

# 1 Conducted output power for NR FR1

Band	SCS (kHz)	Bandwidth (MHz)	UL Channel	RB Allocation	Modulation	Power (dBm)	Gain (dBm)	EIRP (dBm)	EIRP Limit (dBm)	Verdict
n78(3700-3800)	30	70	649000	90@45	DFT_BPSK	26.91	-2.3	24.61	30	PASS
n78(3700-3800)	30	70	649000	1@1	DFT_BPSK	26.43	-2.3	24.13	30	PASS
n78(3700-3800)	30	70	649000	1@187	DFT_BPSK	26.43	-2.3	24.13	30	PASS
n78(3700-3800)	30	70	649000	90@45	DFT_QPSK	26.89	-2.3	24.59	30	PASS
n78(3700-3800)	30	70	649000	1@1	DFT_QPSK	26.24	-2.3	23.94	30	PASS
n78(3700-3800)	30	70	649000	1@187	DFT_QPSK	26.25	-2.3	23.95	30	PASS
n78(3700-3800)	30	70	649000	90@45	DFT_QAM16	25.93	-2.3	23.63	30	PASS
n78(3700-3800)	30	70	649000	1@1	DFT_QAM16	25.38	-2.3	23.08	30	PASS
n78(3700-3800)	30	70	649000	1@187	DFT_QAM16	25.45	-2.3	23.15	30	PASS
n78(3700-3800)	30	70	649000	90@45	DFT_QAM64	24.47	-2.3	22.17	30	PASS
n78(3700-3800)	30	70	649000	1@1	DFT_QAM64	23.69	-2.3	21.39	30	PASS
n78(3700-3800)	30	70	649000	1@187	DFT_QAM64	23.69	-2.3	21.39	30	PASS
n78(3700-3800)	30	70	649000	95@47	CP_QPSK	25.50	-2.3	23.20	30	PASS
n78(3700-3800)	30	70	649000	1@1	CP_QPSK	25.05	-2.3	22.75	30	PASS
n78(3700-3800)	30	70	649000	1@187	CP_QPSK	25.07	-2.3	22.77	30	PASS
n78(3700-3800)	30	70	649000	95@47	CP_QAM16	24.98	-2.3	22.68	30	PASS
n78(3700-3800)	30	70	649000	1@1	CP_QAM16	24.68	-2.3	22.38	30	PASS
n78(3700-3800)	30	70	649000	1@187	CP_QAM16	24.80	-2.3	22.50	30	PASS
n78(3700-3800)	30	70	649000	95@47	CP_QAM64	23.42	-2.3	21.12	30	PASS
n78(3700-3800)	30	70	649000	1@1	CP_QAM64	22.77	-2.3	20.47	30	PASS
n78(3700-3800)	30	70	649000	1@187	CP_QAM64	22.81	-2.3	20.51	30	PASS
n78(3700-3800)	30	70	650000	90@45	DFT_BPSK	26.90	-2.3	24.60	30	PASS
n78(3700-3800)	30	70	650000	1@1	DFT_BPSK	26.44	-2.3	24.14	30	PASS
n78(3700-3800)	30	70	650000	1@187	DFT_BPSK	26.47	-2.3	24.17	30	PASS
n78(3700-3800)	30	70	650000	90@45	DFT_QPSK	26.94	-2.3	24.64	30	PASS
n78(3700-3800)	30	70	650000	1@1	DFT_QPSK	26.27	-2.3	23.97	30	PASS
n78(3700-3800)	30	70	650000	1@187	DFT_QPSK	26.27	-2.3	23.97	30	PASS
n78(3700-3800)	30	70	650000	90@45	DFT_QAM16	25.92	-2.3	23.62	30	PASS
n78(3700-3800)	30	70	650000	1@1	DFT_QAM16	25.41	-2.3	23.11	30	PASS
n78(3700-3800)	30	70	650000	1@187	DFT_QAM16	25.42	-2.3	23.12	30	PASS
n78(3700-3800)	30	70	650000	90@45	DFT_QAM64	24.48	-2.3	22.18	30	PASS
n78(3700-3800)	30	70	650000	1@1	DFT_QAM64	23.68	-2.3	21.38	30	PASS
n78(3700-3800)	30	70	650000	1@187	DFT_QAM64	23.64	-2.3	21.34	30	PASS
n78(3700-3800)	30	70	650000	95@47	CP_QPSK	25.44	-2.3	23.14	30	PASS
n78(3700-3800)	30	70	650000	1@1	CP_QPSK	25.11	-2.3	22.81	30	PASS
n78(3700-3800)	30	70	650000	1@187	CP_QPSK	25.03	-2.3	22.73	30	PASS
n78(3700-3800)	30	70	650000	95@47	CP_QAM16	24.95	-2.3	22.65	30	PASS

n78(3700-3800)	30	70	650000	1@1	CP_QAM16	24.84	-2.3	22.54	30	PASS
n78(3700-3800)	30	70	650000	1@187	CP_QAM16	24.68	-2.3	22.38	30	PASS
n78(3700-3800)	30	70	650000	95@47	CP_QAM64	23.40	-2.3	21.10	30	PASS
n78(3700-3800)	30	70	650000	1@1	CP_QAM64	22.67	-2.3	20.37	30	PASS
n78(3700-3800)	30	70	650000	1@187	CP_QAM64	22.68	-2.3	20.38	30	PASS
n78(3700-3800)	30	70	651000	90@45	DFT_BPSK	26.92	-2.3	24.62	30	PASS
n78(3700-3800)	30	70	651000	1@1	DFT_BPSK	26.39	-2.3	24.09	30	PASS
n78(3700-3800)	30	70	651000	1@187	DFT_BPSK	26.57	-2.3	24.27	30	PASS
n78(3700-3800)	30	70	651000	90@45	DFT_QPSK	26.93	-2.3	24.63	30	PASS
n78(3700-3800)	30	70	651000	1@1	DFT_QPSK	26.17	-2.3	23.87	30	PASS
n78(3700-3800)	30	70	651000	1@187	DFT_QPSK	26.37	-2.3	24.07	30	PASS
n78(3700-3800)	30	70	651000	90@45	DFT_QAM16	25.87	-2.3	23.57	30	PASS
n78(3700-3800)	30	70	651000	1@1	DFT_QAM16	25.41	-2.3	23.11	30	PASS
n78(3700-3800)	30	70	651000	1@187	DFT_QAM16	25.52	-2.3	23.22	30	PASS
n78(3700-3800)	30	70	651000	90@45	DFT_QAM64	24.46	-2.3	22.16	30	PASS
n78(3700-3800)	30	70	651000	1@1	DFT_QAM64	24.02	-2.3	21.72	30	PASS
n78(3700-3800)	30	70	651000	1@187	DFT_QAM64	24.06	-2.3	21.76	30	PASS
n78(3700-3800)	30	70	651000	95@47	CP_QPSK	25.42	-2.3	23.12	30	PASS
n78(3700-3800)	30	70	651000	1@1	CP_QPSK	25.04	-2.3	22.74	30	PASS
n78(3700-3800)	30	70	651000	1@187	CP_QPSK	25.09	-2.3	22.79	30	PASS
n78(3700-3800)	30	70	651000	95@47	CP_QAM16	24.94	-2.3	22.64	30	PASS
n78(3700-3800)	30	70	651000	1@1	CP_QAM16	24.83	-2.3	22.53	30	PASS
n78(3700-3800)	30	70	651000	1@187	CP_QAM16	24.77	-2.3	22.47	30	PASS
n78(3700-3800)	30	70	651000	95@47	CP_QAM64	23.41	-2.3	21.11	30	PASS
n78(3700-3800)	30	70	651000	1@1	CP_QAM64	22.36	-2.3	20.06	30	PASS
n78(3700-3800)	30	70	651000	1@187	CP_QAM64	22.82	-2.3	20.52	30	PASS

## 2 Frequency stability for NR FR1

**NT:**

Band	SCS (kHz)	Bandwidth (MHz)	UL Channel	RB Allocation	Modulation	Voltage (Vdc)	Result(Hz)	Result (ppm)	Limit (ppm)	Verdict
n78(3700-3800)	30	70	650000	90@45	DFT_BPSK	3.87	-29.38	-0.01	Within authorized band for 5G NR n78	PASS
n78(3700-3800)	30	70	650000	90@45	DFT_BPSK	3.45	-32.26	-0.01		PASS
n78(3700-3800)	30	70	650000	90@45	DFT_BPSK	4.45	-29.92	-0.01		PASS
n78(3700-3800)	30	70	650000	90@45	DFT_QPSK	3.87	-32.08	-0.01		PASS
n78(3700-3800)	30	70	650000	90@45	DFT_QPSK	3.45	-28.65	-0.01		PASS
n78(3700-3800)	30	70	650000	90@45	DFT_QPSK	4.45	-25.24	-0.01		PASS

Note: Only the worst case shown in the report.

