

VeEX® offers a complete set of Test and Measurement solutions optimized for today's FTTx, GPON, DWDM, CWDM and Metro networks and are perfectly suited for demanding outside plant environments. The fast growing optical product range complements existing VeEX Transmission and Ethernet testing solutions.

## General Purpose

### FX10+ Pen Style Visual Fault Locator

- Output power: 1 mW or 10 mW versions
- Wavelength: 650 nm  $\pm$  20 nm
- Connector: 2.5 mm universal



### FX15 Optical Fiber Identifier

- Traffic detection and direction
- Supports 250 um, 900 um and 3 mm fiber types
- Tone detection LEDs (270 Hz, 1 kHz, 2 kHz) with audible warning



### FX40/FX45/FX48 Optical Power Meter & Light Source

- Singlemode and Multimode testing
- OPM & OLS configurations
- OLTS (FX45 only) configurations
- Date/Time stamping of test results (FX45/48 only)
- VFL optional (OPM or OLS versions only)



### FX100 Optical Loss Test Set (OLTS)

- Fully automated bi-directional loss testing < 10 seconds
- On-board wizard to guide patchcord referencing
- Built-in, full duplex digital Talkset
- Up to 4 laser wavelengths



### FX82 Optical Power Meter (OPM)

- Wavelength Range 800 to 1650 nm
- Calibrated wavelengths for major lambdas
- Wide dynamic range 1mm, InGaAs photo detector



### FX83 Optical Light Source (OLS)

- Single, Dual, Tri and Quad wavelength options
- Multimode - 850, 1300 nm
- Singlemode - 1310, 1490, 1550, and 1625 nm
- Modes: CW or Modulated (270/330/1000/2000 Hz)



### FX84 Optical Loss Test Set (OLTS)

- OPM and OLS functions in one unit
- Uni-directional insertion loss testing
- Singlemode and Multimode configurations
- VFL option



### FX85 Optical Loss Test Set (OLTS)

- OPM, OLS & ORL functions in one unit
- Bi-directional insertion loss testing with FX100 OLTS
- Singlemode and Multimode configurations



## Fiber Inspection

### DI-1000 Digital Fiber Inspection Scope

- Compatible with Fiberizer Mobile/PC software and VeEX testers
- Fast dial focus adjustment
- IEC 61300-3-35 analysis with pass/fail limits
- Industry standard connector tip support



### DI-1000 MPO Digital Fiber Inspection Scope

- Compatible with Fiberizer, PC software and VeEX testers
- Fast dial focus adjustment
- IEC 61300-3-35 analysis with pass/fail limits
- Industry standard connector tip support



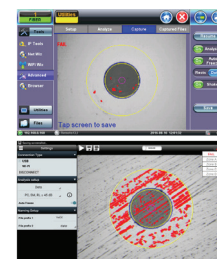
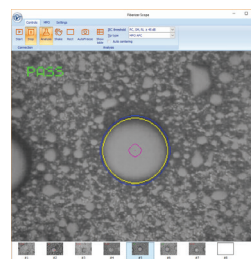
### VS-500 Digital Fiber Inspection Microscope

- Compatible with Fiberizer Mobile/PC software and VeEX testers
- Fast dial focus adjustment
- IEC 61300-3-35 analysis with pass/fail limits
- Brightness adjustment, 30-90%



### Compatible Host Platforms/Software\*

- Fiberizer Mobile software (Android & iOS)
- Fiberizer Scope Expert PC software (Windows)
- VeEX Testers (Linux)



\*Some limitations may apply.

## OTDRs - General Purpose

### OPX-BOXe Mini OTDR

- Up to 43 dB Dynamic Range and 1/4 m Dead Zones
- Optional Light Source and Visual Fault Locator (VFL)
- Multimode and Singlemode wavelength options - up to 128,000 sampling points
- WiFi & Bluetooth (wireless) and USB & Ethernet (wired) remote control



### MTTplus410+ Fiber Optics Test Module

- Fiber Optics test module for the MTTplus platform
- OTDR, OPM, Light Source and VFL support
- Singlemode and Multimode configurations
- Geo Tagging of test data using built-in GPS
- Built-in camera option to document test site



### FX150+ Mini OTDR

- Multimode and Singlemode configurations
- Filtered 1625 or 1650 nm port for in-service testing
- Live fiber detection with embedded power meter
- Dynamic range up to 43 dB
- Up to 256,000 sampling points



