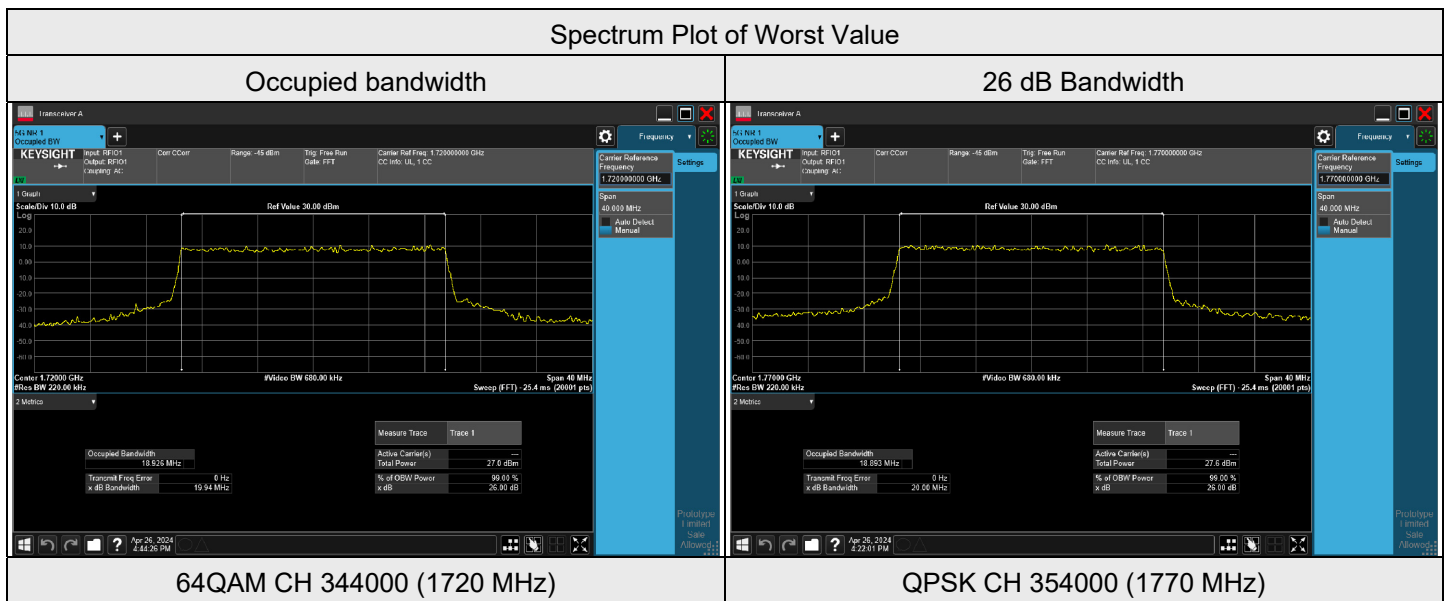


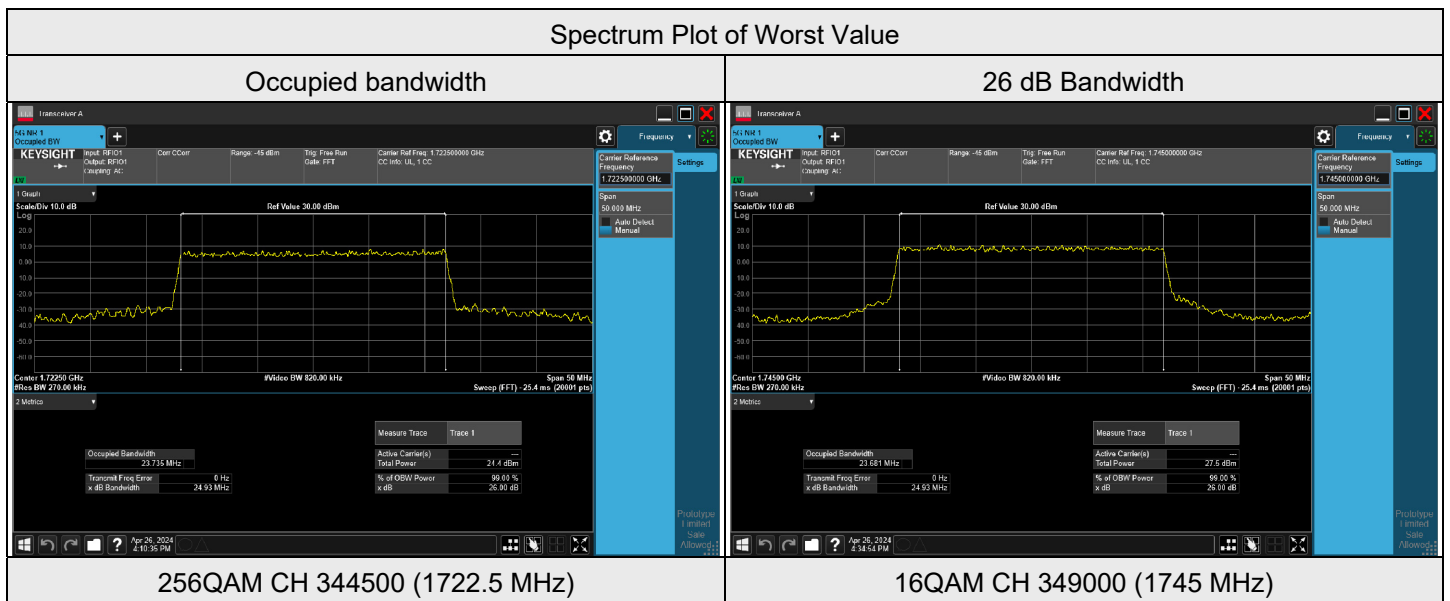
NR n66 SCS 15 kHz, Channel Bandwidth: 20 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	344000	1720	18.793	18.71
BPSK	349000	1745	18.689	18.78
BPSK	354000	1770	18.729	18.76
QPSK	344000	1720	18.884	19.86
QPSK	349000	1745	18.885	19.85
QPSK	354000	1770	18.893	20.00
16QAM	344000	1720	18.845	19.85
16QAM	349000	1745	18.870	19.94
16QAM	354000	1770	18.921	19.94
64QAM	344000	1720	18.926	19.94
64QAM	349000	1745	18.886	19.93
64QAM	354000	1770	18.876	19.95
256QAM	344000	1720	18.866	19.94
256QAM	349000	1745	18.904	19.98
256QAM	354000	1770	18.901	19.78



