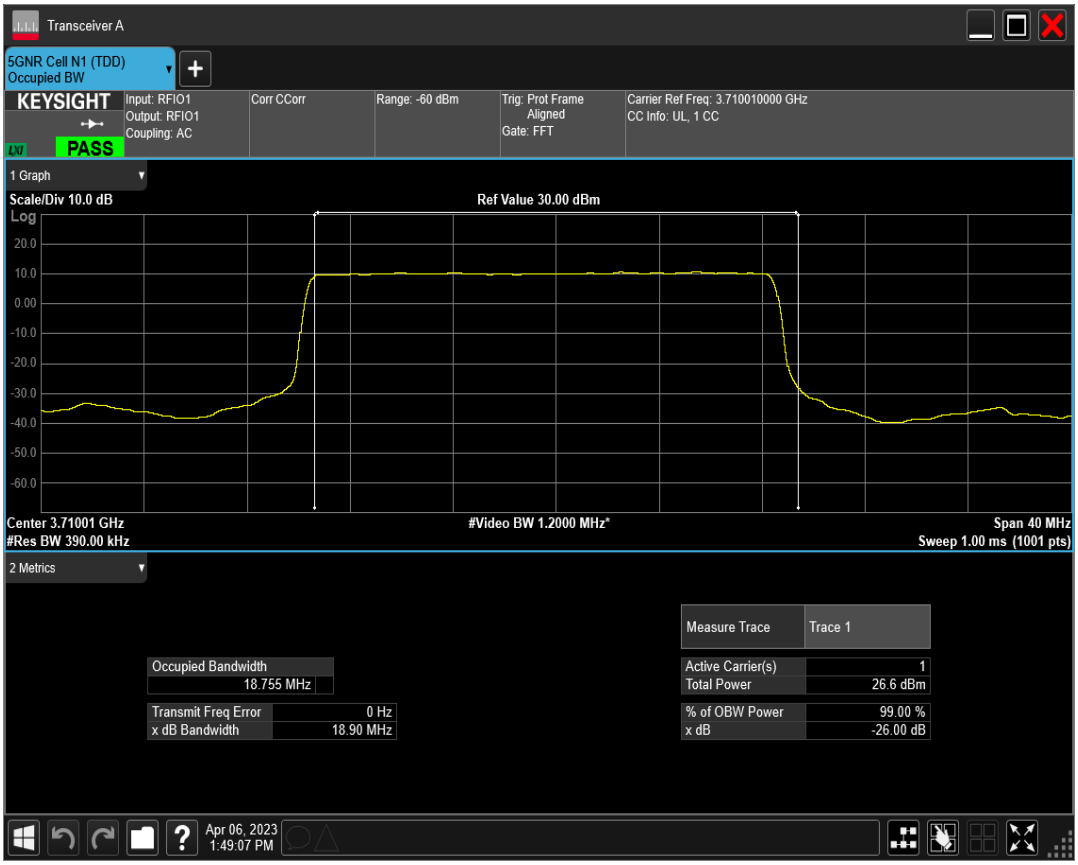
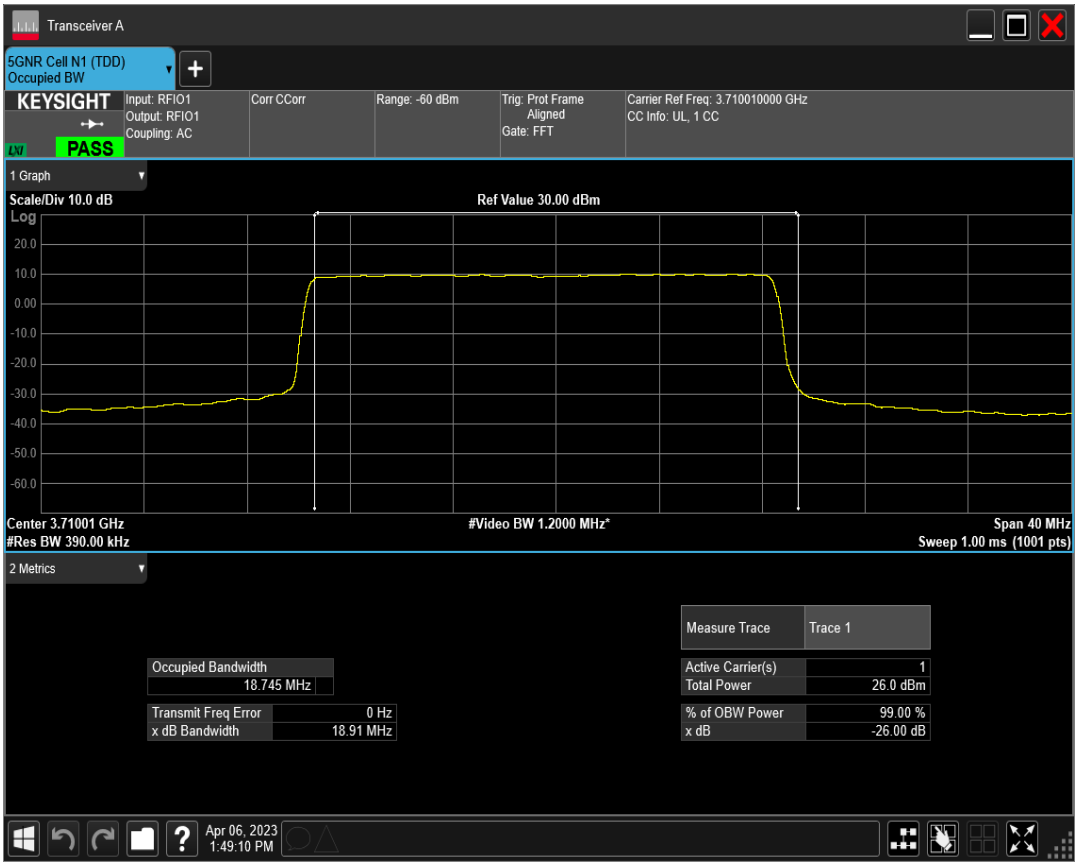
n77(3700-3980) SCS=15kHz DFT_BPSK BW=20MHz Channel=647334 RB=100@0



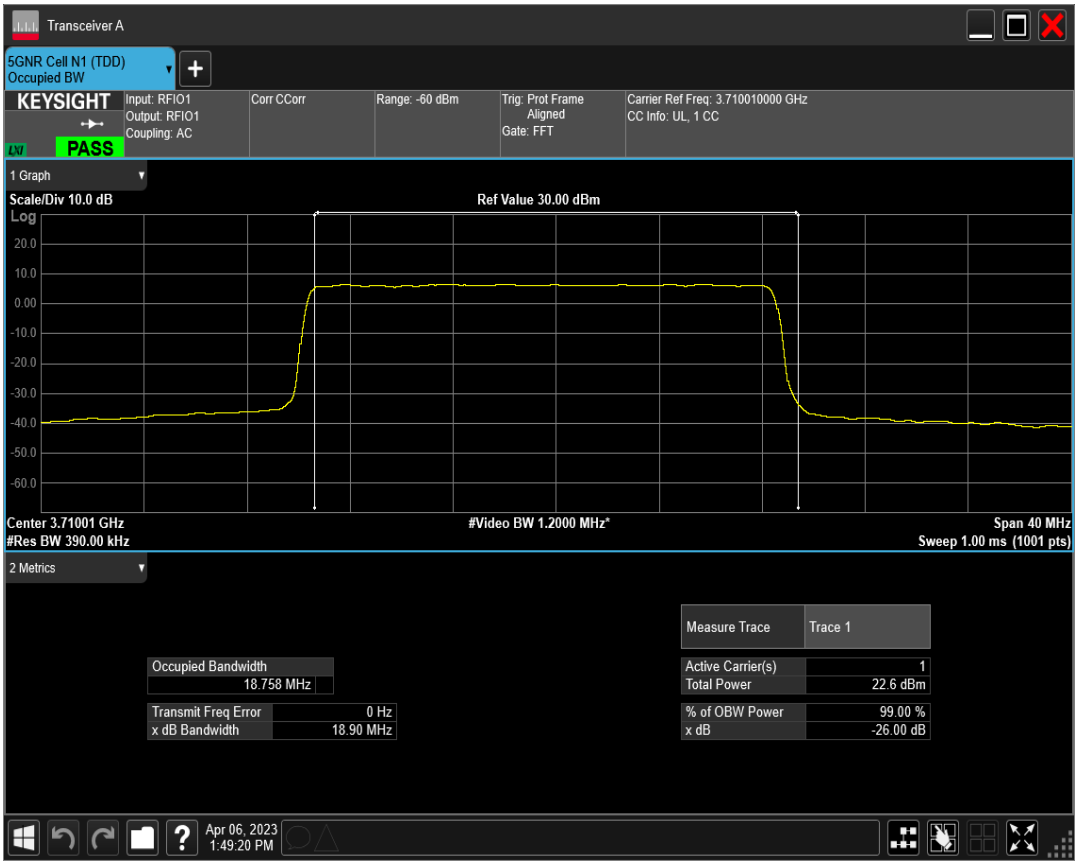
n77(3700-3980) SCS=15kHz DFT_QPSK BW=20MHz Channel=647334 RB=100@0



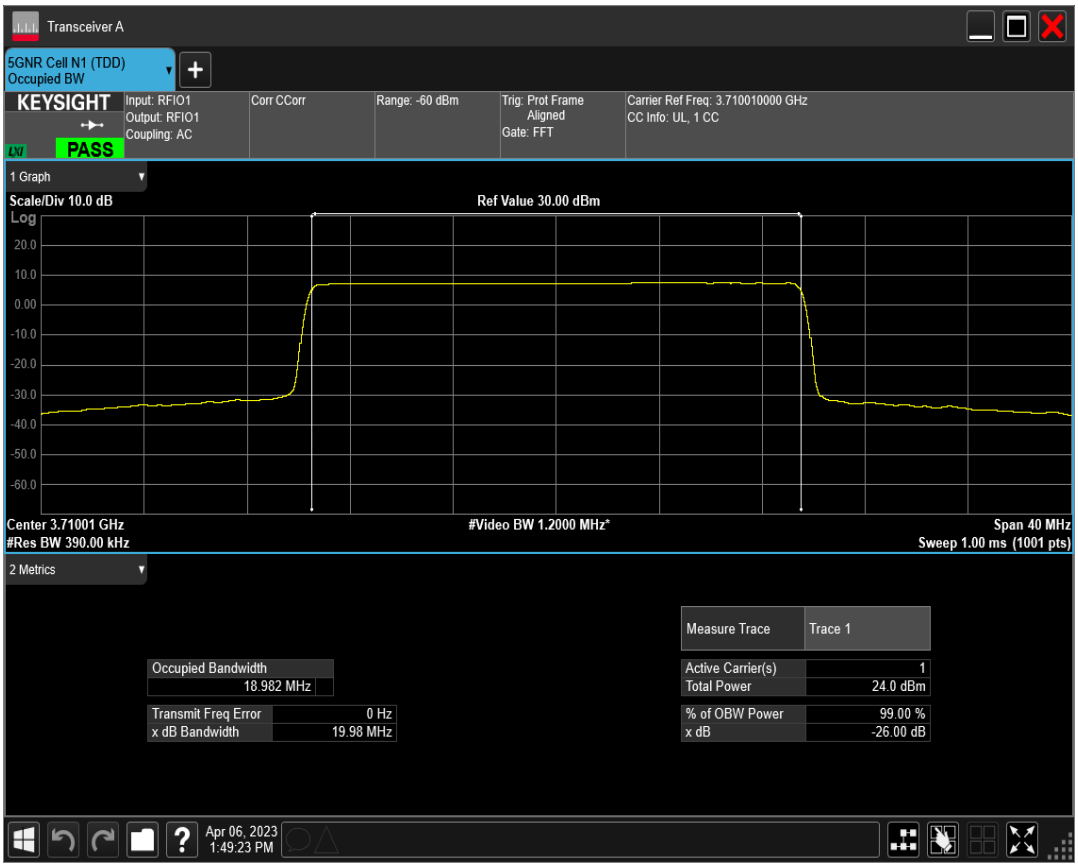
n77(3700-3980) SCS=15kHz DFT_QAM16 BW=20MHz Channel=647334 RB=100@0

n77(3700-3980) SCS=15kHz DFT_QAM64 BW=20MHz Channel=647334 RB=100@0

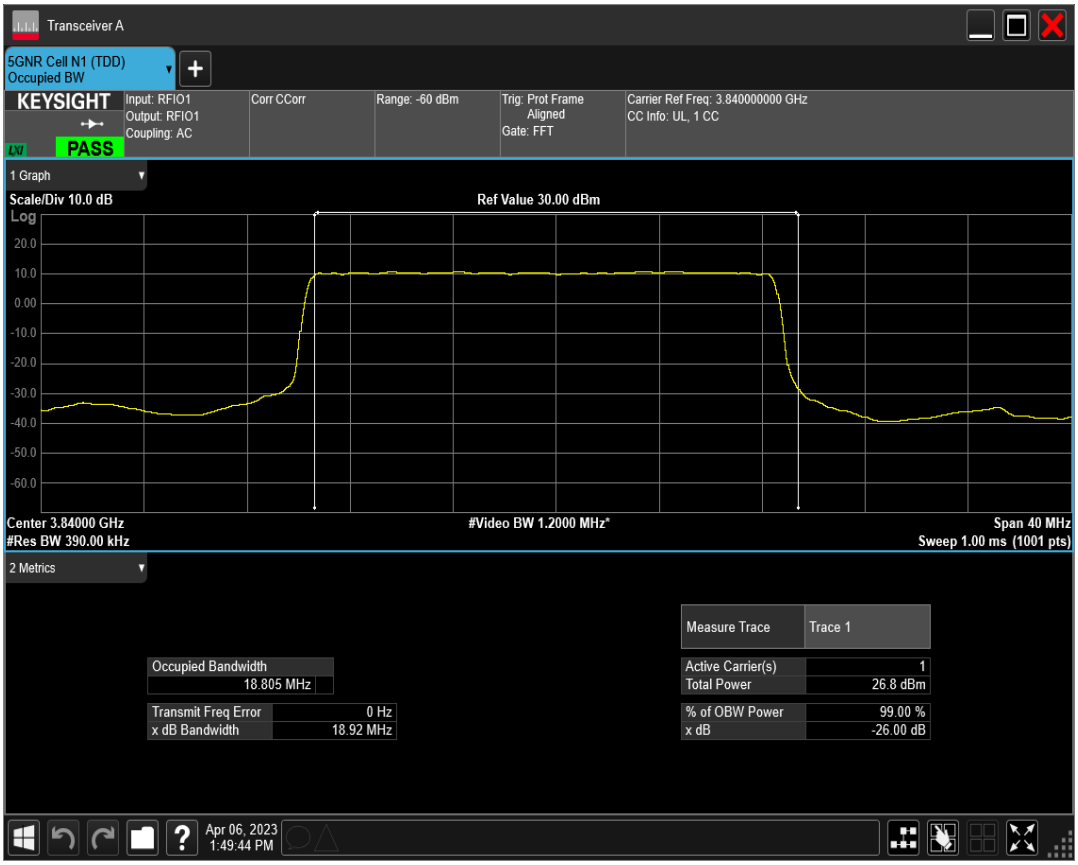
n77(3700-3980) SCS=15kHz DFT_QAM256 BW=20MHz Channel=647334 RB=100@0



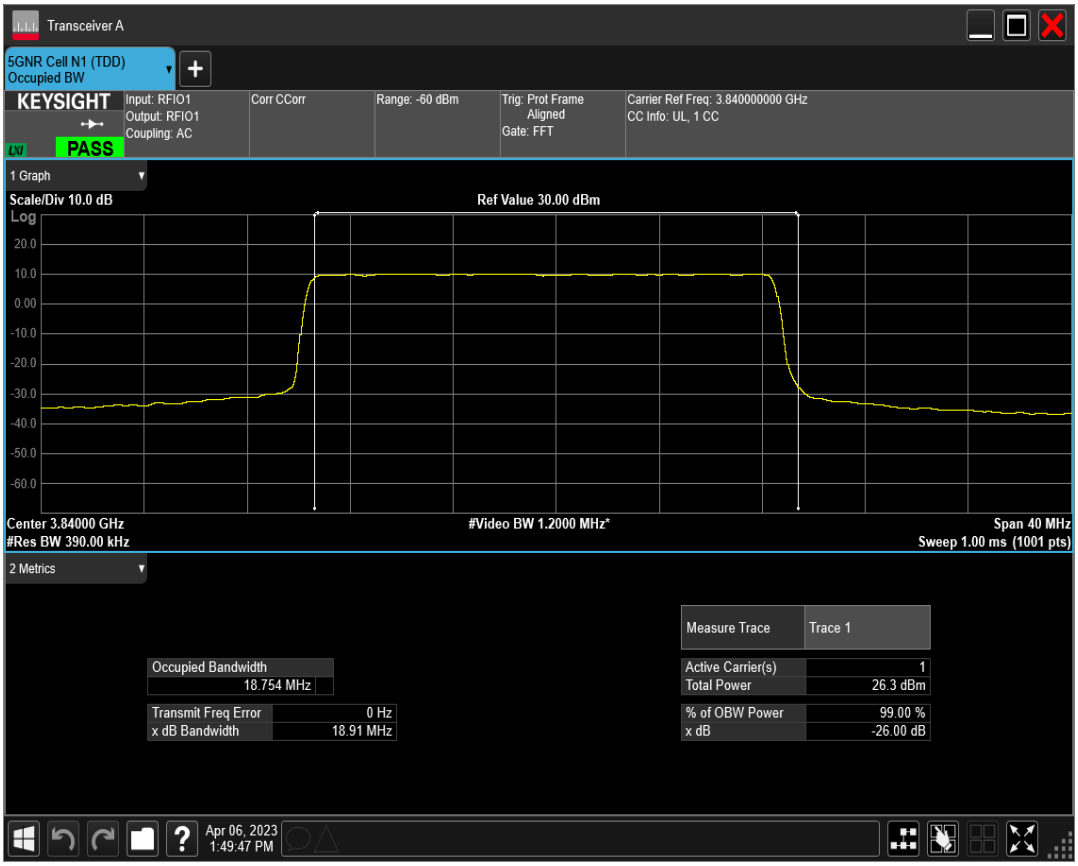
n77(3700-3980) SCS=15kHz CP_QPSK BW=20MHz Channel=647334 RB=106@0



n77(3700-3980) SCS=15kHz DFT_BPSK BW=20MHz Channel=656000 RB=100@0



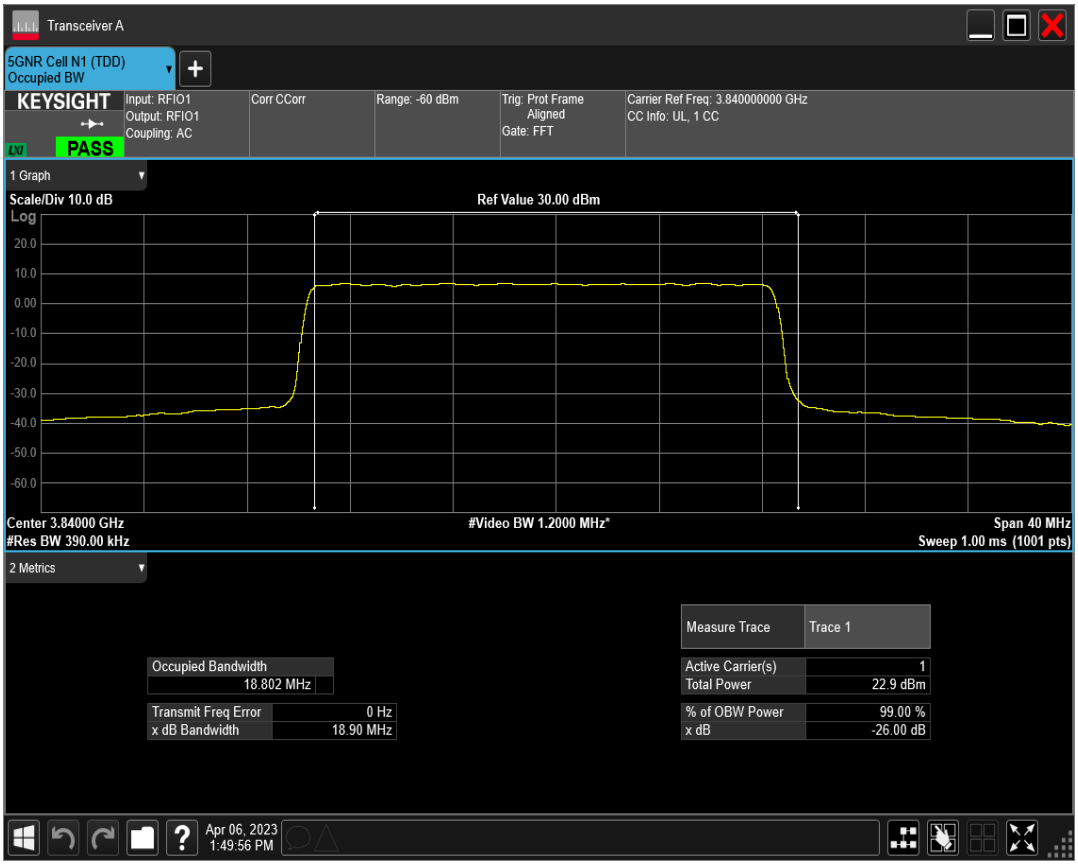
n77(3700-3980) SCS=15kHz DFT_QPSK BW=20MHz Channel=656000 RB=100@0



