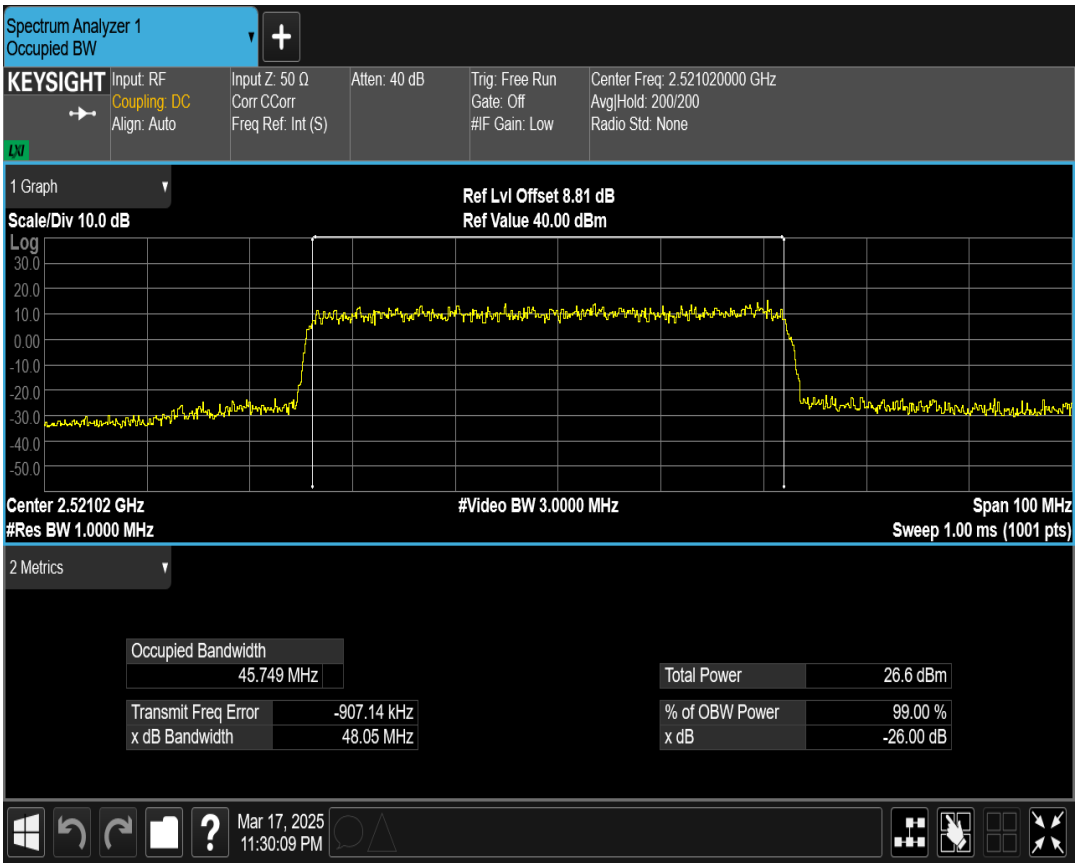
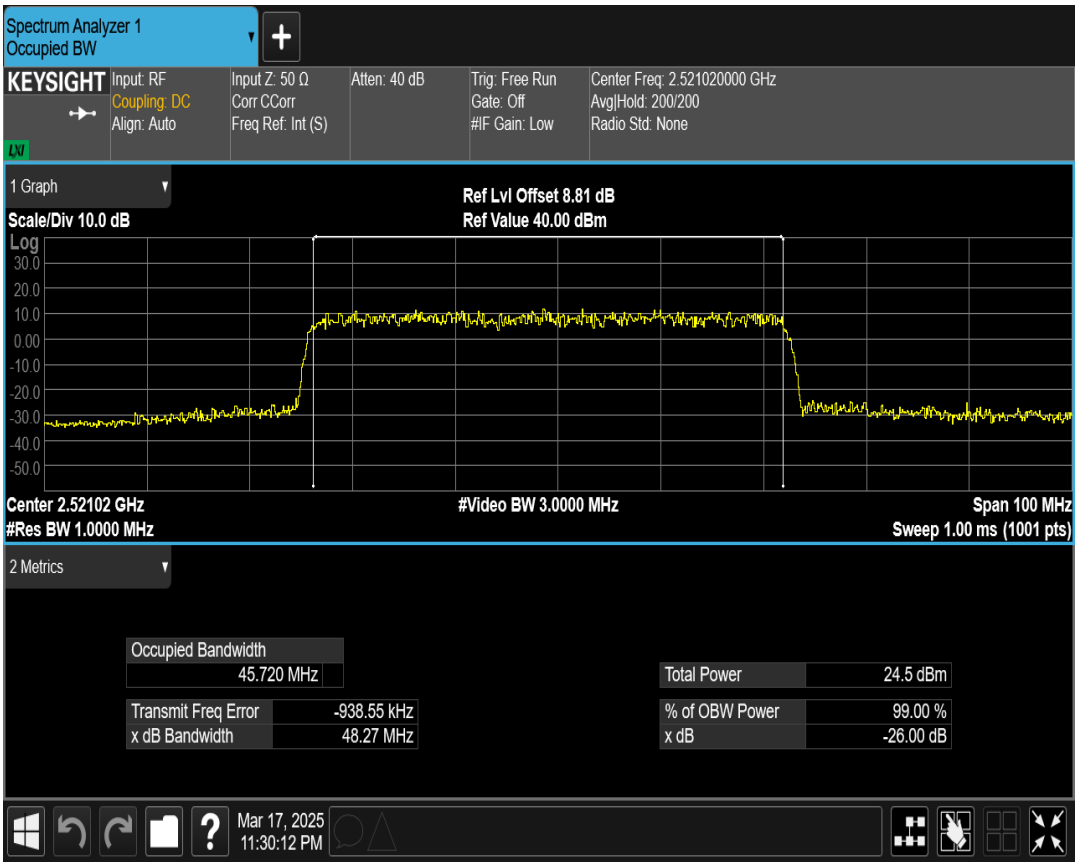


n41 SCS=30kHz DFT_QAM256 BW=50MHz Channel=504204 RB=128@0



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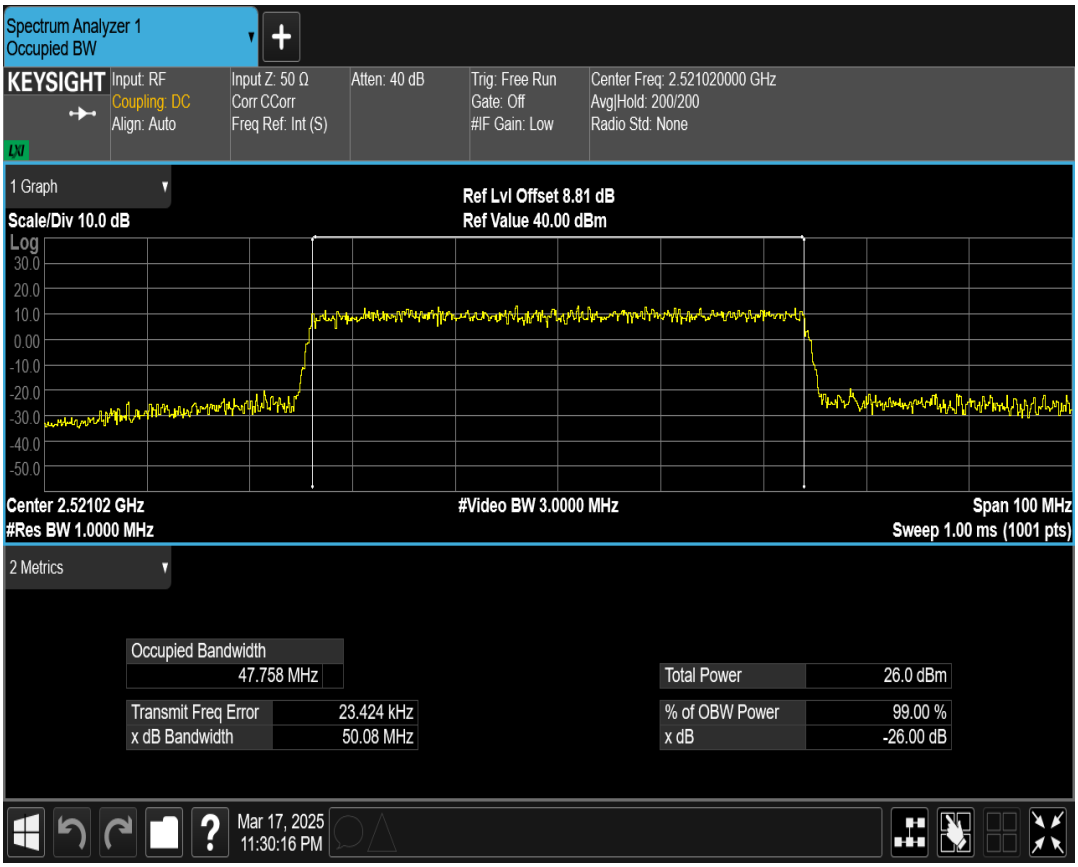

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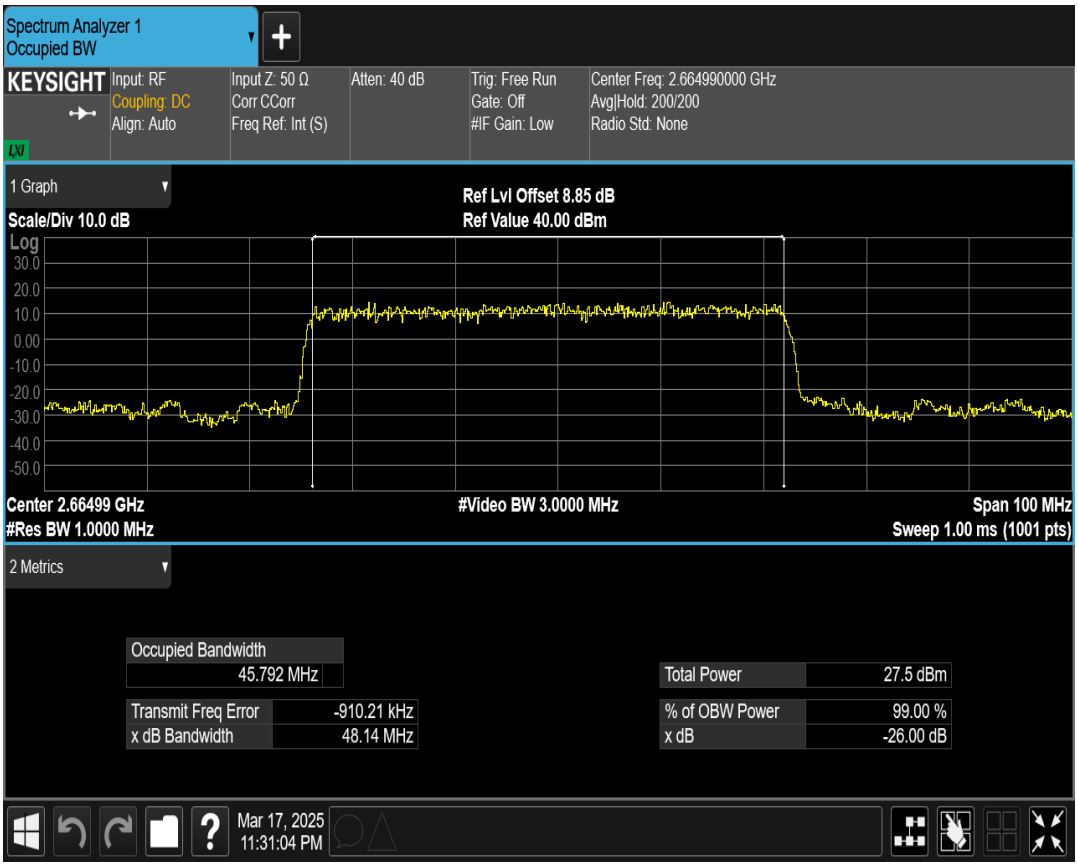

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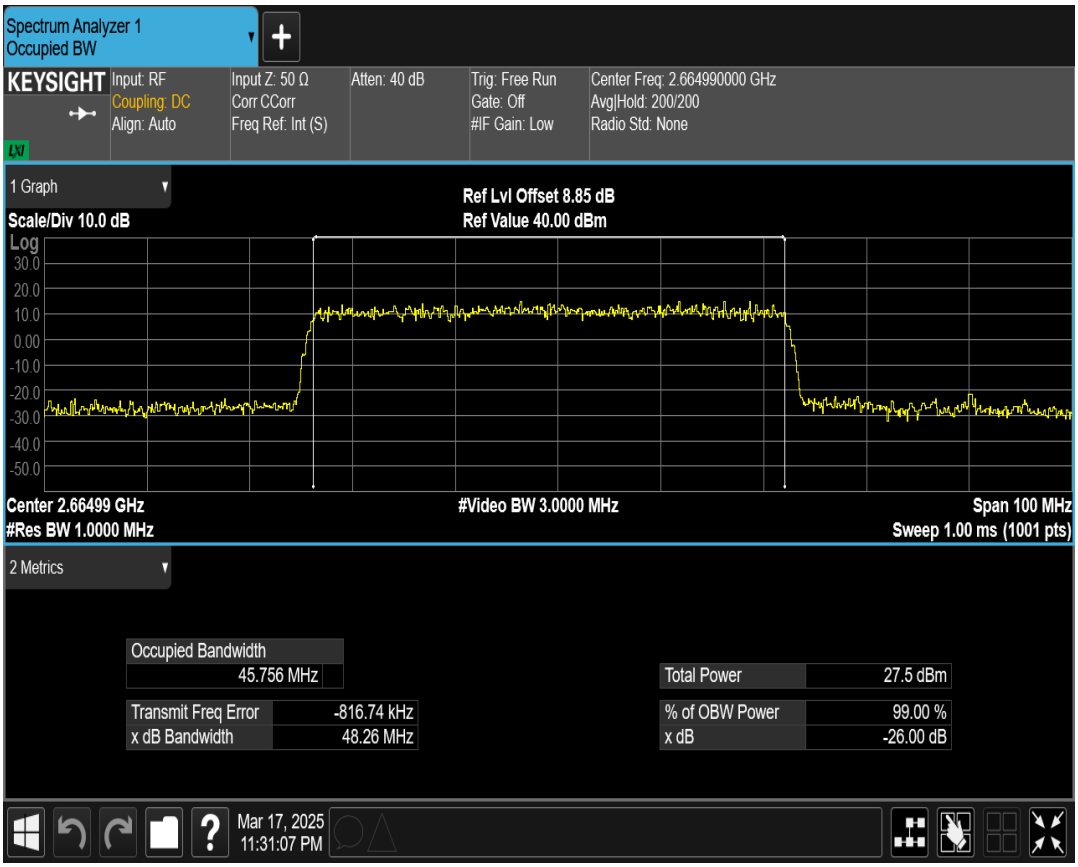

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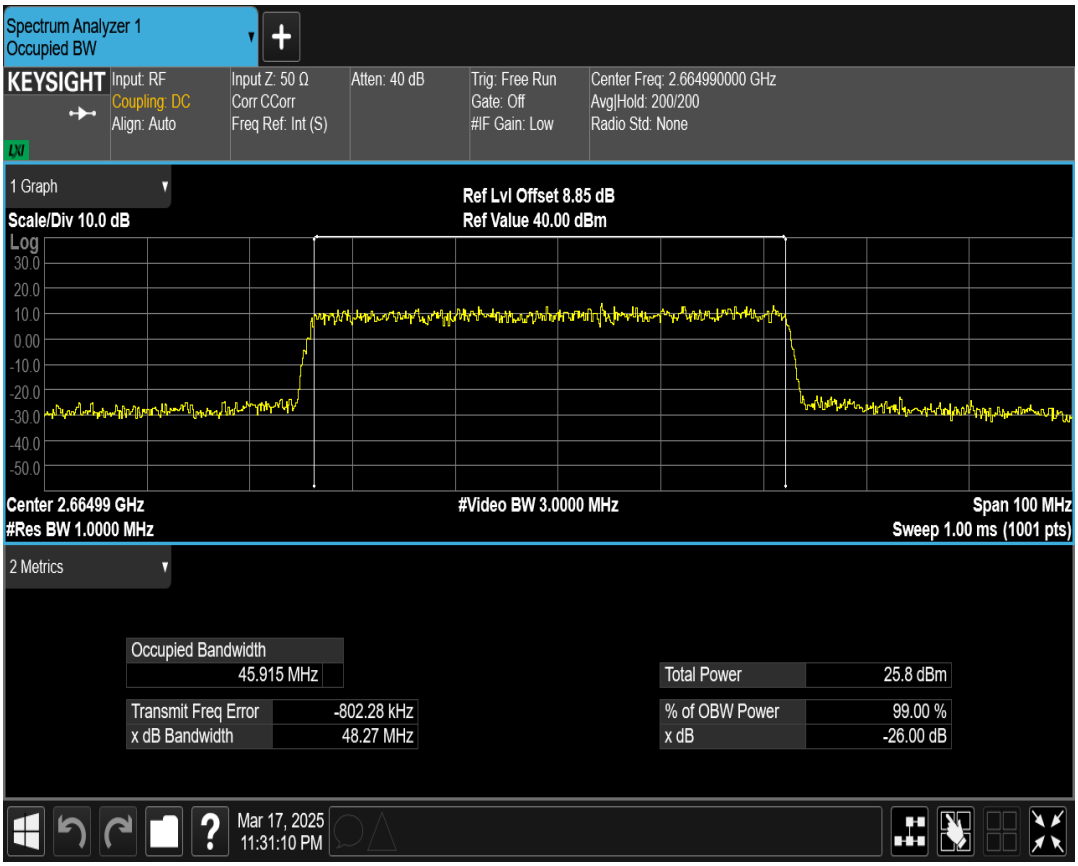

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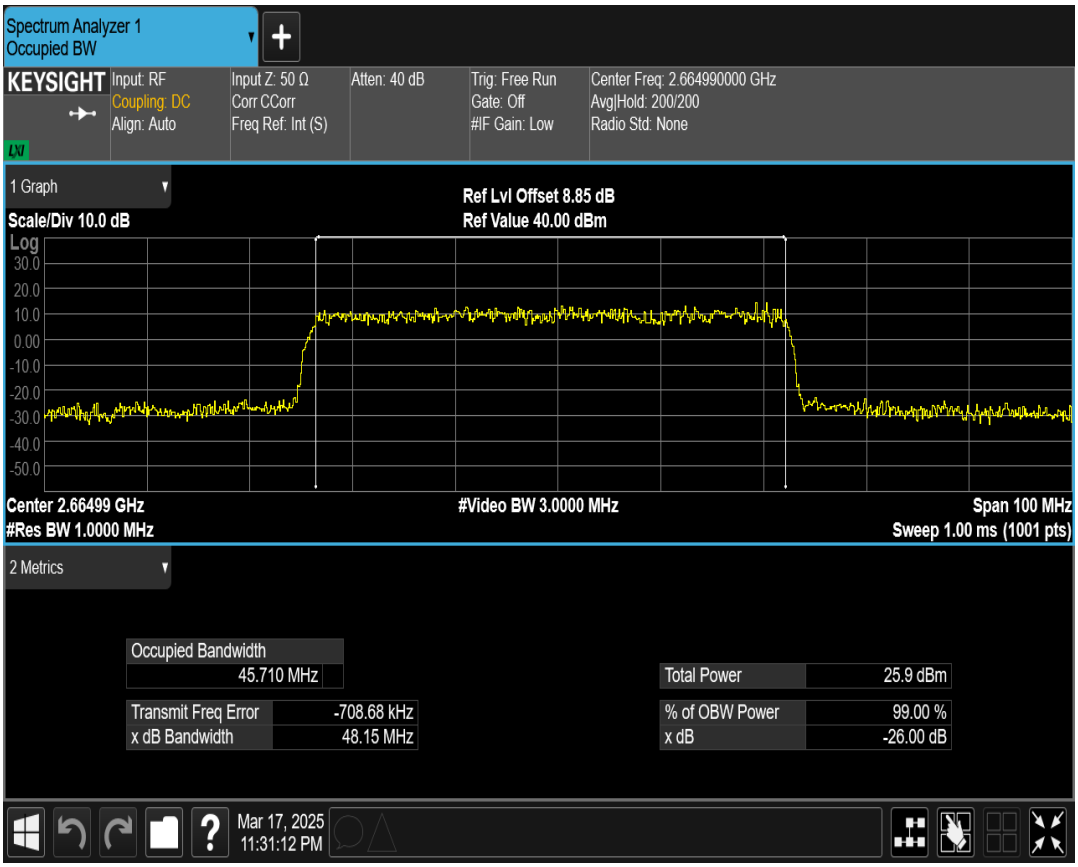

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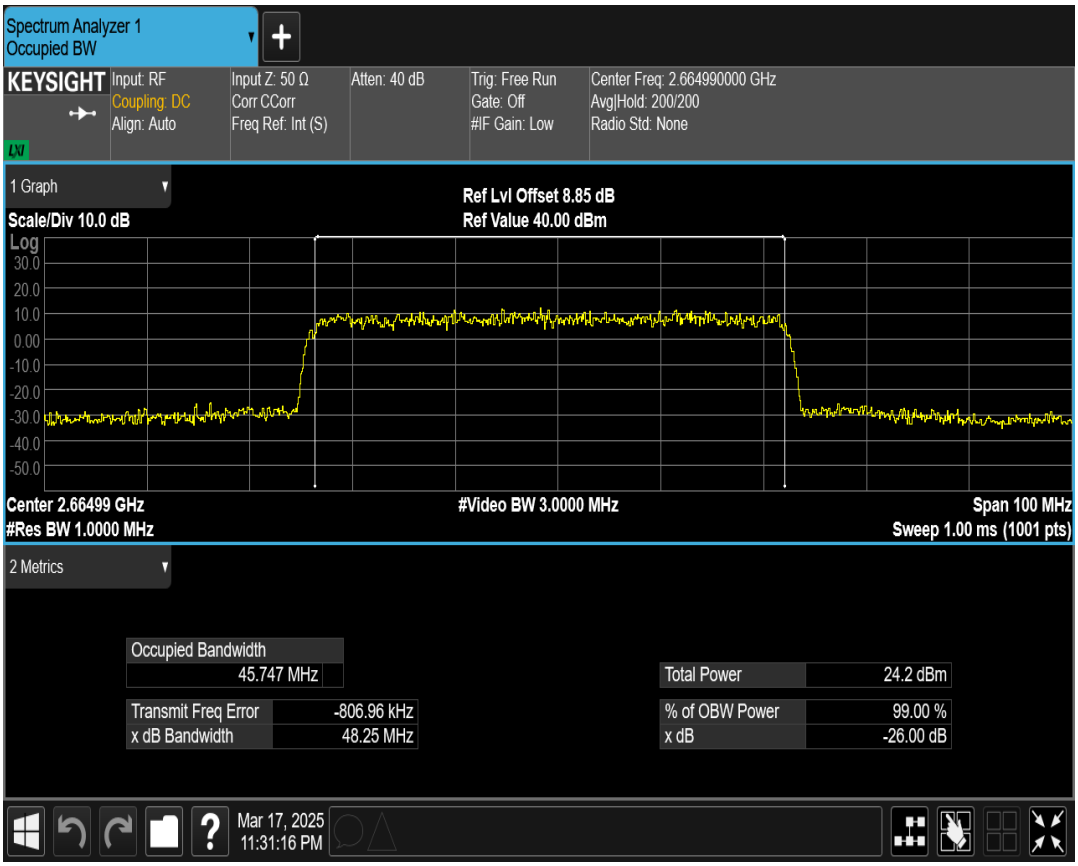
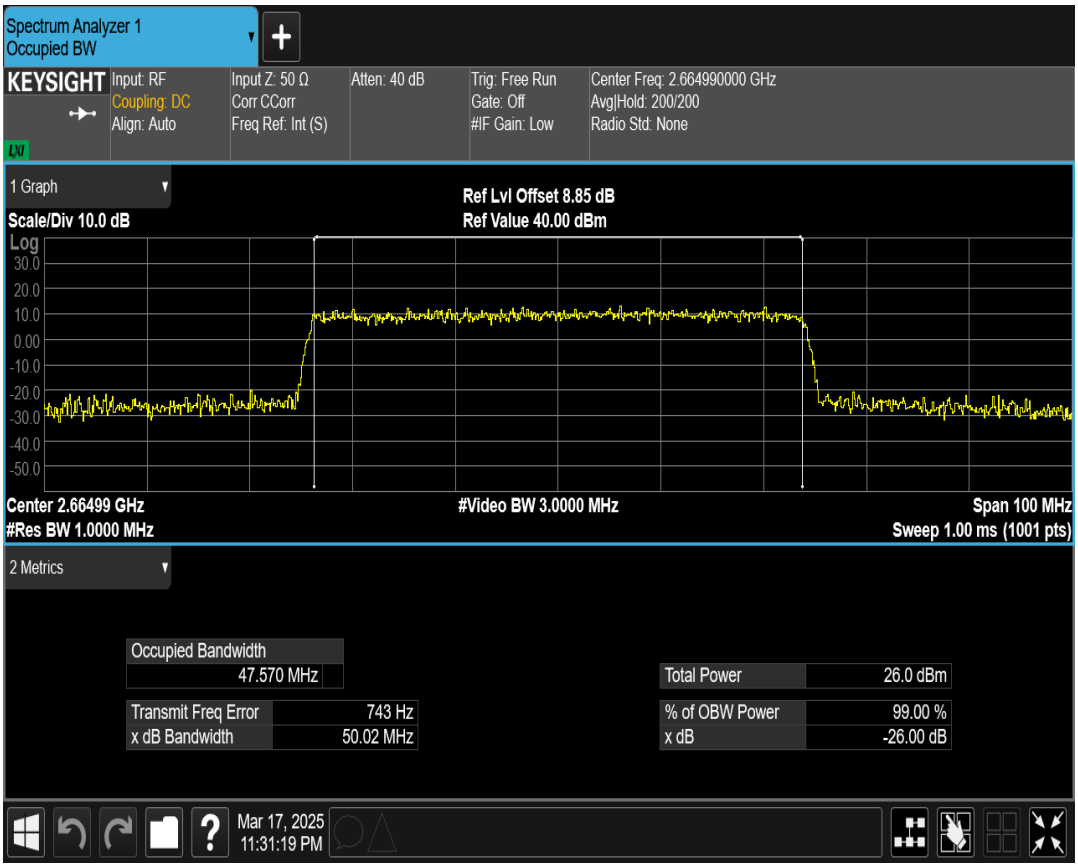


n41 SCS=30kHz CP_QPSK BW=50MHz Channel=532998 RB=133@0



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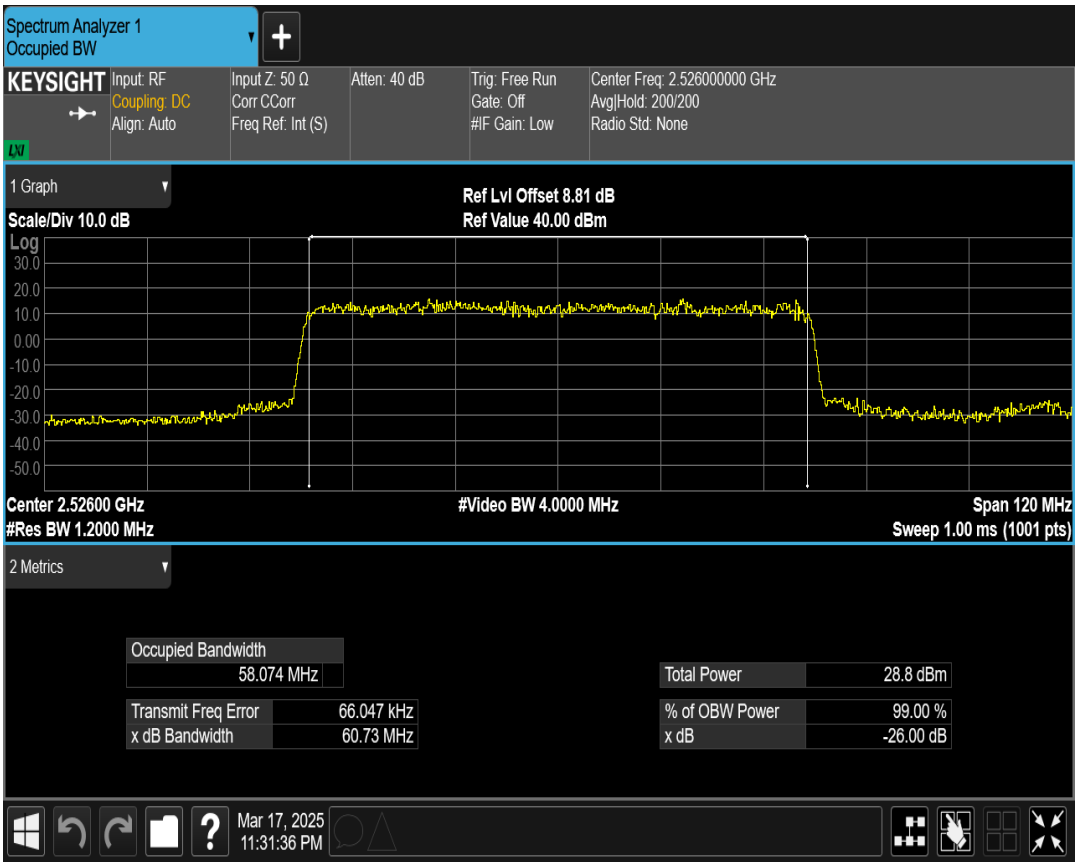

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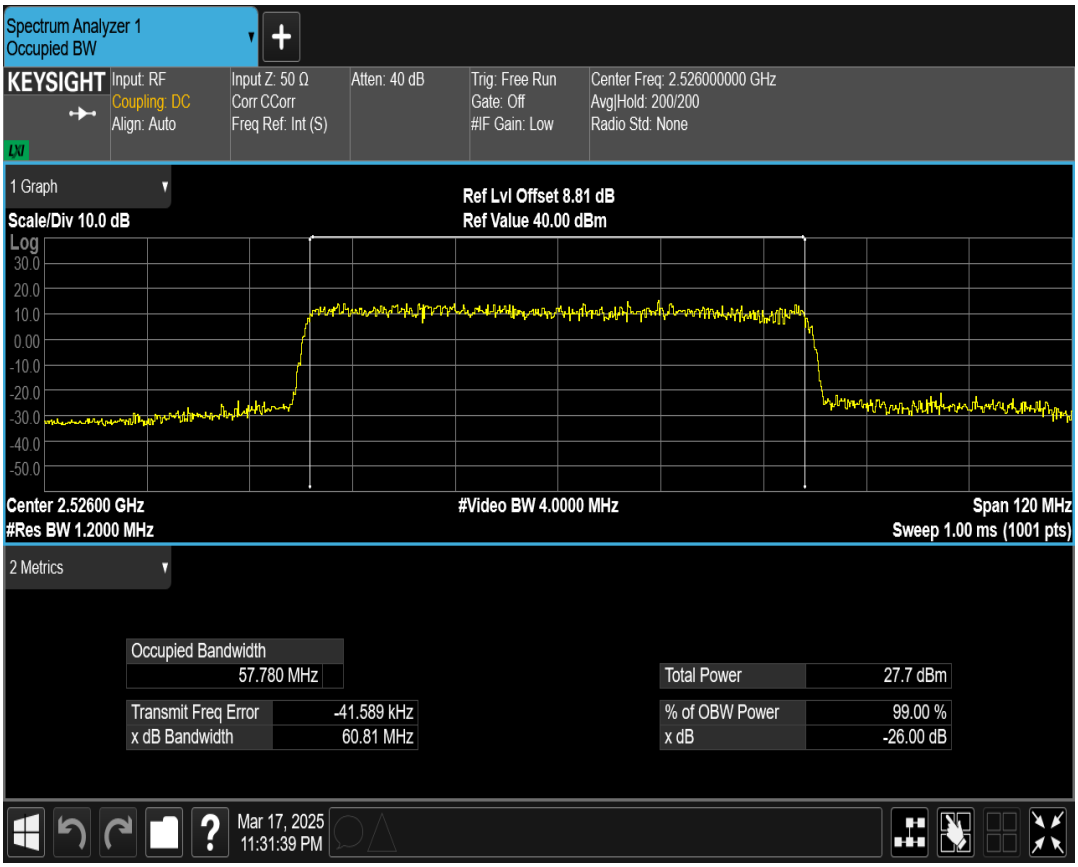

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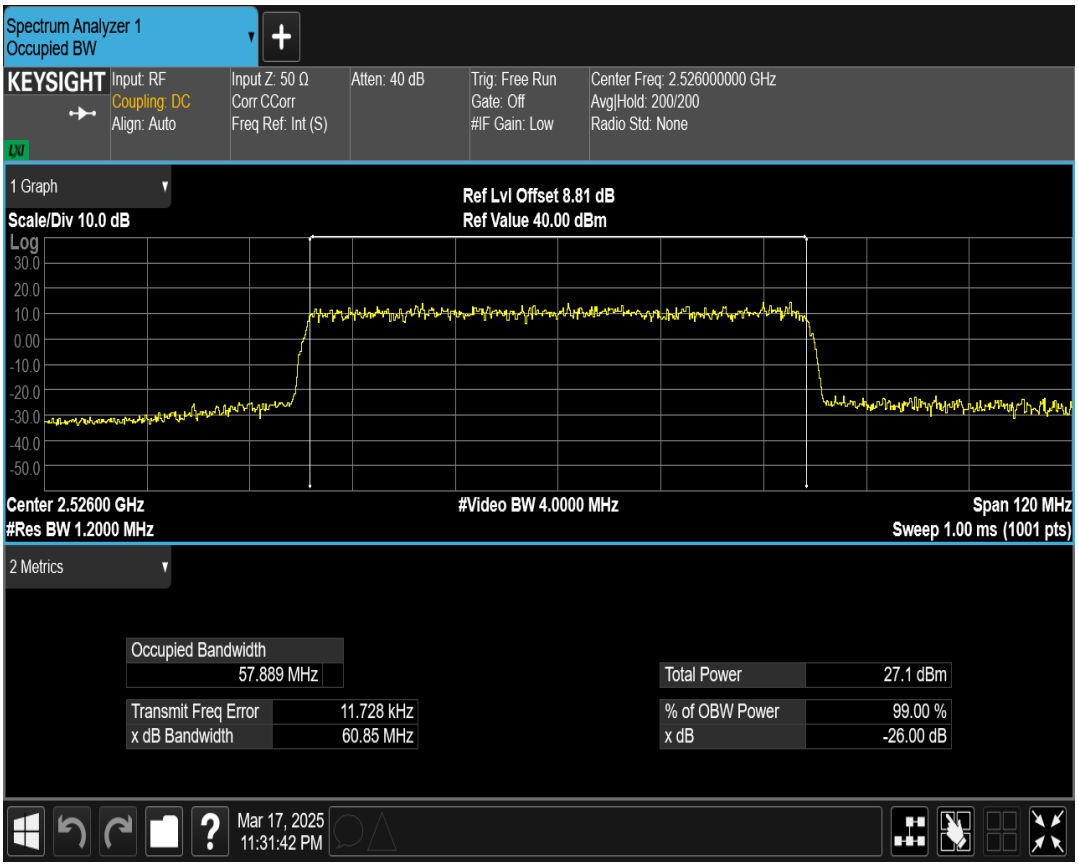

