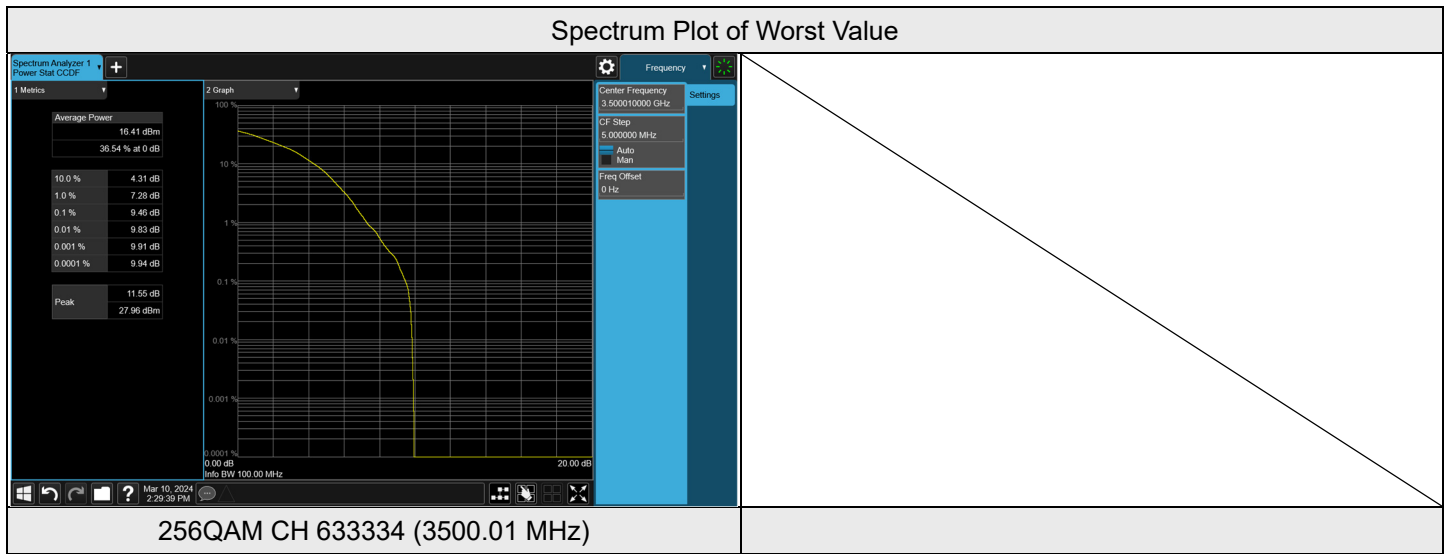




NR n77 SCS 30 kHz (3450-3550 MHz), Channel Bandwidth: 100 MHz

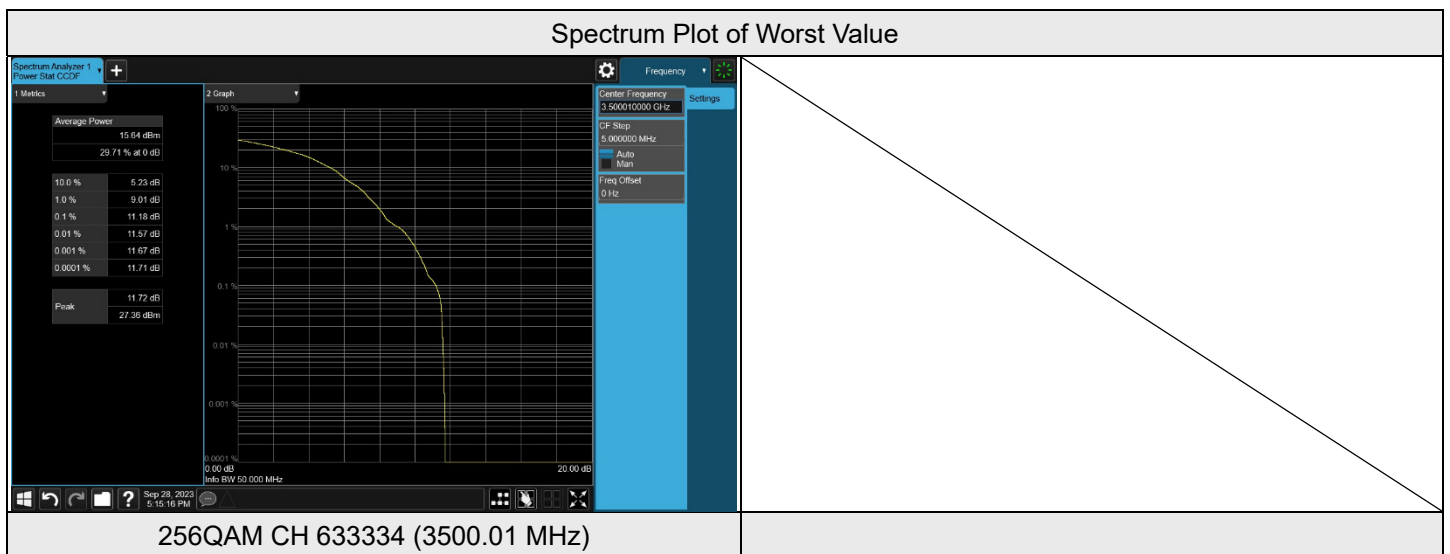
Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)	
			CH 633334	
			3500.01 MHz	
BPSK	1	0	5.44	
QPSK	1	0	8.17	
16 QAM	1	0	8.75	
64 QAM	1	0	9.05	
256 QAM	1	0	9.46	



7.3.9 NR n77 (3450-3550 MHz) SCS 30 kHz (PC3)

NR n77 SCS 30 kHz (3450-3550 MHz), Channel Bandwidth: 10 MHz

Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 630334	CH 633334	CH 636332
			3455.01 MHz	3500.01 MHz	3544.98 MHz
BPSK	1	0	6.75	6.94	6.6
QPSK	1	0	10.02	10.14	9.98
16QAM	1	0	10.07	9.88	10.06
64QAM	1	0	10.43	9.59	10.12
256QAM	1	0	11	11.18	10.83

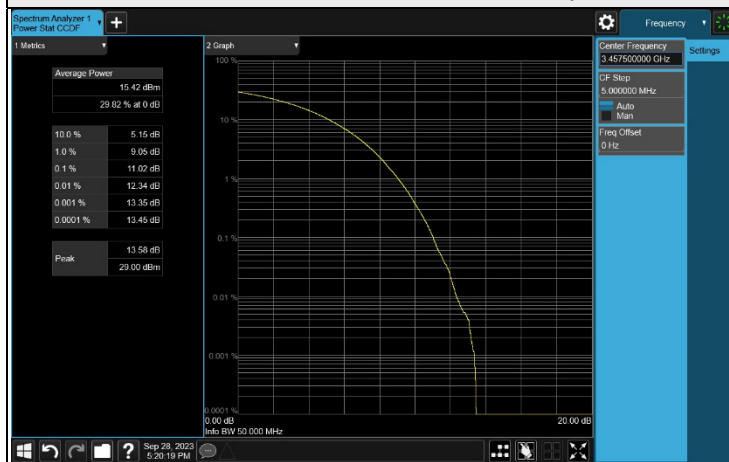




NR n77 SCS 30 kHz (3450-3550 MHz), Channel Bandwidth: 15 MHz

Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 630500	CH 633334	CH 636166
			3457.5 MHz	3500.01 MHz	3542.49 MHz
BPSK	1	0	6.82	6.94	6.85
QPSK	1	0	10.29	10.4	8.98
16QAM	1	0	10.52	9.93	10.3
64QAM	1	0	10.42	10.14	10.35
256QAM	1	0	11.02	10.51	10.54

Spectrum Plot of Worst Value

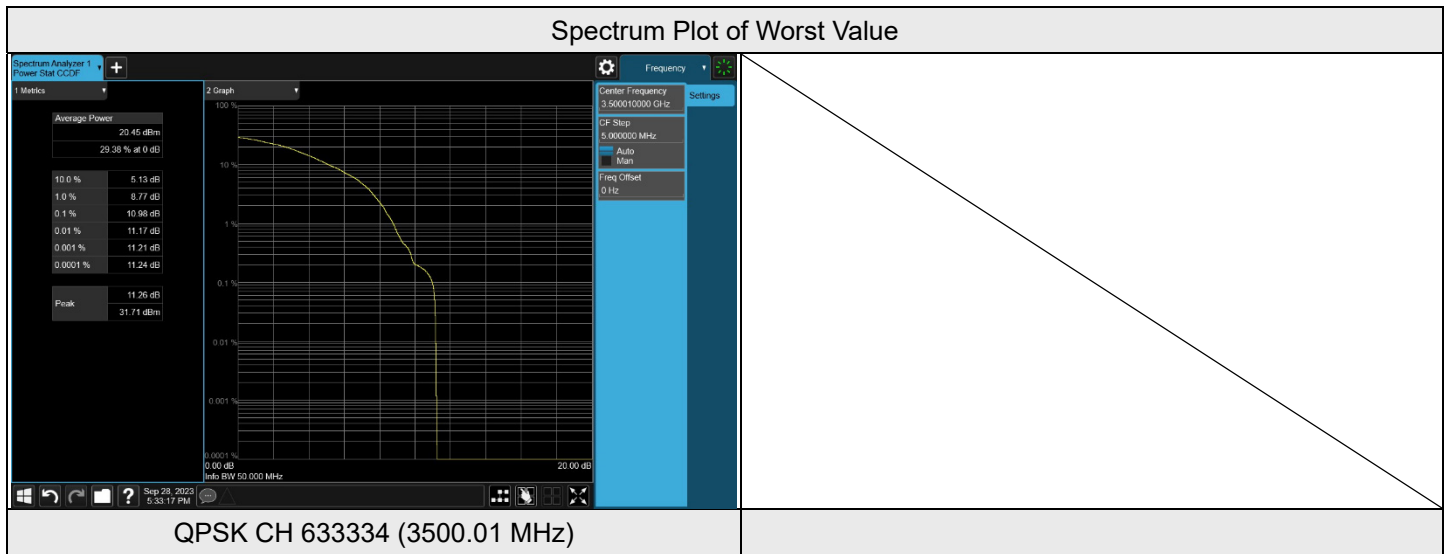


256QAM CH 630500 (3457.5 MHz)



NR n77 SCS 30 kHz (3450-3550 MHz), Channel Bandwidth: 20 MHz

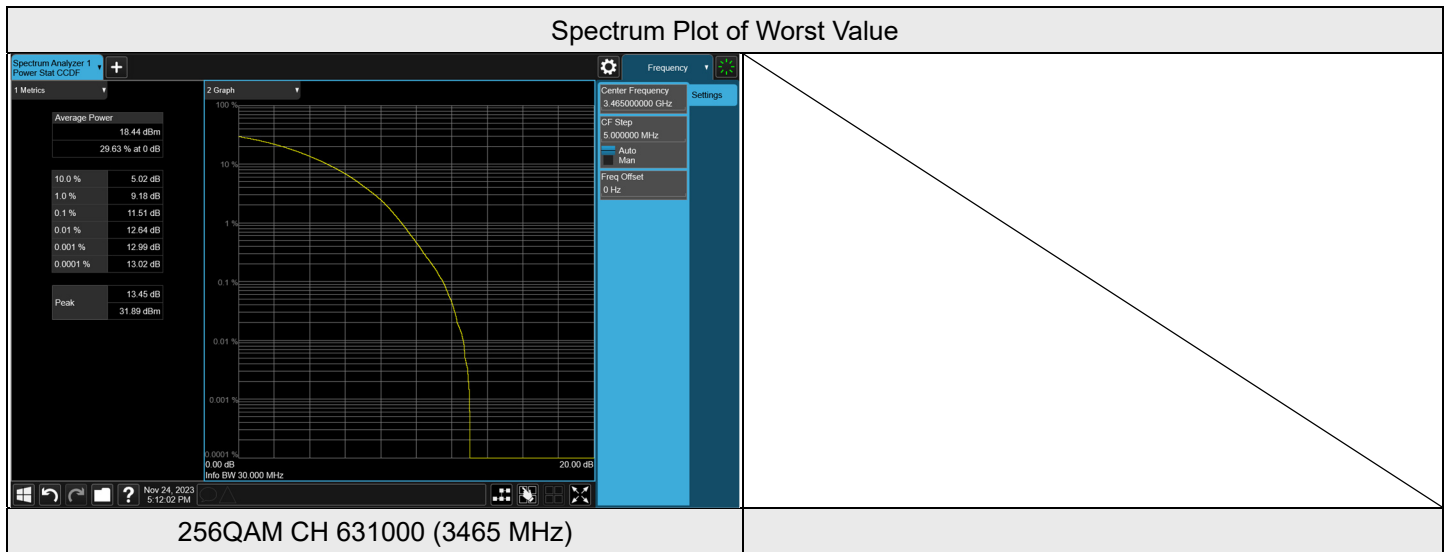
Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 630668	CH 633334	CH 636000
			3460.02 MHz	3500.01 MHz	3540 MHz
BPSK	1	0	6.7	6.5	6.66
QPSK	1	0	9.99	10.98	10.22
16QAM	1	0	10.06	10.26	10.09
64QAM	1	0	10.3	10.5	10.33
256QAM	1	0	10.9	10.63	10.83





