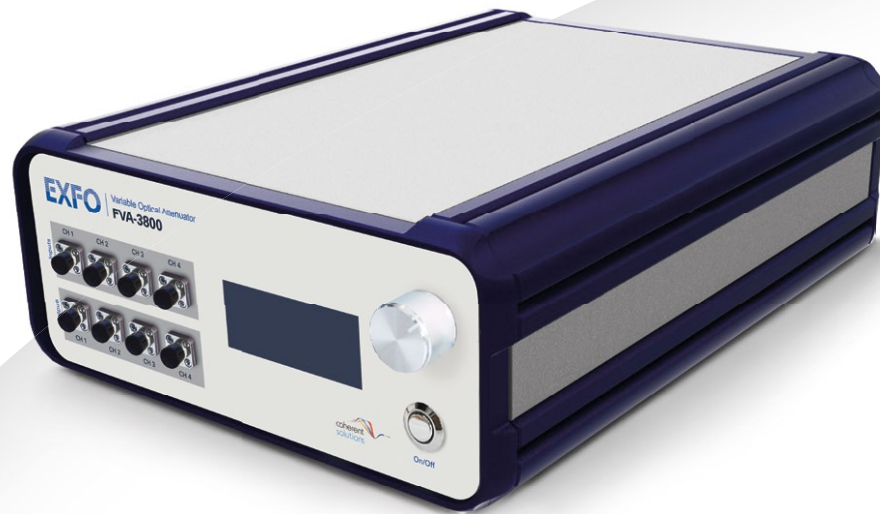


# FVA-3800

## MULTI-PORT BENCHTOP OPTICAL VARIABLE ATTENUATOR



Ideal for BER testing and system verification in labs or demanding manufacturing environments.

### KEY FEATURES

- Up to four attenuators per unit
- Very fast settling time
- Integrated power meter for accurate output power control
- Polarization-maintaining option
- Front-panel control, as well as remote control via USB or Ethernet

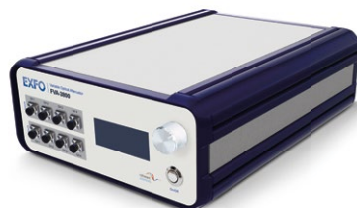
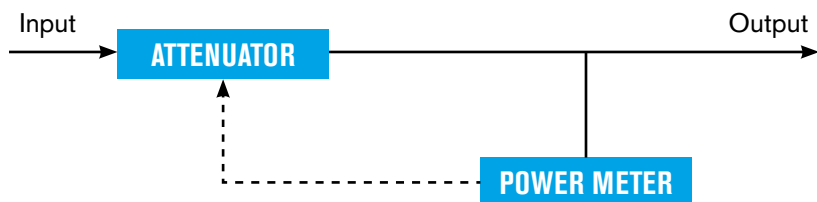
### APPLICATIONS

- BER testing
- System loss emulation
- Coherent transmission
- Bidirectional optical sub-assembly (BOSA)

## VERSATILE AND COMPACT SIGNAL ATTENUATION SOLUTION

The FVA-3800 Multiport Benchtop Optical Variable Attenuator is designed for a broad range of applications adapted to users with very demanding research requirements, as well as those looking for a fast, high-density solution.

The most compact instrument on the market, this no-compromise solution can integrate up to four attenuators within a single unit, thereby accommodating users with tight space requirements.



### Rugged and Reliable

The rugged and reliable design of the FVA-3800 is built using components with high mean-time-between-failure (MTBF) specifications. Thanks to minimal maintenance requirements, our attenuators can be used in 24/7 production environments.

### Power Stabilization

The power monitoring function is used to set the attenuator output power level. When enabled, this option maintains power stability even in the event of fluctuation in the source power. It also simplifies test setups by eliminating the need for an external power meter.

