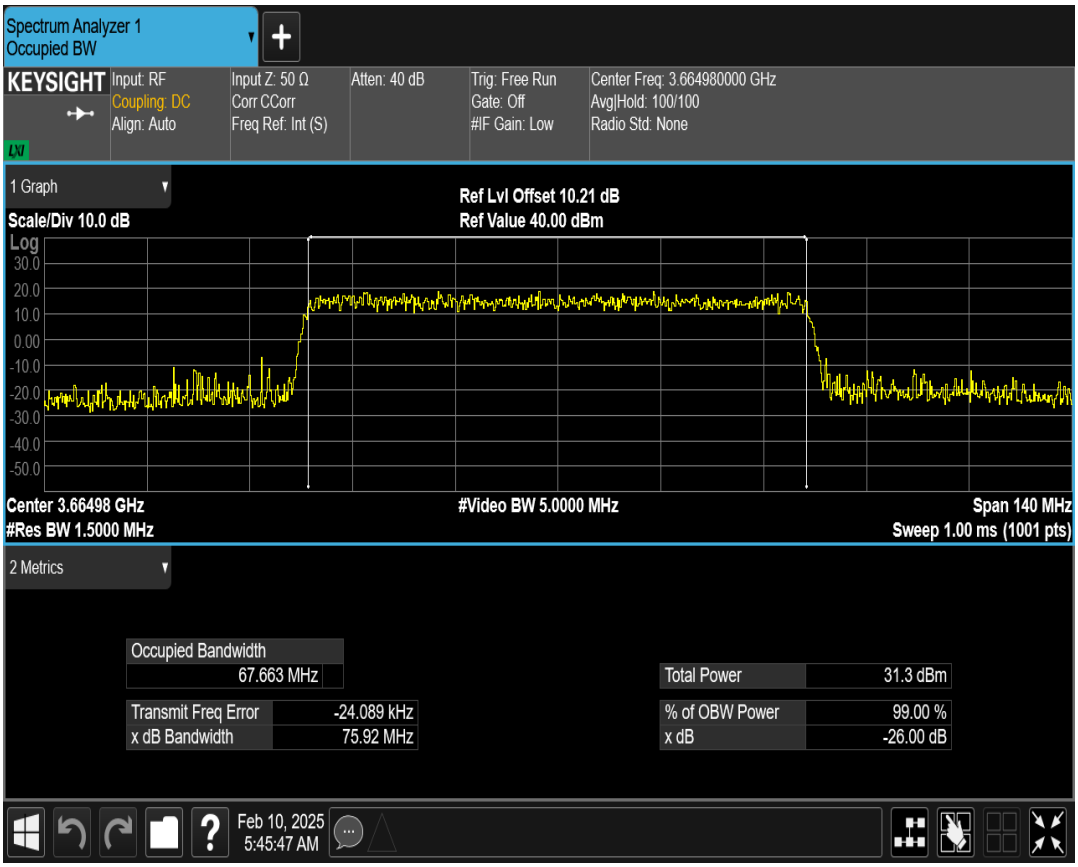
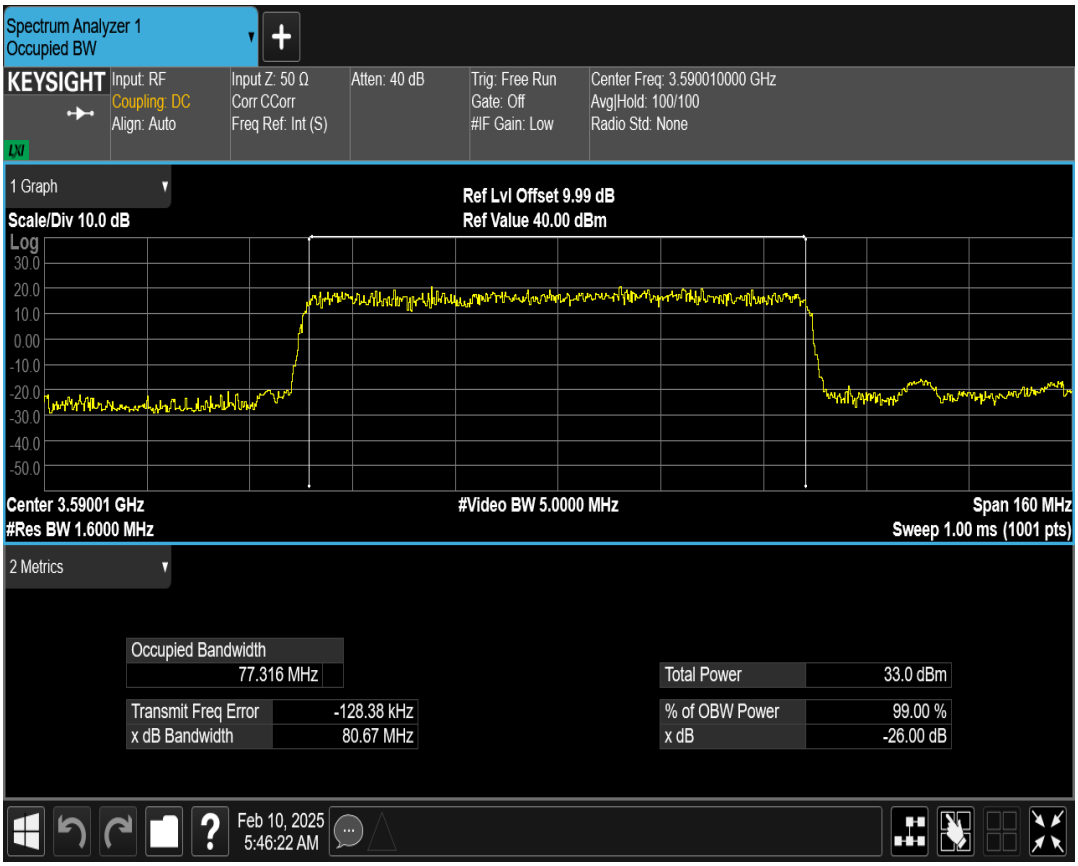
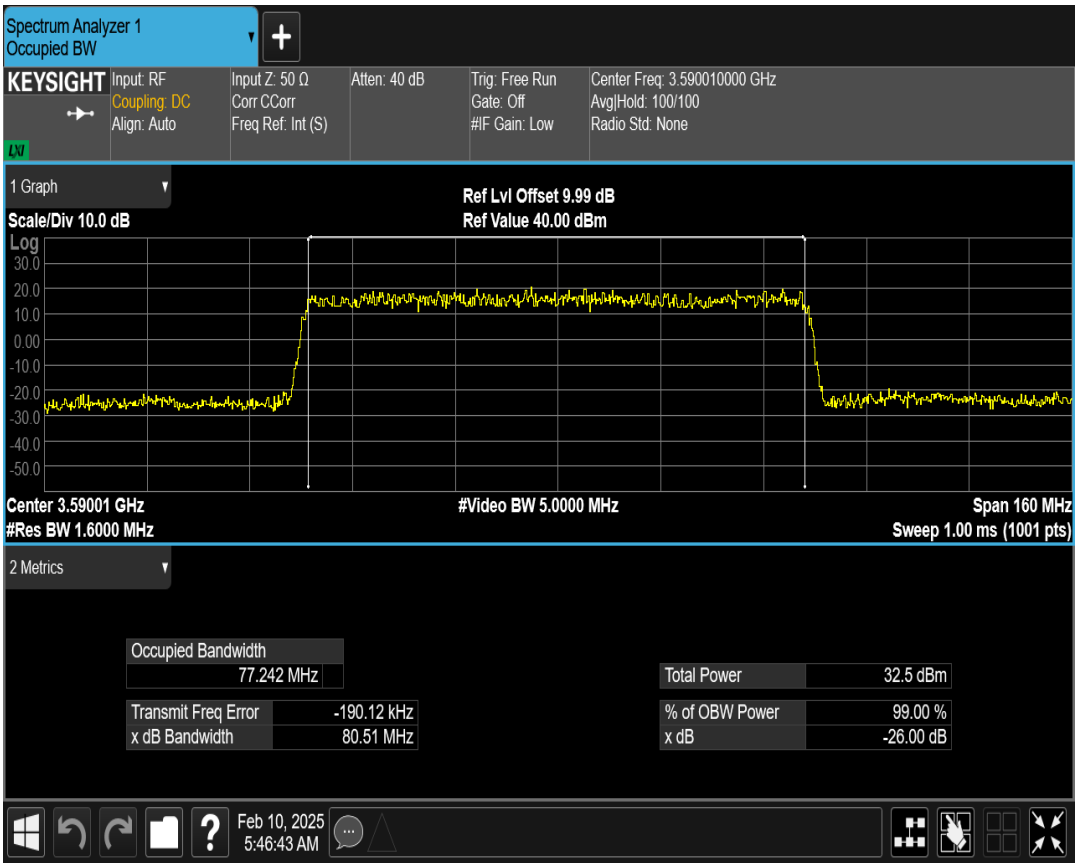


n78(3550-3700) SCS=30kHz DFT_BPSK BW=80MHz Channel=639334 RB=216@0



n78(3550-3700) SCS=30kHz DFT_QPSK BW=80MHz Channel=639334 RB=216@0



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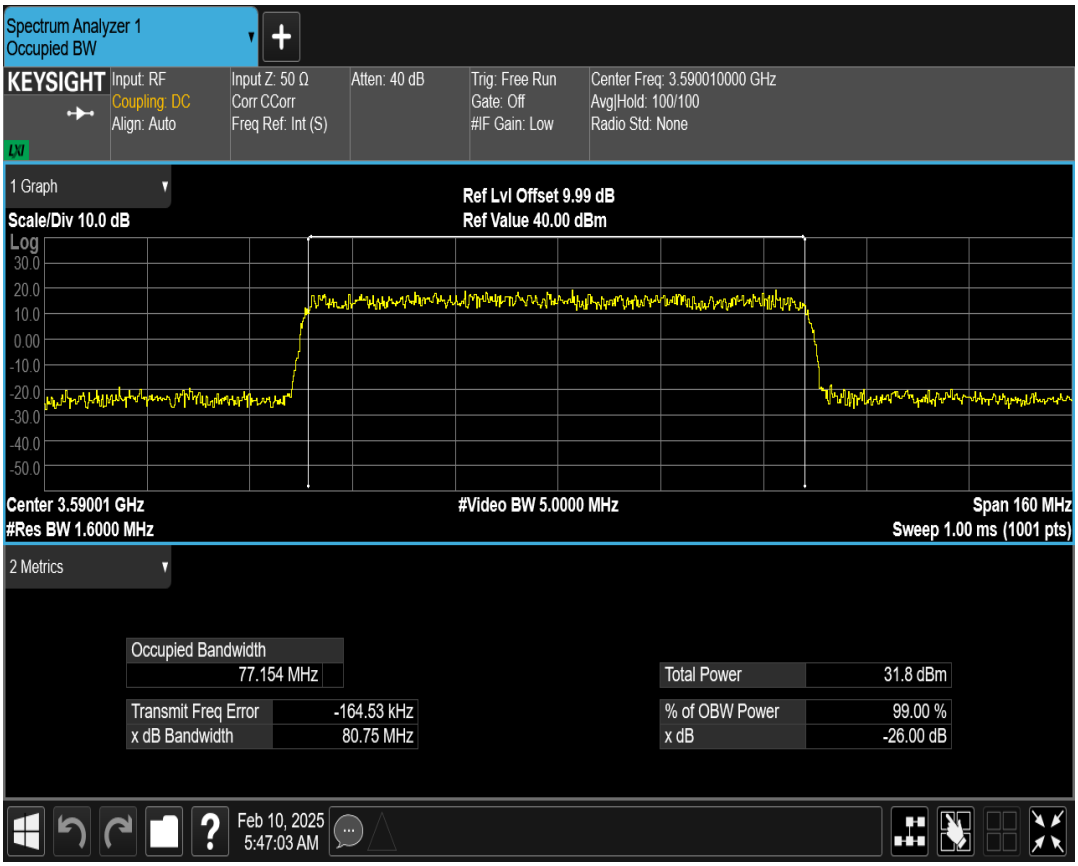
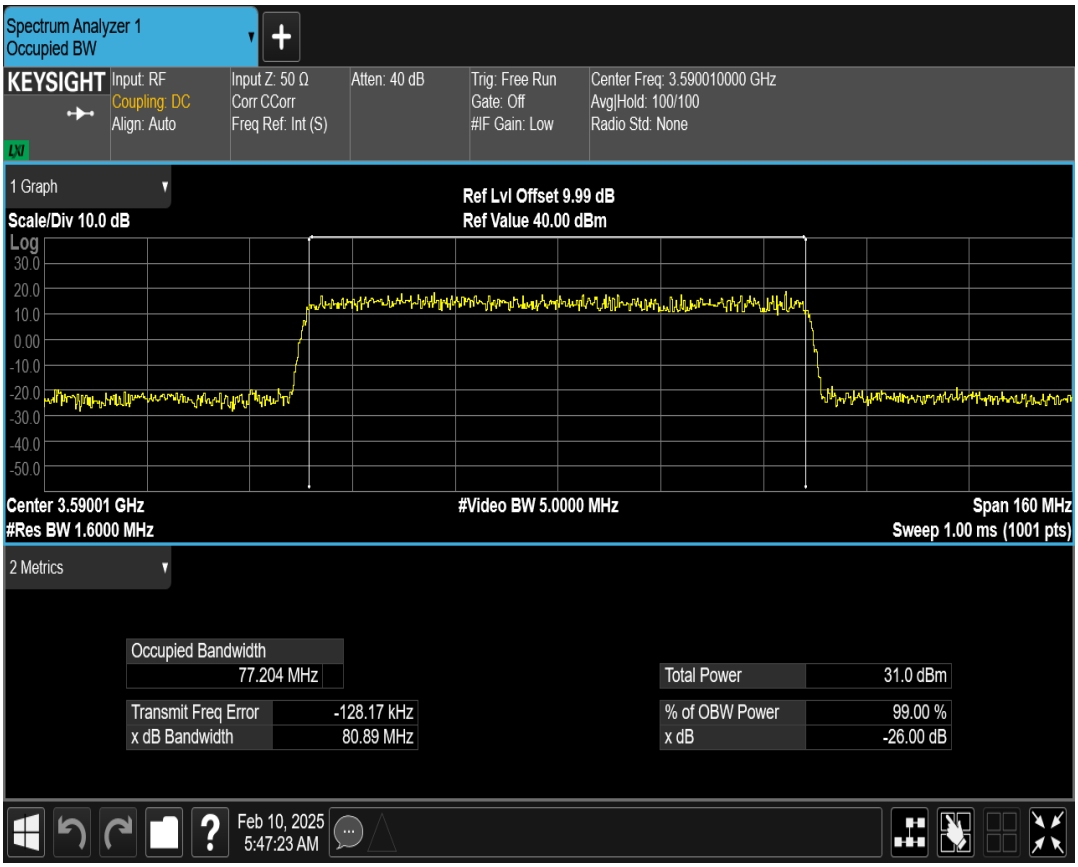


n78(3550-3700) SCS=30kHz DFT_QAM64 BW=80MHz Channel=639334 RB=216@0



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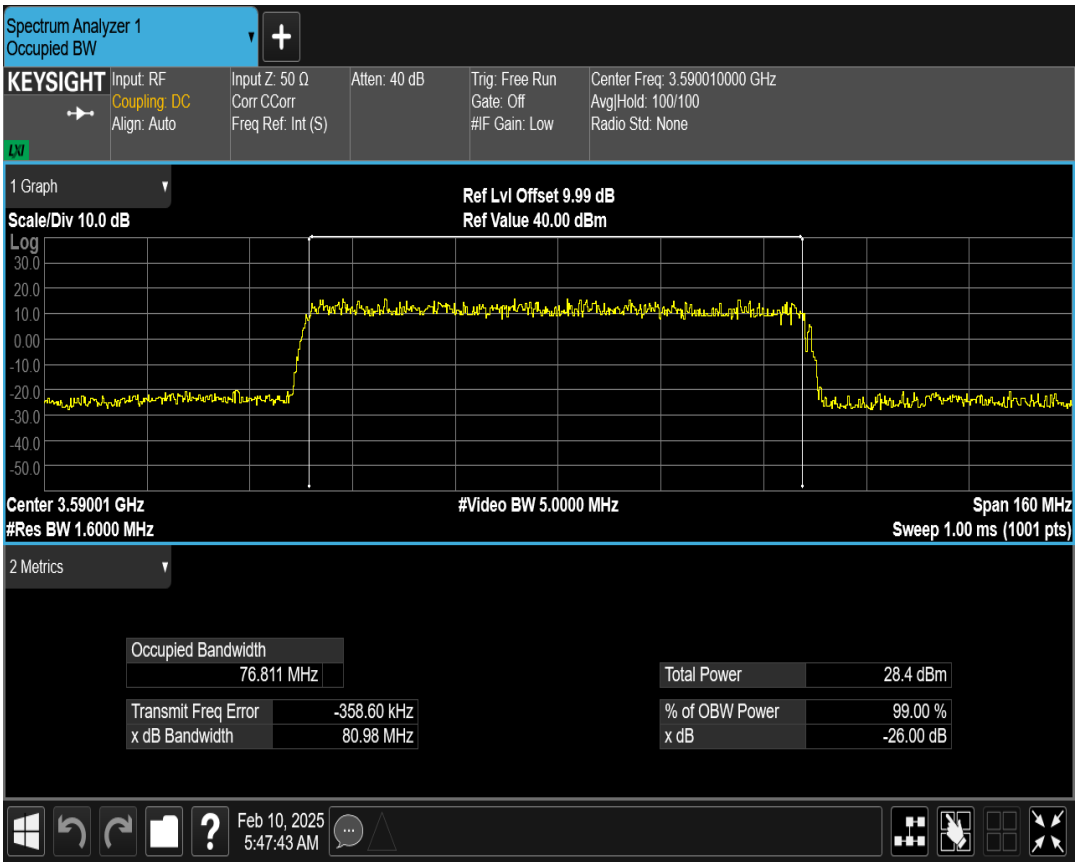
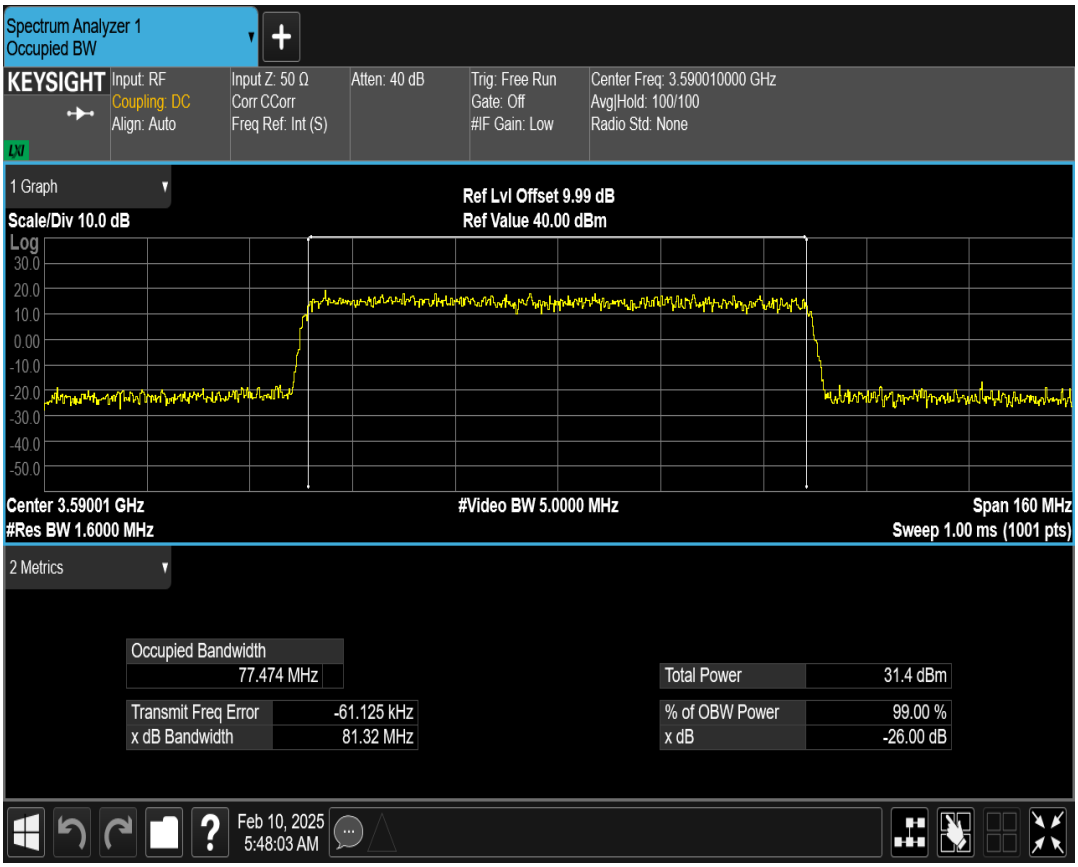
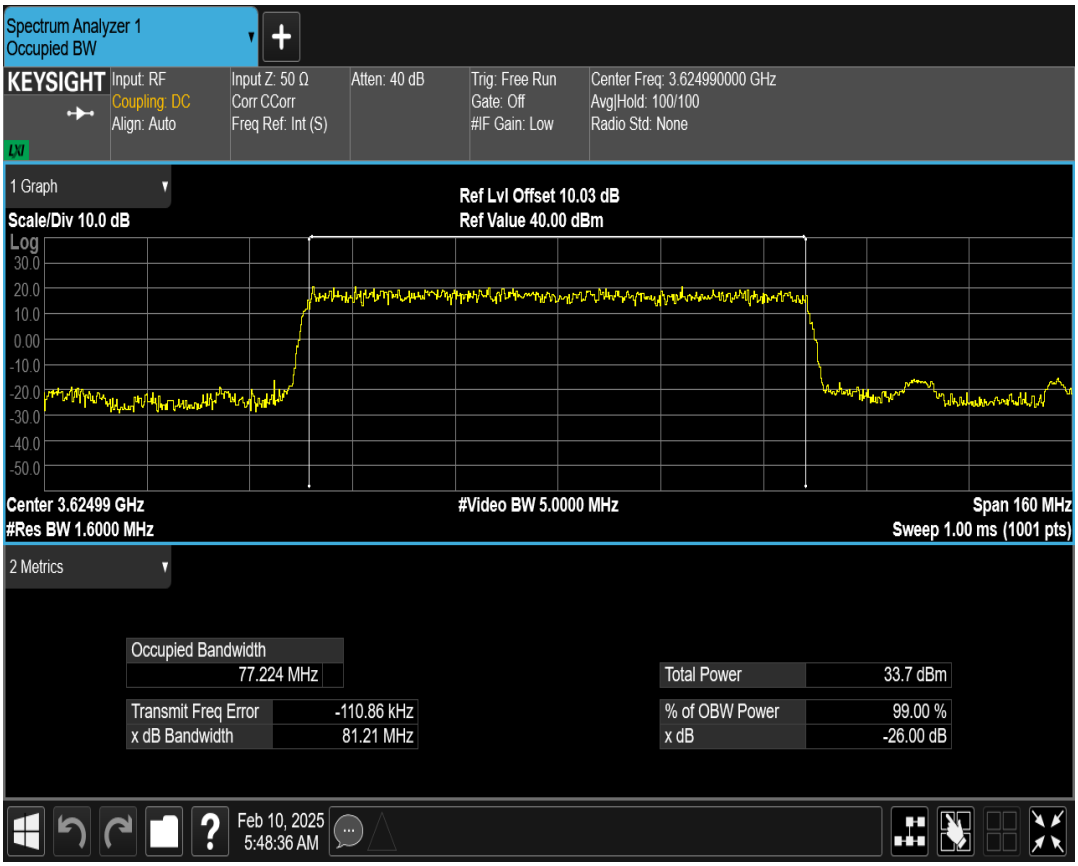


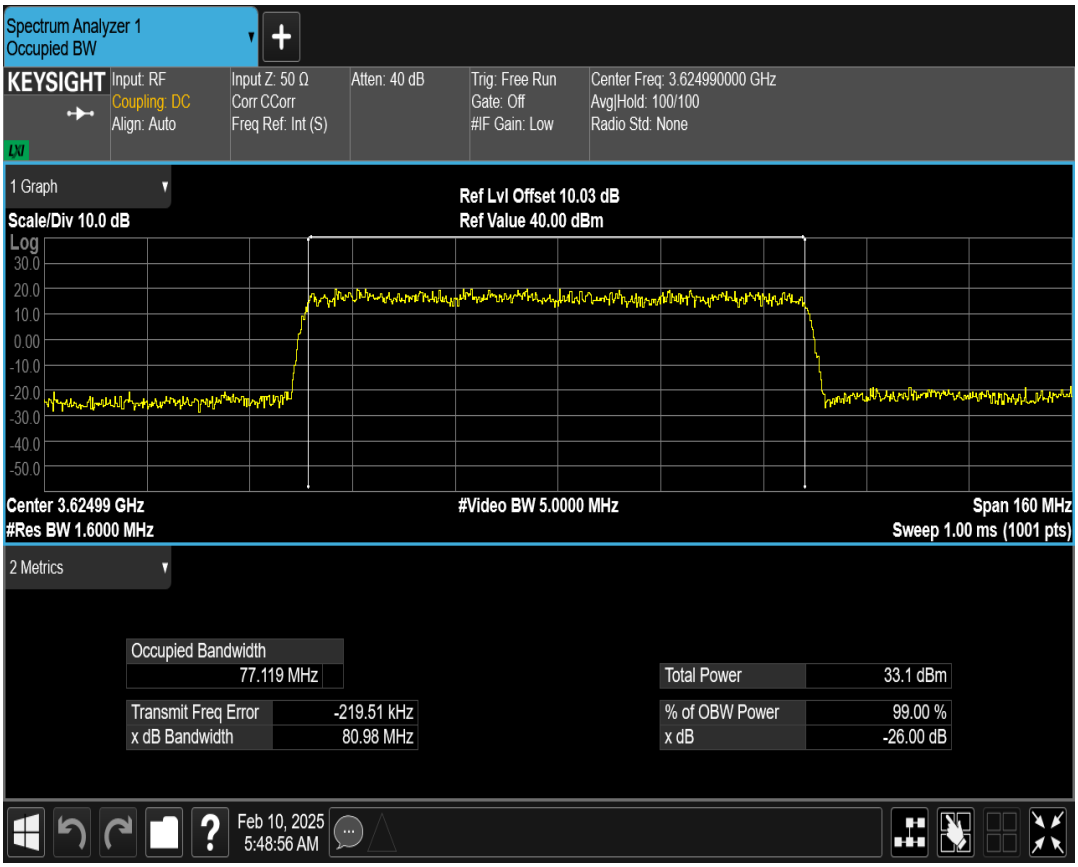
n78(3550-3700) SCS=30kHz CP_QPSK BW=80MHz Channel=639334 RB=217@0



n78(3550-3700) SCS=30kHz DFT_BPSK BW=80MHz Channel=641666 RB=216@0



n78(3550-3700) SCS=30kHz DFT_QPSK BW=80MHz Channel=641666 RB=216@0



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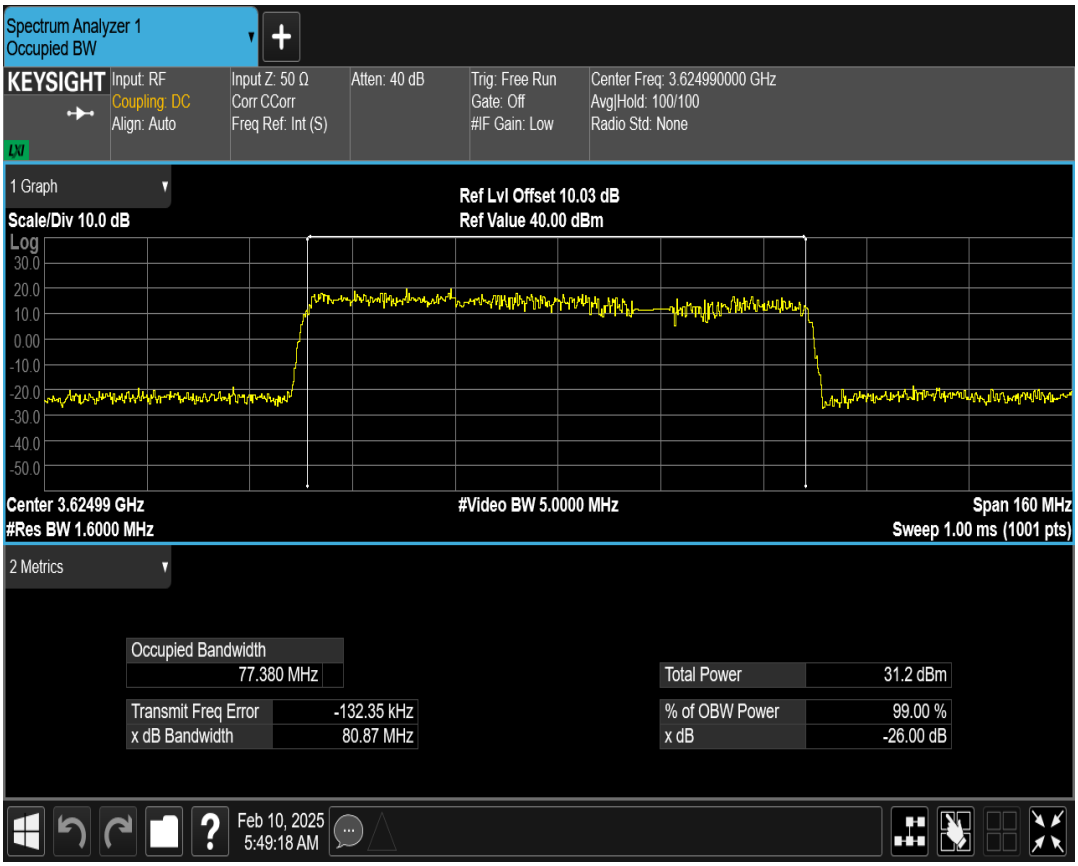