NR n77 SCS 30 kHz (3450-3550 MHz), Channel Bandwidth: 30 MHz

Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 631000	CH 633334	CH 635666
			3465 MHz	3500.01 MHz	3534.99 MHz
BPSK	50	25	7.38	6.86	6.81
QPSK	53	26	9.08	8.56	8.61
16QAM	53	26	9.57	8.98	9.17
64QAM	53	26	11.12	10.6	10.19
256QAM	53	26	11.51	11.29	11.05

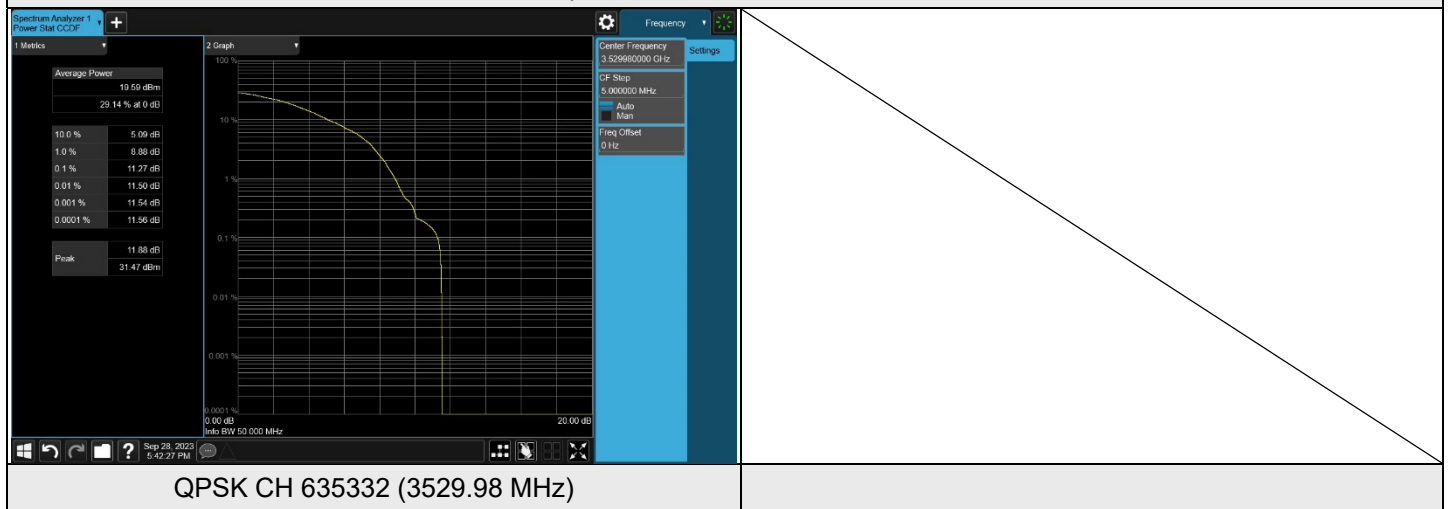




NR n77 SCS 30 kHz (3450-3550 MHz), Channel Bandwidth: 40 MHz

Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 631334	CH 633334	CH 635332
			3470.01 MHz	3500.01 MHz	3529.98 MHz
BPSK	1	0	6.79	6.81	6.48
QPSK	1	0	10.86	10.22	11.27
16QAM	1	0	10.35	10.36	10.19
64QAM	1	0	10.51	10.31	10.28
256QAM	1	0	10.66	10.8	10.58

Spectrum Plot of Worst Value



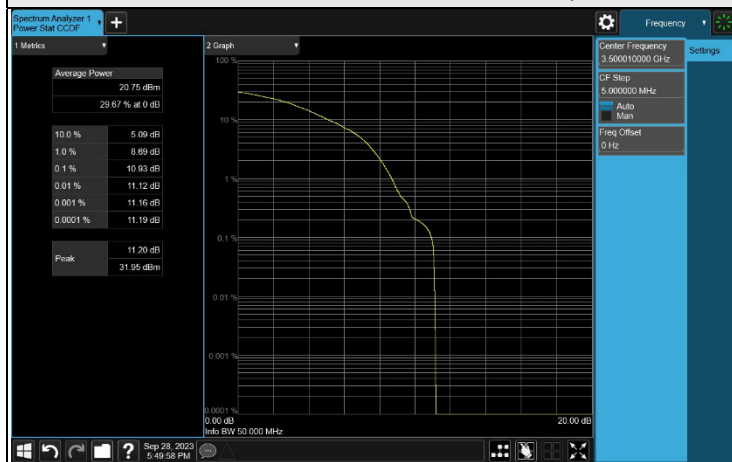
QPSK CH 635332 (3529.98 MHz)



NR n77 SCS 30 kHz (3450-3550 MHz), Channel Bandwidth: 50 MHz

Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 631668	CH 633334	CH 635000
			3475.02 MHz	3500.01 MHz	3525 MHz
BPSK	1	0	7.06	6.66	6.84
QPSK	1	0	10.61	10.93	10.6
16QAM	1	0	10.06	9.95	10.27
64QAM	1	0	10.38	10.18	10.21
256QAM	1	0	10.87	10.52	10.59

Spectrum Plot of Worst Value

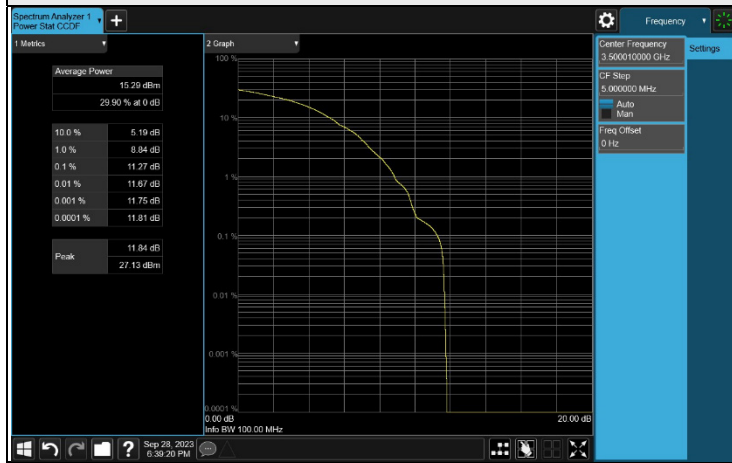


QPSK CH 633334 (3500.01 MHz)

**NR n77 SCS 30 kHz (3450-3550 MHz), Channel Bandwidth: 60 MHz**

Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 632000	CH 633334	CH 634666
			3480 MHz	3500.01 MHz	3519.99 MHz
BPSK	1	0	6.66	6.76	6.79
QPSK	1	0	9.25	10.19	9.19
16QAM	1	0	10.44	9.87	9.94
64QAM	1	0	10.31	10.09	9.99
256QAM	1	0	10.67	11.27	11.02

**Spectrum Plot of Worst Value**



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

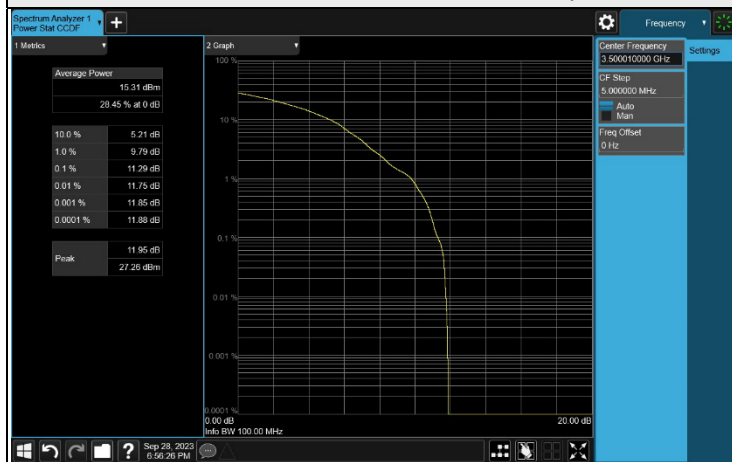




NR n77 SCS 30 kHz (3450-3550 MHz), Channel Bandwidth: 70 MHz

Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 632334	CH 633334	CH 634332
			3485.01 MHz	3500.01 MHz	3514.98 MHz
BPSK	1	0	7.09	6.7	6.48
QPSK	1	0	10.6	9.77	10.25
16QAM	1	0	10.63	9.95	9.92
64QAM	1	0	10.2	9.64	10.49
256QAM	1	0	11.24	11.29	11.14

Spectrum Plot of Worst Value



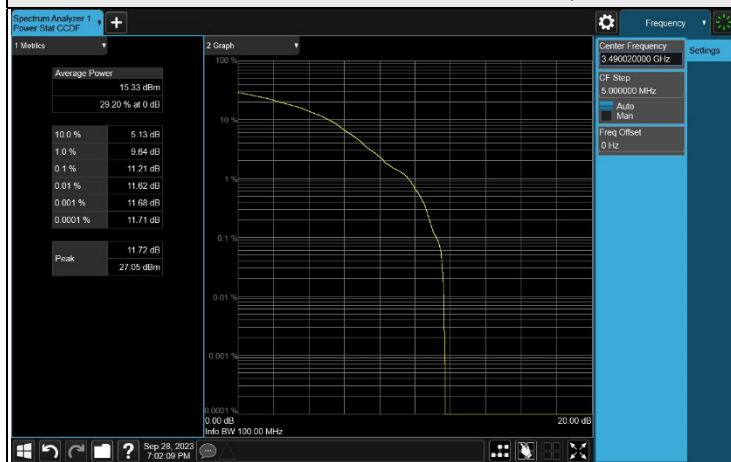
256QAM CH 633334 (3500.01 MHz)



NR n77 SCS 30 kHz (3450-3550 MHz), Channel Bandwidth: 80 MHz

Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 632668	CH 633334	CH 634000
			3490.02 MHz	3500.01 MHz	3510 MHz
BPSK	1	0	6.79	7.05	6.81
QPSK	1	0	10.09	10.35	9.15
16QAM	1	0	10.16	10.03	9.87
64QAM	1	0	9.74	10.16	10.16
256QAM	1	0	11.21	11.17	11.05

Spectrum Plot of Worst Value



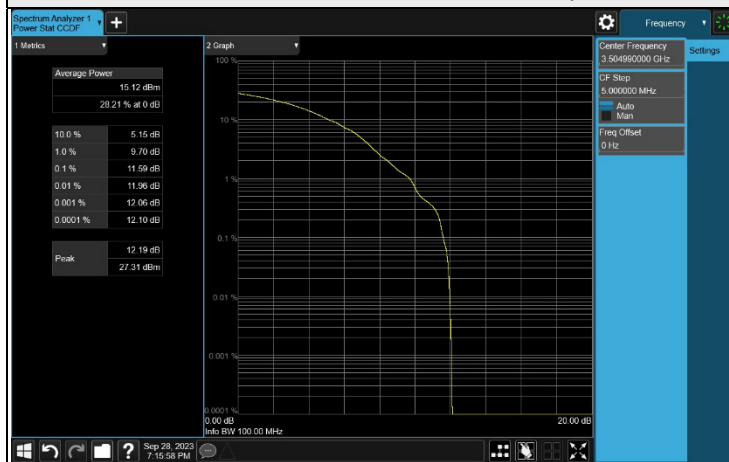
256QAM CH 632668 (3490.02 MHz)



NR n77 SCS 30 kHz (3450-3550 MHz), Channel Bandwidth: 90 MHz

Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 633000	CH 633334	CH 633666
			3495 MHz	3500.01 MHz	3504.99 MHz
BPSK	1	0	6.91	7.3	6.9
QPSK	1	0	10.49	11.42	10.43
16QAM	1	0	10.14	9.94	9.89
64QAM	1	0	10.25	10.33	10.66
256QAM	1	0	11.24	10.89	11.59

