# GPIB-to-Ethernet Interface enables a user to add Ethernet-based instruments to his GPIB test system

Today ICS Electronics announced a new GPIB-to-Ethernet Interface for adding instruments with Ethernet interfaces to the GPIB Bus. ICS's Model 4865B is a new version of ICS's 4865 Interface that enables a user to add Ethernet based instruments to his GPIB Test System. The 4865B is 2x to 5x faster than the original 4865 and includes the Raw Socket protocol for interfacing to a larger number of instruments.

The need for the 4865B about as many instrument companies are building new instruments without GPIB interfaces, in the belief that everyone will only want to build Ethernet-oriented Test Systems in the future. Some of these instruments are VXI-11 compatible but many just use the raw socket protocol. This leaves the engineer who wants to expand or upgrade his GPIB based Test System with less instruments to choose from. It also limits the instrument company's ability to sell their new instruments. The 4865B solves this problem by acting as a transparent, GPIB-to-LAN Instrument Interface for the new Ethernet only instruments.

The new Model 4865B gives the user his choice of two protocols: VXI-11 for communicating with VXI-11.3 compatible instruments and Raw Socket for communicating with raw socket instruments.

VXI-11 is a communication standard developed by the VISA consortium in 1995 in conjunction with the VISA Specification. The VXI-11.3 sub-standard covers LAN

instruments with Ethernet interfaces and provides a full GPIB-like control experience. Many LAN instruments are VXI-11.3 compatible even if they respond to other commands and protocols.

Raw socket communication handles the basic write-read functions. The 4865B has many optional settings that let the user upgrade the basic raw socket communication to be more GPIB-like with substitute command strings for GPIB commands such as Device Trigger, enable instrument discovery, enable Serial Polls and service requests etc. The ability to use the optional settings depends entirely upon the instrument's capabilities.

After power turn-on, the 4865B searches for and links to the first instrument it finds or it will link to an instrument at a fixed IP address. Once linked, the 4865B acts as the application client. It converts GPIB commands and device messages into the appropriate LAN messages and sends them onto the instrument. Replies from the instrument are talked out on the GPIB bus when the 4865B is next addressed to talk. The 4865B mimics the LAN instrument's responses on the GPIB bus. If the LAN instrument is IEEE-488.2 compatible, then the 4865B is IEEE-488.2 compatible.

The Model 4865B is configured over its Ethernet interface with any web browser and does not require any special configuration utilities or drivers. It will operate in any system with a GPIB bus. The 4865B is a RoHS compliant assembly and has been CE Certified.

Pricing for the Model 4865B is $575 each is quantities of 1 to 4 units, FOB Pleasanton, California. Delivery is 3 to 4 weeks ARO.

ICS Electronics is a pioneer and leader in the design and development of IEEE 488 Bus support products, Serial and VXI bus products. ICS's GPIB product line includes GPIB Controllers, Interfaces, Expanders, Extenders and many GPIB support products.

DataSheet URL: http://www.icselect.com/gpib_lan_ds.html [1]

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[1] http://www.icselect.com/gpib_lan_ds.html