SCT Series
Structured Cable Testers

- **Certifies Category 7, 6 and 5e cabling**
- **Exceeds Level IV Accuracy**
- **1 to 1000 MHz frequency range**
- **Unique patented connectorless modules improve reliability and productivity in the field**
- **Most intuitive and easy to operate LAN certification tester on the market**
- **Powerful diagnostics pinpoint the distance to link disturbances on each measured pair**
- **Best return on your investment given low operating costs and superior reliability**

DESCRIPTION

The SCT Series is a range of high-performance testers for certifying and evaluating copper and fiber cabling installations. The SCT Series are unmatched for flexibility with improved device features including ¼ VGA color display, USB & serial ports; compact flash, secure digital, multimedia card storage, unit-to-unit audio and 64 Mb of internal memory.

Designed for cable installers and network owners who need to certify the performance of high-speed cabling to today's industry standards and tomorrow's emerging standards, the SCT Series delivers unmatched performance and accuracy. Whether certifying cabling installations, troubleshooting problems, migrating to a high-speed network, or re-certifying after add-ins, moves or expansions, the SCT Series exceeds expectations.

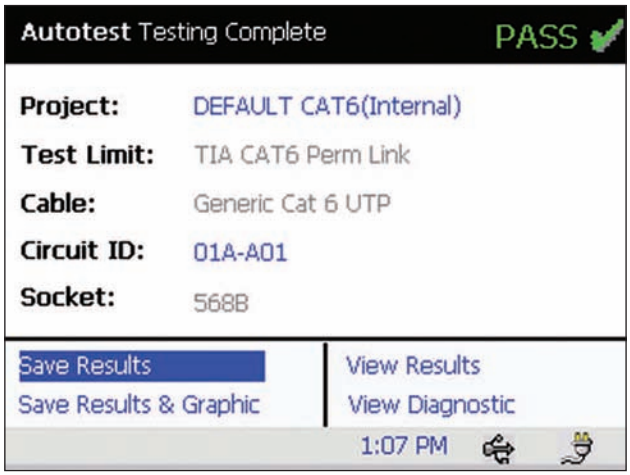
Accurately certify high-performance cable systems

The SCT's 1000 MHz bandwidth test capability, vector measurement system and a wide dynamic range provides certification capability compliant to:

- ISO Class F (Cat 7) (1-600 MHz) †
- TIA Category 6a per TIA/EIA-568C.2 (1-500 MHz) *†
- TIA Category 6 (1-250 MHz)
- ISO Class E (1-250 MHz)
- TIA Category 5e (1-100 MHz)
- ISO Class D/C (1-100 MHz)
- IEEE 100/10 BaseT (1-100 MHz)

* *Requires additional AXT adapter.*
† *SCT2000 only.*

The SCT supports all standard specified tests including Wire Map, Delay, Delay Skew, Length, DC Resistance, Insertion Loss, Return Loss, NEXT, Power Sum NEXT (PSNEXT), Equal Level Far-End Cross Talk (ELFEXT), Power Sum ELFEXT (PSELFEXT), Attenuation-to-Cross Talk Ratio (ACR), Power Sum ACR (PSACR), plus diagnostic measurements and channel correction capability.



SCT Series screen showing Autotest Result.

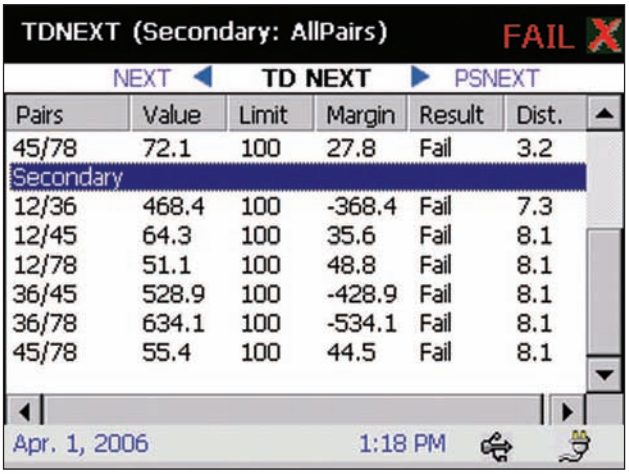
Ease of Use

The SCT is the most intuitive, easy to operate LAN certification tester on the market. Users will find comfort in the familiar controls and Home Menu based graphical user interface. In place of custom icons, all controls are identified using common terminology and consistent menu-to-menu operation. The SCT organizes testing, test parameter management, results management, and options

management by individual project virtually eliminating the chance of making common mistakes. The SCT Series optimizes certification testing by displaying all certification test parameters, conducting tests, displaying results and saving either numeric or graphic results from a single menu, eliminating the need to navigate through multiple menus to certify.

