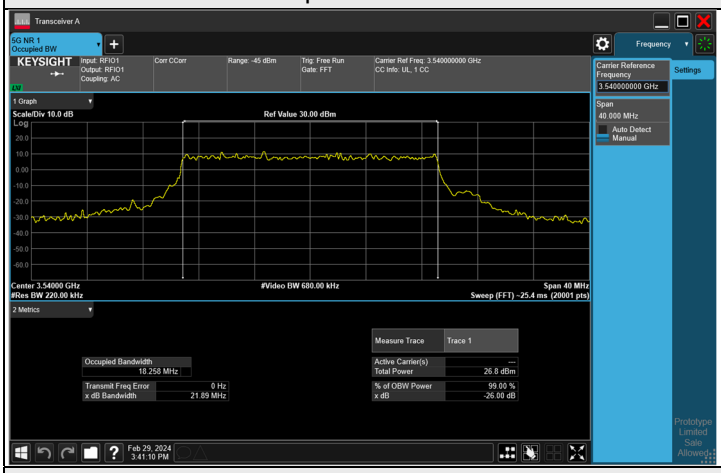
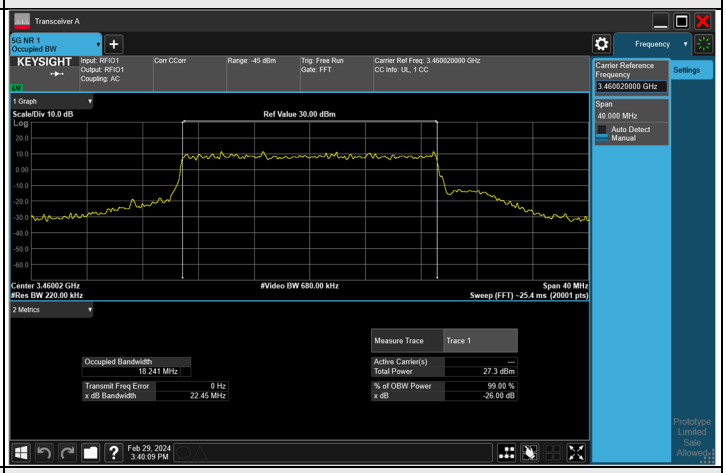
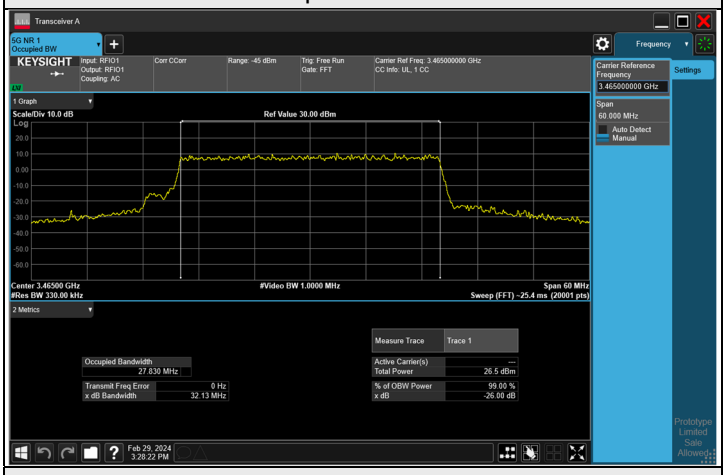
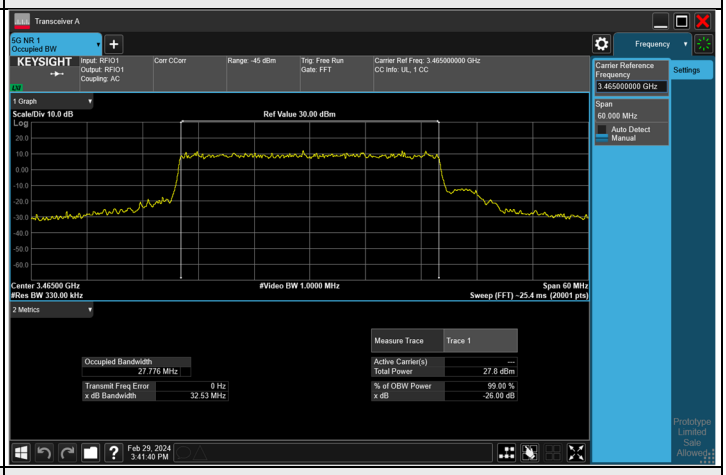
NR n78 SCS 30 kHz (3.45 GHz ~ 3.55 GHz) - MIMO-Ant 5, Channel Bandwidth: 20 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	630668	3460.02	18.009	20.05
BPSK	633334	3500.01	18.065	19.25
BPSK	636000	3540	18.001	18.99
QPSK	630668	3460.02	18.185	19.79
QPSK	633334	3500.01	18.201	19.57
QPSK	636000	3540	18.206	19.76
16QAM	630668	3460.02	18.241	22.45
16QAM	633334	3500.01	18.238	19.97
16QAM	636000	3540	18.258	21.89
64QAM	630668	3460.02	18.233	19.86
64QAM	633334	3500.01	18.200	19.48
64QAM	636000	3540	18.205	19.37
256QAM	630668	3460.02	18.165	19.54
256QAM	633334	3500.01	18.224	19.89
256QAM	636000	3540	18.249	21.23

Spectrum Plot of Worst Value	
Occupied bandwidth	26 dB Bandwidth
	
16QAM CH 636000 (3540 MHz)	16QAM CH 630668 (3460.02 MHz)

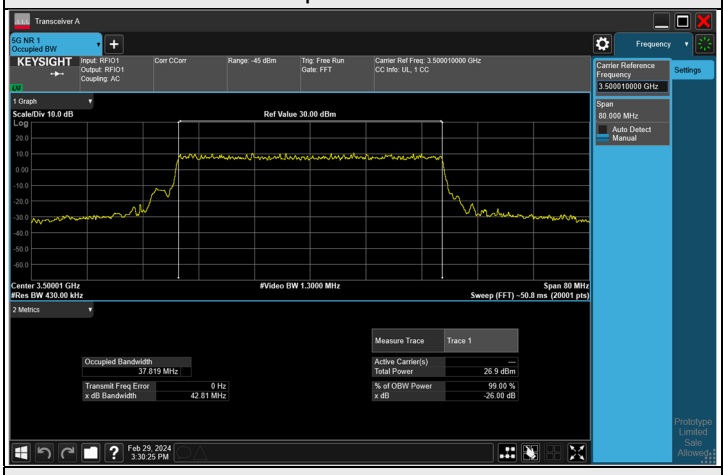
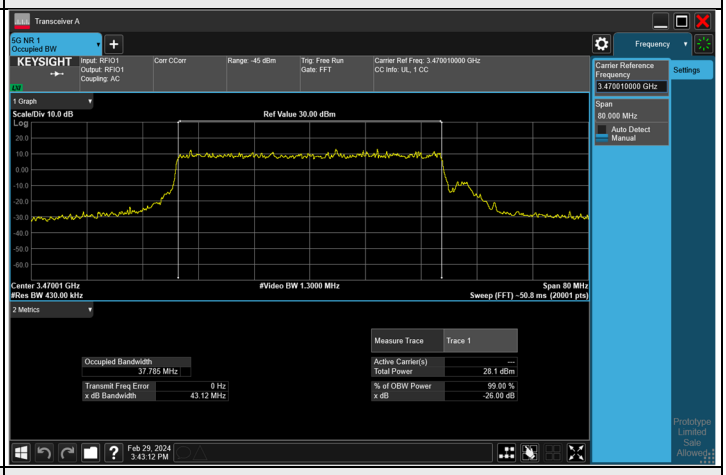
NR n78 SCS 30 kHz (3.45 GHz ~ 3.55 GHz) - MIMO-Ant 5, Channel Bandwidth: 30 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	631000	3465	27.582	28.60
BPSK	633334	3500.01	27.627	31.36
BPSK	635666	3534.99	27.608	28.69
QPSK	631000	3465	27.830	32.13
QPSK	633334	3500.01	27.794	29.72
QPSK	635666	3534.99	27.830	32.22
16QAM	631000	3465	27.776	32.53
16QAM	633334	3500.01	27.769	30.93
16QAM	635666	3534.99	27.788	32.49
64QAM	631000	3465	27.788	29.47
64QAM	633334	3500.01	27.811	29.49
64QAM	635666	3534.99	27.810	31.55
256QAM	631000	3465	27.812	31.59
256QAM	633334	3500.01	27.807	31.82
256QAM	635666	3534.99	27.819	31.80

