

optimize!
softing

FIBER CATALOG



IT Networks
itnetworks.softing.com

FOREWORD

Softing IT Networks is a manufacturer of test and measurement instruments for verifying, qualifying, and certifying the cabling infrastructure of IT systems and is one of three business segments of Softing AG, headquartered in Haar, Germany. This measurement equipment is an indispensable tool for many installers around the world to measure and document the quality of a cabling installation, however, it is equally important for the operation of an IT system. Problems in the IT cabling can be troubleshooted quickly and reliably to prevent dreaded network downtime and quickly remedy network outages if they occur.

Don't be afraid of fiber optic cabling!

A reliably functioning IT infrastructure forms the backbone of our modern information age. Especially in data centers, but also in the backbone area of companies and in campus cabling, more and more fiber optic cabling (FOC) is being used today. With increasing bandwidths and ever higher demands placed on fiber optic cabling, it is no longer sufficient simply to plug cables together and assume that everything will work. The fast and reliable testing of this cabling becomes an absolute "must".

Various fiber optic strategies are available to achieve higher bandwidths. On the one hand, today fibers supporting higher bandwidths are used, and on the other hand, multi-fiber connectors such as MPO/MTP are used. Another proven means is to use a higher coding of the Ethernet signal on the fiber. When combining

these strategies, it is possible today to transmit up to 100Gbit/s Ethernet even in multimode cabling over 10 fibers in parallel (100 GBase-SR10). Plans are underway for 400Gbit/s, and terabit is already under discussion.

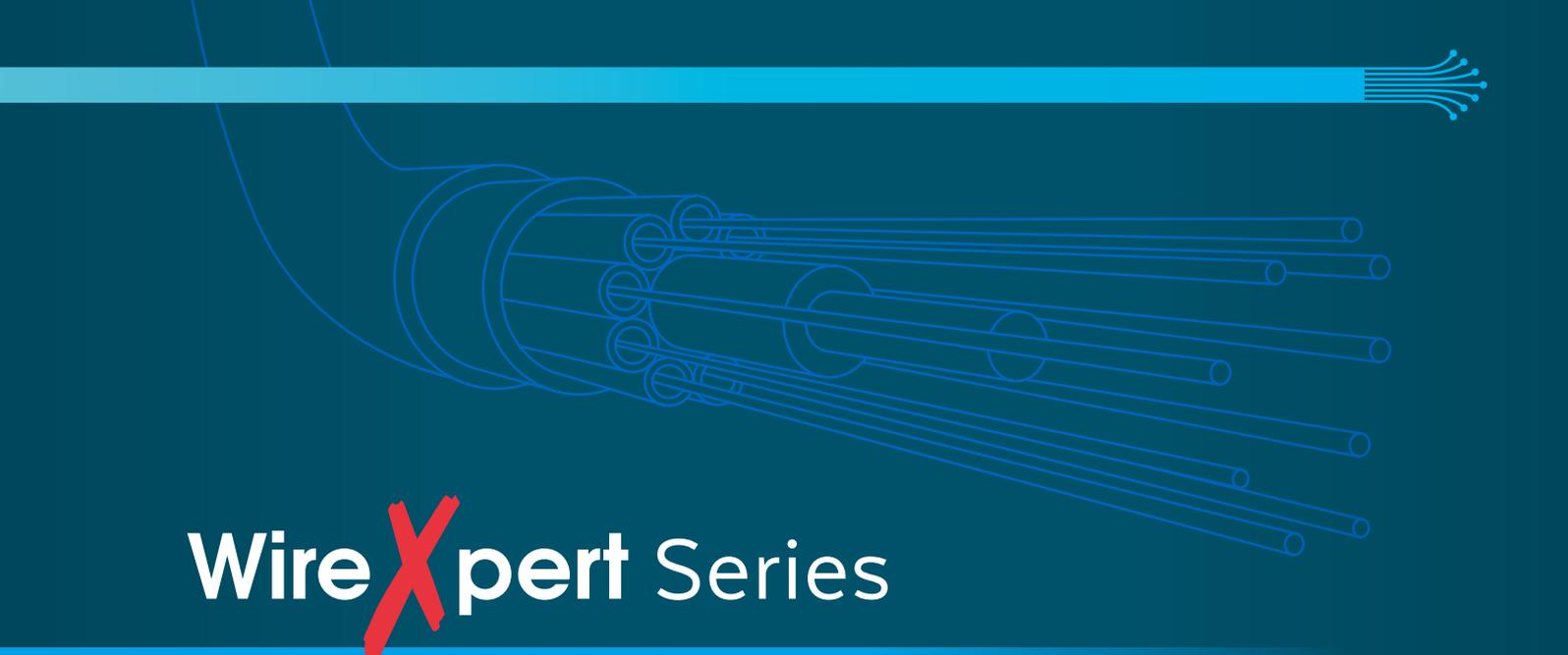
What does all this mean for you as an installer or a user and for us as a manufacturer of test and measurement instruments?

Sooner or later, as an installer or a user, you will have to deal with the increasing requirements in fiber optic cabling. First and foremost, this also means that you will come more and more into contact with fiber optic cabling in terms of measurements or will be confronted with increased testing requirements.

As a manufacturer of test and measurement instruments, Softing IT Networks ensures to offer a broad spectrum of products for all transmission media and for the various applications, from simple verification of cabling and qualification of data links up to 10Gbit/s to the certification of cabling links at the highest level.

If you have any questions about test and measurement equipment, or if something is missing in the catalog, please feel free to get in touch with us by phone or e-mail.

Your Softing IT Networks Team



WireXpert Series

Choose between the WireXpert variants the version that best suits your field of work: Softing IT Networks offers a Cat 6A/Class E_A copper certification tester, a fiber-only certification tester, and a combined Cat 6A/Class E_A copper and fiber certification tester. All models can be upgraded, eliminating the need to buy a new certification tester when your requirements change. The WireXpert 4500 premium model supports certifications up to 2,500MHz compliant with the new Cat 8, Class I & II standards.

WireXpert₅₀₀

The fiber-only version: certifies fiber optic cabling with multimode 850/1300nm, singlemode 1310/1550nm, and multimode MPO measurements. In addition to fiber optic certification, the WireXpert 500 allows for connecting a digital video fiber microscope. Auto tests are carried out within a few seconds. If required, the WireXpert 500 fiber-only device will guide you, step-by-step, through bidirectional measurements. Also available in a copper-only version.

