

Agilent
I/O Hardware for
PC-to-Instrument Connections

Data Sheet

- Choose the best way to connect your PC to GPIB and RS-232 instruments
- Take advantage of standard PC interfaces (USB, LAN, PCI)
- Protect your investment with industry-standard I/O software

Easily Connect your PC to GPIB and RS-232 instruments

Connecting your PC to test instruments has become easier than ever before. The Agilent I/O hardware product family is designed to offer you a choice of interfaces and to simplify the connection.

Agilent is provides cutting-edge Ethernet/Local Area Network (LAN) and Universal Serial Bus (USB) interfaces in its instruments. The I/O products featured in this data sheet will help you connect your current instruments that have GPIB or RS-232 interfaces to your PC with ease.

Agilent I/O hardware family benefits:

- Easy connection to GPIB and RS-232 instruments—Agilent I/O hardware products offer simple "plug and go" setup and configuration
- Use PC-standard interfaces
 —Connect via your computer
 PCI slot or use the built-in USBor
 LAN ports on your PC to connect
 to your instruments
- Choice of interfaces (GPIB, RS-232, USB, LAN, PCI)—Agilent offers you a selection of products to meet your I/O needs. We work where you do!

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Agilent Connectivity Software

Agilent connectivity software helps you establish a connection in less than 15 minutes.

The Agilent IO Libraries Suite eliminates the many working hours it takes to connect and configure PC-controlled test systems. This connectivity software ships with each Agilent I/O product and over 150 Agilent test and measurement instruments. Connecting your instruments to a PC is as easy as connecting a PC to a printer—even if you use multiple instrument vendors.

Now the enhanced version 15.0 or higher is with expanded compatibility with other vendors' IO software. *You can now use any programming API with any standard T&M software development environment*. Simply install Agilent's IO Libraries Suite on your PC, then cable the interfaces and instruments to your PC. The IO Libraries Connection Expert utility will find the interfaces and instruments connected to your computer and configure them properly.

Agilent IO Libraries Suite 15.0 or higher Summary of requirements

- Microsoft® Windows® 2000 SP4/XP SP2/Vista (note: only supported with version 15.0 or higher) /98(SE)/ME (note: only supported with version 14.0)
- Microsoft Internet Explorer 7 or higher (Microsoft Internet Explorer 5.01 or higher for 98(SE)/ME)
- 450 MHz Intel Pentium® processor (800 MHz 32-bit recommended for Vista)
- 800 x 600 display with 256 colors
- 128 MB RAM (512 MB or greater is recommended)
- · 280 MB total hard disk space
- Supported APIs include Agilent or NI VISA, SICL, VISA-COM and NI-488.2

If you already own an Agilent I/O product or instrument, you can download the latest version of Agilent IO Libraries Suite for free.

See the following URL for more information. Go to www.agilent.com/find/iosuite

Agilent 82357B USB/GPIB Interface

Features

- Fast and easy connection to GPIB instruments
- Uses standard USB and IEEE-488 interfaces
- Maximum GPIB transfer rate of more than 1.15 MB/s
- · Use industry standard software
- · Parallel polling capability

Best for

- Easiest GPIB connectivity
- Notebook computer GPIB connections

Connect GPIB instruments quickly and easily to your computer's USB port

The Agilent 82357B USB/GPIB interface provides a direct connection from the USB port on your desktop and laptop computers to GPIB instruments. Once the software is loaded, your computer automatically detects the 82357B when it is connected to the USB port of the computer.

With the 82357B USB/GPIB interface and its convenient plug-and-play feature, you just plug and go. It is also hot-pluggable, making it easy to connect and disconnect without having to shut down the computer. No external power supplies are necessary.

The 82357B USB/GPIB interface implements USB 1.1 (12 Mbits/s) and is compatible with USB 2.0. The 82357B USB/GPIB interface uses a thin, flexible, high-quality USB cable that is USB 2.0-compliant. The USB cable is shielded, and the connector is specified to 1,500 insertions, ensuring a durable connection and reliable data transfer.