Spectrum Plot of Worst Value	
Occupied bandwidth	26 dB Bandwidth
	
QPSK CH 631000 (3465 MHz)	16QAM CH 631000 (3465 MHz)

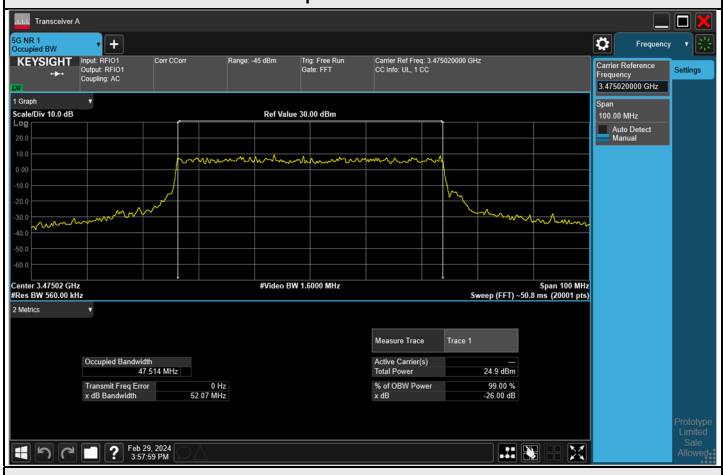
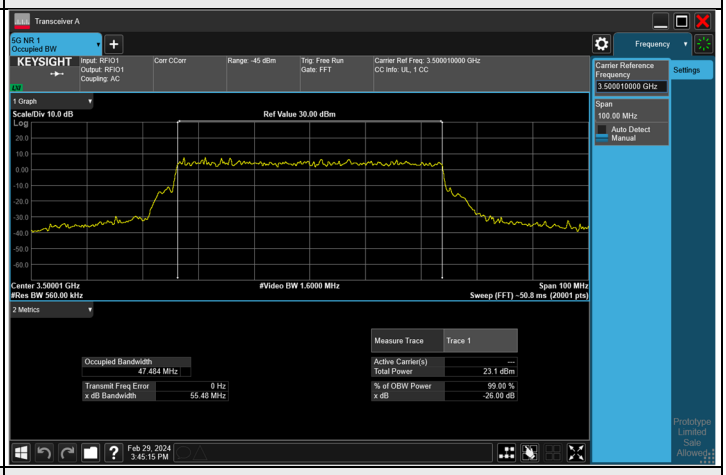
NR n78 SCS 30 kHz (3.45 GHz ~ 3.55 GHz) - MIMO-Ant 5, Channel Bandwidth: 40 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	631334	3470.01	37.496	40.12
BPSK	633334	3500.01	37.545	38.24
BPSK	635332	3529.98	37.411	37.54
QPSK	631334	3470.01	37.793	39.82
QPSK	633334	3500.01	37.819	42.81
QPSK	635332	3529.98	37.819	42.96
16QAM	631334	3470.01	37.785	43.12
16QAM	633334	3500.01	37.777	43.12
16QAM	635332	3529.98	37.715	39.78
64QAM	631334	3470.01	37.804	41.50
64QAM	633334	3500.01	37.785	42.05
64QAM	635332	3529.98	37.737	39.79
256QAM	631334	3470.01	37.688	40.02
256QAM	633334	3500.01	37.728	40.90
256QAM	635332	3529.98	37.682	40.31

Spectrum Plot of Worst Value	
Occupied bandwidth	26 dB Bandwidth
	
QPSK CH 633334 (3500.01 MHz)	16QAM CH 631334 (3470.01 MHz)

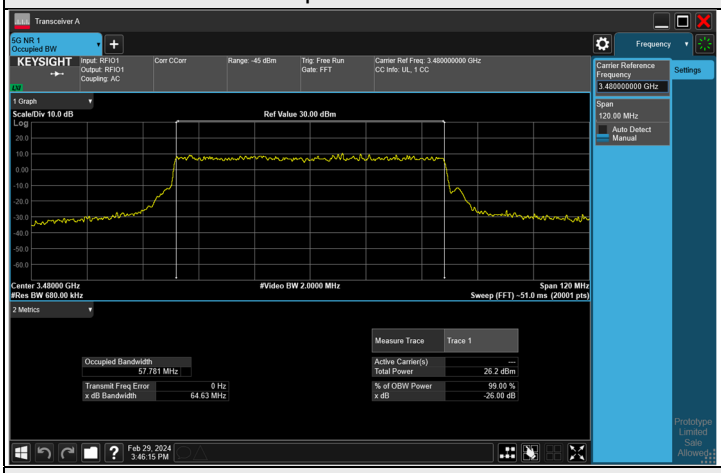
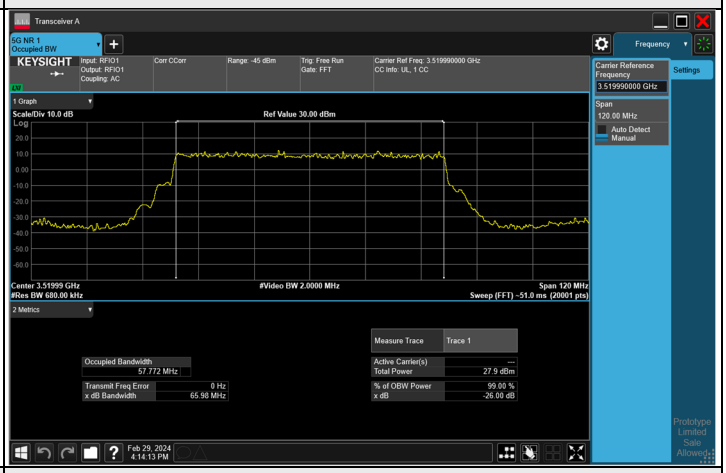
NR n78 SCS 30 kHz (3.45 GHz ~ 3.55 GHz) - MIMO-Ant 5, Channel Bandwidth: 50 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	631668	3475.02	47.022	48.37
BPSK	633334	3500.01	47.065	51.04
BPSK	635000	3525	47.022	47.97
QPSK	631668	3475.02	47.410	50.55
QPSK	633334	3500.01	47.392	51.54
QPSK	635000	3525	47.383	51.24
16QAM	631668	3475.02	47.381	49.69
16QAM	633334	3500.01	47.484	55.48
16QAM	635000	3525	47.513	54.36
64QAM	631668	3475.02	47.514	52.07
64QAM	633334	3500.01	47.484	52.30
64QAM	635000	3525	47.463	49.72
256QAM	631668	3475.02	47.404	52.05
256QAM	633334	3500.01	47.395	50.19
256QAM	635000	3525	47.454	49.86

Spectrum Plot of Worst Value	
Occupied bandwidth	26 dB Bandwidth
	
64QAM CH 631668 (3475.02 MHz)	16QAM CH 633334 (3500.01 MHz)

