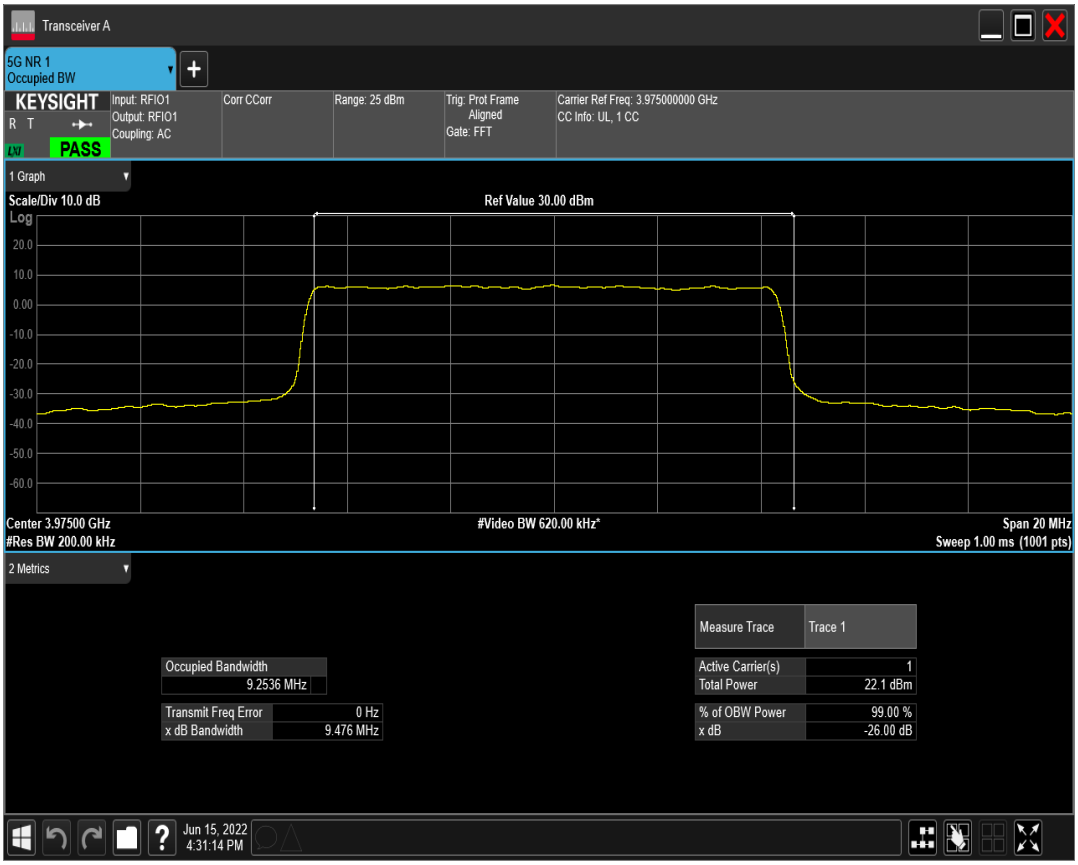
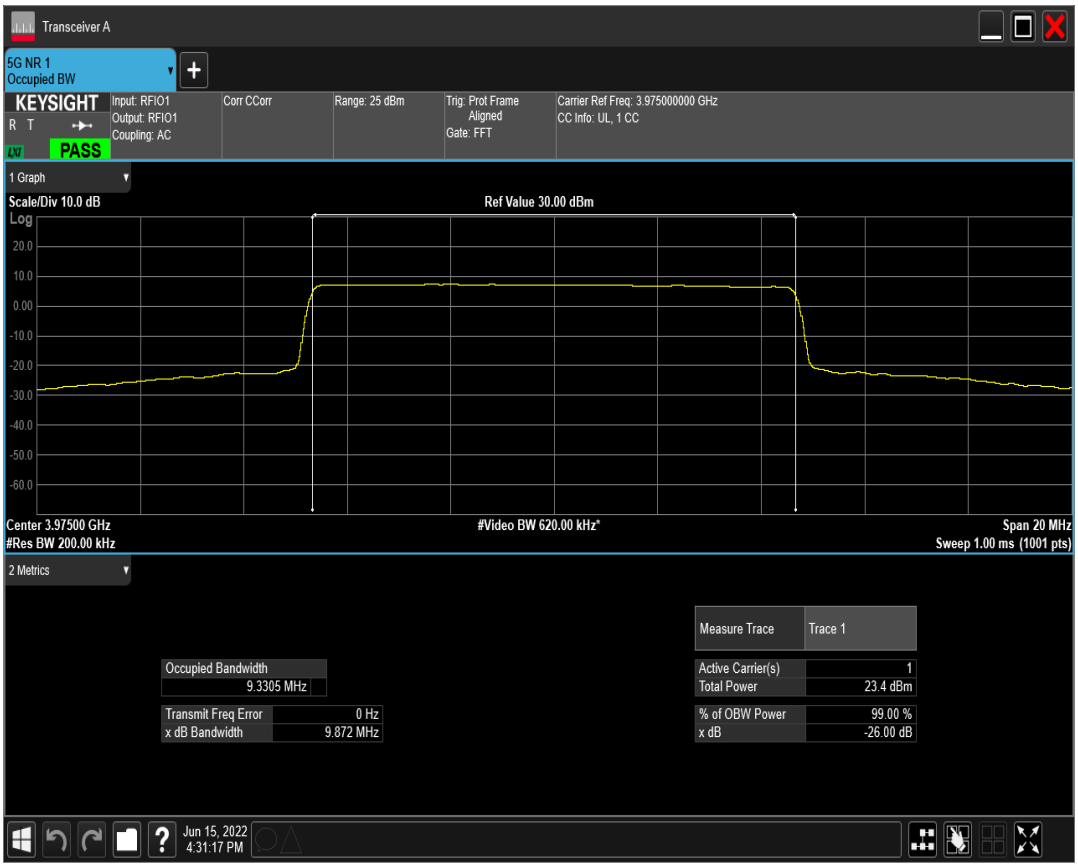
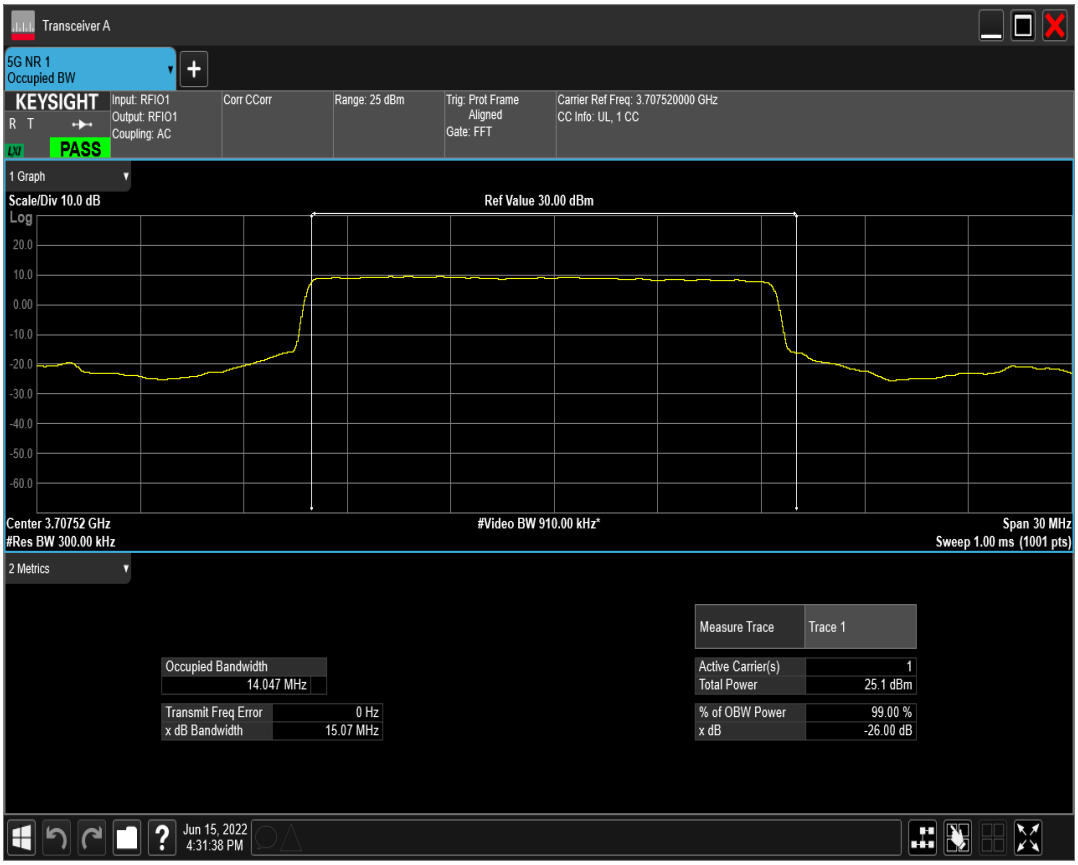
n77(3700-3980) SCS=15kHz DFT_QAM256 BW=10MHz Channel=665000 RB=50@0



n77(3700-3980) SCS=15kHz CP_QPSK BW=10MHz Channel=665000 RB=52@0



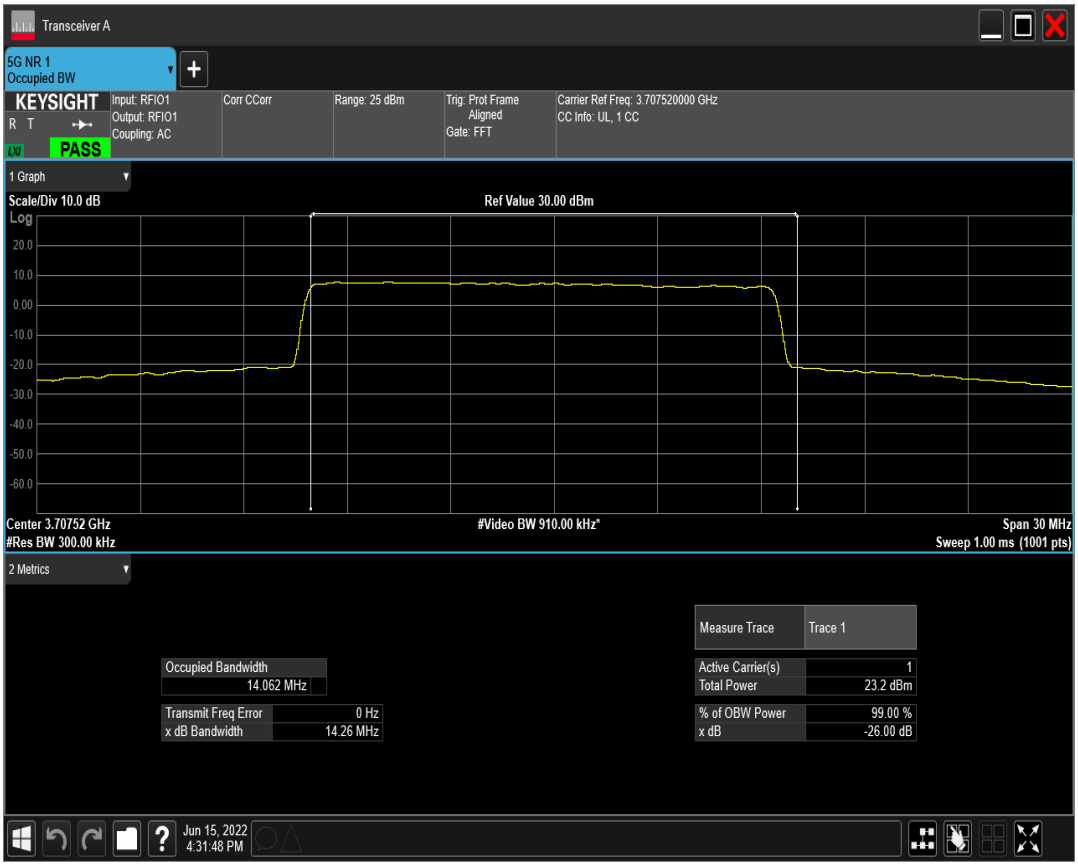
n77(3700-3980) SCS=15kHz DFT_BPSK BW=15MHz Channel=647168 RB=75@0



n77(3700-3980) SCS=15kHz DFT_QPSK BW=15MHz Channel=647168 RB=75@0

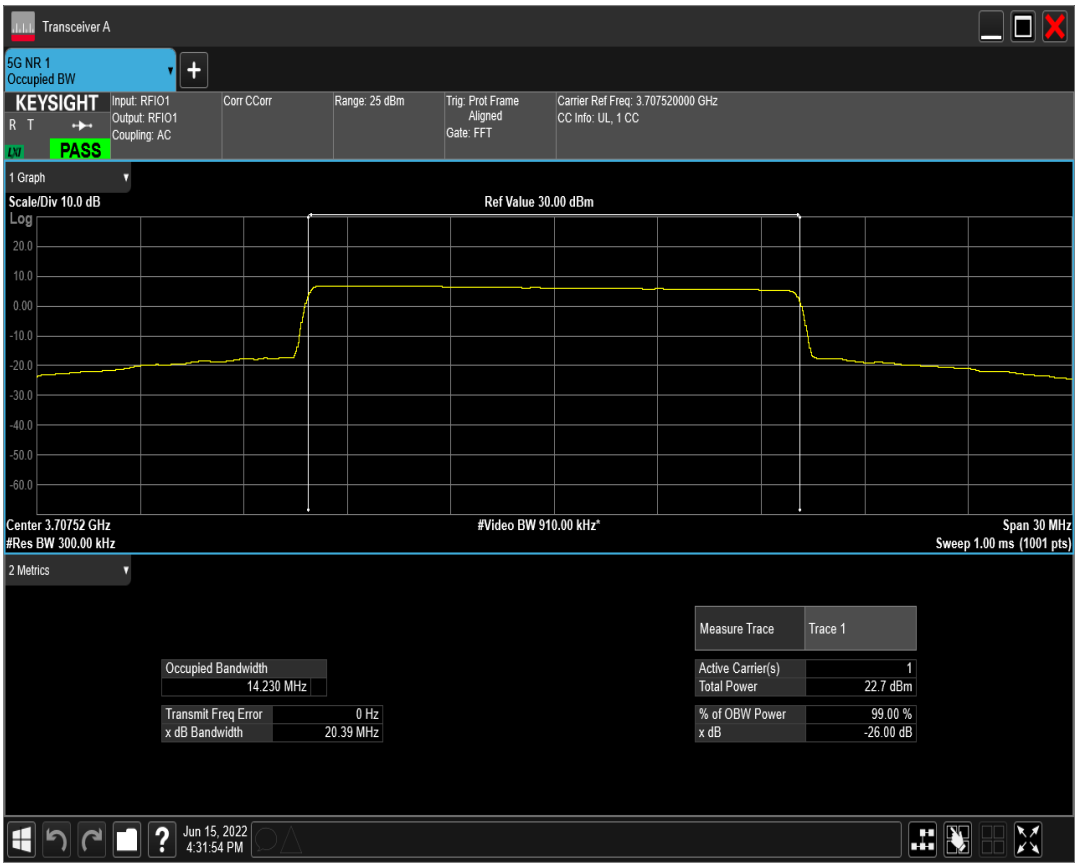
n77(3700-3980) SCS=15kHz DFT_QAM16 BW=15MHz Channel=647168 RB=75@0

n77(3700-3980) SCS=15kHz DFT_QAM64 BW=15MHz Channel=647168 RB=75@0

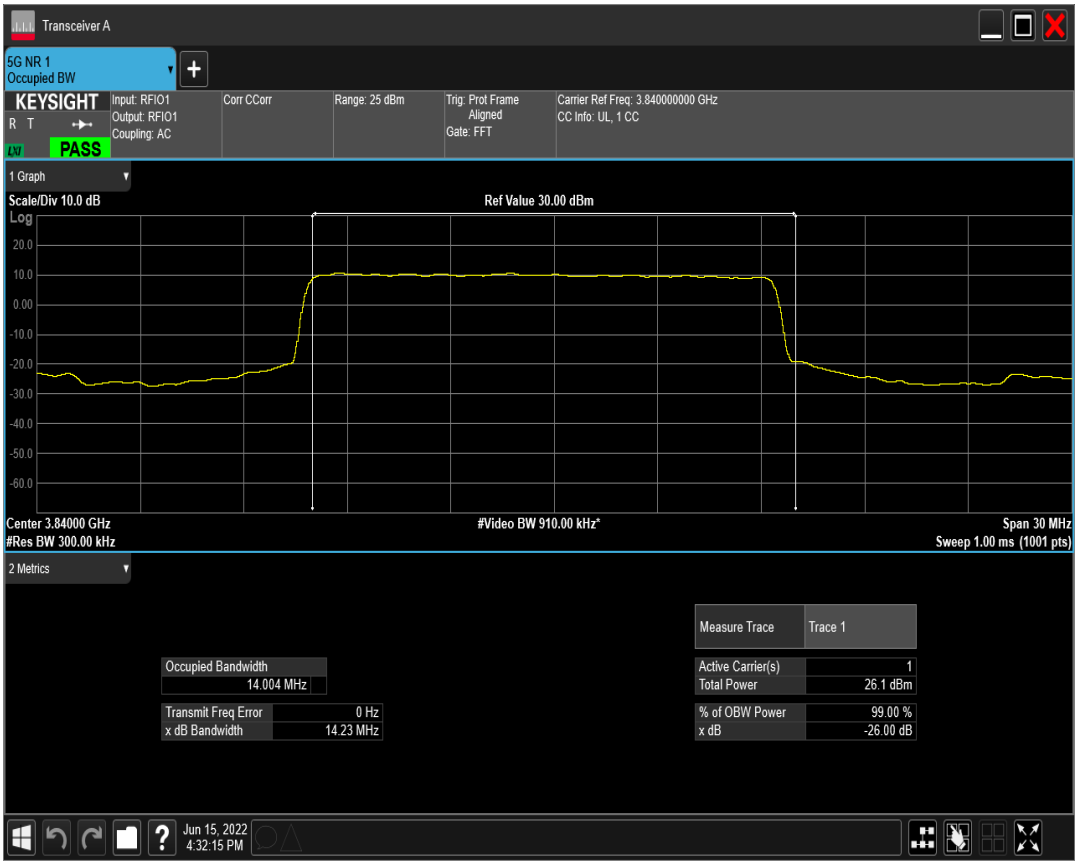


n77(3700-3980) SCS=15kHz DFT_QAM256 BW=15MHz Channel=647168 RB=75@0

n77(3700-3980) SCS=15kHz CP_QPSK BW=15MHz Channel=647168 RB=79@0



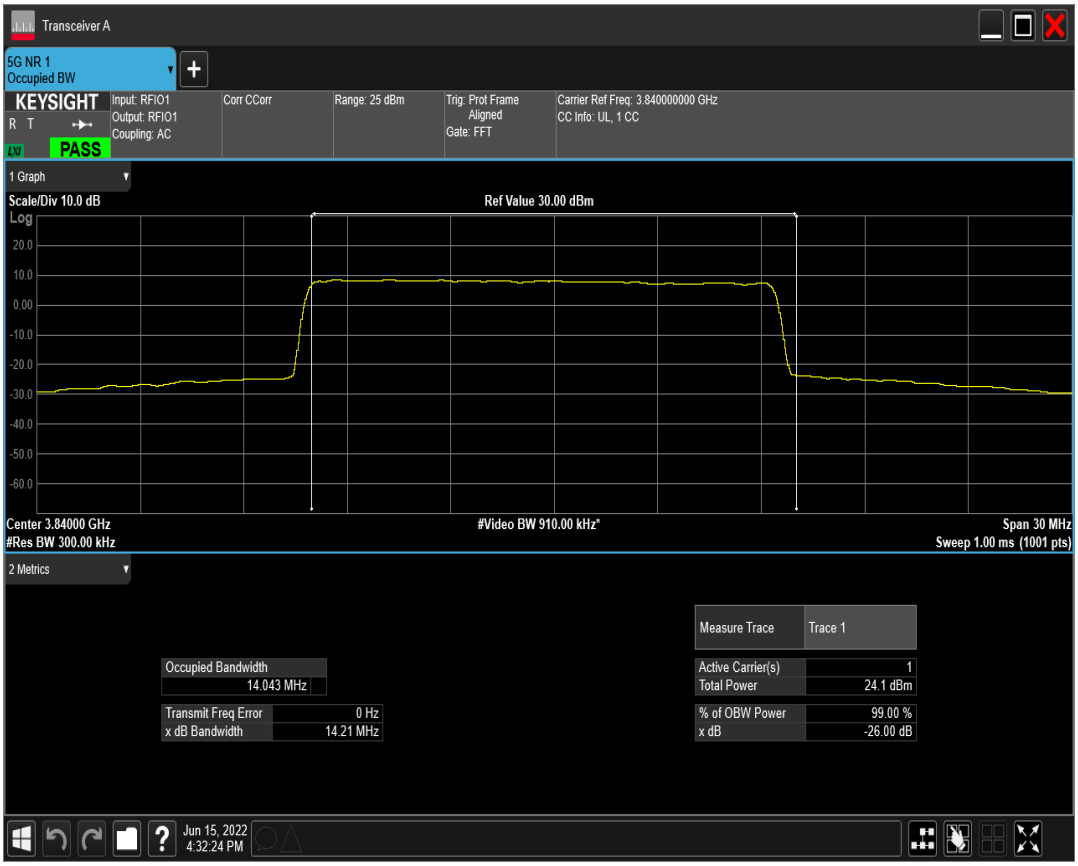
n77(3700-3980) SCS=15kHz DFT_BPSK BW=15MHz Channel=656000 RB=75@0



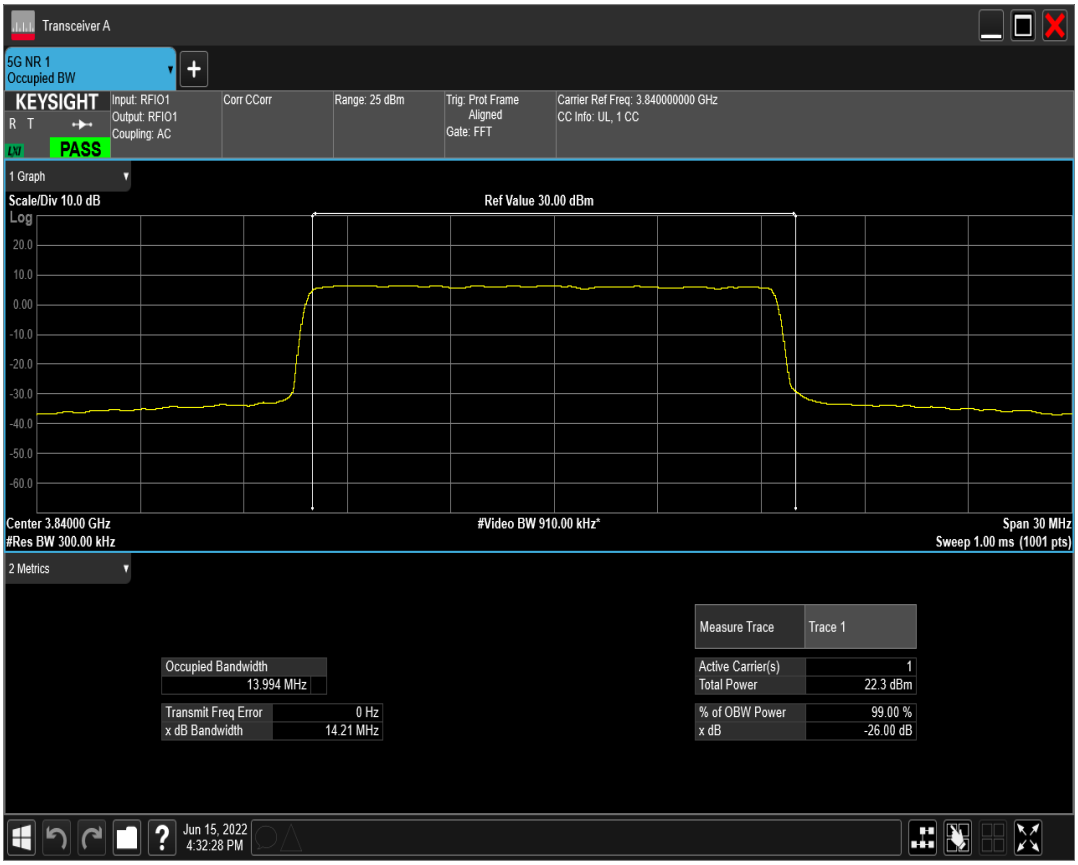
n77(3700-3980) SCS=15kHz DFT_QPSK BW=15MHz Channel=656000 RB=75@0

n77(3700-3980) SCS=15kHz DFT_QAM16 BW=15MHz Channel=656000 RB=75@0

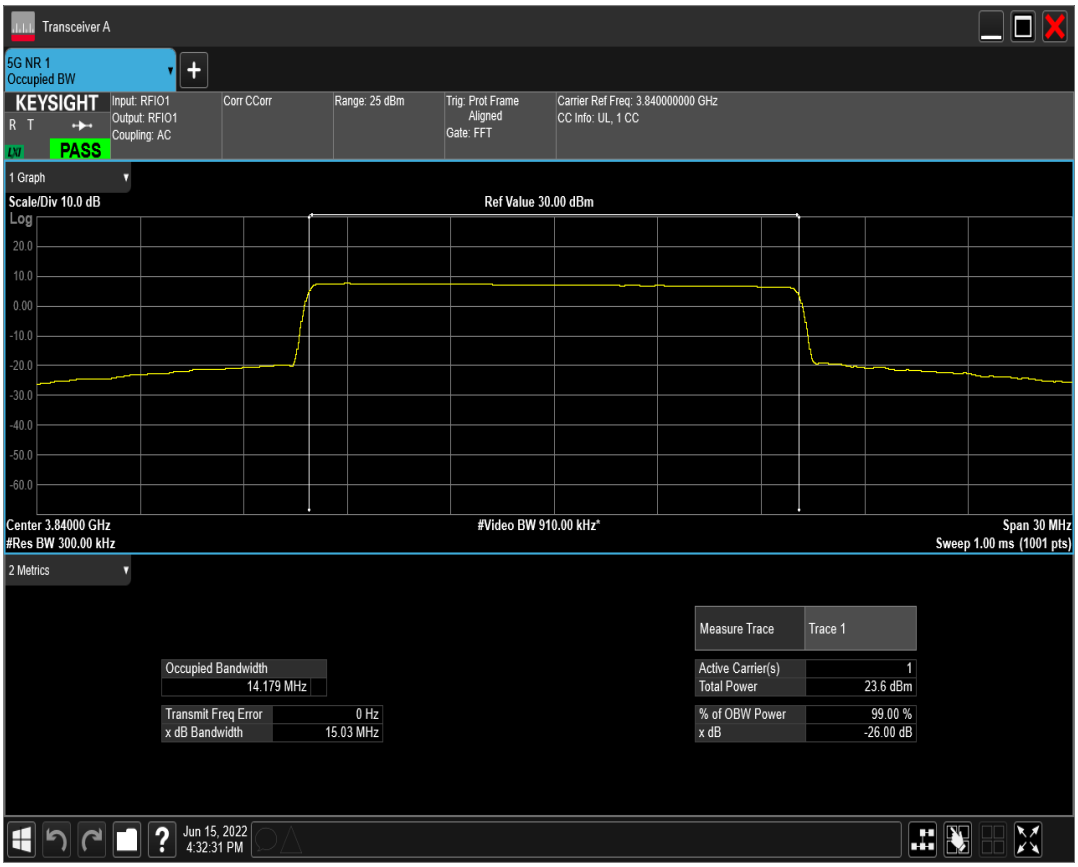
n77(3700-3980) SCS=15kHz DFT_QAM64 BW=15MHz Channel=656000 RB=75@0



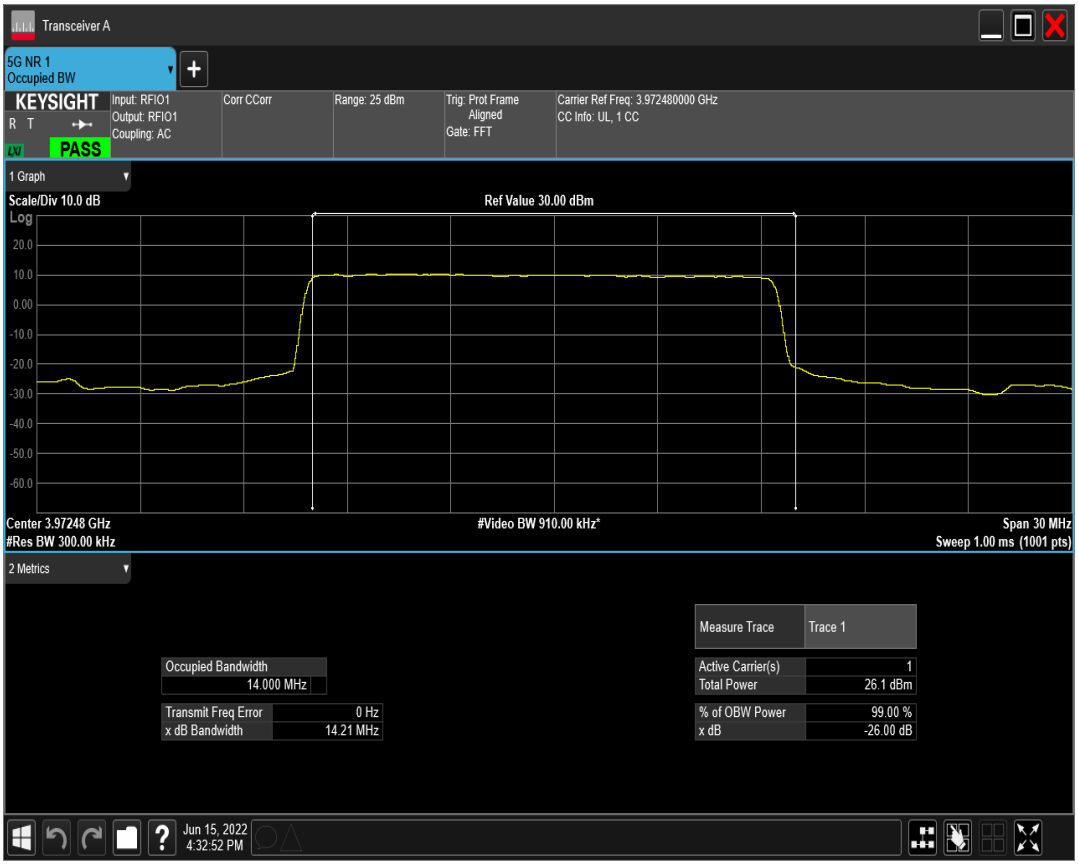
n77(3700-3980) SCS=15kHz DFT_QAM256 BW=15MHz Channel=656000 RB=75@0