82357B Technical Specifications

| 82357B Technical Sp General Requirements | |
|---|---|
| Minimum system requirements | Windows 2000/XP Professional/Vista 450 MHz Pentium II (1 GHz 32-bit is recommended for Vista) 128 MB RAM (512 MB or greater is recommended for Vista) 280 MB free disk space, 1 GB for Microsoft .NET Framework 2.0 and 65 MB for Agilent IO Libraries Suite is recommended USB port (0S and Microsoft .NET Framework may require more resources) |
| Supported standards | Supports USB 2.0 high speed and full speed Standard USB endpoints supported IEEE-488.1 and IEEE-488.2 compatible SICL and VISA 2.2 |
| Unsupported GPIB modes of operation | Pass Control Non-System Controller mode |
| General Characteristics | |
| Power | USB bus-powered device, +5 V, 500 mA (max), 200 mA (typ) |
| GPIB transfer rate | 1.15 MB/s or better |
| Connectors | Standard 24-pin IEEE-488 Standard USB A |
| USB hubs | Self-powered hubs |
| Parallel polling | A single parallel poll can easily check up to eight individual devices at once, corresponding to the number of data lines on the GPIB |
| Cable | 2.5 meters, shielded, connector rated for 1,500 insertions |
| LED indicators | READY, ACCESS, FAIL |
| Maximum connections | Maximum of 4 converters can be connected to the PC |
| Instrument connections | 14 instruments—daisy chain via GPIB |
| Configuration | Plug-and-play |
| Warranty | 1 year |
| EMC and safety * | • IEC 61010-1: 2001/EN 61010-1: 2001 • Canada: CSA C22.2 No. 61010-1: 2004 |
| Dimensions | |
| Length, width, and height | 105 mm (L) x 64 mm (W) x 30 mm (H) (including connectors) |
| Weight | 215 grams |
| Environmental Specification | ons |
| Operating environment | 0 °C to 55 °C |
| Operating humidity | Up to 90% at 40 °C non-condensing |
| Storage environment | -40 °C to +70 °C |
| Storage humidity | Up to 90% at 65 °C non-condensing |
| | |

^{*} Additional detail and information in the Declaration of Conformity

Agilent 82350B High-Performance PCI GPIB Interface for Windows

Features

- · PCI IEEE-488 interface for PCs
- Transfer rates up to 900 KB/s
- Dual processor support on Windows 2000/XP

Best for

Maximum GPIB throughput for all configurations

High performance for manufacturing test applications

The 82350B is Agilent's highestperformance GPIB interface. With a direct PCI computer connection, transaction overhead is minimized for the best overall performance. The 82350B card de-couples GPIB transfers from PCI bus transfers. Buffering provides I/O and system performance that is superior to direct memory access (DMA). The hardware is software-configurable and compatible with the plug-andplay standard for easy hardware installation. The GPIB interface card plugs into a 5 volt PCI slot in the backplane of your PC.

Regarding programming capability, you have access with the latest version of IO Libraries suite, version 15.0 or higher to program in all standard development environments. Agilent's 10 Libraries Suite 15.0 or higher is easy to use and works with virtually any vendor's instrument or T&M programming software application and includes automatic configuration for Agilent or NI VISA, NI-488.2, VISA COM or T&M Toolkit Direct IO. Even if you use NI IO software, Agilent will configure automatically so as a user you do not have to concern about the behind-the-scenes details.



This traditional GPIB connection still offers the highest throughput

82350B Technical Specifications

| General Requirements | |
|-------------------------------------|---|
| Minimum system requirements | Windows 2000/XP/Vista |
| Software required | Agilent IO Libraries Suite (included); • 450 MHz Pentium II (1 GHz 32-bit recommended for Vista) • 128 MB RAM (521 MB or greater is recommended for Vista) • 280 MB free disk space, 1 GB for Microsoft .NET Framework 2.0 and 65 MB for Agilent IO Libraries Suite is recommended |
| PCI bus slot | 5-V PCI slot, 32 bits |
| Supported standards | PCI rev 2.2 IEEE 488.1 and IEEE 488.2 compatible |
| General Characteristics | |
| Power | Backplane +5 V PCI |
| Connectors | Standard 24-pin GPIB (IEEE-488) +5 V PCI |
| Maximum data rate | More than 900 KB/s |
| Buffering | Built-in |
| Configuration | Plug-and-play |
| EMC and safety * | IEC 61326-1 Group 1, Class A IEC 61010-1 |
| Warranty | 1 year |
| Dimensions | |
| Length, width, and height | 122 mm (L) x 122 mm (W) x 22 mm (H) (a full-height PCI card) |
| Weight | 0.091 kg |
| Environmental Specifications | |
| Operating environment | 0 °C to 55 °C |
| Operating humidity | Up to 90% at 40 °C non-condensing |
| Storage environment | Up to 90% at 65 °C non-condensing |