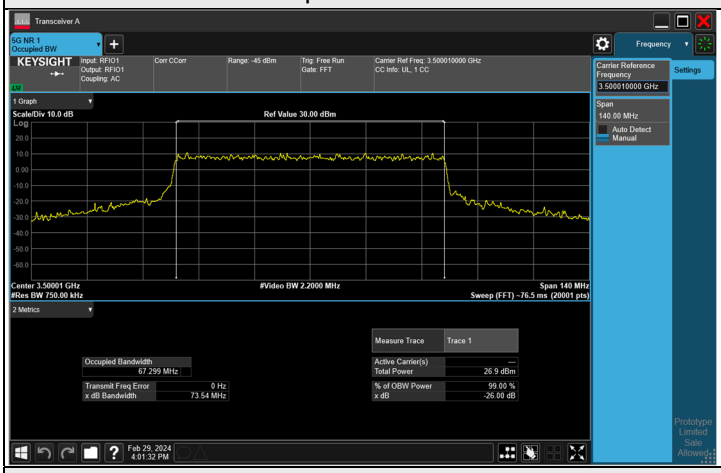
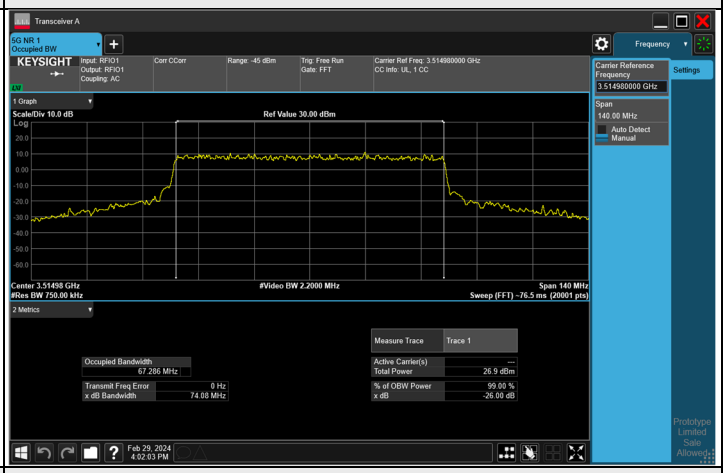
NR n78 SCS 30 kHz (3.45 GHz ~ 3.55 GHz) - MIMO-Ant 5, Channel Bandwidth: 60 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	632000	3480	57.627	60.54
BPSK	633334	3500.01	57.699	60.29
BPSK	634666	3519.99	57.772	65.98
QPSK	632000	3480	57.676	60.79
QPSK	633334	3500.01	57.773	62.14
QPSK	634666	3519.99	57.708	61.74
16QAM	632000	3480	57.781	64.63
16QAM	633334	3500.01	57.747	62.37
16QAM	634666	3519.99	57.736	63.31
64QAM	632000	3480	57.701	60.24
64QAM	633334	3500.01	57.662	60.31
64QAM	634666	3519.99	57.732	60.30
256QAM	632000	3480	57.697	62.67
256QAM	633334	3500.01	57.758	64.69
256QAM	634666	3519.99	57.642	60.38

Spectrum Plot of Worst Value	
Occupied bandwidth	26 dB Bandwidth
	
16QAM CH 632000 (3480 MHz)	BPSK CH 634666 (3519.99 MHz)

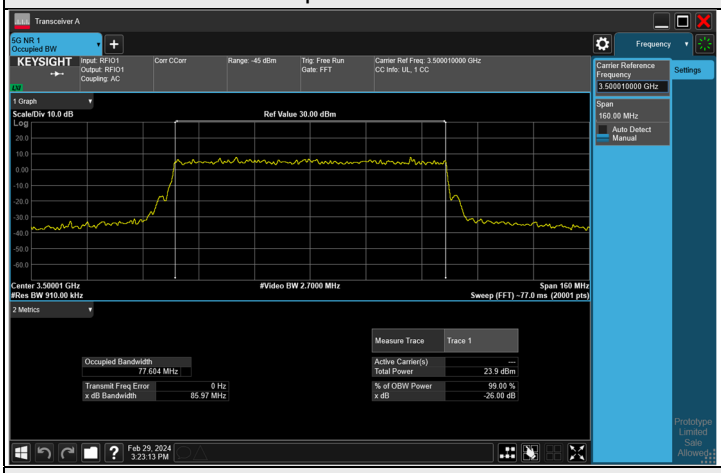
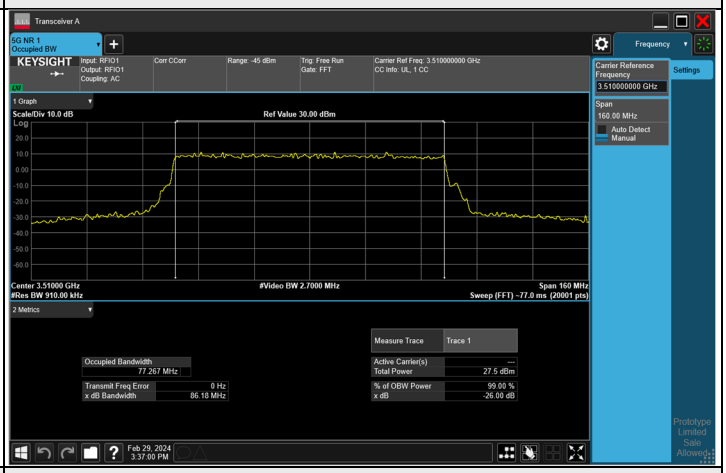
NR n78 SCS 30 kHz (3.45 GHz ~ 3.55 GHz) - MIMO-Ant 5, Channel Bandwidth: 70 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	632334	3485.01	66.600	66.84
BPSK	633334	3500.01	66.880	66.91
BPSK	634332	3514.98	67.060	69.01
QPSK	632334	3485.01	67.231	73.72
QPSK	633334	3500.01	67.192	70.20
QPSK	634332	3514.98	67.174	70.28
16QAM	632334	3485.01	67.206	70.30
16QAM	633334	3500.01	67.234	70.10
16QAM	634332	3514.98	67.205	70.11
64QAM	632334	3485.01	67.218	71.10
64QAM	633334	3500.01	67.299	73.54
64QAM	634332	3514.98	67.286	74.08
256QAM	632334	3485.01	67.259	73.76
256QAM	633334	3500.01	67.274	69.79
256QAM	634332	3514.98	67.215	69.87

Spectrum Plot of Worst Value	
Occupied bandwidth	26 dB Bandwidth
	
64QAM CH 633334 (3500.01 MHz)	64QAM CH 634332 (3514.98 MHz)

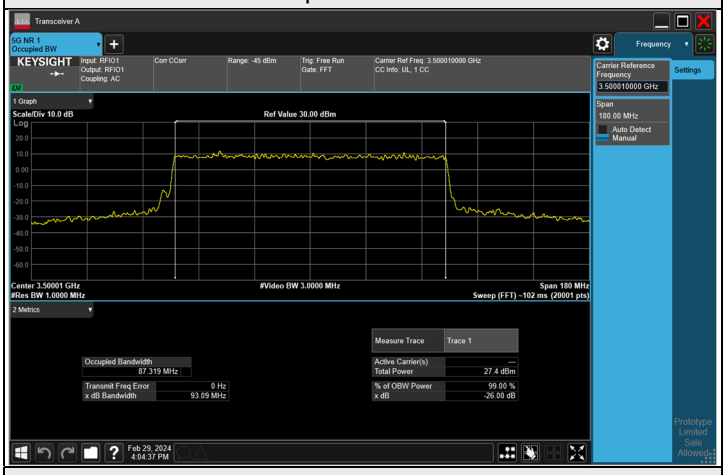
NR n78 SCS 30 kHz (3.45 GHz ~ 3.55 GHz) - MIMO-Ant 5, Channel Bandwidth: 80 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	632668	3490.02	76.932	81.37
BPSK	633334	3500.01	76.979	80.34
BPSK	634000	3510	77.030	82.46
QPSK	632668	3490.02	77.204	83.42
QPSK	633334	3500.01	77.187	82.52
QPSK	634000	3510	77.267	86.18
16QAM	632668	3490.02	77.331	80.61
16QAM	633334	3500.01	77.191	80.51
16QAM	634000	3510	77.188	80.45
64QAM	632668	3490.02	77.223	82.75
64QAM	633334	3500.01	77.219	82.02
64QAM	634000	3510	77.235	82.89
256QAM	632668	3490.02	77.424	84.99
256QAM	633334	3500.01	77.604	85.97
256QAM	634000	3510	77.510	83.24

Spectrum Plot of Worst Value	
Occupied bandwidth	26 dB Bandwidth
	
256QAM CH 633334 (3500.01 MHz)	QPSK CH 634000 (3510 MHz)

