

# **EXFO FTBx-9110 Mems Optical Switch Instructions**

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# **EXFO FTBx-9110 Mems Optical Switch**



#### **Product Information**

The FTBx-9110 is a MEMS optical switch that provides highly accurate and repeatable fiber-to-fiber switching. It is designed to ensure efficient and reliable switching between different optical fibers.

### Key Features

- · High accuracy and repeatability
- · MEMS technology for reliable switching

#### **Specifications**

Here are the specifications of the FTBx-9110:

Product Name	FTBx-9110	
Switch Type	MEMS Optical Switch	
Accuracy	Highly accurate	
Repeatability	Highly repeatable	

# **Product Usage Instructions**

To use the FTBx-9110 MEMS optical switch, please follow the instructions below:

- 1. Ensure that the device is properly connected to the power source and any necessary external equipment.
- 2. Connect the input optical fibers to the appropriate input ports of the switch.
- 3. Connect the output optical fibers to the desired output ports of the switch.
- 4. Power on the device and wait for it to initialize.
- 5. Use the provided control interface or software to select and activate the desired fiber-to-fiber switching configuration.
- 6. Monitor the status indicators or feedback from the control interface to verify the successful switching operation.
- 7. If required, repeat steps 5 and 6 to switch to different fiber-to-fiber configurations.
- 8. When done, power off the device and disconnect any connected fibers.

For detailed information on the control interface and software usage, refer to the separate user manual provided with the product.

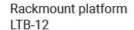
Provides highly accurate and repeatable fiber-to-fiber switching.

# **KEY FEATURES**

- Singlemode 1×N up to 1×12
- Fast switching time of < 30 ms</li>
- Product lifespan of more than 1×109 cycles
- · Variety of connector options

#### **RELATED PRODUCTS AND ACCESSORIES**







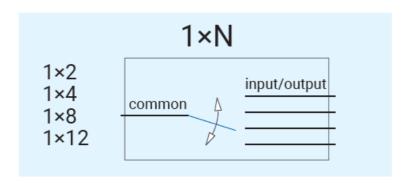
Variable attenuator FTBx-3500



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 product lifespan 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 1×2, 1×4, 1×8 and 1×12 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-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 AND FIELD PLATFORMS





The FTBx-9110 is designed to be used with 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-9110 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**

Switch	1×2	1×4	1×8	1×12
Insertion loss (dB) b, c, d	0.9	0.9	1.2	1.6
Operating wavelength (nm)		1240 to 1680		
Repeatability (dB) e		±0.02		
Backreflection (dB) c		-50		
Crosstalk (dB) (typical)		50 (60)		
Polarization-dependent loss (dB) c, f		0.15		
Switching time (ms) c		< 30		
Fiber type		Singlemode 9/125 μm		
Input power (damage threshold) (dB m)		27		

#### **GENERAL SPECIFICATIONS**

Number of slots	1
Size (H x W x D)	25 mm x 159 mm x 185 mm (1 in x 6 <sup>1</sup> /4 in x 7 <sup>5</sup> /16 in)
Switch life	1 billion (109) cycles minimum
Temperature Op erating	0 °C to 40 °C (32 °F to 104 °F)
Storage	—40 °C to 70 °C (—40 °F to 158 °F)
Maximum relative hu midity	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 g and test report

- Specifications valid at 23 °C ± 2 °C.
- Insertion loss per module, including one connector. For guaranteed specification, add 0.55 dB.
- Typical specifications.
- From 1240 to 1260 nm and 1650 to 1680 nm, add 0.5 dB insertion loss (typical).
- Repeatability values are for 100 cycles per switch module at constant temperature with stabilized source/meter.
- At 1550 nm.
- · Available online only.

# **ORDERING INFORMATION**

# Channel configuration Connector Connector Serical S

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

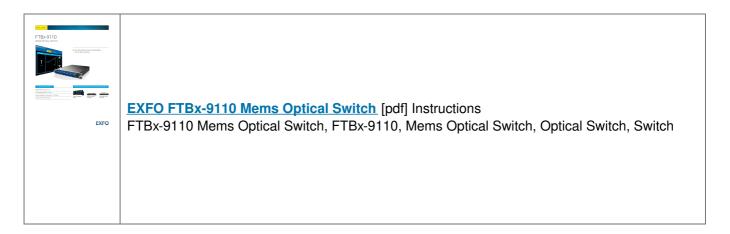
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#### **Documents / Resources**



Manuals+