## NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz) - MIMO-Ant 1, Channel Bandwidth: 20 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|---|---|---|---|---|
| BPSK | 647334 | 3710.01 | 17.924 | 18.79 |
| BPSK | 656000 | 3840 | 17.925 | 18.80 |
| BPSK | 664666 | 3969.99 | 18.034 | 18.72 |
| QPSK | 647334 | 3710.01 | 18.166 | 19.10 |
| QPSK | 656000 | 3840 | 18.126 | 19.09 |
| QPSK | 664666 | 3969.99 | 18.169 | 19.16 |
| 16QAM | 647334 | 3710.01 | 18.193 | 19.16 |
| 16QAM | 656000 | 3840 | 18.158 | 19.15 |
| 16QAM | 664666 | 3969.99 | 18.161 | 19.14 |
| 64QAM | 647334 | 3710.01 | 18.137 | 19.10 |
| 64QAM | 656000 | 3840 | 18.148 | 19.13 |
| 64QAM | 664666 | 3969.99 | 18.174 | 19.18 |
| 256QAM | 647334 | 3710.01 | 18.132 | 19.25 |
| 256QAM | 656000 | 3840 | 18.209 | 19.28 |
| 256QAM | 664666 | 3969.99 | 18.192 | 19.21 |

| Spectrum Plot of Worst Value | |
|---|---|
| Occupied bandwidth | 26 dB Bandwidth |
| | |
| 256QAM CH 656000 (3840 MHz) | 256QAM CH 656000 (3840 MHz) |

## NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz) - MIMO-Ant 1, Channel Bandwidth: 25 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|---|---|---|---|---|
| BPSK | 647500 | 3712.5 | 22.946 | 23.96 |
| BPSK | 656000 | 3840 | 23.045 | 23.85 |
| BPSK | 664500 | 3967.5 | 23.042 | 23.89 |
| QPSK | 647500 | 3712.5 | 23.140 | 24.27 |
| QPSK | 656000 | 3840 | 23.126 | 24.36 |
| QPSK | 664500 | 3967.5 | 23.115 | 24.24 |
| 16QAM | 647500 | 3712.5 | 23.131 | 24.31 |
| 16QAM | 656000 | 3840 | 23.125 | 24.22 |
| 16QAM | 664500 | 3967.5 | 23.137 | 24.22 |
| 64QAM | 647500 | 3712.5 | 23.176 | 24.07 |
| 64QAM | 656000 | 3840 | 23.156 | 24.21 |
| 64QAM | 664500 | 3967.5 | 23.162 | 24.24 |
| 256QAM | 647500 | 3712.5 | 23.096 | 24.28 |
| 256QAM | 656000 | 3840 | 23.106 | 24.26 |
| 256QAM | 664500 | 3967.5 | 23.130 | 24.28 |

| Spectrum Plot of Worst Value | |
|---|---|
| Occupied bandwidth | 26 dB Bandwidth |
| | |
| 64QAM CH 647500 (3712.5 MHz) | QPSK CH 656000 (3840 MHz) |

## NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz) - MIMO-Ant 1, Channel Bandwidth: 30 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|---|---|---|---|---|
| BPSK | 647668 | 3715.02 | 27.625 | 28.19 |
| BPSK | 656000 | 3840 | 27.589 | 28.19 |
| BPSK | 664332 | 3964.98 | 27.613 | 28.15 |
| QPSK | 647668 | 3715.02 | 27.900 | 28.93 |
| QPSK | 656000 | 3840 | 27.846 | 29.13 |
| QPSK | 664332 | 3964.98 | 27.776 | 29.33 |
| 16QAM | 647668 | 3715.02 | 27.739 | 29.18 |
| 16QAM | 656000 | 3840 | 27.733 | 29.24 |
| 16QAM | 664332 | 3964.98 | 27.746 | 29.28 |
| 64QAM | 647668 | 3715.02 | 27.793 | 29.30 |
| 64QAM | 656000 | 3840 | 27.829 | 29.24 |
| 64QAM | 664332 | 3964.98 | 27.806 | 29.28 |
| 256QAM | 647668 | 3715.02 | 27.835 | 29.31 |
| 256QAM | 656000 | 3840 | 27.781 | 29.31 |
| 256QAM | 664332 | 3964.98 | 27.776 | 29.10 |

| Spectrum Plot of Worst Value | |
|---|---|
| Occupied bandwidth | 26 dB Bandwidth |
| | |
| QPSK CH 647668 (3715.02 MHz) | QPSK CH 664332 (3964.98 MHz) |

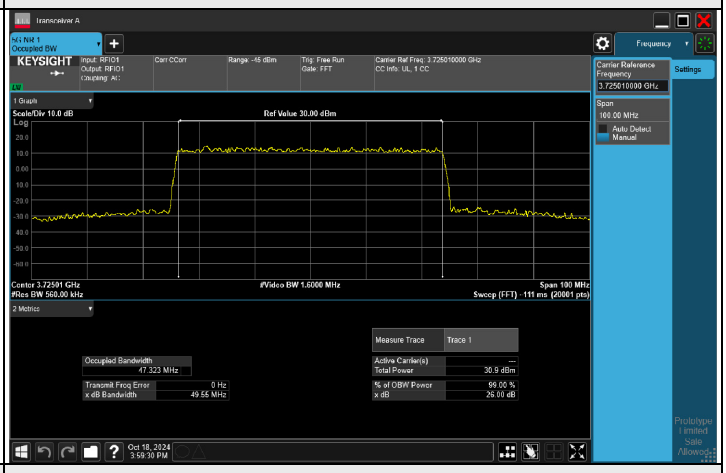
## NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz) - MIMO-Ant 1, Channel Bandwidth: 40 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|---|---|---|---|---|
| BPSK | 648000 | 3720 | 37.369 | 37.27 |
| BPSK | 656000 | 3840 | 37.377 | 37.36 |
| BPSK | 664000 | 3960 | 37.500 | 37.26 |
| QPSK | 648000 | 3720 | 37.656 | 39.53 |
| QPSK | 656000 | 3840 | 37.688 | 39.50 |
| QPSK | 664000 | 3960 | 37.675 | 39.50 |
| 16QAM | 648000 | 3720 | 37.713 | 39.25 |
| 16QAM | 656000 | 3840 | 37.712 | 39.29 |
| 16QAM | 664000 | 3960 | 37.697 | 39.26 |
| 64QAM | 648000 | 3720 | 37.722 | 39.33 |
| 64QAM | 656000 | 3840 | 37.713 | 39.38 |
| 64QAM | 664000 | 3960 | 37.691 | 39.59 |
| 256QAM | 648000 | 3720 | 37.729 | 39.52 |
| 256QAM | 656000 | 3840 | 37.756 | 39.42 |
| 256QAM | 664000 | 3960 | 37.752 | 39.42 |

