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Find the *Newport / ILX Lightwave FOM-7900B* at our website: ***Click HERE***

FOM 7900B

System

Specifications

7900B System Mainframe

INTERNAL MODULATION

Waveform	TTL
Frequency:	0.1–500 kHz
Duty Cycle:[1]	50% ±1%
Modulation Depth:	100%
Rise/Fall Time:	<250 ns
Channel to Channel Synchronization:[2]	<100 ns

MODULATION IN

Level:	TTL
Frequency:	1–500 kHz
Duty Cycle:[1]	50% ±1%
Polarity:	0 V = Laser turned OFF 5 V = Laser turned ON
Optical Delay:[3]	<1 µs
Channel to Channel Synchronization:[2]	<100 ns
Jitter:[4]	<50 ns
Connector:	BNC Female on rear panel

MODULATION OUT

Level:	TTL
Polarity of OUT:	0 V = Laser turned OFF 5 V = Laser turned ON
Gate Delay:[5]	<60 ns/mainframe
Jitter:[4]	<50 ns
Connector:	BNC Female on rear panel
Load Capability:	Capable of driving 3 additional 7900B mainframes in parallel

EXTERNAL TRIGGER INPUT/OUTPUT

Level:	TTL, Active Low
Pulse Width:	100 ns (minimum)
Connector:	BNC Female on rear panel

COMPUTER INTERFACE

GPIB/IEEE-488.2	
Hardware:	ANSI/IEEE Std 488.1–1987
Software:	ANSI/IEEE Std 488.2–1992
Fanout	Capable of driving up to 200 modules
RS-232	
Baud Rate:	9600
Stop Bits:	1
Parity:	None
Data Bits:	8
Flow Control:	None
Connector	
RS-232 A Connector:	9 pin male “D” connector
RS-232 B Connector:	9 pin female “D” connector

DISPLAY

Two lines by 20 character vacuum fluorescent display used uniquely by each module or the mainframe. The selected module channel is always displayed in the upper left corner of the display.

GENERAL

Number of Channels:	Up to 8 plug-in Modules
Size (HxWxD):	14.0 cm x 45.1 cm x 44.5 cm 5.5" x 17.75" x 17.5"
Weight	
Mainframe:	12.7 kg (28 lbs)
Modules (typical):	0.45 kg (1 lb)
Power Requirements:	100–120 VAC (50/60 Hz, 1.5 A) 220–240 VAC (50/60 Hz, 0.8 A)
Temperature	
Operating:	0°C–40°C
Storage:	–40°C to 70°C
Humidity:	<90% RH, non-condensing
CE Compliant:	Yes

NOTES

1 Input modulation duty cycles other than 50% ±1% will result in output power inaccuracies.
2 Channel to Channel Synchronization is the maximum variation in optical delay between modules in the same mainframe.
3 Optical Delay is the time between the rising edge of the input modulation signal and the rising edge of the modulated optical output.
4 Jitter is the variation in optical delay for any given module.
5 Gate Delay is the time between the input modulation signal and the output modulation signal.

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

ORDERING INFORMATION

FOM-7900B	System Mainframe with 8-bay capacity (Includes GPIB interface)

Product Features

General

Up to 8 channels per mainframe

Customer-specified wavelength, output power, connector, and fiber options

Synchronous modulation of sources up to 500 kHz

Options

WDM DFB sources selected and tuned to user-specified wavelengths

Customer specified WDM DFB sources up to 1625 nm

Dual power meter module

Switch module

The FOM-7900B System meets the demands of high channel count fiber optic testing. The FOM-7900B System Mainframe provides the capability to synchronously modulate up to 200 fiber optic source modules. To further simplify system integration, we provide input and output modulation ports. For fast, automated testing, the FOM-7900B has a GPIB/IEEE–488.2 interface and LabVIEW® instrument drivers.

The FOM-7900B is a high-performance fiber-optic test and development platform that consists of an 8-bay instrument mainframe and supporting plug-in modules—all controlled by an intuitive, user-friendly interface. This system provides a cost-effective solution for all your WDM test application needs, including EDFA testing and fiber optic component characterization.



High Performance Multi-channel Fiber Optic Test System

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International Inquiries: 406-586-1244
email: sales@ilxlightwave.com

Rev. 3/04/02

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FOM 7900B

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FOM 7900B

System

Multi-channel Fiber Optic Testing Has Never Been So Refined

Emerging technologies are placing new demands on fiber optic systems. Wavelength dependent performance of system components is critical. ILX Lightwave's FOM-7900B System was designed for characterizing fiber optic systems and components at multiple wavelengths. When combined with ILX Lightwave's fiber-optic modules, the FOM-7900B provides a cost-effective solution that addresses your needs now and well into the future.

Modular System Provides the Flexibility You Need

The FOM-7900B accommodates up to eight channels of DFB laser sources or fiber-optic switches, all controlled from a single mainframe for the ultimate in testing flexibility.

WDM DFB modules can be supplied at user-specified wavelengths, from 1475–1625 nm, and can be tuned over a 1.7 nm range with 1 pm resolution. For higher density WDM system requirements, you can link up to 24 additional FOM-7900B mainframes—200 channels—all controlled from a single GPIB address.

Solutions for Multi-Wavelength Test Applications

The FOS-79800 Fiber Optic Source Modules are designed to accept a wide variety of laser package and fiber styles. Because we have extensive experience in supplying precision fiber-optic sources, you can be sure they'll be customized to meet your special requirements. Call one of our sales engineers to discuss your specific needs, whether it's high output power, custom-specified connectors, PM fiber, or tight wavelength tolerances.

Performance on Demand

The FOM-7900B has internal synchronous modulation (up to 500 kHz), including test tones. The FOM-7900B can modulate up to 200 source modules simultaneously, making it ideal for EDFA testing.

Plus, the FOM-7900B System incorporates proven ILX Lightwave laser control electronics. These deliver the high output power and wavelength stability required in WDM test applications. Laser drift won't be a problem when making precision measurements, due to the stability of the source wavelength—to within ±0.005 nm over 24 hours—and power stability better than ±0.003 dB over 15 minutes.



The display always shows the selected module channel in the upper left corner.

Intuitive Front Panel Facilitates Easy Operation

The FOM-7900B front panel provides complete control of each module with intuitive menus for easy access and adjustment of all module parameters. Since calibration data is stored in each module, there's no need to recalibrate the mainframe as new modules are introduced.



Customized Sources for your Power and Wavelength Needs.

GPIB Interface Puts You in the Driver's Seat

For complete automated control, the FOM-7900B has a GPIB/IEEE–488.2 interface—allowing remote programming and readout from most computers. This interface uses the National Instruments TNT 488® chipset which supports high-speed GPIB protocol. All instrument functions accessible from the front panel are also accessible through the interface bus, and all commands are based on a set of easy-to-use mnemonics. For maximum control flexibility, LabVIEW® instrument drivers are available at no additional cost.

Switch Wavelengths with the FOS-79710 Fiber Optic Switch Module

Gain even more flexibility by adding the FOS-79710 Fiber Optic Switch Module to the FOM-7900B system. The FOS-79710 is designed and optimized for excellent stability with minimal insertion and return loss. This optically passive fiber optic switch is bidirectional in operation and is transparent to signal formats and bandwidths.

The FOS-79710 allows you to switch the input of a single fiber optic channel to any one of four output ports, or to a "blocking" position into a zero-reflection terminator. You can also define a switch position sequence to occur at defined time intervals or by external trigger.

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Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

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