

# WireXpert 500 Series

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WireXpert 500 is an affordable and upgradable cable certification tester that can grow with your cable certification needs. Invest today only in options that are really needed and upgrade the device later when necessary. Options are available for just copper cable certification up to CAT 6A/Class E<sub>A</sub>, a fiber optic multimode and singlemode tier 1 certification tester and a combined copper and fiber certification tester. The individual options can be upgraded with a license. For example: If today you install copper and in the future require additional fiber cabling installations, you could then upgrade your WireXpert 500 copper certifier to a WireXpert 500-PLUS, a copper and fiber certifier. If you need in the future certification up to CAT 8, all models can be upgraded to that frequency range as well.

IT Networks



## CABLE TESTER

<http://itnetworks.softing.com>

# WireXpert 500 Series

## WireXpert 500

### Key Features

- Advanced cable certification up to 500 MHz
- Certifies to Industry standards – Class D/E/E<sub>A</sub> & Category 5e/6/6A
- Meets TIA and ISO Level IIIe accuracy requirements
- Certification testing of Patch cords
- Industrial Ethernet testing with RJ45 and M12 connectivity, E2E link testing
- Advanced reporting and documentation
- Affordable certifier for premise cabling and Industrial Ethernet

### Easy to use and Ruggedized design

WireXpert 500 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 remote and main unit – makes it fast and simple to operate the test cycles. Whether used by two technicians or one person working alone, walking time between outlets is minimized.

### Fast and simple for highest productivity

WireXpert 500 completes CAT 6A certification test in seconds. It offers intuitive navigation through the on screen menus, and generates professional reports through the accompanying eXport PC software.

### Proven Accuracy

WireXpert 500 is based on measurement system independently verified by highly respected test laboratories including ETL.

### WireXpert 500 Kit

WireXpert 500 LAN Copper Cable Certifier -  
Class D, E, E<sub>A</sub> and CAT 5e, 6, 6A

Includes:

- 2 Measurement units, LOCAL and REMOTE
- Pair of CAT 6A channel adapters
- Pair of CAT 6A link adapters
- 2 headsets
- Li-Ion batteries
- Power supplies
- USB thumb drive
- Soft carrying case
- Calibration certificate and reporting software

eXport



WireXpert 500 Kit



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## Copper patch cord testing with WireXpert

WireXpert 500 offers an efficient way for quickly identifying and recording the performance of patch cords. With its fast and accurate dual-ended testing, WireXpert 500 patch cord test kits are suitable for both manufacturing test applications, as well as for incoming inventory inspection at end user premises. WireXpert 500 patch cord test kits are available for testing CAT 5e, CAT 6, and CAT 6A patch cords.

## Industrial Ethernet cabling test

The WireXpert 500 industrial Ethernet cable test solution comprise of M12 adapter kits. With both channel and permanent link configurations and E2E using M12 industrial Ethernet connectors are supported. Industrial Ethernet kits supporting X-Coded M12 interface are also available, making it possible to effectively test 10-Gig ready Industrial Ethernet cables.

## Coax cable test

WireXpert 500 also supports testing of coaxial cables for attenuation, length, resistance, delay and return loss with the optional coax test adapters.

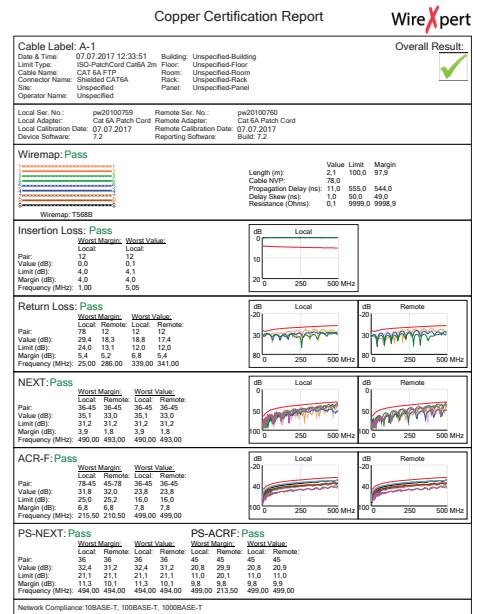
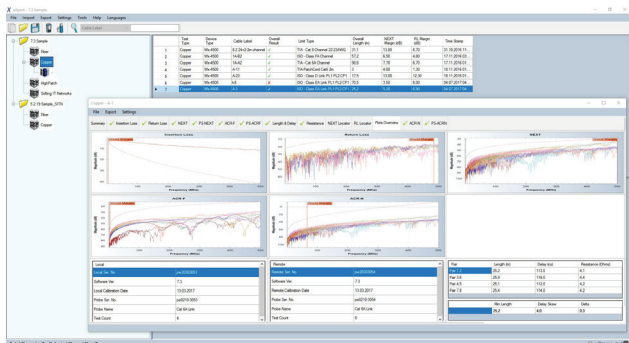
## Adapters & Accessories for Copper Cable Certification

