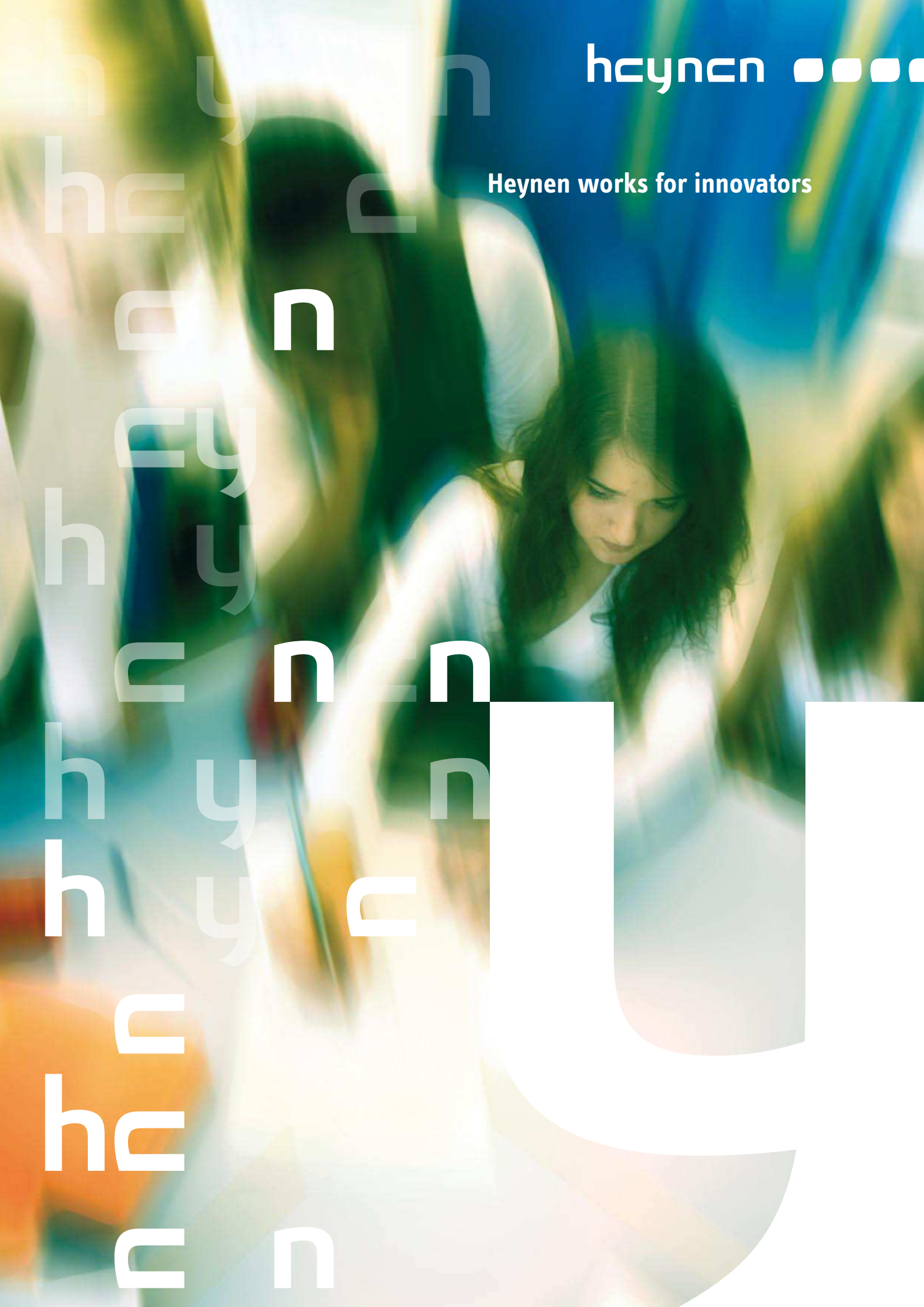# heynen ●●●●

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NETSCOUT.

AirCheck G2 Wireless Tester

Wi-Fi is a complex technology but testing it doesn't have to be. AirCheck G2™ Wireless tester is purpose built for the network professional who needs to validate that the wireless network is working as expected or oversees resolving problems like connectivity and performance issues. The AirCheck G2 Wireless Tester provides fast, simple, and accurate validation and troubleshooting, thereby reducing the time to resolve wireless problems.

