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4x4 Industrial Bypass Optical Switch -Advance

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 an external Optical Bypass Box for 10 /1Gbps fiber Gigabit Ethernet networks. The 4x4 Optical Bypass Box protects from network failures and is easy to implement network maintenance by ensuring network integrity. It is suitable for all bi-directional protection switching applications where premise-side connectivity is not required in the bypass state. The optical bypass box provides excellent performance on your network and posses the advantages of compact and competitive cost. 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
- Non-Latching Type
- LED indicators for Power and OSW status
- Power on Time Delay
- DIN Type Mounted

Applications

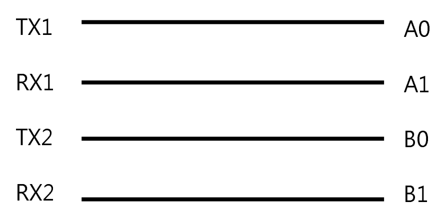
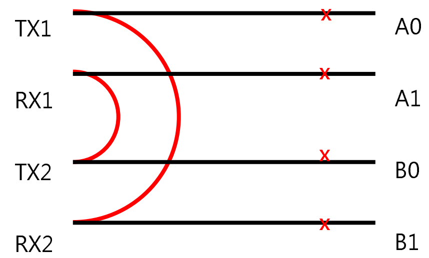
- Node Bypass Protection
- Network Maintenance
- Industrial Ethernet Ring Switch
- Intrusion Prevention System
- SDH ADM Ring
- WAN Optimization
- High Performance Server

Performance Specification

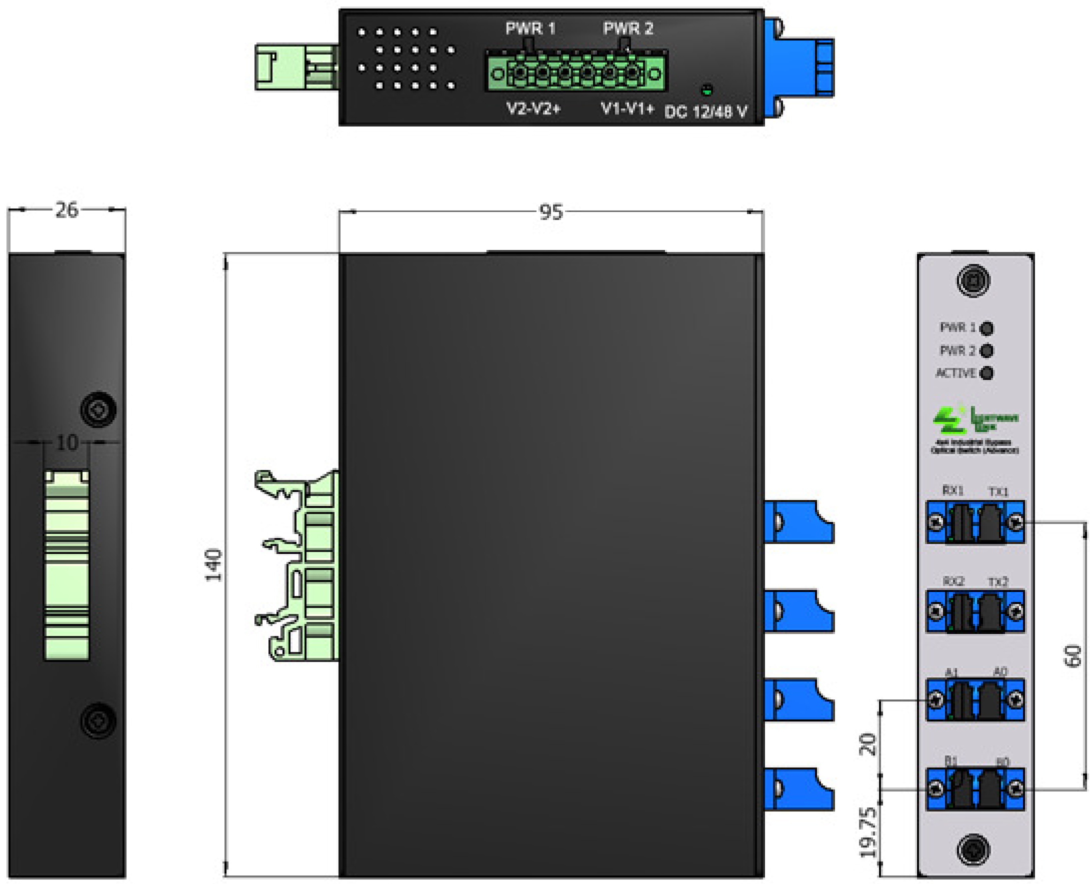
Parameter	9µm Core Single Mode			50µm or 62.5µm Core Multi Mode			Unit
	Min.	Typ.	Max.	Min.	Typ.	Max.	
Wavelength Range [1]		1260~1630			850/1300		nm
Straight Insertion Loss [2]		0.5	1.0		0.4	0.8	dB
Bypass Insertion Loss [2]		0.8	1.6		0.6	1.3	
Return Loss		-50					dB
PDL			0.1				dB
WDL			0.3				dB
Crosstalk		-80			-80		dB
Repeatability			±0.1			±0.1	dB
Switching Time [3]			5			5	ms
Absolute Optical Input Power			500			500	mW
Operating Voltage	12~48						VDC
Power Consumption	750±10%						mW
EMI Certification	FCC Class B						
Switching Life Expectancy	3×10^7			3×10^7			Cycles
Operation Temperature-Normal	-5		70	-5		70	℃
Operation Temperature-Special	-20		70	-20		70	℃
Storage Temperature	-40		85	-40		85	℃
Operation Humidity	5		85	5		85	%RH
Storage Humidity	5		85	5		85	%RH
Dimension (H*W*L)	26 x 95 x 140						mm
Weight [4]	510						g

