

LightBend™ 1xN Broadband Fiberoptic Switch

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

Product Description

The LB Series 1xN Multimode Broadband 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. Agiltron unique design offers low insertion loss covering a very broad spectral band from 230 to 2000 nm with various fiber core size from 50 to 400 μm. MWIR and LWIR versions are also available.

The switch is ideal for sensor and spectroscopy applications. The switch is controlled by RS232 or USB computer interface with a graphic software.



Performance Specifications

LB Series 1xN MM Switch		Min	Typical	Max	Unit
Operation Wavelength	UV-VIS	200		2000	nm
	MWIR	10000		50000	
	LWIR	70000		12000	
Insertion Loss ¹			0.6	2	dB
Wavelength Dependent Loss			0.15	0.3	dB
Polarization Dependent Loss			0.05	0.10	dB
Return Loss (APC/UPC)		50/40			dB
Cross Talk		60			dB
Operating Voltage			12	13	VDC
Switching Type			Latching		
Switching Time				200	ms
Durability		10 ⁷			Cycle
Operating Temperature		0		70	°C
Optical Power Handling			300	500 ²	mW
Storage Temperature		-40		85	°C
Fiber Type		50		1000	μm
Package Dimension			220L x 100W x 75H		mm

Note:

1. Exclude connectors.
2. High power version available.

Features

- Unmatched Low Cost
- Very Broad Spectral Range
- High Isolation
- High Reliability
- Epoxy-Free Optical Path

Applications

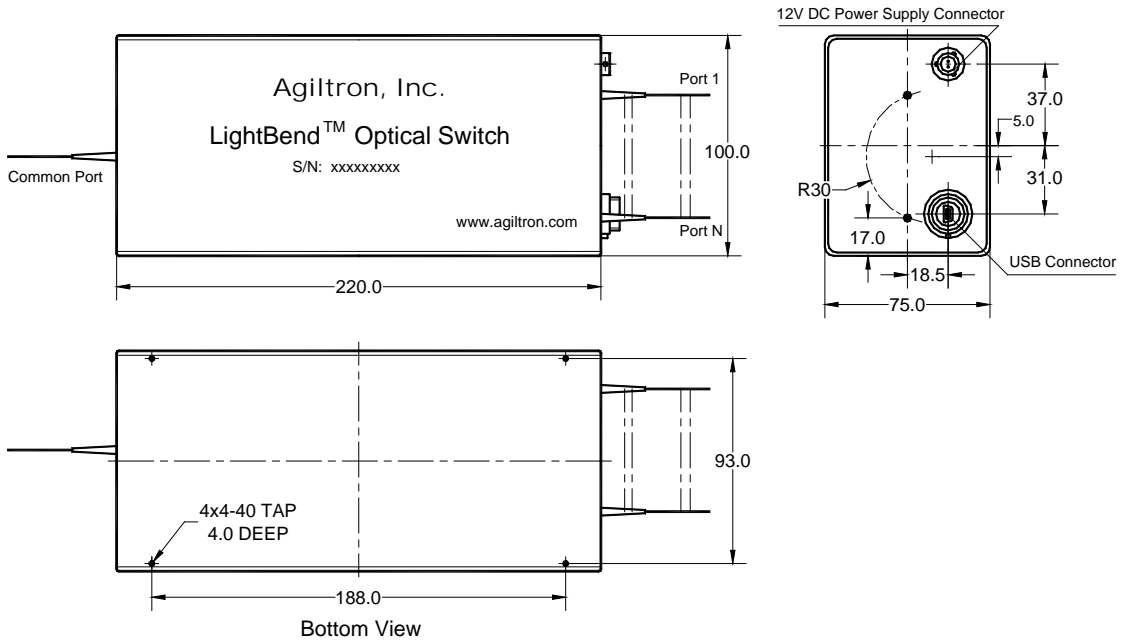
- Sensor
- Spectroscopy
- High Power Laser
- Instrumentation

LightBend™ 1xN Broadband OptoMechanical Fiberoptic Switch

Electrical Driving Requirement

Agiltron offers a computer control kit with USB interfaces and Windows™ GUI

Mechanical Dimensions (Unit: mm)



Ordering Information

LBBB-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Type	Wavelength	Switch	Package	Fiber Type	Fiber Length	Connector		
1x8=18 1x16=16 1x24=24 1x30=30 1x50=50 Special=00	UV-VIS=1 MWIR =5 LWIR =8	Latching=1 Special=0	Standard=2 Special=0	MM50/125=5 MM62.5/125=6 100 =1 200 =2 300 =3 400=4 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 SMA905=9 Special= 0	