

MULTIFUNCTION CABLE CERTIFIER

# TestPro (CV100)

The changing landscape of enterprise cabling demands  
more from the test equipment you rely on



# Multifunction Testing Solution

The award winning TestPro™ Multifunction Cable Certifier, offers an extensive suite of test function, through hot swappable test adapters.

If you're only looking for copper and fiber optic certification, TestPro offers competitively priced testing kits.

Need a bit more function to better manage smart building

deployments or add a new service offering?

TestPro is available in complete smart building test kits, taking the guess work out of trying to figure out which adapter you need.

Additionally, there is only one high-performance TestPro platform, so any kit you purchase, is compatible with all

## High Level Testing Support Summary



### Copper Certification

Certify Cat5e through Cat8, shows network compliance up to 40 Gbps Ethernet.



### Fiber Certification

Dual wavelength loss and length measurement leading to tier 1 certification for Multimode and Singlemode. Hybrid powered fiber voltage/resistance measurement. Network compliance for a variety of fiber networks including 100GBASE-LR4, 40GBASE-LR4 and Fibre Channel.



### OTDR

Multimode and Singlemode OTDR adapters provide additional troubleshooting to easily pinpoint distance to a broken fiber or other loss-inducing events which cause a failure during Optical Loss Testing. Adding OTDR testing to the Optical Loss Testing provides Tier-2 Fiber Optic Certification.



### Multi-Gigabit Link Speed

Validate cabling link speeds for 1/2.5/5/10GBASE-T. End-to-end Signal to Noise Ratio (SNR) measurement provides a quick and objective assessment of link performance under simultaneous traffic and PoE load condition.



### Single Pair Ethernet (SPE)

Support for SPE Cabling standards with testing capability up to 1800 meters.



### Power Over Ethernet (PoE)

Comprehensive test function verifies PoE configuration at PSE and reports current/wattage/voltage at PD jack. Emulates PD negotiation with PSE and supports for 802.3af/at/bt, and UPoE. Sustained load testing with external load box that can "dial-up" power.



### Wired Network Connectivity Testing

Network discovery shows all connected devices including drill down into device details. Switch detail includes slot/port/VLAN. switch name, make/model, port capabilities and MAC/IPv4/IPv6 and VLAN usage detail. Network discovery reveals connected devices with drill in capability for further investigation and troubleshooting. Troubleshooting kit includes Traceroute, ping, tone generator and more.



### Wireless Network Connectivity Testing

Discover all Access Points (APs), their SSID, RSSI (received power level) and Channel. Login to the AP to verify connectivity. Roaming signal strength handy for locating those pesky dead zone. Troubleshooting toolkit includes Traceroute, Ping and more.



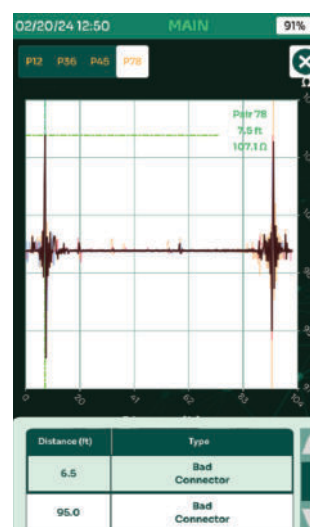
# Copper Certification



TestPro supports testing and certification for network deployments up to 40 Gigabit Ethernet for Cat3 through Cat8.2 or Class I/II cabling system. The electrically centered test plug assures the Level 2G/VI accuracy required to support field testing to Cat 8 / Class I/II, and actually exceeds the 2000 MHz requirement, to offer a 3000 MHz platform. As a result, you can feel confident in results over the full frequency range.

TestPro's Cat 6A Autotest takes only six seconds and will save you time by getting more links tested faster and with more test detail. TestPro's default Autotest includes all certification requirements, in addition to the extended test parameters called out by the standards for Smart Building deployments. Be aware of competitive tester claims for

how fast their test times are, be sure you know what is and is not included in the test time quoted as compared to TestPro. Live WireMap™ provides an immediate indication of cable connected, including a visual display of pin-out connectivity and any mis-wires, much more helpful than just a red or green light.



TestPro offers fault location for Return Loss, NEXT, and Shield aiding in problem identification. Support for MPTL, Patch Cord, Single Pair, GG45, Tera, and Coax is available through hot swappable adapters. At the completion of the Autotest, you get a highly visible Pass or Fail indication, and test results can be automatically saved with a customizable labeling scheme.

TestPro will store over 10,000 results in memory, but when it's time to prepare printed reports, the included TestDataPro PC based software provides a way to organize and manage results and provide printed reports. Prefer to upload as you test, TestDataPro Cloud allows you to offload test results via wired or wireless internet

