

1x4 MEMS Fiber Optic Switch

The MEMS Latch Series 1x4 Fiber optic switch connects optical channels by redirecting incoming optical signals into selected output fibers. It features rugged thermal activated micro-mirror movements and latches to preserve the selected optical path after the drive signal has been removed.



Overview

High-Performance MEMS Optical Switching

This 1x4 MEMS optical switch is a compact, high-reliability device designed for precise routing of optical signals in fiber optic networks. Built with advanced micro-electro-mechanical systems technology, it offers intrinsic tolerance to ESD and supports latching operation for stable performance. It is an ideal solution for system monitoring, instrumentation, and channel blocking applications.

Key Features

Key Features	High Reliability, Latching, ESD Tolerance
Common Applications	Channel Blocking, System Monitoring, Instrumentation

Optical Performance

Insertion Loss

0.7 dB

Typical

1.2 dB

Maximum

Crosstalk & Return Loss

- Return Loss ≥ 50 dB
- Crosstalk ≤ 50 dB

Performance Metrics

Parameter	Value
PDL	≥ 0.1 dB
WDL	≥ 0.25 dB
TDL	≥ 0.2 dB
Repeatability	± 0.05 dB

Wavelength Range	1260 - 1620 nm
------------------	----------------

Technical Specifications

Switching Time	5 ms
Lifetime	$\geq 10^9$ Cycles
Transmission Power	500 mW
Dimensions (L x W x H)	26 x 22 x 9.4 mm

Environmental Conditions

Operating Temperature	-5 to +70 °C
Storage Temperature	-40 to +85 °C