| Spectrum Plot of Worst Value | |
|---|---|
| Occupied bandwidth | 26 dB Bandwidth |
| | |
| 256QAM CH 656000 (3840 MHz) | 64QAM CH 664000 (3960 MHz) |

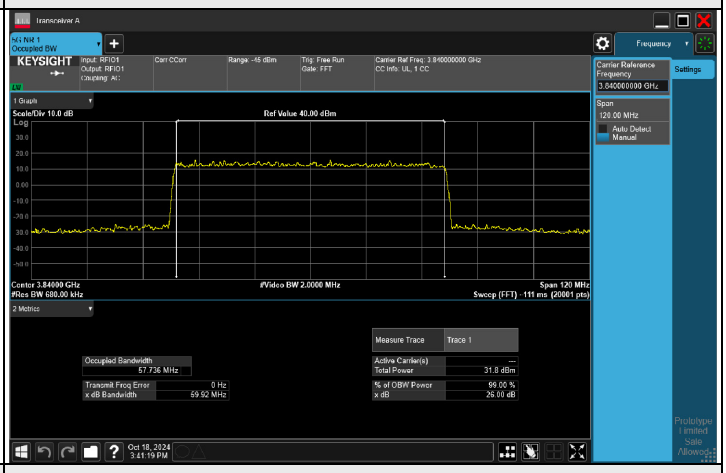
## NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz) - MIMO-Ant 1, Channel Bandwidth: 50 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|---|---|---|---|---|
| BPSK | 648334 | 3725.01 | 46.854 | 47.42 |
| BPSK | 656000 | 3840 | 46.981 | 47.61 |
| BPSK | 663666 | 3954.99 | 46.861 | 47.55 |
| QPSK | 648334 | 3725.01 | 47.301 | 49.28 |
| QPSK | 656000 | 3840 | 47.281 | 49.30 |
| QPSK | 663666 | 3954.99 | 47.240 | 49.38 |
| 16QAM | 648334 | 3725.01 | 47.251 | 49.51 |
| 16QAM | 656000 | 3840 | 47.381 | 49.47 |
| 16QAM | 663666 | 3954.99 | 47.443 | 49.44 |
| 64QAM | 648334 | 3725.01 | 47.323 | 49.55 |
| 64QAM | 656000 | 3840 | 47.313 | 49.52 |
| 64QAM | 663666 | 3954.99 | 47.224 | 49.10 |
| 256QAM | 648334 | 3725.01 | 47.344 | 49.37 |
| 256QAM | 656000 | 3840 | 47.313 | 49.32 |
| 256QAM | 663666 | 3954.99 | 47.353 | 49.36 |

| Spectrum Plot of Worst Value | |
|---|---|
| Occupied bandwidth | 26 dB Bandwidth |
| |  |
| 16QAM CH 663666 (3954.99 MHz) | 64QAM CH 648334 (3725.01 MHz) |

## NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz) - MIMO-Ant 1, Channel Bandwidth: 60 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|---|---|---|---|---|
| BPSK | 648668 | 3730.02 | 57.616 | 59.80 |
| BPSK | 656000 | 3840 | 57.509 | 59.83 |
| BPSK | 663332 | 3949.98 | 57.576 | 59.84 |
| QPSK | 648668 | 3730.02 | 57.519 | 59.70 |
| QPSK | 656000 | 3840 | 57.471 | 59.71 |
| QPSK | 663332 | 3949.98 | 57.531 | 59.78 |
| 16QAM | 648668 | 3730.02 | 57.675 | 59.80 |
| 16QAM | 656000 | 3840 | 57.736 | 59.92 |
| 16QAM | 663332 | 3949.98 | 57.723 | 59.80 |
| 64QAM | 648668 | 3730.02 | 57.434 | 59.70 |
| 64QAM | 656000 | 3840 | 57.473 | 59.88 |
| 64QAM | 663332 | 3949.98 | 57.568 | 59.82 |
| 256QAM | 648668 | 3730.02 | 57.603 | 59.62 |
| 256QAM | 656000 | 3840 | 57.617 | 59.77 |
| 256QAM | 663332 | 3949.98 | 57.577 | 59.68 |

| Spectrum Plot of Worst Value | |
|---|---|
| Occupied bandwidth | 26 dB Bandwidth |
| |  |
| 16QAM CH 656000 (3840 MHz) | 16QAM CH 656000 (3840 MHz) |

