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Test & Measurement

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Complimentary Reference Material

This PDF has been made available as a complimentary service for you to assist in evaluating this model for your testing requirements.

TMG offers a wide range of test equipment solutions, from renting short to long term, buying refurbished and purchasing new. Financing options, such as Financial Rental, and Leasing are also available on application.

TMG will assist if you are unsure whether this model will suit your requirements.

Call TMG if you need to organise repair and/or calibrate your unit.

If you click on the "Click-to-Call" logo below, you can call us for FREE!

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OLP-87/87P

SmartClass™ Fiber PON Power Meter and Microscope



Key Benefits

- **Complete jobs faster, correctly, and on time—the first time**
Uniquely integrates fiber inspection and test for an efficient, easy-to-use solution that promotes best practices for handling fiber
- **Analysis with pass/fail results on one handheld device**
Automatically certifies fiber end-face condition and easily measures FTTx/PON power making even new technicians fiber experts
- **Easily generates certification reports**
Prove that work quality meets industry standards and customer specifications
- **Use it anywhere**
Hands-free carrier for easy use inside homes or up on telephone poles

Key Features

- Field-portable λ -selective PON power meter with through-mode capability
- Supports B-PON, E-PON, and G-PON networks
- Available in both 1310/1490 nm and 1310/1490/1550 nm versions
- Measures burst mode for 1310 nm upstream signals
- Automated pass/fail fiber inspection analysis with optional P5000i microscope
- Available version with integrated PCM
- On-board storage for fiber inspection and test results
- USB interface to transfer data or for remote control
- Smart-Reporter certification software to create customized reports
- Ultra-bright, high-contrast color display
- Modern, smartphone-style user interface with touch screen
- Rugged, weather-proof design

The JDSU OLP-87 is an FTTx/PON power meter for use in qualification, activation, and troubleshooting of B-PON, E-PON, and G-PON networks. As part of the JDSU SmartClass Fiber Family, the OLP-87 combines a high-performance λ -selective FTTx/PON meter with a pass/fail fiber inspection analysis into one portable solution. These combined capabilities guarantee service providers a lifetime of system performance from their network connectivity and gives contractors an essential tool for delivering best-in-class, reliable networks to their customers.

The OLP-87 is ideal for end-of-line testing, activation, and maintenance of all FTTx/PON signals. The through-mode capability can simultaneously measure voice, data, and video signals on fiber at 1490 and 1550 nm downstream and 1310 nm burst mode upstream.

The OLP-87 is compatible with the P5000i digital analysis microscope so users can check fiber end-face quality and get pass/fail acceptance results with one button push. The OLP-87P features an integrated patch-cord microscope (PCM) for added value and improved workflow efficiency.

Users can easily save test results and generate certification reports to document work quality. Integrating these capabilities into one system helps the OLP-87 drive technician behavior toward implementing today's best practices in a seamless workflow that optimizes efficiency and reliability so they complete the job right—the *first* time.

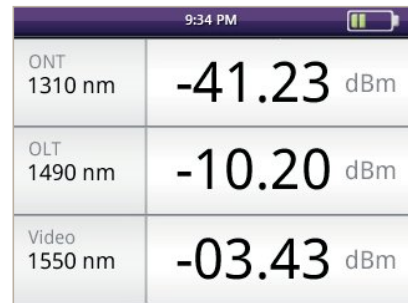
The handheld OLP-87 can be used anywhere today's fiber technicians go, up poles or down holes. Technicians get ultimate flexibility and performance from this powerful, easy-to-use solution that can help any technician become an instant fiber expert.

Become an instant fiber expert with SmartClass Fiber

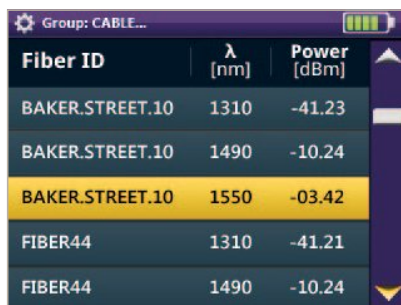
- ✓ **Integration** Combines inspection and testing
- ✓ **Automation** Pass/fail certification
- ✓ **Ease of use** Intuitive smartphone-style user interface



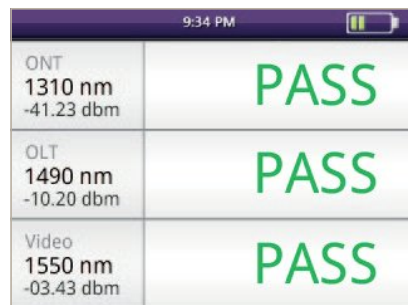
Intuitive smartphone-style user interface
High-contrast, color touch screen with menu icons



Simultaneously displays all FTTx/PON power levels
Shows OLT downstream signals at 1490 and 1550 nm along with ONT upstream burst mode signals at 1310 nm



Store inspection and measurement readings on the device
Store up to 10,000 measurement results on the device or, for additional storage, a USB host with a pluggable memory key.