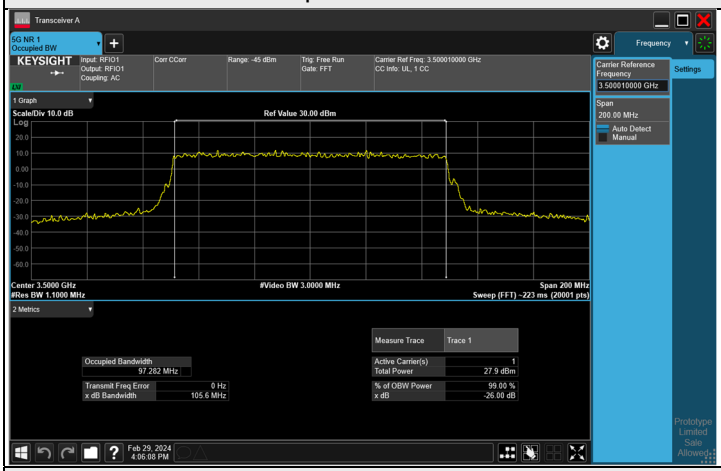
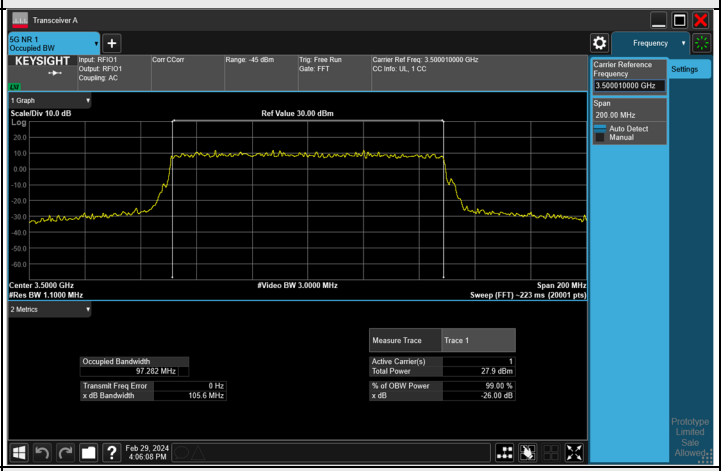
NR n78 SCS 30 kHz (3.45 GHz ~ 3.55 GHz) - MIMO-Ant 5, Channel Bandwidth: 90 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	633000	3495	86.839	93.25
BPSK	633334	3500.01	86.910	95.37
BPSK	633666	3504.99	86.817	95.84
QPSK	633000	3495	87.250	93.80
QPSK	633334	3500.01	87.174	95.22
QPSK	633666	3504.99	87.093	93.40
16QAM	633000	3495	87.309	95.56
16QAM	633334	3500.01	87.308	92.22
16QAM	633666	3504.99	87.265	90.46
64QAM	633000	3495	87.016	90.83
64QAM	633334	3500.01	87.319	93.09
64QAM	633666	3504.99	87.068	94.77
256QAM	633000	3495	87.161	90.42
256QAM	633334	3500.01	86.984	91.43
256QAM	633666	3504.99	87.001	94.24

Spectrum Plot of Worst Value	
Occupied bandwidth	26 dB Bandwidth
	
64QAM CH 633334 (3500.01 MHz)	BPSK CH 633666 (3504.99 MHz)

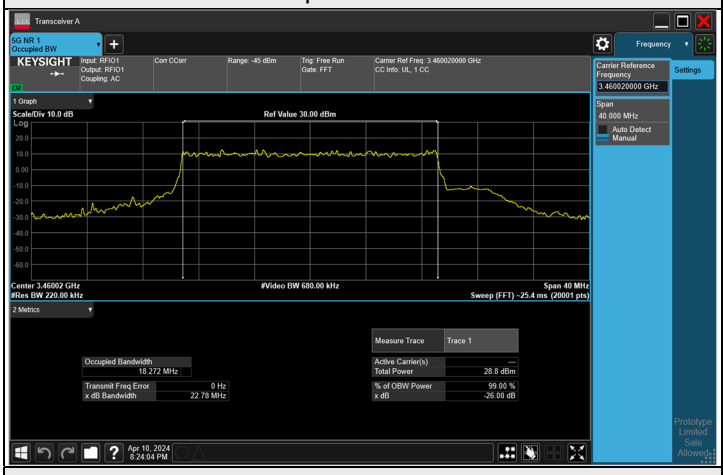
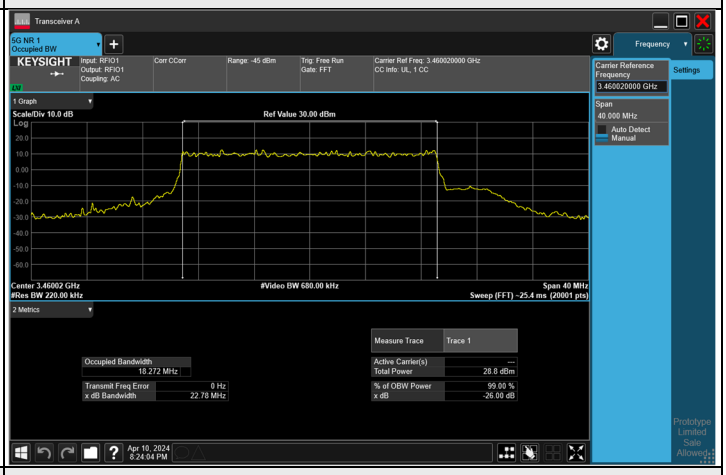
NR n78 SCS 30 kHz (3.45 GHz ~ 3.55 GHz) - MIMO-Ant 5, Channel Bandwidth: 100 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	633334	3500.01	96.189	100.4
QPSK	633334	3500.01	96.807	102.9
16QAM	633334	3500.01	97.063	101.3
64QAM	633334	3500.01	97.282	105.6
256QAM	633334	3500.01	97.022	103.5

Spectrum Plot of Worst Value	
Occupied bandwidth	26 dB Bandwidth
	
64QAM CH 633334 (3500.01 MHz)	64QAM CH 633334 (3500.01 MHz)

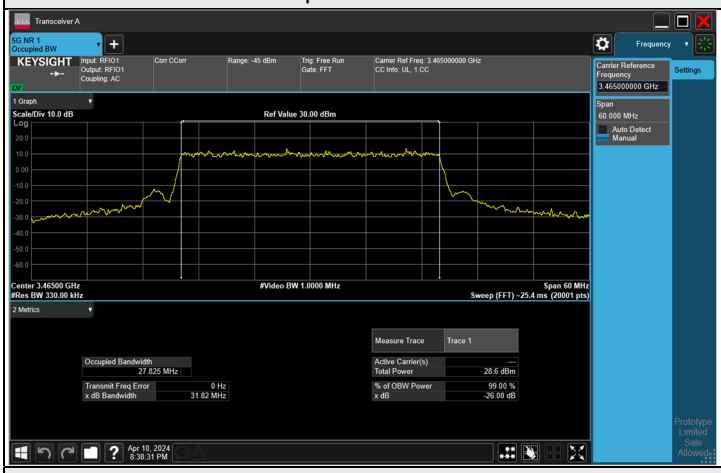
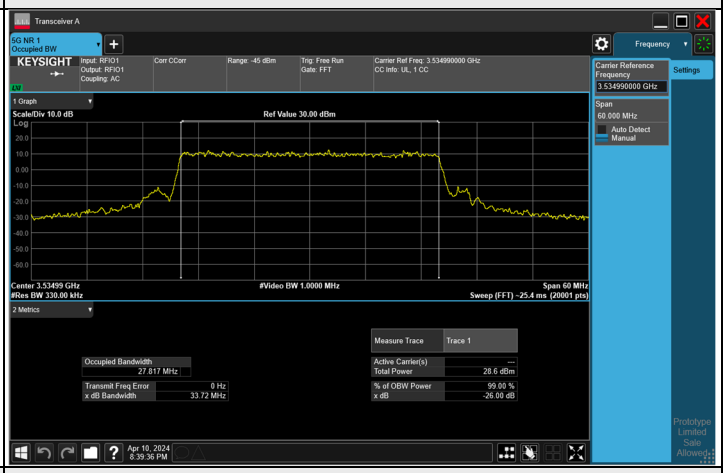
NR n78 SCS 30 kHz (3.45 GHz ~ 3.55 GHz) - MIMO-Ant 7, Channel Bandwidth: 20 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	630668	3460.02	18.001	19.37
BPSK	633334	3500.01	18.001	19.77
BPSK	636000	3540	18.029	20.27
QPSK	630668	3460.02	18.184	19.76
QPSK	633334	3500.01	18.205	19.61
QPSK	636000	3540	18.214	20.65
16QAM	630668	3460.02	18.272	22.78
16QAM	633334	3500.01	18.233	19.63
16QAM	636000	3540	18.257	21.24
64QAM	630668	3460.02	18.241	19.76
64QAM	633334	3500.01	18.208	21.41
64QAM	636000	3540	18.213	19.73
256QAM	630668	3460.02	18.165	19.67
256QAM	633334	3500.01	18.221	19.86
256QAM	636000	3540	18.232	19.91

