



Kirdy Laser Diode Driver

The new Sinara 1550 Kirdy is a precision laser diode driver which combines a low-noise current source ($<200\text{nA}$ RMS 10Hz-1MHz, $<300\text{pA}/\text{rt}(\text{Hz})$ density) and a temperature controller with sub-mK stability. It is primarily designed for spectroscopy and other atomic physics applications.

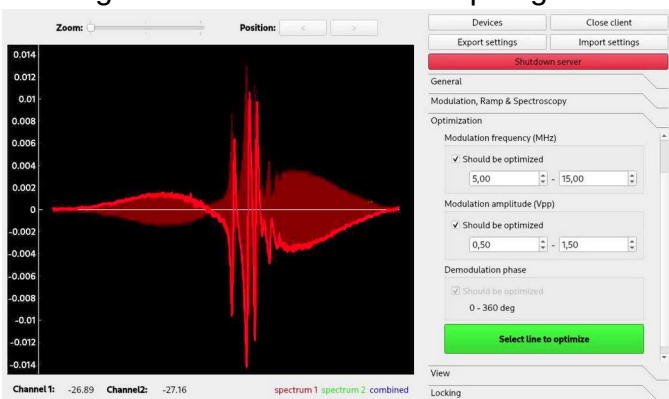
A modulation input with 18MHz bandwidth (3dB) enables fast diode current changes for servo control of the optical frequency. The device also supports RF modulation injected directly into the diode, typically to inject sidebands into the beam and implement stabilization schemes such as Pound-Drever-Hall and modulation transfer spectroscopy. It can be connected in particular to the Sinara Fast-Servo and used with the Linien application that enables easy locking of lasers to spectral lines.

Soft turn-on, laser power monitoring with a user-defined trip point, overtemperature protection, and a protection relay minimize the risk of damage to the laser diode.

Adapters can be mounted onto Kirdy for the compact assembly of lasers in butterfly packages (with a fiber optic connector on the front panel), or the laser signals can be broken out to the front panel for driving external laser heads such as custom or commercial ECDLs.

Kirdy is controlled over Ethernet and supports Power-over-Ethernet.

Like the rest of the Sinara family, Kirdy is open hardware and design files can be found at <https://git.m-labs.hk/sinara-hw/kirdy>



From US\$ 1,700.00 without laser
From US\$ 1,900.00 with 1270-1610nm DFB

Inquiries

Write to sales@m-labs.hk or visit our website <https://m-labs.hk>