Spectrum Plot of Worst Value

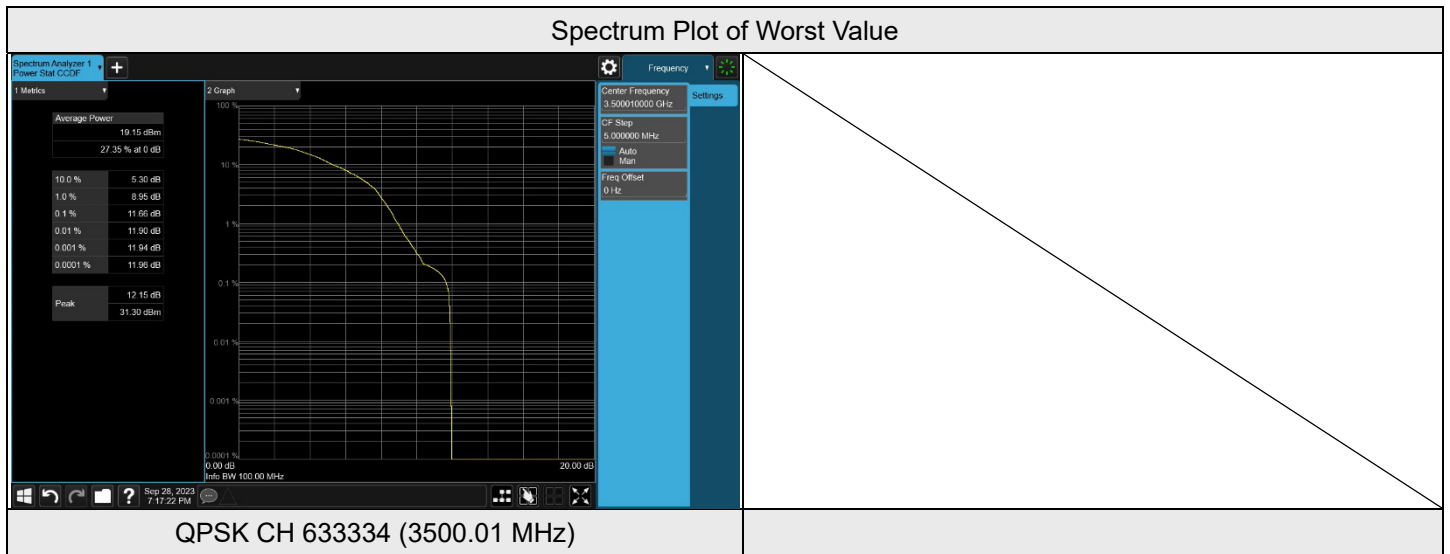


256QAM CH 633666 (3504.99 MHz)



NR n77 SCS 30 kHz (3450-3550 MHz), Channel Bandwidth: 100 MHz

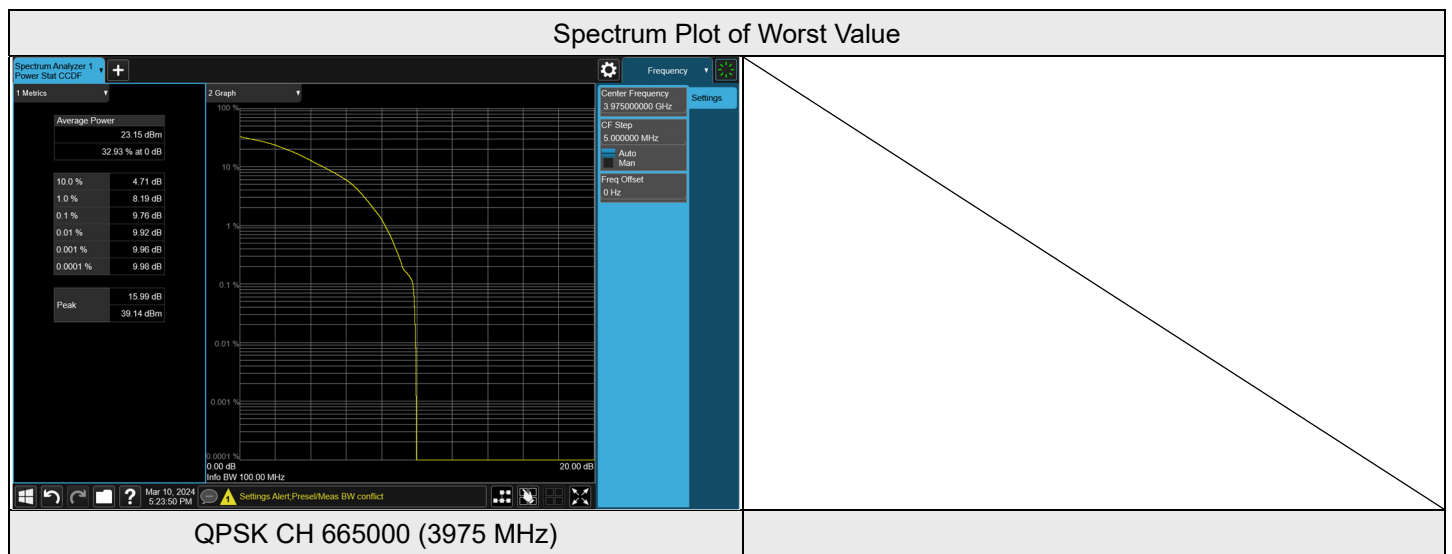
Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)	
			CH 633334	
			3500.01 MHz	
BPSK	1	0	6.68	
QPSK	1	0	11.66	
16QAM	1	0	10	
64QAM	1	0	10.42	
256QAM	1	0	10.9	



7.3.10 NR n77 (3700-3980 MHz) SCS 30 kHz (PC2)

**NR n77 SCS 30 kHz (3700-3980 MHz), Channel Bandwidth: 10 MHz**

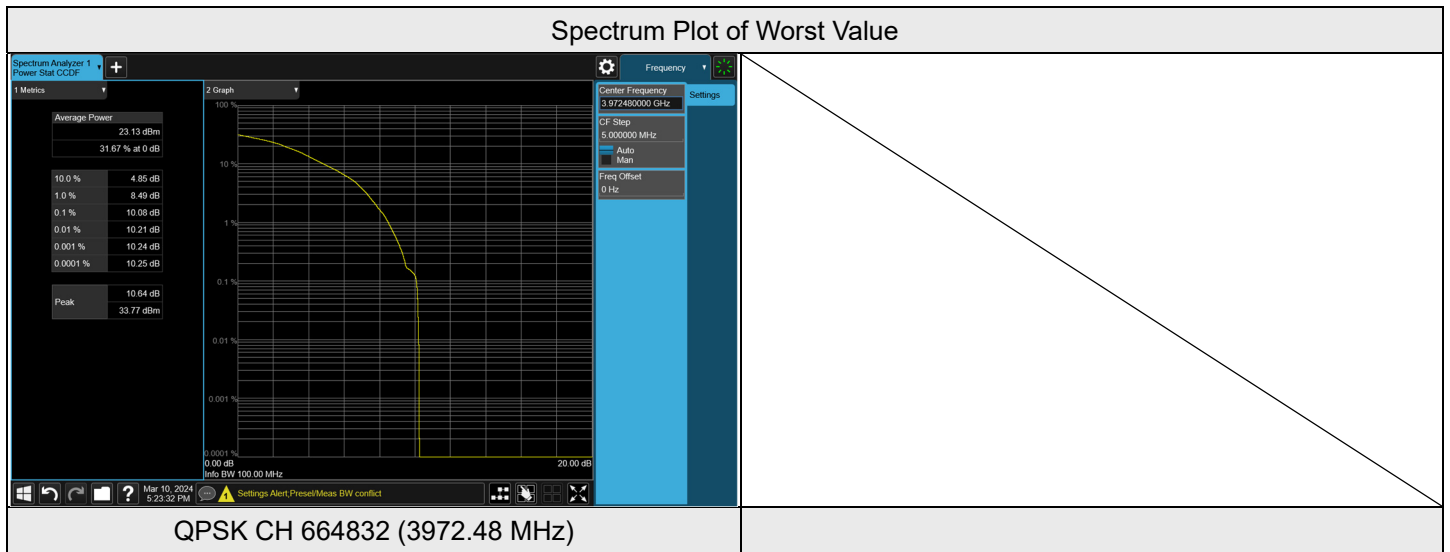
Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 647000	CH 656000	CH 665000
			3705 MHz	3840 MHz	3975 MHz
BPSK	1	0	5.69	5.32	5.7
QPSK	1	0	8.17	8.08	9.76
16 QAM	1	0	9.06	9.18	9.62
64 QAM	1	0	9.02	9.31	9.52
256 QAM	1	0	9.2	9.23	9.06





NR n77 SCS 30 kHz (3700-3980 MHz), Channel Bandwidth: 15 MHz

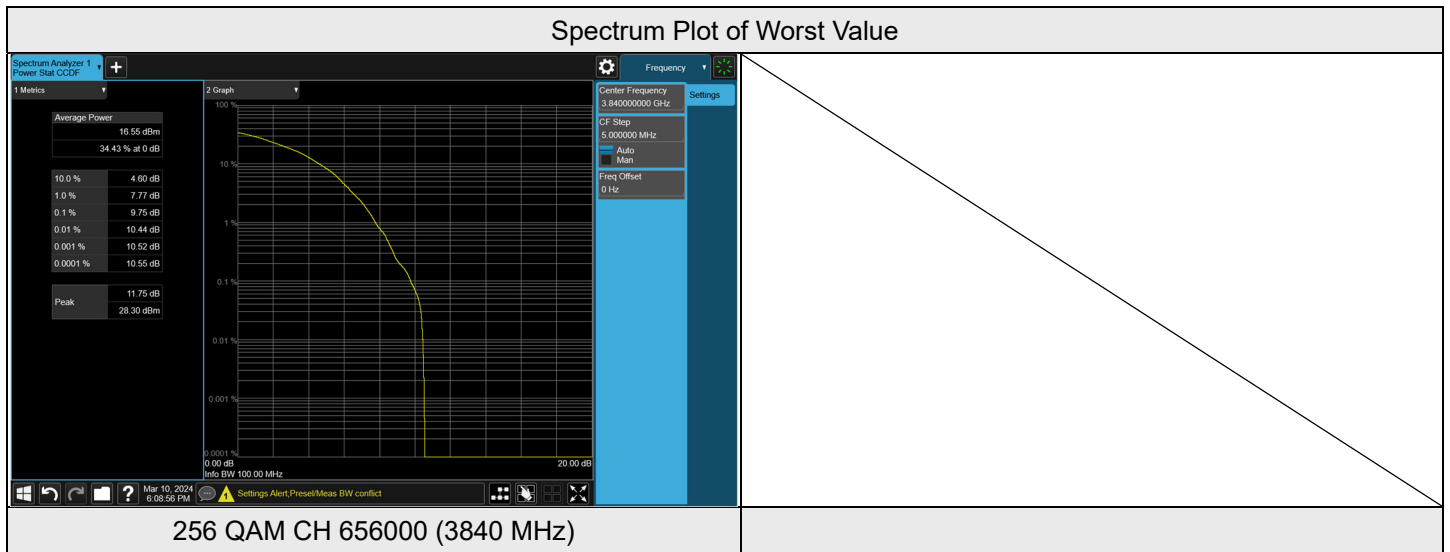
Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 647168	CH 656000	CH 664832
			3707.52 MHz	3840 MHz	3972.48 MHz
BPSK	1	0	5.05	5.49	5.9
QPSK	1	0	9.09	8.2	10.08
16 QAM	1	0	9.55	9.02	8.87
64 QAM	1	0	9.74	9.52	9.89
256 QAM	1	0	9.43	9.35	9.2





