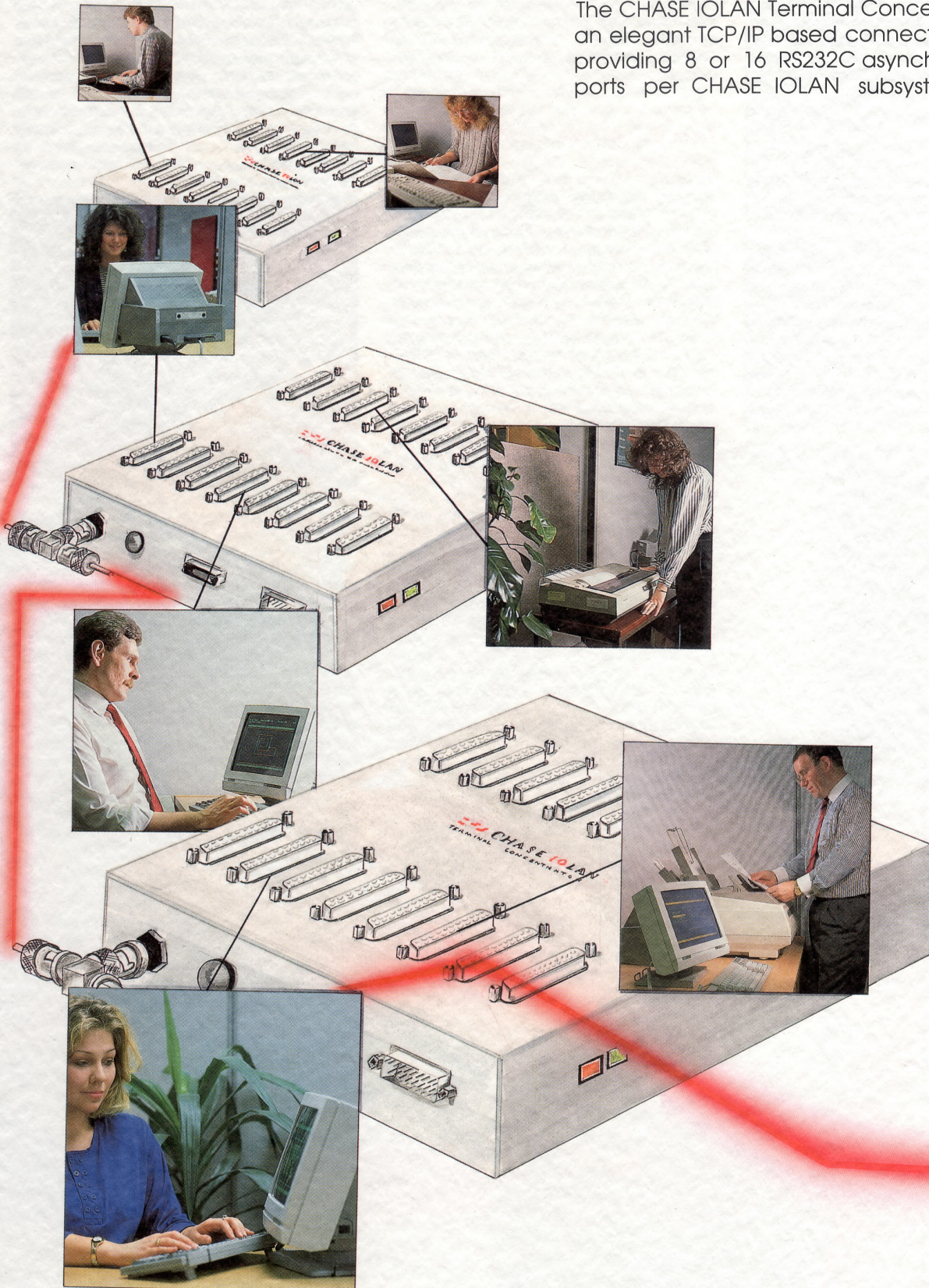# CHASE IOLAN
TERMINAL CONCENTRATOR

The CHASE IOLAN Terminal Concentrator offers an elegant TCP/IP based connectivity solution, providing 8 or 16 RS232C asynchronous serial ports per CHASE IOLAN subsystem.

