LinkRunner® G2

Enhanced Smart Network Tester

Overview

The LinkRunner® G2 simplifies network validation and configuration of copper and fiber Ethernet networks, streamlining workflows by combining essential functions of installation and triage in a single, ruggedized unit. Accelerate deployments, speed problem identification, and improve the efficiency and effectiveness of network operations with this next-generation Android-based tester. The LinkRunner G2 contains all test features available in the LinkRunner AT but features an intuitive design that runs Android-based apps with smartphone-like features.

- Discover nearest switch name and port information via CDP/LLDP/EDP and verify link speed/duplex and connectivity to TCP/IP network with AutoTest
- Validate 90W Power-over-Ethernet (PoE), complex VLAN and DHCP configurations in one AutoTest - useful during IoT, VoIP and Wi-Fi deployment
- Install and run preferred Android-based apps for speed tests, device configuration, and workflow management with smartphone-like features
- Automate reporting and enable collaboration with result upload and management via Link-Live Cloud Services

Link-Live™ Cloud Service

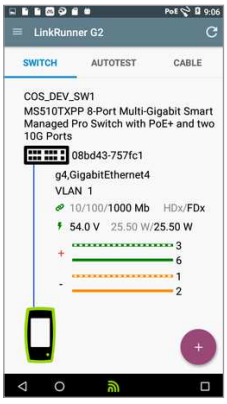
Key Features

Discover Nearest Switch and VLAN

The LinkRunner G2 uses the IEEE Link Layer Discovery Protocol (LLDP), along with the Cisco and Extreme Discovery Protocols (CDP and EDP) to display the nearest switch model, slot, port and VLAN configured.

The LinkRunner G2 displays critical nearest switch information including:

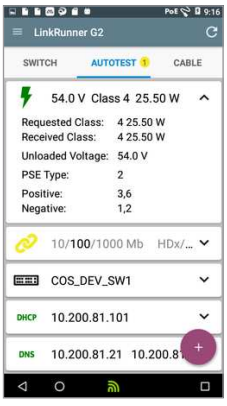
- Switch name and model
- Switch chassis, slot and port#
- Switch IP Address
- VLAN's supported
- Duplex and speed (actual and advertised)
- Signal Strength
- Connection (MDI or MDI/X)
- PoE voltage and power (actual and test limit)
- Graphical representation of power on pairs



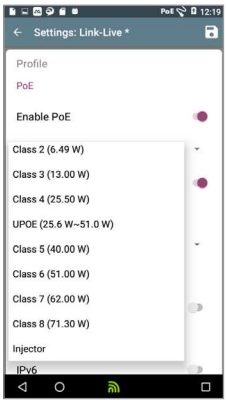
Switch Information

TruePower™ PoE loaded test for up to 90W

LinkRunner G2 is the first field tester able to validate loaded PoE performance by drawing actual power up to 802.3bt 90W across all four pairs. The device loads the circuit to stress switches, cabling, and patch panels, all while measuring the voltage and pairs being used. LinkRunner G2 uses the TruePower™ test to validate the power delivery before installing IoT connected devices to ensure a smooth deployment.



PoE Test



PoE Class Setting

Android is a trademark of Google LLC

Get Answers Fast with AutoTest

The LinkRunner G2 Li-ION battery can be charged via PoE and can power up in just seconds from its standby mode. The enhanced AutoTest performs a set of complex connectivity tests in seconds. LinkRunner G2 quickly and accurately validates various network health variables:

- PoE loaded test up to 90W
- Link speed and duplex (actual and advertised)
- RX pair, polarity, and signal level
- 802.1x authentication
- Discover the nearest switch/slot/port and Data/Voice VLAN
- List all VLANs seen from the switch port
- DHCP discovery with vendor classification ID and shows Option 60 and 150 response, commonly used in VoIP and Wi-Fi deployment, and show subnet and DHCP server addresses
- Gateway and DNS server availability and responsiveness
- Ping or TCP port connectivity tests to an unlimited number of user-defined targets

AutoTest with VLAN

Packet Reflector

The LinkRunner G2 features a packet reflector mode that allows the device to be used as a remote endpoint during end-to-end network path performance tests to validate LAN and WAN throughput capabilities up to 1Gbps. LinkRunner G2 supports packet reflection for:

- OptiView® XG Network Analysis Tablet
- OneTouch™ AT Network Assistant

Packet Reflector Mode

Smart Tester that runs Android APPs

The LinkRunner G2 is the first network tester that features smartphone-like qualities, such as a 5" touch screen with built-in camera, flashlight, and running the Android OS. Many job-related Android apps can be downloaded to the unit, eliminating the need to use a separate personal tablet or smartphone for the task. With the optional Wi-Fi and Bluetooth function, and dedicated copper and fiber Ethernet interfaces, LinkRunner G2 can communicate directly with many end-devices for configuration. Because the apps that can be pre-loaded onto the LinkRunner G2 can be controlled, it poses less of a security risk than a personal smart phone.

