSK | Low | 874.00 | 8.40 |
| | | Middle | 881.50 | 8.42 |
| | | High | 889.00 | 8.40 |
| | 16QAM | Low | 874.00 | 8.44 |
| | | Middle | 881.50 | 8.46 |
| | | High | 889.00 | 8.48 |
| | 64QAM | Low | 874.00 | 8.43 |
| | | Middle | 881.50 | 8.44 |
| | | High | 889.00 | 8.33 |
| | 256QAM | Low | 874.00 | 8.43 |
| | | Middle | 881.50 | 8.41 |
| | | High | 889.00 | 8.40 |

| | | | | |
|--------|--------|--------|--------|------|
| 2 | QPSK | Low | 874.00 | 8.00 |
| | | Middle | 881.50 | 8.04 |
| | | High | 889.00 | 8.03 |
| | 16QAM | Low | 874.00 | 8.02 |
| | | Middle | 881.50 | 8.01 |
| | | High | 889.00 | 8.05 |
| | 64QAM | Low | 874.00 | 7.99 |
| | | Middle | 881.50 | 8.00 |
| | | High | 889.00 | 8.05 |
| 256QAM | Low | 874.00 | 7.98 | |
| | Middle | 881.50 | 8.01 | |
| | High | 889.00 | 7.99 | |
| 3 | QPSK | Low | 874.00 | 8.01 |
| | | Middle | 881.50 | 7.99 |
| | | High | 889.00 | 8.00 |
| | 16QAM | Low | 874.00 | 8.00 |
| | | Middle | 881.50 | 8.06 |
| | | High | 889.00 | 7.95 |
| | 64QAM | Low | 874.00 | 8.03 |
| | | Middle | 881.50 | 8.04 |
| | | High | 889.00 | 8.05 |
| 256QAM | Low | 874.00 | 8.00 | |
| | Middle | 881.50 | 8.06 | |
| | High | 889.00 | 8.05 | |

(4 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier]

| Ant. | Modulation | Channel | Frequency (MHz) | 0.1 % PAPR (dB) |
|------|------------|---------|-----------------|-----------------|
| 0 | QPSK | Low | 876.50 | 8.33 |
| | | Middle | 881.50 | 8.45 |
| | | High | 886.50 | 8.33 |
| | 16QAM | Low | 876.50 | 8.46 |
| | | Middle | 881.50 | 8.39 |
| | | High | 886.50 | 8.40 |
| | 64QAM | Low | 876.50 | 8.37 |
| | | Middle | 881.50 | 8.40 |
| | | High | 886.50 | 8.33 |
| | 256QAM | Low | 876.50 | 8.34 |
| | | Middle | 881.50 | 8.39 |
| | | High | 886.50 | 8.39 |
| 1 | QPSK | Low | 876.50 | 8.37 |
| | | Middle | 881.50 | 8.37 |
| | | High | 886.50 | 8.40 |
| | 16QAM | Low | 876.50 | 8.37 |
| | | Middle | 881.50 | 8.38 |
| | | High | 886.50 | 8.36 |
| | 64QAM | Low | 876.50 | 8.36 |
| | | Middle | 881.50 | 8.34 |
| | | High | 886.50 | 8.34 |
| | 256QAM | Low | 876.50 | 8.37 |
| | | Middle | 881.50 | 8.37 |
| | | High | 886.50 | 8.37 |

| | | | | |
|--------|--------|--------|--------|------|
| 2 | QPSK | Low | 876.50 | 8.02 |
| | | Middle | 881.50 | 8.05 |
| | | High | 886.50 | 7.74 |
| | 16QAM | Low | 876.50 | 8.08 |
| | | Middle | 881.50 | 8.05 |
| | | High | 886.50 | 8.10 |
| | 64QAM | Low | 876.50 | 8.03 |
| | | Middle | 881.50 | 8.05 |
| | | High | 886.50 | 7.75 |
| 256QAM | Low | 876.50 | 8.03 | |
| | Middle | 881.50 | 8.04 | |
| | High | 886.50 | 7.74 | |
| 3 | QPSK | Low | 876.50 | 8.04 |
| | | Middle | 881.50 | 8.04 |
| | | High | 886.50 | 7.71 |
| | 16QAM | Low | 876.50 | 8.08 |
| | | Middle | 881.50 | 8.08 |
| | | High | 886.50 | 8.08 |
| | 64QAM | Low | 876.50 | 8.04 |
| | | Middle | 881.50 | 8.04 |
| | | High | 886.50 | 7.72 |
| 256QAM | Low | 876.50 | 8.06 | |
| | Middle | 881.50 | 8.04 | |
| | High | 886.50 | 7.72 | |

(4 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier]

| Ant. | Modulation | Channel | Frequency (MHz) | 0.1 % PAPR (dB) |
|------|------------|---------|-----------------|-----------------|
| 0 | QPSK | Low | 879.00 | 8.38 |
| | | Middle | 881.50 | 8.37 |
| | | High | 884.00 | 8.41 |
| | 16QAM | Low | 879.00 | 8.39 |
| | | Middle | 881.50 | 8.41 |
| | | High | 884.00 | 8.42 |
| | 64QAM | Low | 879.00 | 8.36 |
| | | Middle | 881.50 | 8.37 |
| | | High | 884.00 | 8.31 |
| | 256QAM | Low | 879.00 | 8.32 |
| | | Middle | 881.50 | 8.38 |
| | | High | 884.00 | 8.38 |
| 1 | QPSK | Low | 879.00 | 8.33 |
| | | Middle | 881.50 | 8.37 |
| | | High | 884.00 | 8.36 |
| | 16QAM | Low | 879.00 | 8.39 |
| | | Middle | 881.50 | 8.40 |
| | | High | 884.00 | 8.41 |
| | 64QAM | Low | 879.00 | 8.33 |
| | | Middle | 881.50 | 8.38 |
| | | High | 884.00 | 8.33 |
| | 256QAM | Low | 879.00 | 8.32 |
| | | Middle | 881.50 | 8.32 |
| | | High | 884.00 | 8.36 |

| | | | | |
|--------|--------|--------|--------|------|
| 2 | QPSK | Low | 879.00 | 8.02 |
| | | Middle | 881.50 | 8.02 |
| | | High | 884.00 | 8.02 |
| | 16QAM | Low | 879.00 | 8.04 |
| | | Middle | 881.50 | 8.03 |
| | | High | 884.00 | 8.04 |
| | 64QAM | Low | 879.00 | 8.06 |
| | | Middle | 881.50 | 8.01 |
| | | High | 884.00 | 8.01 |
| 256QAM | Low | 879.00 | 8.05 | |
| | Middle | 881.50 | 8.02 | |
| | High | 884.00 | 8.07 | |
| 3 | QPSK | Low | 879.00 | 8.07 |
| | | Middle | 881.50 | 8.02 |
| | | High | 884.00 | 8.04 |
| | 16QAM | Low | 879.00 | 8.07 |
| | | Middle | 881.50 | 8.02 |
| | | High | 884.00 | 8.08 |
| | 64QAM | Low | 879.00 | 8.07 |
| | | Middle | 881.50 | 8.03 |
| | | High | 884.00 | 8.03 |
| 256QAM | Low | 879.00 | 8.01 | |
| | Middle | 881.50 | 7.99 | |
| | High | 884.00 | 8.02 | |

(2 Port)5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier]

| Ant. | Modulation | Channel | Frequency (MHz) | 0.1 % PAPR (dB) |
|------|------------|---------|-----------------|-----------------|
| 0 | QPSK | Middle | 881.50 | 8.00 |
| | 16QAM | Middle | 881.50 | 7.97 |
| | 64QAM | Middle | 881.50 | 8.04 |
| | 256QAM | Middle | 881.50 | 8.02 |
| 1 | QPSK | Middle | 881.50 | 8.02 |
| | 16QAM | Middle | 881.50 | 8.02 |
| | 64QAM | Middle | 881.50 | 8.03 |
| | 256QAM | Middle | 881.50 | 8.04 |

(2 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier]

| Ant. | Modulation | Channel | Frequency (MHz) | 0.1 % PAPR (dB) |
|------|------------|---------|-----------------|-----------------|
| 0 | QPSK | Low | 879.00 | 8.03 |
| | | Middle | 881.50 | 8.02 |
| | | High | 884.00 | 8.07 |
| | 16QAM | Low | 879.00 | 8.02 |
| | | Middle | 881.50 | 8.04 |
| | | High | 884.00 | 8.06 |
| | 64QAM | Low | 879.00 | 8.03 |
| | | Middle | 881.50 | 8.01 |
| | | High | 884.00 | 8.06 |
| | 256QAM | Low | 879.00 | 8.04 |
| | | Middle | 881.50 | 8.03 |
| | | High | 884.00 | 8.07 |
| 1 | QPSK | Low | 879.00 | 7.99 |
| | | Middle | 881.50 | 8.03 |
| | | High | 884.00 | 8.07 |
| | 16QAM | Low | 879.00 | 8.02 |
| | | Middle | 881.50 | 7.99 |
| | | High | 884.00 | 8.09 |
| | 64QAM | Low | 879.00 | 7.99 |
| | | Middle | 881.50 | 8.02 |
| | | High | 884.00 | 8.07 |
| | 256QAM | Low | 879.00 | 8.00 |
| | | Middle | 881.50 | 8.03 |
| | | High | 884.00 | 8.05 |

(2 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier]

| Ant. | Modulation | Channel | Frequency (MHz) | 0.1 % PAPR (dB) |
|------|------------|---------|-----------------|-----------------|
| 0 | QPSK | Middle | 881.50 | 8.04 |
| | 16QAM | Middle | 881.50 | 8.04 |
| | 64QAM | Middle | 881.50 | 8.03 |
| | 256QAM | Middle | 881.50 | 7.99 |
| 1 | QPSK | Middle | 881.50 | 8.03 |
| | 16QAM | Middle | 881.50 | 8.01 |
| | 64QAM | Middle | 881.50 | 8.00 |
| | 256QAM | Middle | 881.50 | 8.01 |

(4 Port)5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier]

| Ant. | Modulation | Channel | Frequency (MHz) | 0.1 % PAPR (dB) |
|------|------------|---------|-----------------|-----------------|
| 0 | QPSK | Middle | 881.50 | 8.37 |
| | 16QAM | Middle | 881.50 | 8.40 |
| | 64QAM | Middle | 881.50 | 8.38 |
| | 256QAM | Middle | 881.50 | 8.37 |
| 1 | QPSK | Middle | 881.50 | 8.41 |
| | 16QAM | Middle | 881.50 | 8.47 |
| | 64QAM | Middle | 881.50 | 8.39 |
| | 256QAM | Middle | 881.50 | 8.38 |
| 2 | QPSK | Middle | 881.50 | 8.03 |
| | 16QAM | Middle | 881.50 | 8.01 |
| | 64QAM | Middle | 881.50 | 8.01 |
| | 256QAM | Middle | 881.50 | 8.03 |
| 3 | QPSK | Middle | 881.50 | 8.06 |
| | 16QAM | Middle | 881.50 | 8.05 |
| | 64QAM | Middle | 881.50 | 8.05 |
| | 256QAM | Middle | 881.50 | 8.03 |

(4 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier]

| Ant. | Modulation | Channel | Frequency (MHz) | 0.1 % PAPR (dB) |
|------|------------|---------|-----------------|-----------------|
| 0 | QPSK | Low | 879.00 | 8.39 |
| | | Middle | 881.50 | 8.39 |
| | | High | 884.00 | 8.35 |
| | 16QAM | Low | 879.00 | 8.46 |
| | | Middle | 881.50 | 8.39 |
| | | High | 884.00 | 8.39 |
| | 64QAM | Low | 879.00 | 8.37 |
| | | Middle | 881.50 | 8.37 |
| | | High | 884.00 | 8.39 |
| | 256QAM | Low | 879.00 | 8.39 |
| | | Middle | 881.50 | 8.35 |
| | | High | 884.00 | 8.41 |
| 1 | QPSK | Low | 879.00 | 8.39 |
| | | Middle | 881.50 | 8.38 |
| | | High | 884.00 | 8.35 |
| | 16QAM | Low | 879.00 | 8.41 |
| | | Middle | 881.50 | 8.35 |
| | | High | 884.00 | 8.40 |
| | 64QAM | Low | 879.00 | 8.40 |
| | | Middle | 881.50 | 8.37 |
| | | High | 884.00 | 8.40 |
| | 256QAM | Low | 879.00 | 8.36 |
| | | Middle | 881.50 | 8.38 |
| | | High | 884.00 | 8.36 |

| | | | | |
|---|--------|--------|--------|------|
| 2 | QPSK | Low | 879.00 | 8.01 |
| | | Middle | 881.50 | 8.01 |
| | | High | 884.00 | 8.05 |
| | 16QAM | Low | 879.00 | 8.02 |
| | | Middle | 881.50 | 8.03 |
| | | High | 884.00 | 8.06 |
| | 64QAM | Low | 879.00 | 8.04 |
| | | Middle | 881.50 | 8.02 |
| | | High | 884.00 | 8.05 |
| | 256QAM | Low | 879.00 | 8.02 |
| | | Middle | 881.50 | 8.01 |
| | | High | 884.00 | 8.03 |
| 3 | QPSK | Low | 879.00 | 8.03 |
| | | Middle | 881.50 | 8.03 |
| | | High | 884.00 | 8.07 |
| | 16QAM | Low | 879.00 | 8.02 |
| | | Middle | 881.50 | 8.04 |
| | | High | 884.00 | 8.05 |
| | 64QAM | Low | 879.00 | 8.03 |
| | | Middle | 881.50 | 8.02 |
| | | High | 884.00 | 8.08 |
| | 256QAM | Low | 879.00 | 8.04 |
| | | Middle | 881.50 | 8.04 |
| | | High | 884.00 | 8.07 |

(4 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier]

| Ant. | Modulation | Channel | Frequency (MHz) | 0.1 % PAPR (dB) |
|------|------------|---------|-----------------|-----------------|
| 0 | QPSK | Middle | 881.50 | 8.36 |
| | 16QAM | Middle | 881.50 | 8.41 |
| | 64QAM | Middle | 881.50 | 8.33 |
| | 256QAM | Middle | 881.50 | 8.32 |
| 1 | QPSK | Middle | 881.50 | 8.37 |
| | 16QAM | Middle | 881.50 | 8.38 |
| | 64QAM | Middle | 881.50 | 8.35 |
| | 256QAM | Middle | 881.50 | 8.34 |
| 2 | QPSK | Middle | 881.50 | 8.05 |
| | 16QAM | Middle | 881.50 | 8.07 |
| | 64QAM | Middle | 881.50 | 8.06 |
| | 256QAM | Middle | 881.50 | 8.06 |
| 3 | QPSK | Middle | 881.50 | 8.06 |
| | 16QAM | Middle | 881.50 | 8.03 |
| | 64QAM | Middle | 881.50 | 8.02 |
| | 256QAM | Middle | 881.50 | 8.06 |

Tabular data of Non-Contiguous PAPR
(2 Port)5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier]

| Ant. | Modulation | 5G NR n5 5 MHz | | 5G NR n5 5 MHz | |
|------|------------|-----------------|---------------------|-----------------|---------------------|
| | | Frequency (MHz) | Measured Value (dB) | Frequency (MHz) | Measured Value (dB) |
| 0 | QPSK | 871.50 | 8.23 | 891.50 | 8.17 |
| | 16QAM | 871.50 | 8.13 | 891.50 | 8.08 |
| | 64QAM | 871.50 | 8.30 | 891.50 | 8.13 |
| | 256QAM | 871.50 | 8.29 | 891.50 | 8.12 |
| 1 | QPSK | 871.50 | 8.21 | 891.50 | 8.11 |
| | 16QAM | 871.50 | 8.14 | 891.50 | 8.15 |
| | 64QAM | 871.50 | 8.26 | 891.50 | 8.10 |
| | 256QAM | 871.50 | 8.19 | 891.50 | 8.10 |

(2 Port)5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier]

| Ant. | Modulation | 5G NR n5 10 MHz | | 5G NR n5 10 MHz | |
|------|------------|-----------------|---------------------|-----------------|---------------------|
| | | Frequency (MHz) | Measured Value (dB) | Frequency (MHz) | Measured Value (dB) |
| 0 | QPSK | 874.00 | 8.26 | 889.00 | 8.18 |
| | 16QAM | 874.00 | 8.22 | 889.00 | 8.27 |
| | 64QAM | 874.00 | 8.28 | 889.00 | 8.24 |
| | 256QAM | 874.00 | 8.28 | 889.00 | 8.26 |
| 1 | QPSK | 874.00 | 8.23 | 889.00 | 8.26 |
| | 16QAM | 874.00 | 8.20 | 889.00 | 8.29 |
| | 64QAM | 874.00 | 8.24 | 889.00 | 8.19 |
| | 256QAM | 874.00 | 8.23 | 889.00 | 8.18 |

(2 Port)B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier]

| Ant. | Modulation | B5 DSS 10 MHz | | B5 DSS 10 MHz | |
|------|------------|-----------------|---------------------|-----------------|---------------------|
| | | Frequency (MHz) | Measured Value (dB) | Frequency (MHz) | Measured Value (dB) |
| 0 | QPSK | 874.00 | 8.33 | 889.00 | 8.26 |
| | 16QAM | 874.00 | 8.21 | 889.00 | 8.21 |
| | 64QAM | 874.00 | 8.27 | 889.00 | 8.28 |
| | 256QAM | 874.00 | 8.26 | 889.00 | 8.22 |
| 1 | QPSK | 874.00 | 8.32 | 889.00 | 8.25 |
| | 16QAM | 874.00 | 8.21 | 889.00 | 8.19 |
| | 64QAM | 874.00 | 8.31 | 889.00 | 8.23 |
| | 256QAM | 874.00 | 8.32 | 889.00 | 8.28 |

(2 Port)5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier]

| Ant. | Modulation | 5G NR n5 5 MHz | | LTE B5 5 MHz | |
|------|------------|-----------------|---------------------|-----------------|---------------------|
| | | Frequency (MHz) | Measured Value (dB) | Frequency (MHz) | Measured Value (dB) |
| 0 | QPSK | 871.50 | 8.19 | 891.50 | 8.16 |
| | 16QAM | 871.50 | 8.12 | 891.50 | 8.15 |
| | 64QAM | 871.50 | 8.28 | 891.50 | 8.20 |
| | 256QAM | 871.50 | 8.18 | 891.50 | 8.18 |
| 1 | QPSK | 871.50 | 8.20 | 891.50 | 8.15 |
| | 16QAM | 871.50 | 8.13 | 891.50 | 8.15 |
| | 64QAM | 871.50 | 8.22 | 891.50 | 8.14 |
| | 256QAM | 871.50 | 8.21 | 891.50 | 8.16 |

(2 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier]

| Ant. | Modulation | B5 DSS 10 MHz | | 5G NR n5 5 MHz | |
|------|------------|-----------------|---------------------|-----------------|---------------------|
| | | Frequency (MHz) | Measured Value (dB) | Frequency (MHz) | Measured Value (dB) |
| 0 | QPSK | 874.00 | 8.06 | 891.50 | 8.25 |
| | 16QAM | 874.00 | 8.06 | 891.50 | 8.31 |
| | 64QAM | 874.00 | 8.06 | 891.50 | 8.24 |
| | 256QAM | 874.00 | 8.07 | 891.50 | 8.27 |
| 1 | QPSK | 874.00 | 8.05 | 891.50 | 8.32 |
| | 16QAM | 874.00 | 8.08 | 891.50 | 8.37 |
| | 64QAM | 874.00 | 8.07 | 891.50 | 8.35 |
| | 256QAM | 874.00 | 8.03 | 891.50 | 8.34 |

(2 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier]

| Ant. | Modulation | B5 DSS 10 MHz | | 5G NR n5 10 MHz | |
|------|------------|-----------------|---------------------|-----------------|---------------------|
| | | Frequency (MHz) | Measured Value (dB) | Frequency (MHz) | Measured Value (dB) |
| 0 | QPSK | 874.00 | 8.18 | 889.00 | 8.38 |
| | 16QAM | 874.00 | 8.18 | 889.00 | 8.47 |
| | 64QAM | 874.00 | 8.18 | 889.00 | 8.32 |
| | 256QAM | 874.00 | 8.16 | 889.00 | 8.34 |
| 1 | QPSK | 874.00 | 8.17 | 889.00 | 8.32 |
| | 16QAM | 874.00 | 8.15 | 889.00 | 8.46 |
| | 64QAM | 874.00 | 8.19 | 889.00 | 8.31 |
| | 256QAM | 874.00 | 8.16 | 889.00 | 8.37 |

(4 Port)5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier]

| Ant. | Modulation | 5G NR n5 5 MHz | | 5G NR n5 5 MHz | |
|------|------------|-----------------|---------------------|-----------------|---------------------|
| | | Frequency (MHz) | Measured Value (dB) | Frequency (MHz) | Measured Value (dB) |
| 0 | QPSK | 871.50 | 8.38 | 891.50 | 8.29 |
| | 16QAM | 871.50 | 8.43 | 891.50 | 8.43 |
| | 64QAM | 871.50 | 8.34 | 891.50 | 8.29 |
| | 256QAM | 871.50 | 8.42 | 891.50 | 8.31 |
| 1 | QPSK | 871.50 | 8.40 | 891.50 | 8.26 |
| | 16QAM | 871.50 | 8.36 | 891.50 | 8.40 |
| | 64QAM | 871.50 | 8.38 | 891.50 | 8.32 |
| | 256QAM | 871.50 | 8.35 | 891.50 | 8.30 |
| 2 | QPSK | 871.50 | 8.21 | 891.50 | 8.15 |
| | 16QAM | 871.50 | 8.23 | 891.50 | 8.15 |
| | 64QAM | 871.50 | 8.25 | 891.50 | 8.16 |
| | 256QAM | 871.50 | 8.25 | 891.50 | 8.15 |
| 3 | QPSK | 871.50 | 8.19 | 891.50 | 8.13 |
| | 16QAM | 871.50 | 8.20 | 891.50 | 8.23 |
| | 64QAM | 871.50 | 8.20 | 891.50 | 8.19 |
| | 256QAM | 871.50 | 8.25 | 891.50 | 8.14 |

(4 Port)5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier]

| Ant. | Modulation | 5G NR n5 10 MHz | | 5G NR n5 10 MHz | |
|------|------------|-----------------|---------------------|-----------------|---------------------|
| | | Frequency (MHz) | Measured Value (dB) | Frequency (MHz) | Measured Value (dB) |
| 0 | QPSK | 874.00 | 8.45 | 889.00 | 8.35 |
| | 16QAM | 874.00 | 8.39 | 889.00 | 8.46 |
| | 64QAM | 874.00 | 8.43 | 889.00 | 8.36 |
| | 256QAM | 874.00 | 8.41 | 889.00 | 8.27 |
| 1 | QPSK | 874.00 | 8.44 | 889.00 | 8.31 |
| | 16QAM | 874.00 | 8.35 | 889.00 | 8.44 |
| | 64QAM | 874.00 | 8.43 | 889.00 | 8.37 |
| | 256QAM | 874.00 | 8.42 | 889.00 | 8.32 |
| 2 | QPSK | 874.00 | 8.25 | 889.00 | 8.18 |
| | 16QAM | 874.00 | 8.18 | 889.00 | 8.32 |
| | 64QAM | 874.00 | 8.26 | 889.00 | 8.23 |
| | 256QAM | 874.00 | 8.24 | 889.00 | 8.18 |
| 3 | QPSK | 874.00 | 8.28 | 889.00 | 8.23 |
| | 16QAM | 874.00 | 8.20 | 889.00 | 8.30 |
| | 64QAM | 874.00 | 8.24 | 889.00 | 8.21 |
| | 256QAM | 874.00 | 8.28 | 889.00 | 8.23 |

(4 Port)B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier]

| Ant. | Modulation | B5 DSS 10 MHz | | B5 DSS 10 MHz | |
|------|------------|-----------------|---------------------|-----------------|---------------------|
| | | Frequency (MHz) | Measured Value (dB) | Frequency (MHz) | Measured Value (dB) |
| 0 | QPSK | 874.00 | 8.44 | 889.00 | 8.32 |
| | 16QAM | 874.00 | 8.27 | 889.00 | 8.28 |
| | 64QAM | 874.00 | 8.45 | 889.00 | 8.33 |
| | 256QAM | 874.00 | 8.44 | 889.00 | 8.39 |
| 1 | QPSK | 874.00 | 8.46 | 889.00 | 8.36 |
| | 16QAM | 874.00 | 8.32 | 889.00 | 8.33 |
| | 64QAM | 874.00 | 8.44 | 889.00 | 8.36 |
| | 256QAM | 874.00 | 8.42 | 889.00 | 8.35 |
| 2 | QPSK | 874.00 | 8.40 | 889.00 | 8.15 |
| | 16QAM | 874.00 | 8.33 | 889.00 | 8.11 |
| | 64QAM | 874.00 | 8.41 | 889.00 | 8.21 |
| | 256QAM | 874.00 | 8.41 | 889.00 | 8.19 |
| 3 | QPSK | 874.00 | 8.44 | 889.00 | 8.16 |
| | 16QAM | 874.00 | 8.30 | 889.00 | 8.13 |
| | 64QAM | 874.00 | 8.45 | 889.00 | 8.20 |
| | 256QAM | 874.00 | 8.41 | 889.00 | 8.20 |

(4 Port)5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier]

| Ant. | Modulation | 5G NR n5 5 MHz | | LTE B5 5 MHz | |
|------|------------|-----------------|---------------------|-----------------|---------------------|
| | | Frequency (MHz) | Measured Value (dB) | Frequency (MHz) | Measured Value (dB) |
| 0 | QPSK | 871.50 | 8.43 | 891.50 | 8.40 |
| | 16QAM | 871.50 | 8.35 | 891.50 | 8.27 |
| | 64QAM | 871.50 | 8.32 | 891.50 | 8.33 |
| | 256QAM | 871.50 | 8.34 | 891.50 | 8.40 |
| 1 | QPSK | 871.50 | 8.38 | 891.50 | 8.40 |
| | 16QAM | 871.50 | 8.34 | 891.50 | 8.25 |
| | 64QAM | 871.50 | 8.40 | 891.50 | 8.38 |
| | 256QAM | 871.50 | 8.42 | 891.50 | 8.36 |
| 2 | QPSK | 871.50 | 8.12 | 891.50 | 8.23 |
| | 16QAM | 871.50 | 8.27 | 891.50 | 8.16 |
| | 64QAM | 871.50 | 8.27 | 891.50 | 8.24 |
| | 256QAM | 871.50 | 8.21 | 891.50 | 8.26 |
| 3 | QPSK | 871.50 | 8.13 | 891.50 | 8.24 |
| | 16QAM | 871.50 | 8.24 | 891.50 | 8.18 |
| | 64QAM | 871.50 | 8.24 | 891.50 | 8.24 |
| | 256QAM | 871.50 | 8.14 | 891.50 | 8.27 |

(4 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier]

| Ant. | Modulation | B5 DSS 10 MHz | | 5G NR n5 5 MHz | |
|------|------------|-----------------|---------------------|-----------------|---------------------|
| | | Frequency (MHz) | Measured Value (dB) | Frequency (MHz) | Measured Value (dB) |
| 0 | QPSK | 874.00 | 8.37 | 891.50 | 8.36 |
| | 16QAM | 874.00 | 8.36 | 891.50 | 8.45 |
| | 64QAM | 874.00 | 8.37 | 891.50 | 8.34 |
| | 256QAM | 874.00 | 8.38 | 891.50 | 8.30 |
| 1 | QPSK | 874.00 | 8.41 | 891.50 | 8.33 |
| | 16QAM | 874.00 | 8.30 | 891.50 | 8.47 |
| | 64QAM | 874.00 | 8.39 | 891.50 | 8.31 |
| | 256QAM | 874.00 | 8.30 | 891.50 | 8.32 |
| 2 | QPSK | 874.00 | 8.11 | 891.50 | 8.36 |
| | 16QAM | 874.00 | 8.10 | 891.50 | 8.47 |
| | 64QAM | 874.00 | 8.10 | 891.50 | 8.35 |
| | 256QAM | 874.00 | 8.13 | 891.50 | 8.29 |
| 3 | QPSK | 874.00 | 8.12 | 891.50 | 8.30 |
| | 16QAM | 874.00 | 8.08 | 891.50 | 8.48 |
| | 64QAM | 874.00 | 8.08 | 891.50 | 8.32 |
| | 256QAM | 874.00 | 8.14 | 891.50 | 8.32 |

(4 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier]

| Ant. | Modulation | B5 DSS 10 MHz | | 5G NR n5 10 MHz | |
|------|------------|-----------------|---------------------|-----------------|---------------------|
| | | Frequency (MHz) | Measured Value (dB) | Frequency (MHz) | Measured Value (dB) |
| 0 | QPSK | 874.00 | 8.38 | 889.00 | 8.37 |
| | 16QAM | 874.00 | 8.36 | 889.00 | 8.52 |
| | 64QAM | 874.00 | 8.40 | 889.00 | 8.33 |
| | 256QAM | 874.00 | 8.44 | 889.00 | 8.34 |
| 1 | QPSK | 874.00 | 8.30 | 889.00 | 8.38 |
| | 16QAM | 874.00 | 8.37 | 889.00 | 8.43 |
| | 64QAM | 874.00 | 8.34 | 889.00 | 8.33 |
| | 256QAM | 874.00 | 8.41 | 889.00 | 8.31 |
| 2 | QPSK | 874.00 | 8.20 | 889.00 | 8.32 |
| | 16QAM | 874.00 | 8.15 | 889.00 | 8.43 |
| | 64QAM | 874.00 | 8.19 | 889.00 | 8.31 |
| | 256QAM | 874.00 | 8.17 | 889.00 | 8.31 |
| 3 | QPSK | 874.00 | 8.22 | 889.00 | 8.36 |
| | 16QAM | 874.00 | 8.11 | 889.00 | 8.53 |
| | 64QAM | 874.00 | 8.23 | 889.00 | 8.36 |
| | 256QAM | 874.00 | 8.20 | 889.00 | 8.37 |

(2 Port)B5 LTE B5 5 MHz 1 Carrier + (5G NR n5 5 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier) [3 Carrier](1C+2C)

| Ant. | Modulation | B5 DSS 10 MHz | | 5G NR n5 5 MHz + LTE B5 5 MHz | |
|------|------------|-----------------|---------------------|-------------------------------|---------------------|
| | | Frequency (MHz) | Measured Value (dB) | Frequency (MHz) | Measured Value (dB) |
| 0 | QPSK | 871.50 | 8.40 | 886.50 | 8.44 |
| | 16QAM | 871.50 | 8.45 | 886.50 | 8.52 |
| | 64QAM | 871.50 | 8.32 | 886.50 | 8.31 |
| | 256QAM | 871.50 | 8.37 | 886.50 | 8.38 |
| 1 | QPSK | 871.50 | 8.41 | 886.50 | 8.56 |
| | 16QAM | 871.50 | 8.43 | 886.50 | 8.55 |
| | 64QAM | 871.50 | 8.36 | 886.50 | 8.58 |
| | 256QAM | 871.50 | 8.34 | 886.50 | 8.33 |

(2 Port)(B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier) + LTE B5 5 MHz 1 Carrier [3 Carrier](2C+1C)

| Ant. | Modulation | B5 DSS 10 MHz + 5G NR n5 5 MHz | | LTE B5 5 MHz | |
|------|------------|--------------------------------|---------------------|-----------------|---------------------|
| | | Frequency (MHz) | Measured Value (dB) | Frequency (MHz) | Measured Value (dB) |
| 0 | QPSK | 876.50 | 8.07 | 891.50 | 8.34 |
| | 16QAM | 876.50 | 8.10 | 891.50 | 8.47 |
| | 64QAM | 876.50 | 8.03 | 891.50 | 8.37 |
| | 256QAM | 876.50 | 8.07 | 891.50 | 8.37 |
| 1 | QPSK | 876.50 | 8.07 | 891.50 | 8.35 |
| | 16QAM | 876.50 | 8.10 | 891.50 | 8.47 |
| | 64QAM | 876.50 | 8.08 | 891.50 | 8.35 |
| | 256QAM | 876.50 | 8.08 | 891.50 | 8.36 |

(4 Port)B5 LTE 5 MHz 1 Carrier + (5G NR n5 5 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier) [3 Carrier](1C+2C)

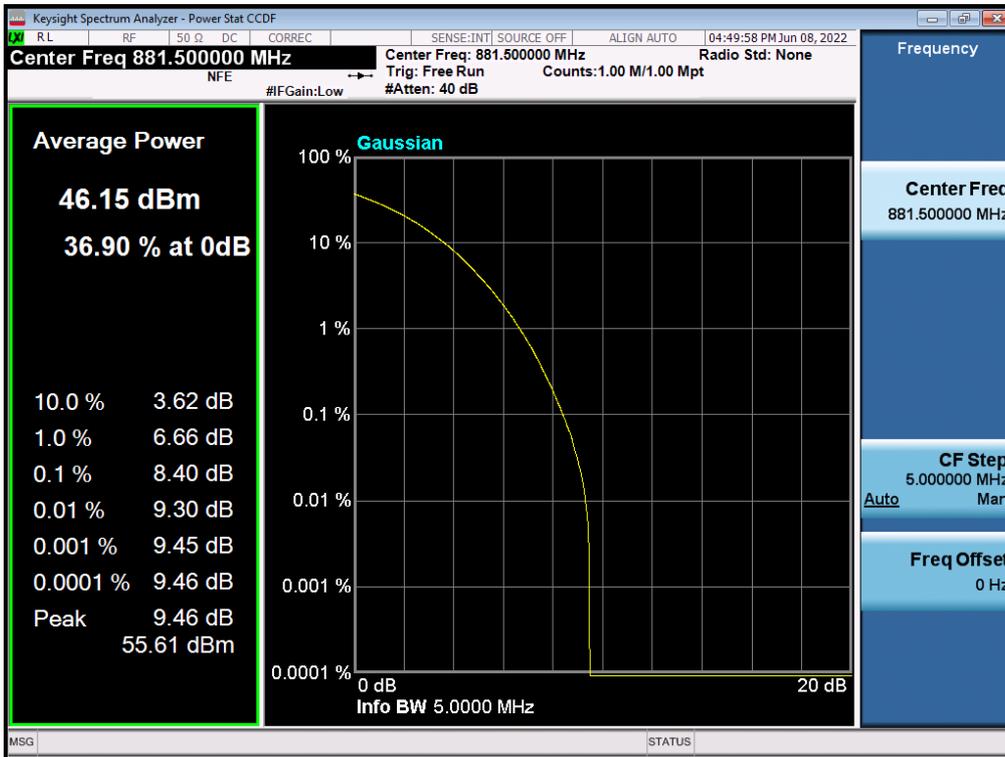
| Ant. | Modulation | B5 DSS 10 MHz | | 5G NR n5 5 MHz + LTE B5 5 MHz | |
|------|------------|-----------------|---------------------|-------------------------------|---------------------|
| | | Frequency (MHz) | Measured Value (dB) | Frequency (MHz) | Measured Value (dB) |
| 0 | QPSK | 871.50 | 8.37 | 886.50 | 8.37 |
| | 16QAM | 871.50 | 8.43 | 886.50 | 8.41 |
| | 64QAM | 871.50 | 8.36 | 886.50 | 8.37 |
| | 256QAM | 871.50 | 8.41 | 886.50 | 8.37 |
| 1 | QPSK | 871.50 | 8.35 | 886.50 | 8.36 |
| | 16QAM | 871.50 | 8.44 | 886.50 | 8.37 |
| | 64QAM | 871.50 | 8.35 | 886.50 | 8.33 |
| | 256QAM | 871.50 | 8.38 | 886.50 | 8.36 |
| 2 | QPSK | 871.50 | 8.34 | 886.50 | 8.09 |
| | 16QAM | 871.50 | 8.42 | 886.50 | 8.09 |
| | 64QAM | 871.50 | 8.38 | 886.50 | 8.08 |
| | 256QAM | 871.50 | 8.37 | 886.50 | 8.05 |
| 3 | QPSK | 871.50 | 8.33 | 886.50 | 8.05 |
| | 16QAM | 871.50 | 8.44 | 886.50 | 8.15 |
| | 64QAM | 871.50 | 8.35 | 886.50 | 8.05 |
| | 256QAM | 871.50 | 8.35 | 886.50 | 8.06 |

(4 Port)(B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier) + LTE B5 5 MHz 1 Carrier [3 Carrier](2C+1C)

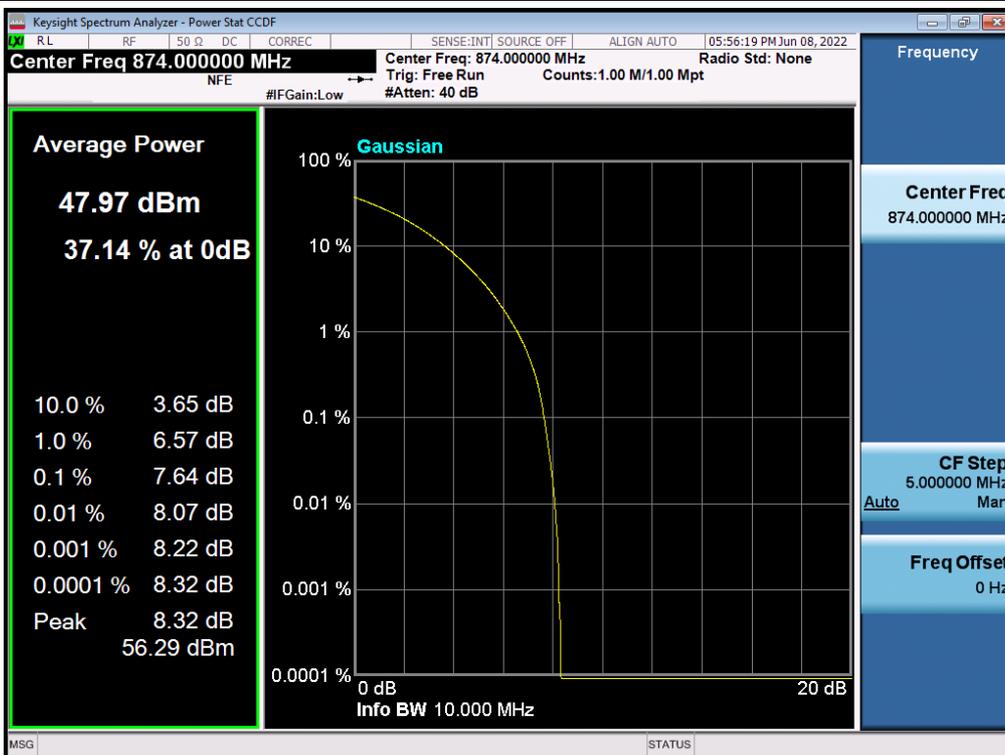
| Ant. | Modulation | B5 DSS 10 MHz + 5G NR n5 5 MHz | | LTE B5 5 MHz | |
|------|------------|--------------------------------|---------------------|-----------------|---------------------|
| | | Frequency (MHz) | Measured Value (dB) | Frequency (MHz) | Measured Value (dB) |
| 0 | QPSK | 876.50 | 8.38 | 891.50 | 8.34 |
| | 16QAM | 876.50 | 8.37 | 891.50 | 8.44 |
| | 64QAM | 876.50 | 8.35 | 891.50 | 8.33 |
| | 256QAM | 876.50 | 8.34 | 891.50 | 8.36 |
| 1 | QPSK | 876.50 | 8.38 | 891.50 | 8.36 |
| | 16QAM | 876.50 | 8.37 | 891.50 | 8.48 |
| | 64QAM | 876.50 | 8.36 | 891.50 | 8.37 |
| | 256QAM | 876.50 | 8.35 | 891.50 | 8.34 |
| 2 | QPSK | 876.50 | 8.08 | 891.50 | 8.32 |
| | 16QAM | 876.50 | 8.13 | 891.50 | 8.47 |
| | 64QAM | 876.50 | 8.11 | 891.50 | 8.36 |
| | 256QAM | 876.50 | 8.13 | 891.50 | 8.36 |
| 3 | QPSK | 876.50 | 8.11 | 891.50 | 8.36 |
| | 16QAM | 876.50 | 8.12 | 891.50 | 8.46 |
| | 64QAM | 876.50 | 8.10 | 891.50 | 8.31 |
| | 256QAM | 876.50 | 8.11 | 891.50 | 8.39 |

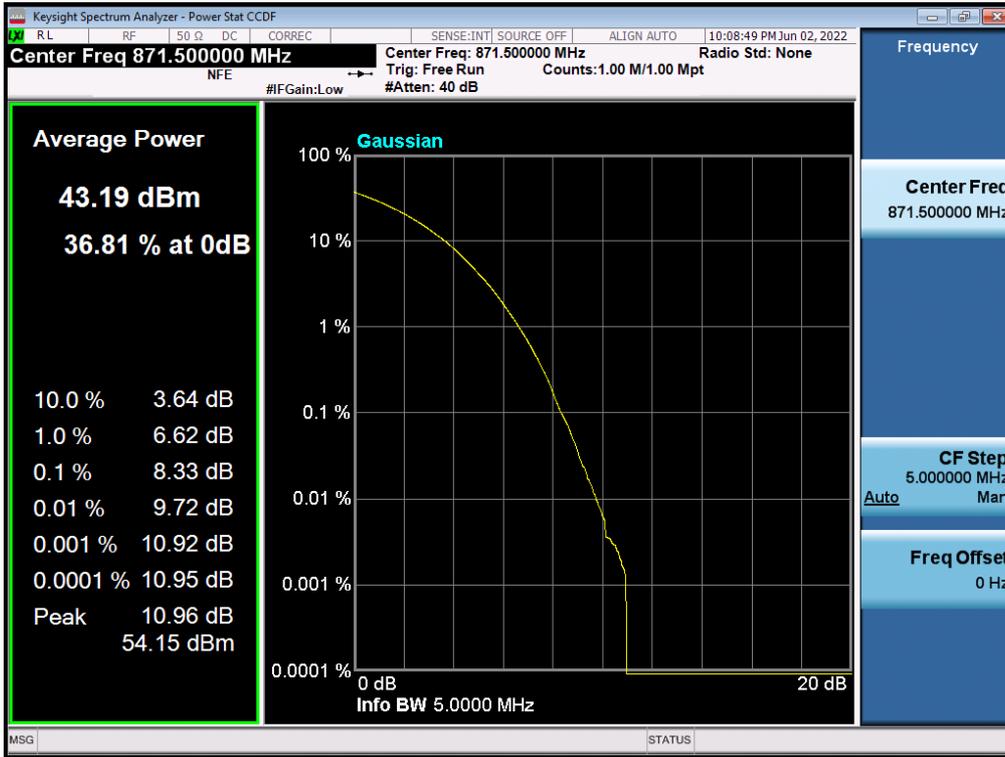
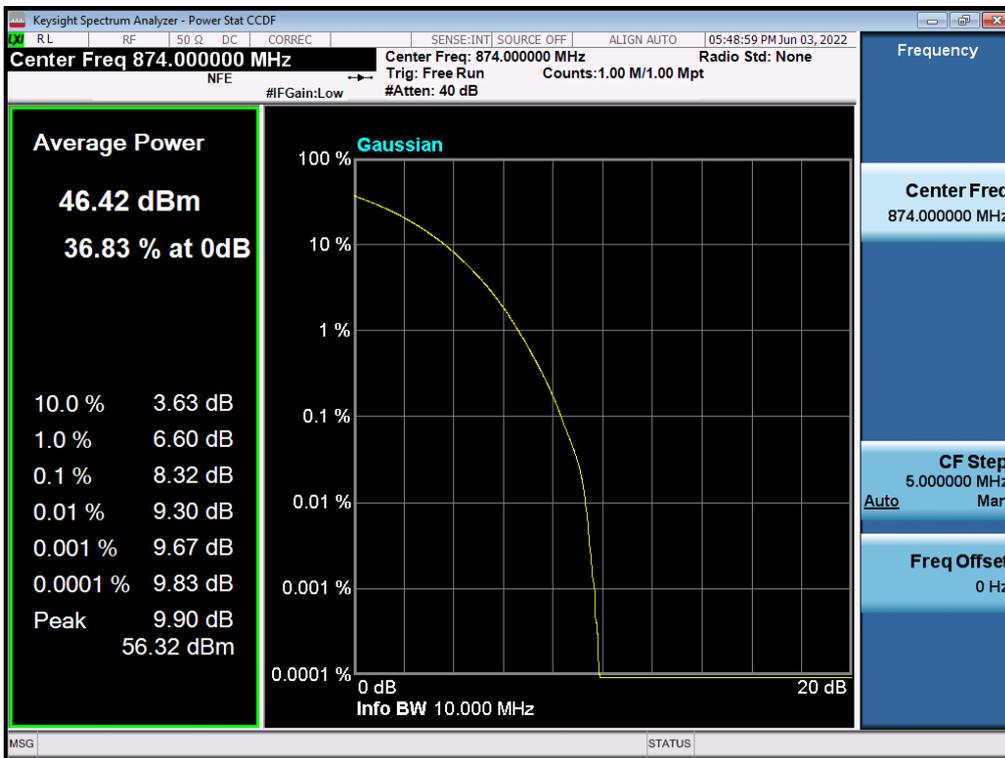
Plot Data of PAPR

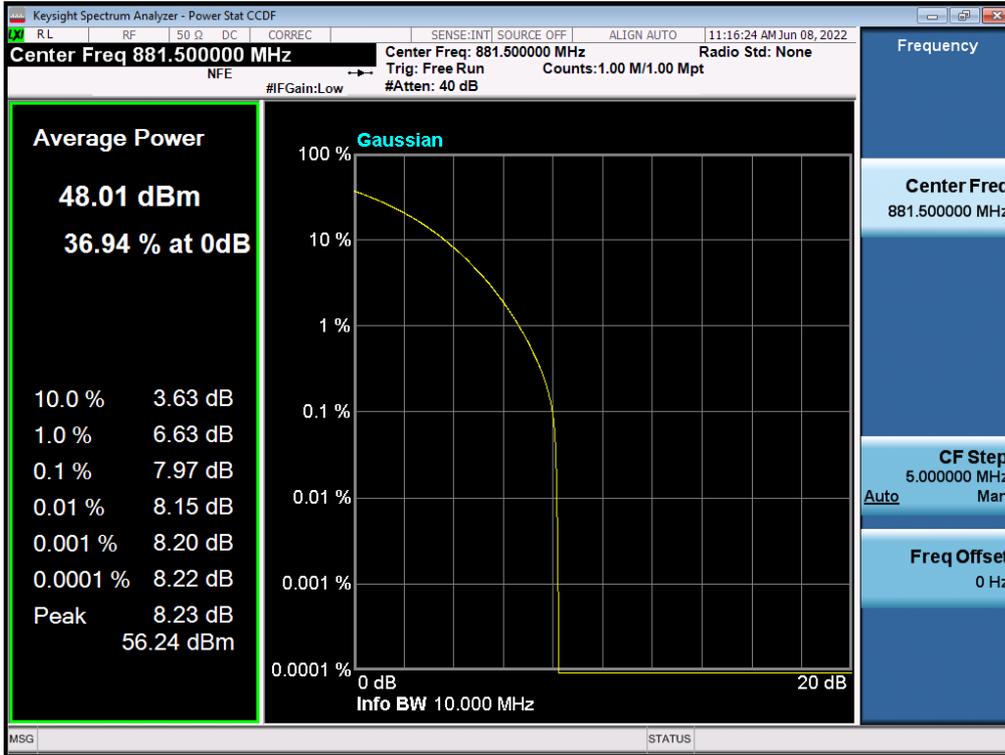
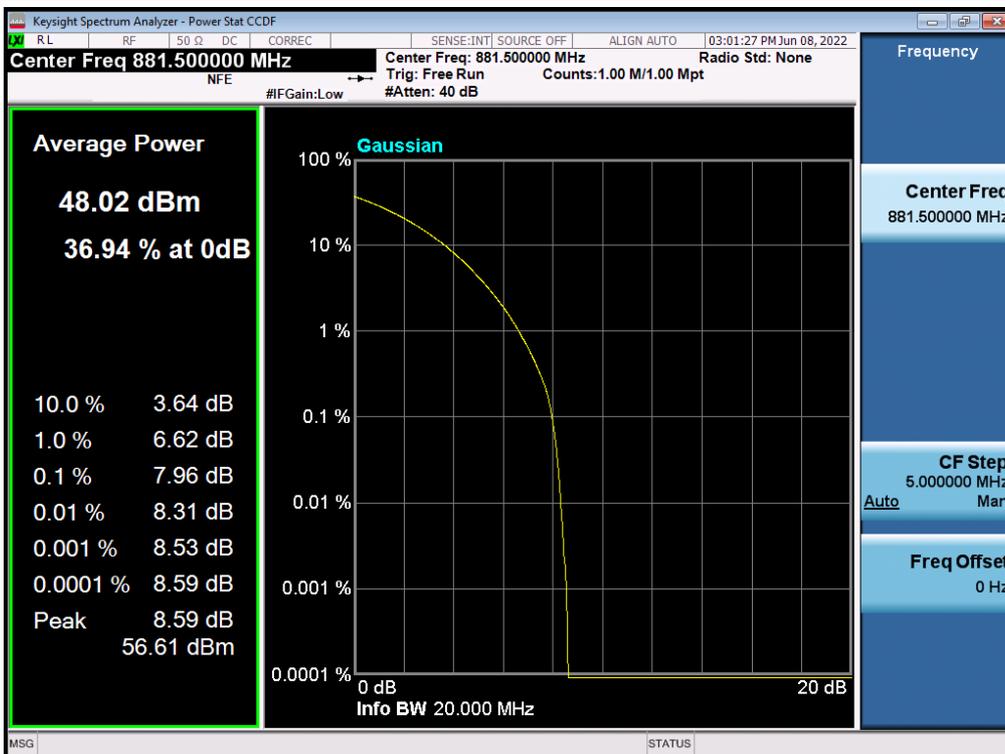
Antenna 1 / (2 Port)5G NR n5 5 MHz 1 Carrier / 256QAM / Middle