CHASE RESEARCH
Connect with the future

Introduction

Over a relatively short period of time, the Personal Computer has evolved into a truly powerful and effective computing platform, and has now been developed to the point where it is challenging the position traditionally held by the minicomputer.

The PC can now offer staggering performance levels, high capacity storage on very fast hard disks and through the implementation of new bus architectures such as MCA and EISA, advanced data handling and management capabilities.

Although the PC was originally designed and implemented as a stand-alone machine, advances in software and hardware technology mean that they can now form the basis of a highly efficient and powerful Unix or Xenix multi-user system, serving either individual terminals/PCs or departmental workgroups.

Traditionally, these remote terminals/ workgroups have been connected to the host by use of RS232 cabling from an I/O device connected into the host expansion bus. However, the maximum physical distance allowed over RS232 cabling from host to device is 15 metres (ISO standard) and each device requires its own separate cable run from the distribution box. Consequently, this method of connection restricts the distance at which the remote devices can be sited from the host, and running a mass of individual cables for each device can be a nightmare. Indeed, this method is not always possible and is seldom practical. The other major consideration, is the total number of devices to be connected to the host(s). Using this method, the number of attached devices is determined by the number of available expansion slots in the host PC which accepts the I/O controllers and the configuration of the controller / distribution box used.

The Ethernet Standards Solution

The standards based Ethernet-TCP/IP solution offers many distinct advantages over traditional direct I/O. The Ethernet IEEE (802.3) network standard and TCP/IP network protocol, provide an effective and manageable method for the connection of Unix/Xenix based multi-user systems with local or remote terminals, thus offering superior multi-host, multi-terminal connectivity. It is within this Ethernet-TCP/IP environment that the CHASE IOLAN Terminal Concentrator provides a simple and cost effective solution. Through its simple installation and set-up routine and standards based approach, CHASE IOLAN overcomes the integration problems normally associated with less sophisticated systems, and is flexible enough to meet your requirements regardless of host type, existing Ethernet installation or the physical layout of your office/building.
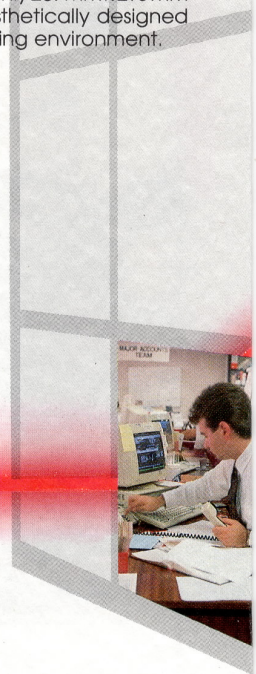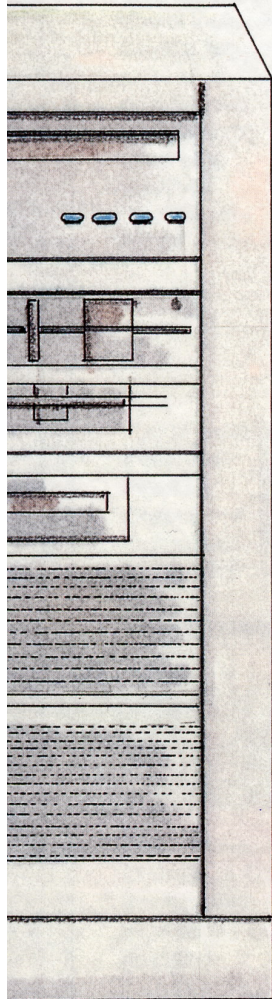
The CHASE IOLAN Terminal Concentrator is an elegant TCP/IP connectivity solution providing 8 or 16 RS232C asynchronous serial ports for the connection of terminals, peripherals or other serial devices over an Ethernet network. CHASE IOLAN can be implemented on either thick or thin Ethernet backbones, so it provides total flexibility to integrate with existing Ethernet installations . For users who wish to change from the conventional direct I/O connectivity method or those with no existing resource sharing or networking capabilities, CHASE IOLAN can form the basis of a very flexible and cost-effective solution, which can be installed initially in a minimum configuration to meet immediate demands, but can be expanded at any time to grow with your business needs. Furthermore, support for future growth is guaranteed, as CHASE IOLAN is designed around established industry and de-facto standards and is fully compatible with other Ethernet products.