- Pair of Class E<sub>A</sub>/CAT 6A Channel adapters
- Pair of Class E<sub>A</sub>/CAT 6A Permanent link adapters
- Pair of coax adapters
- Pair of CAT 5e/6/6A patch cord adapters
- Hard carrying case

For more options and accessories, please contact your Softing IT Networks Reseller.

## Professional Data Management with eXport Software

WireXpert 500 includes eXport computer-based reporting software. eXport facilitates data management and generation of professional reports and warranty documents. In addition, eXport Software enables list-based testing, a hierarchical cable labelling scheme. With eXport it is also possible to correct measurements which were initially performed with incorrect measurement standards. With re-certification, the operator can apply the right measurement standards to the data retroactively. Data integrity remains because the date of the measurements does not change.



Screenshot of eXport and a Copper Certification Report

## WireXpert 500 Fiber Certifier

The newest WireXpert 500 is a Fiber only certifier. This innovative design is specially made for the customers to certify fiber cabling in a much faster and easier way. It is also cost efficient and future proof and can be upgraded to WireXpert 4500. It has a Multimode EF version as well as a Quad version (MMEF + SM). It also has a MPO version available.

### Features

- Perform Tier 1 Certification for ISO/IEC and TIA 568 C.3 Standards
- Options available to certify length and loss for Singlemode at 1,310 nm-1,550 nm and Multimode EF cabling at 850 nm-1,300 nm
- Seamlessly integrates copper and fiber reports into eXport report generator software, allowing users to 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.

## WireXpert 500 Fiber-only versions:

- **WireXpert 500-MMEF:** Fiber Certifier for 850 nm-1,300 nm Multimode fiber
- **WireXpert 500-SM:** Fiber certifier for 1,310 nm-1,550 nm Singlemode fiber
- **WireXpert 500-QU:** Quad Fiber Certifier for 850 nm-1,300 nm Multimode as well as 1,310 nm-1,550 nm Singlemode fiber
- **WireXpert 500-MPO:** Fiber Certifier for MPO Multimode fiber

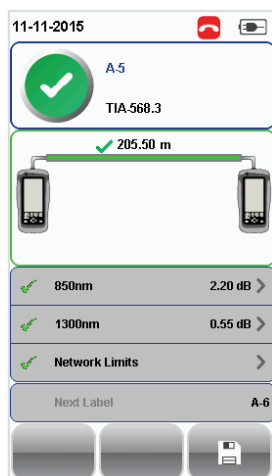
## Available upgrades for the WireXpert 500 Fiber Certifier

### WireXpert 500 Fiber Certifier, Copper Upgrade

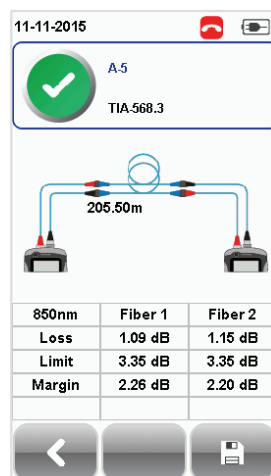
- You can always upgrade your fiber certifier to test also copper up to 500 MHz on twisted pair and coax copper cables up to Class D, E, E<sub>A</sub> and CAT 5e, 6, 6A
- The upgrade includes:
  - Pair of CAT 6A channel adaptors
  - Pair of CAT 6A link Adaptors
  - 1 year warranty
  - Class E<sub>A</sub> certification software license
  - Calibration Voucher