**NV:**

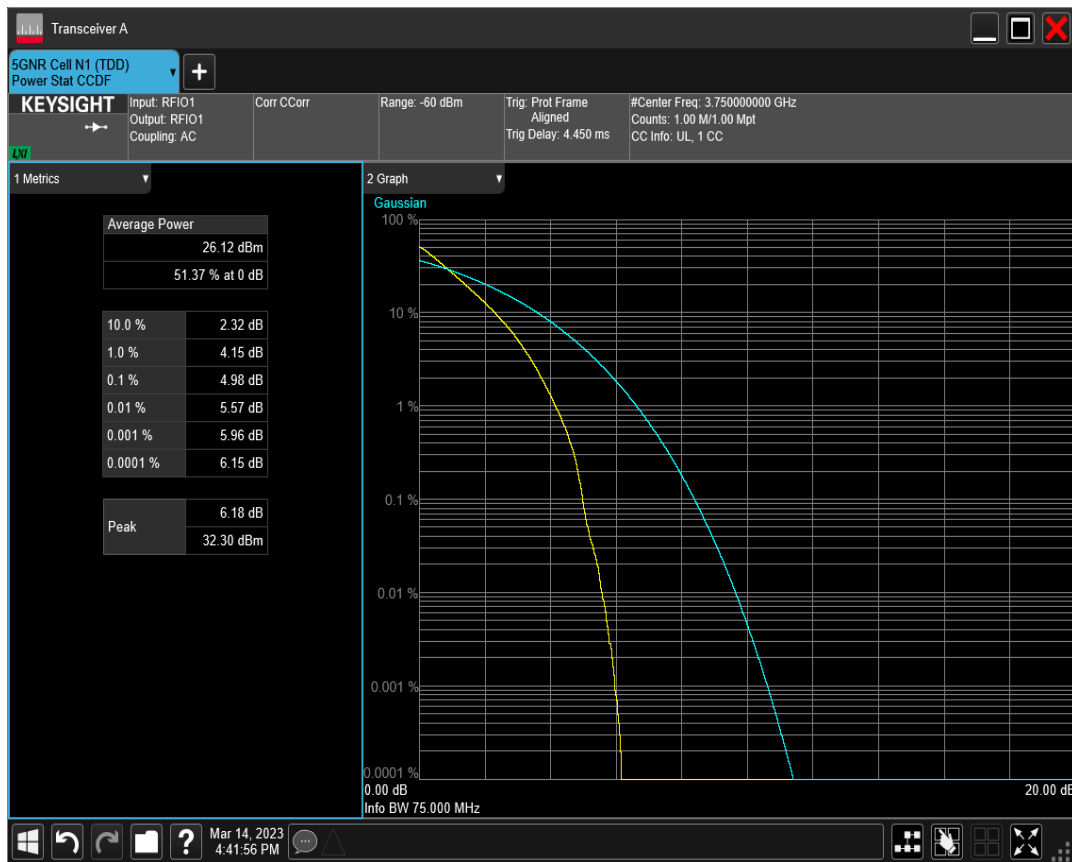
Band	SCS (kHz)	Bandwidth (MHz)	UL Channel	RB Allocation	Modulation	Voltage (Vdc)	Result(Hz)	Result (ppm)	Limit (ppm)	Verdict
n78(3700-3800)	30	70	650000	90@45	DFT_BPSK	-30	-29.12	-0.01	Within authorized band for 5G NR n78	PASS
n78(3700-3800)	30	70	650000	90@45	DFT_BPSK	-20	-32.26	-0.01		PASS
n78(3700-3800)	30	70	650000	90@45	DFT_BPSK	-10	-30.16	-0.01		PASS
n78(3700-3800)	30	70	650000	90@45	DFT_BPSK	0	-32.18	-0.01		PASS
n78(3700-3800)	30	70	650000	90@45	DFT_BPSK	10	-28.27	-0.01		PASS
n78(3700-3800)	30	70	650000	90@45	DFT_BPSK	20	-25.53	-0.01		PASS
n78(3700-3800)	30	70	650000	90@45	DFT_BPSK	30	-29.34	-0.01		PASS
n78(3700-3800)	30	70	650000	90@45	DFT_BPSK	40	-32.43	-0.01		PASS
n78(3700-3800)	30	70	650000	90@45	DFT_BPSK	50	-30.08	-0.01		PASS
n78(3700-3800)	30	70	650000	90@45	DFT_QPSK	-30	-32.51	-0.01		PASS
n78(3700-3800)	30	70	650000	90@45	DFT_QPSK	-20	-28.6	-0.01		PASS
n78(3700-3800)	30	70	650000	90@45	DFT_QPSK	-10	-25.83	-0.01		PASS
n78(3700-3800)	30	70	650000	90@45	DFT_QPSK	0	-29.48	-0.01		PASS
n78(3700-3800)	30	70	650000	90@45	DFT_QPSK	10	-31.97	-0.01		PASS
n78(3700-3800)	30	70	650000	90@45	DFT_QPSK	20	-29.74	-0.01		PASS
n78(3700-3800)	30	70	650000	90@45	DFT_QPSK	30	-32.53	-0.01		PASS
n78(3700-3800)	30	70	650000	90@45	DFT_QPSK	40	-28.68	-0.01	PASS	
n78(3700-3800)	30	70	650000	90@45	DFT_QPSK	50	-25.69	-0.01	PASS	

Note: Only the worst case shown in the report.

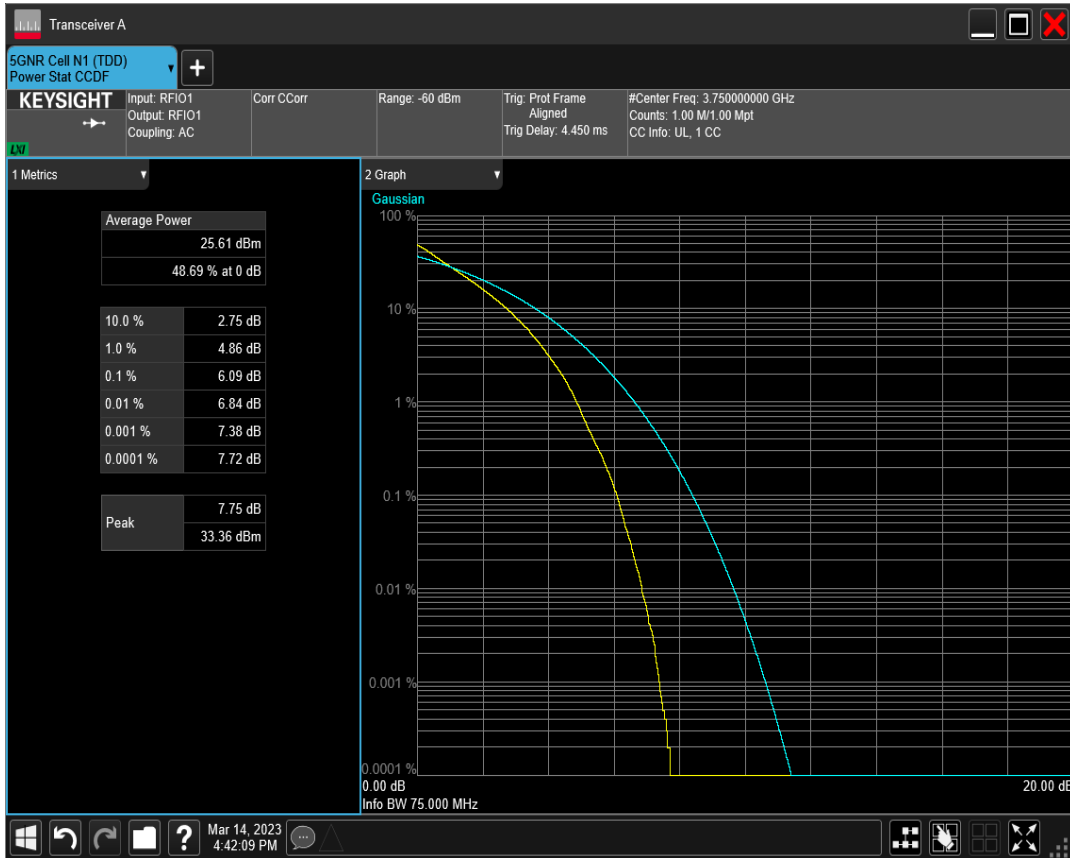
### 3 Peak-to-Average Ratio for NR FR1

Band	SCS (kHz)	Bandwidth (MHz)	UL Channel	RB Allocation	Modulation	Result (dB)	high Limit (dB)	Verdict
n78(3700-3800)	30	70	650000	180@0	DFT_BPSK	4.98	13	PASS
n78(3700-3800)	30	70	650000	180@0	DFT_QPSK	6.09	13	PASS
n78(3700-3800)	30	70	650000	180@0	DFT_QAM16	6.79	13	PASS
n78(3700-3800)	30	70	650000	180@0	DFT_QAM64	6.99	13	PASS

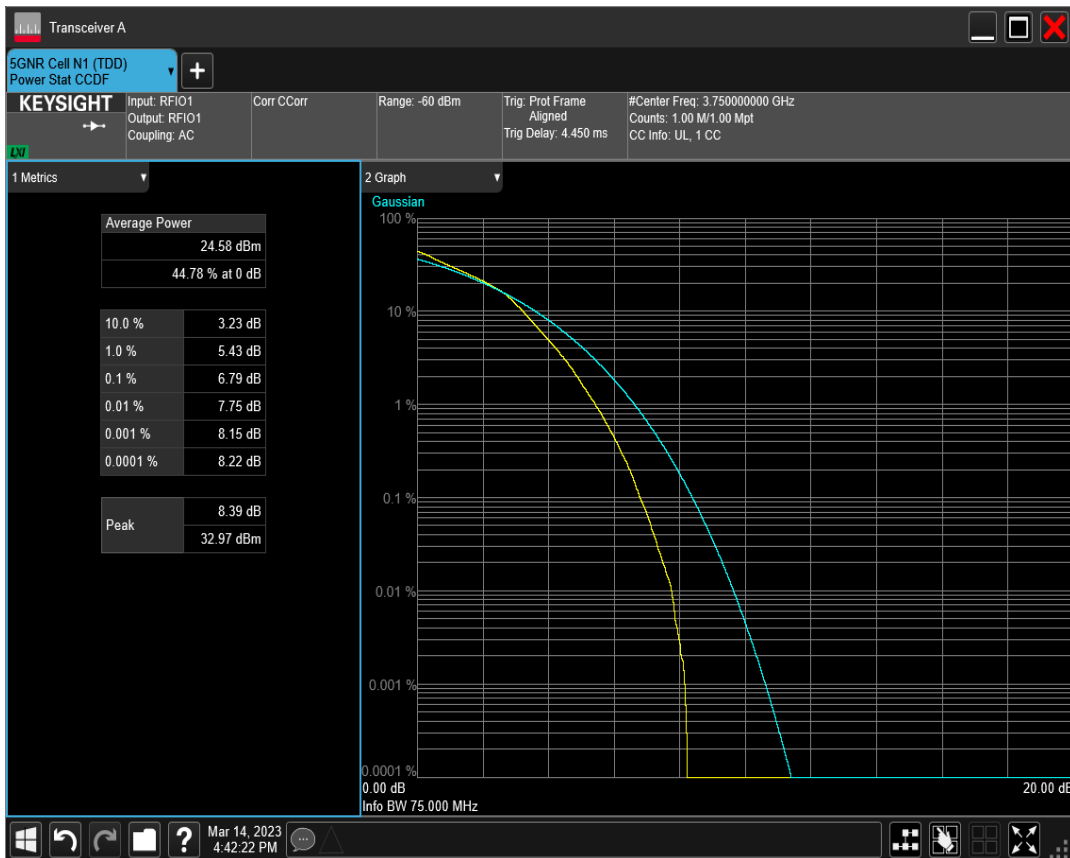
n78(3700-3800) SCS=30kHz DFT\_BPSK BW=70MHz Channel=650000 RB=180@0



