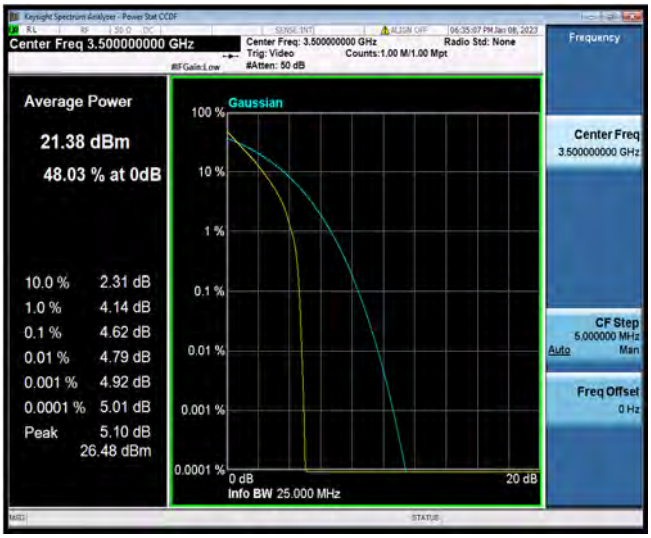
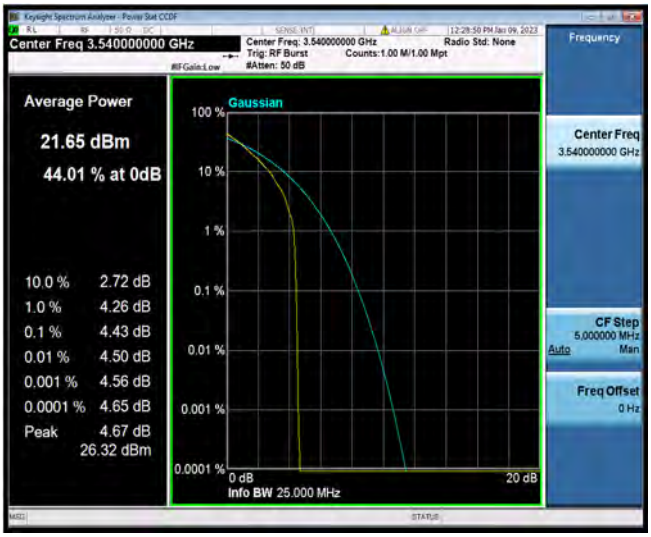
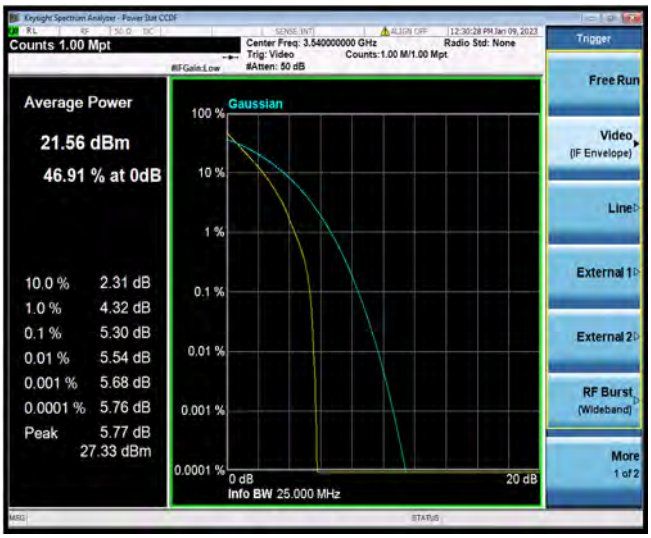
N78-20MHz-QPSK-633334-50RB#0



N78-20MHz-QPSK-636000-1RB#0



N78-20MHz-QPSK-636000-50RB#0



26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
N78	20MHz	QPSK	633334	50RB#0	17.890	18.96	PASS
N78	20MHz	16QAM	633334	50RB#0	17.925	18.99	PASS
N78	20MHz	64QAM	633334	50RB#0	17.942	18.99	PASS
N78	20MHz	256QAM	633334	50RB#0	17.916	18.97	PASS
N78	20MHz	BPSK	633334	50RB#0	17.946	18.99	PASS
N78	30MHz	QPSK	633334	75RB#0	26.791	27.80	PASS
N78	30MHz	16QAM	633334	75RB#0	26.773	27.76	PASS
N78	30MHz	64QAM	633334	75RB#0	26.747	27.77	PASS
N78	30MHz	BPSK	633334	75RB#0	26.778	27.75	PASS
N78	30MHz	256QAM	633334	75RB#0	26.820	27.77	PASS
N78	40MHz	QPSK	633334	100RB#0	35.726	37.26	PASS
N78	40MHz	16QAM	633334	100RB#0	35.730	37.29	PASS
N78	40MHz	64QAM	633334	100RB#0	35.715	37.26	PASS
N78	40MHz	256QAM	633334	100RB#0	35.711	37.28	PASS
N78	40MHz	BPSK	633334	100RB#0	35.703	37.26	PASS
N78	50MHz	QPSK	633334	128RB#0	45.835	48.43	PASS
N78	50MHz	16QAM	633334	128RB#0	45.849	48.44	PASS
N78	50MHz	64QAM	633334	128RB#0	45.851	48.45	PASS
N78	50MHz	BPSK	633334	128RB#0	45.814	48.44	PASS
N78	50MHz	256QAM	633334	128RB#0	45.902	48.45	PASS
N78	60MHz	QPSK	633334	162RB#0	57.925	60.72	PASS
N78	60MHz	16QAM	633334	162RB#0	57.985	60.74	PASS
N78	60MHz	64QAM	633334	162RB#0	57.958	60.72	PASS
N78	60MHz	256QAM	633334	162RB#0	57.960	60.71	PASS
N78	60MHz	BPSK	633334	162RB#0	57.995	60.73	PASS
N78	80MHz	QPSK	633334	216RB#0	77.144	80.19	PASS
N78	80MHz	16QAM	633334	216RB#0	77.122	80.21	PASS
N78	80MHz	64QAM	633334	216RB#0	77.176	80.21	PASS
N78	80MHz	BPSK	633334	216RB#0	77.112	80.18	PASS
N78	80MHz	256QAM	633334	216RB#0	77.173	80.23	PASS
N78	90MHz	QPSK	633334	240RB#0	85.531	88.78	PASS
N78	90MHz	16QAM	633334	240RB#0	85.636	88.81	PASS
N78	90MHz	64QAM	633334	240RB#0	85.631	88.79	PASS
N78	90MHz	BPSK	633334	240RB#0	85.679	88.83	PASS

