netAlly

DATA SHEET

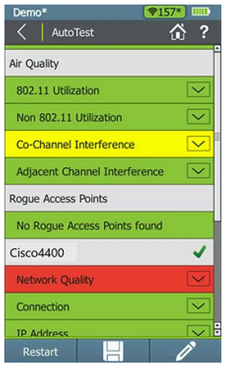
AirCheck™ G2

Wireless Tester

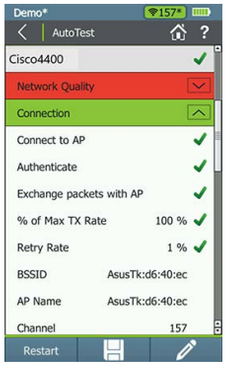
Overview

The AirCheck™ G2 Wireless Tester's intuitive user interface provides actionable intelligence, simplifying wireless troubleshooting and validation. AirCheck G2 provides network professionals and technicians of any skill level with complete and accurate information to resolve connectivity and performance problems quickly, speed up closure of trouble tickets, and ensure your Wi-Fi network meets end users' needs.

- AirCheck G2 offers a one-button AutoTest function that quickly provides a pass/fail indication of Wi-Fi network quality and identifies common problems
- Test the most common Wi-Fi standards (including 802.11ax) with a rugged, handheld, purpose-built wireless tester
- See all networks and devices in your location immediately upon power up
- View test results, including network availability, connectivity, utilization, throughput, security settings, possible rogues, and interferers
- Automate reporting and enable collaboration with result upload and management via Link-Live Cloud Service



Basic AutoTest Results



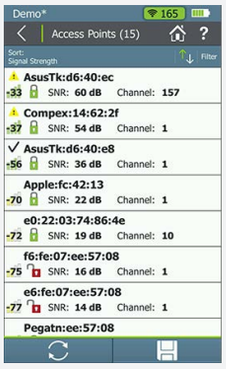
Detailed AutoTest Results

Key Features

AutoTest

AirCheck G2 performs the following five essential Wi-Fi tests and provides a pass/fail indication of the wireless environment, as well as identifies common problems — for any level of expertise:

- **802.11 Utilization** – Reports channels in each band (2.4 GHz and 5 GHz) with the highest airtime utilization. *(Figure 1)*
- **Non-802.11 Utilization** – Reports channels with the highest non-802.11 airtime utilization, indicative of interference sources and high noise levels.
- **Co-Channel Interference** - Reports channels with the most APs on the same channel that exceed the minimum signal level threshold.
- **Adjacent Channel Interference** - Reports interference on a channel caused by APs that are operating on other channels that overlap with that channel.
- **Network Quality** – Verifies coverage, interference, security and ability to connect to specified networks, along with the availability of critical network services such as DHCP and connectivity to specified network targets. *(Figure 2)*
- **Rogue Access Points** - Reports APs other than your authorized devices. These devices may be compromising network security.



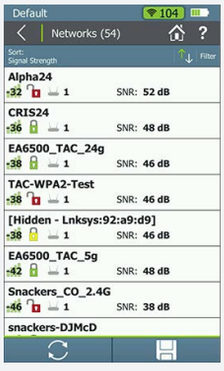
Access Point List

Access Point Discovery

Quickly view all the APs present in the environment and see critical parameters for each one, including signal level, signal/noise ratio, security type, and channel. Find common issues, such as incorrect security type, poor signal coverage, or incorrect channel. *(Figure 3)*

Sort or filter by any parameter, then drill into any AP to set its authorization level and see more details, including number of connected clients, supported rates, 802.11n/ac/ax capabilities and more. From the AP details page, drill into a list of connected clients, or the channel on which the AP operates, to verify any channel utilization or co-channel interference problems.

From here you can also use a locator tool to find an AP, set Access Control status (ACL), or you can perform a packet capture.



Network List

Network Discovery

Quickly view all the networks present in the environment and see critical parameters for each one, including signal level, signal/noise ratio, security type, and number of access points. Find common issues such as mixed security types, poor signal coverage, or lack of secondary AP coverage.

