

Quick Start Poster

NetXpert 1400

The NetXpert 1400 Ethernet Speed Certifier offers a complete solution to test copper cables. The NetXpert 1400 performs speed certification to test the data-carrying capabilities of electrical Ethernet network cable up to 1 Gb/s by testing for noise in the network, detecting faults in the cable wiring, and ensuring that cables are able to support the speed capabilities of active equipment.

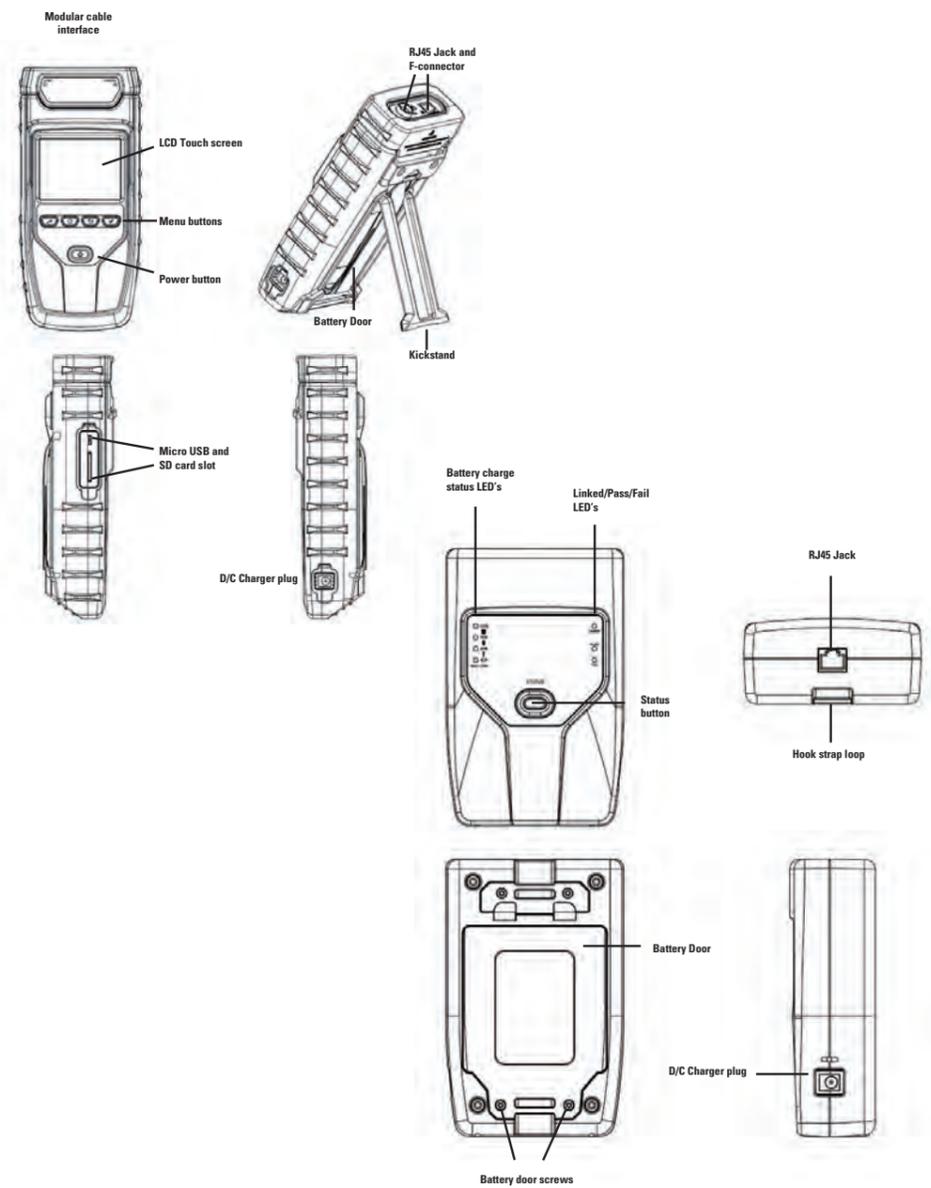
To certify Ethernet speed performance of copper cable runs, the NetXpert 1400 handheld tester conducts Bit Error Rate (BER) tests by sending data packets down specified cable runs at defined data rates to check for errors at the maximum throughput of the link. The NetXpert 1400 also reports on signal quality that can impact high-speed data transmission by measuring signal to noise ratio (SNR). Skew measurements report on the signal time delay between pairs that can impact Ethernet data transmission. The NetXpert 1400 also provides continuity testing that detects opens, shorts, miswires, split pairs, reversals, and high-resistance faults while accurately measuring distance to faults and total cable length.

