99% & 26dB Bandwidth

Test Result

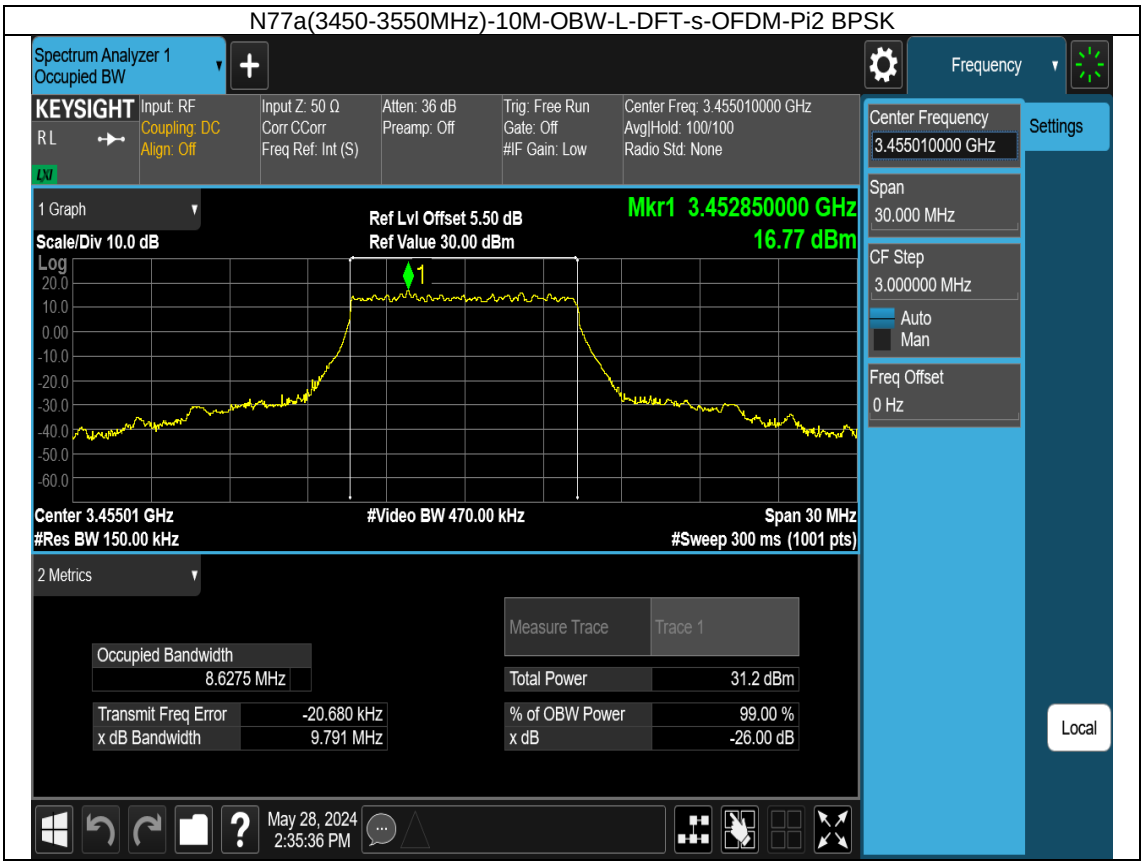
5G NR n77a(3450-3550MHz) SCS=30kHz 10MHz						
Modulation	CH	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM PI/2 BPSK	Low CH	Outer_Full	8.628	9.791	/	Pass
CP-OFDM QPSK		Outer_Full	8.644	10.23	/	Pass
DFT-s-OFDM PI/2 BPSK	Middle CH	Outer_Full	8.634	9.991	/	Pass
CP-OFDM QPSK		Outer_Full	8.641	10.10	/	Pass
DFT-s-OFDM PI/2 BPSK	High CH	Outer_Full	8.644	9.961	/	Pass
CP-OFDM QPSK		Outer_Full	8.652	10.21	/	Pass

5G NR n77a(3450-3550MHz) SCS=30kHz 15MHz						
Modulation	CH	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM PI/2 BPSK	Low CH	Outer_Full	13.037	14.82	/	Pass
CP-OFDM QPSK		Outer_Full	13.711	15.45	/	Pass
DFT-s-OFDM PI/2 BPSK	Middle CH	Outer_Full	12.986	14.48	/	Pass
CP-OFDM QPSK		Outer_Full	13.669	15.45	/	Pass
DFT-s-OFDM PI/2 BPSK	High CH	Outer_Full	12.975	14.57	/	Pass
CP-OFDM QPSK		Outer_Full	13.663	15.49	/	Pass

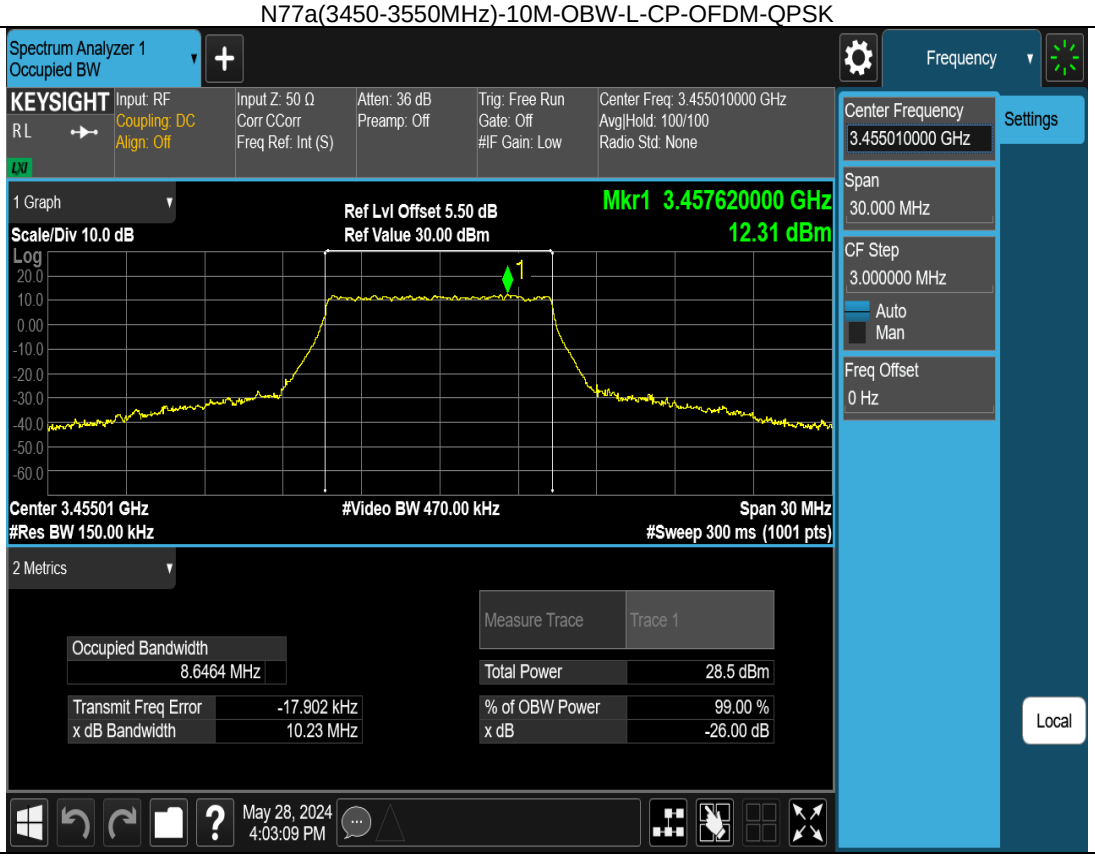
5G NR n77a(3450-3550MHz) SCS=30kHz 20MHz						
Modulation	CH	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM PI/2 BPSK	Low CH	Outer_Full	17.888	19.45	/	Pass
CP-OFDM QPSK		Outer_Full	18.259	20.11	/	Pass
DFT-s-OFDM PI/2 BPSK	Middle CH	Outer_Full	17.906	19.69	/	Pass
CP-OFDM QPSK		Outer_Full	18.313	20.24	/	Pass
DFT-s-OFDM PI/2 BPSK	High CH	Outer_Full	17.893	19.48	/	Pass
CP-OFDM QPSK		Outer_Full	18.249	20.04	/	Pass

Test graph

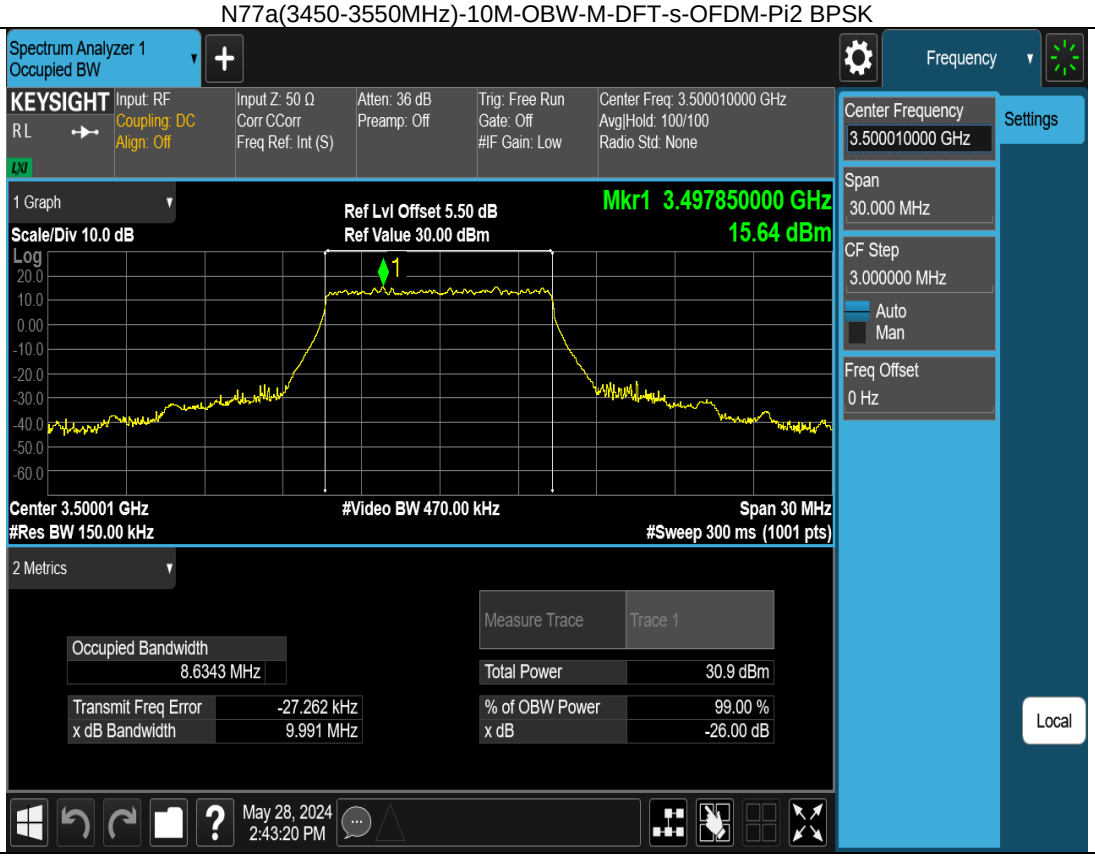
N77a(3450-3550MHz)-10M-OBW-L-DFT-s-OFDM-Pi2 BPSK



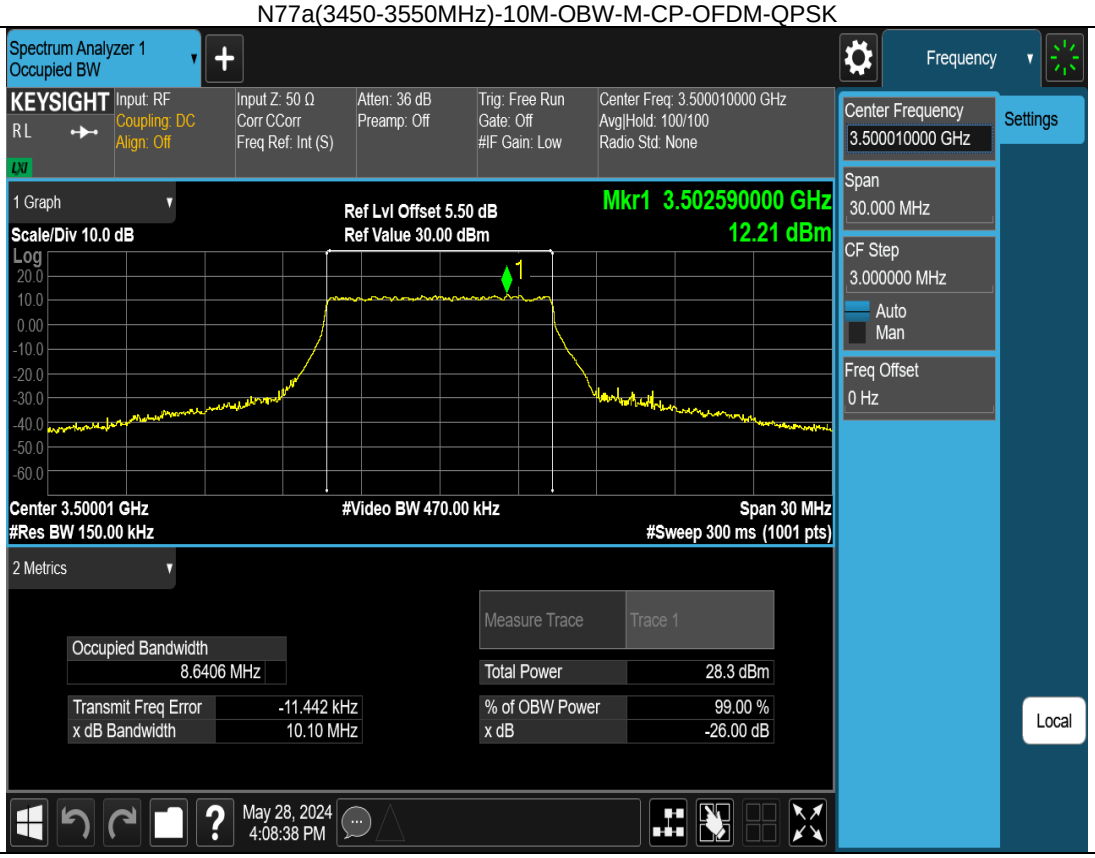
N77a(3450-3550MHz)-10M-OBW-L-CP-OFDM-QPSK



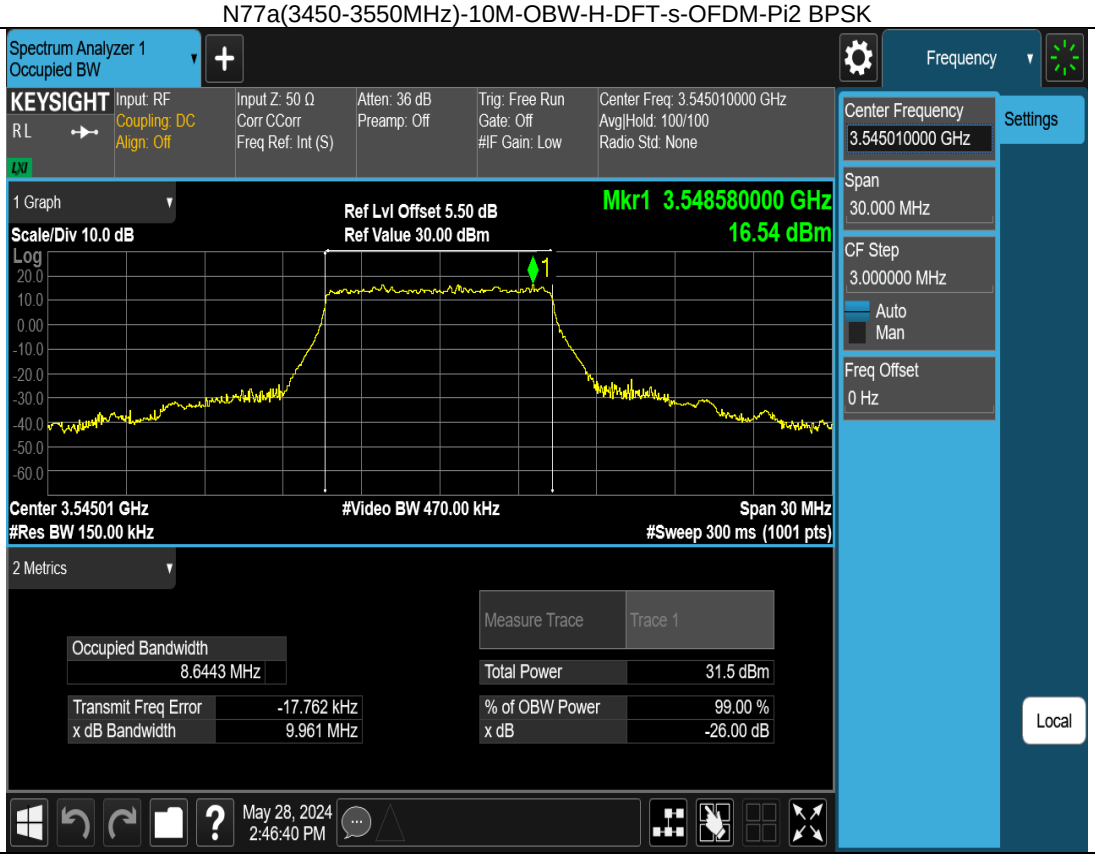
N77a(3450-3550MHz)-10M-OBW-M-DFT-s-OFDM-Pi2 BPSK