Example of a typical workflow with LinkRunner G2:

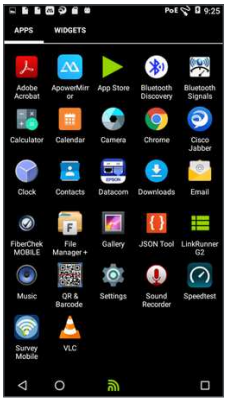
1. Receive a trouble ticket
2. View PDFs or other documents that are needed for the job
3. Verify PoE and network connectivity via AutoTest
4. Automatically document test results on unit or to the Link-Live Cloud service
5. On-board camera to document installed devices, scan QR/barcodes, etc.
6. Configure any device that supports an Android app or the Chrome browser

a. Configure an IoT device (security camera, AP, digital lighting controller, HVAC)

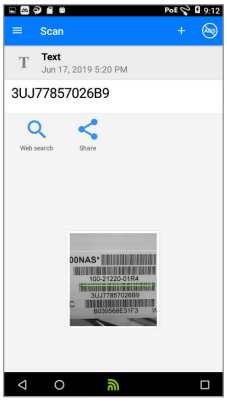
b. Telnet into a switch

c. Run a Speed test to the Internet

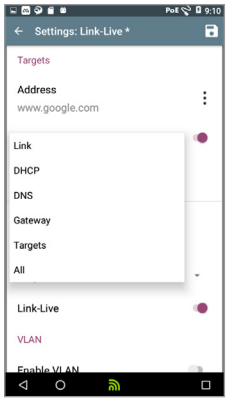
To view applications available on the LinkRunner G2, visit: *https://link-live.com/public/apps*



LinkRunner G2 Home Screen



Barcode QR Code Scanner



AutoTest Stop After Setting

Programmable AutoTest Profile for IoT Projects

Some IoT systems installations require conducting network services tests at various stages of deployment. The necessary AutoTest Profiles can be created, such that the LinkRunner G2's will test for the specific configuration needed at each installation stage, providing clear Pass/Fail documentation of the deployment.

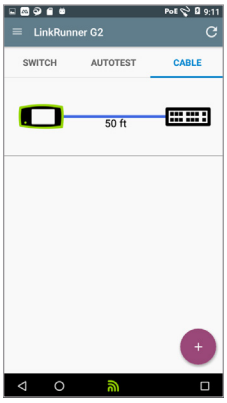
Additional information can be appended to the test results, such as images of the location where the device is deployed (using LinkRunner G2's onboard camera), the serial number of the IoT device as scanned by a barcode app, and technician comments.

Gateway Test

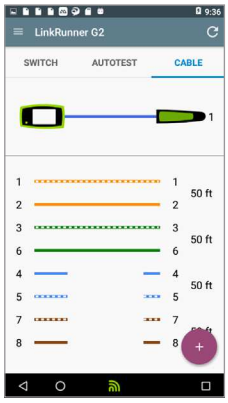
DNS Test

Key Service and Device Connectivity

LinkRunner G2 can run ping, TCP port open, or HTTP connection tests. The test conducted will reveal connection and response time to the default Gateway, preferred DNS server, and alternate DNS server. The LinkRunner G2 connection test supports unlimited user-defined target devices, servers, or services, based on IP address or URL. Continuous testing can be executed on a specific target to verify intermittent behavior, based on response time.



Distance to Open while connected to Switch



Wiremap Test

Cable Length, Wiremap, and Location

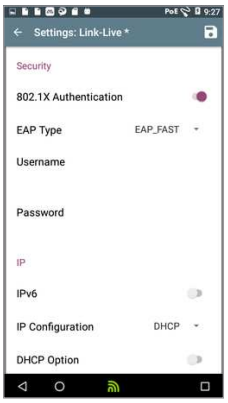
Easily find opens, shorts, miswires, and split pairs three different ways:

- On non-terminated cable
- With a WireView Cable Identifier
- With the built-in wiremap port on the side of the LinkRunner AT

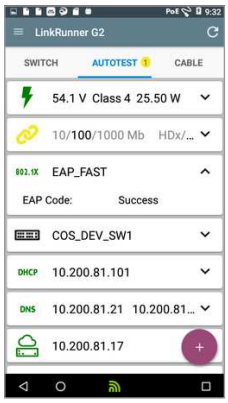
LinkRunner G2 has the unique capability to detect and test distance to open even when the cable is connected to a switch.

