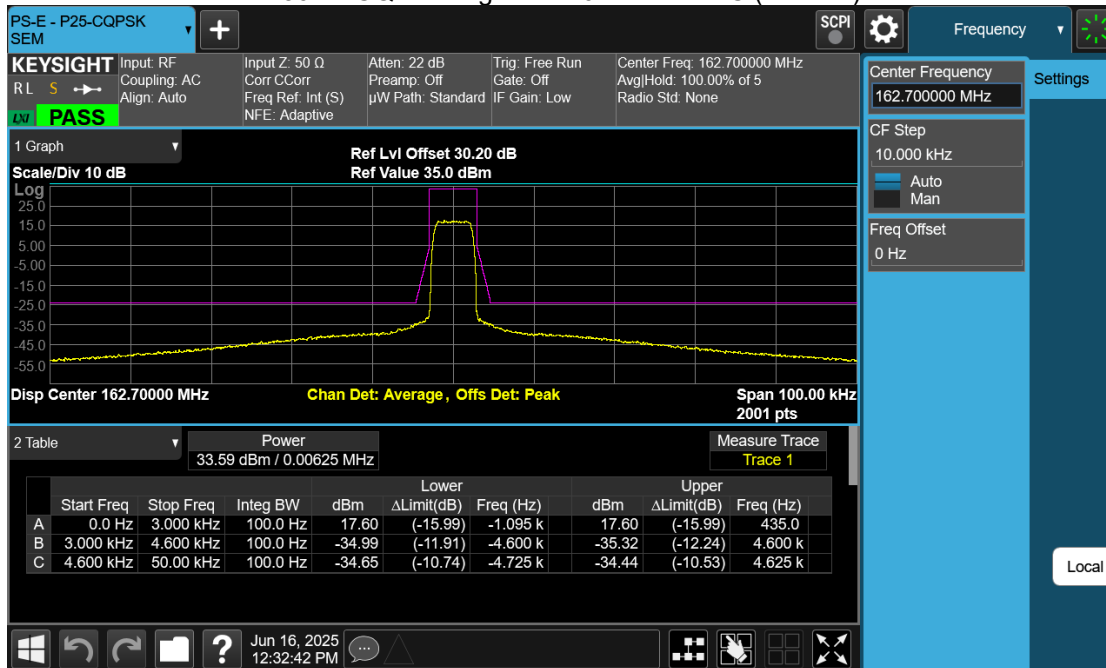
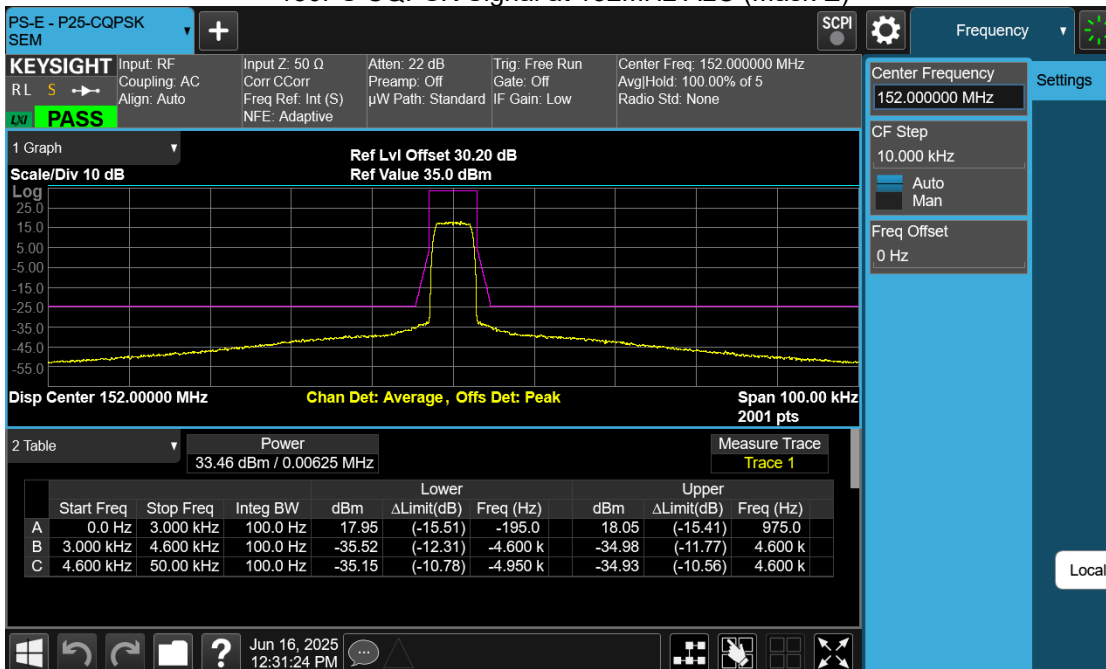


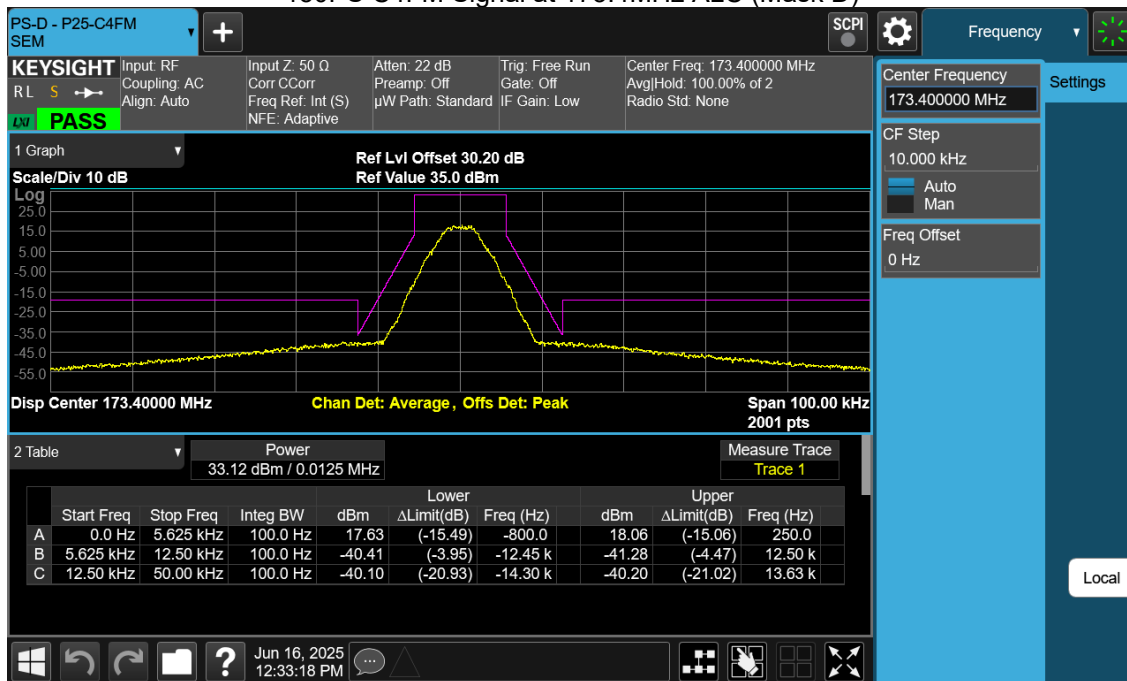
150PS CQPSK Signal at 162.7MHz ALC (Mask E)



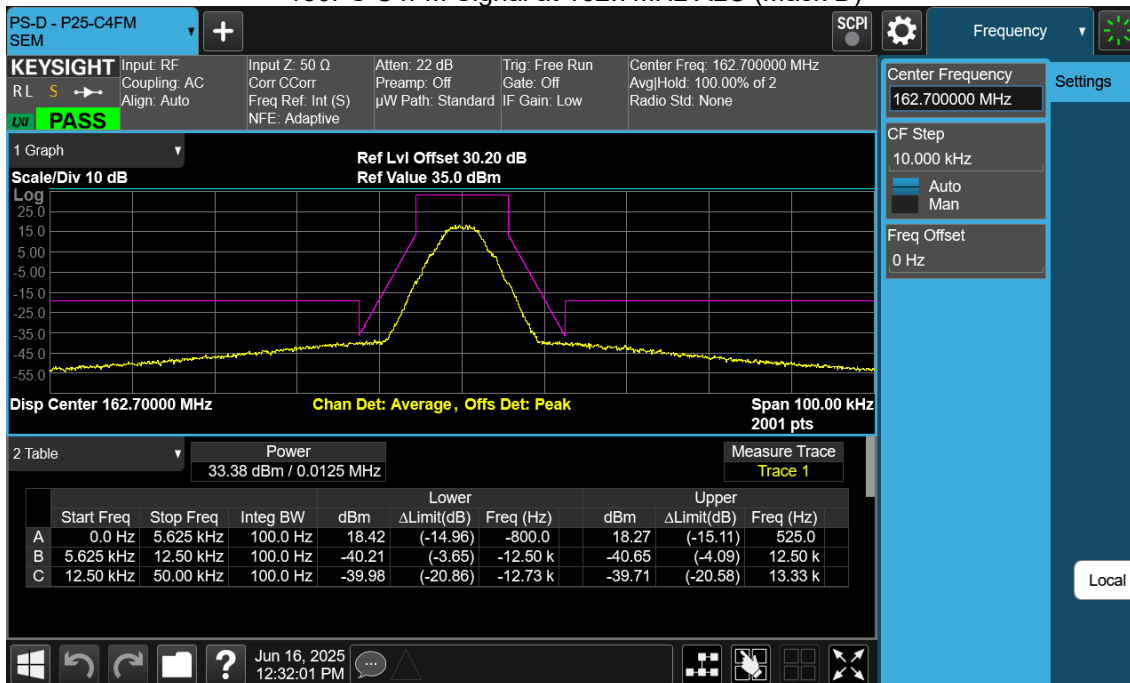
150PS CQPSK Signal at 152MHz ALC (Mask E)



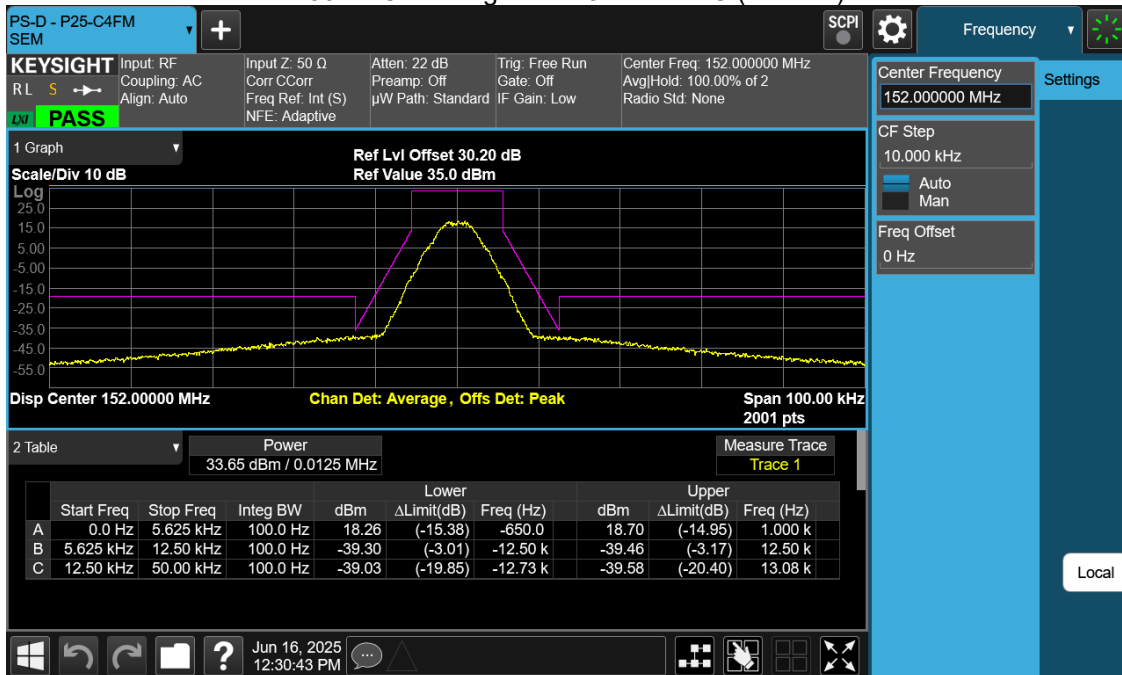
150PS C4FM Signal at 173.4MHz ALC (Mask D)



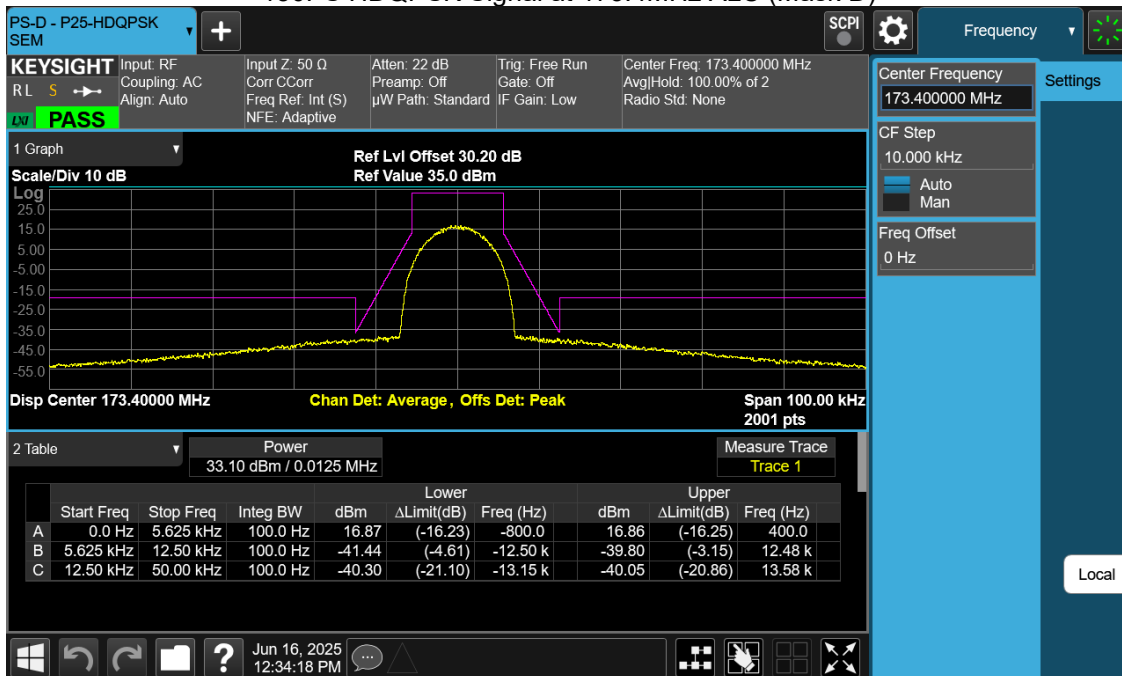
150PS C4FM Signal at 162.7MHz ALC (Mask D)



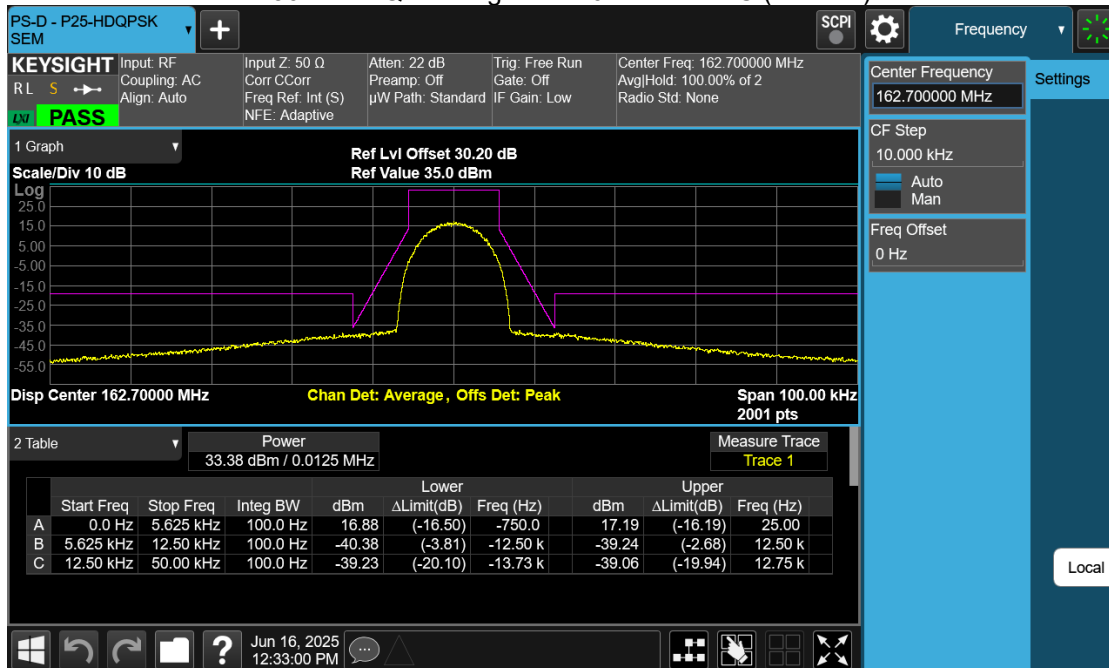
150PS C4FM Signal at 152MHz ALC (Mask D)