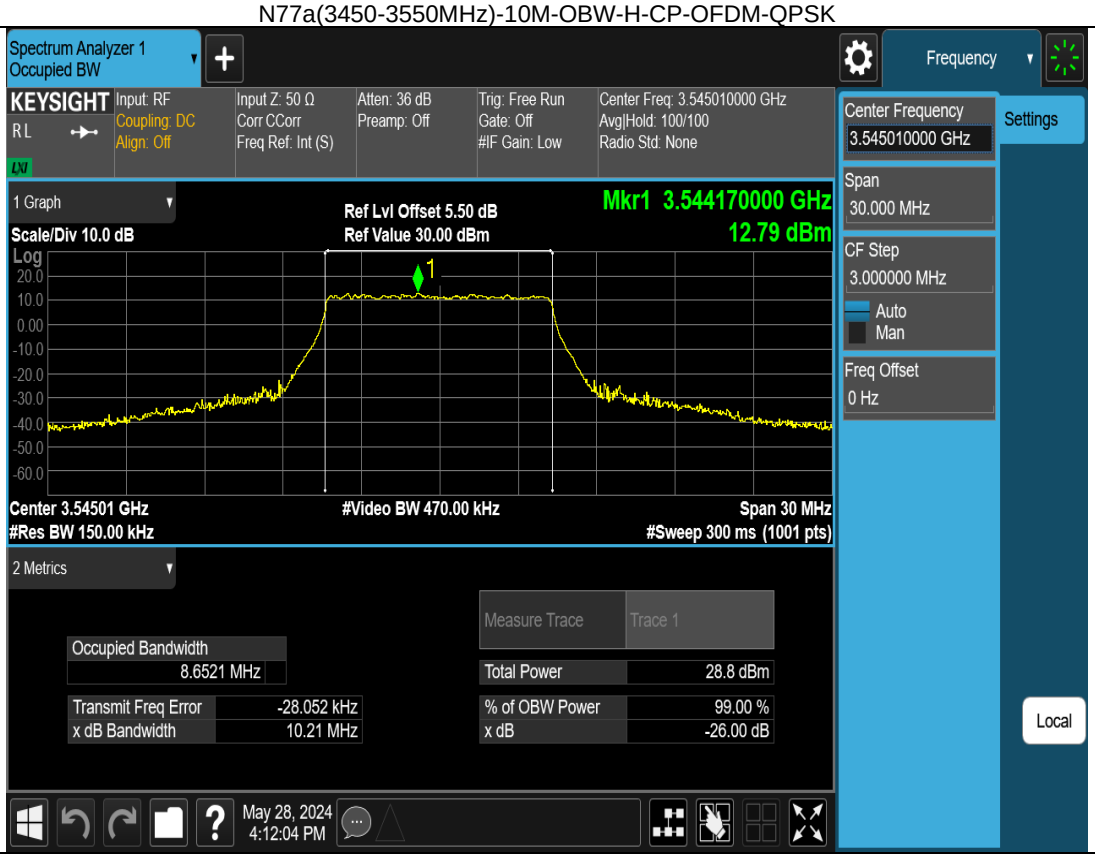
N77a(3450-3550MHz)-10M-OBW-M-CP-OFDM-QPSK



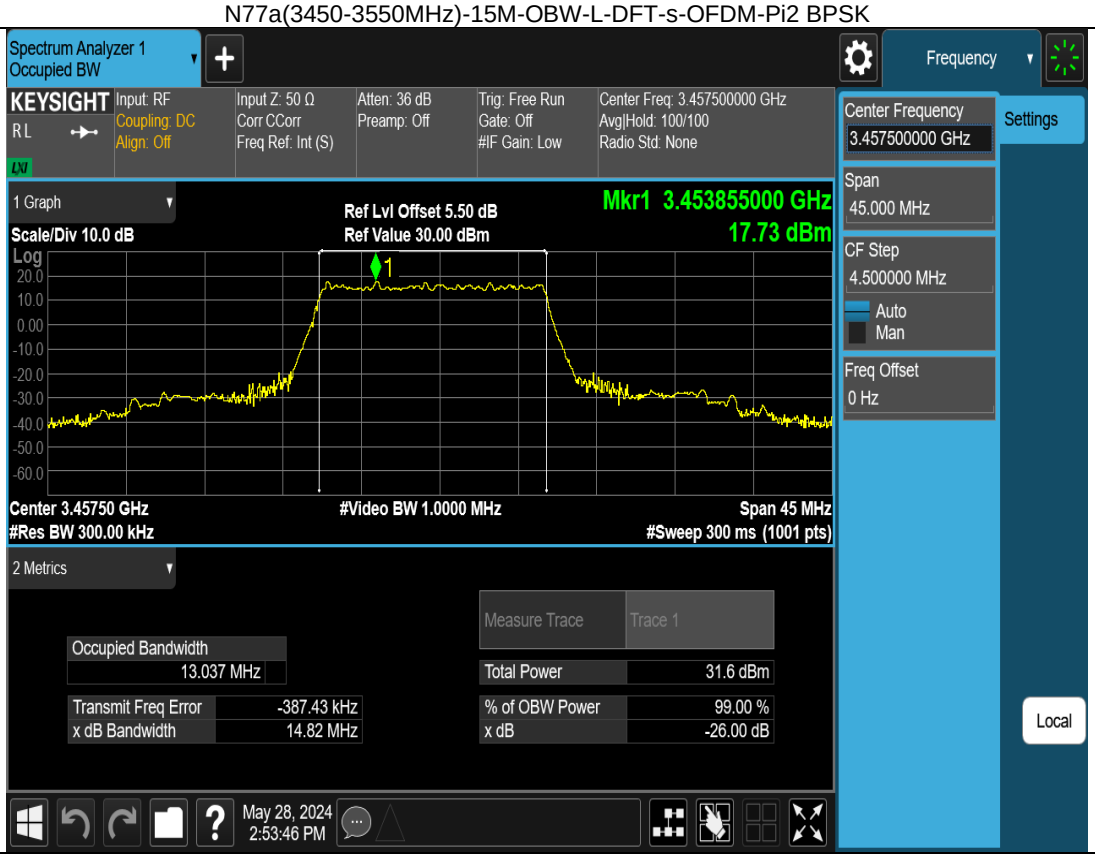
N77a(3450-3550MHz)-10M-OBW-H-DFT-s-OFDM-Pi2 BPSK



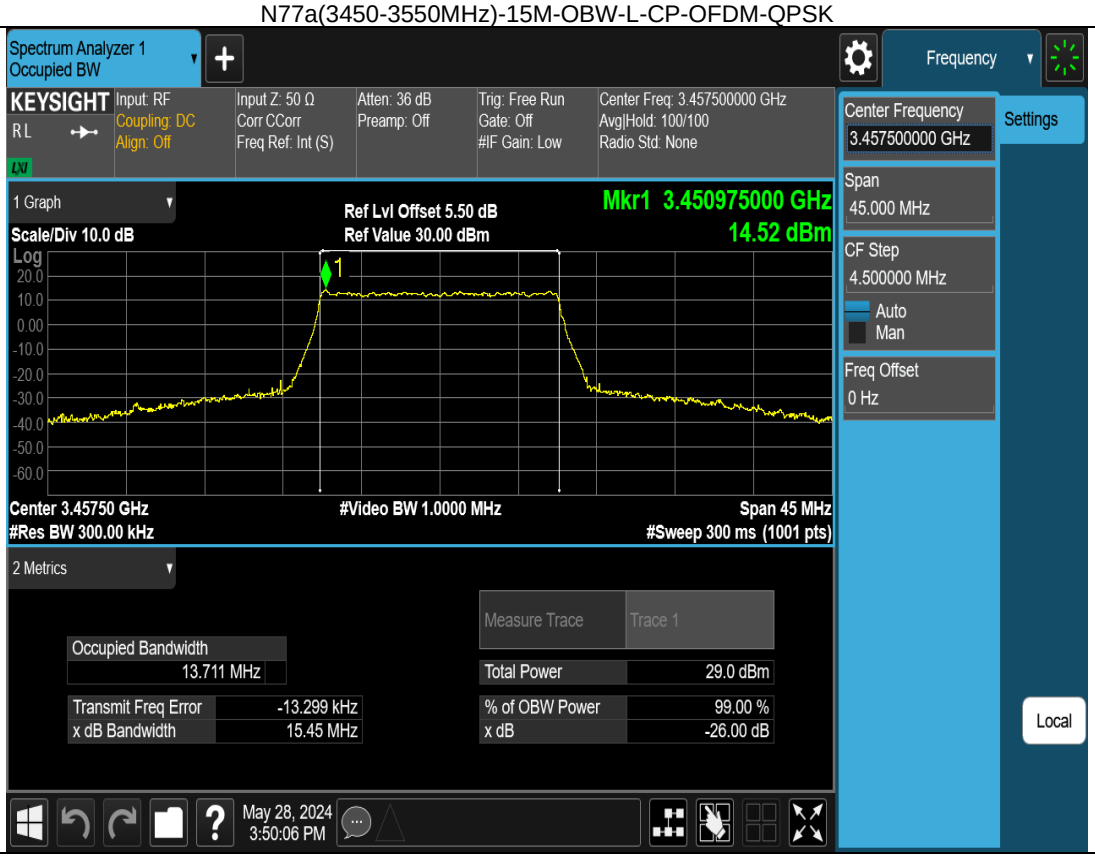
N77a(3450-3550MHz)-10M-OBW-H-CP-OFDM-QPSK



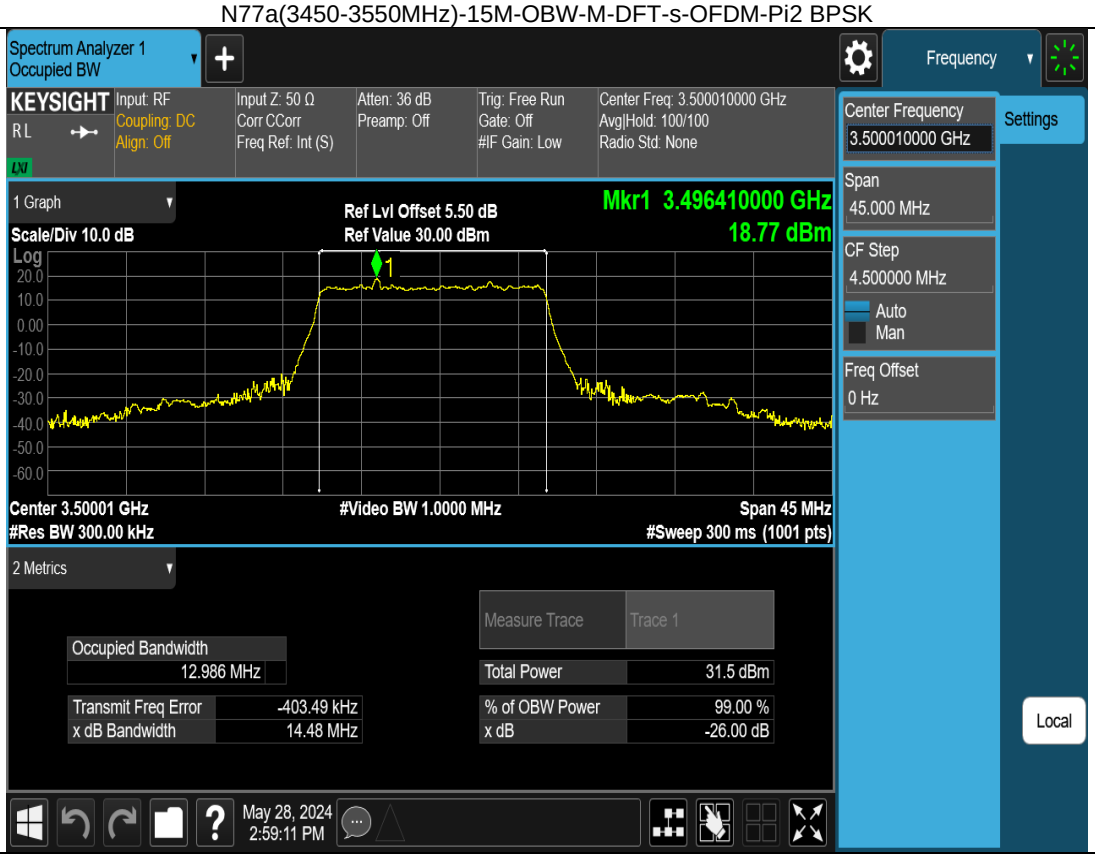
N77a(3450-3550MHz)-15M-OBW-L-DFT-s-OFDM-Pi2 BPSK



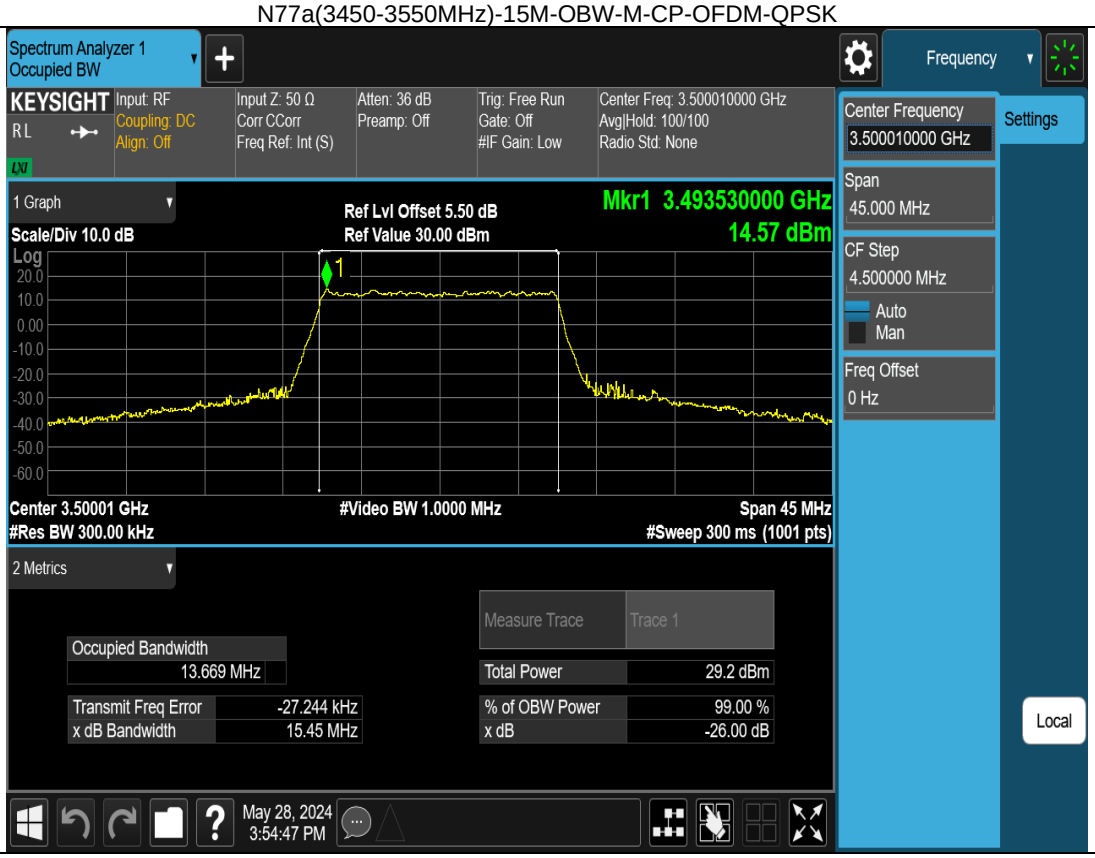
N77a(3450-3550MHz)-15M-OBW-L-CP-OFDM-QPSK



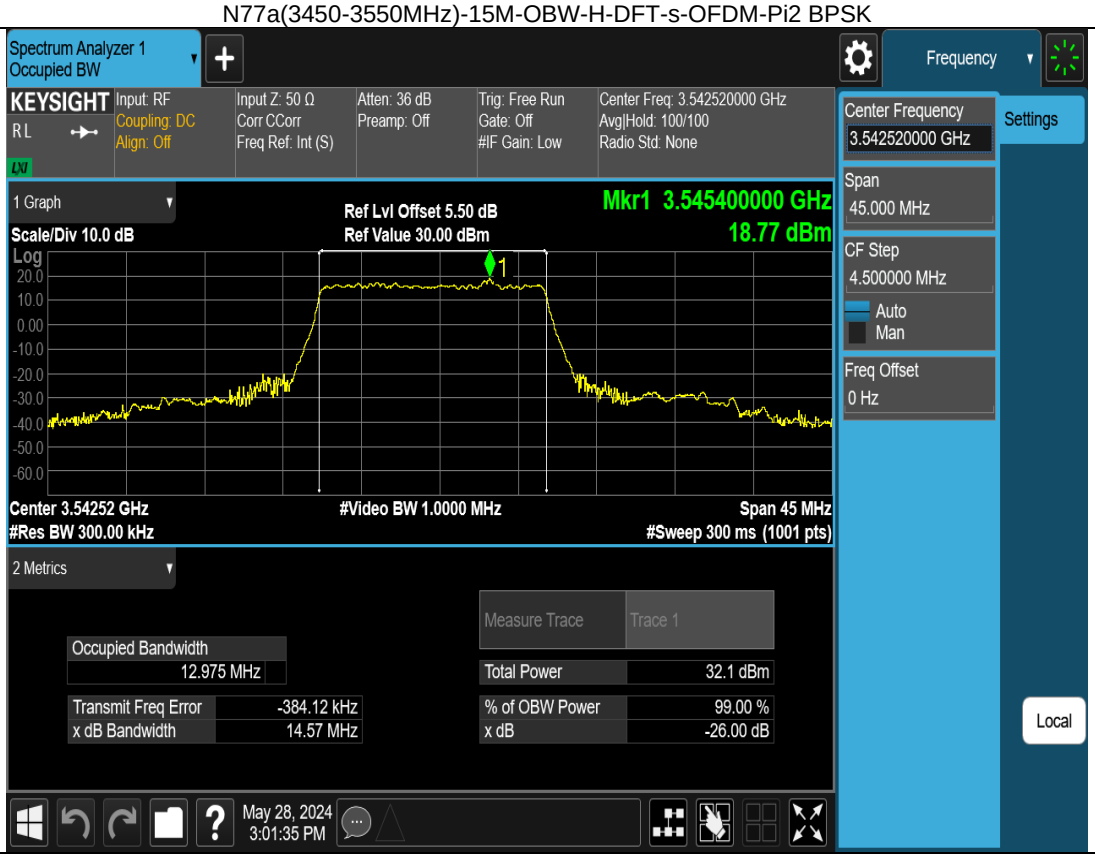
N77a(3450-3550MHz)-15M-OBW-M-DFT-s-OFDM-Pi2 BPSK



