FX85
ORL/OLS/OPM Meter



ORL/OLS/OPM Optical Loss Test Set

Singlemode, handheld Optical Return Loss meter also capable of performing loop-back power measurements or 1-way fiber loss measurement when paired with FX84 OLTS meter or another FX85 ORL meter.

Key Features

Platform

- High contrast, backlit LCD - visible indoors and outdoors
- Handheld, lightweight rugged design
- Protective rubber boot with tilt bail stand
- Splash and dust resistant design
- Non-volatile storage for saved test results
- Up to 1920 single wavelength records
- Date/time stamp of test results
- USB (wired) or optional Bluetooth® (wireless) interface for test result transfer
- Rechargeable Li-polymer battery pack
- Micro-USB, 5 Volt DC charger

Software Support

- Fiberizer® LT-Sync (Windows® PC) software for transferring test results and generating basic pdf or Excel reports
- Fiberizer Desktop Plus and Fiberizer Cloud for advanced result post processing and reporting
- Fiberizer Mobile OLTS for USB and Bluetooth result transfer and test reporting applications – Android™ devices only

Key Test Functions

Optical Return Loss (ORL)

- Single mode - 1310, 1490, 1550, and/or 1625nm
- 65 dB ORL measurement range
- SC/APC or FC/APC connector

Optical Light Source (OLS)

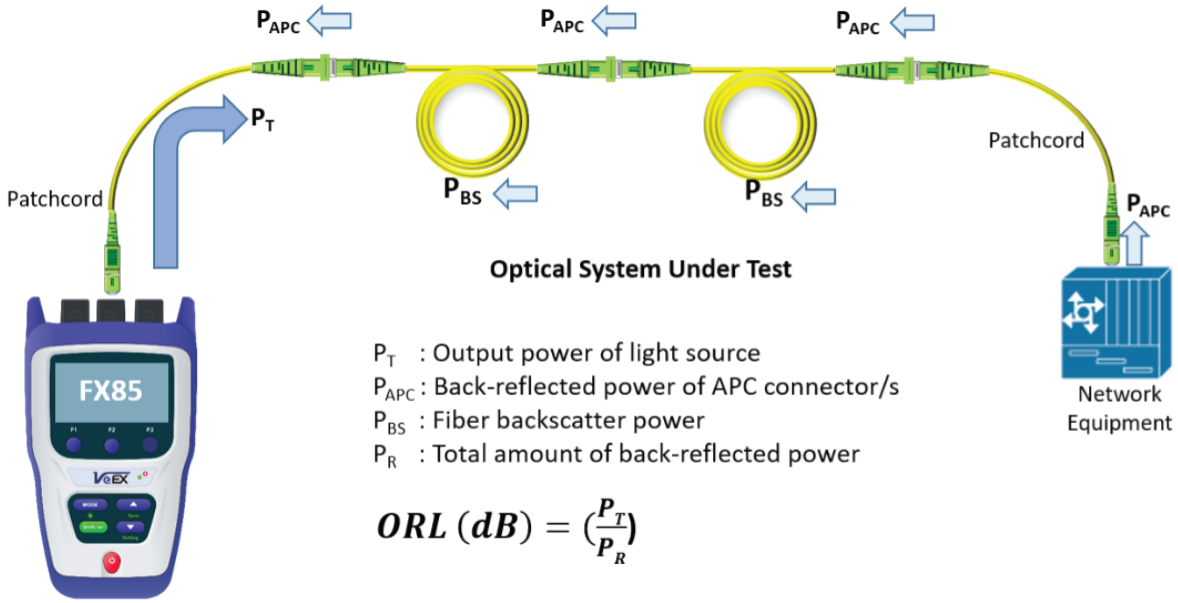
- Modes: CW or modulated (270/330/1000/2000 Hz)
- CW Output Power: >-2.5 dBm

Optical Power Meter (OPM)

