

**Aumictech**

Test & measurement · bought, sold, repaired, calibrated

Data Sheet

August 12, 2026

THORLABS

Thorlabs Profile LD /TE 8052 ITC Controller Module QTY 1

The Thorlabs ITC8052 is a dual-channel controller module for laser diode and thermoelectric cooler (TEC) management within the PRO8000 series chassis. It delivers independent current and temperature regulation in a single-slot format, supporting both constant current and constant power modes for laser diodes while maintaining TEC stability below 0.001 °C. Built-in protection and flexible sensor compatibility make this module suitable for precision telecom and industrial laser applications requiring long-term reliability. Compatibility & Integration Designed exclusively for PRO8000 series chassis integration. Connection cables CAB400, CAB420-15 (separate connectors), or CAB430 (common connector) must be ordered separately. Factory recalibration service (CAL-ITC8) recommended every 24 months. Aumictech offers NIST-traceable calibration and repair for the ThorLabs 8052. All calibrations are performed to NIST-traceable standards and ship with a certificate. Turnaround is typically 1-3 business days after receipt. This ThorLabs 8052 is listed at . Calibration is available separately from . Contact us for volume pricing or if you need multiple units.



MODEL

ThorLabs 8052

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

8052

LISTING

<https://aumictechlabs.com/products/8052-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

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Technical Specifications

Laser Diode Control
Current range: 0 to ±500 mA Setting resolution: 7.5 µA Compliance voltage: > 5 V Current drift (24 hours): < 25 µA typical Operating modes: Constant Current (CC) and Constant Power (CP) Polarity support: Anode grounded and cathode grounded diode configurations

Thermoelectric Cooler Control
TEC current: ±2 A Maximum output power: 16 W Temperature control range: -12.375 to 90 °C Temperature stability: < 0.001 °C typical Supported sensors: Thermistor, IC sensors, AD590, AD592, and LM335

General Specifications
Module form factor: 1 slot Operating temperature: 0 to 40 °C Storage temperature: -40 to 70 °C Weight: 1.00 kg Dimensions: 8 × 6 × 4 in RoHS status: RoHS Exempt

Key Features
Dual independent control channels with integrated laser diode protection Excellent temperature regulation enabling long diode lifetime Configurable connector options: separate 9-pin (LD) and 15-pin (TEC) connectors, or unified 15-pin (DS15 variant) Low current drift performance supports stable optical output Multiple temperature sensor protocols for versatile thermal management

Typical Applications
Telecom laser diode systems requiring independent power and thermal control High-precision optical modules where temperature stability is critical Custom multi-channel laser configurations using PRO8000 chassis architecture

Compatibility & Integration
Designed exclusively for PRO8000 series chassis integration. Connection cables CAB400, CAB420-15 (separate connectors), or CAB430 (common connector) must be ordered separately. Factory recalibration service (CAL-ITC8) recommended every 24 months.

Features & description

From manufacturer datasheet

Technical Specifications

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ThorLabs 8052 — Repair & Calibration Service

Aumictech offers NIST-traceable calibration and repair for the ThorLabs 8052. All calibrations are performed to NIST-traceable standards and ship with a 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 [Request Calibration](#) → [Request Repair Quote](#) →

ThorLabs 8052 price

This ThorLabs 8052 is listed at . Calibration is available separately from . Contact us for volume pricing or if you need multiple units.

ThorLabs 8052 calibration cost

NIST-traceable calibration for the ThorLabs 8052 is (standard — pass/fail certificate and calibration sticker) or (full measured data at every test point, reference standards documented, traceability chain included). Turnaround is 1 to 3 business days after receipt. See full calibration details →

Applications

Telecom laser diode systems requiring independent power and thermal control High-precision optical modules where temperature stability is critical Custom multi-channel laser configurations using PRO8000 chassis architecture Compatibility & Integration Designed exclusively for PRO8000 series chassis integration. Connection cables CAB400, CAB420-15 (separate connectors), or CAB430

(common connector) must be ordered separately. Factory recalibration service (CAL-ITC8) recommended every 24 months.

Unit notes

The Thorlabs ITC8052 is a dual-channel controller module for laser diode and thermoelectric cooler (TEC) management within the PRO8000 series chassis. It delivers independent current and temperature regulation in a single-slot format, supporting both constant current and constant power modes for laser diodes while maintaining TEC stability below 0.001 °C. Built-in protection and flexible sensor compatibility make this module suitable for precision telecom and industrial laser applications requiring long-term reliability.

Technical Specifications

Laser Diode Control Current range: 0 to ±500 mA Setting resolution: 7.5 µA Compliance voltage: > 5 V Current drift (24 hours): < 25 µA typical

Operating modes: Constant Current (CC) and Constant Power (CP) **Polarity support:** Anode grounded and cathode grounded diode configurations

Thermoelectric Cooler Control TEC current: ±2 A Maximum output power: 16 W Temperature control range: -12.375 to 90 °C Temperature stability: < 0.001 °C typical

Supported sensors: Thermistor, IC sensors, AD590, AD592, and LM335

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Key Features Dual independent control channels with integrated laser diode protection Excellent temperature regulation enabling long diode lifetime Configurable connector options: separate 9-pin (LD) and 15-pin (TEC) connectors, or unified 15-pin (DS15 vari

8052 Specifications

PARAMETER	VALUE
Voltage / Current Range	LD: 0 to ±500 mA
TEC	±2 A

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.

The Thorlabs ITC8052 is a dual-channel controller module for laser diode and thermoelectric cooler (TEC) management within the PR08000 series chassis. It delivers independent current and temperature regulation in a single-slot format, supporting both constant current and constant power modes for laser diodes while maintaining TEC stability below 0.001 °C. Built-in protection and flexible sensor compatibility make this module suitable for precision telecom and industrial laser applications requiring long-term reliability.

Compatibility & Integration Designed exclusively for PR08000 series chassis integration. Connection cables CAB400, CAB420-15 (separate connectors), or CAB430 (common connector) must be ordered separately. Factory recalibration service (CAL-ITC8) recommended every 24 months.

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

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Applications
Telecom laser diode systems requiring independent power and thermal control High-precision optical modules where temperature stability is critical Custom multi-channel laser configurations using PR08000 chassis architecture

Compatibility & Integration Designed exclusively for PR08000 series chassis integration. Connection cables CAB400, CAB420-15 (separate connectors), or CAB430 (common connector) must be ordered separately. Factory recalibration service (CAL-ITC8) recommended every 24 months.

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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<https://aumictechlabs.com>

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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.