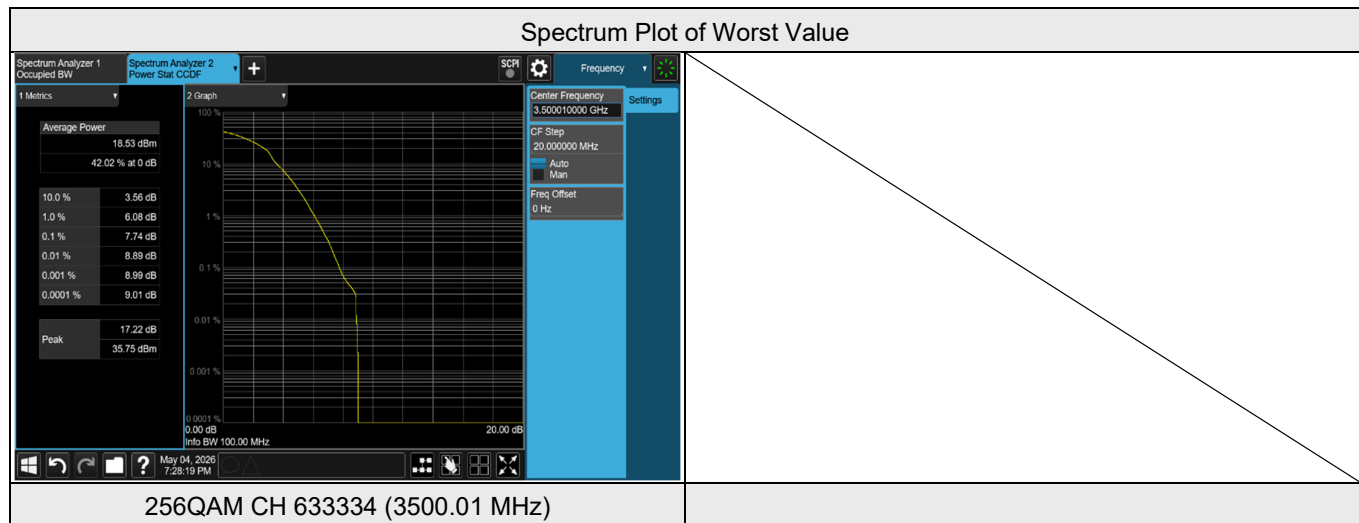


NR n77 SCS 30 kHz (3.45 GHz ~ 3.55 GHz), Channel Bandwidth: 100 MHz

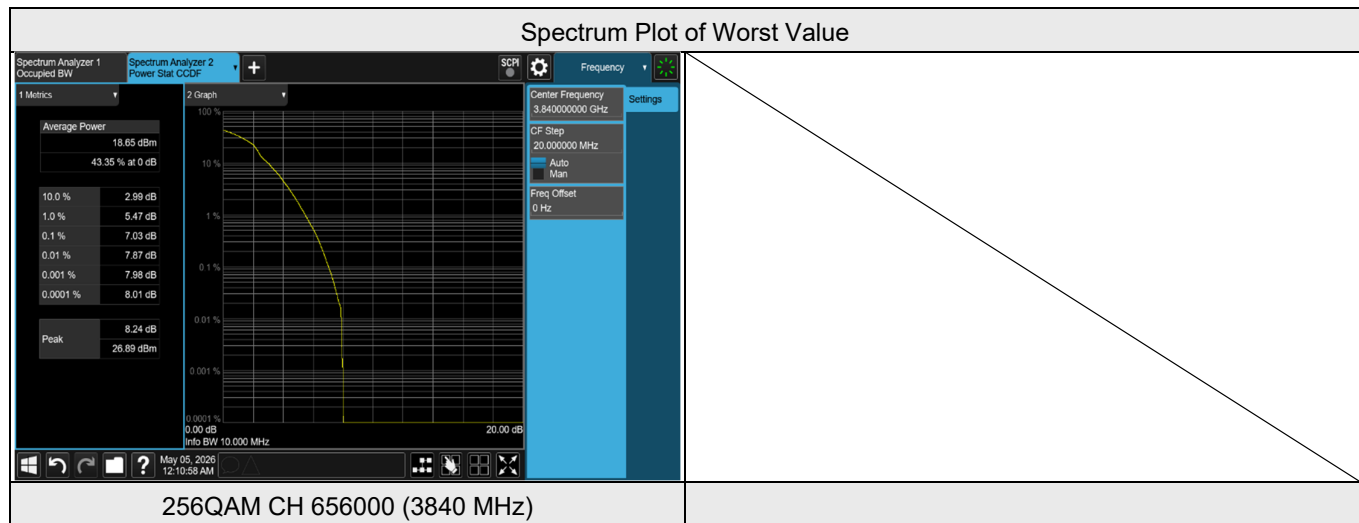
Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
BPSK	633334	3500.01	4.87	13	PASS
QPSK	633334	3500.01	5.00	13	PASS
16QAM	633334	3500.01	6.78	13	PASS
64QAM	633334	3500.01	6.91	13	PASS
256QAM	633334	3500.01	7.74	13	PASS



7.3.14NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz)

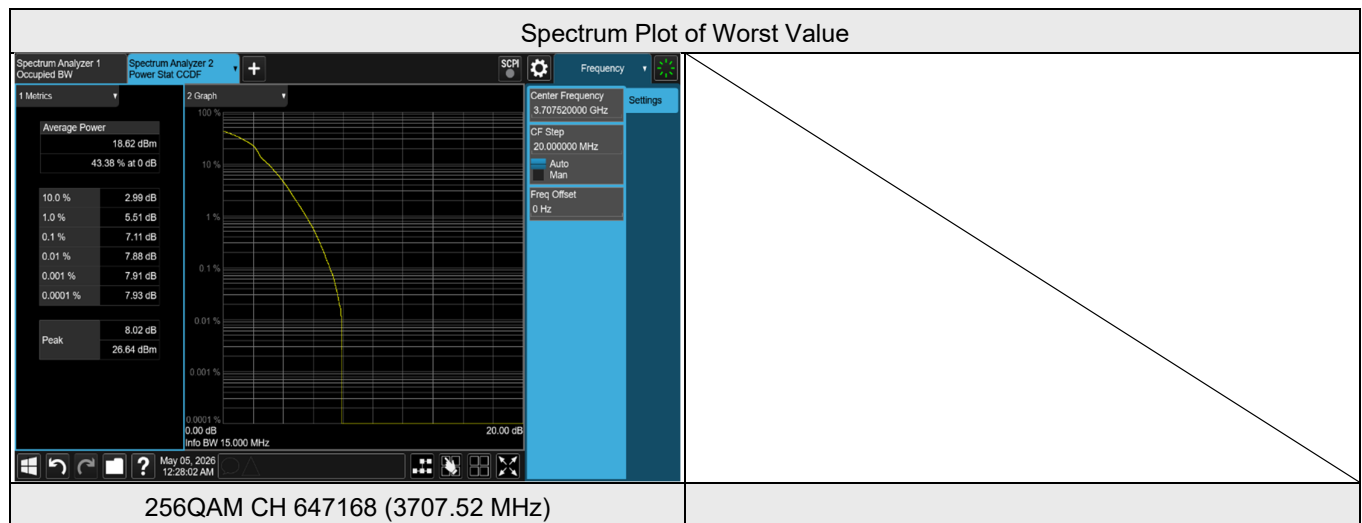
NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz), Channel Bandwidth: 10 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
BPSK	647000	3705	4.36	13	PASS
BPSK	656000	3840	4.27	13	PASS
BPSK	665000	3975	4.19	13	PASS
QPSK	647000	3705	4.89	13	PASS
QPSK	656000	3840	4.88	13	PASS
QPSK	665000	3975	4.75	13	PASS
16QAM	647000	3705	5.93	13	PASS
16QAM	656000	3840	5.92	13	PASS
16QAM	665000	3975	5.75	13	PASS
64QAM	647000	3705	6.43	13	PASS
64QAM	656000	3840	6.39	13	PASS
64QAM	665000	3975	6.32	13	PASS
256QAM	647000	3705	6.90	13	PASS
256QAM	656000	3840	7.03	13	PASS
256QAM	665000	3975	6.70	13	PASS