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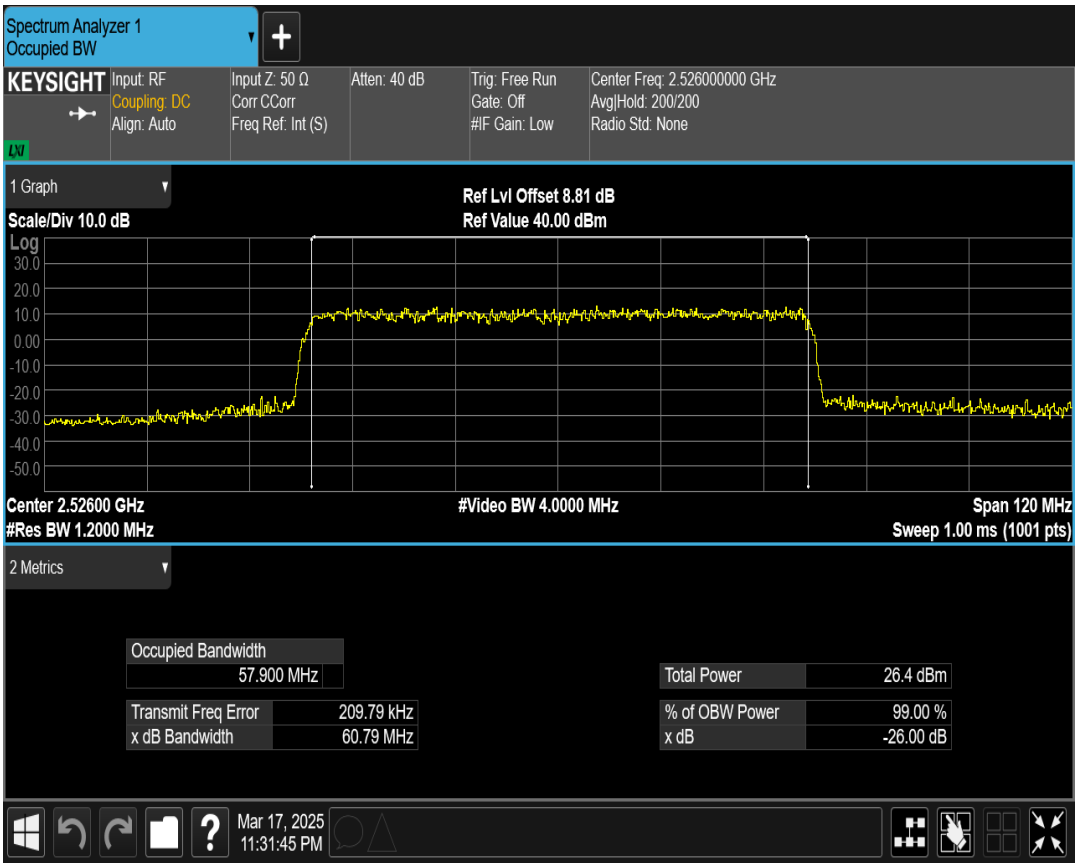

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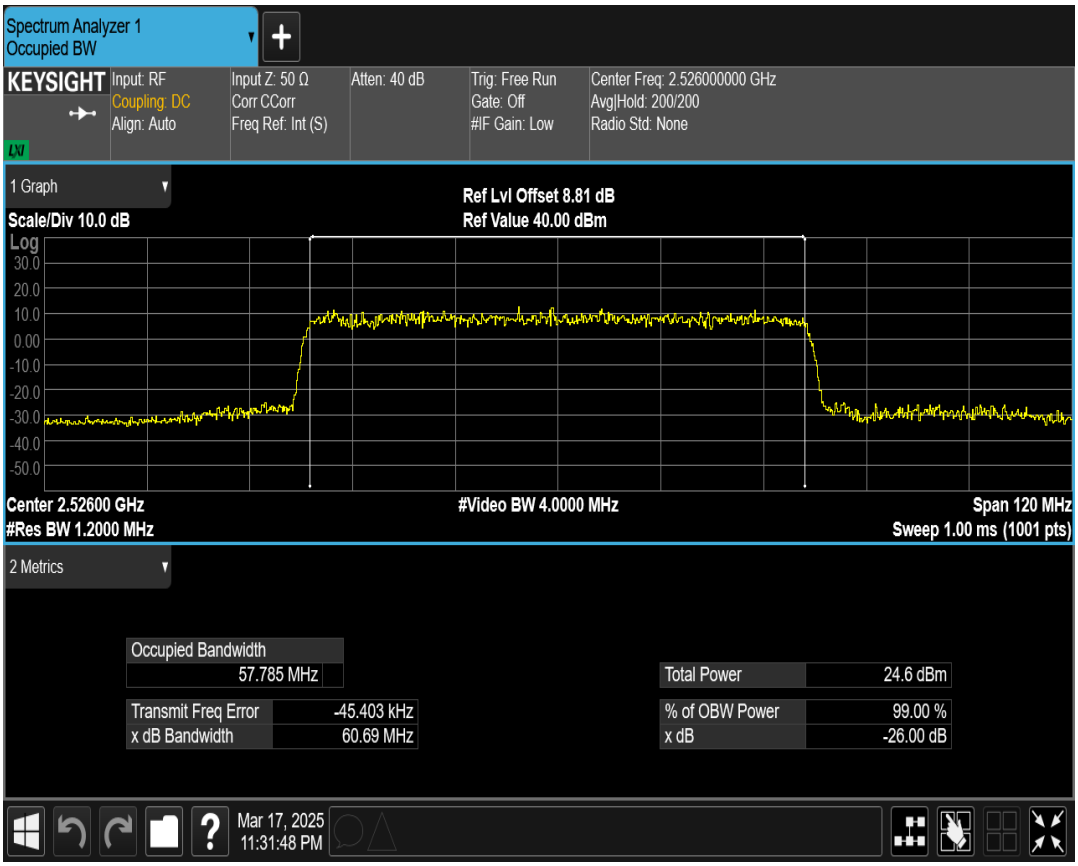
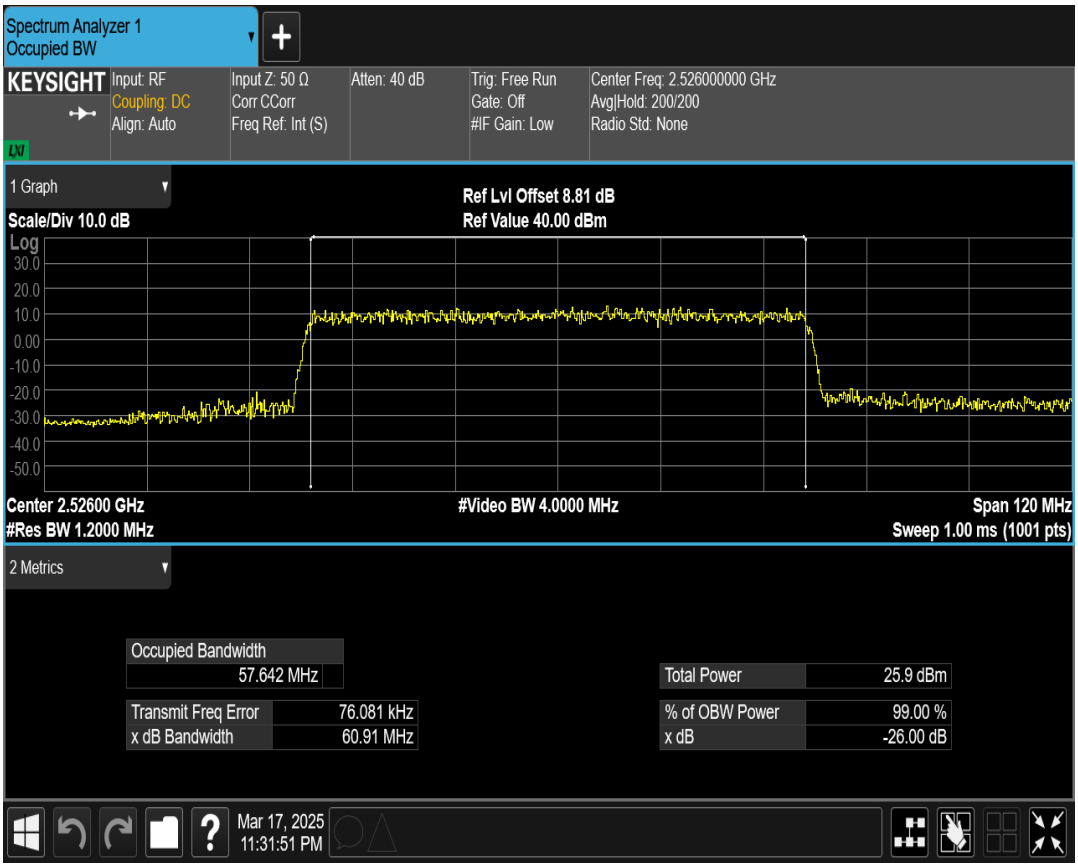
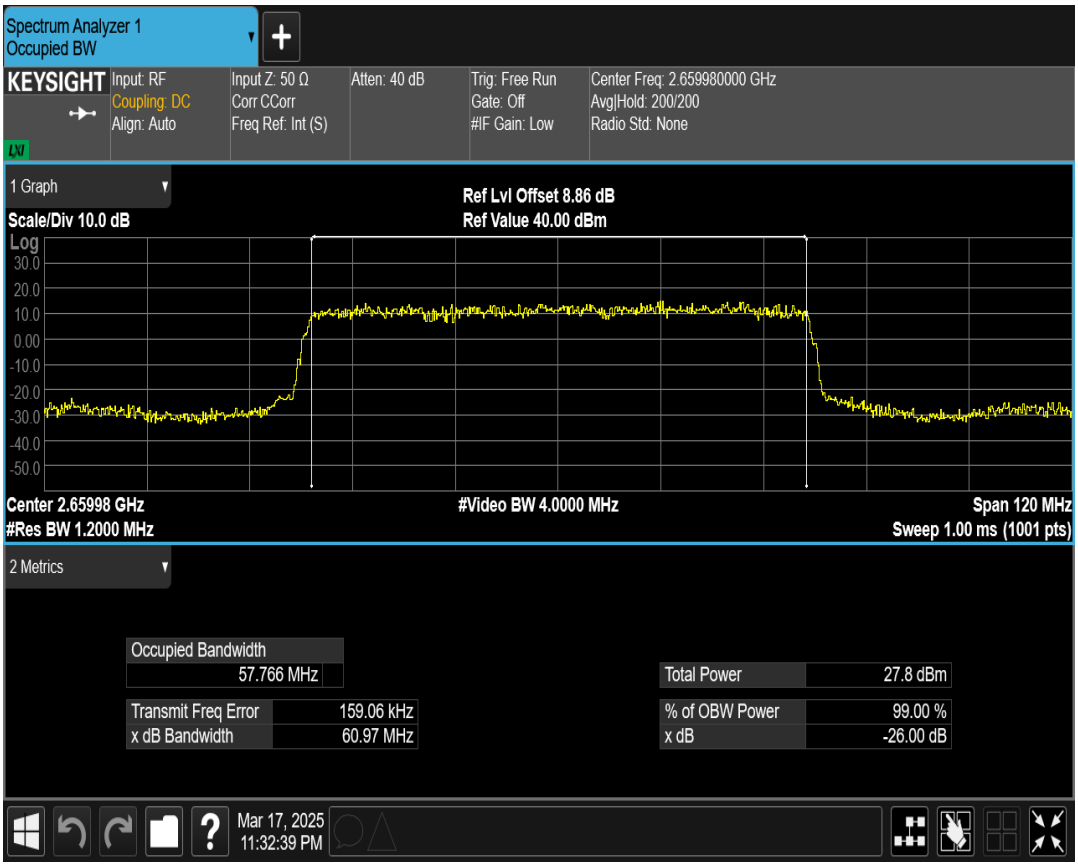


n41 SCS=30kHz CP_QPSK BW=60MHz Channel=505200 RB=162@0



n41 SCS=30kHz DFT_BPSK BW=60MHz Channel=531996 RB=162@0



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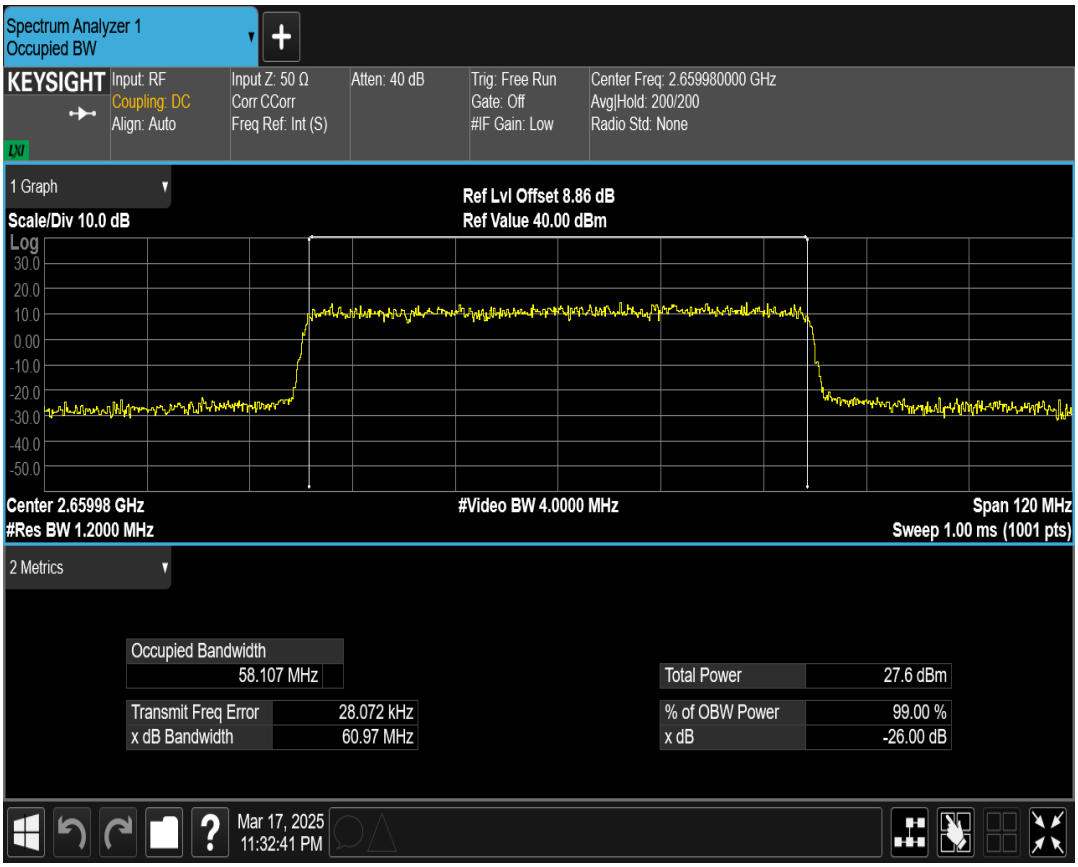

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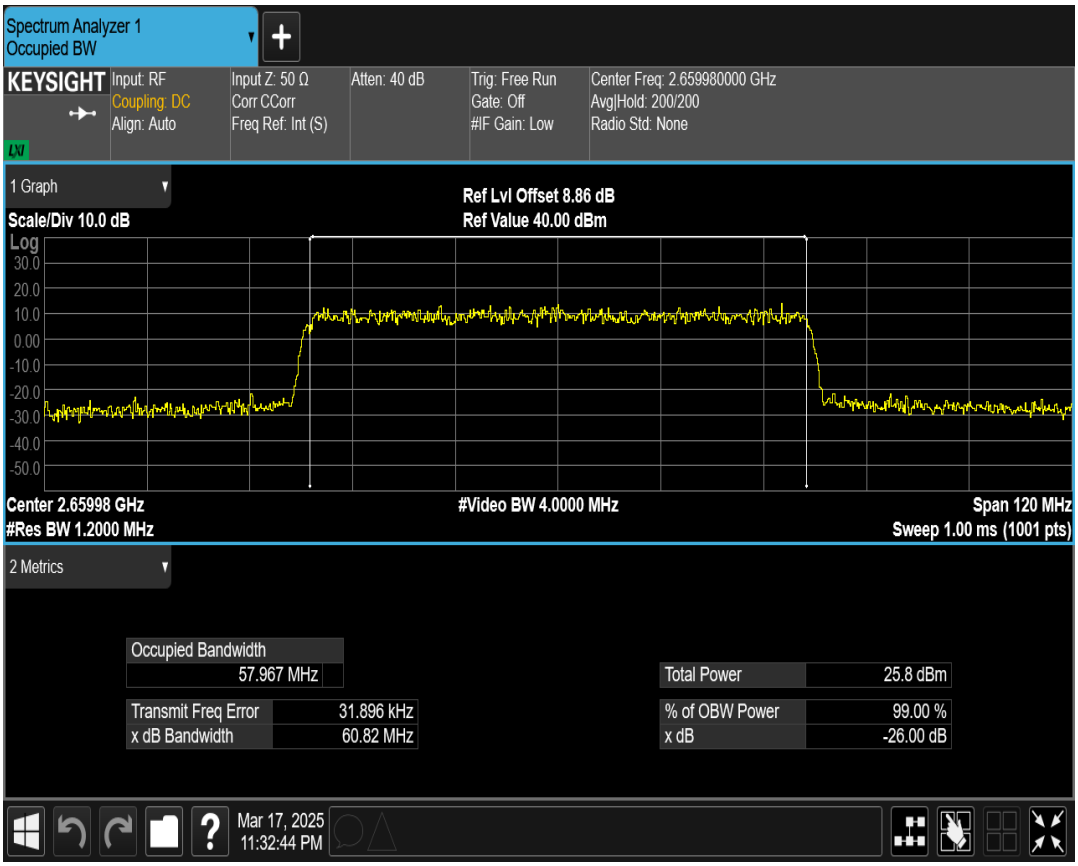

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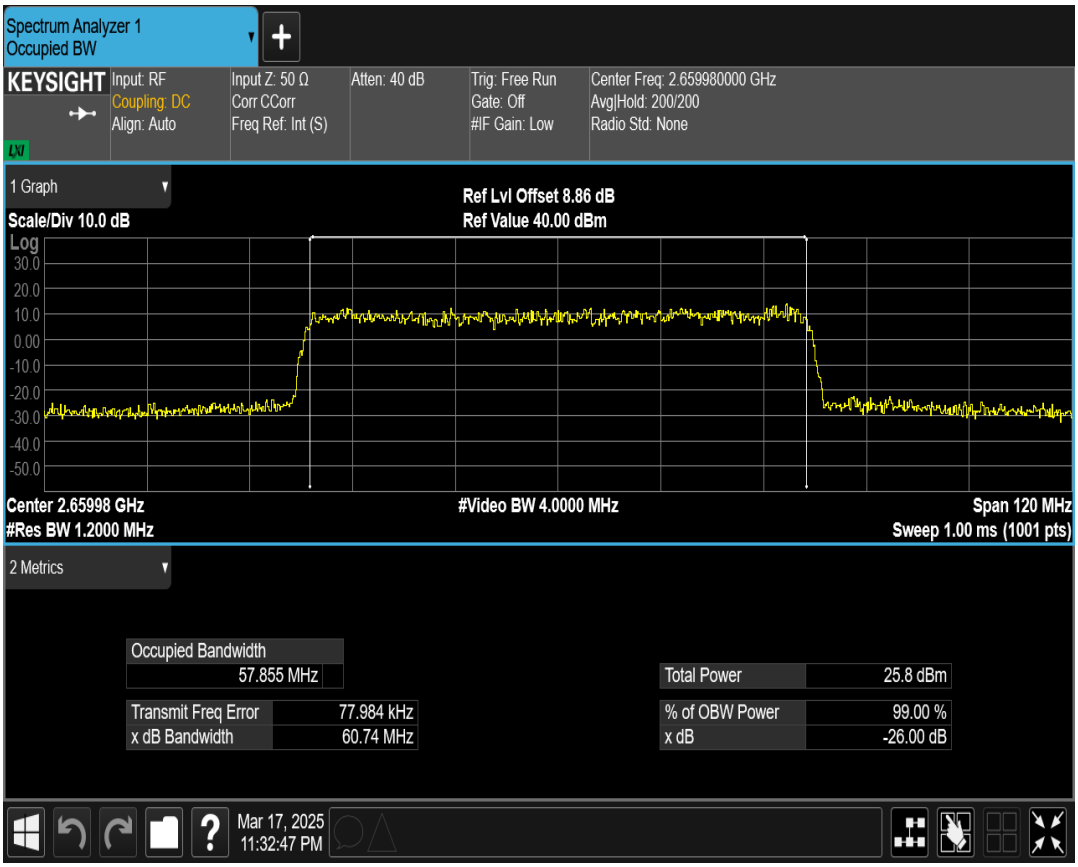

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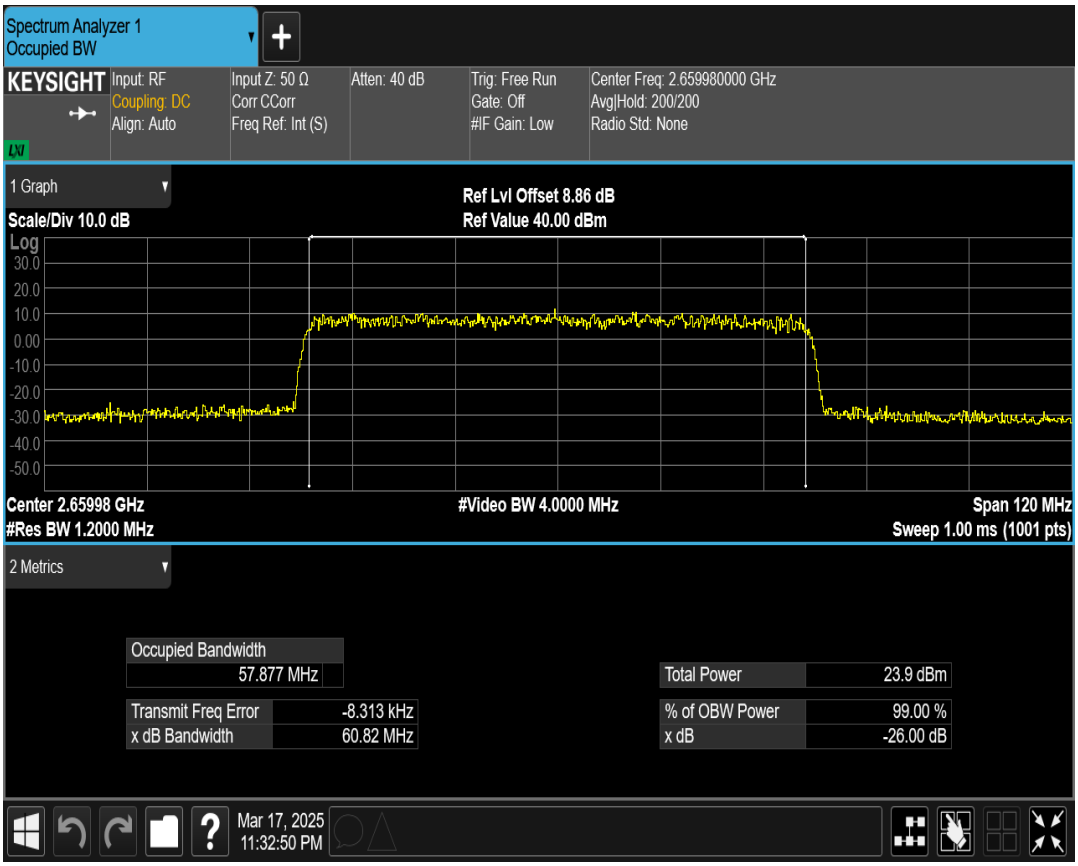

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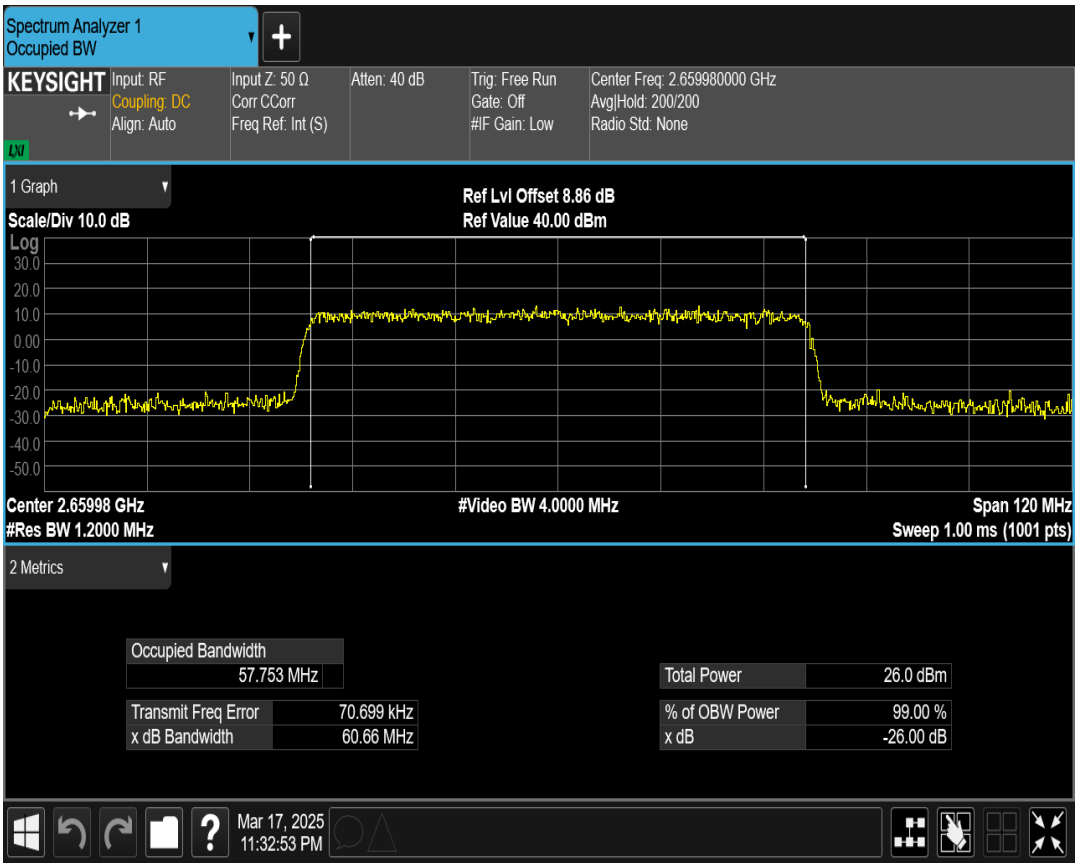

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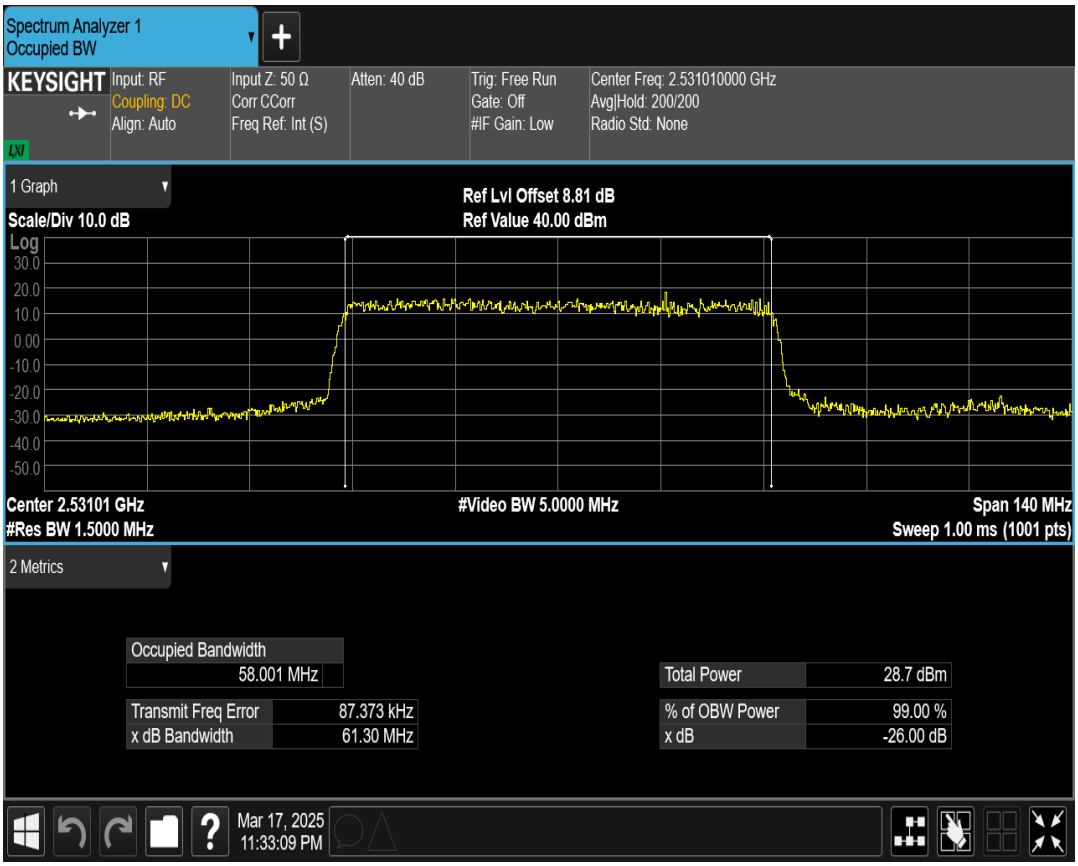
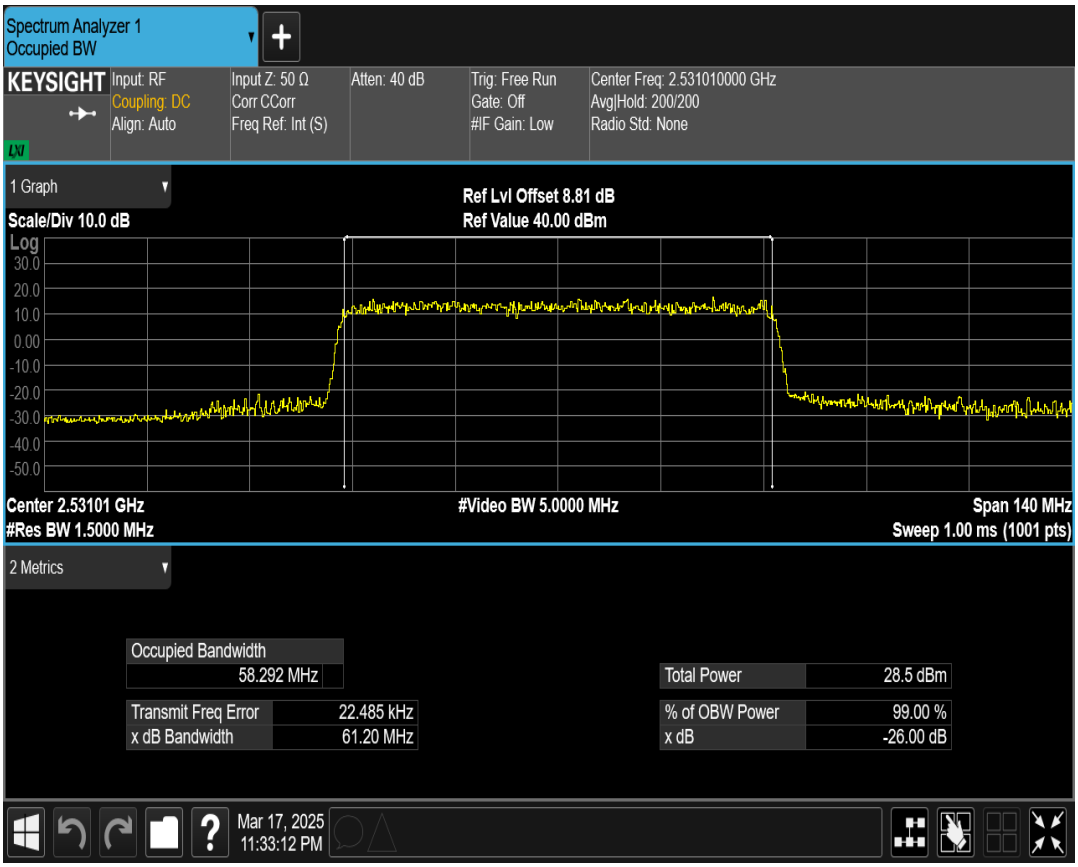
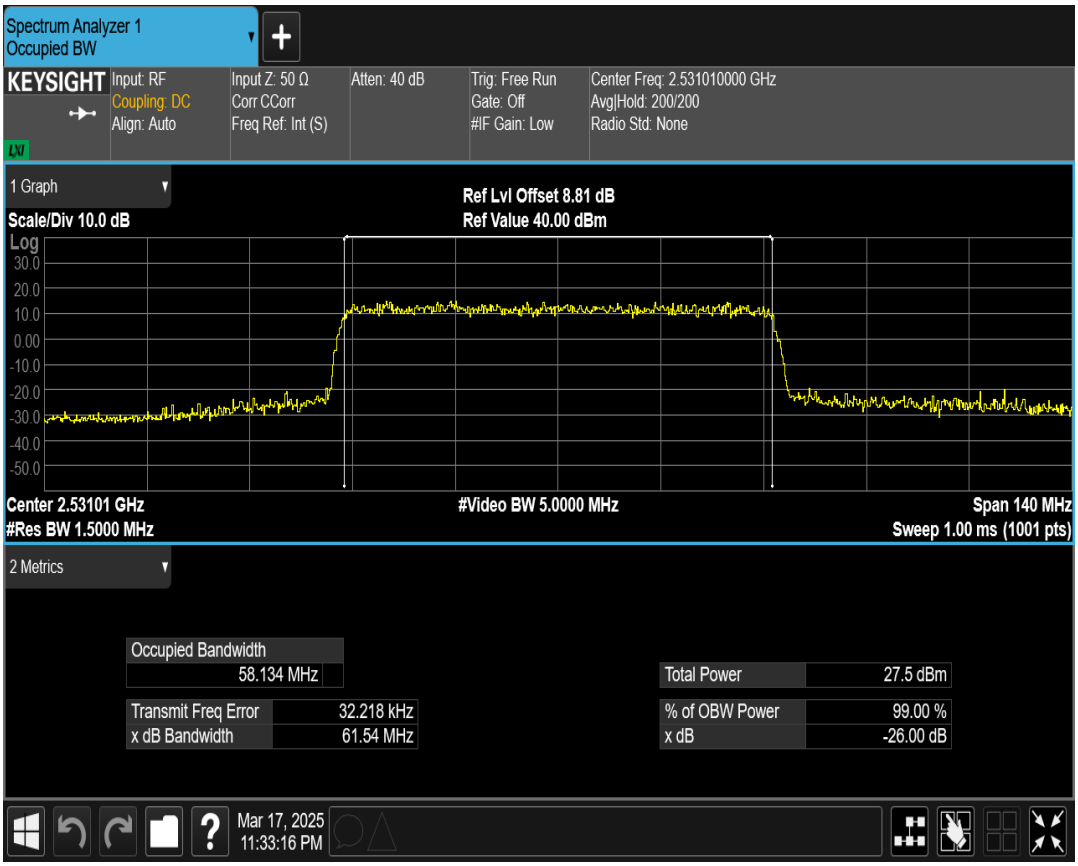


