

# Attenuators

# SC Attenuator, FC Attenuator, LC Attenuator, Fixed Type Attenuator

# SC Attenuator Single mode- Plug Type



The SC Attenuator Single mode- Plug Type from Savitri Telecom Services is high-quality attenuator designed to reduce the power level of optical signals without distorting the signal waveform, making it an essential component for fiber optic communication systems.

The SC Attenuator Single mode - Plug Type is engineered to meet the strictest industry standards, ensuring exceptional performance and reliability. It is constructed using premium materials and features a precision ceramic ferrule for accurate alignment and low insertion loss. This attenuator is compatible with single-mode fiber optic cables and is designed for use in a wide range of applications, including telecommunications, data centers, and CATV networks.

One of the key benefits of the SC Attenuator Single mode - Plug Type is its easy plug-and-play design, making installation and maintenance hassle-free. Its compact size also makes it ideal for use in tight spaces, while its rugged construction ensures long-lasting durability even in harsh environments.

#### **KEY FEATURES**

- Push-pull type
- Maximum stability and reliability
- Flat spectral response
- SC interface according to IEC 61754-4

#### **KEY APPLICATIONS**

- Passive optical networks (B-PON, G-PON, E-PON)
- Multi wavelength systems balancing
- Optical power receivers protection

#### **Technical Specifications**

	Single-mode UPC	Single-mode APC	
Attenuation	From 1 to 30 dB, in steps of 1 dB		
Wavelength	1260 to 1360 nm and 1460	1260 to 1360 nm and 1460 to 1625 nm	
Spectral tolerances		±15 % on nominal attenuation value at 1 to 4 dB ±10 % on nominal attenuation value at 5 to 30 dB	
Return loss	> 50 dB	> 60 dB	
Repeatability of IL	±0.1 dB	±0.1 dB	
Operating temperature	–25 to +70 °C	-25 to +70 °C	
Durability	Min. 1000 mating cycles	Min. 1000 mating cycles	
Material	Zinc nickel plated		
Ferrule	Full ceramic	Full ceramic	
Colour	Metallic		

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# FC Attenuator Single mode- Plug Type



The FC Attenuator Single-Mode Plug Type is a high-quality fiber optic attenuator designed for single-mode applications. This attenuator is designed to reduce the optical signal power in fiber optic systems, thereby reducing the chances of signal distortion or damage. The product is manufactured by Savitri Telecom Services, a renowned provider of high-quality fiber optic solutions.

Savitri Telecom Services is committed to providing high-quality fiber optic solutions that meet the evolving needs of our customers. With our FC Attenuator Single Mode - Plug Type, we continue to deliver on that commitment, offering a reliable and cost-effective solution for your fiber optic network attenuation needs.

#### **KEY FEATURES**

- Threaded nut type
- Maximum stability and reliability
- Flat spectral response
- FC interface according to IEC 61754-13

#### **KEY APPLICATIONS**

- Passive optical networks (B-PON, G-PON, E-PON)
- Multi wavelength systems balancing
- Optical power receivers protection

## Technical Specifications

	Single-mode UPC	Single-mode APC
Attenuation	from 1 to 30 dB, in steps of 1 dB	
Wavelength	1260 to 1360 nm and 1460 to 1625 nm	
Spectral tolerances	$\pm 15$ % on nominal attenuation value at 1 to 4 dB $\pm 10$ % on nominal attenuation value at 5 to 30 dB	
Return loss	> 50 dB	> 60 dB
Repeatability of IL	±0.1 dB	
Operating temperature	−25 to +70 °C	
Durability	Min. 1000 mating cycles	
Material	Zinc nickel plated	
Ferrule	Full ceramic	
Colour	Metallic	

# LC UPC Attenuator Single mode- Plug Type



The LC UPC Attenuator Single Mode - Plug Type is a fiber optic attenuator designed for single-mode applications. It reduces optical signal power in fiber optic systems to prevent signal distortion or damage. This plug-type attenuator is easy to install and remove without the need for additional tools. It features an LC UPC connector for a secure and stable connection to your fiber optic network. The product is manufactured by Savitri Telecom Services, a reputable provider of high-quality fiber optic solutions.

Savitri Telecom Services is committed to providing high-quality fiber optic solutions that meet the evolving needs of our customers. With our LC UPC Attenuator Single Mode - Plug Type, we continue to deliver on that commitment, offering a reliable and cost-effective solution for your fiber optic network attenuation needs.

#### **KEY FEATURES**

- Latched push-pull type, small form factor (1.25 mm ferrule)
- High stability and reliability
- Flat spectral response
- LC interface according to IEC 61754-20

#### **KEY APPLICATIONS**

- Passive optical networks (B-PON, G-PON, E-PON)
- Multi wavelength systems balancing
- Optical power receivers protection

#### **Technical Specifications**

	Single-mode UPC
Attenuation	from 1.0 to 20.0 dB, in 1.0 dB steps
Wavelength	1260 to 1625 nm
Tolerances (1.0 to 5.0 dB)	±0.75 dB
Tolerances (6.0 to 20.0 dB)	±15 %
Return loss	> 50 dB
Optical power (max.)	250 mW
Durability	Min. 1000 mating cycles
Operating temperature	−25 to +70 °C
Durability	Min. 1000 mating cycles
Material	Plastic, UL94-V0
Colour	Black/blue

## LC APC Attenuator Single mode- Plug Type



Savitri Telecom Services introduces the LC APC Attenuator Single Mode - Plug Type, a high-quality fiber optic attenuator designed for single-mode applications. This attenuator is ideal for use in high-speed, long-distance data transmission applications, where signal distortion or damage is a concern.

