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# LightBend™ 1xN Mini Series Fiber Optic Switch

(Bidirectional, SM, MM, PM, High Power)

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

## Product Description

The LB 1xN Mini Series 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 LB 1xN Mini Series Fiber Optical Switch is suitable for multiple channel signal monitoring, test and signal management. The switch is bidirectional. The switch is ideal for sensor and spectroscopy applications as well.

The switch is operated by the computer through USB, RS232, or GBIB interface.

The LB series 1xN optical fiber switch is compliant with the Telcordia 1209 and 1221 reliability standards.



## Performance Specifications

LB 1xN Mini Switch	Min	Typical	Max	Unit
Operation Wavelength	300		1675	nm
Insertion Loss <sup>[1]</sup>		0.5	1.0	dB
Wavelength Dependent Loss <sup>[2]</sup>		0.1	0.3	dB
Polarization Dependent Loss (SM)		0.03	0.10	dB
Extinction Ratio (PM)	18			dB
Return Loss (APC/UPC)	(SM, PM)	50		dB
	(MM)	35		dB
Cross Talk	50			dB
Operating Voltage		12		VDC
Switching Type		Latching		
Switching Time <sup>[3]</sup>		0.5		S
Durability	10 <sup>7</sup>			Cycle
Operating Temperature	0		70	°C
Storage Temperature	-40		85	°C
Optical Power Handling	Standard		0.5	W
	High Power	2	5	
Fiber Type	SMF-28, 50/125MM, 62.5/125MM, PM 250			
Package Dimension	See Mechanical Dimensions			

[1]. Exclude connectors.

[2]. Within 100 nm bandwidth.

[3]. Defined for speed between the adjacent channels.

## Features

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

## Applications

- Signal management
- Sensor
- Spectroscopy
- High Power Laser
- Instrumentation

# LightBend™ 1xN Mini Fiber Optic Switch

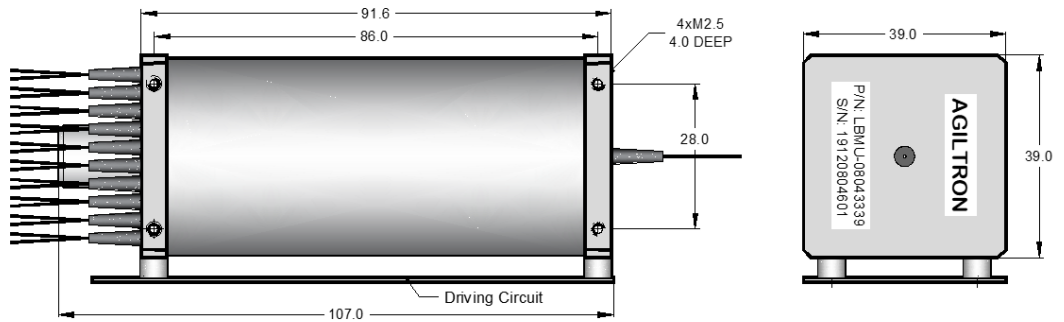
(Bidirectional, SM, MM, PM, High Power)

## Electrical Driving Requirement

Computer controlling kit with USB or RS232 or GBIB interfaces and Windows™ GUI

## Mechanical Dimensions (Unit: mm)

### Package A



\*Product dimensions may change without notice. This is sometimes required for non-standard specifications.

## Ordering Information

Type	Wavelength	Package	Optical Power	Fiber Type	Fiber Length	Connector
LBMU <sup>[1]</sup>	1x2 = 02	1060=1	0.5 W =1	SMF-28=1	0.25 m =1	None=1
LBMR <sup>[2]</sup>	1x3 = 03	C+L=2	2 W =2	MM 50/125=5	0.5 m =2	FC/PC=2
LBMG <sup>[3]</sup>	...	1310=3	5 W =3	MM 62.5/125=6	1.0 m =3	FC/APC=3
LBMT <sup>[4]</sup>	...	1410=4	Special=0	PM1550/250 =B	Special=0	SC/PC=4
	1x42 = 42	1550=5		PM1310/250 =D		SC/APC=5
	...	650=6		PM980/250 =E		ST/PC=6
	Special=00	780=7		PM850/250 =F		LC=7
		850=8		Special = 0		Duplex LC=8
		1310/1550=9				SMA905=9
		1260~1620=B				Special= 0
		Special=0				

- [1]. **LBMU**: LightBend Mini 1xN Switch with **USB** driver.
- [2]. **LBMR**: LightBend Mini 1xN Switch with **RS232** driver.
- [3]. **LBMG**: LightBend Mini 1xN Switch with **GBIB** driver.
- [4]. **LBMT**: LightBend Mini 1xN Switch with **TTL** driver.