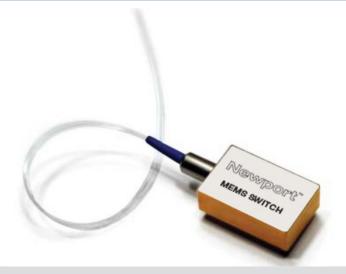# MEMS 1X2 OPTICAL SWITCH
DIP PACKAGE

The MEMS 1x2 Optical Switch allows channel selection between an input fiber and two output fibers. The switch is bi-directional and can also be used as a 2x1selector switch. Built using industry proven MEMS fiber optic switch technology, this optical switch offers highly reliable, durable, long-life operation in a compact, OEM package.

Features and Applications

Features

- Proven MEMS Technology
- Excellent Reliability and Repeatability
- Lifetime > 1 Billion Switch Cycles

Applications

- Optical Communications
- Fiber Sensing
- Bio-medical Instrumentation
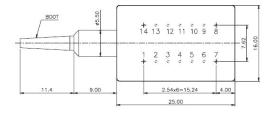- Video Distribution

OPTICAL SPECIFICATIONS[1,2]

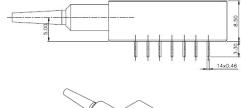| PARAMETER	RATING
Insertion Loss [2,3,4]	0.7 dB max.
Crosstalk[5]	-50 dB max.
Back Reflection	-50 dB max.
TDL	0.30 dB max.
WDL[6]	0.20 dB max.
PDL	0.10 dB max.
Repeatability[7]	0.02 dB max.
Optical Power	500 mW max.
Durability	10^9 cycles min.
Switching Time	10 ms max.
Operating Temp	-5 to 70° C
Storage Temp	-40 to 85° C
Fiber Type	9/125 µm single mode

1. Specifications are without connectors.
2. IL is measured at CWL, 23° C.
3. IL is for standard opaque model.
4. IL is for single-band. Dual-band adds 0.1dB.

5. Power off isolation is same as crosstalk.
6. WDL is measured in a +/- 20nm range at 23° C.
7. Repeatability is defined after 100 cycles.
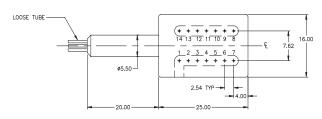
Dimensional Drawings

(Units: mm)

Bare Fiber

ELECTRICAL SPECIFICATIONS

PARAMETER	RATING
Latching Type	non-latching
Control Type	TTL
Vcc Voltage	12 VDC
Power Consumption	170 mW max.
Vcc Damage Threshold	15 VDC

Loose Tube