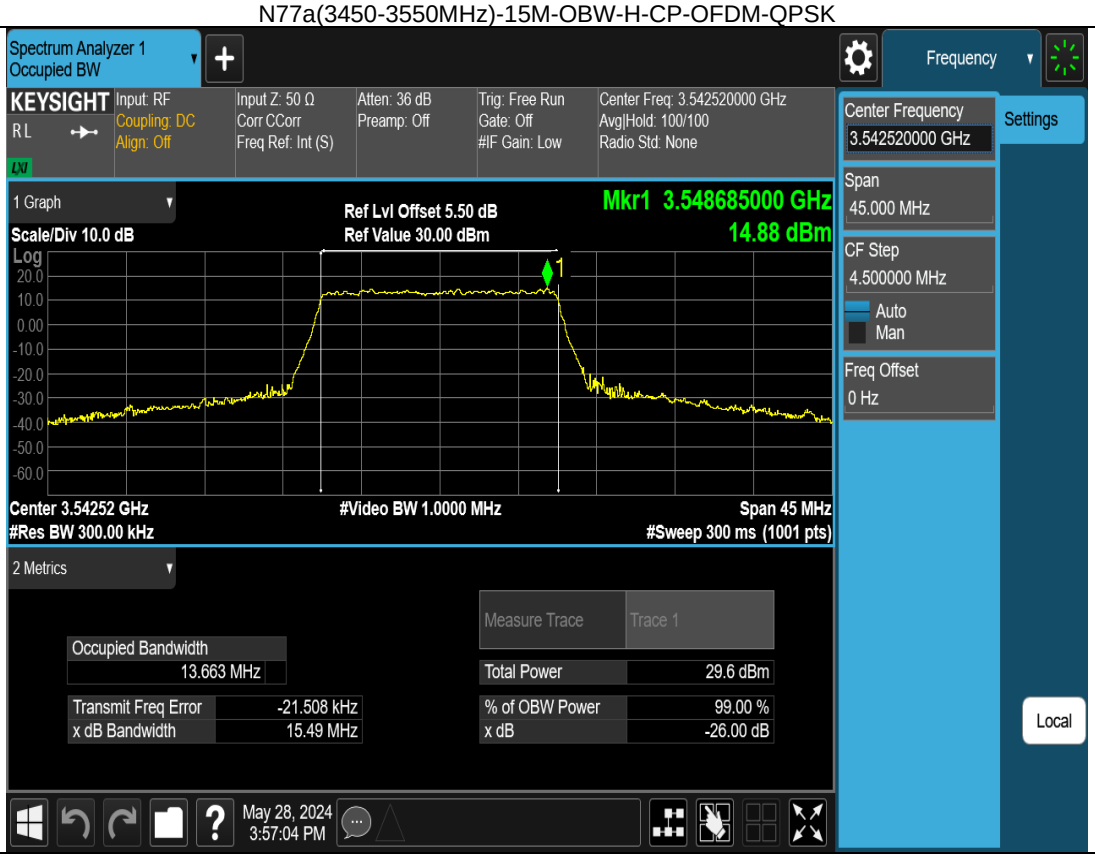
N77a(3450-3550MHz)-15M-OBW-M-CP-OFDM-QPSK



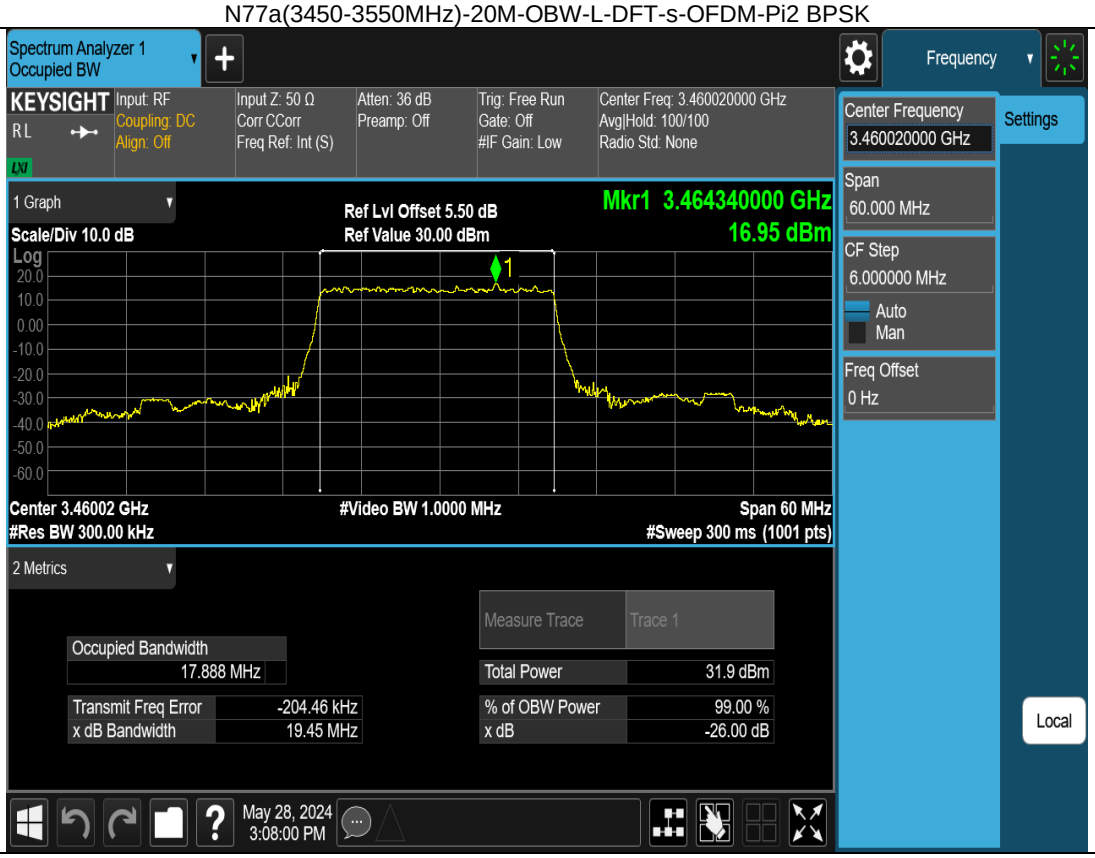
N77a(3450-3550MHz)-15M-OBW-H-DFT-s-OFDM-Pi2 BPSK



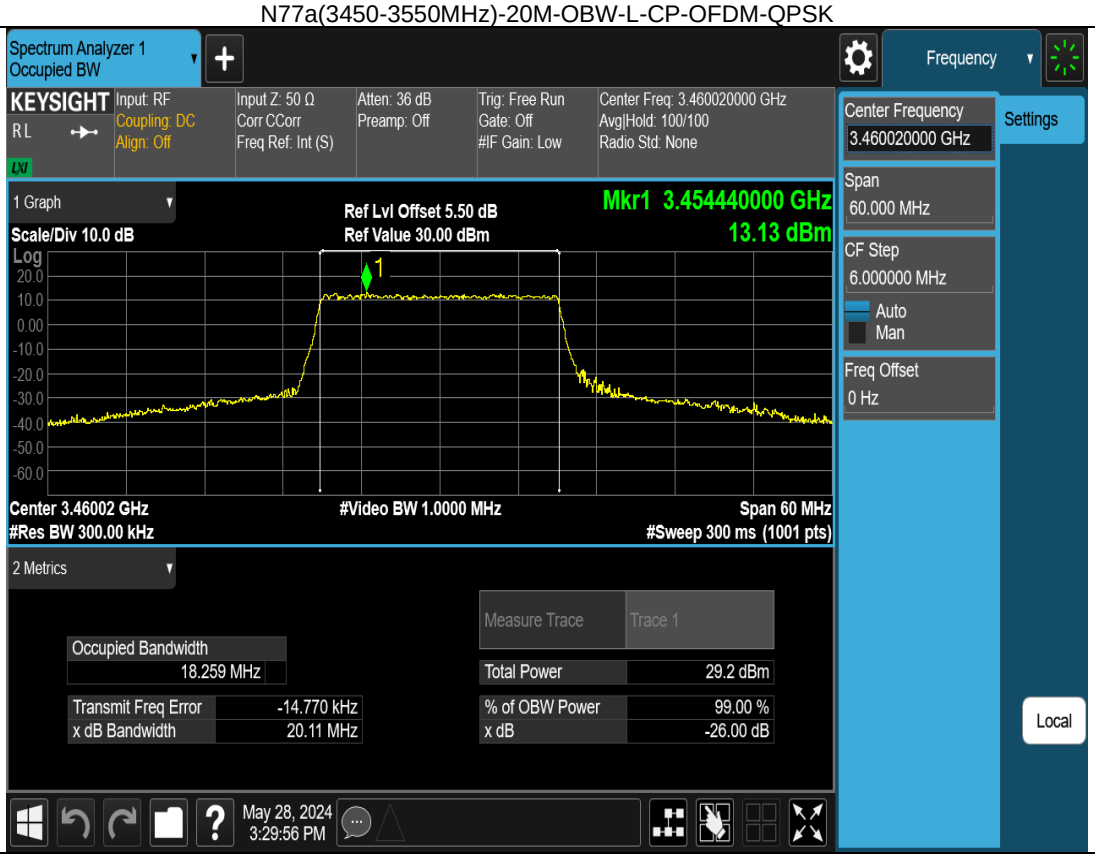
N77a(3450-3550MHz)-15M-OBW-H-CP-OFDM-QPSK



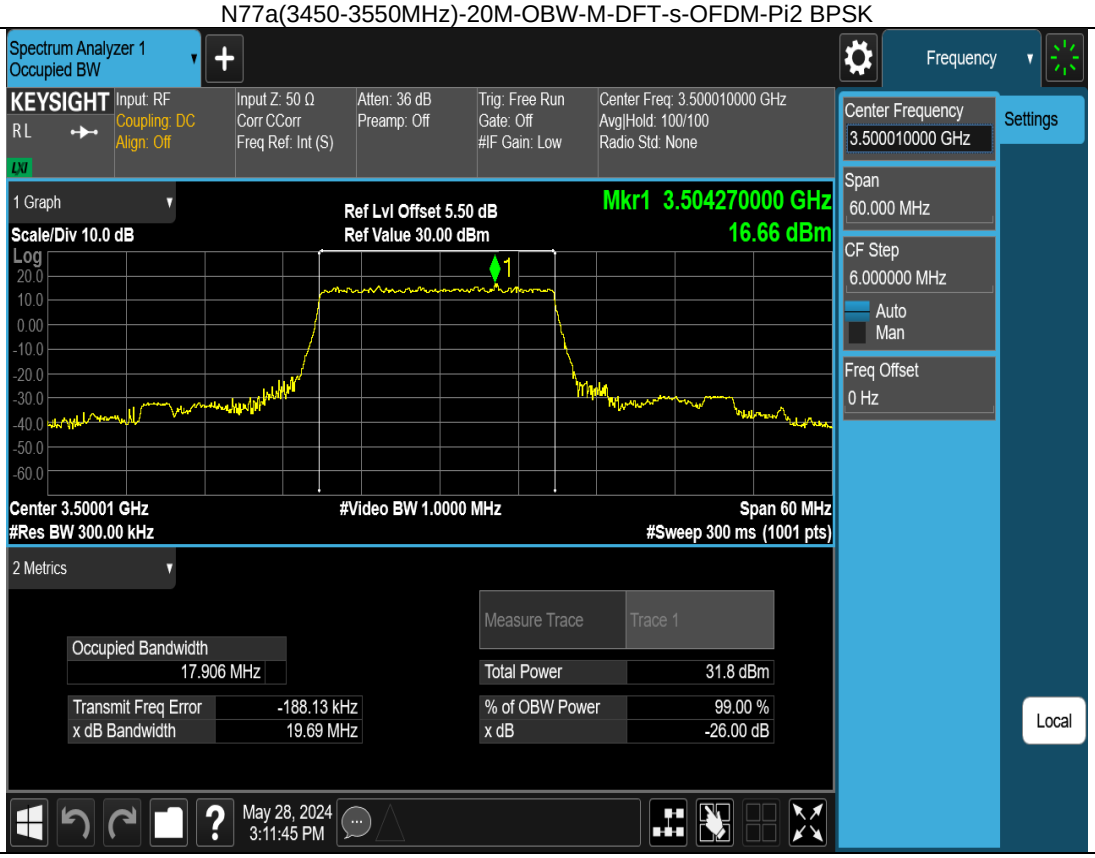
N77a(3450-3550MHz)-20M-OBW-L-DFT-s-OFDM-Pi2 BPSK



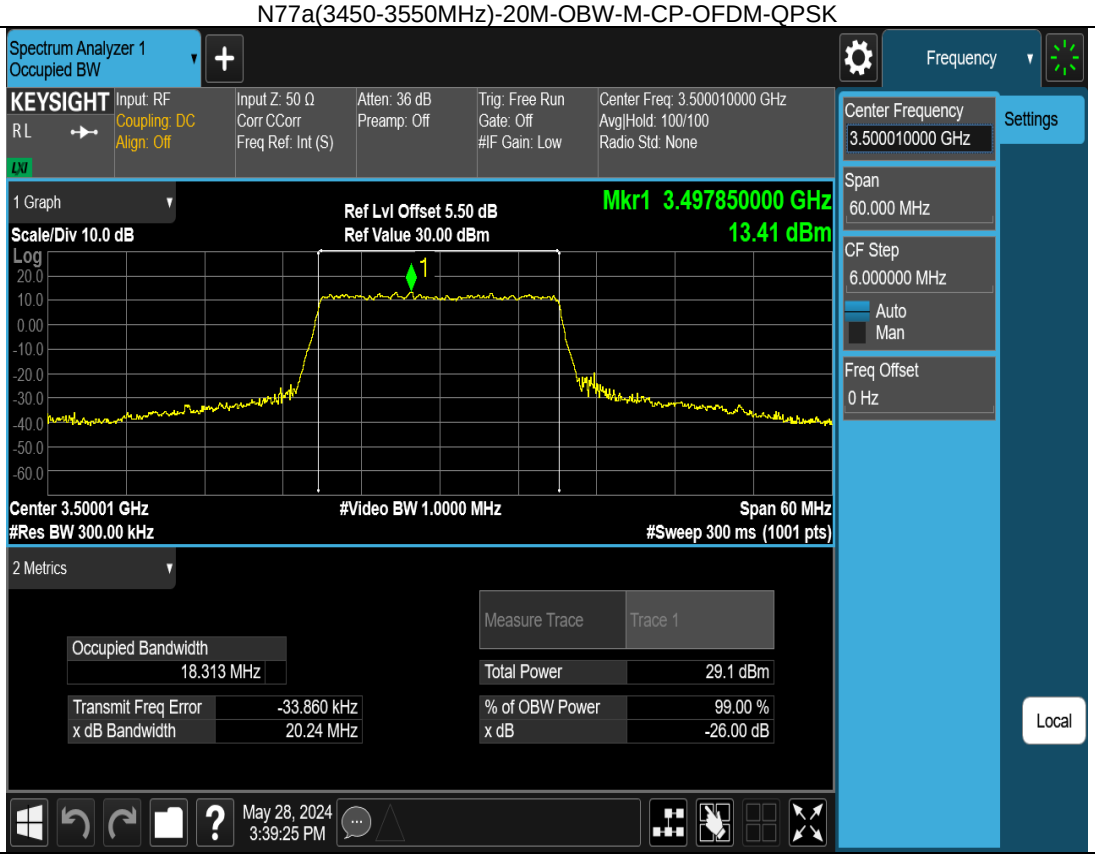
N77a(3450-3550MHz)-20M-OBW-L-CP-OFDM-QPSK