Sort or filter by any parameter, then drill into greater detail on any network, including 802.11 types supported, number of connected clients, channels, and more. From the network details page, drill into a list of APs or clients on the network.

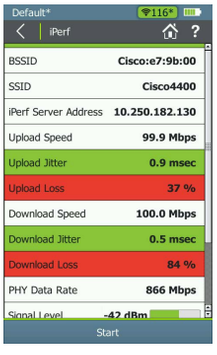
Network Connections Test

Verify network availability and access to critical services by connecting to a network (SSID) or AP with a single touch on the Connect button.

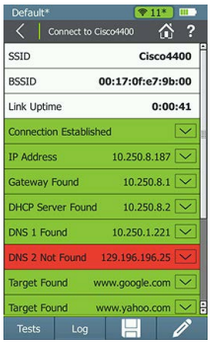
Key test steps include:

- **Associate with AP**
- **Request and receive an IP address from a DHCP server**
- **Ping the default gateway and DNS servers for availability**
- **Perform a ping or TCP port test on up to ten network targets**
- **Conduct ongoing signal level, signal/noise ratio, and retry rate measurements**

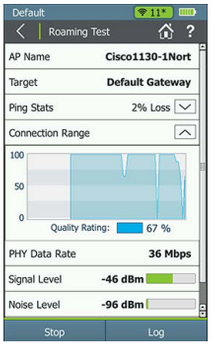
Once connected to a network, perform a roaming test to validate that roaming is enabled on the network, or run an iPerf performance test to verify throughput capabilities on the network.



Performance Results after an iPerf Test



Wireless Connection Results



Performance Results after an iPerf Test

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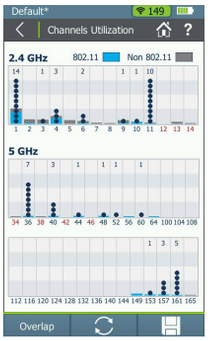
Ethernet Test Results

Wired Ethernet Tests

The AirCheck G2's built-in Ethernet test validates that APs have a working back haul connection to the network.

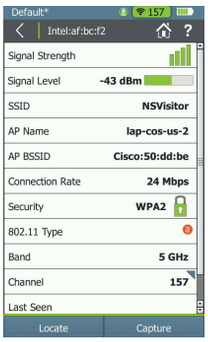
- Diagnose and test Power-over-Ethernet (PoE), link to the switch, DHCP, Gateway, and Internet connections.
- Get VLAN, switch name, and port information via CDP/LLDP/EDP for your managed switches.



Channels Oveview

Channel Utilization and Interference

Quickly determine if channels are over-utilized with Wi-Fi traffic and/or with non-Wi-Fi interference and noise. You can also gain visibility on the level of Wi-Fi traffic and interference over the last 60 seconds on a selected channel, as well as, the access points, clients, and interferers using this channel. Drill into details and detect devices that can cause interference, such as, microwave ovens, wireless game controllers, Bluetooth® devices, Zigbee devices, and wireless video camera.



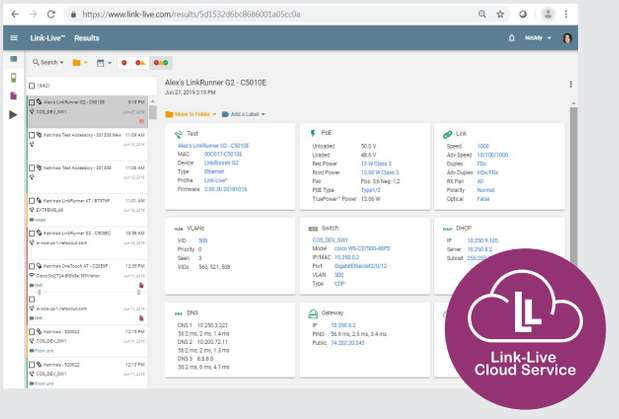
Client Details In-depth

Rogue Detection/Location, Client Details

The AirCheck G2 provides client Details conveying essential information about specific devices and their configuration. Track down rogue APs and unauthorized clients by following the real-time signal level meter and graph over time. Audible indication is provided, and the use of a USB headset for private audio is supported. The AirCheck G2 also supports the option of using an external directional antenna to save significant time when locating devices.