WireXpert_{500plus}

is the technologically advanced combination model for fiber optic multimode and singlemode testing (850/1300nm and 1310/1550nm) and for copper testing up to 500MHz compliant with the standards' Cat 5e/6/6A, Class D/E/E_A specifications. WireXpert 4500 and WireXpert 500-PLUS are the only certification testers that support test requirements of data centers, of building cabling, and industrial Ethernet. WireXpert 500-PLUS is compatible with all adapters and can be upgraded to 2,500MHz in support of Cat 8, Class I & II measurements.

WireXpert₄₅₀₀

enables certification of the highest performance cabling systems in enterprise networks or data centers. Extremely fast measurement technology and intuitive device operation ensure highly accurate and fast certification measurements. WireXpert 4500 is the only cable certifier of its class that is able and ready today to perform certification testing on all connector systems in compliance with new cabling standards such as ANSI/TIA Cat 8 and ISO/IEC Class I & II.

WireXpert 500

WireXpert 500 Fiber-Only Certifier

The WireXpert 500 fiber-only version is a cost-efficient certifier, especially for fiber optic cabling. Its innovative concept was developed to considerably facilitate and accelerate fiber optic measurements. The device is available in multimode EF version, in MPO version and in a quad version (MMEF + SM). It is a future-proof investment that can be upgraded for copper certification and upgraded to the WireXpert 4500.



FEATURES

- LAN fiber certifier for Tier 1 certification
- Tier 1 certifications compliant with ISO/IEC and TIA 568 C.3, optional evaluation with a digital video fiber microscope (see page 17)
- Options available for measuring length and loss on singlemode fibers at 1310nm and 1550nm, and multimode fibers at 850nm and 1300nm
- Seamless integration of copper and fiber optic cable reports into the eXport reporting software, allowing you to generate professional warranty documents and certification reports
- Double your productivity with DCS™ technology by using each device as an independent fiber certifier

Multimode and Singlemode Kits (WireXpert 500-MMEF/WireXpert 500-SM)

The WireXpert optical loss test kits are available for both multimode and singlemode fiber networks. The modular solution allows testing of both types of networks with the same WireXpert unit using interchangeable adapters. Each module supports very accurate dual-wavelength loss and length measurements meeting all the specifications of the various standards. Both kits can be used for certification of horizontal and backbone cabling.

MPO Kits (WireXpert 500-MPO)

WireXpert's versatile MPO testing solution enables data center IT managers to get a quick and accurate assessment of the quality of MPO links. Additionally, it helps in performing incoming inspection of MPO components like cassettes. The key feature of this solution is a 5-second autotest that includes detection of the fiber connection map and measurement of loss on each channel.

Quad-Kit (WireXpert 500-QUAD)

The WireXpert 500 Fiber Certifier is also available in a QUAD configuration. In this configuration, the fiber certifier will be shipped with a kit of multimode EF modules as well as singlemode modules.

Order Number

WireXpert 500 Fiber-Only

Scope of supply: 2 identical devices (Local and Remote) with Dual Control System (DCS™), 2 Li-Ion batteries, 2 power supplies, 1 calibration certificate, 1 eXport software, 2 talksets, 1 USB drive, 1 quick start guide, 1 soft carrying case

| | |
|--------|--|
| 228145 | for Multimode Cabling (WX 500-MMEF) incl. 1 multimode EF kit (order no.: 228079) |
| 228146 | for Singlemode Cabling (WX 500-SM) incl. 1 singlemode kit (order no.: 228003) |
| 228147 | for Multimode and Singlemode Cabling (WX 500-QUAD) incl. 1 multimode and singlemode kit (order no.: 228079 + 228003) |
| 228148 | for Multimode MPO Cabling (WX 500-MPO) incl. 1 MPO test kit (order no.: 228072) |



WireXpert 500 plus

WireXpert 500-PLUS: Copper and Fiber Certifier

The WireXpert 500-PLUS for copper and fiber certification sets new standards for user friendliness, with a touch screen graphical interface on both Local and Remote units. The innovative design combines superior measurement accuracy with low cost of ownership and ease of use. The devices of the WireXpert 500 series support certification measurements in the frequency range of 1-500MHz and can be upgraded to the widest frequency range of up to 2,500MHz.



FEATURES

- Combined 500MHz copper cabling and MM + SM fiber optic certifier
- Most advanced certification measurements compliant with all standards: Class D/E/E_A, Category 5e/6/6A
- Measurement accuracy independently verified by ETL
- Exceeds ISO/IEC and ANSI/TIA Level III accuracy requirements
- Endorsed by companies worldwide
- Many test adapters available, e.g. patch cord testing, industrial Ethernet, RJ45
- Fiber certifications of MM fiber at 850 and 1300nm, and SM fiber at 1310 and 1550nm
- MPO multimode
- Advanced reporting and documentation
- The only certifier supporting all data center, office cabling, and industrial Ethernet measurement requirements
- Optional digital video fiber microscope (see page 17)

Easy to Use and Ruggedized Design

The WireXpert 500-PLUS comes with a high resolution color LCD touch screen and an intuitive touch sensitive user interface, designed for industrial, heavy duty usage. The Dual Control System (DCS™) – featuring two identical devices for the Local and Remote unit – makes it really easy to operate the test cycles. Whether coordinated by two technicians or only one, walking time between outlets is minimized.

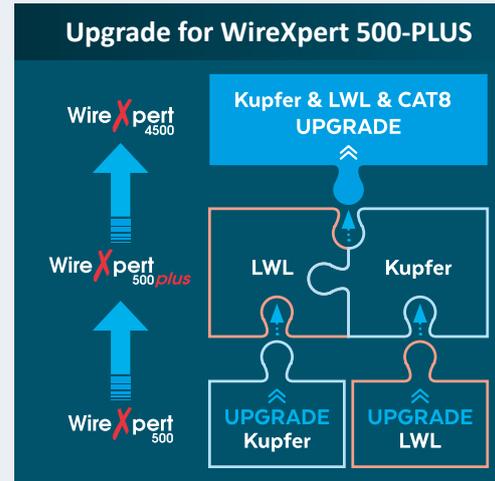
Fast and Simple for Highest Productivity

WireXpert completes a Cat 6A/Class E_A and a fiber certification test within a few seconds. It offers intuitive navigation through the device with screen menus and generates professional reports through the included eXport PC software.

