TREND NETWORKS

SignalTEK 10G

10G Ethernet Troubleshooter and Bandwidth Tester

Depend On Us

SignalTEK 10G

Why do I need a 10G Ethernet Tester?

Problem

LAN networks are at risk of expensive downtime and lost productivity due to the ever-increasing demand of bandwidth hungry services such as video streaming, video conferencing, CCTV cameras and Wi-Fi access points.

Solution

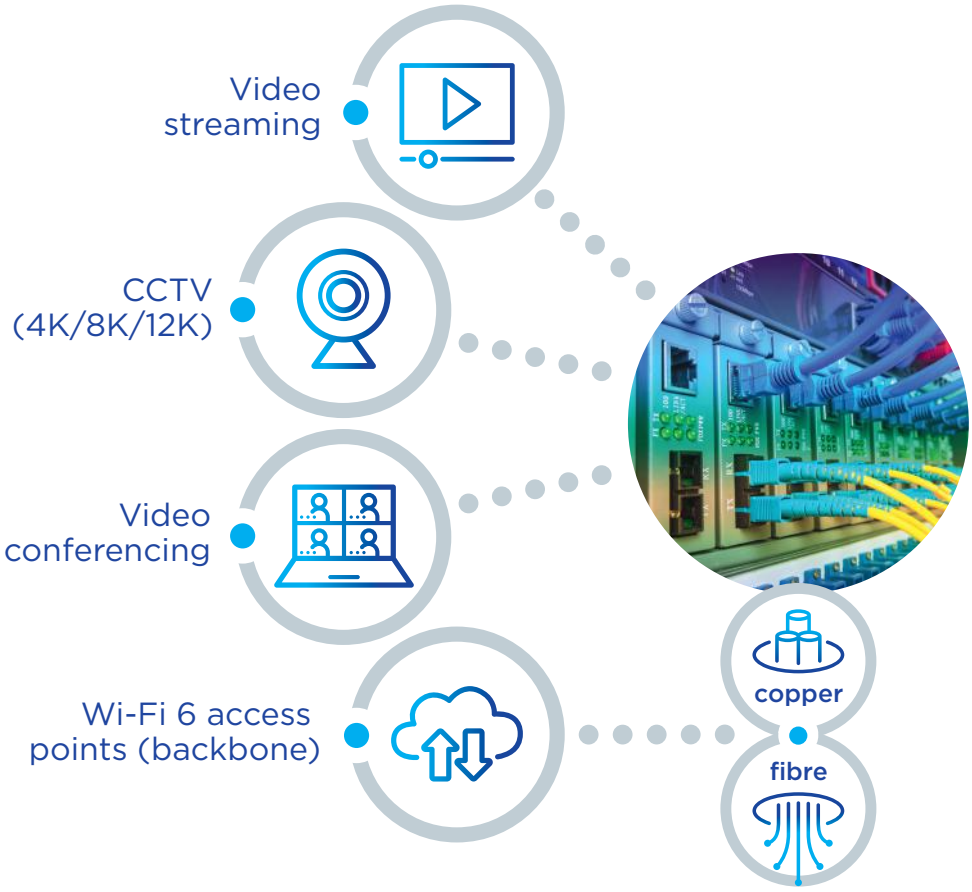
SignalTEK 10G will measure the maximum bandwidth available of the network, identify bottlenecks and discover opportunities to increase bandwidth without replacing expensive data cabling.

SignalTEK 10G

10G Ethernet Troubleshooter and Bandwidth Tester

The new SignalTEK 10G measures the maximum bandwidth of the network cabling up to 10 Gigabits per second. By simulating actual network traffic users can test, troubleshoot and document network and data cable performance up to 10 Gigabit Ethernet standards.

SignalTEK 10G has built-in Wi-Fi connectivity to connect seamlessly to the free AnyWARE Cloud test management system. AnyWARE Cloud offers pre-configuration to eliminate errors on-site, label printer connectivity to save time and “proof of performance” PDF reports for the clients.



Avoid network downtime

Troubleshoot Ethernet connectivity issues faster using diagnostic tools.

Pinpoint bottlenecks faster

Discover which part of your network is causing the bottleneck.

Validate network upgrades

Verify Multi-Gigabit switch upgrades to 1/2.5/5 and 10Gb/s speeds.

Prove the maximum bandwidth

Provide “proof of performance” PDF reports to the client.

Increase your network speed from 1Gb/s to 10Gb/s

Problem

There are 111 billion metres of Cat5e/Cat6 cabling installed globally that is limited to 1Gb/s bandwidth speeds due to the current switches deployed. Upgrading to Multi-Gigabit switches could increase speed but it is unclear what bandwidth the existing cabling will support.

