



## CT650 CENTEST® Wideband Test Unit

Centralized Remote Testing for DS3/1/0 Based Services

# A comprehensive remote testing strategy

Communication today is taken for granted. From traditional voice services to high-speed data applications, your customers expect flawless performance. Increased competition has made service quality and speed of turn-up critical to your survival. Continued cost reductions leave fewer people to do the work, so automation and efficiency are essential.

A comprehensive remote testing strategy enables you to address these challenges. JDSU delivers such a strategy with our CT650 remote test units and NetAnalyst test management system. Together, these products offer a complete testing solution for all types of network service providers.

## CT650 Remote Test Units

The CT650 family consists of two rack-mounted single-shelf systems:

The CT650 is a modular test solution that enables testing of services and facilities throughout the network. The CT650 offers slots for up to 15 test modules for various applications—DS0, FT1, DS1, DS3 and STS-1.

The CT650-S is a compact, economical test solution for similar applications in smaller offices. The CT650-S offers slots for up to six test modules.

The CT650/650-S systems, in conjunction with NetAnalyst, remotely monitor and test circuits for provisioning as well as ongoing maintenance, so you can quickly identify network trouble spots and efficiently direct maintenance resources from one centralized location. With the CT650/650-S and NetAnalyst, you reduce field dispatches and respond more quickly to your customers.

## The Standard in Testing Solutions

JDSU is the worldwide leader in telecommunications testing. Our T-BERD and FIREBERD instruments are the standard in public and private networks for circuit installation and troubleshooting. We bring this same knowledge and experience to centralized remote testing with the CT650/650-S. Combining innovative testing products with a complete portfolio of support services tailored to meet your requirements, JDSU offers you an unmatched solution for all your testing needs.

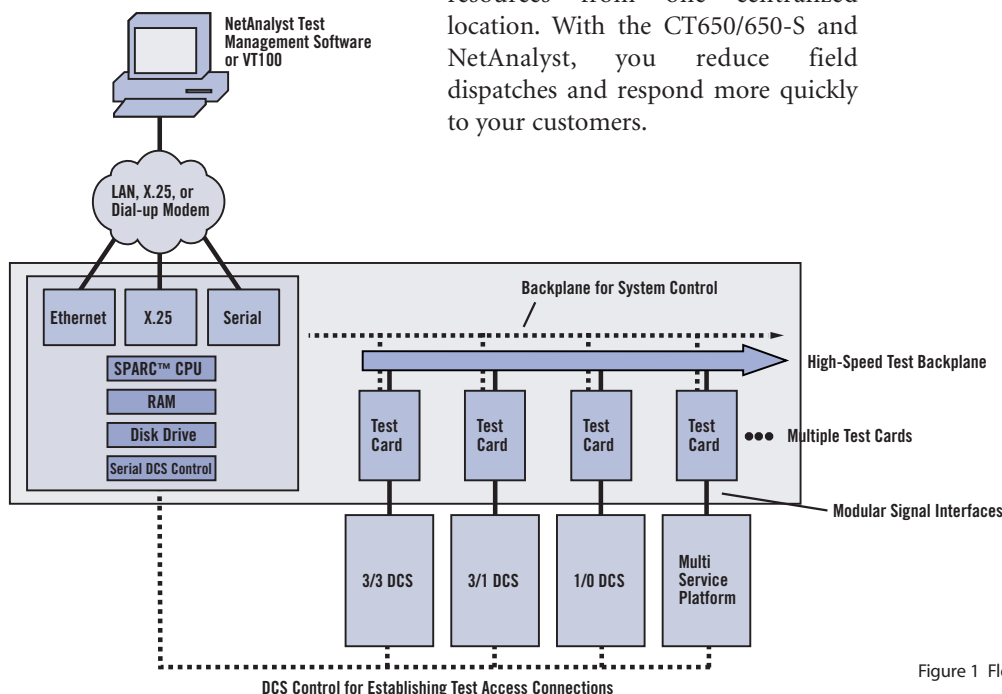


Figure 1 Flexible, modular architecture

# Benefits

## Efficient Use of Testing Personnel

Highly skilled testing personnel are a valued resource. Centralized testing staff, along with a complement of CT650 test units in remote offices, enables technicians to test the entire network without leaving the network operations center (NOC). Service providers reduce response times, repair times, finger pointing, and repair costs—leading to increased profitability and customer retention.

## Improved Responsiveness to Customers

CT650 remote test units help accelerate the trouble ticket resolution process. New service orders can also be quickly satisfied by using the CT650 in the test and turn-up process. Since the CT650 allows service providers to respond to customers with speed and accuracy, it gives providers a competitive edge.

## Flexible and Scalable

With an on-board SPARC processor, the CT650 provides maximum flexibility for a variety of deployment options. For example, the CT650 may be deployed in a central office for digital cross-connect system (DCS) turn-up testing even before the NOC is operational. In this scenario, the CT650 may be used locally via its VT100 menu-driven interface or via the NetAnalyst software executing on the test head. When the NOC is available, the client/server NetAnalyst software is installed, thus providing a smooth migration.