N78	90MHz	256QAM	633334	240RB#0	85.653	88.86	PASS
N78	100MHz	QPSK	633334	270RB#0	96.313	99.68	PASS
N78	100MHz	16QAM	633334	270RB#0	96.455	99.69	PASS
N78	100MHz	64QAM	633334	270RB#0	96.259	99.63	PASS
N78	100MHz	256QAM	633334	270RB#0	96.328	99.75	PASS
N78	100MHz	BPSK	633334	270RB#0	96.274	99.64	PASS

Test Graphs

N78-20MHz-QPSK-633334-50RB#0

N78-20MHz-16QAM-633334-50RB#0

N78-20MHz-64QAM-633334-50RB#0

N78-20MHz-256QAM-633334-50RB#0

N78-20MHz-BPSK-633334-50RB#0

N78-30MHz-QPSK-633334-75RB#0

N78-30MHz-16QAM-633334-75RB#0

N78-30MHz-64QAM-633334-75RB#0

N78-30MHz-BPSK-633334-75RB#0

N78-30MHz-256QAM-633334-75RB#0

N78-40MHz-QPSK-633334-100RB#0

N78-40MHz-16QAM-633334-100RB#0

N78-40MHz-64QAM-633334-100RB#0

N78-40MHz-256QAM-633334-100RB#0

N78-40MHz-BPSK-633334-100RB#0

N78-50MHz-QPSK-633334-128RB#0

N78-50MHz-16QAM-633334-128RB#0

N78-50MHz-64QAM-633334-128RB#0

N78-50MHz-BPSK-633334-128RB#0

N78-50MHz-256QAM-633334-128RB#0

N78-60MHz-QPSK-633334-162RB#0

N78-60MHz-16QAM-633334-162RB#0

N78-60MHz-64QAM-633334-162RB#0

N78-60MHz-256QAM-633334-162RB#0

N78-60MHz-BPSK-633334-162RB#0

N78-80MHz-QPSK-633334-216RB#0

N78-80MHz-16QAM-633334-216RB#0

N78-80MHz-64QAM-633334-216RB#0

N78-80MHz-BPSK-633334-216RB#0

N78-80MHz-256QAM-633334-216RB#0

Band78-90MHz-QPSK-633334-240RB#0

Band78-90MHz-16QAM-633334-240RB#0

Band78-90MHz-64QAM-633334-240RB#0

Band78-90MHz-BPSK-633334-240RB#0

Band78-90MHz-256QAM-633334-240RB#0

N78-100MHz-QPSK-633334-270RB#0

N78-100MHz-16QAM-633334-270RB#0

N78-100MHz-64QAM-633334-270RB#0

N78-100MHz-256QAM-633334-270RB#0

N78-100MHz-BPSK-633334-270RB#0

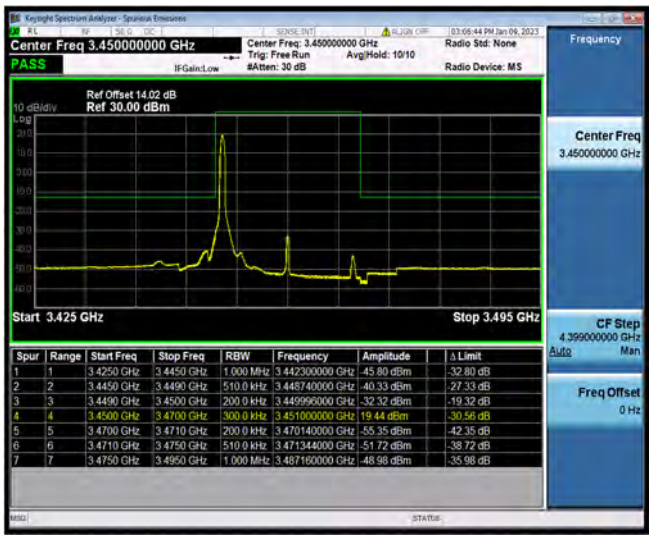
Band Edge

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
N78	20MHz	QPSK	630668	1RB#0	-45.80,-40.33,-32.32	PASS
N78	20MHz	QPSK	630668	50RB#0	-34.23,-36.71,-39.42	PASS
N78	20MHz	QPSK	636000	1RB#50	-32.96,-38.86,-46.59	PASS
N78	20MHz	QPSK	636000	50RB#0	-42.62,-40.35,-37.17	PASS
N78	60MHz	QPSK	632000	1RB#0	-46.15,-39.54,-34.27	PASS
N78	60MHz	QPSK	632000	162RB#0	-33.23,-35.67,-39.04	PASS
N78	60MHz	QPSK	634666	1RB#161	-32.81,-38.96,-46.81	PASS
N78	60MHz	QPSK	634666	162RB#0	-42.07,-38.91,-36.09	PASS
N78	100MHz	QPSK	633334	1RB#0	-55.40,-51.63,-48.08	PASS
N78	100MHz	QPSK	633334	1RB#272	-32.61,-38.90,-46.79	PASS
N78	100MHz	QPSK	633334	270RB#0	-45.43,-41.29,-39.72	PASS

