

# FX45 Series

**Optical Power Meter (OPM)**  
**Optical Light Source (OLS)**  
**Optical Loss Test Set (OLTS)**  
**Optical Return Loss Test Set (ORL)**



## Key Features

- Singlemode and Multimode testing
- PON, Telecom, CATV and LAN/WAN applications
- Dual wavelength laser source and power meter
- OPM, OLS, ORL, OLTS configurations
- High accuracy and wide dynamic range
- Save OPM measurements (> 1000 single results) with timestamp
- Transfer stored results to a PC via USB for report generation, printing and Fiberizer Cloud upload
- Reference power level setup and recall
- Frequency detection for fiber identification
- Wave ID automatically detects incoming wavelength from compatible VeEX light source
- ORL and bidirectional loss testing with calibrated power meter coupled internally to fiber on light source port
- Splash resistant keypad and chassis design
- High contrast display - Visible outdoors and backlight for indoor or low light conditions
- Alkaline or Rechargeable batteries with Auto power off
- Field interchangeable OPM adapters support multiple connector types and allow easy access for cleaning

## Key Specifications

### Optical Power Meter (OPM)

- Calibrated wavelengths: 850, 1300, 1310, 1490, 1550, 1625, 1650 nm
- Detector type: InGaAs
- Level measurement range:
  - PM1 version: -65 to +10 dBm
  - PM2 version: -50 to +25 dBm
- Accuracy: +0.2 dB or 5%
- Wave ID detection (compatible VeEX source): 850, 1300, 1310, 1490, 1550, 1625, & 1650 nm

### Optical Light Source (OLS)

- Wavelengths: 1310/1490 nm or 1310/1550 nm
- Test Tone Generation: 270, 1 KHz, 2 KHz
- Stability:  $\pm 0.03$  dB for insertion loss measurements
- Laser Safety: Class 1

### General

- Optional OLTS for bi-directional loss measurement (requires ORL option)
- Optional ORL meter for return loss measurements (requires APC Interface)
- Communication port: micro USB
- Connector or Adaptor types: FC/SC/ST/LC, Universal 1.25, Universal 2.5 mm
- CE compliance as per IEC 61326
- Battery operating time: approximately 80 hours (without backlight)



## Fiberizer™

Fiberizer Desktop and Fiberizer Cloud boost efficiency and productivity for several optical test applications. OPM and OLTS test results can easily be transferred from the device to a PC running Fiberizer Desktop PC software. Full off-line analysis and report management in a controlled office environment is possible while Fiberizer Cloud provides superior centralized test data management and reporting capabilities on line allowing you to work from almost anywhere, at any time.

### Optical Specifications

Light Source		
Parameter	Singlemode	Multimode
Wavelength (nm)	1310/1490 or 1310/1550 ± 20 nm	850/1300 ± 20 nm
Output power (dBm)	> -5	
Power Stability (dB)	≤ ± 0.03 (15 min), ≤ ± 0.1 (8 hrs)	< ± 0.05 (15 min)
Modulation	CW, 270, 1 kHz, 2 kHz, WaveID	
Spectral width (nm)	< 10	
Optical Connector Types	Fixed or Universal adaptors (FC, SC, LC)	
Optical Interface	UPC or APC (optional)	
Power Meter		
Calibration wavelengths (nm)	850/1300/1310/1490/1550/1625/1650	
Wavelength Range (nm)	800-1700	
Power range (dBm) options		
- Standard (PM1), InGaAS (1 mm)	-65 to +10	
- High (PM2), InGaAS (1 mm)	-50 to +25	
Power measurement accuracy, % (dB)	± 5 (± 0.22)	± 8 (± 0.33)
Linearity, % (dB)	± 2, 5 (± 0.11)	± 4 (± 0.17)
Display Resolution (dB)	0.01	
Optical Adaptors (Interchangeable)	ST/SC/FC/LC, Universal 2.5/1.25 mm	
Optical Return Loss (ORL)		
Wavelength (nm)	1310/1550 or 1310/1490	
ORL Range (APC) (dB)	-14 to -65 dB	
ORL Uncertainty (dB)	± 0.5 dB (-50 to -14 dB), ± 1 dB (-65 to -50 dB)	
Resolution (dB)	0.1	
Visual Fault Locator (VFL)		
Emitter Type	Laser	
Wavelength (nm)	650	
Laser Safety	60825-1:2001, Class 2	
Output Power (mW)	1	
Modulation	CW, 1 Hz, 2 Hz	
Connector Type	Universal 2.5 mm	

### General Specifications

Size:	129 x 61 x 38 mm (H x W x D)	PC connection:	Micro USB interface, data transfer via Fiberizer software
Weight:	< 310 g (< 0.7 lbs.) OPM configuration	Storage:	> 1000 single wavelength results
Construction:	Rugged, Polycarbonate chassis, 1 meter drop tested	Display:	High contrast, monochrome LCD with backlight
Battery:	Standard Alkaline AA Rechargeable NiMH, 2 AA cells in series, 2000 mAh	Operating Temp:	-10 °C to +50 °C
Power Supply:	Micro USB interface, 5 VDC charger	Storage Temp:	-20 °C to +70 °C
		Humidity:	0% to 95%, non-condensing



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