

Ethernet System Speed Certifier

Operating Specifications

- **Display** 256 color active back lit LCD
- **Power Source** AC adapter/lithium ion rechargeable batteries
- **Interfaces** Serial port for direct printing from Validator™ and USB port for uploading/downloading files to/from a laptop/PC
- **Operating System** Linux
- **Keypad** Full navigation set with easy alphanumeric data entry and soft key functions.

Physical Characteristics

Physical Dimensions

- **Main Unit**
Size: 22.9 x 11.4 x 5.3 cm
(9 x 4.5 x 2.1 inches)
Weight: 710 grams (1 lb 9 oz.)
with battery
- **Remote**
Size: 14.2 x 11.2 x 4.4 cm
(5.6 x 4.4 x 1.8 inches)
Weight: 341 grams (12 oz.) with battery

Environmental

- Operating temperature: 0 to 50°C (32 to 122°F)
- Storage temperature: -20 to 70°C (-4 to 158°F)
- Humidity: 10% to 85%, non-condensing

Interfaces

- USB cable assembly
- 32 MB compact flash card

Test Connectors

- 8-position shielded modular jack (data)
- 6-position modular jack (telephone)
- F-coax (video) and dual banana jack (security, speaker, etc.)

Cable Types

- Shielded or unshielded Cat3, 5, 5E, 6
- Telephone, coax, speaker wire, security, fire, and alarm

Battery Type

Rechargeable, removable lithium ion packs

Maximum cable length for testing for split pairs

Up to 1500 feet, depending upon cable type

Signal Quality Testing on Network Cable

- Wiremap up to 8 locations at a time
- Length of cable (TDR) distance to Opens and Shorts
- SKEW
- NEXT—All combinations on all pairs (12)
- Channel Response
- Echo Testing (Return Loss)—impedance mismatches
- Signal to Noise Ratio
 - Attenuation
 - Amplitude
 - Return Loss

Performance and Speed Certification

- Supports IEEE802.3 speed criteria up to 1 gigabit with full Bit Error Rate Test (BERT)
- Test interconnect specifications per TIA568/570
- Measures the quality of the signal through the cable against set criteria on cable data-carrying capability in real time. 100Mbit/gigabit speeds
- Real-time testing of the performance capability of the cable qualifies VOIP lines
- Measures signal quality in actual link environments that could account for cable inadequacies. Physical installation, kink, loops etc., physical terminations, dry shorts, miswires etc.

Validator™
THE ETHERNET CERTIFIER

patent pending

Specifications subject to change.

Validator™ Kit (NT950) includes

- Validator™ Main Unit and Smart Remote
- 2 lithium ion rechargeable long-life batteries
- 2 AC adapter/charger units
- 4 adapter cable assemblies
- USB cable assembly
- Compact flash card
- Plan-Um™ design layout software
- Deluxe carrying case with cushioned sides

- Certifies CAT5, CAT5E, and CAT6 cables to be IEEE compliant to 1 gigabit speed for all Ethernet systems
- Tests to TIA 568/570 interconnect standards
- Tests coax, telephone, audio, and security cables
- Qualifies VOIP lines
- Powerful Plan-Um™ design software included
- Creates and prints job reports
- Wiremap new or existing cable systems
- Simple to use



Validator™ is the world's most advanced SPEED and performance certifying tester designed specifically for Ethernet systems

Validator™
THE ETHERNET CERTIFIER

patent pending

Test-Um Inc.
The Intelligent Test Solutions Company

805-383-1500 • FAX 805-383-1595 • www.test-um.com

Define the Job, Make the Tests, Print the Results, Store the Data...

No other tester/certifier does so much, so easily and so economically.

Validator measures and presents fast and clear SPEED and PERFORMANCE results up to 1 gigabit. The included powerful Plan-Um™ software ties together all the different cable criteria that are found in complex voice/data/video installations and presents concise information in printed reports, while storing data for future use.

Speed certification assures you that the Ethernet system cabling will do the job it is rated to do. Attached components, switches, hubs, routers and systems will then operate at maximum efficiency.