Spectrum Plot of Worst Value	
Occupied bandwidth	26 dB Bandwidth
	
16QAM CH 630668 (3460.02 MHz)	16QAM CH 630668 (3460.02 MHz)

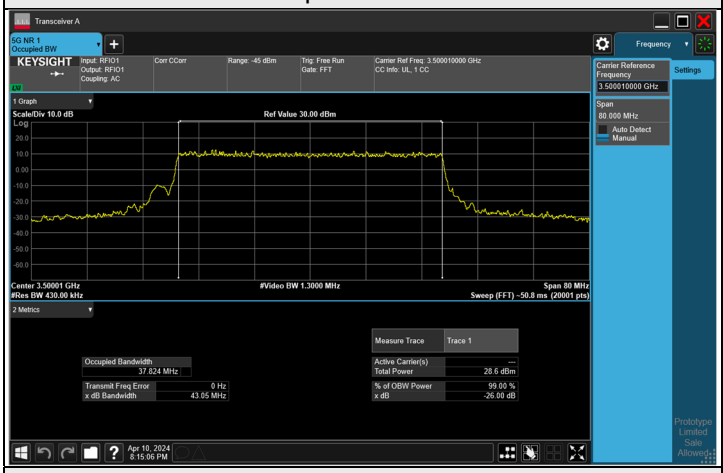
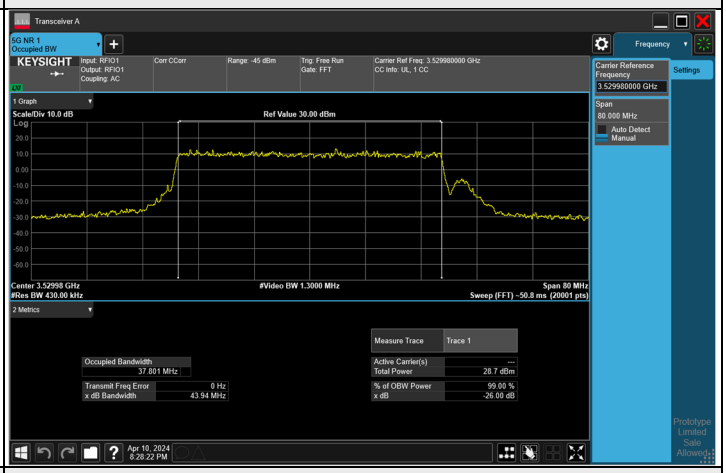
NR n78 SCS 30 kHz (3.45 GHz ~ 3.55 GHz) - MIMO-Ant 7, Channel Bandwidth: 30 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	631000	3465	27.566	28.65
BPSK	633334	3500.01	27.625	28.72
BPSK	635666	3534.99	27.607	28.72
QPSK	631000	3465	27.818	29.54
QPSK	633334	3500.01	27.824	29.69
QPSK	635666	3534.99	27.801	31.53
16QAM	631000	3465	27.747	29.25
16QAM	633334	3500.01	27.769	31.10
16QAM	635666	3534.99	27.745	29.39
64QAM	631000	3465	27.825	31.82
64QAM	633334	3500.01	27.817	29.64
64QAM	635666	3534.99	27.817	33.72
256QAM	631000	3465	27.817	31.67
256QAM	633334	3500.01	27.800	31.68
256QAM	635666	3534.99	27.806	31.79

Spectrum Plot of Worst Value	
Occupied bandwidth	26 dB Bandwidth
	
64QAM CH 631000 (3465 MHz)	64QAM CH 635666 (3534.99 MHz)

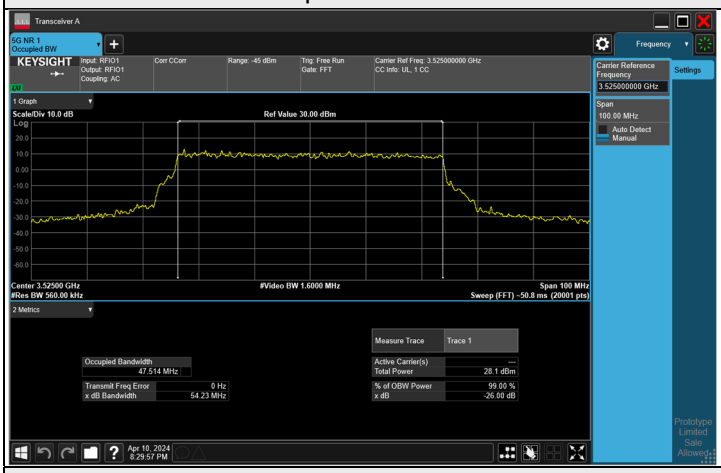
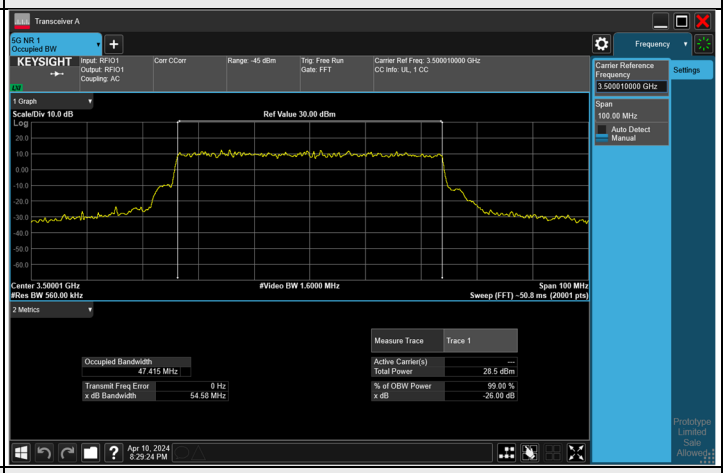
NR n78 SCS 30 kHz (3.45 GHz ~ 3.55 GHz) - MIMO-Ant 7, Channel Bandwidth: 40 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	631334	3470.01	37.449	38.64
BPSK	633334	3500.01	37.539	40.65
BPSK	635332	3529.98	37.554	41.22
QPSK	631334	3470.01	37.794	41.17
QPSK	633334	3500.01	37.824	43.05
QPSK	635332	3529.98	37.770	39.89
16QAM	631334	3470.01	37.763	42.94
16QAM	633334	3500.01	37.786	43.11
16QAM	635332	3529.98	37.801	43.94
64QAM	631334	3470.01	37.801	42.62
64QAM	633334	3500.01	37.795	41.39
64QAM	635332	3529.98	37.778	42.25
256QAM	631334	3470.01	37.675	40.04
256QAM	633334	3500.01	37.689	40.10
256QAM	635332	3529.98	37.681	40.48

Spectrum Plot of Worst Value	
Occupied bandwidth	26 dB Bandwidth
	
QPSK CH 633334 (3500.01 MHz)	16QAM CH 635332 (3529.98 MHz)

