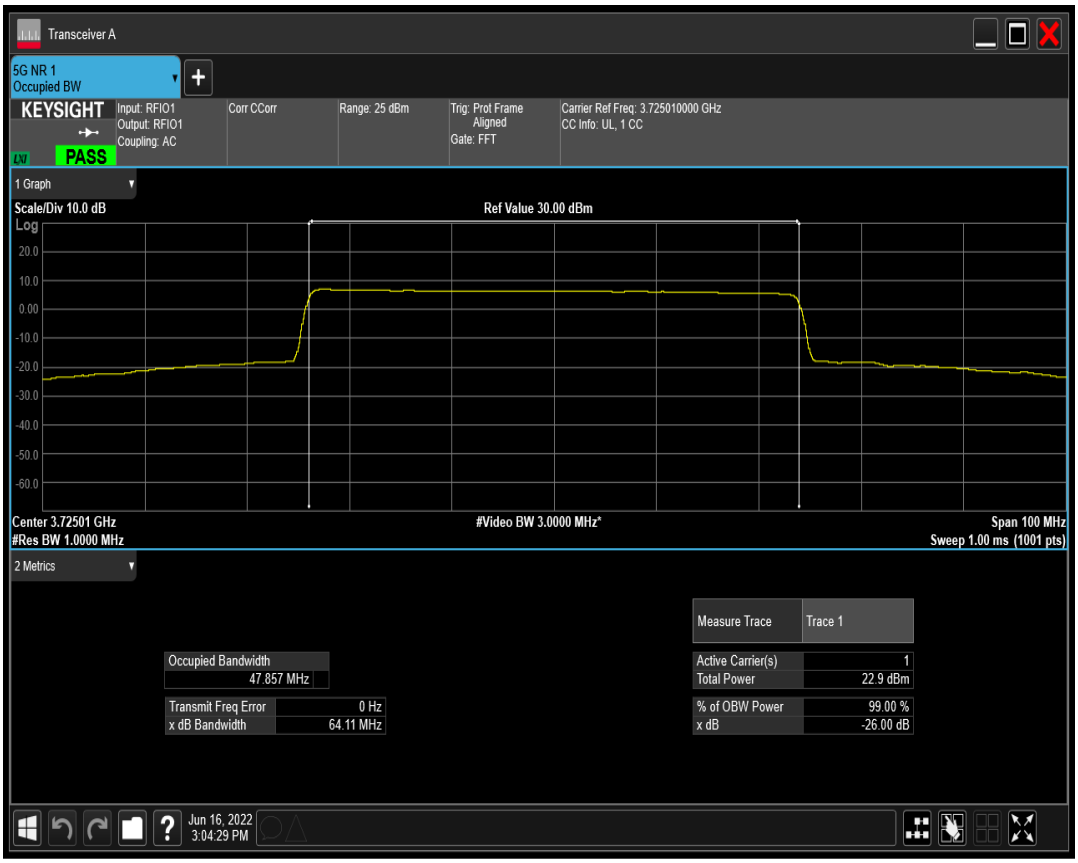
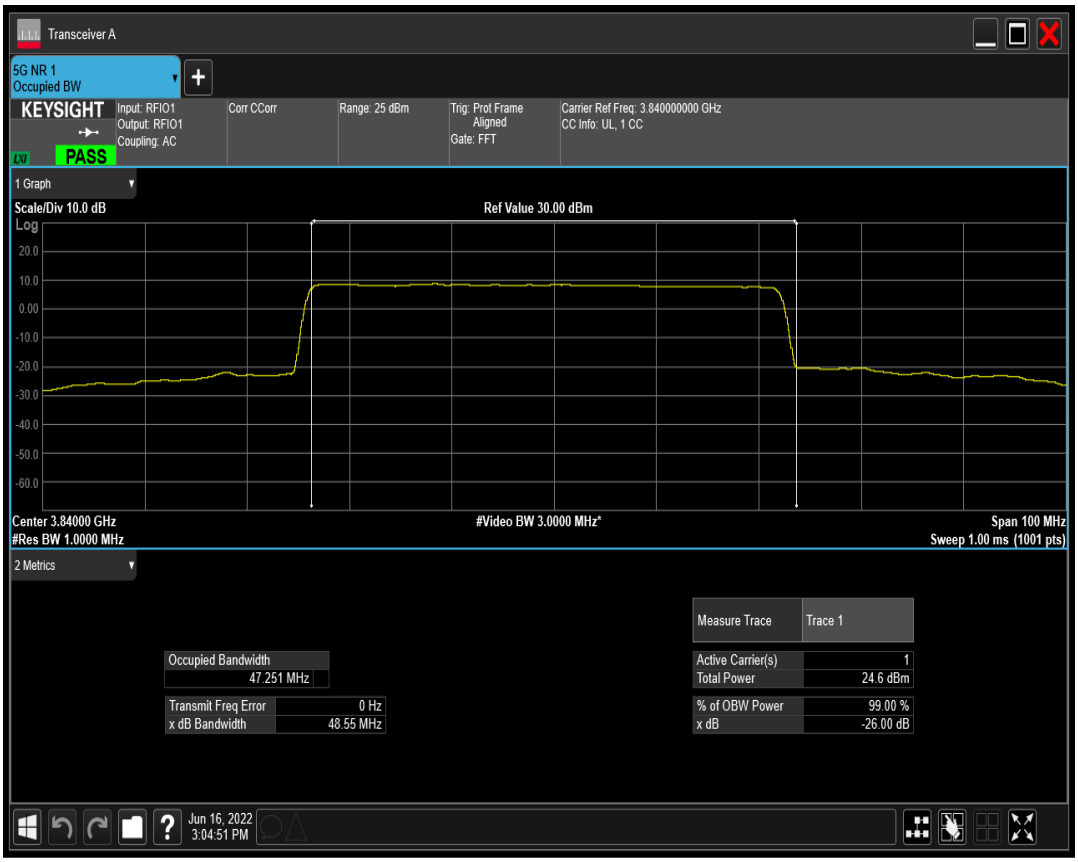


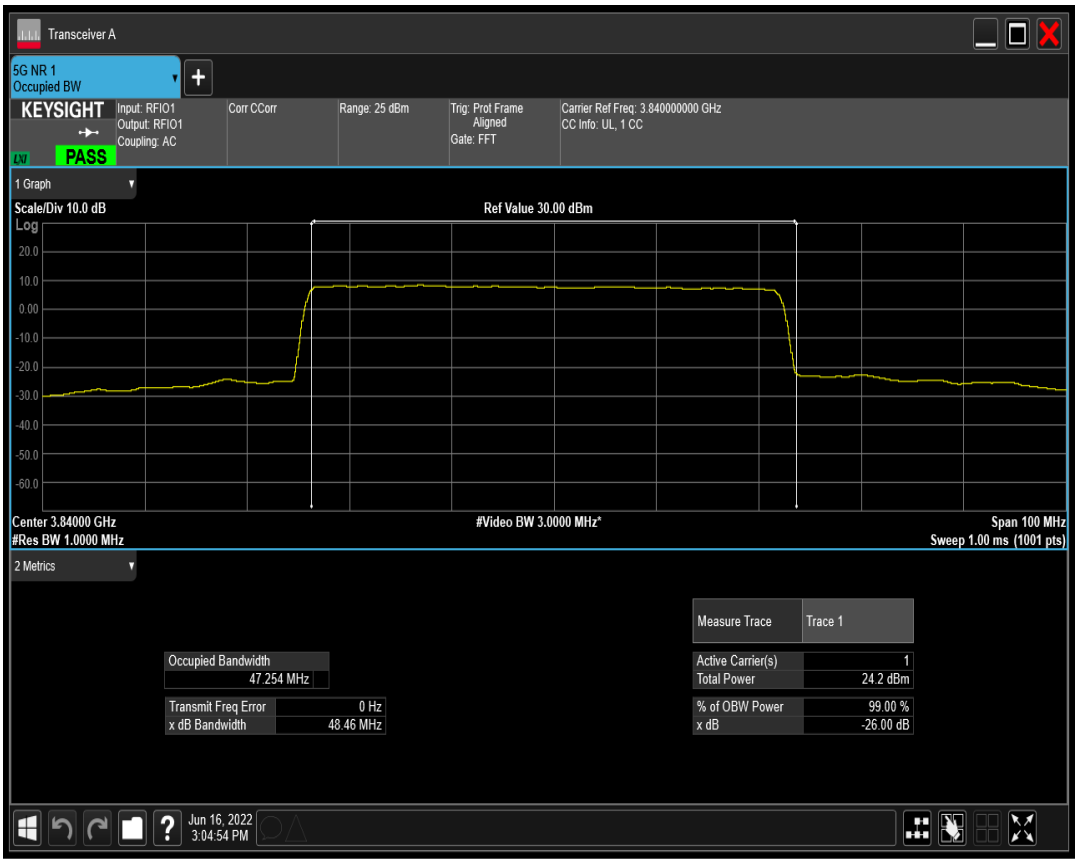
n77(3700-3980) SCS=30kHz DFT_BPSK BW=50MHz Channel=656000 RB=128@0

n77(3700-3980) SCS=30kHz DFT_QPSK BW=50MHz Channel=656000 RB=128@0

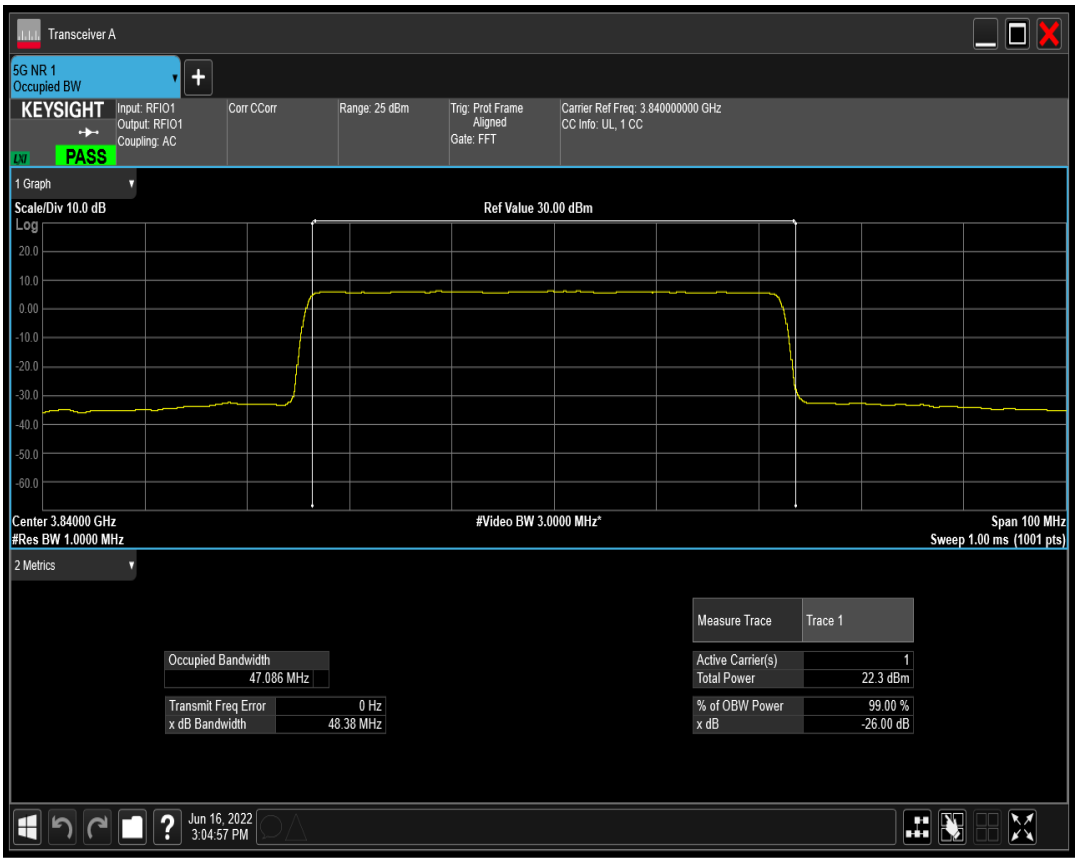
n77(3700-3980) SCS=30kHz DFT_QAM16 BW=50MHz Channel=656000 RB=128@0



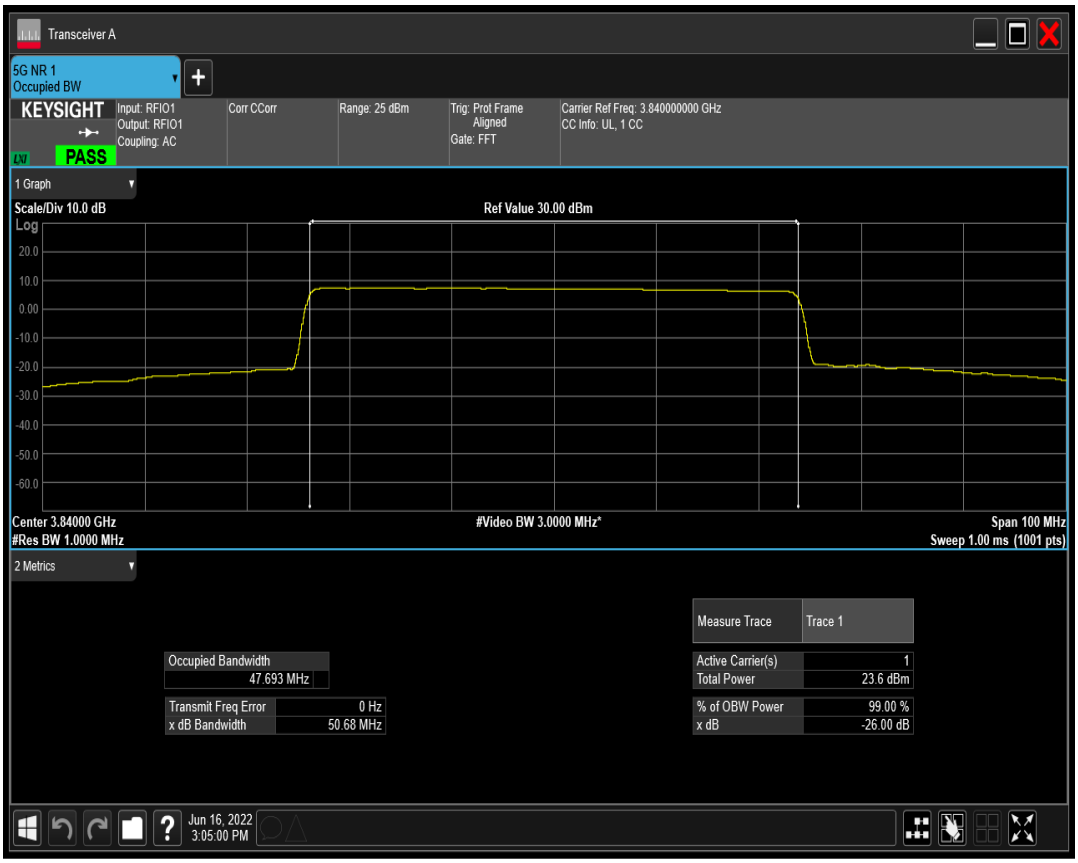
n77(3700-3980) SCS=30kHz DFT_QAM64 BW=50MHz Channel=656000 RB=128@0



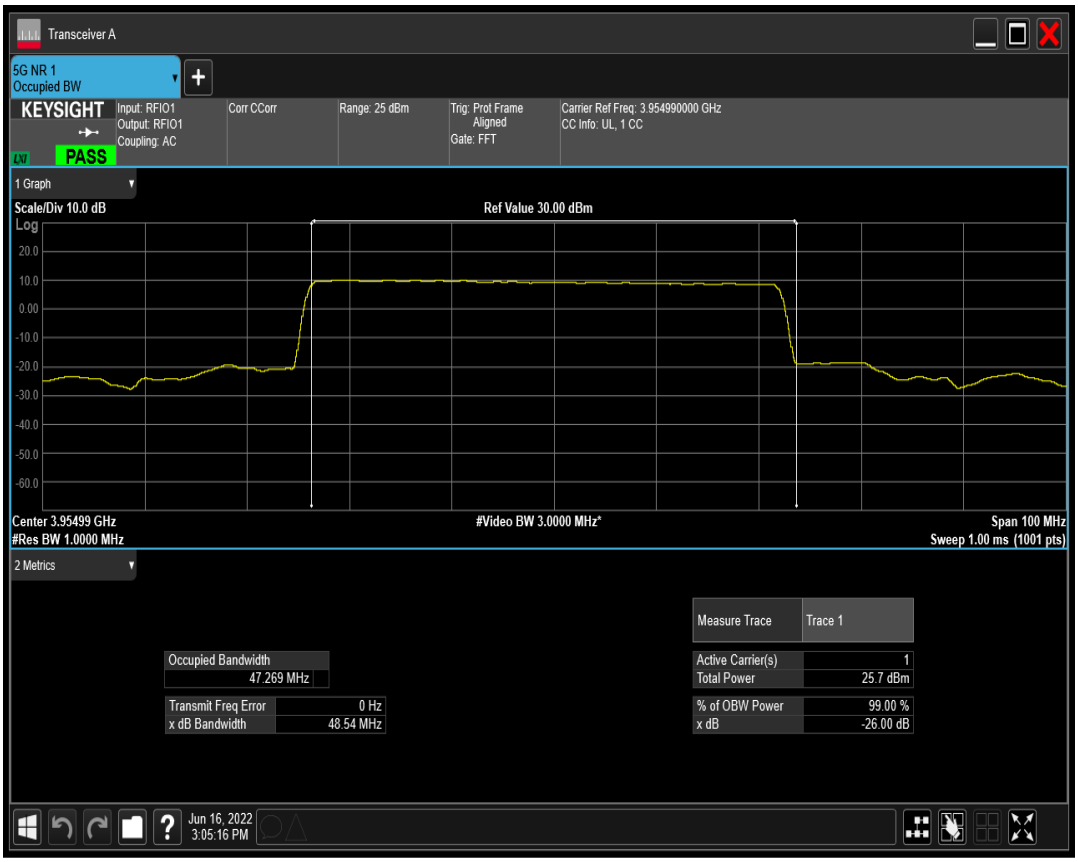
n77(3700-3980) SCS=30kHz DFT_QAM256 BW=50MHz Channel=656000 RB=128@0



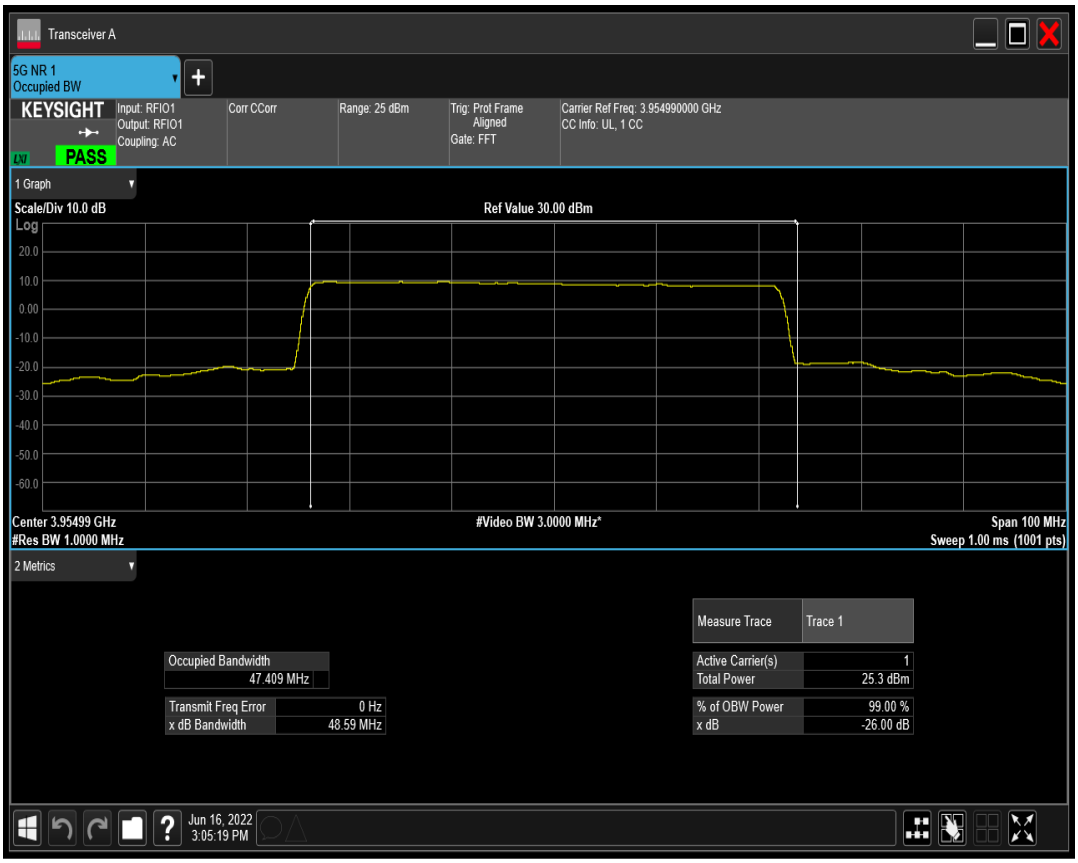
n77(3700-3980) SCS=30kHz CP_QPSK BW=50MHz Channel=656000 RB=133@0



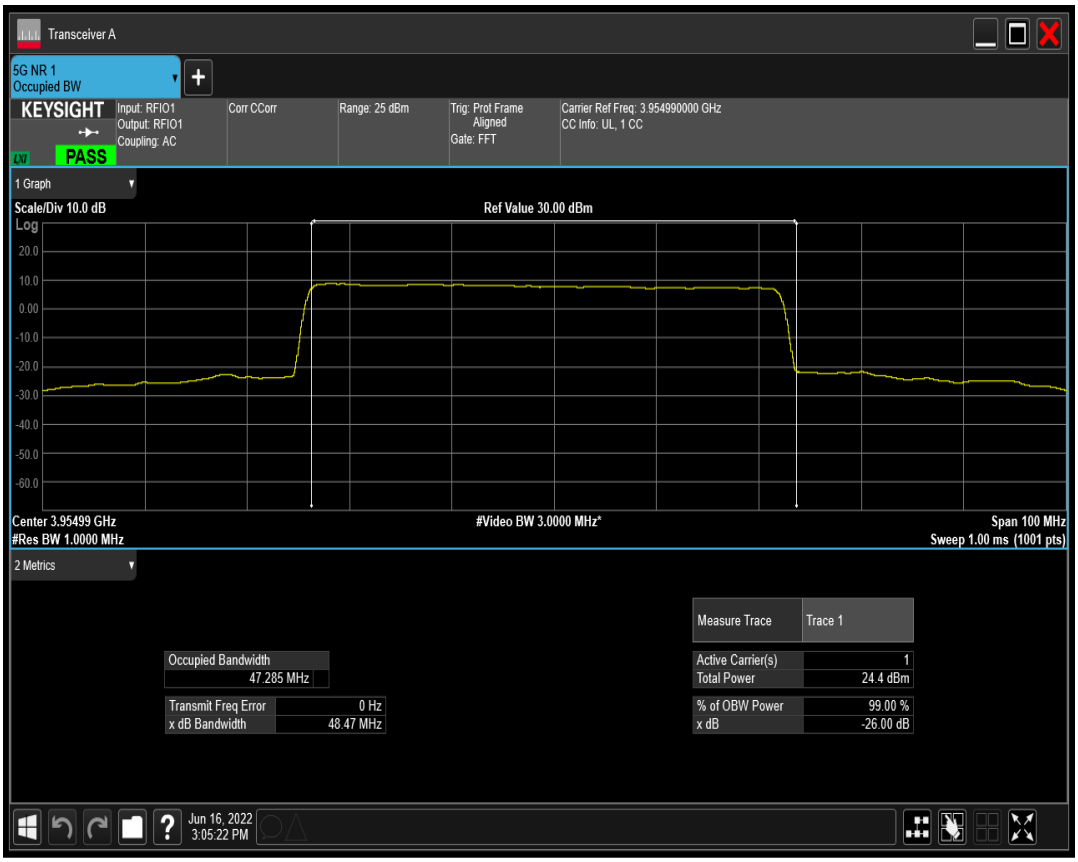
n77(3700-3980) SCS=30kHz DFT_BPSK BW=50MHz Channel=663666 RB=128@0



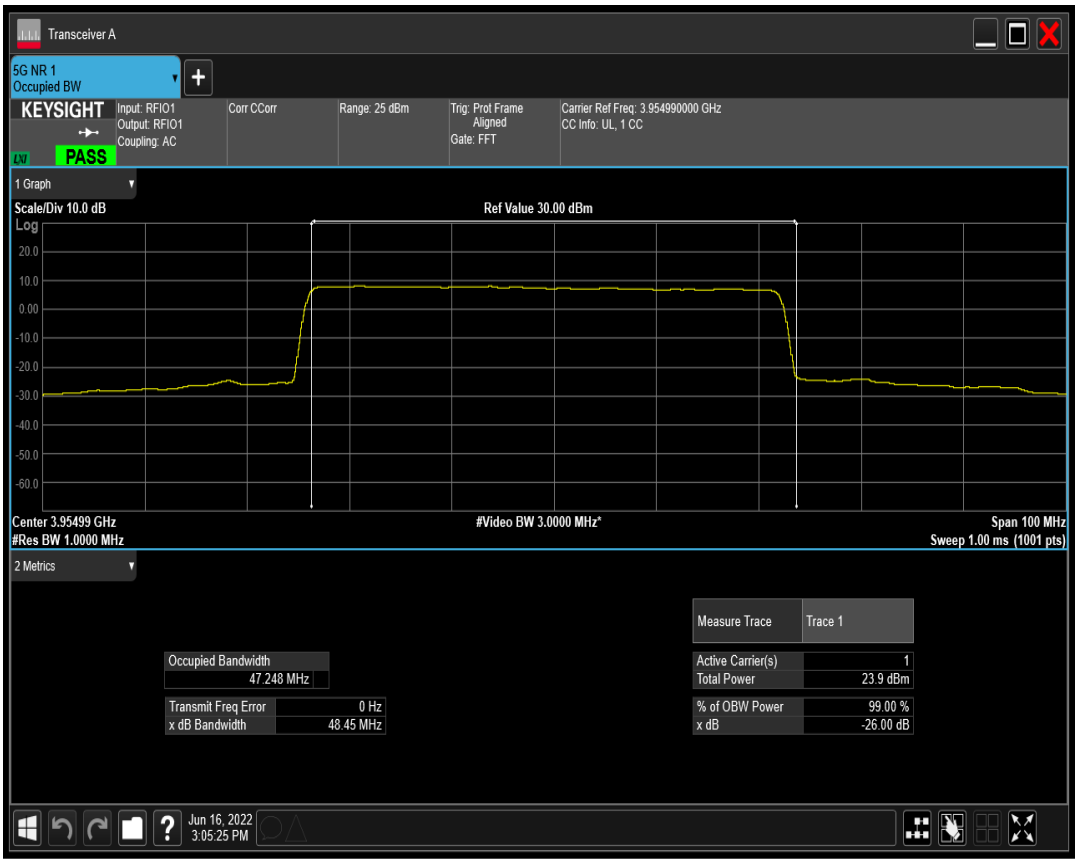
n77(3700-3980) SCS=30kHz DFT_QPSK BW=50MHz Channel=663666 RB=128@0



