MPS 8033

Precision Fiber Optic Source

Product Features

Temporal stability of ±0.005 dB

Provides up to 30 mW of optical power with WDM C-Band or L-Band DFB laser diodes

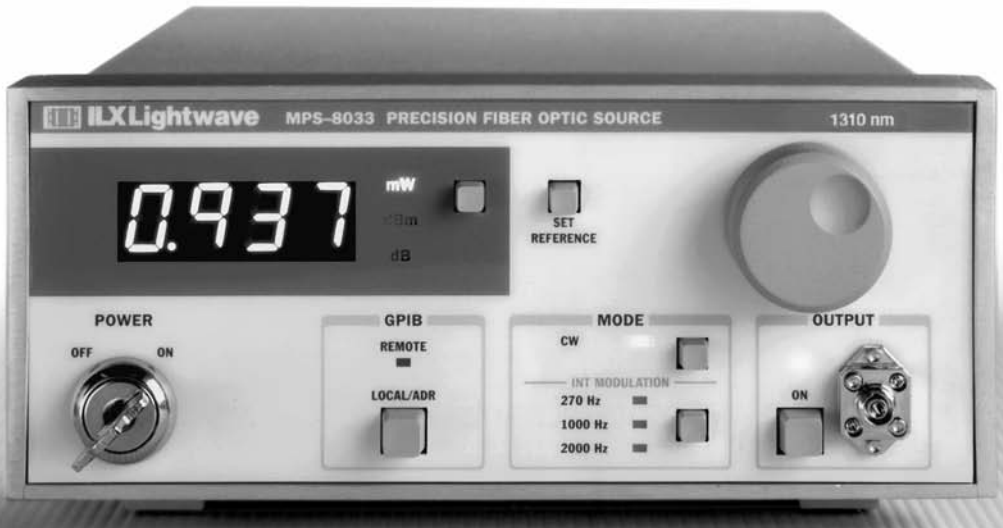
Provides up to 1 mW of optical power with 850 nm, 980 nm, or 1480 nm FP laser diodes

Easily integrated onto production test benches via GPIB interface

User-specified wavelengths available upon request

The MPS-8033 series of Fiber Optic Sources are microprocessor controlled laser diode sources, capable of providing up to 30 mW of power at user-specified wavelengths including WDM C-Band and L-Band wavelengths. Designed for component testing, power meter calibration, and general laboratory use, the MPS-8033 sources utilize proven precision laser diode temperature and current control electronics technology developed by ILX Lightwave.

Plus, each MPS-8033 comes equipped with a standard GPIB remote interface for easy incorporation into production automated test system or computer controlled laboratory test.



Precision Fiber Optic Source

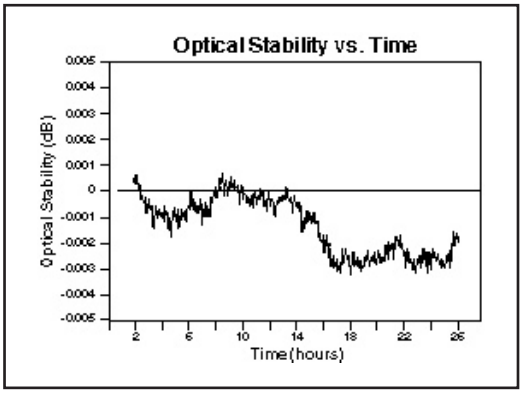
ILX Lightwave
Laser Diode Instrumentation & Test Systems

MPS 8033

Precision Fiber Optic Source

High Temporal Stability and High Output Power

The MPS-8033 offers high stability - better than ±0.005 dB over 15 minutes and ±0.03 dB over 24 hours. The MPS-8033 is also power adjustable over a 10 dB range and capable of up to 30 mW of power into a single mode fiber at WDM C-Band and L-Band wavelengths. Precise internal laser diode temperature control ensures precise wavelength with low drift.



Typical output 24-hour stability data for the MPS-8033, during which the ambient temperature varied by ± 1°C.

Operate in CW Mode or Internally Modulated Mode

The MPS-8033 series provides the user with two laser operating modes, CW and modulated. Internal modulation frequencies 270 Hz, 1 kHz and 2 kHz are selectable from the front panel and 160 Hz to 15 kHz through GPIB.

Plug and Play

The MPS-8033 is designed to get you up and running quickly. That's because we've integrated the highest quality control circuits and components to provide you with true turnkey laser power coupled into an optical fiber.