WireXpert 4500 Upgrade

You can upgrade your copper/fiber certifier to test up to 2,500MHz on twisted pair and coax copper cabling up to Class D, E, E_A, F, F_A, I, II and Cat 5e, 6, 6A, 8 at any time.

The upgrade includes: 1 year warranty, Cat 8/Class I & II certification software license and calibration certificate.



Order Number

228144

WireXpert 500-PLUS

Scope of supply: 2 identical devices (Local and Remote) with Dual Control System (DCS™), 2 Li-Ion batteries, 2 power supplies, 1 calibration certificate, 1 eXport software, 2 talksets, 1 USB drive, 1 quick start guide, 1 soft carrying case

Optional digital video fiber microscope (see page 17)

WireXpert 4500

WireXpert 4500 is the world's most flexible cabling certifier up to Cat 8/Class I & II

Most advanced cable certification compliant with all standards: Category 5e/6/6A, Class D/E/E_A/F/F_A, as well as the new ANSI/TIA Cat 8 and ISO/IEC Class I & II standards.

The WireXpert is the first cabling certifier with the capability to certify the highest performance cabling systems in enterprise networks and data centers, while ensuring maximum flexibility. Extremely fast measurement technology and the intuitive operation of the WireXpert enable precise and fast certification measurements and improve productivity in the project.



FEATURES

- Cabling certifier for certification up to 2,500MHz
- Advanced cabling certification compliant with all standards: Class D/E/E_A/F/F_A, Category 5e/6/6A/7/7A, as well as the new ANSI/TIA Cat 8 and ISO/IEC Class I & II standards
- Fast autotest in less than 9 seconds
- Measurement accuracy independently verified by ETL
- Meets and exceeds ISO/IEC Level VI, V, IV, IIIe and ANSI/TIA Level 2G, IIIe accuracy requirements
- Approved by more than 25 leading cable and component manufacturers worldwide
- Field upgradable with many options, e.g. patch cord testing, industrial Ethernet, Class I & II, coax, fiber, MPO, digital video microscope
- Supports extended fiber certification at 850/1300nm (multimode) and 1310/1550nm (singlemode)
- Advanced reporting and documentation of cabling
- The only certifier supporting all data center, campus cabling, and industrial Ethernet requirements

With certification testing of copper cabling up to Class I, II, and Cat 8 as well as MPO, SM, and MM fiber optic cabling, the WireXpert 4500 is the only cabling certifier of its class that is ready today for 40Gbit/s and beyond.



Easy to Use and Ruggedized Design

The WireXpert comes with an easy-to-read color LCD screen and an intuitive touch sensitive user interface designed for industrial, heavy duty usage. The innovative Dual Control System (DCS™) – featuring two identical devices for the Local and Remote unit – makes it really easy to operate the test cycles. Whether coordinated by two technicians or only one, walking time for measurements is minimized.

Your investment will be protected beyond 10Gbit/s. If you are certifying 10Gbit/s cabling, WireXpert is the clear choice. If you are thinking beyond 10G, WireXpert is the only choice. Built on a future-proof, scalable measurement engine, the WireXpert protects your investment in measurement equipment as the data rates supported by the cabling systems increase. WireXpert employs a novel measurement architecture that achieves extremely wide bandwidth with superior measurement accuracy. Its unique RF measurement engine exceeds level 2G and VI requirements throughout the measurement frequency range.

WireXpert 4500, with its industry leading measurement performance, provides adapters for certifying cabling systems with higher performance than Cat 6A/Class E_A (500MHz). For Class F_A cabling systems, testing is performed over full standards defined frequency range from 1MHz to 1,000MHz while ensuring the required measurement accuracy. Appropriate TERA and GG45/ARJ45 interfaces are available through WireXpert test adapters. Both channel and permanent link testing are supported. With measurement bandwidth exceeding 2,000MHz, WireXpert is ready now to test Cat 8 and Class I & II cabling.

Proven Accuracy and Vendor Approvals

WireXpert was independently verified by internationally respected test laboratories such as ETL. Leading cable and component manufacturers extensively tested the WireXpert and approved the instrument for certification testing and associated warranties of their structured cabling solutions. Laboratory testing, including by independent test laboratories, and comparisons against vector analyzers have proven that WireXpert provides excellent accuracy and measurements correlate with laboratory equipment.

It is a fact that major cable vendors are using the WireXpert in their labs for qualifying Cat 8 cabling systems under development.



Order Number

228070

WireXpert 4500

Scope of supply: 2 identical devices (Local and Remote) with Dual Control System (DCS™), 2 Li-Ion batteries, 2 power supplies, 1 calibration certificate, 1 eXport software, 2 talksets, 1 USB drive, 1 quick start guide, 1 soft carrying case

Optional fiber adapters available

FiberXpert OTDR 5000

Fiber Optic Cabling Certifier

Designed with the installers and operators of enterprise networks in mind, the FiberXpert OTDR 5000 is optimized to measure, document and troubleshoot fiber optic networks. The FiberXpert OTDR 5000 provides very high resolution with one of the shortest event dead zones for testing multimode and singlemode fibers, thus enabling standards-compliant measurement even of short fiber links. Automated analysis simplifies the measurements and turns you into a fiber expert.



FEATURES

- Optical Time Domain Reflectometer (OTDR) for 850/1300nm multimode or for combined 850/1300nm multimode and 1310/1550nm singlemode testing
- Standards-compliant Tier 2 measurement of fiber optic cabling
- Automatic Pass/Fail analysis of the test results compliant with the limits specified by TIA/IEC
- Display of the OTDR trace in a graphical format for a length-dependent analysis of all events for reflection and attenuation
- All fiber link events and their analysis listed in a table of results
- Automatic macro-bend detection
- Built-in optical loss test set
- Optional digital video fiber microscope (see page 17)
- Large color LCD touch screen
- Generation of professional reports with eXport reporting software

With a high dynamic range and a short event dead zone, the FiberXpert OTDR 5000 is the ideal tool for measuring relatively short optical fiber links, as installed in company networks and data centers. An event dead zone of less than 80cm enables detection of consecutive connectors placed in short succession and to perform highly accurate measurements. FiberXpert efficiently measures fiber optic links with maximum resolution in the shortest possible time, thus reducing costs and resources.