## Reduced Equipment Cost

Centralized testing enables service providers to perform multiple, simultaneous tests at a fraction of the cost of traditional methods. Test resources are pooled and can be accessed by users at any location, which reduces hardware costs. The

CT650 installs quickly and easily, so service providers can realize its benefits immediately.

## Accelerated Revenue Flow

The CT650 expedites the circuit turn-up process by eliminating a dispatch to the central office or customer site for testing. As circuits are provisioned more quickly, carriers realize revenue sooner. This is especially important for emerging service providers.

## Increased Return on DCS Investment

Service providers install DCSs to streamline provisioning and grooming operations, replace multiple digital signal cross-connect (DSX) bays, and improve network efficiency. The DCS is an ideal test access device—and the CT650 is the most economical DCS-based testing solution. The CT650 connects to the DCS and automatically configures it to switch the appropriate signals to the test ports for monitoring and testing.

## Designed for Growth

The CT650 units are designed for future requirements. The high-speed backplane, combined with a modular interface design, allows flexibility in supporting DS3/1/0 signals. This expandable architecture enables the CT650 to address testing needs as they evolve throughout the network.

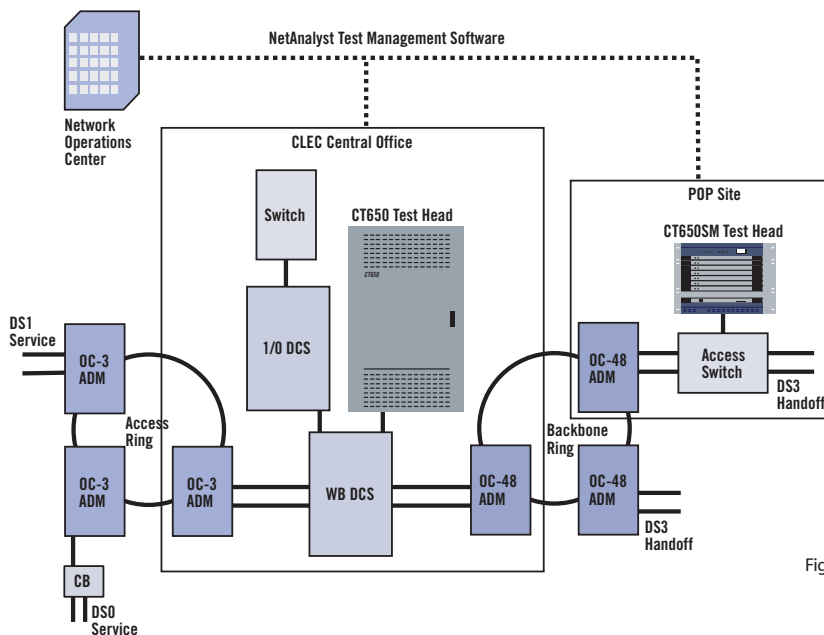


Figure 2 Testing in a CLEC network

# Features

## Multi-Rate Backplane

All test cards connect to a common backplane capable of transferring signals at multiple rates. This provides flexibility in performing drop and insert of signals from multiple cards at various rates.

## Modular Interfaces

The CT650 is designed to meet the testing needs of today and tomorrow. Interfaces are modular and flexible to allow support of wirewrap connections for DS1, coaxial BNC for DS3 and STS-1.

## Sun SPARC™ Architecture

The CT650 uses a Sun SPARC controller running the Solaris™ UNIX operating system. The SPARC CPU provides the power to process results from multiple testing applications. UNIX provides a multi-tasking environment that eliminates contention for resources. The Solaris operating system ensures ongoing support as well as new features provided under the SPARC architecture.

## Slots for Multiple Test Cards

The CT650-S accommodates up to six application test cards, and the CT650 accommodates up to 15 cards, in a single shelf. Test cards may be installed in any combination to satisfy unique service provider requirements.

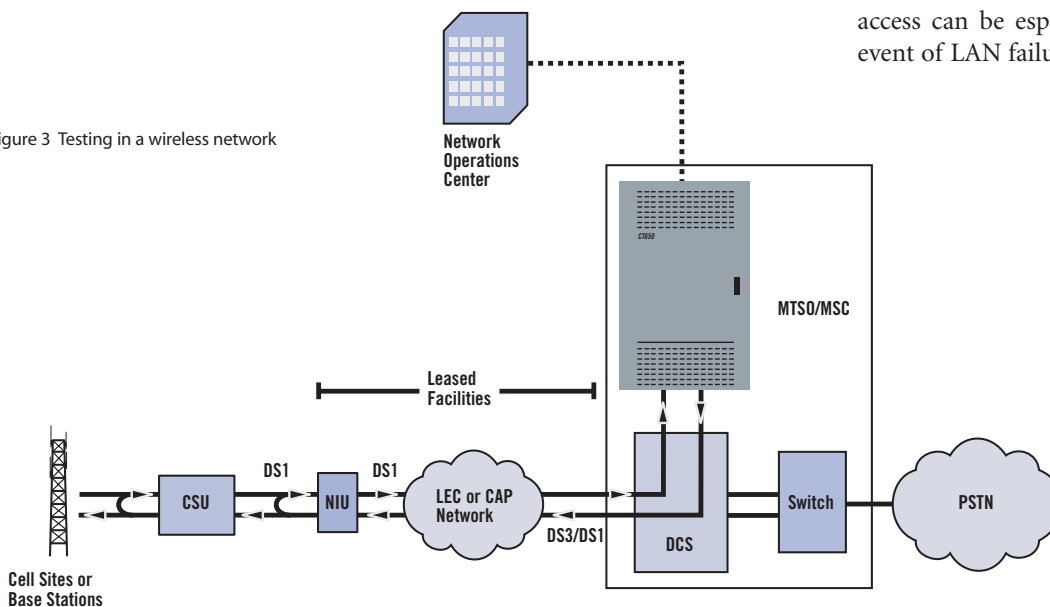
## Interface with DCS and Test Access Devices