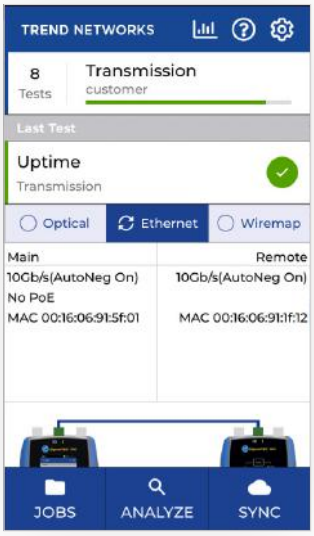
Solution

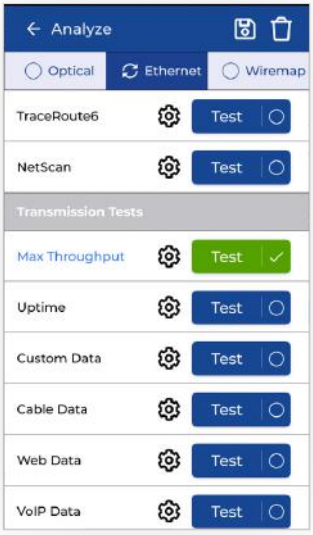
Use SignalTEK 10G to verify what the data cabling will support (up to 10Gb/s) before spending money on new Multi-Gigabit switches delivering 2.5/5/10Gb/s speeds. Use the SignalTEK 10G again following the upgrade to prove performance to the client with the "proof of performance" PDF reports.

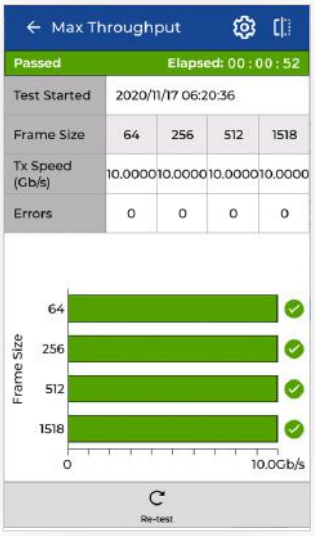
What is the **maximum error-free bandwidth** the cabling / infrastructure can support?

The max throughput test takes the guesswork out of existing cabling infrastructure. With one test you can easily see what hardware or applications would work on an existing link saving time and reducing the cost of replacing expensive data cabling.

As simple as 1-2-3







Fibre Testing

Verify fibre link speed to 1G or 10G, measure optical power and data throughput.

Validate Fibre Link Speed – The fibre link speed test confirms the connection is 1G or 10G which can be affected by cable length or signal loss.

Troubleshoot Fibre Cable Issues – The Tx & Rx optical power measurement is compared to the expected power level to determine attenuation in a fibre link. This indicates if the connector is dirty or damaged which is the number one cause of failure.

Easy to understand traffic light status - The simple traffic light indicator displays Good, Marginal or Poor power level based on IEEE 802.3 1G/10G limits.

Max throughput test - The SignalTEK 10G will prove the maximum available bandwidth over the fibre link up to 10Gb/s.