### TX300s with Optics Option

- Optics option adds OTDR test functionality to the TX300s multi-service tester
- Singlemode and multimode OTDR configurations with OLS option
- Filtered OTDR port for in-service testing
- OPM and VFL options



### RXT-4100+ OTDR Module

- Fiber optics test module for the RXT platform
- OTDR, OPM, OLS and VFL support
- Singlemode and Multimode configurations



## xPON

### FX80/81 PON Optical Power Meters

- Power meter for 1G and 10G xPON applications
- ONU and OLT test ports with pass-through design
- Fixed SC/APC Interface for ONU / OLT test ports
- Concurrent measurement of Upstream and Downstream signals
- 1270/1310 nm Upstream CW/Burst signal support
- 1490/1550/1577 nm Downstream signal support
- Non-volatile storage for > 930 measurements



### MTTplus-420 GPON Test Module

- GPON test module for the MTTplus platform
- Service activation and advanced troubleshooting at the ONT location
- Verify downstream & upstream optical power levels
- Non-intrusively capture and decode OCMI and PLOAM messages exchanged between OLT and ONT



## xWDM

### FX86 CWDM Quad Optical Light Source (OLS)

- Quad output, stabilized DFB laser source
- Supports any four CWDM wavelengths
- Outputs can be activated and modulated independently (270 Hz, 330 Hz, 1 kHz and 2 kHz)



### RXT-4111 DWDM OTDR Module

- Test DWDM Mux/Demux at ITU-T G.694.1 wavelengths
- C-band tuning (89 channels at 50 GHz spacing)
- Optional extended band tuning to Channel 62
- Integrated wavelength locker stable to within  $\pm 2.5$  GHz



### FX87 DWDM Tunable Laser Source (TLS)

- Full C-Band tuning (> 80 channels @ 50 GHz spacing)
- Wavelength Range: 1528.77 to 1563.86 nm
- Frequency Range: 191.70 to 196.10 THz



### RXT-4112 CWDM OTDR Module

- Characterize CWDM networks at ITU-T G.694.2 wavelengths
- End-to-end continuity testing using stabilized CWDM light source (via OTDR port)



### RXT-4113+ CWDM/DWDM OTDR Module

- DWDM - 89 (C-Band) ITU-T 694.1 channels at 50 GHz spacing
- CWDM - supports all 18 ITU-T 694.2 wavelengths
- Single optical output connector



## OSA

**FX180** Mini Optical Spectrum Analyzer

- CWDM or DWDM configurations
- Precise Wavelength, Level and OSNR measurement
- Measures up to 96 channels @ 50 GHz
- Table/Spectrum View, Channel Drift Analysis
- Sweep time < 5 seconds



## OCC

**FX180X** Optical Channel Checker

- CWDM or DWDM configurations
- Bar graph display of ITU-T channels measured
- Adjustable signal threshold with color coding
- Precise Level and Wavelength measurement

**RXT and UX400** with OSA Module

Using superior micro-optic design and MEMS tuning technology, the RXT and UX400 OSA test modules measure key optical parameters such as wavelength, channel power, and OSNR.



- S, C and C+L band wavelength ranges
- Fast scanning - full spectrum in < 5 s
- Simultaneous measurements - up to 160 channels
- DWDM channel spacing down to 33 GHz
- Channel and Span power measurement
- High wavelength accuracy:  $\pm 50$  pm
- Continuous sweep with min/max hold
- In-band OSNR measurement
- High dynamic range: > 50 dB
- OSNR measurement: > 35 dB

**Remote Fiber Test System (RFTS) / Optical Switches**

The Remote Fiber Test System (RFTS) comprises the RTU-4000 platform with the RTU-4100+ OTDR optical test module. A modular architecture and a wide range of test modules supports live or dark fiber testing in either point to point or FTTx networks. Advanced analysis algorithms along with state of the art OTDR technology ensures fiber faults or anomalies can be detected quickly and accurately for troubleshooting and restoration purposes, improving workflow and reducing Mean Time to Repair (MTTR).