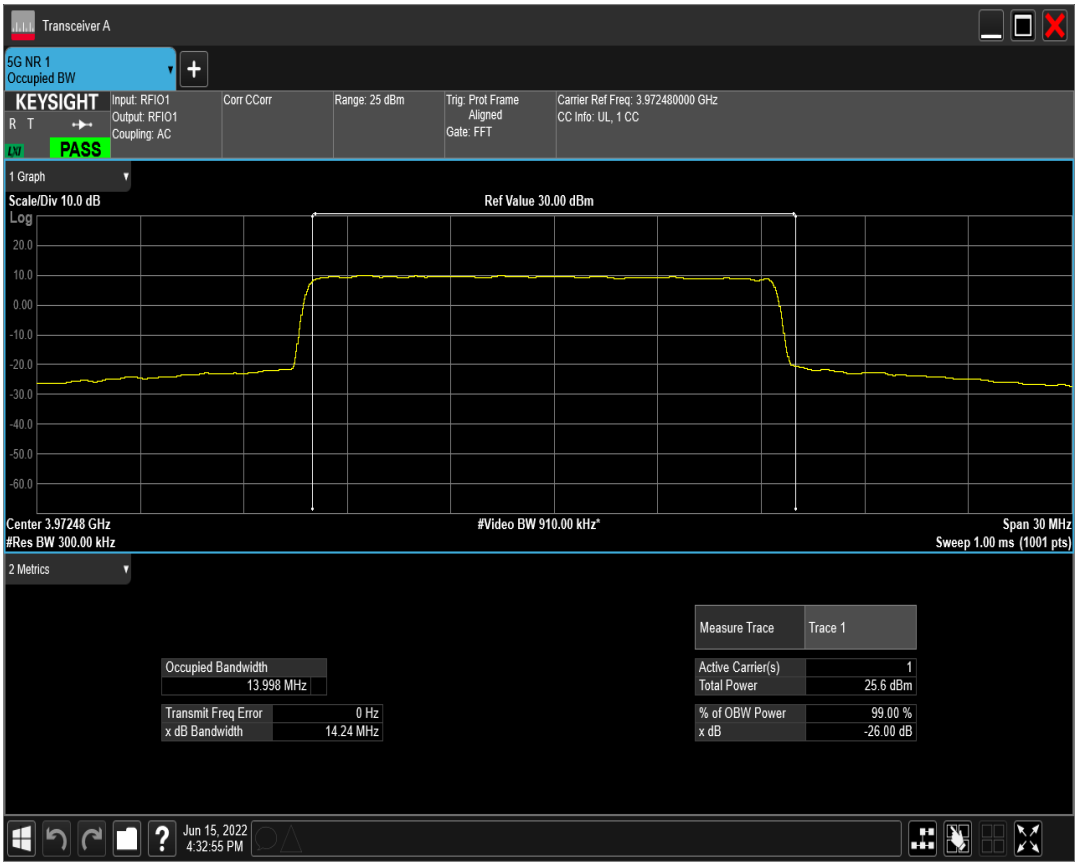
n77(3700-3980) SCS=15kHz CP_QPSK BW=15MHz Channel=656000 RB=79@0



n77(3700-3980) SCS=15kHz DFT_BPSK BW=15MHz Channel=664832 RB=75@0

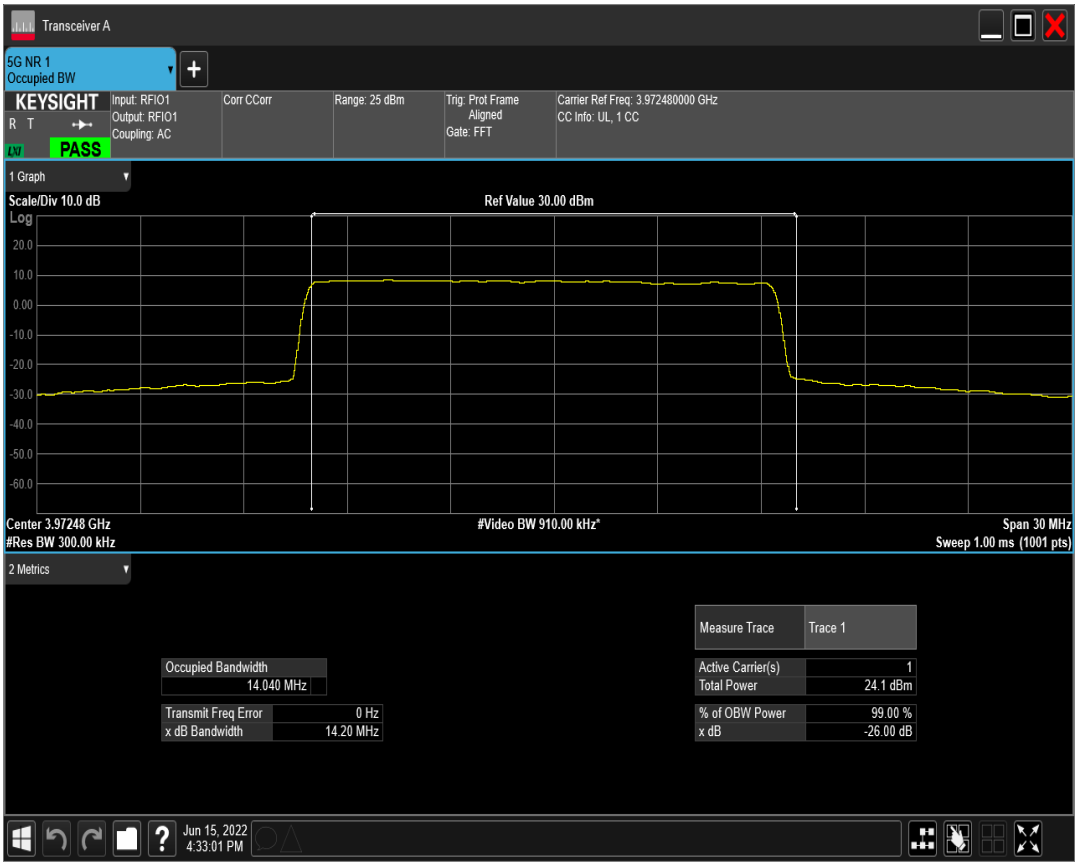


n77(3700-3980) SCS=15kHz DFT_QPSK BW=15MHz Channel=664832 RB=75@0

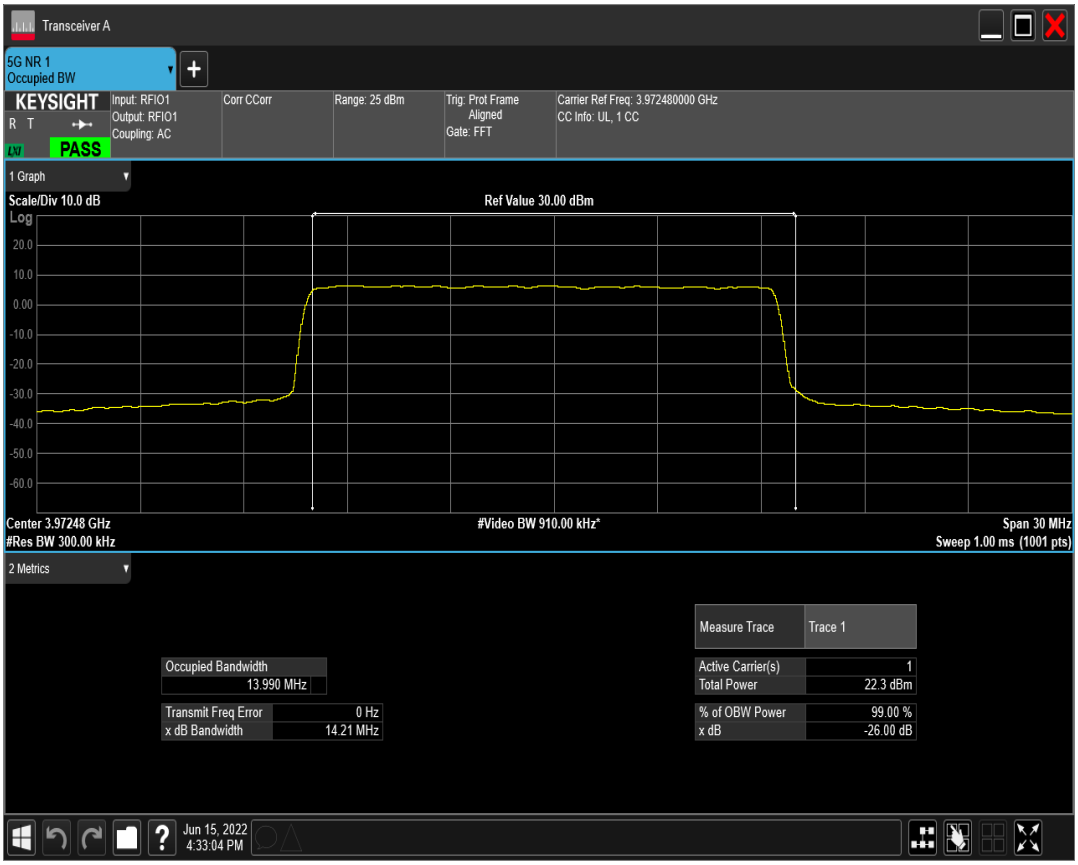


n77(3700-3980) SCS=15kHz DFT_QAM16 BW=15MHz Channel=664832 RB=75@0

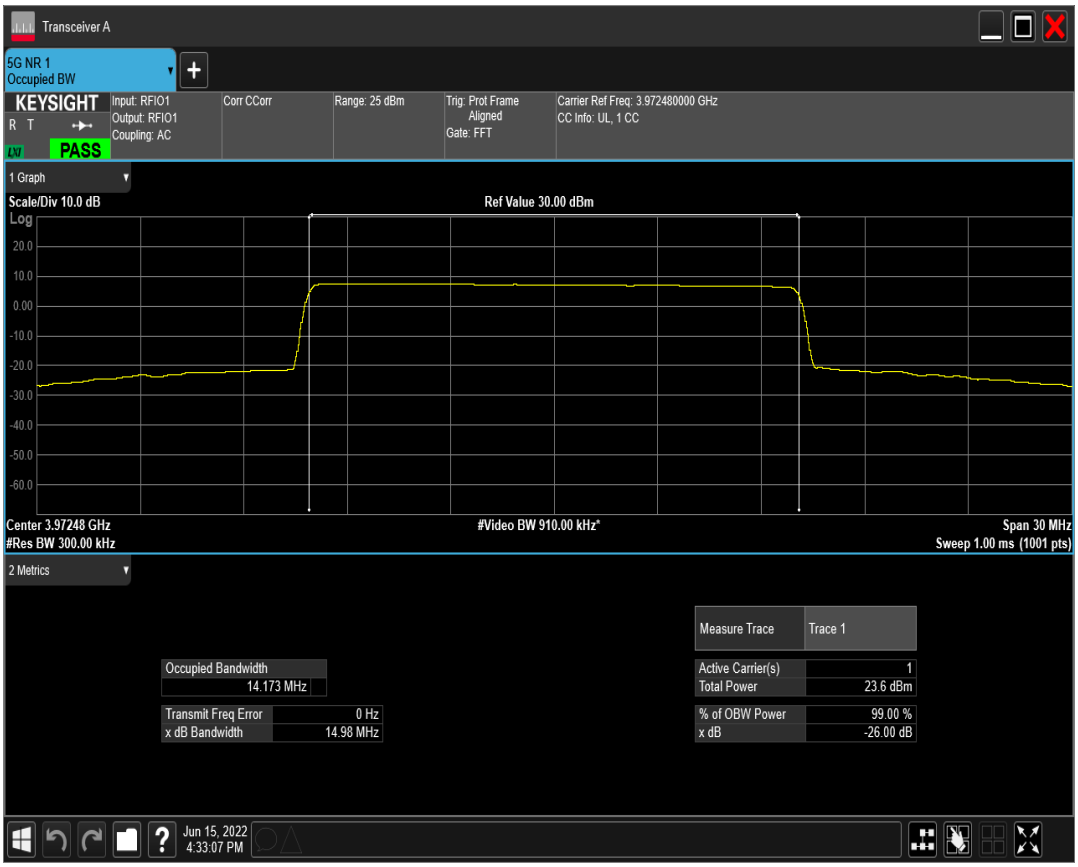
n77(3700-3980) SCS=15kHz DFT_QAM64 BW=15MHz Channel=664832 RB=75@0



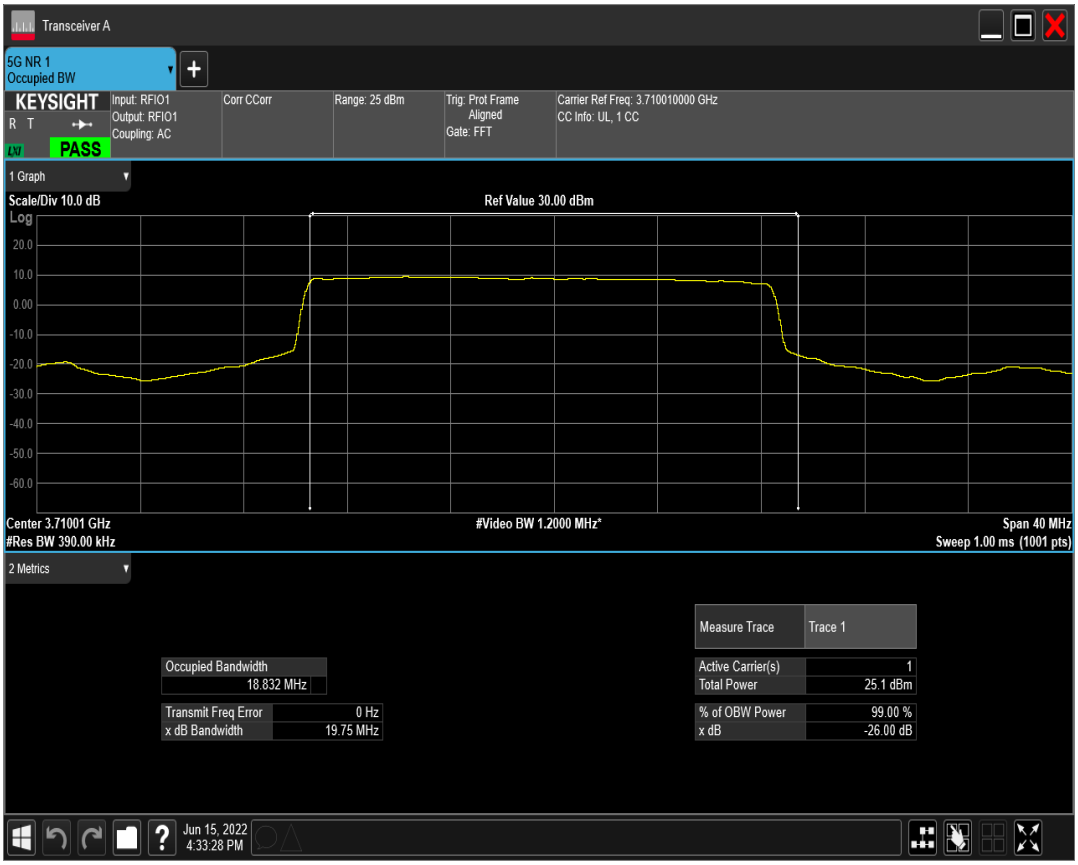
n77(3700-3980) SCS=15kHz DFT_QAM256 BW=15MHz Channel=664832 RB=75@0



n77(3700-3980) SCS=15kHz CP_QPSK BW=15MHz Channel=664832 RB=79@0



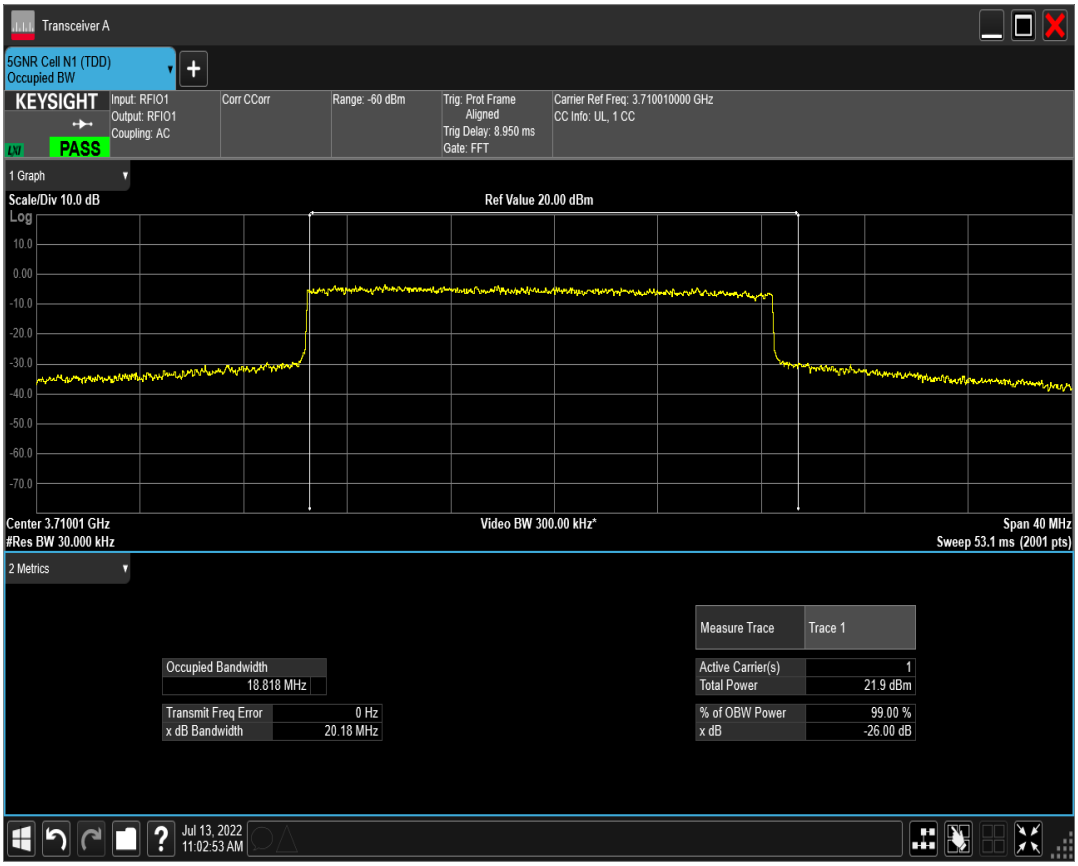
n77(3700-3980) SCS=15kHz DFT_BPSK BW=20MHz Channel=647334 RB=100@0



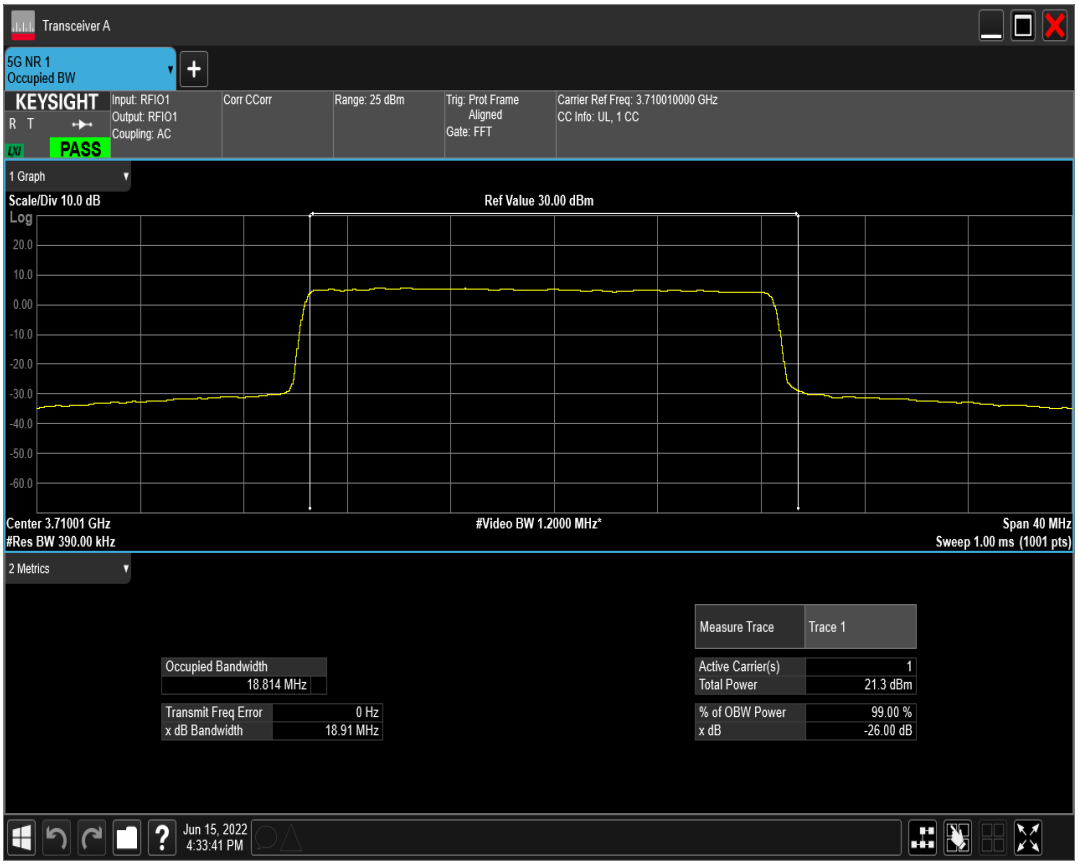
n77(3700-3980) SCS=15kHz DFT_QPSK BW=20MHz Channel=647334 RB=100@0

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

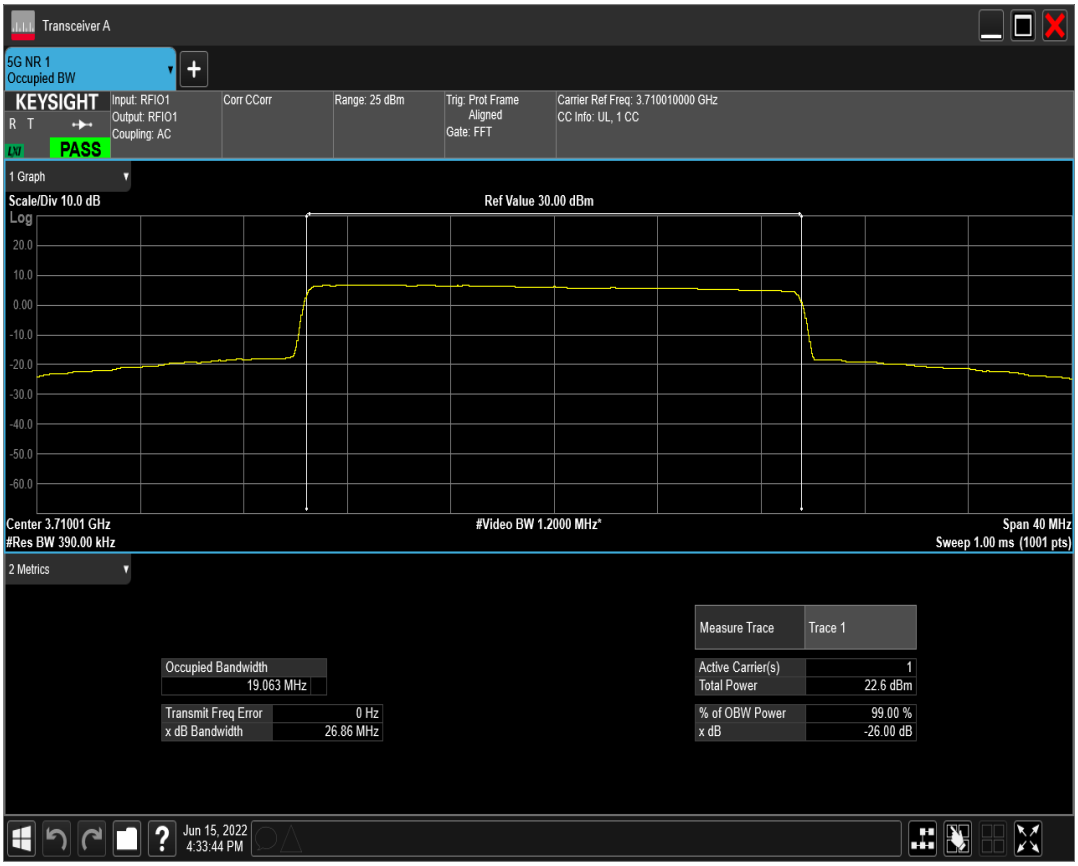
n77(3700-3980) SCS=15kHz DFT_QAM64 BW=20MHz Channel=647334 RB=100@0



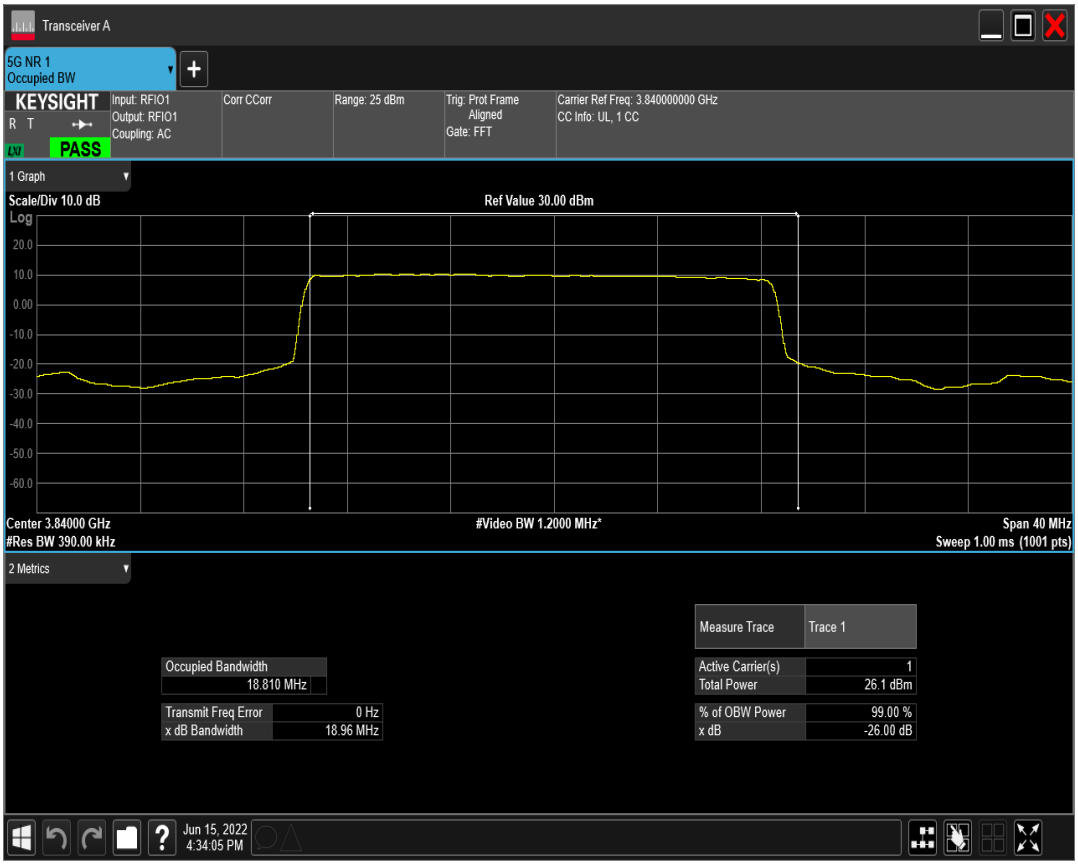
n77(3700-3980) SCS=15kHz DFT_QAM256 BW=20MHz Channel=647334 RB=100@0



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

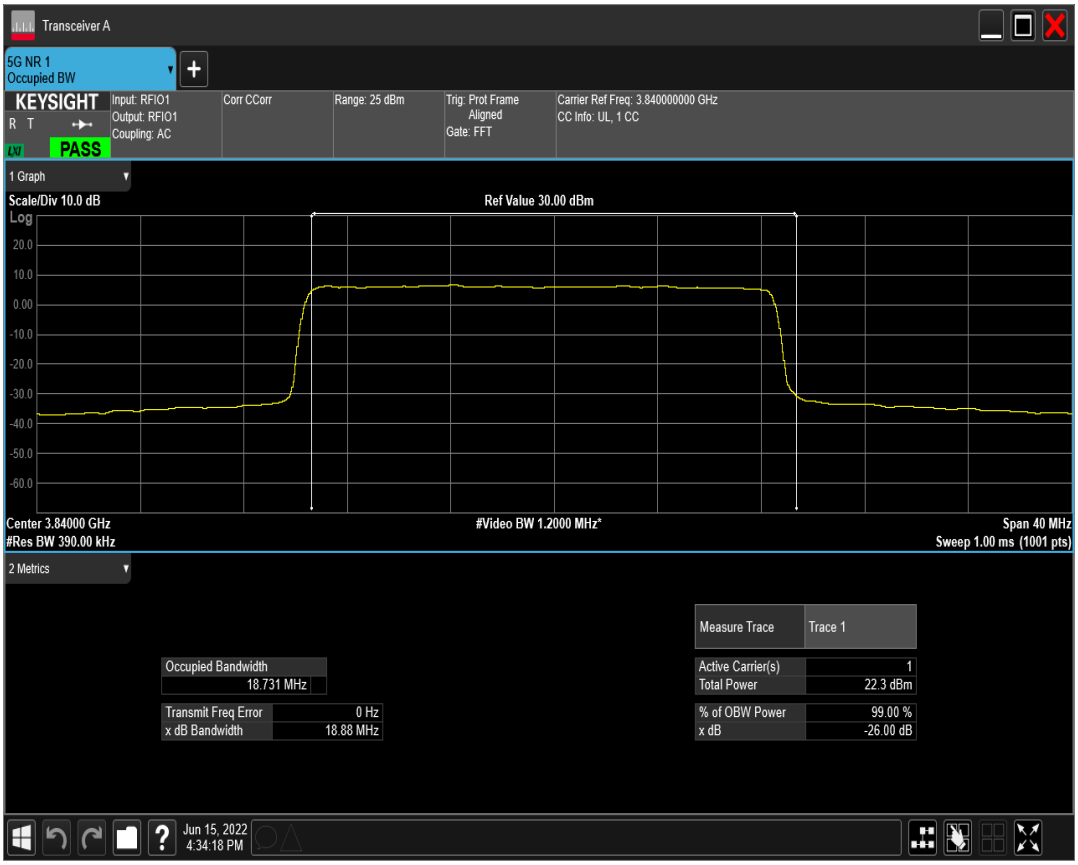


n77(3700-3980) SCS=15kHz DFT_QPSK BW=20MHz Channel=656000 RB=100@0

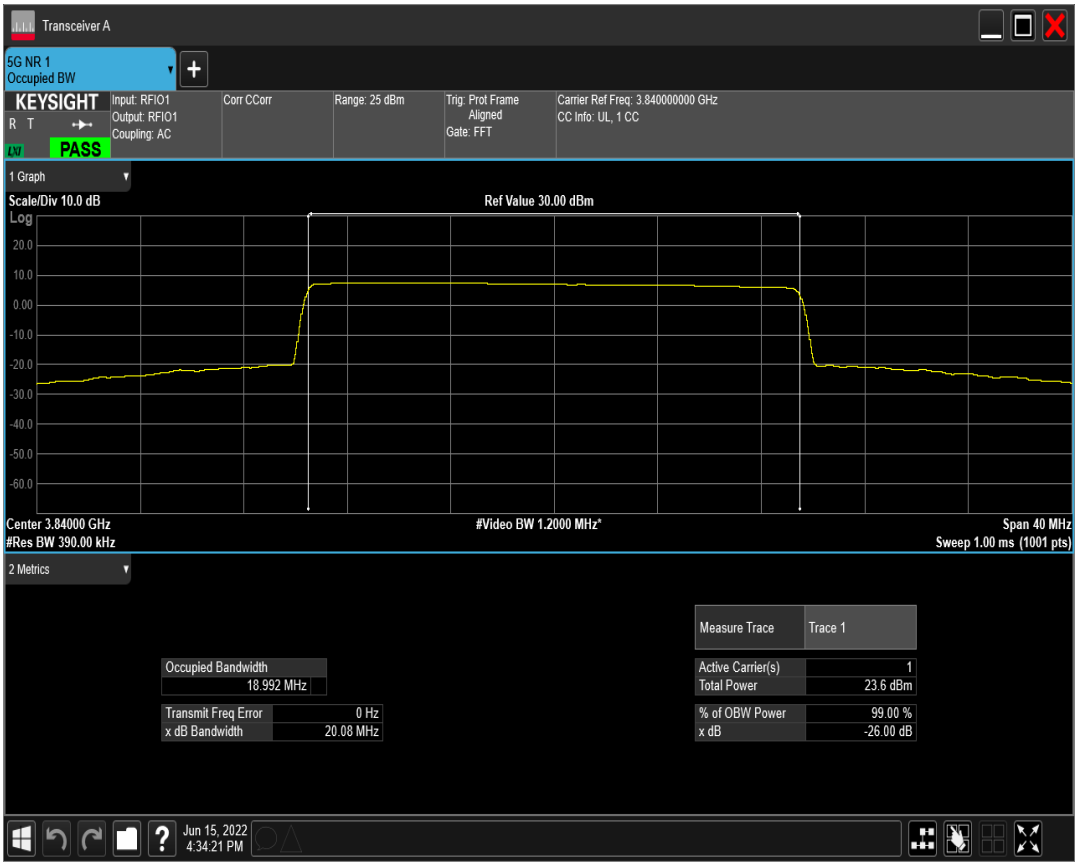
n77(3700-3980) SCS=15kHz DFT_QAM16 BW=20MHz Channel=656000 RB=100@0

