

***AOSense Laser
Solutions***

Integrated Laser Controller with Servo

SILC



- Compact, all-in-one laser driver and locking solution
- >2 MHz PI2D current servo
- Current, PZT, and Temperature servos
- Customizable current output for broad laser compatibility
- Available with or without servo functionality

Integrated Laser Controller with Servo



SILC

- Controlled from a PC
- Graphical User Interface simplifies laser drive & frequency stabilization.

ILC - Integrated Laser Control Utility by AOSense, Inc.

Application Edit Ports Controller Laser View

Variable	Laser #1	Laser #2
Port	COM86: connected	SIM: connected
Controller	AOS-ILC-P-200-B	Simulated ILC
Laser Head	Present, Smart, Initialized	Present, Smart, Initializ...
Cable	Connected	Connected
Name	Test Laser	Simulated Laser
Serial #	IF-xxxx	
Settings	Not saved to NV-RAM	Saved to NV-RAM
Life	1:00:35	18:29:34
Alerts		
TEC Regulator	24.000	Off
Enable TEC Drive	On: settled	Off
Set Temperature [°C]	24.000	18.000
Measured Temperature [°C]	24.000	22.700
TEC Drive [%]	-3.819	0.000
Laser Diode	24.56	Off
PZT	10.00	0.00
SERVO - Monitors		
SERVO - Lock	Not Locked	Not Locked
SERVO - Loop Settings		
SERVO - Modulation		
Limits		
Temperature Loop Setup (Knobs)		
System Settings (Trims)		
Controller Configuration (Valves)		
Monitors (Gages)		

External Cavity Diode Lasers (ECDLs)

SILC



ECDL



- Designed to easily interface with the AOSense SILC
- Compact, stable, rugged cat's eye design for operation in demanding environments
- Wavelength options from 369 nm to 1038 nm
- Custom wavelengths available on request
- 5 – 100 mW output power
- 30 – 300 kHz linewidth
- Wavelength-tunable options available

Tapered Amplifiers (TAs)

SILC



- Obtain higher power while retaining properties of seed laser
- Free-space-input and fiber-input options
- Free-space output
- 1 W, 2 W, and 3 W versions available
- 780 nm and 852 nm versions & custom wavelengths available on request

ECDL

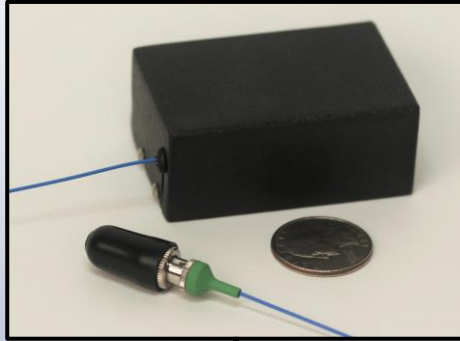


TA



Saturable Spectroscopy Laser Lock Module (LLM)