n77(3700-3980) SCS=15kHz DFT_QAM16 BW=20MHz Channel=656000 RB=100@0

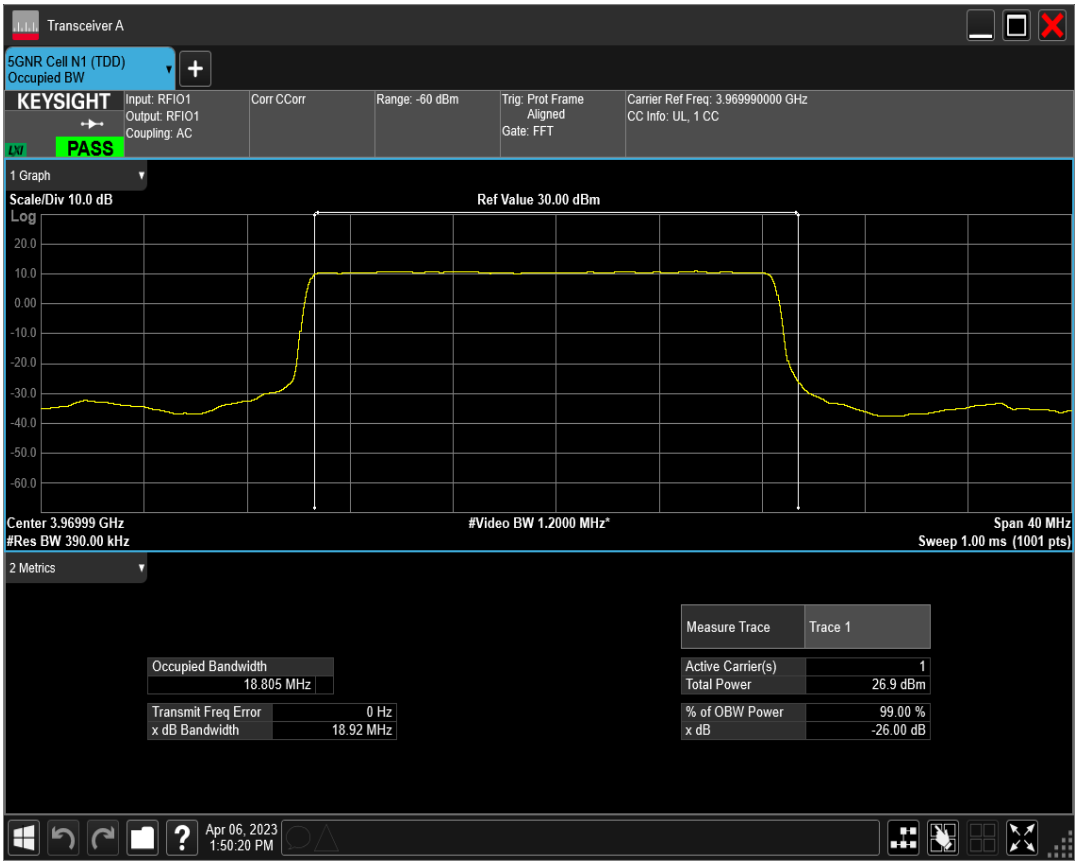
n77(3700-3980) SCS=15kHz DFT_QAM64 BW=20MHz Channel=656000 RB=100@0

n77(3700-3980) SCS=15kHz DFT_QAM256 BW=20MHz Channel=656000 RB=100@0

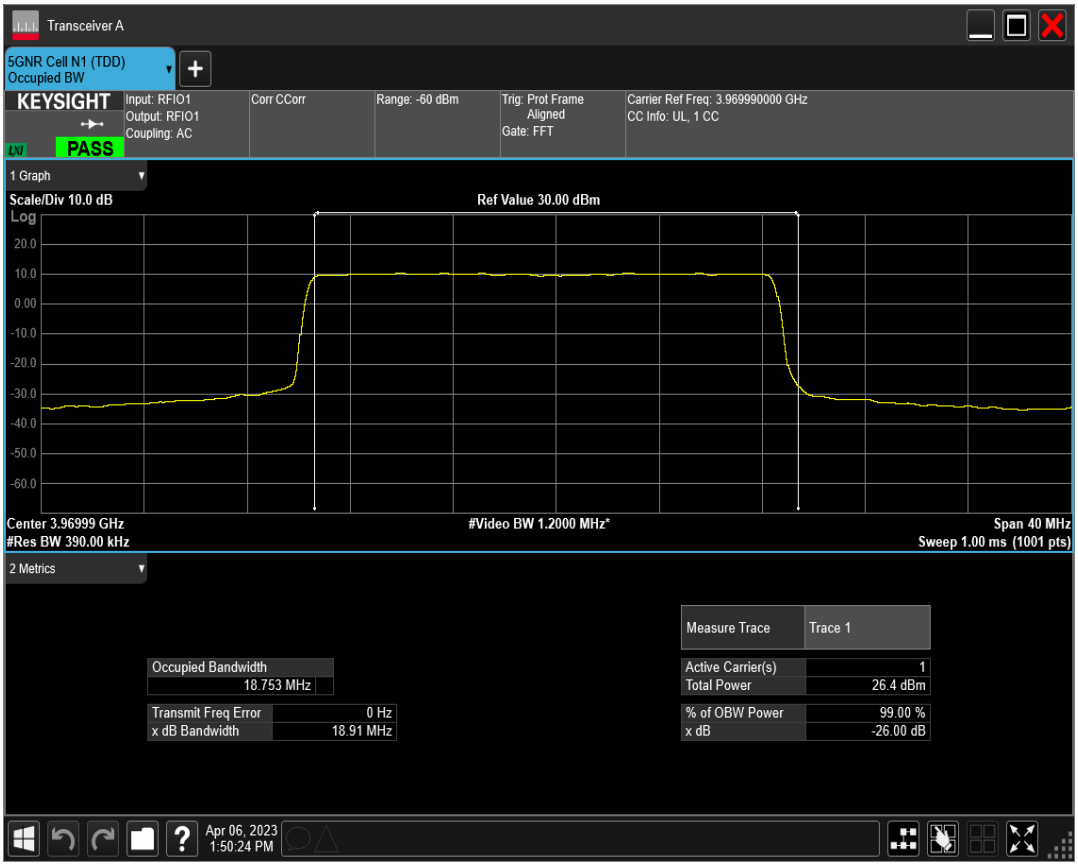


n77(3700-3980) SCS=15kHz CP_QPSK BW=20MHz Channel=656000 RB=106@0

n77(3700-3980) SCS=15kHz DFT_BPSK BW=20MHz Channel=664666 RB=100@0



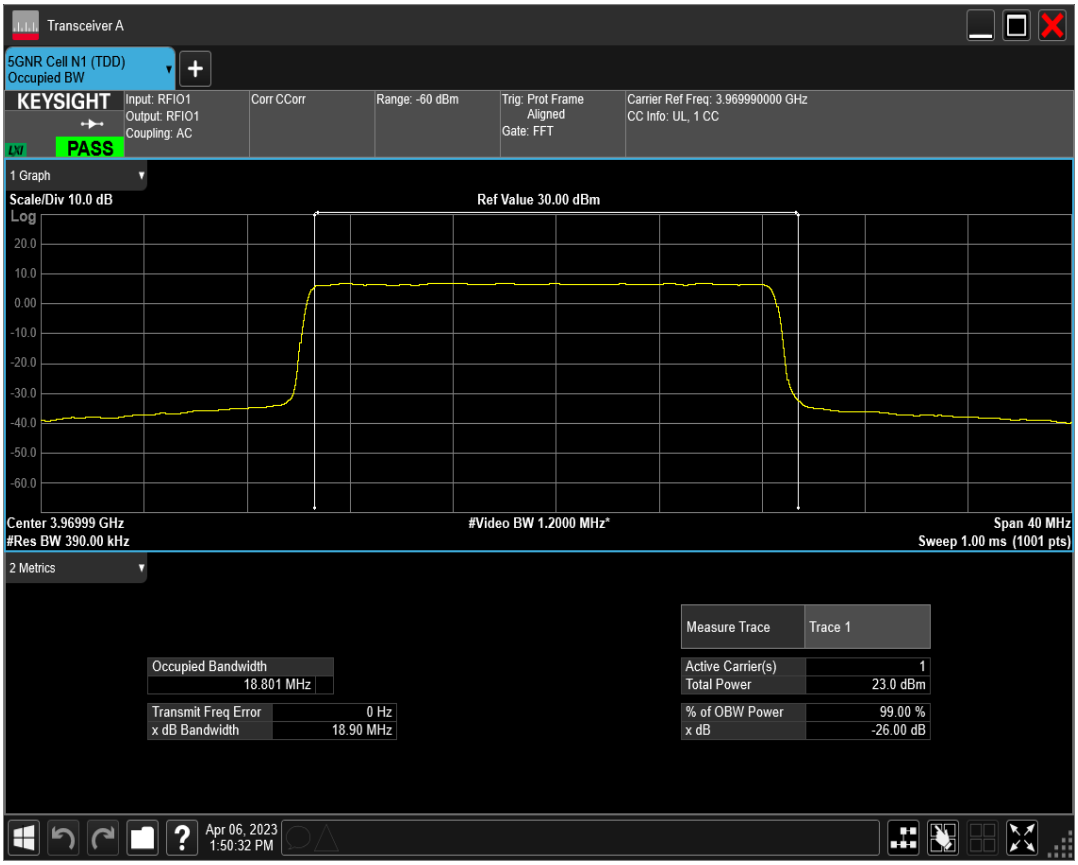
n77(3700-3980) SCS=15kHz DFT_QPSK BW=20MHz Channel=664666 RB=100@0



n77(3700-3980) SCS=15kHz DFT_QAM16 BW=20MHz Channel=664666 RB=100@0

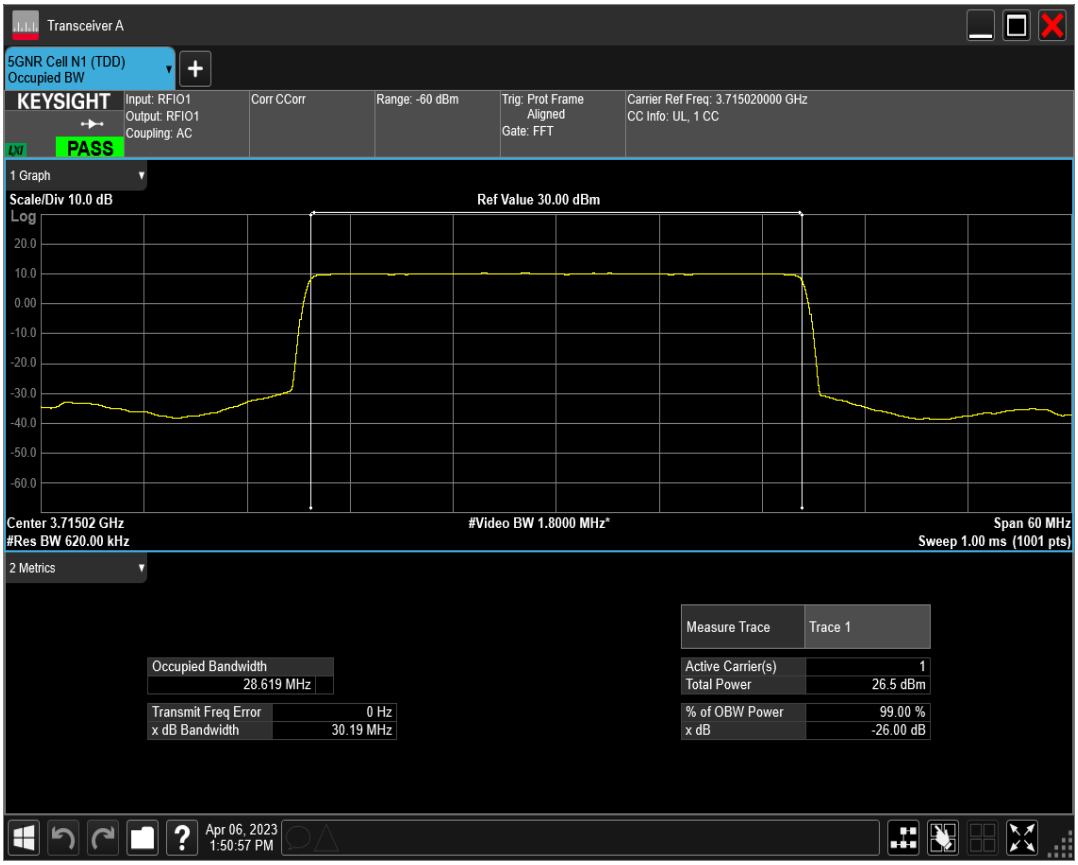
n77(3700-3980) SCS=15kHz DFT_QAM64 BW=20MHz Channel=664666 RB=100@0

n77(3700-3980) SCS=15kHz DFT_QAM256 BW=20MHz Channel=664666 RB=100@0



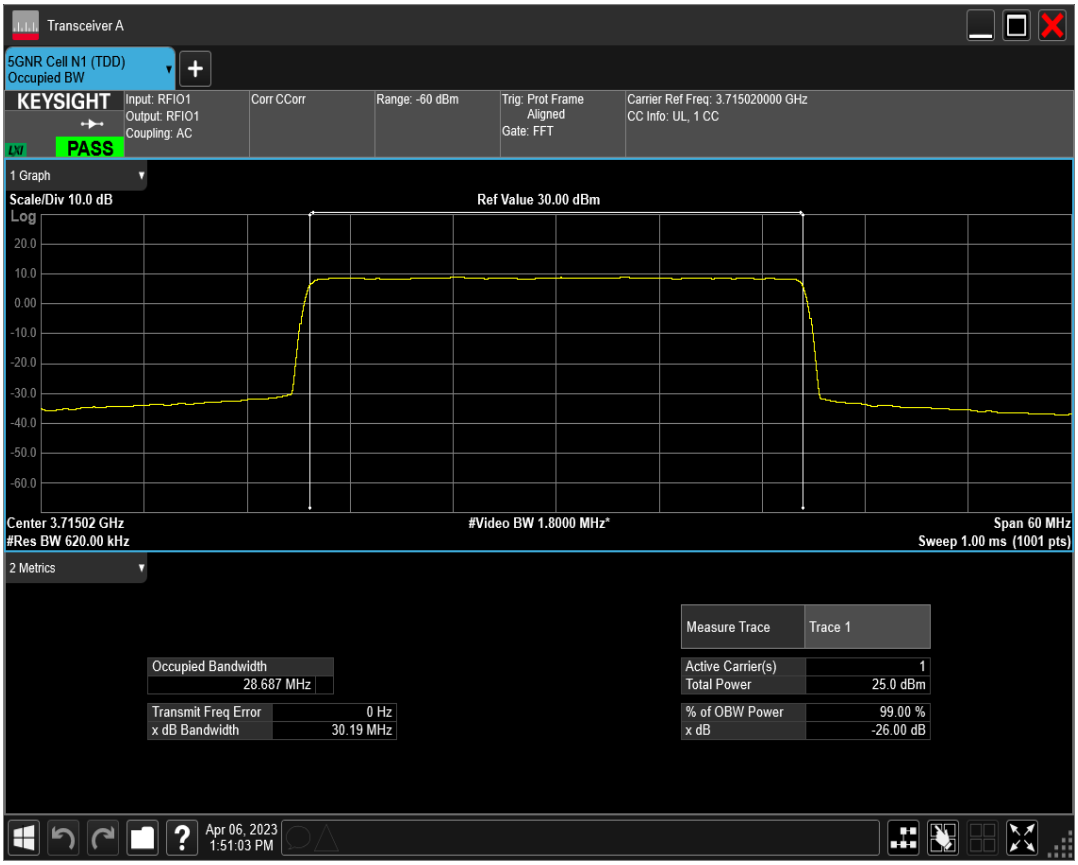
n77(3700-3980) SCS=15kHz CP_QPSK BW=20MHz Channel=664666 RB=106@0

n77(3700-3980) SCS=15kHz DFT_BPSK BW=30MHz Channel=647668 RB=160@0



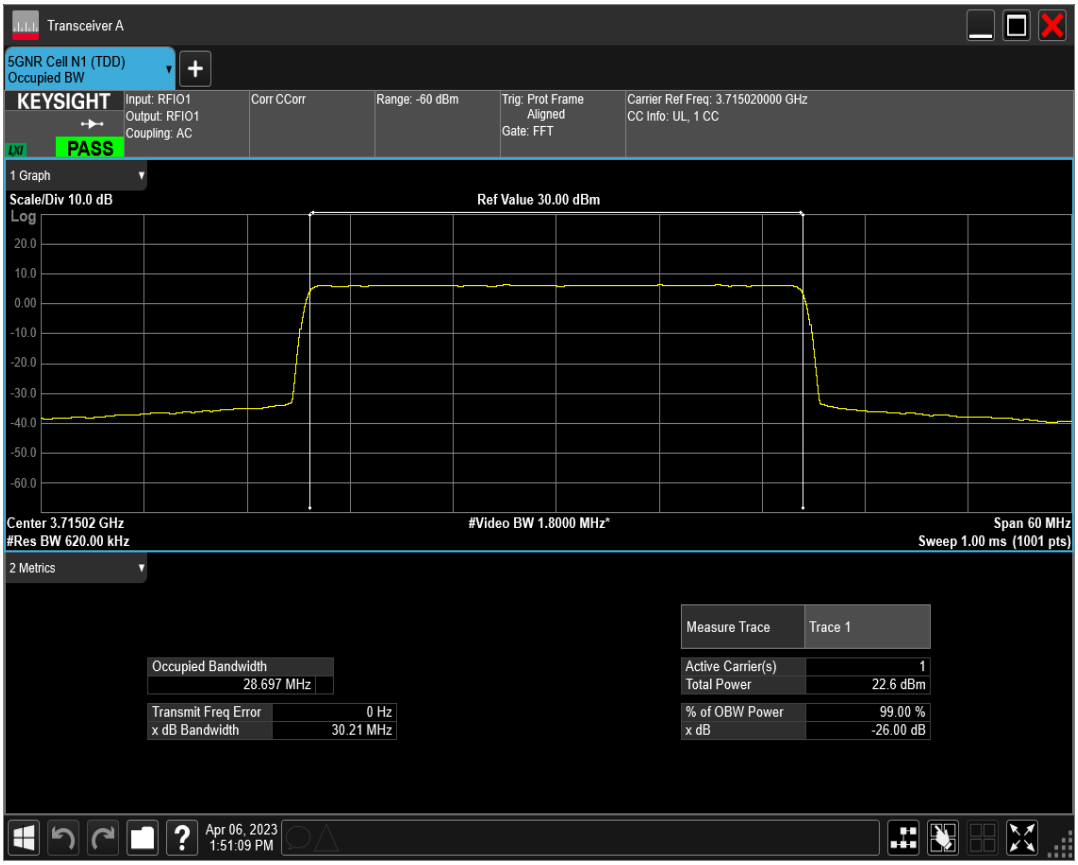
n77(3700-3980) SCS=15kHz DFT_QPSK BW=30MHz Channel=647668 RB=160@0

n77(3700-3980) SCS=15kHz DFT_QAM16 BW=30MHz Channel=647668 RB=160@0



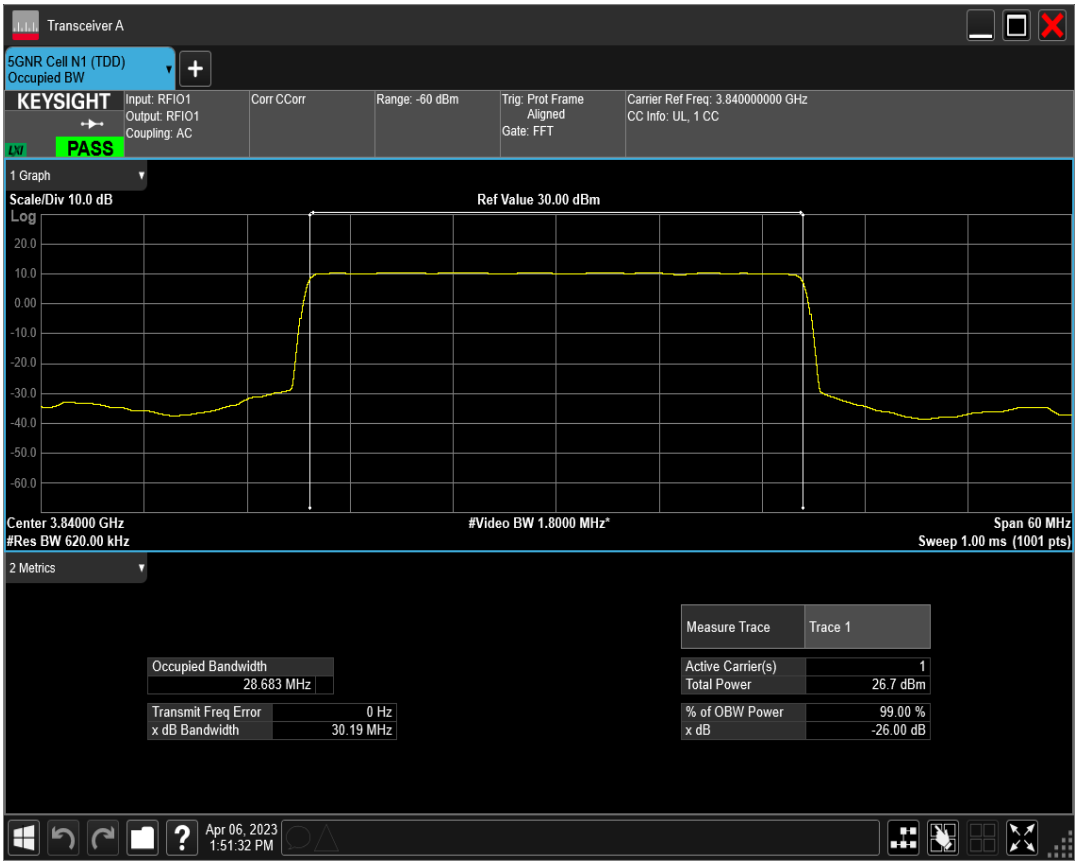
n77(3700-3980) SCS=15kHz DFT_QAM64 BW=30MHz Channel=647668 RB=160@0

