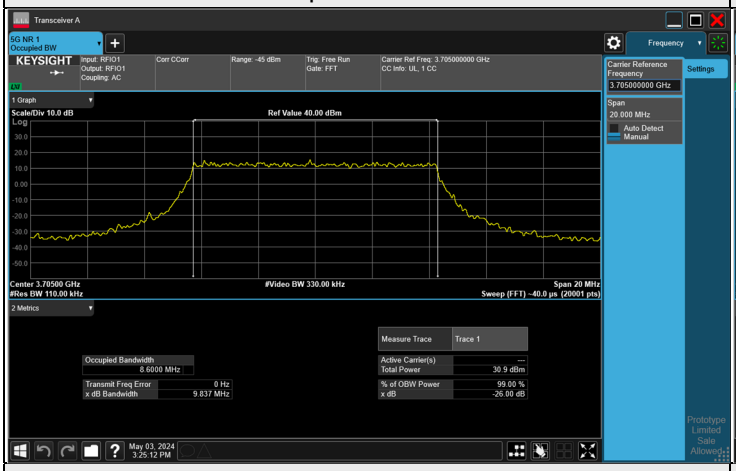
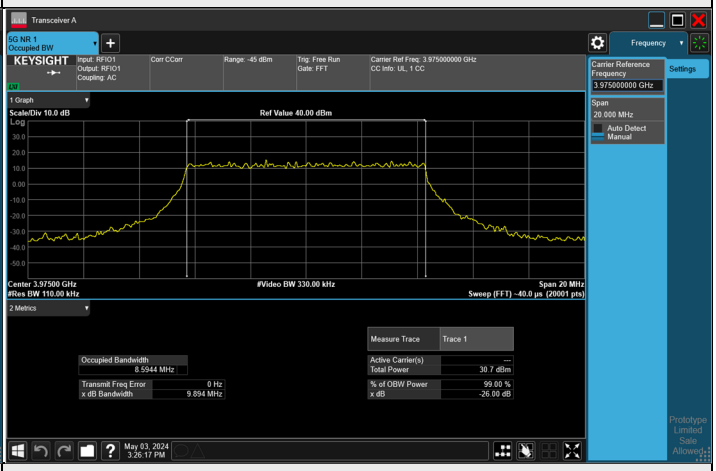
7.4.10 NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz) – MIMO (Chain 1)

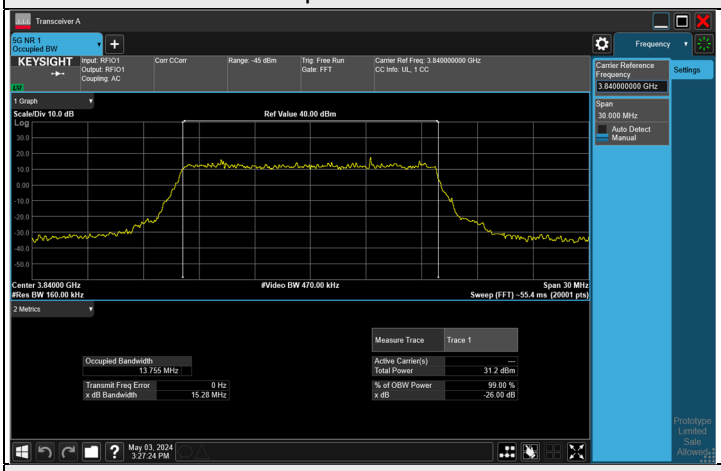
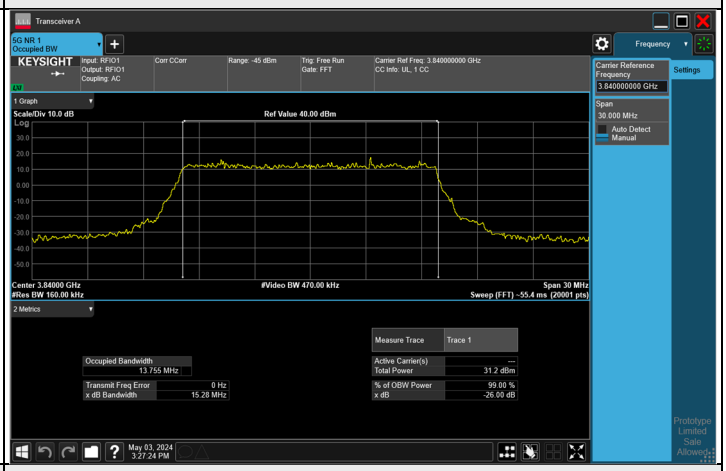
NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz) Chain 1, Channel Bandwidth: 10 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	647000	3705	8.5724	9.761
QPSK	656000	3840	8.5802	9.834
QPSK	665000	3975	8.5909	9.609
16QAM	647000	3705	8.6000	9.837
16QAM	656000	3840	8.5602	9.583
16QAM	665000	3975	8.5944	9.894
64QAM	647000	3705	8.5809	9.740
64QAM	656000	3840	8.5905	9.669
64QAM	665000	3975	8.5626	9.773
256QAM	647000	3705	8.5830	9.719
256QAM	656000	3840	8.5802	9.567
256QAM	665000	3975	8.5969	9.528

Spectrum Plot of Worst Value	
Occupied bandwidth	26 dB Bandwidth
	
16QAM CH 647000 (3705 MHz)	16QAM CH 665000 (3975 MHz)

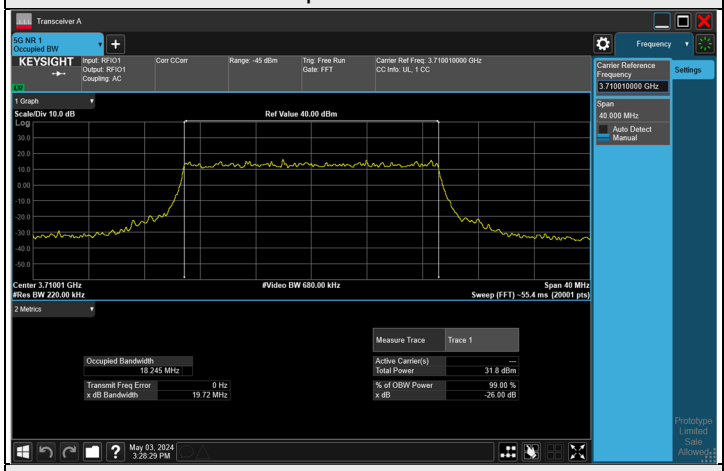
NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz) Chain 1, Channel Bandwidth: 15 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	647168	3707.52	13.546	14.62
QPSK	656000	3840	13.564	15.18
QPSK	664832	3972.48	13.561	14.96
16QAM	647168	3707.52	13.588	15.06
16QAM	656000	3840	13.755	15.28
16QAM	664832	3972.48	13.579	14.81
64QAM	647168	3707.52	13.570	14.89
64QAM	656000	3840	13.555	14.91
64QAM	664832	3972.48	13.567	14.75
256QAM	647168	3707.52	13.567	15.27
256QAM	656000	3840	13.555	14.75
256QAM	664832	3972.48	13.551	14.90

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

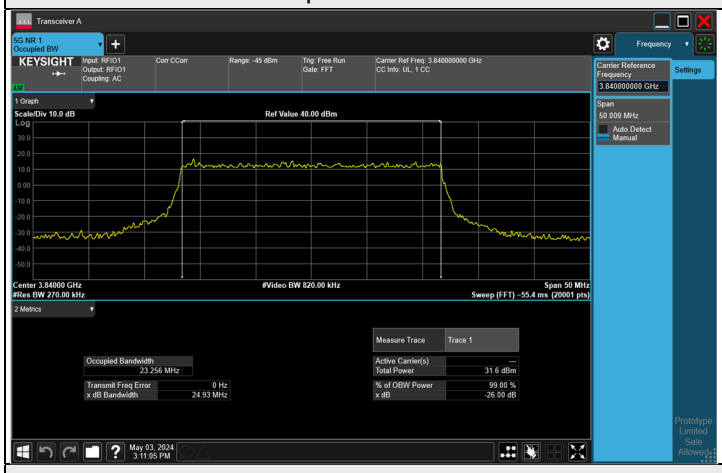
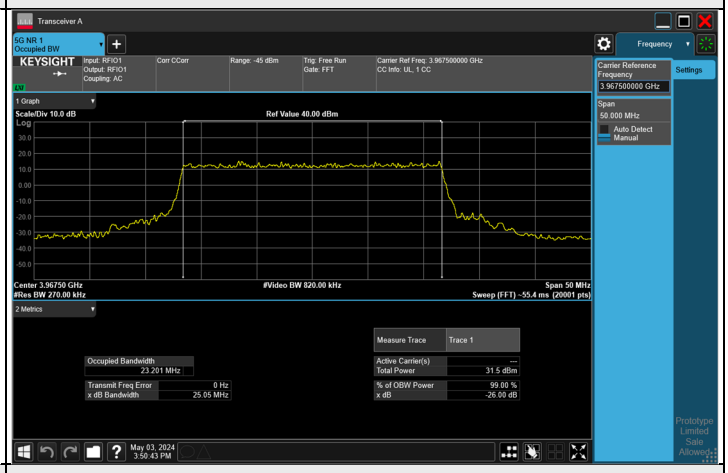
NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz) Chain 1, Channel Bandwidth: 20 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	647334	3710.01	18.190	19.66
QPSK	656000	3840	18.216	19.75
QPSK	664666	3969.99	18.197	19.84
16QAM	647334	3710.01	18.245	19.72
16QAM	656000	3840	18.202	19.86
16QAM	664666	3969.99	18.170	19.62
64QAM	647334	3710.01	18.205	19.65
64QAM	656000	3840	18.197	19.61
64QAM	664666	3969.99	18.149	19.80
256QAM	647334	3710.01	18.233	19.76
256QAM	656000	3840	18.189	19.76
256QAM	664666	3969.99	18.221	19.96

