

FOT-700

FOT-700 Fiber-Optic Tester

- Complete flexibility: optical source, power meter, or OLTS
- Error-free testing
- Complete test documentation

FOT-700 Fiber-Optic Tester



Flexibility from the Ground Up

Flexibility isn't simply an idea that was grafted onto the FOT-700 Fiber-Optic Tester. In fact, EXFO has engineered it right into the design of this handheld test unit. This means that you get to specify exactly what you need to suit your application, whether you test multimode LANs, singlemode telephone networks, or fiber-optic CATV systems.

The FOT-700 Fiber-Optic Tester is the ideal tool for network installation, maintenance, repair, and troubleshooting. The two optical ports on the FOT-700 are factory-configured to deliver a power meter, optical source, or an OLTS (Optical Loss Test Set). With 10 optical source configurations and three power meter configurations to choose from, you can tailor the FOT-700 Fiber-Optic Tester to your application.

Single-port power meter

Single-port source

- 1 or 2 λ source



Dual-port instrument

- OLTS (power meter and source)
- 3 or 4 λ source
- Power meter with VFL

L-Band Testing at 1625 nm

The FOT-700 supports L-band (1570 to 1610 nm) testing. Measuring optical loss at 1625 nm provides out-of-band testing at a wavelength that corresponds to the worst-case attenuation for signals transmitted in the L-band. Testing at 1625 nm is important because telecommunications service providers are now using the L-band window to increase transmission capacity beyond the 1550 nm window.



Error-Free Testing

Every single configuration of the FOT-700 Fiber-Optic Tester delivers intelligent features to make testing easy and eliminate error.

The **λAuto** automatic wavelength recognition feature ensures that the wavelength settings on the power meter and source match. In **λAuto** mode, the power meter automatically adjusts to the source wavelength. You eliminate wavelength testing errors and maximize efficiency where it counts—in the field.

When testing with a dual-wavelength light source, the power meter in the FOT-700 automatically alternates between the two wavelengths. The result? You not only eliminate worries about mismatched wavelengths but also obtain a dual-wavelength measurement in seconds.

Complete Test Documentation

All power meters and OLTS configurations of the FOT-700 Fiber-Optic Tester hold up to 1000 dual-wavelength, single-fiber measurements. Additionally, the fiber nametag function gives you precise fiber

identification for easy and fast data retrieval. Eight characters are available to name fibers, giving you the possibility to enter complete fiber names.



Three of the eight characters of the fiber nametag are visible at one time.

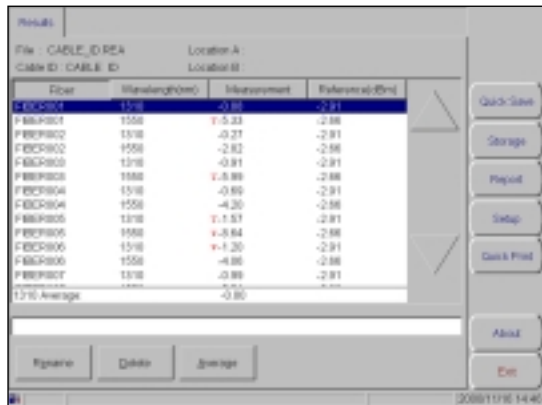


You can save both wavelength values seen alternating on-screen, in only one operation.

Professional Data Management

Nowadays, installers and subcontractors need quick, easy ways of producing documentation to show that their work is up to spec. Thanks to EXFO's ToolBox Handheld software included with the

FOT-700, you can download data to your PC via the RS-232 port and produce high-quality documents in a matter of minutes. View, export, or print your data in graph or table form.



Features That Go Further

Fiber Identification

Fiber identification is an integral part of testing, especially when it comes to patch panels and multifiber installations. To speed up the tedious and sometimes hazardous process of finding the right fiber, the FOT-700 has a built-in fiber ID function to transmit and detect signals at 270 Hz, 1 KHz, and 2 kHz.



When the test unit finds the correct fiber, an identifier appears on the LCD screen.