^{*} Additional detail and information in the Declaration of Conformity

Agilent 82351A PCle™-GPIB Interface Card

Features

- Compact half-height size (68.9 mm)
- High transfer rate of 1.4 MB/s
- High flexibility via upplugging (to x4 or x8 PCle™ slots)
- 3.3 V signal level for lower power consumption
- Compatibility with industry standard PCle[™] rev 1.0a and IEEE-488
- Interface to 14 GPIB instruments (max)

Best for

- Bandwidth-intensive PC applications
- Adding GPIB connection for PCIe[™] based PCs or workstations

High transfer rate for demanding test applications

The Agilent 82351A PCle™-GPIB interface card is designed for integration into next generation PCs or workstations. It offers fast data transmission for various demanding test applications that require data to be transferred to memory fast enough without any loss or overwriting. PCle™ (PCl Express®) is an evolutionary version of PCI that offers a higher transfer rate across a low number of wires. It is also backwardcompatible with PCI software, so you don't need to perform any code re-configuration. The powerful bus architecture of PCle™ allows bidirectional data transmission, and the implementation of a new class of test applications.



New standard for high-speed internal devices

82351A Technical Specifications

| General Requirements | |
|-------------------------------------|---|
| Minimum system requirements | Windows 2000/XP/Vista |
| Software required | Agilent IO Libraries Suite 14.2 or higher; see requirements on page 2 |
| PCI bus slot | 3.3 V PCle™ slot, 32 bits |
| Supported standards | PCle™ rev. 1.0a IEEE 488.1 and IEEE 488.2 compatible |
| General Characteristics | |
| Power | Backplane +3.3 V PCle™ |
| Connectors | Standard 24-pin (IEEE-488) +1.5 V PCle™ |
| Maximum data rate | 1.4 MB/s or better |
| Maximum instrument connection | 14 instruments—daisy chain via GPIB |
| Buffering | Built-in |
| Configuration | Plug-and-play |
| EMC and safety * | IEC 61010-1: 2001/EN61010-1: 2001 Canada: CSA C22.2 No. 61010-1: 2004 IEC 61326: 2002/EN61326: 1997+A1: 1998+A2: 2001+A3: 2003 Pollution Degree 2 This product is rated for indoor use only |
| Warranty | 1 year |
| Dimensions | |
| Width, depth, and height | 158.0 mm (W) x 120.8 mm (D) x 21.6 mm (H) |
| Weight | 0.082 kg |
| Environmental Specifications | |
| Operating environment | −5 °C to 60 °C |
| Operating humidity | Up to 90% at 40 °C non-condensing |
| Storage environment | -40 °C to 70 °C |
| Storage humidity | Up to 90% at 65 °C non-condensing |

^{*} Additional detail and information in the Declaration of Conformity

Agilent E5810A LAN/GPIB Gateway

Features

- Remote access and control of GPIB instruments via the LAN
- Easy setup and use via digital display and web browser

Best for

- Connection to remote GPIB and RS-232 instrumentation
- · Shared test systems

Remote access and collaboration with GPIB instruments via your LAN

The E5810A can use DHCP, if available, to automatically configure necessary network parameters, including its IP address. The gateway can be controlled from multiple locations and by multiple users via your LAN, so it is easy to share control of instruments from locations worldwide.

For easy remote access, enter the IP address from the digital display as the URL in your web browser and gain access to connected GPIB and RS-232 instruments. Then use your browser to send instrument commands interactively, and quickly see your measurement results. Use the digital display and LEDs to check the IP address and troubleshoot locally.

Regarding programming capability you have access with the latest version of IO Libraries suite, version 15.0 or higher, to program in all standard development environments.

System use

For system environments, the E5810A gateway can be mounted on a rack. The rack mount kit (Option 100) allows two devices to be placed side-by-side in one rack width. With its built-in power supply, there are no additional power modules to mount.

