488-LPCI

HI-SPEED GPIB CONTROLLER CARD for PCI BUS COMPUTERS

- Converts any PC with a 32 bit PCI bus into a IEEE-488.2 GPIB Bus Controller. *Controls all GPIB devices.*

- High 1 MHz transfer rate. *Reduces test time.*

- New 488.2V4 Driver supports 32 and 64-bit Windows XP, Vista and Windows 7 with a true 64-bit DLL. *Use the full 64-bit address space. No thunk DLLs.*

- NI 'ib' and '488.2' command compatible. *Runs LabVIEW, MATLAB and other programs with NI calls without changes.*

- Works with Agilent, NI and Kikisui VISA libraries. *Supports all major VISA libraries and test programs.*

- ICS's Explorer auto configures your controller. *Find, configure and control instruments in one program.*

- WIN 2K and WIN 2003 support with 488.2V3 Driver. *Full legacy support.*

CE *Approved*

☑ *RoHS Compliant*

DESCRIPTION

ICS's 488-LPCI is a low-profile PCI GPIB Controller Card that converts any PC with a PCI bus slot into a full-function IEEE 488.2 Bus Controller. The 488-LPCI performs all of the basic IEEE 488.1 controller functions such as talker, listener and system controller. Its IEEE-488.2 controller routines make it fully compliant with the IEEE 488.2 specification. The 488-LPCI includes ICS's new 488.2V4 Driver which supports up to sixteen GPIB controllers and runs on Windows XP, Vista and Windows 7 operating systems. The 488-LPCI is an easy and economical way to add GPIB control to a PC and run automated test programs.
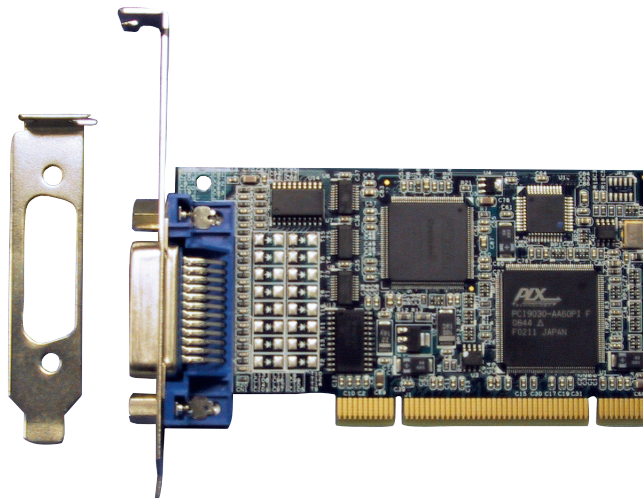
488-LPCI GPIB Controller Card
(includes a spare low profile bracket)

Hardware

The 488-LPCI GPIB Controller Card plugs into any computer's 32-bit/33 MHz PCI bus and provides a GPIB interface for controlling GPIB and HP-IB devices. Its PCI interface supports both 3.3 volt and 5 volt PCI buses. An on-card FIFO and its high-speed GPIB controller chip enables the 488-LPCI to transfer data over the GPIB bus at rates up to 1 megabytes per second. The cards' data transceiver risetimes do not cause lockup in older GPIB devices and are filtered to reduce PC-GPIB bus noise problems. The 488-LPCI cards are Plug & Play compatible and include a low-profile bracket for mounting in new, low profile chassis.

Driver Library

ICS's new 488.2V4 multi-controller Driver Library provides full 32-bit (x86) and 64-bit (x64) support for ICS GPIB Controllers on all Windows XP, Vista and Windows 7. ICS's true 64-bit DLL handles the full 64-bit address space. ICS's 32-bit 488.2V3 Driver provides 488-USB2 support on Windows 2K and Windows Server 2003.

Both drivers fully support the National Instruments' style 488.1 'ib' and 488.2 command sets. ICS's GPIB-32.DLL is command compatible with GPIB Controllers from National Instruments, Measurement Computing, CEC, and others.

The drivers directly support C, C++, C#, Visual Basic 6, and Visual Basic.NET(2005, 2008 and 2010) programs that make GPIB-32.DLL calls. Included library is easily adapted to other languages like Java. The driver is also compatible with National Instruments, Agilent and Kikisui VISA. This industry standard compatibility lets the 488-USB2 run programs like LabVIEW, LabWindows/CVI, Agilent VEE, MATLAB, TestPoint, C, VB.NET and other programs that make VISA calls.

ICS Explorer Program

The 488-LPCI includes ICS's Explorer program which automatically configures your Controllers then locates and displays all compatible GPIB Controllers and Devices in your system.

