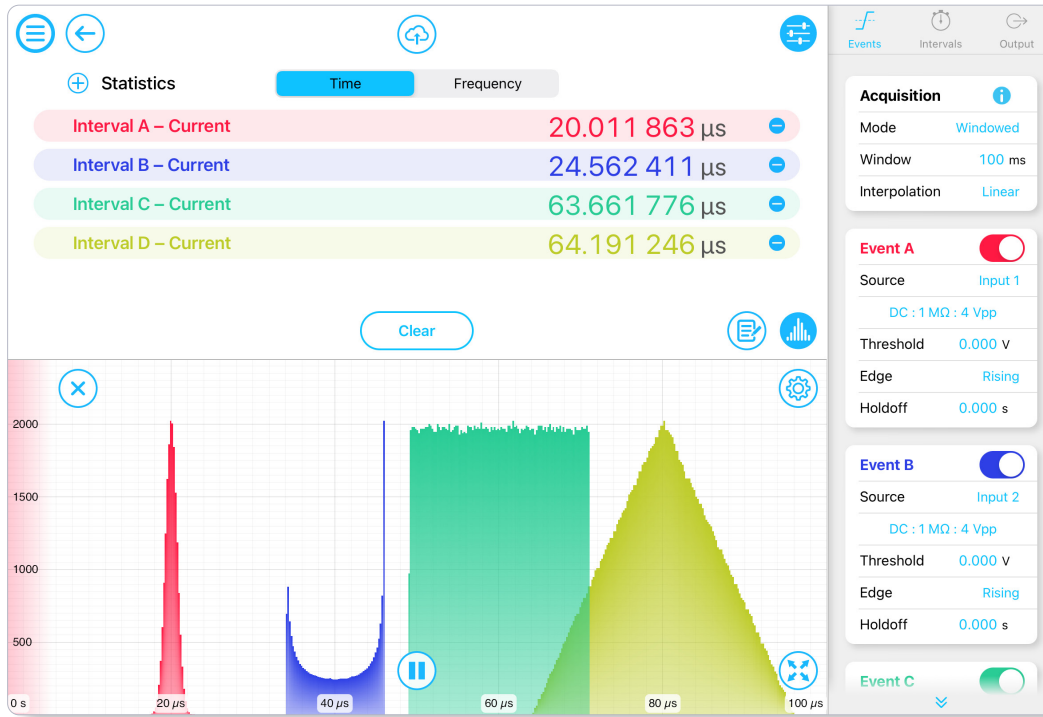




The Moku:Pro Time & Frequency Analyzer measures intervals between configurable start and stop events with sub-ns precision. Select between continuous, windowed, or gated acquisition mode, compute histograms of interval duration losslessly and in real time, and log high-resolution event timestamps to on-board storage. Output the measured interval count or current interval to analog output channels for active feedback control.



No. of independent interval analyzers
4

Jitter
<20 ps

Clock stability
300 ppb

Digital resolution
0.78 ps

Max interval rate
150 MHz

Histogram
Real-time and lossless

Features

- Ultra-low device jitter of <20 ps for high timing resolution analysis
- Up to four independent event detectors with configurable thresholds on rising edge, falling edge, or both
- Lossless, real-time histograms with a minimum bin width of 0.78 ps
- Output interval count or current interval with adjustable scaling factor
- High-resolution raw event timestamp logging to on-board storage for post processing
- Combine with up to three other instruments in Multi-instrument Mode for system level characterization and feedback control

Specifications

- No. of independent interval analyzers: 4
- Jitter: <20 ps
- Digital resolution: 0.78 ps
- Input frequency range: DC to 300 MHz
- Input trigger threshold range: ± 200 mV, ± 2 V, or ± 20 V
- Maximum interval rate: 150 MHz
- Acquisition modes: continuous, windowed, or gated
- Interpolation mode: none or linear
- Event logging rate:
 - up to 300 Mevt/sec burst
 - up to 10 Mevt/sec continuous
- Output range: 2 Vpp, or 10 Vpp
- Output mode: interval count or current interval

Applications

- Oscillator analysis
- Photon counting
- Jitter analysis
- Linear optical quantum computing
- Pulsed laser stabilization