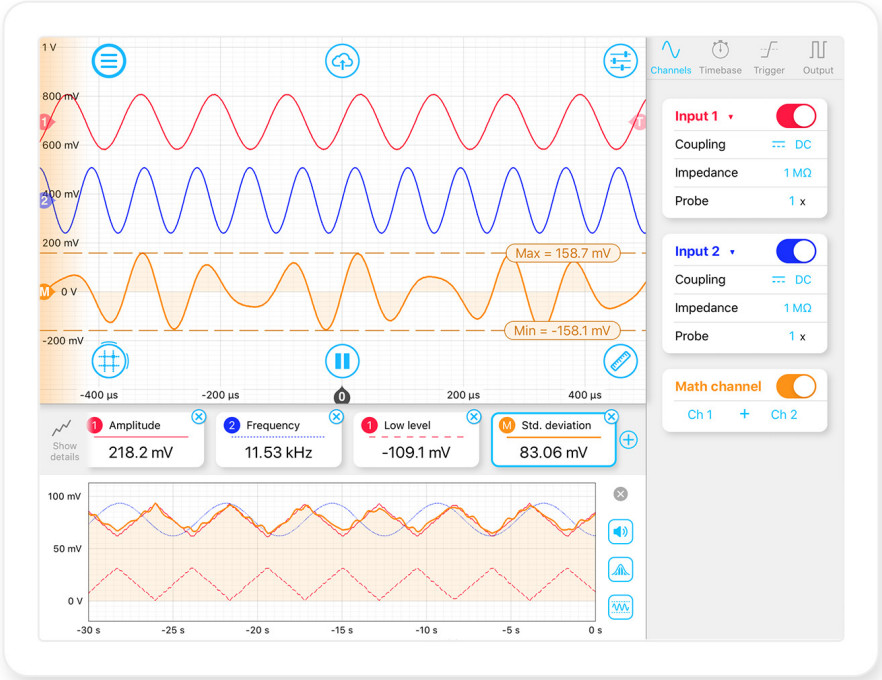
Moku:Lab Instrument Datasheet

200 MHz Oscilloscope

Moku:Lab's 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 capable of producing sine waves at up to 250 MHz and square, sawtooth, and triangle waves at up to 100 MHz.



Sampling Rate	Bandwidth	Input Range	Input Coupling	Input Impedance	Waveform Generator
500 MSa/s	**200 MHz**	**- 5 V to 5 V**	**AC or DC**	**50 Ω/1 MΩ**	**Integrated**

Features

- Two analog inputs with 200 MHz bandwidth; built-in two-channel 250 MHz waveform generator
- TTL-compatible external trigger
- Onboard signal analysis toolbox: visualization tools including measurement trends and histograms
- Math channel with support for arbitrary functions
- Single tap data uploading to the Cloud, email or SD card
- Python, MATLAB, and LabVIEW APIs support

Specifications

- Vertical resolution: 12 bits at 500 MSa/s, up to 22 bits at 1 kSa/s
- Input noise: <30 nV/√Hz above 100 kHz
- Sampling rate: 500 MSa/s
- Input bandwidth: 200 MHz
- Input coupling: AD or DC
- Input Impedance: 50 Ω or 1 MΩ
- Output bandwidth: 300 MHz
- Output waveforms: sine, square, ramp, pulse, 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