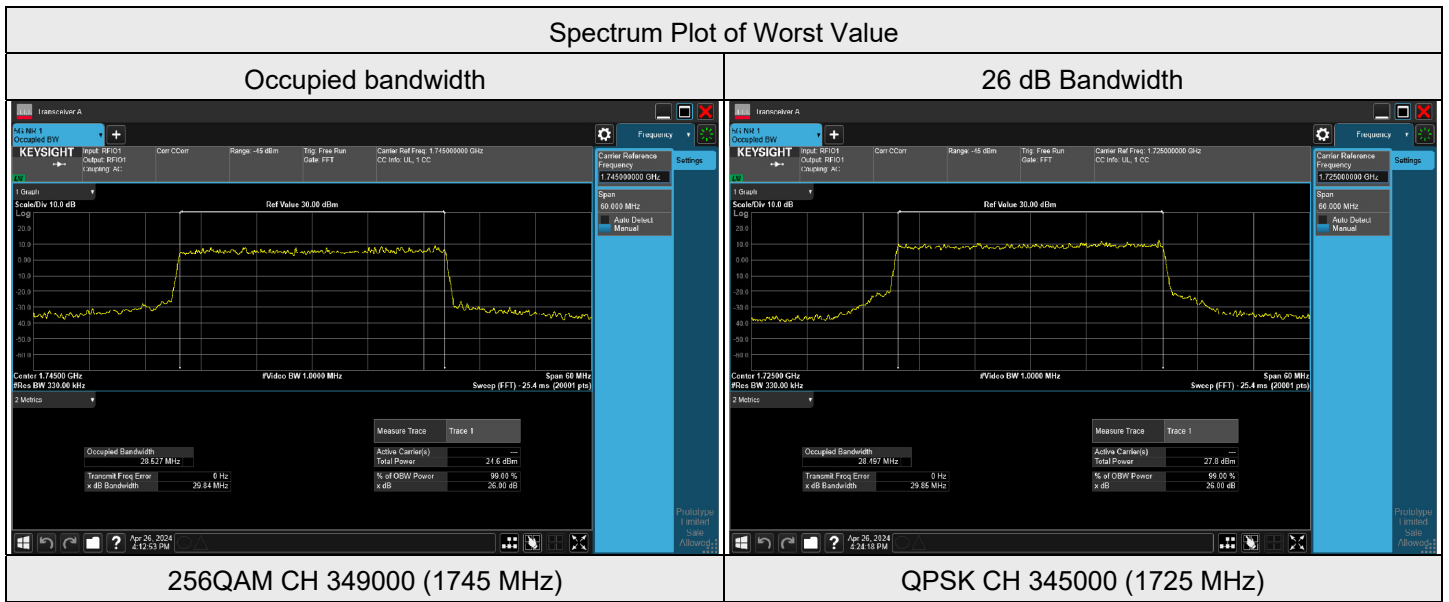
**NR n66 SCS 15 kHz, Channel Bandwidth: 25 MHz**

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	344500	1722.5	23.341	23.98
BPSK	349000	1745	23.441	23.92
BPSK	353500	1767.5	23.590	23.97
QPSK	344500	1722.5	23.716	24.83
QPSK	349000	1745	23.715	24.89
QPSK	353500	1767.5	23.687	24.86
16QAM	344500	1722.5	23.721	24.89
16QAM	349000	1745	23.681	24.93
16QAM	353500	1767.5	23.702	24.82
64QAM	344500	1722.5	23.667	24.75
64QAM	349000	1745	23.717	24.85
64QAM	353500	1767.5	23.602	24.76
256QAM	344500	1722.5	23.735	24.93
256QAM	349000	1745	23.701	24.81
256QAM	353500	1767.5	23.705	24.91



**NR n66 SCS 15 kHz, Channel Bandwidth: 30 MHz**

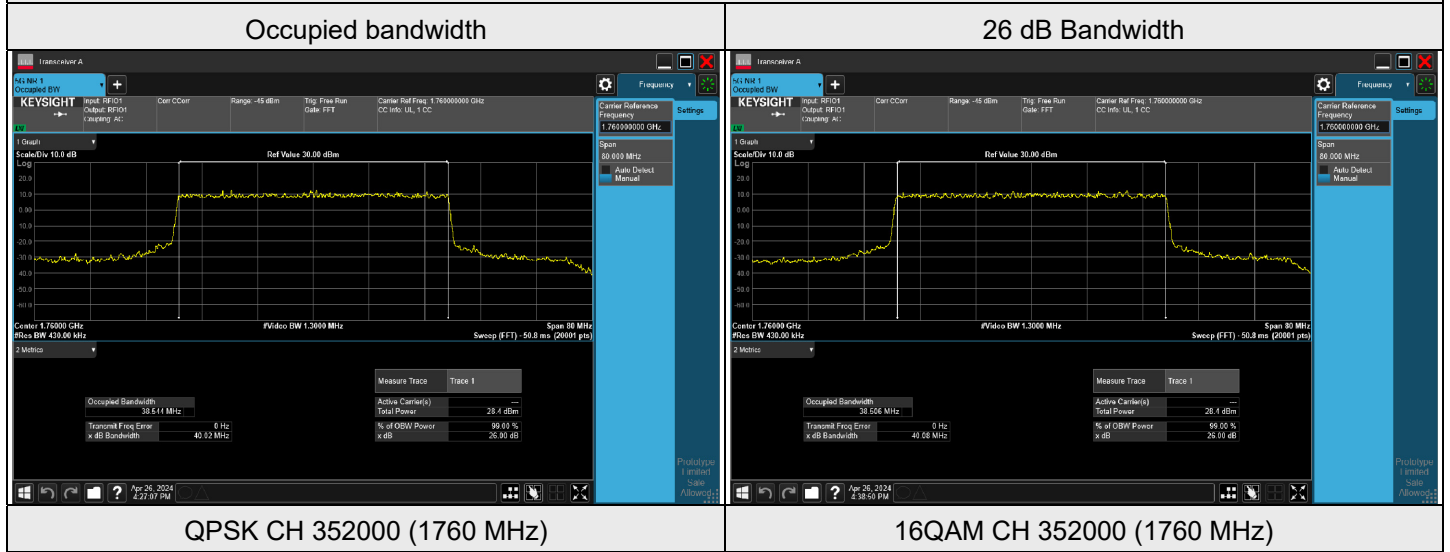
Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	345000	1725	28.491	29.70
BPSK	349000	1745	28.460	29.80
BPSK	353000	1765	28.422	29.77
QPSK	345000	1725	28.497	29.85
QPSK	349000	1745	28.418	29.82
QPSK	353000	1765	28.513	29.78
16QAM	345000	1725	28.490	29.82
16QAM	349000	1745	28.503	29.70
16QAM	353000	1765	28.512	29.77
64QAM	345000	1725	28.512	29.79
64QAM	349000	1745	28.518	29.76
64QAM	353000	1765	28.485	29.83
256QAM	345000	1725	28.495	29.83
256QAM	349000	1745	28.527	29.84
256QAM	353000	1765	28.489	29.77



**NR n66 SCS 15 kHz, Channel Bandwidth: 40 MHz**

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	346000	1730	38.457	40.03
BPSK	349000	1745	38.497	40.00
BPSK	352000	1760	38.441	40.03
QPSK	346000	1730	38.505	39.96
QPSK	349000	1745	38.530	40.06
QPSK	352000	1760	38.544	40.02
16QAM	346000	1730	38.411	39.91
16QAM	349000	1745	38.524	40.02
16QAM	352000	1760	38.506	40.08
64QAM	346000	1730	38.473	40.04
64QAM	349000	1745	38.528	40.05
64QAM	352000	1760	38.418	40.05
256QAM	346000	1730	38.444	40.08
256QAM	349000	1745	38.521	39.94
256QAM	352000	1760	38.491	40.03

