

1x2 OPTICAL SWITCH

Product Description

Lightwave Link Inc. 1x2 optical switch 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 ≥ 20 msec to change the state. As a result, it consumes low electric energy to operate the optical switch. Lightwave Link Inc. 1x2 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 μ m Core Single Mode			50 μ m or 62.5 μ m Core Multi Mode			Unit
	Min.	Typ.	Max.	Min.	Typ.	Max.	
Wavelength Range ¹	1260~1630			850/1300			nm
Insertion Loss ²	0.4	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			± 0.1			± 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	3x10 ⁷			3x10 ⁷			Cycles
Operation Temperature-Normal	-5		70	-5		70	$^{\circ}$ C
Operation Temperature-Special	-20		70	-20		70	
Storage Temperature	-40		85	-40		85	$^{\circ}$ C
Operation Humidity	5		95	5		95	%RH
Storage Humidity	5		95	5		95	%RH
Dimension (H*W*L)	7.6 x 11 x 22.6						Mm
Weight ⁴	10						g

1. Special wavelength would be upon request.
2. Optical parameters excluded connectors.
3. A minimum ≥ 20 ms pulse is recommended for latching type of switch.
4. The product weight excluded optical connectors.