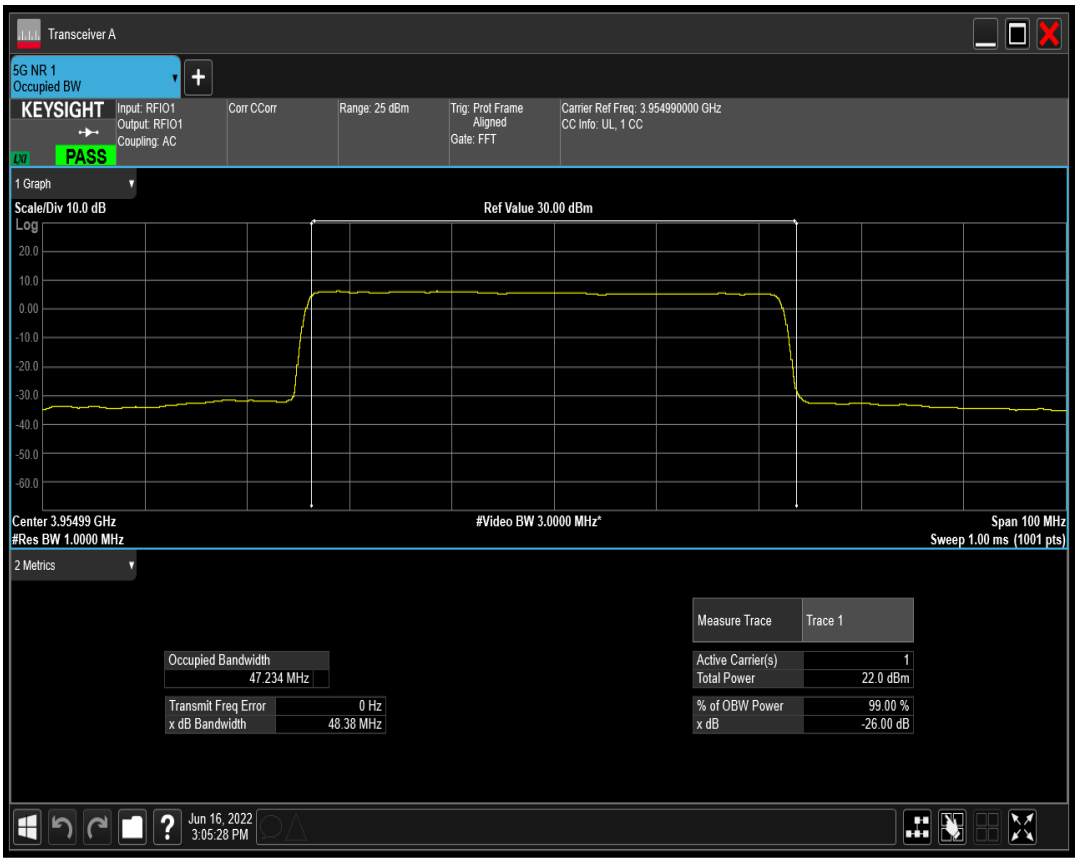
n77(3700-3980) SCS=30kHz DFT_QAM16 BW=50MHz Channel=663666 RB=128@0



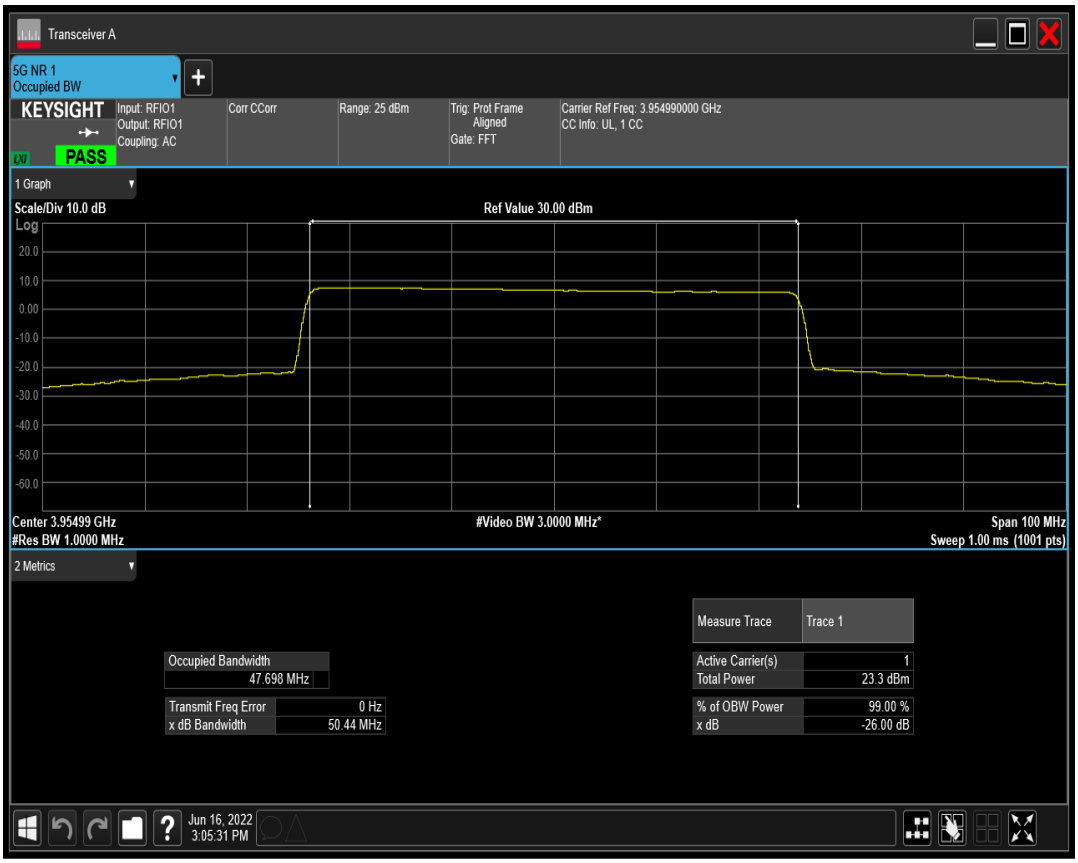
n77(3700-3980) SCS=30kHz DFT_QAM64 BW=50MHz Channel=663666 RB=128@0



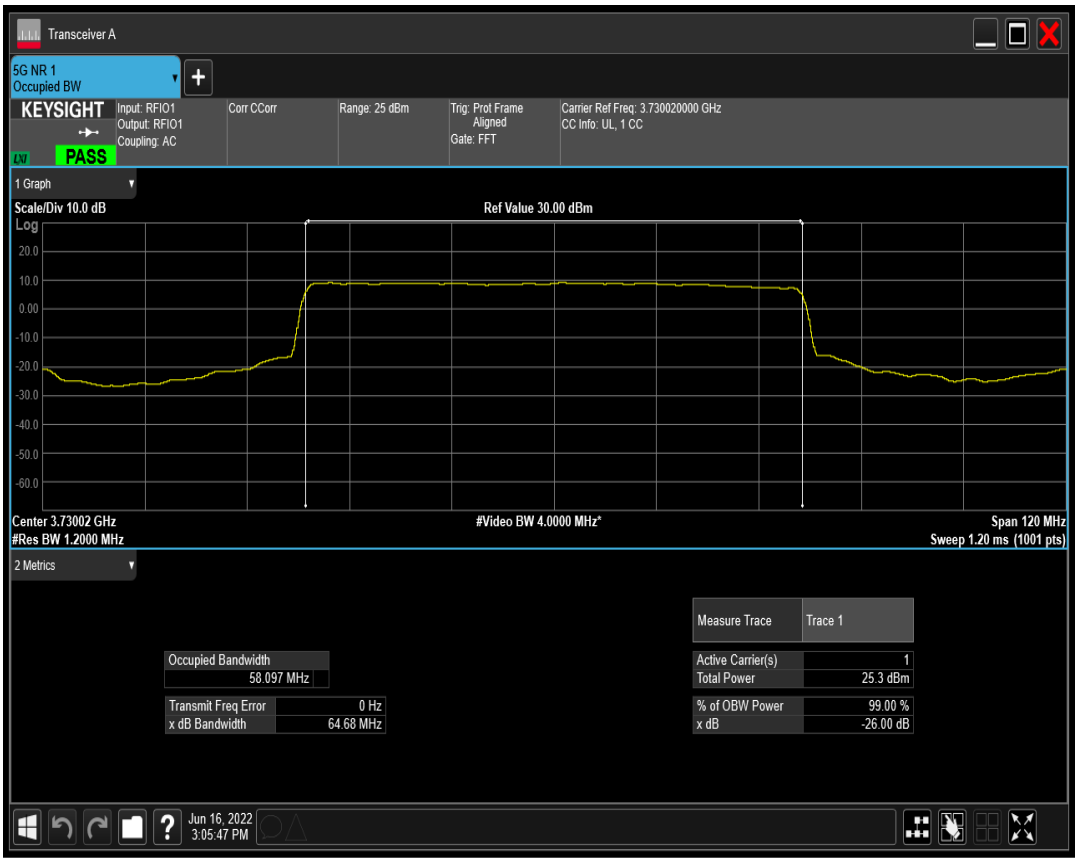
n77(3700-3980) SCS=30kHz DFT_QAM256 BW=50MHz Channel=663666 RB=128@0



n77(3700-3980) SCS=30kHz CP_QPSK BW=50MHz Channel=663666 RB=133@0

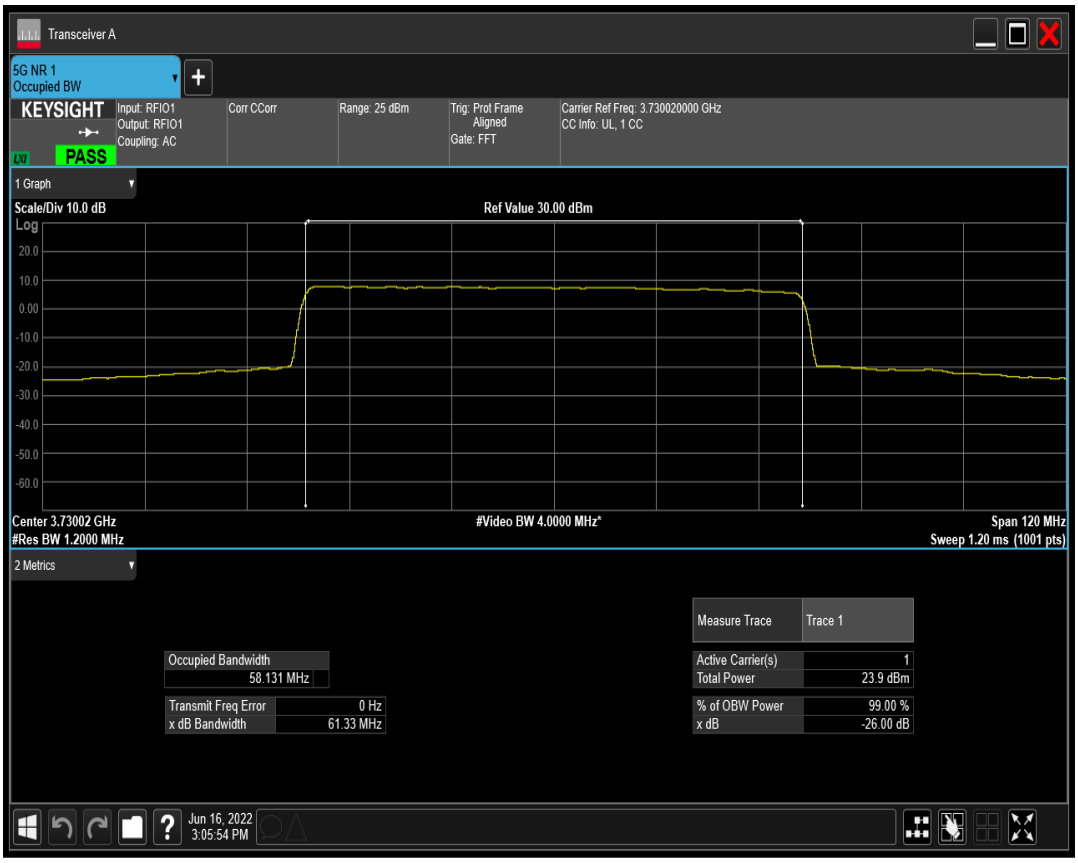


n77(3700-3980) SCS=30kHz DFT_BPSK BW=60MHz Channel=648668 RB=162@0

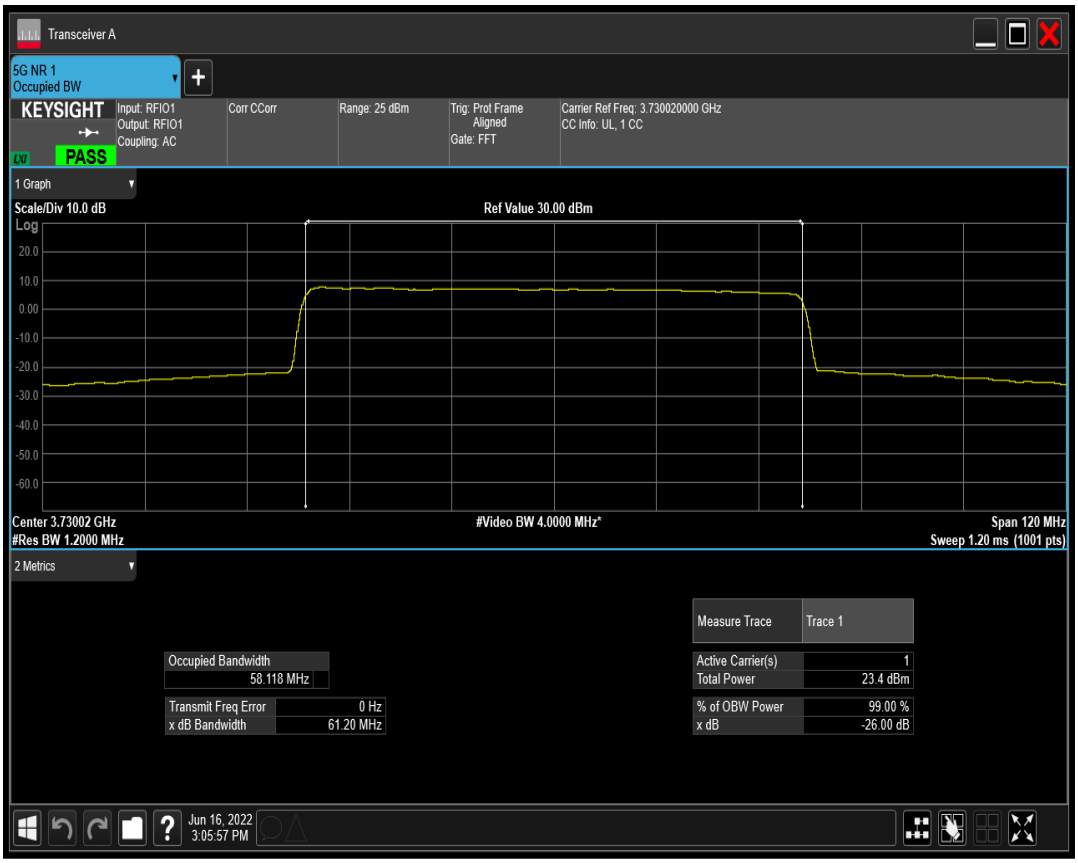


n77(3700-3980) SCS=30kHz DFT_QPSK BW=60MHz Channel=648668 RB=162@0

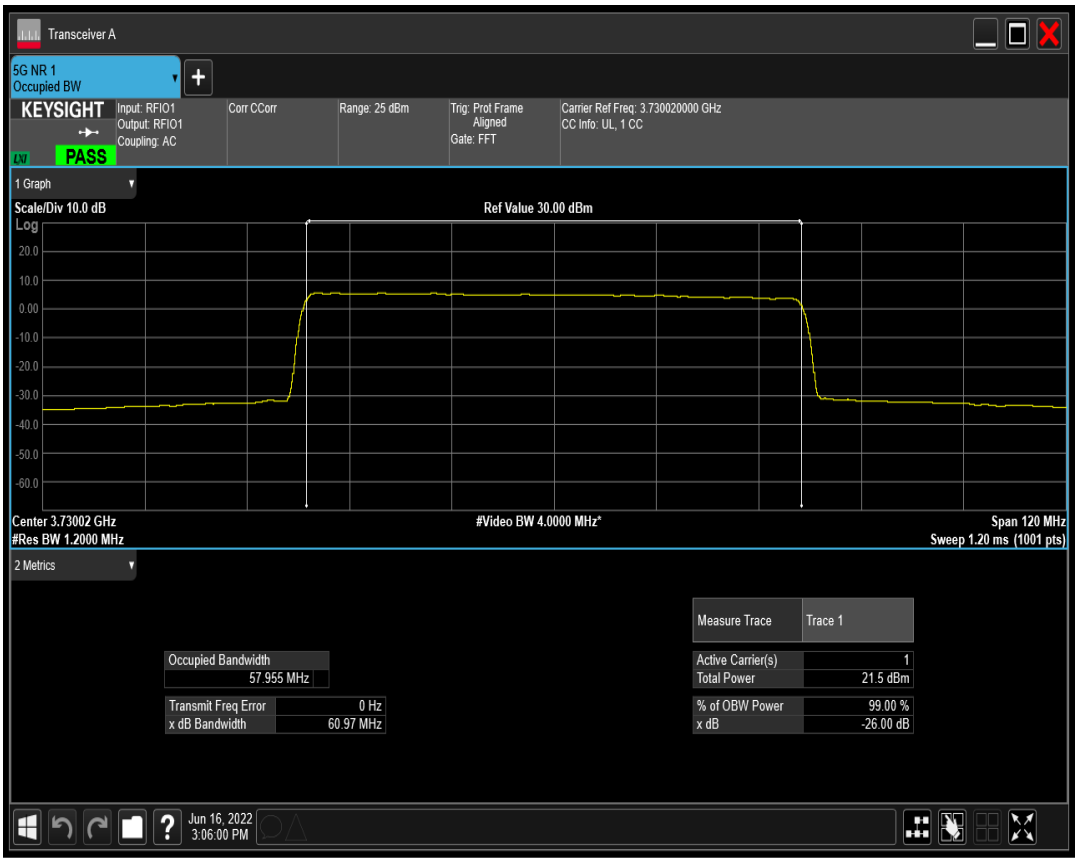
n77(3700-3980) SCS=30kHz DFT_QAM16 BW=60MHz Channel=648668 RB=162@0



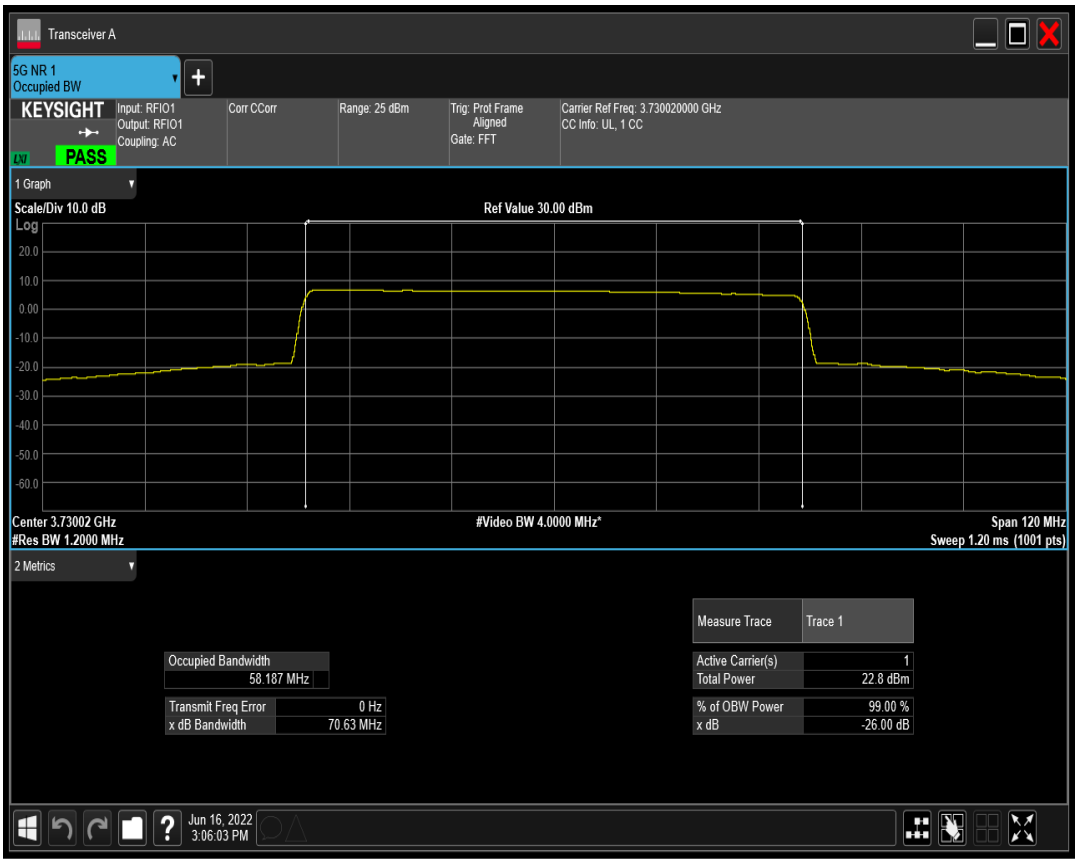
n77(3700-3980) SCS=30kHz DFT_QAM64 BW=60MHz Channel=648668 RB=162@0



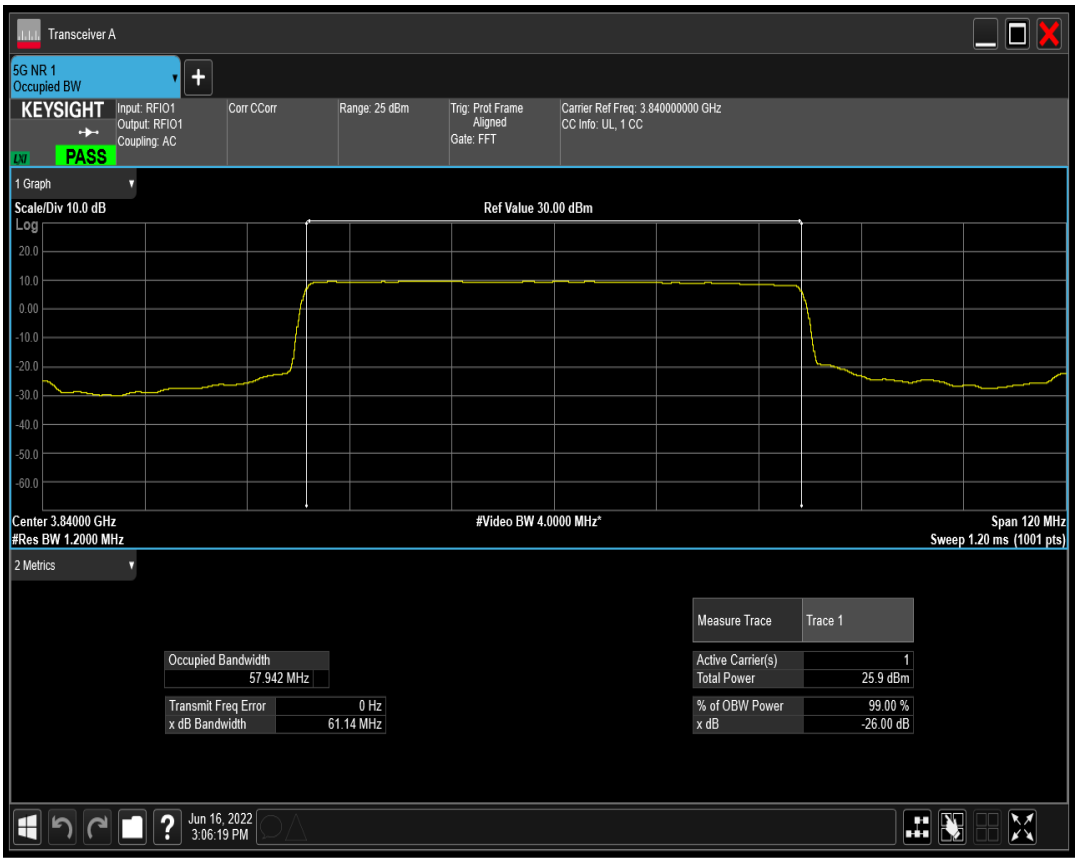
n77(3700-3980) SCS=30kHz DFT_QAM256 BW=60MHz Channel=648668 RB=162@0



n77(3700-3980) SCS=30kHz CP_QPSK BW=60MHz Channel=648668 RB=162@0

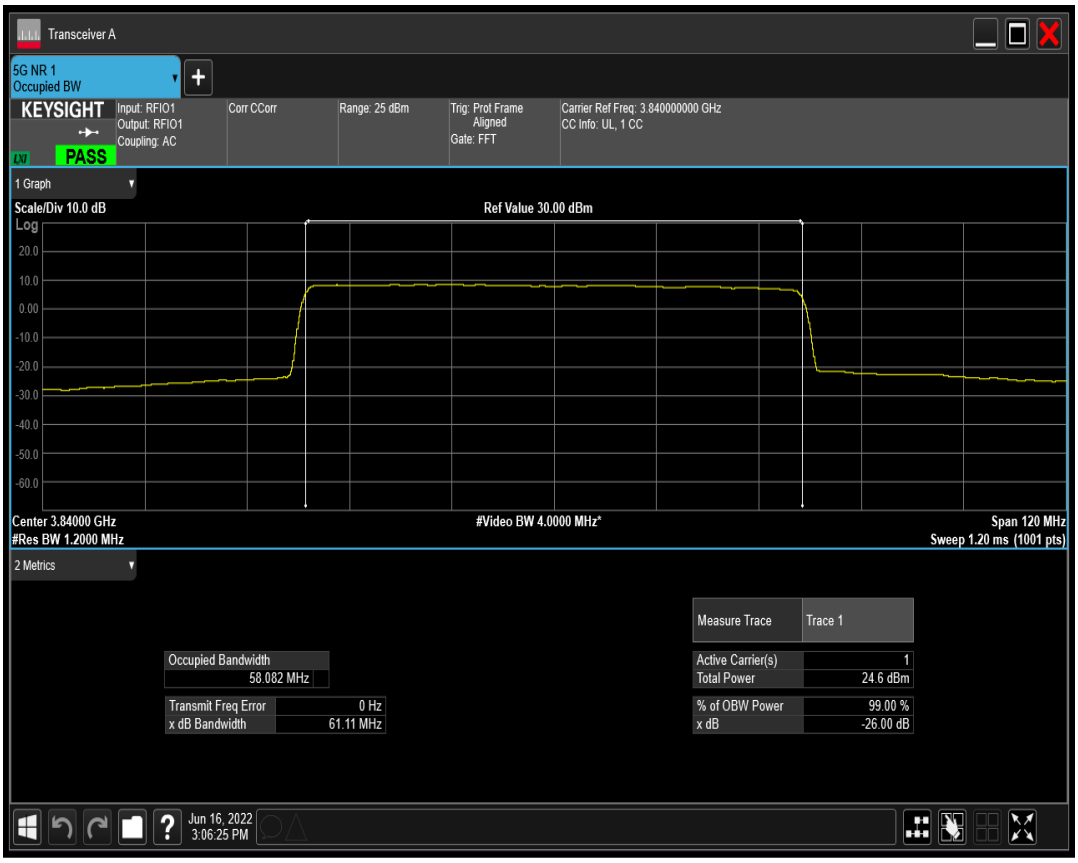


n77(3700-3980) SCS=30kHz DFT_BPSK BW=60MHz Channel=656000 RB=162@0



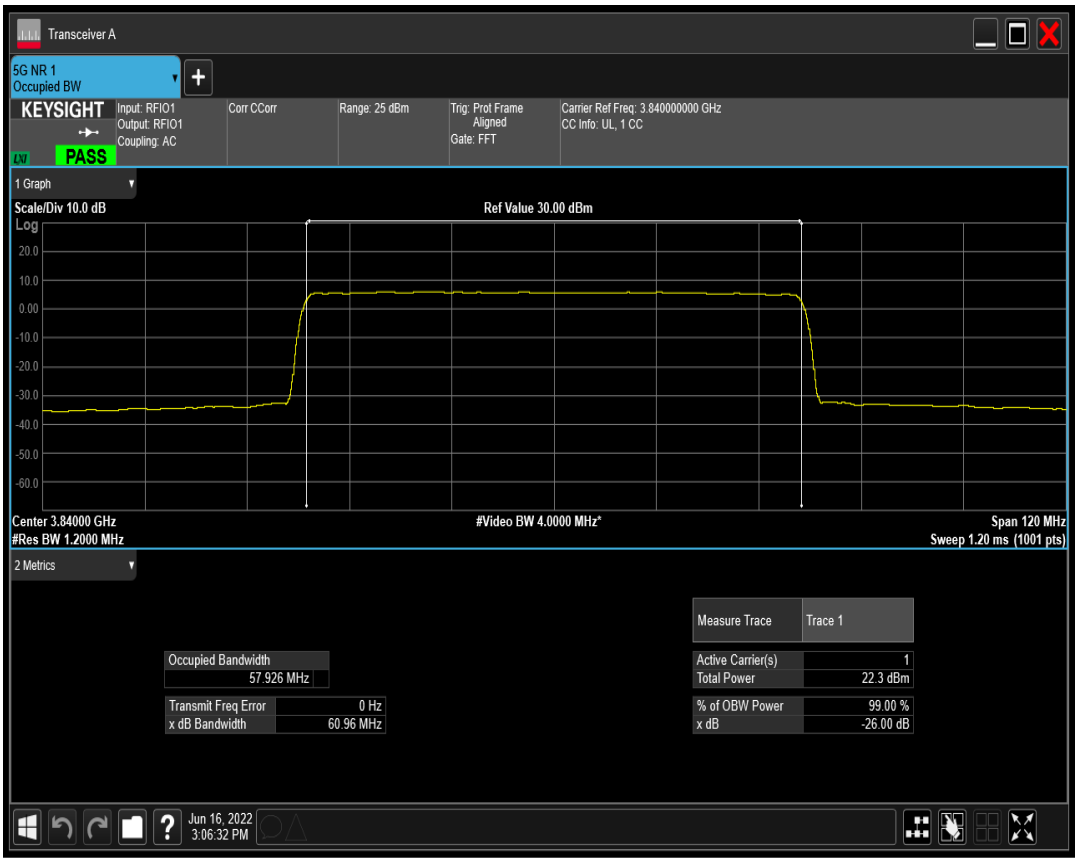
n77(3700-3980) SCS=30kHz DFT_QPSK BW=60MHz Channel=656000 RB=162@0