From the main window you can examine every device, link to the Configuration and Communicate windows or verify the software installation. The Configure window lets you quickly view and change the Controller's settings. The Communicate window lets you interactively control any GPIB device from the computer keyboard without having to write a program. Communicate includes all of GPIBkybd's features and is ideal for exercising GPIB devices or for trying out device commands before using them in a program.

LabVIEW

VEE Pro
"Better Tests Faster"

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488-LPCI Specifications

GPIB Capabilities

IEEE 488.1 Capabilities:
The 488-LPCI meets IEEE-STD-488.1 with the following capabilities:
   AH1, SH1, C1, C2, C3, C4, and C12
   E2 Drivers incorporate power up/down protection and signal filtering.

IEEE 488.2 Capabilities:
Includes all required 488.2 controller protocols and the ability to monitor the bus signal lines.

GPIB Handshake Rate
   488-LPCI   Up to 1 Mbytes/sec

Test Programs Compatibility

488-LPCI and 488.2V4 driver support:
   Agilent IO Library (14.2-16.0) 32-bit only
   Aligent Vee (3.1 thru 8.0)
   CEC Testpoint* with VISA
   Codegear Borland Delphi 2007
   Labview (8.6.1, 2009 and 2010)
   MathWorks MATLAB# with VISA
   Tektronix WaveStar

Notes: *with optional mfgr drivers
          #with MATLAB Instrument Toolkit

488.2V4 Driver Capabilities

ICS's new 488.2V4 Driver provides the following Controller capabilities: C1-C4 and C12.

Supported Windows Operating Systems
32 and 64-bit XP, Vista and Windows 7 with true 32 and 64-bit DLLs that support the full 32/64 bit address ranges.

Commands
All NI 488.1 and 488.2 commands except for the following obsolete commands: ibevent, ibist, ibloc for a board, ibtct, parallel poll, pass control and device mode.

Number of Controllers
16, any mix of the following ICS Controllers: 488-USB2, 488-LPCI, and 488-PXI.

Windows Supported Languages:
Microsoft Studio 6 Visual Basic and C/C++/C#
Microsoft Visual Studio 2005, 2008 and 2010
    Visual Basic.NET and C/C++/C#

Supplied Headers and Library Files
C/C++/C# and Visual Basic files for Visual Studio 6 and Visual Studio.NET (2005/2008/2010).

Included Utility Programs
ICS Explorer - Performs automatic Controller configuration after driver installation and finds all GPIB devices. Provides Configure, Communicate with Instrument and Installation Verification capabilities.
VISAkybd - Find and control GPIB devices with a VISA library

488.2V3 Driver

Similar support for Windows 2K and WIN 2003.

System Requirements

Intel type PC
Windows XP/Vista/7 with the latest Service Packs.
50 Mbytes of free Hard Disk space.
.NET Framework 2.0 or later for ICS Explorer.

Physical

Size
   4.75 in L x 2.54 in excluding connectors
   (12.1 cm L x 6.45 cm H)

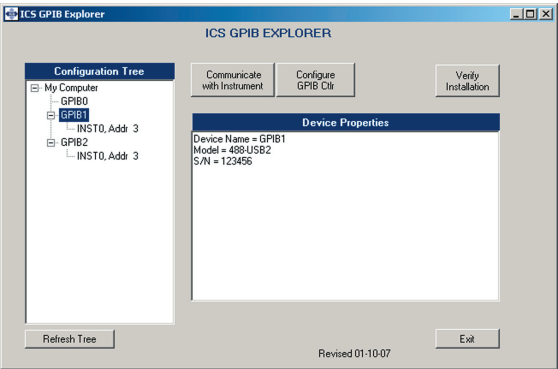|	
Construction	RoHS Compliant
Temperature	
Operating	0 °C to +55 °C
Storage	-20 °C to + 80 °C
Humidity	5-95% RH non-condensing
Shock/Vibration	Normal handling
Connectors	
GPIB	GPIB 24 pin ribbon with metric studs.
Power	400 mA typical 750 mA maximum
RFI/EMI	CE, FCC Class A ED89/336/EEC EN55022, EN55024
Safety	EN61010-1/IEC 1010

Included Accessories

Instruction Manual with complete programming instructions and command definitions.
Support CD with ICS 488.2V4 Driver, command libraries, example programs, ICS Explorer, and VISAkybd programs.
Low-profile PC bracket

ICS Explorer Program

**For more information call
1-800-952-4499**

ORDERING INFORMATION   Part Number

488.2 PCI Controller Card with a complete Instruction Manual, 488.2V4 Driver Libraries and ICS Explorer Program	488-LPCI
IEEE 488 Bus Cables from 0.5 to 20 meters long	See separate data sheet