Take advantage of LAN technology for your GPIB instruments and test systems



E5810A Technical Specifications

| General Requirements | |
|--|---|
| Minimum system requirements (client computers) | Available 10BASE-T/100BASE-TX LAN port |
| Operating system | Windows 2000/XP/Vista |
| Supported web browser | Microsoft Internet Explorer 5.01 or higher (Microsoft Internet Explorer 7 or higher for Vista) |
| Software required | Web browser or for programmatic control—Agilent IO Libraries Suite (included); see requirements on page 2 |
| Supported standards | IEEE 488.1 and IEEE 488.2 compatible 10BASE-T/100BASE-TX networks VXI-11 protocol EIA-232 |
| General Characteristics | |
| Power supply | 100-240 V ± 10% |
| Power consumption | (7 watts) 25 VA peak |
| Power line frequency | 47 to 63 Hz |
| Connectors | Std 24-pin GPIB (IEEE-488), RS-232 (9-pin), LAN RJ-45 |
| Maximum data rates | More than 900 KB/s—GPIB port 115 Kb/s—RS-232 port |
| RS-232 baud rate | 300, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200 b/s |
| RS-232 flow control | None, RTS/CTS, XON/XOFF, DTR/DSR |
| RS-232 parity | None, Odd, Even, Space, Mark |
| RS-232 bits | 5, 6, 7, 8 |
| RS-232 stop bits | 1, 2 |
| RS-232 SRQ interrupts | on RI, DSR, DCD, CTS |
| Max. instrument connections | 14 instruments—daisy chain via GPIB 1 RS-232 device Up to 16 simultaneous I/O connections |
| Indicators | LEDs for Power, Activity, Fault |
| EMC and safety * | IEC 61326-1 Group 1, Class A IEC 61010-1 |
| Warranty | 1 year |
| Network protocols | See the E5810A User's Manual for supported network protocols and functions |
| Dimensions | |
| Width, depth and height | 211 mm (W) x 230 mm (D) x 41 mm (H) (1U height, 1/2 rack) |
| Weight | 1.6 kg |
| Environmental Specifications | |
| Operating environment | 0 °C to 55 °C |
| Operating humidity | Up to 90% at 40 °C non-condensing |
| Storage environment | -40 °C to +70 °C |
| Storage humidity | Up to 90% at 65 °C non-condensing |

^{*} Additional detail and information in the Declaration of Conformity

Agilent E5818A LXI Class-B Trigger Box

Features

- Remote access to instruments via LAN
- Input/Output trigger at precise timing
- · Built-in web access
- · Multiple triggering options
- High precision TCXO
- · Simplifies event correlation

Best for

- New synchronization by using the IEEE 1588
- Peer-to-peer messaging and multicast communication
- · Reduction of test system setup time

Providing capability to trigger attached instruments with accurate timing

The Agilent E5818 LXI Class-B Trigger Box implements an IEEE 1588 clock for new time synchronization that enables the E5818 to trigger events with accurate timing. With the time schedule of trigger events, the E5818 can control every attached instrument or device through signals on TTL ports. This mechanism allows the E5818 to support complex timing behavior by using this mechanism.

The E5818 can also timestamp input trigger signals generated by other attached instruments using the IEEE 1588 clock. Timestamps provide an accurate time value at the transition of the trigger signal. With the IEEE 1588 clock, you can easily match the time stamp value. This way you are able to determine the exact time at which the attached instrument generated a trigger signal.

You can communicate with the E5818 over a network in two different ways: either using the E5818 web access or by using a supported programming language with the Agilent IO Libraries Suite.