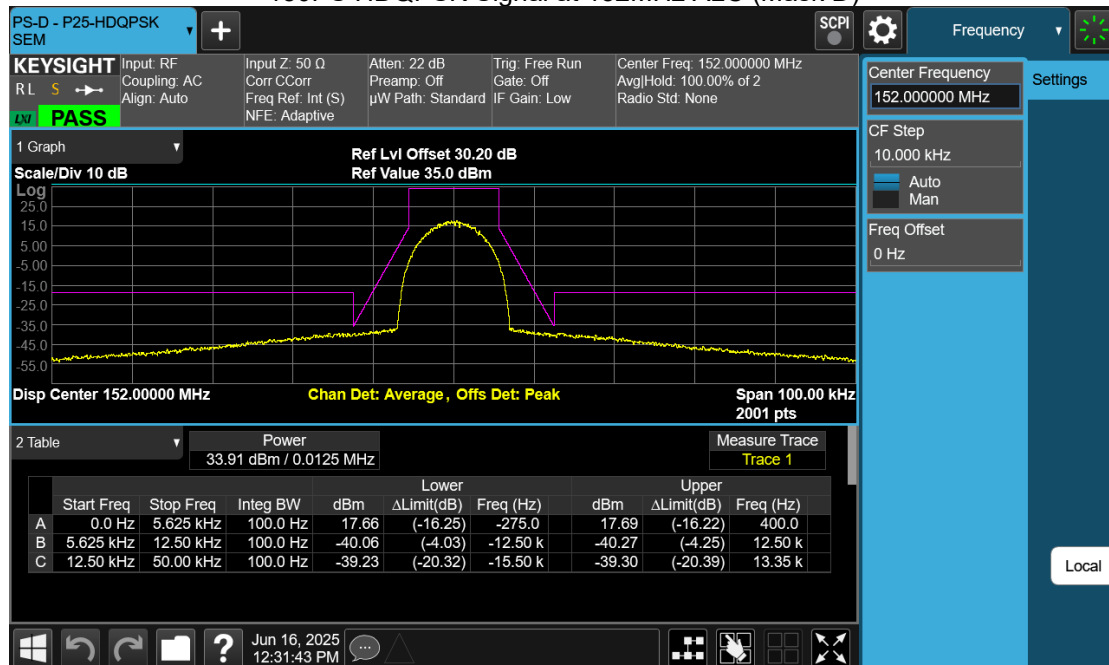
150PS HDQPSK Signal at 173.4MHz ALC (Mask D)



150PS HDQPSK Signal at 162.7MHz ALC (Mask D)

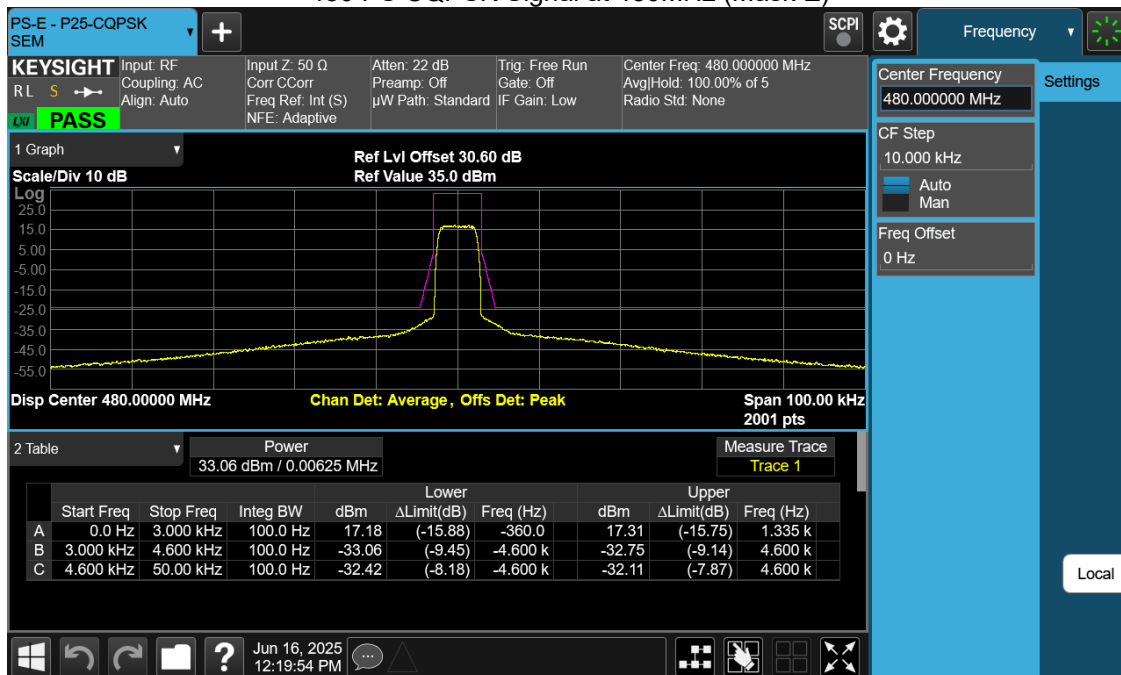


150PS HDQPSK Signal at 152MHz ALC (Mask D)

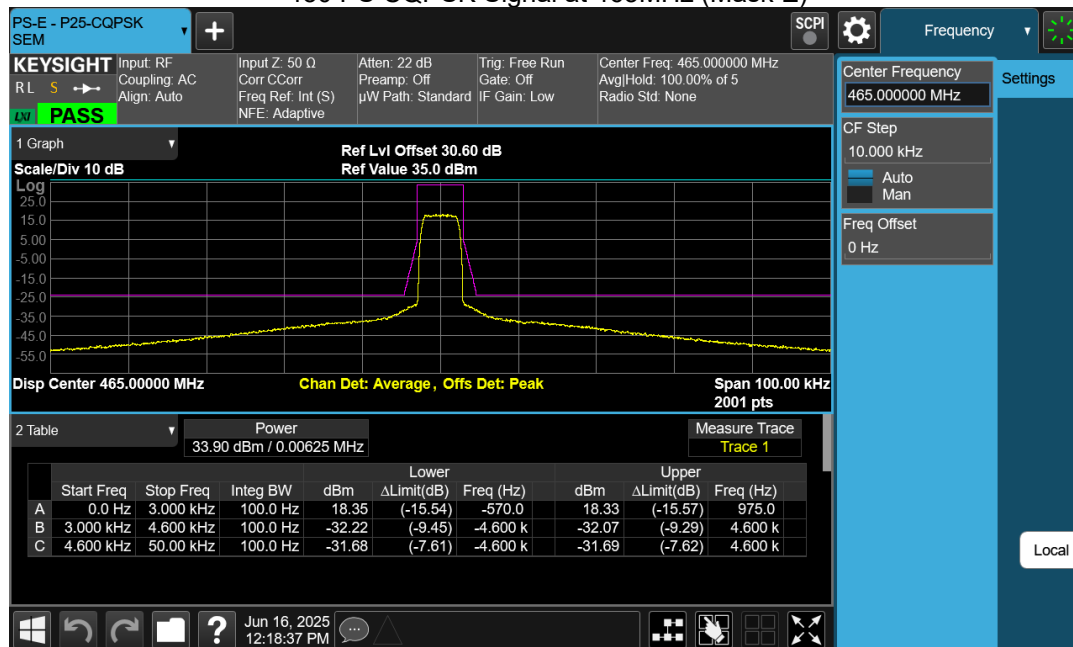


Results - Spectrum Emission Mask (450 PS)

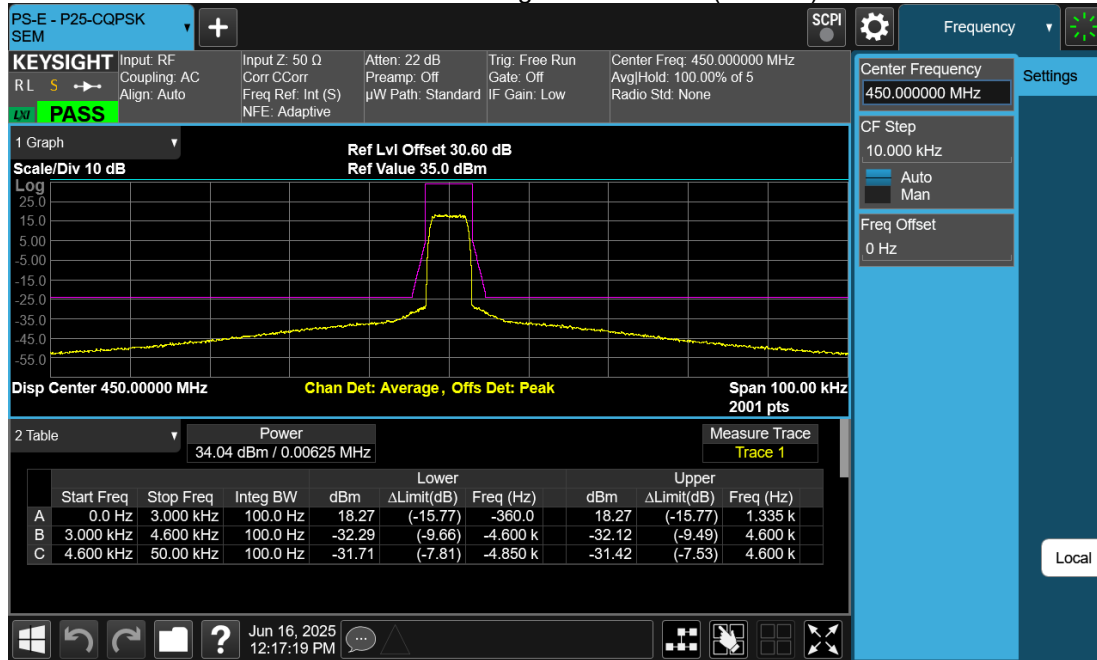
450 PS CQPSK Signal at 480MHz (Mask E)



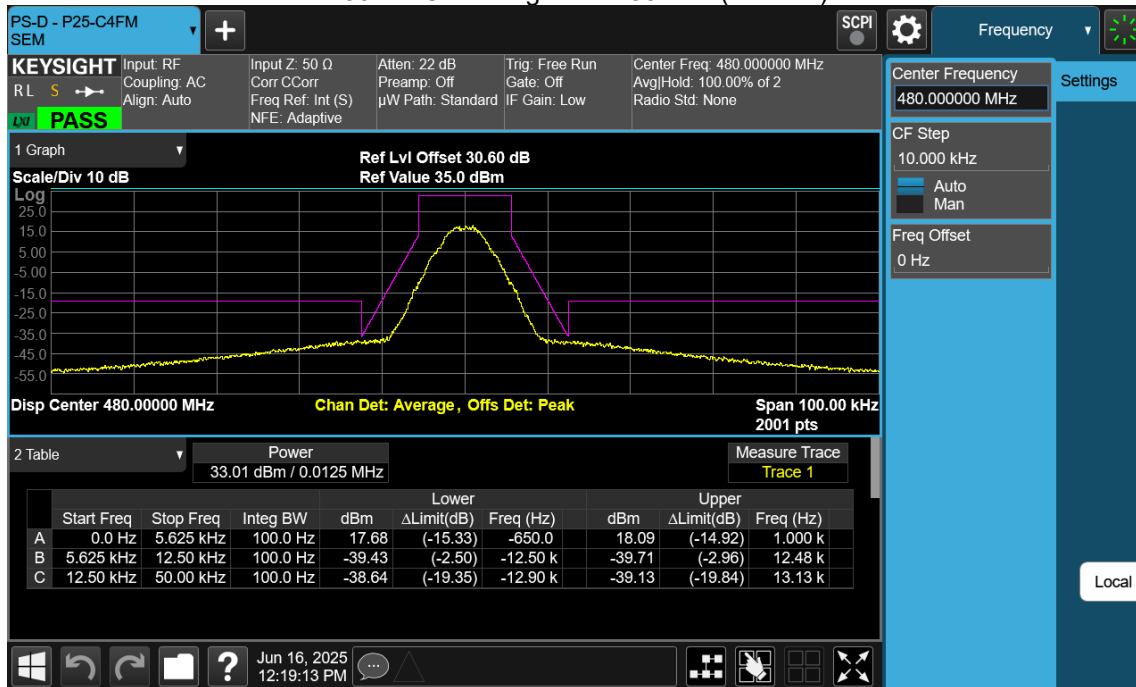
450 PS CQPSK Signal at 465MHz (Mask E)



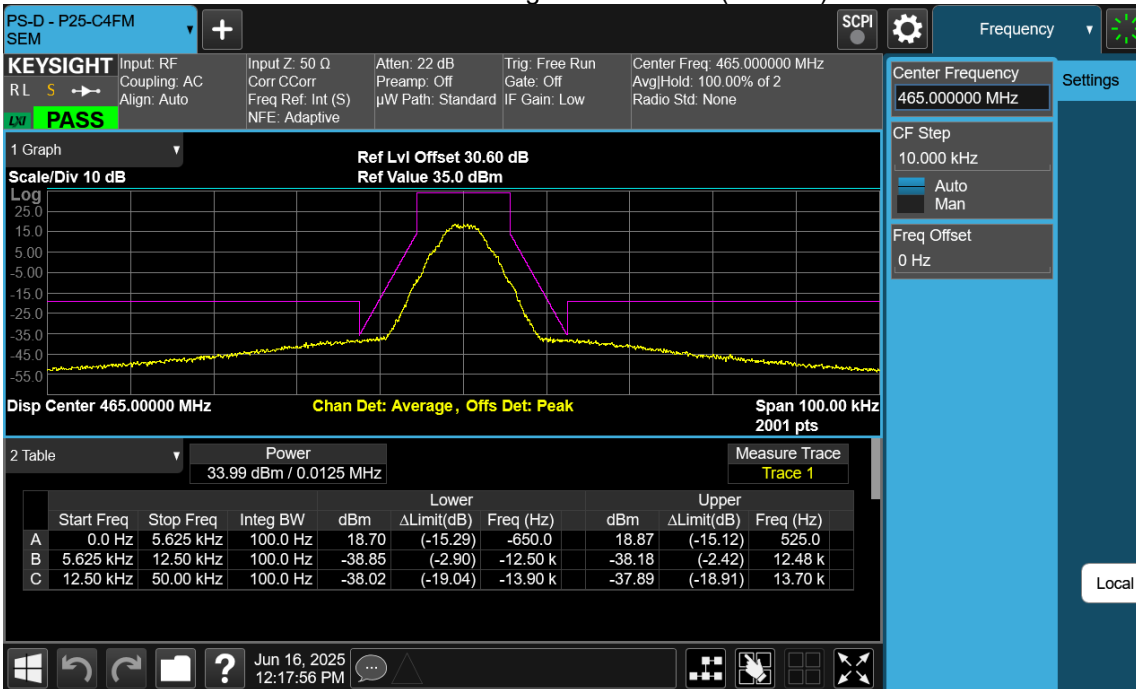
450 PS CQPSK Signal at 450MHz (Mask E)



