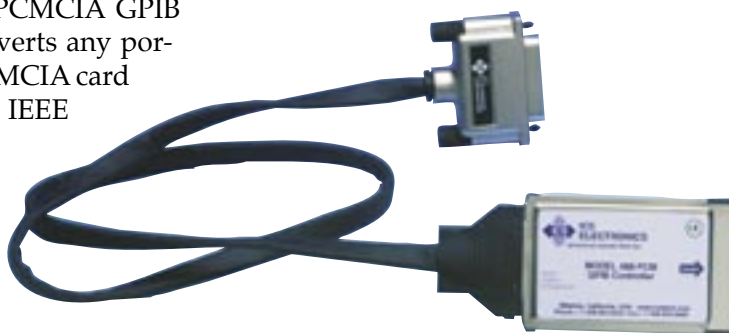


## PC GPIB PRODUCTS

Now .NET Capable

### DESCRIPTION

ICS's 488-PCM is an PCMCIA GPIB Controller Card that converts any portable PC or PC with a PCMCIA card slot into a full-function IEEE 488.2 Bus Controller. The 488-PCM 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-PCM card can also be programmed as a device interface. The 488-PCM card is WIN 98, ME, NT, 2K and XP Plug & Play compatible and lets Windows programs control GPIB devices.



### Hardware

The 488-PCM GPIB Controller Card plugs into the computer's PCMCIA socket and provides a GPIB interface for controlling GPIB and HP-IB devices and recording data. The 488-PCM card complies with the IEEE 488.1 Standard. An on card FIFO and controller chip enables the 488-PCM to transfer data over the GPIB bus at rates in excess of 1 megabyte per second. Its data transceivers do not cause lockup in older GPIB devices. The 488-PCM is a Plug & Play card and does not have any switches or jumpers.

### Software

The 488-PCM includes ICS's 488.2 Driver which supports programs that run on Windows 98, ME, 2K and XP operating systems. The 488.2 Driver includes National Instruments' style 488.1 'ib' and 488.2 command sets plus ICS's 488-PC2 Command Set.

ICS's 488.2 Driver supports Visual Basic and C/C++ language programs and is compatible with National Instruments' VISA, MAX and LabVIEW; Agilent's BenchLink, IntuiLink and VEE; Tektronix's Wavestar, Measurement Computing's SoftWire, Transera's HTBasic. MathWorks' MATLAB and CEC's Testpoint require additional drivers available from the program

manufacturers. Example programs are provided for C/C++, Visual Basic and VB.NET programmers.

Use ICS's 488-PC2 Command Set to adapt existing 488-PC2 programs to newer PCs with PCM interfaces.

### Keyboard Controller Program

The 488-PCM's software also includes ICS's GPIB Keyboard program which provides interactive control of GPIB devices from the computer keyboard without having to write a program. The GPIB Keyboard program is ideal for testing the 488-PCM Card, for exercising GPIB devices or for trying out device commands before using them in a program.

### Ease of Installation

ICS's 488-PCM Card is very easy to install. First run the software installation program to load the driver. Next install the card in a vacant PCMCIA slot. The Windows operating system will automatically detect the 488-PCM card and make it available to your program. You are now ready to use your portable PC to control GPIB devices and acquire data. GPIBtest will identify any inadvertent installation problems to get you quickly up and running.

### GPIB AnyWhere™ Software

The 488-PCM also includes 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™ makes it easy to share GPIB equipment or to run remote tests from your portable PC.


## 488-PCM

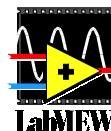
### HI-SPEED GPIB CONTROLLER CARD for PORTABLE PCs

- Converts any portable PC with a PCMCIA slot into a GPIB Bus Controller.  
*Lets portable PCs control GPIB and HP-IB Devices.*
- GPIB data transfer rate > 1 Mbytes/second.  
*Fast data transfer speeds up data capture.*
- 32-bit WIN98/NT/2K/XP Drivers with ICS and NI style commands.  
*Provides 488.2 support for all Windows compatible programming languages.*
- NI 488.2 style Commands run VEE, LabVIEW, etc.  
*Runs major application programs.*
- Includes ICS's GPIB Keyboard Controller program for interactive control of GPIB devices.  
*Lets you try out commands and control instruments without writing a program.*
- Includes GPIB AnyWhere  
*Lets you control your GPIB devices from a remote computer or over the Internet.*



- Windows Plug&Play.  
*Easy, foolproof installation.*

 Approved



 **ICS  
ELECTRONICS**  
*division of Systems West Inc.*

7034 Commerce Circle  
Pleasanton, CA 94588

Phone: 925.416.1000

Fax: 925.416.0105

Web: [www.icselect.com](http://www.icselect.com)

## 488-PCM SPECIFICATIONS

### GPIB Capabilities

#### IEEE 488.1 Capabilities:

The 488-PCM meets IEEE-STD-488.1 with the following capabilities:

- AH1, SH1, C1, C2, C3, C4, and C9
- E2 Drivers incorporate power up/down protection.