n77(3700-3980) SCS=15kHz DFT_QAM256 BW=30MHz Channel=647668 RB=160@0



n77(3700-3980) SCS=15kHz CP_QPSK BW=30MHz Channel=647668 RB=160@0

n77(3700-3980) SCS=15kHz DFT_BPSK BW=30MHz Channel=656000 RB=160@0

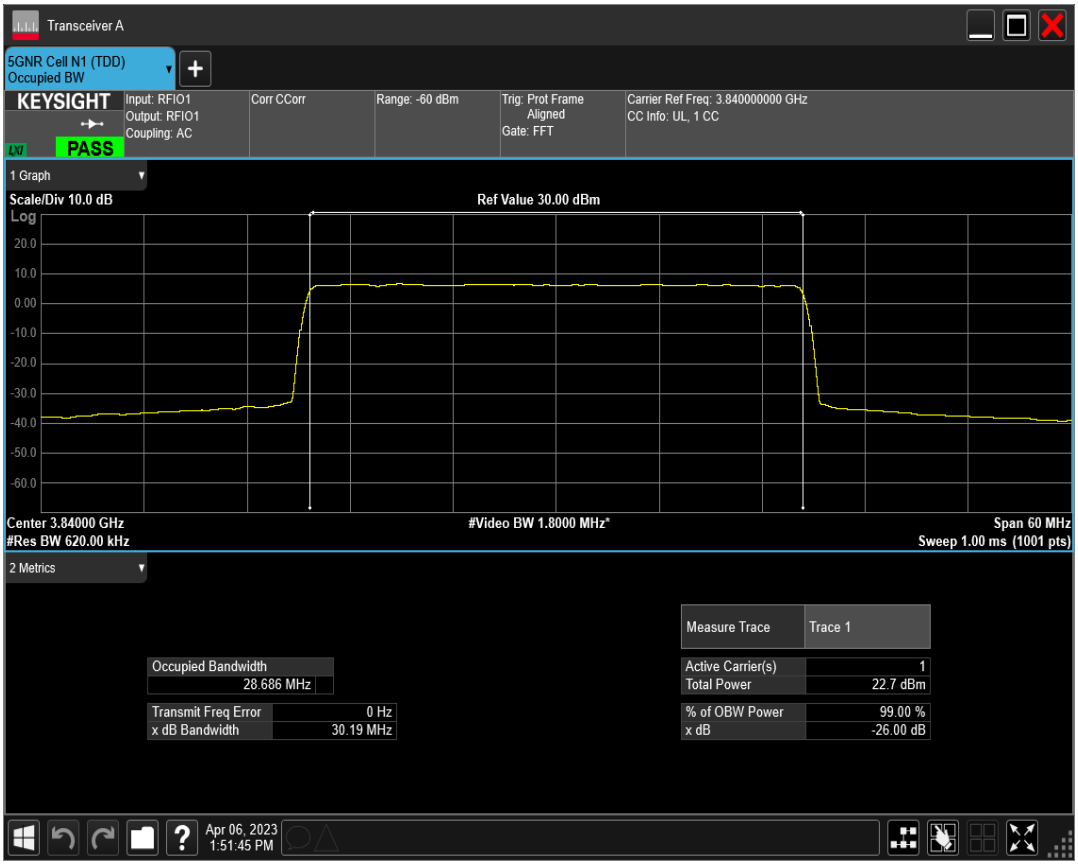


n77(3700-3980) SCS=15kHz DFT_QPSK BW=30MHz Channel=656000 RB=160@0

n77(3700-3980) SCS=15kHz DFT_QAM16 BW=30MHz Channel=656000 RB=160@0

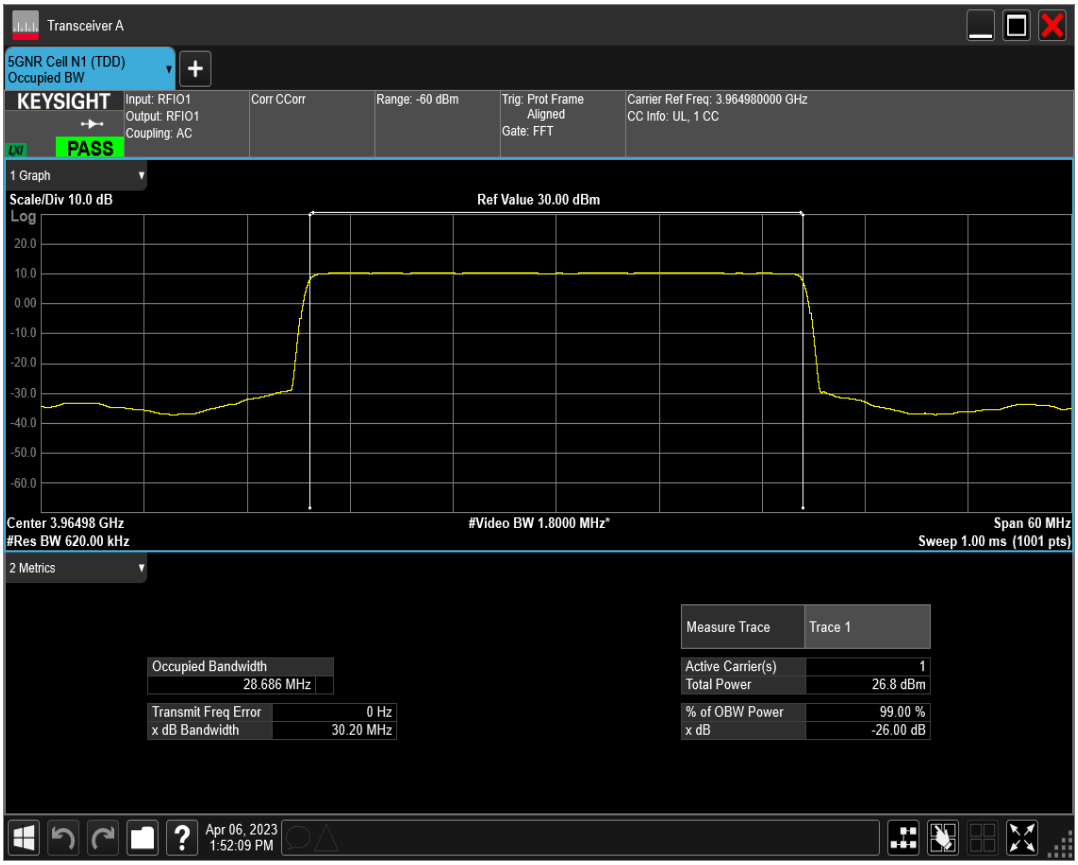
n77(3700-3980) SCS=15kHz DFT_QAM64 BW=30MHz Channel=656000 RB=160@0

n77(3700-3980) SCS=15kHz DFT_QAM256 BW=30MHz Channel=656000 RB=160@0



n77(3700-3980) SCS=15kHz CP_QPSK BW=30MHz Channel=656000 RB=160@0

n77(3700-3980) SCS=15kHz DFT_BPSK BW=30MHz Channel=664332 RB=160@0

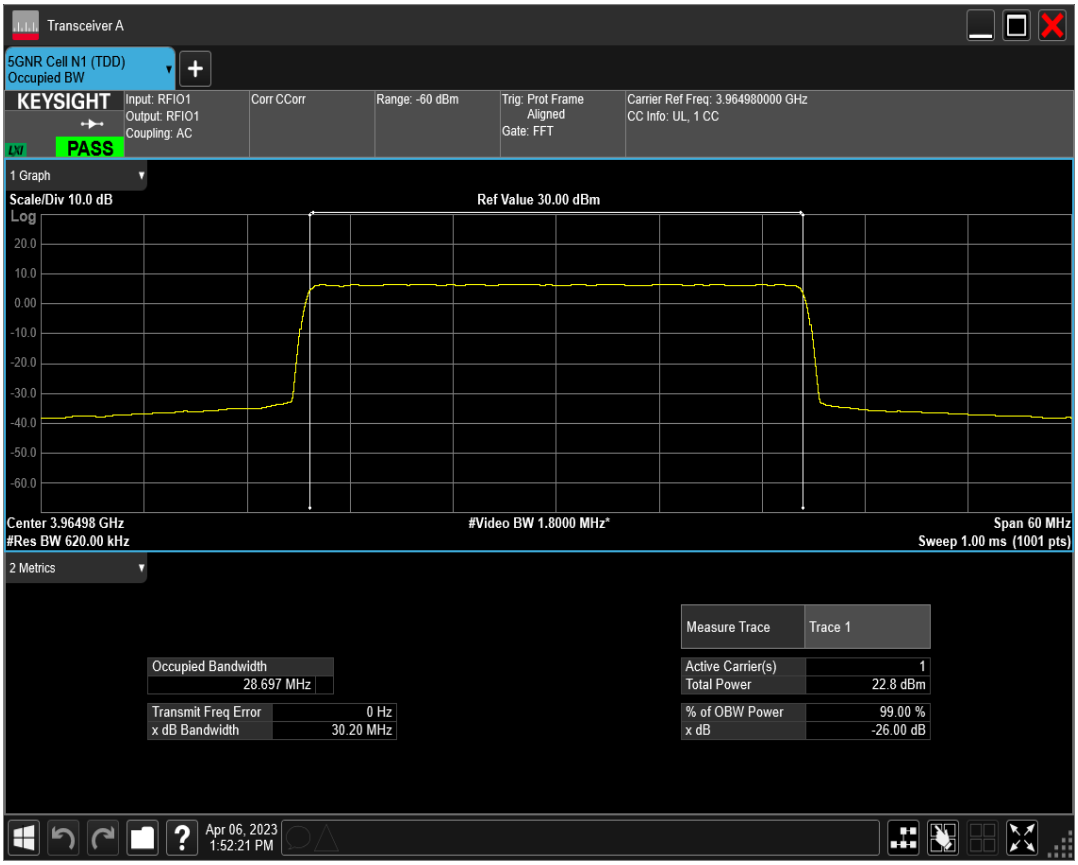


n77(3700-3980) SCS=15kHz DFT_QPSK BW=30MHz Channel=664332 RB=160@0

n77(3700-3980) SCS=15kHz DFT_QAM16 BW=30MHz Channel=664332 RB=160@0

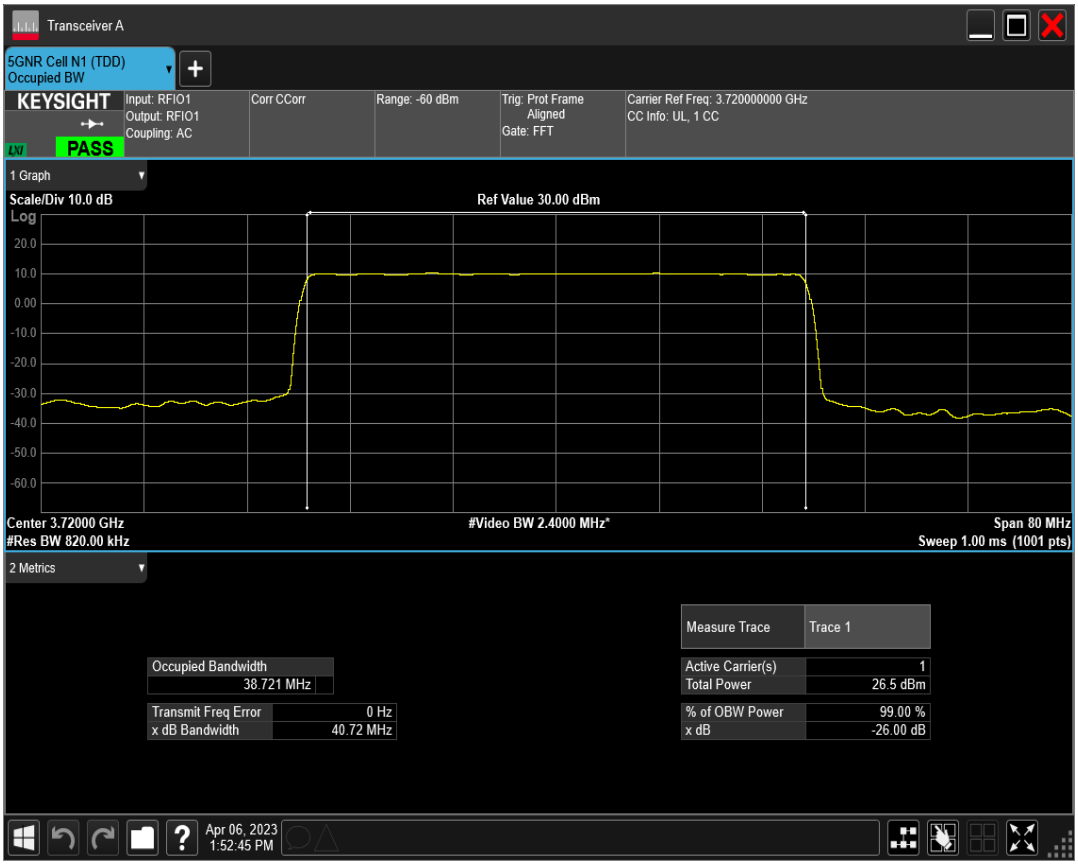
n77(3700-3980) SCS=15kHz DFT_QAM64 BW=30MHz Channel=664332 RB=160@0

n77(3700-3980) SCS=15kHz DFT_QAM256 BW=30MHz Channel=664332 RB=160@0



n77(3700-3980) SCS=15kHz CP_QPSK BW=30MHz Channel=664332 RB=160@0

n77(3700-3980) SCS=15kHz DFT_BPSK BW=40MHz Channel=648000 RB=216@0

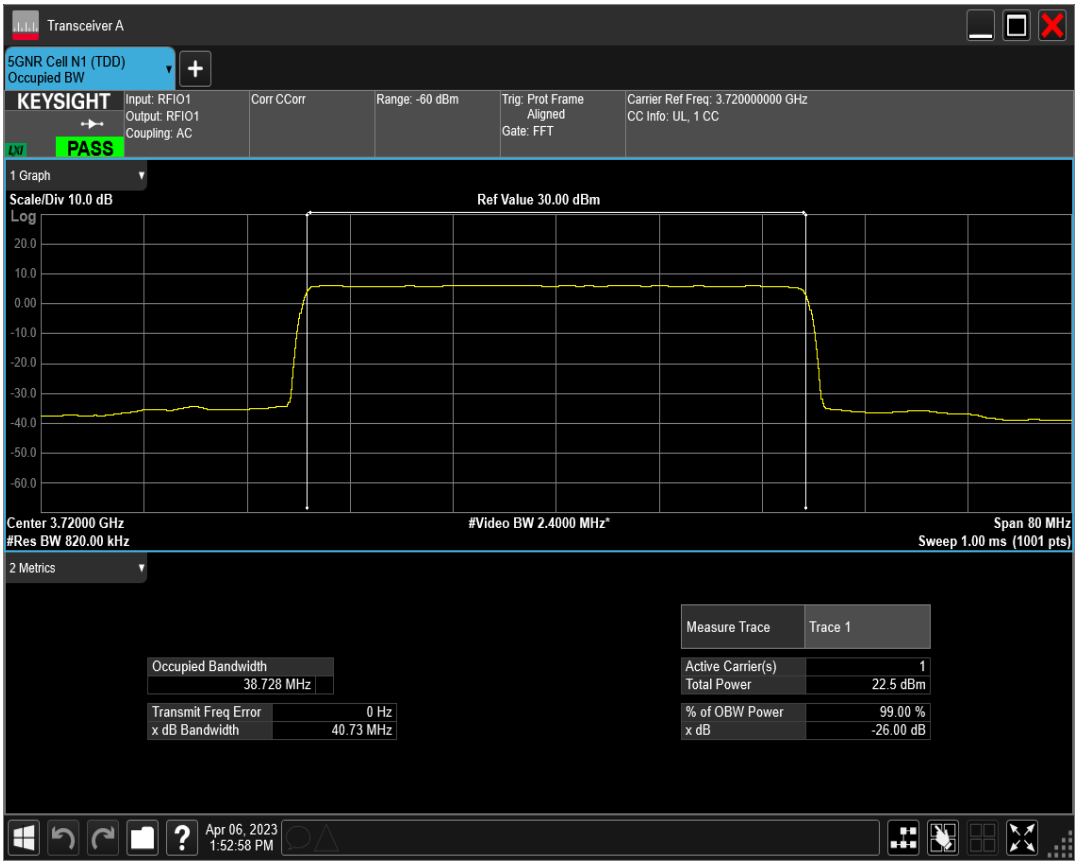


n77(3700-3980) SCS=15kHz DFT_QPSK BW=40MHz Channel=648000 RB=216@0

n77(3700-3980) SCS=15kHz DFT_QAM16 BW=40MHz Channel=648000 RB=216@0

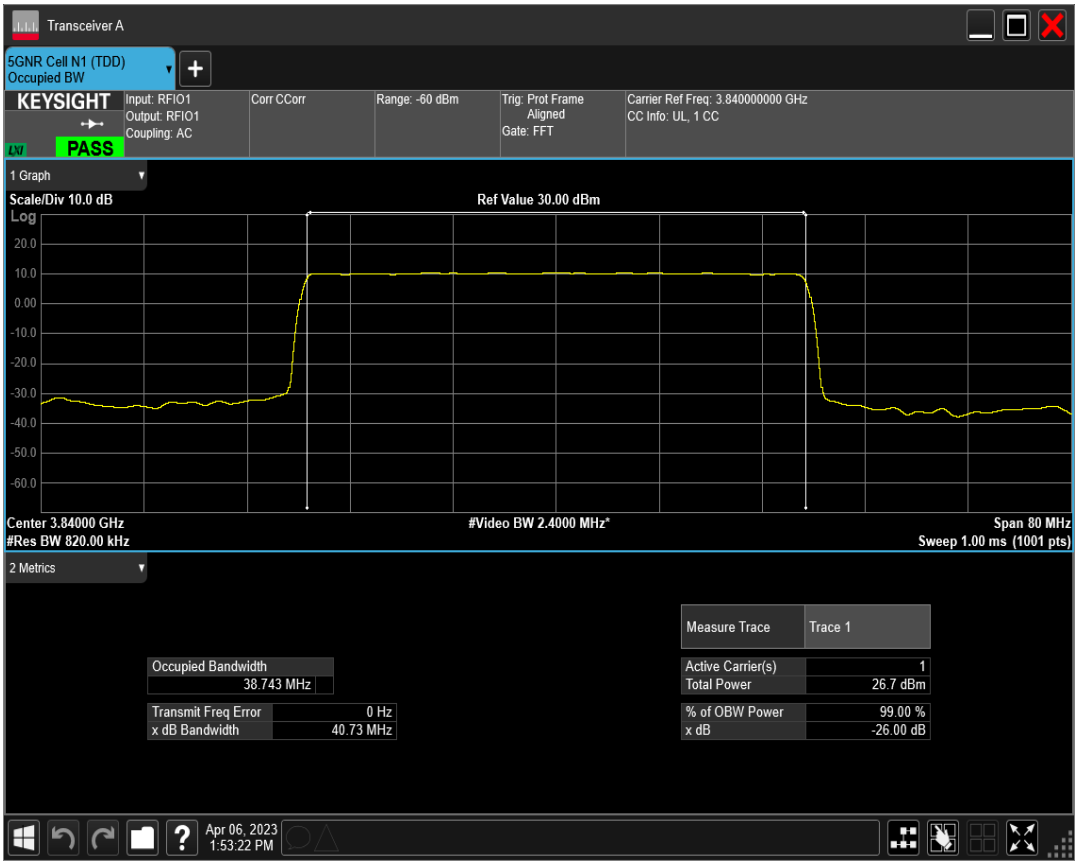
n77(3700-3980) SCS=15kHz DFT_QAM64 BW=40MHz Channel=648000 RB=216@0