Built-In Variable Attenuator

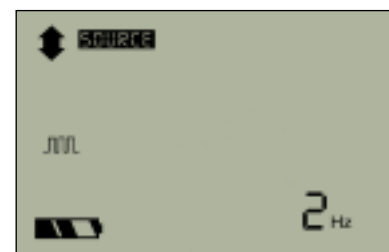
The singlemode sources come with a variable attenuator for bit-error-rate (BER) testing. Since BER varies with input power, use this function to test at different power input levels. What's more, you can download results to your PC for further analysis.



Attenuation is visible on-screen.

Visual Fault Locator

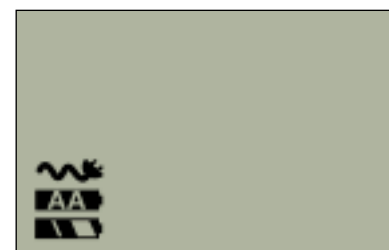
The optional visual fault locator (VFL) picks up link faults by shining a visible red light through them. The VFL easily detects connection flaws and cracked cables when checking system continuity.



The VFL can be used at either 1 Hz, 2 Hz, or in CW.

Three-Way Powering

Three-way powering provides hours and even days of operating time. When the rechargeable NiMH batteries run low, intelligent circuitry transfers the power supply over to the four replaceable AA alkaline batteries. The unit can also be used with an AC power adapter/charger while recharging.



The operating power mode is directly displayed on-screen.

POWER METER SPECIFICATIONS^{1, 2}

Models	-702	-702X	-703
Type	Ge	GeX	InGaAs
Calibrated wavelengths (nm)	850, 1300, 1310, 1550, 1625	850, 1300, 1310, 1550, 1625	850, 1300, 1310, 1550, 1625
Dynamic range (dBm)	+10 to -60	+23 to -46	+4 to -70
Uncertainty (%) at -20 dBm	±6	±6	±6
Linearity (dB)	±0.05 (+7 to -53 dBm) ±0.1 (-53 to -55 dBm)	±0.05 (+7 to -30 dBm) ±0.1 (-30 to -39 dBm)	±0.05 (0 to -46 dBm) ±0.1 (-46 to -57 dBm)
Display resolution (dB)	0.01 (+10 to -56 dBm) 0.1 (-56 to -60 dBm)	0.01 (+23 to -42 dBm) 0.1 (-42 to -46 dBm)	0.01 (+4 to -63 dBm) 0.1 (-63 to -70 dBm)
Tone detection (Hz)	270/1000/2000	270/1000/2000	270/1000/2000

OPTICAL SOURCE SPECIFICATIONS³

Models	-12C/D	-02BL	-03BL	-04BL	-23BL	-34BL
Type	850/1300	1310	1550	1625	1310/1550	1550/1625
Source type	LED	laser	laser	laser	laser	laser
Wavelength (nm)	850 ±35/ 1300 ±35	1310 ±30	1550 ±30	1625 ±20	1310 ±30/ 1550 ±30	1550 ±30/ 1625 ±20
Fiber type	MM	SM	SM	SM	SM	SM
Output power (dBm)						
9/125 μm	-	>-4	>-4	>-4	>-4	>-4
50/125 μm (-12C)	>-21/-23	-	-	-	-	-
62.5/125 μm (-12D)	>-18/-20	-	-	-	-	-
Spectral width* (nm)	<50/<160	<5	<5	<10	<5/<5	<5/<10
Stability in time (8 hr) (Δ/2) (dB)	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1
Stability in temp. (dB)	±0.5	±0.5	±0.8	±0.8	±0.5/±0.8	±0.8/±0.8

OPTICAL SOURCE SPECIFICATIONS³

Models	-VFL	-02BLVFL	-03BLVFL	-04BLVFL
Type	670-VFL	1310/670-VFL	1550/670-VFL	1625/670-VFL
Source type	laser	laser	laser	laser
Wavelength (nm)	670 ±20	1310 ±30/670 ±20	1550 ±30/670 ±20	1625 ±20/670 ±20
Fiber type and size	MM/SM	1310-SM 670-MM/SM	1550-SM 670-MM/SM	1625-SM 670-MM/SM
Output power (dBm)	<-1	>-4/<-1	>-4/<-1	>-4/<-1
Spectral width* (nm)	-	<5/ -	<5/ -	<10/ -
Stability in time (8 hr) (Δ/2) (dB)	-	±0.1/ -	±0.1/ -	±0.1/ -
Stability in temp. (dB)	-	±0.5/ -	±0.8/ -	±0.8/ -

