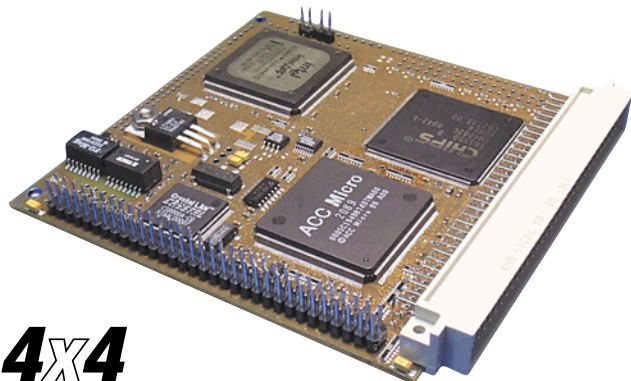




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### PC/II+dxe Features

- AMD DX5 133 MHz Processor
- Up to 32MB of EDO DRAM
- Super VGA & panel video w/2MB memory
- 10Base-T & AUJ Ethernet LAN
- Up to 8MB of flash storage
- M-Systems Disk-On-Chip support
- 4"x4" Form factor with ISA bus interface
- Watchdog & dual-voltage power monitors
- Up to three RS-232 serial ports
- Convenient Eurocard DIN connector

From manual IDN0024v7

### Specifications

#### Board Form Factor & Type:

3.937 x 3.937 inch (100.0 x 100.0 mm), FR4

#### Basic Board Requires:

Central Processing Unit  
Minimum Memory – Soldered, 4 MB  
Minimum Connectors – Power and I/O as Needed

#### Architecture:

PC/AT

#### Central Processing Unit:

486DX4 RISC-Core Processor – Intel or AMD  
INTEL DX4:

- 66MHz or 100MHz core speed
- 33 MHz local bus speed
- 3.3V core and 5V tolerant I/O
- 32-Bit RISC technology core
- Pipelined execution
- Integrated Floating-Point unit
- Integrated Write-Back or Write-Through Cache

#### AMD DX4 and DX5:

- 66 MHz, 100 MHz and 133 MHz core speed
- 33 MHz local bus speed
- 3.3V core and 5V tolerant I/O
- 105.6 million bytes/second burst bus
- 0.35- $\mu$  CMOS-process technology
- Integrated Floating-Point unit
- Integrated Write-Back or Write-Through Cache

#### Cache Memory:

16K of integrated on-chip Cache Memory (L1)  
Unified organization, uses modified MESI protocol  
High performance write-back and write-through (user options)

#### DMA:

(7) Channels, 128 MB addressing

#### Timer/Counters:

AT-compatible

#### ATA/IDE Hard Drives:

(2) IDE drives supported

#### Manual Reset:

Available on 96-pin DIN I/O Connector  
Debounced, generates minimum of 130ms reset on Low to High  
Initiated by pulling Manual Reset signal line Low, then High

#### PC Speaker Output:

Available on Peripheral I/O connector

#### Memory Bus & Address Bus:

32-Bit

#### Power Monitoring:

Dual 5% monitor – 5V rail and on-board 3.3V  
Reset hold time – 130 ms minimum, 200 ms typical  
Transient voltage immunity

#### Memory:

DRAM EDO (soldered) memory  
Minimum System Memory 4 MB; Max 32 MB  
DRAM – EDO, 60 ns typical

#### Memory Options:

4, 8, 16 or 32 MB

#### Keyboard:

PS/2-style Keyboard supported by 96-pin DIN interface

#### Mouse:

PS/2-style Mouse supported by on-board 2-pin Header

#### Printer/Parallel Port:

Full Bi-directional ECP/EPP Parallel Port supported

#### ISA Bus:

2x32 8-Bit ISA bus Interface Header  
1x10 16-Bit ISA bus Interface Extension Header

#### Watchdog:

Dallas DS1706 Watchdog Timer/Monitor  
Defaults at power-on time to software-disabled state  
Software enable/disable/strobe is supported  
Minimum strobe rate while enabled – 1 strobe/second  
Hardware enable/disable jumper option

**SCSI Bus:**

Adaptec AIC6360 Fast SCSI-2 Controller  
 (7) SCSI-2 devices  
 Adaptec SCSI BIOS included  
 Adaptec Drivers also supported  
 Bootable from either SCSI or IDE drive  
 Simultaneous use of both SCSI and IDE

**Serial/RS232 Ports:**

(1) or (2) 16C550-compatible Serial Ports 16-byte FIFOs  
 Full EIA-RS232E and CCITT V.28 Transceivers included  
 Output swing  $\pm 9V$  with all Transmitter Outputs loaded with 3K ohms to Ground

**Two-Wire Serial RS-232 Ports:**

(1) BIOS-accessible RS-232 two-wire (Rxd & Txd) Serial Port  
 Full EIA-RS232E and CCITT V.28 Driver & Receiver included  
 Output swing  $\pm 9V$  with all Transmitter Outputs loaded with 3K ohms to Ground

