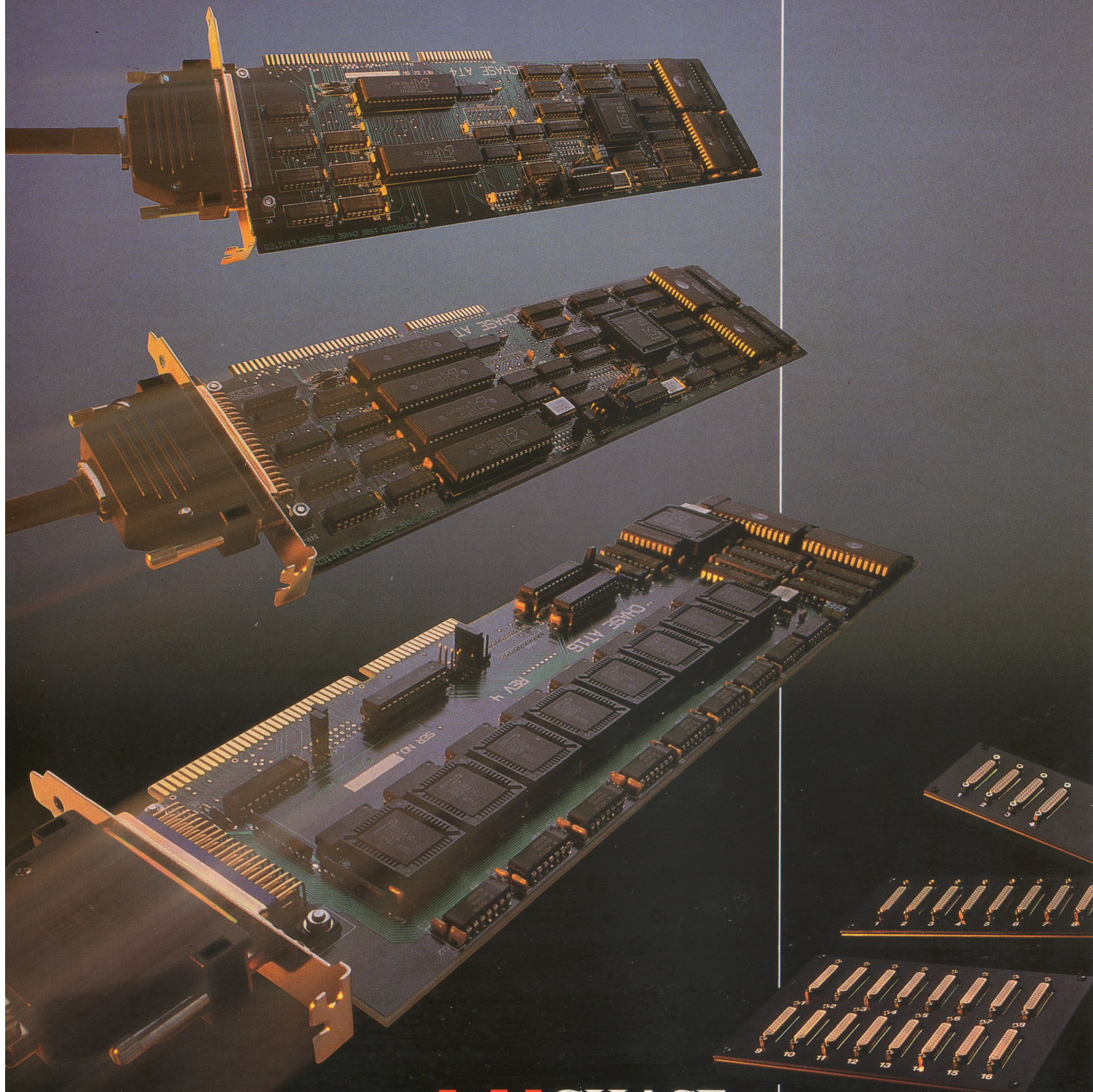# CHASE ▪ AT4 ▪ AT8 ▪ AT16
THE INTELLIGENT I/O FAMILY

■▪ ◻ **CHASE**
RESEARCH

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CHASE
AT4 ■ AT8 ■ AT16

The Chase AT4/AT8/AT16 are a family of intelligent I/O expansion cards which slot into the PC-AT and compatibles to support up to 64 additional terminals without degrading the performance of the main processor. They are designed and engineered to provide consistent high performance in both 286 and 386 based micro computers. The Chase I/O family provides a fast, cost effective and proven way of providing true multi-user performance for use by end users, OEM's and computer manufacturers alike. Typical applications include word processing, office automation, point-of-sale, message switching, telex, file server, data acquisition and control systems.