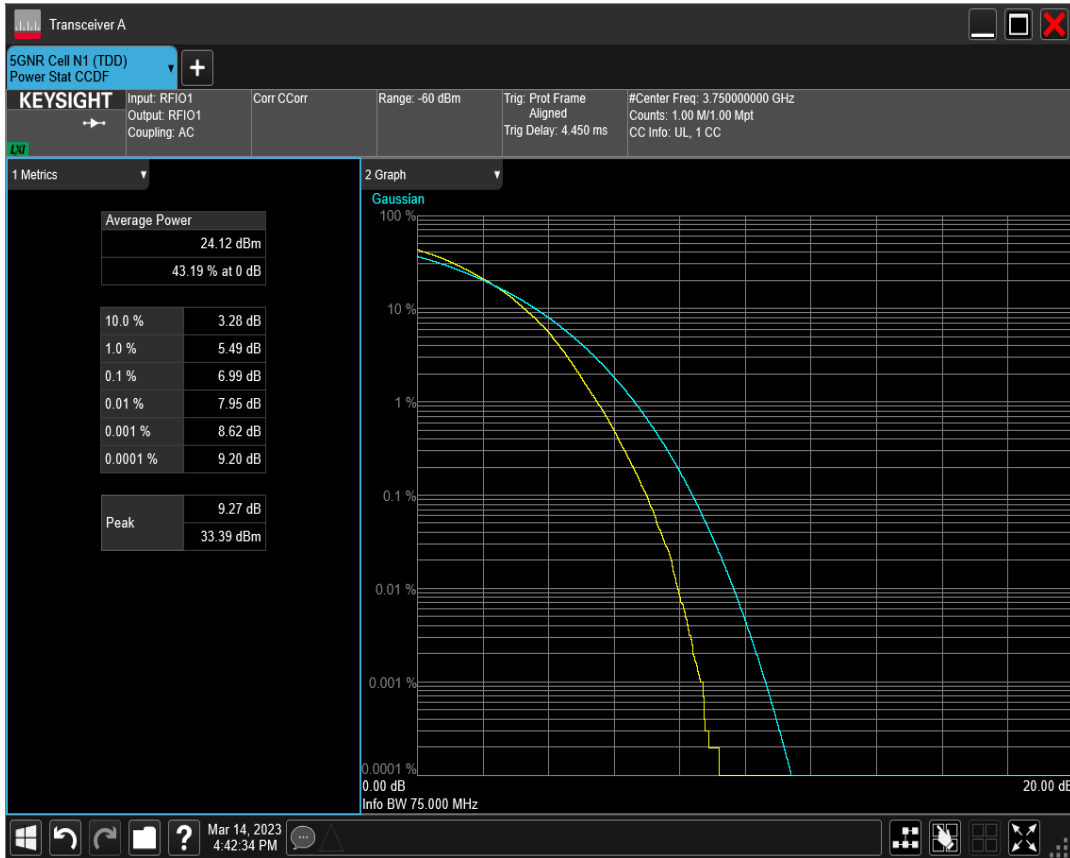
n78(3700-3800) SCS=30kHz DFT\_QPSK BW=70MHz Channel=650000 RB=180@0



n78(3700-3800) SCS=30kHz DFT\_QAM16 BW=70MHz Channel=650000 RB=180@0



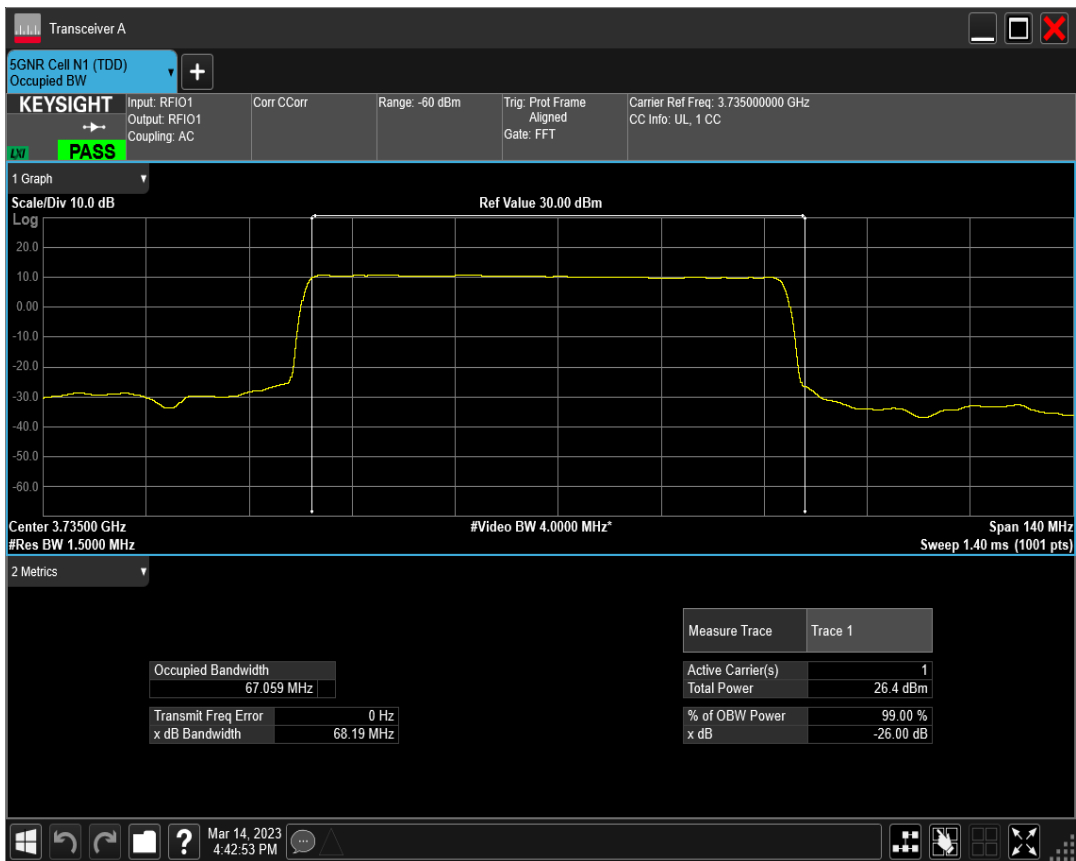
n78(3700-3800) SCS=30kHz DFT\_QAM64 BW=70MHz Channel=650000 RB=180@0



### 4 Occupied bandwidth for NR FR1

Band	SCS (kHz)	Bandwidth (MHz)	UL Channel	RB Allocation	Modulation	99% OBW (MHz)	-26dB EBW (MHz)	Verdict
n78(3700-3800)	30	70	649000	180@0	DFT_BPSK	67.060	68.190	PASS
n78(3700-3800)	30	70	649000	180@0	DFT_QPSK	66.990	68.190	PASS
n78(3700-3800)	30	70	649000	180@0	DFT_QAM16	67.040	68.200	PASS
n78(3700-3800)	30	70	649000	180@0	DFT_QAM64	66.990	68.190	PASS
n78(3700-3800)	30	70	649000	189@0	CP_QPSK	67.790	71.430	PASS
n78(3700-3800)	30	70	650000	180@0	DFT_BPSK	67.220	68.180	PASS
n78(3700-3800)	30	70	650000	180@0	DFT_QPSK	67.220	68.140	PASS
n78(3700-3800)	30	70	650000	180@0	DFT_QAM16	67.000	68.170	PASS
n78(3700-3800)	30	70	650000	180@0	DFT_QAM64	67.010	68.190	PASS
n78(3700-3800)	30	70	650000	189@0	CP_QPSK	67.810	71.430	PASS
n78(3700-3800)	30	70	651000	180@0	DFT_BPSK	67.050	68.180	PASS
n78(3700-3800)	30	70	651000	180@0	DFT_QPSK	67.230	68.150	PASS
n78(3700-3800)	30	70	651000	180@0	DFT_QAM16	67.010	68.180	PASS
n78(3700-3800)	30	70	651000	180@0	DFT_QAM64	67.040	68.190	PASS
n78(3700-3800)	30	70	651000	189@0	CP_QPSK	67.820	71.440	PASS

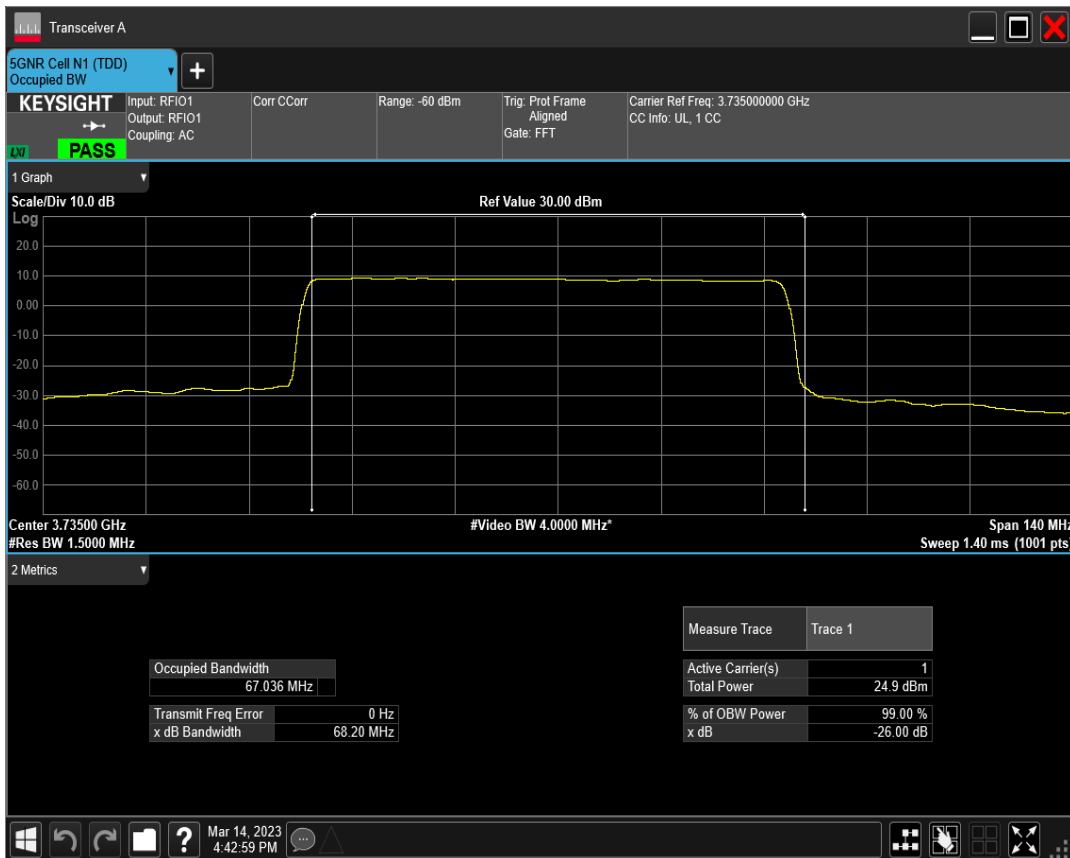
n78(3700-3800) SCS=30kHz DFT\_BPSK BW=70MHz Channel=649000 RB=180@0