**Video CRT & Flat Panel:**

Chips and Technologies HiQ 65550 GUI Accelerator  
 On-board 2 MB of 60 ns Video EDO DRAM, 512Kx32  
 Complete Analog CRT Video Interface  
 Complete 24-Bit Flat Panel Interface provided by on-board 36-pin Header  
 Compatible 8-Bit or 16-Bit Panel Interface also provided on 96-Pin DIN Connector  
 Monochrome (64 gray scale) or color  
 Hi-Res Passive STN, Active Matrix TFT/MIM LCD, EL  
 Simultaneous CRT / Flat Panel operation supported using on-board 36 pin interface Header  
 Local bus interface – 32-Bit  
 64-bit Graphics Accelerator engine (BitBLT), H/W cursor  
 VGA register set compatibility  
 Supports 5V and 3.3V panels from popular manufacturers such as Sharp, Optrex, Toshiba, Hitachi, Fujitsu, Samsung, NEC, Sanyo and others  
 Chips and Technologies drivers included

**Flash Array:**

Soldered Flash EEPROM – 2, 4 or 8 MB

**Flash Disk:**

Socket for user-supplied M-Systems Disk-on-Chip solid-state disk  
 Support for MD2000 modules (2 to 144MB capacity)  
 Coexistence support for both Flash Array and Flash Disk

**Ethernet:**

Crystal CS8900 High-performance 10Base-T and AUI controller option  
 IEEE 802.3 compliant MAC engine, full duplex operation  
 On-chip RAM buffers – for Transmit & Receive frames  
 AUI port for 10Base-2, 10Base-5 and 10Base-F  
 10Base-T filters included  
 10Base-T and AUI isolation transformers are included  
 10Base-T port has automatic polarity detection and correction  
 Auto negotiation function  
 LED for inbound/outbound frames to/from local controller included  
 LED for either valid 10Base-T link present, or other general function

**Floppy Disk:**

Integrated Floppy Disk Controller  
 (2) 3.5" floppy disk drives supported  
 IBM System 34 double density format (MFM)  
 Sony EMCA format compatible  
 Standard transfer rates – 500 Kb/sec, 300 Kb/sec and 250 Kb/sec

**Real-Time Clock, Alarm:**

Dallas-Certified DS1685 – Y2K Real-Time Clock Controller  
 Periodic Interrupt Generator – settable to period from 122 us to 500 ms  
 Alarm Interrupt Generator – set to any time of day in 24 hour period  
 242-byte NVRAM included  
 12 or 24 hour format  
 Daylight savings time support  
 Unique 48-Bit Serial Number can be used for customer application

**Connectors:**

+5V Power Connector –  
 +5V Power supplied to Board through 96-pin DIN Connector  
 Optional 1x12 R/A +5V keyed Power Header, 15A rating  
 +3.3V Power Connector –  
 +3.3V Power generated by on-board regulator  
 Optional 1x5 R/A +3.3V Power Header, keyed, 6A rating  
 I/O Interface Connector –  
 (1) 3x32 (.100 inch pitch) Right-Angle Connector  
 Support top mounting (bottom by request)  
 Support standard headers on request  
 (including board stacking headers)  
 ISA-bus Connectors –  
 (1) 2x32 and (1) 1x10 pin and socket header  
 stack-through and non stack-through  
 board stacking is customer specified  
 Ethernet Header –  
 (1) 2x5 header  
 IDE Header –  
 (1) 2x22 2mm Header  
 FULL VIDEO Header –  
 (1) 2x18 Header  
 Support full 24-bit panels  
 Support either 5V or 3.3V panels  
 Support Simultaneous Video CRT and Panel Modes  
 All connectors are optional, except one of the I/O Interface connector or the +5V Power connector must be present

**Peripheral I/O Signals:**

Signal Pins – 96-Pin DIN Interface Connector  
 Video CRT & Panel – 17  
 Parallel (LPT1) I/O – 17  
 Serial COM1 (RS-232E) – 8  
 Serial COM4 (RS-232) – 2  
 Floppy – 15  
 Power & Ground  
 Video Panel – 32  
 IDE 44-pin Header – 28  
 PC Speaker – 1  
 SCSI – 18  
 Serial COM2 (RS-232E) – 8  
 Keyboard – 2  
 Reset Switch – 1  
 Signal Pins – Other I/O Headers  
 Ethernet 10-pin Header – 10  
 Mouse Header – 2

**Supply Voltage:**

Single supply at +5V 5%, or Dual Supplies at +5V 5% and +3.3v 5%

**Supply Power Rating:**

5W to 15W (excluding external peripheral requirements)

**Supply Regulation:**

+5V (and optional +3.3V Supply) require regulation to within 5%

**Supply Rise Time:**

+5V Supply maximum rise time (+3V to +5V) required within 100 ms  
 +3.3V Supply maximum rise time (+3V to +5V) required within 100 ms

**Supply Regulators:**

Optional On-board +5V to +3.3V Switching or Linear Regulator  
 On-board power monitor for both +5V and +3.3V rails

**Storage Temperature:**

-50C to +125C, battery excluded

**Operating Temperature:**

Commerical 0C to +70C standard  
 Industrial -20C to +85C available on request  
 Industrial -40C to +85C available on request

**Operating Software:**

DOS, Windows, Windows 95, Windows NT4.0

**Application Software:**

x86 compatible

**Bios Software:**

256 KB Flash EEPROM for Bios  
 Bios write protection (hardware)  
 Chips & Technologies 65550 VGA Driver BIOS included  
 AT compatible BIOS and Architecture