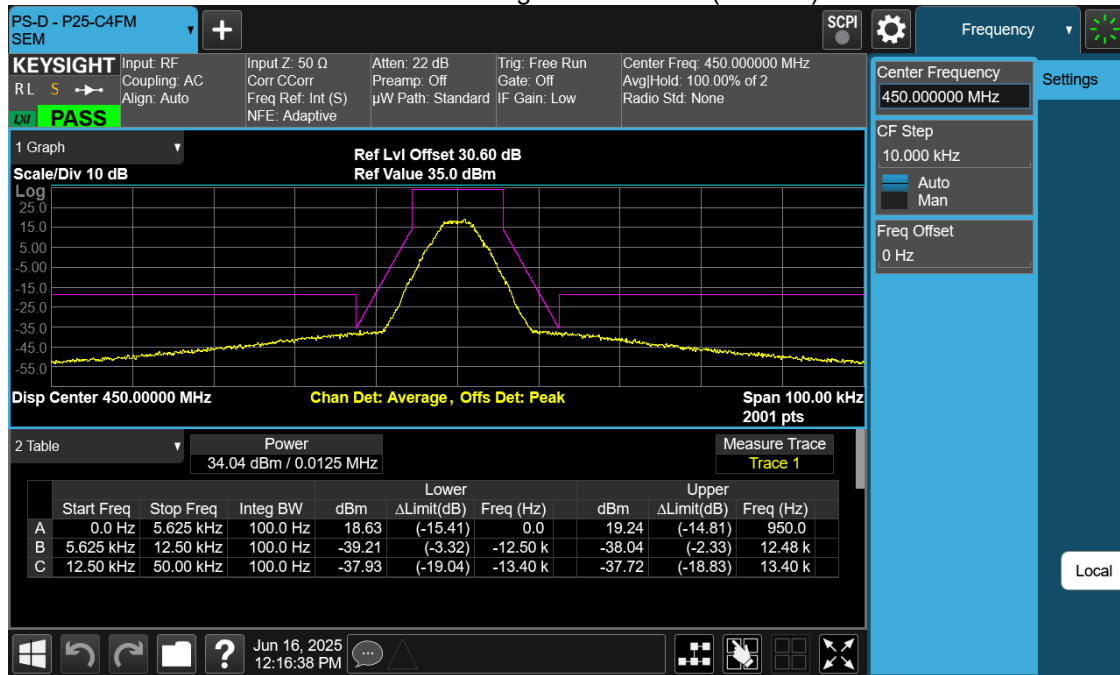
450 PS C4FM Signal at 480MHz (Mask D)



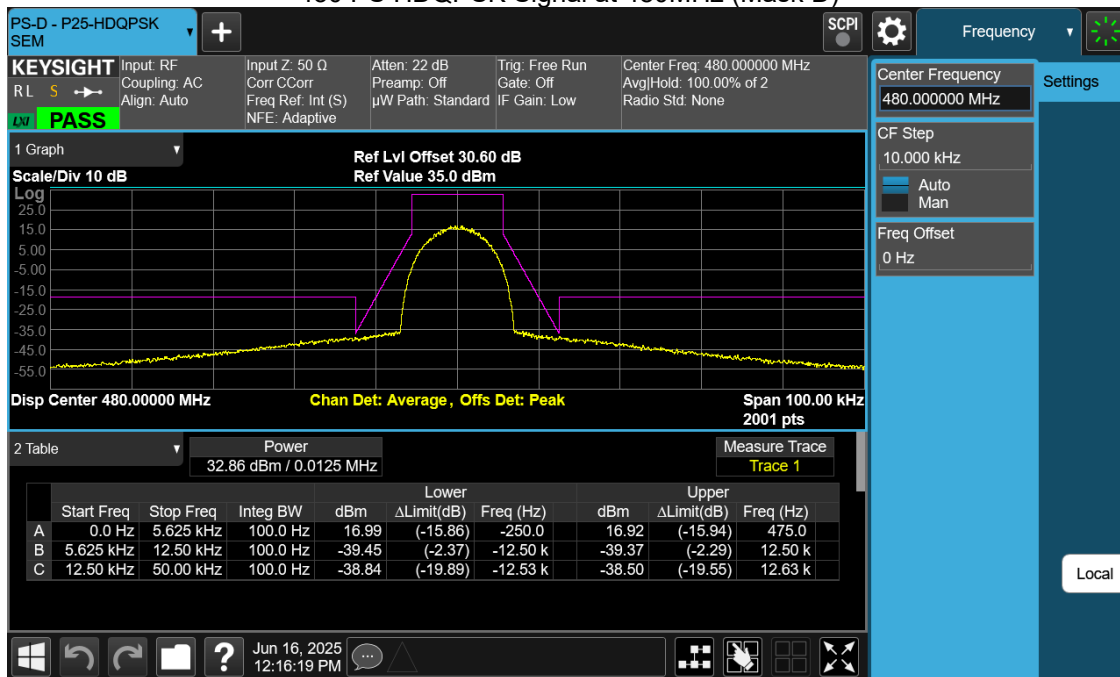
450 PS C4FM Signal at 465MHz (Mask D)



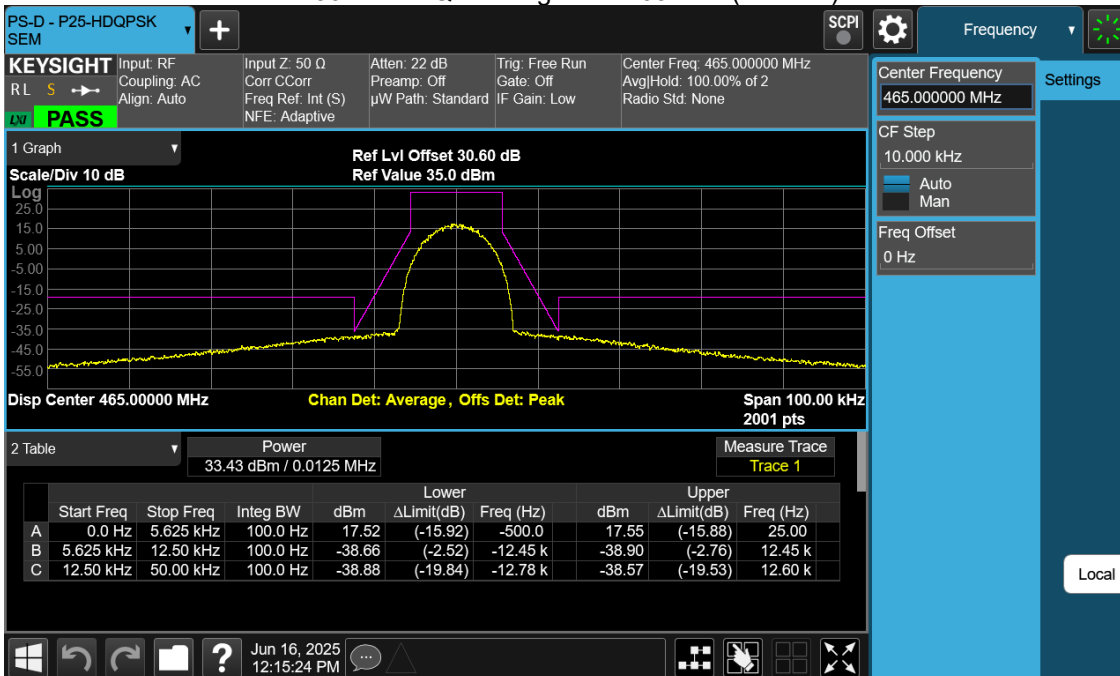
450 PS C4FM Signal at 450MHz (Mask D)



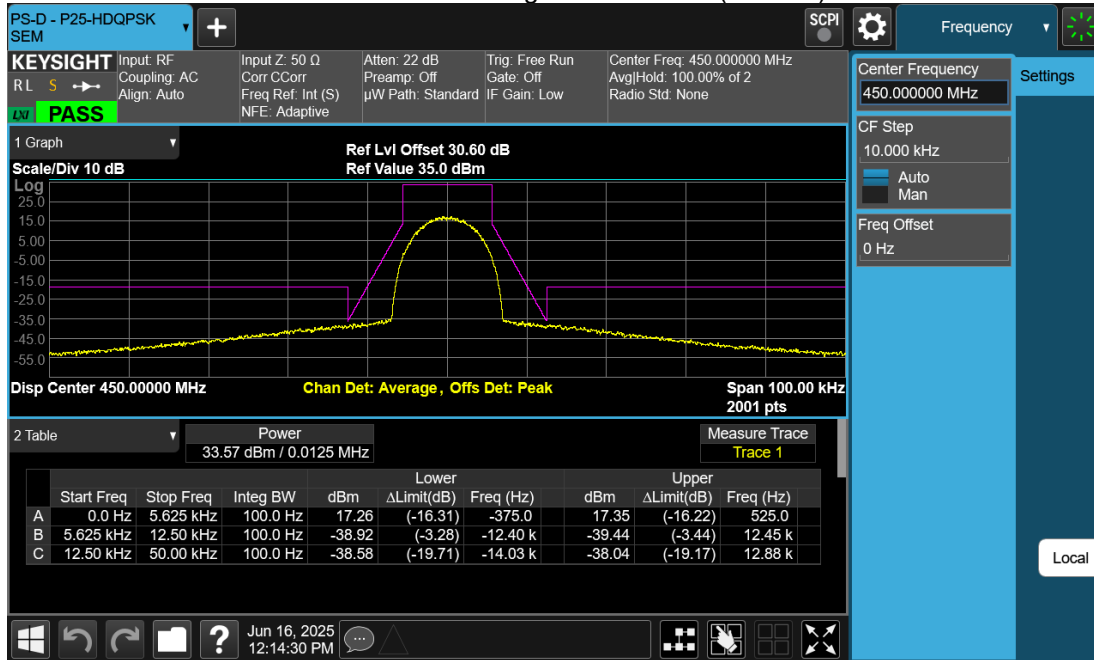
450 PS HDQPSK Signal at 480MHz (Mask D)



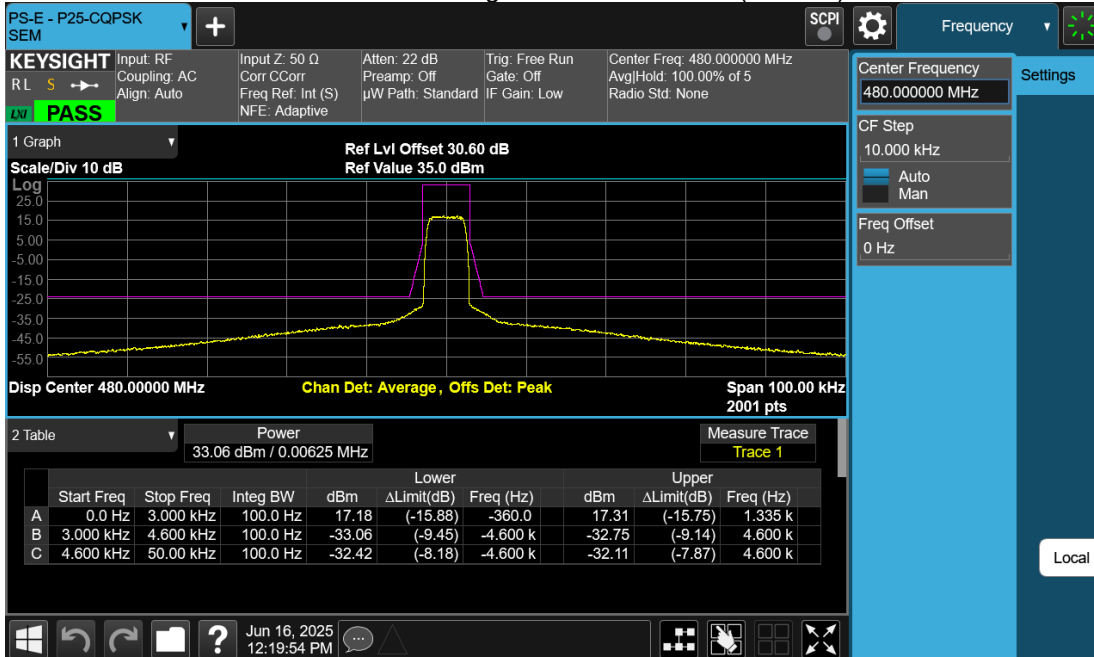
450 PS HDQPSK Signal at 465MHz (Mask D)



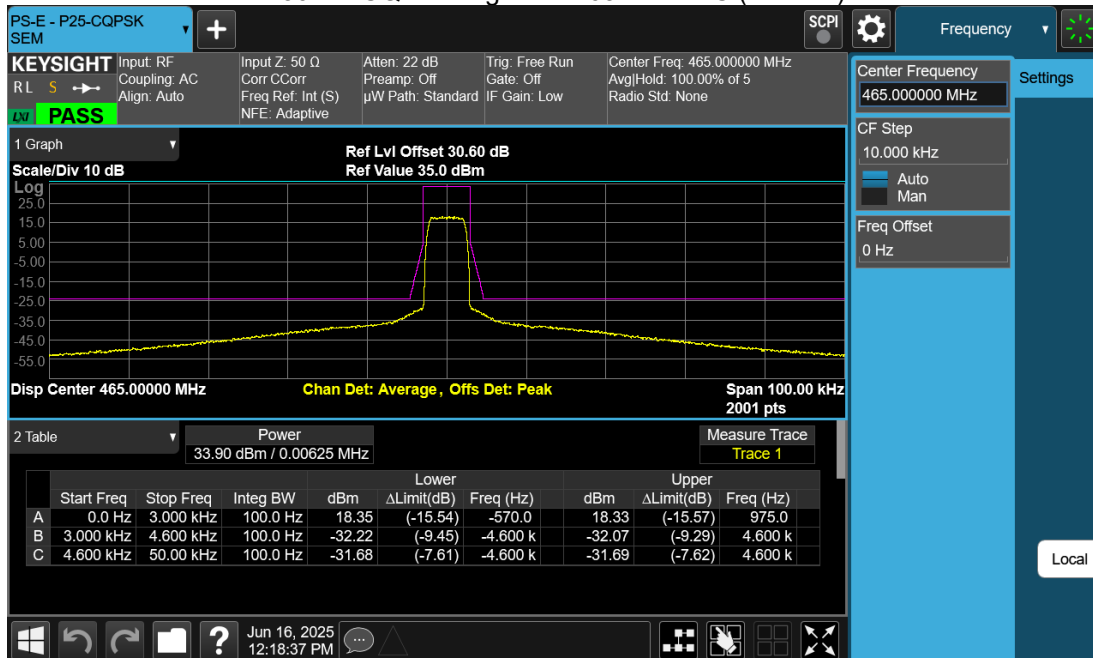
450 PS HDQPSK Signal at 450MHz (Mask D)



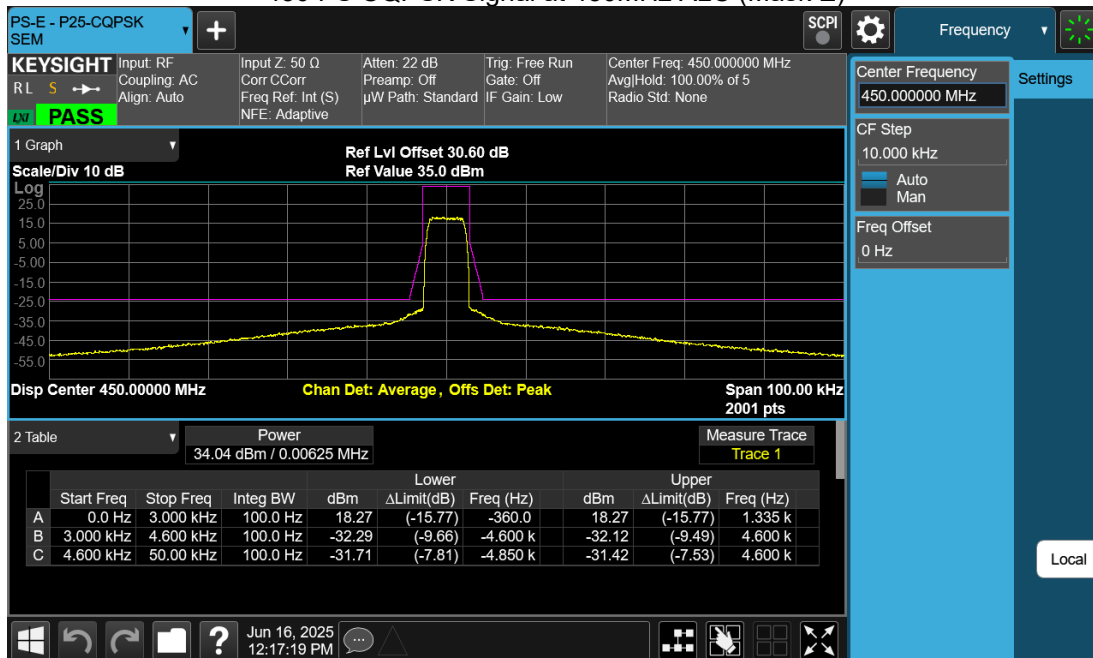
450 PS CQPSK Signal at 480MHz ALC (Mask E)