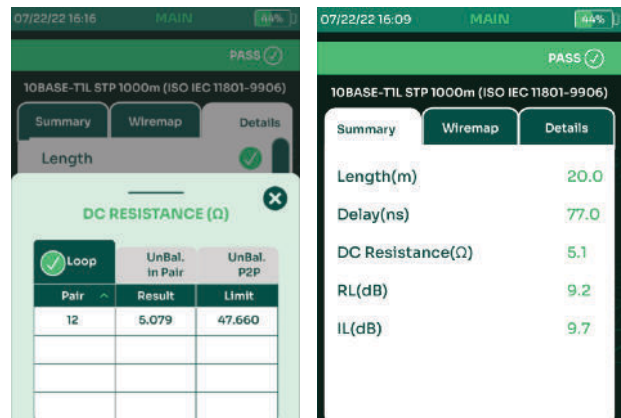
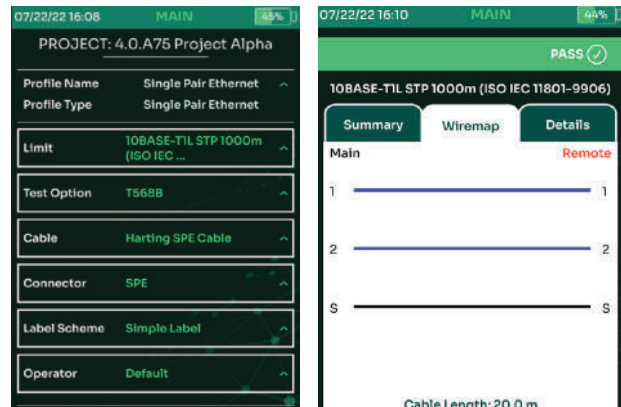
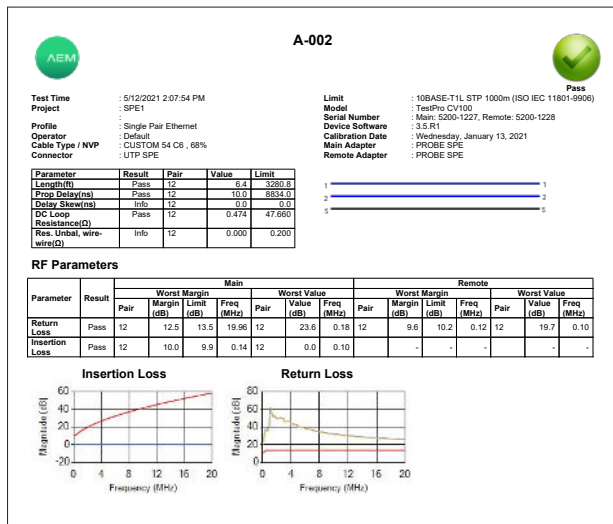
*Channel and Permanent Link Adapters that support Cat5e through Cat8 are included in the TestPro CV100-K50E, K51E, K60E, K61E, K71E Kits.*



Please scan QR code on the last page of this brochure to see the most recent list of cable manufacturers who have approved TestPro for their warranty program.

# Single Pair Ethernet

Single Pair Ethernet / 10BASE-T1L, is the perfect solution for low bandwidth, long distances, secure powered bidirectional communications. Everyone accepts the ubiquity of Ethernet. With the advent of Single Pair Ethernet (SPE) however, reach and applications will extend even further. Single Pair Ethernet can support communication and power delivery up to 1 km. Since many IoT devices were designed for Ethernet, SPE eliminates the need for protocol conversion, additional controllers, and more complex cabling required for legacy non-Ethernet architecture.



## Testing Requirements

Field testing requirements for SPE are specified in TIA 5071. AEM supports SPE with hot swappable test adapters that can be added to any TestPro. TestPro supports both IEC 63171-1 and 63171-6 connector styles and is fully compliant with TIA 5071.

TestPro is the only tester to offer SPE certification testing complaint to the TIA 568.5 standard. TestPro covers the requirements for both high-speed short reach SPE links, and long distance SPE links with the same device.



# Fiber Optic Certification

TestPro's fiber optic loss test adapters provide Tier-1 certification as well as customizable limits for both Multimode and Singlemode Fiber Optic premises cabling. Additionally, these adapters include an integrated Visual Fault Locator (VFL) to provide a quick indication of a break in the fiber.

As part of the four second Autotest, TestPro will perform the following measurements for both Singlemode and Multimode.

- Dual-Ended Single Direction & Dual-Ended Bi-directional Loss
- Length and Propagation Delay
- Loop Resistance of Copper Pair in Hybrid Powered Fiber
- Dual wavelength: 850/1300nm (MM), 1310/1550nm (SM)
- LiveWiremap™

Additional Test

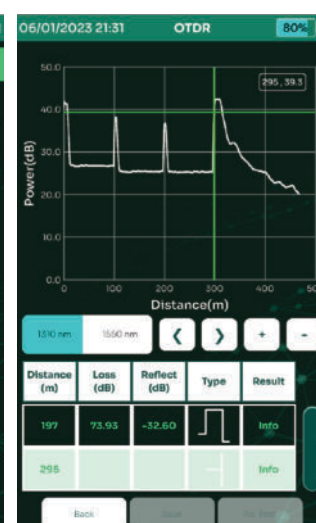
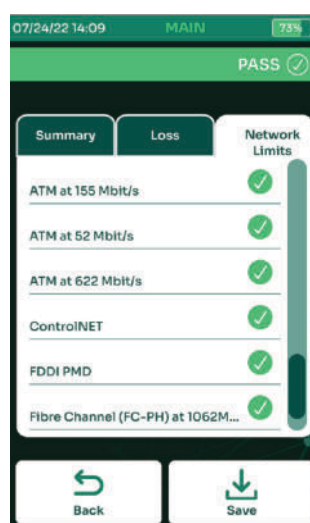
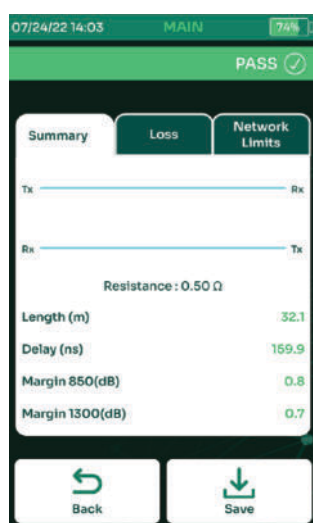
- Single Ended Loopback Loss
- Optical Power Meter
- Printed Report Includes Test Data and Compliant Networks

For deployments where hybrid powered fiber is being used, TestPro's fiber optic loss test adapter provides not only certification of the fiber optic cable, but also provides you with the ability to measure the loop resistance of the copper pair of the hybrid powered fiber to ensure its integrity after installation. The adapters will also measure voltage at the end point to ensure voltage is present for powering remote devices/PoE extenders and is a convenience for the technician to have everything needed for testing at their fingertips.

