High-Precision Fixed In-Line Attenuators

AOA Series



- **Erbium-doped metal ion attenuation fiber is adopted**
- **Long time to withstand high power optical signal transmission**
- **1260-1640 nm bandwidth, applicable to both 1310 nm and 1550 nm wavelengths**

Ascent's AOA Series is a full range of high-precision fixed in-line attenuators in rugged and compact housings. The product range comes with high return loss and high quality ceramic ferrules that will deliver in the most demanding applications and ensure repeatable performance.

Fixed male to female attenuator is a passive device used to reduce the intensity of optical signal without significantly changing the transmission wavelength. This device is used in transmission links such as dense wavelength division multiplexing (DWDM) and erbium-doped fiber amplifier (EDFA) with high intensity optical power. This product uses the proprietary metal ion erbium-doped fiber to effectively reduce the intensity of optical signal transmission.

Compared with the optical fiber offset splicing method that only changes the direction of optical transmission, the production process of this product has a significant difference in all aspects. It covers 1310 & 1550 nm, C and L bands, and can withstand the transmission of high-intensity light power over 500mW for a long time, better adapting to EDFA and other high-power applications. Low polarization-dependent loss (PDL) and stable independent wavelength distribution make optical fiber attenuator an ideal choice for DWDM.

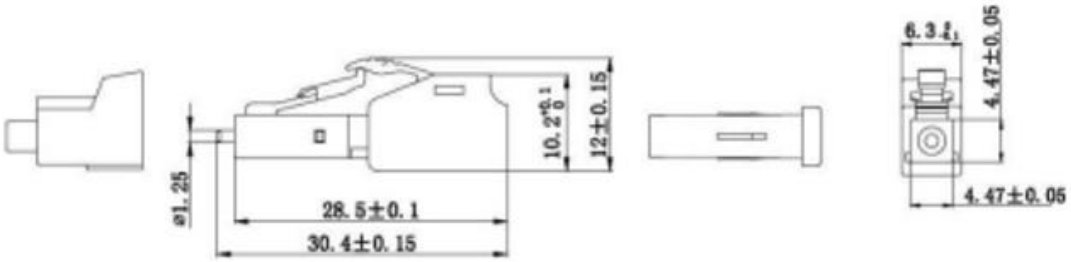
Key Features

- Precision polishing and precision Ceramic Ferrules for reduced back reflection
- Withstand the transmission of high-intensity light power over 500mW for a long time
- Compatibility with DWDM and CWDM systems.

Specifications

Parameter	Value	Unit	Notes
Attenuation Range	0 – 30	dB	UPC & APC
Attenuation Tolerance	−0.5 - +0.5	dB	0 – 4
	−10% × X ~ +10% × X	dB	5 – 10
	−10% × X ~ +10% × X	dB	11 – 30
Return Loss	≥ 50	dB	UPC
	≥ 60	dB	APC
PDL	≤0.1	dB	
Operating Wavelength	1310 & 1550	nm	—
Operating Bandwidth	1260 – 1640	nm	—
Operating Temperature	−40 ~ +75	°C	—
Storage Temperature	−40 ~ +85	°C	—
Vibration Induced Loss	≤ 0.2	dB	10–55 Hz, 2 hours
Drop Induced Loss	≤ 0.2	dB	1.5 m, 5 drops
Maximum Optical Power	500	mW	—

Outline Diagram



Ordering Information

Product Name	Product Description
AOA-XX-LC-UPC	LC Fixed Fiber Optical Attenuator, UPC, SM, Male-Female, xxdB. xx=0-30dB
AOA-XX-LC-APC	LC Fixed Fiber Optical Attenuator, APC, SM, Male-Female, xxdB. xx=0-30dB

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