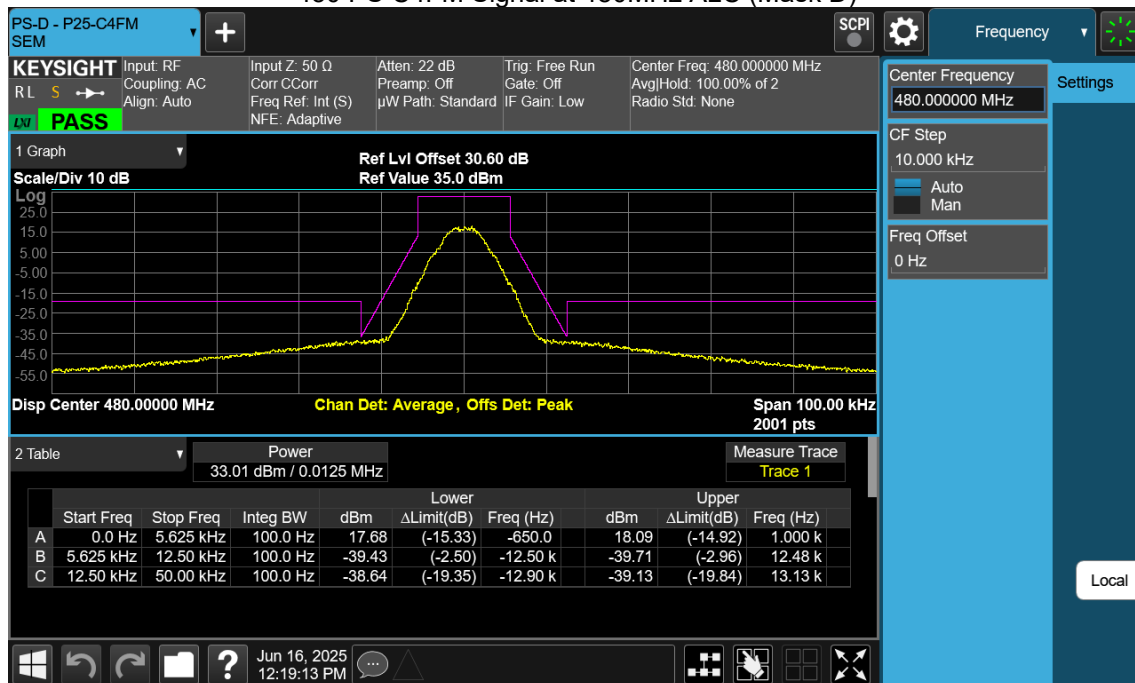
450 PS CQPSK Signal at 465MHz ALC (Mask E)



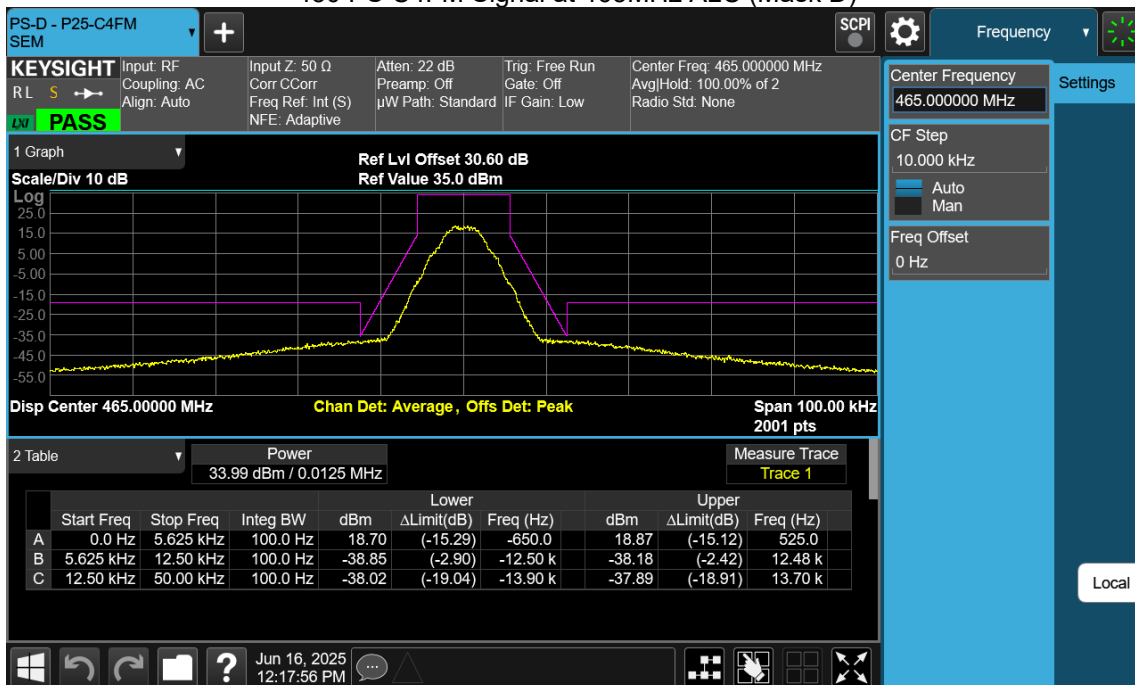
450 PS CQPSK Signal at 450MHz ALC (Mask E)



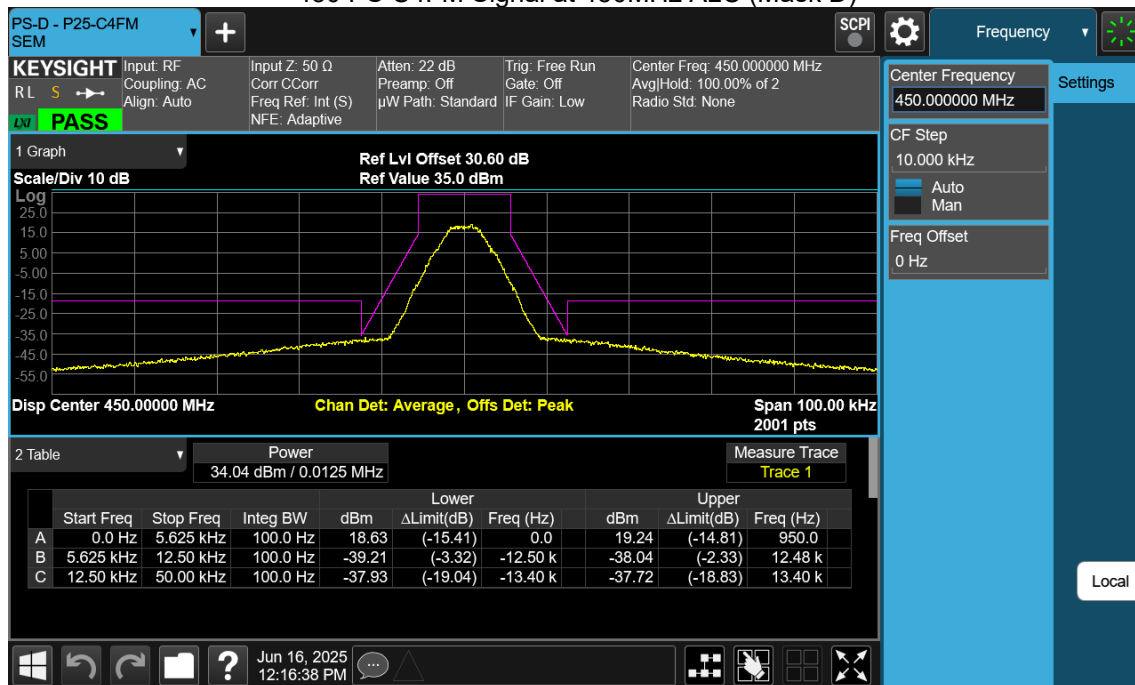
450 PS C4FM Signal at 480MHz ALC (Mask D)



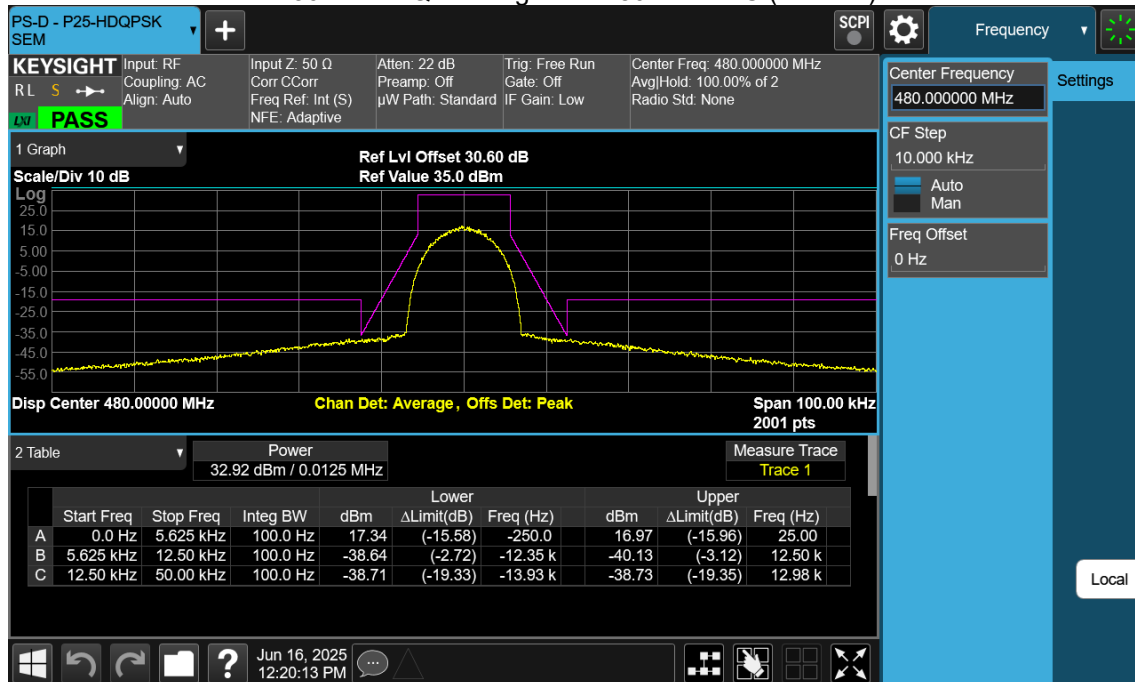
450 PS C4FM Signal at 465MHz ALC (Mask D)



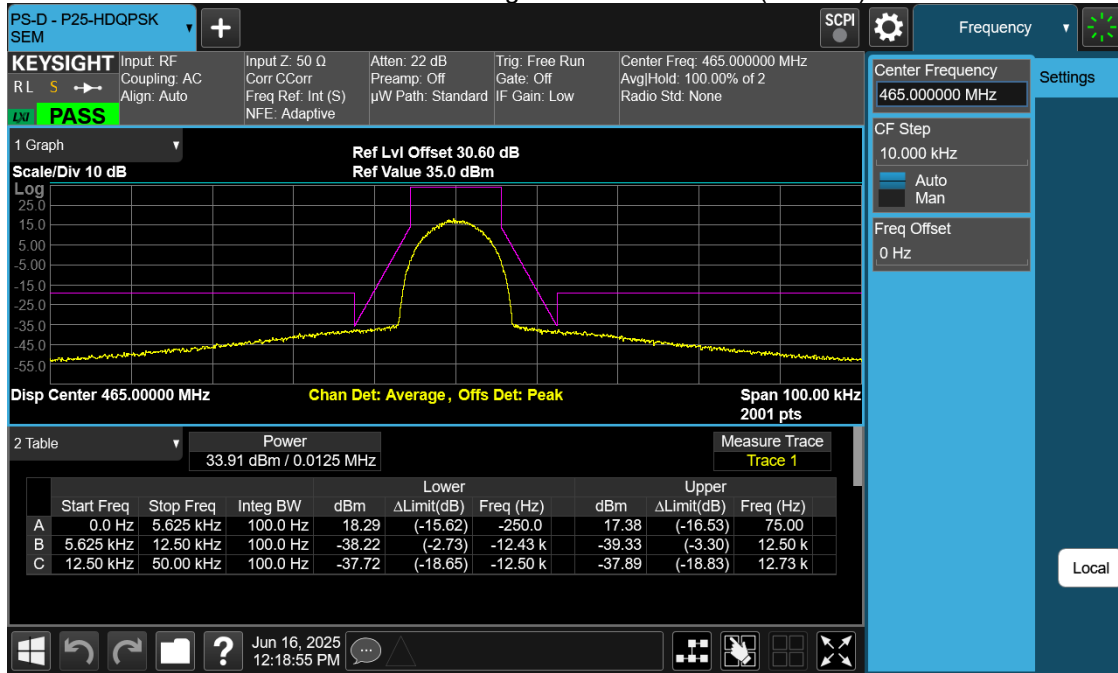
450 PS C4FM Signal at 450MHz ALC (Mask D)



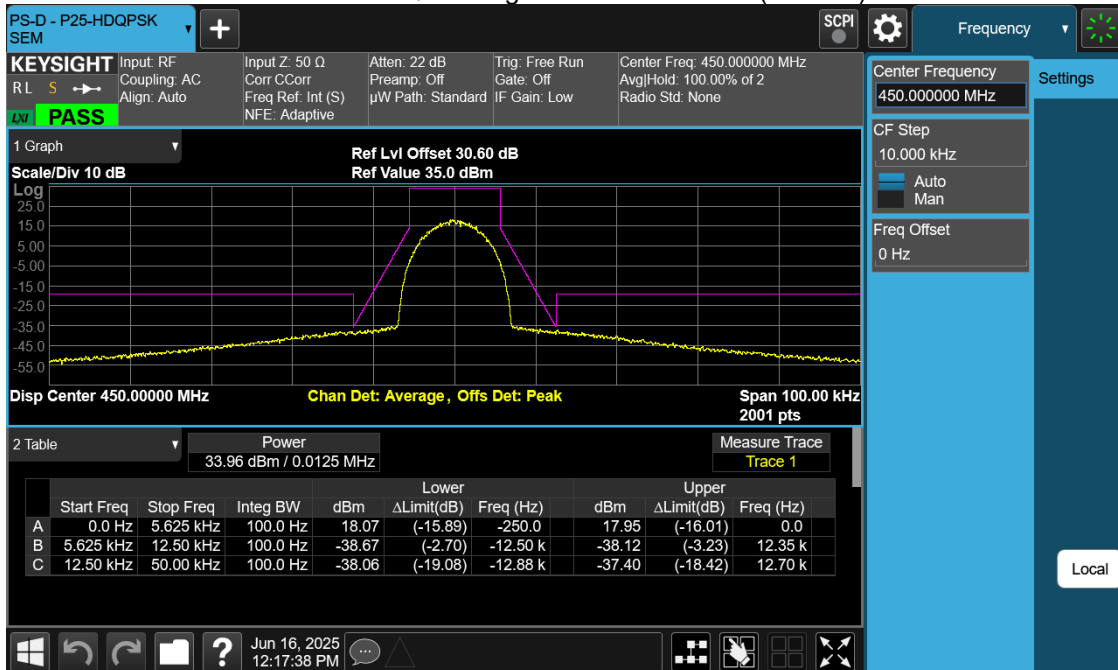
450 PS HDQPSK Signal at 480MHz ALC (Mask D)