The Multimode loss test adapters support testing of OM5 fiber in addition to earlier generation fiber standards. An Encircled Flux (EF) compliant Multimode source means no need for bulky external adapters.

With the addition of AEM's Multimode and Singlemode OTDR test adapters, which connect to the TestPro handset just like any other test adapter, users gain additional troubleshooting functionality along with Tier-2 certification capability. The OTDR gives technicians in the field the ability to easily pinpoint the location of broken fiber or other loss events causing an optical loss test to fail.

*Both SM and MM Loss Test Adapters, USB Fiber Inspection Probe are included in TestPro CV100 - K11E, K41E, K51E, K61E, K71E Kits. Both SM and MM OTDR Test Adapters, USB Fiber Inspection Probe are included in TestPro CV100 - K41E, K71E.*



# Multi-Gigabit Link Speed Qualification

Improvements in 10Gigabit technology, price, and performance have extended its reach beyond enterprise data centers to midmarket networks. Increasing bandwidth requirements and the growth of enterprise applications are also driving broader deployments of 10 Gigabit Ethernet. TestPro's Multi-Gigabit testing provides a Pass/Fail indication as well as visibility into available headroom even down to per pair detail.

TestPro's Multi-Gigabit Signal to Noise Ratio (SNR) based test capability puts the link being tested under live network environment conditions with both traffic and PoE load, if a PSE is present. This provides a quick and meaningful assessment of link performance, available headroom, and even alien crosstalk effects on a link.

## VALIDATION TEST

- 10/100 Mbps
- 1 Gbps

## POE LOAD TEST

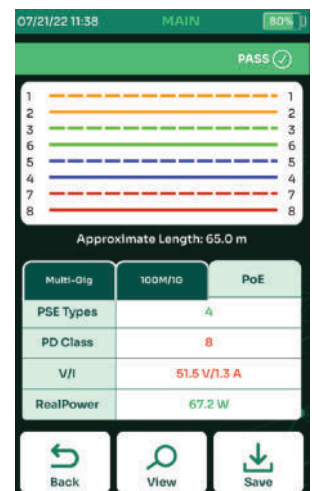
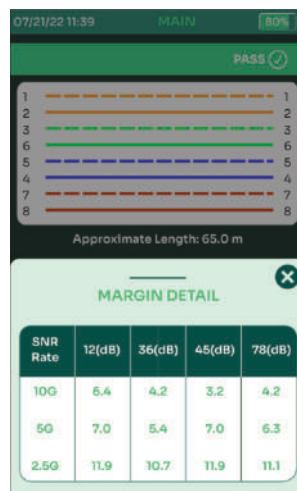
- 802.3 af/at/bt
- UPoE

## QoS TEST

- SNR 2.5 Gigabit
- SNR 5 Gigabit
- SNR 10 Gigabit

TestPro's Multi-Gigabit Autotest is a quick and easy one button operation to ensure that a cabling link will support the desired network rate.

Multi-Gigabit qualification testing is available in the TestPro CV100-K60E, K61E, K71E Kits. This feature may be added to any TestPro system by purchasing the MultiGig/PoE test adapter pair separately: Model AD-NET-CABLE.





# Power Over Ethernet (PoE) Validation

TestPro excels at validating PoE with the most comprehensive test functionality available and in compliance with TIA 1152A, IEEE 802.3 af/at/bt standards, and UPOE. What sets TestPro apart is the ability to validate Real Power load at the jack where and end device will be deployed. TestPro emulates a Powered Device (PD), such as a WAP or Camera by setting it to the specific standard applicable to that device. TestPro negotiates with the Power Source Equipment (PSE) to request information about the switch and the highest level of power load from the PSE for the selected standard.

For those pesky intermittent power issues, TestPro allows for sustained loading testing over longer periods, through external loads. This allows you to monitor live for any power fluctuation that drops below the required level threshold.

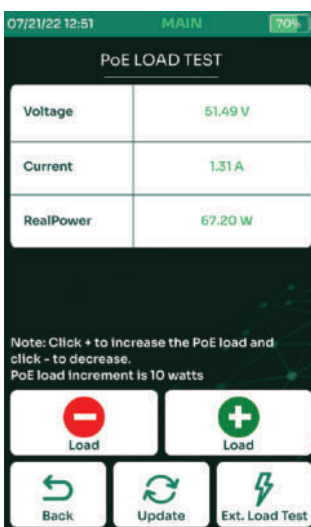
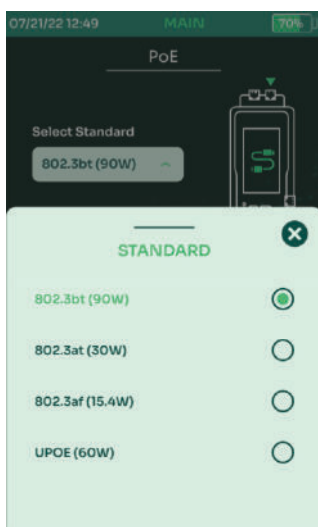
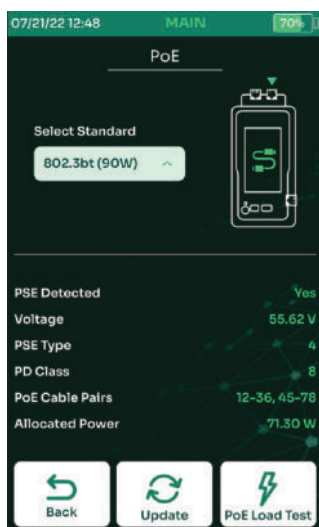
TestPro can also characterize the cabling links for DC resistance unbalance parameters either as part of a standard cable certification Autotest or as a one-off quick test.

