Mini 1x8 Mechanical Optical Switch

GEZHI Series Mini 1x8 fiber optic switch connects optical channels by redirecting an incoming optical signal into a selected output fiber. This is achieved by using a patent pending opto-mechanical configuration activated via an electrical control signal. Latching operation preserves the selected optical path after the drive signal has been removed. The switch has integrated electrical position sensors, and the new material based advanced design significantly reduces moving part position sensitivity, offering unprecedented high stability as well as an unmatched low cost.

Features

- Unmatched Low Cost
- Low Optical Distortions
- High Isolation
- High Reliability
- Epoxy-Free Optical Path

Application

- Channel Blocking
- Configurable Add/Drop
- System Monitoring
- Instrumentation

Performance

1x8 Mini Switch		Unit	Min	Typical	Max
Operation Wavelength		nm		1260 ~ 1610nm	
Insertion Loss [1]		dB	0.5	0.8	1.2
Wavelength Dependent Loss		dB		0.2	0.4
Polarization Dependent Loss		dB	0.05	0.1	0.15
Return Loss		dB		>55	
Cross Talk		dB		>50	
Switching Time		ms		3	10
Repeatability				<±0.05	
Operating Voltage		VDC		3V or 5V	
Voltage Pulse Width (Latching)		ms		Typical: 20	
Operating Current[3]	Latching	mA		<26	
	Non-Latching			<36	
Switching Type				Latching / Non-Latching	
Operating Temperature [2]				-5~+70	
Optical Power Handling		mW		Typical: 300mW Max:500mW	
Storage Temperature		℃		-40~+85	
Fiber Type				SMF-28	
Package Dimension		mm		67L x 25W x 10H	