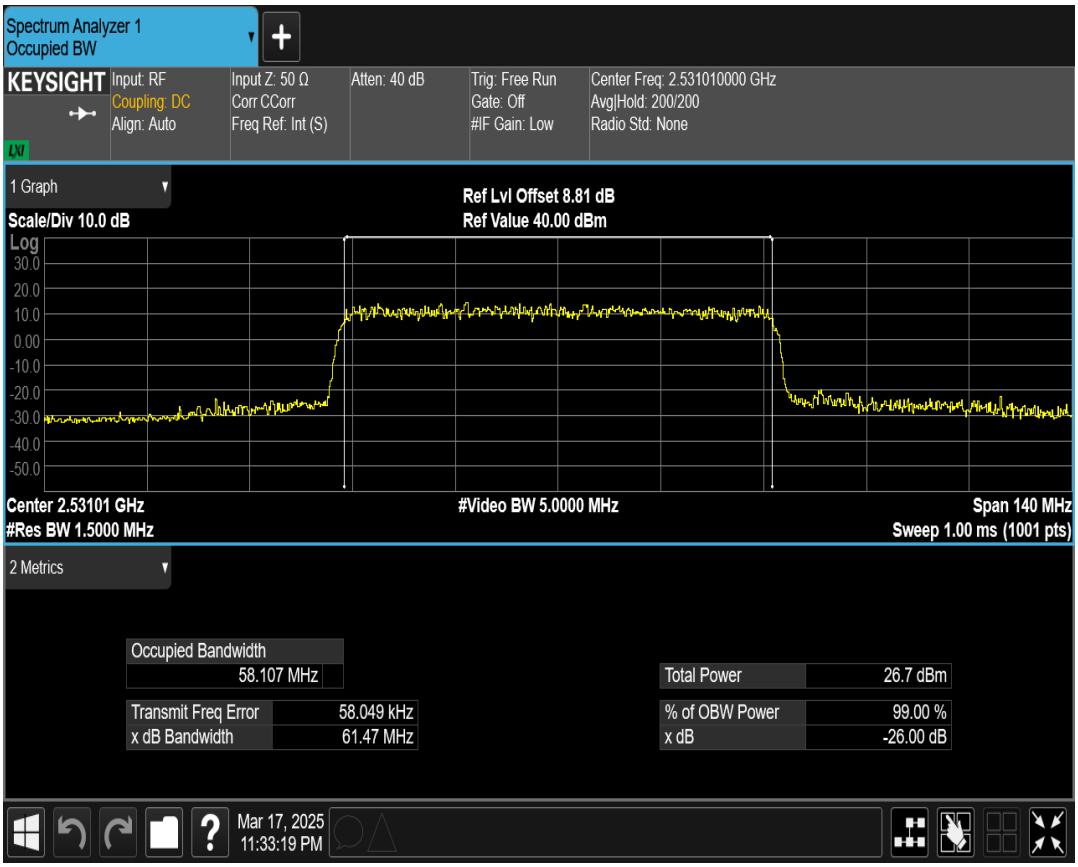
n41 SCS=30kHz DFT_QPSK BW=70MHz Channel=506202 RB=180@0



n41 SCS=30kHz DFT_QAM16 BW=70MHz Channel=506202 RB=180@0



n41 SCS=30kHz DFT_QAM64 BW=70MHz Channel=506202 RB=180@0



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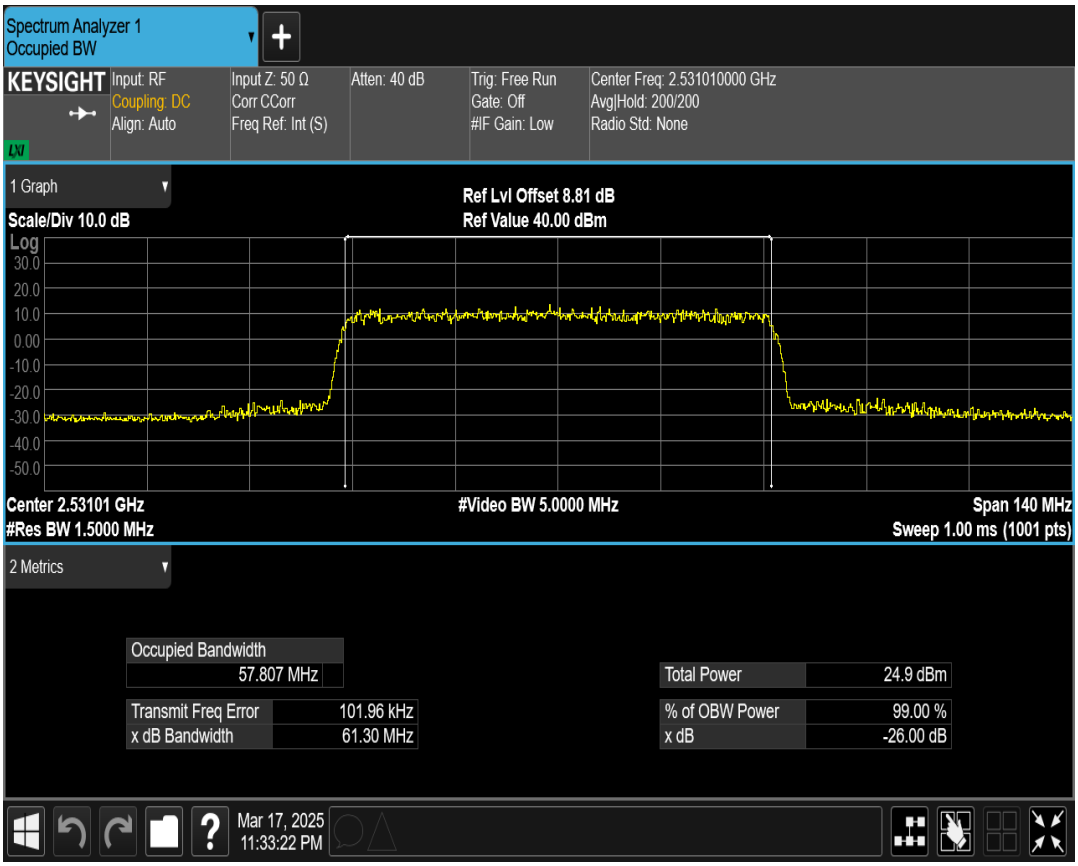
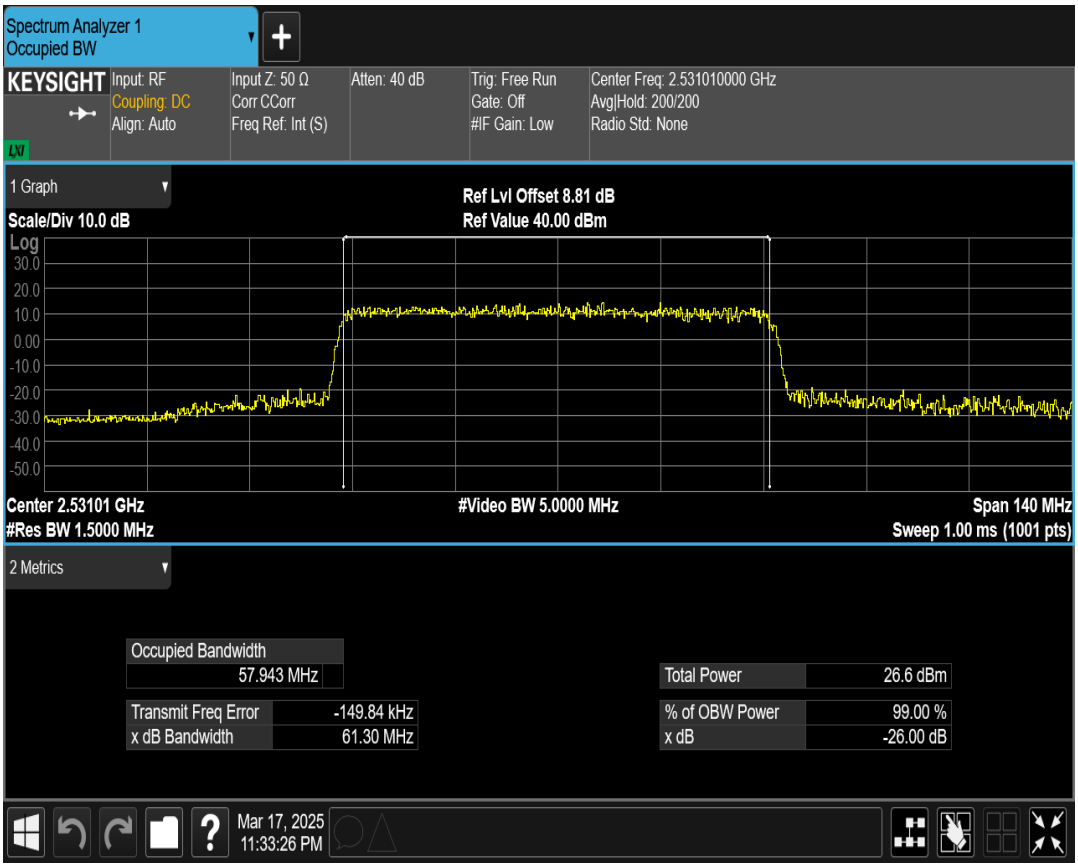
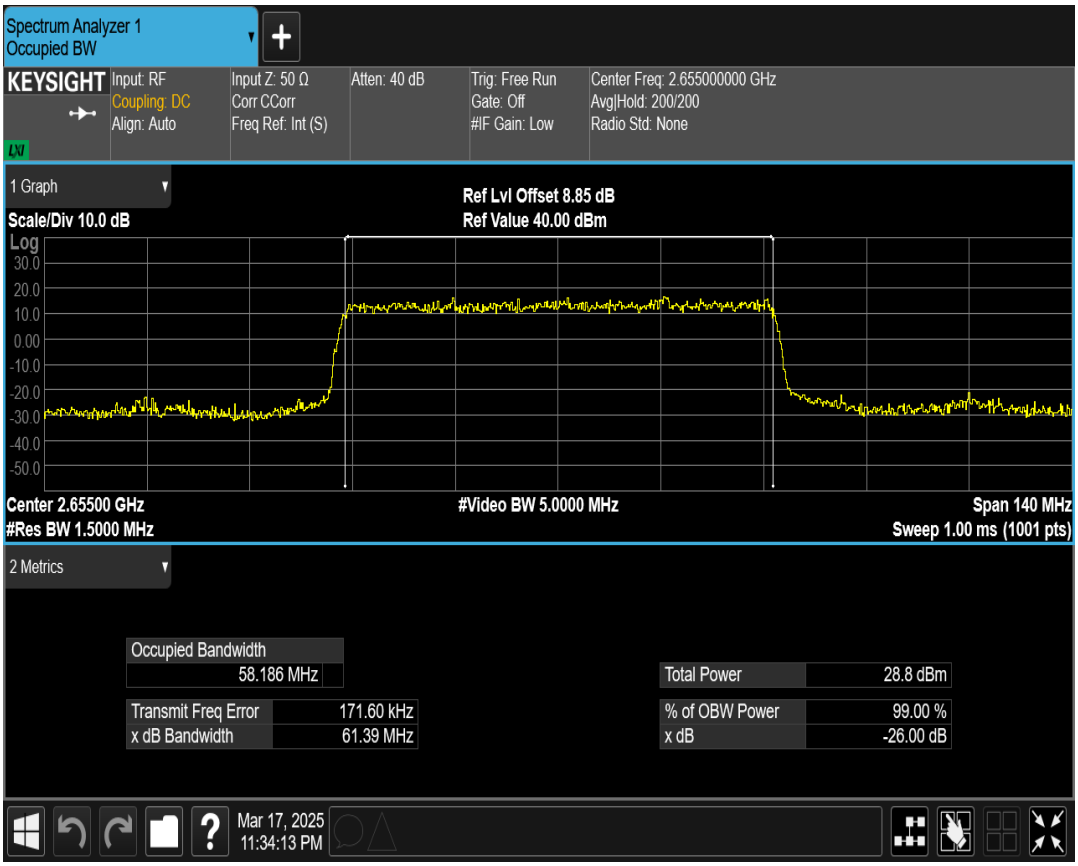


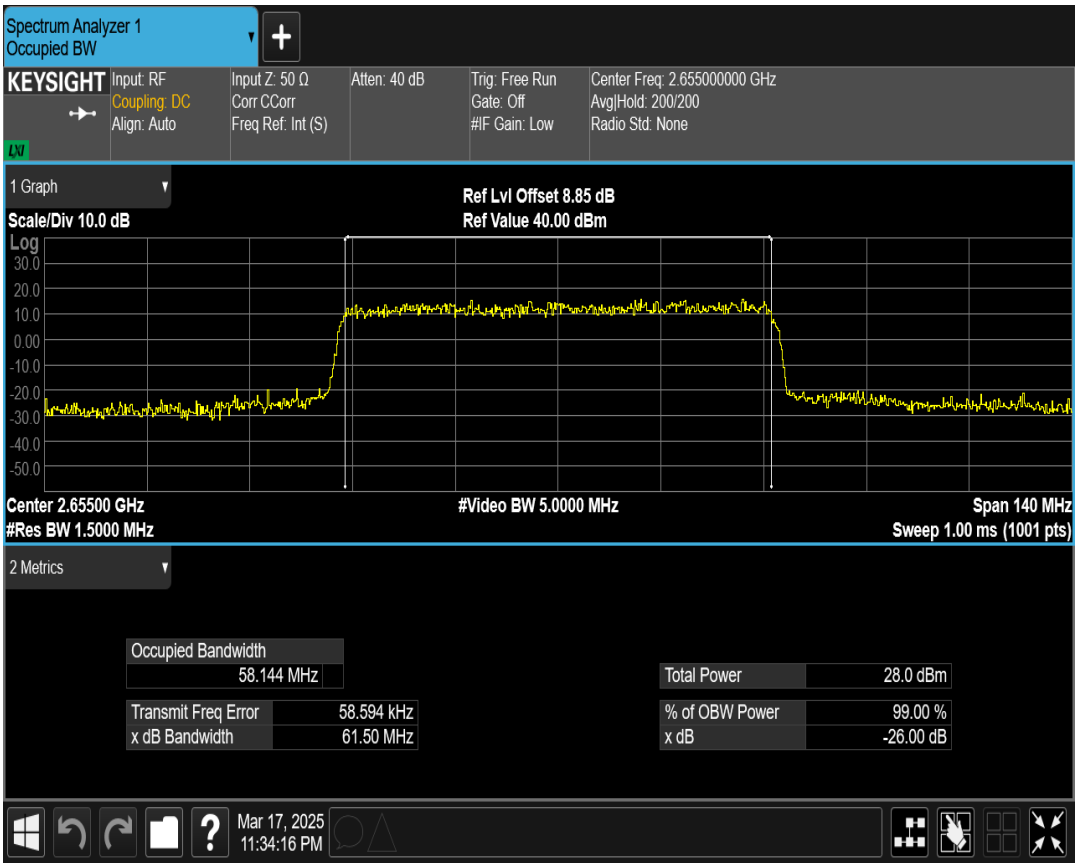
n41 SCS=30kHz CP_QPSK BW=70MHz Channel=506202 RB=189@0



n41 SCS=30kHz DFT_BPSK BW=70MHz Channel=531000 RB=180@0



n41 SCS=30kHz DFT_QPSK BW=70MHz Channel=531000 RB=180@0



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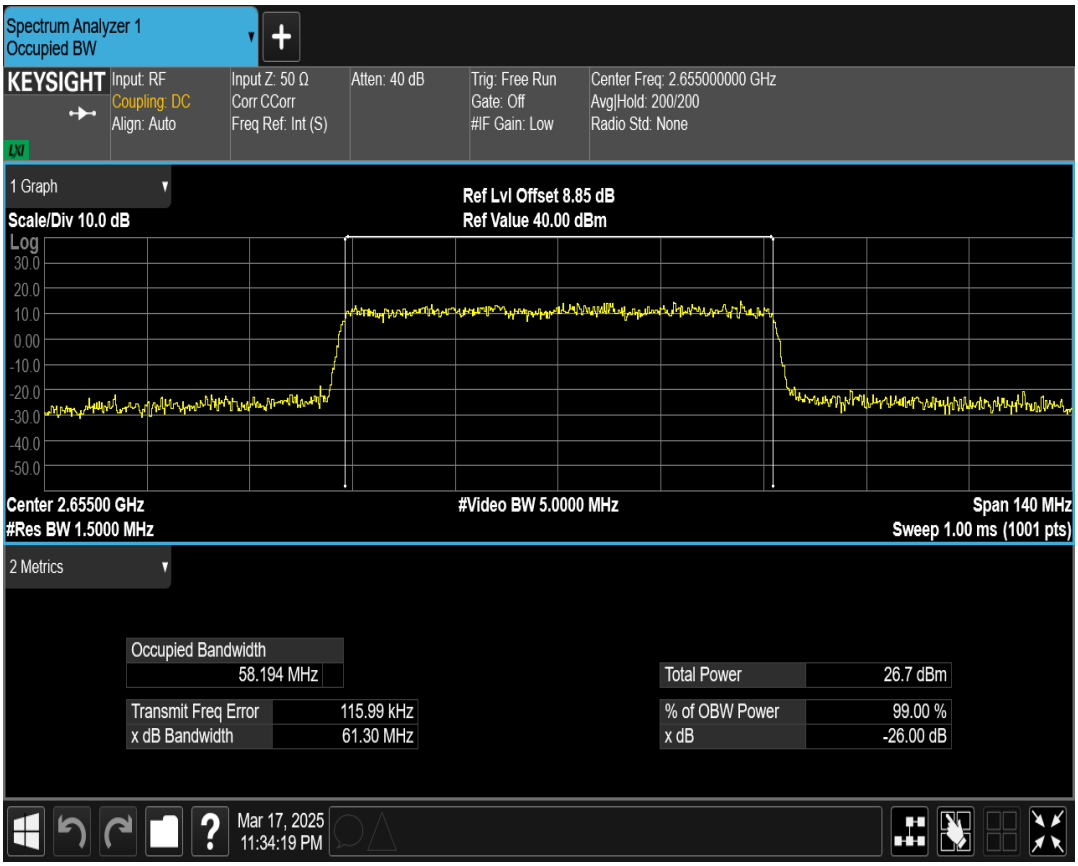

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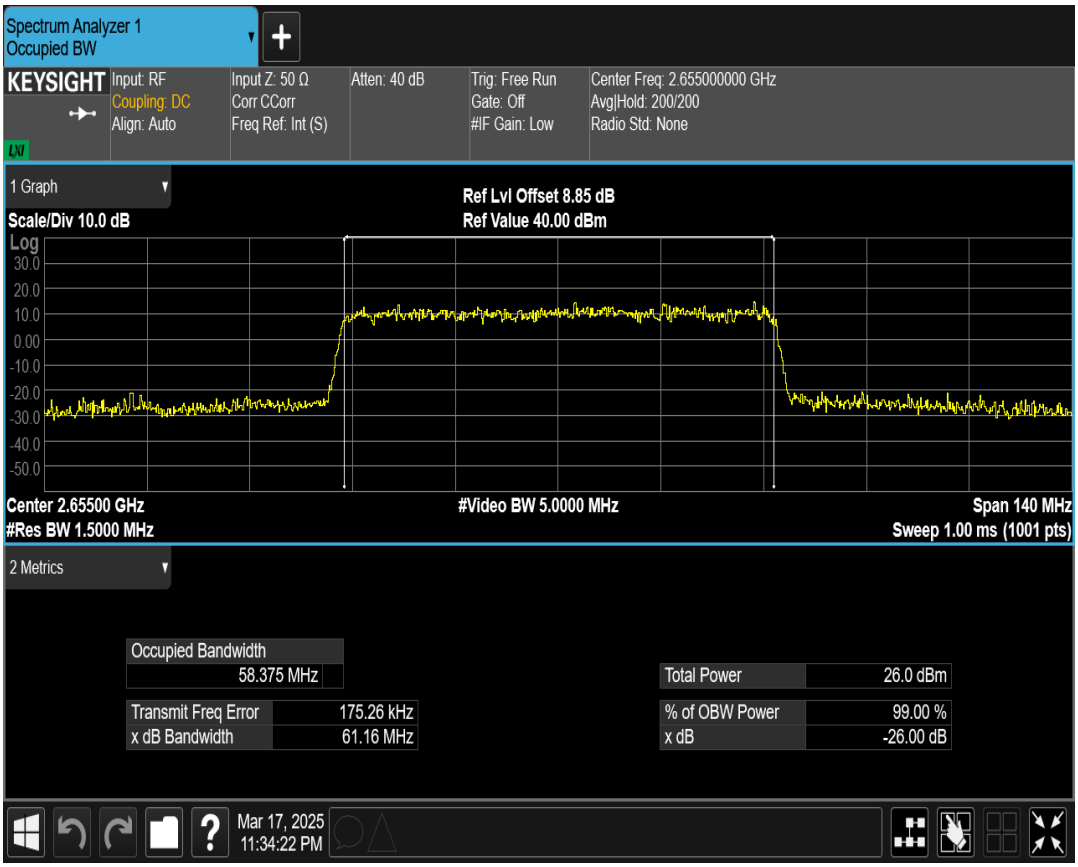

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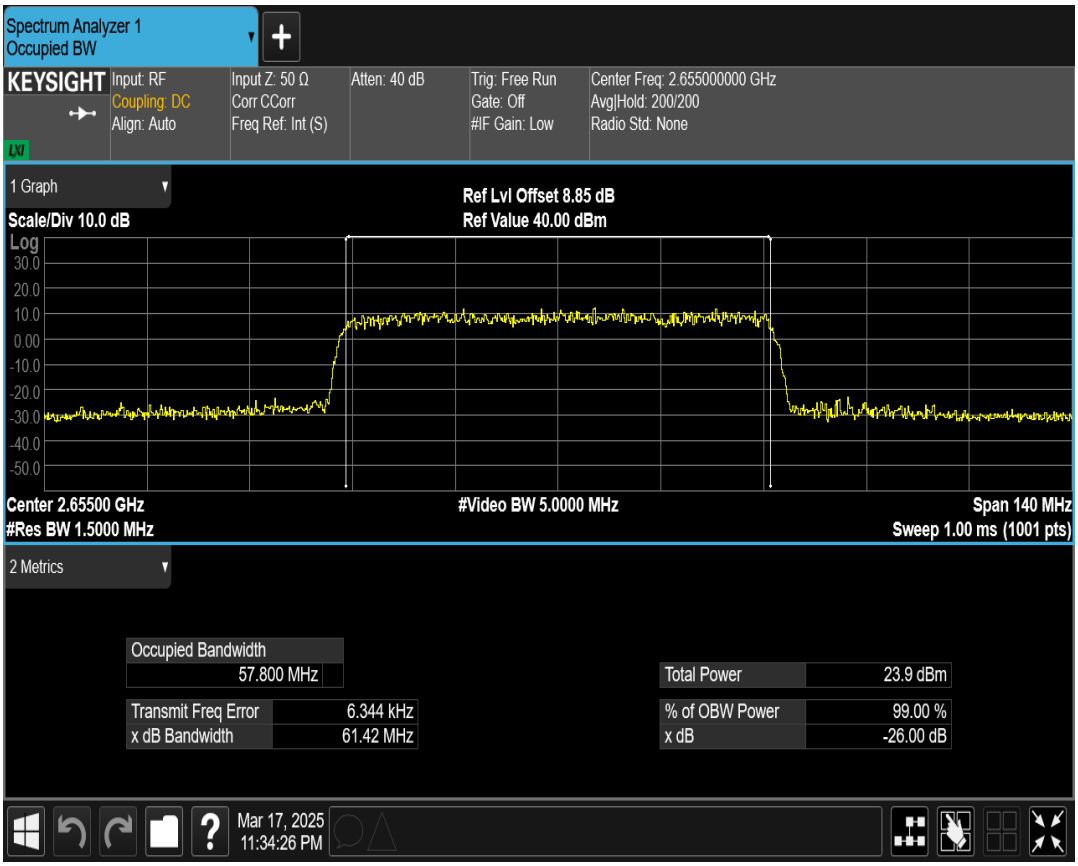
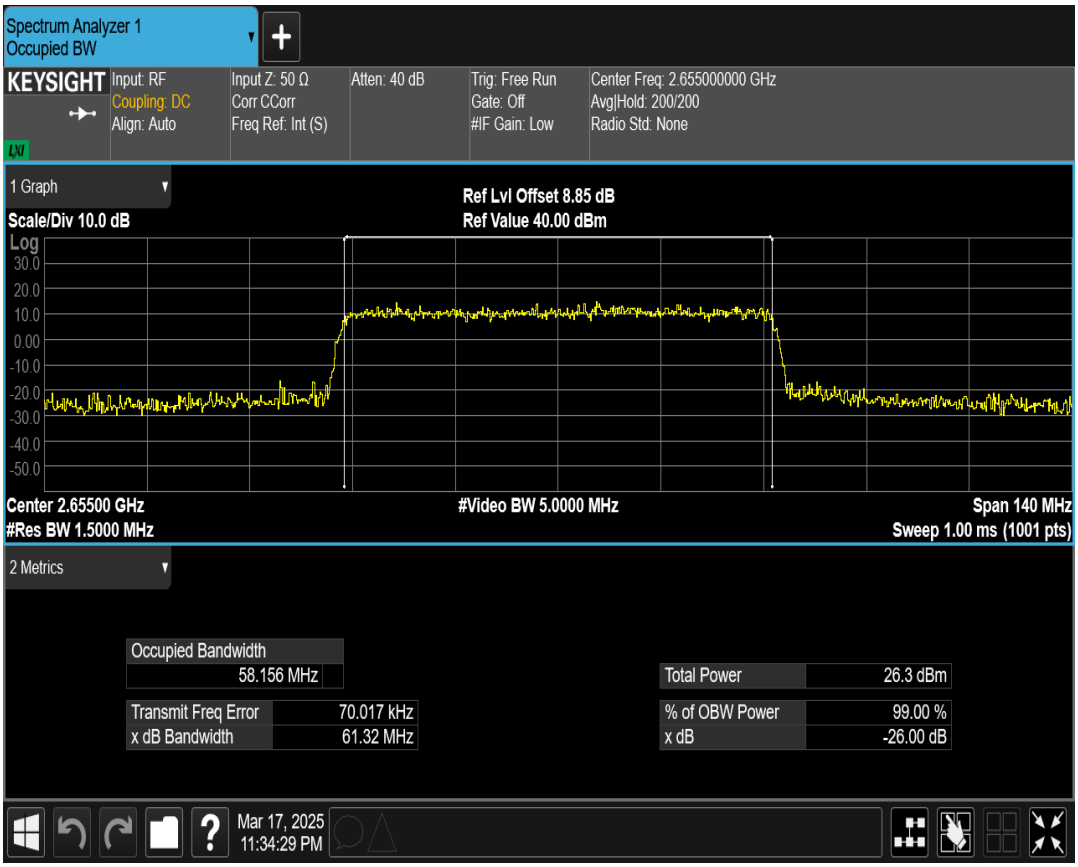
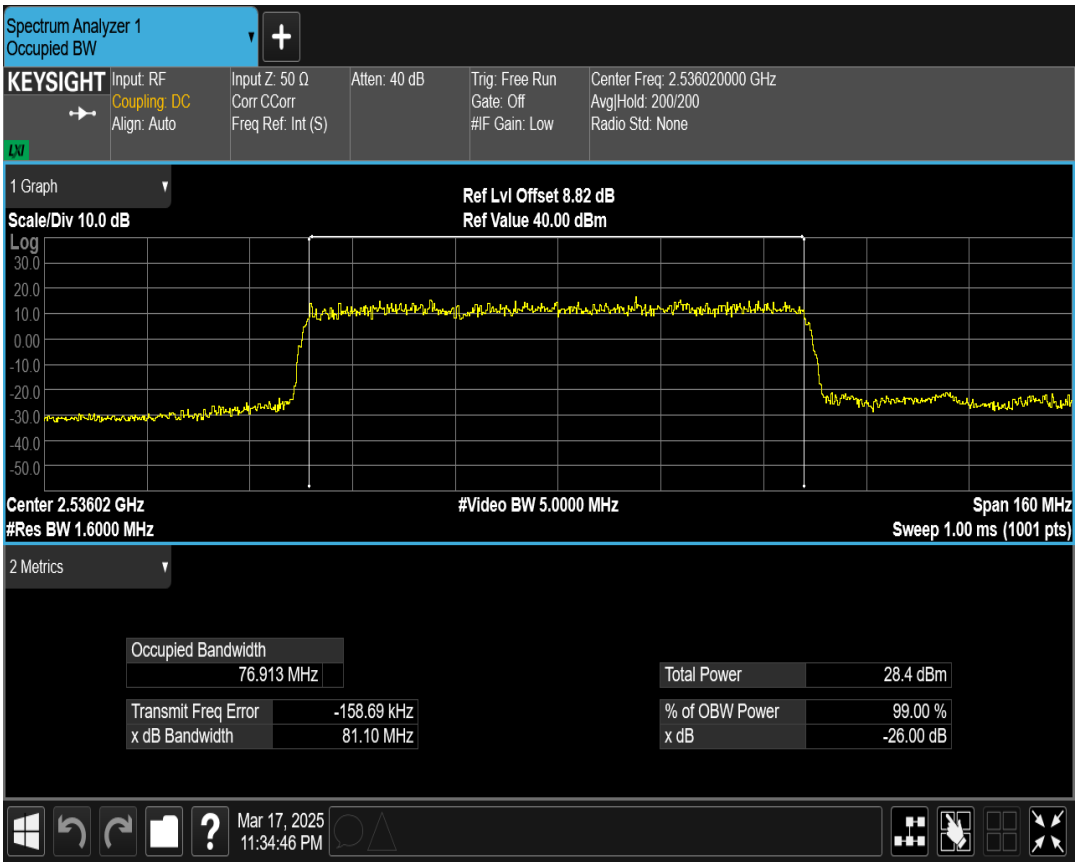


n41 SCS=30kHz CP_QPSK BW=70MHz Channel=531000 RB=189@0



n41 SCS=30kHz DFT_BPSK BW=80MHz Channel=507204 RB=216@0



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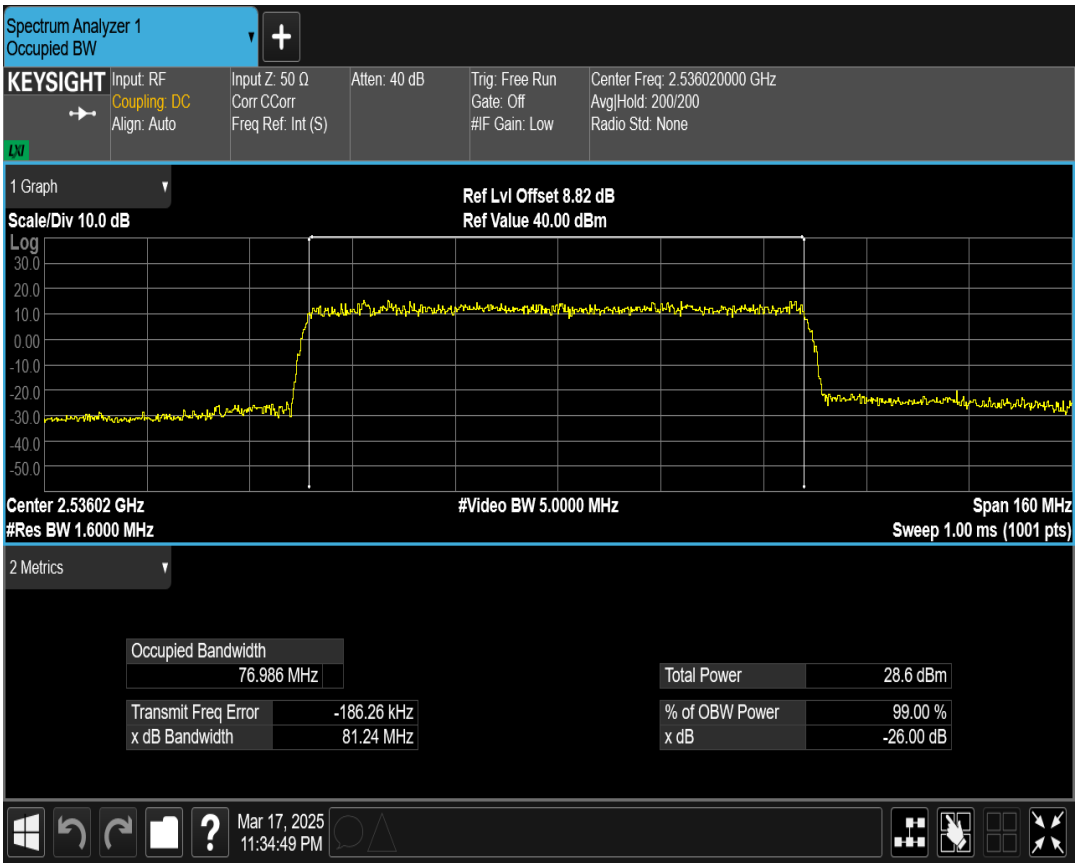

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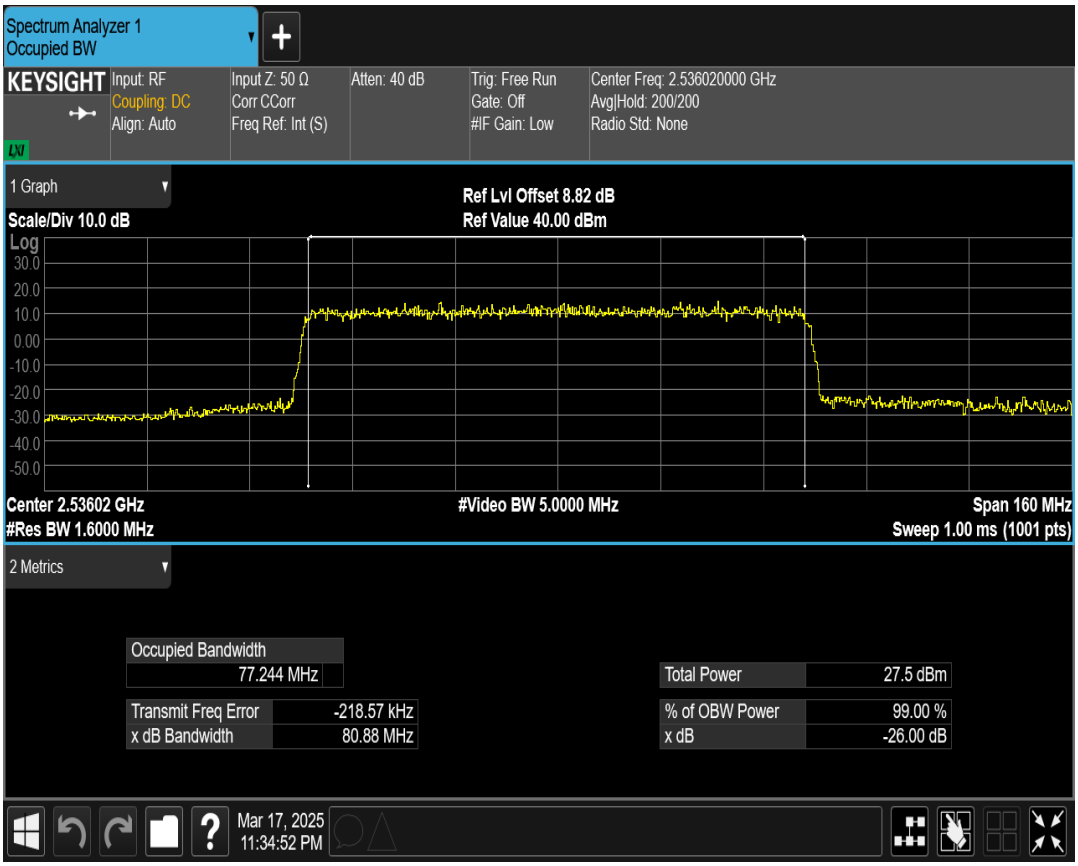

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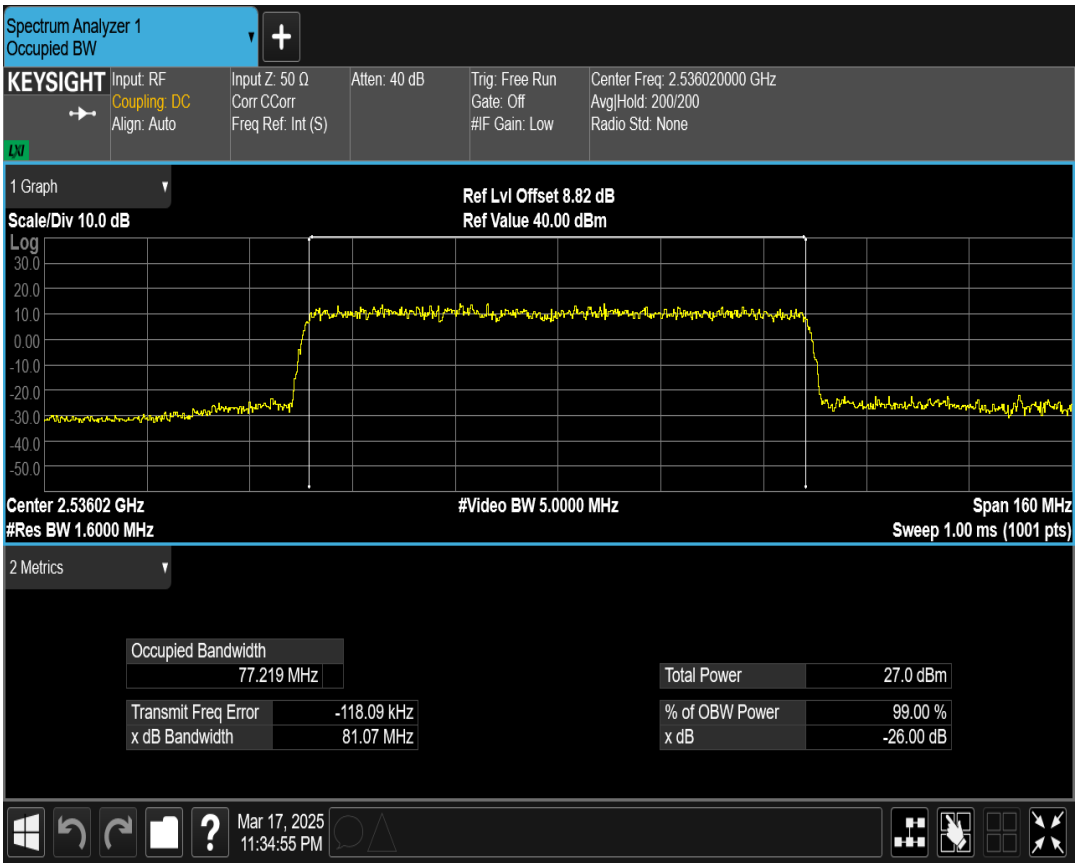