Performs IEEE 1588 PTP Synchronization over the Ethernet

E5818A Technical Specifications

| General Requirements | |
|--|---|
| Minimum system requirements for Agilent IO Libraries Suite | Vindows 2000/XP/Vista 450 MHz Pentium II (! GHz 32-bit is recommended for Vista) 128 MB RAM (512 MB or greater is recommended for Vista)(OS and Microsoft .NET Framework may require additional resources 400 MB free disk space |
| Supported web browser | For E5818 Web access: Internet Explorer 6.0 or higher, Firefox 2.0 or higher (Internet Explorer 7.0 is recommended or for Vista) |
| Supported standards | • VXI-11 protocol • IEEE-488.2 compatible • 10BASE-T/100BASE-TX Networks • EIA-232 • LXI Standard Revision 1.1 • IEEE 1588-2002 |
| General Characteristics | |
| AC input Power: 25 VA peak (7.5 W typical) | Input voltage range: 100-240 V± 10% @ 47 to 63 Hz |
| Connectors | 9-pin RS-232 (for debugging purposes), RJ-45 LAN, BNC connectors |
| Power cord | US/Canada: P/N: 8120-1378 (UL Listed, CSA Certified) 10A/250V. All other cord sets: Appropriate foreign country approval associated with cord for use in respective country |
| LAN | Allows communication with an external controller |
| Maximum data rates | 2 ports input has TTL-compatible logic levels |
| Time trigger output | 2 ports output provides TTL-compatible logic levels |
| Periodic trigger of 1 Pulse Per Second (1PPS) | For synchronization diagnostic use only. Issuing 1 Hz signal (1PPS) at 1 TTL output level (rising edge) |
| Indicators | PWR, LAN, 1588 |
| Safety compliance | Certified by: IEC 61010-1: 2001/EN 61010-1: 2001, CAN/ CSA-C22.2 No. 61010-1-04, IEC 61326-2002/EN 61326: 1997+A1: 1998+A3: 2003 |
| Warranty | 1 year |
| Rack Mount Kit Dimensions | |
| Length, width, and height | Full rack: 238.05 mm (L) X 242.8 mm (W) X 43.25 mm (H) Half rack: 226.2 mm (L) X 27.5 mm (W) X 43.25 mm (H) |
| Weight | 1.6 kg |
| Environmental Specifications | |
| Operating environment | 0 °C to 55 °C—Indoor use, Pollution Degree 2 |
| Installation category | II (mains input) |
| Altitude (operating) | 2000 meters |
| Operating humidity | Up to 90% at 40 °C non-condensing |
| Storage humidity | Up to 90% at 65 °C non-condensing |
| Storage temperature | -40 °C to +70 °C |
| Address of the Standard Commence of the Standard | Declaration of Conformity |

^{*} Additional detail and information in the Declaration of Conformity

Agilent E5805A USB/4-Port RS232 Interface

Features

- Easy connection from standard USB port on your PC to up to four RS-232 instruments or devices
- Fully compatible with Windows COM driver and industry-standard VISA 1/0 software

Best for

- Easy connection to RS-232 devices
- RS-232 connection to a notebook computer

Add four serial ports within minutes

The Agilent E5805A USB/4-port RS-232 interface provides a direct connection from the USB port on your notebook or desktop PC to up to four RS-232 instruments or devices. There are no switches to set, no PC cards to install, and no external power supplies are required. Simply install the driver and plug in the E5805A USB 4-port RS-232 interface to add four RS-232 ports to your computer.

Since the E5805A is a standard plug-and-play device, your computer automatically detects and configures it when it is connected to the USB port of the computer. You can interface up to four devices, with baud rates of up to 230 Kb/s per serial port. The E5805A provides four DB9 serial connectors and ships with a 1.8-meter USB cable.



Turn your USB port into 4 additional RS-232 ports

E5805A Technical Specifications

| General Requirements | |
|----------------------------------|--|
| Minimum system requirements | Windows 98(SE)/Me (note 98 runs with version 14.0 only)/2000/XP A USB port |
| Software required | E5805A driver (included) |
| Software recommended | Agilent IO Libraries Suite (included); see system requirements on page 2 |
| Supported standards | USB 1.1 (fully compatible with USB 2.0) EIA-232 |
| General Characteristics | |
| Power | USB bus-powered device, +5 V, 500 mA (max), 200 mA (typ) |
| Support for USB hubs | Self-powered hubs |
| Connectors | Standard USB A, RS-232 (9-pin) on each port |
| Cable | 1.8 meter USB, USB A (host side) to USB B (device side) |
| Maximum data rates | 230 Kb/s per port |
| RS-232 baud rates | 300, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200, 230400 b/s |
| RS-232 flow control | None, RTS/CTS, XON/XOFF, DTR/DSR |
| RS-232 parity | None, Odd, Even, Space, Mark |
| RS-232 bits | 5, 6, 7, 8 |
| RS-232 stop bits | 1, 2 |
| RS-232 SRQ interrupts | on RI, DSR, DCD, CTS (using IO libraries) |
| Maximum instrument connections | 4 RS-232 instruments/devices |
| Configuration | Plug-and-play |
| Indicators | Tri-state LED displays device status and COM port activity |
| EMC and safety * | CISPR 22 Class B CISPR 24 IEC 60950 |
| Warranty | 1 year |
| Dimensions | |
| Length, width, and height | 111 mm (L) x 183 mm (W) x 26 mm (H) |
| Weight | 0.311 kg |
| Environmental Specificati | ons |
| Operating environment | 0 °C to 55 °C |
| Operating humidity | Up to 90% at 40 °C non-condensing |
| Storage environment | -40 °C to +70 °C |
| Storage humidity | Up to 90% at 65 °C non-condensing |