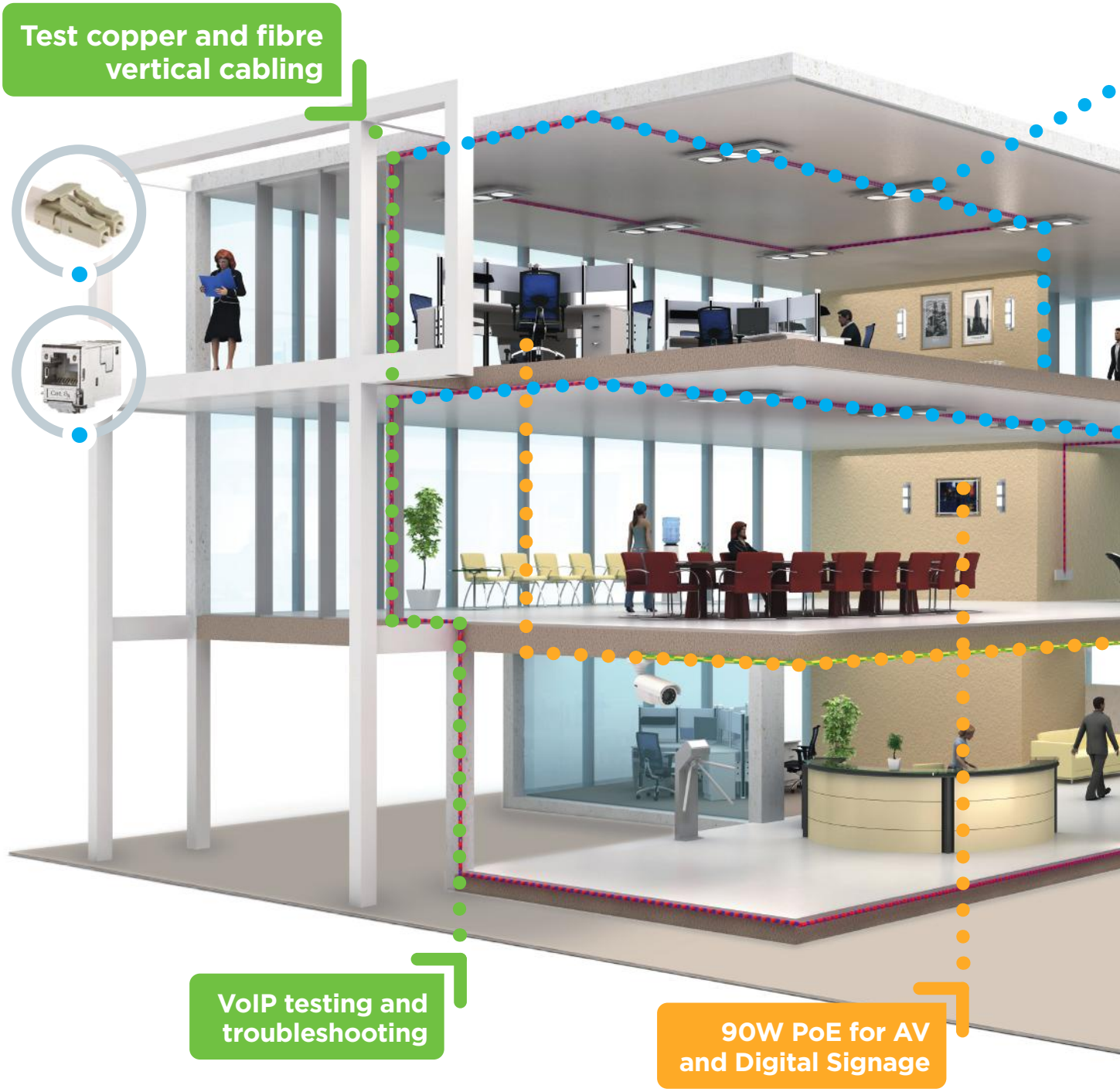
Discover a faulty SFP – The SFP temperature is measured to help understand if it has become faulty.

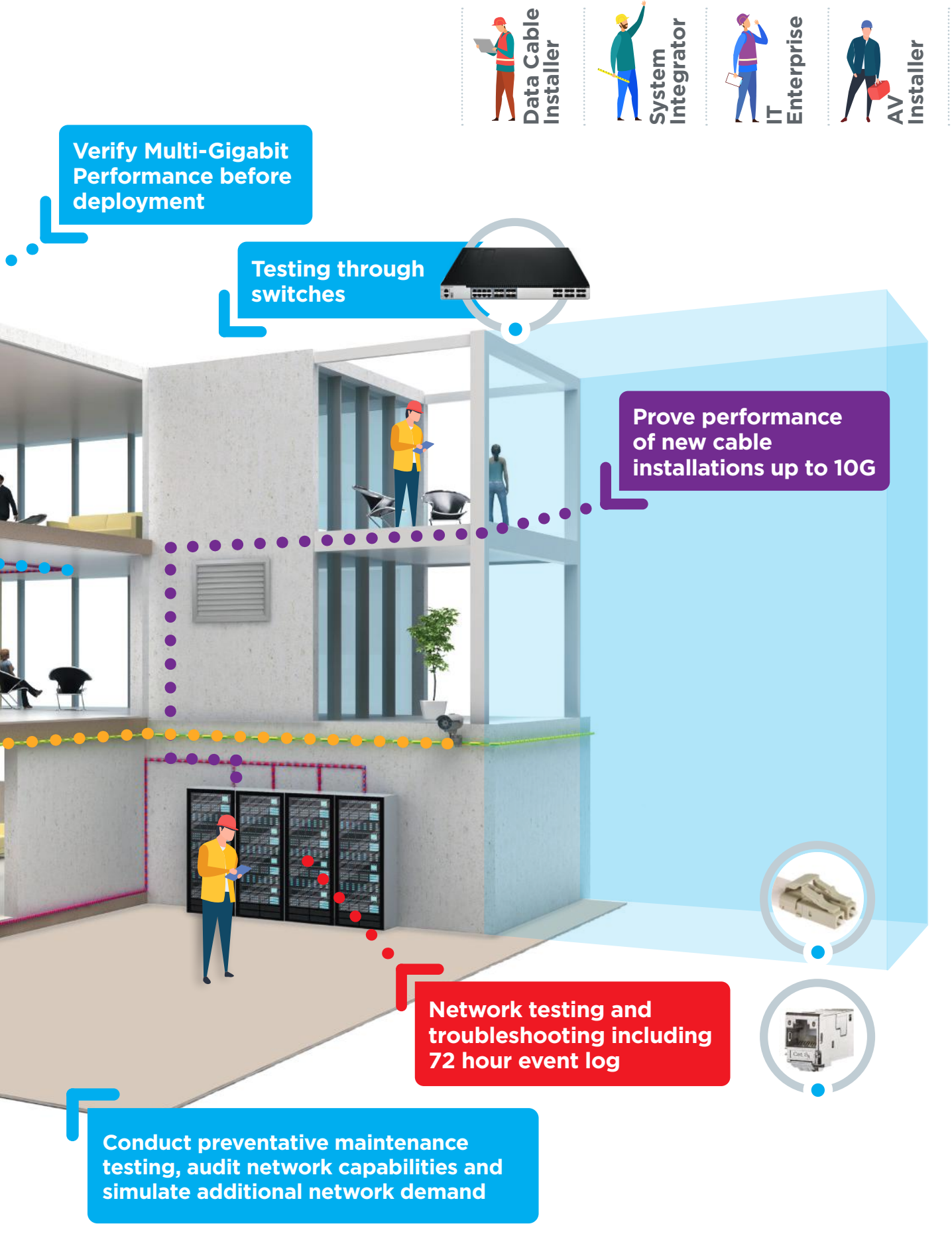
Will my existing cabling infrastructure support Multi-Gigabit technology?