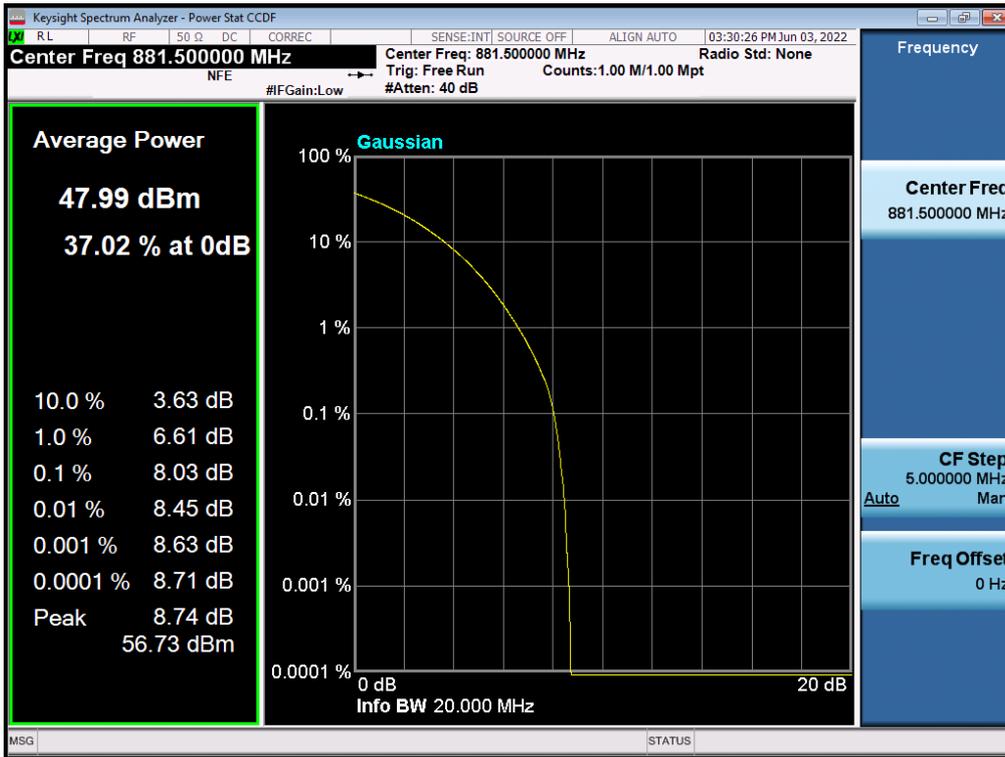
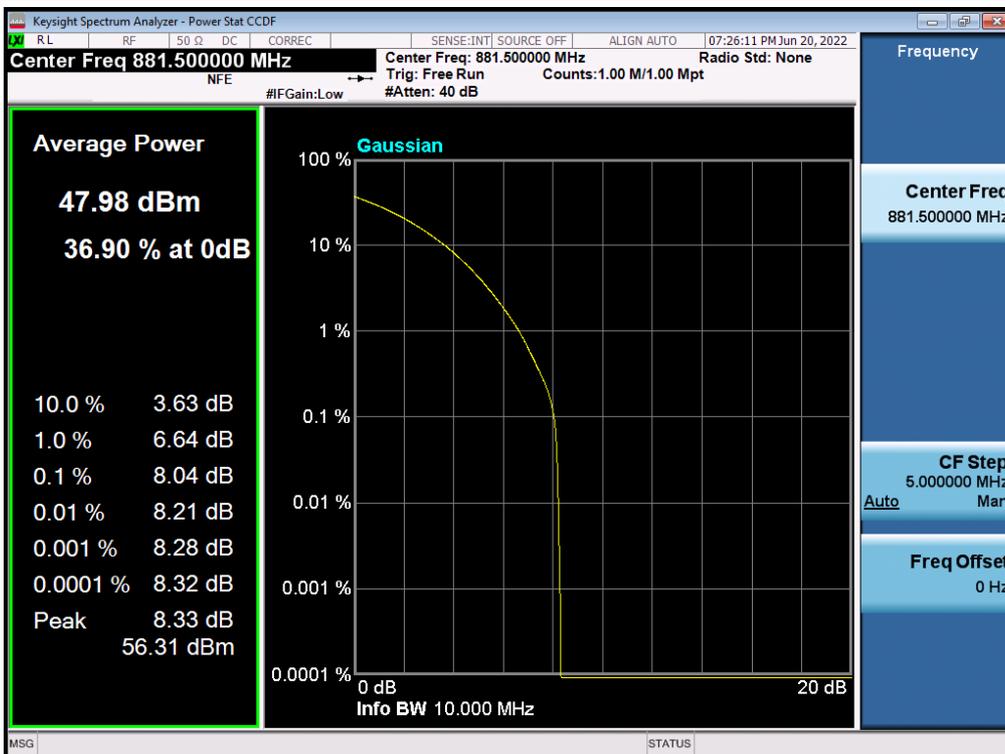


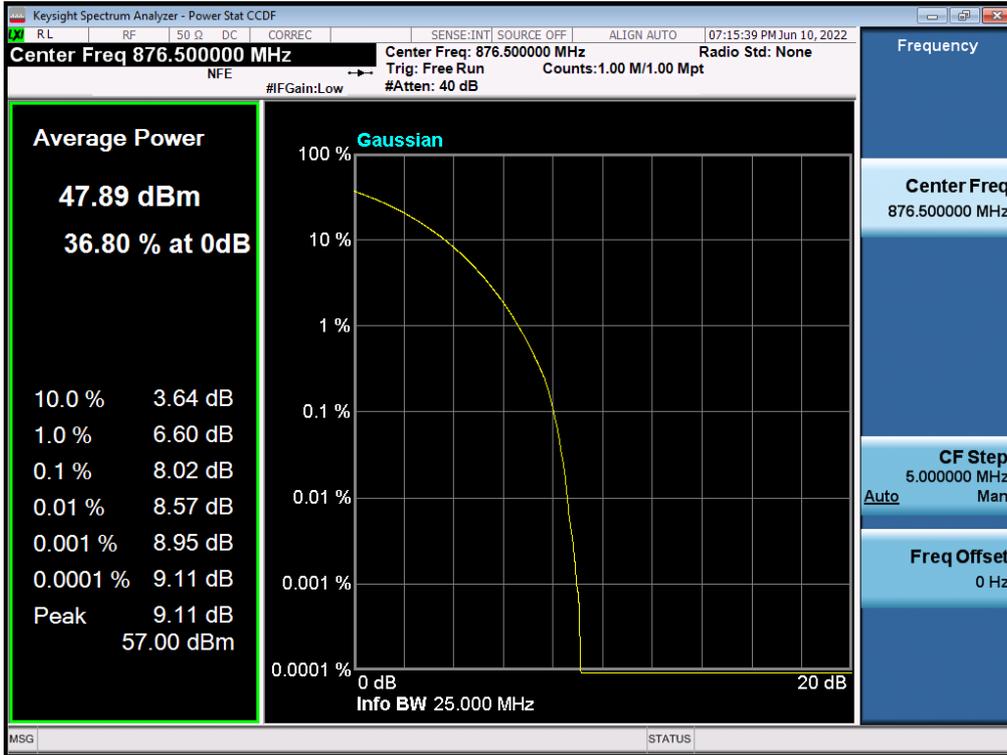
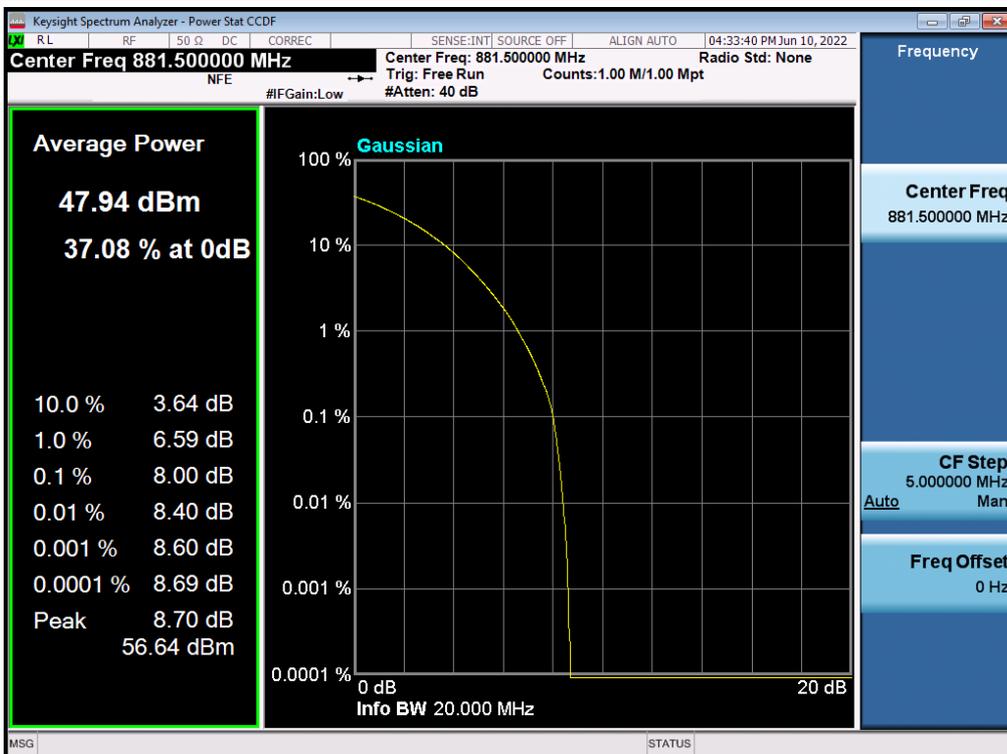
Antenna 1 / (2 Port)5G NR n5 10 MHz 1 Carrier / 64QAM / Low

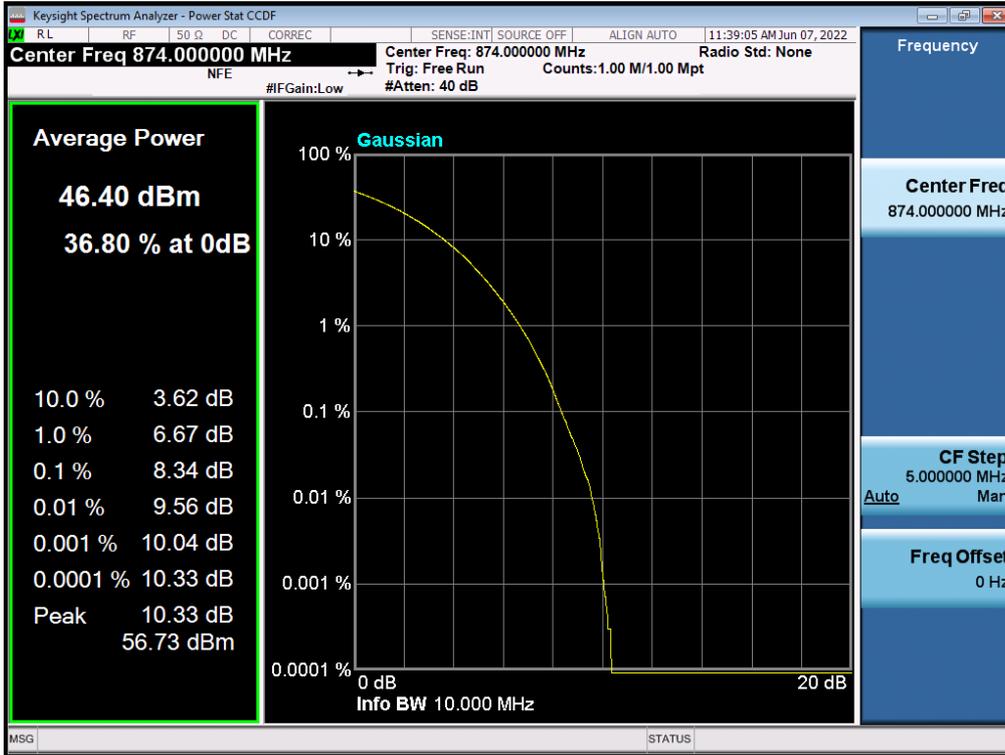
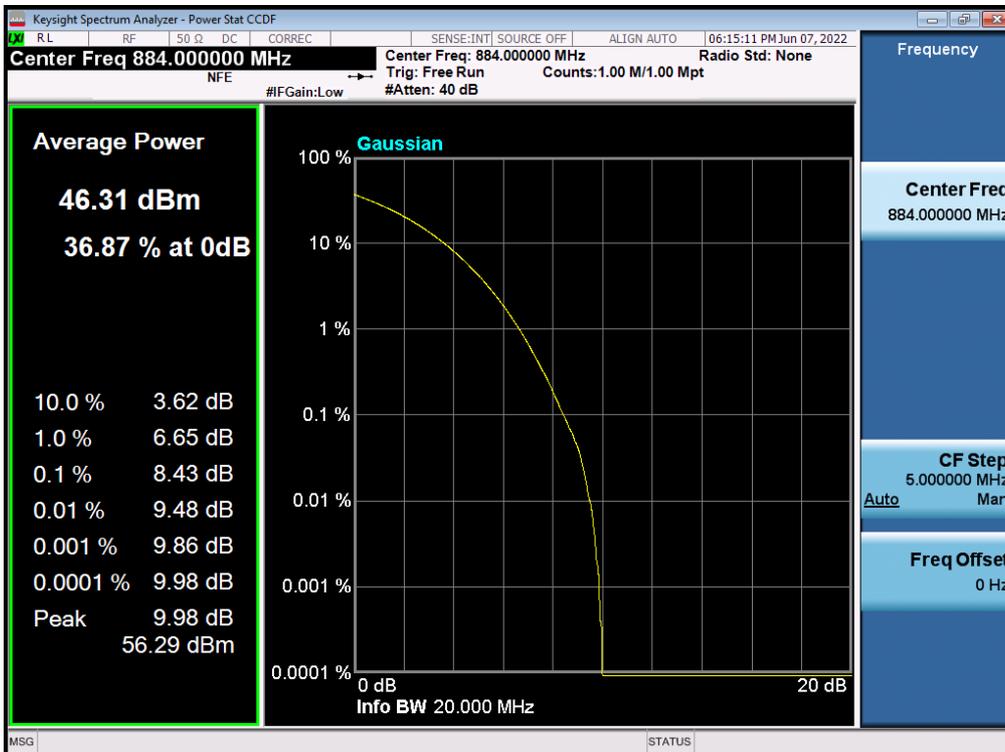


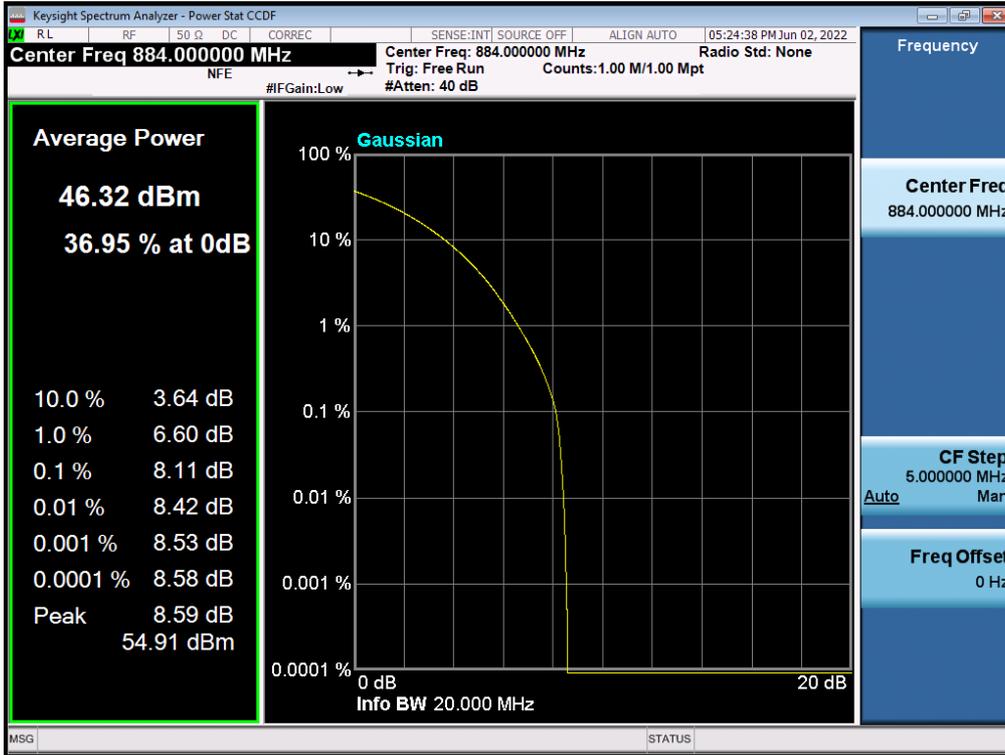
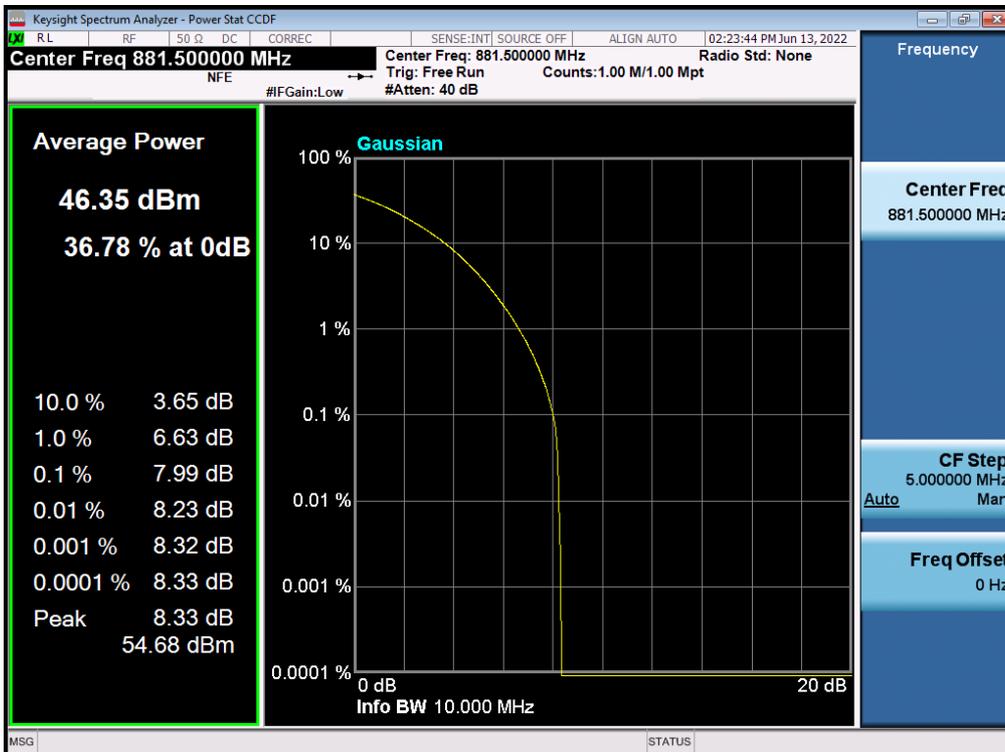
Antenna 0 / (4 Port)5G NR n5 5 MHz 1 Carrier / 256QAM / Low

Antenna 1 / (4 Port)5G NR n5 10 MHz 1 Carrier / 256QAM / Low


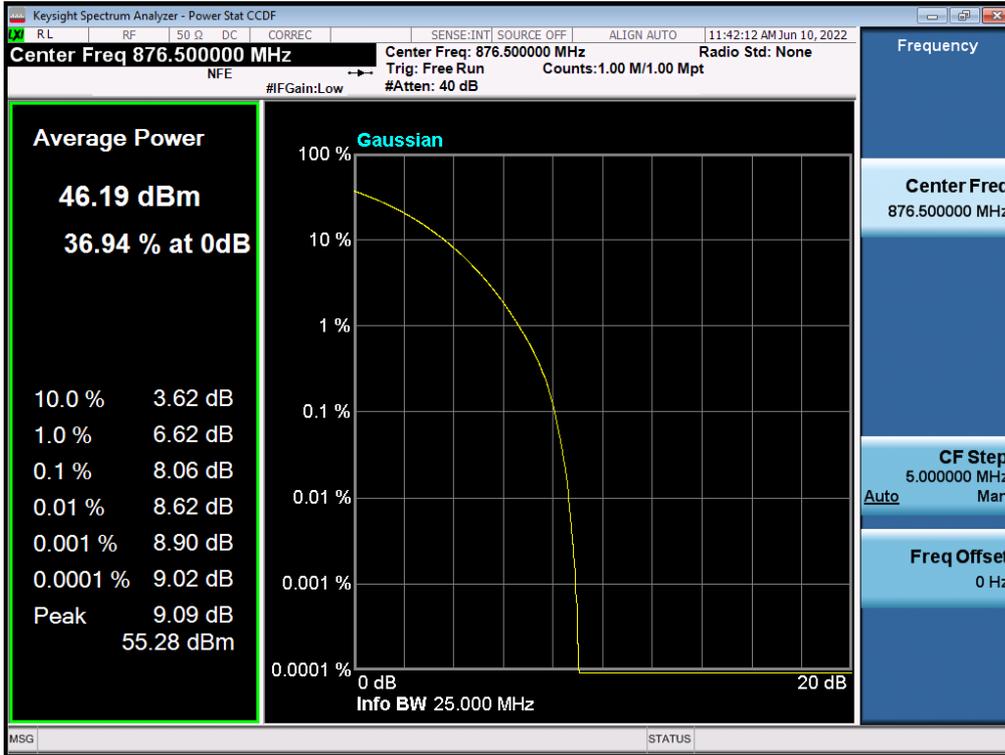
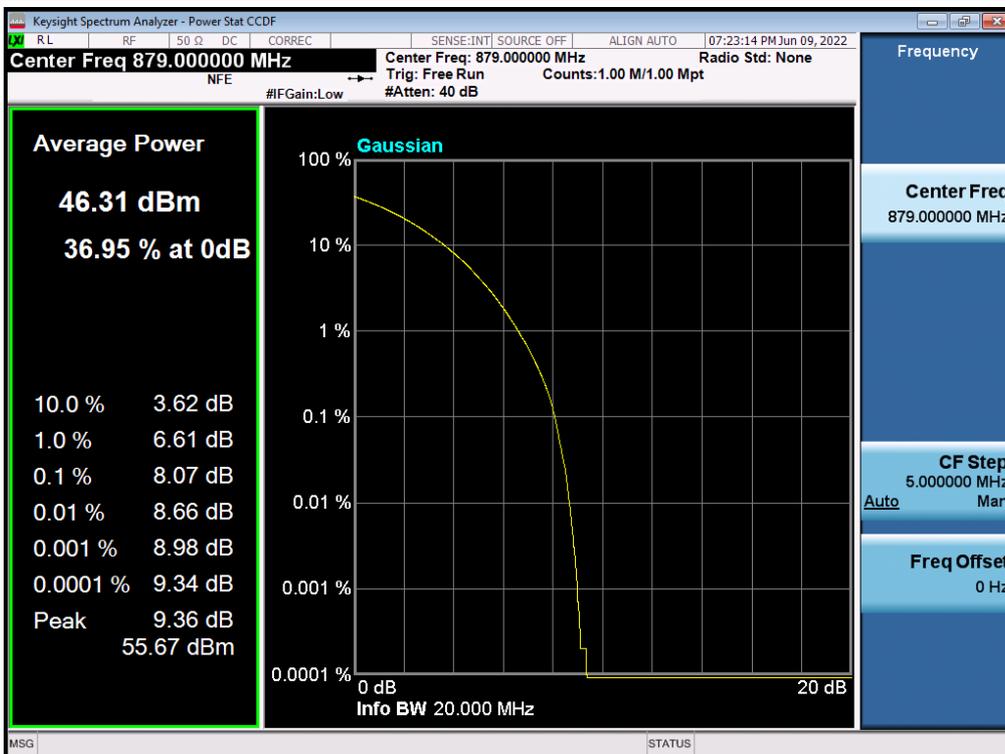
Antenna 0 / (2 Port)5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Contiguous / 64QAM / Middle

Antenna 1 / (2 Port)5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Contiguous / 16QAM / Middle


Antenna 0 / (2 Port)B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier] / Contiguous / 256QAM / Middle

Antenna 1 / (2 Port)5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier] / Contiguous / 64QAM / Middle


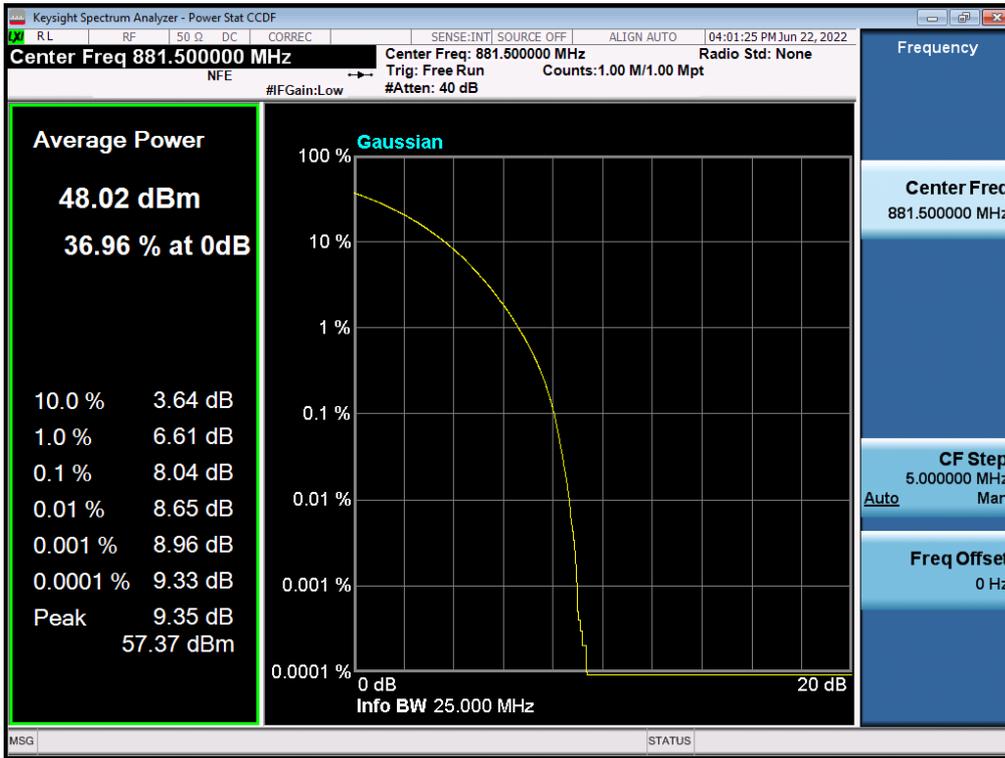
Antenna 1 / (2 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Contiguous / 256QAM / Low

Antenna 1 / (2 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Contiguous / 256QAM / Middle


Antenna 1 / (4 Port)5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Contiguous / 16QAM / Low

Antenna 1 / (4 Port)5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Contiguous / 256QAM / High


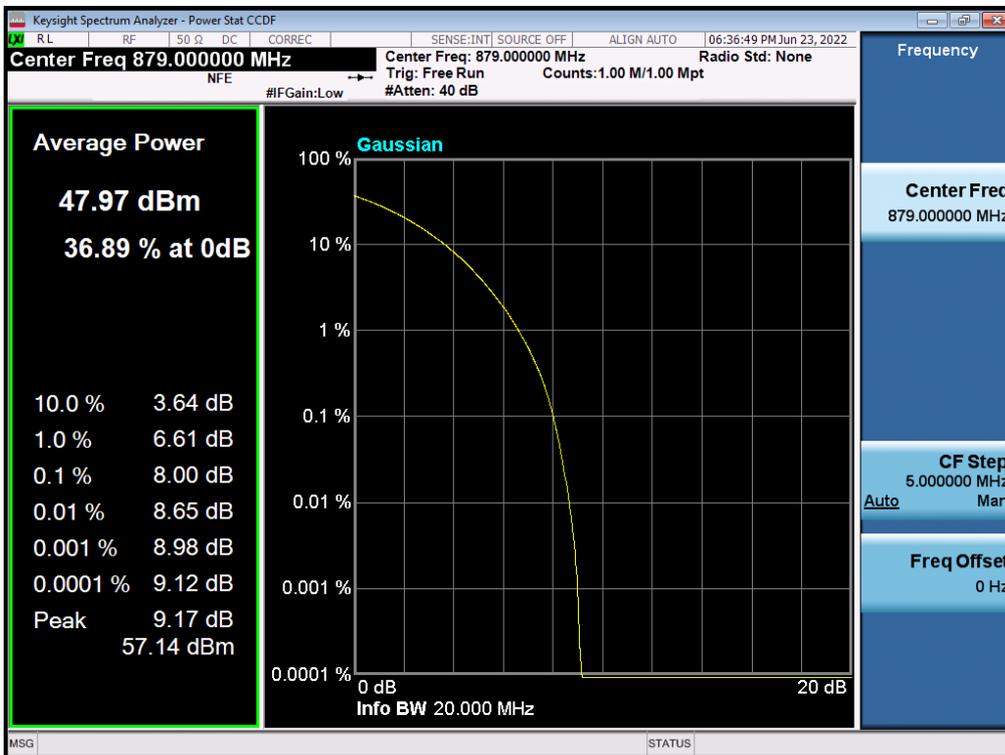
Antenna 2 / (4 Port)B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier] / Contiguous / QPSK / High

Antenna 3 / (4 Port)5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier] / Contiguous / QPSK / Middle


Antenna 3 / (4 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Contiguous / 256QAM / Low

Antenna 3 / (4 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Contiguous / 16QAM / Low


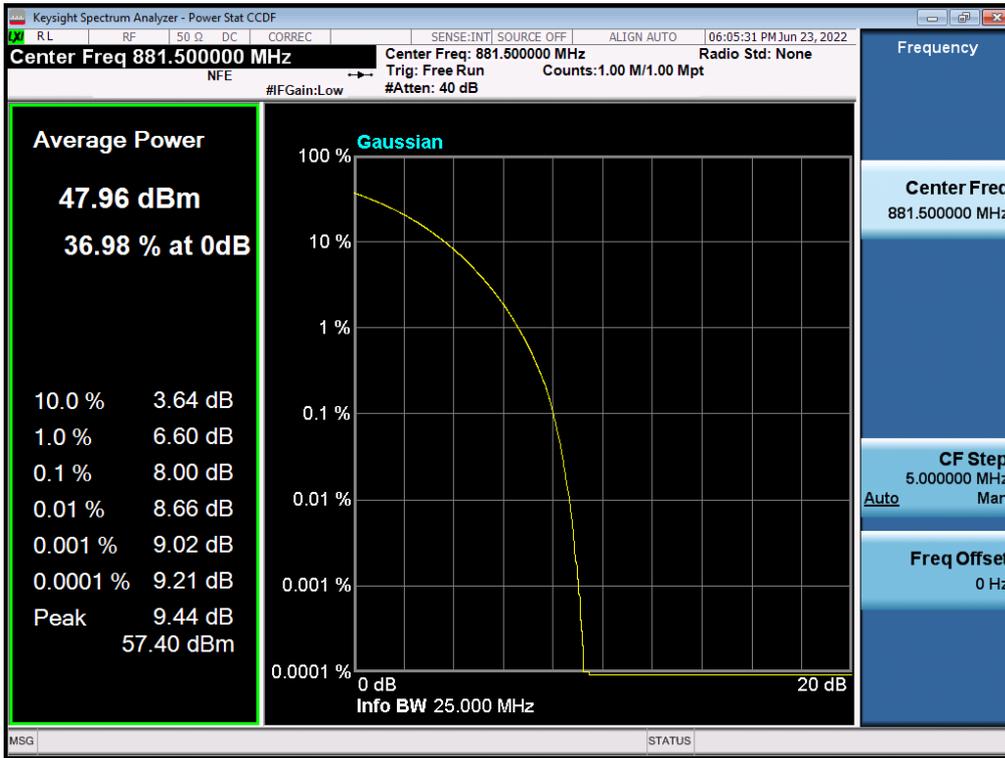
Antenna 1 / (2 Port)5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier] /
Contiguous / 256QAM / Middle



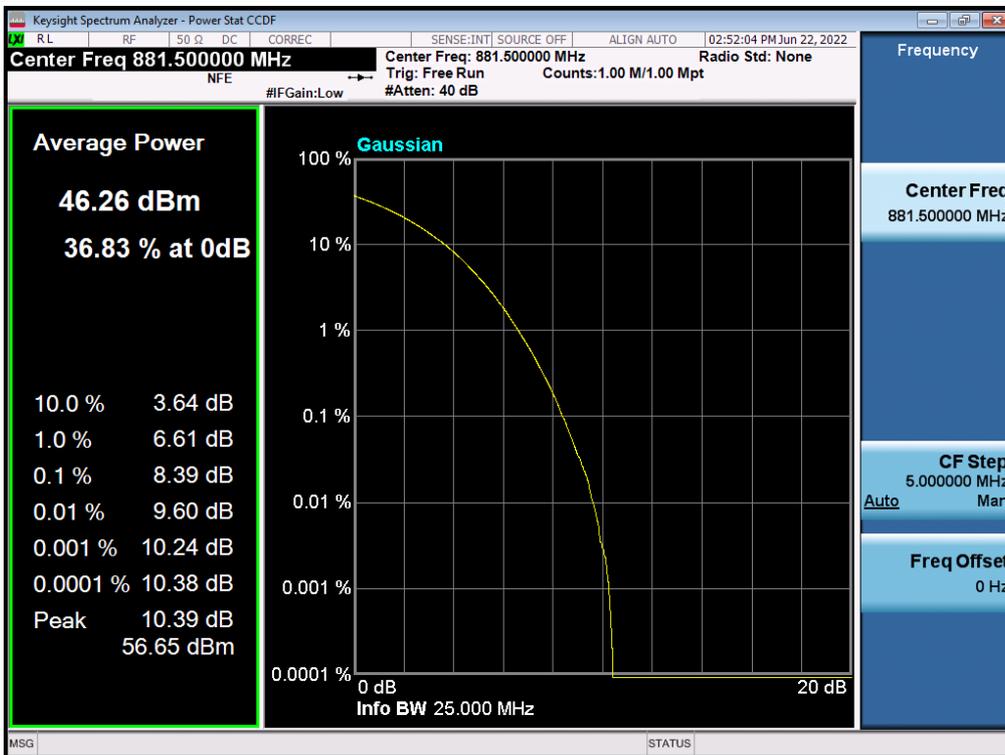
Antenna 1 / (2 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier] /
Contiguous / 256QAM / Low



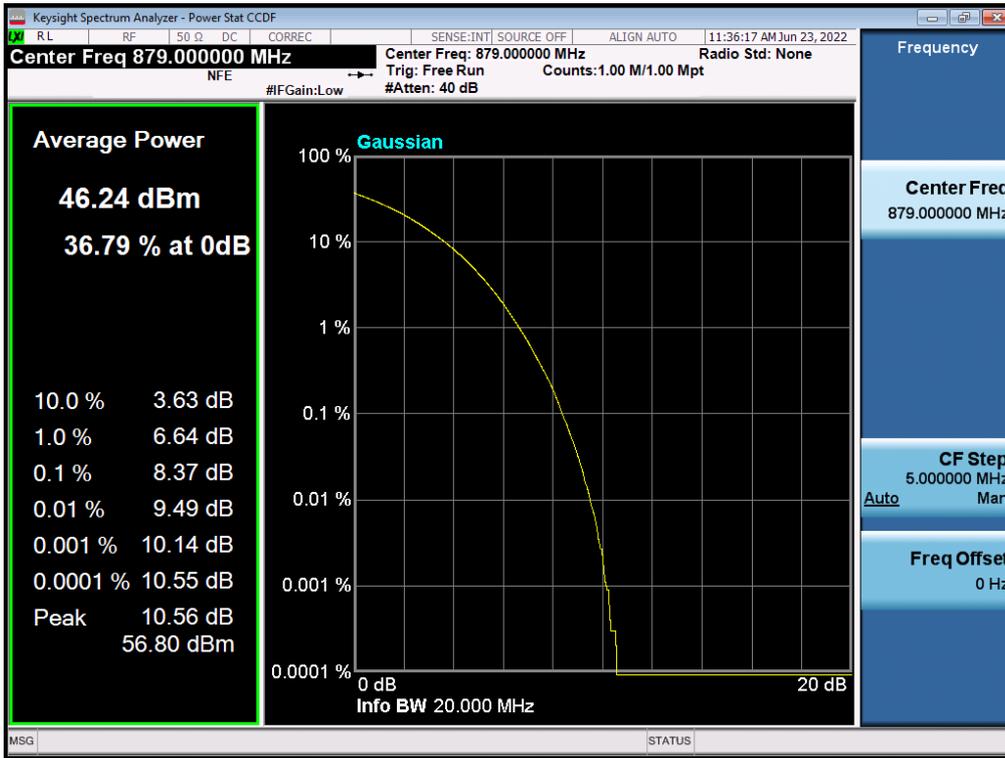
Antenna 1 / (2 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier] /
Contiguous / 64QAM / Middle



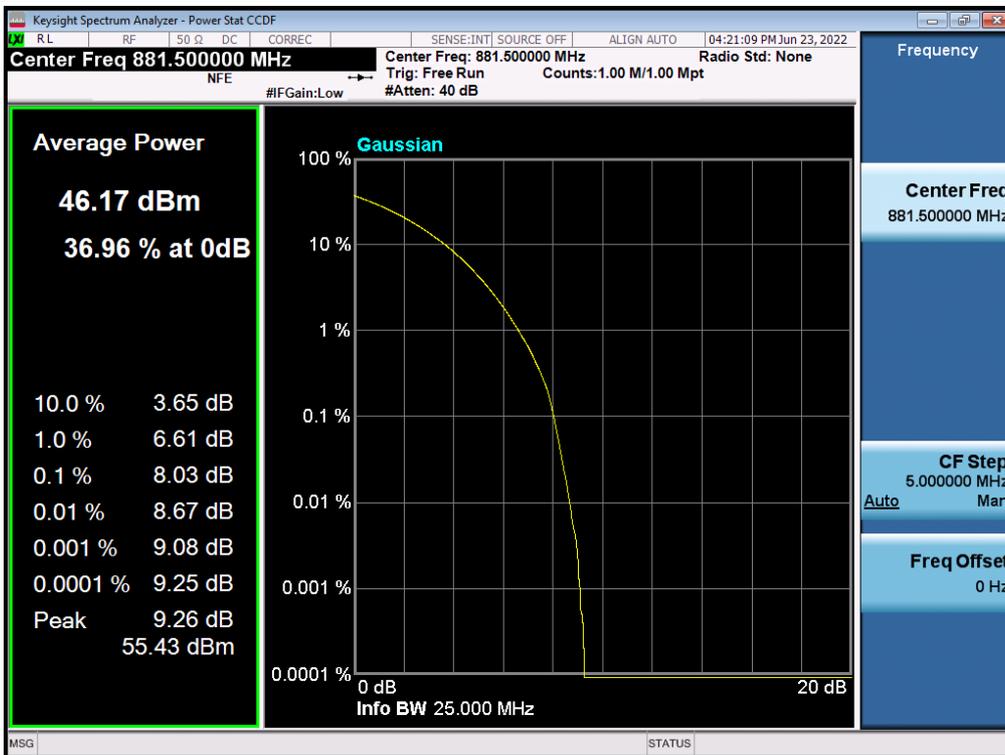
Antenna 1 / (4 Port)5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier] /
Contiguous / 64QAM / Middle



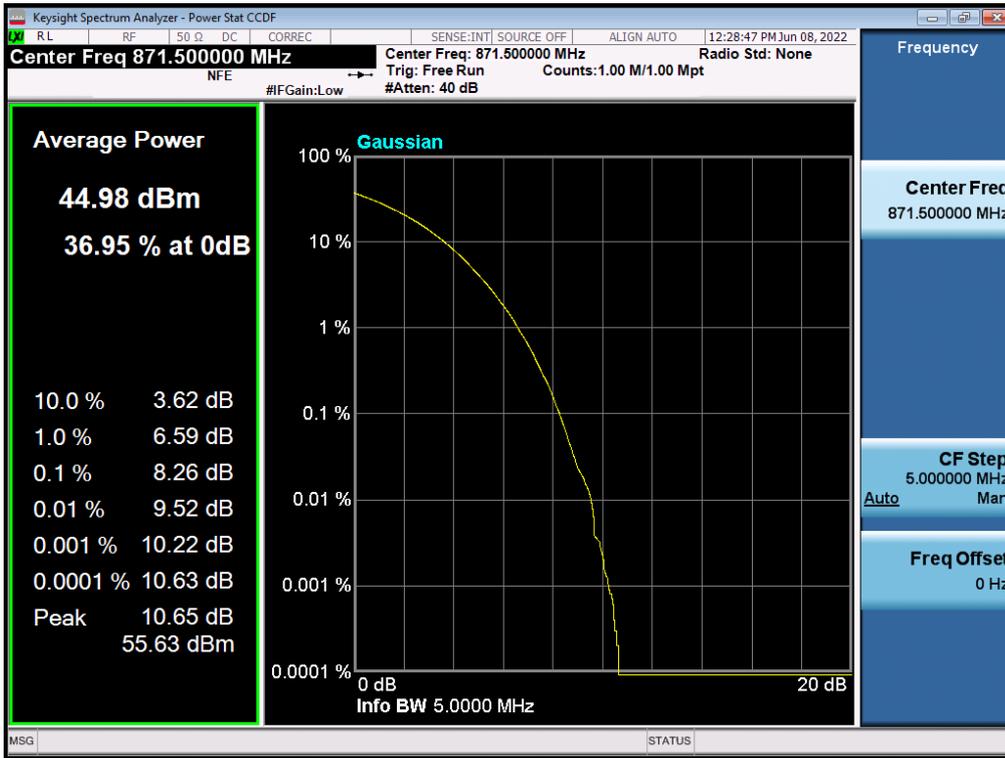
Antenna 0 / (4 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier] /
Contiguous / 64QAM / Low



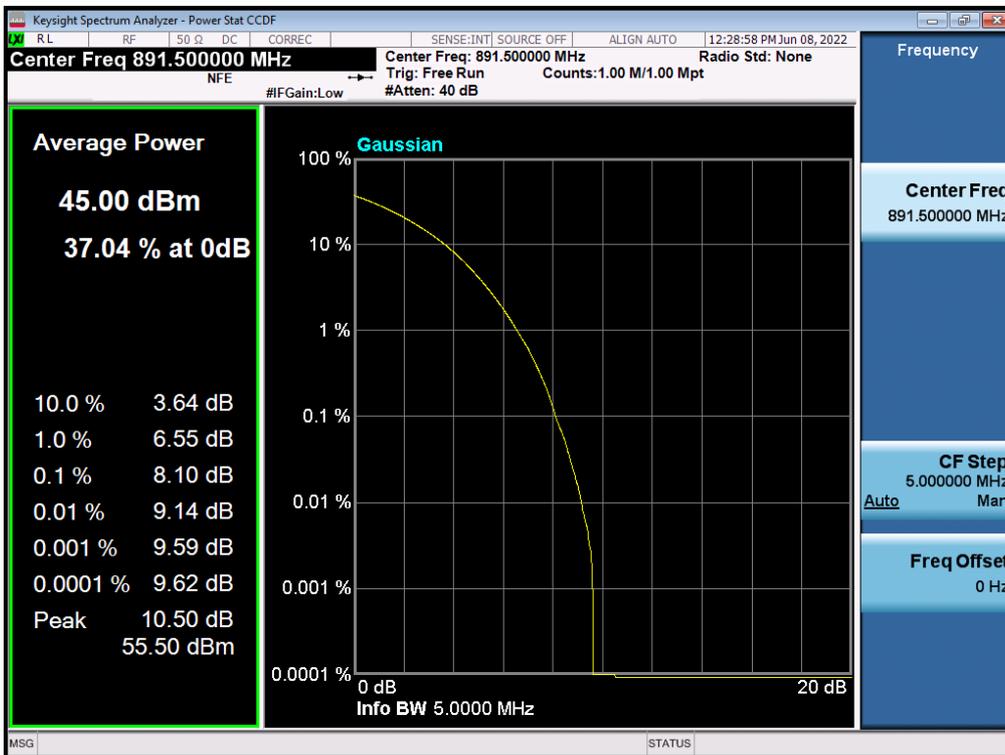
Antenna 3 / (4 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier] /
Contiguous / 16QAM / Middle



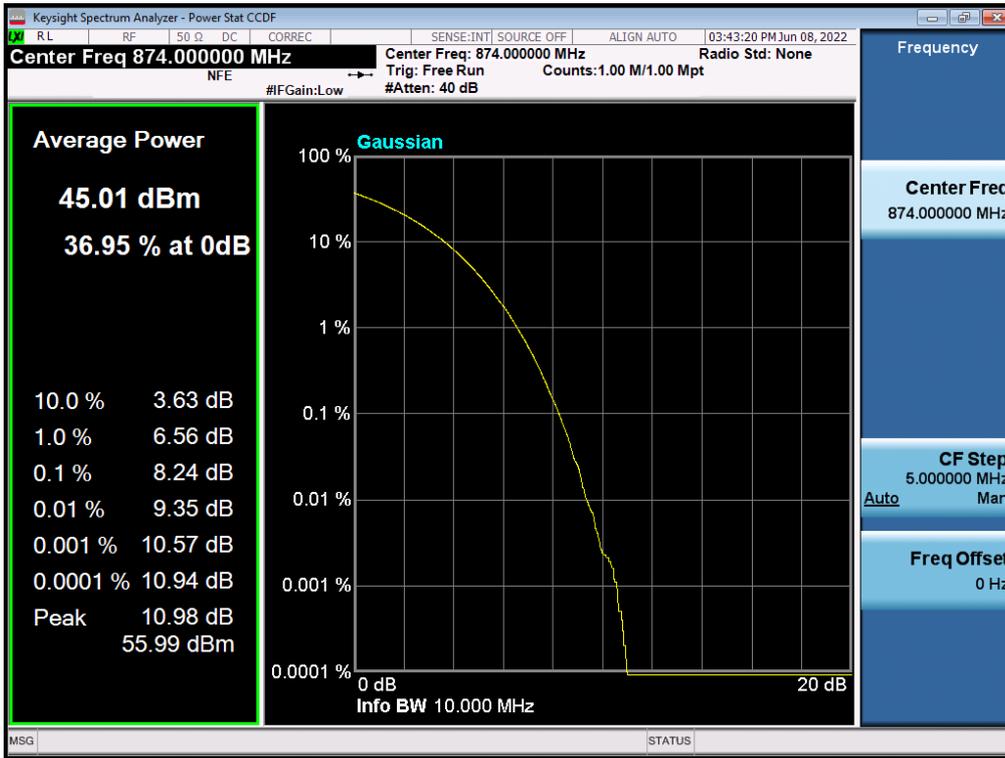
Antenna 1 / (2 Port)5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 5 MHz / 64QAM / Low



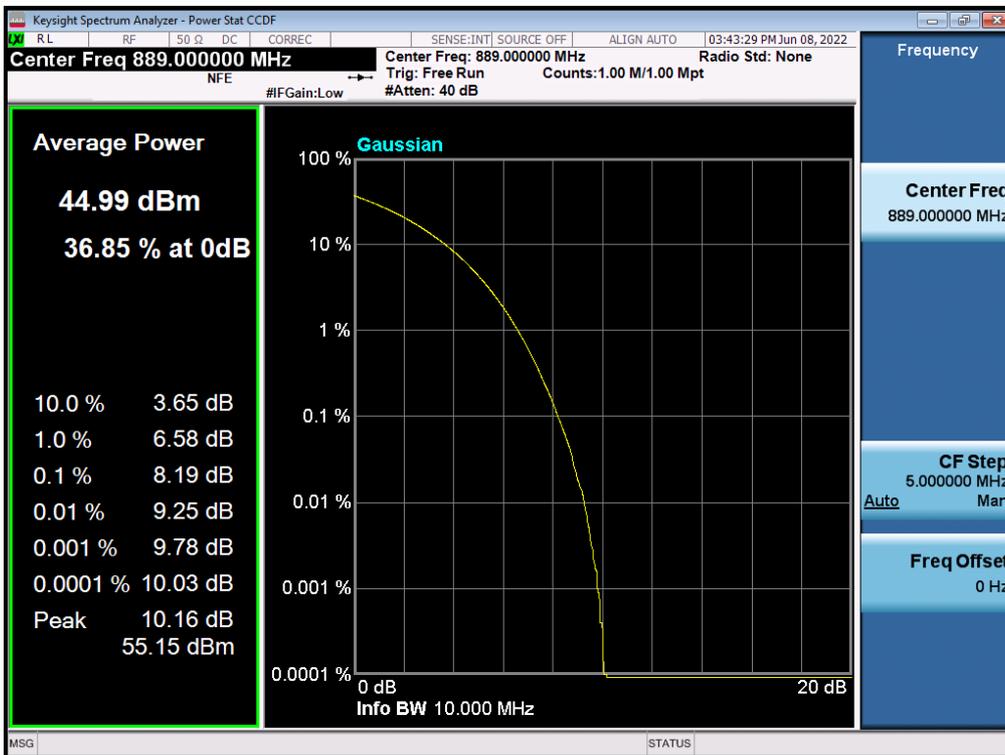
Antenna 1 / (2 Port)5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 5 MHz / 64QAM / High