n77(3700-3980) SCS=30kHz DFT_QAM16 BW=60MHz Channel=656000 RB=162@0

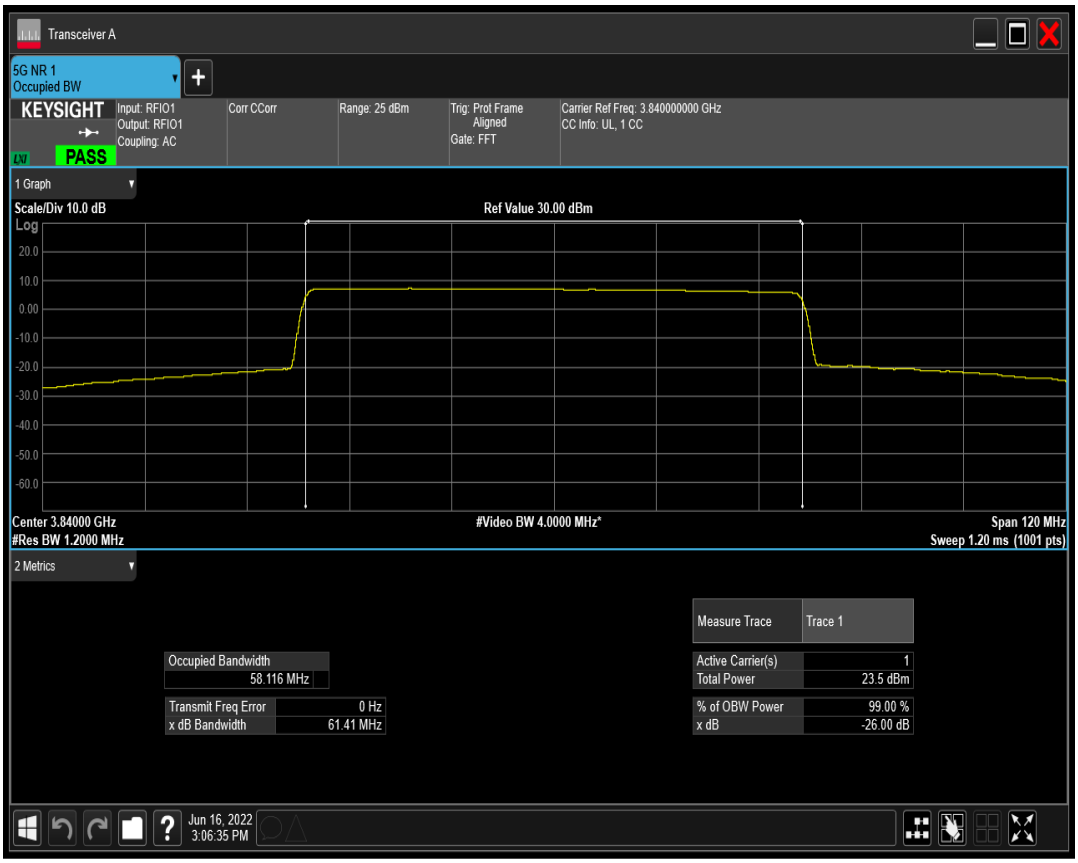


n77(3700-3980) SCS=30kHz DFT_QAM64 BW=60MHz Channel=656000 RB=162@0

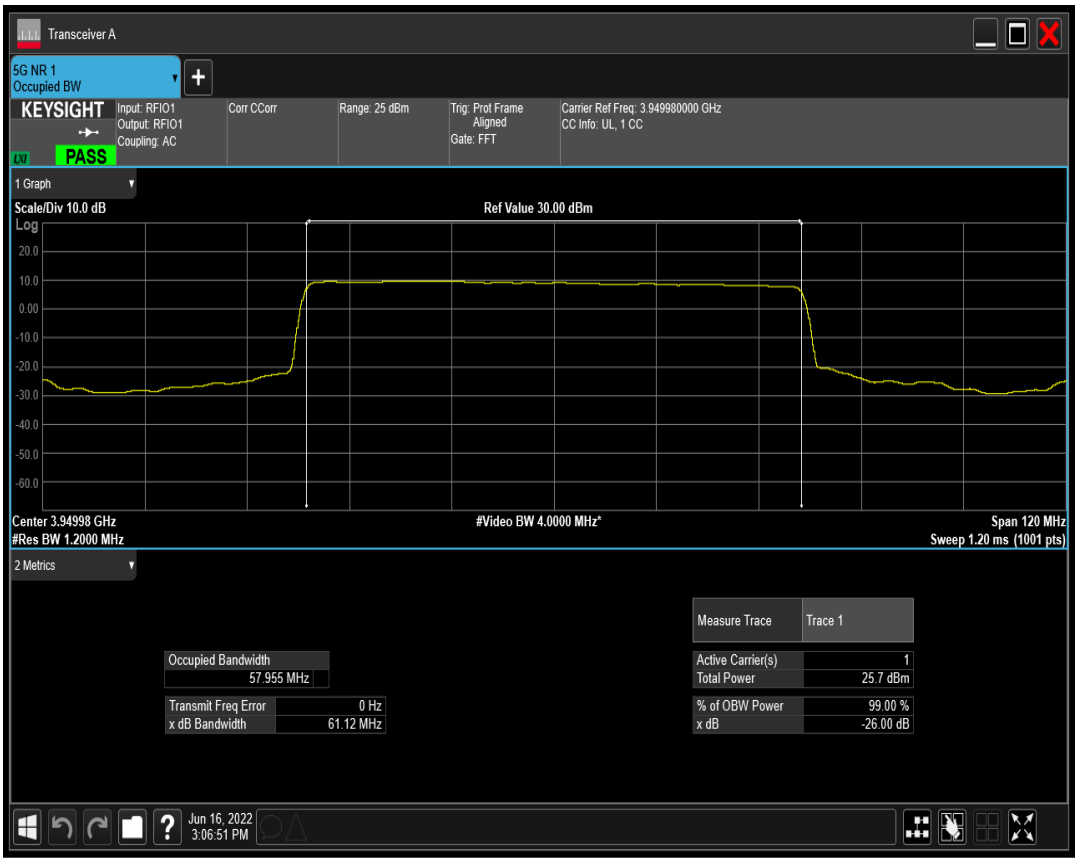
n77(3700-3980) SCS=30kHz DFT_QAM256 BW=60MHz Channel=656000 RB=162@0



n77(3700-3980) SCS=30kHz CP_QPSK BW=60MHz Channel=656000 RB=162@0

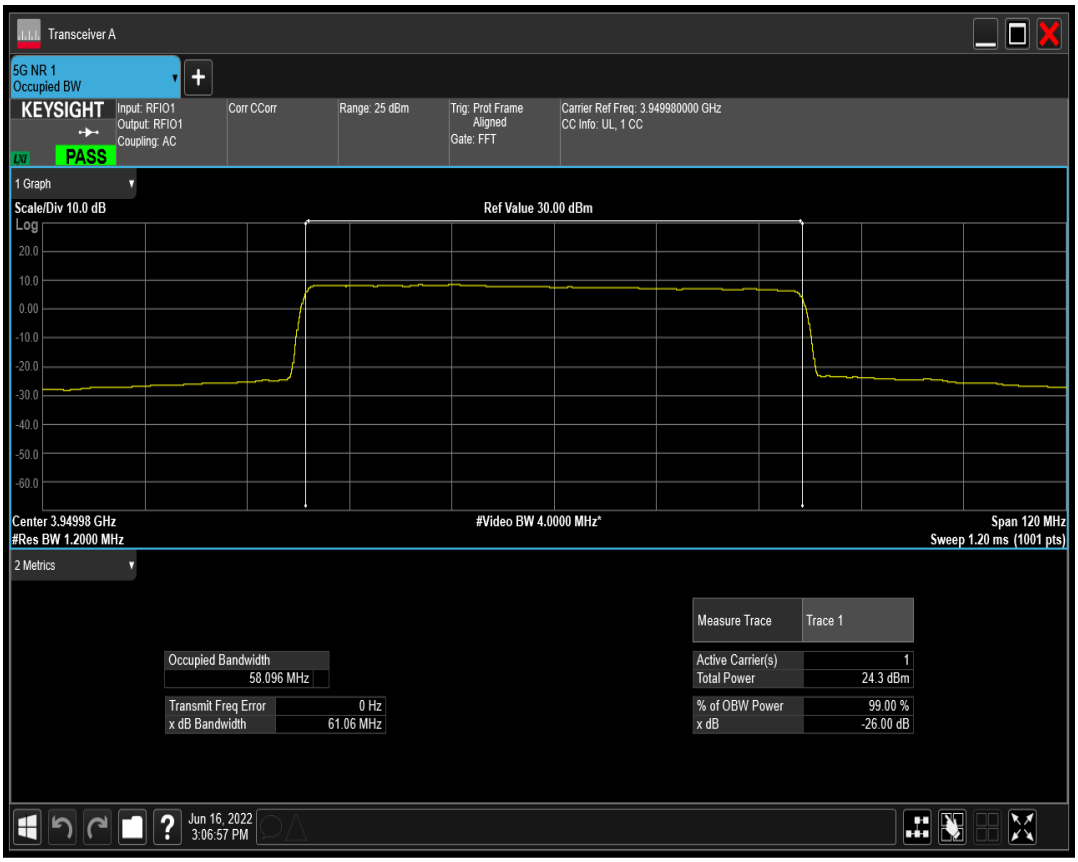


n77(3700-3980) SCS=30kHz DFT_BPSK BW=60MHz Channel=663332 RB=162@0



n77(3700-3980) SCS=30kHz DFT_QPSK BW=60MHz Channel=663332 RB=162@0

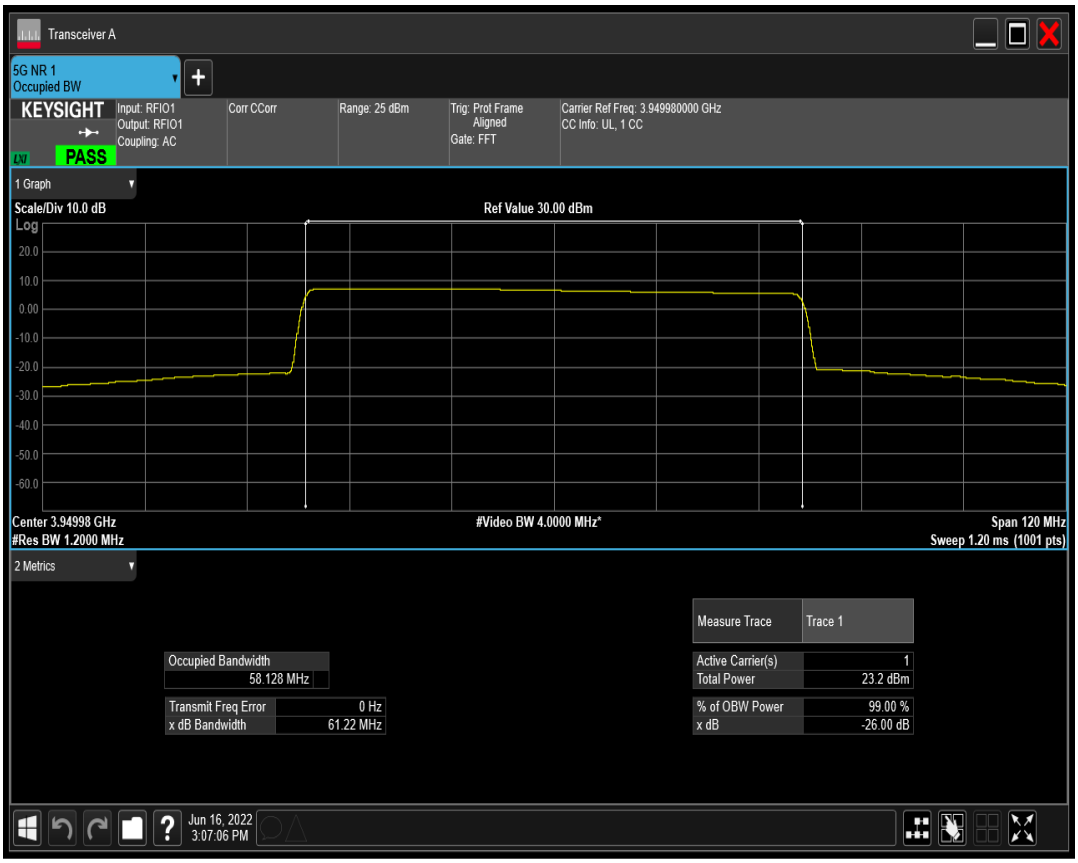
n77(3700-3980) SCS=30kHz DFT_QAM16 BW=60MHz Channel=663332 RB=162@0



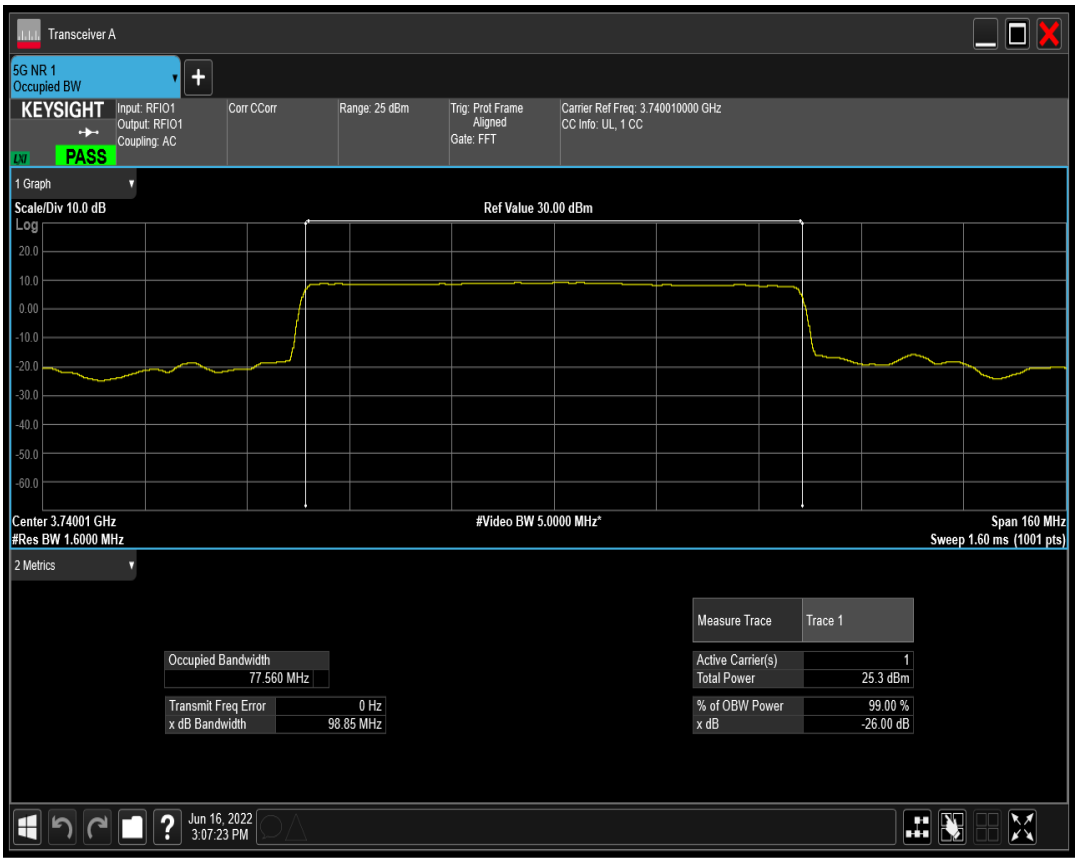
n77(3700-3980) SCS=30kHz DFT_QAM64 BW=60MHz Channel=663332 RB=162@0

n77(3700-3980) SCS=30kHz DFT_QAM256 BW=60MHz Channel=663332 RB=162@0

n77(3700-3980) SCS=30kHz CP_QPSK BW=60MHz Channel=663332 RB=162@0

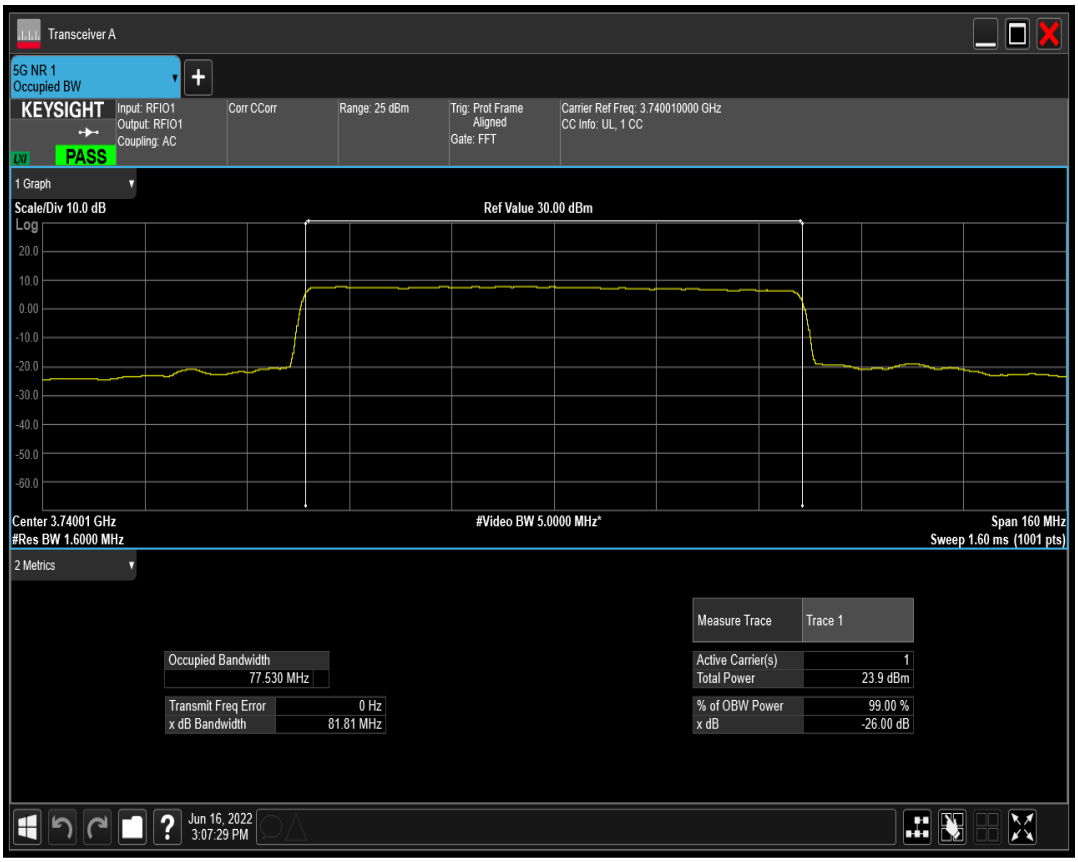


n77(3700-3980) SCS=30kHz DFT_BPSK BW=80MHz Channel=649334 RB=216@0

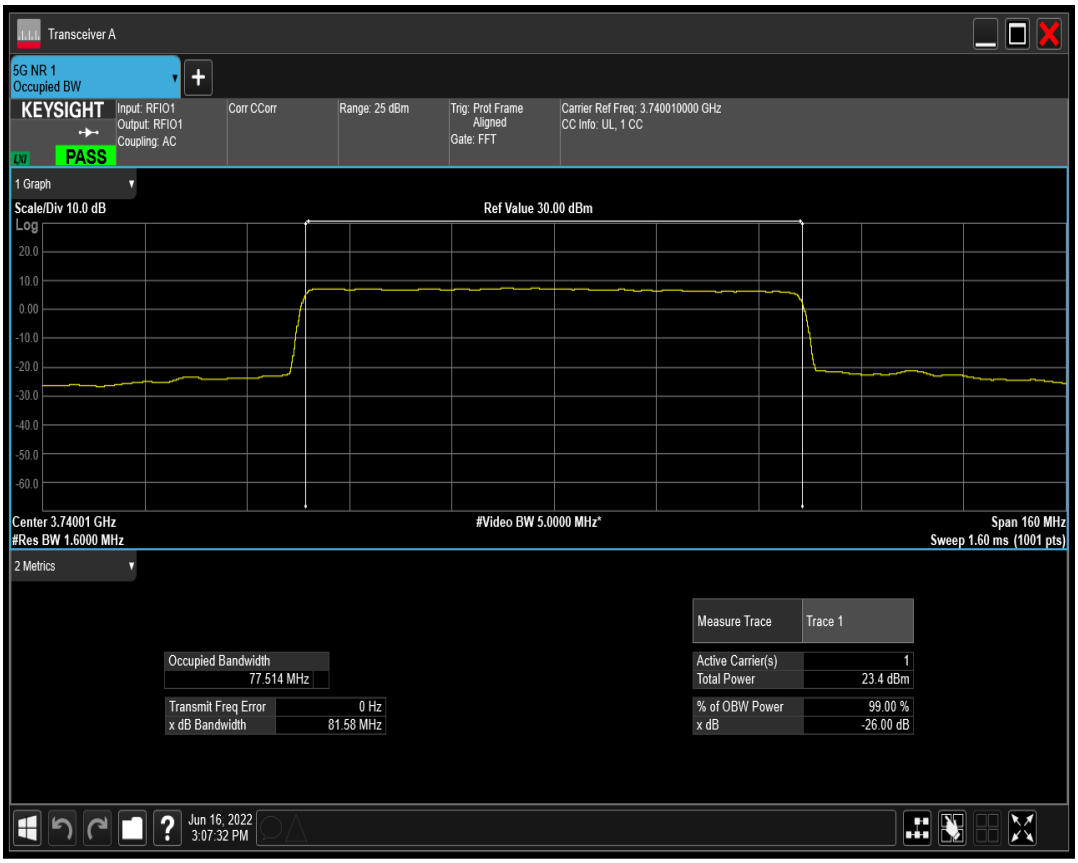


n77(3700-3980) SCS=30kHz DFT_QPSK BW=80MHz Channel=649334 RB=216@0

n77(3700-3980) SCS=30kHz DFT_QAM16 BW=80MHz Channel=649334 RB=216@0

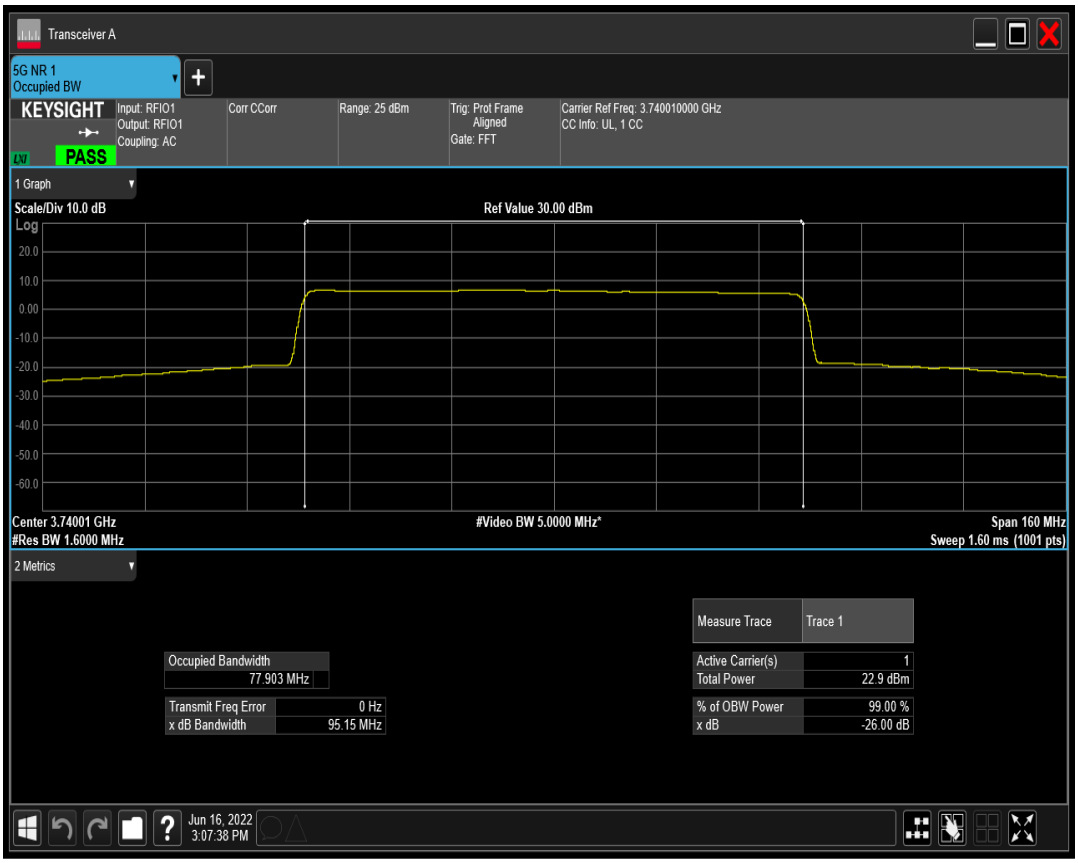


n77(3700-3980) SCS=30kHz DFT_QAM64 BW=80MHz Channel=649334 RB=216@0

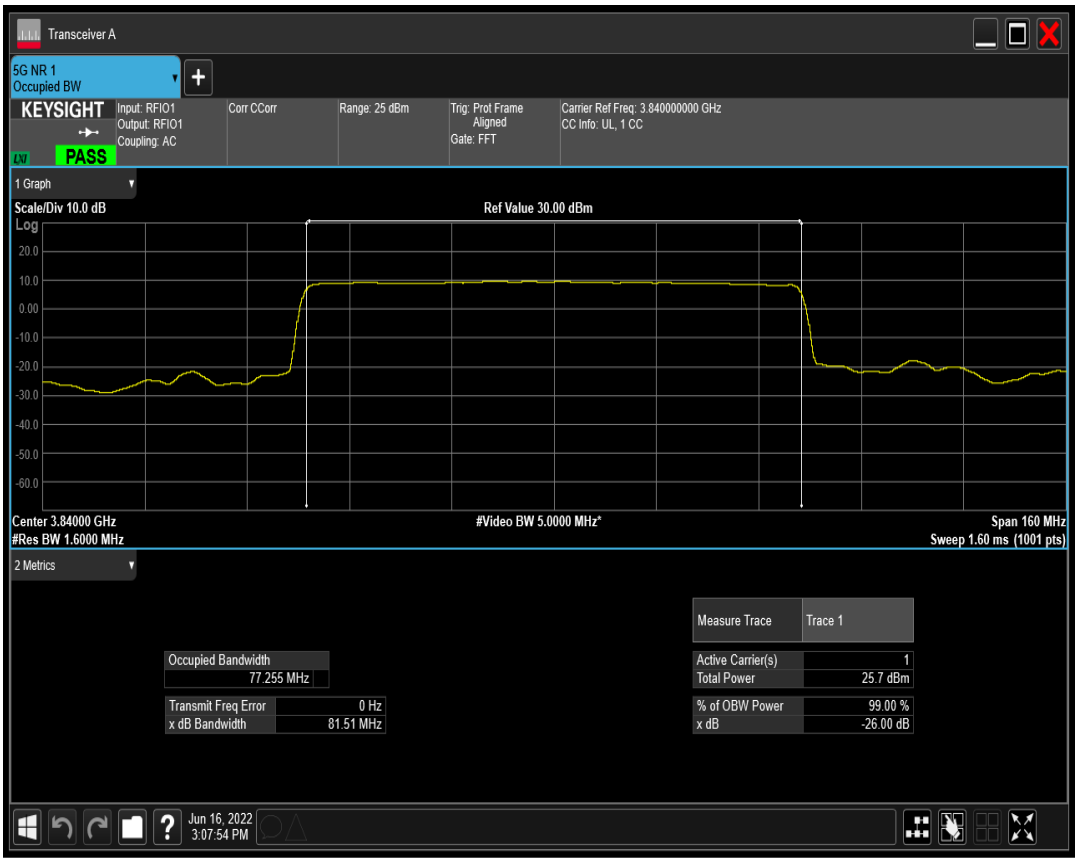


n77(3700-3980) SCS=30kHz DFT_QAM256 BW=80MHz Channel=649334 RB=216@0

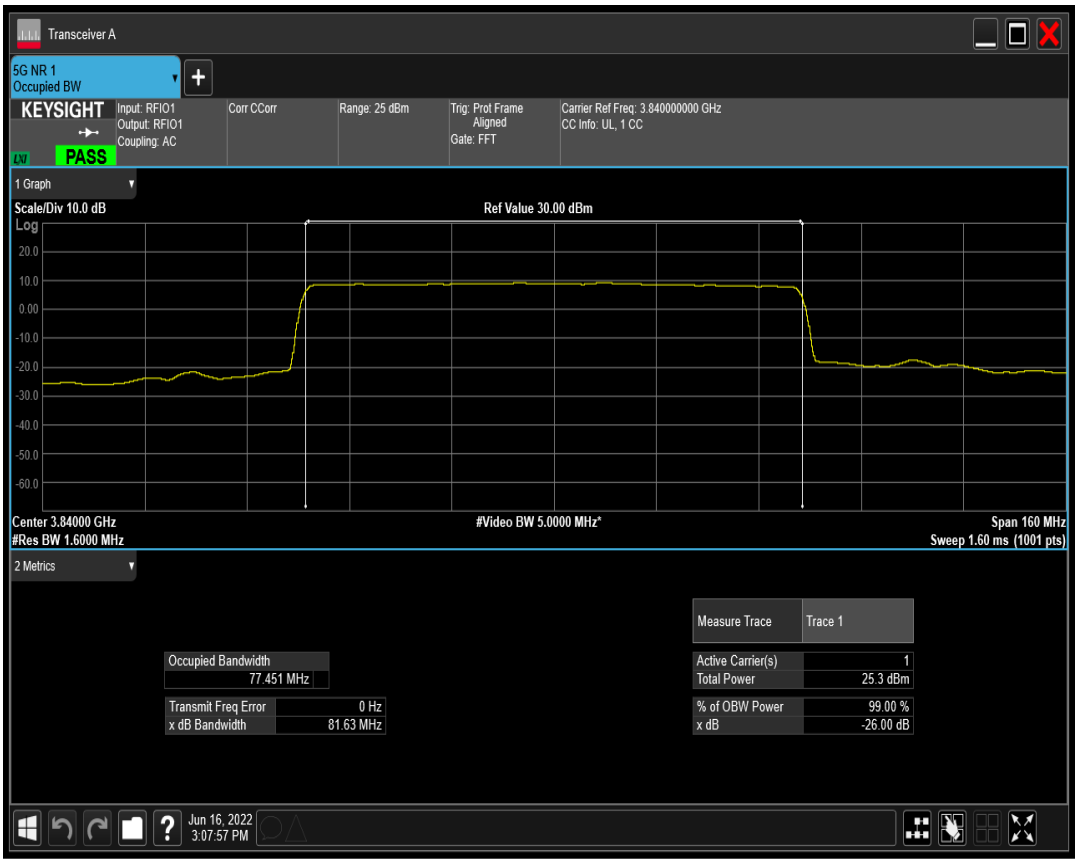
n77(3700-3980) SCS=30kHz CP_QPSK BW=80MHz Channel=649334 RB=217@0