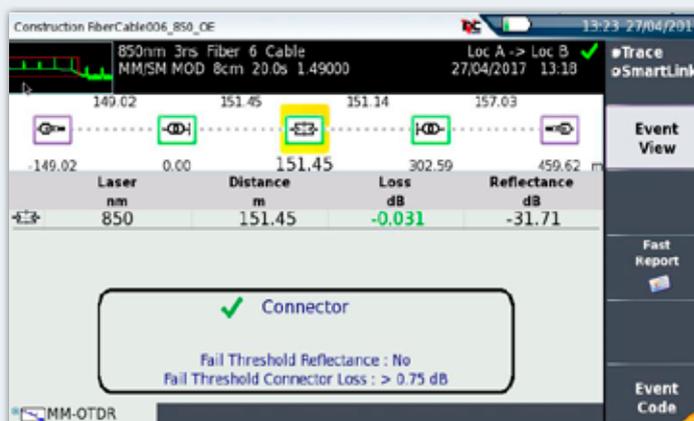
Easy Handling and Analysis

A special carrying case with shoulder strap allows for a hands-free operation and eliminates the need to mount the measurement tool for testing. This facilitates handling and increases work efficiency, in particular, when measurements are performed in different locations. The results are displayed on the 5-inch touch screen and can be analyzed and saved conveniently. Featuring an automatic event detection, all events on a fiber optic link are automatically displayed with a Pass/Fail evaluation.



Smart Link Mapper

The Smart Link Mapper displays OTDR results in an icon-based map view (SmartLink), providing a fast and clear diagnostic of the fiber link under test. Events detected on the link are each marked with simple, logical icons that can be selected individually to display the detailed measurement results for each event. It is possible to toggle between trace and SLM view at any time. Both SLM and trace view are included in each device.



Enhanced Measurement Features

Additional measurement features, such as attenuation measurement and an optical power meter, allow for a precise determination of link attenuation and measurement of the output power of active components such as switches. The optional digital video fiber microscope enables you to document the quality of the connector endface after installation. This is especially helpful in case of a fault or a warranty claim.

All Measurement Results of your Projects integrated to one Software Platform

Most cabling projects in companies consist of both fiber optic and copper cabling. Therefore, it is highly practical that the measurement results of the FiberXpert OTDR 5000 can be exported and evaluated with the eXport software. eXport also manages the measurement results of the WireXpert and you have all the results of your project integrated in a single software platform.

Order Number

FiberXpert OTDR 5000

Scope of supply: 1 Main measurement unit, 1 Li-Polymer battery, 1 power supply, 1 soft case with shoulder strap, 1 IP67 rated hard case, 1 calibration certificate, 1 eXport software

226534

Quad Multimode/Singlemode

incl. 1 SC compatible multimode module, 1 SC compatible singlemode module

226535

Multimode

incl. 1 SC compatible multimode module

226547

Quad Pro Kit

incl. 1 FiberXpert OTDR 5000 Quad (226534), 1 digital video fiber microscope (see page 17, order no. 226539), 1 VFL (see page 18, order no. 226546)

NetXpert XG

The new Generation of “Ethernet Speed Certification”

New standards defining data rates up to 10Gb/s are a big challenge for the qualifiers of the latest generation. Particularly cabling for wireless access points has to support the ever increasing data rates. In order to verify if the cabling installed is able to support the increased data rates, operators need to perform adequate testing before commissioning the network, to avoid any unpleasant surprises.

NetXpert XG enables you to meet the new challenges now!



Test for Highest Network Speeds with your Qualifier

The new NetXpert XG verifies, if cabling channels support maximum transmission rates of up to 10Gb/s, irrespective of the category of cables, patch panels, or outlets installed. NetXpert XG provides a precise statement by automatically performing three individual tests which are combined into an overall test result.

By performing a Bit Error Rate Test (BERT) and standards-based tests as per IEEE 802.3an the NetXpert XG verifies the error-free data transmission up to 10Gbit/s. The tests include further parameters that can impact a Gigabit transmission, including Signal-to-Noise Ratio (SNR) and delay skew. Delay skew indicates the signal time delay between the wire pairs used. Excessive delay can result in a serious degradation of transmission performance, making it impossible for the receiver to interpret the data stream correctly. Delay skew, just like the Signal-to-Noise Ratio, are considered to be crucial parameters for a reliable data transmission.

User-friendly Operation

Continuity test results of all 8 wires and the shielding are displayed in wire map format in full color, while showing cable faults such as opens, shorts, miswires, and split pairs in a clear and easy to understand way. NetXpert determines cable length and distance to faults performing full TDR (Time Domain Reflectometer) measurement in combination with a capacitance measurement, for increased accuracy.

High-Resolution 7-inch Touch Screen

The large 7-inch high-resolution touch screen facilitates work not only in daylight but also in poor lighting conditions and provides sufficient space to ensure excellent readability of the displayed test results.

Getting Results Faster

An autotest can be initiated either from the main unit or from the Active Remote, saving time spent for walking between outlets and reducing overall working time. When troubleshooting, all cable tests can be performed individually, to minimize fault-finding time.

Ruggedized Casing with Hanging Straps

Equipped with hanging straps at both sides, the NetXpert XG allows for one-handed use, leaving the right/left hand free to connect the NetXpert XG to the next cabling channel under test.



Troubleshooting of Active PoE++ Networks

For the troubleshooting of active PoE++ networks, NetXpert XG additionally offers a comprehensive tool set. This includes load tests for voltage drop of PoE supplies, identification of the devices connected to the network, and detection of availability of priority devices. The NetXpert XG offers sufficient internal storage even for large projects and, if required, generates complete standards-based measurement reports containing all the necessary test information. Extensive accessories turn the NetXpert XG into the ultimate multitool – from locating individual cables with the built-in tone generator or with the Remote Identifiers, to generating certification reports and performing in-service troubleshooting of PoE++ networks.