Spectrum Plot of Worst Value	
Occupied bandwidth	26 dB Bandwidth
	
16QAM CH 647334 (3710.01 MHz)	256QAM CH 664666 (3969.99 MHz)

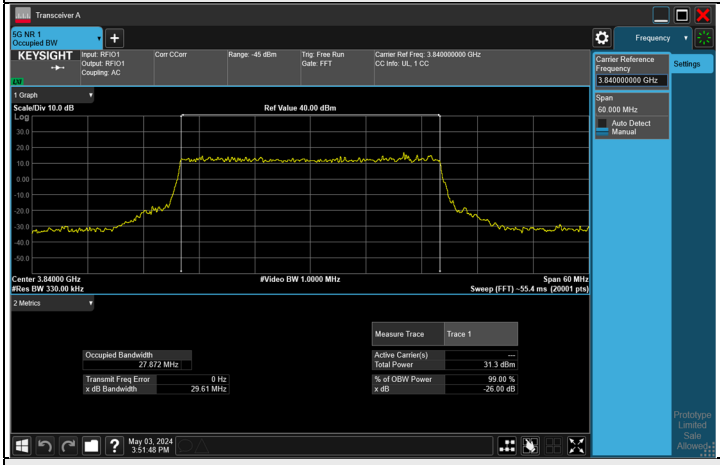
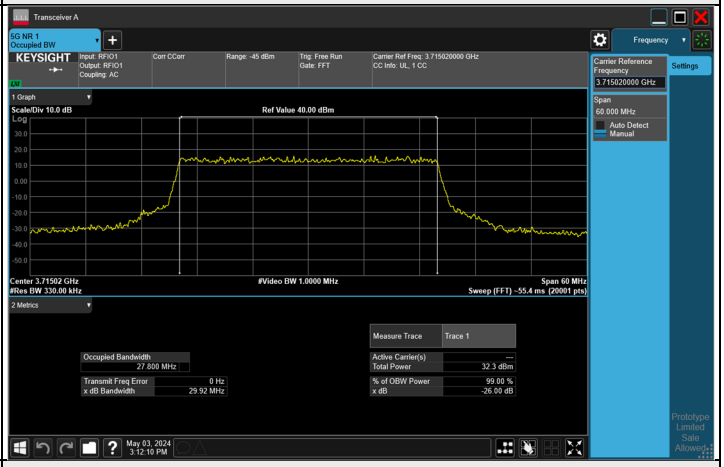
NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz) Chain 1, Channel Bandwidth: 25 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	647500	3712.5	23.191	24.97
QPSK	656000	3840	23.256	24.93
QPSK	664500	3967.5	23.207	24.75
16QAM	647500	3712.5	23.200	24.79
16QAM	656000	3840	23.166	24.56
16QAM	664500	3967.5	23.145	24.87
64QAM	647500	3712.5	23.166	24.95
64QAM	656000	3840	23.171	24.84
64QAM	664500	3967.5	23.201	25.05
256QAM	647500	3712.5	23.126	24.68
256QAM	656000	3840	23.192	25.00
256QAM	664500	3967.5	23.161	24.65

Spectrum Plot of Worst Value	
Occupied bandwidth	26 dB Bandwidth
	
QPSK CH 656000 (3840 MHz)	64QAM CH 664500 (3967.5 MHz)

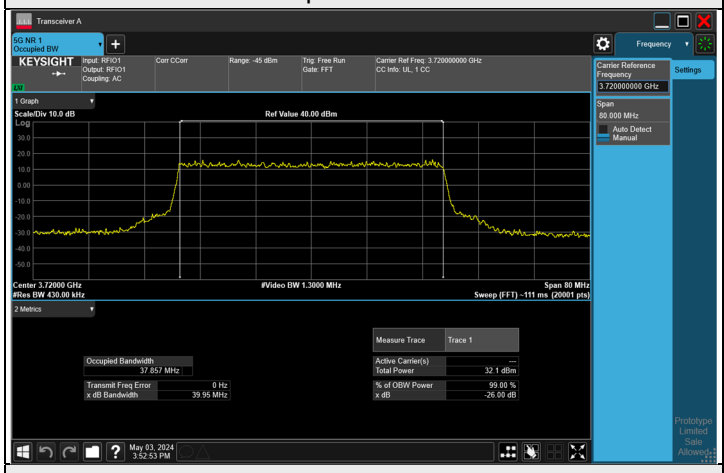
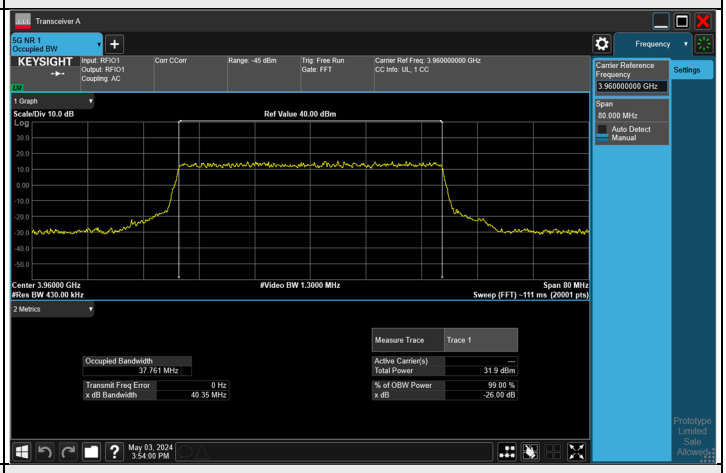
NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz) Chain 1, Channel Bandwidth: 30 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	647668	3715.02	27.800	29.92
QPSK	656000	3840	27.841	29.57
QPSK	664332	3964.98	27.825	29.75
16QAM	647668	3715.02	27.831	29.57
16QAM	656000	3840	27.824	29.69
16QAM	664332	3964.98	27.830	29.57
64QAM	647668	3715.02	27.733	29.66
64QAM	656000	3840	27.872	29.61
64QAM	664332	3964.98	27.831	29.58
256QAM	647668	3715.02	27.788	29.70
256QAM	656000	3840	27.740	29.78
256QAM	664332	3964.98	27.872	29.60

Spectrum Plot of Worst Value	
Occupied bandwidth	26 dB Bandwidth
	
64QAM CH 656000 (3840 MHz)	QPSK CH 647668 (3715.02 MHz)

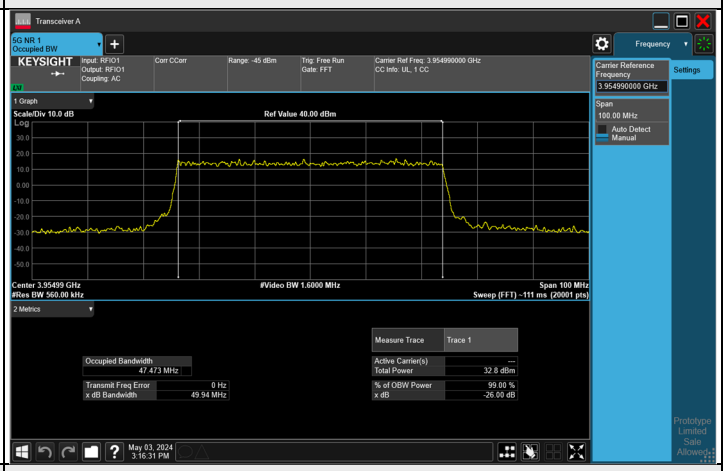
NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz) Chain 1, Channel Bandwidth: 40 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	648000	3720	37.810	40.05
QPSK	656000	3840	37.802	39.70
QPSK	664000	3960	37.817	39.90
16QAM	648000	3720	37.744	39.90
16QAM	656000	3840	37.779	39.61
16QAM	664000	3960	37.779	39.67
64QAM	648000	3720	37.857	39.95
64QAM	656000	3840	37.825	39.76
64QAM	664000	3960	37.761	40.35
256QAM	648000	3720	37.778	39.89
256QAM	656000	3840	37.811	39.82
256QAM	664000	3960	37.707	39.75

Spectrum Plot of Worst Value	
Occupied bandwidth	26 dB Bandwidth
	
64QAM CH 648000 (3720 MHz)	64QAM CH 664000 (3960 MHz)

NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz) Chain 1, Channel Bandwidth: 50 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	648334	3725.01	47.401	49.78
QPSK	656000	3840	47.404	49.75
QPSK	663666	3954.99	47.473	49.94
16QAM	648334	3725.01	47.413	49.91
16QAM	656000	3840	47.333	49.69
16QAM	663666	3954.99	47.300	49.74
64QAM	648334	3725.01	47.384	49.81
64QAM	656000	3840	47.402	49.63
64QAM	663666	3954.99	47.343	49.83
256QAM	648334	3725.01	47.392	49.87
256QAM	656000	3840	47.362	49.92
256QAM	663666	3954.99	47.363	49.69

Spectrum Plot of Worst Value	
Occupied bandwidth	26 dB Bandwidth
	
QPSK CH 663666 (3954.99 MHz)	QPSK CH 663666 (3954.99 MHz)

