

LANcat[®] System 6

Cable Tester & Talk Set



LANcat is the only network cable certification system with a modular design that allows you to select the test capability that meets your needs today, and to economically upgrade performance later to meet future requirements. Plug-in Performance Modules, a Datacom patented feature, provides flexibility to change the system to stay current with new standards.

The LANcat System 6 configuration, equipped with C5e Performance Modules, is the latest advancement in cable certification technology. It is the first portable cable tester able to provide performance measurements to 250MHz.

250MHz Performance Measures

LANcat System 6 is the first handheld instrument capable of basic link testing beyond the proposed CAT 6/Class E frequencies of 200MHz and able to provide performance verification of Enhanced CAT 5 and Gigabit cabling performance to 250MHz.

With C5e Performance Modules, the System 6 adds the advanced measurements of Equal Level Far End Crosstalk (ELFEXT), Power Sum ELFEXT, and Return Loss for certification of Enhanced Category 5 links (Cat 5e) to 100 MHz. In addition, 250 MHz measurements of Power Sum NEXT, Attenuation, and Power Sum ACR, plus Propagation Delay and Skew are also measured - all critical for verified support of very high data rate networks. The extended frequency testing provides a measure of usable link bandwidth by determining the PS-ACR zero point.

LANcat System 6 is fully Category 5/Class D compliant per TIA/EIA TSB-67 and ISO/IEC cable requirements, and also provides measures of CAT 5 headroom margin.

LANcat System Features

LANcat System 6 includes all the features and conveniences that are LANcat trademarks, including:

❖ Simple to Learn and Use

Cable certification has never been easier. Simply turn the dial to AUTOTEST and in 20 seconds observe the results. No confusing keypads or multi-layer menus to slow you down. Summary and detailed test results and graphs are clearly displayed. The brightly backlit LCD display is particularly useful in areas of low ambient light. The built-in Cable Toner facilitates location of cable ends with a common inductive amplifier/probe. Store up to 400 AUTOTESTS in each handset (800 total) for later recall or upload to PC.

❖ Test and Talk With One Instrument

LinkTalk™ provides voice communications over the cable under test, automatically finding usable wires, even if the cable is miswired. LinkTalk includes built-in microphones, individual earphones, volume controls, and Call Alert signal. Miniature audio jacks on the Handsets accept any conventional headset. LinkTalk keeps you talking even in buildings that prevent use of 2-way radios.



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❖ *Dual Instrument Displays*

DualView™ instrument displays provide full graphic displays at both main and remote units. An excellent aid for troubleshooting cable problems.

❖ *High Confidence Testing*

Plug-in Performance Modules provide an optimized interface to the cable under test and minimize measurement errors. Performance Modules allow easy connection to 110 Blocks, BIX Blocks, ALL-LAN (Mini-C) jacks, coax, and fiber-optic cable. Testers can be calibrated in the field for maximum accuracy, and provide Pair Reversal and Repeatability functions to verify unit performance.

❖ *Test Fiber*

Each LANcat Handset can be converted to a precision, optical power meter with the optional FIBERcat™ Performance Module. FIBERcat is capable of measuring optical loss for both multimode and singlemode fiber. FIBERcat measures 850 nm, 1300 / 1310 nm, and 1550 nm wavelengths with 0.1 dB resolution and provides result storage.

❖ *Better Power Options*

LANcat Handsets offer the convenience of operation from either common alkaline AA cells, AC/mains adapter, or an optional, rechargeable Nickel Metal Hydride (NiMH) battery pack.

❖ *Report Manager Software*

Datacom's Report Manager Software (RMS) allows quick and easy uploading of test reports. RMS automatically establishes a serial link with the PC and provides a simple, intuitive interface for summarizing, sorting and printing test reports. RMS is fully Windows95/NT compatible.

❖ *More for Your Money*

Every LANcat test system is backed with an industry-leading 2 year warranty, free firmware upgrades, free Report Manager Software, and unlimited professional technical support.

❖ *LANcat System 6 Contents*

LANcat Handsets (2), C5e Modular Plug Performance Modules (2), Protective Handset cases (2), LinkTalk earphones (2), PC interface cable, Report Manager software, Calibration Standard, Calibration Coupler, AA alkaline batteries (16), AC/mains adapters (2), hard plastic carrying case with locks, and User's Manual.

❖ *Power (each Handset)*

Standard: 12 hours operation (>800 Autotests) from 8 AA alkaline batteries
Optional: Removable, rechargeable NiMH battery pack

❖ *Size (each Handset):* 9.6 x 3.9 x 2.5 in. (31 x 9.9 x 6.3 cm)

❖ *Weight (each Handset):* 1 lb. 15 oz. (0.88 kg)

Datacom Textron

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Test Functions

250 MHz Power Sum	NEXT (2-way)
NEXT/ACR	Pair Reversal*
ACR (2-way)	Return Loss
Attenuation	Power Sum ELFEXT (2-way)
Cable Toner	Power Sum ACR (2-way)
Characteristic Impedance	Power Sum NEXT (2-way)
ELFEXT (2-way)	Propagation Delay
Ethernet Traffic	Propagation Delay Skew
(utilization, collisions)	Repeatability*
Impedance Anomalies	Resistance
Impulse Noise	WireMap (4 pair + shield)
Length	*Instrument consistency checks

Cable Standards Supported

TSB-67 CAT 3,4, 5*	AS/NZS 3080 Class C, D*
TSB-95 CAT 5	BICC Millennium*
TIA Category 5e	FTP 120 Ohms*
EN 50173 Class D*	JIS X 5150*
ISO 11801 Class C, D*	*250 MHz Power Sum
ScTP Class C, D*	

Network Standards Supported

IEEE 802.3: 10BASE2, 10BASE5, 10BASE-T, 100BASE-T4, 100BASE-Tx*, 1000BASE-T (Gigabit Ethernet)
IEEE 802.5: Token Ring 4 Mbps or 16 Mbps
IEEE 802.12: 100VG-AnyLAN
ANSI X3T9.5: TP-PMD*
ATM 155 Mbps*

Measurement Accuracy (Basic Link test configuration at 100 MHz)

	TIA TSB-67 Level II Requirements	Typical LANcat Performance
NEXT	1.6 dB	0.72 dB
Attenuation	1.0 dB	0.44 dB
Dynamic Accuracy	0.75 dB	0.30 dB
Residual NEXT	55 dB	60 dB
Random Noise	65 dB	77 dB
Output Signal Balance	37 dB	46 dB
Common Mode Rejection	37 dB	46 dB
Return Loss	15 dB	20 dB