**Spectrum Plot of Worst Value**

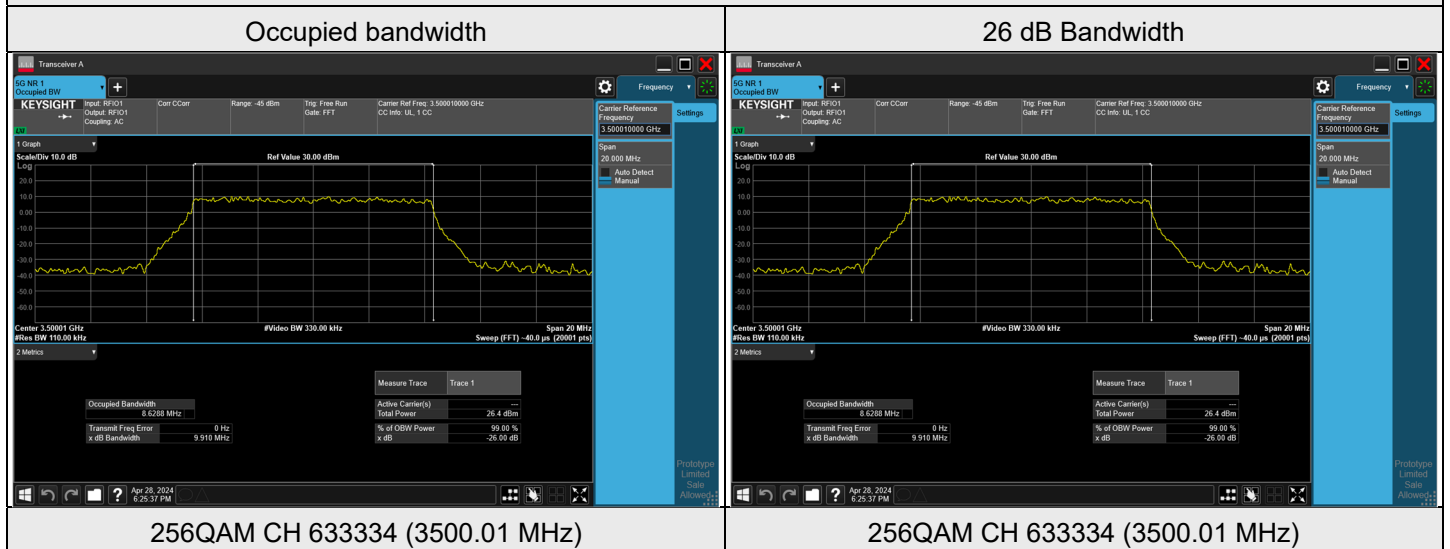


7.4.7 NR n77 SCS 30 kHz (3.45 GHz ~ 3.55 GHz) – MIMO (Chain 0)

NR n77 SCS 30 kHz (3.45 GHz ~ 3.55 GHz) Chain 0, Channel Bandwidth: 10 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	630334	3455.01	8.5745	9.693
QPSK	633334	3500.01	8.5741	9.668
QPSK	636332	3544.98	8.6002	9.613
16QAM	630334	3455.01	8.5923	9.542
16QAM	633334	3500.01	8.5641	9.569
16QAM	636332	3544.98	8.5741	9.543
64QAM	630334	3455.01	8.6227	9.906
64QAM	633334	3500.01	8.5728	9.817
64QAM	636332	3544.98	8.5907	9.770
256QAM	630334	3455.01	8.6141	9.882
256QAM	633334	3500.01	8.6288	9.910
256QAM	636332	3544.98	8.5888	9.655

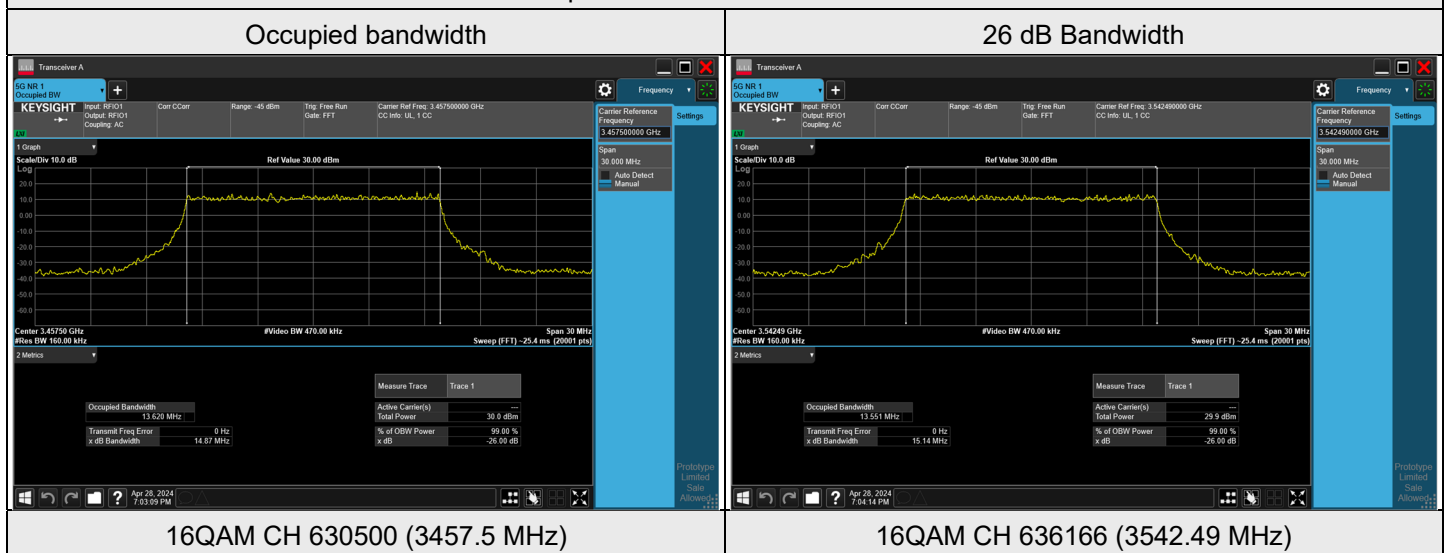
Spectrum Plot of Worst Value



**NR n77 SCS 30 kHz (3.45 GHz ~ 3.55 GHz) Chain 0, Channel Bandwidth: 15 MHz**

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	630500	3457.5	13.558	14.71
QPSK	633334	3500.01	13.582	14.81
QPSK	636166	3542.49	13.549	14.80
16QAM	630500	3457.5	13.620	14.87
16QAM	633334	3500.01	13.585	14.97
16QAM	636166	3542.49	13.551	15.14
64QAM	630500	3457.5	13.566	14.84
64QAM	633334	3500.01	13.576	14.90
64QAM	636166	3542.49	13.582	14.99
256QAM	630500	3457.5	13.585	15.03
256QAM	633334	3500.01	13.570	14.91
256QAM	636166	3542.49	13.579	14.91