- Wavelength range 800 to 1700 nm
- InGaAs detector
- 80 dB measurement range
- WaveID auto wavelength recognition (when paired with compatible VeEX OLS)
- Universal connector adapters

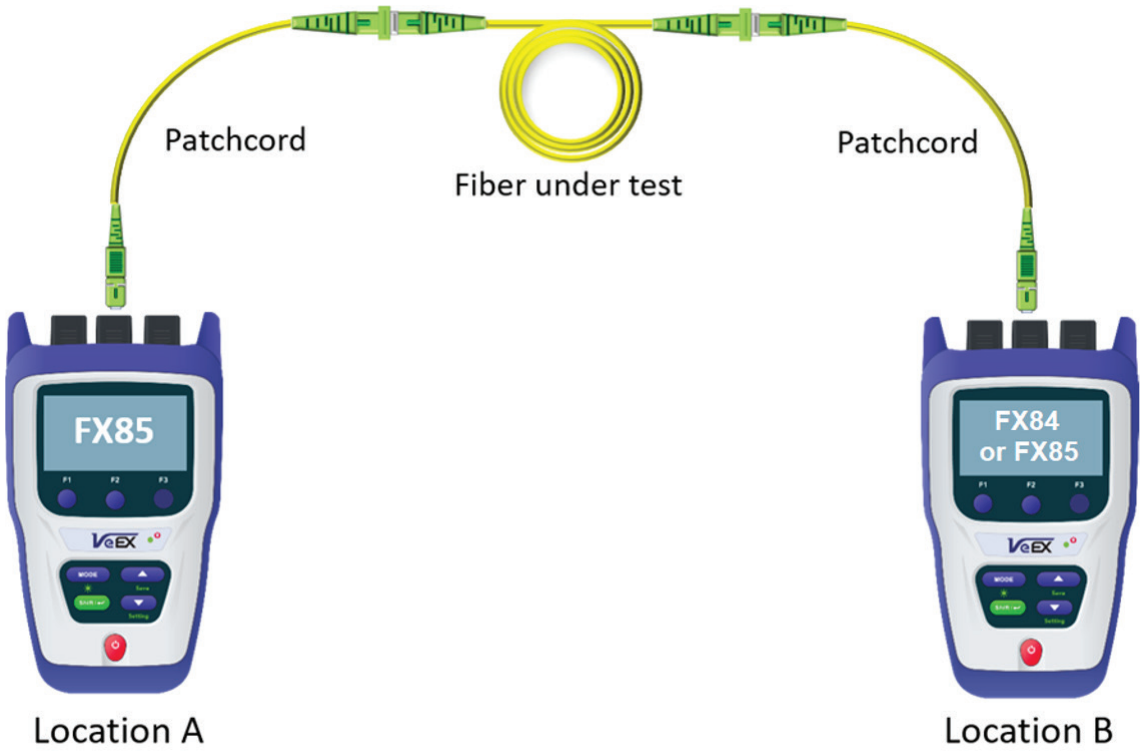
FX85 Optical Return Loss (ORL) Meter

The FX85 ORL meter can also be used as a laser source or power meter. As network transmission rates increase, link return loss (ORL) must be minimized to reduce bit errors. Furthermore, optical systems employing high-speed lasers, analog transmission (CATV), or Raman amplifiers also require optical systems with low return loss for optimal performance.



ORL is the ratio of the output power of the light source compared to the total amount of back-reflected power due to reflections including fiber back scattering and is defined as a positive quantity. Reflectance (dB) is the ratio of reflected power to incident power due to a single interface and is defined as a negative quantity.

Insertion loss and ORL measurements are performed one wavelength at a time. The unit's sensitive power meter, stabilized laser source and angled (APC) test port enable up to a 80 dB IL measurement range.