### WireXpert 500 Fiber Certifier, WireXpert 4500 Upgrade

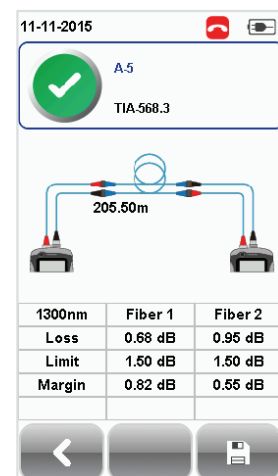
- You can upgrade your fiber certifier to test up to 2,500 MHz on twisted pair and coax copper cables up to Class D, E, E<sub>A</sub>, F<sub>A</sub>, I, II and CAT 5E, 6, 6A, 8 at anytime.
- The upgrade includes:
  - Pair of CAT 6A channel adapters
  - Pair of CAT 6A link adapters
  - 1 year warranty
  - Class II certification software license
  - Calibration certificate
- Note: Unit will need to be sent to a service center for upgrade



MMEF Fiber AUTOTEST results



Detailed results for 850 nm



Detailed results for 1,300 nm

## WireXpert 500-Plus: Copper and Fiber Certifier

WireXpert 500-Plus for copper and fiber certification sets new standards for user friendliness, with 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. WireXpert is geared up for certifying beyond the widest frequency range of 1-500 MHz.

### Features

- Combined 500 MHz copper and MM + SM fiber optic tester
- Most advanced cable certification for all standards: Class D/E/E<sub>A</sub>, Category 5e/6/6A
- Accuracy independently verified by ETL
- Exceeds ISO and TIA Level III accuracy requirements
- Endorsed by companies worldwide
- Many measuring modules available e.g. patchcord testing, Industrial Ethernet, RJ45, MMC PRO
- Perform extended Fiber certification for 850-1,300 MM and 1,310-1,550 SM Fiber
- MPO Multimode
- 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 6A, and fiber certification test in a few seconds. It offers intuitive navigation through the screens on the device, and generates professional reports through its PC software eXport.

## The XpertCare Support Program

To protect the investment in cable certifiers, they require care and occasional maintenance. If you use your WireXpert constantly and are concerned about periods of downtime, we are offering you the XpertCare Support Program. XpertCare guarantees much more than the standard warranty, so that your investment is protected in the best possible manner.

Visit our website to find out more  
<https://itnetworks.softing.com/support/xpertcare-support-program/>

# XpertCare



Comparison Table	WireXpert 500 Copper	WireXpert 500 Fiber	WireXpert 500 Copper & Fiber	WireXpert 4500
Which is the one for you?	WireXpert 500	WireXpert 500-MMEF, WireXpert 500-SM, WireXpert 500-QU, WireXpert 500-MPO	WireXpert 500-PLUS	WireXpert 4500
Application	■	■	■ ■	■ ■
Frequency Range	500 MHz upgradable to 2.500 MHz			2,500 MHz
CAT/Class	CAT 6A/Class E <sub>A</sub>		CAT 6A/Class E <sub>A</sub>	CAT 8/Class I & II
Dual Control System (DCS™) Touch screen on both units	■	■	■	■
Optional Video Fiber Inspection Probe		■	■	■
<b>Copper Passive Test and Measurement Parameters</b>				
Wiremap	■		■	■
Length	■		■	■
Tone Generator	■		■	■
RF Measurements (NEXT; Insertion Loss, Return Loss, ...)	■		■	■
Delay Skew, Delay, Resistance	■		■	■
<b>Fiber Passive Test and Measurement Parameters</b>				
Wavelength		850 nm-1,300 nm 1,310 nm-1,550 nm		
Length		■	■	■
Attenuation		■	■	■
<b>Reporting</b>				
PC Reporting software eXport	■	■	■	■

■ Copper ■ Fiber

## Shipping Configuration

All sets come with 2 power supplies, 2 headsets, a quick start guide, a 4 GB USB-Stick with software and manuals, and a soft carrying case (hard case optional).