10G/Multi-Gigabit Performance

Meets your network needs today and tomorrow.

The **SignalTEK 10G** will help to increase network bandwidth without replacing expensive cable infrastructure, troubleshoot PoE and Ethernet issues and prove the maximum bandwidth up to 10 Gigabits per second.



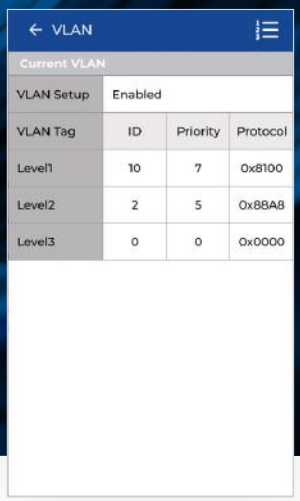

Data Cable Installer
System Integrator
IT Enterprise
AV Installer
Verify Multi-Gigabit Performance before deployment
Testing through switches
Prove performance of new cable installations up to 10G
Network testing and troubleshooting including 72 hour event log
Conduct preventative maintenance testing, audit network capabilities and simulate additional network demand

Network Testing

The SignalTEK 10G is also a network tester for troubleshooting and maintenance of active and passive copper and fibre networks.

Port & network summary info

Press the Autotest button to display summary information and allow for detailed inspection of network parameters.

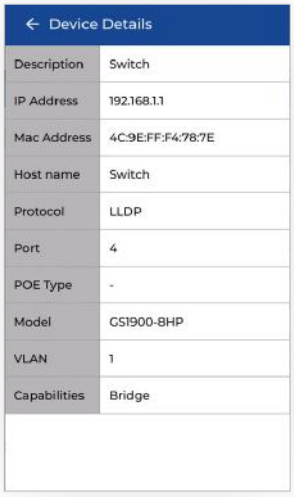


VLAN detection & operation

Automatic detection of VLAN IDs allows the user to configure SignalTEK 10G for operation on a VLAN.

Custom Wiremap

Use a list of wiremap templates for common Ethernet cable types as well as non-Ethernet cables, such as Profinet and ISDN.

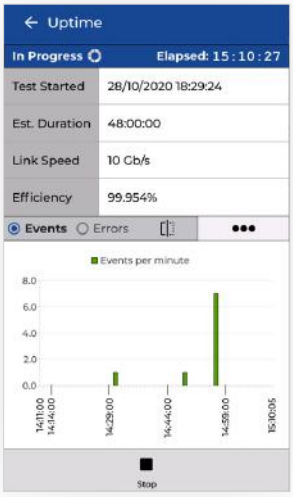


CDP/LLDP/EDP port information

Show port information using Cisco Discovery Protocol (CPD). Link Layer Discovery Protocol (LLDP) and Extreme Discovery Protocol (EDP).

Netscan

Display list of IP and MAC addresses of every device connected to the network.



72-hour event log

Find rogue devices and intermittent issues using the 72-hour event log.

