

Test More. Test Faster. Test for Less.

AEM

Network Service Assistant

Multifunction Connectivity Tester

A New Class of Qualification+ Testing

Bridging the divide between Qualification and Certification in a single multifunction link tester.

IT departments often find a need to ensure the cabling infrastructure meets a certain test standard. This is needed to ensure support for a given application, or simply to support moves/adds/changes. Historically, this requires the purchase of two or even three different types of testers, that span wired, wireless, and certification capabilities, which becomes cost prohibitive.

Introducing the Network Service Assistant (NSA), with Certi-Lite, a multifunction connectivity test solution that represents a new category in field test with Qualification+ grade testing function. The NSA is offered at a fraction of the cost for what you would typically need to spend in multiple testers to get this much test function. And, because the NSA is modular, adding more test function as needs change, and AEM continues to add capabilities, is as easy as hot swapping a test adapter.





Certi-Lite



Certi-Lite performs an ANSI/TIA 1152-A complaint, single ended cable test for CAT3 – CAT6A, with a simple Pass/Fail indication. This provides you with assurance of cabling link integrity to support your requirements. The NSA performs this test using a small passive termination at the remote end, which helps to significantly reduce the overall cost of the test equipment when compared to traditional cable certifiers.

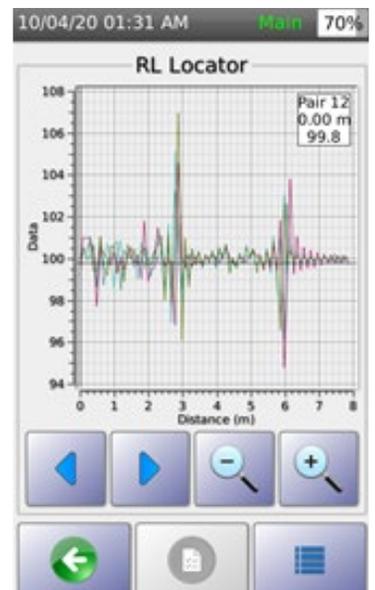
Is Certi-Lite An Alternative to Certification Test?

For cable contractors, a regular dual ended certification test is necessary for new installations for cable manufacturer’s warranty purpose. For network owners and those that do not have a requirement for dual ended certification, the NSA’s Certi-Lite capability is a perfect tool for qualifying existing cabling for its suitability for new applications, particularly smart building where PoE will be heavily used, but at a significantly lower price point. Here is a brief list of situations where Certi-Lite is the most appropriate test method:

- Reassessing the performance of existing cabling against standards requirements such as CAT6A
- Troubleshooting network connectivity and link speed issues
- Documenting cable plant performance
- Moves, adds, changes

Test results can be sent to TestDataPro Cloud test results repository via wired or wireless connection. Results can also be saved to memory for later upload to the PC based version of TestDataPro results management software.

For a more detailed look at Certi-Lite, check out our article titled [“Certi-Lite: At The Heart Of A New Category In Cable Test”](#)





Power Over Ethernet (PoE) Validation



POE TESTING CAPABILITIES

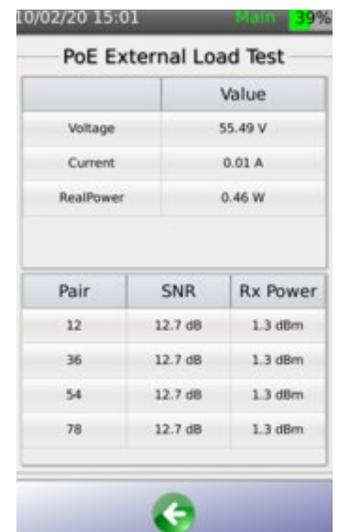
- Load Testing for Real Power at Jack
- Current and Voltage
- PSE Detection
- PSE Type
- PD Class
- PoE Cable Pairs
- Sustained Power Load Monitoring

NSA excels at validating PoE with the most comprehensive test functionality available and in compliance with IEEE 802.3 af/at/bt standards , as well as support for UPoE.

What sets NSA apart is the ability to validate Real Power load at the jack where an end device will be deployed. NSA emulates a Powered Device (PD), such as a WAP or Camera by setting it to the specific standard applicable to that device. NSA negotiates with the Power Source Equipment (PSE) to request information about the switch and the highest level of power load from the PSE for the selected standard.

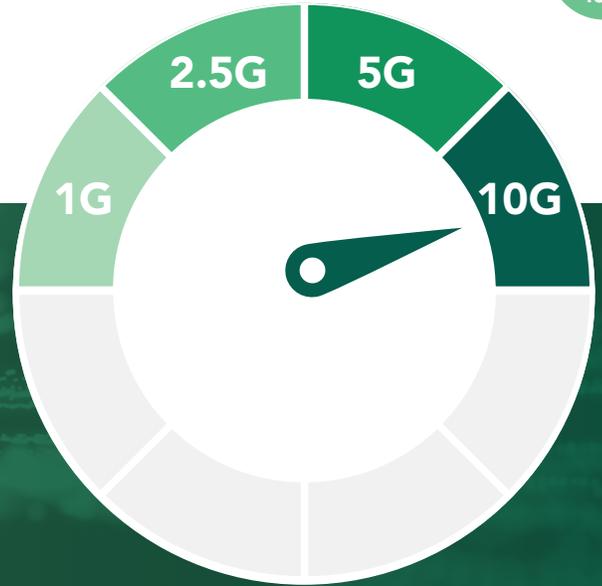
For those pesky intermittent power issues, NSA can monitor power load over time. This allows you to monitor live for any power fluctuation that drops below the required level threshold.