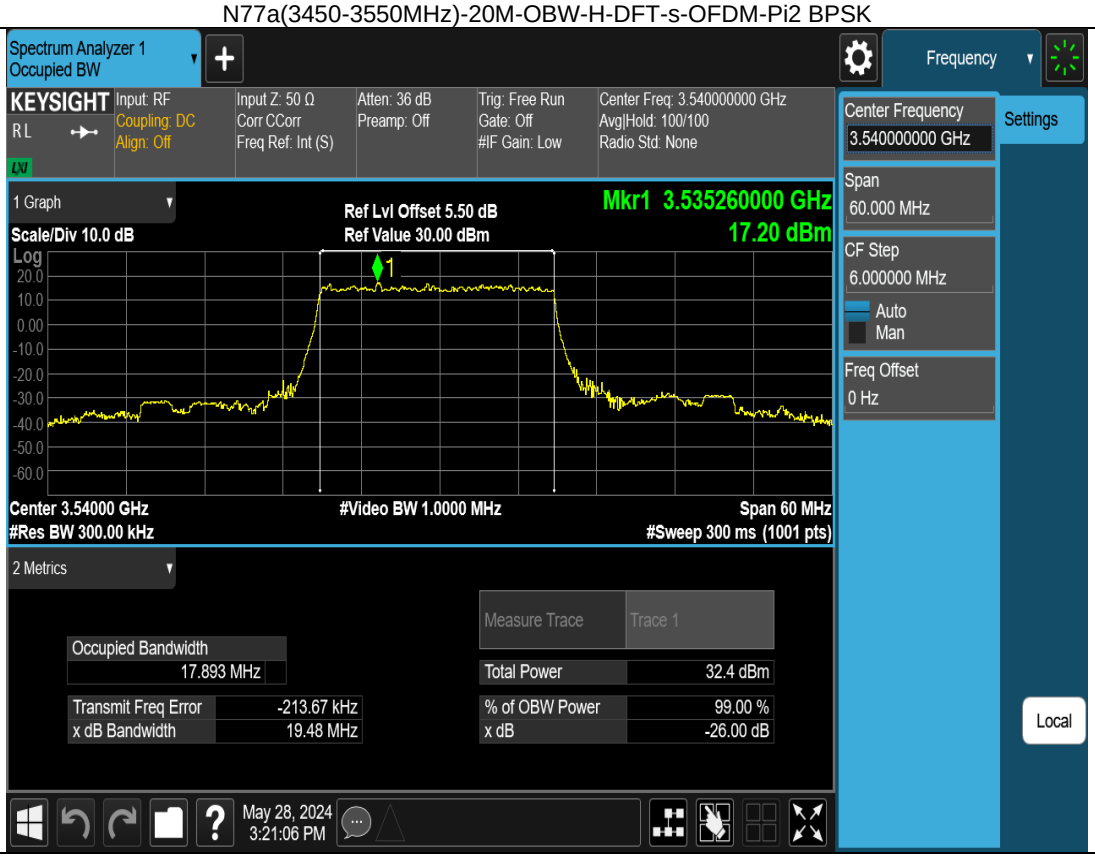
N77a(3450-3550MHz)-20M-OBW-M-DFT-s-OFDM-Pi2 BPSK



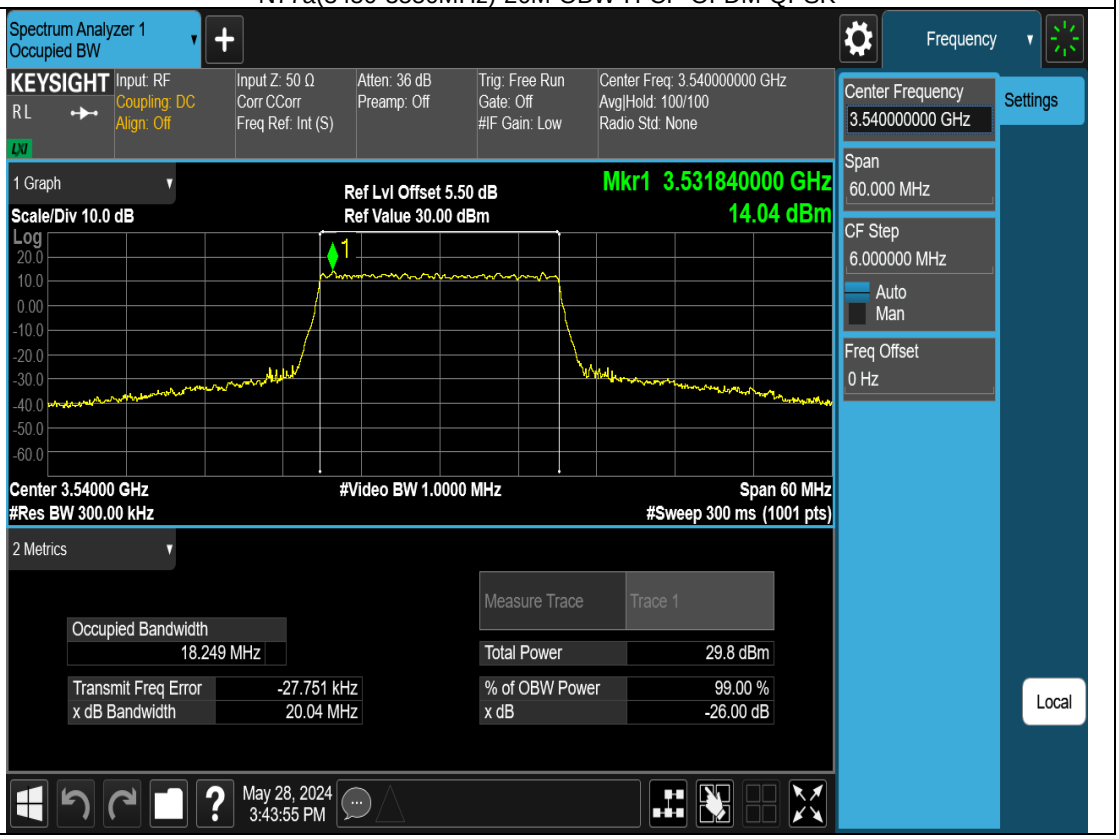
N77a(3450-3550MHz)-20M-OBW-M-CP-OFDM-QPSK



N77a(3450-3550MHz)-20M-OBW-H-DFT-s-OFDM-Pi2 BPSK



N77a(3450-3550MHz)-20M-OBW-H-CP-OFDM-QPSK



Peak-Average Ratio

Test Result

5G NR n77a(3450-3550MHz) SCS=30kHz 10MHz					
Modulation	CH	RB Allocation	Peak-Average Ratio (dB)	Limit	Verdict
DFT-s-OFDM PI/2 BPSK	Low CH	Outer_Full	4.25	<=13	Pass
CP-OFDM QPSK		Outer_Full	7.48	<=13	Pass
DFT-s-OFDM PI/2 BPSK	Middle CH	Outer_Full	4.37	<=13	Pass
CP-OFDM QPSK		Outer_Full	7.25	<=13	Pass
DFT-s-OFDM PI/2 BPSK	High CH	Outer_Full	4.36	<=13	Pass
CP-OFDM QPSK		Outer_Full	7.54	<=13	Pass

5G NR n77a(3450-3550MHz) SCS=30kHz 15MHz					
Modulation	CH	RB Allocation	Peak-Average Ratio (dB)	Limit	Verdict
DFT-s-OFDM PI/2 BPSK	Low CH	Outer_Full	4.40	<=13	Pass
CP-OFDM QPSK		Outer_Full	7.41	<=13	Pass
DFT-s-OFDM PI/2 BPSK	Middle CH	Outer_Full	4.42	<=13	Pass
CP-OFDM QPSK		Outer_Full	7.30	<=13	Pass
DFT-s-OFDM PI/2 BPSK	High CH	Outer_Full	4.22	<=13	Pass
CP-OFDM QPSK		Outer_Full	7.63	<=13	Pass

5G NR n77a(3450-3550MHz) SCS=30kHz 20MHz					
Modulation	CH	RB Allocation	Peak-Average Ratio (dB)	Limit	Verdict
DFT-s-OFDM PI/2 BPSK	Low CH	Outer_Full	4.00	<=13	Pass
CP-OFDM QPSK		Outer_Full	7.49	<=13	Pass
DFT-s-OFDM PI/2 BPSK	Middle CH	Outer_Full	4.38	<=13	Pass
CP-OFDM QPSK		Outer_Full	7.29	<=13	Pass
DFT-s-OFDM PI/2 BPSK	High CH	Outer_Full	4.45	<=13	Pass
CP-OFDM QPSK		Outer_Full	7.50	<=13	Pass

Test Graph


N77a(3450-3550MHz)-10M-PAPR-L-DFT-s-OFDM-Pi2 BPSK-Outer_Full
Spectrum Analyzer 1
Power Stat CCDF
Frequency
KEYSIGHT
Input: RF
Coupling: DC
Align: Off
Input Z: 50 Ω
Corr CCorr
Freq Ref: Int (S)
Atten: 40 dB
Preamp: Off
Trig: RF Burst
#IF Gain: Low
Center Freq: 3.455010000 GHz
Counts: 10.0 M/10.0 Mpt
Radio Std: None
Center Frequency
3.455010000 GHz
Settings
CF Step
5.000000 MHz
Auto
Man
Freq Offset
0 Hz
1 Metrics
2 Graph
Gaussian
Average Power
22.19 dBm
48.20 % at 0 dB
10.0 % 1.99 dB
1.0 % 3.44 dB
0.1 % 4.25 dB
0.01 % 4.49 dB
0.001 % 4.58 dB
0.0001 % 4.62 dB
Peak
4.65 dB
26.84 dBm
100 %
10 %
1 %
0.1 %
0.01 %
0.001 %
0.0001 %
0.00 dB
20.00 dB
Info BW 20.000 MHz
Local
May 28, 2024
2:35:52 PM

N77a(3450-3550MHz)-10M-PAPR-L-CP-OFDM-QPSK-Outer_Full

N77a(3450-3550MHz)-10M-PAPR-M-DFT-s-OFDM-Pi2 BPSK-Outer_Full

N77a(3450-3550MHz)-10M-PAPR-M-CP-OFDM-QPSK-Outer_Full

N77a(3450-3550MHz)-10M-PAPR-H-DFT-s-OFDM-Pi2 BPSK-Outer_Full

N77a(3450-3550MHz)-10M-PAPR-H-CP-OFDM-QPSK-Outer_Full

N77a(3450-3550MHz)-15M-PAPR-L-DFT-s-OFDM-Pi2 BPSK-Outer_Full

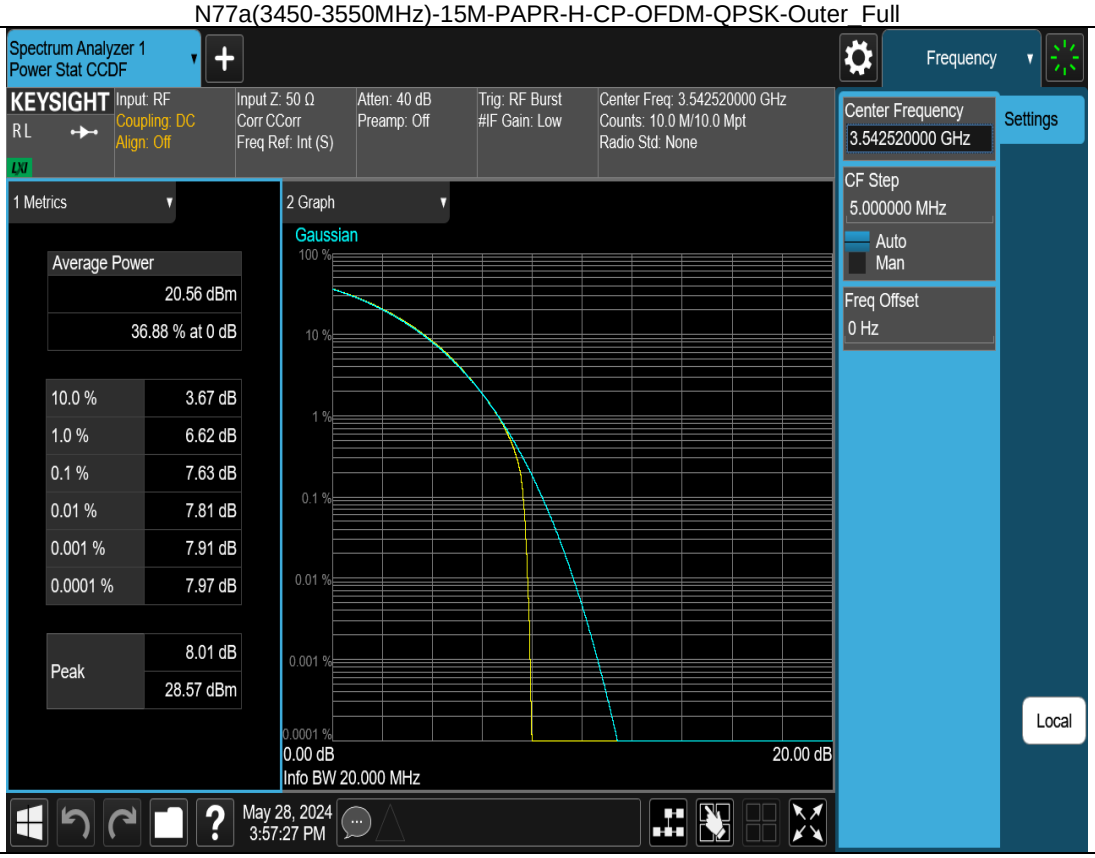
N77a(3450-3550MHz)-15M-PAPR-L-CP-OFDM-QPSK-Outer_Full

N77a(3450-3550MHz)-15M-PAPR-M-DFT-s-OFDM-Pi2 BPSK-Outer_Full

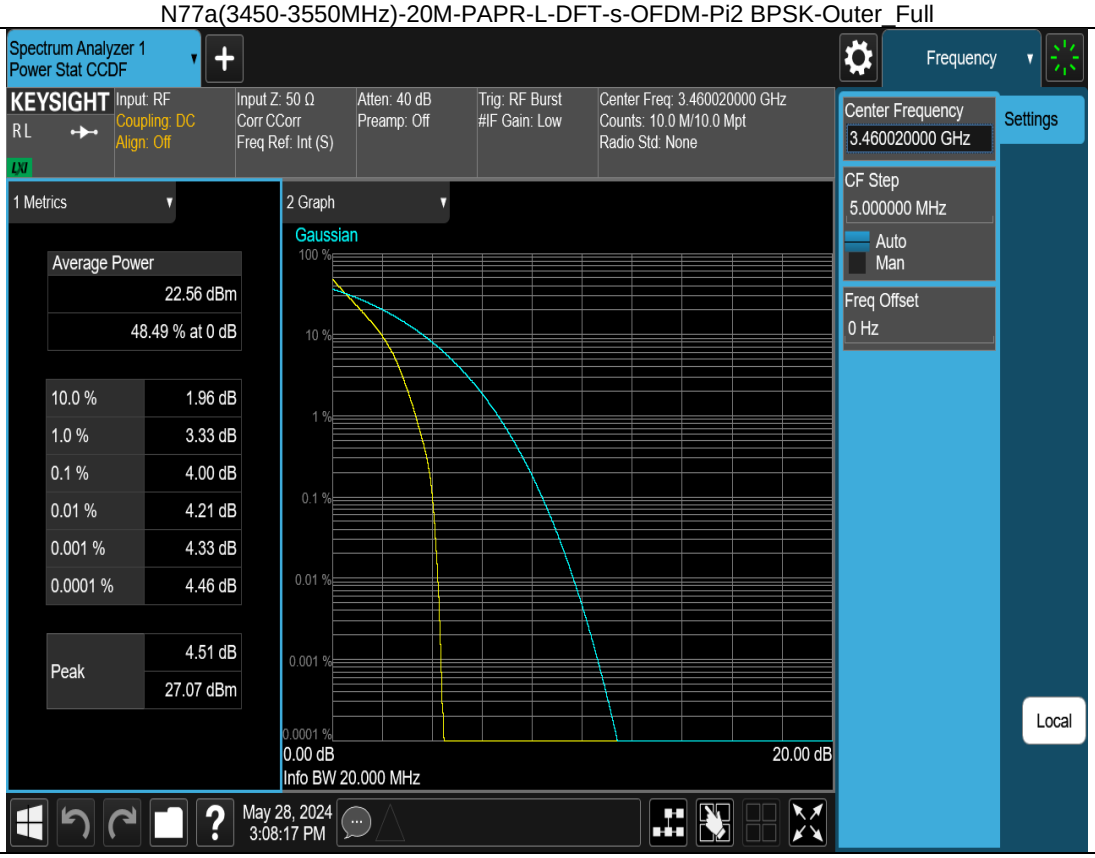
N77a(3450-3550MHz)-15M-PAPR-M-CP-OFDM-QPSK-Outer_Full