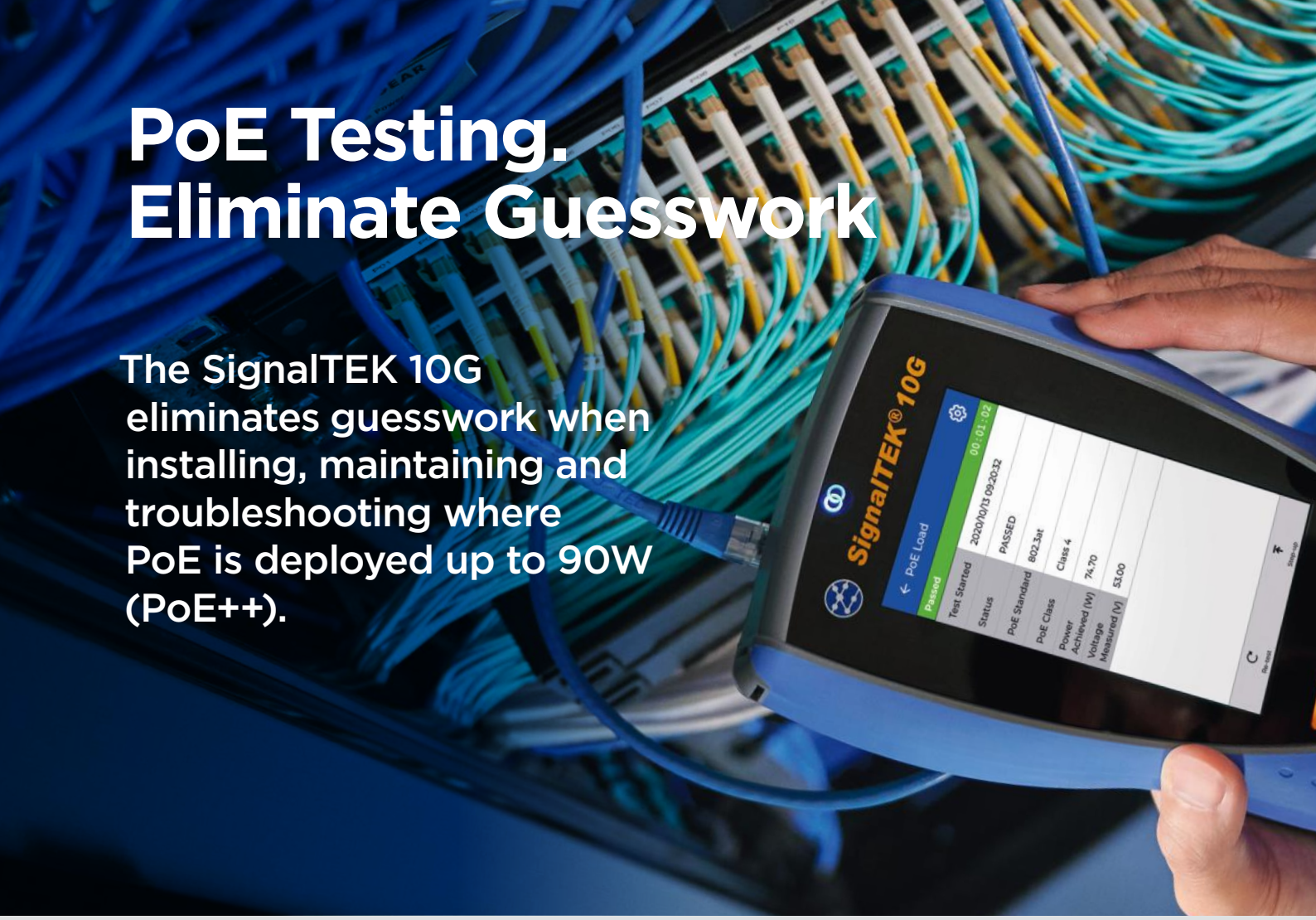
72-hour event log captures network events down to the second eliminating guesswork

SignalTEK 10G logs all network events over a 72-hour period to help diagnose connectivity issues faster, reducing hours onsite and reducing trips to the site. Leave the tester onsite, connect remotely to monitor network activity, view the event log and control all functions of the tester from the office.

The SignalTEK 10G will log all network events over a 72-hour period to help diagnose connectivity issues faster, reducing hours onsite and reducing trips to site.

PoE Testing. Eliminate Guesswork

The SignalTEK 10G eliminates guesswork when installing, maintaining and troubleshooting where PoE is deployed up to 90W (PoE++).