Easier Diagnosis of Link Failures

The SCT Series speeds the user through link diagnosis with powerful diagnostic tools found only on the Megger SCT. The instrument pinpoints the distance to link disturbances on each measured pair and displays this data in multiple helpful formats. After completing a certification test the user can choose to generate and display diagnostic results. Diagnostic wiremap displays the length to an open or short on each pair. Diagnostic TD NEXT and TD Return Loss measurements quickly and accurately calculate the distance to and the strength of all disturbances on each measured pair on a percentage scale, where values exceeding 100% are an indication of a link failure. Summary TD NEXT and TD Return Loss display the distance and strength of the single worst disturbance for pinpointing the worst fault. Detailed TD NEXT and TD Return Loss display the distance and strength of each pair's worst case disturbance for quickly pinpointing one or more faults. This is highly useful for confirming connector or cable failures. Graphic TD NEXT and TD Return Loss display every pairs disturbances vs. distance on a graph for pinpointing all possible faults. This is highly useful for diagnosing all possible link failures.



SCT Series screen showing TD NEXT display.

SCT Series adapter employs new "connector-less" adapter technology.

"Connector-Less" Adapters and Interface

The revolutionary SCT Series "connector-less" adapters provide permanent link and channel testing, compliant to TIA and ISO standards. This new patented adapter and adapter interface system increases reliability while lowering operating costs. The "connector-less" adapter design virtually eliminates any possibility of electrical and/or physical abuse from occuring, thereby significantly reducing instrument downtime and repair costs. In addition, the "connector-less" system, if necessary, can be serviced in the field by the user, reducing costs.

Powerful Results Management

LCMD Software provides you with complete result, and device management. LCMD Software utilizes a powerful SQL database. LCMD Software performs all functions required to manage copper and fiber certification including:

- Results download from multiple testers with one software application
- Database, project and results organization
- Project export, import and merge capability
- Summary, detailed, graphic and diagnostic results presentation
- Result sorting, parsing and search by any data fields or parameter
- Electronic numeric and graphic certification reports with summaries in pdf, html, ASCII or electronic formats.
- Paper numeric and graphic certification reports with summaries

LCMD Software makes certification management easier by quickly organizing, editing, viewing, printing, saving or archiving test results by job site, customer, campus building and more.

Best Return on Investment

The benefits of SCT ownership including its low initial and operating costs, immunity to damage caused by common abuse, ease of use and intuitive user interface and powerful time saving diagnostics make the SCT the best return on your investment

FEATURES AND BENEFITS

- The SCT Series certifies twisted pair to all approved ISO and TIA standards, including ISO Class F. Frequency range of 1 to 1000 Mhz (1Ghz) exceeds ISO Class F by 400 Mhz and meets TIA Category 6a* requirements. Meets Level III and proposed Level IV accuracy requirements.
- The SCT1500 certifies twisted pair to approved ISO and TIA standards, including ISO Class E on TIA Cat 6 of 1 to 350 MHz. Meets Level III and proposed Level IV accuracy requirements.
- Most intuitive, organized and easy-to-operate tester. Testing, test parameter management, result management, and options management are organized according to their function. In addition test parameters such as project name, test type, cable type and circuit ID are organized by individual project virtually eliminating certification mistakes.
- Save test time by selecting or modifying the Circuit Identification number during a test.
- Optimizes certification testing by displaying all certification test parameters, conducting tests, displaying results and saving either numeric or graphic results from a single menu, eliminating the need to navigate multiple menus in order to certify.
- Improved result analysis by displaying results in multiple formats. Certification results are displayed in summary form showing overall link performance, detailed form showing each pair's measurement result for link performance analysis or graphical showing every measured data point for visual link performance analysis.
- Selectable link diagnostics from the test menu for quickly identifying the distance to the source of a link fault.
- Powerful link diagnostic results displayed in multiple formats to speed link fault correction. Diagnostic TD NEXT and TD Return Loss results are displayed in summary form quickly identifying distance to the greatest disturbance, detailed form showing each pair's diagnostic result for quickly identifying distance to component disturbances or graphical showing all disturbances on all pairs for visual link diagnostic analysis.
- Unique "connector-less" recessed copper and fiber optic adapters eliminate practically all potential adapter and tester damage, keeping the SCT on the job. The "connector-less" adapter interface is a high performance field replaceable system for making electrical contact between the tester and adapter.
- Unparalleled result storage capability. Internal memory stores over 5000 certification results, or 100 graphic results. External memory includes Compact Flash, Multi Media and Secure Digital card capability storing 200 certification results or 4 graphic results per Megabyte of memory.
- A large color ¼ VGA LCD display provides a rich, easy to use graphical user interface, speeding users through twisted pair and fiber optic cabling certification and diagnosis.
- "Talk" feature allows two-way voice communication between the main and remote units.