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

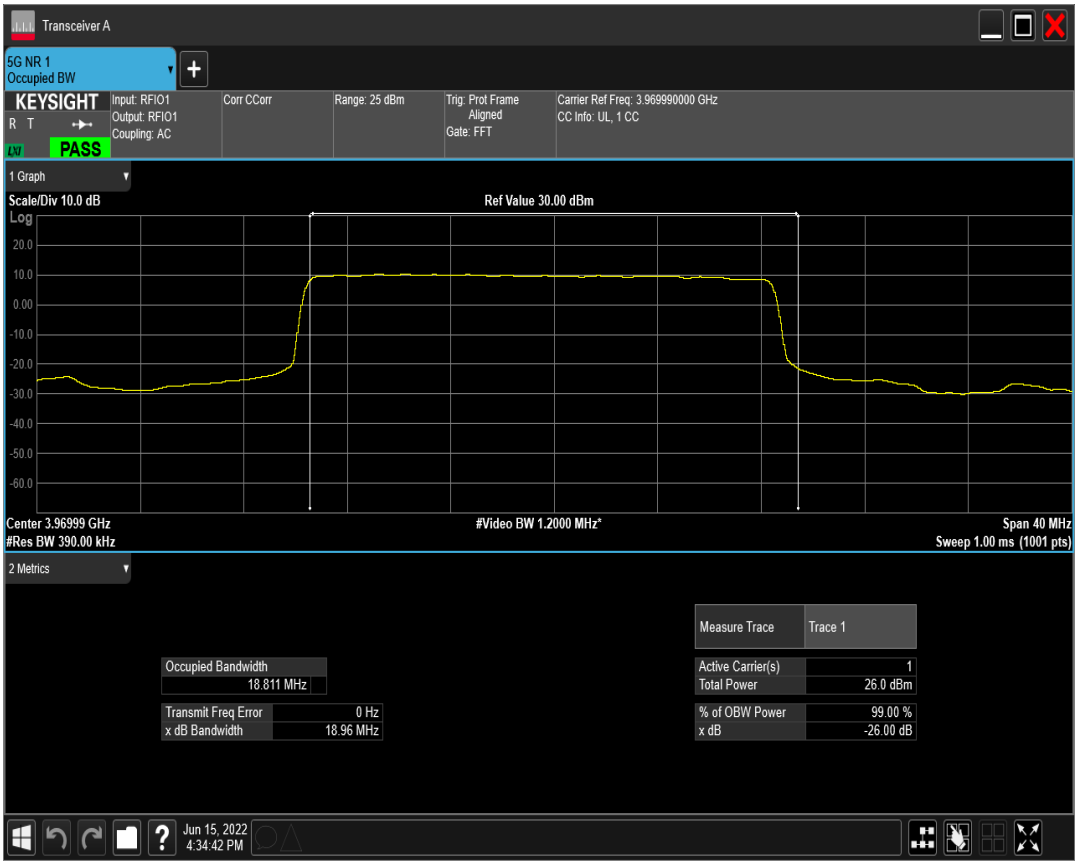
n77(3700-3980) SCS=15kHz DFT_QAM256 BW=20MHz Channel=656000 RB=100@0



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



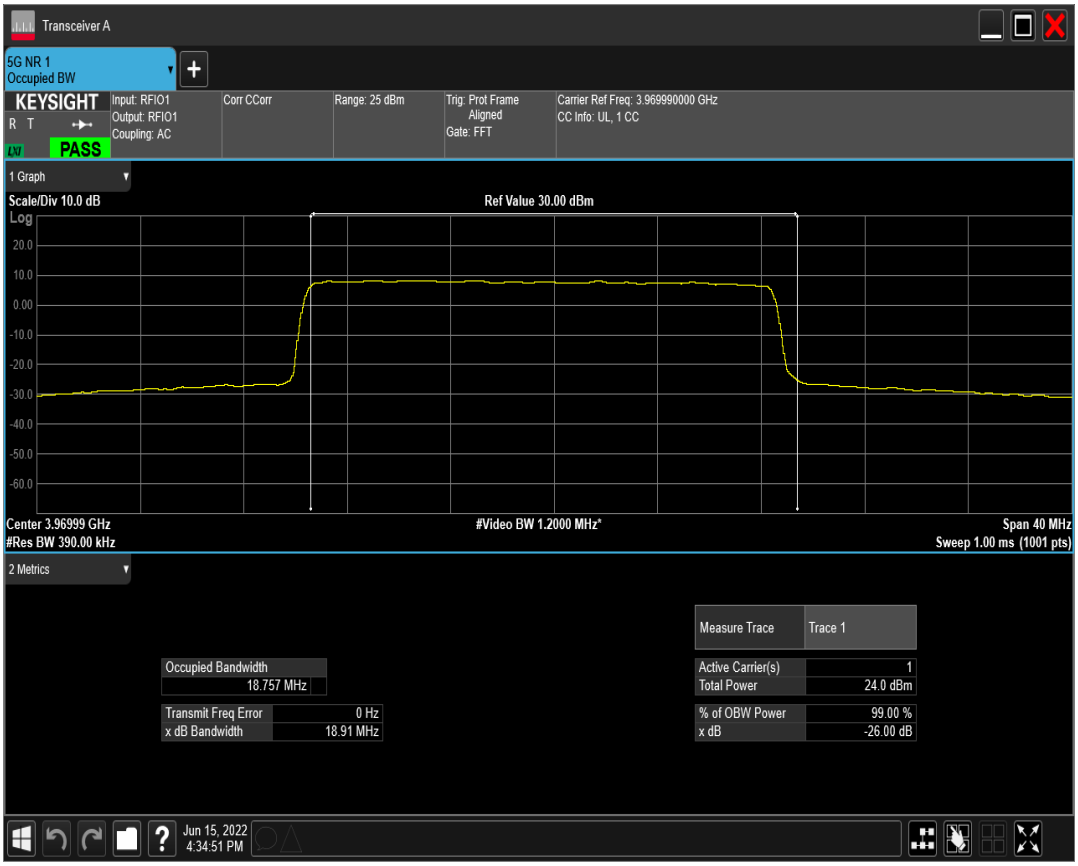
n77(3700-3980) SCS=15kHz DFT_BPSK BW=20MHz Channel=664666 RB=100@0



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



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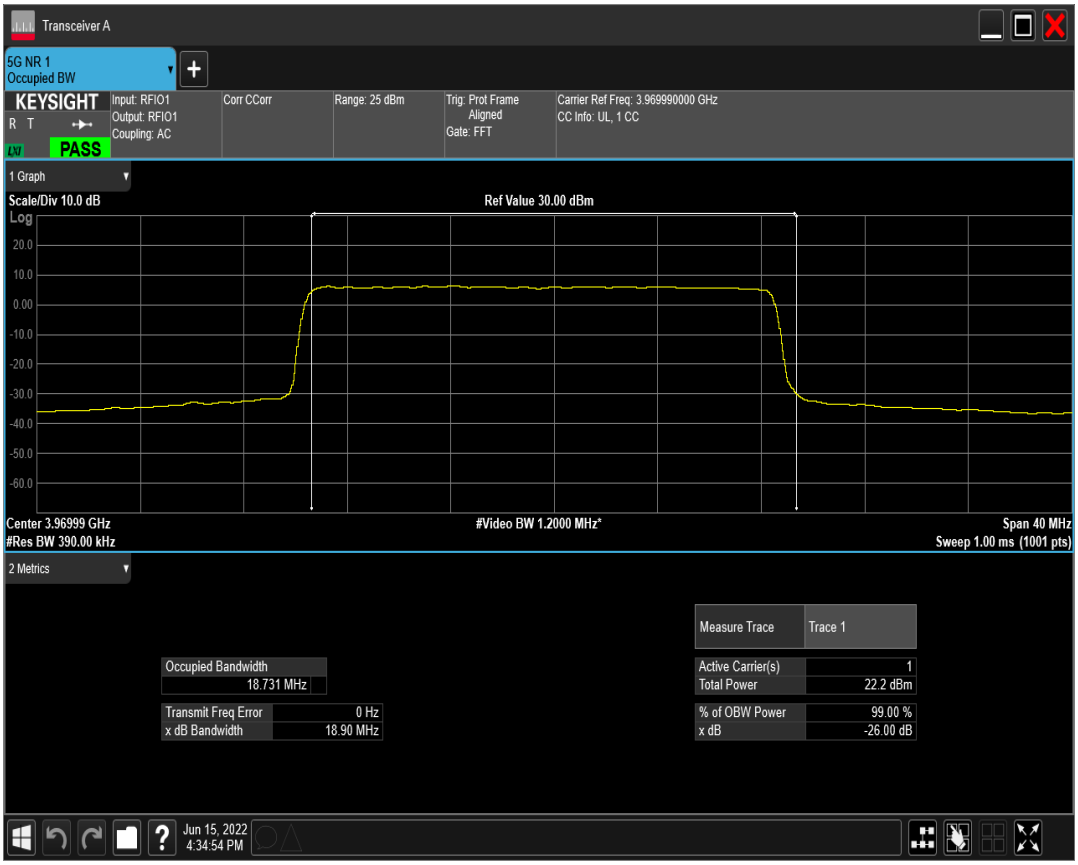
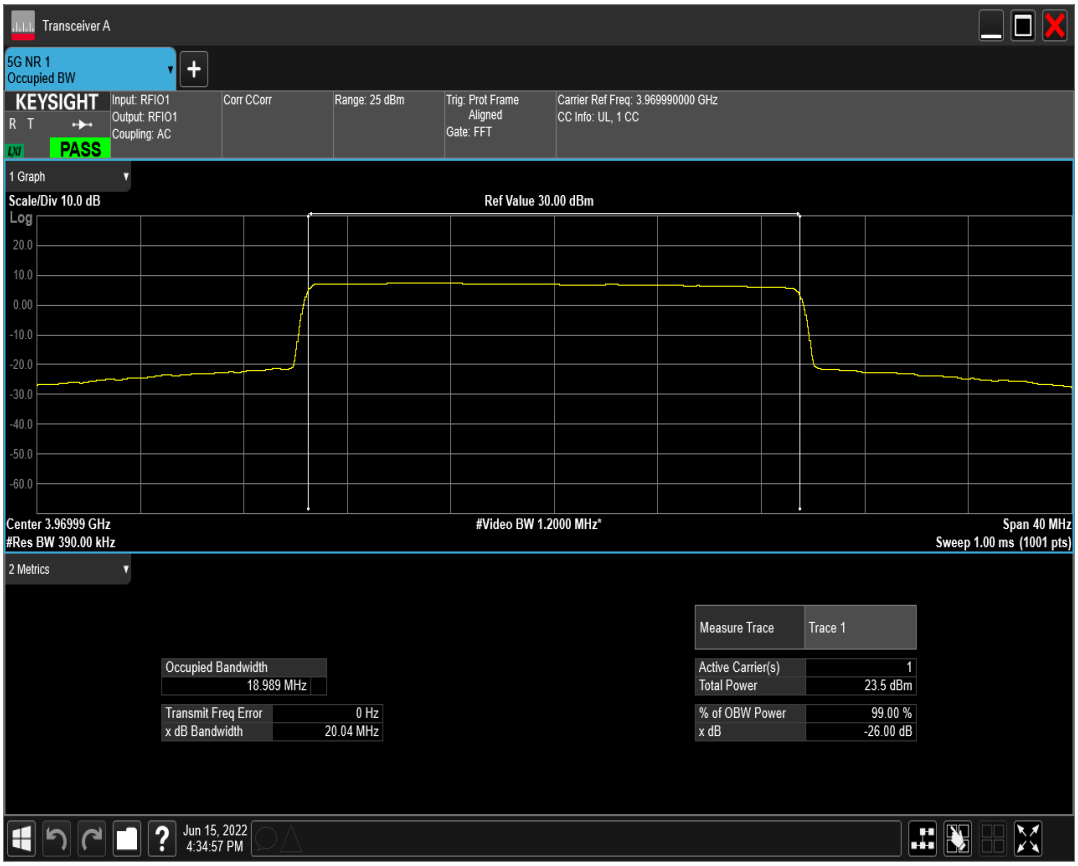
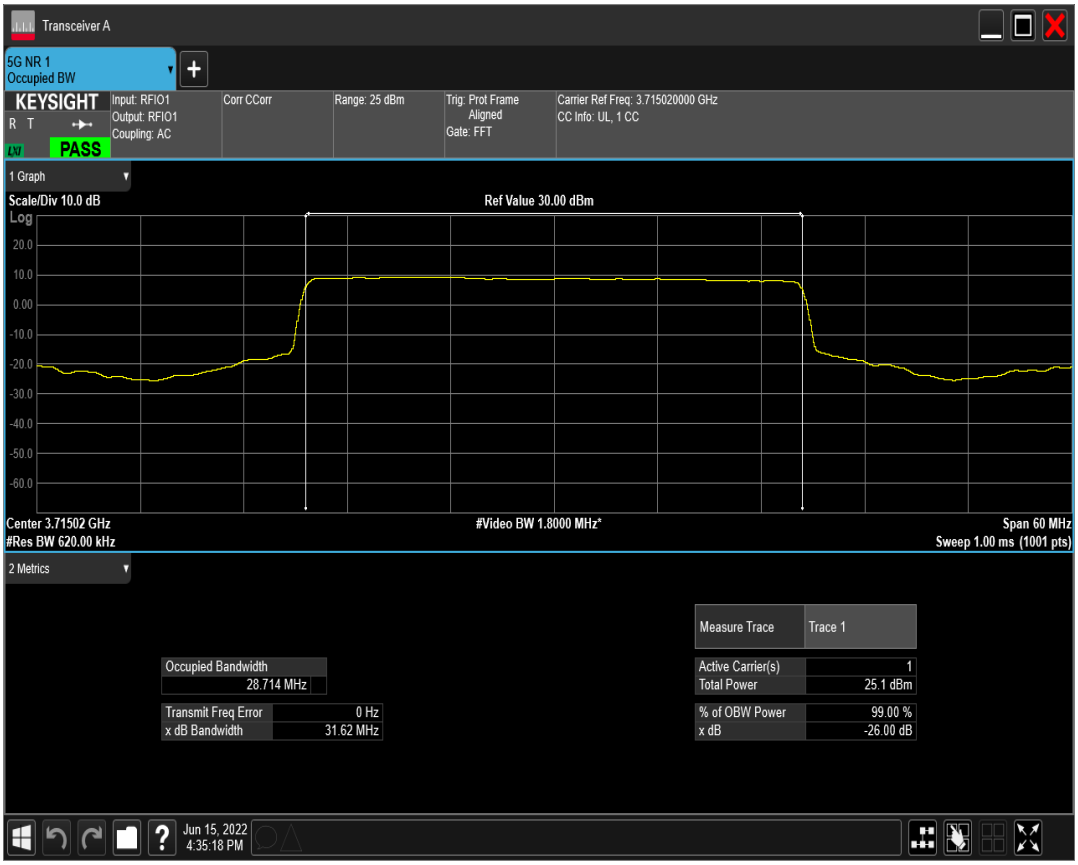


n77(3700-3980) SCS=15kHz CP_QPSK BW=20MHz Channel=664666 RB=106@0



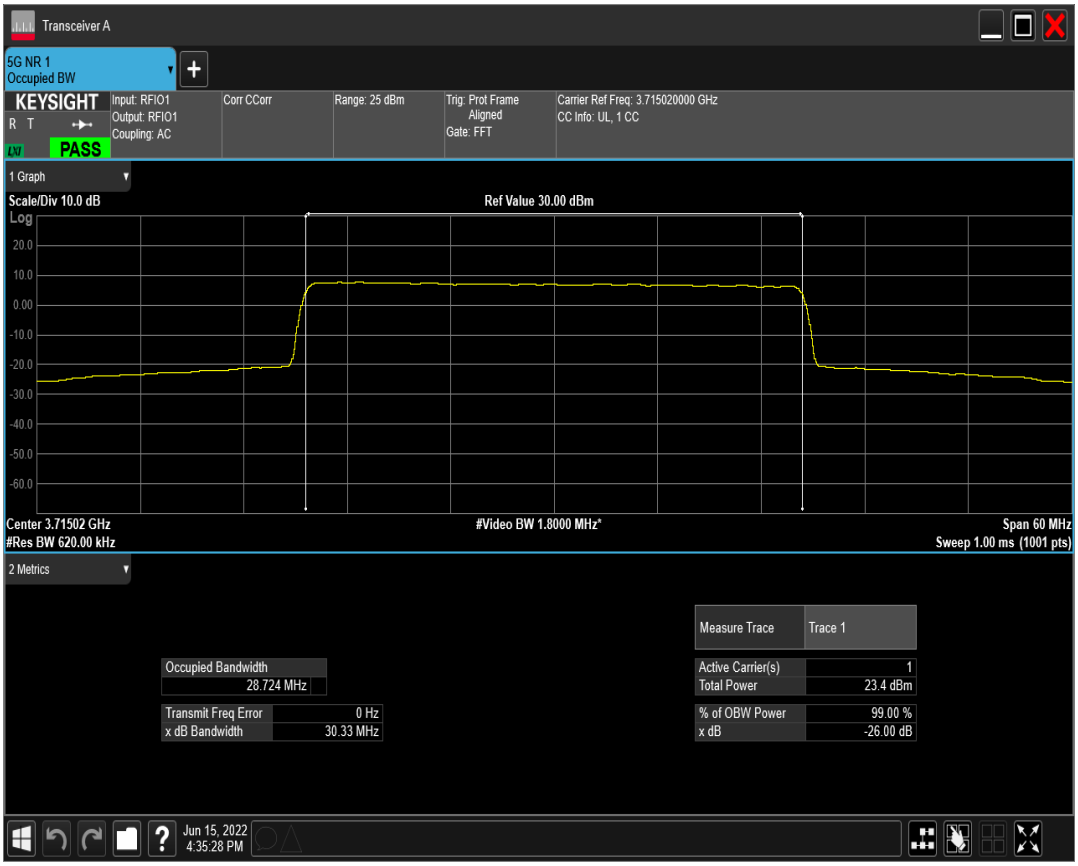
n77(3700-3980) SCS=15kHz DFT_BPSK BW=30MHz Channel=647668 RB=160@0



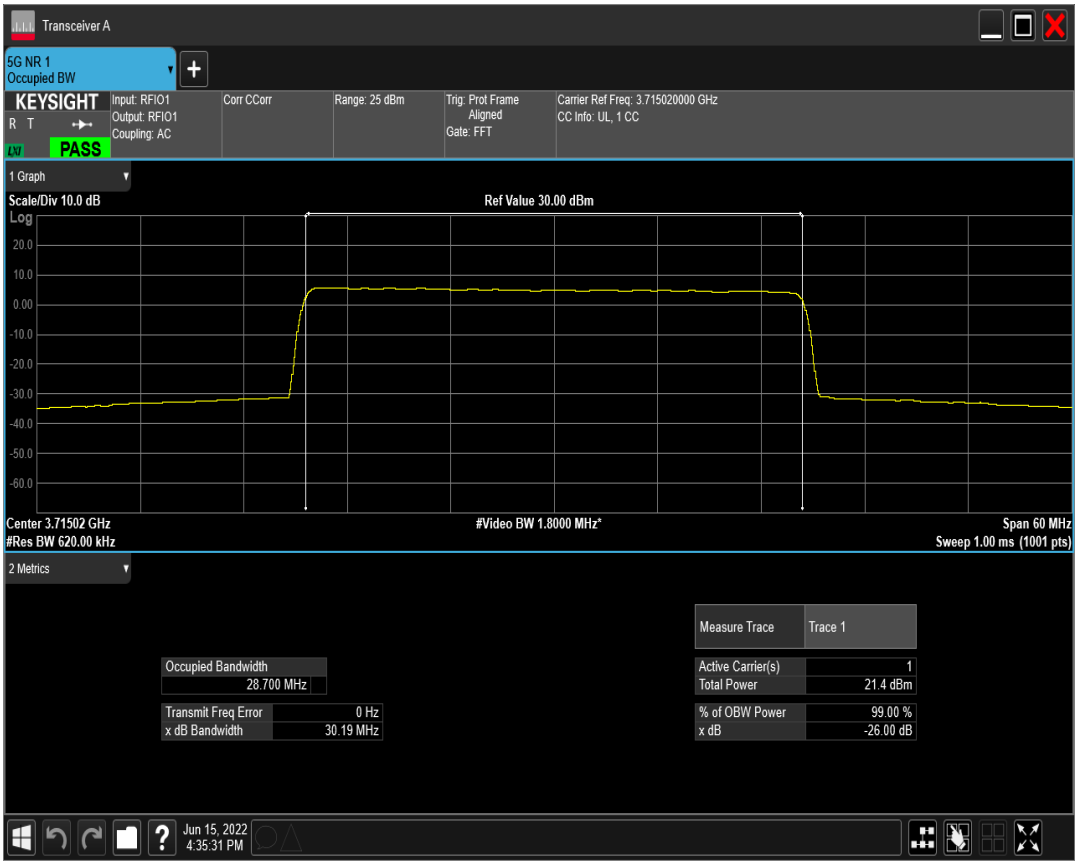
n77(3700-3980) SCS=15kHz DFT_QPSK BW=30MHz Channel=647668 RB=160@0

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

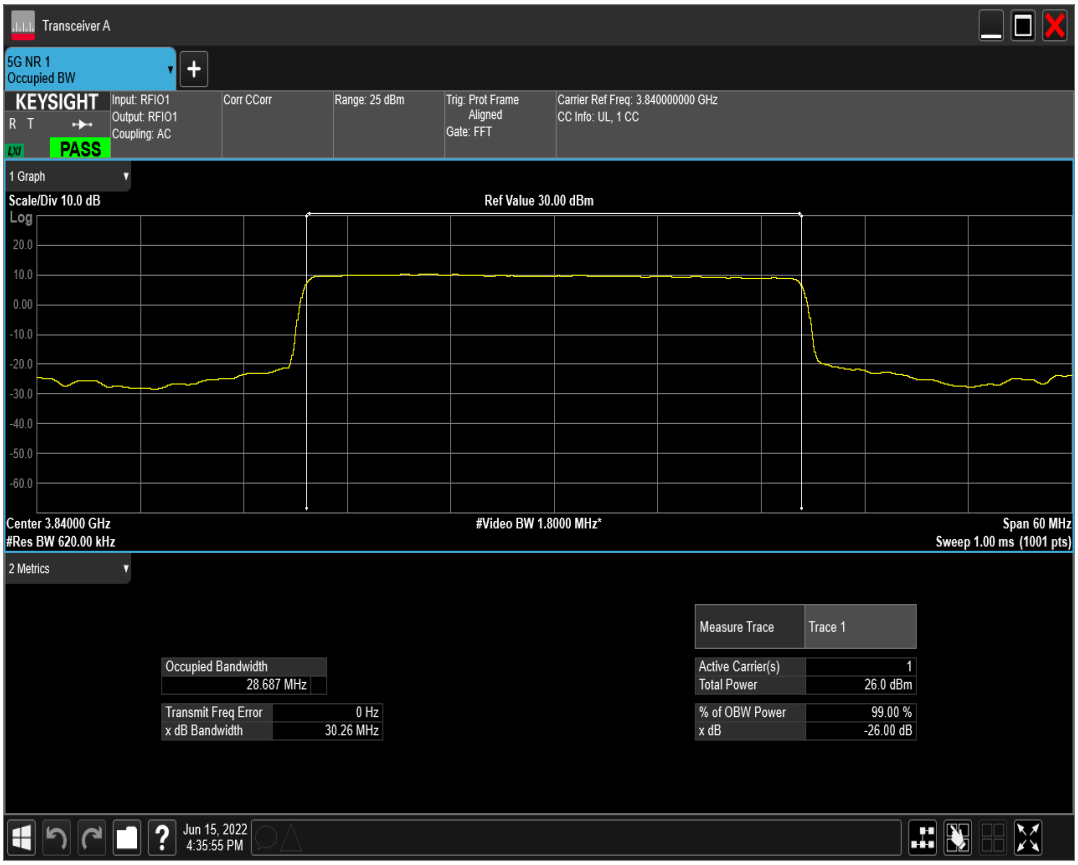


n77(3700-3980) SCS=15kHz DFT_QAM256 BW=30MHz Channel=647668 RB=160@0



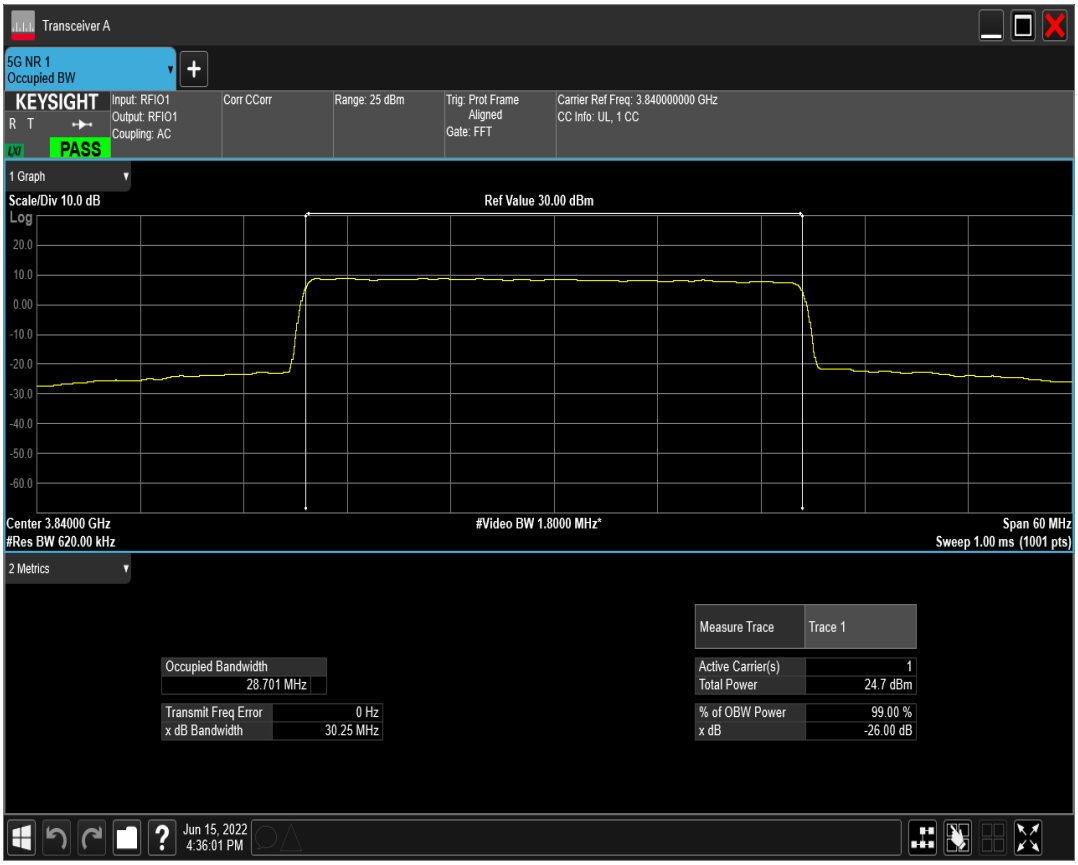
n77(3700-3980) SCS=15kHz CP_QPSK BW=30MHz Channel=647668 RB=160@0