n77(3700-3980) SCS=30kHz DFT_BPSK BW=80MHz Channel=656000 RB=216@0



n77(3700-3980) SCS=30kHz DFT_QPSK BW=80MHz Channel=656000 RB=216@0



n77(3700-3980) SCS=30kHz DFT_QAM16 BW=80MHz Channel=656000 RB=216@0

n77(3700-3980) SCS=30kHz DFT_QAM64 BW=80MHz Channel=656000 RB=216@0

n77(3700-3980) SCS=30kHz DFT_QAM256 BW=80MHz Channel=656000 RB=216@0

n77(3700-3980) SCS=30kHz CP_QPSK BW=80MHz Channel=656000 RB=217@0

n77(3700-3980) SCS=30kHz DFT_BPSK BW=80MHz Channel=662666 RB=216@0

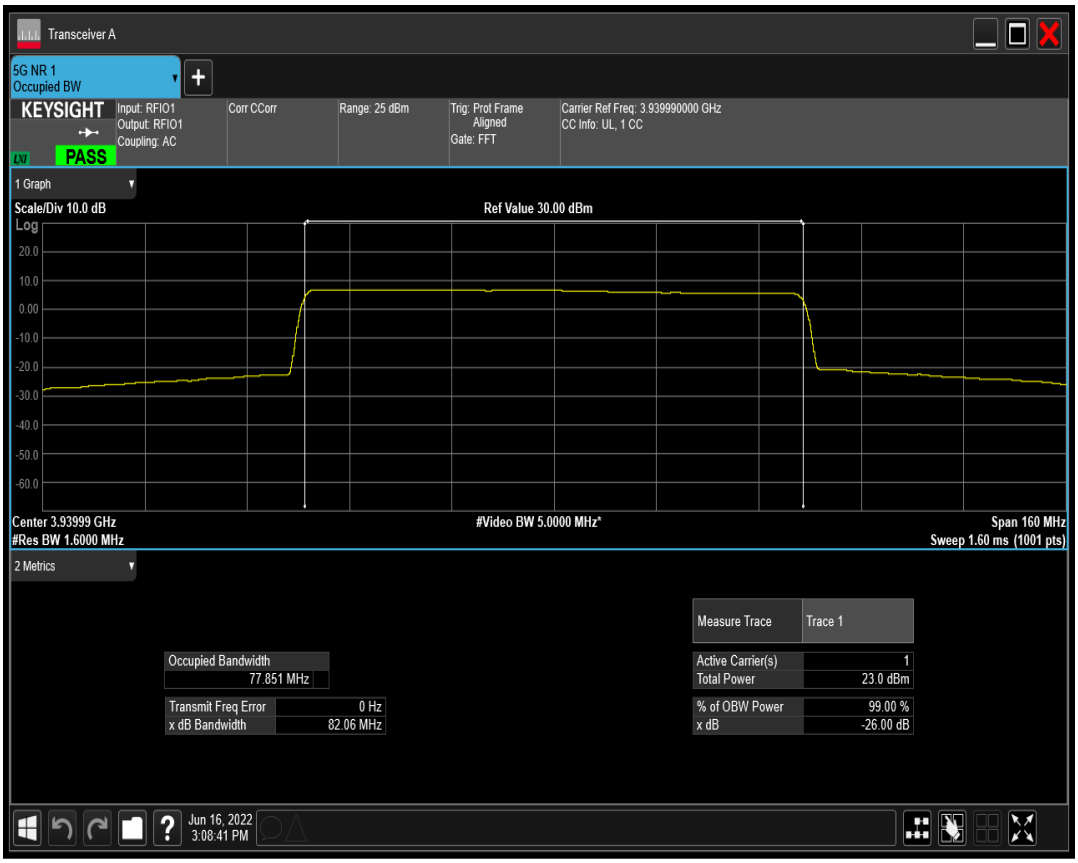
n77(3700-3980) SCS=30kHz DFT_QPSK BW=80MHz Channel=662666 RB=216@0

n77(3700-3980) SCS=30kHz DFT_QAM16 BW=80MHz Channel=662666 RB=216@0

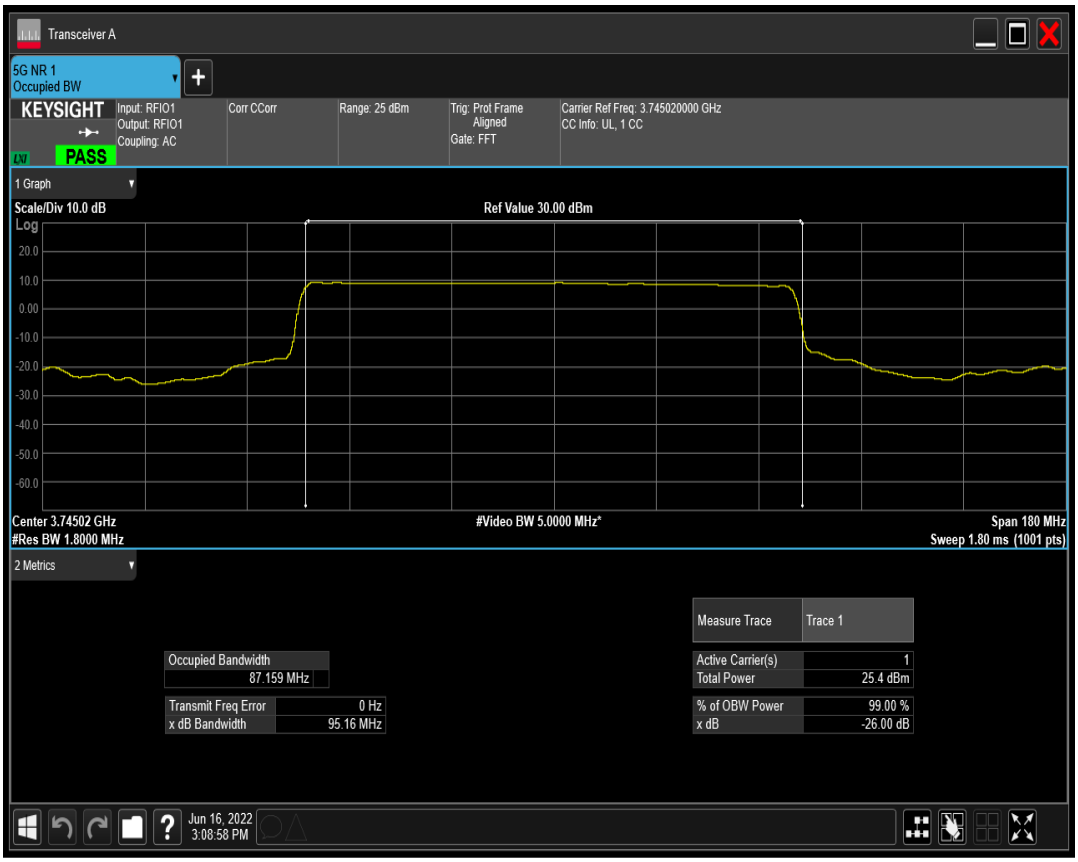
n77(3700-3980) SCS=30kHz DFT_QAM64 BW=80MHz Channel=662666 RB=216@0

n77(3700-3980) SCS=30kHz DFT_QAM256 BW=80MHz Channel=662666 RB=216@0

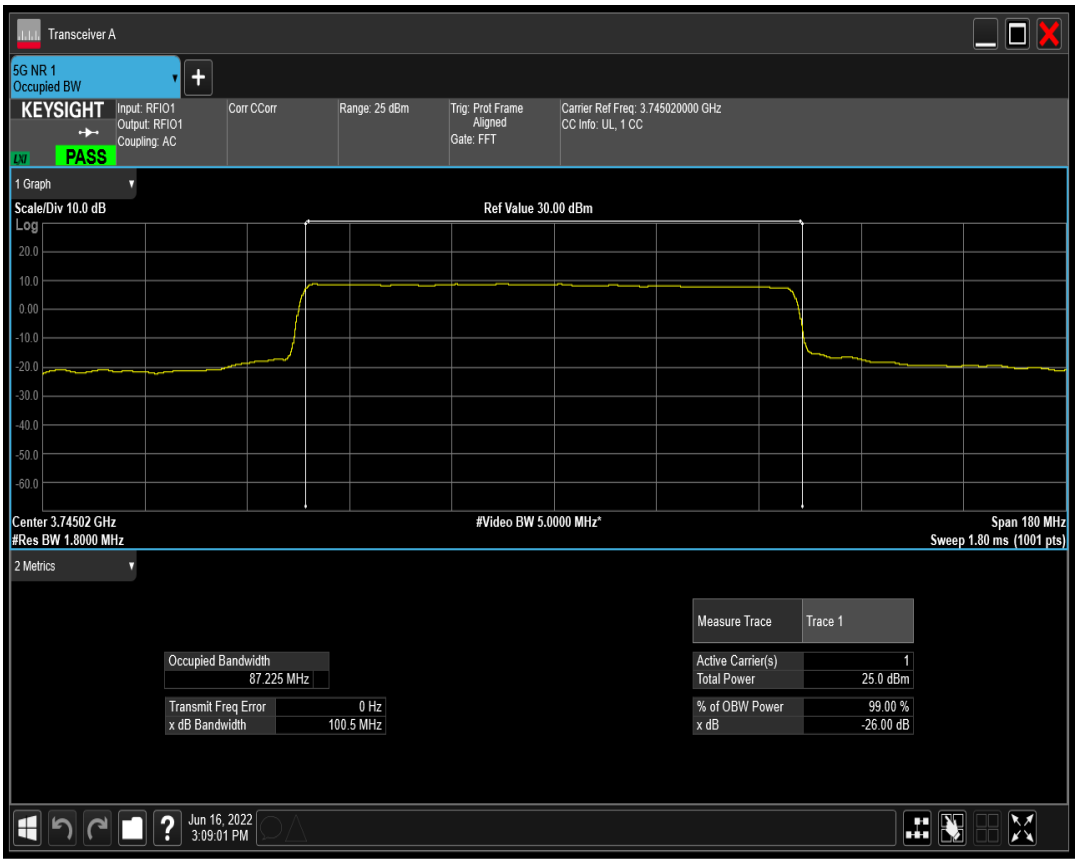
n77(3700-3980) SCS=30kHz CP_QPSK BW=80MHz Channel=662666 RB=217@0



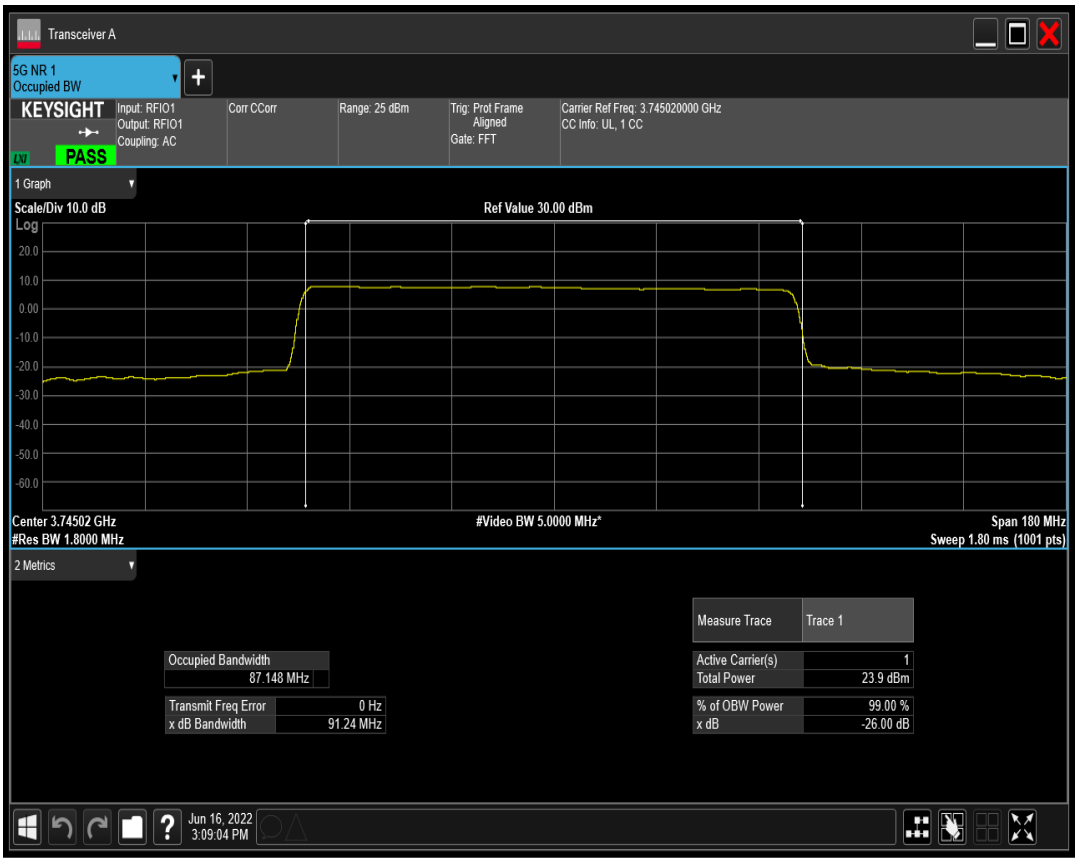
n77(3700-3980) SCS=30kHz DFT_BPSK BW=90MHz Channel=649668 RB=240@0



n77(3700-3980) SCS=30kHz DFT_QPSK BW=90MHz Channel=649668 RB=240@0



n77(3700-3980) SCS=30kHz DFT_QAM16 BW=90MHz Channel=649668 RB=240@0

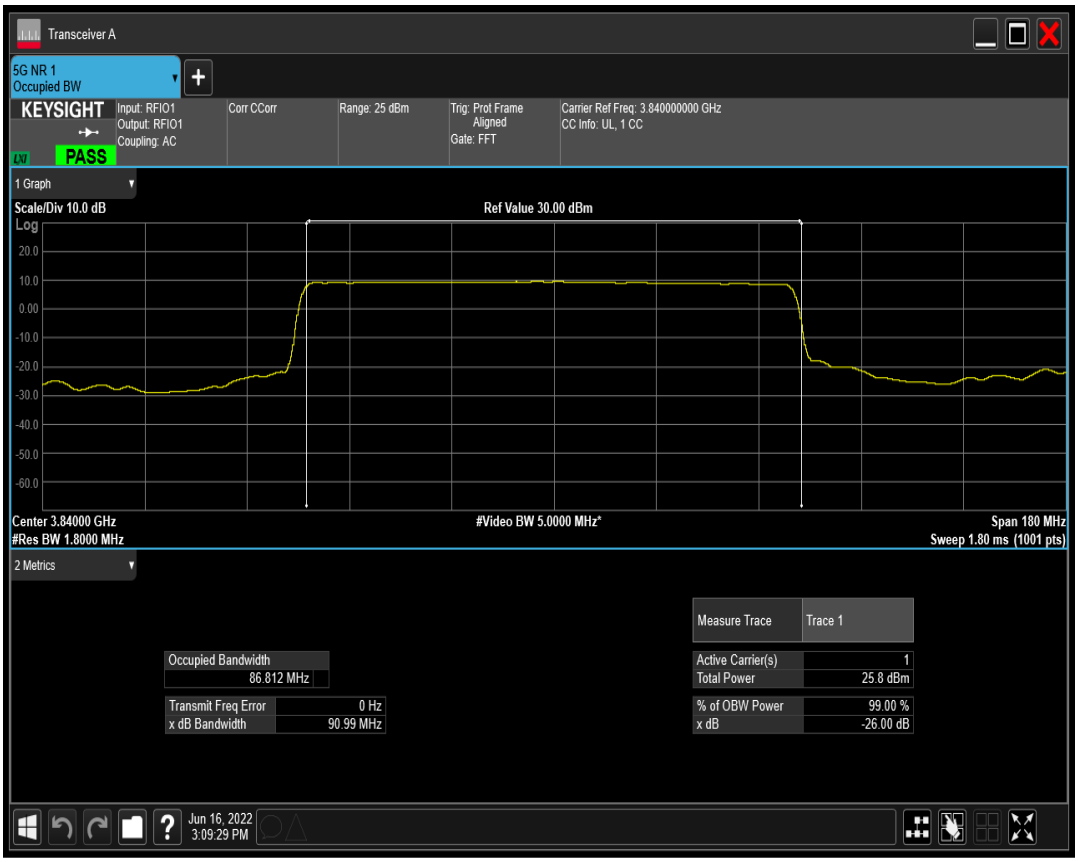


n77(3700-3980) SCS=30kHz DFT_QAM64 BW=90MHz Channel=649668 RB=240@0

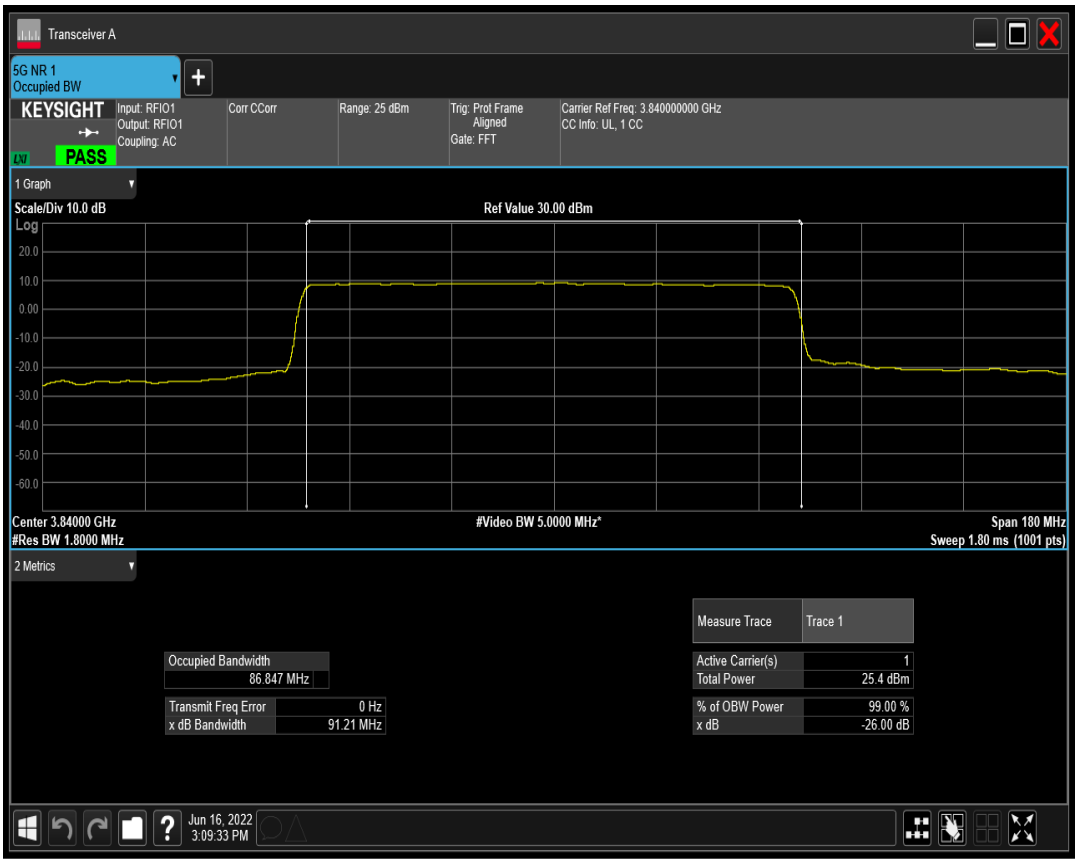
n77(3700-3980) SCS=30kHz DFT_QAM256 BW=90MHz Channel=649668 RB=240@0

n77(3700-3980) SCS=30kHz CP_QPSK BW=90MHz Channel=649668 RB=245@0

n77(3700-3980) SCS=30kHz DFT_BPSK BW=90MHz Channel=656000 RB=240@0



n77(3700-3980) SCS=30kHz DFT_QPSK BW=90MHz Channel=656000 RB=240@0



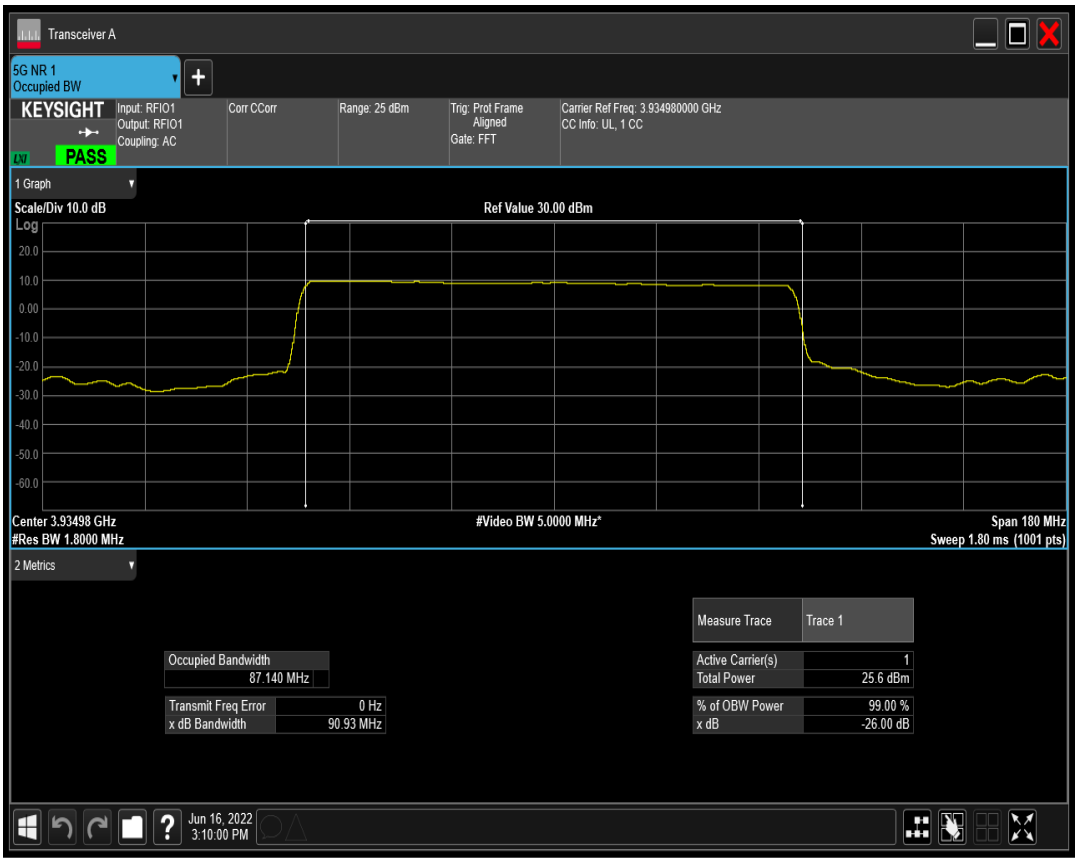
n77(3700-3980) SCS=30kHz DFT_QAM16 BW=90MHz Channel=656000 RB=240@0

n77(3700-3980) SCS=30kHz DFT_QAM64 BW=90MHz Channel=656000 RB=240@0

n77(3700-3980) SCS=30kHz DFT_QAM256 BW=90MHz Channel=656000 RB=240@0

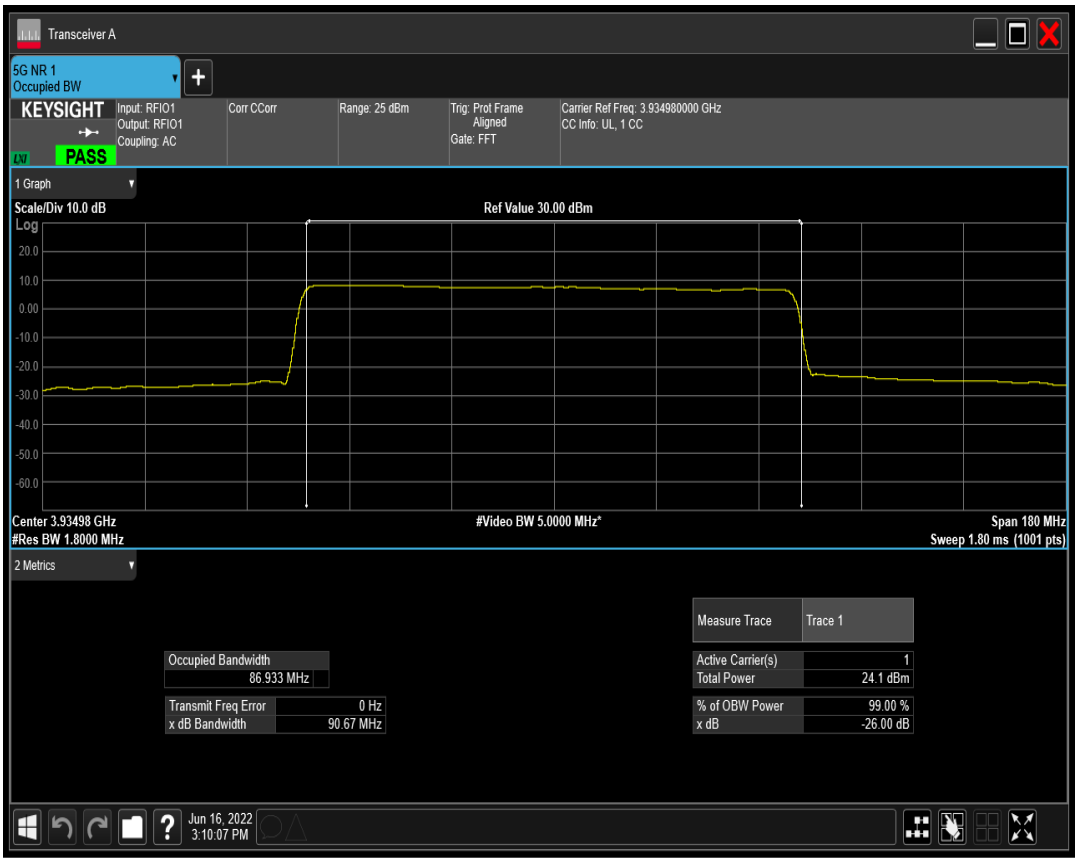
n77(3700-3980) SCS=30kHz CP_QPSK BW=90MHz Channel=656000 RB=245@0