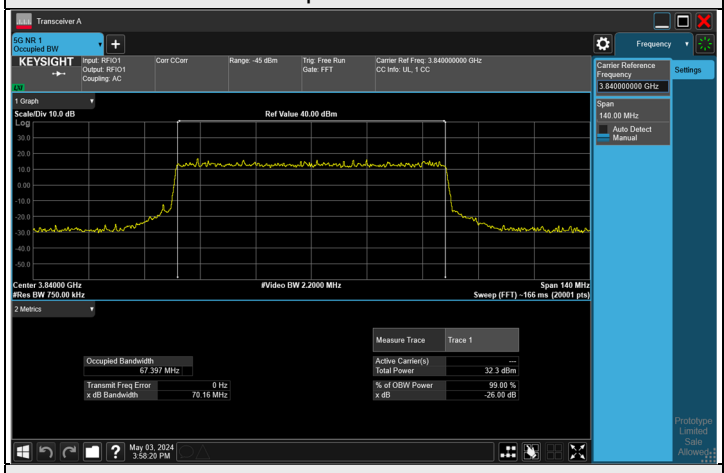
NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz) Chain 1, Channel Bandwidth: 60 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	648668	3730.02	57.650	60.49
QPSK	656000	3840	57.769	60.42
QPSK	663332	3949.98	57.689	60.20
16QAM	648668	3730.02	57.686	60.27
16QAM	656000	3840	57.699	60.41
16QAM	663332	3949.98	57.744	60.36
64QAM	648668	3730.02	57.673	60.65
64QAM	656000	3840	57.794	60.56
64QAM	663332	3949.98	57.663	60.50
256QAM	648668	3730.02	57.625	60.36
256QAM	656000	3840	57.677	60.48
256QAM	663332	3949.98	57.688	60.55

Spectrum Plot of Worst Value	
Occupied bandwidth	26 dB Bandwidth
64QAM CH 656000 (3840 MHz)	64QAM CH 648668 (3730.02 MHz)

NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz) Chain 1, Channel Bandwidth: 70 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	649000	3735	67.219	70.05
QPSK	656000	3840	67.275	70.28
QPSK	663000	3945	67.273	70.23
16QAM	649000	3735	67.328	69.99
16QAM	656000	3840	67.259	70.25
16QAM	663000	3945	67.244	70.39
64QAM	649000	3735	67.326	69.97
64QAM	656000	3840	67.397	70.16
64QAM	663000	3945	67.389	70.19
256QAM	649000	3735	67.214	70.33
256QAM	656000	3840	67.204	69.95
256QAM	663000	3945	67.370	70.05

Spectrum Plot of Worst Value	
Occupied bandwidth	26 dB Bandwidth
	
64QAM CH 656000 (3840 MHz)	16QAM CH 663000 (3945 MHz)

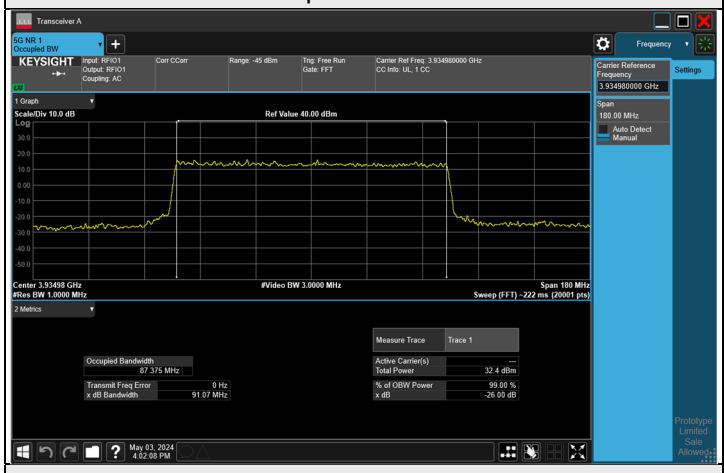
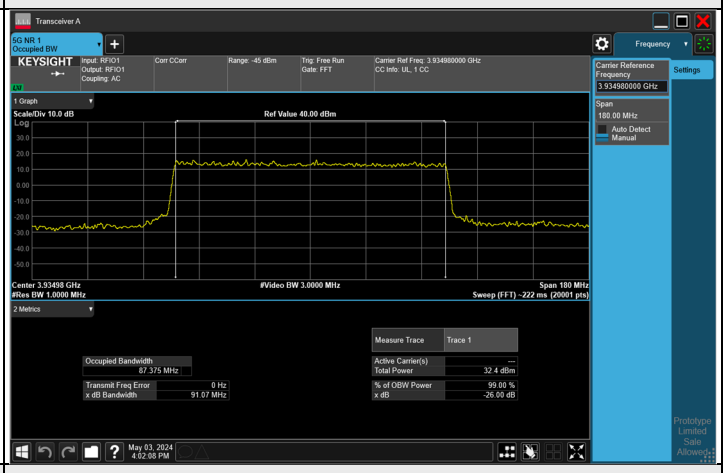
NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz) Chain 1, Channel Bandwidth: 80 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	649334	3740.01	77.249	80.62
QPSK	656000	3840	77.186	80.40
QPSK	662666	3939.99	77.270	80.63
16QAM	649334	3740.01	77.267	80.79
16QAM	656000	3840	77.425	80.68
16QAM	662666	3939.99	77.348	80.59
64QAM	649334	3740.01	77.204	80.35
64QAM	656000	3840	77.233	80.30
64QAM	662666	3939.99	77.255	80.41
256QAM	649334	3740.01	77.205	80.19
256QAM	656000	3840	77.315	80.79
256QAM	662666	3939.99	77.218	80.68

Spectrum Plot of Worst Value	
Occupied bandwidth	26 dB Bandwidth
16QAM CH 656000 (3840 MHz)	16QAM CH 649334 (3740.01 MHz)

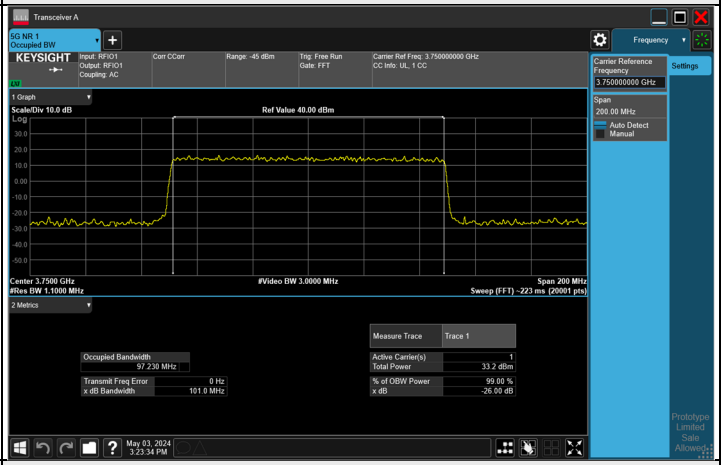
NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz) Chain 1, Channel Bandwidth: 90 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	649668	3745.02	87.307	90.69
QPSK	656000	3840	87.359	90.58
QPSK	662332	3934.98	87.198	90.70
16QAM	649668	3745.02	87.322	90.50
16QAM	656000	3840	87.286	90.94
16QAM	662332	3934.98	87.270	90.72
64QAM	649668	3745.02	87.268	90.69
64QAM	656000	3840	87.340	90.55
64QAM	662332	3934.98	87.375	91.07
256QAM	649668	3745.02	87.156	90.92
256QAM	656000	3840	87.146	90.70
256QAM	662332	3934.98	87.179	90.84

Spectrum Plot of Worst Value	
Occupied bandwidth	26 dB Bandwidth
	
64QAM CH 662332 (3934.98 MHz)	64QAM CH 662332 (3934.98 MHz)

NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz) Chain 1, Channel Bandwidth: 100 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
QPSK	650000	3750	97.230	101.0
QPSK	656000	3840	97.221	100.9
QPSK	662000	3930	97.282	100.9
16QAM	650000	3750	97.185	100.7
16QAM	656000	3840	97.420	101.0
16QAM	662000	3930	97.244	100.9
64QAM	650000	3750	97.247	101.0
64QAM	656000	3840	97.147	100.8
64QAM	662000	3930	97.160	100.9
256QAM	650000	3750	97.383	100.7
256QAM	656000	3840	97.206	100.9
256QAM	662000	3930	97.282	100.9

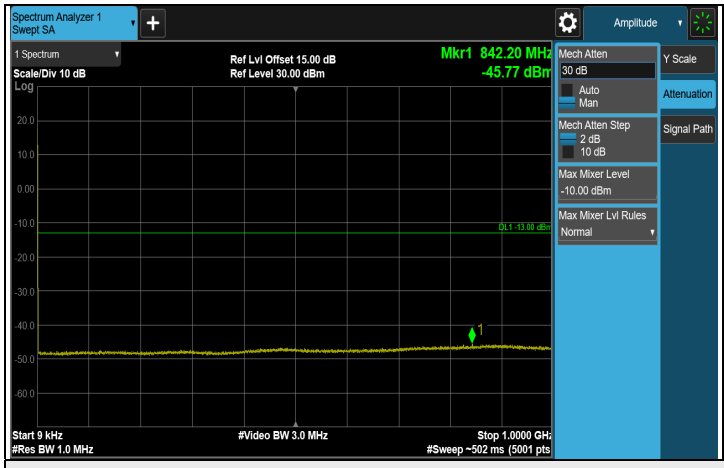
Spectrum Plot of Worst Value	
Occupied bandwidth	26 dB Bandwidth
	
16QAM CH 656000 (3840 MHz)	QPSK CH 650000 (3750 MHz)

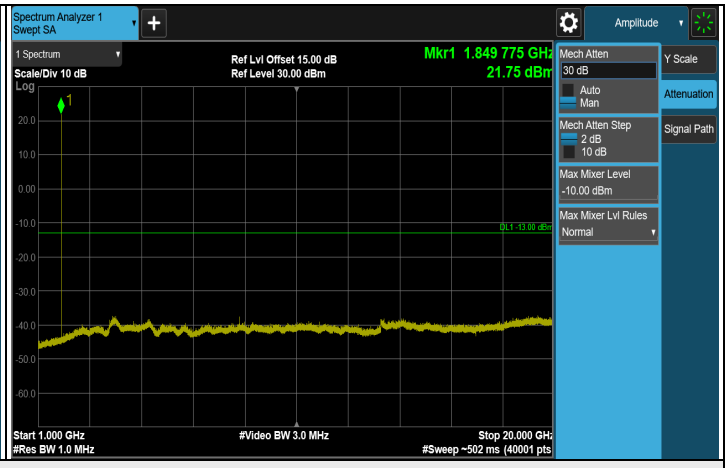
7.5 Conducted Spurious Emissions

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	24°C, 68% RH	Tested By:	Noah Chang