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

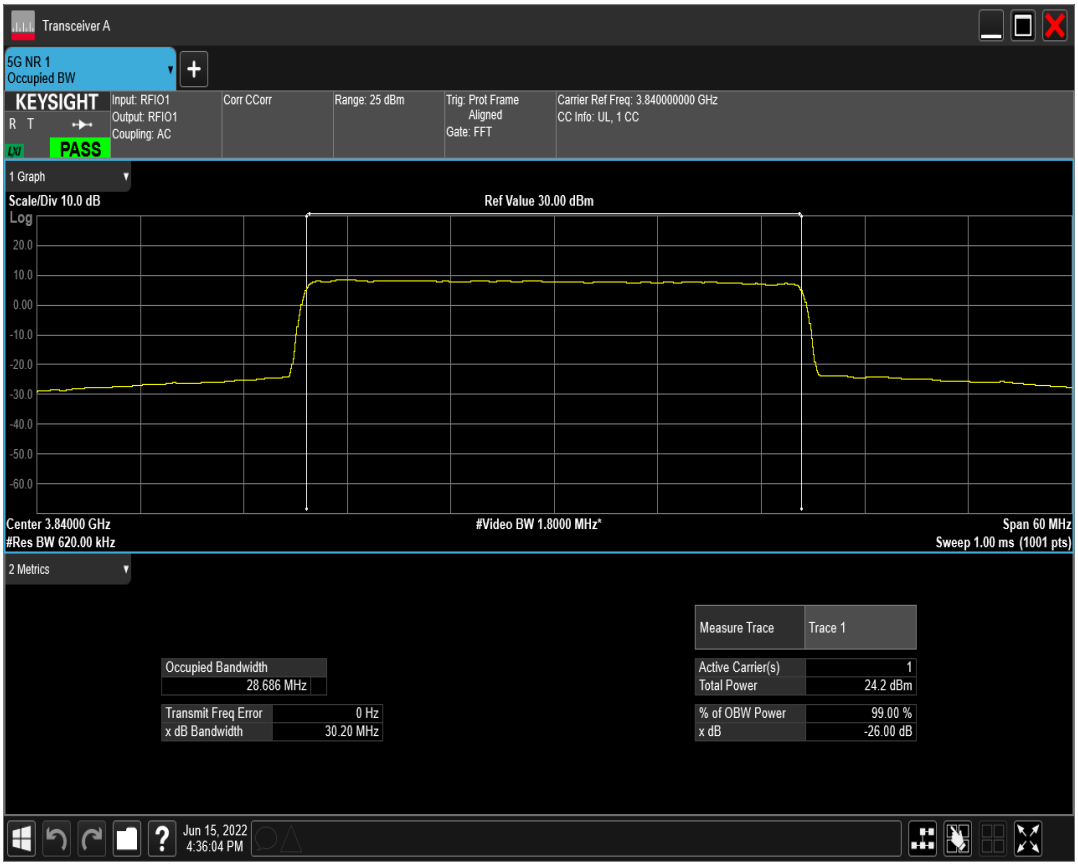


n77(3700-3980) SCS=15kHz DFT_QPSK BW=30MHz Channel=656000 RB=160@0

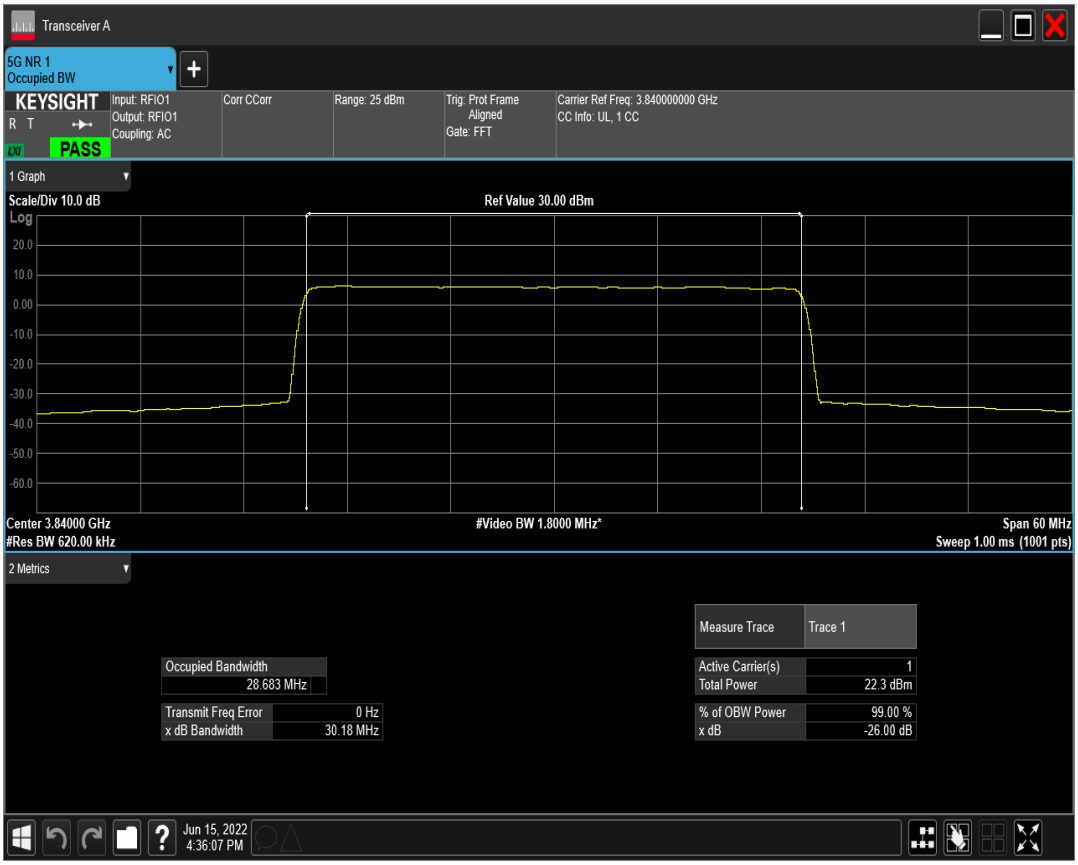
n77(3700-3980) SCS=15kHz DFT_QAM16 BW=30MHz Channel=656000 RB=160@0



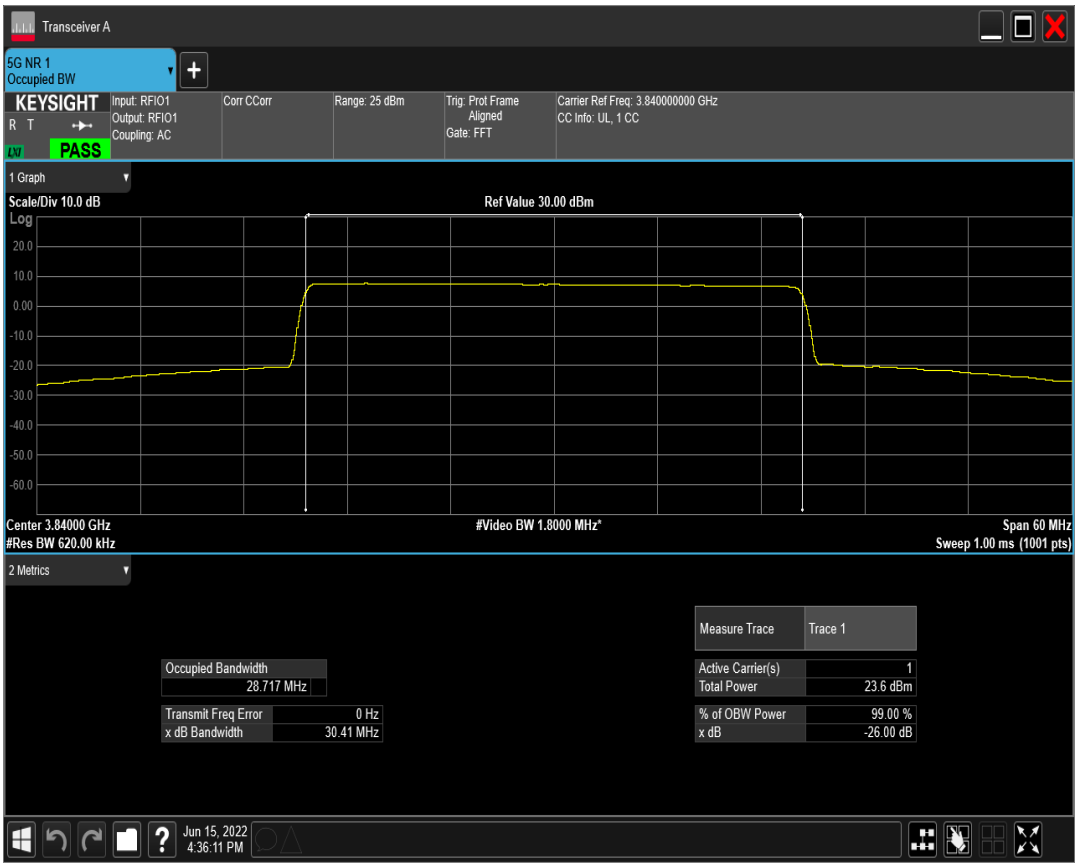
n77(3700-3980) SCS=15kHz DFT_QAM64 BW=30MHz Channel=656000 RB=160@0



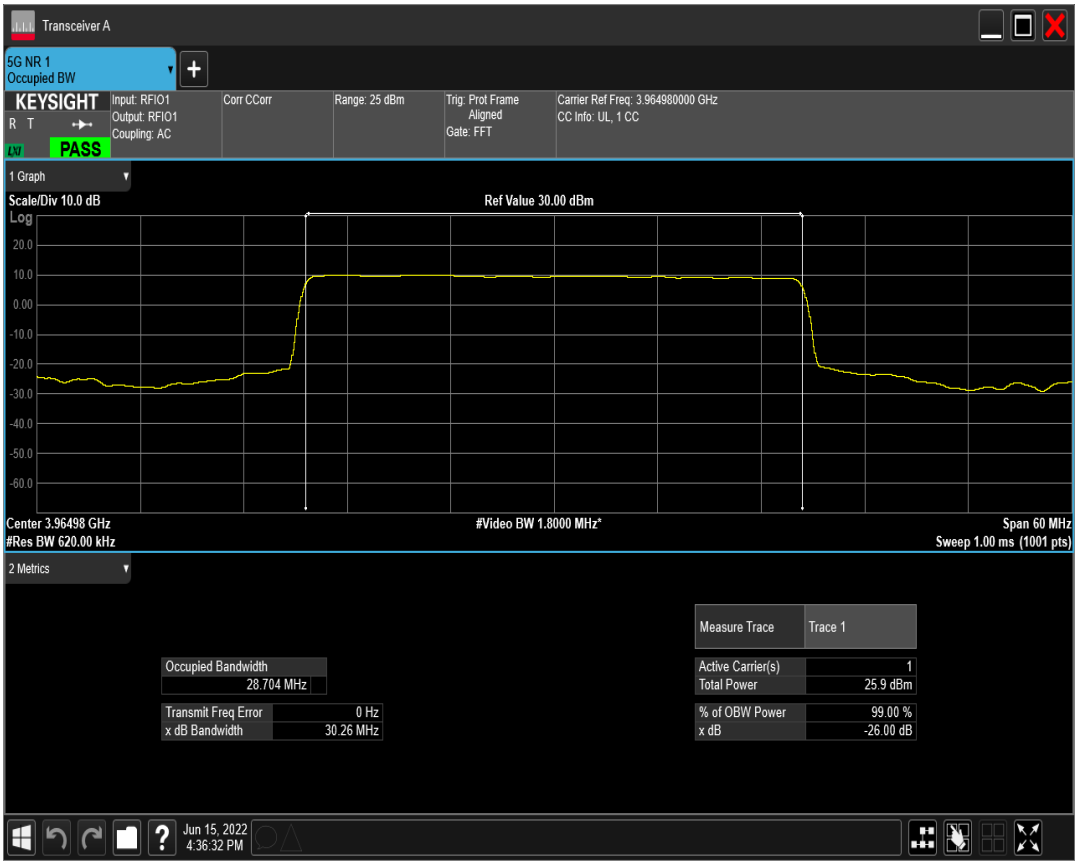
n77(3700-3980) SCS=15kHz DFT_QAM256 BW=30MHz Channel=656000 RB=160@0



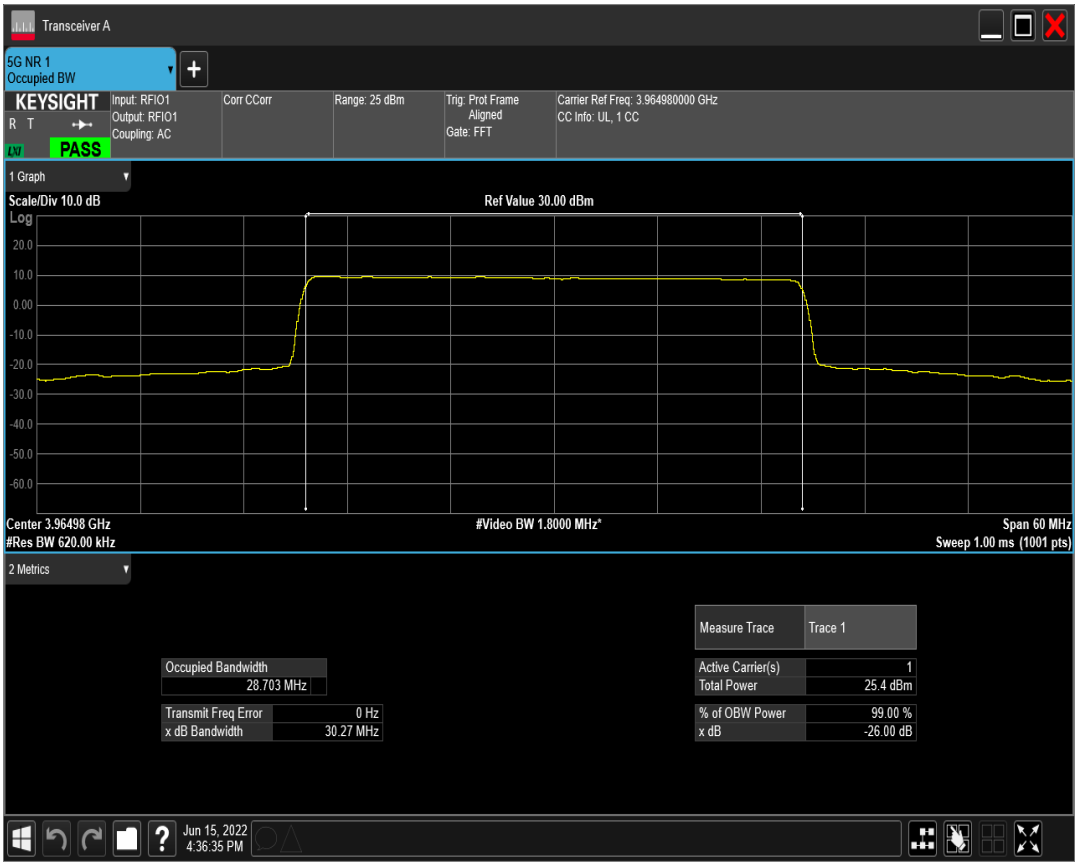
n77(3700-3980) SCS=15kHz CP_QPSK BW=30MHz Channel=656000 RB=160@0



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

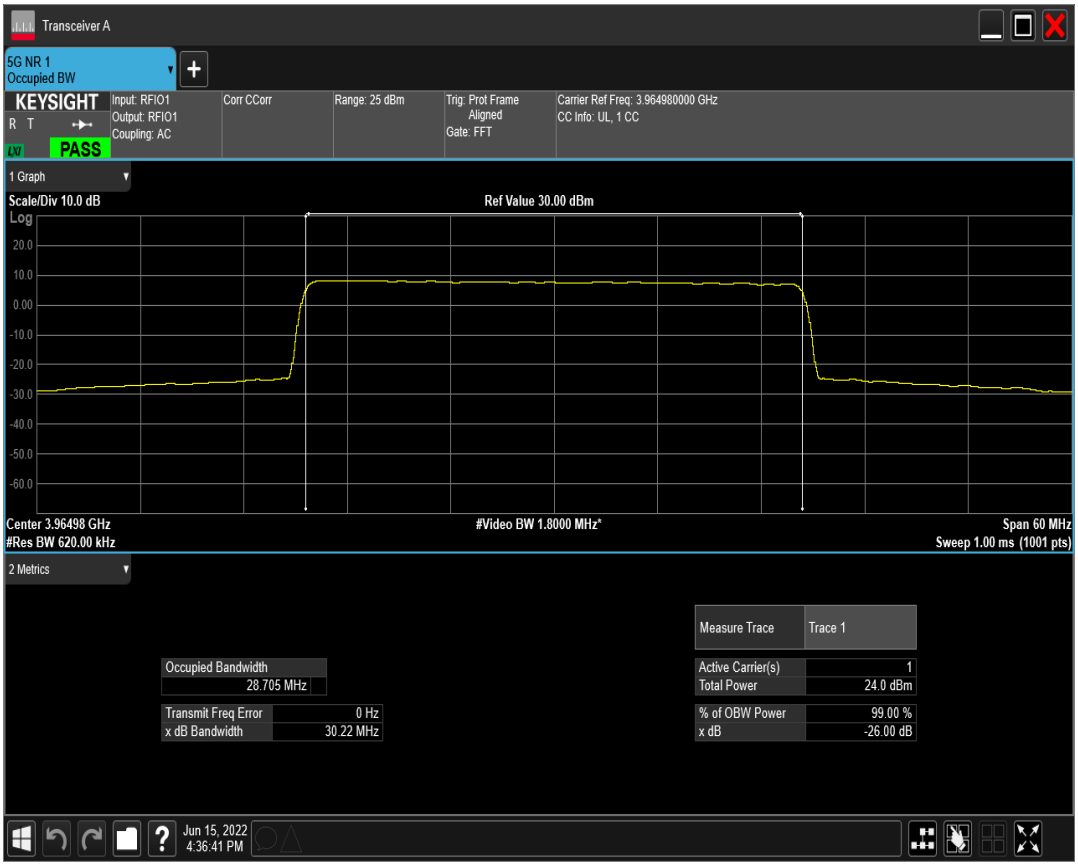


n77(3700-3980) SCS=15kHz DFT_QPSK BW=30MHz Channel=664332 RB=160@0

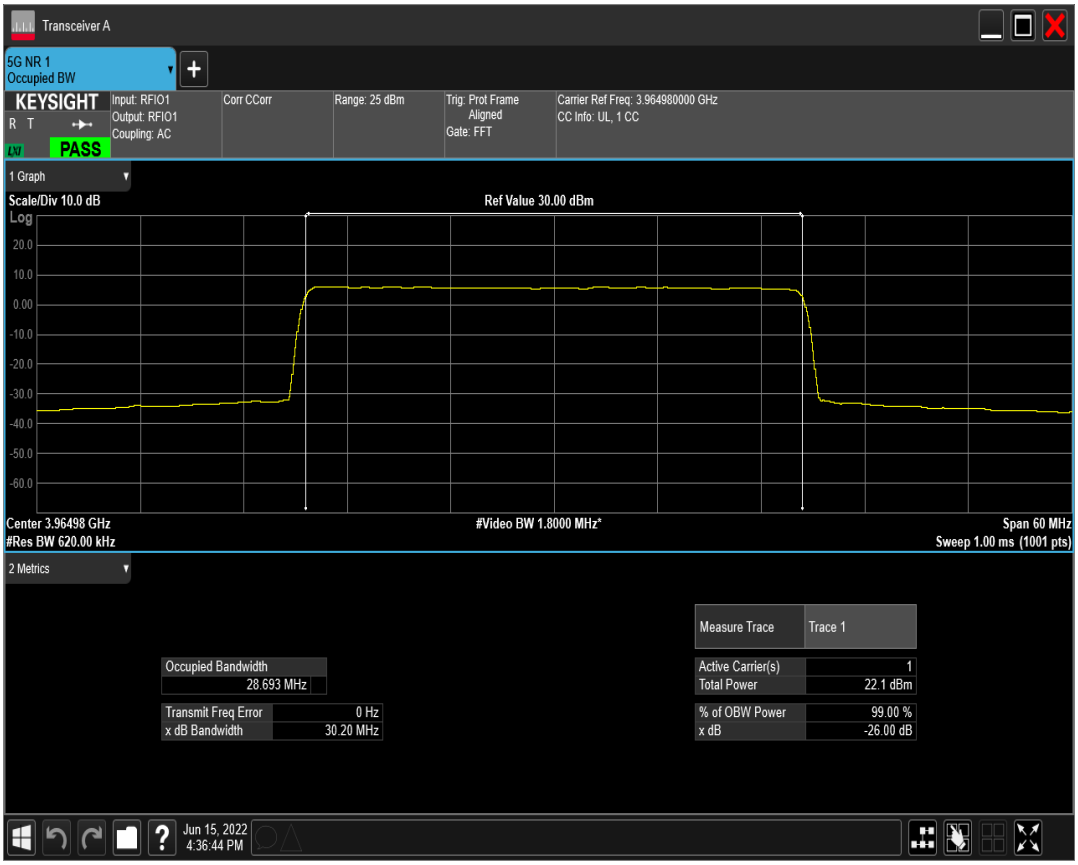


n77(3700-3980) SCS=15kHz DFT_QAM16 BW=30MHz Channel=664332 RB=160@0

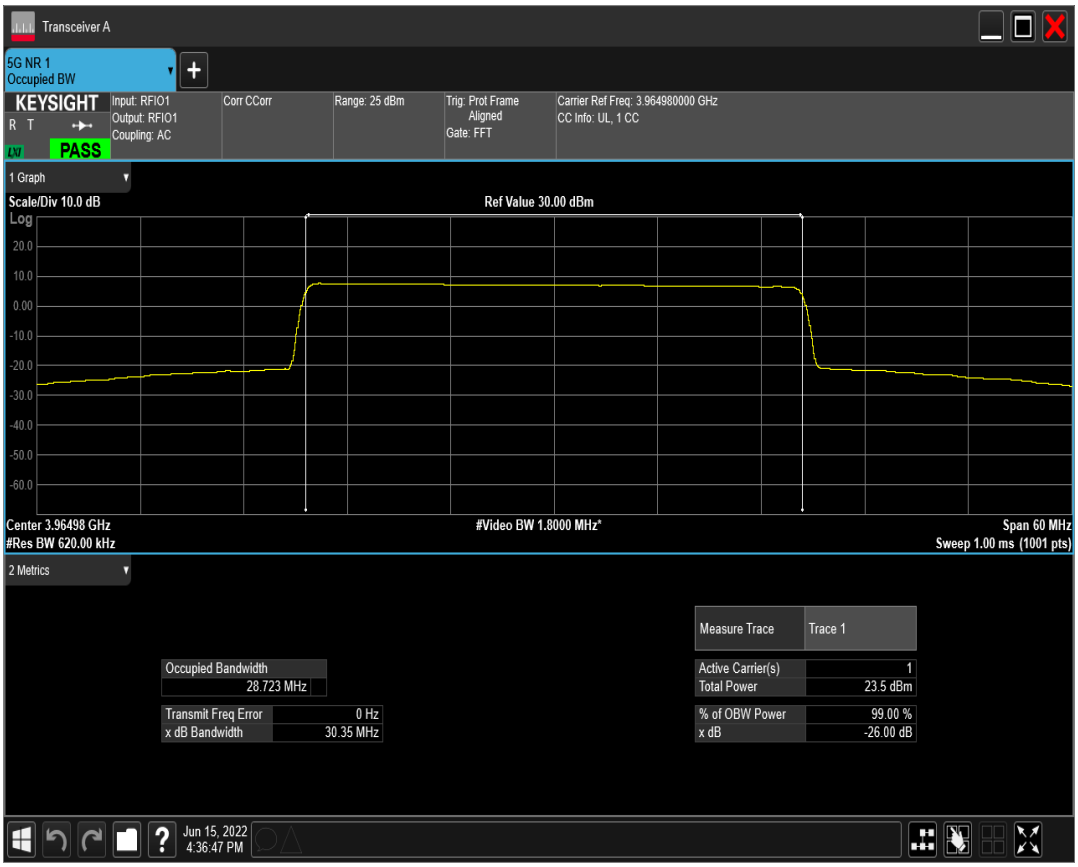
n77(3700-3980) SCS=15kHz DFT_QAM64 BW=30MHz Channel=664332 RB=160@0



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

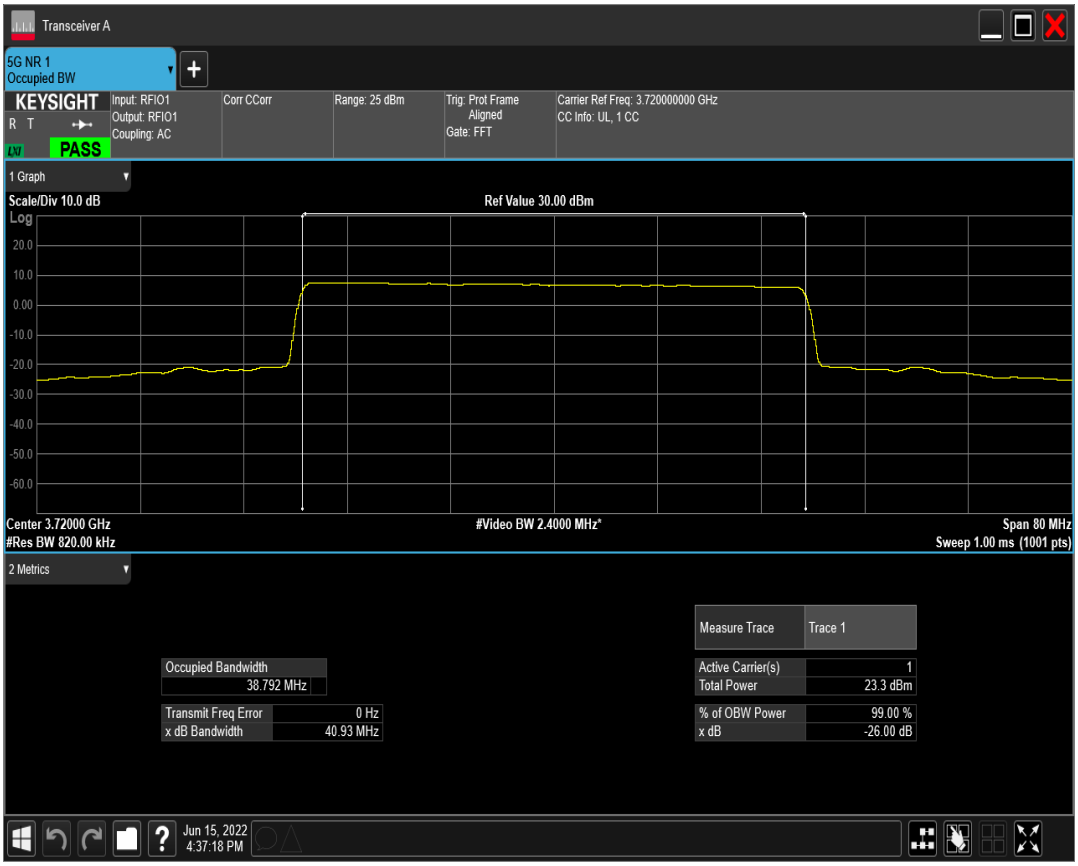


n77(3700-3980) SCS=15kHz DFT_BPSK BW=40MHz Channel=648000 RB=216@0

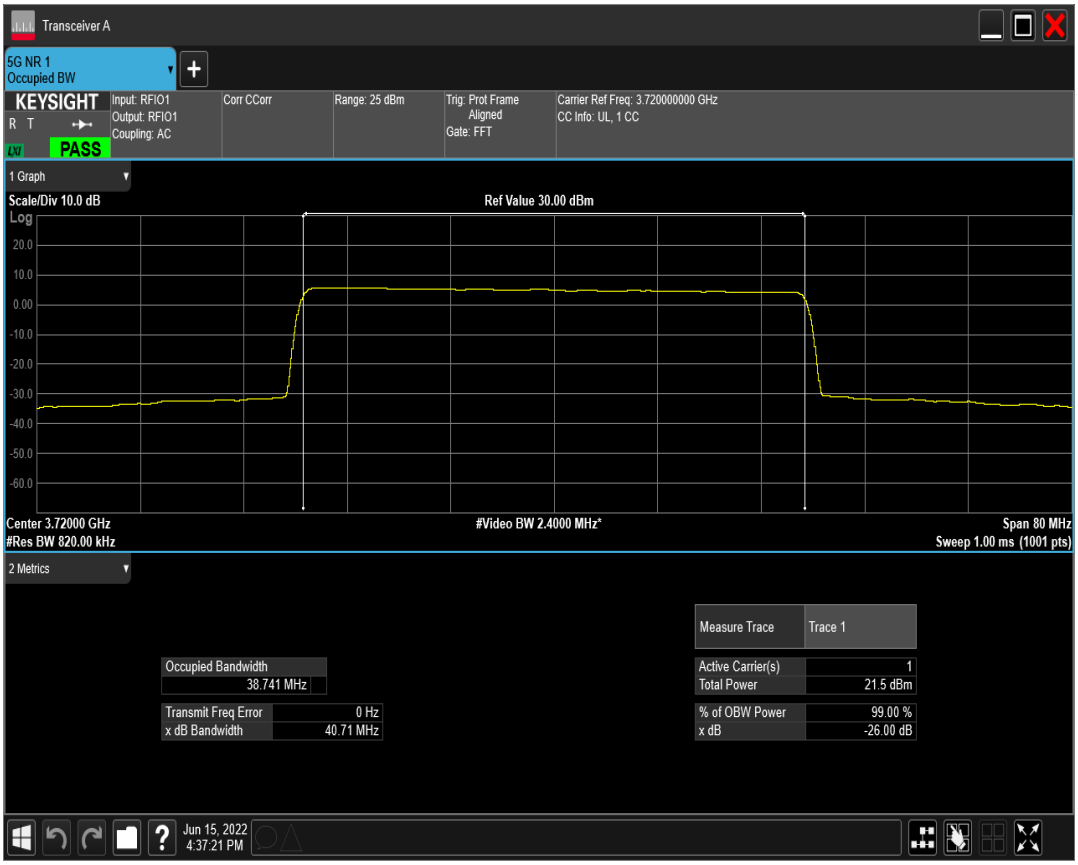
n77(3700-3980) SCS=15kHz DFT_QPSK BW=40MHz Channel=648000 RB=216@0

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



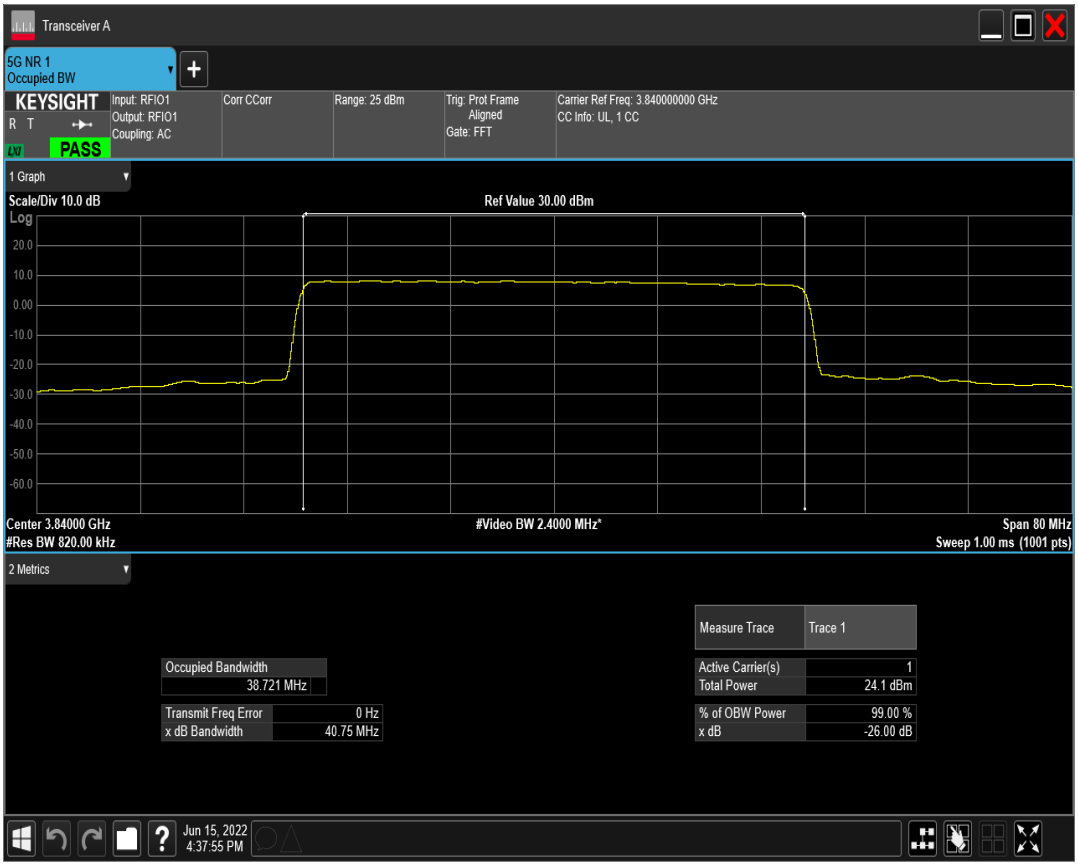
n77(3700-3980) SCS=15kHz CP_QPSK BW=40MHz Channel=648000 RB=216@0