n77(3700-3980) SCS=15kHz DFT_QAM256 BW=40MHz Channel=648000 RB=216@0



n77(3700-3980) SCS=15kHz CP_QPSK BW=40MHz Channel=648000 RB=216@0

n77(3700-3980) SCS=15kHz DFT_BPSK BW=40MHz Channel=656000 RB=216@0

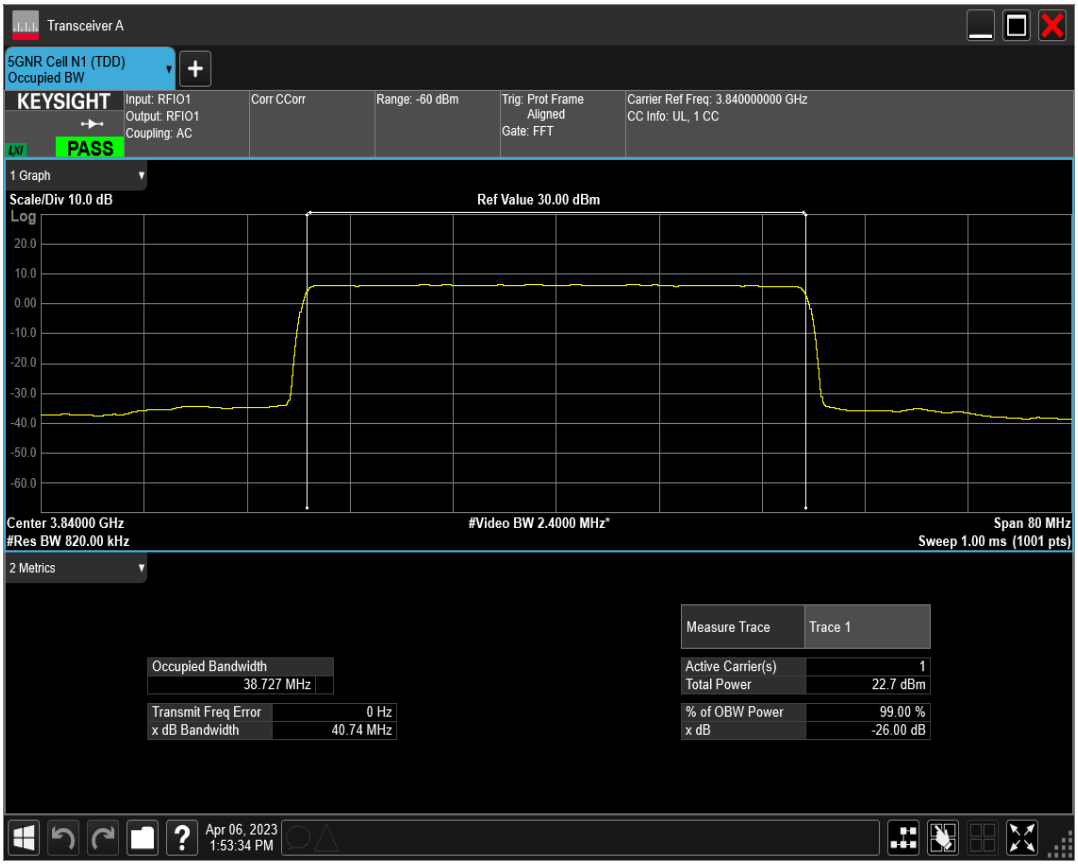


n77(3700-3980) SCS=15kHz DFT_QPSK BW=40MHz Channel=656000 RB=216@0

n77(3700-3980) SCS=15kHz DFT_QAM16 BW=40MHz Channel=656000 RB=216@0

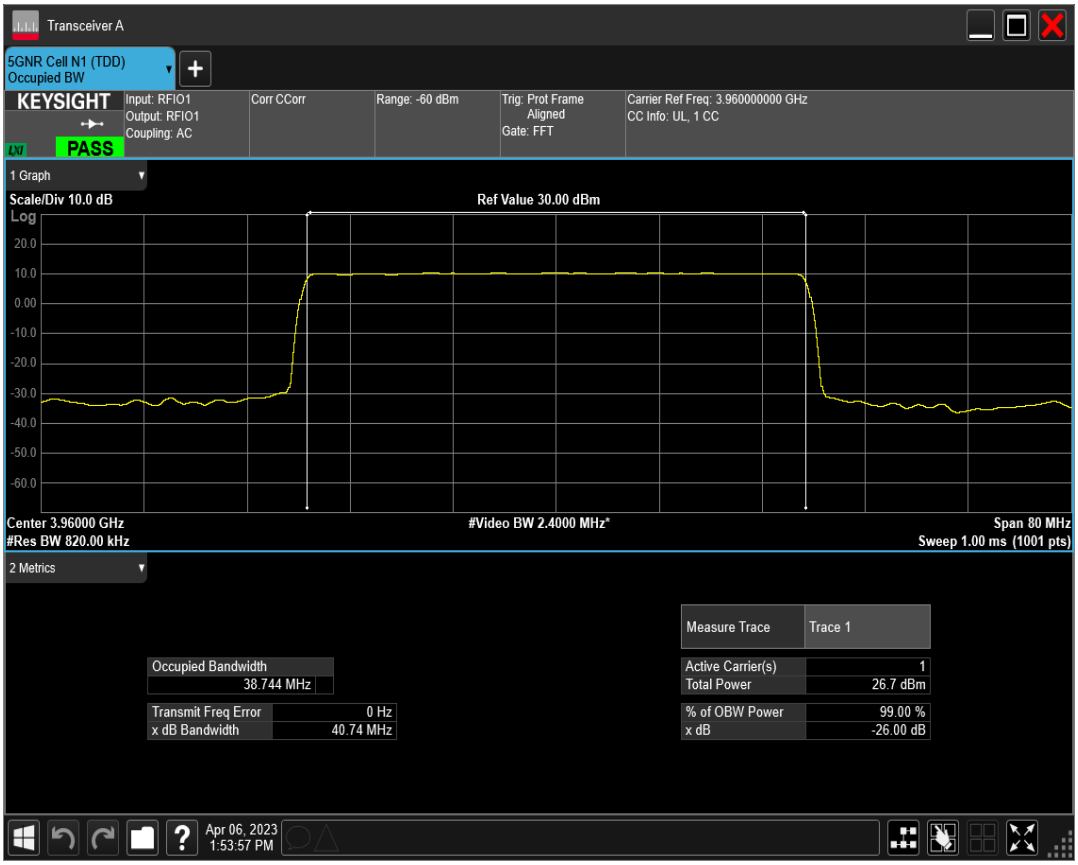
n77(3700-3980) SCS=15kHz DFT_QAM64 BW=40MHz Channel=656000 RB=216@0

n77(3700-3980) SCS=15kHz DFT_QAM256 BW=40MHz Channel=656000 RB=216@0



n77(3700-3980) SCS=15kHz CP_QPSK BW=40MHz Channel=656000 RB=216@0

n77(3700-3980) SCS=15kHz DFT_BPSK BW=40MHz Channel=664000 RB=216@0

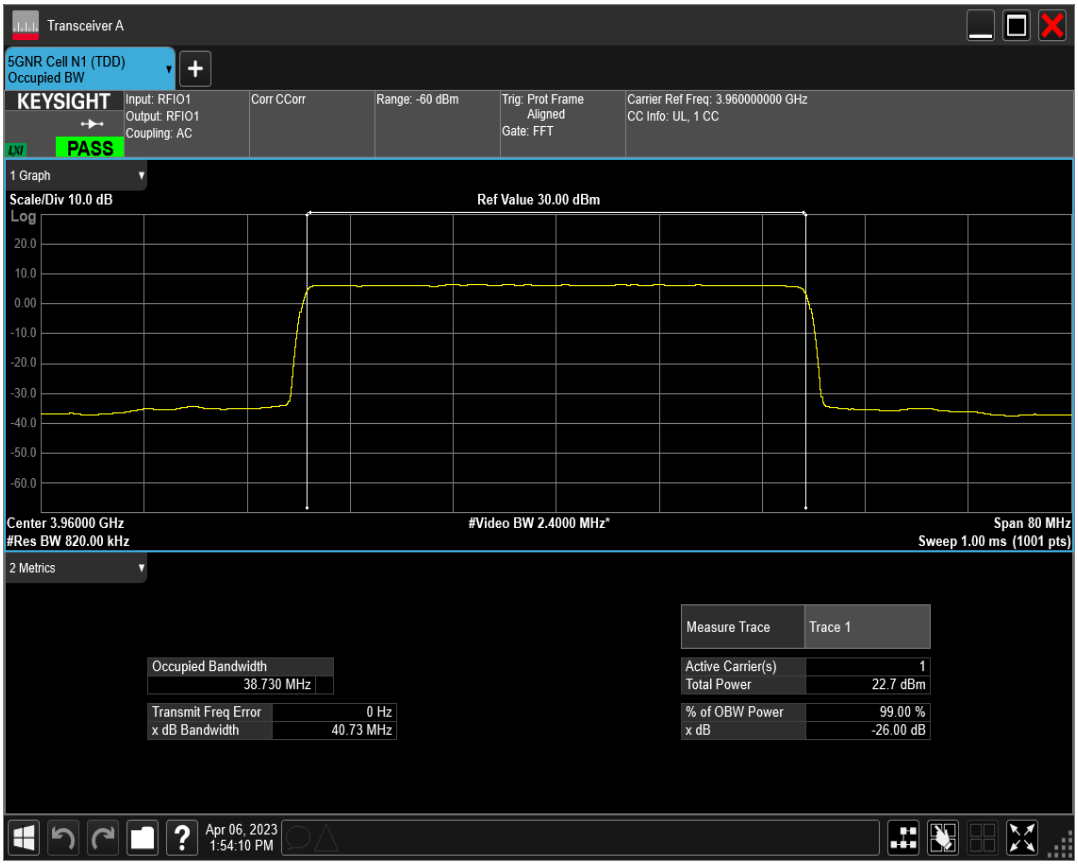


n77(3700-3980) SCS=15kHz DFT_QPSK BW=40MHz Channel=664000 RB=216@0

n77(3700-3980) SCS=15kHz DFT_QAM16 BW=40MHz Channel=664000 RB=216@0

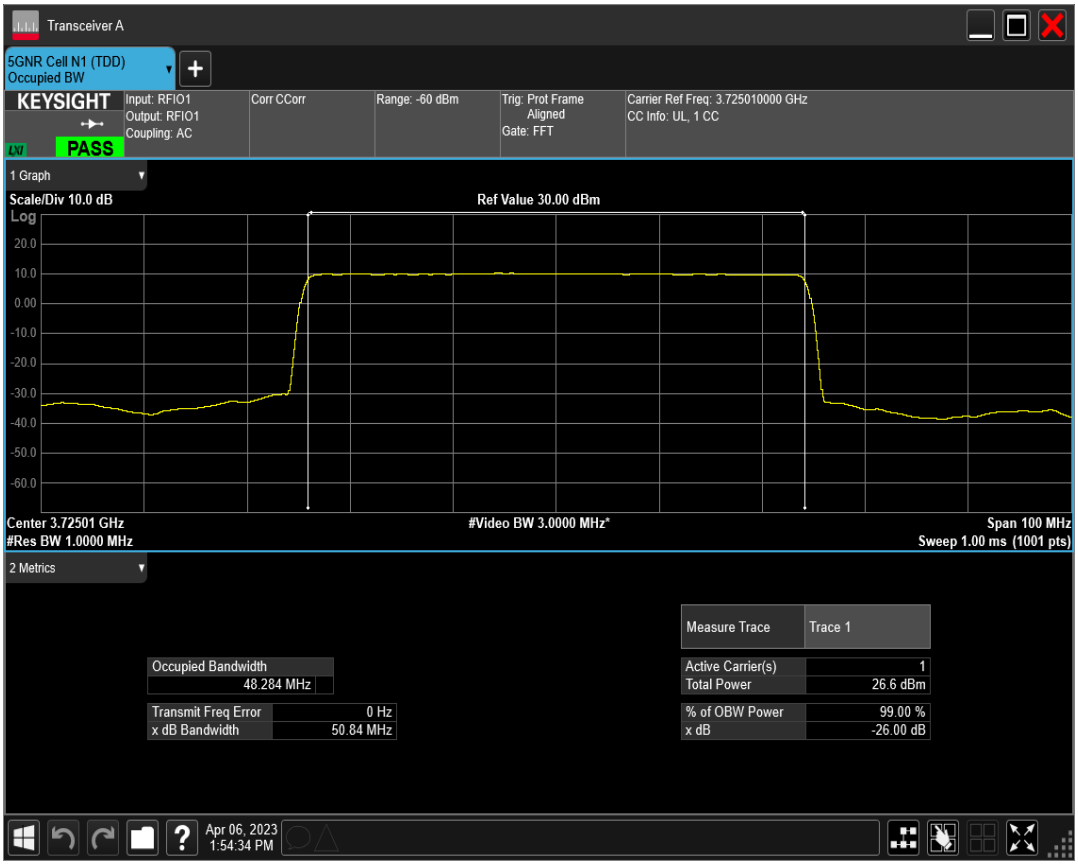
n77(3700-3980) SCS=15kHz DFT_QAM64 BW=40MHz Channel=664000 RB=216@0

n77(3700-3980) SCS=15kHz DFT_QAM256 BW=40MHz Channel=664000 RB=216@0



n77(3700-3980) SCS=15kHz CP_QPSK BW=40MHz Channel=664000 RB=216@0

n77(3700-3980) SCS=15kHz DFT_BPSK BW=50MHz Channel=648334 RB=270@0



n77(3700-3980) SCS=15kHz DFT_QPSK BW=50MHz Channel=648334 RB=270@0

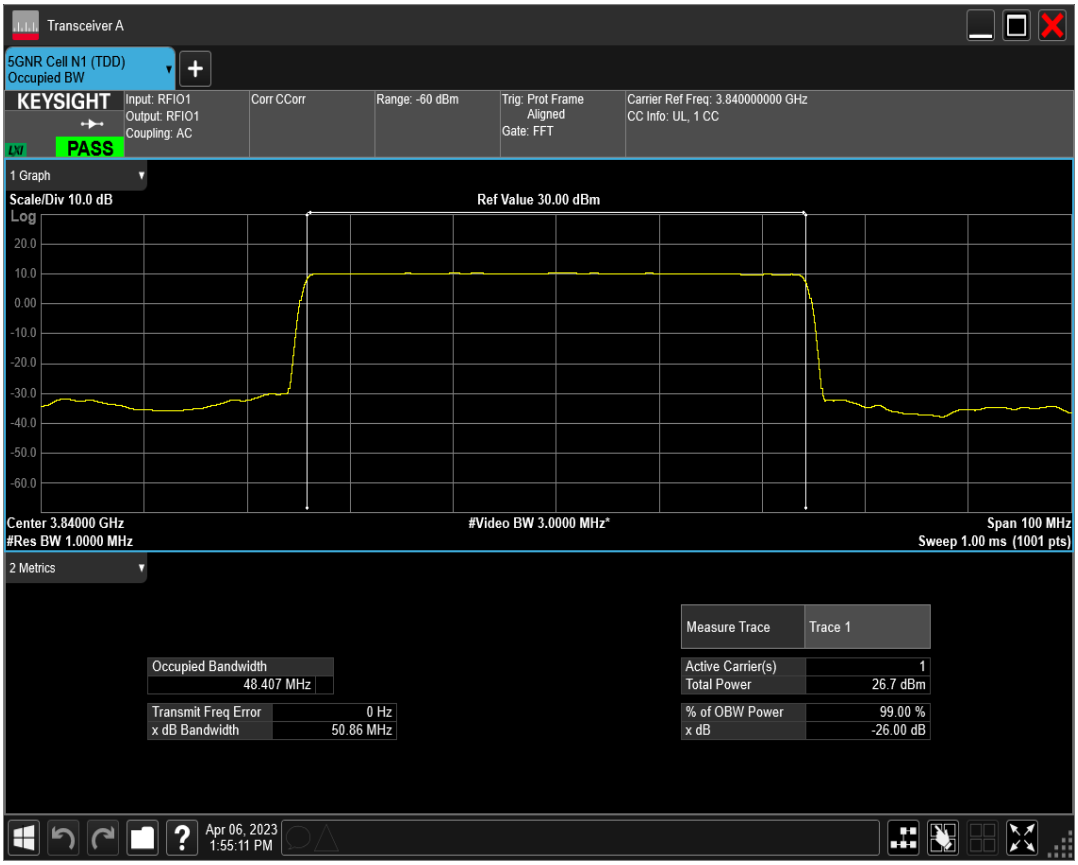
n77(3700-3980) SCS=15kHz DFT_QAM16 BW=50MHz Channel=648334 RB=270@0

n77(3700-3980) SCS=15kHz DFT_QAM64 BW=50MHz Channel=648334 RB=270@0

n77(3700-3980) SCS=15kHz DFT_QAM256 BW=50MHz Channel=648334 RB=270@0

n77(3700-3980) SCS=15kHz CP_QPSK BW=50MHz Channel=648334 RB=270@0

n77(3700-3980) SCS=15kHz DFT_BPSK BW=50MHz Channel=656000 RB=270@0

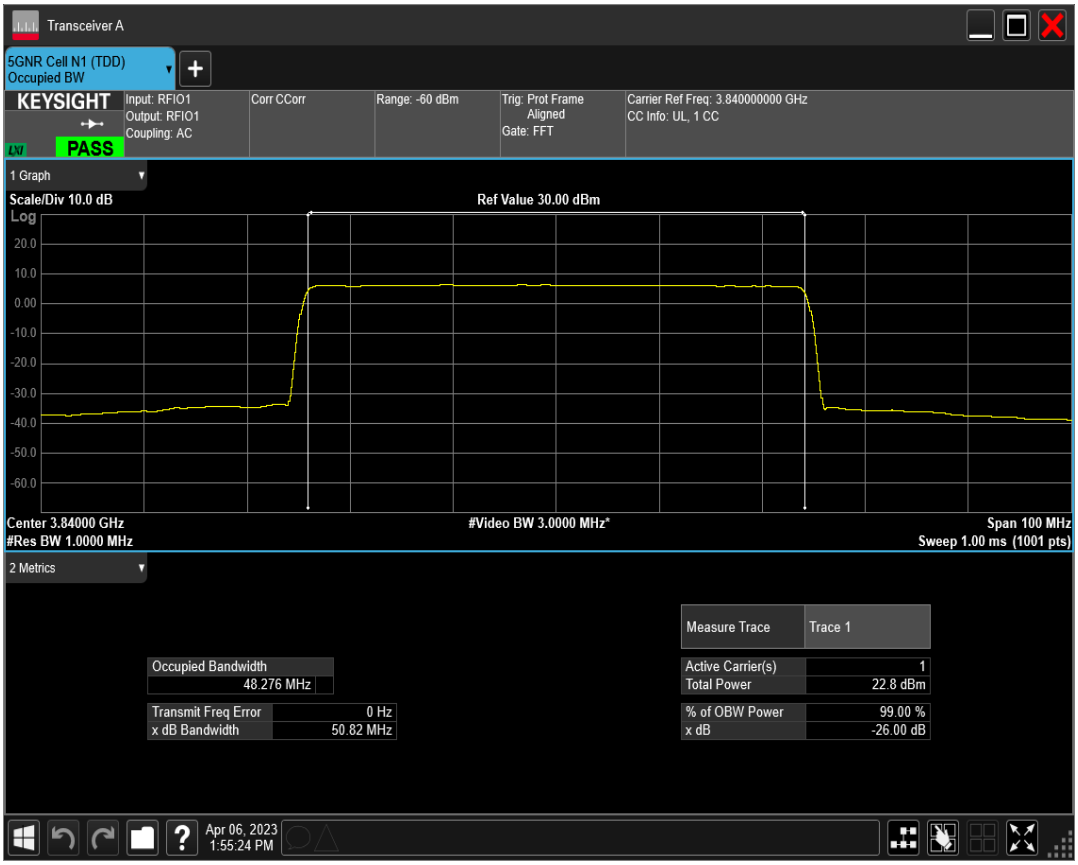


n77(3700-3980) SCS=15kHz DFT_QPSK BW=50MHz Channel=656000 RB=270@0

n77(3700-3980) SCS=15kHz DFT_QAM16 BW=50MHz Channel=656000 RB=270@0

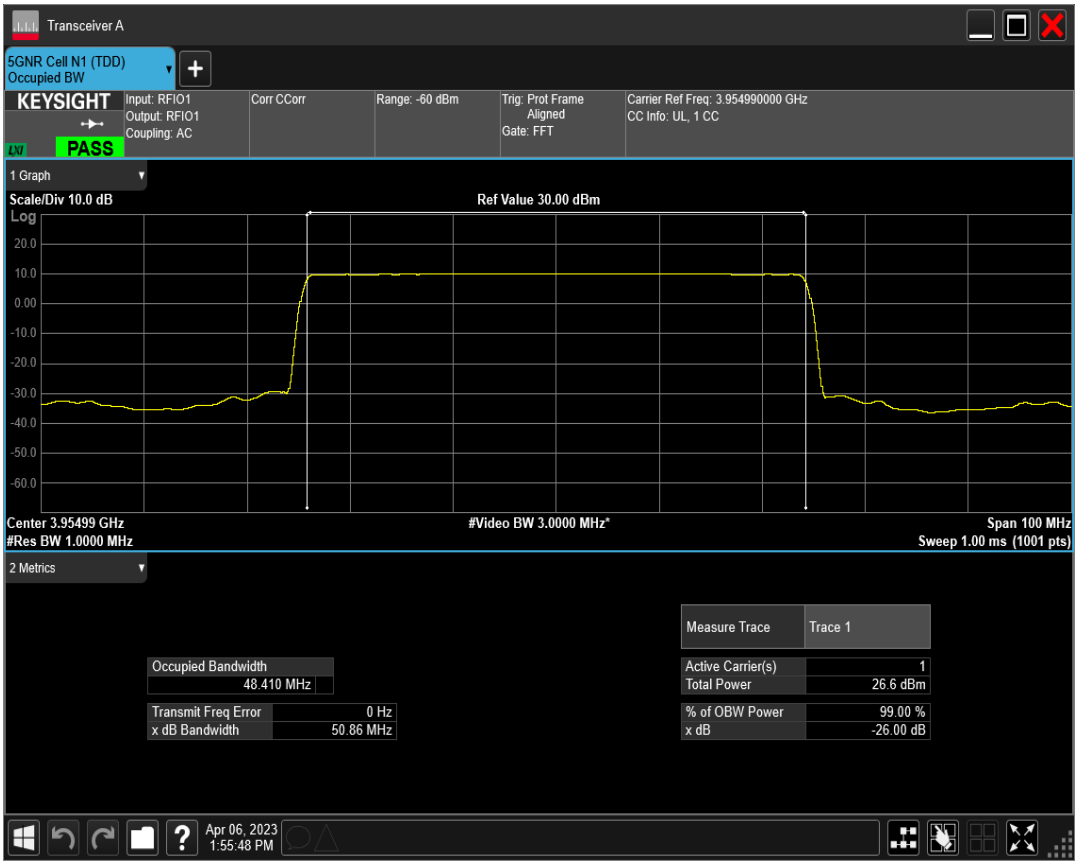
n77(3700-3980) SCS=15kHz DFT_QAM64 BW=50MHz Channel=656000 RB=270@0

