

**Aumictech**

Test & measurement · bought, sold, repaired, calibrated

Data Sheet

July 30, 2026

THORLABS

ThorLabs YDFA100P Ytterbium-Doped Fiber Amplifier, Polarization Maintaining

The ThorLabs YDFA100P is a polarization-maintaining Ytterbium-Doped Fiber Amplifier designed for amplifying optical signals in the 1030-1090 nm wavelength range. It offers high gain, high output power, and excellent beam quality, making it suitable for various applications including materials processing, scientific research, and optical communications.



MODEL

**ThorLabs
YDFA100P**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

YDFA100P

LISTING

<https://aumictechlabs.com/products/ydfa100p-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The ThorLabs YDFA100P is a core-pumped ytterbium-doped fiber amplifier delivering high gain and saturated output power across the 1030–1070 nm band. Polarization-maintaining architecture with >20 dB extinction ratio preserves signal polarization state, essential for coherent systems and precision applications. Built-in input and output isolators optimize performance in the 1040–1060 nm window. Technical Specifications Operating Wavelength Range: 1030–1070 nm (optimized 1040–1060 nm) Small Signal Gain: >28 dB @ –5 dBm input Saturated Output Power: >25 dBm @ 3 dBm input Typical Output Power: 20 dBm Noise Figure: 20 dB (slow-axis amplification) Dispersion: <0.2 ps/nm within amplifier Input Power Range: –20 dBm to –5 dBm nominal Connectors: FC/APC (2.0 mm narrow key) Key Features Three operational modes: constant

current, constant power, and constant gain Integrated optical isolators eliminate feedback and suppress oscillation Low-dispersion design <0.2 ps/nm minimizes pulse broadening in ultrafast applications Suitable as preamplifier (-20 dBm input) or booster amplifier (≥ -5 dBm input) Remote USB control with command-line interface and front-panel controls Typical Applications Femtosecond pulse amplification Ultrafast and continuous-wave fiber laser systems Telecommunications signal amplification Laser physics and precision research High-power fiber laser seeding and boosting Compatibility & Integration FC/APC connectors enable drop-in integration with standard fiber-optic systems. USB remote interface allows integration into automated test and measurement setups. RoHS compliant (Annex III exemptions 6(a) and 6(c)).

Features & description

From manufacturer datasheet · <https://aumictechlabs.com/products/ydfa100p-2/>

Technical Specifications

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Key Features

Three operational modes: constant current, constant power, and constant gain Integrated optical isolators eliminate feedback and suppress oscillation Low-dispersion design <0.2 ps/nm minimizes pulse broadening in ultrafast applications Suitable as preamplifier (–20 dBm input) or booster amplifier ($\geq$ –5 dBm input) Remote USB control with command-line interface and front-panel controls

ThorLabs YDFA100P — Repair & Calibration Service

Aumictech offers NIST-traceable calibration and repair for the ThorLabs YDFA100P. Calibration covers gain at rated input power across the specified wavelength range, noise figure at rated gain setting, output power accuracy, gain flatness across the C-band or specified wavelength range, and polarization-dependent gain (PDG) where applicable. All calibrations ship with a NIST-traceable certificate. Turnaround is typically 1–3 business days after receipt. Standard Cal Pass/fail cert + NIST sticker Cal with Data Full NIST cert with measured values Common ThorLabs YDFA100P faults: pump laser diode degradation (gain drop, reduced output power), TEC failure causing thermal drift, optical isolator degradation, power supply failure. The most common failure on any EDFA is pump laser diode degradation. Secondary faults include TEC failure causing thermal runaway, optical isolator degradation, and power supply failure. [Request Calibration](#) → [Request Repair Quote](#) →

ThorLabs YDFA100P price

This ThorLabs YDFA100P is listed at . Calibration is available separately from . Contact us for volume pricing or if you need multiple units.

ThorLabs YDFA100P calibration cost

NIST-traceable calibration for the ThorLabs YDFA100P is (standard — pass/fail certificate and calibration sticker) or (full measured data at every test point, reference standards documented, traceability chain included). Calibration for this instrument covers gain at rated input power across the specified wavelength range, noise figure at rated gain setting, output power accuracy, gain flatness across the C-band or specified wavelength range, and polarization-dependent gain (PDG) where applicable. Turnaround is 1 to 3 business days after receipt. See full calibration details →

Applications

Femtosecond pulse amplification Ultrafast and continuous-wave fiber laser systems
Telecommunications signal amplification Laser physics and precision research High-power fiber laser seeding and boosting Compatibility & Integration FC/APC connectors enable drop-in integration with standard fiber-optic systems. USB remote interface allows integration into automated test and measurement setups. RoHS compliant (Annex III exemptions 6(a) and 6(c)).

Unit notes

The Thorlabs YDFA100P is a core-pumped ytterbium-doped fiber amplifier delivering high gain and saturated output power across the 1030–1070 nm band. Polarization-maintaining architecture with >20 dB extinction ratio preserves signal polarization state, essential for coherent systems and precision applications. Built-in input and output isolators optimize performance in the 1040–1060 nm window. Technical Specifications Operating Wavelength Range: 1030–1070 nm (optimized 1040–1060 nm) Small Signal Gain: >28 dB @ –5 dBm input Saturated Output Power: >25 dBm @ 3 dBm input Typical Output Power: 20 dBm Noise Figure: 20 dB (slow-axis amplification) Dispersion: <0.2 ps/nm within amplifier Input Power Range: –20 dBm to –5 dBm nominal Connectors: FC/APC (2.0 mm narrow key) Key Features Three operational modes: constant current, constant power, and constant gain Integrated optical isolators eliminate feedback and suppress oscillation Low-dispersion design <0.2 ps/nm minimizes pulse broadening in ultrafast applications Suitable as preamplifier (–20 dBm input) or booster amplifier (≥ -5 dBm input) Remote USB control with command-line interface and front-panel controls Typical Applications Femtosecond pulse amplification Ultrafast and continuous-wave fiber laser systems Telecommunications signal amplification Laser physics and precision research High-power fiber laser seeding and boosting Compatibility & Integration FC/APC connectors enable drop-in integration with standard fiber-optic systems.

YDFA100P Specifications

PARAMETER	VALUE
Power Range (dBm)	-20 dBm to >25 dBm Wavelength Range: 1030–1070 nm

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet (<https://aumictechlabs.com/products/ydfa100p-2/>). Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

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YDFA100P Specifications

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Key Features
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Standard Cal Pass/fail cert + NIST sticker Cal with Data Full NIST cert with measured values

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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

Aumictech

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

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Technical content source: listing-fallback (OEM datasheet not found) · <https://aumictechlabs.com/products/ydfa100p-2/> · Unit photo/stock from Aumictech listing when available (off-catalog = OEM only). · Specifications subject to OEM documentation and unit condition.