n77(3700-3980) SCS=30kHz DFT_BPSK BW=90MHz Channel=662332 RB=240@0



n77(3700-3980) SCS=30kHz DFT_QPSK BW=90MHz Channel=662332 RB=240@0

n77(3700-3980) SCS=30kHz DFT_QAM16 BW=90MHz Channel=662332 RB=240@0

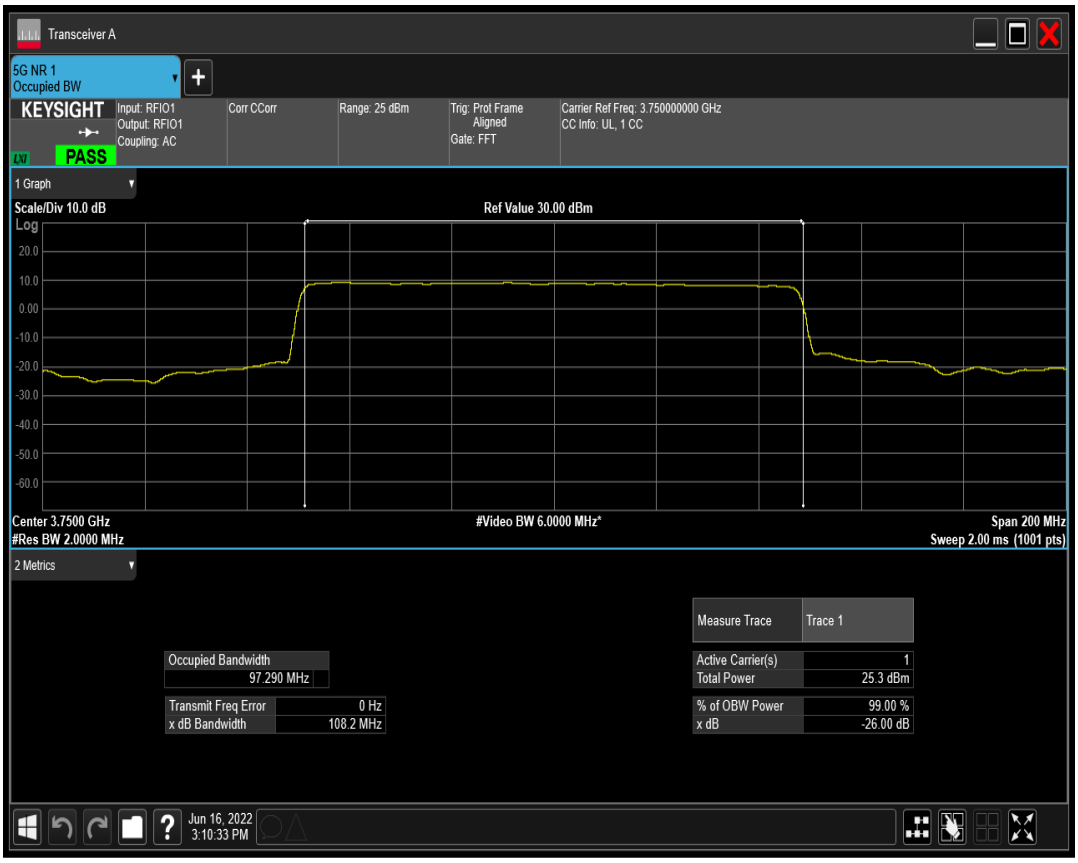


n77(3700-3980) SCS=30kHz DFT_QAM64 BW=90MHz Channel=662332 RB=240@0

n77(3700-3980) SCS=30kHz DFT_QAM256 BW=90MHz Channel=662332 RB=240@0

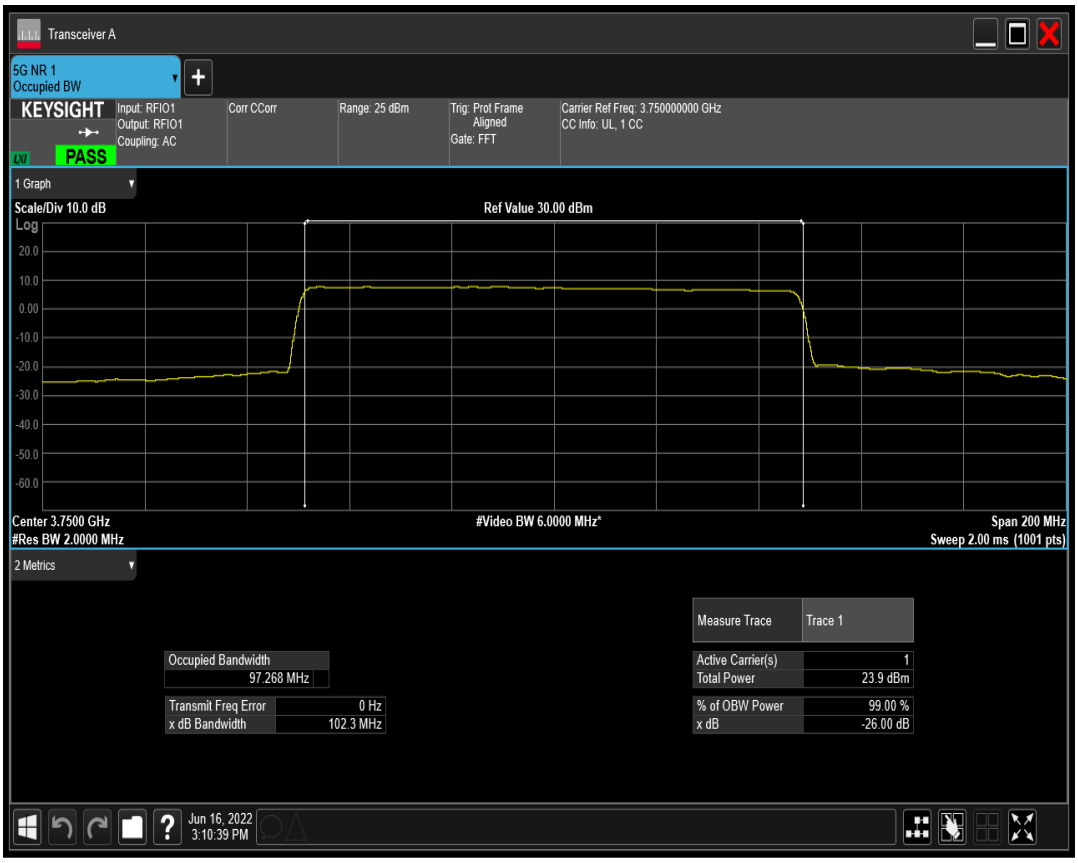
n77(3700-3980) SCS=30kHz CP_QPSK BW=90MHz Channel=662332 RB=245@0

n77(3700-3980) SCS=30kHz DFT_BPSK BW=100MHz Channel=650000 RB=270@0



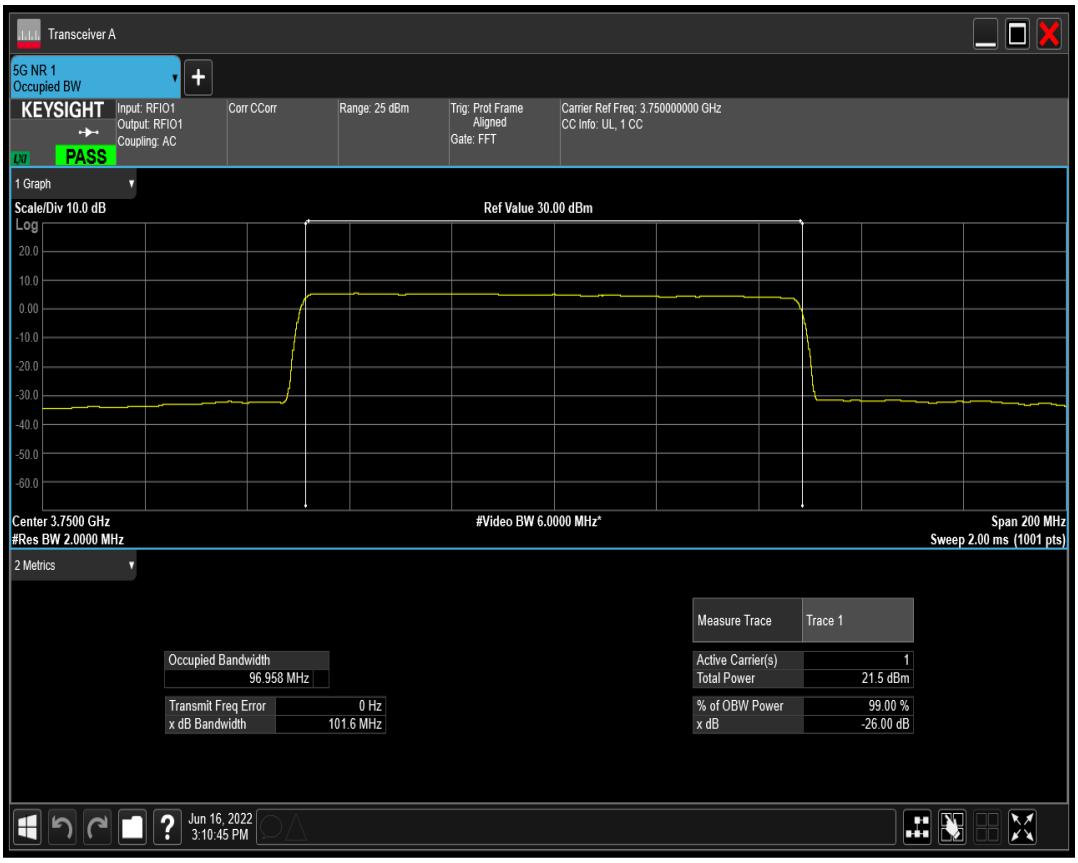
n77(3700-3980) SCS=30kHz DFT_QPSK BW=100MHz Channel=650000 RB=270@0

n77(3700-3980) SCS=30kHz DFT_QAM16 BW=100MHz Channel=650000 RB=270@0

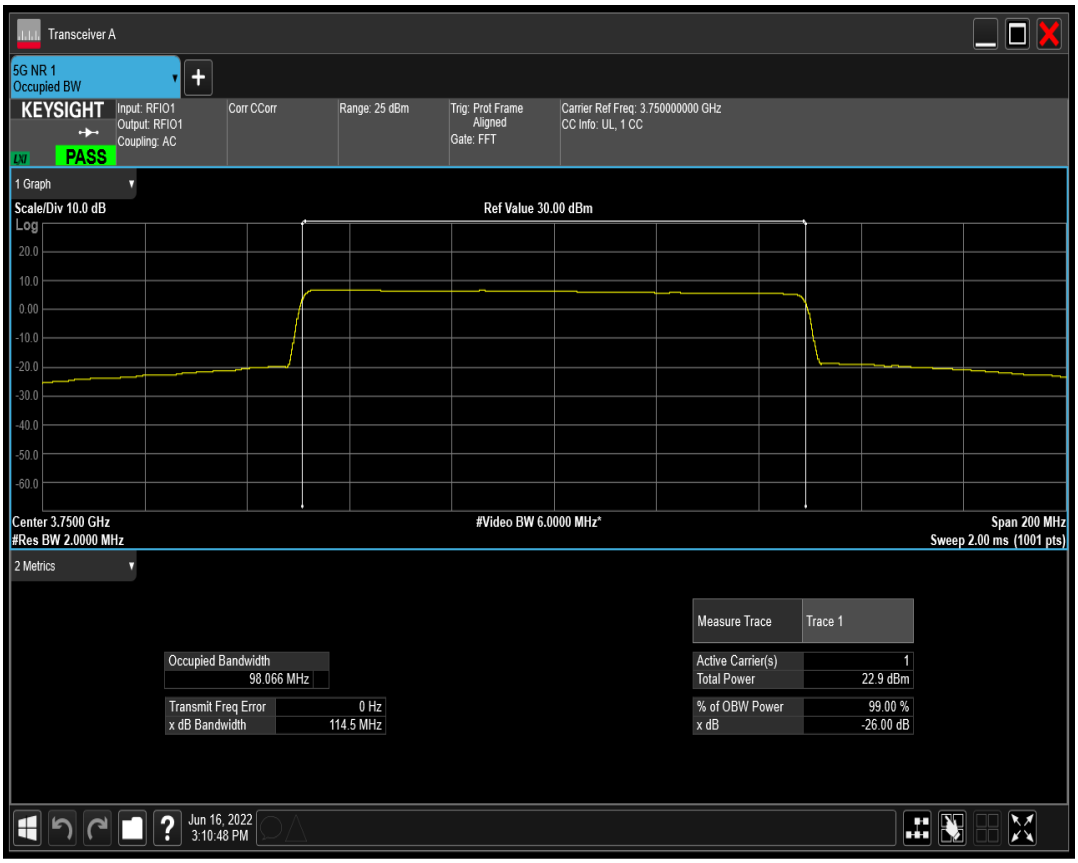


n77(3700-3980) SCS=30kHz DFT_QAM64 BW=100MHz Channel=650000 RB=270@0

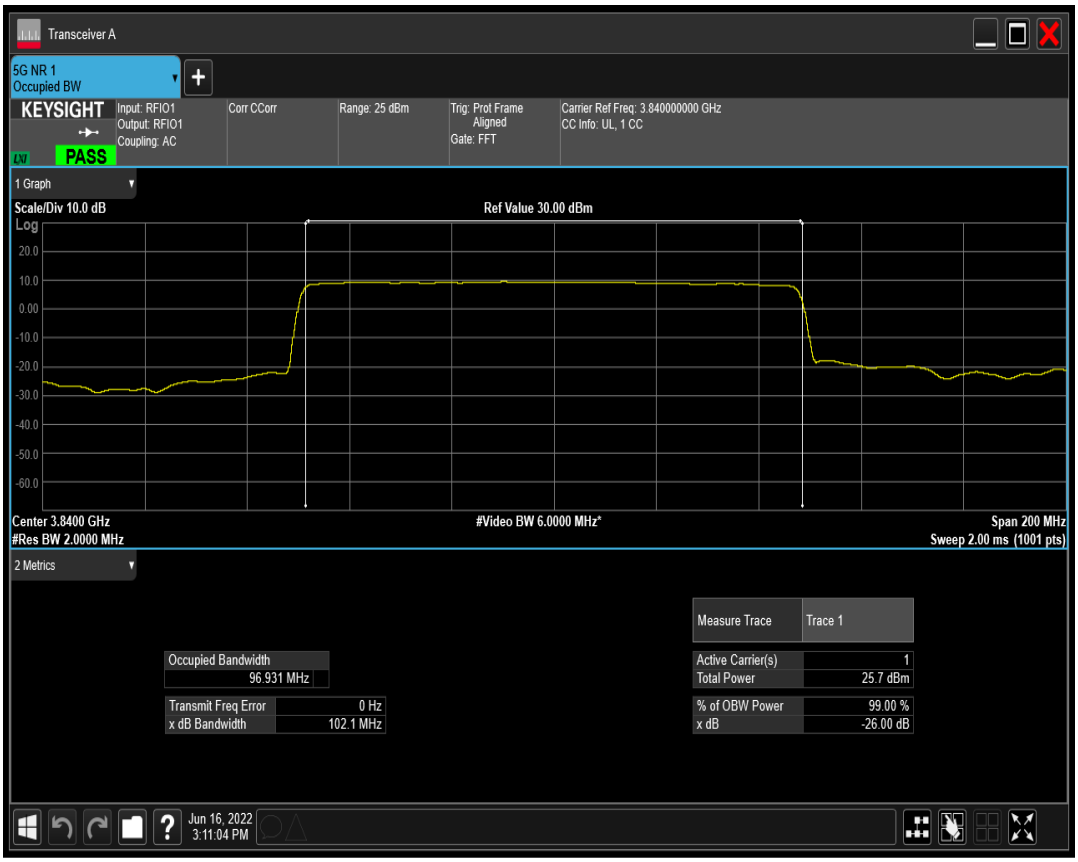
n77(3700-3980) SCS=30kHz DFT_QAM256 BW=100MHz Channel=650000 RB=270@0



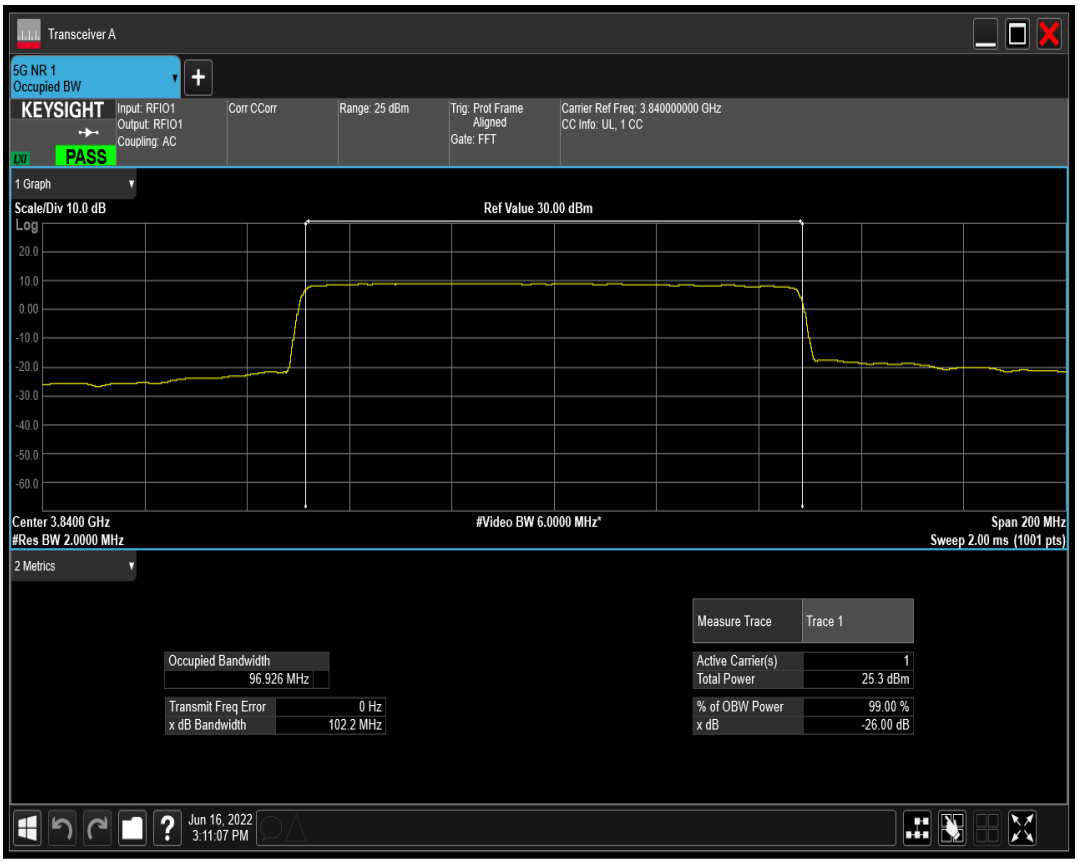
n77(3700-3980) SCS=30kHz CP_QPSK BW=100MHz Channel=650000 RB=273@0



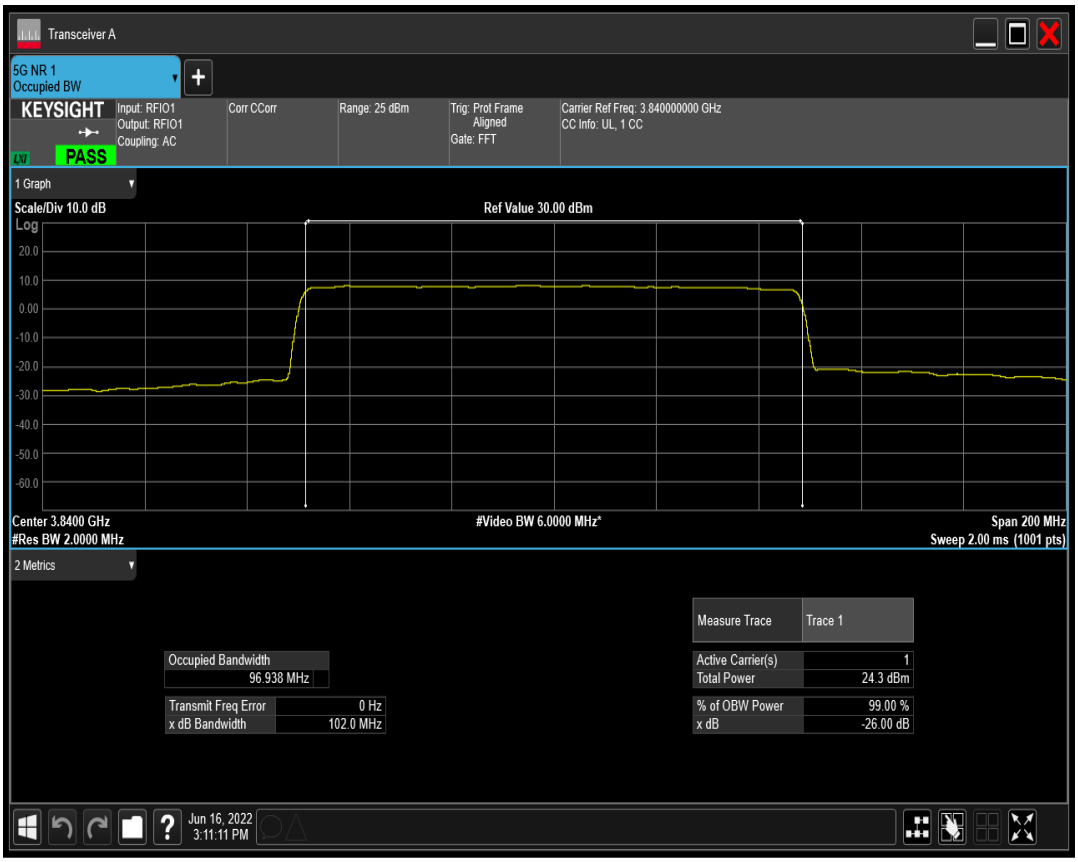
n77(3700-3980) SCS=30kHz DFT_BPSK BW=100MHz Channel=656000 RB=270@0



n77(3700-3980) SCS=30kHz DFT_QPSK BW=100MHz Channel=656000 RB=270@0



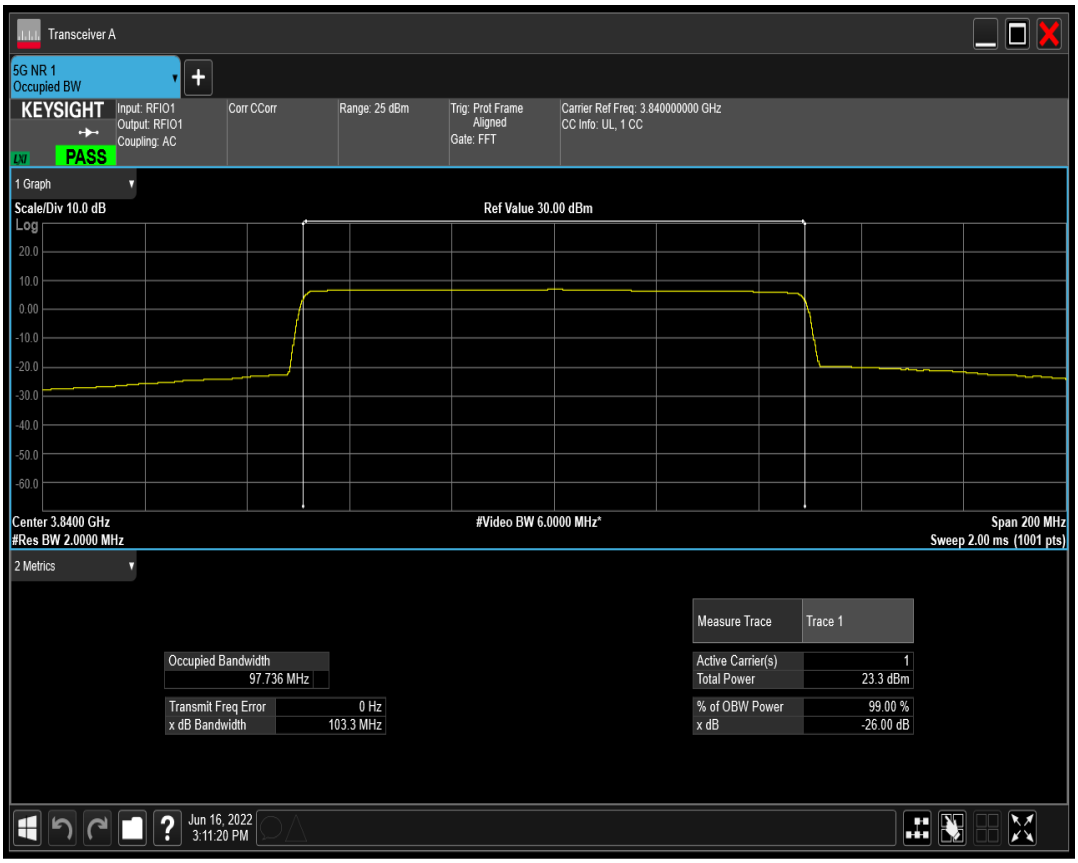
n77(3700-3980) SCS=30kHz DFT_QAM16 BW=100MHz Channel=656000 RB=270@0