← Link Details		
◉ Main	○ Remote	
Link Status	Up	
Link Speed	5Gb/s	
	Skew (ns)	SNR Margin (dB)
Pair 1-2	0.00	9.20
Pair 3-6	5.00	9.30
Pair 4-5	-2.50	9.40
Pair 7-8	-11.25	8.50
PoE Status	PoE 802.3AT(Class 4)	
	Pair 12-36	Pair 45-78
PoE Voltage (V)	52.00	0.00
PoE Power (W)	25.50	

No more trial and error

Accurately measure the maximum power available

Supports PoE up to 90W (PoE++)

Test all PoE Classes (0-8) and Types (af/at/bt)

Identifies the powered pairs

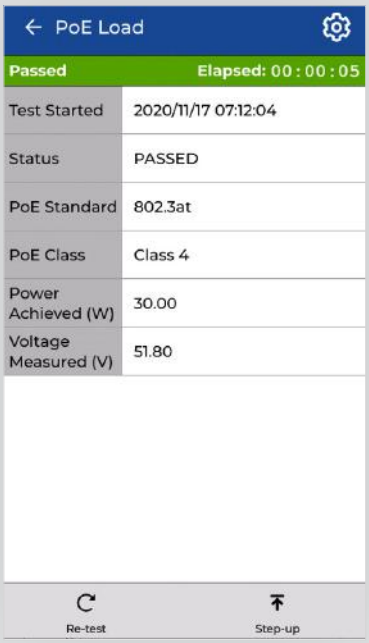
Determine whether power is from a switch or mid-span injector

Verify the PoE installation

Pass / Fail indication to IEEE standards

Extended power test

Some switches may provide power exceeding their IEEE Class rating. Measure the maximum available power up to 90 watts.



Adoption of Power over Ethernet (PoE)

In just a few short years we have seen many different applications increasing adopt PoE, such as monitors, digital signage, phones, security cameras, lighting and access control.

Previously technicians had to understand all the various standards, device power outputs and cable lengths to be sure a device will operate successfully.

The SignalTEK 10G identifies the Class of the PoE source and power available up to 90W to a PoE device regardless of cable length, cable quality or other factors. A clear pass/fail is provided to IEEE 802.3af/at/bt standards.

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Test Management Software

TREND AnyWARE CLOUD

The **AnyWARE Cloud** management system allows real time collaboration between Project Managers and Field Technicians. There is no need for Field Technicians to setup the SignalTEK 10G, Project Managers pre-configure the jobs and tests in the AnyWARE Cloud, eliminating potential mistakes and compressing the time taken to prepare reports for customers.

Cloud software

- **Operates anywhere with a web browser** – AnyWARE Cloud operates on a PC, Mac and tablet devices (Android and iOS)
- **Free storage** – No need for separate servers or backup systems.
- **Easy to find project files** – Attach all project files including cable layout drawings, videos, and photos into the AnyWARE Cloud. Everything you need in one place.
- **Share reports easier** – Use AnyWARE Cloud to share links to the test reports eliminating the need to manually email large attachments.
- **Reduce training time with WalkMe** – AnyWARE Cloud is embedded with the WalkMe digital adoption platform providing proactive, step-by-step guidance on all key tasks.

Fleet management

- **Easily manage the certifier fleet** – Fleet manager allows you to see who has the SignalTEK 10G when the software was last updated and when the results were last synced. Allowing you to manage tester downtime and ensuring results are transferred back to the office and not lost or deleted.

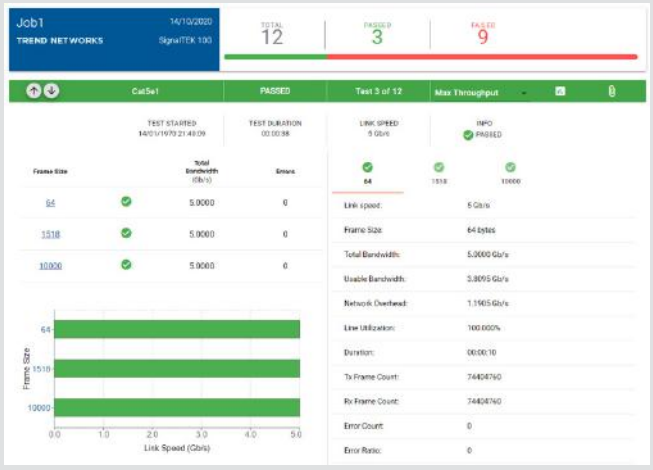
Professional PDF reporting

- **Customer profiles** – Create a profile for each of the customers with their company logo, address and contact details. This information is automatically pulled through to the reports, saving time.