*PoE Load testing capability is included in the TestPro CV100 - K60E, K61E, K71E Kits. This feature may be added to any TestPro system by purchasing the MultiGig/PoE test adapter pair separately: Model AD-NET-CABLE.*

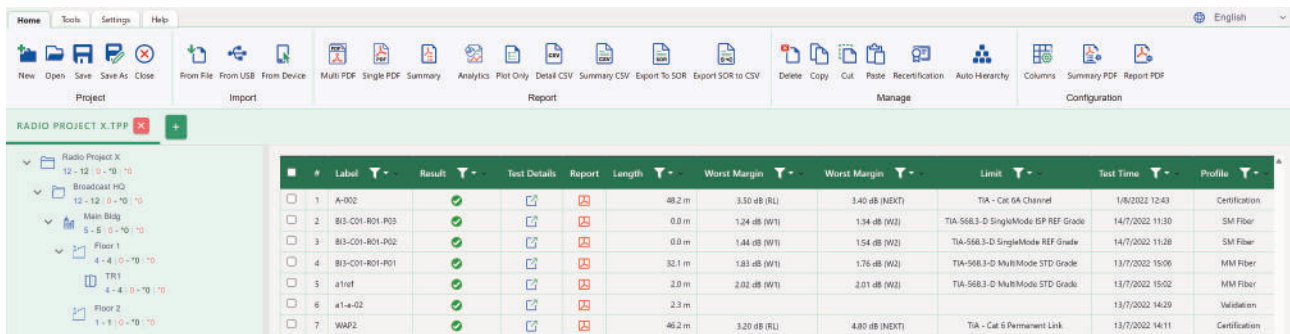


## POE TESTING CAPABILITIES

- Load Testing for Real Power at Jack
- Current, Wattage, Voltage
- PSE Detection
- PSE Type
- PD Class
- PoE Cable Pairs
- Sustained Power Load Monitoring



# TestDataPro Results Management



|   | Label           | Result | Test Details | Report | Length | Worst Margin  | Worst Margin   | Limit                                | Test Time       | Profile       |
|---|-----------------|--------|--------------|--------|--------|---------------|----------------|--------------------------------------|-----------------|---------------|
| 1 | A-R02           | ✓      |              |        | 48.2 m | 3.50 dB (RL)  | 3.40 dB (NEXT) | TIA - Cat 6A Channel                 | 1/8/2022 12:43  | Certification |
| 2 | B13-C01-R01-P03 | ✓      |              |        | 0.0 m  | 1.24 dB (WFI) | 1.34 dB (WFI)  | TIA-568.3-D SingleMode ISP REF Grade | 14/7/2022 11:30 | SM Fiber      |
| 3 | B13-C01-R01-P02 | ✓      |              |        | 0.0 m  | 1.44 dB (WFI) | 1.54 dB (WFI)  | TIA-568.3-D SingleMode REF Grade     | 14/7/2022 11:28 | SM Fiber      |
| 4 | B13-C01-R01-P01 | ✓      |              |        | 32.1 m | 1.83 dB (WFI) | 1.76 dB (WFI)  | TIA-568.3-D MultiMode STD Grade      | 13/7/2022 15:06 | MM Fiber      |
| 5 | a1nef           | ✓      |              |        | 2.0 m  | 2.02 dB (WFI) | 2.01 dB (WFI)  | TIA-568.3-D MultiMode STD Grade      | 13/7/2022 15:02 | MM Fiber      |
| 6 | a1-a-02         | ✓      |              |        | 2.3 m  |               |                |                                      | 13/7/2022 14:29 | Validation    |
| 7 | WAP2            | ✓      |              |        | 46.2 m | 3.20 dB (RL)  | 4.80 dB (NEXT) | TIA - Cat 6 Permanent Link           | 13/7/2022 14:11 | Certification |

TestDataPro is a PC based test reports management software that comes standard with all models of TestPro. TestDataPro allows users to define projects and categorize test results into logical groupings once uploaded into the database. The database provides the ability to collaborate by viewing in-depth test details from any computer running TestDataPro software, as well as provide .pdf based printed reports. Users can combine multiple Autotests into a single report, such as Copper & Fiber test results, Multi-Gig Ethernet SNR/PoE, and Network Discovery.

Recertification of test results with TestDataPro is easy. The most extensive copper recertification capability in the cable certification industry allows users to recertify cables which were inadvertently tested to the incorrect limit without having to retest. Some common examples of recertification available shown below, many more are

- Cat5e or Cat6 recertification to Cat6A
- Cat6A recertification down to Cat6 or Cat5e
- Cat6A recertification to ISO/IEC Class EA
- Cat6A recertification to Cat6A(+) / Cat6A(++) to include the optional test parameters for DC Resistance Unbalance, TCL and ELTCTL.

This is unique to AEM because TestPro certification testing includes the optional parameters during the original 6-second autotest, so the data is already included in the test record.