N77a(3450-3550MHz)-15M-PAPR-H-DFT-s-OFDM-Pi2 BPSK-Outer_Full

N77a(3450-3550MHz)-15M-PAPR-H-CP-OFDM-QPSK-Outer_Full



N77a(3450-3550MHz)-20M-PAPR-L-DFT-s-OFDM-Pi2 BPSK-Outer_Full



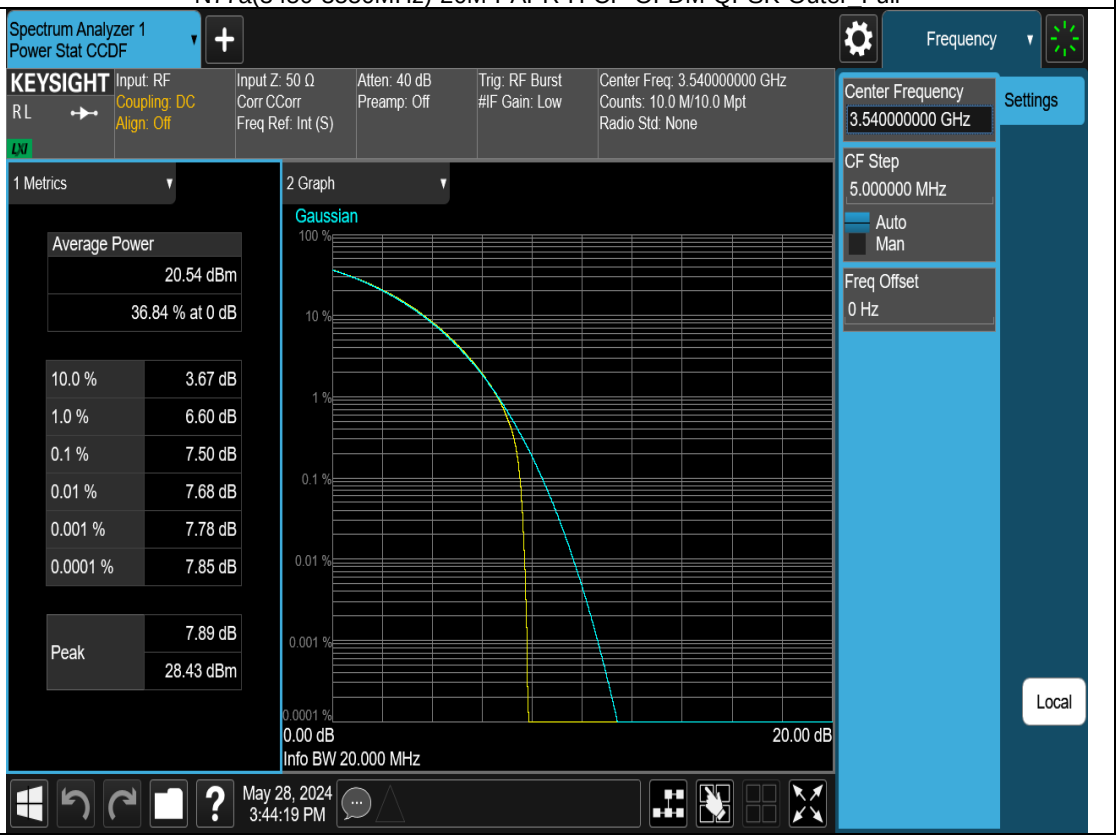
N77a(3450-3550MHz)-20M-PAPR-L-CP-OFDM-QPSK-Outer_Full

N77a(3450-3550MHz)-20M-PAPR-M-DFT-s-OFDM-Pi2 BPSK-Outer_Full

N77a(3450-3550MHz)-20M-PAPR-M-CP-OFDM-QPSK-Outer_Full

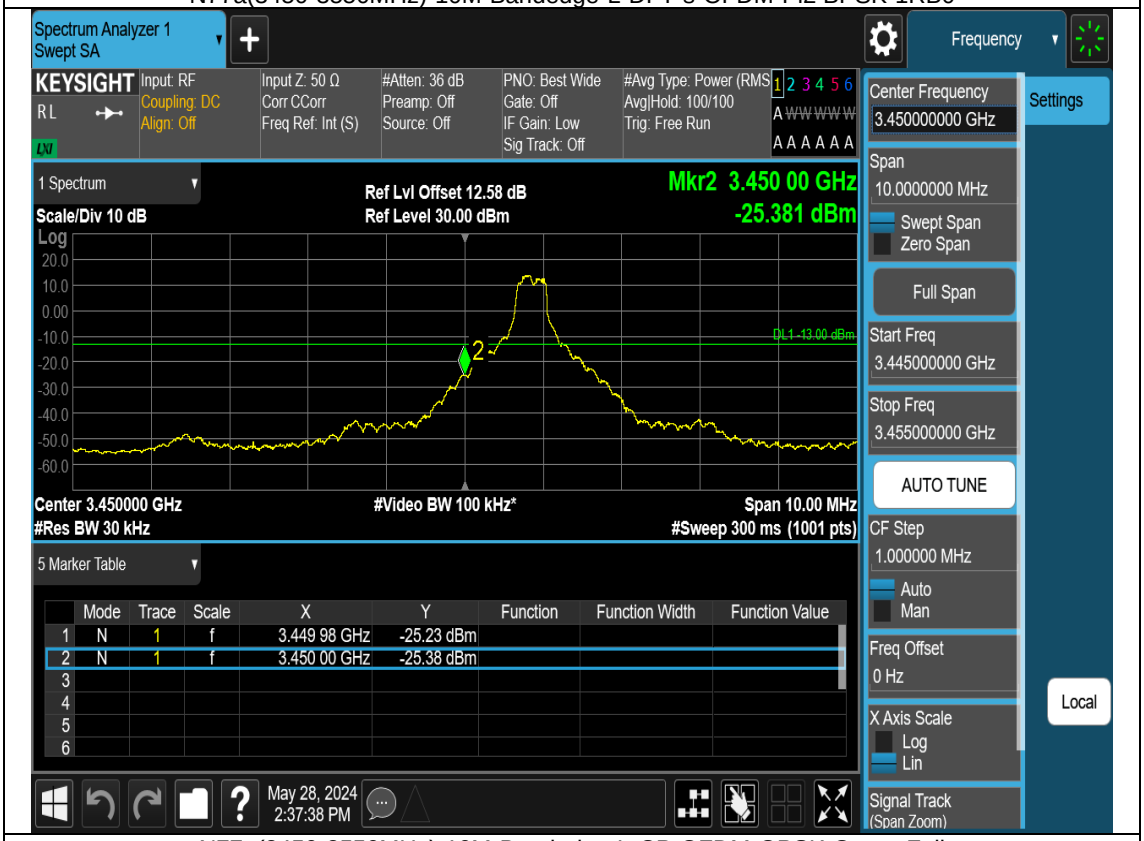
N77a(3450-3550MHz)-20M-PAPR-H-DFT-s-OFDM-Pi2 BPSK-Outer_Full

N77a(3450-3550MHz)-20M-PAPR-H-CP-OFDM-QPSK-Outer_Full

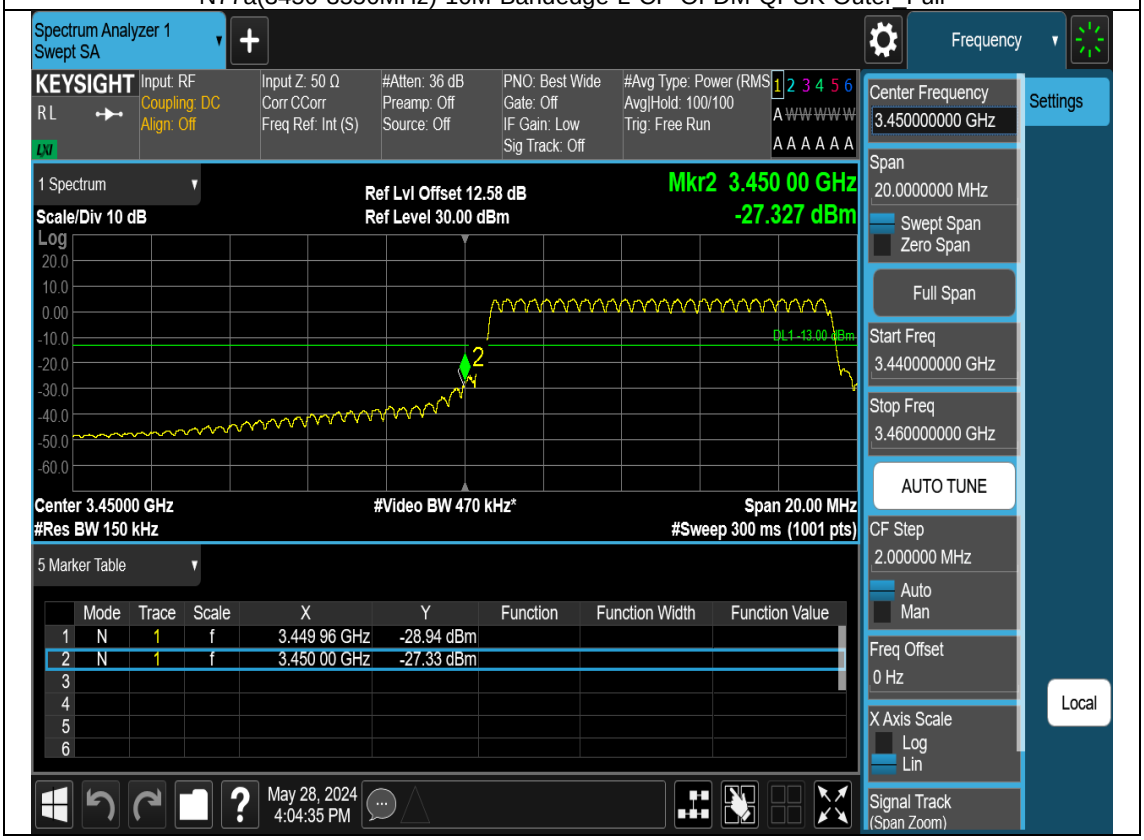


Bandedge test graph

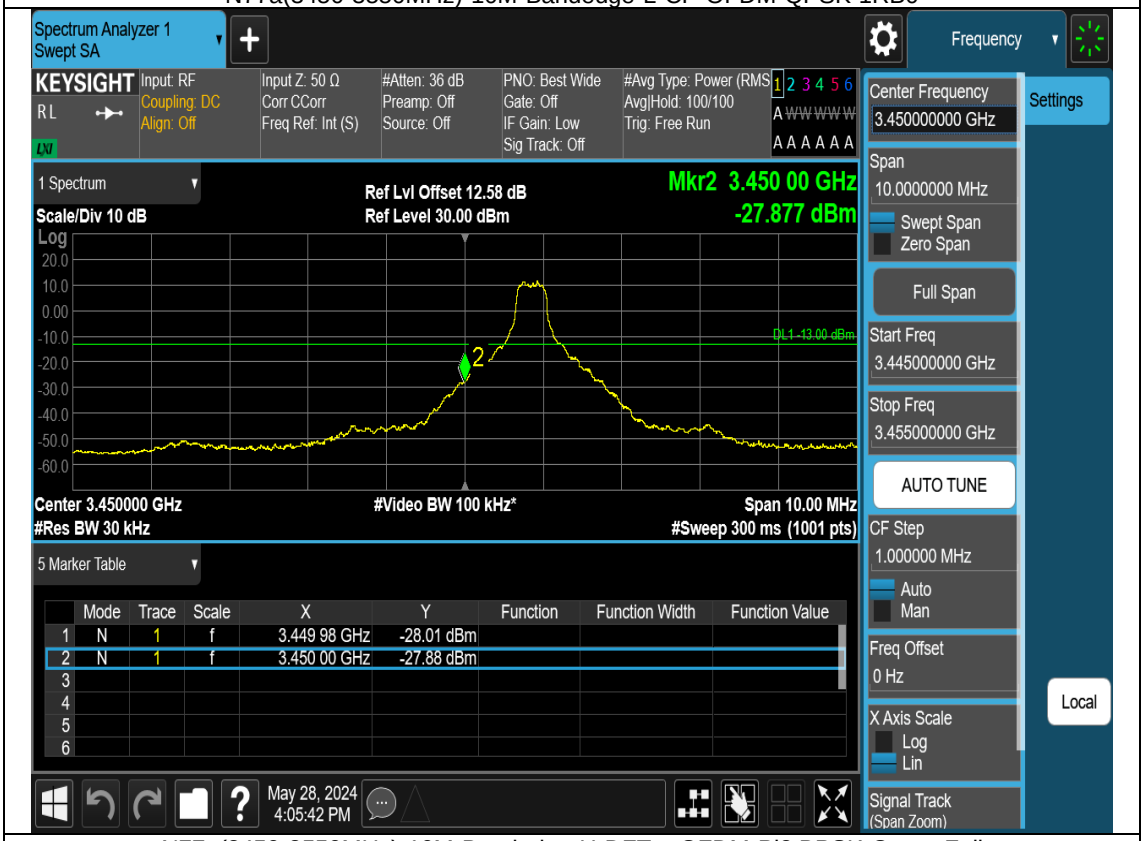
N77a(3450-3550MHz)-10M-Bandedge-L-DFT-s-OFDM-Pi2 BPSK-1RB0



