

FX81

GPON/EPON Optical Power Meter

Optical power meter for the installation, service activation and troubleshooting of B/GPON, XG(S)-PON, EPON and 10G-EPON fiber networks. Pass-through design measures multiple downstream and upstream signals simultaneously for ONU/ONT verification.



Key Features

- Compatible with both GPON and EPON fiber networks
 - G-PON and XG(S)-PON test applications
 - EPON and 10G-EPON test applications
- ONU and OLT test ports with filtered, pass-through design
- Concurrent measurement/display of Upstream and Downstream signals
- High speed FPGA design to measure 1270/1310 nm upstream TDMA burst signals accurately
- 1490/1550/1577 nm Downstream signal support
- WaveID support when paired with compatible VeEX source
- Fixed SC/APC Interface for ONU and OLT test ports
- Programmable thresholds with Pass/Fail indication
- Optional broadband power meter with universal adaptors
- Non-volatile storage for 960 xPON measurements or 1920 OPM/ORL measurements
- Transfer of stored results to a Windows PC via micro USB cable or optional Bluetooth
- Flexible data transfer, test result management and report generation options using;
 - LT-Sync PC software (USB or Bluetooth)
 - Fiberizer™ Mobile software (USB or Bluetooth)
 - R-Server workforce management system
 - Fiberizer™ Desktop Plus or Fiberizer™ Cloud
- High contrast LCD - visible outdoors, programmable backlight for indoor or low light conditions
- Splash and dust resistant keypad and chassis design

Key Specifications

- Wavelength-selective level measurements according to:
 - GPON per ITU-T G.984.2
 - XG(S)-PON per ITU-T G.9807.1
 - EPON & 10G-EPON per IEEE 802.3av
 - RFoG per ANSI/SCTE 174
- Calibrated wavelengths (US/DS):
 - GPON and EPON: 1310/1490 nm
 - XG(S)-PON and 10G-EPON and 1270/1577 nm
 - RFoG: 1550 nm
- xPON Power Measurement range (Pass-through):
 - Burst mode at 1270 and 1310 nm: -35 to +10 dBm
 - CW mode at 1490 and 1577 nm: -40 to +12 dBm
 - RF Video at 1550 nm: 40 to +25 dBm
- Pass-through Insertion Loss: ≤ 1.5 dB
- Broadband Optical Power Meter (BB-OPM)
 - Calibrated wavelengths (nm): 850/1300/1310/1490/1550/1625/1650
 - CW measurement range (dBm): -65 to +6 (PM1), -50 to +26 (PM2)
 - Absolute Accuracy: ± 0.5 dB
 - Linearity: ± 0.2 dB @ 1550 nm (≥ -40 dBm)
- Optical Return Loss @ 1550 nm: ≥ 55 dB
- Display resolution: 0.01 dB
- Communication Interface: Micro-USB, Bluetooth (optional)
- Battery: Built-in, rechargeable Li-Polymer
- Battery operating time (with backlight):
 - FTtx PON mode: > 25 hours

Fiberizer™ Software

Fiberizer is a family of fiber software applications that increases technician efficiency, workflow integration and process compliance.

