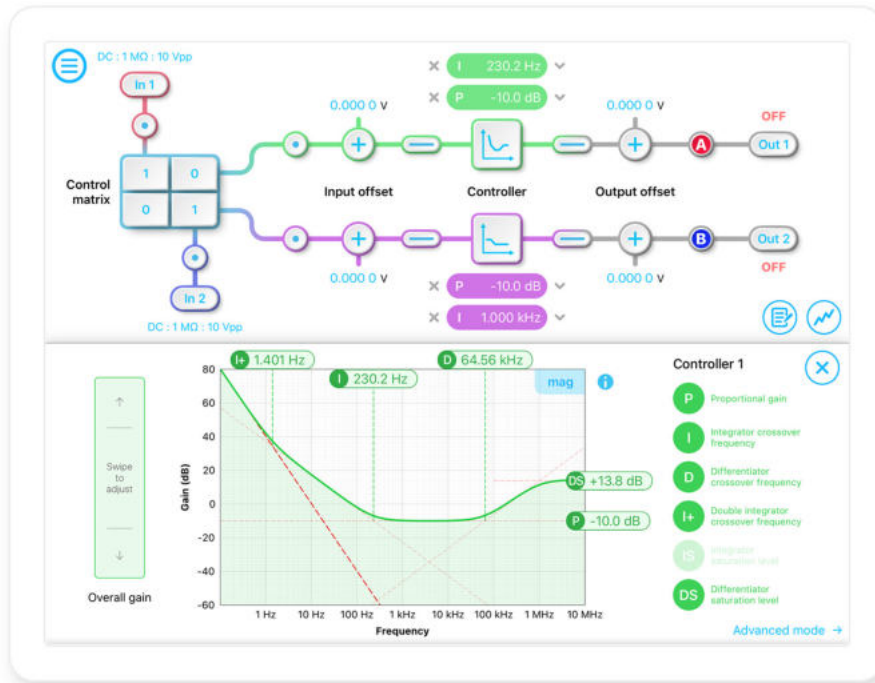




Moku:Lab's PID Controller features two fully configurable PID controllers with an output sample rate of 10 MSa/s. This enables them to be used in applications requiring both low and high feedback bandwidths such as laser temperature and current stabilization. The PID Controller can also be used as a lead-lag compensator by saturating the integral and differential controllers with independent gain settings.



Versatile input 2 inputs with optional blending	Output sampling rate 10 MSa/s	DAC resolution 16-bits	Phase lag 30° at 100 kHz	Gain configuration Real-time	Advanced mode Multi-section builder
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Features

- 2 input channels, 2 output channels, 2 independent PID controllers with control matrix for optional blending
- Design your control system's frequency response using the interactive Bode plot in real-time
- Block diagram view of the digital signal processing with built-in probe points for signal monitoring
- Advanced multi-section PID builder with single or double integrators and differentiators with low- and high-frequency gain saturation

Specifications

- Input voltage range: 1 Vpp or 10 Vpp
- Control matrix linear gain: -20 to +20
- Input/output offset range: -1 to +1 V
- Offset precision: 100 μ V
- Gain profiles: Proportional (P), integral (I), differential (D), double-integral (I+), integral saturation (IS), differential saturation (DS)
- Proportional gain: -60 dB to 60 dB
- Integrator crossover frequency: 1 Hz to 100 kHz
- Differentiator crossover frequency: 10 Hz to 1 MHz

Applications

- Feedback and control systems design
- Laser frequency stabilization
- Temperature regulation
- Scan heads/sample stage positioning
- Pressure, force, flow rate, and other controls