



VeEX® offers a complete set of Test and Measurement solutions optimized for today's FTTx, xPON, 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 ± 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 (selected OPM versions only)



### FX82 Optical Power Meter (OPM)

- Wavelength Range 800 to 1650 nm
- Calibrated for major wavelengths, CWDM optional
- Wide dynamic range, PM1/PM2 versions



### 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)

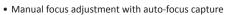
- OPM and OLS functions in one unit
- Uni-directional insertion loss testing
- Singlemode and Multimode configurations
- WaveID when paired with VeEX OLS
- Bluetooth option to transfer results to mobile device or PC



### **Fiber Inspection**

### DI-1000 Digital Fiber Inspection Scope

- Optimized for single fiber inspection
- Powered by USB connection from host device



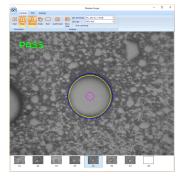
- IEC 61300-3-35 pass/fail limits analysis
- Single and Multi-fiber (MPO/MTP®) connector tip support

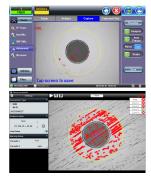
# **DI-1000 MPO** Digital Fiber Inspection Scope

- Optimized for multi-fiber (MPO/MTP®) inspection
- Powered by USB connection from host device
- Manual focus adjustment with auto-focus capture
- Focus and X/Y tip controls built-into device
- IEC 61300-3-35 pass/fail limits analysis
- Single and Multi-fiber (MPO/MTP) connector tip support

#### Compatible Host Platforms/Software\*

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





\*Some limitations may apply.

### **OTDRs - General Purpose**

### OPX-BOXe

#### Mini OTDR

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

#### FX150+ Mini OTDR

- Multimode and Singlemode configurations
- Up to 43 dB Dynamic Range and 1/4 m Dead Zones
- Up to 256,000 sampling points
- Filtered 1625 or 1650 nm port for in-service testing
- Live fiber detection with embedded power meter



## RXT-4100+ OTDR Module

- Fiber Optics test module for the RXT platform
- Multimode and Singlemode configurations
- Up to 50 dB Dynamic Range and 1/4 m Dead Zones
- Up to 500,000 sampling points
- OTDR, OPM, OLS and VFL support
- Geo Tagging of test data using GPS option of RXT platform



#### MTTplus410+ Fiber Optics Test Module

- Fiber Optics test module for the MTTplus platform
- Multimode and Singlemode configurations
- Up to 50 dB Dynamic Range and 1/4 m **Dead Zones**
- Up to 500,000 sampling points
- OTDR, OPM, Light Source and VFL support
- Geo Tagging of test data using GPS option of MTT platform
- Built-in camera option to document test site

#### TX340s with Optics Option

- · Optics option adds OTDR test functionality to the flexible multi-service tester
- Multimode and Singlemode OTDR configurations with OLS option
- Up to 45 dB Dynamic Range and 1/4 m Dead Zones
- Up to 500,000 sampling points
- · Filtered OTDR port for in-service testing
- · OPM and VFL options
- Geo Tagging of test data using GPS option of TX340s

# **xPON**

#### FX80/81 PON Optical Power Meters

- Power meter for 1G and 10G xPON applications
- ONU and OLT test ports with pass-through design
- Concurrent measurement of Upstream and Downstream power levels
- 1270/1310 nm Upstream CW/Burst signal support
- 1490/1550/1577 nm Downstream signal support



### 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 OMCI 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)



#### **DWDM Tunable Laser Source (TLS)**

- Full C-Band tuning (97 channels @ 50 GHz spacing)
- Wavelength Range: 1527.60 to 1566.31 nm
- Frequency Range: 191.40 to 196.25 THz
- ITU-T G.984.1 Wavelength grid compliant
- Broadband OPM optional



# RXT-4111 DWDM OTDR Module





- · Optional extended band tuning to Channel 62
- Integrated wavelength locker stable to within ± 2.5 GHz

# 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



## 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
- Table of detected ITU-T channels with wavelength Pass/Fail



#### **RXT** with OSA Module

Superior micro-optic design and MEMS tuning technology enables measurement of 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
- \* module dependent

- High wavelength accuracy: ± 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



# RTU-4100

#### **Optical Test Module**

- Up to 50 dB Dynamic Range
- 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 to verify first connection to fiber under test

### OX/OXA-4000 Optical Switches

- 1x8, 1x16, 1x32 and 1x128 configurations
- · Compact form factor
- Wide passband and low insertion loss
- · Protocol and bit-rate independent
- Single mode fiber support
- Fast switching time, < 8 ms for adjacent channels
- OX4000 series
- Ethernet control via VeSion™
- Cascading of switches to achieve higher port count
- OXA4000 series
- RS232 control direct from RTU-4000
- Built-in FWDM option for in-service testing

#### OX-MPO

#### **Multi-fiber Optical Switch**

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







#### 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**

- Fiberizer Desktop Windows PC software for remote connect via USB, Bluetooth or WiFi with OPX-BOX series. Initiate OTDR test, view trace/event table and save test results.
- Fiberizer Mobile Android Remote connect via Bluetooth or WiFi with OPX-BOX series; Remote connect via USB or WiFi to FiberScope; Remote connect via USB and view of FX40/80 series OPM results.
- Fiberizer Mobile iPad® Remote connect via Bluetooth (BLE) or WiFi with OPX-BOX series; Remote connect via WiFi to FiberScope
- Fiberizer Mobile iPhone® Remote connect via Bluetooth (BLE) or WiFi with OPX-BOX series; Remote connect via WiFi to FiberScope
- Fiberizer Mobile Apps Fiberizer Mobile Apps available for Android and Apple devices.
- Fiberizer Mobile OLTS Remote connect Android mobile device via Bluetooth with FX80 series (OPM versions only)

#### **Post Processing Solutions**

Fiberizer Windows PC software family:

- Fiberizer Desktop Plus Post-Processing software for optical test data (OTDR .sor, link maps, GPS coordinates, OLTS, and connector inspection images) including report generation.
- Fiberizer Desktop PC software supporting Remote control of OPX-BOX+ OTDR. Includes trace analysis, event table and print out of test 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.
- Sor Shell utility utility that allows user to view thumbnail view of OTDR trace file (.sor) in the directory using Microsoft Explorer.

Fiberizer Cloud – Advanced Cloud technology to save, manage and view all of your Fiber Optics test results in a single online repository. 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 customize report templates and generate professional PDF reports. 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 Desktop Plus. Share project test results with your team and/or with your customers. Register at <a href="https://www.fiberizer.com">www.fiberizer.com</a> for your free VeEX Fiberizer Cloud account.