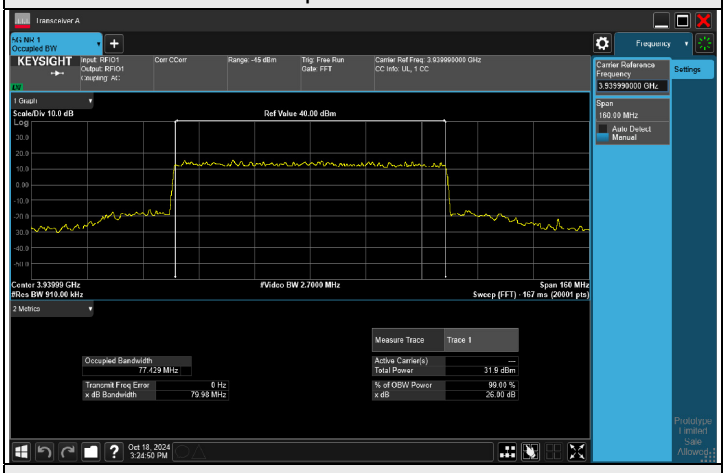
## NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz) - MIMO-Ant 1, Channel Bandwidth: 70 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|---|---|---|---|---|
| BPSK | 649000 | 3735 | 66.938 | 66.30 |
| BPSK | 656000 | 3840 | 66.963 | 66.44 |
| BPSK | 663000 | 3945 | 66.934 | 66.42 |
| QPSK | 649000 | 3735 | 67.131 | 69.62 |
| QPSK | 656000 | 3840 | 67.277 | 69.61 |
| QPSK | 663000 | 3945 | 67.162 | 69.79 |
| 16QAM | 649000 | 3735 | 67.065 | 69.66 |
| 16QAM | 656000 | 3840 | 67.078 | 69.52 |
| 16QAM | 663000 | 3945 | 67.216 | 69.64 |
| 64QAM | 649000 | 3735 | 67.305 | 69.68 |
| 64QAM | 656000 | 3840 | 67.276 | 69.69 |
| 64QAM | 663000 | 3945 | 67.328 | 69.63 |
| 256QAM | 649000 | 3735 | 67.258 | 69.79 |
| 256QAM | 656000 | 3840 | 67.289 | 69.58 |
| 256QAM | 663000 | 3945 | 67.301 | 69.57 |

| Spectrum Plot of Worst Value | |
|---|---|
| Occupied bandwidth | 26 dB Bandwidth |
| | |
| 64QAM CH 663000 (3945 MHz) | QPSK CH 663000 (3945 MHz) |

## NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz) - MIMO-Ant 1, Channel Bandwidth: 80 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|---|---|---|---|---|
| BPSK | 649334 | 3740.01 | 76.918 | 79.59 |
| BPSK | 656000 | 3840 | 76.918 | 79.69 |
| BPSK | 662666 | 3939.99 | 76.948 | 79.66 |
| QPSK | 649334 | 3740.01 | 77.238 | 79.96 |
| QPSK | 656000 | 3840 | 77.392 | 79.97 |
| QPSK | 662666 | 3939.99 | 77.429 | 79.98 |
| 16QAM | 649334 | 3740.01 | 77.222 | 79.93 |
| 16QAM | 656000 | 3840 | 77.299 | 79.85 |
| 16QAM | 662666 | 3939.99 | 77.347 | 79.87 |
| 64QAM | 649334 | 3740.01 | 77.063 | 80.02 |
| 64QAM | 656000 | 3840 | 77.011 | 80.11 |
| 64QAM | 662666 | 3939.99 | 77.044 | 80.01 |
| 256QAM | 649334 | 3740.01 | 77.236 | 79.99 |
| 256QAM | 656000 | 3840 | 77.222 | 80.08 |
| 256QAM | 662666 | 3939.99 | 77.139 | 79.86 |

| Spectrum Plot of Worst Value | |
|---|---|
| Occupied bandwidth | 26 dB Bandwidth |
|  | |
| QPSK CH 662666 (3939.99 MHz) | 64QAM CH 656000 (3840 MHz) |

## NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz) - MIMO-Ant 1, Channel Bandwidth: 90 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|---|---|---|---|---|
| BPSK | 649668 | 3745.02 | 86.333 | 89.41 |
| BPSK | 656000 | 3840 | 86.729 | 89.49 |
| BPSK | 662332 | 3934.98 | 86.726 | 89.57 |
| QPSK | 649668 | 3745.02 | 87.251 | 90.22 |
| QPSK | 656000 | 3840 | 87.305 | 90.22 |
| QPSK | 662332 | 3934.98 | 87.301 | 90.25 |
| 16QAM | 649668 | 3745.02 | 87.246 | 90.29 |
| 16QAM | 656000 | 3840 | 87.265 | 90.13 |
| 16QAM | 662332 | 3934.98 | 87.231 | 90.16 |
| 64QAM | 649668 | 3745.02 | 87.126 | 90.21 |
| 64QAM | 656000 | 3840 | 87.177 | 90.10 |
| 64QAM | 662332 | 3934.98 | 87.124 | 90.18 |
| 256QAM | 649668 | 3745.02 | 87.357 | 90.32 |
| 256QAM | 656000 | 3840 | 87.284 | 90.30 |
| 256QAM | 662332 | 3934.98 | 87.121 | 90.17 |

| Spectrum Plot of Worst Value | |
|---|---|
| Occupied bandwidth | 26 dB Bandwidth |
| | |
| 256QAM CH 649668 (3745.02 MHz) | 256QAM CH 649668 (3745.02 MHz) |

## NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz) - MIMO-Ant 1, Channel Bandwidth: 100 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|---|---|---|---|---|
| BPSK | 650000 | 3750 | 96.410 | 99.51 |
| BPSK | 656000 | 3840 | 96.667 | 99.51 |
| BPSK | 662000 | 3930 | 96.525 | 99.49 |
| QPSK | 650000 | 3750 | 97.209 | 100.4 |
| QPSK | 656000 | 3840 | 97.325 | 100.6 |
| QPSK | 662000 | 3930 | 97.182 | 100.4 |
| 16QAM | 650000 | 3750 | 97.105 | 100.5 |
| 16QAM | 656000 | 3840 | 97.269 | 100.5 |
| 16QAM | 662000 | 3930 | 97.205 | 100.6 |
| 64QAM | 650000 | 3750 | 97.189 | 100.4 |
| 64QAM | 656000 | 3840 | 97.161 | 100.3 |
| 64QAM | 662000 | 3930 | 97.168 | 100.5 |
| 256QAM | 650000 | 3750 | 97.069 | 100.5 |
| 256QAM | 656000 | 3840 | 97.083 | 100.5 |
| 256QAM | 662000 | 3930 | 97.122 | 100.6 |

| Spectrum Plot of Worst Value | |
|---|---|
| Occupied bandwidth | 26 dB Bandwidth |
| | |
| QPSK CH 656000 (3840 MHz) | QPSK CH 656000 (3840 MHz) |

