LinkRunner® AT 3000

Network & Cable Tester



Next Generation Copper and Fiber Ethernet AutoTester

- Comprehensive AutoTest validates and troubleshoots all aspects of network link connectivity and services.
- Verifies available link speed from 10Mbps to 10Gbps, tests PoE, identifies connected switch port and VLAN.
- Enables frontline technicians to quickly and thoroughly validate links, troubleshoot device connectivity, and document moves, adds, and changes.

Overview

The LinkRunner AT 3000 is designed for frontline technicians who need fast and comprehensive validation of copper and fiber network links with powerful network connectivity troubleshooting. While offering the same core functions of its predecessors (LinkRunner AT 1000 and 2000 models), the LinkRunner AT 3000 features a large touchscreen and in-depth AutoTest that provides deeper network visibility.

With tools designed to help with network changes and troubleshooting, this network tester's quick cable test and switch identification functionality facilitates installation validation and fast problem isolation.

Test results can be automatically uploaded to the Link-Live collaboration, reporting, and analysis platform to improve teamwork between network engineers and technicians, creating greater job visibility, better project control, and improved tester fleet management. Independent management plane via wired or Wi-Fi connection (with optional adapter) allows remote operation and result uploading independent of the network under test.

Key Features

- Comprehensive AutoTest validates and troubleshoots all aspects of network link connectivity and services including DHCP and DNS.
- Verifies link speed/duplex for 10/100 Mbps and 1 Gbps, with detection of NBASE-T and Multigigabit 2.5G, 5G, and 10 Gbps links.
- Discovers nearest connected switch name and port information via CDP/LLDP/EDP, including VLANs; monitors VLAN trunk traffic.
- Validates Power over Ethernet switching and cabling up to 90W 802.3bt with TruePower™ loading.
- Advanced twisted-pair cable tests for length, wiremap, and faults such as shorts, opens, mis-wires (split pairs, crossovers), fiber optic link signal strength power measurement and SFP diagnostics. Locate cable endpoints with optional WireView adapters and analog or digital tone generators.
- Use optional USB Wi-Fi/Bluetooth adapter for connectivity and remote control*.
- Automate reporting and enable collaboration with test result uploads, management, and tester remote control via Link-Live™ analysis platform*.

**Active AllyCare Premium Support required for web remote control.*

AllyCare
PRODUCT SUPPORT

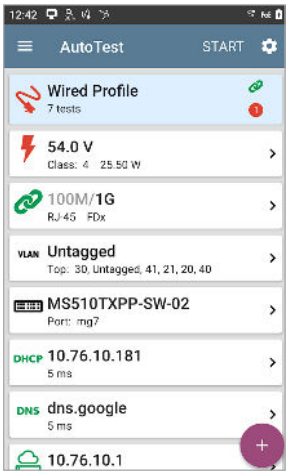
AllyCare Premium Support Benefits

By adding AllyCare – NetAlly's comprehensive support and maintenance service – LinkRunner AT 3000 owners get:

- **Cloud-based remote control (added feature)**
- **Software updates**
- **Free repairs and replacement**
- **Priority support**

LinkRunner AT 3000 Testing Applications

AutoTest and Profiles – Comprehensive network link test validates all aspects of network connectivity.

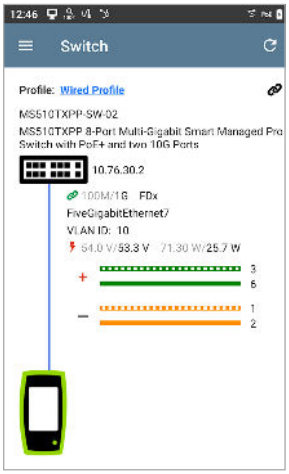


AutoTest Screen

AutoTest is the most comprehensive testing application on the LinkRunner AT 3000. The app is fully customizable with savable test profiles and reusable Test Targets. Multiple profiles can be grouped allowing a single button press to validate connectivity on all VLANs. AutoTest results are automatically uploaded to the Link-Live platform after you claim your LinkRunner AT 3000.

