WireXpert 4500

Cable Certifier

psiber

1st CAT 8 Cable Certifier

Now with work flow optimization

The WireXpert is the first cable certifier with capability to certify the highest performance cabling systems in enterprise networks and data centers. Cable installers make significant gain in productivity with WireXpert's industry leading test speed and ease of use. With certification testing up to Class FA and CAT 8 copper cabling, as well as MPO, SM, MM and MMEF fiber optic cabling, WireXpert is ready for 40G and beyond. In fact, major cable vendors are using WireXpert in their labs for qualifying CAT8 cabling systems under development.

WireXpert 4500

WireXpert 4500 sets new standards for user friendliness, with touch screen graphical interface at both Local and Remote units. The innovative design combines superior measurement accuracy with low cost of ownership and ease of use. WireXpert is geared up for certifying beyond the widest frequency range of 1 - 2,500MHz.

Features

• First cable certification up to **2,500 MHz** to support new TIA CAT 8 and ISO Class I and II draft standard

• Most advanced cable certification for all standards: Class D/E/E_A/F_A, Category 5e/6/6_A, and the new draft CAT 8 as well as ISO draft standards Class I and Class II

• Fastest Autotest in less than 9 Seconds

• Accuracy independently verified by ETL

• Exceeds ISO Level V*, IV and TIA Level IIIe Accuracy requirements

• Endorsed by more than 20 companies worldwide

• Field upgradable with many options e.g. patchcord testing, Industrial Ethernet, Class F_A

• Perform extended Fiber certification for 850/1,300 MM and 1,310/1,550 SM Fiber

• First to support MPO Fiber testing for data centers

• Advanced reporting and documentation

• The only certifier supporting all data center, premise cabling and industrial ethernet requirements

Easy to use and Ruggedized design

WireXpert comes with an intuitive touch sensitive user interface, featuring bright color LCD screens designed for industrial, heavy duty usage. The Dual Control System (DCS ™) – featuring identical devices for Local and Remote units – 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 CAT 6_A certification test in less than *9 seconds* and Class F_A testing in *15 seconds*. It offers intuitive navigation through the screens on the device, and generates professional reports through its PC software *eXport*.

*Draft IEC61935-1 ed 4

Protects your Investment: Beyond 10G

If you are testing 10 Gb/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, WireXpert protects your investment in test 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 IV and level V requirements throughout the measurement frequency range.

Proven Accuracy

WireXpert has been independently verified by highly respected test laboratories such as ETL.

Vendor Approvals

Most leading cable manufacturers have extensively tested WireXpert and have approved the instrument for field certification and associated warranties of their structured cabling solutions. Laboratory testing and comparisons against vector analyzers have proven that WireXpert has excellent accuracy and measurements correlate with laboratory equipment. In fact, major cable vendors are using WireXpert in their labs for qualifying CAT8 cabling systems under development.

Testing Cabling Systems CAT6$_A$ and Beyond

WireXpert, with its industry leading measurement performance, provides adapters for testing cabling systems with higher performance than CAT6$_A$ (500MHz). For Class F$_A$ cabling, testing is performed over full standards defined frequency range from 1MHz through 1,000MHz. Both TERA and GG45/ARJ45 interfaces are available through WireXpert test adapters. Both channel and permanent link testing are supported.

Adapters are also available for testing CAT7$_A$ patchcords. With measurement bandwidth exceeding 2,000MHz, WireXpert is capable of testing CAT8 cabling once the standard is approved.

Wide and Comprehensive Expansion Kits

WireXpert provides numerous options for field and laboratory usage options including patchcord testing, Industrial Ethernet (M12), VNA and Barewire. Tested and endorsed by various cable manufacturers for product development.

Perform Alien Cross Talk testing efficiently with two sets of WireXpert without the use of special adapters, equipments or laptops. Test multiple parameters in a single execution.

Project Management Software

Manage test results and generate professional reports and warranty documents. Export results into graphical PDF reports in detail or summary, or CSV for data analyzing using the PC based software *eXport*.

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WireXpert Optical Loss Test Kit

WireXpert optical loss test kit supports all the latest standards from TIA 568 C.3 to ISO 14763-3 standard. By automatically calculating the loss budgets, WireXpert saves you trouble of having to perform cumbersome calculations and plugging in data for individual connectors and splices for different standards.