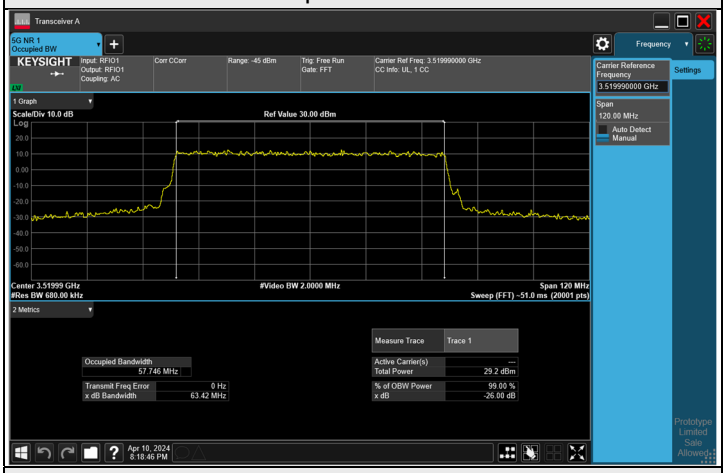
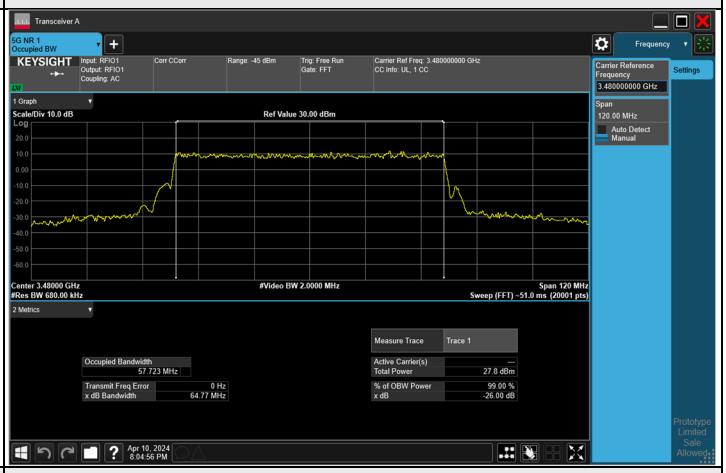
NR n78 SCS 30 kHz (3.45 GHz ~ 3.55 GHz) - MIMO-Ant 7, Channel Bandwidth: 50 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	631668	3475.02	46.971	50.46
BPSK	633334	3500.01	47.065	51.18
BPSK	635000	3525	47.172	52.84
QPSK	631668	3475.02	47.400	49.81
QPSK	633334	3500.01	47.414	52.89
QPSK	635000	3525	47.394	50.93
16QAM	631668	3475.02	47.501	53.58
16QAM	633334	3500.01	47.415	54.58
16QAM	635000	3525	47.514	54.23
64QAM	631668	3475.02	47.453	52.48
64QAM	633334	3500.01	47.465	52.40
64QAM	635000	3525	47.471	51.57
256QAM	631668	3475.02	47.371	49.90
256QAM	633334	3500.01	47.394	49.90
256QAM	635000	3525	47.394	49.70

Spectrum Plot of Worst Value	
Occupied bandwidth	26 dB Bandwidth
	
16QAM CH 635000 (3525 MHz)	16QAM CH 633334 (3500.01 MHz)

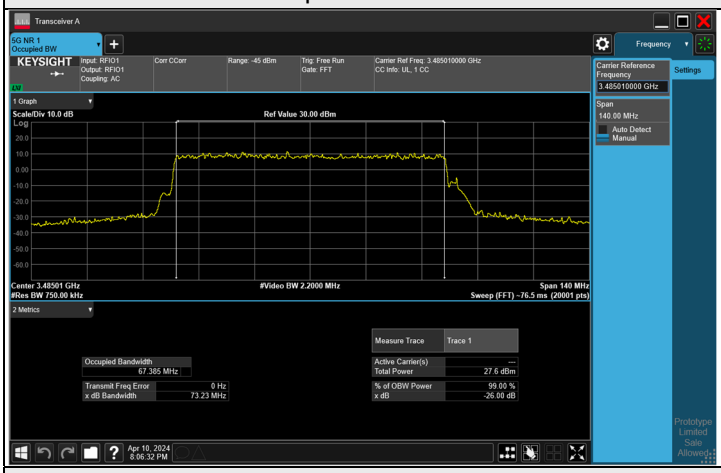
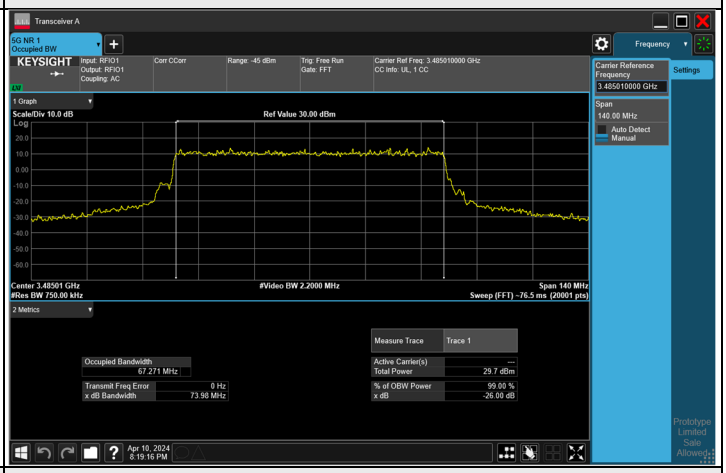
NR n78 SCS 30 kHz (3.45 GHz ~ 3.55 GHz) - MIMO-Ant 7, Channel Bandwidth: 60 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	632000	3480	57.660	61.40
BPSK	633334	3500.01	57.601	60.26
BPSK	634666	3519.99	57.685	64.53
QPSK	632000	3480	57.696	60.91
QPSK	633334	3500.01	57.697	61.51
QPSK	634666	3519.99	57.746	63.42
16QAM	632000	3480	57.725	63.87
16QAM	633334	3500.01	57.713	60.55
16QAM	634666	3519.99	57.710	60.20
64QAM	632000	3480	57.639	60.22
64QAM	633334	3500.01	57.722	60.35
64QAM	634666	3519.99	57.664	61.12
256QAM	632000	3480	57.723	64.77
256QAM	633334	3500.01	57.736	64.29
256QAM	634666	3519.99	57.737	64.48

Spectrum Plot of Worst Value	
Occupied bandwidth	26 dB Bandwidth
	
QPSK CH 634666 (3519.99 MHz)	256QAM CH 632000 (3480 MHz)

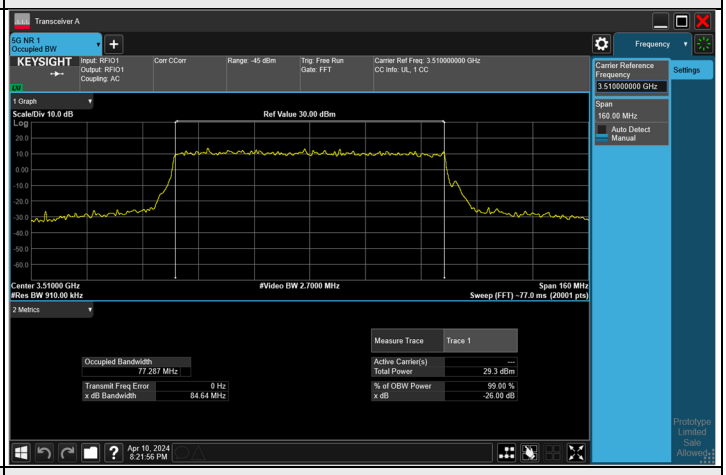
NR n78 SCS 30 kHz (3.45 GHz ~ 3.55 GHz) - MIMO-Ant 7, Channel Bandwidth: 70 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	632334	3485.01	66.742	66.65
BPSK	633334	3500.01	66.689	66.83
BPSK	634332	3514.98	66.866	66.84
QPSK	632334	3485.01	67.271	73.98
QPSK	633334	3500.01	67.147	70.18
QPSK	634332	3514.98	67.275	70.73
16QAM	632334	3485.01	67.215	70.14
16QAM	633334	3500.01	67.201	70.01
16QAM	634332	3514.98	67.202	70.09
64QAM	632334	3485.01	67.234	70.29
64QAM	633334	3500.01	67.192	70.30
64QAM	634332	3514.98	67.216	72.06
256QAM	632334	3485.01	67.385	73.23
256QAM	633334	3500.01	67.228	73.33
256QAM	634332	3514.98	67.219	73.40

Spectrum Plot of Worst Value	
Occupied bandwidth	26 dB Bandwidth
	
256QAM CH 632334 (3485.01 MHz)	QPSK CH 632334 (3485.01 MHz)