**Spectrum Plot of Worst Value**

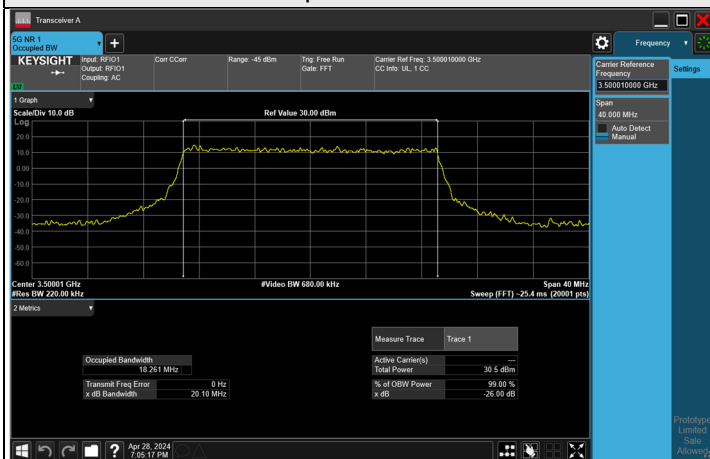


**NR n77 SCS 30 kHz (3.45 GHz ~ 3.55 GHz) Chain 0, Channel Bandwidth: 20 MHz**

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	630668	3460.02	18.181	19.67
QPSK	633334	3500.01	18.166	19.60
QPSK	636000	3540	18.185	19.74
16QAM	630668	3460.02	18.181	19.79
16QAM	633334	3500.01	18.261	20.10
16QAM	636000	3540	18.222	19.73
64QAM	630668	3460.02	18.196	19.59
64QAM	633334	3500.01	18.184	19.48
64QAM	636000	3540	18.181	19.79
256QAM	630668	3460.02	18.242	20.01
256QAM	633334	3500.01	18.189	19.63
256QAM	636000	3540	18.184	19.75

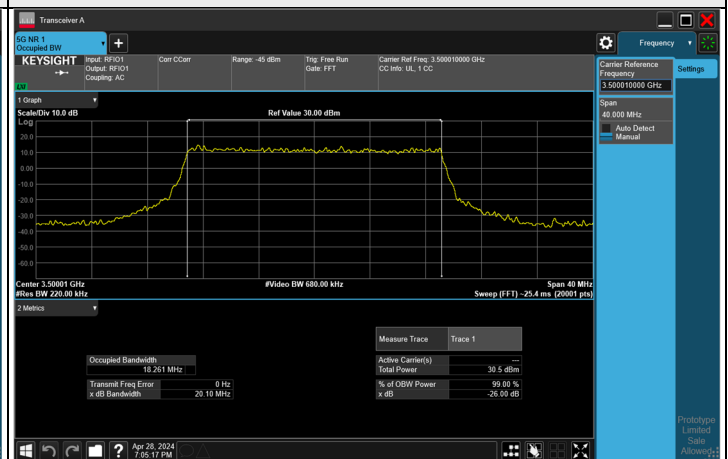
**Spectrum Plot of Worst Value**

**Occupied bandwidth**



**16QAM CH 633334 (3500.01 MHz)**

**26 dB Bandwidth**



**16QAM CH 633334 (3500.01 MHz)**

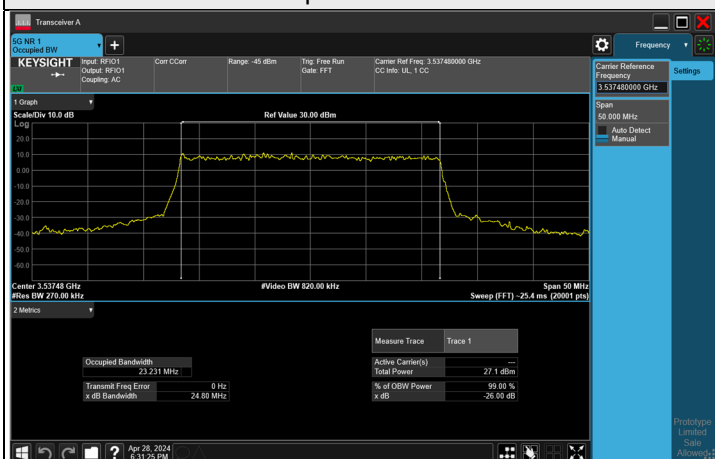


NR n77 SCS 30 kHz (3.45 GHz ~ 3.55 GHz) Chain 0, Channel Bandwidth: 25 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	630834	3462.51	23.186	24.88
QPSK	633334	3500.01	23.222	25.17
QPSK	635832	3537.48	23.127	24.78
16QAM	630834	3462.51	23.176	24.96
16QAM	633334	3500.01	23.172	24.89
16QAM	635832	3537.48	23.230	24.90
64QAM	630834	3462.51	23.141	24.81
64QAM	633334	3500.01	23.182	24.77
64QAM	635832	3537.48	23.207	24.60
256QAM	630834	3462.51	23.180	24.83
256QAM	633334	3500.01	23.186	24.63
256QAM	635832	3537.48	23.231	24.80

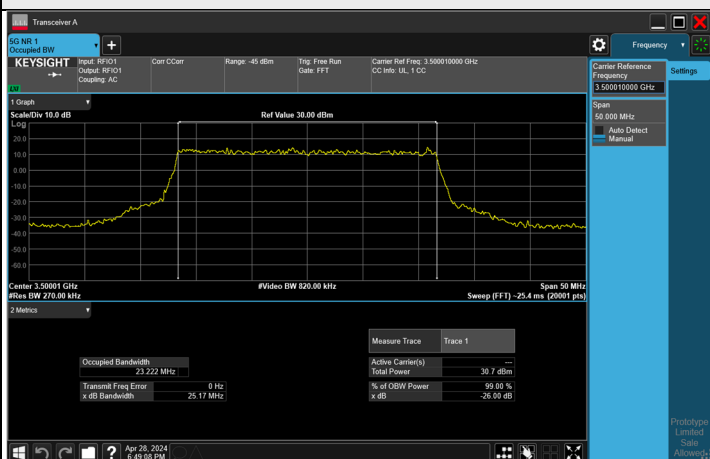
Spectrum Plot of Worst Value

Occupied bandwidth



256QAM CH 635832 (3537.48 MHz)

26 dB Bandwidth



QPSK CH 633334 (3500.01 MHz)



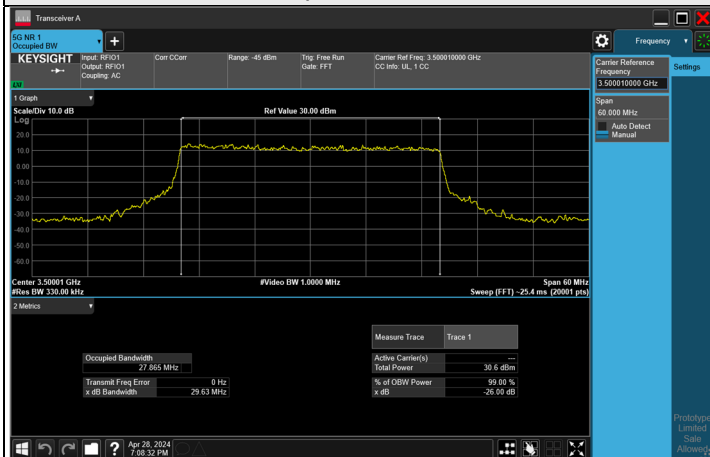


NR n77 SCS 30 kHz (3.45 GHz ~ 3.55 GHz) Chain 0, Channel Bandwidth: 30 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	631000	3465	27.805	29.45
QPSK	633334	3500.01	27.834	29.62
QPSK	635666	3534.99	27.765	29.43
16QAM	631000	3465	27.806	29.70
16QAM	633334	3500.01	27.865	29.63
16QAM	635666	3534.99	27.843	29.63
64QAM	631000	3465	27.822	29.58
64QAM	633334	3500.01	27.813	29.71
64QAM	635666	3534.99	27.787	29.73
256QAM	631000	3465	27.799	29.58
256QAM	633334	3500.01	27.853	29.77
256QAM	635666	3534.99	27.763	29.29