NR n77 SCS 30 kHz (3700-3980 MHz), Channel Bandwidth: 20 MHz

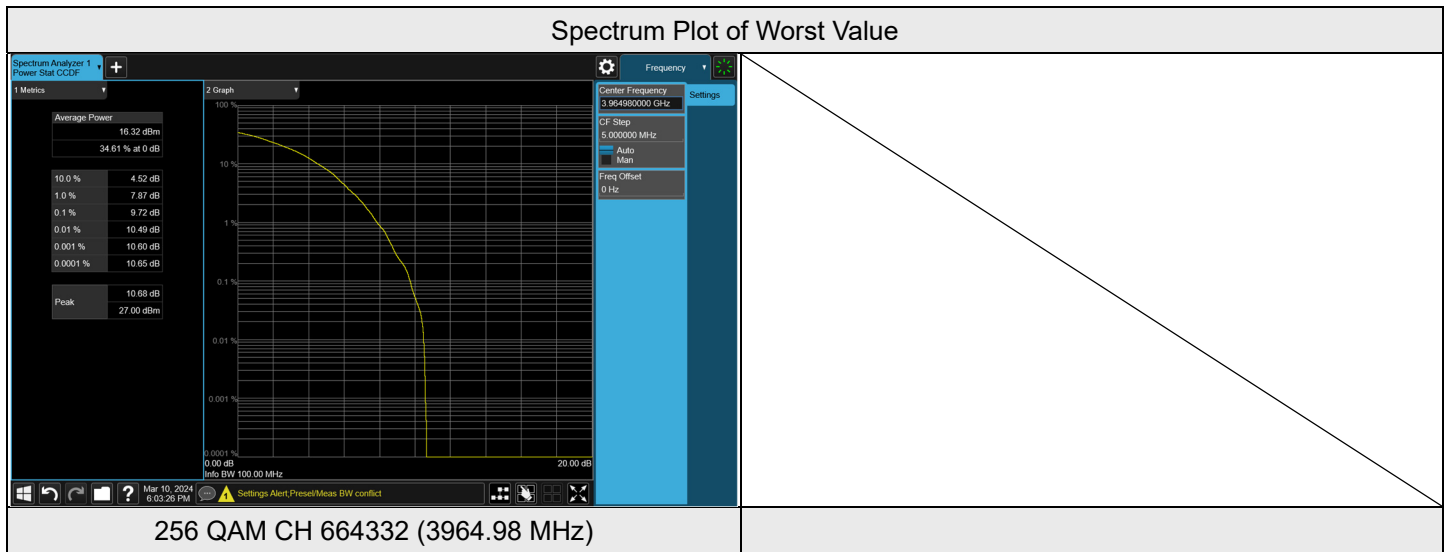
Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 647334	CH 656000	CH 664666
			3710.01 MHz	3840 MHz	3969.99 MHz
BPSK	1	0	5.21	5.3	6.01
QPSK	1	0	8.82	8.38	9.34
16 QAM	1	0	9.33	9.28	9.18
64 QAM	1	0	8.93	9.09	9.6
256 QAM	1	0	9.19	9.75	8.91





NR n77 SCS 30 kHz (3700-3980 MHz), Channel Bandwidth: 30 MHz

Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 647668	CH 656000	CH 664332
			3715.02 MHz	3840 MHz	3964.98 MHz
BPSK	50	25	5.02	5.37	6
QPSK	53	26	8.44	8.47	9.27
16 QAM	53	26	8.84	9.05	8.78
64 QAM	53	26	8.26	9.2	9.33
256 QAM	53	26	9.4	9.6	9.72

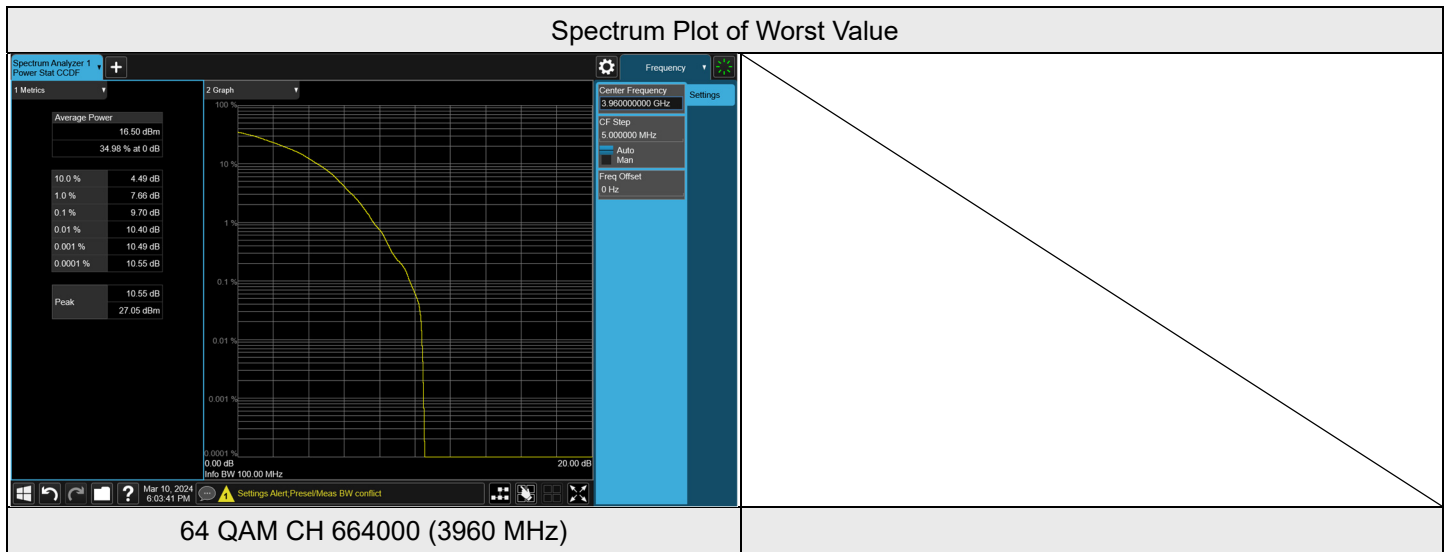






NR n77 SCS 30 kHz (3700-3980 MHz), Channel Bandwidth: 40 MHz

Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 648000	CH 656000	CH 664000
			3720 MHz	3840 MHz	3960 MHz
BPSK	1	0	5.69	4.99	5.45
QPSK	1	0	8	8.8	9.57
16 QAM	1	0	9.52	9.5	9.43
64 QAM	1	0	8.69	9.11	9.41
256 QAM	1	0	8.93	9.35	9.7

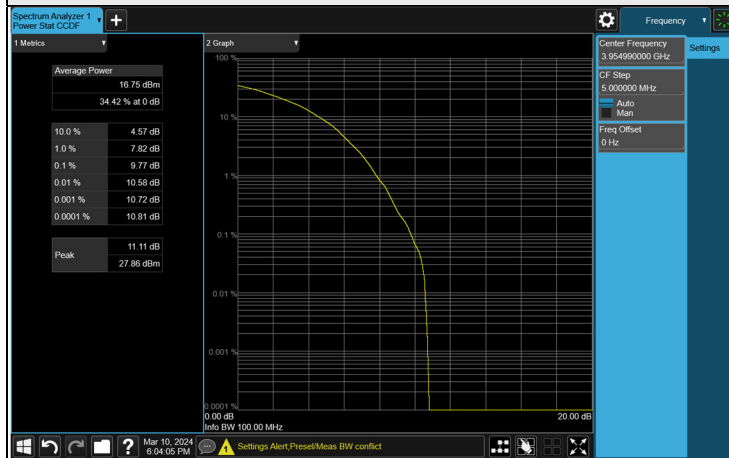




NR n77 SCS 30 kHz (3700-3980 MHz), Channel Bandwidth: 50 MHz

Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 648334	CH 656000	CH 663666
			3725.01 MHz	3840 MHz	3954.99 MHz
BPSK	1	0	5.15	5.4	5.76
QPSK	1	0	8.31	9.23	8.5
16 QAM	1	0	9.45	9.67	8.97
64 QAM	1	0	8.94	9.04	9.72
256 QAM	1	0	9.48	9.73	9.77

Spectrum Plot of Worst Value

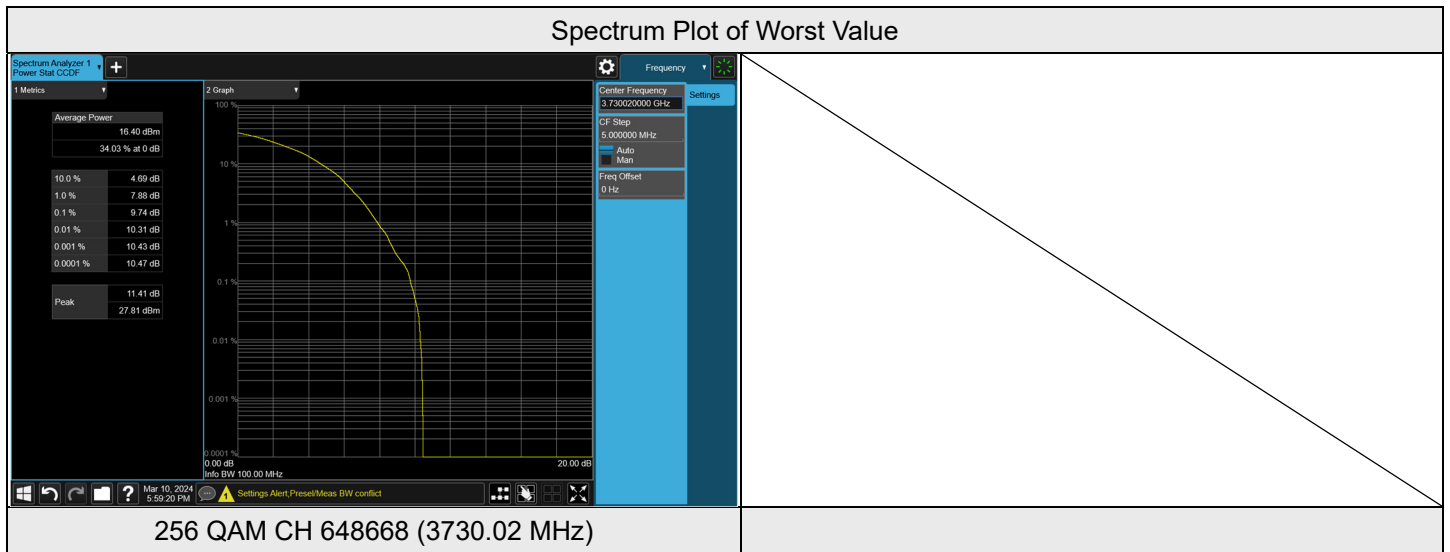


256 QAM CH 663666 (3954.99 MHz)



NR n77 SCS 30 kHz (3700-3980 MHz), Channel Bandwidth: 60 MHz

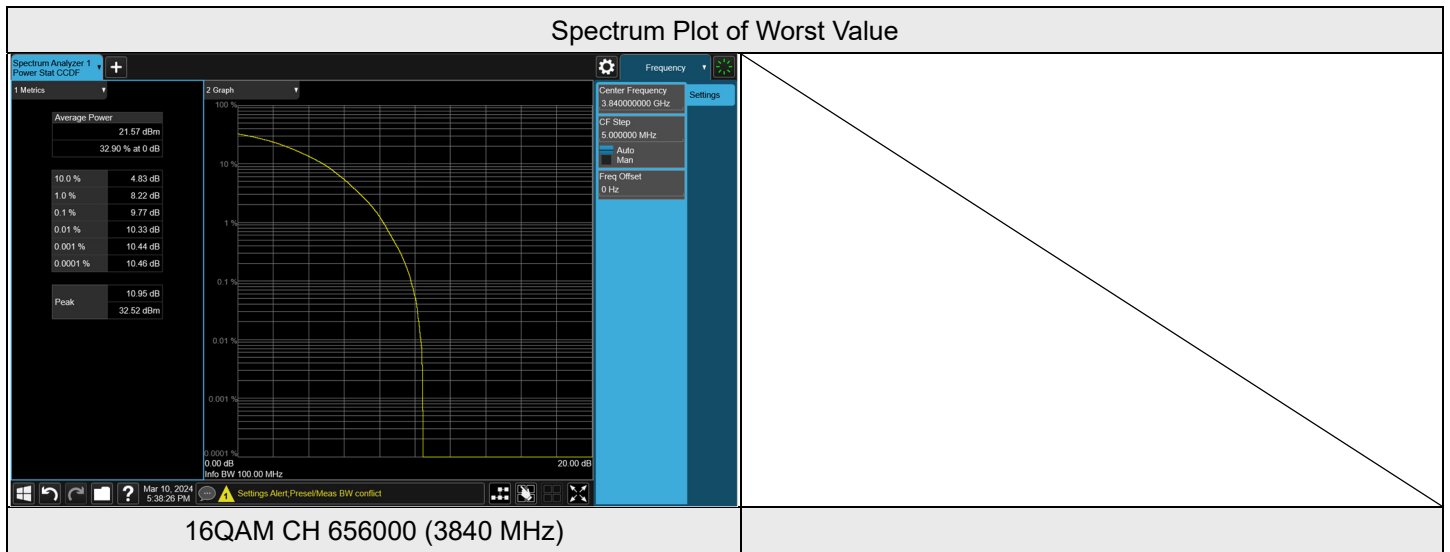
Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 648668	CH 656000	CH 663332
			3730.02 MHz	3840 MHz	3949.98 MHz
BPSK	1	0	4.99	5.02	5.74
QPSK	1	0	9.15	9.24	8.41
16 QAM	1	0	8.89	9.5	8.6
64 QAM	1	0	8.55	9.73	9.67
256 QAM	1	0	9.74	9.72	9.47