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, AirCheck G2, and OneTouch AT hand-held 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.



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
- Simplify report generation across media types for network deployment documentation
- 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

Ordering Guide

Model Number/Name	Description
AIRCHECK G2	Includes: (1) AirCheck G2, small soft carrying case, AC charger, USB cable, and *Quick Start* guide
AIRCHECK-G2-KIT	Includes: (1) AirCheck G2, small soft carrying case, AC charger, USB cable, *Quick Start* guide, external directional antenna, holster, and automobile power charger
AIRCHECKG2-TA-KT	Includes: (1) AirCheck G2, small soft carrying case, AC charger, USB cable, Quick Start Guide, external directional antenna, holster, automobile power charger, and (1) Test Accessory.
LR-G2-ACKG2-CBO	Includes: (1) LinkRunner G2 with Li-ION battery, (2) power supplies with regional power plugs, car charger, WireView cable ID #2-#6, Inline RJ-45 coupler, (2) USB 2.0 to Micro USB cable, 8G Micro SD card, (2) holsters, accessories pouch, IntelliTone™ Pro 200 LAN toner/probe, soft carrying cases (small, medium, large), (1) AirCheck G2 wireless tester, (1) Test Accessory, *Quick Start* guides, and external directional antenna.
ACKG2-LRAT2000	Includes: (1) AirCheck G2, (2) small soft carrying cases, AC charger, USB cable, *Quick Start* guides, external directional antenna, holster, automobile charger, (1) LinkRunner AT 2000 tester with Li-ION battery, AC charger, IntelliTone™ Pro 200 LAN toner/probe, WireView cable ID #1-#6, large folding test kit pouch, holster, Inline RJ-45 coupler, and USB cable.

Support

Model Number/Name	Description
AIRCHECK-G2-1YS	1 year AllyCare Support for AIRCHECK-G2
AIRCHECK-G2-3YS	3 year AllyCare Support for AIRCHECK-G2
AIRCHECK-G2-KIT-1YS	1 year AllyCare Support for AIRCHECK-G2-KIT
AIRCHECK-G2-KIT-3YS	3 year AllyCare Support for AIRCHECK-G2-KIT
AIRCHECKG2-TA-KT-1YS	1 year AllyCare Support for AIRCHECKG2-TA-KT
AIRCHECKG2-TA-KT-3YS	3 year AllyCare Support for AIRCHECKG2-TA-KT
ACKG2-LRAT2000-1YS	1 year AllyCare Support for ACKG2-LRAT2000
ACKG2-LRAT2000-3YS	3 year AllyCare Support for ACKG2-LRAT2000

Accessories

Model Number/Name	Description
LION-REPL-BA	Replacement battery for ACKG2
TEST-ACC	(1) Test Accessory for use with AirCheck G2, LinkRunner G2 or OneTouch AT. It can act as an independent iPerf server
TEST-ACC-5PK	(5) Test Accessories for use with AirCheck G2, LinkRunner G2 or OneTouch AT. They can act as an independent iPerf server.
TEST-ACC-10PK	(10) Test Accessories for use with AirCheck G2, LinkRunner G2 or OneTouch AT. They can act as an independent iPerf server.
G2-HOLSTER	Protective carrying holster with shoulder strap for Aircheck G2 or LinkRunner G2
SM SOFT CASE	Small soft case
EXT-ANT-RPSMA	External directional antenna, RP-SMA connector
PWR-CHARGER	AC Charger Replacement

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 4.5 hours. Typical charge time is 7 hours.
External AC adapter/ charger	AC input 85-264V AC 47-63 Hz input power DC output 15 V DC at 2 Amps
Display	5.0 in color LCD with capacitive touch screen (480 x 800 pixels)
Keypad	1-key elastomeric (power only)
Host interface	1x micro USB Type B port
Adjunct interface	2x USB 2.0 Type A port
Wireless antenna	3x Internal
External antenna port	Input only. Reverse-polarity SMA connector.