TestDataPro now includes analytics functionality which allows users to take a group of test results and view a graphical report of the selected group of tests and find trends or anomalous results in the various test parameters such as NEXT, IL, RL for copper or optical loss test margins as well as length analysis. The analytics can be filtered as well by Operator, Project, Test Profile for example to drill deeper into the information. Test results which show up in unacceptable range can be examined in detail by simply clicking on the line in question, bringing up all test results in that group and each can be examined in-depth by clicking on Details, allowing the user to scrutinize the information.

Multiple TestDataPro project files can be opened in separate tabs, allowing easier comparison of results between projects and better facilitating copy/paste function when combining test results from multiple

## TESTDATAPRO PC BASED

- Software-based Recertification if original test was done with wrong test standard selected
- Analytics aid in deeper analysis of test results
- Multiple reporting formats and options

## TESTDATAPRO CLOUD

- Allows immediate offload of test results to database via wired or wireless connection
- Allows visual of pass/fail results
- Allows printing of single .pdf reports



# Wired & Wireless Connectivity Testing

Useful for moves/adds/changes as well as general troubleshooting, TestPro will connect to a live network through the AD-NET-CABLE adapter, or wireless using the optional Edimax Wi-Fi USB adapter.

## WIRED CONNECTIVITY TESTING

- Auto-discovery reports connected devices and details
- See latency and delay with Ping and Traceroute
- Understand in-depth connected switch detail including slot/port/VLAN
- See graphical breakdown of frame count by VLAN
- Quick Autotest runs a suite of tests for you and provides a complete test report

## WIRELESS CONNECTIVITY TESTING

- Auto-discovery reports visible access points including channel and signal strength
- Login to access point to verify connectivity
- Check roaming signal strength
- Traceroute and Ping troubleshooting tools



A handy savable Autotest function gives you the option to let the tester do all the work for you and automatically runs tests for:

- Device Information
- LAN Speed
- Network Map
- The Ping tests in the Autotest are not user-defined, they are fixed. Manual ping tests may be configured for different URLs/IP addresses, but not the autotest.
- Discovered Devices
- VLAN Discovery
- Switch Detail

*Wired Network Connectivity Testing is available in the TestPro CV100 K60E, K61E, K71E Kits. This adapter is also sold separately: Model AD-NET-CABLE.*

*Wireless Network Connectivity testing is available in all models of TestPro CV100 with a OPTIONAL Dual Band MU-Mimo Wi-Fi USB adapter. These adapters are region specific and must be purchased by your preferred retailer such as Amazon. Approved adapters are ASUS USB-AC53 AC1200 and Edimax EW-7822ULC.*

# TestPro Platform Overview

## Exceeds Cat 8 / Class II

3000MHz/3GHz platforms exceeds current standard giving you investment protection assurance for future requirements.

## Hot Swappable Test Adapters

A variety of test adapters are available for TestPro. The most commonly used adapters are included in purpose-built kits, optional adapters allow extension of platform use.



## Impact Protection

Dense rubber housing protects test equipment and display from drops. 2 Year standard warranty protects your investment. Warranty extends to 5 Years upon

## Touchscreen

Impact resistant touchscreen.

## Built-in Kickstand

Allows for ease of use when test equipment is used in a set position.

## Live Wiremap

The moment the remote unit is connected, TestPro gives an audible sound and shows wiremap and continuity for both copper and fiber optic.

## CONNECTIVITY OPTIONS

Micro USB allows direct connect with PC.

USB A supports Edimax, Wi-Fi adapter and Fiber Inspection Scope as well as USB flash drive for firmware updates and test results export.



RJ-45 Ethernet port supports 10/100/1000 BASE-T testing with no test adapter needed.



## Intuitive UI

Available test function automatically adjusts when hot swappable test adapters are swapped.

## Hot Keys

Quick access buttons for Autotest Initiation and Return to Home Screen.

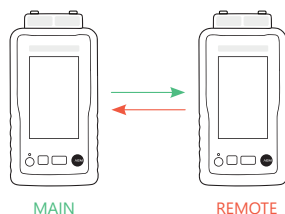


# TestPro Platform Flexibility

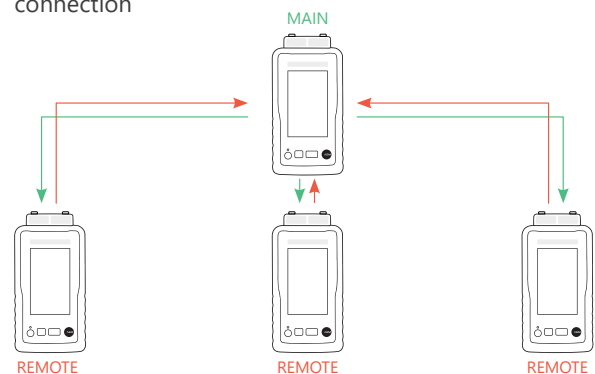
AEM dual handset product kits contain two full function test platforms, that can each be configured as a Main or a Remote. This means, that both handsets can be independently deployed, giving you double the test equipment during end device implementation phase for wired and wireless network connectivity troubleshooting.

- When certifying copper and/or fiber optic, technicians at both ends can see full test results, aiding in problem identification and remediation.
- Test can be initiated from either end, cutting down on the time it takes to run back and forth in half, when only one technician is on the job.
- Need to throw manpower at the job to get it done fast? If you have two or more TestPro product kits, configure one platform as the Main, and all others as Remotes. Technicians out in the office area can leapfrog each other, while one technicians stays at the MDF simply moving from port to port and connecting with each remote as it sees them through live Wiremap, and then can initiate the autotest.
- During implementation phase and troubleshooting switch connectivity, link speed and PoE load, test platforms can be independently deployed, giving you double the test equipment to get the job done fast.
- Troubleshooting Wi-Fi issues, both units can be independently deployed.

