

1xN Stepper Motor Optical Switch

This 1xN optical switch utilizes a stepper motor for precise control. It features low loss, high reliability and is suitable for ring networks and remote monitoring in optical networks.



Overview

High-Performance 1xN Optical Switch

This 1xN stepper motor optical switch is engineered for precision routing of optical signals in advanced communication systems. Offering reliable, low-loss performance, it is an essential component for optical fiber testing, network reconfiguration, and real-time signal monitoring. Built for durability and speed, it serves as an ideal solution for demanding environments in telecommunications, data centers, and research laboratories.

Optical Performance

Insertion Loss by Channel Count

Channel Configuration	Typical Loss (dB)	Max Loss (dB)
1 < N d 32	0.6	1
32 < N d 64	1	1.2
64 < N d 128	1.2	1.6

Return Loss SM e 55 dB, MM e 35 dB

Crosstalk e -80dB

Polarization Dependent Loss (PDL) 0.1 dB

Wavelength Dependent Loss (WDL) 0.25 dB

Temperature Dependent Loss (TDL) 0.3 dB

Technical Specifications

Wavelength Range 532-1300 nm, 1260-1660 nm

Switching Time 12 ms

Repeatability d ±0.05dB

Lifetime 10⁷ cycles

Max Optical Input Power 1000 mW

Environmental & Power

Operating Temperature -40 to +70 °C

Storage Temperature -40 to +85 °C

Power Supply 5 V