Fiberizer® Software

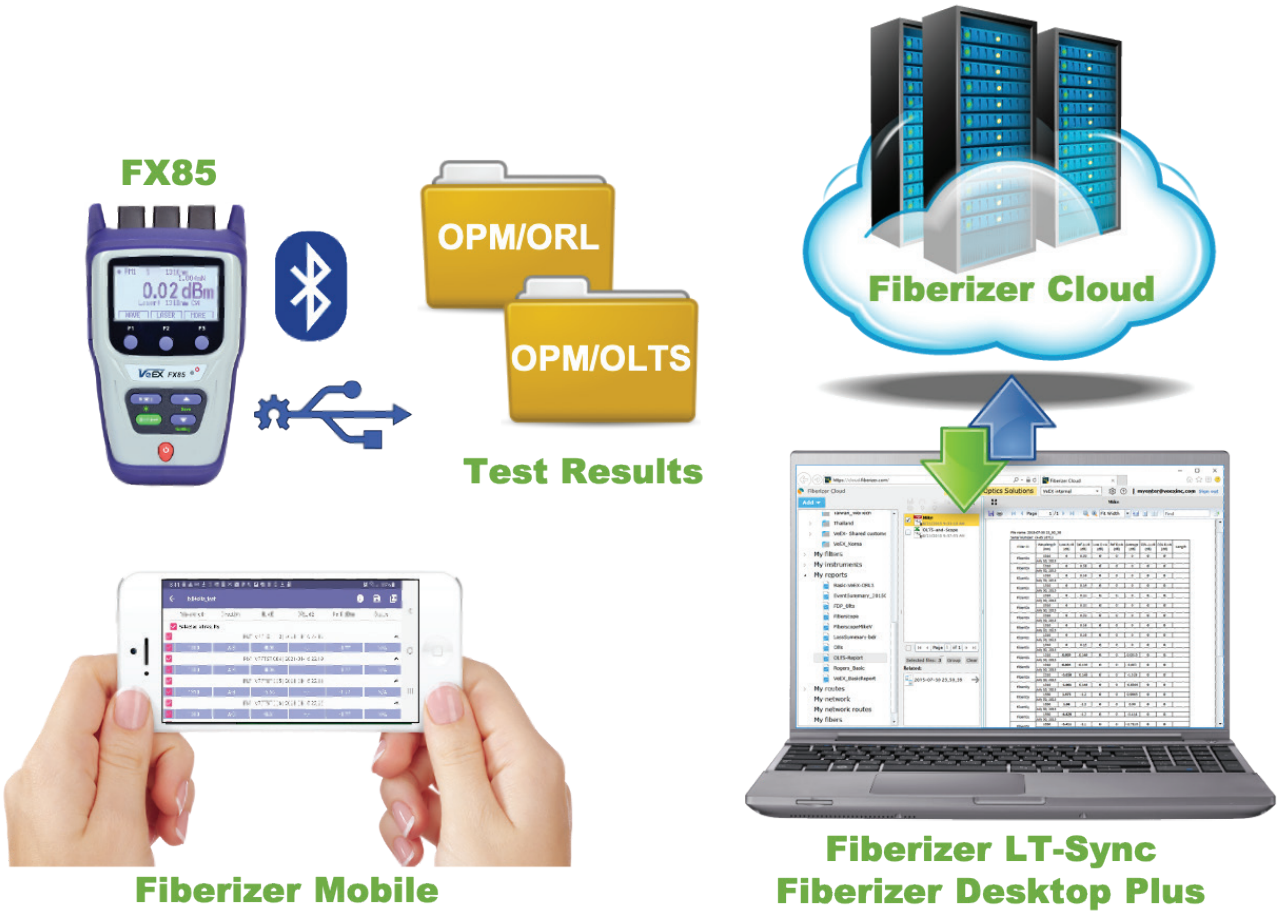
Fiberizer is a family of powerful fiber software applications that dramatically increases technician efficiency, workflow integration and process compliance. Test results from the FX80 series power meter can be transferred and processed in several ways depending on work practices.