#### IEEE 488.2 Capabilities:

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

#### 488 Bus Performance

GPIB Handshake Rate >1 Mbytes/s

### Software Capabilities

#### Operating Systems

Windows 95/98/NT/2K and XP  
Windows 3.1 and DOS require PCMCIA card drivers.

#### Commands

ICS and NI command sets

#### Windows Supported Languages:

Microsoft Visual C/C++  
Microsoft Visual Basic  
Microsoft Visual Studio 2005 Visual Basic and C  
Borland C/C++ (16-bit)  
Borland Delphi (16-bit)

#### DOS Compatible Languages:

Microsoft C, Borland C, Quick Basic, Professional Basic and Turbo Pascal

#### GPIB Keyboard Controller Program

Interactively sends user inputs from the PC Keyboard to bus device, reads back device responses and executes other bus commands.

### Test Programs Compatibility

488-PCI and 488.2 driver support:

Aligent Vee (3.1 thru 6.0)  
CEC Testpoint\*  
Labview (4.0 thru 7)  
MCC Software  
MathWorks MATLAB\*  
Tektronix WaveStar

Notes: \*requires optional mfgr drivers.

### Commands

The following table lists just the NI 488.2 Commands. Contact ICS for a complete list of supported commands.

#### NI 488.2 Command Set

Command	Function
AllSpoll	Serial poll all devices
DevClear	Clears a single device
DevClearList	Clears multiple devices
EnableLocal	Sets a device to local
EnableRemote	Set a device to remote mode
FindLstn	Finds all devices that can listen
FindRQS	Finds the device requesting service
PassControl	Passes control to another controller
PPoll	Parallel polls all devices
PPollConfig	Configures a device for parallel polls
PPollUnconfig	Unconfigures a device
RcvRespMsg	Reads data from a talker
ReadStatusByte	Serial poll a device
Receive	Read data from a device
ReceiveSetup	Address a device to talk
ResetSys	Initialize system
Send	Send data to a device
SendCmds	Send GPIB commands
SendDataBytes	Send data to a listener
SendIFC	Sends IFC
SendList	Send data to multiple devices
SendLLO	Local lockout all devices
SendSetup	Address devices
SetRWLS	Puts device in Remote with local lockout state
TestSRQ	Check SRQ line
TestSys	Selftest devices
Trigger	Device trigger a device
TriggerList	Trigger listed devices
WaitSRQ	Wait for SRQ

LabView is a trademark of National Instruments, Austin, TX.  
VEE is a trademark of Agilent Technologies, Palo Alto, CA.  
GPIB AnyWhere is a trademark of ICS Electronics.

### 488-PC2 Compatibility

488.2 Driver supports 488-PC2 programs written with the Windows DLL.

### System Requirements

Intel type PC with PCMCIA socket  
1-4 Mbytes of free Hard Disk space  
16 Mbytes or more RAM recommended

### Physical

#### Size

3.37 in x 2.12 in x 0.15 in  
(8.56 cm x 5.38 cm x 0.38cm)

#### GPIB Connector

IEEE 488 Standard 24-pin connector  
with metric lock jacks at end of .6 meter cable.

#### Power

5 ± 0.2 Vdc, 250 mA maximum

### Included Accessories

20 inch long GPIB Cable  
Instruction Manual  
488.2 Driver, command libraries, example programs, GPIB Keyboard and GPIB AnyWhere™ programs on CD-ROM.



GPIB KeyBoard Controller Panel

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

## ORDERING INFORMATION

488.2 PCMCIA Controller Card with 1 m GPIB cable, Manual, 488.2 Driver Libraries and Kybd Ctlr Program 488-PCM

Spare PCMCIA GPIB Cable 125096

IEEE 488 Bus Cables from 0.5 to 10 meters long See separate data sheet