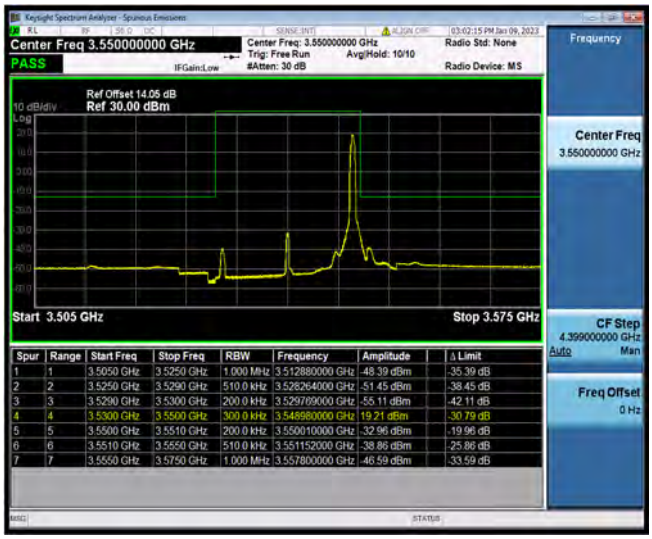
Test Graphs

N78-20MHz-QPSK-630668-1RB#0



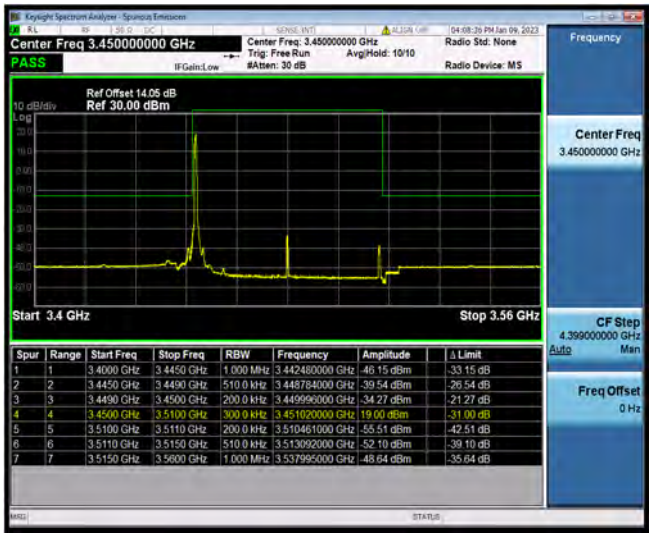
N78-20MHz-QPSK-630668-50RB#0

N78-20MHz-QPSK-636000-1RB#50

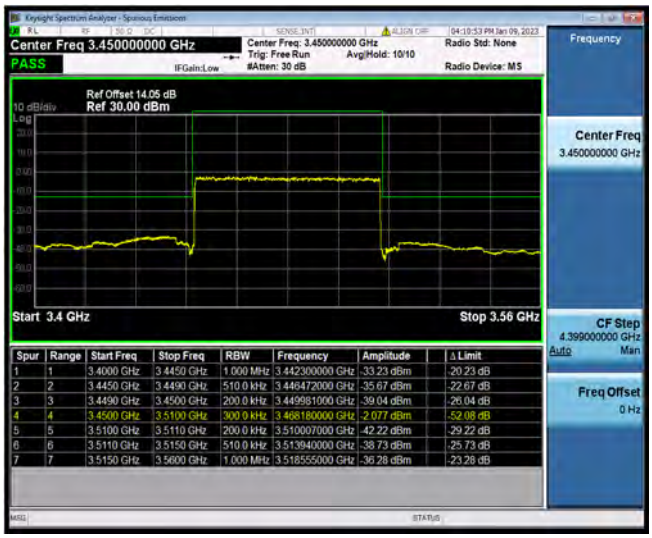


N78-20MHz-QPSK-636000-50RB#0

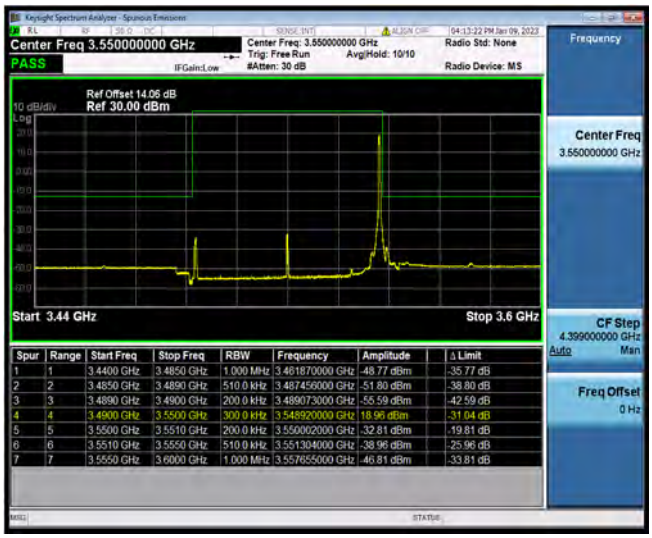
N78-60MHz-QPSK-632000-1RB#0



N78-60MHz-QPSK-632000-162RB#0

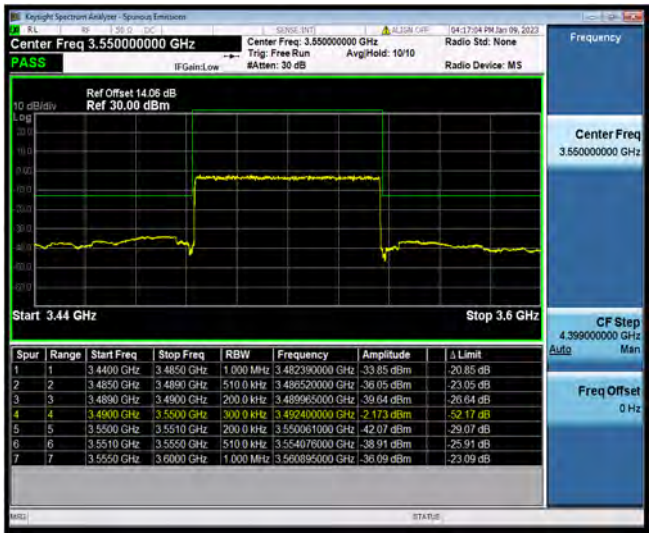


N78-60MHz-QPSK-634666-1RB#161



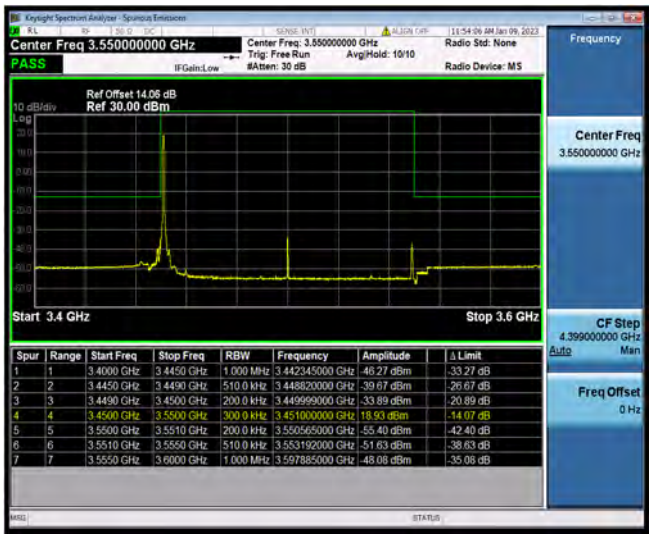
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	3.4400 GHz	3.4850 GHz	1.000 MHz	3.481870000 GHz	-48.77 dBm	-35.77 dB
2	2	3.4850 GHz	3.4890 GHz	510.0 kHz	3.487456000 GHz	-51.80 dBm	-38.80 dB
3	3	3.4890 GHz	3.4900 GHz	200.0 kHz	3.489073000 GHz	-55.59 dBm	-42.59 dB
4	4	3.4900 GHz	3.5500 GHz	300.0 kHz	3.548920000 GHz	18.96 dBm	-31.04 dB