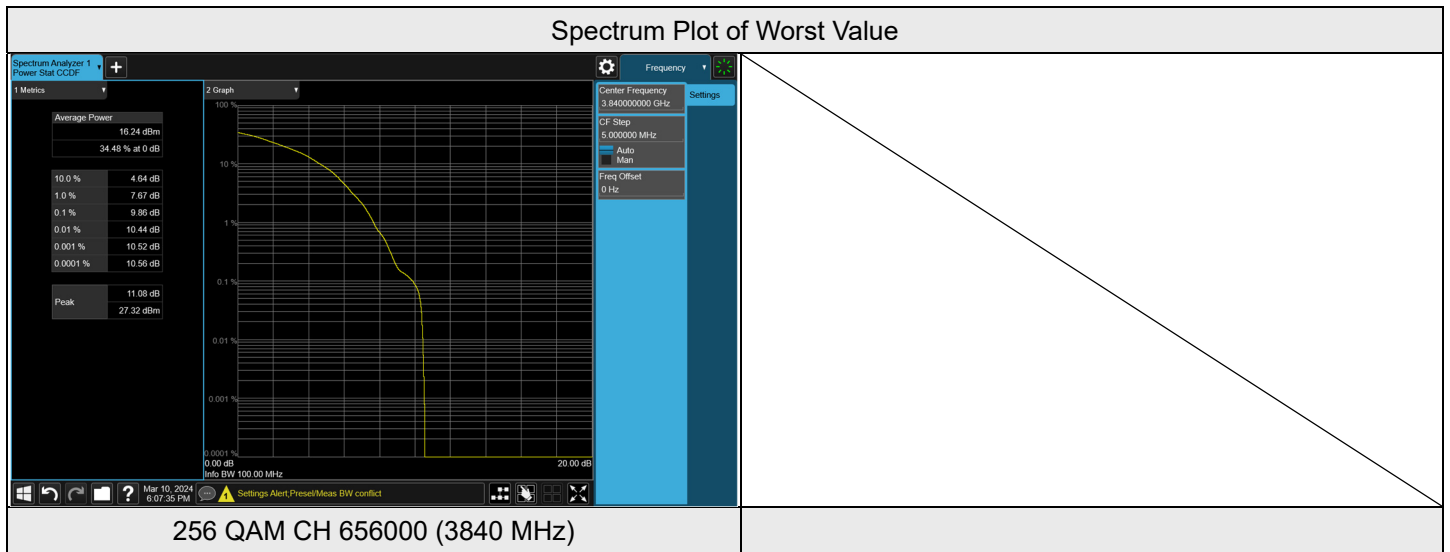
NR n77 SCS 30 kHz (3700-3980 MHz), Channel Bandwidth: 70 MHz

Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 649000	CH 656000	CH 663000
			3735 MHz	3840 MHz	3945 MHz
BPSK	1	0	5.58	5.49	6.07
QPSK	1	0	8.88	8.53	8.94
16 QAM	1	0	9.09	9.77	9.25
64 QAM	1	0	8.32	9.02	9.03
256 QAM	1	0	8.8	9.59	9.24



**NR n77 SCS 30 kHz (3700-3980 MHz), Channel Bandwidth: 80 MHz**

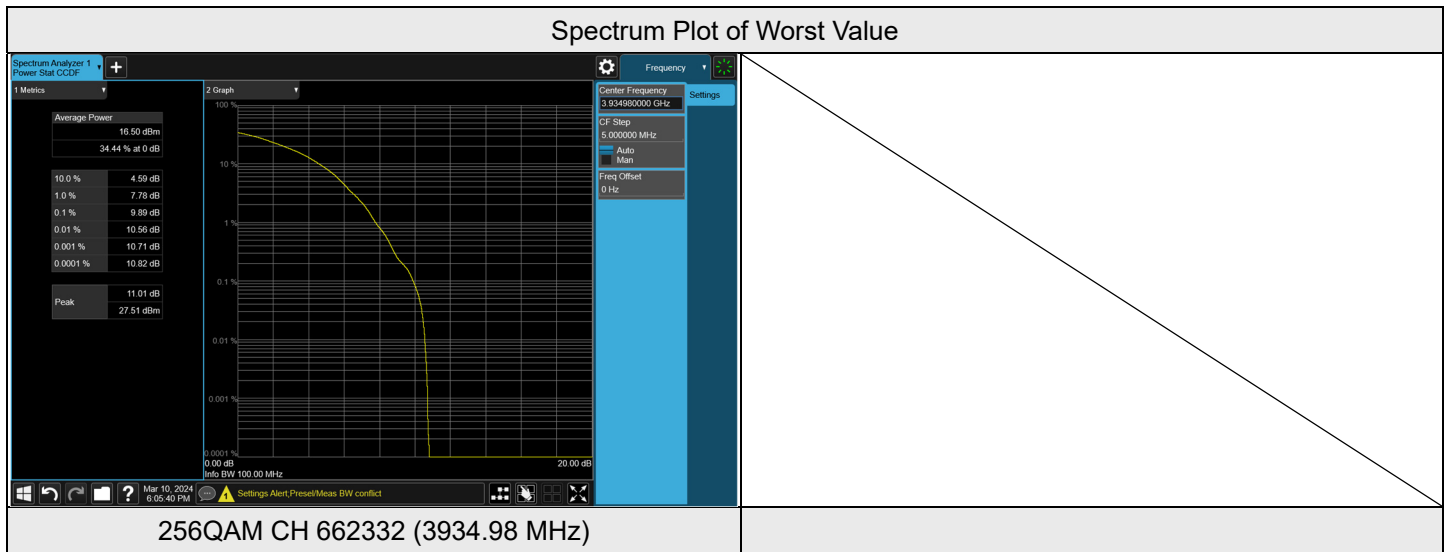
Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 649334	CH 656000	CH 662666
			3740.01 MHz	3840 MHz	3939.99 MHz
BPSK	1	0	5.62	5.22	5.42
QPSK	1	0	9.32	8.57	8.79
16 QAM	1	0	9.2	9.49	8.91
64 QAM	1	0	8.95	9.37	9.61
256 QAM	1	0	9.51	9.86	9.77





NR n77 SCS 30 kHz (3700-3980 MHz), Channel Bandwidth: 90 MHz

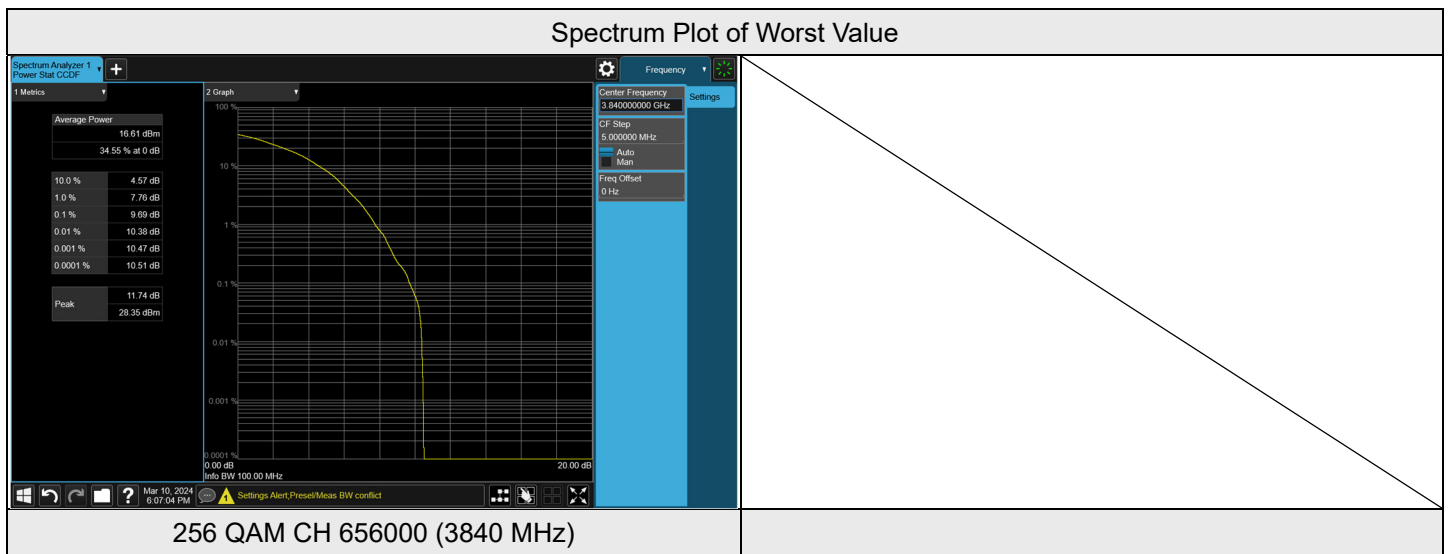
Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 649668	CH 656000	CH 662332
			3745.02 MHz	3840 MHz	3934.98 MHz
BPSK	1	0	5.17	5.64	5.66
QPSK	1	0	9.14	8.59	8.86
16 QAM	1	0	9.34	9.55	9.64
64 QAM	1	0	9.09	9.56	9.16
256 QAM	1	0	9.2	9.58	9.89





NR n77 SCS 30 kHz (3700-3980 MHz), Channel Bandwidth: 100 MHz

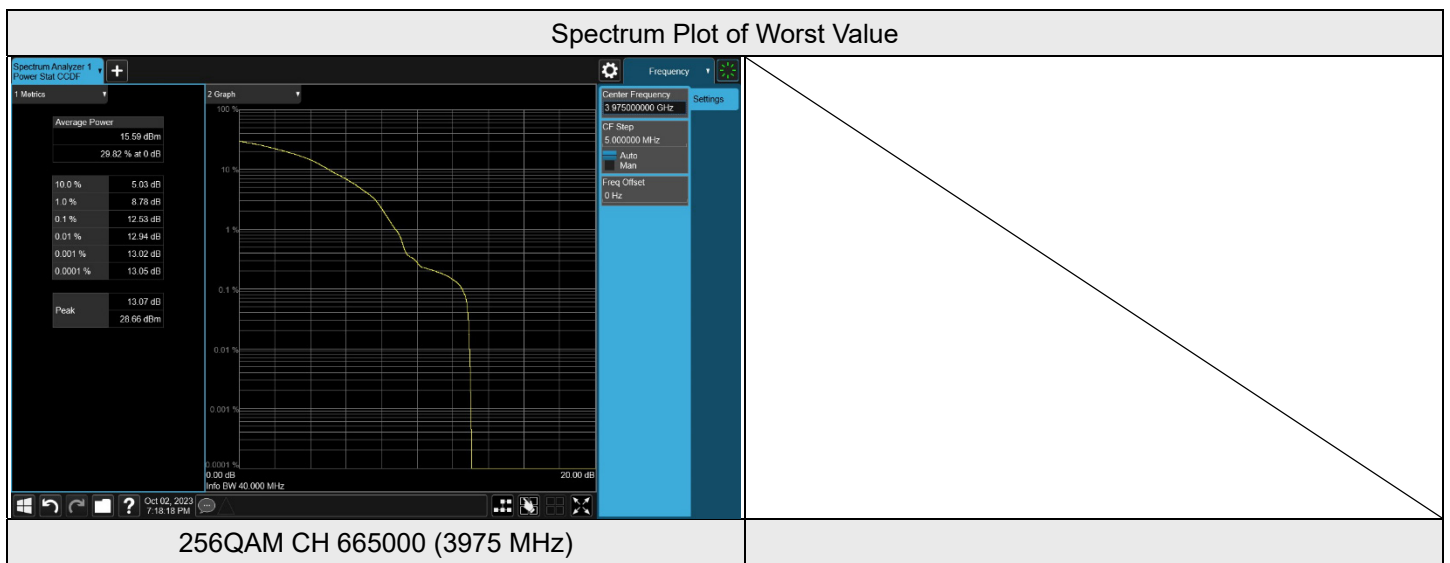
Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 650000	CH 656000	CH 662000
			3750 MHz	3840 MHz	3930 MHz
BPSK	1	0	5.13	5.81	5.75
QPSK	1	0	9.49	8.5	8.72
16 QAM	1	0	9.49	9.49	8.87
64 QAM	1	0	9.06	9.5	9.33
256 QAM	1	0	9.22	9.69	9.36



7.3.11 NR n77 (3700-3980 MHz) SCS 30 kHz (PC3)

NR n77 SCS 30 kHz (3700-3980 MHz), Channel Bandwidth: 10 MHz

Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 647000	CH 656000	CH 665000
			3705 MHz	3840 MHz	3975 MHz
BPSK	1	0	6.38	6.64	6.91
QPSK	1	0	10.47	11.07	10.23
16QAM	1	0	10.23	10.15	10.74
64QAM	1	0	12.23	11.13	11.44
256QAM	1	0	10.6	10.95	12.53