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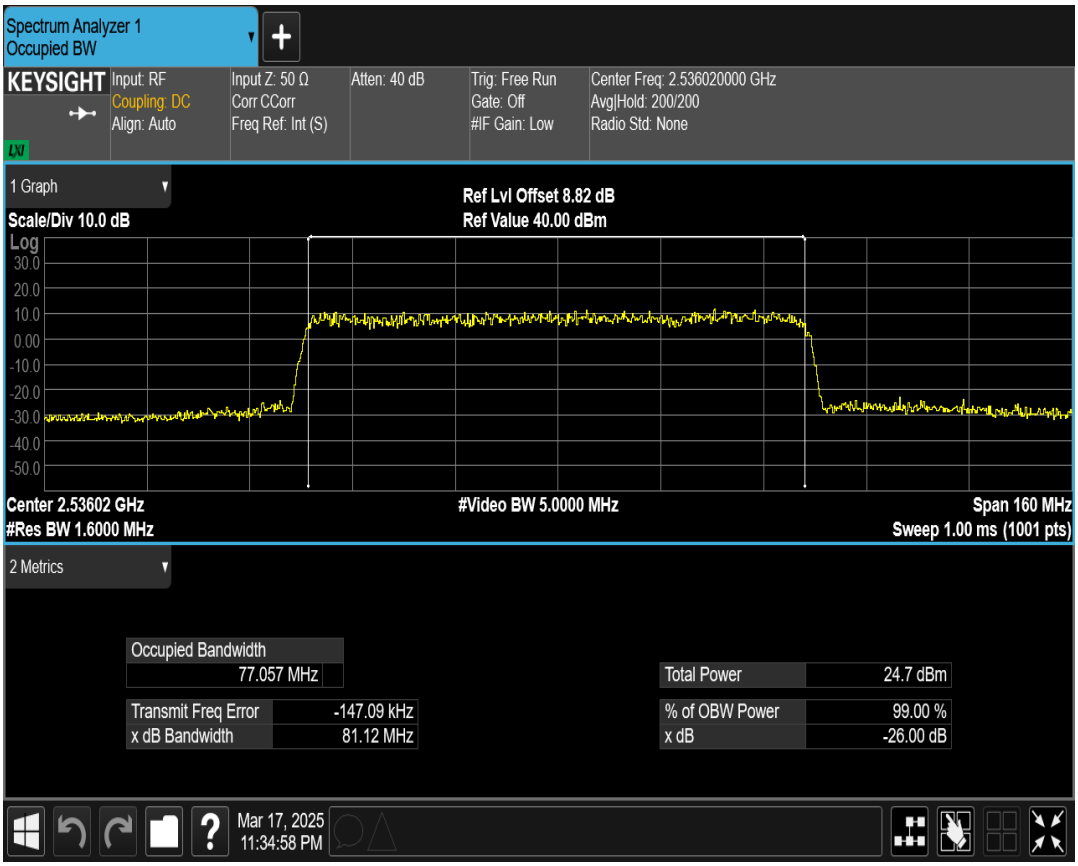
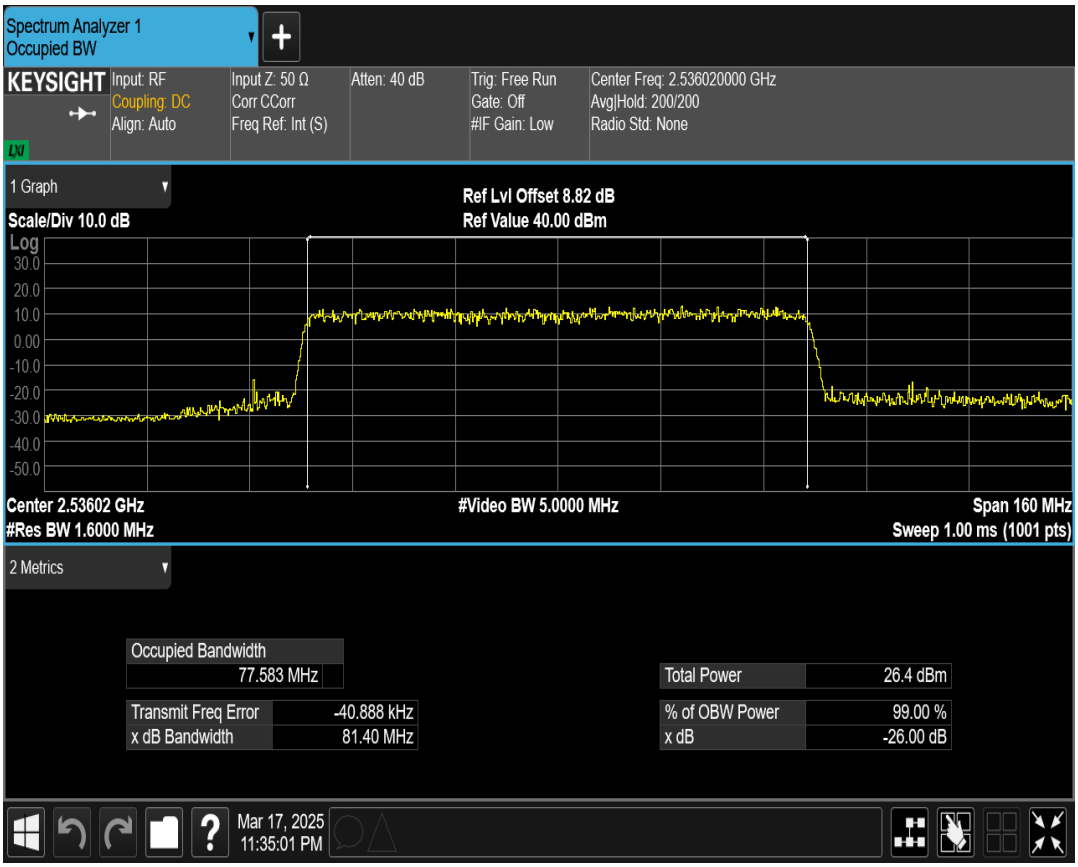
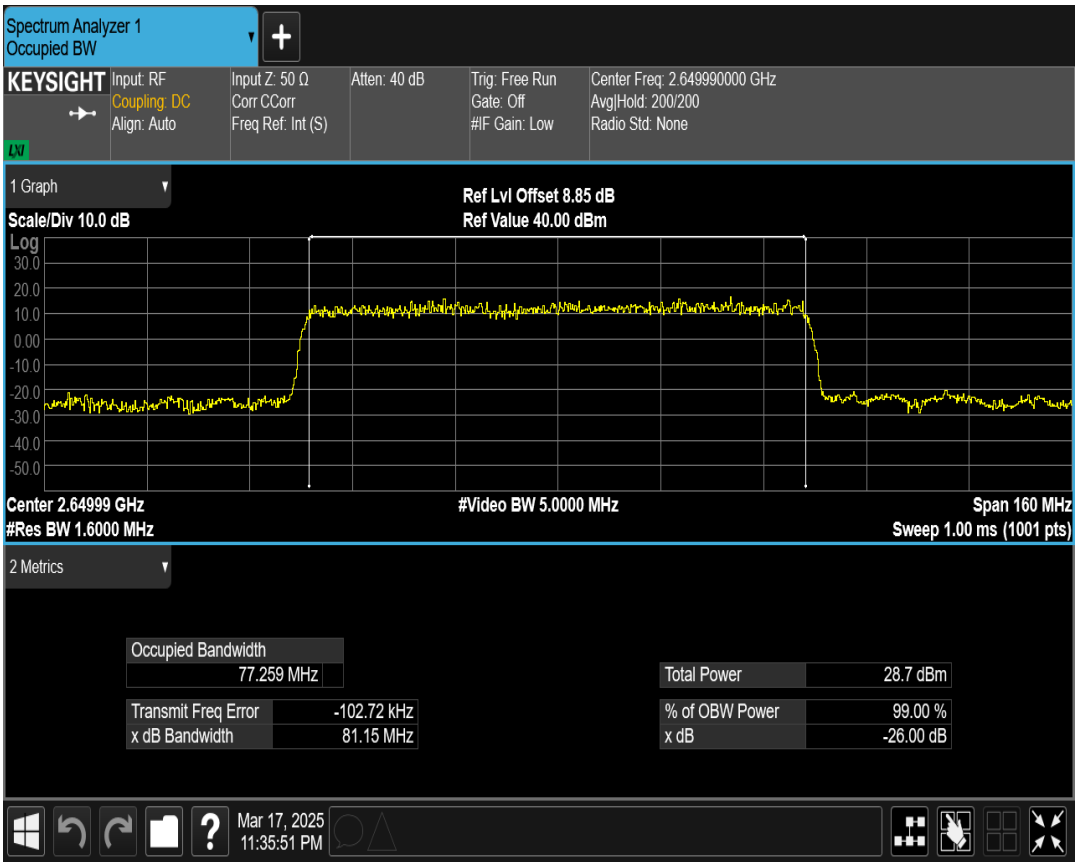


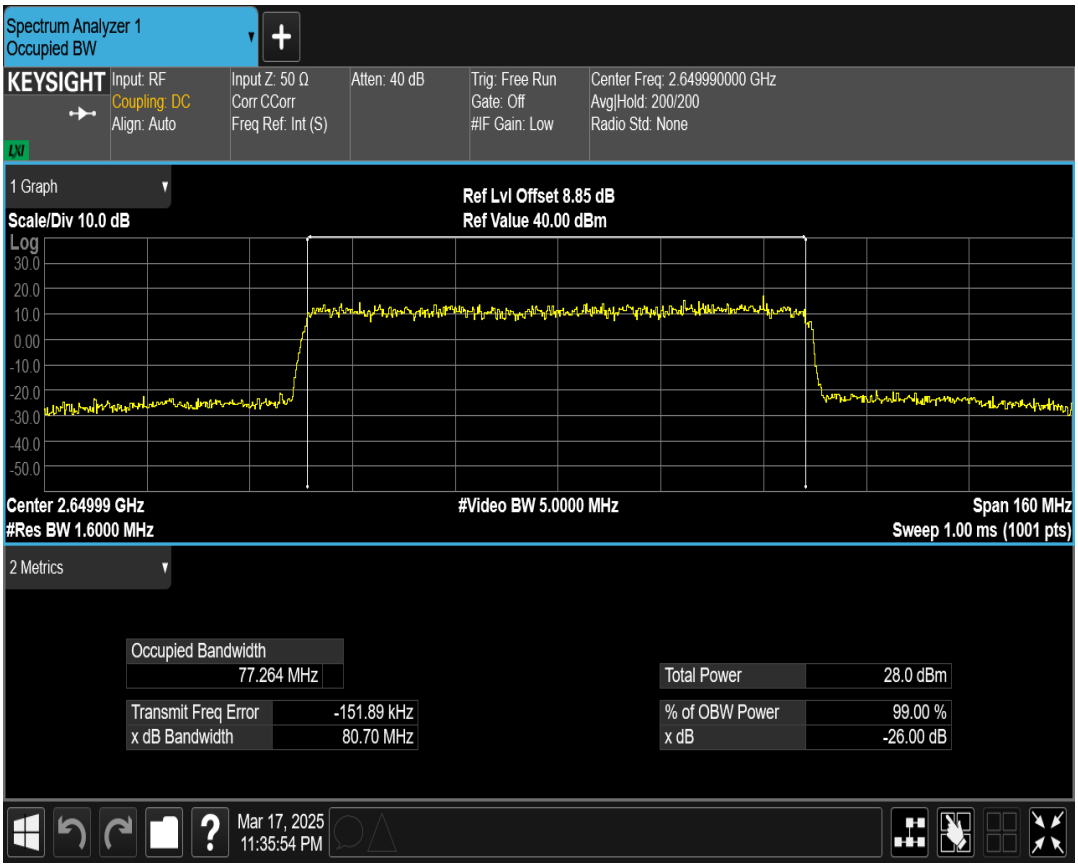
n41 SCS=30kHz CP_QPSK BW=80MHz Channel=507204 RB=217@0



n41 SCS=30kHz DFT_BPSK BW=80MHz Channel=529998 RB=216@0



n41 SCS=30kHz DFT_QPSK BW=80MHz Channel=529998 RB=216@0



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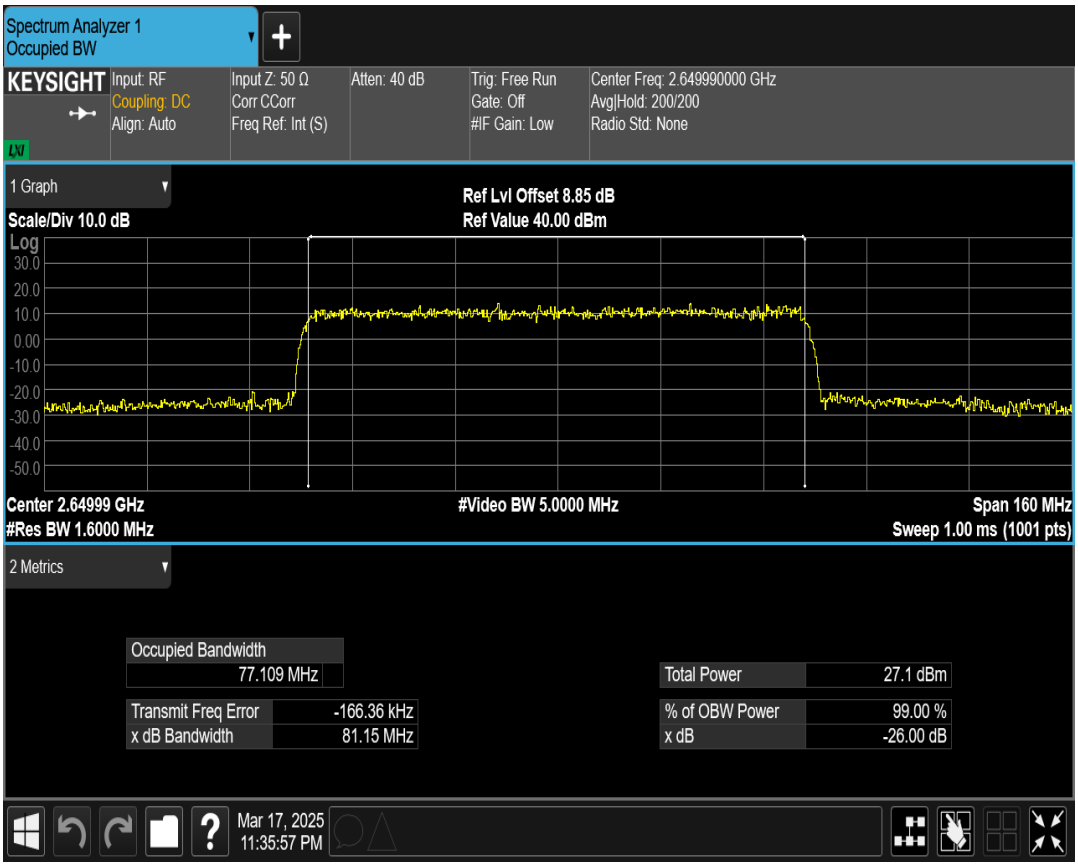
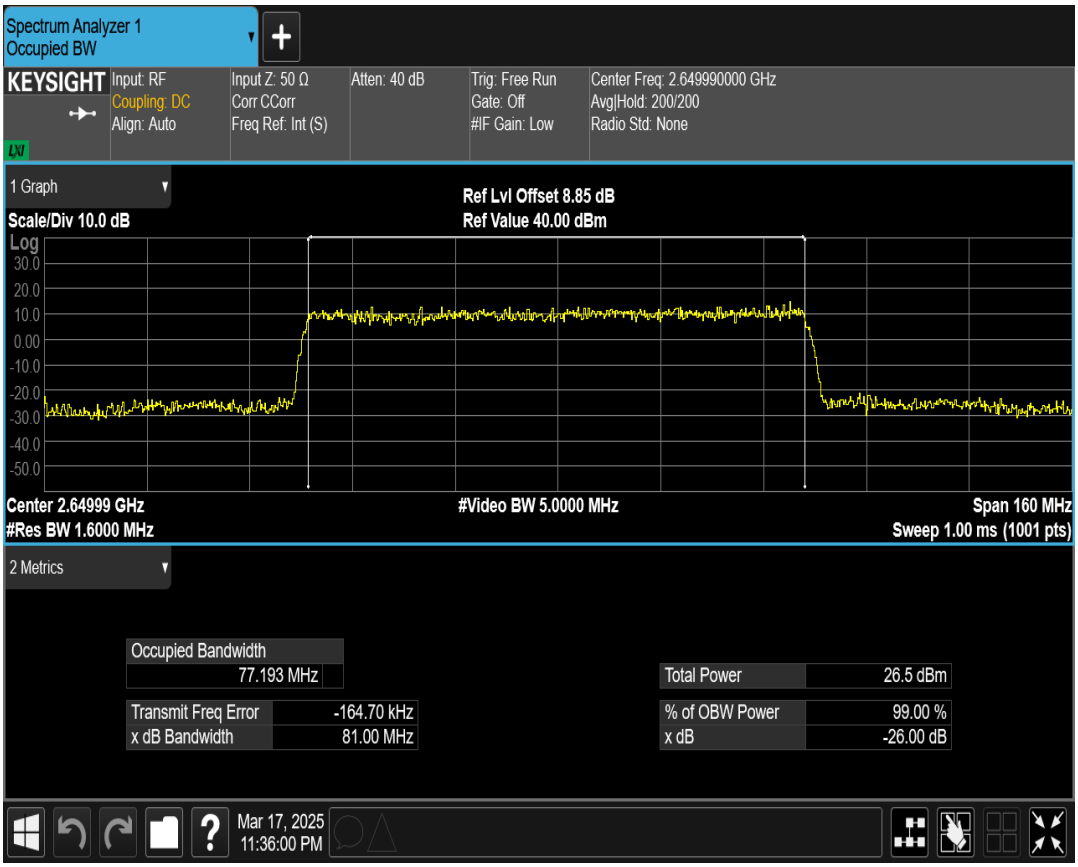


n41 SCS=30kHz DFT_QAM64 BW=80MHz Channel=529998 RB=216@0



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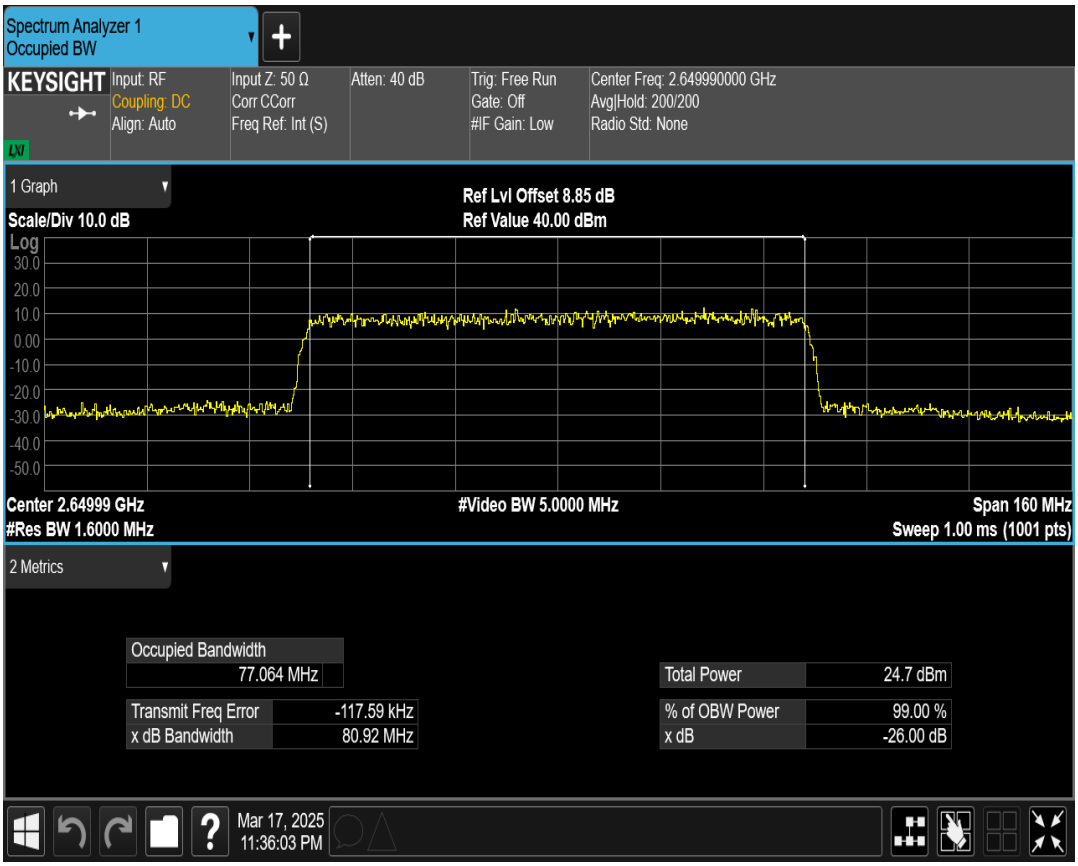
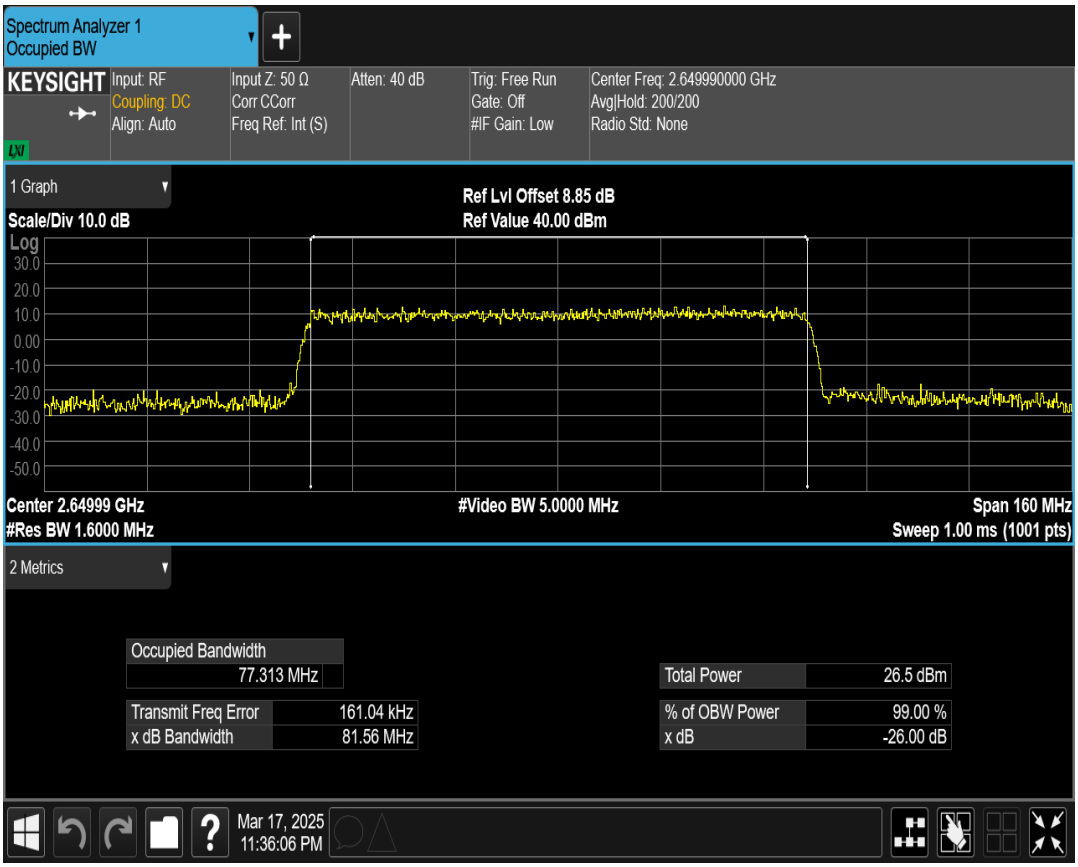
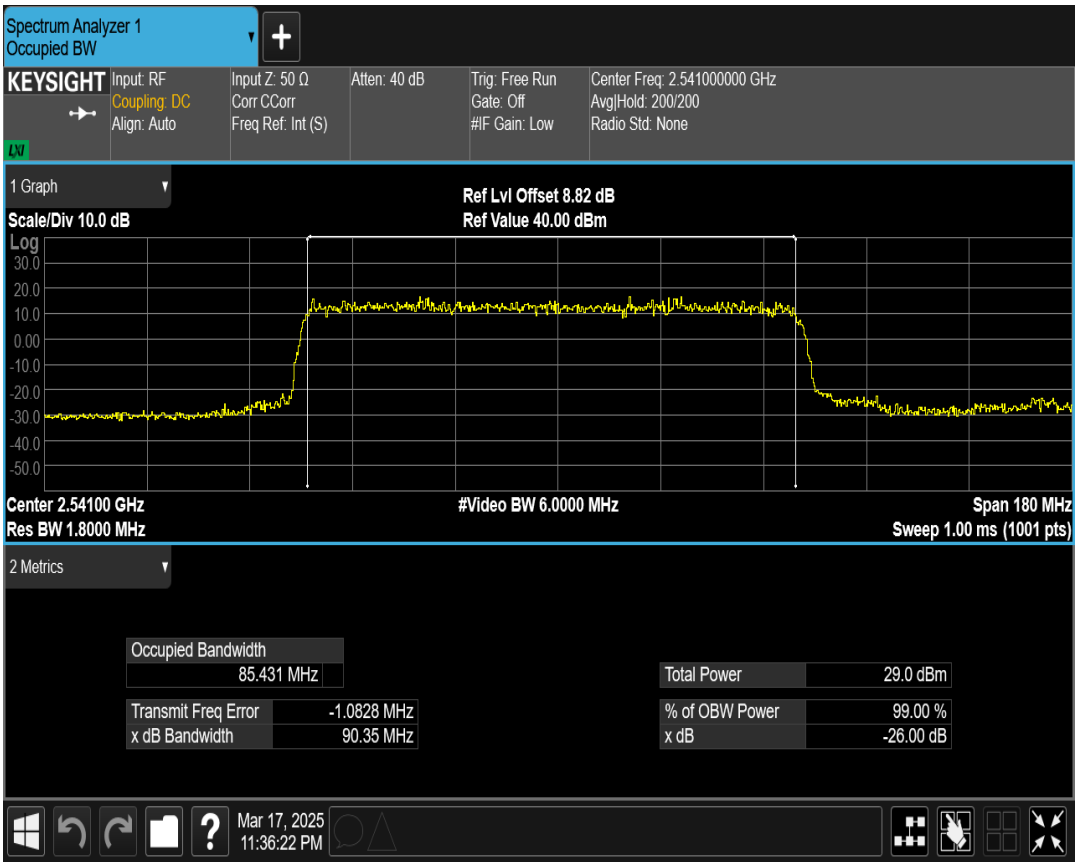


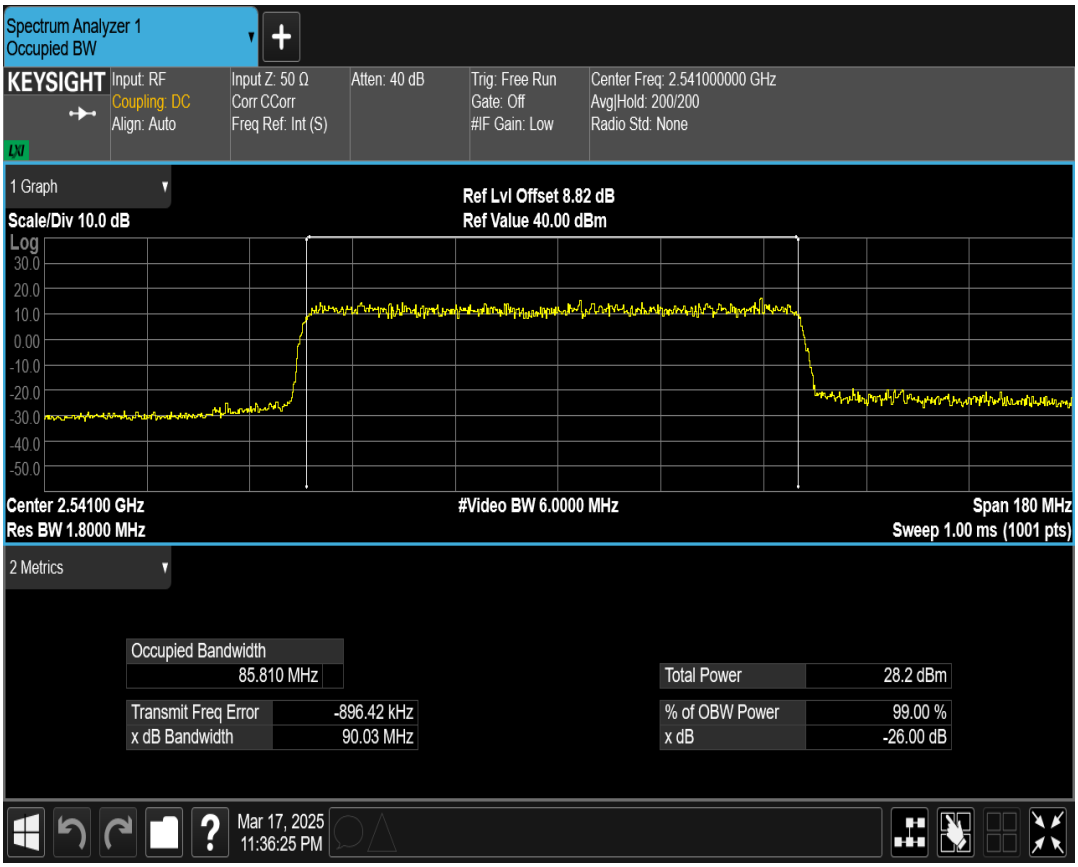
n41 SCS=30kHz CP_QPSK BW=80MHz Channel=529998 RB=217@0



n41 SCS=30kHz DFT_BPSK BW=90MHz Channel=508200 RB=240@0



n41 SCS=30kHz DFT_QPSK BW=90MHz Channel=508200 RB=240@0



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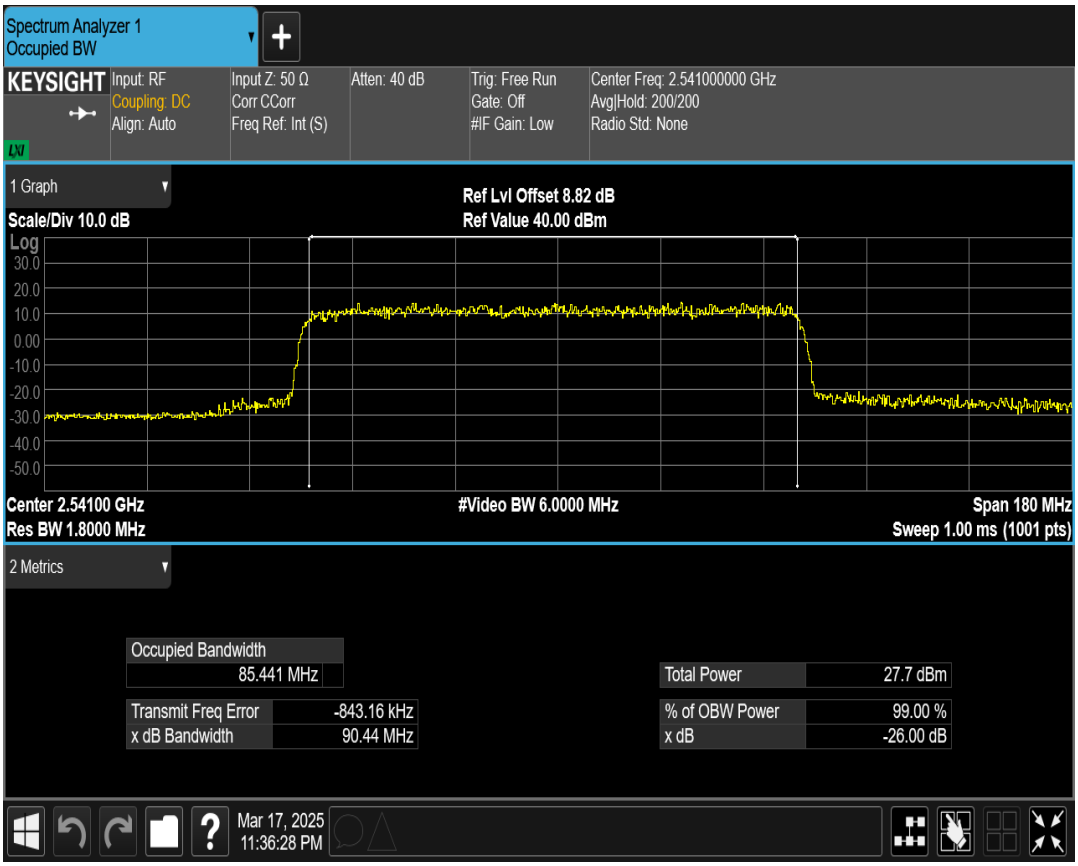
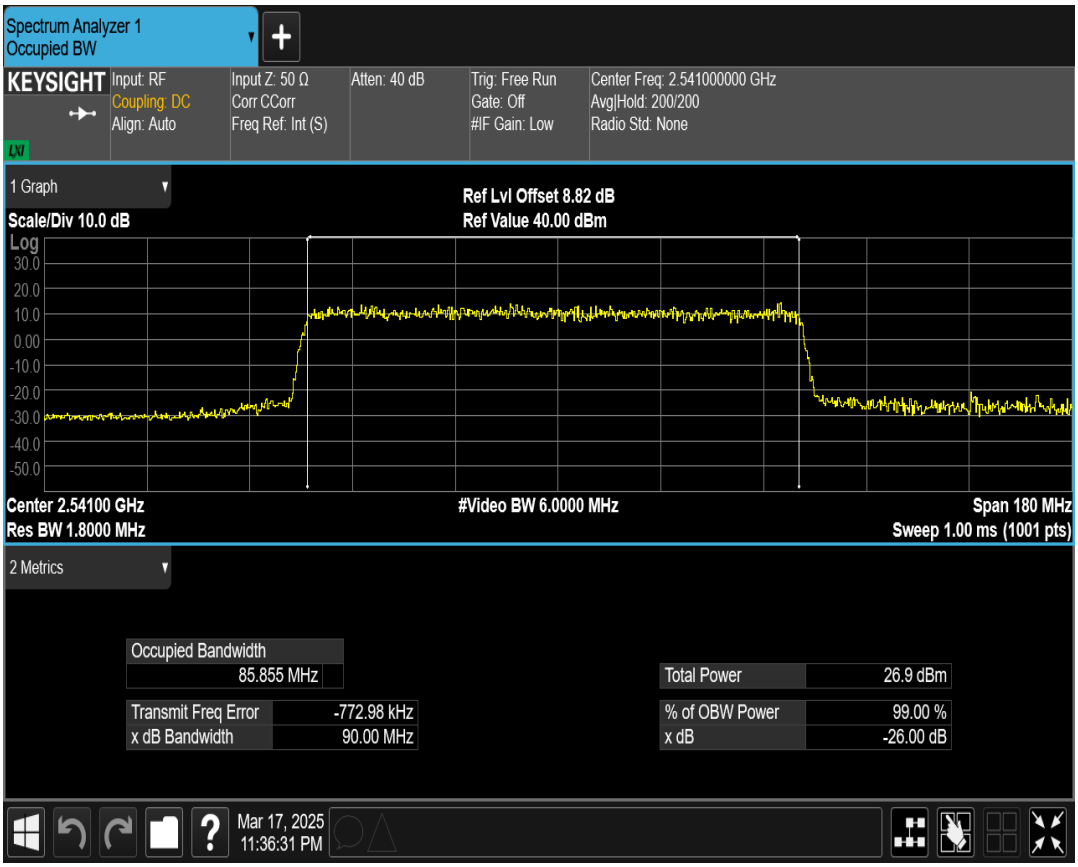
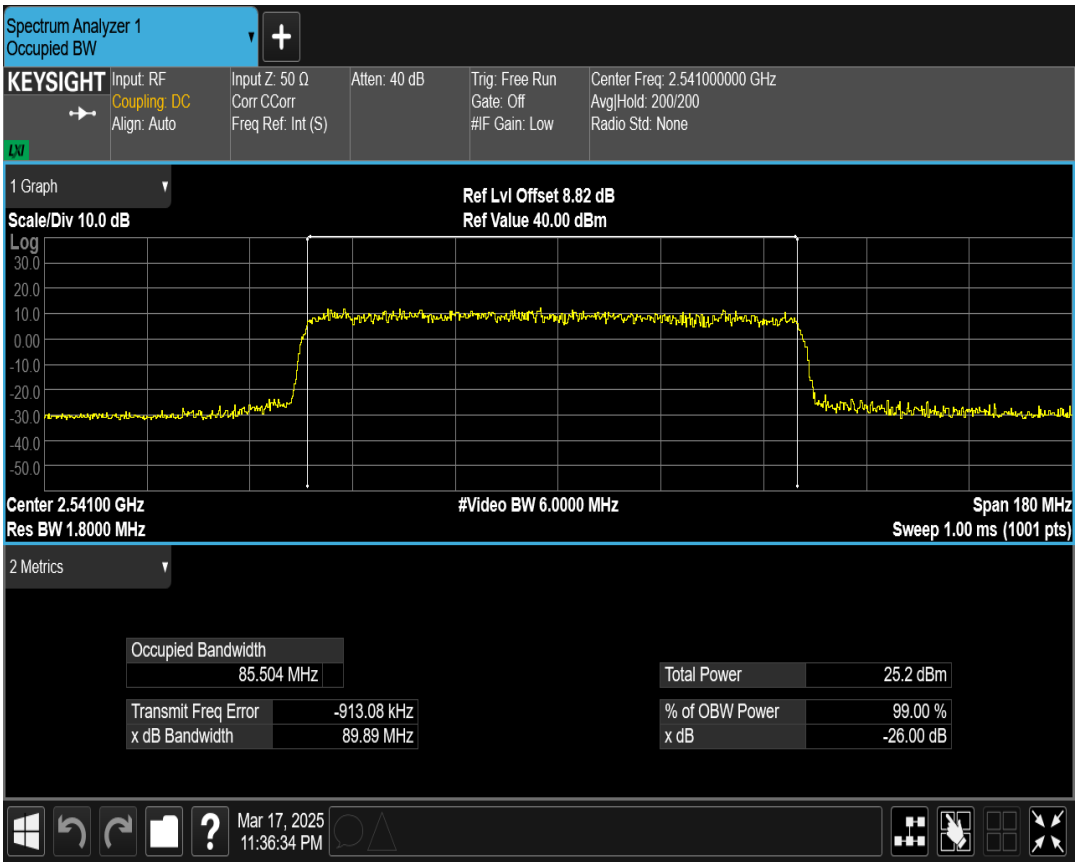