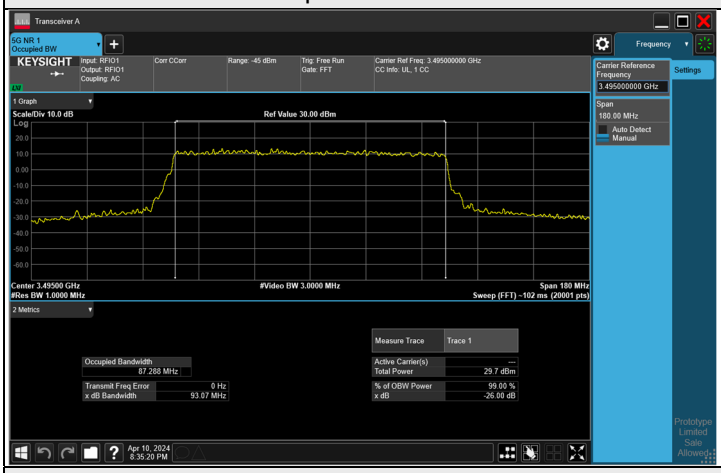
NR n78 SCS 30 kHz (3.45 GHz ~ 3.55 GHz) - MIMO-Ant 7, Channel Bandwidth: 80 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	632668	3490.02	76.981	81.37
BPSK	633334	3500.01	77.030	82.88
BPSK	634000	3510	77.009	80.01
QPSK	632668	3490.02	77.174	83.72
QPSK	633334	3500.01	77.168	83.50
QPSK	634000	3510	77.287	84.64
16QAM	632668	3490.02	77.255	82.34
16QAM	633334	3500.01	77.302	80.07
16QAM	634000	3510	77.203	80.18
64QAM	632668	3490.02	77.233	82.90
64QAM	633334	3500.01	77.174	81.26
64QAM	634000	3510	77.191	82.97
256QAM	632668	3490.02	77.525	82.75
256QAM	633334	3500.01	77.384	81.38
256QAM	634000	3510	77.475	80.25

Spectrum Plot of Worst Value	
Occupied bandwidth	26 dB Bandwidth
	
256QAM CH 632668 (3490.02 MHz)	QPSK CH 634000 (3510 MHz)

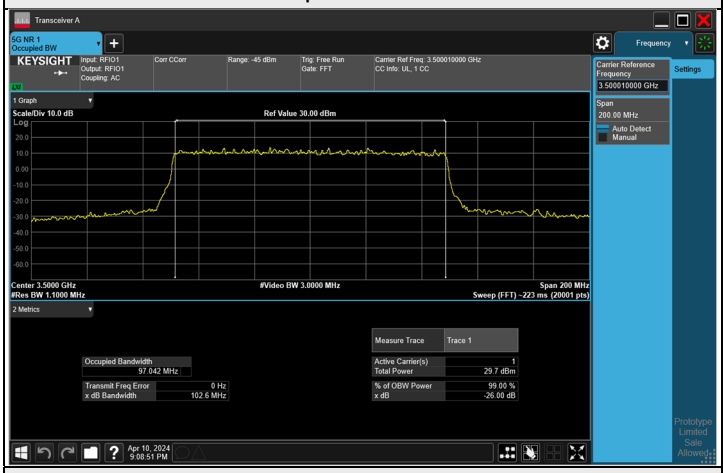
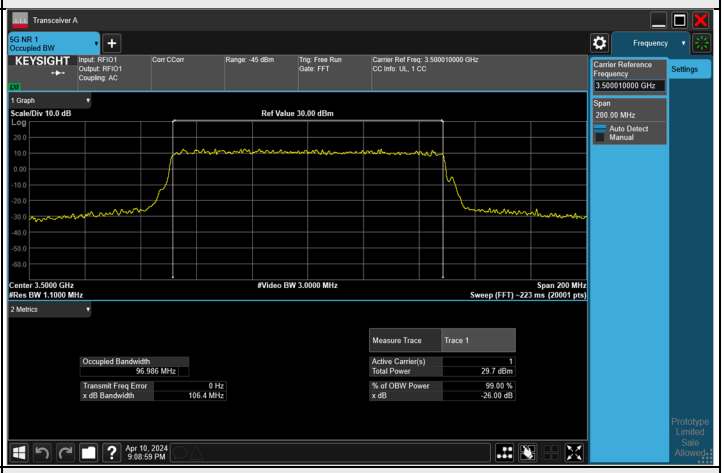
NR n78 SCS 30 kHz (3.45 GHz ~ 3.55 GHz) - MIMO-Ant 7, Channel Bandwidth: 90 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	633000	3495	86.805	90.07
BPSK	633334	3500.01	86.839	95.50
BPSK	633666	3504.99	86.798	95.14
QPSK	633000	3495	87.251	90.48
QPSK	633334	3500.01	87.180	90.42
QPSK	633666	3504.99	87.180	93.25
16QAM	633000	3495	87.288	93.07
16QAM	633334	3500.01	87.145	90.57
16QAM	633666	3504.99	87.125	90.45
64QAM	633000	3495	87.071	91.31
64QAM	633334	3500.01	86.996	92.77
64QAM	633666	3504.99	87.057	95.05
256QAM	633000	3495	87.108	90.41
256QAM	633334	3500.01	87.018	90.64
256QAM	633666	3504.99	86.976	93.30

Spectrum Plot of Worst Value	
Occupied bandwidth	26 dB Bandwidth
	
16QAM CH 633000 (3495 MHz)	BPSK CH 633334 (3500.01 MHz)

NR n78 SCS 30 kHz (3.45 GHz ~ 3.55 GHz) - MIMO-Ant 7, Channel Bandwidth: 100 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	633334	3500.01	96.262	101.1
QPSK	633334	3500.01	96.783	102.7
16QAM	633334	3500.01	97.042	102.6
64QAM	633334	3500.01	96.986	106.4
256QAM	633334	3500.01	97.030	103.6

Spectrum Plot of Worst Value	
Occupied bandwidth	26 dB Bandwidth
	
16QAM CH 633334 (3500.01 MHz)	64QAM CH 633334 (3500.01 MHz)

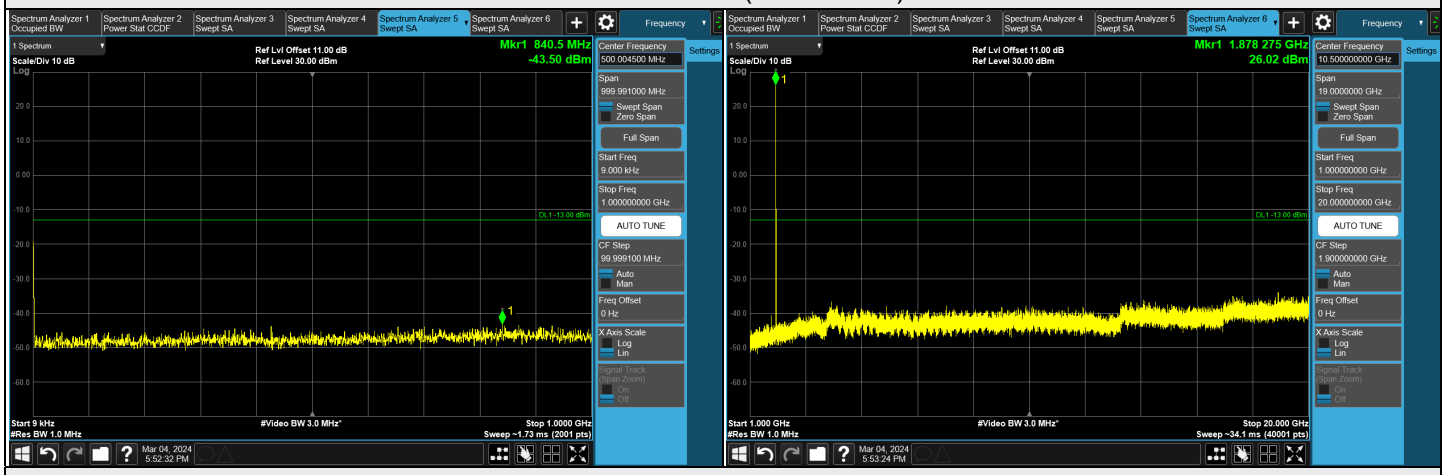
7.5 Conducted Spurious Emissions

cInput Power:	3.87 Vdc	Environmental Conditions:	27°C, 68% RH	Tested By:	James Yang

7.5.1 NR n2 SCS 15 kHz

NR n2 SCS 15 kHz - Ant 0, Channel Bandwidth: 5 MHz

Channel 370500 (1852.5 MHz)