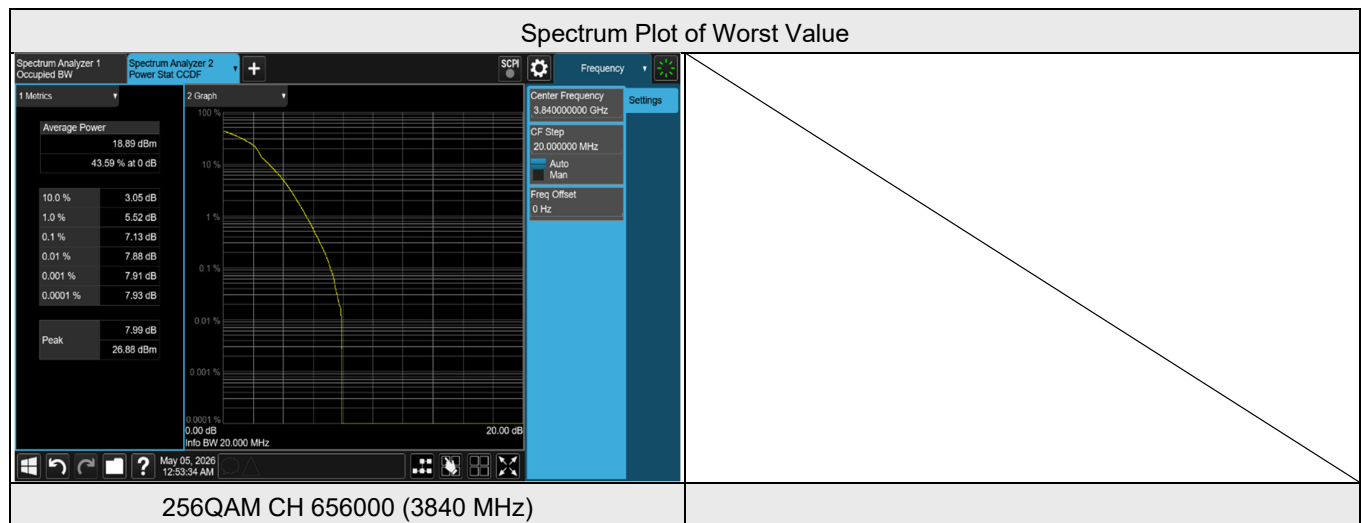
NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz), Channel Bandwidth: 15 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
BPSK	647168	3707.52	4.22	13	PASS
BPSK	656000	3840	4.20	13	PASS
BPSK	664832	3972.48	4.15	13	PASS
QPSK	647168	3707.52	4.90	13	PASS
QPSK	656000	3840	4.80	13	PASS
QPSK	664832	3972.48	4.78	13	PASS
16QAM	647168	3707.52	5.79	13	PASS
16QAM	656000	3840	5.75	13	PASS
16QAM	664832	3972.48	5.73	13	PASS
64QAM	647168	3707.52	6.31	13	PASS
64QAM	656000	3840	6.24	13	PASS
64QAM	664832	3972.48	6.20	13	PASS
256QAM	647168	3707.52	7.11	13	PASS
256QAM	656000	3840	6.77	13	PASS
256QAM	664832	3972.48	6.77	13	PASS



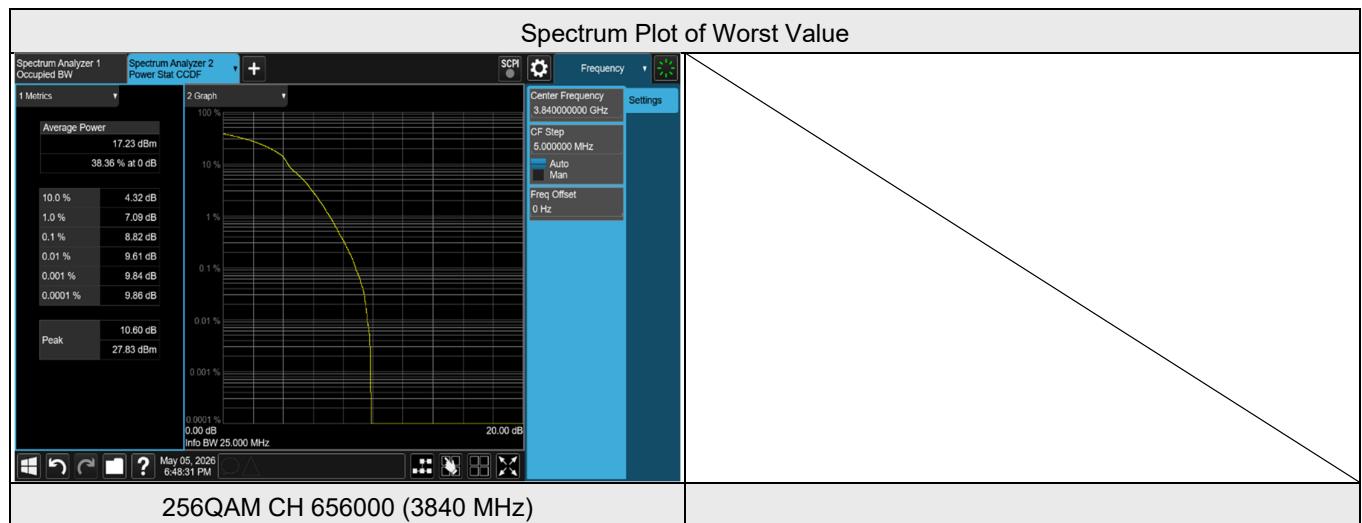
NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz), Channel Bandwidth: 20 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
BPSK	647334	3710.01	4.51	13	PASS
BPSK	656000	3840	4.31	13	PASS
BPSK	664666	3969.99	4.37	13	PASS
QPSK	647334	3710.01	5.25	13	PASS
QPSK	656000	3840	4.81	13	PASS
QPSK	664666	3969.99	5.03	13	PASS
16QAM	647334	3710.01	6.17	13	PASS
16QAM	656000	3840	5.99	13	PASS
16QAM	664666	3969.99	6.00	13	PASS
64QAM	647334	3710.01	6.42	13	PASS
64QAM	656000	3840	6.38	13	PASS
64QAM	664666	3969.99	6.44	13	PASS
256QAM	647334	3710.01	7.02	13	PASS
256QAM	656000	3840	7.13	13	PASS
256QAM	664666	3969.99	7.09	13	PASS



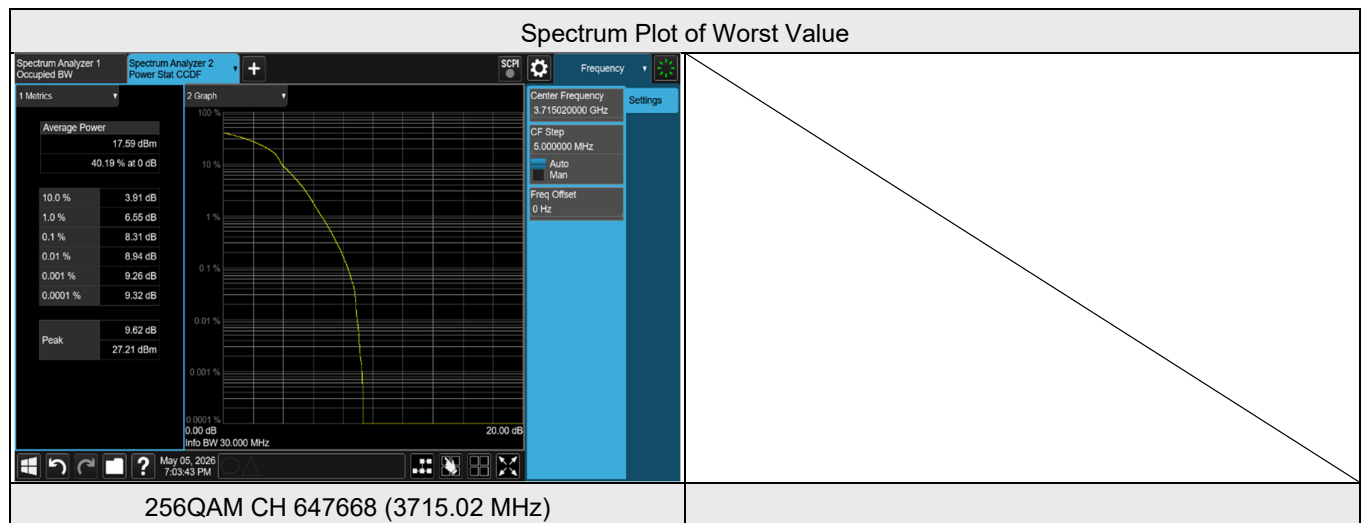
NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz), Channel Bandwidth: 25 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
BPSK	647500	3712.5	6.07	13	PASS
BPSK	656000	3840	6.15	13	PASS
BPSK	664500	3967.5	6.38	13	PASS
QPSK	647500	3712.5	6.42	13	PASS
QPSK	656000	3840	6.78	13	PASS
QPSK	664500	3967.5	6.29	13	PASS
16QAM	647500	3712.5	7.51	13	PASS
16QAM	656000	3840	7.98	13	PASS
16QAM	664500	3967.5	7.72	13	PASS
64QAM	647500	3712.5	8.44	13	PASS
64QAM	656000	3840	7.88	13	PASS
64QAM	664500	3967.5	7.88	13	PASS
256QAM	647500	3712.5	8.59	13	PASS
256QAM	656000	3840	8.82	13	PASS
256QAM	664500	3967.5	8.28	13	PASS