The AirCheck G2's intuitive user interface and unique AutoTest provides actionable intelligence to reduce the complexity of wireless troubleshooting and validation, and speed up closure of trouble tickets. The cost of not getting the job done right the first time, leading to an escalation team visit, leads to ineffective usage of team resources & end-user dissatisfaction due to slow problem-solving response time. AirCheck G2 provides network professionals with complete & accurate wireless information to solve problems right the first time, instead of blindly escalating them.

AirCheck G2 provides fast, simple, and accurate Wi-Fi validation and troubleshooting, reducing the time to resolve wireless issues. AirCheck G2 simplifies wireless testing, enabling even less experienced technicians to solve more problems by providing:

- A rugged, handheld purpose-built tester supporting the latest Wi-Fi technologies (802.11a/b/g/n/ac)

- A one-button AutoTest, which quickly provides a pass/fail indication of the wireless environment and identifies common problems

- Instant visibility of test results including network availability, connectivity, utilization, throughput, security settings, rogue hunting, and interference detection

- Connectivity to a centralized reporting and test results management platform, Link-Live, that facilitates greater job visibility, collaboration, project control and fleet management for larger distributed environments

Overview

AirCheck G2 integrates Wi-Fi technology plus interference detection, channel scanning, connectivity tests, and iPerf performance testing. The one-button AutoTest an instant access to detailed information provides fast troubleshooting for the most common Wi-Fi pain points, including:

- Coverage problems

- Overloaded networks or channels

- Slow onnections

- Connectivity problems

- Failed access points

- Rogue access points

- Client problems

- Unauthorized clients

Primary Features

The AirCheck G2 provides instant access to network, channel, access point, client, and interference data immediately off the main screen along with push-button tests for wireless as well as wired.

Networks

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 on any parameter. Then drill into more details for 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.
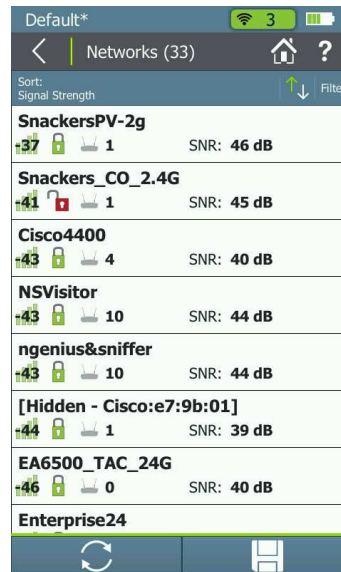

Network List

Channels

Quickly determine if channels are over-utilized with 802.11 Wi-Fi traffic and/or with non-Wi-Fi interference and noise. Automatically detect devices that can cause interference, including microwave ovens, wireless game controllers, Bluetooth® devices, Zigbee devices and wireless video cameras. You can also drill in to see 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 in to see the level of Wi-Fi traffic and interference over the last 60 seconds on a selected channel, as well as the access points and clients using this channel.
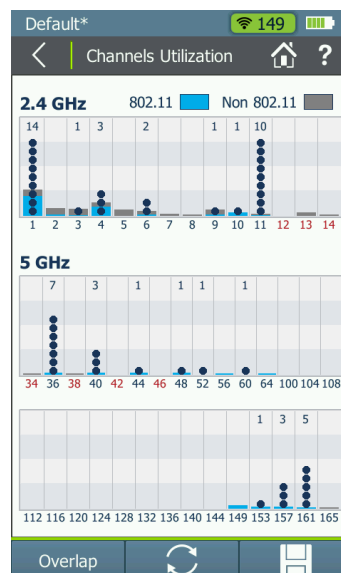
Channels Overview

Access Points

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.

Sort or filter on any parameter. Then drill into more details for any AP, including number of connected clients, supported rates, 802.11n and 802.11ac 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.

Set Access Control status for APs in the environment to track Authorized, Neighboring, and potential rogue devices in your network space.

Access Point List

Clients

Quickly view all the client devices that are connected to a network or probing for one. See critical parameters for each one including signal level, channel and connected AP. Find common issues such as clients connected to the wrong AP or unrecognized client devices connected to the network.

Sort or filter on any parameter. Then drill into more details for any client, including connection rate and security type. From the Client details page, drill into the connected channel or quickly locate the client device.

Client List

Interferers

Other devices can operate on the same bands as your Access Points. Get visibility into what other devices may be in your environment interfering with your wireless network.

Drill in for more details for any interference event, including average power level, duty cycle, channels impacted, and last seen time. Then use the LOCATE function to track them down and remove an interfering device.

