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Data Sheet

August 14, 2026

ILX LIGHTWAVE

ILX Lightwave FOS-79800D: Source Modules

The ILX Lightwave FOS-79800D is a WDM DFB fiber optic source module engineered for precision optical testing in research, development, and production environments. It operates as a plug-in module within the FOM-7900B Fiber Optic System Mainframe, delivering high-stability, tunable laser output across C-band and L-band wavelengths. The module provides excellent power stability, precise wavelength control, and flexible modulation capabilities, making it ideal for EDFA, SOA, and fiber optic component characterization in WDM and CWDM test scenarios. Wavelength Range: 315C Series 1528 nm to 1564 nm (C-band); 315L Series 1564 nm to 1610 nm (L-band); custom wavelengths available Output Power: 315C1/315L1 ≥ 10 dBm; 315C2/315L2 ≥ 13 dBm; up to 20 mW per channel depending on model Wavelength Stability: ± 3 pm typical; ± 25 pm over 90 days; ± 50 pm over one year post-calibration



MODEL

**ILX Lightwave
FOS-79800D**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

FOS-79800D

LISTING

<https://aumictechlabs.com/products/fos-79800d-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The ILX Lightwave FOS-79800D is a WDM DFB fiber optic source module engineered for precision optical testing in research, development, and production environments. It operates as a plug-in module within the FOM-7900B Fiber Optic System Mainframe, delivering high-stability, tunable laser output across C-band and L-band wavelengths. The module provides excellent power stability, precise wavelength control, and flexible modulation capabilities, making it ideal for

EDFA, SOA, and fiber optic component characterization in WDM and CWDM test scenarios.

Technical Specifications

Optical Performance

Wavelength Range: 315C Series 1528 nm to 1564 nm (C-band); 315L Series 1564 nm to 1610 nm (L-band); custom wavelengths available

Output Power: 315C1/315L1 ≥ 10 dBm; 315C2/315L2 ≥ 13 dBm; up to 20 mW per channel depending on model

Power Stability: ± 0.003 dB (post 1-hour warm-up, $\pm 1^\circ\text{C}$ ambient)

Wavelength Stability: ± 3 pm typical; ± 25 pm over 90 days; ± 50 pm over one year post-calibration

Attenuation: High-resolution control within ± 0.1 dB accuracy from maximum power to 5 dB down

Modulation

Internal Synchronous Modulation: Up to 500 kHz

Modulation Depth: 100% at 50% duty cycle

TTL-level control via rear panel input with mainframe trigger synchronization for multi-module operation

Interfaces

Optical: FC/APC connector

Remote Control: GPIB/IEEE-488 and RS-232; LabVIEW drivers available

Key Features

Coherence control for SBS suppression and power stability

Eight module slots per mainframe for flexible configuration

Scalable architecture: up to 24 linked mainframes supporting 200 channels from single GPIB address

Front panel menu or GPIB remote control

Typical Applications

EDFA and SOA characterization

WDM and CWDM system testing

Fiber optic component validation

Multi-channel optical test scenarios

Compatibility & Integration

The FOS-79800D requires the FOM-7900B Fiber Optic System Mainframe. Multiple mainframes can be linked to expand channel density, enabling high-density test configurations from a single control interface.

FOS79800D Characteristics / Specifications

PARAMETER	VALUE
Wavelength Band C1 C	1528 to 1564 nm
Wavelength Band L1 L	1564 to 1610 nm
Output Power Level 315C1 315L1 Full Power	greater than or equal to 10 dBm
Output Power Level 315C2 315L2 Full Power	greater than or equal to 13 dBm
Power Stability 15 minutes Spec	less than or equal to 0.005 dB rms
Power Stability 15 minutes Typical	less than or equal to 0.002 dB rms
Power Stability 24 hours	plus or minus 0.03 dB
Power Stability 24 hours With Source Shutter	plus or minus 0.07 dB
Attenuation Calibrated Range	10 dB
Attenuation Full Range Typical	15 dB
Attenuation Accuracy	plus or minus 0.1 dB
Wavelength Accuracy	plus or minus 0.05 nm
Wavelength Stability 15 minutes	plus or minus 0.003 nm
Wavelength Stability 24 hours	plus or minus 0.005 nm
Tuning Range	plus or minus 0.85 nm
Spectral Width Coherence Control Off	less than 30 MHz
Spectral Width Coherence Control On	1 GHz typical
Transition Time Off to On	30 ms
Transition Time On to Off	10 ms
Repeatability	plus or minus 0.01 dB
Lifetime	greater than 10 million cycles
SMSR	greater than 40 dB (greater than 45 dB typical)
Signal to Background	greater than 30 dB
Optical Isolation	greater than 30 dB