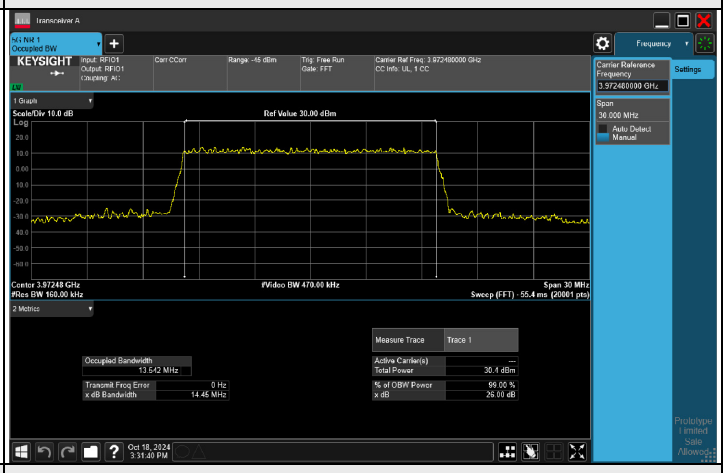
## NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz) - MIMO-Ant 4, Channel Bandwidth: 10 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|---|---|---|---|---|
| BPSK | 647000 | 3705 | 8.5387 | 9.157 |
| BPSK | 656000 | 3840 | 8.5689 | 9.223 |
| BPSK | 665000 | 3975 | 8.5605 | 9.227 |
| QPSK | 647000 | 3705 | 8.5422 | 9.225 |
| QPSK | 656000 | 3840 | 8.5785 | 9.370 |
| QPSK | 665000 | 3975 | 8.5448 | 9.268 |
| 16QAM | 647000 | 3705 | 8.5824 | 9.316 |
| 16QAM | 656000 | 3840 | 8.5729 | 9.273 |
| 16QAM | 665000 | 3975 | 8.5867 | 9.378 |
| 64QAM | 647000 | 3705 | 8.5763 | 9.269 |
| 64QAM | 656000 | 3840 | 8.5690 | 9.307 |
| 64QAM | 665000 | 3975 | 8.5788 | 9.228 |
| 256QAM | 647000 | 3705 | 8.5483 | 9.286 |
| 256QAM | 656000 | 3840 | 8.5349 | 9.172 |
| 256QAM | 665000 | 3975 | 8.5520 | 9.181 |

| Spectrum Plot of Worst Value | |
|---|---|
| Occupied bandwidth | 26 dB Bandwidth |
| | |
| 16QAM CH 665000 (3975 MHz) | 16QAM CH 665000 (3975 MHz) |

## NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz) - MIMO-Ant 4, Channel Bandwidth: 15 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|---|---|---|---|---|
| BPSK | 647168 | 3707.52 | 13.447 | 13.62 |
| BPSK | 656000 | 3840 | 13.465 | 13.56 |
| BPSK | 664832 | 3972.48 | 13.480 | 13.69 |
| QPSK | 647168 | 3707.52 | 13.513 | 14.35 |
| QPSK | 656000 | 3840 | 13.513 | 14.37 |
| QPSK | 664832 | 3972.48 | 13.533 | 14.40 |
| 16QAM | 647168 | 3707.52 | 13.548 | 14.41 |
| 16QAM | 656000 | 3840 | 13.534 | 14.44 |
| 16QAM | 664832 | 3972.48 | 13.542 | 14.45 |
| 64QAM | 647168 | 3707.52 | 13.540 | 14.41 |
| 64QAM | 656000 | 3840 | 13.530 | 14.30 |
| 64QAM | 664832 | 3972.48 | 13.516 | 14.38 |
| 256QAM | 647168 | 3707.52 | 13.587 | 14.39 |
| 256QAM | 656000 | 3840 | 13.551 | 14.42 |
| 256QAM | 664832 | 3972.48 | 13.564 | 14.33 |

| Spectrum Plot of Worst Value | |
|---|---|
| Occupied bandwidth | 26 dB Bandwidth |
| |  |
| 256QAM CH 647168 (3707.52 MHz) | 16QAM CH 664832 (3972.48 MHz) |

## NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz) - MIMO-Ant 4, Channel Bandwidth: 20 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|---|---|---|---|---|
| BPSK | 647334 | 3710.01 | 17.924 | 18.79 |
| BPSK | 656000 | 3840 | 17.925 | 18.80 |
| BPSK | 664666 | 3969.99 | 18.034 | 18.72 |
| QPSK | 647334 | 3710.01 | 18.166 | 19.10 |
| QPSK | 656000 | 3840 | 18.126 | 19.09 |
| QPSK | 664666 | 3969.99 | 18.169 | 19.16 |
| 16QAM | 647334 | 3710.01 | 18.193 | 19.16 |
| 16QAM | 656000 | 3840 | 18.158 | 19.15 |
| 16QAM | 664666 | 3969.99 | 18.161 | 19.14 |
| 64QAM | 647334 | 3710.01 | 18.137 | 19.10 |
| 64QAM | 656000 | 3840 | 18.148 | 19.13 |
| 64QAM | 664666 | 3969.99 | 18.174 | 19.18 |
| 256QAM | 647334 | 3710.01 | 18.132 | 19.25 |
| 256QAM | 656000 | 3840 | 18.209 | 19.28 |
| 256QAM | 664666 | 3969.99 | 18.192 | 19.21 |

| Spectrum Plot of Worst Value | |
|---|---|
| Occupied bandwidth | 26 dB Bandwidth |
| | |
| 256QAM CH 656000 (3840 MHz) | 256QAM CH 656000 (3840 MHz) |

## NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz) - MIMO-Ant 4, Channel Bandwidth: 25 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|---|---|---|---|---|
| BPSK | 647500 | 3712.5 | 22.946 | 23.96 |
| BPSK | 656000 | 3840 | 23.045 | 23.85 |
| BPSK | 664500 | 3967.5 | 23.042 | 23.89 |
| QPSK | 647500 | 3712.5 | 23.140 | 24.27 |
| QPSK | 656000 | 3840 | 23.126 | 24.36 |
| QPSK | 664500 | 3967.5 | 23.115 | 24.24 |
| 16QAM | 647500 | 3712.5 | 23.131 | 24.31 |
| 16QAM | 656000 | 3840 | 23.125 | 24.22 |
| 16QAM | 664500 | 3967.5 | 23.137 | 24.22 |
| 64QAM | 647500 | 3712.5 | 23.176 | 24.07 |
| 64QAM | 656000 | 3840 | 23.156 | 24.21 |
| 64QAM | 664500 | 3967.5 | 23.162 | 24.24 |
| 256QAM | 647500 | 3712.5 | 23.096 | 24.28 |
| 256QAM | 656000 | 3840 | 23.106 | 24.26 |
| 256QAM | 664500 | 3967.5 | 23.130 | 24.28 |

| Spectrum Plot of Worst Value | |
|---|---|
| Occupied bandwidth | 26 dB Bandwidth |
| | |
| 64QAM CH 647500 (3712.5 MHz) | QPSK CH 656000 (3840 MHz) |

## NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz) - MIMO-Ant 4, Channel Bandwidth: 30 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|---|---|---|---|---|
| BPSK | 647668 | 3715.02 | 27.625 | 28.19 |
| BPSK | 656000 | 3840 | 27.589 | 28.19 |
| BPSK | 664332 | 3964.98 | 27.613 | 28.15 |
| QPSK | 647668 | 3715.02 | 27.900 | 28.93 |
| QPSK | 656000 | 3840 | 27.846 | 29.13 |
| QPSK | 664332 | 3964.98 | 27.776 | 29.33 |
| 16QAM | 647668 | 3715.02 | 27.739 | 29.18 |
| 16QAM | 656000 | 3840 | 27.733 | 29.24 |
| 16QAM | 664332 | 3964.98 | 27.746 | 29.28 |
| 64QAM | 647668 | 3715.02 | 27.793 | 29.30 |
| 64QAM | 656000 | 3840 | 27.829 | 29.24 |
| 64QAM | 664332 | 3964.98 | 27.806 | 29.28 |
| 256QAM | 647668 | 3715.02 | 27.835 | 29.31 |
| 256QAM | 656000 | 3840 | 27.781 | 29.31 |
| 256QAM | 664332 | 3964.98 | 27.776 | 29.10 |

| Spectrum Plot of Worst Value | |
|---|---|
| Occupied bandwidth | 26 dB Bandwidth |
| | |
| QPSK CH 647668 (3715.02 MHz) | QPSK CH 664332 (3964.98 MHz) |

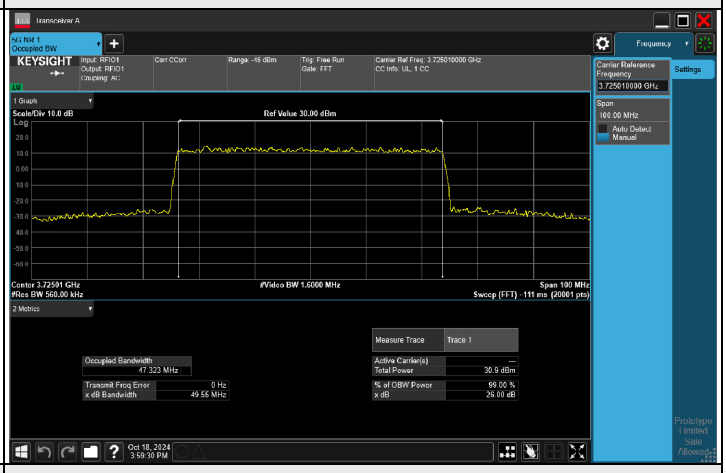
## NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz) - MIMO-Ant 4, Channel Bandwidth: 40 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|---|---|---|---|---|
| BPSK | 648000 | 3720 | 37.369 | 37.27 |
| BPSK | 656000 | 3840 | 37.377 | 37.36 |
| BPSK | 664000 | 3960 | 37.500 | 37.26 |
| QPSK | 648000 | 3720 | 37.656 | 39.53 |
| QPSK | 656000 | 3840 | 37.688 | 39.50 |
| QPSK | 664000 | 3960 | 37.675 | 39.50 |
| 16QAM | 648000 | 3720 | 37.713 | 39.25 |
| 16QAM | 656000 | 3840 | 37.712 | 39.29 |
| 16QAM | 664000 | 3960 | 37.697 | 39.26 |
| 64QAM | 648000 | 3720 | 37.722 | 39.33 |
| 64QAM | 656000 | 3840 | 37.713 | 39.38 |
| 64QAM | 664000 | 3960 | 37.691 | 39.59 |
| 256QAM | 648000 | 3720 | 37.729 | 39.52 |
| 256QAM | 656000 | 3840 | 37.756 | 39.42 |
| 256QAM | 664000 | 3960 | 37.752 | 39.42 |

| Spectrum Plot of Worst Value | |
|---|---|
| Occupied bandwidth | 26 dB Bandwidth |
| | |
| 256QAM CH 656000 (3840 MHz) | 64QAM CH 664000 (3960 MHz) |