n78(3700-3800) SCS=30kHz DFT\_QPSK BW=70MHz Channel=649000 RB=180@0

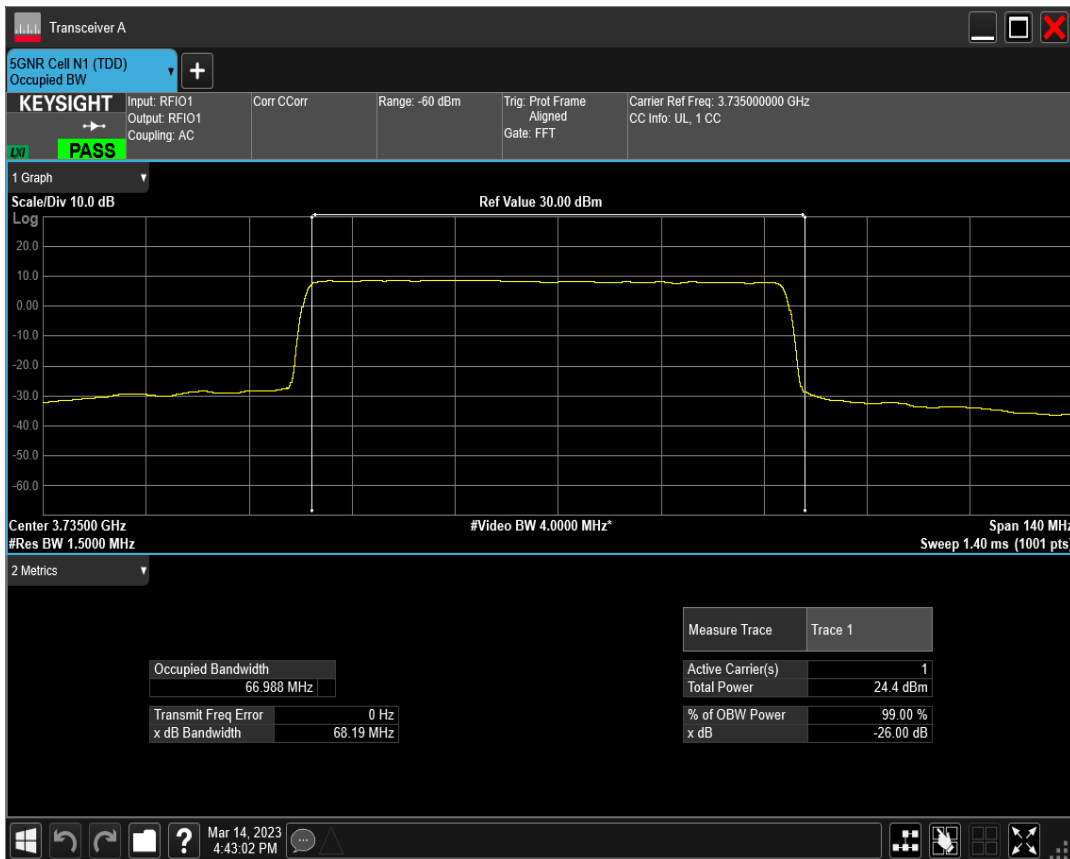


n78(3700-3800) SCS=30kHz DFT\_QAM16 BW=70MHz Channel=649000 RB=180@0



n78(3700-3800) SCS=30kHz DFT\_QAM64 BW=70MHz Channel=649000 RB=180@0





n78(3700-3800) SCS=30kHz CP\_QPSK BW=70MHz Channel=649000 RB=189@0



n78(3700-3800) SCS=30kHz DFT\_BPSK BW=70MHz Channel=650000 RB=180@0



n78(3700-3800) SCS=30kHz DFT\_QPSK BW=70MHz Channel=650000 RB=180@0



n78(3700-3800) SCS=30kHz DFT\_QAM16 BW=70MHz Channel=650000 RB=180@0



n78(3700-3800) SCS=30kHz DFT\_QAM64 BW=70MHz Channel=650000 RB=180@0



n78(3700-3800) SCS=30kHz CP\_QPSK BW=70MHz Channel=650000 RB=189@0



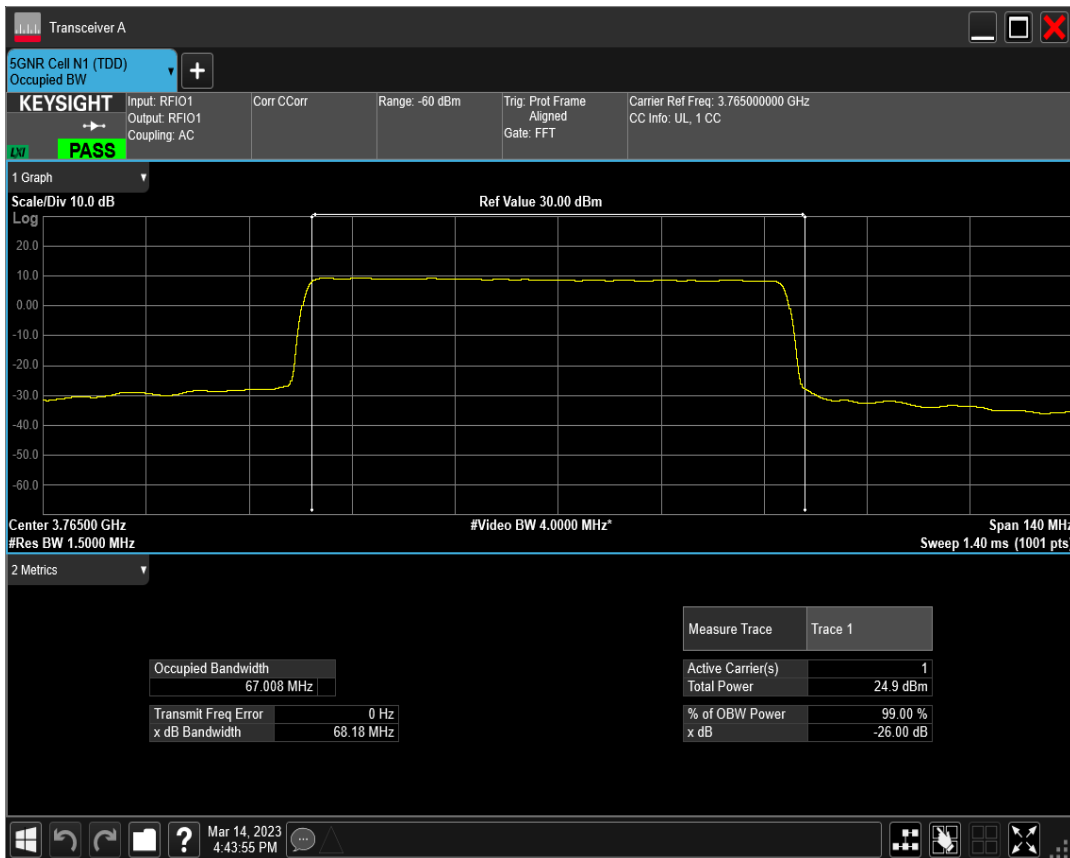
n78(3700-3800) SCS=30kHz DFT\_BPSK BW=70MHz Channel=651000 RB=180@0



n78(3700-3800) SCS=30kHz DFT\_QPSK BW=70MHz Channel=651000 RB=180@0



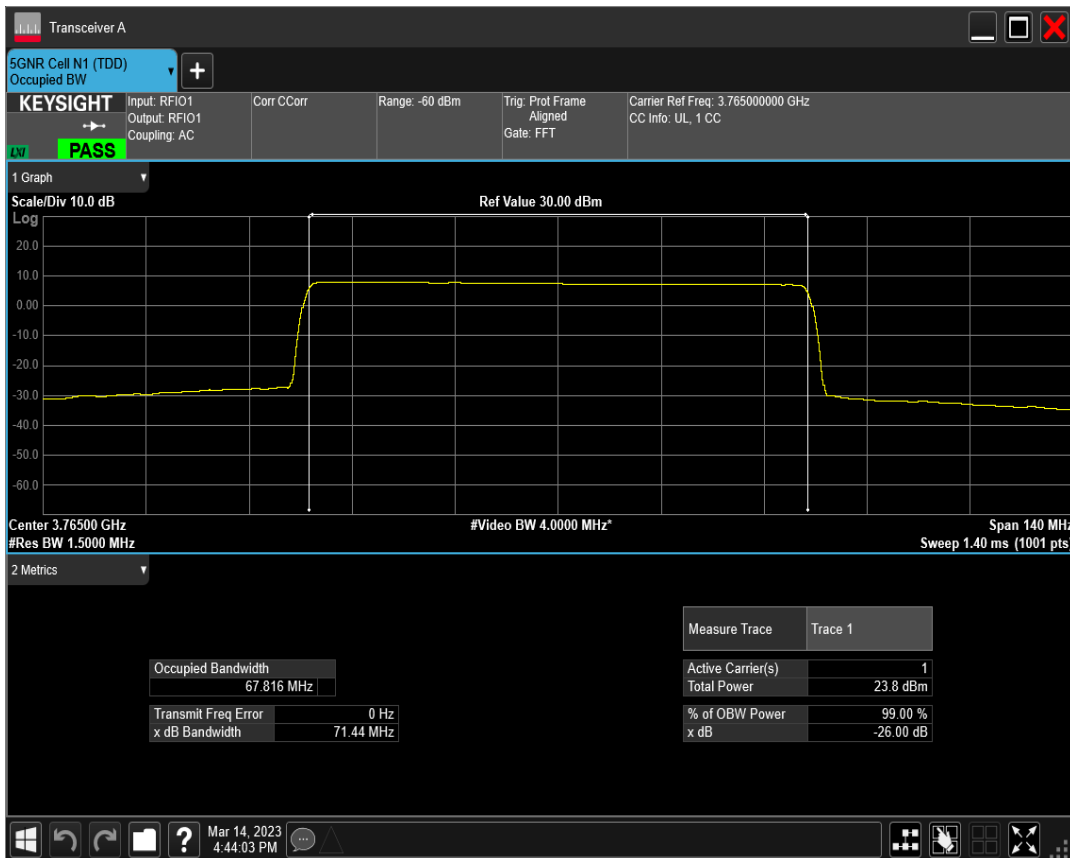
n78(3700-3800) SCS=30kHz DFT\_QAM16 BW=70MHz Channel=651000 RB=180@0



