

Verify the Quality of Your Installation

Verification is the minimum indicator of installation quality for many cabling types, and plays an important role in the success of any Voice, Datacom, or Video (VDV) cabling installation. Whether you're performing new cabling installations or working with existing cabling infrastructure for moves, additions, or configuration changes, you can quickly verify your work with an affordable test tool and have confidence in a quality installation.

What is verification testing?

Verification testing confirms that a cable meets established national or international standards of conductor configuration and passes basic continuity testing. Verification may be performed on two conductors or multi-conductor twisted pair cabling. Look to Fluke Networks' MicroScanner Pro and MicroMapper to perform basic verification testing, as well as troubleshoot and solve wiring mistakes before they become real problems. Both award-winning products are backed by the superior support you've come to expect from Fluke Networks, the leader in network testing.



MicroScanner™ Pro

The essential cable verification tester

The MicroScanner™ Pro is a powerful verification tool designed to confirm basic installation quality of multiple cable types. It automates the testing of cable conductor continuity and configuration, and provides necessary information to rapidly solve problems including the location of cable faults. MicroScanner Pro tests coaxial cable (RG6, RG59, etc., for CATV/CCTV), twisted pair cable (UTP/STP/SSTP), and other wiring for audio, control, security or basic telephone service. The MicroScanner Pro speeds basic live network testing with powerful network tap service and speed identification.

Quickly identify problems

Use the MicroScanner Pro for verification to ensure basic continuity and correct terminations. The wiremap test checks end-to-end continuity on all UTP cable four-wire pairs to quickly verify if the cable under test has the correct wiring scheme (either 568A or 568B) and identifies any cabling problems. MicroScanner Pro quickly identifies a fault (see Figure 1), allowing you to see opens, shorts, crossed pairs, split pairs or any miswires.

WIREFMAP	FAULT
123456780	
3456780	Short

Figure 1. Pairs 1-2 are shorted.

Troubleshooting tools save you time

What happens when a fault is detected? You waste valuable time with visual inspection or troubleshooting by process of elimination. With the push of a button, MicroScanner Pro's length function uses Time Domain Reflectometry (TDR). TDR acts like "cable radar" to measure the distance to an open or short in each conductor pair, or the overall length of the cable. TDR provides the critical information necessary to determine whether to repair punched down conductors at the block, replace a port or connector, or pull a new cable. Overall cable length measurement is useful for tracking cable usage for billing and inventory purposes.

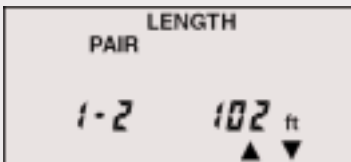


Figure 2. Showing 1-2 pair length.

TDR even identifies the distance to active network taps such as hubs or nic cards.

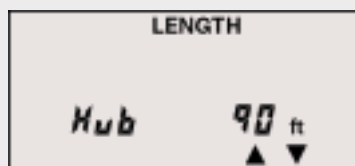


Figure 3. Active network hub detected at 90 ft.

Identify active network connections

MicroScanner Pro's active network identification mode flashes hub ports and shows you if a network tap is operating at 10 Mbps or 10/100 Mbps and whether it is full or half duplex capable. It also identifies workstation network interface cards.



Figure 4. 10 Base-T signal detected, wired to PC.

Tracing and locating cables

MicroScanner Pro's toner function allows you to generate a 1000 Hz tone detectable by standard analog probes to trace and locate hidden cabling in walls, ceilings or distribution boxes. Four unique selectable tones help identify different users toning at the same time.

Identify cabling links from the wiring closet

MicroScanner Pro Office/Room Identifier allows you to identify cabling drops for an office or room during adds, moves and changes, and it helps determine routing at the patch panel and documents twisted pair and coaxial cabling installations. Use the Office Identifier Plugs (shown below)

to attach to the far end of the link (at the workstation/office) and the MicroScanner Pro will display the office number on the display (see Figure 5).

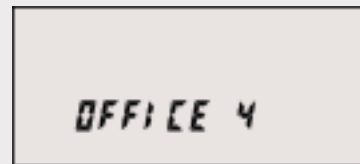


Figure 5. Office/Room #4 termination ID.

MicroScanner Pro features

- Tests all common copper cable types: bare wire, coaxial cabling, UTP and STP cabling
- Checks wire configuration (wiremap) to ANSI/TIA/EIA 568A, 568B standards
- Speeds identification and troubleshooting of common miswires such as opens, shorts, crossed and split pairs
- Uses patented TDR technology to ensure accurate pair length measurements
- Flashes hub light to help identify pairs
- Generates four unique tones for locating cables hidden in walls, ceilings, or wiring closets
- Identifies active networking 10 Base-T/100Base-T hubs
- Identifies half or full duplex capability
- Matches (UTP or coaxial) cables to offices during adds, moves and changes
- Enables patch cable testing without couplers or external adapters
- Comes with one-year warranty

MicroScanner Pro Accessories



Bare-wire Adapter
(MT-8203-16)



Coax Adapter
(MT-8203-15)



Wiremap Adapter
(MT-8203-14)



Office Identifier Plugs
(MT-8203-17)



Carrying Case
(MT-8202-04)



MicroMapper™

The fast, comprehensive LAN wiremap checker

The MicroMapper is a small, handheld cable tester that enables network professionals to verify the integrity of Ethernet twisted-pair cabling in one quick step. The MicroMapper quickly and easily tests twisted-pair cabling, allowing you to see opens, shorts, crossed, reversed and split pairs. Simply push the TEST button, and the MicroMapper will automatically scan all wire pairs for any existing faults in your cable. The MicroMapper also includes a remote unit to easily enable one-person testing of installed cabling or patch cords. The MicroMapper includes a built-in tone generator that allows you to trace cable through walls, floors, and ceilings when used with IntelliTone Probe, or any other analog probe.