The LC APC Attenuator Single Mode - Plug Type features an LC APC connector, which ensures a secure and stable connection to your fiber optic network. Its plug-type design allows for easy installation and removal, without the need for additional tools or equipment.

This attenuator is designed to provide precise and reliable attenuation, with a wide attenuation range to accommodate various application requirements. The LC APC Attenuator Single Mode - Plug Type is manufactured to the highest quality standards and is rigorously tested to ensure optimal performance and reliability.

Savitri Telecom Services is committed to providing high-quality fiber optic solutions that meet the evolving needs of our customers. With our LC APC Attenuator Single Mode - Plug Type, we continue to deliver on that commitment, offering a reliable and cost-effective solution for your fiber optic network attenuation needs.

#### **KEY FEATURES**

- Latched push-pull type, small form factor (1.25 mm ferrule)
- High stability and reliability
- Flat spectral response
- LC interface according to IEC 61754-20

#### **KEY APPLICATIONS**

- Passive optical networks (B-PON, G-PON, E-PON)
- Multi wavelength systems balancing
- Optical power receivers protection

	Single-mode UPC	Unit
Attenuation	1.0dB to 30.0dB in 1dB steps	dB
Attenuation Tolerance (max.)	1.0dB to 10.0dB ±0.5dB 11.0dB to 30.0dB ±1.0dB	dB
Operating Wavelength	1260 to 1625 nm	nm
Center Wavelenths	1260nm to 1360nm & 1460nm to 1625nmm	nm
Return loss	≥ 60.0dB	dB
Maximum Input Power	250mW	mW
Ferrule	Full ceramic	
Operating temperature	–25 to +70 °C	°C
Durability	Min. 1000 mating cycles	
Material	Plastic UL94-V0	
Colour	Green	

#### **Technical Specifications**

#### Fixed Adapter Type Attenuator



The Fixed Adapter Type Attenuator, also known as the Fixed Bulkhead Type or Fixed Female-Female Optical Attenuator, is a passive device that reduces the power of optical signals in fiber optic systems. It utilizes the air gap between two connectors to achieve the optical attenuation, making it a simple, low-cost, and compact solution for applications where return loss is not a concern.

#### **Technical Specifications**

Attenuation levels	3dB, 5dB, 10dB, 15dB, 20dB
Connector types	ST/PC, FC/PC, SC/PC
Operation mode	Multimode or Single mode
Operating wavelength	850nm, 1300nm, 1550nm
Power endurance	1W
Return loss	>45dB
Operating temperature	-40°C to +75°C

In addition to Fixed Adapter type Optical Attenuator, we also offer other fixed-type optical attenuators (Fixed Plug optical Attenuator, Fixed In-line optical Attenuator, Fixed Hybrid Adapter optical Attenuator) and variable-type optical attenuators (Variable Plug-in optical attenuator, Variable Adapter Type optical Attenuator, Variable In-line optical Attenuator, Manual VOA Fiber optical Attenuator) to cater to your different application requirements.

#### **KEY FEATURES**

- Fixed attenuation levels: The Fixed Adapter Type Attenuator features fixed attenuation levels of 3dB, 5dB, 10dB, 15dB, and 20dB, providing reliable and consistent performance over time.
- Various connector types: This device is available in ST/PC, FC/PC, or SC/PC formats, ensuring compatibility with different fiber optic systems.
- High power endurance: The Fixed Adapter Type Attenuator is designed to withstand high power levels, ensuring reliable operation even in demanding environments.
- Low back reflection: This device features low back reflection, ensuring the integrity of optical signals and reducing the potential for signal distortion.
- All fiber construction: The Fixed Adapter Type Attenuator features all-fiber construction, making it easy to install and integrate into existing fiber optic systems.

#### **KEY BENEFITS**

- Cost-effective solution: The Fixed Adapter Type Attenuator is a simple and cost-effective solution for applications where return loss is not a concern.
- Reliable performance: With fixed attenuation levels, high power endurance, and low back reflection, this device provides reliable and consistent performance over time.
- Easy to install: The all-fiber construction of the Fixed Adapter Type Attenuator makes it easy to install and integrate into existing fiber optic systems.
- Compatible with different systems: This device is available in various connector types and attenuation levels, making it compatible with a wide range of fiber optic systems.

#### **KEY APPLICATIONS**

- The Fixed Adapter Type Attenuator is widely used in ODF, fiber transmission equipment, and instruments, where signal power needs to be reduced without affecting signal quality.
- It is also suitable for applications where return loss is not a concern, such as testing and measurement.



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