Spectrum Plot of Worst Value

Occupied bandwidth



16QAM CH 633334 (3500.01 MHz)

26 dB Bandwidth



256QAM CH 633334 (3500.01 MHz)

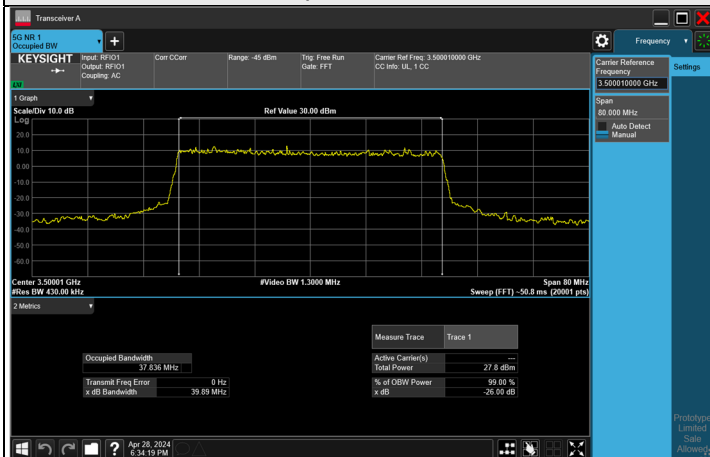


NR n77 SCS 30 kHz (3.45 GHz ~ 3.55 GHz) Chain 0, Channel Bandwidth: 40 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	631334	3470.01	37.753	39.90
QPSK	633334	3500.01	37.811	39.79
QPSK	635332	3529.98	37.809	39.93
16QAM	631334	3470.01	37.739	39.65
16QAM	633334	3500.01	37.745	39.74
16QAM	635332	3529.98	37.732	39.83
64QAM	631334	3470.01	37.771	39.89
64QAM	633334	3500.01	37.770	39.80
64QAM	635332	3529.98	37.730	39.88
256QAM	631334	3470.01	37.747	39.78
256QAM	633334	3500.01	37.836	39.89
256QAM	635332	3529.98	37.763	39.92

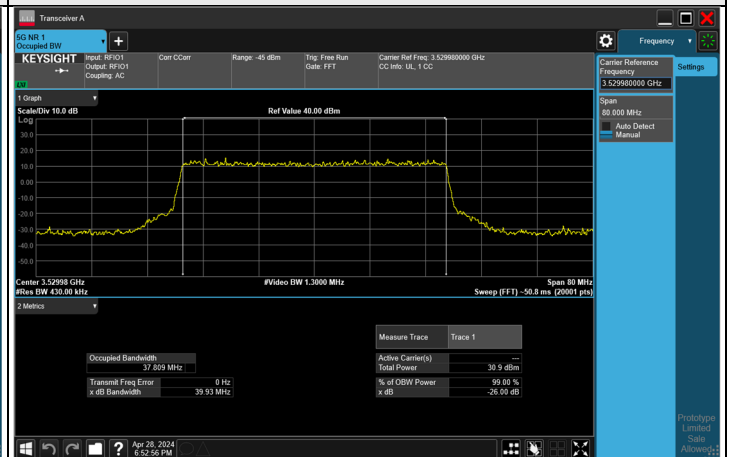
Spectrum Plot of Worst Value

Occupied bandwidth



256QAM CH 633334 (3500.01 MHz)

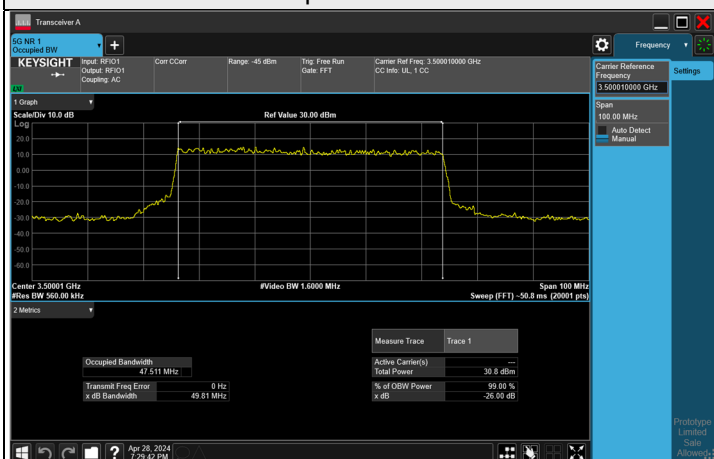
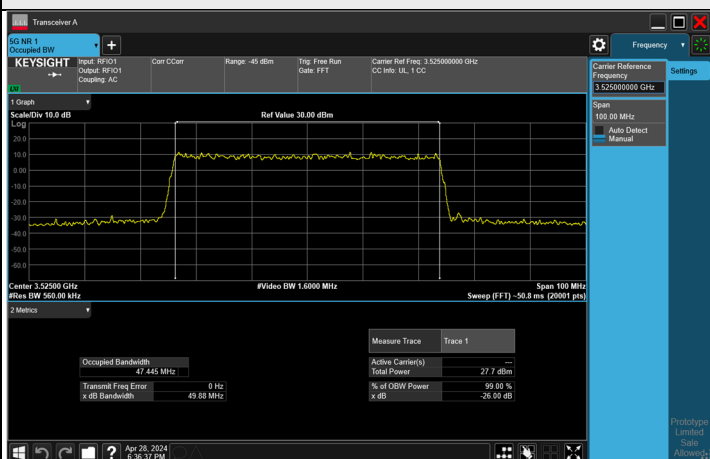
26 dB Bandwidth



QPSK CH 635332 (3529.98 MHz)

**NR n77 SCS 30 kHz (3.45 GHz ~ 3.55 GHz) Chain 0, Channel Bandwidth: 50 MHz**

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	631668	3475.02	47.354	49.71
QPSK	633334	3500.01	47.422	49.56
QPSK	635000	3525	47.434	49.67
16QAM	631668	3475.02	47.340	49.81
16QAM	633334	3500.01	47.413	49.65
16QAM	635000	3525	47.434	49.72
64QAM	631668	3475.02	47.390	49.65
64QAM	633334	3500.01	47.511	49.81
64QAM	635000	3525	47.483	49.83
256QAM	631668	3475.02	47.331	49.81
256QAM	633334	3500.01	47.404	49.81
256QAM	635000	3525	47.445	49.88