Completing and billing a cable installation job has never been easier. Simply layout your requirements in a matter of minutes, then define cable types and runs. Test/certify each cable run. Print the results of individual cable tests, or the entire cable test report, for review and documentation. That's all there is to a perfect cable test and certification job.



dedicated I/O ports for network, telephone, coax and paired cables

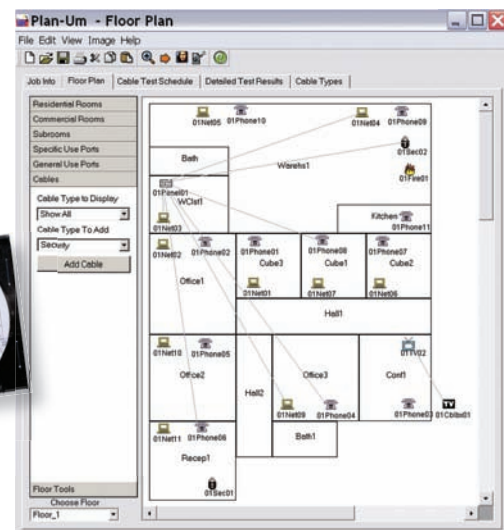


Removable 32 MB compact flash memory card included



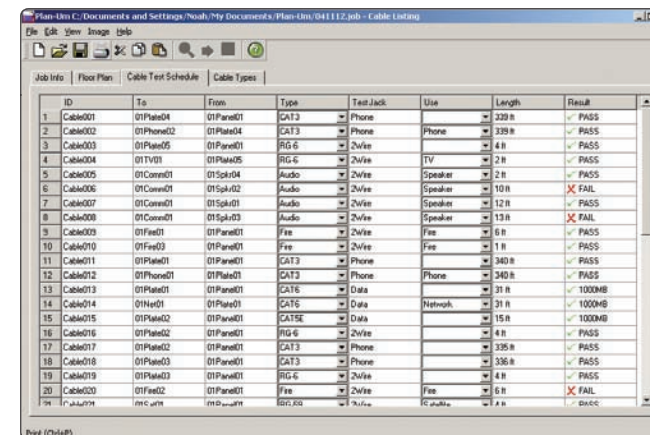
Powerful Plan-Um™ software included

1. Layout



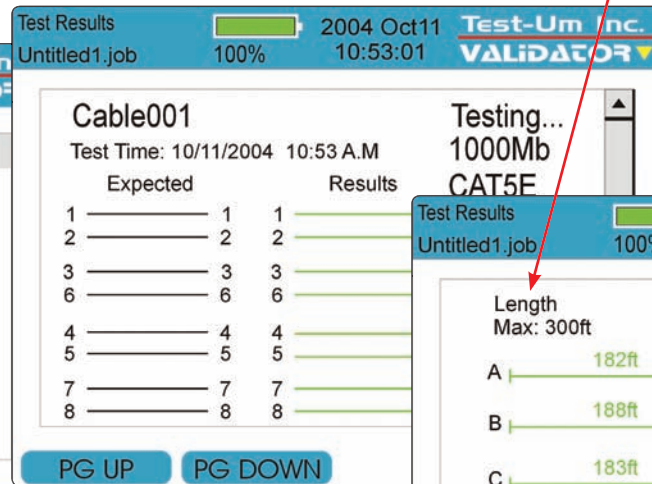
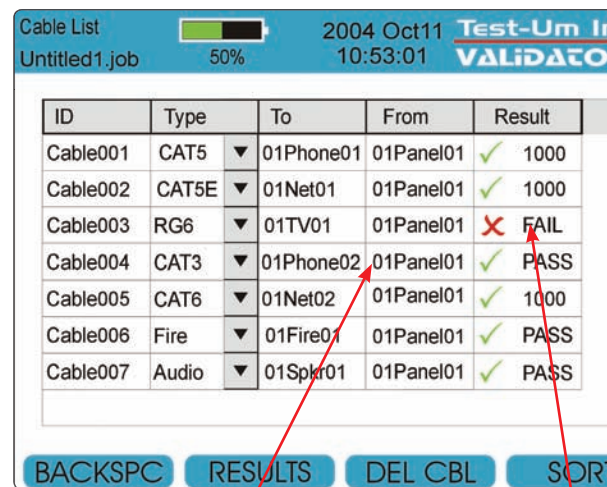
- Create custom floor plans or import existing AutoCAD/Visio files
- Show specific ports: network, telephone, cable
- Indicate cable runs
- Print or e-mail layout for approval
- Save layouts for future jobs

- Automatically creates cable test schedule
- Cable List shows run starting and end points
- Each cable run is displayed for cross-checking