Copper/Fiber Certification - Autotest can be initiated from both ends or automatically upon connection



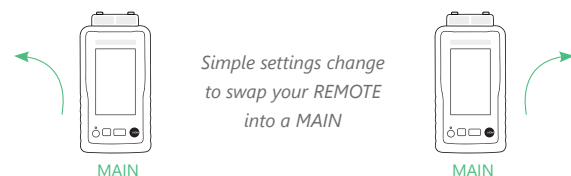
One Main to Many Remotes / Copper Cert - Autotest can be initiated from both ends or Automatically upon connection



*Etc. - Unlimited number of Remotes*

Independently deploy each handset to become stand-alone testers for the following:

- Fiber Loopback
- PoE Load Testing
- SNR based Multi-Gig Link Speed Testing (2.5,5,10GigE)
- Wired Network Connectivity (Discovery/Switch Detail, Troubleshooting Toolkit)
- Wireless Network Connectivity (SSID Discovery/ Roaming Signal Strength, Troubleshooting Toolkit)



*Simple settings change to swap your REMOTE into a MAIN*

## Adapters & Accessories

| PART NUMBER        | DESCRIPTION                              | UOM |
|--------------------|------------------------------------------|-----|
| AD-SM-K01E         | SM FIBER TEST KIT (ENHANCED) FOR TESTPRO | SET |
| AD-MM-K01E         | MM FIBER TEST KIT (ENHANCED) FOR TESTPRO | SET |
| MM-ST-K01          | TESTPRO ST CONNECTOR INTERFACE KIT-MM    | SET |
| MM-SC-K01          | TESTPRO SC CONNECTOR INTERFACE KIT-MM    | SET |
| MM-FC-K01          | TESTPRO FC CONNECTOR INTERFACE KIT -MM   | SET |
| SM-ST-K01          | TESTPRO ST CONNECTOR INTERFACE KIT-SM    | SET |
| SM-SC-K01          | TESTPRO SC CONNECTOR INTERFACE KIT -SM   | SET |
| SM-FC-K01          | TESTPRO FC CONNECTOR INTERFACE KIT-SM    | SET |
| MM-LC-CORD-K01     | LC REFERENCE CORD KIT FOR TESTPRO -MM    | SET |
| SM-LC-CORD-K01     | LC REFERENCE CORD KIT FOR TESTPRO -SM    | SET |
| PROBE-FIBER-INSP   | FIBER INSPECTION PROBE                   | EA  |
| CABLE ASSY-HYBRID2 | COPPER JUMPER FOR HYBRID POWERED FIBER   | SET |
| AD-OTDR-SM         | SINGLEMODE OTDR ADAPTER                  | EA  |
| AD-OTDR-MM         | MULTIMODE OTDR ADAPTER                   | EA  |
| SM-LC-LC-CORD-150M | LC-LC LAUNCH CORD, 150M SINGLEMODE       | EA  |
| SM-SC-LC-CORD-150M | SC-LC LAUNCH CORD, 150M SINGLEMODE       | EA  |
| SM-SC-SC-CORD-150M | SC-SC LAUNCH CORD, 150M SINGLEMODE       | EA  |
| MM-LC-LC-CORD-150M | LC-LC LAUNCH CORD, 150M MULTIMODE        | EA  |
| MM-SC-LC-CORD-150M | SC-LC LAUNCH CORD, 150M MULTIMODE        | EA  |
| MM-SC-SC-CORD-150M | SC-SC LAUNCH CORD, 150M MULTIMODE        | EA  |
| AD-NET-CABLE       | MULTIGIG AND POE ADAPTER PAIR            | SET |

| PART NUMBER         | DESCRIPTION                              | UOM |
|---------------------|------------------------------------------|-----|
| AD-BAREWIRE         | BAREWIRE ADAPTER PAIR                    | SET |
| AD-CAT8.1-CH        | CAT8.1 CHANNEL ADAPTER PAIR              | SET |
| AD-CAT8.1-PLE       | CAT8.1 PERMANENT LINK ADAPTER PAIR, ENH  | SET |
| AD-COAX-KIT         | 75OHM COAX ADAPTER KIT                   | SET |
| AD-M12-D            | M12 D-CODED ADAPTER PAIR                 | SET |
| AD-M12-X            | M12 X-CODED ADAPTER PAIR                 | SET |
| AD-5E-PCORD         | CAT-5E PATCH-CORD TEST ADAPTER PAIR      | SET |
| AD-6-PCORD          | CAT-6 PATCH-CORD TEST ADAPTER PAIR       | SET |
| AD-6A-PCORD         | CAT-6A PATCH-CORD TEST ADAPTER PAIR      | SET |
| AD-5E-PCORD-SINGLE  | CAT-5E PATCH-CORD TEST ADAPTER SINGLE    | EA  |
| AD-6-PCORD-SINGLE   | CAT-6 PATCH-CORD TEST ADAPTER SINGLE     | EA  |
| AD-6A-PCORD-SINGLE  | CAT-6A PATCH-CORD TEST ADAPTER SINGLE    | EA  |
| AD-8.2-TERACH       | CAT8.2 TERA CHANNEL ADAPTER PAIR         | SET |
| AD-8.2-TERAPL       | CAT8.2 TERA PERM LINK ADAPTER PAIR       | SET |
| AD-8.2-GG45CH       | CAT8.2 GG45 CHANNEL ADAPTER PAIR         | SET |
| AD-8.2-GG45PL       | CAT8.2 GG45 PERM LINK ADAPTER PAIR       | SET |
| AD-SPE-IEC 63171-1  | SINGLE PAIR ETHERNET ADAPTER IEC 63171-1 | SET |
| AD-SPE-IEC 63171-6  | SINGLE PAIR ETHERNET ADAPTER IEC 63171-6 | SET |
| ACC-HARD-CASE       | HARD CARRY CASE FOR TESTPRO              | EA  |
| ACC-SOFT-CASE-SMALL | SOFT CARRY CASE FOR TESTPRO              | EA  |
| ACC-POWER-AD        | AC POWER ADAPTER FOR TESTPRO             | EA  |