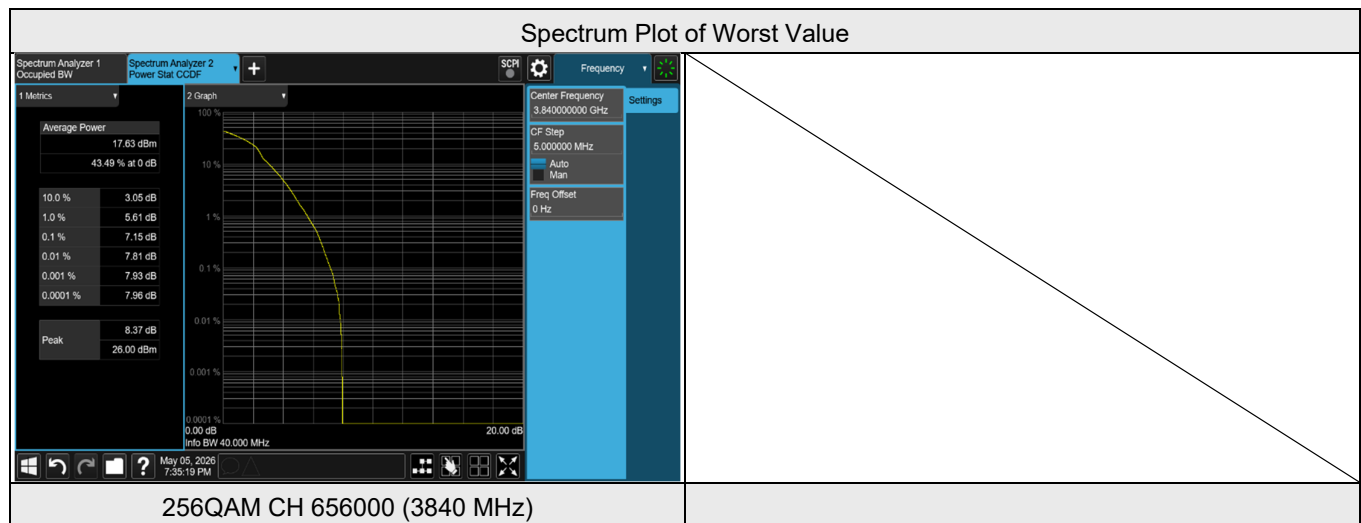
NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz), Channel Bandwidth: 30 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
BPSK	647668	3715.02	4.96	13	PASS
BPSK	656000	3840	5.52	13	PASS
BPSK	664332	3964.98	5.46	13	PASS
QPSK	647668	3715.02	6.14	13	PASS
QPSK	656000	3840	5.96	13	PASS
QPSK	664332	3964.98	6.14	13	PASS
16QAM	647668	3715.02	6.91	13	PASS
16QAM	656000	3840	7.01	13	PASS
16QAM	664332	3964.98	7.43	13	PASS
64QAM	647668	3715.02	7.36	13	PASS
64QAM	656000	3840	6.92	13	PASS
64QAM	664332	3964.98	7.66	13	PASS
256QAM	647668	3715.02	8.31	13	PASS
256QAM	656000	3840	7.96	13	PASS
256QAM	664332	3964.98	7.22	13	PASS



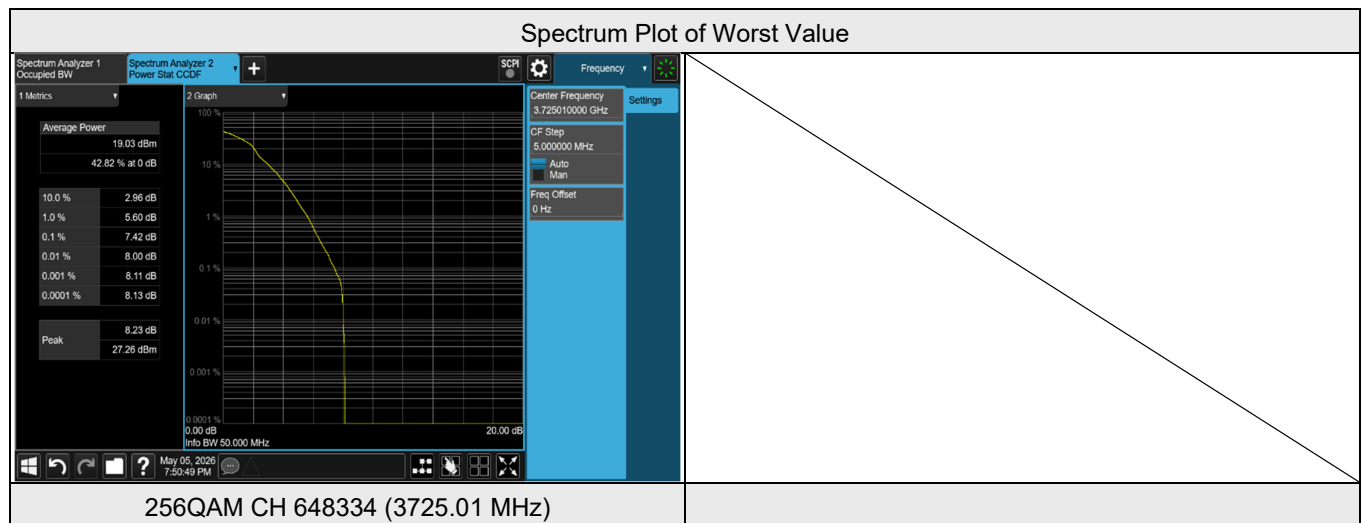
NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz), Channel Bandwidth: 40 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
BPSK	648000	3720	4.41	13	PASS
BPSK	656000	3840	4.18	13	PASS
BPSK	664000	3960	4.09	13	PASS
QPSK	648000	3720	4.94	13	PASS
QPSK	656000	3840	4.65	13	PASS
QPSK	664000	3960	4.90	13	PASS
16QAM	648000	3720	5.71	13	PASS
16QAM	656000	3840	5.76	13	PASS
16QAM	664000	3960	5.79	13	PASS
64QAM	648000	3720	6.23	13	PASS
64QAM	656000	3840	6.44	13	PASS
64QAM	664000	3960	6.41	13	PASS
256QAM	648000	3720	7.14	13	PASS
256QAM	656000	3840	7.15	13	PASS
256QAM	664000	3960	6.61	13	PASS