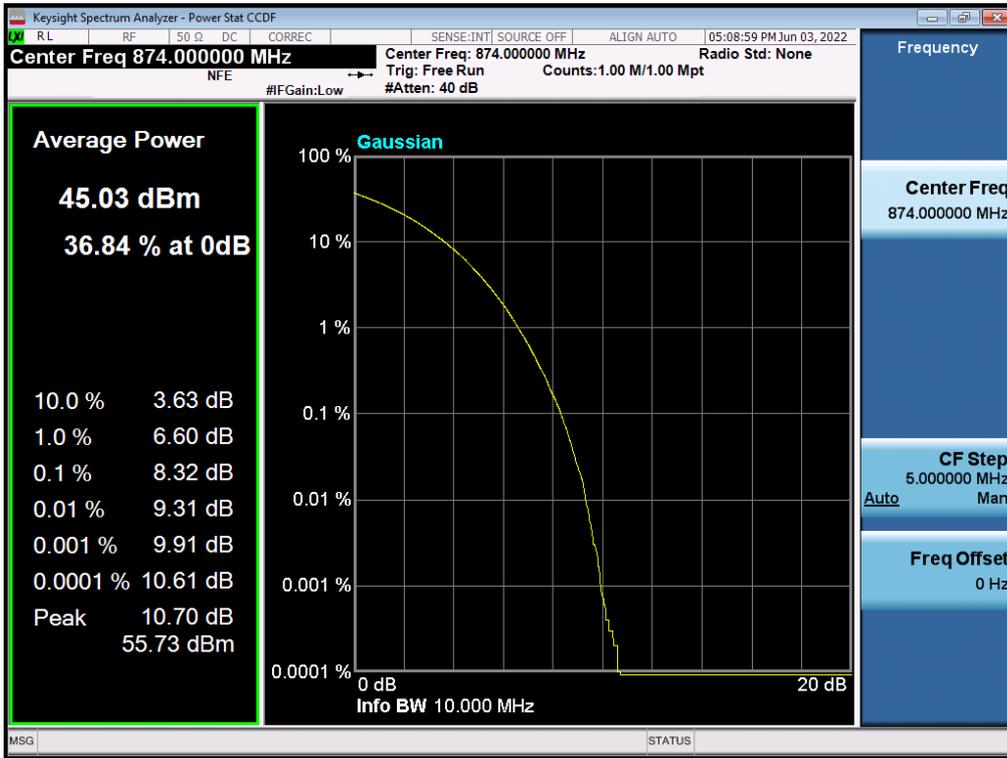
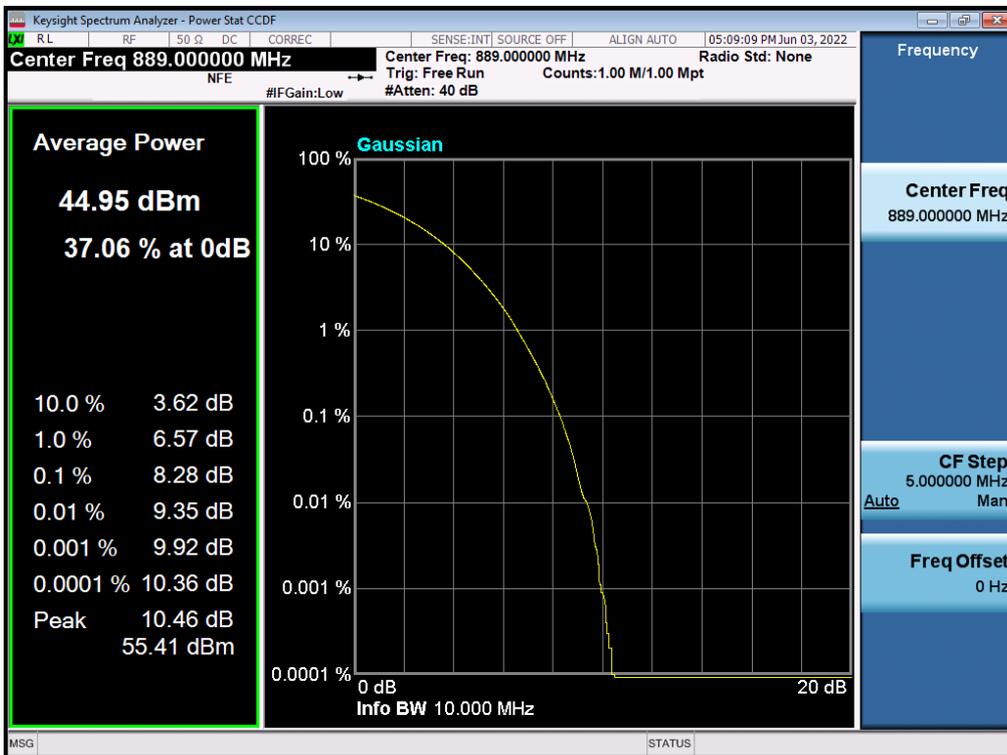


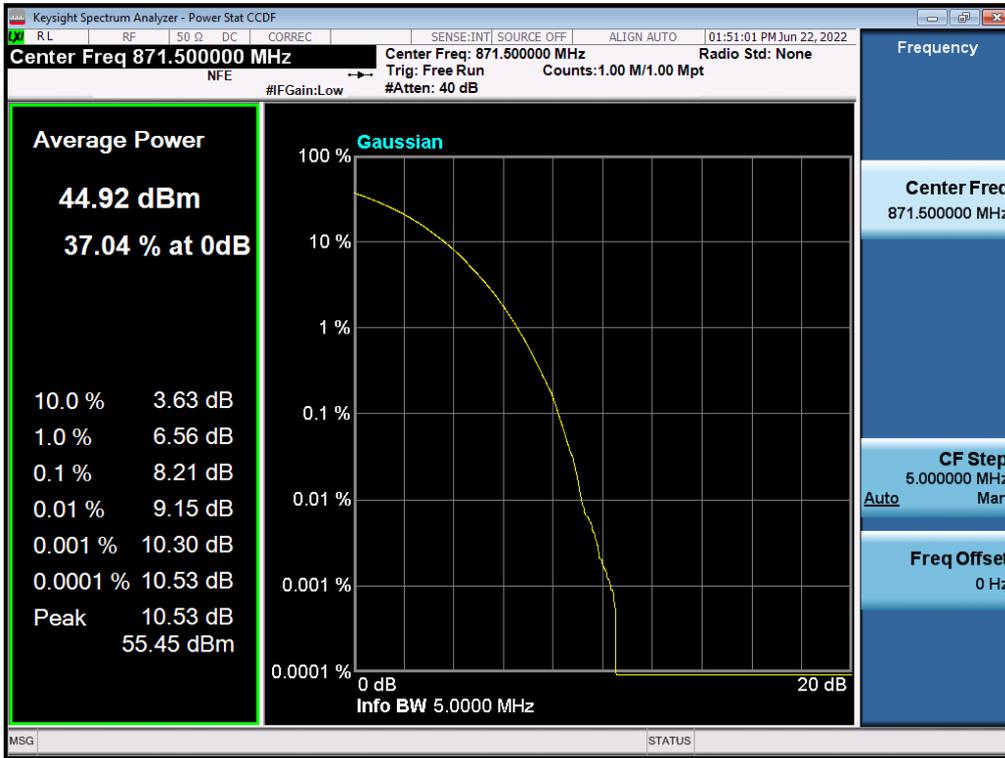
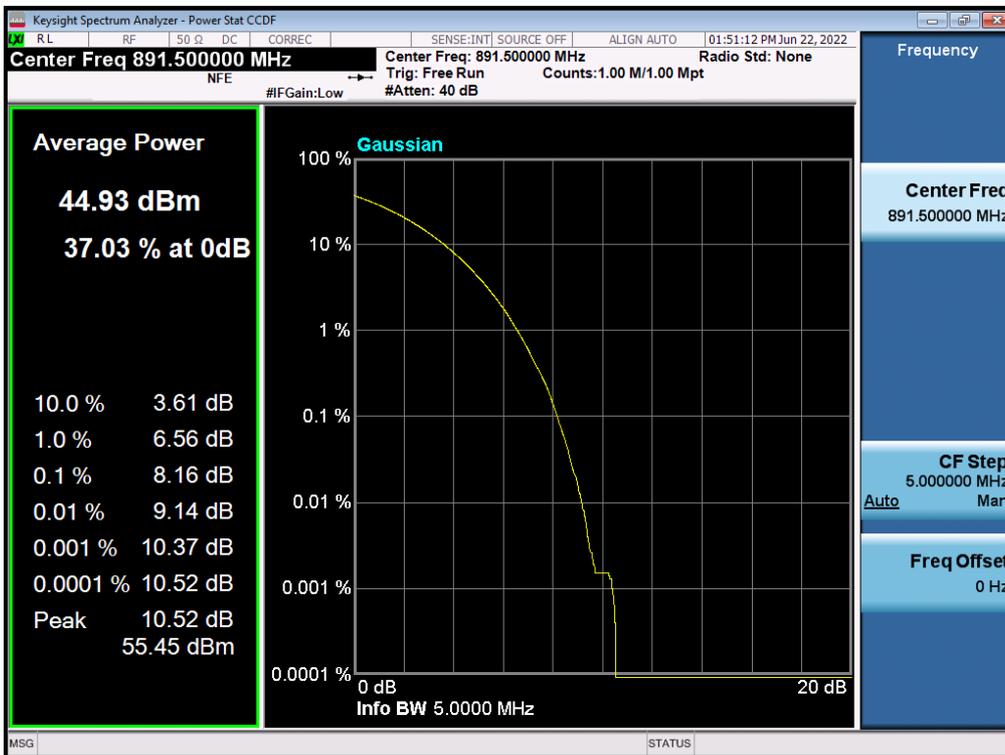
Antenna 1 / (2 Port)5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 10 MHz / 64QAM / Low

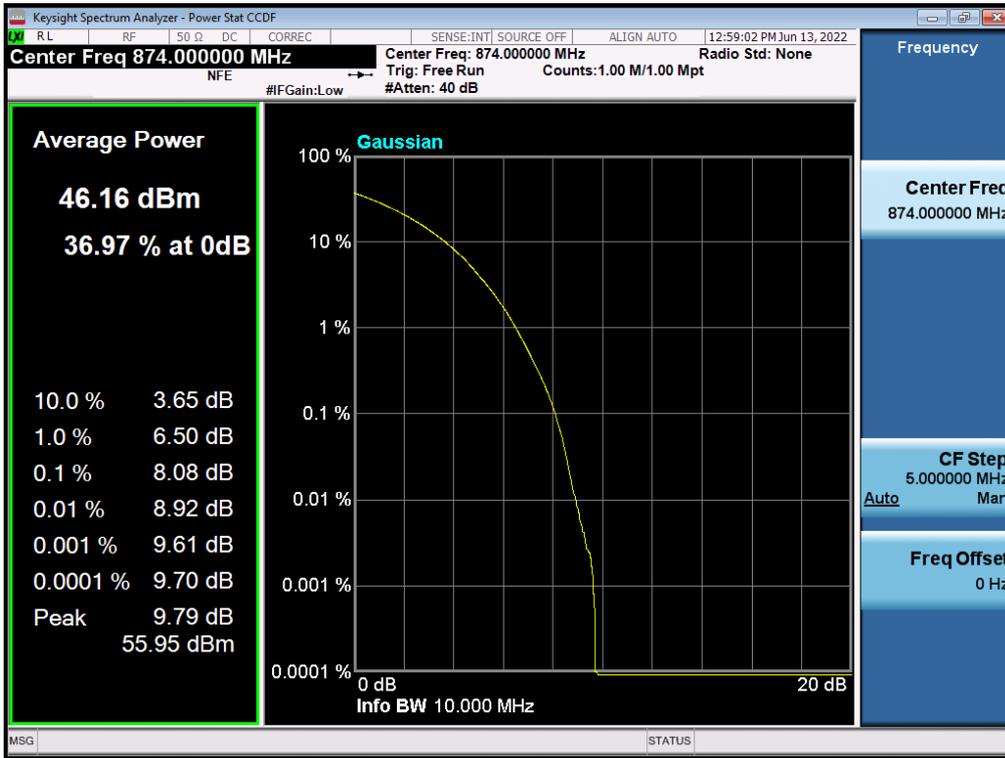
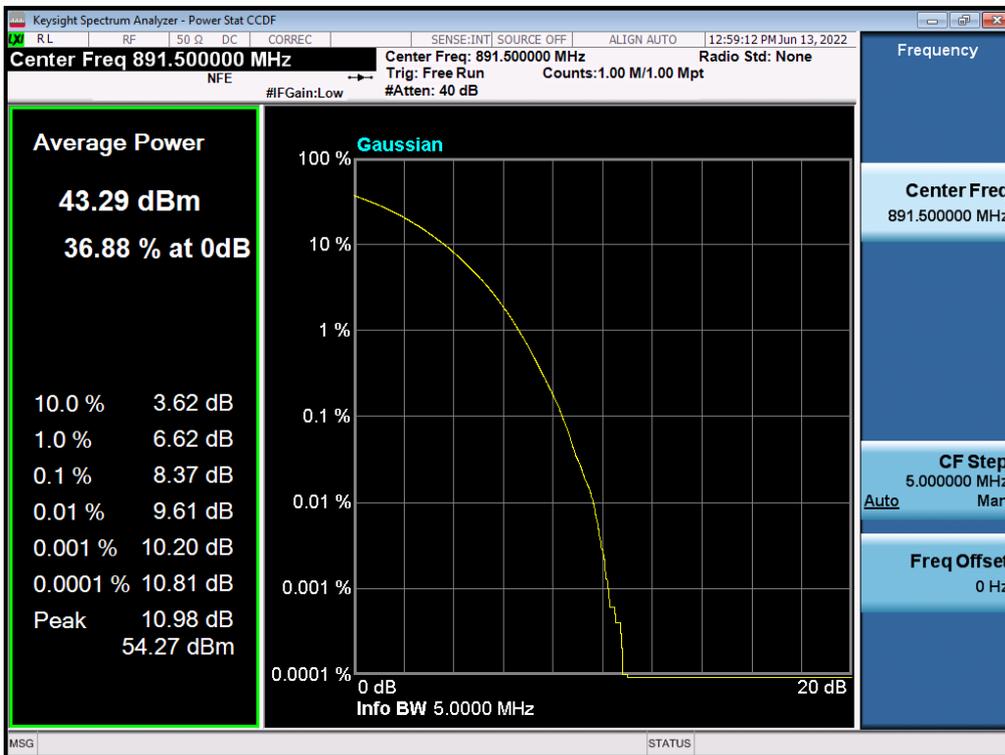


Antenna 1 / (2 Port)5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 10 MHz / 64QAM / High

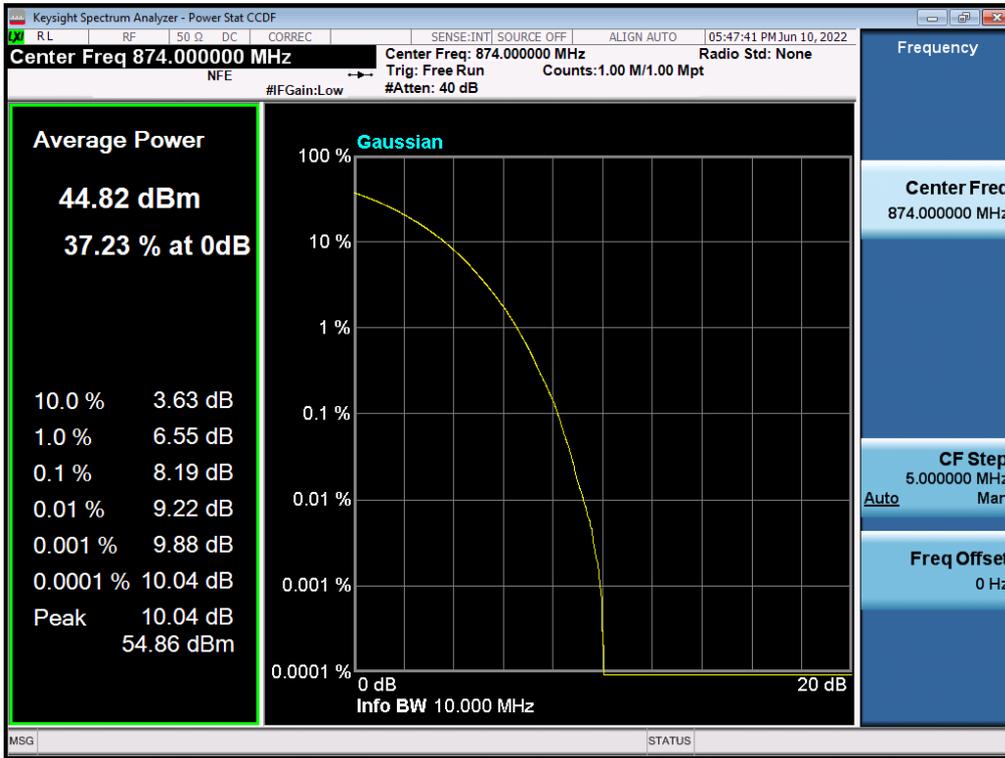


Antenna 1 / (2 Port)B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / B5 DSS 10 MHz / 256QAM / Low

Antenna 1 / (2 Port)B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / B5 DSS 10 MHz / 256QAM / High


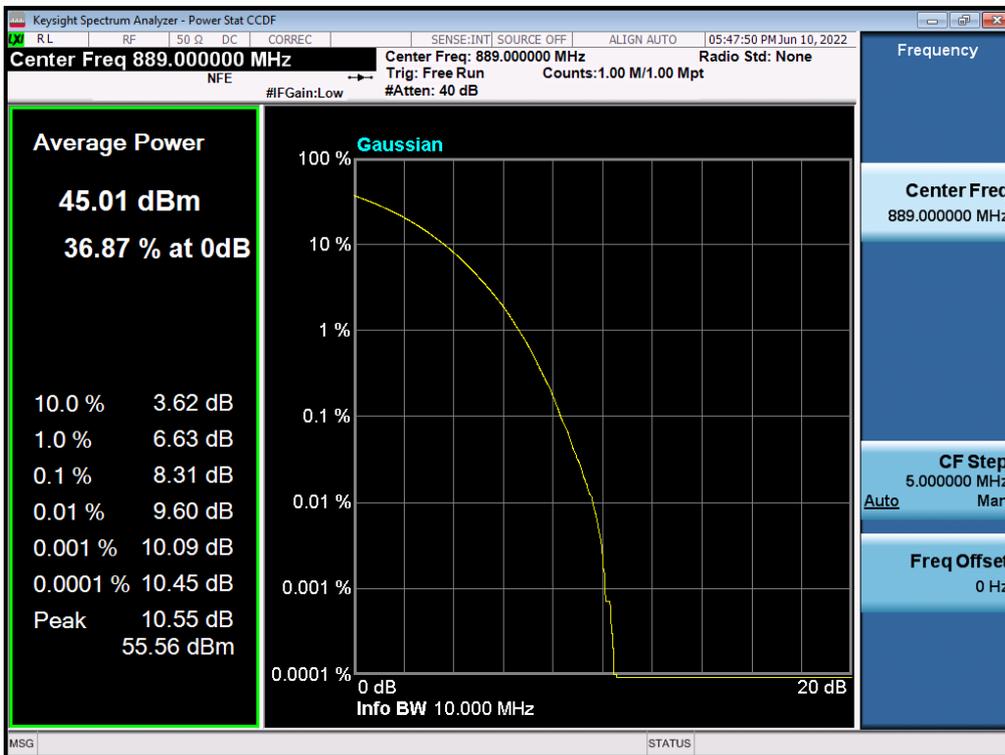
Antenna 1 / (2 Port)5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 5 MHz / 256QAM / Low

Antenna 1 / (2 Port)5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / LTE B5 5 MHz / 256QAM / High


Antenna 1 / (2 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / B5 DSS 10 MHz / 16QAM / Low

Antenna 1 / (2 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 5 MHz / 16QAM / High


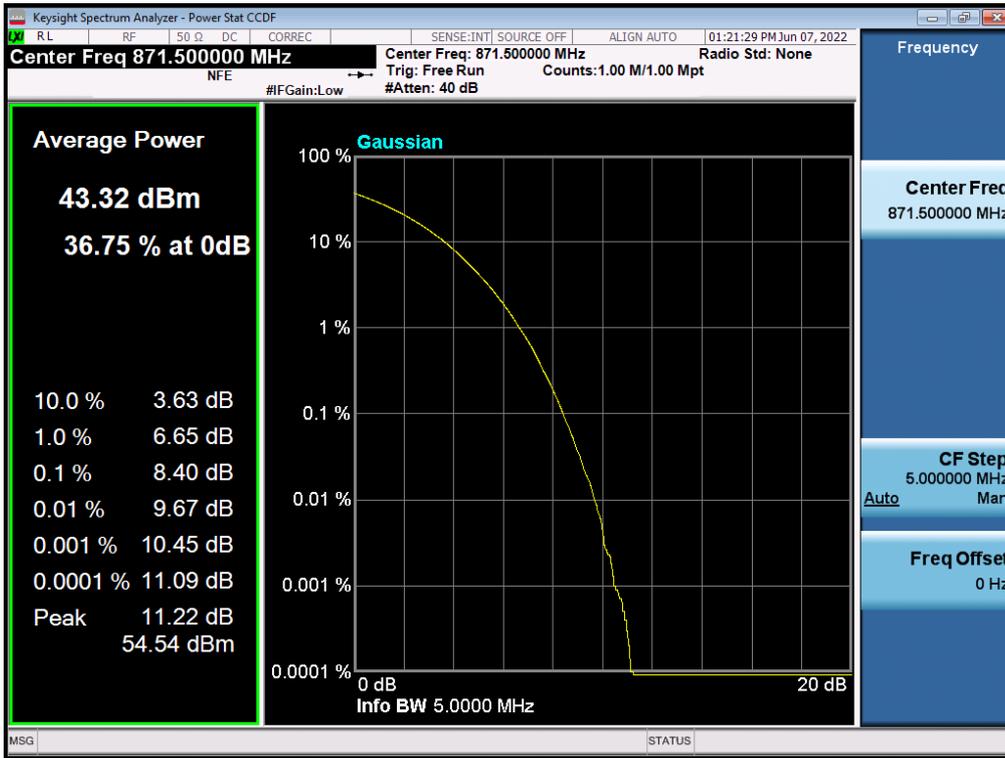
Antenna 1 / (2 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / B5 DSS 10 MHz / 64QAM / Low



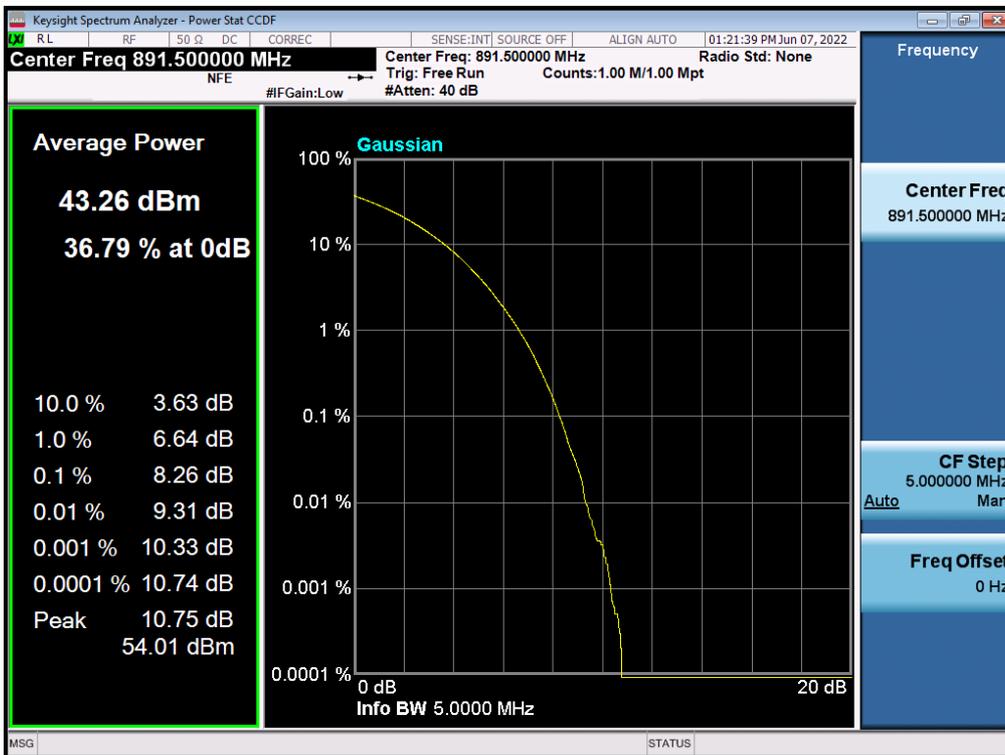
Antenna 1 / (2 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 10 MHz / 64QAM / High

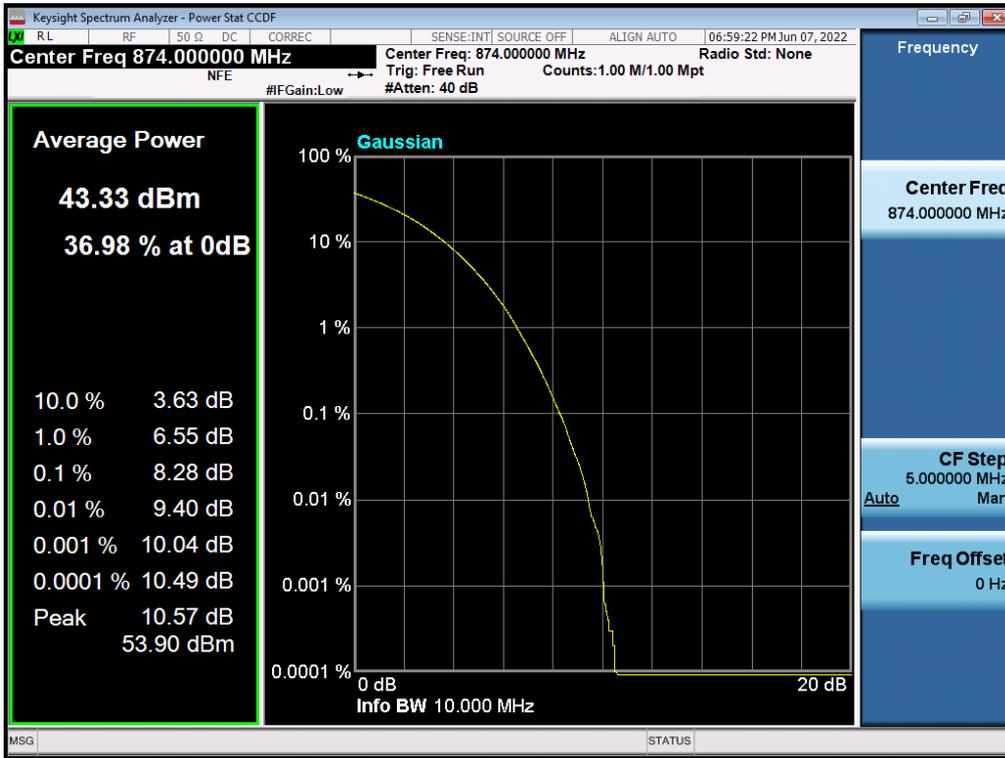
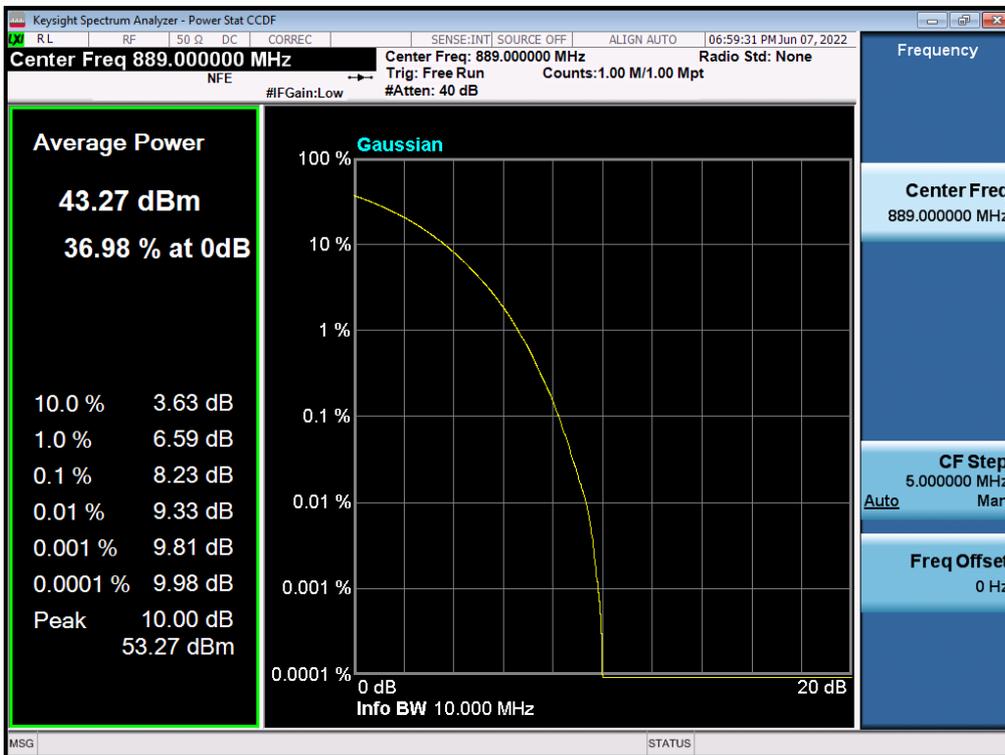


Antenna 1 / (4 Port)5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 5 MHz / QPSK / Low

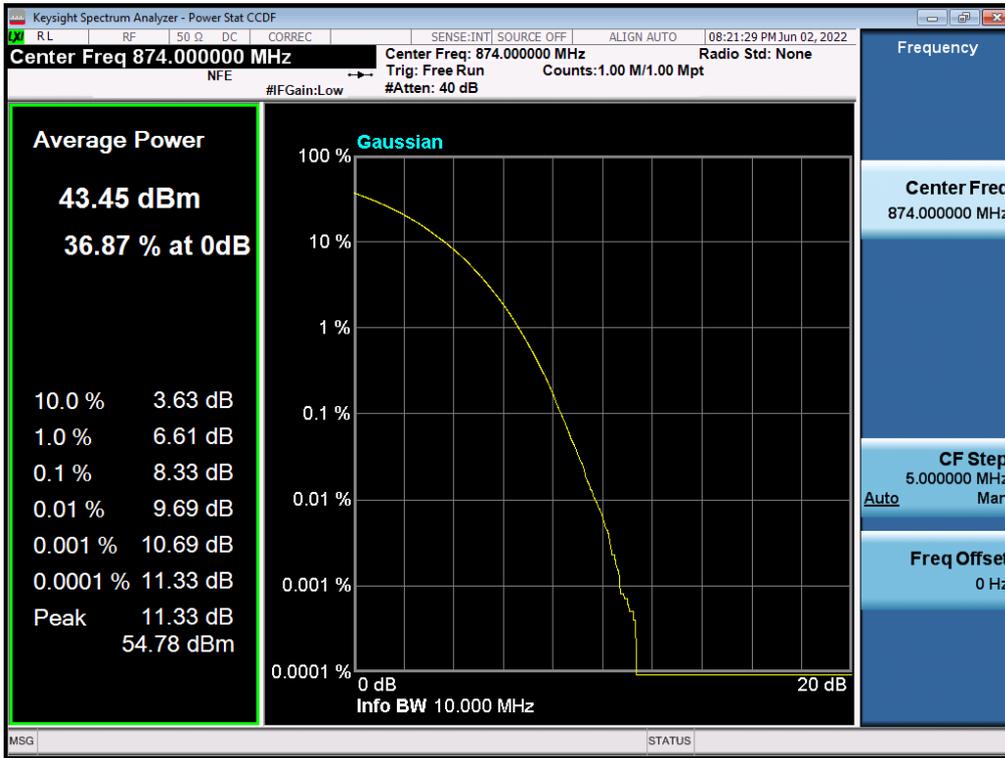


Antenna 1 / (4 Port)5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 5 MHz / QPSK / High

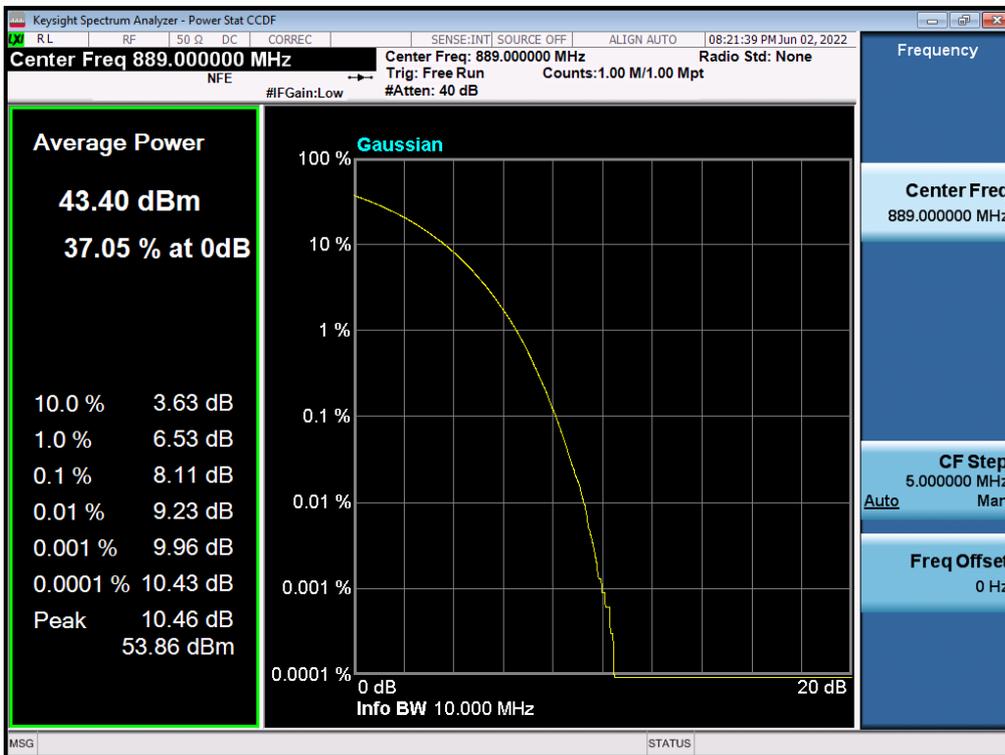


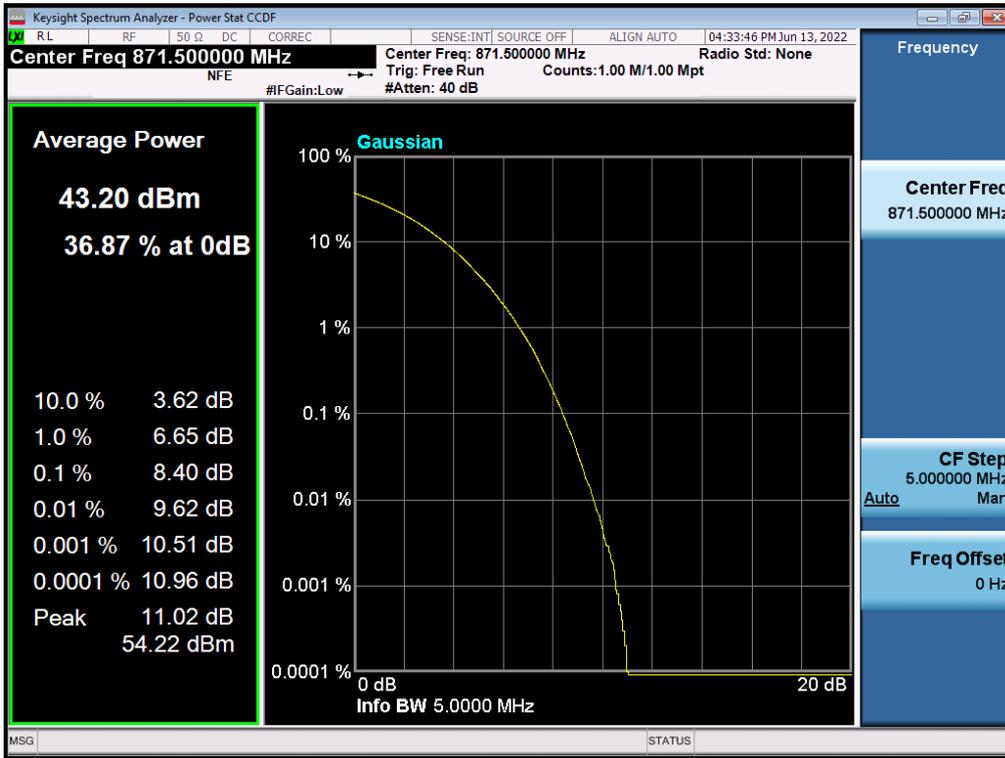
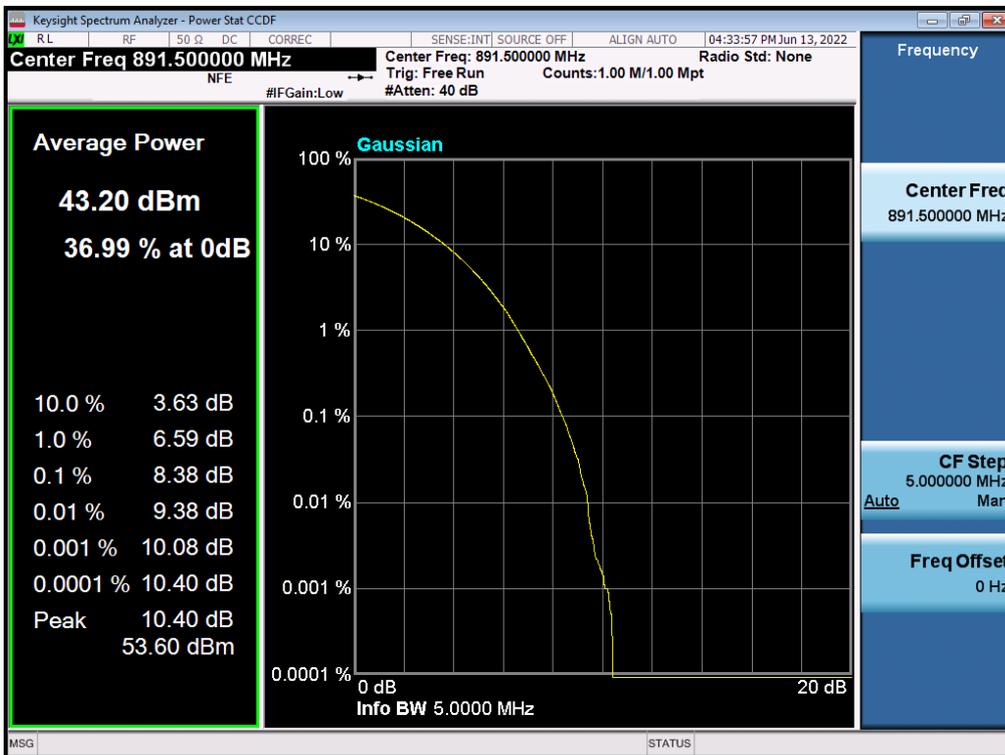
Antenna 3 / (4 Port)5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 10 MHz / QPSK / Low

Antenna 3 / (4 Port)5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 10 MHz / QPSK / High


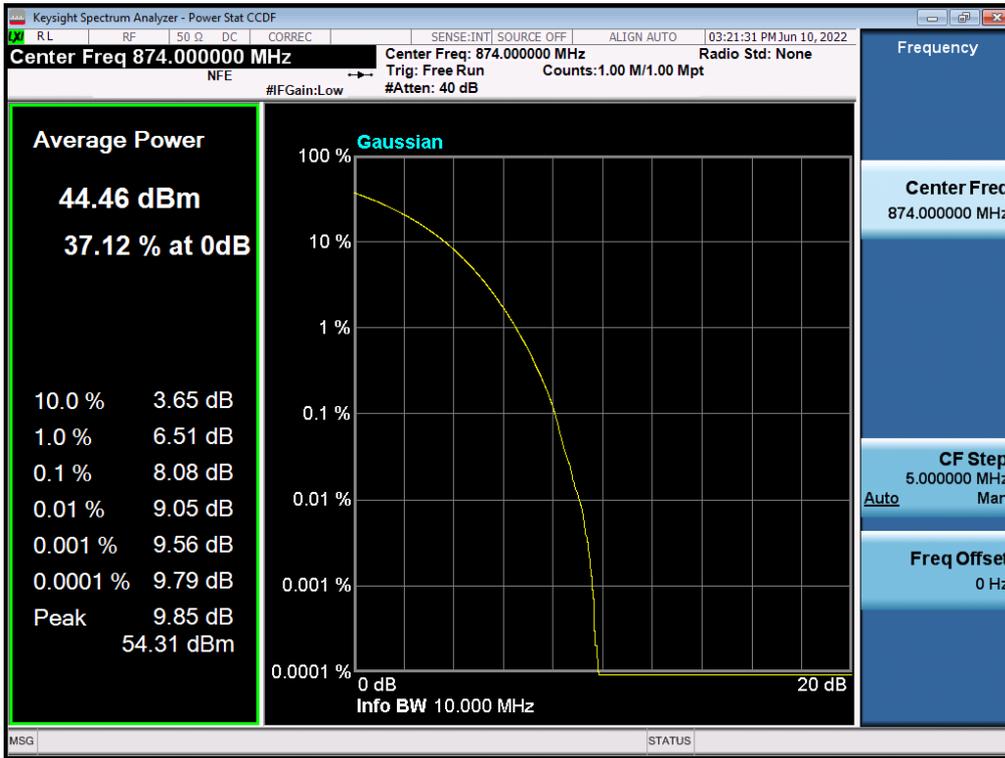
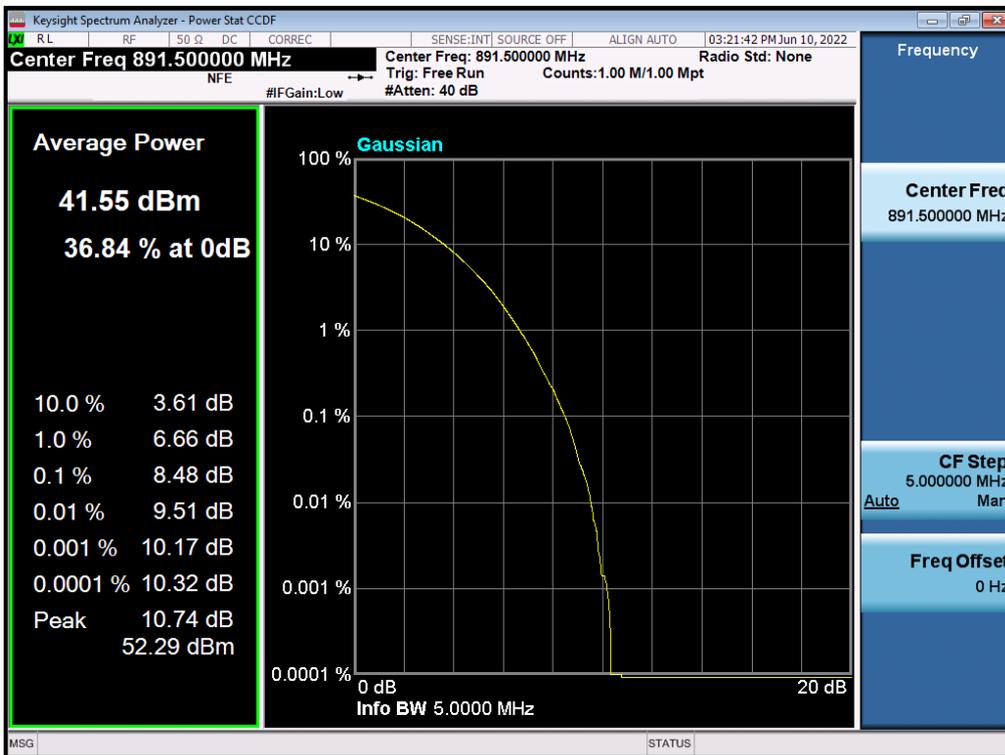
Antenna 2 / (4 Port)B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / B5 DSS 10 MHz / 16QAM / Low



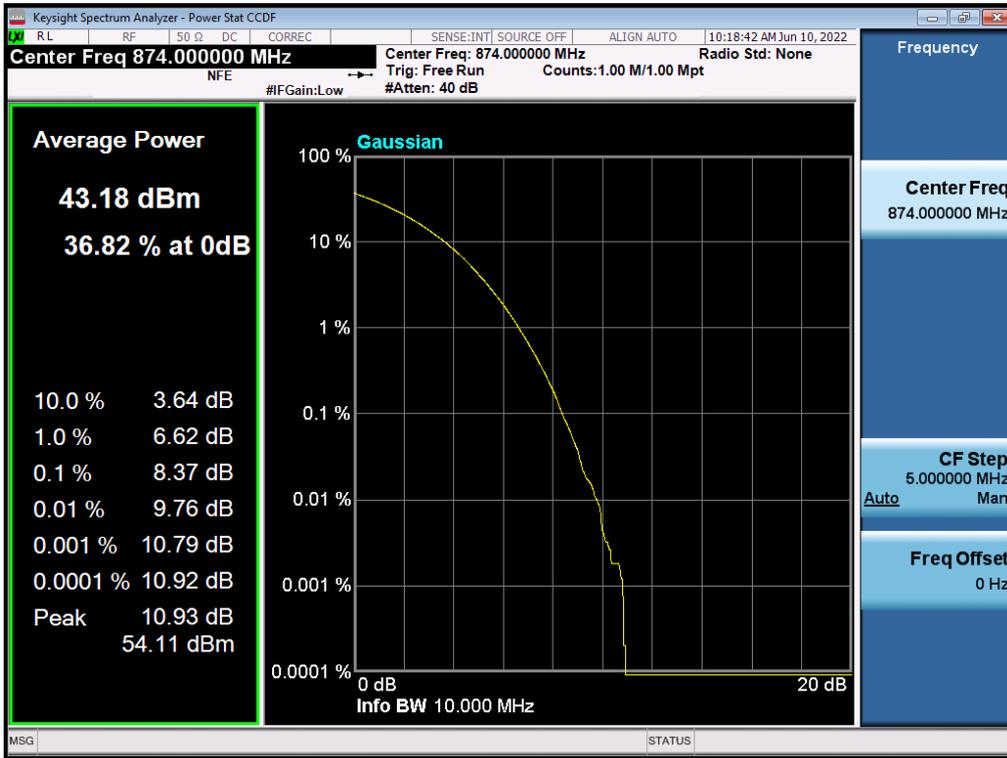
Antenna 2 / (4 Port)B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / B5 DSS 10 MHz / 16QAM / High



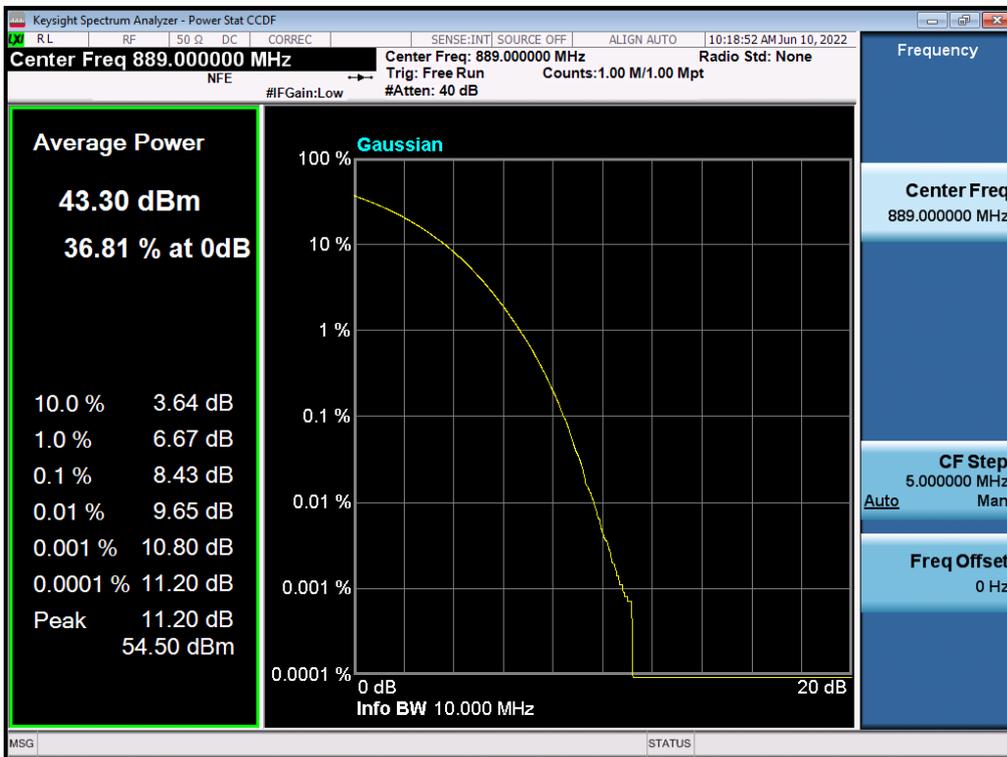
Antenna 1 / (4 Port)5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 5 MHz / 64QAM / Low