# Technical Specifications

## Test Standards Compliance & Conformity

|                                       |                                                                                                                                                                                                                                                                                          |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Copper Certification                  | ANSI/TIA-568.2-D, ISO 11801<br>ANSI/TIA-1152-A (Levels IIIe and 2G), IEC 61935-1 Ed. 4 (Levels IIIe and V) and IEC 61935-1 Ed. 5 Draft 46/595/CD (Levels VI Class I and Class II)                                                                                                        |
| Fiber Optic Certification             | TIA-568.3-E and ISO/IEC 14763-3 Ed 2.1                                                                                                                                                                                                                                                   |
| Single Pair Ethernet                  | SPE Cabling Standards: TIA 568.5 (in draft), ISO/IEC TR 11801-9906-2020. SPE Field Test standards: TIA-5071 (in draft), IEC-61395-4 (in draft). IEEE Single Pair Ethernet Application standards supported: 1000BASE-T1, IEEE 802.3bp; 100BASE-T1, IEEE 802.3bw; 10BASE-T1, IEEE 802.3cg. |
| Power Over Ethernet                   | IEEE 802.3 af/at/bt, UPoE                                                                                                                                                                                                                                                                |
| Multi-Gigabit Link Speed Testing      | IEEE 802.3 up to 10GBASE-T                                                                                                                                                                                                                                                               |
| Wired Network Connectivity Testing    | CDP, LLDP                                                                                                                                                                                                                                                                                |
| Wireless Network Connectivity Testing | IEEE 802.11N & IEEE 802.11AC maximum wireless speed up to 300Mbps on 2.4GHz band or up to 866Mbps on 5GHz band                                                                                                                                                                           |
| Coax                                  | TIA-568.4-D and IEC 60966-2-6                                                                                                                                                                                                                                                            |

## TestPro Platform (All Versions)

Each platform in a kit comes with a Certificate of Calibration traceable to NIST.

|                                    |                                                                                                                                                              |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Size                               | 200mm X 105mm X 50mm (7.87in X 4.13in X 1.97in)                                                                                                              |
| Display                            | 5" TFT color touch screen, resolution 800 x 480 pixels                                                                                                       |
| Battery                            | Li-Ion, 3.7V / 13,200 mAh, 9 hr battery life typical                                                                                                         |
| Power Adapter                      | 5V, 3A (supplied), 5-12V (supported), 2.1mm DC jack                                                                                                          |
| Platform Operating System          | Linux                                                                                                                                                        |
| USB Interfaces                     | USB A for flash drive storage, MicroUSB for connecting to PC                                                                                                 |
| RJ-45 Side Port                    | 10/100/1G network connectivity test port                                                                                                                     |
| Test Adapter To Platform Interface | High-frequency connector rated for 5000 insertion cycles, Hot-swappable                                                                                      |
| Measurement Engine                 | 9-channel dual-ended mixed-mode RF and DC measurement engine. Industry's highest performance patent-pending measurement architecture for data cable testing. |
| Frequency Range                    | 0.1 – 3,000 MHz                                                                                                                                              |

### TestPro Platform (All Versions)

|                                                            |                                                                                                               |
|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| <b>Measurement Time</b>                                    | CAT6A auto-test (including TCL and resistance unbalance tests): 6 sec                                         |
|                                                            | CAT 8 Class II auto-test: 30 sec                                                                              |
| <b>Wiremap</b>                                             | All possible wire connection situations identified, as long as two wires are connected end-to-end on any pins |
| <b>DC Resistance</b>                                       | Range: 0 to 100 $\Omega$                                                                                      |
|                                                            | Loop resistance, pair-to-pair resistance unbalance measurement meets TIA 1152A specs                          |
| <b>Tone Generator</b>                                      | 730Hz and 1440 Hz                                                                                             |
| <b>Dual-Ended RF Measurements IL, RL, NEXT, ACR-F, TCL</b> | All mandatory and optional RF measurements as per TIA and ISO/ IEC standards                                  |
|                                                            | Single-pair link testing license with supported length for dual ended testing greater than 1,000 m            |
| <b>Length (Propagation Delay) Measurement</b>              | Dual ended test: 0 – 600m with 0.1m resolution                                                                |
|                                                            | (0 – 6,000 nsec with 1 nsec resolution)                                                                       |
|                                                            | Delay skew measurement with 1 nsec resolution                                                                 |
| <b>Supportable Cabling</b>                                 | 4-pair twisted pair cable                                                                                     |
|                                                            | 1-pair twisted pair cable                                                                                     |
|                                                            | Coax cable                                                                                                    |
|                                                            | Optical cables (SM/MM pair)                                                                                   |
| <b>TDR-RL</b>                                              | 0-100 m (resolution: 1 m)                                                                                     |
|                                                            | Distance-to-fault                                                                                             |
| <b>TDR-NEXT</b>                                            | 0-100 m (resolution: 1 m)                                                                                     |
| <b>Impedance</b>                                           | 0-1000 $\Omega$                                                                                               |
|                                                            | 0.1 $\Omega$ resolution in 90-110 $\Omega$ range                                                              |