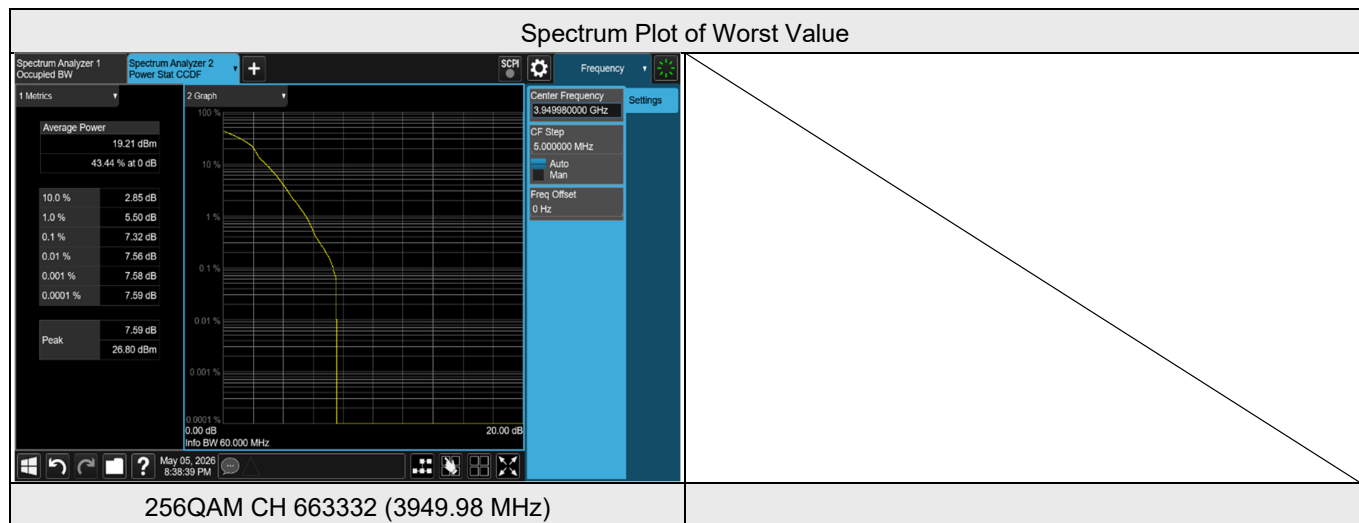
NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz), Channel Bandwidth: 50 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
BPSK	648334	3725.01	4.38	13	PASS
BPSK	656000	3840	4.03	13	PASS
BPSK	663666	3954.99	3.98	13	PASS
QPSK	648334	3725.01	4.86	13	PASS
QPSK	656000	3840	4.68	13	PASS
QPSK	663666	3954.99	4.84	13	PASS
16QAM	648334	3725.01	6.00	13	PASS
16QAM	656000	3840	5.54	13	PASS
16QAM	663666	3954.99	5.61	13	PASS
64QAM	648334	3725.01	6.32	13	PASS
64QAM	656000	3840	6.01	13	PASS
64QAM	663666	3954.99	6.11	13	PASS
256QAM	648334	3725.01	7.42	13	PASS
256QAM	656000	3840	6.98	13	PASS
256QAM	663666	3954.99	6.53	13	PASS



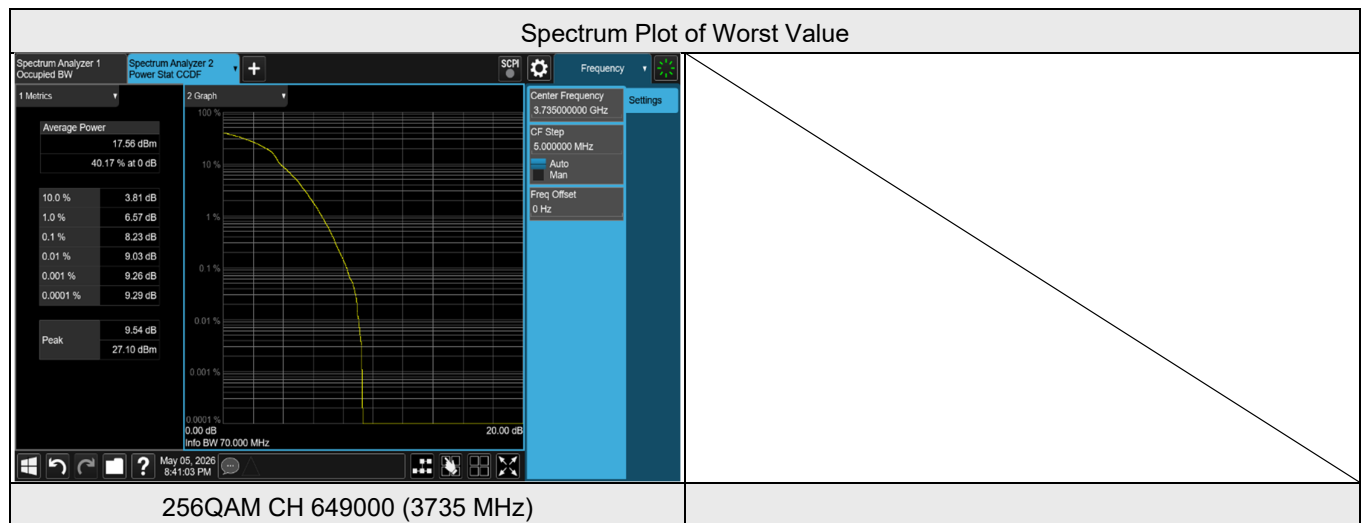
NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz), Channel Bandwidth: 60 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
BPSK	648668	3730.02	4.18	13	PASS
BPSK	656000	3840	4.06	13	PASS
BPSK	663332	3949.98	3.98	13	PASS
QPSK	648668	3730.02	4.83	13	PASS
QPSK	656000	3840	4.59	13	PASS
QPSK	663332	3949.98	4.52	13	PASS
16QAM	648668	3730.02	5.87	13	PASS
16QAM	656000	3840	5.67	13	PASS
16QAM	663332	3949.98	5.43	13	PASS
64QAM	648668	3730.02	6.40	13	PASS
64QAM	656000	3840	6.13	13	PASS
64QAM	663332	3949.98	6.04	13	PASS
256QAM	648668	3730.02	6.62	13	PASS
256QAM	656000	3840	6.96	13	PASS
256QAM	663332	3949.98	7.32	13	PASS



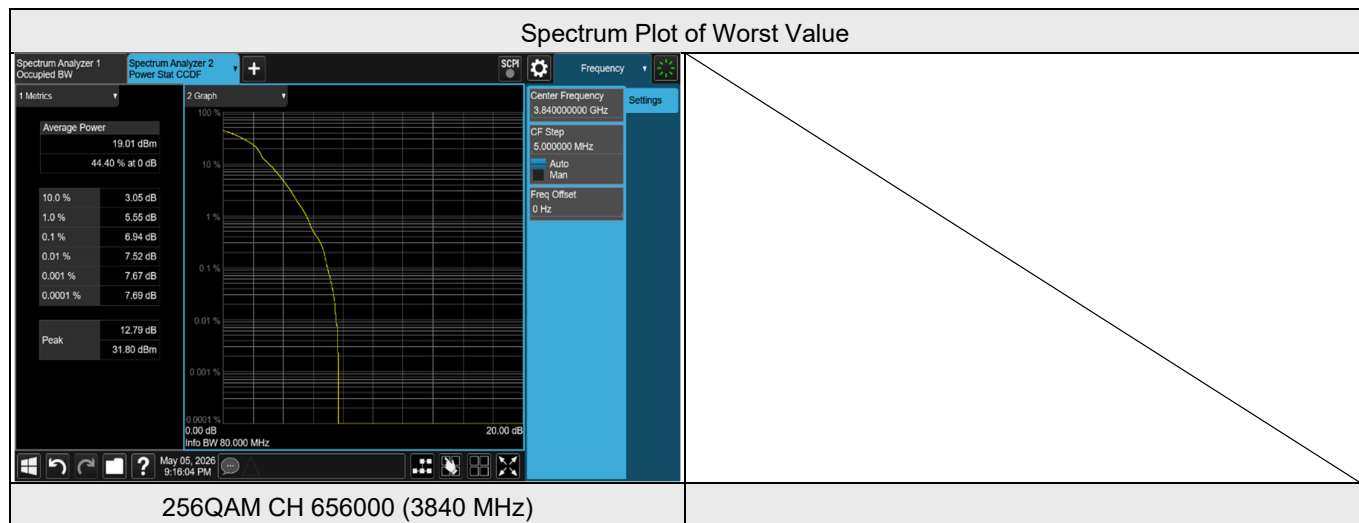
NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz), Channel Bandwidth: 70 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
BPSK	649000	3735	5.64	13	PASS
BPSK	656000	3840	5.86	13	PASS
BPSK	663000	3945	4.85	13	PASS
QPSK	649000	3735	6.59	13	PASS
QPSK	656000	3840	6.79	13	PASS
QPSK	663000	3945	6.23	13	PASS
16QAM	649000	3735	7.55	13	PASS
16QAM	656000	3840	7.13	13	PASS
16QAM	663000	3945	6.96	13	PASS
64QAM	649000	3735	7.57	13	PASS
64QAM	656000	3840	7.26	13	PASS
64QAM	663000	3945	7.65	13	PASS
256QAM	649000	3735	8.23	13	PASS
256QAM	656000	3840	7.45	13	PASS
256QAM	663000	3945	7.82	13	PASS