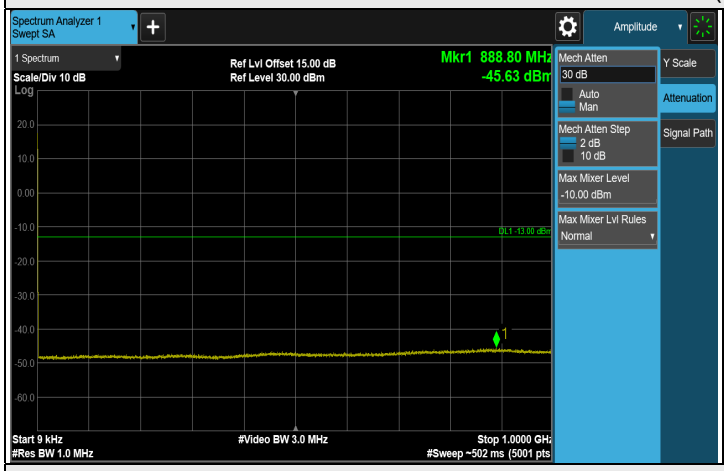
7.5.1 NR n2 SCS 15 kHz

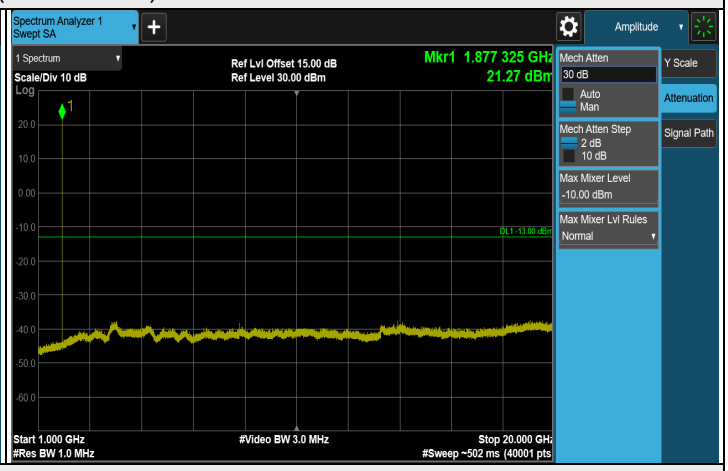
NR n2 SCS 15 kHz, Channel Bandwidth: 5 MHz



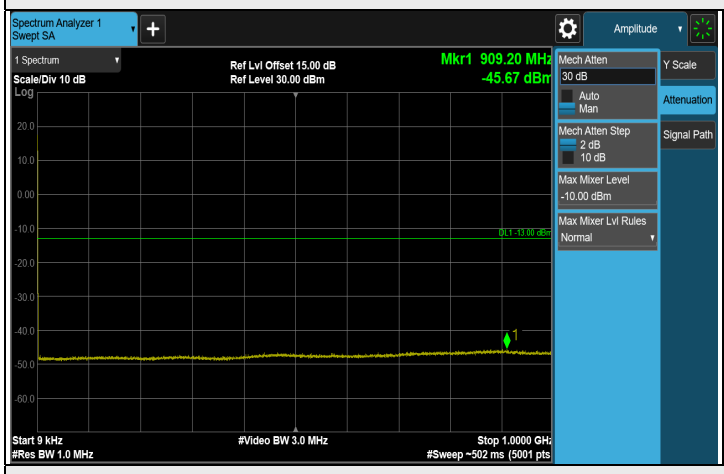


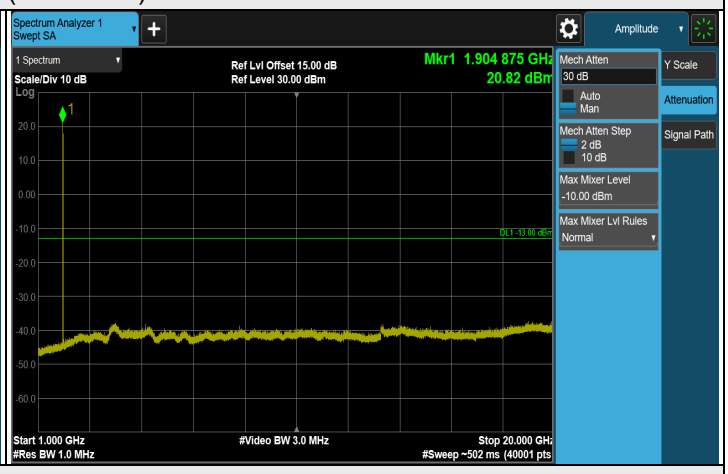
CH 370500 (1852.5 MHz)





CH 376000 (1880 MHz)

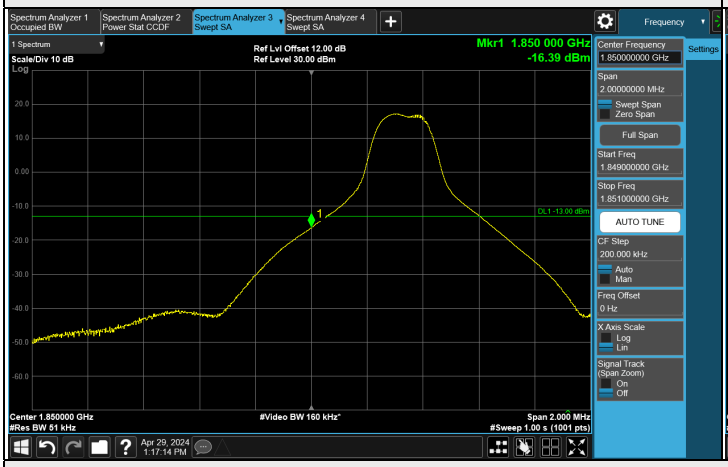
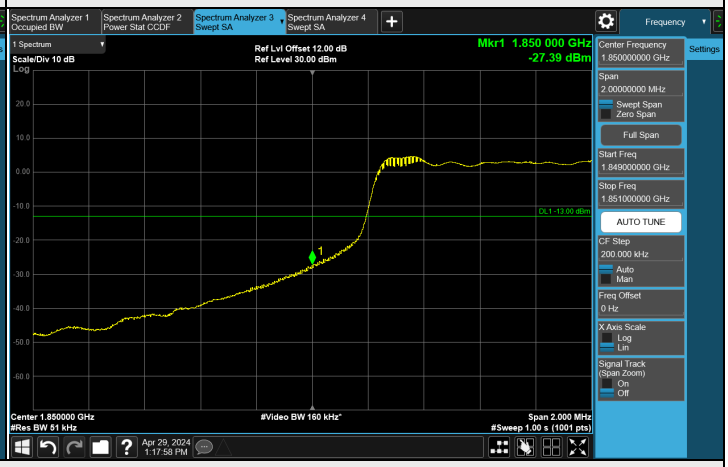
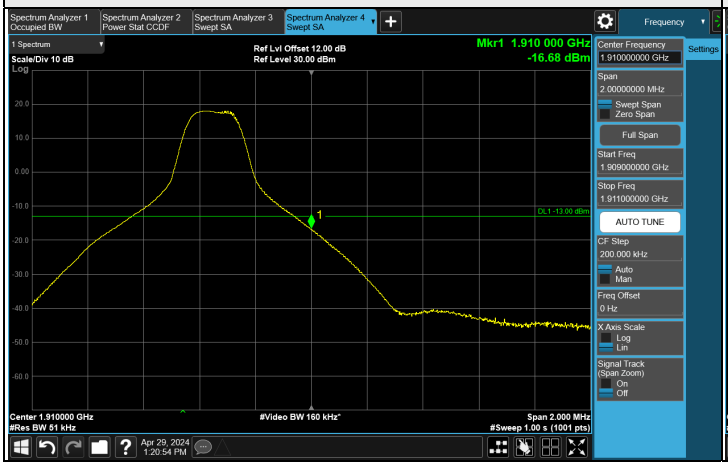




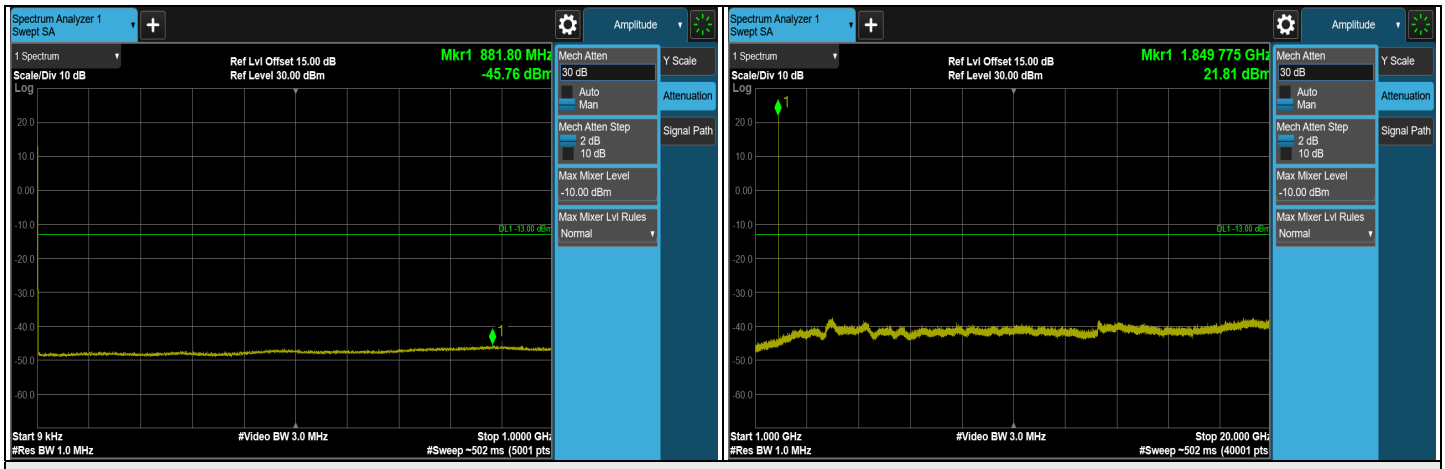
CH 381500 (1907.5 MHz)

