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Data Sheet

August 2, 2026

ILX LIGHTWAVE

ILX Lightwave FOA-8100 FIBER AMPLIFIER CONTROLLER

ILX Lightwave FOA-8100 FIBER AMPLIFIER CONTROLLER The ILX Lightwave FOA8100 provides integrated control and monitoring of pump laser diode current and temperature in single- or double-pump EDFA modules, with optional GPIB automation for amplifier production and R&D. EDFA module development and burn-in with regulated pump diode drive; production test of erbium-doped fiber amplifiers requiring coordinated current and temperature servos; automated characterization of pump power, output power, and gain when paired with compatible EDFA hardware; LabVIEW-based test stands with optional IEEE-488.2 GPIB. The ILX Lightwave FOA8100 provides integrated control and monitoring of pump laser diode current and temperature in single- or double-pump EDFA modules, with optional GPIB automation for amplifier production and R&D. EDFA module development and burn-in with regulated pump diode drive; production test of erbium-doped fiber amplifiers requiring coordinated current and temperature servos; automated characterization of pump power, output power, and gain when paired with compatible EDFA hardware; LabVIEW-based test stands with optional IEEE-488.2 GPIB.



MODEL

**ILX Lightwave
FOA-8100**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

FOA-8100

LISTING

<https://aumictechlabs.com/products/foa-8100-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The ILX Lightwave FOA-8100 is a precision fiber amplifier controller engineered for stable, reliable operation of optical amplification systems. It delivers precise command and monitoring capabilities essential for optical communication research, fiber amplifier characterization, and integrated photonic system development. The controller accommodates two independent pump sources, provides GPIB-based remote operation, and features optical input/output connectors for direct integration into optical benches and automated test environments.

Technical Specifications
Manufacturer: ILX Lightwave (Newport) Model: FOA-8100 Product Type: Fiber Amplifier Controller
Pump Connections: Two pump source ports Control Interface: GPIB (General Purpose Interface Bus) Optical Connectors: Input and output ports Shipping Weight: Approximately 35 lbs

Key Features
Dual pump source management for multi-stage fiber amplifier configurations GPIB interface enables digital command, remote monitoring, and data acquisition across networked test systems Optical connectors support direct coupling to amplifier input/output stages Precision control architecture maintains stable amplification under varying load conditions

Typical Applications
Optical communication system research and development Fiber amplifier performance characterization and optimization High-power optical system integration and alignment Automated manufacturing test environments requiring remote amplifier control Laboratory-scale photonic device development

Compatibility & Integration
The FOA-8100 integrates into GPIB-networked instrument configurations for coordinated optical system control. Its dual pump architecture accommodates Erbium-doped fiber amplifiers (EDFA), Raman amplifiers, and other fiber gain media requiring independent pump wavelength management. The controller's optical connectors accept standard fiber connectors, enabling rapid system reconfiguration across different amplifier topologies and wavelength windows.

Features & description

From manufacturer datasheet

Features

- Controls current and temperature of pump laser diodes in EDFA modules
- Supports single-pump and double-pump EDFA configurations
- Measures pump power, output power, and gain depending on connected EDFA module
- Coordinated pump diode current and thermoelectric temperature regulation
- Front-panel control for setup and status monitoring
- Optional IEEE-488.2 GPIB remote interface
- LabVIEW drivers available for automated test integration

FOA8100 Characteristics / Specifications

PARAMETER	VALUE
Model	FOA-8100
Manufacturer	ILX Lightwave (Newport)
Instrument Type	Fiber Amplifier Controller
Alias	FOA8100
EDFA Support	Single-pump and double-pump EDFA modules
Controlled Parameters	Pump laser diode current; pump laser diode temperature
Measurement Capability	Pump power; output power; gain (EDFA module dependent)
Remote Interface	Optional IEEE-488.2 GPIB
Software	LabVIEW drivers (optional)
Control	Front-panel local operation; remote when GPIB fitted Standard Operating Conditions Connect only EDFA modules and pump diodes specified compatible with FOA-8100 cabling and limits. Configure current and temperature setpoints per ILX and EDFA module OEM guidance before enabling pump outputs. Observe laser safety and ESD precautions when handling pump diodes and fiber assemblies.

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	FOA-8100
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Standard Operating Conditions

Connect only EDFA modules and pump diodes specified compatible with FOA-8100 cabling and limits. Configure current and temperature setpoints per ILX and EDFA module OEM guidance before enabling pump outputs. Observe laser safety and ESD precautions when handling pump diodes and fiber assemblies.

Operational Notes

Specific current and temperature setpoint ranges depend on the EDFA module and pump diode type—refer to ILX FOA-8100 OEM tables rather than generic ampere or °C values from resellers. Gain and power readouts require compatible EDFA with appropriate tap monitors. Alias FOA8100 (hyphenless) appears in inventory systems.

Laser Safety

laser safety and ESD precautions when handling pump diodes and fiber assemblies. Operational Notes
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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

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788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

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