



## VOA6-SM Variable Optical Attenuator

The VOA6-SM is a rugged, lightweight variable optical attenuator that is ideal for use in a wide range of single-mode fiber link certification and engineering test applications. Managers will appreciate its simplicity, which minimizes training requirements and speeds deployment. Field technicians will appreciate the simple thumbwheel attenuation control, which allows precise, one-hand operation. Engineers will appreciate the accuracy and return loss performance of the VOA6-SM.

The VOA6-SM is a two-port passive optical device that, when inserted in an optical link, allows a technician to perform several important certification tasks. For example, when the fixed output level of a laser transmitter is too high for downstream devices, the VOA6-SM can be used to determine the amount of fixed attenuation required to match power levels. Alternately, during activation and certification of a new circuit, the VOA6-SM can be used to vary the amount of link loss and determine the optical headroom of the circuit. The 45 dB optical return loss of the VOA6-SM makes it ideal for use with sensitive DFB laser transmitters and other devices that can be degraded or damaged by reflected power.

The VOA6-SM is calibrated at key FTTx wavelengths including 1310, 1490, 1550 and 1625 nm and can be used in the calibration, engineering and production test lab as well as in the field. Its rugged construction ensures many years of service.

The VOA6-SM operates on an internal Li-Ion battery and includes a 10-minute auto power down and 60-second backlight power off capabilities. An AC adapter and battery charger is standard with every unit.

### Features

- 9  $\mu\text{m}$  /125  $\mu\text{m}$  fiber applications
- 2 dB to 60 dB attenuation
- Thumbwheel for one-handed operation
- Maintains attenuation setting with power on/off.
- Calibrated for key FTTx wavelengths
- 45 dB return loss for use with DFB Lasers

### Applications

- BER testing
- System tolerance to signal attenuation
- New equipment turn-ups
- Simple to operate lab attenuator
- Validate link budgets and optical margin
- Determine optical pad value
- Characterize optical components, modules, and systems

## VOA6-SM Variable Optical Attenuator

### Specifications <sup>a</sup>

OPTICAL	
Fiber Type	9/125 μm single-mode
Wavelength Range	1260 – 1650 nm
Calibrated Wavelengths	1310, 1490, 1550, 1625 nm
Measurement Range	2 – 60 dB
Insertion Loss	2 dB (max)
Resolution	0.05 dB
Linearity	±0.5 dB
Repeatability	±0.2 dB
Accuracy	±0.8 dB
Setting Type	Continuous over entire range
Function	Bi-directional
Return Loss <sup>b</sup>	45 dB
Max Input	+20 dBm
GENERAL	
Connector Adapters	FC/PC standard SC/PC, ST/PC (available – switchable)
Battery	Li-Ion rechargeable
Battery Life <sup>c</sup>	100 hrs
Auto-Off Feature	10 min
Operating Temperature	-10 °C to 55 °C (14 °F to 131 °F)
Storage Temperature	-40 °C to 70 °C (-40 °F to 158 °F)
Humidity	0 % to 90 % (non-condensing)
Dimensions	210 x 115 x 55 mm (8.27 x 4.53 x 2.17 in)
Weight	450 g (1.0 lb)

### Notes:

- All specifications valid at 23 °C ±2 °C (73.4 °F ±3.6 °F) unless otherwise specified.
- Typical.
- Unit powered off in between level changes. Typical time spent changing level <20 minutes per hour.

### Ordering Information

VOA6-SM Variable Optical Attenuator comes with a protective rubber boot, AC adapter, Li-Ion battery, battery charger and a soft carry case.

DESCRIPTION	AFL NO.
VOA6-SM Variable Optical Attenuator	VOA6-SM-FC

### Accessories and Connector Adapters

DESCRIPTION	AFL NO.
FC Connector (order 2)	2900-FT-LS-FC MR
SC Connector (order 2)	2900-FT-LS-SC MR
ST Connector (order 2)	2900-FT-LS-ST MR
Protective Rubber Boot	1400-10-0220PZ
Carry Case	1400-01-0087PZ
One-Click Cleaner SC/ST/FC	8500-05-0001MZ
CletoP-SB	8500-10-0016MZ
Visual Fault Identifier, 650 nm	HiLite

\* VOA6-SM Attenuator has two ports. Order connector adapters in pairs



### International Sales and Service Contact Information

Available at [www.AFLglobal.com/Test/Contacts](http://www.AFLglobal.com/Test/Contacts)