CHASE IOLAN offers almost unlimited node expansion capabilities, as the maximum number of CHASE IOLAN subsystems that can be implemented is determined only by the network configuration and capability. If required, CHASE IOLAN subsystems can be connected every 3 metres or so on the Ethernet backbone, up to the physical system limit of 1,500 metres (for thick Ethernet with line repeaters). Thus, CHASE IOLAN offers an almost unlimited growth path, allowing you to expand your network at any time. And, should your network configuration need to change to accommodate new office or building layouts, CHASE IOLAN is flexible enough to provide host access and processing power just where you need it.

CHASE IOLAN

The CHASE IOLAN subsystem consists of a terminal concentrator unit and an external, universal voltage power supply. When using thin Ethernet medium, CHASE IOLAN is connected onto the network backbone via a BNC 'T' connector. For thick Ethernet, it is connected via a drop cable from a transceiver on the Ethernet backbone. In both cases, installation is simple. And, as CHASE IOLAN can be surface mounted or wall mounted, it can provide workgroup productivity where it is needed most without taking up large areas of valuable work space. CHASE IOLAN is a compact unit measuring only 237mm x 213mm x 38mm deep, and is aesthetically designed to blend in with any working environment.

Easy to Install and Use

CHASE IOLAN has been designed to be simple and fast to install and configure from any terminal, via the user-friendly MMI (Man-Machine Interface), which is user-selectable at set-up between four languages, with options for English, French, German or Italian. Other language versions are currently under development. The set-up routines utilise a command line interface for dumb terminals and an easy to use menu driven program for intelligent terminals, with all available menu options displayed and easily accessible to the user. Full support is provided for all of the major terminal types. The initial set-up routine, which is accessed using the 'open' password supplied, enables the line parameters to be changed from default to specific settings for the appropriate terminal type. This can be done for an individual port, for a number of ports, or for all ports on the subsystem requiring the same line characteristics. During set-up, the installer/system administrator is able to configure line parameters for line type, baud rate, flow control, parity, terminal type and privilege level. Also featured is an Administration Command Menu, which allows the installer/system administrator to enter or modify network or port parameters, including add/delete host, disable/enable terminal line, display/change line characteristics and statistics gathering / reset / display. After completion of the set-up and command routines, the installer/system administrator is required to enter a new password, which will overwrite the 'open' password, and thus restrict access to command menus to authorised personnel only. Once the line is set-up, the user is able to open sessions with up to four hosts from the pre-defined host list, with the ability to 'hot key' between active host sessions.
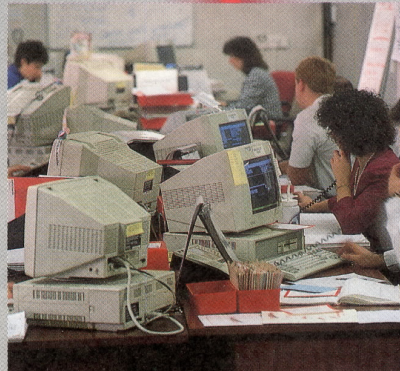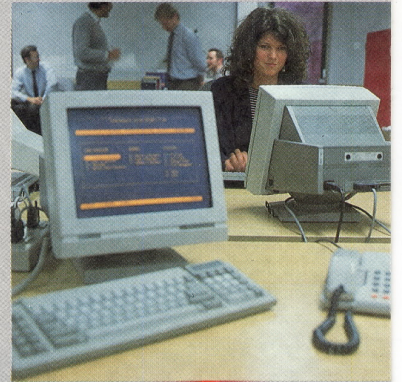
Best by Design

CHASE IOLAN incorporates a powerful 16-bit 80C186 processor running at a clock speed of 16MHz, which manages all on-board processing tasks and provides fast user response with minimal degradation on host performance.