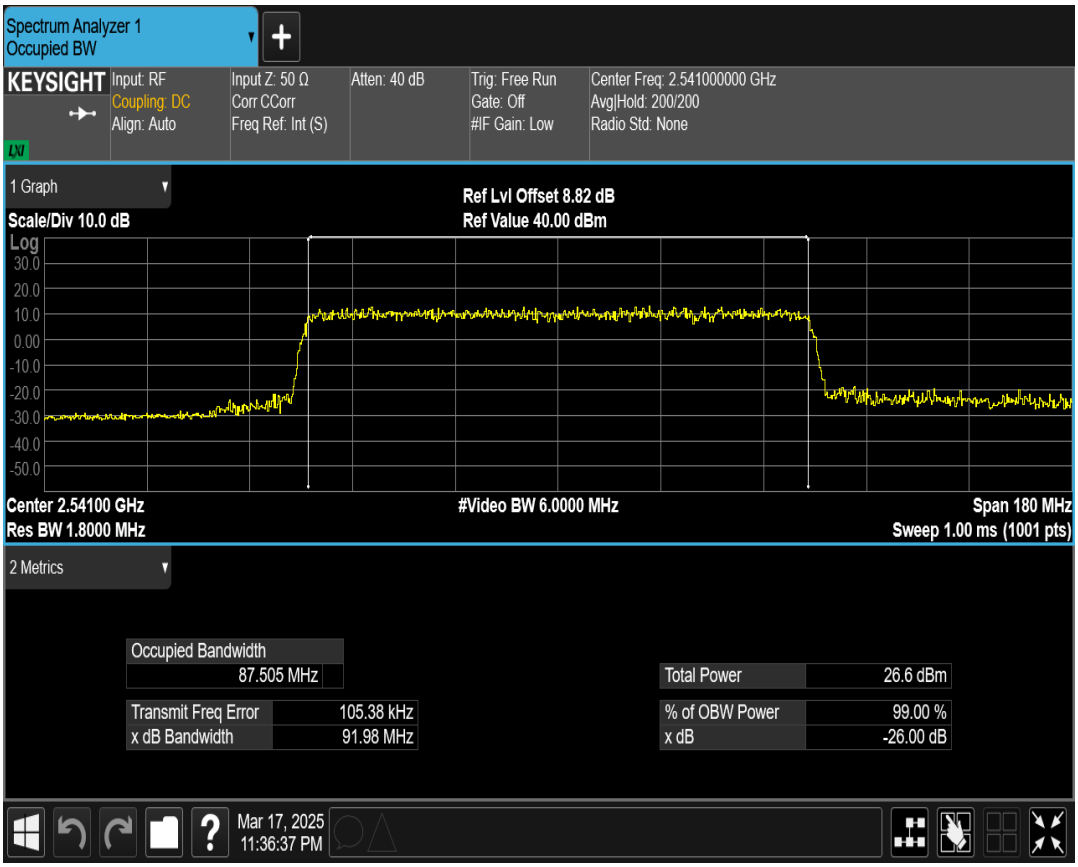
n41 SCS=30kHz DFT_QAM64 BW=90MHz Channel=508200 RB=240@0



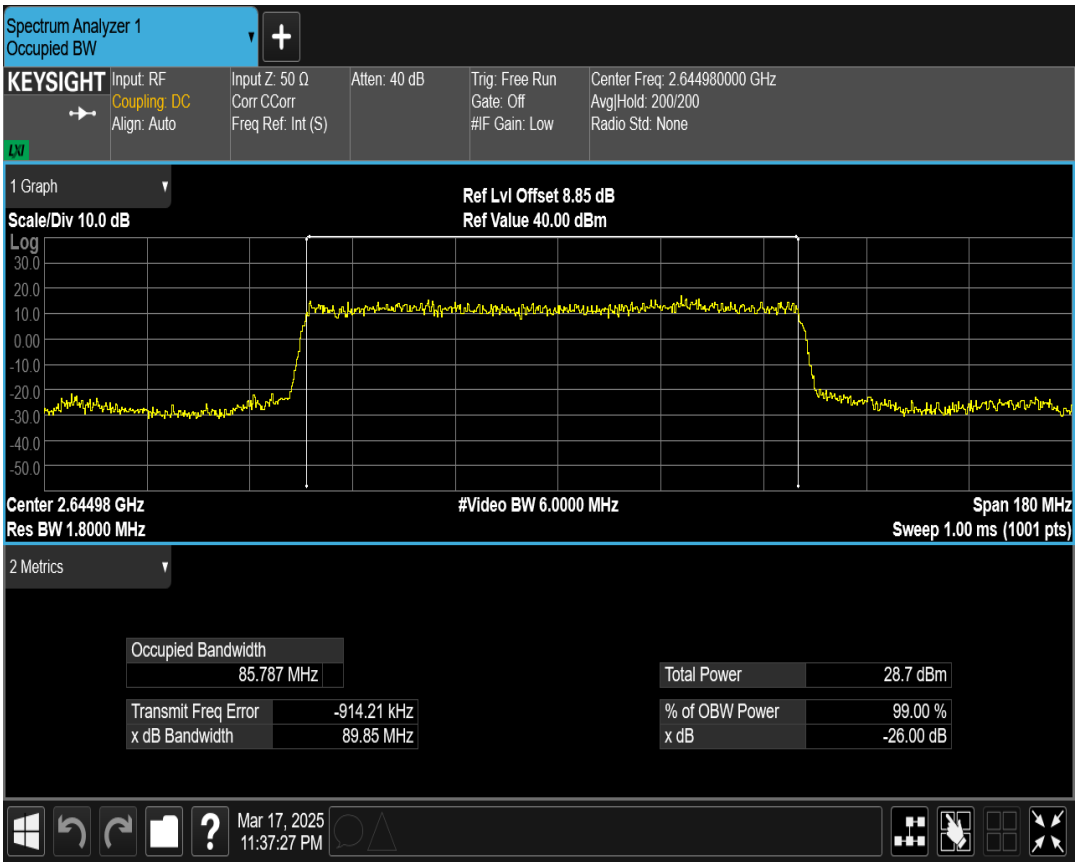
n41 SCS=30kHz DFT_QAM256 BW=90MHz Channel=508200 RB=240@0



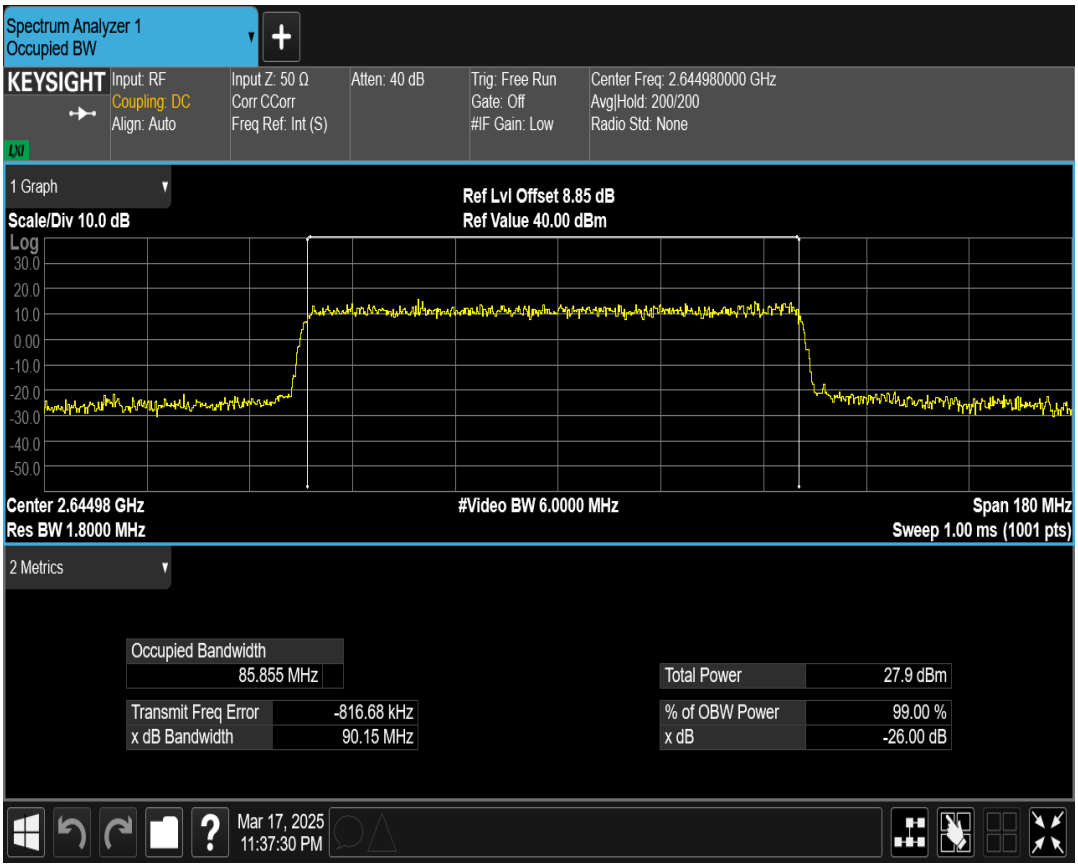
n41 SCS=30kHz CP_QPSK BW=90MHz Channel=508200 RB=245@0



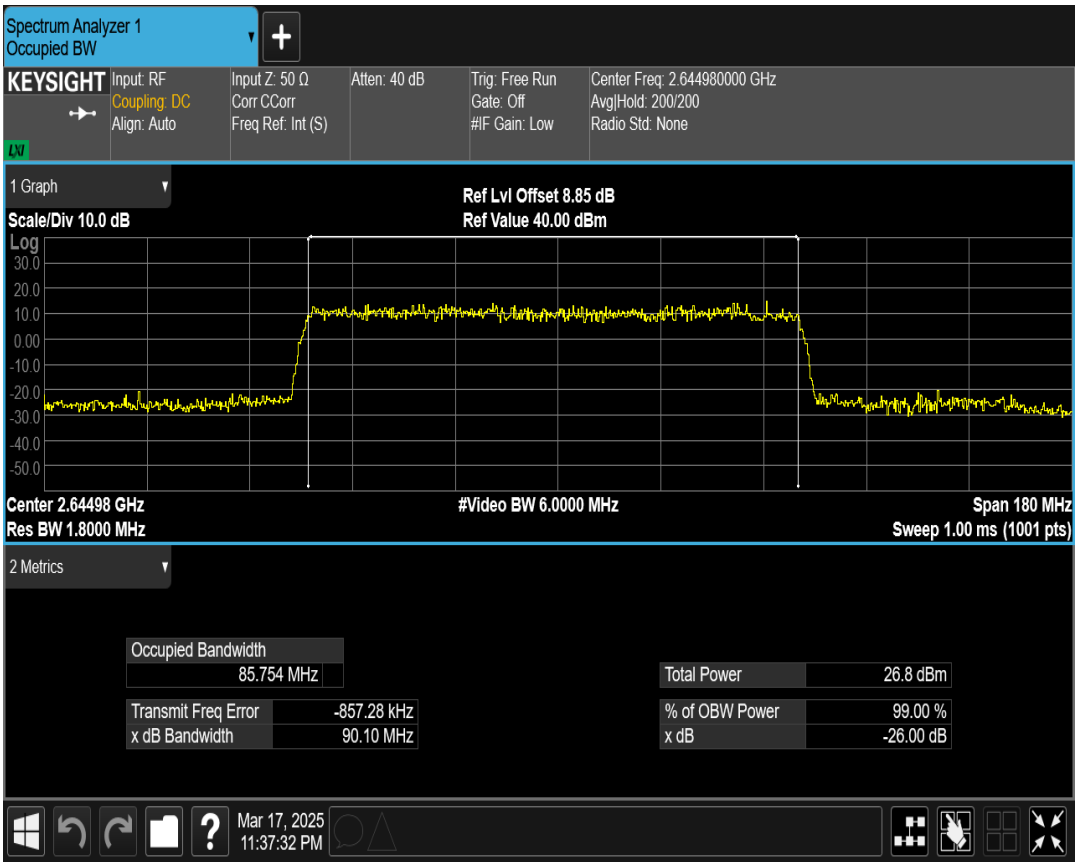
n41 SCS=30kHz DFT_BPSK BW=90MHz Channel=528996 RB=240@0



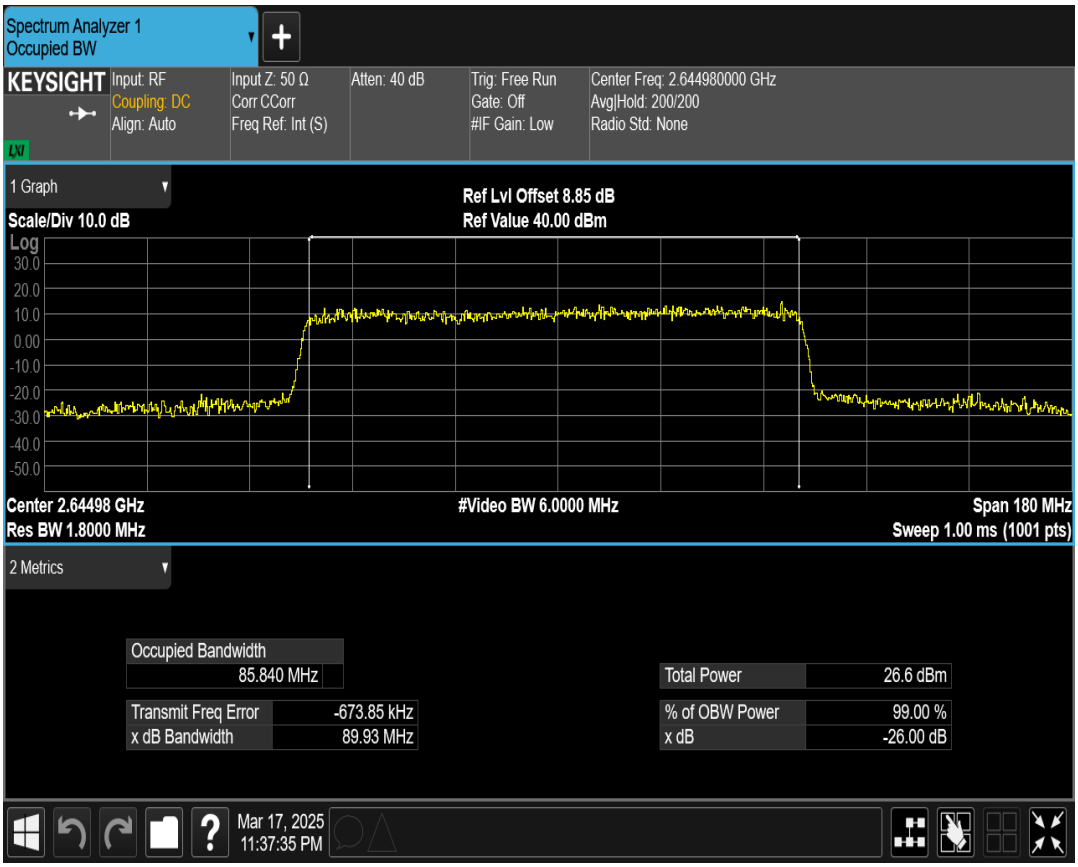
n41 SCS=30kHz DFT_QPSK BW=90MHz Channel=528996 RB=240@0



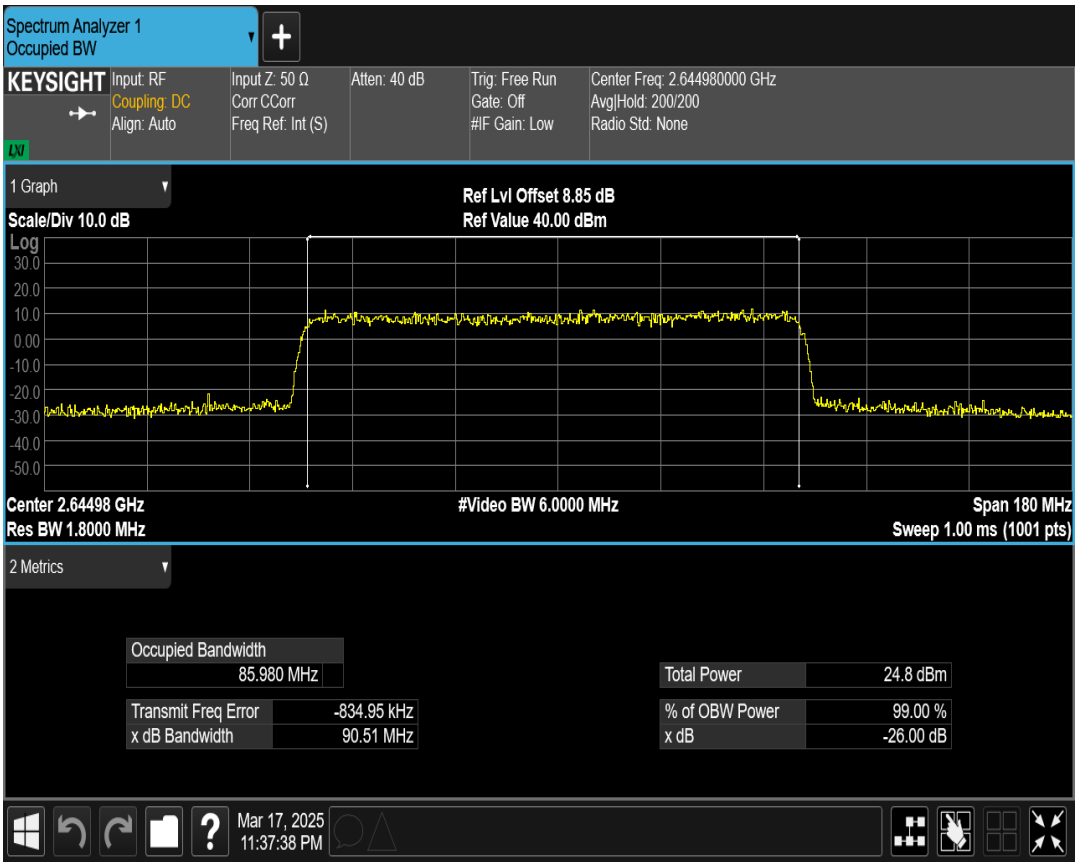
n41 SCS=30kHz DFT_QAM16 BW=90MHz Channel=528996 RB=240@0



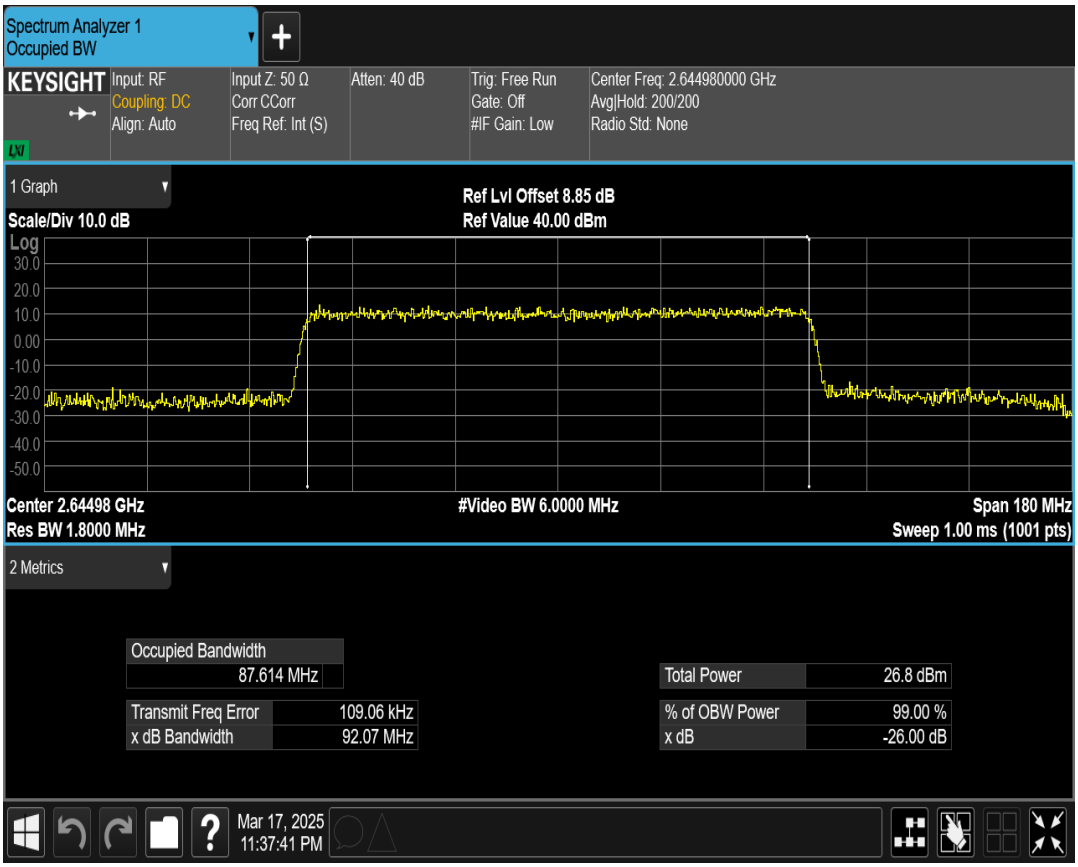
n41 SCS=30kHz DFT_QAM64 BW=90MHz Channel=528996 RB=240@0



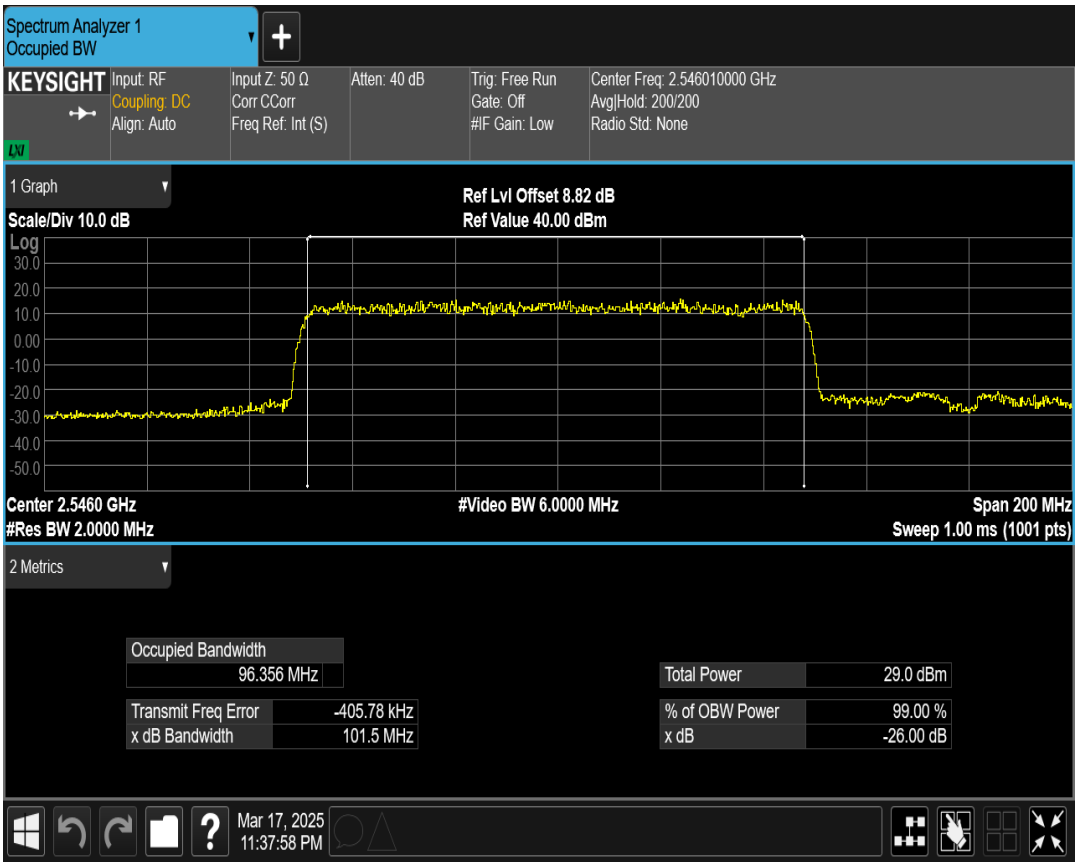
n41 SCS=30kHz DFT_QAM256 BW=90MHz Channel=528996 RB=240@0



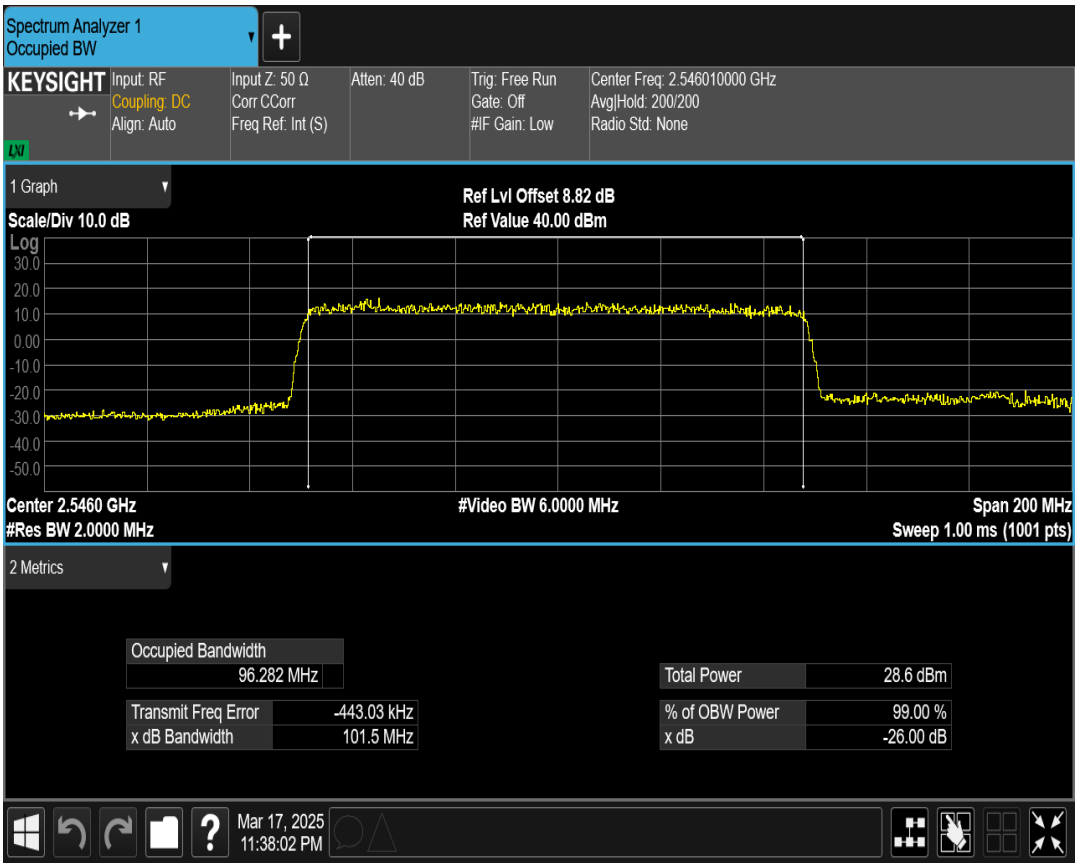
n41 SCS=30kHz CP_QPSK BW=90MHz Channel=528996 RB=245@0



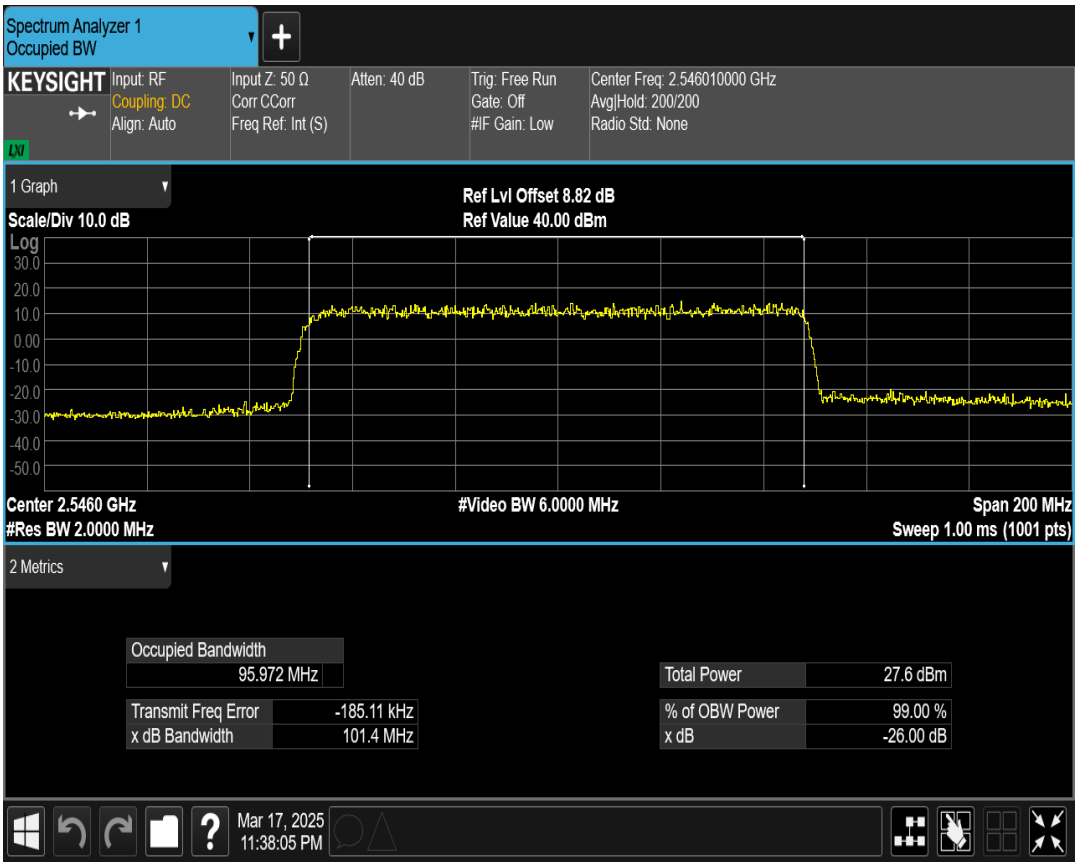
n41 SCS=30kHz DFT_BPSK BW=100MHz Channel=509202 RB=270@0



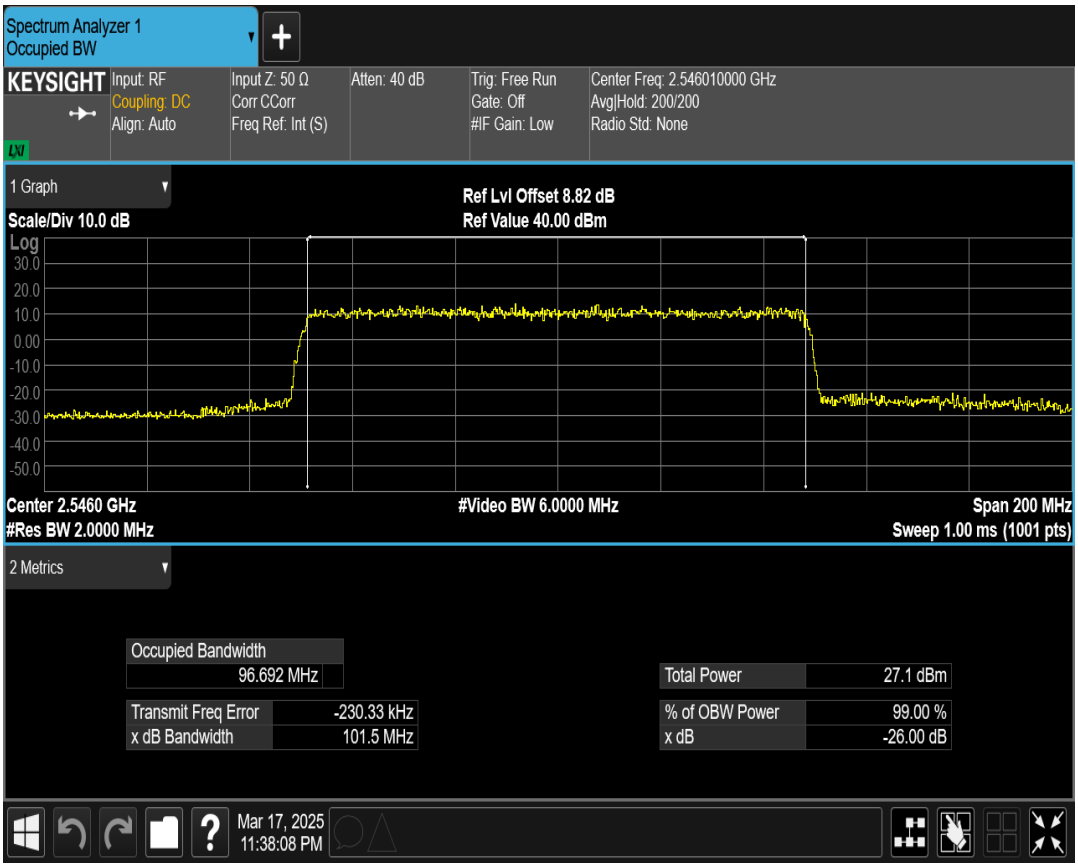
n41 SCS=30kHz DFT_QPSK BW=100MHz Channel=509202 RB=270@0