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

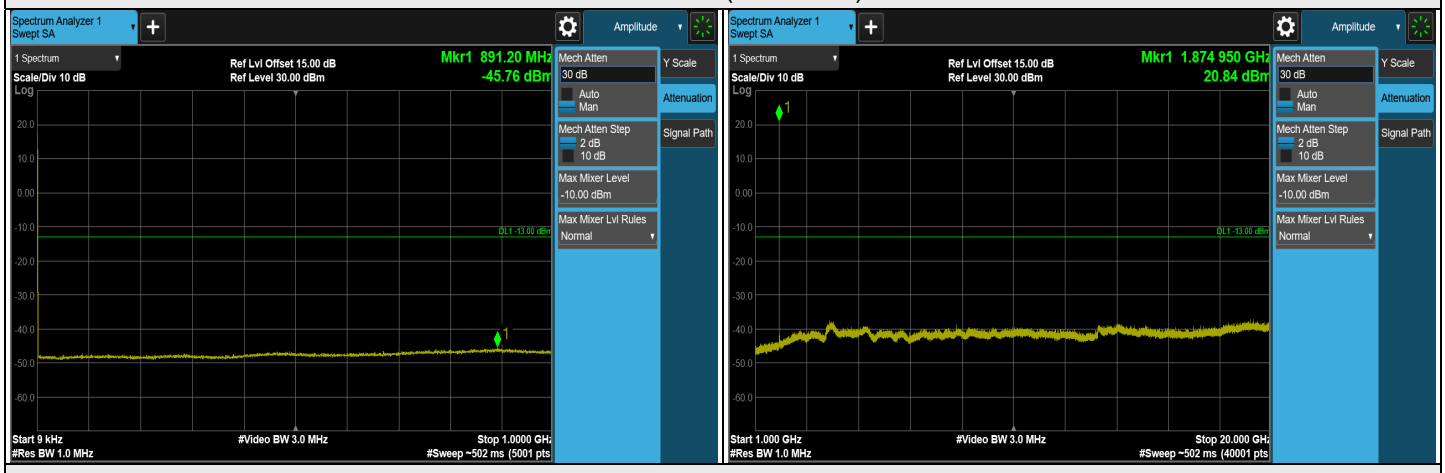
NR n2 SCS 15 kHz, Channel Bandwidth: 5 MHz

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

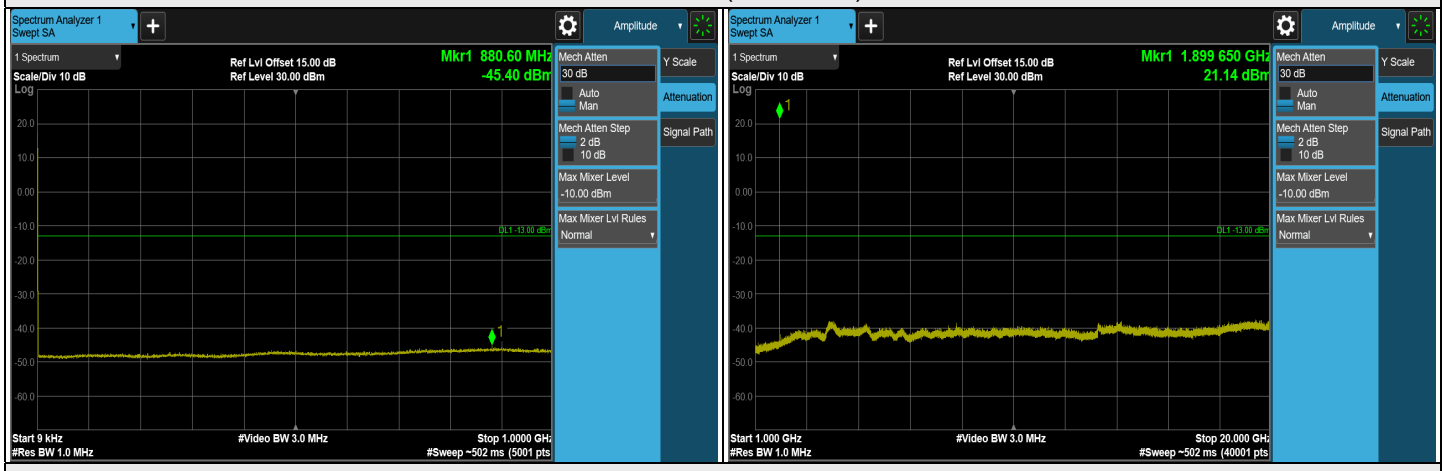
NR n2 SCS 15 kHz, Channel Bandwidth: 10 MHz



CH 371000 (1855 MHz)



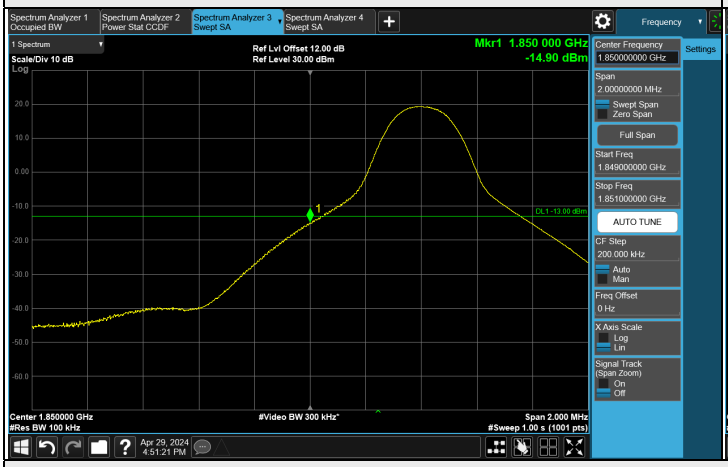
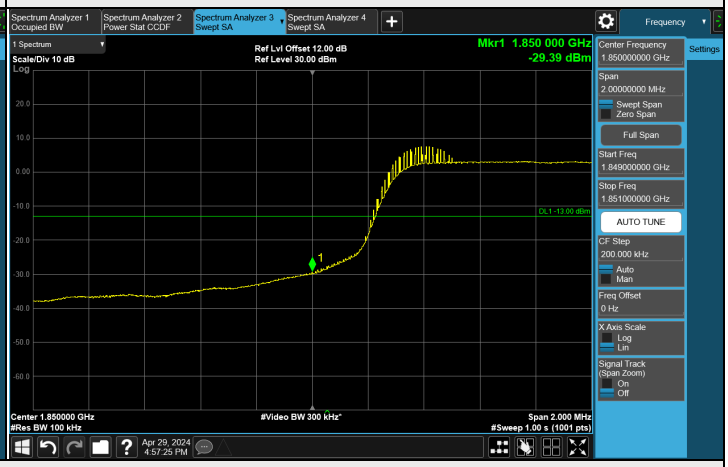
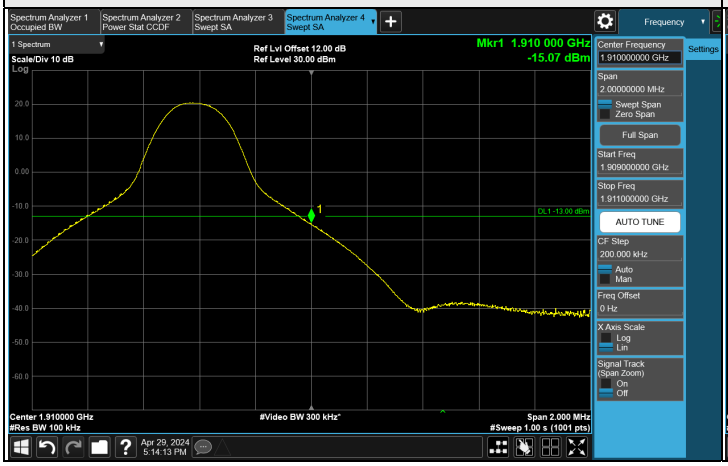
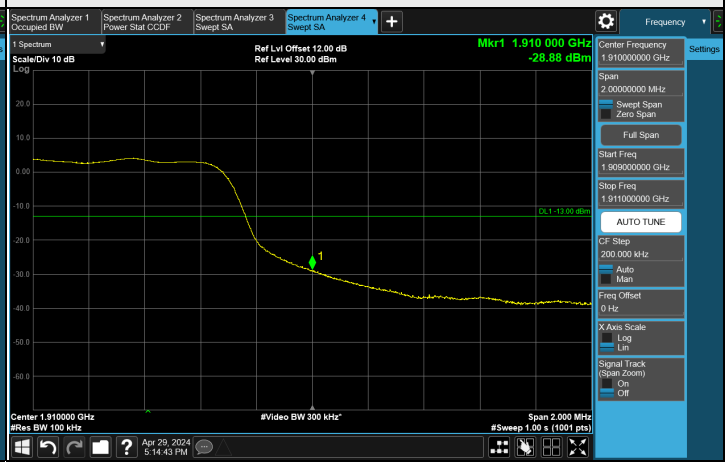
CH 376000 (1880 MHz)