GENERAL SPECIFICATIONS

Power supply	AC/NiMH/alk.
Battery life (NiMH + AA alk.) (hr)	
source (1310 nm laser in λAuto)	150
power meter	195
Display screen	Custom LCD, 120 segments
Data memory	1000 tests
Communication port	RS-232
Analysis software	ToolBox
Dimensions	23.5×12.5×6 cm
Weight (with holster)	860 g
Temperature	
operating	-10 to 50°C 14 to 122°F
storage	-40 to 60°C -40 to 140°F
Relative Humidity	0 to 95%, non-condensing

NOTES

1. All power meter specifications are for 1310 nm, after an offset nulling (following the warmup time of 20 minutes), at 23 ±1°C and with a FC/UPC connector.
2. In a 10V/m radiated field (26-1000 MHz, 80% AM Modulation with a 1 kHz sine wave), erratic 1 kHz detection may happen when the optical detector of the apparatus is exposed to a very weak light source.
3. All source specifications are for temperature of 23 ±1°C with a FC/UPC connector and after a warmup time of 20 minutes unless otherwise specified.
4. As defined per Telcordia TR-TSY-000887, rms for laser and FWHM for LED.

ORDERING INFORMATION

FOT-70X-XXXXXXX-XX-EUI-XX-XXXXXXX-XX-EUI-XX

Detector options

2 = Ge
2X = GeX
3 = InGaAs
0 = No detector requested

Source connector options

EI = UPC Universal Interface
EA = APC Universal Interface

The fixed baseplate (EI or EA) must be ordered with a removable universal connector adapter (EUI-XX).

Please specify one EUI from the following list:

EUI-28 = Diamond DIN (2.5)
EUI-76 = HMS-10AG (EI only)
EUI-89 = FC
EUI-90 = ST/UPC (EI only)
EUI-91 = SC
EUI-95 = E-2000

First source options

VFL = VFL
12C = 850/1300 nm LED (50/125 μ m)
12D = 850/1300 nm LED (62.5/125 μ m)
02BL = 1310 nm laser
03BL = 1550 nm laser
04BL = 1625 nm laser
23BL = 1310/1550 nm laser
34BL = 1550/1625 nm laser
02BLVFL = 1310 nm laser and VFL
03BLVFL = 1550 nm laser and VFL
04BLVFL = 1625 nm laser and VFL
0 = No source requested

Second source options

VFL = VFL
23BL = 1310/1550 nm laser
04BL = 1625 nm laser
04BLVFL = 1625 nm laser and VFL
0 = No source requested

Examples:

FOT-703-23BL-EA-EUI-89 or FOT-700-12C-EI-EUI-91-23BL-EI-EUI-89

NOTES

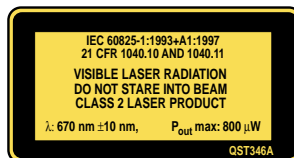
1. A fiber-optic adapter (FOA) that corresponds to the source connector selected will be supplied. If no source is selected, or if a different FOA is desired, please specify when ordering.

Standard Accessories

Standard accessories include instruction manual, AC adapter/charger, built-in rechargeable NiMH battery pack, four AA alkaline batteries, connector adapter, FOA-01 (2 kHz live fiber detection adapter), carrying case, protective holster, shoulder strap, cleaning pads, and Certificate of Calibration.

LASER SAFETY

21 CFR 1040.10 and 1040.11	CLASS 1 LASER PRODUCT
IEC 60825-1:1993+A1:1997	CLASS 1 LASER PRODUCT
	CLASS 1 LED PRODUCT
VFL option:	CLASS 2 LASER PRODUCT



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EXFO is ISO 9001 certified and attests to the quality of its products. These products are accompanied by a 12-month warranty and an excellent after-sales support service to fulfill all our customers' needs.

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.

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