### Polarization-Maintaining Option

The FVA-3800 is compatible with polarization-maintaining fiber. This eliminates the need to use an external polarization controller to maintain the polarization of the input signal, which is critical for coherent transmitters, receiver design and testing.

## SIMPLE, FLEXIBLE AND USER-FRIENDLY INTERFACE

### Front Panel Control

Equipped with an LCD display, the FVA-3800 does not require a PC for setup of the attenuation range, wavelength or power output level. This makes it fast and easy for users to set all the required parameters.

### PC Application for Multi-Instrument Management

EXFO's Tunable Instrument Manager application (TIM) makes it very easy for users to control and view the status of each attenuator. Simply connect a PC running the application to the FVA-3800 via USB for single-device operation, or connect via Ethernet for multidevice operation.

The TIM application is also compatible with the FLS-2800 and IQS-2800 ITLA Tunable Light Sources.

### Remote Control

Standard USB and Ethernet interfaces enable the FVA-3800 to be remote-controlled from a PC or test station. This allows users to program their own software solutions for complex procedures, or to automate their testing using SCPI commands.

## SPECIFICATIONS

TECHNICAL SPECIFICATIONS <sup>a, b</sup>		
Description	FVA-380x-B	FVA-380x-P
Fiber type (μm)	9/125	PANDA
Wavelength range (nm)	1280 to 1625	1528 to 1563
Max. attenuation (dB)	≥ 45	≥ 45
Insertion loss <sup>c</sup> (dB)		
Typical	1.4	1.4
Max.	2.2	2.2
Attenuation setting resolution (dB)	0.02	0.02
Attenuation linearity		
(0 to 20 dB)	±0.2	±0.2
(20 to 40 dB)	±0.4	±0.4
Attenuation repeatability (0 to 20 dB), 2σ	±0.05	±0.05
Power meter linearity <sup>d</sup> (dB)	±0.08	±0.08
PDL <sup>e</sup> (dB) peak-to-peak	0.4	0.4
Return loss <sup>f</sup> (dB), typical	≥ 45	≥ 45
Max. input power (dBm)	23	23
Transition speed (dB/s)	Up to 1000	Up to 1000
Transmitted polarization extinction ratio (dB) <sup>g</sup>	N/A	≥ 16

GENERAL SPECIFICATIONS	
Size (H x W x D)	115 mm x 222 mm x 332 mm (4 1/2 in x 8 3/4 in x 13 1/16 in)
Weight	4.2 kg (9.2 lbs)
Temperature	
Operating	5 °C to 40 °C (41 °F to 104 °F)
Storage	-40 °C to 70 °C (-40 °F to 158 °F)
Relative humidity	0% to 95% non-condensing
PC interface method	USB 2.0, Ethernet
Minimum PC requirements	Pentium 4, 1 GB RAM, USB 2.0, Wireless XP SP3 or later
Power supply	~110 – 240 V; 50/60 Hz; 60 W maximum

### Notes

- a. At 23 °C ± 2 °C, unless otherwise specified.
- b. Measured at 1310 nm, 1490 nm and 1550 nm.
- c. Excluding connectors.
- d. After a 30-minute warm-up and an offset nulling. At 23 °C ± 1 °C. From 20 dBm to -50dBm at 1550 nm.
- e. Up to 30 dB attenuation. At 1550 nm.
- f. For FC/APC connectors, between 1450 nm to 1600 nm.
- g. At 1550 nm.

## ORDERING INFORMATION

## FVA-380X-X-XX

**Channels**

- 1 = One channel (P models only)
- 2 = Two channels
- 4 = Four channels (B models only)

**Models**

- B = Single-mode SMF-28 fiber
- P = Polarization-maintaining fiber

**Connectors**

- 58 = FC/APC
- 89 = FC/UPC
- 91 = SC/UPC

Example: FVA-3802-B-58

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EXFO serves over 2000 customers in more than 100 countries. To find your local office contact details, please go to [www.EXFO.com/contact](http://www.EXFO.com/contact).

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