### WireXpert 500 (Copper)

- 1 Local & 1 Remote unit with 500 MHz copper test license
- 2 CAT 6A Link adapters including cables
- 2 CAT 6A Channel adapters

### WireXpert 500 (Fiber)

- 1 Local & 1 Remote unit with fiber test license

WireXpert 500-MMEF includes complete MMEF kit  
WireXpert 500-SM includes complete SM kit  
WireXpert 500-QU includes complete MMEF & SM kits  
WireXpert 500-MPO includes complete MPO kit

### WireXpert 500 PLUS (Copper & Fiber)

- 1 Local & 1 Remote unit with 500 MHz copper and fiber test license
- 2 CAT 6A Link adapters including cables
- 2 CAT 6A Channel adapters

*Note: Fiber test heads to be purchased separately*

### WireXpert 4500 (Copper & Fiber)

- 1 Local & 1 Remote unit with 2500 MHz copper and fiber test license
- 2 CAT 6A Link adapters including cables
- 2 CAT 6A Channel adapters

*Note: Fiber test heads to be purchased separately*



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Parameter	Specification
<b>COPPER TESTING</b>	
Certification testing	TIA 568-C.2 CAT 5e, 6, 6A ISO/IEC 11801, EN 50173 Class D, E, E <sub>A</sub> Patch-cord CAT 5e, 6, 6A testing
Max cable length for dual-ended Autotest	500 m
Insertion cycles	Channel: 10,000 typical Permanent link: 5,000 typical
<b>TEST PARAMETERS</b>	
Wiremap	
Loop Resistance	0 to 40 Ω, ±0.1 Ω
Length	0 to 500 m, ±0.5 m (dual-ended testing)
Propagation Delay and Delay Skew	0 to 5000 ns, ±1 ns
Attenuation	0 to 70 dB, ±0.1 dB
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 IIIe
Measurement frequency range	1-500 MHz
<b>FIBER TESTING - SM</b>	
Wavelengths	1,310 nm-1,550 nm
Connector type	SC, LC (optional adapter needed)
Test standard	TIA 568 C.3, IEC 14763-3
<b>TEST PARAMETERS</b>	
Loss	0 to 31 dB, ±0.2 dB
Length	0 to 20,000 m, ±1.5 m
Output power	-5 dBm to -9 dBm
Receiver sensitivity	-40 dBm
<b>FIBER TESTING - MM/MMEF</b>	
Wavelengths	850 nm-1,300 nm
Connector type	SC/FC-SC
Test standard	TIA 568 C.3, IEC 14763-3
<b>TEST PARAMETERS</b>	
Loss	0 to 24 dB, ±0.2 dB
Length	0 to 2,000 m, ±1.5 m
Dynamic range	24 dB/12 dB
Output power	-4 dBm to -10 dBm / -16 dBm to -20 dBm
Receiver sensitivity	-34 dBm / -40 dBm
Encircled-Flux (EF) compliance	IEC 61280-4-1 (MMEF)
VFL wavelength	650 μm (MMEF)
Power	0 dBm (MMEF)
<b>GENERAL SPECIFICATIONS</b>	
Interfaces	Probe Interface, RJ-45 Ethernet, USB host and device, talk set, power jack
Display	6" industrial LCD, touch sensitive area on both units
Enclosure	Ruggedized plastic with rubber over-mold, withstands 1.5 m drop test on hard surface
Remote unit abilities	View test results, save tests, start autotest
Power supply	AC 100-240 V to 12 V, 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	>6,000 copper test results with full plot information for CAT 6A
External storage	USB Flash Drive
Dimensions	223 X 124 X 70 mm (including a 6ACH adaptor)
Weight	1 kg
Supported languages	TW, CS, EN, FI, FR, DE, IT, JA, KO, PL, PT, RU, ES, SV, TR
Calibration period	1 year
<b>ENVIRONMENTAL</b>	
Operating temperature	0 to 40 °C
Storage temperature	-20 to 60 °C
Relative humidity	10% to 80%
<b>MINIMUM SYSTEM REQUIREMENTS FOR REPORTING SOFTWARE</b>	
Microsoft Windows Vista/7/8/10, 32 or 64 bits	
Intel Core 2 Duo, 2 GHz	
200 MB of free disk space	
1 GB RAM	
Microsoft.NET Framework 4.0	