EX400

LXI™-VXI Hybrid Systems Kit

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*Instruments Not Included

Overview

The EX400 provides the infrastructure required for quickly integrating two of the test industry's most popular instrumentation platforms within hybrid ATE systems. With the rapid adoption of LXI as the natural successor to GPIB as the communication bus to rack instruments, and the vast installed base of VXI modular instrumentation, system developers are looking for ways moving forward to leverage their existing VXI-based designs, while seamlessly introducing LXI devices within the same system. The EX400 Hybrid Systems Kit includes a VXIbus 13-slot 1000 W mainframe (CT-400) and an LXI-VXI slot 0 interface (EX2500A), which effectively links the VXIbus instruments to an LXI network, at a ground-breaking price and performance combination.

Two Complementary Standards Designed for Longevity

The LXI standard was introduced in 2005 and incorporated many of the features on top of the already popular Ethernet protocol that are critical for automated test applications, including:

* Auto-discovery of instruments (VXI-11)
* Device synchronization/triggering (IEEE-1588, Class B)
* Module to module hardware handshaking (Class A)

These features have been inherent to the VXIbus since its initial specification. The EX400 allows VXI instruments to reside on an LXI network and facilitates communication between LXI and VXI instruments. All eight of the VXI TTL backplane trigger lines are brought to the front panel via LXI compliant connectors for extending triggering to multiple VXI mainframes as well as other LXI Class A devices. This enables VXI and LXI devices to be used together in applications that require precision control of module to module handshaking. The EX400 also delivers industry leading cooling, precision oscillator options for the system clock, and 1000 W of power capable of sourcing the most demanding test applications.

Simplified Connectivity to VXIbus Systems

The EX400 provides a standard CAT5e Ethernet cable, commonly found in any consumer electronics house at minimal cost, for connection back to the host computer. Distances between mainframe and host of up to 200 meters can be realized. A fiber-optic connection is available if even greater distances are required. Wireless control of VXI instruments is also now possible through the use of wireless routers. Low-cost gigabit Ethernet switches can be used to connect multiple mainframes to a single host. For legacy systems, SMB connectors are provided for single-line trigger input/output as well as external reference clock input/output.

Features

Quickly link VXIbus instruments to an LXI network to build a system that will outlive the test requirements

Built-in Embedded Web Interface for control of VXIbus Instruments from anywhere in the world

Compliance with industry standard VISA implementations enables reuse of existing code

Seamlessly trigger and synchronize LXI and VXI instruments for tight control of test sequencing

High stability system clock options increase measurement accuracy

Industry-leading cooling implementation helps ensure instrument reliability

40 MB/s block transfer rates

Raises the performance bar while reducing costs

LXI Systems

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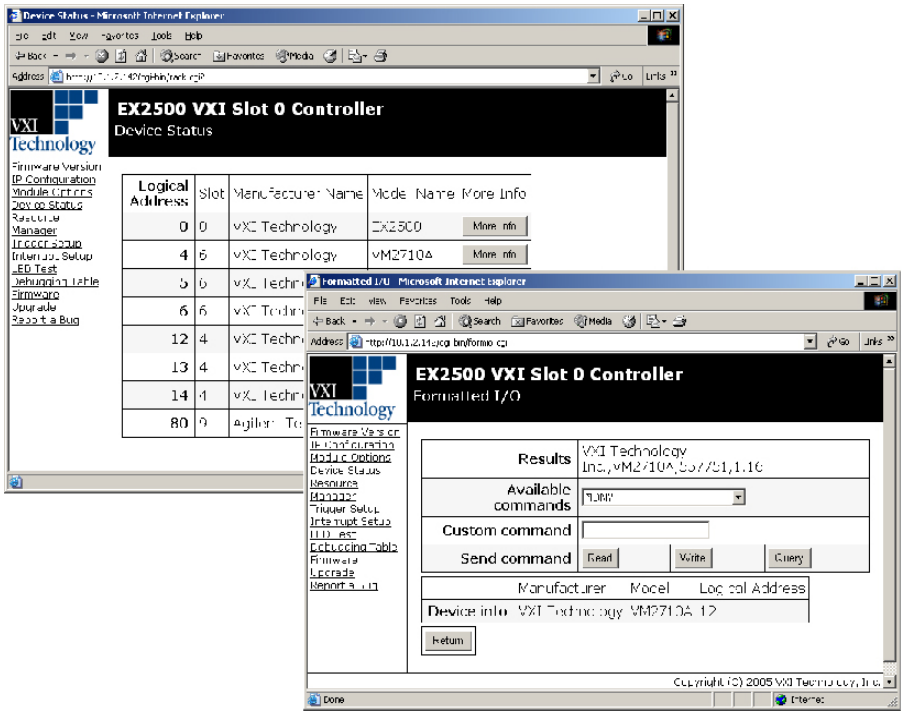
Familiar Software Interfaces

The EX400 is fully compliant with the VXI*plug&play* and LXI specifications and implements VISA as the API communication layer. A standard VISA I/O library is included and integrates seamlessly with either Agilent Technologies or National Instruments™ versions of VISA. This greatly simplifies installation of the EX400 into legacy systems using the VISA protocol and preserves any investment in existing TPS and driver development by eliminating the need for costly code modifications.

The VXI Resource Manager is executed automatically at power up time and all system resources are allocated without the need to run a separate utility. Instruments are identified on the LXI network as traditional VXIbus devices. The EX400 incorporates an LXI compliant embedded web interface which shows system status including installed VXI hardware, memory allocation, IP configuration and logical address information. Direct communication to installed devices through message or register-based commands, can be achieved through this interface. Firmware updates to the module can be accomplished through a few mouse clicks.

General Specifications

LXI Compliance:	Class A
VISA Support:	NI-VISA, Agilent VISA
Operating Systems:	Windows XP//2000/NT
Max Data Transfer Rate:	40 MB/s (Block move)
Power:	1630 W Available, 1000 W Usable
Size:	14” (8U) x 25” D x 16.3” W
Weight:	< 50 lbs.
CLK10 options:	+/- 50 ppm standard TCXO and OCXO options
Trigger Support:	VXITTL0-7 LXI0-7 TRIG IN/TRIG OUT (Front Panel)



Embedded Web Interface