n77(3700-3980) SCS=15kHz DFT_QAM256 BW=50MHz Channel=656000 RB=270@0



n77(3700-3980) SCS=15kHz CP_QPSK BW=50MHz Channel=656000 RB=270@0

n77(3700-3980) SCS=15kHz DFT_BPSK BW=50MHz Channel=663666 RB=270@0

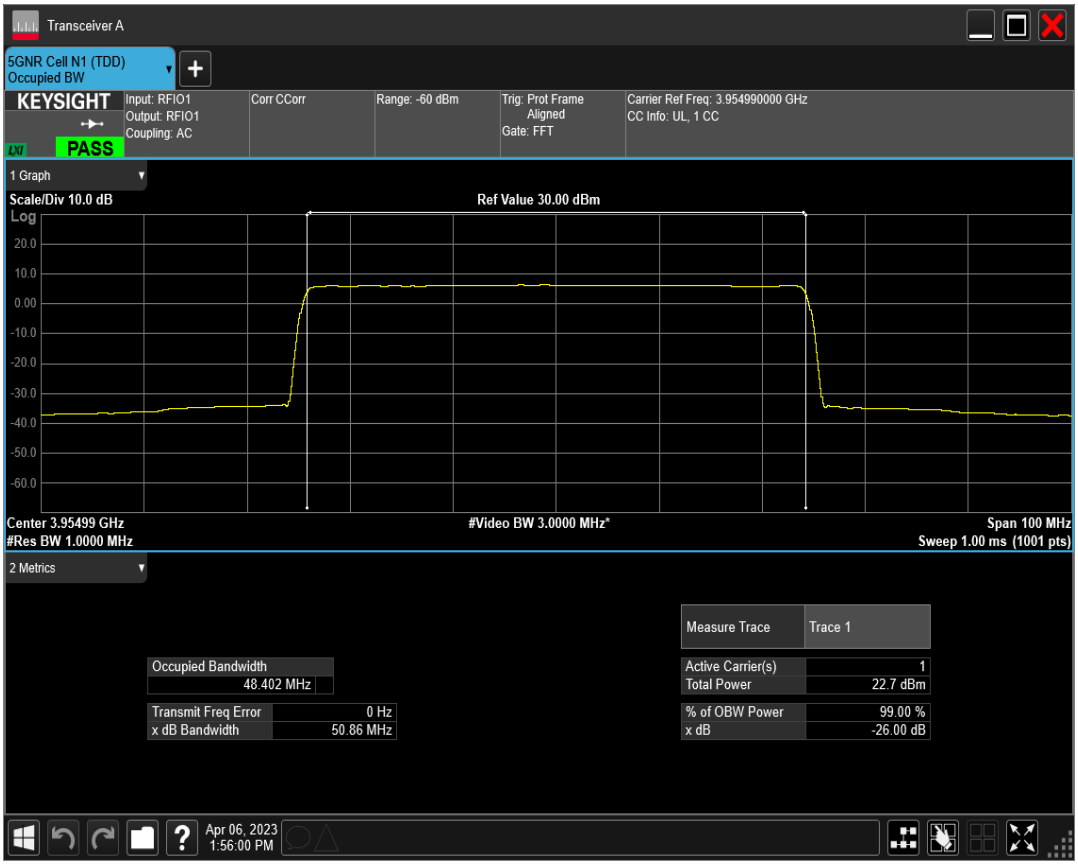


n77(3700-3980) SCS=15kHz DFT_QPSK BW=50MHz Channel=663666 RB=270@0

n77(3700-3980) SCS=15kHz DFT_QAM16 BW=50MHz Channel=663666 RB=270@0

n77(3700-3980) SCS=15kHz DFT_QAM64 BW=50MHz Channel=663666 RB=270@0

n77(3700-3980) SCS=15kHz DFT_QAM256 BW=50MHz Channel=663666 RB=270@0

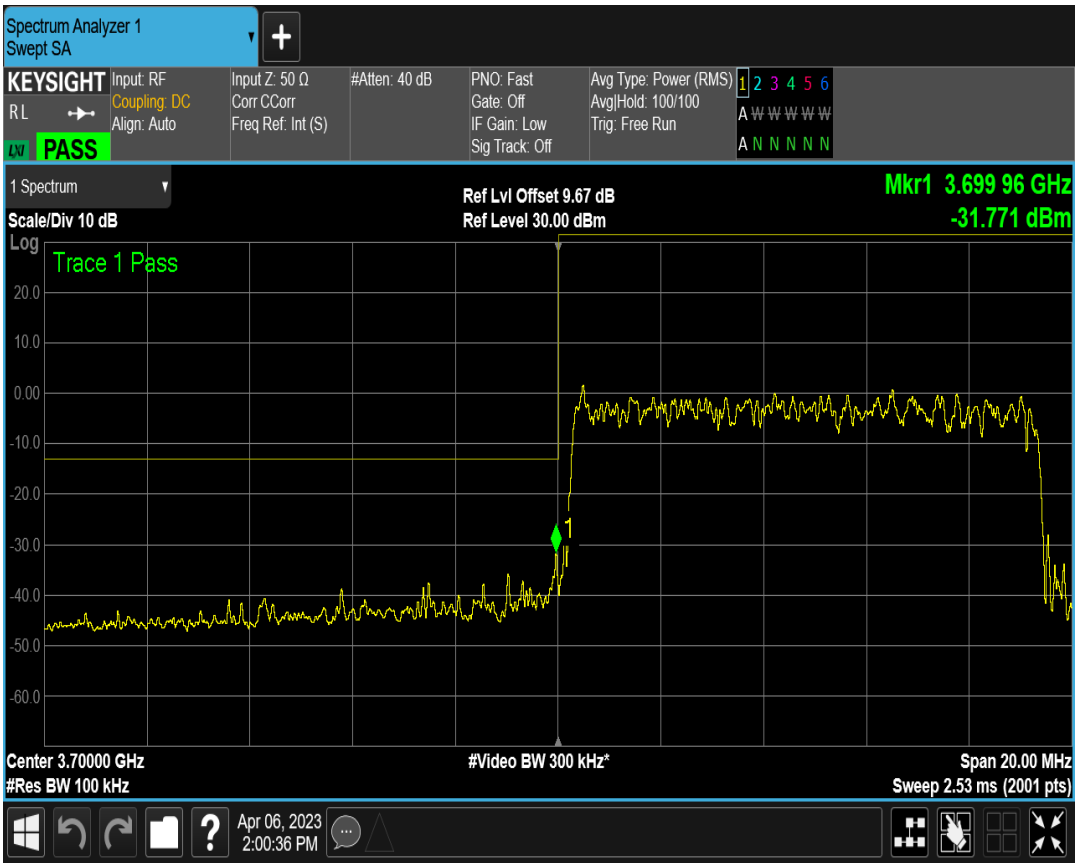


n77(3700-3980) SCS=15kHz CP_QPSK BW=50MHz Channel=663666 RB=270@0

5 Band edge for NR FR1

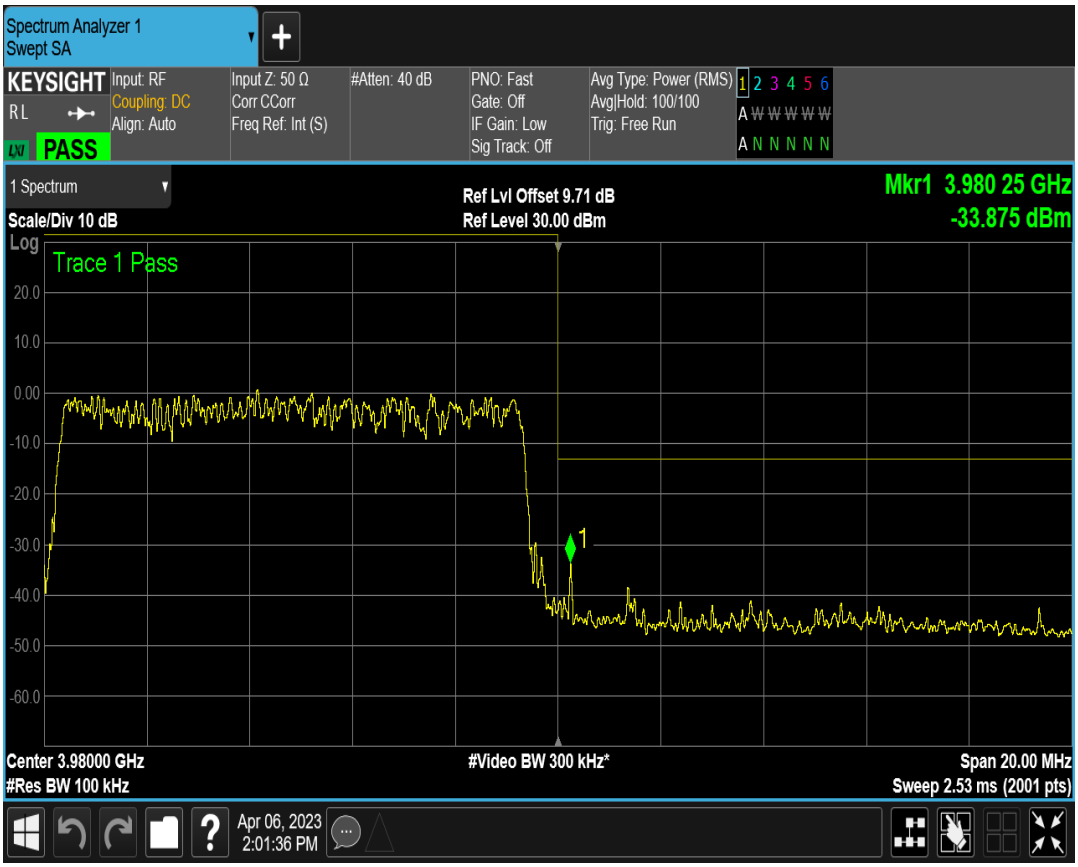
Band	SCS (kHz)	Bandwidth (MHz)	UL Channel	RB Allocation	Modulation	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)	Verdict
n77(3700-3980)	15	10	647000	50@0	DFT_QPSK	3699.96	-31.77	-13	PASS
n77(3700-3980)	15	10	647000	1@0	DFT_QPSK	3700.00	-16.34	-13	PASS
n77(3700-3980)	15	10	665000	50@0	DFT_QPSK	3980.25	-33.87	-13	PASS
n77(3700-3980)	15	10	665000	1@51	DFT_QPSK	3980.02	-13.95	-13	PASS
n77(3700-3980)	15	50	648334	270@0	DFT_QPSK	3693.95	-36.42	-13	PASS
n77(3700-3980)	15	50	648334	1@0	DFT_QPSK	3698.65	-38.00	-13	PASS
n77(3700-3980)	15	50	663666	270@0	DFT_QPSK	3980.00	-31.32	-13	PASS
n77(3700-3980)	15	50	663666	1@269	DFT_QPSK	3980.90	-31.91	-13	PASS

n77(3700-3980) SCS=15kHz DFT_QPSK BW=10MHz Channel=647000 RB=50@0

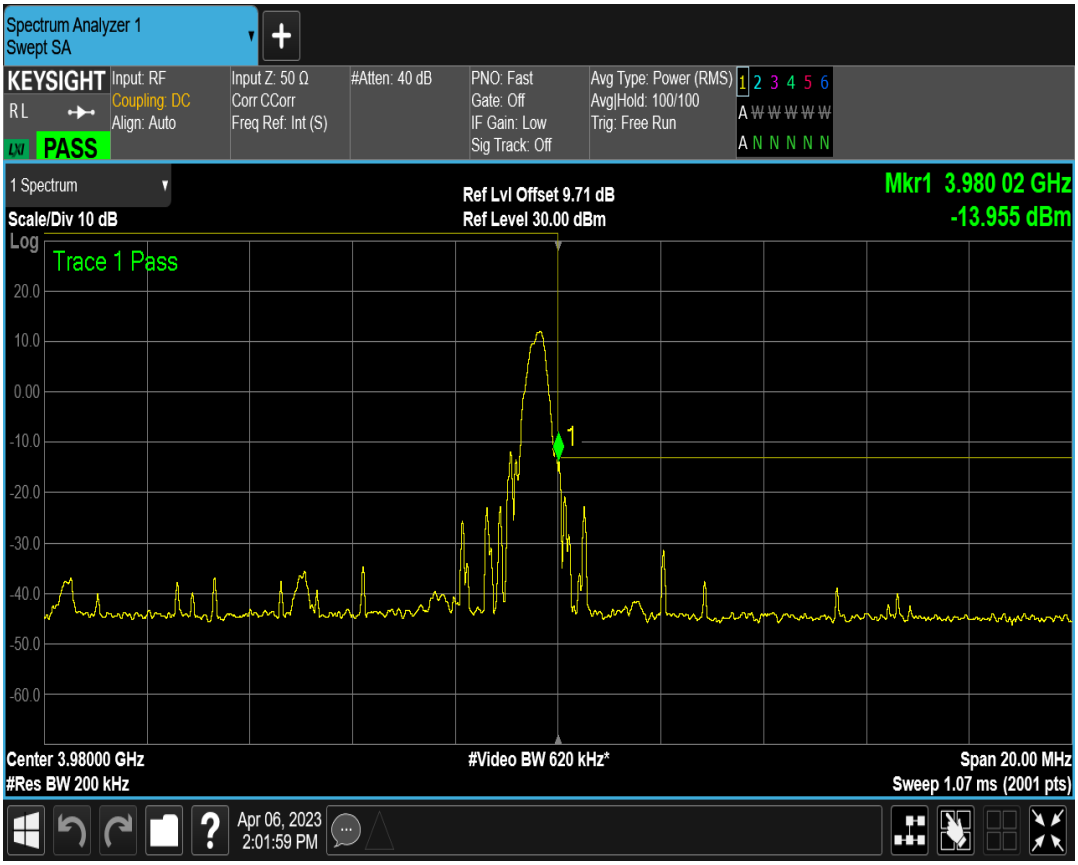


n77(3700-3980) SCS=15kHz DFT_QPSK BW=10MHz Channel=647000 RB=1@0

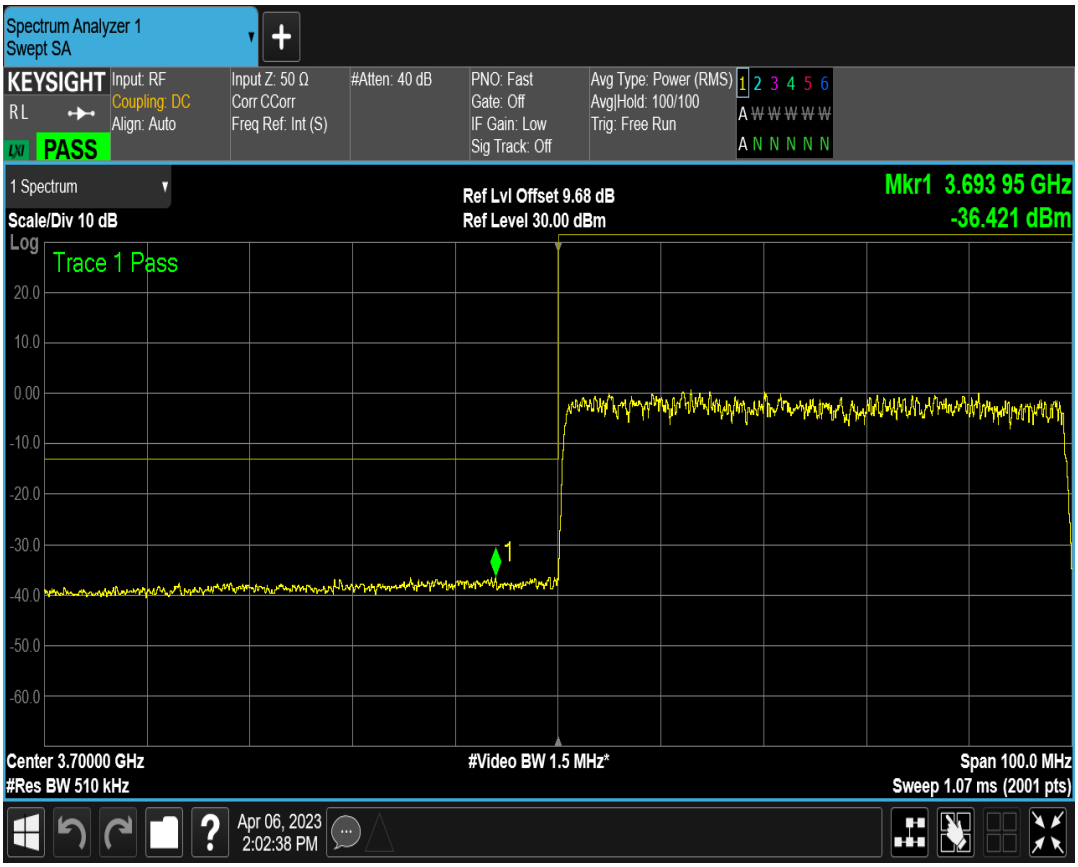
n77(3700-3980) SCS=15kHz DFT_QPSK BW=10MHz Channel=665000 RB=50@0