**Spectrum Plot of Worst Value**
**Occupied bandwidth**

**64QAM CH 633334 (3500.01 MHz)**
**26 dB Bandwidth**

**256QAM CH 635000 (3525 MHz)**



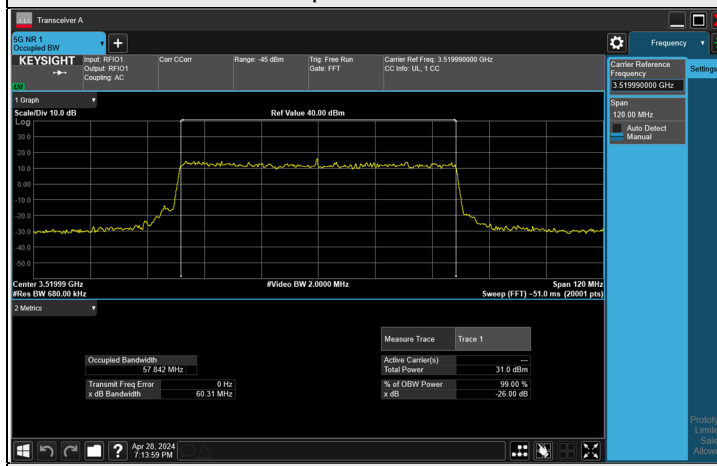
NR n77 SCS 30 kHz (3.45 GHz ~ 3.55 GHz) Chain 0, Channel Bandwidth: 60 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	632000	3480	57.565	60.50
QPSK	633334	3500.01	57.771	60.70
QPSK	634666	3519.99	57.723	60.53
16QAM	632000	3480	57.652	60.16
16QAM	633334	3500.01	57.677	60.23
16QAM	634666	3519.99	57.842	60.31
64QAM	632000	3480	57.737	60.13
64QAM	633334	3500.01	57.732	60.32
64QAM	634666	3519.99	57.798	60.53
256QAM	632000	3480	57.628	60.23
256QAM	633334	3500.01	57.678	60.16
256QAM	634666	3519.99	57.697	60.47

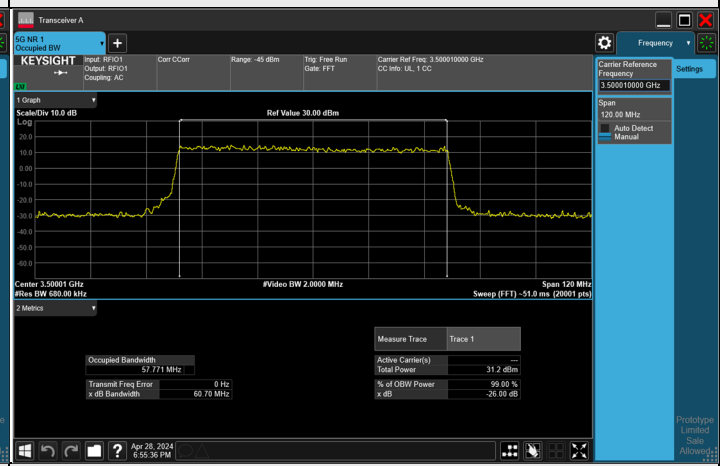
Spectrum Plot of Worst Value

Occupied bandwidth

26 dB Bandwidth



16QAM CH 634666 (3519.99 MHz)



QPSK CH 633334 (3500.01 MHz)



NR n77 SCS 30 kHz (3.45 GHz ~ 3.55 GHz) Chain 0, Channel Bandwidth: 70 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	632334	3485.01	67.193	70.31
QPSK	633334	3500.01	67.271	70.23
QPSK	634332	3514.98	67.315	70.22
16QAM	632334	3485.01	67.316	70.01
16QAM	633334	3500.01	67.314	70.25
16QAM	634332	3514.98	67.383	70.30
64QAM	632334	3485.01	67.220	69.89
64QAM	633334	3500.01	67.452	70.26
64QAM	634332	3514.98	67.426	70.25
256QAM	632334	3485.01	67.159	70.03
256QAM	633334	3500.01	67.291	69.73
256QAM	634332	3514.98	67.287	69.97

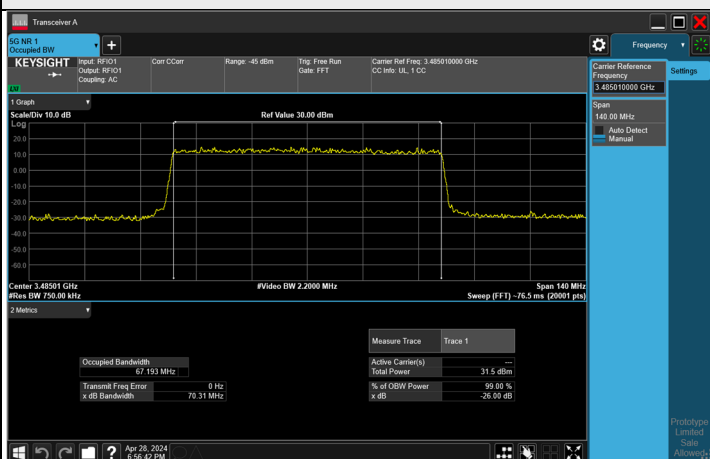
Spectrum Plot of Worst Value

Occupied bandwidth



64QAM CH 633334 (3500.01 MHz)

26 dB Bandwidth



QPSK CH 632334 (3485.01 MHz)



NR n77 SCS 30 kHz (3.45 GHz ~ 3.55 GHz) Chain 0, Channel Bandwidth: 80 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	632668	3490.02	77.302	80.58
QPSK	633334	3500.01	77.318	80.36
QPSK	634000	3510	77.238	80.35
16QAM	632668	3490.02	77.236	80.50
16QAM	633334	3500.01	77.240	80.39
16QAM	634000	3510	77.393	80.87
64QAM	632668	3490.02	77.446	80.58
64QAM	633334	3500.01	77.540	80.61
64QAM	634000	3510	77.265	80.29
256QAM	632668	3490.02	77.154	80.43
256QAM	633334	3500.01	77.495	80.33
256QAM	634000	3510	77.462	80.36

Spectrum Plot of Worst Value

Occupied bandwidth



64QAM CH 633334 (3500.01 MHz)

26 dB Bandwidth



16QAM CH 634000 (3510 MHz)