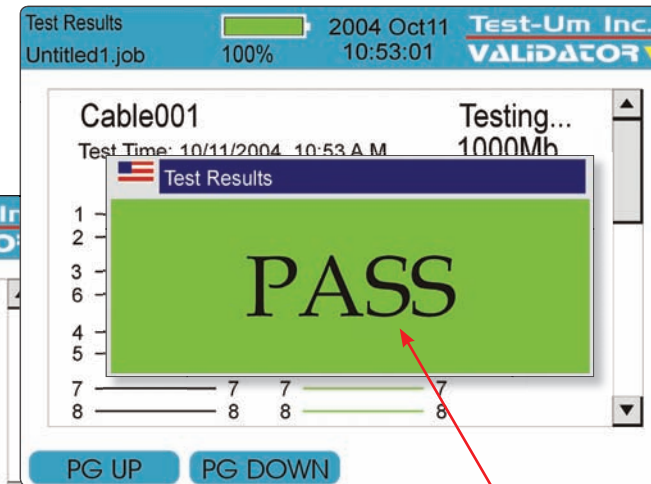
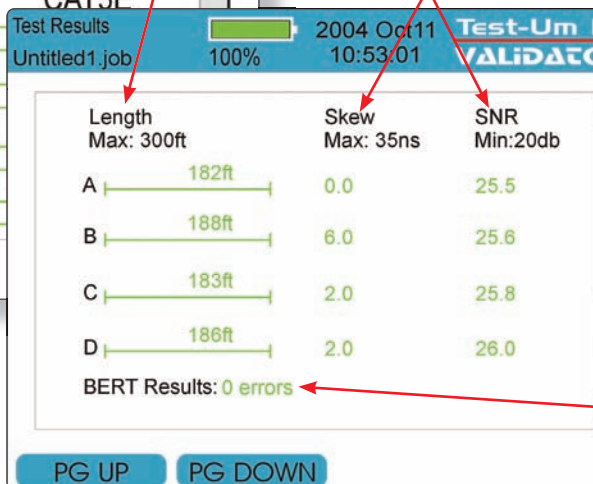


2. Certify

- Certifies to IEEE802.3 speed criteria. Test/certify Ethernet system network cables to 1 gigabit speed, using a full digital Bit Error Rate Test (BERT) for 100% certainty. Other typical TIA568 measurements include NEXT, Attenuation, Return Loss, SKEW and overall Signal-to-Noise Ratio (SNR).
- Measure cable length and distances to opens and shorts using advanced TDR technology



- Skew and signal/noise ratio results shown on faulty cables



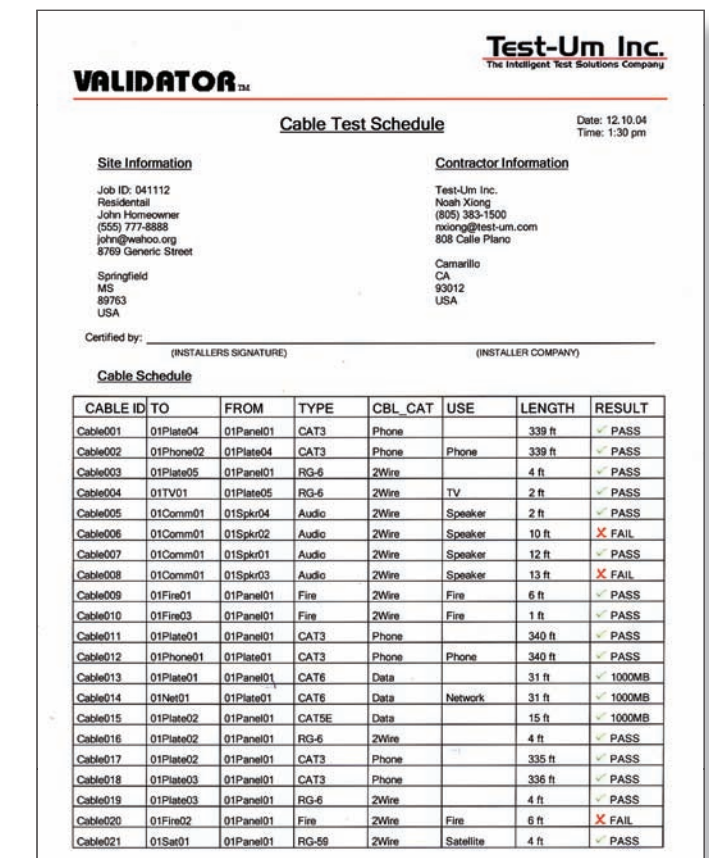
- Clear test results

- Shows the actual error rate in the BERT test

- Wiremap individual runs to locate and identify cable routes
- Test telephone, coax, security/alarm cables for continuity, proper termination and polarity

3. Document & Archive

- Verify all tests are done against the plan
- Shows PASS/FAIL, cable length and speed rating
- Print End of Job Report for billing purposes



- Store finished jobs for reference in doing future adds, moves or changes
- Store data on either a laptop/PC or in flash card memory up to 2 GB. Thousands of jobs can be saved!
- Use archived info when upgrading or changing previously installed systems