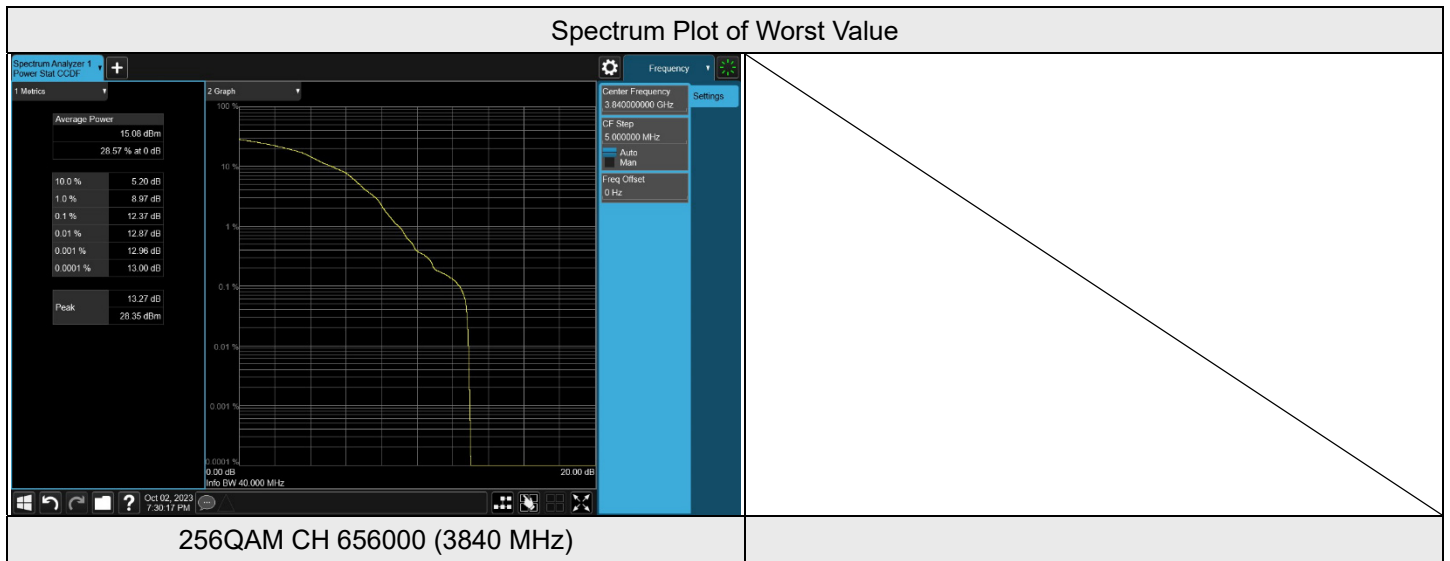






NR n77 SCS 30 kHz (3700-3980 MHz), Channel Bandwidth: 15 MHz

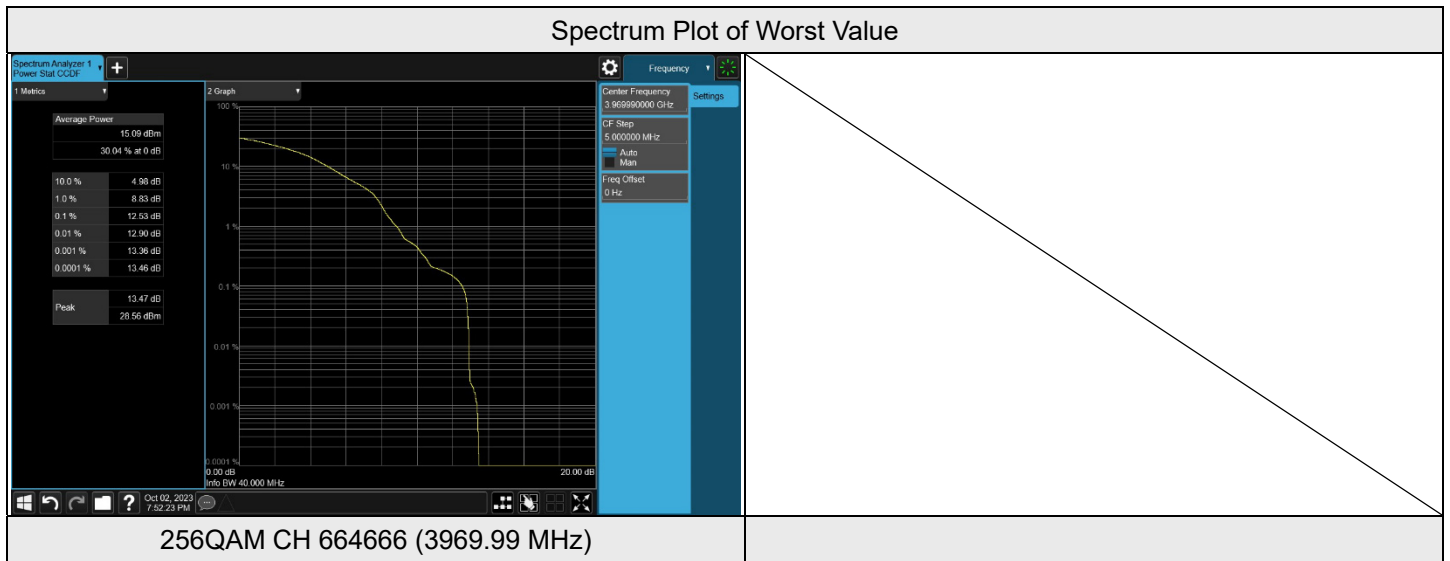
Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 647168	CH 656000	CH 664832
			3707.52 MHz	3840 MHz	3972.48 MHz
BPSK	1	0	6.76	6.95	7.14
QPSK	1	0	10.53	10.32	10.81
16QAM	1	0	10.38	10.23	10.52
64QAM	1	0	10.44	11.4	11.47
256QAM	1	0	10.74	12.37	11.24





NR n77 SCS 30 kHz (3700-3980 MHz), Channel Bandwidth: 20 MHz

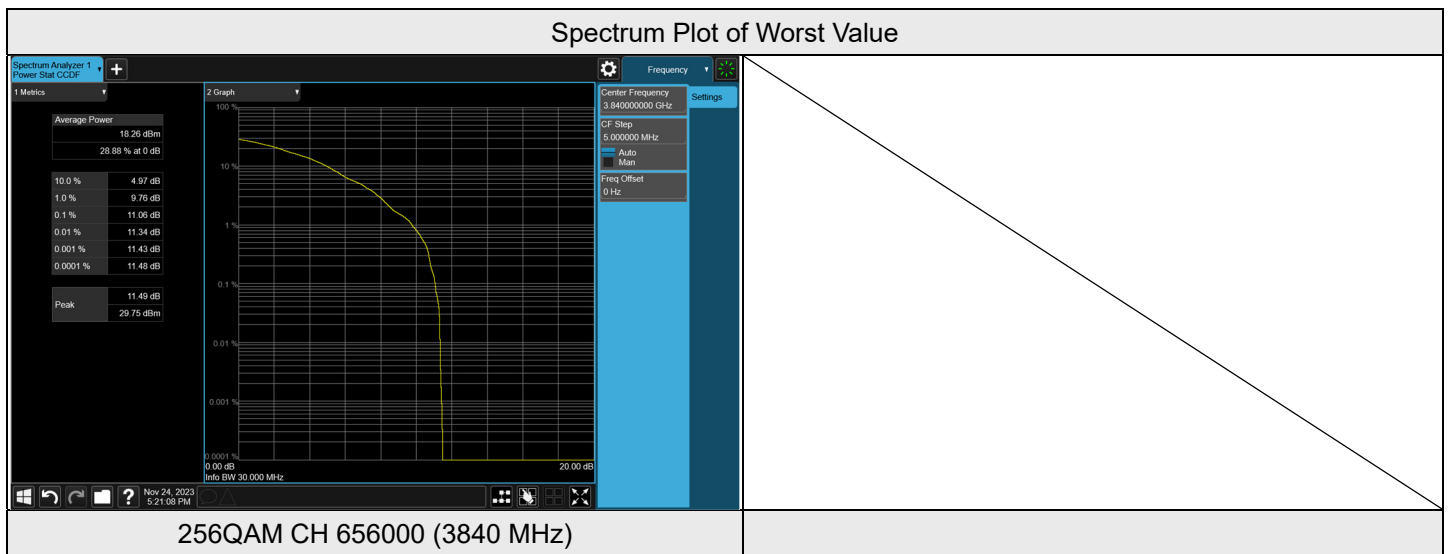
Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 647334	CH 656000	CH 664666
			3710.01 MHz	3840 MHz	3969.99 MHz
BPSK	1	0	6.86	6.93	7.11
QPSK	1	0	10.27	10.73	10.34
16QAM	1	0	10.53	10.53	10.89
64QAM	1	0	11.38	11.26	11.37
256QAM	1	0	12.07	11.17	12.53





NR n77 SCS 30 kHz (3700-3980 MHz), Channel Bandwidth: 30 MHz

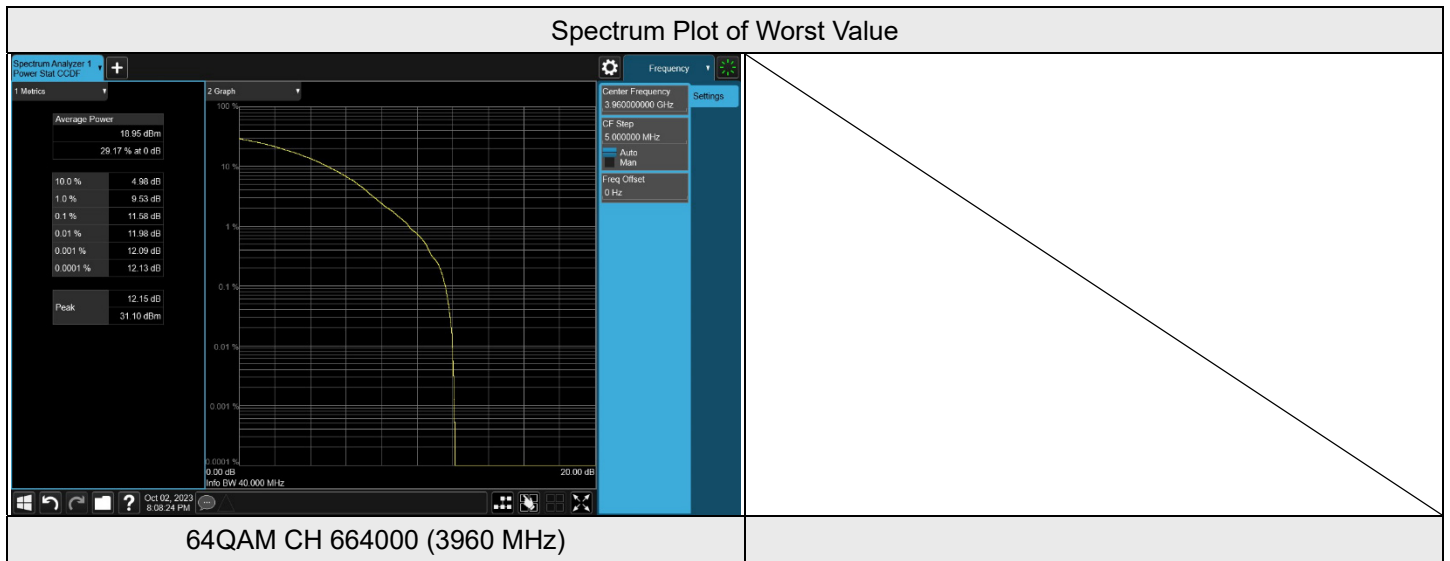
Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 647668	CH 656000	CH 664332
			3715.02 MHz	3840 MHz	3964.98 MHz
BPSK	50	25	6.69	6.68	6.64
QPSK	53	26	8.25	8.77	8.74
16QAM	53	26	8.82	9.37	9.14
64QAM	53	26	10.2	10.19	9.8
256QAM	53	26	11.02	11.06	11.03





