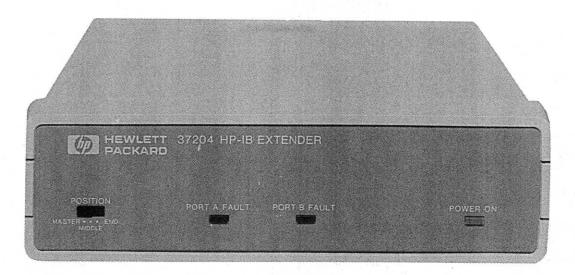
TEST SOFTWARE & DEVELOPMENT TOOLS

HP-IB/IEEE-488 Bus Extenders

HP 37204A/B

- · HP-IB extension up to 1,250 m (up to 3,000 m with fiber-optic cable)
- · Data transfer rate up to 60 kB
- · Cost-effective multi-drop capability; up to 30 remote sites
- · Installation usually needs no software changes
- · 100 percent error-free operation
- Industry-standard ST, FC and SMA fiber-optic connectors; fiber sizes from 50/125 to 100/140 um



HP 37204A/B



HP 37204A Multi-Point HP-IB Extender

The HP 37204A extends the distance between HP interface bus (IB) devices beyond the 2-m limit. Users can link up to 31 HP 37204As (one per site) to achieve a multi-point system. Each link can be up to 1,250 m long (3,000 m with fiber-optic cable) and mixing of coaxial and fiber-optic links is allowable. Once installed, extenders operate automatically and transparently. Usually, programs can remain unchanged. Error correction ensures 100 percent data integrity. Partial HP-IB operation can continue after link failure by invoking truncation.

The HP 37204A supports all IEEE-488 functions, but might slow the response to a parallel poll beyond the $2 \mu s$ limit. Extenders are listen-always devices that handshake data from a talker to all sites; if there is no addressed listener, the extender handshakes with itself. Because extenders limit the speed of all bus traffic to 60 kB/s maximum, extenders should be located on a separate HP-IB from disk/ tape drives.

The table below shows examples of maximum speed against the number of extenders in a system. Note: If any coaxial link exceeds 250 m, the speed of all links in the system is 1/10 normal.

Average inter-extender cable length	Number of extenders per chain		
	2	3	5
100 m: coaxial cable	54 kB/s	26 kB/s	14 kB/s
ontical fibor	52 kB/s	25 kB/s	13 kB/s
500 m: coaxial cable	5.9 kB/s	2.8 kB/s	1.4 kB/s
optical fiber	36 kB/s	17 kB/s	9 kB/s

HP 37204B HP-IB Extender

The HP 37204B is only for supported configurations of HP 256X/ 268X printers and HP 3000 computers.

Specifications

Maximum Distance: 1,250 m per link (coaxial cable); 3,000 m per link (fiber-optic cable)

Maximum Speed: 60 kB

Power Requirements: 100, 120, 220, 240 V ac +5/-10%, 48 to 66 Hz, 10 VA max

Size: 212 mm W \times 71 mm H \times 254 mm D (8.3 in \times 2.8 in \times 10 in) Weight: 1.72 kg (3.8 lb) Temperature: 0° to 50° C (operating); -40° to $+70^\circ$ C (storage)

Humidity: 5% to 95% noncondensing **Altitude:** Up to 4,600 m (15,000 ft)

Compliance: UL 478 and 114 listed CSA 22.2 No 220-1986 certified Complies with IEC 435 and 380 Verified to FCC part 15 level B Complies with FTZ 1046-84

Ordering Information	Price
HP 37204A Equipped with Dual Coaxial Ports.	\$1,500
Opt 003 Fiber-Optic Interface, SMA Type 905 Connectors. For end extenders.	+\$620
Opt 004 Fiber-Optic Interface, SMA Type 905 Connectors. For middle extenders in a multi-point system.	+\$1,150
Opt 013 Fiber-Optic Interface, ST Connectors. For end extenders.	+\$620
Opt 014 Fiber-Optic Interface, ST Connectors. For middle extenders in a multi-point system.	+\$1,150
Opt 023 Fiber-Optic Interfaces, FC Connectors. For end extenders.	+\$620
Opt 024 Fiber-Optic Interface, FC Connectors. For middle extenders in a multi-point system.	+\$1,150
HP 37204B: Equipped with Dual Coaxial Ports	\$1,780
Option common to HP 37204A and HP 37204B Opt 305 Standard 19-in Rack Mount Adapter; holds one or two HP 37204A/Bs	+\$155

For the most current prices and product information, contact your local Hewlett-Packard sales office-see page 691