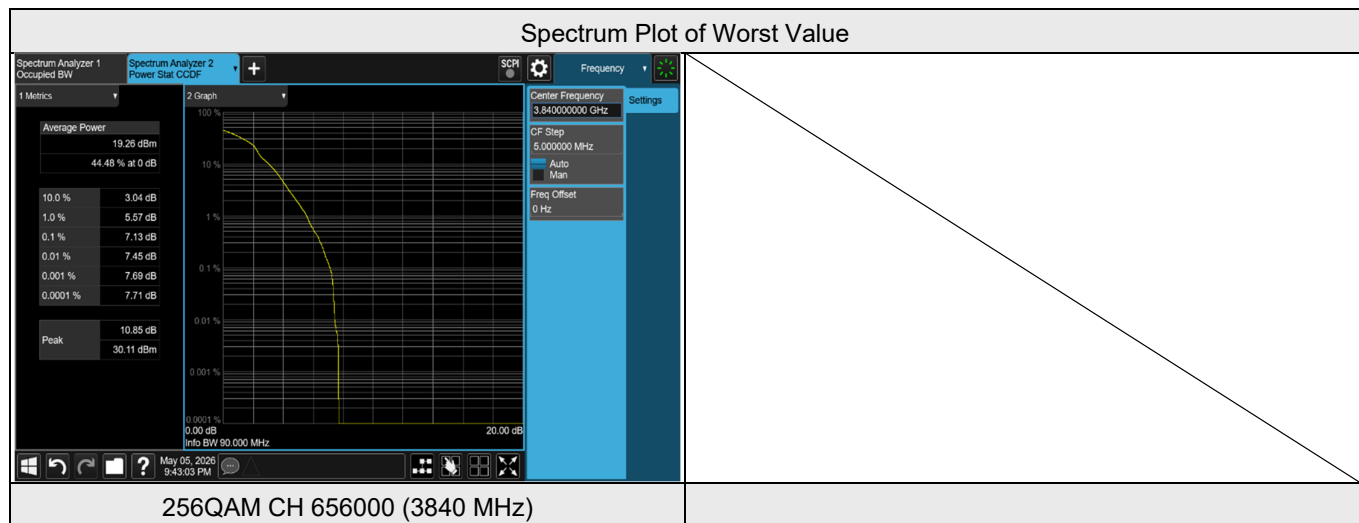
NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz), Channel Bandwidth: 80 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
BPSK	649334	3740.01	4.23	13	PASS
BPSK	656000	3840	4.06	13	PASS
BPSK	662666	3939.99	4.05	13	PASS
QPSK	649334	3740.01	5.33	13	PASS
QPSK	656000	3840	4.79	13	PASS
QPSK	662666	3939.99	4.70	13	PASS
16QAM	649334	3740.01	6.78	13	PASS
16QAM	656000	3840	5.90	13	PASS
16QAM	662666	3939.99	5.77	13	PASS
64QAM	649334	3740.01	6.46	13	PASS
64QAM	656000	3840	6.14	13	PASS
64QAM	662666	3939.99	6.14	13	PASS
256QAM	649334	3740.01	6.79	13	PASS
256QAM	656000	3840	6.94	13	PASS
256QAM	662666	3939.99	6.69	13	PASS



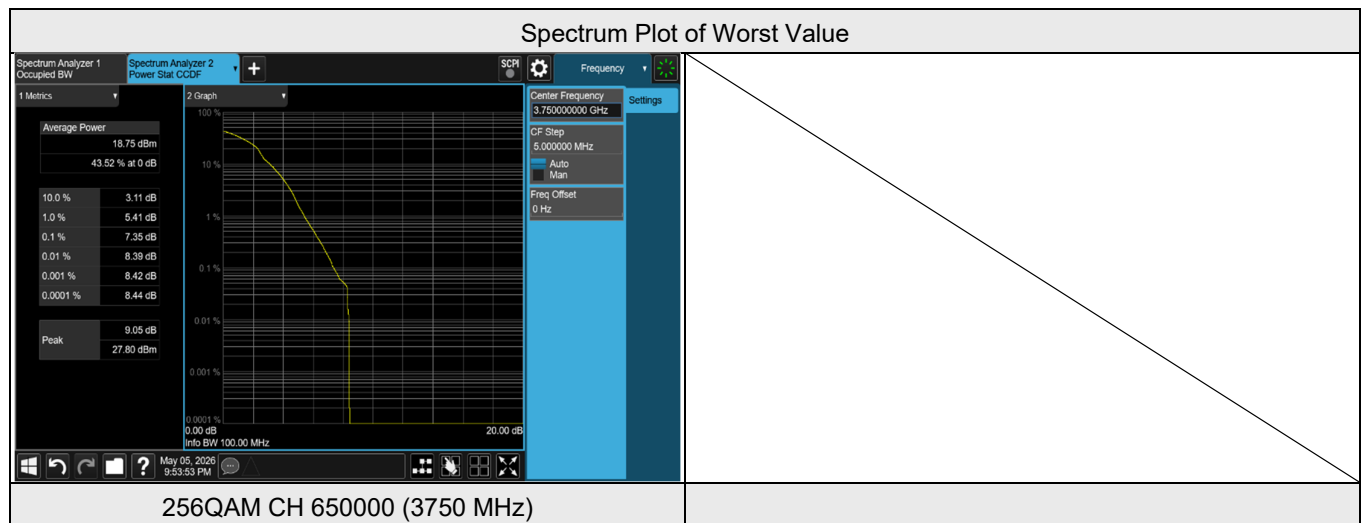
NR n77 SCS 30 kHz (3.7 GHz ~ 3.98 GHz), Channel Bandwidth: 90 MHz

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
BPSK	649668	3745.02	4.30	13	PASS
BPSK	656000	3840	4.15	13	PASS
BPSK	662332	3934.98	4.04	13	PASS
QPSK	649668	3745.02	4.90	13	PASS
QPSK	656000	3840	4.67	13	PASS
QPSK	662332	3934.98	4.63	13	PASS
16QAM	649668	3745.02	5.86	13	PASS
16QAM	656000	3840	5.74	13	PASS
16QAM	662332	3934.98	5.62	13	PASS
64QAM	649668	3745.02	6.53	13	PASS
64QAM	656000	3840	6.16	13	PASS
64QAM	662332	3934.98	6.09	13	PASS
256QAM	649668	3745.02	7.01	13	PASS
256QAM	656000	3840	7.13	13	PASS
256QAM	662332	3934.98	6.65	13	PASS



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

Modulation	Channel	Frequency (MHz)	Measurement Value(dB)	Limit (dB)	Result
BPSK	650000	3750	4.21	13	PASS
BPSK	656000	3840	4.08	13	PASS
BPSK	662000	3930	4.02	13	PASS
QPSK	650000	3750	4.88	13	PASS
QPSK	656000	3840	5.43	13	PASS
QPSK	662000	3930	4.66	13	PASS
16QAM	650000	3750	5.79	13	PASS
16QAM	656000	3840	5.62	13	PASS
16QAM	662000	3930	5.48	13	PASS
64QAM	650000	3750	6.62	13	PASS
64QAM	656000	3840	6.12	13	PASS
64QAM	662000	3930	6.07	13	PASS
256QAM	650000	3750	7.35	13	PASS
256QAM	656000	3840	6.64	13	PASS
256QAM	662000	3930	7.17	13	PASS