n77(3700-3980) SCS=15kHz DFT_QPSK BW=10MHz Channel=665000 RB=1@51

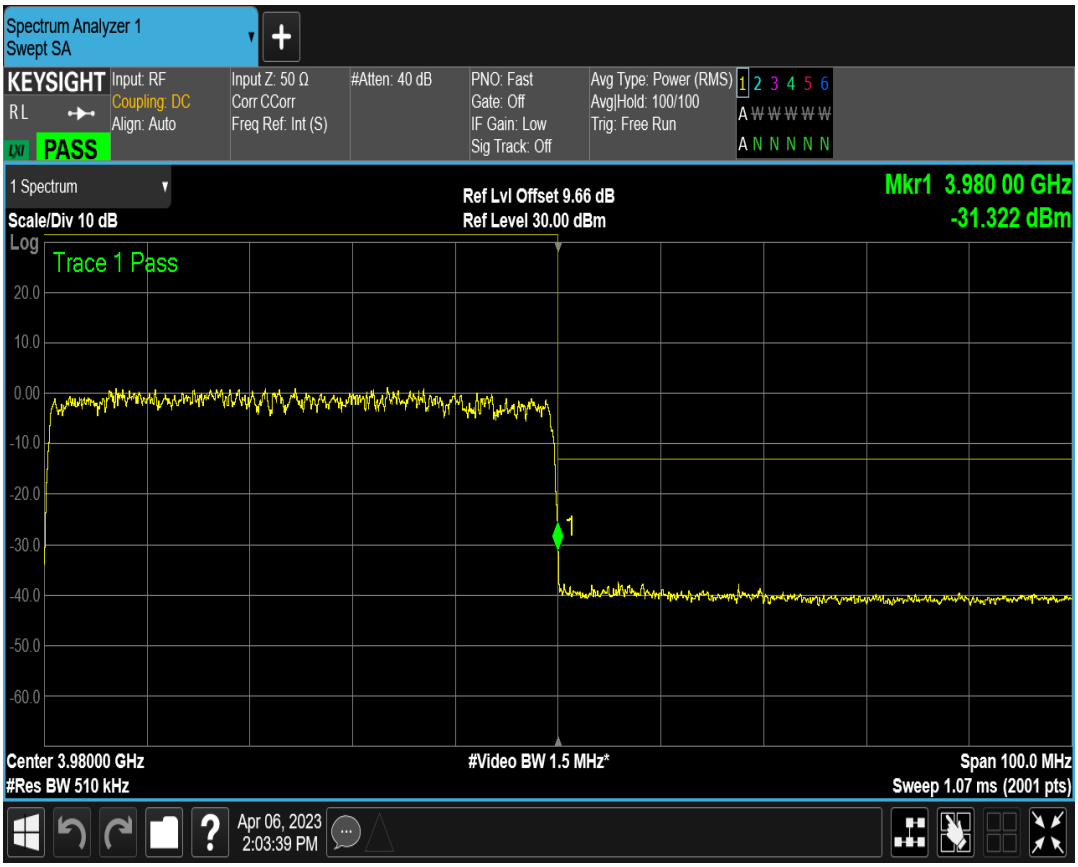


n77(3700-3980) SCS=15kHz DFT_QPSK BW=50MHz Channel=648334 RB=270@0

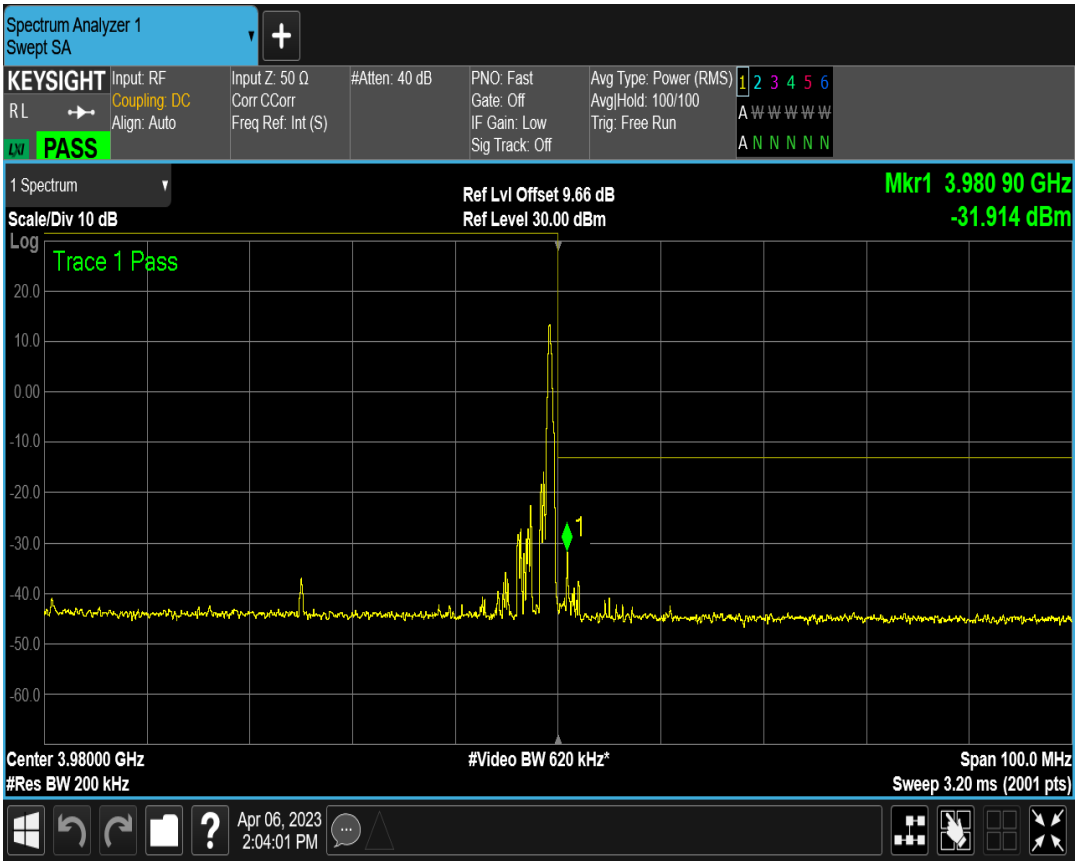


n77(3700-3980) SCS=15kHz DFT_QPSK BW=50MHz Channel=648334 RB=1@0

n77(3700-3980) SCS=15kHz DFT_QPSK BW=50MHz Channel=663666 RB=270@0



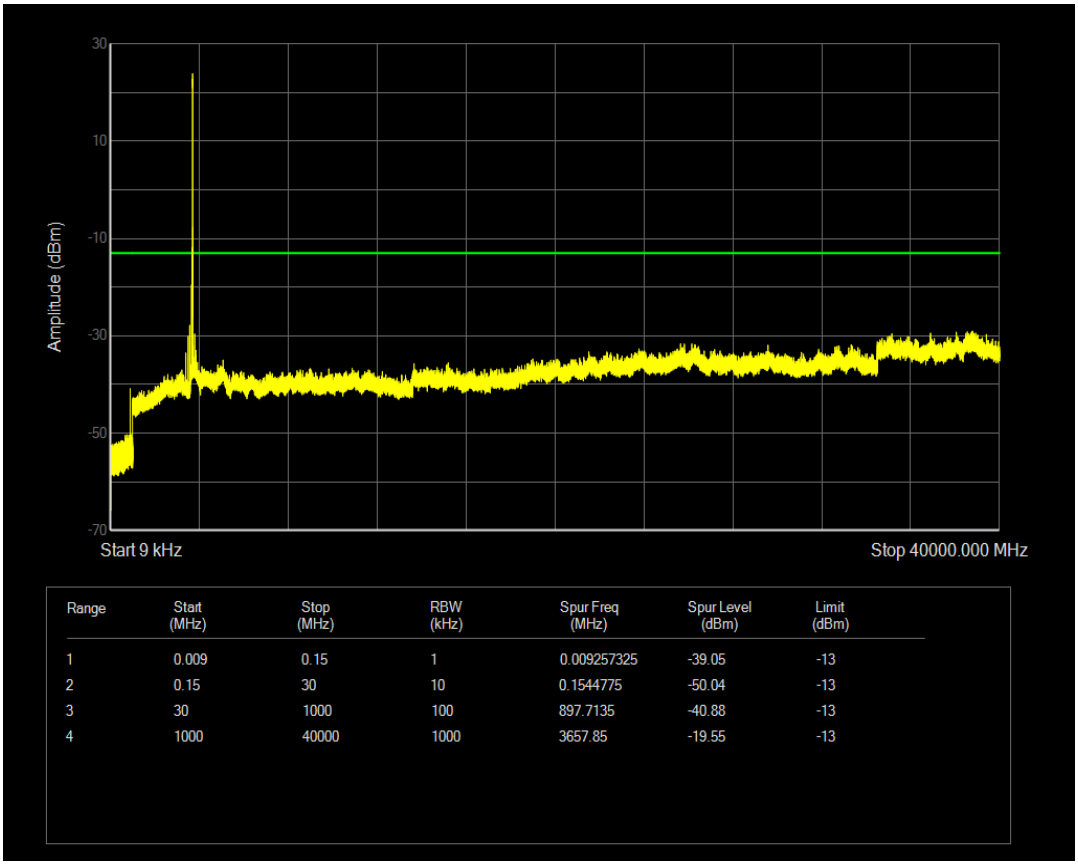
n77(3700-3980) SCS=15kHz DFT_QPSK BW=50MHz Channel=663666 RB=1@269



6 Out-of-band emissions for NR FR1

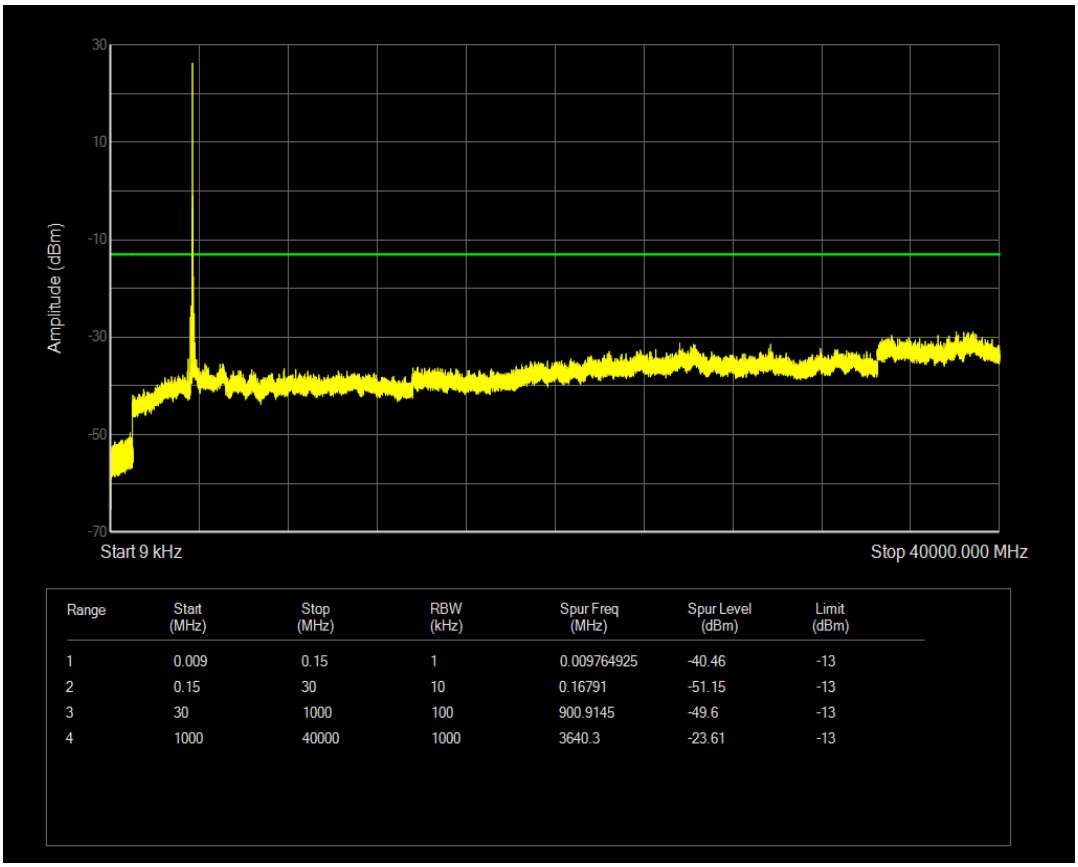
Band	SCS (kHz)	Bandwidth (MHz)	UL Channel	RB Allocation	Modulation	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)	Verdict
n77(3700-3980)	15	10	647000	50@0	DFT_QPSK	3657.85	-19.55	-13	PASS
n77(3700-3980)	15	10	647000	1@0	DFT_QPSK	3640.30	-23.61	-13	PASS
n77(3700-3980)	15	10	647000	1@51	DFT_QPSK	34923.18	-28.82	-13	PASS
n77(3700-3980)	15	10	656000	50@0	DFT_QPSK	3624.70	-29.26	-13	PASS
n77(3700-3980)	15	10	656000	1@0	DFT_QPSK	38799.78	-29.02	-13	PASS
n77(3700-3980)	15	10	656000	1@51	DFT_QPSK	38417.58	-28.59	-13	PASS
n77(3700-3980)	15	10	665000	50@0	DFT_QPSK	4059.55	-25.81	-13	PASS
n77(3700-3980)	15	10	665000	1@0	DFT_QPSK	4038.10	-25.91	-13	PASS
n77(3700-3980)	15	10	665000	1@51	DFT_QPSK	38507.28	-28.90	-13	PASS
n77(3700-3980)	15	50	648334	270@0	DFT_QPSK	38849.50	-29.14	-13	PASS
n77(3700-3980)	15	50	648334	1@0	DFT_QPSK	38808.55	-28.13	-13	PASS
n77(3700-3980)	15	50	648334	1@269	DFT_QPSK	38659.38	-29.34	-13	PASS
n77(3700-3980)	15	50	656000	270@0	DFT_QPSK	38474.13	-28.90	-13	PASS
n77(3700-3980)	15	50	656000	1@0	DFT_QPSK	38170.90	-29.44	-13	PASS
n77(3700-3980)	15	50	656000	1@269	DFT_QPSK	38743.23	-29.12	-13	PASS
n77(3700-3980)	15	50	663666	270@0	DFT_QPSK	38718.85	-29.02	-13	PASS
n77(3700-3980)	15	50	663666	1@0	DFT_QPSK	38745.18	-29.06	-13	PASS
n77(3700-3980)	15	50	663666	1@269	DFT_QPSK	38947.98	-29.32	-13	PASS

n77(3700-3980) SCS=15kHz DFT_QPSK BW=10MHz Channel=647000 RB=50@0



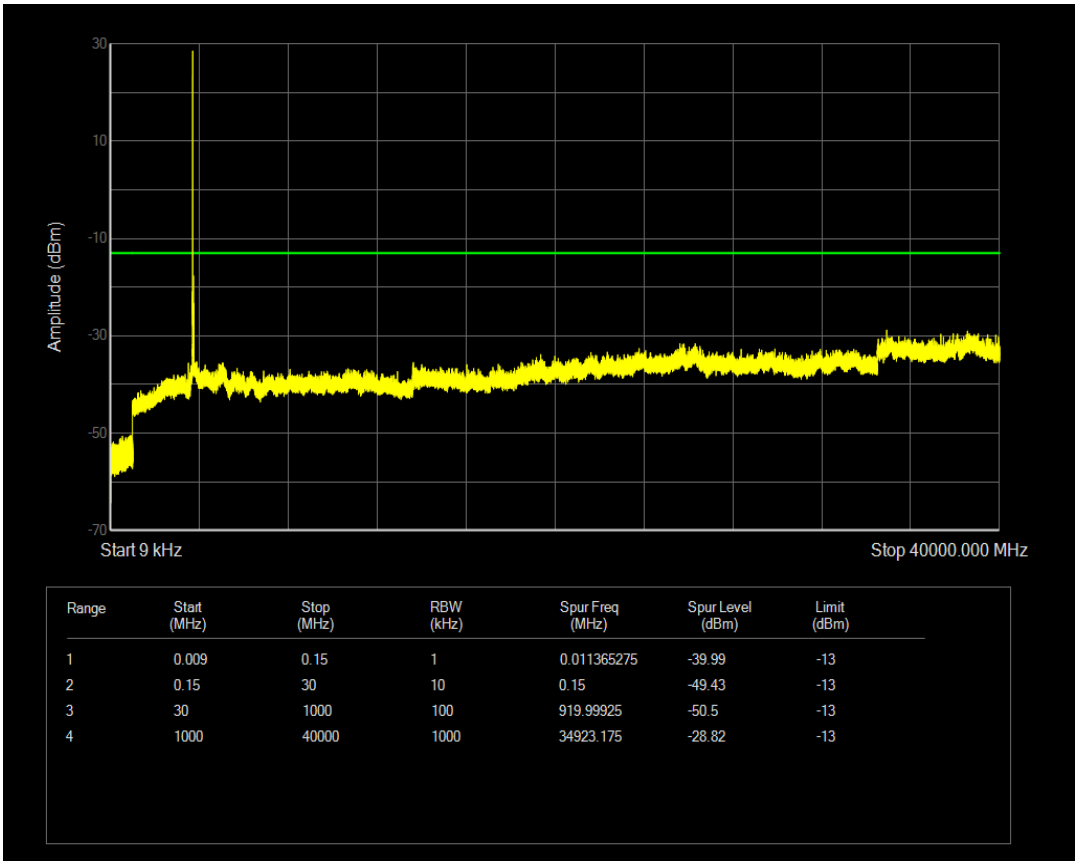
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.009257325	-39.05	-13
2	0.15	30	10	0.1544775	-50.04	-13
3	30	1000	100	897.7135	-40.88	-13
4	1000	40000	1000	3657.85	-19.55	-13

n77(3700-3980) SCS=15kHz DFT_QPSK BW=10MHz Channel=647000 RB=1@0



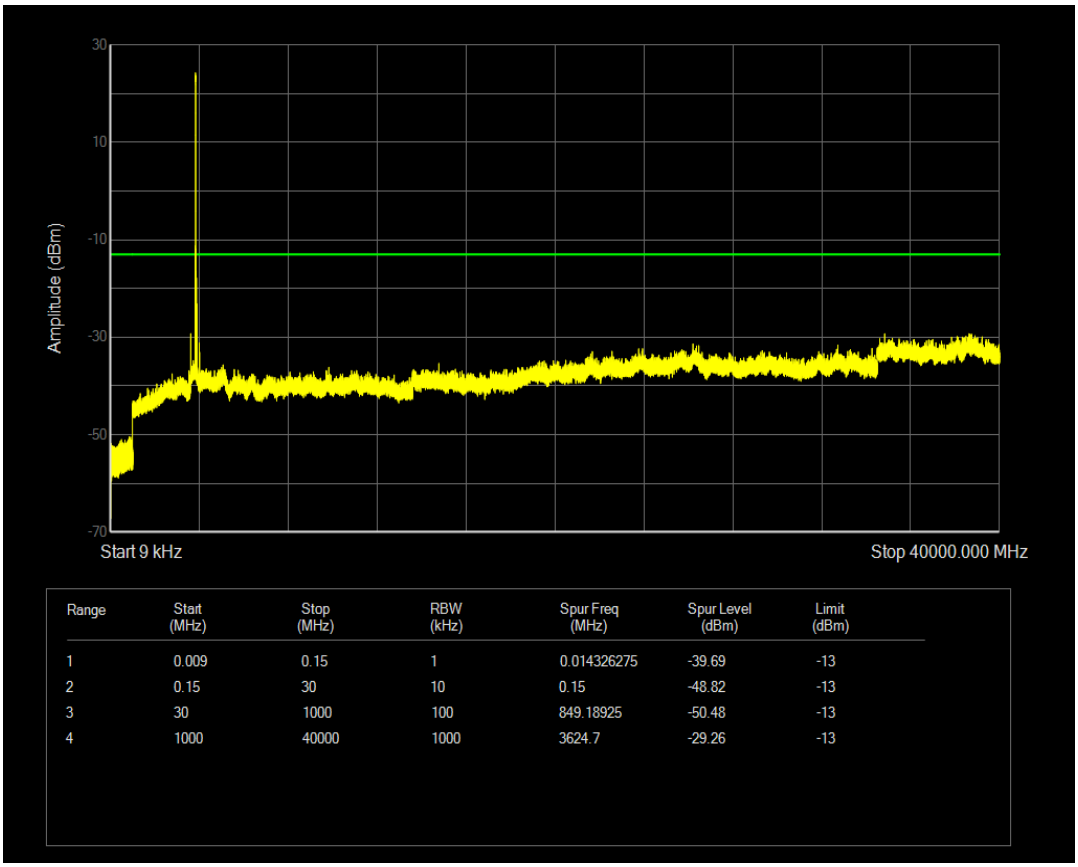
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.009764925	-40.46	-13
2	0.15	30	10	0.16791	-51.15	-13
3	30	1000	100	900.9145	-49.6	-13
4	1000	40000	1000	3640.3	-23.61	-13

n77(3700-3980) SCS=15kHz DFT_QPSK BW=10MHz Channel=647000 RB=1@51



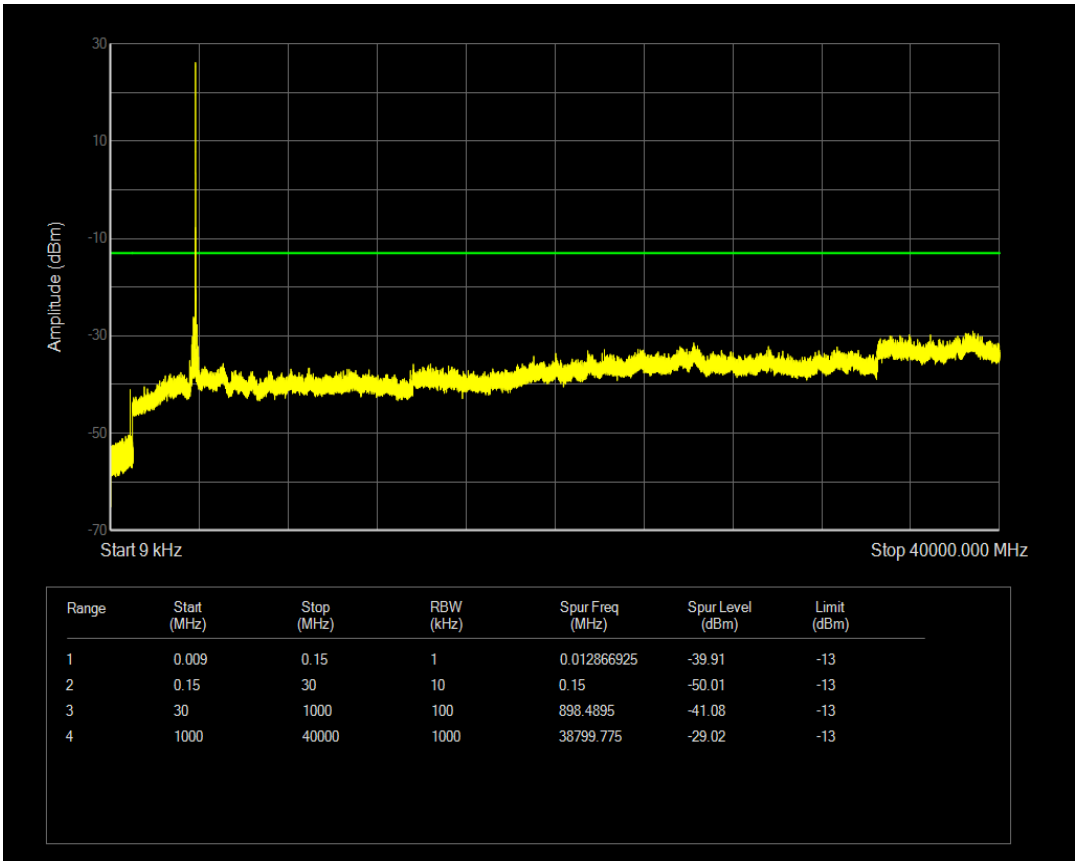
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.011365275	-39.99	-13
2	0.15	30	10	0.15	-49.43	-13
3	30	1000	100	919.99925	-50.5	-13
4	1000	40000	1000	34923.175	-28.82	-13