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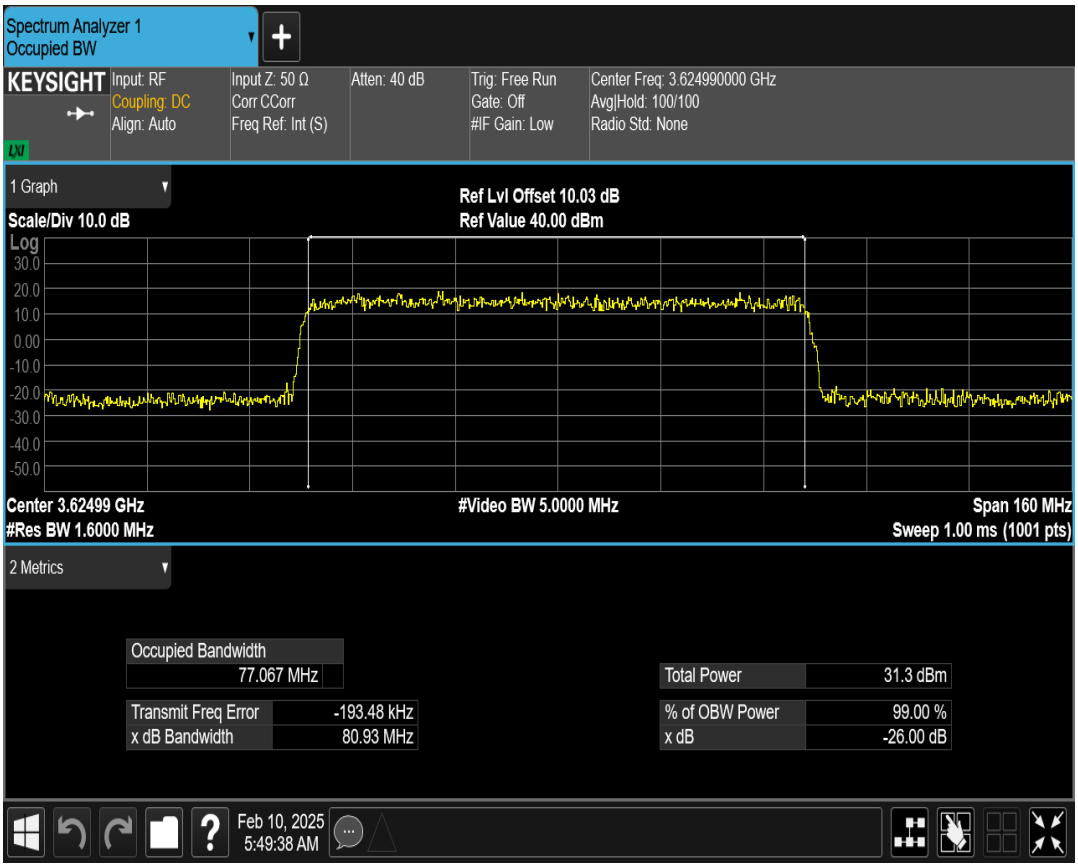

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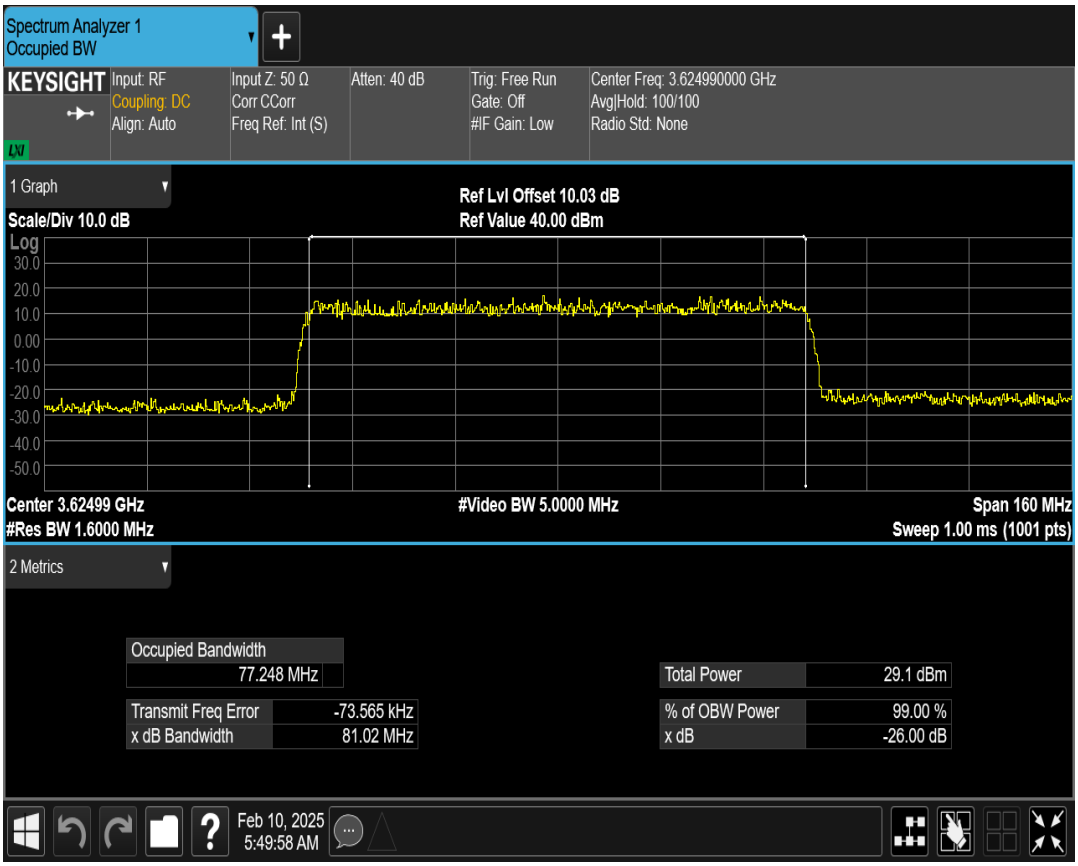
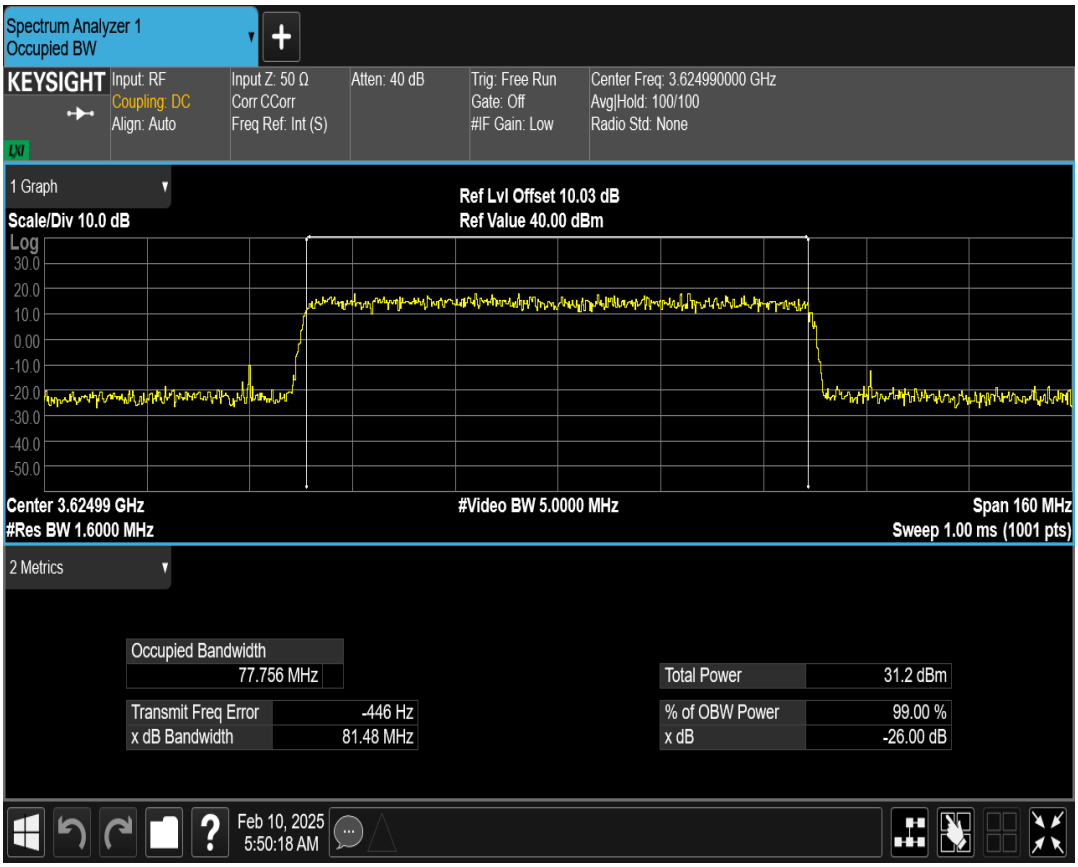


n78(3550-3700) SCS=30kHz CP_QPSK BW=80MHz Channel=641666 RB=217@0



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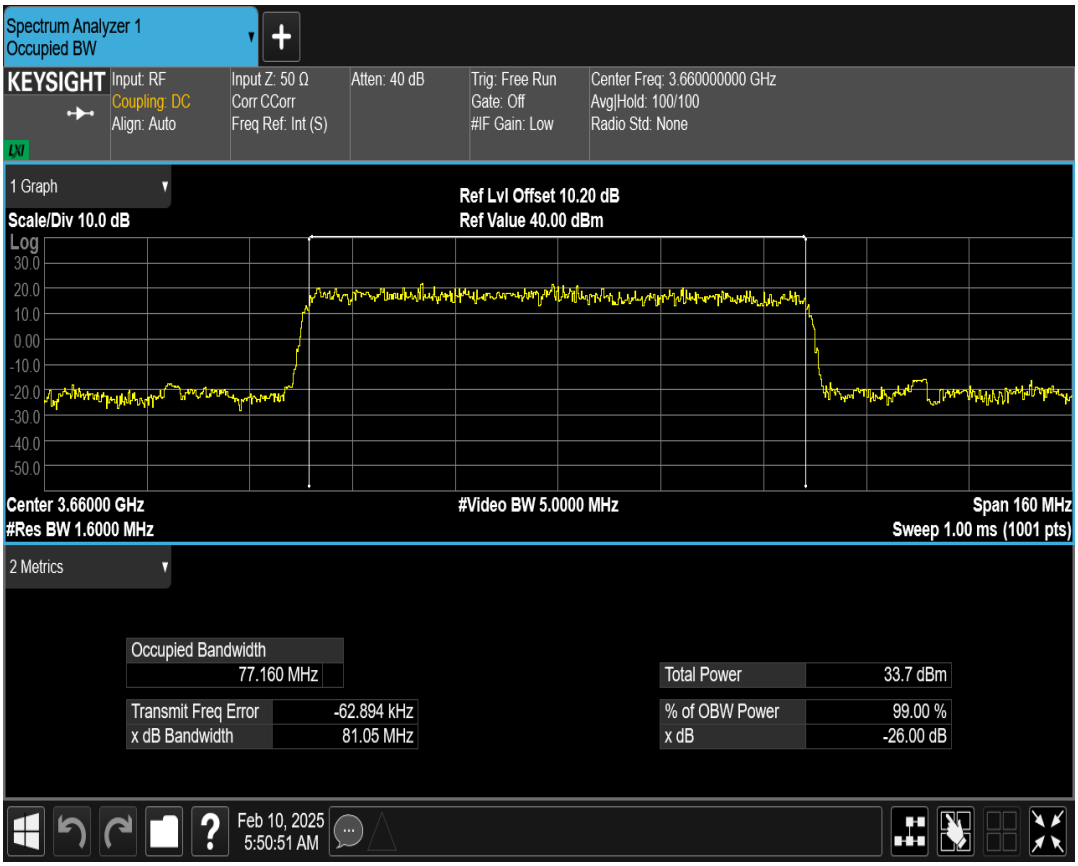
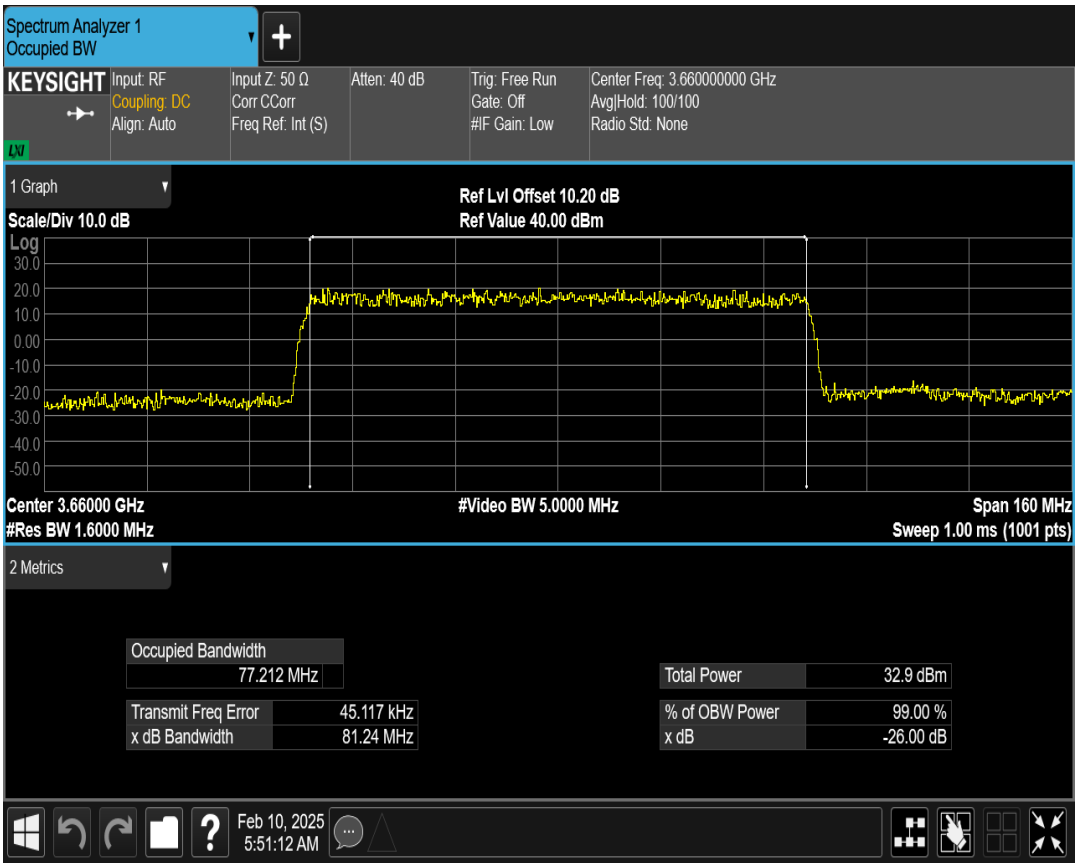


n78(3550-3700) SCS=30kHz DFT_QPSK BW=80MHz Channel=644000 RB=216@0



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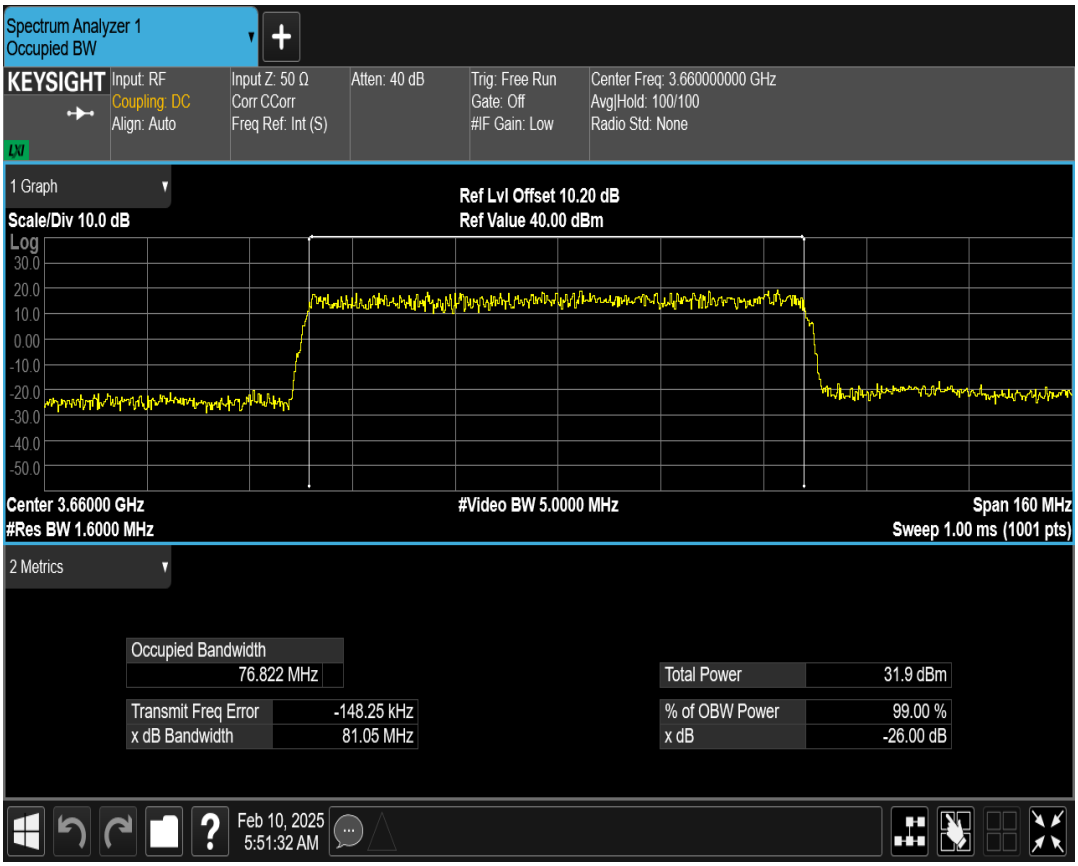
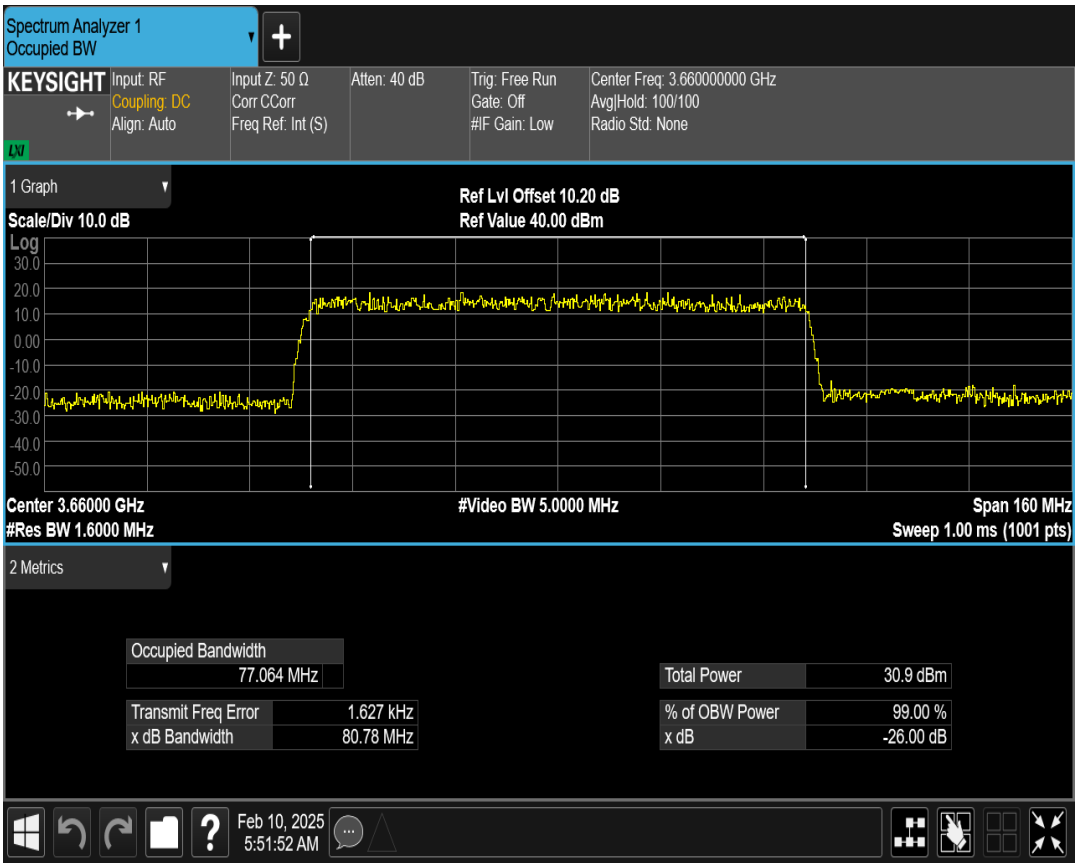
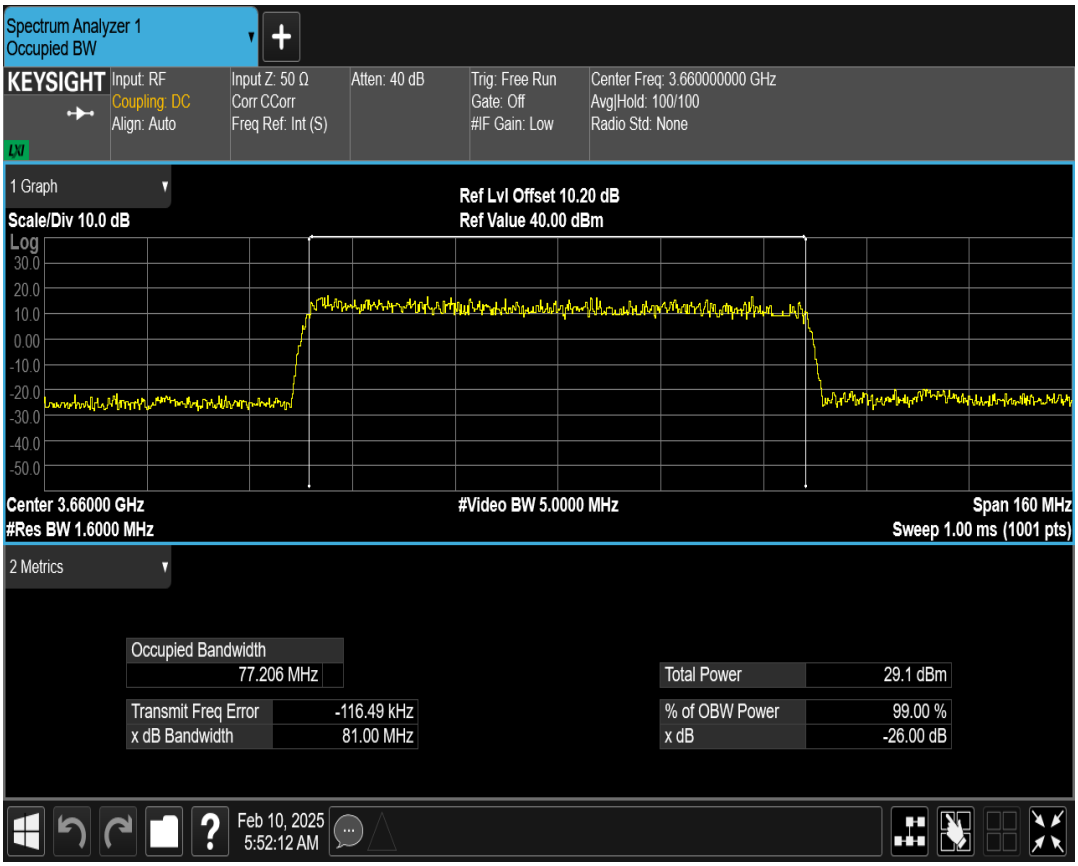


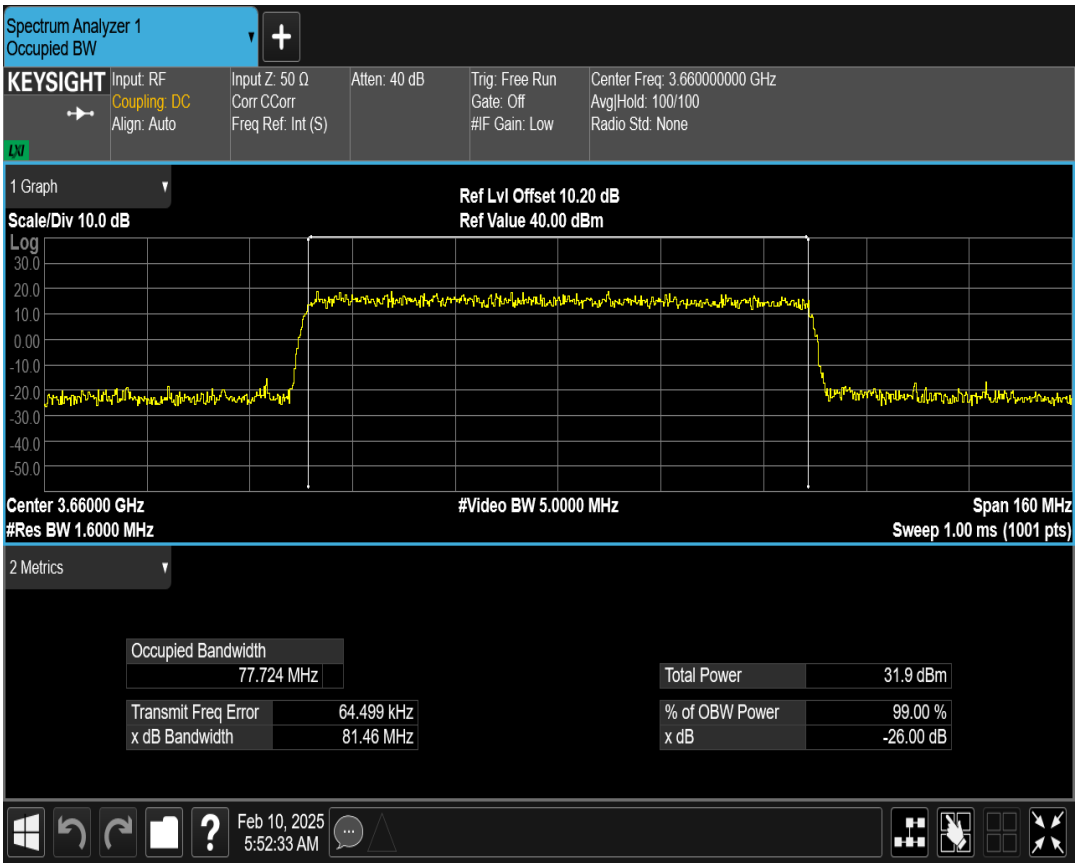
n78(3550-3700) SCS=30kHz DFT_QAM64 BW=80MHz Channel=644000 RB=216@0



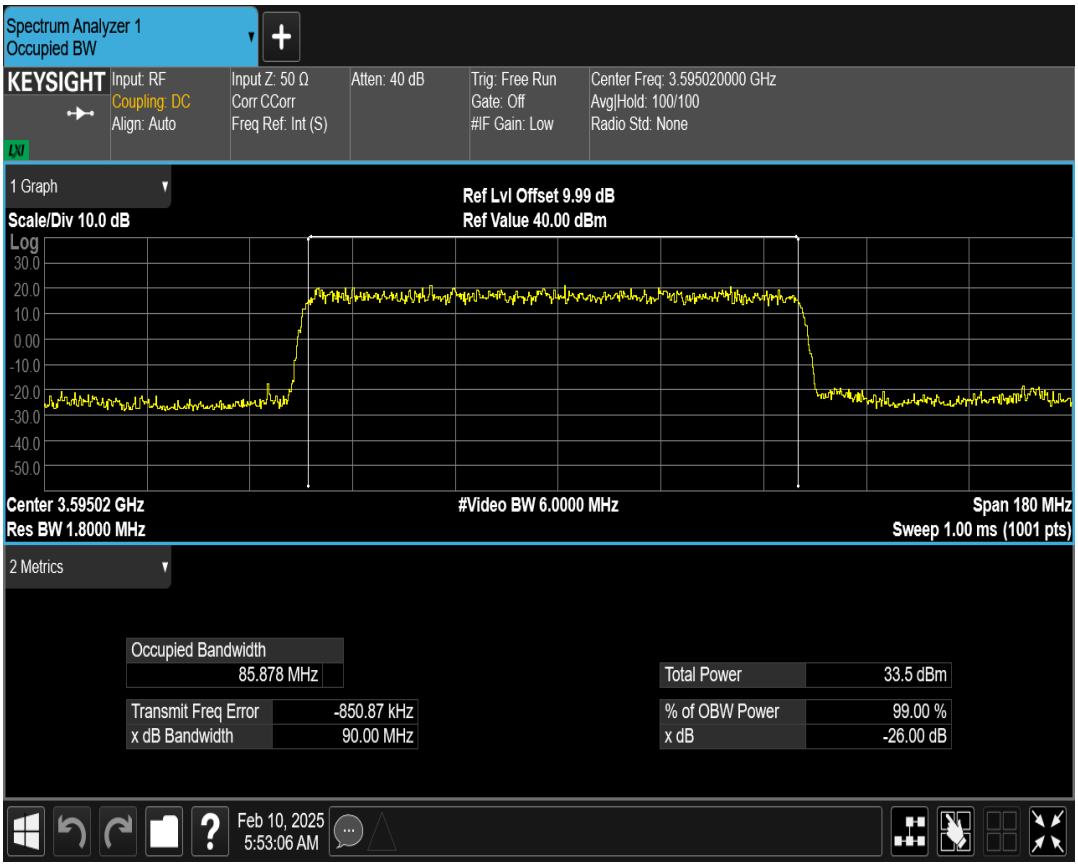
n78(3550-3700) SCS=30kHz DFT_QAM256 BW=80MHz Channel=644000 RB=216@0



