

2X2 Full Mechanical PM Optical Switch

SHENJIAN's mechanical optical switch is based on free-space designed, and it is widely used in OADM, OXC, system monitoring and so on. Based on the special optical design, it features excellent optical characteristics with fast switch time, low insertion loss, and high reliability. Moreover, because of its compact structure and small volume, it easy to be integrated with high density in the optical fiber communication system.



◆ Feature

- Compact structure
- Low IL
- Fast switch time

◆ Application

- PON Network
- Protection
- Instrumentation
- Network monitor

◆ Compliance

- Telcordia GR-1221
- Telcordia GR-1073

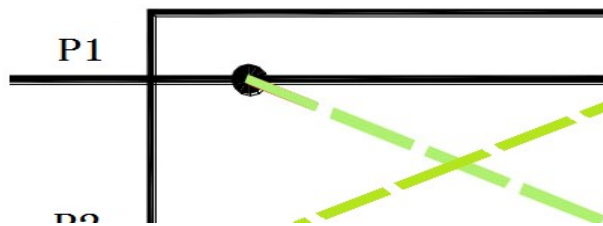
Specifications

Parameters	Unit	Specifications
Operating Wavelength	nm	1260~1620
Insertion Loss	dB	≤1.0 (typical: 0.8)
Wavelength Dependent Loss	dB	≤0.25
Temperature Dependent Loss	dB	≤0.2
Polarization Dependent Loss	dB	≤0.05
Return Loss	dB	≥50
Crosstalk	dB	≥55
Repeatability	dB	≤±0.02
Switch Time	ms	≤8
Durability	times	≥10 million
Operating Voltage	V	3.0 or 5.0
Optical Power	mw	≤500
Operating Temperature	°C	-5~+70
Storage Temperature	°C	-40~+85
Operating Humidity	°C	5~95
Dimension	mm	L27xW12.6xH8.2
Note:1.Within operating temperature and all SOP.		
2.Excluding connector, and add 0.3dB IL for a pair of connectors.		

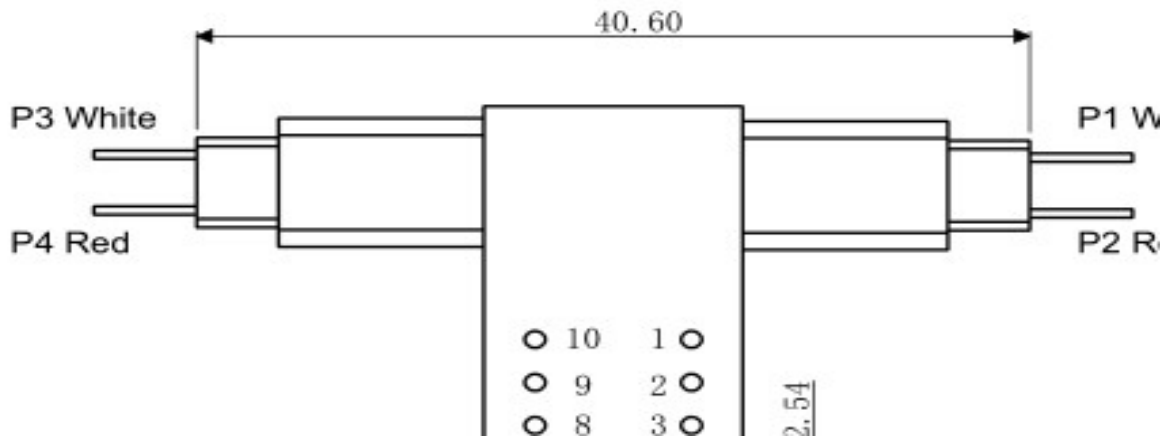
◆ Pin Configurations

Type	State	Optical Route	Electric Drive				State Sensor			
2x2T			Pin 1	Pin 5	Pin 6	Pin 10	Pin 2-3	Pin 3-4	Pin 7-8	Pin 8-9
Latching	A	P1-P4, P3-P2	-	-	GND	V+	Close	Open	Open	Close
	B	P1-P3, P2-P4	V+	GND	-	-	Open	Close	Close	Open
Non-latching	A	P1-P4, P3-P2	-	-	-	-	Close	Open	Open	Close
	B	P1-P3, P2-P4	V+	-	-	GND	Open	Close	Close	Open

◆ Optical Route



◆ Dimension



◆ Electrical Specification

Type	Voltage	Current	Resistance
5V Latching	4.5~5.5V	36~44mA	125Ω
5V Non-latching	4.5~5.5V	26~32mA	175Ω
3V Latching	2.7~3.3V	54~66mA	50Ω
3V Non-latching	2.7~3.3V	39~47mA	70Ω

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◆ Ordering Information : ISW-2x2T-A-B-C-D-E-F

A	B	C	D	E	F
Test Wavelength	Type	Fiber Type	Fiber Dimension	Fiber Length	Connector
850: 850nm	3L: Latching	SM: Single Mode	025: Φ0.25mm	05: 0.5m	00: None
1310: 1310nm	3N: Non-latching	M1: Multi-mode 50/125	09: Φ0.9mm	10: 1.0m	FP: FC/UPC
1550: 1550nm	5L: Latching	M2: Multi-mode 62.5/125	X: other	15: 1.5m	FA: FC/APC
D: 1310/1550nm	5N: Non-latching	X: other		X: other	SP: SC/UPC
X: other					SA: SC/APC
					LP: LC/UPC
					LA: LC/APC
					X: other