

**Aumictech**

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Data Sheet

August 13, 2026

ILX LIGHTWAVE

ILX Lightwave LDC-3916332 Laser Diode Driver Module

Key Features - Two fully independent 500 mA sources in one slot (versus single 3 A 3916338)
- Modes llbw, lhbw, P, lpd - Selectable zero or 5 V photodiode reverse bias - Output shorting, slow-start, and intermittent-contact protection via mainframe - Each source must be programmed separately before enable Technical Specifications Model: LDC-3916332 (3916332) Manufacturer: ILX Lightwave (Newport / MKS) Instrument Type: Dual laser diode current source module Alias: LDC3916332; 3916332 Compatible mainframes: LDC-3908, LDC-3916, LDC-3926 Channels: 2 independent Output current range: 0 to 500 mA per channel Setpoint resolution: 10 uA Setpoint accuracy: ± 0 .



MODEL

**ILX Lightwave
LDC-3916332**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

LDC-3916332

LISTING

<https://aumictechlabs.com/products/lcd-3916332-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The ILX Lightwave LDC-3916332 is a dual laser diode current source module delivering two independent, isolated outputs rated to 500 mA per channel. Built for precision laser control in research, development, and production testing, It has low-noise current sourcing with $\pm 0.1\%$ accuracy and 0.01 mA resolution. The module integrates proven laser protection - intermittent contact detection, adjustable compliance voltage limiting, slow turn-on circuits, transient

suppression, and redundant hardware current limits - to extend diode lifetime and ensure safe operation. Dual operational modes (Constant Current and Constant Power) support diverse application requirements. Integrated 4-wire voltage sensing measures forward voltage to ± 7 mV, while photodiode current measurement spans 0–5000 μA at 0.1 μA resolution. External modulation bandwidth reaches 1 MHz (high) and 30 kHz (low). Output stability holds to 20 ppm FS over 1 hour and 50 ppm FS over 24 hours, with 50 ppm/ $^{\circ}\text{C}$ temperature coefficient. Compliance voltage adjusts typically to 6 V maximum. Safety interlocks and keyswitch control meet 21 CFR 1040.10 requirements. The module integrates with ILX Lightwave LDC-3908 and LDC-3916 mainframe controllers via IEEE-488 GPIB or RS-232 serial interfaces.

Features & description

From manufacturer datasheet

Features

- Two fully independent 500 mA sources in one slot (versus single 3 A 3916338)
- Modes llbw, lhbw, P, lpd
- Selectable zero or 5 V photodiode reverse bias
- Output shorting, slow-start, and intermittent-contact protection via mainframe
- Each source must be programmed separately before enable

LDC3916332 Characteristics / Specifications

PARAMETER	VALUE
Model	LDC-3916332 (3916332)
Manufacturer	ILX Lightwave (Newport / MKS)
Instrument Type	Dual laser diode current source module
Alias	LDC3916332; 3916332
Compatible mainframes	LDC-3908, LDC-3916, LDC-3926
Channels	2 independent
Output current range	0 to 500 mA per channel
Setpoint resolution	10 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 10 uA rms
Noise low BW	less than 5 uA rms
Operational transients	less than 3 mA
EFT surge	less than 4 mA / less than 8 mA (1 kV)
Current limit range	0 to 500 mA
Current limit resolution	0.2 mA
Current limit accuracy	±0.7 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	50 mA perVHigh BW small signal: DC to 1.2 MHz
High BW large signal	DC to 1.0 MHz
Low BW modulation	DC to 30 kHz
Display current range	0 to 500.00 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, 3916332 Dual 500 mA column. Values are for LDC-3916/3908; see LDC-3926 brochure when installed in that mainframe. Do not apply 3916334 (dual 1 A) or 3916338 (single 3 A) current/noise/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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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.