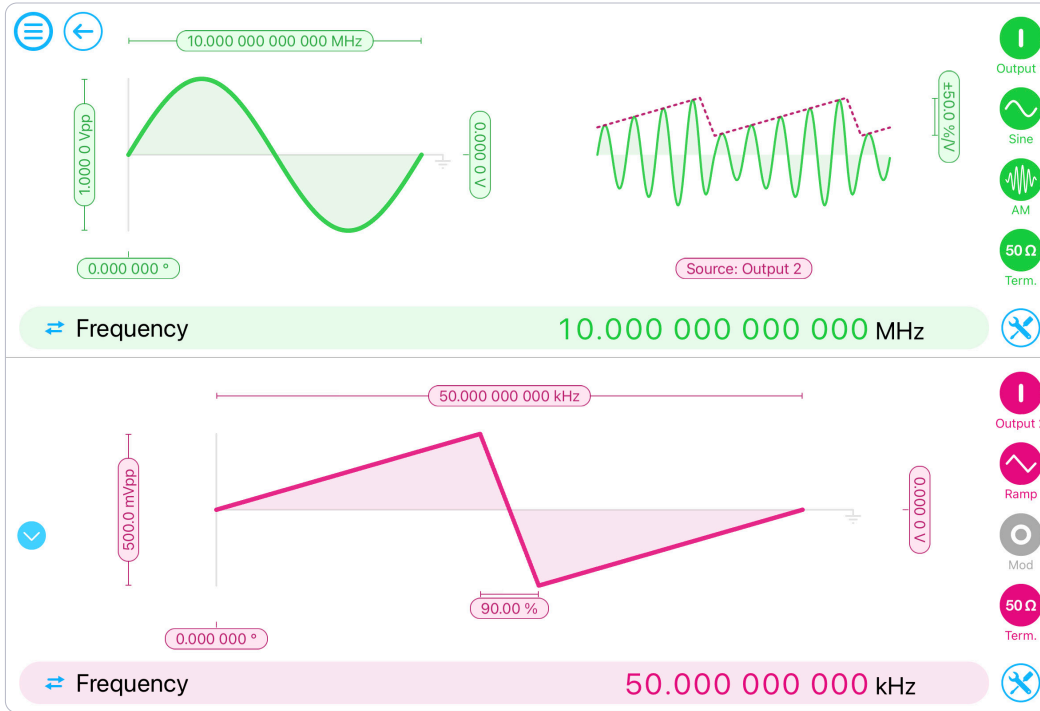Moku:Pro Instrument Datasheet

Waveform Generator

The Moku:Pro Waveform Generator enables you to generate four independent waveforms with a maximum bandwidth of 500 MHz. Select between sine, square, ramp, pulsed, noise, or DC waveform shapes. Perform high-bandwidth modulation of phase, frequency, amplitude, and pulse width; and generate triggered bursts or sweeps from an internal or external source.

Frequency Range	Output Voltage Range	Modulation	Other Modes	Timebase Accuracy
1 mHz to 500 MHz	**Up to 10 Vpp (50 Ω)**	**FM, AM, PM, PWM**	**Burst, Sweep**	**< 300 ppb**

Features

- Generate four independent phase coherent waveforms from DC to 500 MHz
- Six built-in waveforms: sine, square, ramp, pulse, noise, and DC
- Broadband FM, AM, PM, and PWM modulation with internal waveform (cross-channel modulation) or external input
- Versatile trigger options: from input, dedicated TTL trigger port, or another channel
- 10 MHz reference input and output

Specifications

- Output bandwidth:
  - 500 MHz (2 Vpp)
  - 100 MHz (10 Vpp)
- Frequency range (2 Vpp):
  - Sine: 1 mHz to 500 MHz
  - Square: 1 mHz to 150 MHz
  - Ramp: 1 mHz to 150 MHz
  - Pulse 1 mHz to 150 MHz
- Pulse width: 4 ns to period
- Modulation bandwidth: 125 MHz
- Timebase accuracy: < 300 ppb
- Burst mode: start, N-cycle, gated
- Sweep time: 1 ms to 1 ks

Applications

- Signal simulation
- Laser scanning microscopy
- Circuit design and characterization
- System synchronization
- Clock source
- DAC/Op-amp characterization
- Motor control