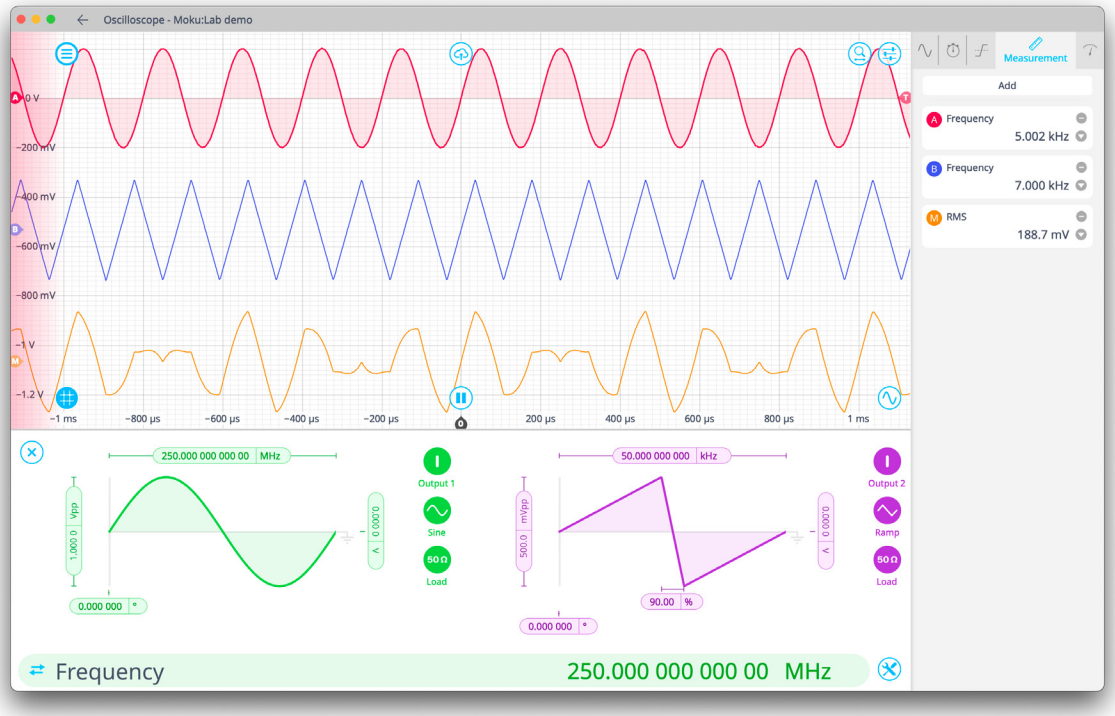
Moku:Lab Instrument Datasheet

Oscilloscope

The Moku:Lab Oscilloscope features two 500 MSa/s analog input channels with 200 MHz analog bandwidth, 10 Vpp input voltage range, and user-configurable AC/DC coupling and 50 Ω/1 MΩ impedance. The oscilloscope also features two integrated waveform generators, each with a shape-dependent maximum frequency of up to 250MHz and capable of producing sine, square, pulse, ramp, noise or DC waveforms.



Sampling Rate	Bandwidth	ADC Resolution	Input Coupling	Input Noise	Waveform Generator
500 MSa/s	**200 MHz**	**12 bits**	**AC or DC**	**<30 nV/√Hz @ 100 kHz**	**2 Channels up to 250 MHz**

Features

- Two analog inputs with 200 MHz bandwidth
- Exceptional low-frequency noise performance: <30 nV/√Hz above 100 kHz
- Ultra stable 0.5 ppm onboard oscillator with 10 MHz synchronization in and out
- Integrated high-speed waveform generator channels with analog bandwidths up to 250 MHz
- TTL-compatible external trigger

Specifications

- Input range: 1 Vpp or 10 Vpp
- Input noise: <30 nV/√Hz above 100 kHz
- Sampling rate: 500 MSa/s
- Input bandwidth: 200 MHz
- Input coupling: AC or DC
- Input Impedance: 50 Ω or 1 MΩ
- Output bandwidth: 300 MHz
- Output waveforms: sine, square, ramp, pulse, noise, DC
- Math channel: Add, subtract, multiply, divide, XY mode, FFT, arbitrary equation mode, and many more

Applications

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