User-definable pass/fail acceptance criteria
Whether using the IEC 61300-3-35 or customer-specific requirements, users can easily manage user-specified acceptance criteria with dedicated profiles for each requirement.

Group	Fiber ID	Wavelength	Power[dBm]	Power[dBm]	Power[dBm]	Reference	PASS/FAIL	Threshold Cat
1. MEASUREMENT1	FIBER1.00001	1310	2.78	0.00189671	2.78	0	OVER	default
2. MEASUREMENT1	FIBER1.00002	1490	0.78	0.00119674	0.78	0	OVER	default
3. MEASUREMENT1	FIBER1.00003	1550	1.41	0.00138357	1.41	0	OVER	default
4. MEASUREMENT1	FIBER2.00001	1310	2.78	0.00189671	2.78	0	OVER	default
5. MEASUREMENT1	FIBER2.00002	1490	0.78	0.00119674	0.78	0	OVER	default
6. MEASUREMENT1	FIBER2.00003	1550	1.41	0.00138357	1.41	0	OVER	default

Comprehensive data management and report generation
Easily generate certification reports that prove your quality of work meets industry standards or customer specifications using Smart-Reporter PC software.

- Easily store measurement data at the press of a button
- Manage data and store results on the instrument
- Download measurement results to a PC via USB interface



Inspect and test fiber anywhere

Combines inspection and test in one handheld device

Use either the onboard PCM or connect a P5000i digital analysis microscope to inspect fiber end faces and eliminate poor-quality components from entering your network

Benefits of using P5000i and PCM together

- Optimizes technician performance with tools designed for workflow
- Improves network activation with a reliable, repeatable processes
- Safely stores test leads when not in use
- Quickly and easily inspects both female (bulkhead) and male (patch cord) fiber connectors without changing tips

Automatic image centering

Centers the fiber image on the screen

Ultimate portability and organization

The hands-free carrier stores all of the essential tools, such as the inspection microscope, visual fault locator, and cleaning materials, in an organized, portable system that you can take with you to every job.

Specifications

FTTx

General	Version 1310/1490/1550 nm	Version 1310/1490 nm
Downstream measurement range	1490/1550 nm	1490 nm
Upstream measurement range	1310 nm, burst mode	1310 nm, burst mode
Supported networks	G-PON, B-PON, E-PON	G-PON, B-PON, E-PON
Operating mode	Through mode	Through mode
Pass-through insertion loss	<1.5 dB ¹	<1.5 dB ¹
ORL ^{2,4}	>60 dB	>60 dB
Calibrated wavelengths	1310/1490/1550 nm	1310/1490 nm
Threshold sets	>1000 configurable threshold sets with individual naming and auto pass/fail analysis	>1000 configurable threshold sets with individual naming and auto pass/fail analysis

Upstream measurements OLT to OLT

Power measurement range	-40 to +13 dBm ⁵	-40 to +13 dBm ⁵
measurement mode	burst mode measurement	burst mode measurement
Max. permitted input level	+17 dBm	+17 dBm
Power uncertainty	±0.5 dB ^{1,3}	±0.5 dB ^{1,3}
Spectral pass band	1260 to 1360 nm	1260 to 1360 nm
Isolation 1490 and 1550 nm	>45 dB	>45 dB

Downstream measurements OLT to OLT

Data signals at 1490 nm		
Power measurement range	-50 to +13 dBm	-50 to +13 dBm
Max. permitted input level	+15 dBm	+15 dBm
Power uncertainty	±0.5 dB ^{1,3}	±0.5 dB ^{1,3}
Spectral pass band	1480 to 1500 nm	1480 to 1500 nm
Isolation 1310 and 1550 nm	>45 dB (4)	>45 dB ⁴

Video signals at 1550 nm

Power measurement range	-50 to +26 dBm
Max. permitted input level	+21 dBm
Power uncertainty	±0.5 dB ^{1,3}
Spectral pass band	1535 to 1565 nm
Isolation 1310 nm	>45 dB ⁴
Isolation 1490 nm	>45 dB