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

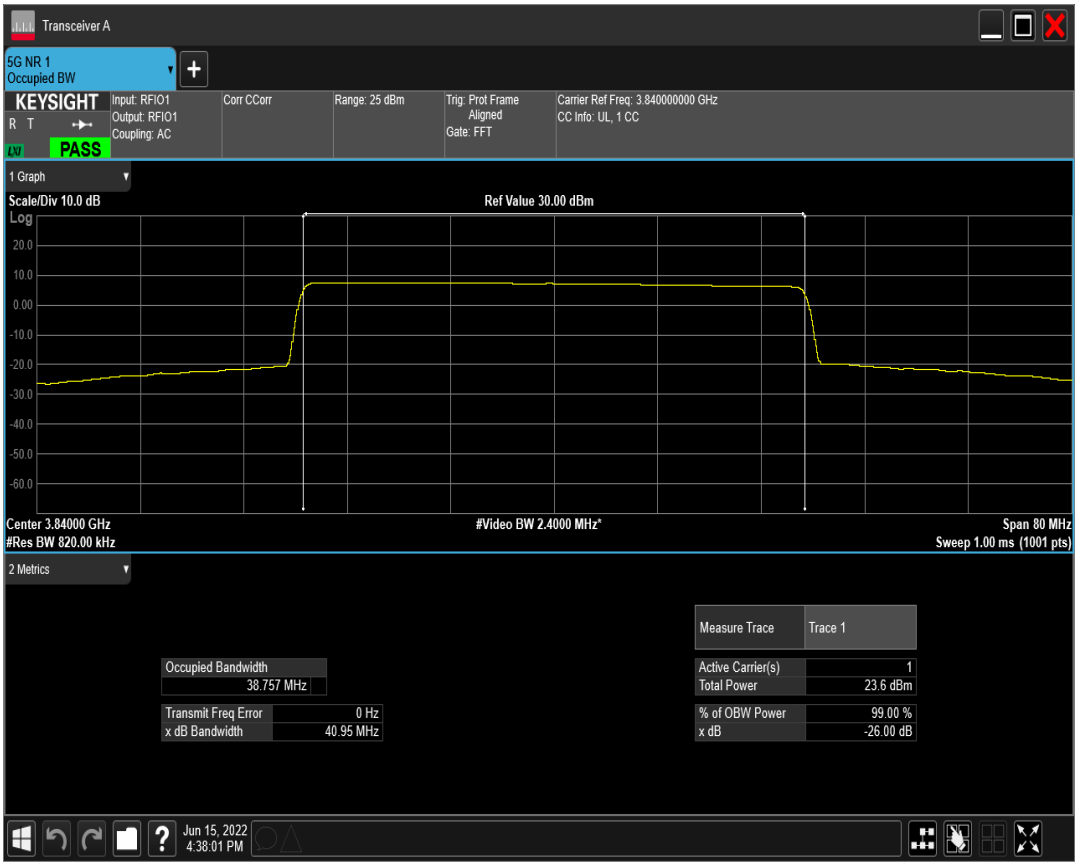
n77(3700-3980) SCS=15kHz DFT_QAM16 BW=40MHz Channel=656000 RB=216@0

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



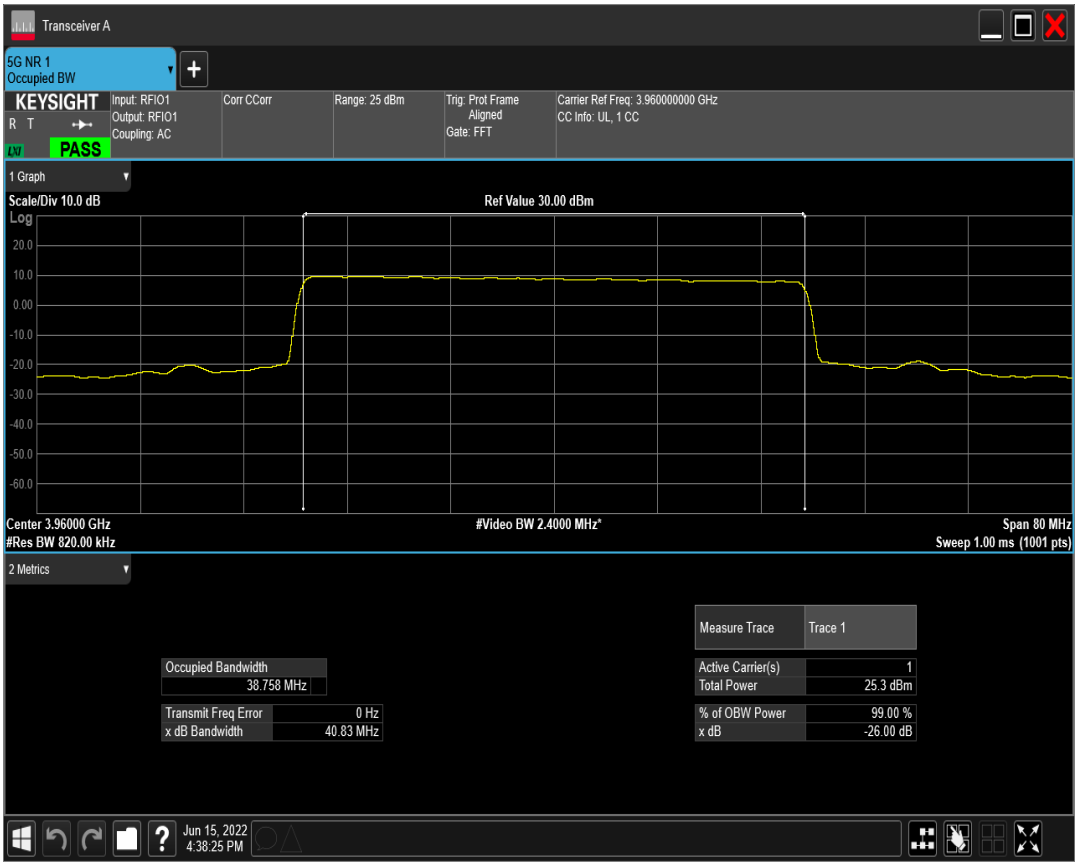
n77(3700-3980) SCS=15kHz DFT_QAM256 BW=40MHz Channel=656000 RB=216@0

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



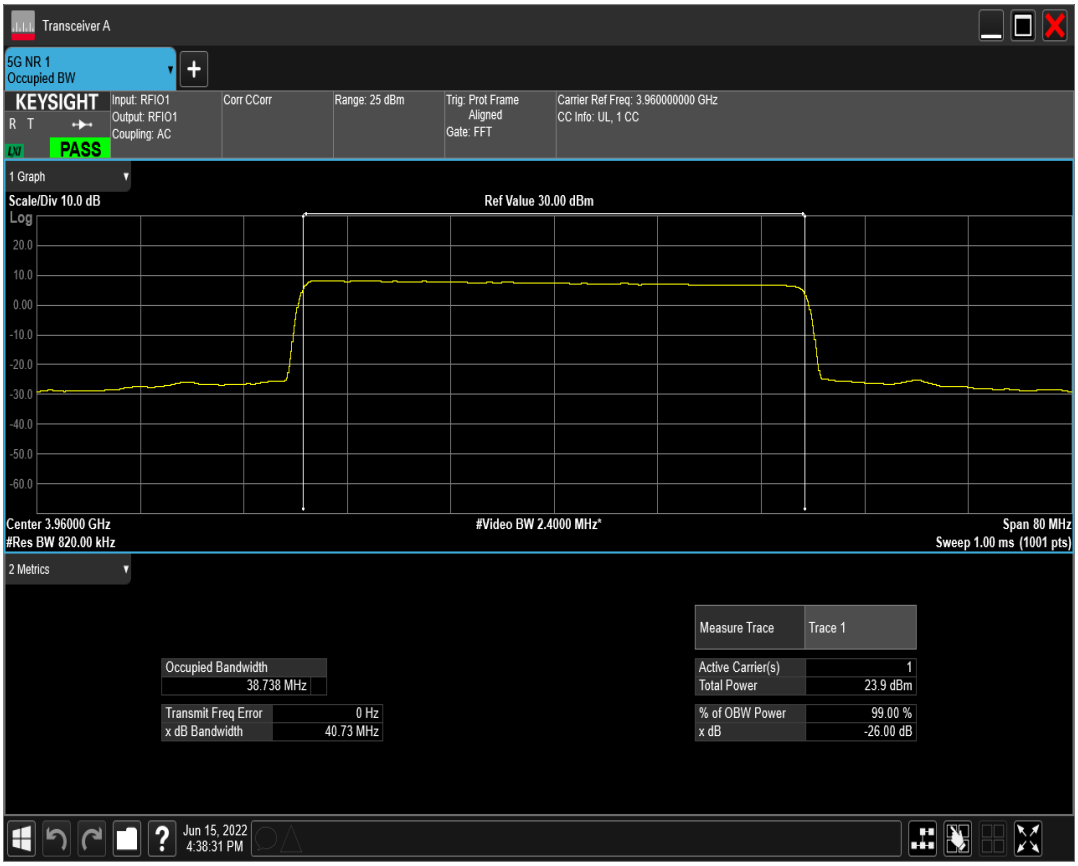
n77(3700-3980) SCS=15kHz DFT_BPSK BW=40MHz Channel=664000 RB=216@0

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



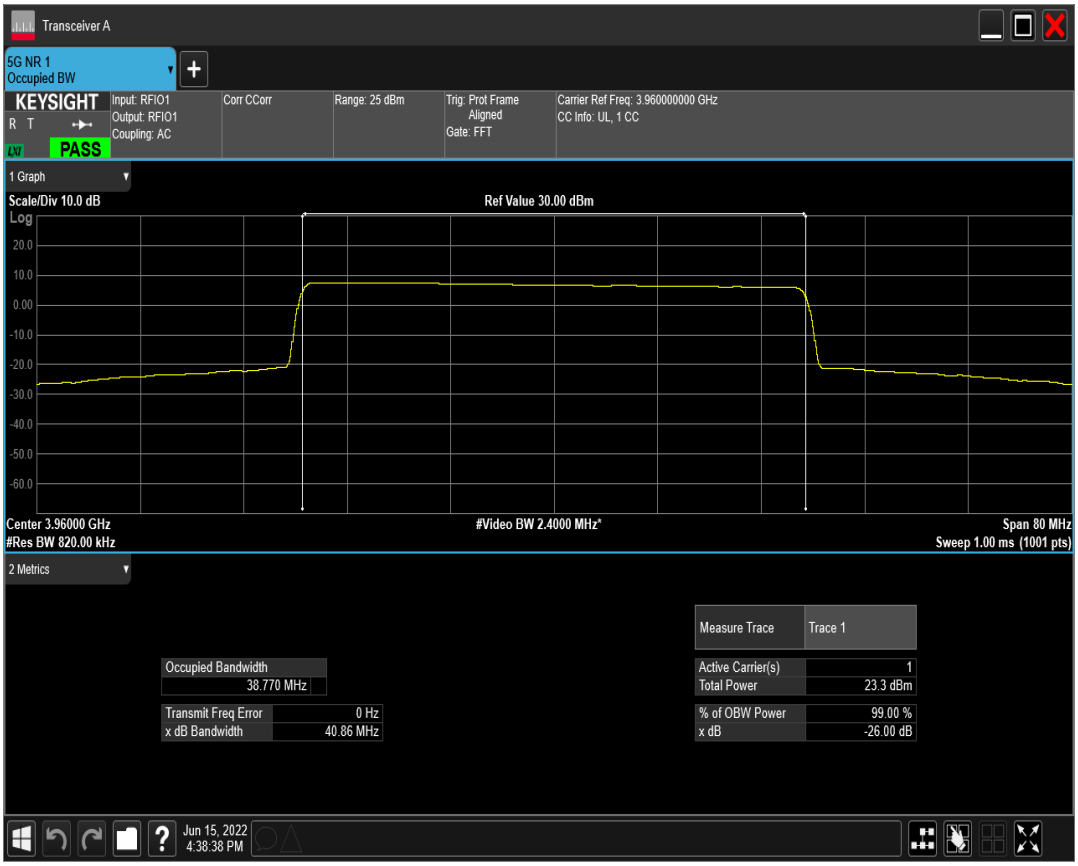
n77(3700-3980) SCS=15kHz DFT_QAM16 BW=40MHz Channel=664000 RB=216@0

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

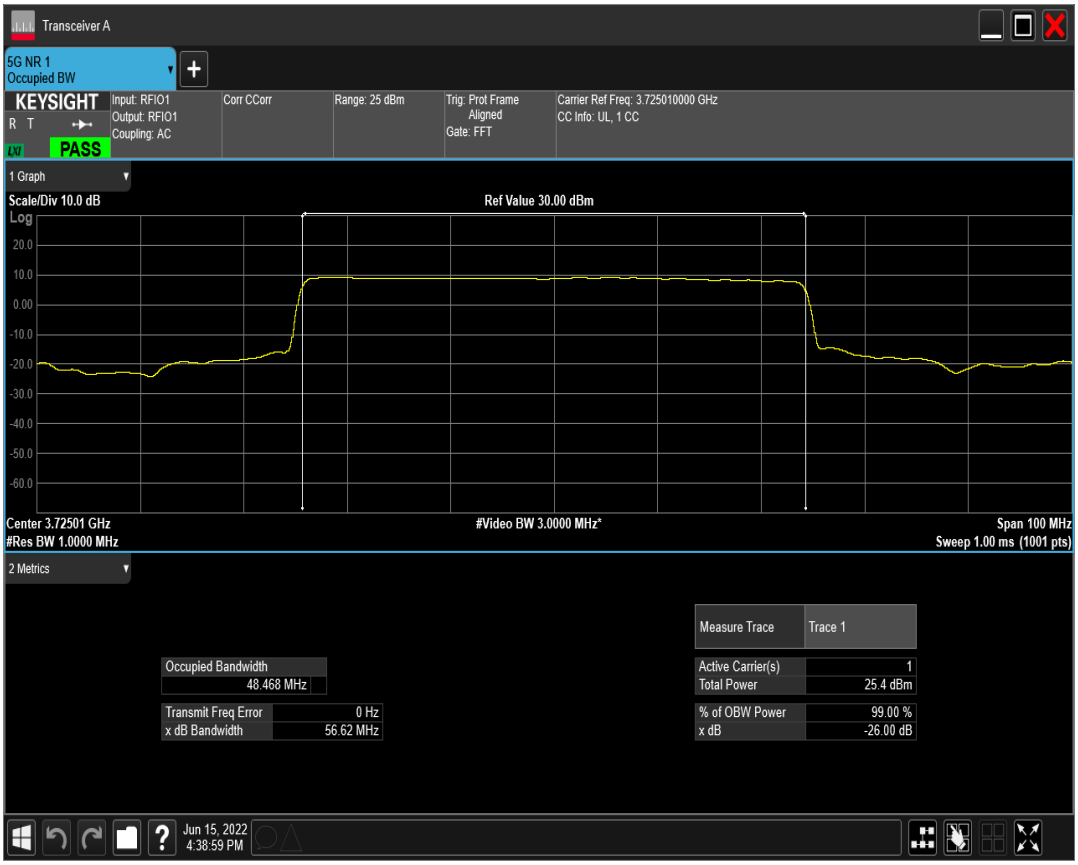


n77(3700-3980) SCS=15kHz DFT_QAM256 BW=40MHz Channel=664000 RB=216@0

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



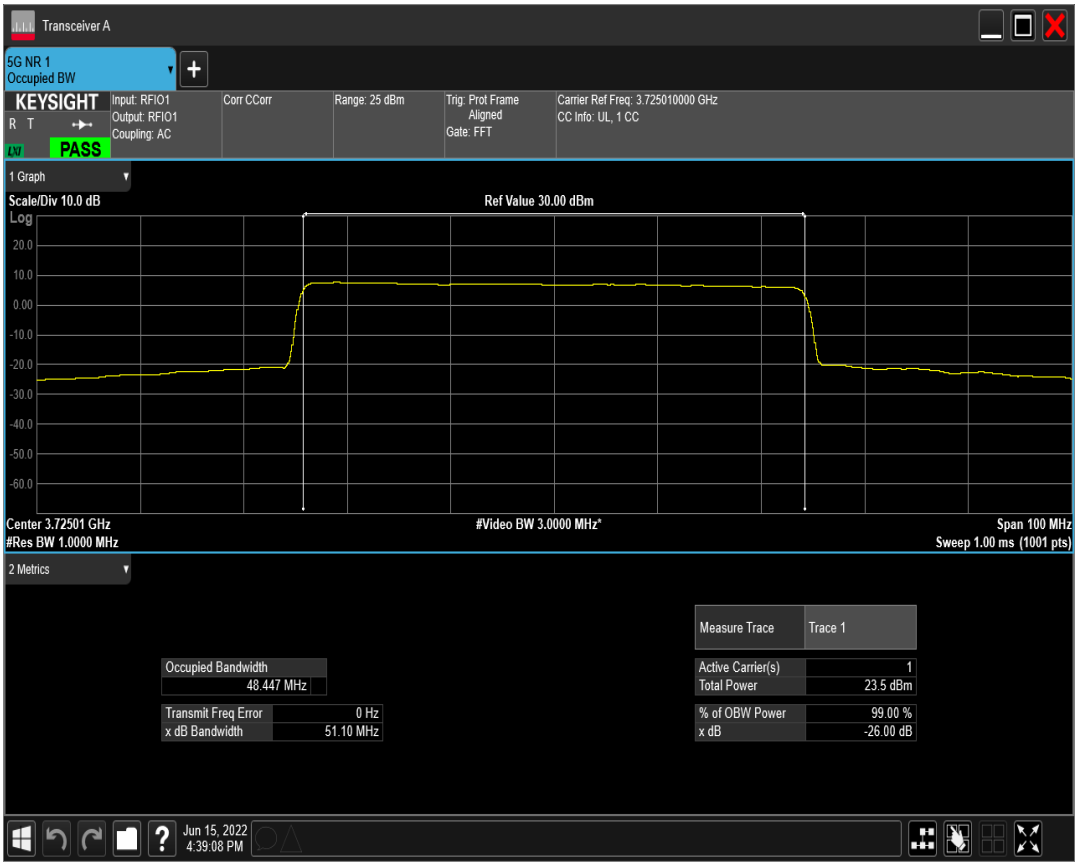
n77(3700-3980) SCS=15kHz DFT_BPSK BW=50MHz Channel=648334 RB=270@0



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

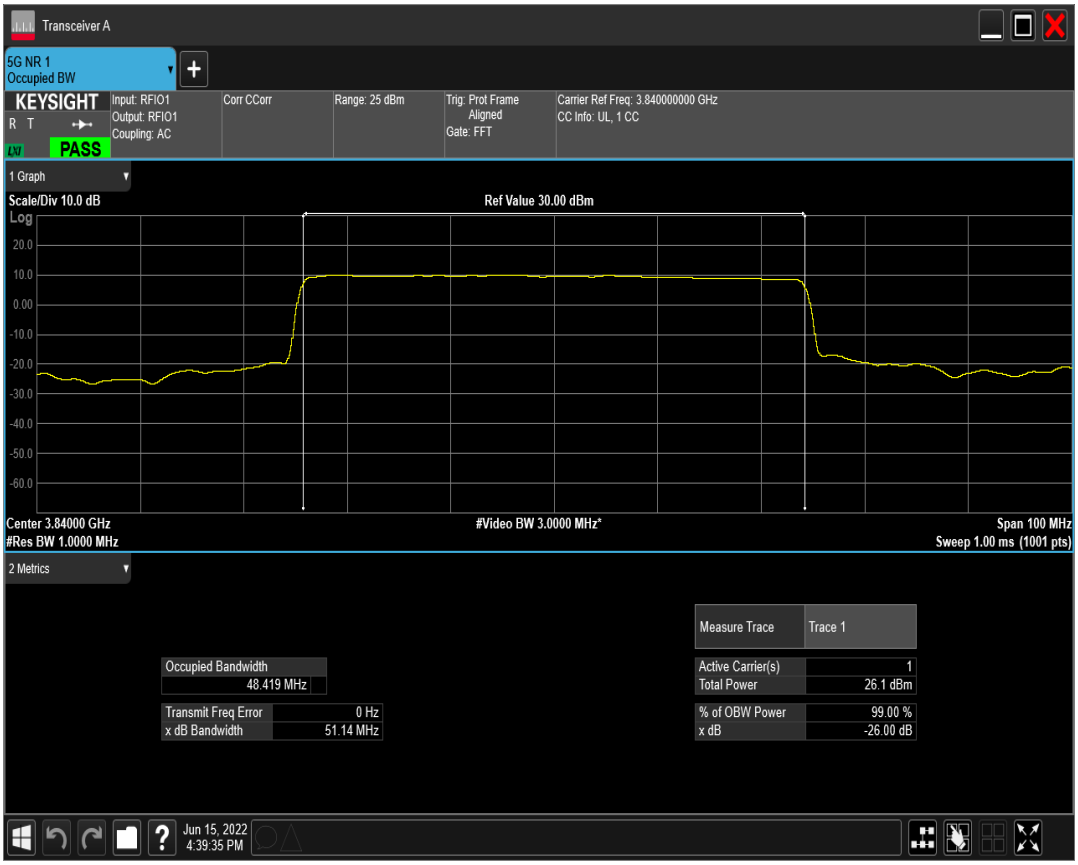
n77(3700-3980) SCS=15kHz DFT_QAM64 BW=50MHz Channel=648334 RB=270@0



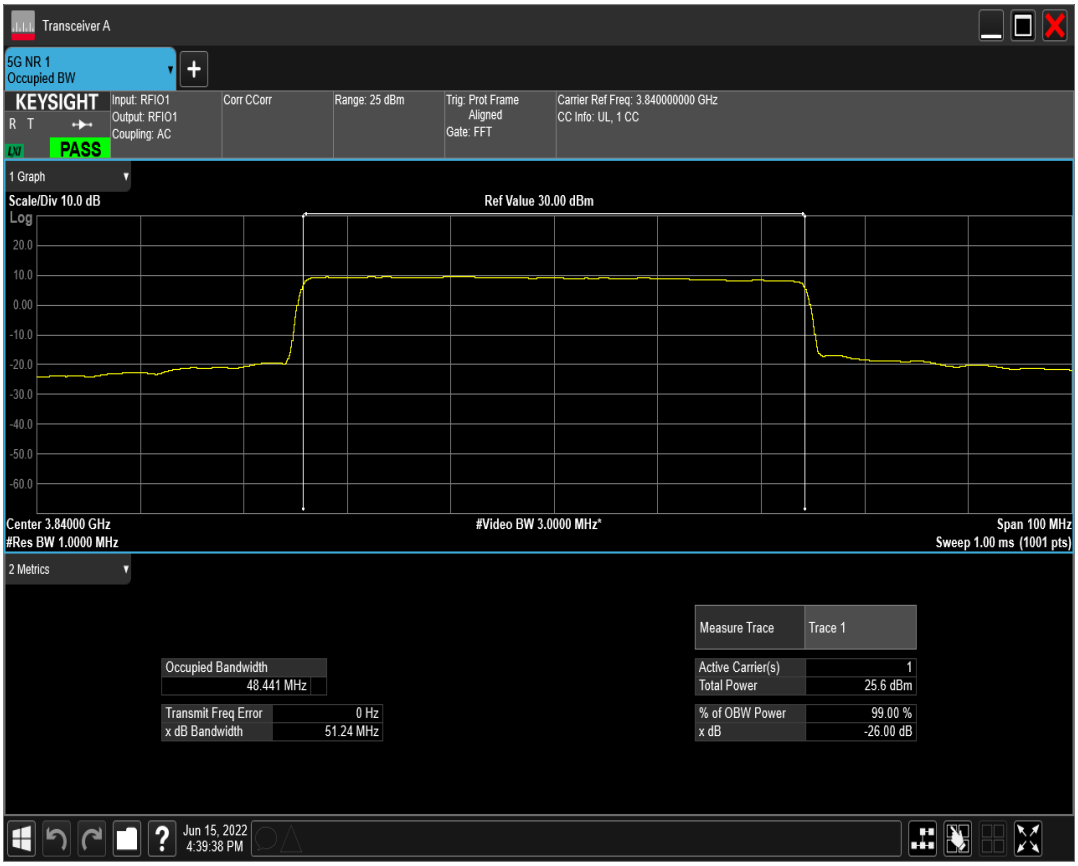
n77(3700-3980) SCS=15kHz DFT_QAM256 BW=50MHz Channel=648334 RB=270@0

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

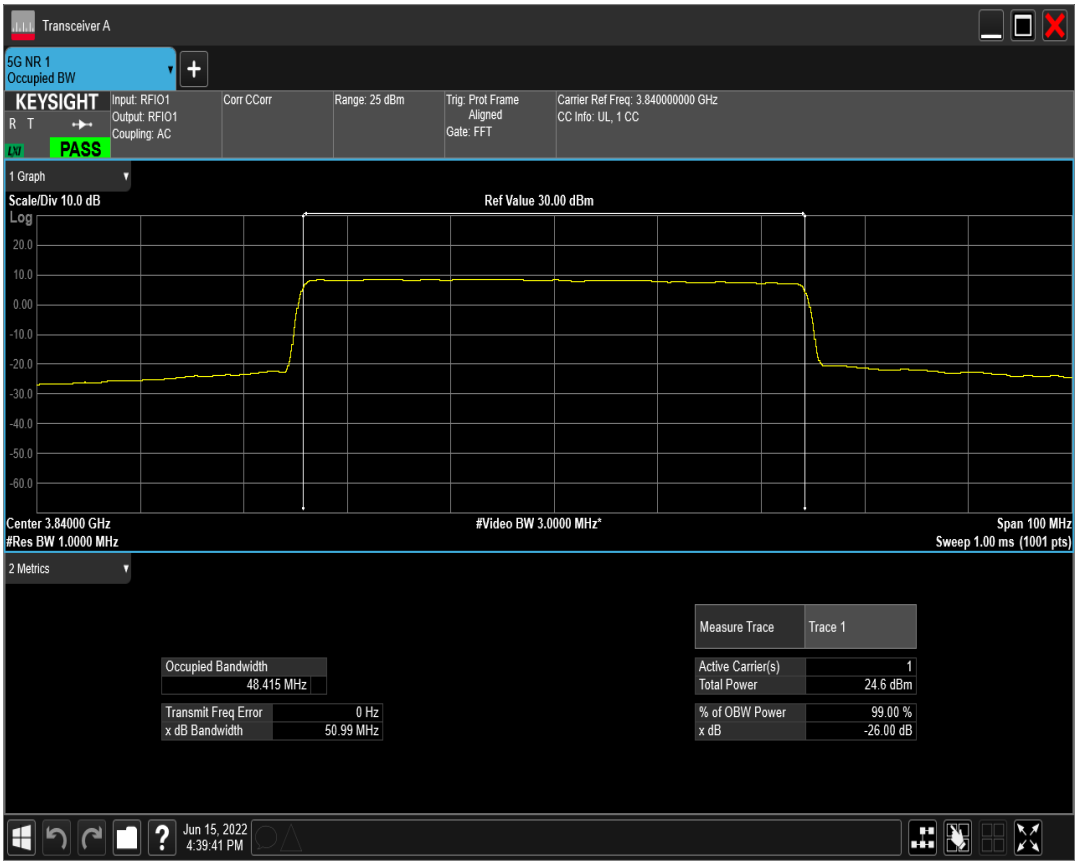
n77(3700-3980) SCS=15kHz DFT_BPSK BW=50MHz Channel=656000 RB=270@0



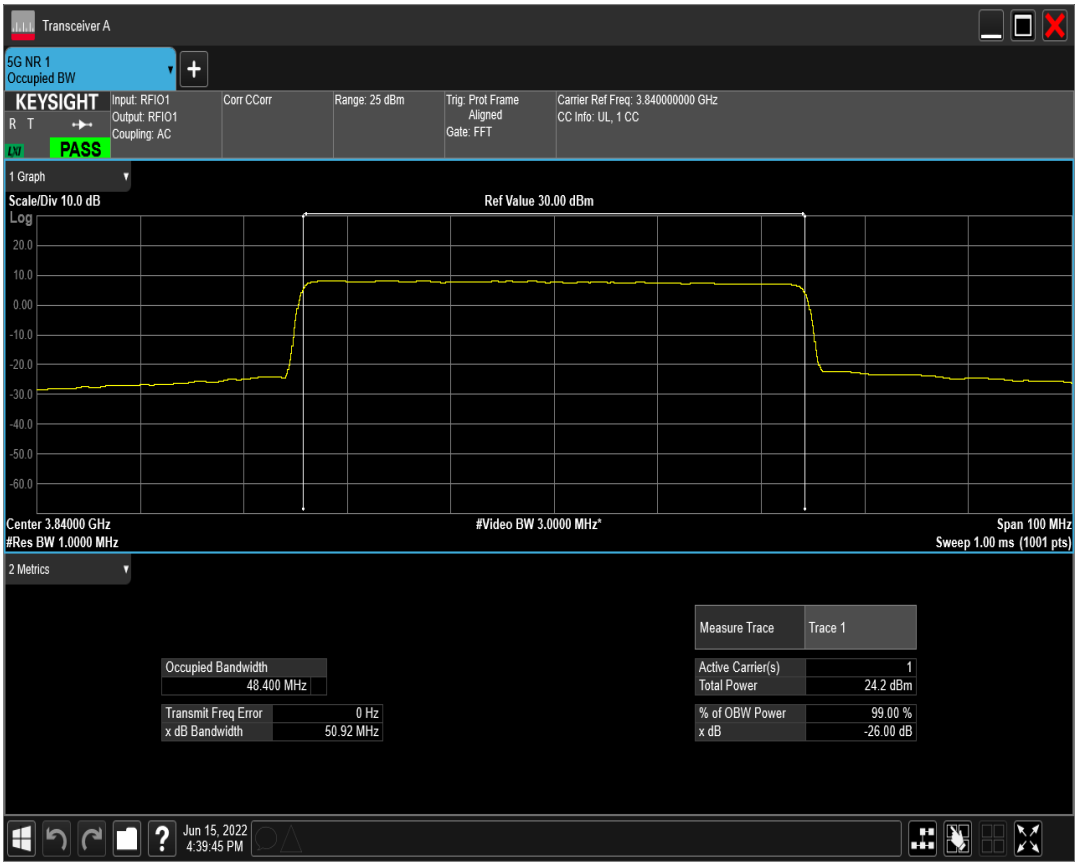
n77(3700-3980) SCS=15kHz DFT_QPSK BW=50MHz Channel=656000 RB=270@0