N77a(3450-3550MHz)-10M-Bandedge-L-CP-OFDM-QPSK-Outer_Full

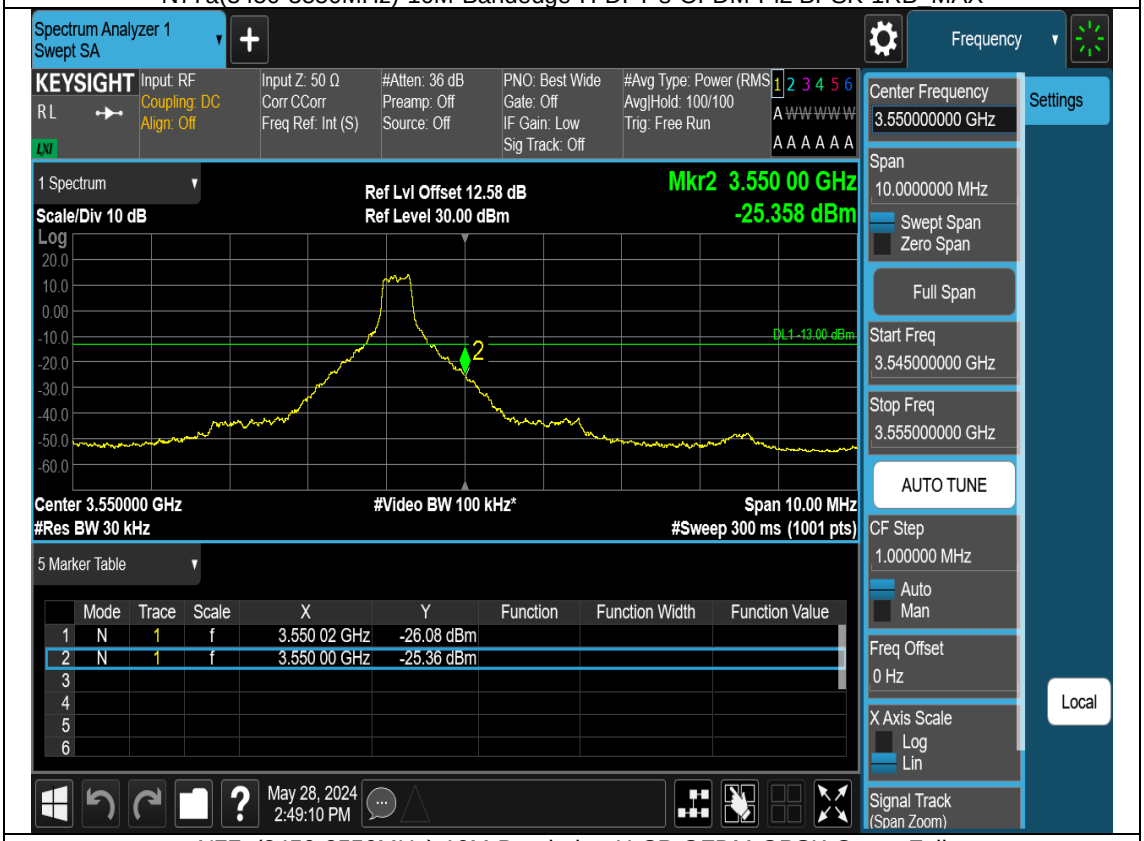


N77a(3450-3550MHz)-10M-Bandedge-L-CP-OFDM-QPSK-1RB0

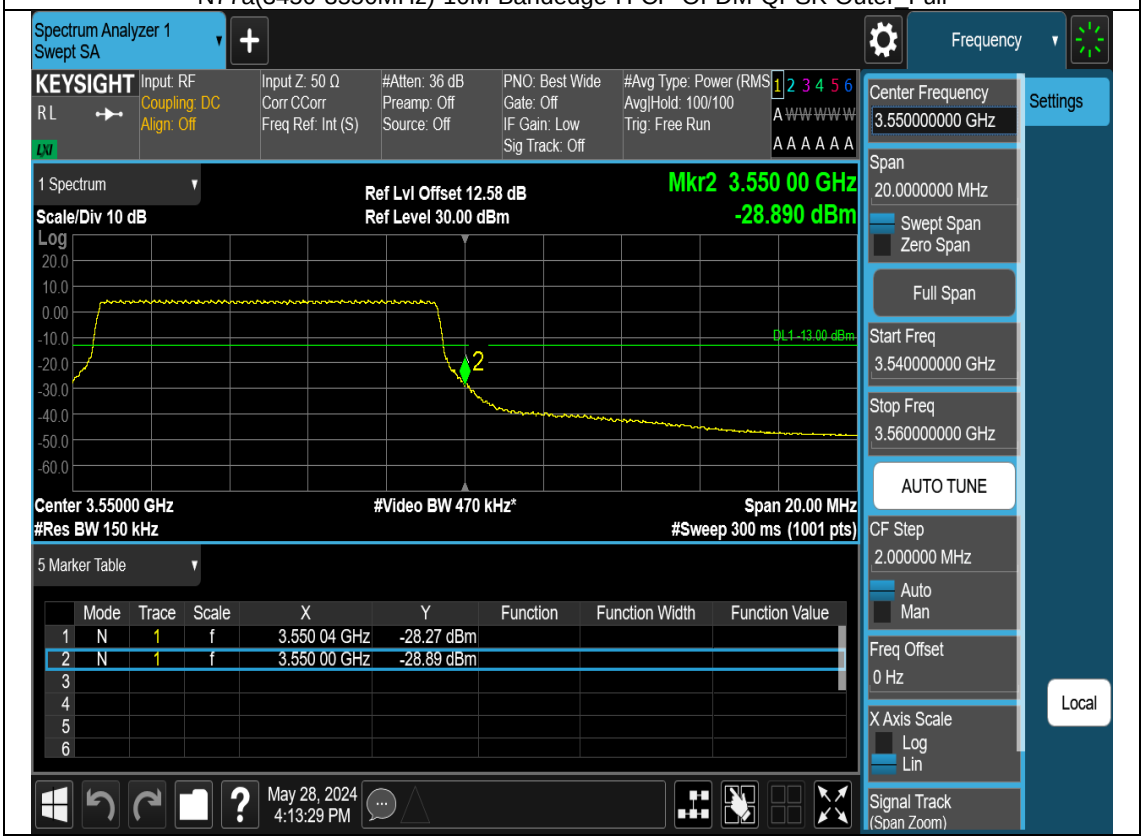


N77a(3450-3550MHz)-10M-Bandedge-H-DFT-s-OFDM-Pi2 BPSK-Outer_Full

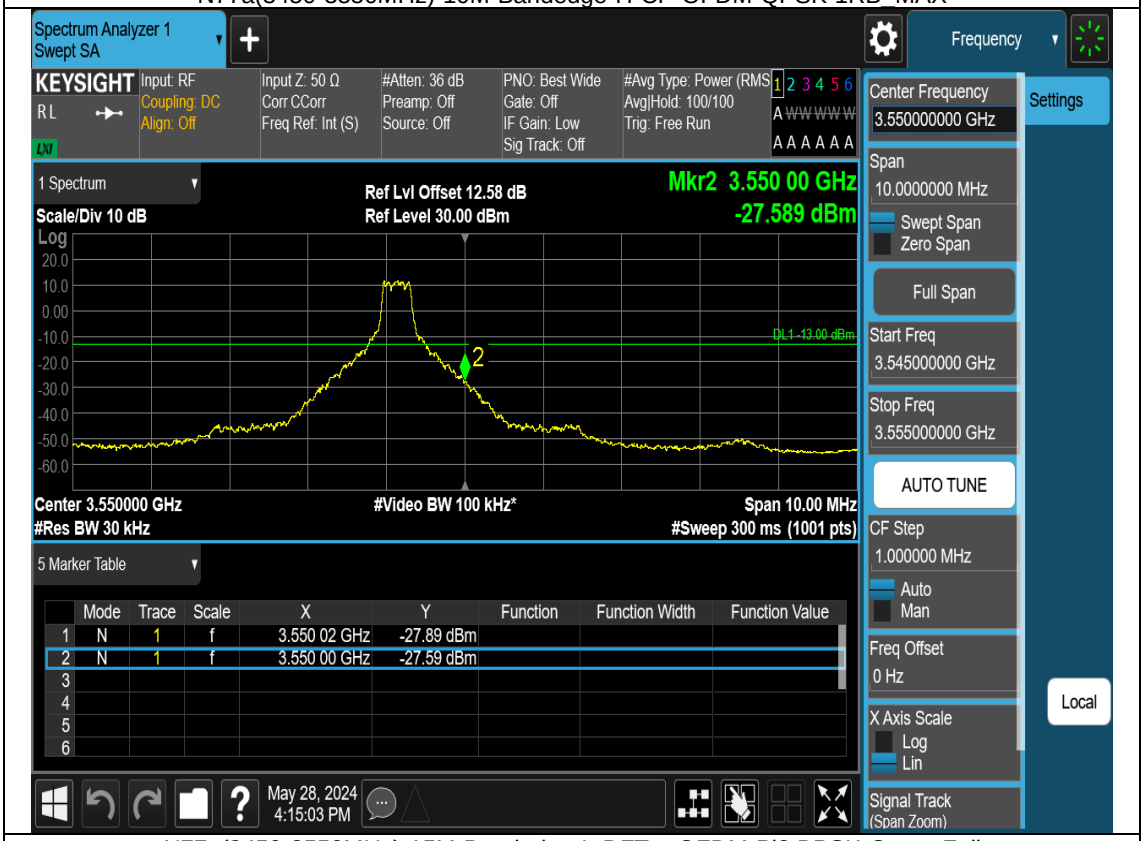
N77a(3450-3550MHz)-10M-Bandedge-H-DFT-s-OFDM-Pi2 BPSK-1RB_MAX



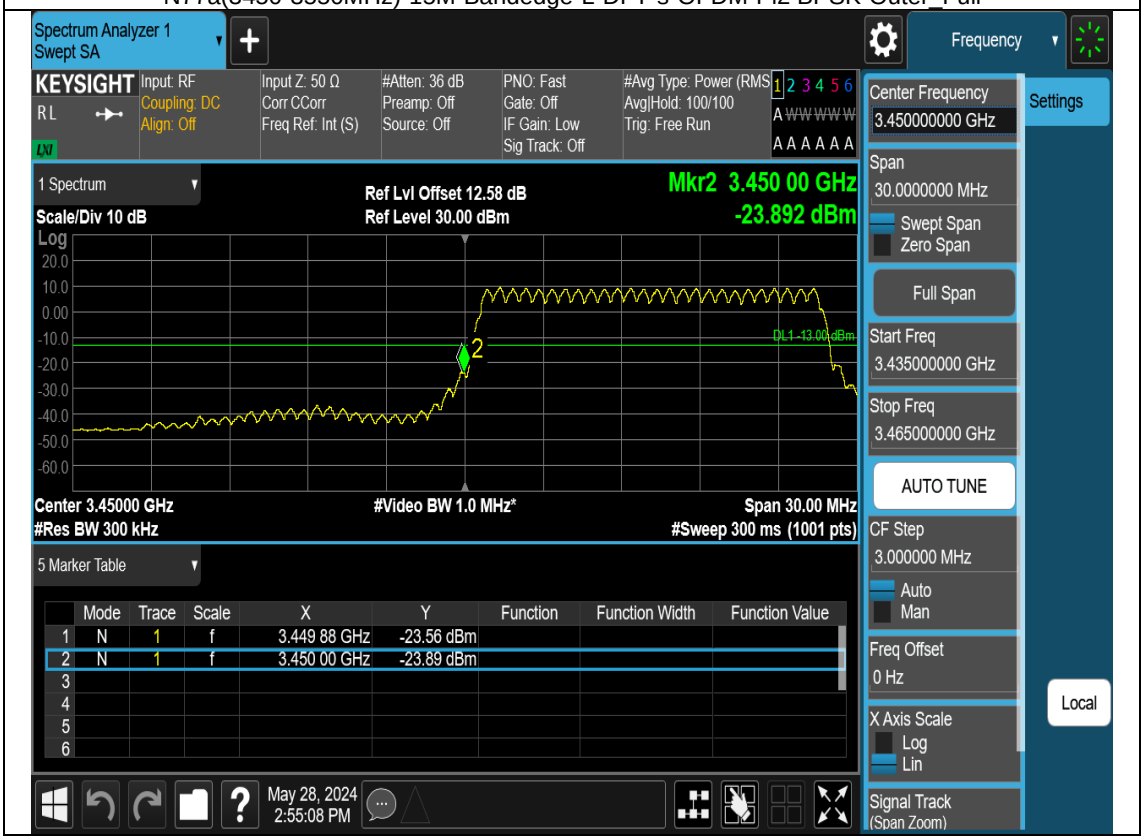
N77a(3450-3550MHz)-10M-Bandedge-H-CP-OFDM-QPSK-Outer_Full



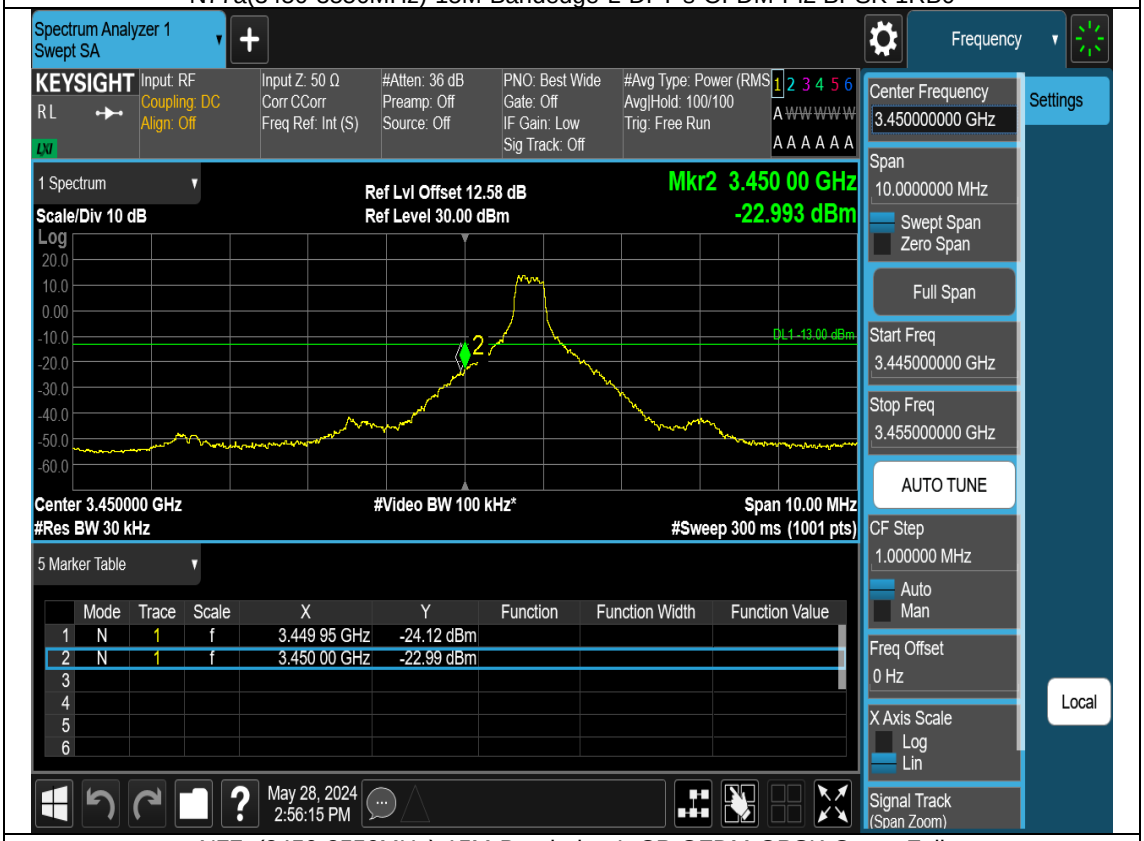
N77a(3450-3550MHz)-10M-Bandedge-H-CP-OFDM-QPSK-1RB_MAX



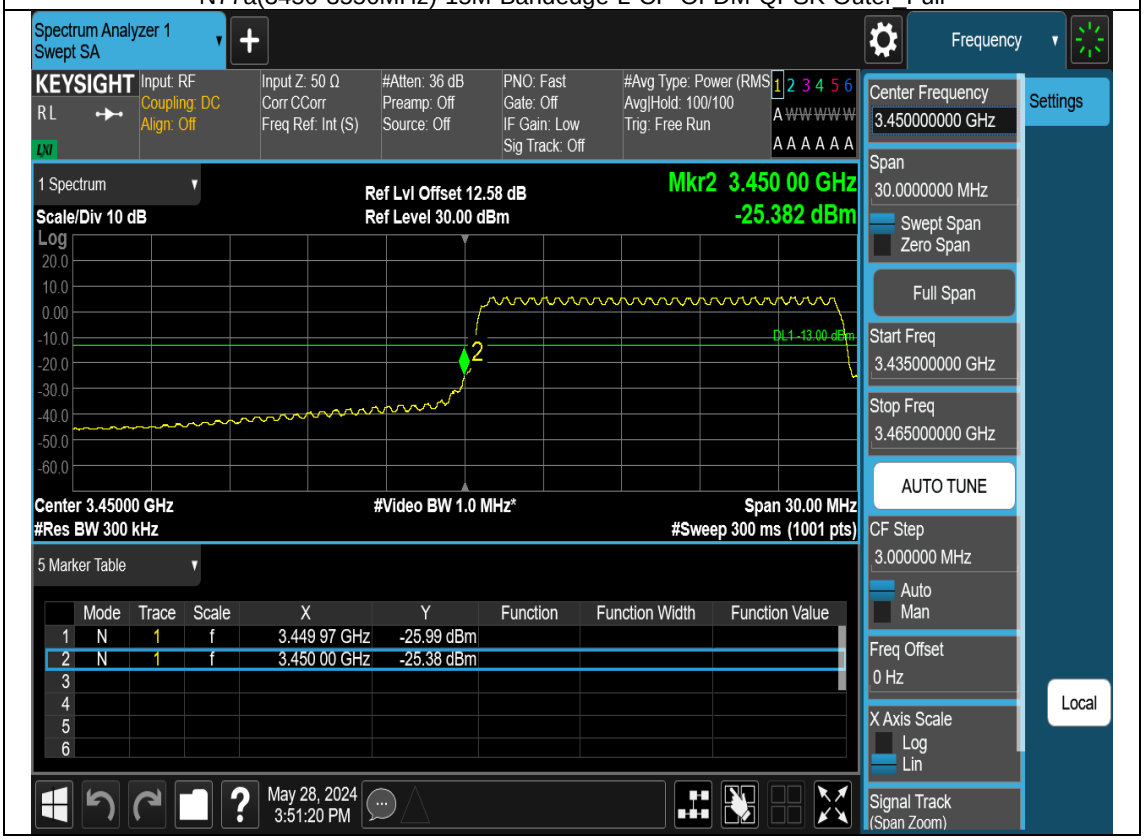
N77a(3450-3550MHz)-15M-Bandedge-L-DFT-s-OFDM-Pi2 BPSK-Outer_Full



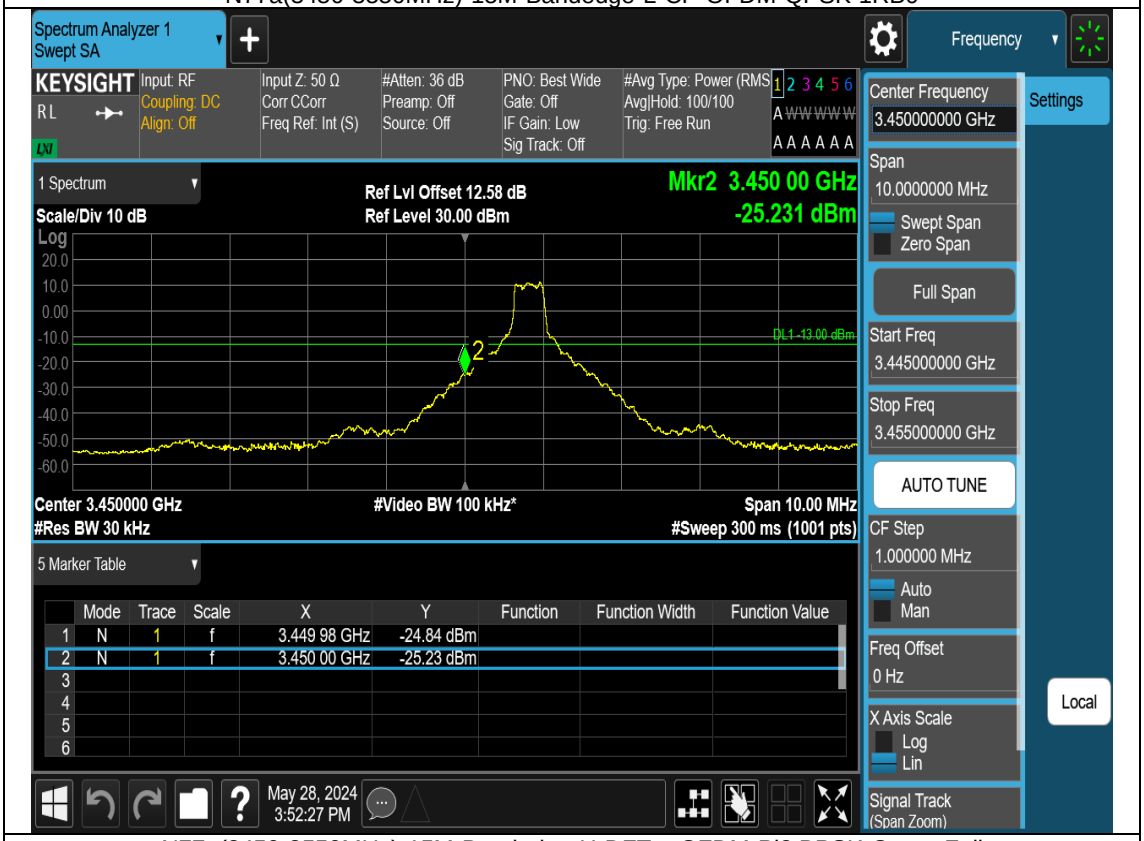
N77a(3450-3550MHz)-15M-Bandedge-L-DFT-s-OFDM-Pi2 BPSK-1RB0