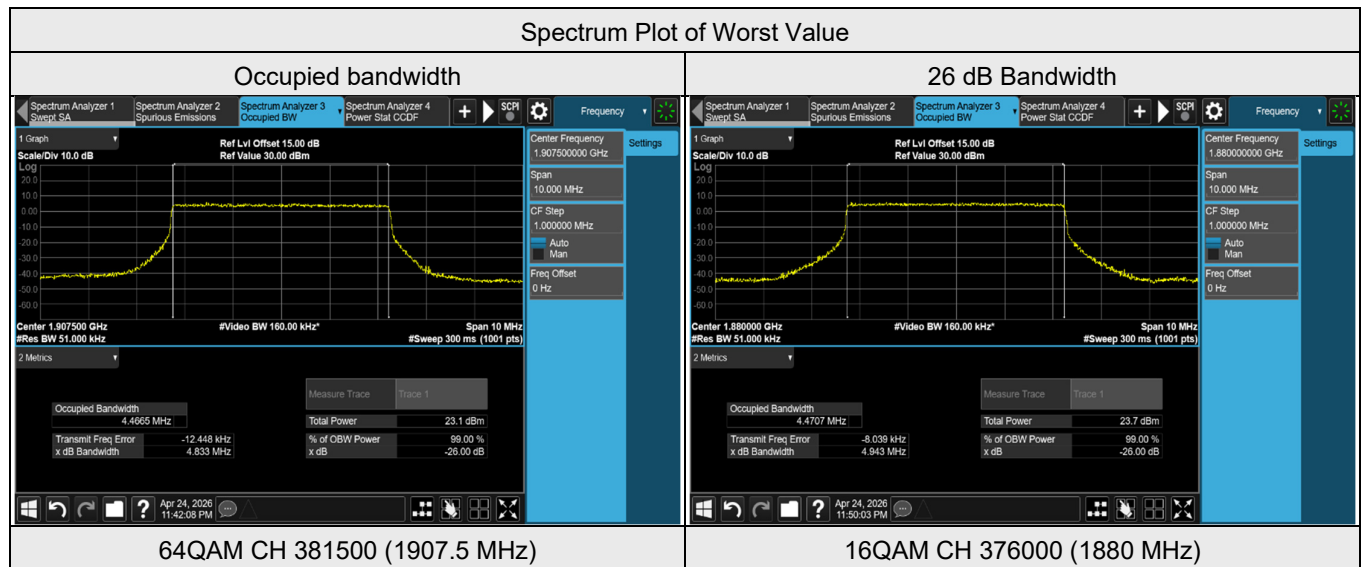
7.4 Bandwidth

Input Power:	3.8 Vdc	Environmental Conditions:	25°C, 66% RH	Tested By:	James Yang
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7.4.1 NR n2 SCS 15 kHz

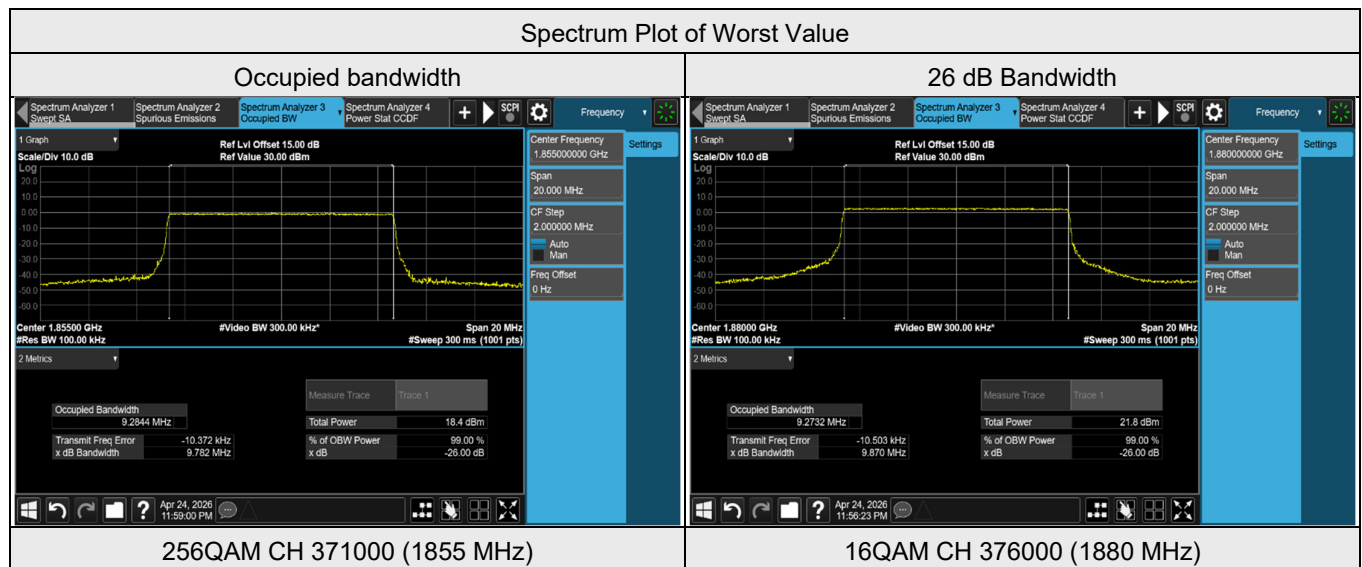
NR n2 SCS 15 kHz, Channel Bandwidth: 5 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	370500	1852.5	4.4660	4.871
BPSK	376000	1880	4.4700	4.851
BPSK	381500	1907.5	4.4662	4.835
QPSK	370500	1852.5	4.4693	4.881
QPSK	376000	1880	4.4668	4.834
QPSK	381500	1907.5	4.4646	4.872
16QAM	370500	1852.5	4.4656	4.890
16QAM	376000	1880	4.4707	4.943
16QAM	381500	1907.5	4.4628	4.871
64QAM	370500	1852.5	4.4680	4.849
64QAM	376000	1880	4.4684	4.850
64QAM	381500	1907.5	4.665	4.833
256QAM	370500	1852.5	4.4672	4.822
256QAM	376000	1880	4.4662	4.870
256QAM	381500	1907.5	4.4718	4.917



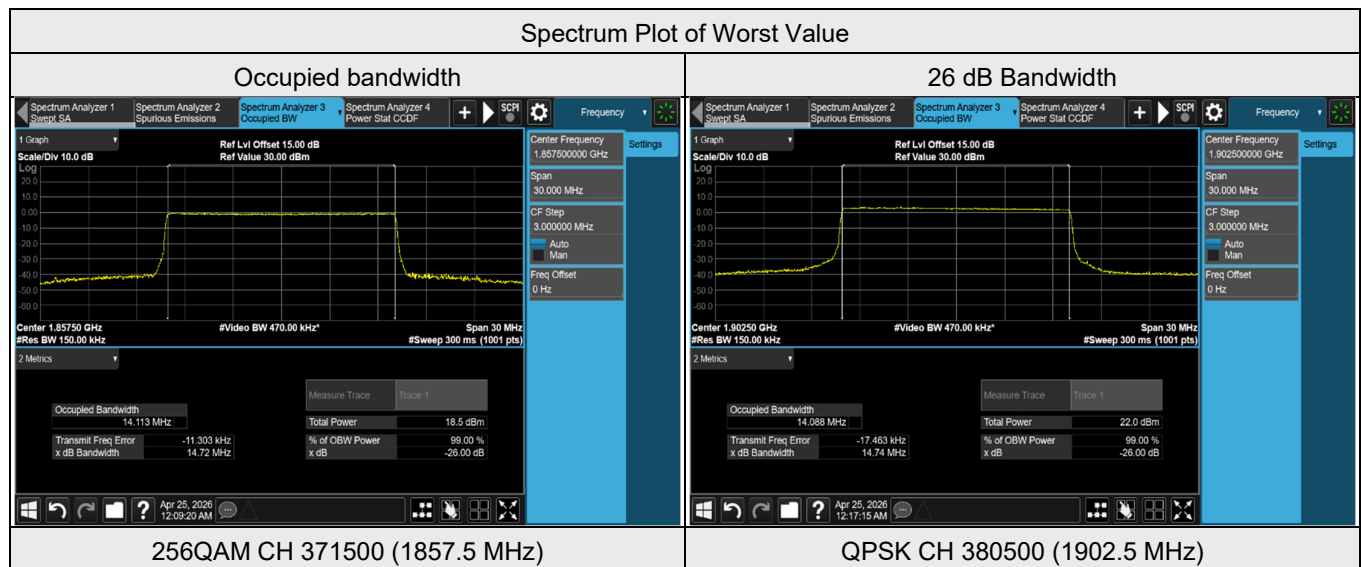
NR n2 SCS 15 kHz, Channel Bandwidth: 10 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	371000	1855	8.9194	9.362
BPSK	376000	1880	8.9264	9.335
BPSK	381000	1905	8.9275	9.332
QPSK	371000	1855	9.2807	9.824
QPSK	376000	1880	9.2774	9.787
QPSK	381000	1905	9.2760	9.818
16QAM	371000	1855	9.2798	9.827
16QAM	376000	1880	9.2732	9.870
16QAM	381000	1905	9.2787	9.824
64QAM	371000	1855	9.2840	9.763
64QAM	376000	1880	9.2769	9.829
64QAM	381000	1905	9.2808	9.808
256QAM	371000	1855	9.2844	9.782
256QAM	376000	1880	9.2816	9.802
256QAM	381000	1905	9.2741	9.739