- Performs comprehensive connectivity tests in 7 seconds
- TruePower™ test validates loaded PoE performance to 90W
- Test includes:
  - Link speed and duplex (detects link speeds up to 10G)
  - Warns when the negotiated link speed is less than the advertised speed
  - 802.1x authentication
  - Discover nearest switch/slot/port
  - VLAN identification and monitor that shows traffic distribution of top VLANs
  - DHCP service testing including DHCP options and breakdown of response time
  - DNS test measuring the response time of an actual URL lookup
  - Gateway availability and responsiveness
  - Test results reverse grading and “stop after” controls
  - Ping or TCP port connectivity tests to unlimited user-defined targets

Switch Test – Identifies the nearest connected switch and critical configuration information.



Switch Screen

The Switch test provides a graphical representation of the immediate connection. The LinkRunner AT 3000 uses the IEEE Link Layer Discovery Protocol (LLDP), plus the Cisco and Extreme Discovery Protocols (CDP and EDP) to display the nearest switch name, chassis, model, slot, and port. Plus, displays other critical information like switch MAC/IP address, connected VLAN and VLANs supported, link speed and duplex (can identify advertised link speeds up to 10G), connection (MDI or MDI/X), and PoE voltage/power (actual and under TruePower load).

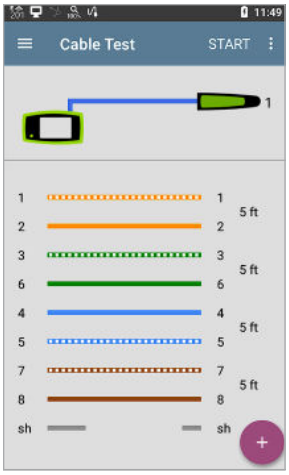
- Uses LLDP, CDP, and EDP
- Displays nearest switch info:
  - Switch name, model, chassis, slot, and port#
  - Switch MAC/IP Address
  - VLANs supported by the port
  - Link speed and duplex (can identify advertised link speeds up to 10G)
  - Connection (MDI or MDI/X)
  - PoE voltage and power, both loaded and unloaded
  - Graphical representation of PoE power on pairs

Premium Customer Services

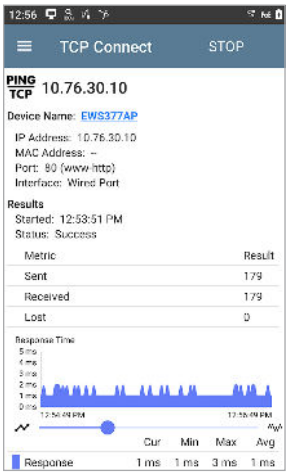
AllyCare PRODUCT SUPPORT

AllyCare is a comprehensive support and maintenance service for NetAlly’s Network Tools and AirMagnet® software that offers significant value over standard warranty. Membership of AllyCare can be purchased as either a 1-year membership or the value-added 3-year membership rate.

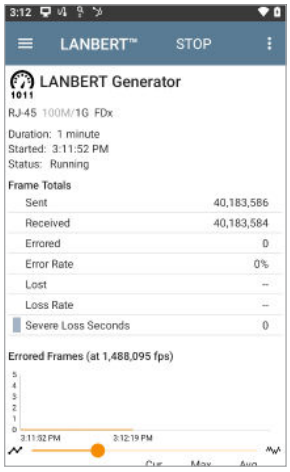
To learn more visit: netally.com/allycare-support



Cable Test Screen



TCP Connect Screen



LANBERT Screen



Reflector Screen

Cable Test – Validate cabling for proper termination, test for length, common miswires, and distance to fault.

The LinkRunner AT 3000's Cable Test can help you determine cable length and fault status, verify wire mapping of patch cords and structured cabling, and locate cables using toning or WireView office locators. Test structured cabling using the top RJ-45 port. Test patch cables with the built in second RJ-45 for complete pin to pin mapping and TDR.

- Easily find opens, shorts, miswires, and split pairs:
  - On non-terminated cable
  - With WireView cable identifier
  - With built-in wiremap port
- Check patch cables using the built-in wiremap port
- Locate cable runs with:
  - Analog and IntelliTone™ toning
  - Switch port advertisement
  - Switch port link light blinking
  - Remote cable identifiers

Ping/TCP Test – Verify connectivity to on or off-network devices, ensure TCP port availability.