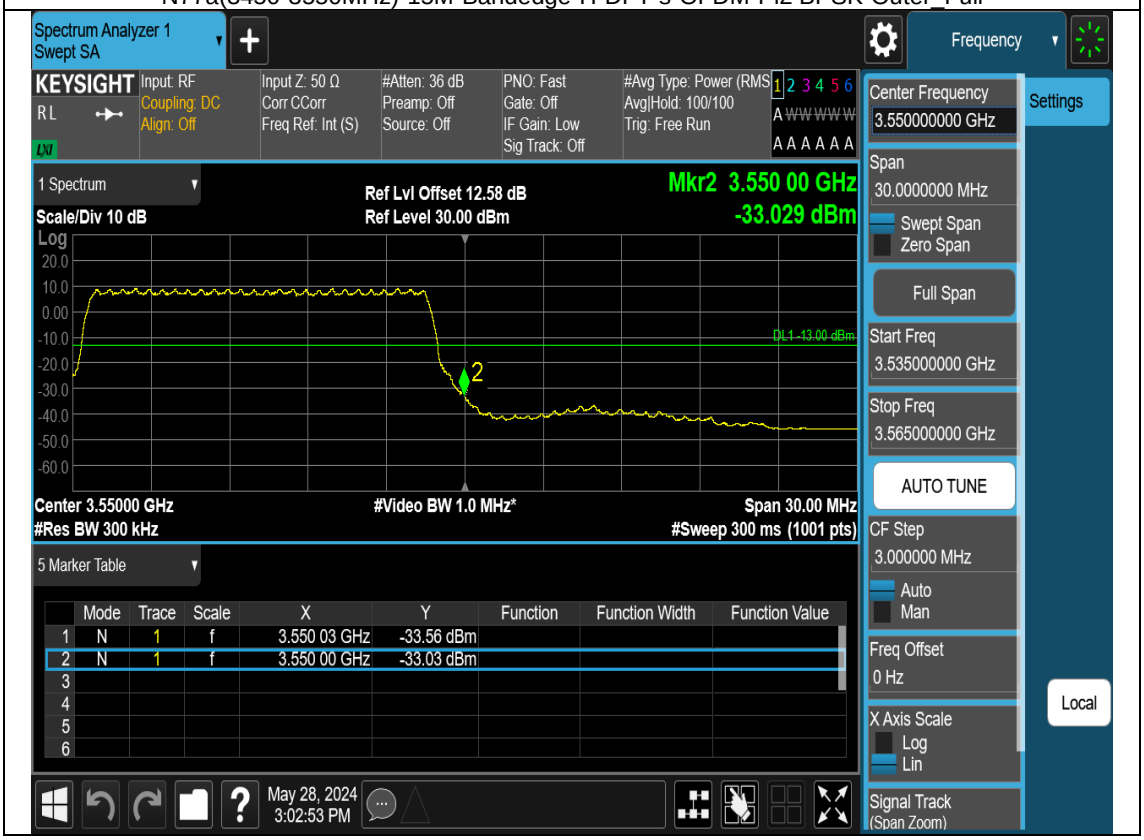
N77a(3450-3550MHz)-15M-Bandedge-L-CP-OFDM-QPSK-Outer_Full



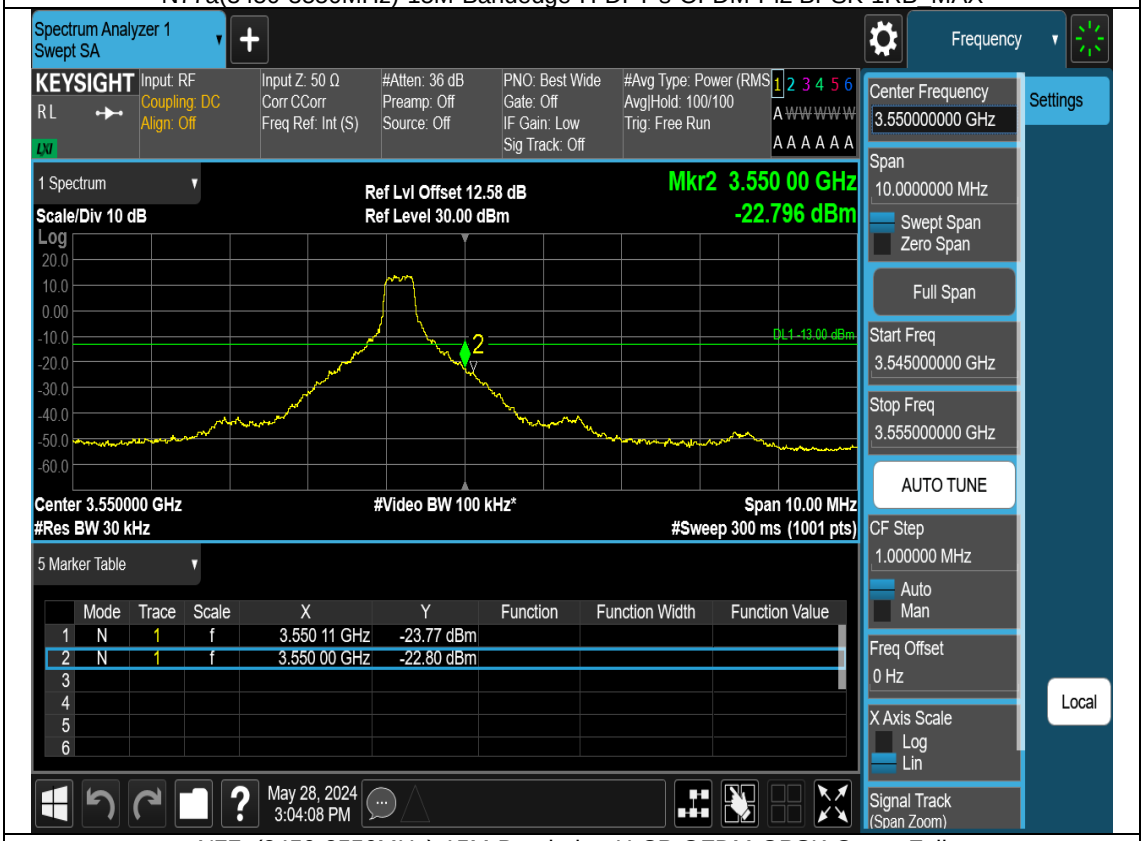
N77a(3450-3550MHz)-15M-Bandedge-L-CP-OFDM-QPSK-1RB0



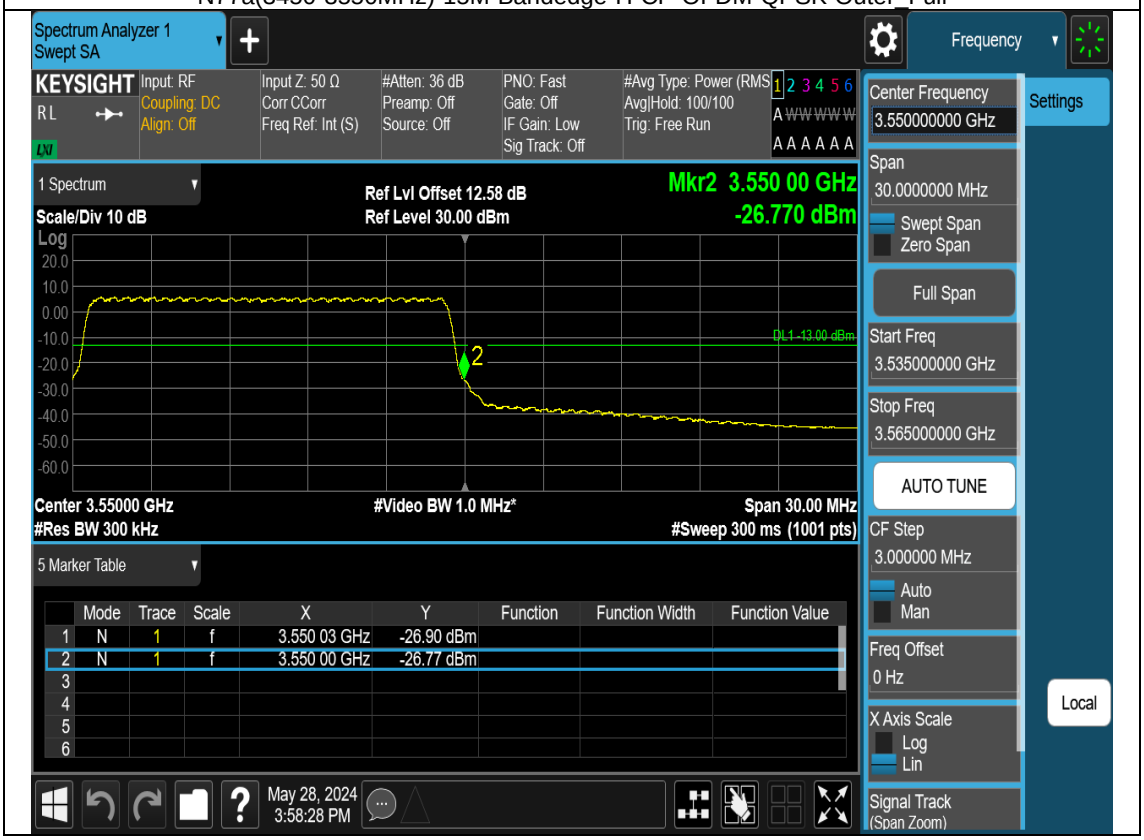
N77a(3450-3550MHz)-15M-Bandedge-H-DFT-s-OFDM-Pi2 BPSK-Outer_Full



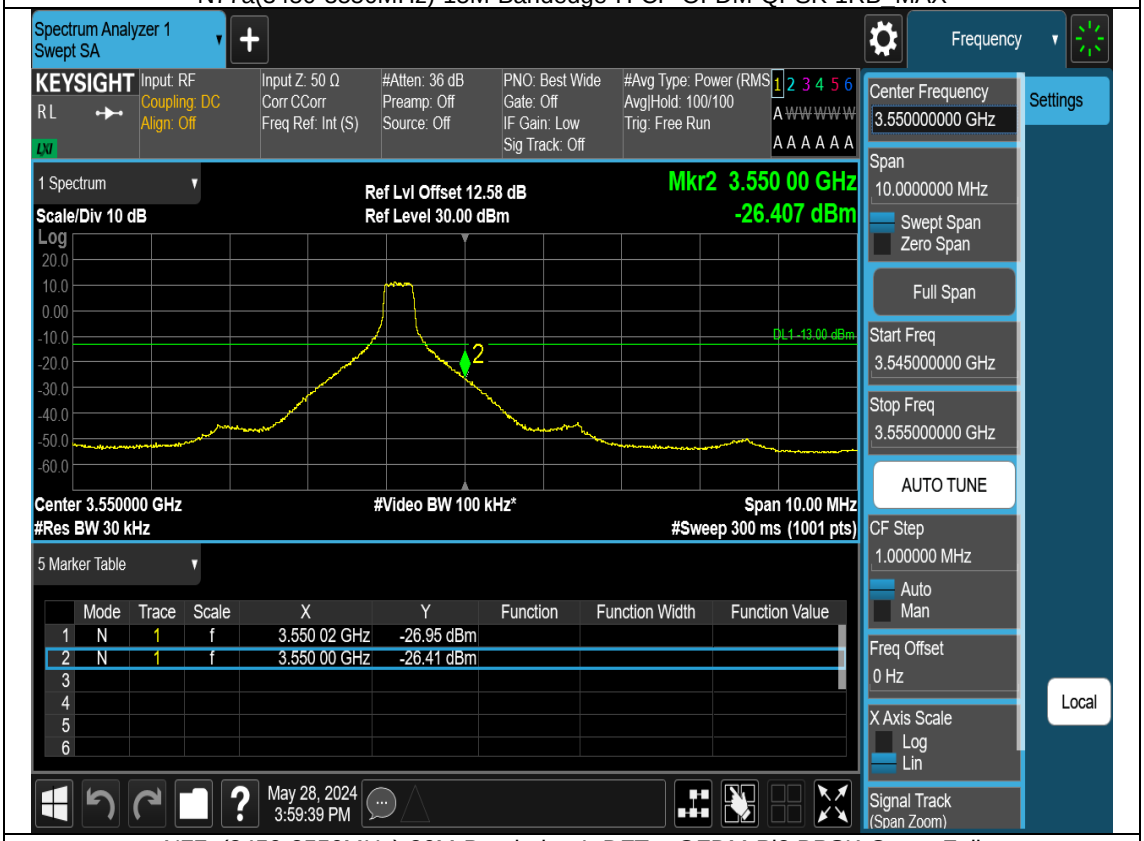
N77a(3450-3550MHz)-15M-Bandedge-H-DFT-s-OFDM-Pi2 BPSK-1RB_MAX



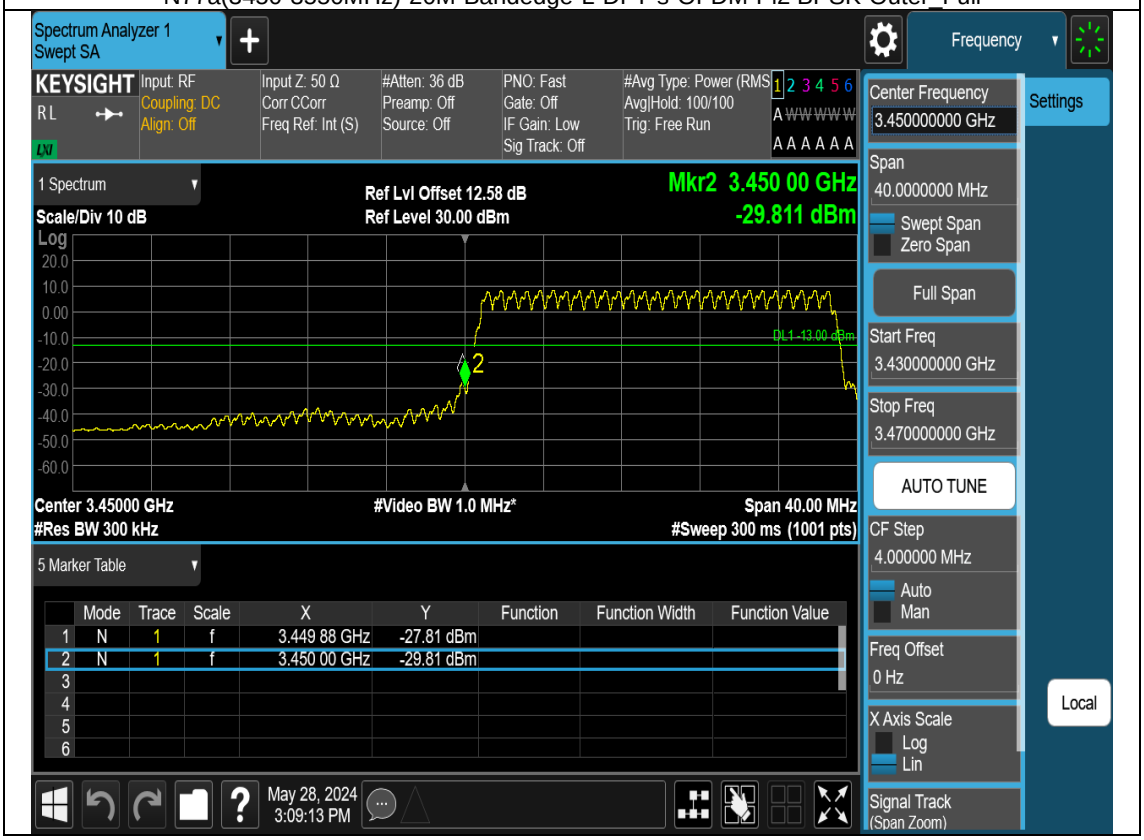
N77a(3450-3550MHz)-15M-Bandedge-H-CP-OFDM-QPSK-Outer_Full



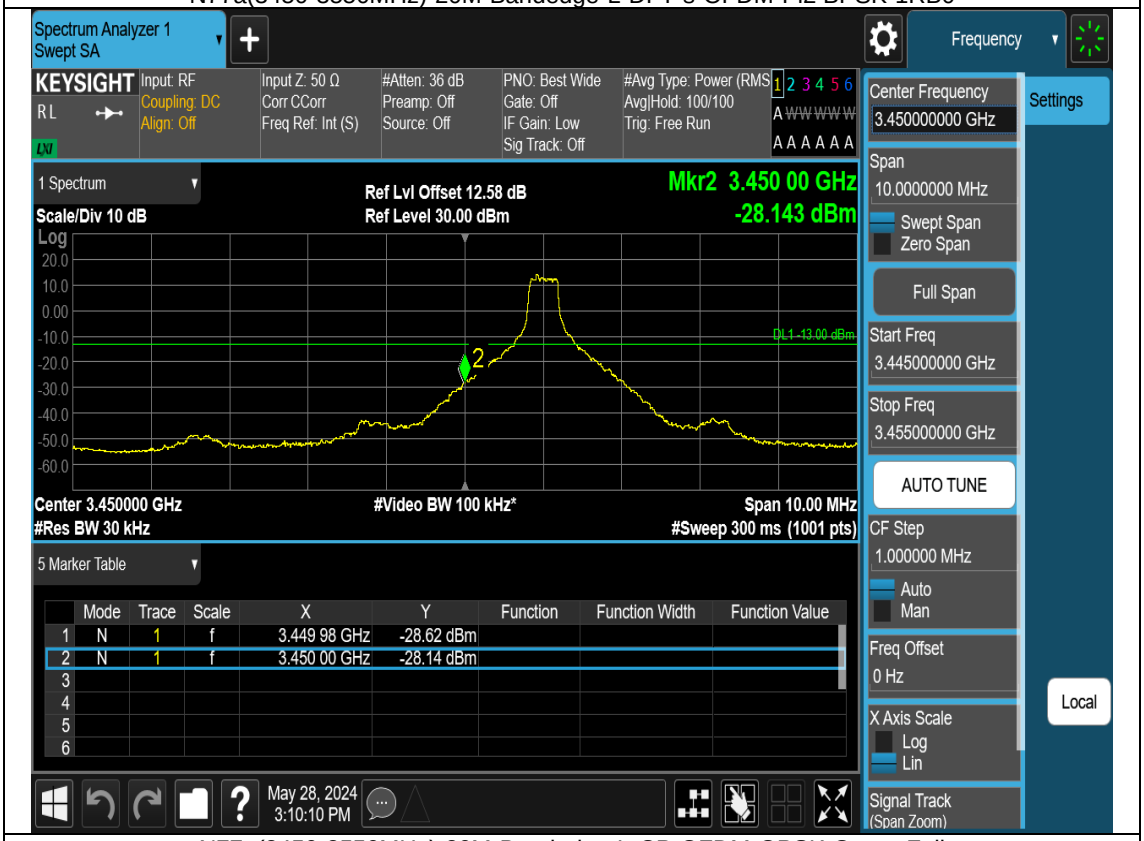
N77a(3450-3550MHz)-15M-Bandedge-H-CP-OFDM-QPSK-1RB_MAX