PARAMETER	VALUE
Relative Intensity Noise RIN	-145 dB/Hz
Modulation Frequency	1 to 500 kHz
Optical Connector	FC/APC
Operating Temperature	15 C to 35 C Band Ordering Span Example: 1527.98 to 1564.26 nm user specified Band Ordering Span Example: 1564.27 to 1610.06 nm user specified
Mainframe Bay Capacity	8 bay FOM-7900B
Modulation Depth Class	100% at 50% duty cycle TTL rear panel input class notes
Warm Up Condition for Specs	after 1 hour warm-up
Wavelength stability	15 minutes: plus or minus 0.003 nm
Attenuation	Calibrated Range: 10 dB
Power stability	15 minutes Spec: less than or equal to 0.005 dB rms
Relative intensity noise	RIN: -145 dB/Hz

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	15 C to 35 C Band Ordering Span Example: 1527.98 to 1564.26 nm user specified Band Ordering Span Example: 1564.27 to 1610.06 nm user specified
Operating Temperature	15 C to 35 C Band Ordering Span Example: 1527.98 to 1564.26 nm user specified Band Ordering Span Example: 1564.27 to 1610.06 nm user specified
Mainframe Bay Capacity	8 bay FOM-7900B
Modulation Depth Class	100% at 50% duty cycle TTL rear panel input class notes
Warm Up Condition for Specs	after 1 hour warm-up Notes Values are from the ILX 79800D/315 Series WDM DFB source module specification sheet. Exact center wavelength and power class depend on the ordered 315C1/315L1/315C2/315L2 variant. Older FOS-79800C and related 79870/79880 family sources may share architecture but can differ in published rows; verify the module label. Requires a 7900B-class mainframe for full system operation.

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 cover C-band and L-band user-selected ITU or custom wavelengths from about 1528 nm to 1610 nm, with 10 dBm or 13 dBm minimum full-power classes, coherence control, calibrated attenuation, and GPIB control through the FOM-7900B mainframe. Closely related catalog labels include FOS79800, FOS-79800C, FOS-79800D, FOS-79870, and FOS-79880 family optical sources; this sheet captures the dense 79800D/315 OEM table.

Applications
The FOS-79800D modules are used for WDM system and component test, multi-channel optical stimulus, channel equalization with optional source shutter, coherent control experiments, and synchronized multi-module modulation using 7900B mainframe triggers.

Key Features
User-selected center wavelengths on ITU grid or custom specification
High output power classes with excellent power and wavelength stability
Coherence control on/off spectral width modes
Calibrated optical attenuation
Optional source shutter for channel equalization tasks
FC/APC optical connector (other connectors available)
Mainframe GPIB/IEEE-488.2 remote control when installed in FOM-7900B

Technical Specifications

Technical Specifications

PARAMETER	VALUE
Wavelength Band C1 C2	1528 to 1564 nm
Wavelength Band L1 L2	1564 to 1610 nm
Output Power Level 315C1 315L1 Full Power	greater than or equal to 10 dBm
Output Power Level 315C2 315L2 Full Power	greater than or equal to 13 dBm
Power Stability 15 minutes Spec	less than or equal to 0.005 dB rms
Power Stability 15 minutes Typical	less than or equal to 0.002 dB rms
Power Stability 24 hours	plus or minus 0.03 dB
Power Stability 24 hours With Source Shutter	plus or minus 0.07 dB
Attenuation Calibrated Range	10 dB
Attenuation Full Range Typical	15 dB
Attenuation Accuracy	plus or minus 0.1 dB
Wavelength Accuracy	plus or minus 0.05 nm
Wavelength Stability 15 minutes	plus or minus 0.003 nm
Wavelength Stability 24 hours	plus or minus 0.005 nm
Tuning Range	plus or minus 0.85 nm
Spectral Width Coherence Control Off	less than 30 MHz

PARAMETER	VALUE
Spectral Width Coherence Control On	1 GHz typical
Transition Time Off to On	30 ms
Transition Time On to Off	10 ms
Repeatability	plus or minus 0.01 dB
Lifetime	greater than 10 million cycles
SMSR	greater than 40 dB (greater than 45 dB typical)
Signal to Background	greater than 30 dB
Optical Isolation	greater than 30 dB
Relative Intensity Noise RIN	-145 dB/Hz
Modulation Frequency	1 to 500 kHz
Optical Connector	FC/APC
Operating Temperature	15 C to 35 C
C Band Ordering Span Example	1527.98 to 1564.26 nm user specified
L Band Ordering Span Example	1564.27 to 1610.06 nm user specified
Mainframe Bay Capacity	8 bay FOM-7900B
Modulation Depth Class	100% at 50% duty cycle TTL rear panel input class notes
Warm Up Condition for Specs	after 1 hour warm-up

Technical Specifications

PARAMETER	VALUE
Wavelength Band C1 C2	1528 to 1564 nm
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Notes

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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.