#### Power Over Ethernet (K60E, K61E, K71E)

|                               |                             |
|-------------------------------|-----------------------------|
| <b>Features/Test Function</b> | PoE source type detection   |
|                               | Load test up to 90W         |
|                               | Identification of PoE pairs |
|                               | Substained load monitor     |

#### Multi-Gigabit Ethernet (K60E, K61E, K71E)

|                            |                                                      |
|----------------------------|------------------------------------------------------|
| <b>Autotest Parameters</b> | Signal to Noise Ratio at each speed across each pair |
|                            | Cable Diagnostics                                    |
|                            | PoE Detection                                        |
| <b>Network Testing</b>     | Ethernet network discovery                           |
|                            | Switch Detail (Port, VLAN, Capabilities)             |
|                            | Traceroute                                           |
|                            | Traffic generator/monitor                            |
|                            | Ping                                                 |
|                            | TCP Connect                                          |
|                            | Wi-Fi : Identify SSID's and measure RSSI             |

#### Fiber Optic - Common to both MM and SM (K11E, K41E, K51E, K61E, K71E)

|                                                               |                                                                                                                                                                                                                                                                                                                                                          |
|---------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Test Interface</b>                                         | Supplied Test Interface: interchangeable FC on Tx port and interchangeable LC on Rx port. FC-LC (Tx) and LC-LC (Rx) Test Reference Cords included with all adapter kits (AD-MM-K01E, AD-SM-K01E. All TestPro Kits with fiber option include above plus SC interface adapters for Tx and Rx ports, FC-SC (Tx) and SC-SC (Tx and Rx) Test Reference Cords. |
| <b>VFL Light Source</b>                                       | Wavelength 650nm                                                                                                                                                                                                                                                                                                                                         |
| <b>Volt-Ohm Meter Measurement Range, Hybrid Powered Fiber</b> | 0-60V DC                                                                                                                                                                                                                                                                                                                                                 |
|                                                               | 0-100 $\Omega$                                                                                                                                                                                                                                                                                                                                           |

### Fiber Optic - Multimode and Singlemode Adapter - Specific Information

|                    | Multimode AD-MM-01E Adapter                                                | Singlemode AD-SM-01E Adapter                          |
|--------------------|----------------------------------------------------------------------------|-------------------------------------------------------|
| Wavelengths        | 850nm, 1300nm                                                              | 1310nm, 1550nm                                        |
| Light Source       | LED                                                                        | Fabry-Perot Laser                                     |
| Transmit Power     | -20dBm typical                                                             | -2dBm typical                                         |
| Encircled Flux     | Compliant to IEC-61280-1-4 and TIA526-14-C-2015 as per supplier data sheet | Not applicable                                        |
| Length Measurement | Range: up to 2km (subject to maximum of 10dB link loss)                    | Range: up to 20km (subject to maximum 20dB link loss) |
|                    | Length measurement resolutions: 0.1m                                       | Length measurement resolution: 0.1m                   |
| Dual Ended Loss    | Dual ended loss measurement: 0 to -10dB                                    | Dual ended loss measurement: 0 to -20dB               |

### Fiber Optic - OTDR

| Parameter                  | Multimode                                               | Singlemode                                               |
|----------------------------|---------------------------------------------------------|----------------------------------------------------------|
| Wavelength Range           | 850nm +/- 10nm                                          | 1310 +/- 25 nm                                           |
|                            | 1300nm +/- 35/-15nm                                     | 1550 +/- 30 nm                                           |
| Compatible Fiber type      | 50/125 µm, 62.5/125 µm for multimode                    | Single mode                                              |
| Event Dead Zone            | 1m typical for 850 nm, 1m typical for 1300 nm           | 0.6m typical for 1310 nm, 0.6m typical for 1550nm        |
| Attenuation Dead Zone      | 2.5m typical for 850 nm, 4.5m typical for 1300 nm       | 3.6m typical for 1310 nm, 3.7m typical for 1550nm        |
| Dynamic Range              | 25dB for 850nm, 27dB for 1300nm                         | 29dB for 1310nm, 27dB for 1550nm                         |
| Max Distance Range Setting | 40 km                                                   | 130 km                                                   |
| Distance Measurement Range | 9km for 850nm, 35km for 1300nm                          | 80km for 1310nm, 130km for 1550nm                        |
| Reflectance Range          | -14 dB to -57 dB for 850nm, -14 dB to -62 dB for 1300nm | -14 dB to -65 dB for 1310nm, -14 dB to -65 dB for 1550nm |
| Pulse Width                | 3, 5,10, 15,...,24995, 25000 nsec                       | 3, 5,10, 15,...,24995, 25000 nsec                        |

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## TestPro Selection Guide



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## Cable Manufacturer Warranty Approval



### Technical Support

#### Live Phone Support :

Monday - Friday | 8am-5pm (Arizona,USA)  
T : 480-534-1232

Email Monitored 24hrs  
[customer-care@aemnetworks.odoo.com](mailto:customer-care@aemnetworks.odoo.com)

For more information and details specifications,  
please visit: [aemnetworks.com/testpro](https://aemnetworks.com/testpro)

If you need technical assistance, please visit us at:  
[aemnetworks.com/customer-care](https://aemnetworks.com/customer-care)

#### AEM Networks Pte. Ltd.

52 Serangoon North Ave 4  
Singapore 555853  
T : +65 6483 1811  
F: +65 6483 1822