n78(3700-3800) SCS=30kHz DFT\_QAM64 BW=70MHz Channel=651000 RB=180@0



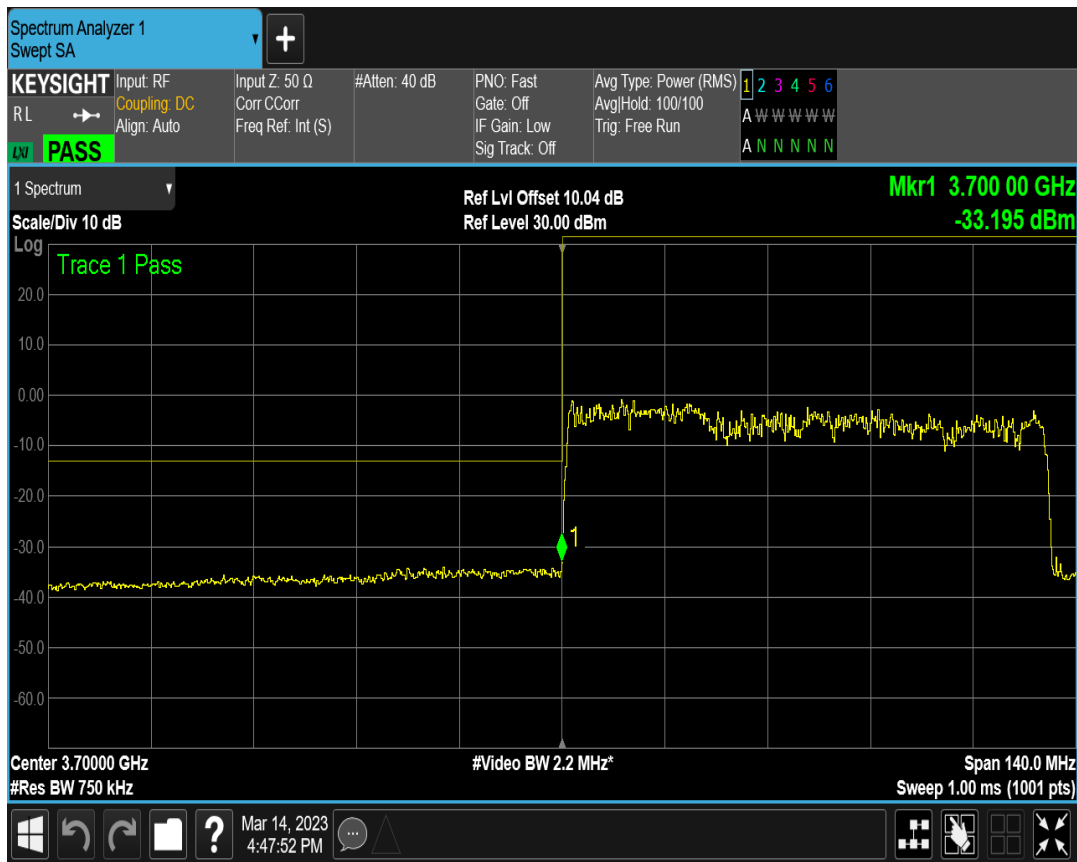
n78(3700-3800) SCS=30kHz CP\_QPSK BW=70MHz Channel=651000 RB=189@0



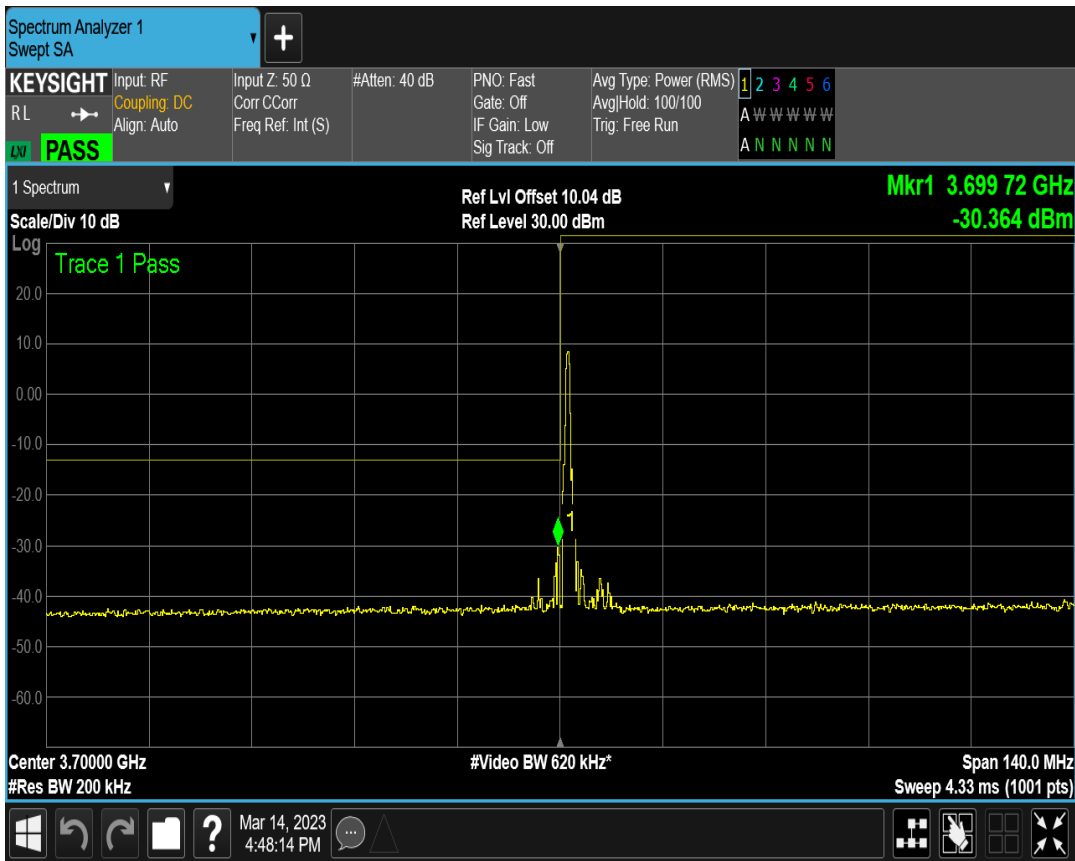
### 5 Band edge for NR FR1

Band	SCS (kHz)	Bandwidth (MHz)	UL Channel	RB Allocation	Modulation	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)	Verdict
n78(3700-3800)	30	70	649000	180@0	DFT_QPSK	3700.00	-33.19	-13	PASS
n78(3700-3800)	30	70	649000	1@0	DFT_QPSK	3699.72	-30.36	-13	PASS
n78(3700-3800)	30	70	651000	180@0	DFT_QPSK	3806.58	-35.14	-13	PASS
n78(3700-3800)	30	70	651000	1@188	DFT_QPSK	3800.00	-29.79	-13	PASS

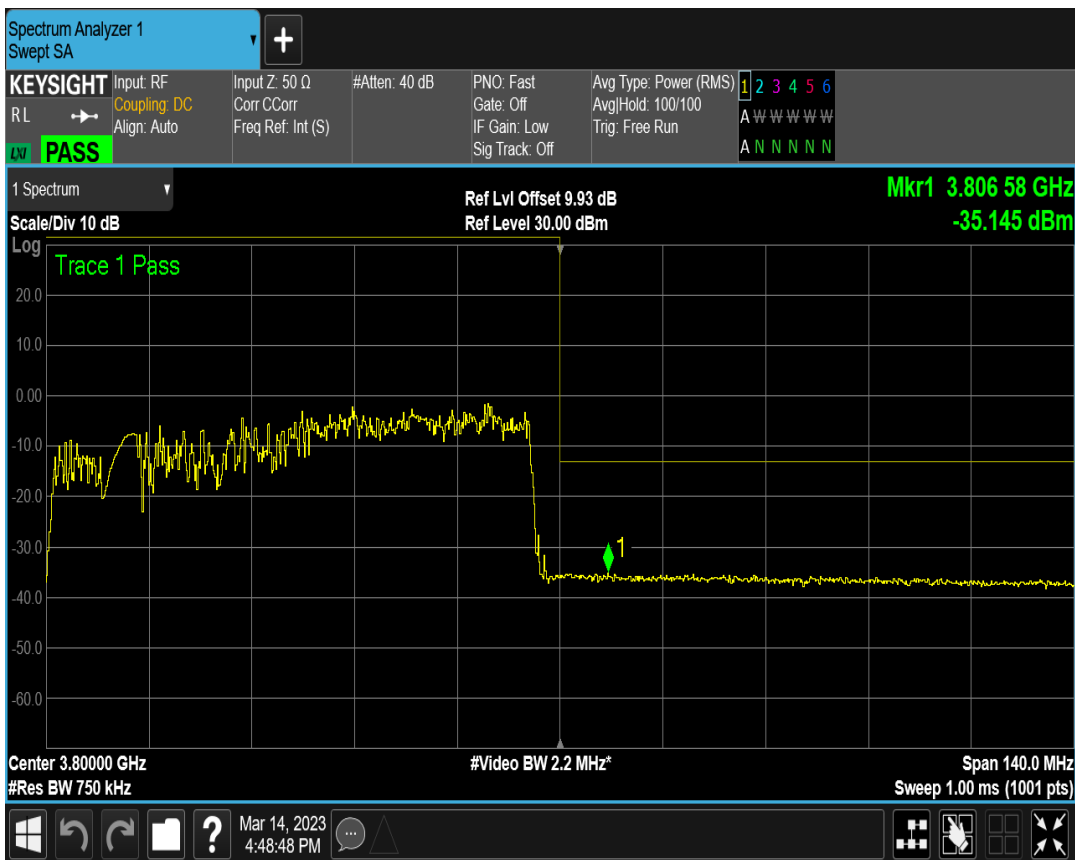
n78(3700-3800) SCS=30kHz DFT\_QPSK BW=70MHz Channel=649000 RB=180@0