Cable Location

Locate cable runs with toning, switch port advertisement, switch port link light blinking, and remote cable identifiers. Toning supports both analog and digital IntelliTone modes.



802.1x AutoTest Setting



802.1x Results

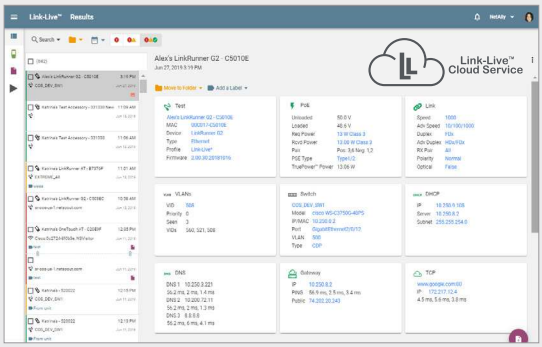
802.1x Authentication

Verify access to secure networks using 802.1x and MAC Access Control Lists (ACL). Users can also configure 802.1x EAP type and enter passwords.

Automated Test Results Management

Serving as a centralized test results and device management system, the free Link-Live Cloud Service transforms team workflows with the ability to quickly and easily log, document, and report test activity from all LinkSprinter®, LinkRunner AT, LinkRunner G2, LinkRunner 10G, AirCheck™ G2 handheld network testers.

Once the instrument is connected to the Link-Live Cloud service, your test results are automatically uploaded to the dashboard for project management and reporting. You have the option of uploading additional files, screenshots, images, profiles, packet captures, location information, and comments anytime. Also, certain NetAlly instruments with AllyCare Support can receive firmware updates "over the network" from Link-Live as they become available.



Simplify report generation across media types for network deployment documentation

An API is available to retrieve and integrate data from Link-Live into other management platforms, such as your trouble-ticket application or network management system. This gives you the ability to easily provide proof-of-performance and better manage jobs and staff efficiency.

This unified dashboard of both wired and Wi-Fi network connectivity results enables you to:

- Reduce results management overhead for multiple testers and users
- Enables seamless collaboration between site personnel and remote experts
- Attach photos, user comments to each result, adding context for future changes and troubleshooting
- For asset management, ability to associate serial numbers of installed devices, and/or cable/walljack label to specific test results

Comparing to LinkRunner G2 vs. LinkRunner AT

The LinkRunner G2 has 6 key values over that of LinkRunner AT:

1. Complete PoE validation: functionally test voltage, draw power, up to 90W from PSE's, and measure voltage from PoE Injectors.
2. Verify complex network readiness for Wi-Fi access point and VoIP phone deployment: automatic VLAN visibility in AutoTest, and support for DHCP Options 43, 60 and 150
3. AutoTest for testing the network at different sizes or stages of completion: versatile "Stop After" setting, unlimited number IP Targets for connectivity test, "Continuous" testing function to verify connectivity consistency to IP Target, and large internal and external storage for test results and site data.
4. Do more while connected to the switch to reduce trips back and forth to MDF/IDF: detects link speed issues due to cable faults, utilize 90W PoE power, and add pictures or comments to test results directly from LinkRunner G2.
5. Run Android apps to consolidate workflows: configure devices, interact with corporate systems or the internet with a web browser, and run a functional test.
6. Advanced troubleshooting functions: Protocol capture and VLAN Monitor.

LinkRunner G2

LinkRunner AT

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.

support.netally.com

Ordering Guide

Model Number/Name	Description
LR-G2	Includes: (1) LinkRunner G2 with Li-ION battery, power supply with regional power plugs, WireView wire mapper #1, Inline RJ-45 coupler, USB 2.0 to Micro USB cable, 8 G Micro SD card, small soft case, coupler, and *Quick Start Guide.*
LR-G2-KIT	Includes: (1) LinkRunner G2 with Li-ION battery, power supply with regional power plugs, WireView wire mappers #1-#6, Inline RJ-45 coupler, USB 2.0 to Micro USB cable, 8 G Micro SD card, holster, accessories pouch, medium soft case, coupler, and *Quick Start Guide.*
LR-G2-LS-KIT	Includes: (1) LinkRunner G2 with Li-ION battery, power supply with regional power plugs, WireView wire mapper #1, Inline RJ-45 coupler, USB 2.0 to Micro USB cable, 8 G Micro SD card, small soft case, coupler, *Quick Start Guide,* (2) LinkSprinters, and (2) LinkSprinter holsters.
LR-G2-ACKG2-CBO	Includes (1) LinkRunner G2 with Li-ION battery, (2) power supplies with regional power plugs, automoblie power charger, WireView Cable ID #1-#6, Inline RJ-45 coupler, (2) USB 2.0 to Micro USB cable, 8G Micro SD card, (2) holsters, accessory pouch, (1) AirCheck G2 Wi-Fi Tester, (1) Test Accessory, *Quick Start Guides,* external directional antenna, and soft carrying cases (small, medium, large).
EXG-200-LRG2-KIT	Includes: (1) EXG-200-KIT and (1) LinkRunner G2 (LR-G2)