The Ping/TCP test app runs a Ping or TCP Connect test to your chosen target, allowing you to verify connectivity and identify intermittent issues.

A Ping test sends an ICMP echo request to the selected target to determine whether can be reached and how long it takes to respond. Test for MTU issues using the frame size and do not fragment settings. The results are trended, displaying the last 24 hours as well as loss statistics.

A TCP Connect test opens a TCP connection with the selected target to test for port availability using a 3-way handshake (SYN, SYN/ACK, ACK). You can open the TCP/Ping app from the Home screen, or you can select Ping or TCP Connect from another app, such as AutoTest, while viewing a device's details.

LANBERT™ Test - Maximize utilization of your existing cable plant and identify maximum error free throughput.

Your copper and fiber cable plant serves as the foundation of your network. But do you know whether it is of sufficient quality to provide the bandwidth required? The LANBERT media qualification app for NetAlly's LinkRunner AT 3000 provides a simple and fast method of assessing the quality of transmission and available bandwidth. When used with another LANBERT-compatible NetAlly tester, LANBERT generates and measures the transmission of line rate Ethernet frames over your network cabling infrastructure, qualifying its ability to support 1G on fiber and 10/100M/1G on copper links.

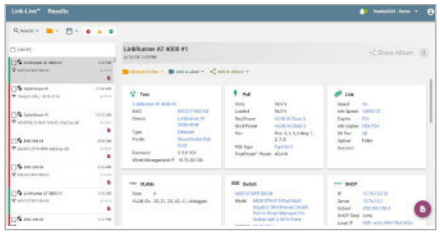
Running the LANBERT test over a long duration (up to 24 hours) serves as a "soak test" to identify the presence of intermittent issues and noise events that can corrupt network traffic. With easy-to-read trend graphs and the ability to drill down to 1-second granularity, LANBERT helps you identify exactly when errors occur.

Reflector – Works with other NetAlly tools for network performance testing.

The LinkRunner AT 3000 offers a packet reflector mode, which enables you to conduct end-to-end network performance tests when used with other NetAlly tools (LinkRunner 10G, EtherScope® nXG, CyberScope® CE). This mode validates network throughput capabilities up to 1Gbps. The reflector also works for 1G LANBERT™ media qualification testing. The line rate reflector supports control of what types of packets to reflect as well as swapping of source and destination MAC and IP addresses for L3 performance testing.

Link-Live™ Collaboration, Reporting, and Analysis Platform

Link-Live acts as a central system for managing test results and devices. It streamlines workflows by allowing easy logging, documenting, and reporting of test activities. When your tester is connected to Link-Live, test results are automatically uploaded to the dashboard for project management and reporting. In the case of no internet connectivity (air-gapped networks or new construction) results are buffered infinitely until connectivity is established.



AutoTest Dashboards

You can also upload additional files, screenshots, images, profiles, location information, and comments whenever needed. Moreover, LinkRunner AT 3000 testers with AllyCare Premium Support can receive software updates directly from Link-Live.

- AutoTest results uploaded via Link-Live platform for analysis and reporting
- Over-the-air software updates*
- Easily provide proof-of-performance
- Better manage projects and staff efficiency
- Remote Control – Secure remote control enables centralized experts to efficiently assist technicians in the field*



Discovery Dashboard

Wi-Fi Connectivity Support (requires optional USB adapter)

The LinkRunner AT 3000 supports Wi-Fi connectivity through the use of an optional USB Wi-Fi adapter. This provides on-the-go connectivity for uploading test results to Link-Live, web remote control*, and for conducting basic Wi-Fi diagnostics using third-party apps.

Additional Tools and Diagnostics – App Store

After registering the tester, users can download apps from the Link-Live app store to accomplish many tasks in addition to testing. Using third-party apps and USB or BT/BLE accessories allows the user to:

- Use the system web browser to connect to infrastructure elements and other resources.
- Take pictures of or scan asset tags for documentation and inventories
- Identify available Wi-Fi networks
- Print ID labels
- Manage trouble tickets, and much more!