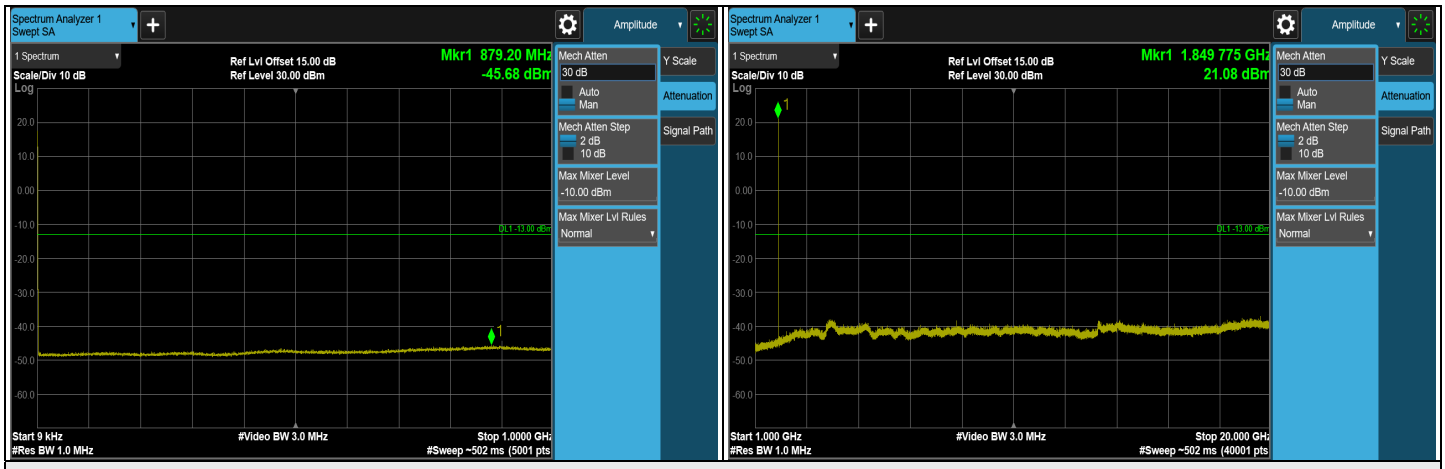
CH 381000 (1905 MHz)

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

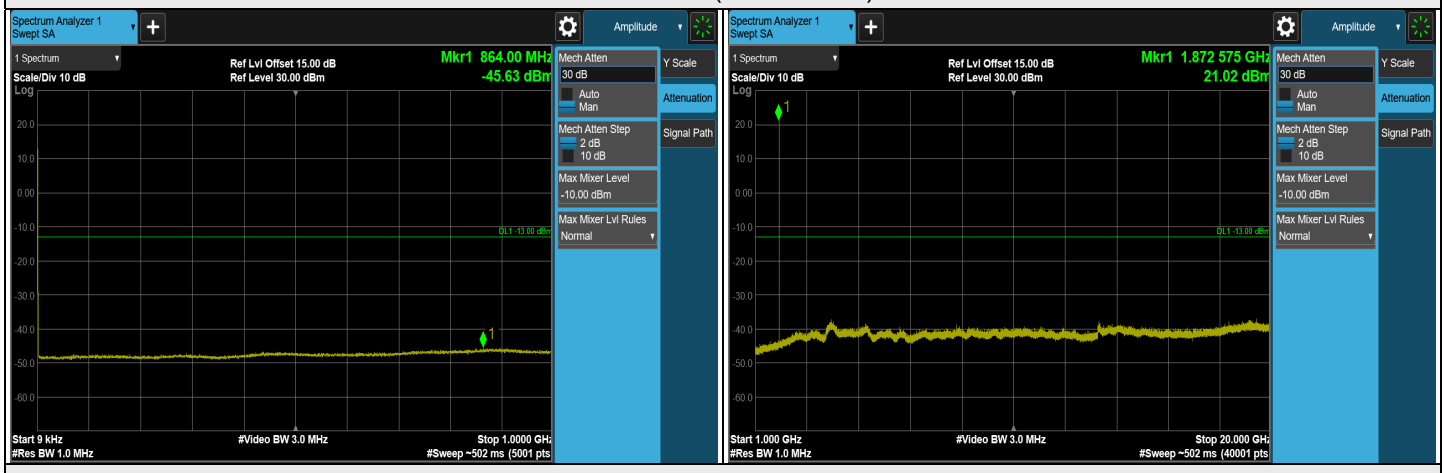
NR n2 SCS 15 kHz, Channel Bandwidth: 10 MHz

Channel 371000(1855 MHz)	
1 RB	FULL RB
	
Channel 381000(1905 MHz)	
1 RB	FULL RB
	

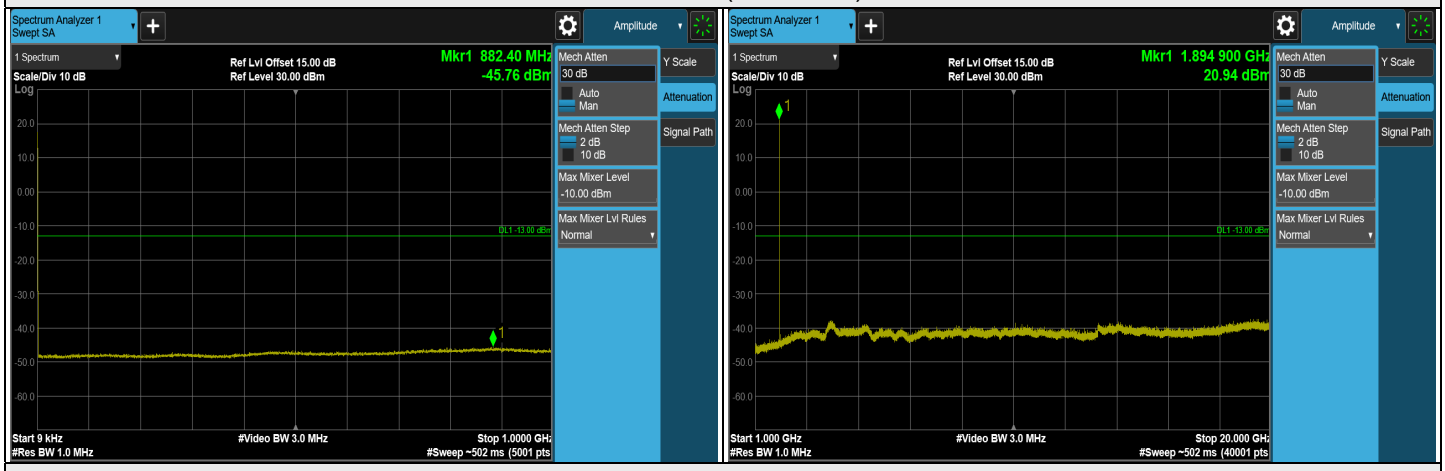
NR n2 SCS 15 kHz, Channel Bandwidth: 15 MHz



CH 371500 (1857.5 MHz)



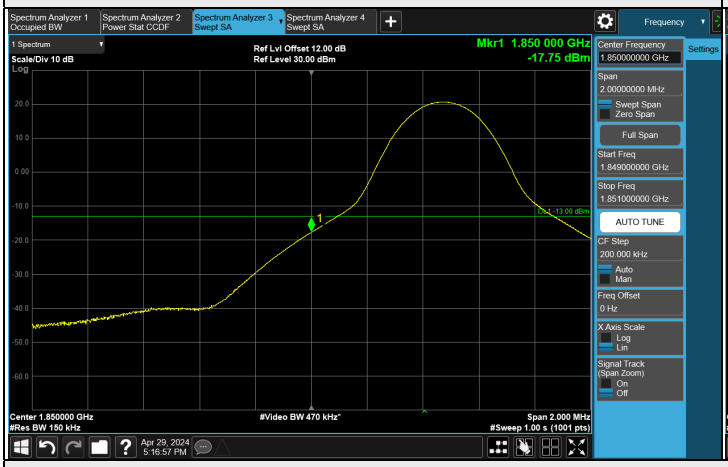
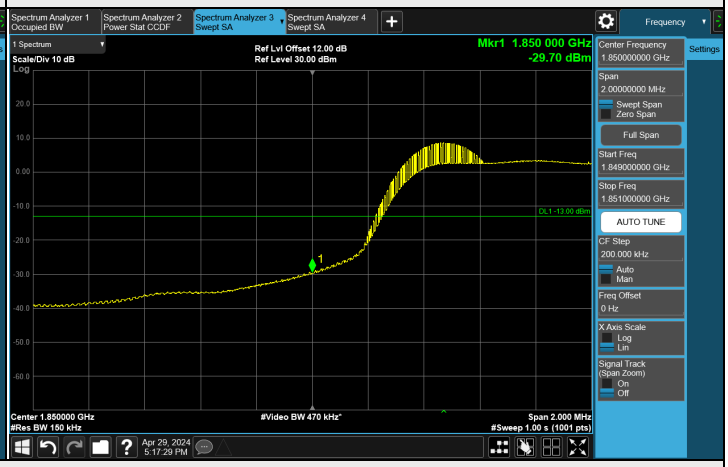
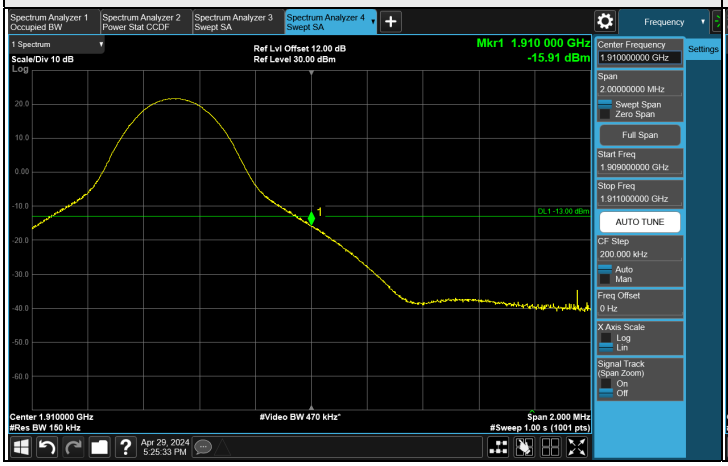
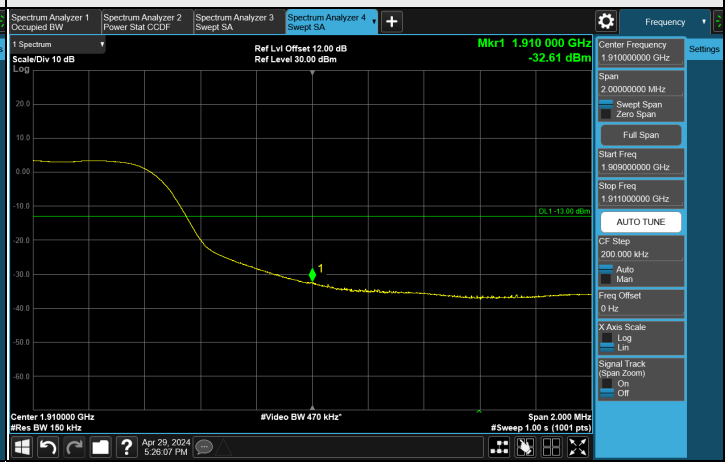
CH 376000 (1880 MHz)



