

ILX Lightwave MPS-8033

## Precision Fiber Optic Source, 1310nm FP



Limited Availability  
Used and in Excellent Condition

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## Product Features

50 nm Spectral Width  
Centered over C-Band

High Output Power to 20 mW,  
+13 dBm

High Power Stability, less than  
 $\pm 0.005$  dB over 15 minutes  
(typical)

Easily Integrated into production  
test benches via GPIB Interface

The MPS-8033 ASE Series of Broadband Precision Fiber Optic Sources provide highly stabilized, high power output. When used with an optical spectrum analyzer, the MPS-8033 ASE is ideal for rapid, wide-dynamic-range characterization of fiber optic amplifiers and components such as filters, WDM couplers and fiber Bragg gratings. Unlike an LED source, the MPS-8033 ASE can provide +13 dBm (20 mW) maximum output power, resulting in a better signal-to-noise ratio.

# MPS 8033 ASE Series

Broadband  
Precision Fiber  
Optic Sources



High Power Broadband Output  
with Unsurpassed Stability

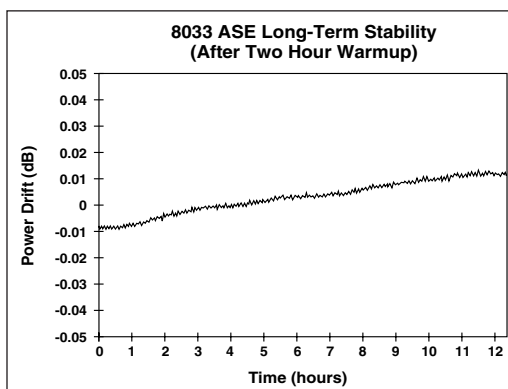
 **ILX Lightwave**  
Photonic Test & Measurement Instrumentation

# MPS 8033 ASE Series

Broadband  
Precision Fiber  
Optic Sources

## Amplified Spontaneous Emission from Erbium-Doped Fiber

The MPS-8033 ASE Series emits amplified spontaneous emission from an Erbium-doped fiber, which is pumped with a 980 nm pump laser diode. The output is optically isolated and supplied through an FC/APC output connector. The MPS-8033 ASE Series sources feature broadband output centered at 1545 nm, with a 50 nm spectral width, covering the C-Band.



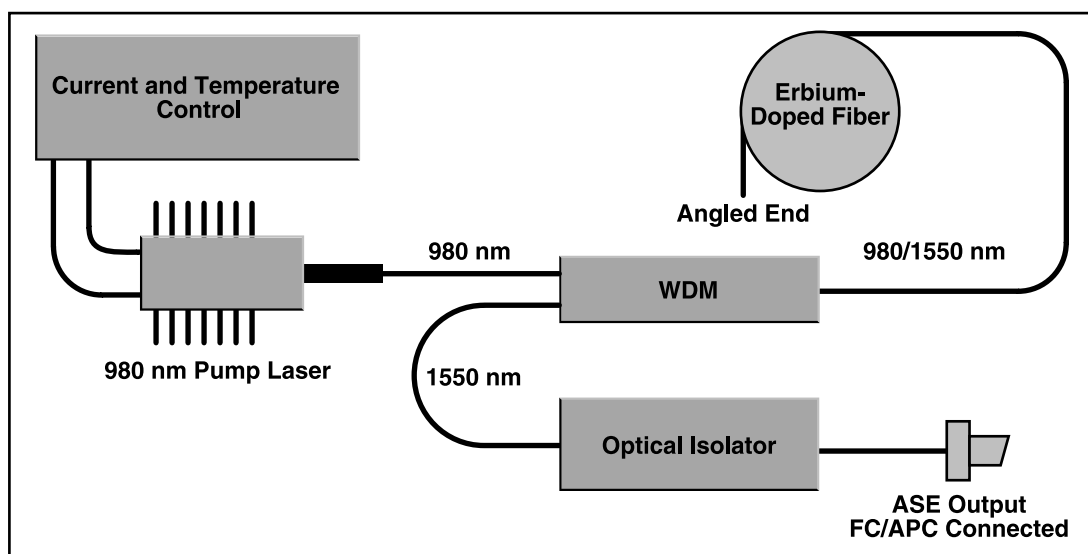
*Long-Term Stability of MPS-8033/55 1550 nm ASE Source.*

## High Stability with Proven Current and TE Control

The MPS-8033 ASE Series achieves output stability with ILX's proven laser diode current and temperature control electronics. This is especially important when making comparative measurements. The temperature of the pump laser is tightly controlled at two levels. Output power stability is typically better than  $\pm 0.03$  dB over a 12-hour period.

