LightBend™ 1x12 PM OptoMechanical Fiberoptical Switch

Product Description

The LB Series 1x12 PM Fiberoptic 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
- Low Cross Talk
- High Reliability
- Epoxy-Free Optical Path

Performance Specifications

LB Series 1x12 PM Switch	Min	Typical	Max	Unit
Operation Wavelength		1310±30, 1550±30		nm
Insertion Loss [1]		1.0	1.6	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 Current [2] Latching			26	mA
Operating Current [2] Non-Latching			36	mA
Optical Power Handling		300	500 [3]	mW
Operating Temperature	-5		70	°C
Storage Temperature	-40		85	°C
Fiber Type		Panda 400, Panda 250		

Note:
[1].Exclude connectors.
[2].Tested at 5VDC for each relay actuation.
[3]. Continue operation, for pulse operation call.

Applications

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

RoHS Compliant

Revision: 08-10-15

15 Presidential Way, Woburn, MA 01801 Tel: (781) 935-1200 Fax: (781) 935-2040
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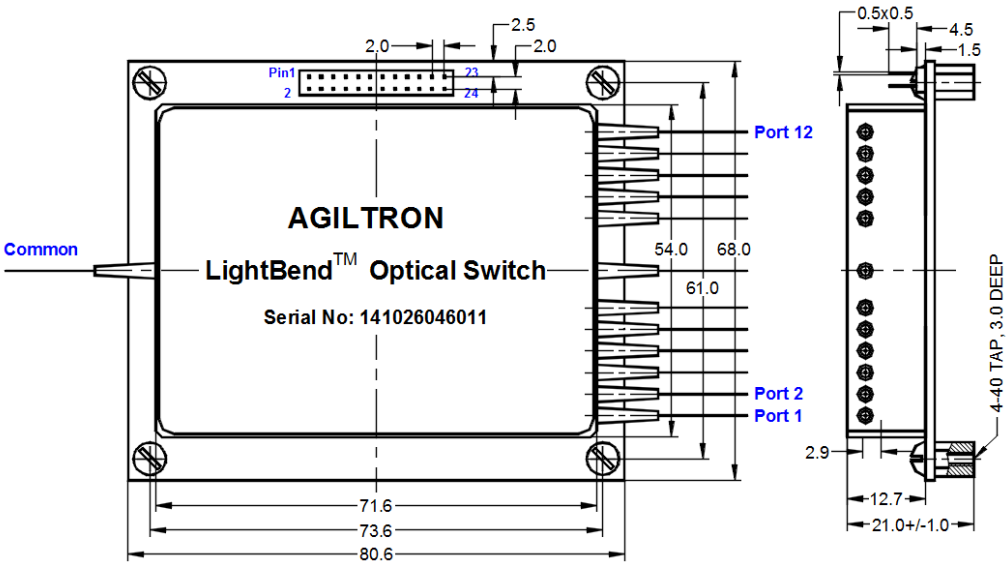
Mechanical Dimensions (Unit: mm)



Electrical Driving Requirements

Agiltron offer an computer control kit with TTL and RS232 interface and Windows™ GUI

Latching Type

Optical Path	Connector Pin Number																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Comm↔1	+	-	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	
Comm↔2	-	+	+	-	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	-	+		
Comm↔3	-	+	-	+	+	-	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	-	+	-	+		
Comm↔4	-	+	-	+	-	+	+	-	NC	NC	NC	NC	NC	NC	NC	NC	-	+	-	+	-	+		
Comm↔5	-	+	-	+	-	+	-	+	+	-	NC	NC	NC	NC	-	+	-	+	-	+	-	+		
Comm↔6	-	+	-	+	-	+	-	+	-	+	+	-	-	+	-	+	-	+	-	+	-	+		
Comm↔7	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	NC	
Comm↔8	-	+	-	+	-	+	-	+	-	+	NC	NC	+	-	-	+	-	+	-	+	-	+		
Comm↔9	-	+	-	+	-	+	-	+	NC	NC	NC	NC	NC	NC	+	-	-	+	-	+	-	+		
Comm↔10	-	+	-	+	-	+	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	+	-	-	+	-	+		
Comm↔11	-	+	-	+	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	+	-	-	+		
Comm↔12	-	+	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	+	-		

Note: "+" is DC 5V Pulse, "-" is GND.

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Non-Latching Type

Optical Path	Connector Pin Number																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Comm↔1	+	-	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	
Comm↔2	NC	NC	+	-	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC		
Comm↔3	NC	NC	NC	NC	+	-	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC		
Comm↔4	NC	NC	NC	NC	NC	NC	+	-	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC		
Comm↔5	NC	NC	NC	NC	NC	NC	NC	NC	+	-	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC		
Comm↔6	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	+	-	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC		
Comm↔7	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	
Comm↔8	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	+	-	NC	NC	NC	NC	NC	NC	NC	NC		
Comm↔9	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	+	-	NC	NC	NC	NC	NC	NC		
Comm↔10	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	+	-	NC	NC	NC	NC		
Comm↔11	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	+	-	NC	NC		
Comm↔12	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	+	-		

Note: "+" is DC 5V, "-" is GND.

Ordering Information

LBPM-	☐☐☐	☐	☐	☐	☐	☐	☐	☐
	Type	Wavelength	Switch	Package Type	Fiber Type		Fiber Length	Connector
	1x12=112 Special=000	1310=3 1550=5 Special=0	Latching=1 Non-latching=2 Special=0	Standard=1 Special=0	Panda 400=A Panda 250=B Special=0	Bare fiber=1 900μm loose 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

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