Electrical Driving

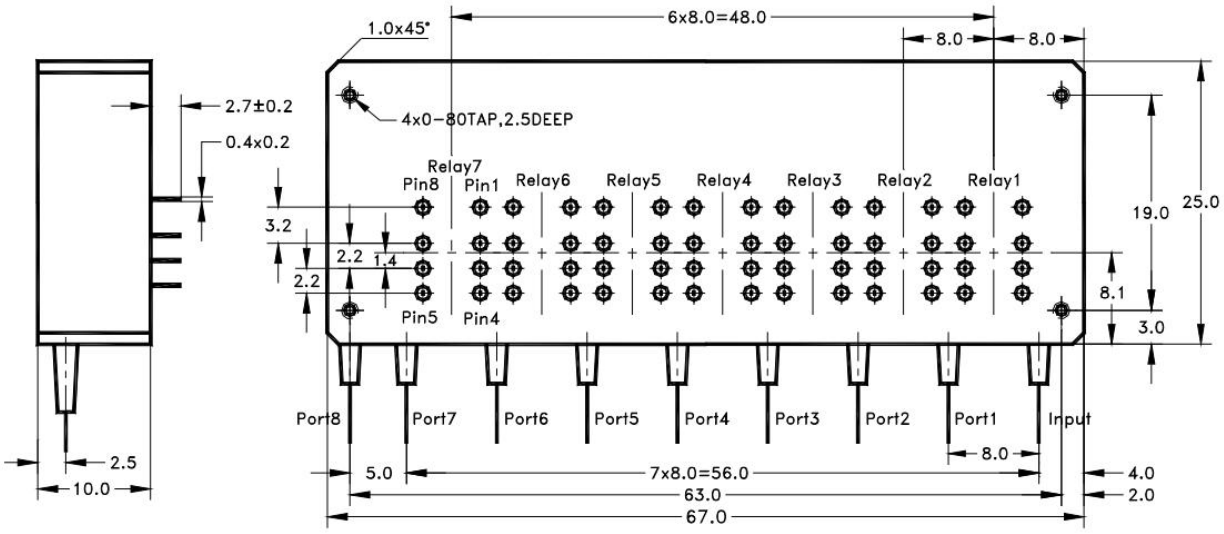
Latching

Optcial Path	Relay	Electrical Drive			Status Sensor		
		Pin 1	Pin 8	Pin 2-3	Pin 3-4	Pin 5-6	Pin 6-7
Input → Port 1	Relay 1	5V Pulse	GND	Open	Close	Close	Open
	Relay 2,3,4,5,6,7	N/A	N/A	--	--	--	--
Input → Port 2	Relay 1	GND	5V Pulse	Close	Open	Open	Close
	Relay 2	5V Pulse	GND	Open	Close	Close	Open
	Relay 3,4,5,6,7	N/A	N/A	--	--	--	--
Input → Port 3	Relay 1, 2	GND	5V Pulse	Close	Open	Open	Close
	Relay 3	5V Pulse	GND	Open	Close	Close	Open
	Relay 4,5,6,7	N/A	N/A	--	--	--	--
Input → Port 4	Relay 1,2,3	GND	5V Pulse	Close	Open	Open	Close
	Relay 4	5V Pulse	GND	Open	Close	Close	Open
	Relay 5,6,7	N/A	N/A	--	--	--	--
Input → Port 5	Relay 1,2,3,4	GND	5V Pulse	Close	Open	Open	Close
	Relay 5	5V Pulse	GND	Open	Close	Close	Open
	Relay 6,7	N/A	N/A	--	--	--	--
Input → Port6	Relay 1,2,3,4,5	GND	5V Pulse	Close	Open	Open	Close
	Relay 6	5V Pulse	GND	Open	Close	Close	Open
	Relay 7	N/A	N/A	--	--	--	--
Input → Port7	Relay 1,2,3,4,5,6	GND	5V Pulse	Close	Open	Open	Close
	Relay 7	5V Pulse	GND	Open	Close	Close	Open
Input → Port8	Relay 1,2,3,4,5,6,7	GND	5V Pulse	Close	Open	Open	Close

Non-Latching

Optcial Path	Relay	Electrical Drive			Status Sensor		
		Pin 1	Pin 8	Pin 2-3	Pin 3-4	Pin 5-6	Pin 6-7
Input → Port 1	Relay 1	5V Pulse	GND	Open	Close	Close	Open
	Relay 2,3,4,5,6,7	No Power		Close	Open	Open	Close
Input → Port 2	Relay 2	5V Pulse	GND	Open	Close	Close	Open
	Relay 1,3,4,5,6,7	No Power		Close	Open	Open	Close
Input → Port 3	Relay 3	5V Pulse	GND	Open	Close	Close	Open
	Relay 1,2,4,5,6,7	No Power		Close	Open	Open	Close
Input → Port 4	Relay 4	5V Pulse	GND	Open	Close	Close	Open
	Relay 1,2,3,5,6,7	No Power		Close	Open	Open	Close
Input → Port 5	Relay 5	5V Pulse	GND	Open	Close	Close	Open
	Relay 1,2,3,4,6,7	No Power		Close	Open	Open	Close
Input → Port 6	Relay 6	5V Pulse	GND	Open	Close	Close	Open
	Relay 1,2,3,4,5,7	No Power		Close	Open	Open	Close
Input → Port7	Relay 7	5V Pulse	GND	Open	Close	Close	Open
	Relay 1,2,3,4,5,6	No Power		Close	Open	Open	Close
Input → Port8	Relay 1,2,3,4,5,6,7	No Power		Close	Open	Open	Close

Dimension



Picture:

Ordering Information

Type	Wavelength	Control Model	Volatage	Fiber Type	Fiber Diameter	Fiber Length	Connector
18=1x8 81=8x1	1=1060nm 2=C+L 3=1310 4=1410 5=1550 35=1310&1550 85=850nm B=1260~1620 X=Special	L=Latching N=Non-Latching	3=3V 5=5V	1=SMF-28 X=Special	25=250um 90=900um X=Others	1=0.5m 2=1m 3=1.5m X=Others	0=None 1=FC/UPC 2=FC/APC 3=SC/UPC 4=SC/APC 5=ST/UPC 6=ST/APC 7=LC/UPC 8=LC/APC