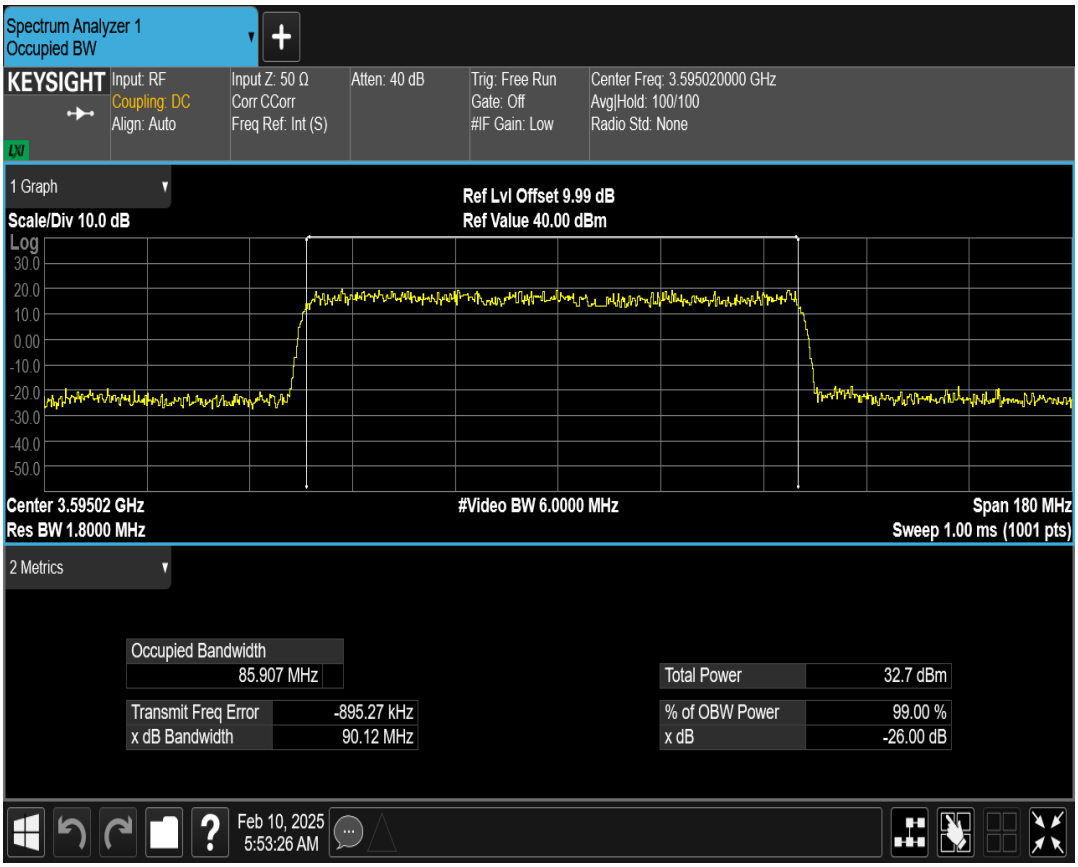
n78(3550-3700) SCS=30kHz CP_QPSK BW=80MHz Channel=644000 RB=217@0



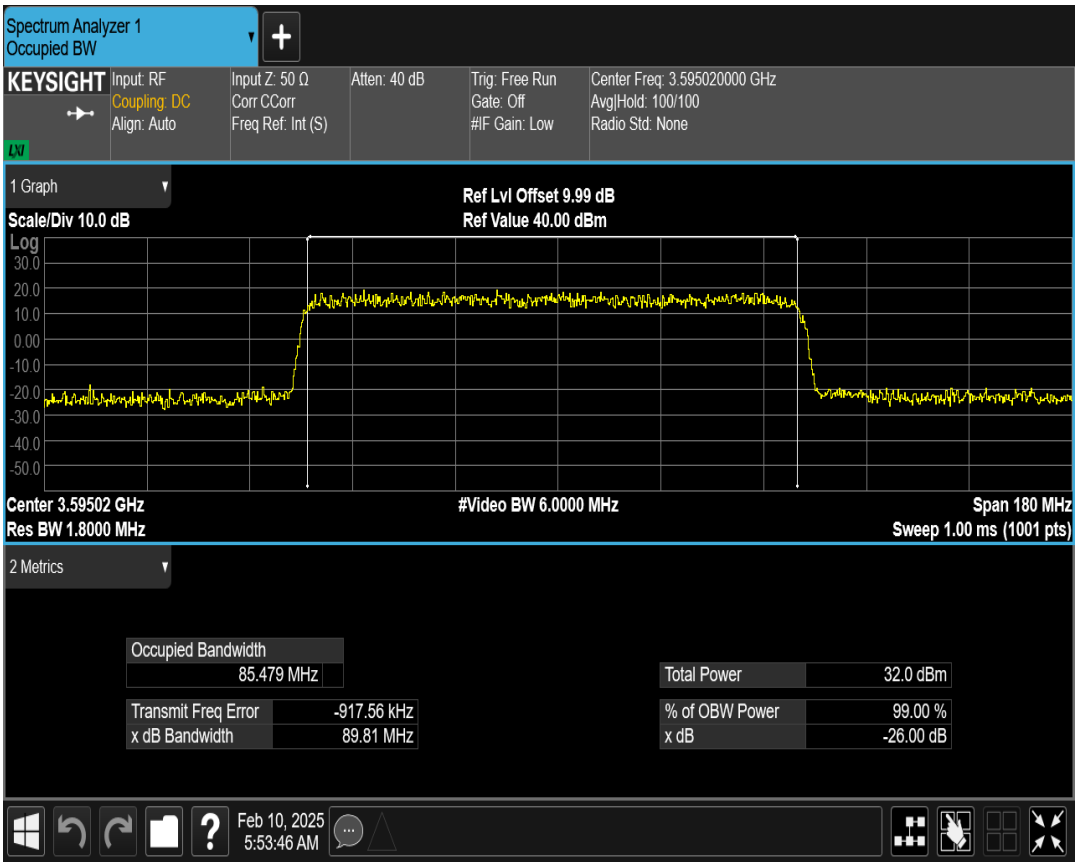
n78(3550-3700) SCS=30kHz DFT_BPSK BW=90MHz Channel=639668 RB=240@0



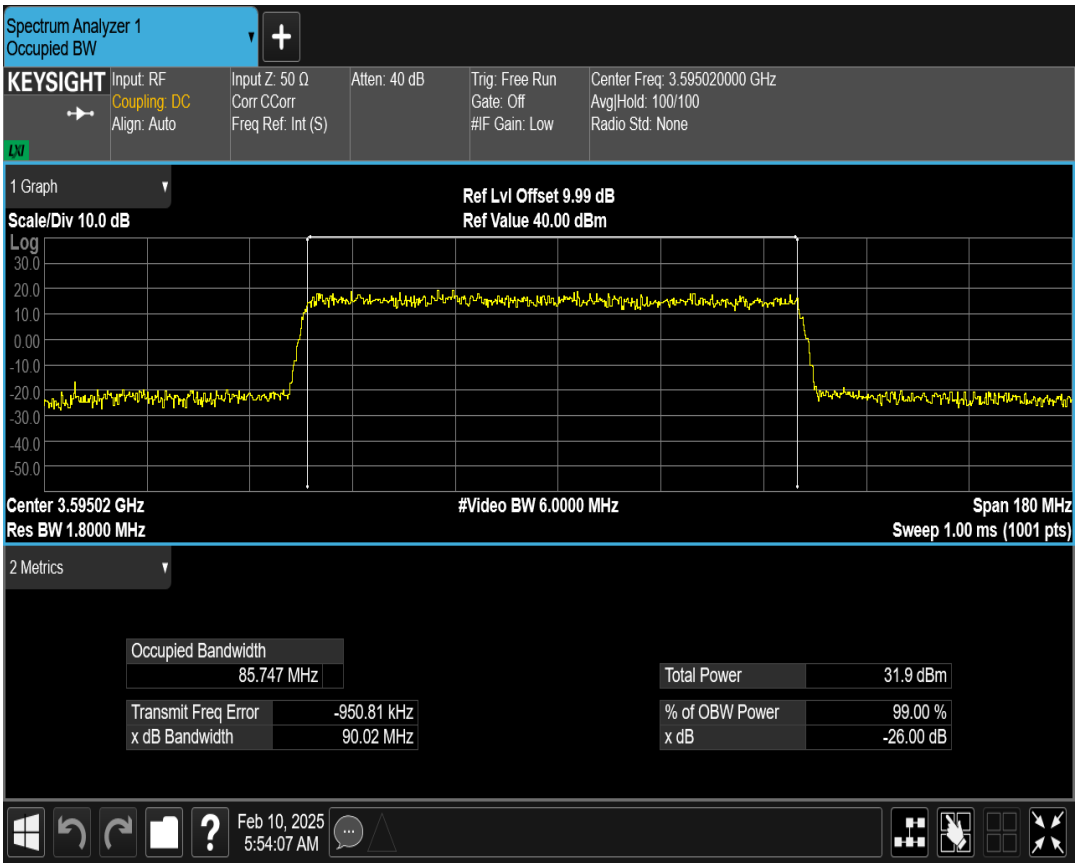
n78(3550-3700) SCS=30kHz DFT_QPSK BW=90MHz Channel=639668 RB=240@0



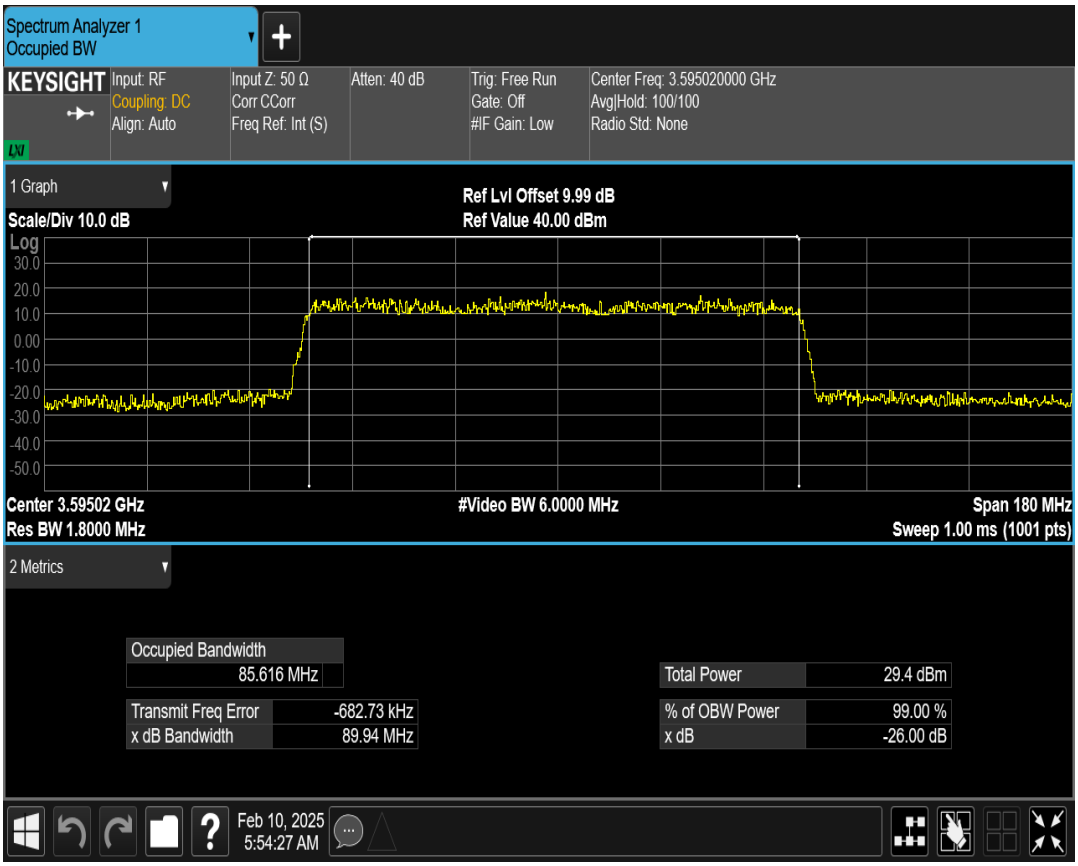
n78(3550-3700) SCS=30kHz DFT_QAM16 BW=90MHz Channel=639668 RB=240@0



n78(3550-3700) SCS=30kHz DFT_QAM64 BW=90MHz Channel=639668 RB=240@0



n78(3550-3700) SCS=30kHz DFT_QAM256 BW=90MHz Channel=639668 RB=240@0



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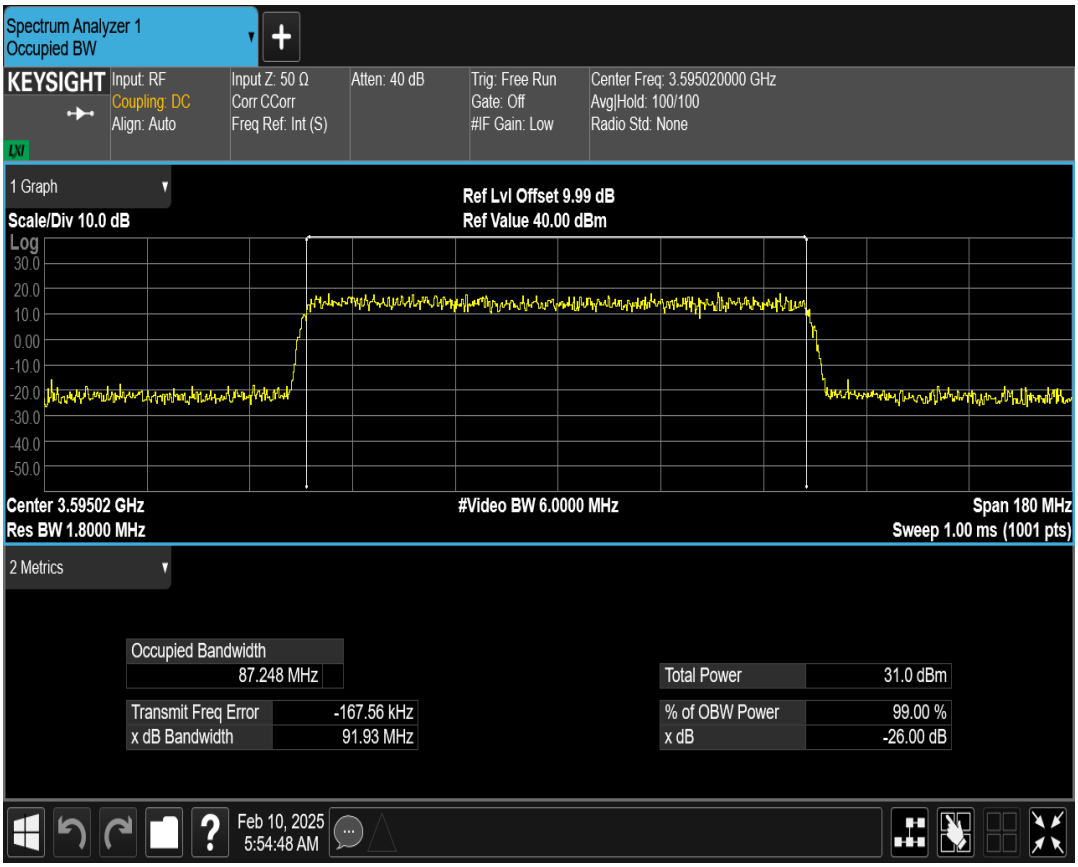
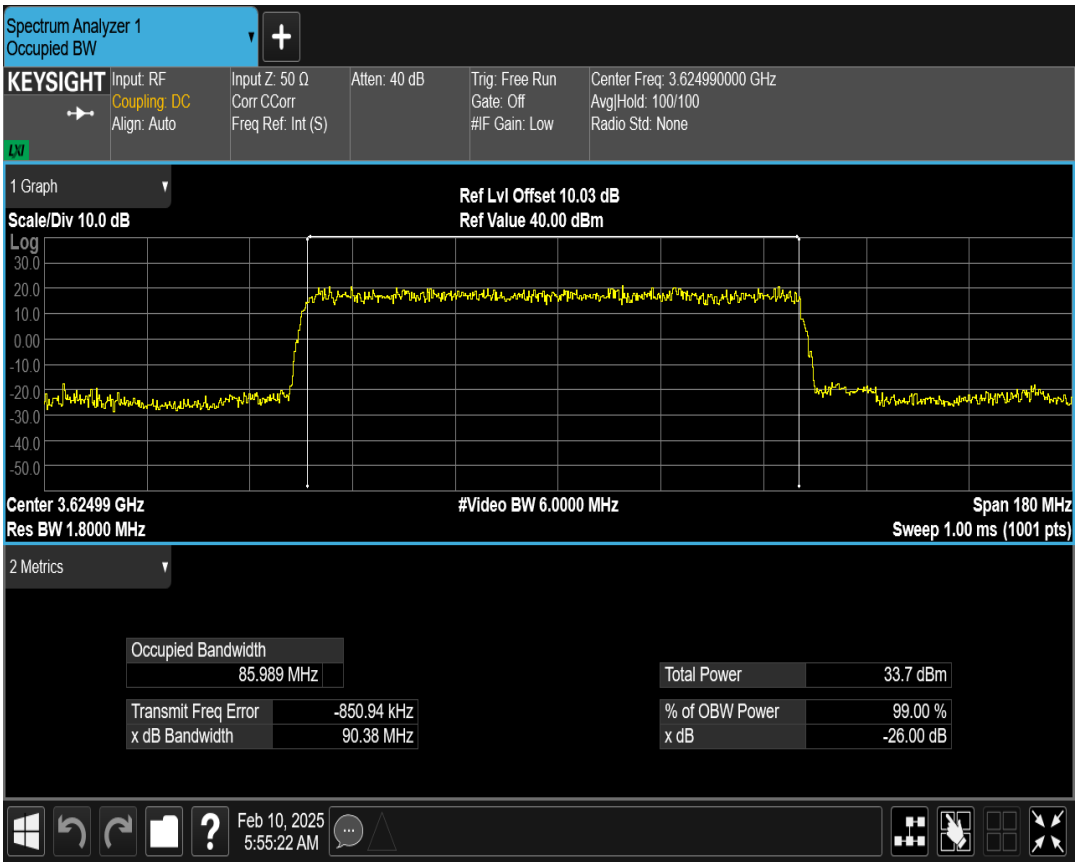
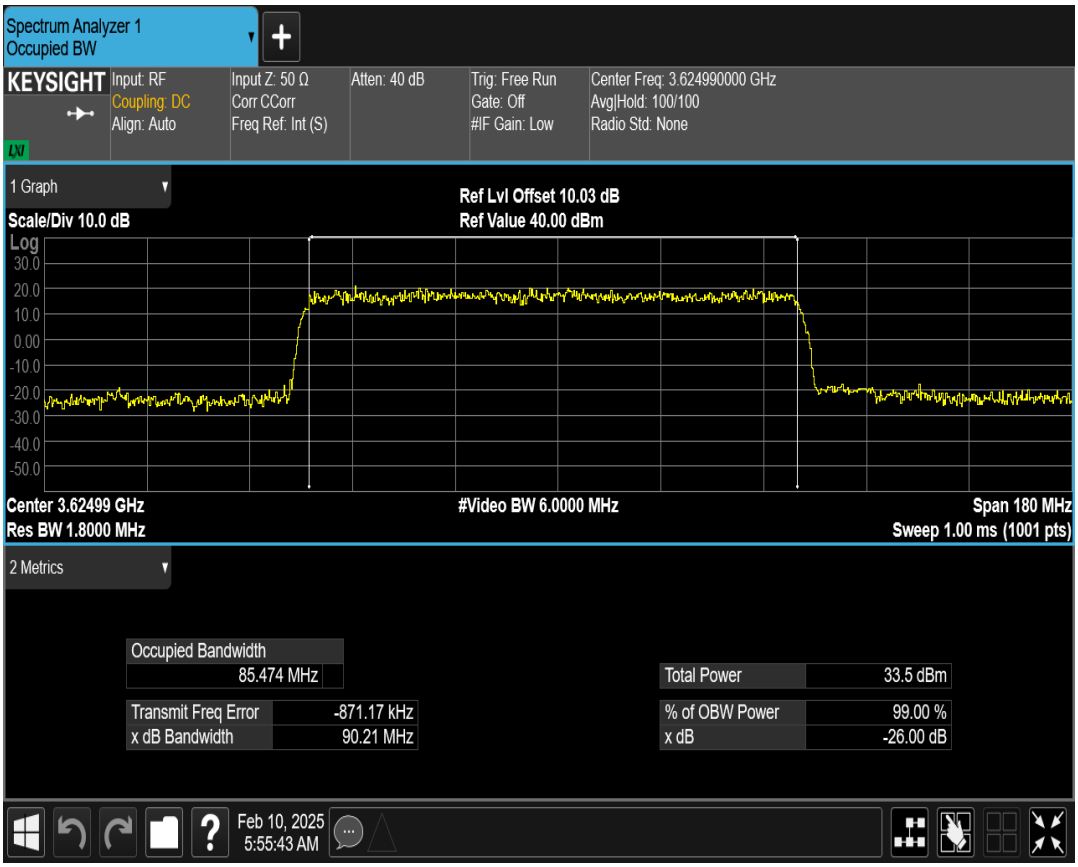


n78(3550-3700) SCS=30kHz DFT_BPSK BW=90MHz Channel=641666 RB=240@0



n78(3550-3700) SCS=30kHz DFT_QPSK BW=90MHz Channel=641666 RB=240@0



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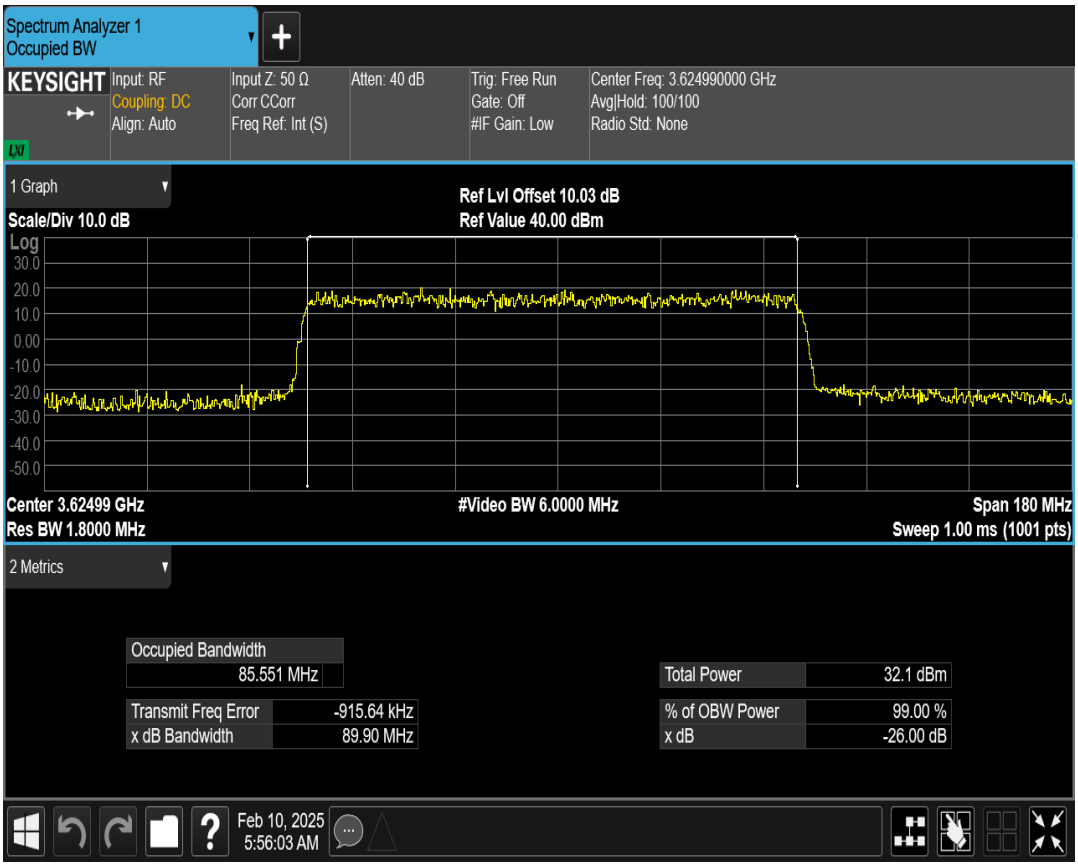
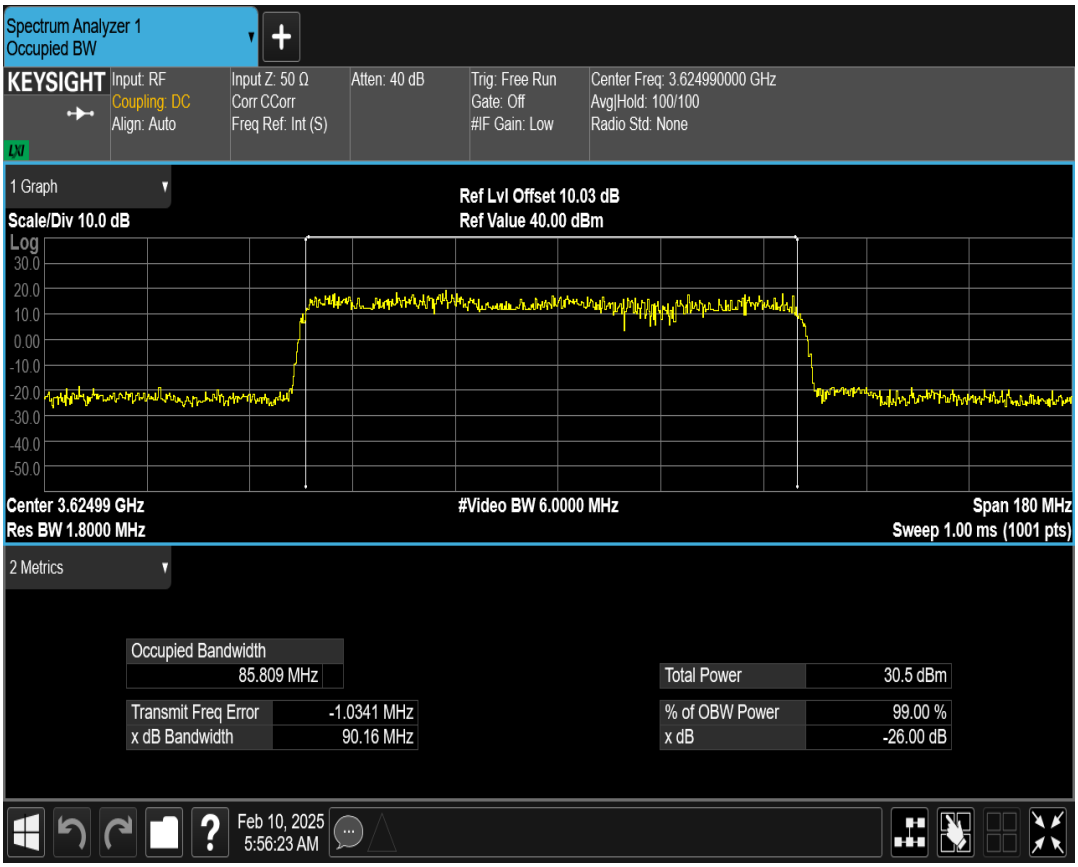
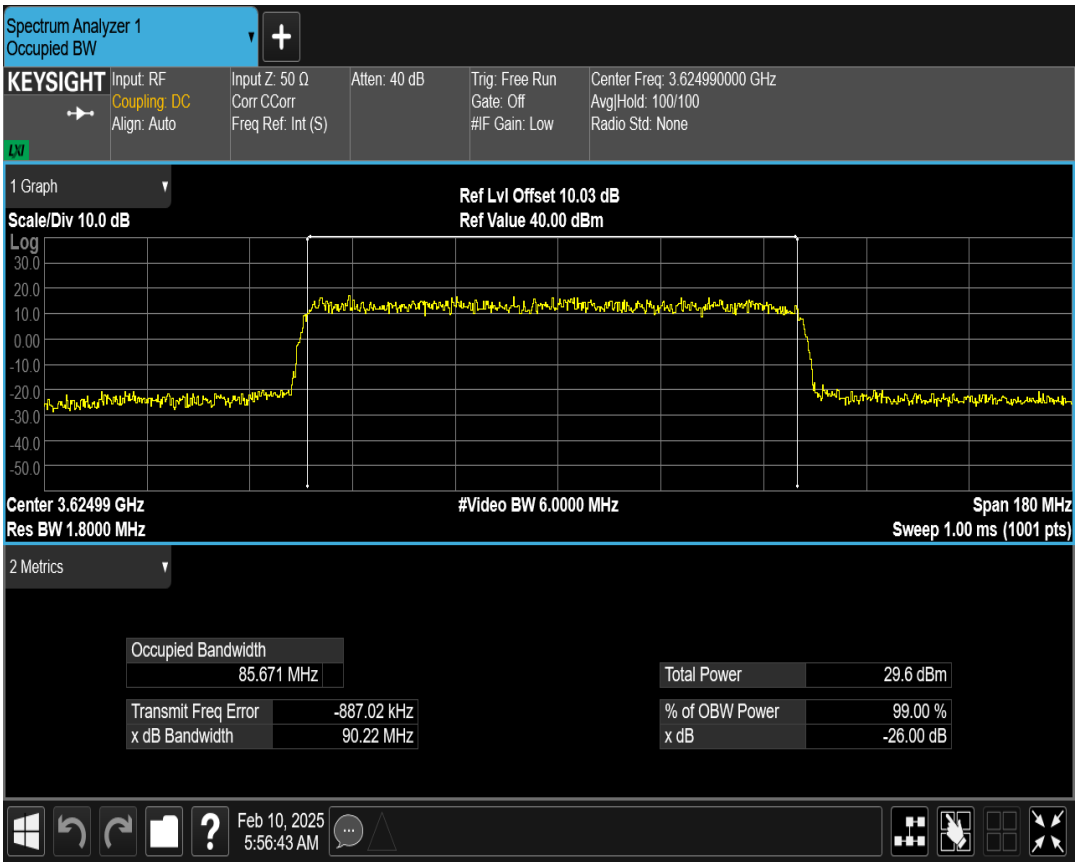