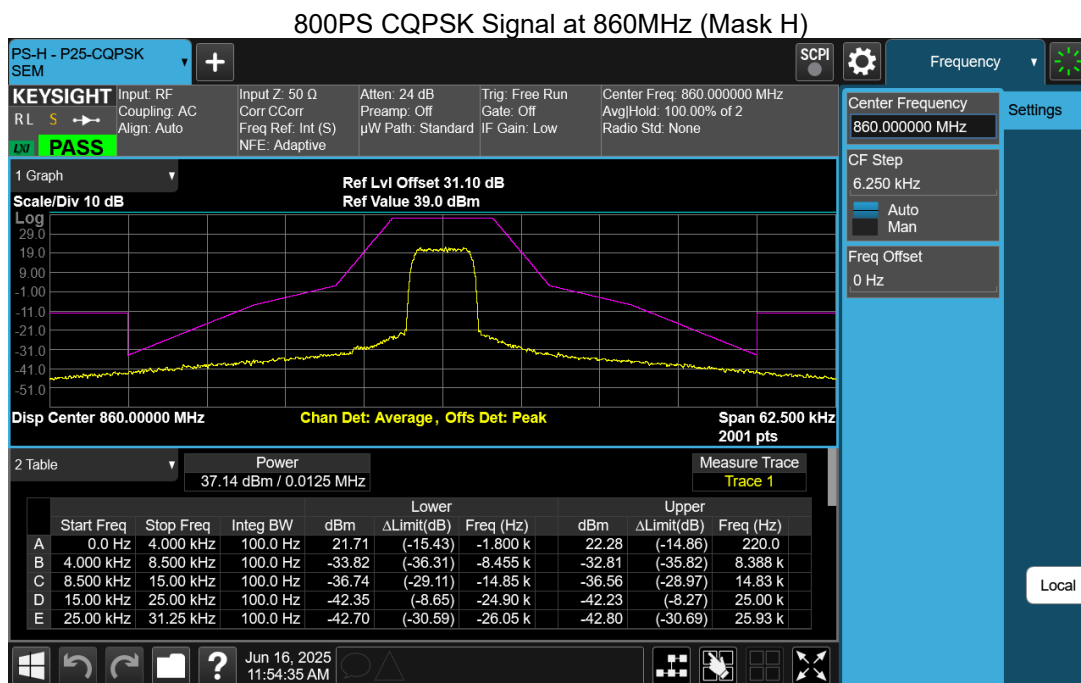
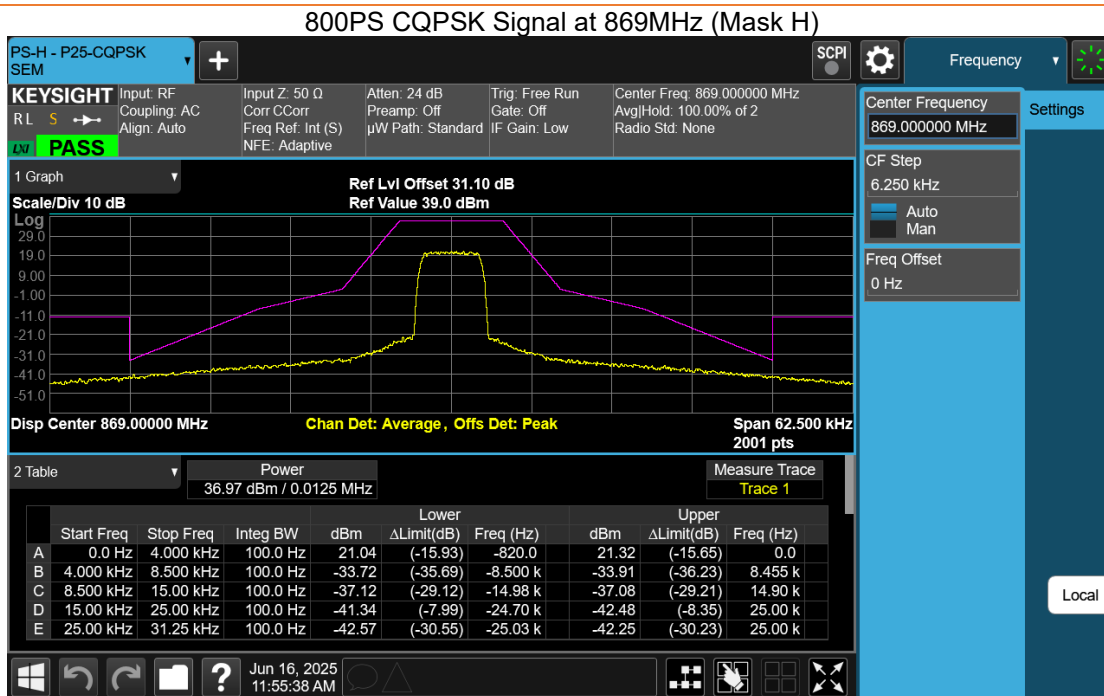
450 PS HDQPSK Signal at 465MHz ALC (Mask D)



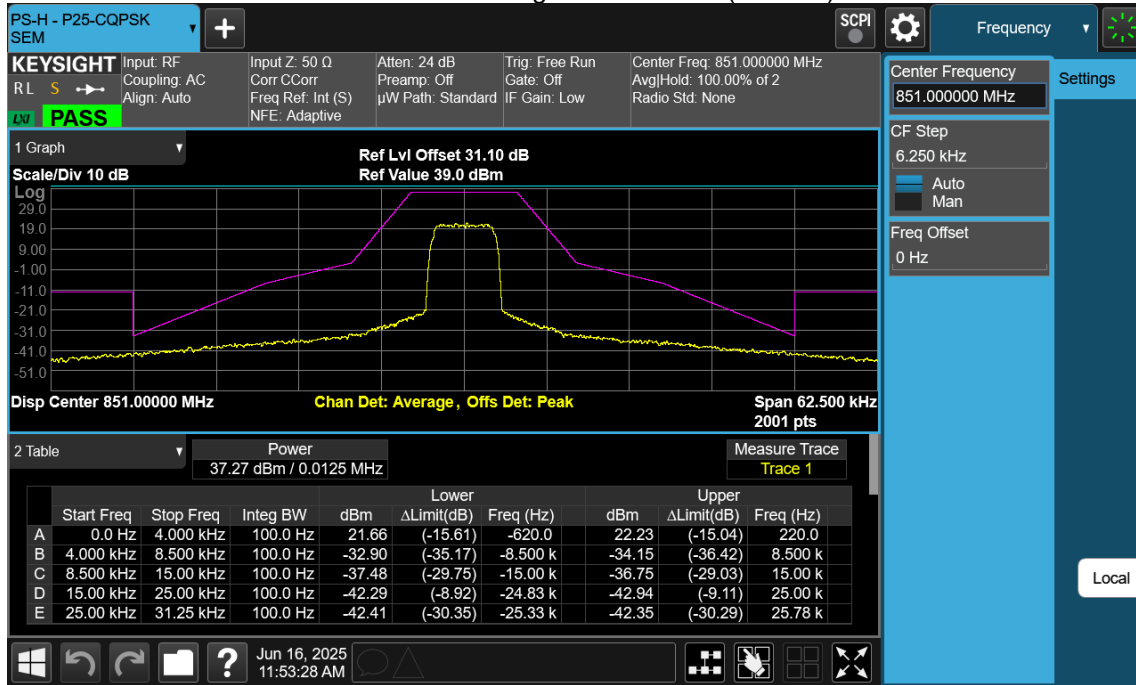
450 PS HDQPSK Signal at 450MHz ALC (Mask D)



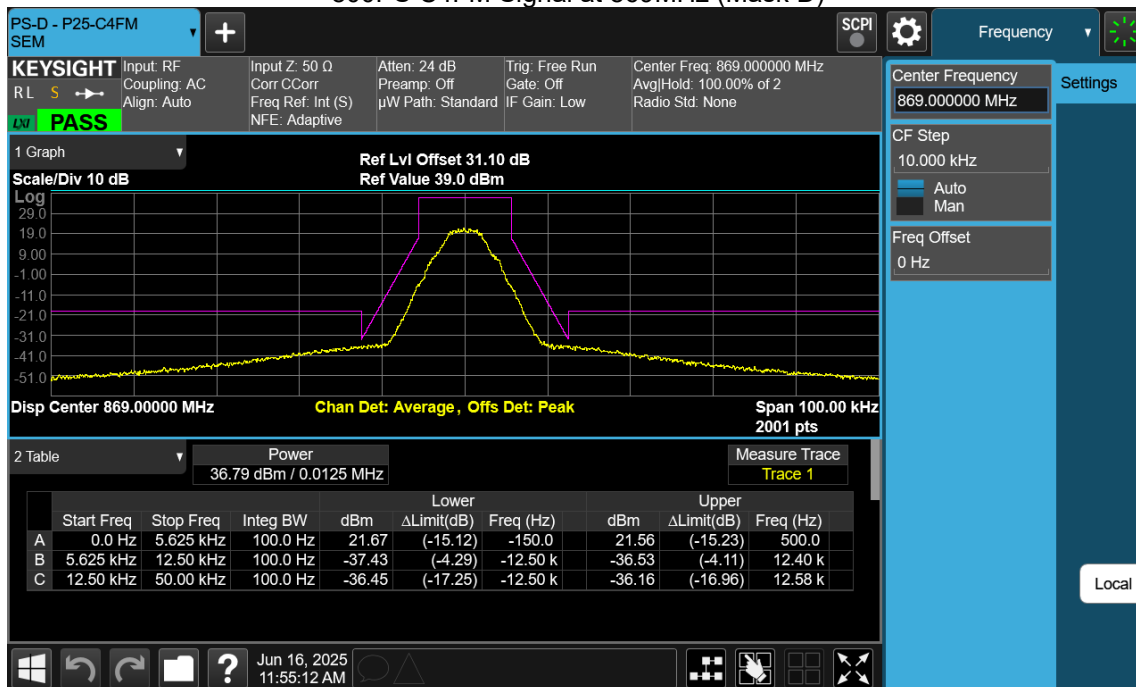
Results - Spectrum Emission Mask (800PS)



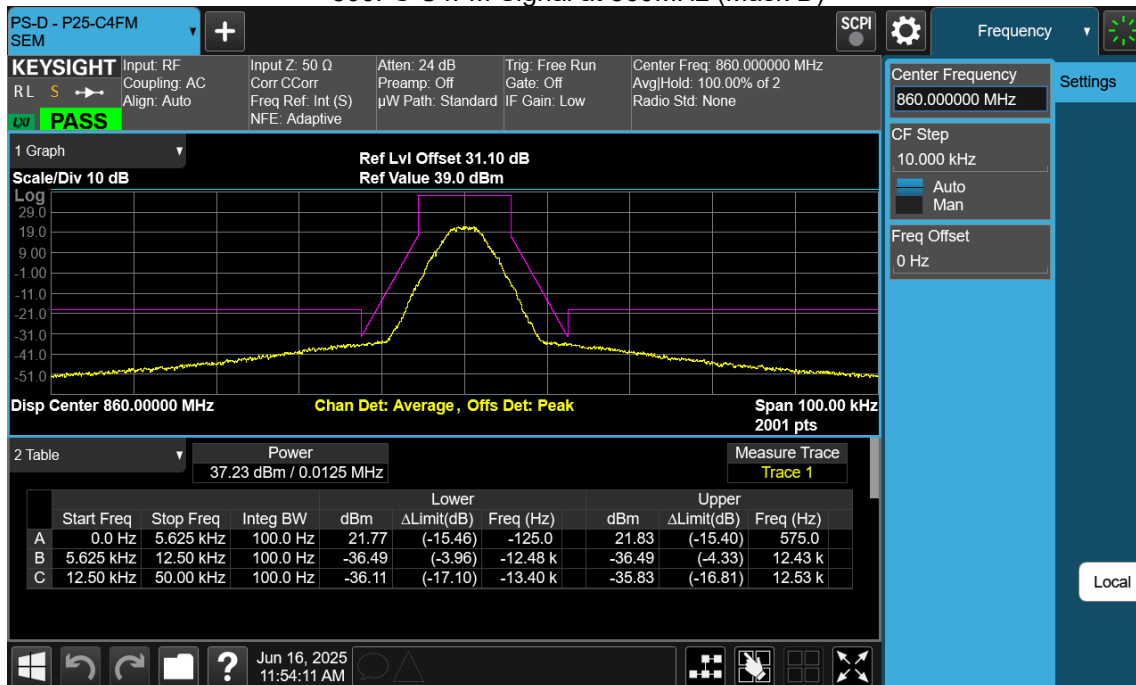
800PS CQPSK Signal at 851MHz (Mask H)



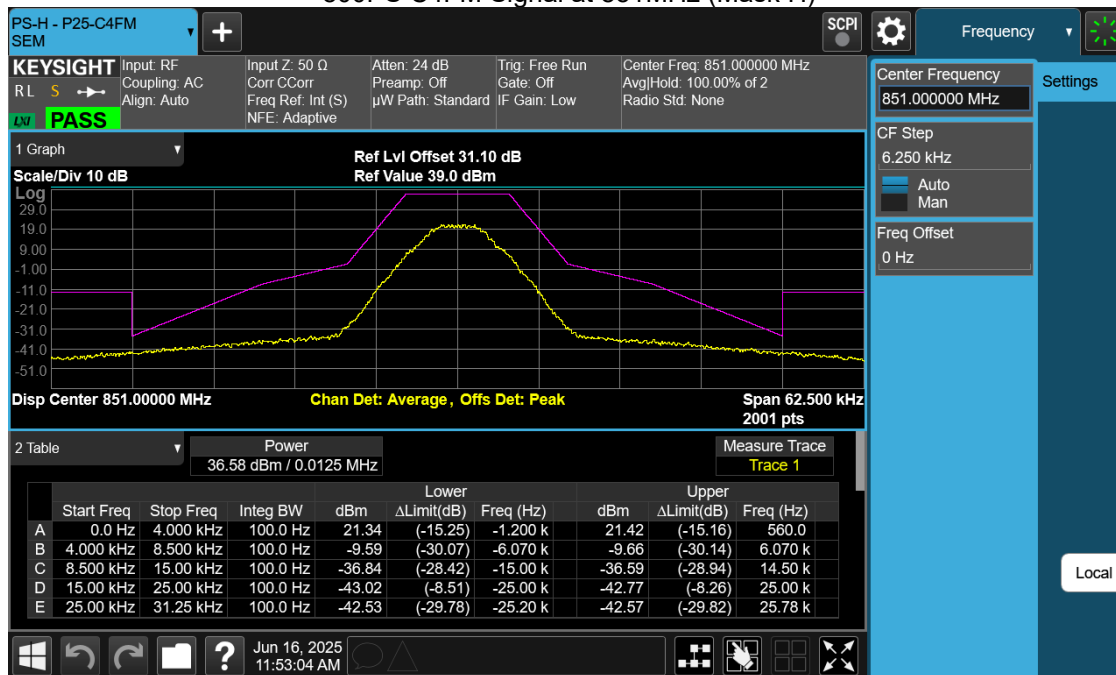
800PS C4FM Signal at 869MHz (Mask D)



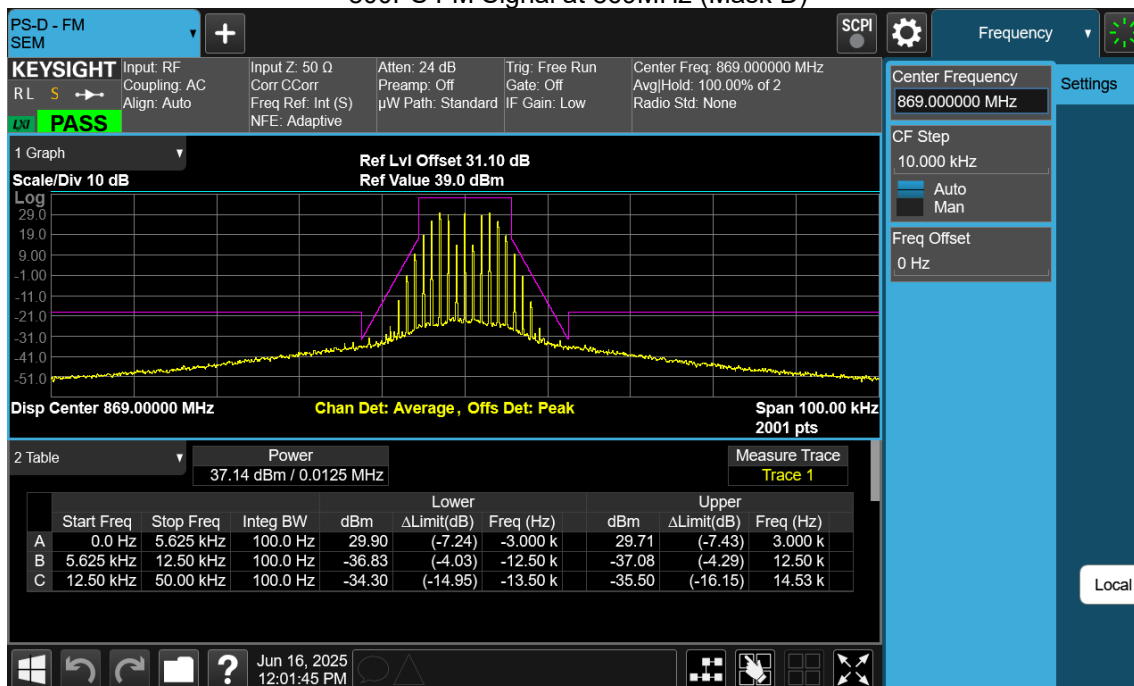
800PS C4FM Signal at 860MHz (Mask D)