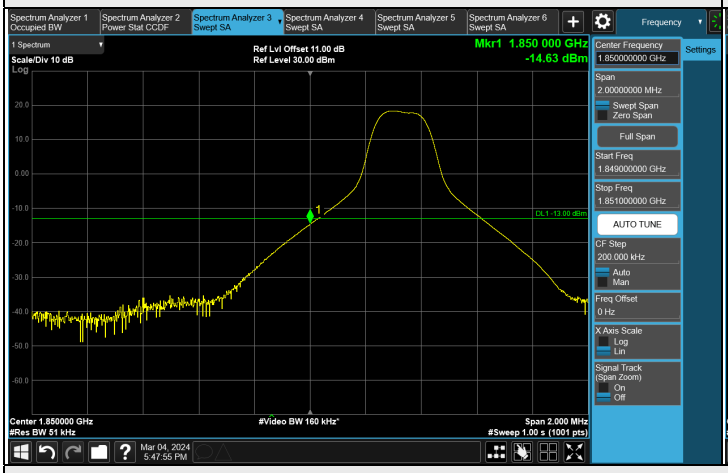
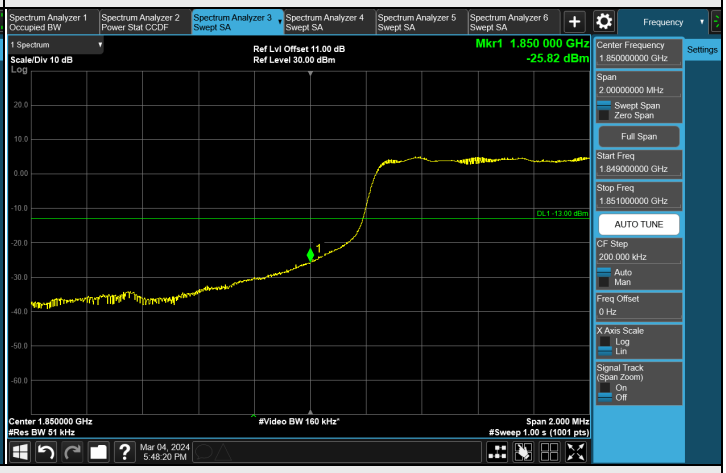
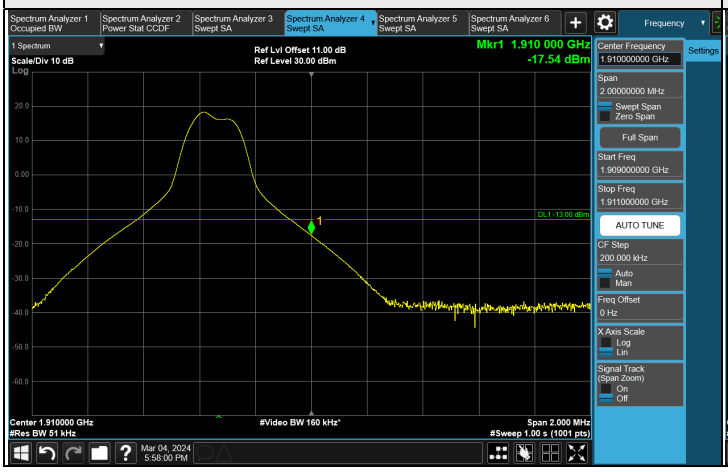


Channel 376000 (1880 MHz)

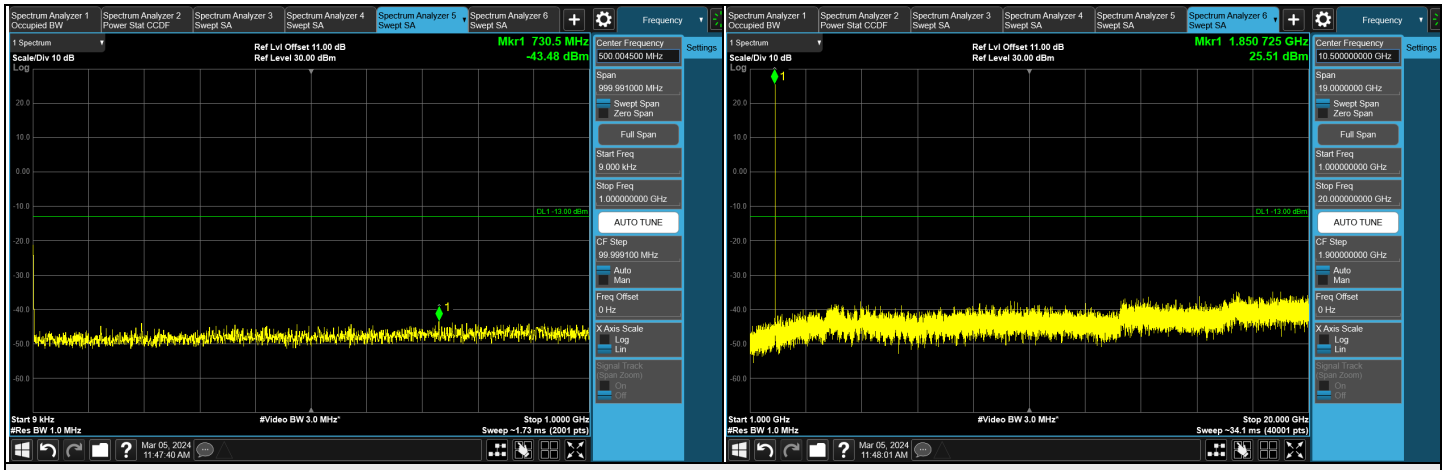
Channel 381500 (1907.5 MHz)

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

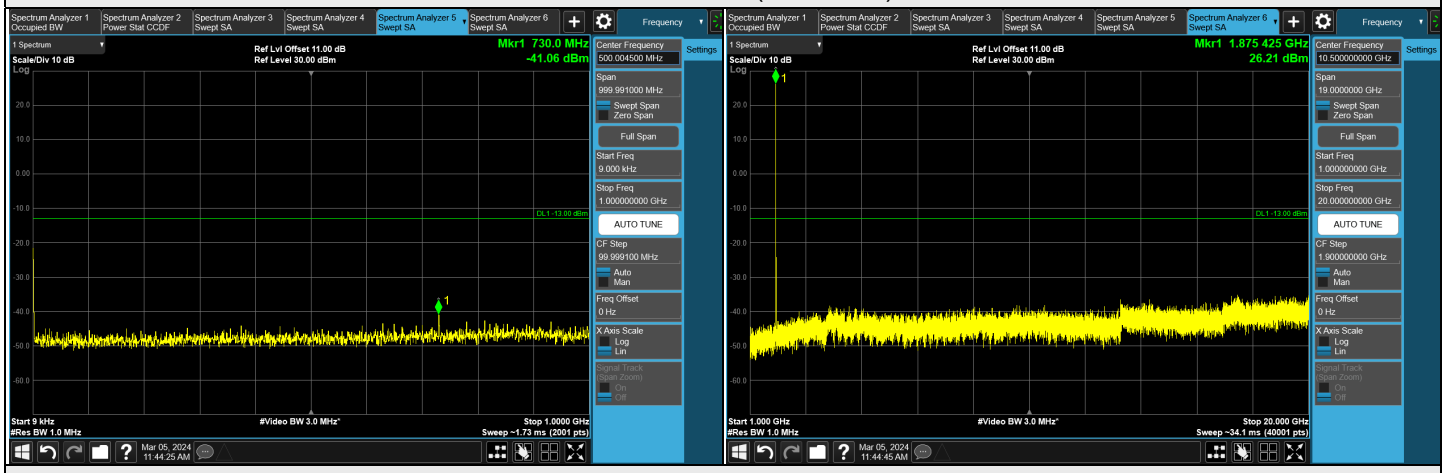
NR n2 SCS 15 kHz - Ant 0, Channel Bandwidth: 5 MHz

Channel 370500(1852.5 MHz)	
1 RB	FULL RB
	
Channel 381500(1907.5 MHz)	
1 RB	FULL RB
	

NR n2 SCS 15 kHz - Ant 0, Channel Bandwidth: 10 MHz



Channel 371000 (1855 MHz)



Channel 376000 (1880 MHz)

Channel 381000 (1905 MHz)

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