Interferer List

AutoTest

AutoTest performs the following essential Wi-Fi tests and gives a pass/fail indication of the wireless environment as well as identifies common problems — for any level of expertise.

802.11 UTILIZATION

Reports the top three channels in each band (2.4 GHz and 5 GHz) with the highest 802.11 Wi-Fi traffic airtime utilization.

NON-802.11 UTILIZATION

Reports the top three channels in each band (2.4 GHz and 5 GHz) with the highest non-802.11 airtime utilization. This indicates the presence of interference sources and high-noise levels.

CO-CHANNEL INTERFERENCE

Reports the top three channels in each band (2.4 GHz and 5 GHz) with the most APs on the same channel that exceed the minimum signal level threshold. It accounts for 40-MHz and 80-MHz channels in the 5-GHz band by counting an AP on its primary and each secondary channel. Then view a list of the APs counted for co-channel interference.

ADJACENT CHANNEL INTERFERENCE

Reports the top three channels in the 2.4 GHz band in which APs may experience Adjacent Channel Interference. For each channel on which at least one AP is found, the tester counts how many APs are operating on other channels that overlap with that channel. It accounts for 20-MHz and 40-MHz channels in the 2.4-GHz band. Then view a list of the APs counted for adjacent channel interference.

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.

ROGUE DEVICES

Reports Access Points other than your authorized devices. These devices may be on the network compromising network security.
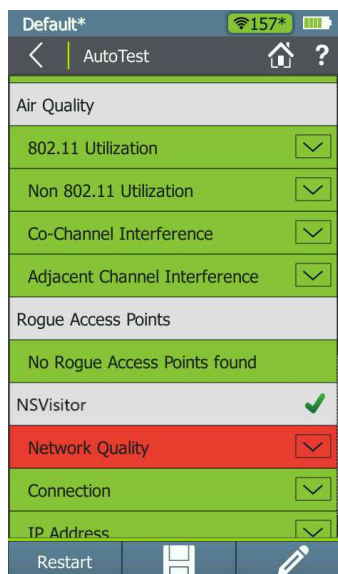
Basic AutoTest Results

AutoTest Results Expanded to Show Result Details

Ethernet Test

Access points must have a working backhaul connection to the network, and the AirCheck G2's built-in Ethernet test validates that.

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

*Ethernet Test Results*

Drill Into Specific Details

For all devices and events discovered by the AirCheck G2, additional information is available to better understand the specifics of a device and aid in troubleshooting. There's no need for the user to try to compare information in a beacon or parse through association requests to get full capability information on Access Points and Clients.
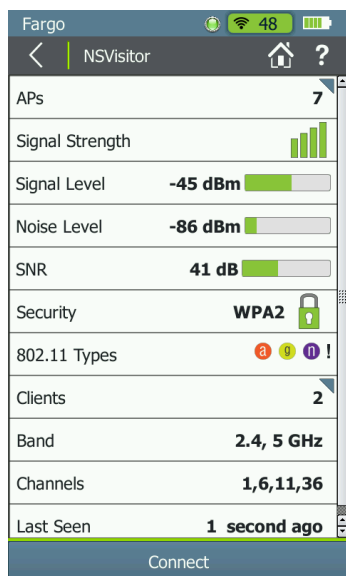
In Depth Network Details
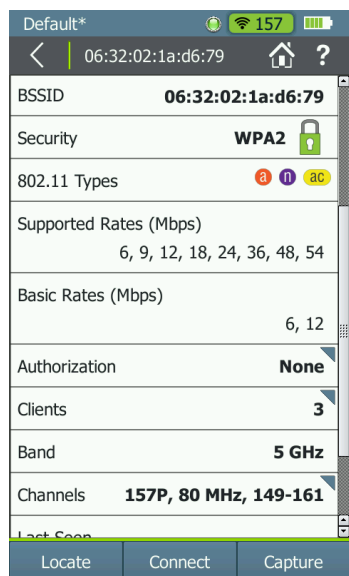
*In Depth Access Point Details*
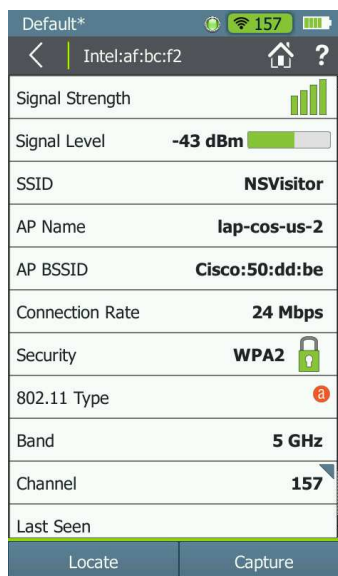
In Depth Client Details

Additional Tools and Functionality

In addition to the primary screens, there are several additional capabilities and features in the AirCheck G2 to allow users to quickly test and validate their wireless network. These are available as further options off the various detail and devices screens.

