

Quick Start Guide

LANEXPERT™

Inline Gigabit Network Analyzer

The LANEXPERT Network Analyzer is an essential tool for installing, maintaining, upgrading, troubleshooting and optimizing complex and constantly changing networks. This comprehensive network analyzer allows users to deliver robust and highly available network services with a single test device. LAN installers, technicians, managers and service providers can now get expert network help at an affordable price.



Box Contents

- LANEXPERT Gigabit Inline Network Analyzer
- LANEXPERT Wiremap Terminator (LE80)
- USB Flash Drive
- AC Adapter with Country Specific Power Cord
- RJ-45 Patch Cable (LE80)
- Wrist strap
- Quick Start Guide
- Carrying Case with Removable Shoulder Strap
- SFP Modules:
 - Two Single Mode(LE85S); - Two Multimode (LE85M)
 - One 10/100/1000BaseT(LE85)
- Two Fiber Patch Cables (LE85)



99 Washington Street
Melrose, MA 02176
Phone 781-665-1400
Toll Free 1-800-517-8431

[Visit us at www.TestEquipmentDepot.com](http://www.TestEquipmentDepot.com)

The Psiber Logo, Psiber and LanExpert are trademarks of Psiber Data Systems Inc.

© 2010-2013 by Psiber Data Systems Inc. All rights reserved. 1005-0801-0000 Rev: 1.28



99 Washington Street
Melrose, MA 02176
Phone 781-665-1400
Toll Free 1-800-517-8431

[Visit us at www.TestEquipmentDepot.com](http://www.TestEquipmentDepot.com)

LANEXPERT Overview

Status Indicators



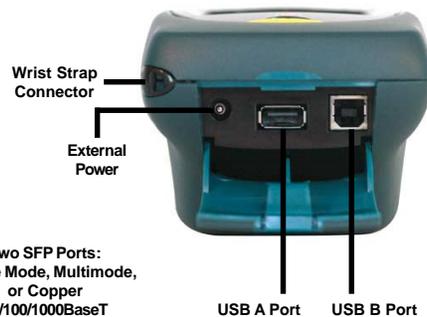
- ☑ **Power** - shows battery and external power status.
 - **Green** - Battery has more than 25% charge.
 - **Red** - Battery has less than 25% charge.
 - **Orange** - External power connected.
- 1 **Port 1** and 2 **Port 2** - shows the status of each port when it is connected.
 - **Green** - connected at 1 Gbit.
 - **Orange** - connected at 100Mbit.
 - **Red** - connected at 10Mbit.
 - **Flashing Red** - trying to link.
 - **Off** - not trying to Link or is not linked.
- ⏏ **Activity** - shows network activity on either port when the LANEXPERT receives a frame.
 - **Green** - indicates a good frame is detected.
 - **Red** - indicates a bad frame is detected.

Note: When monitoring heavy network traffic the Activity Indicator appears to stay on continuously.

LAN Connections



Interface Connections



Using the LANEXPERT Cable Test Functions (LE80)

LANEXPERT Cable Test Functions; **PORT ID**, **TONE**, **LENGTH**, **WIREMAP** and **PoE** are accessed by selecting **CABLE TEST** from the HOME Screen. An inline PoE test is provided in the Analyze Network functions. The Cable Test functions are ONLY available on RJ-45 PORT 2. Select **START** to begin each test.

PORT ID is used to determine which port of a hub or switch is wired to a particular wall jack by blinking the Link LED on the port. The blink rate is adjustable for compatibility with most switches and hubs.

TONE is used to locate a punchdown or trace a cable using a Cable Tracker CT-15 probe (Optional). The tone cadence and frequency are adjustable.

LENGTH measures and displays the distance to an open or short of each wire pair in a cable. (The far end of the cable under test should be disconnected from a port or Wiremap Terminator prior to starting the length measurement.)

WIREMAP verifies proper cable wiring and detects split pairs. Connect the Wiremap Terminator to the cable under test prior to selecting **START**.