Antenna 1 / (4 Port)5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / LTE B5 5 MHz / 64QAM / High


Antenna 3 / (4 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / B5 DSS 10 MHz / 16QAM / Low

Antenna 3 / (4 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 5 MHz / 16QAM / High


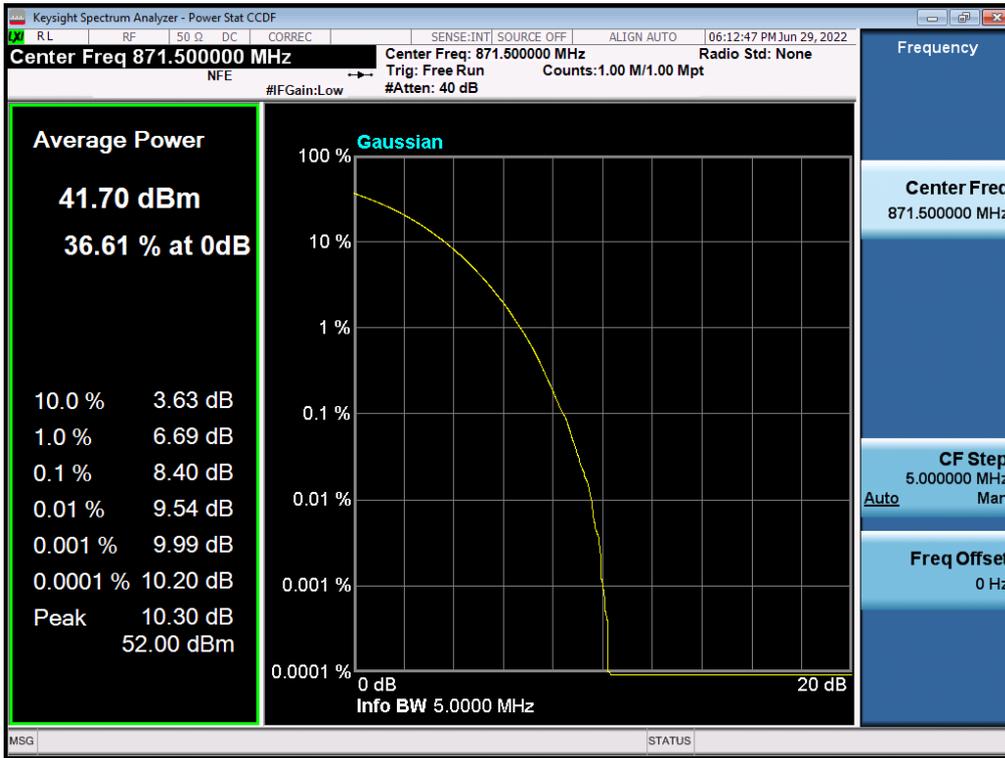
Antenna 1 / (4 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / B5 DSS 10 MHz / 16QAM / Low



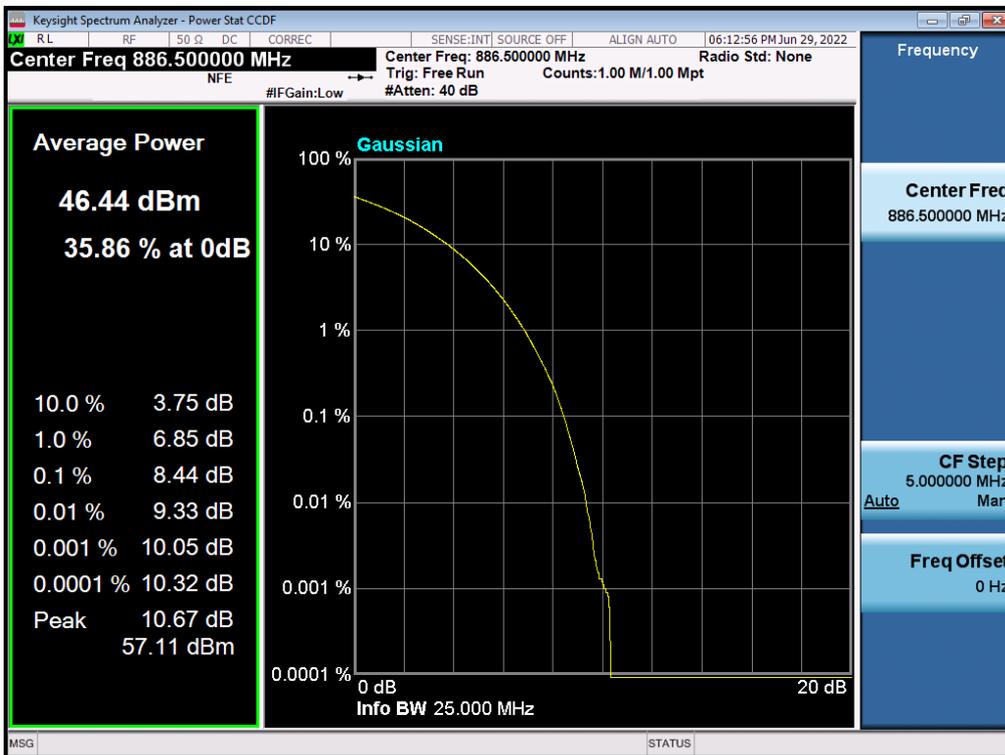
Antenna 1 / (4 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 10 MHz / 16QAM / High



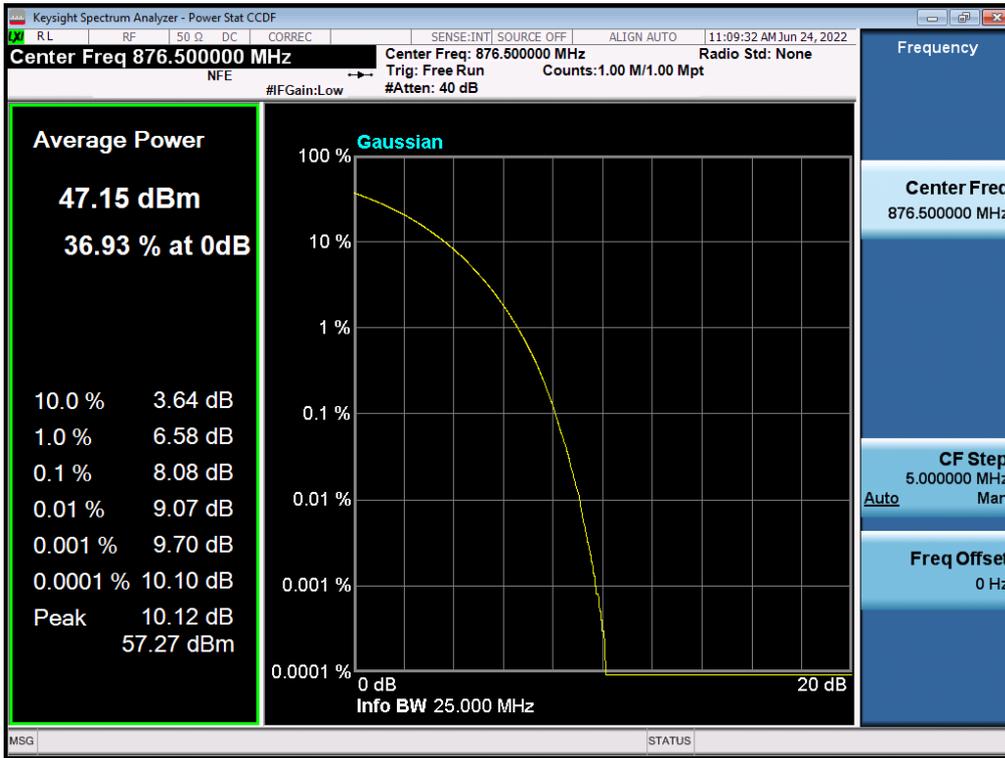
Antenna 0 / (2 Port)B5 LTE B5 5 MHz 1 Carrier + (5G NR n5 5 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier) [3 Carrier](1C+2C)
/ Non-Contiguous / B5 DSS 10 MHz / QPSK / Low



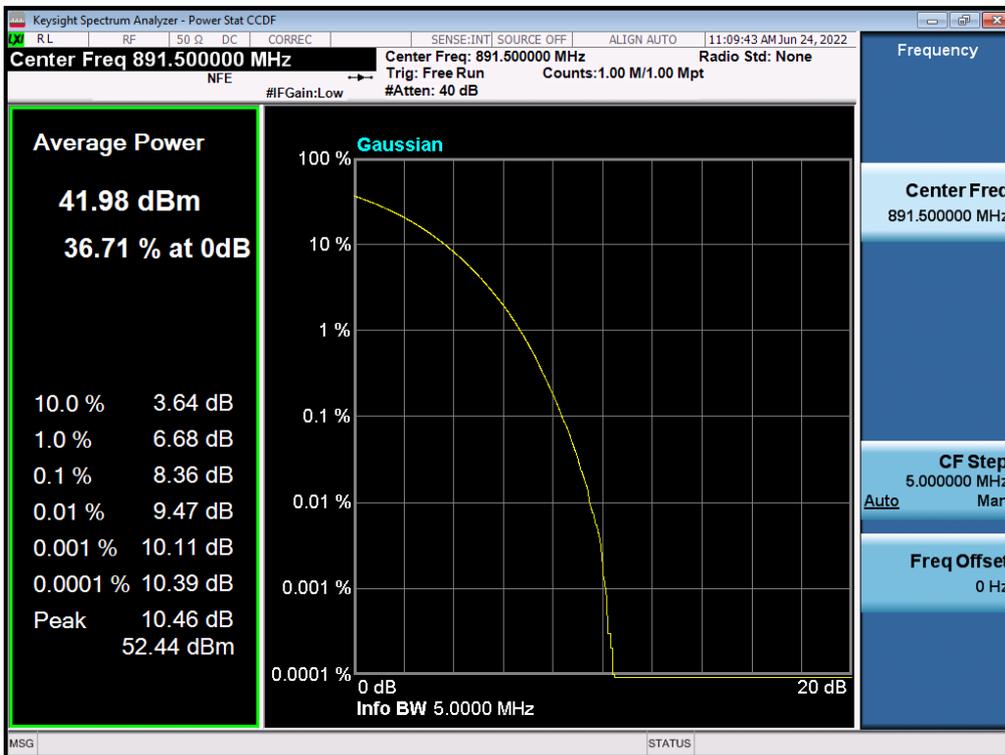
Antenna 0 / (2 Port)B5 LTE B5 5 MHz 1 Carrier + (5G NR n5 5 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier) [3 Carrier](1C+2C)
/ Non-Contiguous / 5G NR n5 5 MHz + LTE B5 5 MHz / QPSK / High



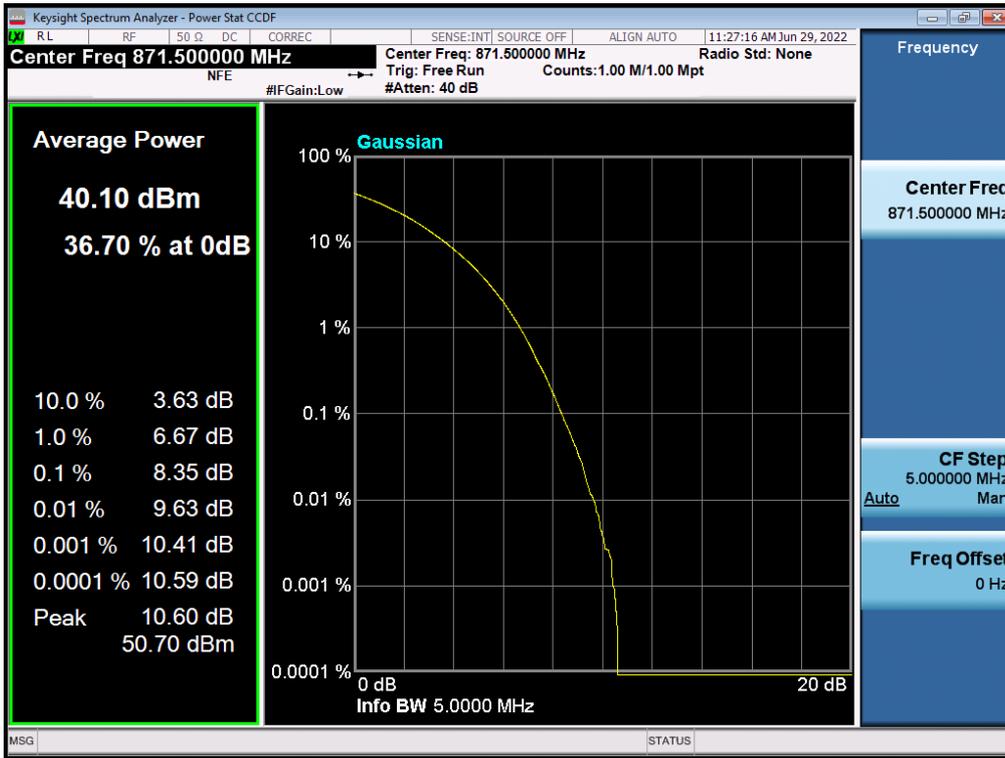
Antenna 1 / (2 Port)(B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier) + LTE B5 5 MHz 1 Carrier [3 Carrier](2C+1C) / Non-Contiguous / B5 DSS 10 MHz + 5G NR n5 5 MHz / 256QAM / Low



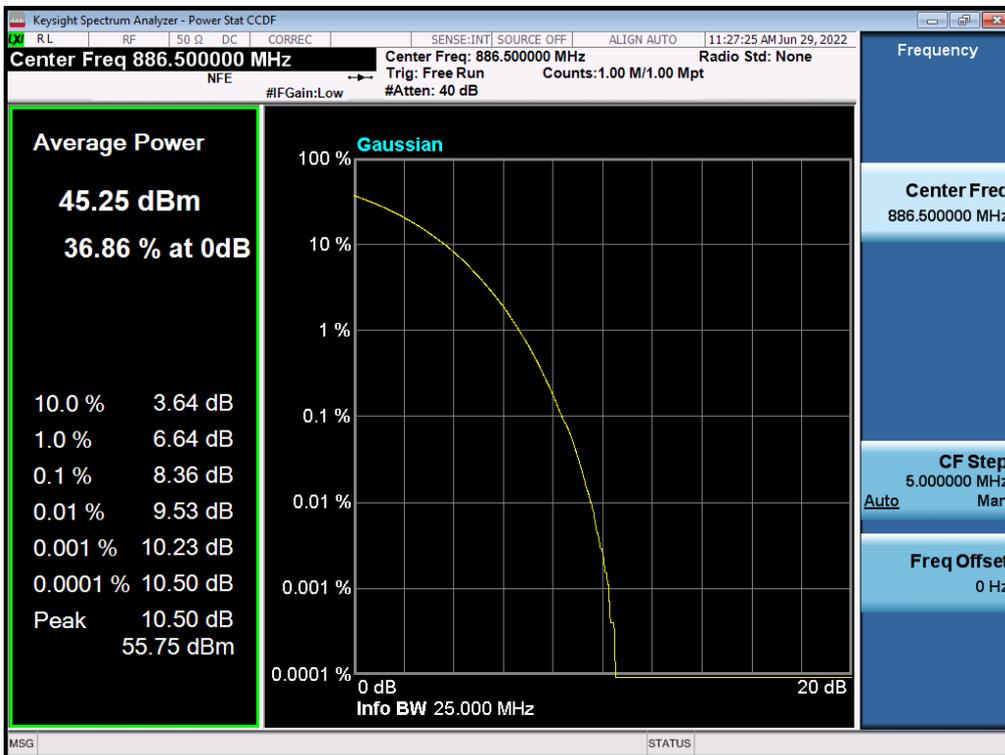
Antenna 1 / (2 Port)(B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier) + LTE B5 5 MHz 1 Carrier [3 Carrier](2C+1C) / Non-Contiguous / LTE B5 5 MHz / 256QAM / High



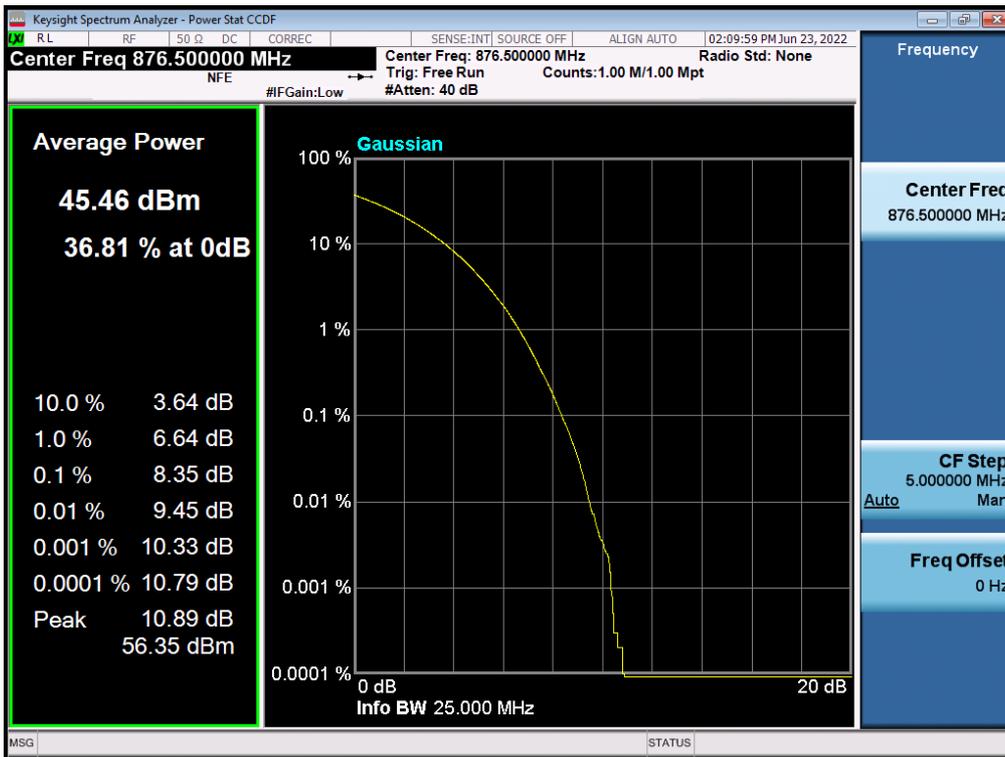
Antenna 1 / (4 Port)B5 LTE 5 MHz 1 Carrier + (5G NR n5 5 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier) [3 Carrier](1C+2C) / Non-Contiguous / B5 DSS 10 MHz / QPSK / Low



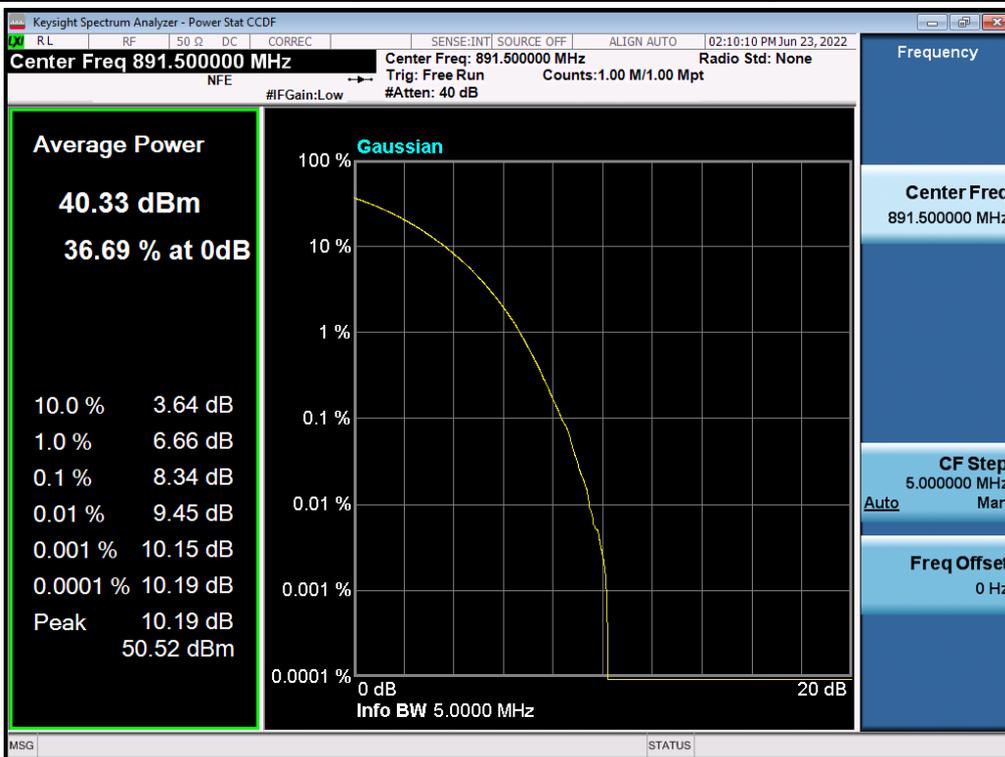
Antenna 1 / (4 Port)B5 LTE 5 MHz 1 Carrier + (5G NR n5 5 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier) [3 Carrier](1C+2C) / Non-Contiguous / 5G NR n5 5 MHz + LTE B5 5 MHz / QPSK / High



Antenna 1 / (4 Port)(B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier) + LTE B5 5 MHz 1 Carrier [3 Carrier](2C+1C) / Non-Contiguous / B5 DSS 10 MHz + 5G NR n5 5 MHz / 256QAM / Low



Antenna 1 / (4 Port)(B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier) + LTE B5 5 MHz 1 Carrier [3 Carrier](2C+1C) / Non-Contiguous / LTE B5 5 MHz / 256QAM / High



5.3. OCCUPIED BANDWIDTH

Test Requirements:

§ 2.1049 Measurements required: Occupied bandwidth.

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured under the specified conditions of § 2.1049 (a) through (i) as applicable.

Test Procedures:

The measurement is performed in accordance with Section 5.4.3 and 5.4.4 of ANSI C63.26.

5.4.3 Occupied bandwidth—Relative measurement procedure

The OBW is measured as the width of the spectral envelope of the modulated signal, at an amplitude level reduced from a reference value by a specified ratio (or in decibels, a specified number of dB down from the reference value). The typical ratio for transmitters is -26 dB, corresponding to the 26 dB BW; however, other ratios can be specified. In this subclause, the ratio is designated by “ $-X$ dB.”

- a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the spectrum analyzer shall be wide enough to see sufficient roll off of the signal to make the measurement.
- b) The nominal RBW shall be in the range of 1 % to 5 % of the anticipated OBW, and the VBW shall be set $\geq 3 \times$ RBW.
- c) Set the reference level of the instrument as required to prevent the signal amplitude from exceeding the maximum spectrum analyzer input mixer level for linear operation. See guidance provided in 4.2.3.
NOTE—Step a), step b), and step c) may require iteration to adjust within the specified tolerances.
- d) The dynamic range of the spectrum analyzer at the selected RBW shall be more than 10 dB below the target “ $-X$ dB” requirement, i.e., if the requirement calls for measuring the -26 dB OBW, the spectrum analyzer noise floor at the selected RBW shall be at least 36 dB below the reference level.
- e) Set spectrum analyzer detection mode to peak, and the trace mode to max hold.
- f) Determine the reference value by either of the following:
 - 1) Set the EUT to transmit a modulated signal. Allow the trace to stabilize. Set the spectrum analyzer marker to the Highest level of the displayed trace (this is the reference value).
 - 2) Set the EUT to transmit an unmodulated carrier. Set the spectrum analyzer marker to the level of the carrier.
- g) Determine the “ $-X$ dB amplitude” as equal to (Reference Value $- X$). Alternatively, this calculation can be performed on the spectrum analyzer using the delta-marker measurement function.
- h) If the reference value was determined using an unmodulated carrier, turn the EUT modulation on, then either clear the existing trace or start a new trace on the spectrum analyzer and allow the new trace to stabilize. Otherwise the trace from step f) shall be used for step i).
- i) Place two markers, one at the lowest and the other at the Highest frequency of the envelope of the spectral display such that each marker is at or slightly below the “ $-X$ dB amplitude” determined in step f). If a marker is below this “ $-X$ dB amplitude” value it should be as close as possible to this value. The OBW is the positive frequency difference between the two markers. The spectral envelope can cross the “ $-X$ dB amplitude” at multiple points. The lowest or Highest frequency

shall be selected as the frequencies that are the farthest away from the center frequency at which the spectral envelope crosses the “-X dB amplitude.”

- j) The OBW shall be reported by providing plot(s) of the measuring instrument display, to include markers depicting the relevant frequency and amplitude information (e.g., marker table). The frequency and amplitude axis and scale shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

5.4.4 Occupied bandwidth—Power bandwidth (99 %) measurement procedure

The OBW is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5 % of the total mean power of the given emission.

The following procedure shall be used for measuring (99 %) power bandwidth:

- a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be set wide enough to capture all modulation products including the emission skirts (typically a span of $1.5 \times \text{OBW}$ is sufficient).
- b) The nominal IF filter 3 dB bandwidth (RBW) shall be in the range of 1 % to 5 % of the anticipated OBW, and the VBW shall be set $\geq 3 \times \text{RBW}$.
- c) Set the reference level of the instrument as required to prevent the signal amplitude from exceeding the maximum spectrum analyzer input mixer level for linear operation. See guidance provided in 4.2.3.
NOTE—Step a), step b), and step c) may require iteration to adjust within the specified tolerances.
- d) Set the detection mode to peak, and the trace mode to max-hold.
- e) If the instrument does not have a 99 % OBW function, recover the trace data points and sum directly in linear power terms. Place the recovered amplitude data points, beginning at the lowest frequency, in a running sum until 0.5 % of the total is reached. Record that frequency as the lower OBW frequency. Repeat the process until 99.5 % of the total is reached and record that frequency as the upper OBW frequency. The 99 % power OBW can be determined by computing the difference these two frequencies.
- f) The OBW shall be reported and plot(s) of the measuring instrument display shall be provided with the test report. The frequency and amplitude axis and scale shall be clearly labeled. Tabular data can be reported in addition to the plot(s).

Note: The results of the Occupied Bandwidth test shown above the frequency measured values are very small and similar trend for each port, so we are attached only the worst case plot.

**Test Results:
Tabular Data of Occupied Bandwidth**
(2 Port)5G NR n5 5 MHz 1 Carrier

| Ant | Mod | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) |
|-----|--------|---------|-----------------|--------------------------|
| 0 | QPSK | Low | 871.50 | 4.4900 |
| | | Middle | 881.50 | 4.4865 |
| | | High | 891.50 | 4.5037 |
| | 16QAM | Low | 871.50 | 4.4967 |
| | | Middle | 881.50 | 4.4966 |
| | | High | 891.50 | 4.4948 |
| | 64QAM | Low | 871.50 | 4.4895 |
| | | Middle | 881.50 | 4.4962 |
| | | High | 891.50 | 4.5040 |
| | 256QAM | Low | 871.50 | 4.4784 |
| | | Middle | 881.50 | 4.4950 |
| | | High | 891.50 | 4.4882 |
| 1 | QPSK | Low | 871.50 | 4.4921 |
| | | Middle | 881.50 | 4.4808 |
| | | High | 891.50 | 4.4946 |
| | 16QAM | Low | 871.50 | 4.4983 |
| | | Middle | 881.50 | 4.4980 |
| | | High | 891.50 | 4.4926 |
| | 64QAM | Low | 871.50 | 4.4885 |
| | | Middle | 881.50 | 4.5012 |
| | | High | 891.50 | 4.5037 |
| | 256QAM | Low | 871.50 | 4.4858 |
| | | Middle | 881.50 | 4.4904 |
| | | High | 891.50 | 4.4933 |

(2 Port)5G NR n5 10 MHz 1 Carrier

| Ant | Mod | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) |
|-----|--------|---------|-----------------|--------------------------|
| 0 | QPSK | Low | 874.00 | 9.3286 |
| | | Middle | 881.50 | 9.3412 |
| | | High | 889.00 | 9.3171 |
| | 16QAM | Low | 874.00 | 9.2490 |
| | | Middle | 881.50 | 9.2400 |
| | | High | 889.00 | 9.2493 |
| | 64QAM | Low | 874.00 | 9.3403 |
| | | Middle | 881.50 | 9.3313 |
| | | High | 889.00 | 9.3268 |
| | 256QAM | Low | 874.00 | 9.3461 |
| | | Middle | 881.50 | 9.3302 |
| | | High | 889.00 | 9.3027 |
| 1 | QPSK | Low | 874.00 | 9.3633 |
| | | Middle | 881.50 | 9.3158 |
| | | High | 889.00 | 9.2966 |
| | 16QAM | Low | 874.00 | 9.2340 |
| | | Middle | 881.50 | 9.2728 |
| | | High | 889.00 | 9.2299 |
| | 64QAM | Low | 874.00 | 9.3162 |
| | | Middle | 881.50 | 9.3372 |
| | | High | 889.00 | 9.3306 |
| | 256QAM | Low | 874.00 | 9.2954 |
| | | Middle | 881.50 | 9.3505 |
| | | High | 889.00 | 9.3452 |

(4 Port)5G NR n5 5 MHz 1 Carrier

| Ant | Mod | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) |
|-----|--------|---------|-----------------|--------------------------|
| 0 | QPSK | Low | 871.50 | 4.4807 |
| | | Middle | 881.50 | 4.4744 |
| | | High | 891.50 | 4.4858 |
| | 16QAM | Low | 871.50 | 4.4957 |
| | | Middle | 881.50 | 4.5056 |
| | | High | 891.50 | 4.4973 |
| | 64QAM | Low | 871.50 | 4.4853 |
| | | Middle | 881.50 | 4.4927 |
| | | High | 891.50 | 4.4923 |
| | 256QAM | Low | 871.50 | 4.4848 |
| | | Middle | 881.50 | 4.4889 |
| | | High | 891.50 | 4.4928 |
| 1 | QPSK | Low | 871.50 | 4.4783 |
| | | Middle | 881.50 | 4.4914 |
| | | High | 891.50 | 4.4923 |
| | 16QAM | Low | 871.50 | 4.5057 |
| | | Middle | 881.50 | 4.5037 |
| | | High | 891.50 | 4.4927 |
| | 64QAM | Low | 871.50 | 4.4804 |
| | | Middle | 881.50 | 4.4838 |
| | | High | 891.50 | 4.4903 |
| | 256QAM | Low | 871.50 | 4.4733 |
| | | Middle | 881.50 | 4.4912 |
| | | High | 891.50 | 4.4843 |

| | | | | |
|--------|--------|--------|--------|--------|
| 2 | QPSK | Low | 871.50 | 4.4769 |
| | | Middle | 881.50 | 4.4897 |
| | | High | 891.50 | 4.5001 |
| | 16QAM | Low | 871.50 | 4.5041 |
| | | Middle | 881.50 | 4.5052 |
| | | High | 891.50 | 4.4963 |
| | 64QAM | Low | 871.50 | 4.4824 |
| | | Middle | 881.50 | 4.4866 |
| | | High | 891.50 | 4.4853 |
| 256QAM | Low | 871.50 | 4.4852 | |
| | Middle | 881.50 | 4.4822 | |
| | High | 891.50 | 4.4983 | |
| 3 | QPSK | Low | 871.50 | 4.4838 |
| | | Middle | 881.50 | 4.4890 |
| | | High | 891.50 | 4.5060 |
| | 16QAM | Low | 871.50 | 4.5022 |
| | | Middle | 881.50 | 4.4975 |
| | | High | 891.50 | 4.4970 |
| | 64QAM | Low | 871.50 | 4.4790 |
| | | Middle | 881.50 | 4.4907 |
| | | High | 891.50 | 4.4999 |
| 256QAM | Low | 871.50 | 4.4823 | |
| | Middle | 881.50 | 4.4839 | |
| | High | 891.50 | 4.4945 | |

(4 Port)5G NR n5 10 MHz 1 Carrier

| Ant | Mod | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) |
|-----|--------|---------|-----------------|--------------------------|
| 0 | QPSK | Low | 874.00 | 9.3263 |
| | | Middle | 881.50 | 9.2830 |
| | | High | 889.00 | 9.2966 |
| | 16QAM | Low | 874.00 | 9.2539 |
| | | Middle | 881.50 | 9.2543 |
| | | High | 889.00 | 9.2160 |
| | 64QAM | Low | 874.00 | 9.3195 |
| | | Middle | 881.50 | 9.3093 |
| | | High | 889.00 | 9.3125 |
| | 256QAM | Low | 874.00 | 9.3114 |
| | | Middle | 881.50 | 9.3222 |
| | | High | 889.00 | 9.3022 |
| 1 | QPSK | Low | 874.00 | 9.3487 |
| | | Middle | 881.50 | 9.3358 |
| | | High | 889.00 | 9.3346 |
| | 16QAM | Low | 874.00 | 9.2378 |
| | | Middle | 881.50 | 9.2236 |
| | | High | 889.00 | 9.2189 |
| | 64QAM | Low | 874.00 | 9.3198 |
| | | Middle | 881.50 | 9.3337 |
| | | High | 889.00 | 9.3299 |
| | 256QAM | Low | 874.00 | 9.2892 |
| | | Middle | 881.50 | 9.3317 |
| | | High | 889.00 | 9.3130 |

| | | | | |
|--------|--------|--------|--------|--------|
| 2 | QPSK | Low | 874.00 | 9.3709 |
| | | Middle | 881.50 | 9.3252 |
| | | High | 889.00 | 9.3243 |
| | 16QAM | Low | 874.00 | 9.2308 |
| | | Middle | 881.50 | 9.2376 |
| | | High | 889.00 | 9.2407 |
| | 64QAM | Low | 874.00 | 9.3381 |
| | | Middle | 881.50 | 9.3561 |
| | | High | 889.00 | 9.3144 |
| 256QAM | Low | 874.00 | 9.3146 | |
| | Middle | 881.50 | 9.3252 | |
| | High | 889.00 | 9.3313 | |
| 3 | QPSK | Low | 874.00 | 9.3168 |
| | | Middle | 881.50 | 9.3411 |
| | | High | 889.00 | 9.3425 |
| | 16QAM | Low | 874.00 | 9.2319 |
| | | Middle | 881.50 | 9.2384 |
| | | High | 889.00 | 9.2389 |
| | 64QAM | Low | 874.00 | 9.3229 |
| | | Middle | 881.50 | 9.3238 |
| | | High | 889.00 | 9.3048 |
| 256QAM | Low | 874.00 | 9.3360 | |
| | Middle | 881.50 | 9.3267 | |
| | High | 889.00 | 9.3194 | |

Tabular Data of Contiguous Occupied Bandwidth
(2 Port)5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier]

| Ant | Mod | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) |
|-----|--------|---------|-----------------|--------------------------|
| 0 | QPSK | Low | 874.00 | 9.4633 |
| | | Middle | 881.50 | 9.4536 |
| | | High | 889.00 | 9.4508 |
| | 16QAM | Low | 874.00 | 9.4792 |
| | | Middle | 881.50 | 9.4841 |
| | | High | 889.00 | 9.4698 |
| | 64QAM | Low | 874.00 | 9.4530 |
| | | Middle | 881.50 | 9.4379 |
| | | High | 889.00 | 9.4662 |
| | 256QAM | Low | 874.00 | 9.4369 |
| | | Middle | 881.50 | 9.4269 |
| | | High | 889.00 | 9.4843 |
| 1 | QPSK | Low | 874.00 | 9.4436 |
| | | Middle | 881.50 | 9.4502 |
| | | High | 889.00 | 9.4539 |
| | 16QAM | Low | 874.00 | 9.4723 |
| | | Middle | 881.50 | 9.4909 |
| | | High | 889.00 | 9.4451 |
| | 64QAM | Low | 874.00 | 9.4476 |
| | | Middle | 881.50 | 9.4593 |
| | | High | 889.00 | 9.4949 |
| | 256QAM | Low | 874.00 | 9.4576 |
| | | Middle | 881.50 | 9.4579 |
| | | High | 889.00 | 9.4710 |

(2 Port)5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier]

| Ant | Mod | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) |
|--------|--------|---------|-----------------|--------------------------|
| 0 | QPSK | Low | 879.00 | 19.265 |
| | | Middle | 881.50 | 19.241 |
| | | High | 884.00 | 19.233 |
| | 16QAM | Low | 879.00 | 19.113 |
| | | Middle | 881.50 | 19.126 |
| | | High | 884.00 | 19.109 |
| | 64QAM | Low | 879.00 | 19.219 |
| | | Middle | 881.50 | 19.238 |
| | | High | 884.00 | 19.236 |
| 256QAM | Low | 879.00 | 19.263 | |
| | Middle | 881.50 | 19.256 | |
| | High | 884.00 | 19.260 | |
| 1 | QPSK | Low | 879.00 | 19.254 |
| | | Middle | 881.50 | 19.252 |
| | | High | 884.00 | 19.282 |
| | 16QAM | Low | 879.00 | 19.091 |
| | | Middle | 881.50 | 19.127 |
| | | High | 884.00 | 19.109 |
| | 64QAM | Low | 879.00 | 19.277 |
| | | Middle | 881.50 | 19.250 |
| | | High | 884.00 | 19.275 |
| 256QAM | Low | 879.00 | 19.248 | |
| | Middle | 881.50 | 19.246 | |
| | High | 884.00 | 19.260 | |

(2 Port)B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier]

| Ant | Mod | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) |
|-----|--------|---------|-----------------|--------------------------|
| 0 | QPSK | Low | 879.00 | 19.196 |
| | | Middle | 881.50 | 19.117 |
| | | High | 884.00 | 19.118 |
| | 16QAM | Low | 879.00 | 19.013 |
| | | Middle | 881.50 | 19.031 |
| | | High | 884.00 | 19.020 |
| | 64QAM | Low | 879.00 | 19.132 |
| | | Middle | 881.50 | 19.122 |
| | | High | 884.00 | 19.115 |
| | 256QAM | Low | 879.00 | 19.093 |
| | | Middle | 881.50 | 19.112 |
| | | High | 884.00 | 19.097 |
| 1 | QPSK | Low | 879.00 | 19.108 |
| | | Middle | 881.50 | 19.142 |
| | | High | 884.00 | 19.122 |
| | 16QAM | Low | 879.00 | 19.046 |
| | | Middle | 881.50 | 19.031 |
| | | High | 884.00 | 18.984 |
| | 64QAM | Low | 879.00 | 19.104 |
| | | Middle | 881.50 | 19.129 |
| | | High | 884.00 | 19.070 |
| | 256QAM | Low | 879.00 | 19.106 |
| | | Middle | 881.50 | 19.127 |
| | | High | 884.00 | 19.124 |

(2 Port)5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier]

| Ant | Mod | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) |
|-----|--------|---------|-----------------|--------------------------|
| 0 | QPSK | Low | 874.00 | 9.4902 |
| | | Middle | 881.50 | 9.4799 |
| | | High | 889.00 | 9.4595 |
| | 16QAM | Low | 874.00 | 9.4894 |
| | | Middle | 881.50 | 9.4779 |
| | | High | 889.00 | 9.4813 |
| | 64QAM | Low | 874.00 | 9.4788 |
| | | Middle | 881.50 | 9.4610 |
| | | High | 889.00 | 9.4468 |
| | 256QAM | Low | 874.00 | 9.4819 |
| | | Middle | 881.50 | 9.4753 |
| | | High | 889.00 | 9.4597 |
| 1 | QPSK | Low | 874.00 | 9.4817 |
| | | Middle | 881.50 | 9.4893 |
| | | High | 889.00 | 9.4389 |
| | 16QAM | Low | 874.00 | 9.4613 |
| | | Middle | 881.50 | 9.4874 |
| | | High | 889.00 | 9.4810 |
| | 64QAM | Low | 874.00 | 9.4598 |
| | | Middle | 881.50 | 9.5040 |
| | | High | 889.00 | 9.4647 |
| | 256QAM | Low | 874.00 | 9.4933 |
| | | Middle | 881.50 | 9.4623 |
| | | High | 889.00 | 9.4761 |

(2 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier]

| Ant | Mod | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) |
|--------|--------|---------|-----------------|--------------------------|
| 0 | QPSK | Low | 876.50 | 14.299 |
| | | Middle | 881.50 | 14.298 |
| | | High | 886.50 | 14.320 |
| | 16QAM | Low | 876.50 | 14.335 |
| | | Middle | 881.50 | 14.339 |
| | | High | 886.50 | 14.204 |
| | 64QAM | Low | 876.50 | 14.258 |
| | | Middle | 881.50 | 14.308 |
| | | High | 886.50 | 14.325 |
| 256QAM | Low | 876.50 | 14.271 | |
| | Middle | 881.50 | 14.321 | |
| | High | 886.50 | 14.348 | |
| 1 | QPSK | Low | 876.50 | 14.319 |
| | | Middle | 881.50 | 14.288 |
| | | High | 886.50 | 14.366 |
| | 16QAM | Low | 876.50 | 14.297 |
| | | Middle | 881.50 | 14.316 |
| | | High | 886.50 | 14.152 |
| | 64QAM | Low | 876.50 | 14.280 |
| | | Middle | 881.50 | 14.287 |
| | | High | 886.50 | 14.244 |
| 256QAM | Low | 876.50 | 14.353 | |
| | Middle | 881.50 | 14.336 | |
| | High | 886.50 | 14.309 | |

(2 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier]

| Ant | Mod | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) |
|-----|--------|---------|-----------------|--------------------------|
| 0 | QPSK | Low | 879.00 | 19.208 |
| | | Middle | 881.50 | 19.202 |
| | | High | 884.00 | 19.252 |
| | 16QAM | Low | 879.00 | 19.063 |
| | | Middle | 881.50 | 19.030 |
| | | High | 884.00 | 19.064 |
| | 64QAM | Low | 879.00 | 19.162 |
| | | Middle | 881.50 | 19.206 |
| | | High | 884.00 | 19.180 |
| | 256QAM | Low | 879.00 | 19.165 |
| | | Middle | 881.50 | 19.177 |
| | | High | 884.00 | 19.240 |
| 1 | QPSK | Low | 879.00 | 19.143 |
| | | Middle | 881.50 | 19.255 |
| | | High | 884.00 | 19.223 |
| | 16QAM | Low | 879.00 | 19.017 |
| | | Middle | 881.50 | 19.085 |
| | | High | 884.00 | 19.048 |
| | 64QAM | Low | 879.00 | 19.169 |
| | | Middle | 881.50 | 19.188 |
| | | High | 884.00 | 19.180 |
| | 256QAM | Low | 879.00 | 19.188 |
| | | Middle | 881.50 | 19.174 |
| | | High | 884.00 | 19.195 |

(4 Port)5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier]

| Ant | Mod | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) |
|-----|--------|---------|-----------------|--------------------------|
| 0 | QPSK | Low | 874.00 | 9.4604 |
| | | Middle | 881.50 | 9.4628 |
| | | High | 889.00 | 9.4544 |
| | 16QAM | Low | 874.00 | 9.4870 |
| | | Middle | 881.50 | 9.4783 |
| | | High | 889.00 | 9.5003 |
| | 64QAM | Low | 874.00 | 9.4617 |
| | | Middle | 881.50 | 9.4445 |
| | | High | 889.00 | 9.4365 |
| | 256QAM | Low | 874.00 | 9.4730 |
| | | Middle | 881.50 | 9.4521 |
| | | High | 889.00 | 9.4739 |
| 1 | QPSK | Low | 874.00 | 9.4730 |
| | | Middle | 881.50 | 9.4581 |
| | | High | 889.00 | 9.4653 |
| | 16QAM | Low | 874.00 | 9.4888 |
| | | Middle | 881.50 | 9.4783 |
| | | High | 889.00 | 9.4682 |
| | 64QAM | Low | 874.00 | 9.4424 |
| | | Middle | 881.50 | 9.4645 |
| | | High | 889.00 | 9.4598 |
| | 256QAM | Low | 874.00 | 9.4564 |
| | | Middle | 881.50 | 9.4380 |
| | | High | 889.00 | 9.4408 |

| | | | | |
|---|--------|--------|--------|--------|
| 2 | QPSK | Low | 874.00 | 9.4490 |
| | | Middle | 881.50 | 9.4782 |
| | | High | 889.00 | 9.4539 |
| | 16QAM | Low | 874.00 | 9.4805 |
| | | Middle | 881.50 | 9.4788 |
| | | High | 889.00 | 9.4897 |
| | 64QAM | Low | 874.00 | 9.4493 |
| | | Middle | 881.50 | 9.4691 |
| | | High | 889.00 | 9.4562 |
| | 256QAM | Low | 874.00 | 9.4624 |
| | | Middle | 881.50 | 9.4567 |
| | | High | 889.00 | 9.4379 |
| 3 | QPSK | Low | 874.00 | 9.4554 |
| | | Middle | 881.50 | 9.4639 |
| | | High | 889.00 | 9.4475 |
| | 16QAM | Low | 874.00 | 9.4847 |
| | | Middle | 881.50 | 9.4934 |
| | | High | 889.00 | 9.4926 |
| | 64QAM | Low | 874.00 | 9.4878 |
| | | Middle | 881.50 | 9.4662 |
| | | High | 889.00 | 9.4633 |
| | 256QAM | Low | 874.00 | 9.4440 |
| | | Middle | 881.50 | 9.4755 |
| | | High | 889.00 | 9.4653 |

(4 Port)5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier]

| Ant | Mod | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) |
|-----|--------|---------|-----------------|--------------------------|
| 0 | QPSK | Low | 879.00 | 19.245 |
| | | Middle | 881.50 | 19.283 |
| | | High | 884.00 | 19.268 |
| | 16QAM | Low | 879.00 | 19.088 |
| | | Middle | 881.50 | 19.157 |
| | | High | 884.00 | 19.126 |
| | 64QAM | Low | 879.00 | 19.273 |
| | | Middle | 881.50 | 19.249 |
| | | High | 884.00 | 19.279 |
| | 256QAM | Low | 879.00 | 19.274 |
| | | Middle | 881.50 | 19.230 |
| | | High | 884.00 | 19.292 |
| 1 | QPSK | Low | 879.00 | 19.203 |
| | | Middle | 881.50 | 19.278 |
| | | High | 884.00 | 19.221 |
| | 16QAM | Low | 879.00 | 19.091 |
| | | Middle | 881.50 | 19.138 |
| | | High | 884.00 | 19.107 |
| | 64QAM | Low | 879.00 | 19.284 |
| | | Middle | 881.50 | 19.299 |
| | | High | 884.00 | 19.264 |
| | 256QAM | Low | 879.00 | 19.299 |
| | | Middle | 881.50 | 19.283 |
| | | High | 884.00 | 19.285 |

| | | | | |
|--------|--------|--------|--------|--------|
| 2 | QPSK | Low | 879.00 | 19.233 |
| | | Middle | 881.50 | 19.294 |
| | | High | 884.00 | 19.269 |
| | 16QAM | Low | 879.00 | 19.125 |
| | | Middle | 881.50 | 19.130 |
| | | High | 884.00 | 19.130 |
| | 64QAM | Low | 879.00 | 19.300 |
| | | Middle | 881.50 | 19.273 |
| | | High | 884.00 | 19.240 |
| 256QAM | Low | 879.00 | 19.280 | |
| | Middle | 881.50 | 19.244 | |
| | High | 884.00 | 19.270 | |
| 3 | QPSK | Low | 879.00 | 19.223 |
| | | Middle | 881.50 | 19.263 |
| | | High | 884.00 | 19.258 |
| | 16QAM | Low | 879.00 | 19.153 |
| | | Middle | 881.50 | 19.161 |
| | | High | 884.00 | 19.162 |
| | 64QAM | Low | 879.00 | 19.246 |
| | | Middle | 881.50 | 19.242 |
| | | High | 884.00 | 19.299 |
| 256QAM | Low | 879.00 | 19.230 | |
| | Middle | 881.50 | 19.310 | |
| | High | 884.00 | 19.269 | |