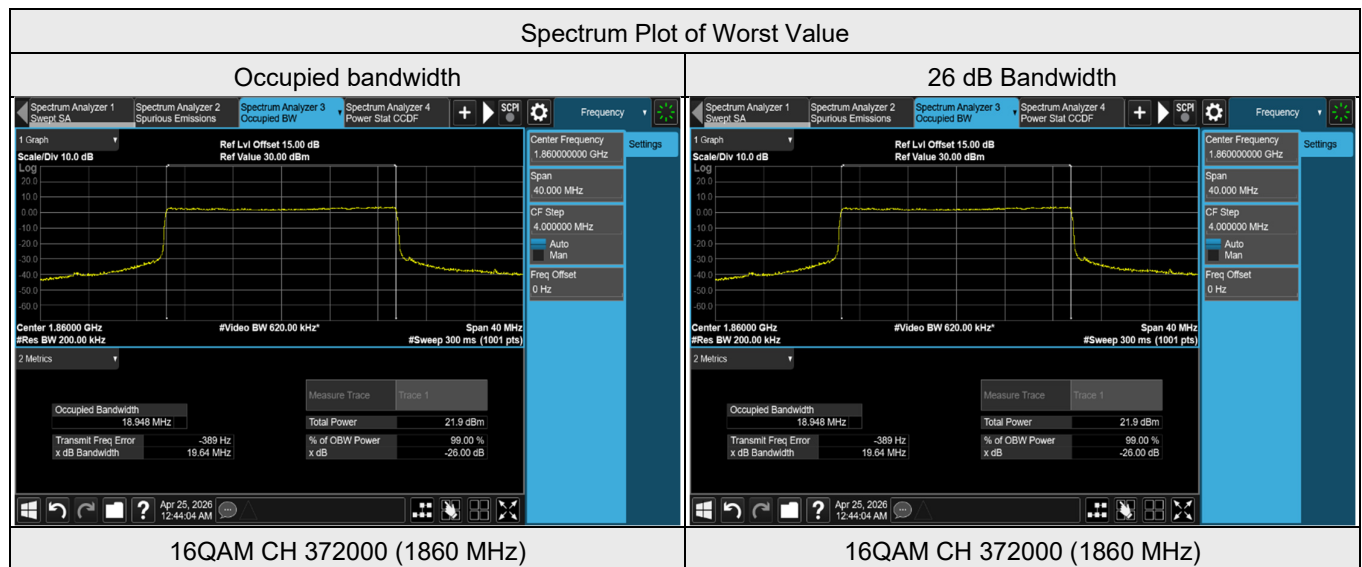
NR n2 SCS 15 kHz, Channel Bandwidth: 15 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	371500	1857.5	13.406	13.97
BPSK	376000	1880	13.388	13.93
BPSK	380500	1902.5	13.378	13.97
QPSK	371500	1857.5	14.112	14.68
QPSK	376000	1880	14.101	14.71
QPSK	380500	1902.5	14.088	14.74
16QAM	371500	1857.5	14.113	14.69
16QAM	376000	1880	14.103	14.71
16QAM	380500	1902.5	14.098	14.70
64QAM	371500	1857.5	14.111	14.73
64QAM	376000	1880	14.097	14.63
64QAM	380500	1902.5	14.089	14.68
256QAM	371500	1857.5	14.113	14.72
256QAM	376000	1880	14.102	14.68
256QAM	380500	1902.5	14.091	14.65



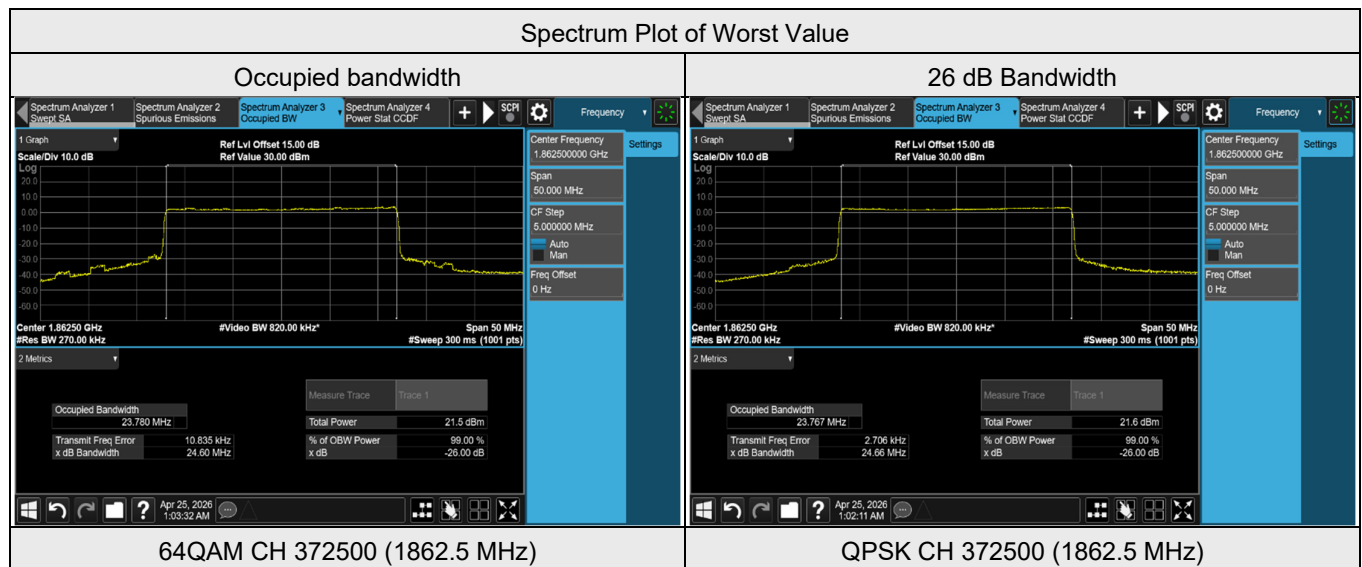
NR n2 SCS 15 kHz, Channel Bandwidth: 20 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	372000	1860	17.868	18.54
BPSK	376000	1880	17.840	18.56
BPSK	380000	1900	17.829	18.51
QPSK	372000	1860	18.938	19.63
QPSK	376000	1880	18.917	19.62
QPSK	380000	1900	18.899	19.64
16QAM	372000	1860	18.948	19.64
16QAM	376000	1880	18.901	19.63
16QAM	380000	1900	18.901	19.62
64QAM	372000	1860	18.937	19.64
64QAM	376000	1880	18.908	19.63
64QAM	380000	1900	18.907	19.62
256QAM	372000	1860	18.940	19.61
256QAM	376000	1880	18.918	19.61
256QAM	380000	1900	18.905	19.60