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

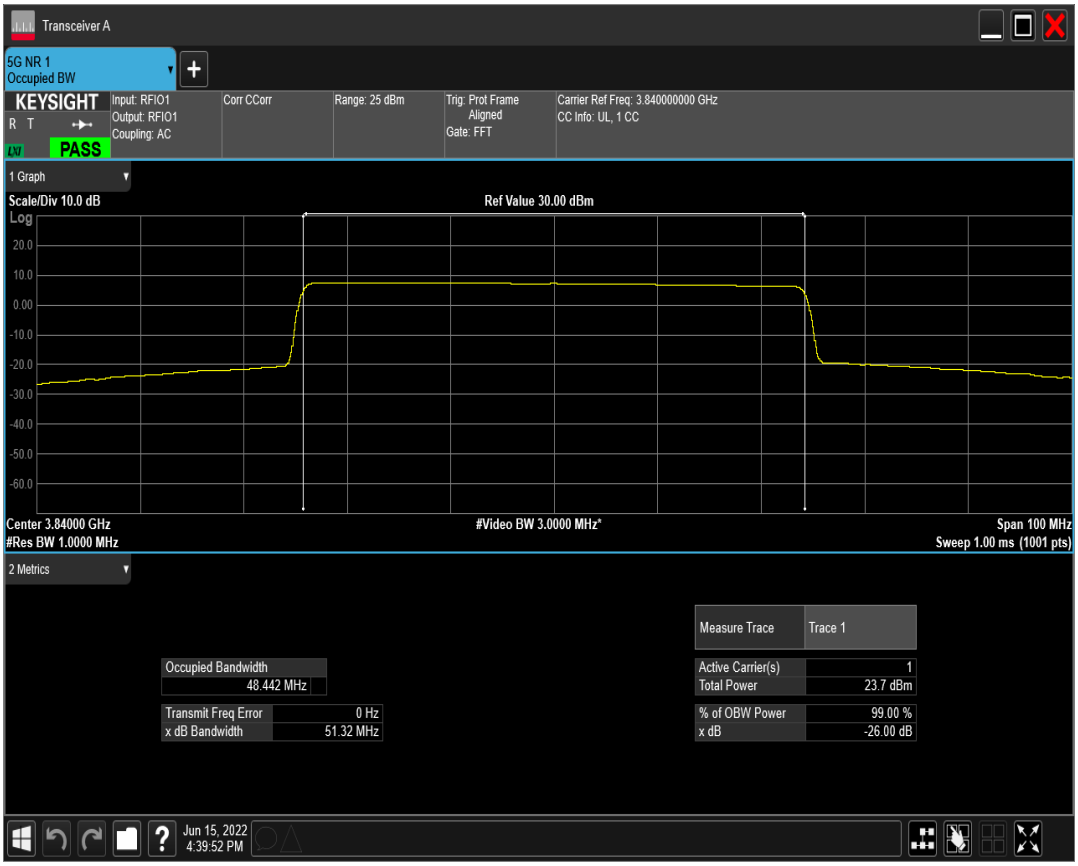


n77(3700-3980) SCS=15kHz DFT_QAM64 BW=50MHz Channel=656000 RB=270@0

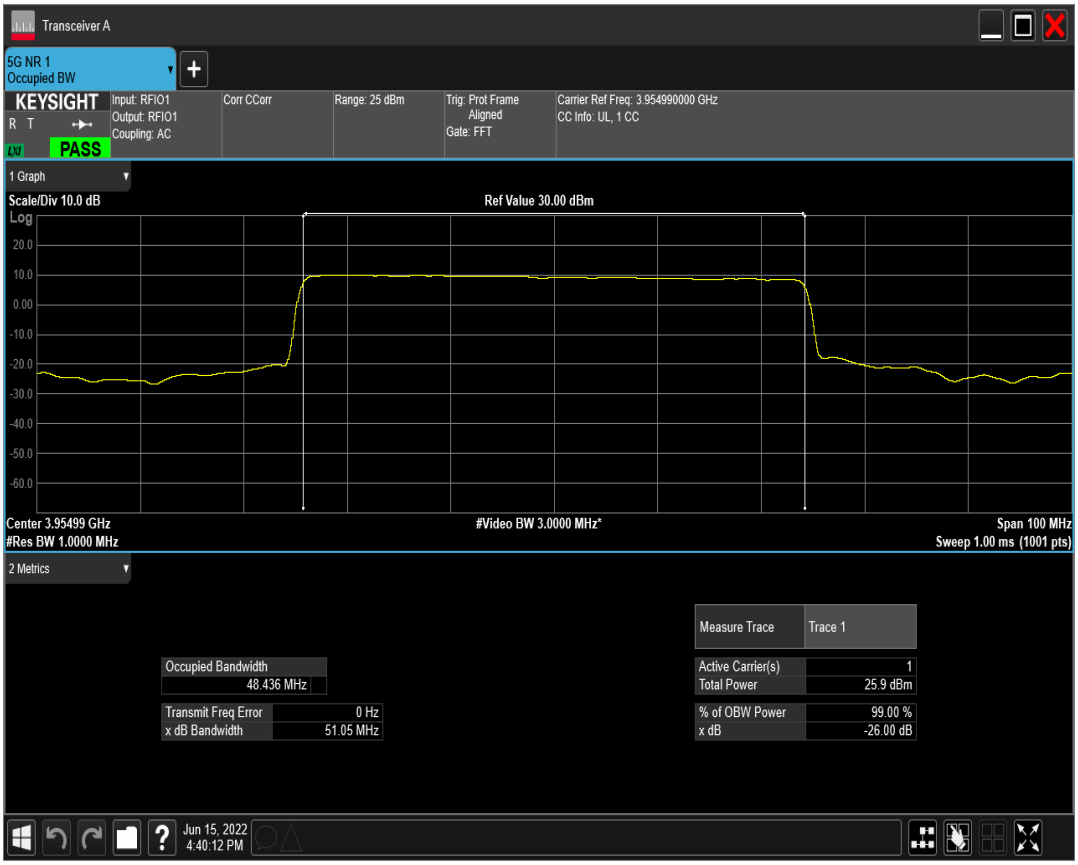


n77(3700-3980) SCS=15kHz DFT_QAM256 BW=50MHz Channel=656000 RB=270@0

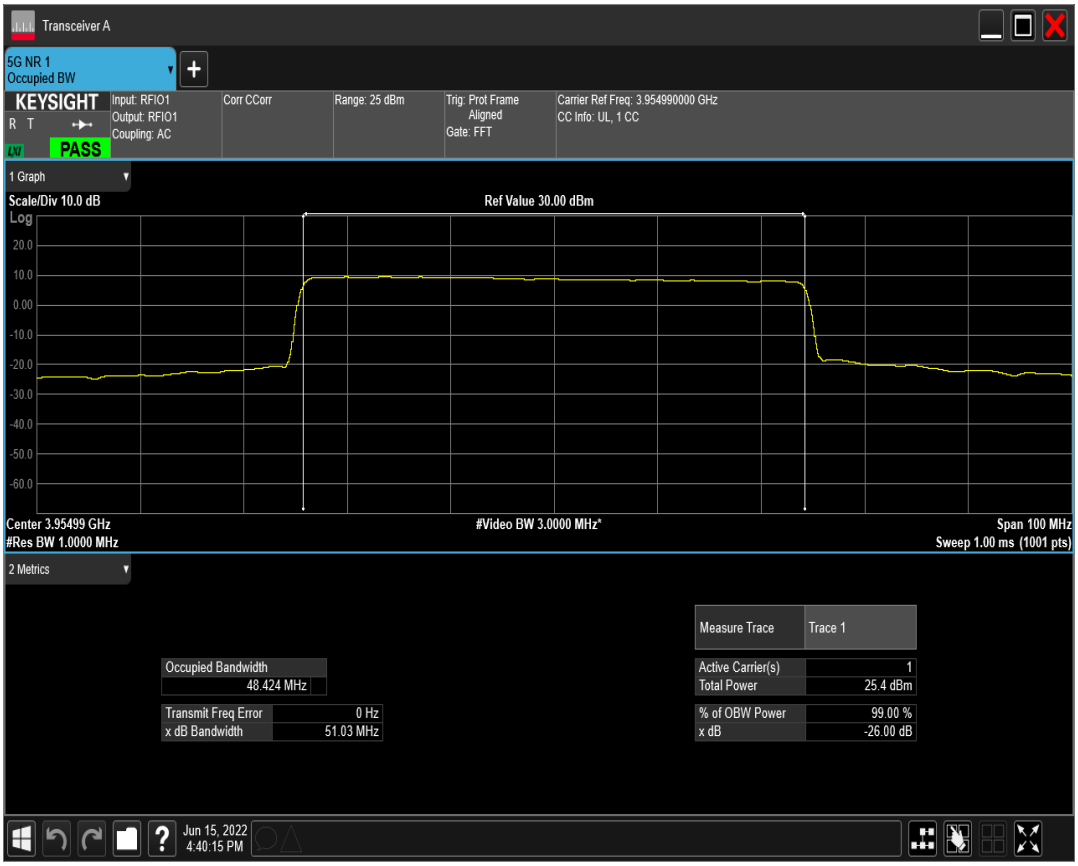
n77(3700-3980) SCS=15kHz CP_QPSK BW=50MHz Channel=656000 RB=270@0



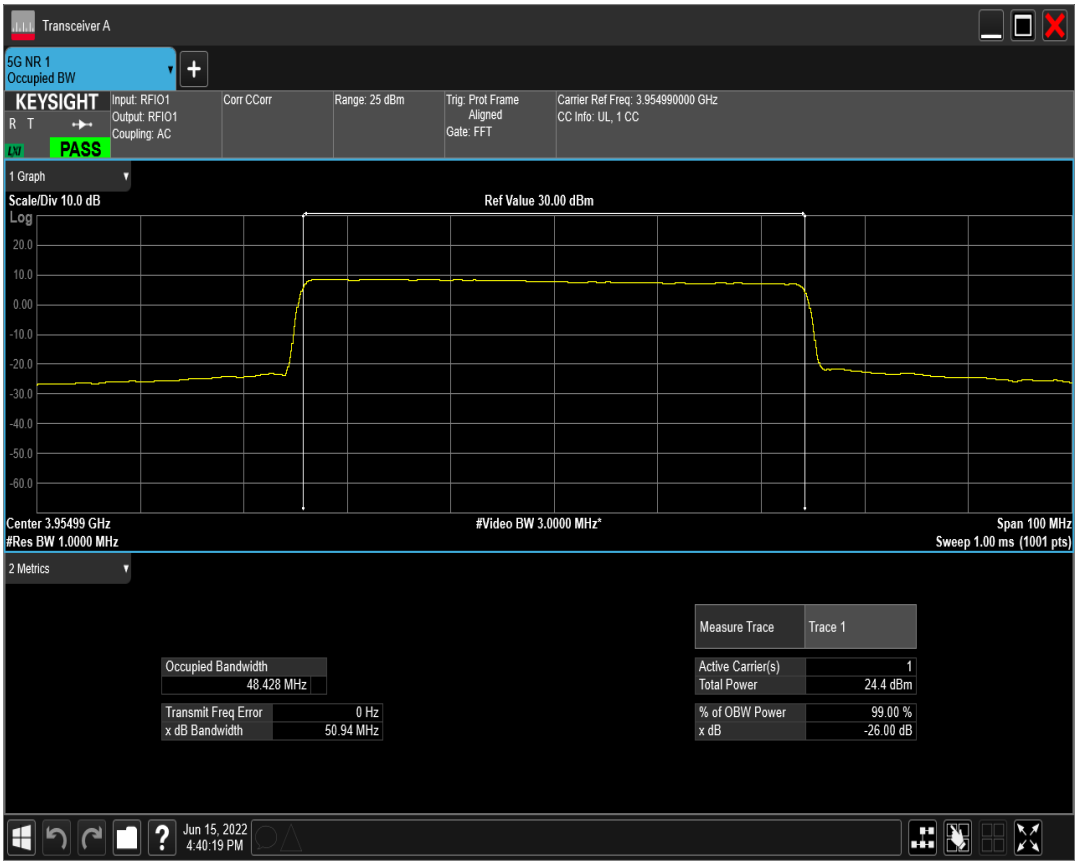
n77(3700-3980) SCS=15kHz DFT_BPSK BW=50MHz Channel=663666 RB=270@0



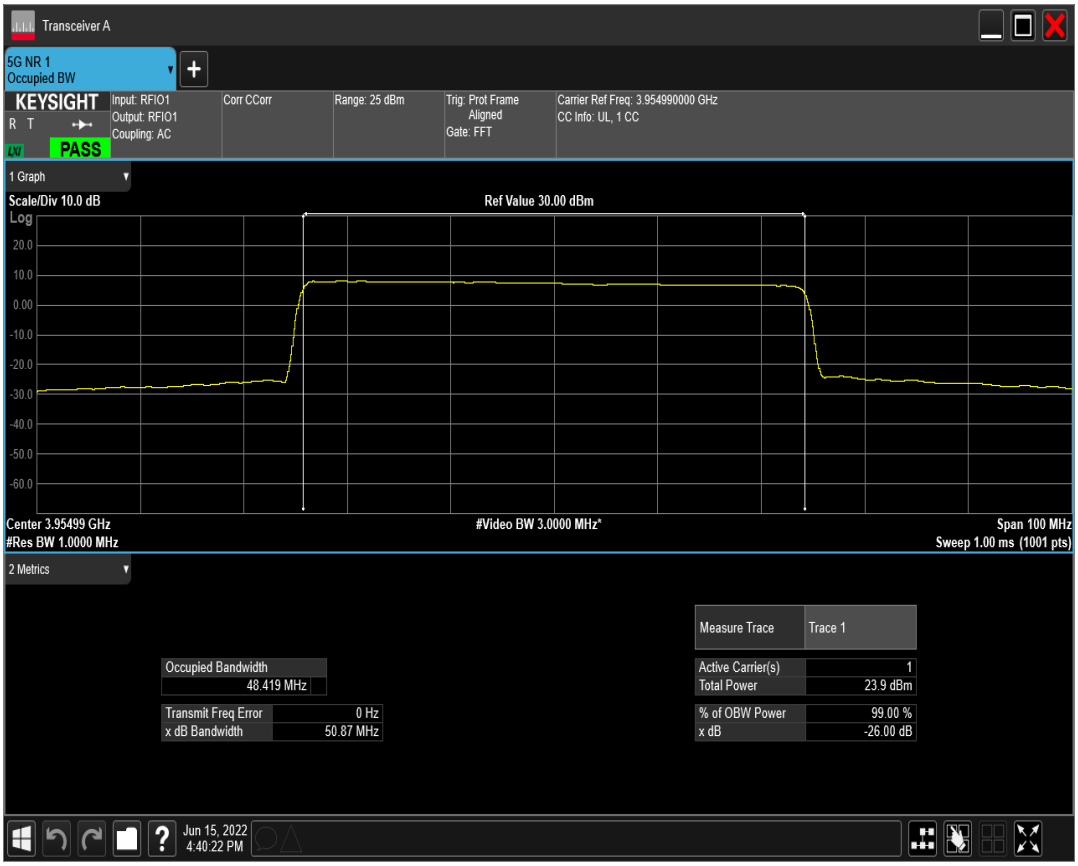
n77(3700-3980) SCS=15kHz DFT_QPSK BW=50MHz Channel=663666 RB=270@0



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

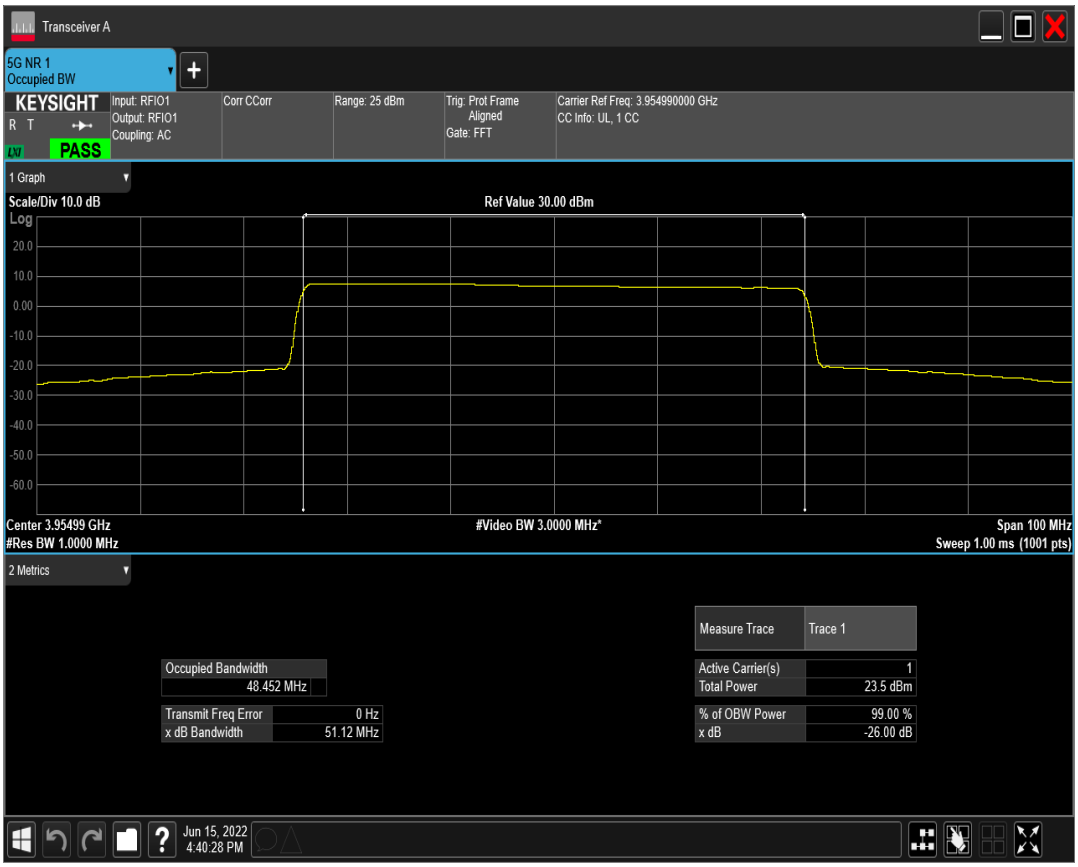


n77(3700-3980) SCS=15kHz DFT_QAM64 BW=50MHz Channel=663666 RB=270@0



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

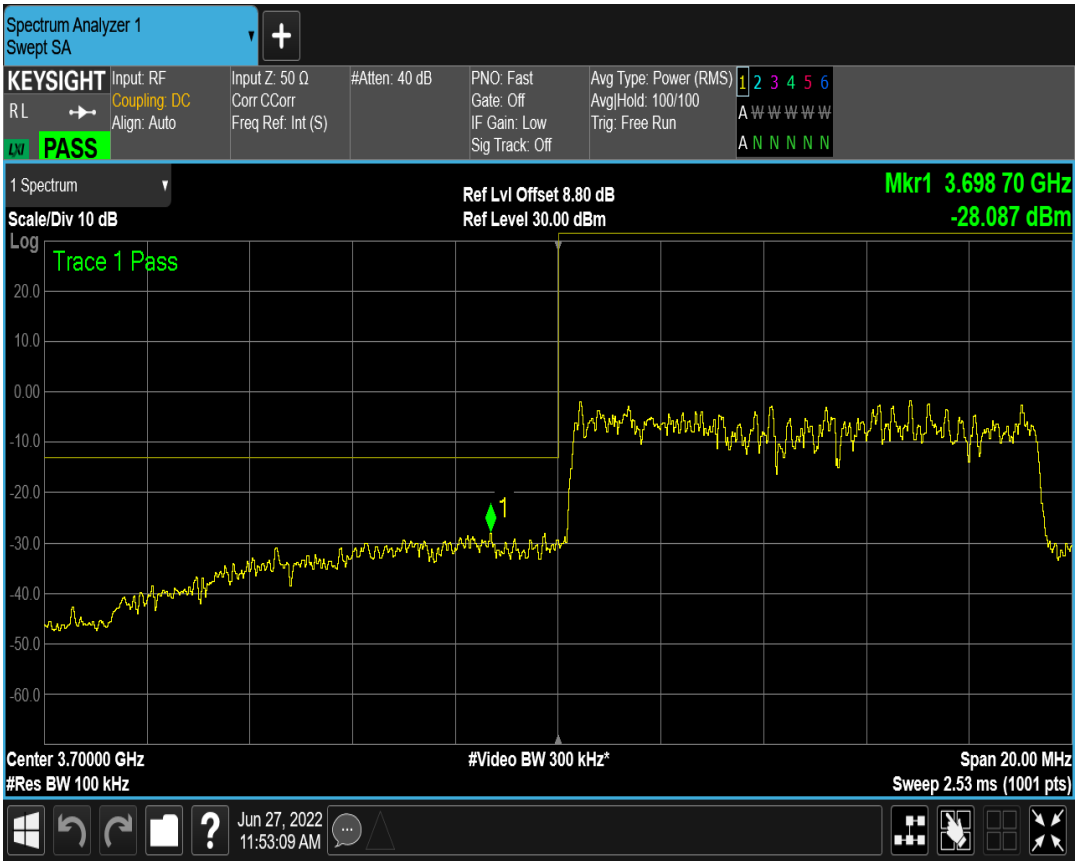
n77(3700-3980) SCS=15kHz CP_QPSK BW=50MHz Channel=663666 RB=270@0



5 Band edge for NR FR1

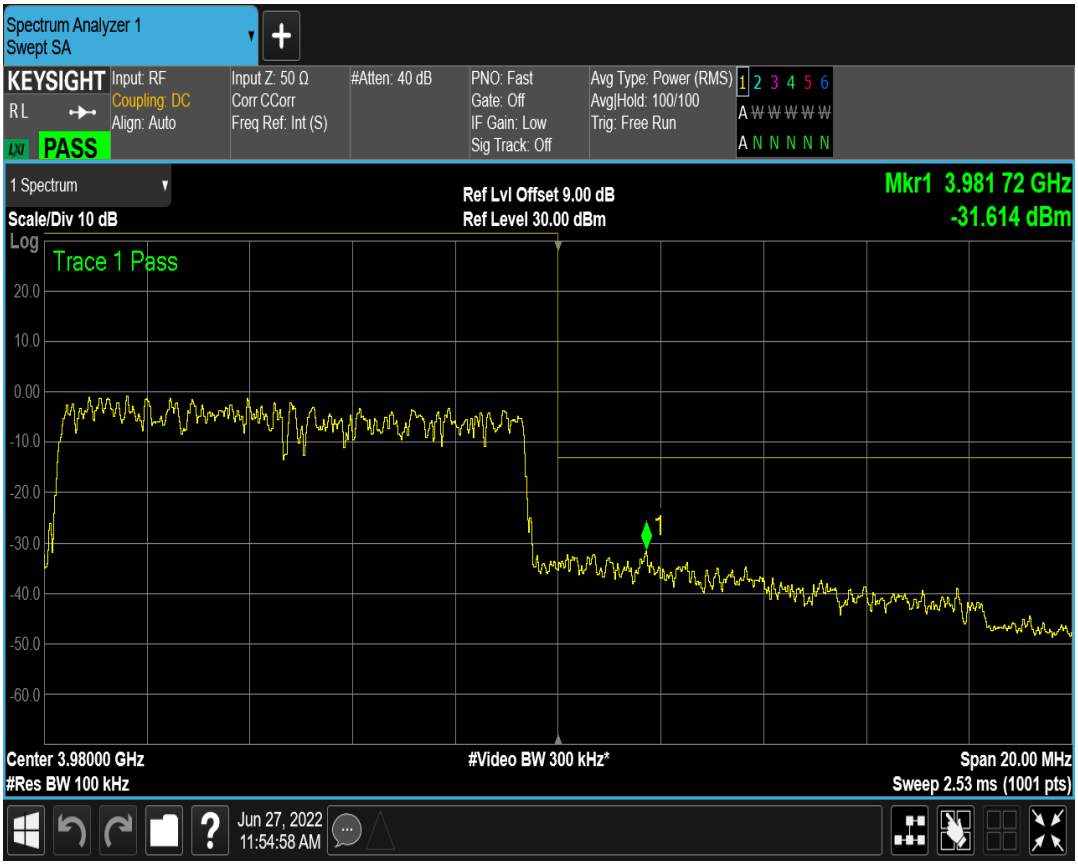
Band	SCS (kHz)	Bandwidth (MHz)	UL Channel	RB Allocation	Modulation	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)	Verdict
n77(3700-3980)	15	10	647000	50@0	DFT_QPSK	3698.70	-28.08	-13	PASS
n77(3700-3980)	15	10	647000	1@0	DFT_QPSK	3699.96	-15.96	-13	PASS
n77(3700-3980)	15	10	665000	50@0	DFT_QPSK	3981.72	-31.61	-13	PASS
n77(3700-3980)	15	10	665000	1@51	DFT_QPSK	3980.00	-17.07	-13	PASS
n77(3700-3980)	15	50	648334	270@0	DFT_QPSK	3695.80	-24.15	-13	PASS
n77(3700-3980)	15	50	648334	1@0	DFT_QPSK	3699.30	-31.58	-13	PASS
n77(3700-3980)	15	50	663666	270@0	DFT_QPSK	3983.10	-27.68	-13	PASS
n77(3700-3980)	15	50	663666	1@269	DFT_QPSK	3980.20	-29.15	-13	PASS

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

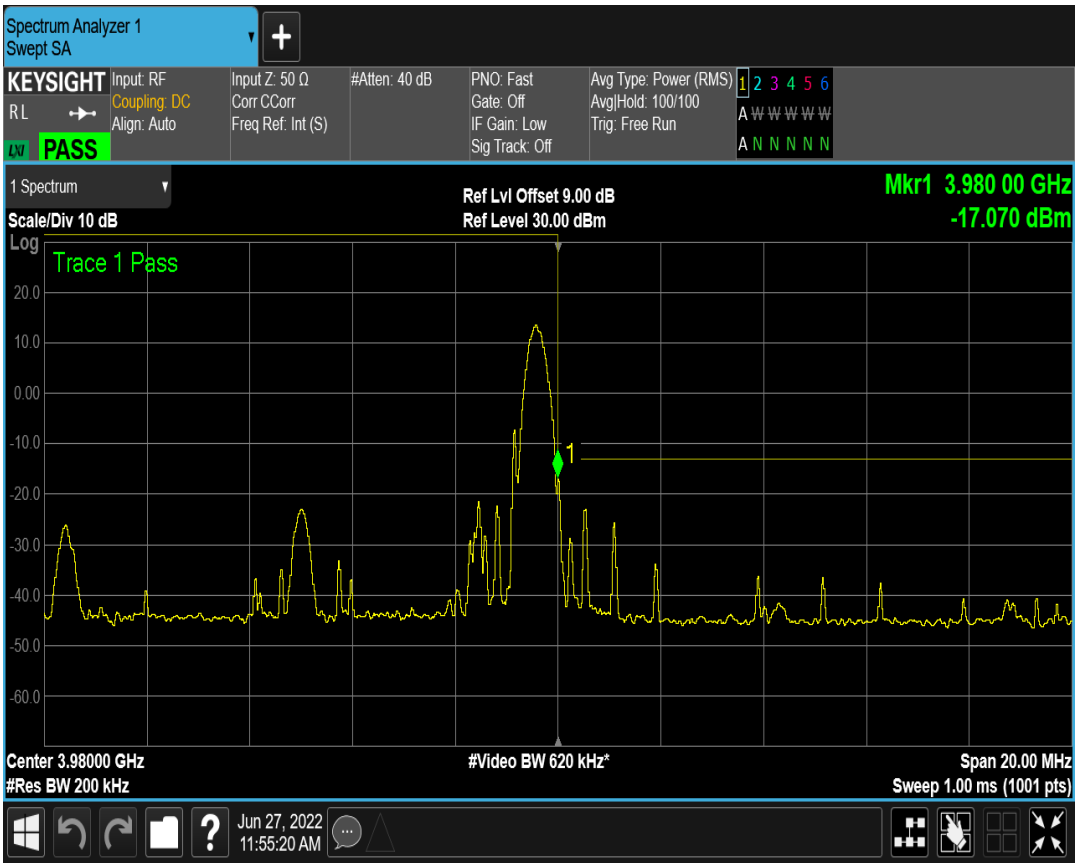


n77(3700-3980) SCS=15kHz DFT_QPSK BW=10MHz Channel=647000 RB=1@0

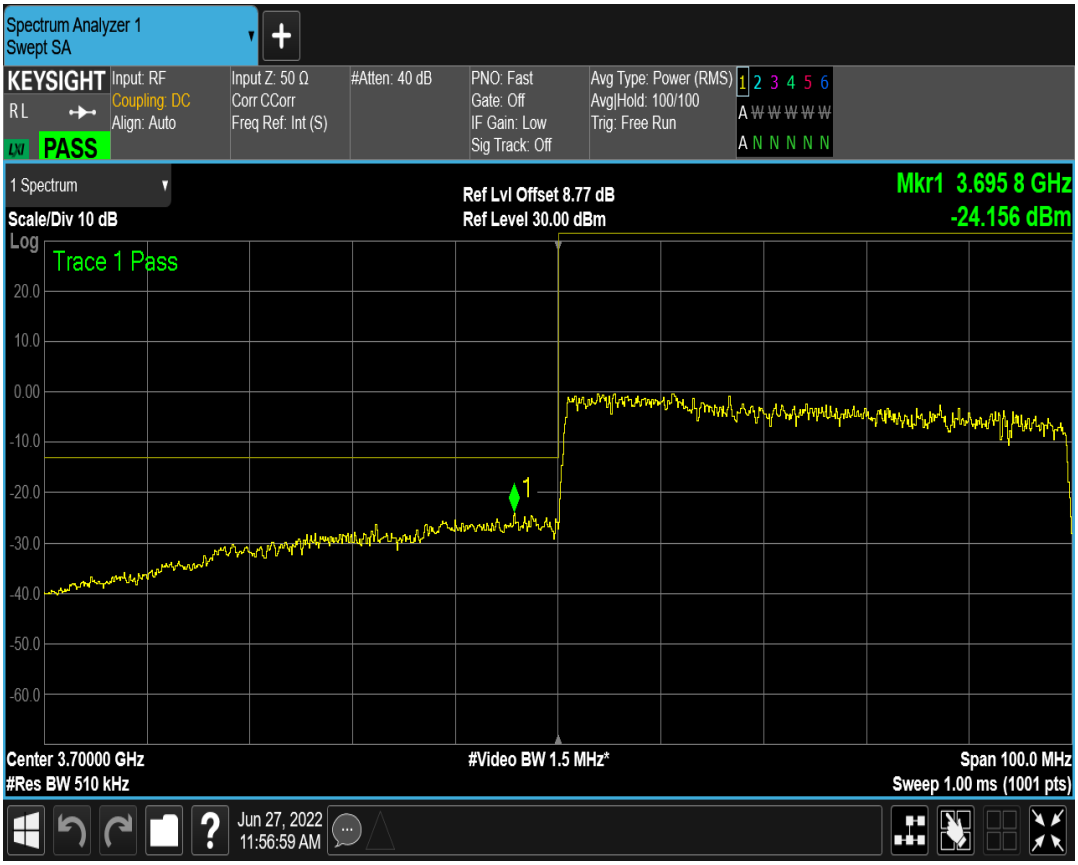
n77(3700-3980) SCS=15kHz DFT_QPSK BW=10MHz Channel=665000 RB=50@0