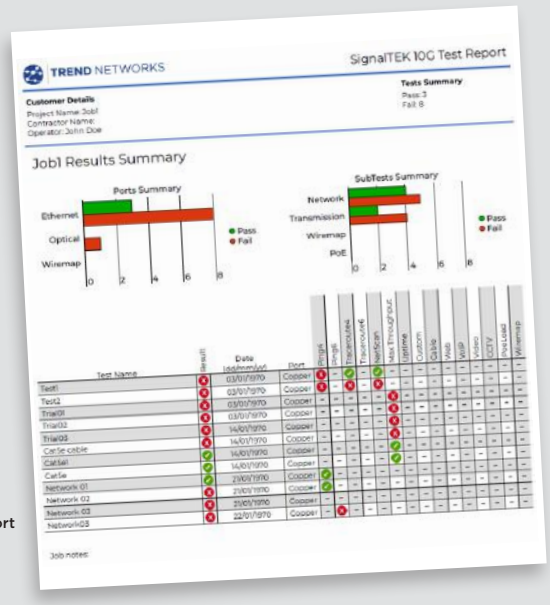
Report formats

- **Summary report** – This is a report showing multiple tests per page.
- **Detailed report** – This is a comprehensive report with all the measurement results with one page per test.

Reports can be generated on the SignalTEK 10G or on the free TREND AnyWARE Cloud.



TREND AnyWARE Cloud Jobs screen



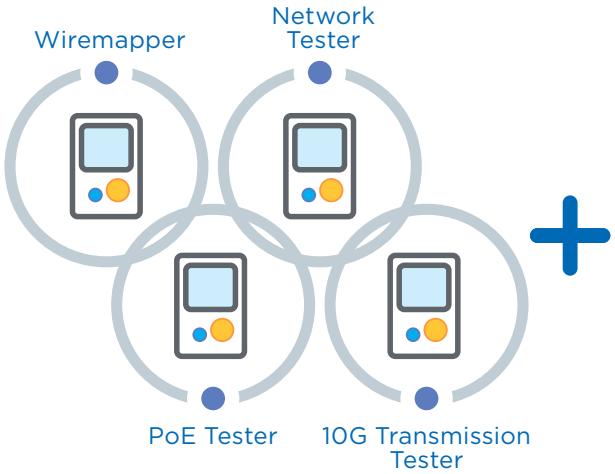
TREND AnyWARE Cloud Test Result report

TeamViewer Live Support

Project Managers can connect to a SignalTEK 10G on the jobsite using TeamViewer to troubleshoot failed links therefore minimising troubleshooting time, increasing collaboration and reducing call-backs.

Access can be granted to TREND NETWORKS Technical Support to allow further troubleshooting if required.

SignalTEK 10G Feature-rich



- Max throughput test up to 10G
- Bandwidth test to 1/2.5/5/10Gb IEEE standards
- AnyWARE Cloud
- Label printer connectivity
- Wi-Fi connectivity
- Large touchscreen
- Live remote control
- Up to 90W PoE testing
- 72 hour event log
- Rechargeable Li-ion battery

SignalTEK 10G

Complete Connectivity
Wi-Fi connectivity to the AnyWARE Cloud management system. USB connection for transferring test data

Built-in PDF Reporting
Reports can be generated directly from the SignalTEK 10G as well as the Cloud

Partner Finder
Provides audible tone and visible indicator when connected to the remote unit

Intuitive User Interface
Simplified user interface for easy setup and operation

Touchscreen
High resolution impact resistant touchscreen for ease of use

Internal Load speaker
Audible tones assist the user when testing

Rugged Design
Rubberised housing, protected screen and protected measurement port

Label Printer Connectivity
Easily send label IDs to printers for fast and accurate labelling

Future-proof the investment

SignalTEK 10G is a future-proof investment as additional features can be unlocked with a simple license key when required. There are two upgrade options to choose from: fibre testing and advanced network testing.

Part No	Description
UPGRADE10GFIB	UPGRADE SignalTEK 10G - Fibre testing option
UPGRADE10GNET	UPGRADE SignalTEK 10G - Network testing option

Who is **SignalTEK 10G** designed for?

