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Data Sheet

August 13, 2026

ILX LIGHTWAVE

ILX Lightwave FPM-8210H – Fiber Optic Power Meter

The ILX Lightwave FPM-8210H is a fiber optic power meter designed for production test environments requiring accurate optical power measurements across broad wavelength ranges. It delivers repeatable results with minimal polarization dependence and supports both connectorized and bare fiber inputs through a single port. The instrument measures power from +33 dBm down to -40 dBm (wavelengths <1000 nm) with $\pm 2.5\%$ accuracy under reference conditions and $\pm 5.0\%$ across operating conditions. Its InGaAs detector exhibits exceptional linearity (± 0.02 dB, ± 100 pW) and low polarization dependent response (± 0.001 dB typical), making it ideal for component and subsystem characterization. Aumictech offers NIST-traceable calibration and repair for the ILX Lightwave FPM-8210H. Calibration covers detector responsivity at 850, 1310, 1490, 1550, and 1625 nm, absolute power accuracy, linearity across the



MODEL

**ILX Lightwave
FPM-8210H**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

FPM-8210H

LISTING

<https://aumictechlabs.com/products/fpm-8210h-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

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Technical Specifications

Wavelength Range: 800 nm to 1650 nm Power Measurement Range: +33 dBm to -40 dBm (wavelengths >1000 nm) Measurement Units: dB, dBm, Watt Accuracy: $\pm 2.5\%$ (reference conditions), $\pm 5.0\%$ (operating conditions) Polarization Dependent Response: ± 0.001 dB typical Measurement Repeatability: ± 0.003 dB typical Linearity: ± 0.02 dB, ± 100 pW (-60 dBm to +20 dBm) Noise Level: <700 pW at 980 nm typical Detector Type: InGaAs Analog Output: 0 to 10 V, 1000 Ω impedance typical, 0 to 10 Hz bandwidth typical Operating Temperature: 0 °C to 40 °C Storage/Transport Temperature: -40 °C to 70 °C Maximum Altitude: 3000 m

Key Features

- Single input port accommodates connectorized and bare fiber measurements
- Bare fiber measurement zone: 1–5 mm from holder with minimal result variation
- GPIO/IEEE interface standard for automated test integration
- Broad wavelength coverage (800 nm to 1650 nm) across telecommunications and industrial bands
- Compatibility & Integration Compatible with ILX Lightwave BF-820 or Agilent 81000BA bare fiber holders (125 μ m fiber diameter, 250 μ m or 900 μ m buffer)
- Adapter availability for FC, SC, LC and other common fiber optic connectors
- GPIO data transfer faster than measurement sample rate

Features & description

From manufacturer datasheet

Features

- High-power FPM-8210H integrating-cavity head

Polarization Dependent Response: ± 0.002 dB typical (some literature ± 0.001 dB)

Measurement Repeatability: ± 0.003 dB typical Sensor: InGaAs (integrating cavity) Linearity Class: about ± 0.02 dB, ± 100 pW (FPM-8210 series midrange) Analog Output: 0 to 10 V; bandwidth typically 0 to 10 Hz; about 1 kohm Remote Interface: GPIB Bare Fiber Zone: about 1-5 mm fiber extension positioning Adapters: CA-series ferrule adapters; CA-120 bare fiber Alias: FPM-8210H; ILX FPM-8210H Successor: FPM-8220 with FMH-8700 heads Notes Specs from ILX FPM-8210 series literature and FPM-8210H reseller power-range listings. Confirm exact calibrated wavelength set and maximum safe input on the unit label before high-power use.

FPM8210H Characteristics / Specifications

PARAMETER	VALUE
Model	FPM-8210H
Manufacturer	ILX Lightwave / Newport
Instrument Type	Benchtop fiber optic power meter (high power)
Wavelength Range	about 850 to 1650 nm (published listings 850-1650 / 800-1650 nm class)
Power Range Class	about -50 to +30 dBm (reseller listings); pump wavelengths toward about +33 dBm in series literature
Damage Threshold Class	greater than +40 dBm class (series literature)
Accuracy Reference Conditions Class	about +/-2.5%; operating about +/-5.0% (FPM-8210 series)
Polarization Dependent Response	+/-0.002 dB typical (some literature +/-0.001 dB)
Measurement Repeatability	+/-0.003 dB typical
Sensor	InGaAs (integrating cavity)
Linearity Class	about +/-0.02 dB, +/-100 pW (FPM-8210 series midrange)
Analog Output	0 to 10 V; bandwidth typically 0 to 10 Hz; about 1 kohm
Remote Interface	GPIB
Bare Fiber Zone	about 1-5 mm fiber extension positioning
Adapters	CA-series ferrule adapters; CA-120 bare fiber
Alias	FPM-8210H; ILX FPM-8210H
Successor	FPM-8220 with FMH-8700 heads Notes Specs from ILX FPM-8210 series literature and FPM-8210H reseller power-range listings. Confirm exact calibrated wavelength set and maximum safe input on the unit label before high-power use.
Bandwidth	typically 0 to 10 Hz; about 1 kohm

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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Power Range Class: about -50 to +30 dBm (reseller listings); pump wavelengths toward about +33 dBm in series literature	
Related FPM-8210 Power Range: -70 to +20 dBm	
Specifications	
PARAMETER	VALUE
Damage Threshold Class	greater than +40 dBm class (series literature)
Accuracy Reference Conditions Class	about +/-2.5%; operating about +/-5.0% (FPM-8210 series)
Polarization Dependent Response	+/-0.002 dB typical (some literature +/-0.001 dB)
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PARAMETER	VALUE
Measurement Repeatability	+/-0.003 dB typical
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Notes

Specs from ILX FPM-8210 series literature and FPM-8210H reseller power-range listings. Confirm exact calibrated wavelength set and maximum safe input on the unit label before high-power use.

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.