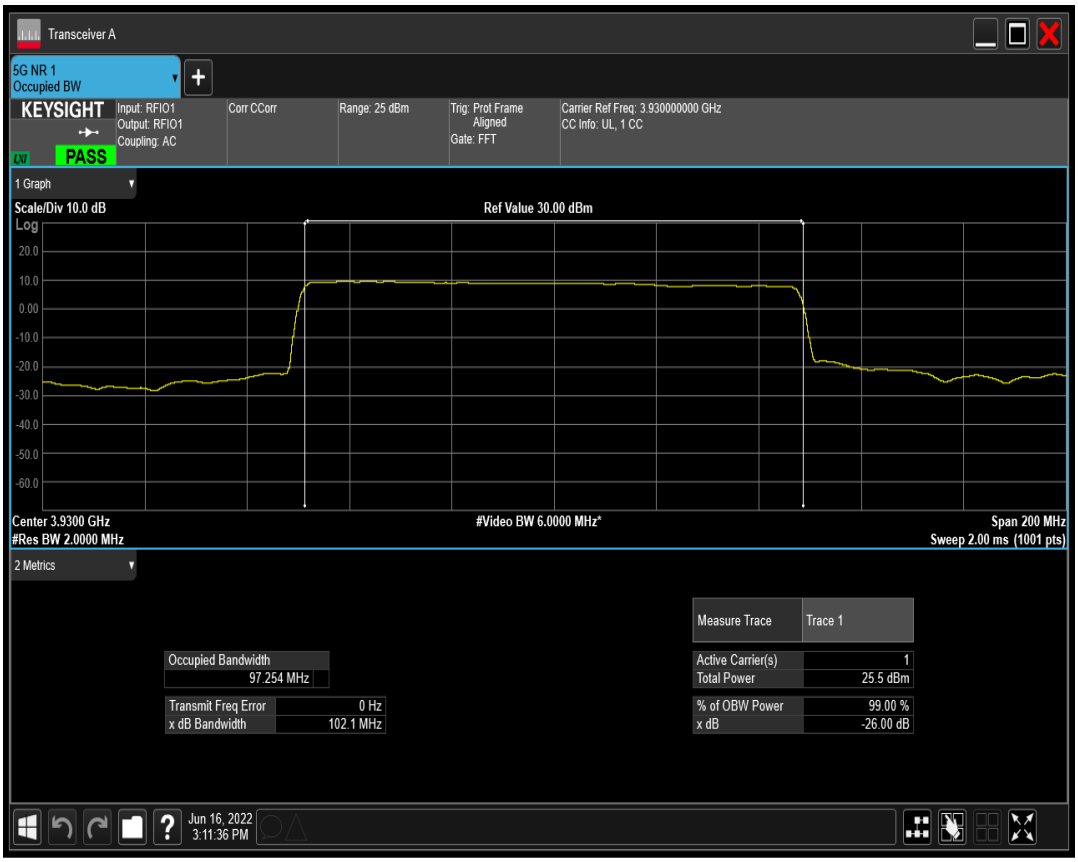
n77(3700-3980) SCS=30kHz DFT_QAM64 BW=100MHz Channel=656000 RB=270@0

n77(3700-3980) SCS=30kHz DFT_QAM256 BW=100MHz Channel=656000 RB=270@0

n77(3700-3980) SCS=30kHz CP_QPSK BW=100MHz Channel=656000 RB=273@0



n77(3700-3980) SCS=30kHz DFT_BPSK BW=100MHz Channel=662000 RB=270@0

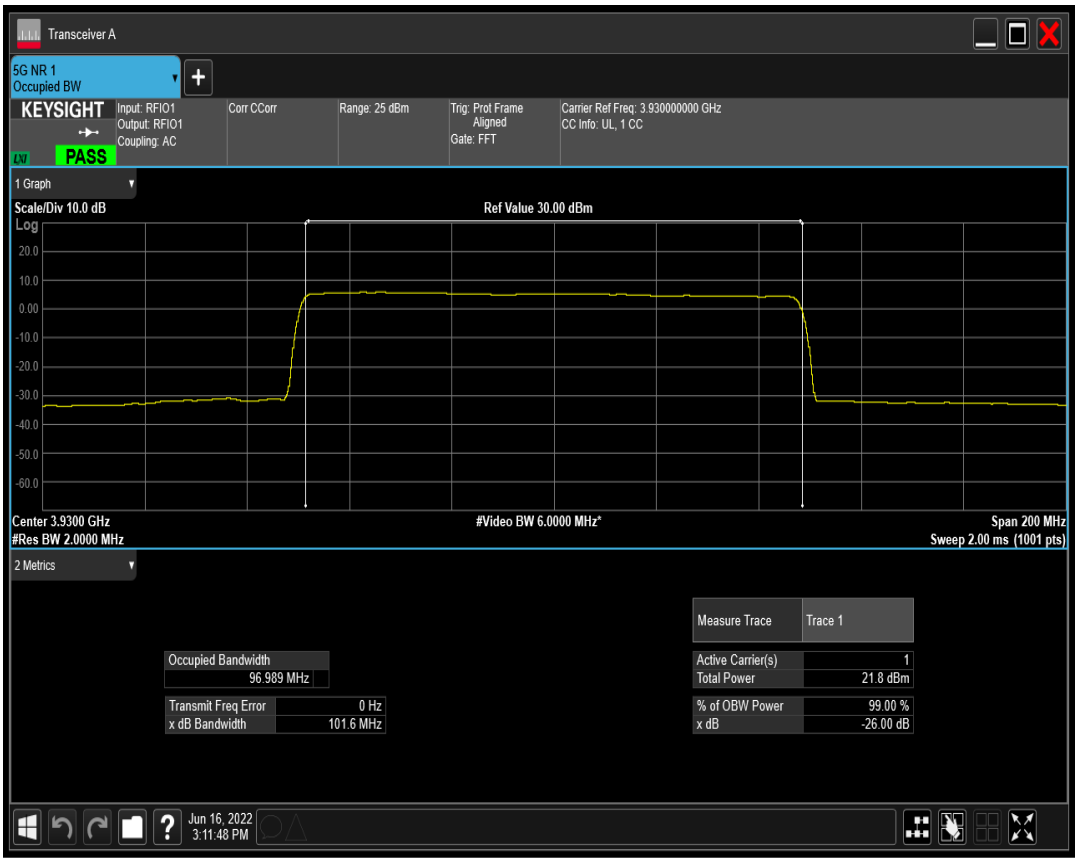


n77(3700-3980) SCS=30kHz DFT_QPSK BW=100MHz Channel=662000 RB=270@0

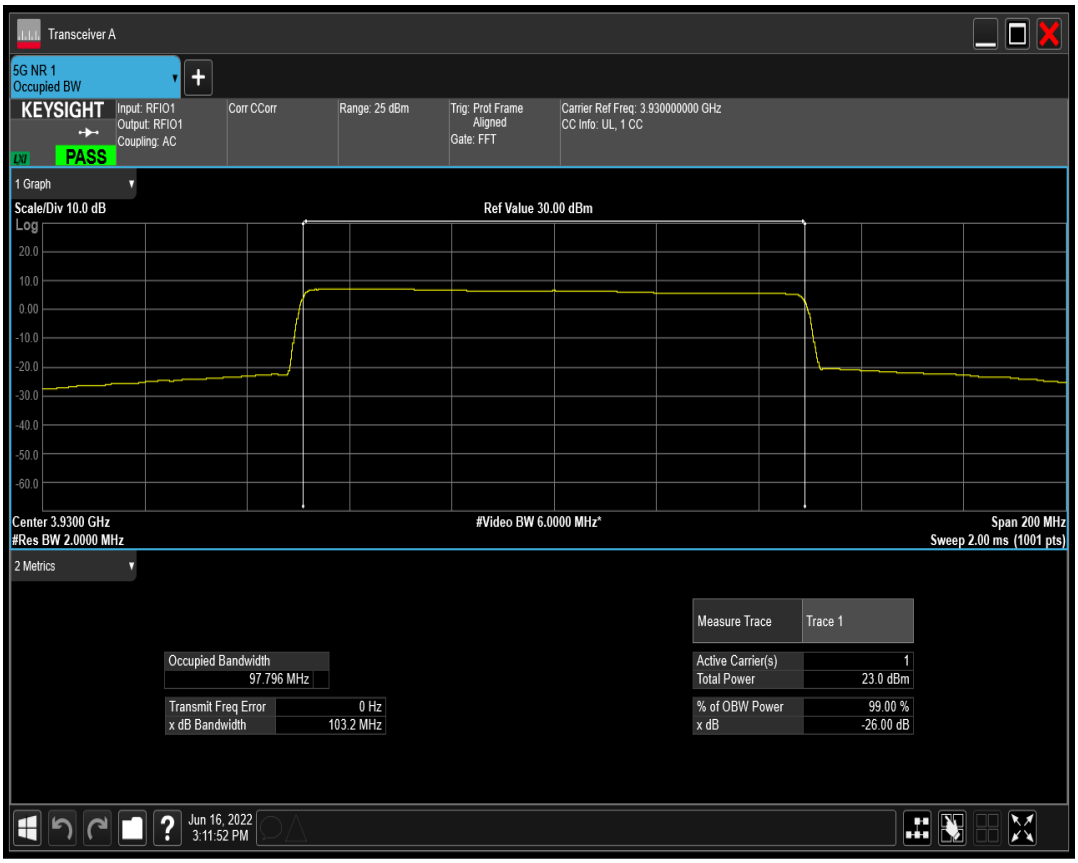
n77(3700-3980) SCS=30kHz DFT_QAM16 BW=100MHz Channel=662000 RB=270@0

n77(3700-3980) SCS=30kHz DFT_QAM64 BW=100MHz Channel=662000 RB=270@0

n77(3700-3980) SCS=30kHz DFT_QAM256 BW=100MHz Channel=662000 RB=270@0



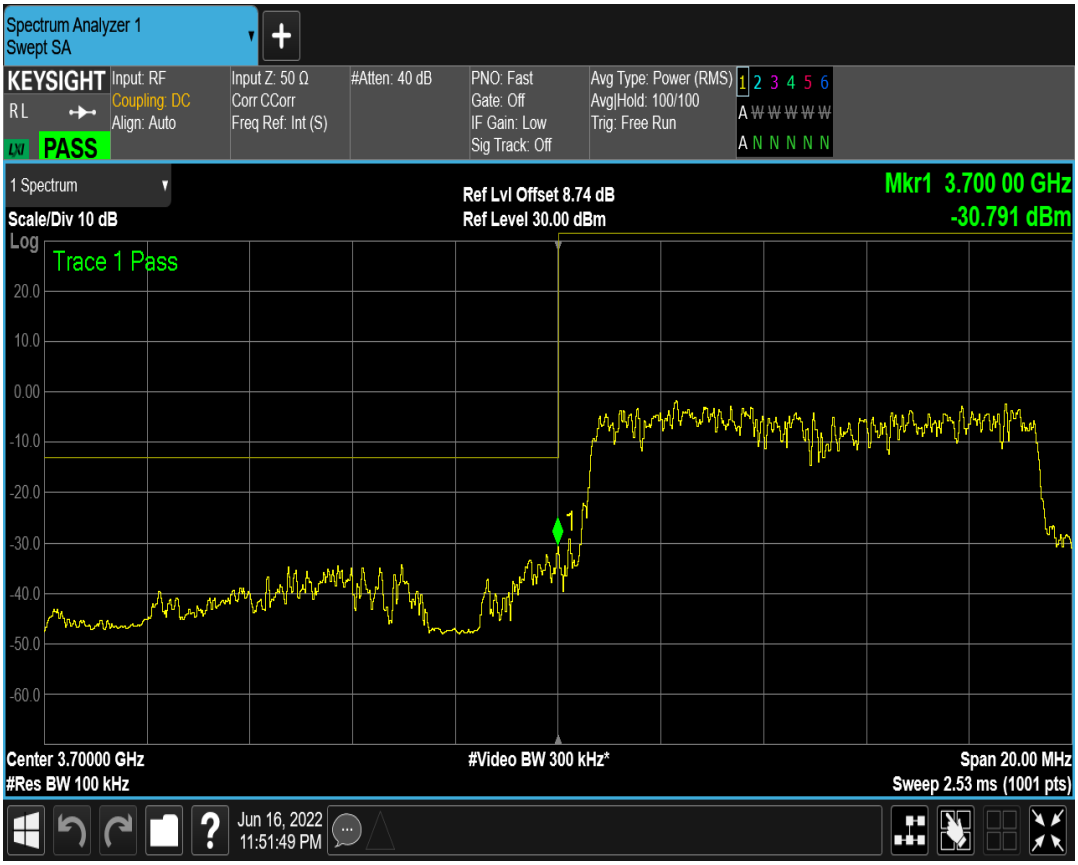
n77(3700-3980) SCS=30kHz CP_QPSK BW=100MHz Channel=662000 RB=273@0



5 Band edge for NR FR1

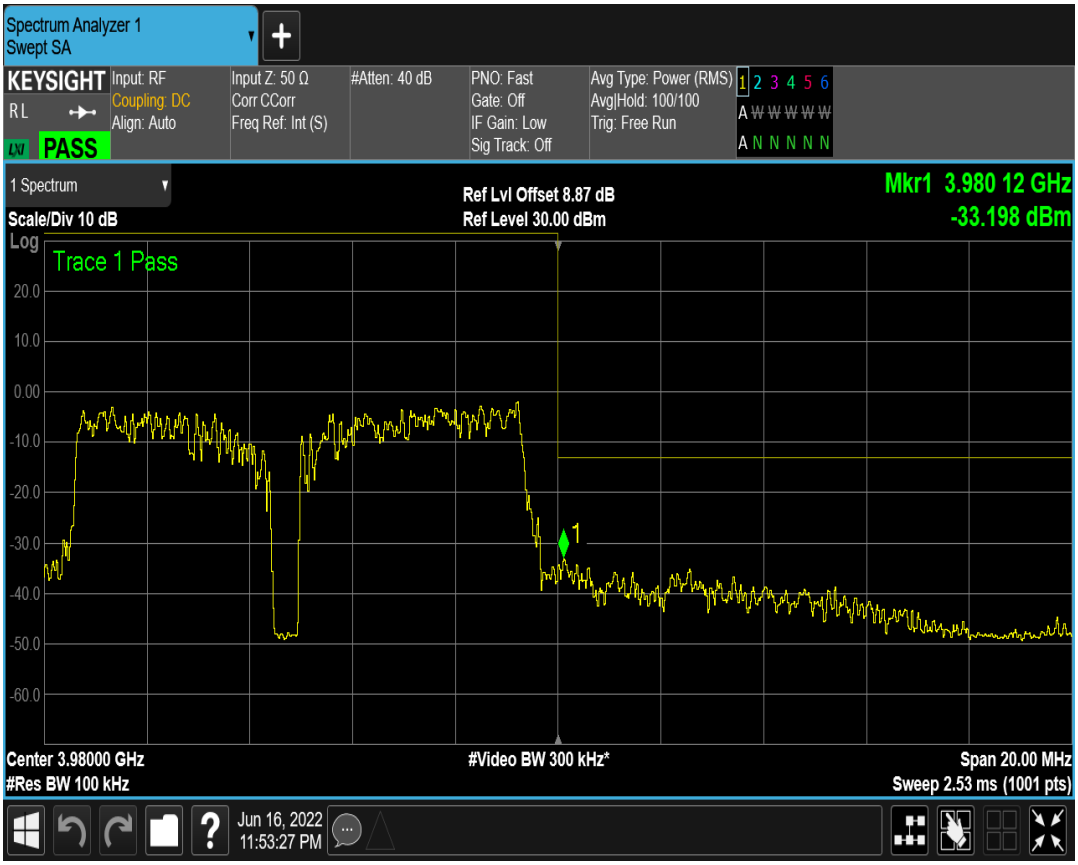
Band	SCS (kHz)	Bandwidth (MHz)	UL Channel	RB Allocation	Modulation	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)	Verdict
n77(3700-3980)	30	10	647000	24@0	DFT_QPSK	3700.00	-30.79	-13	PASS
n77(3700-3980)	30	10	647000	1@0	DFT_QPSK	3699.94	-28.27	-13	PASS
n77(3700-3980)	30	10	665000	24@0	DFT_QPSK	3980.12	-33.19	-13	PASS
n77(3700-3980)	30	10	665000	1@23	DFT_QPSK	3980.06	-22.17	-13	PASS
n77(3700-3980)	30	100	650000	270@0	DFT_QPSK	3700.00	-21.41	-13	PASS
n77(3700-3980)	30	100	650000	1@0	DFT_QPSK	3699.80	-36.60	-13	PASS
n77(3700-3980)	30	100	662000	270@0	DFT_QPSK	3986.00	-31.85	-13	PASS
n77(3700-3980)	30	100	662000	1@272	DFT_QPSK	3980.00	-37.13	-13	PASS

n77(3700-3980) SCS=30kHz DFT_QPSK BW=10MHz Channel=647000 RB=24@0

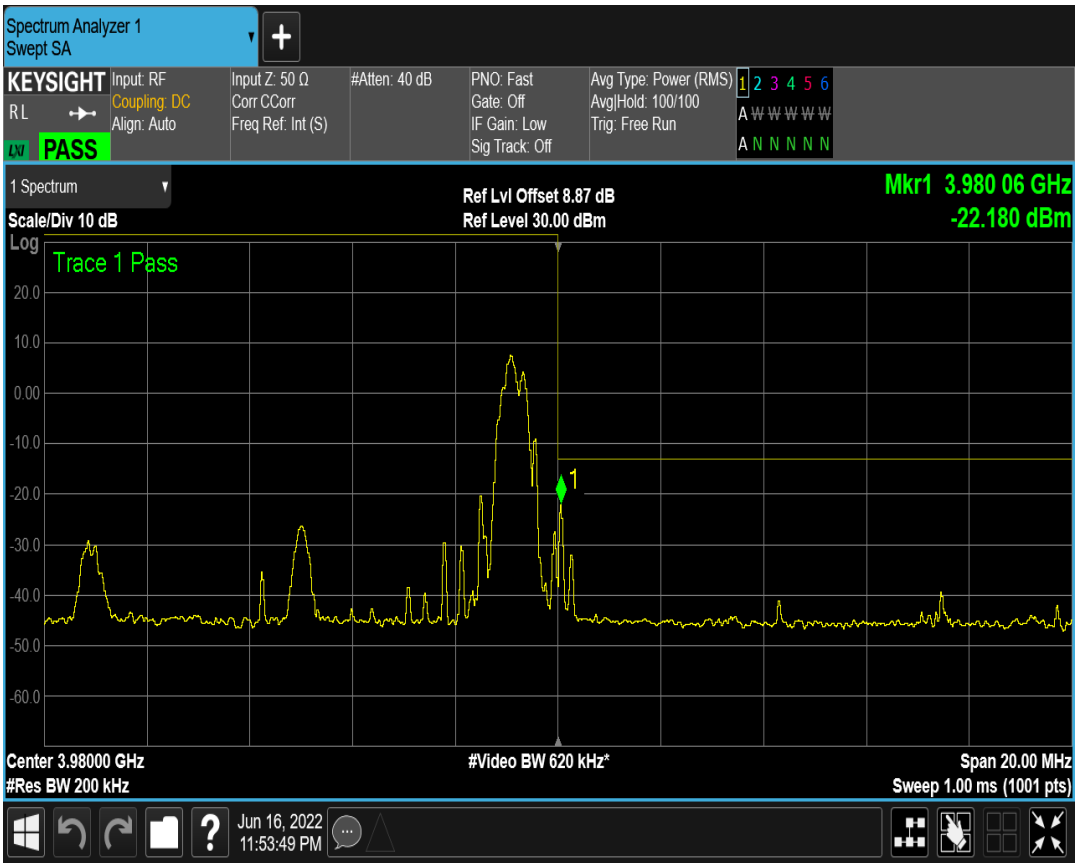


n77(3700-3980) SCS=30kHz DFT_QPSK BW=10MHz Channel=647000 RB=1@0

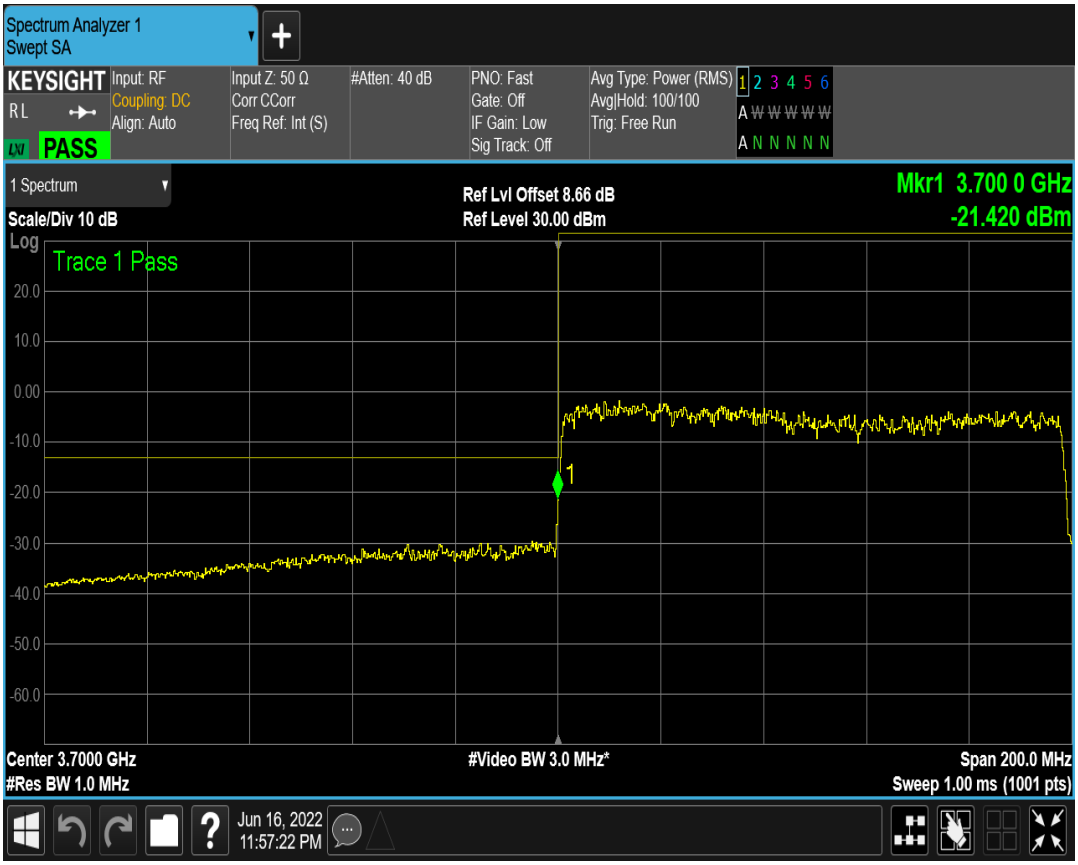
n77(3700-3980) SCS=30kHz DFT_QPSK BW=10MHz Channel=665000 RB=24@0



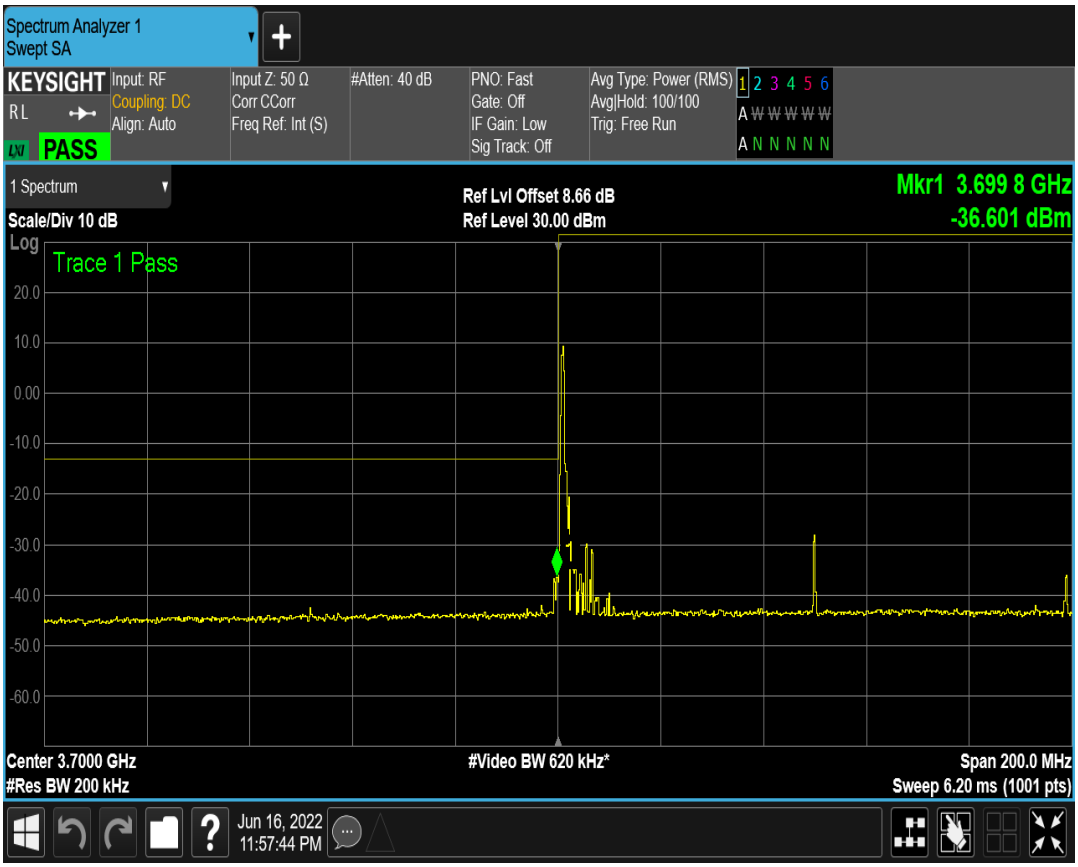
n77(3700-3980) SCS=30kHz DFT_QPSK BW=10MHz Channel=665000 RB=1@23



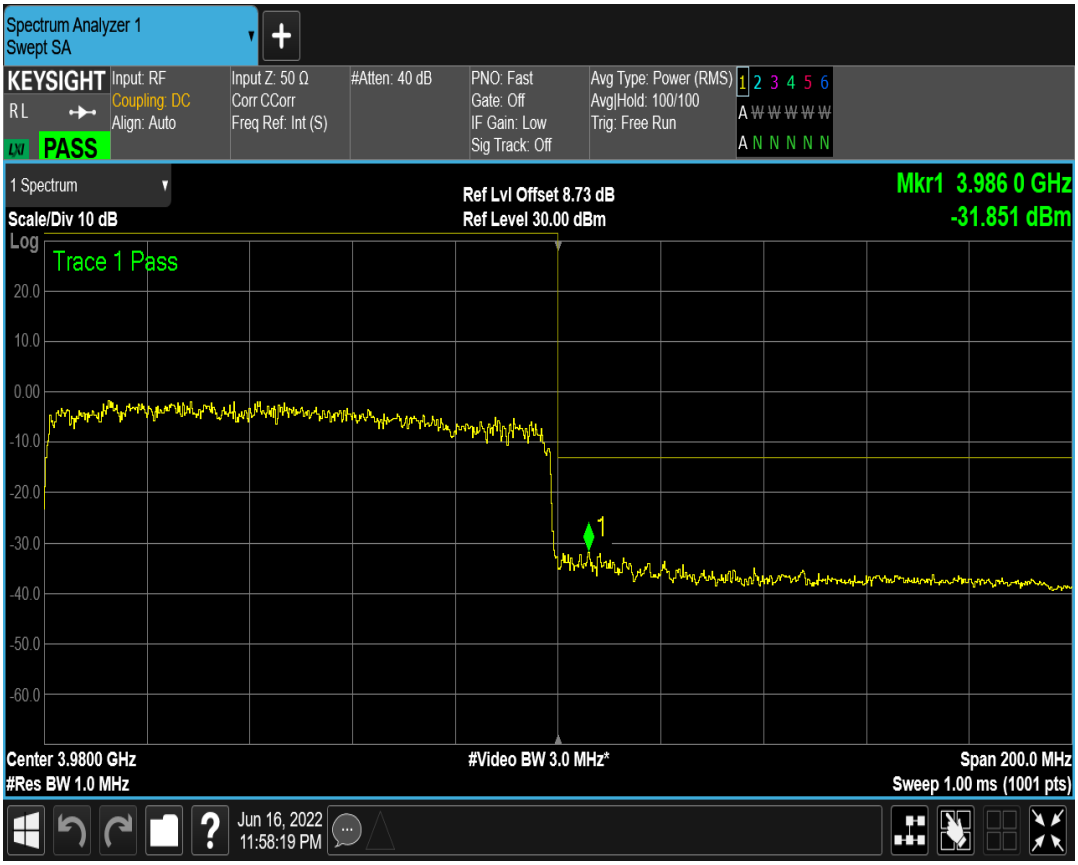
n77(3700-3980) SCS=30kHz DFT_QPSK BW=100MHz Channel=650000 RB=270@0