n77(3700-3980) SCS=15kHz DFT_QPSK BW=10MHz Channel=656000 RB=50@0



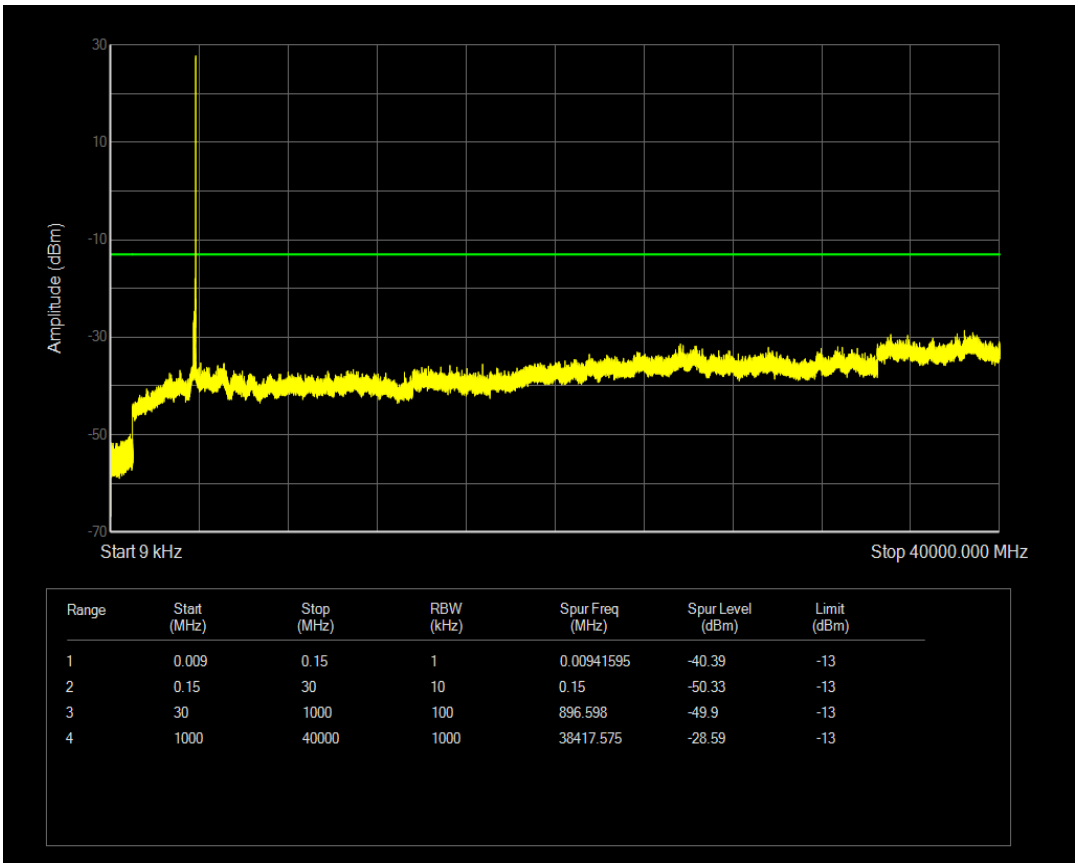
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.014326275	-39.69	-13
2	0.15	30	10	0.15	-48.82	-13
3	30	1000	100	849.18925	-50.48	-13
4	1000	40000	1000	3624.7	-29.26	-13

n77(3700-3980) SCS=15kHz DFT_QPSK BW=10MHz Channel=656000 RB=1@0



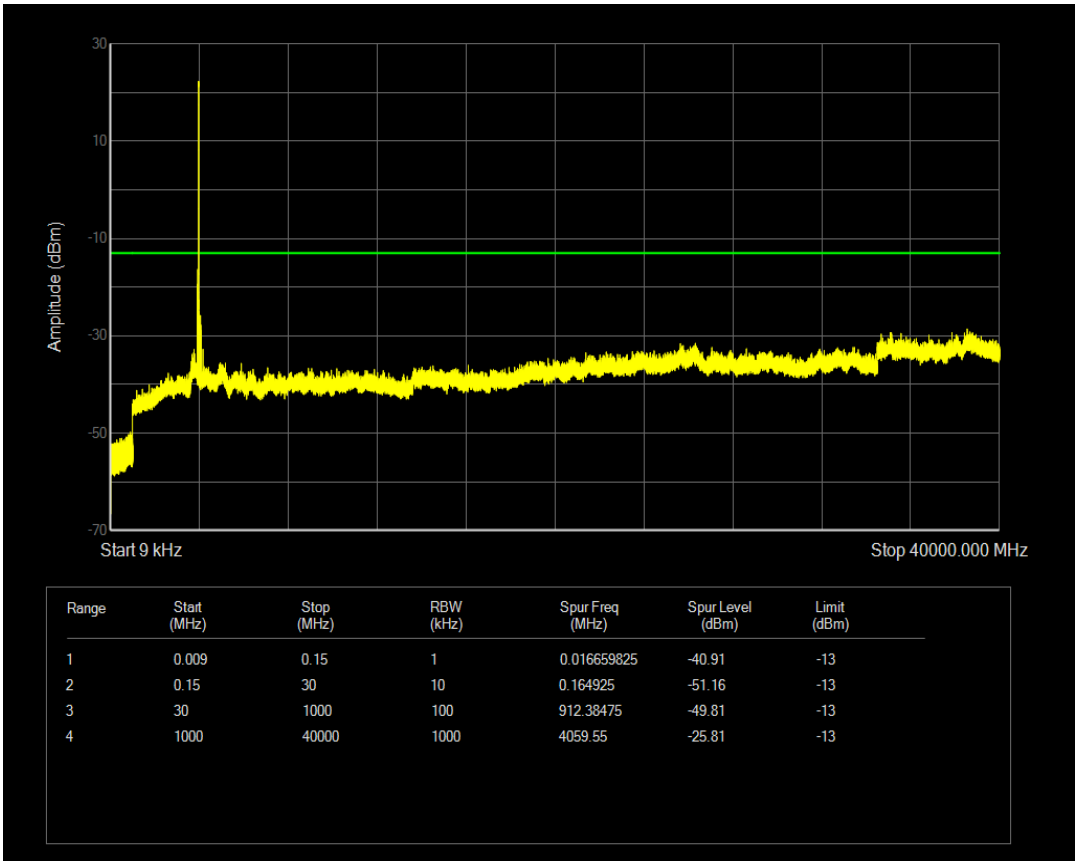
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.012866925	-39.91	-13
2	0.15	30	10	0.15	-50.01	-13
3	30	1000	100	898.4895	-41.08	-13
4	1000	40000	1000	38799.775	-29.02	-13

n77(3700-3980) SCS=15kHz DFT_QPSK BW=10MHz Channel=656000 RB=1@51



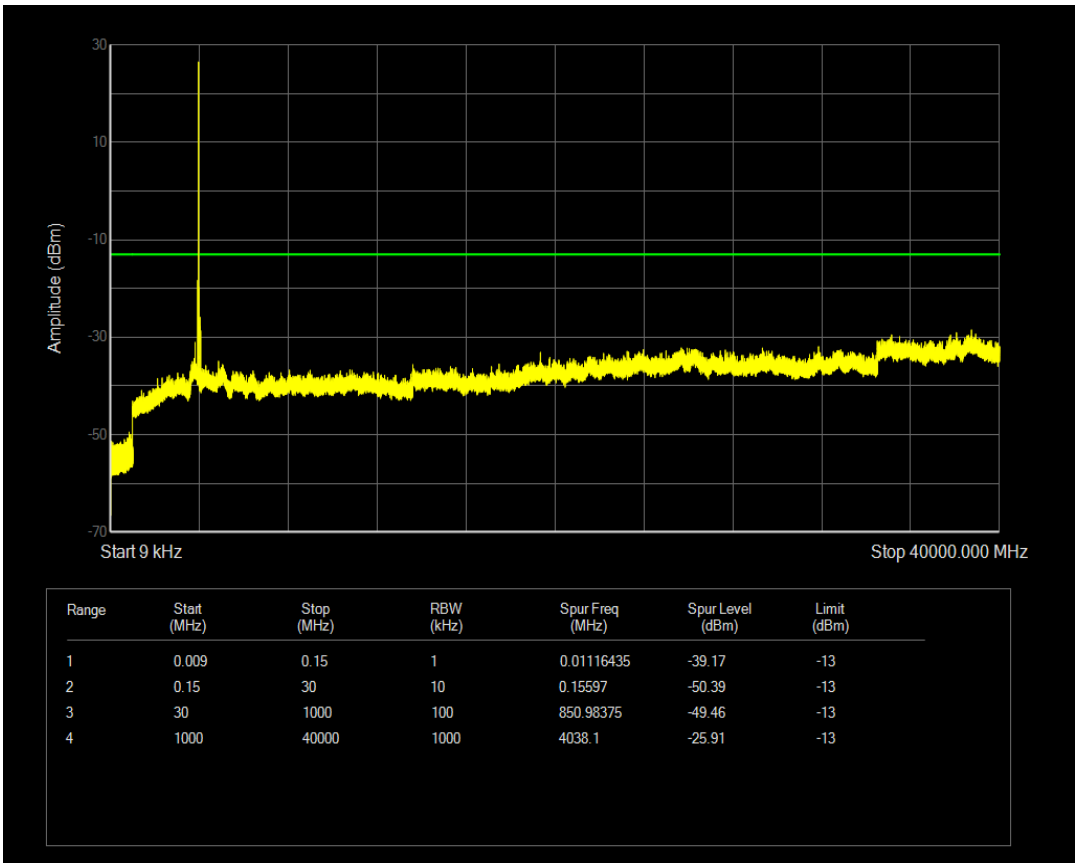
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.00941595	-40.39	-13
2	0.15	30	10	0.15	-50.33	-13
3	30	1000	100	896.598	-49.9	-13
4	1000	40000	1000	38417.575	-28.59	-13

n77(3700-3980) SCS=15kHz DFT_QPSK BW=10MHz Channel=665000 RB=50@0



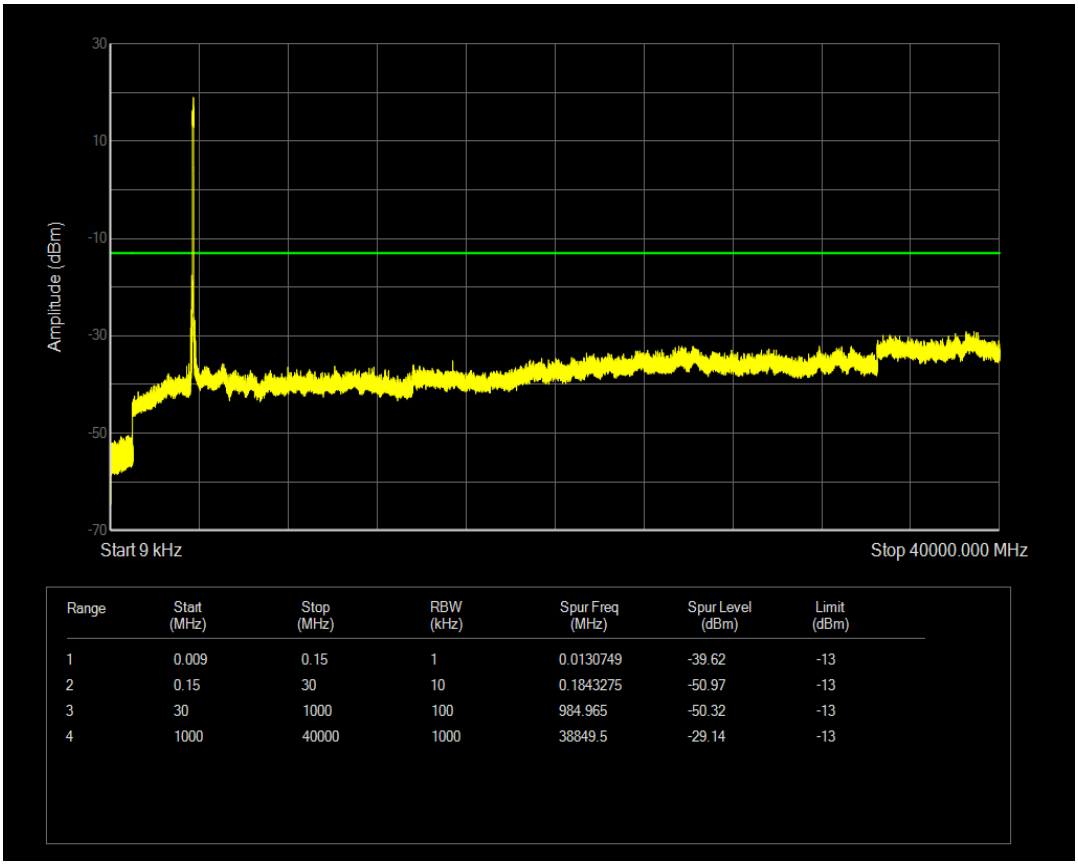
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.016659825	-40.91	-13
2	0.15	30	10	0.164925	-51.16	-13
3	30	1000	100	912.38475	-49.81	-13
4	1000	40000	1000	4059.55	-25.81	-13

n77(3700-3980) SCS=15kHz DFT_QPSK BW=10MHz Channel=665000 RB=1@0



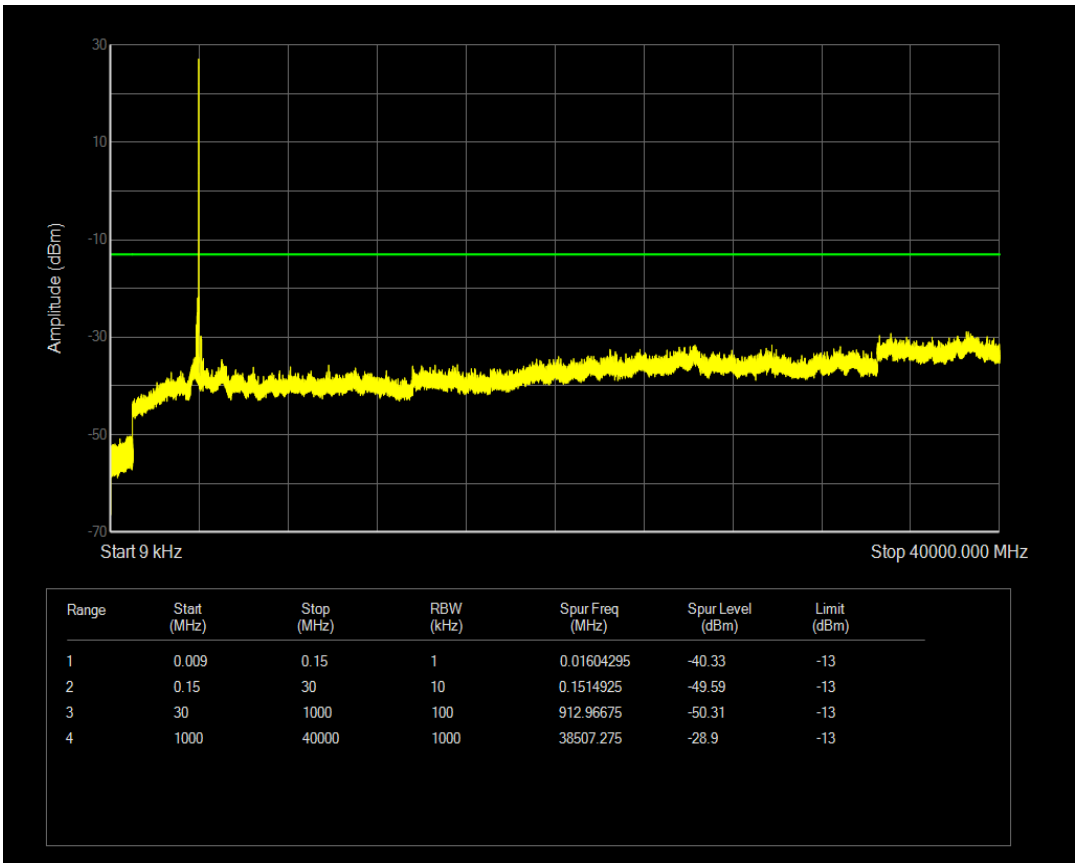
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.01116435	-39.17	-13
2	0.15	30	10	0.15597	-50.39	-13
3	30	1000	100	850.98375	-49.46	-13
4	1000	40000	1000	4038.1	-25.91	-13

n77(3700-3980) SCS=15kHz DFT_QPSK BW=50MHz Channel=648334 RB=270@0



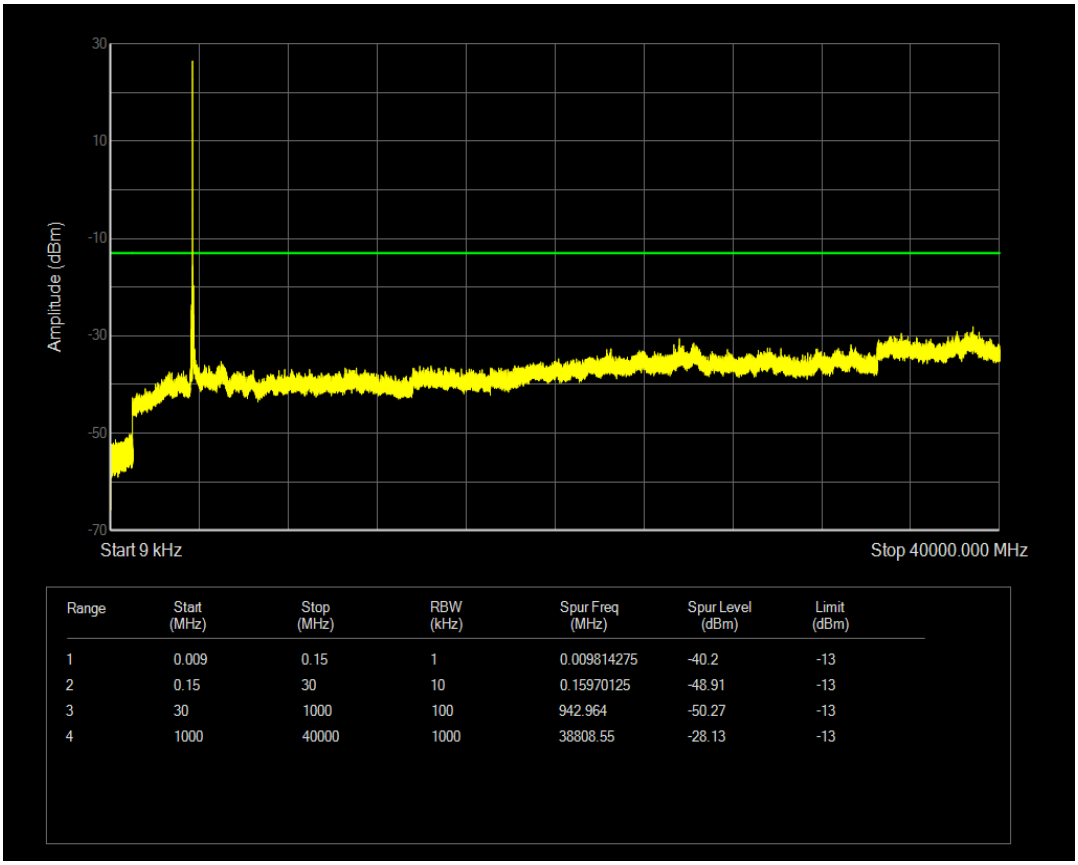
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.0130749	-39.62	-13
2	0.15	30	10	0.1843275	-50.97	-13
3	30	1000	100	984.965	-50.32	-13
4	1000	40000	1000	38849.5	-29.14	-13

n77(3700-3980) SCS=15kHz DFT_QPSK BW=10MHz Channel=665000 RB=1@51



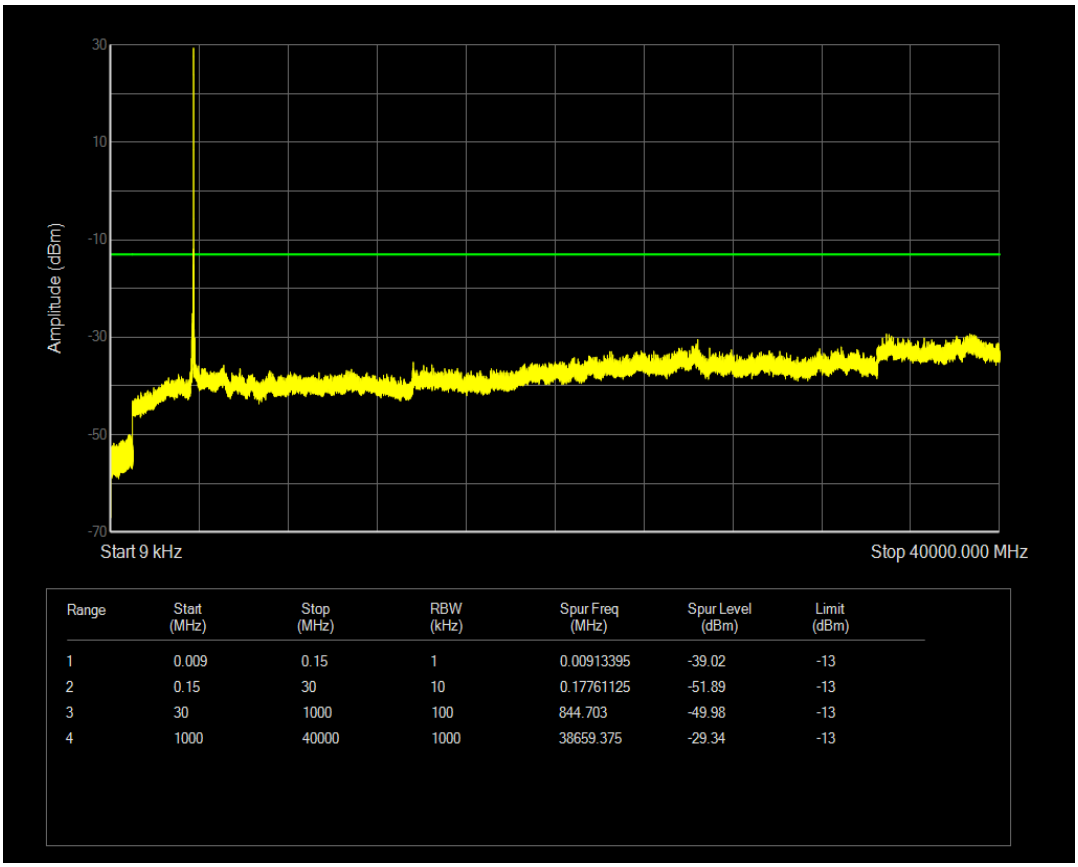
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.01604295	-40.33	-13
2	0.15	30	10	0.1514925	-49.59	-13
3	30	1000	100	912.96675	-50.31	-13
4	1000	40000	1000	38507.275	-28.9	-13