Features

- Perform Tier 1 Certification for ISO/IEC and TIA 568 C.3 Standards
- Measures and certifies length and loss for Singlemode at 1,310nm and 1,550 nm and Multimode EF cabling at 850nm and 1,300nm
- Seamlessly integrates copper and fiber reports. Generate professional warranty and certification test reports
- Double your productivity with DCS™ technology by using your remote unit as an independent optical certifier

Multimode and Singlemode Kits

WireXpert optical loss kits are available for both Multimode and Singlemode fiber networks. The modular solution allows testing both types of networks on the same WireXpert unit with interchangeable adapters. Each module lets you perform very accurate loss and length measurements at two wavelengths meeting all the various standard requirements.

Both kits support certification of horizontal as well as back-bone cabling by supporting dual wavelength measurement on each adapter.

MPO Testing Kits

WireXpert's versatile MPO testing solution enables datacenter IT managers to get 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 a detection of fiber connection map and measurement of loss on each channel.
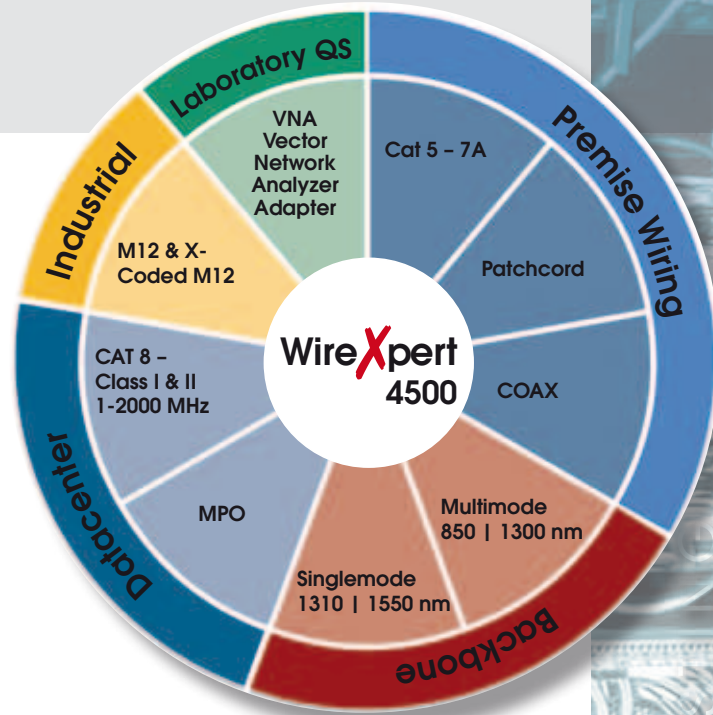
EF Compliant Multimode Kits

Certification of Multimode fibers has often been a contentious issue due to the inherent uncertainties in the measurement process. ISO/IEC and TIA have recently adopted a Encircled Flux (EF) standard that standardizes the launch condition for the light sources used in Multimode test equipment. To comply to the new standards has launched the new EF compliant Multimode test adapters and kit.

Optional Test Adapters

Copper Patch-cord testing with WireXpert

WireXpert offers an efficient way for quickly identifying and recording the performance of patch-cords. With its fast and accurate dual-ended testing, WireXpert's patch-cord test kits are suitable for both manufacturing testing, as well as for incoming inspection at end user premises. WireXpert patch-cord test kits are available for testing CAT5e, CAT6, $CAT6_A$, and $CAT7/7_A$ patch-cords.

WireXpert 4500 Applications with optional test adapters

Industrial Ethernet cabling test

WireXpert's industrial Ethernet cabling test solution comprise of M12 adapter kits. Both channel and permanent link configurations with M12 industrial Ethernet connector are supported. Industrial Ethernet kit with X-Coded M12 interface is also available, making it possible to effectively test 10G ready industrial Ethernet cables.

Coaxial cable test

With coaxial test adapters, WireXpert supports testing of coaxial cables for attenuation and return loss over a wide frequency band.

