

Optical Delay Module



Overview

Optical delay line modules are used to produce defined optical transmission delays and to compensate for delay differences in optical fibers. For purchasing, use the RP Photonics Buyer's Guide for optical delay lines. It provides an expert-curated supplier directory, buyer-focused technical background information, and structured selection criteria to support professional procurement decisions. In fiber sensor technology, optical coherence tomography, and fiber-optic interferometers, the transmission time of the optical signal often has to be controlled. We provide a full range of best-in-class optical and microwave delay solutions, including ultra-fast nanosecond variable delay, motor-driven delay lines, customer-defined fiber coil length selective delay, high-resolution digitally switching delay lines, RF integrated delay systems. We produce Thorlabs' Free-Space Optical Delay Lines (ODL) enable computer-controlled variation of the optical path length. The Switched Delay Line System is a highly configurable 19" rack mount system that supports up to 212 (4096) switched delays (assumes three J-Chassis J-OPS plug-in modules). The RF input and output of the system are Optical Zonu RF over. All-fiber delay line interferometer modules are key components in quantum communication systems, enabling precise phase control with ultra low losses for protocols such as quantum key distribution, teleportation, and entanglement-based experiments. Compared to free-space setups, all-fiber.



Article Content

Optical Delay Lines

Optical delay lines provide variable time delays for interferometers, autocorrelators, and optical sampling, using free-space optics or fiber delay lines.

Optical / RF Delay Lines

Optical / RF Delay Lines We offer a comprehensive range of RF and optical time delay products and systems refined over 20 years of serving the US defense

RF & Microwave Fiber Optic Delay Line System

Ortel's variable (progressive) Fiber Optic Delay Line System (DLS) offer superior performance for radar range calibration, ground based system tests, radar warning receivers, timing control, path delay

Fiber Delay Line

Fiber-optic delay lines are used to produce defined fiber-optic transmission delays to compensate for delay differences in optical fiber systems.

Optical Delay Line Modules

Optical delay line modules are used to produce defined optical transmission delays and to compensate for delay differences in optical fibers.

MDLD-1550-1000-N-N-B-1-M

The MDLD-1550-1000-N-N-B-1-M from HJ Optronics, Inc. is a Optical Delay Line with Operating Wavelength 1310 nm, 1550 nm, Delay Range 0 to 1200 ps, Insertion Loss 2 dB.

Fiber optic delay-line interferometer module, fiber optic

IDIL provides turnkey optical delay line interferometer modules tailored for interferometric quantum applications with fixed times delay coils, optical delay

Emcore: Fiber Optic Delay Line 5021 Series und OTS

Emcore's fiber optic delay lines provide highly-accurate, repeatable and adjustable electrical time delays in a wide variety of ruggedized form-factors and delay lengths.

MDL-002 | Optical Delay Line | Luna Fiber Optic Products

The MDL-002 is a fiber coupled delay line with the delay adjustment path in free space. It is driven by a DC motor with integrated encoder, and combines delay

Optical Delay Lines

Thorlabs' Free-Space Optical Delay Lines (ODL) enable computer-controlled variation of the optical path length. Each system includes a DC servo stage,

Fiber Optic Variable Optical Delay Line Module

Internally, the input optical signal propagates through various fiber optic loops before exiting. Delay time can be digitally varied by switching to pass through N fiber

Optical Time Delay Solutions

Customized, high-precision optical time delay solutions for addressing fiber optic latency and timing applications in data centers and test laboratories.

Modular RF Optical Delay Line System

The system adopts pluggable blade modular design, which mainly consists of a 3U 19" rack chassis, RF optical transceiver module, multiple fibre-optic delay module, optical amplifier module (optional), and

Optical Variable Delay Line: Components and Systems

We produce turn-key systems with computer GUI, OEM modules, and components. These delay lines can be reconfigured at high speed up to nano-seconds and

Emcore: Fiber Optic Delay Line 5021 Series und OTS

LWL – Delay lines from Emcore Emcore's fiber optic delay lines provide highly-accurate, repeatable and adjustable electrical time delays in a wide variety of

Optical Delay Line Modules

Optical Delay Lines In fiber sensor technology, optical coherence tomography, and fiber-optic interferometers, the transmission time of the optical signal often has to

Fiber Optic Delay Lines

Optical Delay Lines can be housed in 1U/3U/5U rack-mountable enclosures with connector interfaces. Custom ODL module with four independent delay lines.

Custom Optical Time Delays for Fiber Latency and

Optical time delays, aka fiber delay lines, are essential for signal timing, synchronization, equalization, and other latency-driven applications in today's

VODL-1550-500-A-N-B-1-S

The VODL-1550-500-A-N-B-1-S from HJ Optronics, Inc. is a Optical Delay Line with Operating Wavelength 1060 nm, 1310 nm, 1550 nm, Delay Range 0 to 500 ps, Insertion Loss 1.2 dB.

Fiber Optic Variable Optical Delay Line Module

Perfected over 15 years, it uniquely features a long delay of up to milliseconds, ultra-fast (nanoseconds) delay variation speed, and up to 25 bits of high resolution.

Switched Delay Lines

Optical switching modules control the routing through, or bypass of, discrete optical delay line elements. In this way, a maximum of 2^n (n is the number of discrete delay elements) resulting delays may be

What are Variable, Progressive, and Passive Optical Delay Lines?

The ODL optical system supports very high bandwidths of analog signals, high sensitivity with wide dynamic range, for various delays. Applications and Variable Optical Delay Lines Variable

Variable Fiber Optic Time-Delay Module | MEISU

Optical fiber time-delay modules are widely used in optical fiber sensors, optical encoders, optical decoders or optical caches. Fiber is the core component of

Variable RF/Microwave Delay System

Our unique optic amplifiers with short intrinsic delay are used in this unit to compensate for loss through long fiber loop segments and switches. The system

Fiber Optical Delay Lines

Optical delay lines: Modules & motorized systems to adjust optical path lengths. Products are phase shifter, fiber stretcher, optical delay lines - motorized versions available.

Optical Variable Delay Line: Components and Systems

We provide a full range of best-in-class optical and microwave delay solutions, including ultra-fast nanosecond variable delay, motor-driven delay lines,

Optical Delay Line: What You Need to Know

Conclusion In conclusion, the world of optical delay lines is vast and dynamic, with applications spanning from telecommunications to scientific

Contact Us

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