^{*} Additional detail and information in the Declaration of Conformity

Agilent E5813A Networked 5-Port USB Hub

Features

- Interface a variety of GPIB, RS-232, and USB devices to complete your test system
- Extend USB devices beyond five meters
- USB ports appear to be locally attached and are locked to one computer

Best for

Remote access to USB port devices or instruments

Connecting remote USB, GPIB or RS-232 instruments or devices via a standard LAN

The Agilent E5813A networked 5-port USB hub uses LAN technology to overcome the 5-meter distance limitation for USB cabling, so you can place USB devices anywhere on a LAN. With access to remote devices, you can collect data, perform measurements, or monitor the progress of your tests. Using the included IO Libraries Suite, you can connect an Agilent 82357B USB/ GPIB interface to one of the USB ports for access to GPIB devices. You also can connect an E5805A USB/4-port RS-232 interface for access to RS-232 devices (see figure on page 10).

To prevent access conflicts, only one computer at a time can access the E5813A. The included software lets you lock the E5813A to your computer. Once you unlock the connection, another user can then connect from a different computer.

For information on choosing between E5810A and E5813A, please see page 10.



Utilize the LAN to access remote USB, GPIB or RS-232 instruments or devices

E5813A Technical Specifications

| General Requirements | | |
|-------------------------------------|---|--|
| Minimum system requirements | Windows 2000/XP Available USB 1.1 or 2.0 port | |
| Software required | E5813A driver (included) | |
| Software recommended | Agilent IO Libraries Suite (included); see system requirements on page 2 | |
| Supported standards | 10BASE-T/100BASE-TX networks USB 1.1 (fully compatible with USB 2.0) | |
| General Characteristics | | |
| Power supply | External switching AC adapter | |
| Input power consumption | 120/230 volts AC, 0.7 AMPS | |
| Power line frequency | 50 to 60 Hz | |
| Output | 5 V DC, 3 AMPS max | |
| USB device power available | 500 mA per device | |
| Connectors | LAN RJ-45 Standard USB A on each of the 5 ports | |
| Maximum data rates | 12 Mbps from each port | |
| Maximum instrument connections | 5 USB instruments or devices | |
| Configuration | Remote LAN configuration utility | |
| Indicators | LEDs for system and device status | |
| EMC and safety * | CISPR 22 Class B CISPR 24 IEC 60950 ITE equipment intended only for use with ISM equipment | |
| Warranty | 1 year | |
| Network and Device Recommen | dations | |
| IP addresses | One IP address per unit | |
| E5813A device sharing | Locked to one computer at a time. One computer must release the E5813A before another computer can use it | |
| Network utilization | Maximum network utilization below 50% | |
| Compatibility | Compatible with bulk or interrupt-type USB devices; isochronous devices are not supported | |
| Dimensions | | |
| Length, width, and height | Device: 112 mm (L) x 182 mm (W) x 26 mm (H) Power adapter: 110 mm (L) x 60 mm (W) x 35 mm (H) | |
| Weight | Device: 0.284 kg Power adapter: 0.25 kg | |
| Environmental Specifications | | |
| Operating environment | 0 °C to 55 °C | |
| Operating humidity | Up to 90% at 40 °C non-condensing | |
| Storage environment | -40 °C to +70 °C | |
| J | -40 C tO 170 C | |