High Performance
Chase I/O boards use a dedicated 80186 processor to manage the terminal ports. Unlike normal PC input/output boards, which can drain a staggering 60% of available processor time on multi-user systems, the Chase boards off-load the input/output overhead to their own processor. Data transfers to and from the main processor are by direct memory access from any memory location under the control of the Chase I/O processor. Each port is independently configurable for speed (from 50 to 38,400 baud) parity and word length. Furthermore the on-board intelligence together with separate I/O buffers for each port eliminates any possibility of data loss at high speeds. The combination of an I/O processor and main processor transforms the PC-AT into a system with true multi-user capability. The Chase I/O family has been designed to allow for expansion and any combination of up to four boards may be linked together to support up to 64 users.
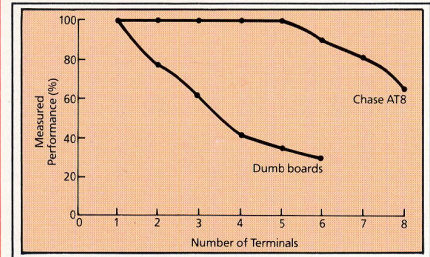
Unix/Xenix Compatability
The Chase I/O boards are supplied with device drivers for SCO Xenix, Microsoft Xenix, Interactive Unix and Microport Unix. The PC user now has the ability to run the ever increasing number of multi-user application programmes available under Unix. Furthermore the introduction of VP/ix and Merge 386 for 386 PC's allows the Unix user access 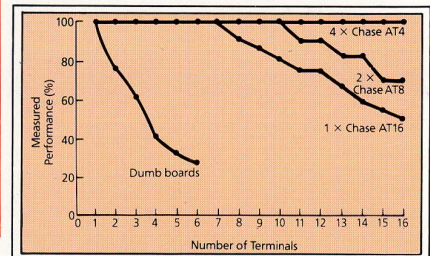to the extensive range of industry standard DOS packages. The Chase I/O family was specifically designed to dramatically improve the I/O performance of Unix/Xenix on 286 and 386 PC's. By moving character translation, echoing, line editing and buffering from the main processor to the Chase I/O processor, near single user performance can be maintained even with 16 users running the most demanding Unix applications. The graphs illustrate the relative performance of the Chase I/O family compared to "dumb" I/O boards.

Further Applications
Device drivers are also available for Concurrent DOS, PCMOS/386 and BOS operating systems. The Chase I/O family therefore provides a general solution for upgrading a PC to a multi-user system.

Comparison of performance of 1 Chase AT8 board vs. 2 dumb boards (4+2)

Comparison of performance 4 Chase AT4 boards 2 Chase AT8 boards 1 Chase AT16 and 2 Dumb boards.

TECHNICAL SPECIFICATION			
	CHASE AT4	CHASE AT8	CHASE AT16
Channels	4	8	16
80186 Processor Clock	7.5MHz	8.0MHz	10.0MHz
Onboard RAM	32Kb	32Kb	64Kb
Onboard ROM	32Kb	32Kb	32Kb
UART's	2 × 8530/8531	4 × 8530/8531	8 × 8530/8531
Speed range (baud)	50 to 38,400	50 to 38,400	50 to 38,400
Sustained O/P rate	38,400	19,200	19,200
Serial Interfacem RS232	SG, TD, RD, CTS, DTR, RTS, DCD, DSR.	SG, TD, RD, CTS, DTR.	SG, TD, RD, CTS, DTR.
Output Connector	37 way D	37 way D	78 way D
Distribution Box	4 × 25 way D	8 × 25 way D	16 × 25 way D
Terminals supported	← 7/8 bit ASCII terminals →		
Modems supported	"Dumb"/Hayes	Hayes	Hayes
Host Interface	← IBM PC AT bus compatible system (286/386) →		

CHASE RESEARCH LTD
Chase Research is a UK company specialising in high performance communications. They design, manufacture and market a range of intelligent I/O cards used extensively by end users and OEM's alike. Chase Research also specialise in customising their standard product range to meet the precise requirements of OEM's and computer manufacturers.

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