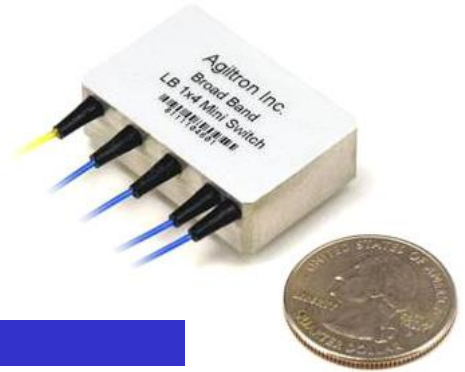


LightBend™ Mini 1x4 PM OptoMechanical Fiberoptic Switch (Bidirectional)

(Protected by U.S. patent 6823102 and pending patents)

Product Description

The LB Series Mini 1x4 PM fiber optic switch connects optical channels by redirecting an incoming optical signal into a selected output fiber. This is achieved by using a patented 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 and longevity, as well as an unmatched low cost. Electrical driver is also available. The switch is bidirectional.



Performance Specifications

LB Series Mini 1x4 PM Switch	Min	Typical	Max	Unit
Operation Wavelength	820-880, 1260-1360, 1510-1610			nm
Insertion Loss ¹	0.4	0.6	0.9	dB
Wavelength Dependent Loss		0.15	0.3	dB
Extinction Ratio	18			dB
Return Loss	50			dB
Cross Talk	50			dB
Switching Time		3	10	ms
Repeatability			±0.05	dB
Operating Voltage	4.5	5	6	VDC
Voltage Pulse Width (Latching)		20		ms
Switching Type	Latching / Non-Latching			
Operating Temperature ²	-5		70	°C
Optical Power Handling		300	500	mW
Storage Temperature	-40		85	°C
Fiber Type	Panda 250, Panda 400			
Package Dimension	35L x 23W x 10H			mm

Note:

1. Exclude connectors, higher loss for Dual and Broad Band.
2. -40 °C to 85 °C is also available.

Features

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

Applications

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



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Electrical Driving Requirements

The load is a resistive coil which is activated by applying 5V (draw ~ 40mA). Applying too long pulse for the latching version will heat up the device. Agiltron offers a computer control kit with TTL and RS232 interfaces and Windows™ GUI

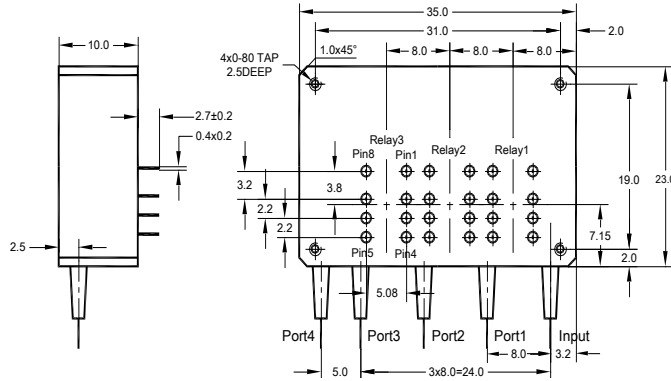
Latching Type

Optical 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	Relay1	5V Pulse	GND	Open	Close	Close	Open
	Relay 2, 3	N/A	N/A				
Input → Port 2	Relay1	GND	5V Pulse	Close	Open	Open	Close
	Relay 2	5V Pulse	GND	Open	Close	Close	Open
	Relay 3	N/A	N/A				
Input → Port 3	Relay1, 2	GND	5V Pulse	Close	Open	Open	Close
	Relay 3	5V Pulse	GND	Open	Close	Close	Open
Input → Port 4	Relay1, 2, 3	GND	5V Pulse	Close	Open	Open	Close

Non-Latching Type

Optical Path	Relay	Electrical Drive		Status Sensor			
		Pin 1	Pin 10	Pin 2-3	Pin 3-4	Pin 7-8	Pin 8-9
Input → Port 1	Relay 1	5V	GND	Close	Open	Open	Close
	Relay 2, 3	No Power		Open	Close	Close	Open
Input → Port 2	Relay 2	5V	GND	Close	Open	Open	Close
	Relay 1, 3	No Power		Open	Close	Close	Open
Input → Port 3	Relay 3	5V	GND	Close	Open	Open	Close
	Relay 1, 2	No Power		Open	Close	Close	Open
Input → Port 4	Relay1, 2, 3	No Power		Open	Close	Close	Open

Mechanical Dimensions (Unit: mm)



Ordering Information

LBMP-	Type	Wavelength	Switch	Package	Fiber Type	Fiber Length	Connector	
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	1x4=14 4x1=41 Special=00	1060=1 C+L=2 1310=3 1410=4 1550=5 650=6 780=7 850=8 1310 & 1550=9 Special=0	Latch=1 Non-latch=2 Special=0	Standard=1 Special=0	PM 400=A PM 250=B Special=0	Bare fiber=1 900um tube=3 Special=0	0.25m=1 0.5m=2 1.0m=3 Special=0	None=1 FC/PC=2 FC/APC=3 SC/PC=4 SC/APC=5 ST/PC=6 LC=7 Duplex LC=8 Special=0

