



## LXI SIMPLIFIES SATELLITE TESTING SYSTEM.

### Background

A power subsystem for satellite testing might require over 300 power supplies to run a thermal vacuum chamber. While a system based on GPIB could be designed for the installation, it would require multiple channel expanders because each controller has a much lower channel limitation. It would also be more complicated and expensive to implement. A connection with GPIB would require bulky cables, and the setup of all channel addresses and subaddresses would be much more difficult to establish and troubleshoot.

### LXI Solution

Elgar Electronics Corporation overcame these issues by using LXI-compliant power supplies. The power subsystem consisted of racks containing up to 60 power supplies. Each rack subsystem was controlled by a simple Ethernet connection that integrated an inexpensive off-the-shelf hub into the rack along with simple off-the-shelf cabling from the hub to groups of master/slave power supplies.

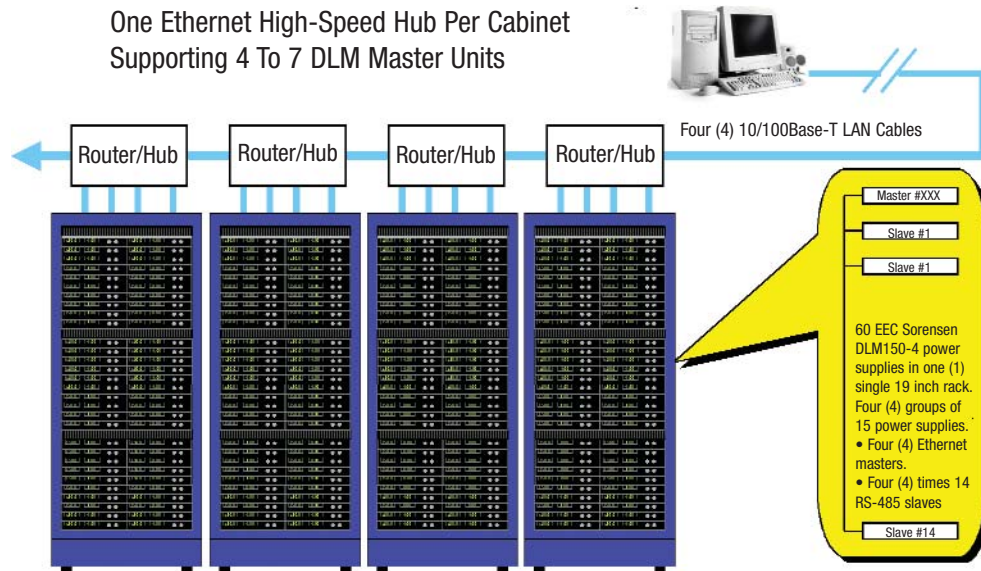
System control and integration was made much easier by the use of IVI drivers, which are required for LXI compliance. Troubleshooting and debugging was streamlined by VXI-11 discovery. Each LXI-compliant power supply also supports a device specific web page. One LXI-required item on these web pages is an ID light that helps to physically identify individual power supplies, further simplifying integration and control.

LXI made the implementation of this system quicker, easier and less expensive. Other benefits of Elgar's integration with LXI technology include:

- A single IP address for each rack subsystem
- LAN cabling saves space and cost
- Faster control due to LXI's increased speed over GPIB
- Web control of supplies for diagnostics and lab testing
- Simpler and less costly spare parts
- Ethernet cables and hubs are carried at all computer stores
- Simplified system integration by the customer
- The system was up and running almost immediately



Compared to a GPIB solution the LXI system required only a single controller. Cabling was much simpler and less expensive and troubleshooting was simplified due to LXI's use of web pages and VXI-11 discovery.



### About LXI and the LXI Consortium

LXI is the LAN-based successor to GPIB. The LXI standard goes beyond GPIB to provide additional capabilities that reduce the time it takes to set up, configure and debug test systems by connecting directly to the standard ports on a PC. It also removes the inherent cable length limitations of GPIB. Also, LXI software and drivers simplify test system set-up. LXI also helps integrators leverage the time and effort already invested in system software and architecture.

The standard is managed by the LXI Consortium, a not-for-profit corporation comprised of leading test and measurement companies. The group's goals are to develop, support and promote the LXI standard. LXI's flexible packaging, high-speed I/O, and prolific use of LAN address a broad range of commercial, industrial, aerospace and military applications. Additional information about LXI-compliant products as well as licensing, specifications and consortium membership is available at [www.lxistandard.org](http://www.lxistandard.org).



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