## Simple Front Panel Operation

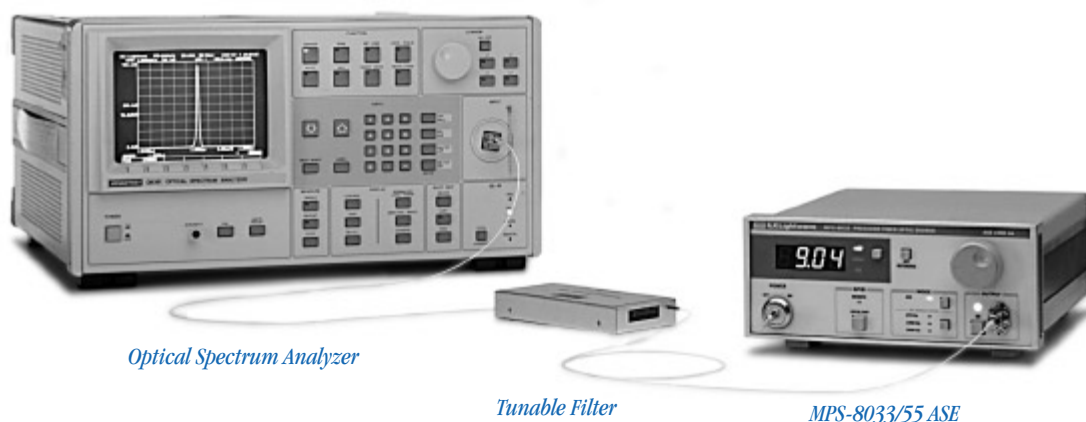
The user-friendly front panel of the MPS-8033 ASE Series conveniently displays output power in either mW, dBm, or relative to an operator-selected reference value in dB. The front panel adjust knob easily controls output power level up to 20 mW. The bright LED clearly displays power levels even in a darkened lab.



*At the heart of the MPS-8033/55 is a stabilized 980 nm laser diode, used to pump a length of Erbium-doped fiber.*

# MPS 8033 ASE Series

Broadband  
Precision Fiber  
Optic Sources



*Optical Spectrum Analyzer*

*Tunable Filter*

*MPS-8033/55 ASE*

## Rapid, Wide-Dynamic-Range Component Spectral Characterization.

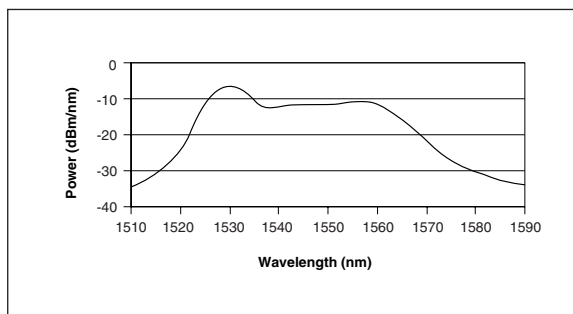
### Ready for Automated Testing

For automated testing, a standard GPIB interface enables remote programming and readout from a host computer. In remote operating mode, all front panel functions are accessible through the GPIB bus. The GPIB also features increased display resolution with instrument specific commands. Software drivers for National Instruments LabVIEW® are available at no additional charge.

### Ask about Customization for Your Particular Needs

Perhaps your application demands even higher power, spectral shaping of the output, or a different output connector. We'll put

our experience of supplying precision fiber optic sources to work, to meet your testing needs. Call one of our application engineers to discuss your particular requirements.



*MPS-8033/55 typical output spectrum.*

# MPS 8033 ASE Series

Broadband  
Precision Fiber  
Optic Sources

## Specifications

### OUTPUT

Spectral Density (typical):	> -25 dBm/nm, 1520–1570 nm
Output Power	
/55 Option:	+10 dBm, (10 mW)
/65 Option:	+13 dBm, (20 mW)
Output Polarization:	Unpolarized
Output Isolation:	>30 dB
Power Stability (15 min.): <sup>1</sup>	±0.010 dB
Power Stability (12 hour): <sup>2</sup>	±0.030 dB
Output Connector:	FC/APC
Fiber Type:	SMF

### TRIGGER OUTPUT

Type: TTL	
Jitter:	5 nS
Connector:	BNC

### GENERAL

Line Voltage:	90–105 VAC 105–125 VAC 210–230 VAC 220–250 VAC
Operating Temperature:	0°C–50°C
Humidity:	<90% relative humidity, noncondensing
Storage Temperature:	–40°C to 70°C
Warm Up:	2 hour
Weight:	<5 kg (10.5 lbs)
Size (HxWxD):	88 mm x 212 mm x 269 mm 3.5" x 8.4" x 10.6"
Remote Interface:	GPIO (standard)

### NOTES

- 1 Temperature is constant ( $\pm 0.1^\circ\text{C}$ ) after two hour warm-up with output on.
- 2 Temperature is constant ( $\pm 1.0^\circ\text{C}$ ) after two hour warm-up with output on.

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

LabVIEW® is a registered trademark of National Instruments.

### ORDERING INFORMATION

MPS-8033/55	10 mW Broadband 1550 nm ASE Source
MPS-8033/65	20 mW Broadband 1550 nm ASE Source
RM-122	Dual Rack Mounting Kit
RM-124	Single Rack Mounting Kit

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