



東盈光電科技股份有限公司

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## 4x4 Bypass Switch

The 4x4 Bypass Switch utilizes fiber-to-fiber technology over an angled surface to achieve ultra low losses and crosstalk. It is suitable for connecting with in-line equipments for power failure or system maintenance. When the In-Line unit is not on or is in bypass mode, the relay within the 4x4 OSW are set to bridge the optical signals directly through the switch, completely bypassing the In-Line equipment. If the In-Line equipment is on and operating normally, it supplies power to the switch through a control cable. Compact and competitive cost, this optical switch provides excellent performance on your network.

### **FEATURES**

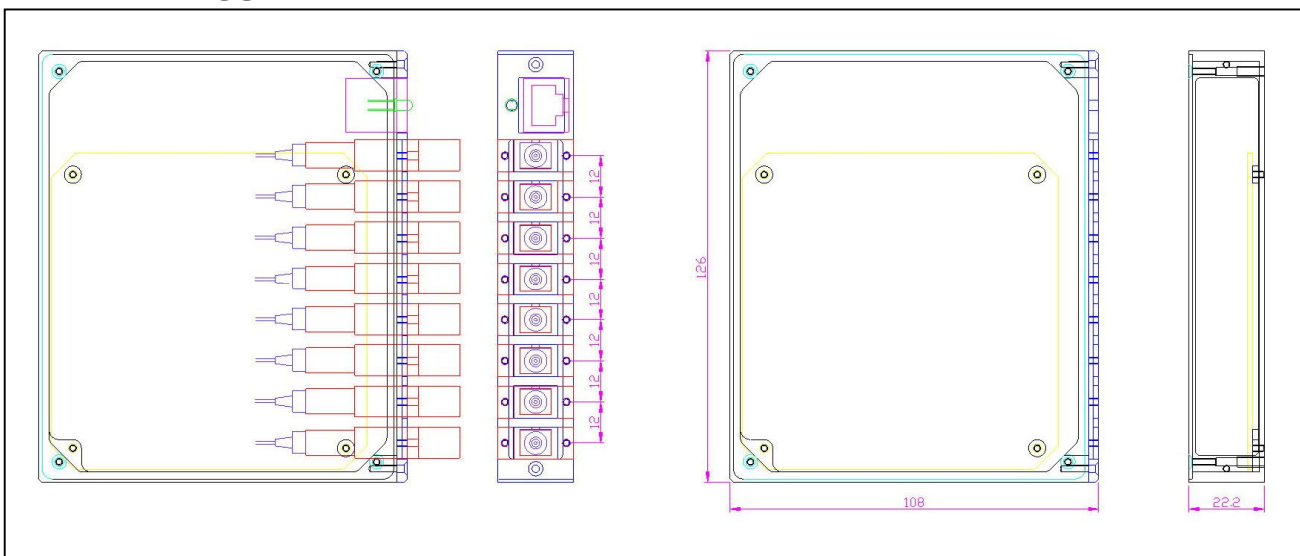
1. Compact Format
2. Low return loss
3. Available in singlemode and multimode
4. Box Type (PCB Mountable Type Available by Request)
5. Nonlatching



## ELECTRICAL CHARACTERISTICS and OPTICAL PATHS:

PCB Mountable Type		Box type		State Diagrams
Operation Voltage		5.0±0.5V		
Optical Paths	3 Pin Header 0.1 Spacing		Monitor	
	Pin 1	Pin3	LED (G)	
1→A0	Low	High	On	Normal State: 1 ————— A0 2 ————— A1 3 ————— B0 4 ————— B1
2→A1	Low	High	On	
3→B0	Low	High	On	
4→B1	Low	High	On	
1→4	None	None	Off	Bypass State: 1 ————— x A0 2 ————— x A1 3 ————— x B0 4 ————— x B1
2→3	None	None	Off	

## DRAWINGS

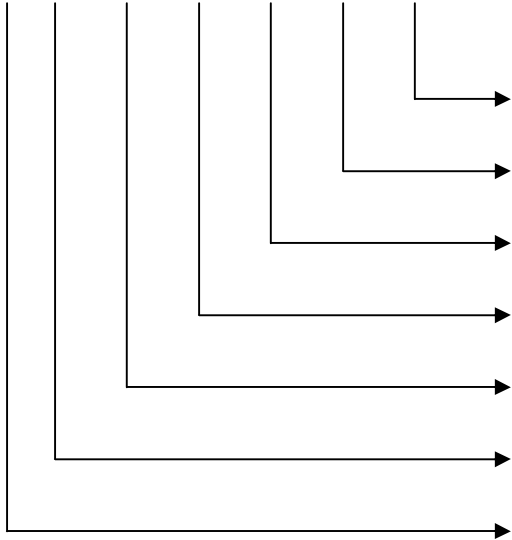


## OPTICAL CHARACTERISTICS

Characteristics	Singlemode @1310/1550nm		Multimode @800nm		Unit	Remarks
	Typical	Maximum	Typical	Maximum		
Fiber Type	9/125		62.5/125		μm	SMF-28e Available
Cable Type	250		250		μm	Bare Fiber Routing in The Module
Connector Type	SC/APC		SC/APC		pc	Customized by Request
Insertion Loss	Typical	Maximum	Typical	Maximum	dB	With Connectors
	1.2	1.5	1.0	1.3		
Return Loss	Typical	Maximum	Typical	Maximum	dB	With Connectors
	50	55	40	45		
PDL	≤0.1		≤0.1		dB	With Connectors
WDL	≤0.1		≤0.1		dB	Within ±30nm
Cross-talk	≤-80		≤-80		dB	With Connectors
Switching Time	≤5		≤5		ms	With Connectors
Repeatability	±0.02		±0.02		dB	Peak to Peak (100 cycles)
Temperature Stability: ΔIL	≤0.5		≤0.5		dB	-5~70℃
Lifetime Drift	≤0.3		≤0.3		dB	@10 <sup>7</sup> Cycle
Optical Power	20		20		dBm	
Operating Temperature	-5~70		-5~70		℃	
Storage Temperature	-40~85		-40~85		℃	
Relative Humidity	90		90		%	Non-condensing
Design Voltage	5		5		V	Customized to AC Voltage by Request
Typical Current	120		120		mA	
Switch Voltage	4.5~5.5		4.5~5.5		V	
Package Dimensions	126(W)x108(D)x22(H)		126(W)x108(D)x22(H)		mm	Customized by Request
Weight	303.5		303.5		g	Including Connectors

**ORDERING INFORMATION**

**FSOW - 4 - 4 - N - B - 9 - X - X**



1: None; 2:FC/PC; 3: FC/APC; 4: SC/APC;  
5: SC/PC; 6: MU/PC; 7: ST/PC; 8: LC/PC;  
9: SC/UPC; A: MT/RJ; B: MU/UPC; C: FC/UPC

B: Bare Fiber; L: Loose Tube

9: Singlemode; 62: Multimode

B: Bypass; F: Full; H: Half

L: Latching; N: Nonlatching

No. of Output

No. of Input