1x32 MEMS Optical Switch

This 1x32 MEMS switch provides rapid opto-mechanical switching within 1240 nm to 1640 nm wavelengths. Its micromechanical mirrors ensure reliable operation, achieving switching times below 1 ms and insertion loss of only 1.5 dB.

Product Overview

High-Performance MEMS Optical Switching

The 1x32 non-latching MEMS optical switch is engineered for demanding single-mode fiber instrumentation and communication applications. Utilizing advanced silicon MEMS technology with micro-mechanical mirrors, this device ensures exceptional reliability and constant switching quality over billions of cycles. It offers rapid switching speeds under 1 ms and high crosstalk attenuation, making it an ideal solution for source selection, protection switching, and wavelength provisioning.

Performance Metrics

Key Performance Metrics

1.5 dB	1 ms	60 dB
Insertion Loss	Switching Time	Crosstalk

Technical Specifications

Optical Parameters

Parameter	Min	Max
Wavelength Range (nm)	1240	1640
Insertion Loss (dB)	1.5	2.5
Crosstalk (dB)	50	60
Back Reflection (dB)	45	55

Electrical & Mechanical

- Switching Voltage: 5 V
- Power Consumption: 10-50 mW
- Control Signal: 5 V TTL or CMOS
- Fiber Pigtail: 9/125, 50/125, or 62.5/125 mm

Environmental & Reliability

Durability

No wear out • Billions of cycles

Operating Temperature	70 °C

Applications

Typical Applications	Source Selection, Protection Switching, Monitoring, Wavelength Provisioning