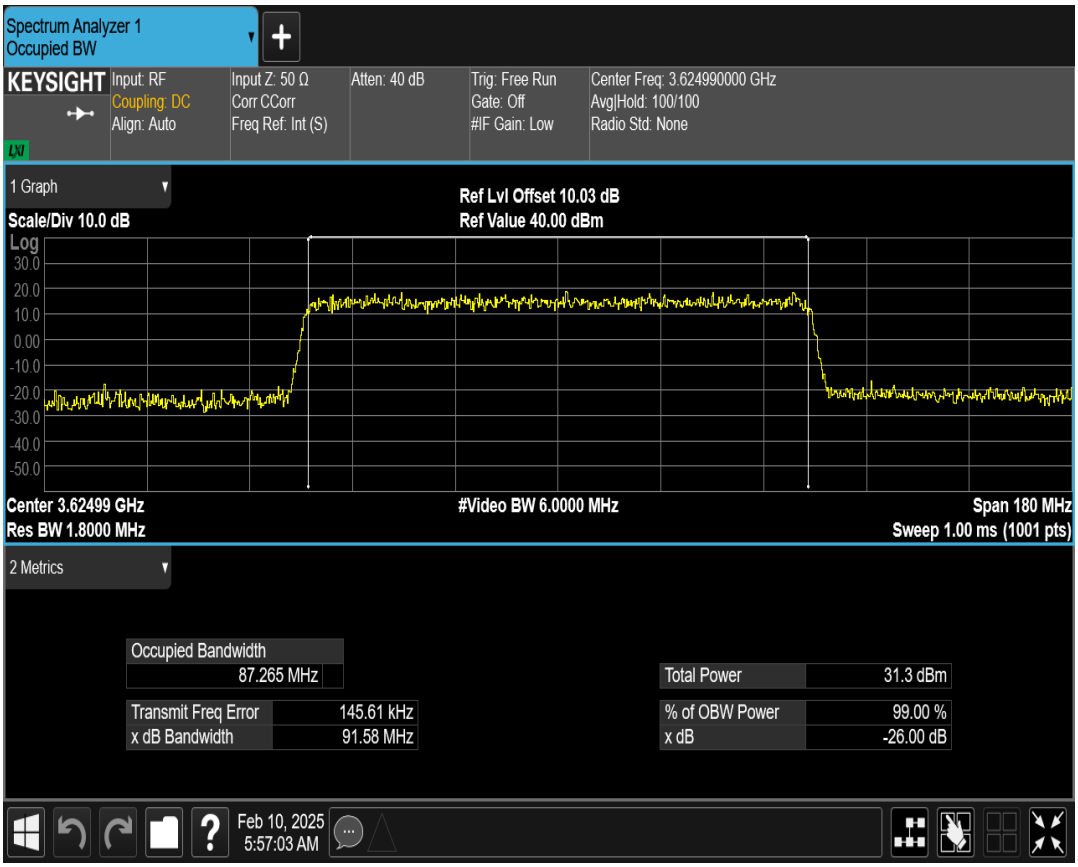
n78(3550-3700) SCS=30kHz DFT_QAM64 BW=90MHz Channel=641666 RB=240@0



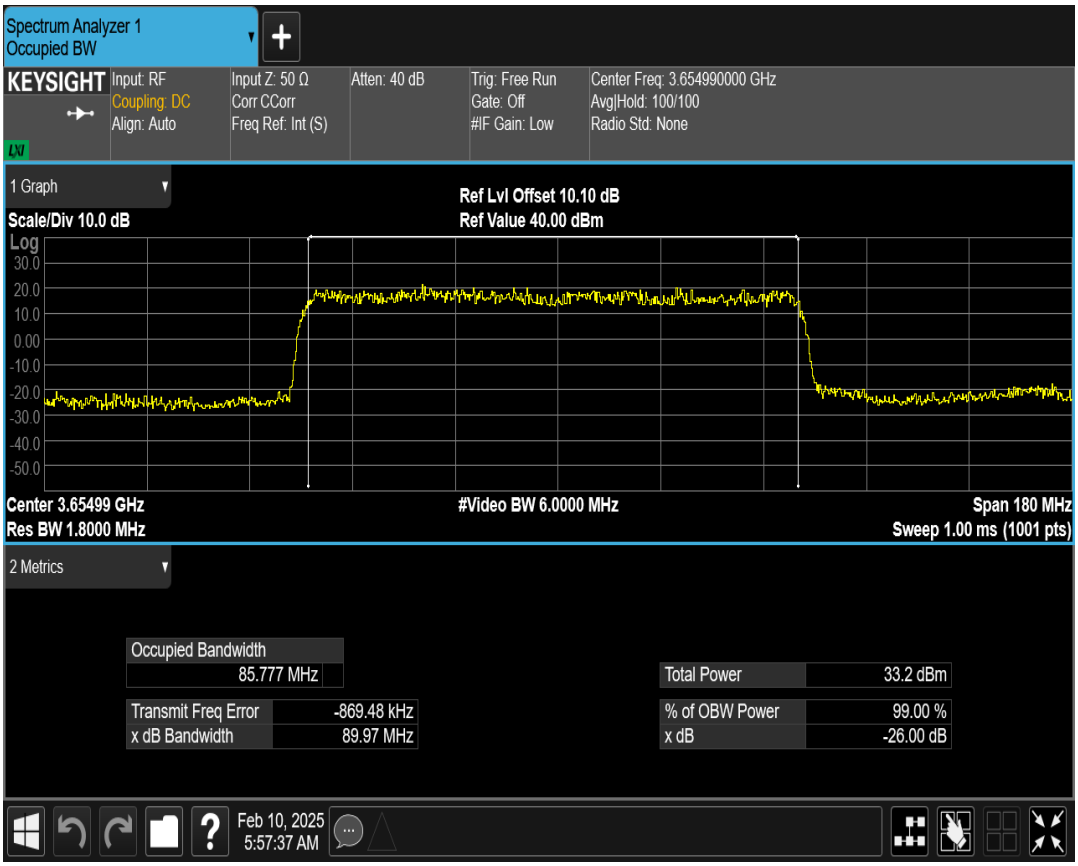
n78(3550-3700) SCS=30kHz DFT_QAM256 BW=90MHz Channel=641666 RB=240@0



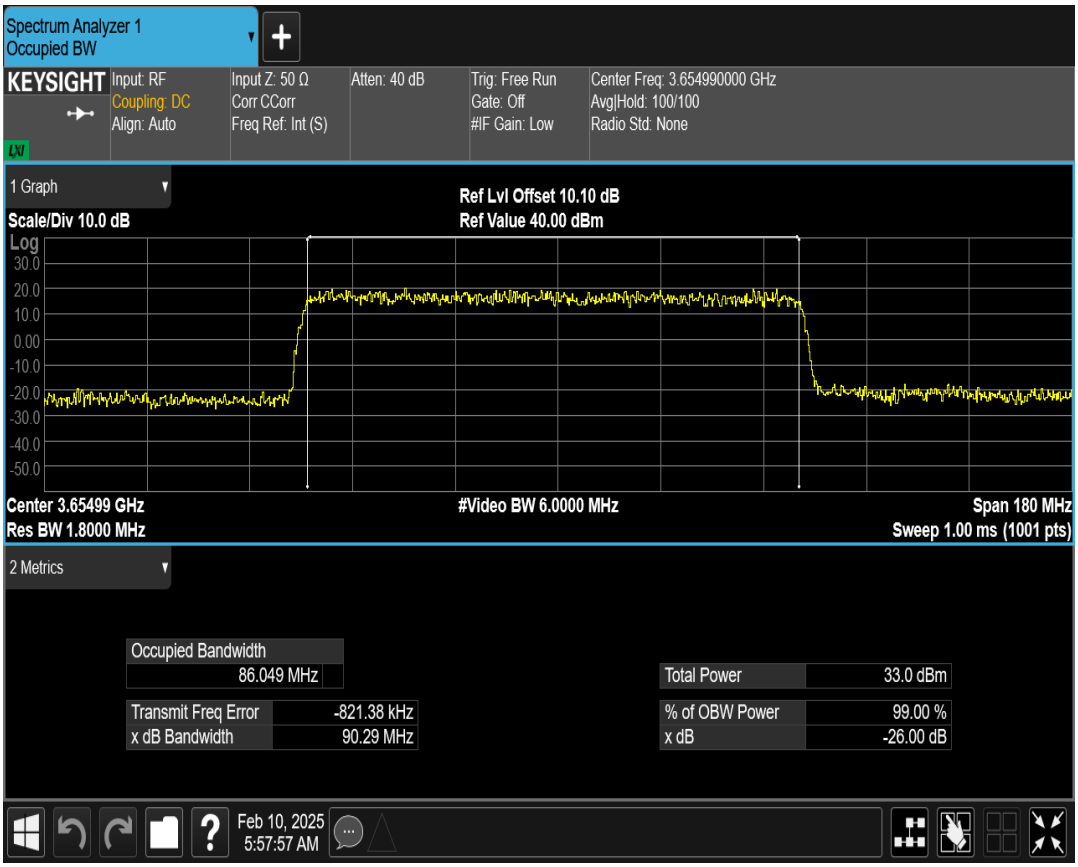
n78(3550-3700) SCS=30kHz CP_QPSK BW=90MHz Channel=641666 RB=245@0



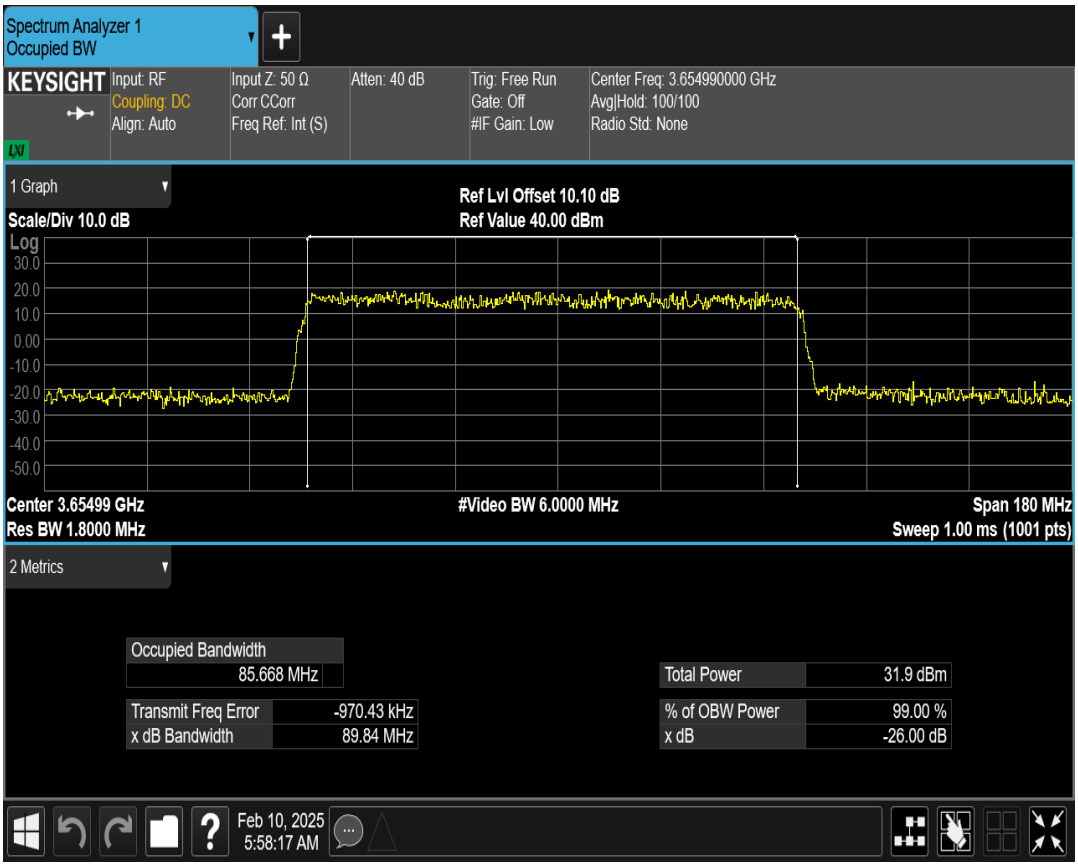
n78(3550-3700) SCS=30kHz DFT_BPSK BW=90MHz Channel=643666 RB=240@0



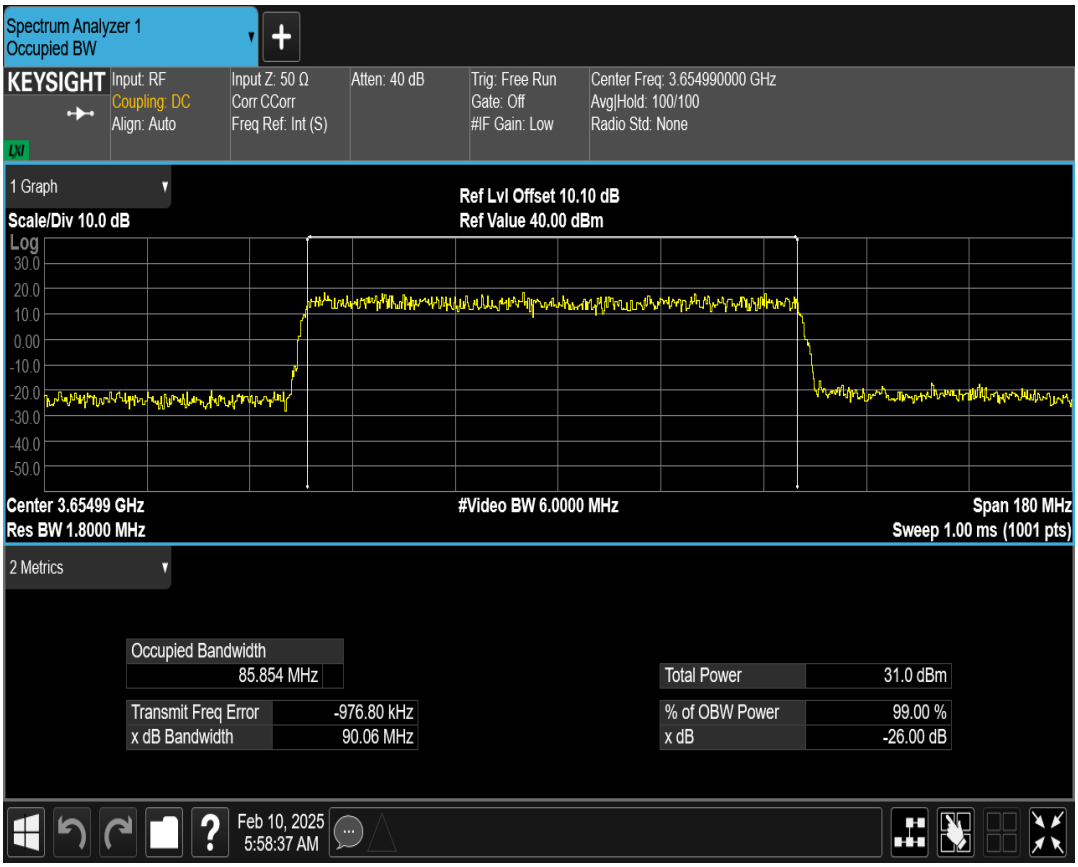
n78(3550-3700) SCS=30kHz DFT_QPSK BW=90MHz Channel=643666 RB=240@0



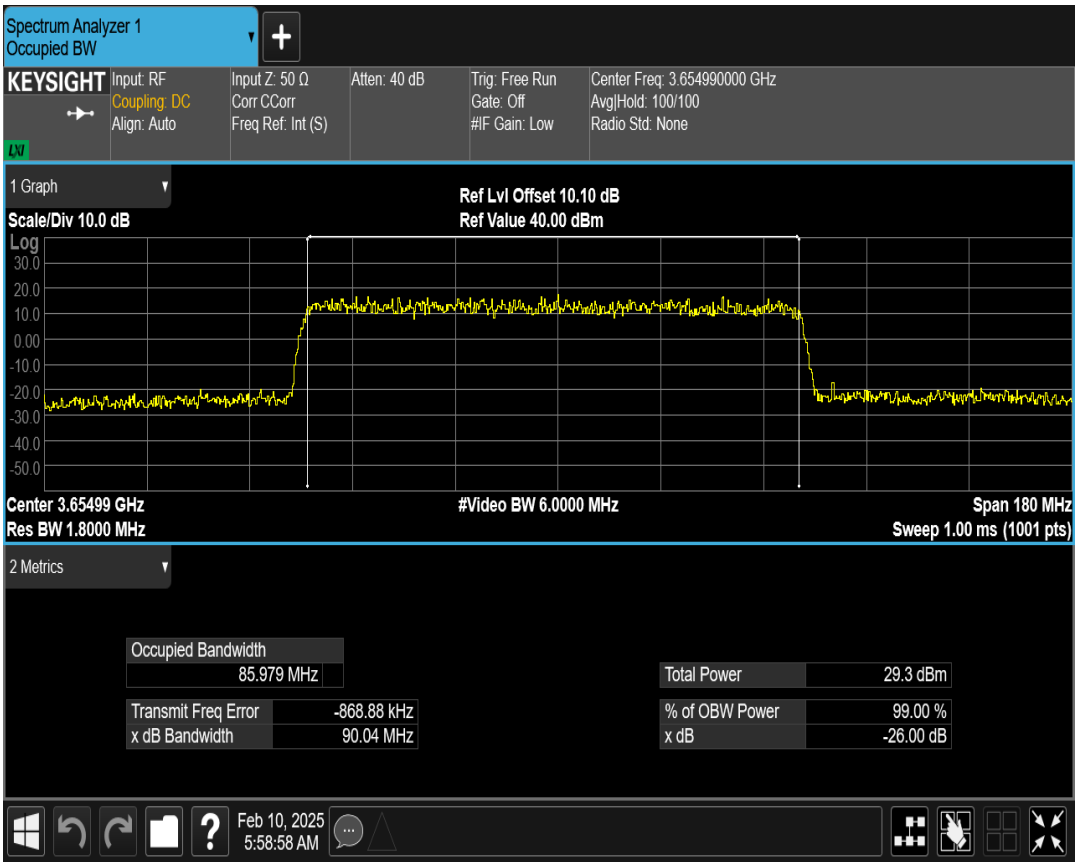
n78(3550-3700) SCS=30kHz DFT_QAM16 BW=90MHz Channel=643666 RB=240@0



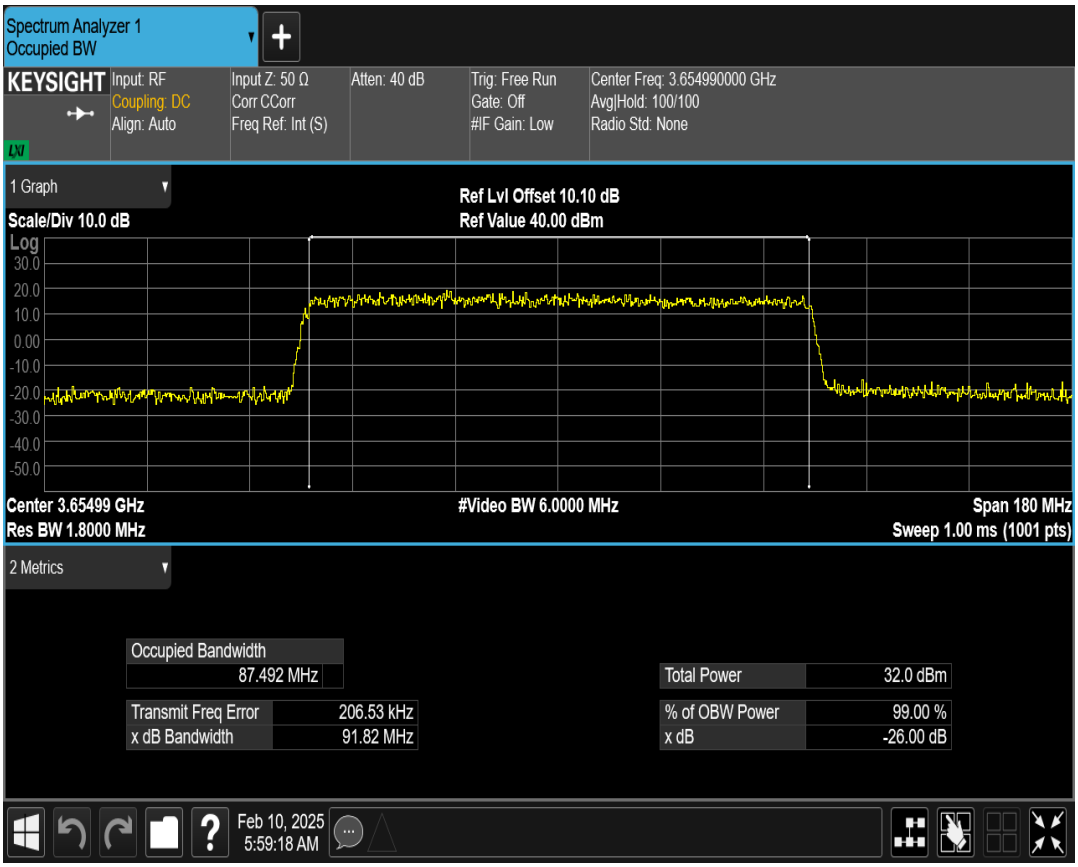
n78(3550-3700) SCS=30kHz DFT_QAM64 BW=90MHz Channel=643666 RB=240@0



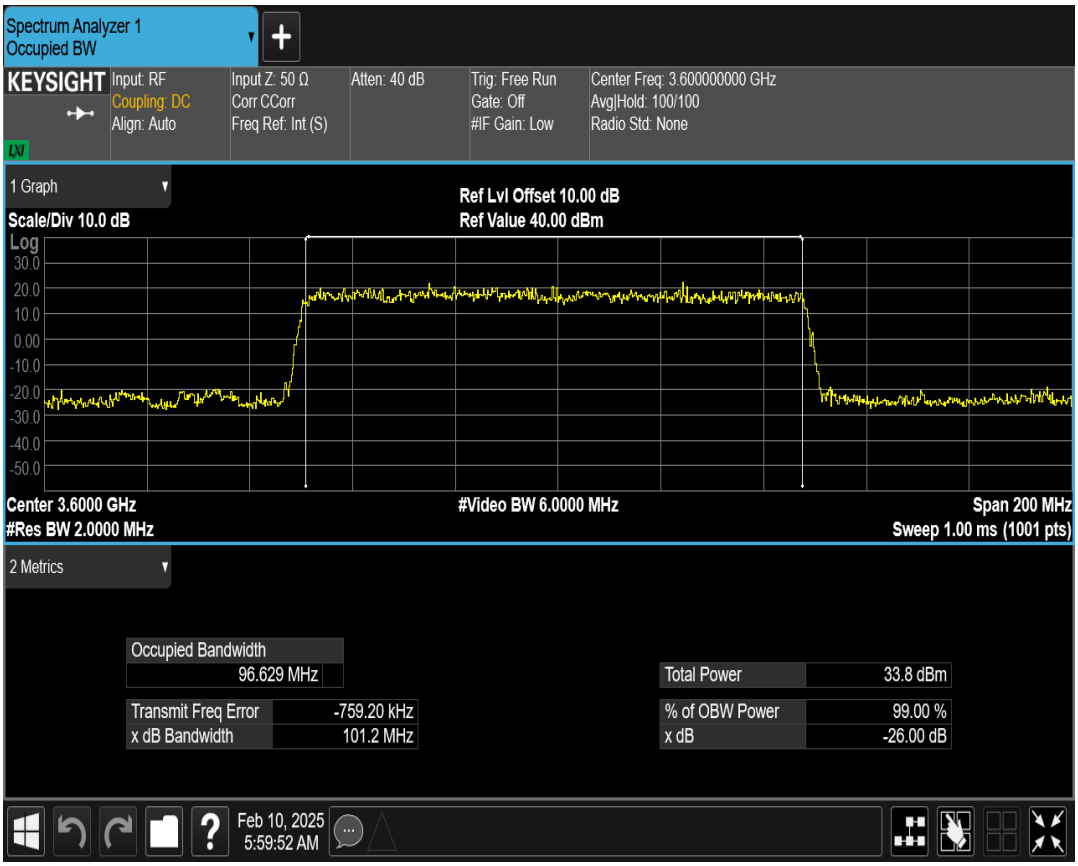
n78(3550-3700) SCS=30kHz DFT_QAM256 BW=90MHz Channel=643666 RB=240@0



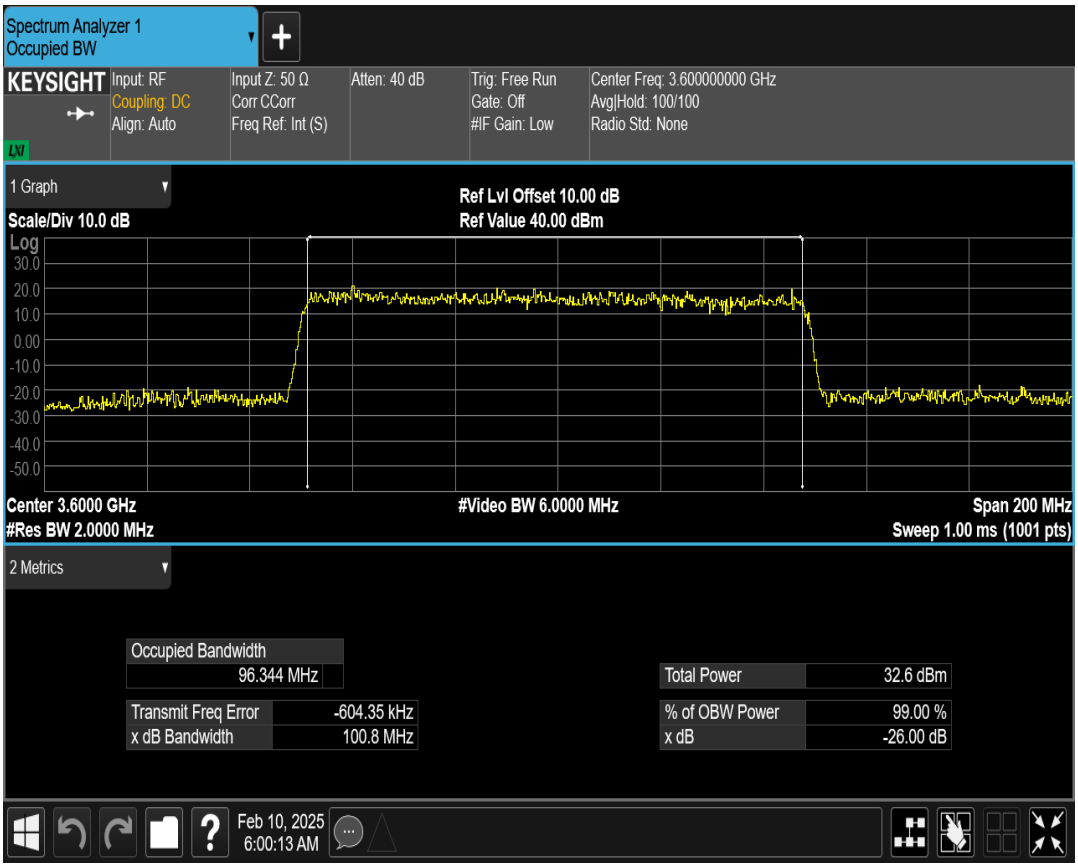
n78(3550-3700) SCS=30kHz CP_QPSK BW=90MHz Channel=643666 RB=245@0