The MPS-8033 sources conveniently display output power in either milliwatts or decibels (dBm). Decibel readings also can be displayed relative to an operator-selected reference level. In addition, bright, 4 digit front panel LED's ensure that power levels will be displayed clearly.

Production Workhorse

For applications where stability and reliability are needed, ILX's precision laser diode temperature and current control electronics make the MPS-8033 Series Sources well suited for exacting production and laboratory test and measurement applications. These include active and passive component testing for high-precision IL and ORL measurements, environmental testing, power meter and detector calibration.

Automated Production or Laboratory Testing

For automated testing, the standard GPIB interface allows remote control from a host computer. In remote operating mode all front panel functions are accessible through the GPIB bus as well as increased display resolution with instrument specific commands.

Meeting Production or Laboratory Test Needs

The MPS-8033 Laser Diode Sources offers even more wavelengths to suit your production or laboratory test needs including 850, 980, and 1480 FP Laser Diode plus user selectable WDM C-Band wavelengths from 1527.98–1564.26 nm and L-Band from 1564.27–1610.06 nm.

Quality Products

With the MPS 8033, as well as with all of ILX Lightwave Products, you not only get ILX's proven laser diode control technology, but also our guarantee that our products meet or exceed the performance specification requirements.

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You get more from ILX Lightwave than just a laser source.

We have implemented computer automated workstations for most of our products and every instrument undergoes a thorough final test and calibration procedure.

Sales and Application Support

ILX employs an experienced technical sales staff to help you with your production and laboratory test and measurement application. This technical staff is backed with a wide variety of application and technical notes. Access to our staff and technical information is easy through our toll free phone number or our website at www.ilxlightwave.com.

Customer Service

ILX maintains a full-service repair and recalibration facility that process most instruments within 48 hours. We can help when you need installation support, product upgrades, instrument repair and calibration.

For demanding production environments, we offer an on-site calibration service.

International Support

Our international customers are supported by an extensive network of technically qualified distributors some who offer repair facilities and a variety of electro-optical instruments, components and systems in addition to ILX Lightwave products.

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Specifications

OUTPUT

Wavelength (nm):	Dependent on option
Wavelength Accuracy:	
Options /03 - /06:	±20 nm
WDM Options:	±0.10 nm
Output Power:*	0 dBm, 10 dBm or 13 dBm dependent on option
Power Stability(15 min.):[1, +]	±0.005 dB
Power Stability(24 hr.):[2, +]	±0.030 dB
Thermal Stability:[3]	0.2 dB
Optical Connector:	FC/APC type
Fiber Type:	SMF

MODULATION

Type:	Internal digital
Frequencies:	270 Hz, 1 kHz, 2 kHz[4] 160 Hz to 15 kHz[5]
Frequency Accuracy:	±0.1 %
Duty Cycle:	50 ±2 %
Edge Jitter	0.01%

GENERAL

Weight:	<4.7 kg (10.3 lbs)
Power, V (50–60 Hz):	90–105 105–125 210–230 220–250
Operating Temperature:	0°C–50°C
Storage Temperature:	–40°C to 70°C
Warm Up:	1 hour
Size (HxWxD):	88 mm x 212 mm x 269 mm 3.5" x 8.4" x 10.6"

NOTES

* Into a single mode fiber.
1 T = const. After warm-up period of 60 min. with output enabled
2 T = ±1°C. After warm-up period of 60 min. with output enabled
3 Over entire operating temperature range (0°C to 50°C)
4 Via front panel
5 Via GPIB interface
\+ Stability specifications not guaranteed with /00 option

Instrument driver for LabVIEW® 3.0 available at no charge upon request.
LabVIEW® is a registered trademark of National Instruments.

In keeping with our commitment to continuing improvement, ILX Lightwave reserves the right to change specifications without notice and without liability for such changes.

ORDERING INFORMATION

Precision Fiber Optic Source

MPS-8033/03	1550 nm, DFB with optical isolator
MPS-8033/04	980 nm, Fabry-Perot
MPS-8033/05	1480 nm, Fabry-Perot
MPS-8033/06	850 nm, Fabry-Perot, multi-mode, 1 mW
MPS-8033/00	Customer-specified wavelength

WDM C-Band and L-Band laser types available.
Call for details.

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Laser Diode Instrumentation & Test Systems
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Rev. 7/12/05