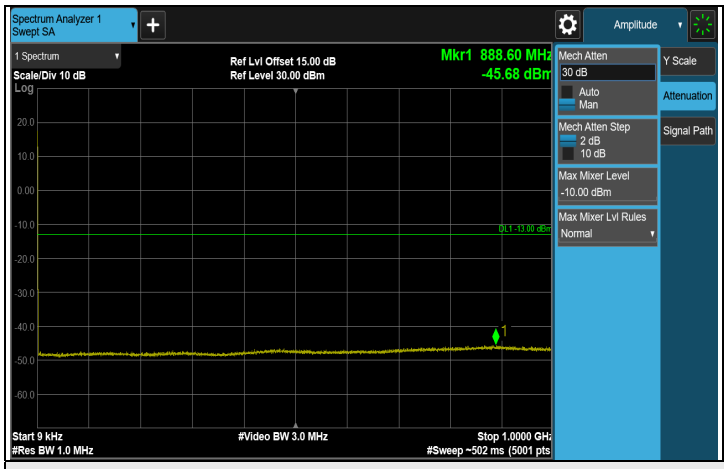
CH 380500 (1902.5 MHz)

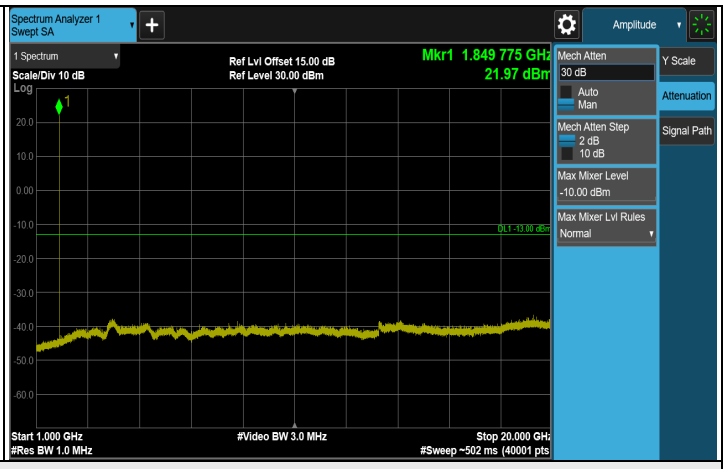
Note: The signal at 9 kHz is IF signal from spectrum analyzer.

NR n2 SCS 15 kHz, Channel Bandwidth: 15 MHz

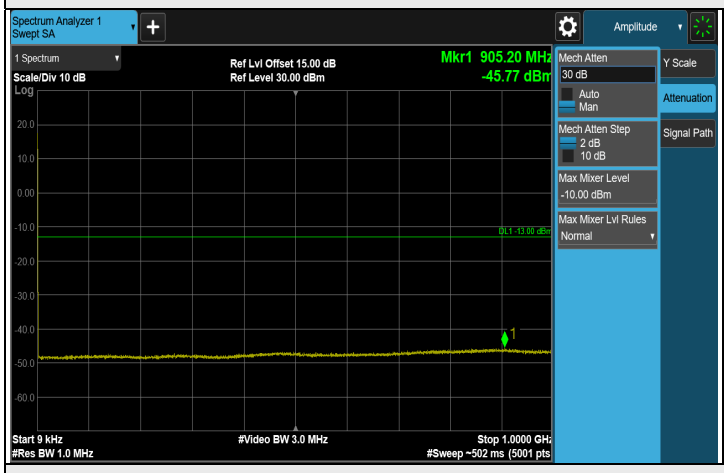
Channel 371500(1857.5 MHz)	
1 RB	FULL RB
	
Channel 380500(1902.5 MHz)	
1 RB	FULL RB
	

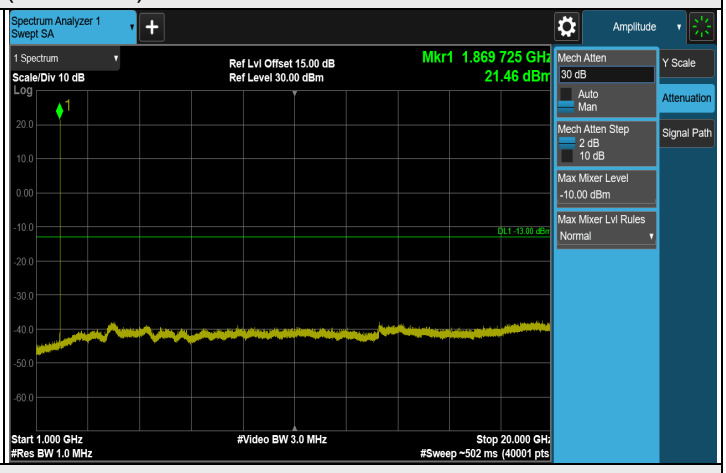
NR n2 SCS 15 kHz, Channel Bandwidth: 20 MHz



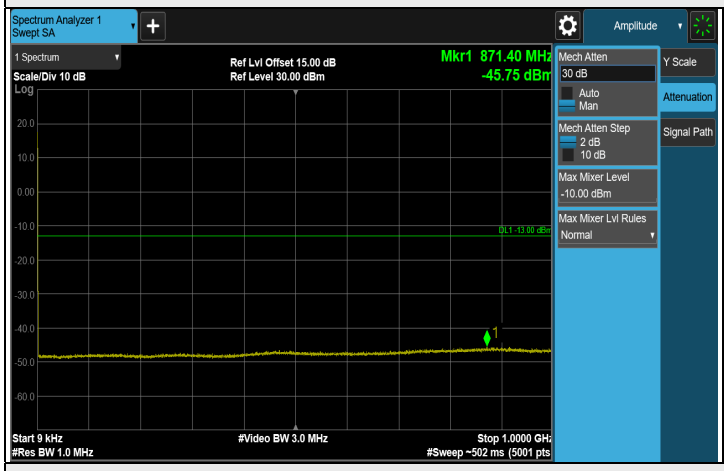


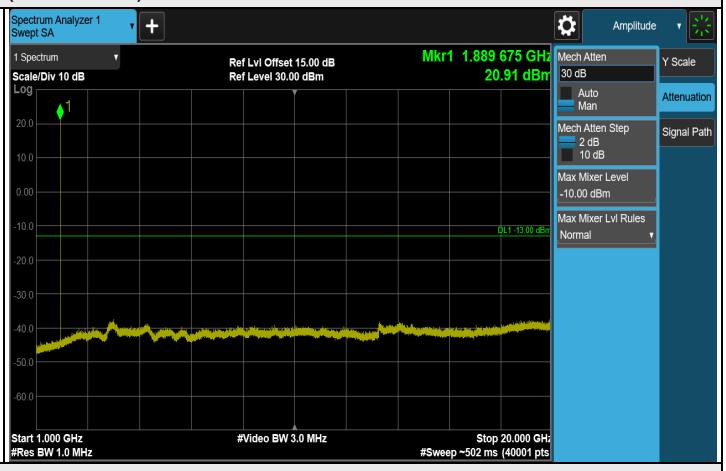
CH 372000 (1860 MHz)





CH 376000 (1880 MHz)