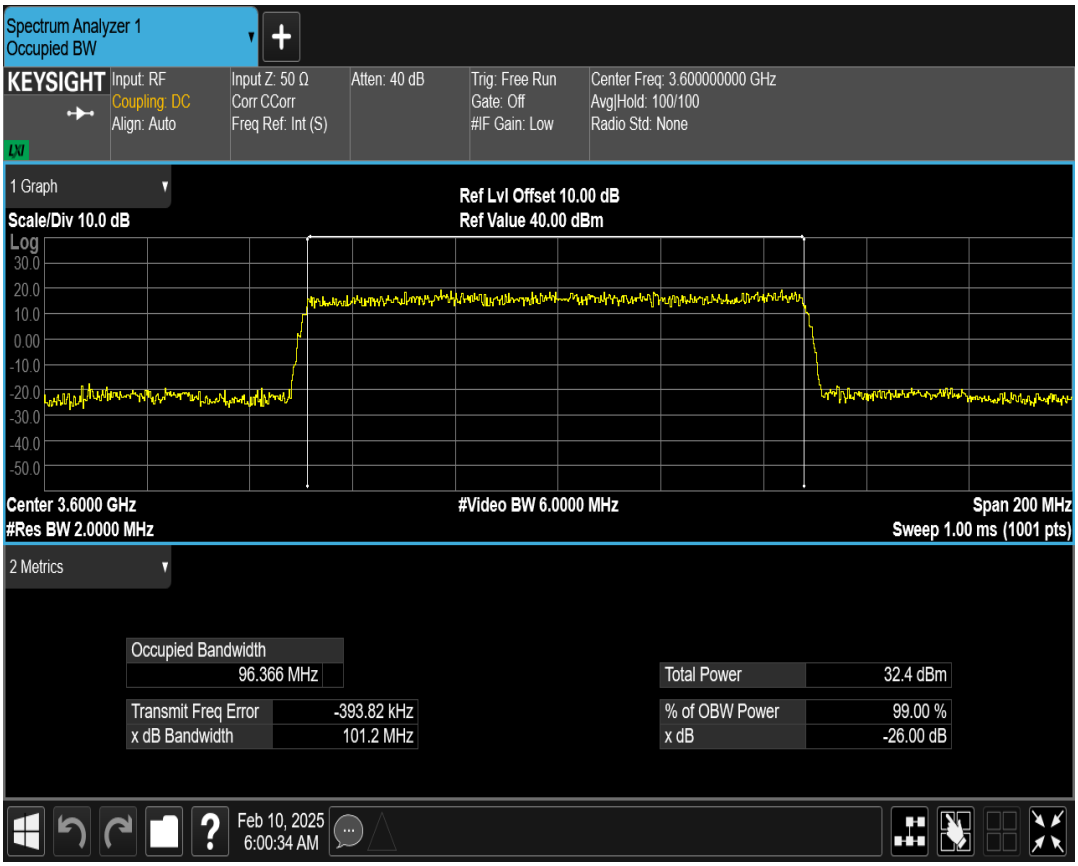
n78(3550-3700) SCS=30kHz DFT_BPSK BW=100MHz Channel=640000 RB=270@0



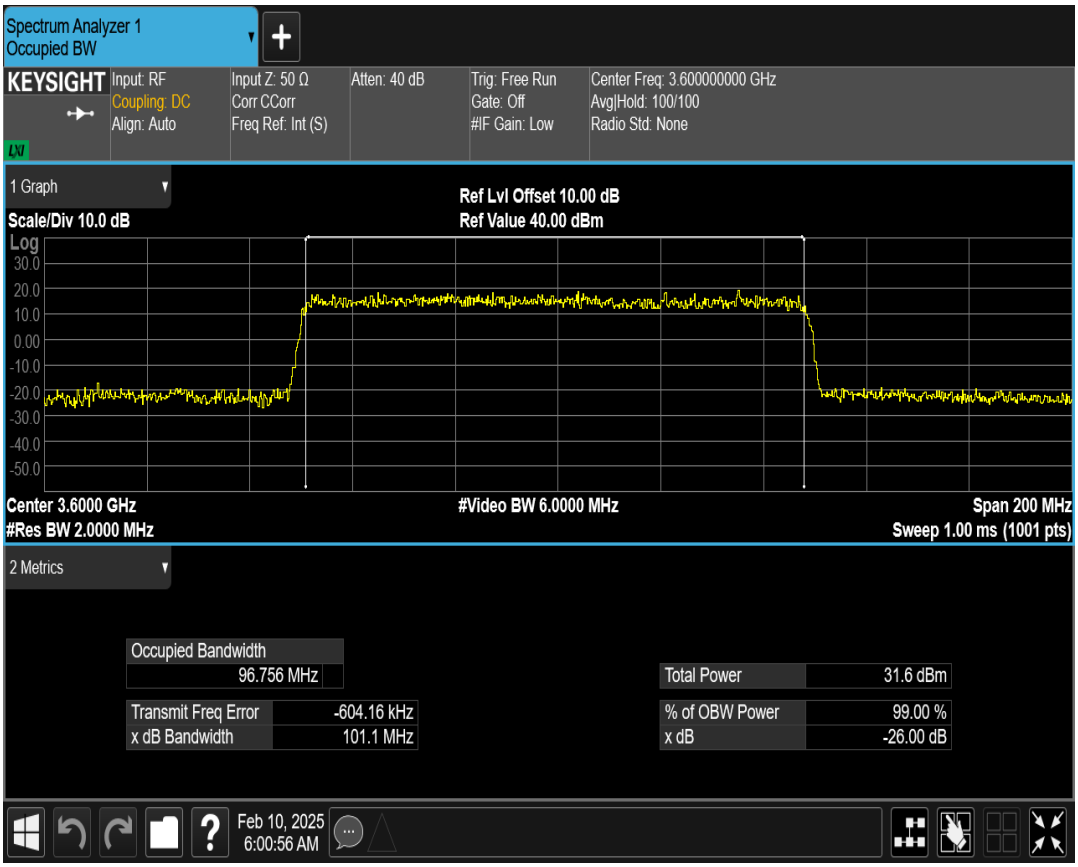
n78(3550-3700) SCS=30kHz DFT_QPSK BW=100MHz Channel=640000 RB=270@0



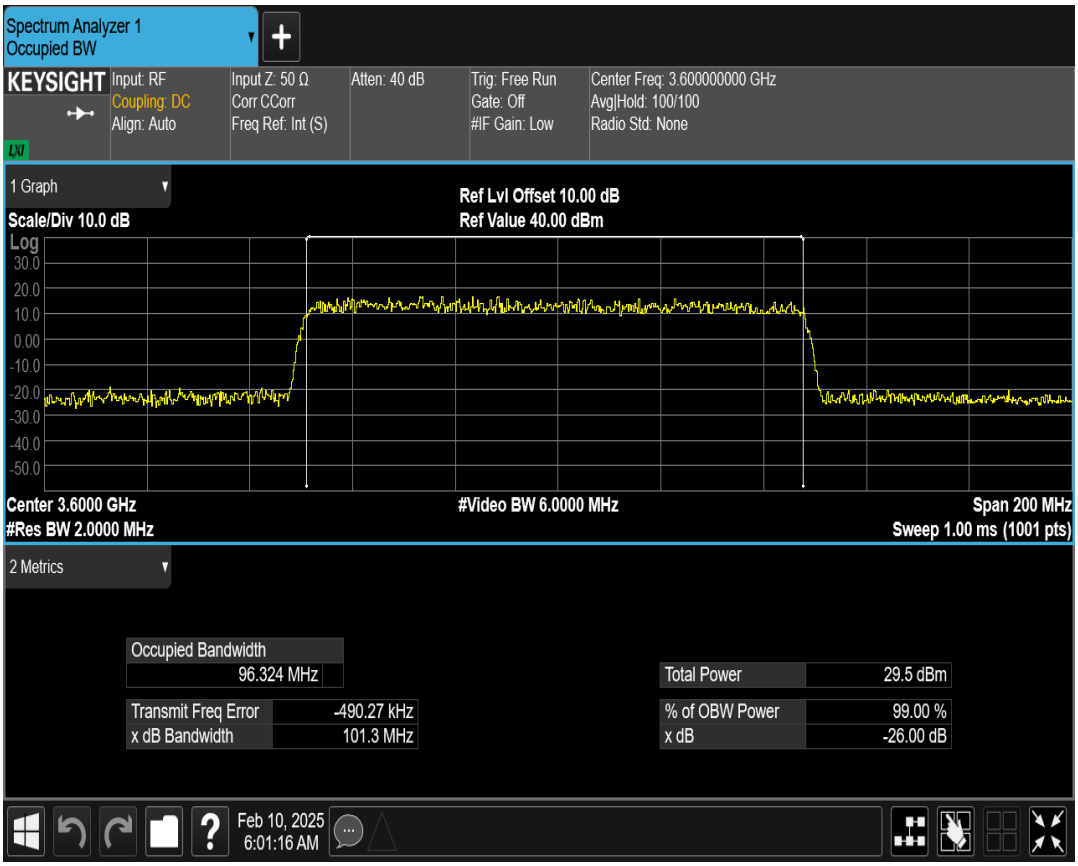
n78(3550-3700) SCS=30kHz DFT_QAM16 BW=100MHz Channel=640000 RB=270@0



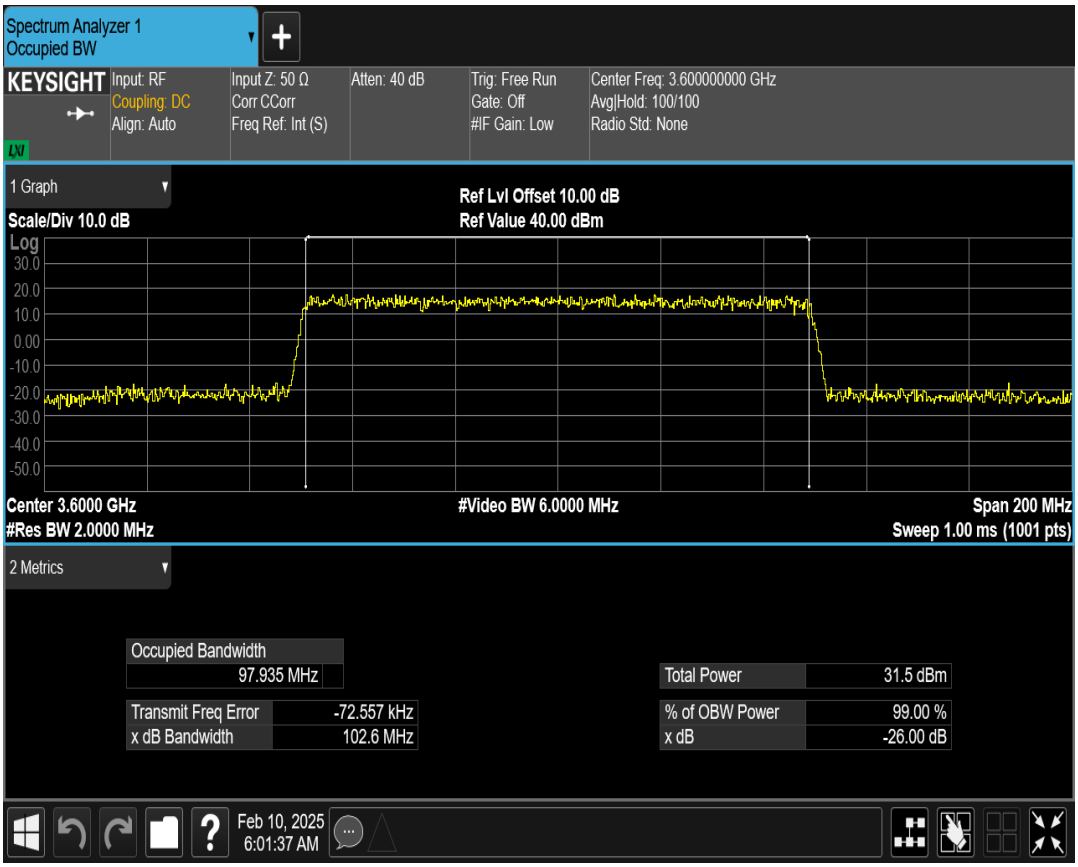
n78(3550-3700) SCS=30kHz DFT_QAM64 BW=100MHz Channel=640000 RB=270@0



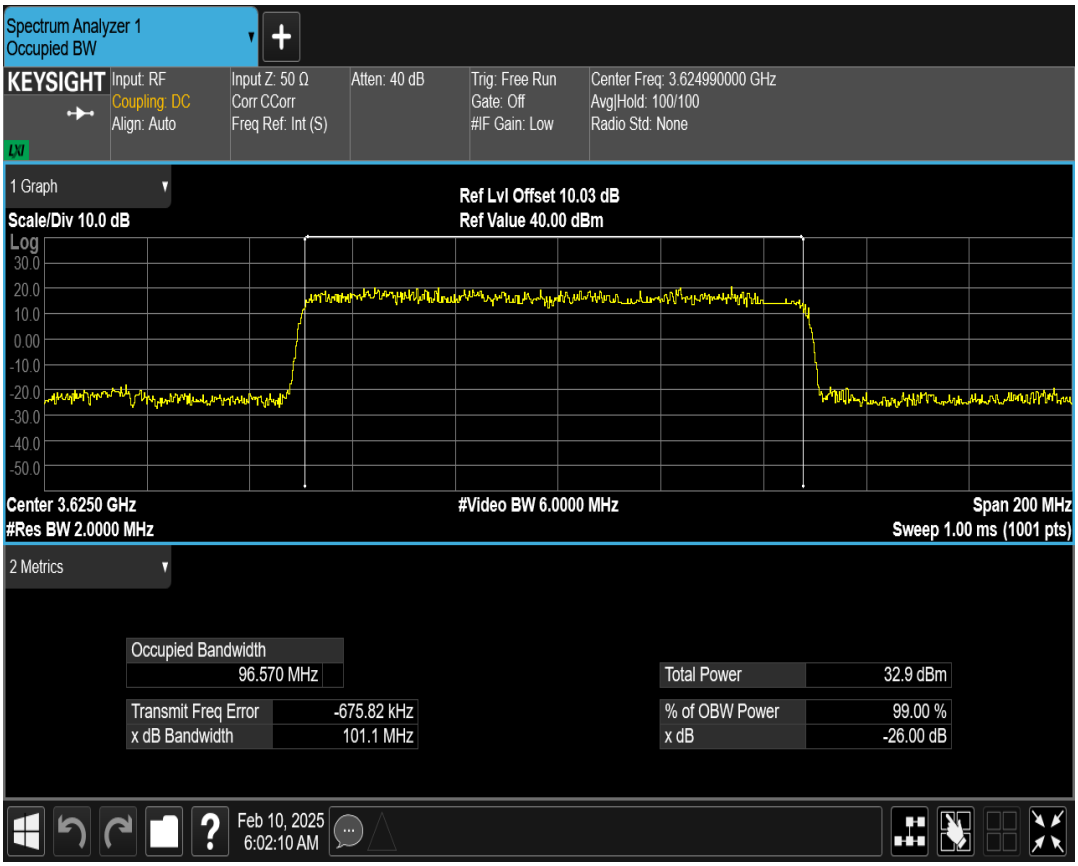
n78(3550-3700) SCS=30kHz DFT_QAM256 BW=100MHz Channel=640000 RB=270@0



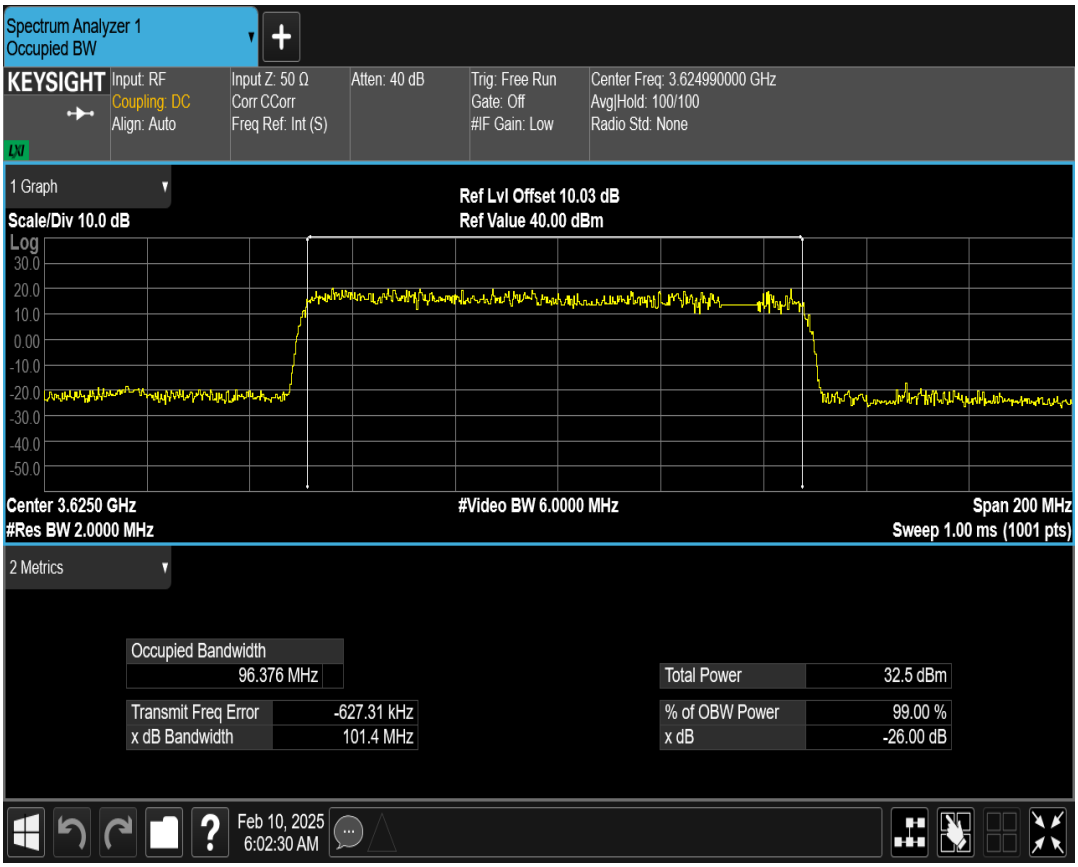
n78(3550-3700) SCS=30kHz CP_QPSK BW=100MHz Channel=640000 RB=273@0



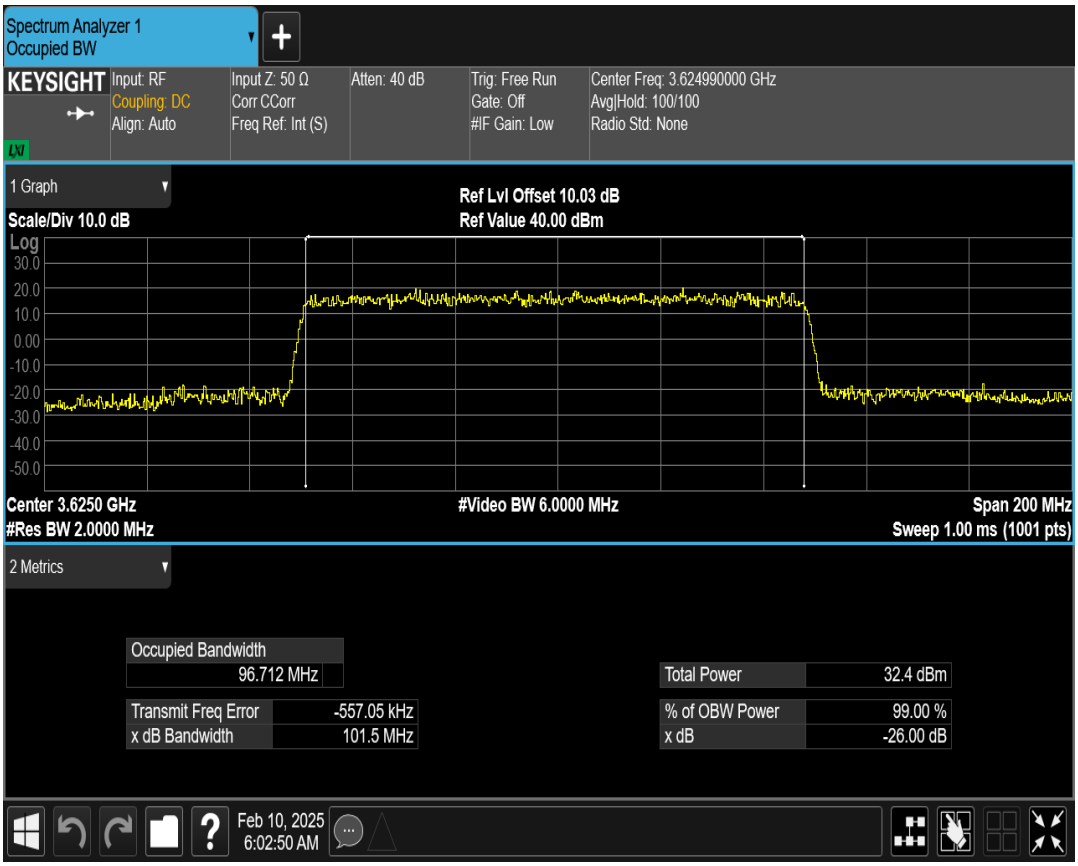
n78(3550-3700) SCS=30kHz DFT_BPSK BW=100MHz Channel=641666 RB=270@0



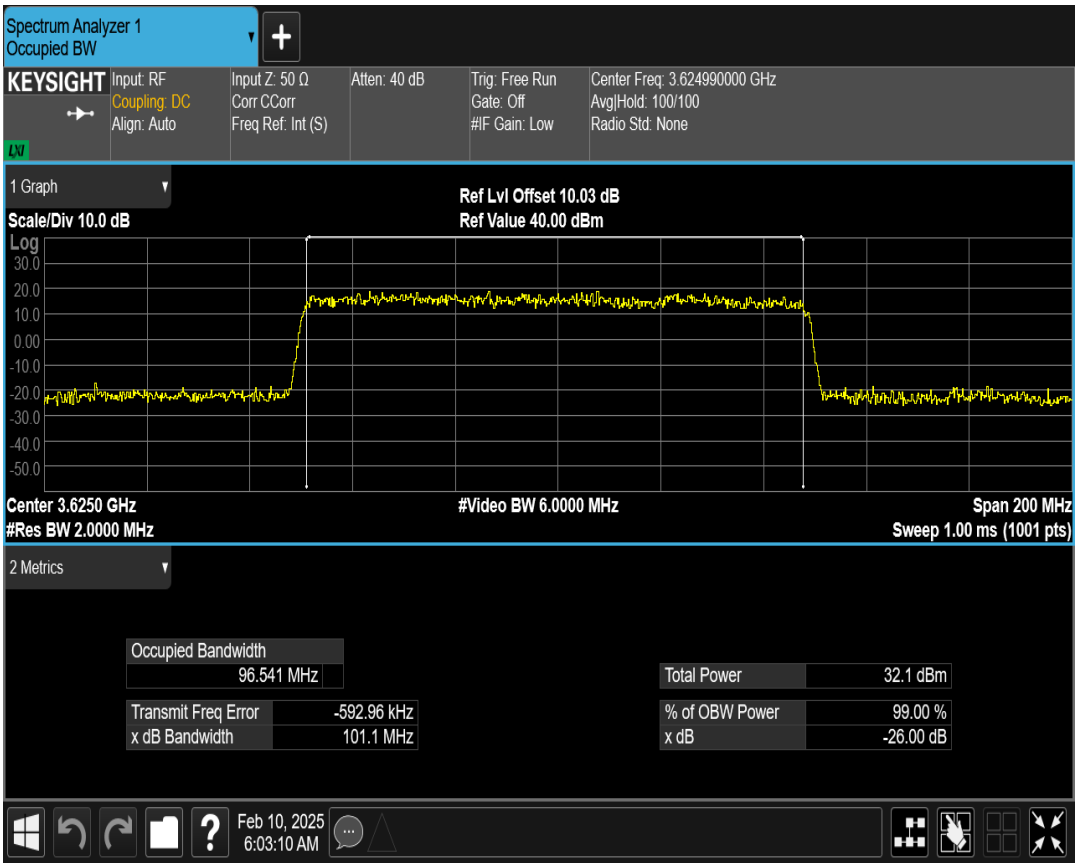
n78(3550-3700) SCS=30kHz DFT_QPSK BW=100MHz Channel=641666 RB=270@0



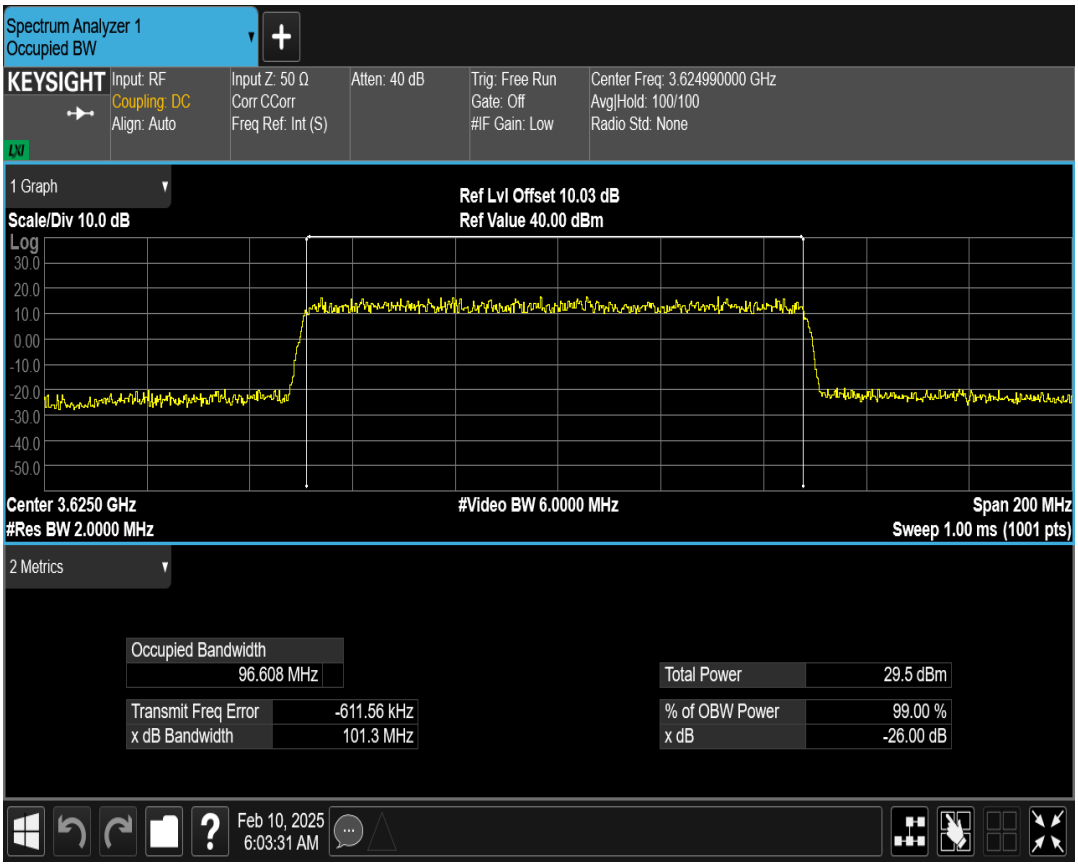
n78(3550-3700) SCS=30kHz DFT_QAM16 BW=100MHz Channel=641666 RB=270@0