Power for the CHASE IOLAN is provided by an external, universal voltage, fully-regulated power supply, which is connected via a standard power connector. All cable entries are via one end of the subsystem box, which carries the thick and thin Ethernet sockets and changeover selector (factory pre-set to thin) and power input socket. Two LEDs are also incorporated into the CHASE IOLAN chassis, indicating 'power connected' (red) and CHASE IOLAN status (green flashing), so at all times, general status can be observed. CHASE IOLAN is entirely software/firmware configurable, so there are no awkward switches or jumpers to set or get wrong. Internally, CHASE IOLAN contains two highly sophisticated printed circuit boards featuring low-power CMOS technology devices; the processor board and interface board. The processor board features the CMOS low-power, high performance 80C186 processor, 1Mb of RAM, 2Kb of non-volatile memory (which maintains user information such as network statistics and set-up data), 256Kb of EPROM and the proven AMD LANCE Ethernet driver chip set. The interface board contains the DB25 serial connectors and the RS232C line drivers/receivers, driven by the improved efficiency 85C30 serial I/O chips which manage the data handling between CHASE IOLAN and the attached devices. These are fully interrupt driven to maximise throughput.

Features

- Easy to install and maintain
- Overcomes cabling complexities
- Supports thick and thin Ethernet
- Full Ethernet TCP/IP support
- Password protection for command menus
- User selectable language versions
- Simple menu driven interface
- No switches or jumpers to set
- Low cost per node connection
- Surface or wall mountable
- Allows up to 4 open sessions per terminal
- Inexpensive to implement
- Offers almost unlimited expansion potential
- Up to 16 port connections per subsystem

CHASE IOLAN - TECHNICAL SPECIFICATION

	IOLAN - 8	IOLAN - 16
Channels	8	16
Processor	80C186	80C186
(Speed)	16MHz	16MHz
(Wait states)	0	0
On-board EPROM	256Kb	256Kb
On-board DRAM	IMb	IMb
Non-volatile RAM	2Kb	2Kb
DUARTs	4 x 85C30	8 x 85C30
Speed range	11O to 38,400 Baud	11O to 38,400 Baud
Interface circuitry	AMD LANCE chip set	AMD LANCE Chip set
Thick Ethernet connector	15 pin D-Type	15 pin D-Type
Thick/thin select	Switch selectable	Switch selectable
Thin Ethernet connector	BNC 'T'	BNC 'T'
Power Connector	15 pin D-type plug	15 pin D-type plug
Size	237 x 213 x 38mm	237 x 213 x 38mm
Emulation	TCP/IP (Telnet)	TCP/IP (Telnet)
Compatibility	Ethernet IEEE 802.3	Ethernet IEEE 802.3
Max. Open sessions		
(per port)	4	4
(per subsystem)	32	64
Visual indicators	Power/status	Power/status
Device support	ASCII/RS232C	ASCII/RS232C
	Wyse 30/60,ANSI,Dumb	Wyse 30/60,ANSI,Dumb
Line formats		
(characters)	5,6,7 or 8 data bits	5,6,7 or 8 data bits
(stop bits)	1,1.5 or 2	1,1.5 or 2
(parity)	Odd, even, none	Odd, even, none
Flow control	XON/XOFF (RTS/CTS)	XON/XOFF (RTS/CTS)
RS232 signal support	DTR,SG,DSR,RTS,DCD,	DTR,SG,DSR,RTS,DCD,
	TD,RD,CTS.	TD,RD,CTS.

POWER SUPPLY

	IOLAN - 8	IOLAN - 16
Power supply	External	External
Input volt	95-25OVAC	95-250VAC
Input Hz	47- 63Hz	47-63Hz
Output volt	+5V @ 2A	+5V @ 2A
Output volt	+12V @ 1.5A	+12V @ 1.5A
Output volt	-12V @ .5A	-12V @ .5A
Size	160 x 98 x70mm	160 x 98 x70mm
O/load protection	All outputs protected against o/load and short circuit.	All outputs protected against o/load and short circuit.
Warranty:	Lifetime	Lifetime
Order code	IOLAN-8	IOLAN-16

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