IEEE-488 (GPIB) Interface Solutions

Keithley’s GPIB interface solutions make it easy to add standard IEEE-488.2 bus control to any PC or PXI system. These high speed tools control as many as 14 GPIB instruments or other devices over a distance of up to 20 meters. They are ideal for use with automated test equipment in laboratory and industrial applications.

The Keithley Model KPCI-488LP is a low-profile, GPIB interface plug-in card that is 32-bit/33MHz PCI bus compatible. Its PCI interface supports both 3.3V and 5V PCI environments, making it suitable for most desktop computers and industrial PCs, including the new low-profile desktop systems. This low-cost solution supports Windows XP/2000, and its driver library is command compatible with National Instruments’ and Capital Equipment Corporation’s command functions.

The Keithley Model KPCI-488LP adds GPIB capability to any PCI measurement system. With the KPCI-488, you can create powerful hybrid measurement systems using Keithley’s line of PXI data acquisition modules and precision DMMs, SourceMeter instruments, switch systems, and sensitive measurement products. The KPCI-488 supports Windows XP/2000, and its driver library is also command compatible with National Instruments and Capital Equipment Corporation command functions.

The Keithley Model KUSB-488A USB-to-GPIB interface turns any computer with a USB port into a fully functional GPIB controller. The KUSB-488A’s small form factor makes it perfect for use with laptop computers in portable applications or for other applications in which the computer has no available PCI plug-in board slot. The product is USB 2.0 compliant and has an IEEE data transfer rate upwards of 1.8 MB/s through the USB port. No external power is required.

Custom Software
The included utility software simplifies the setup and use of Keithley GPIB interface solutions and saves programming time. Every solution ships with 32-bit dynamic link libraries for Application Development Environments* (ADEs) running under Windows XP/2000 and drivers for the most current programming languages. This adds up to full compatibility with a full array of software, including:

- Microsoft Visual Studio 6.0 (Visual Basic, Visual C++)
- Microsoft Visual Studio .NET (Visual Basic .NET, C#)
- Borland Delphi, Borland C Builder 6.0
- LabVIEW™ Version 7.0 and up (VISA and IEEE-488.2)
- LabWindows™/CVI Version 7.0 and up (VISA and IEEE-488.2)

Hardware Compatibility
These GPIB Interface solutions are fully compatible with all of Keithley’s GPIB capable instruments. The Model 7010 adapter is required for Models 428-PROG, 236, 237, 238, and 590 when used with the KUSB-488A.

<table>
<thead>
<tr>
<th>Model</th>
<th>PCI/USB</th>
<th>Bus/Form Factor</th>
<th>Dimensions (mm)</th>
<th>Power (Current @ 5VDC)</th>
<th>Transfer Speed</th>
<th>Safety</th>
<th>EMC</th>
</tr>
</thead>
<tbody>
<tr>
<td>KPCI-488LP</td>
<td>PCI</td>
<td>PCI</td>
<td>4.7 × 2.5</td>
<td>400 mA typ., 750 mA max</td>
<td>1.5 Mbyte/s</td>
<td>EN61010-1/IEC 1010</td>
<td>European Directive 89/336/EEC, EN55022, EN55024</td>
</tr>
<tr>
<td>KPCI-488</td>
<td>PCI</td>
<td>PCI</td>
<td>5.3 × 4.2</td>
<td>400 mA typ., 750 mA max</td>
<td>1.5 Mbyte/s</td>
<td>EN61010-1</td>
<td>European Directive 89/336/EEC</td>
</tr>
<tr>
<td>KUSB-488A</td>
<td>USB</td>
<td>USB</td>
<td>4.2 × 2.6 × 1.0</td>
<td>500 mA</td>
<td>1.8 Mbyte/s</td>
<td>EN61010-1</td>
<td>European Directive 89/336/EEC</td>
</tr>
</tbody>
</table>

* The KPCI-488LP and KUSB-488A are not compatible with the TestPoint™ Test & Measurement Development Kit. Users of TestPoint must use the KUSB-488A, KPCI-488A, or KPCI-488LP interfaces. Please contact Keithley Sales and Support for further details and availability of the KPCI-488LP interface.

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