5	5	3.5500 GHz	3.5510 GHz	200.0 kHz	3.550002000 GHz	-32.81 dBm	-19.81 dB
6	6	3.5510 GHz	3.5550 GHz	510.0 kHz	3.551304000 GHz	-38.96 dBm	-25.96 dB
7	7	3.5550 GHz	3.6000 GHz	1.000 MHz	3.557655000 GHz	-46.81 dBm	-33.81 dB

N78-60MHz-QPSK-634666-162RB#0



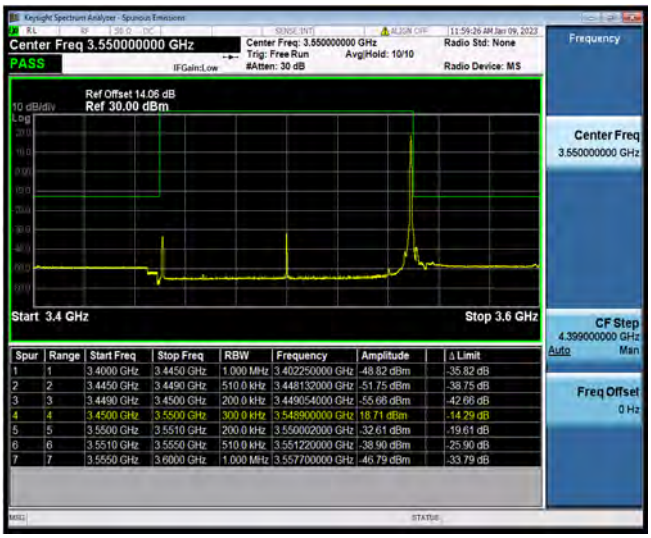
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	3.4400 GHz	3.4850 GHz	1.000 MHz	3.482390000 GHz	-33.85 dBm	-20.85 dB
2	2	3.4850 GHz	3.4890 GHz	510.0 kHz	3.486520000 GHz	-36.05 dBm	-23.05 dB
3	3	3.4890 GHz	3.4900 GHz	200.0 kHz	3.489965000 GHz	-39.64 dBm	-26.64 dB
4	4	3.4900 GHz	3.5500 GHz	300.0 kHz	3.492400000 GHz	-2.173 dBm	-52.17 dB
5	5	3.5500 GHz	3.5510 GHz	200.0 kHz	3.550061000 GHz	-42.07 dBm	-29.07 dB
6	6	3.5510 GHz	3.5550 GHz	510.0 kHz	3.554076000 GHz	-38.91 dBm	-25.91 dB
7	7	3.5550 GHz	3.6000 GHz	1.000 MHz	3.560895000 GHz	-36.09 dBm	-23.09 dB