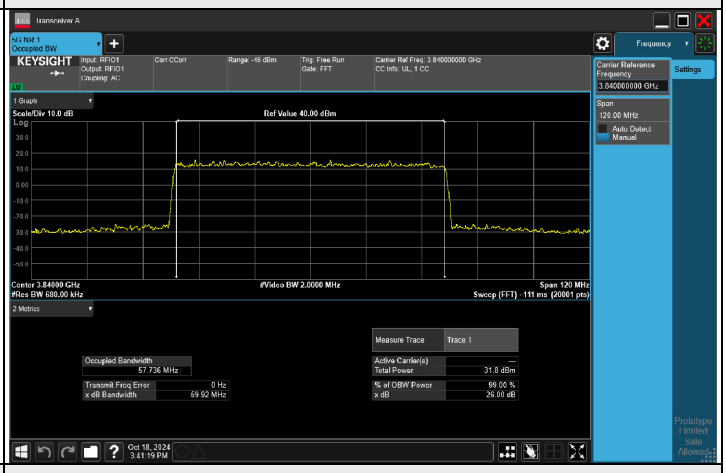
## NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz) - MIMO-Ant 4, Channel Bandwidth: 50 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|---|---|---|---|---|
| BPSK | 648334 | 3725.01 | 46.854 | 47.42 |
| BPSK | 656000 | 3840 | 46.981 | 47.61 |
| BPSK | 663666 | 3954.99 | 46.861 | 47.55 |
| QPSK | 648334 | 3725.01 | 47.301 | 49.28 |
| QPSK | 656000 | 3840 | 47.281 | 49.30 |
| QPSK | 663666 | 3954.99 | 47.240 | 49.38 |
| 16QAM | 648334 | 3725.01 | 47.251 | 49.51 |
| 16QAM | 656000 | 3840 | 47.381 | 49.47 |
| 16QAM | 663666 | 3954.99 | 47.443 | 49.44 |
| 64QAM | 648334 | 3725.01 | 47.323 | 49.55 |
| 64QAM | 656000 | 3840 | 47.313 | 49.52 |
| 64QAM | 663666 | 3954.99 | 47.224 | 49.10 |
| 256QAM | 648334 | 3725.01 | 47.344 | 49.37 |
| 256QAM | 656000 | 3840 | 47.313 | 49.32 |
| 256QAM | 663666 | 3954.99 | 47.353 | 49.36 |

| Spectrum Plot of Worst Value | |
|---|---|
| Occupied bandwidth | 26 dB Bandwidth |
| |  |
| 16QAM CH 663666 (3954.99 MHz) | 64QAM CH 648334 (3725.01 MHz) |

## NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz) - MIMO-Ant 4, Channel Bandwidth: 60 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|---|---|---|---|---|
| BPSK | 648668 | 3730.02 | 57.616 | 59.80 |
| BPSK | 656000 | 3840 | 57.509 | 59.83 |
| BPSK | 663332 | 3949.98 | 57.576 | 59.84 |
| QPSK | 648668 | 3730.02 | 57.519 | 59.70 |
| QPSK | 656000 | 3840 | 57.471 | 59.71 |
| QPSK | 663332 | 3949.98 | 57.531 | 59.78 |
| 16QAM | 648668 | 3730.02 | 57.675 | 59.80 |
| 16QAM | 656000 | 3840 | 57.736 | 59.92 |
| 16QAM | 663332 | 3949.98 | 57.723 | 59.80 |
| 64QAM | 648668 | 3730.02 | 57.434 | 59.70 |
| 64QAM | 656000 | 3840 | 57.473 | 59.88 |
| 64QAM | 663332 | 3949.98 | 57.568 | 59.82 |
| 256QAM | 648668 | 3730.02 | 57.603 | 59.62 |
| 256QAM | 656000 | 3840 | 57.617 | 59.77 |
| 256QAM | 663332 | 3949.98 | 57.577 | 59.68 |

| Spectrum Plot of Worst Value | |
|---|---|
| Occupied bandwidth | 26 dB Bandwidth |
| |  |
| 16QAM CH 656000 (3840 MHz) | 16QAM CH 656000 (3840 MHz) |

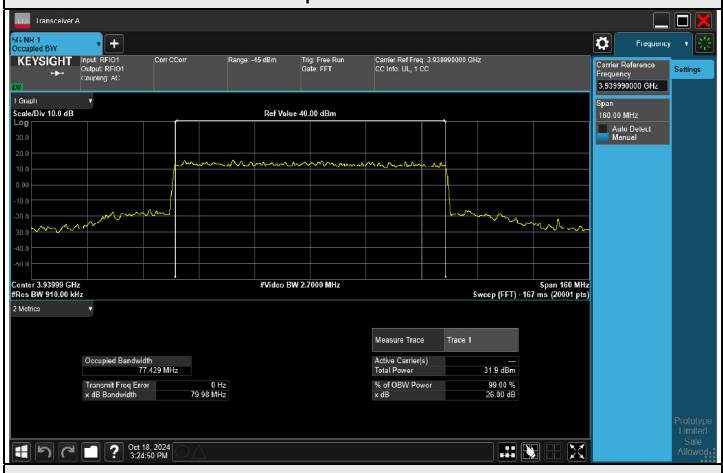
## NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz) - MIMO-Ant 4, Channel Bandwidth: 70 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|---|---|---|---|---|
| BPSK | 649000 | 3735 | 66.938 | 66.30 |
| BPSK | 656000 | 3840 | 66.963 | 66.44 |
| BPSK | 663000 | 3945 | 66.934 | 66.42 |
| QPSK | 649000 | 3735 | 67.131 | 69.62 |
| QPSK | 656000 | 3840 | 67.277 | 69.61 |
| QPSK | 663000 | 3945 | 67.162 | 69.79 |
| 16QAM | 649000 | 3735 | 67.065 | 69.66 |
| 16QAM | 656000 | 3840 | 67.078 | 69.52 |
| 16QAM | 663000 | 3945 | 67.216 | 69.64 |
| 64QAM | 649000 | 3735 | 67.305 | 69.68 |
| 64QAM | 656000 | 3840 | 67.276 | 69.69 |
| 64QAM | 663000 | 3945 | 67.328 | 69.63 |
| 256QAM | 649000 | 3735 | 67.258 | 69.79 |
| 256QAM | 656000 | 3840 | 67.289 | 69.58 |
| 256QAM | 663000 | 3945 | 67.301 | 69.57 |

| Spectrum Plot of Worst Value | |
|---|---|
| Occupied bandwidth | 26 dB Bandwidth |
| | |
| 64QAM CH 663000 (3945 MHz) | QPSK CH 663000 (3945 MHz) |

## NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz) - MIMO-Ant 4, Channel Bandwidth: 80 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|---|---|---|---|---|
| BPSK | 649334 | 3740.01 | 76.918 | 79.59 |
| BPSK | 656000 | 3840 | 76.918 | 79.69 |
| BPSK | 662666 | 3939.99 | 76.948 | 79.66 |
| QPSK | 649334 | 3740.01 | 77.238 | 79.96 |
| QPSK | 656000 | 3840 | 77.392 | 79.97 |
| QPSK | 662666 | 3939.99 | 77.429 | 79.98 |
| 16QAM | 649334 | 3740.01 | 77.222 | 79.93 |
| 16QAM | 656000 | 3840 | 77.299 | 79.85 |
| 16QAM | 662666 | 3939.99 | 77.347 | 79.87 |
| 64QAM | 649334 | 3740.01 | 77.063 | 80.02 |
| 64QAM | 656000 | 3840 | 77.011 | 80.11 |
| 64QAM | 662666 | 3939.99 | 77.044 | 80.01 |
| 256QAM | 649334 | 3740.01 | 77.236 | 79.99 |
| 256QAM | 656000 | 3840 | 77.222 | 80.08 |
| 256QAM | 662666 | 3939.99 | 77.139 | 79.86 |

| Spectrum Plot of Worst Value | |
|---|---|
| Occupied bandwidth | 26 dB Bandwidth |
|  | |
| QPSK CH 662666 (3939.99 MHz) | 64QAM CH 656000 (3840 MHz) |

## NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz) - MIMO-Ant 4, Channel Bandwidth: 90 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|---|---|---|---|---|
| BPSK | 649668 | 3745.02 | 86.333 | 89.41 |
| BPSK | 656000 | 3840 | 86.729 | 89.49 |
| BPSK | 662332 | 3934.98 | 86.726 | 89.57 |
| QPSK | 649668 | 3745.02 | 87.251 | 90.22 |
| QPSK | 656000 | 3840 | 87.305 | 90.22 |
| QPSK | 662332 | 3934.98 | 87.301 | 90.25 |
| 16QAM | 649668 | 3745.02 | 87.246 | 90.29 |
| 16QAM | 656000 | 3840 | 87.265 | 90.13 |
| 16QAM | 662332 | 3934.98 | 87.231 | 90.16 |
| 64QAM | 649668 | 3745.02 | 87.126 | 90.21 |
| 64QAM | 656000 | 3840 | 87.177 | 90.10 |
| 64QAM | 662332 | 3934.98 | 87.124 | 90.18 |
| 256QAM | 649668 | 3745.02 | 87.357 | 90.32 |
| 256QAM | 656000 | 3840 | 87.284 | 90.30 |
| 256QAM | 662332 | 3934.98 | 87.121 | 90.17 |

| Spectrum Plot of Worst Value | |
|---|---|
| Occupied bandwidth | 26 dB Bandwidth |
| | |
| 256QAM CH 649668 (3745.02 MHz) | 256QAM CH 649668 (3745.02 MHz) |

## NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz) - MIMO-Ant 4, Channel Bandwidth: 100 MHz

| Modulation | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|---|---|---|---|---|
| BPSK | 650000 | 3750 | 96.410 | 99.51 |
| BPSK | 656000 | 3840 | 96.667 | 99.51 |
| BPSK | 662000 | 3930 | 96.525 | 99.49 |
| QPSK | 650000 | 3750 | 97.209 | 100.4 |
| QPSK | 656000 | 3840 | 97.325 | 100.6 |
| QPSK | 662000 | 3930 | 97.182 | 100.4 |
| 16QAM | 650000 | 3750 | 97.105 | 100.5 |
| 16QAM | 656000 | 3840 | 97.269 | 100.5 |
| 16QAM | 662000 | 3930 | 97.205 | 100.6 |
| 64QAM | 650000 | 3750 | 97.189 | 100.4 |
| 64QAM | 656000 | 3840 | 97.161 | 100.3 |
| 64QAM | 662000 | 3930 | 97.168 | 100.5 |
| 256QAM | 650000 | 3750 | 97.069 | 100.5 |
| 256QAM | 656000 | 3840 | 97.083 | 100.5 |
| 256QAM | 662000 | 3930 | 97.122 | 100.6 |

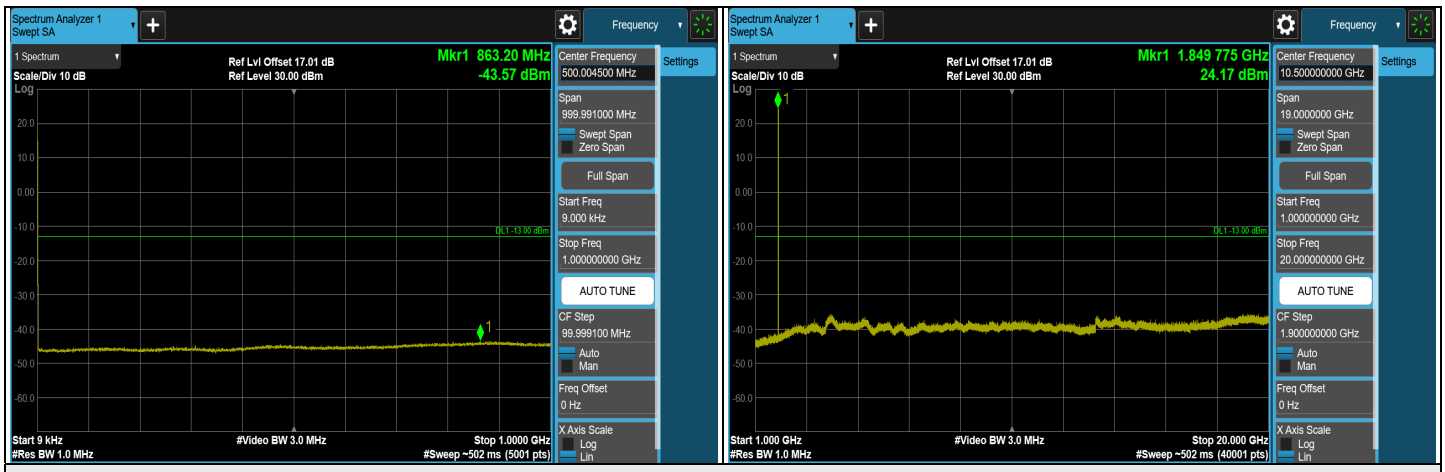
| Spectrum Plot of Worst Value | |
|---|---|
| Occupied bandwidth | 26 dB Bandwidth |
| | |
| QPSK CH 656000 (3840 MHz) | QPSK CH 656000 (3840 MHz) |