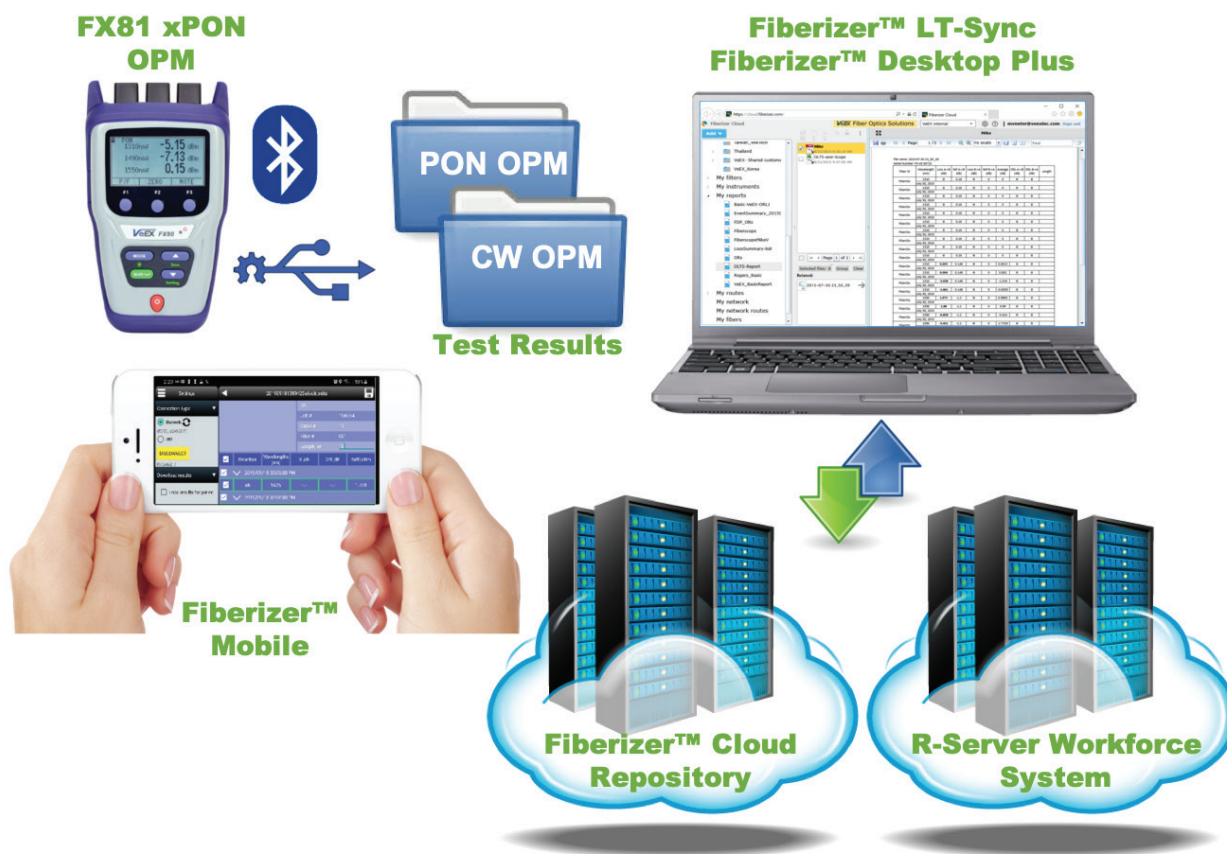
Fiberizer Mobile Apps are available for Android and Apple devices. Allows transfer of OPM and PON test data via USB cable (Android) or optional Bluetooth connection to a mobile phone or tablet for viewing, report generation or further upload to Fiberizer™ Cloud or VeSion R-Server.

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 and because it's a full online web service, technicians can work or access data from almost any location, at any time.

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

VeSion R-Server Workforce/Productivity System

This powerful centralized software application is specifically designed for medium-to-large service providers facing the enormous challenge of managing and coordinating hundreds of installations per day. The VeSion R-Server collects field test results for billing/record purposes and simplifies the maintenance of a large inventory of test sets. When used in conjunction with Fiberizer™ Mobile, the back-office server application becomes a powerful tool to reduce customer call-backs and associated truck rolls, maximizing workforce efficiency and lowering operational costs.



Optical Specifications¹

xPON Power Meter	Specification
Calibrated wavelengths (nm)	1270/1310/1490/1550/1577
Number of test ports	2 (ONU, OLT)
Continuous data measurement range (dBm) - OLT - 1490 nm - 1577 nm	-40 to +12 -40 to +25
Burst data measurement range (dBm) – ONT/ONU - 1270 nm - 1310 nm	-20 to +10 -35 to +10
RF Video data measurement range (dBm) - OLT - 1550 nm	40 to +25
Spectral Passband (nm) ² - 1270 - 1310 - 1490 - 1550 - 1577	1260 to 1280 1290 to 1330 1480 to 1500 1535 to 1570 1573 to 1585
Power measurement accuracy, (dB) ^{3,4,5}	± 0.5
Pass-Through Insertion Loss, (dB) ⁴	≤ 1.5
Linearity, (dB)	± 0.1
Display Resolution (dB)	0.01
Results	dBm, W, dB, Pass/Fail
Interface (with dust cap protection)	Fixed SC/APC

Notes:

1. At room temperature
2. FWHM (typical)
3. Calibration conditions, -10 dBm
4. Typical value
5. Calibrated wavelengths
6. APC connectors

General Specifications

Size:	164.39 x 100 x 46.93 mm (H x W x D)	Connectivity:	Micro USB or Bluetooth (optional), data transfer via LT Sync PC software
Weight:	420 g (0.93 lbs.)	Display:	High contrast LCD (128 x 64 pixels)
Construction:	Polycarbonate chassis, Rubber holster, 1 meter drop tested, IP54 equivalent	Operating Temp:	-10 °C to +50 °C
Battery:	Built-in Rechargeable Li-Poly, max 35 hrs	Storage Temp:	-20 °C to +70 °C
Power Supply:	Micro USB interface, 5 VDC charger	Humidity:	0% to 95%, non-condensing



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D05-00-175P A00 T 2019/10