(4 Port)B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier]

| Ant | Mod | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) |
|--------|--------|---------|-----------------|--------------------------|
| 0 | QPSK | Low | 879.00 | 18.953 |
| | | Middle | 881.50 | 19.115 |
| | | High | 884.00 | 19.119 |
| | 16QAM | Low | 879.00 | 18.965 |
| | | Middle | 881.50 | 19.008 |
| | | High | 884.00 | 19.034 |
| | 64QAM | Low | 879.00 | 18.891 |
| | | Middle | 881.50 | 19.048 |
| | | High | 884.00 | 19.195 |
| 256QAM | Low | 879.00 | 18.899 | |
| | Middle | 881.50 | 19.082 | |
| | High | 884.00 | 19.158 | |
| 1 | QPSK | Low | 879.00 | 18.917 |
| | | Middle | 881.50 | 19.098 |
| | | High | 884.00 | 19.083 |
| | 16QAM | Low | 879.00 | 18.938 |
| | | Middle | 881.50 | 18.983 |
| | | High | 884.00 | 18.989 |
| | 64QAM | Low | 879.00 | 18.897 |
| | | Middle | 881.50 | 19.017 |
| | | High | 884.00 | 19.052 |
| 256QAM | Low | 879.00 | 18.917 | |
| | Middle | 881.50 | 19.047 | |
| | High | 884.00 | 19.014 | |

| | | | | |
|--------|--------|--------|--------|--------|
| 2 | QPSK | Low | 879.00 | 18.908 |
| | | Middle | 881.50 | 19.099 |
| | | High | 884.00 | 19.088 |
| | 16QAM | Low | 879.00 | 19.000 |
| | | Middle | 881.50 | 18.965 |
| | | High | 884.00 | 18.953 |
| | 64QAM | Low | 879.00 | 18.944 |
| | | Middle | 881.50 | 19.088 |
| | | High | 884.00 | 19.081 |
| 256QAM | Low | 879.00 | 18.923 | |
| | Middle | 881.50 | 19.138 | |
| | High | 884.00 | 19.083 | |
| 3 | QPSK | Low | 879.00 | 18.910 |
| | | Middle | 881.50 | 19.039 |
| | | High | 884.00 | 19.095 |
| | 16QAM | Low | 879.00 | 18.958 |
| | | Middle | 881.50 | 18.982 |
| | | High | 884.00 | 18.976 |
| | 64QAM | Low | 879.00 | 18.916 |
| | | Middle | 881.50 | 19.088 |
| | | High | 884.00 | 19.107 |
| 256QAM | Low | 879.00 | 18.885 | |
| | Middle | 881.50 | 19.019 | |
| | High | 884.00 | 19.103 | |

(4 Port)5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier]

| Ant | Mod | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) |
|-----|--------|---------|-----------------|--------------------------|
| 0 | QPSK | Low | 874.00 | 9.4863 |
| | | Middle | 881.50 | 9.5007 |
| | | High | 889.00 | 9.4705 |
| | 16QAM | Low | 874.00 | 9.4396 |
| | | Middle | 881.50 | 9.4349 |
| | | High | 889.00 | 9.5024 |
| | 64QAM | Low | 874.00 | 9.4778 |
| | | Middle | 881.50 | 9.4507 |
| | | High | 889.00 | 9.4378 |
| | 256QAM | Low | 874.00 | 9.4657 |
| | | Middle | 881.50 | 9.4466 |
| | | High | 889.00 | 9.4456 |
| 1 | QPSK | Low | 874.00 | 9.4636 |
| | | Middle | 881.50 | 9.4696 |
| | | High | 889.00 | 9.4518 |
| | 16QAM | Low | 874.00 | 9.4749 |
| | | Middle | 881.50 | 9.4901 |
| | | High | 889.00 | 9.5023 |
| | 64QAM | Low | 874.00 | 9.4603 |
| | | Middle | 881.50 | 9.4793 |
| | | High | 889.00 | 9.4766 |
| | 256QAM | Low | 874.00 | 9.4752 |
| | | Middle | 881.50 | 9.4611 |
| | | High | 889.00 | 9.4604 |

| | | | | |
|---|--------|--------|--------|--------|
| 2 | QPSK | Low | 874.00 | 9.4832 |
| | | Middle | 881.50 | 9.4835 |
| | | High | 889.00 | 9.4672 |
| | 16QAM | Low | 874.00 | 9.4723 |
| | | Middle | 881.50 | 9.4421 |
| | | High | 889.00 | 9.4693 |
| | 64QAM | Low | 874.00 | 9.4572 |
| | | Middle | 881.50 | 9.4655 |
| | | High | 889.00 | 9.4125 |
| | 256QAM | Low | 874.00 | 9.4689 |
| | | Middle | 881.50 | 9.4684 |
| | | High | 889.00 | 9.4500 |
| 3 | QPSK | Low | 874.00 | 9.4830 |
| | | Middle | 881.50 | 9.4452 |
| | | High | 889.00 | 9.4674 |
| | 16QAM | Low | 874.00 | 9.4224 |
| | | Middle | 881.50 | 9.4834 |
| | | High | 889.00 | 9.4850 |
| | 64QAM | Low | 874.00 | 9.4606 |
| | | Middle | 881.50 | 9.4691 |
| | | High | 889.00 | 9.4298 |
| | 256QAM | Low | 874.00 | 9.4619 |
| | | Middle | 881.50 | 9.4834 |
| | | High | 889.00 | 9.4658 |

(4 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier]

| Ant | Mod | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) |
|--------|--------|---------|-----------------|--------------------------|
| 0 | QPSK | Low | 876.50 | 14.298 |
| | | Middle | 881.50 | 14.348 |
| | | High | 886.50 | 14.305 |
| | 16QAM | Low | 876.50 | 14.329 |
| | | Middle | 881.50 | 14.282 |
| | | High | 886.50 | 14.228 |
| | 64QAM | Low | 876.50 | 14.302 |
| | | Middle | 881.50 | 14.324 |
| | | High | 886.50 | 14.306 |
| 256QAM | Low | 876.50 | 14.327 | |
| | Middle | 881.50 | 14.309 | |
| | High | 886.50 | 14.354 | |
| 1 | QPSK | Low | 876.50 | 14.299 |
| | | Middle | 881.50 | 14.337 |
| | | High | 886.50 | 14.298 |
| | 16QAM | Low | 876.50 | 14.306 |
| | | Middle | 881.50 | 14.256 |
| | | High | 886.50 | 14.246 |
| | 64QAM | Low | 876.50 | 14.275 |
| | | Middle | 881.50 | 14.323 |
| | | High | 886.50 | 14.302 |
| 256QAM | Low | 876.50 | 14.283 | |
| | Middle | 881.50 | 14.339 | |
| | High | 886.50 | 14.323 | |

| | | | | |
|--------|--------|--------|--------|--------|
| 2 | QPSK | Low | 876.50 | 14.286 |
| | | Middle | 881.50 | 14.334 |
| | | High | 886.50 | 14.303 |
| | 16QAM | Low | 876.50 | 14.318 |
| | | Middle | 881.50 | 14.308 |
| | | High | 886.50 | 14.203 |
| | 64QAM | Low | 876.50 | 14.333 |
| | | Middle | 881.50 | 14.324 |
| | | High | 886.50 | 14.299 |
| 256QAM | Low | 876.50 | 14.326 | |
| | Middle | 881.50 | 14.299 | |
| | High | 886.50 | 14.244 | |
| 3 | QPSK | Low | 876.50 | 14.308 |
| | | Middle | 881.50 | 14.320 |
| | | High | 886.50 | 14.282 |
| | 16QAM | Low | 876.50 | 14.338 |
| | | Middle | 881.50 | 14.329 |
| | | High | 886.50 | 14.187 |
| | 64QAM | Low | 876.50 | 14.293 |
| | | Middle | 881.50 | 14.281 |
| | | High | 886.50 | 14.306 |
| 256QAM | Low | 876.50 | 14.264 | |
| | Middle | 881.50 | 14.311 | |
| | High | 886.50 | 14.336 | |

(4 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier]

| Ant | Mod | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) |
|-----|--------|---------|-----------------|--------------------------|
| 0 | QPSK | Low | 879.00 | 19.191 |
| | | Middle | 881.50 | 19.165 |
| | | High | 884.00 | 19.220 |
| | 16QAM | Low | 879.00 | 18.965 |
| | | Middle | 881.50 | 19.036 |
| | | High | 884.00 | 19.084 |
| | 64QAM | Low | 879.00 | 19.190 |
| | | Middle | 881.50 | 19.181 |
| | | High | 884.00 | 19.152 |
| | 256QAM | Low | 879.00 | 19.169 |
| | | Middle | 881.50 | 19.194 |
| | | High | 884.00 | 19.145 |
| 1 | QPSK | Low | 879.00 | 19.162 |
| | | Middle | 881.50 | 19.193 |
| | | High | 884.00 | 19.160 |
| | 16QAM | Low | 879.00 | 19.027 |
| | | Middle | 881.50 | 19.068 |
| | | High | 884.00 | 19.031 |
| | 64QAM | Low | 879.00 | 19.199 |
| | | Middle | 881.50 | 19.217 |
| | | High | 884.00 | 19.120 |
| | 256QAM | Low | 879.00 | 19.184 |
| | | Middle | 881.50 | 19.192 |
| | | High | 884.00 | 19.177 |

| | | | | |
|--------|--------|--------|--------|--------|
| 2 | QPSK | Low | 879.00 | 19.176 |
| | | Middle | 881.50 | 19.231 |
| | | High | 884.00 | 19.252 |
| | 16QAM | Low | 879.00 | 19.060 |
| | | Middle | 881.50 | 19.067 |
| | | High | 884.00 | 19.103 |
| | 64QAM | Low | 879.00 | 19.191 |
| | | Middle | 881.50 | 19.201 |
| | | High | 884.00 | 19.186 |
| 256QAM | Low | 879.00 | 19.191 | |
| | Middle | 881.50 | 19.179 | |
| | High | 884.00 | 19.158 | |
| 3 | QPSK | Low | 879.00 | 19.194 |
| | | Middle | 881.50 | 19.194 |
| | | High | 884.00 | 19.221 |
| | 16QAM | Low | 879.00 | 19.018 |
| | | Middle | 881.50 | 19.021 |
| | | High | 884.00 | 19.053 |
| | 64QAM | Low | 879.00 | 19.161 |
| | | Middle | 881.50 | 19.161 |
| | | High | 884.00 | 19.187 |
| 256QAM | Low | 879.00 | 19.202 | |
| | Middle | 881.50 | 19.226 | |
| | High | 884.00 | 19.219 | |

(2 Port)5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier]

| Ant | Mod | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) |
|-----|--------|---------|-----------------|--------------------------|
| 0 | QPSK | Middle | 881.50 | 24.304 |
| | 16QAM | Middle | 881.50 | 24.254 |
| | 64QAM | Middle | 881.50 | 24.315 |
| | 256QAM | Middle | 881.50 | 24.320 |
| 1 | QPSK | Middle | 881.50 | 24.329 |
| | 16QAM | Middle | 881.50 | 24.243 |
| | 64QAM | Middle | 881.50 | 24.345 |
| | 256QAM | Middle | 881.50 | 24.282 |

(2 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier]

| Ant | Mod | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) |
|-----|--------|---------|-----------------|--------------------------|
| 0 | QPSK | Low | 879.00 | 19.325 |
| | | Middle | 881.50 | 19.259 |
| | | High | 884.00 | 19.289 |
| | 16QAM | Low | 879.00 | 19.259 |
| | | Middle | 881.50 | 19.274 |
| | | High | 884.00 | 19.198 |
| | 64QAM | Low | 879.00 | 19.196 |
| | | Middle | 881.50 | 19.318 |
| | | High | 884.00 | 19.299 |
| | 256QAM | Low | 879.00 | 19.302 |
| | | Middle | 881.50 | 19.224 |
| | | High | 884.00 | 19.251 |
| 1 | QPSK | Low | 879.00 | 19.285 |
| | | Middle | 881.50 | 19.272 |
| | | High | 884.00 | 19.248 |
| | 16QAM | Low | 879.00 | 19.223 |
| | | Middle | 881.50 | 19.259 |
| | | High | 884.00 | 19.179 |
| | 64QAM | Low | 879.00 | 19.293 |
| | | Middle | 881.50 | 19.233 |
| | | High | 884.00 | 19.230 |
| | 256QAM | Low | 879.00 | 19.256 |
| | | Middle | 881.50 | 19.234 |
| | | High | 884.00 | 19.252 |

(2 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier]

| Ant | Mod | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) |
|-----|--------|---------|-----------------|--------------------------|
| 0 | QPSK | Middle | 881.50 | 24.248 |
| | 16QAM | Middle | 881.50 | 24.179 |
| | 64QAM | Middle | 881.50 | 24.182 |
| | 256QAM | Middle | 881.50 | 24.265 |
| 1 | QPSK | Middle | 881.50 | 24.166 |
| | 16QAM | Middle | 881.50 | 24.144 |
| | 64QAM | Middle | 881.50 | 24.273 |
| | 256QAM | Middle | 881.50 | 24.247 |

(4 Port)5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier]

| Ant | Mod | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) |
|-----|--------|---------|-----------------|--------------------------|
| 0 | QPSK | Middle | 881.50 | 24.309 |
| | 16QAM | Middle | 881.50 | 24.326 |
| | 64QAM | Middle | 881.50 | 24.301 |
| | 256QAM | Middle | 881.50 | 24.281 |
| 1 | QPSK | Middle | 881.50 | 24.294 |
| | 16QAM | Middle | 881.50 | 24.358 |
| | 64QAM | Middle | 881.50 | 24.337 |
| | 256QAM | Middle | 881.50 | 24.332 |
| 2 | QPSK | Middle | 881.50 | 24.303 |
| | 16QAM | Middle | 881.50 | 24.288 |
| | 64QAM | Middle | 881.50 | 24.281 |
| | 256QAM | Middle | 881.50 | 24.306 |
| 3 | QPSK | Middle | 881.50 | 24.287 |
| | 16QAM | Middle | 881.50 | 24.267 |
| | 64QAM | Middle | 881.50 | 24.334 |
| | 256QAM | Middle | 881.50 | 24.283 |

(4 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier]

| Ant | Mod | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) |
|-----|--------|---------|-----------------|--------------------------|
| 0 | QPSK | Low | 879.00 | 19.218 |
| | | Middle | 881.50 | 19.281 |
| | | High | 884.00 | 19.198 |
| | 16QAM | Low | 879.00 | 19.260 |
| | | Middle | 881.50 | 19.249 |
| | | High | 884.00 | 19.146 |
| | 64QAM | Low | 879.00 | 19.215 |
| | | Middle | 881.50 | 19.239 |
| | | High | 884.00 | 19.229 |
| | 256QAM | Low | 879.00 | 19.274 |
| | | Middle | 881.50 | 19.231 |
| | | High | 884.00 | 19.269 |
| 1 | QPSK | Low | 879.00 | 19.208 |
| | | Middle | 881.50 | 19.289 |
| | | High | 884.00 | 19.268 |
| | 16QAM | Low | 879.00 | 19.261 |
| | | Middle | 881.50 | 19.240 |
| | | High | 884.00 | 19.174 |
| | 64QAM | Low | 879.00 | 19.243 |
| | | Middle | 881.50 | 19.239 |
| | | High | 884.00 | 19.235 |
| | 256QAM | Low | 879.00 | 19.250 |
| | | Middle | 881.50 | 19.252 |
| | | High | 884.00 | 19.282 |

| | | | | |
|--------|--------|--------|--------|--------|
| 2 | QPSK | Low | 879.00 | 19.311 |
| | | Middle | 881.50 | 19.262 |
| | | High | 884.00 | 19.271 |
| | 16QAM | Low | 879.00 | 19.253 |
| | | Middle | 881.50 | 19.242 |
| | | High | 884.00 | 19.158 |
| | 64QAM | Low | 879.00 | 19.277 |
| | | Middle | 881.50 | 19.257 |
| | | High | 884.00 | 19.286 |
| 256QAM | Low | 879.00 | 19.262 | |
| | Middle | 881.50 | 19.285 | |
| | High | 884.00 | 19.261 | |
| 3 | QPSK | Low | 879.00 | 19.243 |
| | | Middle | 881.50 | 19.269 |
| | | High | 884.00 | 19.249 |
| | 16QAM | Low | 879.00 | 19.205 |
| | | Middle | 881.50 | 19.181 |
| | | High | 884.00 | 19.178 |
| | 64QAM | Low | 879.00 | 19.217 |
| | | Middle | 881.50 | 19.275 |
| | | High | 884.00 | 19.311 |
| 256QAM | Low | 879.00 | 19.274 | |
| | Middle | 881.50 | 19.256 | |
| | High | 884.00 | 19.248 | |

(4 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier]

| Ant | Mod | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) |
|-----|--------|---------|-----------------|--------------------------|
| 0 | QPSK | Middle | 881.50 | 24.271 |
| | 16QAM | Middle | 881.50 | 24.180 |
| | 64QAM | Middle | 881.50 | 24.249 |
| | 256QAM | Middle | 881.50 | 24.231 |
| 1 | QPSK | Middle | 881.50 | 24.243 |
| | 16QAM | Middle | 881.50 | 24.181 |
| | 64QAM | Middle | 881.50 | 24.244 |
| | 256QAM | Middle | 881.50 | 24.306 |
| 2 | QPSK | Middle | 881.50 | 24.279 |
| | 16QAM | Middle | 881.50 | 24.141 |
| | 64QAM | Middle | 881.50 | 24.266 |
| | 256QAM | Middle | 881.50 | 24.243 |
| 3 | QPSK | Middle | 881.50 | 24.244 |
| | 16QAM | Middle | 881.50 | 24.155 |
| | 64QAM | Middle | 881.50 | 24.210 |
| | 256QAM | Middle | 881.50 | 24.231 |

Tabular Data of Non-Contiguous Occupied Bandwidth
(2 Port)5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier]

| Ant | Mod | 5G NR n5 5 MHz | | 5G NR n5 5 MHz | | Total OBW (MHz) |
|-----|--------|-----------------|----------------------|-----------------|----------------------|-----------------|
| | | Frequency (MHz) | Measured Value (MHz) | Frequency (MHz) | Measured Value (MHz) | |
| 0 | QPSK | 871.50 | 4.4872 | 891.50 | 4.4894 | 8.9765 |
| | 16QAM | 871.50 | 4.5034 | 891.50 | 4.4970 | 9.0004 |
| | 64QAM | 871.50 | 4.4932 | 891.50 | 4.4926 | 8.9859 |
| | 256QAM | 871.50 | 4.4963 | 891.50 | 4.4790 | 8.9753 |
| 1 | QPSK | 871.50 | 4.5034 | 891.50 | 4.4983 | 9.0017 |
| | 16QAM | 871.50 | 4.5087 | 891.50 | 4.4989 | 9.0076 |
| | 64QAM | 871.50 | 4.4958 | 891.50 | 4.4885 | 8.9843 |
| | 256QAM | 871.50 | 4.4894 | 891.50 | 4.4948 | 8.9842 |

(2 Port)5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier]

| Ant | Mod | 5G NR n5 10 MHz | | 5G NR n5 10 MHz | | Total OBW (MHz) |
|-----|--------|-----------------|----------------------|-----------------|----------------------|-----------------|
| | | Frequency (MHz) | Measured Value (MHz) | Frequency (MHz) | Measured Value (MHz) | |
| 0 | QPSK | 874.00 | 9.3145 | 889.00 | 9.3360 | 18.650 |
| | 16QAM | 874.00 | 9.2405 | 889.00 | 9.2689 | 18.509 |
| | 64QAM | 874.00 | 9.3431 | 889.00 | 9.3315 | 18.675 |
| | 256QAM | 874.00 | 9.3415 | 889.00 | 9.3509 | 18.692 |
| 1 | QPSK | 874.00 | 9.3080 | 889.00 | 9.3218 | 18.630 |
| | 16QAM | 874.00 | 9.2426 | 889.00 | 9.2461 | 18.489 |
| | 64QAM | 874.00 | 9.3141 | 889.00 | 9.3187 | 18.633 |
| | 256QAM | 874.00 | 9.3172 | 889.00 | 9.3146 | 18.632 |

(2 Port)B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier]

| Ant | Mod | B5 DSS 10 MHz | | B5 DSS 10 MHz | | Total OBW (MHz) |
|-----|--------|-----------------|----------------------|-----------------|----------------------|-----------------|
| | | Frequency (MHz) | Measured Value (MHz) | Frequency (MHz) | Measured Value (MHz) | |
| 0 | QPSK | 874.00 | 9.2256 | 889.00 | 9.2737 | 18.499 |
| | 16QAM | 874.00 | 9.1378 | 889.00 | 9.1654 | 18.303 |
| | 64QAM | 874.00 | 9.2113 | 889.00 | 9.2708 | 18.482 |
| | 256QAM | 874.00 | 9.2457 | 889.00 | 9.2270 | 18.473 |
| 1 | QPSK | 874.00 | 9.2191 | 889.00 | 9.2412 | 18.460 |
| | 16QAM | 874.00 | 9.1463 | 889.00 | 9.1729 | 18.319 |
| | 64QAM | 874.00 | 9.2489 | 889.00 | 9.2805 | 18.529 |
| | 256QAM | 874.00 | 9.2751 | 889.00 | 9.2404 | 18.515 |

(2 Port)5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier]

| Ant | Mod | 5G NR n5 5 MHz | | LTE B5 5 MHz | | Total OBW (MHz) |
|-----|--------|-----------------|----------------------|-----------------|----------------------|-----------------|
| | | Frequency (MHz) | Measured Value (MHz) | Frequency (MHz) | Measured Value (MHz) | |
| 0 | QPSK | 871.50 | 4.4926 | 891.50 | 4.4962 | 8.9887 |
| | 16QAM | 871.50 | 4.5028 | 891.50 | 4.4859 | 8.9887 |
| | 64QAM | 871.50 | 4.4921 | 891.50 | 4.5054 | 8.9975 |
| | 256QAM | 871.50 | 4.4936 | 891.50 | 4.5006 | 8.9943 |
| 1 | QPSK | 871.50 | 4.5001 | 891.50 | 4.4978 | 8.9980 |
| | 16QAM | 871.50 | 4.4953 | 891.50 | 4.4847 | 8.9801 |
| | 64QAM | 871.50 | 4.5010 | 891.50 | 4.4990 | 9.0001 |
| | 256QAM | 871.50 | 4.4944 | 891.50 | 4.4977 | 8.9920 |

(2 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier]

| Ant | Mod | B5 DSS 10 MHz | | 5G NR n5 5 MHz | | Total OBW (MHz) |
|-----|--------|-----------------|----------------------|-----------------|----------------------|-----------------|
| | | Frequency (MHz) | Measured Value (MHz) | Frequency (MHz) | Measured Value (MHz) | |
| 0 | QPSK | 874.00 | 9.2812 | 891.50 | 4.4918 | 13.773 |
| | 16QAM | 874.00 | 9.1499 | 891.50 | 4.4943 | 13.644 |
| | 64QAM | 874.00 | 9.2486 | 891.50 | 4.4874 | 13.736 |
| | 256QAM | 874.00 | 9.2541 | 891.50 | 4.4911 | 13.745 |
| 1 | QPSK | 874.00 | 9.2488 | 891.50 | 4.4931 | 13.742 |
| | 16QAM | 874.00 | 9.1480 | 891.50 | 4.5015 | 13.650 |
| | 64QAM | 874.00 | 9.2594 | 891.50 | 4.4807 | 13.740 |
| | 256QAM | 874.00 | 9.2649 | 891.50 | 4.4792 | 13.744 |

(2 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier]

| Ant | Mod | B5 DSS 10 MHz | | 5G NR n5 10 MHz | | Total OBW (MHz) |
|-----|--------|-----------------|----------------------|-----------------|----------------------|-----------------|
| | | Frequency (MHz) | Measured Value (MHz) | Frequency (MHz) | Measured Value (MHz) | |
| 0 | QPSK | 874.00 | 9.2210 | 889.00 | 9.3547 | 18.576 |
| | 16QAM | 874.00 | 9.1436 | 889.00 | 9.2583 | 18.402 |
| | 64QAM | 874.00 | 9.2738 | 889.00 | 9.3343 | 18.608 |
| | 256QAM | 874.00 | 9.3118 | 889.00 | 9.3191 | 18.631 |
| 1 | QPSK | 874.00 | 9.2531 | 889.00 | 9.3269 | 18.580 |
| | 16QAM | 874.00 | 9.1485 | 889.00 | 9.2447 | 18.393 |
| | 64QAM | 874.00 | 9.2059 | 889.00 | 9.3162 | 18.522 |
| | 256QAM | 874.00 | 9.2247 | 889.00 | 9.3132 | 18.538 |

(4 Port)5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier]

| Ant | Mod | 5G NR n5 5 MHz | | 5G NR n5 5 MHz | | Total OBW (MHz) |
|-----|--------|-----------------|----------------------|-----------------|----------------------|-----------------|
| | | Frequency (MHz) | Measured Value (MHz) | Frequency (MHz) | Measured Value (MHz) | |
| 0 | QPSK | 871.50 | 4.4896 | 891.50 | 4.4969 | 8.9865 |
| | 16QAM | 871.50 | 4.4989 | 891.50 | 4.4927 | 8.9916 |
| | 64QAM | 871.50 | 4.4925 | 891.50 | 4.4851 | 8.9777 |
| | 256QAM | 871.50 | 4.5059 | 891.50 | 4.4816 | 8.9875 |
| 1 | QPSK | 871.50 | 4.4854 | 891.50 | 4.4876 | 8.9730 |
| | 16QAM | 871.50 | 4.4997 | 891.50 | 4.4973 | 8.9970 |
| | 64QAM | 871.50 | 4.4905 | 891.50 | 4.4939 | 8.9845 |
| | 256QAM | 871.50 | 4.5020 | 891.50 | 4.4898 | 8.9918 |
| 2 | QPSK | 871.50 | 4.4839 | 891.50 | 4.4819 | 8.9658 |
| | 16QAM | 871.50 | 4.5057 | 891.50 | 4.5027 | 9.0085 |
| | 64QAM | 871.50 | 4.4937 | 891.50 | 4.4989 | 8.9926 |
| | 256QAM | 871.50 | 4.4932 | 891.50 | 4.4784 | 8.9716 |
| 3 | QPSK | 871.50 | 4.4962 | 891.50 | 4.4829 | 8.9790 |
| | 16QAM | 871.50 | 4.4981 | 891.50 | 4.5013 | 8.9994 |
| | 64QAM | 871.50 | 4.4945 | 891.50 | 4.4898 | 8.9843 |
| | 256QAM | 871.50 | 4.4855 | 891.50 | 4.4957 | 8.9812 |

(4 Port)5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier]

| Ant | Mod | 5G NR n5 10 MHz | | 5G NR n5 10 MHz | | Total OBW (MHz) |
|-----|--------|-----------------|----------------------|-----------------|----------------------|-----------------|
| | | Frequency (MHz) | Measured Value (MHz) | Frequency (MHz) | Measured Value (MHz) | |
| 0 | QPSK | 874.00 | 9.3087 | 889.00 | 9.3029 | 18.612 |
| | 16QAM | 874.00 | 9.2566 | 889.00 | 9.2642 | 18.521 |
| | 64QAM | 874.00 | 9.3220 | 889.00 | 9.3509 | 18.673 |
| | 256QAM | 874.00 | 9.3217 | 889.00 | 9.3220 | 18.644 |
| 1 | QPSK | 874.00 | 9.3061 | 889.00 | 9.3192 | 18.625 |
| | 16QAM | 874.00 | 9.2358 | 889.00 | 9.2380 | 18.474 |
| | 64QAM | 874.00 | 9.3124 | 889.00 | 9.3215 | 18.634 |
| | 256QAM | 874.00 | 9.3327 | 889.00 | 9.3219 | 18.655 |
| 2 | QPSK | 874.00 | 9.3371 | 889.00 | 9.2944 | 18.631 |
| | 16QAM | 874.00 | 9.2380 | 889.00 | 9.2465 | 18.484 |
| | 64QAM | 874.00 | 9.2990 | 889.00 | 9.3486 | 18.648 |
| | 256QAM | 874.00 | 9.3186 | 889.00 | 9.3210 | 18.640 |
| 3 | QPSK | 874.00 | 9.3040 | 889.00 | 9.3179 | 18.622 |
| | 16QAM | 874.00 | 9.2629 | 889.00 | 9.2332 | 18.496 |
| | 64QAM | 874.00 | 9.3242 | 889.00 | 9.3029 | 18.627 |
| | 256QAM | 874.00 | 9.3260 | 889.00 | 9.3570 | 18.683 |

(4 Port)B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier]

| Ant | Mod | B5 DSS 10 MHz | | B5 DSS 10 MHz | | Total OBW (MHz) |
|-----|--------|-----------------|----------------------|-----------------|----------------------|-----------------|
| | | Frequency (MHz) | Measured Value (MHz) | Frequency (MHz) | Measured Value (MHz) | |
| 0 | QPSK | 874.00 | 9.2576 | 889.00 | 9.2561 | 18.514 |
| | 16QAM | 874.00 | 9.0960 | 889.00 | 9.1233 | 18.219 |
| | 64QAM | 874.00 | 9.2186 | 889.00 | 9.2479 | 18.466 |
| | 256QAM | 874.00 | 9.2287 | 889.00 | 9.2636 | 18.492 |
| 1 | QPSK | 874.00 | 9.2387 | 889.00 | 9.2343 | 18.473 |
| | 16QAM | 874.00 | 9.1009 | 889.00 | 9.1729 | 18.274 |
| | 64QAM | 874.00 | 9.2346 | 889.00 | 9.2787 | 18.513 |
| | 256QAM | 874.00 | 9.2790 | 889.00 | 9.2245 | 18.504 |
| 2 | QPSK | 874.00 | 9.2231 | 889.00 | 9.2500 | 18.473 |
| | 16QAM | 874.00 | 9.1756 | 889.00 | 9.1382 | 18.314 |
| | 64QAM | 874.00 | 9.2262 | 889.00 | 9.1782 | 18.404 |
| | 256QAM | 874.00 | 9.2446 | 889.00 | 9.2424 | 18.487 |
| 3 | QPSK | 874.00 | 9.2579 | 889.00 | 9.2324 | 18.490 |
| | 16QAM | 874.00 | 9.0704 | 889.00 | 9.1589 | 18.229 |
| | 64QAM | 874.00 | 9.2456 | 889.00 | 9.2062 | 18.452 |
| | 256QAM | 874.00 | 9.2768 | 889.00 | 9.2656 | 18.542 |

(4 Port)5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier]

| Ant | Mod | 5G NR n5 5 MHz | | LTE B5 5 MHz | | Total OBW (MHz) |
|-----|--------|-----------------|----------------------|-----------------|----------------------|-----------------|
| | | Frequency (MHz) | Measured Value (MHz) | Frequency (MHz) | Measured Value (MHz) | |
| 0 | QPSK | 871.50 | 4.4899 | 891.50 | 4.5005 | 8.9904 |
| | 16QAM | 871.50 | 4.4951 | 891.50 | 4.4773 | 8.9724 |
| | 64QAM | 871.50 | 4.4894 | 891.50 | 4.5039 | 8.9934 |
| | 256QAM | 871.50 | 4.4984 | 891.50 | 4.4953 | 8.9937 |
| 1 | QPSK | 871.50 | 4.5118 | 891.50 | 4.4962 | 9.0080 |
| | 16QAM | 871.50 | 4.4950 | 891.50 | 4.4932 | 8.9882 |
| | 64QAM | 871.50 | 4.4922 | 891.50 | 4.4990 | 8.9912 |
| | 256QAM | 871.50 | 4.4933 | 891.50 | 4.4998 | 8.9932 |
| 2 | QPSK | 871.50 | 4.4901 | 891.50 | 4.5041 | 8.9942 |
| | 16QAM | 871.50 | 4.5019 | 891.50 | 4.4839 | 8.9859 |
| | 64QAM | 871.50 | 4.4961 | 891.50 | 4.5113 | 9.0074 |
| | 256QAM | 871.50 | 4.4999 | 891.50 | 4.5076 | 9.0075 |
| 3 | QPSK | 871.50 | 4.4968 | 891.50 | 4.4998 | 8.9966 |
| | 16QAM | 871.50 | 4.4972 | 891.50 | 4.4987 | 8.9958 |
| | 64QAM | 871.50 | 4.5021 | 891.50 | 4.4938 | 8.9959 |
| | 256QAM | 871.50 | 4.4892 | 891.50 | 4.4953 | 8.9844 |

(4 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier]

| Ant | Mod | B5 DSS 10 MHz | | 5G NR n5 5 MHz | | Total OBW (MHz) |
|-----|--------|-----------------|----------------------|-----------------|----------------------|-----------------|
| | | Frequency (MHz) | Measured Value (MHz) | Frequency (MHz) | Measured Value (MHz) | |
| 0 | QPSK | 874.00 | 9.2525 | 891.50 | 4.4947 | 13.747 |
| | 16QAM | 874.00 | 9.1087 | 891.50 | 4.4951 | 13.604 |
| | 64QAM | 874.00 | 9.2266 | 891.50 | 4.4920 | 13.719 |
| | 256QAM | 874.00 | 9.2991 | 891.50 | 4.4909 | 13.790 |
| 1 | QPSK | 874.00 | 9.2547 | 891.50 | 4.4779 | 13.733 |
| | 16QAM | 874.00 | 9.1127 | 891.50 | 4.4967 | 13.609 |
| | 64QAM | 874.00 | 9.2270 | 891.50 | 4.4902 | 13.717 |
| | 256QAM | 874.00 | 9.2100 | 891.50 | 4.4820 | 13.692 |
| 2 | QPSK | 874.00 | 9.2399 | 891.50 | 4.4890 | 13.729 |
| | 16QAM | 874.00 | 9.1144 | 891.50 | 4.4999 | 13.614 |
| | 64QAM | 874.00 | 9.2866 | 891.50 | 4.4807 | 13.767 |
| | 256QAM | 874.00 | 9.2983 | 891.50 | 4.4992 | 13.798 |
| 3 | QPSK | 874.00 | 9.2616 | 891.50 | 4.4843 | 13.746 |
| | 16QAM | 874.00 | 9.1838 | 891.50 | 4.5003 | 13.684 |
| | 64QAM | 874.00 | 9.2612 | 891.50 | 4.4823 | 13.744 |
| | 256QAM | 874.00 | 9.2721 | 891.50 | 4.4909 | 13.763 |

(4 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier]

| Ant | Mod | B5 DSS 10 MHz | | 5G NR n5 10 MHz | | Total OBW (MHz) |
|-----|--------|-----------------|----------------------|-----------------|----------------------|-----------------|
| | | Frequency (MHz) | Measured Value (MHz) | Frequency (MHz) | Measured Value (MHz) | |
| 0 | QPSK | 874.00 | 9.2584 | 889.00 | 9.3086 | 18.567 |
| | 16QAM | 874.00 | 9.1332 | 889.00 | 9.2386 | 18.372 |
| | 64QAM | 874.00 | 9.2498 | 889.00 | 9.3403 | 18.590 |
| | 256QAM | 874.00 | 9.2498 | 889.00 | 9.3296 | 18.579 |
| 1 | QPSK | 874.00 | 9.2388 | 889.00 | 9.3022 | 18.541 |
| | 16QAM | 874.00 | 9.0751 | 889.00 | 9.2701 | 18.345 |
| | 64QAM | 874.00 | 9.2484 | 889.00 | 9.3068 | 18.555 |
| | 256QAM | 874.00 | 9.2598 | 889.00 | 9.3421 | 18.602 |
| 2 | QPSK | 874.00 | 9.2574 | 889.00 | 9.3212 | 18.579 |
| | 16QAM | 874.00 | 9.1073 | 889.00 | 9.2304 | 18.338 |
| | 64QAM | 874.00 | 9.2249 | 889.00 | 9.3282 | 18.553 |
| | 256QAM | 874.00 | 9.2921 | 889.00 | 9.3108 | 18.603 |
| 3 | QPSK | 874.00 | 9.2342 | 889.00 | 9.3245 | 18.559 |
| | 16QAM | 874.00 | 9.1571 | 889.00 | 9.2418 | 18.399 |
| | 64QAM | 874.00 | 9.2307 | 889.00 | 9.3090 | 18.540 |
| | 256QAM | 874.00 | 9.2507 | 889.00 | 9.3180 | 18.569 |

(2 Port)B5 LTE B5 5 MHz 1 Carrier + (5G NR n5 5 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier) [3 Carrier](1C+2C)

| Ant | Mod | B5 DSS 10 MHz | | 5G NR n5 5 MHz + LTE B5 5 MHz | | Total OBW (MHz) |
|-----|--------|-----------------|----------------------|-------------------------------|----------------------|-----------------|
| | | Frequency (MHz) | Measured Value (MHz) | Frequency (MHz) | Measured Value (MHz) | |
| 0 | QPSK | 871.50 | 4.5029 | 886.50 | 14.225 | 18.728 |
| | 16QAM | 871.50 | 4.4884 | 886.50 | 14.162 | 18.650 |
| | 64QAM | 871.50 | 4.4987 | 886.50 | 14.210 | 18.709 |
| | 256QAM | 871.50 | 4.5011 | 886.50 | 14.206 | 18.707 |
| 1 | QPSK | 871.50 | 4.4993 | 886.50 | 14.182 | 18.681 |
| | 16QAM | 871.50 | 4.4787 | 886.50 | 14.170 | 18.648 |
| | 64QAM | 871.50 | 4.4970 | 886.50 | 14.187 | 18.684 |
| | 256QAM | 871.50 | 4.5005 | 886.50 | 14.221 | 18.722 |

(2 Port)(B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier) + LTE B5 5 MHz 1 Carrier [3 Carrier](2C+1C)

| Ant | Mod | B5 DSS 10 MHz + 5G NR n5 5 MHz | | LTE B5 5 MHz | | Total OBW (MHz) |
|-----|--------|--------------------------------|----------------------|-----------------|----------------------|-----------------|
| | | Frequency (MHz) | Measured Value (MHz) | Frequency (MHz) | Measured Value (MHz) | |
| 0 | QPSK | 876.50 | 14.300 | 891.50 | 4.5122 | 18.812 |
| | 16QAM | 876.50 | 14.321 | 891.50 | 4.4952 | 18.816 |
| | 64QAM | 876.50 | 14.354 | 891.50 | 4.4848 | 18.839 |
| | 256QAM | 876.50 | 14.315 | 891.50 | 4.4952 | 18.811 |
| 1 | QPSK | 876.50 | 14.302 | 891.50 | 4.4908 | 18.792 |
| | 16QAM | 876.50 | 14.300 | 891.50 | 4.4868 | 18.787 |
| | 64QAM | 876.50 | 14.301 | 891.50 | 4.5033 | 18.805 |
| | 256QAM | 876.50 | 14.321 | 891.50 | 4.5002 | 18.821 |

(4 Port)B5 LTE 5 MHz 1 Carrier + (5G NR n5 5 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier) [3 Carrier](1C+2C)

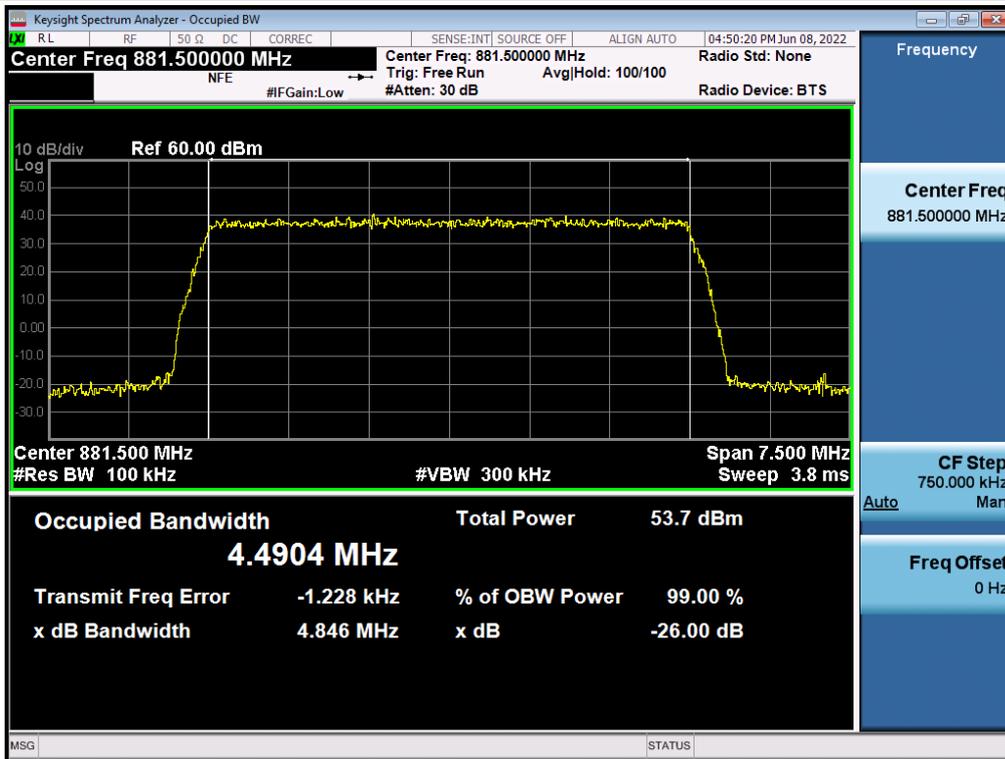
| Ant | Mod | B5 DSS 10 MHz | | 5G NR n5 5 MHz + LTE B5 5 MHz | | Total OBW (MHz) |
|-----|--------|-----------------|----------------------|-------------------------------|----------------------|-----------------|
| | | Frequency (MHz) | Measured Value (MHz) | Frequency (MHz) | Measured Value (MHz) | |
| 0 | QPSK | 871.50 | 4.5104 | 886.50 | 14.336 | 18.847 |
| | 16QAM | 871.50 | 4.4898 | 886.50 | 14.204 | 18.694 |
| | 64QAM | 871.50 | 4.4974 | 886.50 | 14.288 | 18.786 |
| | 256QAM | 871.50 | 4.4947 | 886.50 | 14.290 | 18.785 |
| 1 | QPSK | 871.50 | 4.4874 | 886.50 | 14.358 | 18.845 |
| | 16QAM | 871.50 | 4.4783 | 886.50 | 14.188 | 18.667 |
| | 64QAM | 871.50 | 4.4967 | 886.50 | 14.297 | 18.794 |
| | 256QAM | 871.50 | 4.4937 | 886.50 | 14.341 | 18.835 |
| 2 | QPSK | 871.50 | 4.5041 | 886.50 | 14.275 | 18.779 |
| | 16QAM | 871.50 | 4.4834 | 886.50 | 14.187 | 18.671 |
| | 64QAM | 871.50 | 4.4983 | 886.50 | 14.308 | 18.806 |
| | 256QAM | 871.50 | 4.5068 | 886.50 | 14.353 | 18.860 |
| 3 | QPSK | 871.50 | 4.4939 | 886.50 | 14.258 | 18.752 |
| | 16QAM | 871.50 | 4.4877 | 886.50 | 14.233 | 18.721 |
| | 64QAM | 871.50 | 4.4919 | 886.50 | 14.283 | 18.775 |
| | 256QAM | 871.50 | 4.5073 | 886.50 | 14.267 | 18.774 |

(4 Port)(B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier) + LTE B5 5 MHz 1 Carrier [3 Carrier](2C+1C)

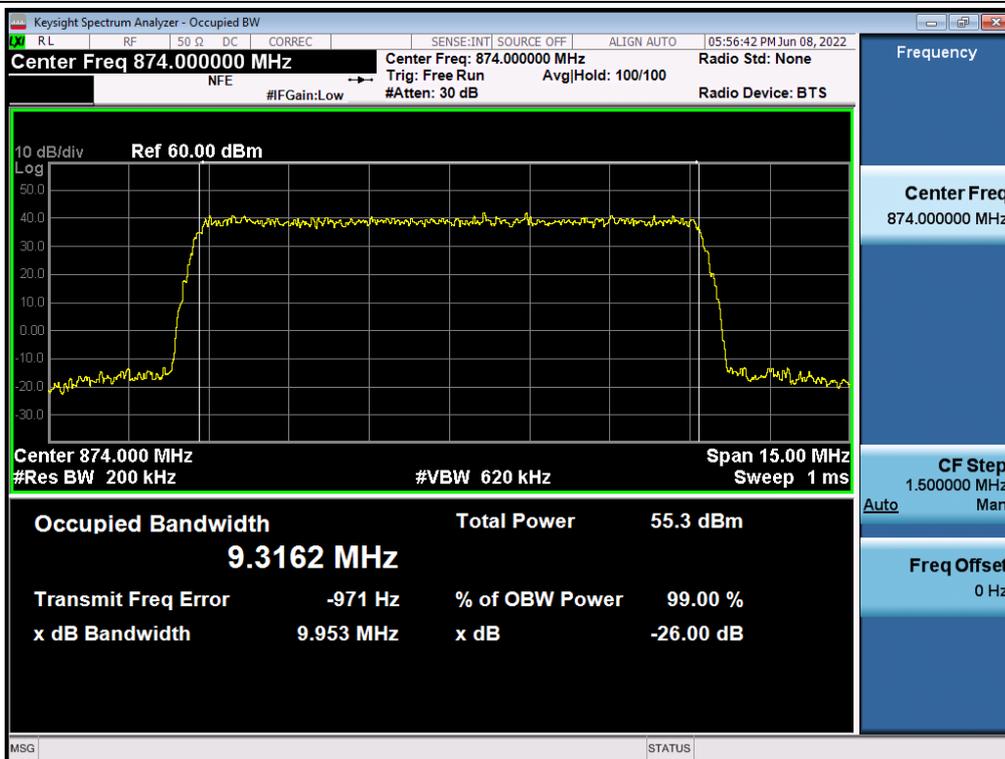
| Ant | Mod | B5 DSS 10 MHz + 5G NR n5 5 MHz | | LTE B5 5 MHz | | Total OBW (MHz) |
|-----|--------|--------------------------------|----------------------|-----------------|----------------------|-----------------|
| | | Frequency (MHz) | Measured Value (MHz) | Frequency (MHz) | Measured Value (MHz) | |
| 0 | QPSK | 876.50 | 14.343 | 891.50 | 4.4970 | 18.840 |
| | 16QAM | 876.50 | 14.266 | 891.50 | 4.4845 | 18.751 |
| | 64QAM | 876.50 | 14.295 | 891.50 | 4.4922 | 18.788 |
| | 256QAM | 876.50 | 14.268 | 891.50 | 4.5074 | 18.775 |
| 1 | QPSK | 876.50 | 14.304 | 891.50 | 4.5033 | 18.807 |
| | 16QAM | 876.50 | 14.336 | 891.50 | 4.4930 | 18.829 |
| | 64QAM | 876.50 | 14.298 | 891.50 | 4.5028 | 18.800 |
| | 256QAM | 876.50 | 14.285 | 891.50 | 4.4944 | 18.779 |
| 2 | QPSK | 876.50 | 14.288 | 891.50 | 4.5031 | 18.791 |
| | 16QAM | 876.50 | 14.340 | 891.50 | 4.4741 | 18.814 |
| | 64QAM | 876.50 | 14.275 | 891.50 | 4.4992 | 18.774 |
| | 256QAM | 876.50 | 14.263 | 891.50 | 4.4866 | 18.750 |
| 3 | QPSK | 876.50 | 14.324 | 891.50 | 4.4997 | 18.823 |
| | 16QAM | 876.50 | 14.271 | 891.50 | 4.4834 | 18.755 |
| | 64QAM | 876.50 | 14.262 | 891.50 | 4.4898 | 18.752 |
| | 256QAM | 876.50 | 14.306 | 891.50 | 4.4979 | 18.804 |

Plot Data of Occupied bandwidth

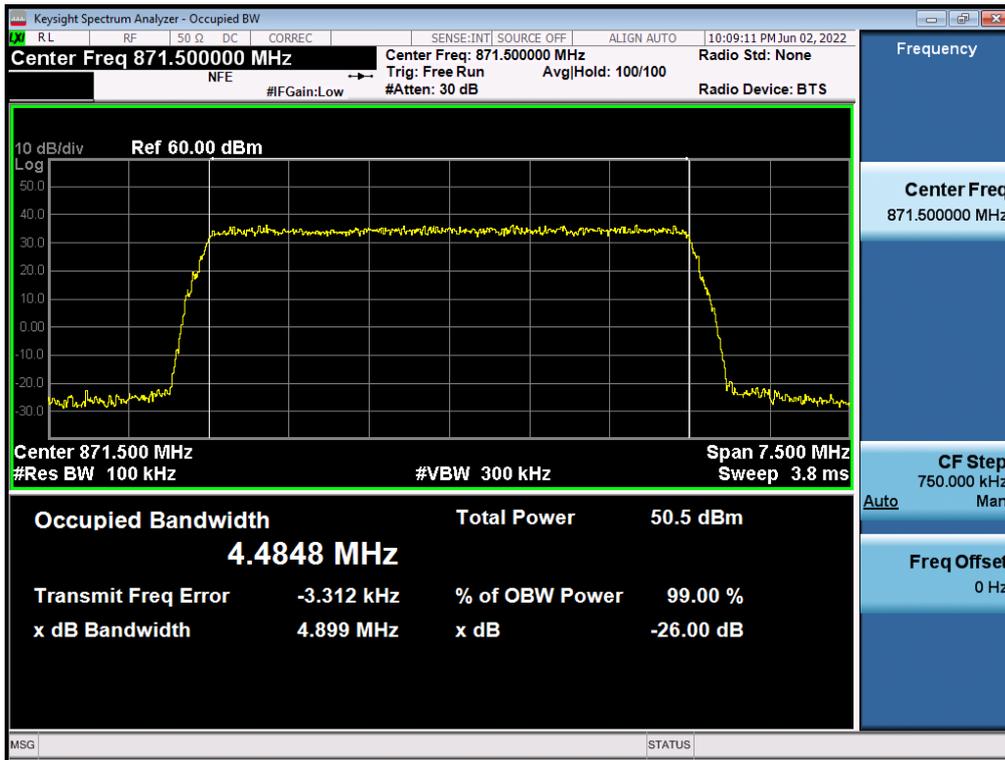
Antenna 1 / (2 Port)5G NR n5 5 MHz 1 Carrier / 256QAM / Middle