Well-equipped for the Challenges of the Future

The NetXpert 10G ensures a future-proof start into the new era of high-speed qualification and offers simple firmware upgrades. A license system allows for later upgrades to add new features. All wear parts (e.g. RJ45 jack) can be replaced easily and conveniently.

Perform fiber optic measurements

The NetXpert offers full flexibility regardless of whether you are measuring fiber or copper cabling. Using the available SFP/SFP+ ports, various active fiber tests such as protocol detection (CDP/LLDP), network ping test and network discovery can be performed. In the area of passive tests, a throughput test of the fiber optic cabling is also possible.

Technical Features at a Glance

- Tests data cabling for IEEE 802.3 compliance at transmission rates of up to 10Gbit/s (BERT)
- Determines Signal-to-Noise Ratio (SNR)
- Measures delay skew
- Combined length measurement performing TDR and capacitance measurements for highly accurate test results and easier troubleshooting even of shorts
- Full-color wire map shows shorts, opens, miswires, and split pairs in a clear and easy to understand way
- Saves test results and generates standards-based measurement reports providing “Pass/Fail”

Network and Diagnostics

- Supports IPv4 and IPv6
- Discover your network and see the connected network devices
- Identifies defective PoE switches by performing a PoE load test
- DHCP test
- Ping lists can be defined and saved for later use
- LLDP/CDP detection and analysis
- Identifies VLANs present in your network
- Data transfer from the tester to the PC using Wi-Fi or USB drive

Order Number

226552

226553

226554

226555

NetXpert XG

Scope of supply: 1 NetXpert Main Unit, 1 Active Remote, 2 power supplies, 2 test cables, 1 hard case, 1 Micro-USB adapter

1 NetXpert XG - 10G

1 NetXpert XG - 2.5/5G

1 NetXpert XG - 1G

1 Licence Upgrade 1 step

ADAPTERS ACCESSORIES

MPO/MTP[®] adapter

Fast and Accurate MPO/MTP[®] Cabling and Component Testing with the WireXpert

This MPO test solution enables data center IT managers, technicians, and installers to get quick and accurate assessment of the quality of MPO cabling. Additionally, it helps in performing incoming inspection of MPO components such as trunk cables, fan-out cables, and cassettes. The key feature of this solution is a 5-second autotest that includes the detection of fiber connection map and the measurement of loss on each fiber/channel.



FEATURES

- Tests MPO/MTP using the WireXpert cabling certifier
- MPO autotest in less than 5 seconds
- Reporting is integrated in eXport software together with standard singlemode fiber and copper test results
- Tests MPO-to-SC/LC links for end-to-end loss measurement on individual fibers
- Allows configuring the number of active fibers in MPO links, allowing to test for example custom links, including 8-fiber links
- Automatically identifies connection type as type A, B, C, or customized
- Allows reference settings with any connector type
- Displays absolute power level and loss on each fiber
- Numerical and graphical display
- The new MPO adapters for the WireXpert enable testing of MPO/MTP[®] cabling. A typical test setup consists of the WireXpert Local unit with MPO power meter adapter and the Remote unit with MPO light source adapter attached.
- Alternatively, a multimode fiber adapter can be attached to the WireXpert Local unit for testing individual fibers in MPO links. This solution provides a fast and accurate measurement of MPO link loss and allows for testing against user configured limits.

Order Number

228072

MPO Test Kit for WireXpert

Kit includes:

- 1 light source adapter (228093) & 1 power meter (228094)
- 2 test cords – type A “unpinned to pinned”, length 2m (228073)
- 2 type A adapters (228077)
- 1 reference cord – type A “unpinned to unpinned”, length 0.5m (228074)
- 1 reference cord – type B “unpinned to unpinned”, length 0.5m (228075)
- 1 MPO cleaning kit

Multimode EF adapter

Multimode Fiber Adapters for Standards-compliant Fiber Certification

A light source and a power meter are used to measure the power loss and length of fiber cabling at 850 and 1300nm. Certification of multimode fibers has often been a contentious issue due to the uncertainties inherent in the measurement process. ISO/IEC and TIA have recently adopted an Encircled Flux (EF) standard that standardizes the launch condition for the light sources used in multimode test equipment. The WireXpert's new EF compliant adapters ensure guaranteed compliance to the IEC 61280-4-1 Encircled Flux standard.



FEATURES

- Compliant with IEC- 61280-4-1 Encircled Flux standard and IEC-14763-3 standard
- Interchangeable robust SC, LC, and ST adapters for the EF kit
- Improves repeatability of measurements
- Reduces insertion loss measurement variability between laboratory and field instruments
- Troubleshooting with built-in visual fault locator (VFL)
- Validation of fibers with different modal behaviors from various fiber optic manufacturers
- The multimode Encircled Flux adapters are used for fully standards-compliant certification of multimode cabling with OM1 to OM5 fibers at 850 and 1300nm.
- The TX side of the adapters is equipped with FC connectors and the RX side of the adapters with interchangeable connectors to test SC and LC cabling. The standard kit comes with SC connectors. LC cords and adapter kits are available for testing LC cabling.

Order Number

Multimode EF Fiber Adapters for WireXpert

| | |
|--------|---|
| 228079 | <p>Encircled Flux Compliant Multimode Fiber Adapter Set for duplex fiber certification testing at 850/1300nm</p> <p>Scope of supply: 2 modally transparent test reference cords (FC-SC), 2 modally transparent duplex test reference cords (SC-SC), 1 cleaning kit, 1 SC/SC coupler</p> |
| 228089 | <p>LC Test Cord Kit for Encircled Flux compliant multimode fiber adapters</p> <p>Scope of supply: 2 modally transparent test reference cords (FC-LC), 2 modally transparent simplex test reference cords (LC-LC), 2 interchangeable adapters (LC), 2 duplex couplers (LC-LC)</p> |
| 228088 | <p>Test reference cords</p> <p>Scope of supply: 2 modally transparent test reference cords (FC-SC), 2 of modally transparent duplex test reference cords (SC-SC)</p> |

Singlemode adapter

Singlemode Fiber Adapters for Optical Loss and Length Measurements

In a modern network infrastructure, both copper and fiber optic cables are installed on the same site. With the rapidly increasing demand for bandwidth, certification plays a decisive role for guaranteed data rates. A certification measurement includes the characterization of each individual fiber link by measuring the insertion loss and length of the link in accordance with the required standards. The WireXpert offers a fast and reliable way to determine the Pass/Fail criteria of the installation according to the applicable standards.



