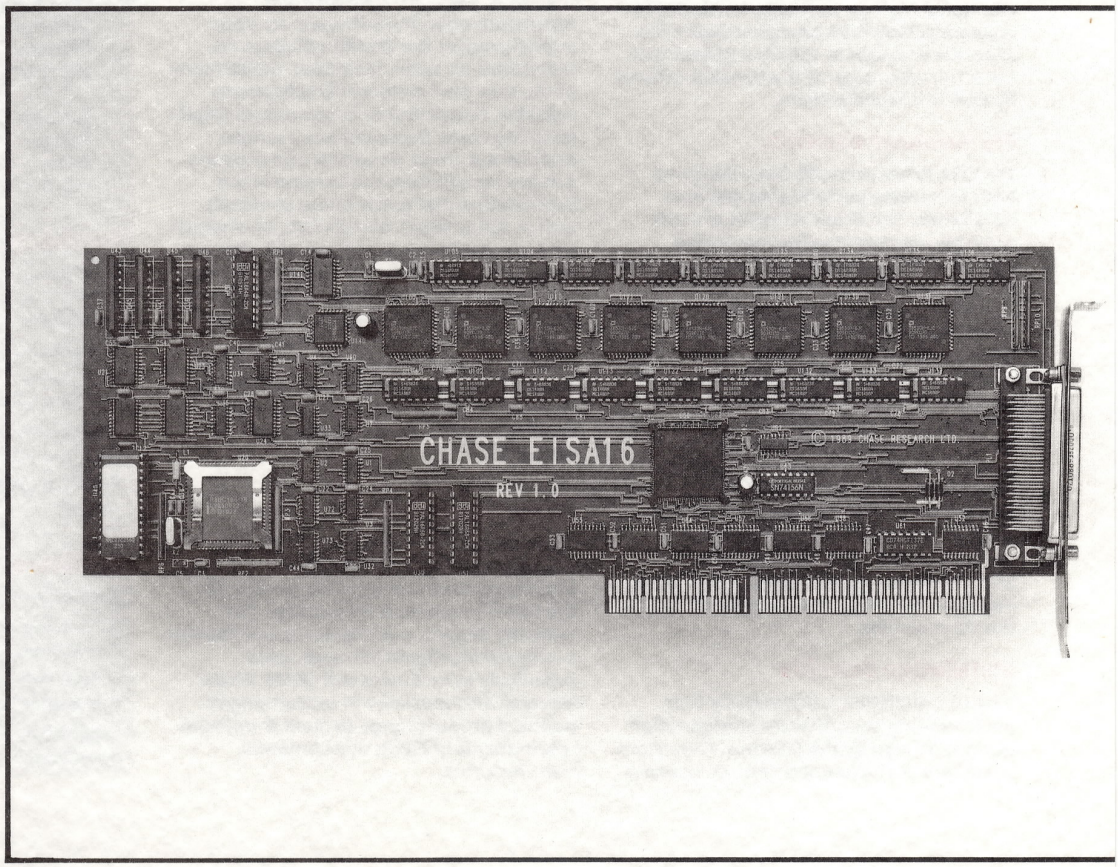
EISA 16



Introduction.

The Chase EISA16 is part of a family of intelligent I/O cards allowing the connection of ASCII terminals or other serial devices to a personal computer utilising the high performance EISA (Extended Industry Standard Architecture) bus. Each EISA16 supports the connection of sixteen RS232-C compatible pieces of equipment with a total connection of sixty four devices achieved by installing four EISA16 cards in the system. EISA bus based systems are specifically targeted at the high performance market, a large section of which is 'multi-user' systems running industry standard operating systems such as UNIX and XENIX. The EISA16 comes complete with all of the software and hardware to connect any serial device efficiently to your EISA system.

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The EISA Bus.

The EISA bus offers a significant advance in performance and ease of use over existing bus standards. With the backing of a number of major international personal computer manufacturers a real increase in system throughput has been achieved. This allows the applications software to present a more acceptable interface to the user and for responses to appear more quickly. To utilise fully the performance and flexibility of the EISA bus a new generation of additional high performance hardware is appearing. Only EISA based hardware will allow the end-user to specify a system that takes full advantage of the benefits offered by EISA bus based systems.

Performance Benefits.

The EISA16 has primarily been designed both to increase performance and ease installation. The Chase AT series of cards currently uses a unique bus mastership approach to data movement to achieve high performance. By further developing this concept to a full 32-bit bus master a dramatic 400% improvement in bus performance has been achieved on the EISA16. This increase in bus performance reduces the amount of time that an I/O subsystem uses the bus, allowing other high traffic cards such as disk controllers, network adapters etc. more time with and quicker access to the system bus. It is an easily demonstrated fact that a well balanced high performance system requires that all of the components are working to their optimum capability and that the overall system performance is not degraded by one of the components such as the I/O controller.

Installation Benefits.

Ease of installation is achieved by fully implementing the software configuration options offered by the EISA bus. This means that there are no jumpers, links or switches present on the card and that the configuration of the whole I/O subsystem can be performed in software. The system only need be open for the insertion of the card, once in place the card need never be removed again.

System Benefits.

The EISA16, being a full 32-bit bus master product, allows addressing of memory anywhere within the full 4 gigabytes of address space, placing no artificial restrictions upon the software. As a bus master product the EISA16 will place no restrictions on cache memories, unlike many of the dual port memory I/O subsystems available. Restricting or in some cases totally disabling cache memories has a serious detrimental effect on system performance. A major benefit from the increase in bus bandwidth is that synchronous protocols such as SDLC/ HDLC/ and BISYNC, all of which are supported on the card, can also operate more efficiently. This is an added attraction to suppliers of market leading synchronous software to use EISA16 as their hardware platform. This capability is offered in addition to, and simultaneously with, the standard high performance asynchronous connection, allowing a mixture of terminals and host communication links from the same card.

Chase Research Ltd.

Chase Research is a European company specialising in high performance communications products and services for the world's multi-user PC markets. The company designs, manufactures and markets a range of Intelligent I/O cards, used extensively by end users and OEMs. Chase Research also specialise in customising its standard product range to meet the precise requirements of OEMs and computer manufacturers.

Technical Specification

Channels	16
80186	16MHz
On-board ROM	32kb
On-board RAM	256kb (512kb option)
UARTS	8530
Speed Range	45-76,800 baud
RS232 signals	SG,TD,RD,CTS, DTR,RTS,DCD,DSR
Connector	78 way D
Distribution	DB25 x 16
Terminals	7/8 bit ASCII
Modems	Dumb/Hayes
Host bus	EISA (Intel 82355 BMIC)
Address	32 bit
Range	4 Gigabytes
Data	32 bit
Download	Code

Hardware.

Auto configuration of DMA (Direct Memory Access) and Interrupts supported.

Unique address supported.

Low power CMOS used for cool running and reliability.

DMA hardware support for synchronous operation on card.

FCC/VDE Class B and ULA approvals sought.

Software.

UNIX/XENIX device driver supplied.

All hardware is software configurable – no switches.

Downloadable code allowing future developments to be easily incorporated.

Diagnostics run before software download.

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