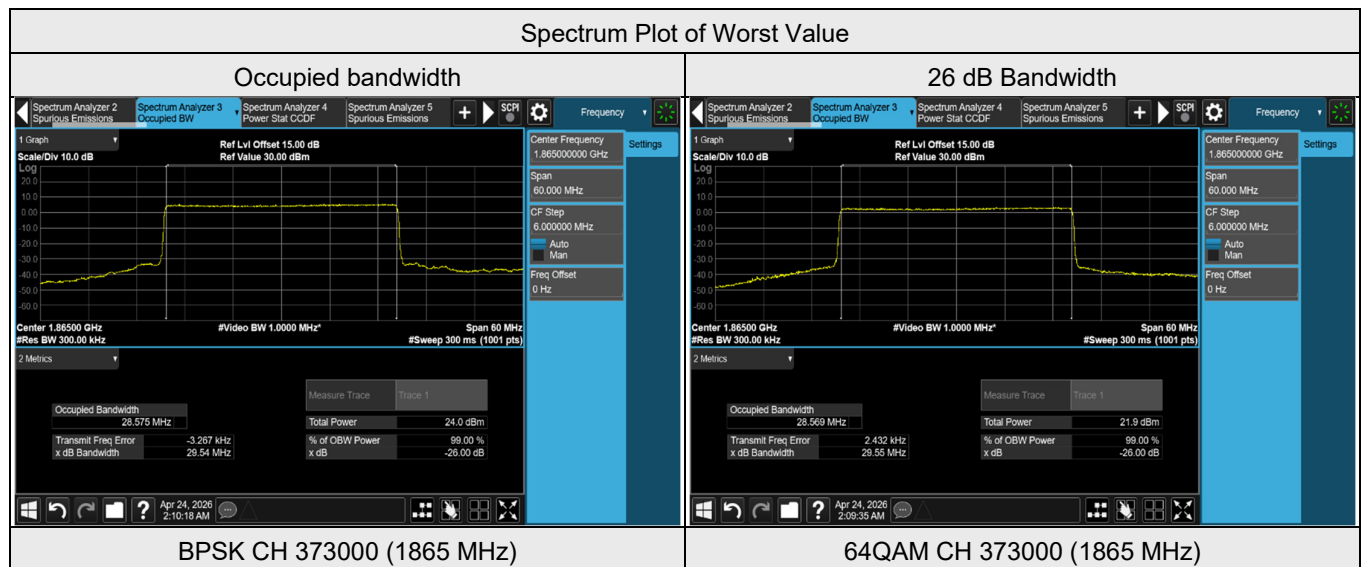
NR n2 SCS 15 kHz, Channel Bandwidth: 25 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	372500	1862.5	22.896	23.70
BPSK	376000	1880	22.850	23.69
BPSK	379500	1897.5	22.836	23.71
QPSK	372500	1862.5	23.767	24.66
QPSK	376000	1880	23.723	24.63
QPSK	379500	1897.5	23.723	24.63
16QAM	372500	1862.5	23.775	24.63
16QAM	376000	1880	23.735	24.63
16QAM	379500	1897.5	23.723	24.63
64QAM	372500	1862.5	23.780	24.60
64QAM	376000	1880	23.716	24.61
64QAM	379500	1897.5	23.719	24.61
256QAM	372500	1862.5	23.759	24.62
256QAM	376000	1880	23.719	24.62
256QAM	379500	1897.5	23.715	24.60



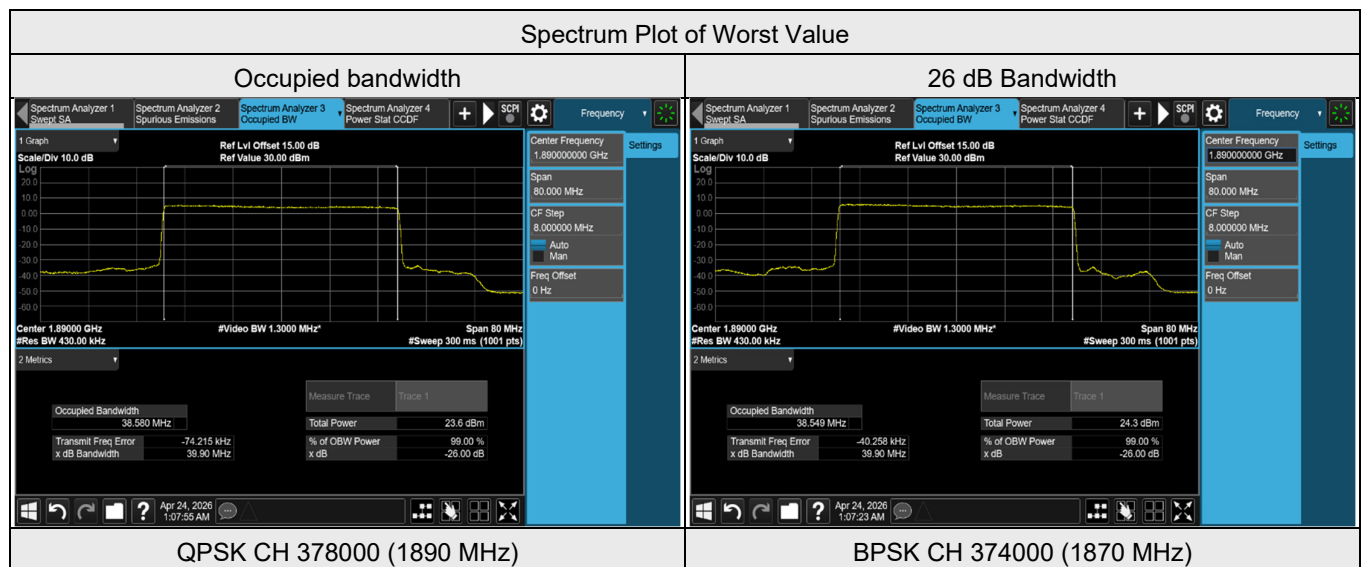
NR n2 SCS 15 kHz, Channel Bandwidth: 30 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	373000	1865	28.575	29.54
BPSK	376000	1880	28.541	29.52
BPSK	379000	1895	28.554	29.52
QPSK	373000	1865	28.565	29.54
QPSK	376000	1880	28.533	29.54
QPSK	379000	1895	28.548	29.53
16QAM	373000	1865	28.572	29.53
16QAM	376000	1880	28.534	29.54
16QAM	379000	1895	28.549	29.54
64QAM	373000	1865	28.569	29.55
64QAM	376000	1880	28.528	29.52
64QAM	379000	1895	28.537	29.52
256QAM	373000	1865	28.556	29.52
256QAM	376000	1880	28.541	29.54
256QAM	379000	1895	28.536	29.54



NR n2 SCS 15 kHz, Channel Bandwidth: 40 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	374000	1870	38.557	39.95
BPSK	376000	1880	38.534	39.93
BPSK	378000	1890	38.549	39.90
QPSK	374000	1870	38.569	39.91
QPSK	376000	1880	38.544	39.91
QPSK	378000	1890	38.580	39.90
16QAM	374000	1870	38.552	39.91
16QAM	376000	1880	38.533	39.83
16QAM	378000	1890	38.529	39.91
64QAM	374000	1870	38.542	39.91
64QAM	376000	1880	38.542	39.91
64QAM	378000	1890	38.518	39.88
256QAM	374000	1870	38.561	39.93
256QAM	376000	1880	38.542	39.87
256QAM	378000	1890	38.532	39.90



7.4.2 NR n5 SCS 15 kHz

NR n5 SCS 15 kHz, Channel Bandwidth: 5 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	165300	826.5	4.4688	4.816
BPSK	167300	836.5	4.4718	4.857
BPSK	169300	846.5	4.4671	4.860
QPSK	165300	826.5	4.4684	4.831
QPSK	167300	836.5	4.4733	4.856
QPSK	169300	846.5	4.4662	4.816
16QAM	165300	826.5	4.4665	4.811
16QAM	167300	836.5	4.4707	4.841
16QAM	169300	846.5	4.4709	4.854
64QAM	165300	826.5	4.4675	4.837
64QAM	167300	836.5	4.4697	4.864
64QAM	169300	846.5	4.473	4.839
256QAM	165300	826.5	4.4653	4.859
256QAM	167300	836.5	4.4712	4.899
256QAM	169300	846.5	4.4744	4.867

