FTBx-9150

OPTICAL SWITCH

■ Provides highly accurate and repeatable fiber-to-fiber switching.

EXFO | MULTILINK

KEY FEATURES

1 x 2, 1 x 4, 1 x 8, 1 x 12, 1 x 16, 1 x 24, 1 x 32, 2 x 2, 2 x 4

Singlemode and multimode

High performance

Variety of connector options

RELATED PRODUCTS AND ACCESSORIES

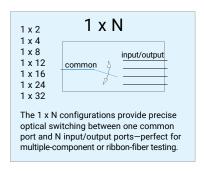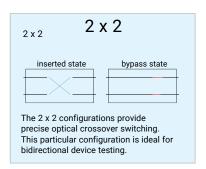Rackmount platform
LTB-8

Power meter
FTBx-1750

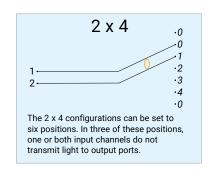Multi-user interface
EXFO Multilink

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THE OPTICAL SWITCHING SOLUTION

The FTBx-9150 optical switch series provides highly accurate and repeatable fiber-to-fiber switching. As part of the LTB-8-based test systems, the FTBx-9150 offers a choice of 1 x 2, 1 x 4, 1 x 8, 1 x 12, 1 x 16, 1 x 24, 1 x 32, 2 x 2 and 2 x 4 modules. Designed for minimal reflectance, the switches integrate precision optical components into a compact modular package. Both singlemode and multimode versions are available and offer a solution for all your optical switching needs.

1 x N

1 x 2
1 x 4
1 x 8
1 x 12
1 x 16
1 x 24
1 x 32

common   input/output

The 1 x N configurations provide precise optical switching between one common port and N input/output ports—perfect for multiple-component or ribbon-fiber testing.

2 x 2

2 x 2

inserted state   bypass state

The 2 x 2 configurations provide precise optical crossover switching. This particular configuration is ideal for bidirectional device testing.

2 x 4

·0
·0
·1
1
2
·2
·3
·4
·0

The 2 x 4 configurations can be set to six positions. In three of these positions, one or both input channels do not transmit light to output ports.

SUPPORTING VARIOUS APPLICATIONS

Optical switches are basic components integrated into almost every test station. The FTBx-9150 offers specifications and features to support a wide variety of applications:

- Multiple component testing
- Bidirectional testing
- Automated testing
- Remote testing
- Signal monitoring
- Equipment sharing

LTB-8 PLATFORM

The LTB-8 is a highly scalable and compact platform featuring the industry's best 100G port density and hot-swap capabilities for no downtime or interruption in tests, and greatly improved efficiency.

The FTBx-9150 can be easily remote-controlled by means of the standard LAN or optimal GPIB interface using SPCI commands, IVI drivers or any other automation software.

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SPECIFICATIONS [a]

Model		1 x 2		1 x 4, 1 x 8, 1 x 12, 1 x 16, 1 x 24, 1 x 32, 2 x 4 b		2 x 2	
Mode		Singlemode	Multimode	Singlemode	Multimode	Singlemode	Multimode
Insertion loss [c] (dB)	Typical Maximum	0.5 1.5	0.5 1.5	0.7 1.7	0.5 1.7	0.8 1.5	0.5 1.5
Backreflection [d] (dB)	Maximum	−55	−24	−55	−24	−55	−24
Repeatability [e] (dB)	Maximum	±0.01	±0.01	±0.03	±0.03	±0.01	±0.01
Operating wavelengths (nm)		1290 to 1650	780 to 1350	1290 to 1650	780 to 1350	1290 to 1650	780 to 1350
Polarization-dependent loss [f] (dB) Typical Standard maximum		≤0.05 0.10	– –	≤0.05 0.10	– –	≤0.05 0.10	– –
Maximum input power (dBm)		24	24	24	24	24	24
Switching time (ms)		25	25	25 per channel + 425 (debouncing)		25	25
Number of channels		1 x 2	1 x 2	1 x 4, 1 x 8, 1 x 12, 1 x 16, 1 x 24, 1 x 32		2 x 2	2 x 2
Crosstalk (dB)		−80	−80	−80	−80	−80	−80

