

Technical Data
EISA HP-IB* Adapter

For HP Apollo 9000 Series 700
Computer Systems
Product Number
25560A

The HP 25560A EISA HP-IB* host adapter allows customers to connect supported HP-IB devices to HP Apollo 9000 Series 700 systems**.

Features

The HP 25560A

- † Has a maximum burst transfer rate of 1 Mbyte/second in high-speed mode, and 500 Kbytes/second in standard-speed mode
- † Complies with IEEE-488-1978 and IEEE-488A-1980 standards
- † Supports cabling distances of up to 15 meters for high-speed operation and up to 20 meters for standard-speed operation
- † Supports up to 14 standard-speed devices or 7 high-speed devices
- † Has software-configurable HP-IB parameters, which include operating speed, HP-IB bus address, and HP-IB system controller capability
- † Allows simple implementation of computer-controlled instrumentation and peripheral systems

la382146.plt;11.056 cm;8.9 cm;HPGL

- † Has selectable HP-IB controller or slave capabilities
- † Has parallel poll mode which can be programmatically enabled or disabled
- † Uses self-test to help assure interface integrity

* The Hewlett-Packard Interface Bus (HP-IB) is HP's implementation of IEEE Standard 488-1978: Digital Interface for programmable instrumentation and identical ANSI Standard MS 1.1. The term HP-IB is also used to identify Hewlett-Packard instruments conforming with this standard.

** Refer to the HP Apollo 9000 Series 700 Configuration Guide for a current list of supported peripherals and configuration limitations.

HP-IB Capabilities

The HP 25560A EISA HP-IB host adapter connects to the signal lines shown in Figure 1, acting as DEVICE A. Eight bidirectional data bus lines carry coded messages in bit-parallel, byte-serial form to/from other devices on the bus, with each byte transferred from one talker to one or more listeners. Data is exchanged asynchronously using interface messages to set up, maintain, and terminate an orderly flow of device-dependent messages. Three handshake control lines control the transfer of each byte of coded data on the eight data lines. The five general interface management lines ensure an orderly flow of information within the HP-IB. (For more details on the HP-IB characteristics of the HP 25560A adapter, refer to the HP-IB tutorial, P/N 5952-0156.)

Functional Specifications

Capacity

Up to seven high-speed devices per HP 25560A adapter.
Up to 14 standard-speed devices per HP 25560A adapter.

Operating Modes

High-Speed Mode: The adapter operates at data rates to 1 Mbyte/s

Standard-Speed Mode: The adapter operates at data rates to 500 Kbytes/s

Note: Attainable speed for a particular system depends on such factors as cabling length, type of external device, system level software, and number of devices.

System Controller Mode: A software selection enables or disables the operation of the HP 25560A as system controller.

Bus Characteristics

HP-IB Signal Lines:

The HP 25560A conforms to IEEE 488-1978 and IEEE-488A-1980 standards. (For more details on the HP-IB characteristics of the HP 25560A adapter, refer to the HP-IB tutorial, P/N 5952-0156.)

Supported HP-IB Functions: C1-C5, SR1, RL2, PP1, DC1, SH1, AH1, T1, TE1, L1, LE1, DT1, and E2. TE1 and LE1 require host system support.

Maximum Cable Length for Standard Operation: The maximum cable length in meters should be equal to two times the number of device loads on the HP-IB or 20 meters, whichever is less.

Note: Device loads consist of peripheral devices, the host adapter, and equivalent loads in resistor packs. Only the HP-IB system controller may contain additional device loads (resistor packs).

Maximum Cable Length for High-Speed Operation: The maximum cable length in meters should be equal to the number of device loads on the HP-IB or 15 meters, whichever is less. There must be at least one device load per meter of cable. (The resistor pack that comes installed on the HP 25560A adds seven equivalent device loads. The HP 25560A HP-IB adapter counts as one device load).

The number of HP-IB device loads must not exceed 15. A maximum system would be composed of a System Controller, with its resistor pack, and seven peripherals (CRC-16).

Error Detection

Data errors can be detected using Cyclic Redundancy Check-16 (CRC-16) on all data messages sent or received. CRC-16 can be used if the other participating device supports CRC-16. CRC-16 is invoked by the system for each transaction. See system documentation for details. Interface message errors are detected using odd byte parity.

Electrical Specifications

Voltage: +5 volts

Current: 3.06 amps

Power Dissipation: 15.3 watts

Physical Characteristics

Size: 21.3 cm long by 11.4 cm wide by 1.5 cm high (8.4 in by 4.5 in by 0.6 in)

Weight: 173 g (6.1 oz) without HP-IB cable

Environmental Characteristics

Operating Temperature:

0°C to 55°C (32°F to 131°F)

Non-Operating Temperature:

-40°C to 70°C (-40°F to 158°F)

Relative Humidity:

15% to 95% at 40°C (104°F) noncondensing

Ordering Information

The HP 25560A EISA HP-IB adapter is supported on HP Apollo 9000 Series 700 systems using HP-UX 8.05 or later.

The HP 25560A includes:

25560-60001 EISA HP-IB adapter card assembly
5957-4369 antistatic precautions note
25560-90001 EISA HP-IB adapter installation manual

Note: The HP 25560A does not include an HP-IB cable. Cables must be ordered separately through HP Complementary Products Sunnyvale (CPS).

The HP 25560A EISA HP-IB adapter can be ordered:

- As an add-on product to HP Apollo 9000 Series 700 systems
 - As an option to HP Apollo 9000 Series 700 computers
- When ordered as an option with a Series 700 system, the HP 25560A is installed and configured into the Series 700 system. Refer to the HP Apollo 9000 Series 700 Price Guide or Configuration Guide for more detailed ordering information.