Connect to a Network

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 to an 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 to up to ten network targets
- Ongoing signal level, signal/noise ratio, and retry rate measurements
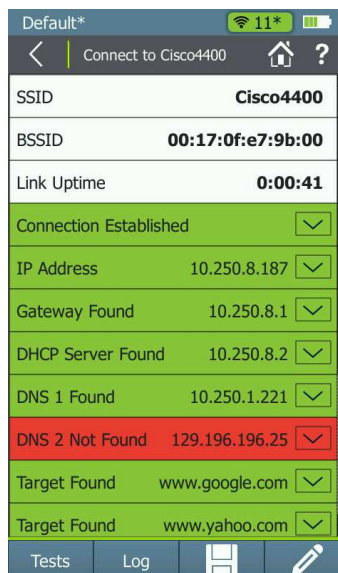
Wireless Connection Results

Run an iPerf performance test

Once connected to a network or an Access Point, an iPerf based performance test can be run to check the throughput at that location. Tests are run for both upload and download traffic and can be configured for:

- Protocol to use (TCP vs. UDP)

- What port to initiate the test on

- Duration to run the performance test for

When running an iPerf test, the user can elect to either use an iPerf server that they set up themselves, or they can choose to use the iPerf server running on NETSCOUT's Test Accessory. The Test Accessory is a small device, powered by PoE or battery, that plugs into an ethernet port and with the AirCheck G2 can act as essentially an iPerf server in your pocket. It is managed by NETSCOUT's Link-Live cloud management platform and is automatically discovered by the AirCheck if:

- It is on the same subnet as the AirCheck's wireless connection

- It is on the same subnet as the AirCheck's last Ethernet test

- It has been adopted into the same Link-Live organization as the user's AirCheck G2, and the AirCheck G2 has Link-Live connectivity

With the Test Accessory, it's as simple as picking the device you want from a list on the screen, and then starting the test.

Performance Results After an iPerf Test

Test Accessory

Run a roaming test

The AirCheck G2 provides a roaming test that allows the user to verify that a network has sufficient overlap to allow for smooth and seamless roaming throughout the site. Roaming tests can be performed after connecting to a Network. The AirCheck G2 will continually ping a user chosen target resource and will provide detailed information on the current network quality and ping statistics as the user moves throughout the site.

Performance Results After an iPerf Test

Locate devices of interest

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.

Drill in to see the level of Wi-Fi traffic and interference over the last 60 seconds on a selected channel, as well as the access points and clients using this channel.
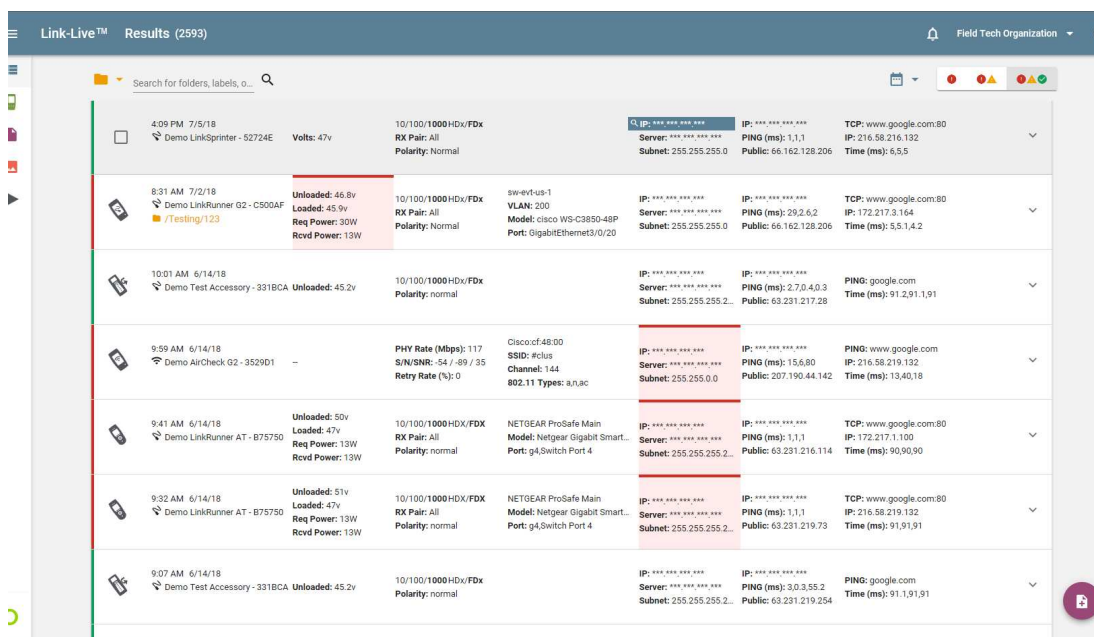

