

4x4 Industrial Bypass Optical Switch

Product Description

The 4x4 Industrial Bypass Optical Switch utilizes fiber-to-fiber technology over an angled surface to achieve ultra low losses and crosstalk. It is suitable for all bi-directional protection switching applications where premise-side connectivity is not required in the bypass state. Compact and competitive cost, this optical switch provides excellent performance on your network. Lightwave Link 4x4 Industrial Bypass Optical Switch fully complies with RoHS Directive 2002/95/EC (2008/385/EC).



Features

- Compact Format
- Low Return-Loss
- Available in Single Mode / Multi Mode
- PCB Mountable
- Non-Latching Type

Applications

- Node Bypass Protection

Performance Specification

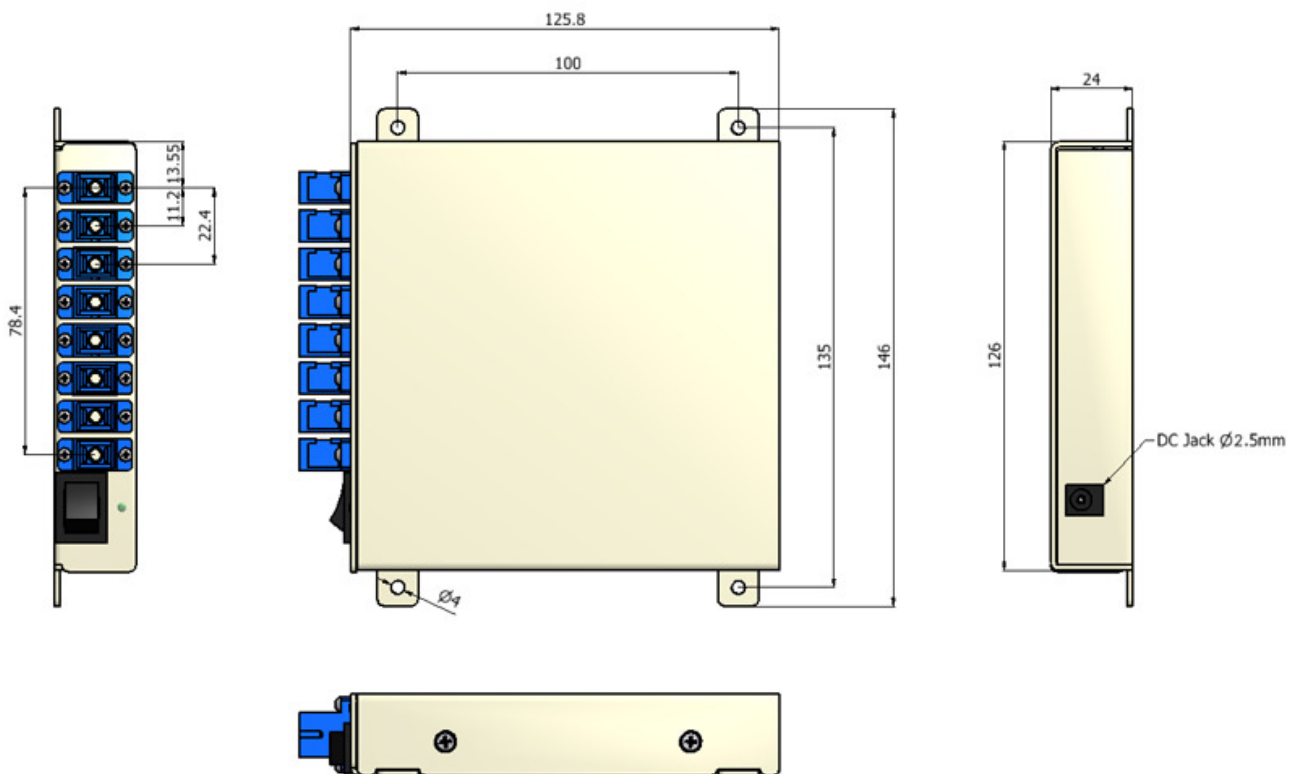
Parameter	9µm Core Single Mode			50µm or 62.5µm Core Multi Mode			Unit
	Min.	Typ.	Max.	Min.	Typ.	Max.	
Wavelength Range ¹	1260~1630			850/1300			nm
Straight Insertion Loss ²		0.5	1.0		0.4	0.8	dB
Bypass Insertion Loss ²		0.8	1.6		0.6	1.3	dB
Return Loss		-50					dB
PDL			0.1				dB
WDL			0.3				dB
Crosstalk		-80			-80		dB
Repeatability			±0.1			±0.1	dB
Switching Time ³			5			5	ms
Absolute Optical Input Power			500			500	mW
Operating Voltage	4.5	5.0	5.5	4.5	5.0	5.5	VDC
Power Consumption	140±10%						mW
Switching Life Expectancy	3x10 ⁷			3x10 ⁷			Cycles
Operation Temperature-Normal	-5		70	-5		70	°C
Operation Temperature-Special	-20		70	-20		70	°C
Storage Temperature	-40		85	-40		85	°C
Operation Humidity	5		85	5		85	%RH
Storage Humidity	5		85	5		85	%RH
Dimension (H*W*L)	22 x 108 x 126						mm
Weight ⁴	635						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.