Laboratory testing of cables and components

WireXpert features extremely versatile adapters that enable the lab technicians to replace expensive Vector Network Analyzer with WireXpert for performing differential S-parameter measurements over 1MHz to 2,500MHz. Contact us for more information on these adapters.
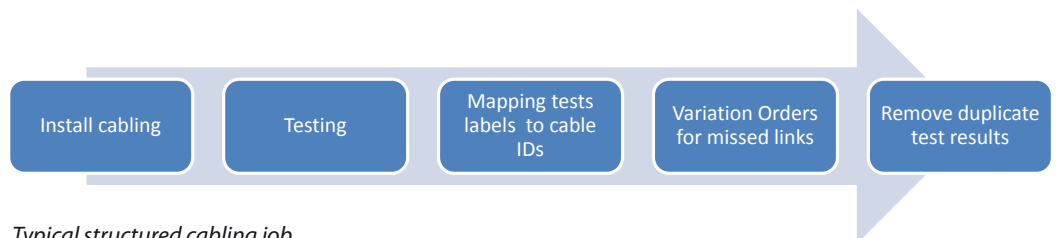
Alien Cross Talk

Alien Cross Talk testing with WireXpert is performed using two WireXpert sets. This means, there are no special adapters and no need for carrying a laptop to the field for data analysis.

Local Disturber   Remote Disturber

Local Victim   Remote Victim
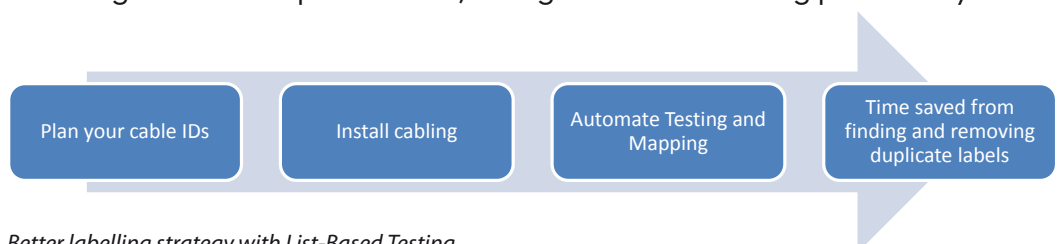
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List-Based Testing

List-Based Testing (LBT) is the world first to adopt customized hierarchical cable labelling scheme. LBT changes how cable testing are conducted, from entering and saving a label after each test to simply choosing which label from the preloaded list to conduct the test.

| Install cabling | Testing | Mapping tests labels to cable IDs | Variation Orders for missed links | Remove duplicate test results |

Typical structured cabling job

The LBT is ideal for project managers who has preference on how cables should be labelled and creates flexibility for onsite testers to conduct test in non-sequential order by choosing, skipping and returning to the untested points. When the site is completed, the project managers does minimal sorting and searching from his/her preferred list, saving time thus increasing productivity.

| Plan your cable IDs | Install cabling | Automate Testing and Mapping | Time saved from finding and removing duplicate labels |

Better labelling strategy with List-Based Testing

New and Improved Report Generating Software – eXport

eXport is a project management software designed to work seamlessly with WireXpert, providing a complete platform from generating customized label to result analysis on your workstation.

Project Management and more

- List-Based Testing - Generates customized cable labels efficiently by simply inputting building, floor, telecom room, racks and panel names or numbers. **NEW**

- Creates a project based environment to allow easy management of saved results such as searching, sorting (by test type, cable label, pass/fail, limit type, etc), renaming and deleting.

- Generates detailed or summarized field reports in PDF or CSV formats with your company's logo.

- Provides detailed view of saved results with graphical interpretation in separate tabs.

- Magnify plots for pin-point accuracy for analysis and studies.

- Easy connection between device and workstation via USB cable or USB flash drive.

- Remote control via USB cable connection for presentation or education purposes.

- Supports importing of OTDR's *.SOR format and exporting to PDF format.

- Available in 11 languages and expanding.

- Available for download at *http://www.psiberdata.com*.