Support

Model Number/Name	Description
LR-G2-1YS	1 year AllyCare Support for LR-G2
LR-G2-3YS	3 year AllyCare Support for LR-G2
AIRCHECK-G2-1YS	1 year AllyCare Support for AIRCHECK-G2, AIRCHECK-G2-KIT, AIRCHECKG2-TA-KT, ACKG2-LRAT2000 (covers ACKG2 only) and LR-G2-ACKG2-CBO (covers ACKG2 only)
AIRCHECK-G2-3YS	3 year AllyCare Support for AIRCHECK-G2, AIRCHECK-G2-KIT, AIRCHECKG2-TA-KT, ACKG2-LRAT2000 (covers ACKG2 only) and LR-G2-ACKG2-CBO (covers ACKG2 only)
EXG-200-1YS	1 Year AllyCare Support for EXG-200, EXG-200-KIT, EXG-200-LRG2-KIT (covers EXG-200 only)
EXG-200-3YS	3 Year AllyCare Support for EXG-200, EXG-200-KIT, EXG-200-LRG2-KIT (covers EXG-200 only)

Accessories

Model Number/Name	Description
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
LION-REPL-BA	Replacement battery for ACKG2 and LRG2
MS-AUTO-CHG	MS-AUTO-CHG, Auto Lighter Adapter Accessory
SFP-1000LX	SFP-1000LX, LX Gig Fiber DDM SFP Transceiver
PWR-CHARGER	PWR-CHARGER, AC Charger Replacement
SFP-1000SX	SFP-1000SX, SX Gig Fiber DDM SFP Transceiver
SFP-1000ZX	SFP-1000ZX, ZX Gig Fiber DDM SFP Transceiver
SFP-100FX	SFP-100FX, 100BASE-FX Fiber DDM SFP Transceiver
SFP-1000LX	SFP-1000LX, LX Gig Fiber DDM SFP Transceiver
WIREVIEW 1	WireView wire mapper #1
WIREVIEW 2-6	WireView wire mappers #2-#6
G2-HOLSTER	Protective carrying holster with shoulder strap for ACKG2 and LRG2
SM SOFT CASE	Small soft case
MD SOFT CASE	Medium soft case
LG SOFT CASE	Large soft case

Specifications

General	
Dimensions	3.8 in x 7.7 in x 1.6 in (9.7 cm x 19.6 cm x 4.1 cm)
Weight	18 oz (0.51 kg)
Battery	Rechargeable lithium-ion battery pack (3.6 V, 6 Ah, 21 Wh)
Battery Life	Typical operating life is 4 hours. Typical charge time is 3 hours.
Display	5.0 in color LCD with capacitive touch screen (480 x 800 pixels)
Keypad	1-key elastometric (power only)
Host Interface	Micro USB On-the-Go port
USB Port	USB 2.0 Type A port
SD Card Slot	Supports Micro SD
Cable Test	Pair length, crossed, reversed and distance to open, short, split
Tone Generator	Digital tone: [455 KHz]; Analog tones: [400 Hz, 1KHz]
Ports	RJ-45 copper port 10/100/1000BASE-T. 100/1000BASE-X. Fiber adapter port. Fiber port supports standard SFP
External AC Adapter/ Charger	AC input 90-264 Vac 48-62 Hz input power DC output 15 Vdc at 2 amps or RJ-45 via PoE
Environmental	
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 122°F (50°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)
Shock and vibration	1 m drop test, Random, 3.8 grms, 5 Hz-500 Hz (Class 2)
Safety	IEC 61010-1:2010: Pollution degree 2
Altitude	4,000 m; Storage: 12,000 m
EMC	IIEC 61326-1:2013: Basic Electromagnetic Environment; CISPR 11: Group 1, Class A
Certifications and Compliance	
CE	Conforms to relevant European Union directives
	Conforms to relevant Australian Safety and EMC standards
FC	Complies with 47 CFR Part 15 requirements of the U.S. Federal Communications Commission
	Conforms to relevant South Korean EMC Standards

Additional South Korean EMC Standards Information

Electromagnetic Compatibility. Applies to use in Korea only. Class A Equipment (Industrial Broadcasting & Communications Equipment) [1]

[1] This product meets requirements for industrial (Class A) electromagnetic wave equipment and the seller or user should take notice of it. This equipment is intended for use in business environments and is not to be used in homes.

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netAlly simplicity • visibility • collaboration