Locating an AP

Result Management Options

Link-Live Cloud Service

Serving as a centralized test results and reporting database, Link-Live transforms team workflows with the ability to log, document, and report test activity from all your sites. This complementary internet-hosted service is available from anywhere at any time using any device with a browser and internet connection. Enabling collaboration with remote experts, Link-Live saves time in problem escalations, and provides a baseline of test results useful for future troubleshooting or network change planning.

Once the AirCheck G2 is connected to the Link-Live Cloud service, AutoTest and connectivity test results are automatically uploaded to the dashboard for project management and reporting. You will have the option of uploading session files, screenshots, profiles, packet captures, location information, and comments anytime. Also, your AirCheck (running version 3.0 or greater, with Gold Support) can receive firmware updates "over the air" as they become available.

Link-Live is especially useful for managers of remote teams that need visibility to test results instantly or would like an easier way to manage AirCheck G2 units on the field. In addition, teams that utilize the wired-only companions to the AirCheck G2 such as the LinkSprinter or LinkRunner G2 have a single dashboard system to manage results from network connectivity tests.


Link-Live Results Dashboard

AirCheck G2 Manager Software

For those without access to the cloud, the AirCheck G2 Manager Software provides the ability to manage AirCheck G2 profiles and view detailed information on saved tests results locally. The AirCheck G2 Manager is free and available for download to any Windows computer from the Link-Live Cloud Service or the NETSCOUT® support site.
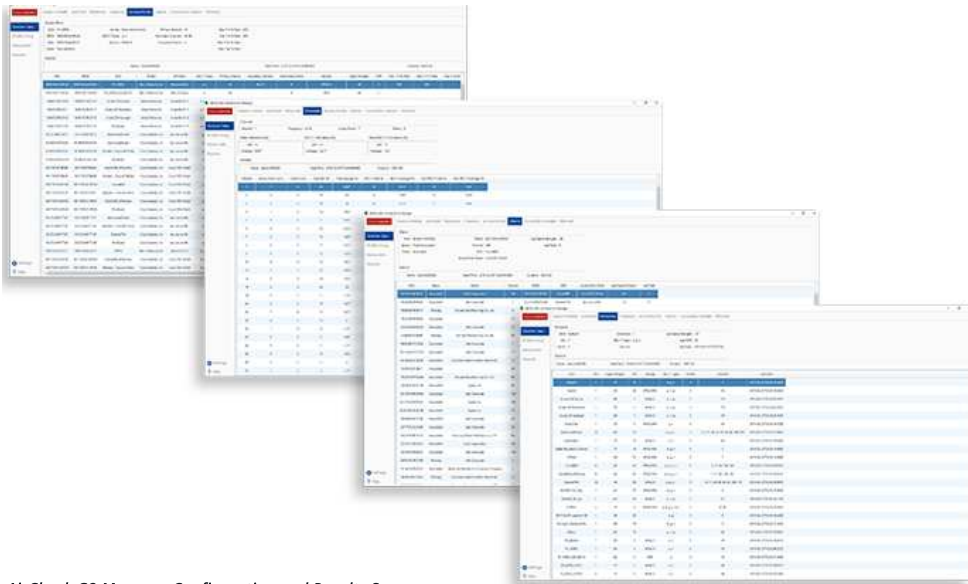
AirCheck G2 Manager Configuration and Results Screens