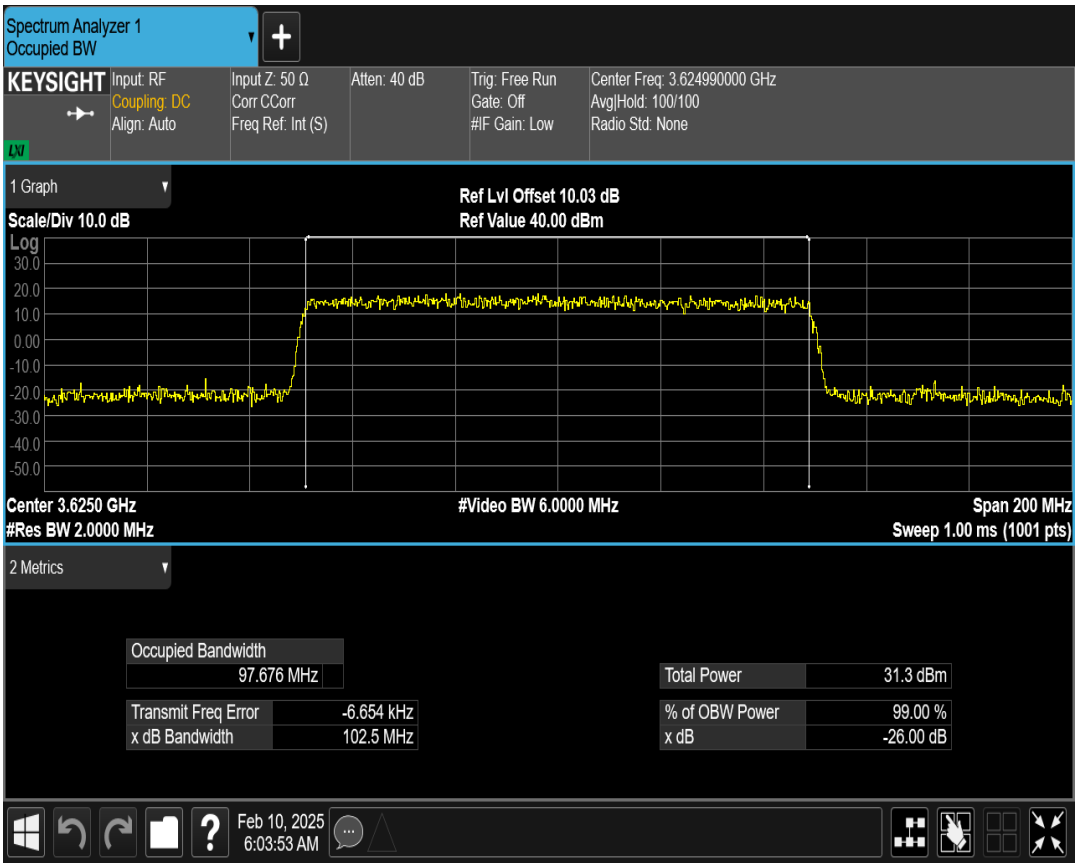
n78(3550-3700) SCS=30kHz DFT_QAM64 BW=100MHz Channel=641666 RB=270@0



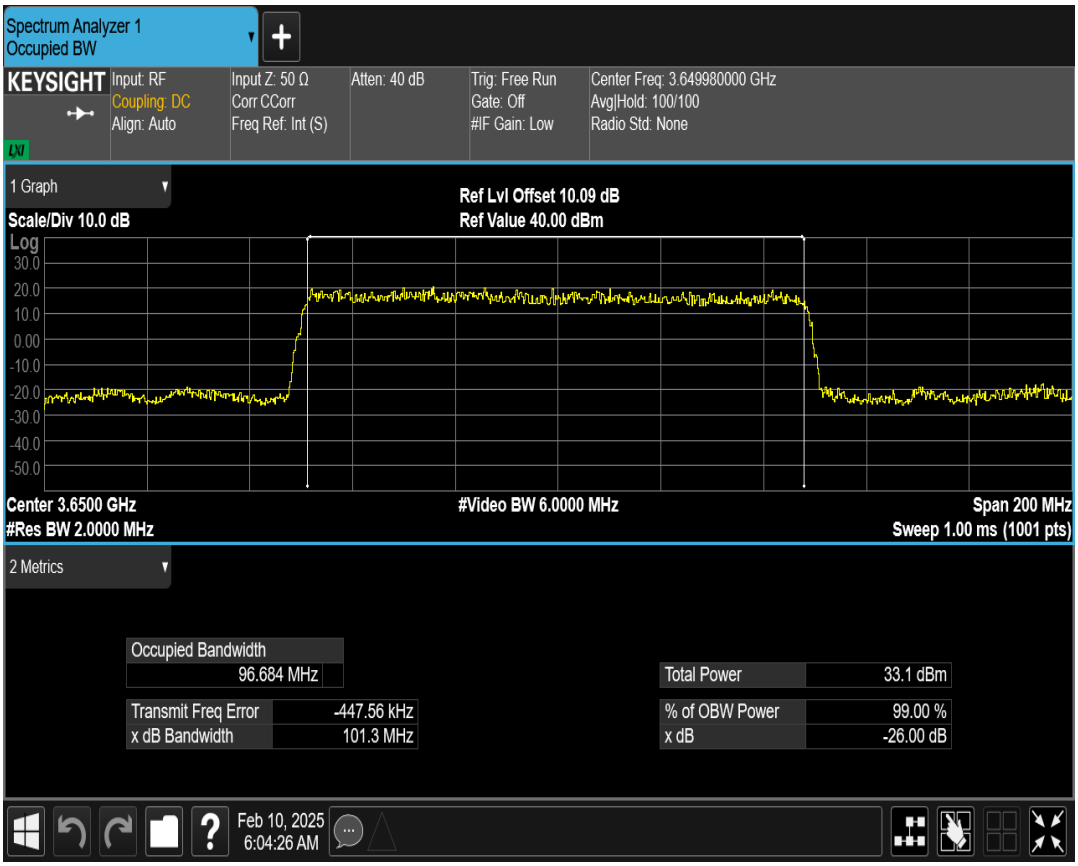
n78(3550-3700) SCS=30kHz DFT_QAM256 BW=100MHz Channel=641666 RB=270@0



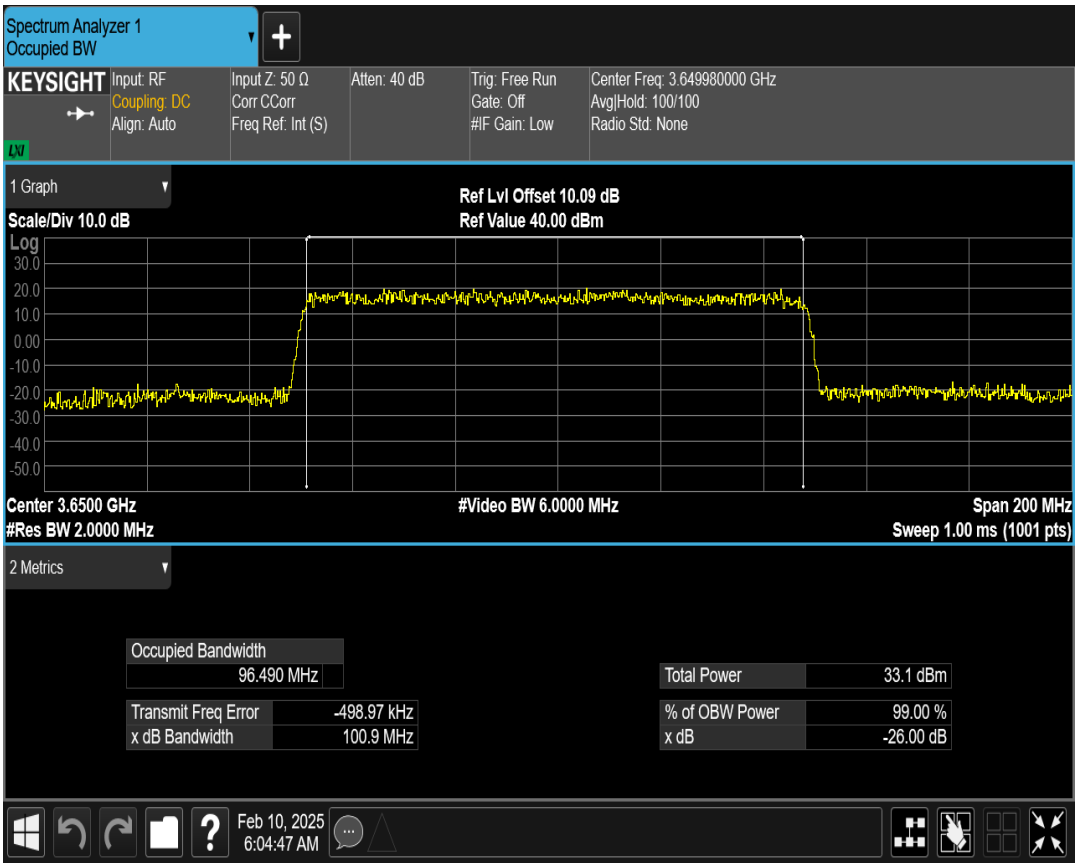
n78(3550-3700) SCS=30kHz CP_QPSK BW=100MHz Channel=641666 RB=273@0



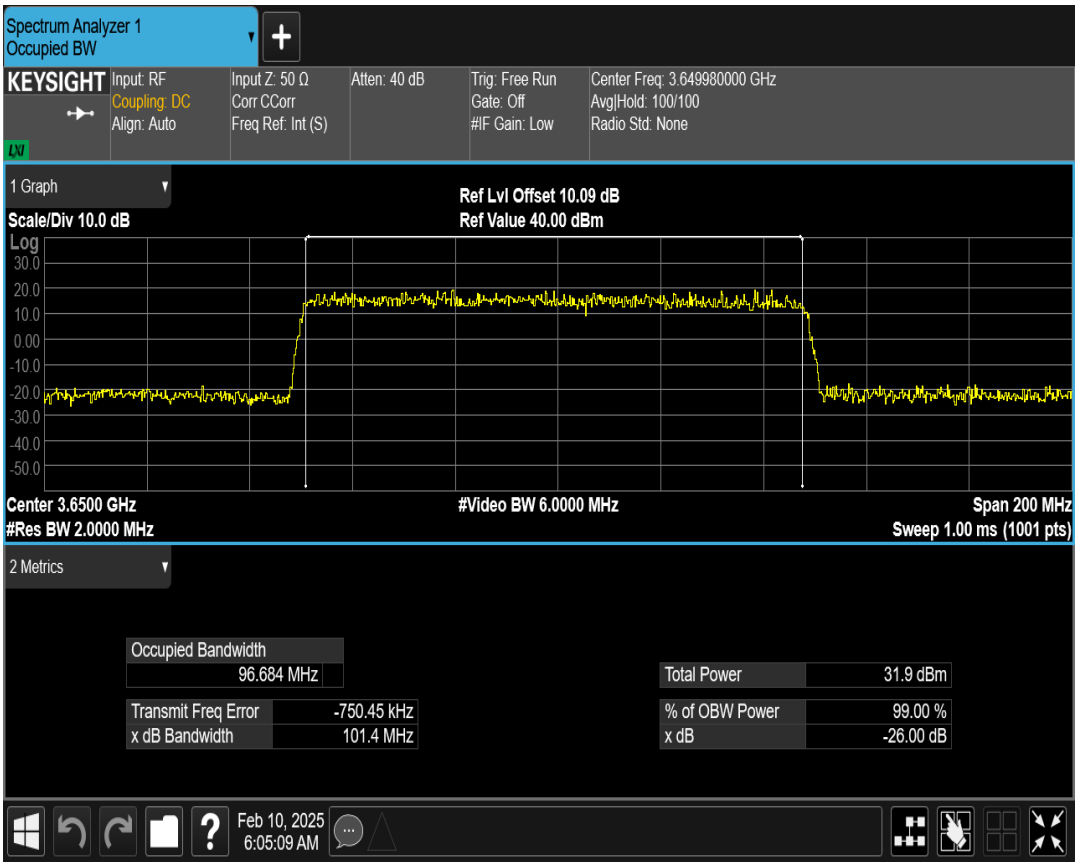
n78(3550-3700) SCS=30kHz DFT_BPSK BW=100MHz Channel=643332 RB=270@0



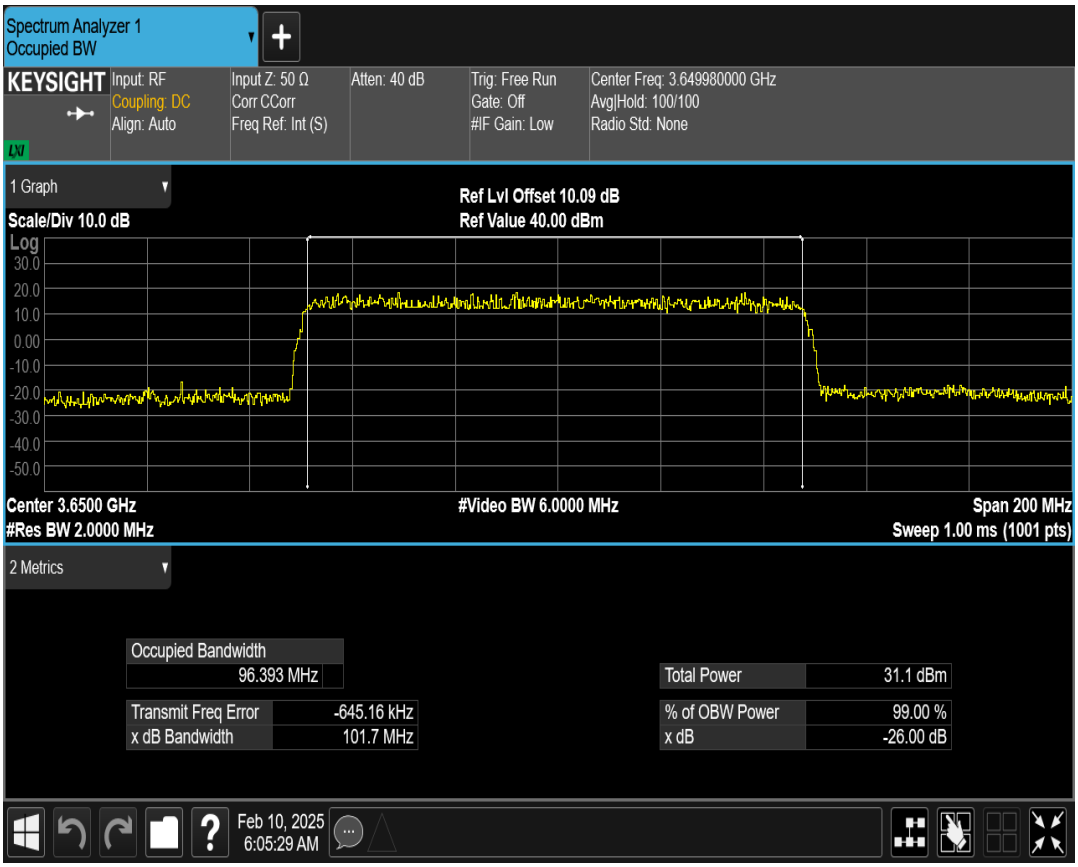
n78(3550-3700) SCS=30kHz DFT_QPSK BW=100MHz Channel=643332 RB=270@0



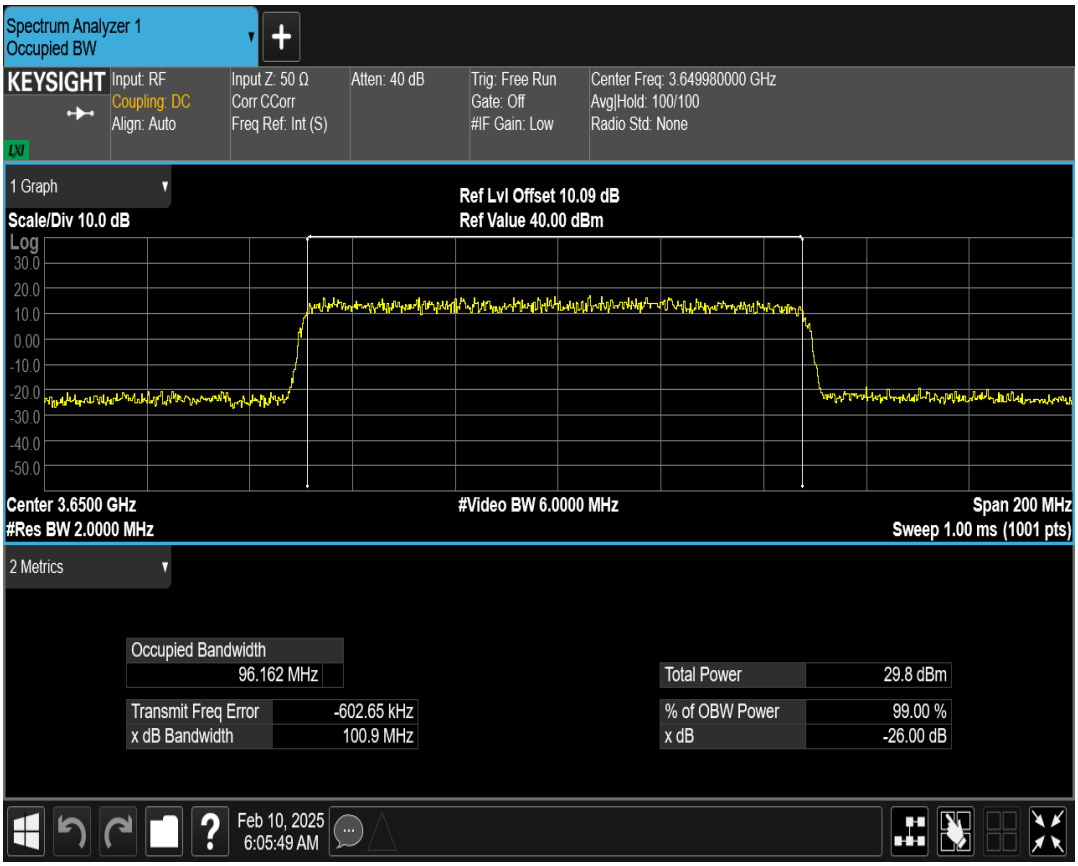
n78(3550-3700) SCS=30kHz DFT_QAM16 BW=100MHz Channel=643332 RB=270@0



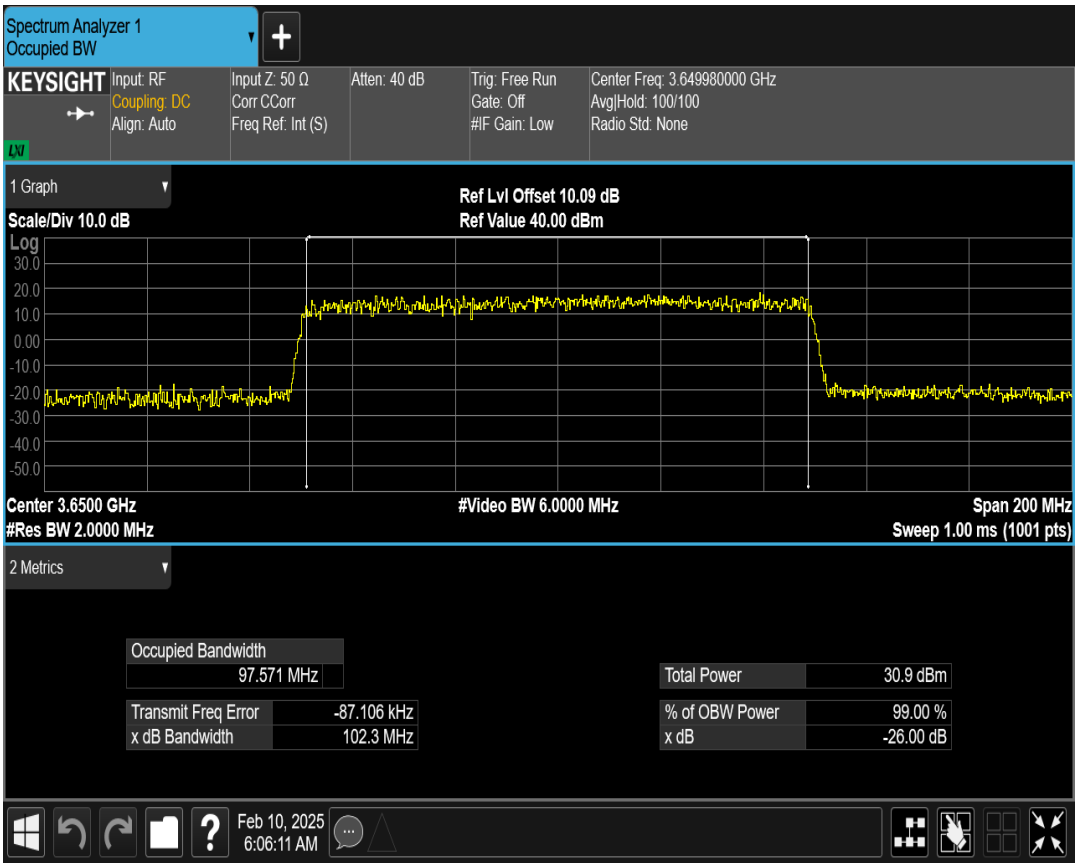
n78(3550-3700) SCS=30kHz DFT_QAM64 BW=100MHz Channel=643332 RB=270@0



n78(3550-3700) SCS=30kHz DFT_QAM256 BW=100MHz Channel=643332 RB=270@0



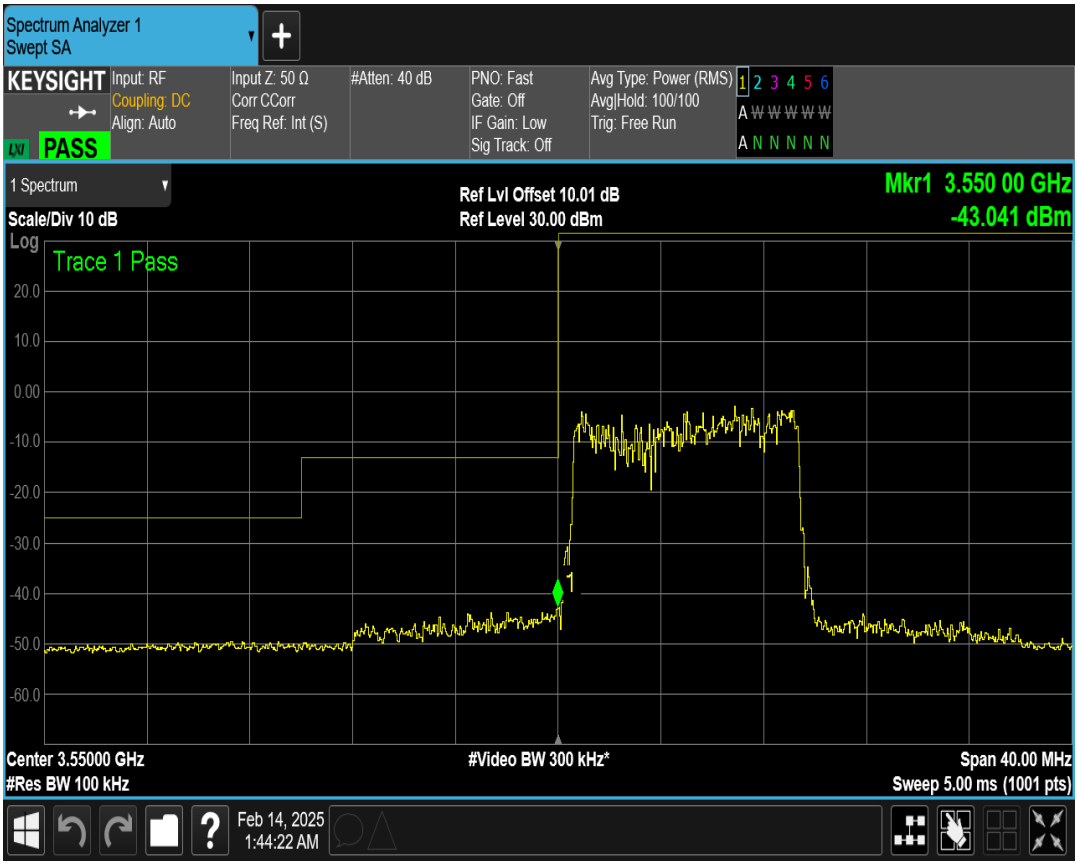
n78(3550-3700) SCS=30kHz CP_QPSK BW=100MHz Channel=643332 RB=273@0


Spectrum Analyzer 1
Occupied BW
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto
Input Z: 50 Ω
Corr CCorr
Freq Ref: Int (S)
Atten: 40 dB
Trig: Free Run
Gate: Off
#IF Gain: Low
Center Freq: 3.649980000 GHz
Avg|Hold: 100/100
Radio Std: None
1 Graph
Scale/Div 10.0 dB
Log
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
Ref Lvl Offset 10.09 dB
Ref Value 40.00 dBm
Center 3.6500 GHz
#Res BW 2.0000 MHz
#Video BW 6.0000 MHz
Span 200 MHz
Sweep 1.00 ms (1001 pts)
2 Metrics
Occupied Bandwidth
97.571 MHz
Total Power
30.9 dBm
Transmit Freq Error
-87.106 kHz
x dB Bandwidth
102.3 MHz
% of OBW Power
99.00 %
x dB
-26.00 dB
Feb 10, 2025
6:06:11 AM

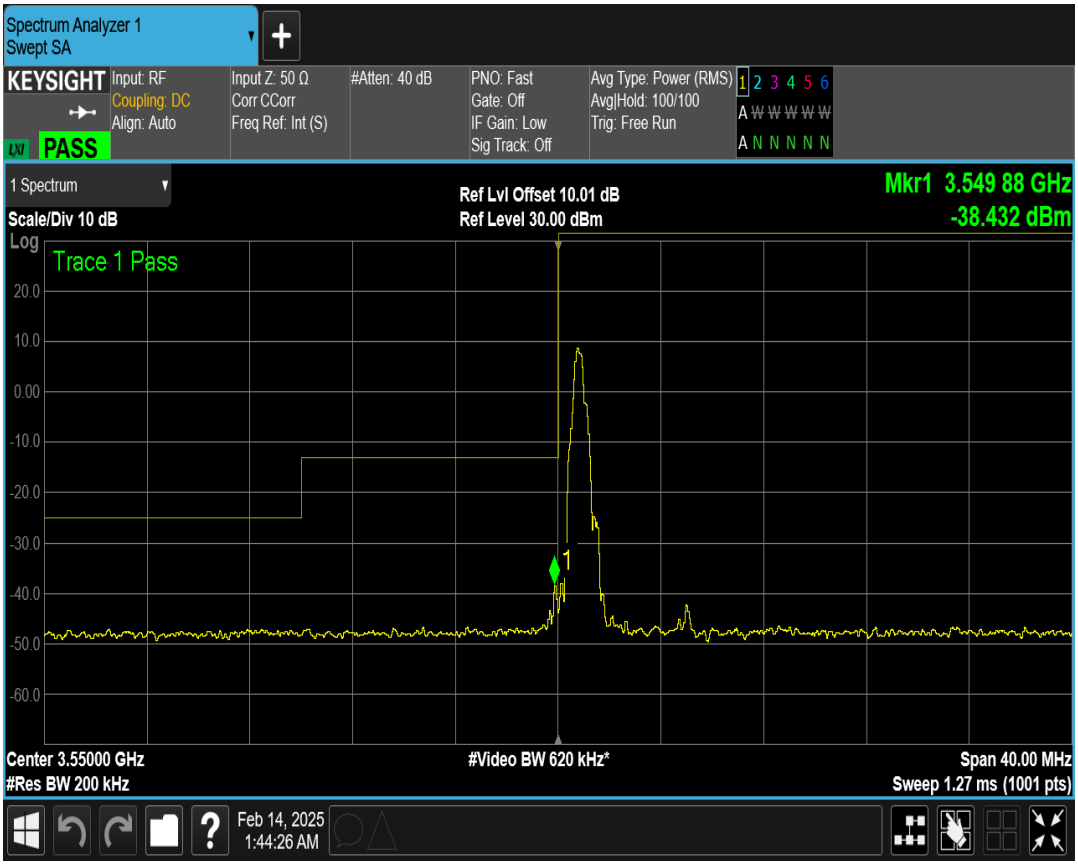
5 Band edge for NR FR1

Band	SCS (kHz)	Bandwidth (MHz)	UL Channel	RB Allocation	Modulation	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)	Verdict
n78(3550-3700)	30	10	637000	24@0	DFT_QPSK	3550.00	-43.04	-13	PASS
n78(3550-3700)	30	10	637000	1@0	DFT_QPSK	3549.88	-38.43	-13	PASS
n78(3550-3700)	30	10	646332	24@0	DFT_QPSK	3701.08	-43.21	-13	PASS
n78(3550-3700)	30	10	646332	1@23	DFT_QPSK	3700.00	-32.04	-13	PASS
n78(3550-3700)	30	100	640000	270@0	DFT_QPSK	3550.00	-22.51	-13	PASS
n78(3550-3700)	30	100	640000	1@0	DFT_QPSK	3550.00	-32.68	-13	PASS
n78(3550-3700)	30	100	643332	270@0	DFT_QPSK	3722.80	-34.84	-13	PASS
n78(3550-3700)	30	100	643332	1@272	DFT_QPSK	3700.00	-41.87	-13	PASS