1. Special wavelength would be upon request.
2. Optical parameters excluded connectors.
3.A minimum ≧20ms 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	
	RX1→A1	
	TX2→B0	
	RX2→B1	
Bypass Mode	TX1←→RX2	
	RX1←→TX2	

Physical Dimension



Connecting to the network

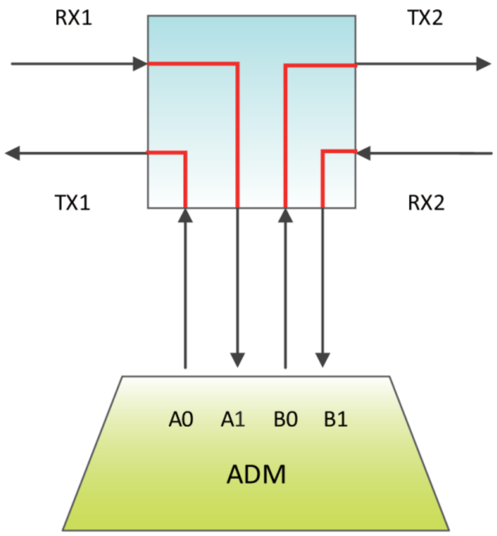
1. Connect Network Port A (TX1/RX1) to the appropriate switch, server or router device.
2. Connect Network Port B (TX2/RX2) to the appropriate switch, server or router device.
3. Verify that the Bypass Switch Network Ports are cabled in-line between two devices.

Connecting to the in-line device

1. Connect In-line Port A (A0/A1) to the in-line device using a LC/PC patch cord.
2. Connect In-line Port B (B0/B1) to the in-line device using a LC/PC patch cord.
3. Verify that the Switch In-line Ports are cabled in-line between two devices.
4. Making sure you connect the switches' power supply to the same power sources that in-line appliance is using.

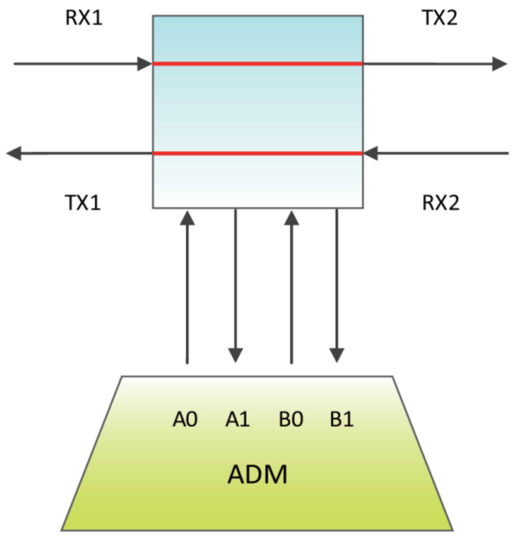
Application Examples

Normal Mode



VDC connect

Bypass Node



VDC Broken

Ordering Information

FOBBC -	4 -	4 -	N -	-	L -	8
Product Version	Input	Output	Operation Function	Fiber Type	Fiber Cabling	Connector Type
C: Version C with LC connectors	No. of Input	No. of Output	N: Non-Latching	9: 9/125µm 50: 50/125µm 62: 62.5/125µm	L: 900µm loose tube	8: LC/PC