Features

- Verifies UTP/STP network cable to ANSI/TIA/EIA 568A and 568B
- Tests twisted-pair cables for open circuits, shorts, crossed pairs, reversed pairs and split pairs
- Easy-to-read LED fault display
- Tone generator works with IntelliTone Probe or any other analog probes
- Conducts shield integrity testing
- Features self-storing remote unit to allow one-person testing of installed cables
- Includes extended battery life with automatic sleep mode
- Low-battery LED
- Comes with one-year warranty

Specifications

Product	Specs
MicroScanner Pro	Dimensions: 5.5" x 3.25" x 1" (139.7 x 82.5 x 25.4 mm)
	Battery: 9-volt alkaline battery; low battery indication
	Display: custom LCD, 1.75" x .85" (44.45 x 21.59 mm)
	Applications: shielded (STP) and UTP cable; 75 or 50 Ohm Coaxial cable; 10 Base-T or 10/100 Base-T networks
	Main tester interface: modular 8 connector for length, 10/100 link identification, wire map, office identifier, toner; loopback interface: module 8 connector used for patch cable wiremap
	Length measurement: measures length on all 4 pairs and displays in feet or meters; $\pm 4\%$ or ± 2 ft whichever is greater, max length 1500 ft (457 m)
	Length calibration: user selectable NVP, NVP calculation based on known cable length (min. length 50 ft (15 m) and max. length 1500 ft (457 m)
	Wiremap and Office/Identifier: faults detected: opens, shorts, reversed pairs, swapped pairs, and split pairs, distance maximum length: 656 ft (200M)
	Office Identifier: 6 passive test plugs attached to far end (identified as #1-3 and #5-7); distance maximum length 656 ft (200 mm)
	Toner frequency: user may select 1 of 4 predefined tone sequences
Toner Interface: main Mod8 port for tone generation on all 4 pairs. Ground jack provided for grounding MicroScanner Pro during trace operations.	
High voltage input/protection: the test interface withstands input hazard conditions that arise from normal telephone interfaces (48 VDC at less than 80 mA) or 24 VAC power used to power many telephone keysets.	
Wiremap Adapter	Dimensions: 2.25" x .5" x .625" (57.15 x 12.7 x 15.875 mm)
Coax Adapter	Dimensions: 3" x .63" x .58" (76.2 x 16 x 14.7 mm)
MicroMapper	Dimensions: 4.93" x 2.05" x 1.18" (125 x 52 x 30 mm)
	Weight: 0.28 lbs (130 g)
	Minimum length for split pair detection: 2 ft (0.6 m)
	Maximum Testing length for twisted pair cables: 656 ft (200 m)
	Battery: (4) 1.5-volt AAA alkaline batteries; low battery indication by LED

Fluke Networks delivers Network SuperVision

Fluke Networks offers the most comprehensive line of premises network testing tools for the inspection, verification, certification, and documentation of copper and fiber optic cabling systems. Network owners, installers and maintainers alike choose our products because they provide superior vision into their networks. From products that stay ahead of your technology needs, to responsive service to keep you up and running, Fluke Networks has everything you need to keep pace in today's fast moving networked world.

Ordering Information

Model Number	Items Included
MT-8200-32A	MicroScanner Pro Includes: MicroScanner Pro, Wiremap Adapter (Office ID 4), Coax Adapter (CATV type, F-connector), 9-volt Alkaline battery, Quick Reference Guide, and User CD
MT-8200-24A	MicroScanner Pro VDV Kit Includes: MicroScanner Pro, IntelliTone Probe, wiremap adapter, coax adapter (CATV type, F-connector), office/room ID kit, 9-volt alkaline battery, Quick Reference Guide, and User CD
	MicroScanner Pro Accessories
MT-8202-04	MicroScanner Pro Carrying Case
MT-8203-15	Coax Adapter Replacement Part (RJ45 to F Connector)
MT-8203-17	Office/Room ID Kit (IDs 1 - 3, 5 - 7)
MT-8203-14	Wiremap Adapter Replacement Part (Office ID 4)
MT-8203-16	Bare Wire Adapter (with alligator clips)
MT-8200-49A	MicroMapper Includes: MicroMapper and MicroMapper Remote, RJ45 patch cable, (4) 1.5 Volt AAA alkaline batteries, Quick Reference Guide, and User CD

NETWORK SUPERVISION

Fluke Networks
P.O. Box 777, Everett, WA USA 98206-0777

Fluke Networks operates in more than 50 countries worldwide. To find your local office contact details, go to www.flukenetworks.com/contact.

©2004 Fluke Corporation. All rights reserved.
Printed in U.S.A. 1/2004 2113135 D-ENG-N Rev A