

MEMS 2X2 OPTICAL SWITCH



The MEMS 2x2 Optical Switch is a true 2x2 optical switch. It has two fiber inputs and two fiber outputs and can be switched to one of two configurations, shown below. This optical switch utilizes proprietary MEMS technology to achieve reliable optical performance and excellent durability; Optical Switches have been shown to last for over one billion switch cycles and are qualified to Telcordia GR-1221 environmental standards.



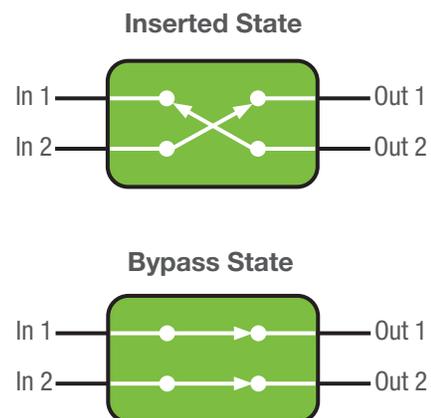
Features and Applications

Features

- Reliable Optical Performance
- Excellent Durability
- Compact Form Factor
- Low Power Consumption

Applications

- Optical Communications
- Bio-medical Instrumentation
- Test Applications
- Add/Drop Applications



OPTICAL SPECIFICATIONS^{1,2}

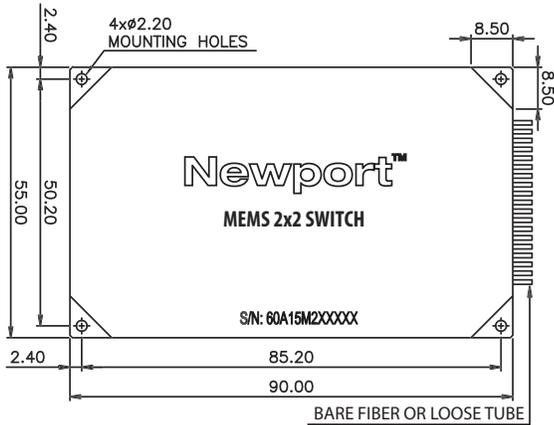
PARAMETER	RATING
Insertion Loss ^{3,4,5}	1.0 dB max.
Crosstalk	-50 dB max.
Back Reflection	-50 dB max.
Switching Time	30 MS max
TDL ⁶	0.30 dB max.
WDL ^{6,7}	0.20 dB max.
PDL ⁶	0.10 dB max.
Repeatability ⁸	0.02 dB max.
Durability	10 ⁹ cycles min.
Optical Power	500 mW max.
Operating Temp	-5 to 70° C
Storage Temp	-40 to 85° C
Fiber Type	9/125 μm single mode

1. Specifications are without connectors.
 2. Specifications are for a single pass through the switch. The optical path from In 2 to Out 2 uses an internal double pass through the switch
 3. IL is measured at CWL, 23°C ± 5°C
 4. IL is for single-band. Dual-band adds 0.2 dB
 5. In 2 to Out 2 path adds 0.8 dB
 6. In 2 to Out 2 path adds 0.1 dB
 7. WDL is measured in a +/- 20nm range at 23°C.
 8. Repeatability is defined within 100 cycles. In 2 to Out 2 adds 0.02 dB

Dimensional Drawings

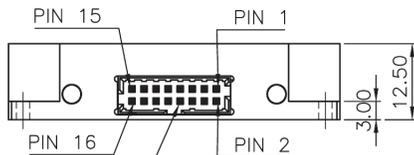
(Units: mm)

Top View



ELECTRICAL SPECIFICATIONS

PARAMETER	RATING	
Latching Type	non-latching	
Control Type	RS232 or TTL	
Vcc Voltage	RS232	12 VDC
	TTL	5 VDC
Power Consumption	RS232	700 mW max.
	TTL	1.5 W max.
Connector Type	Molex 87833-1620	



MOLEX: 87833-1620
 MATING PARTS: 87568-1694
 51110-1651