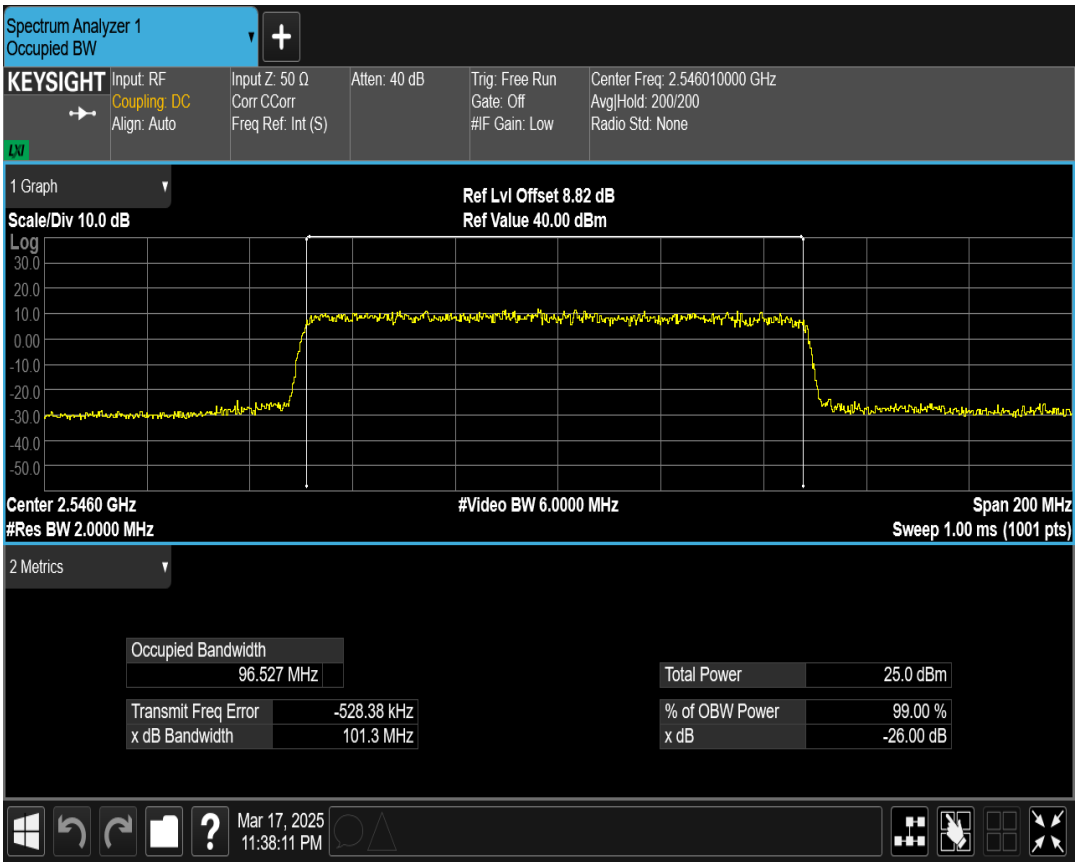
n41 SCS=30kHz DFT_QAM16 BW=100MHz Channel=509202 RB=270@0



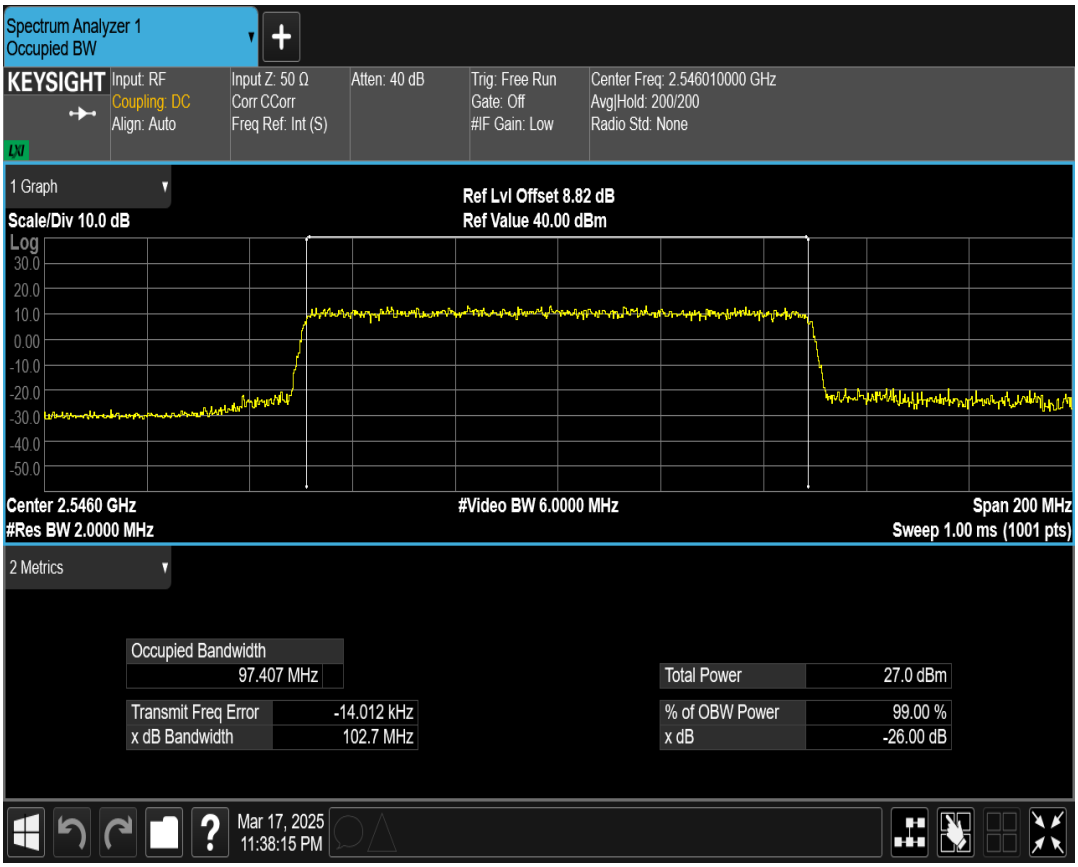
n41 SCS=30kHz DFT_QAM64 BW=100MHz Channel=509202 RB=270@0



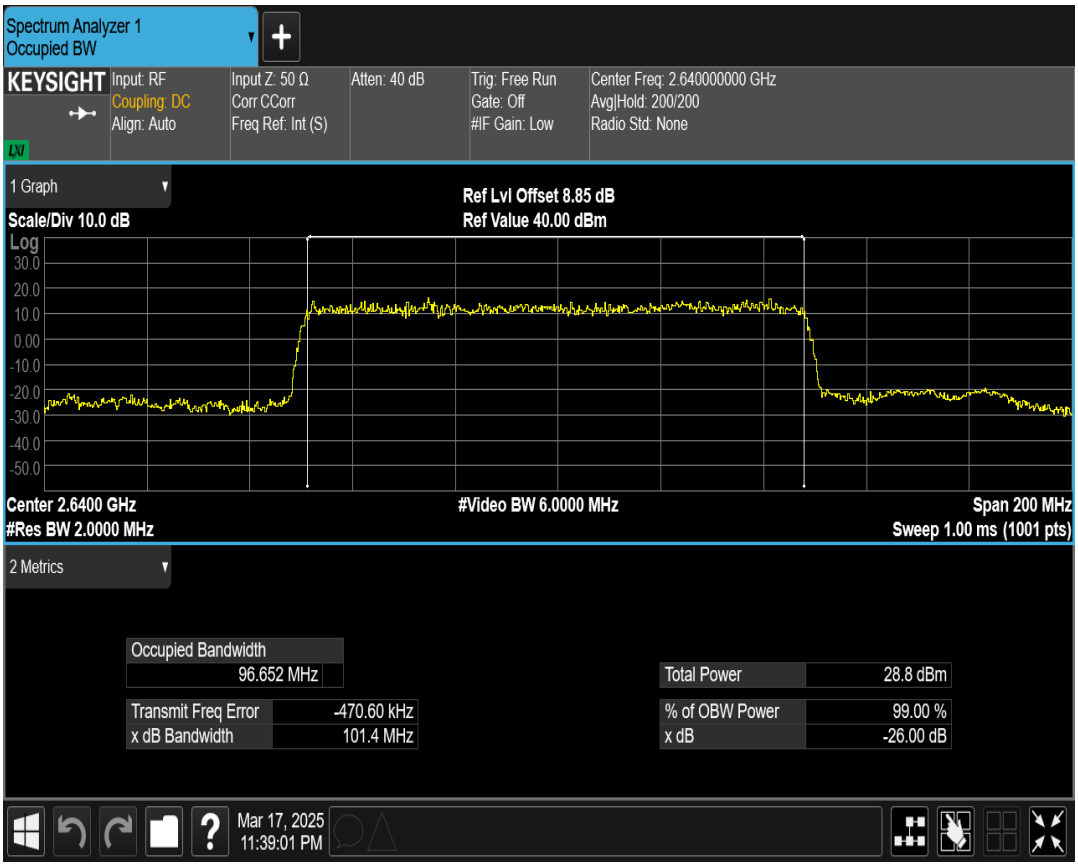
n41 SCS=30kHz DFT_QAM256 BW=100MHz Channel=509202 RB=270@0



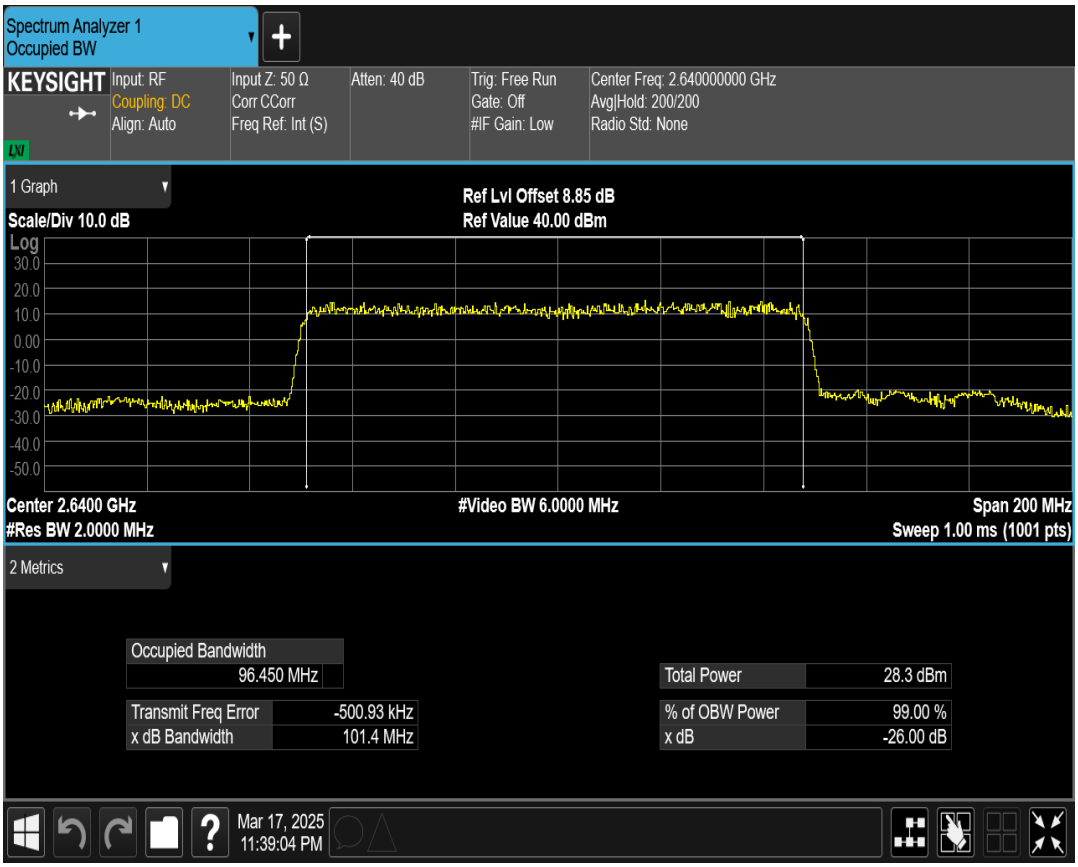
n41 SCS=30kHz CP_QPSK BW=100MHz Channel=509202 RB=273@0



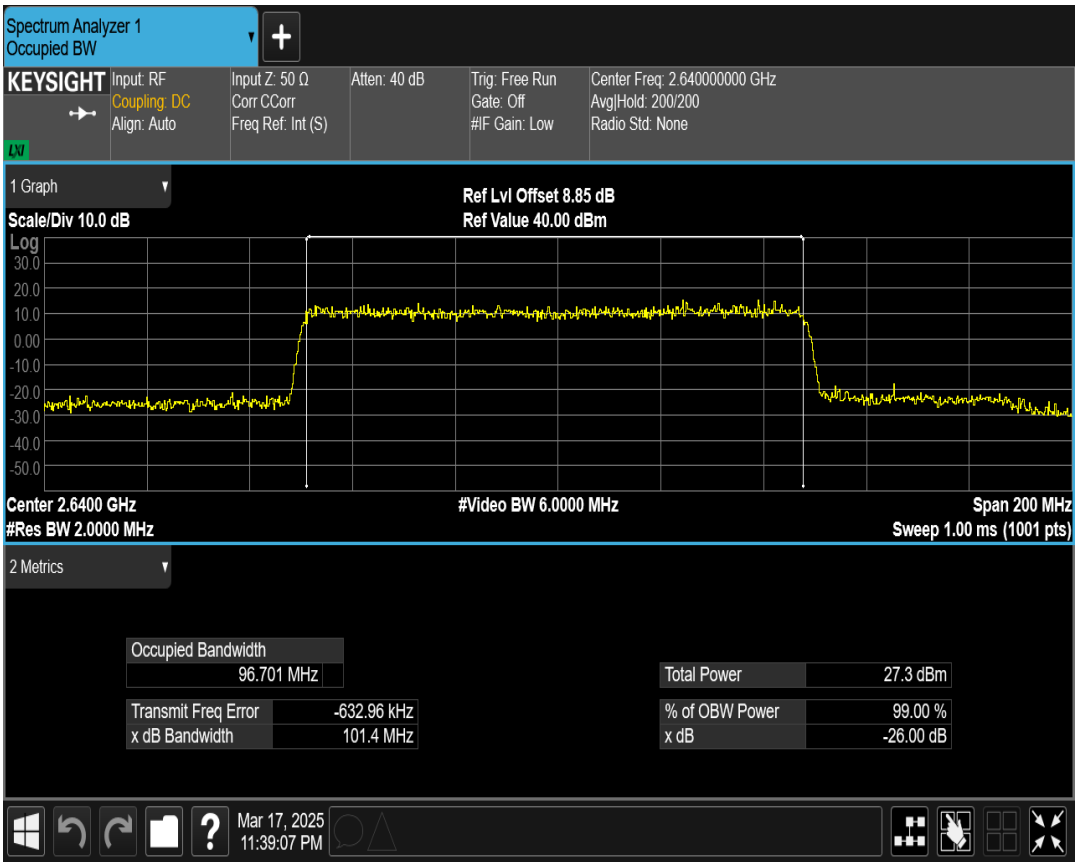
n41 SCS=30kHz DFT_BPSK BW=100MHz Channel=528000 RB=270@0



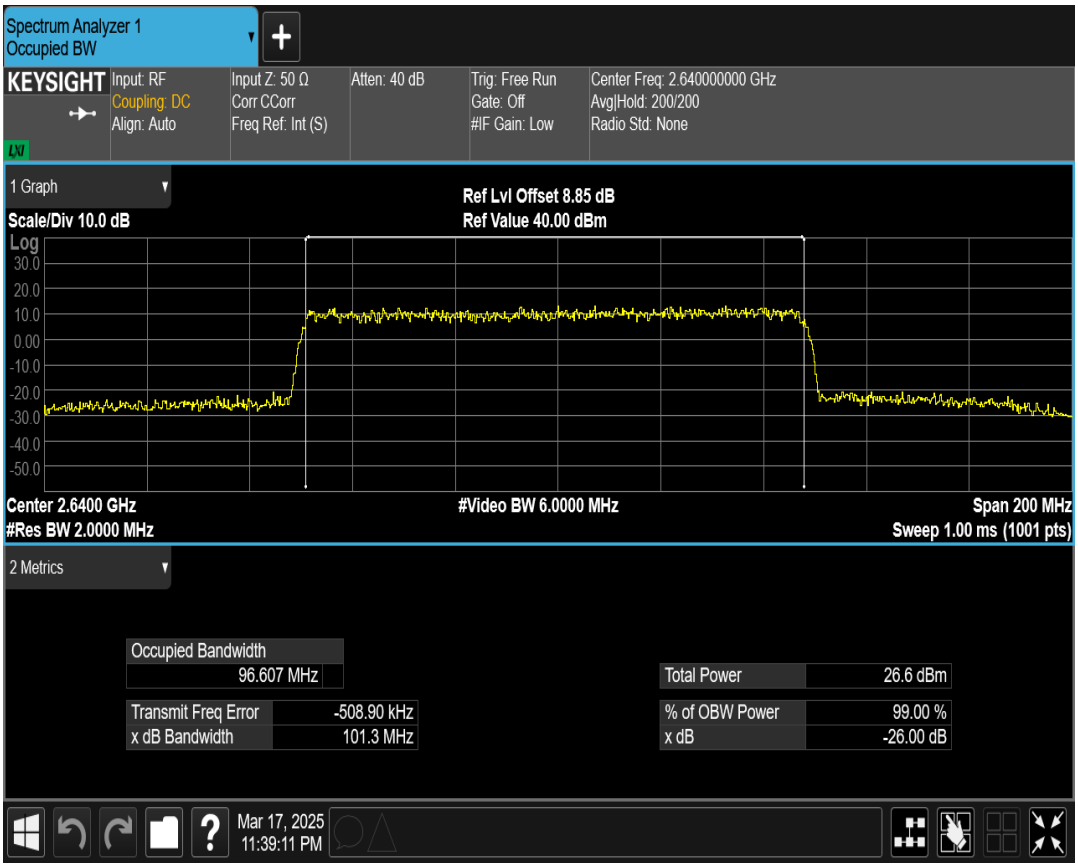
n41 SCS=30kHz DFT_QPSK BW=100MHz Channel=528000 RB=270@0



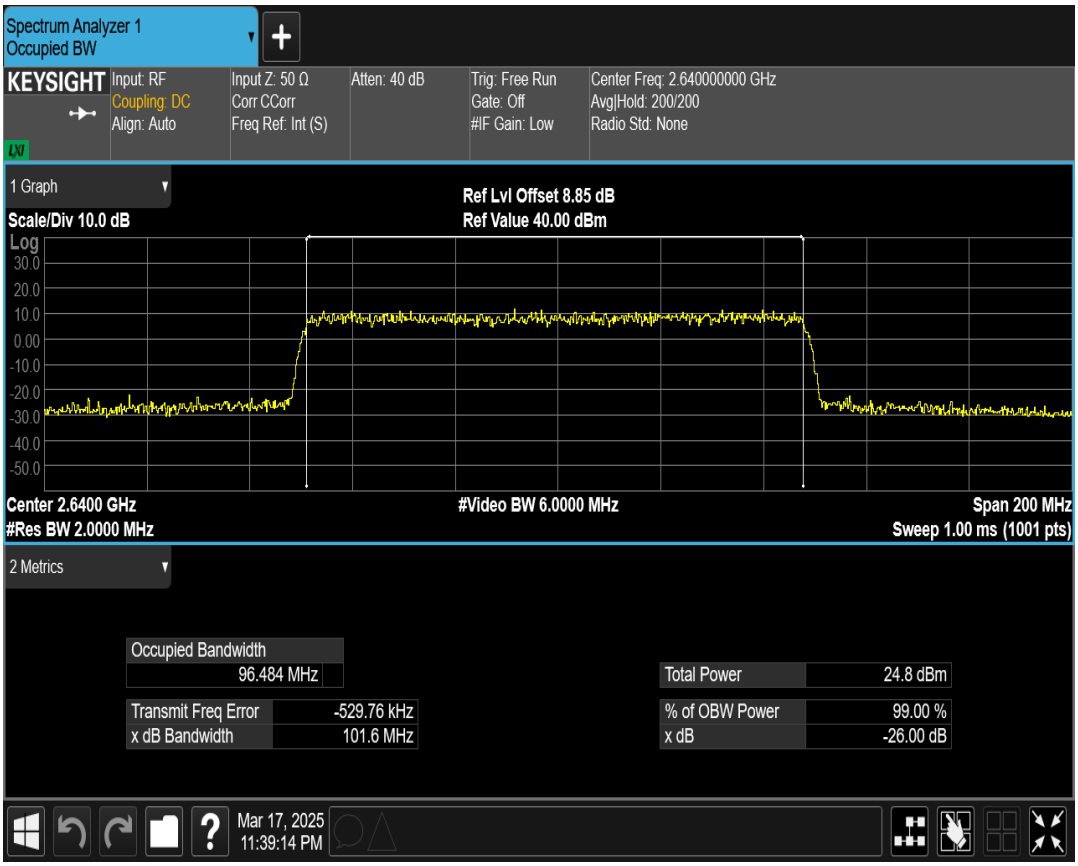
n41 SCS=30kHz DFT_QAM16 BW=100MHz Channel=528000 RB=270@0



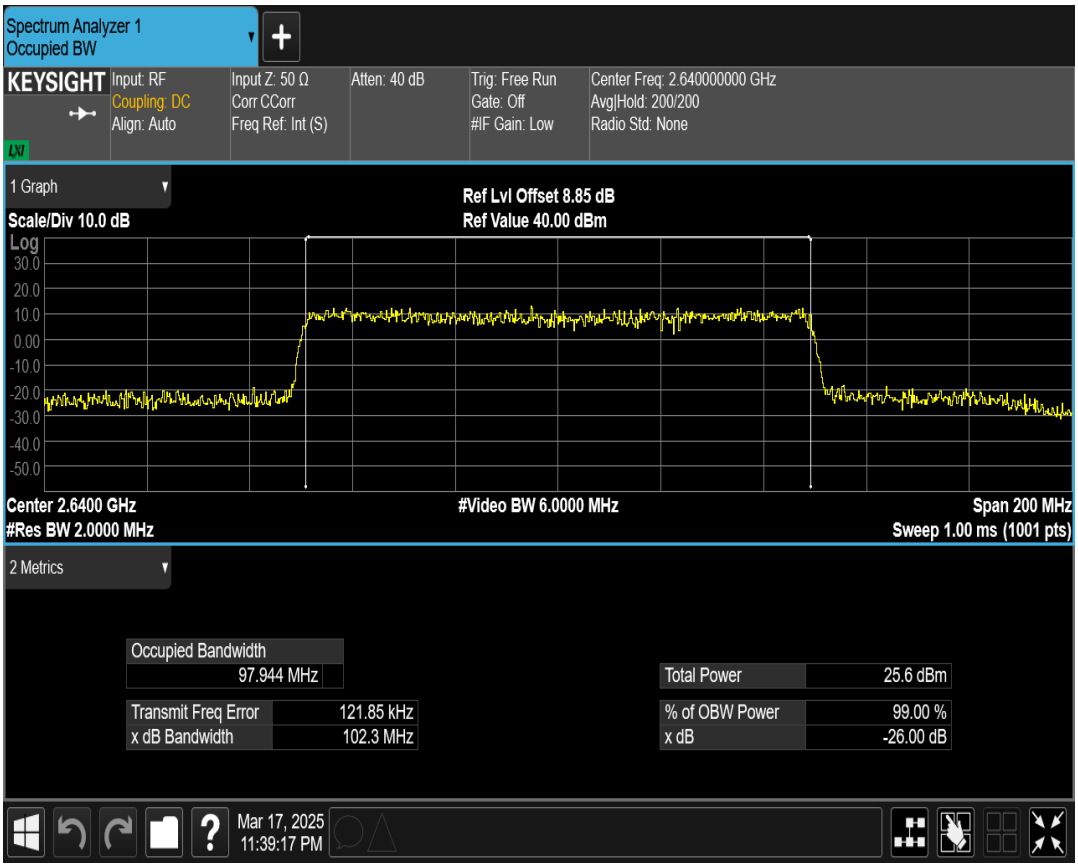
n41 SCS=30kHz DFT_QAM64 BW=100MHz Channel=528000 RB=270@0



n41 SCS=30kHz DFT_QAM256 BW=100MHz Channel=528000 RB=270@0



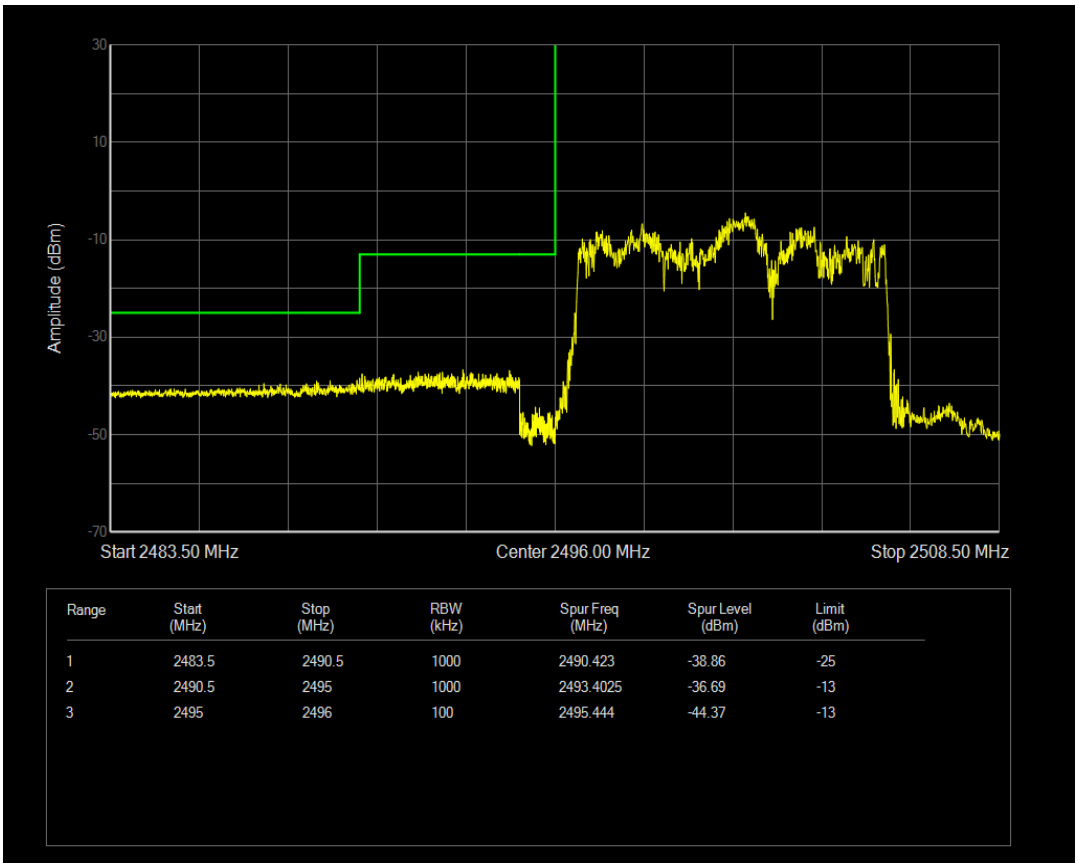
n41 SCS=30kHz CP_QPSK BW=100MHz Channel=528000 RB=273@0



5 Band edge for NR FR1

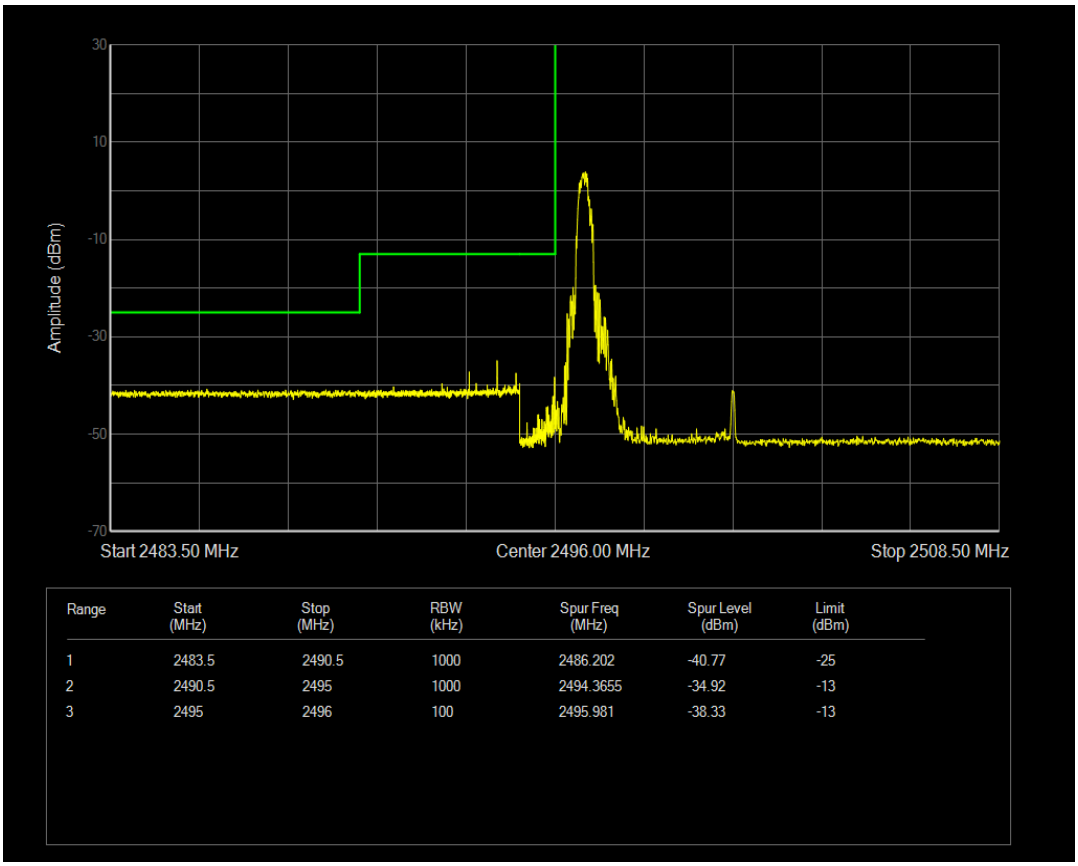
Band	SCS (kHz)	Bandwidth (MHz)	UL Channel	RB Allocation	Modulation	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)	Verdict
n41	30	10	500202	24@0	DFT_QPSK	2490.42	-38.86	-25	PASS
n41	30	10	500202	1@0	DFT_QPSK	2486.20	-40.77	-25	PASS
n41	30	10	537000	24@0	DFT_QPSK	2700.18	-40.29	-25	PASS
n41	30	10	537000	1@23	DFT_QPSK	2701.15	-40.77	-25	PASS
n41	30	100	509202	270@0	DFT_QPSK	2489.54	-40.89	-25	PASS
n41	30	100	509202	1@0	DFT_QPSK	2455.25	-41.13	-25	PASS
n41	30	100	528000	270@0	DFT_QPSK	2800.55	-40.63	-25	PASS
n41	30	100	528000	1@272	DFT_QPSK	2794.85	-40.80	-25	PASS

n41 SCS=30kHz DFT_QPSK BW=10MHz Channel=500202 RB=24@0



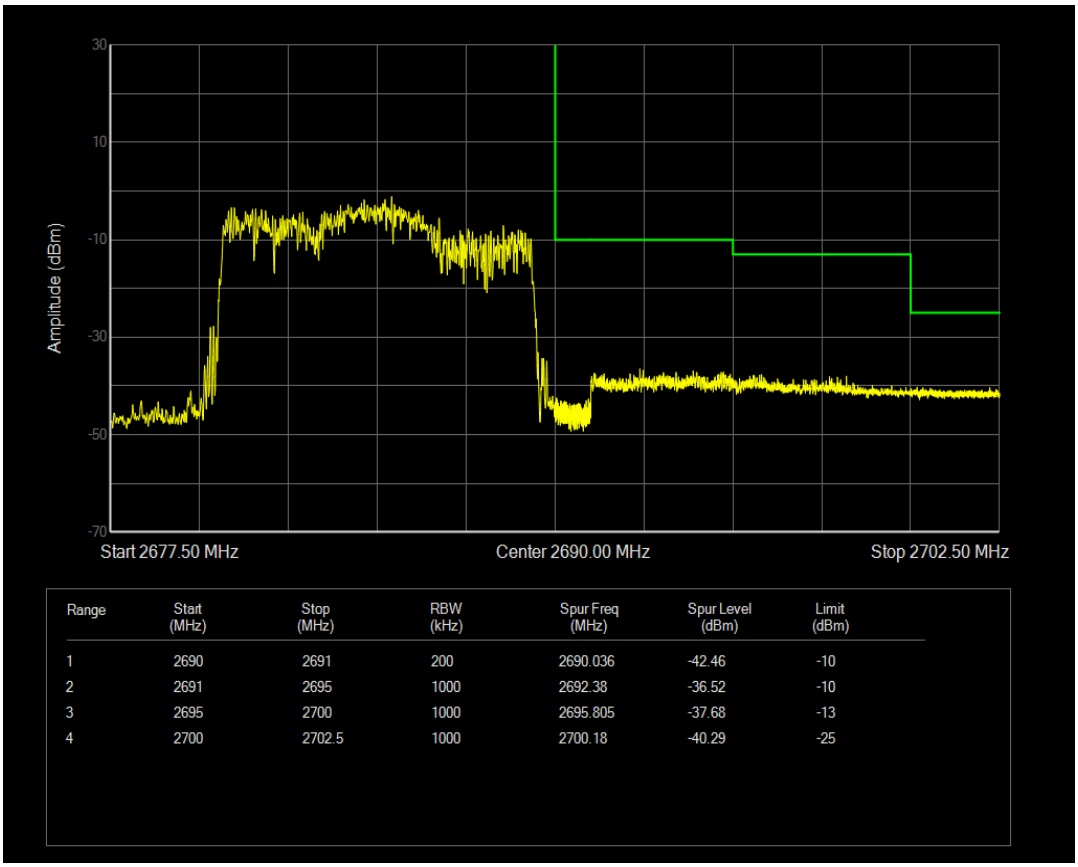
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	2483.5	2490.5	1000	2490.423	-38.86	-25
2	2490.5	2495	1000	2493.4025	-36.69	-13
3	2495	2496	100	2495.444	-44.37	-13

n41 SCS=30kHz DFT_QPSK BW=10MHz Channel=500202 RB=1@0



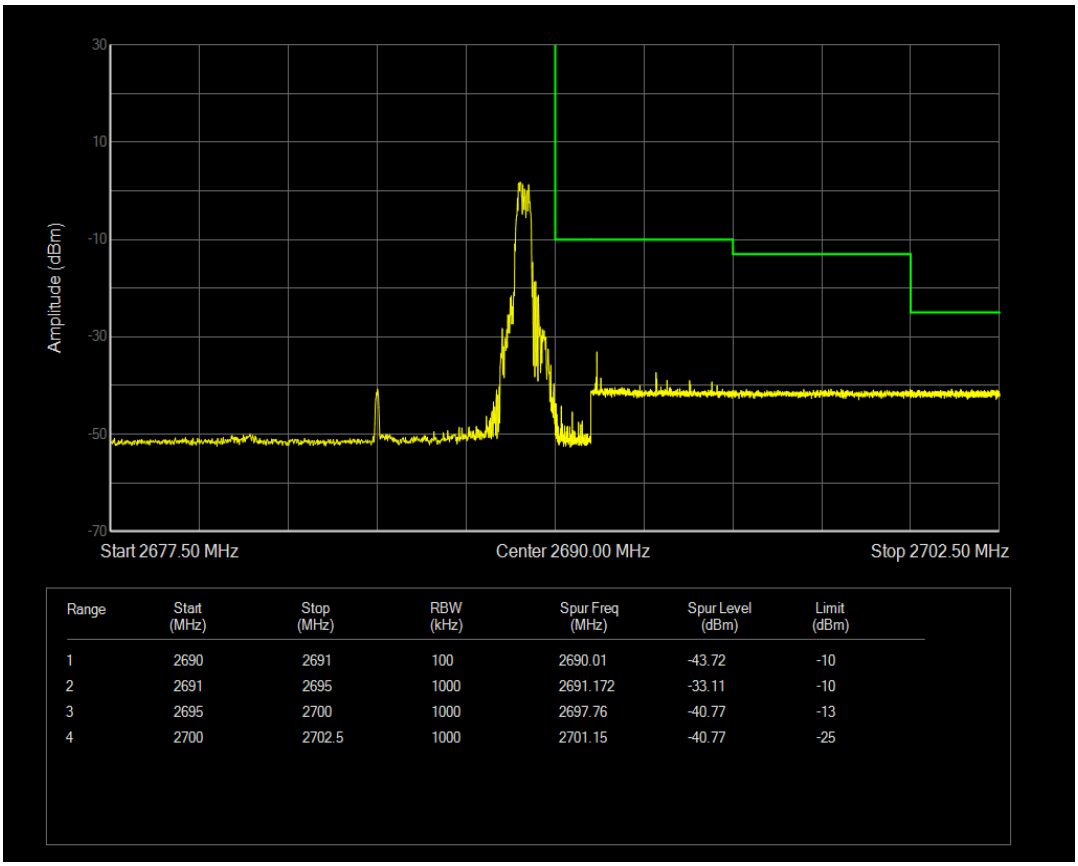
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	2483.5	2490.5	1000	2486.202	-40.77	-25
2	2490.5	2495	1000	2494.3655	-34.92	-13
3	2495	2496	100	2495.981	-38.33	-13

