Acterna OFI-2000 Series

Acterna Optical Fiber Installation Tester
set for one touch fiber optic testing

Setting new standards in fiber optic testing

Acterna's industry leading OFI-2000 family is designed as a one-box solution for the professional installation, verification, maintenance and repair of large optical networks. This innovative product enables you to test at one press of the FOX button, easily manage and report your test results and significantly reduce the cost of all your fiber optic cable testing – all from one single hand-held device.

In a single device, the Acterna Optical Fiber Installation Tester provides you with all the functionality you need to identify fiber optic problems, verify the quality of cable installations and qualify system power levels along the network.

It provides time savings of more than 85 percent for new cable builds and has unique one-button testing for fast and accurate link loss.

The OFI-2000's value is further enhanced by its compatibility with other Acterna testing products including the Acterna optical handhelds (optical power meters and optical light sources) and by its simplified, easy-to-read results, multiple upgrade options and reduced training needs.

Highlights

– **Speed:** Acterna's OFI-2000 Series is the fastest loss tester in its class with results back in less than 15 seconds
– **Functionality:** The OFI-2000 is a one-box solution delivering outstanding functionality
– **Value:** The OFI-2000 Series has all the features of more expensive devices and its simplicity reduces training costs
– **Compatibility:** A key benefit of this device is its interaction with Acterna's other testing solutions
– **Free specific dedicated software** (OFS 310 optical fiber budget software) for post processing results and providing customized professional reports

The fastest and easiest Optical Fiber Installation Tester on the market
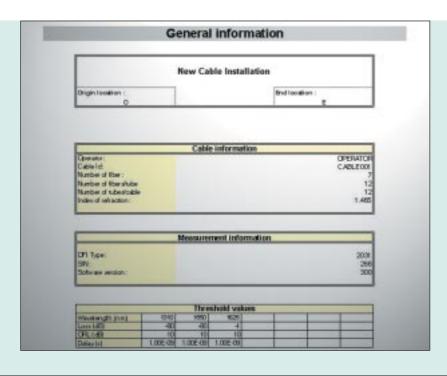
Features include:
- Fast bidirectional loss measurement in less than 15 seconds
- One-touch Fiber Optic Xpert (FOX) button
- Telecom, Cable TV, and DWDM L-band versions
- Automatic length/delay measurement
- Loss test set with 60 dB dynamic range
- Stand-alone high-accuracy power meter
- 1310/1550/1625 nm laser source
- Optical return loss option
- Full duplex talk set option with 45 dB dynamic range
- SMS functionality
- Visual fault location option
- Up to 13 hours rechargeable battery life
- Cable result management for up to 40 cables with more than 1000 results
- Free complete PC software program to provide complete and professional report generating for OFI-2000 results (OFS 310 optical fiber budget software) download directly from the Web www.acterna.com

All in one solution

The compactness of the OFI-2000 belies its detailed functionality. Acterna packs multiple features into a single device including automatic link loss measurement, link length/delay time measurement, SMS testing and much more. Should your testing needs grow, an assortment of optional extras is available ranging from optical return loss testing to visual fault location and a 45 dB dynamic full duplex talk set designed for communicating over fiber optic cables during installation and maintenance.

Acterna OFI-2000 Cable Acceptance Reports using Acterna's optical fiber budget software OFS-310

Acterna OFI-2000 Optical Fiber Installation Tester

Technical specifications	OFI-2001/2031	OFI-2002/2032
Application	telecom/local loop	CATV/DWDM

Loss test port

Dynamic range of loss	60 dB	60 dB
Accuracy	loop back ±0.25 dB/side by side ±0.15 dB	loop back ±0.25 dB/side by side ±0.15 dB
Optical interface	physical contact (PC) or angled physical contact (APC) with fixed connectors or universal adapter BN 2060 (for details see ordering information)	physical contact (PC) or angled physical contact (APC) with fixed connectors or universal adapter BN 2060 (for details see ordering information)
Result resolution	0.01 dB	0.01 dB