The NetXpert 1400 includes a comprehensive set of features for testing active network capabilities: measure Power over Ethernet (PoE) to ensure the correct power is available on the correct pins, use Port Discovery to ensure the correct speed and duplex capability are available; connect at Gigabit Ethernet and run Ping tests to verify connectivity to IP hosts; discover network devices using Cisco Discovery Protocol (CDP) or Link Layer Discovery Protocol (LLDP); VLAN discovery; Trace Route function displays the path internet packets travel to reach a specified destination. The NetXpert 1400 also saves test reports and exports to PCs.



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Controls



Menu Structure

The menu structure of the NetXpert 1400 is divided in 5 sub menus containing various operating options



System Settings

- IPv4 Setup
- Display Settings
- Time and Date
- Timeout Settings
- User Information
- Firmware Management
- Firmware/Hardware Versions



Cable Test

- Test Options
- Cable Type
- Cable Test (TP/Coax)
- Cable Faults
- Saving/Managing Results



Link Test

- Port Discovery
- PoE Test
- Tone
- Link Light



Network Test

- DHCP
- Ping
- Trace Route
- VLAN
- Discovery Protocols



File Manager

- Renaming
- Deleting
- Transferring

Operation

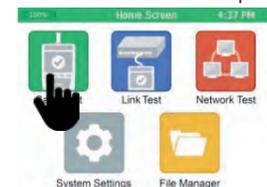
On/Off

- Turn NetXpert 1400 on by pressing the Power button .
- Tap the Power button to put the NetXpert 1400 in sleep mode.
- Press and hold the Power button to power the unit off.

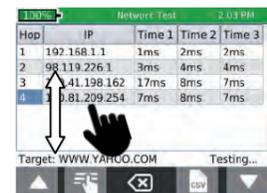
Buttons and Touch Screen

The NetXpert 1400 features buttons and a full color capacitive touch screen to allow easy navigation.

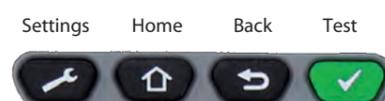
Touch an icon to select an option



Touch and drag a list to scroll up or down or touch the Up/Down arrows.



The NetXpert 1400 buttons assist with Navigation, starting and stopping a test.



Settings The Settings button will display the settings menu. Pressing the settings while in the settings menu will display additional menu screens.

Home The Home button will display the home screen from any menu.

Back The Back button will display the previous screen.

Test The Test button will start/stop a test.

Cable Test

The NetXpert 1400 performs a wire map test, measures cable length using capacitance and TDR, and speed certifies cables up to 1 Gigabit Ethernet.

Cable Counter Setup

Type	Jack	Shield	Speed	PI/F
CATS STP	R45	Yes	100	15.0
CATS STP	R45	Yes	1000	15.0
CATS STP	R45	Yes	1000	15.0
CATS STP	R45	Yes	1000	15.0
CATS STP	R45	Yes	1000	15.0
RG6	COAX	N/A	0	16.5
RGS6	COAX	N/A	0	27.0
RG6 Type	RG45	Ins	100	25.0

Cable List

Cable ID	Type	Length	Result
CABLE001	CAT5E	0.0	Open
CABLE002	CAT5E	50.1	1Gb
CABLE003	CAT5	50.7	100Mb
CABLE004	CAT5	50.8	Pass

Detailed Test in Full Screen

File Manager

Save one test to a PDF | Save *.tst to a CSV | List of Test Results | Save *.tst file to a PDF | New Test List

Link Test

The Link Test menu displays Ethernet port services provided by an active switch, router, or NIC.