FEATURES

- Fast, 6-second autotest for dual-wavelength certification testing
- Easy and rapid selection of test configuration and reference settings
- Supports 1, 2, or 3-jumper referencing
- Seamless integration into eXport reporting software together with copper test results
- Automated standards-based label creation
- Certification of simplex and duplex fiber links with one measurement unit
- WireXpert Local and Remote unit can be independently used for loopback testing, thus doubling test capacity

Order Number

228003

Singlemode Adapter for WireXpert

Scope of supply: 2 singlemode fiber optic measuring adapters, 2 SC duplex reference test cords, 1 cleaning kit

FiberXpert Launch Cord

Multimode and Singlemode Launch Cords Neatly Arranged and Ready to Use

FiberXpert launch cords ensure order in the measuring case. The launch cords are coiled gently and can be easily uncoiled and re-coiled. The fiber itself is optimally protected and can be stored in the hard case of the FiberXpert OTDR 5000.



FEATURES

- Optimum protection for your launch cords
- Multimode and singlemode launch cords available
- Common connector combinations available
- Automatic roll-up in the PRO version

Order Number

400931/400935/400936
 400933/400937/400938
 400930/400939/400940
 400932/400941/400942

FiberXpert Launch Cord

Launch Fiber Pro Multimode SC/LC/ST, 150m each
 Launch Fiber Pro Singlemode SC/LC/ST, 500m each
 Launch Fiber Eco Multimode SC/LC/ST, 150m each
 Launch Fiber Eco Singlemode SC/LC/ST, 500m each



Fiber Microscope

Digital Video Fiber Microscope for Connector Endface Inspection

Before testing fiber-optic links and each time fiber optic connectors are mated, connector endfaces should be inspected and evaluated to avoid contamination that can cause degradation of network performance and destructive damage in the contact zone. The new fiber microscope provides for a quick and easy inspection of connector endfaces and an automated Pass/Fail analysis compliant with IEC 61300-3-35. The microscope is easily connected via USB with WireXpert or FiberXpert and the evaluation of connector endfaces can be added to the test reports.



FEATURES

- Inspection and evaluation of connector endface at the touch of a button
- Automated analysis compliant with IEC 61300-3-35
- Ease of use and quick analysis
- Compatible with WireXpert and FiberXpert
- Adapters for the most common fiber-optic connectors are included in the delivery

Order Number

226539

Digital Fiber Inspection Kit

Scope of supply: various tips suitable for all common connectors (SC-/FC-/LC-/U12M-/U25M)

Visual Fault Locator

Visual Fault Locator: Fiber Optic Visual Fault Detector

The VFL 5000 is used for continuity testing and fault localization in optical fibers and components in singlemode and multimode applications. Depending on the application, a range of more than 5km can be achieved. A universal adapter allows connecting all common 2.5 mm optical connector systems. An adapter for 1.25mm ferrules is also available. Battery life in flashing mode is approx. 40 hours.



FEATURES

- Detection of mechanical damage to the fiber
- Fiber end detection
- Luminous range of 5km maximum (typical and under normal lighting conditions)
- Generates visible laser light at a wavelength of approx. 635nm (red). With an output power of less than 1mW, the laser safety rating of the device is Class II (IEC 60825-1:2014)

Due to its compact and rugged design, the Visual Fault Locator is ideal for daily use in all fiber optic applications, e.g. in data centers, outdoors, in industrial environments, and in laboratories. The Visual Fault Locator from Softing IT Networks is designed with various practical features, such as its special, roll-resistant shape, its unlosable cap for dust and shock protection, and its extremely robust housing. The Visual Fault Locator provides easy one-handed use and is powered by AAA standard batteries. The practical belt loop allows for hanging the VFL 5000 at any time if required.

Order Number

Visual Fault Locator

226540

VFL 5000 - Red light visual fault locator

Scope of supply: highly ruggedized design, 1 dust cap, 1 battery pack (1 battery: VARTA Industrial Alkaline No. 4003; 1.5 V; AAA), 1 user guide

226542

Adapter

1 2.5mm to 1.25mm ferrule for VFL 5000

226546

VFL 5000 Set

Scope of supply: 1 VFL 5000, 1 Adapter 2.5mm to 1.25mm ferrule for VFL 5000, 1 dust cap, 1 battery pack (1 battery: VARTA Industrial Alkaline No. 4003; 1.5 V; AAA), 1 user guide



VIAMI OMK-34/-35/-36

The optical test kits of the SmartPocket series are a low-cost, rugged solution to perform power level and loss measurements in fiber optic networks quickly and easily. All devices of the series include an optical light source (OLS-3x), an optical power meter (OLP-3x), and additional accessories.



FEATURES

- Execution of essential fiber tests for applications in singlemode and multimode networks
- Auto-wavelength and TWINTest features for error-free and efficient testing
- Permanent reference-level storage
- Straightforward download of results via micro USB port
- Report generation with OFS-355 software
- OMK-34: a dual-wavelength multimode optical test kit for power level and loss measurements in LAN/WAN and enterprise multimode networks
- OMK-35: a dual-wavelength singlemode optical test kit for power level and loss measurements in access and metro networks
- OMK-36: an all-purpose quad-wavelength multimode/singlemode optical test kit for power level and loss measurements in singlemode and multimode fiber networks

Order Number

VIAMI - optical test kits SmartPocket

216538

OMK-34

Scope of supply: 1 single-port LED source (OLS-34), 1 optical power meter with a universal push/pull adapter (OLP-35) interface

216010

OMK-35

Scope of supply: 1 single-port laser source (OLS-35), 1 optical power meter with a UPP adapter (OLP-35)

216009

OMK-36

Scope of supply: 1 dual-port light source, 1 optical power meter with a UPP adapter (OLP-35)

VIAVI OMK-85

The optical loss test sets optimize work flow efficiency of installers and technicians by combining industry-leading fiber endface inspection with Tier 1 fiber certification testing. This efficient and easy-to-use solution promotes best practices for handling fiber while cutting testing and certification time by half. Using the OMK-85 you can be sure that the optical network meets quality requirements and that an optimal measurement is carried out.