## 7.5 Conducted Spurious Emissions

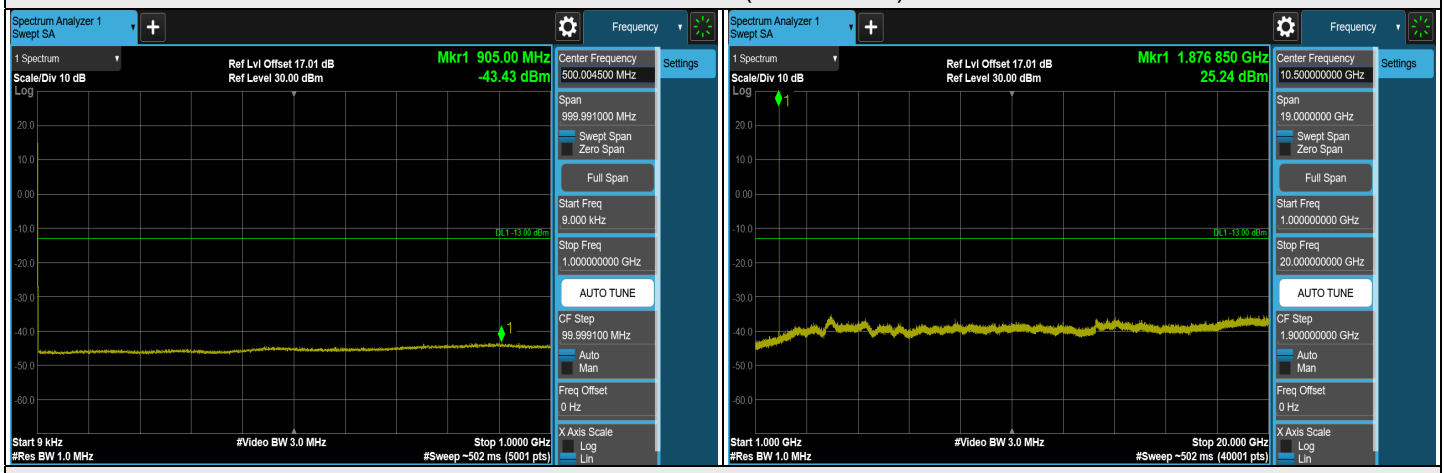
| Input Power: | 7.2 Vdc | Environmental Conditions: | 22°C, 73% RH | Tested By: | James Yang |
|---|---|---|---|---|---|

### 7.5.1 NR n2 SCS 15 kHz

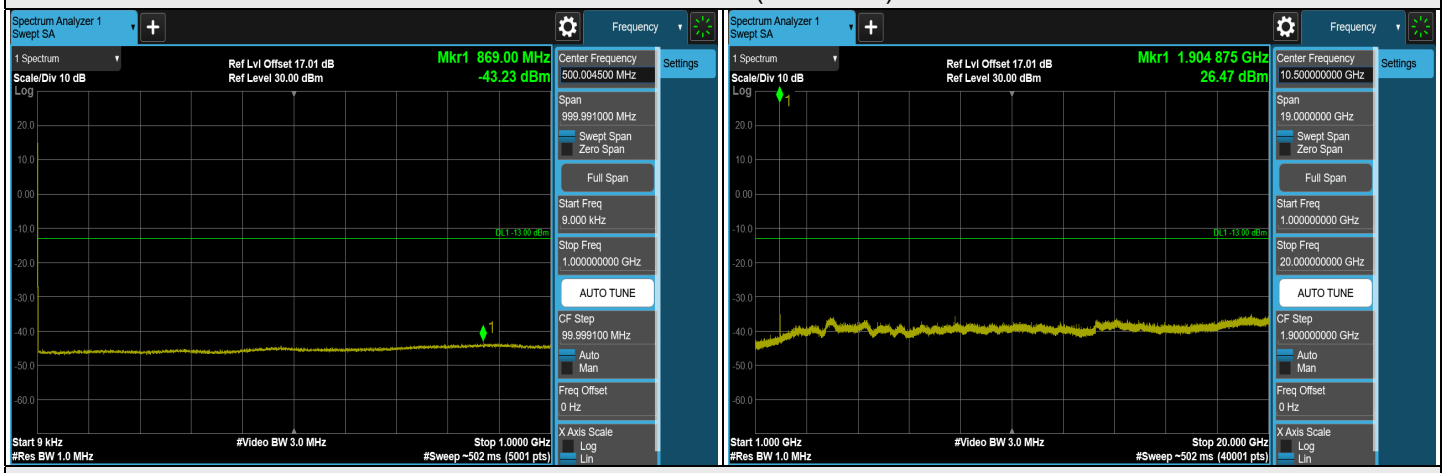
**NR n2 SCS 15 kHz - MIMO-Ant 1, Channel Bandwidth: 5 MHz**




Channel 370500 (1852.5 MHz)




Channel 376000 (1880 MHz)




Channel 381500 (1907.5 MHz)

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