Test port sources

Laser types	laser class 1	laser class 1
Wavelength at 25°C	1310 ±30 nm, 1550 ±30 nm, 1625 ±10 nm (only)	1310 ±30 nm, 1550 ±30 nm, 1625 ±10 nm (only)
Spectral bandwidth	5 nm maximum (1310/1550/1625 nm)	5 nm maximum (1310/1550/1625 nm)
Output level Into 9/125 μm fiber (CW mode)	−3.5 dBm (1310/1550/1625 nm)	−3.5 dBm (1310/1550/1625 nm)
Modulated output average level	3 dB less	3 dB less
Level stability		
Short term 15 min (T = ±0.3 K)	±0.02 dB	±0.02 dB
Long term 8 hours (T = ±3 K)	±0.2 dB	±0.2 dB
Modulation frequencies	270 Hz, 330 Hz, 1 kHz, 2 kHz	270 Hz, 330 Hz, 1 kHz, 2 kHz
Modes		
CW	continuous wave light	continuous wave light
Auto-λ	output signal includes λ information for Acterna level meters	output signal includes λ information for Acterna level meters
MOD	modulation for fiber identification 270 Hz, 330 Hz, 1 kHz, 2 kHz	modulation for fiber identification 270 Hz, 330 Hz, 1 kHz, 2 kHz
TWINtest	all wavelengths activated one after the other	all wavelengths activated one after the other

Test port power meter (internal pigtailed photo detector)

Wavelength range	1200-1650 nm	1200-1650 nm
Auto-λ detection (incl. TWINtest)	850/1310/1550/1625 nm with Acterna laser sources	850/1310/1550/1625 nm with Acterna laser sources
Dynamic range of power meter	0 to −80 dBm	0 to −80 dBm
Detector type	InGaAs	InGaAs
Display resolution	0.01 dB	0.01 dB
Fiber type	9 μm up to 100 μm	9 μm up to 100 μm
Optical interface (details see ordering information)	universal adapter BN 2040	universal adapter BN 2040
Talk set	dynamic range 45 dB	dynamic range 45 dB
ORL display range limited to front end connector (APC recommended)	up to 65 dB, measurement	up to 65 dB, measurement

Acterna OFI-2000 Cable Acceptance Reports using Acternas optical fiber budget software OFS-310

Product information

To ensure optimal use (bidirectional measurement and communication), two OFI units are required.

Stand-alone high accuracy power meter	*OFI-2001/2031*	*OFI-2002/2032*
Wavelength range, adjustable per	800-1650 nm	800-1650 nm
Selectable wavelength	850/1300/1310/1480/1510/1550/1625 nm and one user-definable	850/1300/1310/1480/1510/1550/1625 nm and one user-definable
Auto-λ detection (incl. TWINtest)	850/1310/1550/1625 nm with Acterna laser sources	850/1310/1550/1625 nm with Acterna laser sources
Modulation detection	270 Hz, 330 Hz, 1 kHz, 2 kHz	270 Hz, 330 Hz, 1 kHz, 2 kHz
Dynamic range	+10 to −70 dBm	+26 to −55 dBm
Accuracy	±0.2 dB (+7 to −60 dBm)	±0.25 dB (+23 to −50 dBm)
Detector type	InGaAs, 2 mm	Filtered InGaAs, 2 mm
Display resolution	0.01 dB	0.01 dB
Fiber type	9 μm up to 100 μm	9 μm up to 50 μm
Optical interface	universal adapter BN 2040 (for details see ordering information)	universal adapter BN 2040 (for details see ordering information)

Visual fault locator (optional)		
Wavelength	635 nm	635 nm
Output power into 9/125 μm fiber	1 mW max.	1 mW max.
Optical interface	UPP for all common 2.5 mm connectors	UPP for all common 2.5 mm connectors
Output modes	Off, On, 1 Hz	Off, On, 1 Hz

