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Data Sheet

August 1, 2026

ILX LIGHTWAVE

ILX FPM-8220 Fiber Optic Power Meter

ILX Lightwave Optical Power Meters. Accuracy: Better than $\pm 2.5\%$ (at $21^\circ\text{C} \pm 3^\circ\text{C}$ reference), Bandwidth: 100 Hz, Sensitivity: Typical Applications.



MODEL

**ILX Lightwave
FPM-8220**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

FPM-8220

LISTING

<https://aumictechlabs.com/products/fpm-8220-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The ILX Lightwave FPM-8220 is a fiber optic power meter engineered for precision optical power measurements across R&D and manufacturing environments. It delivers high accuracy and repeatability with exceptionally low polarization dependence, making it suitable for telecommunications and component testing applications. The instrument accepts interchangeable measurement heads, enabling flexible measurement ranges and wavelength coverage. A large 7-segment LED display with integrated dot matrix provides real-time power readouts in dBm, Watts, or bar graph format. Integrated data logging stores instrument configurations directly from the front panel, while USB 2.0 and IEEE 488.2 GPIB interfaces enable automated test sequences and remote operation. LabVIEW drivers are available for integration into custom measurement systems. The FPM-8220 maintains backward compatibility with remote commands from the legacy FPM-8210 model. Technical Specifications Wavelength Range: 800 nm to 1650 nm Power Measurement Range: Depends on selected measurement head (FMH-8705: -85 dBm to +1.5 dBm; FMH-8715: -70 dBm to +20 dBm; FMH-87107: up to +30 dBm) Maximum Input Power: >+40 dBm

(damage threshold; limit exposure to ≤ 1 minute) Accuracy: Better than $\pm 2.5\%$ (at $21^{\circ}\text{C} \pm 3^{\circ}\text{C}$ reference) Repeatability: ± 0.01 dB Polarization Dependent Response: $< \pm 0.006$ dB Linearity: ± 0.02 dB (integrating sphere heads, auto-range mode) Measurement Bandwidth: 100 Hz Display: 7-segment LED with dot matrix; dBm, Watts, and bar graph modes Power Input: 90–126 VAC (220 V version available) Operating Temperature: 0°C to 40°C Weight: 3.25 kg

Key Features

Interchangeable measurement heads for extended measurement range flexibility InGaAs detector technology across all standard measurement heads Firmware user upgradable for enhanced functionality Low polarization-dependent response ensures accurate results independent of fiber orientation Integrating sphere technology on FMH-8715 and FMH-87107 heads reduces angular sensitivity

Typical Applications Fiber optic component and system testing in manufacturing R&D characterization of optical sources and components Telecommunications network and equipment validation

Compatibility & Integration Remote interfaces: USB 2.0, IEEE 488.2 GPIB LabVIEW driver support Measurement heads sold separately

Features & description

From manufacturer datasheet

Features

- Interchangeable FMH-8700 series measurement heads
- Wavelength coverage 800 to 1650 nm (with compatible heads)
- Power measurement from about -85 dBm to +30 dBm depending on head
- Accuracy about +/-2.5%; repeatability less than +/-0.01 dB
- Polarization dependent response about +/-0.006 dB (integrating sphere heads)
- USB 2.0 and GPIB IEEE-488.2
- Analog output 0 to 10 V
- Store/recall settings; relative power bar graph for peaking
- Compatible with BF-820 bare fiber holder
- LabVIEW drivers available

FPM8220 Characteristics / Specifications

PARAMETER	VALUE
Technical Specifications	FPM-8220 Meter
Model	FPM-8220
Manufacturer	ILX Lightwave (Newport / MKS)
Instrument Type	Fiber optic power meter (head sold separately)
Compatible Heads	FMH-8705, FMH-8715, FMH-87107
Remote Interfaces	USB 2.0; GPIB IEEE-488.2
Analog Output	0 to 10 V
Input Connector	DB-26 high-density female
AC Power	90-126 VAC or 207-253 VAC, 50/60 Hz
Dimensions	330 × 216 × 90 mm (13 × 8.5 × 3.5 in)
Weight	about 3.24 kg (7.1 lb)
Operating Temperature	5 C to 45 C
Compliance	RoHS, CE Compatible Measurement Heads (800 to 1650 nm)

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	5 C to 45 C
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Compliance	RoHS, CE Compatible Measurement Heads (800 to 1650 nm)

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

PARAMETER	VALUE
Specifications	FPM-8220 Meter
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Operating Temperature	5 C to 45 C

Warm-up: 1 hour to rated specifications
Compliance: RoHS, CE

Compatible Measurement Heads (800 to 1650 nm)
FMH-8705 (detector only): -85 to +1.5 dBm; accuracy +/-3.5% +2 pW class
FMH-8715 (integrating sphere): -70 to +20 dBm; accuracy +/-2.5% +100 pW; PDR +/-0.006 dB; repeatability less than +/-0.01 dB; damage +40 dBm less than 1 min
FMH-87107 (integrating sphere): -60 to +30 dBm; accuracy +/-2.5% +1 nW; PDR +/-0.006 dB; repeatability less than +/-0.01 dB; damage +40 dBm less than 1 min

Standard Operating Conditions
Reference accuracy conditions typically include about 10 uW CW, 1 s averaging, 21 C +/-3 C. Limit +40 dBm exposure to under 1 minute to avoid thermal damage on high-power heads.

Operational Notes
Measurement head is required and usually sold separately. Confirm which FMH head is included with/haused FPM-8220. Command compatibility supports replacing FPM-8210 in many automated racks.

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.