N78-100MHz-QPSK-633334-1RB#0



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	3.4000 GHz	3.4450 GHz	1.000 MHz	3.442345000 GHz	-46.27 dBm	-33.27 dB
2	2	3.4450 GHz	3.4490 GHz	510.0 kHz	3.448820000 GHz	-39.67 dBm	-26.67 dB
3	3	3.4490 GHz	3.4500 GHz	200.0 kHz	3.449999000 GHz	-33.89 dBm	-20.89 dB
4	4	3.4500 GHz	3.5500 GHz	300.0 kHz	3.451000000 GHz	18.93 dBm	-14.07 dB
5	5	3.5500 GHz	3.5510 GHz	200.0 kHz	3.550565000 GHz	-55.40 dBm	-42.40 dB
6	6	3.5510 GHz	3.5550 GHz	510.0 kHz	3.553192000 GHz	-51.63 dBm	-38.63 dB
7	7	3.5550 GHz	3.6000 GHz	1.000 MHz	3.597885000 GHz	-48.08 dBm	-35.08 dB

N78-100MHz-QPSK-633334-1RB#272



N78-100MHz-QPSK-633334-270RB#0

Conducted Spurious Emission

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
N78	20MHz	QPSK	630668	1RB#0	Range1:30~40000MHz	-48.11	PASS
N78	20MHz	QPSK	633334	1RB#0	Range1:30~40000MHz	-47.68	PASS
N78	20MHz	QPSK	636000	1RB#0	Range1:30~40000MHz	-48.36	PASS
N78	60MHz	QPSK	632000	1RB#0	Range1:30~40000MHz	-47.52	PASS
N78	60MHz	QPSK	633334	1RB#0	Range1:30~40000MHz	-46.98	PASS
N78	60MHz	QPSK	634666	1RB#0	Range1:30~40000MHz	-48.14	PASS
N78	100MHz	QPSK	633334	1RB#0	Range1:30~40000MHz	-47.94	PASS

Test Graphs

N78-20MHz-QPSK-630668-1RB#0-Range1:30~40000MHz
N78-20MHz-QPSK-633334-1RB#0-Range1:30~40000MHz
N78-20MHz-QPSK-636000-1RB#0-Range1:30~40000MHz

N78-60MHz-QPSK-632000-1RB#0-Range1:30~40000MHz

N78-60MHz-QPSK-633334-1RB#0-Range1:30~40000MHz

N78-60MHz-QPSK-634666-1RB#0-Range1:30~40000MHz

Band78-100MHz-QPSK-633334-1RB#0-Range1:30~40000MHz

Frequency Stability

Test Result

Voltage&Temperature										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
N78	20MHz	QPSK	633334	50RB#0	VL	NT	19.07	0.005447	±2.5	PASS
N78	20MHz	QPSK	633334	50RB#0	VN	NT	44.77	0.012792	±2.5	PASS
N78	20MHz	QPSK	633334	50RB#0	VH	NT	27.41	0.007831	±2.5	PASS
N78	20MHz	QPSK	633334	50RB#0	NV	-30	33.86	0.009675	±2.5	PASS
N78	20MHz	QPSK	633334	50RB#0	NV	-20	34.90	0.009971	±2.5	PASS
N78	20MHz	QPSK	633334	50RB#0	NV	0	38.26	0.010932	±2.5	PASS
N78	20MHz	QPSK	633334	50RB#0	NV	10	28.60	0.008171	±2.5	PASS
N78	20MHz	QPSK	633334	50RB#0	NV	20	28.93	0.008265	±2.5	PASS
N78	20MHz	QPSK	633334	50RB#0	NV	30	43.59	0.012454	±2.5	PASS
N78	20MHz	QPSK	633334	50RB#0	NV	40	14.56	0.004159	±2.5	PASS
N78	20MHz	QPSK	633334	50RB#0	NV	50	24.64	0.007039	±2.5	PASS

N77C

Peak-to-Average Ratio (CCDF)

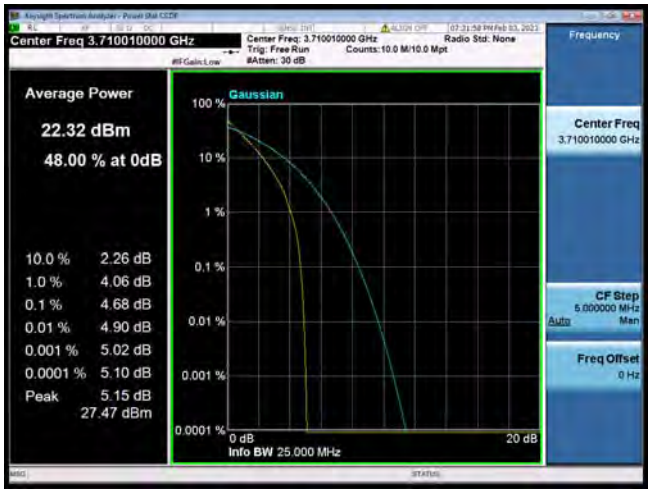
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
N77	20MHz	QPSK	647334	1RB#0	3.58	13	PASS
N77	20MHz	QPSK	647334	50RB#0	4.68	13	PASS
N77	20MHz	QPSK	656000	1RB#0	4.35	13	PASS
N77	20MHz	QPSK	656000	50RB#0	4.85	13	PASS
N77	20MHz	QPSK	664666	1RB#0	3.95	13	PASS
N77	20MHz	QPSK	664666	50RB#0	4.82	13	PASS