Length measurement accuracy		
Accuracy	L < 3km: ±50m 3km < L < 200km: ±1.5%	L < 3km: ±50m 3km < L < 200km: ±1.5%

General (basic configuration)		
Display	1/4 VGA active b/w display (5.7 in), color display optional (see ordering information)	1/4 VGA active b/w display (5.7 in), color display optional (see ordering information)
Power supply (removable)	3-way: dry batteries, NiMH rechargeable battery, AC/DC	3-way: dry batteries, NiMH rechargeable battery, AC/DC
Operating time with dry batteries	>8 h	>8 h
Operating time with NiMH accu	>13 h	>13 h
Low battery display	Yes	Yes
Auto off after 1 or 10 min. or disabled	Yes	Yes
Battery charge indication	Yes	Yes
Operation with AC adapter	Yes	Yes
CE conform	Yes	Yes
Operation temperature range	−10 to +50ºC	−10 to +50ºC
Storage temperature range	−20 to +70ºC	−20 to +70ºC
Weight with dry batteries and all options	4lb/1.8 kg	4lb/1.8 kg
Dimensions (w x h x d)	8 x 8 x 3 in (approx. 21 x 20 x 8 cm)	8 x 8 x 3 in (approx. 21 x 20 x 8 cm)
Data transfer direct via RS-232	Yes	Yes
Store function	Yes	Yes

General information

The OFI-2000 family of units are each delivered as standard with a black and white LCD screen, RS232 interface and cable, neck strap, AC/DC adapter, soft case, one battery pack with six dry batteries, one rechargeable battery, user manual, lens tissue (1 x 30 pcs) and connector cleaning sticks (5 pcs). The basic functions are bidirectional loss test, stand-alone power meter and delay/length measurements.

Base unit types

OFI 2001	1310/1550 nm OFI tester: telecom (stand-alone power meter with +10 to –70 dBm)
OFI 2002	1310/1550 nm OFI tester: CATV (stand-alone power meter with +23 to –60 dBm)
OFI 2031	1310/1550/1625 nm OFI tester: telecom (stand-alone power meter with +10 to –70 dBm)
OFI 2032	1310/1550/1625 nm OFI Tester: CATV (stand-alone power meter with +23 to –60 dBm)

Base unit options

OFI/Col	color display option
OFI/VFL/UPP	VFL option with UPP fixed connector
OFI/OTS	talkset option with headset
OFI/ORL ORL	option with mandrel

Accessories for OFI family

OFI/RB	rechargeable battery (can be charged with OFI/ACDC)
OFI/AC/DC	AC/DC adapter OFI/CASE
	additional OFI soft Case OFI/CL
	cigarette lighter power adapter OFI/CCS
	connector cleaning sticks (5 pcs) OFI/OCT
	optical connector cleaning tape OFI/SCT
	spare cleaning tape for OFI/OCT

Optical connectors for the loss test set and talk set

One connector must be specified when ordering an OFI unit.
Standard fixed connectors include:
FC/PC, SC, ST, DIN, E2000, EC, FC/APC, SC/APC, DIN/HRL, E2000/HRL
Universal connectors include:
UNI/PC/NAD PC connector or UNI/APC/NAD APC connector with use of UNI/FC/AD, UNI/SC/AD, UNI/ST/AD or UNI/DIN/AD
(2060/00.XX type) adapters
The talk set connector will be the same type as the connector for the loss test set.

Optical adapter for stand-alone optical power meter

One optical adapter is provided as standard; the same type as the loss test set connector.

Other available adapters include:
A/(SMA, FC/PC, diamond, biconic, DIN, VFO, ST, SC, EC, E2000, UPP 2.5 mm and UPP 1.25 mm (2014/00.XX type))

For more information on test adapters, cables and fiber optic couplers, see the separate datasheet: "Acterna fiber optics test adapters and cables".

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