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Data Sheet

August 13, 2026

ILX LIGHTWAVE

ILX Lightwave LDC-3916338 Laser Module

Key Features - Single 3 A channel (versus dual 500 mA 3916332 / dual 1 A 3916334) - Modes: llbw, lhbw, P, lpd - Selectable zero or 5 V photodiode reverse bias - Independent current and voltage limits - Analog modulation input (50 ohm terminated in the mainframe) - Output shorting and slow-start laser protection via mainframe Technical Specifications Model: LDC-3916338 (3916338) Manufacturer: ILX Lightwave (Newport / MKS) Instrument Type: Laser diode current source module Alias: LDC3916338; 3916338 Compatible mainframes: LDC-3908, LDC-3916, LDC-3926 Channels: 1 Output current range: 0 to 3000 mA Setpoint resolution: 80 uA Setpoint accuracy: $\pm 0.1\%$ of full scale (0.15% above 2.5 A after 1 hour warm-up) Compliance voltage: 4.



MODEL

**ILX Lightwave
LDC3916338**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

LDC3916338

LISTING

<https://aumictechlabs.com/products/lcd3916338-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The ILX Lightwave LDC-3916338 is a laser diode controller that delivers exceptional precision and stability. This instrument offers precise control of laser diode current and temperature. It is engineered to meet the rigorous demands of laser diode characterization, testing, and control in various scientific and industrial settings.

Features & description

From manufacturer datasheet

Features

- Single 3 A channel (versus dual 500 mA 3916332 / dual 1 A 3916334) • Modes: llbw, lhbw, P, lpd • Selectable zero or 5 V photodiode reverse bias • Independent current and voltage limits • Analog modulation input (50 ohm terminated in the mainframe) • Output shorting and slow-start laser protection via mainframe

LDC3916338 Characteristics / Specifications

PARAMETER	VALUE
Model	LDC-3916338 (3916338)
Manufacturer	ILX Lightwave (Newport / MKS)
Instrument Type	Laser diode current source module
Alias	LDC3916338; 3916338
Compatible mainframes	LDC-3908, LDC-3916, LDC-3926
Channels	1
Output current range	0 to 3000 mA
Setpoint resolution	80 uA
Setpoint accuracy	±0.1% of full scale (0.15% above 2.5 A after 1 hour warm-up)
Compliance voltage	4.5 V (adjustable voltage limit)
Temperature coefficient	100 ppm perCor less
Short term stability	50 ppm or less (1 h, half scale)
Long term stability	70 ppm or less (24 h, half scale)
Noise high BW	less than 36 uA rms
Noise low BW	less than 24 uA rms
Operational transients	less than 5 mA
EFT surge transients	less than 5 mA / less than 10 mA (1 kV)
Current limit range	0 to 3000 mA
Current limit resolution	1.025 mA
Current limit accuracy	±9 mA
Voltage limit range	0 to 7.5 V
Voltage limit resolution	0.2 V
Photodiode type	differential 10 ohm input; zero bias or 5 V reverse bias
PD current range	0 to 5000 uA
PD output stability	±0.01% (30 min)

PARAMETER	VALUE
PD setpoint accuracy	±0.1% of FS
Modulation input	0 to 8 V, 50 ohm
Transfer function	375 mA per V +10%
High BW small signal	DC to 0.6 MHz
High BW large signal	DC to 0.6 MHz
Low BW modulation	DC to 30 kHz
Display current range	0 to 3000.0 mA
Display current resolution	0.01 mA
Display current accuracy	±0.07% 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 5000.00 mW
Optical power resolution	100 uW
Forward voltage range	0.00 to 7.5 V
Forward voltage resolution	10 mV (1 mV GPIB)
Forward voltage accuracy	±7 mV (+2 mV GPIB); four-wire
Firmware class	v1.06 or greater
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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PARAMETER	VALUE
Model	LDC-3916338 (3916338)
Manufacturer	ILX Lightwave (Newport / MKS)
Instrument Type	Laser diode current source module
Alias	LDC3916338; 3916338
Compatible mainframes	LDC-3908, LDC-3916, LDC-3926
Channels	1
Output current range	0 to 3000 mA
Setpoint resolution	80 uA
Setpoint accuracy	±0.1% of full scale (0.15% above 2.5 A after 1 hour warm-up)
Compliance voltage	4.5 V (adjustable voltage limit)
Temperature coefficient	100 ppm perCor less
Short term stability	50 ppm or less (1 h, half scale)
Long term stability	70 ppm or less (24 h, half scale)
Noise high BW	less than 36 uA rms
Noise low BW	less than 24 uA rms
Operational transients	less than 5 mA
EFT surge transients	less than 5 mA / less than 10 mA (1 kV)
Current limit range	0 to 3000 mA
Current limit resolution	1.025 mA
Current limit accuracy	±9 mA
Voltage limit range	0 to 7.5 V
Voltage limit resolution	0.2 V
Photodiode type	differential 10 ohm input; zero bias or 5 V reverse bias
PD current range	0 to 5000 uA
PD output stability	±0.01% (30 min)
PD setpoint accuracy	±0.1% of FS

PARAMETER	VALUE
Modulation input	0 to 8 V, 50 ohm
Transfer function	375 mA per V +10%
High BW small signal	DC to 0.6 MHz
High BW large signal	DC to 0.6 MHz
Low BW modulation	DC to 30 kHz
Display current range	0 to 3000.0 mA
Display current resolution	0.01 mA
Display current accuracy	±0.07% 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 5000.00 mW
Optical power resolution	100 uW
Forward voltage range	0.00 to 7.5 V
Forward voltage resolution	10 mV (1 mV GPIB)
Forward voltage accuracy	±7 mV (+2 mV GPIB); four-wire
Firmware class	v1.06 or greater
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, 3916334 dual 1 A, 3916338 single 3 A). Values are for LDC-3916/3908; see LDC-3926 brochure when installed in that mainframe. Set current limit before enabling output. Overwrites the previous thin 3916338 file.

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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NIST-traceable calibration · SAM registered ·
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.