What is the price of an intelligent optical attenuator



Overview

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Key Takeaways

Intelligent optical attenuators typically range from $100 to over $5,000 depending on type, precision, and application. Intelligent optical attenuators, also known as programmable or smart attenuators, are designed for precise control of optical signal power in fiber optic systems, often including features like automated level control, calibration, and multi-wavelength compatibility. The price varies significantly based on complexity and specifications: Fixed attenuators: Simple devices providing constant loss, generally priced between $20 and $200.

Variable optical attenuators (VOAs): Allow adjustable attenuation, typically ranging from $50 to $500, with higher-end precision models costing more. Thermo-optic and MEMS-based intelligent attenuators: Advanced devices with programmable control, automated feedback, and high precision, priced from $100 up to $5,000 or more, depending on wavelength range, connector type, and attenuation resolution.

Factors Affecting Price

Attenuation range: Wider ranges (e.g., 50 dB vs 10 dB) increase cost. Connector type: Specialty connectors like MPO or E2000 are more expensive than standard SC or FC connectors. Wavelength compatibility: Devices supporting multiple bands (e.g., 850 nm, 1310 nm, 1550 nm) or high-power lasers cost more.

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Resolution and precision: Finer step resolution (e.g., 0. 1 dB) increases price, especially for variable or intelligent attenuators. Brand and materials: Premium brands and high-quality optics or coatings command higher prices.

Application: Attenuators for telecom, military, medical, or high-power laser applications are priced higher due to stricter performance requirements. In summary, intelligent optical attenuators are a premium category, with prices reflecting their precision, programmability, and suitability for demanding optical systems. For standard commercial use, expect costs in the $100–$1,000 range, while specialized high-performance models can exceed $5,000.

Article Content

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Our fixed optical attenuators are fiber connectors that can be attached to an FC/PC or FC/APC single mode fiber patch cable. We also offer fixed optical attenuators for multimode fibers

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Attenuators

Handheld Variable Optical Attenuator - 1310 or 1550nm This handheld instrument has an electrically driven variable optical fiber attenuator as its key ele...

Optical Attenuators Market Share, Competitive Landscape & Forecast

It explores a wide spectrum of influencing factors, including pricing strategies, where variable optical attenuators designed for dynamic network environments often command higher value compared to

Optical Attenuators – Buyer''s Guide & Supplier List | RP Photonics

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This buyer''s guide for optical attenuators provides technical background, comparison of major types, selection criteria, and an overview of suppliers.

Fiber Optical Variable Attenuators

We offer the industry''s most extensive selection of fiber variable optical attenuators (VOAs), addressing all application scenarios with best-in-class performance and value.

Optical Attenuators | Keysight

Keysight optical attenuators provide precise control of optical signal power for accurate and repeatable optical component testing. Attenuators emulate signal loss, balance power levels, and protect

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Optical Attenuators

Optical attenuators are usually of two types: fixed attenuation or adjustable attenuation. Fixed attenuation value optical attenuator usually has a fixed attenuation value, such as 1dB, 3dB, 5dB,

Variable attenuator

OVA-50 Intelligent Optical Variable Attenuator Attenuation range: 2.5-60dB Direct output power control Working modes: 1.Output power control 2.Absolute/relative

Understanding Optical Attenuators: An In-Depth Guide to Types and

Discover the importance of optical attenuators in fiber optic communication systems. Learn how these devices manage signal strength, prevent degradation, and maintain data integrity in various network

Optical Variable Attenuator

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OVA-50 Intelligent Optical Variable Attenuator Attenuation range: 2.5-60dB Direct output power control Working modes: 1.Output power control 2.Absolute/relative attenuation setting

SmartClass OLA-54/-55/-55M Optical Level Attenuators

Overview The SmartClass OLA-54/-55/-55M Optical Level Attenuators are future-proof, improved variable attenuators for fiber system testing as well as installation, maintenance, and production of

Mastering Optical Attenuators in Optical Physics

Explore the world of Optical Attenuators, their types, applications, and significance in Optical Physics, enhancing your understanding of signal management.

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

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