PoE tests for IEEE Standard Power. The LANEXPERT displays the wire pairs that are powered, the voltage measured and the wire pair polarity.

Installing the LANEXPERT Console Program and User Guide

Included with the LANEXPERT is a USB Flash Drive that contains the User Guide and the LANEXPERT Console Program. The Console program allows a computer to monitor, capture and print LANEXPERT screens and update the LANEXPERT firmware when new revisions are available. Installing the LANEXPERT Console Application:

Plug the Flash Drive into a USB port on the computer.

Please note that the Microsoft .NET Framework version 3.5 must be installed prior to installing the LANEXPERT Console Application.

The .NET framework can be installed by opening the **APPLICATION** folder on the USB drive and clicking on doNetFx35setup.exe. The computer will need to be connected to the Internet for the installation process. After the install, the computer may need to be rebooted.

Install the LANEXPERT Console Application by opening the **APPLICATION** folder on the USB Drive and clicking on LanExpertInstaller.exe. The LANEXPERT Installer will install both Wireshark and the Console Application.

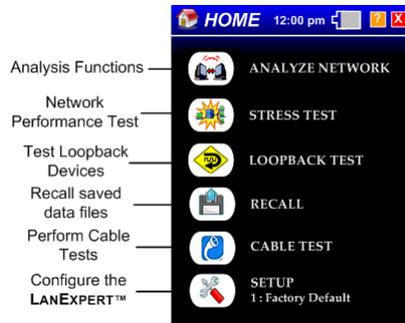
Power On

The first time the LANEXPERT is used the external power should be connected and the unit turned on to verify the battery charge status.

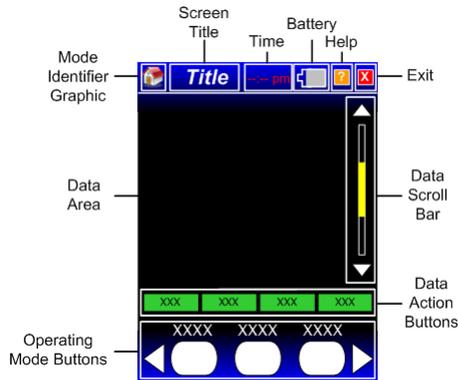
- Turn on the LANEXPERT by pressing the power button until the screen lights up and then release the button.
- The LANEXPERT displays the Welcome Screen for approximately 3 seconds. The firmware revision is shown on this screen. The HOME Screen is then automatically displayed to select an operating mode.

Navigating the Screens

Home Screen



General Screen



Screen Symbols

- | | | | |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
|  | Real Time Clock displays current time. Touch to set date, time, time zone and clock options. |  | AC and Battery Power connected - 100% fully charged battery. (Solid Green with White Outline) |
|  | Battery Power ONLY - more than 20% power remaining. (Grey with White Outline) |  | Charging battery- symbol pulses green to current battery charge level. |
|  | Battery Power ONLY - less than 20% power remaining. (Yellow with White Outline) |  | Battery fault - the battery is not connected or the Battery needs to be replaced. (Empty with Red Outline) |
|  | Battery Power ONLY - less than 5% power remaining. (Red with White Outline) |  | Displays Help Screen. |
|  | Return to previous Screen. | | |

4

Setting Up The LANEXPERT For Your Network

The LANEXPERT can store up to 50 setup profiles (49 user configurable and one factory default). The profiles contain the setup information specific to your network(s). Each profile can be named so that the desired profile can be easily identified. A profile contains settings for:

Ports, Protocols, Ping/Trace, Discover, Traffic Generate, Stress Test and Capture

The Factory default profile contains the most commonly used settings for a network utilizing dynamic IP addressing, (DHCP). If your network utilizes static IP addressing, you will need to set up a profile to assign the LANEXPERT an IP Address Gateway and Subnet Mask on your network.

Select **SETUP** from the HOME Screen.

Setup a profile by selecting the outlined white box next to the desired profile in the SELECT PROFILE Screen. The button becomes solid white when selected.

Select **PROFILE NAME** to enter a name. Select the "X" Exit button to return to SELECT PROFILE Screen (Entering a profile name is optional).

