LightBend™ 4x4 OptoMechanical Fiberoptic Switch

(Bidirectional)

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

Product Description

The LB Series 4x4 fiber optic switch connects optical channels by redirecting any of four incoming optical signals into any of four output fibers. This is achieved using a patent pending opto-mechanical configuration and activated via an electrical control signal. Latching operation preserves the selected optical path after the drive signal has been removed. This new material-based advanced design significantly reduces moving part position sensitivity, offering unprecedented high stability as well as an unmatched low cost. Electronic driver is available for this series of switches. The switch is bidirectional.

We offer tight-bend-fiber version, which reduces the minimum bending radius from normal 15 mm to 7 mm. This feature enables smaller overall foot print.

Features

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

Applications

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

Performance Specifications

LB Series 4x4 Switch	Min	Typical	Max	Unit
Operation Wavelength		850, 1260~1360, 1510~1620		nm
Insertion Loss [1]		1.2	1.8	dB
Wavelength Dependent Loss			0.15	dB
Polarization Dependent Loss			0.15	dB
Return Loss	55			dB
Cross Talk	55			dB
Switching Time		4	10	ms
Repeatability			±0.05	dB
Operating Voltage	4.5	5	6	VDC
Operating Current		30	60	mA
Voltage Pulse Width (Latching)		20		ms
Switching Type		Latching, Non-Latching		
Operating Temperature	-5		70	°C
Optical Power Handling			500*	mW
Storage Temperature	-40		85	°C
Package Dimension		142L x 68W x 15H		mm

Note:

1. Excluding connectors.

* Continuous operation, for pulse operation call

Revision: 060-13
02-10-16

15 Presidential Way, Woburn, MA 01801 Tel: (781) 935-1200 Fax: (781) 935-2040
www.agiltron.com

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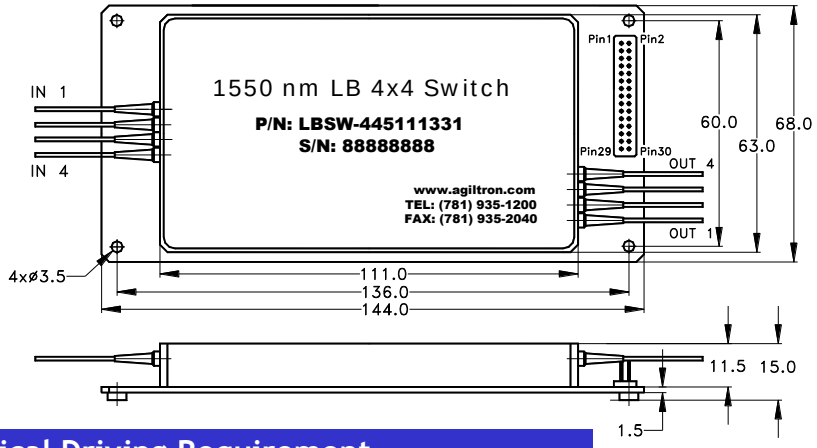
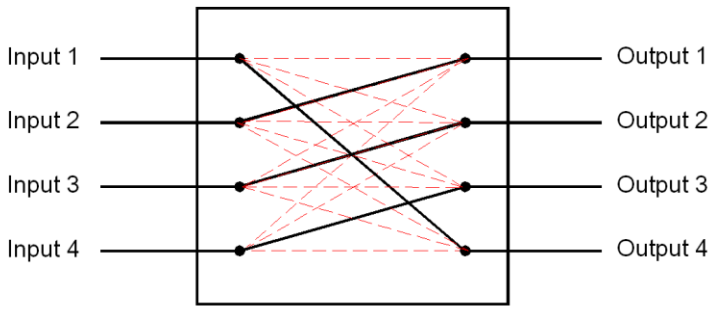
Mechanical Dimensions (Unit:mm)



Electrical Driving Requirement

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 USB interfaces and Windows™ GUI. We also offer RS232 interface as an option – please contact Agiltron sales.

