HEWLETT® PACKARD

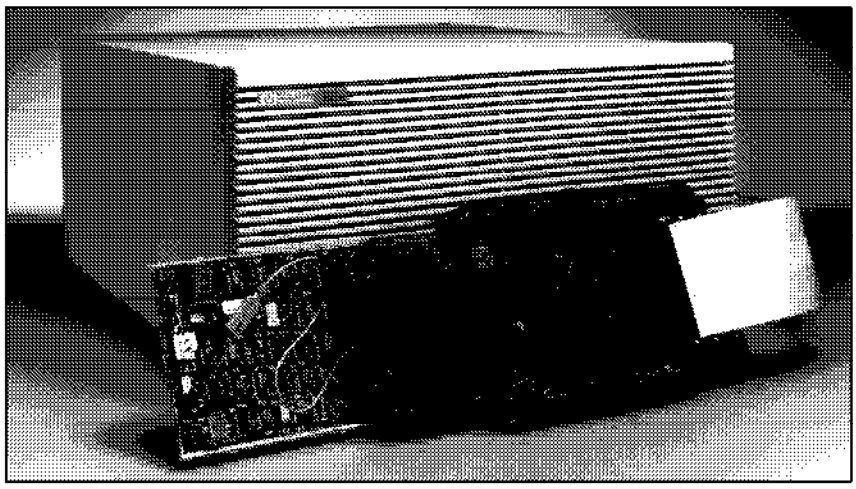
HP 64789A Emulator for the Intel386 DX Processor

Product Overview

The HP 64789A emulator supports the Intel386 DX processor with real-time, no wait state emulation to 33 MHz in both real and protected mode. User selectable foreground and background monitors with dual port memory insure maximum transparency in varied operating environments.

The HP 64789A active probe implementation permits the use of long 914mm (36 inch) cables for easy target system access without sacrificing electrical transparency or clock speed. The probe contains a bond-out version of the microprocessor, emulation monitor, run control circuits and up to 8MB of emulation overlay memory. Extensive breakpoint capabilities provide considerable flexibility to start and stop program execution at specific locations within very complex code.

The emulation control and logic analyzer cards plug into the modular card cage common to all HP 64700 series emulators. Connection to the host computer occurs via LAN, RS232 or RS422. An easy to use Real Time C Debugger interface for the PC greatly simplifies the emulator command structure and allows even casual users to access the emulator's full potential.



Features

- Real-time zero wait state operation from emulation or target memory to 33 MHz.
- Active probe includes 8K of dual port emulation memory and supports up to 8Mbytes of additional emulation overlay memory.
- Demo board included for easy performance verification.
- Full symbolic debugging support for fast, easy development and debugging with HP user interface.
- Supports both real and protected mode to facilitate code reuse.
- Background and foreground monitors support all run control features and require minimal resources from the target system.
- LAN interface
- Flash EPROMs for easy firmware updates.
- Unlimited software breakpoints.
- Four hardware execution or access breakpoints.
- 8K, 64K or 256K analyzer trace buffer supports real-time analysis of address, data and status/control information in conjunction with instruction dequeing of the trace list.
- Symbols inserted in the trace list help you to understand the code execution quickly.
- Analysis trace information includes trace line number, address (hex or symbol), data (hex), instruction opcode (hex or symbol operands), bus status and time or state count. Time count and state count measurements occur at full speed.

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Development tools for the Intel80386 DX

Emulator	**HP 64789A**
Debugger/ Emulator	**HP B3637A Real Time C Debugger**
C	**Intel/MRI**
Assembler	**Intel/MRI**
Linker/loader	**Intel/MRI**

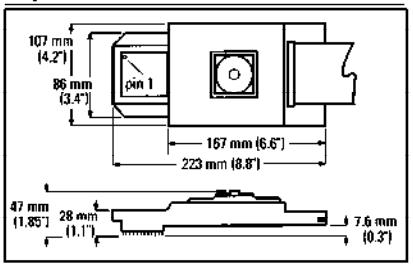
Specifications

Processor Compatibility	Intel386 DX in 132 pin PGA
Electrical	
Maximum Clock Speed	33MHz with no wait states required for emulation or target memory.
Minimum Clock Speed	16 MHz
Power	500mA max from target system; all other power supplied by card cage.
Vcc range	4.75V to 5.25V
Environmental	
Temperature	operating, 0.0 to +40.0 C (=32.0 to +104.0 F); nonoperating, - 40.0 to +70.0 C (-40.0 to +158.0 F).
Altitude	operating/nonoperating, 4600 m (15,000 ft.).
Relative Humidity	15% to 95%.

Regulatory compliance
(when installed in HP 64700 card cage)

Electromagnetic Interference	CISPR 11:1990/EN 55011 (1991): group 1 class A CISPR 11:1990/EN 55011 (1991): group 1 class A IEC 801-2:1991/EN 50082-1 (1992): 4kV CD, 8kV AD IEC 801-3:1984/EN 50082-1 (1992): 3V/m, 80% modulation, 26MHZ - 1000 MHz IEC 801-4:1988/EN 50082-1 (1992): 0.5 kV signal lines, 1kV power lines.
Safety	Self certified to UL 1244, IEC 348/HD 401 S1, CSA-C22.2 no.231 Series-M89

Physical



Ordering Information

PC-based emulation system for Intel386 DX

Model	Description
HP 64789A	Active probe emulator with 8kbyte of dual port emulation memory.
HP 64748C	Emulation control card
HP 64794A	8K-deep emulation bus analyzer, 80-channel
HP 64700B	Cardcage
HP B3637A	Real-Time C Debugger
Emulation system options	
HP 64794C	64K-deep emulation bus analyzer, 80-channel
HP 64794D	256K-deep emulation bus analyzer
HP 64172A	256 kbyte SRAM memory Module (20 ns)
HP 64172B	1Mbyte SRAM Memory Module (20 ns)
HP 64173A	4 Mbyte SRAM Memory Module (25 ns)

For more information, call your local HP sales office listed in your telephone directory, or an HP regional office listed below for the location of your nearest sales office.

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