n41 SCS=30kHz DFT_QPSK BW=10MHz Channel=537000 RB=24@0



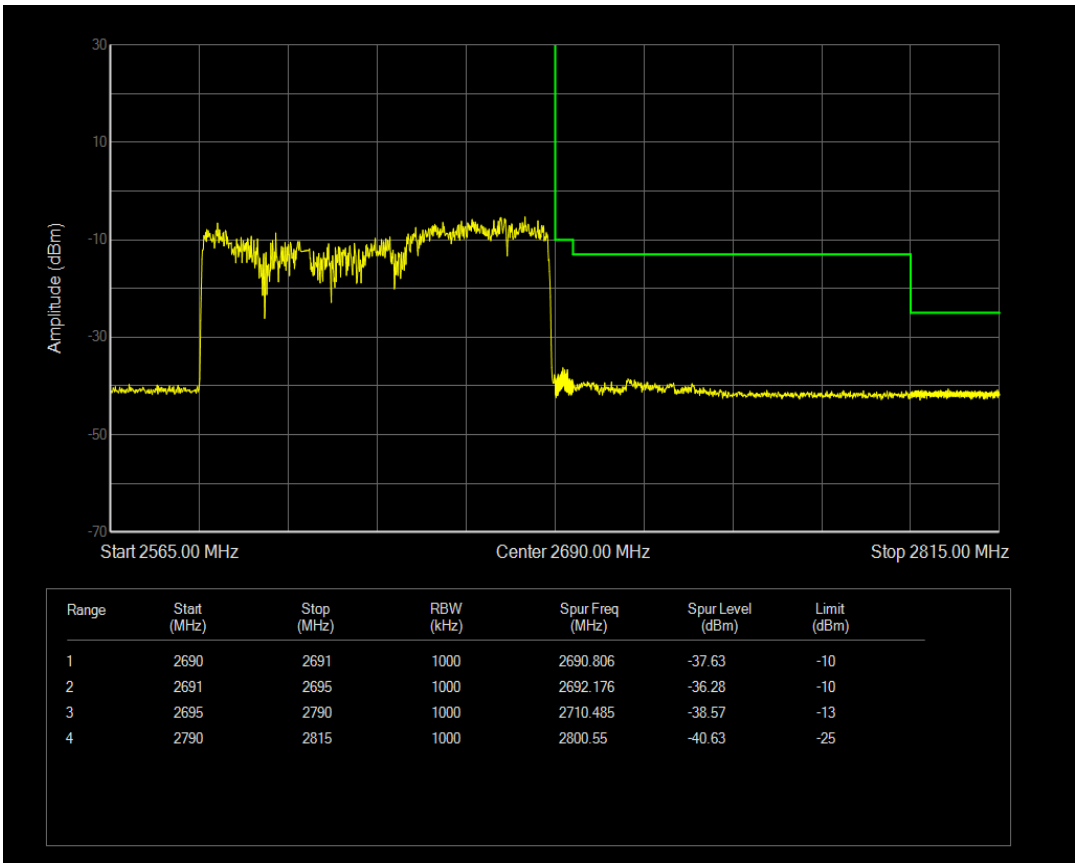
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	2690	2691	200	2690.036	-42.46	-10
2	2691	2695	1000	2692.38	-36.52	-10
3	2695	2700	1000	2695.805	-37.68	-13
4	2700	2702.5	1000	2700.18	-40.29	-25

n41 SCS=30kHz DFT_QPSK BW=10MHz Channel=537000 RB=1@23



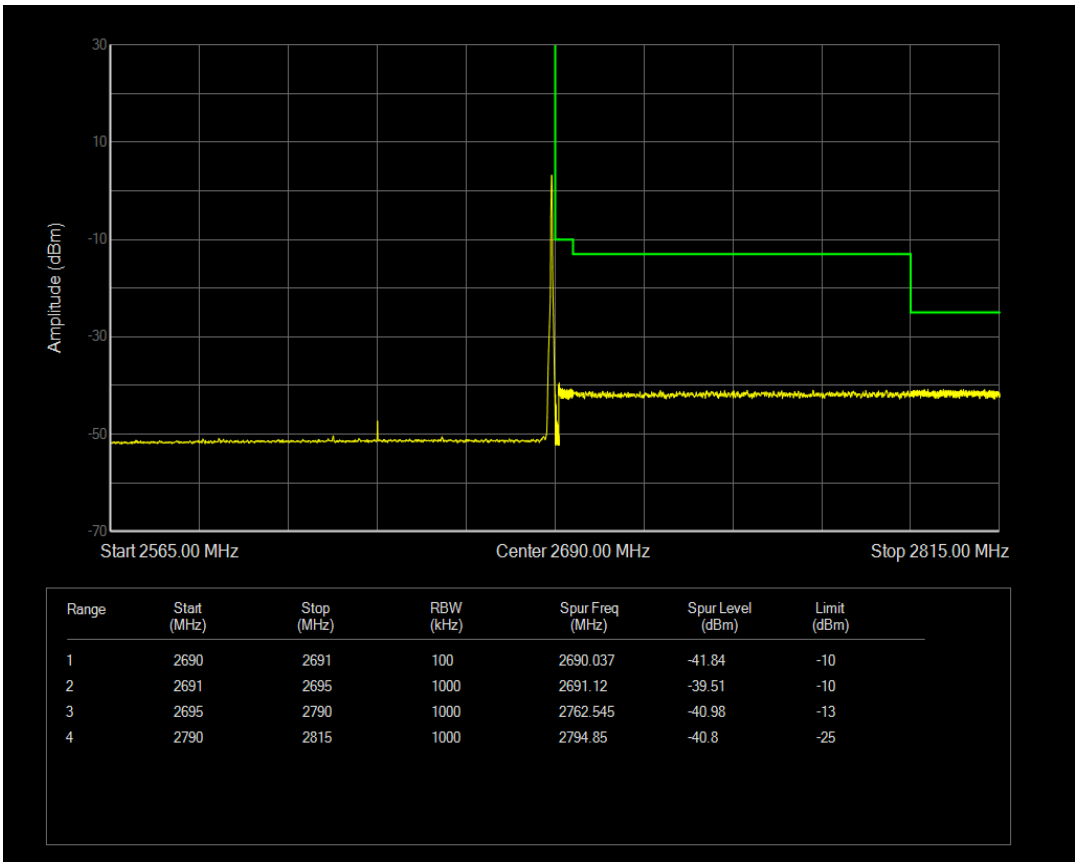
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	2690	2691	100	2690.01	-43.72	-10
2	2691	2695	1000	2691.172	-33.11	-10
3	2695	2700	1000	2697.76	-40.77	-13
4	2700	2702.5	1000	2701.15	-40.77	-25

n41 SCS=30kHz DFT_QPSK BW=100MHz Channel=528000 RB=270@0



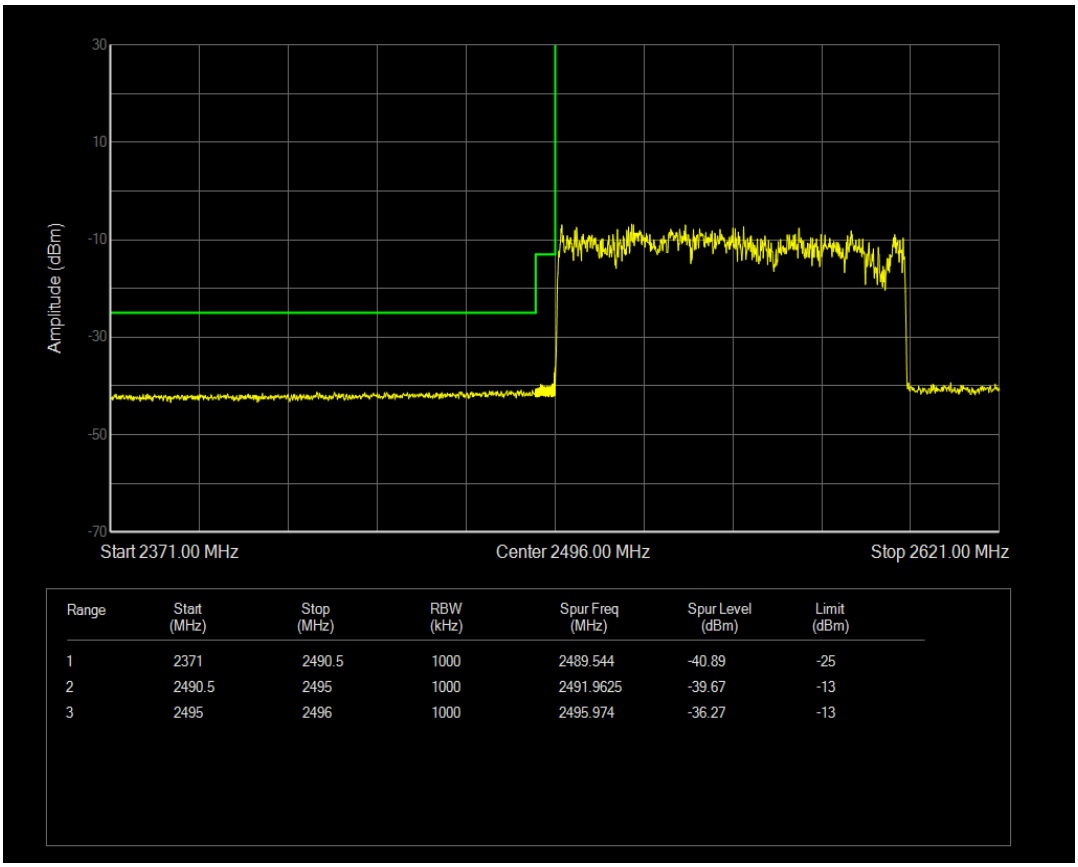
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	2690	2691	1000	2690.806	-37.63	-10
2	2691	2695	1000	2692.176	-36.28	-10
3	2695	2790	1000	2710.485	-38.57	-13
4	2790	2815	1000	2800.55	-40.63	-25

n41 SCS=30kHz DFT_QPSK BW=100MHz Channel=528000 RB=1@272



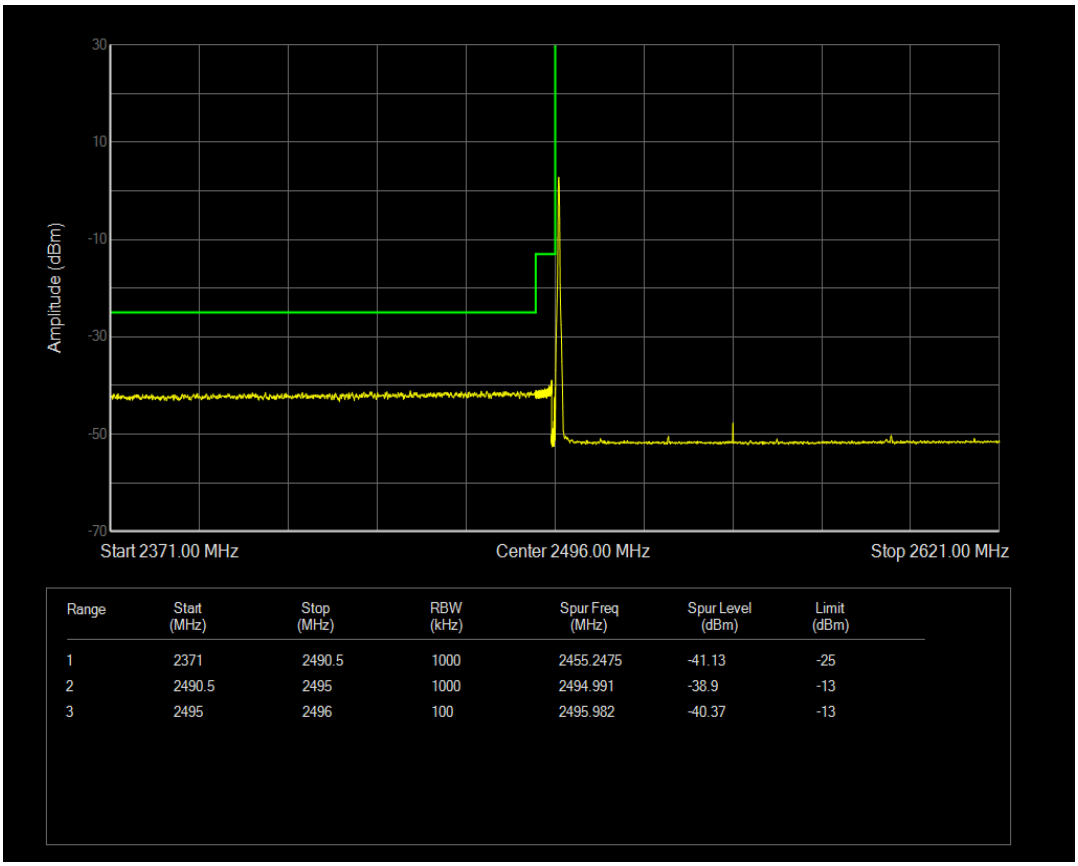
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	2690	2691	100	2690.037	-41.84	-10
2	2691	2695	1000	2691.12	-39.51	-10
3	2695	2790	1000	2762.545	-40.98	-13
4	2790	2815	1000	2794.85	-40.8	-25

n41 SCS=30kHz DFT_QPSK BW=100MHz Channel=509202 RB=270@0



Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	2371	2490.5	1000	2489.544	-40.89	-25
2	2490.5	2495	1000	2491.9625	-39.67	-13
3	2495	2496	1000	2495.974	-36.27	-13

n41 SCS=30kHz DFT_QPSK BW=100MHz Channel=509202 RB=1@0

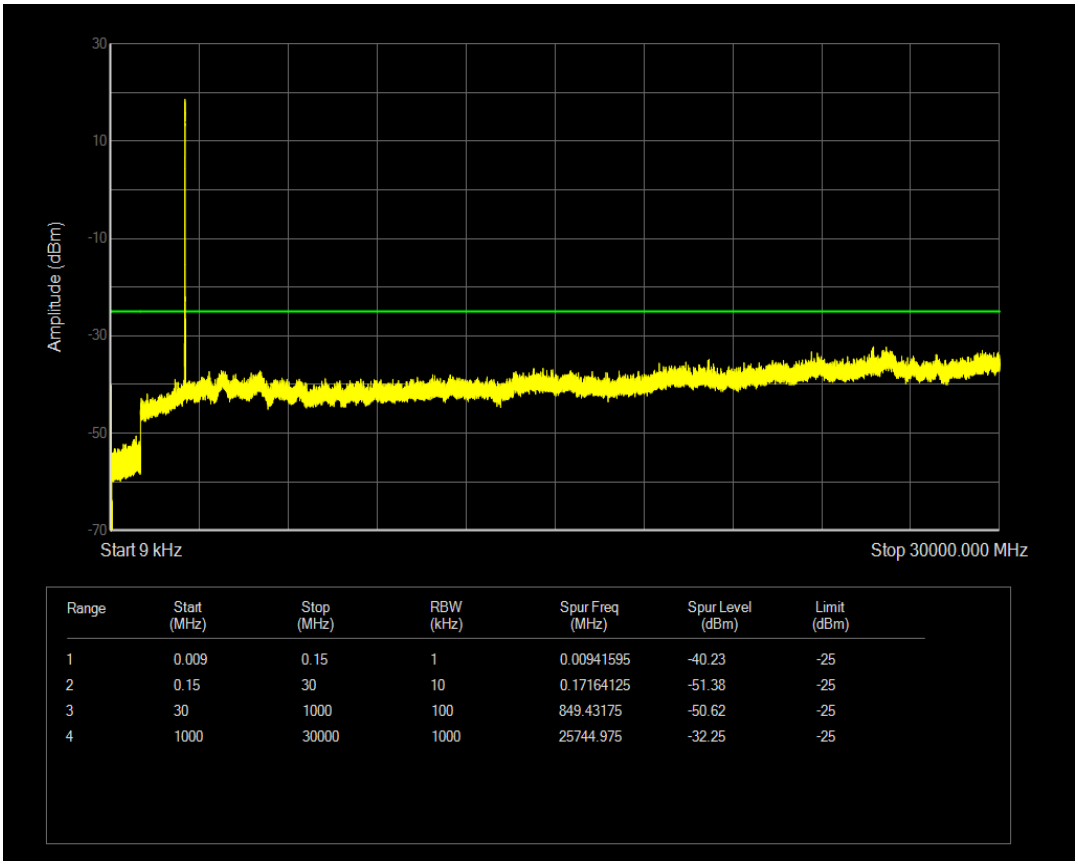


Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	2371	2490.5	1000	2455.2475	-41.13	-25
2	2490.5	2495	1000	2494.991	-38.9	-13
3	2495	2496	100	2495.982	-40.37	-13

6 Out-of-band emissions for NR FR1

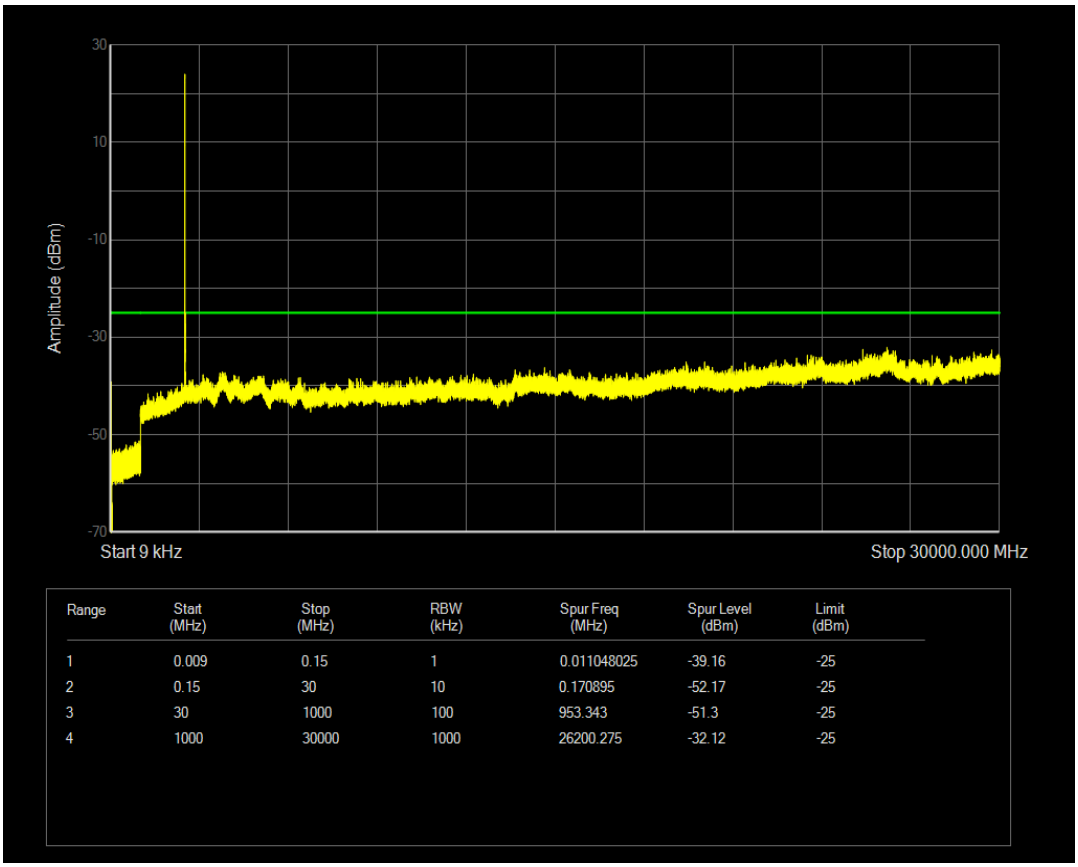
Band	SCS (kHz)	Bandwidth (MHz)	UL Channel	RB Allocation	Modulation	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)	Verdict
n41	30	10	500202	24@0	DFT_QPSK	25744.98	-32.25	-25	PASS
n41	30	10	500202	1@0	DFT_QPSK	26200.28	-32.12	-25	PASS
n41	30	10	500202	1@23	DFT_QPSK	26124.88	-31.75	-25	PASS
n41	30	10	518598	24@0	DFT_QPSK	29496.85	-32.44	-25	PASS
n41	30	10	518598	1@0	DFT_QPSK	26336.58	-32.44	-25	PASS
n41	30	10	518598	1@23	DFT_QPSK	29734.65	-32.12	-25	PASS
n41	30	10	537000	24@0	DFT_QPSK	26228.55	-32.34	-25	PASS
n41	30	10	537000	1@0	DFT_QPSK	26080.65	-31.93	-25	PASS
n41	30	10	537000	1@23	DFT_QPSK	29301.10	-32.41	-25	PASS
n41	30	100	509202	270@0	DFT_QPSK	29923.15	-32.54	-25	PASS
n41	30	100	509202	1@0	DFT_QPSK	26203.18	-32.37	-25	PASS
n41	30	100	509202	1@272	DFT_QPSK	26246.68	-31.93	-25	PASS
n41	30	100	518598	270@0	DFT_QPSK	29689.70	-32.23	-25	PASS
n41	30	100	518598	1@0	DFT_QPSK	26230.00	-32.14	-25	PASS
n41	30	100	518598	1@272	DFT_QPSK	26111.10	-32.24	-25	PASS
n41	30	100	528000	270@0	DFT_QPSK	26095.15	-32.58	-25	PASS
n41	30	100	528000	1@0	DFT_QPSK	26187.23	-32.28	-25	PASS
n41	30	100	528000	1@272	DFT_QPSK	29944.18	-32.53	-25	PASS

n41 SCS=30kHz DFT_QPSK BW=10MHz Channel=500202 RB=24@0



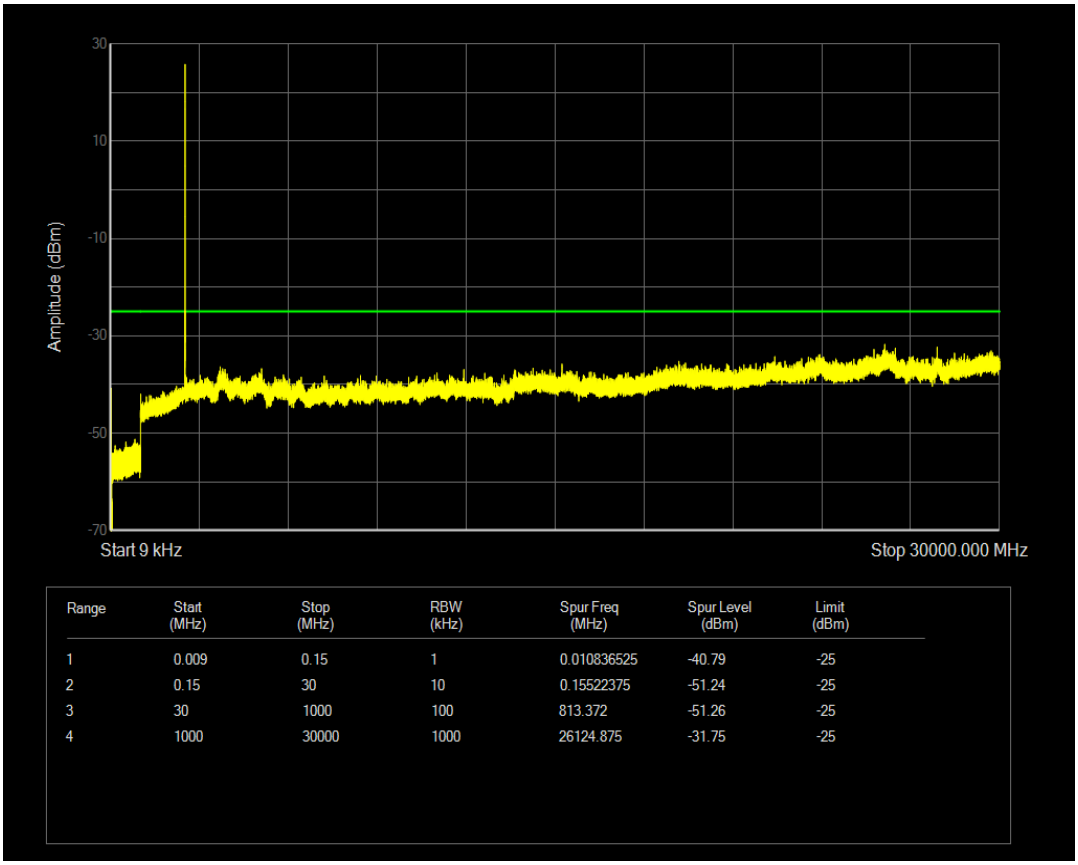
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.00941595	-40.23	-25
2	0.15	30	10	0.17164125	-51.38	-25
3	30	1000	100	849.43175	-50.62	-25
4	1000	30000	1000	25744.975	-32.25	-25

n41 SCS=30kHz DFT_QPSK BW=10MHz Channel=500202 RB=1@0



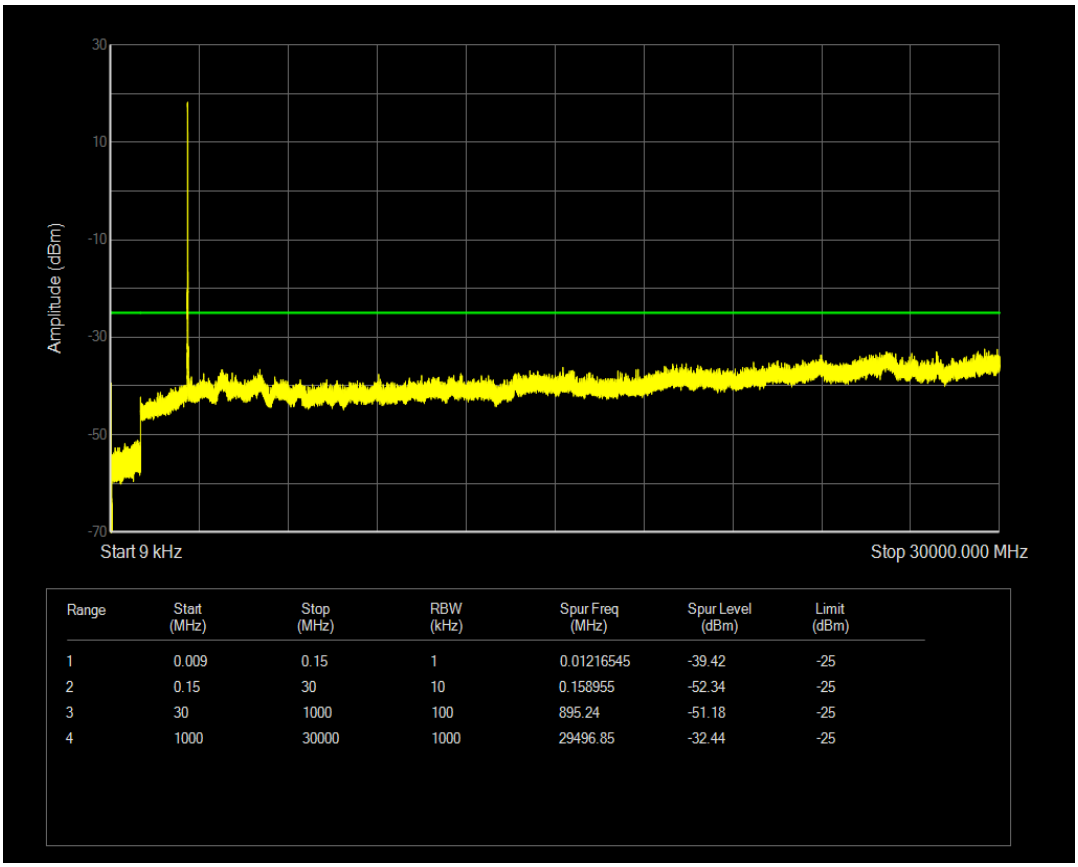
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.011048025	-39.16	-25
2	0.15	30	10	0.170895	-52.17	-25
3	30	1000	100	953.343	-51.3	-25
4	1000	30000	1000	26200.275	-32.12	-25

n41 SCS=30kHz DFT_QPSK BW=10MHz Channel=500202 RB=1@23



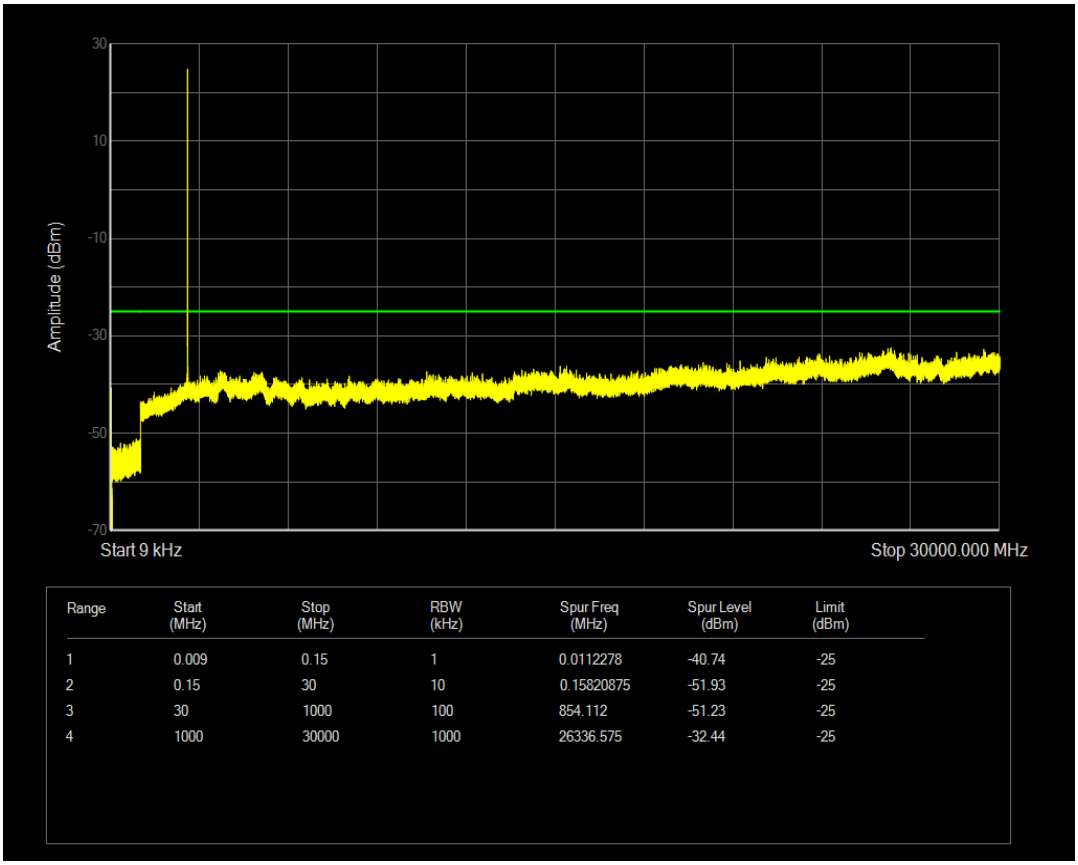
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.010836525	-40.79	-25
2	0.15	30	10	0.15522375	-51.24	-25
3	30	1000	100	813.372	-51.26	-25
4	1000	30000	1000	26124.875	-31.75	-25

n41 SCS=30kHz DFT_QPSK BW=10MHz Channel=518598 RB=24@0



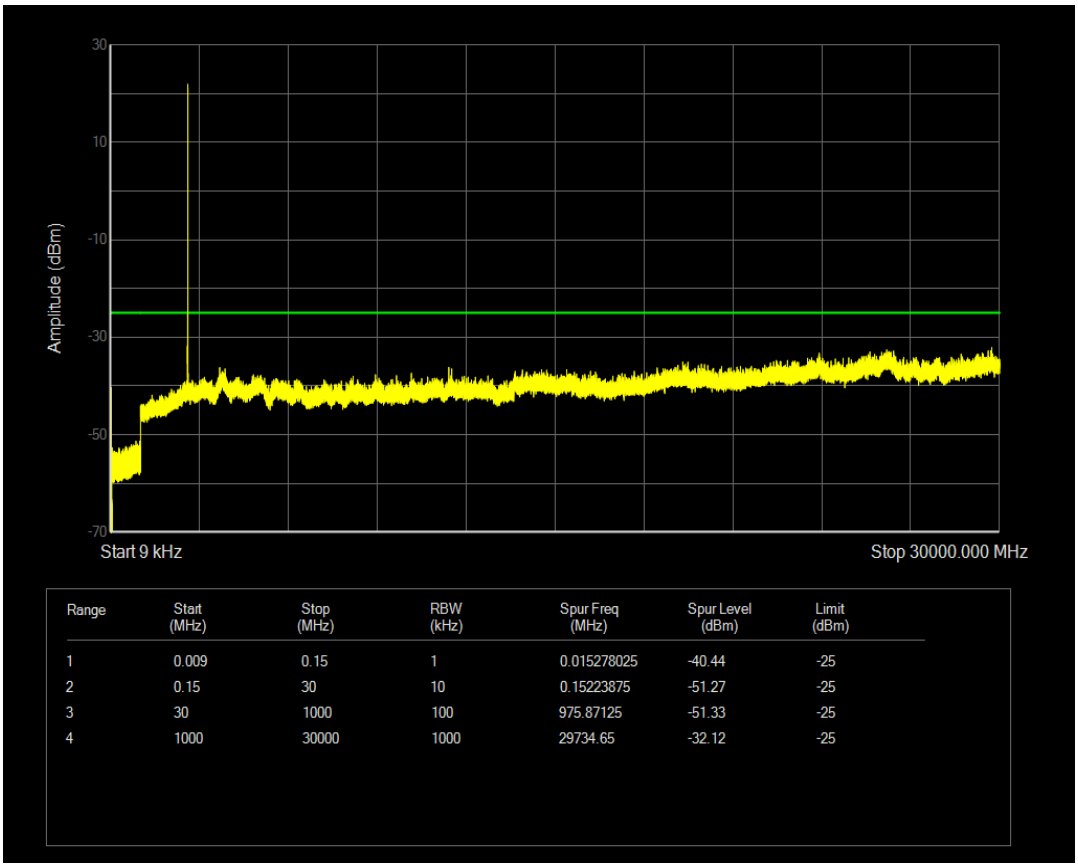
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.01216545	-39.42	-25
2	0.15	30	10	0.158955	-52.34	-25
3	30	1000	100	895.24	-51.18	-25
4	1000	30000	1000	29496.85	-32.44	-25

n41 SCS=30kHz DFT_QPSK BW=10MHz Channel=518598 RB=1@0



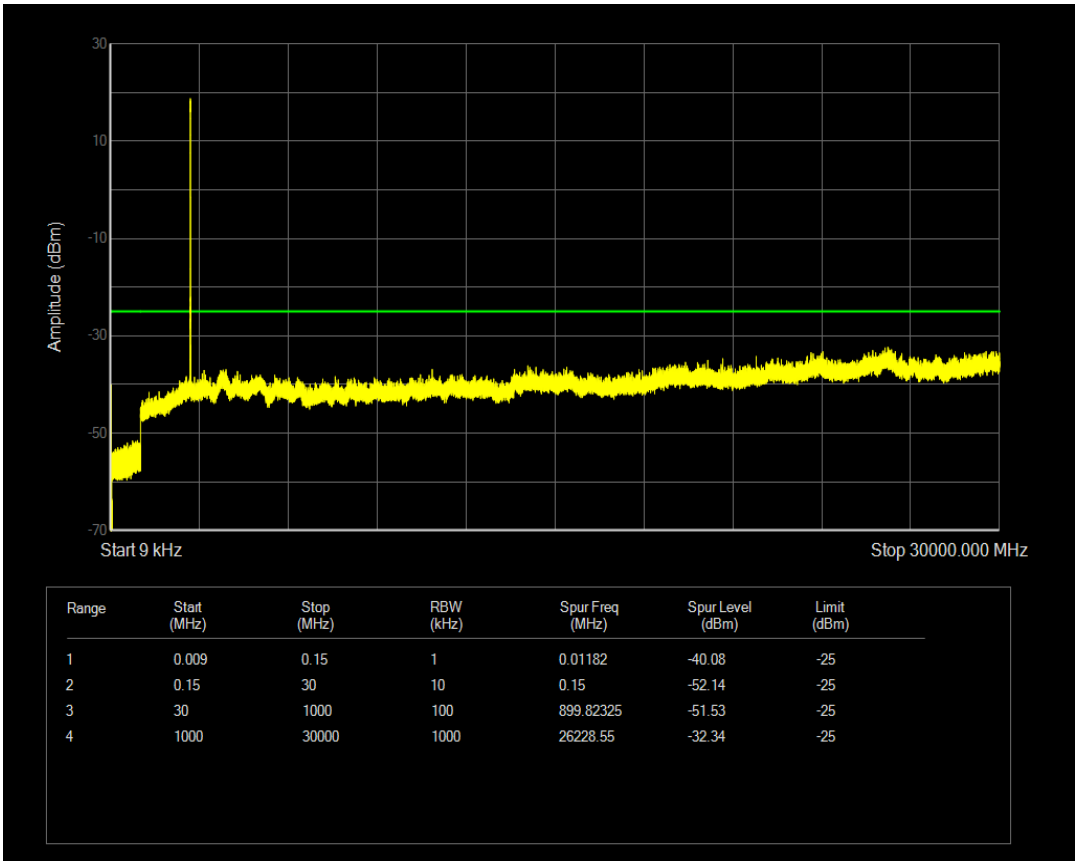
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.0112278	-40.74	-25
2	0.15	30	10	0.15820875	-51.93	-25
3	30	1000	100	854.112	-51.23	-25
4	1000	30000	1000	26336.575	-32.44	-25