FEATURES

- Visual inspection of fiber endface at the near and far end with automated Pass/Fail analysis
- Special MM, SM, and quad wavelengths models
- Compatible with Encircled Flux compliant launch
- Complete Tier 1 fiber tests compliant with ISO/IEC/TIA standards

The powerful yet easy-to-use solution offers maximum flexibility and efficiency, which can immediately turn any user into a fiber optic expert. Using the OMK-85 you can cut testing and certification time in half at the touch of a button and ensure that optical networks meet quality requirements.

Order Number

216011

VIAVI OMK-85 Broadband Kit

Scope of supply: 1 OLP-85 power meter -75dBm to +26dBm, 1 OLS-85 Quad 850/1300nm MM-EF, 1 singlemode PC SC adapter mounted/FC enclosed, 1 cable USB-A to Mikro-USB, 1 soft shoulder case, 2 switchable optical adapters FC/PC FC/APC, 1 optical connector cleaning tape, 2 power supplies, 2 rechargeable batteries, 2 quick start manual



VIAVI MP-60A

Miniature USB Power Meter: MP-60A

The MP-60A is a miniature device that measures optical power via a USB 2.0 connection to a PC/laptop. This device makes digital processing of optical power measurements possible and integrates directly with Viavi Solutions FiberChek Pro software.



FEATURES

- Compatible with FiberChek Pro fiber endface inspection and analysis software; with integrated reporting capabilities
- Simple, accurate, and instant push-button measurement. Results can be electronically archived, logged, and printed
- Dedicated for all singlemode and multimode applications including LAN, telecom, CATV, and DWDM networks

The miniature power meter can be connected to a PC/laptop via a USB 2.0 port to measure optical power. This unique device makes digital processing of optical power measurements possible and integrates directly with the industry-leading Viavi Solutions FiberChek Pro software for automated fiber connector endface inspection and analysis. The compact size, functionality, and ease-of-use of the MP-60A make it an extremely useful and practical tool when testing optical power levels. The simple, straightforward, and intuitive software interface provides a well-organized digital solution for both fiber inspection and test procedures.

Order Number

216445

VIAVI MP-60A Miniature USB Power Meter

VIAVI Fiber Identifier 60

Live Fiber Identifier with integrated Optical Power Meter

The VIAVI FI-60 LFI enables users easily to detect the optical signal without disconnecting fiber or disrupting network traffic. The FI-60 also converts to an optical power meter (OPM), providing twice the value for your investment and reducing the number of tools carried on the job. This is done in a few steps. Simply remove the LFI head attachment, connect the corresponding adapter (2.5 or 1.5mm) and insert a connector to measure power. The stored data can be download onto a PC via USB.



Order Number

216572

VIAVI Fiber Identifier - FI 60

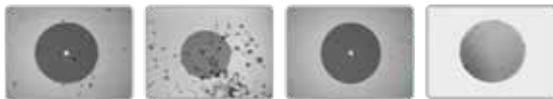
BASICS OF FIBER CERTIFICATION

FIBER INSPECTION



Make sure to have clean connector installed. A dirty connector will increase the power loss! Inspect your connector before and after cleaning.

PICTURES OF DIRTY/DAMAGED CONNECTORS

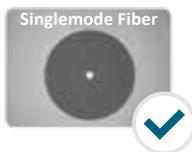


Dirt Oil Pits & Chips Scratches

END FACE INSPECTION

- According to IEC 61300-3-35
- Sees dirt on the fiber end faces
- Dirt is the main reason for not working fiber links
- Dirt can destroy the fiber end face
- Always inspect fiber end face before you connect

PICTURE OF CLEAN CONNECTOR



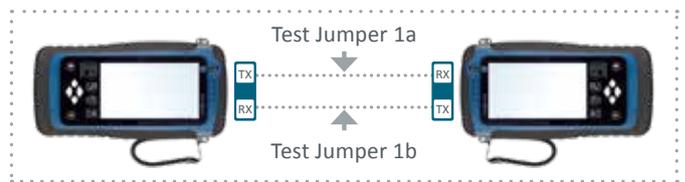
OPTICAL CONNECTOR TYPES

| Connector | Diameter of Ferrule | | Image |
|--------------|---------------------|---------|-------|
| | 2.5 mm | 1.25 mm | |
| SC | • | | |
| FC | • | | |
| ST (BFOC) | • | | |
| MTRJ | - | - | |
| DIN (LSA) | • | | |
| E2000 | • | | |
| E2000PS | • | | |
| F3000 | | • | |
| LC | | • | |
| MU (Mini-SC) | | • | |
| MPO | - | - | |

TIER 1 CERTIFICATION

OLTS (OPTICAL LOSS TEST SET)

- Measures the total loss, length, and polarity of a fiber channel
- Conforms to TIA-568-C (TIA-526-14A and TIA-526-7) and ISO 11801 & IEC 14763-3
- Budget Loss testing with LS/PM
- Verify polarity using bi-directional testing or duplex OLTS



| Core diameter | 62.5 | | | | 50 | | | | 9 | | | |
|----------------------------|------|--------|------|--------|------|--------|------|--------|------|-------------|-------------|---------------|
| Wavelength (nm) | 850 | | 1300 | | 850 | | 1300 | | 1310 | 1550 | | |
| Overfilled Launch (MHz*km) | 160 | 200 | 500 | 400 | 500 | 1500 | 3500 | 400 | 400 | | | |
| "Laser" Launch (MHz*km) | | | | | | 2000 | 4700 | | | | | |
| Class | OM1 | | | | OM2 | OM3 | OM4 | OM1 | OM2 | OS1/OS2 | | |
| | Loss | Length | Loss | Length |
| Ethernet | | | | | | | | | | | | |
| 1G | 2.33 | 220 | 2.53 | 275 | 2.32 | 500 | 3.25 | 3.43 | 550 | 2.32 | 500 | 5000 |
| 10G | 2.60 | 26 | 2.50 | 33 | 2.50 | 300 | 2.20 | 2.30 | 82 | 2.60 | 300 | 2.90 |
| 40G | | | | | | | | | | 1.90 | 100 | 1.50 |
| 100G | | | | | | | | | | 1.90 (SR10) | 100 (SR10) | 1.50 (SR10) |
| | | | | | | | | | | 1.80 (SR4) | 70 (SR4) | 1.90 (SR4) |
| | | | | | | | | | | 1.50 (SR10) | 100 (SR10) | 1.50 (SR4) |
| | | | | | | | | | | 6.30 (LR4) | 15/18 (ER4) | 10000 (LR4) |
| | | | | | | | | | | | | 30/40km (ER4) |