Fiberizer LT-Sync software allows technicians to transfer test results from any FX8x series power meter to a Windows PC via USB or optional Bluetooth interface for simple reporting or subsequent transfer to Fiberizer Desktop Plus or Fiberizer Cloud applications.

Fiberizer Mobile OLTS are software Applications for Android mobile devices. Test results can be transferred directly to mobile devices via USB cable (Android devices only) or via optional Bluetooth interface. Technicians have the option to upload test results directly from their mobile device to an online repository such as Fiberizer Cloud for advanced processing.

Fiberizer Desktop-Plus enables comprehensive test data analysis and report generation on Windows PC platforms. The software supports upload of test data to Fiberizer Cloud for offsite record keeping and report generation.

Fiberizer Cloud lets you store, analyze, and access all your fiber optic test data in a single online repository. This unique Enterprise or Cloud based solution provides superior centralized test data management – plus being a full online web service, technicians can work or access data from almost any location, at any time.



Optical Specifications[1]

Optical Return Loss (ORL)	
Fiber Type	Single mode 9/125 µm
Wavelength (nm)	1310/1490/1550/1625
ORL Range (UPC/APC) (dB)[2]	0 to 65
ORL Uncertainty (dB)[3,4]	±0.5 (0 to 50), ±1 (50 to 60)
Readout Resolution (dB)	0.01

Optical Light Source	
Fiber Type	Single mode, 9/125µm
Center Wavelengths (nm)	1310/1490/1550/1625
Laser Type	DFB
Wavelength Tolerance (nm)	±2
Line Width (nm)	≤1
Output Power[6] (dBm)	>-2.5
Laser Safety	Class 1M
Power Stability (dB)	±0.03 (15 min) ±0.1 (8 hr)
Modulation (Hz)	CW, including 270/330/1000/2000
WaveID	Yes
Optical Connectors	Fixed (SC/APC or FC/APC)

Broadband Optical Power Meter	
Wavelength Range (nm)	800 to 1700
Calibrated Wavelengths (nm)	Standard - 850/1300/1310/1490/1550/1625/1650
Detector Type[5]	InGaAs
Measurement range (dBm) Standard (PM1) High Power (PM2)[5]	 -70 to +10 -50 to +25
Power Accuracy, % (dB)	±5 (±0.22)
Linearity, % (dB)	±2.5 (±0.11)
Readout Resolution (dB)	±0.01
Tone Detection (Hz)	270/330/1000/2000
Wave ID (Auto)	Compatible with VeEX Light Source
Optical Adaptors (interchangeable)	ST/SC/FC/LC, Universal 2.5/1.25 mm

Notes

1. All specifications valid at 23°C ± 1 °C after 15 minutes warm up.
2. ORL from 45 dB to 65 dB only when calibrated with 14.7 dB reference cable and APC terminator/mandrel
3. Typical value.
4. ORL accuracy up to 60 dB; ORL accuracy between 60 dB to 66 dB, >±1 dB uncertainty
5. Filtered InGaAs detector used for high power PM2 version.
6. Uncertainty is valid at calibration conditions.

General Specifications

Size:	164.39 x 100 x 46.93 mm (6.47 x 3.94 x 1.85 inch)
Weight:	420 g (0.93 lbs.) unit dependent
Construction:	Rugged, polycarbonate chassis, 1 meter drop tested
Battery Life:	OPM mode only w/o backlight > 60 hrs. OLS+OPM modes w/o backlight ~34 hrs
Power Supply:	Micro USB interface, 5 VDC charger
Connectivity:	Bluetooth (optional)
PC connection:	Micro USB, data transfer via LT Sync PC software
Display:	High contrast LCD (128x64 pixels)
Operating Temp:	-10 °C to +50 °C (unless noted)
Storage Temp	-20 °C to +70 °C
Humidity:	0% to 95%, non-condensing

VeEX
The Verification Experts

CE

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