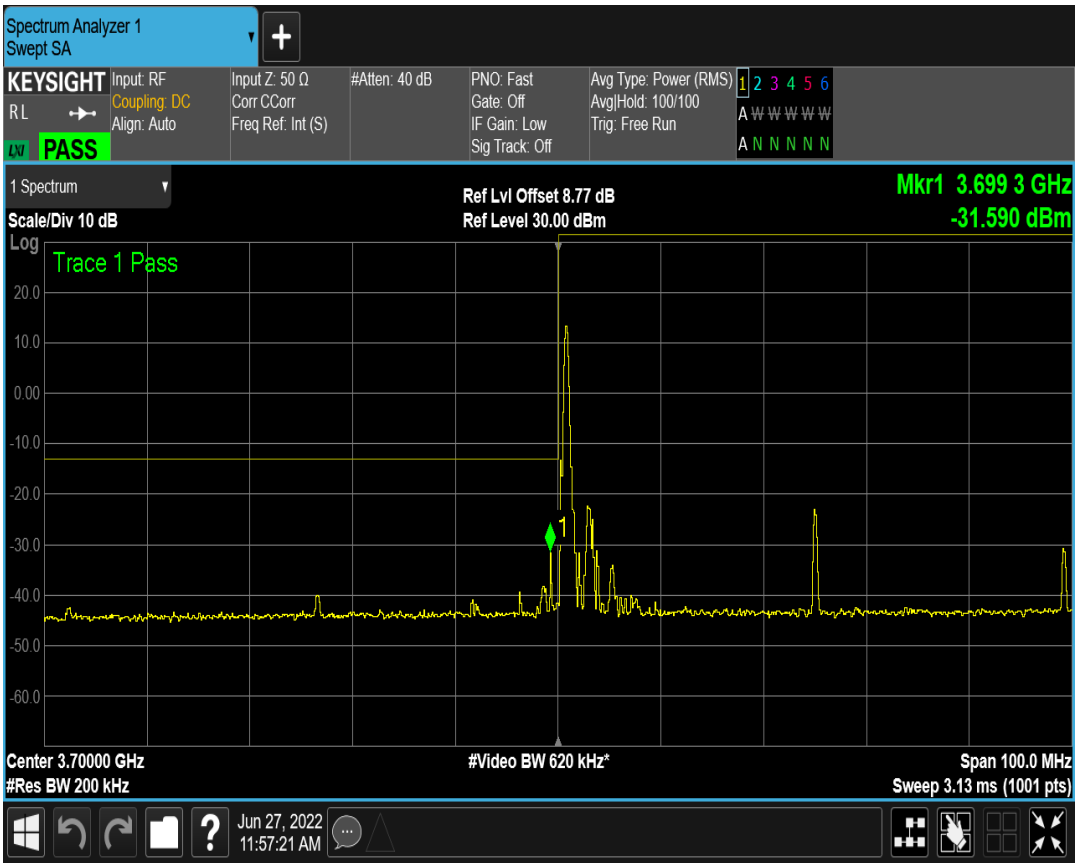
n77(3700-3980) SCS=15kHz DFT_QPSK BW=10MHz Channel=665000 RB=1@51



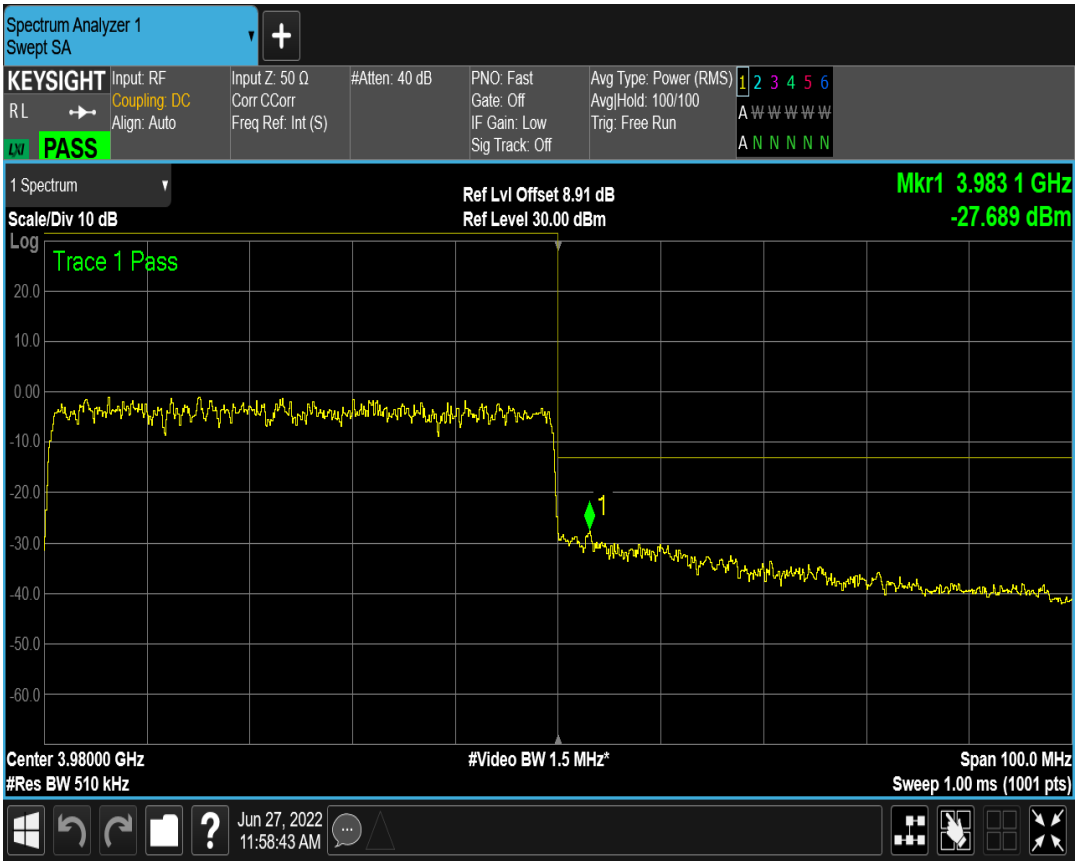
n77(3700-3980) SCS=15kHz DFT_QPSK BW=50MHz Channel=648334 RB=270@0



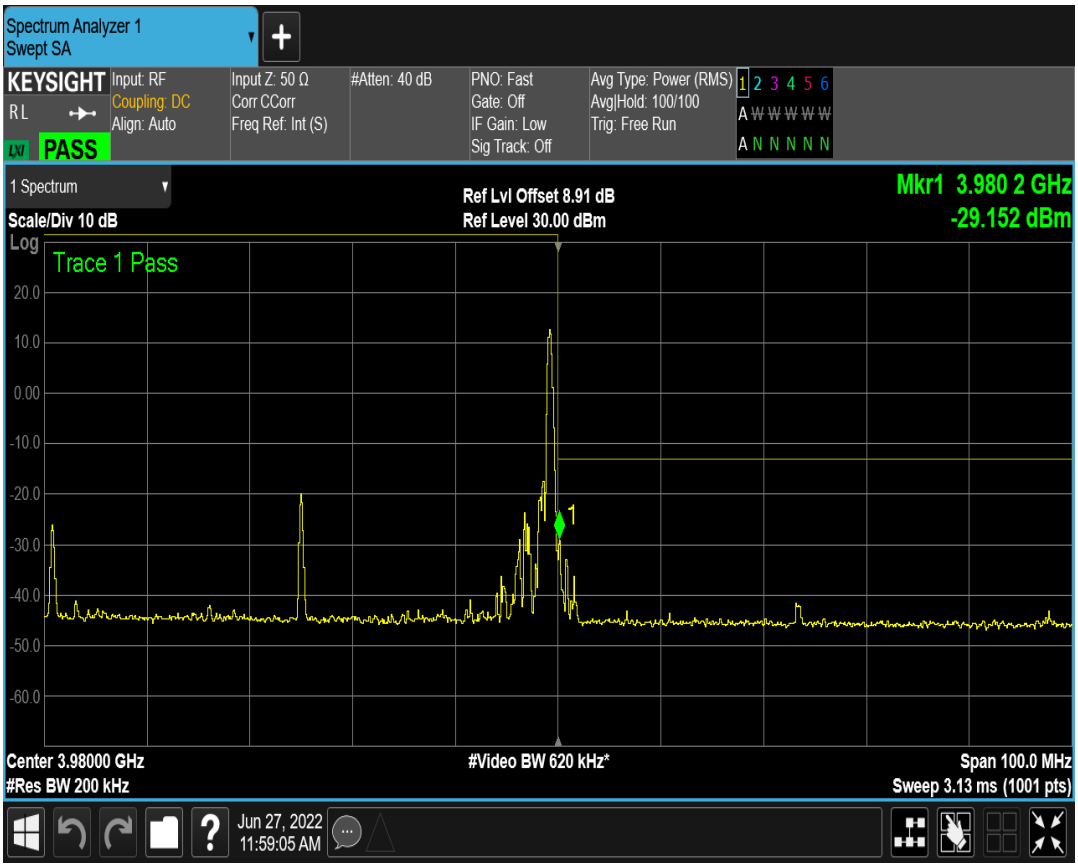
n77(3700-3980) SCS=15kHz DFT_QPSK BW=50MHz Channel=648334 RB=1@0



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



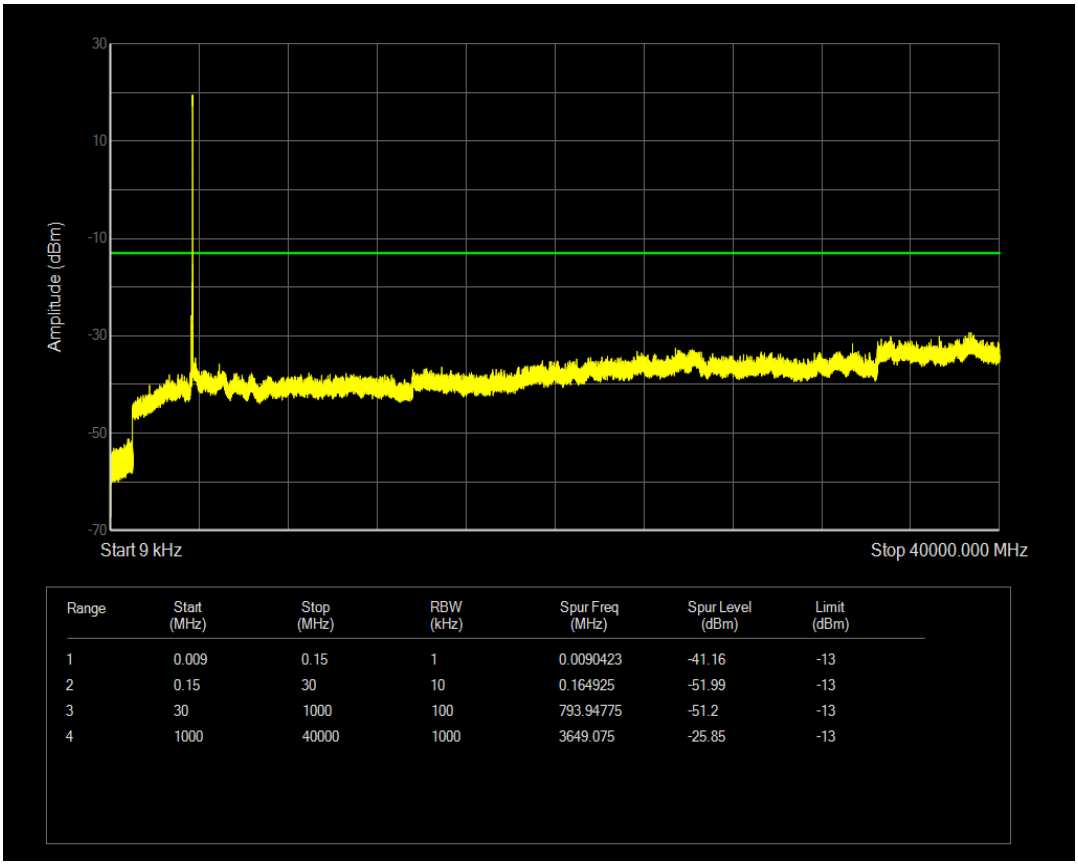
n77(3700-3980) SCS=15kHz DFT_QPSK BW=50MHz Channel=663666 RB=1@269



6 Out-of-band emissions for NR FR1

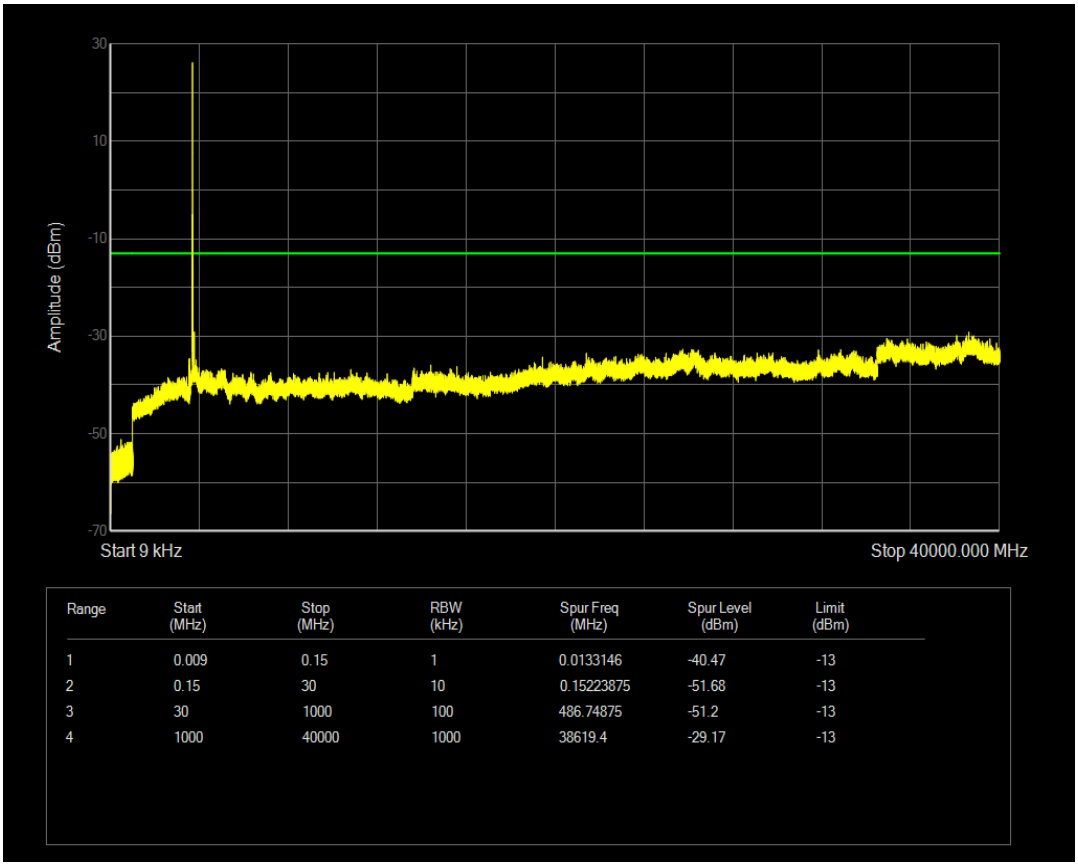
Band	SCS (kHz)	Bandwidth (MHz)	UL Channel	RB Allocation	Modulation	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)	Verdict
n77(3700-3980)	15	10	647000	50@0	DFT_QPSK	3649.08	-25.85	-13	PASS
n77(3700-3980)	15	10	647000	1@0	DFT_QPSK	38619.40	-29.17	-13	PASS
n77(3700-3980)	15	10	647000	1@51	DFT_QPSK	3645.18	-27.39	-13	PASS
n77(3700-3980)	15	10	656000	50@0	DFT_QPSK	38827.08	-29.19	-13	PASS
n77(3700-3980)	15	10	656000	1@0	DFT_QPSK	38059.75	-28.98	-13	PASS
n77(3700-3980)	15	10	656000	1@51	DFT_QPSK	38540.43	-29.40	-13	PASS
n77(3700-3980)	15	10	665000	50@0	DFT_QPSK	4047.85	-28.06	-13	PASS
n77(3700-3980)	15	10	665000	1@0	DFT_QPSK	38941.15	-28.84	-13	PASS
n77(3700-3980)	15	10	665000	1@51	DFT_QPSK	4032.25	-28.18	-13	PASS
n77(3700-3980)	15	50	648334	270@0	DFT_QPSK	38803.68	-29.68	-13	PASS
n77(3700-3980)	15	50	648334	1@0	DFT_QPSK	38581.38	-27.89	-13	PASS
n77(3700-3980)	15	50	648334	1@269	DFT_QPSK	38524.83	-29.20	-13	PASS
n77(3700-3980)	15	50	656000	270@0	DFT_QPSK	38946.03	-29.67	-13	PASS
n77(3700-3980)	15	50	656000	1@0	DFT_QPSK	38151.40	-29.50	-13	PASS
n77(3700-3980)	15	50	656000	1@269	DFT_QPSK	35042.13	-29.17	-13	PASS
n77(3700-3980)	15	50	663666	270@0	DFT_QPSK	38570.65	-29.40	-13	PASS
n77(3700-3980)	15	50	663666	1@0	DFT_QPSK	38505.33	-28.94	-13	PASS
n77(3700-3980)	15	50	663666	1@269	DFT_QPSK	38814.40	-28.18	-13	PASS

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



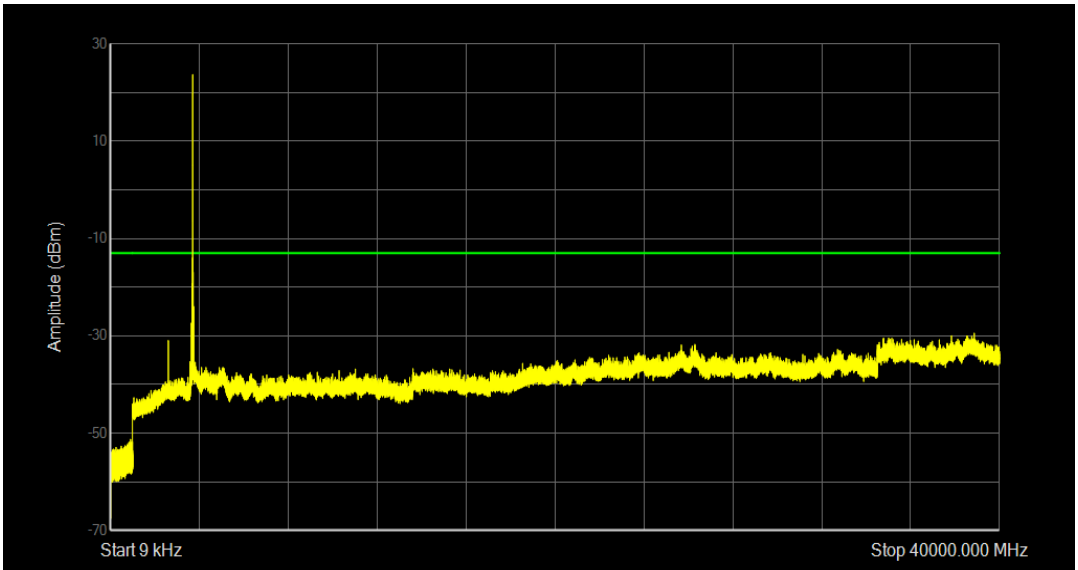
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.0090423	-41.16	-13
2	0.15	30	10	0.164925	-51.99	-13
3	30	1000	100	793.94775	-51.2	-13
4	1000	40000	1000	3649.075	-25.85	-13

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



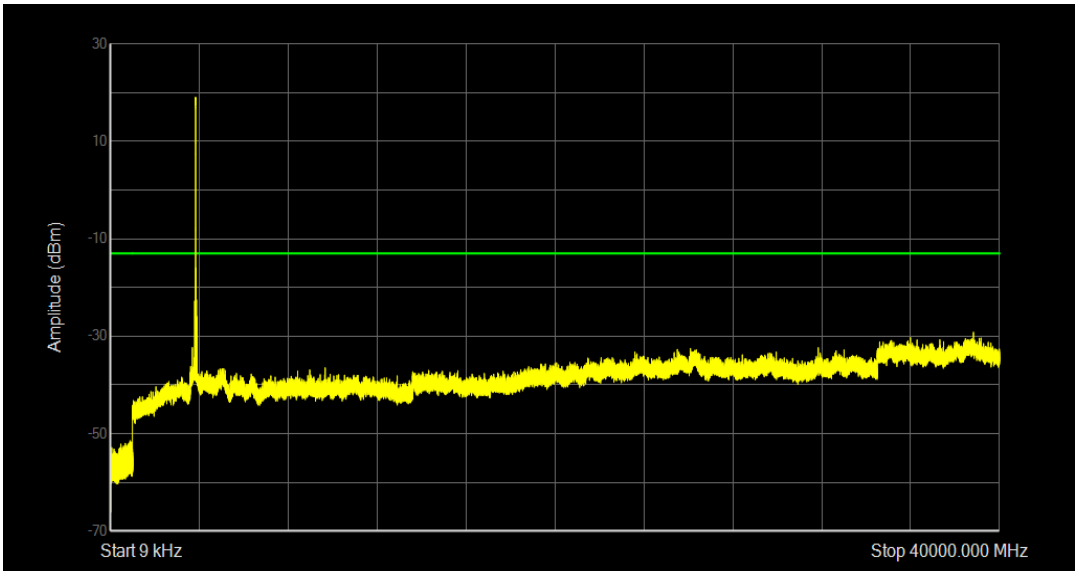
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.0133146	-40.47	-13
2	0.15	30	10	0.15223875	-51.68	-13
3	30	1000	100	486.74875	-51.2	-13
4	1000	40000	1000	38619.4	-29.17	-13

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



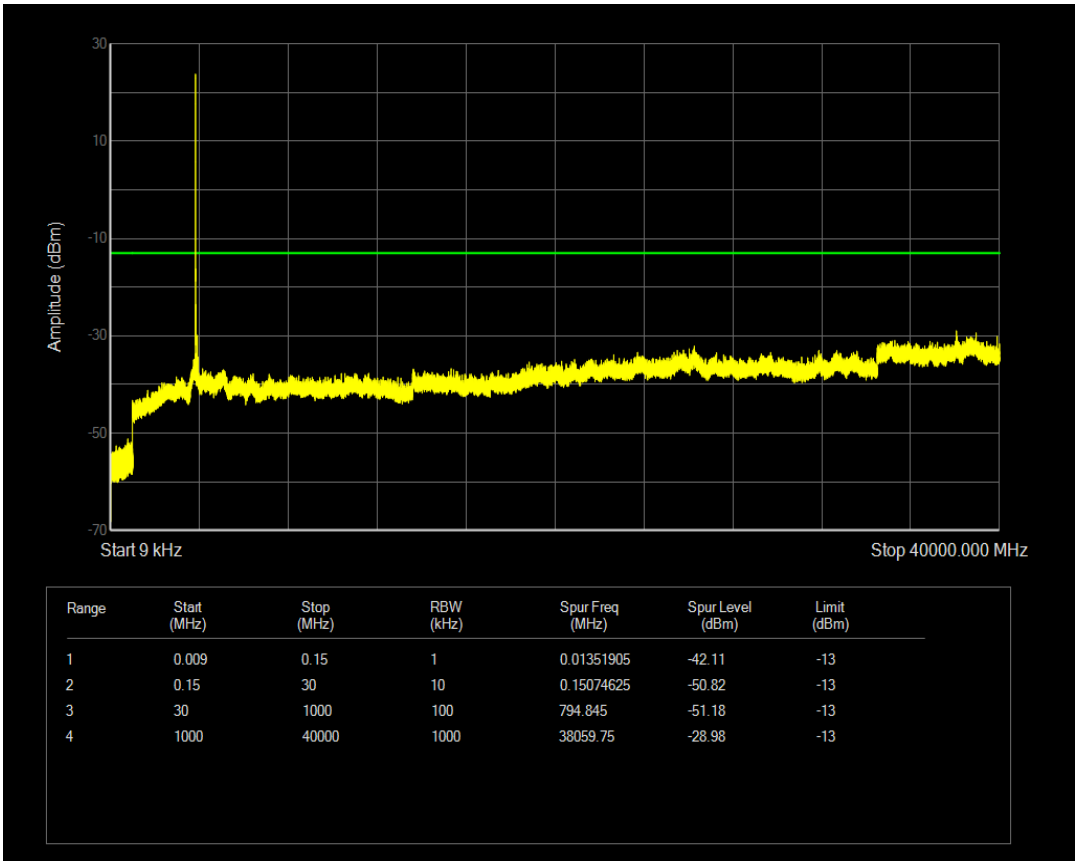
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.009539325	-40.31	-13
2	0.15	30	10	0.15970125	-52.75	-13
3	30	1000	100	916.386	-51.29	-13
4	1000	40000	1000	3645.175	-27.39	-13

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



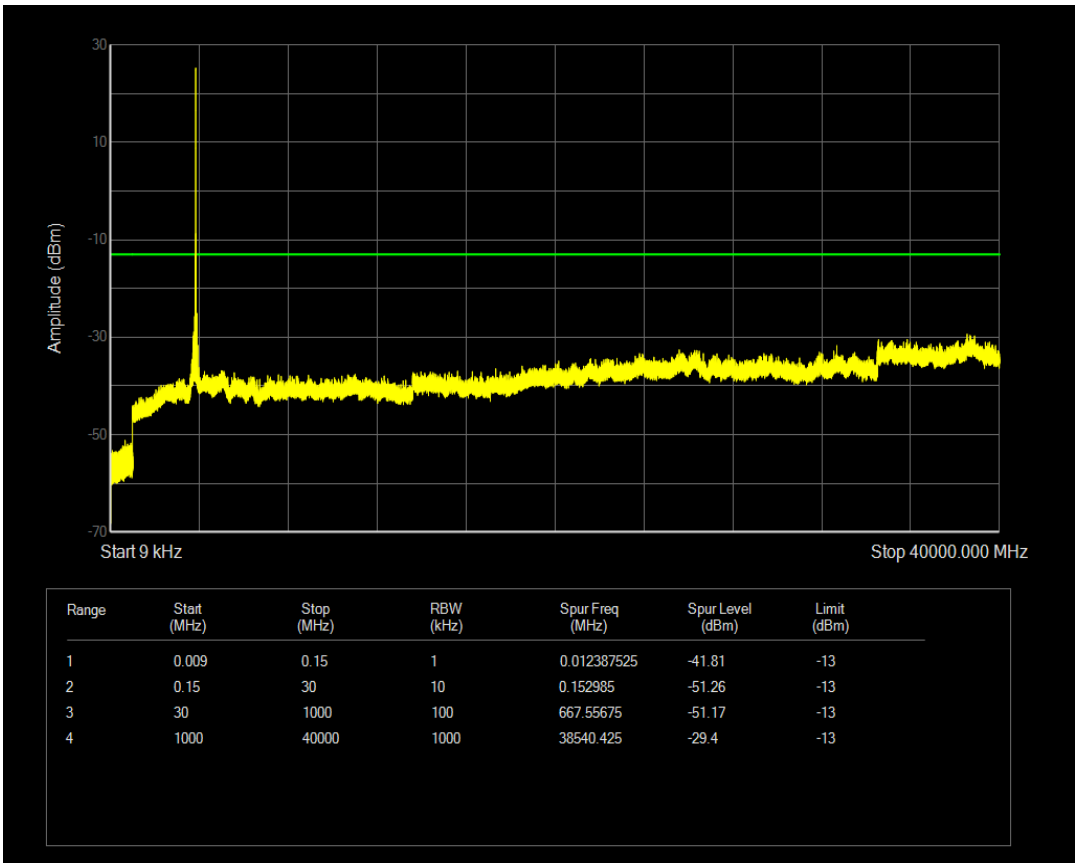
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.011661375	-42.14	-13
2	0.15	30	10	0.1514925	-51.07	-13
3	30	1000	100	892.01475	-51.45	-13
4	1000	40000	1000	38827.075	-29.19	-13

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



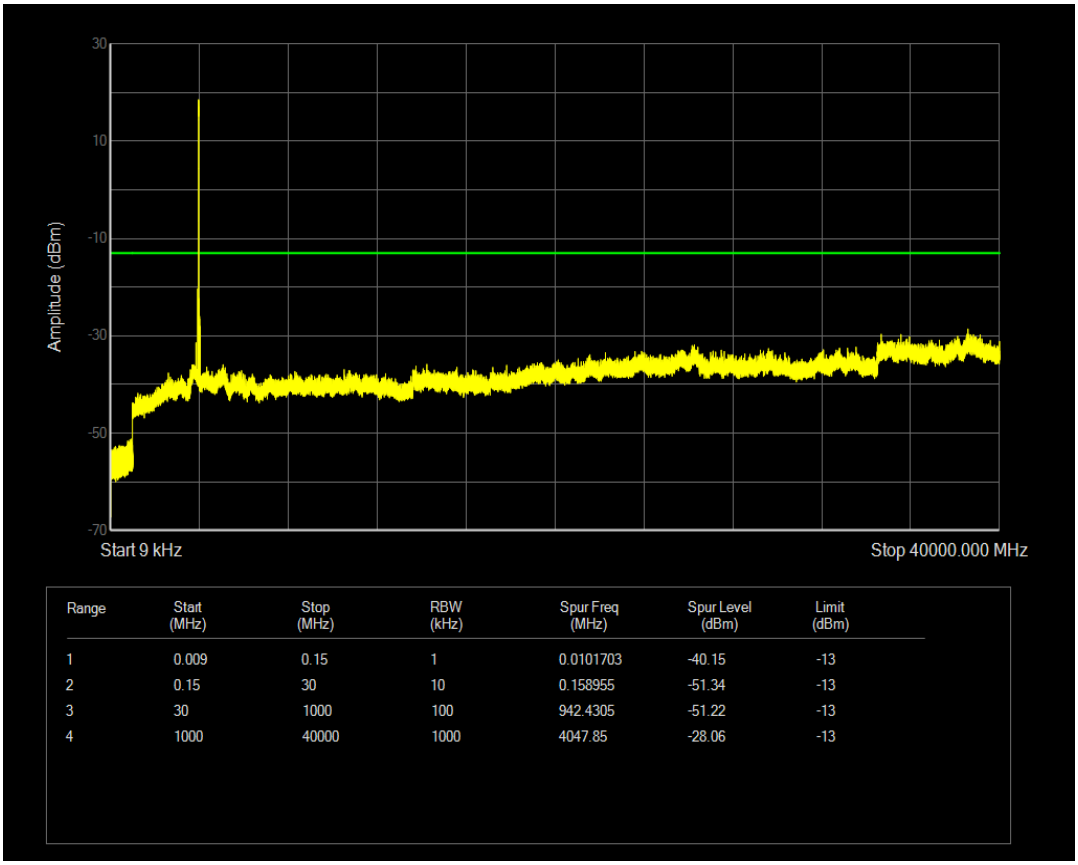
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.01351905	-42.11	-13
2	0.15	30	10	0.15074625	-50.82	-13
3	30	1000	100	794.845	-51.18	-13
4	1000	40000	1000	38059.75	-28.98	-13

