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Data Sheet

August 13, 2026

ILX LIGHTWAVE

ILX Lightwave LDC-3916334 Laser Diode Driver Module

Key Features - Dual 1 A channels (versus dual 500 mA 3916332 and single 3 A 3916338) - Modes llbw, lhbw, P, lpd - Selectable zero or 5 V photodiode reverse bias - Four-wire forward voltage at ± 2 mV display accuracy - Each source must be programmed separately before enable Technical Specifications Model: LDC-3916334 (3916334) Manufacturer: ILX Lightwave (Newport / MKS) Instrument Type: Dual laser diode current source module Alias: LDC3916334; 3916334 Compatible mainframes: LDC-3908, LDC-3916, LDC-3926 Channels: 2 independent Output current range: 0 to 1000 mA per channel Setpoint resolution: 20 μ A Setpoint accuracy: ± 0 .



MODEL

**ILX Lightwave
LDC-3916334**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

LDC-3916334

LISTING

<https://aumictechlabs.com/products/lhc-3916334-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The ILX Lightwave LDC-3916334 is a dual laser diode current source module engineered for precision control of laser diodes within modular mainframe systems. This insertable module delivers two independent, isolated current sources rated to 1 A per channel, providing stable, low-noise output with multiple integrated protection mechanisms. The LDC-3916334 supports constant current operation and analog modulation for laser dithering, making it suitable for

demanding optical and photonics applications requiring high current stability and laser safety compliance. Technical Specifications Module Type: Dual Laser Diode Current Source Channels: 2 independent, isolated current sources Maximum Output Current: 1 A per channel Output Stability: High stability, low-noise current delivery Compliance Voltage: Adjustable limit Operation Mode: Constant Current Modulation Capability: Analog modulation for laser current dithering Operating Temperature: 0°C to 40°C Storage Temperature: -40°C to +70°C Humidity: 20% to 85% non-condensing Altitude Rating: Maximum 3000 m Mains Supply Tolerance: $\pm 10\%$ of nominal voltage Pollution Degree: II Installation Category: II (Overvoltage) Key Features Fully redundant hardware current limits on each channel Intermittent contact protection and slow turn-on circuits Shorting circuits for output safety Independent current limiting and adjustable laser voltage limits Isolated power supplies per channel GPIB/IEEE-488 and RS-232 remote control interfaces Keyswitch and interlock safety controls with output delay Compliance with 21 CFR 1040.10 laser safety standards Compatibility & Integration The LDC-3916334 inserts into the ILX Lightwave LDC-3916 16-channel and LDC-3908 8-channel mainframes. Modules are fully interchangeable within the LDC-3916 series, allowing flexible system configuration. The mainframe assembly operates continuously in 3U rack-mountable form factor.

Features & description

From manufacturer datasheet

Features

- Dual 1 A channels (versus dual 500 mA 3916332 and single 3 A 3916338) • Modes Ilbw, lhbw, P, lpd • Selectable zero or 5 V photodiode reverse bias • Four-wire forward voltage at ± 2 mV display accuracy
- Each source must be programmed separately before enable

LDC3916334 Characteristics / Specifications

PARAMETER	VALUE
Model	LDC-3916334 (3916334)
Manufacturer	ILX Lightwave (Newport / MKS)
Instrument Type	Dual laser diode current source module
Alias	LDC3916334; 3916334
Compatible mainframes	LDC-3908, LDC-3916, LDC-3926
Channels	2 independent
Output current range	0 to 1000 mA per channel
Setpoint resolution	20 uA
Setpoint accuracy	±0.1% of full scale
Compliance voltage	6 V maximum (adjustable voltage limit)
Temperature coefficient	50 ppm perCor less
Short term stability	20 ppm or less (1 h, half scale)
Long term stability	50 ppm or less (24 h, half scale)
Noise high BW	less than 12 uA rms
Noise low BW	less than 8 uA rms
Operational transients	less than 3 mA
EFT surge	less than 5 mA / less than 10 mA (1 kV)
Current limit range	0 to 1000 mA
Current limit resolution	0.4 mA
Current limit accuracy	±1.4 mA
Voltage limit range	0 to 6.0 V
Voltage limit resolution	0.2 V
PD type	differential 10 ohm; zero bias or 5 V reverse bias
PD current range	0 to 5000 uA
PD output stability	±0.01%

PARAMETER	VALUE
PD setpoint accuracy	±0.1% of FS
Modulation input	0 to 10 V, 50 ohm
Transfer function	100 mA perVHigh BW small signal: DC to 1.0 MHz
High BW large signal	DC to 1.0 MHz
Low BW modulation	DC to 30 kHz
Display current range	0 to 1000.0 mA
Display current resolution	0.01 mA
Display current accuracy	±0.05% of FS at 25 C
Display PD range	0 to 5000 uA
Display PD resolution	0.1 uA
Display PD accuracy	±2 uA at 25 C
PD responsivity range	0.00 to 1000.00 uA/mW
PD responsivity resolution	0.01 uA/mW
Optical power range	0.00 to 500.00 mW
Optical power resolution	100 uW
Forward voltage range	0.00 to 6.0 V
Forward voltage resolution	1 mV
Forward voltage accuracy	±2 mV
Connectors	two 9-pin D-sub (LAS1 top, LAS2 bottom)
Spec condition	1 hour warm-up in LDC-3916 or LDC-3908

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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Optical power resolution	100 uW
Forward voltage range	0.00 to 6.0 V
Forward voltage resolution	1 mV
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Spec condition	1 hour warm-up in LDC-3916 or LDC-3908

Notes

Specs from ILX Lightwave LDC-3916330 Series User Manual, 3916334 Dual 1 A column. Values are for LDC-3916/3908; see LDC-3926 brochure when installed in that mainframe. Do not apply 3916332 (dual 500 mA, 50 mA/V) or 3916338 (single 3 A, 4.5 V compliance) rows.

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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30-day returns
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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.