SPECIFICATIONS

(Range of test is determined by network or selected standard)

Cable Types

Shielded and Unshielded Twisted Pair (STP and UTP)
LAN Cabling:
TIA Category 6, 5e: 100Ω

ISO/IEC Class F, E, D, and C: 100Ω

Foil-Screened Twisted Pair (ScTP):
TIA Category 6, 5e: 100Ω

ISO/IEC Class F, E, D, and C: 100Ω

Fiber:
Multimode Fiber Optics Adapter IEC14763 Compliant.
Wave Lengths: 850/1300 nm

Singlemode Fiber Optic Adapter.
Wave Lengths: 1310/1550 nm

Test Standards
TIA Category 5E per TIA/EIA-568B

TIA Category 6 per TIA/EIA-568-B.2-1

TIA Category 6a per TIA/EIA-568C.2*†

ISO Class F per ISO/IEC 11081†

ISO Class E, D, C per ISO/IEC 11801

IEEE 802.3 10BASE-T, 100BASE-TX, 1000BASE-T

TSB140 Fiber Certification Testing

MM and SM

TIA 568B

ISO 11801

EN 50173

* *Requires additional AXT adapter.*
† *SCT2000 only.*

Supported Tests

Frequency Measurements
NEXT; Power Sum NEXT (PSNEXT); Equal Level Far-End Cross Talk (ELFEXT); Power Sum ELFEXT (PSELFEXT); Insertion Loss; Return Loss; Attenuation-to-Cross Talk Ratio (ACR); Power Sum ACR (PSACR); Impedance.

Single Point Measurements
Delay; Delay Skew; Length; Wire Map; DC Resistance

Diagnostic Measurements
WireMap vs. Length; NEXT vs. Length; Return Loss vs. Length.

Display
¼ VGA color display.

Input Protection
Protected against all continuous telco voltages, 100 mA over-current, and ISDN over-voltages.

Case
High impact plastic with shock absorbing overmold.

Dimensions
Main unit and smart remote including link interface adapter: 9" x 5" x 2.5" (22.7 cm x 12.7 cm x 6.3 cm)

Weight
Main unit: 2 lbs., 11 oz (1.2 kg)

Smart remote: 2 lbs., 11 oz (1.2 kg)

Power
Primary and Secondary instruments:

Rechargeable NiMH battery 7.2V, 4000 mAH

Typical battery life 10hours, with recharge time of 6 hours

May be charged while in the instrument (instrument powered down)

Calibration
Service center calibration period is 1 year.

ORDERING INFORMATION

Item (Qty)	Cat. No.
SCT2000 Structured Cable Tester	SCT2000
SCT1500 Structured Cable Tester	SCT1500
Included Accessories	
Cat 6 Permanent Link adapters (2)	6121-607
Cat 6 Channel adapters (2)	6121-608
Memory card multi-media - 32Mb	20010-008
Battery packs (installed) (2)	6280-354
Headsets (2)	27920-056
Mains battery charger/power supply (2)	6180-453
(1) LCMD Software CD	6111-764
(1) User Manual	6172-909
(1) Soft carry case	6420-144
Accessories Not Included	
Cat 7 Permanent Link adapter	6331-830
Cat 7 Permanent Channel adapter	6331-828
SCT - MMA Multimode fiber adapter	6111-766
SCT - SMA Single mode adapter	6111-765