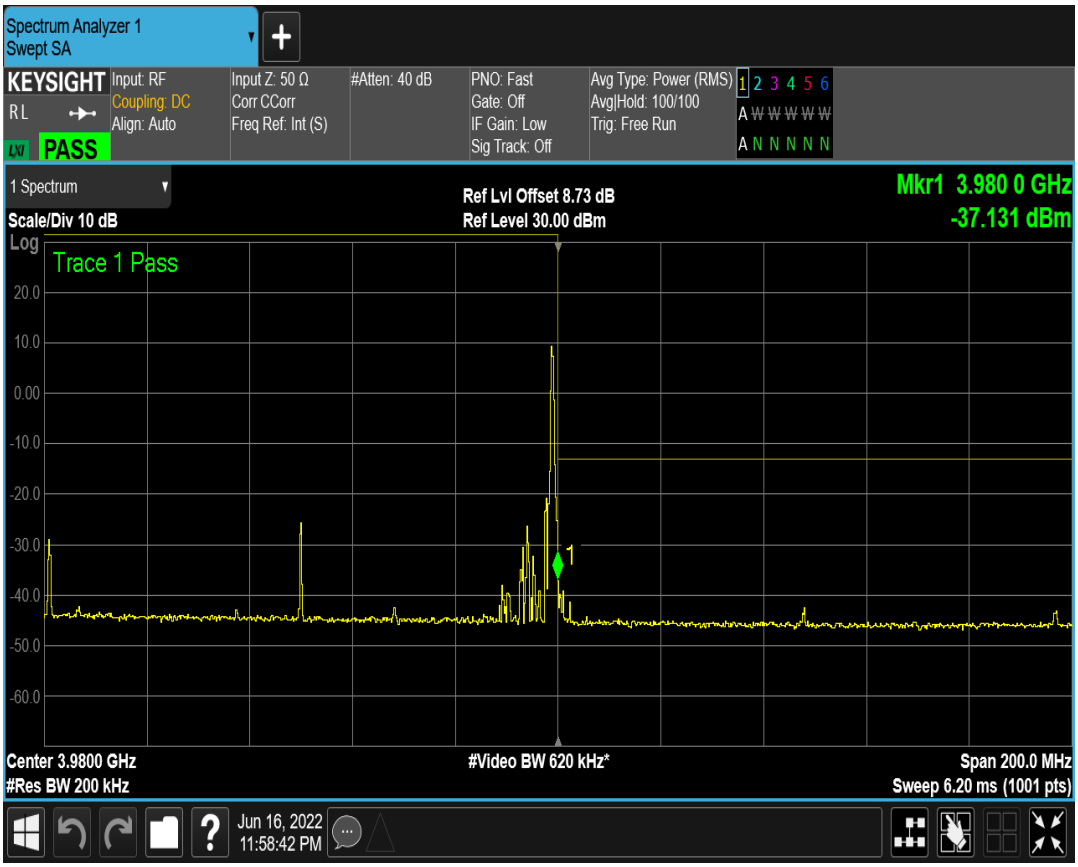
n77(3700-3980) SCS=30kHz DFT_QPSK BW=100MHz Channel=650000 RB=1@0



n77(3700-3980) SCS=30kHz DFT_QPSK BW=100MHz Channel=662000 RB=270@0



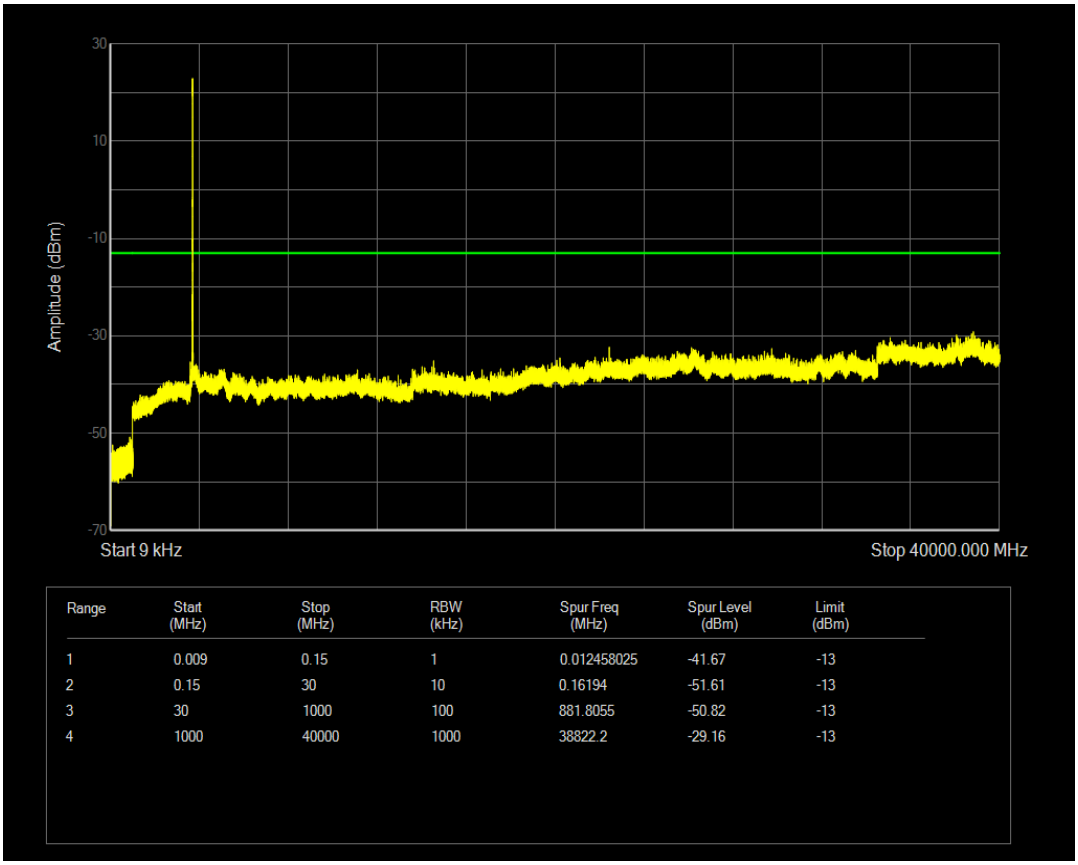
n77(3700-3980) SCS=30kHz DFT_QPSK BW=100MHz Channel=662000 RB=1@272



6 Out-of-band emissions for NR FR1

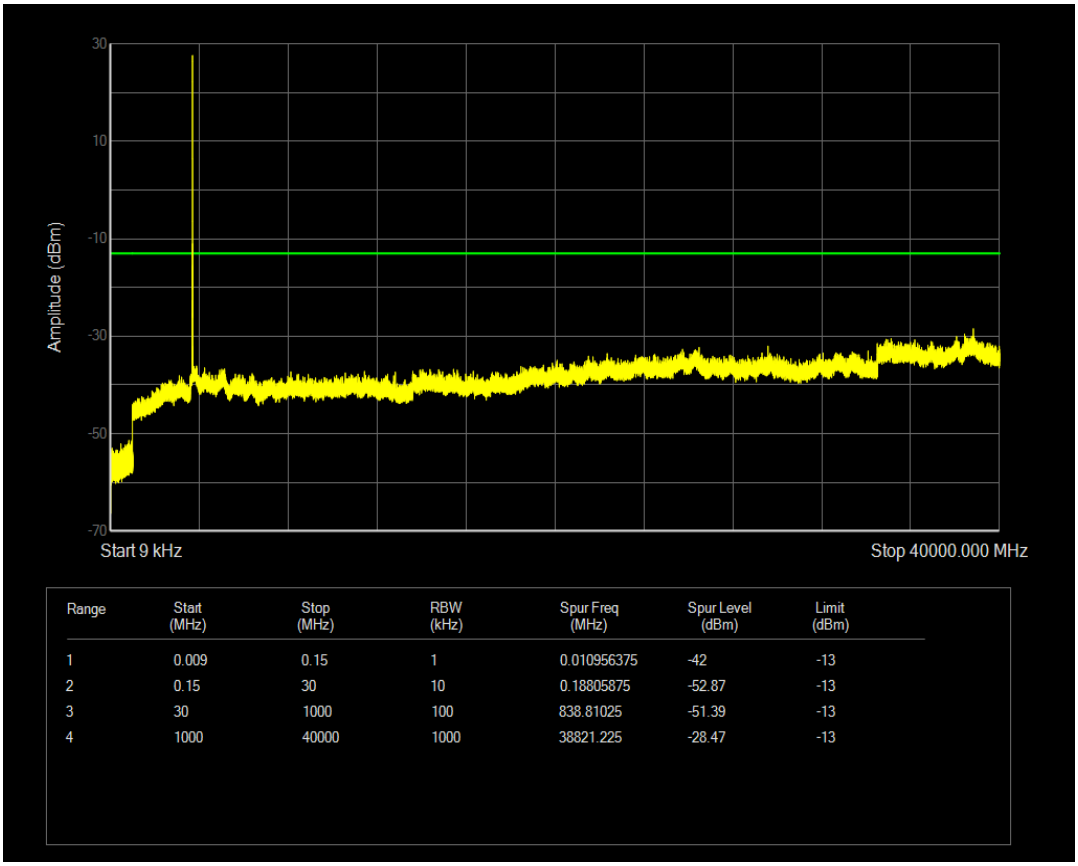
Band	SCS (kHz)	Bandwidth (MHz)	UL Channel	RB Allocation	Modulation	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)	Verdict
n77(3700-3980)	30	10	647000	24@0	DFT_QPSK	38822.20	-29.16	-13	PASS
n77(3700-3980)	30	10	647000	1@0	DFT_QPSK	38821.23	-28.47	-13	PASS
n77(3700-3980)	30	10	647000	1@23	DFT_QPSK	38886.55	-29.35	-13	PASS
n77(3700-3980)	30	10	656000	24@0	DFT_QPSK	38559.93	-29.15	-13	PASS
n77(3700-3980)	30	10	656000	1@0	DFT_QPSK	38785.15	-29.57	-13	PASS
n77(3700-3980)	30	10	656000	1@23	DFT_QPSK	38795.88	-29.68	-13	PASS
n77(3700-3980)	30	10	665000	24@0	DFT_QPSK	38707.15	-29.35	-13	PASS
n77(3700-3980)	30	10	665000	1@0	DFT_QPSK	38684.73	-29.70	-13	PASS
n77(3700-3980)	30	10	665000	1@23	DFT_QPSK	38740.30	-28.86	-13	PASS
n77(3700-3980)	30	100	650000	270@0	DFT_QPSK	39078.63	-29.54	-13	PASS
n77(3700-3980)	30	100	650000	1@0	DFT_QPSK	38613.55	-29.10	-13	PASS
n77(3700-3980)	30	100	650000	1@272	DFT_QPSK	38635.98	-28.66	-13	PASS
n77(3700-3980)	30	100	656000	270@0	DFT_QPSK	38653.53	-29.34	-13	PASS
n77(3700-3980)	30	100	656000	1@0	DFT_QPSK	38718.85	-29.91	-13	PASS
n77(3700-3980)	30	100	656000	1@272	DFT_QPSK	38485.83	-29.83	-13	PASS
n77(3700-3980)	30	100	662000	270@0	DFT_QPSK	38660.35	-29.94	-13	PASS
n77(3700-3980)	30	100	662000	1@0	DFT_QPSK	38588.20	-29.47	-13	PASS
n77(3700-3980)	30	100	662000	1@272	DFT_QPSK	38599.90	-29.13	-13	PASS

n77(3700-3980) SCS=30kHz DFT_QPSK BW=10MHz Channel=647000 RB=24@0



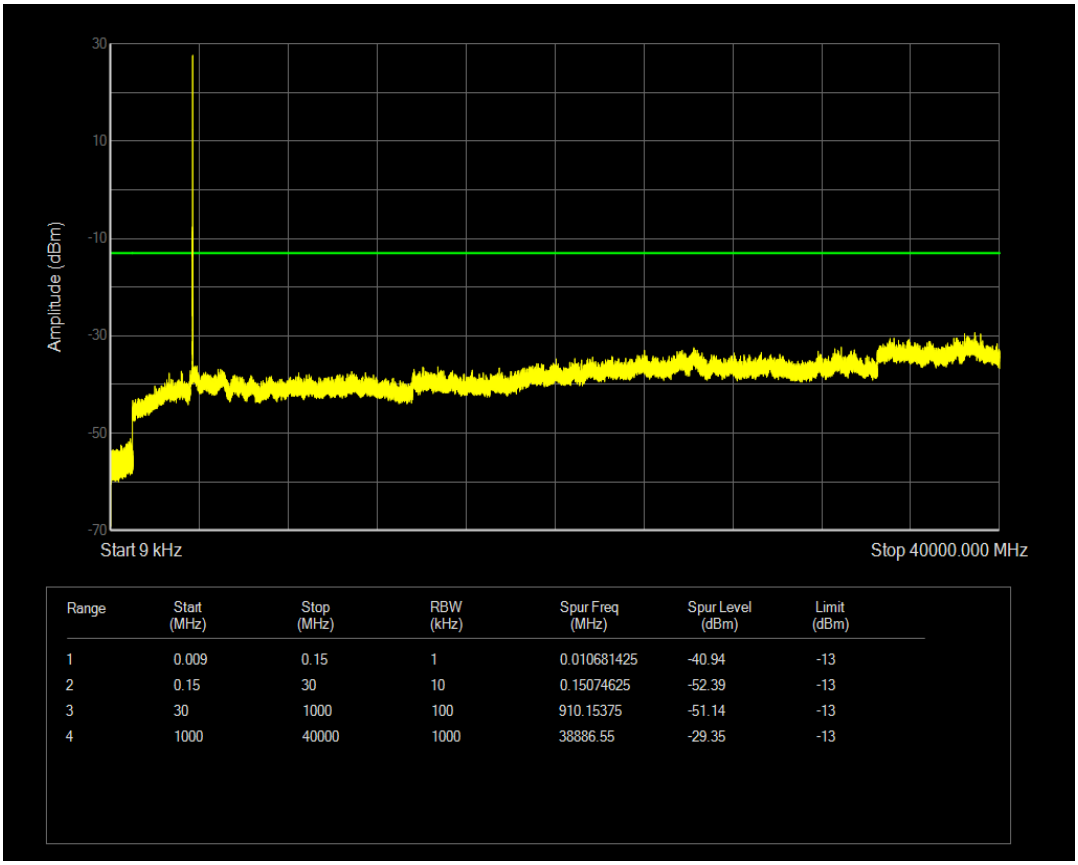
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.012458025	-41.67	-13
2	0.15	30	10	0.16194	-51.61	-13
3	30	1000	100	881.8055	-50.82	-13
4	1000	40000	1000	38822.2	-29.16	-13

n77(3700-3980) SCS=30kHz DFT_QPSK BW=10MHz Channel=647000 RB=1@0



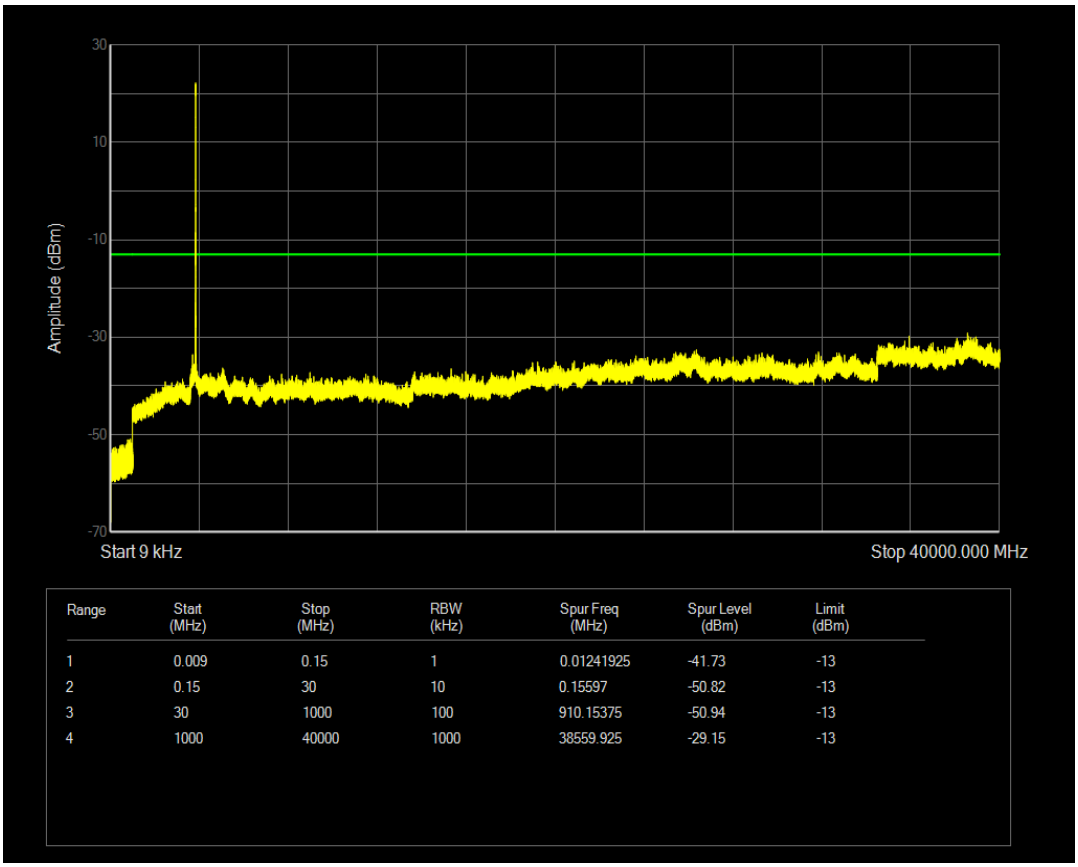
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.010956375	-42	-13
2	0.15	30	10	0.18805875	-52.87	-13
3	30	1000	100	838.81025	-51.39	-13
4	1000	40000	1000	38821.225	-28.47	-13

n77(3700-3980) SCS=30kHz DFT_QPSK BW=10MHz Channel=647000 RB=1@23



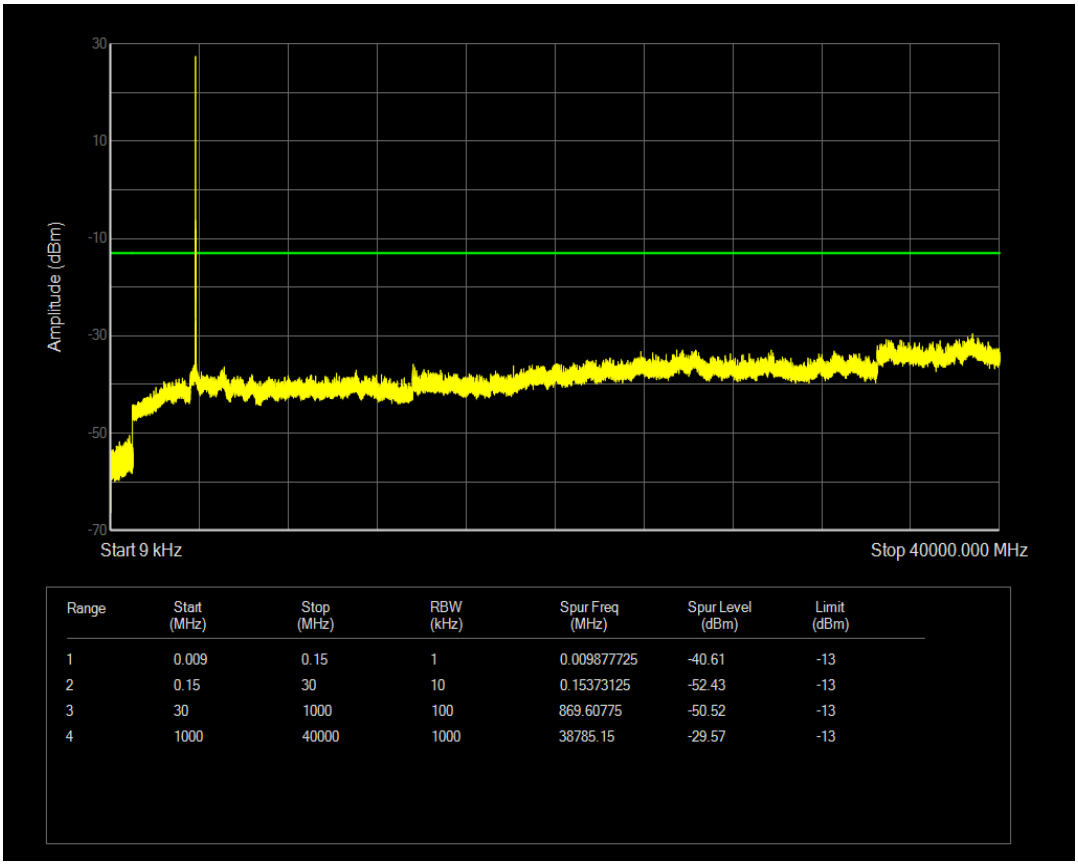
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.010681425	-40.94	-13
2	0.15	30	10	0.15074625	-52.39	-13
3	30	1000	100	910.15375	-51.14	-13
4	1000	40000	1000	38886.55	-29.35	-13

n77(3700-3980) SCS=30kHz DFT_QPSK BW=10MHz Channel=656000 RB=24@0



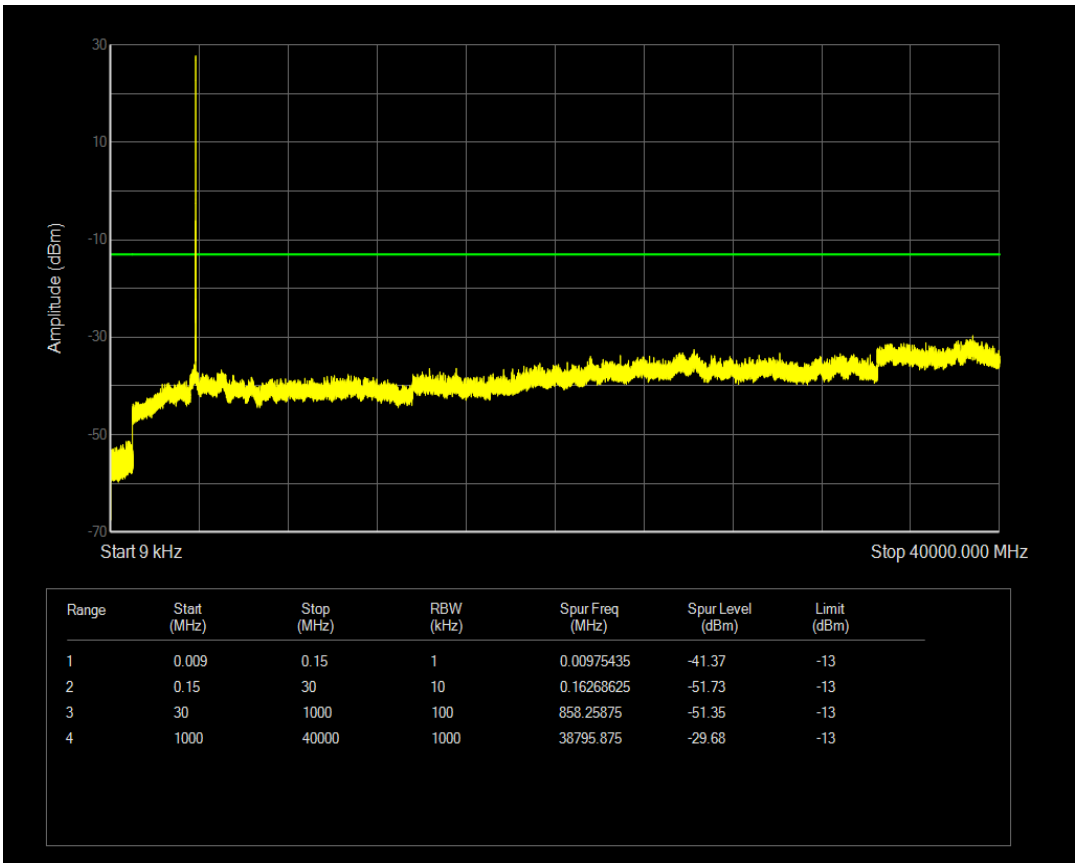
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.01241925	-41.73	-13
2	0.15	30	10	0.15597	-50.82	-13
3	30	1000	100	910.15375	-50.94	-13
4	1000	40000	1000	38559.925	-29.15	-13

n77(3700-3980) SCS=30kHz DFT_QPSK BW=10MHz Channel=656000 RB=1@0



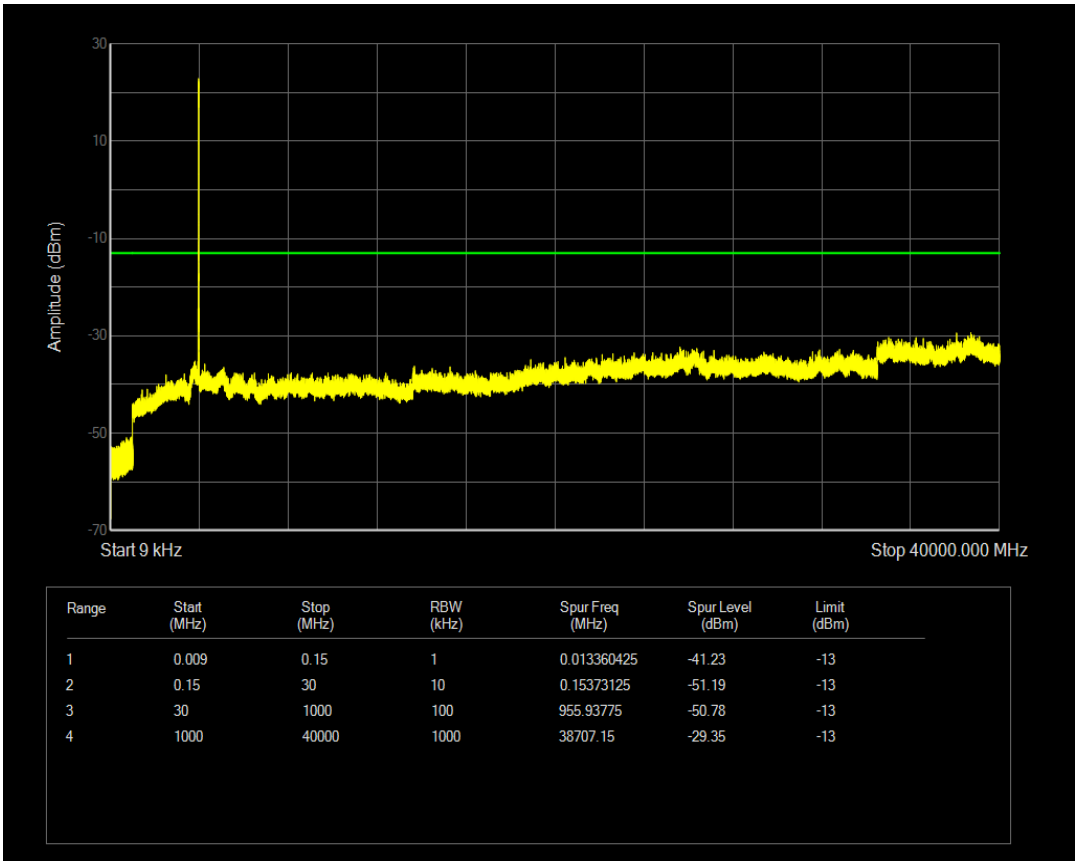
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.009877725	-40.61	-13
2	0.15	30	10	0.15373125	-52.43	-13
3	30	1000	100	869.60775	-50.52	-13
4	1000	40000	1000	38785.15	-29.57	-13

n77(3700-3980) SCS=30kHz DFT_QPSK BW=10MHz Channel=656000 RB=1@23



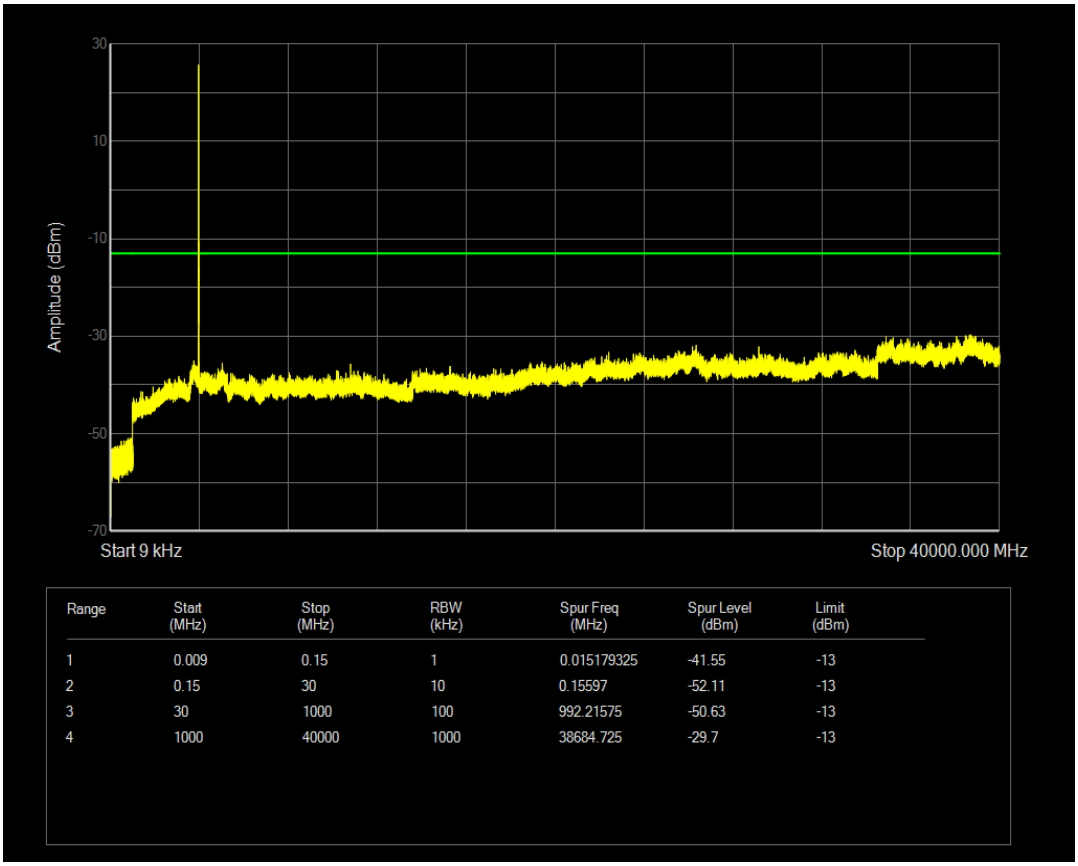
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.00975435	-41.37	-13
2	0.15	30	10	0.16268625	-51.73	-13
3	30	1000	100	858.25875	-51.35	-13
4	1000	40000	1000	38795.875	-29.68	-13