GENERAL SPECIFICATIONS

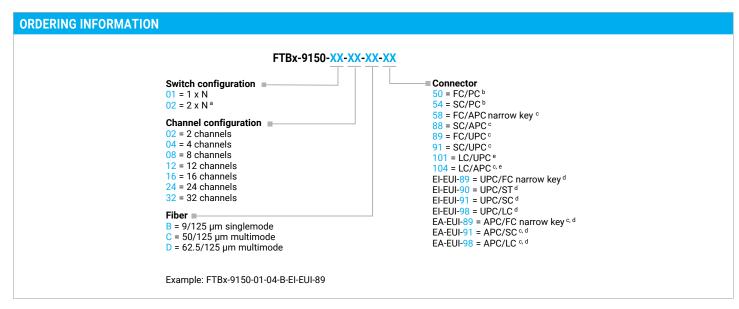| Switch	1 x 2	1 x 4	1 x 8	1 x 12, 1 x 16	1 x 24, 1 x 32	2 x 2	2 x 4
Number of slots	1	2	3	4	4	1	2
Dimensions (H x W x D)	25 x 159 x 185 mm (1 x 6 $\frac{1}{4}$ x 7 $\frac{5}{16}$ in)	50 x 159 x 185 mm (2 x 6 $\frac{1}{4}$ x 7 $\frac{5}{16}$ in)	75 x 159 x 185 mm (3 x 6 $\frac{1}{4}$ x 7 $\frac{5}{16}$ in)	100 x 159 x 185 mm (4 x 6 $\frac{1}{4}$ x 7 $\frac{5}{16}$ in)		25 x 159 x 185 mm (1 x 6 $\frac{1}{4}$ x 7 $\frac{5}{16}$ in)	50 x 159 x 185 mm (2 x 6 $\frac{1}{4}$ x 7 $\frac{5}{16}$ in)
Switch life	10 million cycles minimum						
Temperature Operating Storage	10 °C to 40 °C (50 °F to 104 °F) −20 °C to 60 °C (−4 °F to 140 °F)						
Relative humidity maximum	80 % non-condensing at 40 °C						
Instrument drivers	IVI drivers and SCPI commands						
Remote control	With LTB-8 and Ethernet						
Standard accessories	User guide, certificate of compliance and calibration certificate						

a. Specifications valid at 23 °C ± 5 °C.

b. Non-blocking.

c. Insertion loss per module, excluding connectors, measured at singlemode wavelengths of 1310 and 1550 nm, and multimode wavelength of 850 nm.

d. Backreflection is measured at singlemode wavelengths of 1310 and 1550 nm, with APC connectors, and multimode wavelength of 850 nm with UPC connectors.

e. Repeatability values are for 200 cycles per switch module at constant temperature with stabilized source/meter at singlemode wavelengths of 1310 and 1550 nm, and multimode wavelengths of 850 and 1300 nm.

f. Measured at 1550 nm.

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ORDERING INFORMATION

FTBx-9150-XX-XX-XX-XX

Switch configuration
01 = 1 x N
02 = 2 x N [a]

Channel configuration
02 = 2 channels
04 = 4 channels
08 = 8 channels
12 = 12 channels
16 = 16 channels
24 = 24 channels
32 = 32 channels

Fiber
B = 9/125 µm singlemode
C = 50/125 µm multimode
D = 62.5/125 µm multimode

Connector
50 = FC/PC [b]
54 = SC/PC [b]
58 = FC/APC narrow key [c]
88 = SC/APC [c]
89 = FC/UPC [c]
91 = SC/UPC [c]
101 = LC/UPC [e]
104 = LC/APC [c, e]
EI-EUI-89 = UPC/FC narrow key [d]
EI-EUI-90 = UPC/ST [d]
EI-EUI-91 = UPC/SC [d]
EI-EUI-98 = UPC/LC [d]
EA-EUI-89 = APC/FC narrow key [c, d]
EA-EUI-91 = APC/SC [c, d]
EA-EUI-98 = APC/LC [c, d]

Example: FTBx-9150-01-04-B-EI-EUI-89

a. 2 x N configurations available only with 2- and 4-channel options.

b. Multimode only.

c. Singlemode only.

d. Available on 1 x 2, 1 x 4, 1 x 8, 1 x 12, 1 x 16, 2 x 2 and 2 x 4 switches.

e. Available for 1 x 24 and 1 x 32 switches.

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