Functional Diagram



LB 4x4 Switch

Ordering Information

LBSW-	☐☐	☐	☐	☐	☐	☐	☐	☐
	Type	Wavelength	Switch	Package	Fiber Type		Fiber Length	Connector
	4x4=44 Special=00	1310=3 1550=5 850 =8 Special=0	Latch=1 Non-latch=2	Standard=1 Special=0	SMF-28=1 Corning XB=2 Draka BBE=3 50/125 Multimode=5 62.5/125 Multimode=6 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

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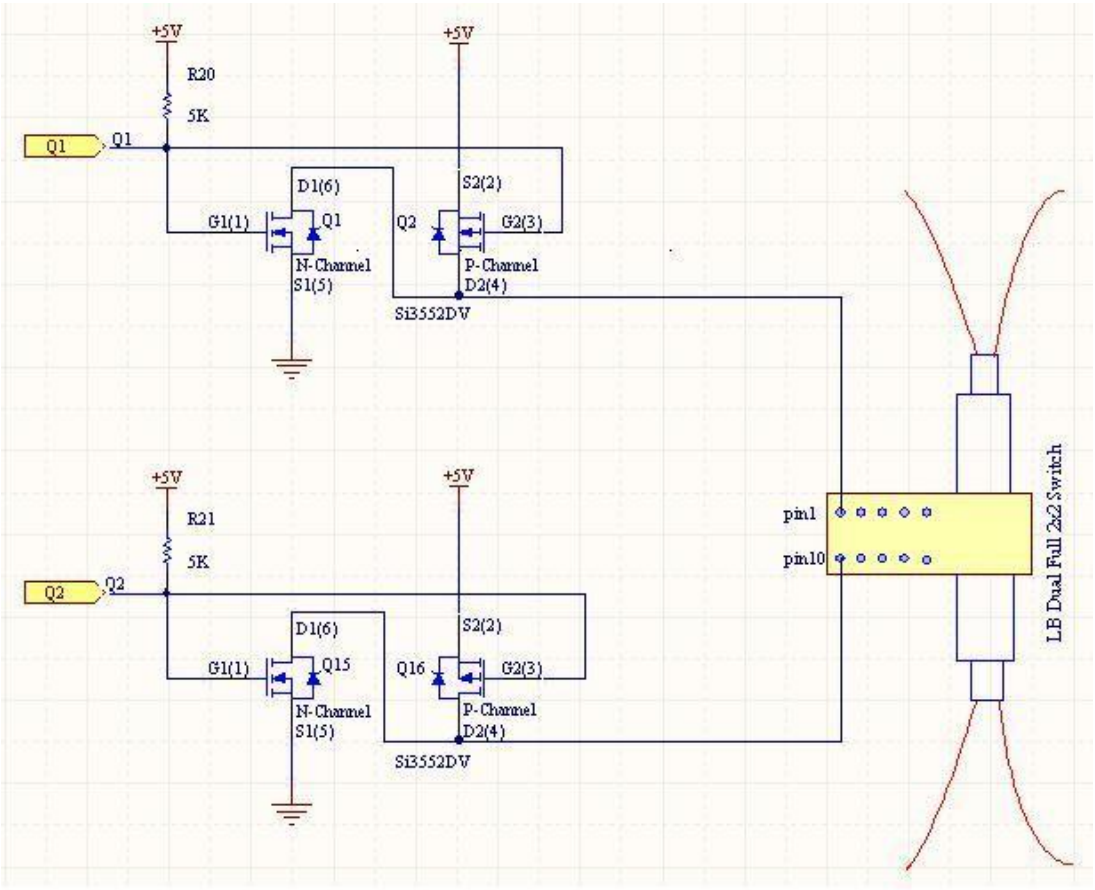
Driver Reference Design



RoHS Compliant

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