NSA can also characterize the cabling links for DC resistance unbalance parameters either as part of a standard cable certification Autotest or as a one-off quick test.





Multi-Gigabit Link Speed Qualification



10/02/20 15:16 Main 43%

PASS ✓

Approximate Length: 203.4 ft

Multi-Gig 100M/1G PoE

Rate	SNR (dB)	Limit (dB)	Margin (dB)
10G	2.4	0.0	2.4
5G	6.5	0.0	6.5
2.5G	11.4	0.0	11.4

10/02/20 15:17 Main 43%

Detail Margin

SNR Rate	12 (dB)	36 (dB)	45 (dB)	78 (dB)
10G	3.7	2.4	3.2	3.1
5G	9.2	6.5	7.0	8.6
2.5G	11.7	11.4	11.4	11.9

10/02/20 15:17 Main 44%

PASS ✓

Approximate Length: 203.4 ft

Multi-Gig 100M/1G PoE

PSE Type	4
PD Class	8
V/I	51.1 V/1.3 A
RealPower	65.4 W

Improvements in 10Gigabit technology, price, and performance have extended its reach beyond enterprise data centers to midmarket networks. Increasing bandwidth requirements and the growth of enterprise applications are also driving broader deployments of 10 Gigabit Ethernet. TestPro’s Multi-Gigabit testing provides a Pass/Fail indication as well as visibility into available headroom even down to per pair detail.

TestPro’s Multi-Gigabit Autotest is a quick and easy one button operation to ensure that a cabling link will support the desired network rate.

Validation Test

- 10/100 Mbps
- 1 Gbps

PoE Load Test

QoS Test

- SNR 2.5 Gigabit
- SNR 5 Gigabit
- SNR 10 Gigabit

“The depth of functionality in the TestPro and value it presents is incredible! It’s like having a Fluke Networks certifier, and a network tester, combined into one product at half the cost of either one.”

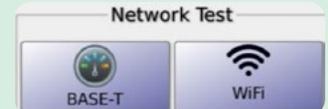
Mark Johnston, CEO Telementrix



Wired and Wireless Network Testing

The ability to get quick visibility into both your wired and wireless network infrastructure are must have features for troubleshooting and performing moves/adds/changes. Some key features NSA delivers include:

- Network Discovery
- Traffic Generator
- Traceroute
- Ping
- WiFi SSID Discovery & Associated RSSI (Signal Strength)
- Switch Detail including slot/port/VLAN
- VLAN Discovery



BASE-T Wired Ethernet Connection Details

- Perform Network Discovery to see what's behind the jack
- Display list of IP addresses for connected devices
- Select any IP address to view that device details, MAC address, and more
- View LAN details such as Gateway, Subnet Mask, DHCP Server
- Generate traffic to any desired IP address
- Perform Trace Route to see the connection path and intermediate hop delays for bottlenecks
- Use Ping to verify point-to-point or Internet connectivity and response time

Wi-Fi Ethernet Connection

NSA's auto-discovery will display all detected SSID's and their associated RSSI (received power level). This is useful in determining if the Wi-Fi network to which the user is trying to connect has sufficient signal strength.

Determine Wi-Fi "dead zones" by roaming to checking RSSI values in different locations

Connect to any SSID using the appropriate credentials for that network

Use Ping to verify point-to-point connectivity or out to the Internet by selecting pre-defined or custom website URLs and see latency details.

Please Note: For Wi-Fi testing, an optional Edimax EW-7822ULC Wi-Fi USB adapter is required. These adapters are region specific and can be purchased on Amazon or any preferred retailer.



Network Service Assistant

Model Number	Description	Additional Kit Components
NSA	Network Service Assistant Kit	<ul style="list-style-type: none">▪ Network Service Assistant Test Platform▪ NSA Remote Terminator▪ USB drive with TestDataPro▪ Shoulder Strap▪ Carry Case▪ Universal Power Supply



Please Note:

For Wi-Fi testing, an optional Edimax EW-7822ULC Wi-Fi USB adapter is required. These adapters are region specific and can be purchased on Amazon or any preferred retailer.

For more information: www.aem-test.com | Enquiries: customercare@aem-test.com

North America: AEM International (US)
5560 West Chandler Blvd, Suite 3, Chandler, AZ 85226 | Toll Free 833-572-6916 | 480-534-1232
Asia: AEM Singapore Pte. Ltd. 52 Serangoon North Ave 4 Singapore 555853
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