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Data Sheet

August 14, 2026

ILX LIGHTWAVE

ILX Lightwave CSM-39437: 4-CH Laser Diode Current Source Module

The ILX Lightwave CSM-39437 is a 4-channel laser diode current source module designed for precision control and characterization of laser diodes. It provides independent current control for each channel, ensuring stable and accurate operation. Ideal for demanding laser diode applications.



MODEL

**ILX Lightwave
CSM-39437**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

CSM-39437

LISTING

<https://aumictechlabs.com/products/csm-39437-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The ILX Lightwave CSM-39437 is a 4-channel laser diode current source module engineered for integration into the LDC-3900 Modular Laser Diode Controller mainframe. This dual-function module operates as both a laser diode current source and Temperature Controlled (TEC) controller, delivering independent current sourcing across four channels with full electrical isolation to eliminate ground loops. Each channel functions independently, supporting flexible configuration for laser diode control and thermal management in multi-channel applications. Technical Specifications Current Source Performance Maximum LD current output: 8 A per channel (current source mode) LD current output (combination mode): 2 A per channel Current resolution: 0.1 mA Current accuracy: $\pm 0.1\%$ of Full Scale Current stability (1-hour): 20 ppm of FS

Current stability (24-hour): 40 ppm of FS Output noise/ripple: <20 μ A TEC Controller Performance
Maximum TEC power support: 32 W (standalone mode) TEC output (combination mode): 12 W
Operating Modes Constant Current mode Constant Power mode External modulation: 0–50 kHz
(high bandwidth), 0–2 kHz (low bandwidth) Key Features Four independent, fully isolated
channels prevent laser-damaging ground loops Flexible current sourcing up to 8 A per channel
Combination mode allows simultaneous laser diode and TEC control from single module Precision
stability across extended timeframes High and low bandwidth modulation support Compatibility &
Integration The CSM-39437 is designed exclusively for the LDC-3900 Modular Laser Diode
Controller mainframe. It is a legacy product no longer manufactured or supported; pre-owned
units may be available through third-party suppliers.

CSM39437 Characteristics / Specifications

PARAMETER	VALUE
Drive Current Range	0 to 1000 mA (1 A)
Laser Compliance Voltage	6 V
Display Output Current Resolution	0.01 mA
Temperature Control Range	minus 99.9 C to 99.9 C
TEC Maximum Output Power	12 W
Modulation Capability	Analog modulation to 200 kHz class
Photodiode Feedback Mode	yes
Constant Current Mode	yes
Constant Power Mode	yes
Mainframe	LDC-3900 modular controller
Bay Compatibility	Any of four rear bays
Laser Connector	9-pin D-sub
TEC Connector	15-pin D-sub
Isolation Class	Module isolated from other modules and earth ground
Calibration Storage	On module
Closed Case Calibration	yes
Save Recall Compatibility	LDC-3900 front panel
Intended Current Class	Medium-high current laser diodes to 1 A
TEC Function	Bipolar temperature control
Form Factor	Plug-in combination module
Manufacturer	ILX Lightwave / Newport lineage
Family Peers	LCM-39420 LCM-39425 LCM-39440 class
Modulation Benefit	Higher bandwidth than LCM-39425 (no mod)
Setpoint Control	Front panel and GPIB via mainframe
Interlock	Laser and TEC interlocks per LDC-3900 practice

PARAMETER	VALUE
Bandwidth	than LCM-39425 (no mod)
Maximum output power	12 W

CSM39437 Specifications

PARAMETER	VALUE
Key Features	1 A laser current with 12 W TEC
Analog modulation input	Photodiode feedback control mode
Technical Specifications	Drive Current Range: 0 to 1000 mA (1 A)

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	
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Notes

Current, compliance, TEC power, connectors, and 200 kHz modulation from ILX LCM-39437 product listings and LDC-3900 family module charts. Prefer the LCM-39437 user manual for full noise/accuracy tables.

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.