n41 SCS=30kHz DFT_QPSK BW=10MHz Channel=518598 RB=1@23



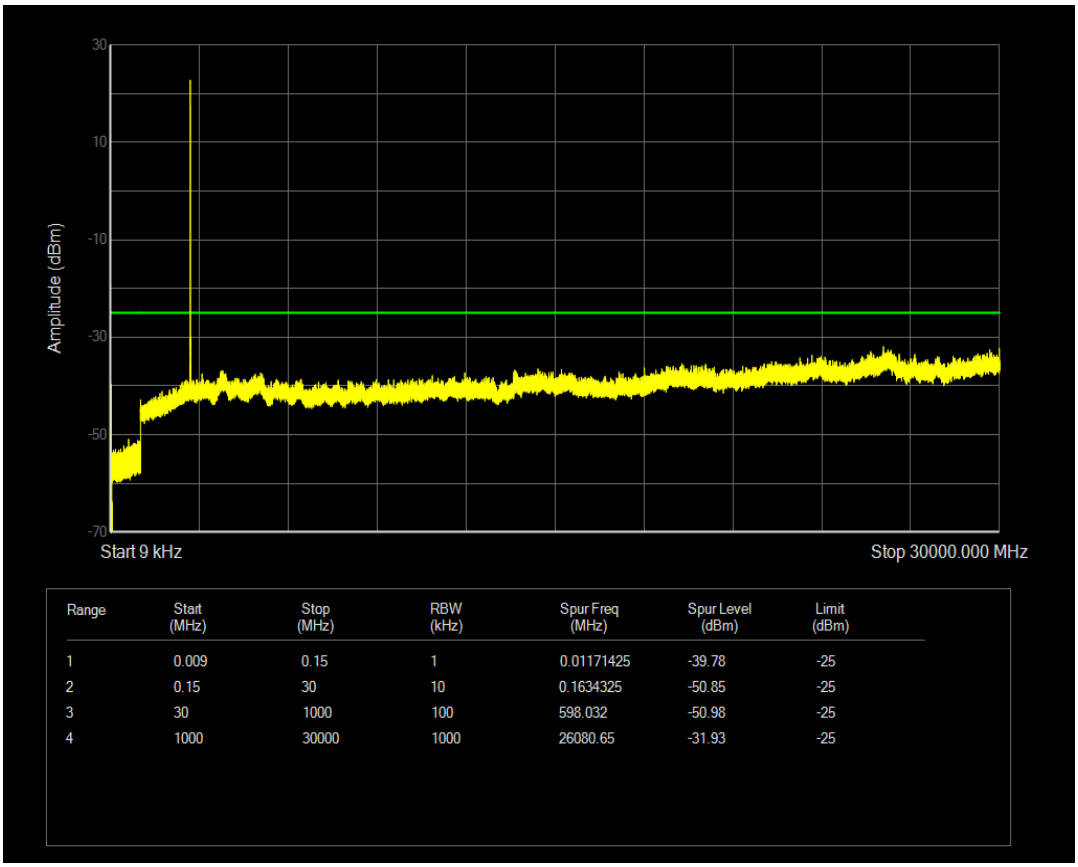
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.015278025	-40.44	-25
2	0.15	30	10	0.15223875	-51.27	-25
3	30	1000	100	975.87125	-51.33	-25
4	1000	30000	1000	29734.65	-32.12	-25

n41 SCS=30kHz DFT_QPSK BW=10MHz Channel=537000 RB=24@0



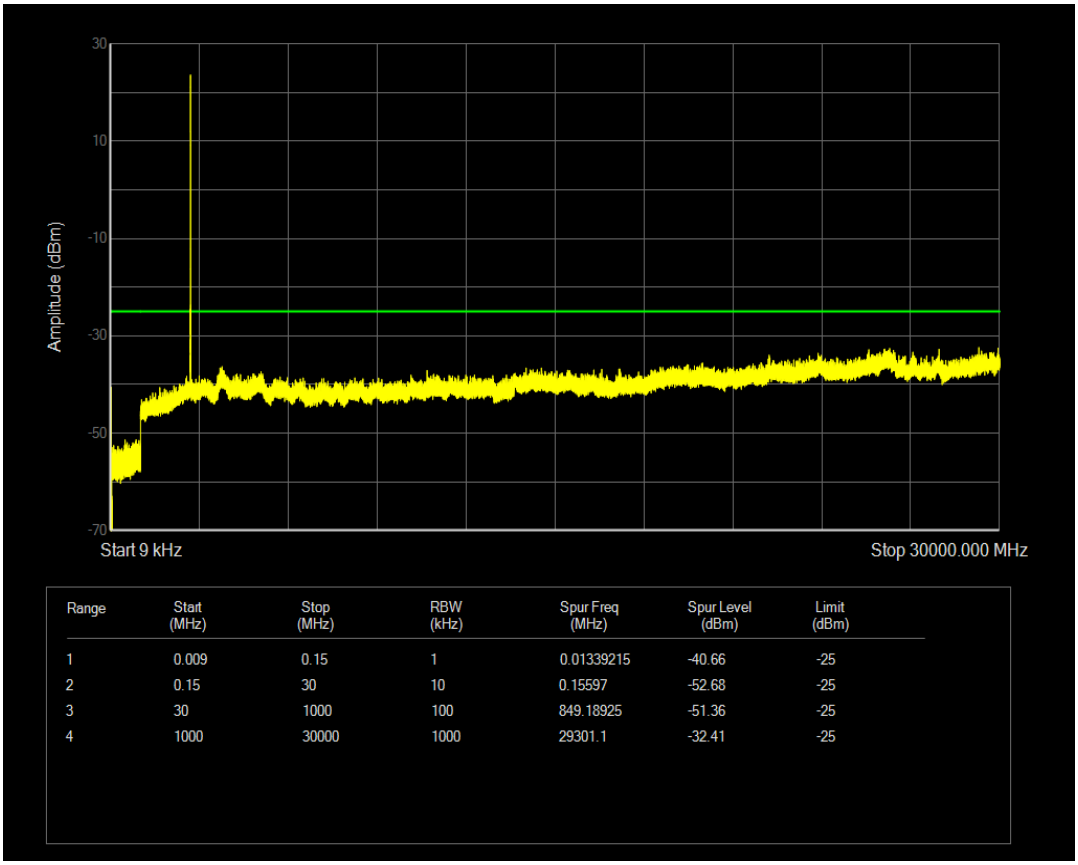
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.01182	-40.08	-25
2	0.15	30	10	0.15	-52.14	-25
3	30	1000	100	899.82325	-51.53	-25
4	1000	30000	1000	26228.55	-32.34	-25

n41 SCS=30kHz DFT_QPSK BW=10MHz Channel=537000 RB=1@0



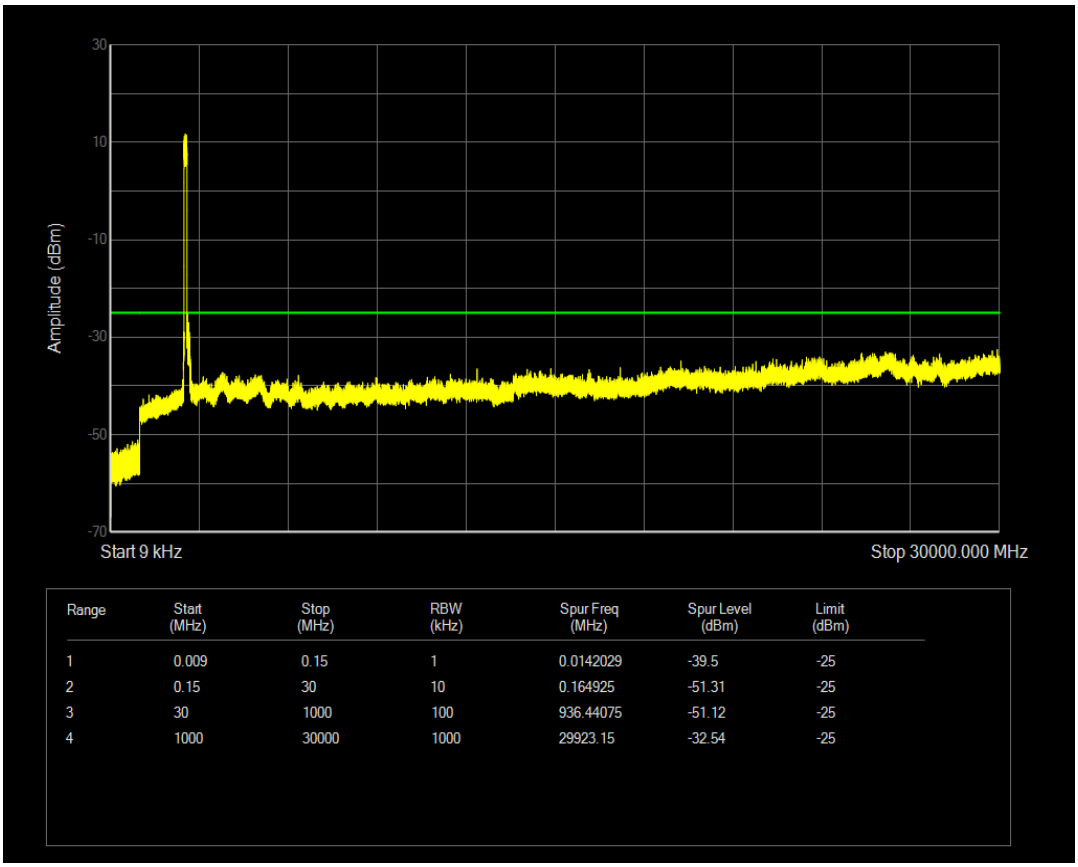
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.01171425	-39.78	-25
2	0.15	30	10	0.1634325	-50.85	-25
3	30	1000	100	598.032	-50.98	-25
4	1000	30000	1000	26080.65	-31.93	-25

n41 SCS=30kHz DFT_QPSK BW=10MHz Channel=537000 RB=1@23



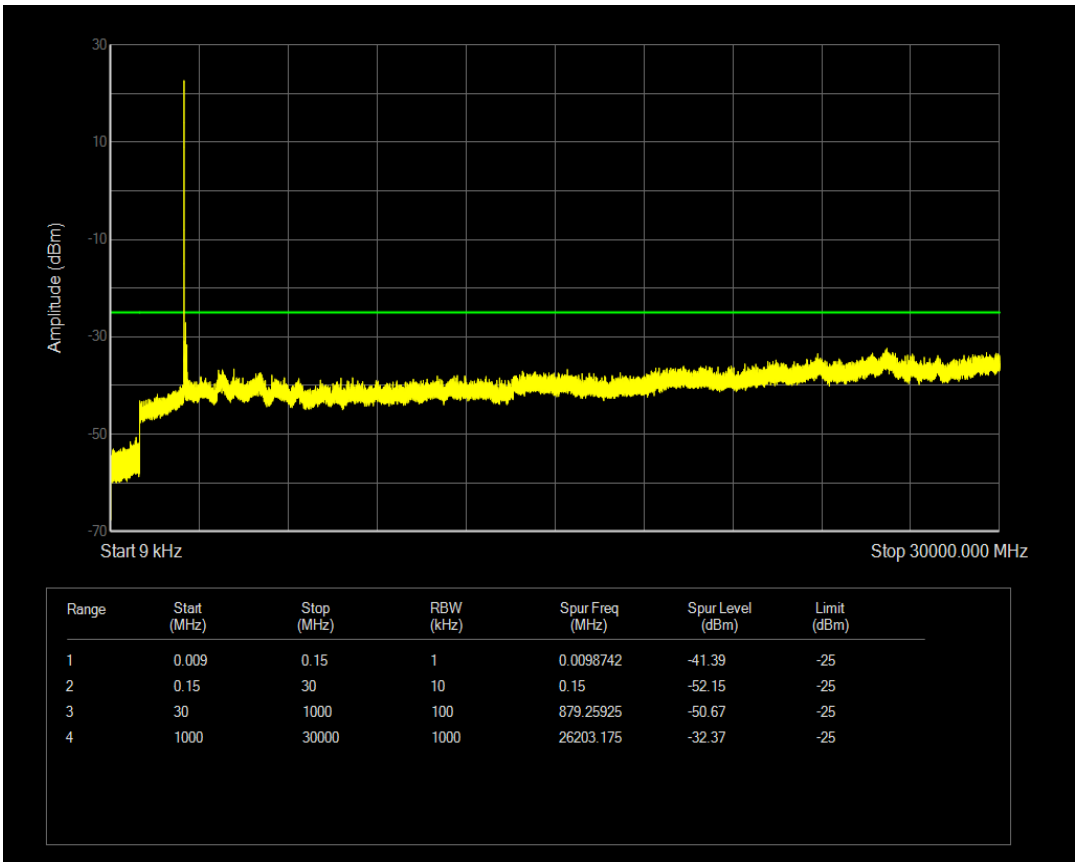
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.01339215	-40.66	-25
2	0.15	30	10	0.15597	-52.68	-25
3	30	1000	100	849.18925	-51.36	-25
4	1000	30000	1000	29301.1	-32.41	-25

n41 SCS=30kHz DFT_QPSK BW=100MHz Channel=509202 RB=270@0



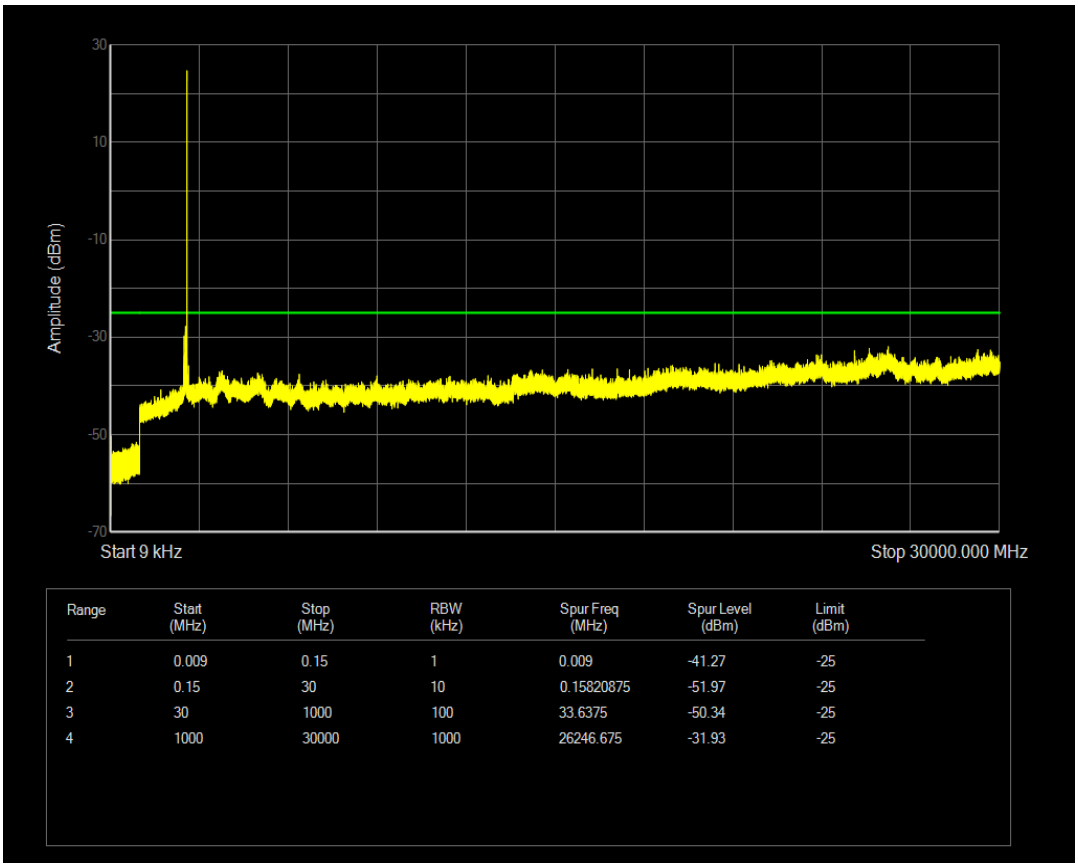
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.0142029	-39.5	-25
2	0.15	30	10	0.164925	-51.31	-25
3	30	1000	100	936.44075	-51.12	-25
4	1000	30000	1000	29923.15	-32.54	-25

n41 SCS=30kHz DFT_QPSK BW=100MHz Channel=509202 RB=1@0



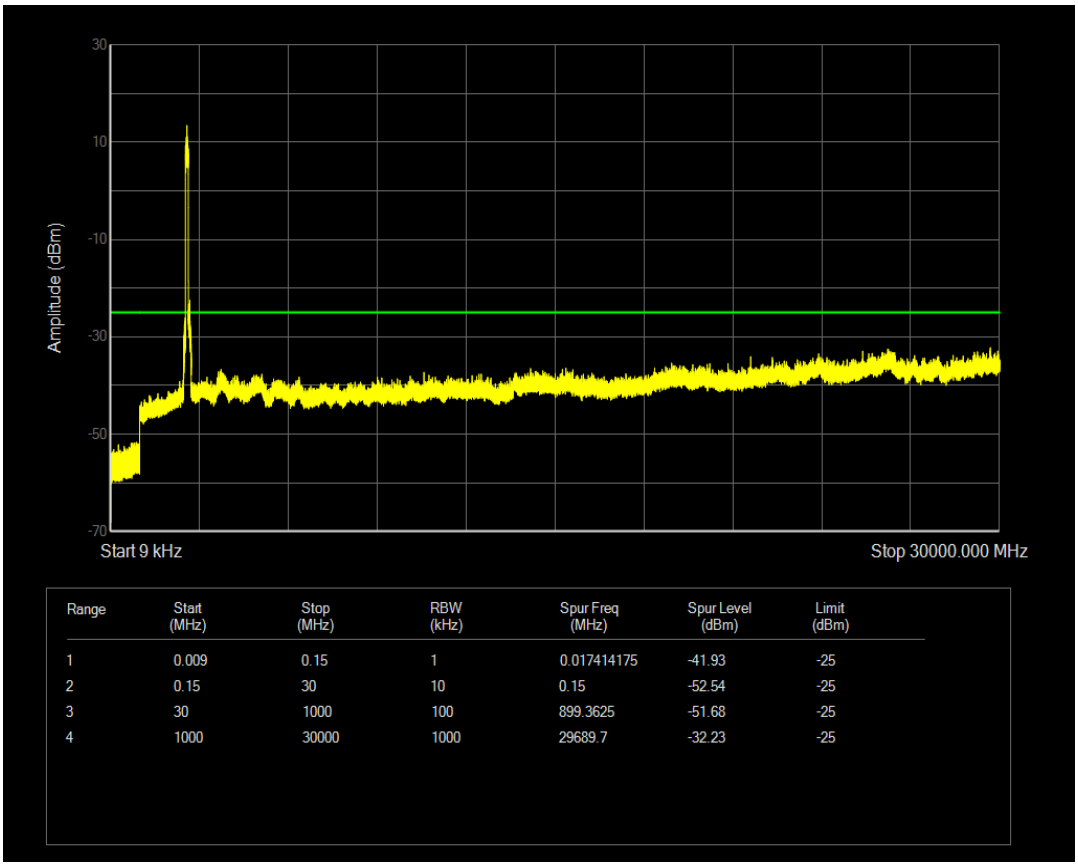
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.0098742	-41.39	-25
2	0.15	30	10	0.15	-52.15	-25
3	30	1000	100	879.25925	-50.67	-25
4	1000	30000	1000	26203.175	-32.37	-25

n41 SCS=30kHz DFT_QPSK BW=100MHz Channel=509202 RB=1@272



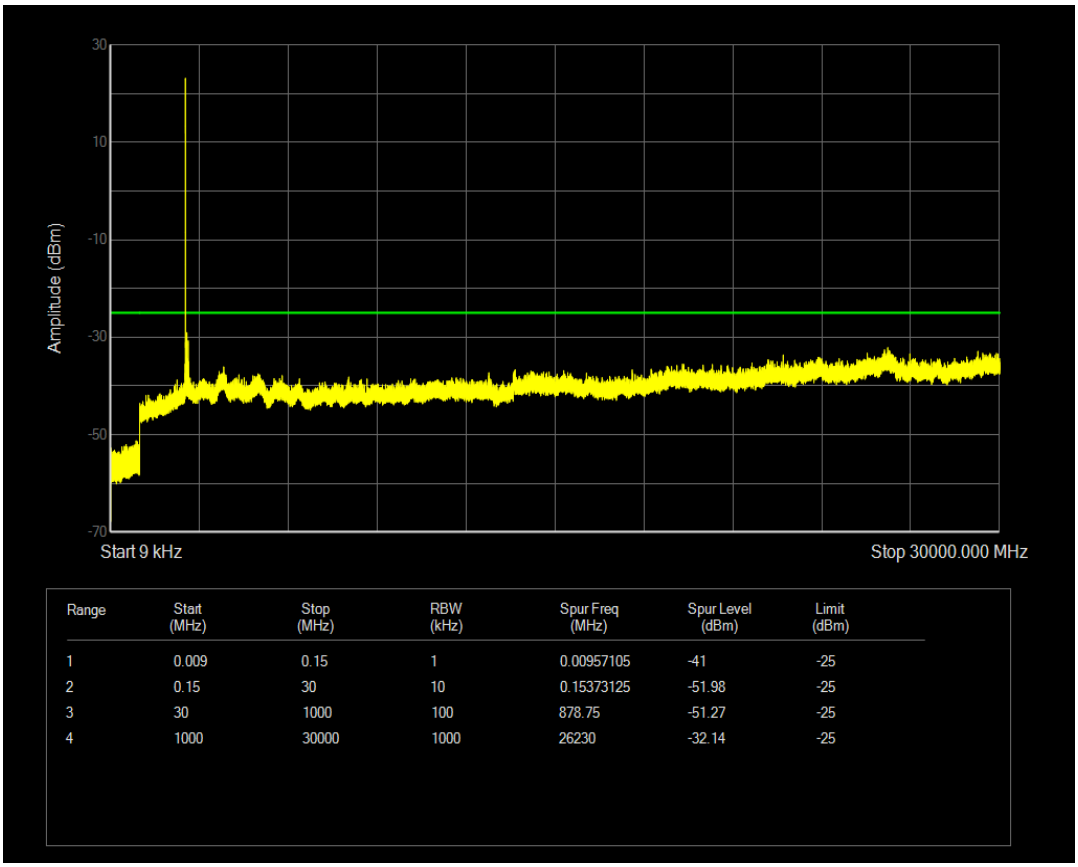
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.009	-41.27	-25
2	0.15	30	10	0.15820875	-51.97	-25
3	30	1000	100	33.6375	-50.34	-25
4	1000	30000	1000	26246.675	-31.93	-25

n41 SCS=30kHz DFT_QPSK BW=100MHz Channel=518598 RB=270@0



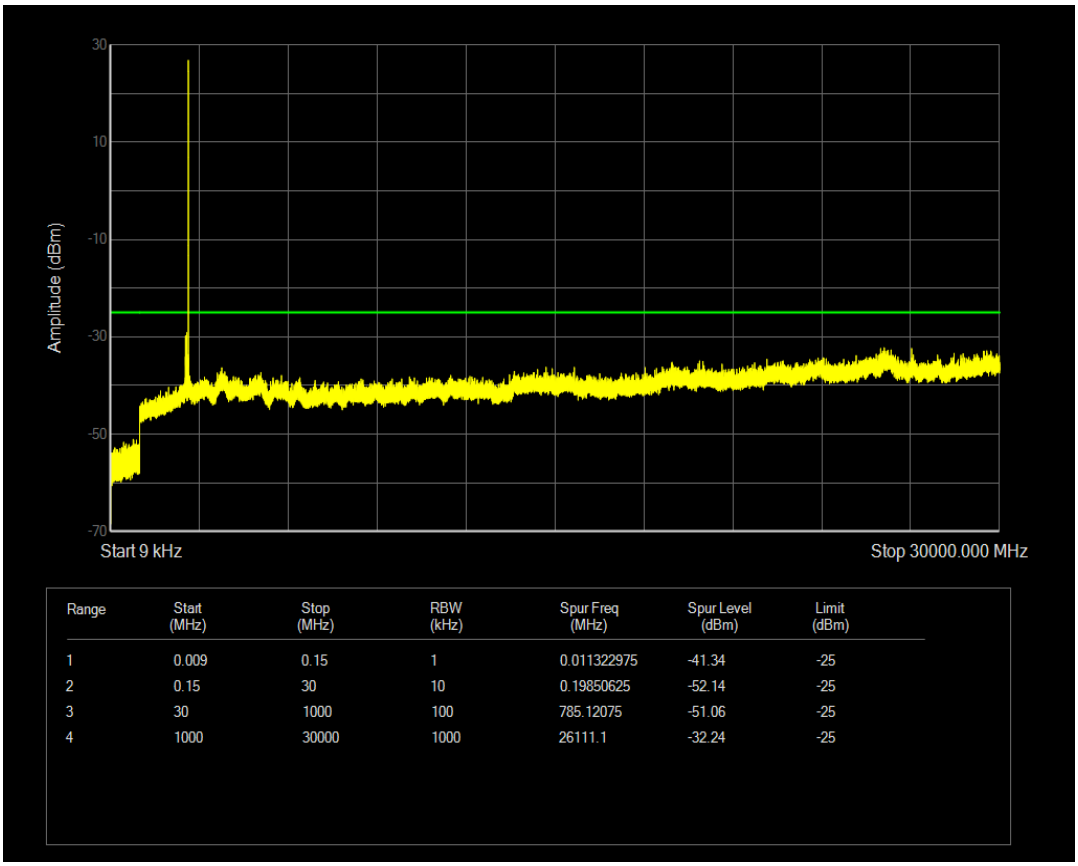
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.017414175	-41.93	-25
2	0.15	30	10	0.15	-52.54	-25
3	30	1000	100	899.3625	-51.68	-25
4	1000	30000	1000	29689.7	-32.23	-25

n41 SCS=30kHz DFT_QPSK BW=100MHz Channel=518598 RB=1@0



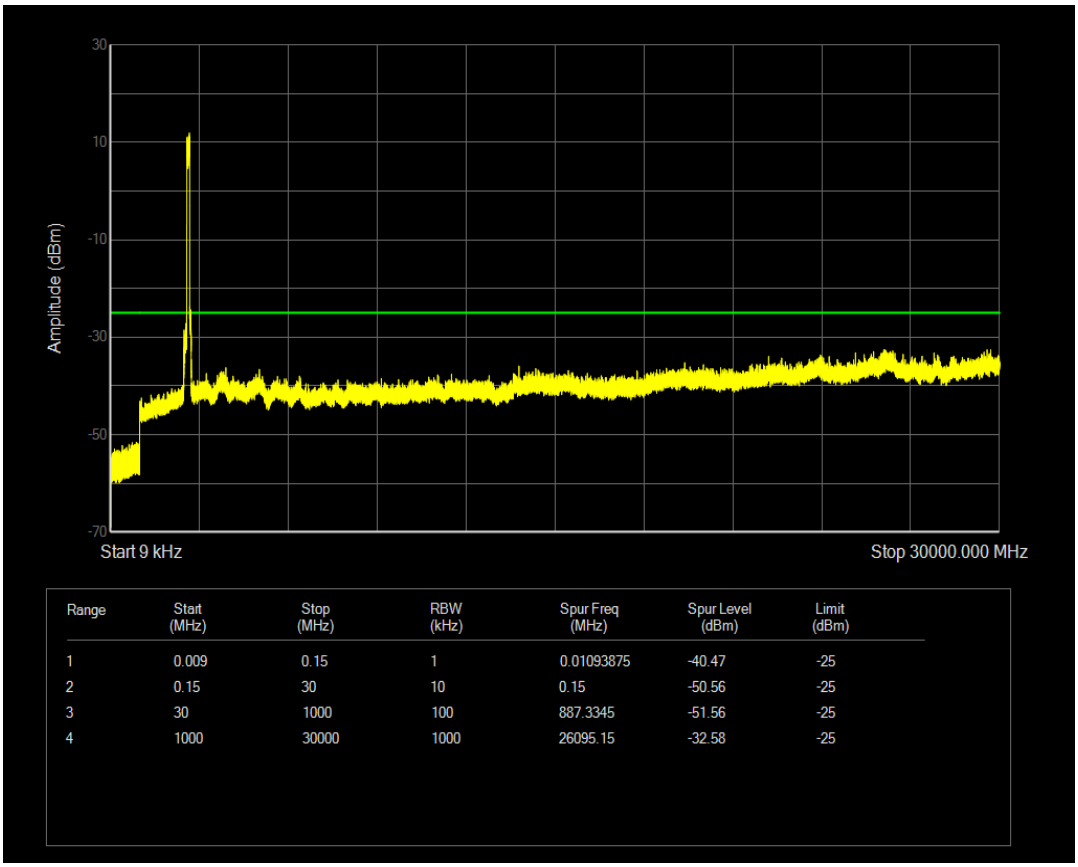
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.00957105	-41	-25
2	0.15	30	10	0.15373125	-51.98	-25
3	30	1000	100	878.75	-51.27	-25
4	1000	30000	1000	26230	-32.14	-25

n41 SCS=30kHz DFT_QPSK BW=100MHz Channel=518598 RB=1@272



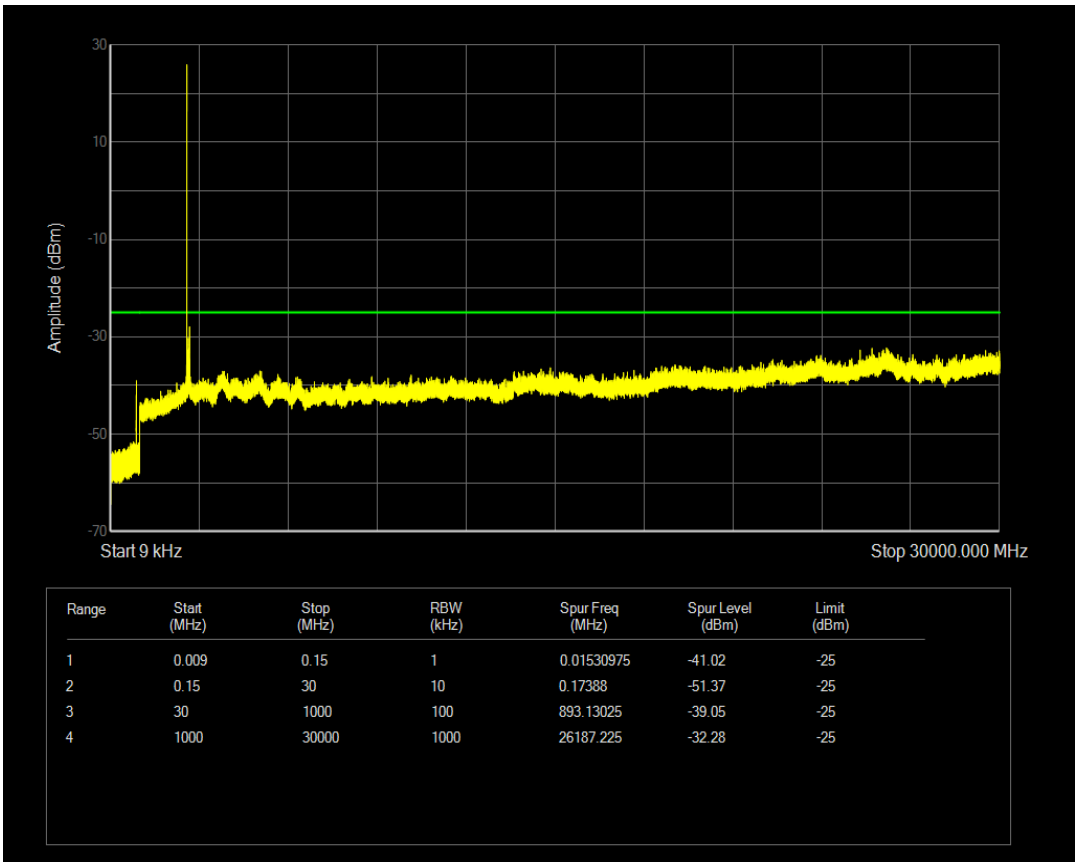
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.011322975	-41.34	-25
2	0.15	30	10	0.19850625	-52.14	-25
3	30	1000	100	785.12075	-51.06	-25
4	1000	30000	1000	26111.1	-32.24	-25

n41 SCS=30kHz DFT_QPSK BW=100MHz Channel=528000 RB=270@0



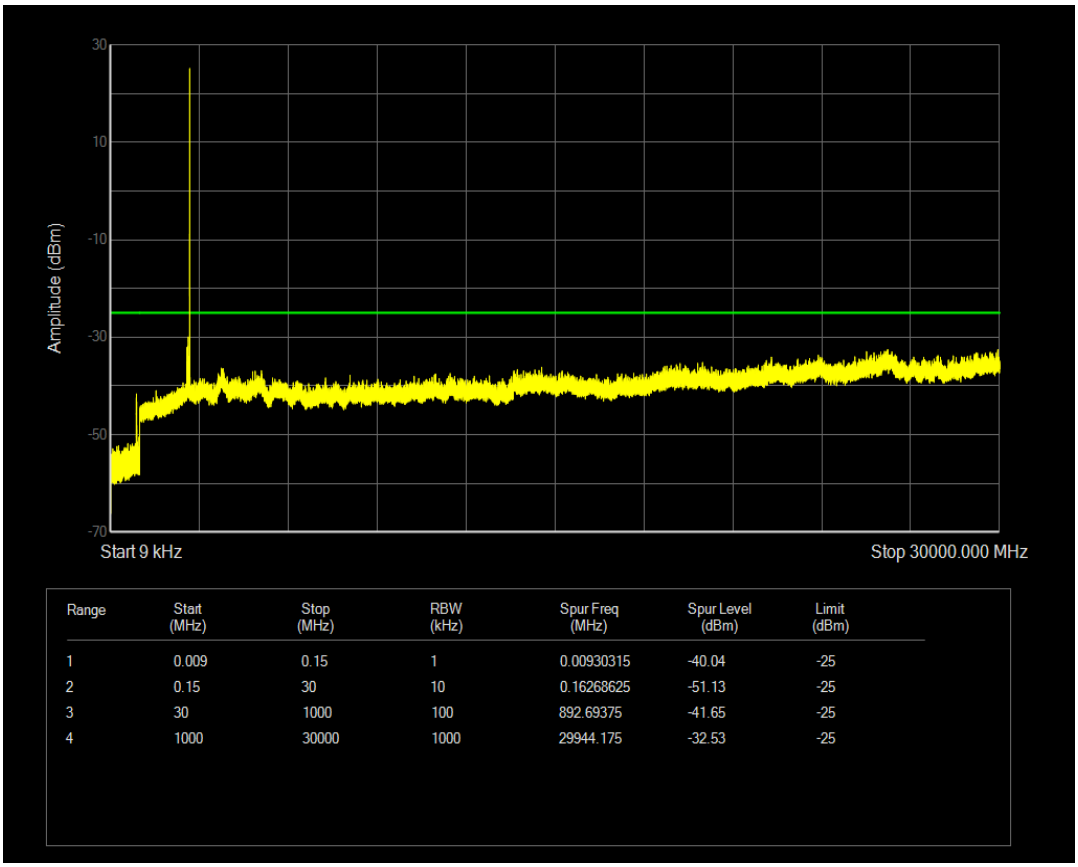
Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.01093875	-40.47	-25
2	0.15	30	10	0.15	-50.56	-25
3	30	1000	100	887.3345	-51.56	-25
4	1000	30000	1000	26095.15	-32.58	-25

n41 SCS=30kHz DFT_QPSK BW=100MHz Channel=528000 RB=1@0



Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.01530975	-41.02	-25
2	0.15	30	10	0.17388	-51.37	-25
3	30	1000	100	893.13025	-39.05	-25
4	1000	30000	1000	26187.225	-32.28	-25

n41 SCS=30kHz DFT_QPSK BW=100MHz Channel=528000 RB=1@272



Range	Start (MHz)	Stop (MHz)	RBW (kHz)	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)
1	0.009	0.15	1	0.00930315	-40.04	-25
2	0.15	30	10	0.16268625	-51.13	-25
3	30	1000	100	892.69375	-41.65	-25
4	1000	30000	1000	29944.175	-32.53	-25