n78(3700-3800) SCS=30kHz DFT\_QPSK BW=70MHz Channel=649000 RB=1@0

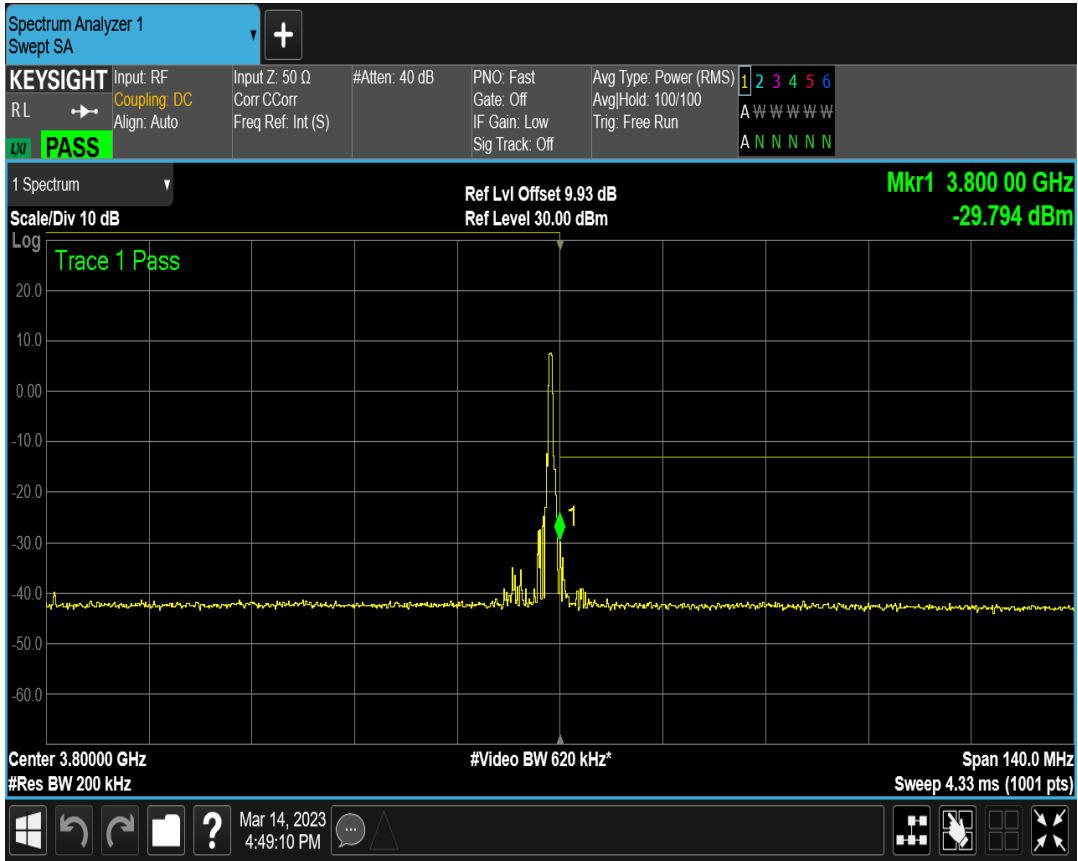


n78(3700-3800) SCS=30kHz DFT\_QPSK BW=70MHz Channel=651000 RB=180@0



n78(3700-3800) SCS=30kHz DFT\_QPSK BW=70MHz Channel=651000 RB=1@188

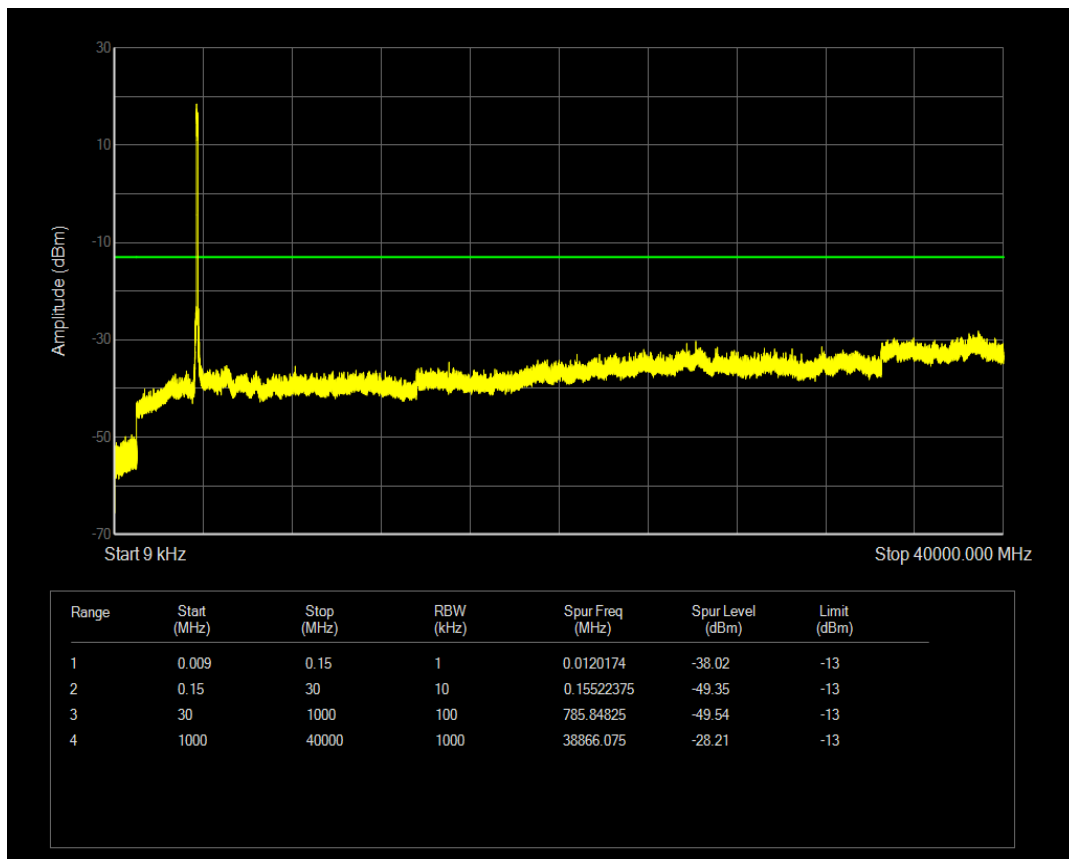




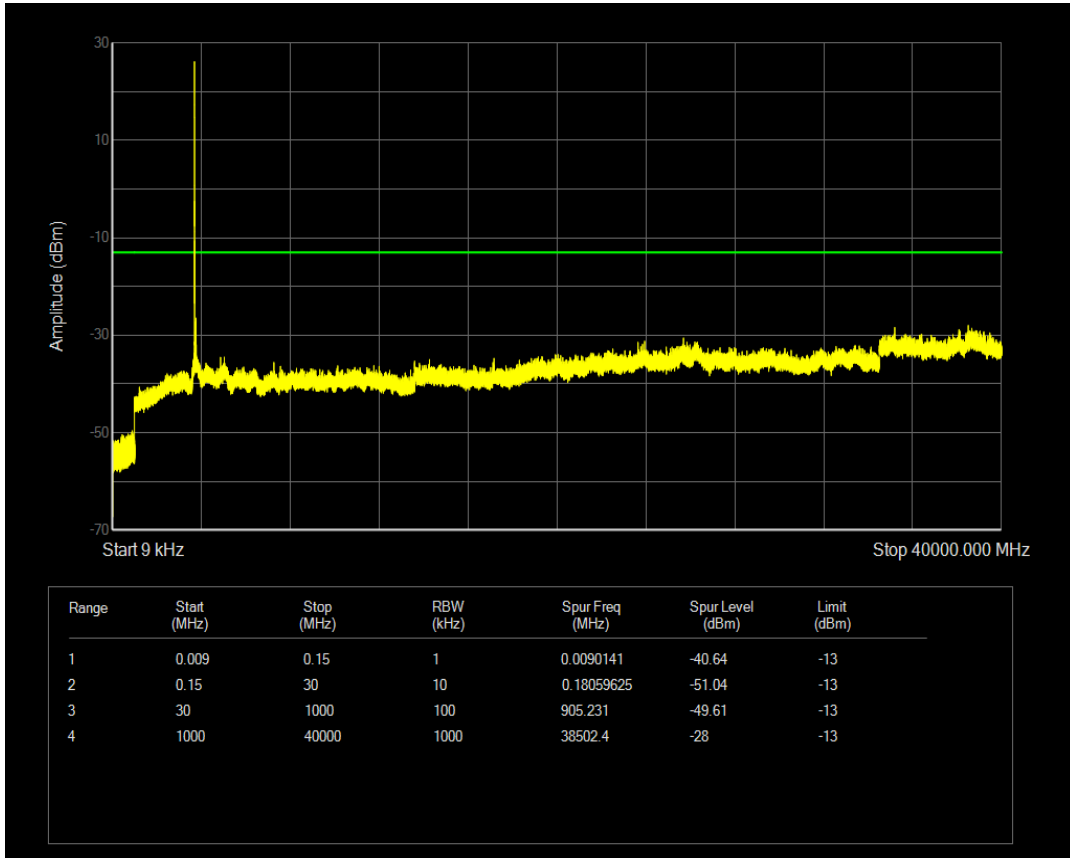
## 6 Out-of-band emissions for NR FR1

Band	SCS (kHz)	Bandwidth (MHz)	UL Channel	RB Allocation	Modulation	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)	Verdict
n78(3700-3800)	30	70	649000	180@0	DFT_QPSK	38866.08	-28.21	-13	PASS
n78(3700-3800)	30	70	649000	1@0	DFT_QPSK	38502.40	-28.00	-13	PASS
n78(3700-3800)	30	70	649000	1@188	DFT_QPSK	38567.73	-27.94	-13	PASS
n78(3700-3800)	30	70	650000	180@0	DFT_QPSK	38670.10	-28.29	-13	PASS
n78(3700-3800)	30	70	650000	1@0	DFT_QPSK	38652.55	-27.91	-13	PASS
n78(3700-3800)	30	70	650000	1@188	DFT_QPSK	38536.53	-28.68	-13	PASS
n78(3700-3800)	30	70	651000	180@0	DFT_QPSK	38668.15	-29.12	-13	PASS
n78(3700-3800)	30	70	651000	1@0	DFT_QPSK	38530.68	-28.72	-13	PASS
n78(3700-3800)	30	70	651000	1@188	DFT_QPSK	38460.48	-28.50	-13	PASS

