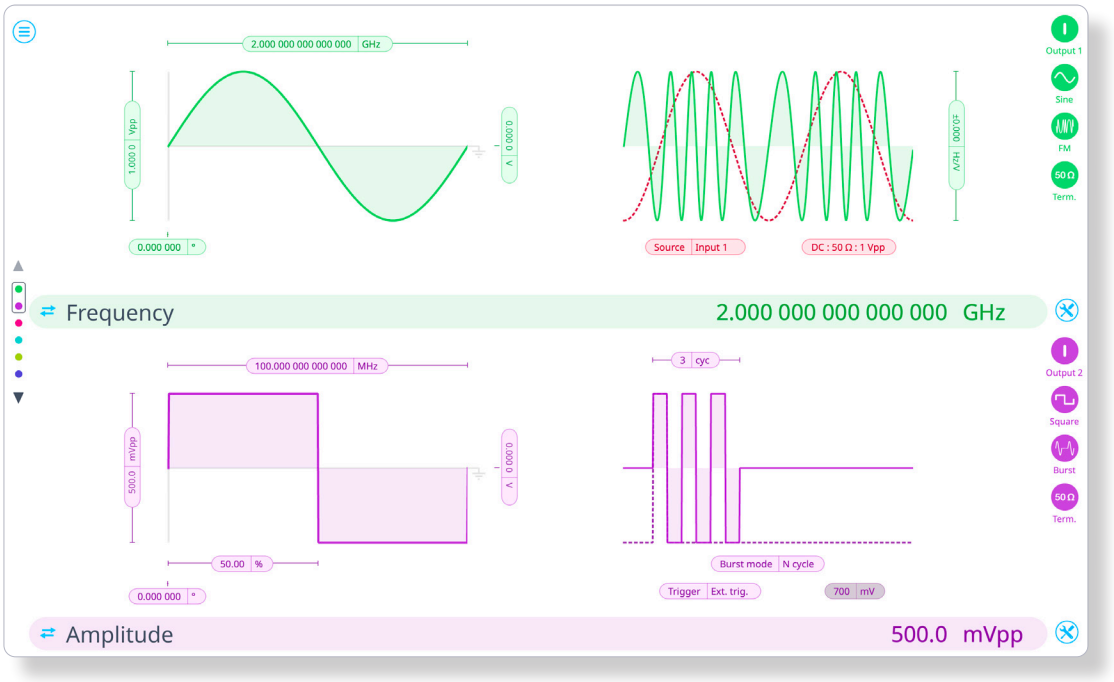
Moku:Delta Instrument Datasheet

Waveform Generator



The Moku:Delta Waveform Generator provides six independent analog outputs at 10 GSa/s with up to 2 GHz bandwidth. It supports sine, square, ramp, pulse, noise, and DC waveforms with configurable frequency, amplitude, phase, and offset. Modulation options include AM, FM, PM, and PWM. Advanced triggering from internal or external sources, multi-channel synchronization, and a GPS-disciplined clock enable precise waveform delivery in RF, quantum control, and timing-critical applications.



Frequency Range	Output Voltage Range	Modulation	Other Modes	Timebase Accuracy
1 mHz to 2 GHz	**Up to 10 Vpp (50 Ω)**	**FM, AM, PM, PWM**	**Burst, Sweep**	**1 ppb**

Features

- Generate six independent phase coherent waveforms from DC to 2 GHz
- 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
- Supported external clock reference: 10 MHz, 100 MHz, GPS

Specifications

- Output bandwidth:
  - 2 GHz (1 Vpp)
  - 100 MHz (10 Vpp)
- Frequency range (1 Vpp):
  - Sine: 1 mHz to 2 GHz
  - Square: 1 mHz to 600 MHz
  - Ramp: 1 mHz to 600 MHz
  - Pulse 1 mHz to 600 MHz
- Pulse width: 500 ps to period
- Modulation bandwidth: 156 MHz
- Timebase accuracy: 1 ppb
- Burst mode: start, N-cycle, gated
- Sweep time: 1 ms to 1 ks

Applications

- Quantum control and readout
- RF system prototyping and testing
- Signal simulation
- Laser scanning microscopy
- Circuit design and characterization
- System synchronization
- Clock source
- Microwave photonics and electro-optic modulation
- Modulation scheme evaluation

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Note: All Moku:Delta specifications are subject to change.