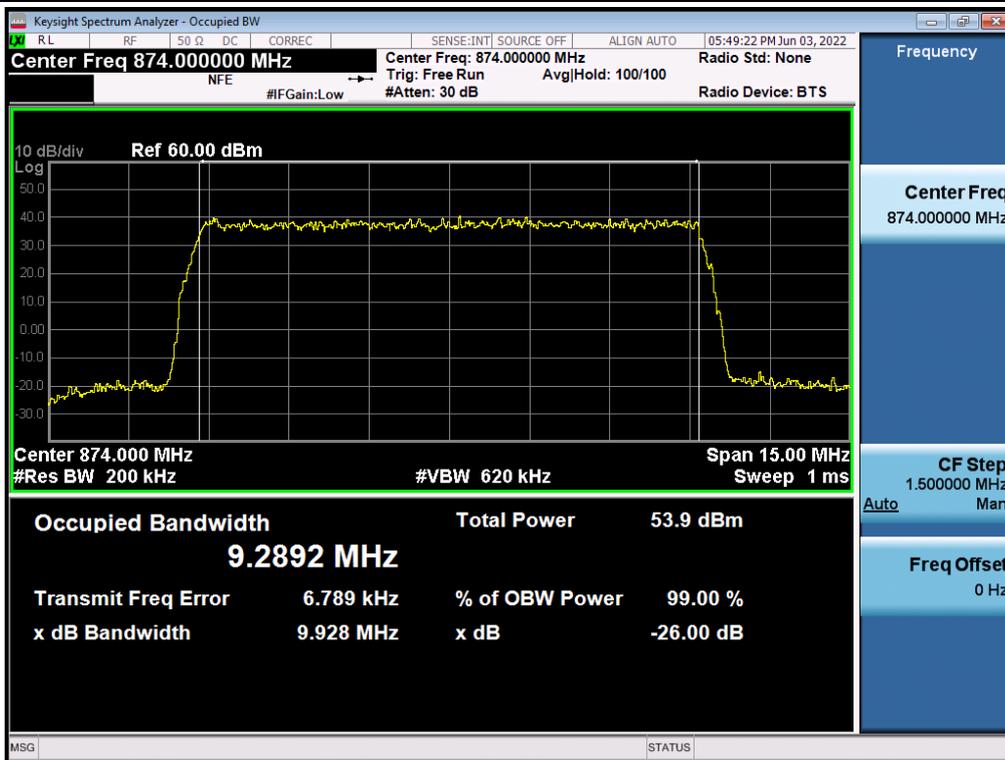
Antenna 1 / (2 Port)5G NR n5 10 MHz 1 Carrier / 64QAM / Low



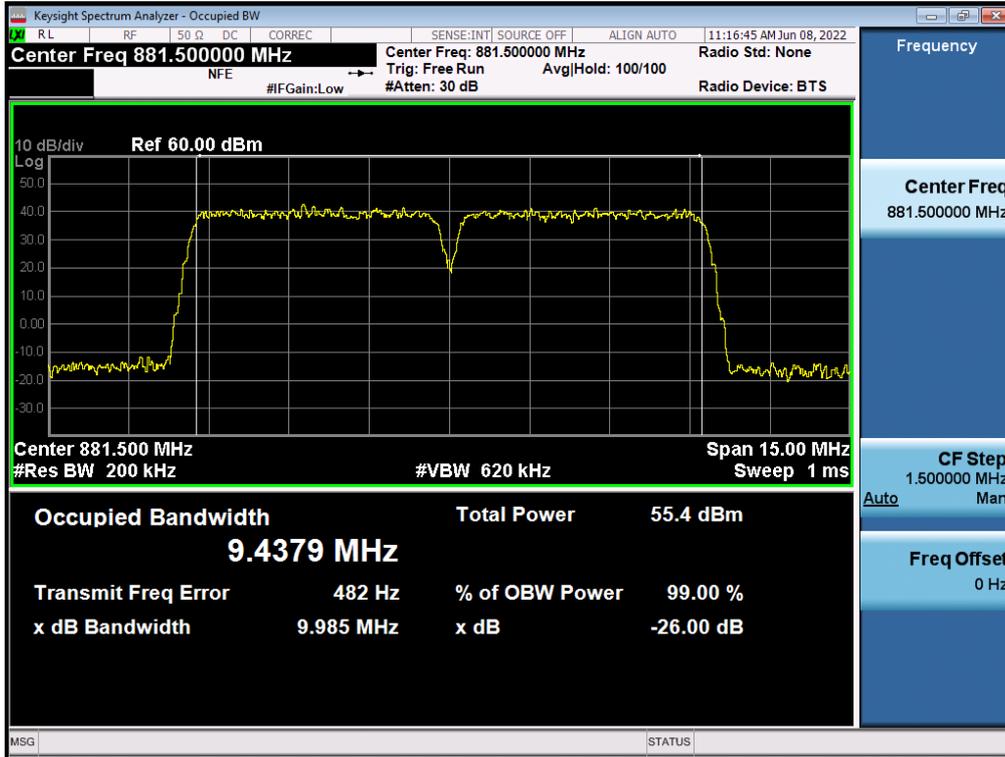
Antenna 0 / (4 Port)5G NR n5 5 MHz 1 Carrier / 256QAM / Low



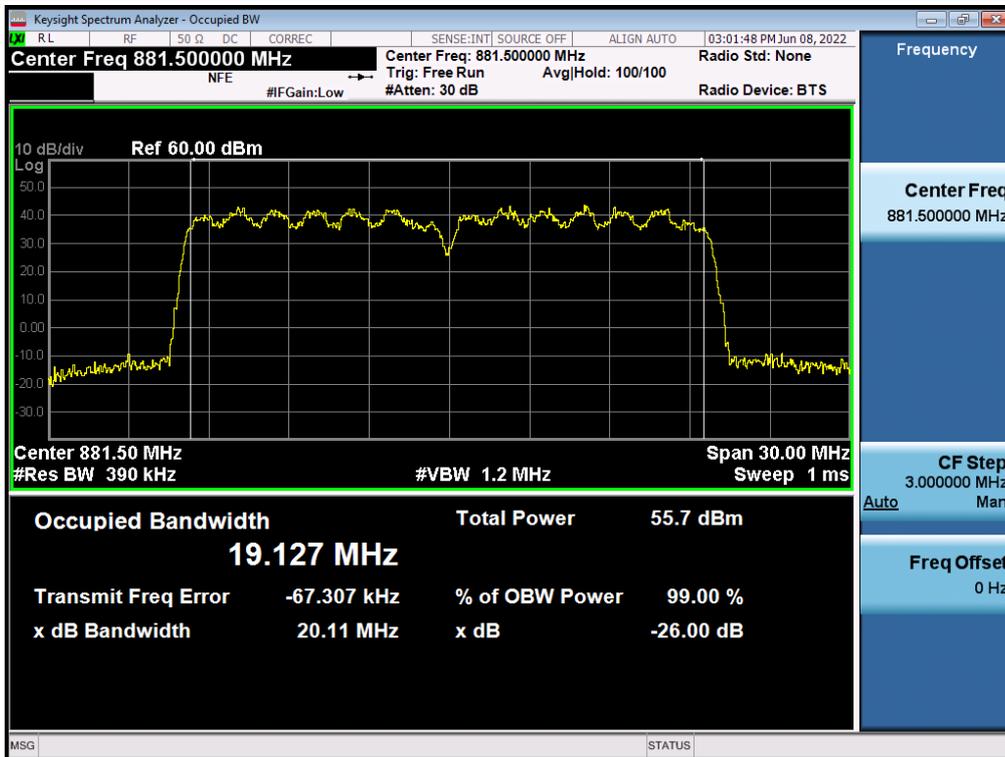
Antenna 1 / (4 Port)5G NR n5 10 MHz 1 Carrier / 256QAM / Low



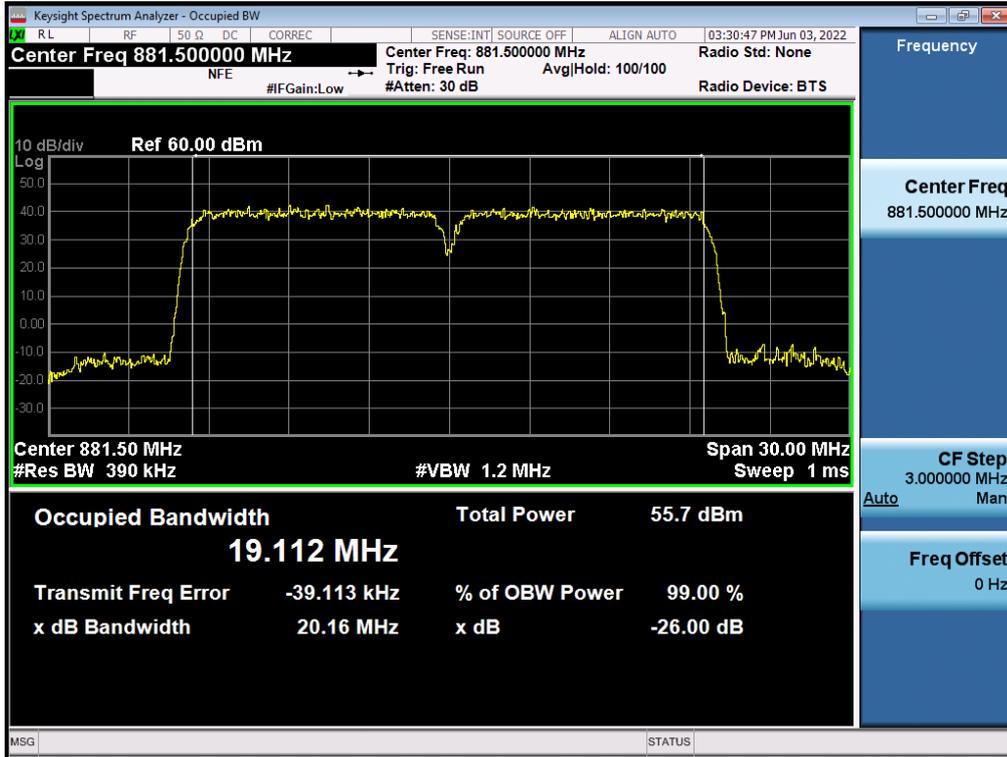
Antenna 0 / (2 Port)5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Contiguous / 64QAM / Middle



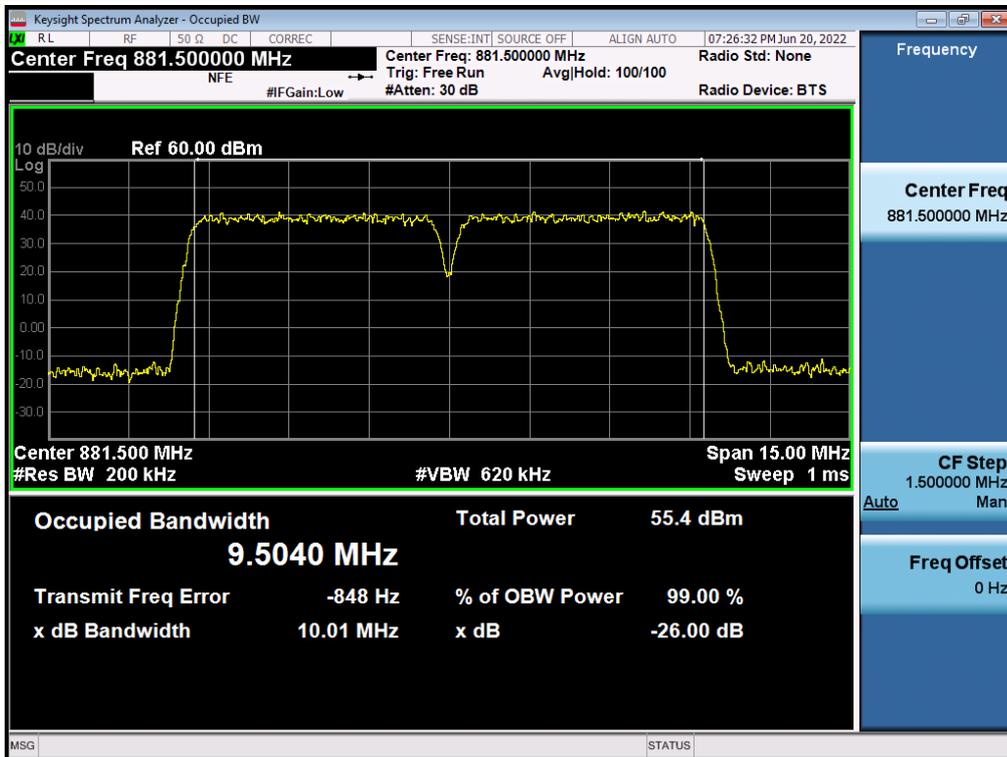
Antenna 1 / (2 Port)5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Contiguous / 16QAM / Middle



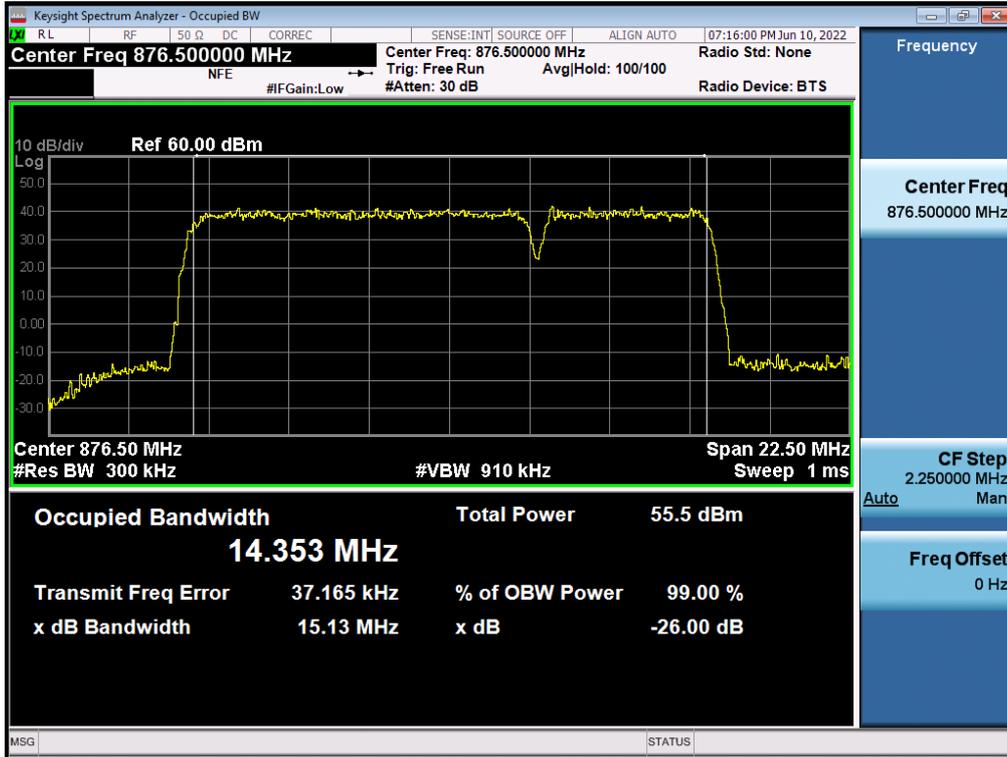
Antenna 0 / (2 Port)B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier] / Contiguous / 256QAM / Middle



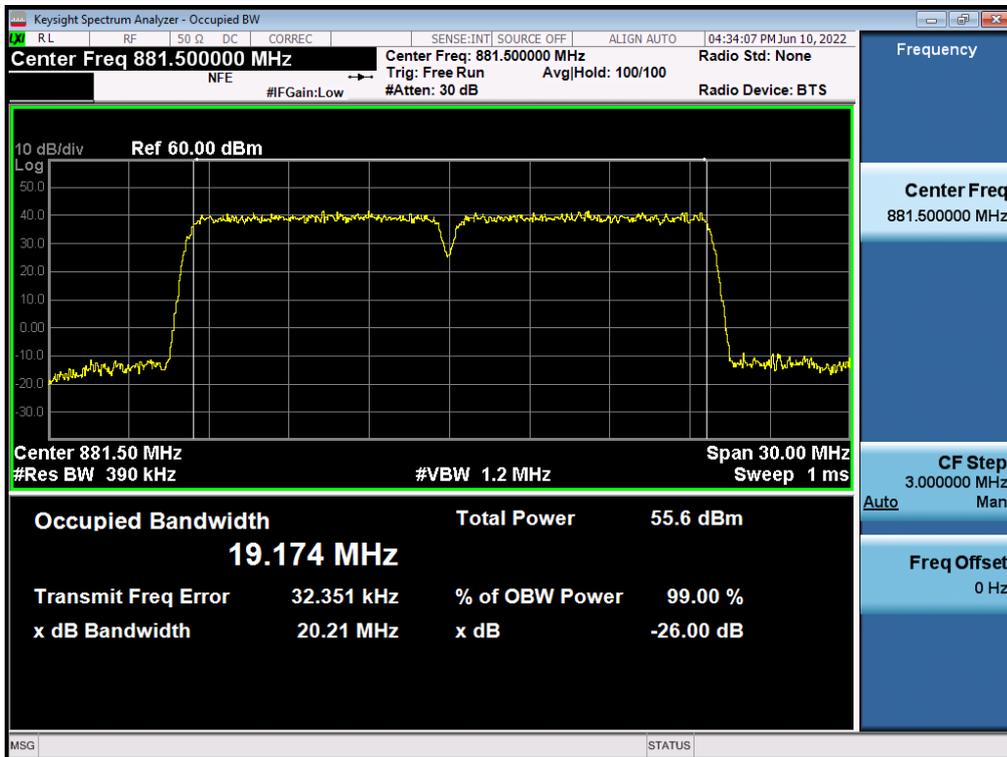
Antenna 1 / (2 Port)5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier] / Contiguous / 64QAM / Middle

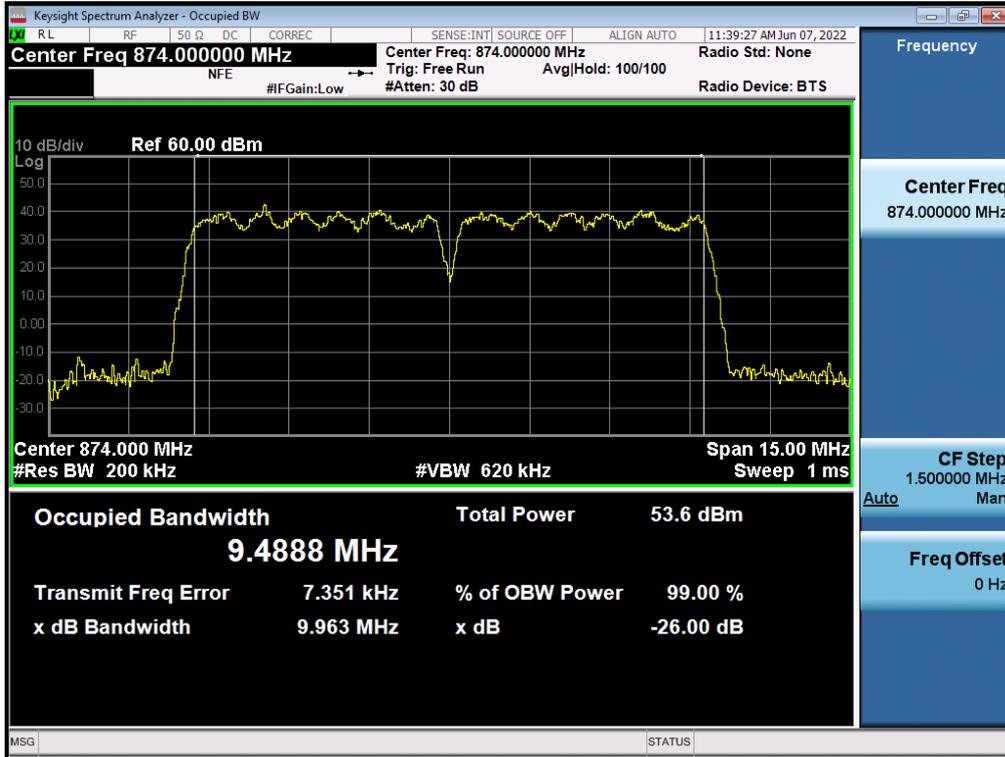
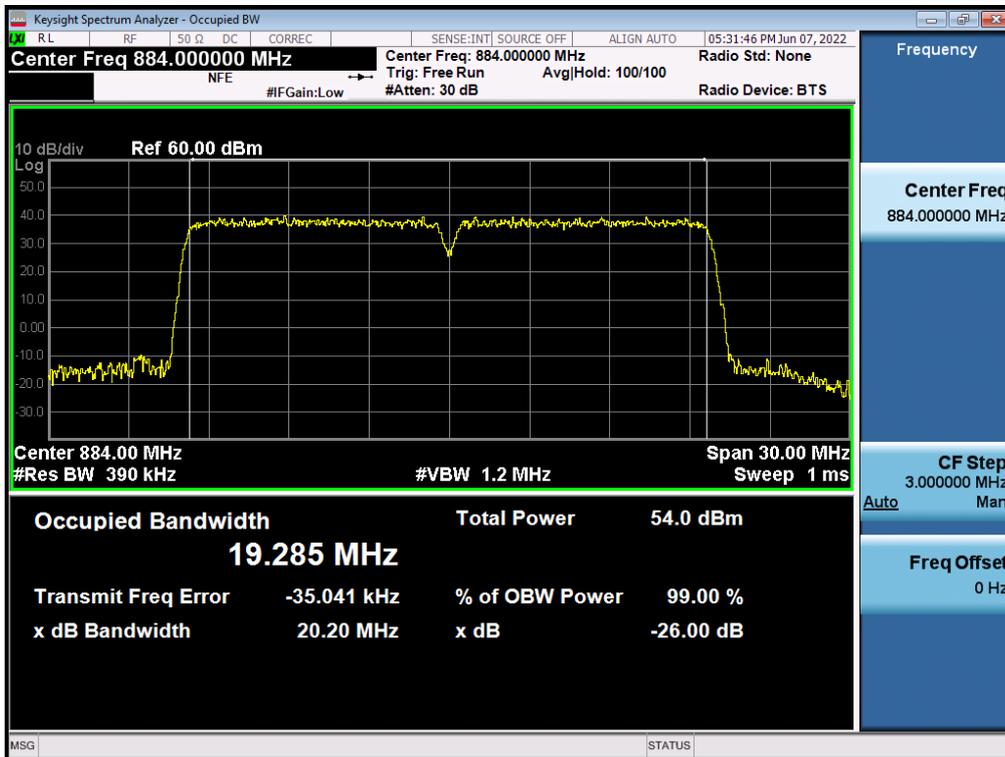


Antenna 1 / (2 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Contiguous / 256QAM / Low

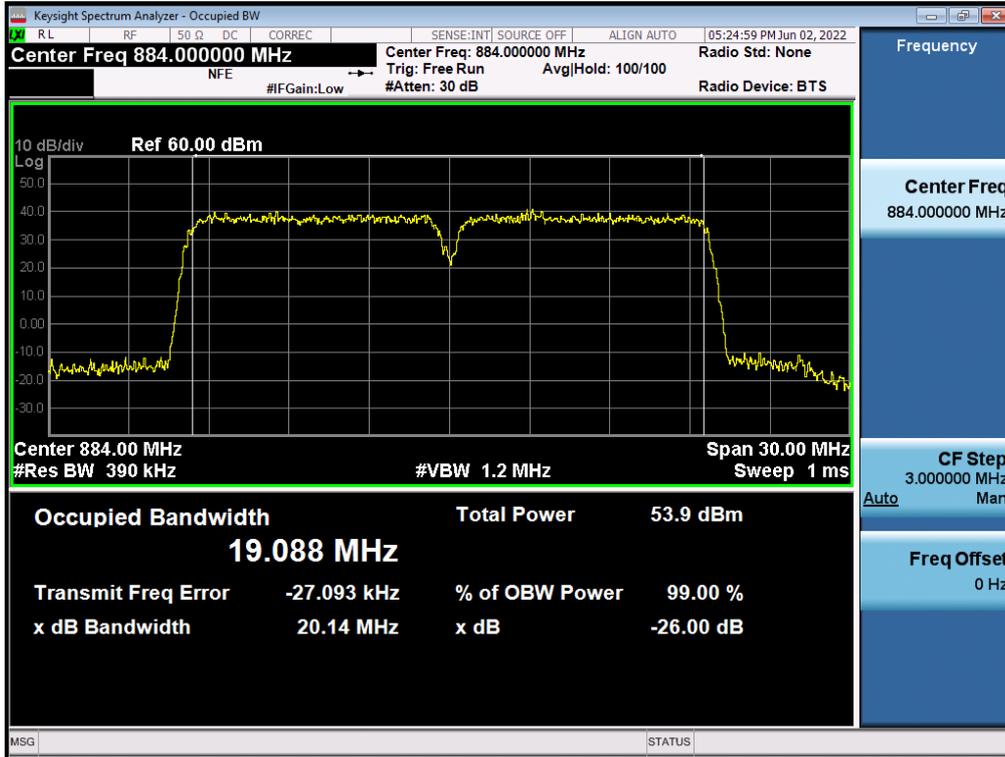


Antenna 1 / (2 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Contiguous / 256QAM / Middle

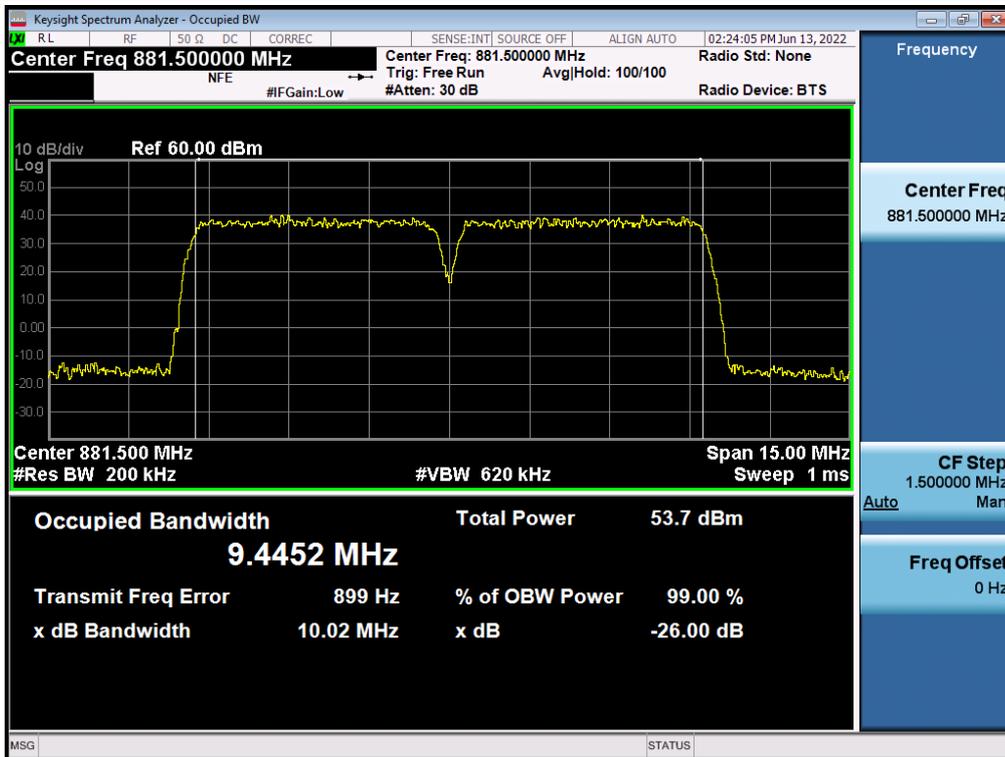


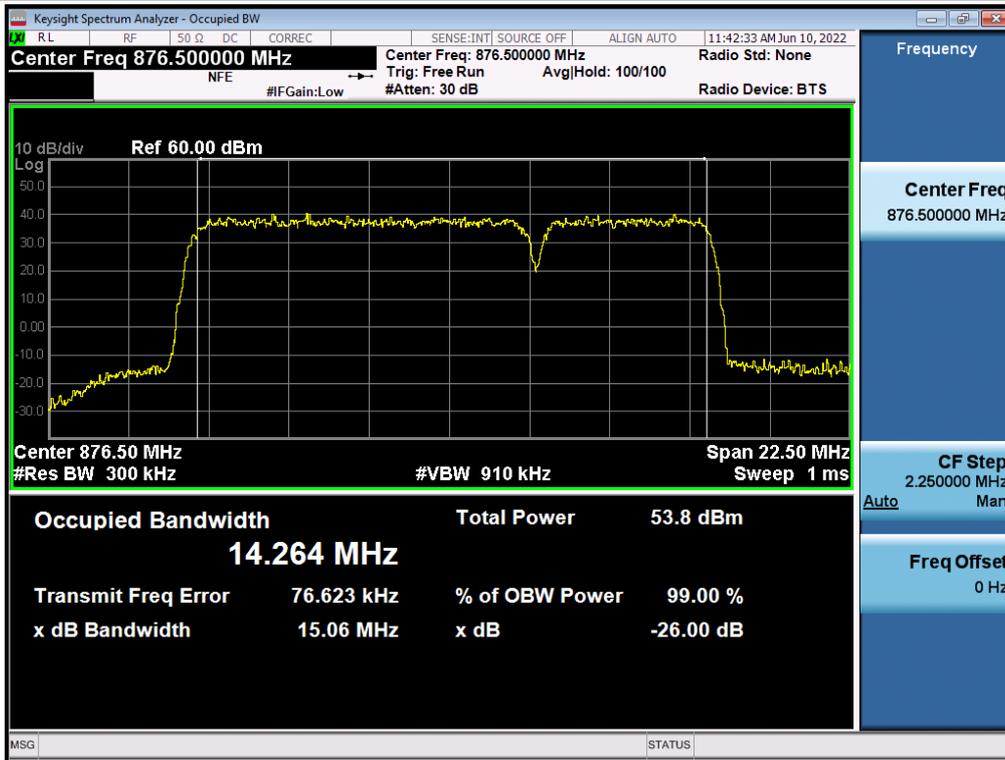
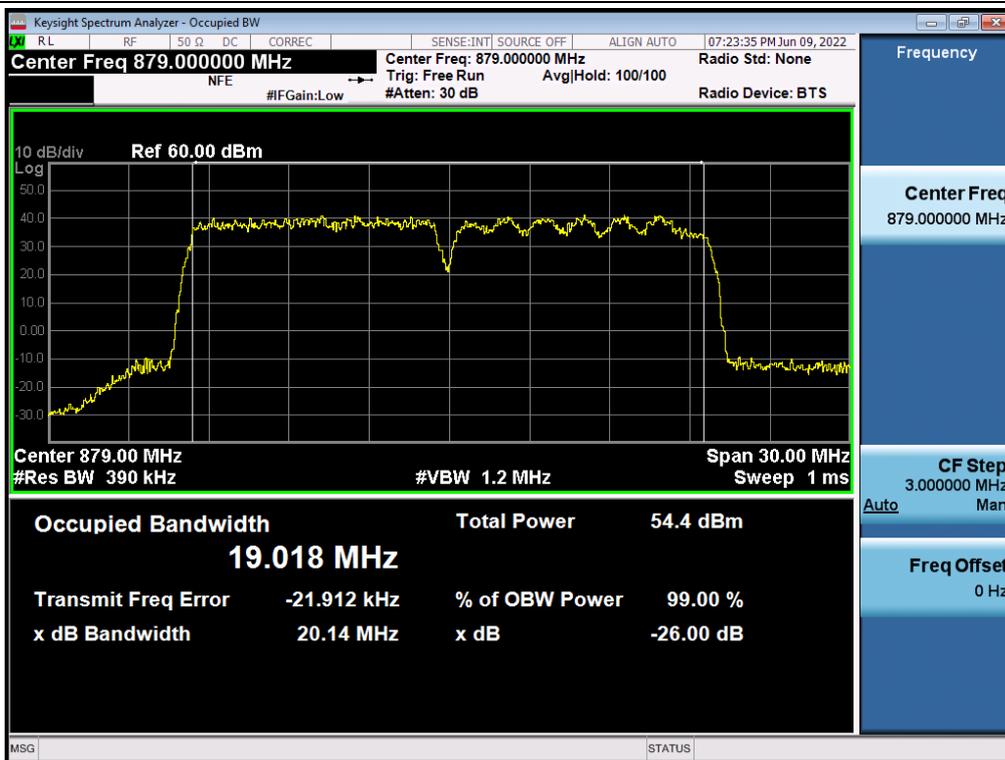
Antenna 1 / (4 Port)5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Contiguous / 16QAM / Low

Antenna 1 / (4 Port)5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Contiguous / 256QAM / High


Antenna 2 / (4 Port)B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier] / Contiguous / QPSK / High

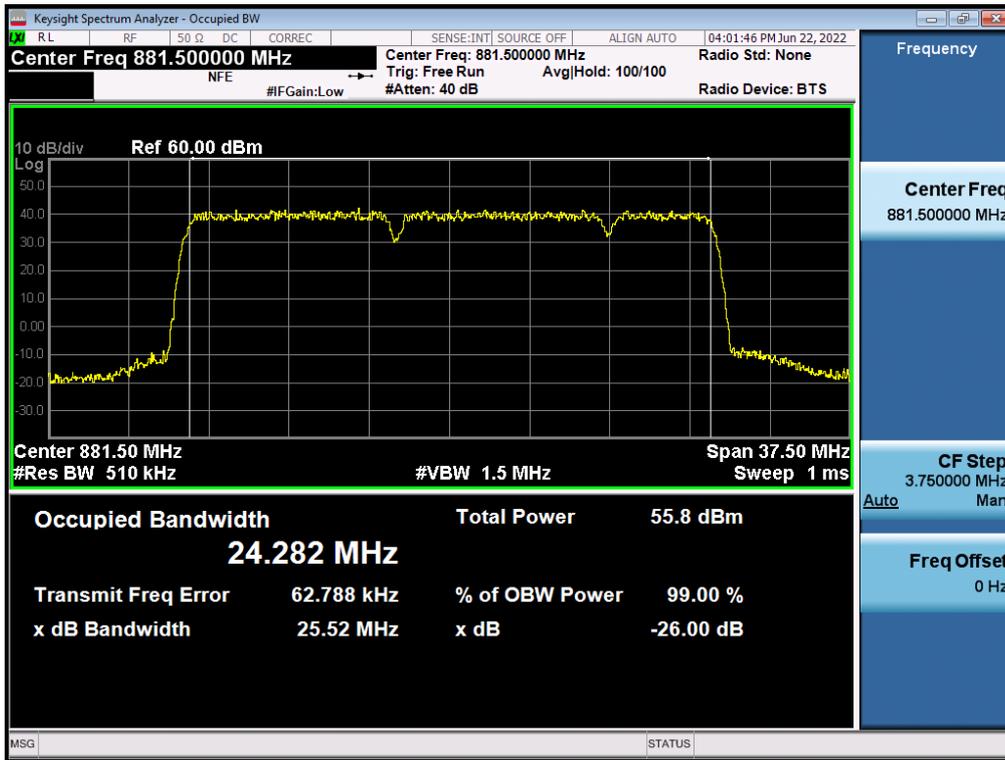


Antenna 3 / (4 Port)5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier] / Contiguous / QPSK / Middle

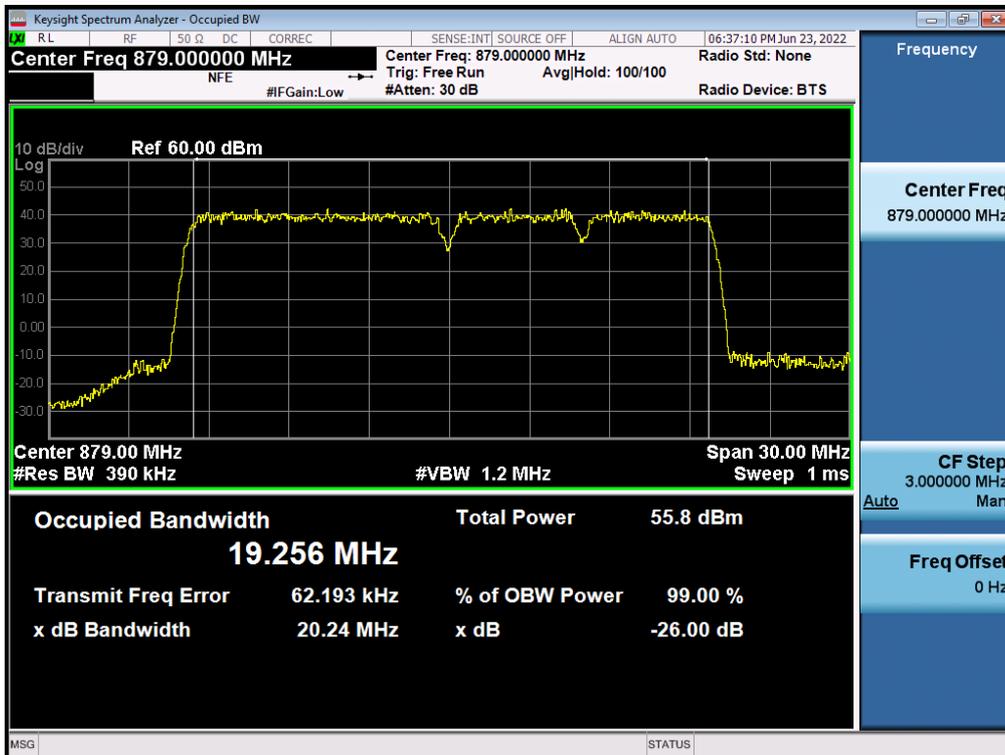


Antenna 3 / (4 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Contiguous / 256QAM / Low

Antenna 3 / (4 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Contiguous / 16QAM / Low


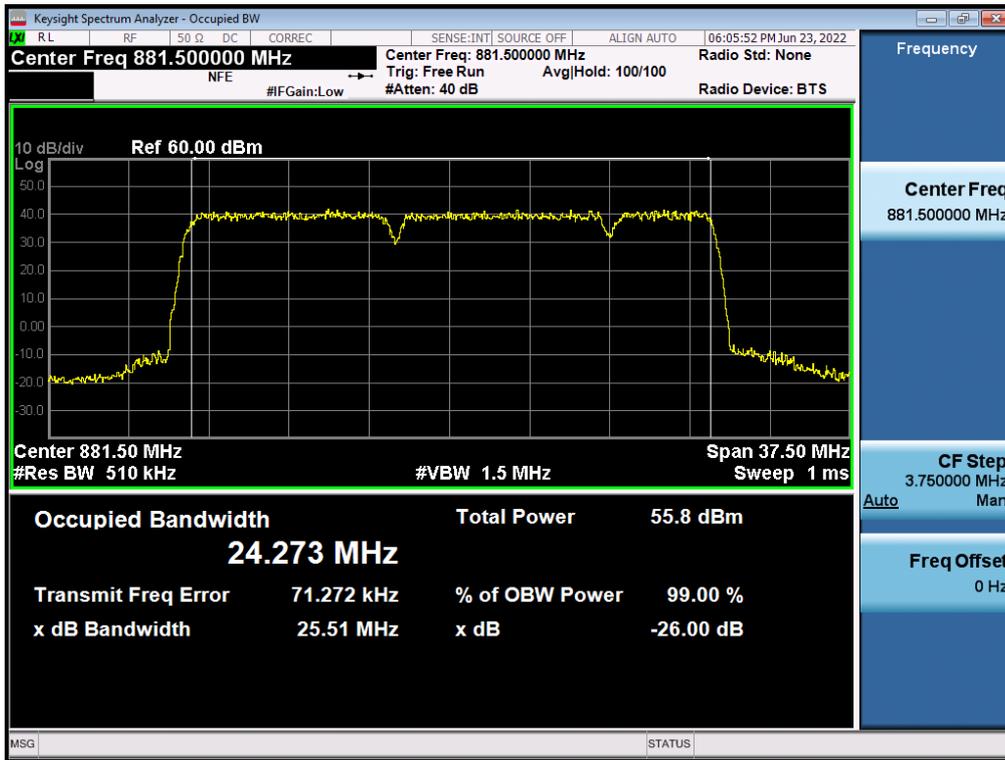
Antenna 1 / (2 Port)5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier] /
Contiguous / 256QAM / Middle



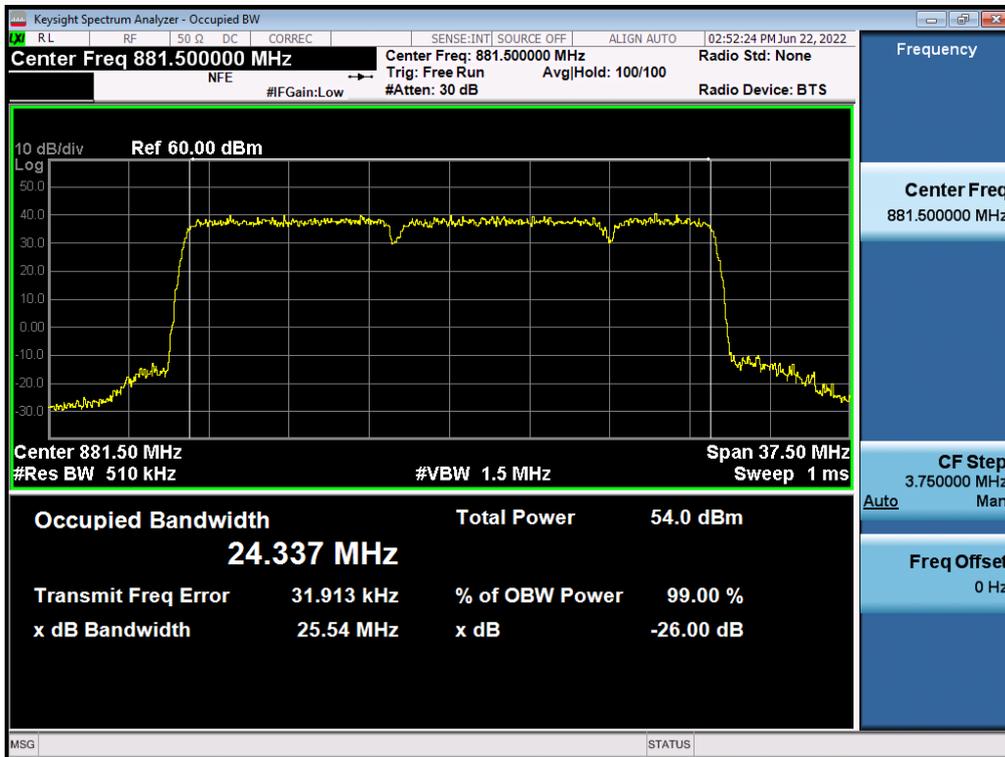
Antenna 1 / (2 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier] /
Contiguous / 256QAM / Low



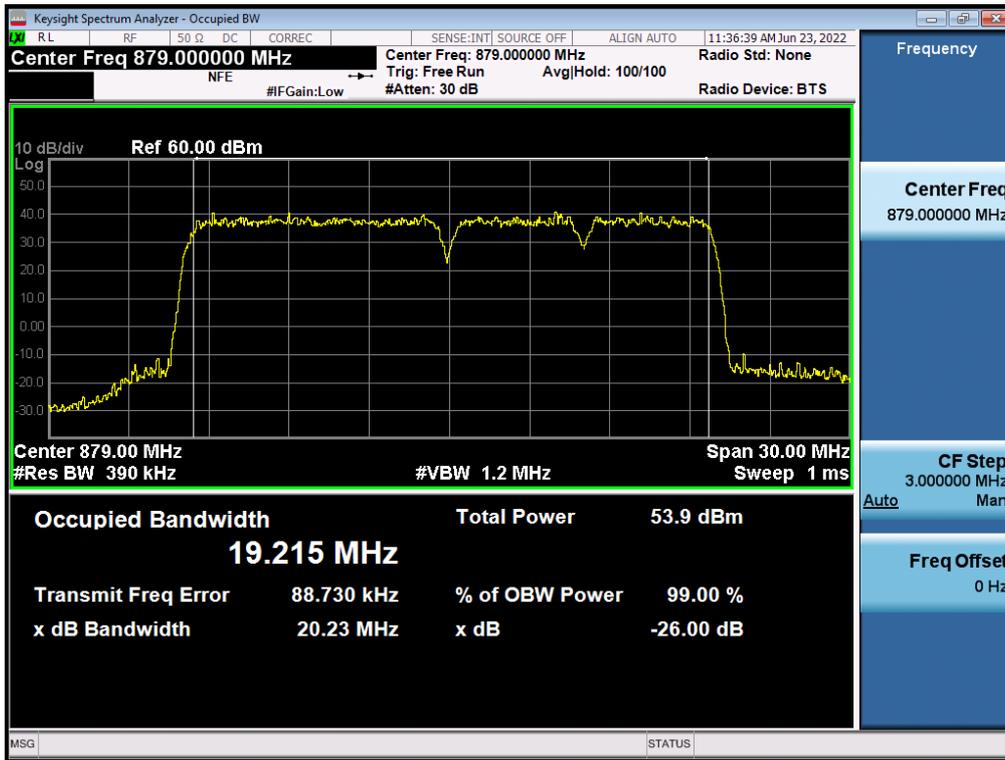
Antenna 1 / (2 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier] /
Contiguous / 64QAM / Middle



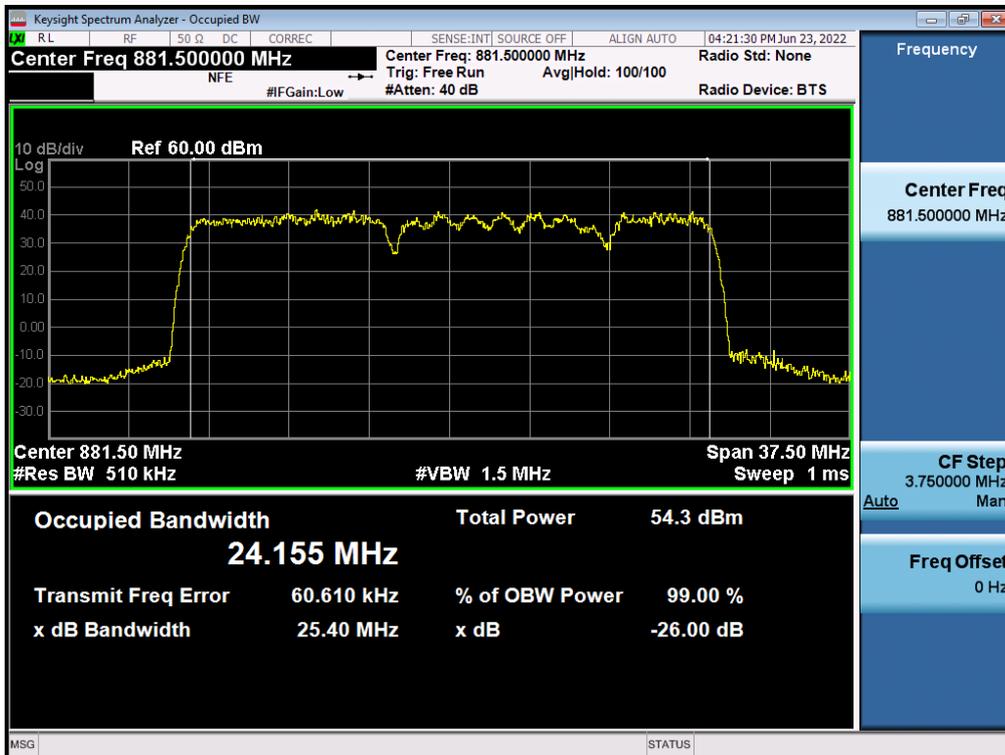
Antenna 1 / (4 Port)5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier] /
Contiguous / 64QAM / Middle



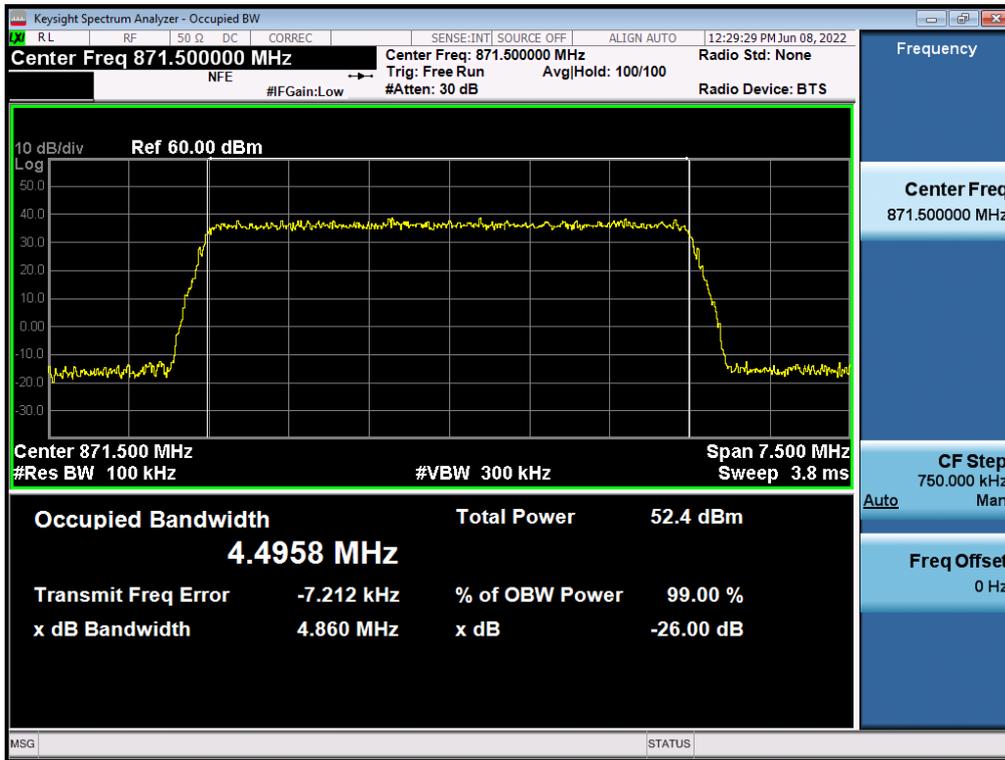
Antenna 0 / (4 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier] /
Contiguous / 64QAM / Low