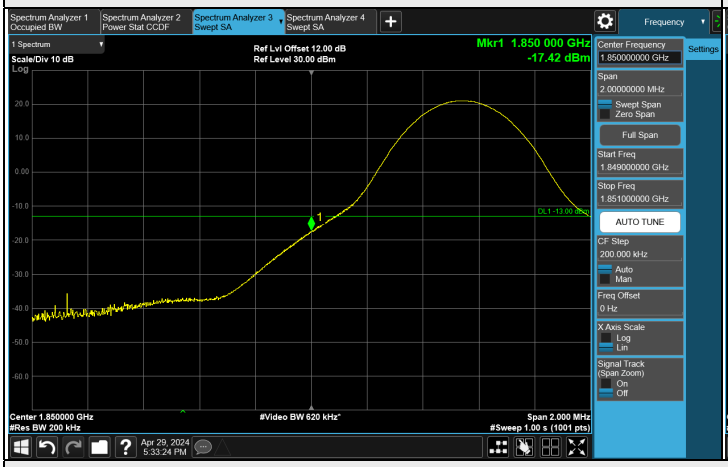
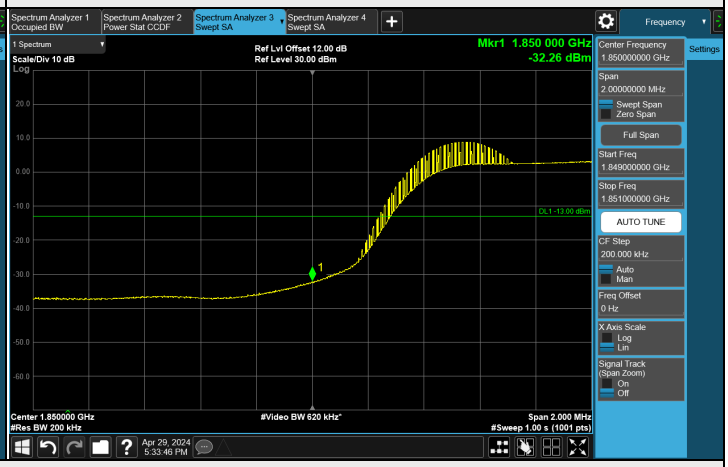
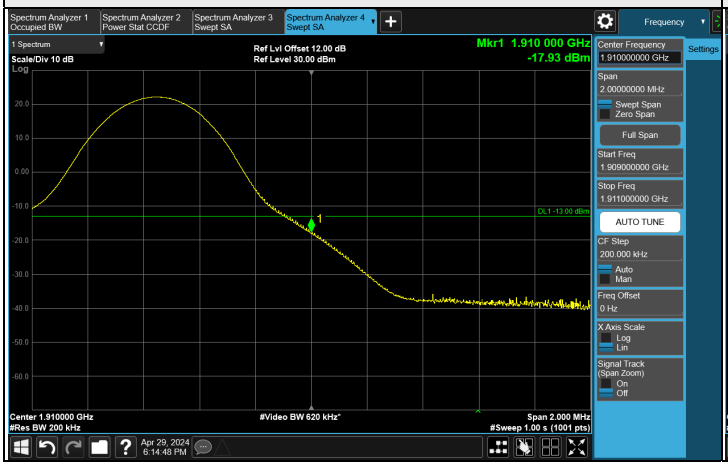
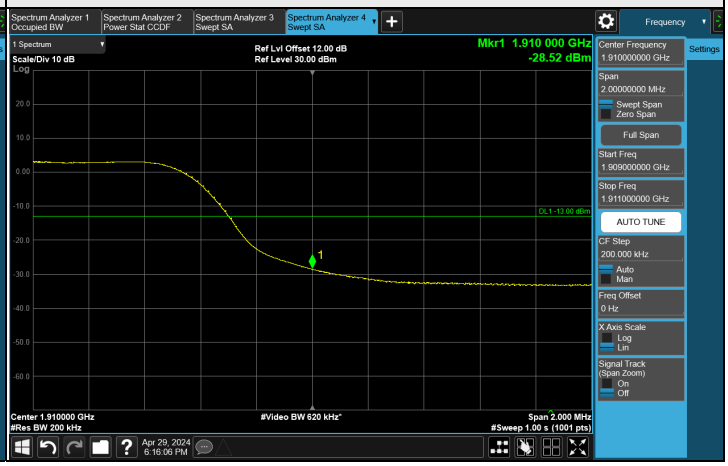




CH 380000 (1900 MHz)

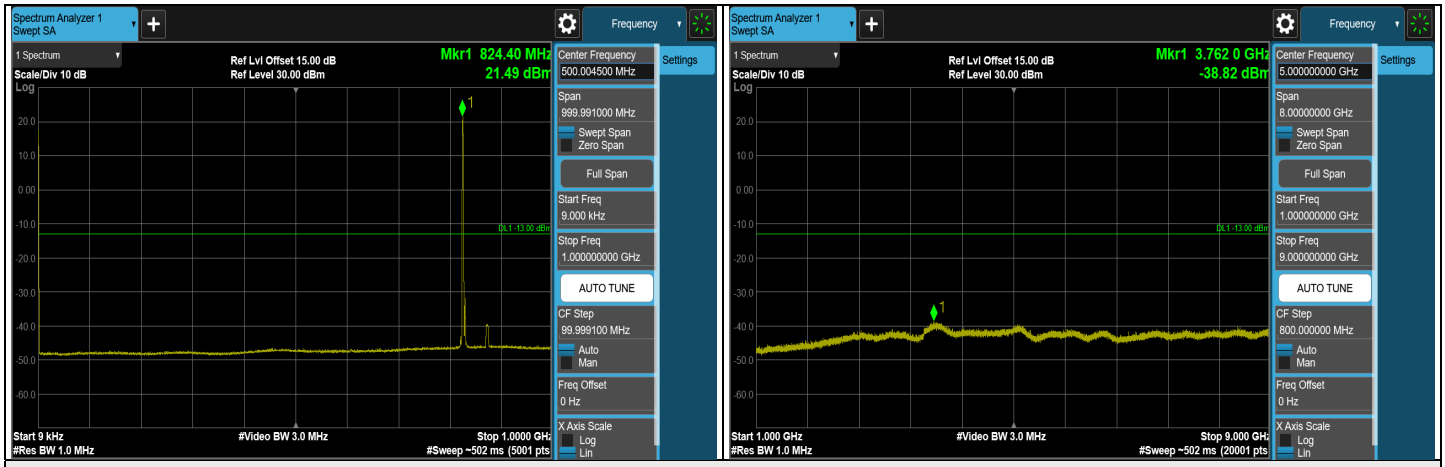
Note: The signal at 9 kHz is IF signal from spectrum analyzer.

NR n2 SCS 15 kHz, Channel Bandwidth: 20 MHz

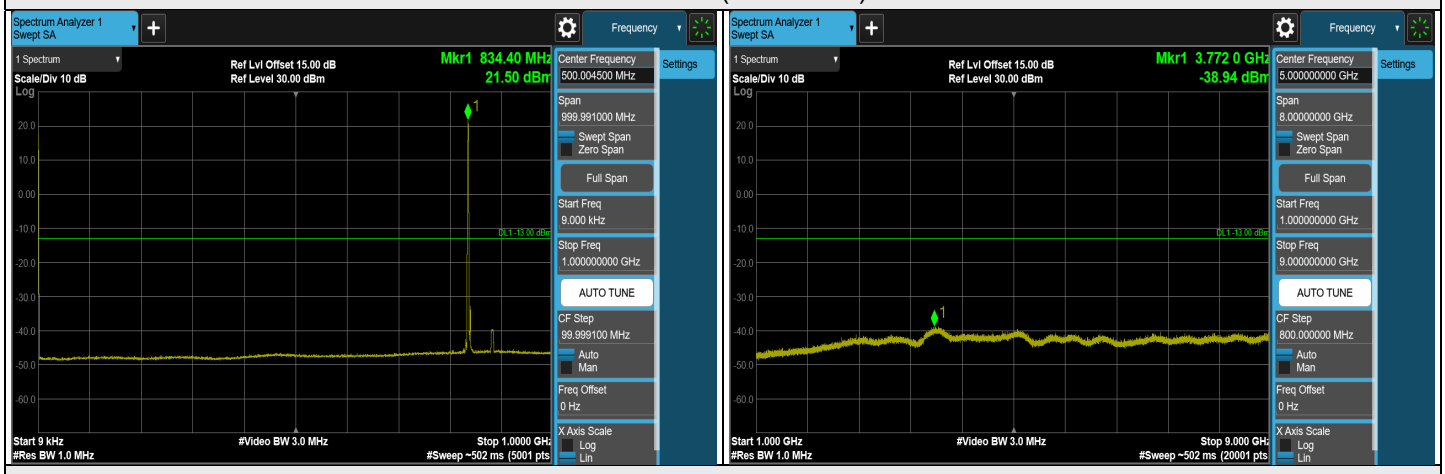
Channel 372000(1860 MHz)	
1 RB	FULL RB
	
Channel 380000(1900 MHz)	
1 RB	FULL RB
	

7.5.2 NR n5 SCS 15 kHz

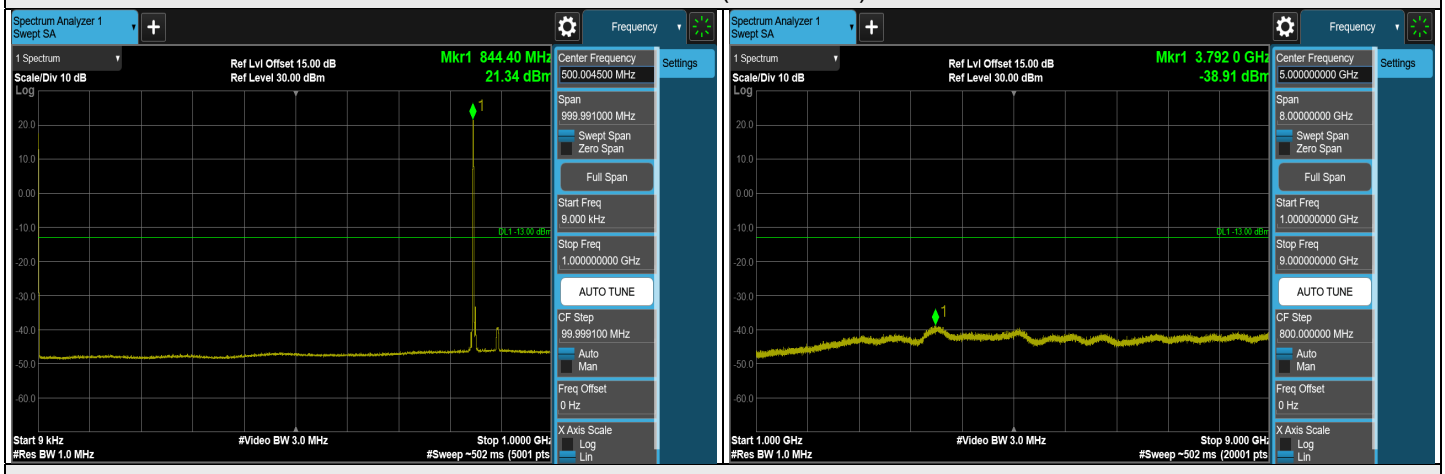
NR n5 SCS 15 kHz, Channel Bandwidth: 5 MHz



CH 165300 (826.5 MHz)



CH 167300 (836.5 MHz)



CH 169300 (846.5 MHz)

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