^{*} Additional detail and information in the Declaration of Conformity

Cables

Agilent also offers a variety of cables that provide easy and reliable connections. Agilent cables are engineered for exceptional reliability and durability, even under the harshest conditions.



| Cable | Length |
|-------------------|-----------|
| 10833D GPIB cable | 0.5 meter |
| 10833A GPIB cable | 1 meter |
| 10833B GPIB cable | 2 m |
| 10833C GPIB cable | 4 m |
| 10833F GPIB cable | 6 m |
| 10833G GPIB cable | 8 m |

Adapters 10834A GPIB-to-GPIB adapter

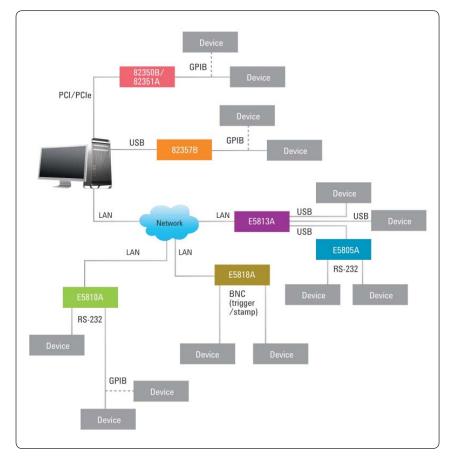
The 10834A GPIB-to-GPIB adapter can help when limited rear-panel space and other design considerations make cabling difficult. The 10834A adapter extends the first cable by 2.3 cm away from the rear panel to provide clearance for other connectors, switches, and cables.

Choosing a remote connection

Guidelines for selecting between the E5810A and E5813A for a remote connection:

| If you are | then select |
|---|-------------|
| Connecting only to GPIB instruments or connect to a mix of GPIB instruments and one RS-232 | E5810A |
| Sharing your instruments with more than one user at a time | |
| Connecting a mix of devices (for example, a remote USB printer and mutilple RS-232 devices, or have a mix of GPIB, USB, and RS-232 devices) | E5813A |

You will obtain the best performance when you do the fewest format conversions. For example, using the E5810A (LAN to GPIB) will generally be faster than 82357B and an E5813A (LAN to USB to GPIB).



Ordering Information

| Product Number | Product Description |
|-------------------|---|
| 82357B | USB/GPIB interface, includes Agilent IO Libraries Suite and VISA/ SICL programming manuals on CD-ROM |
| 82350B | High-performance PCI GPIB interface, includes Agilent IO Libraries Suite and VISA/SICL programming manuals on CD-ROM |
| 82351A | High-performance PCIe™-GPIB Interface Card, includes Agilent IO Libraries Suite and VISA/SICL programming manuals on CD-ROM |
| | Additional manual set (Option 0B1);Japanese User's Guide (Option ABJ) |
| E5810A | LAN/GPIB gateway, includes Agilent IO Libraries Suite and VISA/ SICL programming manuals on CD-ROM |
| | Rack mount kit for 1 or 2 E5810A(s) Option 100 |
| E5818A | LXI Class-B Trigger Box, includes Agilent IO Libraries Suite and SCPI programming manuals on CD-ROM |
| E5805A | USB/4-port RS232 interface, includes USB cable, Agilent IO Libraries Suite and VISA/SICL programming manuals on CD-ROM |
| E5813A | Networked 5-port USB hub, includes power adapter, Agilent IO Libraries Suite and VISA/SICL programming manuals on CD-ROM |
| 10833D | 0.5-meter GPIB cable |
| 10833A | 1-meter GPIB cable |
| 10833B | 2-meter GPIB cable |
| 10833C | 4-meter GPIB cable |
| 10833F | 6-meter GPIB cable |
| 10833G | 8 meter GPIB cable |
| 10834A | GPIB-to-GPIB adapter |

Related Agilent literature

For other application-related topics and publications, visit www.agilent.com/find/appcentral

- Agilent E2094N IO Libraries Suite, Data sheet pub no. 5989-1439EN
- Modern Connectivity—Using USB and LAN I/O Converters, Applica tion note 1475-1 pub no. 5989-0123EN
- Simplified PC Connections for GPIB Instruments, Application note 1409-1, pub no. 5988-5897EN
- Using LAN in Test Systems: The Basics, Application note 1465-9, pub no. 5989-1412EN
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