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Data Sheet

August 14, 2026

ILX LIGHTWAVE

ILX Lightwave CSM-39440: 4-CH Laser Diode Current Source Module

The ILX Lightwave CSM-39440 is a 4-channel laser diode current source module designed for precise control and modulation of laser diodes. It provides independent current control for each channel, ensuring stable and accurate operation of multiple laser diodes simultaneously.



MODEL

**ILX Lightwave
CSM-39440**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

CSM-39440

LISTING

<https://aumictechlabs.com/products/csm-39440-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The ILX Lightwave CSM-39440 is a 4-channel laser diode current source module engineered for precise, independent current control across multiple laser diodes. Each channel operates independently, enabling stable and accurate simultaneous operation of four laser diodes within a modular system architecture. The module integrates into the ILX Lightwave LDC-3900 Modular Laser Diode Controller via rear-loading module bays, providing essential current sourcing and modulation capabilities for laser diode test, characterization, and system integration applications.

Technical Specifications Channels: 4 independent current source channels Module Interface: Rear-loading bay for LDC-3900 mainframe integration Modulation: 400 mV/A modulation signal capability; modulation input impedance 10 kΩ Laser Diode Connections: 9-pin D-connector per channel (rear panel) Electrical Isolation: Each module bay is fully isolated (electrically floating)

from all other modules, preventing ground loops Physical Dimensions: 10 × 8 × 8 in; Weight: 5 lbs

Key Features Independent current control for each of the four channels Full electrical isolation between channels eliminates ground-loop-related laser damage Integration with LDC-3900 mainframe supports GPIB/IEEE-488.2 for remote programming and automated control Rear-panel laser diode connections keep system wiring clean and compact Modulation input accommodates AC signal overlay on DC bias current

Compatibility & Integration The CSM-39440 is designed exclusively for the ILX Lightwave LDC-3900 Modular Laser Diode Controller. The host LDC-3900 mainframe provides power supply and GPIB communication interface, enabling remote operation and readout via standard IEEE-488.2 commands. Supply voltage stability should not exceed ±10% nominal fluctuation.

CSM39440 Characteristics / Specifications

PARAMETER	VALUE
Base Model	ILX LCM-39440
Laser Output Current Range	0 to 2000 mA
Laser Setpoint Resolution	100 uA
Laser Setpoint Accuracy	plus or minus 0.1 percent of FS
Laser Compliance Voltage	5 V
Temperature Coefficient	100 ppm/C
Short Term Stability 1 hour	25 ppm
Long Term Stability 24 hours	50 ppm
Noise And Ripple Unfiltered	less than 10 uA rms
Noise And Ripple With Model 320 Filter	less than 2 uA rms
Drive Current Limit Range	0 to 2000 mA
Drive Current Limit Accuracy	plus or minus 20 mA
Photodiode Feedback Range	20 to 5000 uA
Display Output Current Range	0 to 2000.0 mA
Temperature Control Range	minus 99.9 C to 99.9 C
TEC Maximum Output Power	8 W
TEC Short Circuit Output Current	2 A
TEC Compliance Voltage	greater than 4 V DC
Thermistor Setpoint Accuracy Neg20 To Pos20 C	plus or minus 0.2 C
Current Source Connector	9-pin D-sub
Alias Of	ilx-lcm-39440
Host Mainframe	LDC-3900
Series Family	ILX LDC-3900 modules
Maximum output power	8 W

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

specifications provide a 0 to 2000 mA laser current source with 5 V compliance and an 8 W bipolar TEC controller for the LDC-3900 mainframe.

Applications

Same as LCM-39440 higher-current laser diode drive with integrated temperature control in LDC-3900 multi-bay systems where paperwork uses a CSM-39440 label.

Key Features

- Service-free modularity with on-module calibration storage
- Closed-case calibration
- High-stability low-noise 2 A class current source plus independent TEC
- Photodiode feedback control mode
- Isolated laser and TEC sections

Technical Specifications

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Host Mainframe	LDC-3900
Series Family	ILX LDC-3900 modules

Notes

Alias of ilx-lcm-39440 for inventory labels that print CSM-39440. Shared numeric table from ILX LCM-39440 user manual; confirm faceplate module designation.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.