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



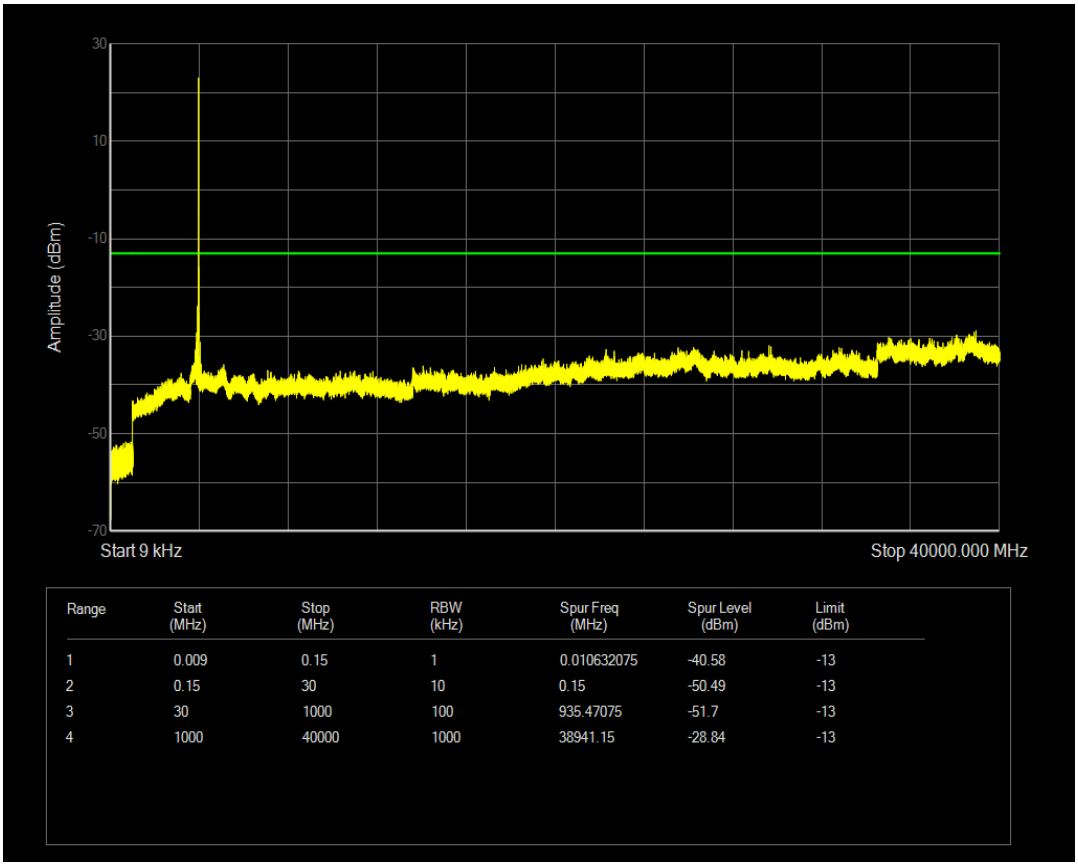
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.012387525	-41.81	-13
2	0.15	30	10	0.152985	-51.26	-13
3	30	1000	100	667.55675	-51.17	-13
4	1000	40000	1000	38540.425	-29.4	-13

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



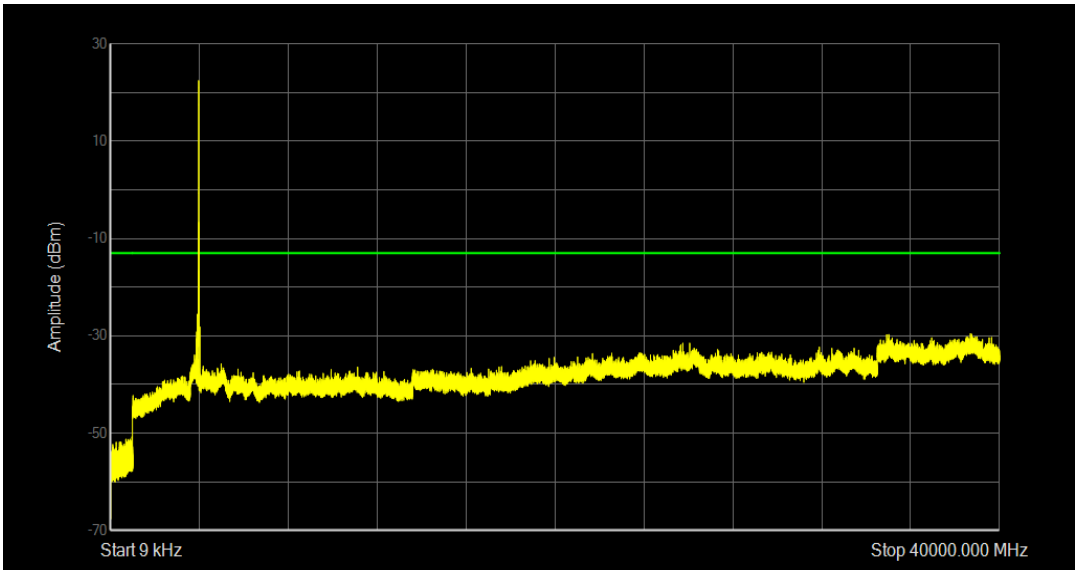
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.0101703	-40.15	-13
2	0.15	30	10	0.158955	-51.34	-13
3	30	1000	100	942.4305	-51.22	-13
4	1000	40000	1000	4047.85	-28.06	-13

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



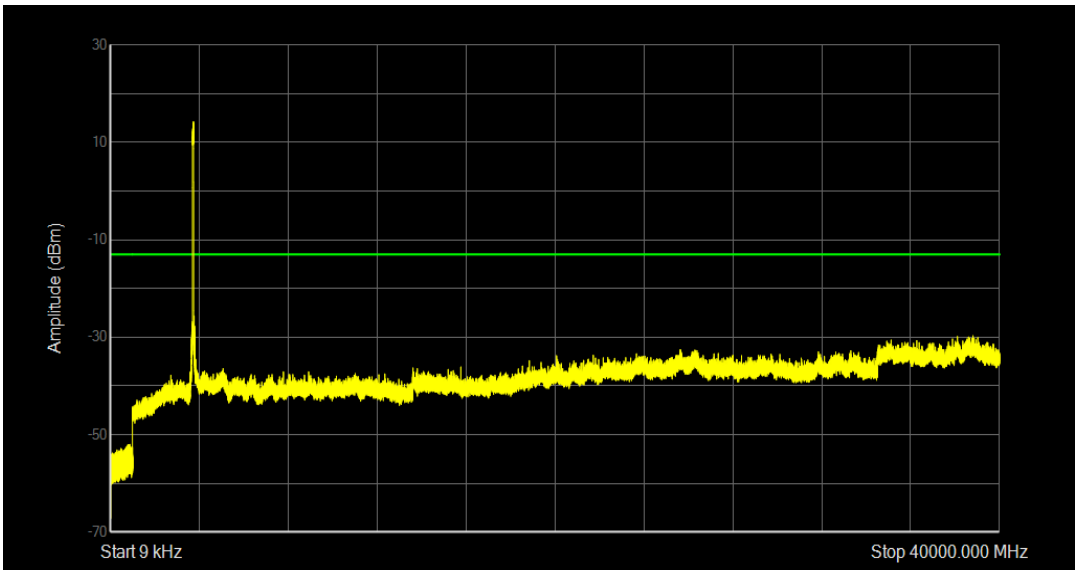
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.010632075	-40.58	-13
2	0.15	30	10	0.15	-50.49	-13
3	30	1000	100	935.47075	-51.7	-13
4	1000	40000	1000	38941.15	-28.84	-13

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



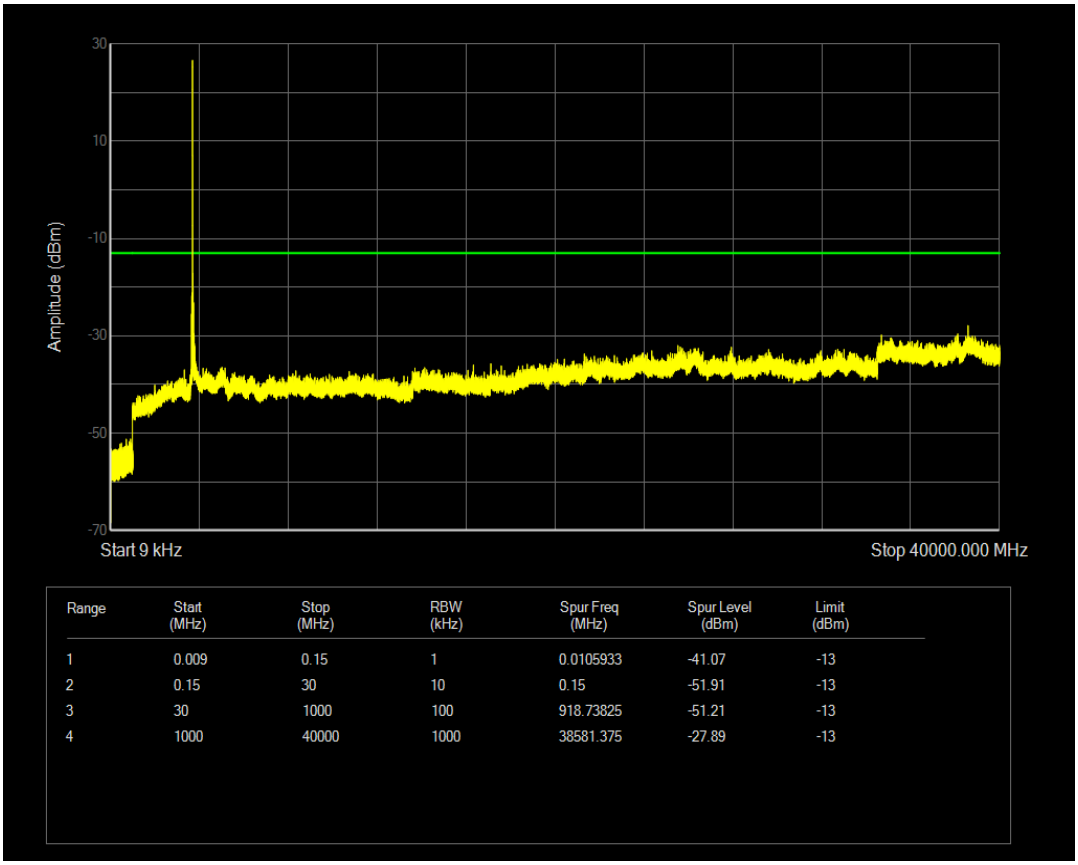
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.009884775	-41.18	-13
2	0.15	30	10	0.152985	-50.73	-13
3	30	1000	100	981.30325	-50.73	-13
4	1000	40000	1000	4032.25	-28.18	-13

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



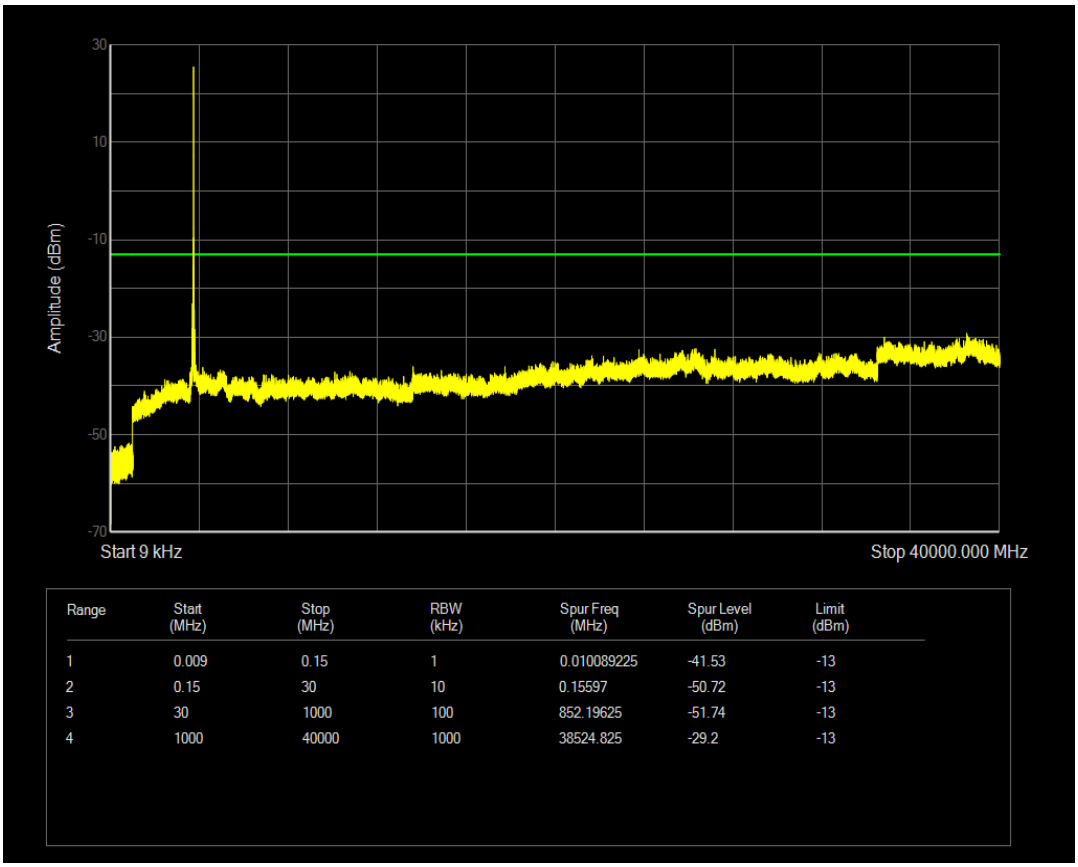
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.011456925	-40.85	-13
2	0.15	30	10	0.15373125	-51.81	-13
3	30	1000	100	879.84125	-51.99	-13
4	1000	40000	1000	38803.675	-29.68	-13

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



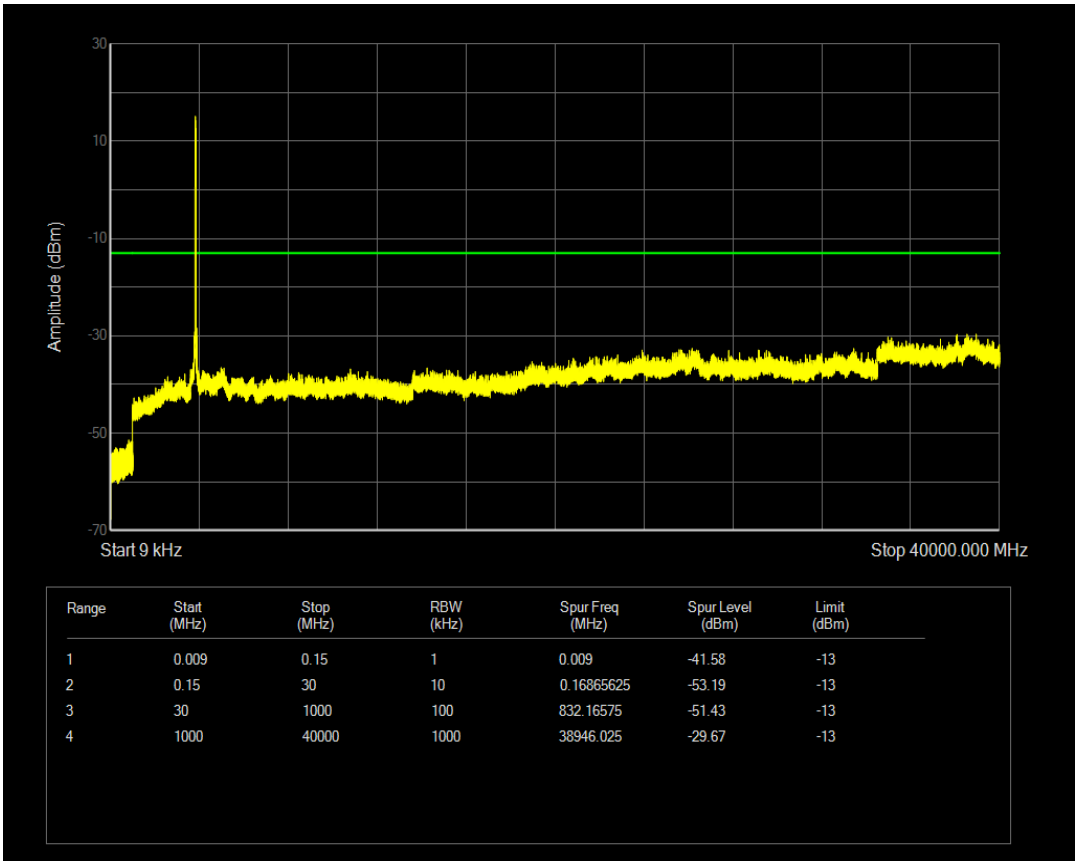
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.0105933	-41.07	-13
2	0.15	30	10	0.15	-51.91	-13
3	30	1000	100	918.73825	-51.21	-13
4	1000	40000	1000	38581.375	-27.89	-13

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



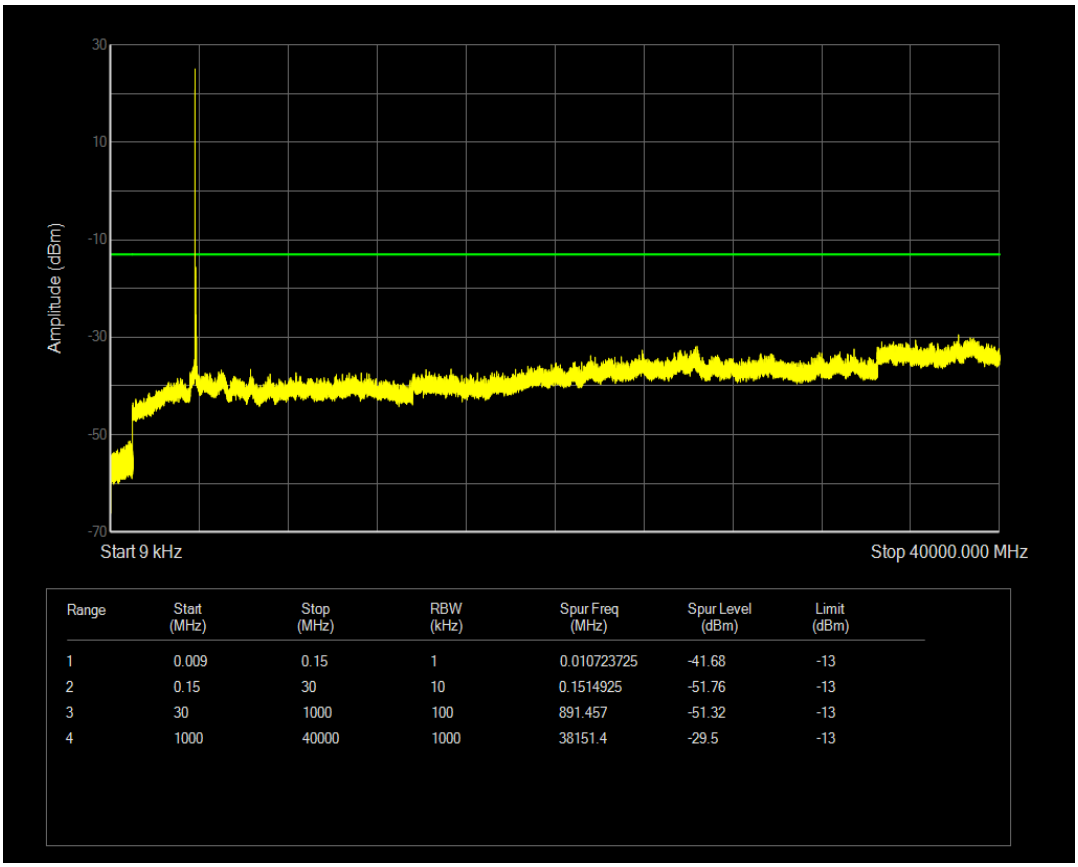
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.010089225	-41.53	-13
2	0.15	30	10	0.15597	-50.72	-13
3	30	1000	100	852.19625	-51.74	-13
4	1000	40000	1000	38524.825	-29.2	-13

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



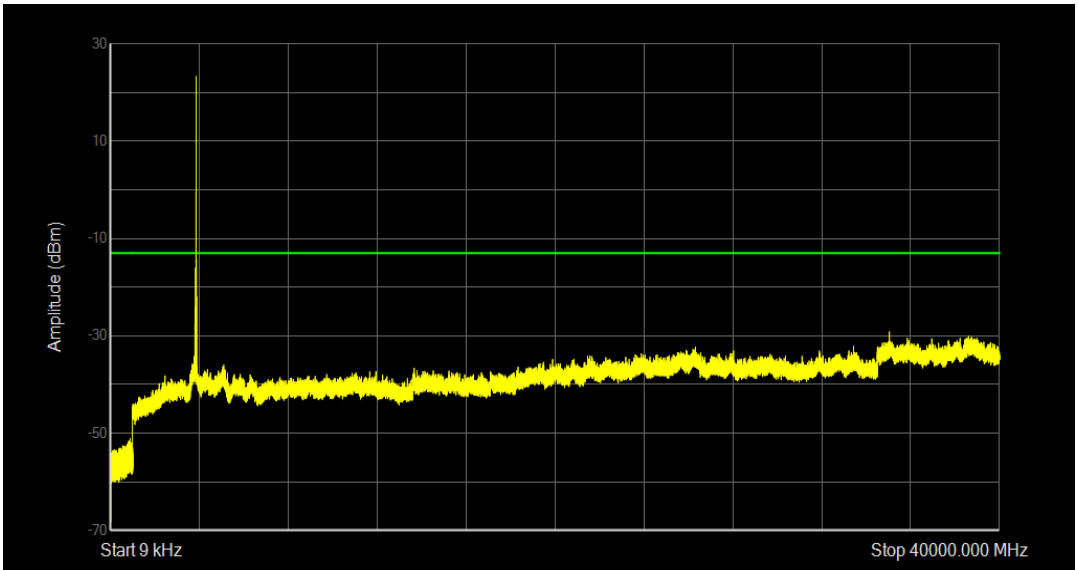
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.009	-41.58	-13
2	0.15	30	10	0.16865625	-53.19	-13
3	30	1000	100	832.16575	-51.43	-13
4	1000	40000	1000	38946.025	-29.67	-13

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



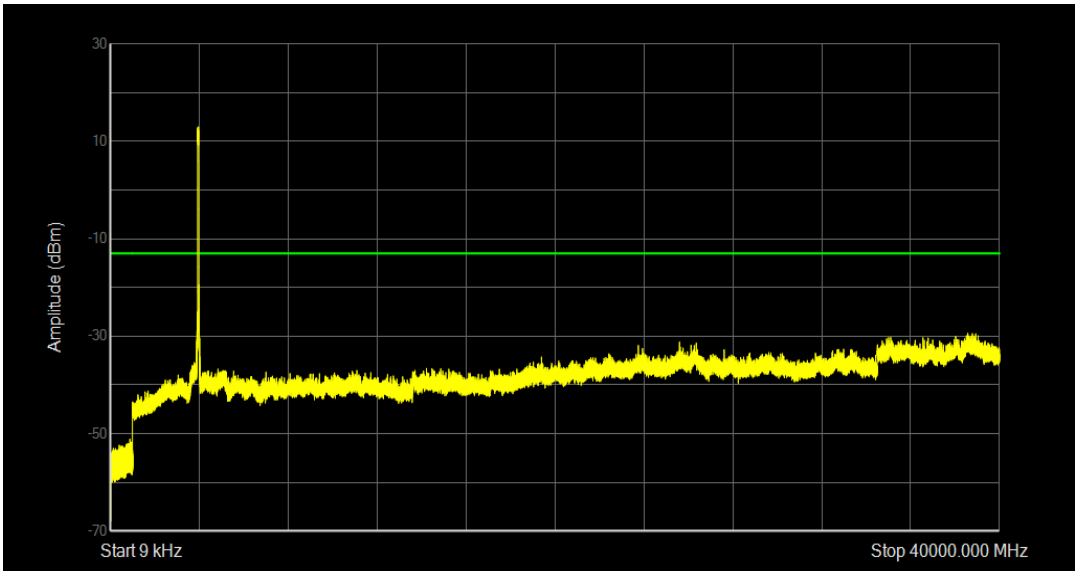
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.010723725	-41.68	-13
2	0.15	30	10	0.1514925	-51.76	-13
3	30	1000	100	891.457	-51.32	-13
4	1000	40000	1000	38151.4	-29.5	-13

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



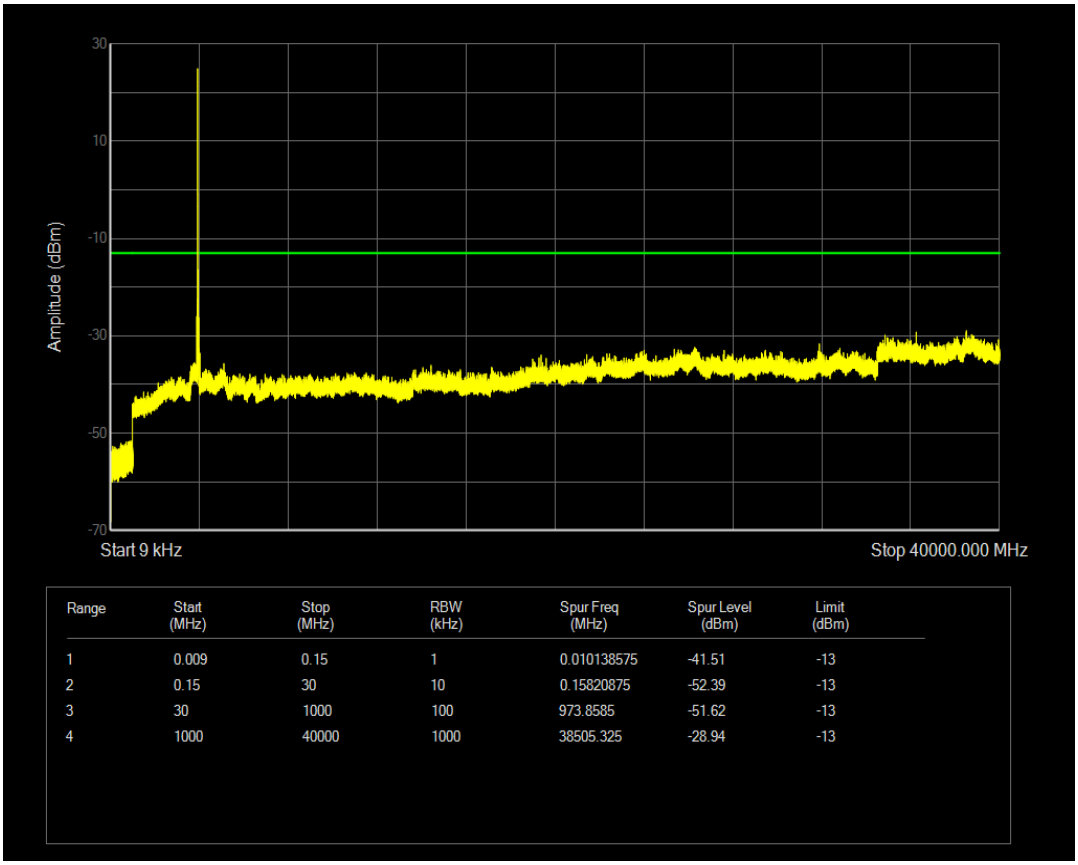
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.014276925	-40.8	-13
2	0.15	30	10	0.15	-51.4	-13
3	30	1000	100	897.10725	-51.12	-13
4	1000	40000	1000	35042.125	-29.17	-13

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



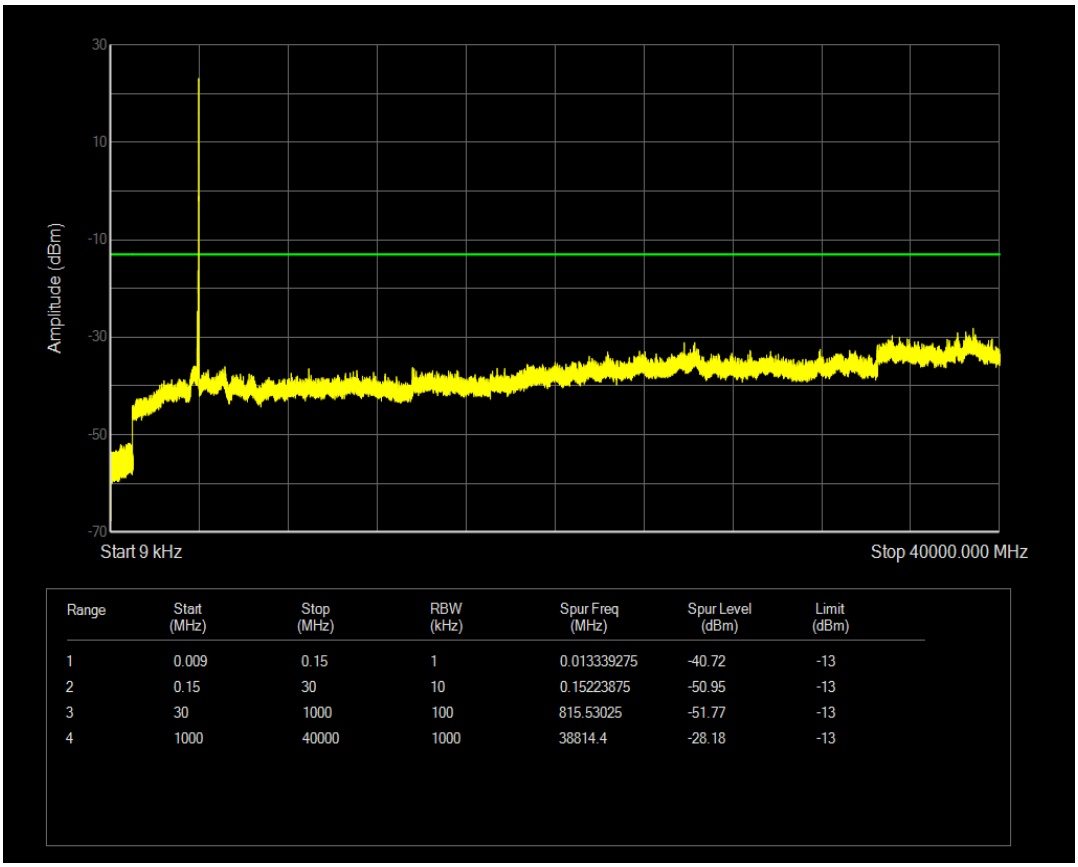
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.01003635	-41.53	-13
2	0.15	30	10	0.15	-51.18	-13
3	30	1000	100	888.76525	-51.1	-13
4	1000	40000	1000	38570.65	-29.4	-13

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	0.010138575	-41.51	-13
2	0.15	30	10	0.15820875	-52.39	-13
3	30	1000	100	973.8585	-51.62	-13
4	1000	40000	1000	38505.325	-28.94	-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	0.013339275	-40.72	-13
2	0.15	30	10	0.15223875	-50.95	-13
3	30	1000	100	815.53025	-51.77	-13
4	1000	40000	1000	38814.4	-28.18	-13