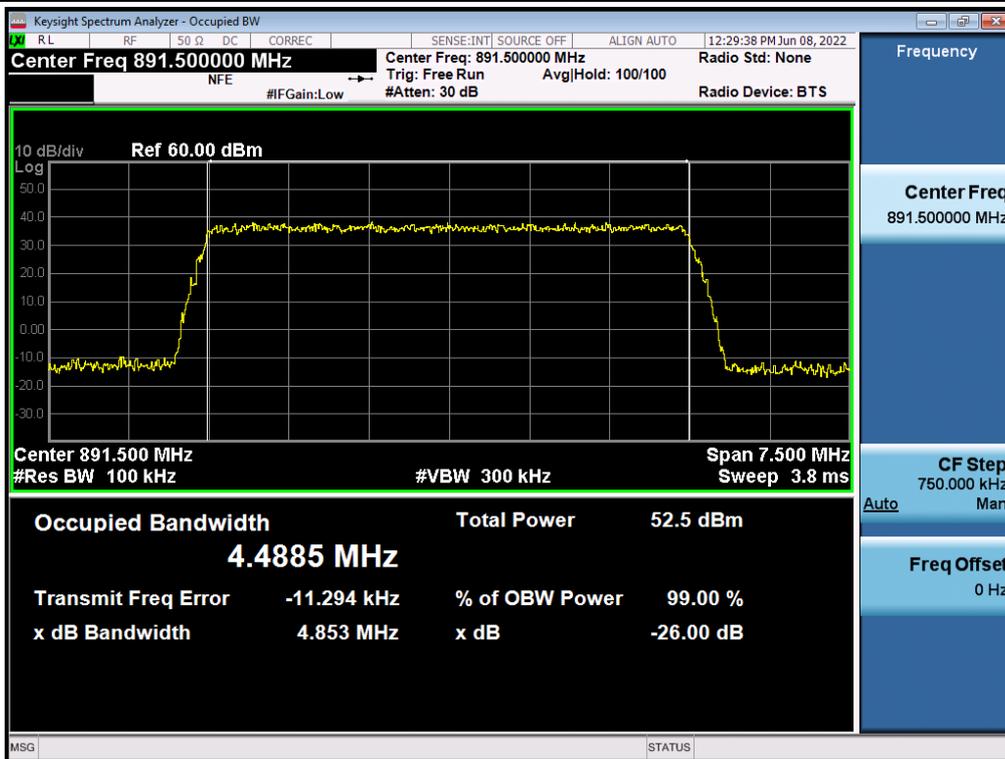
Antenna 3 / (4 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier] /
Contiguous / 16QAM / Middle



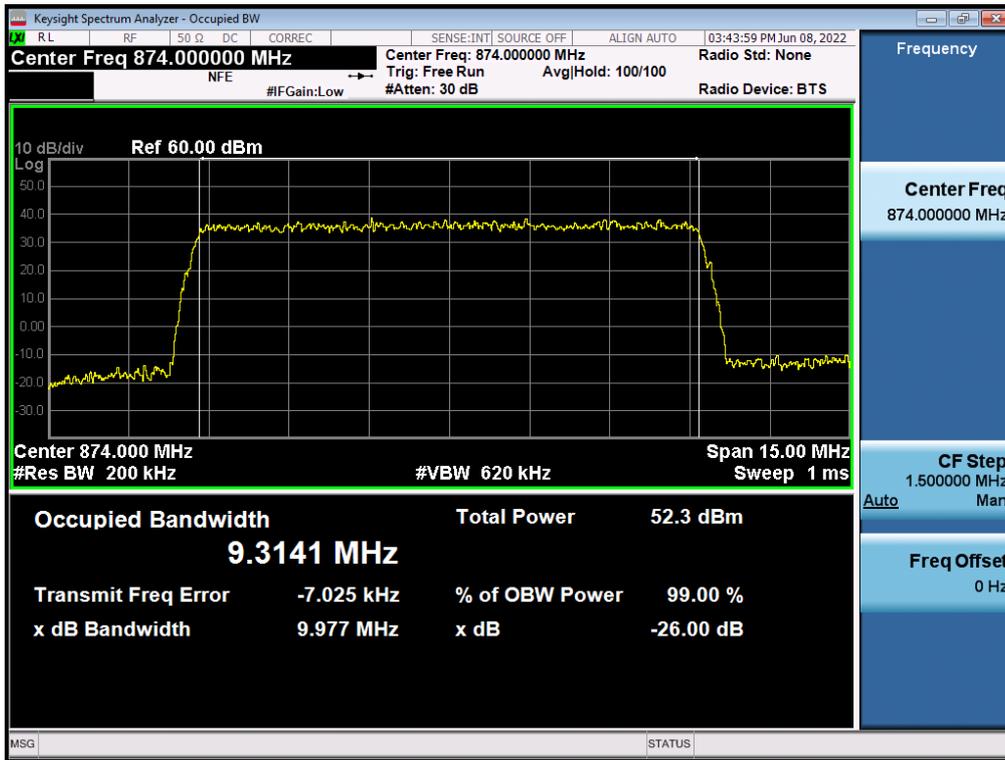
Antenna 1 / (2 Port)5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 5 MHz / 64QAM / Low



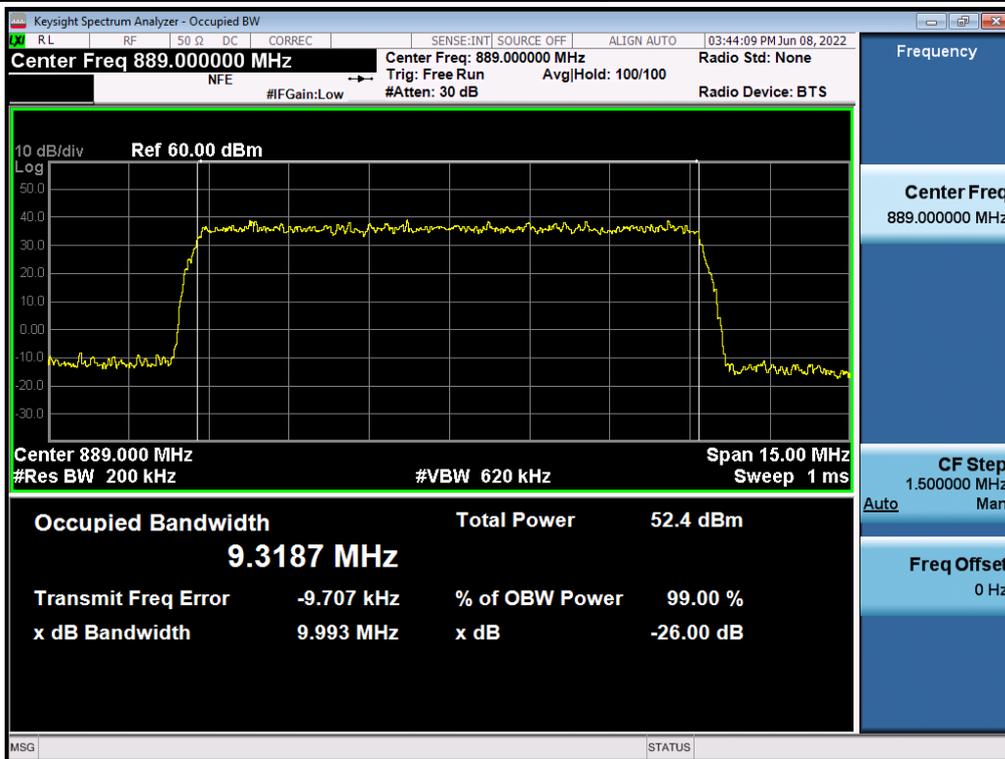
Antenna 1 / (2 Port)5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 5 MHz / 64QAM / High



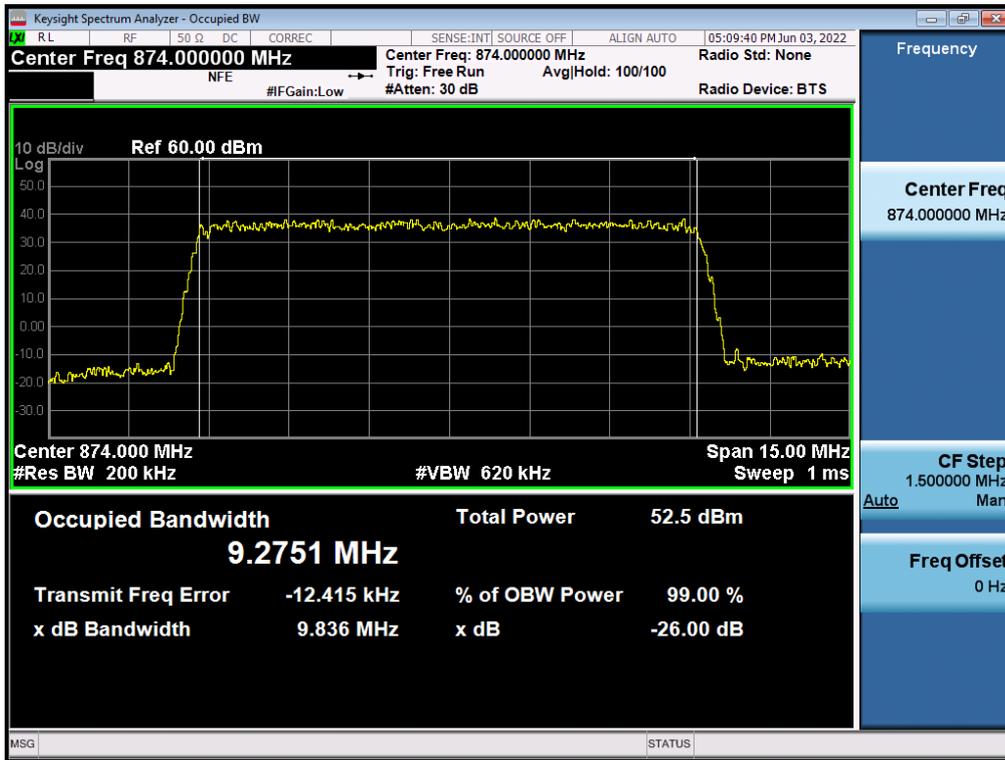
Antenna 1 / (2 Port)5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 10 MHz / 64QAM / Low



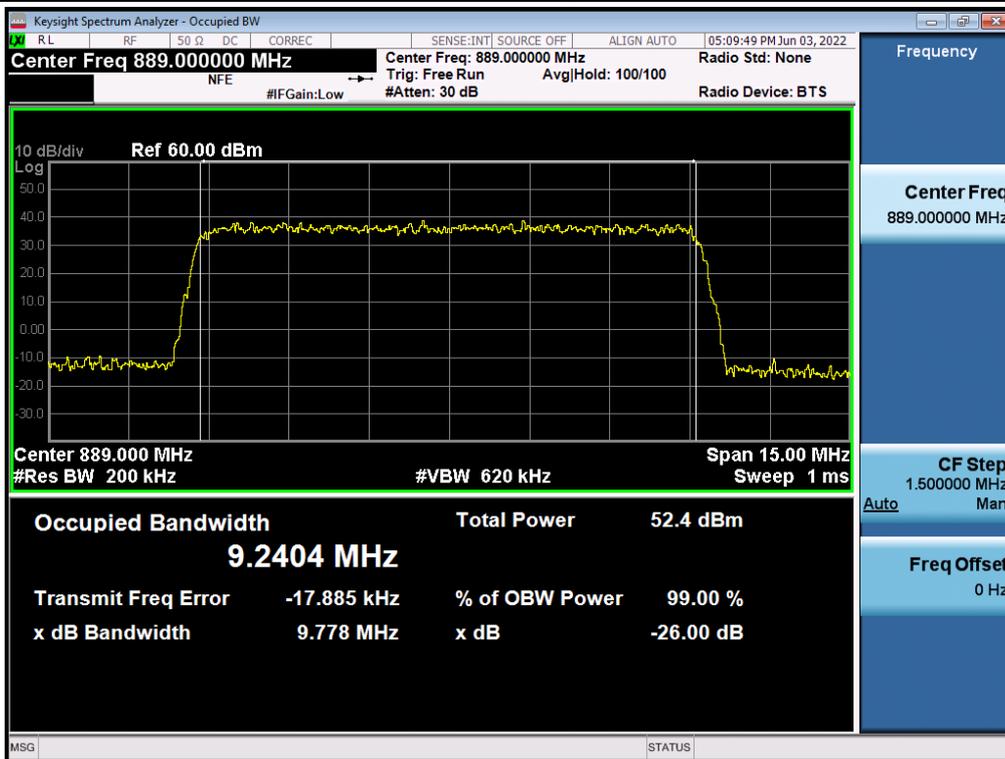
Antenna 1 / (2 Port)5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 10 MHz / 64QAM / High



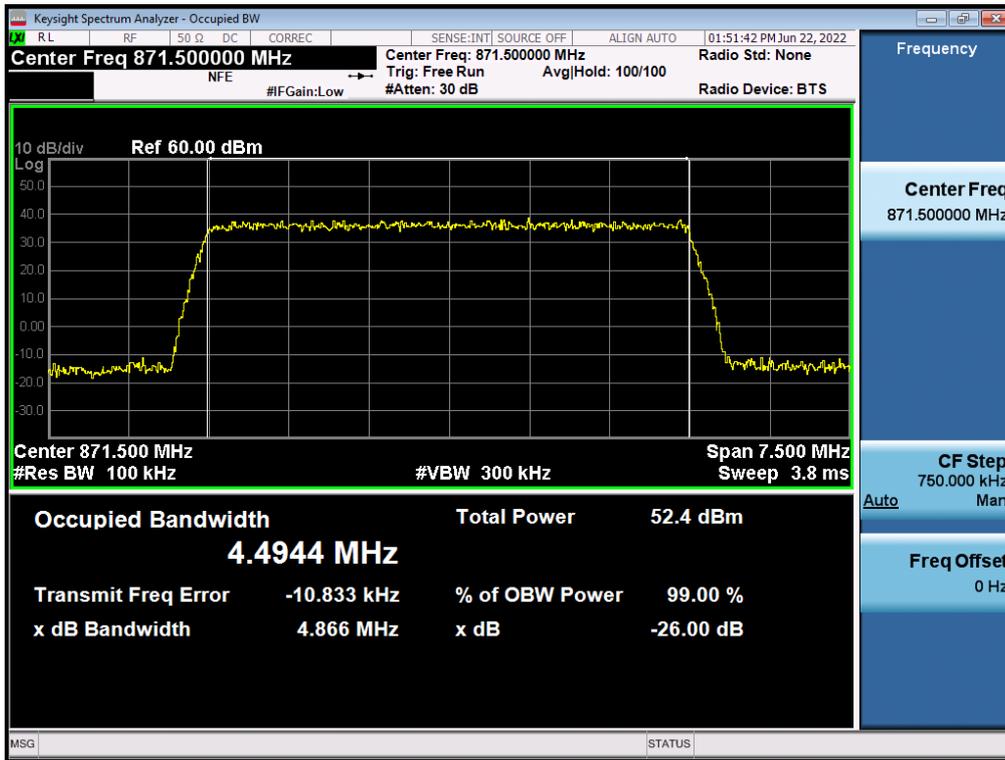
Antenna 1 / (2 Port)B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / B5 DSS 10 MHz / 256QAM / Low



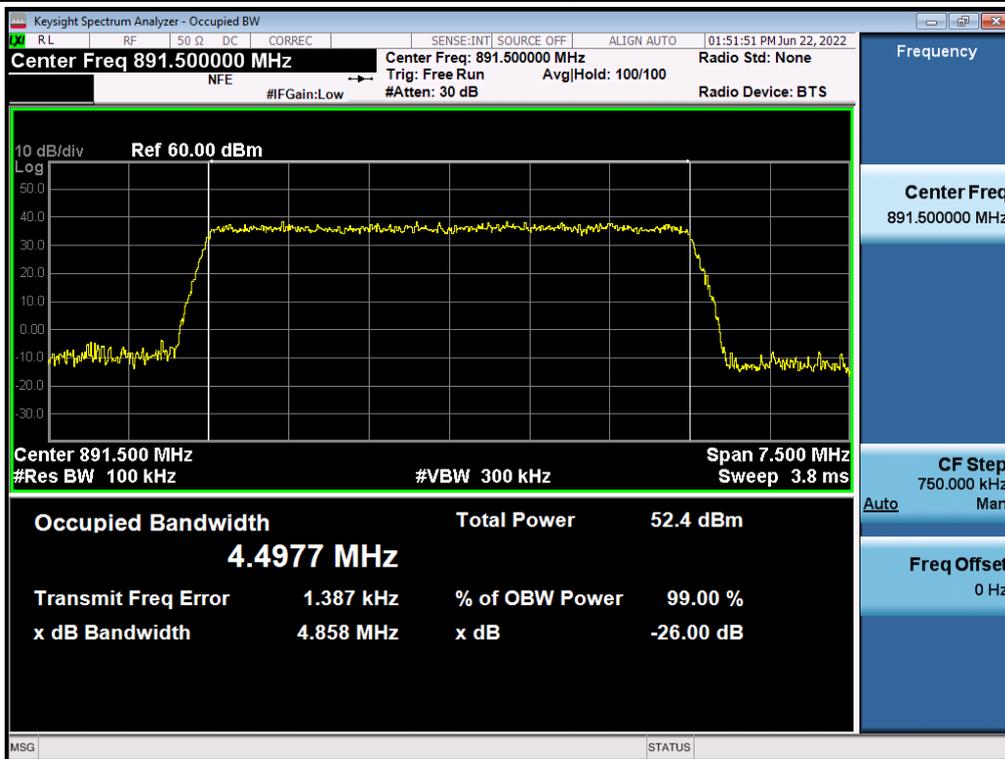
Antenna 1 / (2 Port)B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / B5 DSS 10 MHz / 256QAM / High



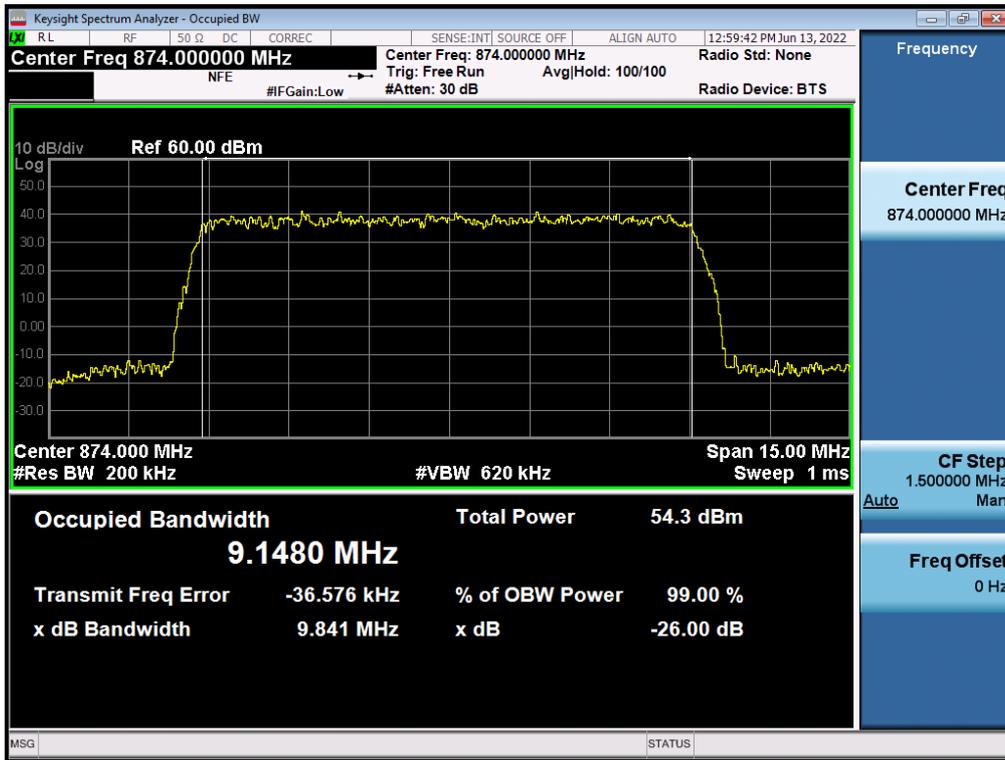
Antenna 1 / (2 Port)5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 5 MHz / 256QAM / Low



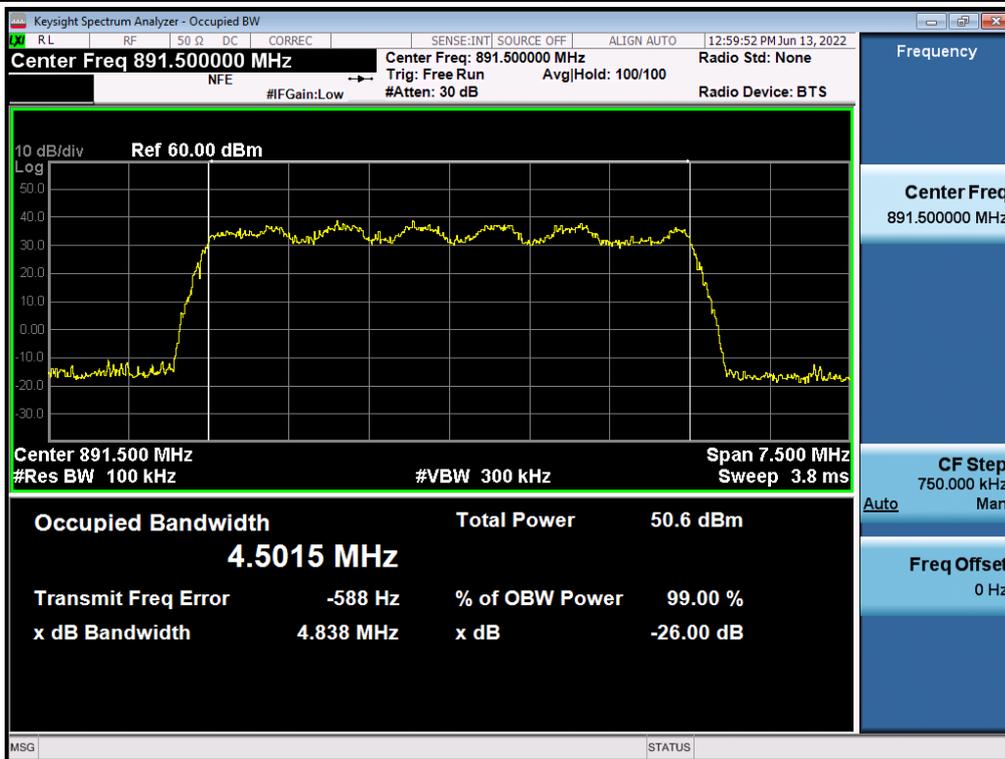
Antenna 1 / (2 Port)5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / LTE B5 5 MHz / 256QAM / High



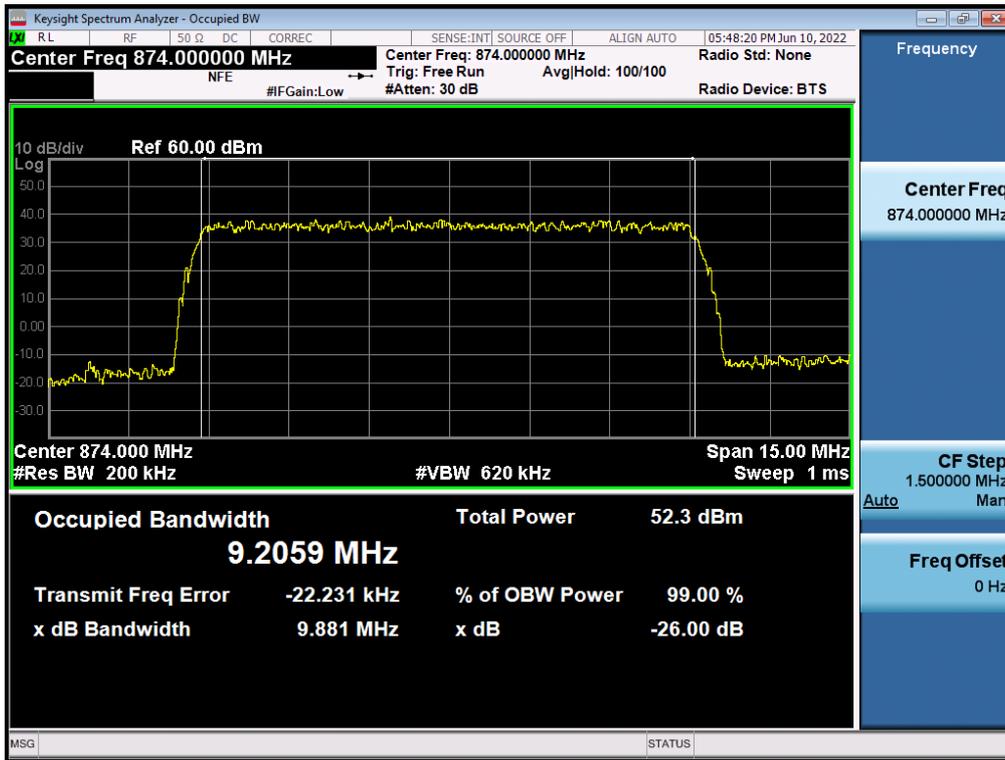
Antenna 1 / (2 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / B5 DSS 10 MHz / 16QAM / Low



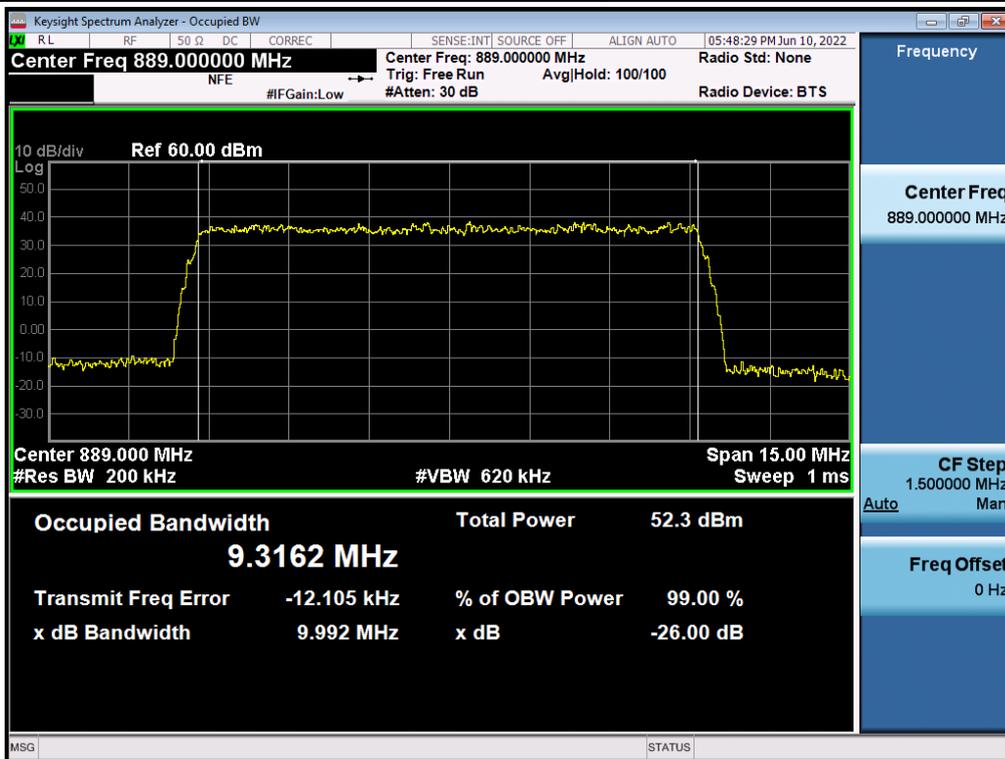
Antenna 1 / (2 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 5 MHz / 16QAM / High



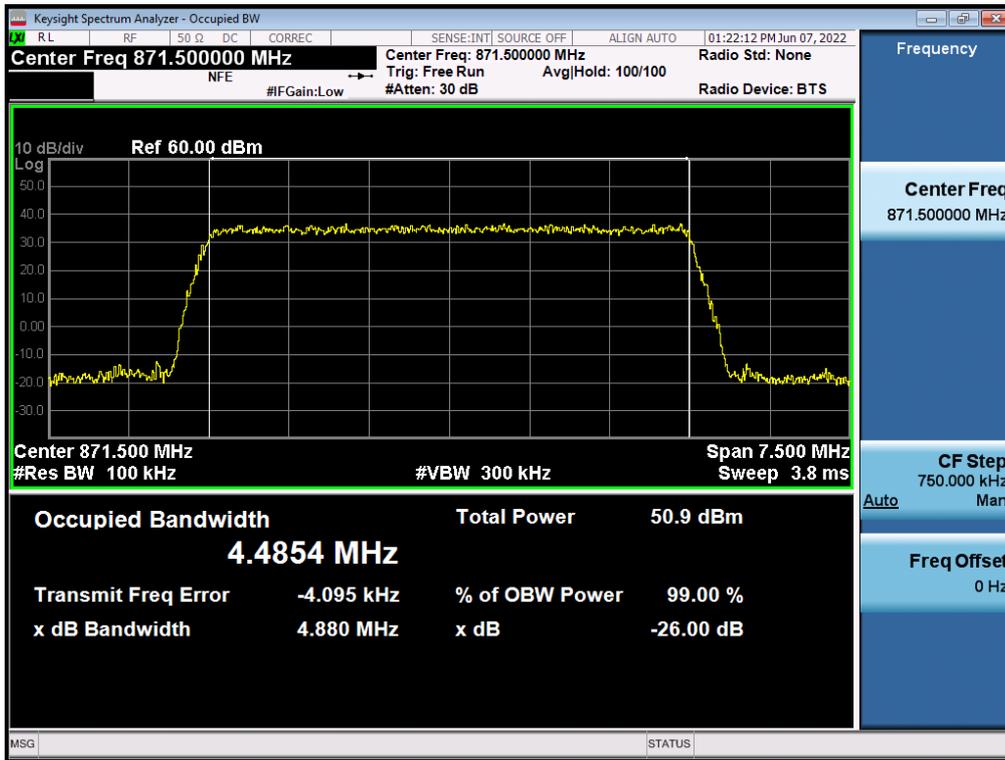
Antenna 1 / (2 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / B5 DSS 10 MHz / 64QAM / Low



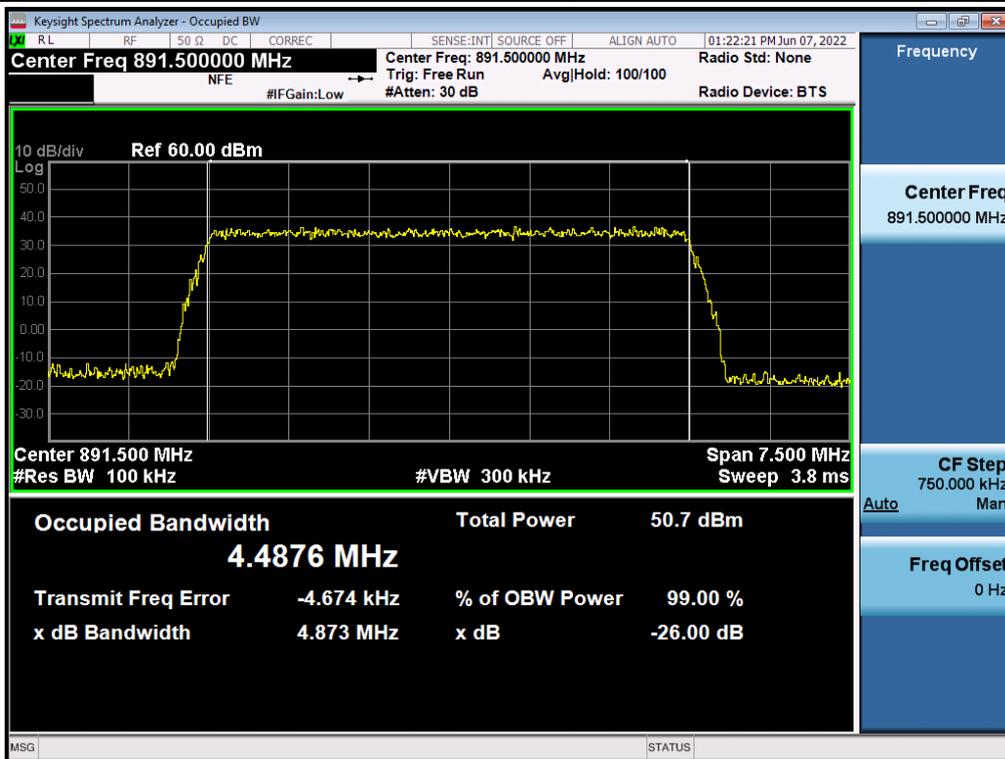
Antenna 1 / (2 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 10 MHz / 64QAM / High

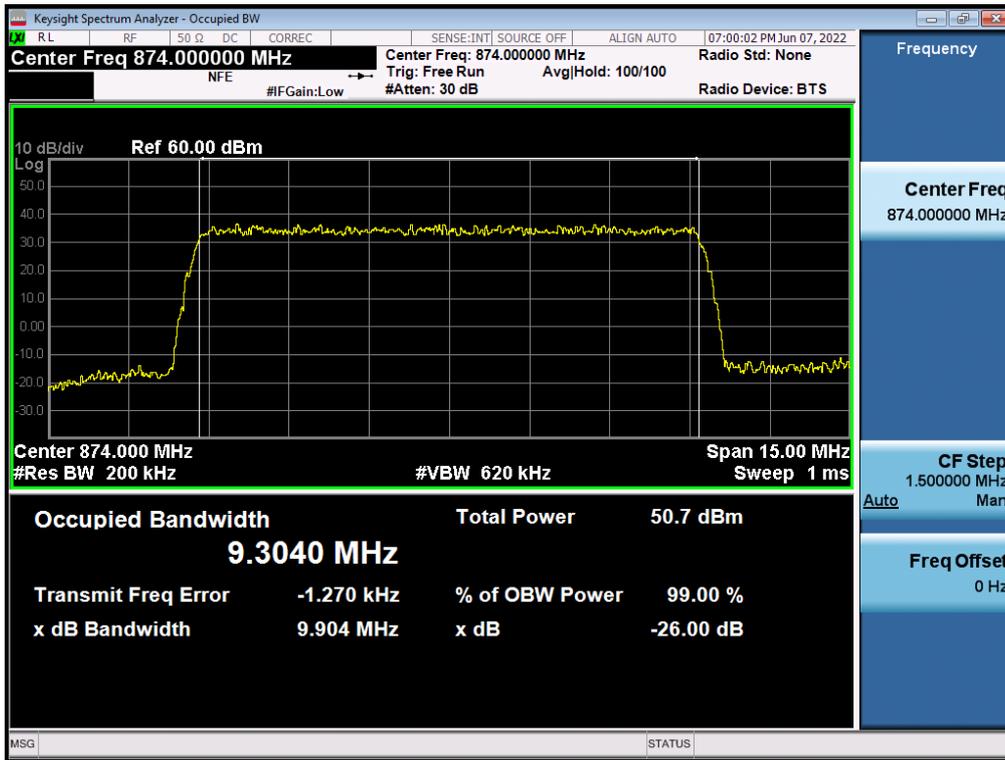
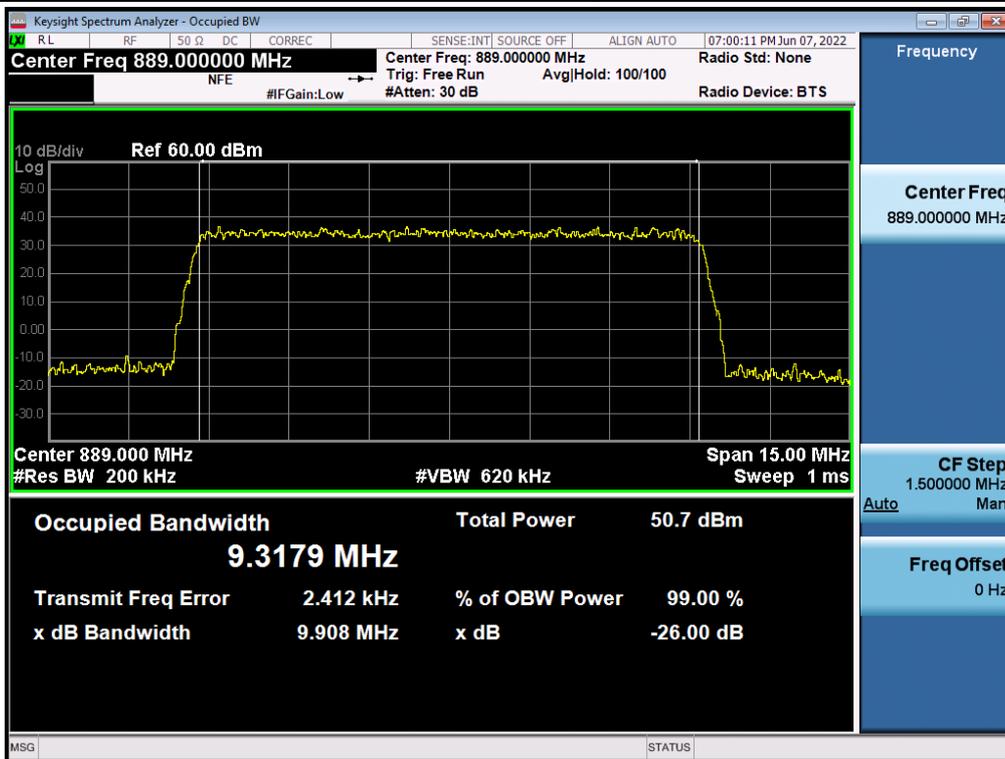


Antenna 1 / (4 Port)5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 5 MHz / QPSK / Low

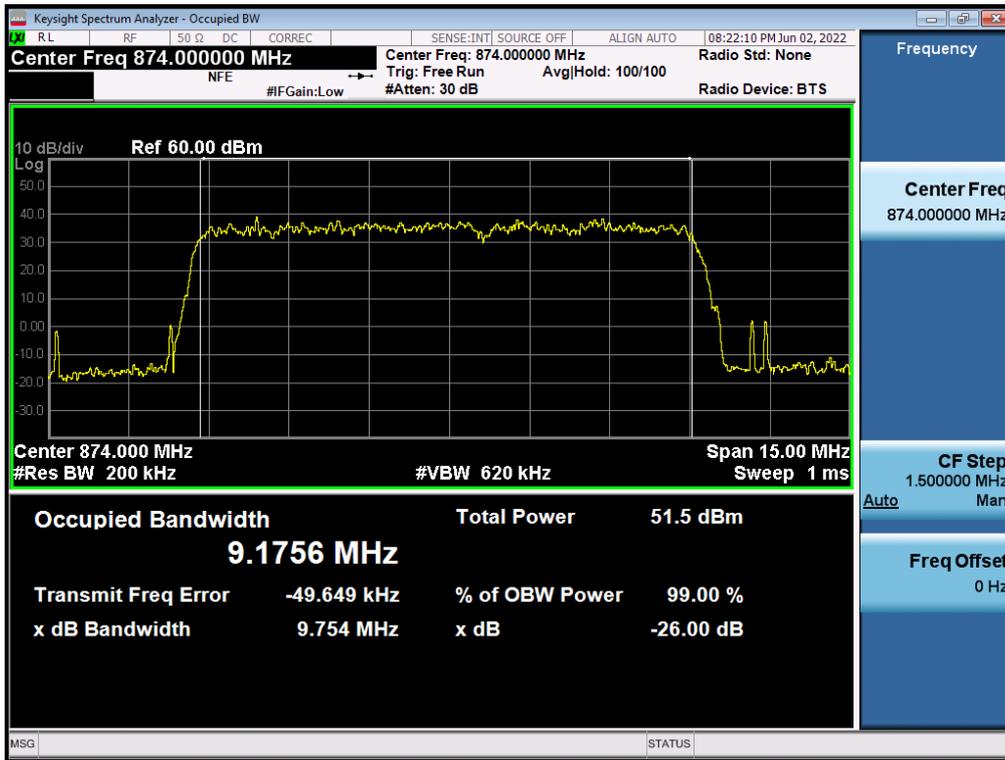


Antenna 1 / (4 Port)5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 5 MHz / QPSK / High

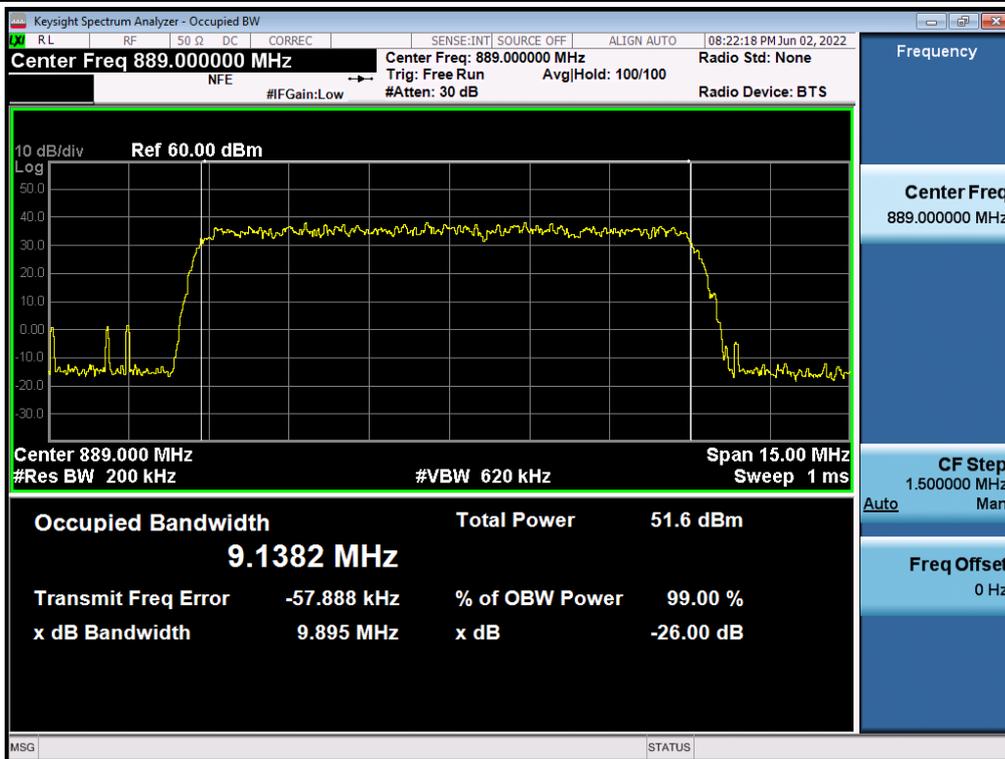


Antenna 3 / (4 Port)5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 10 MHz / QPSK / Low

Antenna 3 / (4 Port)5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 10 MHz / QPSK / High


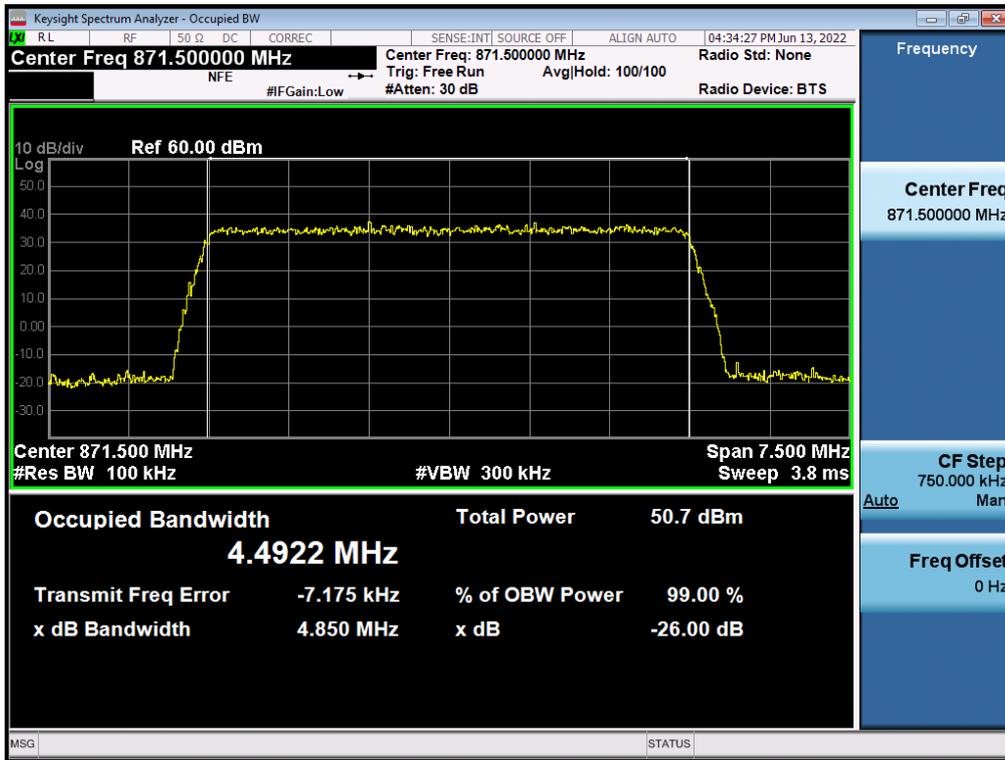
Antenna 2 / (4 Port)B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / B5 DSS 10 MHz / 16QAM / Low



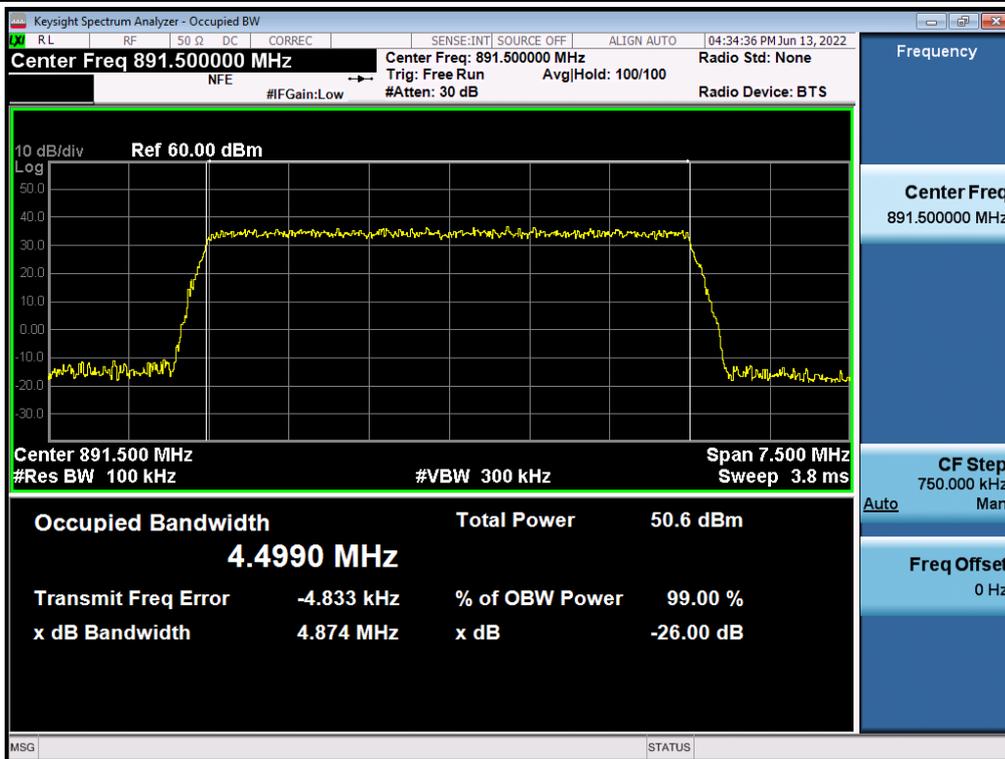
Antenna 2 / (4 Port)B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / B5 DSS 10 MHz / 16QAM / High