Port Discovery and Capability

Device capabilities:
Automatic MDI/MDI-X
Remote supports autonegotiation
1000Base-T Full Duplex
100Base-TX HF Duplex
10Base-T HF Duplex
Next: Page Capable
Flow Control (Full Duplex Pause) Capable

SNR Pair 1: 27.5 SNR Pair 2: 28.3
SNR Pair 3: 28.3 SNR Pair 4: 28.3

Power over Ethernet Test

Mode: A
PoE detected on pins 1-2 and 3-6
Type: 802.3at (PoE+), 25.50W

56.7 V @ min load.
54.3 V @ max load.

Tone for Tracing and Port Location

High/Low | Alternating all pins | Low/High

Active Port Location via Blinking Status LED

Link @ 1Gbps Full Duplex

Network Test

The Network Test menu provides advanced network tests to discover, verify and troubleshoot the network.

DHCP Test Results

DHCP Status: Test Complete
IP Address: 192.168.1.101
DHCP Server IP: 192.168.1.11
DHCP Gateway: 192.168.1.1
Subnet Mask: 255.255.255.0
Lease Time: 192Hours
DNS Server 1 IP: 192.168.2.25
DNS Server 2 IP: 192.168.2.22
Router IP: 192.168.1.1

Ping Test Results and Address Setup

Ping Target	Rx/Tx	Avg	Max
WWW.YAHOO.COM	5/5	70.0	72
WWW.GOOGLE.COM	5/5	58.0	59
192.168.1.11	5/5	1.0	1

IPv4 Parameter Setup

IP Address: 168.254.248.261
Subnet Mask: 255.255.255.0
Default Gateway: 192.168.1.1
DNS Server: 192.168.1.1

CDP/LLDP Protocol Information

System Name: switch1
Device ID: f1eef1eeeb2
Port ID: bi5
VLAN: 2
IP Address: 192.168.1.111

Trace Route using ICMP Protocol

Hop	IP	Time 1	Time 2	Time 3
15	216.115.100.25	86ms	87ms	190ms
16	216.115.100.31	83ms	86ms	85ms
17	98.139.232.83	87ms	82ms	87ms
18	98.139.128.81	87ms	84ms	87ms
19	98.139.129.179	83ms	83ms	87ms
20	98.139.183.24	84ms	84ms	84ms

VLAN Detection

VLAN ID	Priority	Source
100	0	TAGGED
1	---	CDP

System Settings

The NetXpert 1400 Setup consists of 7 screens to configure the unit to the user's preference. Use the Settings button to navigate through the settings screens.

Firmware and Hardware Status

Version	Hardware
Boot: 2.02	MAC: 10F49A004FFF
GLU: 1.25	Battery: TOTEX MFG
PIC: 00.14	NAND size: 4 MB

- Cable Test Menu
- Link Test Menu
- Network Test Menu
- File Manager Menu
- System Settings Menu
- Cable Type
- Add
- Edit
- Edit Index
- Delete
- Select
- Page Up
- Page Down
- Previous
- Next
- List
- File Manager
- New File
- Save
- Cancel
- More Options
- Full Screen
- Retest
- Reload Factory Software
- Restore Defaults
- Save one Test to a PDF
- Save *.tst file to a PDF
- Copy to SD Card
- File Open
- Delete File
- Copy to Internal Memory

Icons

File Manager

The File Manager contains saved PDF, CSV, and TST test files. In this menu, they can be renamed, deleted, or transferred between internal, external memory, and PC/Tablet.