Category	Solution	SignalTEK 10G CT R157000	SignalTEK 10G FT R157001	SignalTEK 10G NT R157002	SignalTEK 10G PRO R157003
Copper	Max bandwidth test up to 10Gb/s	✓	✓	✓	✓
	Data transmission test 1/2.5/5/10Gb	✓	✓	✓	✓
	NbaseT/Multi-Gigabit test 1/2.5/5/10Gb	✓	✓	✓	✓
	Wiremap, distance to fault, length	✓	✓	✓	✓
	Cable tracing (with compatible probe)	✓	✓	✓	✓
	Pass / Fail to copper IEEE standards	✓	✓	✓	✓
PoE	Pass / Fail to PoE IEEE standards	✓	✓	✓	✓
	Max power available (up to 90 watts)	✓	✓	✓	✓
	Type (af/at/bt) and Class (1 to 8)	✓	✓	✓	✓
	Displays voltage and which pairs have PoE	✓	✓	✓	✓
Fibre optional	Optical Tx/Rx power indication		✓		✓
	Max bandwidth test up to 10Gb/s		✓		✓
	Data transmission test 1/10Gb		✓		✓
	Pass / Fail to fibre IEEE standards		✓		✓
	SFP temperature, vendor and model		✓		✓
	Supports SFP/SFP+ (MM&SM)		✓		✓
Network optional	Switch Speed - 100M, 1G, 2.5G, 5G, 10G			✓	✓
	VLAN, PING, TraceRoute, Hub blink, NetScan			✓	✓
	CDP/LLDP/EDP port information			✓	✓
	Uptime efficiency and 72 hour event log			✓	✓
	Testing with packet loss, jitter and delay			✓	✓
	Prove network performance up to 10G			✓	✓

SignalTEK 10G

10G Ethernet Troubleshooter and Bandwidth Tester

Ordering information

Part No	Kit Contents
R157000	**SignalTEK 10G CT - (excl. fibre and network testing)** SignalTEK 10G Display/Remote handsets, Li-ion Battery (2), Hanging Strap (2), Quick Ref. Guide, Carry Case, Power Supply (2), 2m Cat 6A shielded patch cables (2).
R157001	**SignalTEK 10G FT - (with fibre testing)** SignalTEK 10G Display/Remote handsets, Li-ion Battery (2), Hanging Strap (2), Quick Ref. Guide, Carry Case, Power Supply (2), 2m Cat 6A shielded patch cables (2).
R157002	**SignalTEK 10G NT - (with network testing)** SignalTEK 10G Display/Remote handsets, Li-ion Battery (2), Hanging Strap (2), Quick Ref. Guide, Carry Case, Power Supply (2), 2m Cat 6A shielded patch cables (2).
R157003	**SignalTEK 10G Pro - (with fibre and network testing)** SignalTEK 10G Display/Remote handsets, Li-ion Battery (2), Hanging Strap (2), Quick Ref. Guide, Carry Case, Power Supply (2), 2m Cat 6A shielded patch cables (2).
TRADE157000	**SignalTEK 10G CT - TRADE-IN (excl. fibre and network testing)** SignalTEK 10G Display/Remote handsets, Li-ion Battery (2), Hanging Strap (2), Quick Ref. Guide, Carry Case, Power Supply (2), 2m Cat 6A shielded patch cables (2).
TRADE157001	**SignalTEK 10G FT - TRADE-IN (with fibre testing)** SignalTEK 10G Display/Remote handsets, Li-ion Battery (2), Hanging Strap (2), Quick Ref. Guide, Carry Case, Power Supply (2), 2m Cat 6A shielded patch cables (2).
TRADE157002	**SignalTEK 10G NT - TRADE-IN (with network testing)** SignalTEK 10G Display/Remote handsets, Li-ion Battery (2), Hanging Strap (2), Quick Ref. Guide, Carry Case, Power Supply (2), 2m Cat 6A shielded patch cables (2).
TRADE157003	**SignalTEK 10G Pro - TRADE-IN (with fibre and network testing)** SignalTEK 10G Display/Remote handsets, Li-ion Battery (2), Hanging Strap (2), Quick Ref. Guide, Carry Case, Power Supply (2), 2m Cat 6A shielded patch cables (2).
UPGRADE10GFIB	**UPGRADE SignalTEK 10G - Fibre testing option** Unlock the fibre testing option using a simple license key
UPGRADE10GNET	**UPGRADE SignalTEK 10G - Network testing option** Unlock the advanced network testing option using a simple license key

Optional Accessories

Part No.	Description
MGKSX1	1 x 1000BASE-SX Fibre kit. Includes 850nm SFP (Small Form factor Pluggable) SX transceiver, LC/LC and LC/SC duplex multimode cables and SC/SC duplex adapter
MGKLX2	1 x 1000BASE-LX Fibre kit. Includes 1310nm SFP (Small Form factor Pluggable) LX transceiver, LC/LC and LC/SC duplex singlemode cables and SC/SC duplex adapter
MGKZX3	1x 1000BASE-ZX Fibre kit. Includes 1550nm SFP (Small Form factor Pluggable) ZX transceiver, LC/LC and LC/SC duplex singlemode cables and SC/SC duplex adapter
62-164	1 x Cable tracing amplifier probe

TREND NETWORKS

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Publication no.: 157805 Rev.2