**RTU-4000** Modular Platform

- Small 1U, 19" rackmount profile and construction
- Compatible with VeEX's OXA-4000 and OX4000 optical switches
- Supports RTU-4100+ OTDR module
- Connectivity via 10/100 Base-T Management interface

**OXA-4000** Optical Switch

- 1x8, 1x16, 1x32 and 1x128 configurations available
- Compact and powerful, 1U tall and 280 mm deep for 1x32
- Low insertion loss
- Wide and flat passband
- Fast switching time, < 8 ms for adjacent channels
- Protocol and bit-rate independent
- Single mode fiber support

**RTU-4100+** Optical Test Module

- Up to 500,000 sampling points with 3 cm resolution
- OTDR test port equipped with live fiber detection for monitoring P2P or PON networks
- Built-in launch fiber
- Up to 50 dB dynamic range

**OX-MPO** Multi-fiber Optical Switch

- 12-fiber optical switch for testing MPO/MTP fiber cables using VeEX OTDRs
- SC/APC input for OTDR connection
- Pinned MPO/APC output for MPO/MTP cable under test



## Fiberizer™ Fiber Optics Test Data Management, Remote & Cloud Applications

Software solutions for remote optical testing and data post-processing for managing test data and generating reports that integrate OTDR, link map, GPS coordinates, OLTS (loss and ORL), connector inspection, and captured images. Available for Window PC, Mobile Apps (Android, iPhone and iPad devices) and Fiberizer Cloud.



### Remote Test Solutions

VeExpress is a powerful and secure web-based asset management system for VeEX's new all-inclusive test sets, allowing them to be customized on demand, anywhere, any time. Share test options, purchased or leased, among multiple devices or purchase a base unit and rent the interfaces or options as required. VeExpress keeps track of software versions and delivers updates to test sets, so everyone is on the same page. Minimize CAPEX and optimize OPEX by managing your VeEX testers with VeExpress.

- **Fiberizer Desktop** – Windows PC software for remote connect via USB, Bluetooth or WiFi with OPX-BOX+. Initiate OTDR test, view trace/event table and save test results.
- **Fiberizer Mobile Android** – Remote connect via Bluetooth or WiFi with OPX-BOX; Remote connect via USB or WiFi to FiberScope; Remote connect via USB and view of FX40/45 series OPM results.
- **Fiberizer Mobile iPad®** – Remote connect via Bluetooth or WiFi with OPX-BOX; Remote connect via USB or WiFi to FiberScope; Remote connect via USB and view of FX40/45 series OPM results.
- **Fiberizer Mobile iPhone®** – Remote connect via Bluetooth or WiFi with OPX-BOX; Remote connect via USB or WiFi to FiberScope; Remote connect via USB and view of FX40/45 series OPM results.

### Post Processing Solutions

Fiberizer Expert Bundle Windows PC software includes:

- **Fiberizer Desktop Plus** – Post-Processing software package intended for data post-processing and management of optical test data and report generation to integrate OTDR, link map, GPS coordinates, OLTS (loss and ORL), connector inspection captured images.
- **Fiberizer Desktop** – PC software that supports Remote control of OPX-Box+ OTDR trace view and event table in addition to printing out results.
- **Fiberizer Scope** – PC software to use with VeEX FiberScope: connector image and Pass/Fail results.
- **LT-Sync** - PC software used to transfer OLTS and ORL results from FX40/45/8x series product for storage, report generation on PC or push to Fiberizer Cloud.
- **OPX-BOX driver** – driver required for OPX-BOX+ OTDR USB to PC communication.
- **FX40 series driver** – driver required for FX40/45 series USB to PC communication.
- **Sor Shell utility** – utility that allows user to view thumbnail view of OTDR trace file (.sor) in the directory using Microsoft Explorer.

**Fiberizer Cloud** – Use Cloud technology to create an online repository and a new way of managing and viewing all of your Fiber Optics test results (OTDR, OLTS, Fiberscope). You can conveniently organize your traces into custom collections, compare traces from the same cable or analyze and edit them with the help of advanced 2-point or 5-point modes with or without LSA. You can even generate a professional PDF report. Register at [www.fiberizer.com](http://www.fiberizer.com) for your free VeEX Fiberizer Cloud account. Back up test data from your PC to your personal Cloud account or PUSH test data directly from the field. Synchronize test data between your Cloud account and your PC using Fiberizer Desk- top Plus. Share project test results with your team and/or even with your customers.

**Fiberizer Mobile Apps** – Fiberizer Mobile Apps available for Android and Apple devices. Click the links below to see a comparison of current features.