

FVA-60B

NETWORK TESTING—OPTICAL



- Up to 65 dB attenuation
- Typical 2.5 dB insertion loss
- Automatic attenuation sequence with Program mode
- Standard Universal Interface

Lab and Field Versatility

This portable variable attenuator performs just as well in a laboratory environment as it does in the field. Superior specifications make it the variable attenuator of choice for a number of applications. For lab or fieldwork flexibility, choose the FVA-60B.

Total Flexibility

Three attenuation display modes:

- Absolute (including insertion loss)
- Relative (in reference to 0.00 dB level)
- $x + b$ (arbitrary value)

Program mode: Cycles through a repeatable sequence of up to 60 attenuation steps, pausing for one second or up to 60 hours at a time. The Program mode is particularly suited to accelerated bit-error-rate (BER) testing.

Fourteen available wavelengths: Matches your source wavelength to the nearest 10 nm for unbeatable accuracy.

Variable scanning speed: Scans the complete attenuation range at four different speeds according to the selected step size (0.05, 0.20 or 1.00 dB/step and variable step size).

Remote Control Capability

Operate the FVA-60B remotely from your PC using the standard RS-232 interface and control codes. Program software solutions are adapted to your testing needs.

Three-Way Powering Goes a Long Way

The FVA-60B features three complementary power sources for extended operation: a rechargeable NiCd battery, a 9 V alkaline backup battery and an AC adapter/charger for continuous operation.

Exceptional Specifications

High-quality optical components make the FVA-60B Variable Attenuator the standard for performance and flexibility. EXFO's computer-assisted calibration techniques deliver remarkable specifications:

- ± 0.15 dB linearity
- 0.05 dB resolution
- ± 0.10 dB repeatability

Multiple Applications

The FVA-60B enables consistent operation in various manual or automated testing situations.

- BER testing
- System testing and acceptance
- Power meter calibration and verification
- Optical margin analysis
- System loss simulation
- Field, manufacturing and R&D applications



SPECIFICATIONS ^a

Model		FVA-60B-C-XX	FVA-60B-D-XX
Fiber type (μm)		50/125	62.5/125
Calibration wavelengths (nm)		850/1300	850/1300
Attenuation maximum (dB)		65	65
Insertion loss ^{b, c} (dB)	typical	2.5	2.5
	maximum	4.0	4.0
Resolution (dB)		0.05	0.05
Linearity ^d (dB)		± 0.15	± 0.15
Repeatability (dB)	typical	± 0.03	± 0.03
	maximum	± 0.10	± 0.10
Return loss ^b (dB)	typical	27	27
	minimum	20	20
Max. input power (dBm) ^e		15	15

GENERAL SPECIFICATIONS

Size		220 mm x 110 mm x 50 mm	(8 3/4 in x 4 1/2 in x 2 in)
Weight	unit	0.75 kg	(1 1/2 lb)
	shipping	2.5 kg	(5 1/2 lb)
Temperature	operating	-10 °C to 50 °C	(14 °F to 122 °F)
	storage	-30 °C to 70 °C	(-22 °F to 158 °F)
Relative humidity		0 % to 95 % non-condensing	
Power		AC charger (continuous operation), NiMH (5 to 25 hours depending on usage), 9 V alkaline batteries (3 to 10 extra hours depending on usage)	
Speed		0 to 70 dB in 10 seconds at maximum scan rate	

14 wavelengths available, of which two can be picked for quick toggling.

Multimode (nm) 820, 830, 840, 850, 860, 870, 880, 1270, 1280, 1290, 1300, 1310, 1320, 1330

STANDARD ACCESSORIES

User guide, carrying case, protective holster, shoulder strap, RS-232 serial interface (comes with cable and application software), AC adapter/charger, 9 V alkaline battery, Certificate of Compliance

BELLCORE PRODUCT CODES

Model	CPR#	ECI#	CLEI#
FVA-60B	574669	661071	LGTDJ20AAA

NOTES

- At 23 °C ± 2 °C unless otherwise specified.
- At calibrated wavelengths.
The insertion loss is dependent on the input numerical aperture.
- With FC/PC connector.
- At a calibrated wavelengths, using a non-polarized light source with 0.002 dB stability (source accuracy of ± 0.5 nm) and up to 50 dB of attenuation.
- Typical value. Prolonged exposure may damage the unit.

ORDERING INFORMATION

FVA-60B-X-XX

Fiber code

- C = 50/125 μm multimode
- D = 62.5/125 μm multimode

Connector code

- EI-EUI-28 = UPC/DIN 47256
- EI-EUI-76 = UPC/HMS-10/AG
- EI-EUI-89 = UPC/FC narrow key
- EI-EUI-90 = UPC/ST
- EI-EUI-91 = UPC/SC
- EI-EUI-95 = UPC/E-2000

Example: FVA-60B-D-EI-EUI-89

EXFO Corporate Headquarters > 400 Godin Avenue, Quebec City (Quebec) G1M 2K2 CANADA | Tel.: +1 418 683-0211 | Fax: +1 418 683-2170 | info@EXFO.com

Toll-free: +1 800 663-3936 (USA and Canada) | www.EXFO.com

EXFO America	3701 Plano Parkway, Suite 160	Plano, TX 75075 USA	Tel.: +1 800 663-3936	Fax: +1 972 836-0164
EXFO Asia	151 Chin Swee Road, #03-29 Manhattan House	SINGAPORE 169876	Tel.: +65 6333 8241	Fax: +65 6333 8242
EXFO China	Tower C, Beijing Global Trade Center, Room 1207 36 North Third Ring Road East, Dongcheng District	Beijing 100013 P. R. CHINA	Tel.: + 86 10 5825 7755	Fax: +86 10 5825 7722
EXFO Europe	Omega Enterprise Park, Electron Way	Chandlers Ford, Hampshire S053 4SE ENGLAND	Tel.: +44 2380 246810	Fax: +44 2380 246801
EXFO NetHawk	Elektronikkatie 2	FI-90590 Oulu, Finland	Tel.: +358 (0)403 010 300	Fax: +358 (0)8 564 5203
EXFO Service Assurance	285 Mill Road	Chelmsford, MA 01824 USA	Tel.: +1 978 367-5600	Fax: +1 978 367-5700

EXFO is certified ISO 9001 and attests to the quality of these products. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. EXFO has made every effort to ensure that the information contained in this specification sheet is accurate. However, we accept no responsibility for any errors or omissions, and we reserve the right to modify design, characteristics and products at any time without obligation. Units of measurement in this document conform to SI standards and practices. In addition, all of EXFO's manufactured products are compliant with the European Union's WEEE directive. For more information, please visit www.EXFO.com/recycle. Contact EXFO for prices and availability or to obtain the phone number of your local EXFO distributor.

For the most recent version of this spec sheet, please go to the EXFO website at <http://www.EXFO.com/specs>

In case of discrepancy, the Web version takes precedence over any printed literature.