Specifications
General
**Broadband Power Meter mode
(1310/1490 nm version only)**

Power measurement range	-50 to +13 dBm
Max. permitted input level	+15 dBm
Power uncertainty	±0.5 dB ^{1,3}
Wavelength (range)	1260 to 1625 nm
Calibrated wavelengths	1310, 1490, 1550, and 1625 nm
Wavelength settings	1260 to 1625 nm, in 1 nm steps
Tone detection	270 Hz/1 kHz/2 kHz

General

Fiber inspection	Via external probe P5000i with auto pass/fail analysis
Live image	320 x 240 x 8 bit grey, 10 fps
Display	High contrast 3.5" TFT color touch screen
Display resolution	0.01 dB/0.001 µW
Measurement units	dB, dBm, W

Data memory	10,000 measurement results
Data readout	Via client USB interface or Ethernet
Remote control capability	Via USB
Electrical interfaces	2 x USB host, 1x micro USB, Ethernet
Power supply	Four-way powering: NiMH/dry batteries/Li ion pack/ AC power supply 12 V Internal charging for Li ion pack
Optical connectors	Interchangeable: SC, FC, ST, LC, DIN Fixed: SC
Recommended recal. interval	3 years
Size (H x W x D)	208 x 118 x 64 mm (8.2 x 4.4 x 2.5 in)
Weight	750 g
Operating temp. range	-10 to +55°C
Storage temp. range	-20 to +70°C

- (1) At 23°C ±3°C, at 1310/1490/1550 nm
- (2) At 1550 nm
- (3) Around -7 dBm
- (4) Valid for APC version only
- (5) Burst mode -35 to +13 dBm

Ordering Information
Stand-Alone Units

Part Number	Description
2305/01	OLP-87 FTTx Power Meter 1310/1490 nm, PC
2305/21	OLP-87 FTTx Power Meter 1310/1490 nm, APC
2305/26	OLP-87 FTTx Power Meter 1310/1490 nm, SC-APC
2305/11	OLP-87 FTTx Power Meter 1310/1490/1550 nm, PC
2305/31	OLP-87 FTTx Power Meter 1310/1490/1550 nm, APC
2305/36	OLP-87 FTTx Power Meter 1310/1490/1550 nm, SC-APC

Kits

FIT-8726	OLP-87 1310/1490 SC-APC Basic Kit
FIT-8726-PRO	OLP-87 1310/1490 SC-APC Pro Kit
FIT-8736	OLP-87 1310/1490/1550 SC-APC Basic Kit
FIT-8736-PRO	OLP-87 1310/1490/1550 SC-APC Pro Kit

Included Items

Stand-Alone Units
SmartClass Fiber Instrument
SCASE2 Soft Shoulder Case for SmartClass Fiber Tools
Electronic Tool Kit with Manual, Data Sheet, and Smart-Reporter Software on USB Stick
Two Optical Adapters: SC Type or Selectable SC/FC/DIN/ST/LC in Universal Version
Quick Start Manual and Safety Instructions
Dry Batteries (8x)
Additional Items in Basic Kits
P5000i Digital Inspection Microscope
Inspection Tips and Adapters (Bulkhead: SC, APC, and LC, Patch Cord: 2.5 mm, 2.5 mm APC, and 1.25 mm)
FiberChekPRO Software Installation Disk
USB Cable USB-A to Micro-USB

Additional Items in Pro Kits

P5000i Digital Inspection Microscope
Inspection Tips and Adapters (Bulkhead: SC, APC, and LC, Patch Cord: 2.5 mm, 2.5 mm APC, and 1.25 mm)
Cleaning Materials for 2.5 and 1.25 mm (Bulkhead and Patch Cord)
Hands-Free Carrier for SmartClass Fiber
Rechargeable Battery for SmartClass Fiber (Li ion)
FFL-050 Visual Fault Locator with 2.5 and 1.25 mm Adapter
Power Supply for SmartClass Fiber (12 V)
FiberChekPRO Software Installation Disk
USB Cable USB-A to Micro-USB

Accessories

2305/90.01	PS4 Power Supply, for SmartClass Fiber, 12 V/2 A
2305/90.02	RBP2 Rechargeable Battery Pack for SmartClass Fiber; Li ion Battery 3.7 V/20 W/hr
2128/01	UC4 Hands-Free Carrier for SmartClass Fiber
2128/02	UC4P Hands-Free Carrier for SmartClass Fiber with PCM
K 807	USB Cable USB-A to Micro-USB
2128/03	SCASE2 Soft Shoulder Case for SmartClass Fiber Tools

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