#### ▼ TECHNOLOGY

### Fiber

# ▼ CHAPTERS

Fiber Patch Cables

#### **Bare Fiber**

**Fiber Optomechanics** 

Fiber Components

Test and Measurement

▼ SECTIONS

Couplers

WDMs

Circulators

Collimators

Fiber Isolators

**Faraday Mirrors** 

**Fiber Attenuators** 

Termination

```
Mating Sleeves
```

Polarization

Controllers

950

**Rackbox Systems** 



#### Fiber Connector Optical Attenuators

These terminators allow one to attenuate an optical signal easily by plugging an FC/PC terminated fiber directly into the attenuator. The front of the attenuator is a male FC/PC connector, allowing the attenuators to be plugged directly into FC receptacles or adapters. These single mode attenuators use polarization-insensitive, doped fiber to achieve the specified attenuation.

#### Features

- Operating Wavelength: 1240 - 1620 nm
- Return Loss: >55 dB
- Max. Power Capability: 1 W
- Operating Temperature: -40 to 85 °C

Applications

Testing

Fiber Optic Sensors

Telecommunications

Instrumentation

**PDL:** <0.1 dB

ITEM#	\$	£	€	RMB	DESCRIPTION				
FA05T	\$ 20.80	£ 14.50	€ 18,50	¥ 175.70	Fixed Optical Attenuator, 5 ± 0.5 dB (31.6%T)				
FA10T	\$ 20.80	£ 14.50	€ 18,50	¥ 175.70	Fixed Optical Attenuator, 10 ± 0.7 dB (10% T)				
FA15T	\$ 20.80	£ 14.50	€ 18,50	¥ 175.70	Fixed Optical Attenuator, 15 ± 1.0 dB (3.2% T)				
FA25T	\$ 20.80	£ 14.50	€ 18,50	¥ 175.70	Fixed Optical Attenuator, 25 ± 1.3 dB (0.35% T)				

**Optical Attenuator: Single Mode, Fiber Connector** 

# **Optical Attenuators: Inline**

Inline optical isolators are ideal for balancing signal strengths in fiber circuits and for attenuating an optical signal to test the dynamic range of a measurement system. These inline isolators include SMF-28e fiber with a loose 900  $\mu$ m jacket, and they are offered with and without FC/PC connectors. Other terminators available upon request; please contact your local Thorlabs office for a quotation.



#### Features

- Low Insertion Loss
- Low Return Loss
- Compact Design
- Environmentally Stable

## Specifications

- Operating Wavelength: 1310 ± 40 nm and 1550 ± 40 nm
- **Attenuation:** 10 ± 0.5 dB Typical
- **Back Reflection:** <-50 dB
- Operating Temperature: -40 to 85 °C
- Storage Temperature: -55 to 85 °C

### **Inline Fiber Optic Attenuators**

ITEM#	\$		£		€		RMB		CONNECTORS	DESCRIPTION	%T
FOA10	\$	76.50	£	53.10	€	68,00	¥	646.00	None	Fiber Optic Inline Attenuator, 10 dB	10%
FOA10-FC	\$	93.80	£	65.10	€	83,30	¥	792.10	FC/PC	Fiber Optic Inline Attenuator, 10 dB	10%

# **Optical Attenuator: Inline Variable**

This manually-adjustable, inline variable optical attenuator (VOA) is used for precisely balancing the signal strengths in fiber circuits and also for balancing an optical signal when evaluating the dynamic range of the measurement system. The attenuation is adjusted using a screw on the side of the attenuator housing. These in-line VOAs include SMF-28e fiber with a 3 mm jacket, and they are offered terminated with FC/APC connectors, FC/PC connectors, or non-terminated. These attenuators are available with other connector styles; please contact your local Thorlabs office for a quotation.



#### Inline Variable Optic Attenuators

### **Specifications**

- Operating Wavelength: 1200 to 1600 nm
- **Fiber:** SMF-28e or Equivalent
- Attenuation Range: 1.5 50 dB
- Attenuation Resolution: ≤0.1 dB
- Back Reflection (Return Loss): >55 dB
- Polarization Sensitivity: ≤0.2 dB
- Optical Power: ≤300 mW
- Thermal Stability: ≤0.03 dB/°C
- **Operating Temperature:** 0 to 60 °C
- Dimension: 38 mm x 30 mm x 19 mm (1.50" x 1.18" x 0.75")

ITEM#	\$	£	€	RMB	DESCRIPTION	
VOA50	\$ 225.90	£ 156.60	€ 200,60	¥ 1,907.60	Inline Variable Optical Attenuator, 50 dB	
VOA50-FC	\$ 261.90	£ 181.60	€ 232,60	¥ 2,211.50	Inline Variable Optical Attenuator, 50 dB, FC/PC	
VOA50-APC	\$ 270.20	£ 187.40	€ 239,90	¥ 2,281.60	Inline Variable Optical Attenuator, 50 dB, FC/APC	