NR n77 SCS 30 kHz (3700-3980 MHz), Channel Bandwidth: 40 MHz

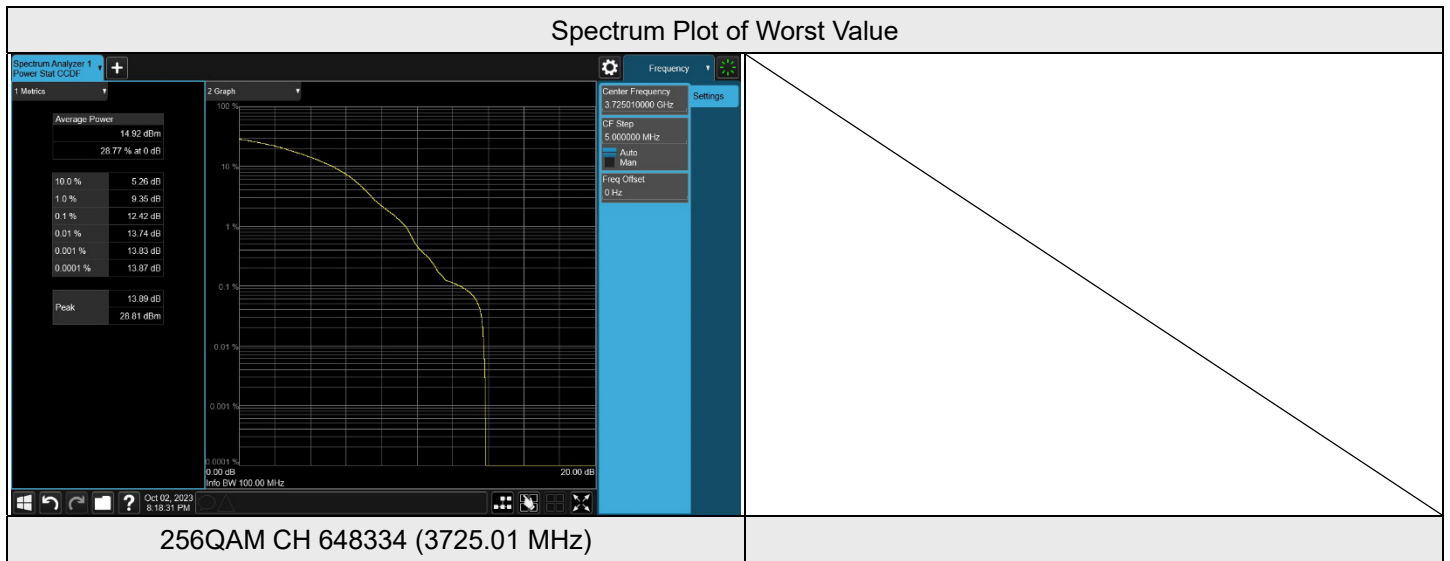
Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 648000	CH 656000	CH 664000
			3720 MHz	3840 MHz	3960 MHz
BPSK	1	0	6.84	7.09	7.2
QPSK	1	0	11.1	10.45	11.35
16QAM	1	0	10.64	10.44	11.07
64QAM	1	0	11.38	11.34	11.58
256QAM	1	0	11.24	11.5	11.35





NR n77 SCS 30 kHz (3700-3980 MHz), Channel Bandwidth: 50 MHz

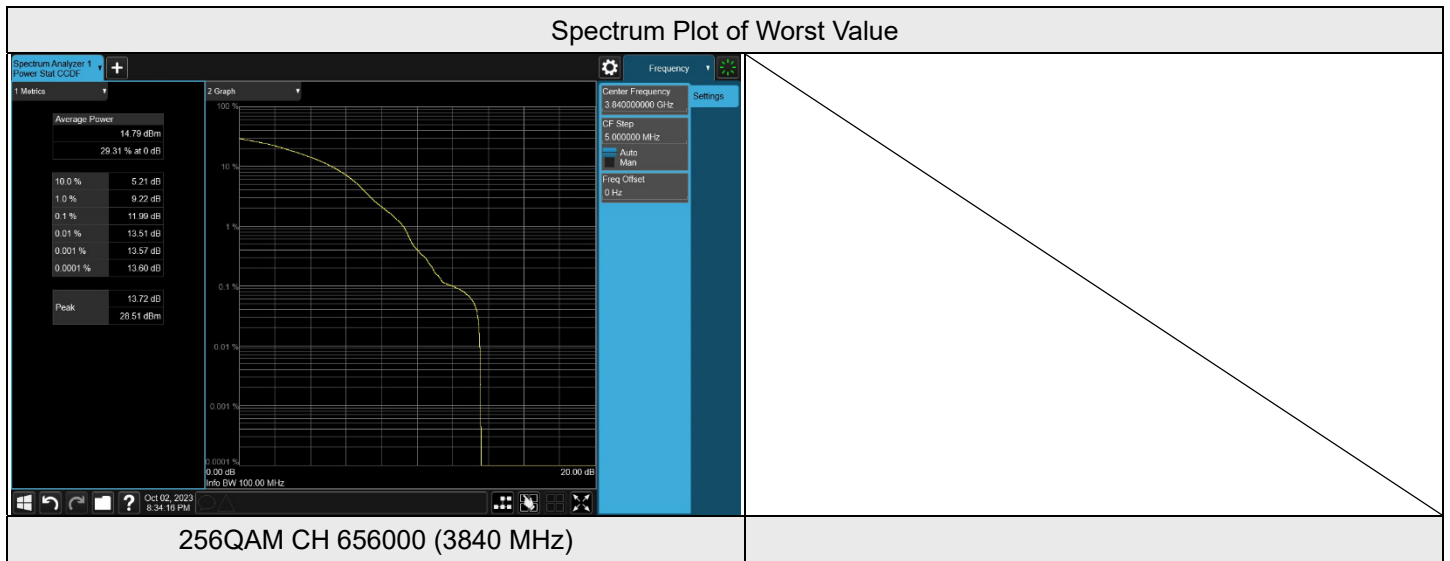
Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 648334	CH 656000	CH 663666
			3725.01 MHz	3840 MHz	3954.99 MHz
BPSK	1	0	6.89	6.97	7.2
QPSK	1	0	10.32	11.28	10.74
16QAM	1	0	10.61	10.43	10.79
64QAM	1	0	11.44	11.15	11.61
256QAM	1	0	12.42	11.48	11.51





NR n77 SCS 30 kHz (3700-3980 MHz), Channel Bandwidth: 60 MHz

Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 648668	CH 656000	CH 663332
			3730.02 MHz	3840 MHz	3949.98 MHz
BPSK	1	0	6.71	6.92	6.88
QPSK	1	0	9.17	10.13	10.37
16QAM	1	0	10.77	10.53	10.71
64QAM	1	0	10.88	11.28	11.01
256QAM	1	0	11.42	11.99	11.47

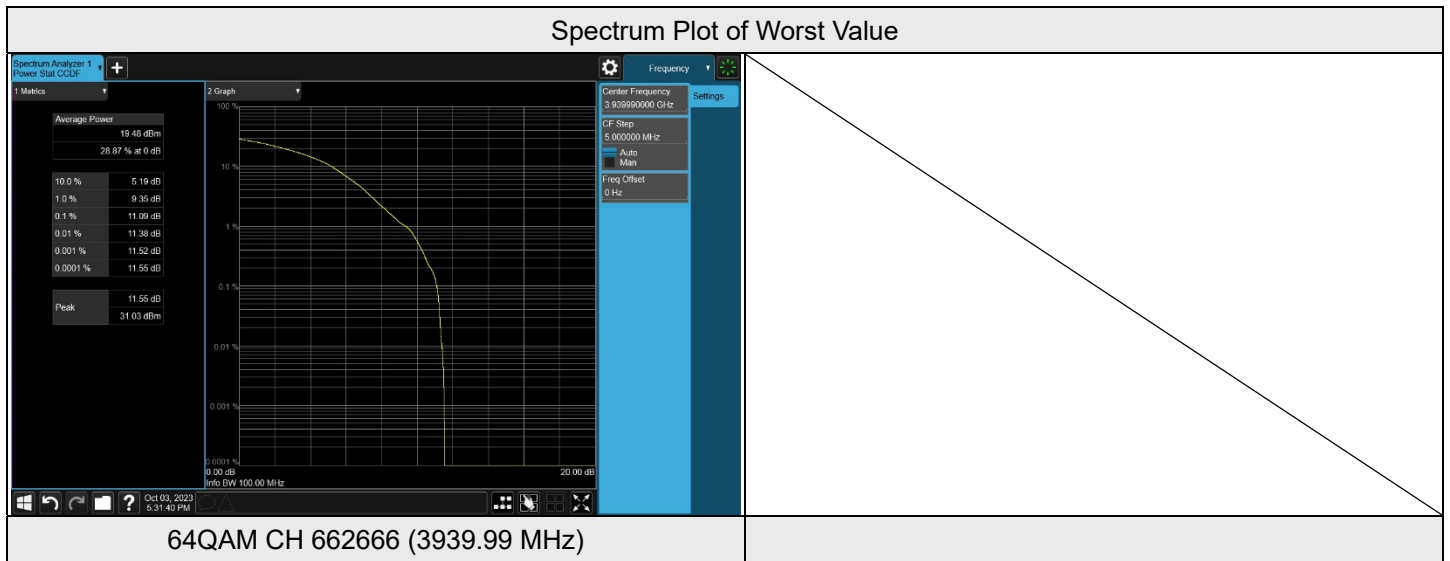






NR n77 SCS 30 kHz (3700-3980 MHz), Channel Bandwidth: 80 MHz

Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 649334	CH 656000	CH 662666
			3740.01 MHz	3840 MHz	3939.99 MHz
BPSK	1	0	6.9	6.93	7.19
QPSK	1	0	9.49	10.28	9.36
16QAM	1	0	10.2	10.12	10.44
64QAM	1	0	10.79	10.86	11.09
256QAM	1	0	10.67	10.49	10.96