Kit Includes	Qty
WireXpert units	2
Li-ion Batteries	2
Stylus with Cords	2
Display Protection Covers	2
CAT6A Permanent Link Adapters	2
CAT6A Channel Adapters	2
USB Thumbdrive incl. manual and software	1
Headsets	2
AC Power Adapters	2
Country Specific Power Cord	2
Calibration Certificate	1
Carrying Case	1
Quick Start Guide	1

*A complete list of all endorsements is available at **www.psiberdata.com***

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Parameter	Specification
Copper testing	
Certification testing	TIA 568-C.2 CAT 5e, 6, 6_A, draft CAT 8
	ISO/IEC 11801, EN 50173 Class D, E, E_A, F, F_A
	Draft Class I and Class II Permanent link and channel
	CAT 5e, 6, 6_A, 7, 7_A and patch-cord
Autotest time - CAT6A	9 sec
Autotest time - Class F_A	15 sec
Max cable length for dual-ended Autotest	500m
Insertion cycles	Channel: 10,000 typical
	Permanent link: 5,000 typical
TEST PARAMETERS	As specified in TIA 1152, IEC 61935-1
Wiremap	
Loop Resistance	0 to 40 Ω, ±0.1 Ω
Length	0 to 500m, ±0.5m (dual-ended testing)
Propagation Delay and Delay Skew	0 to 5000 ns, ±1 ns
Attenuation	0 to 70 dB, ±0.1dB
Pair-to-Pair and Power-Sum NEXT	0 to 85 dB, ±0.2 dB
Pair-to-Pair and Power-Sum ACRF	0 to 85 dB, ±0.2 dB
Return Loss	0 to 40 dB, ±0.2 dB
ACRN, PSACRN	0 to 85 dB, ±0.5 dB
Advanced diagnostics	Time-domain fault Locator for RL and NEXT
Measurement accuracy	Exceeds TIA 1152 Level IIIe, IEC 61935 level IV, draft level V
Measurement frequency range	1- 2,500 MHz
Fiber Testing - SM	
Wavelengths	1310nm, 1550nm
Autotest time	6 seconds for dual ended test
Connector type	SC, LC (optional adapter needed)
Test standard	TIA 568 C.3, IEC 14763-3
TEST PARAMETERS	
Loss	0 to 31 dB, ±0.2 dB
Length	0 to 20,000m, ±1.5m
Output power	-5 dBm to -9dBm
Receiver sensitivity	-40dBm
Fiber Testing - MM / MMEF	
Wavelengths	850nm, 1300nm
Autotest time	6 seconds for dual ended test
Connector type	SC / FC-SC
Test standard	TIA 568 C.3, IEC 14763-3
TEST PARAMETERS	
Loss	0 to 24 dB, ±0.2 dB
Length	0 to 2,000m, ±1.5m
Dynamic range	24 dB / 12dB
Output power	-4 dBm to -10 dBm / -16 dBm to -20 dBm
Receiver sensitivity	-34 dBm / -40 dB
Encircled-Flux (EF) compliance	IEC 61280-4-1 (MMEF)
VFL wavelength	650 μm (MMEF)
Power	0 dBm (MMEF)
General Specifications	
Interfaces	Probe Interface, RJ-45 Ethernet, USB host and device, talkset, power jack
Display	5˝ industrial LCD, touch sensitive area on both units
Enclosure	Ruggedized plastic with rubber over-mold, withstands 1.5m drop test on hard surface
Remote unit abilities	View test results, save tests, start autotest
Power supply	AC 100-240V to 12V, 3A power adapter
Input over-voltage protection	Protected against Telco voltages
Battery	Removable and rechargeable Li-Ion
Battery capacity	>8 hours continuous operation
Internal storage capacity	2000 copper test results with full plot information
External storage	USB Flash Drive
Dimensions	232 X 126 X 87 mm (8.7 X 4.3 X 2.1 inch)
Weight	Approx. 1.4 kg (3 lb) / unit
Supported languages	tw, cs, en, fi, fr, de, it, ja, ko, pl, pt, ru, es, sv, tr
Calibration period	1 year
Environmental	
Operating temperature	0 to 40 °C
Storage temperature	-20 to 60 °C
Relative humidity	10% to 80%
Minimum System Requirements for Reporting Software	
Microsoft Windows XP/7/8, 32 or 64 bits	
Intel Core 2 Duo, 2GHz	
200MB of free disk space	
1GB RAM	
Microsoft.NET Framework 4.0	

Rev. 072015_V02