LLM



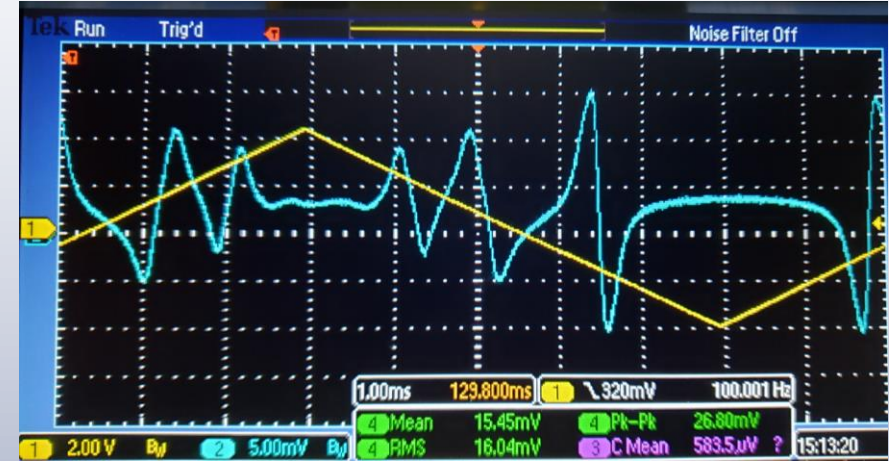
EOM



SILC

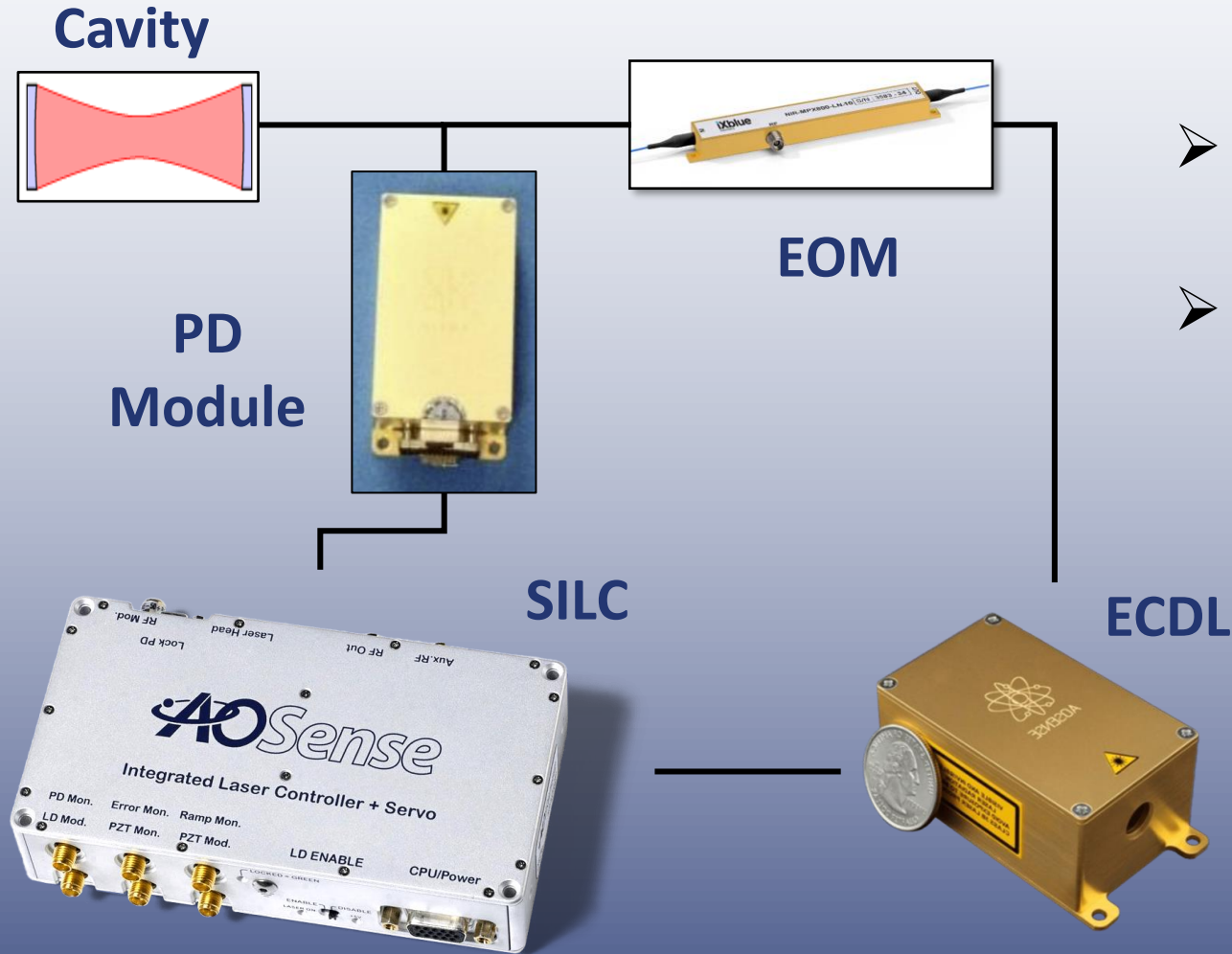


ECDL



- Fiber-input spectroscopy module for easily generated high-SNR error signals
- Designed to integrate with the AOSense SILC
- Standard Cs and Rb versions
- Custom species available

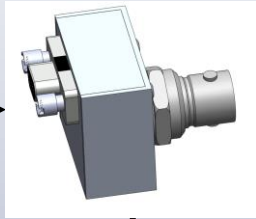
Photodiode (PD) Module



- Use our PD Module to easily interface a laser to an external cavity
- Ideal for Pound-Drever-Hall frequency stabilization

External Error Signal Adapter

BNC
Adapter



SILC



ECDL



- A simple BNC adapter enables a user to provide their own error signal for frequency stabilization