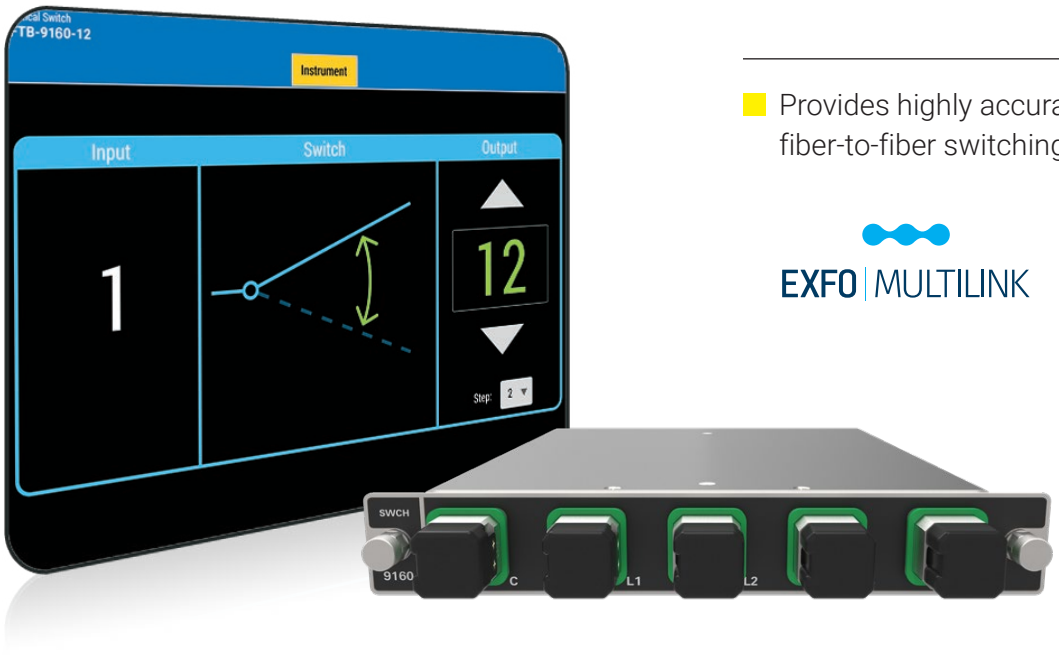
SPEC SHEET

FTBx-9160

MEMS OPTICAL SWITCH



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

EXFO | MULTILINK

KEY FEATURES

- Singlemode 1×N up to 1×32
- Fast switching time of < 30 ms
- Product lifespan of more than 1×10^9 cycles
- Variety of connector options

RELATED PRODUCTS AND ACCESSORIES

Rackmount platform
LTB-8

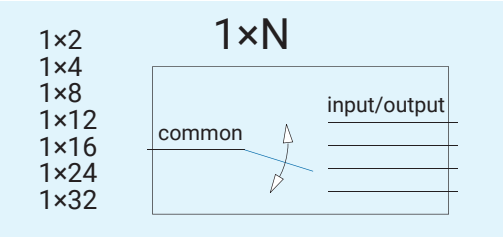
Rackmount platform
LTB-2

Variable attenuator
FTBx-3500

Multi-user interface
EXFO Multilink

MEMS-BASED DESIGN

With its MEMS-based design, EXFO's FTBx-9160 delivers durable performance in a compact package. Fast switching time and a 1-billion-cycle product lifespan make it the perfect optical switch for demanding manufacturing applications. The FTBx-9160 MEMS optical switch is available for singlemode fibers with a choice of 1×2, 1×4, 1×8, 1×12, 1×16, 1×24 and 1×32 modules.

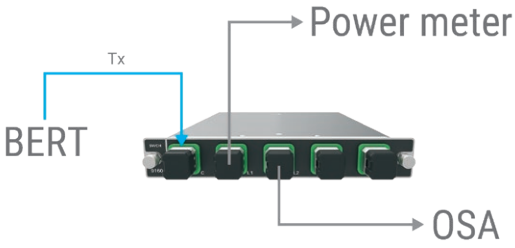


The 1×N configurations provide precise optical switching between one common port and N input/output ports—perfect for multiple-component or ribbon-fiber testing.