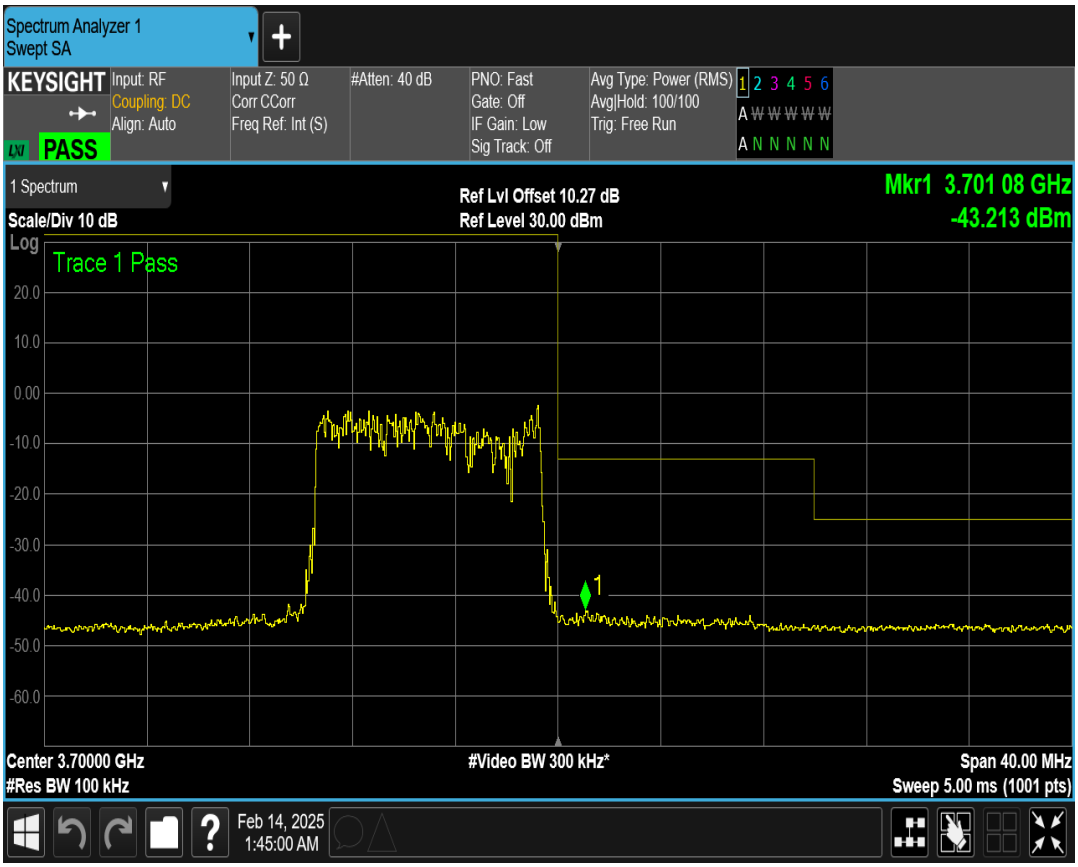
n78(3550-3700) SCS=30kHz DFT_QPSK BW=10MHz Channel=637000 RB=24@0



n78(3550-3700) SCS=30kHz DFT_QPSK BW=10MHz Channel=637000 RB=1@0

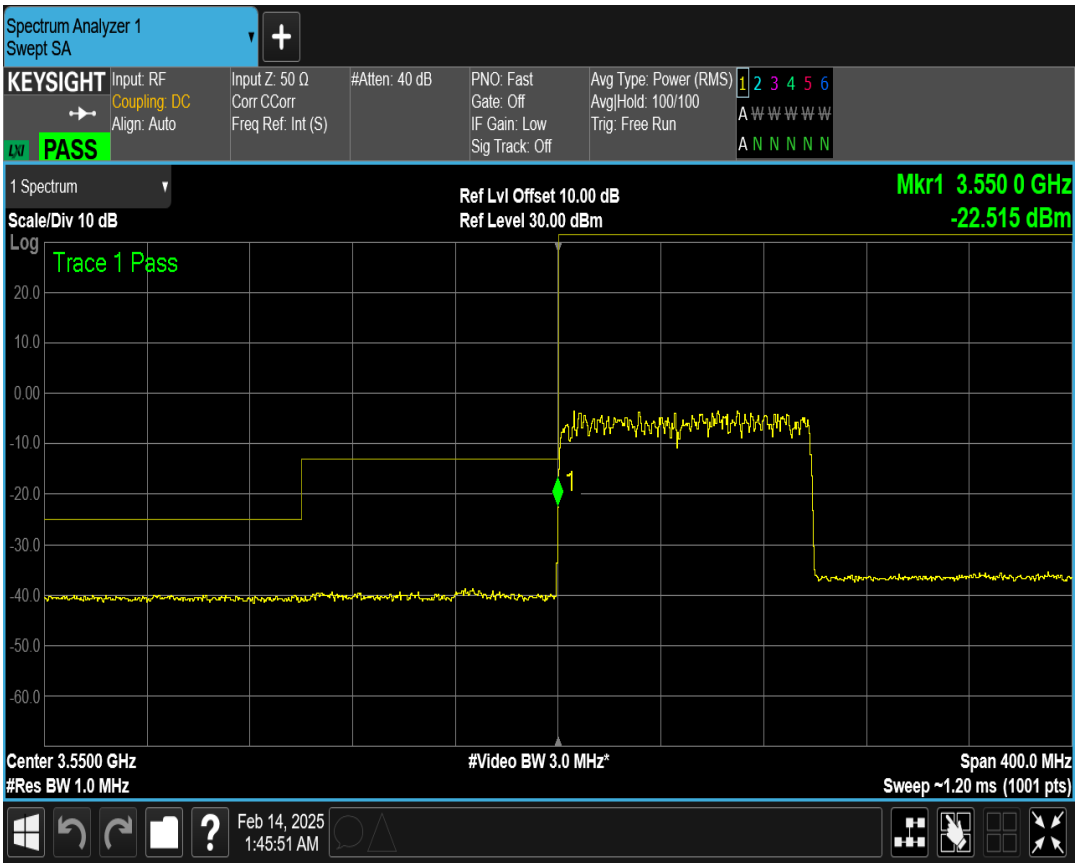


n78(3550-3700) SCS=30kHz DFT_QPSK BW=10MHz Channel=646332 RB=24@0



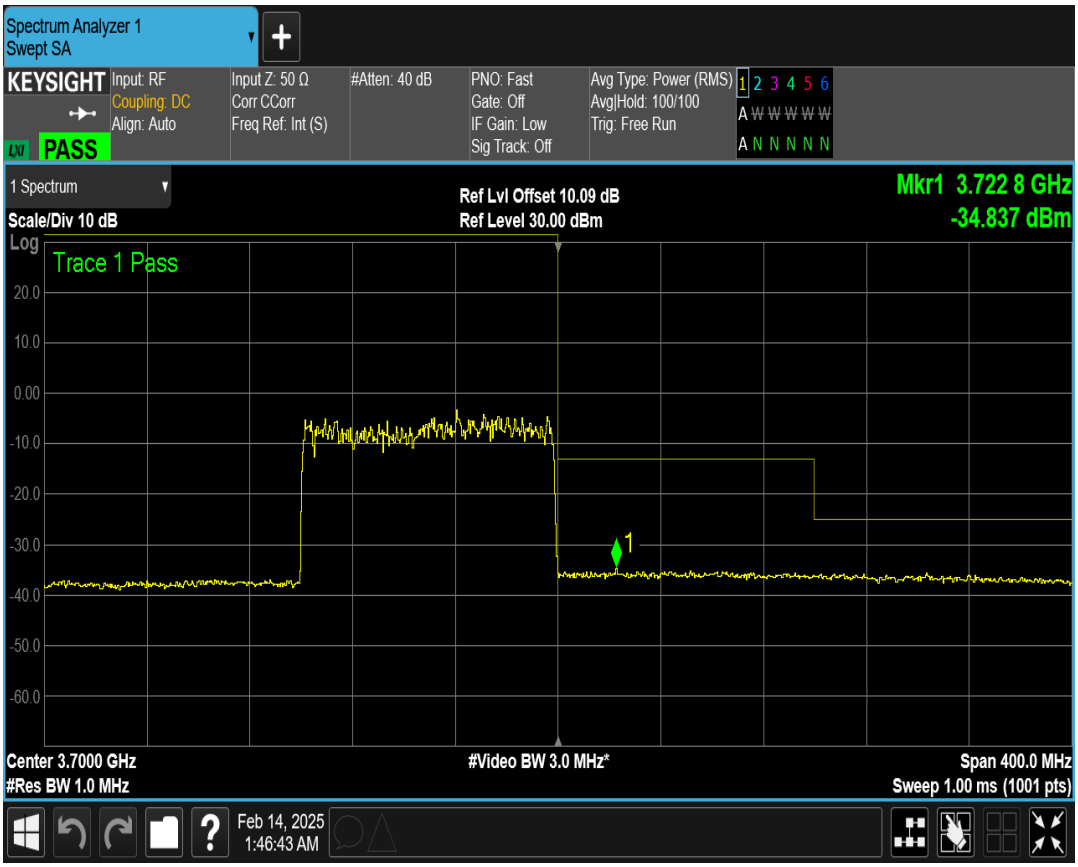
n78(3550-3700) SCS=30kHz DFT_QPSK BW=10MHz Channel=646332 RB=1@23

n78(3550-3700) SCS=30kHz DFT_QPSK BW=100MHz Channel=640000 RB=270@0



n78(3550-3700) SCS=30kHz DFT_QPSK BW=100MHz Channel=640000 RB=1@0

n78(3550-3700) SCS=30kHz DFT_QPSK BW=100MHz Channel=643332 RB=270@0

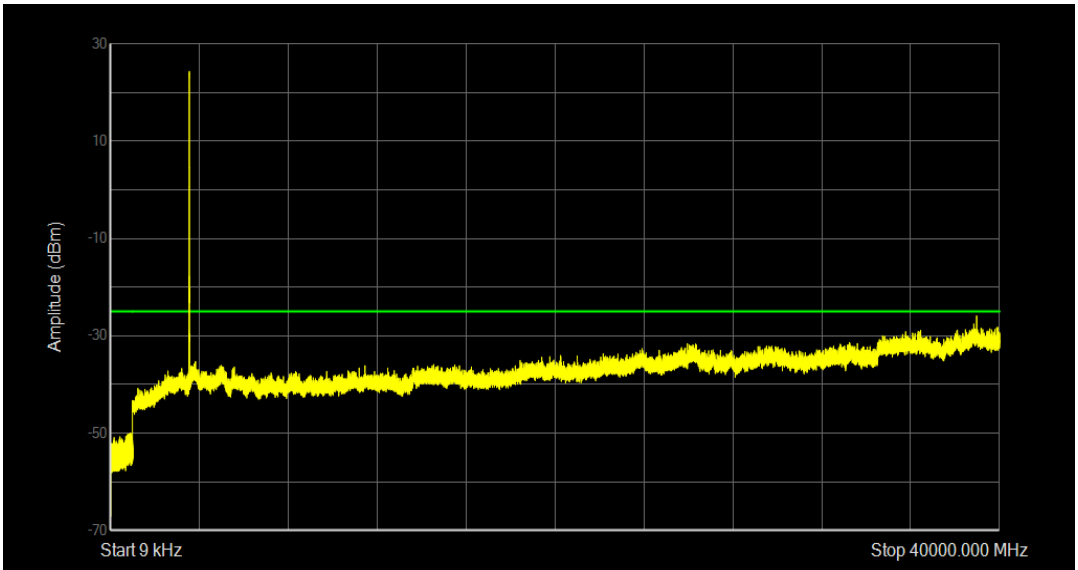


n78(3550-3700) SCS=30kHz DFT_QPSK BW=100MHz Channel=643332 RB=1@272

6 Out-of-band emissions for NR FR1

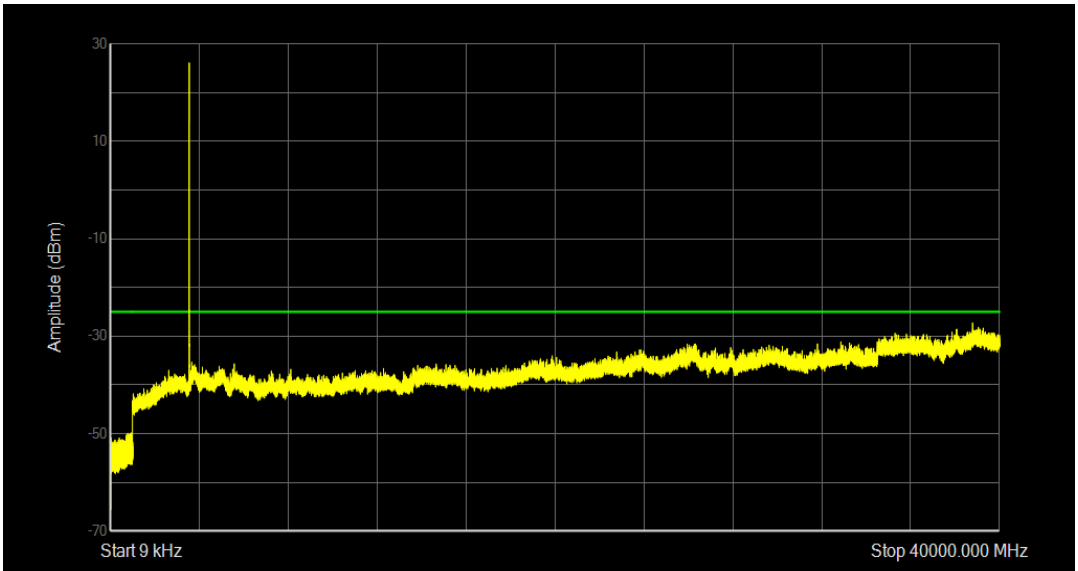
Band	SCS (kHz)	Bandwidth (MHz)	UL Channel	RB Allocation	Modulation	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)	Verdict
n78(3550-3700)	30	10	637000	24@0	DFT_QPSK	38969.10	-25.90	-25	PASS
n78(3550-3700)	30	10	637000	1@0	DFT_QPSK	38785.80	-27.28	-25	PASS
n78(3550-3700)	30	10	637000	1@23	DFT_QPSK	38911.90	-28.23	-25	PASS
n78(3550-3700)	30	10	641666	24@0	DFT_QPSK	38156.60	-27.75	-25	PASS
n78(3550-3700)	30	10	641666	1@0	DFT_QPSK	38969.10	-27.83	-25	PASS
n78(3550-3700)	30	10	641666	1@23	DFT_QPSK	38833.90	-28.09	-25	PASS
n78(3550-3700)	30	10	646332	24@0	DFT_QPSK	38146.20	-28.14	-25	PASS
n78(3550-3700)	30	10	646332	1@0	DFT_QPSK	38902.80	-26.66	-25	PASS
n78(3550-3700)	30	10	646332	1@23	DFT_QPSK	39413.70	-27.48	-25	PASS
n78(3550-3700)	30	100	640000	270@0	DFT_QPSK	38869.00	-28.19	-25	PASS
n78(3550-3700)	30	100	640000	1@0	DFT_QPSK	38762.40	-27.55	-25	PASS
n78(3550-3700)	30	100	640000	1@272	DFT_QPSK	39074.40	-27.70	-25	PASS
n78(3550-3700)	30	100	641666	270@0	DFT_QPSK	38758.50	-27.56	-25	PASS
n78(3550-3700)	30	100	641666	1@0	DFT_QPSK	38858.60	-27.13	-25	PASS
n78(3550-3700)	30	100	641666	1@272	DFT_QPSK	39415.00	-27.81	-25	PASS
n78(3550-3700)	30	100	643332	270@0	DFT_QPSK	38940.50	-28.01	-25	PASS
n78(3550-3700)	30	100	643332	1@0	DFT_QPSK	38902.80	-27.34	-25	PASS
n78(3550-3700)	30	100	643332	1@272	DFT_QPSK	38858.60	-27.88	-25	PASS

n78(3550-3700) SCS=30kHz DFT_QPSK BW=10MHz Channel=637000 RB=24@0



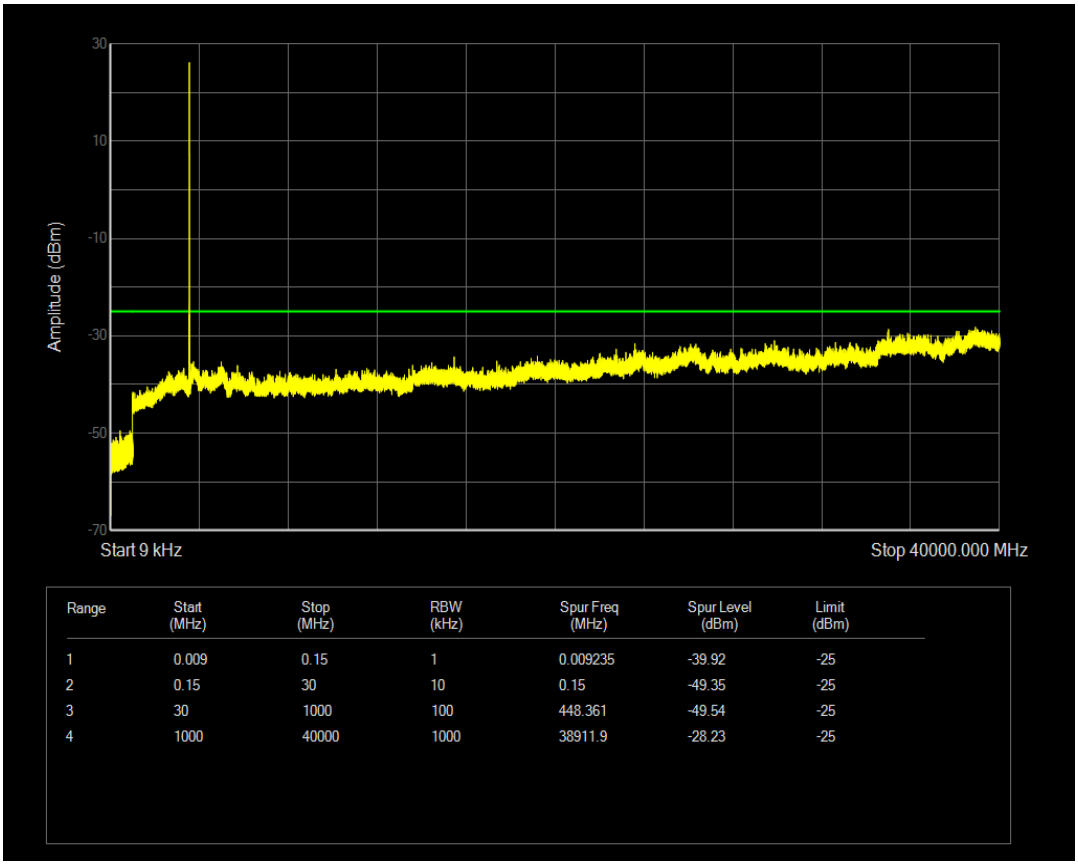
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.009	-39.44	-25
2	0.15	30	10	0.15	-51	-25
3	30	1000	100	915.028	-49.95	-25
4	1000	40000	1000	38969.1	-25.9	-25

n78(3550-3700) SCS=30kHz DFT_QPSK BW=10MHz Channel=637000 RB=1@0



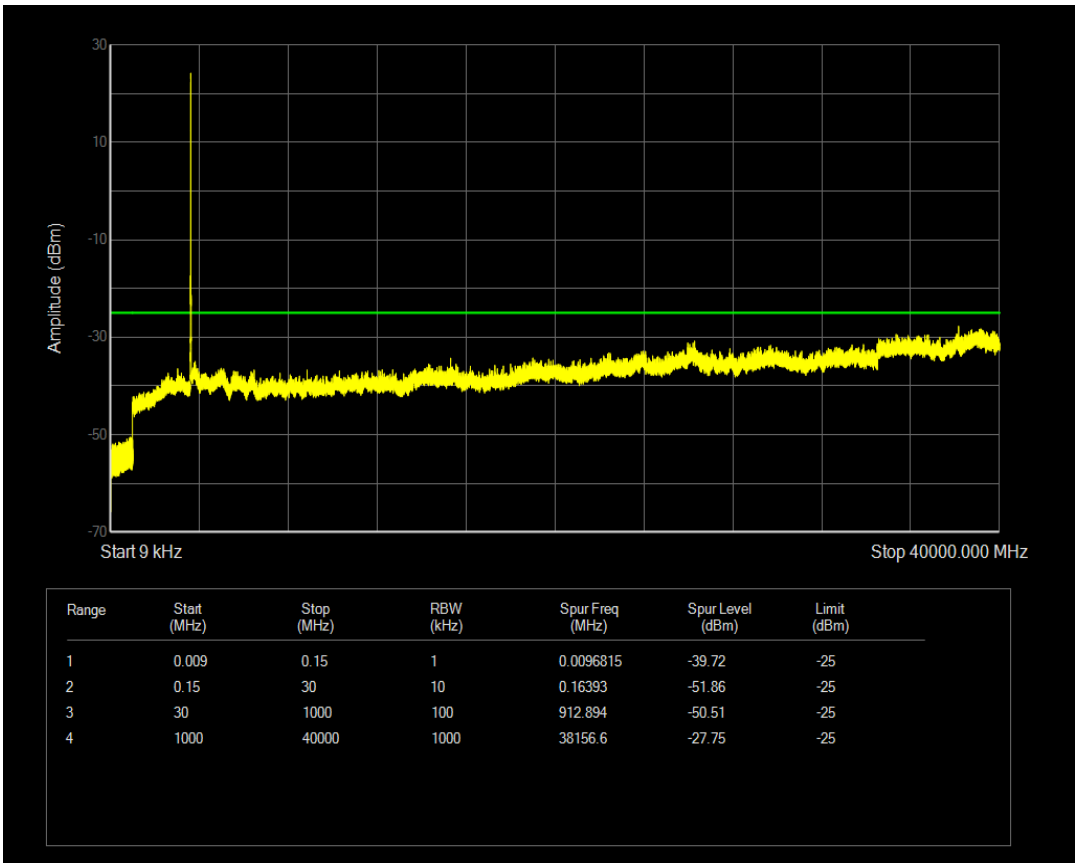
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.0091363	-40.14	-25
2	0.15	30	10	0.168905	-50.61	-25
3	30	1000	100	950.6593333	-49.84	-25
4	1000	40000	1000	38785.8	-27.28	-25

n78(3550-3700) SCS=30kHz DFT_QPSK BW=10MHz Channel=637000 RB=1@23



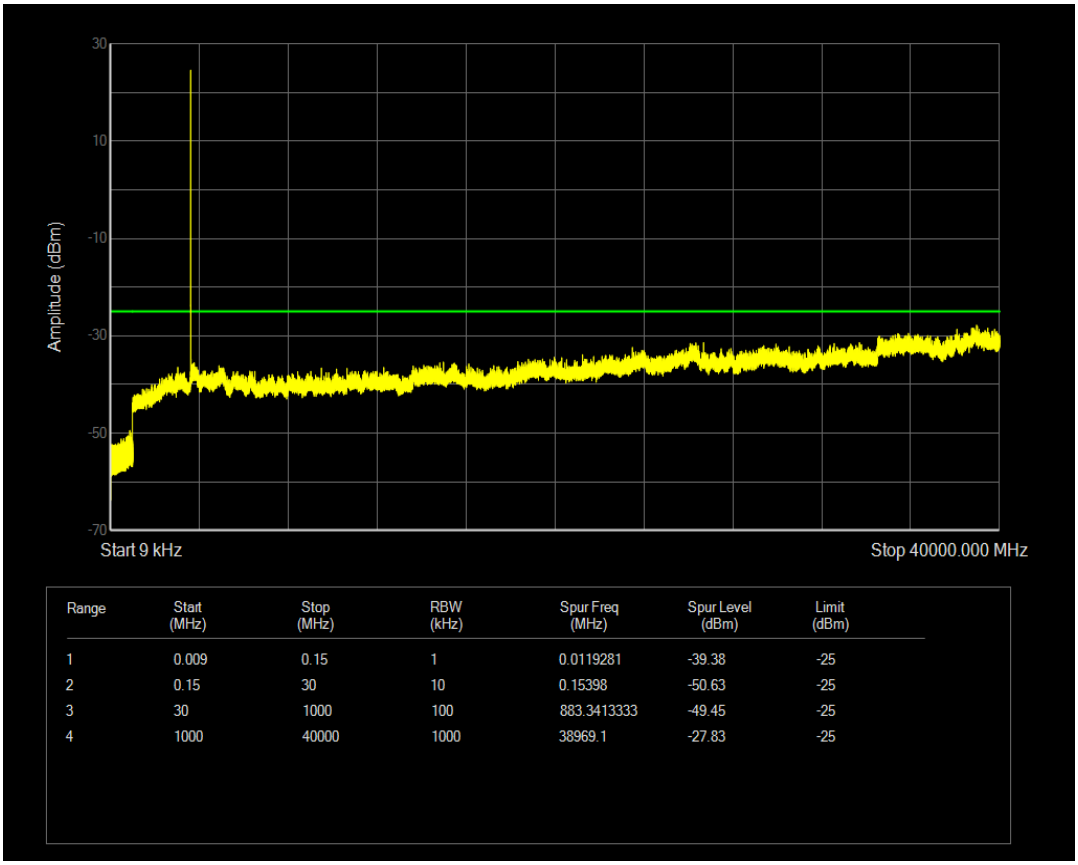
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.009235	-39.92	-25
2	0.15	30	10	0.15	-49.35	-25
3	30	1000	100	448.361	-49.54	-25
4	1000	40000	1000	38911.9	-28.23	-25

n78(3550-3700) SCS=30kHz DFT_QPSK BW=10MHz Channel=641666 RB=24@0



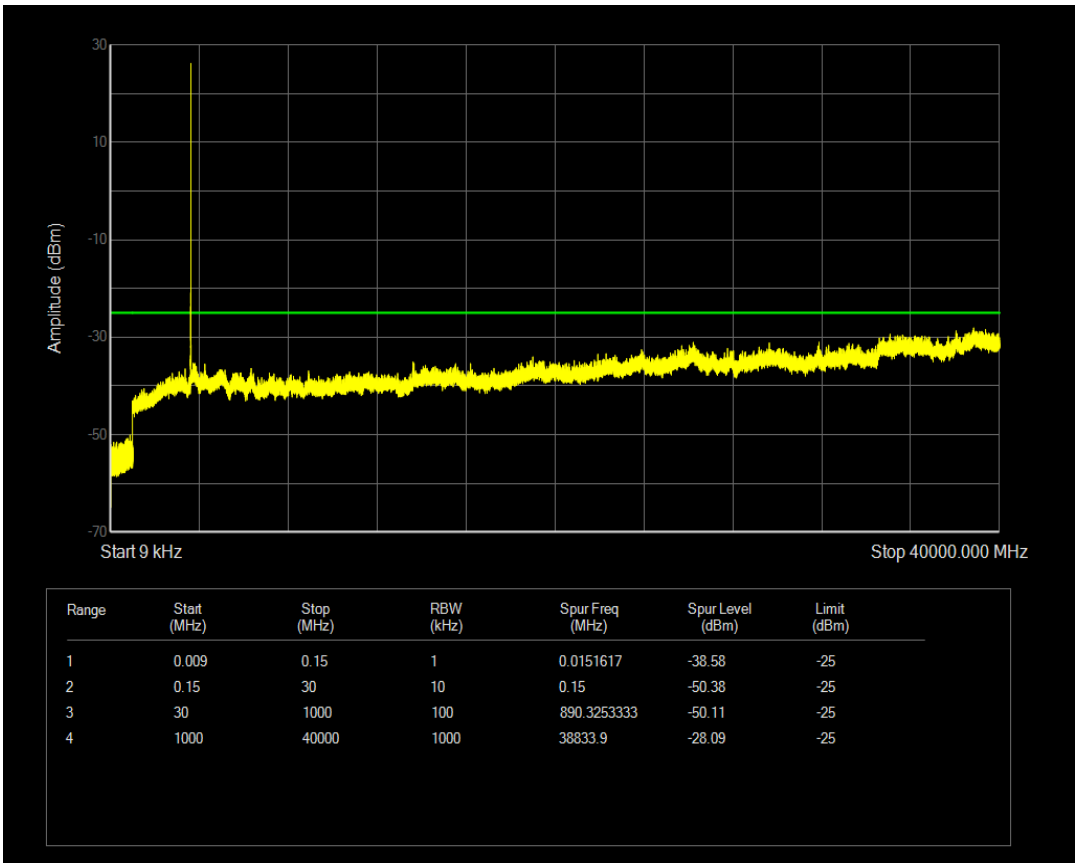
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.0096815	-39.72	-25
2	0.15	30	10	0.16393	-51.86	-25
3	30	1000	100	912.894	-50.51	-25
4	1000	40000	1000	38156.6	-27.75	-25

