FX80

PON Optical Power Meter

In-line optical power meter for GPON or EPON service activation and troubleshooting. Simultaneously measures downstream signals to the ONT and upstream signal to the OLT.

Key Features

- FTTx power meter for B/E/G-PON applications
- ONU and OLT test ports with pass-through design
- Fixed SC/APC or SC/UPC interface for ONU and OLT test ports
- Concurrent measurement and display of upstream and downstream signals
- 1310 nm upstream burst signal support
- 1490/1550 nm downstream signal support
- Programmable thresholds with Pass/Fail indication
- Optional broadband power meter with interchangeable adapters
- Non-volatile storage of upstream and downstream results
  - 960 PON measurements
  - 1920 OPM measurements
- Wired transfer of saved results to an Android mobile device or PC via micro-USB
- Wireless transfer of saved results to a mobile device or PC via Bluetooth (optional)
- LTSync PC software for data transfer, management and report generation
- Fiberizer Mobile software for test data transfer, management, report generation and Fiberizer cloud upload
- Upload of stored results to VeEX VeSion R-Server workforce management system or Fiberizer Cloud
- High contrast LCD - visible outdoors, backlight for indoor or low light conditions
- Splash and dust resistant keypad and chassis design

Key Specifications

- PON power meter (Pass-Through)
  - Wavelength-selective level measurements per ITU-T G.983/4 and IEEE 802.3ah recommendations
  - Calibrated lambdas: 1310/1490 & 1550 nm (RF video)
  - Power Measurement range (in-line mode):
    -40 to +10 dBm (1310 nm)
    -40 to +12 dBm (1490 nm)
    -40 to +25 dBm (1550 nm)
  - Burst measurement range @ 1310 nm: -35 to +10 dBm
  - Pass-through insertion loss: ≤1.5 dB
  - Display resolution: 0.01 dB
  - Optical Return Loss @ 1550 nm: ≥55 dB
- Broadband OPM (optional)
  - Calibrated lambdas: 850/1300/1310/1490/1550/1625/1650 nm
  - WaveID support when paired with compatible VeEX source
  - Absolute accuracy: ±0.5 dB
  - Linearity: ±0.2 dB @ 1550 nm (≥-40 dBm)
  - Measurement range:
    Standard (PM1) version: -70 to +6 dBm
    High (PM2) version: -50 to +26 dBm
- Communication I/F: micro USB or Bluetooth optional
- Battery: Built-in, rechargeable Li-Polymer
  - Operating time (with backlight):
    - Broadband OPM mode: >35 hours
   - 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 - for transferring and managing test data and generating reports on your mobile device (phone and tablet).

Fiberizer Desktop-Plus - 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.

Fiberizer Cloud - lets you store, analyze and access all your fiber optic test data via 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.
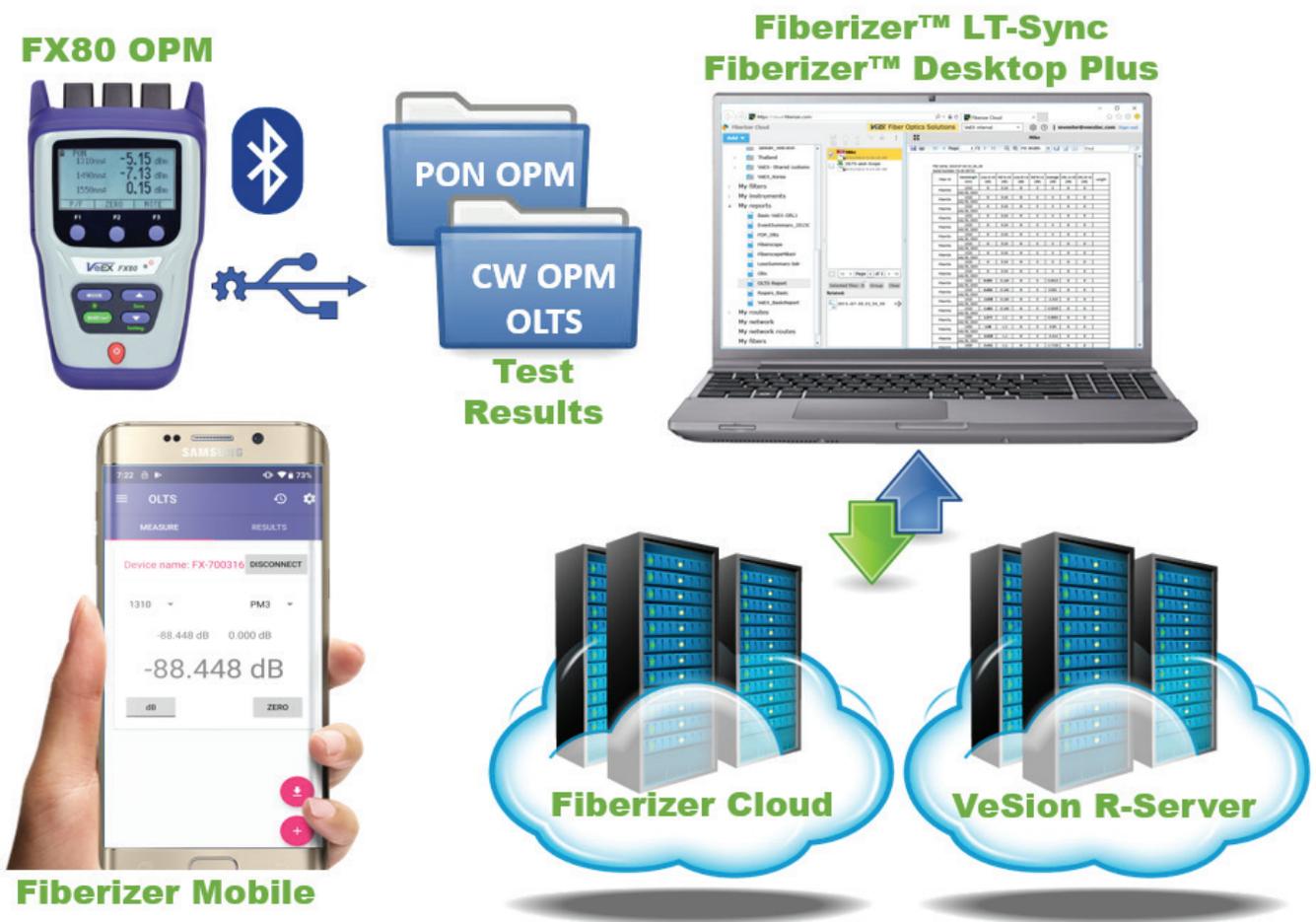
VeSion R-Server Workforce Productivity Server