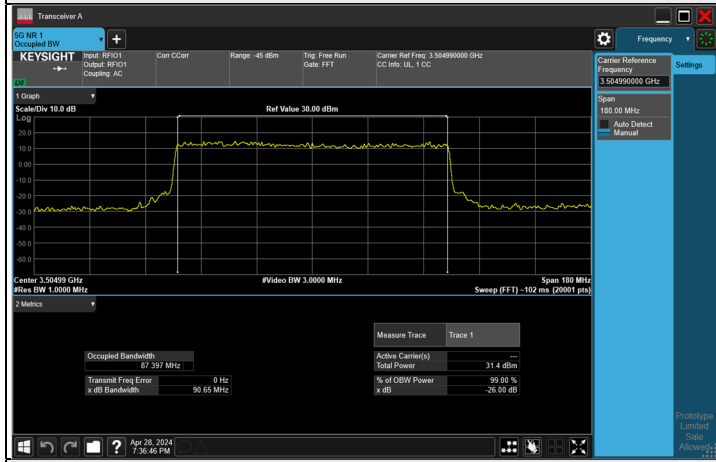


NR n77 SCS 30 kHz (3.45 GHz ~ 3.55 GHz) Chain 0, Channel Bandwidth: 90 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	633000	3495	87.218	90.57
QPSK	633334	3500.01	87.035	90.67
QPSK	633666	3504.99	87.270	90.86
16QAM	633000	3495	87.285	91.17
16QAM	633334	3500.01	87.161	90.37
16QAM	633666	3504.99	87.321	90.92
64QAM	633000	3495	87.145	90.66
64QAM	633334	3500.01	87.267	90.39
64QAM	633666	3504.99	87.397	90.65
256QAM	633000	3495	87.289	91.13
256QAM	633334	3500.01	87.342	90.68
256QAM	633666	3504.99	87.129	90.61

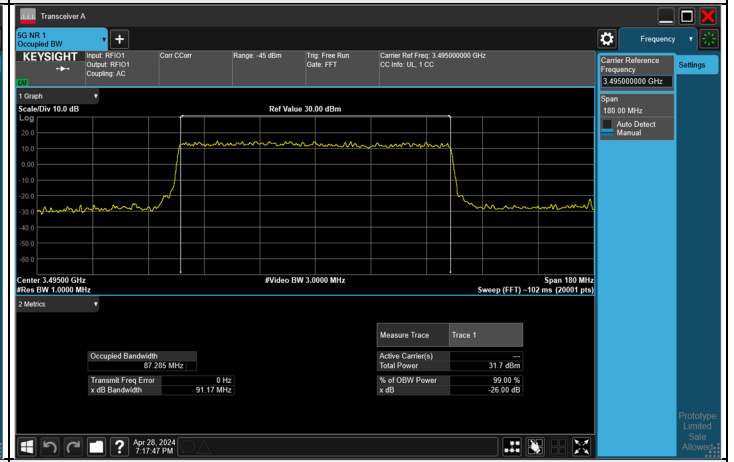
Spectrum Plot of Worst Value

Occupied bandwidth



64QAM CH 633666 (3504.99 MHz)

26 dB Bandwidth

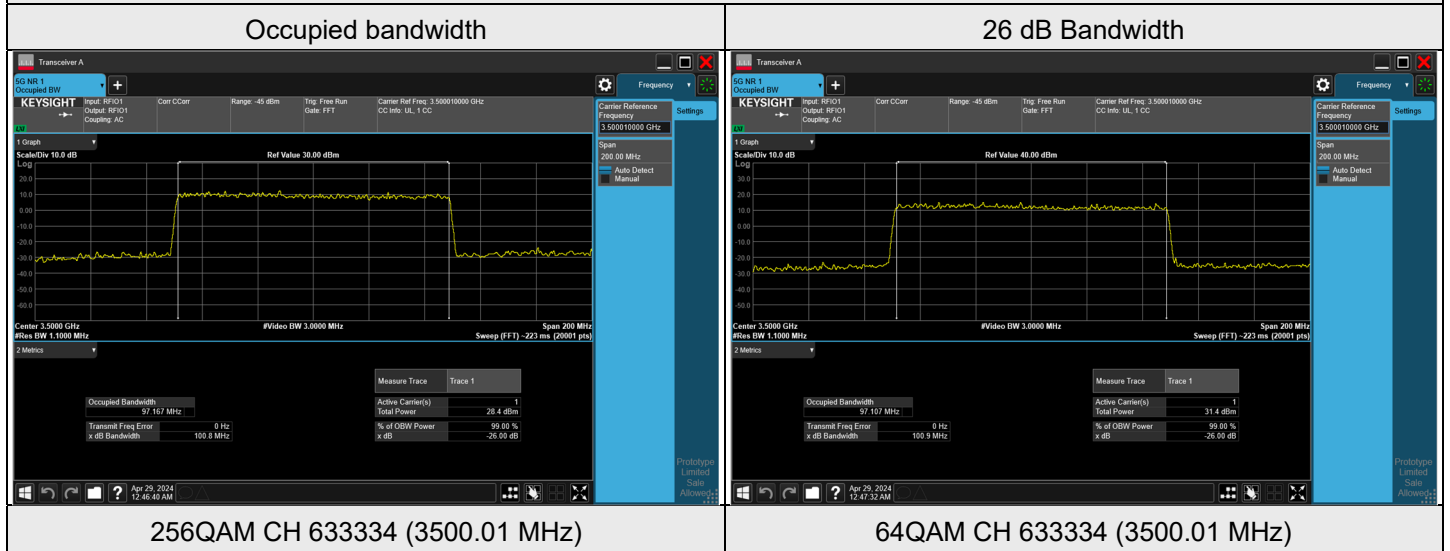


16QAM CH 633000 (3495 MHz)

**NR n77 SCS 30 kHz (3.45 GHz ~ 3.55 GHz) Chain 0, Channel Bandwidth: 100 MHz**

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	633334	3500.01	97.008	100.8
16QAM	633334	3500.01	97.008	100.6
64QAM	633334	3500.01	97.107	100.9
256QAM	633334	3500.01	97.167	100.8