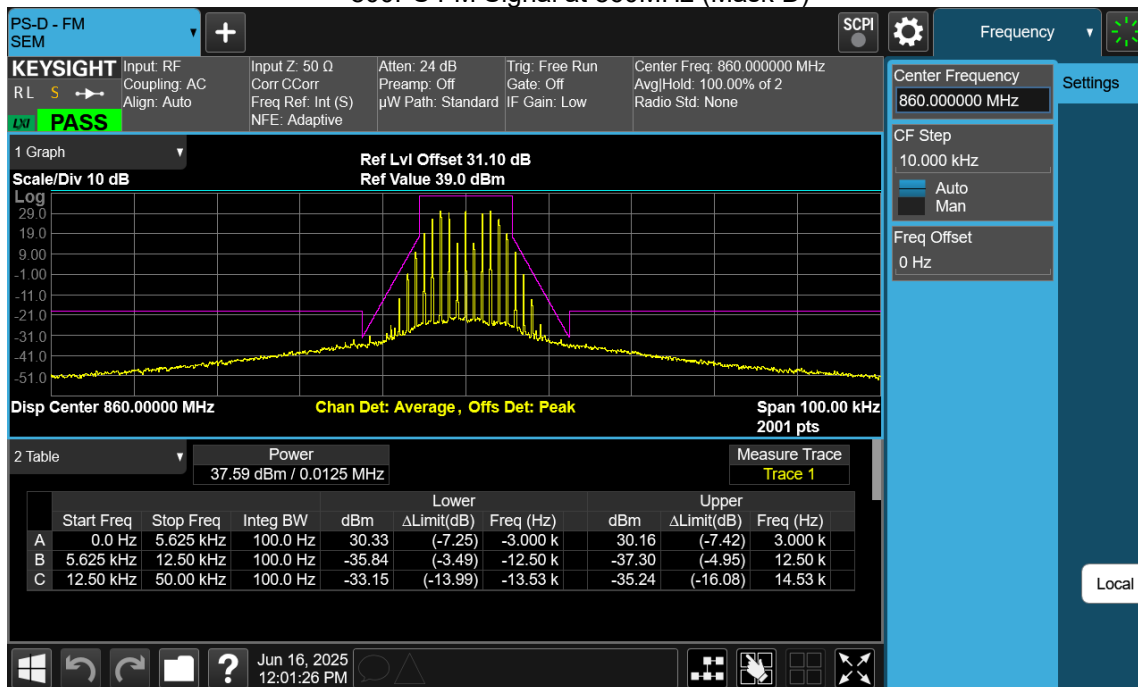
800PS C4FM Signal at 851MHz (Mask H)



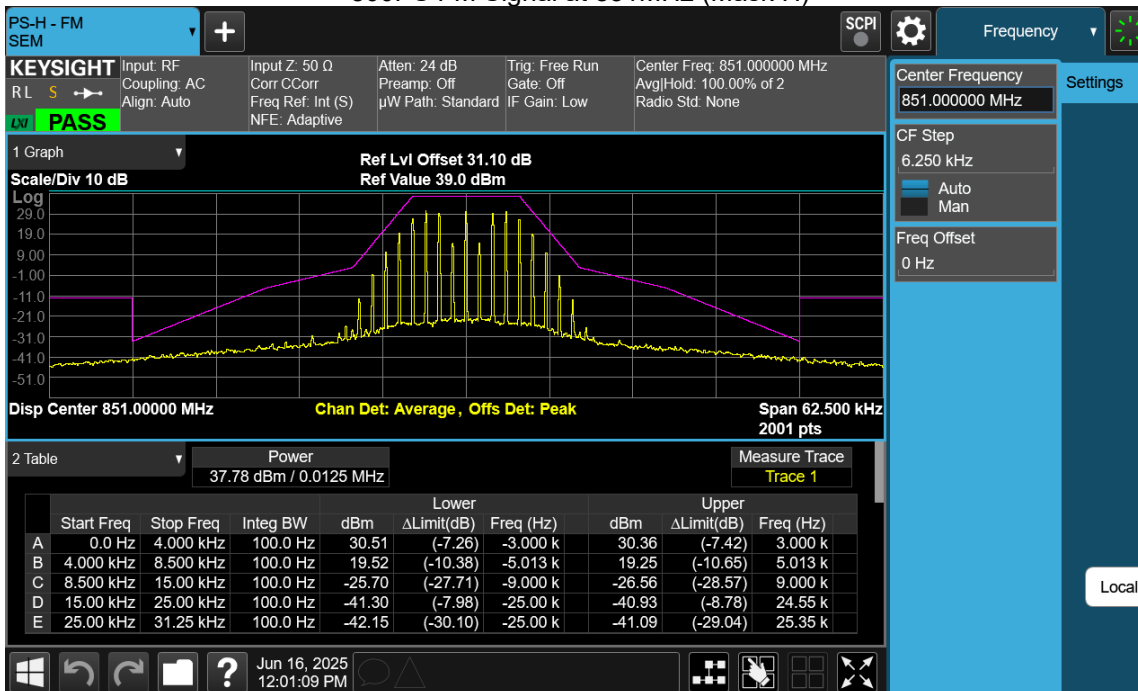
800PS FM Signal at 869MHz (Mask D)



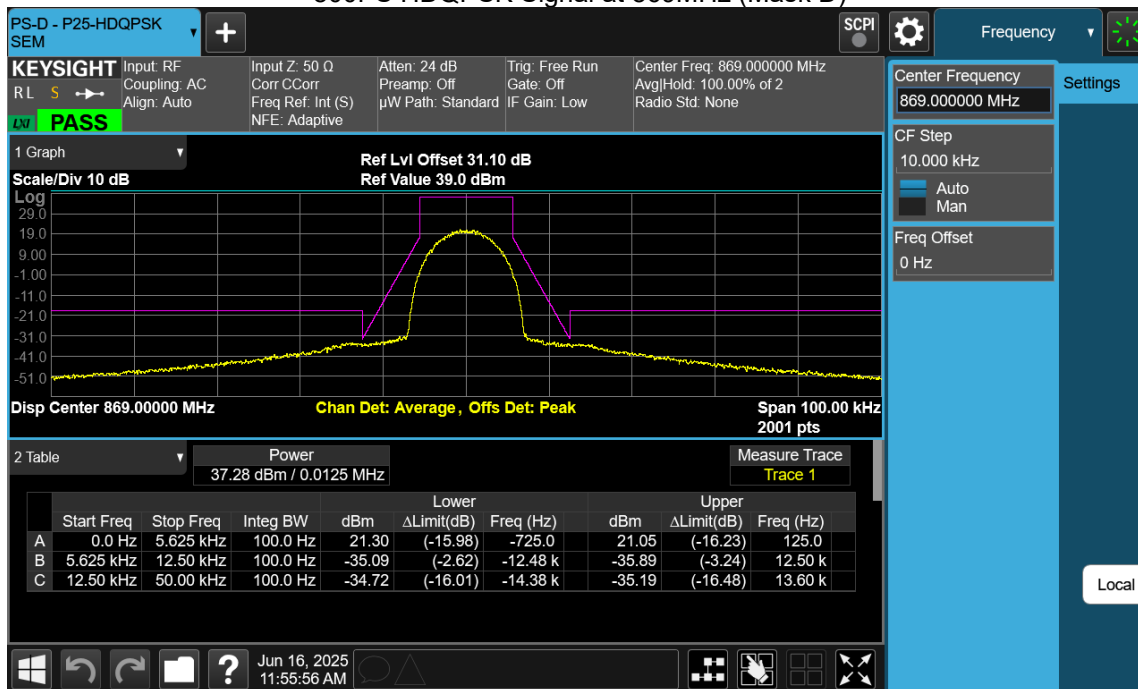
800PS FM Signal at 860MHz (Mask D)



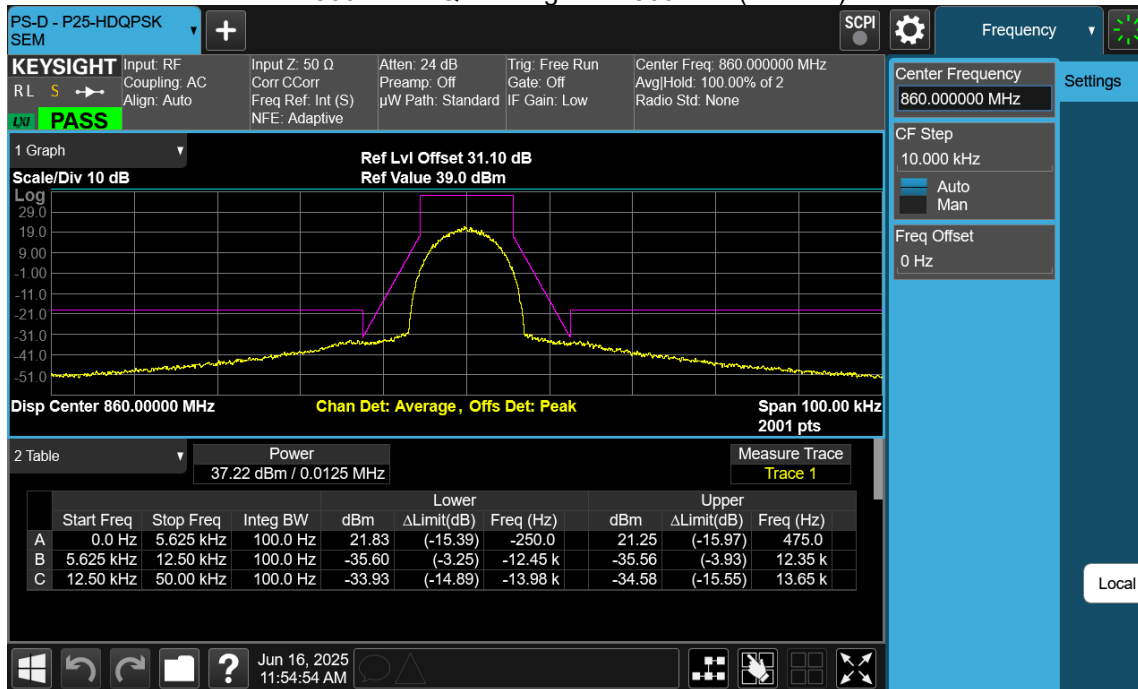
800PS FM Signal at 851MHz (Mask H)



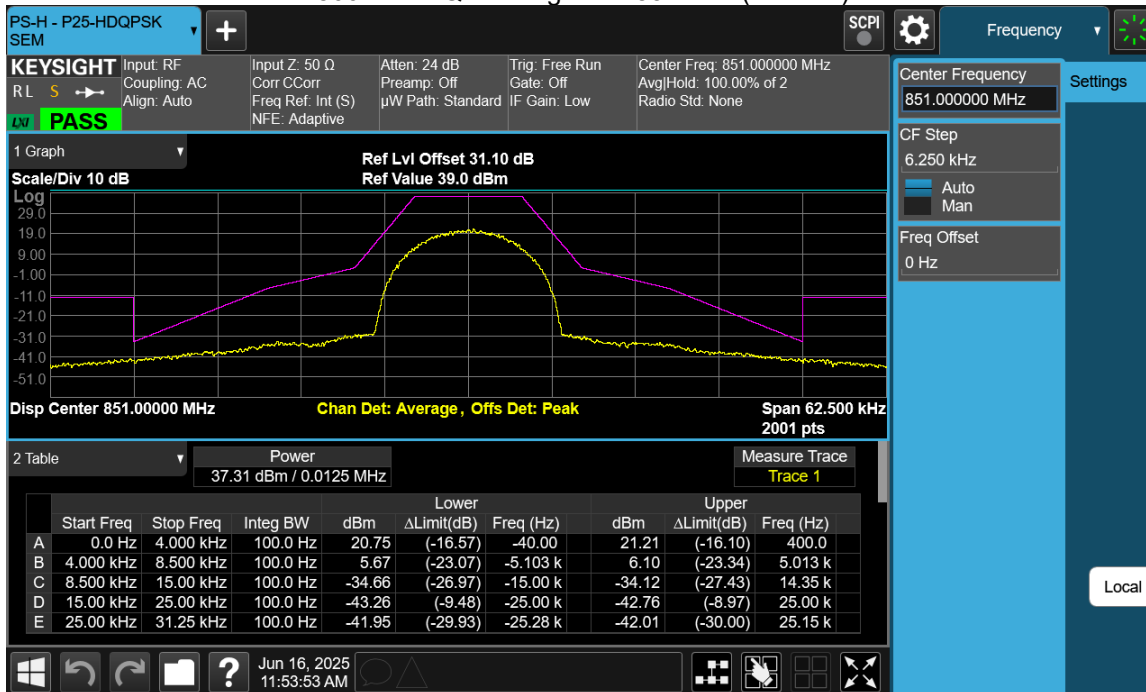
800PS HDQPSK Signal at 869MHz (Mask D)



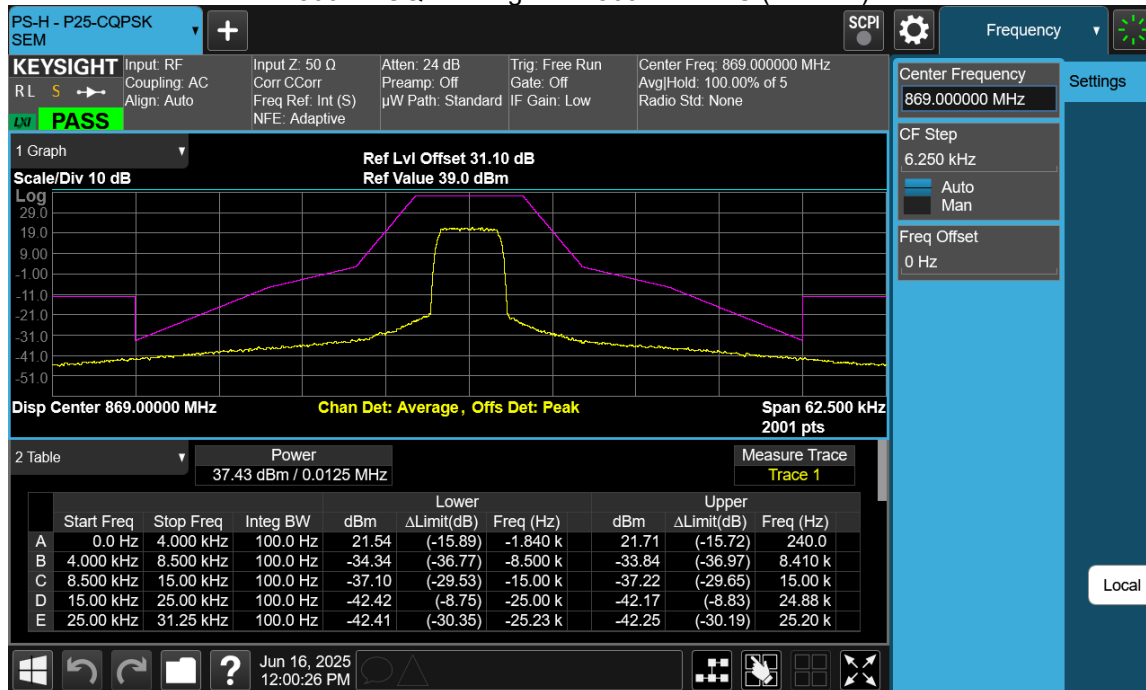
800PS HDQPSK Signal at 860MHz (Mask D)