Source: IEEE 802.3; Some vendors allow greater distances. Length in 'm', Loss in 'dB'

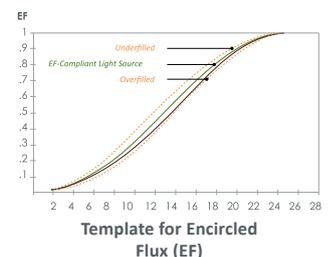
ENCIRCLED FLUX



EF compliant light source with WireXpert



non compliant light source with other certifier

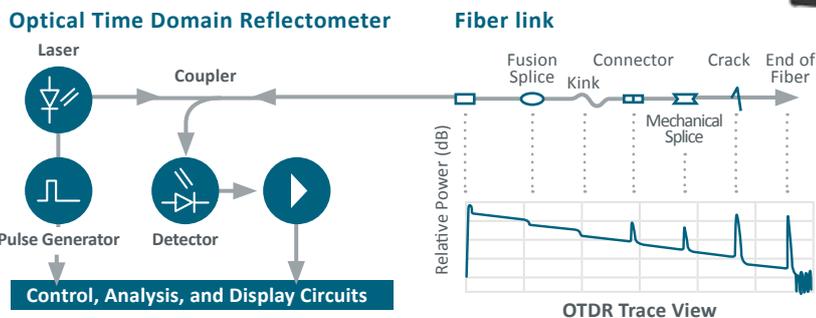




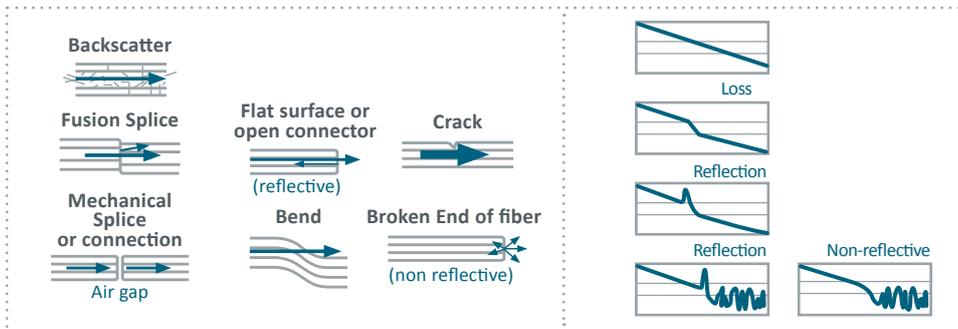
TIER 2 CERTIFICATION

OTDR (OPTICAL TIME DOMAIN REFLECTOMETRY)

- Provides evidence that cable is installed without degrading events (e.g. bends, connections, splices)
- Conforms to **TIA-568-C** and **ISO 11801 & IEC 14763-3**
- Sets optical budgets for each individual event
- Identifies segment lengths, connector locations & losses, as well as losses within segments



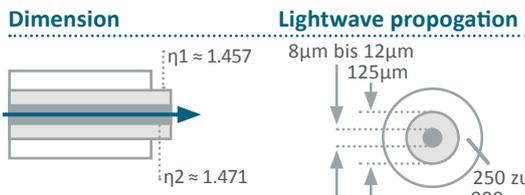
TYPICAL EVENTS



OPTICAL FIBER TYPES

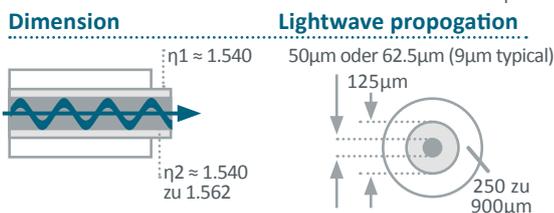
1. SINGLEMODE FIBER

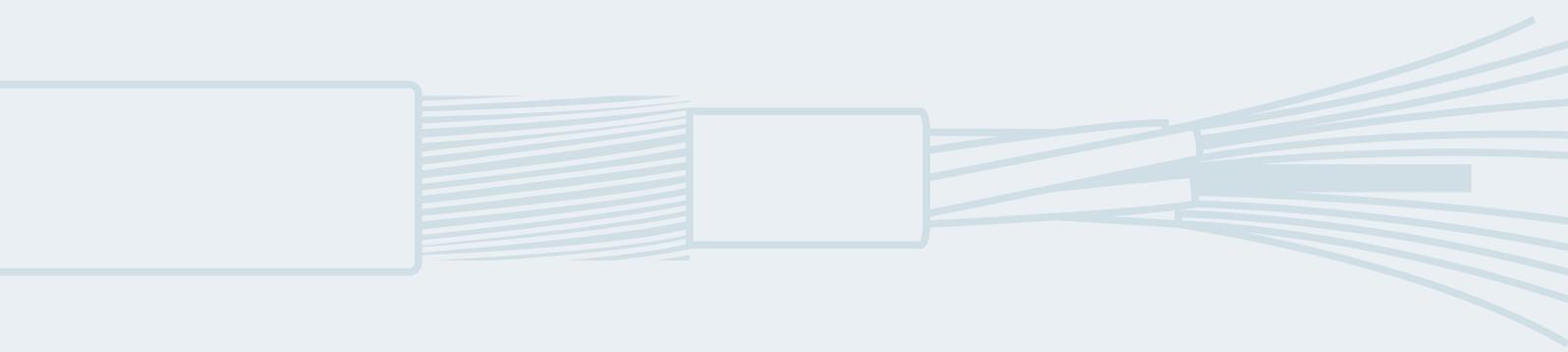
- 1260 to 1640 nm transmission wavelengths
- Low attenuation
- Access/medium/long haul networks (>200km)
- Nearly infinite bandwidth



2. MULTIMODE FIBER

- 850 to 1300 nm transmission wavelengths
- High attenuation
- Local networks (< 2000m)
- Limited bandwidth





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