Function Diagram

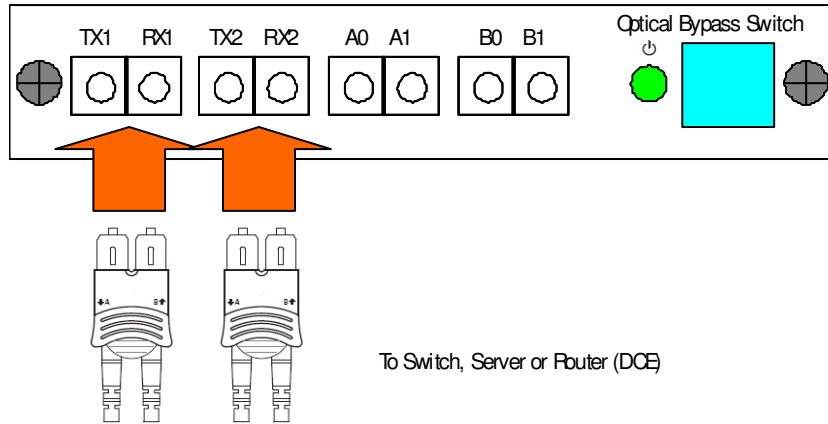
OSW Mode	Optical Path	
Normal Mode	TX1→A0	TX1 ————— A0
	RX1→A1	RX1 ————— A1
	TX2→B0	TX2 ————— B0
	RX2→B1	RX2 ————— B1
Bypass Mode	TX1→RX2	
	TX2→RX1	

Physical Dimension



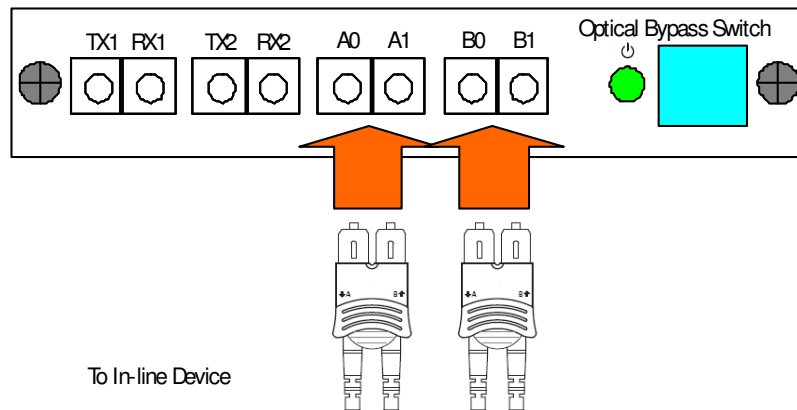
Connecting to the network

1. Connect Network Port A (1/2) to the appropriate switch, server or router device.
2. Connect Network Port B (3/4) to the appropriate switch, server or router device.
3. Verify that the Bypass Switch Network Ports are cabled in-line between two devices.

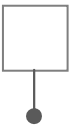
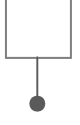

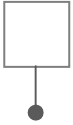


Connecting to the in-line device

1. Connect In-line Port A (A0/A1) to the in-line device using a LC/PC fiber cable.
2. Connect In-line Port B (B0/B1) to the in-line device using a LC/PC fiber cable.
3. Verify that the Switch In-line Ports are cabled in-line between two devices.
4. Connect the control cable or power supply to the switch. If you are installing the module with DC jack, make sure you connect the switches' power supply to the same power sources that in-line appliance is using.



Ordering Information

FOBB -	4 -	4 -	 -	 -	 -	
Product Version	Input	Output	Operation Function	Fiber Type	Fiber Cabling	Connector Type
	No. of Input	No. of Output	N: Non-Latching	9: 9/125µm 50: 50/125µm 62: 62.5/125µm	L: 900µm loose tube	5: SC/PC