n77(3700-3980) SCS=15kHz DFT_QPSK BW=50MHz Channel=648334 RB=1@0



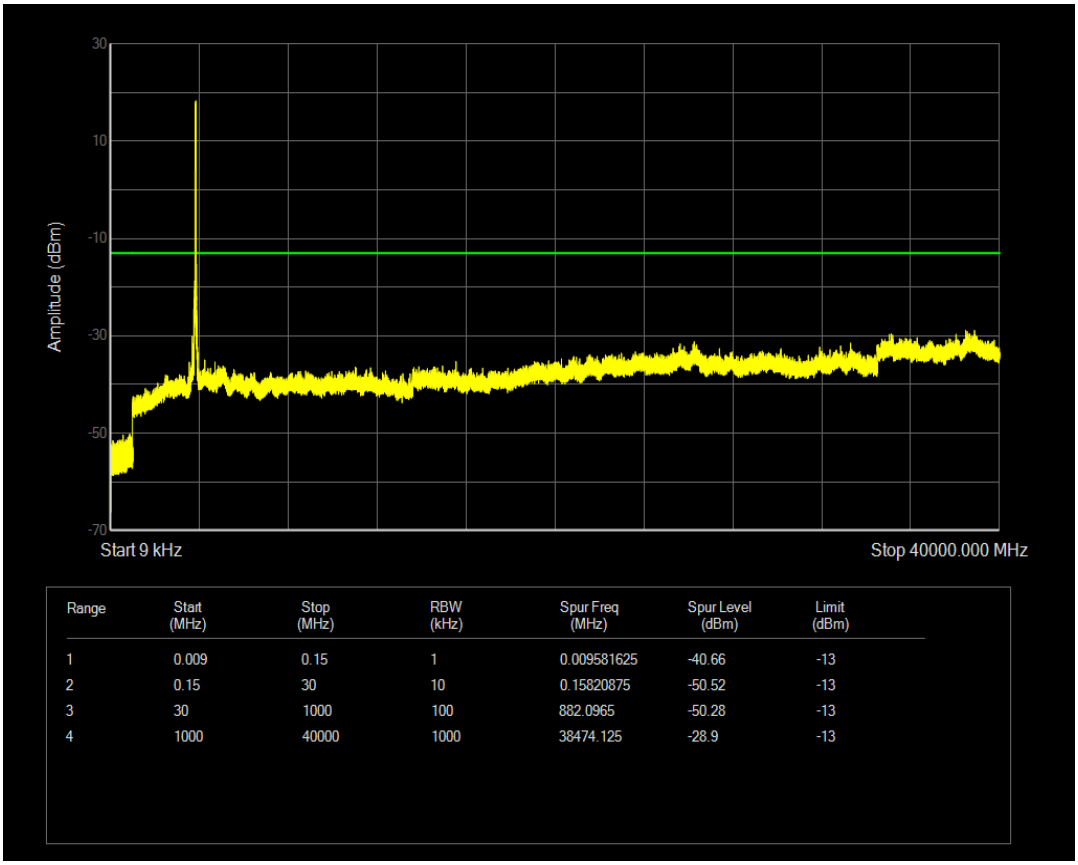
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.009814275	-40.2	-13
2	0.15	30	10	0.15970125	-48.91	-13
3	30	1000	100	942.964	-50.27	-13
4	1000	40000	1000	38808.55	-28.13	-13

n77(3700-3980) SCS=15kHz DFT_QPSK BW=50MHz Channel=648334 RB=1@269



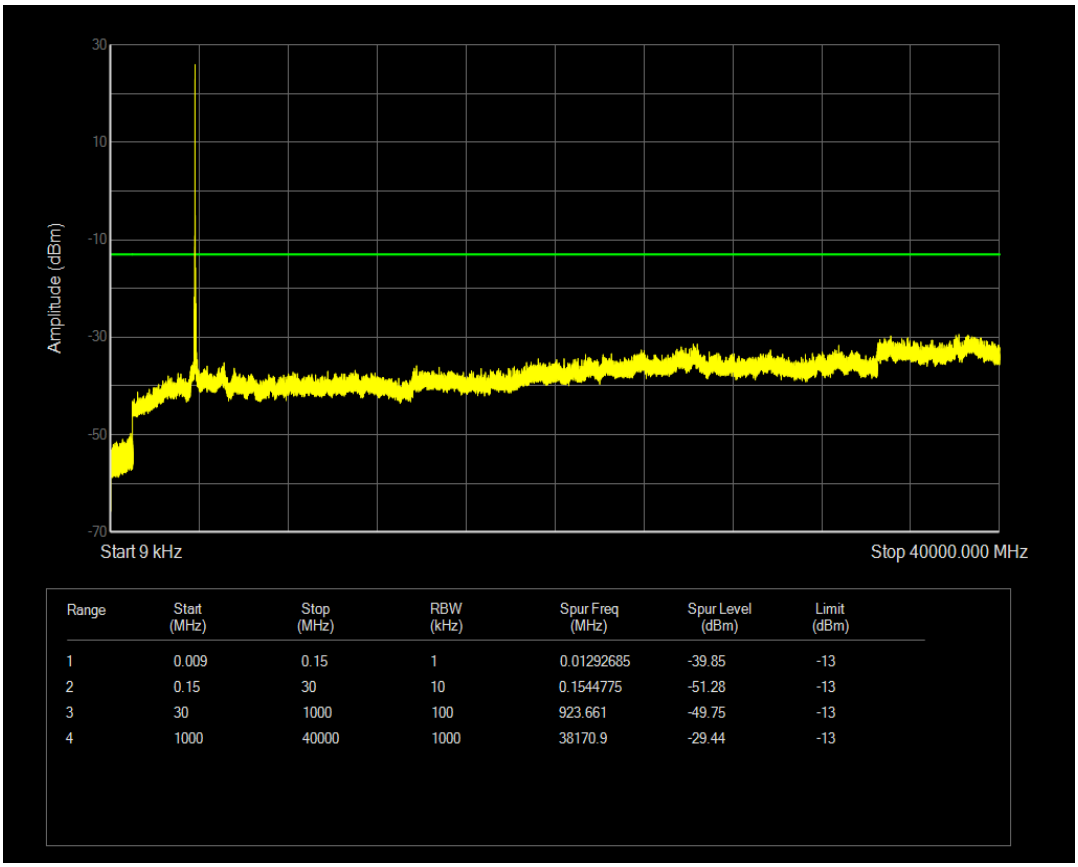
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.00913395	-39.02	-13
2	0.15	30	10	0.17761125	-51.89	-13
3	30	1000	100	844.703	-49.98	-13
4	1000	40000	1000	38659.375	-29.34	-13

n77(3700-3980) SCS=15kHz DFT_QPSK BW=50MHz Channel=656000 RB=270@0



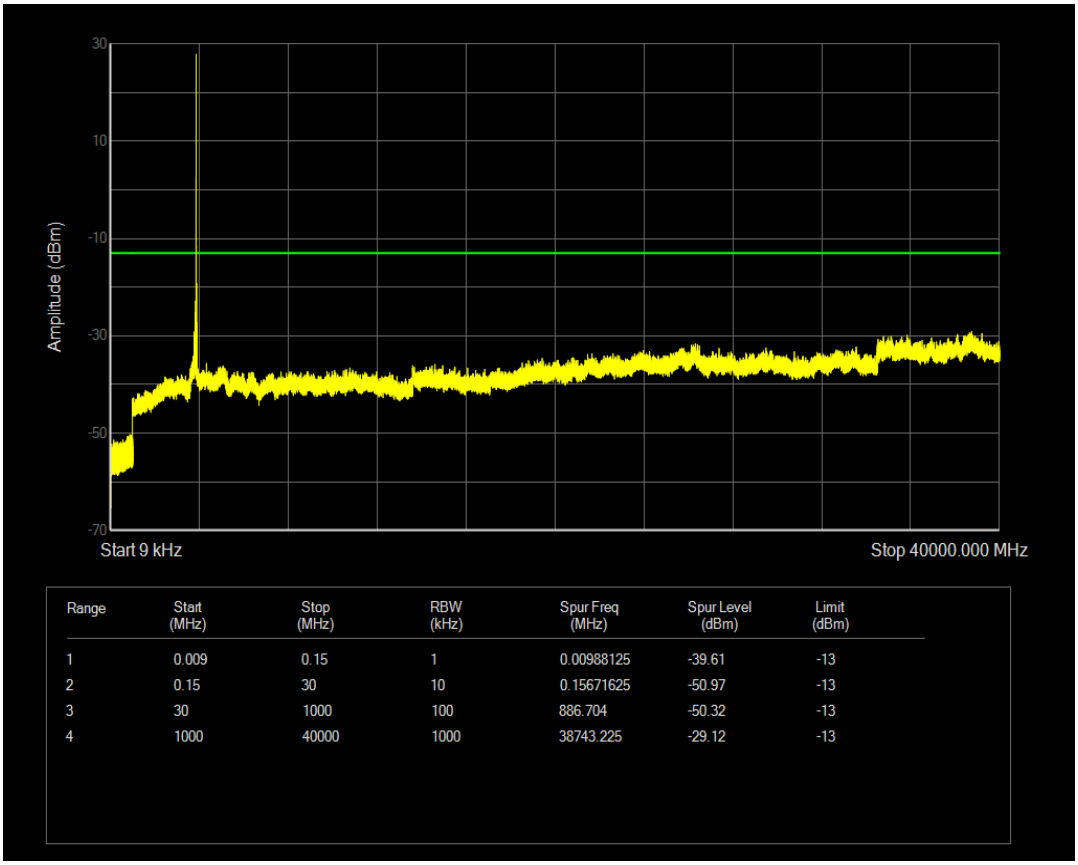
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.009581625	-40.66	-13
2	0.15	30	10	0.15820875	-50.52	-13
3	30	1000	100	882.0965	-50.28	-13
4	1000	40000	1000	38474.125	-28.9	-13

n77(3700-3980) SCS=15kHz DFT_QPSK BW=50MHz Channel=656000 RB=1@0



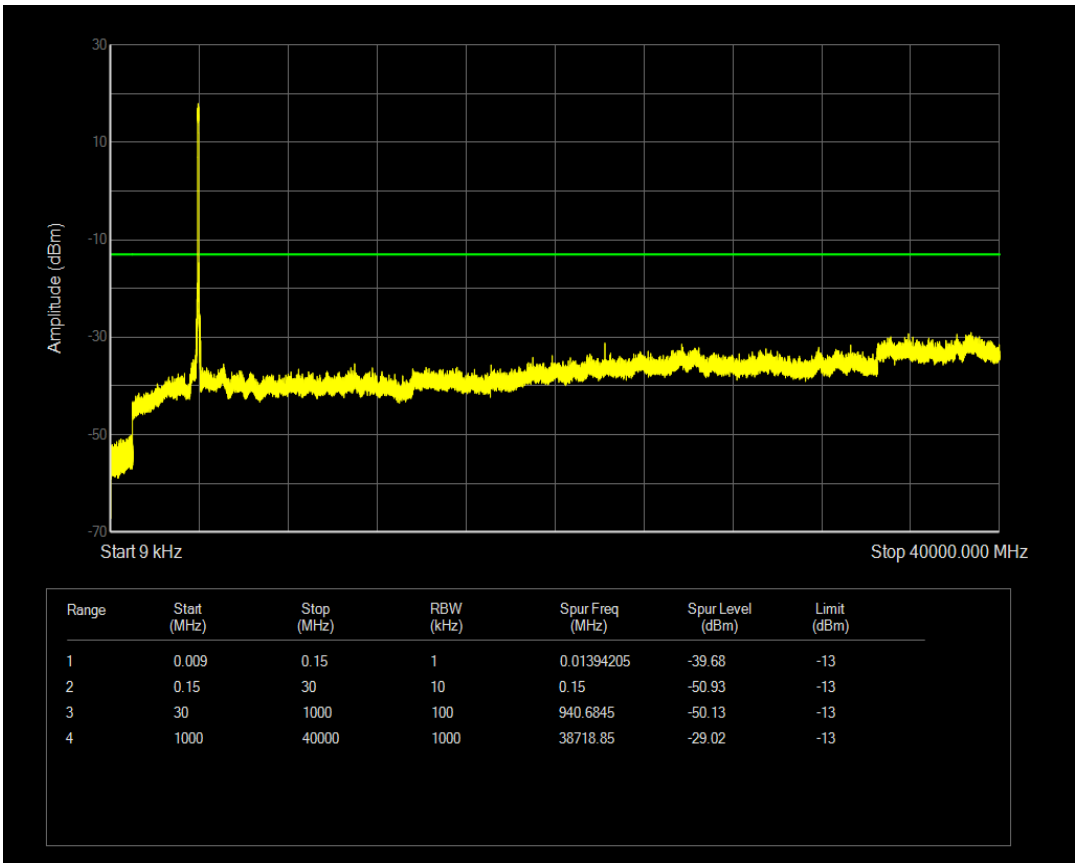
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.01292685	-39.85	-13
2	0.15	30	10	0.1544775	-51.28	-13
3	30	1000	100	923.661	-49.75	-13
4	1000	40000	1000	38170.9	-29.44	-13

n77(3700-3980) SCS=15kHz DFT_QPSK BW=50MHz Channel=656000 RB=1@269



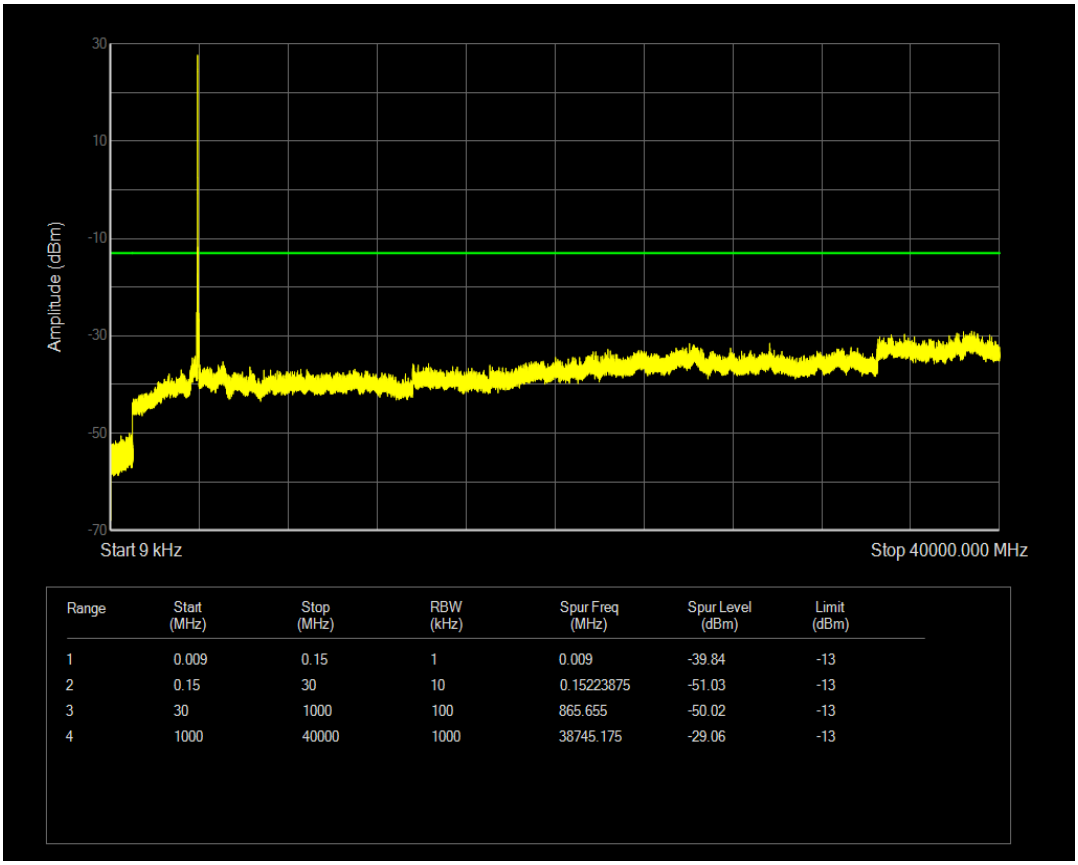
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.00988125	-39.61	-13
2	0.15	30	10	0.15671625	-50.97	-13
3	30	1000	100	886.704	-50.32	-13
4	1000	40000	1000	38743.225	-29.12	-13

n77(3700-3980) SCS=15kHz DFT_QPSK BW=50MHz Channel=663666 RB=270@0



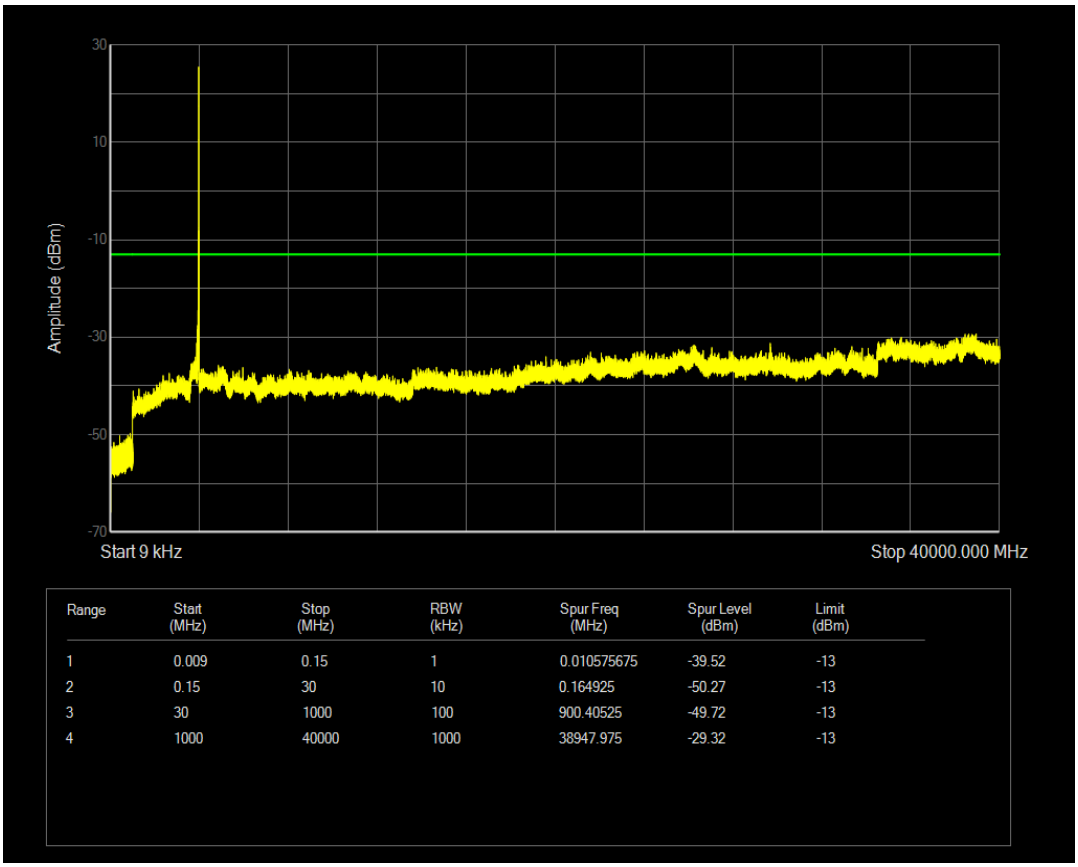
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.01394205	-39.68	-13
2	0.15	30	10	0.15	-50.93	-13
3	30	1000	100	940.6845	-50.13	-13
4	1000	40000	1000	38718.85	-29.02	-13

n77(3700-3980) SCS=15kHz DFT_QPSK BW=50MHz Channel=663666 RB=1@0



Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.009	-39.84	-13
2	0.15	30	10	0.15223875	-51.03	-13
3	30	1000	100	865.655	-50.02	-13
4	1000	40000	1000	38745.175	-29.06	-13

n77(3700-3980) SCS=15kHz DFT_QPSK BW=50MHz Channel=663666 RB=1@269



Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.010575675	-39.52	-13
2	0.15	30	10	0.164925	-50.27	-13
3	30	1000	100	900.40525	-49.72	-13
4	1000	40000	1000	38947.975	-29.32	-13