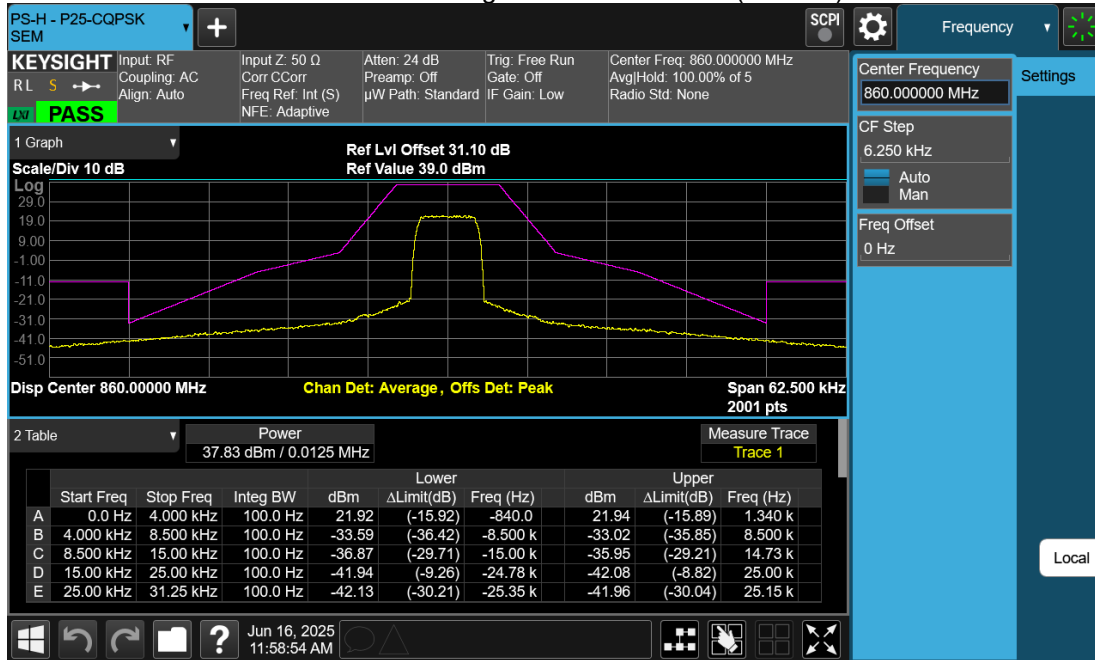
800PS HDQPSK Signal at 851MHz (Mask H)



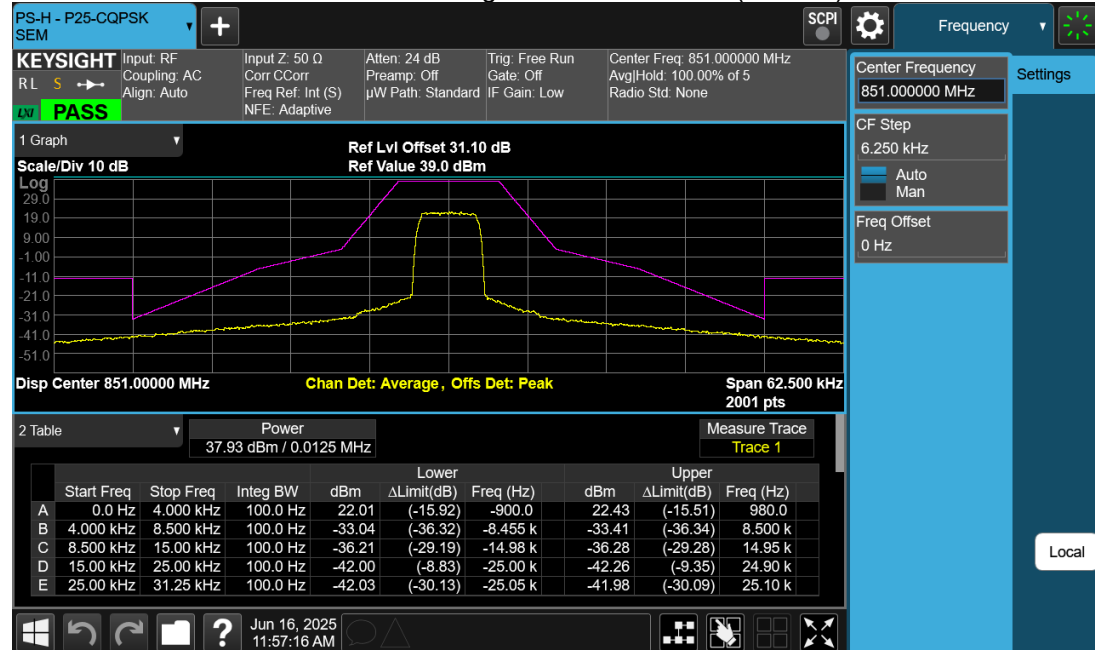
800PS CQPSK Signal at 869MHz ALC (Mask H)



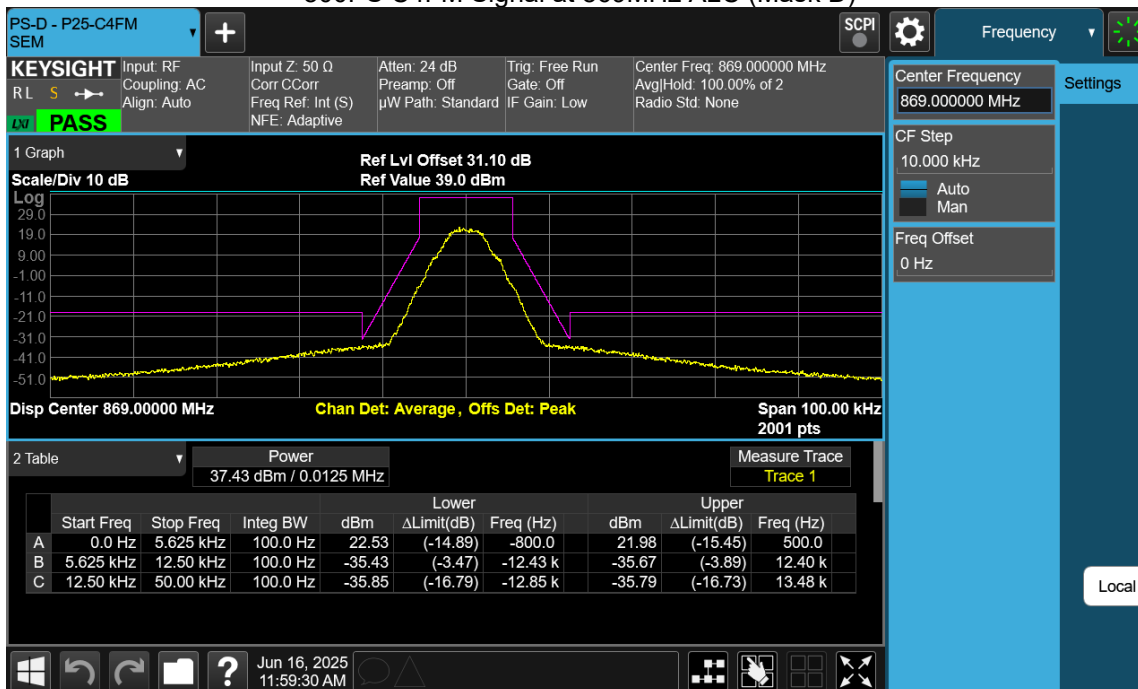
800PS CQPSK Signal at 860MHz ALC (Mask H)



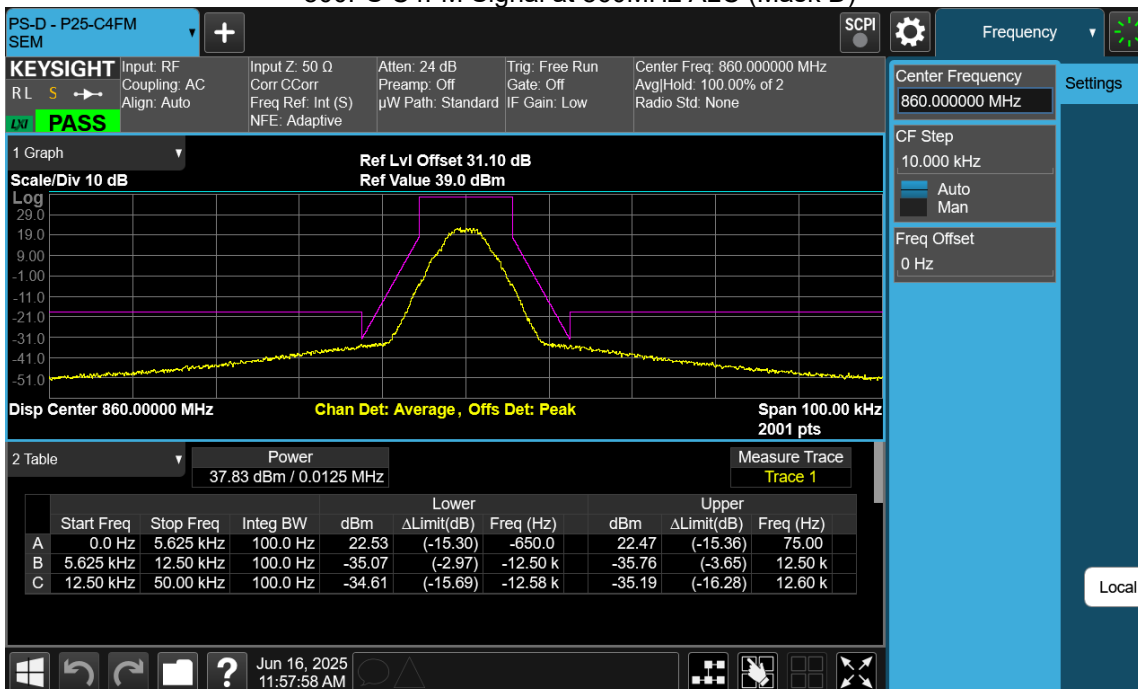
800PS CQPSK Signal at 851MHz ALC (Mask H)



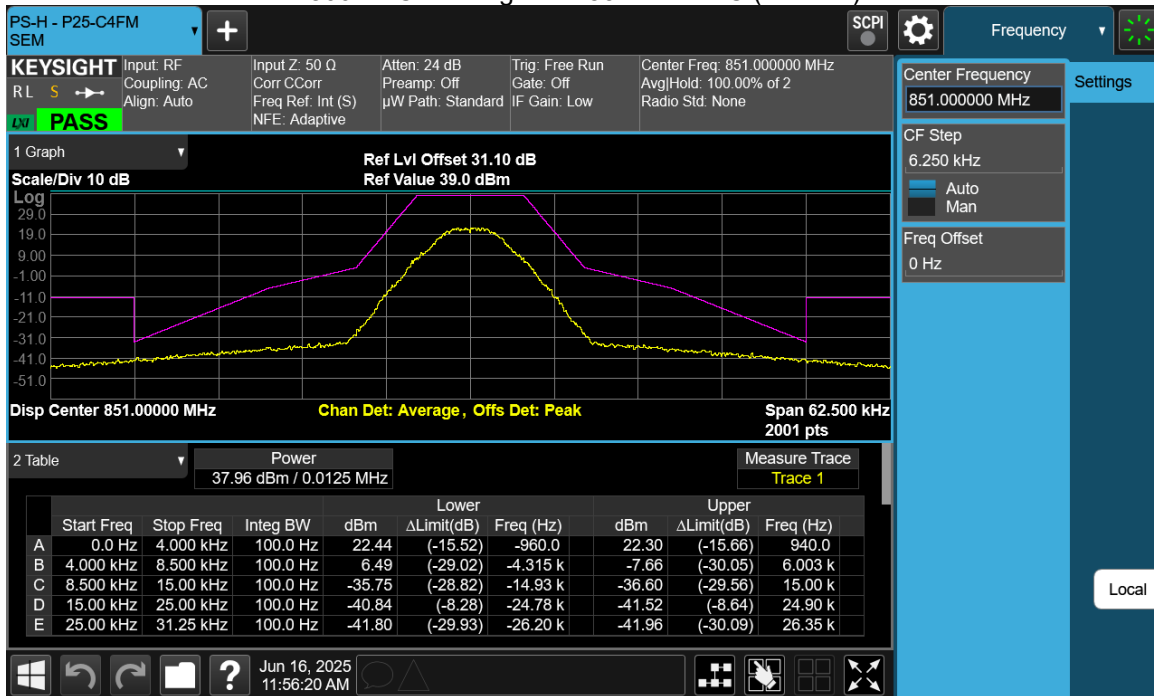
800PS C4FM Signal at 869MHz ALC (Mask D)



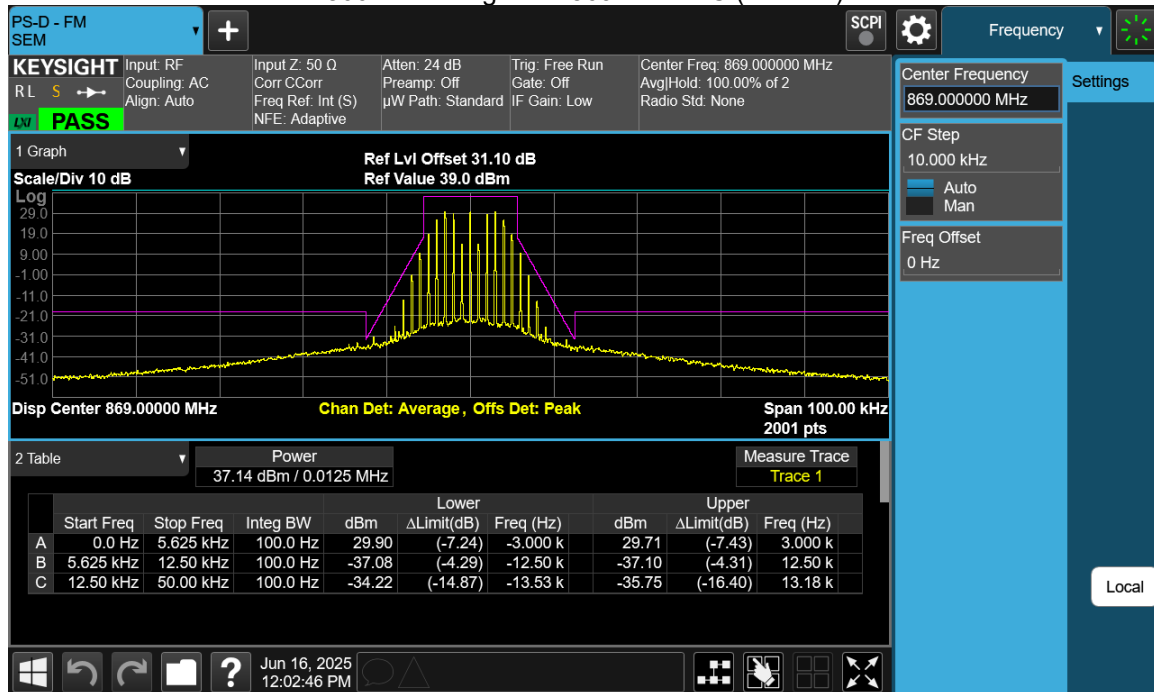
800PS C4FM Signal at 860MHz ALC (Mask D)