The CT650 interfaces with 1/0, 3/1, 3/3, and SONET DCSs, along with test access devices for access to circuits under test. The CT650 automatically sends the appropriate commands to the access device to establish test access connections for monitor, split, and loopback.

## Ethernet, X.25, and Dial-Up Modem Interfaces

The CT650 supports multiple interfaces for remote access. An integral Ethernet interface eliminates the need for an external terminal server and enables access over the IP network. This interface also enables quick remote software downloading. An X.25 interface is also offered, which allows multiple, simultaneous sessions over a single RS-232 connection. Finally, the CT650 units offer a dial-up modem, which provides access to the menu-driven VT100 interface. This access can be especially useful in the event of LAN failure.

Figure 3 Testing in a wireless network



# Applications

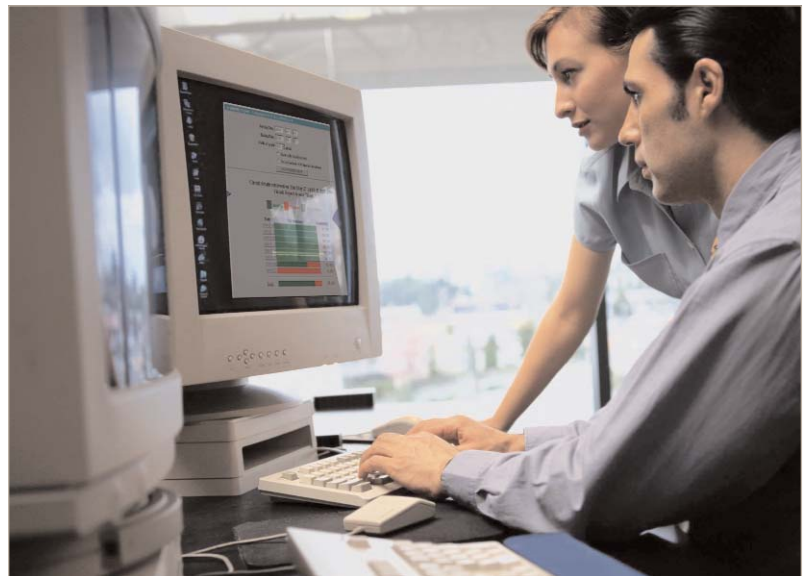
---

## **CLEC Network**

In a Competitive Local Exchange Carrier (CLEC) network, the CT650 is used for testing multiple services, typically accessed from a DCS. The CT650 tests DS0, DS1, and DS3 services for both on-net and off-net customers. The CT650 can also test via a test access switch enabling DS3 sectionalization at carrier hand-off points.

## **Wireless Network**

In a wireless network, the CT650 is used for turn-up and maintenance testing of cell site facilities, enabling resolution of finger-pointing issues along these leased lines. As a result, service providers accelerate circuit installation and trouble ticket close-out, reduce operational costs, and improve responsiveness to customers.





All statements, technical information and recommendations related to the products herein are based upon information believed to be reliable or accurate. However, the accuracy or completeness thereof is not guaranteed, and no responsibility is assumed for any inaccuracies. The user assumes all risks and liability whatsoever in connection with the use of a product or its application. JDSU reserves the right to change at any time without notice the design, specifications, function, fit or form of its products described herein, including withdrawal at any time of a product offered for sale herein. JDSU makes no representations that the products herein are free from any intellectual property claims of others. Please contact JDSU for more information. JDSU and the JDSU logo are trademarks of JDS Uniphase Corporation. Other trademarks are the property of their respective holders. ©2006 JDS Uniphase Corporation. All rights reserved. 30137318 500 0906 CT650.BR.SYS.TM.AE

#### Test & Measurement Regional Sales

<b>NORTH AMERICA</b> TOLL FREE: 1 866 228 3762 FAX: +1 301 353 9216	<b>LATIN AMERICA</b> TEL: +55 11 5503 3800 FAX: +55 11 5505 1598	<b>ASIA PACIFIC</b> TEL: +852 2892 0990 FAX: +852 2892 0770	<b>EMEA</b> TEL: +49 7121 86 2222 FAX: +49 7121 86 1222	<b>WEBSITE: <a href="http://www.jdsu.com">www.jdsu.com</a></b>
---	--	---	---	--