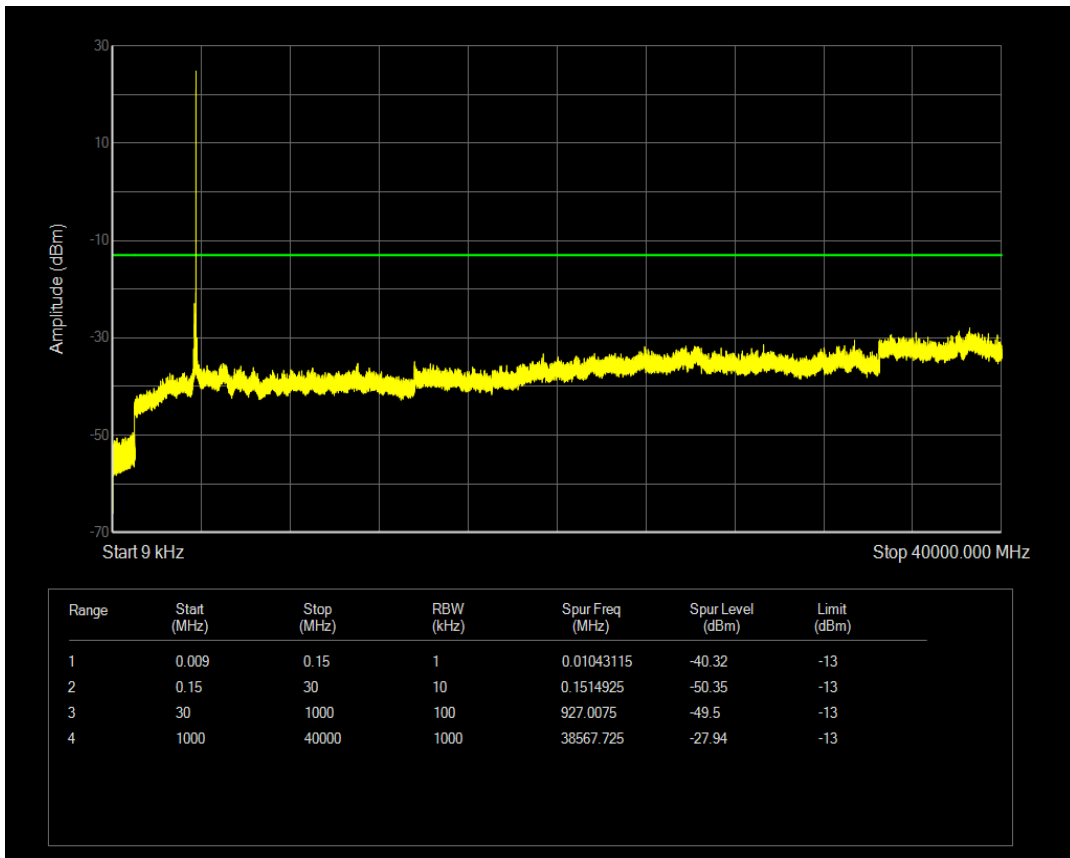
n78(3700-3800) SCS=30kHz DFT\_QPSK BW=70MHz Channel=649000 RB=180@0



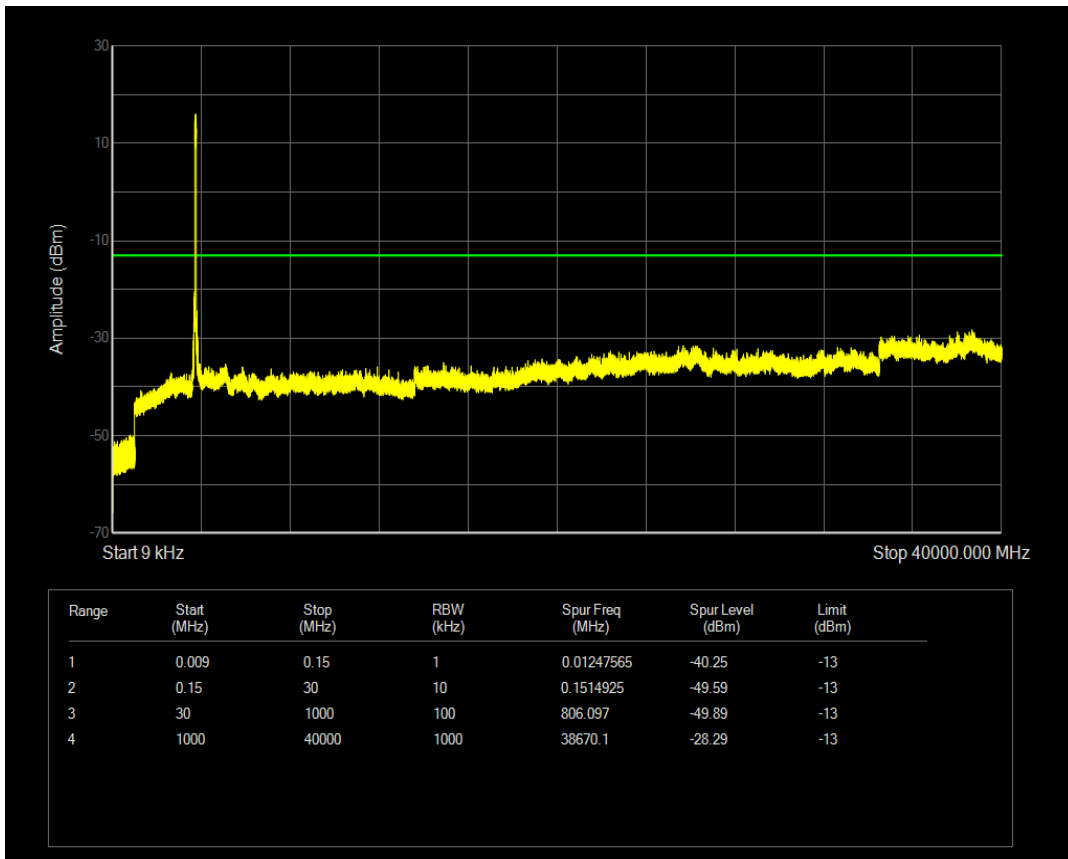
n78(3700-3800) SCS=30kHz DFT\_QPSK BW=70MHz Channel=649000 RB=1@0



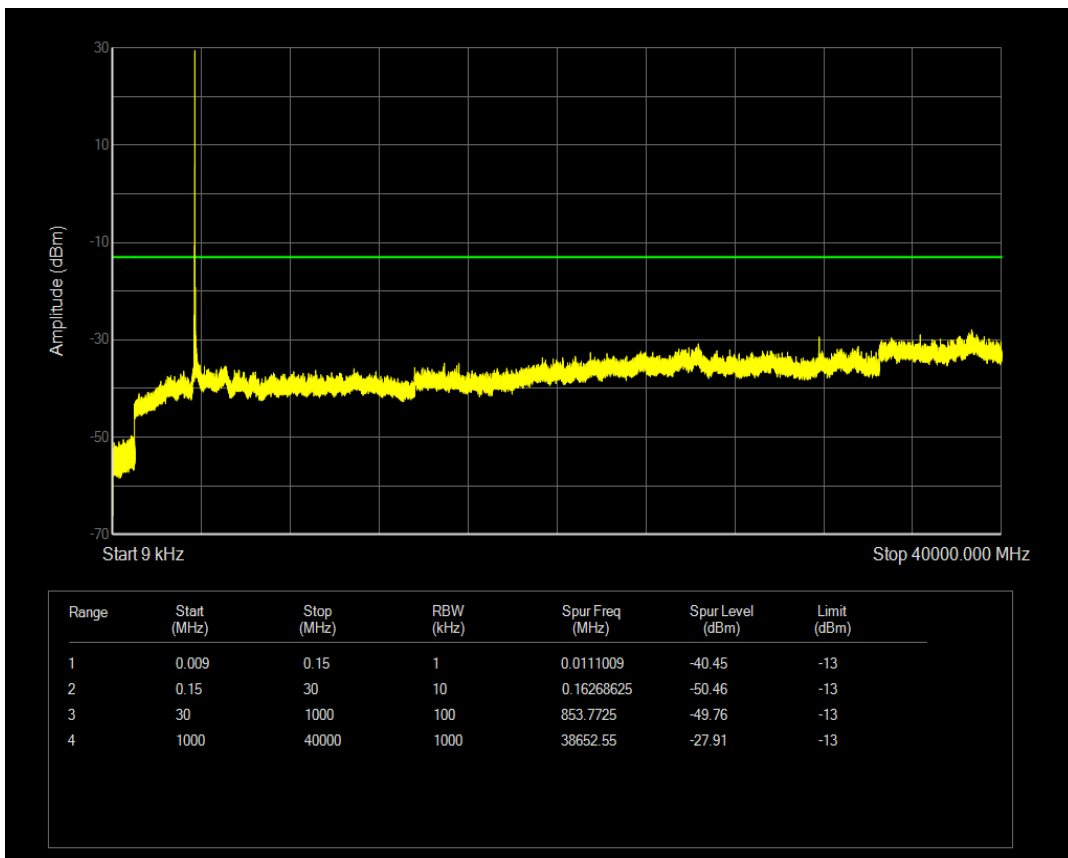
n78(3700-3800) SCS=30kHz DFT\_QPSK BW=70MHz Channel=649000 RB=1@188



