

# Fiber Guardian

FG-7000



Features a comprehensive line of high-end OTDRs

Continuously monitors up to 32 fibers

Offers full remote operation

Alarm forwarding to terminal, pager, e-mail or cell phone

## Access Information Immediately

EXFO's Fiber Guardian is the only RTU on the market that comes complete with its own built-in screen, providing easy access to critical information without the hassle of connecting a PC.

## Prevent Catastrophes

Thanks to its highly sensitive minimum threshold alarm, Fiber Guardian offers preventive maintenance capability. Quickly detect cable stresses and make the necessary repairs before they lead to major system failures that seriously affect service.

## Improve Time to Restoration

Thanks to Fiber Guardian's direct alarm-forwarding feature, time to restoration is considerably improved as the system communicates directly with on-duty personnel via VT100 Terminal, pager, cell phone or e-mail. Network status information is supplied to technicians, no matter where they are located, resulting in efficient, effective system troubleshooting.

## Maximize Versatility

Fiber Guardian incorporates EXFO's proven modular architecture. Use it as a stand-alone solution, or integrate it with other remote test units as part of a client/server architecture-network monitoring system. Fiber Guardian can be managed by our Element Management System, FiberVisor.

Fiber Guardian is part of a complementary family of EXFO products that provides the level of network monitoring you require. These products include Optical Guardian, a solution designed for optical-layer monitoring, and Network Guardian™ G2, for protocol-layer monitoring.



## Specifications<sup>1</sup>

Number of monitored fibers	1, 2, 4, 8, 12, 16 or 32
Type of monitoring	Dark or live fiber
OTDRs available	1550 nm (33 dB, 38 dB, 40 dB or 42 dB) 1625 nm (34 dB, 37 dB or 40 dB) 1310/1550 nm (35 dB/33 dB, 37 dB/35 dB, 40 dB/38 dB or 42 dB/40 dB) 1550/1625 nm (37 dB/33 dB, 37 dB/36 dB, or 40 dB/39 dB)
Distance range (km)	1.25, 2.5, 5, 10, 20, 40, 80, 150 and 240
Distance uncertainty <sup>2</sup>	± (1 m + 0.0025 % x distance)
Number of sampling points	up to 30 000
Pulse width (ns)	10, 30, 100, 275, 1000, 2500, 10 000, 20000
Event dead zone <sup>3</sup>	3 m at 10 ns pulse width
Attenuation dead zone <sup>3</sup>	10 m to 20 m (depending on OTDR model) at 10 ns pulse width
Loss resolution	0.001 dB
Alarm threshold resolution	0.1 dB
Types of alarms	New events, Reflective event loss degradation, Total loss degradation Non-reflective event loss degradation, Section attenuation Launch level degradation, Event reflectance degradation
Number of alarm thresholds per alarm type	3 (minor, major and critical)
Optical switch available	2, 4, 8, 12, 16 or 32 ports
Optical switch insertion loss	0.7 dB typical
Optical switch crosstalk	-80 dB maximum
Required rackmount space	With 12 port or smaller switch: 10 U, 44.45 cm (17.5 in) With 16 or 32 port switch: 18 U, 80.01 cm (31.5 in)
Power	100 VA at 115/230 VAC (50/60 Hz) (RTU mainframe) 175 VA at 115/230 VAC (50/60 Hz) (RTU expansion unit)

### Notes

- All specifications are for a temperature of 23 °C (73 °F) with a FC/APC connector unless otherwise specified.
- Typical, does not include uncertainties due to fiber index and sampling resolution.
- Typical dead zone for reflectance below -45 dB.

