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Data Sheet

August 2, 2026

ILX LIGHTWAVE

ILX Lightwave LDC-3916338 Laser Diode Driver Module

ILX Lightwave LDC-3916338 Laser Diode Driver Module The LDC3916338 provides a single-channel 3.0 A laser diode current source module designed for installation in ILX Lightwave LDC-3908, LDC-3916, or LDC-3926 mainframes. It delivers constant-current and constant-power modes with hardware current limits, contact bounce protection, four-wire forward voltage measurement, and slow-start output sequencing. Single-channel laser diode drive up to 3.0 A in modular ILX mainframe systems; automated LD test via GPIB through the mainframe; precision current sourcing with optical power feedback; R&D and production characterization of laser diodes and optical modules. The LDC3916338 provides a single-channel 3.0 A laser diode current source module designed for installation in ILX Lightwave LDC-3908, LDC-3916, or LDC-3926 mainframes. It delivers constant-current and constant-power modes with hardware current limits, contact bounce protection, four-wire forward voltage measurement, and slow-start output sequencing. Single-channel laser diode drive up to 3.0 A in modular ILX mainframe systems; automated LD test via GPIB through the mainframe; precision current sourcing with optical power feedback; R&D and production characterization of laser diodes and optical modules.



MODEL

**ILX Lightwave
LDC-3916338**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

LDC-3916338

LISTING

<https://aumictechlabs.com/products/lcd-391638-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The ILX Lightwave LDC-3916338 is a precision laser diode driver module that delivers stable, accurate current sourcing for laser diodes in research, development, and manufacturing environments. This modular component integrates with ILX Lightwave LDC-3908 and LDC-3916 mainframe controllers to provide demanding laser control with advanced protection and measurement capabilities.

Technical Specifications

Laser Current Output Output current range: 0–3000 mA (0–3 A) Setpoint resolution: 80 μ A Setpoint accuracy: $\pm 0.1\%$ of full scale Compliance voltage: 4.5 V (adjustable limit) 24-hour stability: 75 ppm FS 1-hour stability: 50 ppm FS

Laser Current Measurement Range: 0–3000 mA Resolution: 0.01 mA

Modulation Performance External modulation bandwidth (high): 0.6 MHz External modulation bandwidth (low): 30 kHz Large-signal frequency response (3 dB): ≥ 600 kHz

Environmental Operating temperature: 0°C to 40°C Storage temperature: –40°C to +70°C Humidity: 20–85%, non-condensing

Key Features Adjustable compliance voltage limiting Intermittent contact protection Slow-start and slow turn-on control Shorting circuit protection 4-wire voltage measurement for precise forward voltage characterization Current limit independent of device voltage drop

Interfaces & Control Remote operation via GPIB/IEEE-488 (24-pin) or RS-232 serial (9-pin D-sub). Power requirements: 50–60 Hz, selectable 120 V / 220 V / 240 V (+6%, –10%).

Compatibility & Integration Directly compatible with LDC-3908 and LDC-3916 mainframe controllers. Typical LDC-3916 system dimensions: 133 mm $\times$ 482 mm $\times$ 653 mm; weight approximately 41 kg with modules installed.

Features & description

From manufacturer datasheet

Features

- Single-channel 3.0 A laser diode current source module
- Compliance voltage approximately 4.5 V
- Constant current (CC) and constant power (CP) modes
- Hardware current limits for laser protection
- Contact bounce protection
- Four-wire forward voltage (Vf) measurement
- Slow-start output sequencing
- Output shorting for safe LD connection/disconnection
- GPIB remote control via mainframe

LDC3916338 Characteristics / Specifications

PARAMETER	VALUE
Model	LDC-3916338 (3916338)
Manufacturer	ILX Lightwave
Instrument Type	Laser Diode Current Source Module
Compatible Mainframes	LDC-3908, LDC-3916, LDC-3926
Output Current	3.0 A maximum
Compliance Voltage	Approximately 4.5 V
Operating Modes	Constant current (CC), constant power (CP)
Current Limits	Hardware programmable limits
Protection	Contact bounce protection, slow start, output shorting
Vf Measurement	Four-wire forward voltage
Remote Interface	GPIB via mainframe
Alias	LDC3916338 / 3916338 Standard Operating Conditions Install module with mainframe power off. Set current limits before enabling output. Use appropriate laser connector and verify polarity before applying current. Allow mainframe warm-up per ILX guidance for stable current output.

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

Specifications

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Model	LDC-3916338 (3916338)
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Instrument Type	Laser Diode Current Source Module
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Vf Measurement	Four-wire forward voltage
Remote Interface	GPIB via mainframe
Alias	LDC3916338 / 3916338

Standard Operating Conditions

Install module with mainframe power off. Set current limits before enabling output. Use appropriate laser connector and verify polarity before applying current. Allow mainframe warm-up per ILX guidance for stable current output.

Operational Notes

LDC-3916338 is a plug-in module—it requires a compatible LDC-3908, LDC-3916, or LDC-3926 mainframe for operation. Confirm mainframe slot availability and GPIB addressing before automated test integration. Alias LDC3916338 / 3916338.

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.