SUPPORTING VARIOUS APPLICATIONS

Optical switches are basic components integrated in almost every test station. The FTBx-9160 offers the specifications and features to support a wide variety of applications. Choose it to:

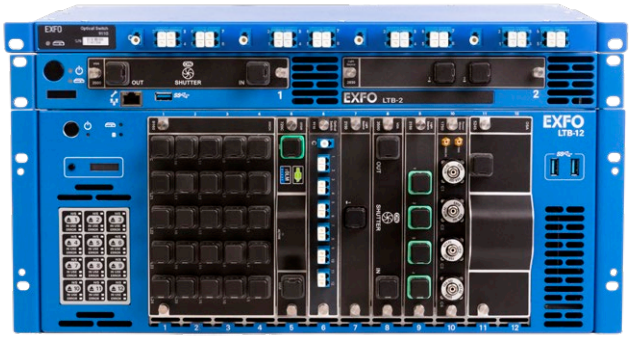
- Analyze transmitted signals using several types of test instruments, such as an optical spectrum analyzer and a bit-error-rate tester
- Reconfigure an R&D or manufacturing test station to allow testing of several types of devices
- Test multiple devices under test (DUTs) in parallel



LABORATORY AND FIELD PLATFORMS

The FTBx-9160 is designed to be used with the LTB-2, LTB-8, LTB-12 or FTB-4 Pro platforms. EXFO platforms are highly scalable and (except FTB-4 Pro) feature hot-swap capabilities for no downtime or interruption in tests, and greatly improved efficiency.

The FTBx-9160 can easily be remote-controlled by means of the standard LAN or GPIB interface using SPCI commands, IVI drivers or any other automation software.



SPECIFICATIONS [a]					
Switch	**1×2, 1×4**	**1×8**	**1×12**	**1×16**	**1×24, 1×32**
Insertion loss (dB) at 1310 nm [b, c]	0.9	1.2	1.6	1.8	2.0
Insertion loss (dB) at 1530 nm to 1650 nm [b, c]	0.7	1.0	1.2	1.4	1.5
Operating wavelength (nm)	1240 to 1680				
Repeatability (dB) [d]	±0.02				
Backreflection (dB) (typical)	−50 (−55)				
Crosstalk (dB) (typical)	50 (60)				
Polarization-dependent loss (dB) (typical) [e]	0.09 (0.06)			0.11 (0.08)	
Switching time (ms) [c]	20	30			
Fiber type	Singlemode 9/125 µm				
Input power (damage threshold) (dBm)	27				

GENERAL SPECIFICATIONS					
Switch	**1×2, 1×4**	**1×8**	**1×12**	**1×16, 1×24**	**1×32**
Number of slots	1	2	3	4	4
Dimensions height width depth	25 mm (1 in) 159 mm (6 1/4 in) 185 mm (7 5/16 in)	50 mm (2 in) 159 mm (6 1/4 in) 185 mm (7 5/16 in)	75 mm (3 in) 159 mm (6 1/4 in) 185 mm (7 5/16 in)	100 mm (4 in) 159 mm (6 1/4 in) 185 mm (7 5/16 in)	100 mm (4 in) 159 mm (6 1/4 in) 185 mm (7 5/16 in)
Switch life	1 billion (10^9) cycles minimum				
Temperature operating storage	0 °C to 40 °C (32 °F to 104 °F) −40 °C to 70 °C (−40 °F to 158 °F)				
Maximum relative humidity	80 % non-condensing at 40 °C				
Instrument drivers	IVI drivers, SCPI commands and REST API				
Remote control	Via LTB and FTB platform services: GPIB (IEEE-488.1, IEEE-488.2), Ethernet and RS-232				
Standard accessories	User guide [f], certificate of compliance and calibration certificate				

a. Specifications valid at 23 °C ± 5 °C.
b. Insertion loss per module, including one connector. For guaranteed specification, add 0.55 dB.
c. Typical specifications.
d. Repeatability values are for 100 cycles per switch module at constant temperature with stabilized source/meter.
e. At 1550 nm.
f. Available online only.

ORDERING INFORMATION

FTBx-9160-01-XX-B-XX

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

Example: FTBx-9160-01-04-B-EI-EUI-98

Connector
58 = FC/APC narrow key
88 = SC/APC
89 = FC/UPC
91 = SC/UPC
101 = LC/UPC [a]
104 = LC/APC [a]
EI-EUI-89 = UPC/FC narrow key [b]
EI-EUI-90 = UPC/ST [b]
EI-EUI-91 = UPC/SC [b]
EI-EUI-98 = UPC/LC [b]
EA-EUI-89 = APC/FC narrow key [b]
EA-EUI-91 = APC/SC [b]
EA-EUI-98 = APC/LC [b]

a. Available for 1×32 switches only.
b. Not available for 1×32 switches.

EXFO headquarters **T** +1 418 683-0211 **Toll-free** +1 800 663-3936 (USA and Canada)

EXFO serves over 2000 customers in more than 100 countries. To find your local office contact details, please go to www.EXFO.com/contact.

Printed in Canada 23/02