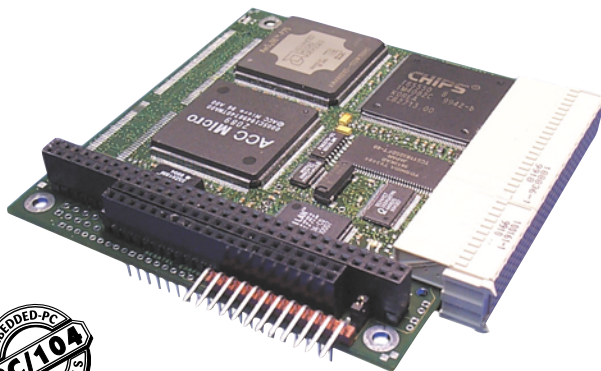




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PC/II+dx Features

- AMD DX5 133 MHz Processor
- Up to 32MB of EDO / 128MB of SDRAM
- Super VGA & panel video w/2MB memory
- 10Base-T & AUI Ethernet LAN
- Up to 8MB of flash storage
- M-Systems Disk-On-Chip support
- PC/104 form factor and bus interface
- Watchdog & dual-voltage power monitors
- Up to four RS-232 serial ports
- Convenient Mass I/O connector

From manual IDN0018v8a

Specifications

Board Form Factor:

3.775 x 3.550 inch, PC/104 compliant

Board Type:

FR4

Basic Board Requires:

Central Processing Unit
Minimum Memory - Soldered, 4 MB
Minimum Connectors - +5V Power

Architecture:

PC/AT

Central Processing Unit:

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

- 66 MHz and 100 MHz 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:

- 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- μ 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 (8254 type) timers

Manual Reset:

Available on Mass 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 Mass I/O connector

Memory Bus:

32-Bit

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 (soldered) or SDRAM (soldered and socketed) memory
Minimum System Memory 4 MB (soldered DRAM)
Maximum System Memory 128 MB (soldered and socketed SDRAM)
DRAM - EDO, 60 ns typical
SDRAM - 66 MHz (10 ns) typical

Memory Options - DRAM:

4, 8, 16 or 32 MB

Memory Options - SDRAM:

16, 32 or 64 MB; optional SODIMM 144-Pin socket

SODIMM Socket Provided:

144-Pin - compatible to BERG 61872-32844 (Right angle)

SODIMM Module Supported:

One of following modules can be installed in SODIMM Socket:
32 MB user-supplied Module - compatible to
MICRON MT4LSDT464HG-662D1
64 MB user-supplied Module - compatible to
MICRON MT4LSDT864HG-662D1

Keyboard:

AT-style Keyboard supported

Mouse:

PS/2-style Mouse supported

Printer/Parallel Port:

Bi-directional ECP/EPP Parallel Port supported

Serial/RS232 Ports:

(1) to (4) 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

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
Monochrome (64 gray scale) or color
Hi-Res Passive STN, Active Matrix TFT/MIM LCD, EL
Simultaneous CRT / Flat Panel operation supported
Local bus interface - 32-Bit
64-bit Graphics Accelerator engine (BitBLT), H/W cursor
VGA register set compatibility
Supports panels from popular manufacturers such as Sharp, Optrex, Toshiba, Hitachi, Fujitsu, Samsung, NEC, Sanyo and others
Intel (Chips and Technologies) drivers included

ATA/IDE Hard Drives:

(2) IDE drives supported

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

Flash Array:

Soldered Flash EEPROM - 2, 4 or 8 MB
Coexistence support for both Flash Array and Flash Disk

Flash Disk:

Socket for user-supplied M-Systems On-board Disk-on-Chip solid-state disk - 2 MB to 144 MB
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

Bios Software:

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

Real-Time Clock, Alarm:

Dallas-Certified DS1685 - Y2K Real-Time Clock Controller
Periodic Interrupt Generator - settable to period of 122 us to 500 ms
Alarm Interrupt Generator - settable 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

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

Connectors:

Power Connector -
(1) standard 1x12 right-angle header, (+5V) - required
(1) standard 1x5 straight header, (+3.3V) - optional
PC/104 Connectors -
(1) 2x32 and (1) 2x20 pin and socket header
stack-through and non stack-through
board stacking is customer specified
Ethernet Header -
(1) 2x10 right-angle header or customer specified
Mass I/O Connectors -
(1) 5x22 and (1) 5x11 2mm HM, or customer specified
total of 5x33 2mm grid
AMP Z-PACK 2mm HM Connector System
Type B22 and C
Support all variations -
straight and right-angle
male and female
Support top mounting (bottom by request)
Support 2mm headers on request (including board stacking headers)
IEC917 and IEC1076-4-101 compliant
All connectors except for the +5V Power header are optional

Peripheral I/O Signals:

Mass I/O Connector and Ethernet Header Signal Pins
Ethernet - 10 Serial COM1 - 8
Floppy - 15 Serial COM2 - 8
IDE - 28 Serial COM3 - 8
Keyboard - 2 Serial COM4 - 8
Mouse - 2 Speaker - 1
Parallel I/O - 17 Video Analog (CRT) - 5
Reset Switch - 1 Video LCD Flat Panel - 32
SCSI - 18 Power & Ground

Supply Voltage:

Single supply at +5V 5% or dual supplies at +5V 5% and +3.3V 5%
When single supply, on-board regulator supplies +3.3V
On-board power monitor for both 5V and 3.3V rails provided.

Supply Power Rating:

Depends upon ordered options

Supply Regulation: +5V and +3.3V Supplies require regulation to within 5%

+5V Max Rise Time: (+3V to +5V) required within 100 ms

Storage Temperature:

-50C to +125C, battery excluded

Operating Temperature:

Commercial 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