## Accessories

RFTS-Power-01-19	110 VA Power Bar (no inverter) e/w 19 in rackmount kit
RFTS-Power-01-23	110 VA Power Bar (no inverter) e/w 23 in rackmount kit
RFTS-Power-02-19	220 VA Power Bar (no inverter) e/w 19 in rackmount kit
RFTS-Power-02-23	220 VA Power Bar (no inverter) e/w 23 in rackmount kit
RFTS-Power-03-19	-48 V DC to 110 VAC inverter e/w 19 in rackmount kit
RFTS-Power-03-23	-48 V DC to 110 VAC inverter e/w 23 in rackmount kit
RFTS-Power-04-19	-48 V DC to 220 VAC inverter e/w 19 in rackmount kit
RFTS-Power-04-23	-48 V DC to 220 VAC inverter e/w 23 in rackmount kit
RFTS-WDM-01-xx	1310 nm/1550 nm/1625 nm WDM couplers (inserted into shelf)
RFTS-FILTER-01-xx	Bandpass filter (inserted into shelf) - 1310 nm/1550 nm Pass, 1625 nm Block filter
RFTS-FILTER-02-xx	Bandpass filter (inserted into shelf) 1310 nm/1550 nm Block, 1625 nm Pass filter
RFTS-WDM-Shelf-19	19 in rackmount shelf for WDM and filter components
RFTS-WDM-Shelf-23	23 in rackmount shelf for WDM and filter components

## Key Features

- Built-in local user interface
- 10-baseT Ethernet port
- Alarm forwarding and remote operation via PSTN and/or Ethernet port
- Intuitive GUI
  - Provides alarm management functionality

## Ordering Information

**FG-7XXX-XX-XX-XX**

### 7XXX Available OTDRs

- 303B = 1550 nm (33 dB)
- 323B = 1310 nm/1550 nm (35/33 dB)
- 323B-ER = 1310 nm/1550 nm (37/35 dB)
- 403B = 1550 nm (38 dB)
- 423B = 1310 nm/1550 nm (40/38 dB)
- 434B-ER1 = 1550 nm/1625 nm (37/36 dB)
- 434B-ER2 = 1550 nm/1625 nm (40/39 dB)
- 434B = 1550 nm/1625 nm (37/33 dB)
- 404B = 1625 nm (34 dB)
- 404B-ER1 = 1625 nm (37 dB)
- 403B-ER1 = 1550 nm (40 dB)
- 404B-ER2 = 1625 nm (40 dB)
- 523B = 1310 nm/1550 nm (42/40 dB)
- 503B-ER = 1550 nm (42 dB)

### XX Switch ports

- 00 = 1 port
- 02 = 2 ports
- 04 = 4 ports
- 08 = 8 ports
- 12 = 12 ports
- 16 = 16 ports
- 32 = 32 ports

### XX Connectors available

- 58 = FC/APC
- 88 = SC/APC
- 89 = FC/UPC
- 91 = SC/UPC

### XX Width

- 19 = 19 inch rackmount
- 23 = 23 inch rackmount

## Safety



21 CFR 1040.10 CLASS 1 LASER PRODUCT  
IEC 60825-1: Ed. 1.1 1998 CLASS 3A LASER PRODUCT

CORPORATE HEADQUARTERS	465 Godin Avenue	Vanier (Quebec) G1M 3G7 CANADA	Tel.: 1 418 683-0211 . Fax: 1 418 683-2170
EXFO AMERICA	1201 Richardson Drive, Suite 260	Richardson TX 75080 USA	Tel.: 1 800 663-3936 . Fax: 1 972 907-2297
EXFO EUROPE	Le Dynasteur, 10/12 rue Andras Beck	92366 Meudon la Forêt Cedex FRANCE	Tel.: +33.1.40.83.85.85 . Fax: +33.1.40.83.04.42
EXFO ASIA-PACIFIC	151 Chin Swee Road, #03-29 Manhattan House	SINGAPORE 169876	Tel.: +65 333 8241 . Fax: +65 333 8242
TOLL-FREE (USA and Canada)	Tel.: 1 800 663-3936	www.exfo.com • info@exfo.com	

EXFO is certified ISO 9001 and attests to the quality of these products. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. EXFO has made every effort to ensure that the information contained in this specification sheet is accurate. However, we accept no responsibility for any errors or omissions, and we reserve the right to modify design, characteristics and products at any time without obligation. Units of measurement in this document conform to SI standards and practices. **Contact EXFO for prices and availability or to obtain the phone number of your local EXFO distributor.** For the most recent version of this spec sheet, please go to the EXFO Web site at <http://www.exfo.com/support/techdocs.asp> In case of discrepancy, the Web version takes precedence over any printed literature.