Test Graphs

N77-20MHz-QPSK-647334-1RB#0

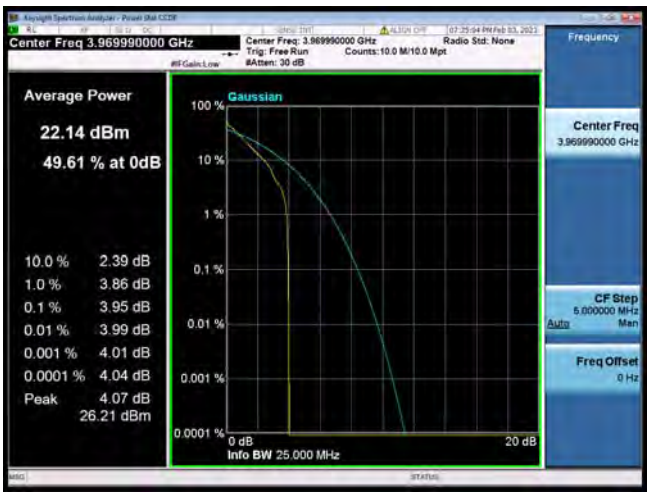
N77-20MHz-QPSK-647334-50RB#0



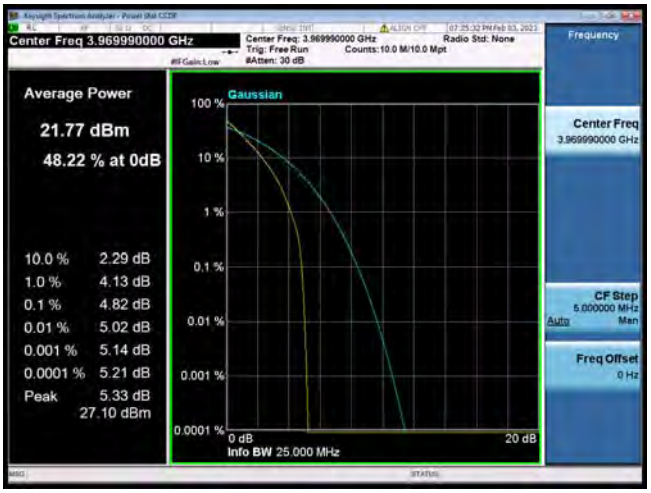
N77-20MHz-QPSK-656000-1RB#0

N77-20MHz-QPSK-656000-50RB#0

N77-20MHz-QPSK-664666-1RB#0



N77-20MHz-QPSK-664666-50RB#0



26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
N77	20MHz	QPSK	656000	50RB#0	17.811	18.55	PASS
N77	20MHz	16QAM	656000	50RB#0	17.831	18.57	PASS
N77	20MHz	64QAM	656000	50RB#0	17.869	18.61	PASS
N77	20MHz	256QAM	656000	50RB#0	17.867	18.61	PASS
N77	20MHz	BPSK	656000	50RB#0	17.815	18.55	PASS
N77	30MHz	QPSK	656000	75RB#0	26.775	27.75	PASS
N77	30MHz	16QAM	656000	75RB#0	26.730	27.83	PASS
N77	30MHz	64QAM	656000	75RB#0	26.686	27.80	PASS
N77	30MHz	BPSK	656000	75RB#0	26.756	27.82	PASS
N77	30MHz	256QAM	656000	75RB#0	26.833	27.83	PASS
N77	40MHz	QPSK	656000	100RB#0	35.667	37.19	PASS
N77	40MHz	16QAM	656000	100RB#0	35.662	37.20	PASS
N77	40MHz	64QAM	656000	100RB#0	35.695	37.24	PASS
N77	40MHz	256QAM	656000	100RB#0	35.735	37.19	PASS
N77	40MHz	BPSK	656000	100RB#0	35.702	37.14	PASS
N77	50MHz	QPSK	656000	128RB#0	45.696	47.29	PASS
N77	50MHz	16QAM	656000	128RB#0	45.651	47.32	PASS
N77	50MHz	64QAM	656000	128RB#0	45.603	47.30	PASS
N77	50MHz	BPSK	656000	128RB#0	45.592	47.31	PASS
N77	50MHz	256QAM	656000	128RB#0	45.676	47.30	PASS
N77	60MHz	QPSK	656000	162RB#0	57.859	60.54	PASS
N77	60MHz	16QAM	656000	162RB#0	57.880	60.59	PASS
N77	60MHz	64QAM	656000	162RB#0	57.996	60.57	PASS
N77	60MHz	256QAM	656000	162RB#0	57.879	60.57	PASS
N77	60MHz	BPSK	656000	162RB#0	57.870	60.57	PASS
N77	80MHz	QPSK	656000	216RB#0	77.106	79.98	PASS
N77	80MHz	16QAM	656000	216RB#0	77.050	79.99	PASS
N77	80MHz	64QAM	656000	216RB#0	77.043	80.06	PASS
N77	80MHz	BPSK	656000	216RB#0	77.038	80.07	PASS
N77	80MHz	256QAM	656000	216RB#0	77.033	79.99	PASS
N77	100MHz	QPSK	656000	270RB#0	96.262	99.58	PASS
N77	100MHz	16QAM	656000	270RB#0	96.289	99.52	PASS
N77	100MHz	64QAM	656000	270RB#0	96.280	99.54	PASS
N77	100MHz	256QAM	656000	270RB#0	96.174	99.49	PASS
N77	100MHz	BPSK	656000	270RB#0	96.254	99.51	PASS