n78(3550-3700) SCS=30kHz DFT_QPSK BW=10MHz Channel=641666 RB=1@0



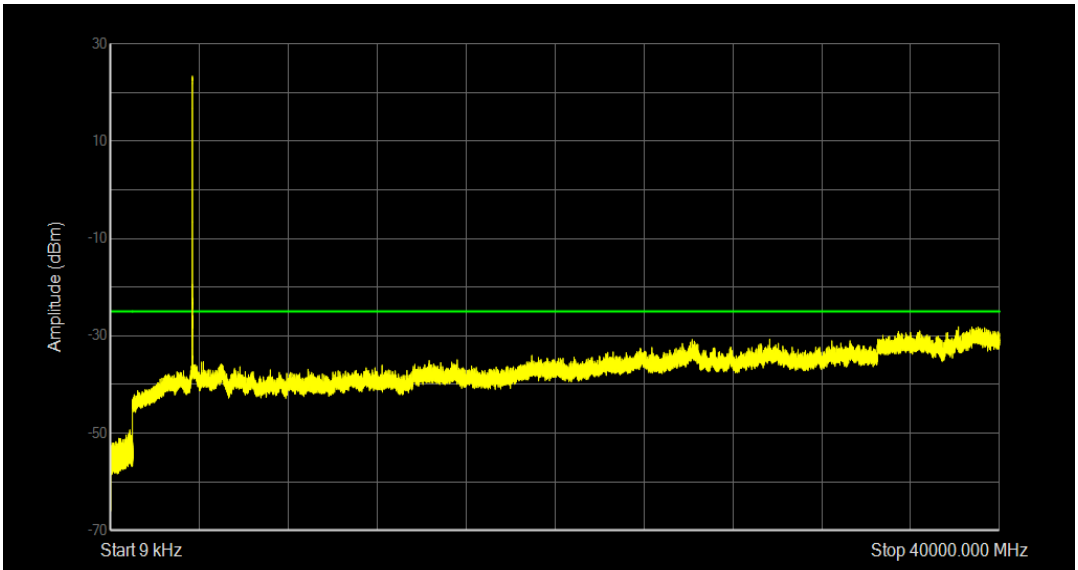
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.0119281	-39.38	-25
2	0.15	30	10	0.15398	-50.63	-25
3	30	1000	100	883.3413333	-49.45	-25
4	1000	40000	1000	38969.1	-27.83	-25

n78(3550-3700) SCS=30kHz DFT_QPSK BW=10MHz Channel=641666 RB=1@23



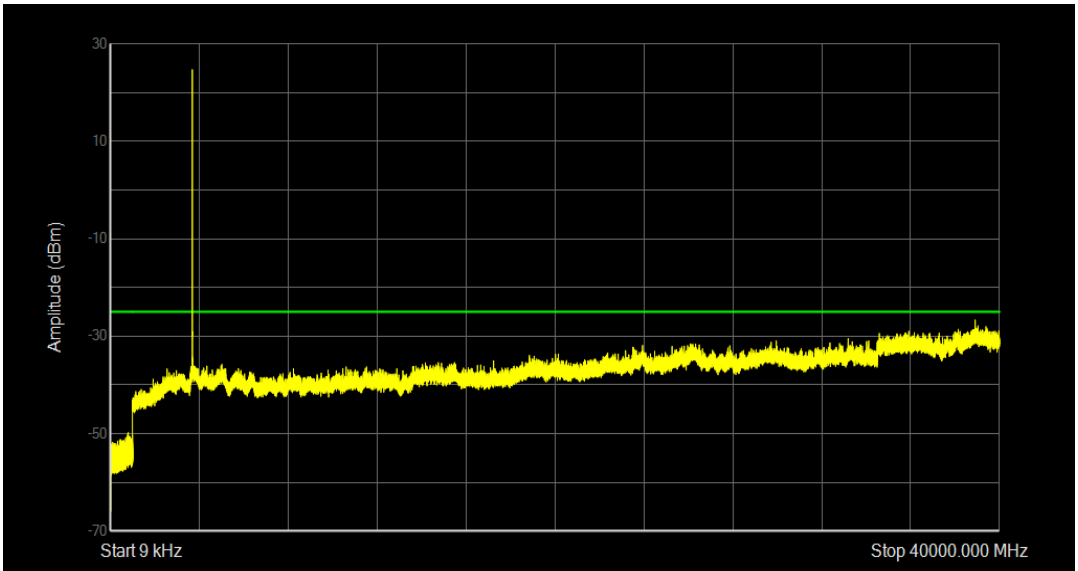
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.0151617	-38.58	-25
2	0.15	30	10	0.15	-50.38	-25
3	30	1000	100	890.3253333	-50.11	-25
4	1000	40000	1000	38833.9	-28.09	-25

n78(3550-3700) SCS=30kHz DFT_QPSK BW=10MHz Channel=646332 RB=24@0



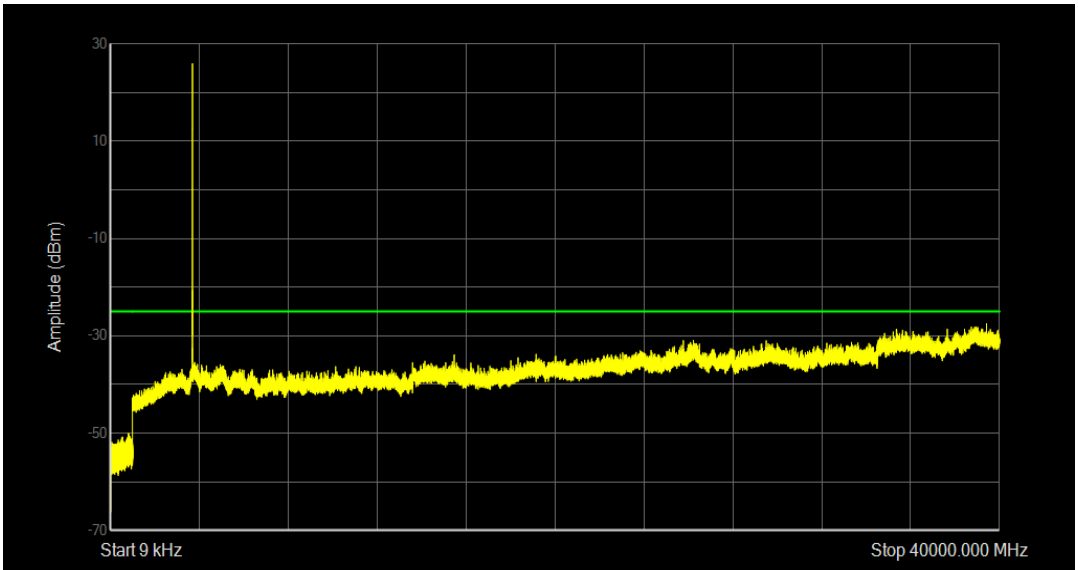
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.0091269	-39.35	-25
2	0.15	30	10	0.164925	-50.97	-25
3	30	1000	100	883.7293333	-49.34	-25
4	1000	40000	1000	38146.2	-28.14	-25

n78(3550-3700) SCS=30kHz DFT_QPSK BW=10MHz Channel=646332 RB=1@0



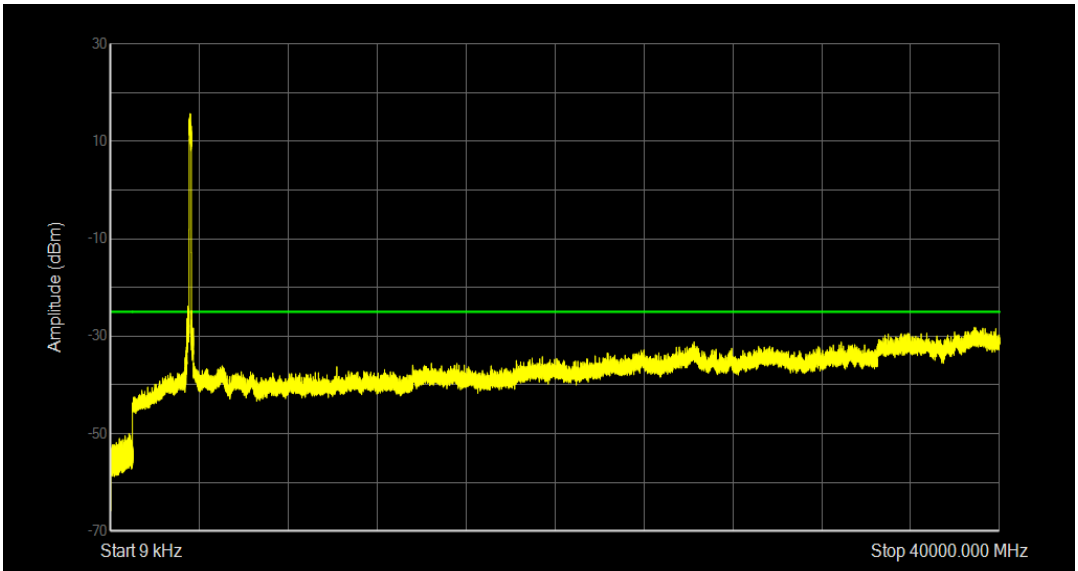
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.0096862	-40.26	-25
2	0.15	30	10	0.164925	-50.47	-25
3	30	1000	100	810.7206667	-49.78	-25
4	1000	40000	1000	38902.8	-26.66	-25

n78(3550-3700) SCS=30kHz DFT_QPSK BW=10MHz Channel=646332 RB=1@23



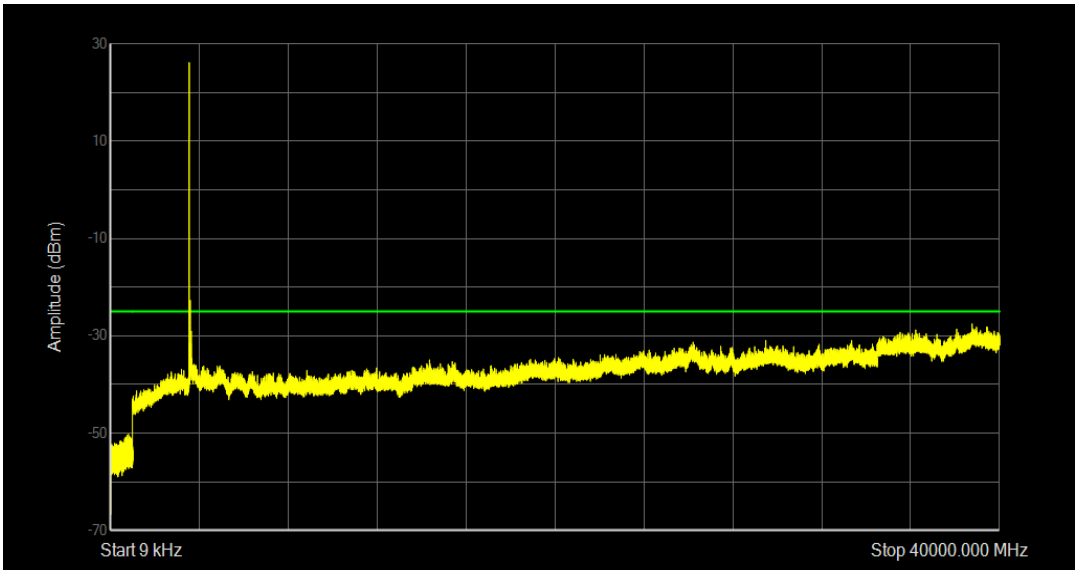
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.0123135	-39.87	-25
2	0.15	30	10	0.15199	-50.63	-25
3	30	1000	100	823.2336667	-50.05	-25
4	1000	40000	1000	39413.7	-27.48	-25

n78(3550-3700) SCS=30kHz DFT_QPSK BW=100MHz Channel=640000 RB=270@0



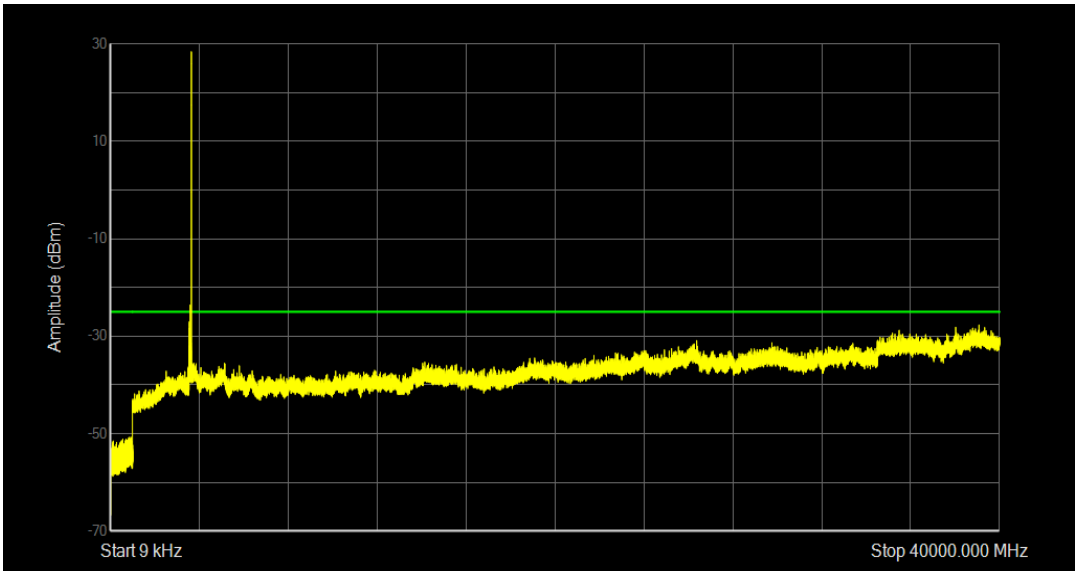
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.0092256	-38.62	-25
2	0.15	30	10	0.15	-50.87	-25
3	30	1000	100	847.9363333	-50	-25
4	1000	40000	1000	38869	-28.19	-25

n78(3550-3700) SCS=30kHz DFT_QPSK BW=100MHz Channel=640000 RB=1@0



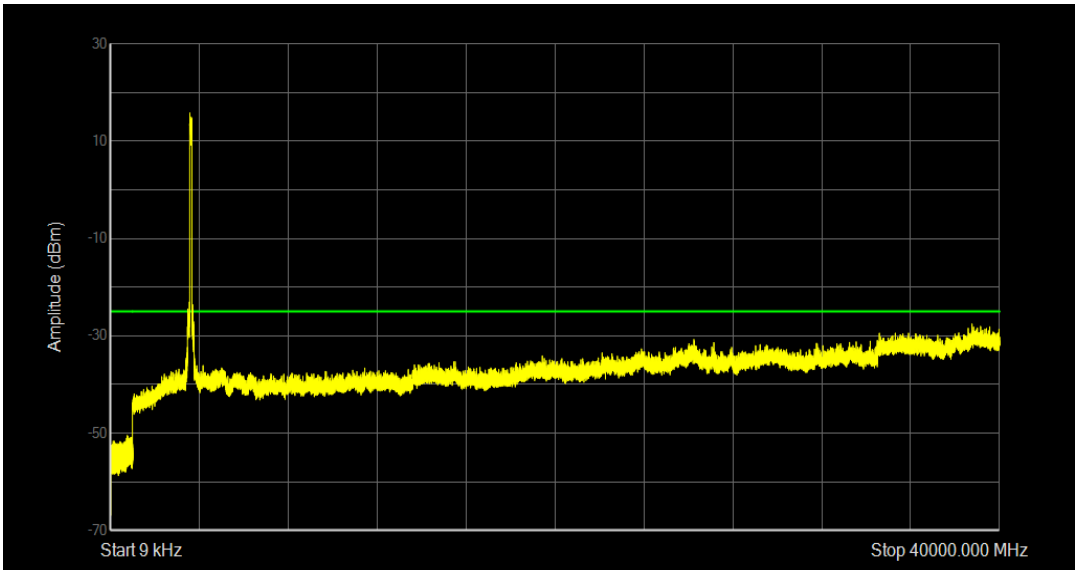
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.0119986	-39.43	-25
2	0.15	30	10	0.15	-50.21	-25
3	30	1000	100	823.7186667	-50.27	-25
4	1000	40000	1000	38762.4	-27.55	-25

n78(3550-3700) SCS=30kHz DFT_QPSK BW=100MHz Channel=640000 RB=1@272



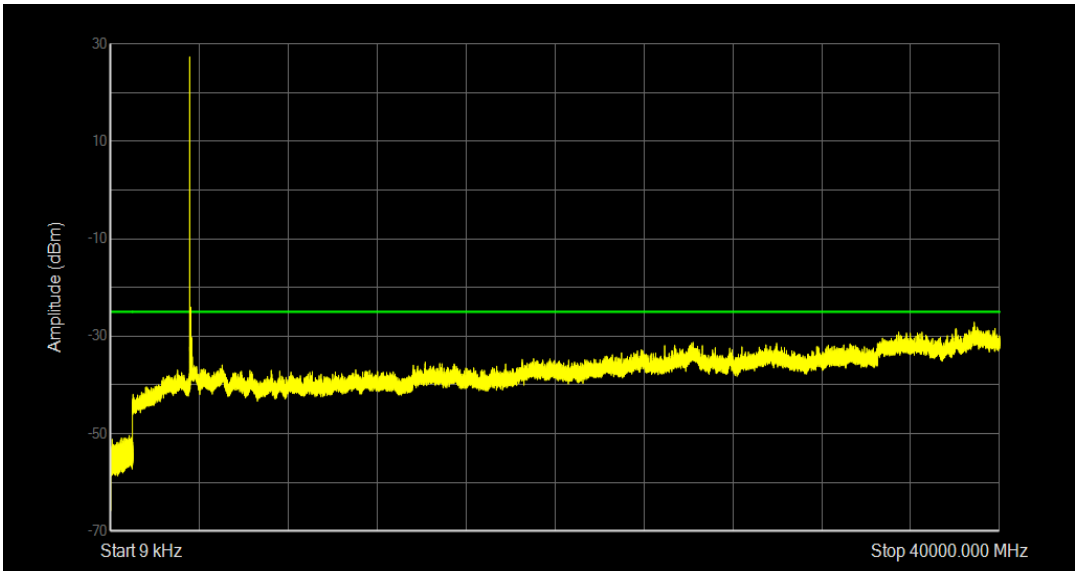
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.0149643	-39.97	-25
2	0.15	30	10	0.162935	-50.86	-25
3	30	1000	100	870.893	-50.74	-25
4	1000	40000	1000	39074.4	-27.7	-25

n78(3550-3700) SCS=30kHz DFT_QPSK BW=100MHz Channel=641666 RB=270@0



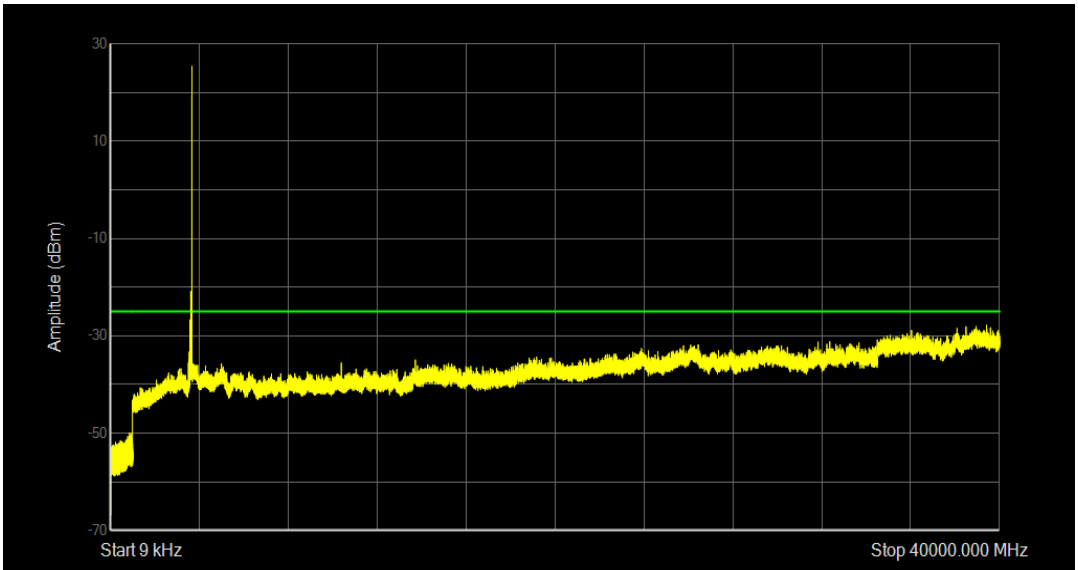
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.013042	-39.19	-25
2	0.15	30	10	0.15	-50.93	-25
3	30	1000	100	767.8466667	-50.48	-25
4	1000	40000	1000	38758.5	-27.56	-25

n78(3550-3700) SCS=30kHz DFT_QPSK BW=100MHz Channel=641666 RB=1@0



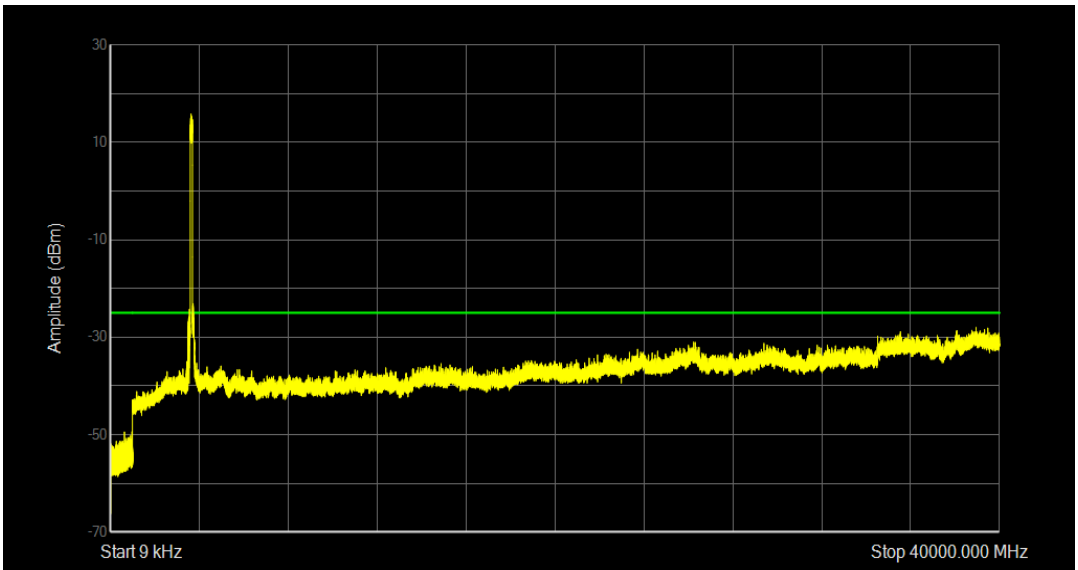
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.0122994	-39.28	-25
2	0.15	30	10	0.15199	-50.67	-25
3	30	1000	100	858.1536667	-50.39	-25
4	1000	40000	1000	38858.6	-27.13	-25

n78(3550-3700) SCS=30kHz DFT_QPSK BW=100MHz Channel=641666 RB=1@272



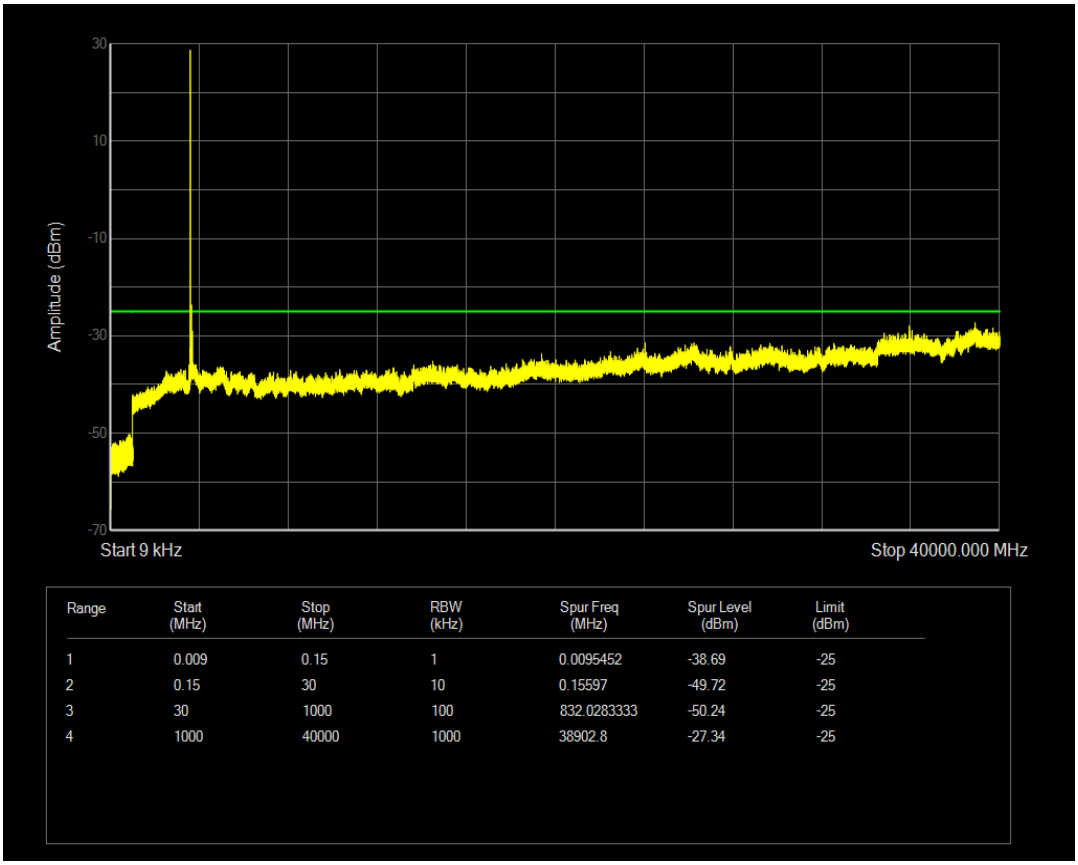
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.0117777	-38.68	-25
2	0.15	30	10	0.164925	-50.75	-25
3	30	1000	100	870.117	-49.94	-25
4	1000	40000	1000	39415	-27.81	-25

n78(3550-3700) SCS=30kHz DFT_QPSK BW=100MHz Channel=643332 RB=270@0



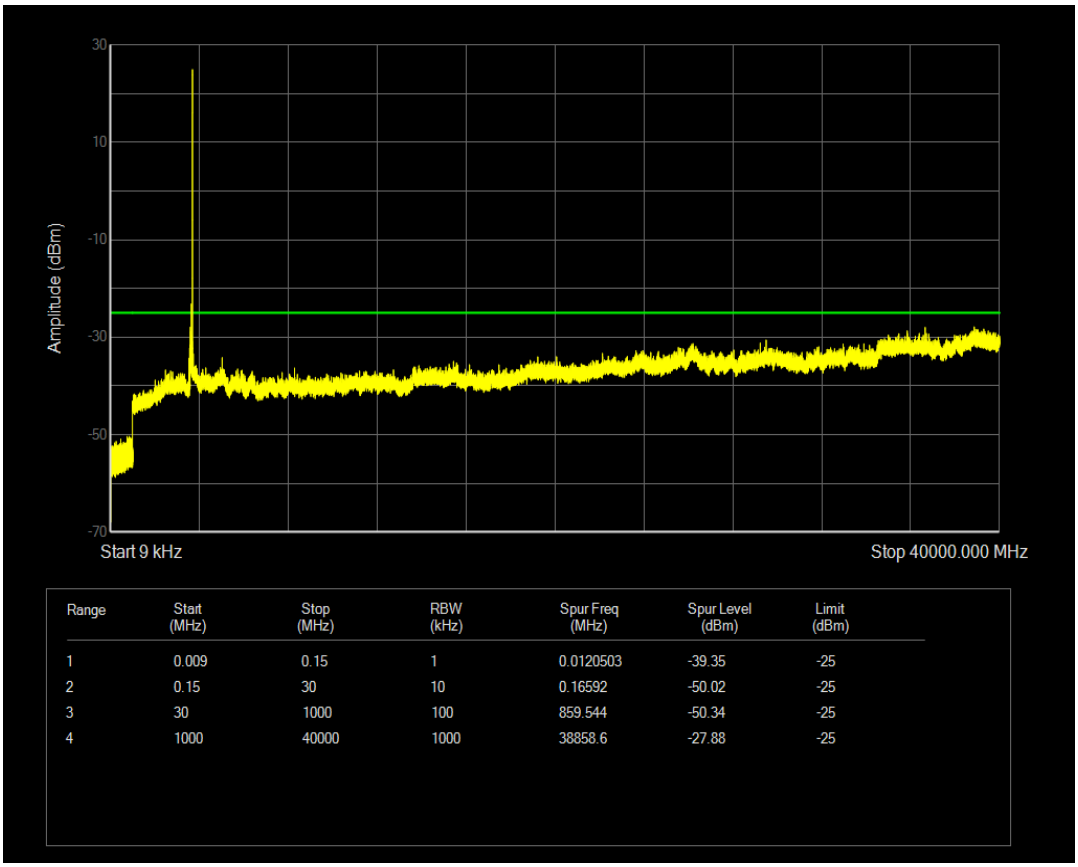
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.009	-40.44	-25
2	0.15	30	10	0.15	-51.16	-25
3	30	1000	100	983.51	-49.36	-25
4	1000	40000	1000	38940.5	-28.01	-25

n78(3550-3700) SCS=30kHz DFT_QPSK BW=100MHz Channel=643332 RB=1@0



Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.0095452	-38.69	-25
2	0.15	30	10	0.15597	-49.72	-25
3	30	1000	100	832.0283333	-50.24	-25
4	1000	40000	1000	38902.8	-27.34	-25

n78(3550-3700) SCS=30kHz DFT_QPSK BW=100MHz Channel=643332 RB=1@272



Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.0120503	-39.35	-25
2	0.15	30	10	0.16592	-50.02	-25
3	30	1000	100	859.544	-50.34	-25
4	1000	40000	1000	38858.6	-27.88	-25