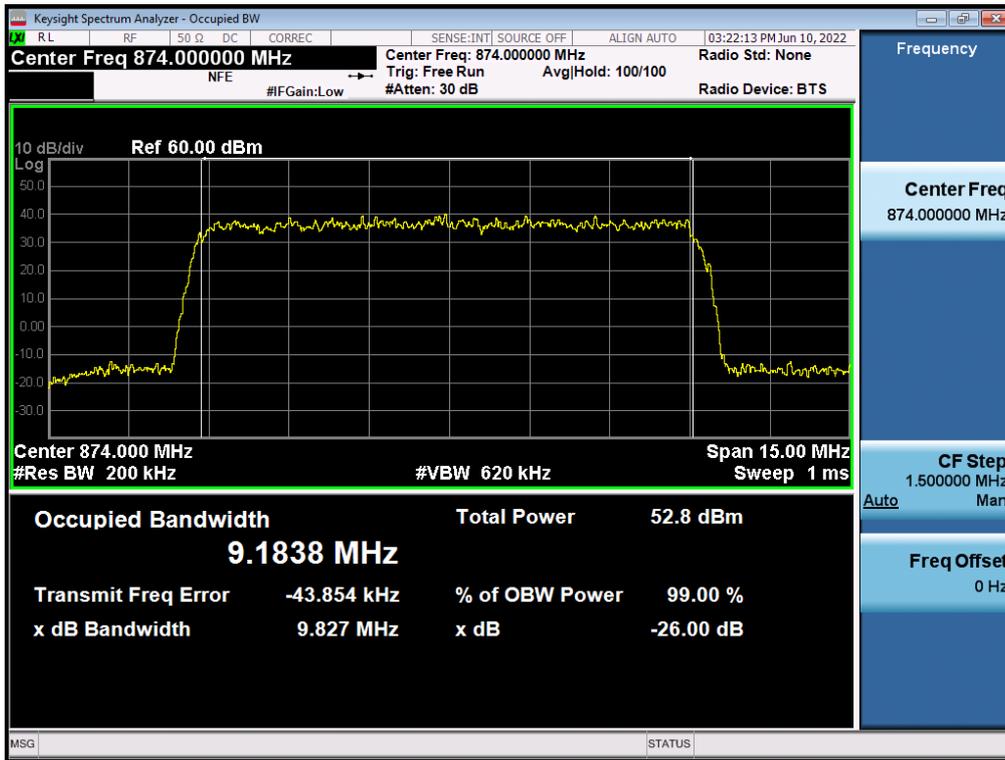
Antenna 1 / (4 Port)5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 5 MHz / 64QAM / Low



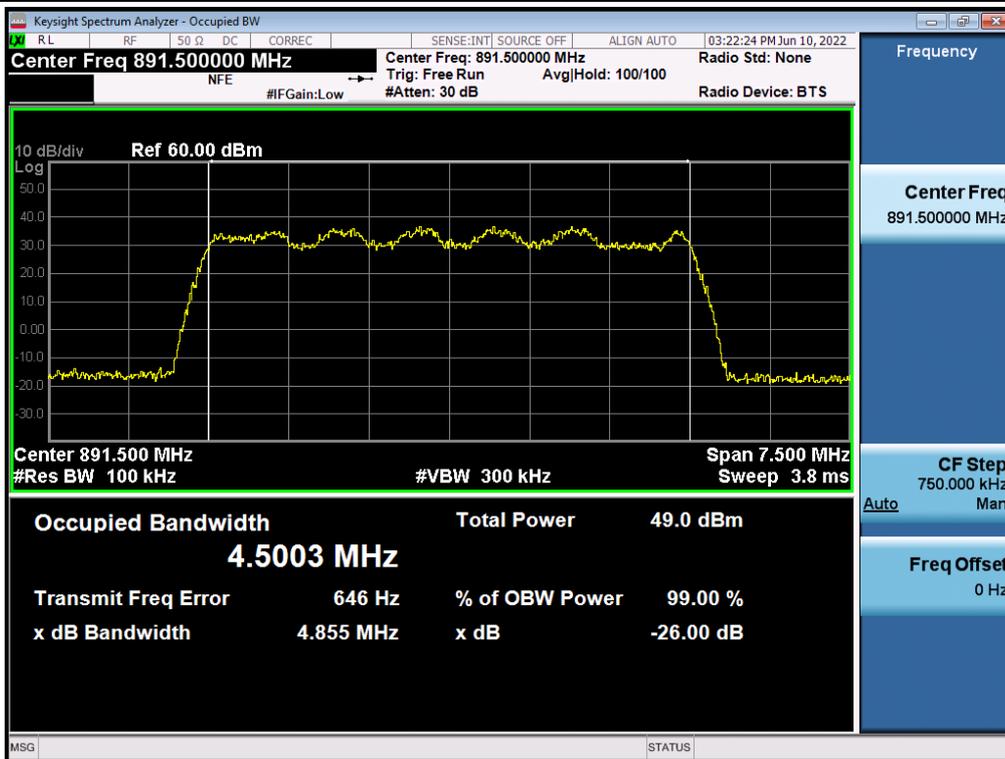
Antenna 1 / (4 Port)5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / LTE B5 5 MHz / 64QAM / High



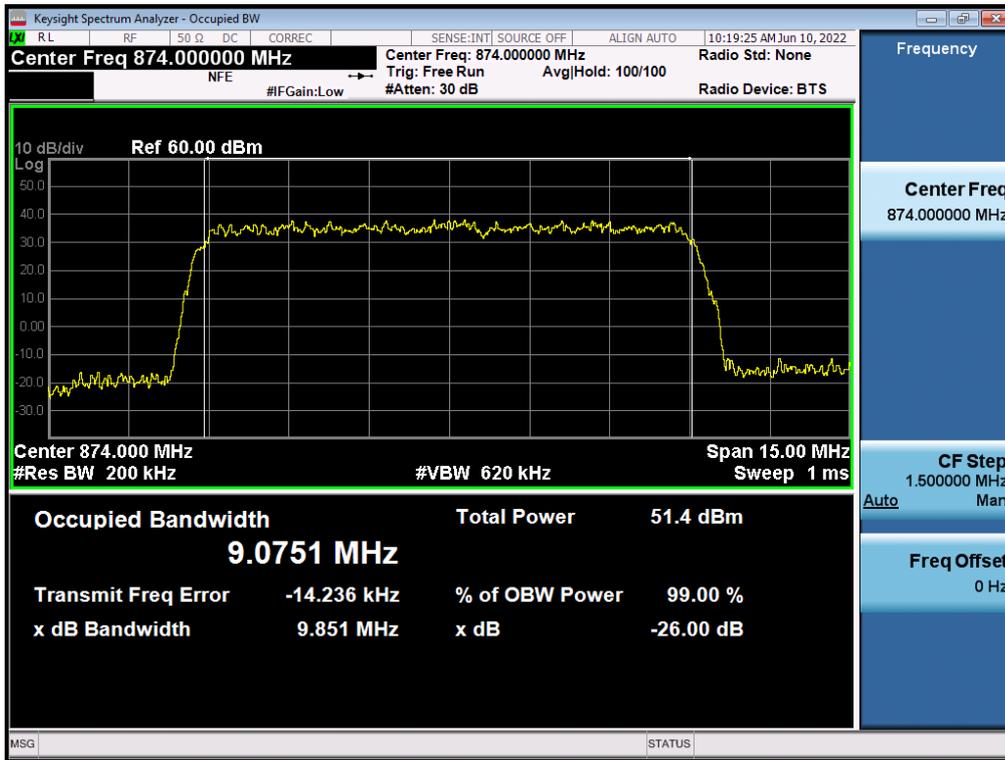
Antenna 3 / (4 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / B5 DSS 10 MHz / 16QAM / Low



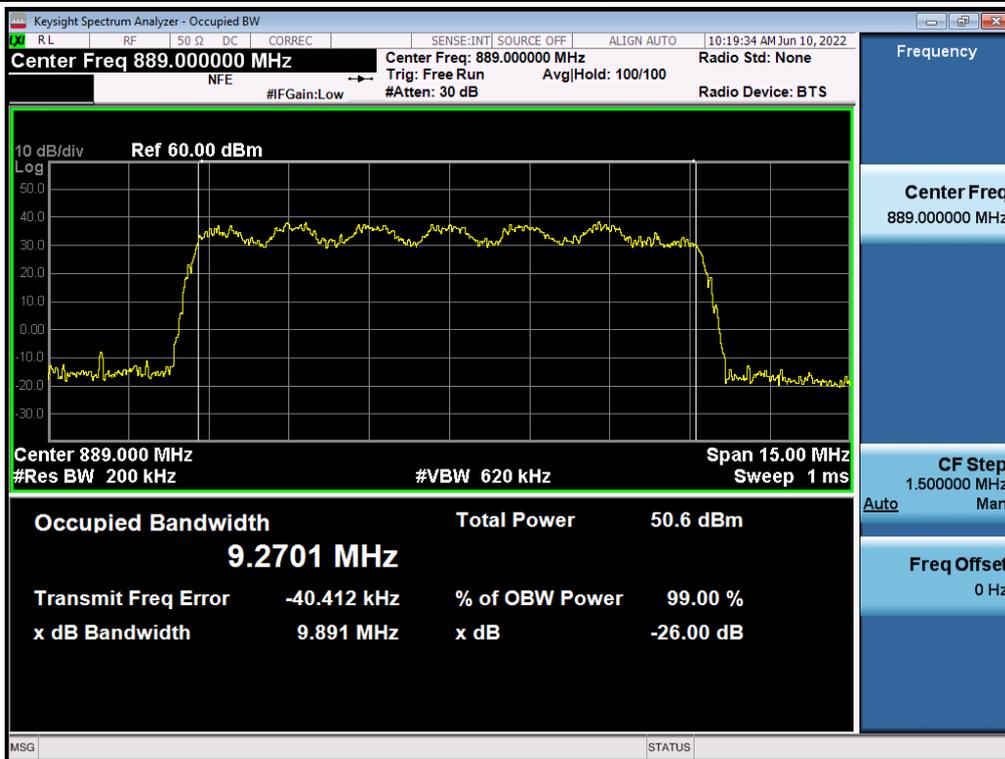
Antenna 3 / (4 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 5 MHz / 16QAM / High



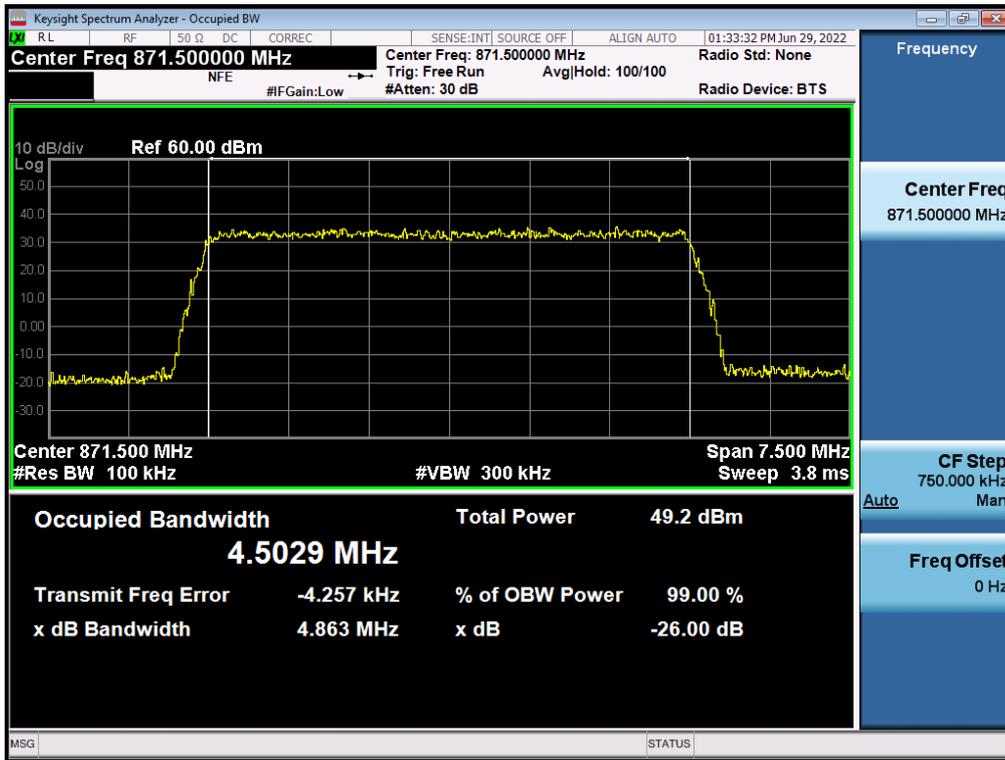
Antenna 1 / (4 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / B5 DSS 10 MHz / 16QAM / Low



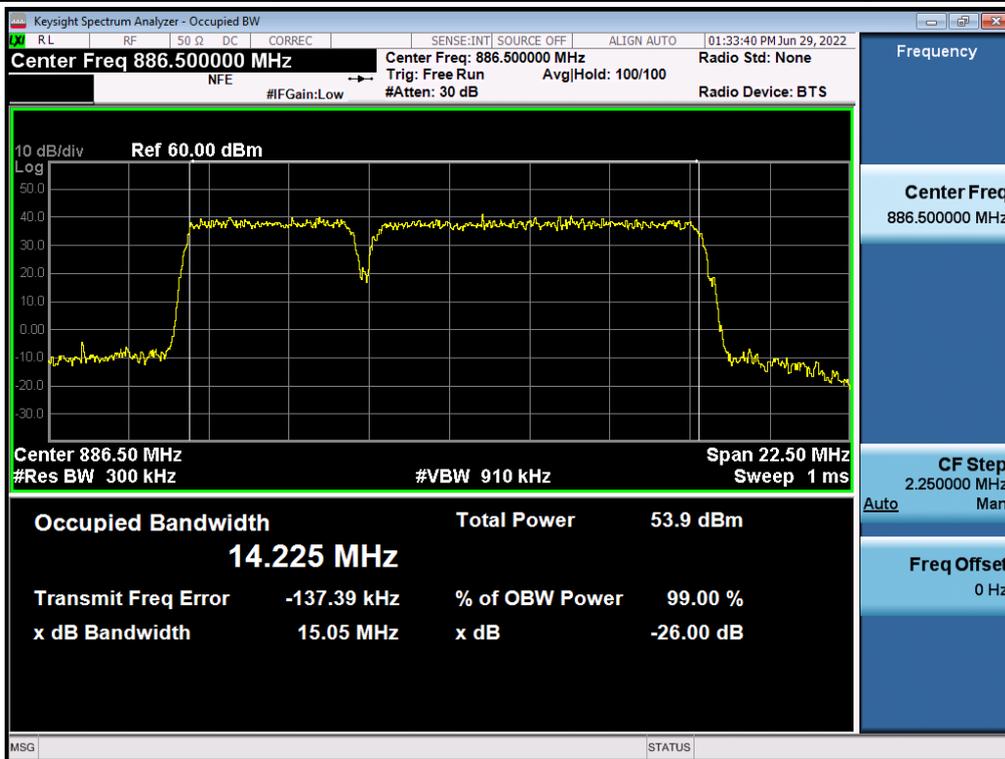
Antenna 1 / (4 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 10 MHz / 16QAM / High



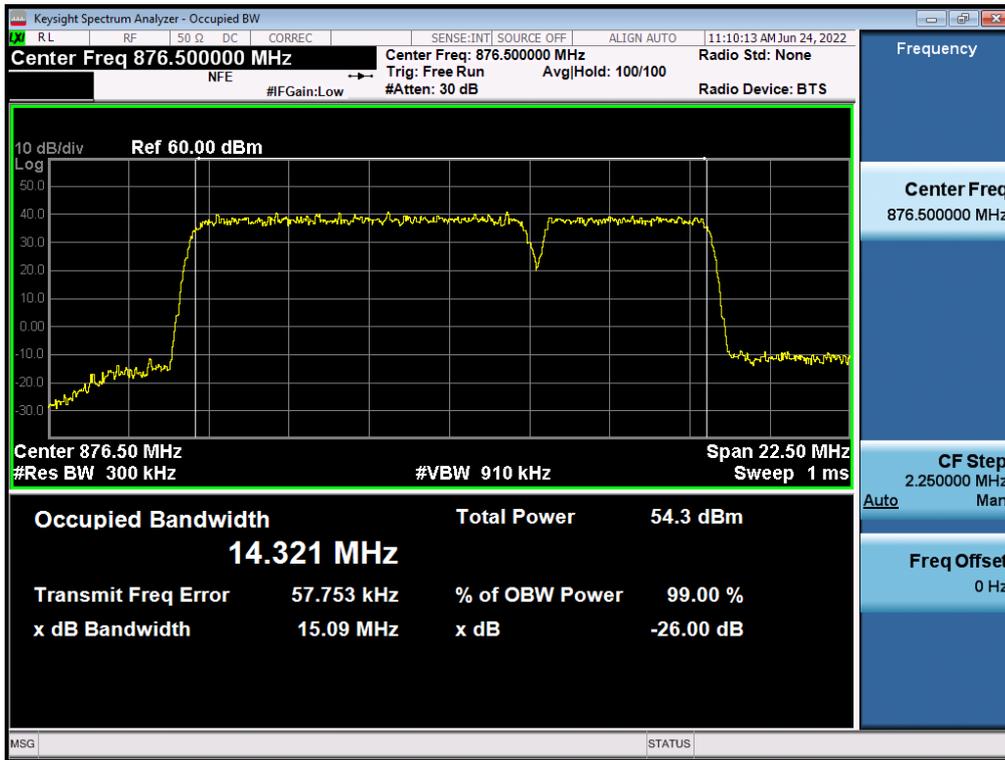
Antenna 0 / (2 Port)B5 LTE B5 5 MHz 1 Carrier + (5G NR n5 5 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier) [3 Carrier](1C+2C)
/ Non-Contiguous / B5 DSS 10 MHz / QPSK / Low



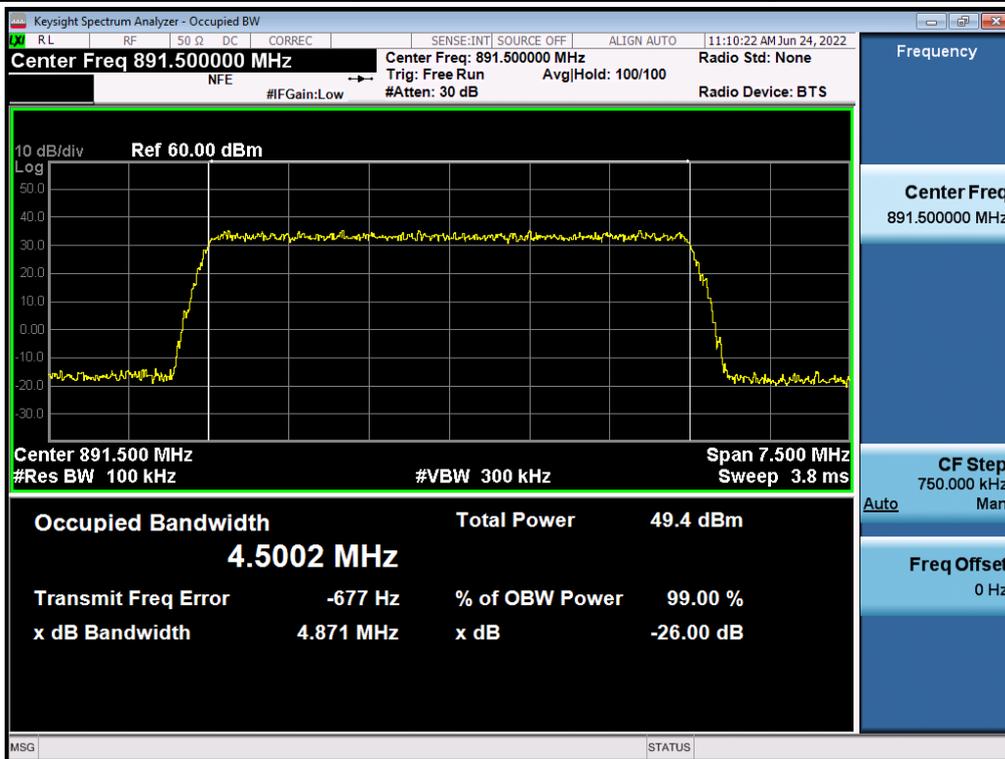
Antenna 0 / (2 Port)B5 LTE B5 5 MHz 1 Carrier + (5G NR n5 5 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier) [3 Carrier](1C+2C)
/ Non-Contiguous / 5G NR n5 5 MHz + LTE B5 5 MHz / QPSK / High



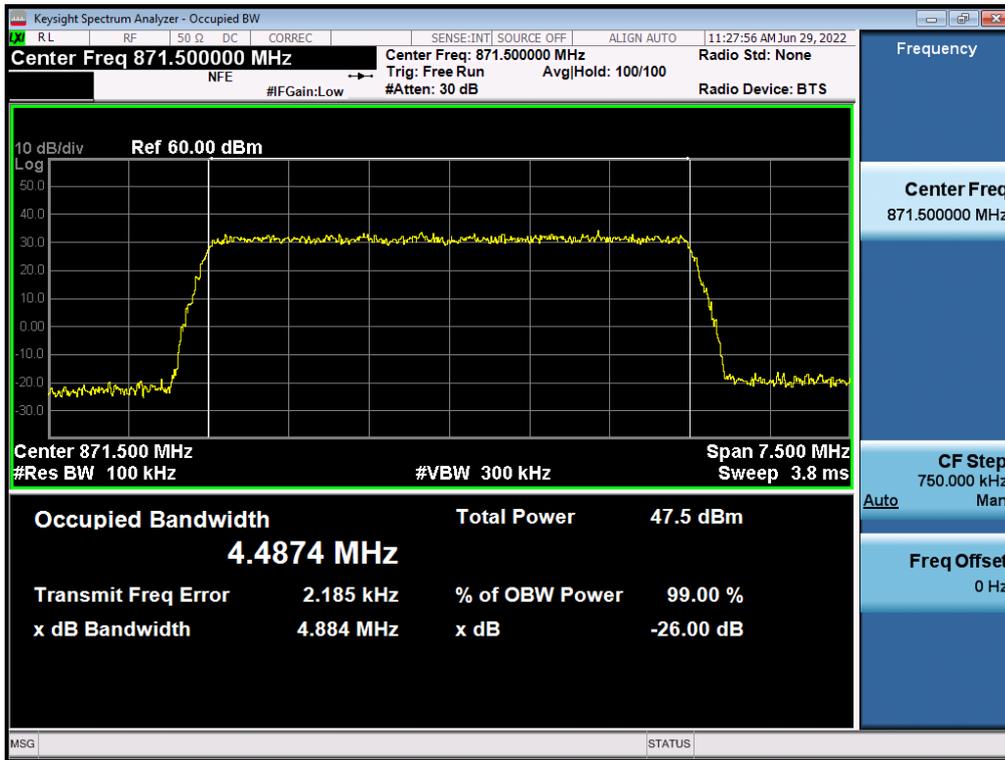
Antenna 1 / (2 Port)(B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier) + LTE B5 5 MHz 1 Carrier [3 Carrier](2C+1C) / Non-Contiguous / B5 DSS 10 MHz + 5G NR n5 5 MHz / 256QAM / Low



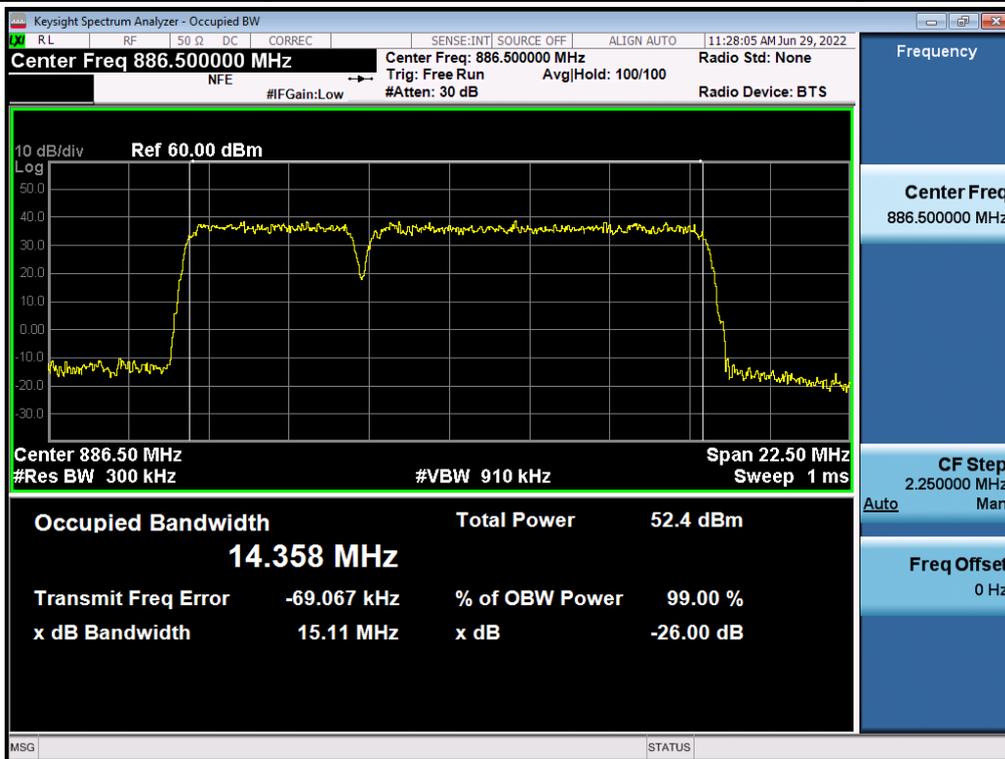
Antenna 1 / (2 Port)(B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier) + LTE B5 5 MHz 1 Carrier [3 Carrier](2C+1C) / Non-Contiguous / LTE B5 5 MHz / 256QAM / High



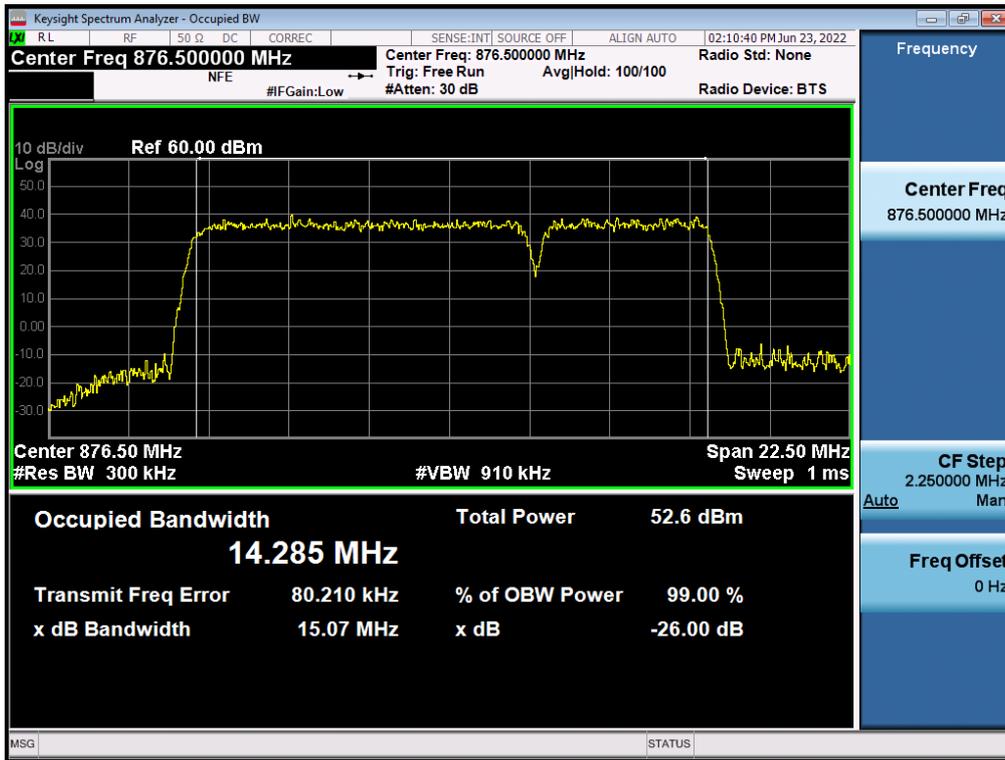
Antenna 1 / (4 Port)B5 LTE 5 MHz 1 Carrier + (5G NR n5 5 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier) [3 Carrier](1C+2C) / Non-Contiguous / B5 DSS 10 MHz / QPSK / Low



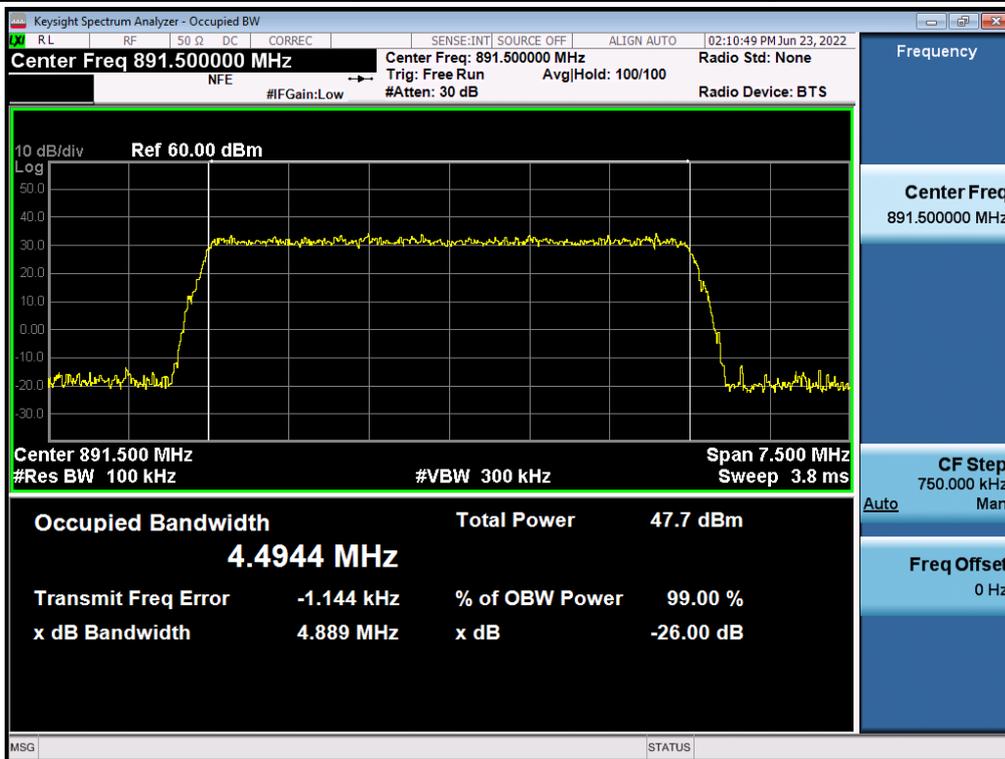
Antenna 1 / (4 Port)B5 LTE 5 MHz 1 Carrier + (5G NR n5 5 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier) [3 Carrier](1C+2C) / Non-Contiguous / 5G NR n5 5 MHz + LTE B5 5 MHz / QPSK / High



Antenna 1 / (4 Port)(B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier) + LTE B5 5 MHz 1 Carrier [3 Carrier](2C+1C) / Non-Contiguous / B5 DSS 10 MHz + 5G NR n5 5 MHz / 256QAM / Low



Antenna 1 / (4 Port)(B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier) + LTE B5 5 MHz 1 Carrier [3 Carrier](2C+1C) / Non-Contiguous / LTE B5 5 MHz / 256QAM / High



5.4. OUT-OF-BAND UNWANTED EMISSIONS

Test Requirements:

§ 2.1051 Measurements required: Spurious emissions at antenna terminals.

The radio frequency voltage or powers generated within the equipment and appearing on a spurious frequency shall be checked at the equipment output terminals when properly loaded with a suitable artificial antenna. Curves or equivalent data shall show the magnitude of each harmonic and other spurious emission that can be detected when the equipment is operated under the conditions specified in § 2.1049 as appropriate. The magnitude of spurious emissions which are attenuated more than 20 dB below the permissible value need not be specified.

§ 22.917 Emission limitations for cellular equipment.

The rules in this section govern the spectral characteristics of emissions in the Cellular Radiotelephone Service.

(a) *Out of band emissions.* The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

(b) Measurement procedure. Compliance with these rules is based on the use of measurement instrumentation employing a reference bandwidth as follows:

(1) In the spectrum below 1 GHz, instrumentation should employ a reference bandwidth of 100 kHz or greater. In the 1 MHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy, provided that the measured power is integrated over the full required reference bandwidth (i.e., 100 kHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

(2) In the spectrum above 1 GHz, instrumentation should employ a reference bandwidth of 1 MHz.

(c) *Alternative out of band emission limit.* Licensees in this service may establish an alternative out of band emission limit to be used at specified band edge(s) in specified geographical areas, in lieu of that set forth in this section, pursuant to a private contractual arrangement of all affected licensees and applicants. In this event, each party to such contract shall maintain a copy of the contract in their station files and disclose it to prospective assignees or transferees and, upon request, to the FCC.

(d) *Interference caused by out of band emissions.* If any emission from a transmitter operating in this service results in interference to users of another radio service, the FCC may require a greater attenuation of that emission than specified in this section.

Test Procedures:

The measurement is performed in accordance with Section 5.7.3 of ANSI C63.26.

5.7.3 Out-of-band unwanted emissions measurements

- a) Set the spectrum analyzer center frequency to the block, band, or channel edge frequency.
- b) Set the span wide enough to capture the fundamental emission closest to the authorized block or band edge, and to include all modulation products that spill into the immediately adjacent frequency band. In some cases, it may be possible to set the center frequency and span so as to encompass the fundamental emission and the unwanted out-of-band (band-edge) emissions on either side of the authorized block, band, or channel. This can be accomplished with a single (slow) sweep, if adequate overload protection and sufficient dynamic range can be maintained.
- c) Set the number of points in sweep $\geq 2 \times \text{span} / \text{RBW}$.
- d) Sweep time should be auto for peak detection. For rms detection the sweep time should be set as follows:
 - 1) If the device can be configured to transmit continuously (duty cycle $\geq 98\%$), set the (sweep time) $>$ (number of points in sweep) \times (symbol period) (e.g., by a factor of $10 \times \text{symbol period} \times \text{number of points}$). Increasing the sweep time (i.e., slowing the sweep speed) will allow for averaging over multiple symbols
 - 2) If the device cannot be configured to transmit continuously (duty cycle $< 98\%$) and a freerunning sweep must be used, set the sweep time so that the averaging is performed over multiple on/off cycles by setting the sweep time $>$ (number of points in sweep) \times (transmitter period) (i.e., the transmit on-time + the off-time). The spectrum analyzer readings shall subsequently be corrected by $[10 \log (1/\text{duty cycle})]$. This assumes that the transmission period and duty cycle is relatively constant (duty cycle variation $\leq \pm 2\%$).
 - 3) If the device cannot be configured to transmit continuously (duty cycle $< 98\%$) and a freerunning sweep must be used, set the sweep time so that the averaging is performed over multiple on/off cycles by setting the sweep time $>$ (number of points in sweep) \times (transmitter period) (i.e., the transmit on-time + the off-time). The spectrum analyzer readings shall subsequently be corrected by $[10 \log (1/\text{duty cycle})]$. This assumes that the transmission period and duty cycle is relatively constant (duty cycle variation $\leq \pm 2\%$).
 - 4) If the device cannot be configured to transmit continuously and a free-running sweep must be used, and if the transmissions exhibit a non-constant duty cycle (duty cycle variations $> \pm 2\%$), set the sweep time so that the averaging is performed over the on-period by setting the sweep time $>$ (symbol period) \times (number of points), while also maintaining the sweep time $<$ (transmitter on-time). The trace mode shall be set to max hold, since not every display point will be averaged only over just the on-time. Thus, multiple sweeps (e.g., 100) in maximum hold are necessary to ensure that the maximum power is measured.
- e) The test report shall include the plots of the measuring instrument display and the measured data.
- f) See Annex I for example emission mask plots.

Note:

1. Due to MIMO operations, a correction has been added to the limit according to KDB 662911 D01 v02r01.
 - 2Tx MIMO correction: $10 \log(N_{\text{ANT}}) = 10 \log(2) = 3.01 \text{ dB}$ // $-13 \text{ dBm} - 10 \cdot \log(2) = -16.01 \text{ dBm}$
 - 4Tx MIMO correction: $10 \log(N_{\text{ANT}}) = 10 \log(4) = 6.02 \text{ dB}$ // $-13 \text{ dBm} - 10 \cdot \log(4) = -19.02 \text{ dBm}$
2. The results of the Out-of-band Unwanted Emissions test shown above the frequency measured values are very small and similar trend for each port, so we are attached only the worst case plot.

Test Results:
Tabular Data of Out-of-band Unwanted Emissions
(2 Port)5G NR n5 5 MHz 1 Carrier

| Ant. | Mod. | Channel | Frequency (MHz) | Measured Value (dBm) |
|------|--------|---------|-----------------|----------------------|
| 0 | QPSK | Low | 868.98 | -23.50 |
| | | High | 894.03 | -24.02 |
| | 16QAM | Low | 868.98 | -23.45 |
| | | High | 894.03 | -24.10 |
| | 64QAM | Low | 868.98 | -22.57 |
| | | High | 894.03 | -23.66 |
| | 256QAM | Low | 868.98 | -23.80 |
| | | High | 894.03 | -23.58 |
| 1 | QPSK | Low | 868.98 | -23.12 |
| | | High | 894.03 | -23.93 |
| | 16QAM | Low | 868.98 | -22.98 |
| | | High | 894.03 | -24.30 |
| | 64QAM | Low | 868.98 | -23.23 |
| | | High | 894.03 | -23.80 |
| | 256QAM | Low | 868.98 | -23.65 |
| | | High | 894.03 | -22.89 |

(2 Port)5G NR n5 10 MHz 1 Carrier

| Ant. | Mod. | Channel | Frequency (MHz) | Measured Value (dBm) |
|------|--------|---------|-----------------|----------------------|
| 0 | QPSK | Low | 868.95 | -24.46 |
| | | High | 894.05 | -23.27 |
| | 16QAM | Low | 868.95 | -24.60 |
| | | High | 894.05 | -24.03 |
| | 64QAM | Low | 868.95 | -23.29 |
| | | High | 894.05 | -25.49 |
| | 256QAM | Low | 868.95 | -25.05 |
| | | High | 894.05 | -23.85 |
| 1 | QPSK | Low | 868.95 | -23.57 |
| | | High | 894.05 | -23.09 |
| | 16QAM | Low | 868.95 | -23.85 |
| | | High | 894.05 | -23.29 |
| | 64QAM | Low | 868.95 | -22.53 |
| | | High | 894.05 | -23.46 |
| | 256QAM | Low | 868.95 | -24.87 |
| | | High | 894.05 | -23.49 |

(4 Port)5G NR n5 5 MHz 1 Carrier

| Ant. | Mod. | Channel | Frequency (MHz) | Measured Value (dBm) |
|------|--------|---------|-----------------|----------------------|
| 0 | QPSK | Low | 868.98 | -27.20 |
| | | High | 894.03 | -27.38 |
| | 16QAM | Low | 868.98 | -26.95 |
| | | High | 894.03 | -26.55 |
| | 64QAM | Low | 868.98 | -25.61 |
| | | High | 894.03 | -27.72 |
| | 256QAM | Low | 868.98 | -27.98 |
| | | High | 894.03 | -26.63 |
| 1 | QPSK | Low | 868.98 | -27.26 |
| | | High | 894.03 | -27.80 |
| | 16QAM | Low | 868.98 | -26.84 |
| | | High | 894.03 | -28.61 |
| | 64QAM | Low | 868.98 | -27.31 |
| | | High | 894.03 | -27.45 |
| | 256QAM | Low | 868.98 | -25.81 |
| | | High | 894.03 | -26.15 |
| 2 | QPSK | Low | 868.98 | -24.85 |
| | | High | 894.03 | -25.40 |
| | 16QAM | Low | 868.98 | -25.49 |
| | | High | 894.03 | -24.90 |
| | 64QAM | Low | 868.98 | -25.96 |
| | | High | 894.03 | -25.30 |
| | 256QAM | Low | 868.98 | -25.90 |
| | | High | 894.03 | -26.26 |
| 3 | QPSK | Low | 868.98 | -25.05 |
| | | High | 894.03 | -24.64 |
| | 16QAM | Low | 868.98 | -24.61 |
| | | High | 894.03 | -24.44 |
| | 64QAM | Low | 868.98 | -24.74 |
| | | High | 894.03 | -24.94 |
| | 256QAM | Low | 868.98 | -25.41 |
| | | High | 894.03 | -25.71 |

(4 Port)5G NR n5 10 MHz 1 Carrier

| Ant. | Mod. | Channel | Frequency (MHz) | Measured Value (dBm) |
|------|--------|---------|-----------------|----------------------|
| 0 | QPSK | Low | 868.95 | -27.03 |
| | | High | 894.05 | -25.74 |
| | 16QAM | Low | 868.95 | -25.83 |
| | | High | 894.05 | -25.67 |
| | 64QAM | Low | 868.95 | -26.70 |
| | | High | 894.05 | -25.96 |
| | 256QAM | Low | 868.95 | -27.42 |
| | | High | 894.05 | -25.21 |
| 1 | QPSK | Low | 868.95 | -28.11 |
| | | High | 894.05 | -23.26 |
| | 16QAM | Low | 868.95 | -25.61 |
| | | High | 894.05 | -26.22 |
| | 64QAM | Low | 868.95 | -26.11 |
| | | High | 894.05 | -24.71 |
| | 256QAM | Low | 868.95 | -28.05 |
| | | High | 894.05 | -25.62 |
| 2 | QPSK | Low | 868.95 | -26.15 |
| | | High | 894.05 | -25.31 |
| | 16QAM | Low | 868.95 | -25.73 |
| | | High | 894.05 | -25.42 |
| | 64QAM | Low | 868.95 | -25.44 |
| | | High | 894.05 | -25.01 |
| | 256QAM | Low | 868.95 | -24.89 |
| | | High | 894.05 | -24.68 |
| 3 | QPSK | Low | 868.95 | -24.34 |
| | | High | 894.05 | -24.62 |
| | 16QAM | Low | 868.95 | -24.96 |
| | | High | 894.05 | -24.94 |
| | 64QAM | Low | 868.95 | -23.87 |
| | | High | 894.05 | -23.64 |
| | 256QAM | Low | 868.95 | -25.64 |
| | | High | 894.05 | -25.98 |

Tabular Data of Contiguous Out-of-band Unwanted Emissions
(2 Port)5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier]

| Ant. | Mod. | Channel | Frequency (MHz) | Measured Value (dBm) |
|------|--------|---------|-----------------|----------------------|
| 0 | QPSK | Low | 868.98 | -24.15 |
| | | High | 894.03 | -23.37 |
| | 16QAM | Low | 868.98 | -24.80 |
| | | High | 894.03 | -24.65 |
| | 64QAM | Low | 868.98 | -23.85 |
| | | High | 894.03 | -24.01 |
| | 256QAM | Low | 868.98 | -23.67 |
| | | High | 894.03 | -25.27 |
| 1 | QPSK | Low | 868.98 | -23.89 |
| | | High | 894.03 | -24.46 |
| | 16QAM | Low | 868.98 | -25.06 |
| | | High | 894.03 | -24.22 |
| | 64QAM | Low | 868.98 | -23.72 |
| | | High | 894.03 | -23.09 |
| | 256QAM | Low | 868.98 | -23.49 |
| | | High | 894.03 | -24.12 |

(2 Port)5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier]

| Ant. | Mod. | Channel | Frequency (MHz) | Measured Value (dBm) |
|------|--------|---------|-----------------|----------------------|
| 0 | QPSK | Low | 868.95 | -26.42 |
| | | High | 894.05 | -24.61 |
| | 16QAM | Low | 868.95 | -25.83 |
| | | High | 894.05 | -25.29 |
| | 64QAM | Low | 868.92 | -26.74 |
| | | High | 894.05 | -24.09 |
| | 256QAM | Low | 868.95 | -25.52 |
| | | High | 894.05 | -23.83 |
| 1 | QPSK | Low | 868.95 | -25.59 |
| | | High | 894.05 | -24.47 |
| | 16QAM | Low | 868.95 | -25.62 |
| | | High | 894.29 | -25.67 |
| | 64QAM | Low | 868.95 | -24.97 |
| | | High | 894.05 | -23.31 |
| | 256QAM | Low | 868.95 | -25.01 |
| | | High | 894.05 | -24.56 |

(2 Port)B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier]

| Ant. | Mod. | Channel | Frequency (MHz) | Measured Value (dBm) |
|------|--------|---------|-----------------|----------------------|
| 0 | QPSK | Low | 868.95 | -26.65 |
| | | High | 894.05 | -25.08 |
| | 16QAM | Low | 868.95 | -27.31 |
| | | High | 894.05 | -25.49 |
| | 64QAM | Low | 868.95 | -26.58 |
| | | High | 894.05 | -25.87 |
| | 256QAM | Low | 868.61 | -27.03 |
| | | High | 894.05 | -25.69 |
| 1 | QPSK | Low | 868.95 | -26.38 |
| | | High | 894.49 | -25.21 |
| | 16QAM | Low | 868.95 | -26.90 |
| | | High | 894.05 | -25.46 |
| | 64QAM | Low | 868.95 | -26.60 |
| | | High | 894.05 | -25.24 |
| | 256QAM | Low | 868.95 | -26.17 |
| | | High | 894.05 | -24.76 |

(2 Port)5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier]

| Ant. | Mod. | Channel | Frequency (MHz) | Measured Value (dBm) |
|------|--------|---------|-----------------|----------------------|
| 0 | QPSK | Low | 868.98 | -23.90 |
| | | High | 894.03 | -23.07 |
| | 16QAM | Low | 868.98 | -24.69 |
| | | High | 894.03 | -23.53 |
| | 64QAM | Low | 868.98 | -24.04 |
| | | High | 894.03 | -24.26 |
| | 256QAM | Low | 868.98 | -24.39 |
| | | High | 894.03 | -22.76 |
| 1 | QPSK | Low | 868.98 | -24.43 |
| | | High | 894.03 | -23.28 |
| | 16QAM | Low | 868.98 | -25.38 |
| | | High | 894.03 | -25.42 |
| | 64QAM | Low | 868.98 | -23.31 |
| | | High | 894.03 | -23.37 |
| | 256QAM | Low | 868.98 | -23.13 |
| | | High | 894.03 | -22.77 |

(2 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier]

| Ant. | Mod. | Channel | Frequency (MHz) | Measured Value (dBm) |
|------|--------|---------|-----------------|----------------------|
| 0 | QPSK | Low | 868.95 | -25.26 |
| | | High | 894.14 | -26.28 |
| | 16QAM | Low | 868.95 | -25.93 |
| | | High | 894.03 | -26.17 |
| | 64QAM | Low | 868.95 | -25.01 |
| | | High | 894.03 | -25.15 |
| | 256QAM | Low | 868.95 | -25.81 |
| | | High | 894.03 | -26.23 |
| 1 | QPSK | Low | 868.95 | -25.84 |
| | | High | 894.03 | -24.64 |
| | 16QAM | Low | 868.95 | -25.76 |
| | | High | 894.45 | -25.97 |
| | 64QAM | Low | 868.95 | -26.19 |
| | | High | 894.03 | -25.74 |
| | 256QAM | Low | 868.95 | -26.50 |
| | | High | 894.06 | -26.39 |

(2 Port)B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier]

| Ant. | Mod. | Channel | Frequency (MHz) | Measured Value (dBm) |
|------|--------|---------|-----------------|----------------------|
| 0 | QPSK | Low | 868.95 | -25.85 |
| | | High | 894.05 | -26.35 |
| | 16QAM | Low | 868.95 | -26.62 |
| | | High | 894.05 | -26.26 |
| | 64QAM | Low | 868.95 | -26.35 |
| | | High | 894.15 | -26.24 |
| | 256QAM | Low | 868.95 | -26.11 |
| | | High | 894.05 | -24.90 |
| 1 | QPSK | Low | 868.95 | -26.69 |
| | | High | 894.05 | -26.23 |
| | 16QAM | Low | 868.95 | -27.35 |
| | | High | 894.05 | -25.43 |
| | 64QAM | Low | 868.95 | -26.56 |
| | | High | 894.43 | -25.89 |
| | 256QAM | Low | 868.95 | -26.96 |
| | | High | 894.05 | -25.65 |

(4 Port)5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier]

| Ant. | Mod. | Channel | Frequency (MHz) | Measured Value (dBm) |
|------|--------|---------|-----------------|----------------------|
| 0 | QPSK | Low | 868.98 | -26.75 |
| | | High | 894.03 | -26.93 |
| | 16QAM | Low | 868.98 | -26.49 |
| | | High | 894.03 | -26.61 |
| | 64QAM | Low | 868.98 | -25.92 |
| | | High | 894.03 | -26.19 |
| | 256QAM | Low | 868.98 | -25.54 |
| | | High | 894.03 | -26.04 |
| 1 | QPSK | Low | 868.98 | -26.68 |
| | | High | 894.03 | -26.50 |
| | 16QAM | Low | 868.98 | -27.04 |
| | | High | 894.03 | -25.56 |
| | 64QAM | Low | 868.98 | -24.97 |
| | | High | 894.03 | -24.82 |
| | 256QAM | Low | 868.98 | -26.56 |
| | | High | 894.03 | -25.38 |
| 2 | QPSK | Low | 868.98 | -23.88 |
| | | High | 894.03 | -26.25 |
| | 16QAM | Low | 868.98 | -25.51 |
| | | High | 894.03 | -26.02 |
| | 64QAM | Low | 868.98 | -24.35 |
| | | High | 894.03 | -26.07 |
| | 256QAM | Low | 868.98 | -26.14 |
| | | High | 894.03 | -26.13 |
| 3 | QPSK | Low | 868.98 | -23.71 |
| | | High | 894.03 | -25.85 |
| | 16QAM | Low | 868.98 | -24.05 |
| | | High | 894.03 | -26.45 |
| | 64QAM | Low | 868.98 | -24.09 |
| | | High | 894.03 | -27.14 |
| | 256QAM | Low | 868.98 | -25.19 |
| | | High | 894.03 | -25.24 |