



## VOA 5 Variable Fiber Optic Attenuator

The VOA 5-MM (multimode) and VOA 5-SM (single-mode) are hand-held, field-rugged variable optical attenuators suited for a wide range of fiber link certification and production test applications. The VOA 5 can be operated under local control (front panel keypad) or from a PC via a serial link using the supplied PC software. The VOA 5 offers high bi-directional return loss and will maintain the set attenuation level when the unit is powered down.

The VOA 5 is powered by (2) AA alkaline batteries or an AC power adapter. A NiCad rechargeable battery pack is an option.

### Features

- Multimode and single-mode models
- Hand-held (0.55 kg, 1.22 lb)
- High speed (0 to 60 dB < 3 s)
- Low insertion loss (< 2 dB, single-mode)
- Remote (SCPI) control via serial port
- LabVIEW® drivers provided
- AA Alkaline, NiCad, or AC powering
- Long battery life (> 16 hours)

### Applications

- Portable VOA for fiber optic link installation and certification tests
- Programmable VOA for production and QA environments
- Low-cost bench-top VOA for development labs

### Specifications

Optical Specifications	VOA5-MM	VOA5-SM
Fiber Type	62.5 μm, multimode	9 μm, singlemode
Wavelength Range	850 - 1300 nm	1290 - 1620 nm
Calibrated Wavelengths	850, 1300 nm	1310, 1550 nm
Attenuation Range	0 to 30 dB	0 to 60 dB
Insertion Loss (max.)	1.5 dB @ 850 nm 3.0 dB @ 1300 nm	2 dB
Return Loss (min.)	20 dB	40 dB
Display Resolution	0.1 dB	
Accuracy @+25°C	±0.20 dB typical, ±0.4 dB max (0 dB to 30 dB) ±0.3 dB typical, ±0.6 dB max (30 dB to 60 dB)	
Repeatability @+25°C	± 0.25 dB*	
Maximum Input Level	+ 24 dBm	
General Specifications	VOA5-MM	VOA5-SM
Battery Life (alkaline)	10 hrs	> 16 hrs
Speed	0-30dB in less than 5 seconds	0-60dB in less than 3 seconds
Power	2 AA alkaline, 120/220 AC adapter, or NiMH battery pack (optional)	
Size (H x W X D)	18.5 x 11.1 x 4.6 cm (7.3 x 4.4 x 1.8 in.)	
Weight	0.55 kg (1.22 lb)	
Operating Temperature	0° to +50° C	
Storage Temperature	-20° to +60° C	
Relative Humidity	0 to 90% (non-condensing)	
Standard Connector Type	SC/UPC, FC/UPC, ST/UPC	

\* Repeatability is defined as the mean plus one standard deviation-typical value.

### Ordering Information

Model	Includes
All VOA 5 models	Protective rubber boot, 2 AA alkaline batteries, 120/ 220 V AC power adapter, hex head screwdriver, manual, and carry case.

\* Specify optical connector and AC power cord type.

