PC GPIB PRODUCTS

DESCRIPTION

ICS's 488-USB is a small USB-to-GPIB Controller Module that converts any PC with a USB interface into a full-function, IEEE 488.2 Bus Controller. The 488-USB performs all of the basic IEEE 488.1 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-USB Controller includes ICS's new 488.2V3 Driver which supports up to sixteen GPIB controllers and runs on Windows 2K/2003 Server/XP and Vista 32-bit operating systems. The 488-USB Controller is also supported by our earlier 488.2 Driver for users with Windows 98 or Me operating systems. The 488-USB can be used with desktop PCs to run a large test stands or carried around as a GPIB interface for a laptop PC. The 488-USB is the most economical USB GPIB Controller available.

Hardware

ICS's 488-USB Controller is a small module that plugs onto any open GPIB connector. The open GPIB connector can be the open end of a cable stack, on the back of an instrument or an unused connector on ICS's GPIB BusStrip™. Finger size jackscrews secure and hold the 488-USB module in any position. Three LEDs provide visual status and diagnostic help for troubleshooting system problems.

Driver Library

ICS's new 488.2V3 multi-controller Driver Library supports the National Instruments' style 488.1 'ib' and 488.2 command sets with its own GPIB-32.DLL. It is command compatible with GPIB Controllers from National Instruments, Measurement Computing, CEC, and others. ICS's 488.2V3 Driver supports C, C#, Visual Basic 6, Visual Basic.NET(2005 and 2008) and Delphi 2007 programs that make GPIB-32.DLL calls.

ICS's 488.2V3 Driver is also compatible with National Instruments' VISA and Agilent's VISA/SICL libraries. This industry standard compatibility lets the 488-USB run LabVIEW and LabWindows/CVI, VEE, MATLAB, TestPoint and other programs that make VISA calls.

Use with ICS's older 488.2 Driver for Windows 98 and Me systems.

Now with ICS's new 488.2V3 Drivers

ICS Explorer Program

The 488-USB also includes ICS's new Explorer program which automatically configures your Controllers then locates and displays all compatible GPIB Controllers and Devices in your system. ICS's Explorer can display up to 16 GPIB Controllers and their instruments.

From the Tree window you can examine every device, link to the Configuration and Communicate with Instrument forms or verify the software installation. The Configure form lets you quickly view and change the Controller's settings. The Communicate with Instrument form lets you interactively control any GPIB device from the computer keyboard without having to write a program. The Communicate form is ideal for testing the 488-USB Module, for exercising GPIB devices or for trying out device commands before using them in a program.

GPIB AnyWhere™ Software

The 488-USB also includes a license for ICS's GPIB AnyWhere™ software that lets you control your GPIB instruments from anywhere over the Internet or over an in-house network. GPIB AnyWhere™ adds a service to the host PC with the GPIB Controller and a client application to your desktop so that you can remotely control any GPIB devices connected to the host computer from your desktop. GPIB AnyWhere can control ICS controllers or ICS compatible controllers that install a GPIB-32.DLL on the host computer.

488-USB

USB-to-GPIB CONTROLLER MODULE for PCs

- Converts any PC with a USB interface into a GPIB Bus Controller.
  Lets any PC control GPIB and HP-IB Devices.
- Completely IEEE-488.2 Compatible
  Runs all required command protocols.
- NI 488.2 Compatible Command Library
  Runs C/C++, Visual Basic, LabView. BenchLink, VEE and IntuiLink plus other NI compatible programs.
- Includes ICS's Explorer and GPIB Keyboard programs for interactive control of GPIB devices.
  Lets you try out commands and control instruments without writing a program.
- Windows Plug&Play.
  Easy USB installation
- Includes GPIB AnyWhere
  Lets you control your GPIB devices from a remote computer or over the Internet.

CE Approved

VEE Pro "Better Tests Faster"

LabVIEW

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488-USB SPECIFICATIONS

GPIB Capabilities

IEEE 488.1 Capabilities:
The 488-USB meets IEEE-STD-488.1 with the following capabilities:
AH1, SH1, C1, C2, C3, C4, and C9
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-USB	100 kbytes/sec

USB Specifications

Device Type:
USB 1.1 Full-speed device
Bus Powered

Compatibility:
USB 1.1 and USB 2.0 compatible

Test Programs Compatibility

488-USB and 488.2V3 driver support:
Agilent Vee (3.1 thru 6.0)
CEC Testpoint with VISA
Labview (5.1 thru 8.2)
MathWorks MATLAB* with VISA
Tektronix WaveStar
Transera HTBasic
Codegear Borland Delphi 2007

Notes: * with MATLAB Instrument Toolkit

Software Capabilities

ICS's new 488.2V3 Driver provides the following capabilities:

Supported WIN32 Operating Systems

488.2V3 Driver	Windows 2K, 2003 Server, XP and Vista 32-bit.
488.2 Driver	Windows 98 and Me

Commands
Full NI 488.1 and 488.2 command sets except for Parallel Poll, Pass Control and device operation.

Number of Controllers
16, any mix of the following ICS Controllers: 488-USB, 488-USB2, 488-LPCI, 488-PXI and the Model 1105.

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

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.
GPIBkybd - Finds and controls GPIB devices.
Configure - Manual Controller configuration.

System Requirements

Intel type PC with a USB 1.1 or USB 2.0 powered USB port.
Windows 2K/2003 Server/XP/Vista32 with latest upgrades.
20 Mbytes of free Hard Disk space.
.NET Framework 2.0 or later for ICS Explorer.

Physical

Size
3.75 in x 2.45 in x 1.0 in plus jackscrews
(9.53 cm x 6.22 cm x 2.54 cm)

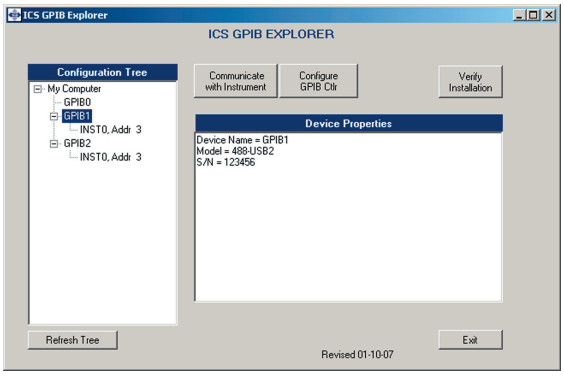
Indicators
PWR, TALK and LSTN LEDs

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	USB powered 300 mA maximum
RFI/EMI	CE, FCC Class A ED89/336/EEC EN55082, EN50081

Included Accessories

488.2V3 Instruction Manual with complete programming instructions and command definitions.
Older 488.2 Driver and Manual available on request for Windows 98/Me installations.
USB 2.0 Cable, 6 foot long.
Support CD with ICS 488.2V3 Driver, command libraries, example programs, ICS Explorer and GPIB AnyWhere™ program.



ICS Explorer

For more information call 1-800-952-4499

488-USB rear view showing USB connector and diagnostic LEDs

ORDERING INFORMATION

	Part Number
488.2 USB Controller Module with 2 m USB cable, Manual, 488.2 Driver Libraries and GPIBkybd Ctlr Program	488-USB
IEEE 488 Bus Cables from 0.5 to 10 meters long	See separate data sheet