Test Graphs

N77-20MHz-QPSK-656000-50RB#0

N77-20MHz-16QAM-656000-50RB#0

N77-20MHz-64QAM-656000-50RB#0

N77-20MHz-256QAM-656000-50RB#0

N77-20MHz-BPSK-656000-50RB#0

N77-30MHz-QPSK-656000-75RB#0

N77-30MHz-16QAM-656000-75RB#0

N77-30MHz-64QAM-656000-75RB#0

N77-30MHz-BPSK-656000-75RB#0

N77-30MHz-256QAM-656000-75RB#0

N77-40MHz-QPSK-656000-100RB#0

N77-40MHz-16QAM-656000-100RB#0

N77-40MHz-64QAM-656000-100RB#0

N77-40MHz-256QAM-656000-100RB#0

N77-40MHz-BPSK-656000-100RB#0

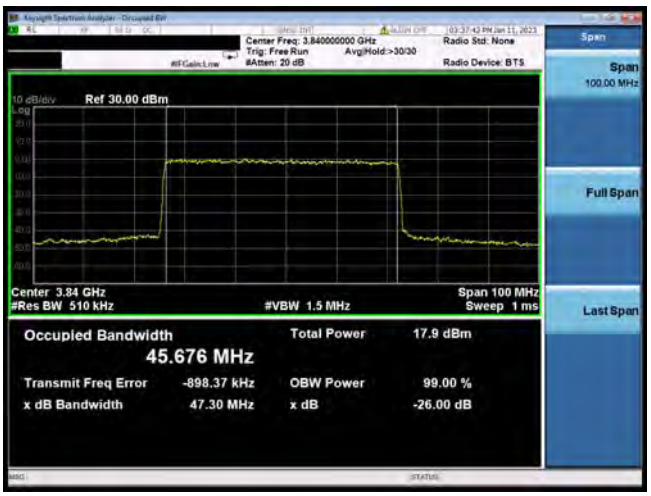
N77-50MHz-QPSK-656000-128RB#0

N77-50MHz-16QAM-656000-128RB#0

N77-50MHz-64QAM-656000-128RB#0

N77-50MHz-BPSK-656000-128RB#0

N77-50MHz-256QAM-656000-128RB#0



N77-60MHz-QPSK-656000-162RB#0

N77-60MHz-16QAM-656000-162RB#0

N77-60MHz-64QAM-656000-162RB#0

N77-60MHz-256QAM-656000-162RB#0

N77-60MHz-BPSK-656000-162RB#0

N77-80MHz-QPSK-656000-216RB#0

N77-80MHz-16QAM-656000-216RB#0

N77-80MHz-64QAM-656000-216RB#0

N77-80MHz-BPSK-656000-216RB#0

N77-80MHz-256QAM-656000-216RB#0

N77-100MHz-QPSK-656000-270RB#0

N77-100MHz-16QAM-656000-270RB#0

N77-100MHz-64QAM-656000-270RB#0

N77-100MHz-256QAM-656000-270RB#0

N77-100MHz-BPSK-656000-270RB#0

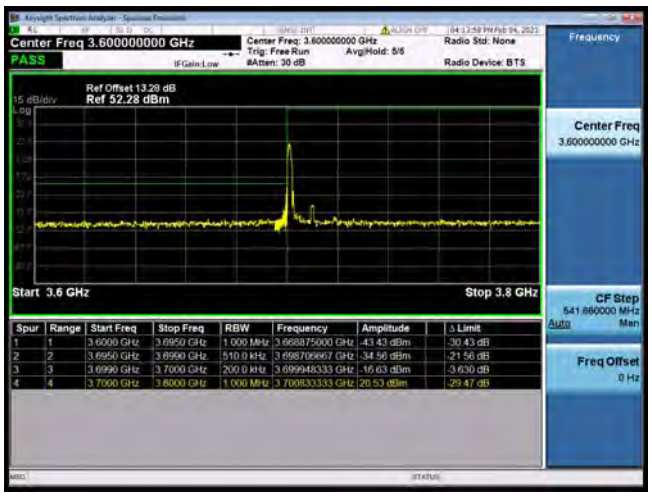
Band Edge

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
N77	20MHz	QPSK	647334	1RB#0	-43.43,34.56,16.63	PASS
N77	20MHz	QPSK	647334	50RB#0	-40.09,-26.88,-28.79	PASS
N77	20MHz	QPSK	664666	1RB#50	-19.14,-35.30.-44.56	PASS
N77	20MHz	QPSK	664666	50RB#0	-31.42,-29.70,-43.51	PASS
N77	60MHz	QPSK	648668	1RB#0	--43.83,-35.32,-17.38	PASS
N77	60MHz	QPSK	648668	162RB#0	-33.44,-32.42,-35.61	PASS
N77	60MHz	QPSK	663332	1RB#161	-18.49,-35.48,-35.48	PASS
N77	60MHz	QPSK	663332	162RB#0	-35.82,-33.10,-29.69	PASS
N77	100MHz	QPSK	650000	1RB#0	-43.08,-36.61,-17.68	PASS
N77	100MHz	QPSK	650000	1RB#272	-39.44,-36.95,-35.73	PASS
N77	100MHz	QPSK	662000	270RB#0	-16.97,-33.80,-44.60	PASS
N77	100MHz	QPSK	662000	270RB#0	-40.08,-35.37,-39.42	PASS