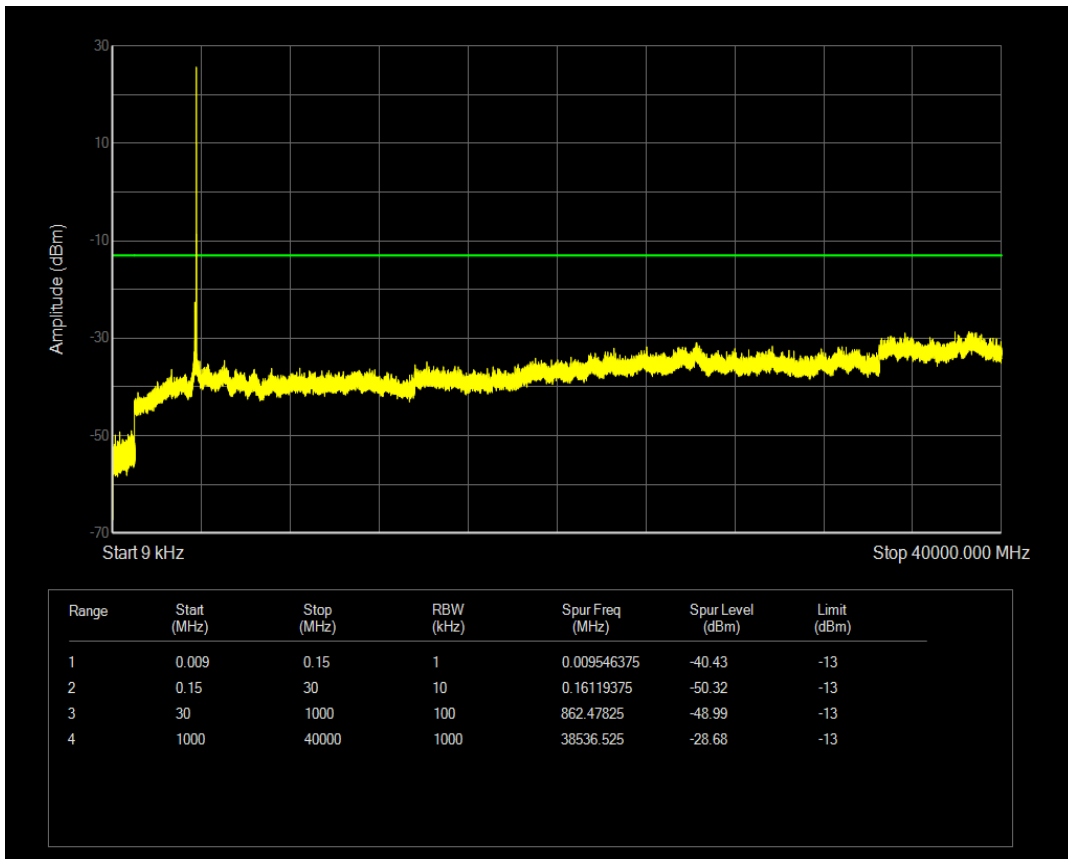
n78(3700-3800) SCS=30kHz DFT\_QPSK BW=70MHz Channel=650000 RB=180@0



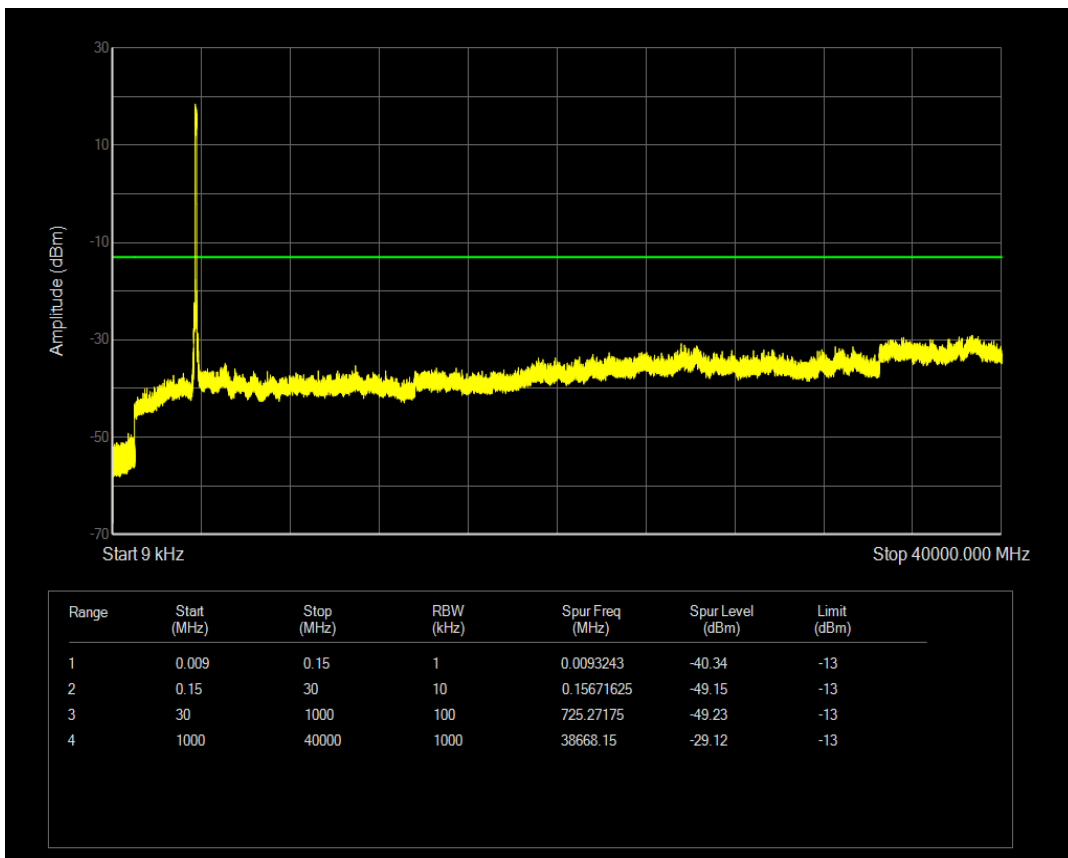
n78(3700-3800) SCS=30kHz DFT\_QPSK BW=70MHz Channel=650000 RB=1@0



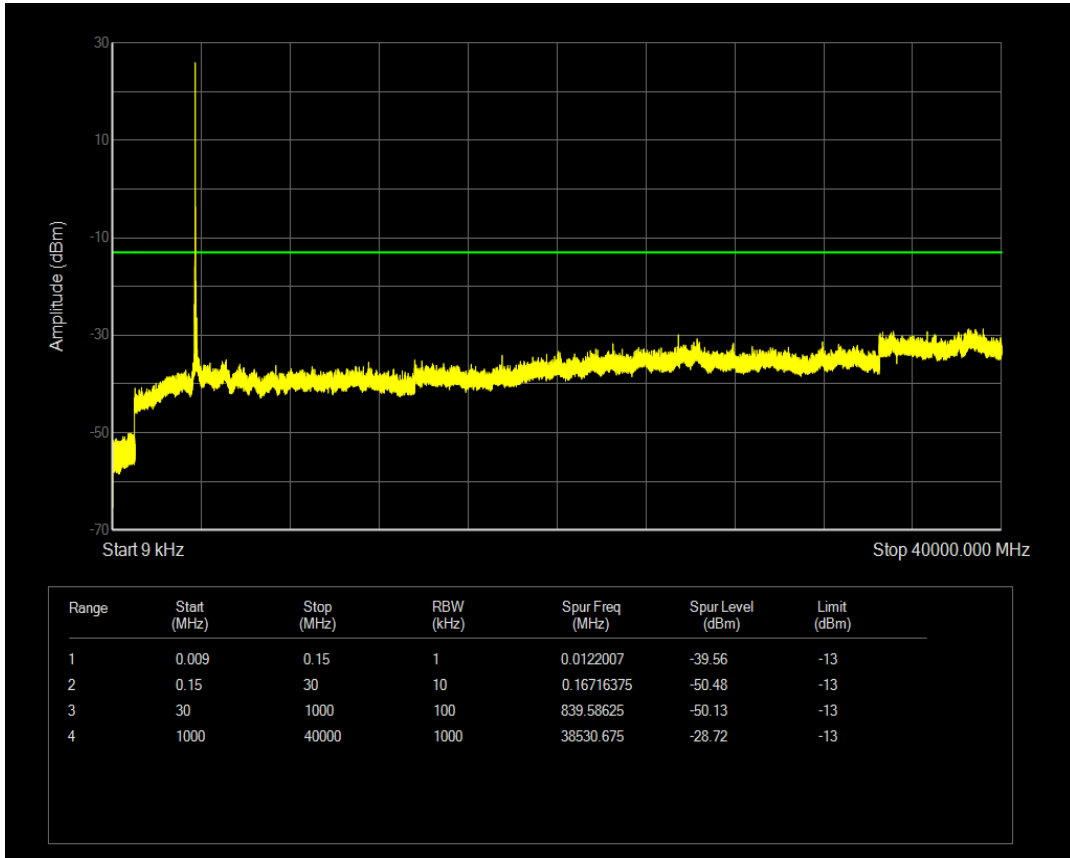
n78(3700-3800) SCS=30kHz DFT\_QPSK BW=70MHz Channel=650000 RB=1@188



n78(3700-3800) SCS=30kHz DFT\_QPSK BW=70MHz Channel=651000 RB=180@0



n78(3700-3800) SCS=30kHz DFT\_QPSK BW=70MHz Channel=651000 RB=1@0



n78(3700-3800) SCS=30kHz DFT\_QPSK BW=70MHz Channel=651000 RB=1@188

