GPIB-140B Specifications

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Definitions

Warranted specifications describe the performance of a model under stated operating conditions and are covered by the model warranty.

Characteristics describe values that are relevant to the use of the model under stated operating conditions but are not covered by the model warranty.

- **Typical** specifications describe the performance met by a majority of models.
- **Nominal** specifications describe an attribute that is based on design, conformance testing, or supplemental testing.

Specifications are **Typical** unless otherwise noted.

Conditions

Specifications are valid for 0 °C to 55 °C unless otherwise noted.

Cleaning Statement

Notice If you need to clean the GPIB-140B, wipe it with a dry towel. Make sure that the hardware is completely dry and free from contaminants before returning it to service.

System Configuration

Distance per extension	Up to 1 km
Loading per extension	Up to 13 additional devices (28 total devices in the extension system, including the extenders)
Multiple extension	Permitted in any pattern of star or linear pattern

Device Characteristics

Transmission interface unit	Optical transmitter and receiver (HFBR1414, HFBR2416, or equivalent) with ST-style optical cable connectors
GPIB interface load	Two standard loads, AC and DC

Performance Characteristics

Maximum transfer rate	
Buffered mode, non-HS488	>1.1 MBytes/s
HS488 handshake	>2.8 MBytes/s
Unbuffered mode	>200 kBytes/s
Functionality	Transparent GPIB operation except for latched parallel polls
Interlocked IEEE 488 handshake	Maintained across the extension in unbuffered mode
IEEE 488 capability identification codes	

SH1	Complete Source Handshake
AH1	Complete Acceptor Handshake
T5, TE5	Complete Talker
L3, LE3	Complete Listener
SR1	Complete Service Request
RL1	Complete Remote Local
PP1, 2	Complete Parallel Poll
DC1	Complete Device Clear
DT1	Complete Device Trigger
C1-5	Complete Controller
E2	Tri-state GPIB driver
HS488 capability identification codes	
SHE	HS-488 Source Handshake
AHE	HS-488 Acceptor Handshake

Operational Characteristics

Architecture	Point-to-point (not multi-drop) transmission
Operating modes	Buffered or unbuffered (interlocked) mode

HS488 modes	Enabled HS488 or disabled HS488 mode
Parallel Poll Response modes	Immediate Parallel Poll Response mode or latched Parallel Poll Response mode

Power Requirements

Input voltage range	9 V DC to 15 V DC
Maximum power consumption	3.0 W (250 mA @ 12 V)
12 V DC Power Supply (NI PN 723595-02; shipped with the GPIB-140B)	
Input voltage range	100 V AC to 240 V AC, 47 Hz to 63 Hz

Physical Characteristics

Dimensions and Weight

Overall case size (dimensions)	93.67 × 133.88 × 28.80 mm (3.69 × 5.27 × 1.13 in.)
Enclosure material	Aluminum
Weight	323 g (11.4 oz)

Field Wiring Specifications

GPIB cable	Type X2 shielded
Transmission cable	3.0 × 6.5 mm cable diameter 62.5/125 micron core/clad with NA = 0.275

	850 nm operating wavelength 3.0 dB/km attenuation Duplex style, terminated with ST-style connectors; multi-mode

Environmental Guidelines

Notice To achieve the full temperature range of the GPIB-140B, allow at least 1" of cooling clearance around the product during use. If it is not possible to follow this guideline, reduce the maximum temperature rating of the product by 5 °C.

Notice This product is intended for use in indoor applications only.

Environmental Characteristics

Temperature	
Operating	0 °C to 55 °C
Storage	-20 °C to 70 °C
Humidity	
Operating	10% RH to 90% RH, noncondensing
Storage	5% RH to 95% RH, noncondensing
Pollution Degree	2
Maximum altitude	2,000 m (800 mbar), at 25 °C ambient temperature
Shock and Vibration	

Operating vibration	5 Hz to 500 Hz, 0.3 g RMS
Non-operating vibration	5 Hz to 500 Hz, 2.4 g RMS
Operating shock	30 g, half-sine, 11 ms pulse

Environmental Management

NI is committed to designing and manufacturing products in an environmentally responsible manner. NI recognizes that eliminating certain hazardous substances from our products is beneficial to the environment and to NI customers.

For additional environmental information, refer to the **Engineering a Healthy Planet** web page at ni.com/environment. This page contains the environmental regulations and directives with which NI complies, as well as other environmental information not included in this document.

EU and UK Customers

- **Waste Electrical and Electronic Equipment (WEEE)**—At the end of the product life cycle, all NI products must be disposed of according to local laws and regulations. For more information about how to recycle NI products in your region, visit ni.com/environment/weee.

电子信息产品污染控制管理办法（中国 RoHS）

- **中国 RoHS**— NI 符合中国电子信息产品中限制使用某些有害物质指令(RoHS)。关于 NI 中国 RoHS 合规性信息，请登录 ni.com/environment/rohs_china。(For information about China RoHS compliance, go to ni.com/environment/rohs_china.)

Product Certifications and Declarations

Refer to the product Declaration of Conformity (DoC) for additional regulatory compliance information. To obtain product certifications and the DoC for NI products, visit ni.com/product-certifications, search by model number, and click the appropriate link.

NI Services

Visit ni.com/support to find support resources including documentation, downloads, and troubleshooting and application development self-help such as tutorials and examples.

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Visit ni.com/register to register your NI product. Product registration facilitates technical support and ensures that you receive important information updates from NI.

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