The Moku:Pro Laser Lock Box enables you to lock a laser’s frequency to a reference cavity or atomic transition using high-performance modulation locking techniques. The Laser Lock Box includes a “Lock Assist” feature, enabling you to quickly lock to any zero-crossing on the demodulated error signal. With Multi-instrument Mode (MiM), you can deploy up to four laser lock modules simultaneously on a single Moku:Pro. Each module shares the same clock base from the internal or an external source. This is the ideal solution for multi-laser stabilization systems.

**Specifications**

- **Demod. Frequency**: 1 mHz to 600 MHz
- **Scan Frequency**: Up to 10 MHz
- **Adjustable Filter**: 2.6 kHz to 35 MHz
- **DAC Resolution**: 16 bits
- **Built-in Controllers**: Dual PID
- **Integrated Oscilloscope**: 1.25 GSa/s

**Features**

- Stabilize a laser’s frequency to a reference cavity or atomic transition
- Virtually probe within signal processing chain with an integrated oscilloscope
- Quickly lock to any zero-crossing in the error signal using the “Lock Assist” feature
- Individually configure high- and low-bandwidth PID Controllers for fast and slow feedback
- Quickly access the controls you need with a customizable control palette view
- Built-in IIR filter for custom filtering
- Stream or save traces from any point in the signal processing chain

**Applications**

- Custom phase-locked loop
- Gravitational wave detection
- Closed-loop control systems
- Pound-Drever-Hall technique
- Precision spectroscopy