**Spectrum Plot of Worst Value**



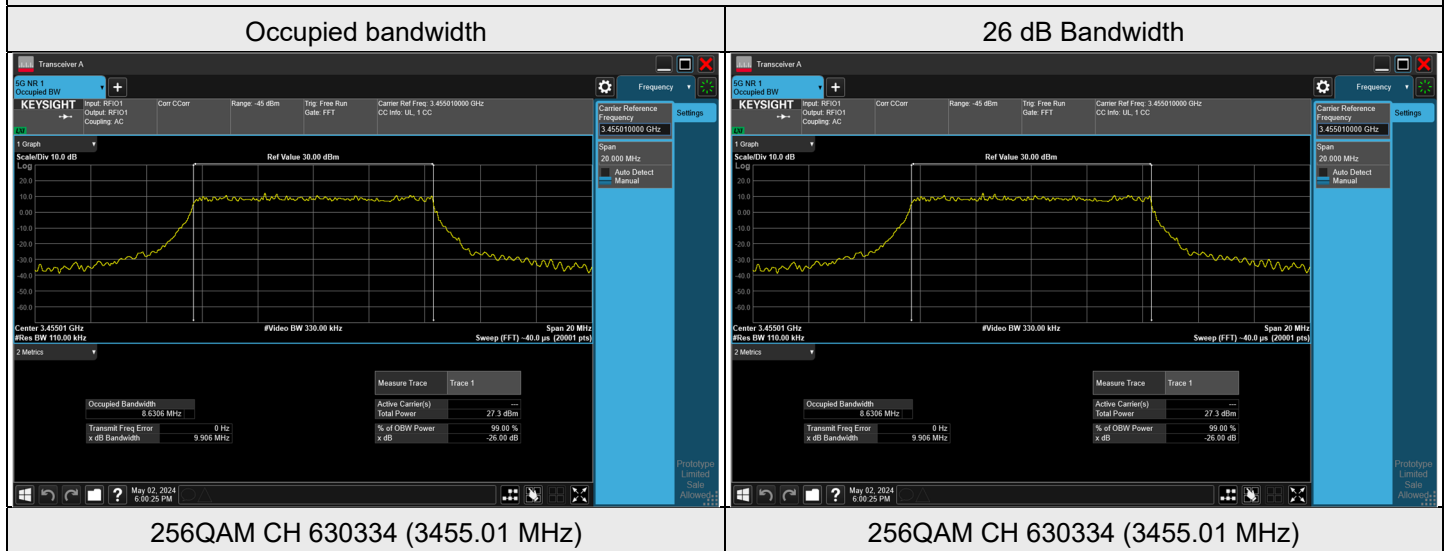


7.4.8 NR n77 SCS 30 kHz (3.45 GHz ~ 3.55 GHz) – MIMO (Chain 1)

NR n77 SCS 30 kHz (3.45 GHz ~ 3.55 GHz) Chain 1, Channel Bandwidth: 10 MHz

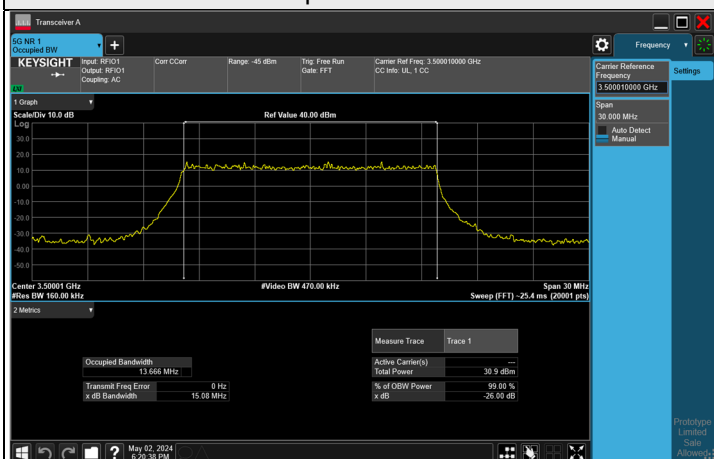
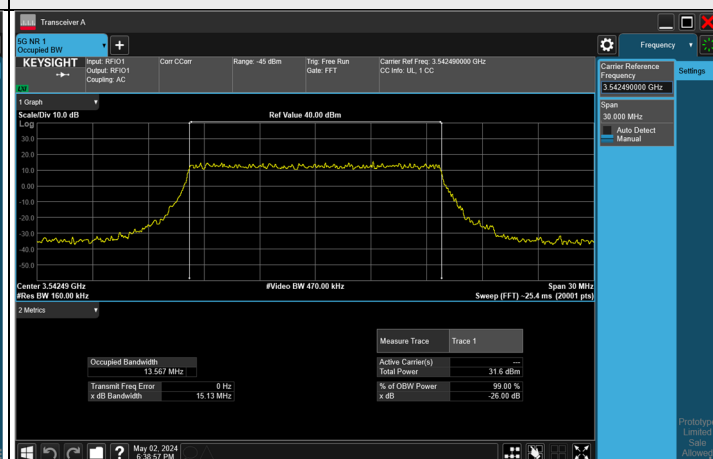
Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	630334	3455.01	8.6144	9.719
QPSK	633334	3500.01	8.5883	9.823
QPSK	636332	3544.98	8.5724	9.569
16QAM	630334	3455.01	8.5723	9.606
16QAM	633334	3500.01	8.5829	9.681
16QAM	636332	3544.98	8.5821	9.492
64QAM	630334	3455.01	8.5990	9.777
64QAM	633334	3500.01	8.5861	9.766
64QAM	636332	3544.98	8.5747	9.724
256QAM	630334	3455.01	8.6306	9.906
256QAM	633334	3500.01	8.5745	9.653
256QAM	636332	3544.98	8.5861	9.727

Spectrum Plot of Worst Value



**NR n77 SCS 30 kHz (3.45 GHz ~ 3.55 GHz) Chain 1, Channel Bandwidth: 15 MHz**

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	630500	3457.5	13.585	14.74
QPSK	633334	3500.01	13.666	15.08
QPSK	636166	3542.49	13.542	14.79
16QAM	630500	3457.5	13.582	14.53
16QAM	633334	3500.01	13.587	14.98
16QAM	636166	3542.49	13.567	15.13
64QAM	630500	3457.5	13.582	14.85
64QAM	633334	3500.01	13.585	14.97
64QAM	636166	3542.49	13.585	14.84
256QAM	630500	3457.5	13.560	14.86
256QAM	633334	3500.01	13.590	15.08
256QAM	636166	3542.49	13.603	15.09

**Spectrum Plot of Worst Value**
**Occupied bandwidth**

**QPSK CH 633334 (3500.01 MHz)**
**26 dB Bandwidth**

**16QAM CH 636166 (3542.49 MHz)**

**NR n77 SCS 30 kHz (3.45 GHz ~ 3.55 GHz) Chain 1, Channel Bandwidth: 20 MHz**

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	630668	3460.02	18.209	19.74
QPSK	633334	3500.01	18.220	19.62
QPSK	636000	3540	18.177	20.05
16QAM	630668	3460.02	18.152	19.56
16QAM	633334	3500.01	18.178	19.44
16QAM	636000	3540	18.213	19.90
64QAM	630668	3460.02	18.224	19.87
64QAM	633334	3500.01	18.213	19.84
64QAM	636000	3540	18.209	19.79
256QAM	630668	3460.02	18.185	19.80
256QAM	633334	3500.01	18.258	19.80
256QAM	636000	3540	18.221	19.96

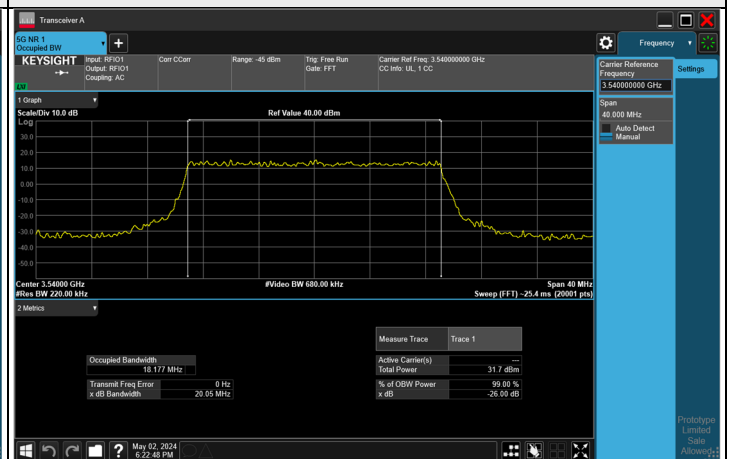
**Spectrum Plot of Worst Value**

**Occupied bandwidth**



**256QAM CH 633334 (3500.01 MHz)**

**26 dB Bandwidth**



**QPSK CH 636000 (3540 MHz)**