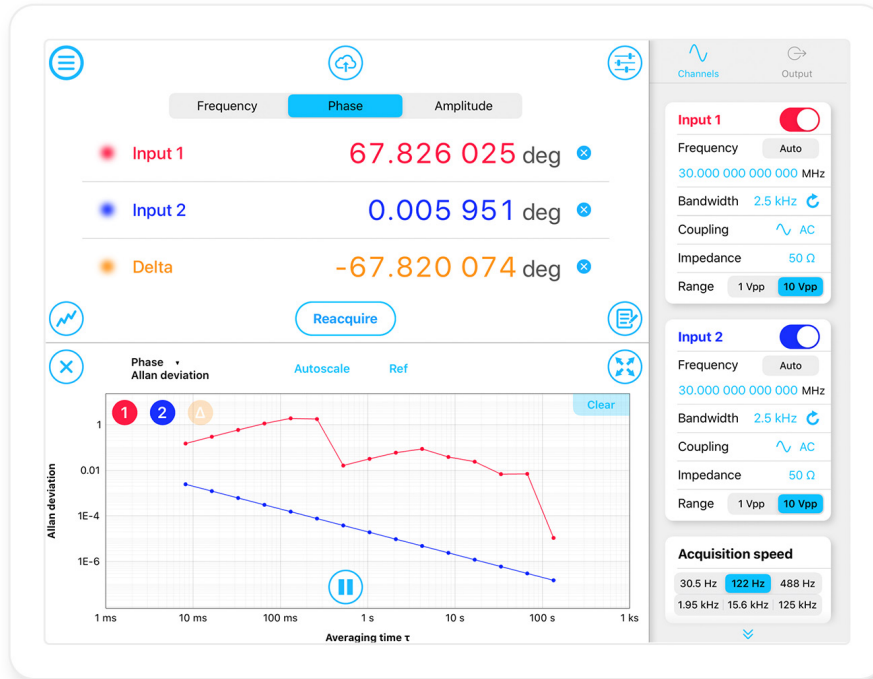




# 200 MHz Phasemeter



Moku:Lab's Phasemeter measures phase of up to two input signals with better than 6  $\mu$ radian precision from 1 kHz up to 200 MHz. Based on a digitally implemented phase-locked loop architecture, Moku:Lab's Phasemeter provides exceptional dynamic range, zero dead-time and measurement precision that exceeds the performance of conventional lock-in amplifiers and frequency counters.



<b>Frequency Range</b> 1 kHz to 200 MHz	<b>Tracking Bandwidth</b> Up to 10 kHz	<b>Phase precision</b> 6 $\mu$ rad/ $\sqrt{\text{Hz}}$	<b>Frequency precision</b> 10 $\mu$ Hz/ $\sqrt{\text{Hz}}$	<b>Data Logging rates</b> 30.5 Hz to 125 kHz	<b>Built-in Analysis</b> Allan Deviation
--	---	---	---	---	---

## Features

- Two independent phasemeter channels with output options that track and record the phase, frequency, and amplitude of two independent signals
- Phase-locked output option enables you to generate sine waves that are phase-locked to the inputs
- Real-time spectral analysis to display and save Power Spectral Densities, Allan Deviation, and more
- Phase-locked loop tracking bandwidths from 10 Hz up to 10 kHz

## Specifications

- Input frequency range: 1 kHz - 200 MHz
- Input voltage range: 1 Vpp or 10 Vpp
- Frequency set-point precision: 3.55  $\mu$ Hz
- Tracking bandwidth: 10 Hz, 40 Hz, 150 Hz, 600 Hz, 2.5 kHz, 10 kHz
- Phase precision: up to 6  $\mu$ rad/ $\sqrt{\text{Hz}}$
- Frequency precision: up to 10  $\mu$ Hz/ $\sqrt{\text{Hz}}$
- Data logging rates: 30.5 Hz, 122 Hz, 488 Hz, 1.95 kHz, 15.6 kHz, 125 kHz
- Sine wave generators: Dual channel 250 MHz (manual or input-locked)

## Applications

- Oscillator analysis
- Optical/ultrasound ranging
- Gravitational wave detection
- Interferometry
- Phase-locked loop