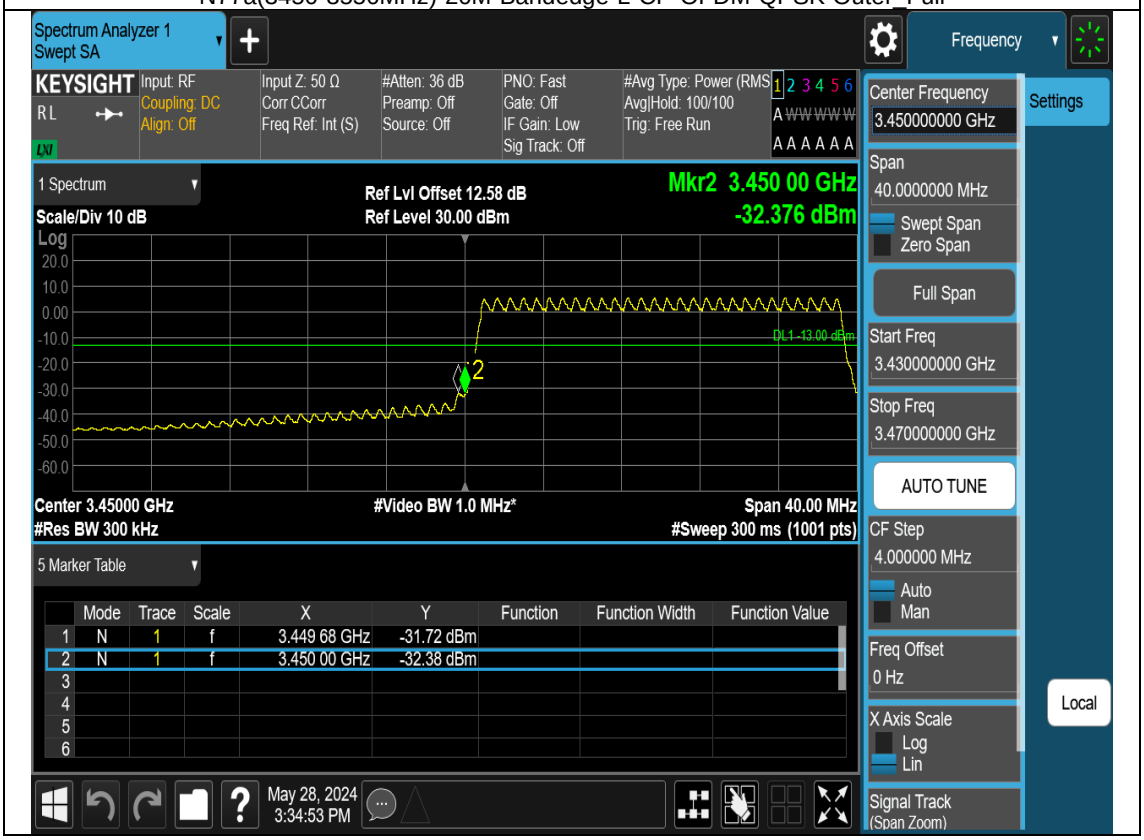
N77a(3450-3550MHz)-20M-Bandedge-L-DFT-s-OFDM-Pi2 BPSK-Outer_Full



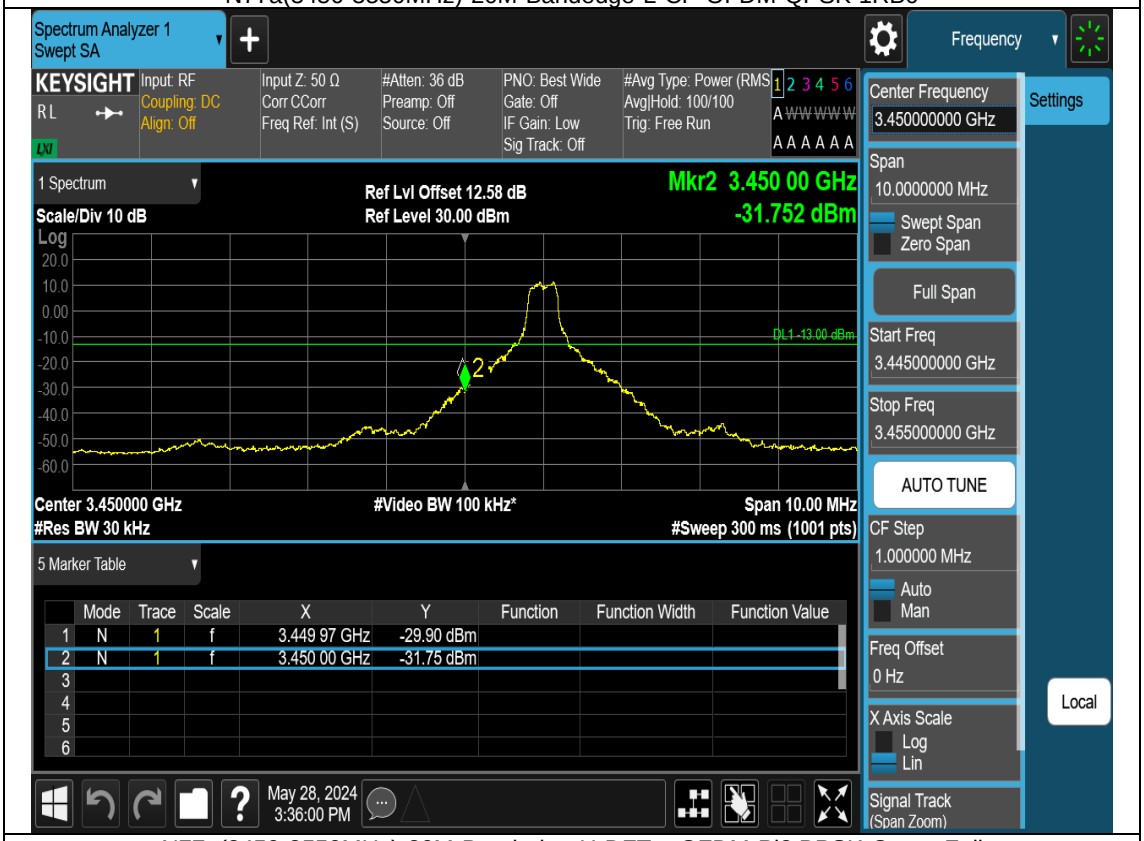
N77a(3450-3550MHz)-20M-Bandedge-L-DFT-s-OFDM-Pi2 BPSK-1RB0



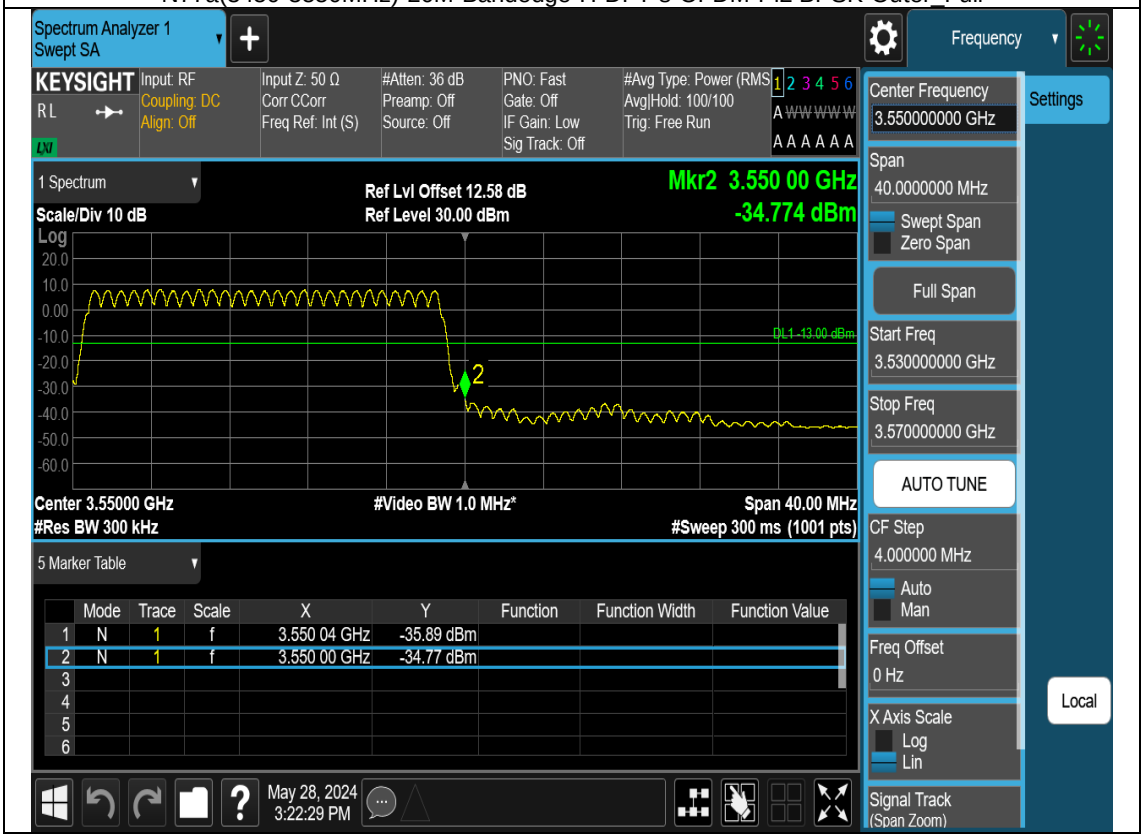
N77a(3450-3550MHz)-20M-Bandedge-L-CP-OFDM-QPSK-Outer_Full



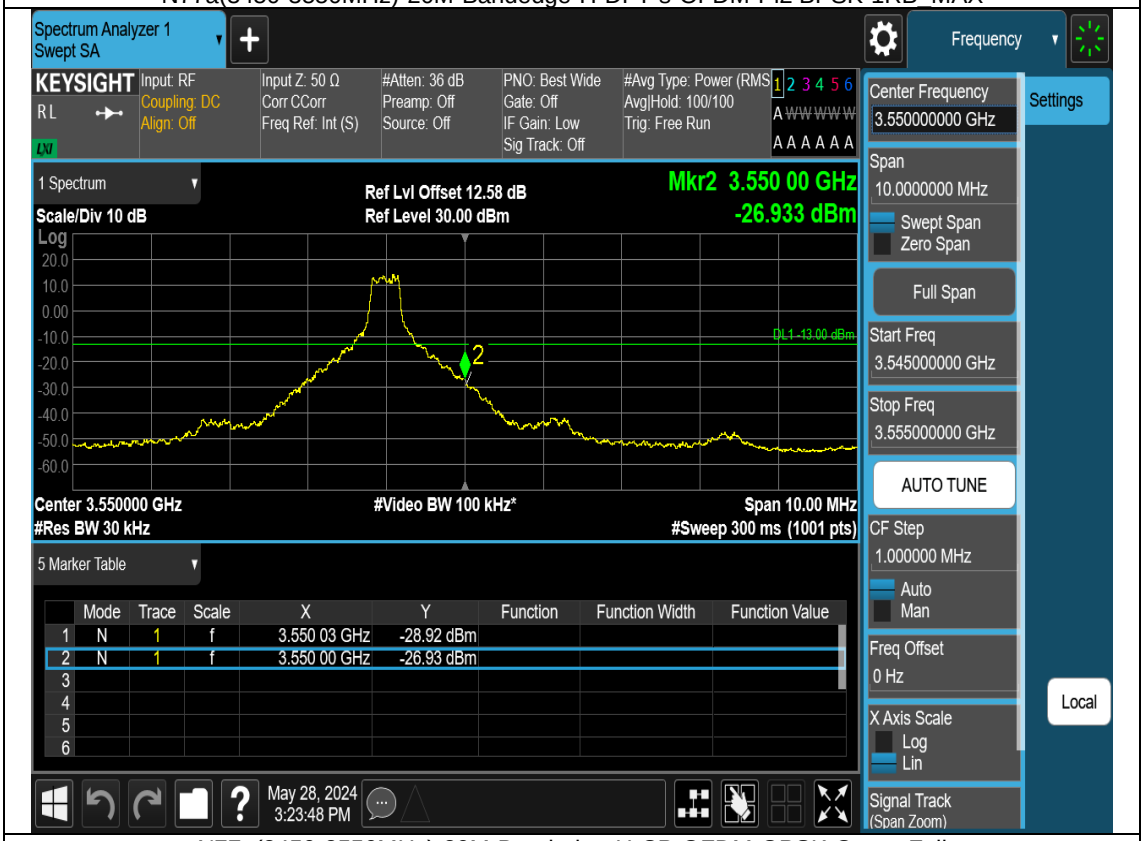
N77a(3450-3550MHz)-20M-Bandedge-L-CP-OFDM-QPSK-1RB0



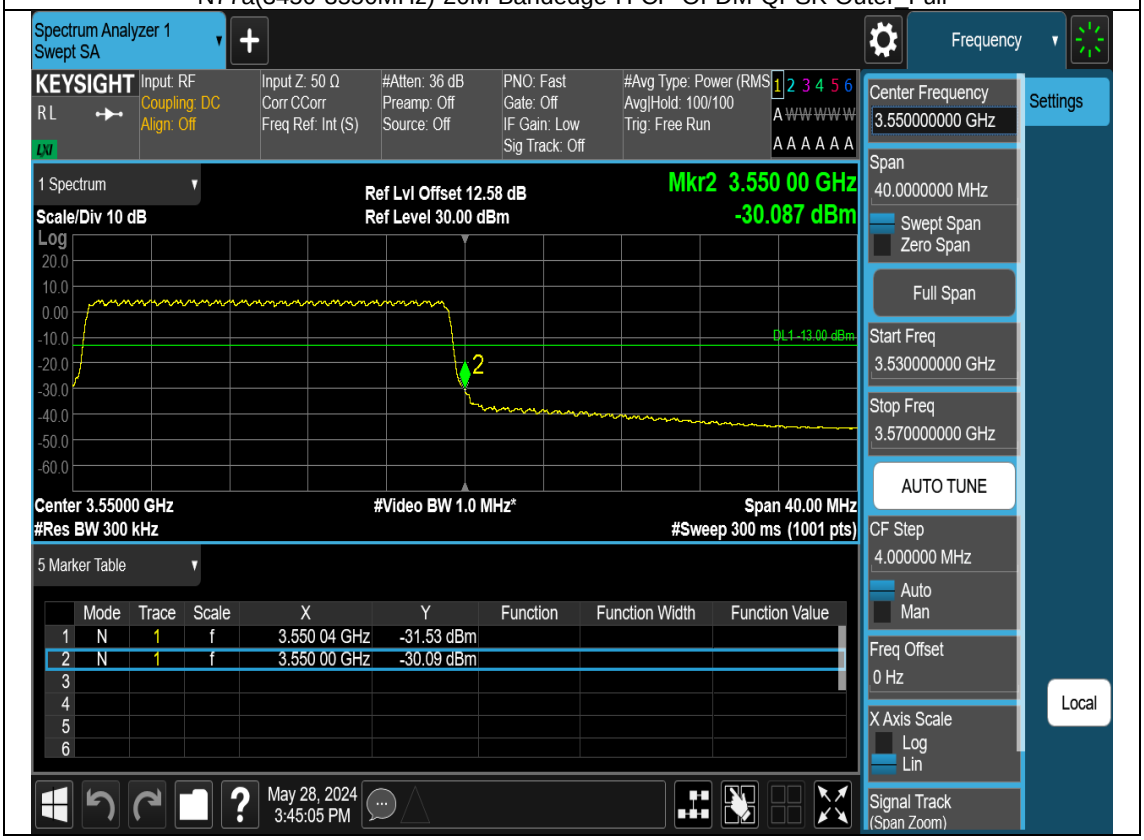
N77a(3450-3550MHz)-20M-Bandedge-H-DFT-s-OFDM-Pi2 BPSK-Outer_Full



N77a(3450-3550MHz)-20M-Bandedge-H-DFT-s-OFDM-Pi2 BPSK-1RB_MAX



N77a(3450-3550MHz)-20M-Bandedge-H-CP-OFDM-QPSK-Outer_Full



N77a(3450-3550MHz)-20M-Bandedge-H-CP-OFDM-QPSK-1RB_MAX

Conducted spurious emissions test graph

N77a(3450-3550MHz)-10M-CSE-L-DFT-s-OFDM-Pi2 BPSK-1RB0-30MHz-10GHz