Select **PORTS**.

Select the scroll bar **DOWN** arrow twice to get to the IP ADDRESS set up area.

Select **FIXED** to enter the static addressing information.

Select the "X" Exit button to return to the HOME Screen.

Setting up the LANEXPERT to PING

The PING test is used to verify connectivity, measure round trip communications time, check data integrity, determine a MAC address and search a stored list or a range of IP addresses.

Select **ANALYZE NETWORK** from the HOME Screen.

Select **RIGHT** arrow twice.

Select **PING/TRACE** button.

Select **START**. A ping will be transmitted to the target(s) specified in the current LANEXPERT profile. (If the factory default profile is selected, the ping parameter cannot be adjusted and a single ping will be sent to the Gateway IP address.)

Select **SETUP** in the data action buttons to change ping parameters. Ping a list of servers, Targets (IP addresses or names), or a range of IP addresses. Select the ping count, maximum ping rate, and payload size.

Select the "X" Exit button to return to the HOME Screen.



99 Washington Street
Melrose, MA 02176
Phone 781-665-1400
Toll Free 1-800-517-8431

Visit us at www.TestEquipmentDepot.com

5

Stress Test Procedure with a Single LanExpert

The LANEXPERT uses **Throughput, Latency, Frame Loss** and **Back-to-Back** tests to measure the performance of a network consisting of one or more active devices. To perform a Stress Test with one LANEXPERT, the **INDEPENDENT** mode must be selected. See page three of the Quick Start Guide under Stress Test (left diagram) for the setup configuration. Setting up the LANEXPERT to perform a Stress Test:

Connect Port 1 and Port 2 to the network under test. Turn on the unit.
 Select **SETUP** from the HOME Screen.
 Select **PORTS** button. (Select a Profile other than Factory Default)
 Select **INDEP** button, under Port Configuration.
DHCP is the default configuration and should be used for DHCP configured networks.
 For non-DHCP networks setup a **FIXED** IP address:
 Select the scroll bar **DOWN** arrow twice to **PORT 1 IP ADDRESS** Screen.
 Select **FIXED** to enter the static addressing information.
 Select the scroll bar **DOWN** arrow three times to **PORT 2 IP ADDRESS** Screen.
 Select **FIXED** to enter the static addressing information, different than Port 1.
 Select the **"X"** Exit button to return to the HOME Screen.
 Select **STRESS TEST** from the HOME Screen.
 Select **ONE** to **FOUR** tests to be performed. Estimated time for each test is given.
 Select **SETUP** and then **REMOTE IP** to enter the IP address of Port 2.
Note: Changing Stress Test parameters to lower values will decrease the estimated test time.
 Select the **"X"** Exit button to return to the STRESS TEST Screen.
 Select **START** and then select **RESULTS** to view test results.

Stress Test Procedure with Two LanExperts

To perform a Stress Test with two LANEXPERTs, **SINGLE** mode must be selected for both units. See page three of the Quick Start Guide under Stress Test (right diagram) for the setup configuration. Setting up both LanExperts to perform a Stress Test:

Connect LANEXPERT A- Port 1 and LANEXPERT-B Port 1 or 2 to the network. Turn on the units. For both units:
 Select **SETUP** from the HOME Screen.
 Select **FACTORY DEFAULT** button. (This is used for DHCP networks, for FIXED networks see page five of Quick Start Guide under "Setting up the LANEXPERT for your network")
 Select the **"X"** Exit button to return to the HOME screen.
 Select **STRESS TEST** from the HOME Screen.
 Select **ONE** to **FOUR** tests to be performed from LANEXPERT-A. Estimated time for each test is given.
 Select **SETUP** and then **REMOTE IP** to enter the IP address of the LANEXPERT-B connected port.
Note: Changing Stress Test parameters to lower values will decrease the estimated test time.
 Select the **"X"** Exit button to return to the STRESS TEST Screen.
 Select **START** and then select **RESULTS** to view test results.

Connecting the LANEXPERT