Specifically designed for medium-to-large service providers facing the enormous challenge of managing and coordinating hundreds of installations per day, collecting the field test results for billing/record purposes and having to maintain 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.

Job ID	Account	Node ID	Result Type ▲	Date Uploaded	Date Measured
VeEX	Customer1	123	OPM	3/28/2019 1:33:27 PM	3/28/2019 1:33:04 PM
VeEX	Customer2	A1B1	OPM	3/29/2019 1:35:26 PM	3/29/2019 9:40:41 AM
VeEX	Customer3	A1B2	OPM	4/4/2019 12:09:09 PM	4/4/2019 11:50:10 AM
VeEX	Customer4	XYZ1	OPM	6/7/2019 10:12:50 AM	6/7/2019 10:09:13 AM

Optical Specifications[1]

PON Power Meter	Specification
Calibrated wavelengths (nm)	1310/1490/1550
Number of test ports	2 (ONU, OLT)
Continuous data measurement range (dBm) -1310 nm -1490 nm -1550 nm	 -40 to +10 -40 to +12 -40 to +25
Burst data measurement range (dBm) – OLT to ONT - 1310 nm	 -35 to +10
Spectral Passband (nm)[2] -1310 nm -1490 nm -1550 nm	 1260 to 1360 1470 to 1505 1535 to 1570
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
Connector/Interface	Fixed SC/APC or SC/UPC
Internal memory capacity	up to 960 PON results or 1920 OPM results with timestamp
Broadband Power Meter (Optional)	
Wavelength range (nm)	800 to 1700
Calibrated wavelengths (nm)	850/1300/1310/1490/1550/1625/1650
Power measurement range (dBm) -Standard (PM1) -High (PM2)	 -70 to +6 -50 to +26
Power measurement accuracy %, (dB)[7]	± 5, (0.22)
Tone detection (Hz, kHz)	270, 330, 1 KHz, 2 KHz
Wave ID (Auto)	Compatible with VeEX Light source
Optical adaptors (interchangeable)	SC, FC, LC, Universal 1.25 & 2.5 mm

Notes:
1. At room temperature
2. FWHM (typical)
3. Calibration conditions, -10 dBm
4. Typical value
5. Calibrated wavelengths
6. APC connectors
7. Range -65 to +6 dBm

General Specifications

Size:	164.39 x 100 x 46.93 mm (H x W x D)	Power Supply:	Micro USB interface, 5 VDC charger
Weight:	420 g (0.93 lbs.)	Connectivity:	Micro USB or Bluetooth (optional)
Construction:	Rugged, Polycarbonate chassis, 1 meter drop tested	Display: Operating Temp:	High contrast LCD (128x64 pixels) -10 °C to +50 °C
Battery:	Built-in rechargeable Li-Polymer, max 35 hrs	Storage Temp: Humidity:	-20 °C to +70 °C 0% to 95%, non-condensing

VeEX
The Verification Experts