**Active AllyCare Premium Support required for web remote control and software updates.*



Examples of apps available to download onto the LinkRunner AT 3000 (product registration required)

Models & Accessories

Model Number/Name	Description
LRAT-3000	Includes: LinkRunner AT 3000 tester, Power Supply with regional power plugs, WireView Cable ID #1, RJ-45 coupler, 850nm multimode 1 Gbps SFP, Quick Start Guide and small soft case.
LRAT-3000-KIT	Includes: LinkRunner AT 3000 tester, Power Supply with regional power plugs, WireView Cable ID #1-#6, RJ-45 coupler, 850nm multimode 1 Gbps SFP, Holster, Quick Start Guide, and small soft case.
LINKSOLUTIONS-KT-3K	Includes: (1) LinkRunner AT 3000 tester (LRAT-3000), (2) LinkSprinter network testers, (1) LinkRunner AT holster (HOLSTER-G3), and (2) LinkSprinter holsters.
LRAT-3000-1YS	One year of AllyCare support for LRAT-3000, LRAT-3000-KIT, and LINKSOLUTIONS-KT-3K (covers LRAT-3000 only).
LRAT-3000-3YS	Three years of AllyCare support for LRAT-3000, LRAT-3000-KIT, and LINKSOLUTIONS-KT-3K (covers LRAT-3000 only).
G3-PWRADAPTER	AC Charger replacement/spare for LRAT-3000 mainframe with country power cords.
HOLSTER-G3	Field use carrying holster makes troubleshooting on the go easier. Openings allow access to all applicable buttons and interfaces.
SFP-100FX	100BASE-FX Fiber SFP transceiver with DDM (Multimode)

Models & Accessories - *continued*

WIREVIEW 1	WireView wire mapper #1
WIREVIEW 2-6	WireView wire mappers #2-#6
US-WIFI-BT-USB	Edimax n150 Wi-Fi & Bluetooth USB Adapter for US and Canada
EU-WIFI-BT-USB	Edimax n150 Wi-Fi & Bluetooth USB Adapter for Europe
SM SOFT CASE	Small soft case

Specifications

General	
Dimensions	4.02 in x 7.72 in x 1.65 in (10.2 cm x 19.6 cm x 4.2 cm)
Weight	1.06 lbs (0.48 kg)
Battery	Rechargeable lithium-ion battery pack (3.63 V, 9.75 Ah, 36.39 Wh)
Battery Life	Typical run duration: 8 hours Typical charge time: 5 hours (when unit is off)
Display	5.0-inch color LCD with capacitive touchscreen (720 x 1280 pixels)
Host Interfaces	RJ-45 and SFP test port RJ-45 Cable test port (1) USB Type-A Port (1) USB Type-C On-the-Go Port
Memory	Approximately 8 GB available for storing test results and user applications
Battery Charging	USB Type-C 65-W adapter: AC Input Power 100-240 V, 50-60 Hz; DC Output Power 15 V (3 A)
PoE Battery Charging	802.3 af/at/bt
Supported IEEE Standards	Wired: 802.3/ab/i/u/z, 1000BASE-T PoE: 802.3af/at/bt Class 0-8, and UPOE Fiber: 1000BASE-X, SFP SX/LX/ZX
LEDs	1 LED (Battery Status Indicator)
Environmental Specifications	
Operating Temperature	32°F to 113°F (0°C to +45°C)
	NOTE: The battery will not charge if the internal temperature of the tester is above 113°F (45°C).
Operating relative humidity (% RH without condensation)	90% (50°F to 95°F; 10°C to 35°C)
	75% (95°F to 113°F; 35°C to 45°C)
Storage temperature	-4°F to 140°F (-20°C to +60°C)
Shock and vibration	Meets the requirements of MIL-PRF-28800F for Class 3 Equipment
Safety	IEC 61010-1:2010: Pollution degree 2
Altitude	Operating: 4,000 m; Storage: 12,000 m
EMC	IEC 61326-1: Basic Electromagnetic Environment CISPR 11: Group 1, Class A

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netally.com/products/linkrunner-3000