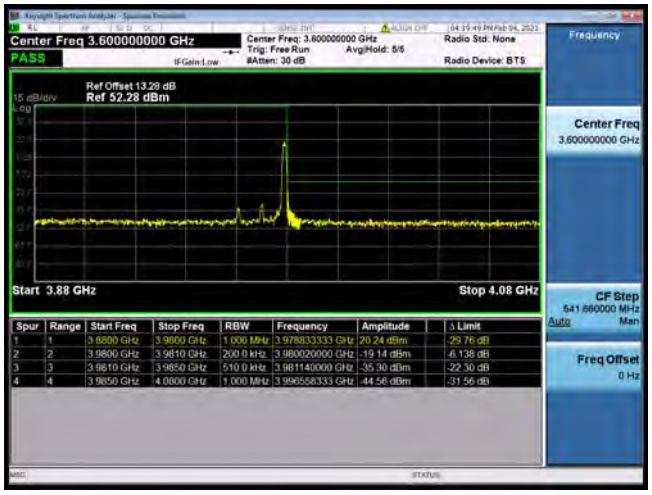
Test Graphs

N77-20MHz-QPSK-647334-1RB#0



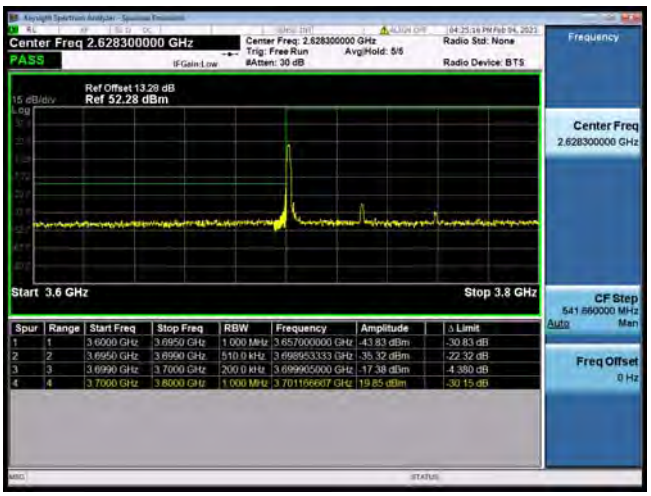
N77-20MHz-QPSK-647334-50RB#0

N77-20MHz-QPSK-664666-1RB#50



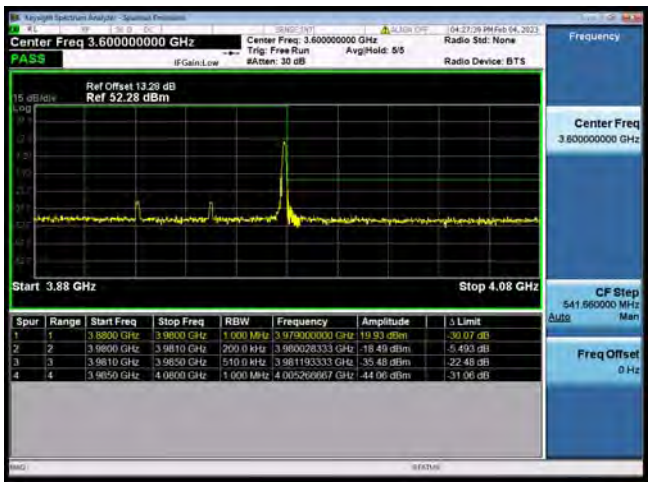
N77-20MHz-QPSK-664666-50RB#0

N77-60MHz-QPSK-648668-1RB#0



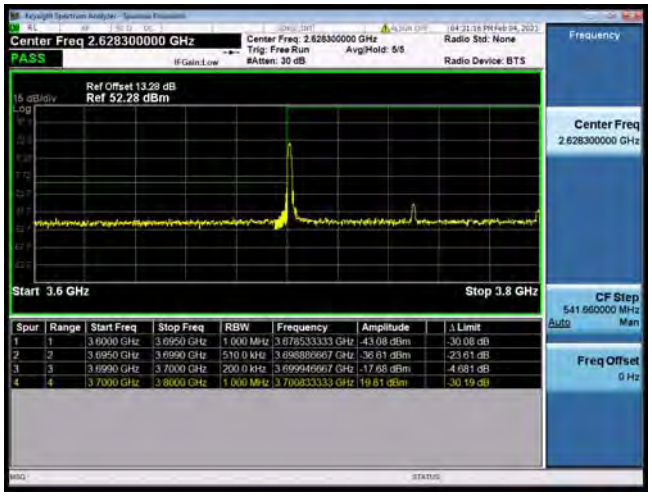
N77-60MHz-QPSK-648668-162RB#0

N77-60MHz-QPSK-663332-1RB#161



N77-60MHz-QPSK-663332-162RB#0

N77-100MHz-QPSK-650000-1RB#0



N77-100MHz-QPSK-650000-270RB#0

N77-100MHz-QPSK-662000-1RB#272

N77-100MHz-QPSK-662000-270RB#0

Conducted Spurious Emission

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
N77	20MHz	QPSK	647334	1RB#0	Range1:30~40000MHz	-40.90	PASS
N77	20MHz	QPSK	656000	1RB#0	Range1:30~40000MHz	-40.92	PASS
N77	20MHz	QPSK	664666	1RB#0	Range1:30~40000MHz	-40.58	PASS
N77	60MHz	QPSK	648668	1RB#0	Range1:30~40000MHz	-40.95	PASS
N77	60MHz	QPSK	656000	1RB#0	Range1:30~40000MHz	-39.98	PASS
N77	60MHz	QPSK	663332	1RB#0	Range1:30~40000MHz	-40.05	PASS
N77	100MHz	QPSK	650000	1RB#0	Range1:30~40000MHz	-49.77	PASS
N77	100MHz	QPSK	656000	1RB#0	Range1:30~40000MHz	-50.49	PASS
N77	100MHz	QPSK	662000	1RB#0	Range1:30~40000MHz	-50.06	PASS

Test Graphs

N77-20MHz-QPSK-647334-1RB#0-Range1:30~40000MHz

N77-20MHz-QPSK-656000-1RB#0-Range1:30~40000MHz

N77-20MHz-QPSK-664666-1RB#0-Range1:30~40000MHz

N77-60MHz-QPSK-648668-1RB#0-Range1:30~40000MHz

N77-60MHz-QPSK-656000-1RB#0-Range1:30~40000MHz

N77-60MHz-QPSK-663332-1RB#0-Range1:30~40000MHz

Band78-100MHz-QPSK-650000-1RB#0-Range1:30~40000MHz

Band78-100MHz-QPSK-656000-1RB#0-Range1:30~40000MHz

Band78-100MHz-QPSK-662000-1RB#0-Range1:30~40000MHz