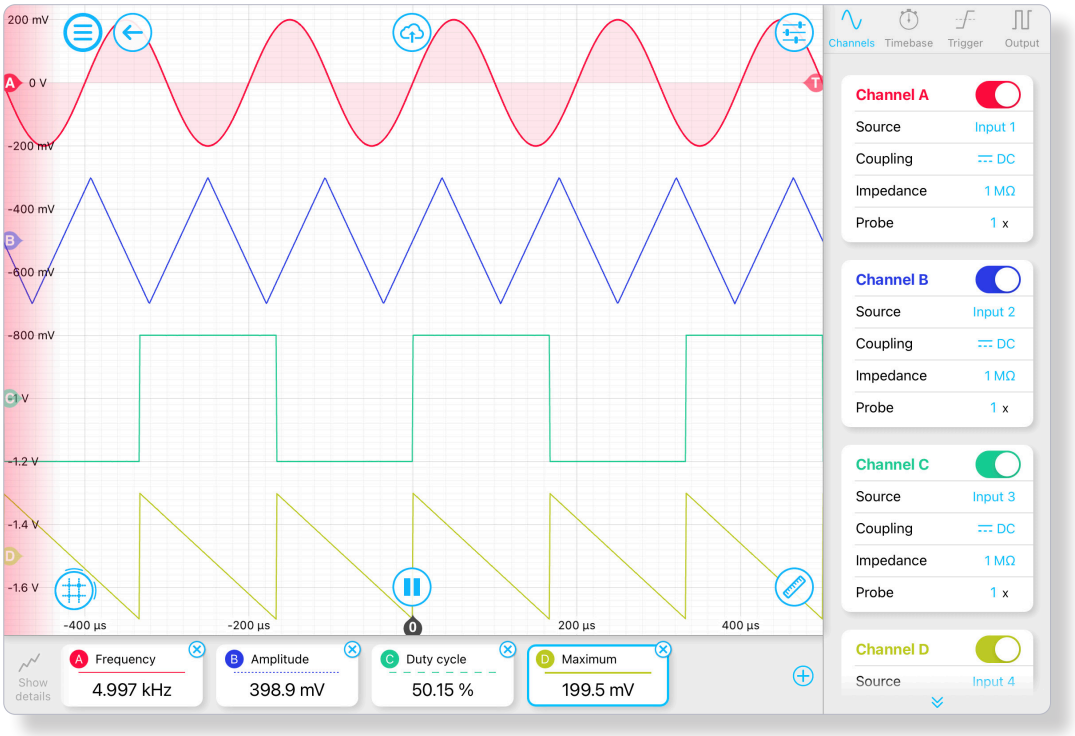
Moku:Pro Instrument Datasheet

Oscilloscope

The Moku:Pro Oscilloscope features four high-speed, ultra-low-noise input channels with 600 MHz analog bandwidth. An innovative blended ADC technology combines the information from 10-bit and 18-bit ADCs to cover a broad spectrum, providing class-leading input noise performance at 30nV/√Hz @ 100Hz with large dynamic range. The built-in four-channel Waveform Generators are capable of producing waveforms with a bandwidth of up to 500 MHz.



Sampling Rate	Bandwidth	ADC Resolution	Input Impedance	Input Noise	Waveform Generator
Up to 5 GSa/s	**600 MHz**	**10 / 18 bits**	**50 Ω/ 1 MΩ**	**30 nV/√Hz @ 100Hz**	**4 Channels up to 500 MHz**

Features

- Four analog inputs with 600 MHz bandwidth
- Exceptional low-frequency noise performance: 30 nV/√Hz @ 100 Hz
- Dual-ADC design with blended ADC technology
- Ultra stable 0.3 ppm onboard oscillator with 10 MHz synchronization in and out
- Integrated high-speed waveform generator channels with analog bandwidths up to 500 MHz

Specifications

- Input range: 400 mVpp, 4 Vpp, or 40 Vpp
- Input noise: 30 nV/√Hz @ 100 Hz
- Sampling rate: 5 GSa/s on 1 channel
  1.25 GSa/s on 4 channels
- Input bandwidth: 300/600 MHz switchable
- Input coupling: AC or DC
- Input Impedance: 50 Ω or 1 MΩ
- Output bandwidth: 500 MHz (2 Vpp)
  100 MHz (10 Vpp)
- Output waveforms: sine, square, ramp, pulse, DC
- Math channel: Add, subtract, multiply, divide, XY mode, integrate, differentiate, FFT, min hold, max hold, and equation editor

Applications

- Automated system test
- Circuit design and characterization
- Jitter/clock analysis
- Photo detector alignment
- Signal monitoring and analysis
- System test and debug