n77(3700-3980) SCS=30kHz DFT_QPSK BW=10MHz Channel=665000 RB=24@0



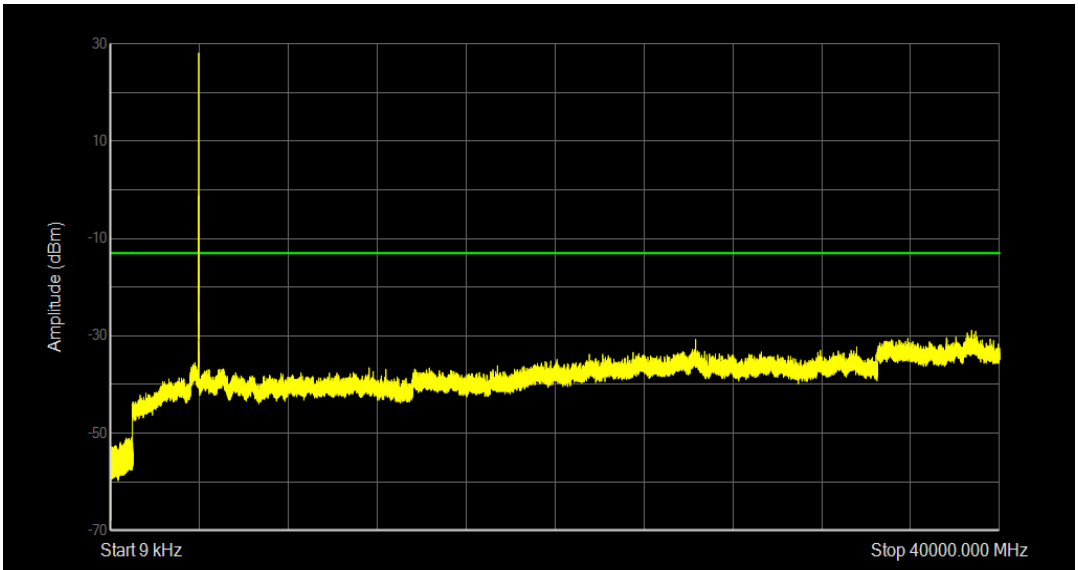
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.013360425	-41.23	-13
2	0.15	30	10	0.15373125	-51.19	-13
3	30	1000	100	955.93775	-50.78	-13
4	1000	40000	1000	38707.15	-29.35	-13

n77(3700-3980) SCS=30kHz DFT_QPSK BW=10MHz Channel=665000 RB=1@0



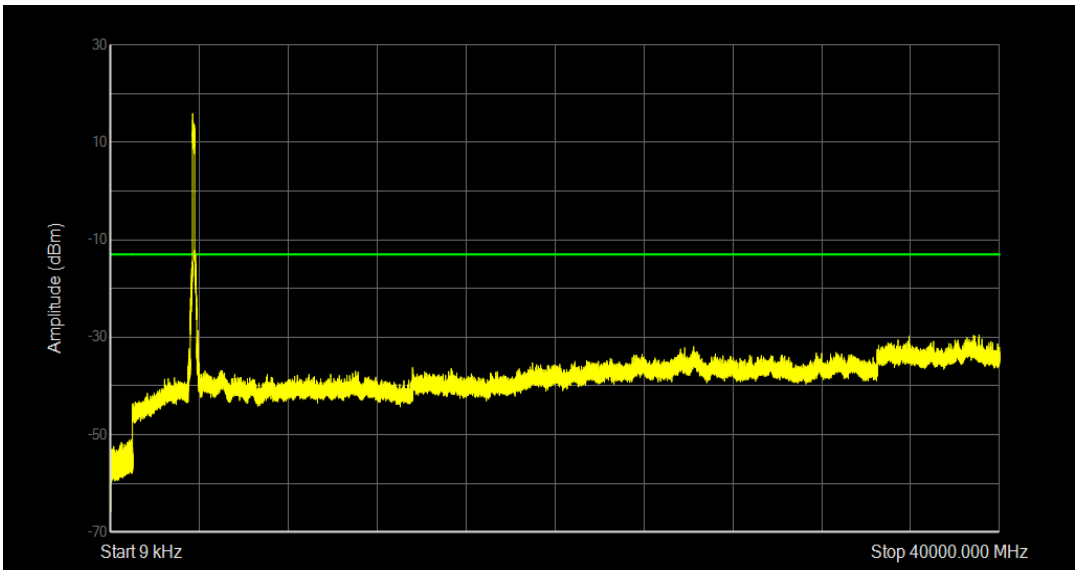
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.015179325	-41.55	-13
2	0.15	30	10	0.15597	-52.11	-13
3	30	1000	100	992.21575	-50.63	-13
4	1000	40000	1000	38684.725	-29.7	-13

n77(3700-3980) SCS=30kHz DFT_QPSK BW=10MHz Channel=665000 RB=1@23



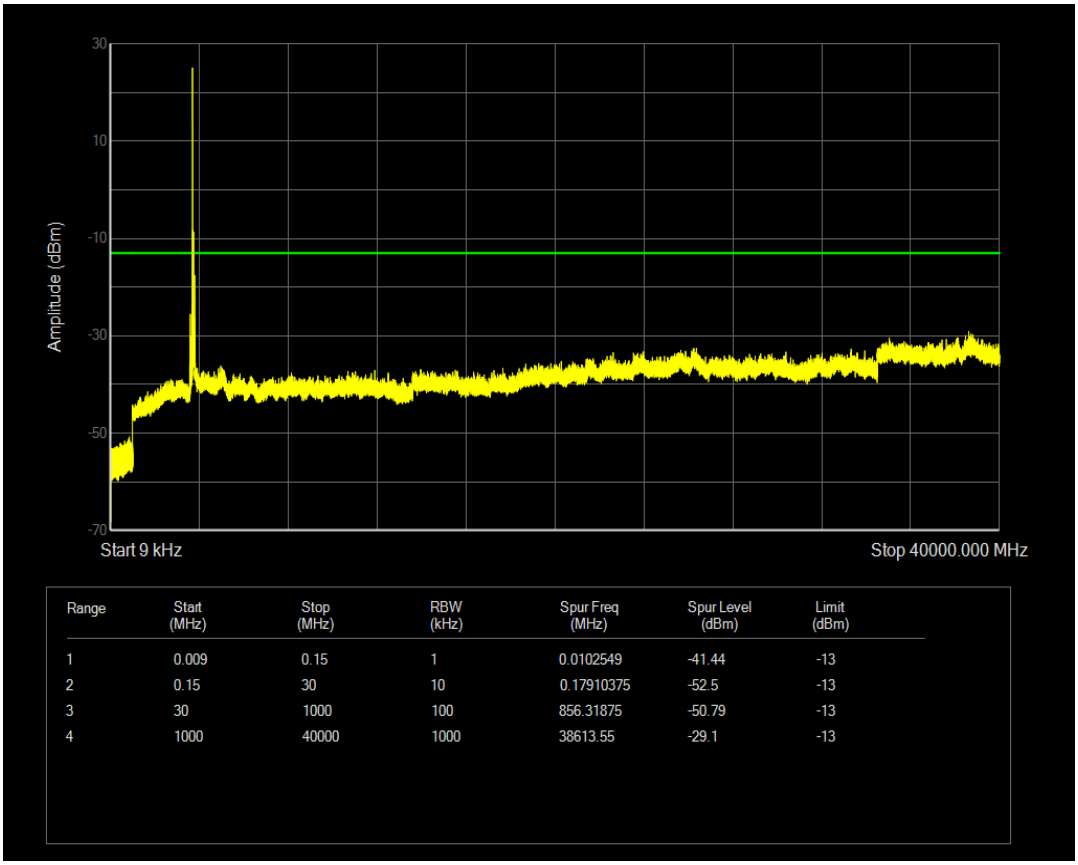
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.009	-40.65	-13
2	0.15	30	10	0.17164125	-52.64	-13
3	30	1000	100	945.583	-50.94	-13
4	1000	40000	1000	38740.3	-28.86	-13

n77(3700-3980) SCS=30kHz DFT_QPSK BW=100MHz Channel=650000 RB=270@0



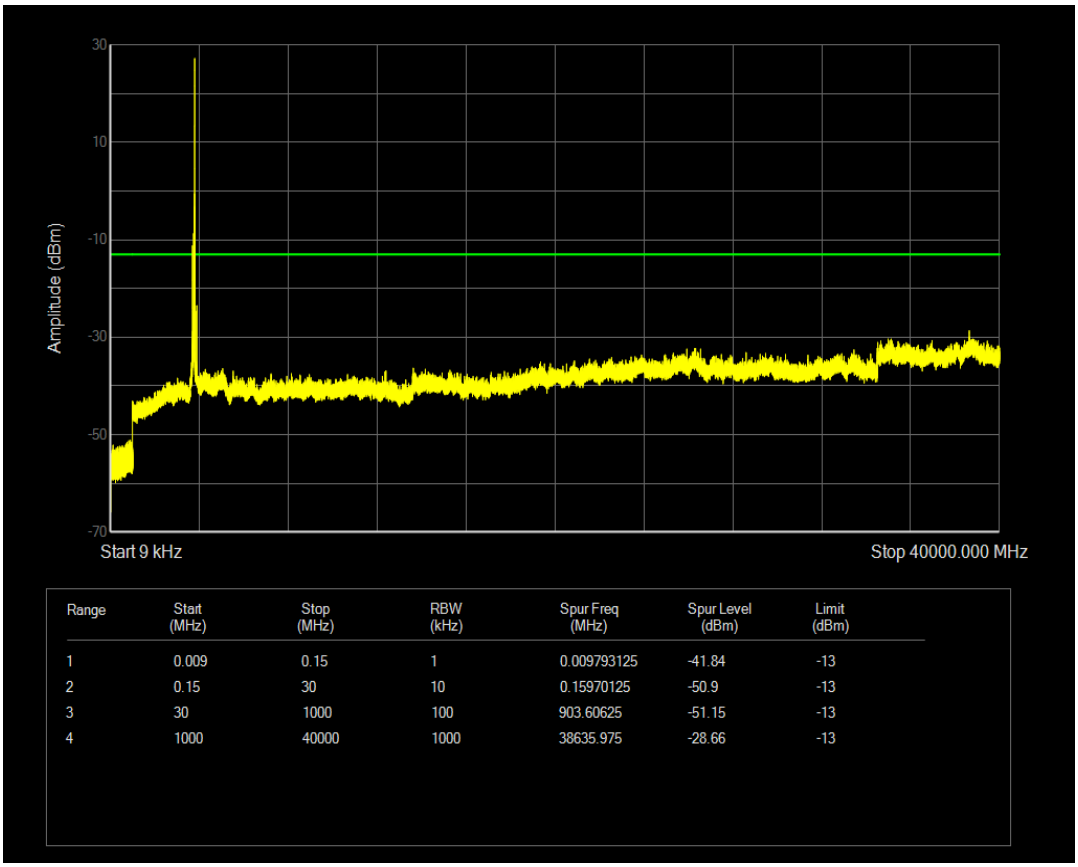
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.012888075	-39.96	-13
2	0.15	30	10	0.16791	-52.1	-13
3	30	1000	100	950.2875	-51	-13
4	1000	40000	1000	39078.625	-29.54	-13

n77(3700-3980) SCS=30kHz DFT_QPSK BW=100MHz Channel=650000 RB=1@0



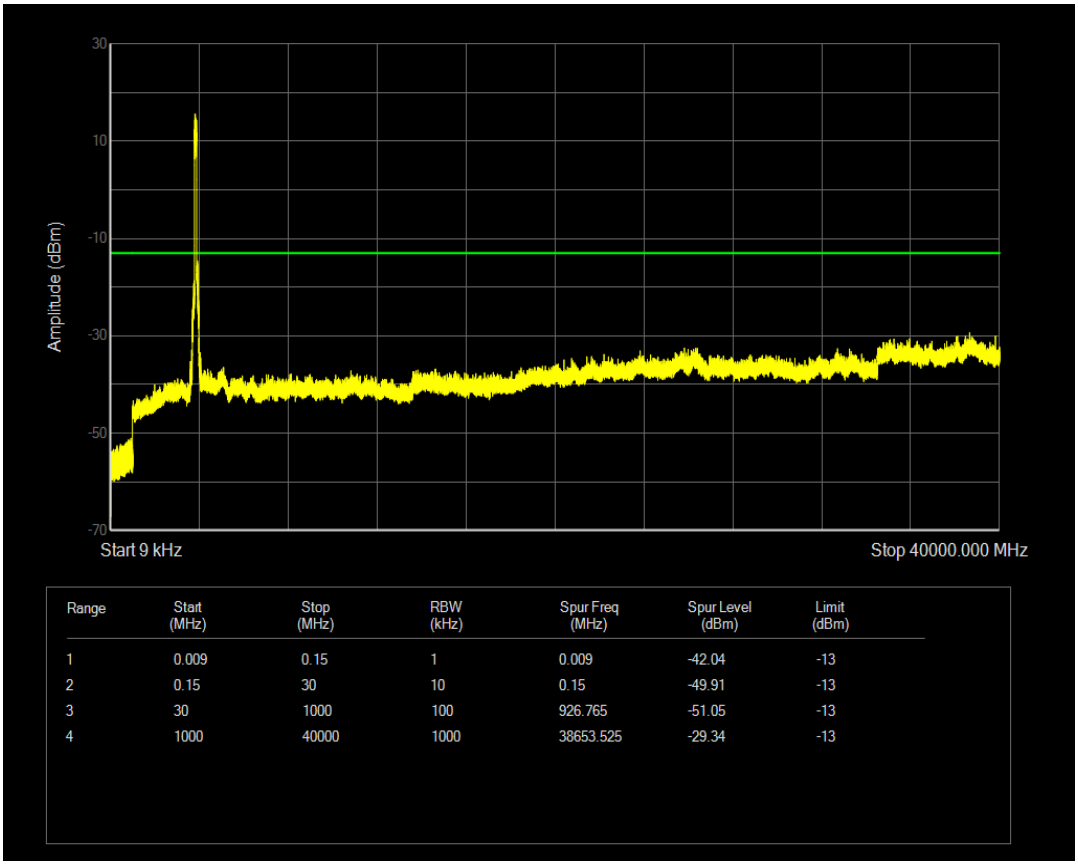
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.0102549	-41.44	-13
2	0.15	30	10	0.17910375	-52.5	-13
3	30	1000	100	856.31875	-50.79	-13
4	1000	40000	1000	38613.55	-29.1	-13

n77(3700-3980) SCS=30kHz DFT_QPSK BW=100MHz Channel=650000 RB=1@272



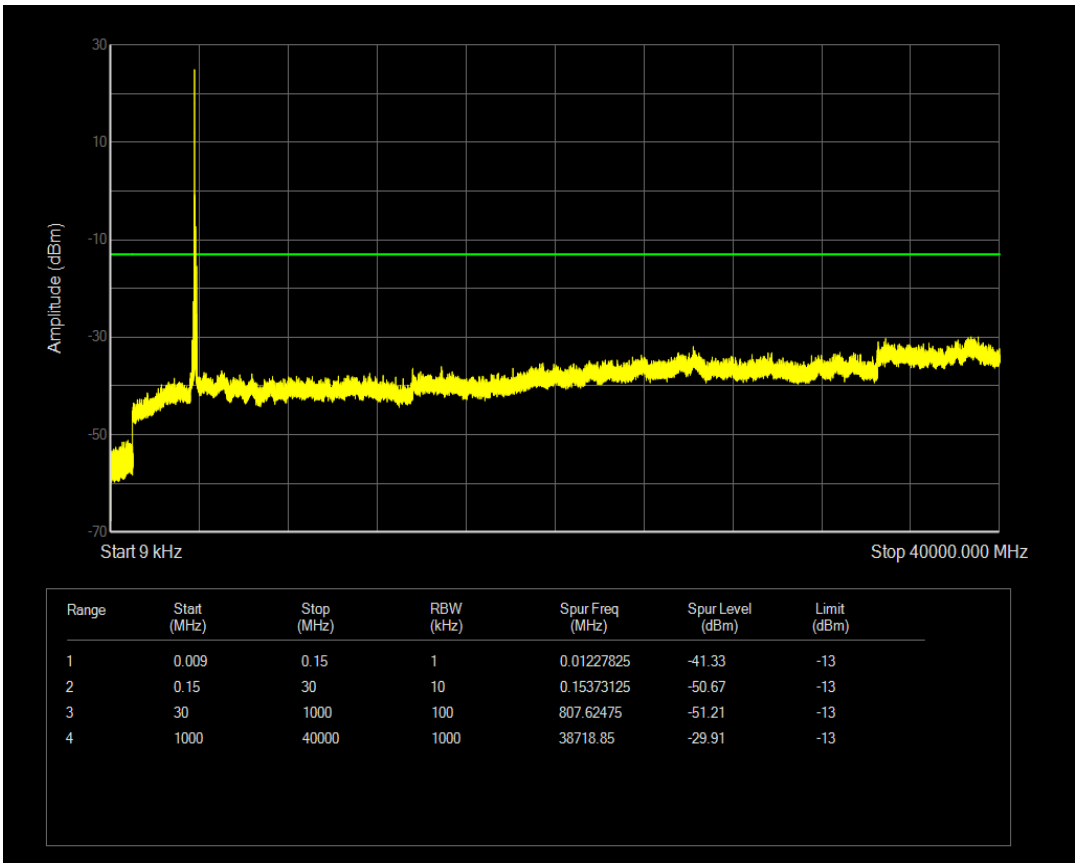
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.009793125	-41.84	-13
2	0.15	30	10	0.15970125	-50.9	-13
3	30	1000	100	903.60625	-51.15	-13
4	1000	40000	1000	38635.975	-28.66	-13

n77(3700-3980) SCS=30kHz DFT_QPSK BW=100MHz Channel=656000 RB=270@0



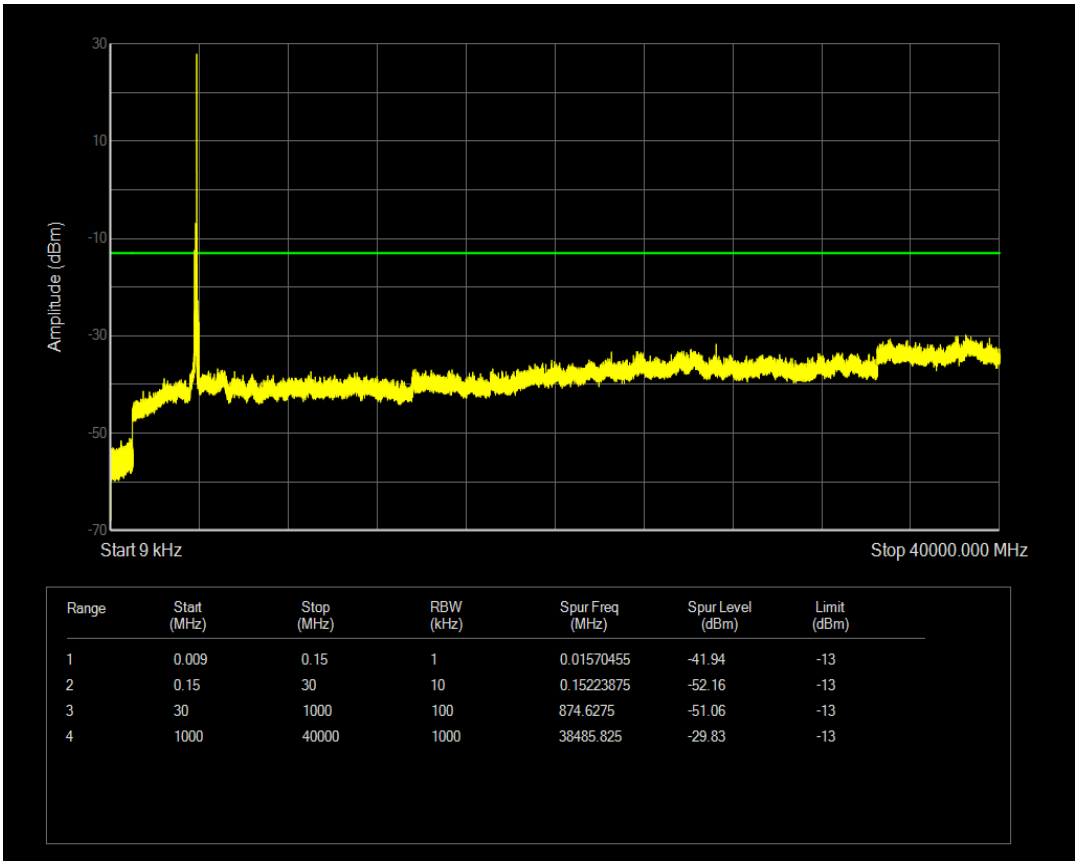
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.009	-42.04	-13
2	0.15	30	10	0.15	-49.91	-13
3	30	1000	100	926.765	-51.05	-13
4	1000	40000	1000	38653.525	-29.34	-13

n77(3700-3980) SCS=30kHz DFT_QPSK BW=100MHz Channel=656000 RB=1@0



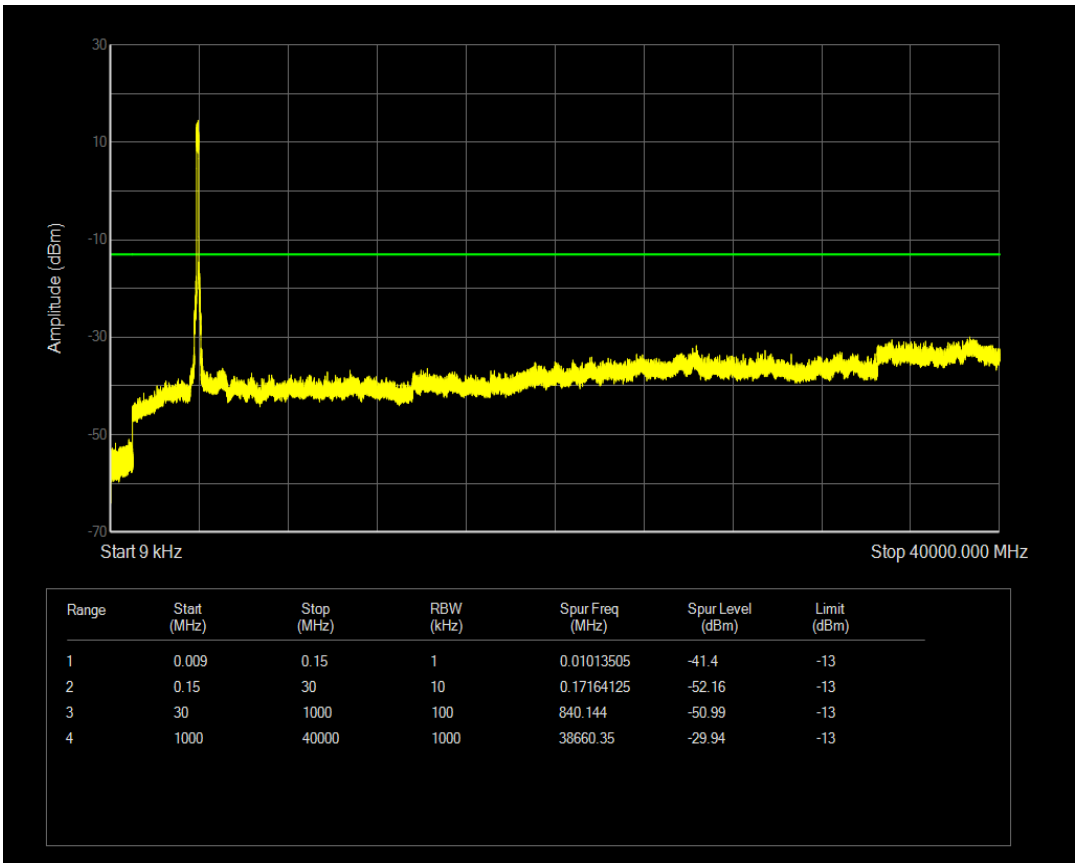
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.01227825	-41.33	-13
2	0.15	30	10	0.15373125	-50.67	-13
3	30	1000	100	807.62475	-51.21	-13
4	1000	40000	1000	38718.85	-29.91	-13

n77(3700-3980) SCS=30kHz DFT_QPSK BW=100MHz Channel=656000 RB=1@272



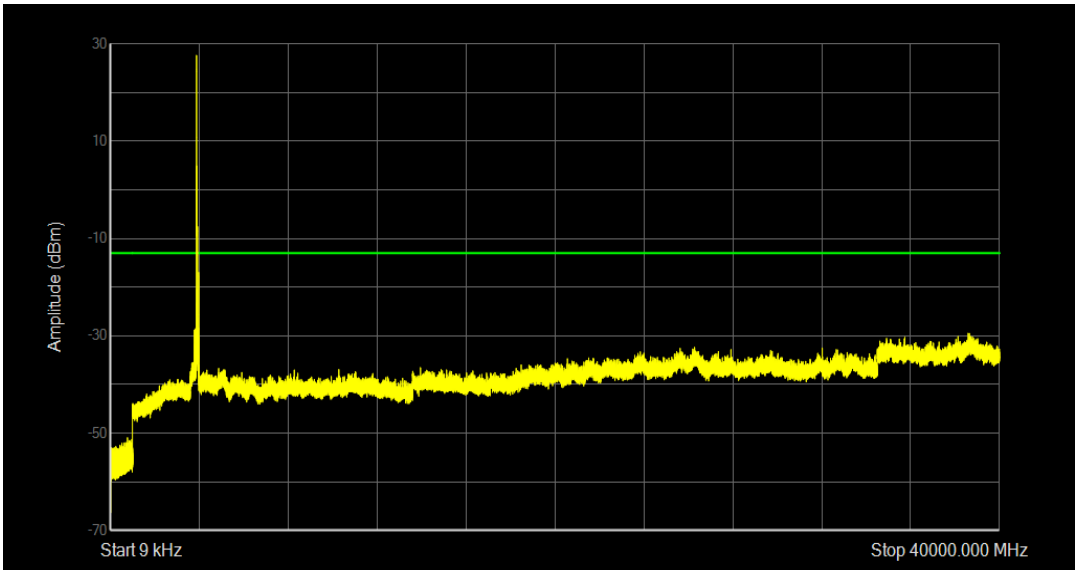
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.01570455	-41.94	-13
2	0.15	30	10	0.15223875	-52.16	-13
3	30	1000	100	874.6275	-51.06	-13
4	1000	40000	1000	38485.825	-29.83	-13

n77(3700-3980) SCS=30kHz DFT_QPSK BW=100MHz Channel=662000 RB=270@0



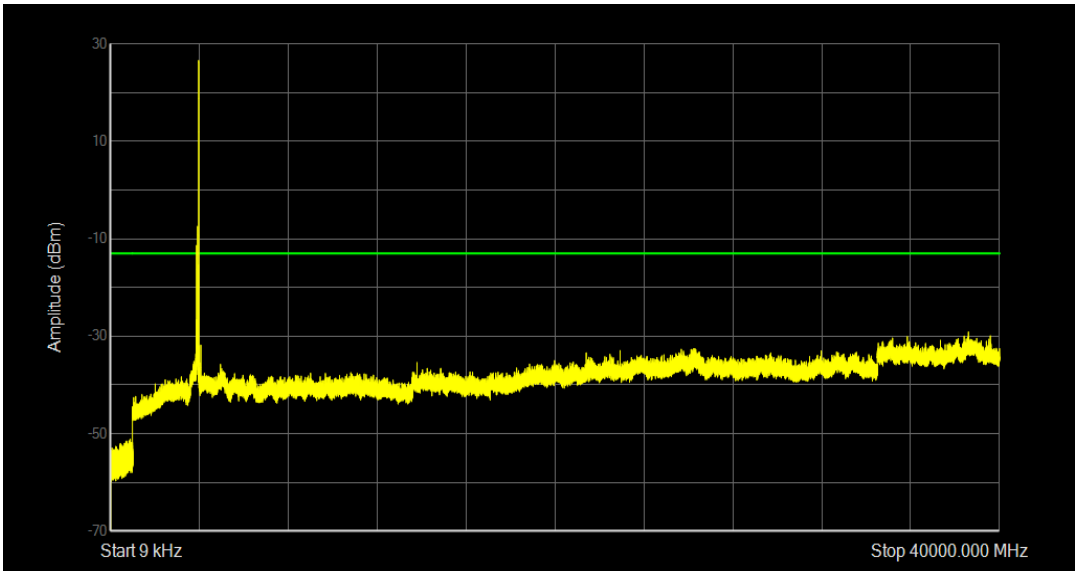
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.01013505	-41.4	-13
2	0.15	30	10	0.17164125	-52.16	-13
3	30	1000	100	840.144	-50.99	-13
4	1000	40000	1000	38660.35	-29.94	-13

n77(3700-3980) SCS=30kHz DFT_QPSK BW=100MHz Channel=662000 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	-41.27	-13
2	0.15	30	10	0.15223875	-51.15	-13
3	30	1000	100	776.77875	-50.94	-13
4	1000	40000	1000	38588.2	-29.47	-13

n77(3700-3980) SCS=30kHz DFT_QPSK BW=100MHz Channel=662000 RB=1@272



Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.01171425	-41.45	-13
2	0.15	30	10	0.18208875	-52.12	-13
3	30	1000	100	905.10975	-51.13	-13
4	1000	40000	1000	38599.9	-29.13	-13