Specifications *continued*

Enivronmental	
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)
Storage temperature	-4°F to 140°F (-20°C to +60°C)
Shock and vibration	1 m drop test, Random, 3.8 grms, 5 Hz-500 Hz (Class 2)
Safety	IEC 61010-1: Pollution degree 2
Altitude	4,000 m; Storage: 12,000 m
EMC	IEC 61326-1: Basic Electromagnetic Environment; CISPR 11: Group 1, Class A
Wireless	
Specification compliance	IEEE 802.11a, 802.11b, 802.11g, 802.11n, 802.11ac
Wi-Fi Connectivity	802.11a, 802.11b, 802.11g, 802.11n, 802.11ac
Operating frequencies NOTE: These are the center frequencies of the channels that the AirCheck G2 tester supports.	Frequencies of channels received NOTE: The tester receives on all of the frequencies in every country. 2.4 GHz band: 2.412 – 2.484 GHz (channel 1 to channel 14) 5 GHz band: 5.170 – 5.320 GHz, 5.500 – 5.700 GHz, 5.745 – 5.825 GHz (channels 34, 36, 38, 40, 42, 44, 46, 48, 52, 56, 60, 100, 104, 108, 112, 116, 120, 124, 128, 132, 136, 140, 149, 153, 157, 161, 165) Frequencies of channels transmitted: NOTE: The tester transmits only on the frequencies allowed in the country where it is operating. 2.4 GHz band 802.11b: 2.412 – 2.484 GHz (channel 1 to channel 14) 802.11g/n 20 MHz BW (HT20): 2.412 – 2.472 GHz (channel 1 to channel 13) 802.11n 40 MHz BW (HT40): 2.422 – 2.462 GHz (includes all combinations of legal, bonded pairs of channels) 5 GHz band 802.11a/n 20 MHz BW (HT20): 5.180 – 5.320 GHz, 5.500 – 5.700 GHz, 5.745 – 5.825 GHz (channels 36, 40, 44, 48, 52, 56, 60, 64, 100, 104, 108, 112, 116, 120, 124, 128, 132, 136, 140, 144, 149, 153, 157, 161, 165) 802.11n 40 MHz BW (HT40/VHT40): 5.190 – 5.310 GHz, 5.510 – 5.670 GHz, 5.755 – 5.795 GHz (includes all combinations of legal, bonded pairs of channels) 802.11ac 80 MHz BW (VHT80): 5.210 – 5.290 GHz, 5.530 – 5.690 GHz, 5.775 GHz (includes all combinations of legal, bonded pairs of channel
Antennas	
Internal Wi-Fi antennas	Three internal 2.4 GHz, 1.1 dBi peak, 5 GHz, 3.2 dBi peak antennas.
External directional antenna	Antenna, frequency range 2.4 - 2.5 and 4.9 - 5.9 GHz. Minimum gain 5.0 dBi peak in the 2.4 GHz band, and 7.0 dBi peak in the 5 GHz band.
AirCheck G2 Manager Software	
Supported operating systems	Windows 7, Windows 8.1, Windows 10
Processor	400 MHz Pentium processor or equivalent (minimum); 1 GHz Pentium processor or equivalent (recommended) RAM 96 MB (minimum)
RAM	256 MB (minimum); 512 MB (recommended)

Specifications *continued*

Hard disk	Up to 500 MB of available space may be required
Display	1280 x 1024 high color, 32-bit (recommended)
Hardware	USB Port

Certifications and Compliance	
CE	Conforms to relevant European Union directives
	Conforms to relevant Australian Safety and EMC standards.
C US	Certified by CSA Group to North American safety standards.
FC	Complies with 47 CFR Part 15 requirements of the U.S. Federal Communications Commission.
ANATEL Agência Nacional de Telecomunicações	Certified by the National Agency of Telecommunications (Anatel).
	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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