

# FTBx-9110 MEMS optical switch



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

## KEY FEATURES

Singlemode 1 x N up to 1 x 12

Fast switching time of  $\leq 30$  ms

Lifetime expectancy of more than  $1 \times 10^9$  cycles

Variety of connector options

## RELATED PRODUCTS AND ACCESSORIES



**Rackmount platform**  
LTB-12



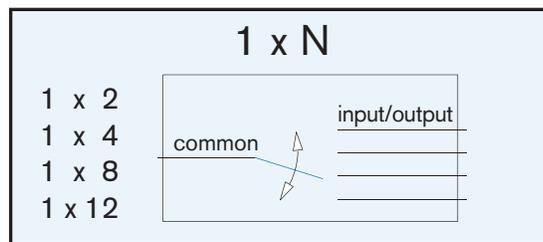
**Variable attenuator**  
FTBx-3500



**Optical light source**  
FTBx-2150

## MEMS-BASED DESIGN

With its MEMS-based design, EXFO's FTBx-9110 delivers durable performance in a compact package. Fast switching time and a 1-billion-cycle lifetime expectancy make it the perfect optical switch for demanding manufacturing applications. The FTBx-9110 MEMS optical switch is available for singlemode fibers with a choice of 1 x 2, 1 x 4, 1 x 8 and 1 x 12 modules.



*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.*

## SUPPORTING VARIOUS APPLICATIONS

Optical switches are basic components integrated in almost every test station. The FTBx-9110 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 PLATFORMS

EXFO laboratory platforms are highly scalable and feature the industry's best 100G port density and hot-swap capabilities for no downtime or interruption in tests, and greatly improved efficiency.

The FTBx-9110 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.



SPECIFICATIONS<sup>a</sup>

Switch	1 x 2	1 x 4	1 x 8	1 x 12
Operating wavelength (nm)	1260 to 1650			
Insertion loss (dB) (typical) <sup>b</sup>	1.45 (0.9)	1.45 (0.9)	1.75 (1.2)	2.15 (1.6)
Repeatability (dB) <sup>c</sup>	±0.02 or 0.04			
Backreflection (dB) <sup>d</sup>	-50			
Crosstalk (dB) (typical)	50 (60)			
Polarization-dependent loss (dB) <sup>d,e</sup>	0.15			
Switching time (ms) <sup>d</sup>	<30			
Fiber type	Singlemode 9/125 μm			
Input power (damage threshold) (dBm)	27			

## GENERAL SPECIFICATIONS

Switch	1 x 2, 1 x 4, 1 x 8, 1 x 12
Number of slots	1
Size (H x W x D)	25 mm x 159 mm x 185 mm (1 in x 6 ¼ in x 7 ⅝ in)
Switch life	1 billion (10 <sup>9</sup> ) cycles minimum
Temperature	Operating: 0 °C to 40 °C (32 °F to 104 °F) Storage: -40 °C to 70 °C (-40 °F to 158 °F)
Maximum relative humidity	80 % non-condensing at 40 °C
<b>Instrument drivers</b>	IVI drivers, SCPI commands and REST API.
<b>Remote control</b>	With LTB-2, LTB-8 and LTB-12 and Ethernet.
<b>Standard accessories</b>	User guide <sup>f</sup> and test report.

a. Specifications valid at 23 °C ± 2 °C.

b. Insertion loss per module, including one connector.

c. Repeatability values are for 100 cycles per switch module at constant temperature with stabilized source/meter.

d. Typical specifications.

e. At 1550 nm.

f. Available online only.

## ORDERING INFORMATION

FTBx-9110-01-XX-B-XX

Channel configuration<sup>a</sup>

02 = 2 channels  
 04 = 4 channels  
 08 = 8 channels  
 12 = 12 channels

## Connector

58 = FC/APC narrow key<sup>b</sup>  
 89 = FC/UPC<sup>b</sup>  
 101 = LC/UPC  
 104 = LC/APC

Example: FTBx-9110-01-04-B-101

a. For 2 x N and multimode configurations, please refer to the FTBx-9150 ordering information.

b. FC connectors are available for 2 and 4 channels configuration only.

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