Ordering Guide

Model Number	What is Included
AIRCHECK-G2	AIRCHECK-G2 WIRELESS TESTER, POWER CHARGER WITH 4 INTERNATIONAL ADAPTERS, SOFT CARRYING CASE, USB CABLE, QUICK START GUIDE
AIRCHECK-G2-KIT	AIRCHECK G2 WIRELESS TESTER KIT INCLUDES: AIRCHECK G2; POWER CHARGER WITH INTERNATIONAL ADAPTERS; SOFT CARRYING CASE; USB CABLE TO CONNECT TO A PC; EXTERNAL ANTENNA (RP-SMA CONNECTOR) FOR LOCATING DEVICES; HOLSTER WITH SHOULDER STRAP; AUTOMOBILE POWER CHARGER
LR-G2-ACKG2-CBO	INCLUDES LINKRUNNER G2 WITH LI-ION BATTERY, (2) POWER SUPPLIES WITH REGIONAL POWER PLUGS, CAR CHARGER, WIREVIEW CABLE ID #1-#6, INLINE RJ-45 COUPLER, (2) USB 2.0 TO MICRO USB CABLE, 8 G MICRO SD CARD, (2) HOLSTERS, ACCESSORIES POUCH, INTELLITONE™ 200 PROBE[2], SMALL, MEDIUM, LARGE SOFT CASES, AIRCHECK G2 WIRELESS TESTER, TEST ACCESSORY, (2) QUICK START GUIDE, EXTERNAL DIRECTIONAL ANTENNA, AUTOMOBILE CHARGER.
G2-HOLSTER	PROTECTIVE CARRYING HOLSTER WITH SHOULDER STRAP ACKG2 AND LRG2
LION-REPL-BA	REPLACEMENT BATTERY FOR ACKG2 AND LRG2
EXT-ANT-RPSMA	EXTERNAL DIRECTIONAL ANTENNA, RP-SMA CONNECTOR
PWR-CHARGER	AC CHARGER REPLACEMENT
SM SOFT CASE	SMALL SOFT CASE
TEST-ACC	TEST ACCESSORY FOR USE WITH AIRCHECK G2. WHEN USED WITH AIRCHECK G2, THEY CAN ACT AS AN iPERF SERVER.
TEST-ACC-5PK	5 TEST ACCESSORIES FOR USE WITH AIRCHECK G2. WHEN USED WITH AIRCHECK G2, THEY CAN ACT AS AN iPERF SERVER.
TEST-ACC-10PK	10 TEST ACCESSORIES FOR USE WITH AIRCHECK G2. WHEN USED WITH AIRCHECK G2, THEY CAN ACT AS AN iPERF SERVER.
AIRCHECKG2-TA-KT-1YS	1 YEAR GOLD SUPPORT FOR AIRCHECKG2-TA-KT
AIRCHECKG2-TA-KT-3YS	3 YEAR GOLD SUPPORT FOR AIRCHECKG2-TA-KT
AIRCHECK-G2-1YS	1 YEAR GOLD SUPPORT FOR AIRCHECK-G2
AIRCHECK-G2-3YS	3 YEAR GOLD SUPPORT FOR AIRCHECK-G2
AIRCHECK-G2-KIT-1YS	1 YEAR GOLD TOOLS SUPPORT FOR AIRCHECK-G2-KIT
AIRCHECK-G2-KIT-3YS	3 YEARS GOLD TOOLS SUPPORT FOR AIRCHECK-G2-KIT

General Specifications

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 85-264 Vac 47-63 Hz input power DC output 15 Vdc at 2 amps
Display	5.0-inch 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

Environmental Specifications

Operating temperature	32°F to 113°F (0°C to +45°C) 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 g, 5 Hz-500 Hz
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 Specifications

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	**Frequencies of channels received:**
These are the center frequencies of the channels that the AirCheck G2 tester supports.	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, 144, 149, 153, 157, 161, 165)

Frequencies of channels transmitted:

2.4 GHz band

1. 802.11b: 2.412 – 2.484 GHz (channel 1 to channel 14)

2. 802.11g/n 20 MHz BW (HT20): 2.412 – 2.472 GHz (channel 1 to channel 13)

3. 802.11n 40 MHz BW (HT40): 2.422 – 2.462 GHz (includes all combinations of legal, bonded pairs of channels)

5 GHz band

1. 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, 1, 36, 140, 144, 149, 153, 157, 161, 165)

2. 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)

3. 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 channels)

Wi-Fi 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.
External antenna connector[1]	Reverse SMA

[1] External antenna port is receive-only (no transmit).

AirCheck 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)
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

Conformite Europeene. Conforms to the requirements of the European Union and the European Free Trade Association (EFTA).

The product complies with Australian standards.

Listed by Canadian Standards.

Complies with 47 CFR Part 15 requirements of the U.S. Federal Communications Commission.

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] 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.

[2] IntelliTone is a registered trademark of Fluke Corporation.

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