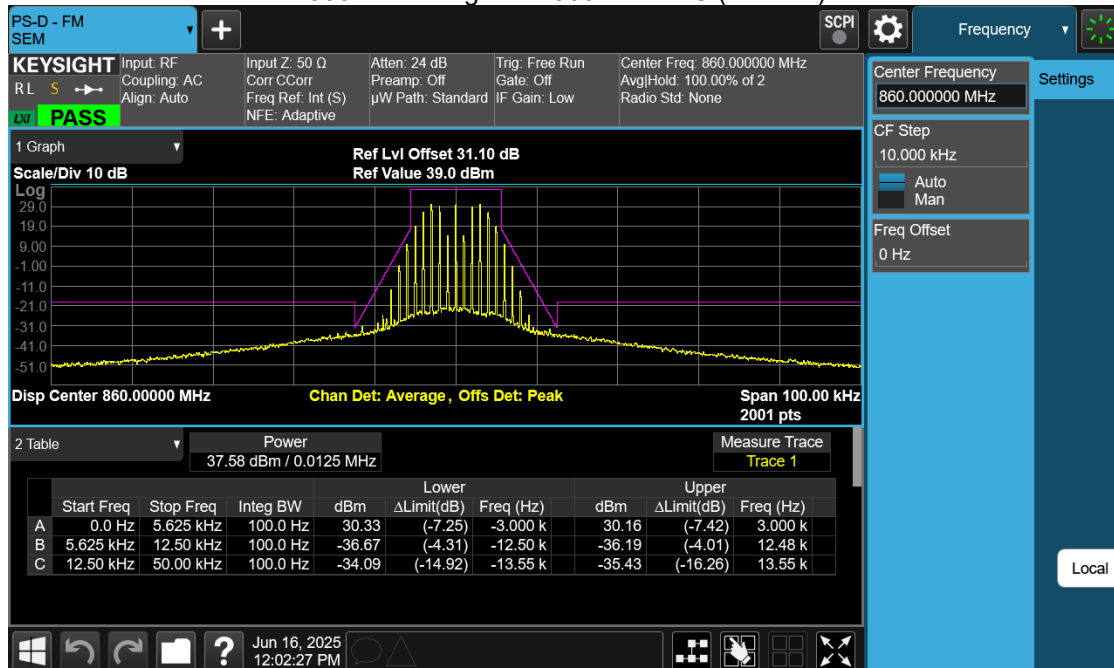
800PS C4FM Signal at 851MHz ALC (Mask H)



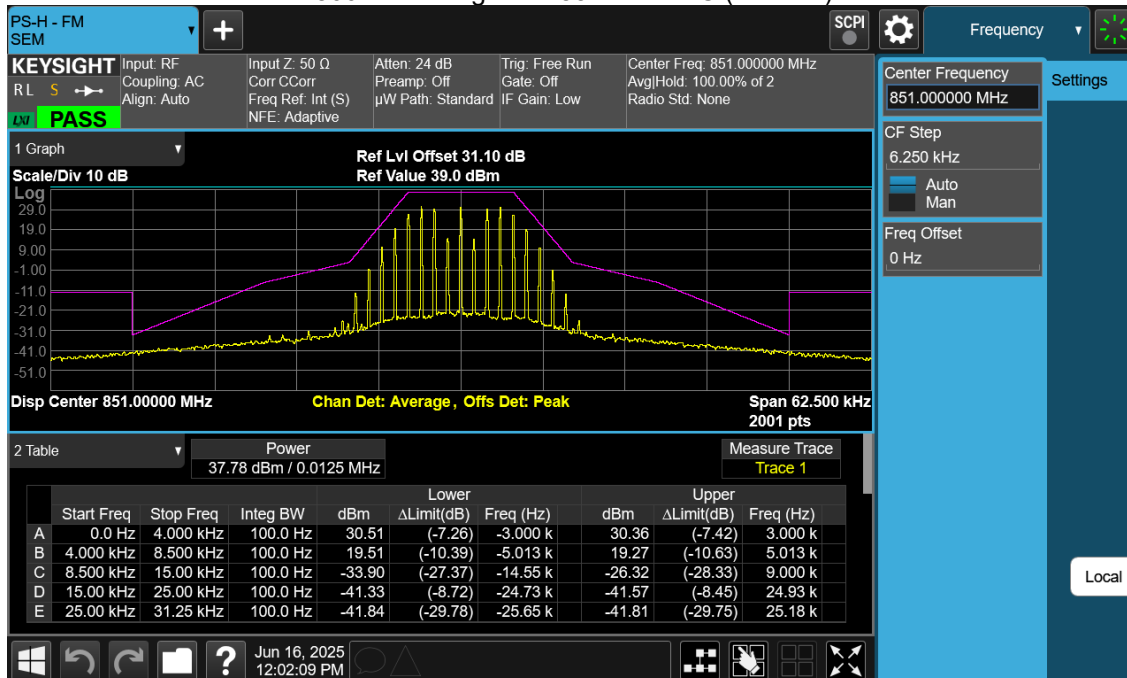
800PS FM Signal at 869MHz ALC (Mask D)



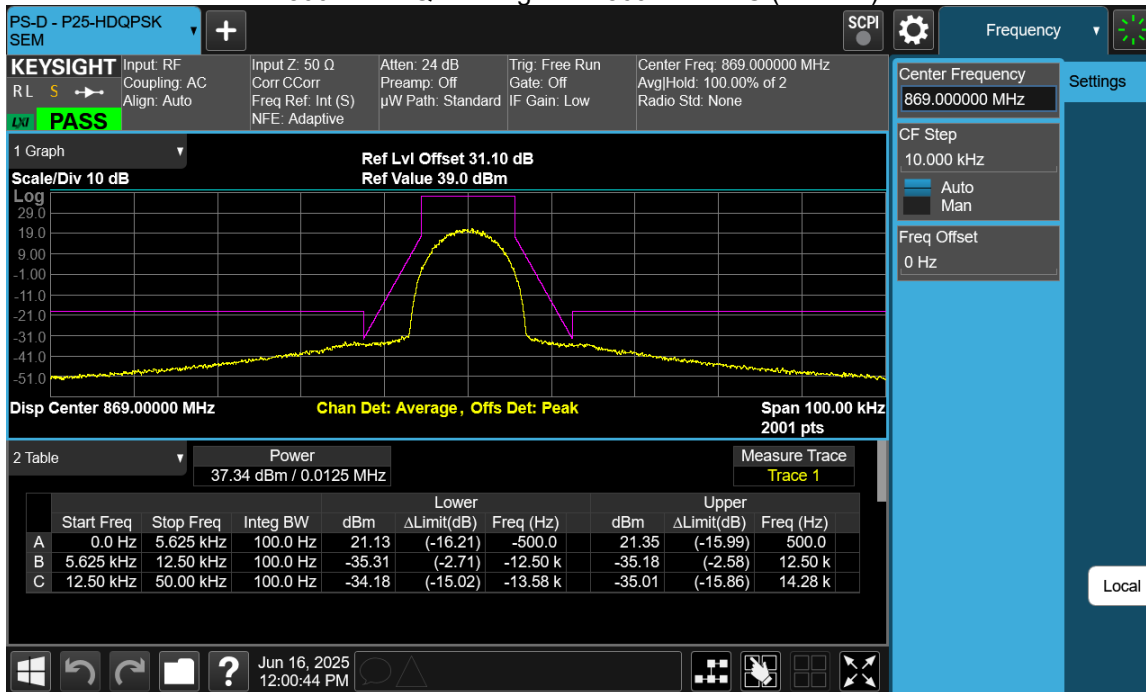
800PS FM Signal at 860MHz ALC (Mask D)



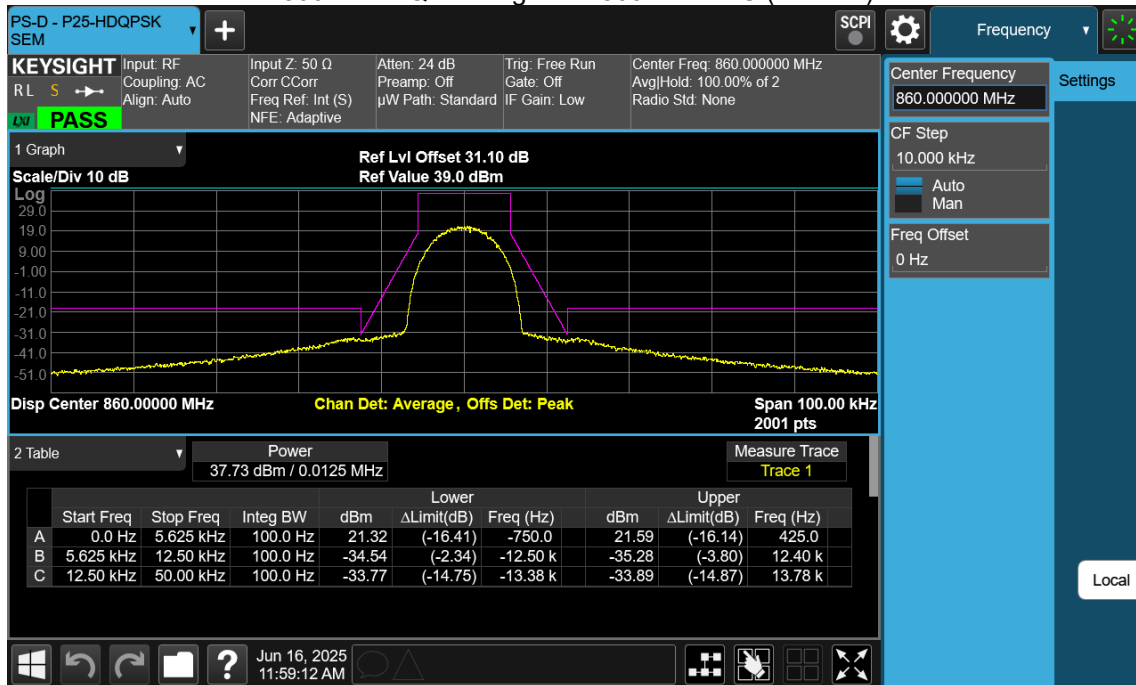
800PS FM Signal at 851MHz ALC (Mask H)



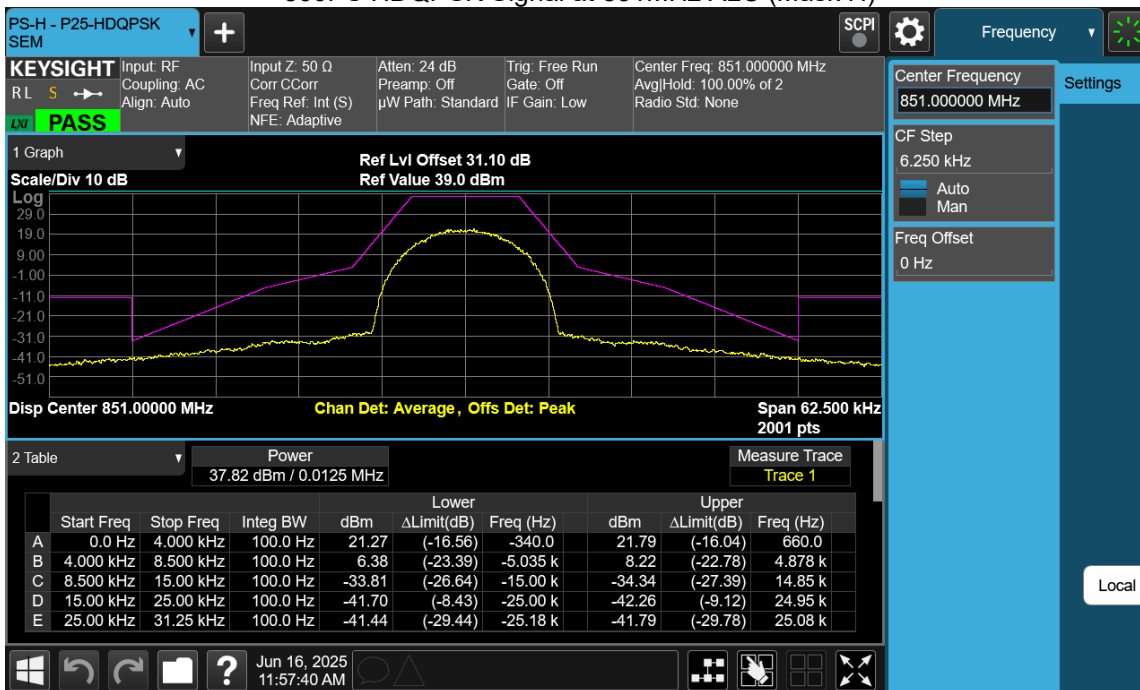
800PS HDQPSK Signal at 869MHz ALC (Mask D)



800PS HDQPSK Signal at 860MHz ALC (Mask D)



800PS HDQPSK Signal at 851MHz ALC (Mask H)



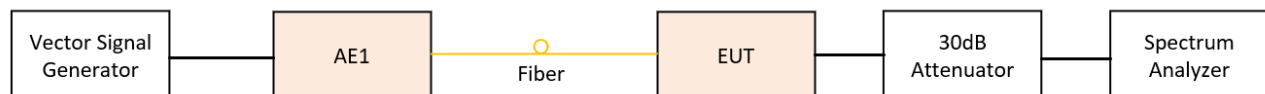
3.5 Input/Output Power and Amplifier/Booster Gain

Governing Doc	RSS-119, Issue 12 2015, Amendment (April 1, 2022) RSS-Gen, Issue 5 2018 FCC Part 90	Room Temperature (°C)	20.5		
Test Procedure	ANSI C63.26-2015, Section 7.2.3.4 KDB 935210 D05, v01r04, Clause 3.5, 4.5	Relative Humidity (%)	38.6		
Test Location	Bench top, Richmond Lab	Barometric Pressure (kPa)	101.8		
Test Engineer	Zara Vali	Date	June 16, 2025		
EUT Voltage	<input checked="" type="checkbox"/> +48VDC <input type="checkbox"/> 120VAC @ 60Hz				
Test Equipment Used	Manufacturer	Model	Serial Number	Calibration date	Calibration due
Signal Generator	Keysight	N5172B-506	MY53050270	Dec 12, 2023	Dec 12, 2026
Spectrum Analyzer	Keysight	N9020B-526	MY62153079	Aug 1, 2023	Aug 1, 2025
Span:	<input checked="" type="checkbox"/> Max Gain Frequency \pm 1500kHz				
Detector:	<input checked="" type="checkbox"/> Peak				
RBW/VBW:	<input checked="" type="checkbox"/> 100k Hz/ 300 kHz				
Type of Facility:	<input checked="" type="checkbox"/> Tabletop				
Distance:	<input checked="" type="checkbox"/> Direct				
Maximum booster gain is 49.57 dB.					
Compliant <input checked="" type="checkbox"/> Non-Compliant <input type="checkbox"/> Not Applicable <input type="checkbox"/>					

Test setup

The procedure used was ANSI C63.26-2015:. A CW tone was input at the frequency where the system gain is the maximum in the pass band, with the nominal input power level. The spectrum analyzer was connected to the output RF port via a 50 Ohm 30 dB attenuator. The maximum hold trace and peak detector was used to capture the output power. The output power minus the input power equals to the booster gain in dB.

The EUT was set to **Operation Mode #1** with configuration **Mode #1**.



Results

Test Band	Frequency (MHz)	Input Power (dBm)	Output Power (dBm)	Gain (dB)
150 PS	162.7	-9.8	32.5	42.3
450 PS	465	-11.4	32.97	44.37
800 PS	860	-7.2	36.75	43.95

3.6 Out-Of-Band / Out-Of-Block Intermodulation and Spurious Emissions

Governing Doc	RSS-131, Issue 4, 2022 S10.5 RSS-119, Issue 12 2015, Amendment (April 1, 2022) RSS-Gen, Issue 5 2018 FCC Part 90	Room Temperature (°C)	20.5		
Test Procedure	ANSI C63.26-2015, Section 7.2.3.6 Section 7.2.3.7 KDB 935210 D05, v01r04, Clause 3.6, 4.7	Relative Humidity (%)	38.6		
Test Location	Bench top, Richmond Lab	Barometric Pressure (kPa)	101.8		
Test Engineer	Zara Vali	Date	June 16, 2025		
EUT Voltage	<input checked="" type="checkbox"/> +48VDC <input type="checkbox"/> 120VAC @ 60Hz				
Test Equipment Used	Manufacturer	Model	Serial Number	Calibration date	Calibration due
Signal Generator	Keysight	N5172B-506	MY53050270	Dec 12, 2023	Dec 12, 2026
Spectrum Analyzer	Keysight	N9020B-526	MY62153079	Aug 1, 2023	Aug 1, 2025
Frequency Range:	<input checked="" type="checkbox"/> Max Gain Frequency \pm 50kHz				
Detector:	<input checked="" type="checkbox"/> Average				
RBW/VBW:	<input checked="" type="checkbox"/> 100/910Hz				
Type of Facility:	<input checked="" type="checkbox"/> Tabletop				
Distance:	<input checked="" type="checkbox"/> Direct				