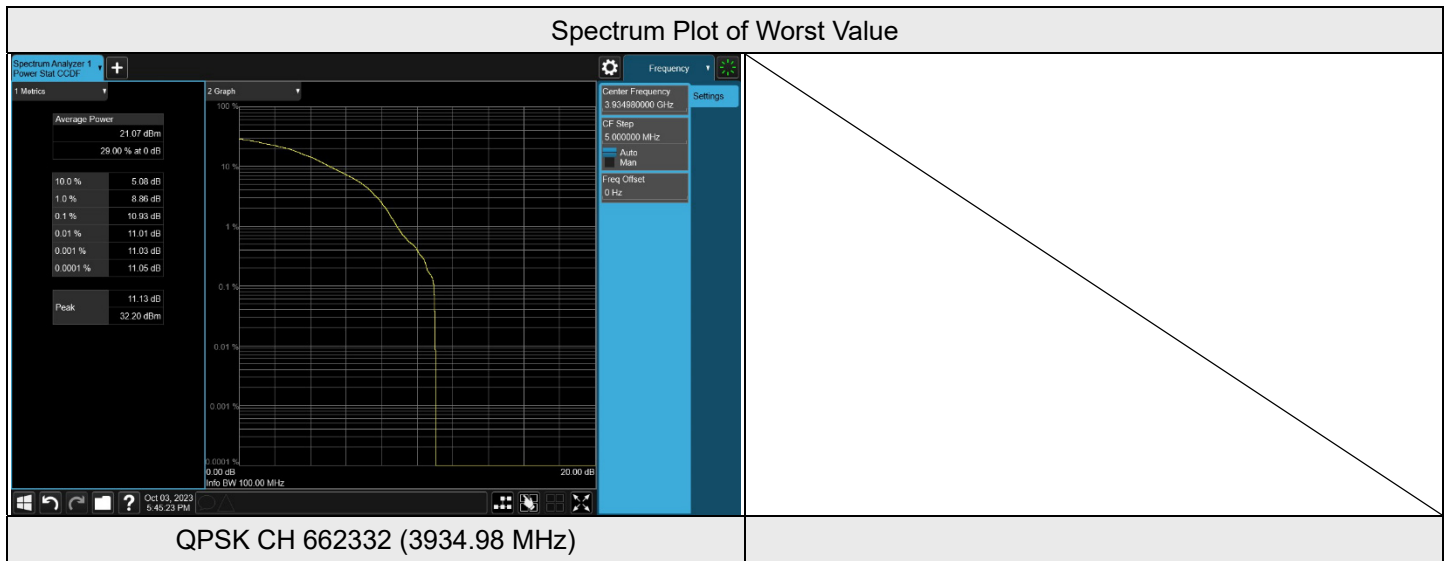






NR n77 SCS 30 kHz (3700-3980 MHz), Channel Bandwidth: 90 MHz

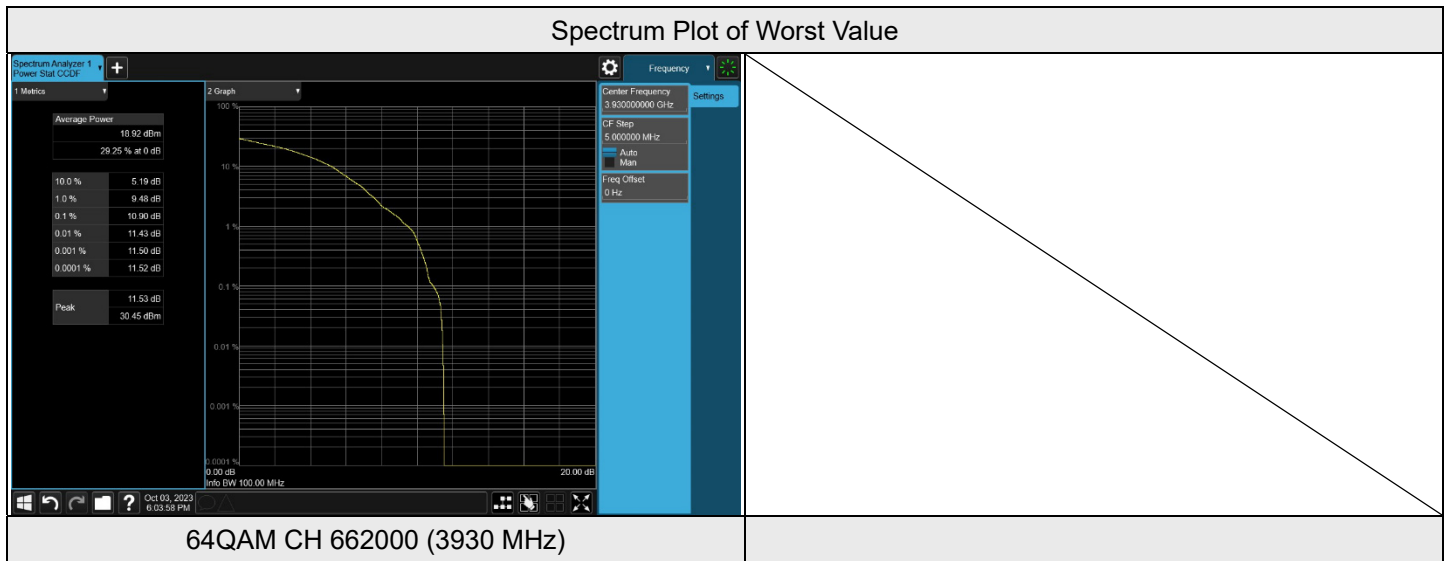
Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 649668	CH 656000	CH 662332
			3745.02 MHz	3840 MHz	3934.98 MHz
BPSK	1	0	6.87	6.92	7.04
QPSK	1	0	9.13	9.38	10.93
16QAM	1	0	10.18	10	10.42
64QAM	1	0	10.63	10.66	10.8
256QAM	1	0	10.26	10.36	10.29





NR n77 SCS 30 kHz (3700-3980 MHz), Channel Bandwidth: 100 MHz

Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 650000	CH 656000	CH 662000
			3750 MHz	3840 MHz	3930 MHz
BPSK	1	0	7.02	7.08	7.25
QPSK	1	0	10.29	10.33	10.36
16QAM	1	0	10	10.01	10.35
64QAM	1	0	10.87	10.5	10.9
256QAM	1	0	10.37	10.23	10.7



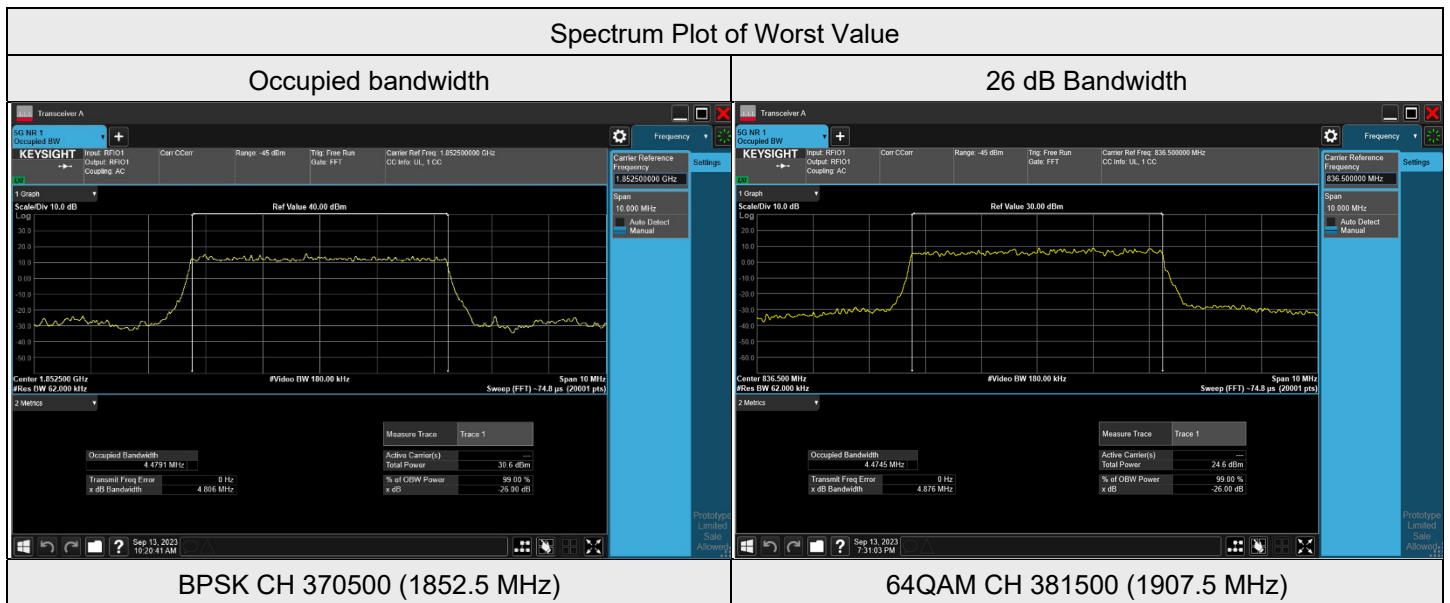
## 7.4 Bandwidth

Input Power:	4.7 Vdc	Environmental Conditions:	22°C, 73% RH	Tested By:	Willy Cheng
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### 7.4.1 NR n2 SCS 15 kHz

#### NR n2 SCS 15 kHz, Channel Bandwidth: 5 MHz

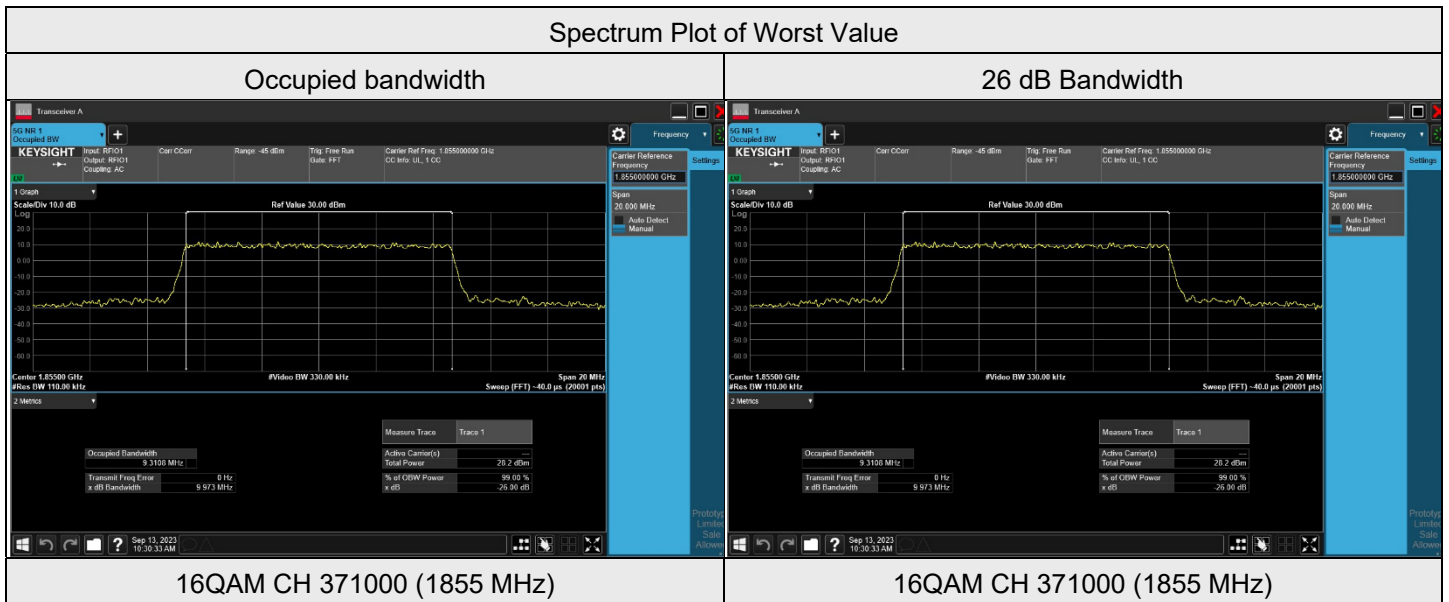
Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	370500	1852.5	4.4791	4.806
BPSK	376000	1880	4.4673	4.829
BPSK	381500	1907.5	4.4550	4.797
QPSK	370500	1852.5	4.4702	4.829
QPSK	376000	1880	4.4672	4.830
QPSK	381500	1907.5	4.4594	4.818
16QAM	370500	1852.5	4.4623	4.851
16QAM	376000	1880	4.4602	4.858
16QAM	381500	1907.5	4.4533	4.791
64QAM	370500	1852.5	4.4560	4.802
64QAM	376000	1880	4.4584	4.810
64QAM	381500	1907.5	4.4742	4.876
256QAM	370500	1852.5	4.4605	4.836
256QAM	376000	1880	4.4643	4.863
256QAM	381500	1907.5	4.4571	4.751





NR n2 SCS 15 kHz, Channel Bandwidth: 10 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	371000	1855	9.1887	9.468
BPSK	376000	1880	9.2027	9.569
BPSK	381000	1905	9.2306	9.565
QPSK	371000	1855	9.2586	9.796
QPSK	376000	1880	9.2605	9.871
QPSK	381000	1905	9.2445	9.841
16QAM	371000	1855	9.3108	9.973
16QAM	376000	1880	9.2609	9.846
16QAM	381000	1905	9.2808	9.848
64QAM	371000	1855	9.2764	9.809
64QAM	376000	1880	9.2769	9.83
64QAM	381000	1905	9.2781	9.833
256QAM	371000	1855	9.2723	9.771
256QAM	376000	1880	9.2784	9.711
256QAM	381000	1905	9.2769	9.775





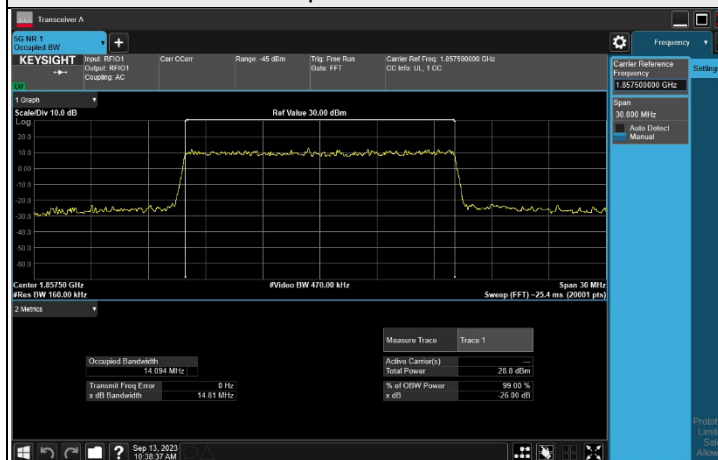
NR n2 SCS 15 kHz, Channel Bandwidth: 15 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	371500	1857.5	13.981	14.16
BPSK	376000	1880	14.01	14.2
BPSK	380500	1902.5	13.929	14.18
QPSK	371500	1857.5	14.026	14.74
QPSK	376000	1880	14.037	14.8
QPSK	380500	1902.5	14.016	14.8
16QAM	371500	1857.5	14.094	14.81
16QAM	376000	1880	14.092	14.87
16QAM	380500	1902.5	14.092	14.81
64QAM	371500	1857.5	14.073	14.89
64QAM	376000	1880	14.062	14.69
64QAM	380500	1902.5	14.056	14.79
256QAM	371500	1857.5	14.088	14.76
256QAM	376000	1880	14.071	14.69
256QAM	380500	1902.5	14.059	14.83

Spectrum Plot of Worst Value

Occupied bandwidth

26 dB Bandwidth



16QAM CH 371500 (1857.5 MHz)

64QAM CH 371500 (1857.5 MHz)