## LIGHTWAVE LINK INC

## 2x4 Optical Switch

## Product Description

Lightwave Link Inc. $2 \times 4$ optical switch with R15 Corning ${ }^{\circledR}$ ClearCurve ${ }^{\circledR}$ XB or equivalent Optical Fiber is designed for use in optical fiber communication networks and measurement instruments. The switch consists of two ports that selectively transmits, redirects, or blocks optical power in a fiber optic transmission line. The optical switch must be actuated to select or change between two states. Furthermore, for the Latching type, it only takes an electrical pulse width with duration $\geqq 20 \mathrm{msec}$ to change the state. As a result, it consumes low electric energy to operate the optical
 switch. Lightwave Link Inc. $2 \times 4$ optical switch fully complies with RoHS Directive 2011/65/EU.

## Features

- Smallest Size
- Low Insertion-Loss
- Fast Switching Speed
- PCB Mountable
- Available in Single Mode / Multi Mode
- RoHS Compliance


## Applications

- Optical network protection and restoration
- Optical network monitoring
- Reconfigurable add/drop multiplexers
- Transmission equipment protection
- Research and development
- Wavelength router


## Performance Specification

| Parameter | $9 \mu \mathrm{~m}$ Core Single Mode |  |  | $50 \mu \mathrm{~m}$ or $62.5 \mu \mathrm{~m} \quad$ Core Multi Mode |  |  | Unit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Min. | Typ. | Max. | Min. | Typ | Max. |  |
| Wavelength Range ${ }^{1}$ | 1260~1630 |  |  | 850/1300 |  |  | nm |
| Insertion Loss ${ }^{2}$ |  | 0.5 | 1.0 |  | 0.3 | 0.6 | dB |
| Return Loss |  | -55 |  |  |  |  | dB |
| PDL |  |  | 0.1 |  |  |  | dB |
| WDL |  |  | 0.3 |  |  |  | dB |
| Crosstalk |  | -80 |  |  | -80 |  | dB |
| Repeatability |  |  | $\pm 0.1$ |  |  | $\pm 0.1$ | dB |
| Switching Time ${ }^{3}$ |  |  | 3.5 |  |  | 3.5 | ms |
| Absolute Optical Input Power |  |  | 500 |  |  | 500 | mW |
| Operating Current | Latching:40 $\pm 10 \%$ / Non-Latching: $28 \pm 10 \%$ |  |  |  |  |  | mA |
| Operating Voltage | 4.5 | 5.0 | 5.5 | 4.5 | 5.0 | 5.5 | VDC |
| Power Consumption | Latching: $200 \pm 10 \%$ / Non-Latching: $140 \pm 10 \%$ |  |  |  |  |  | mW |
| Switching Life Expectancy | $3 \times 10^{7}$ |  |  | $3 \times 10^{7}$ |  |  | Cycles |
| Operation Temperature-Normal | -5 |  | 70 | -5 |  | 70 | ${ }^{\circ} \mathrm{C}$ |
| Operation Temperature-Special | -20 |  | 70 | -20 |  | 70 | ${ }^{\circ} \mathrm{C}$ |
| Storage Temperature | -40 |  | 85 | -40 |  | 85 | ${ }^{\circ} \mathrm{C}$ |
| Operation Humidity | 5 |  | 95 | 5 |  | 95 | \%RH |
| Storage Humidity | 5 |  | 95 | 5 |  | 95 | \%RH |
| Dimension ( $\mathrm{H}^{*} \mathrm{~W}$ *L) | $7.6 \times 11 \times 22.6$ |  |  |  |  |  | mm |
| Weight ${ }^{4}$ | 10 |  |  |  |  |  | 9 |

1. Special wavelength would be upon request.
2. Optical parameters excluded connectors.
3. A minimum $\geqq 20 \mathrm{~ms}$ pulse is recommended for latching type of switch.
4. The product weight excluded optical connectors.
