

OLP-85 and -85P

SmartClass™ Fiber inspection-ready optical power meters



The SmartClass Fiber OLP-85 and -85P combine pass/fail fiber inspection and optical power measurement (OPM) into one solution. With a 100 dB dynamic range, the OLP-85 and -85P handheld optical power meters are professional, versatile, and compact instruments perfect for any fiber-optic network power or loss test applications. Their high accuracy over the entire range means that the OLP-85 and -85P perfectly fit applications where low power or very high power needs to be measured.

In addition to providing a full day of battery-operated field use, the SmartClass Fiber OLP-85 and -85P are perfect for fixed installations in central offices, production environments, and for laboratory workbenches because they can operate via mains or be remotely controlled via USB 2.0 and Ethernet.

The OLP-85 and -85P are 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-85P features an integrated patch-cord microscope (PCM) for added value and improved workflow efficiency.

Combining the Viavi Solutions® OLS-85 optical light source and OLP-85 and -85P optical power meters provides the greatest functionality, and automated tests avoid handling errors and speed testing. Automatic functions, such as auto-lambda and multi-lambda test, enable users to receive information about emitted wavelengths, automatically set wavelengths on the compatible power meter, and accurately measure up to four wavelengths simultaneously. Users can also easily save test results (power, loss, fiber inspection) with real-time stamps on the OLP-85 and -85P to generate comprehensive certification reports.

Key Features

- Complete jobs faster, correctly, and on time—the first time with uniquely integrated fiber inspection and test with auto pass/fail analysis
- Battery-operated field-portable optical power meters with an 800 to 1700 nm measurement wavelength range and high accuracy over an ultra-wide 100 dB dynamic range
- 3.5-in color touch screen with integrated stylus
- Automated pass/fail fiber inspection analysis with the optional P5000i microscope, also available with integrated PCM
- Individual threshold settings for power and loss pass/fail analysis
- Onboard fiber inspection and test results storage with time stamp
- Data transfer and remote control via USB, Ethernet or optional WiFi connection
- Auto-lambda and multi-lambda test functions communicate with Viavi light sources
- In-service loss test option
- Rugged, weather-proof design
- SmartPowerOn functionality for instantaneous power on

Specifications

OLP-85 and -85P	
Detector type	Filtered InGaAs
Measurement range	-75 to +26 dBm
Max. permitted input level	+30 dBm
Intrinsic uncertainty ¹	±0.15 dB (±3.5%)
Automatic offset nulling	Yes
Overall measurement uncertainty ^{2, 3}	850 nm, 980 nm ±0.35 dB ±25 nW 1310 nm, 1490 nm ±0.25 dB ±5 nW 1550 nm ±0.25 dB ±5 nW 1625 nm: ±0.35 dB ±5 nW
Wavelength range/ settings	800 to 1700 nm in 1 nm step
Calibrated wavelengths	850, 980, 1310, 1490, 1550, 1625 nm
Display resolution	0.01 dB/0.001 µW
Measurement units	dB, dBm, W
Power meter functions	Abs, rel, pass/fail
Auto functions ⁴	Auto-λ/ Multi-λ function
Tone detection	270 Hz, 1 kHz, 2 kHz
Data storage	Up to 10,000 test results with time stamp, inspection jpg
Battery life	>13 hr (LiION)/>11 hr (alkaline)
Warm-up time	None, instant On
General	
Display	3.5-in color LCD touch screen, 4:3 ratio
Data readout	Via USB interface
Remote control	Via USB or Ethernet
Wireless connectivity	Via USB WiFi adapter (optional)
Inspection functions	Auto pass/fail, store end-face image
Optical interfaces	Free space, interchangeable adapters (2014/00.xx type, PC and APC)
Electrical interfaces	USB 2.0 (2 x host, 1 x device)
Power source	AC adaptor, 8x AA alkaline, or rechargeable LiION battery pack (option)
Power mode	Auto-Off, SmartPowerOn mode
Dimensions (H x W x D)	
OLP-85	208 x 112 x 64 mm (8.2 x 4.4 x 2.5 in)
OLP-85P	208 x 153 x 64 mm (8.2 x 6.0 x 2.5 in)
Weight	
OLP-85	750 g (1.6 lb)
OLP-85P	850 g (1.85 lb)
Temperature range	
Operating	-10 to +55°C (14 to 122°F)
Storage	-20 to +70°C (-4 to 158°F)

Ordering information

OLP-85 and -85P optical power meters include:

SmartClass Fiber instrument, SC2 soft shoulder case, one optical adapter, Alkaline batteries (8x), quick start manual and safety instructions.

Description	Part Number
OLP-85 optical power meter	2307/03
OLP-85P optical power meter with integrated patch cord microscope (PCM)	2308/03

Options and Accessories

P5000i digital analysis microscope with 4 tips	FBP-SD101
RBP2 rechargeable battery pack for SmartClass Fiber; LiION battery 3.7 V, 20 W	2305/90.02
PS4 power supply for SmartClass Fiber, 12 V, 2 A	2305/90.01
SmartClass Fiber WiFi option including USB wifi-adapter	2327/90.21
UC4 hands-free carrier for SmartClass Fiber	2128/01
UC4P hands-free carrier for SmartClass Fiber with PCM	2128/02
SC2 soft shoulder case, for SmartClass Fiber	2128/03
USB cable USB-A to micro-USB	K 807

Adapters

FC	2014/00.09
DIN	2014/00.17
ST	2014/00.21
SC	2014/00.24
E2000	2014/00.26
UPP 1.25 mm	2014/00.28
LC	2014/00.29
UPP 2.5 mm	2014/00.31

Notes:

- Valid for calibrated wavelengths 1310 nm, 1490 nm, 1550 nm at reference conditions, at -24 dBm (CW), 23°C ±3K, 9µm test fiber with SC/PC ceramic connector. Intrinsic uncertainty for calibrated wavelengths 850nm (at -20dBm), 980 nm (at -22dBm) and 1625 nm (at -24dBm) is ±0.25 dB (±6%).
- 75 dBm to +26 dBm, -5°C to +45°C
- Overall measurement uncertainty for 800 to 1700 nm:
800 nm to 1300 nm: ±0.7 dB ±25 nW
1300 nm to 1550 nm: ±0.4 dB ±5 nW
> 1550 nm: ±0.7 dB ± 5 nW
- With Viavi optical light sources, 800 nm to 1625 nm and level > -50 dBm

